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ENVIRONMENTAL NOISE REPORT

PROPOSED RESIDENTIAL DEVELOPMENT
40, 50 AND 60 EMMA STREET
TOWN OF GRAND VALLEY

Prepared for
Sheldon Creek Developments Inc.

Revised June 17, 2024
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SUMMARY

The proposed residential development is located in the Town of Grand Valley and is generally positioned on the west side of Emma Street and Water Street and south of Mill Street. The proposed development includes a four (4) storey apartment building. The site is affected by road traffic noise and existing commercial operations.

The environmental noise guidelines NPC-300 for transportation and stationary noise sources of the Ministry of the Environment, Conservation and Parks (MOE), set out sound level limits for both the indoor and outdoor spaces.

Using road traffic data obtained from the Transportation Master Plan located through the Town of Grand Valley website, the sound levels at the worst case location in the development were determined using ORNAMENT, the noise prediction model of the MOE.

Based on the preliminary analysis, no upgraded construction and no central air conditioning will be required for the proposed development to address the road traffic noise. It is expected that the proposed residential building will be provided with central air conditioning. See Figure 2 for the analyzed worst case location.

Existing pumping station and carwash facility located over 100 and 200 m south of the proposed site, respectively. Due to setback distances and existing residential receptors located in a closer proximity to these uses when compared to the proposed residential dwellings, required sound level limit compliance at the existing sensitive receptors will ensure sound level limit compliance at the subject site. These sources were not analyzed further in the report.

Existing hydro station and institutional facility are located north and northeast of the proposed site, respectively. Based on observations at the time of the site visit completed by Jade Acoustics Inc. staff, the noise sources associated with these uses were determined to be acoustically insignificant. Future occupants will be advised through the use of a warning clause that the proposed development is in proximity to existing hydro station and/or existing institutional facility whose activities may be at times audible. See Table 3, notes to Table 3, and Figure 2 for details.

Barclay Trim and Mouldings located immediately south of the proposed development has been investigated. Mitigation measures are not required to address the mechanical equipment and operations associated with the facility. See Section 5.2 for details. Due to the proximity to Barclay Trim and Mouldings, future occupants should be provided with a proximity warning clause notifying the purchasers/tenants that the proposed development is in proximity to an existing commercial/industrial operation whose activities may at times be audible. See Table 3, notes to Table 3, and Figure 2 for details.

Prior to issuance of building permits, the acoustical requirements should be reviewed to ensure compliance with the applicable guidelines. Prior to final occupancy, the acoustical requirements should be inspected by an acoustical consultant to ensure the required mitigative measures have been incorporated.

The mechanical drawings and detailed information regarding the mechanical equipment associated with the proposed development, including but not limited to rooftop heating, ventilation and air conditioning (HVAC) systems and garage fans were not available at the time of preparation of this noise report. Once mechanical drawings are available, additional noise analysis will need to be conducted to determine if the selected mechanical equipment requires noise mitigation measures. The proposed mechanical systems will be considered at the time of Detailed Environmental Noise Report and/or throughout the building permit process. It is expected that with appropriate mitigation measures in place (if required), it is feasible to meet the applicable sound level limits at the existing noise sensitive receptors, as well as the noise sensitive receptors associated with the building itself.

1.0 INTRODUCTION

Jade Acoustics Inc. was retained to prepare an Updated Environmental Noise Report to investigate the potential noise impact on the proposed development to the satisfaction of the Town of Grand Valley and the County of Dufferin.

An Environmental Noise Report dated September 13, 2023, was prepared by Jade Acoustics Inc. in support of the development application. This revised report has been prepared to address the updated concept site plan, the latest architectural plans and preliminary grading plan for the development.

R.J. Burnside and Associates Limited, on behalf of the Town of Grand Valley, provided peer review comments (in a letter dated November 3, 2023) on the Environmental Noise Report prepared by Jade Acoustics Inc., dated September 13, 2023. The comments focused on the Class 2 area classification to be used for the stationary noise impact analysis and questions regarding the control of building design without a development agreement. This revised report has addressed these peer review comments. To clarify, the current design of the proposed development will require a Site Plan application, thus addressing the peer review comments regarding the development agreement.

The proposed site is identified as:

Part of Lot 1, Block 5
Registered Plan 22A and
Parts of Lots 13, 14 & 15
Block 5 Registered Plan 33A
Town of Grand Valley
County of Dufferin

The site is bound by a hydro station and existing residential to the north, Emma Street, existing residential and institutional to the east, existing commercial/industrial to the south, and existing residential to the west.

The analysis was based on:

- Concept Site Plan, Architectural Plans and elevation drawings prepared by Khalsa Design Inc. dated June 3, 2024;
- Preliminary Grading Plan prepared by Moorefield excavating dated May 10, 2024, received on May 28, 2024;
- Landscape Concept Plan prepared GSP Group, dated September 11, 2023, received on June 13, 2024;

- Transportation Master Plan prepared by RJ Burnside for the Town of Grand Valley, dated March 2017, obtained through the Town of Grand Valley website; and
- Site visits conducted by Jade Acoustics Inc. staff on June 5, 2023 and April 9, 2024.

A Key Plan is attached as Figure 1. Figure 2 shows the proposed development and the minimum noise abatement measures required to meet the noise guidelines. See Appendix G for the Concept Site Plan, Architectural Plans and Elevation Drawings.

The proposed development is comprised of a four (4) storey apartment building with non-residential uses and parking on the ground level, and residential units on the second floor to fourth floor. There are surface parking, green spaces (non-useable spaces) located west of the proposed building and private balcony in each residential unit.

2.0 NOISE SOURCES

2.1 Transportation Sources

The proposed residential development is subject to road traffic noise from Water Street. The traffic volumes for Emma Street and Mill Street were determined to be low and are considered to be acoustically insignificant; therefore, Emma Street and Mill Street were not considered further.

The ultimate road traffic information for Water Street was calculated using the information obtained from the Transportation Master Plan noted in Section 1.0. The Future Total 2031 traffic volumes obtained were forecasted to 2034 with an estimated growth rate of 1%, with the greater of the AM or PM peak volumes considered to represent 10% of the overall daily volume. The growth rate of 1% was used in the Transportation Master Plan by RJ Burnside and therefore, the same growth rate was determined to be applicable for the noise analysis. Additionally, the Transportation Master Plan indicated that the Town's Official Plan identifies two potential routes for trucks to by-pass the Town which would result in decreasing the truck volumes going through Water Street. The truck percentage has been estimated based on this information. A day/night traffic split of 90/10 has been assumed. The posted speed limit for Water Street was confirmed based on the site visit.

The site is not affected by aircraft or rail traffic.

2.2 Stationary Sources

Stationary Sources External to the Development

Existing pumping station and carwash facility located over 100 m and 200 m south of the proposed site, respectively. There are existing residential developments located in closer proximity to these uses when compared to the proposed residential dwellings on the subject site. The existing pumping station and carwash facility are required to be achieving the applicable noise guidelines at the existing noise sensitive receptors that are in close proximity to their properties; therefore, achieving sound level limit compliance at the proposed residential development.

Existing hydro station and institutional facility located north and northeast of the subject site, respectively. Existing residential developments are situated in close proximity, with comparable separation distances to the existing hydro station when compared to the proposed residential development.. Based on observations at the time of the site visit by Jade Acoustics Inc. staff, there were no major noise sources of concern at these uses. The existing hydro station and institutional facility are expected to be achieving the applicable noise guidelines at the existing noise sensitive receptors that are in close proximity to their properties. In summary, the noise sources associated with the hydro station and institutional facility are expected to be acoustically

insignificant at the subject site; therefore, they were not assessed further in this report.
Barclay Trim and Mouldings is an existing commercial/industrial facility, located immediately south of the subject site. A questionnaire was provided to the facility owner to gain a better understanding of the operations and potential acoustic impact. However, despite numerous attempts by Jade Acoustics Inc. and the proponent of the proposed development to contact the facility owner, no response or information was received from the facility.

Based on information available on the MOE website, the facility does not have an Environmental Compliance Approval (ECA). With the absence of information about the facility operations, information obtained from the site visits conducted on June 5, 2023 and April 9, 2024 by Jade Acoustics Inc. staff and information from Jade Acoustics Inc. files for similar facilities have been used in the preparation of the acoustic model.

See Section 4.2 for details of the noise assessment.

Stationary Sources within the Development

The identified mechanical sources of noise which may acoustically impact the nearby residential developments and the noise sensitive receptors associated with the development itself include rooftop HVAC equipment and garage exhaust fans. Information regarding the mechanical equipment is not available at this time. These potential noise sources will be addressed in a detailed noise report.

In regard to potential rooftop HVAC equipment, there are various noise mitigation measures that could be implemented if exceedances are determined. For example, higher rooftop parapets, local rooftop barriers or quieter units are all possible mitigation measures. As stated above, these potential noise sources will be addressed at the detailed stage of the project.

For potential garage exhaust fans, it is recommended that they be located away from existing residential dwellings, as well as proposed noise sensitive receptors at the development itself. To mitigate the impact of fan noise, a carbon monoxide sensor system that operates the fans when the CO levels exceed a pre-set limit should be installed. Typically, with this system, the fans will operate during peak periods when the ambient environment noise (such as road traffic noise) is high.

Depending on the garage exhaust location and fan selected, additional mitigation in the form of a silencer may need to be installed. To create an effective silencer, internal baffles of absorptive material may also need to be installed.

To note here for general completeness and as per NPC-300 and applicable to such residential use, any occasional movement of vehicles on the property such as delivery of goods and the removal of goods/refuse are considered exempt from the noise guidelines.

3.0 ENVIRONMENTAL NOISE CRITERIA

The MOE document "Environmental Noise Guideline Stationary and Transportation Sources – Approval and Planning, Publication NPC-300", dated August 2013, released October 21, 2013, (updated final version # 22) was used for the analysis.

A brief summary of the NPC-300 guidelines is given in Appendix B. The guidelines are also summarized below.

3.1 Transportation Sources

3.1.1 Indoors

If the nighttime (11:00 p.m. to 7:00 a.m.) sound level in terms of Leq at the exterior face of a bedroom or living/dining room window/exterior door is greater than 60 dBA and/or if the daytime (7:00 a.m. to 11:00 p.m.) sound level in terms of Leq at the exterior face of a living/dining room or bedroom window/exterior door is greater than 65 dBA, means must be provided so that windows can be kept closed for noise control purposes and central air conditioning is required. A warning clause advising the occupant of the potential interference with some activities is also required and must be included in all offers of purchase and sale, lease agreements and included in the development agreements.

For nighttime sound levels (LeqNight) greater than 50 dBA to less than or equal to 60 dBA on the exterior face of a bedroom or living/dining room window/exterior door or daytime sound levels (LeqDay) greater than 55 dBA to less than or equal to 65 dBA on the exterior face of a bedroom or living/dining room window/exterior door, there need only be the provision for adding central air conditioning by the occupant at a later date. This typically involves a ducted heating system sized to accommodate the addition of central air conditioning by the occupant at a later date. A warning clause advising the occupant of the potential interference with some activities is also required.

In all cases, air cooled condenser units must not exceed an AHRI sound rating of 7.6 bels. As noted in MOE document NPC-300, the location and installation of the outdoor air conditioning device should comply with the sound level limits of Publication NPC-216 or should comply with other criteria specified by the municipality. The air cooled condenser units must be sited in accordance with the zoning by-laws with respect to setbacks as well as location.

As required by the MOE to determine the building component requirements, the indoor noise criteria for road traffic noise is 40 dBA (Leq8hour) for the bedrooms during nighttime hours, 45 dBA (Leq8hour) for the living/dining rooms during nighttime hours and 45 dBA (Leq16hour) for the living/dining rooms and bedrooms during daytime hours. These criteria are used to determine the architectural requirements.

3.1.2 Outdoors

For the outdoor amenity areas, a design goal of 55 dBA daytime (7:00 a.m. to 11:00 p.m.) sound level is used for road traffic. In some cases an excess not exceeding 5 dBA is considered acceptable. Where the unmitigated sound levels during the day exceed 55 dBA (Leq16hour, daytime) but are less than 60 dBA (Leq16hour, daytime), a warning clause is required and mitigation should be considered. Where the unmitigated sound levels during the daytime hours exceed 60 dBA, mitigation measures and a warning clause are required.

The definition of outdoor amenity area as defined by the MOE is given below.

"Outdoor Living Area (OLA)

> (applies to impact assessments of transportation sources) means that part of a noise sensitive land use that is:
>
> - intended and designed for the quiet enjoyment of the outdoor environment; and
> - readily accessible from the building.

The OLA includes:

- backyards, front yards, gardens, terraces or patios;
- balconies and elevated terraces (e.g. rooftops), with a minimum depth of 4 metres, that are not enclosed, provided they are the only outdoor living area (OLA) for the occupant; or
- common outdoor living areas (OLAs) associated with high-rise multi-unit buildings."

For the proposed development, any proposed balconies and/or elevated terraces associated with the residential dwellings will be less than 4.0 m deep and as such are not considered to be noise sensitive receptors. Additionally, there are no common outdoor amenity spaces associated with the residential dwellings. See Section 4.1 for further discussion.

For both the indoor and outdoor conditions where the acoustical criteria are exceeded, warning clauses must be placed in the appropriate documents.

3.1.3 Town of Grand Valley Noise By-Law

The Town of Grand Valley has a by-law to prohibit or regulate noise likely to disturb the inhabitants of the Town, By-law No. 2021-72, dated November 9, 2021. The by-law does not provide specific sound level limits but rather provides qualitative information with respect to sources of noise and prohibitions by time and place.

3.2 Stationary Sources

The guidelines of the Ontario Ministry of the Environment, Conservation and Parks (MOE) for stationary sources are to be used for the commercial/industrial facilities.

The MOE has published the document NPC-300 titled "Environmental Noise Guideline Stationary and Transportation Sources – Approval and Planning".

The MOE also has vibration guidelines with respect to stationary sources, NPC-207. These guidelines require that the peak vibration velocities not exceed 0.3 mm/s at the point of reception during the day or night.

The MOE recognizes the need for back-up beepers/alarms as safety devices and as such does not have any guidelines or criteria to address these sources.

It should be noted that the MOE guidelines do not require that the source be inaudible, but rather that specific sound level limits be achieved.

With respect to stationary sources of noise in urban areas, the MOE guidelines require that the sound level due to the stationary source at the building façade and outdoor amenity spaces not exceed the sound level due to road traffic and in certain situations due to rail traffic in any hour of source operation, subject to specific exclusions. Tables C-5, C-6, C-7 and C-8 of NPC-300, included in Appendix B, provide the exclusion limit values of one-hour equivalent sound level (Leq,dBA) and impulsive sound level (L_{lm},dBAI).

As requested by the Town Peer Reviewer, the area has been considered a Class 2 area under NPC-300 for this updated report.

The sound level limits for noise produced by emergency equipment operating in non-emergency situations, are 5 dB greater with respect to the sound level limits generally used for stationary sources. Therefore, for Class 2 area, exclusion sound level limits of 55 dBA (daytime and evening) and 50 dBA (nighttime) apply. Sound level limits do not apply to emergency equipment operating in emergency situations.

In addition, the MOE guidelines require that most industries have a valid Environmental Compliance Approval (ECA) or its precursor, a Certificate of Approval (C of A) to operate.

In general, if the criteria for a stationary source of noise are exceeded, the MOE recommends that control be implemented at the source rather than at the receiver. Alternatively, if the receiver is set back from the source or if a physical barrier is constructed so that the criteria can be met at the receiver, no additional mitigative measures are required. In addition, a warning clause in offers of purchase and sale and/or lease agreements noting the proximity of dwellings

to such a source should be considered. Treatment of the receptor building by the use of suitable exterior wall and window construction and central air conditioning to keep windows closed is not an acceptable solution to the MOE in Class 1 and 2 areas (urban). In addition, a warning clause in offers of purchase and sale and/or lease agreements noting the proximity of dwellings to such a source should be considered.

4.0 NOISE IMPACT ASSESSMENT

4.1 Transportation Sources

For road traffic noise, the sound levels in terms of Leq, the energy equivalent continuous sound level for both day (Leq16) and night (Leq8), were determined using the MOE Traffic Noise Prediction Model, ORNAMENT.

Table 2 provides a summary of predicted sound levels outdoors due to road traffic at specific locations without any mitigative measures. Appendix C includes sample calculations. The topography between the source and the receiver has been taken into account. The façade receiver location and height were based on the elevation drawings noted in Section 1.0. The analysis accounts for screening from the proposed dwellings themselves within the subject site as well as existing building structures (as applicable).

The Preliminary Grading Plan prepared by Moorefield excavating referenced in Section 1.0, was used in the analysis. The highest sound levels are predicted for the residential units at the top floor corner bedroom with a window on the east façade exposed to Water Street. The unmitigated sound levels at the east façade are predicted to be up to 48 dBA for daytime hours and up to 42 dBA for nighttime hours.

As noted in Section 3.1.2, any proposed balconies and/or elevated terraces associated with the residential dwellings will be less than 4.0 m deep and as such are not considered to be noise sensitive receptors.

Based on the landscape concept plan and grading plan noted in Section 1.0, the green spaces located west of the proposed building are not usable spaces and were not considered to be a noise sensitive receptor. Therefore, no acoustic barriers are required for the proposed development.

4.2 Stationary Sources

Stationary Sources External to the Development

As discussed in Section 2.2, Barclay Trim and Mouldings was included in this noise assessment. Figure 1 shows the location of the facility.

Barclay Trim and Mouldings is a facility located at 30 William Street in Grand Valley. Based on available information online, this company manufactures a variety of products, including but not limited to moulding, doors, flooring, etc. As noted in Section 2.2, the facility did not respond or provide us any information regarding their operations despite numerous attempts by Jade Acoustics Inc. and the proponent of the proposed development to contact the facility. With the absence of information, information obtained from the site visits conducted on June 5, 2023

and April 9, 2024, by Jade Acoustics Inc. staff and information from Jade Acoustics Inc. files for similar facilities have been used in the preparation of the acoustic model. See Appendix D for the Questionnaire sent to Barclay Trim and Mouldings.

Based on observations during the site visits noted above and the nature of the business, the noise source with potential to impact the proposed development is the dust collector located at the north side of the facility. Any other noise sources were considered to be acoustically insignificant with respect to the proposed development and were not investigated further. Sound power level information for the dust collector taken from information in Jade's files on other comparable projects was considered applicable for this noise assessment. The location and height of the dust collector were based on observation during the site visit and/or information available online. The dust collector was assumed to have duty cycles of 100% for daytime, evening and nighttime. See Appendix E

Additionally, there are no proposed windows into noise sensitive spaces on the south facade of the proposed residential development based on the architectural plans and elevation drawings noted in Section 1.0. To clarify, the proposed windows on the south facade are into washrooms which are not considered to be noise sensitive spaces based on NPC-300. Based on NPC-300, the façade without a window into a noise sensitive space would not be considered as points of reception and would not be subject to sound level limits. Therefore, the south façade fofthe proposed residential building was not included in the analysis. See Appendix G for the Concept Site Plan, architectural plans and Elevation Drawings.

TABLE A

SUMMARY OF NOISE SOURCE – BARCLAY TRIM AND MOULDINGS

Source ID	Description	Sound Power Level (dBA re10^{-12}W)
SDC	Dust Collector	84

Using the above data, the sound pressure levels, in terms of Leq1hour, were determined at the closest proposed receptor locations for daytime hours (7:00 a.m. to 7:00 p.m.), evening hours (7:00 p.m. to 11:00 p.m.) and nighttime hours (11:00 p.m. to 7:00 a.m.).

The stationary noise source assessment was conducted using the CadnaA 2023MR2 computer program which uses International Standard Analytical Code ISO 9613-2. As requested by the Town Peer Reviewer in the original development submission, the proposed development is considered to be in a Class 2 area and therefore the NPC-300 Class 2 sound level limits are applicable. Table B below shows the results of the analysis and comparison with the applicable MOE Class 2 sound level limits. Appendix F includes sample calculations.

TABLE B

SUMMARY OF PREDICTED SOUND LEVELS DUE TO CONTINUOUS NOISE SOURCES WITHOUT MITIGATION MEASURES – CLASS 2 EXCLUSION LIMITS

Worst Case Receptor Location	Predicted Sound Levels (dBA)								
	Daytime (7:00 a.m. to 7:00 p.m.)			Evening (7:00 p.m. to 11:00 p.m.)			Nighttime (11:00 p.m. to 7:00 a.m.)		
	Predicted	Limit	Exceedance	Predicted	Limit	Exceedance	Predicted	Limit	Exceedance
East Façade	45	50	No	45	50	No	45	45	No
West Façade	37	50	No	37	50	No	37	45	No
North Façade	23	50	No	23	50	No	23	45	No

As can be seen in Table B, the predicted unmitigated sound levels due to the sources of continuous noise do not exceed the applicable MOE sound level limits; therefore, physical noise mitigation measures are not required.

Stationary Sources Within the Development

As noted in Section 2.2, mechanical systems associated with the proposed residential development are not available at this time. Any potential noise sources associated with the proposed development should be address in a detailed noise report once detailed information becomes available.

5.0 NOISE ABATEMENT MEASURES

5.1 Transportation Sources

5.1.1 Indoors

Architectural Component Requirements

Indoor sound level criteria for road traffic can be achieved in all cases by using appropriate architectural elements for external wall, roof, window and exterior door construction. The indoor sound level limits for road traffic are provided in Section 3.1.1. The characteristic spectrum for road traffic has been accounted for in the determination of the architectural components. Appendix F contains a sample calculation of architectural component selection.

In determining the architectural requirements, for the residential units exposed to Water Street, the east facing bedroom located on the upper floors is considered to be the worst-case location. The outdoor daytime sound level prediction is 5 dBA higher than the nighttime sound level prediction. This noted difference is more than the difference between the MOE indoor criteria for road traffic for daytime and nighttime hours; therefore, a bedroom with calculated daytime sound level was used in the analysis. The preliminary analysis was conducted based on the architectural plans noted in Section 1.0. Based on the architectural plans, the corner unit on the fourth floor (Unit 18) with both east and south facades exposed to Water Street is considered to be the worst-case location. Based on the calculations, standard window, exterior door and exterior wall construction is acoustically acceptable for all proposed residential dwellings.

As expected at this stage of the project, the final architectural plans are not available and therefore the analysis has been completed using the preliminary architectural plans. The analysis is to be re-evaluated at the prior to issuance of building permit stage when the applicable information is expected to be available.

An STC 54 rating for the roof, normally met by most residential roof construction with ventilated attic space, would be acoustically acceptable.

Ventilation Requirements

Where the sound level is exceeded by 1 dB to 10 dB (i.e. LeqNight greater than 50 dBA to less than or equal to 60 dBA and LeqDay greater than 55 dBA to less than or equal to 65 dBA), provision for adding central air conditioning by the occupant and a warning clause is required.

Based on the analysis, the proposed development does not require mandatory or provision for adding central air conditioning. The proposed building is expected to be centrally air conditioned.

See Table 3 and Notes to Table 3 for details of minimum noise abatement measures required. Warning clause requirements are listed in Table 3 and specific wording is included in the Notes to Table 3.

5.1.2 Outdoors

As mentioned in Section 4.1, there are no outdoor noise sensitive receptors associated with the proposed development. Therefore, no acoustic barriers are required.

All balconies and other private terraces which are less than 4.0 m in depth are not considered a noise sensitive space that require mitigation.

5.2 Stationary Sources

Noise Sources External to the Development

As discussed in Section 4.2, the assumed noise sources associated with the operations of the Barclay Trim and Mouldings are not predicted to exceed the Class 2 noise guidelines at the proposed development. Therefore, mitigation measures are not required.

As noted in Section 4.2, the preliminary noise analysis completed at this time was based on the building design noted in the architectural plans referenced in Section 1.0 and included in Appendix G. Should the current building design changes throughout the detailed design process, an updated analysis will need to be conducted to ensure sound level compliance at the proposed development can be achieved. The building design and the stationary noise impact analysis will be re-evaluated at the time of the detailed report, when detailed design information is available.

Due to their proximity to the Barclay Trim and Mouldings, existing hydro station and/or institutional facility, all residential units within the proposed building should be provided with a proximity warning clause notifying the purchasers/tenants that the activities and/or equipment associated with Barclay Trim and Mouldings, existing hydro station and/or existing institutional facility may at times be audible. See Table 3, Notes to Table 3 and Figures 2 and 3 for details.

Noise Sources Within the Development

As discussed in Section 4.2, potential noise sources associated with the proposed development should be addressed in a detailed noise report or prior to issuance of building permits.

6.0 CONCLUSIONS

Based on the acoustical analysis, with the incorporation of the items discussed (see Table 3, Notes to Table 3 and Figure 2), the sound levels are predicted to be within the appropriate environmental noise criteria. In accordance with Town and Ministry implementation guidelines, if mitigation is required, future purchasers will be advised through the use of warning clauses.

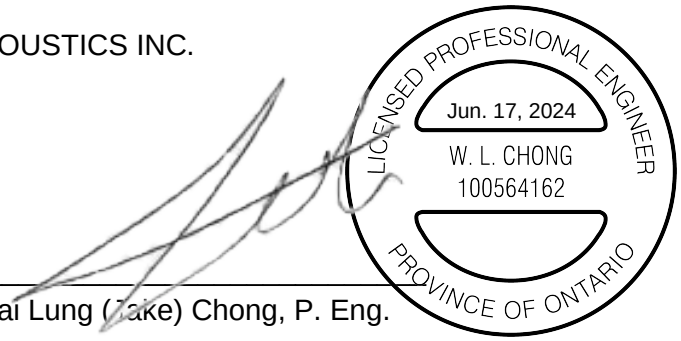
A detailed environmental noise report will need to be prepared once a final site plan, grading plan and mechanical information are available for the subject site to ensure the applicable environmental noise criteria are achieved.

Prior to the issuance of building permits, the final architectural plans should be reviewed by an acoustical consultant to ensure compliance with the applicable guidelines.

Prior to final occupancy, the buildings should be inspected by an acoustical consultant to ensure the required mitigative measures have been incorporated.

Respectfully submitted,

JADE ACOUSTICS INC.



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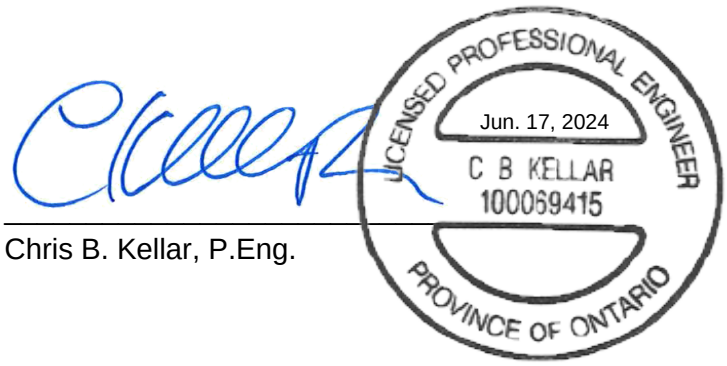
Wai Lung (Jake) Chong, P. Eng.



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Chris B. Kellar, P.Eng.

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7.0 REFERENCES

1. "Model Municipal Noise Control By-Law", Final Report, Ontario Ministry of the Environment, August, 1978.

2. ORNAMENT – "Ontario Road Noise Analysis Method for Environment and Transportation", Ontario Ministry of the Environment, October, 1989.

3. "Building Practice Note No. 56: Controlling Sound Transmission into Buildings'", J.D. Quirt, Division of Building Research, National Research Council of Canada, September, 1985.

4. "Environmental Noise Guideline Stationary and Transportation Sources – Approval and Planning", Ontario Ministry of the Environment and Climate Change, Publication NPC-300, August, 2013, released October 21, 2013 (updated final version #22).

5. "Environmental Noise Guidelines for Installation of Residential Air Conditioning Devices", Ontario Ministry of the Environment, Publication NPC-216, September, 1994.

6. Town of Grand Valley Noise By-law No. 2021-72, November 9, 2021.

TABLE 1

PROPOSED RESIDENTIAL DEVELOPMENT

40, 50 AND 60 EMMA STREET

TOWN OF GRAND VALLEY

SUMMARY OF ROAD TRAFFIC INFORMATION

ROAD	WATER STREET	MILL STREET
AADT* (ultimate)	13,971	1,988
No. of Lanes	2	2
Speed (km/hr)	40	40
Medium Trucks (%)	1**	1**
Heavy Trucks (%)	1**	1**
Gradient (%)	1***	1***
Day/Night Split (%)	90/10***	90/10***

* AADT: Ultimate Annual Average Daily Traffic.

** Assumed based on information noted in the Transportation Master Plan. See Section 2.1.

*** Assumed.

TABLE 2

PROPOSED RESIDENTIAL DEVELOPMENT

40, 50 AND 60 EMMA STREET

TOWN OF GRAND VALLEY

PREDICTED UNMITIGATED SOUND LEVELS OUTDOORS DUE TO ROAD TRAFFIC

Location*	Source	Distance (m)	Leq (dBA)	
			Day	Night
East Façade	Water Street	111.0	48	42

* The façade receiver location and height were based on the elevation drawings noted in Section 1.0.

TABLE 3

PROPOSED RESIDENTIAL DEVELOPMENT

40, 50 AND 60 EMMA STREET

TOWN OF GRAND VALLEY

SUMMARY OF MINIMUM NOISE ABATEMENT MEASURES
DUE TO TRANSPORTATION SOURCES

Building (unit)	Air Conditioning	Exterior Wall STC Rating[1]**	Window STC Rating[2]**	Sound Barrier [4]	Warning Clause[3]
Proposed building (all residential units)	NR*	Standard	Standard	No	A

* It is anticipated that al dwelling units will be provided with central air conditioning.

** Based on preliminary calculations. See Section 5.1.1 for details.

See Notes to Table 3 on following pages.

NOTES TO TABLE 3

1. STC – Sound Transmission Class Rating (Reference ASTM-E413). Results shown are based on the review of the architectural provided as noted in Section 1.0 of this report. Requirements are to be finalized once final architectural plans are available.

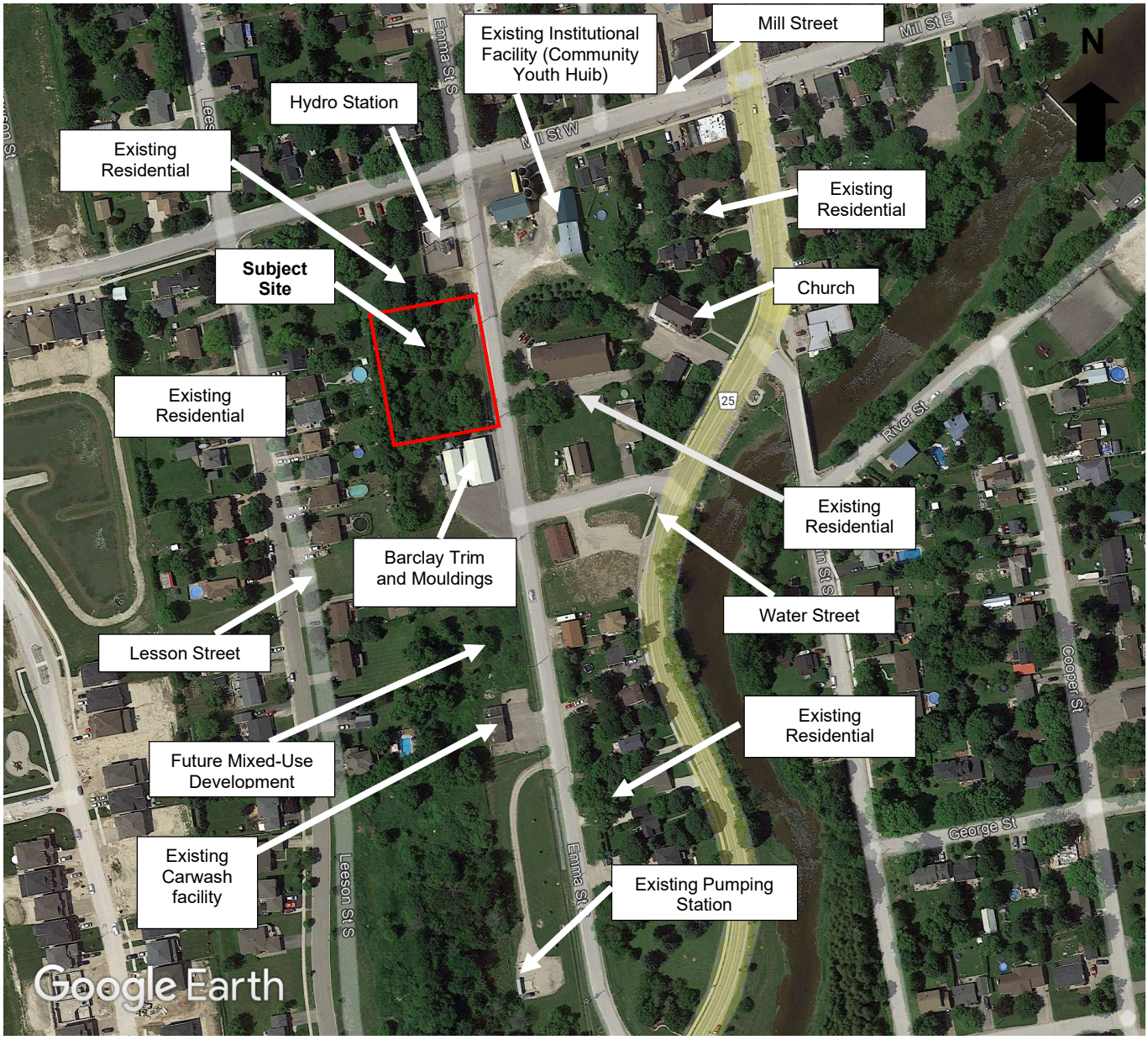
2. STC – Sound Transmission Class Rating (Reference ASTM-E413). Results shown are based on the review of the architectural provided as noted in Section 1.0 of this report. Requirements are to be finalized once final architectural plans are available.

3. Suggested Warning Clauses to be placed in a registerable portion of the development agreement and/or rental agreement and to be included in offers of purchase and sale and/or lease agreements on designated units:

   A. "Purchasers are advised that the dwelling unit is in proximity to hydro station, commercial/industrial operations, and/or institutional uses whose activities may be audible at times."

4. Sound barriers must be of a solid construction with no gaps and have a minimum surface density of 20 kg/m^2. Earthen berms, solid walls/fences of adequate density or combinations of berms and walls/fences may be used.

5. Conventional ventilated attic roof construction meeting typical construction practices is satisfactory in all cases.



N.T.S

Proposed Residential Development
40, 50 and 60 Emma Street
Town of Grand Valley

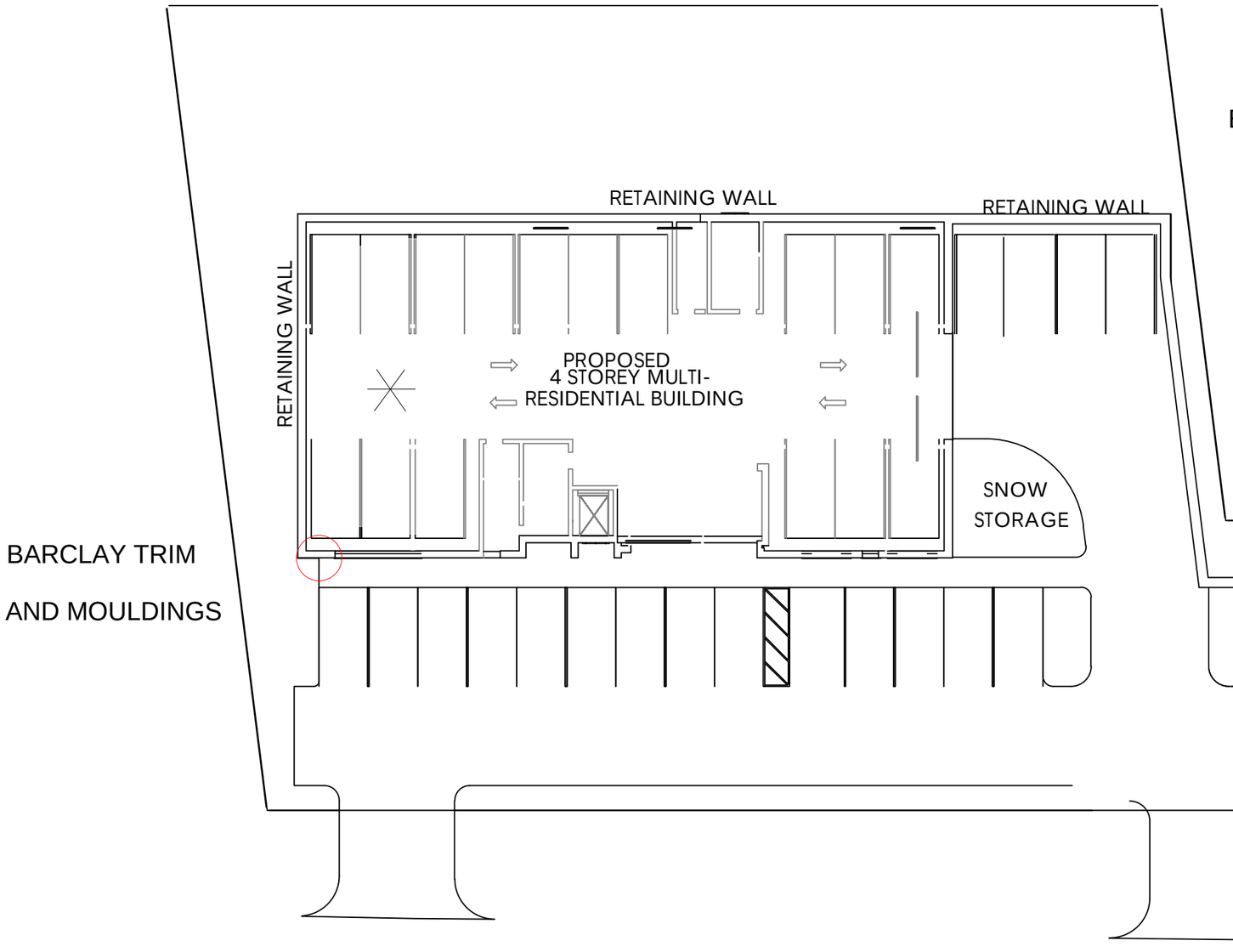
KEY PLAN

FIGURE 1

Date: June 2024 **File: 22-212**

JADE ACOUSTICS

EXISTING RESIDENTIAL



EXISTING RESIDENTIAL

LEGEND:

Analyzed locations

Proximity Warning Clause
(See text, Table 3 and Notes to Table 3 for details)

Note:
It is expected that the proposed building will be centrally air conditioned.

N.T.S.

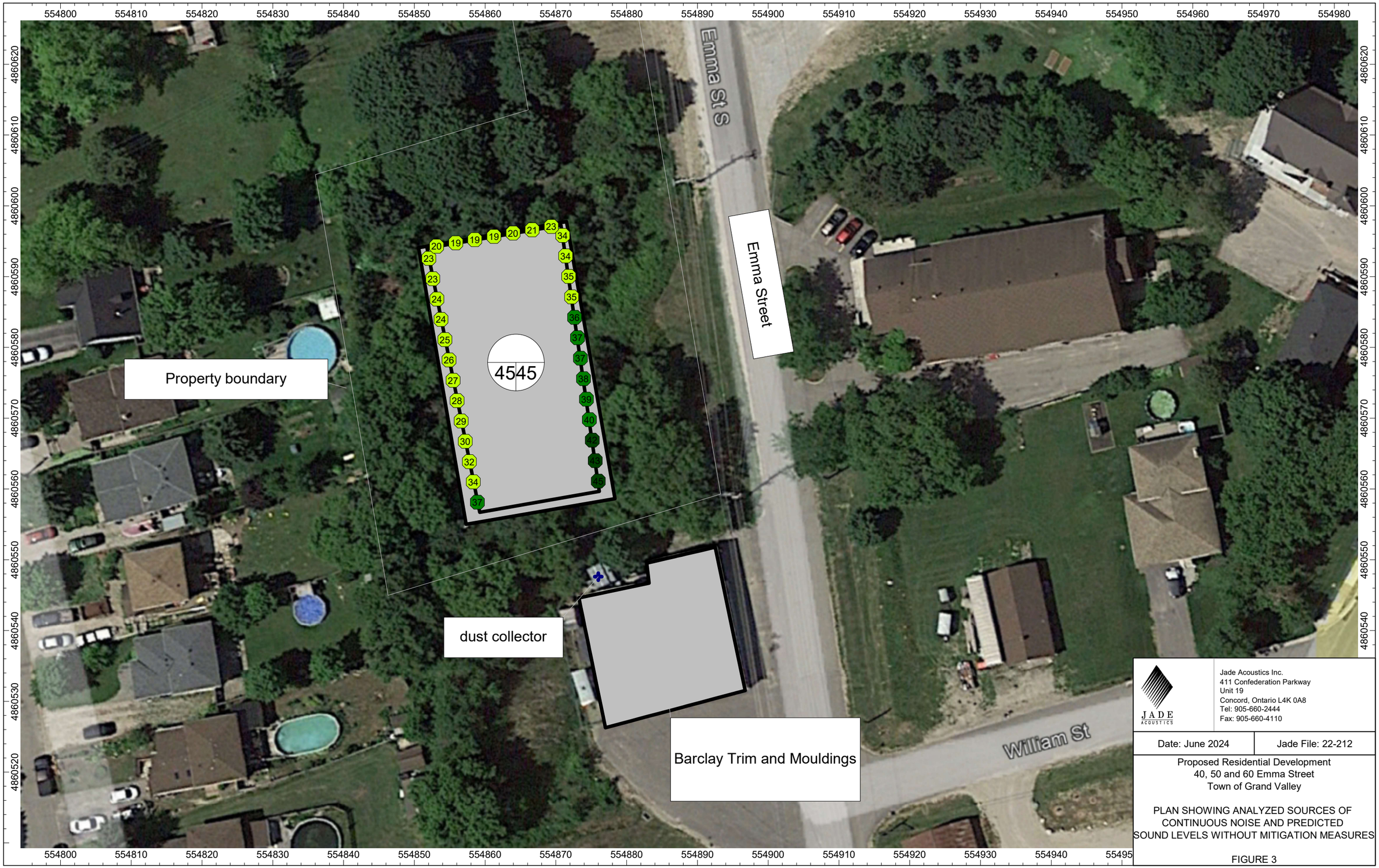
Proposed Residential Development
40, 50 and 60 Emma Street
Town of Grand Valley

Date: June 2024 Our File: 22-212

JADE ACOUSTICS

PLAN OF DEVELOPMENT SHOWING MINIMUM NOISE ABATEMENT MEASURES

FIGURE 2



JADE ACOUSTICS

Jade Acoustics Inc.
411 Confederation Parkway
Unit 19
Concord, Ontario L4K 0A8
Tel: 905-660-2444
Fax: 905-660-4110

Date: June 2024 | Jade File: 22-212

Proposed Residential Development
40, 50 and 60 Emma Street
Town of Grand Valley

PLAN SHOWING ANALYZED SOURCES OF CONTINUOUS NOISE AND PREDICTED SOUND LEVELS WITHOUT MITIGATION MEASURES

FIGURE 3

APPENDIX A

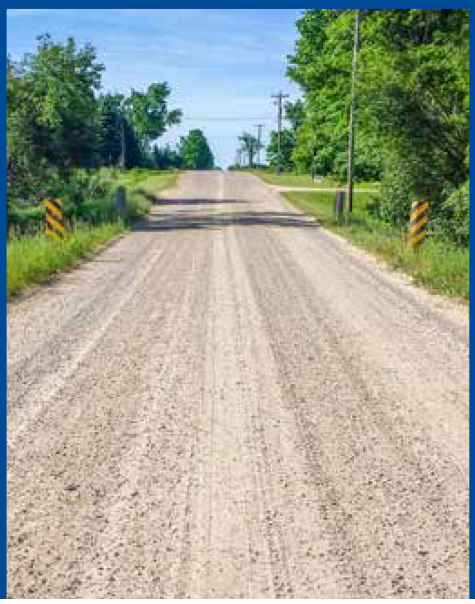
CORRESPONDENCE REGARDING ROAD TRAFFIC DATA

BURNSIDE

Town of Grand Valley Transportation Master Plan

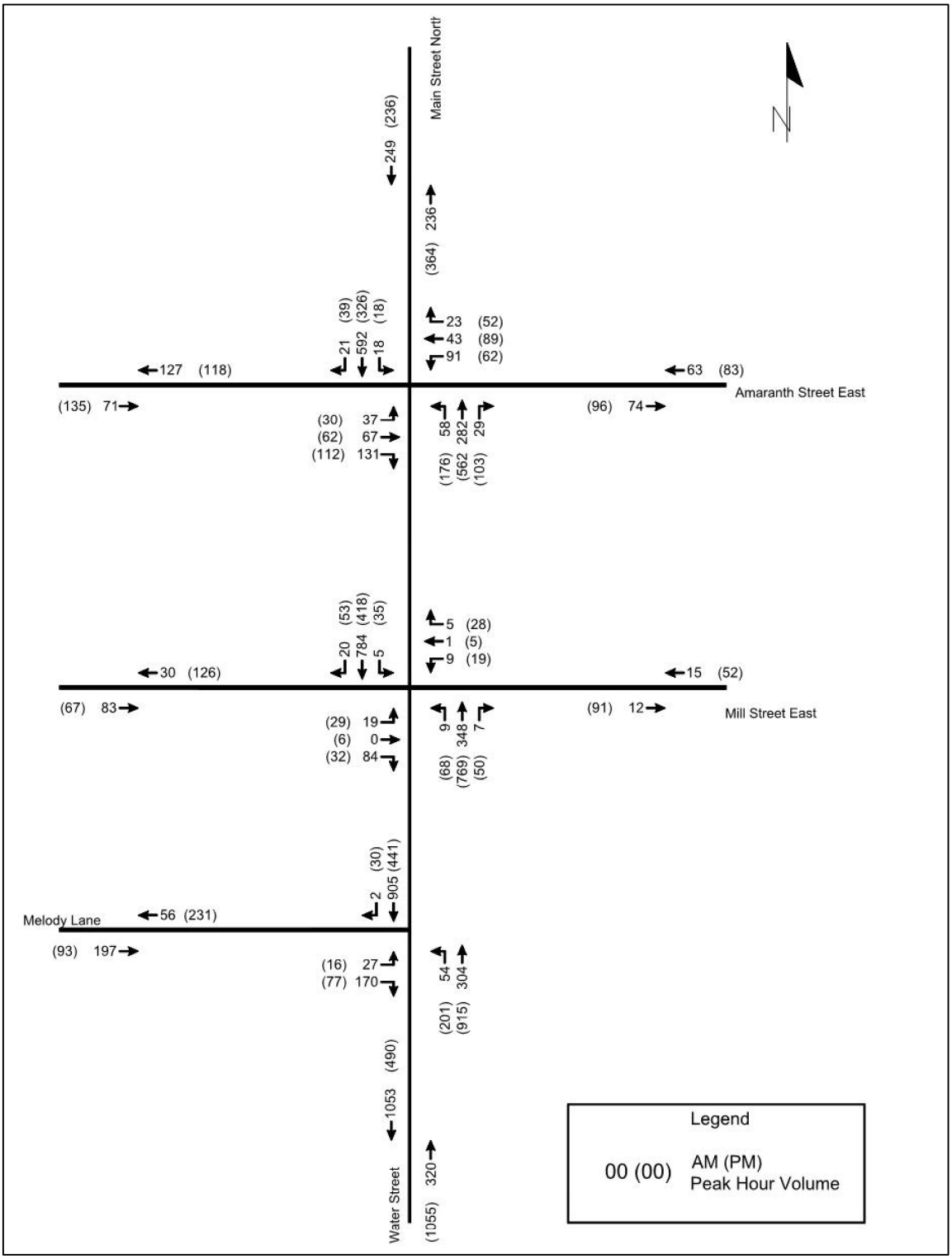
Town of Grand Valley

Final Report



March 2017

Figure 19: Total 2031 Traffic Volumes



APPENDIX B

ENVIRONMENTAL NOISE CRITERIA

MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS (MOE)

Reference: "Environmental Noise Guidelines Stationary and Transportation Sources – Approval and Planning", Publication NPC-300, August, 2013, released October 21, 2013 (updated final version # 22).

SOUND LEVEL CRITERIA FOR ROAD AND RAIL NOISE

TABLE C-1

Sound Level Limit for Outdoor Living Areas

Road and Rail

Time Period	Leq (16) (dBA)
16 hr., 07:00 - 23:00	55

TABLE C-2

Indoor Sound Level Limits
Road and Rail

Type of Space	Time Period	Leq (dBA)	
		Road	Rail
Living/dining, den areas of residences, hospitals, nursing homes, schools, daycare centres, etc.	07:00 – 23:00	45	40
Living/dining, den areas of residences, hospitals, nursing homes, etc. (except schools or daycare centres)	23:00 – 07:00	45	40
Sleeping quarters	07:00 – 23:00	45	40
	23:00 – 07:00	40	35

SOUND LEVEL CRITERIA FOR AIRCRAFT NOISE

TABLE C-3

Outdoor Aircraft Noise Limit

Time Period	NEF/NEP
24-hour	30

TABLE C-4

Indoor Aircraft Noise Limit
(Applicable over 24-hour period)

Type of Space	Indoor NEF/NEP*
Living/dining/den areas of residences, hospitals, nursing/retirement homes, schools, daycare centres, etc.	5
Sleeping Quarters	0

* The indoor NEF/NEP values in Table C-4 are used to determine acoustical insulation requirements based on the NEF/NEP contour maps.

SOUND LEVEL CRITERIA FOR STATIONARY SOURCES

TABLE C-5

Exclusion Limit Values of One-Hour Equivalent Sound Level (Leq, dBA)
Outdoor Points of Reception

Time of Day	Class 1 Area	Class 2 Area	Class 3 Area	Class 4 Area
07:00 – 19:00	50	50	45	55
19:00 – 23:00	50	45	40	55

TABLE C-6

Exclusion Limit Values of One-Hour Equivalent Sound Level (Leq, dBA)
Plane of Window of Noise Sensitive Spaces

Time of Day	Class 1 Area	Class 2 Area	Class 3 Area	Class 4 Area
07:00 – 19:00	50	50	45	60
19:00 – 23:00	50	50	40	60
23:00 – 07:00	45	45	40	55

TABLE C-7

Exclusion Limit Values for Impulsive Sound Level (L_{LM}, dBAI)
Outdoor Points of Reception

Time of Day	Actual Number of Impulses in Period of One-Hour	Class 1 Area	Class 2 Area	Class 3 Area	Class 4 Area
07:00 – 23:00	9 or more	50	50	45	55
	7 to 8	55	55	50	60
	5 to 6	60	60	55	65
	4	65	65	60	70
	3	70	70	65	75
	2	75	75	70	80
	1	80	80	75	85

TABLE C-8

Exclusion Limit Values of Impulsive Sound Level (L_{LM}, dBAI)
Plane of Window - Noise Sensitive Spaces (Day/Night)

Actual Number of Impulses in Period of One-Hour	Class 1 Area (07:00-23:00)/ (23:00-07:00)	Class 2 Area (07:00-23:00)/ (23:00-07:00)	Class 3 Area (07:00-19:00)/ (19:00-07:00)	Class 4 Area (07:00-23:00)/ (23:00-07:00)
9 or more	50/45	50/45	45/40	60/55
7 to 8	55/50	55/50	50/45	65/60
5 to 6	60/55	60/55	55/50	70/65
4	65/60	65/60	60/55	75/70
3	70/65	70/65	65/60	80/75
2	75/70	75/70	70/65	85/80
1	80/75	80/75	75/70	90/85

SUPPLEMENTARY SOUND LEVEL LIMITS

Indoor limits for transportation sources applicable to noise sensitive land uses are specified in Table C-2 and Table C-4. Table C-9 and Table C-10 are expanded versions of Table C-2 and Table C-4, and present guidelines for acceptable indoor sound levels that are extended to land uses and developments which are not normally considered noise sensitive. The specified values are maximum sound levels and apply to the indicated indoor spaces with the windows and doors closed. The sound level limits in Table C-9 and Table C-10 are presented as information, for good-practice design objectives.

TABLE C-9

Supplementary Indoor Sound Level Limits
Road and Rail

Type of Space	Time Period	Leq (Time Period) (dBA)	
		Road	Rail
General offices, reception areas, retail stores, etc.	16 hours between 07:00 – 23:00	50	45
Living/dining areas of residences, hospitals, schools, nursing/retirement homes, daycare centres, theatres, places of worship, libraries, individual or semi-private offices, conference rooms, reading rooms, etc.	16 hours between 07:00 – 23:00	45	40
Sleeping quarters of hotels/motels	8 hours between 23:00 – 07:00	45	40
Sleeping quarters of residences, hospitals, nursing/retirement homes, etc.	8 hours between 23:00 – 07:00	40	35

TABLE C-10

Supplementary Indoor Aircraft Noise Limit
(Applicable over 24-hour period)

Type of Space	Indoor NEF/NEP*
General offices, reception areas, retail stores, etc.	15
Individual or semi-private offices, conference rooms, etc.	10
Living/dining areas of residences, sleeping quarters of hotels/motels, theatres, libraries, schools, daycare centres, places of worship, etc.	5
Sleeping quarters of residences, hospitals, nursing/retirement homes, etc.	0

* The indoor NEF/NEP values in Table C-10 are not obtained from NEF/NEP contour maps. The values are representative of the indoor sound levels and are used as assessment criteria for the evaluation of acoustical insulation requirements.

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APPENDIX C

SAMPLE CALCULATION OF PREDICTED SOUND LEVELS DUE TO ROAD TRAFFIC

APPENDIX C-1
SAMPLE CALCULATION OF SOUND LEVEL

FILE: 22-212
NAME: 40, 50 and 60 Emma Street
REFERENCE DRAWINGS: Concept Site Plan and preliminary grading plan
LOCATION: Proposed Building, east wall, top floor bedroom

Noise Source:	Water Street
Segment Angle:	-90 to 90
Time Period:	16 hr. (day)
Distance (m):	110.97

CALCULATION OF PREDICTED SOUND LEVELS*

Reference Leq (dBA)*:	61.32
Height and/or Distance Correction (dBA):	-12.01
Finite Element Correction (dBA):	-0.94
Allowance for Future Growth (dBA):	incl.
LeqDay (dBA):	48.36

* Leq determined using the computerized model of the Ministry of the Environment Noise Assessment Guidelines, STAMSON Version 5.04 (ORNAMENT). See attached printouts.

APPENDIX C-2
SAMPLE CALCULATION OF PREDICTED SOUND LEVELS

FILE: 22-212
NAME: 40, 50 and 60 Emma Street
REFERENCE DRAWINGS: Concept Site Plan and preliminary grading plan
LOCATION: Proposed Building, east wall, top floor bedroom

Noise Source:	Water Street
Segment Angle:	-90 to 90
Time Period:	8 hr. (night)
Distance (m):	110.97

CALCULATION OF PREDICTED SOUND LEVELS*

Reference Leq (dBA)*:	54.79
Height and/or Distance Correction (dBA):	-12.01
Finite Element Correction (dBA):	-0.94
Allowance for Future Growth (dBA):	incl.
LeqNight (dBA):	41.83

* Leq determined using the computerized model of the Ministry of the Environment Noise Assessment Guidelines, STAMSON Version 5.04 (ORNAMENT). See attached printouts.

```
STAMSON 5.0        NORMAL REPORT        Date: 06-06-2024 10:23:10
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: eastbr.te            Time Period: Day/Night 16/8 hours
Description: East facade building requirement

Road data, segment # 1: Water Street (day/night)
-----------------------------------------------
Car traffic volume  : 12322/1369  veh/TimePeriod  *
Medium truck volume :   126/14    veh/TimePeriod  *
Heavy truck volume  :   126/14    veh/TimePeriod  *
Posted speed limit  :    40 km/h
Road gradient       :     1 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):  13971
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   1.00
    Heavy Truck  % of Total Volume     :   1.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Water Street (day/night)
----------------------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  : 110.97 / 110.97 m
Receiver height           :  11.26 / 11.26  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Results segment # 1: Water Street (day)
---------------------------------------

Source height = 1.00 m

ROAD (0.00 + 48.36 + 0.00) = 48.36 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.38  61.32   0.00 -12.01  -0.94   0.00   0.00   0.00  48.36
-------------------------------------------------------------------------------

Segment Leq : 48.36 dBA

Total Leq All Segments: 48.36 dBA
```

Results segment # 1: Water Street (night)

Source height = 1.00 m

ROAD (0.00 + 41.83 + 0.00) = 41.83 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.38	54.79	0.00	-12.01	-0.94	0.00	0.00	0.00	41.83

Segment Leq : 41.83 dBA

Total Leq All Segments: 41.83 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 48.36
(NIGHT): 41.83

APPENDIX D

QUESTIONNAIRE SENT TO NEIGHBOURING BUSINESS

Jade Acoustics Inc. Consulting Engineers
411 Confederation Parkway
Unit 19
Concord, Ontario
L4K 0A8
Tel: (905) 660-2444
Fax: (905) 660-4110

June 9, 2023

Barclay Trim & Mouldings Ltd.
30 William Street, P.O Box 5
Grand Valley, Ontario
L9W 5S5

E-MAIL
dean@barclaytrim.com

Re: Information Request
Proposed Residential Development
50 Emma Street
Town of Grand Valley
Our File: 22-183

As requested by the municipality, we are conducting a noise study for the proposed residential development located north of the Barclay Trim & Mouldings Ltd facility, at the west side of Emma Street and south side of Mill Street in the Town of Grand Valley. As part of the noise study, we are required by the Ministry of the Environment, Conservation and Parks (MOE) and the municipality to identify and quantify all potential noise sources. In order to do this adequately, we have summarized the information we kindly request regarding your operations. Please complete and return this form by email. Following our review of the responses, a site visit to your facility may be requested, with the potential to conduct sound measurements on site. We will contact you regarding a time and date to complete the site visit and sound measurements, if required.

1. What is the primary function of your company? _____
_____
_____
_____
_____

2. What are your hours of operation? _____
How many days per week? _____

3. Is your operation seasonal? If so, describe the operations associated with different seasons. _____
_____
_____
_____

4. Are you currently operating at full capacity? If so, will you be operating at this level for the next several weeks? _____
_____
_____

5. If not, when do you anticipate being at full operating capacity? _____

6. What noise producing equipment do you have located: _____
(a) internally? _____

(b) internally but exhausting/intaking to the exterior? _____

(c) externally? _____

JADE ACOUSTICS

7. Does your company have any outside storage? If so, are there any activities such as forklifts or transport trucks which access the storage area? _____

8. How many trucks use the shipping area during the day and at night? _____

9. What is the hourly distribution? _____

10. Are shipping doors left open at night during the summer? Where are they located?

11. Are there any other facilities/operations on the property? If so, please provide the primary function and details about the facility. _____

12. Are there any planned modifications/expansions to your facility? _____

13. Does your company have a valid Certificate of Approval (C of A) or Environmental Compliance Approval (ECA) from the MOE which includes a noise assessment and noise mitigation measures, if required? If yes, please provide us with a copy of the Certificate and copy of the noise assessment report. _____

14. Other information _____

_____

_____

_____

_____

15. Contact Information

Name: _____

Position: _____

Telephone No.: _____

Fax No.: _____

E-mail: _____

If you have any questions, please contact the undersigned. Thank you in advance for your assistance.

Yours truly,

JADE ACOUSTICS INC.

Per: _____

Wai Lung (Jake) Chong, B.Eng., E.I.T.
jake@jadeacoustics.com

Per: _____

Chris B. Kellar, P.Eng.
chris@jadeacoustics.com

JC/CK/jg
L:\Memos\2022\22-183 Jun 9-23 50 Emma Street (Information Request-Questionnaire).doc

APPENDIX E

SAMPLE CALCULATIONS OF SOUND LEVELS DUE TO STATIONARY NOISE SOURCES – CADNAA

Sound Power Levels of Analyzed Noise Source

Name	ID	Type	1/3 Oktave Spectrum (dB)													Source
			Weight.		31.5	63	125	250	500	1000	2000	4000	8000	A	lin	
Dust Collector	SDC	Lw			96.8	85.9	88.5	90.3	75.3	75.1	67.2	51.2	55.6	83.5	98.5	based on JAI 11-066 measurements

Point source

Name	ID	Result. PWL			Lw / Li			Correction			Sound Reduction		Attenuatio	Operating Time			K0	Freq.	Direct.	Height		Coordinates	
		Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night						X	Y
		(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)	(Hz)		(m)		(m)	(m)
dust collector		83.5	83.5	83.5	Lw	SDC		0	0	0							0		(none)	7	r	554876	4860548

APPENDIX F

SAMPLE CALCULATION OF ARCHITECTURAL COMPONENT SELECTION

APPENDIX F-1
SAMPLE CALCULATION OF ARCHITECTURAL COMPONENT SELECTION*

FILE: 22-212
NAME: 40, 50 and 60 Emma Street
REFERENCE DRAWINGS: Concept Site Plan and preliminary grading plan
LOCATION: Unit 18, east wall, top floor bedroom

ROAD

Exterior wall area as a percentage of floor area:	Front:	37%
	Side:	100%
Window/exterior door area as a percentage of floor area:	Front:	24%
Number of components:	3	
Outdoor Leq:	Front:	48 (+3 for reflections) = 51 dBA
	Side:	45 (+3 for reflections) = 48 dBA
Indoor Leq:	45	
Noise Reduction (dBA):	Front:	6
	Side:	3
Noise Spectrum:	Mixed Road Traffic	Angle Correction: 0
Absorption:	Medium	

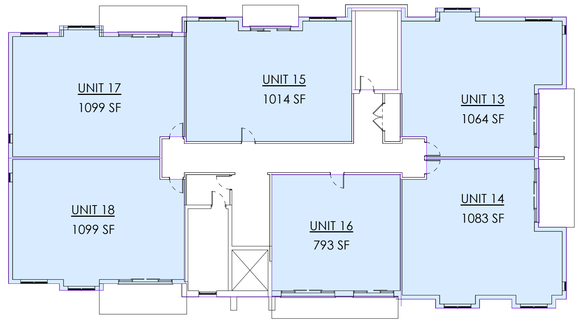
APPROPRIATE ELEMENTS

		Configuration	STC Rating
Exterior wall	Front	Standard	STC 15
	Side	Standard	STC 16
Window/exterior door	Front	Standard	STC 8

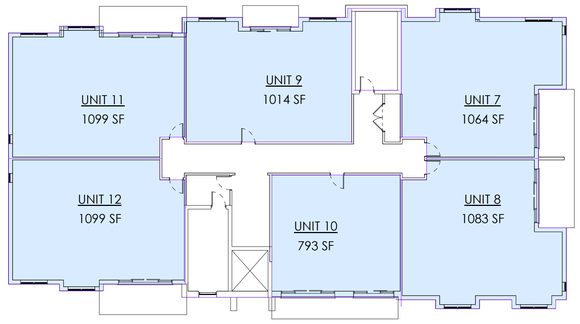
* Based upon "Controlling Sound Transmission into Buildings", Building Practice Note 56 by National Research Council of Canada, September, 1985.

APPENDIX G

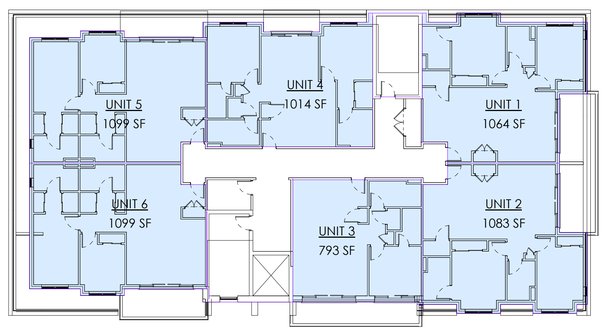
CONCEPT SITE PLAN, ARCHITECTURAL PLANS AND ELEVATION DRAWINGS



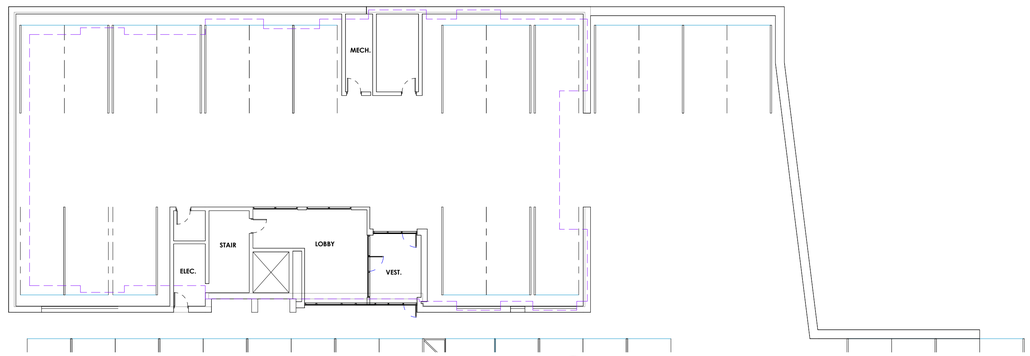
4 ASP-001 T/O FOURTH FLOOR
1/16" = 1'-0"



3 ASP-001 T/O THIRD FLOOR
1/16" = 1'-0"



2 ASP-001 T/O SECOND FLOOR
1/16" = 1'-0"



1 ASP-001 RENTABLE AREAS GROUND FLOOR
1/16" = 1'-0"

BUILDING AREA SUMMARY

Name	Area	Area (Metric)
GROUND FLOOR	8825 SF	820 m²
Grand total	8825 SF	820 m²

UNIT AREA	
Name	Area
T/O SECOND FLOOR	
UNIT 1	1064 SF
UNIT 2	1083 SF
UNIT 3	793 SF
UNIT 4	1014 SF
UNIT 5	1099 SF
UNIT 6	1099 SF
	6153 SF
T/O THIRD FLOOR	
UNIT 7	1064 SF
UNIT 8	1083 SF
UNIT 9	1014 SF
UNIT 10	793 SF
UNIT 11	1099 SF
UNIT 12	1099 SF
	6153 SF
T/O FOURTH FLOOR	
UNIT 13	1064 SF
UNIT 14	1083 SF
UNIT 15	1014 SF
UNIT 16	793 SF
UNIT 17	1099 SF
UNIT 18	1099 SF
	6153 SF
Grand total: 18	18460 SF

PROJECT NAME
50 EMMA ST. GRAND VALLEY, ON - APARTMENTS

PROJECT ADDRESS
50 EMMA ST. GRAND VALLEY, ON

CLIENT
SHELDON CREEK DEVELOPMENTS

ARCHITECT
KHALSA DESIGN INC.
KHALSA DESIGN
BRAMPTON, ON
T: 647-468-2940

CONSULTANTS:

REGISTRATION

Project number	24022
Date	06/03/2024
Drawn by	ASB
Checked by	KDI
Scale	1/16" = 1'-0"

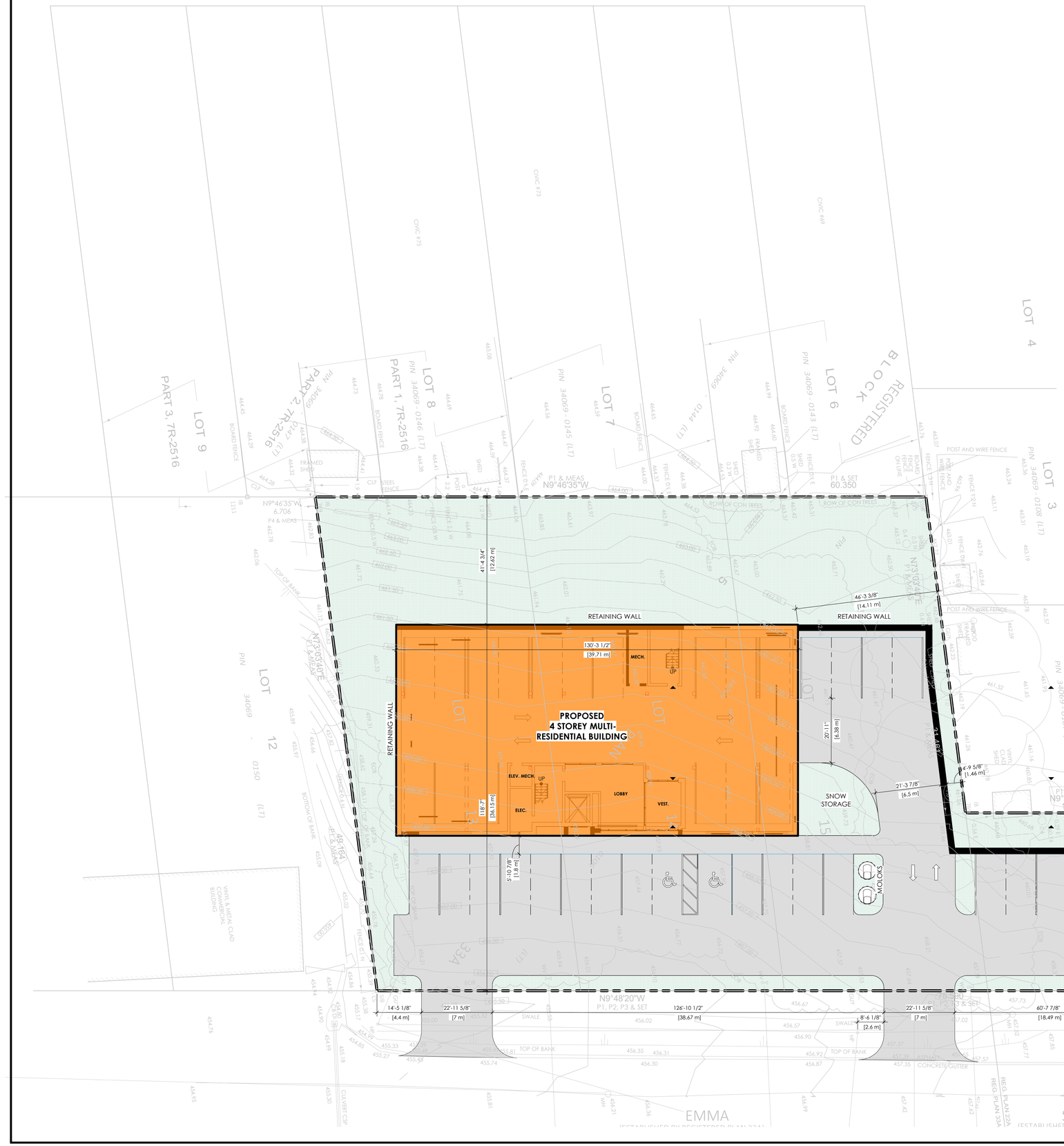
REVISIONS

No.	Description	Date

AREA PLANS

ASP-001

50 EMMA ST. GRAND VALLEY, ON - APARTMENTS



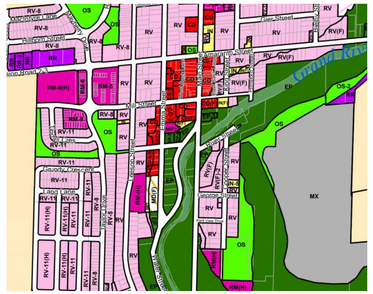
GENERAL NOTES:

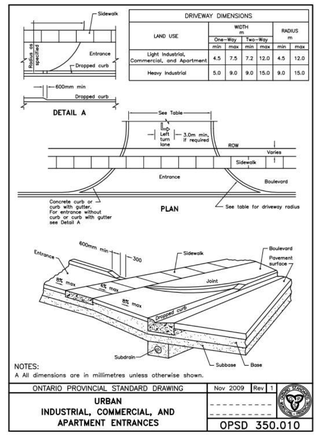
1. ALL EXISTING PAVEMENT, CURBS, SIDEWALKS, DRIVEWAYS AND BOULEVARD AREAS DISTURBED BY THE CONSTRUCTION MUST BE REINSTATED TO THE SATISFACTION OF THE TOWN.
2. UTILITY IS THE RESPONSIBILITY OF THE DEVELOPER/OWNER.
3. THE CONTRACTOR/OWNER IS RESPONSIBLE FOR ALL UTILITY LOCATES AND AND DAMAGE OR DISTURBANCE DURING CONSTRUCTION.
4. ALL BARRIER FREE ENTRANCES AND BARRIER FREE PATHS OF TRAVEL MUST COMPLY WITH O.B.C. 3.8.
5. ALL EXTERIOR ILLUMINATION TO BE DIRECTED DOWNWARD AS WELL AS INWARD AND DESIGNED TO MAINTAIN ZERO CUTOFF LIGHT DISTRIBUTION AS THE PROPERTY LINE.
6. ALL DOWNSPOUTS TO BE CONNECTED TO THE STORM DRAINAGE SYSTEM.
7. THERE WILL BE NO CURBSIDE WASTE COLLECTION.
8. ALL CONDENSING UNITS TO BE SCREENED ON THE ROOF
9. SEPARATE PERMITS ARE REQUIRED FOR ANY SIGNAGE ON THE PROPERTY.
10. WHERE POSSIBLE TREES ARE TO BE PROTECTED FROM CONSTRUCTION.
11. EXCESS SNOW WILL BE REMOVED BY PRIVATE HAULER SUBJECT TO DEMAND FOR PARKING.
12. ALL FIRE ROUTES SHALL BE CONSTRUCTED OF HARD SURFACE MATERIAL SUCH AS ASPHALT OR CONCRETE AND DESIGNED TO SUPPORT A LOAD OF NOT LESS THAN 11,363kg PER AXLE AND HAVE A CHANGE IN GRADIENT OF NOTE MORE THAN 1 IN 12.5 OVER A MIN. DISTANCE OF 15M. ACCESS ROUTE SHALL BE A MIN. WIDTH OF 6.0m AND ALL TURNS IN THE ROUTE SHALL HAVE A CENTERLINE RADIUS OF 12.0m
13. FIRE ROUTES SHALL BE DESIGNATED AS PER BY-LAW AS AMENDED PRIOR TO OCCUPANCY OF THE BUILDING.
14. THE TOPS OF ANY CURBS BORDERING DRIVEWAYS WITHIN THE MUNICIPAL BOULEVARDS WILL BE FLUSH WITH THE MUNICIPAL SIDEWALK AND ROAD CURB.
15. AT THE ENTRANCES TO THE SITE, THE MUNICIPAL CURB AND SIDEWALK WILL BE CONTINUOUS THROUGH THE DRIVEWAY AND A CURB DEPRESSION WILL BE PROVIDED FOR EACH ENTRANCE.
16. CONSTRUCTION CHAINLINK HOARDING MUST BE INSTALLED WITH SEDIMENT CONTROL AS PER CITY STANDARDS AND APPROVALS.
17. ROAD OCCUPANCY PERMIT MUST BE OBTAINED 48 HOURS PRIOR TO COMMENCING ANY WORKS WITHIN THE MUNICIPAL ROAD ALLOWANCE.

SITE PLAN APPLICATION NO.

SP XX-XXX

PART OF LOT 1, BLOCK 5
REGISTERED PLAN 22A AND PARTS OF
LOTS 13, 14 & 15 BLOCK 5 REGISTERED
PLAN 33A
TOWN OF GRAND VALLEY
COUNTY OF DUFFERIN





ZONING TABLE				
ZONE - CD(F)-3 (DOWNTOWN COMMERCIAL)				
	CD		PROPOSED	
MINIMUM LOT AREA	N/A		34,541.78 ft²	
			3209.03 m²	
MINIMUM LOT FRONTAGE	N/A		75.590 m	
MAXIMUM BUILDING AREA	75%		25.78%	
			[827 m²]	
MINIMUM FRONT YARD	N/A		15.25 m	
MINIMUM EXTERIOR SIDE YARD	N/A		N/A	
MINIMUM SIDE YARD	N/A		3.78 m	
MINIMUM REAR YARD	4.5 m		12.62 m	
MAXIMUM BUILDING HEIGHT	12 m		13.06 m	
PROPOSED BUILDING			827 m²	
TOTAL LOT COVERAGE			827 m²	

PARKING / LOADING CALCULATIONS			
	ZONING	REQUIRED	PROVIDED
VEHICLES			38
BARRIER FREE PARKING (included in count)			2
LOADING SPACE			0
TOTAL VEHICLE PRAKING			**38**

1 ASP-1 Site Plan
1/16" = 1'-0"

PROJECT NAME
50 EMMA ST. GRAND VALLEY, ON - APARTMENTS

PROJECT ADDRESS
50 EMMA ST. GRAND VALLEY, ON

CLIENT
SHELDON CREEK DEVELOPMENTS

ARCHITECT
KHALSA DESIGN INC.
KHALSA DESIGN
BRAMPTON, ON
T: 647-468-2940

CONSULTANTS:

REGISTRATION

Project number	24022
Date	06/03/2024
Drawn by	ASB
Checked by	KDI
Scale	As indicated

REVISIONS

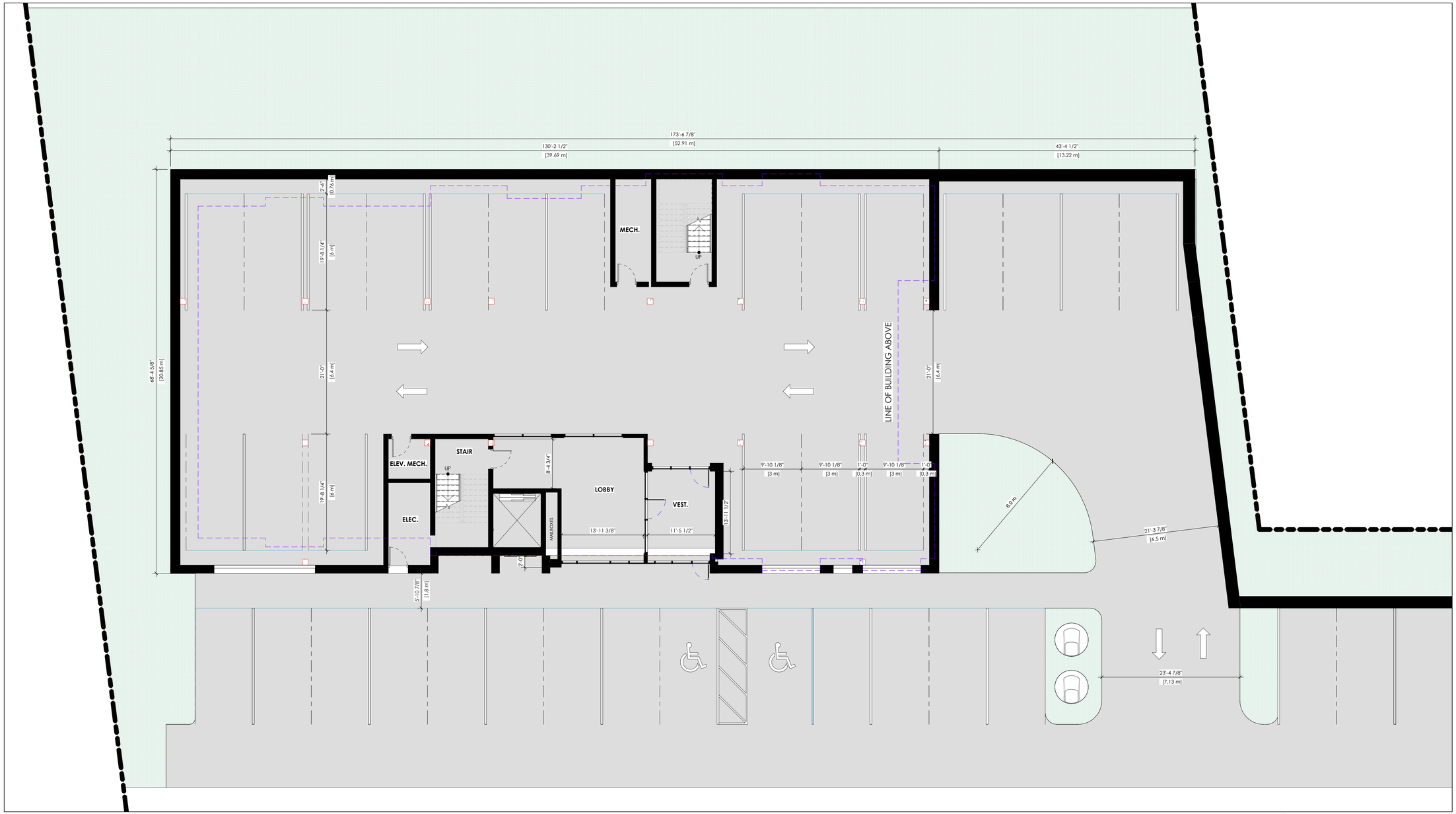
No.	Description	Date

SITE PLAN

ASP-1

50 EMMA ST. GRAND VALLEY, ON - APARTMENTS

ROOM MIX										
ROOM TYPE	GND	2ND	3RD	4TH			TOTAL			
1 BED	-	1	1	1			3		-	
2 BED	-	5	5	5			15			
TOTAL	-	6	6	6			18			



1 ASP-201 SD_GROUND FLOOR
1/8" = 1'-0"

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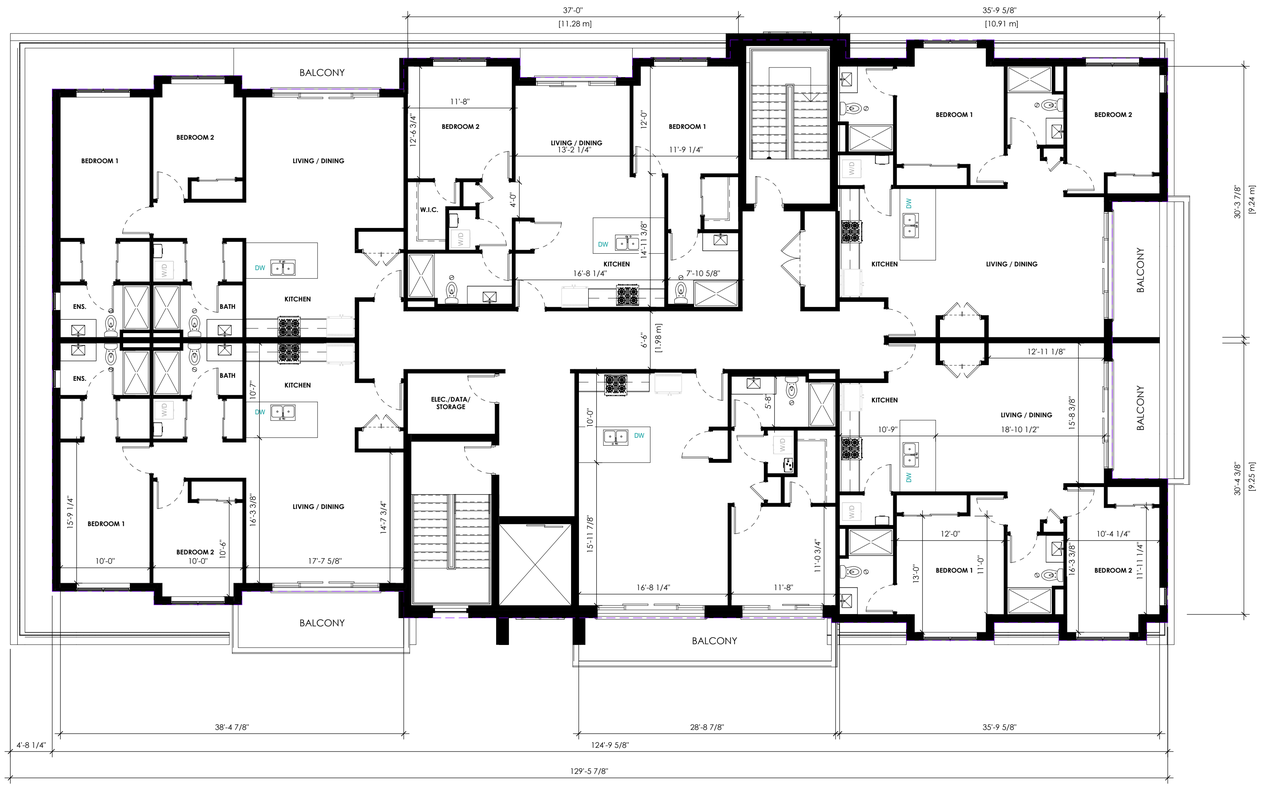
No.	Description	Date

1ST FLOOR PLAN

ASP-201

50 EMMA ST. GRAND VALLEY, ON - APARTMENTS

ROOM MIX										
ROOM TYPE	GND	2ND	3RD	4TH			TOTAL			
1 BED	-	1	1	1			3		-	
2 BED	-	5	5	5			15			
TOTAL	-	6	6	6			18			



1 ASP-202 SD_SECOND FLOOR
1/8" = 1'-0"

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No.	Description	Date

2ND FLOOR PLAN

ASP-202

50 EMMA ST. GRAND VALLEY, ON - APARTMENTS

MATERIAL LEGEND	
TAG	MATERIAL TYPE & COLOR

1 ASP-300 PROPOSED SOUTH ELEVATION
1/8" = 1'-0"

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Checked by	KDI
Scale	1/8" = 1'-0"

REVISIONS

No.	Description	Date

FRONT ELEVATION

ASP-300

50 EMMA ST. GRAND VALLEY, ON - APARTMENTS

MATERIAL LEGEND	
TAG	MATERIAL TYPE & COLOR

1 ASP-30 PROPOSED NORTH ELEVATION
1/8" = 1'-0"

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Scale	1/8" = 1'-0"

REVISIONS

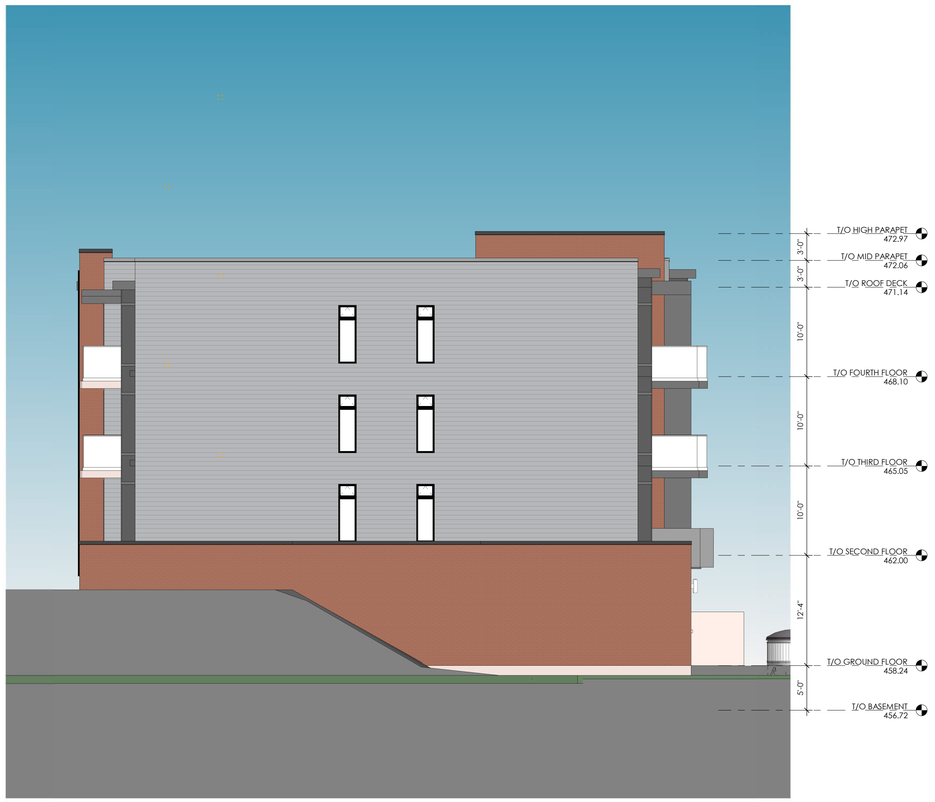
No.	Description	Date

REAR ELEVATION

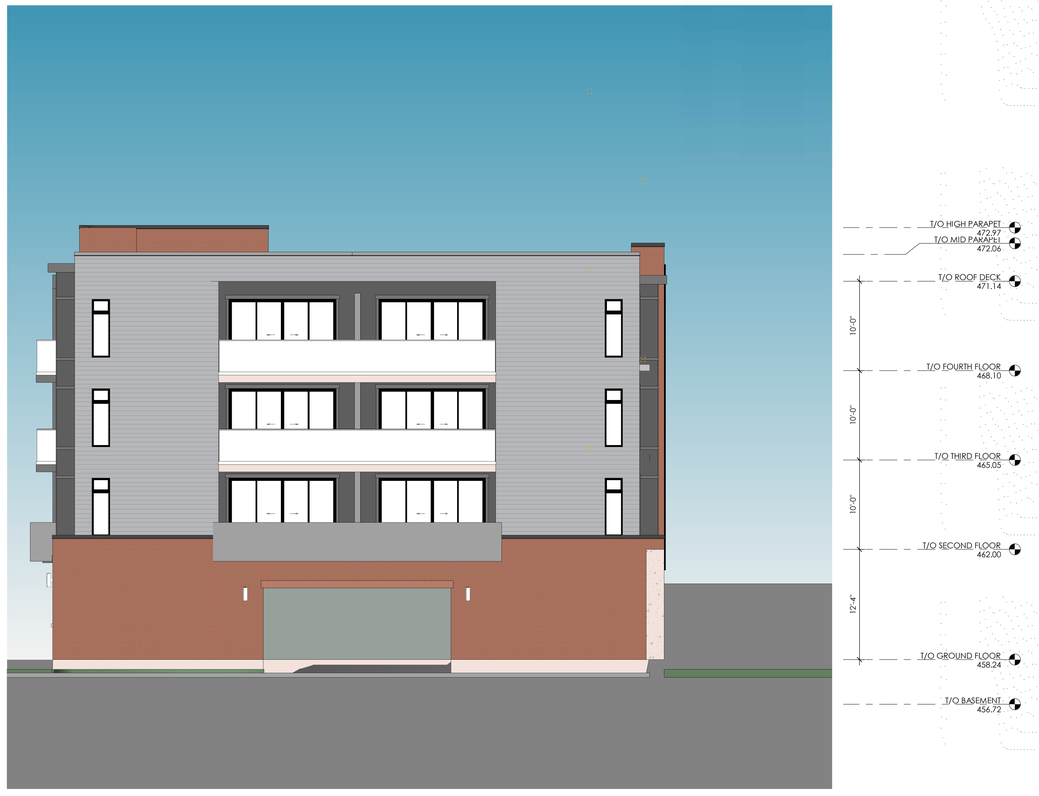
ASP-301

50 EMMA ST. GRAND VALLEY, ON - APARTMENTS

MATERIAL LEGEND	
TAG	MATERIAL TYPE & COLOR



1 PROPOSED WEST ELEVATION
ASP-302 1/8" = 1'-0"



2 PROPOSED EAST ELEVATION
ASP-302 1/8" = 1'-0"

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CONSULTANTS:

REGISTRATION

Project number	24022
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Drawn by	ASB
Checked by	KDI
Scale	1/8" = 1'-0"

REVISIONS

No.	Description	Date

SIDE ELEVATIONS

ASP-302

50 EMMA ST. GRAND VALLEY, ON - APARTMENTS

1 PERSPECTIVE I
ASP-302

2 PERSPECTIVE II
ASP-302

3 PERSPECTIVE III
ASP-302

4 PERSPECTIVE IV
ASP-302

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Scale	

REVISIONS

No.	Description	Date

PERSPECTIVES

ASP-303

50 EMMA ST. GRAND VALLEY, ON - APARTMENTS