Thornton Tomasetti

Noise Impact Study

524 York Road (Phase 2)
Niagara-On-The-Lake

TT Project No: 24012579

Prepared For

Niagara York Road Inc.
366 King Street West
Hamilton, ON L8P 1B3

Prepared By
Marcus Li, P.Eng.

Thornton Tomasetti
23-366 Revus Avenue
Mississauga, Ontario L5G 4S5
Tel: +1 905.554.6222
MLi@ThorntonTomasetti.com
www.ThorntonTomasetti.com

Reviewed By
Robert Fuller, P.Eng.

February 18, 2025

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1.0 Introduction

At the request of Niagara York Road Inc. (Client), Thornton Tomasetti (TT) presents this Noise Impact Study (NIS) regarding the proposed Phase 2 of 524 York Road in Niagara-On-The-Lake (NOTL), Ontario (the Project). The Project includes a combo hotel, 2 restaurants and surface parking (Phase 2). Phase 1 includes the existing combined Staybridge Suites and Holiday Inn Express hotels.

As a hotel building is defined as a Commercial Noise Sensitive Building in NPC-300, an assessment of noise impacts was requested by NOTL.

The purpose of this study is to assess the noise impact on the Project from surrounding noise sources and the noise impact of the Project on surrounding noise sensitive areas and itself. This report is intended to support the Rezoning application for the site.

Where applicable, this report will provide noise control recommendations to meet the requirements of the applicable to the Niagara Region, NOTL Terms of Reference for Noise Studies, and noise criteria outlined in the Ontario Ministry of the Environment, Conservation and Parks (MECP).

2.0 Site and Surrounding Area

2.1 Planned Development

The Project includes a 10-storey dual hotel, 2 separate 1-storey restaurants (Restaurant A and B) and central surface parking. A ground level outdoor patio area is located on the east side of the hotel, facing Counsell Street. Patios are located on the north side of Restaurant A and on the west side of Restaurant B.

The proposed site plan is provided in Figure 1, included in Appendix A. For this report, results are presented based on the True North as opposed to Project North identified in the development drawings.

2.2 Project Location and Surroundings

The Project is Phase 2 of the 524 York Road property in NOTL. The Phase 2 lands are currently vacant, with an existing combined Staybridge Suites and Holiday Inn Express hotel on Phase 1 lands to the north.

The property is bounded by Glendale Avenue, Counsell Street and York Road. The QEW and Glendale Diverging Diamond are located to the south of the Project lands.

The lands to the east and west include industrial and commercial lands, with vacant lands to the south. An existing hotel (Hilton Garden Inn) is located on the adjacent lands to the west, on the opposite side of Glendale Avenue. Single family residential homes are located to the north (approximately 250 m) along Queenston Road. Additional commercial lands are located to the south, on the opposite side of the QEW.

An illustration of the project location and surrounding area is provided in Figure 2 of Appendix A. Copies of the Project drawings are included in Appendix B.

3.0 Applicable Guidelines

The MECP's *Environmental Noise Guideline – Stationary and Transportation Sources – Approval and Planning* (NPC-300) provides province wide assessment standards and criteria for evaluating noise impacts from transportation sources such as roads, railways and aircraft, as well as stationary sources such as mechanical equipment, and industrial facilities. In preparing this NIS report, TT has referred to *Part A Background and Part C Land Use Planning* of NPC-300.

This NIS report has been prepared to support land use planning decisions and is not intended to support an application for an Environmental Compliance Approval (ECA) in accordance with *Part B Stationary Sources* of NPC-300, and Section 9 of the Environmental Protection Act.

4.0 Transportation Noise Assessment

4.1 Critical Transportation Noise Receptors

NPC-300 defines a point of reception for the assessment of transportation noise sources as either the Plane of Window (POW) of a noise sensitive indoor space or an Outdoor Living Area (OLA) representing an area of a noise sensitive land use intended for quiet enjoyment of the outdoor environment.

The POW receptor(s) most likely to be affected by transportation noise are the hotel suites located on the north, east and west facades of the hotel. As the south façade (facing QEW) includes windows for the hotel corridor only, this façade is not noise sensitive and was excluded from the assessment.

Based on provided site plans of the Project, an outdoor patio is located at grade on the east façade of the hotel. Patios are also located on the north side of Restaurant A and the west side of Restaurant B. As the Hotel is a commercial noise-sensitive building, this space is not considered a receptor based on definitions outlined in NPC-300. Similarly, as the restaurants are commercial buildings, the patios are not defined in NPC-300 as noise sensitive spaces. Therefore, these patios were not included in the assessment.

4.2 Transportation Noise Sources

4.2.1 Road Noise Sources

The significant roadway noise sources potentially impacting the Project are considered to be York Road, Glendale Avenue and the QEW.

Roadway volumes and truck percentages were obtained from Paradigm Transportation Solutions Limited (PTSL), the traffic consultants for the Project. Traffic data was provided as a 2044 future traffic volume, and grown an additional year to 2045 to meet the 20-yr future projection required by the Niagara Region. An annual growth rate of 2% was provided by PTSL. The medium and heavy truck distribution was applied based on a default 5:8 ratio of medium:heavy trucks. A summary of the future traffic data applied in the assessment is shown in Table 1. A copy of the traffic data is included in Appendix C.

The QEW Traffic volumes and truck percentages were obtained from the MTO iCorridor website. A annual growth rate of 1.2% was calculated based on the most recent years of traffic data available, with a 2045 future year applied in the assessment. The medium and heavy truck distribution was applied

based on a default 5:15 ratio of medium:heavy trucks. An 85/15 split for daytime/night-time periods was applied based on the hourly traffic data obtained for this section of QEW from the MTO iCorridor website. The future traffic data applied in the assessment is summarized in Table 1.

Table 1: Future Traffic Data Summary

Street	AADT	% Trucks	Med/Hvy	Day/Night	Speed Limit
York Road	23,674	11.6%	5/8	90/10	60 km/h
Glendale Avenue	33,548	12.3%	5/8	90/10	50 km/h
QEW	124,498	15.0%	5/15	85/15	100 km/h

The airport road loop, from the Glendale diverging diamond, is not considered a significant contributor to roadway noise due to the large separation distance (approx. 175m at the closest distance), low speeds (30 km/h recommendation), and relatively low volumes (approx. 7,000 AADT existing). Similarly, the QEW on-ramp and off-ramps are not considered significant contributors to noise due to the large separation distance (approx. 370 m), and relatively low volumes (approx. 10,000 AADT each). Therefore, these roads were not included in the transportation noise assessment.

4.2.2 Rail Noise Sources

The closest railway is located 1,900 m from the Project to the south and outside of the minimum separation distances required for inclusion. Therefore, an assessment of railway impacts is not considered necessary.

4.2.3 Aircraft Noise Sources

At the time of this assessment, NEF noise contours were not available from the Niagara District Airport. A Master Plan is currently being prepared for the Niagara District Airport, which is anticipated to be released this year (2025). The Niagara District Airport is also in the process of generating NEF noise contours for their operations, which are not anticipated to be available until April of 2025.

In the absence of NEF noise contours, the Niagara District Airport was able to provide maximum sound level (LMax) figures for jets, turboprop engines and training flights (piston engines). Aircraft flight volumes were provided the Niagara District Airport for the 2024 year, with calculated daily average volumes ranging from 2 planes per day to 113. The upper range is understood to be applicable for training flights. A copy of the LMax figures and flight volumes are included in Appendix C.

4.3 Transportation Sound Level Limits

As the Project is a hotel and not normally considered a noise sensitive receptor for transportation noise, the NPC-300 Supplementary Criteria was applied.

4.3.1 Roadway Noise

Impacts to POWs from combined road traffic are assessed against a 16-hour daytime (07:00 – 23:00) and 8-hour nighttime (23:00 – 07:00) equivalent sound pressure level (L_{eq}) reported in dBA. The roadway noise levels are used to determine the requirement for ventilation and warning clauses. The MECP POW sound level limits and the sliding scale of required noise reduction measures for road noise at POWs are listed in Table 2 for the NPC-300 Supplementary Criteria.

Table 2: MECP POW Sound Level Limit: Ventilation & Warning Clauses – Combined Road & Rail Traffic

Category	Daytime $L_{eq,16hr}$ (dBA)	Nighttime $L_{eq,8hr}$ (dBA)	Mitigation Measures	NPC-300 Warning Clause Required
POW Limit	55	50	None	None
POW Mitigation Threshold Hotel & Motel Sleeping Quarters	56 - 65	51 – 60	Include forced air heating and provision for central air conditioning	Type C
POW Mitigation Threshold Hotel & Motel Sleeping Quarters	>65	>60	Include central air conditioning	Type D

Impacts to indoor noise levels from road traffic are assessed against a 16-hour daytime (07:00 – 23:00) and 8-hour nighttime (23:00 – 07:00) equivalent sound pressure level (L_{eq}) reported in dBA at the POW receptor. The MECP indoor sound level limits and the required noise reduction measures for road noise at POWs are listed in Table 3 for the NPC-300 Supplementary Criteria.

Table 3: MECP Indoor Sound Level Limit & Construction Requirements – Road Traffic

Category	Daytime $L_{eq,16hr}$ (dBA)	Nighttime $L_{eq,8hr}$ (dBA)	Mitigation Measures
Road Indoor Limit Sleeping Quarters of Hotels & Motels	-	45	Not Applicable
Road POW Mitigation Threshold Sleeping Quarters of Hotels & Motels	>65	>60	Design building components to achieve indoor sound level limit

4.3.2 Aircraft Noise

Impacts to POWs from aircraft noise are assessed against official maps of the airport's NEF/NEP contours. The MECP indoor sound level limits and the required noise reduction measures for aircraft noise at POWs are listed in Table 4 for the NPC-300 Supplementary Criteria.

Table 4: MECP Sound Level Limit: Mitigation Requirements – Aircraft Traffic

Category	NEF/NEP	Mitigation Measures
Outdoor Screening Level	25	No further assessment / mitigation required
Outdoor Screening Level	>25	Design building components to achieve indoor sound level limit, include central air conditioning
Indoor Limit Sleeping Quarters of Hotels & Motels	5	Design objective for building components

4.4 Transportation Sound Level Predictions

4.4.1 Road Traffic Noise

Road traffic noise modelling was calculated using the ORNAMENT algorithms (the MECP road traffic noise model) within the Cadna/A noise propagation software, using line sources and sound emission. A validation file comparing the Cadna/A and MECP STAMSON 5.04 road traffic noise model is shown in Appendix C.

Given the number of lanes, QEW was separated into separate eastbound (to Niagara) and westbound lanes (to Toronto), for a total of 2 separate line sources.

Façade level impacts were assessed based on reflective intermediary ground, which is applicable for upper floor units regardless of ground type.

As a conservative assessment of impacts, screening effect of the surrounding buildings and topography from the Glendale Diverging Diamond were not included in the noise modelling.

Noise impacts on the Project were assessed using the "building evaluation" feature in CadnaA, allowing for predicted noise levels along the entire façade of the development. Facades considered to be non-noise sensitive (blank walls, etc.) were excluded from the assessment.

A summary of the worst-case calculated sound levels for each façade are presented in Table 5 and shown in Figure 3a/b for the daytime and night-time periods, respectively.

Table 5: Worst-case Façade Sound Levels due to Road Sources

Building Facade	Predicted Transportation Sound Levels (dBA)	
	Daytime (07:00–23:00) $L_{eq,16hr}$	Nighttime (23:00–07:00) $L_{eq,8hr}$
North	55	50
East	69	64
South	-	-
West	71	65

4.4.2 Aircraft Noise

Niagara District Airport LMax values were approximated as NEF contours based on conversions outlined in the NRC report entitled "NEF Validation Study: (1) Issues Related to the Calculation of Airport Noise Contours" (NEF Validation Study).

This assessment applied the NEF Validation Study procedure, which was developed for relating single aircraft fly-by data (LMax) to multiple aircraft noise levels (NEF). The relationship is based on the single-event sound level (Lmax), the number of occurrences over a day, and the distance from the flight track.

The Niagara District Airport NEF levels were approximated, based on the following:

- As the Project is located to the east and perpendicular to the flight track, an approximation of NEF sound levels was completed using the LMax values in this direction.

- The total number of flights per day were applied based on a conservative application of total aircraft types (jet, helicopter, turboprop, piston) to each aircraft type LMax figure.

Applying an average 133 aircraft per day with the worst-case Corporate Jet LMax sound level, an approximate NEF 15 is calculated at a distance of 2.3 kms from the airport runway in the direction of the Project. As the project is located approximately 3.4 kms from the airport flight track, the Project is shown to be located outside of the anticipated NEF 25 noise contours for the Niagara District Airport.

4.5 Transportation Noise Control Recommendations

Noise control recommendations for the identified critical receptors and the corresponding noise sensitive land uses that they represent in the proposed redevelopment are summarized in Table 6 and discussed in the subsequent sections.

Table 6: Transportation Noise Control Measures Summary

Façade	Barrier	Building Components	Ventilation	Warning Clause
North	n/a	OBC	none	none
East	n/a	OBC	Central Air Conditioning	Type D
South	n/a	n/a	n/a	n/a
West	n/a	OBC	Central Air Conditioning	Type D

Notes: n/a – Not Applicable
OBC – meeting the minimum requirements of the Ontario Building Code

4.5.1 Indoor Living Areas - Ventilation

The east and west facades of the Project are predicted to be above 65 dBA during the 16-hour day (07:00 – 23:00) and/or 60 dBA during the 8-hour night (23:00 – 07:00) due to road noise, therefore central air conditioning will be required for all hotel rooms on these facades of the Project.

4.5.2 Indoor Living Areas - Building Components

As the predicted sound levels exceed 65 dBA during the daytime and 60 dBA during the night-time for roadway noise, an assessment of building façade components is required. The building component requirements were determined using the National Research Council Building Practice Note BPN-56. Detailed floor plans, room dimensions and façade plans for the Project were applied in the assessment (refer Appendix B). An assessment was completed for the worst-case King bedroom room layout

Based on the above analysis, all façade constructions meeting the minimum requirements of the Ontario Building Code (OBC) are considered to be sufficient for the Project to meet the indoor noise criteria.

4.5.3 Warning Clauses

The following examples of warning clause wordings are based on applicable guidance documents and TT's experience regarding common requests from stakeholders. Precise wordings may be modified by the Client with input from the relevant LUPA(s), stakeholders, and/or legal counsel if required.

The **Type D** warning clause is required to be included in the development agreements for specific hotel suites units if one or more representative POW receptors is predicted to be exposed to transportation sound pressure levels greater than 65 dBA during the 16-hour day (07:00 – 23:00) or 60 dBA during the 8-hour night (23:00 – 07:00), and the Project includes central air conditioning. The Type D warning clause is as follows:

> *"This hotel suite 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, Conservation and Parks."*

Warning clauses are to be included in all agreements of Offers of Purchase and Sale, lease/rental agreements and condominium declarations. A summary of the warning clause requirements is shown in Table 6 above.

5.0 Surrounding Stationary Noise Assessment

As the Project hotel suites will have non-openable windows, the hotel suites are not considered to be Points of Reception as defined in NPC-300. Therefore, the Project does not include any points of reception, and an assessment of surrounding stationary noise impacts is not necessary and was not completed.

6.0 Project Mechanical Equipment Stationary Noise Assessment

6.1 Stationary Noise Sensitive Receptors

NPC-300 defines a point of reception for the assessment of stationary noise sources as any location on a noise sensitive land use where noise from a stationary source is received. This typically includes both points of reception on building façades, representing the plane-of-window of noise sensitive spaces (POR) and outdoor points of reception representing areas such as balconies, gardens, patios, and terraces (OPOR).

6.1.1 Surrounding Noise Sensitive Receptors

Surrounding noise sensitive buildings within a 500 m radius include the 1-storey, split level and 2-storey single family homes located along Queenston Road, approximately 250 m to the north.

The Hilton Garden Inn, located to the west on the opposite side of Glendale Avenue, has non-openable windows and, therefore, are not considered points of reception under NPC-300 definitions. Therefore, the Hilton Garden Inn hotel rooms were not included as points of reception in the assessment.

No existing noise sensitive buildings or vacant noise sensitive lands are located to the east and south of the Project within 500 m.

6.1.2 Project Noise Sensitive Receptors

As mentioned above, the Project will be constructed with non-openable windows. Therefore, the Project does not include any points of reception and an assessment of development mechanical equipment stationary noise impacts on itself is not necessary and was not completed.

Phase 1 of the 524 York Road lands include the Staybridge Suites and Holiday Inn Express hotels. As the hotel suites have non-openable windows, these buildings are not considered points of reception under NPC-300 definitions. Therefore, these buildings were not included as points of reception in the assessment.

6.2 Stationary Noise Sources

NPC-300 defines a stationary source of noise as one or more sources of sound that are normally operated within a given property. Stationary sources typically include mechanical equipment such as Heating, Ventilation and Air Conditioning (HVAC) equipment, standby power generators with routine testing, and heavy vehicle traffic (truck idling, driving, and loading).

Certain sources of noise, such as residential air conditioners, passenger automobile traffic in parking lots, or temporary noise such as that related to construction are not considered to be stationary sources in NPC-300 and are not assessed in this report.

Stationary noise sources for the Project are expected to include Packaged Terminal Air Conditioning (PTAC) units for each hotel room, rooftop HVAC units, and kitchen exhaust fans for the Restaurants.

Table 7 and Figure 4 provide a summary of the 524 York Road (Phase 1 and 2) stationary source sources and data.

Table 7: Surrounding Stationary Nose Sources

Source Description	Source Sound Power (dBA)	Source Type	Notes & Assumptions
PTAC Unit	74	Steady	- Based on typical unit - 50% duty cycling applied during the night-time period
1 fan HVAC unit	82	Steady	- Based on typical unit - 50% duty cycling applied during the night-time period
2 fan HVAC unit	85	Steady	- Based on typical unit - 50% duty cycling applied during the night-time period
3 fan HVAC unit	92	Steady	- Based on typical unit - 50% duty cycling applied during the night-time period
Kitchen Exhaust Fan	86	Steady	- Based on typical unit - No duty cycling applied - Assumed to operated during all hours of the day

6.3 Applicable Guideline Limits

NPC-300 defines a Class 1 area as having an acoustical environment typical of a major population centre, where the background sound level is dominated by the activities of people, usually road traffic, often referred to as "urban hum" during both day and night. For this assessment, the Project lands and surroundings are considered to representative of a Class 1 area, as roadway noise from the QEW is dominant during all periods of the day.

The applicable guideline limits are the higher of the NPC-300 exclusionary limits or the existing ambient sound environment from roadway noise. As an assessment/measurement of existing roadway noise levels was not completed, the NPC-300 exclusionary sound level limits were applied. This is considered to be very conservative, as relaxed guideline limits are considered applicable given the high roadway noise levels from the QEW and York Road.

Table 8 provides a summary of the applicable exclusionary sound level limits for steady noise sources impacting receptors in a Class 1 area. Steady stationary noise sources are assessed against a 1 hour equivalent sound pressure level (L_{eq}) expressed in A-weighted decibels (dBA). Routine testing of emergency equipment, if applicable, is assessed separately from other stationary noise sources, and is compared to sound level limits that are 5 dBA higher than would otherwise apply.

Table 8: Class 1 Exclusionary Sound Level Limits – Steady Noise

Time Period	Normal Operations Steady Noise ($L_{eq,1hr}$, dBA)		Emergency Equipment Testing Steady Noise ($L_{eq,1hr}$, dBA)	
	POR	OPOR	POR	OPOR
Daytime (07:00 – 19:00)	50	50	55	55
Evening (19:00 – 23:00)	50	50	55	55
Nighttime (23:00 – 07:00)	45	-	50	-

6.4 Stationary Sound Level Predictions

Sound levels at the PORs due to the stationary sources were calculated using the CadnaA software in accordance with the methods described in ISO 9613-2, with the following noted:

- Localized ground absorption was applied in the noise modelling, with absorptive ground applied for grassy areas and reflective ground applied for hard surfaces (e.g. concrete or asphalt).
- Two orders of reflection were applied to account for reflections from surrounding buildings and the Project building itself.
- No significant changes in topography were noted within the area, and a flat terrain was applied.

The modelled noise impact contours are shown in Figure 4a and 4b for the daytime/evening period (7 am to 11 pm) and the night-time period (11 pm to 7 am), respectively. A noise contour height of 4.5 m is shown as a worst-case result, due to the reduced screening/building edge effects and reduced ground absorption from height. A sample modelling output file is included in Appendix D.

The residential properties (yard and building facades) are located outside of the 50 dBA noise contour for the daytime/evening period and outside of the 45 dBA noise contours for the night-time period. Therefore, the MECP NPC-300 Class 1 guideline limits are met for the 524 York Road (Phase 1 and 2) stationary noise impacts on the surroundings, and noise mitigation measures are not considered necessary based on typical PTAC, HVAC and kitchen exhaust fan equipment.

7.0 Concluding Comments

A noise assessment was completed for Phase 2 of 524 York Road. The following is a summary of the above analysis:

- Transportation noise impacts associated with the Project are expected to be able to meet all applicable MECP noise limits without upgraded glazing, and with the inclusion of air conditioning and warning clauses as presented in Section 4.5 of this report.

- Noise control measures are not considered necessary for addressing surrounding stationary noise sources, as the hotel rooms include non-openable windows and are not considered points of reception.

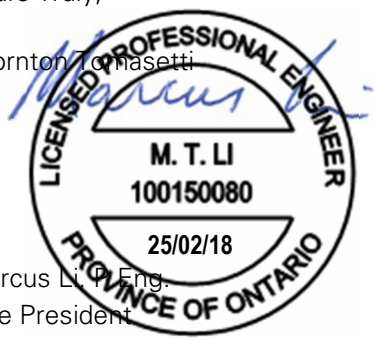
- The Project mechanical system noise impacts (Ph1 and Ph2) are predicted to meet the applicable guideline limits at surrounding noise sensitive receptors based on typical equipment selections for the hotel and restaurants, as indicated in Section 6.4 of this report.

Therefore, the proposed development is considered to be feasible regarding noise.

Please do not hesitate to contact us if there are any questions.

Yours Truly,

Thornton Tomasetti



Marcus Li, P.Eng.
Vice President

Reviewed by:

Robert Fuller, P.Eng.
Project Engineer

Disclaimer

This report is provided in accordance with the contractual agreement between TT and the Client. In addition to our contractual obligations TT notes the following general disclaimers and qualifications regarding the content of this report.

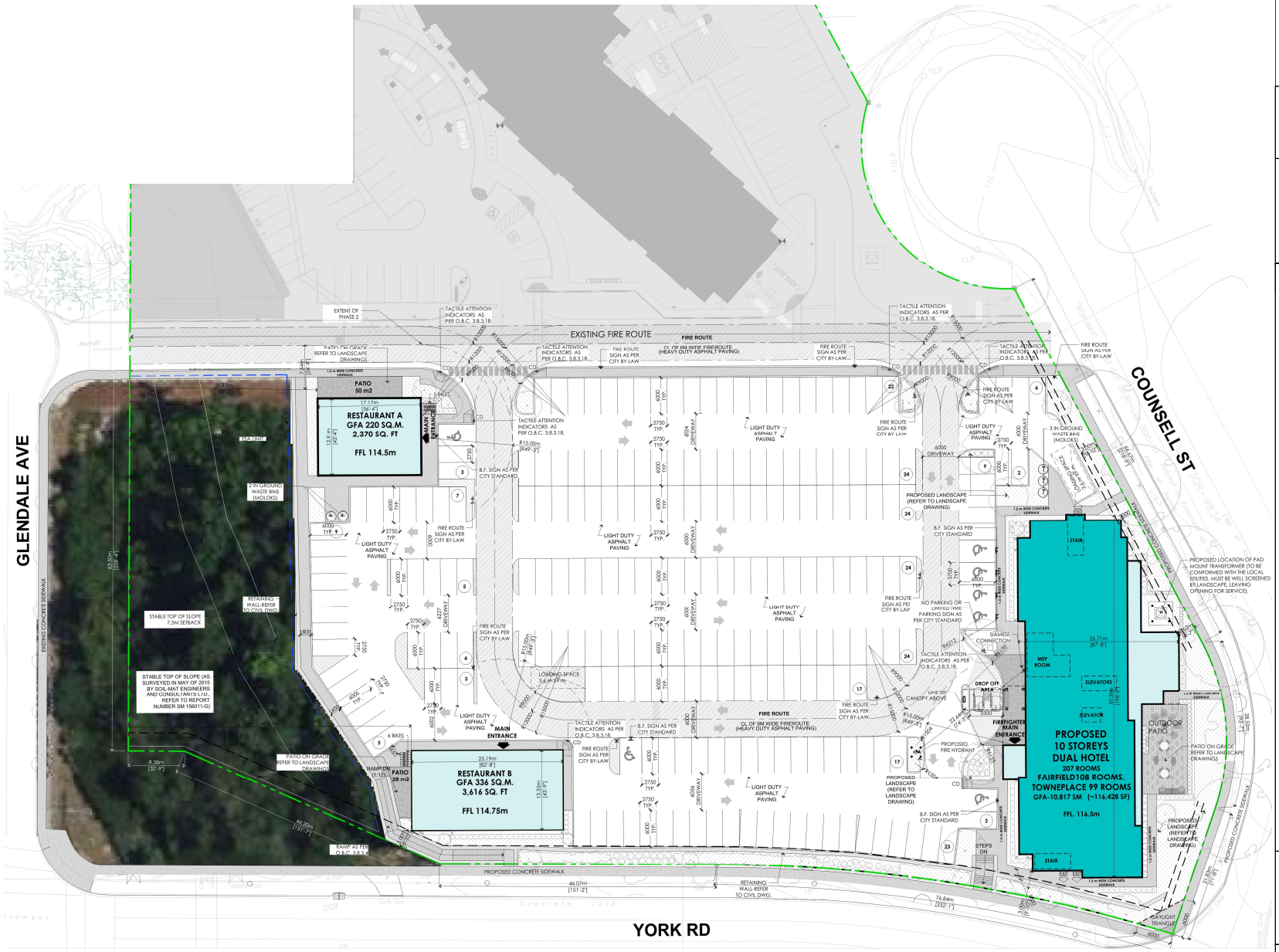
In preparing this report, TT has relied upon the accuracy and completeness of information provided by the Client and other third parties (manufacturers, other consultants, etc.) and accepts no responsibility for errors or omissions by other parties in the information provided to TT.

This report has been prepared solely for the benefit of the Client and the content of this report is intended for informational purposes only. This report shall not be relied upon by any other parties, including but not limited to other consultants retained by the Client, or utilized for any other purposes.

Ultimate responsibility for the design and construction remains solely with the architect/engineer of record and/or the contractor(s). Achieving the required mitigation requirements relies on correct incorporation of mitigation recommendations into Architectural and Mechanical drawings and specifications, as well as correct installation during construction. It is recommended that the implementation of mitigation measures be reviewed by a qualified consultant.

On request, TT will provide a proposal for additional work such as to peer review mitigation measures or observe on-site conditions as appropriate; however, notwithstanding the foregoing, it is expressly understood and agreed that TT shall not have control or charge of, and shall not be responsible for the acts or omissions, including but not limited to means, methods, techniques, sequences and procedures, of the Design Professionals and/or Contractors performing design and/or construction on the Project. Accordingly, TT shall not be held responsible for the failure of any party to properly incorporate the mitigation measures stated in this report.

Appendix A: Figures



Thornton Tomasetti

Client Name
Niagara York Road Inc.

Project Name
524 York Road, Phase 2

Notes:

1) Not to Scale

Figure Title
Project Site Plan

Produced By
MTL

TT Project #
24012579

Date
Jan 25, 2025

1

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Client Name
Niagara York Road Inc.

Project Name
524 York Road, Phase 2

Notes:

Figure Title
Project Location and Surroundings

Produced By
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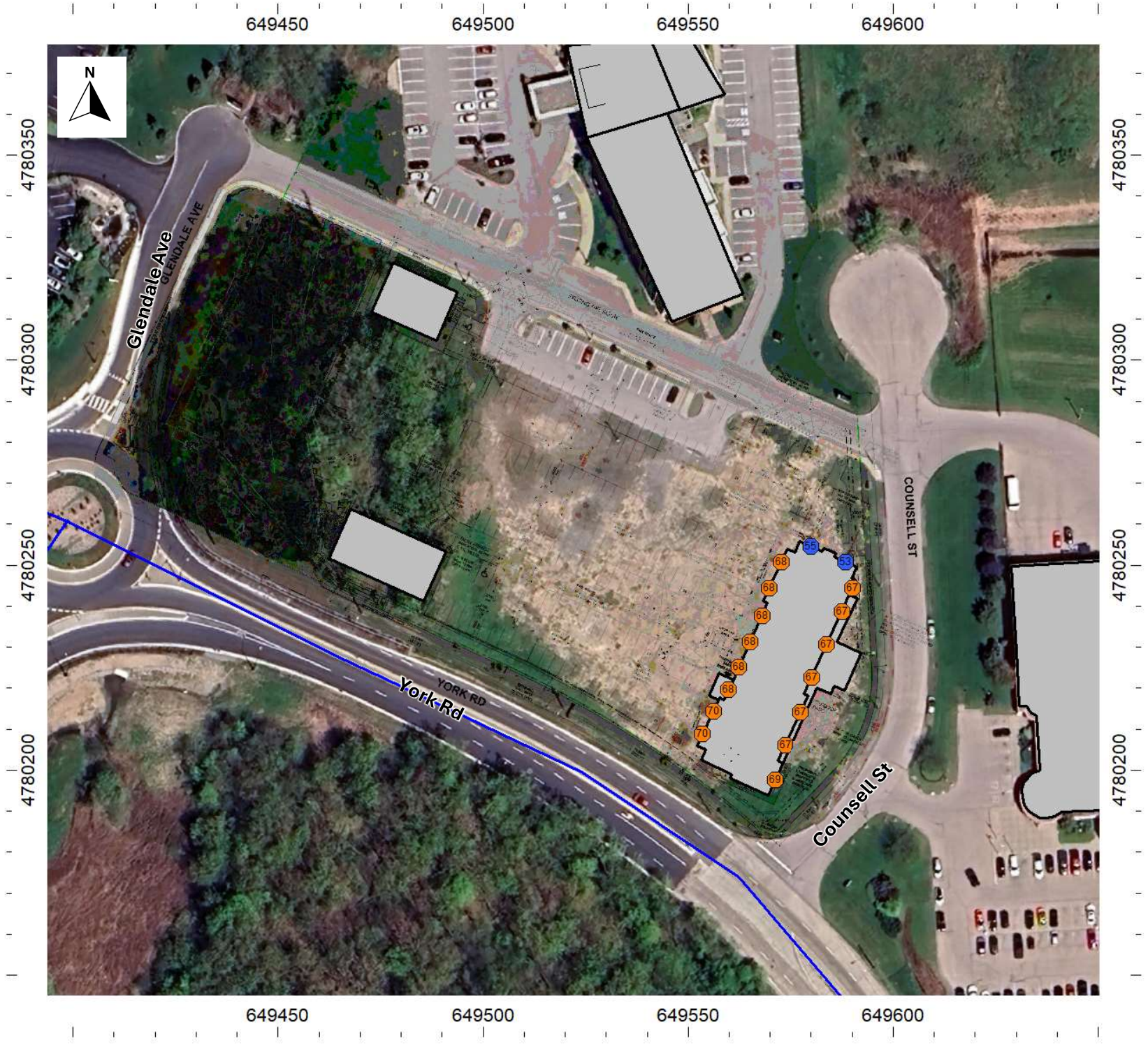
24012579

Date
Jan 25, 2025

2



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Client Name
Niagara York Road Inc.

Project Name
524 York Road, Phase 2

Notes:

Legend

Line Source

Sound Pressure Levels

- 0 to 30 dBA
- 31 to 40 dBA
- 41 to 45 dBA
- 46 to 50 dBA
- 51 to 55 dBA
- 56 to 60 dBA
- 61 to 65 dBA
- 66 to 70 dBA
- 71 to 75 dBA
- 76 + dBA

Figure Title
Modelled Sound Levels – Roadway, Daytime

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TT Project #
24012579

Date
Jan 25, 2025

3a

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Client Name
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Project Name
524 York Road, Phase 2

Notes:

Legend

Line Source

Sound Pressure Levels

- 0 to 30 dBA
- 31 to 40 dBA
- 41 to 45 dBA
- 46 to 50 dBA
- 51 to 55 dBA
- 56 to 60 dBA
- 61 to 65 dBA
- 66 to 70 dBA
- 71 to 75 dBA
- 76 + dBA

Figure Title
Modelled Sound Levels – Roadway, Night-time

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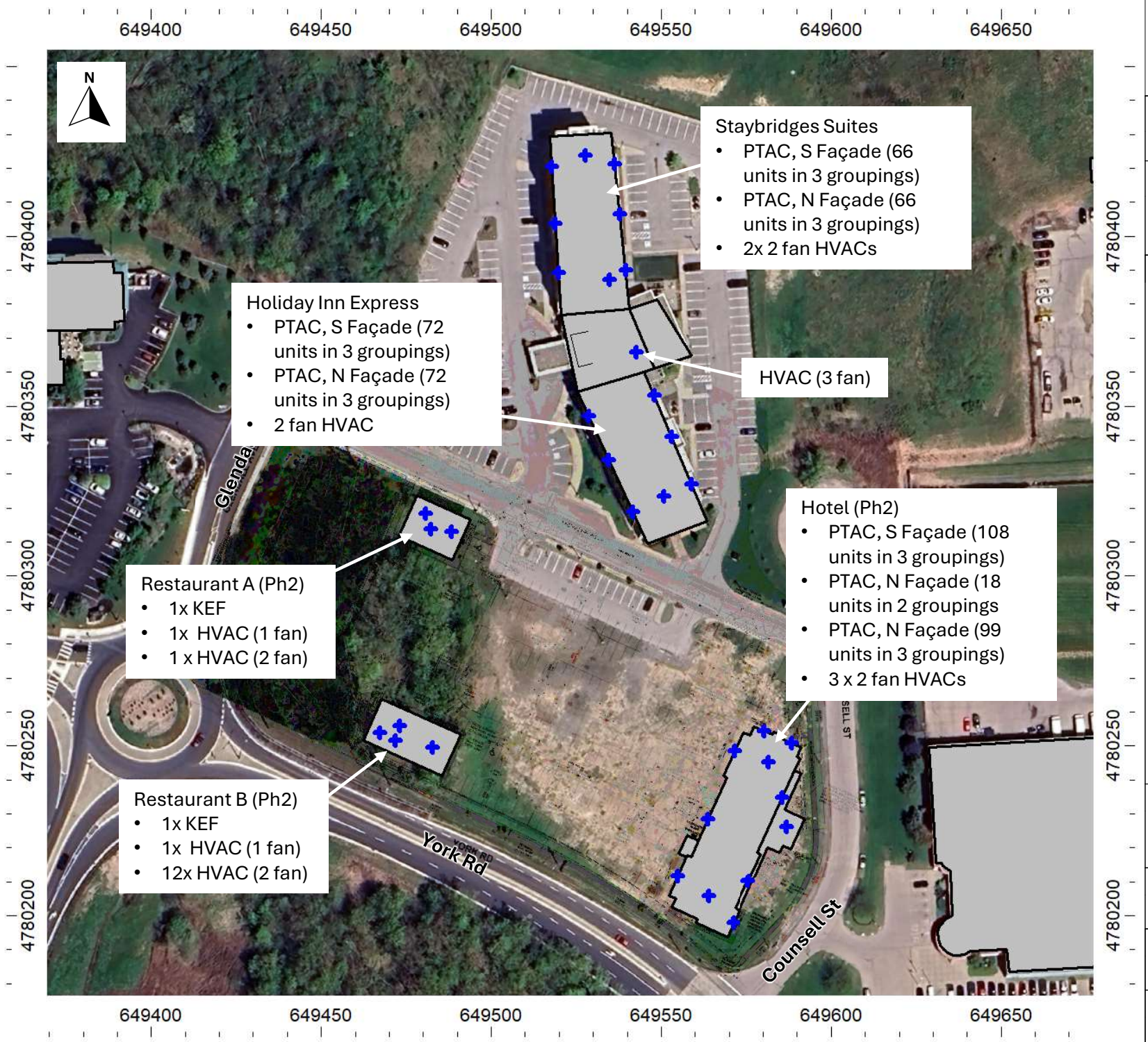
24012579

Date
Jan 25, 2025

3b



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Project Name
524 York Road, Phase 2

Notes:

Legend
+ Noise Source

Figure Title
Stationary Noise Source Locations, Ph1 & Ph2

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Jan 25, 2025

4

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Project Name
524 York Road, Phase 2

Notes:

Legend

Noise Source

Sound Pressure Levels

- 0 to 29 dBA
- 30 to 39 dBA
- 40 to 44 dBA
- 45 to 49 dBA
- 50 to 54 dBA
- 55 to 59 dBA
- 60 to 64 dBA
- 65 to 69 dBA
- 70 to 74 dBA
- 75 + dBA

Contour Height = 4.5 m

Figure Title
Modelled Sound Levels – Stationary, Day/Evening

Produced By
MTL

TT Project #
24012579

Date
Jan 25, 2025

5a

Thornton Tomasetti

Client Name
Niagara York Road Inc.

Project Name
524 York Road, Phase 2

Notes:

Legend

Noise Source

Sound Pressure Levels

- 0 to 29 dBA
- 30 to 39 dBA
- 40 to 44 dBA
- 45 to 49 dBA
- 50 to 54 dBA
- 55 to 59 dBA
- 60 to 64 dBA
- 65 to 69 dBA
- 70 to 74 dBA
- 75 + dBA

Contour Height = 4.5 m

Figure Title
Modelled Sound Levels – Stationary, Night

Produced By
MTL

TT Project #
24012579

Date
Jan 25, 2025

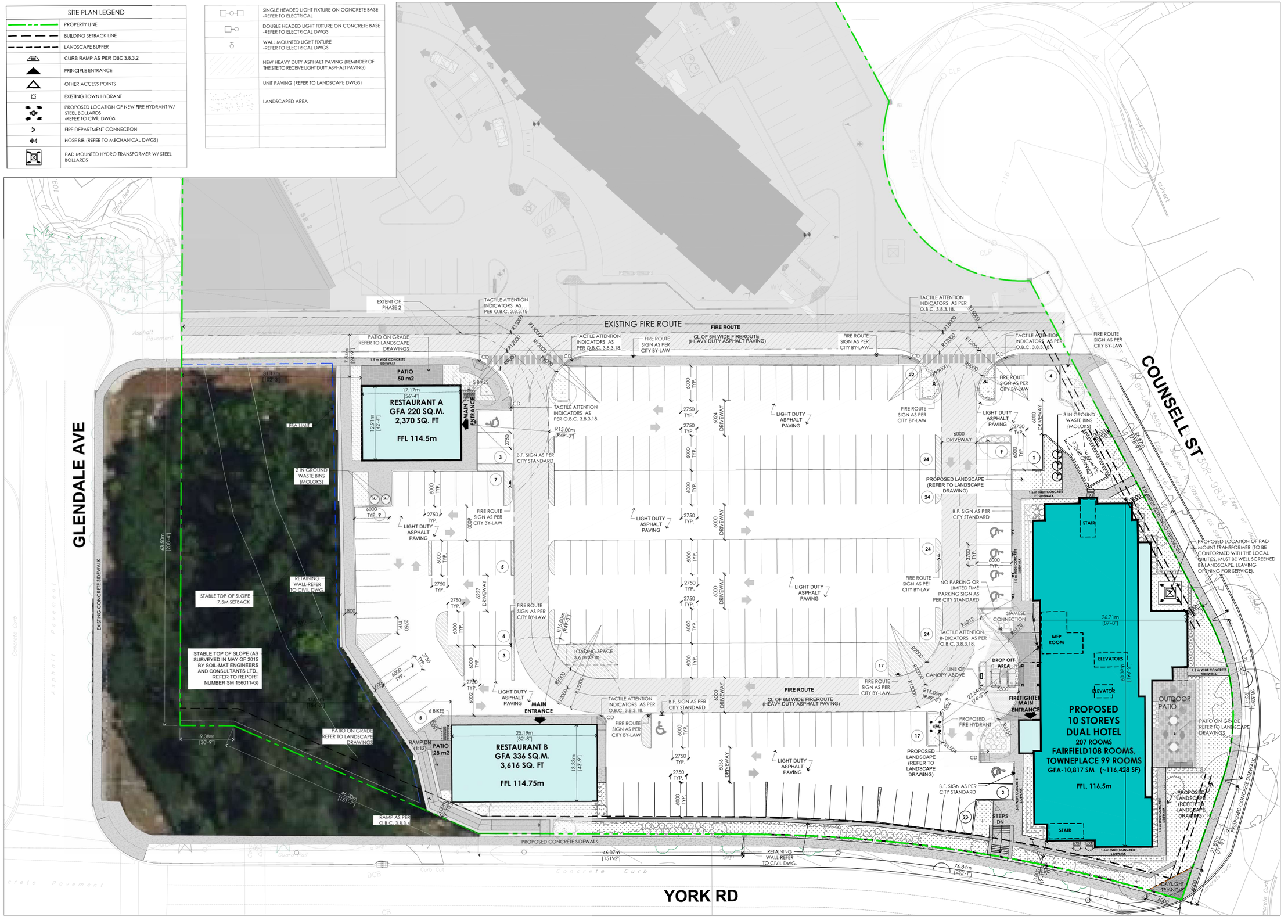
5b

Appendix B: Development Drawings

SITE PLAN LEGEND

	PROPERTY LINE
	BUILDING SETBACK LINE
	LANDSCAPE BUFFER
	CURB RAMP AS PER OBC 3.8.3.2
	PRINCIPLE ENTRANCE
	OTHER ACCESS POINTS
	EXISTING TOWN HYDRANT
	PROPOSED LOCATION OF NEW FIRE HYDRANT W/ STEEL BOLLARDS -REFER TO CIVIL DWGS
	FIRE DEPARTMENT CONNECTION
	HOSE BIB (REFER TO MECHANICAL DWGS)
	PAD MOUNTED HYDRO TRANSFORMER W/ STEEL BOLLARDS

	SINGLE HEADED LIGHT FIXTURE ON CONCRETE BASE -REFER TO ELECTRICAL
	DOUBLE HEADED LIGHT FIXTURE ON CONCRETE BASE -REFER TO ELECTRICAL DWGS
	WALL MOUNTED LIGHT FIXTURE -REFER TO ELECTRICAL DWGS
	NEW HEAVY DUTY ASPHALT PAVING (REMINDER OF THE SITE TO RECEIVE LIGHT DUTY ASPHALT PAVING)
	UNIT PAVING (REFER TO LANDSCAPE DWGS)
	LANDSCAPED AREA



Key Plan:

No.	Date:	Issue/Revision	By:
1	25/01/27	Issued for Rezoning	A.B.
Drawing Issues/Revisions:			

Note:

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206-418 Iroquois Shore Rd
Oakville Ontario L6H 0R7
T 905.281.4444

Project:
TOWNEPLACE SUITES & FAIRFIELD COMBO HOTEL

Fairfield BY MARRIOTT
TOWNEPLACE SUITES BY MARRIOTT

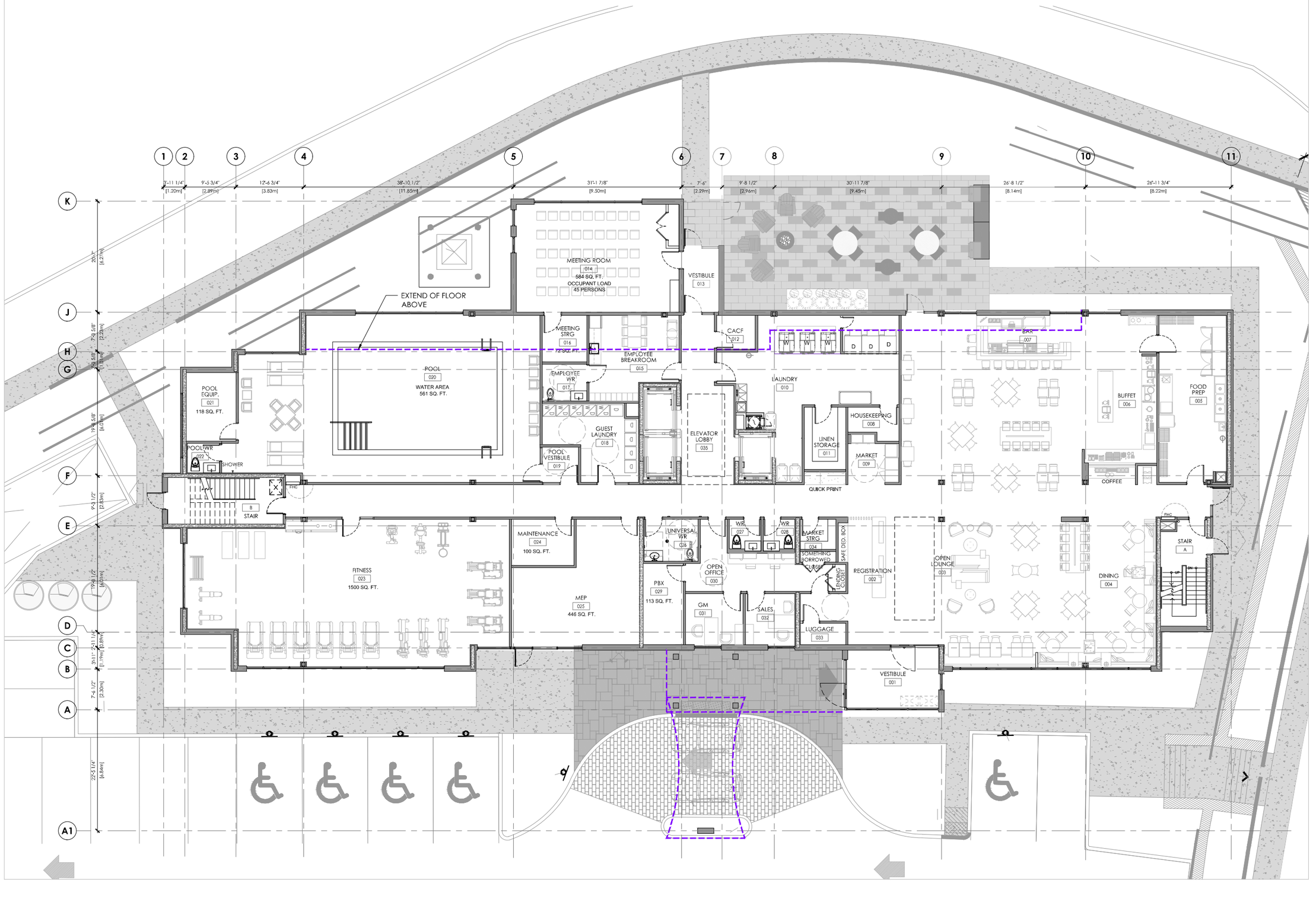
524 YORK ROAD, NIAGARA ON THE LAKE

Sheet Title:
SITE PLAN

Design By:	Drawn By:	Approved By:
M.A./A.B.	A.B.	A.M.
Scale: 1:300	Date: 24/10/11	Project No.:

Drawing No:
ASP-1

Drawing Series:
SITE PLAN-REZONING



Project North:	True North:

Key Plan:

No.	Date:	Issue/Revision	By:
1	25/01/27	Issued for Rezoning	A.B.
Drawing Issues/Revisions:			

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Oakville Ontario
L6H 0X7
T 905.281.4444

Project:

TOWNEPLACE SUITES & FAIRFIELD COMBO HOTEL

Fairfield BY MARRIOTT — TOWNEPLACE SUITES BY MARRIOTT

524 YORK ROAD, NIAGARA ON THE LAKE

Sheet Title:

GROUND FLOOR PLAN

Design By:	Drawn By:	Approved By:
A.B.		A.M.
Scale:	Date:	Project No.:
1:100	OCT 2024	24-012

Drawing No:

A.201

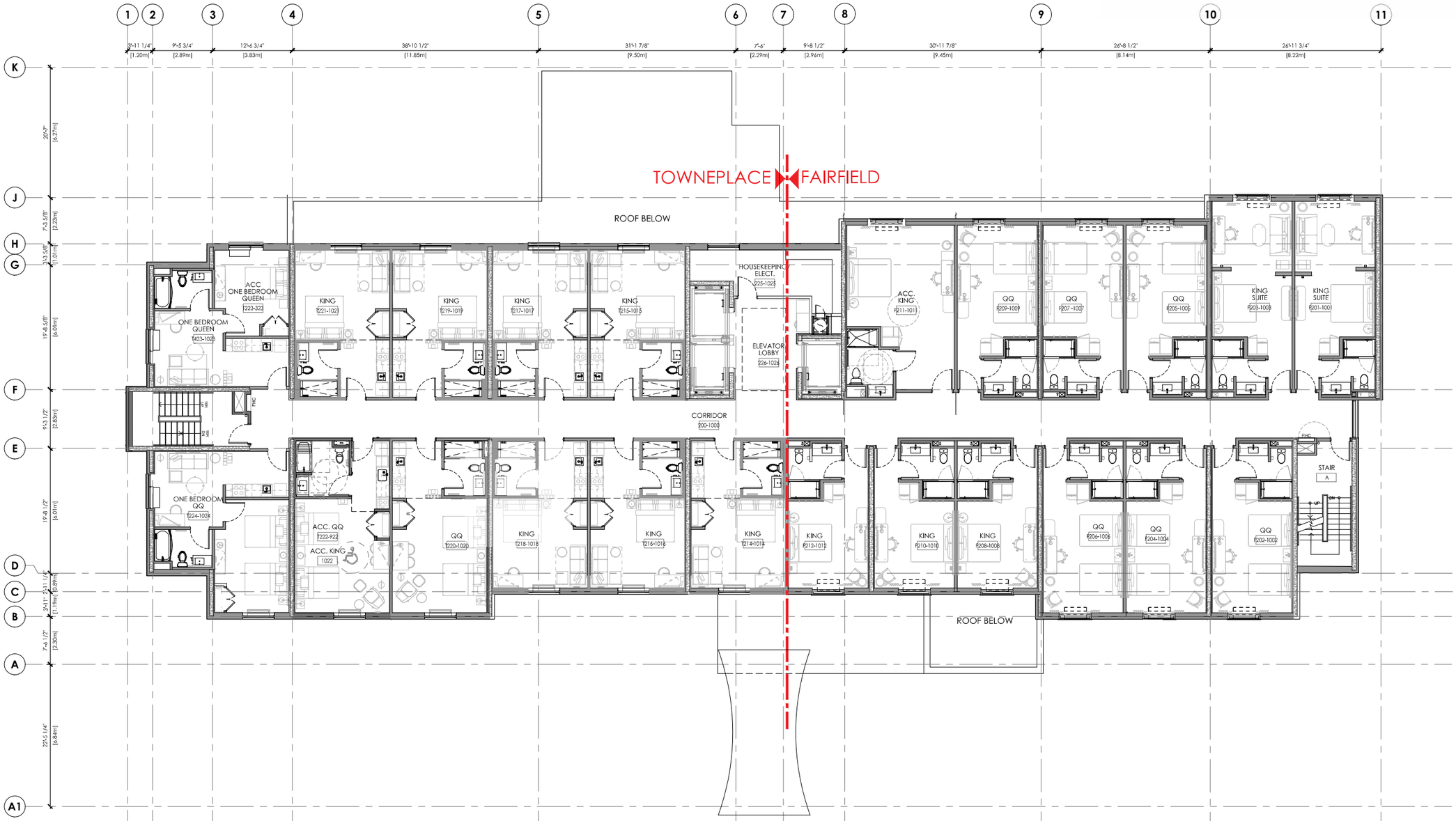
Drawing Series:

SITE PLAN-REZONING

FAIRFIELD ROOM MIX												
	2nd FLOOR	3rd FLOOR	4th FLOOR	5th FLOOR	6th FLOOR	7th FLOOR	8th FLOOR	9th FLOOR	10th FLOOR	TOTAL	PERCENTAGE	MIX
KING	3	3	3	3	3	3	3	3	3	27	25%	50%
KING SUITE	2	2	2	2	2	2	2	2	2	18	17%	
ACC KING	1	1	1	1	1	1	1	1	1	9	8%	
QQ	6	6	6	6	6	6	6	6	6	54	50%	50%
SUB TOTAL	12	12	12	12	12	12	12	12	12	108	100%	100%

TPS ROOM MIX												
	2nd FLOOR	3rd FLOOR	4th FLOOR	5th FLOOR	6th FLOOR	7th FLOOR	8th FLOOR	9th FLOOR	10th FLOOR	TOTAL	PERCENTAGE	MIX
KING	7	7	7	7	7	7	7	7	7	63	64%	74%
ACC KING	0	0	0	0	0	0	0	0	1	1	1%	
QUEEN ONE BDRM	0	0	1	1	1	1	1	1	1	7	7%	
ACC QUEEN ONE BDRM	1	1	0	0	0	0	0	0	0	2	2%	
QQ	1	1	1	1	1	1	1	1	1	9	9%	26%
ACC QQ	1	1	1	1	1	1	1	1	0	8	8%	
QQ ONE BDRM	1	1	1	1	1	1	1	1	1	9	9%	
SUB TOTAL	11	11	11	11	11	11	11	11	11	99	100%	100%

TOTAL ROOMS	207
TOTAL ACC. ROOMS	20



Project North: True North:

Key Plan:

No.	Date:	Issue/Revision	By:
1	25/01/27	Issued for Rezoning	A.B.

Drawing Issues/Revisions:

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206-418 Iroquois Shore Rd
Oakville Ontario
L6H 0X7
1.905.281.4444

Project:

TOWNEPLACE SUITES & FAIRFIELD COMBO HOTEL

Fairfield BY MARRIOTT

TOWNEPLACE SUITES BY MARRIOTT

524 YORK ROAD, NIAGARA ON THE LAKE

Sheet Title:

TYPICAL FLOOR PLAN (2ND-10TH)

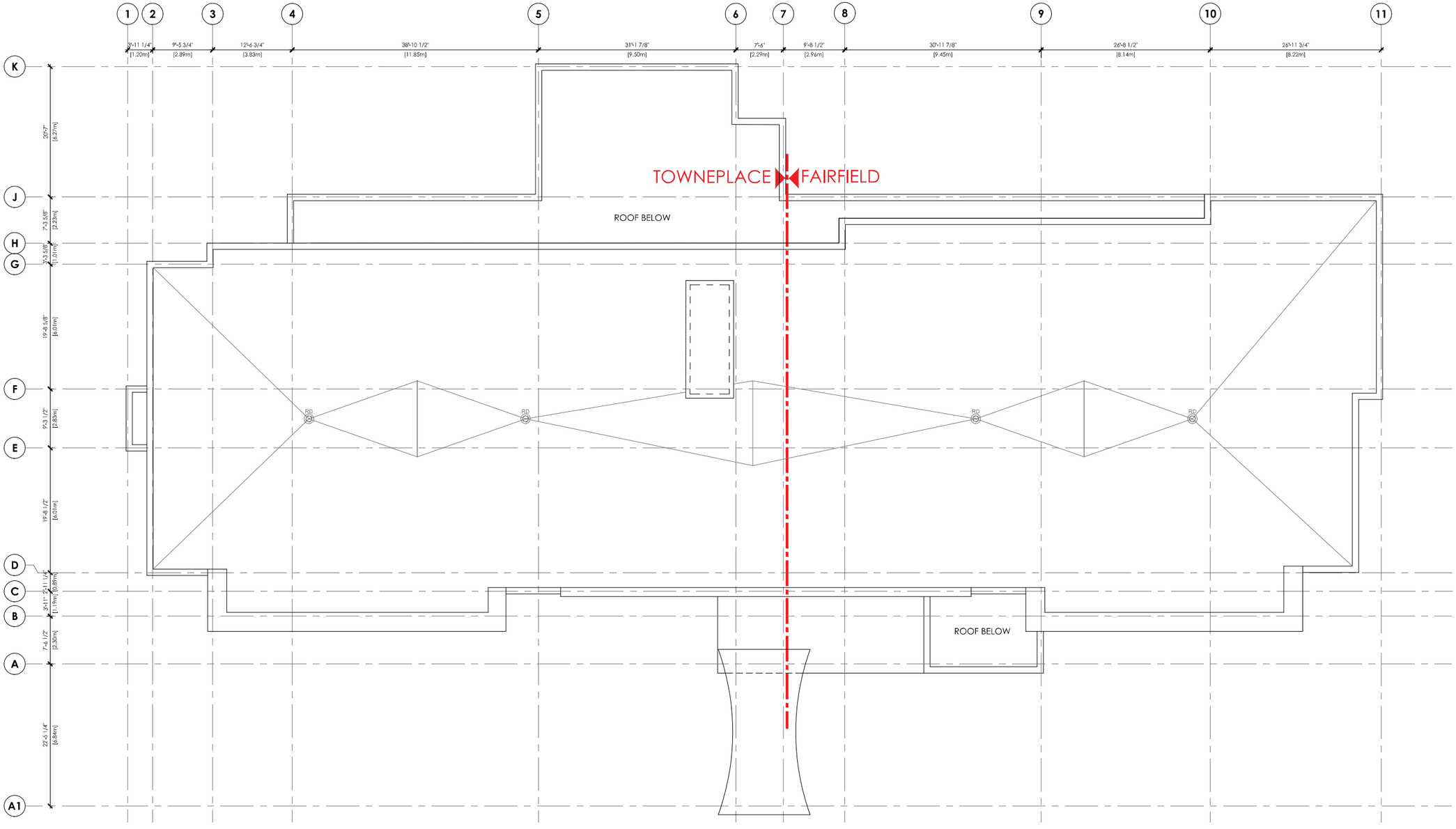
Design By:	Drawn By:	Approved By:
A.B.		A.M.
Scale:	Date:	Project No.:
1:100	OCT 2024	24-012

Drawing No:

A.202

Drawing Series:

SITE PLAN -REZONING



Project North:

True North:

Key Plan:

No.	Date:	Issue/Revision	By:
1	25/01/27	Issued for Rezoning	A.B.
Drawing Issues/Revisions:			

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Oakville Ontario
L6H 0R7
T 905.281.4444

Project:

TOWNEPLACE SUITES & FAIRFIELD COMBO HOTEL

Fairfield BY MARRIOTT

TOWNEPLACE SUITES BY MARRIOTT

524 YORK ROAD, NIAGARA ON THE LAKE

Sheet Title:

ROOF PLAN

Design By:	Drawn By:	Approved By:
A.B.		A.M.
Scale:	Date:	Project No.:
1:100	OCT 2024	24-012

Drawing No:

A.203

Drawing Series:

SITE PLAN-REZONING

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
E01	ACM, TIMBER TEAK	
E02	EIFS BY CORNERPOINT OR EQUIVALENT, KENDALL CHARCOAL BM-HC-166	

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
E03	EIFS BY CORNERPOINT OR EQUIVALENT, CREATIV GRANITE FINISH (VT221124)	
E03a	EIFS BY CORNERPOINT OR EQUIVALENT, CREATIV ANTHRACITE FINISH (30306 LRV 8)	

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
E04	EIFS BY CORNERPOINT OR EQUIVALENT, METALLIC FINISH (SILVER)	
E05	ACM PANELS, ANODIZED ALUMINUM (SILVER)	

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
E09	EIFS BY DURABOND. SMOOTH FINISH, WHITE DOVE OC-17	

EXTERIOR LIGHTING LEGEND	
L01	4x4 RECESSED POT LIGHTS
L04	ILLUMINATED SIGNAGE - BACKLIT AS PER BRAND STANDARDS
L05	DECORATIVE WALL SCONCE - 3000 K
L07	DIRECTION LIGHT (CYPHER OR EQUIVALENT)

PLANE LEGEND	
A	0.00, TYPICAL WALL PLANE
B	1" RECESSED TO 'A'
C	2" RECESSED TO 'A'
D	2" PROJECTION TO 'A'

NOTES:

1 - CM/BUILDER SHALL SHALL PROVIDE ALL EXTERIOR SAMPLES TO ARCHITECT/BRAND FOR APPROVAL OF COLOR & TEXTURE. BEFORE COMMENCING WORK ON SITE CM/BUILDER SHALL SUBMIT ARCHITECTS & BRAND'S APPROVED EXTERIOR SAMPLES TO OWNER FOR FINAL APPROVAL.

2 - CM AND/OR RELATED TRADE TO SUBMIT COLOR OPTIONS FOR ALL EXTERIOR MECHANICAL LOUVERS & CAPS BEFORE BEFORE WORK IS EXECUTED ON SITE SO THAT COLOR MATCHING TO ADJACENT FINISH IS OBTAINTED.

3 - CM/GC TO PROVIDE SHOP DRAWING INDICATING ALL EXTERIOR MECHANICAL PENETRATION AS PERTAINS TO THEIR SIZE/LOCATION & FINISH/COLOR

Project North:	True North:

SPA FILE NO. -

REV	DESCRIPTION	REV. DATE
1	ISSUED FOR REZONING	2025-01-27

Drawing Issues/Revisions:

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Oakville Ontario
L6H 0X7
T 905.2814444

Project:

TOWNEPLACE SUITES & FAIRFIELD

524 YORK ROAD, NIAGARA ON THE LAKE

Sheet Title:

SOUTH (FRONT) ELEVATION

Design By:	Drawn By:	Approved By:
AM.	ND.	AM.
Scale: 1 : 100	Date: 2024-10-31	Project No.: 24-012

Drawing No:

A301 Of:

Drawing Series: SITE PLAN _ REZONING

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
E01	ACM, TIMBER TEAK	
E02	EIFS BY CORNERPOINT OR EQUIVALENT, KENDALL CHARCOAL BM-HC-166	

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
E03	EIFS BY CORNERPOINT OR EQUIVALENT, CREATIV GRANITE FINISH (VT221124)	
E03a	EIFS BY CORNERPOINT OR EQUIVALENT, CREATIV ANTHRACITE FINISH (30306 LRV 8)	

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
E04	EIFS BY CORNERPOINT OR EQUIVALENT, METALLIC FINISH (SILVER)	
E05	ACM PANELS, ANODIZED ALUMINUM (SILVER)	

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
E09	EIFS BY DURABOND. SMOOTH FINISH, WHITE DOVE OC-17	

EXTERIOR LIGHTING LEGEND	
L01	4x4 RECESSED POT LIGHTS
L04	ILLUMINATED SIGNAGE - BACKLIT AS PER BRAND STANDARDS
L05	DECORATIVE WALL SCONCE - 3000 K
L07	DIRECTION LIGHT (CYPHER OR EQUIVALENT)

PLANE LEGEND	
A	0.00, TYPICAL WALL PLANE
B	1" RECESSED TO 'A'
C	2" RECESSED TO 'A'
D	2" PROJECTION TO 'A'

NOTES:

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Project North:	True North:

SPA FILE NO. -

REV	DESCRIPTION	REV. DATE
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Drawing Issues/Revisions:

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418 Iroquois Shore Road, Unit 206,
Oakville, Ontario
L6H 0X7
T.905.281.4444

Project:

TOWNEPLACE SUITES & FAIRFIELD

Fairfield BY MARRIOTT TOWNEPLACE SUITES BY MARRIOTT

524 YORK ROAD, NIAGARA ON THE LAKE

Sheet Title:

NORH ELEVATION

Design By:	Drawn By:	Approved By:
AM.	ND.	AM.
Scale: 1 : 100	Date: 2024-10-31	Project No.: 24-012

Drawing No:

A302 Of:

Drawing Series:

SITE PLAN _ REZONING

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
E01	ACM, TIMBER TEAK	
E02	EIFS BY CORNERPOINT OR EQUIVALENT, KENDALL CHARCOAL BM-HC-166	

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
E03	EIFS BY CORNERPOINT OR EQUIVALENT, CREATIV GRANITE FINISH (VT221124)	
E03a	EIFS BY CORNERPOINT OR EQUIVALENT, CREATIV ANTHRACITE FINISH (30306 LRV 8)	

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
E04	EIFS BY CORNERPOINT OR EQUIVALENT, METALLIC FINISH (SILVER)	
E05	ACM PANELS, ANODIZED ALUMINUM (SILVER)	

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
E09	EIFS BY DURABOND. SMOOTH FINISH, WHITE DOVE OC-17	

EXTERIOR LIGHTING LEGEND	
L01	4x4 RECESSED POT LIGHTS
L04	ILLUMINATED SIGNAGE - BACKLIT AS PER BRAND STANDARDS
L05	DECORATIVE WALL SCONCE - 3000 K
L07	DIRECTION LIGHT (CYPHER OR EQUIVALENT)

PLANE LEGEND	
A	0.00, TYPICAL WALL PLANE
B	1" RECESSED TO 'A'
C	2" RECESSED TO 'A'
D	2" PROJECTION TO 'A'

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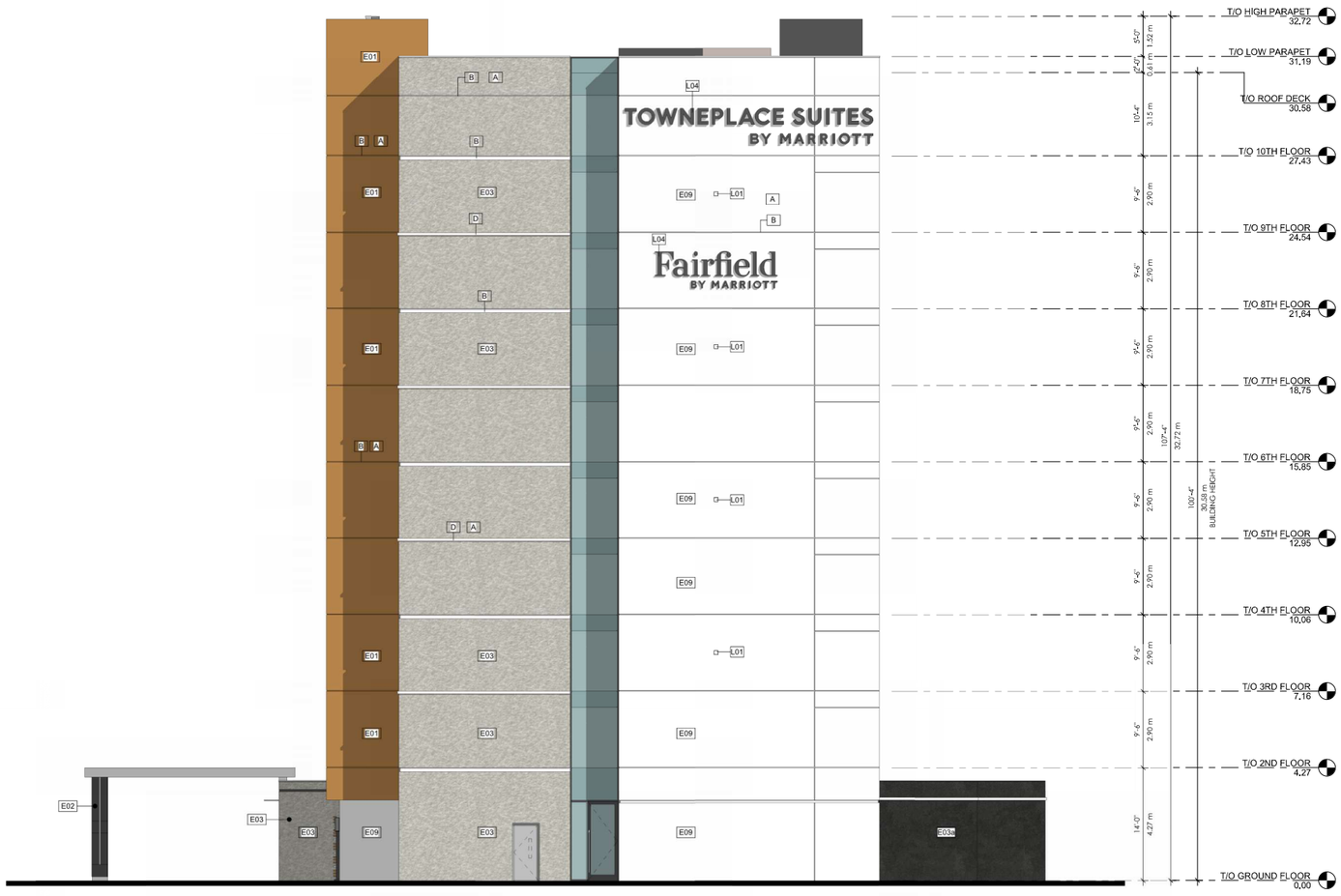

Project North: | True North:

SPA FILE NO. -

REV	DESCRIPTION	REV. DATE
1	ISSUED FOR REZONING	2025-01-27

Drawing Issues/Revisions:

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L6H 0X7
T.905.281.4444

Project:

TOWNEPLACE SUITES & FAIRFIELD

524 YORK ROAD, NIAGARA ON THE LAKE

Sheet Title:

EAST ELEVATION

Design By:	Drawn By:	Approved By:
AM.	ND.	AM.
Scale: 1 : 100	Date: 2024-10-31	Project No.: 24-012

Drawing No:

A303 Of:

Drawing Series:

SITE PLAN _ REZONING

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
E01	ACM, TIMBER TEAK	
E02	EIFS BY CORNERPOINT OR EQUIVALENT, KENDALL CHARCOAL BM-HC-166	

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
E03	EIFS BY CORNERPOINT OR EQUIVALENT, CREATIV GRANITE FINISH (VT221124)	
E03a	EIFS BY CORNERPOINT OR EQUIVALENT, CREATIV ANTHRACITE FINISH (30306 LRV 8)	

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
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E05	ACM PANELS, ANODIZED ALUMINUM (SILVER)	

MATERIAL LEGEND		
KEYNOTE	DESCRIPTION	REFERENCE IMAGES
E09	EIFS BY DURABOND. SMOOTH FINISH, WHITE DOVE OC-17	

EXTERIOR LIGHTING LEGEND	
L01	4x4 RECESSED POT LIGHTS
L04	ILLUMINATED SIGNAGE - BACKLIT AS PER BRAND STANDARDS
L05	DECORATIVE WALL SCONCE - 3000 K
L07	DIRECTION LIGHT (CYPHER OR EQUIVALENT)

PLANE LEGEND	
A	0.00, TYPICAL WALL PLANE
B	1" RECESSED TO 'A'
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Project North:	True North:

SPA FILE NO. -

REV	DESCRIPTION	REV. DATE
1	ISSUED FOR REZONING	2025-01-27

Drawing Issues/Revisions:

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ALL DIMENSIONS AND INFORMATION SHOWN ON THESE DRAWINGS MUST BE CHECKED AND VERIFIED ON SITE AND ANY DISCREPANCIES REPORTED TO THE ARCHITECT PRIOR TO CONSTRUCTION AND FABRICATION OF ITS COMPONENTS. SHOULD EXISTING CONDITIONS OR SERVICES BE FOUND TO VARY FROM THAT INDICATED ON THE DRAWINGS, THE ARCHITECT MUST BE NOTIFIED IMMEDIATELY.

FEATURES OF CONSTRUCTION NOT FULLY SHOWN ARE ASSUMED TO BE THE SAME CHARACTER AS THOSE NOTED FOR SIMILAR CONDITIONS.

UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS, NO PROVISION HAS BEEN MADE IN THE DESIGN FOR CONDITIONS OCCURRING DURING CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL NECESSARY BRACING, SHORINGS, SHEET PILING OR OTHER TEMPORARY SUPPORTS, TO SAFEGUARD ALL EXISTING OR ADJACENT STRUCTURES AFFECTED BY THIS WORK.

ONTARIO ASSOCIATION OF ARCHITECTS
ARTAN MATAJ
LICENCE
9031

MATAJ ARCHITECTS

Architect's Stamp

MATAJ ARCHITECTS INCORPORATED
418 Iroquois Shore Road, Unit 206,
Oakville Ontario
L6H 0X7
T.905.281.4444

Project:

TOWNEPLACE SUITES & FAIRFIELD

Fairfield BY MARRIOTT
TOWNEPLACE SUITES BY MARRIOTT

524 YORK ROAD, NIAGARA ON THE LAKE

Sheet Title:

WEST ELEVATION

Design By:	Drawn By:	Approved By:
AM.	ND.	AM.
Scale: 1 : 100	Date: 2024-10-31	Project No.: 24-012

Drawing No:

A304 Of:

Drawing Series:

SITE PLAN _ REZONING

Appendix C: Traffic Data

Hi Marcus,

Existing volumes at Glendale Avenue and York Road are summarized in the table below.

Glendale Avenue & York Road – Existing Traffic Volumes												
Peak Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM	2	106	287	347	123	1	489	14	441	3	20	13
PM	3	66	465	483	152	4	360	30	429	2	32	8

Preliminary estimates for the forecast future 2044 total traffic volumes (our furthest horizon year) are summarized in the table below. These include a generalized background growth rate of 2% per annum, traffic generated by adjacent future developments, and traffic generated by the subject site.

Glendale Avenue & York Road – Forecast 2044 Total Traffic Volumes												
Peak Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM	11	195	428	731	239	5	732	78	780	7	66	42
PM	10	168	695	953	277	13	539	100	904	6	98	25

Heavy vehicle percentages for Glendale Avenue and York Road are summarized in the table below.

Glendale Avenue & York Road – Heavy Vehicle Percentage												
Peak Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM	0%	5%	14%	17%	6%	0%	12%	7%	10%	33%	20%	15%
PM	0%	6%	10%	5%	8%	0%	13%	3%	20%	0%	0%	0%

Glendale Avenue has a posted speed limit of 50 km/hr, York Road has a posted speed limit of 60 km/hr.

The Region's forecasting EMME model recommends using an annual growth rate of 2% for the area.

Existing volumes at Glendale & QEW ramps are summarized in the tables below. It should be noted that the left turn ramps were closed during our data collection period, these values were obtained from another TIS completed in 2024.

Glendale Road & QEW WB On-Ramp / QEW WB Off-Ramp (North Intersection) – Existing Traffic Volumes												
Peak Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM	0	0	0	223	0	281	202	451	0	0	482	277
PM	0	0	0	319	0	220	503	367	0	0	889	386

Glendale Road & QEW EB Off-Ramp / QEW EB On-Ramp (South Intersection) – Existing Traffic Volumes												
Peak Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM	334	0	282	0	0	0	0	470	208	223	318	0
PM	262	0	210	0	0	0	0	976	462	422	472	0

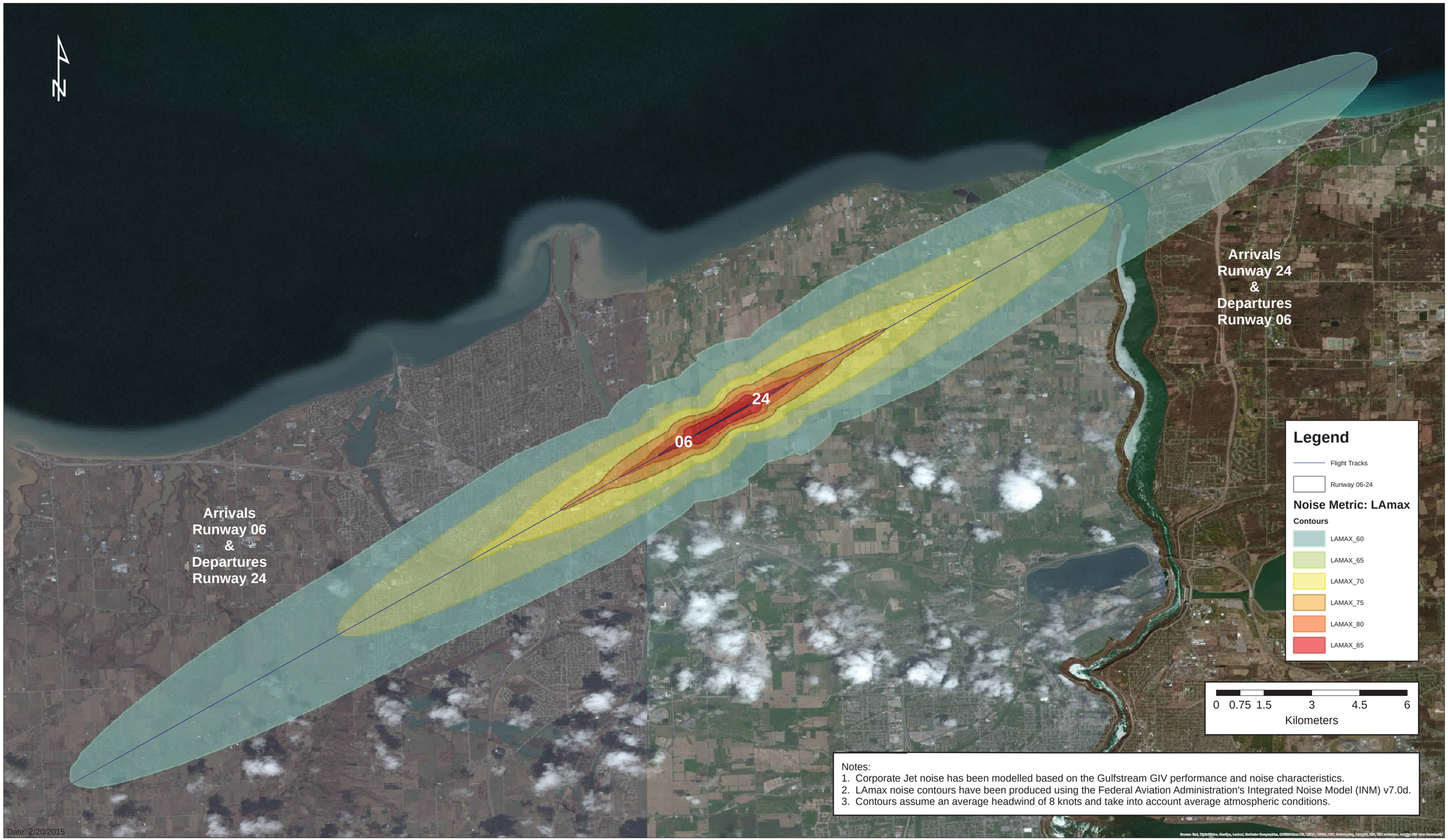
Preliminary estimates for the forecast future 2044 total traffic volumes are summarized in the tables below. These again include a generalized background growth rate of 2% per annum, traffic generated by adjacent future developments, and traffic generated by the subject site.

Glendale Road & QEW WB On-Ramp / QEW WB Off-Ramp (North Intersection) – Forecast 2044 Total Traffic Volumes												
Peak Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM	0	0	0	337	0	467	334	808	0	0	895	486
PM	0	0	0	487	0	383	779	815	0	0	1513	671

Glendale Road & QEW EB Off-Ramp / QEW EB On-Ramp (South Intersection) – Forecast 2044 Total Traffic Volumes												
Peak Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM	541	0	437	0	0	0	0	822	319	408	581	0
PM	432	0	352	0	0	0	0	1707	696	728	805	0

Please let me know if you have any questions or require anything further.

Thanks,



NIAGARA DISTRICT AIRPORT
gateway to the peninsula

Niagara District Airport INM Single Event Noise Exposure Contours

Figure 1. Corporate Jet - Combined Arrivals and Departures

WSP

NIAGARA DISTRICT AIRPORT
gateway to the peninsula

Niagara District Airport INM Single Event Noise Exposure Contours

Figure 2. Corporate Turboprop - Combined Arrivals and Departures

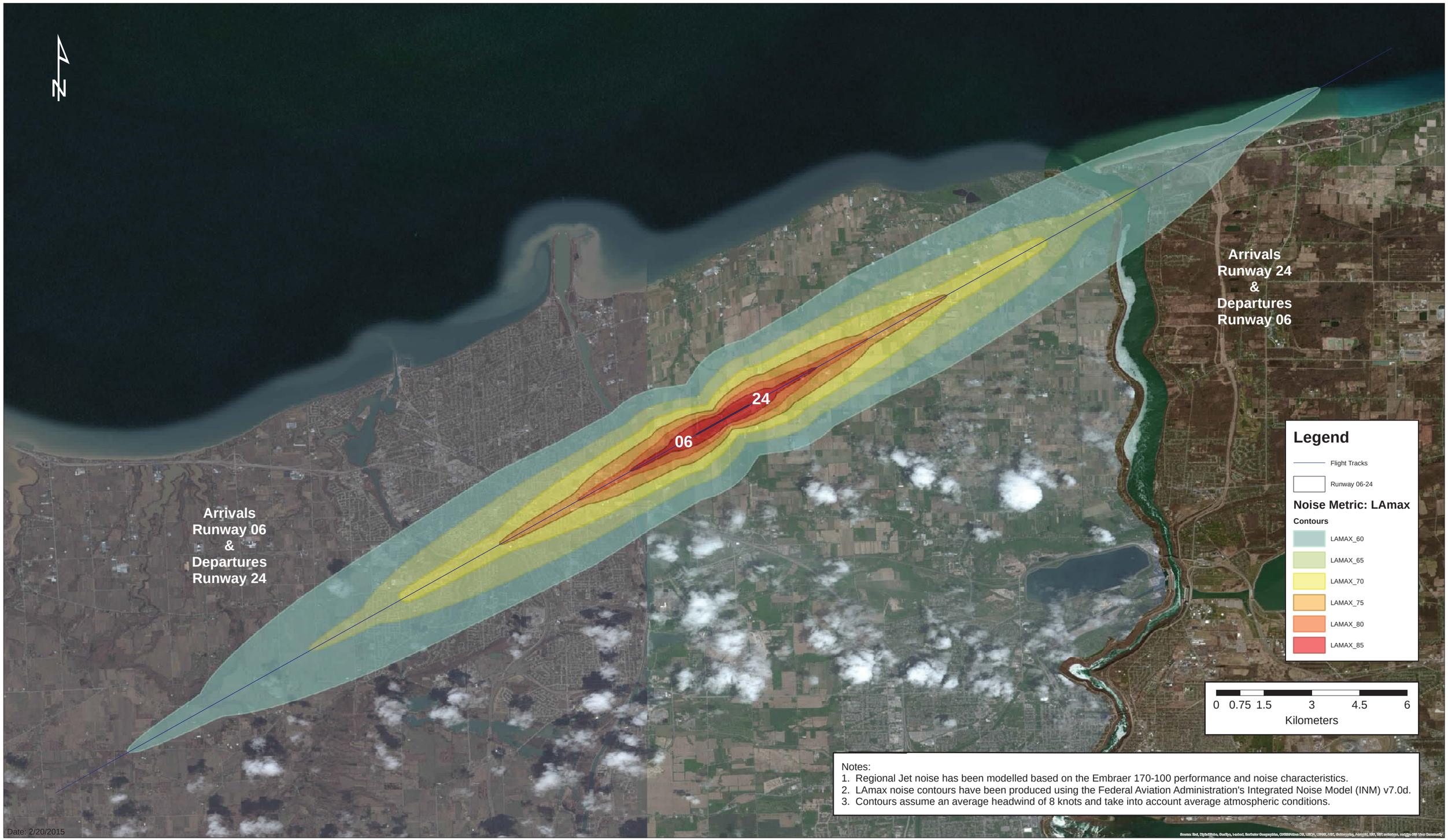
WSP

NIAGARA DISTRICT AIRPORT
gateway to the peninsula

Niagara District Airport INM Single Event Noise Exposure Contours

Figure 3. Flight Training - Combined Arrivals and Departures

WSP



NIAGARA DISTRICT AIRPORT
gateway to the peninsula

Niagara District Airport INM Single Event Noise Exposure Contours

Figure 4. Regional Jet - Combined Arrivals and Departures

WSP

NIAGARA DISTRICT AIRPORT
gateway to the peninsula

Niagara District Airport INM Single Event Noise Exposure Contours

Figure 5. Regional Turboprop - Arrivals and Departures

WSP

Outlook

RE: Development - Information (Noise)

Organizer	Daniel Pilon <dpilon@niagaradistrictairport.ca>
Meeting time	This event occurred 1 week ago (Wed 2025-01-15 9:30 AM - 10:00 AM)
Location	Microsoft Teams Meeting
My response	Accepted
Required attendees	Daniel Pilon, Li, Marcus
Optional attendees	Andy Brooks
Message sent	Tue 2025-01-21 5:26 PM

Hi Marcus,

See below the breakdown of aircraft movements from 2024. The majority of the piston movements are related to flight training.

These are aircraft movements at the airport – landings, takeoffs, and circuits. These data do not include other aircraft in the vicinity (e.g. the aircraft on approach to Niagara Falls International, or other itinerant aircraft).

Helicopter movements are largely related to scenic flights to Niagara Falls.

The Turboprop and Jet movements are largely privately owned or corporate charter. We do not have regional scheduled service.

Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Piston	1227	2070	2002	1884	3488	1952	2578	2344	2893	3509	3221	1883	29051
Helicopter	28	106	164	441	369	330	422	390	285	237	180	61	3013
Turbo Prop	22	15	79	55	29	14	22	35	34	17	17	22	361
Jet	8	12	15	41	28	63	23	62	47	35	34	17	385
Unknown	0	4	0	0	0	0	5	5	4	5	13	0	36
TOTALS:	**1285**	**2207**	**2260**	**2421**	**3914**	**2359**	**3050**	**2836**	**3263**	**3803**	**3465**	**1983**	**32846**

Hope it's helpful.

All the best,
Andy

Andy Brooks, Manager Airside Groundside Services
Niagara District Airport
905-684-7447 x 104
abrooks@niagaradistrictairport.ca
https://clicktime.symantec.com/15x8HXrWw7KZU39uFJFzS?h=pABEkWoiQXWhb4MHgQh_PPqkUz_Bqrn5c649ci3-8P4=&u=www.niagaradistrictairport.ca

From: Li, Marcus <MLi@ThorntonTomasetti.com>
Sent: January 20, 2025 13:57
To: Andy Brooks <abrooks@niagaradistrictairport.ca>; Daniel Pilon <dpilon@niagaradistrictairport.ca>
Subject: Re: Development - Information (Noise)

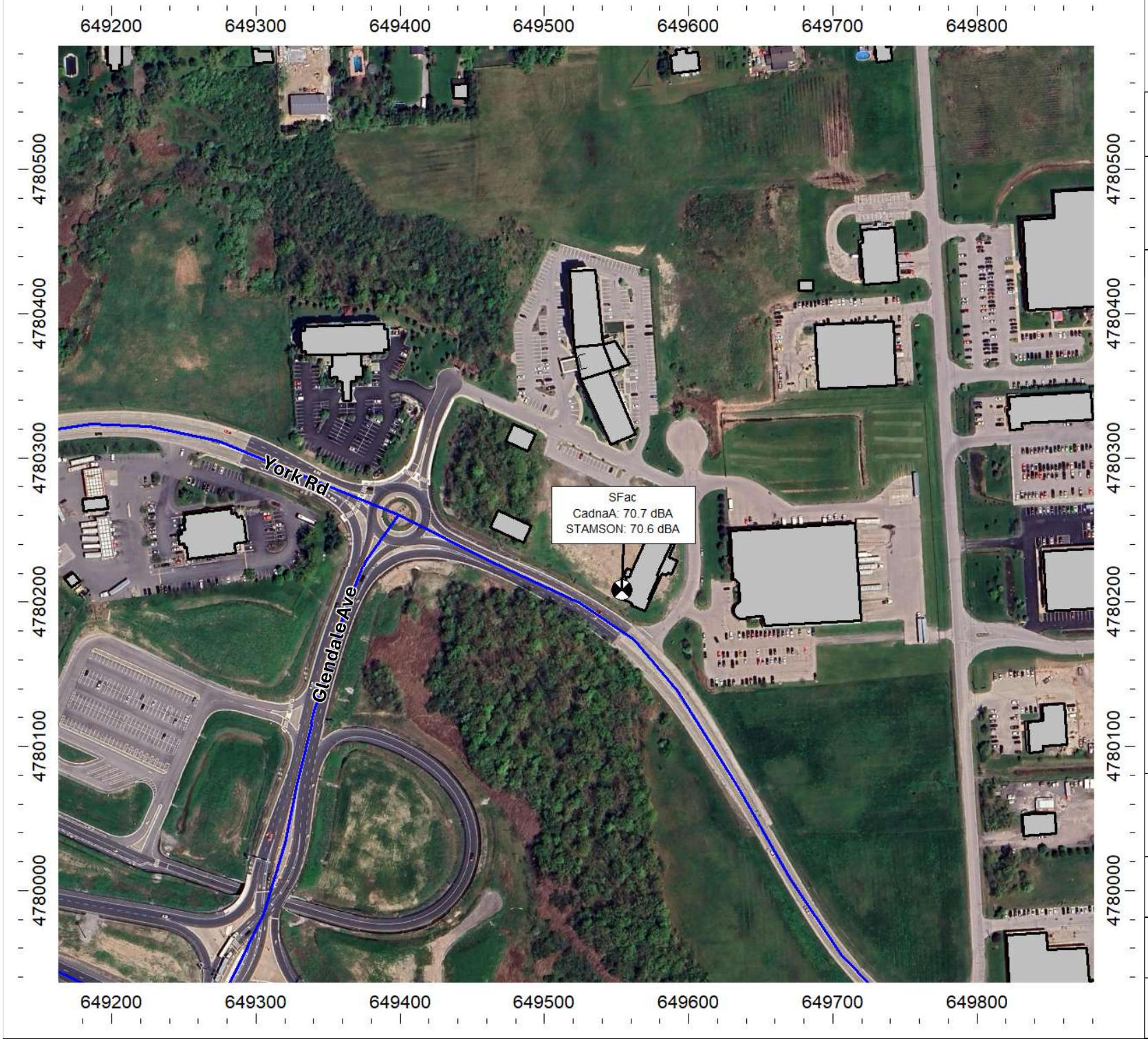
Hello Andy,

When you get a chance, can you provide the typical number of flights per day for each aircraft type included in the figures:

- Corporate Jets
- Corporate Turboprop
- Flight Training
- Regional Jet
- Regional Turboprop

Thanks

Marcus



Thornton Tomasetti

Client Name
Niagara York Road Inc.

Project Name
524 York Road, Phase 2

Notes:
Legend
Line Source

Figure Title
STAMSON Validation File

Produced By
MTL

TT Project #
24012579

Date
Jan 25, 2025

C.1

STAMSON 5.0 NORMAL REPORT Date: 17-01-2025 07:11:49
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: sfac.te Time Period: 16 hours
Description: South Facade, 2nd floor

Road data, segment # 1: York

Car traffic volume : 19038 veh/TimePeriod
Medium truck volume : 951 veh/TimePeriod
Heavy truck volume : 1318 veh/TimePeriod
Posted speed limit : 60 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: York

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 22.80 m
Receiver height : 5.70 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: Glendale

Car traffic volume : 26784 veh/TimePeriod
Medium truck volume : 1428 veh/TimePeriod
Heavy truck volume : 1981 veh/TimePeriod
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 2: Glendale

Angle1 Angle2 : -90.00 deg -8.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 176.00 m
Receiver height : 5.70 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 3: QEW_WB

Car traffic volume : 44975 veh/TimePeriod
Medium truck volume : 1984 veh/TimePeriod
Heavy truck volume : 5953 veh/TimePeriod
Posted speed limit : 100 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 3: QEW_WB

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 403.00 m
Receiver height : 5.70 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 4: QEW_EB

Car traffic volume : 44975 veh/TimePeriod
Medium truck volume : 1984 veh/TimePeriod
Heavy truck volume : 5953 veh/TimePeriod
Posted speed limit : 100 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 4: QEW_EB

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 422.00 m
Receiver height : 5.70 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: York

Source height = 1.58 m

ROAD (0.00 + 67.30 + 0.00) = 67.30 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	72.13	0.00	-1.82	-3.01	0.00	0.00	0.00	67.30

Segment Leq : 67.30 dBA

Results segment # 2: Glendale

Source height = 1.60 m

ROAD (0.00 + 58.30 + 0.00) = 58.30 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-8	0.00	72.41	0.00	-10.69	-3.41	0.00	0.00	0.00	58.30

Segment Leq : 58.30 dBA

Results segment # 3: QEW_WB

Source height = 1.83 m

ROAD (0.00 + 64.50 + 0.00) = 64.50 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	81.80	0.00	-14.29	-3.01	0.00	0.00	0.00	64.50

Segment Leq : 64.50 dBA

Results segment # 4: QEW_EB

Source height = 1.83 m

ROAD (0.00 + 64.30 + 0.00) = 64.30 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	81.80	0.00	-14.49	-3.01	0.00	0.00	0.00	64.30

Segment Leq : 64.30 dBA

Total Leq All Segments: 70.63 dBA

TOTAL Leq FROM ALL SOURCES: 70.63

Appendix D: CadnaA Modelling Output

Thornton Tomasetti

Client Name
Niagara York Road Inc.

Project Name
524 York Road, Phase 2

Notes:

Legend

+ Noise Source

Figure Title
Cadna Modelling Output File

Produced By
MTL

TT Project #
24012579

Date
Jan 25, 2025

D.1

Receiver
Name: 2 storey house to north
ID: !0900_PORfac
X: 649373.67 m
Y: 4780587.16 m
Z: 4.50 m

Point Source, ISO 9613, Name: "Staybridges - PTAC West Facade , 24 units (72 total)", ID: "!050002_SB_PTAC_W1"																				
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)
1	649517.69	4780420.61	10.00	0	D	A	88.0	0.0	0.0	3.0	0.0	57.9	0.6	0.5	0.0	0.0	0.0	0.0	0.0	32.1
1	649517.69	4780420.61	10.00	0	N	A	88.0	0.0	-3.0	3.0	0.0	57.9	0.6	0.5	0.0	0.0	0.0	0.0	0.0	29.1
1	649517.69	4780420.61	10.00	0	E	A	88.0	0.0	0.0	3.0	0.0	57.9	0.6	0.5	0.0	0.0	0.0	0.0	0.0	32.1
2	649517.69	4780420.61	10.00	1	D	A	88.0	0.0	0.0	3.0	0.0	57.9	0.6	0.5	0.0	0.0	0.0	0.0	2.0	30.1
2	649517.69	4780420.61	10.00	1	N	A	88.0	0.0	-3.0	3.0	0.0	57.9	0.6	0.5	0.0	0.0	0.0	0.0	2.0	27.1
2	649517.69	4780420.61	10.00	1	E	A	88.0	0.0	0.0	3.0	0.0	57.9	0.6	0.5	0.0	0.0	0.0	0.0	2.0	30.1

Point Source, ISO 9613, Name: "Staybridges - PTAC East Facade , 24 units (72 total)", ID: "!050002_SB_PTAC_E1"																				
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)
3	649536.26	4780421.13	10.00	0	D	A	88.0	0.0	0.0	3.0	0.0	58.3	0.6	0.4	0.0	0.0	15.1	0.0	0.0	16.6
3	649536.26	4780421.13	10.00	0	N	A	88.0	0.0	-3.0	3.0	0.0	58.3	0.6	0.4	0.0	0.0	15.1	0.0	0.0	13.5
3	649536.26	4780421.13	10.00	0	E	A	88.0	0.0	0.0	3.0	0.0	58.3	0.6	0.4	0.0	0.0	15.1	0.0	0.0	16.6
4	649536.26	4780421.13	10.00	1	D	A	88.0	0.0	0.0	3.0	0.0	61.8	0.8	0.0	0.0	0.0	23.5	0.0	2.7	2.1
4	649536.26	4780421.13	10.00	1	N	A	88.0	0.0	-3.0	3.0	0.0	61.8	0.8	0.0	0.0	0.0	23.5	0.0	2.7	-0.9
4	649536.26	4780421.13	10.00	1	E	A	88.0	0.0	0.0	3.0	0.0	61.8	0.8	0.0	0.0	0.0	23.5	0.0	2.7	2.1

Point Source, ISO 9613, Name: "Staybridges, Holiday Inn Express Common - Rooftop HVAC", ID: "!050002_HVAC04"																				
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)
5	649542.75	4780365.80	5.25	0	D	A	92.5	0.0	0.0	0.0	0.0	59.9	1.4	-0.5	0.0	0.0	18.8	0.0	0.0	13.0
5	649542.75	4780365.80	5.25	0	N	A	92.5	0.0	-3.0	0.0	0.0	59.9	1.4	-0.5	0.0	0.0	18.8	0.0	0.0	10.0
5	649542.75	4780365.80	5.25	0	E	A	92.5	0.0	0.0	0.0	0.0	59.9	1.4	-0.5	0.0	0.0	18.8	0.0	0.0	13.0
6	649542.75	4780365.80	5.25	1	D	A	92.5	0.0	0.0	0.0	0.0	60.2	1.4	-0.6	0.0	0.0	23.1	0.0	2.0	6.4
6	649542.75	4780365.80	5.25	1	N	A	92.5	0.0	-3.0	0.0	0.0	60.2	1.4	-0.6	0.0	0.0	23.1	0.0	2.0	3.4
6	649542.75	4780365.80	5.25	1	E	A	92.5	0.0	0.0	0.0	0.0	60.2	1.4	-0.6	0.0	0.0	23.1	0.0	2.0	6.4

Point Source, ISO 9613, Name: "Staybridges - PTAC West Facade , 24 units (72 total)", ID: "!050002_SB_PTAC_W2"																				
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	649518.83	4780403.81	10.00	0	D	A	88.0	0.0	0.0	3.0	0.0	58.4	0.6	0.5	0.0	0.0	0.0	0.0	0.0	31.6
7	649518.83	4780403.81	10.00	0	N	A	88.0	0.0	-3.0	3.0	0.0	58.4	0.6	0.5	0.0	0.0	0.0	0.0	0.0	28.6
7	649518.83	4780403.81	10.00	0	E	A	88.0	0.0	0.0	3.0	0.0	58.4	0.6	0.5	0.0	0.0	0.0	0.0	0.0	31.6

Point Source, ISO 9613, Name: "Staybridges - PTAC East Facade , 24 units (72 total)", ID: "!050002_SB_PTAC_E2"																				
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)
8	649537.82	4780406.50	10.00	0	D	A	88.0	0.0	0.0	3.0	0.0	58.8	0.6	0.4	0.0	0.0	17.9	0.0	0.0	13.3
8	649537.82	4780406.50	10.00	0	N	A	88.0	0.0	-3.0	3.0	0.0	58.8	0.6	0.4	0.0	0.0	17.9	0.0	0.0	10.3
8	649537.82	4780406.50	10.00	0	E	A	88.0	0.0	0.0	3.0	0.0	58.8	0.6	0.4	0.0	0.0	17.9	0.0	0.0	13.3

Point Source, ISO 9613, Name: "Staybridges - PTAC West Facade , 24 units (72 total)", ID: "!050002_SB_PTAC_W3"																				
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)
9	649519.70	4780389.13	10.00	0	D	A	88.0	0.0	0.0	3.0	0.0	58.8	0.6	0.4	0.0	0.0	0.0	0.0	0.0	31.1
9	649519.70	4780389.13	10.00	0	N	A	88.0	0.0	-3.0	3.0	0.0	58.8	0.6	0.4	0.0	0.0	0.0	0.0	0.0	28.1
9	649519.70	4780389.13	10.00	0	E	A	88.0	0.0	0.0	3.0	0.0	58.8	0.6	0.4	0.0	0.0	0.0	0.0	0.0	31.1

Point Source, ISO 9613, Name: "Staybridges - PTAC East Facade , 24 units (72 total)", ID: "!050002_SB_PTAC_E3"																				
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)
10	649539.56	4780390.13	10.00	0	D	A	88.0	0.0	0.0	3.0	0.0	59.2	0.6	0.3	0.0	0.0	19.0	0.0	0.0	11.8
10	649539.56	4780390.13	10.00	0	N	A	88.0	0.0	-3.0	3.0	0.0	59.2	0.6	0.3	0.0	0.0	19.0	0.0	0.0	8.8
10	649539.56	4780390.13	10.00	0	E	A	88.0	0.0	0.0	3.0	0.0	59.2	0.6	0.3	0.0	0.0	19.0	0.0	0.0	11.8

Point Source, ISO 9613, Name: "PTAC, south wall 2, 54 units", ID: "!050000_PTAC_S2"																				
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)
11	649563.82	4780228.45	16.00	0	D	A	91.5	0.0	0.0	3.0	0.0	63.2	0.9	0.1	0.0	0.0	0.0	0.0	0.0	30.3

Point Source, ISO 9613, Name: "PTAC, south wall 2, 54 units", ID: "!050000_PTAC_S2"																				
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)
11	649563.82	4780228.45	16.00	0	N	A	91.5	0.0	-3.0	3.0	0.0	63.2	0.9	0.1	0.0	0.0	0.0	0.0	0.0	27.3
11	649563.82	4780228.45	16.00	0	E	A	91.5	0.0	0.0	3.0	0.0	63.2	0.9	0.1	0.0	0.0	0.0	0.0	0.0	30.3
12	649563.82	4780228.45	16.00	1	D	A	91.5	0.0	0.0	3.0	0.0	63.2	0.9	0.0	0.0	0.0	0.0	0.0	16.1	14.2
12	649563.82	4780228.45	16.00	1	N	A	91.5	0.0	-3.0	3.0	0.0	63.2	0.9	0.0	0.0	0.0	0.0	0.0	16.1	11.2
12	649563.82	4780228.45	16.00	1	E	A	91.5	0.0	0.0	3.0	0.0	63.2	0.9	0.0	0.0	0.0	0.0	0.0	16.1	14.2

Point Source, ISO 9613, Name: "Holiday Inn Express - PTAC West Facade , 22 units (66 total)", ID: "!050002_HIE_PTAC_W1"																				
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)
13	649528.59	4780347.05	10.00	0	D	A	87.6	0.0	0.0	3.0	0.0	60.1	0.7	0.3	0.0	0.0	0.0	0.0	0.0	29.5
13	649528.59	4780347.05	10.00	0	N	A	87.6	0.0	-3.0	3.0	0.0	60.1	0.7	0.3	0.0	0.0	0.0	0.0	0.0	26.5
13	649528.59	4780347.05	10.00	0	E	A	87.6	0.0	0.0	3.0	0.0	60.1	0.7	0.3	0.0	0.0	0.0	0.0	0.0	29.5

Point Source, ISO 9613, Name: "PTAC, north wall 1, 45 units", ID: "!050000_PTAC_N1"																				
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)
14	649585.69	4780234.94	16.00	0	D	A	90.7	0.0	0.0	3.0	0.0	63.3	0.9	0.0	0.0	0.0	22.4	0.0	0.0	7.0
14	649585.69	4780234.94	16.00	0	N	A	90.7	0.0	-3.0	3.0	0.0	63.3	0.9	0.0	0.0	0.0	22.4	0.0	0.0	4.0
14	649585.69	4780234.94	16.00	0	E	A	90.7	0.0	0.0	3.0	0.0	63.3	0.9	0.0	0.0	0.0	22.4	0.0	0.0	7.0

Point Source, ISO 9613, Name: "Holiday Inn Express - PTAC East Facade , 22 units (66 total)", ID: "!050002_HIE_PTAC_E1"																				
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)
15	649547.98	4780353.26	10.00	0	D	A	87.6	0.0	0.0	3.0	0.0	60.3	0.7	0.3	0.0	0.0	20.1	0.0	0.0	9.2
15	649547.98	4780353.26	10.00	0	N	A	87.6	0.0	-3.0	3.0	0.0	60.3	0.7	0.3	0.0	0.0	20.1	0.0	0.0	6.2
15	649547.98	4780353.26	10.00	0	E	A	87.6	0.0	0.0	3.0	0.0	60.3	0.7	0.3	0.0	0.0	20.1	0.0	0.0	9.2

Point Source, ISO 9613, Name: "Holiday Inn Express - PTAC West Facade , 22 units (66 total)", ID: "!050002_HIE_PTAC_W2"																				
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)
16	649534.55	4780334.12	10.00	0	D	A	87.6	0.0	0.0	3.0	0.0	60.5	0.7	0.3	0.0	0.0	0.0	0.0	0.0	29.1
16	649534.55	4780334.12	10.00	0	N	A	87.6	0.0	-3.0	3.0	0.0	60.5	0.7	0.3	0.0	0.0	0.0	0.0	0.0	26.1
16	649534.55	4780334.12	10.00	0	E	A	87.6	0.0	0.0	3.0	0.0	60.5	0.7	0.3	0.0	0.0	0.0	0.0	0.0	29.1

Point Source, ISO 9613, Name: "Holiday Inn Express - PTAC East Facade , 22 units (66 total)", ID: "!050002_HIE_PTAC_E2"																				
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)
17	649553.17	4780340.88	10.00	0	D	A	87.6	0.0	0.0	3.0	0.0	60.7	0.7	0.2	0.0	0.0	20.1	0.0	0.0	8.9
17	649553.17	4780340.88	10.00	0	N	A	87.6	0.0	-3.0	3.0	0.0	60.7	0.7	0.2	0.0	0.0	20.1	0.0	0.0	5.9
17	649553.17	4780340.88	10.00	0	E	A	87.6	0.0	0.0	3.0	0.0	60.7	0.7	0.2	0.0	0.0	20.1	0.0	0.0	8.9

Point Source, ISO 9613, Name: "Holiday Inn Express - PTAC West Facade , 22 units (66 total)", ID: "!050002_HIE_PTAC_W3"																				
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)
18	649541.52	4780318.99	10.00	0	D	A	87.6	0.0	0.0	3.0	0.0	61.0	0.8	0.2	0.0	0.0	0.0	0.0	0.0	28.7
18	649541.52	4780318.99	10.00	0	N	A	87.6	0.0	-3.0	3.0	0.0	61.0	0.8	0.2	0.0	0.0	0.0	0.0	0.0	25.6
18	649541.52	4780318.99	10.00	0	E	A	87.6	0.0	0.0	3.0	0.0	61.0	0.8	0.2	0.0	0.0	0.0	0.0	0.0	28.7

Point Source, ISO 9613, Name: "Holiday Inn Express - PTAC East Facade , 22 units (66 total)", ID: "!050002_HIE_PTAC_E3"																				
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)
19	649559.01	4780326.95	10.00	0	D	A	87.6	0.0	0.0	3.0	0.0	61.1	0.8	0.2	0.0	0.0	20.0	0.0	0.0	8.6
19	649559.01	4780326.95	10.00	0	N	A	87.6	0.0	-3.0	3.0	0.0	61.1	0.8	0.2	0.0	0.0	20.0	0.0	0.0	5.6
19	649559.01	4780326.95	10.00	0	E	A	87.6	0.0	0.0	3.0	0.0	61.1	0.8	0.2	0.0	0.0	20.0	0.0	0.0	8.6

Point Source, ISO 9613, Name: "PTAC, north wall 2, 36 units", ID: "!050000_PTAC_N2"																				
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)
20	649575.60	4780210.22	16.00	0	D	A	89.8	0.0	0.0	3.0	0.0	63.6	1.0	0.0	0.0	0.0	22.4	0.0	0.0	5.8
20	649575.60	4780210.22	16.00	0	N	A	89.8	0.0	-3.0	3.0	0.0	63.6	1.0	0.0	0.0	0.0	22.4	0.0	0.0	2.8
20	649575.60	4780210.22	16.00	0	E	A	89.8	0.0	0.0	3.0	0.0	63.6	1.0	0.0	0.0	0.0	22.4	0.0	0.0	5.8

Point Source, ISO 9613, Name: "PTAC, south wall 3, 27 units", ID: "!050000_PTAC_S3"																				
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)
21	649571.56	4780248.43	16.00	0	D	A	88.5	0.0	0.0	3.0	0.0	62.9	0.9	0.1	0.0	0.0	0.0	0.0	0.0	27.7
21	649571.56	4780248.43	16.00	0	N	A	88.5	0.0	-3.0	3.0	0.0	62.9	0.9	0.1	0.0	0.0	0.0	0.0	0.0	24.6
21	649571.56	4780248.43	16.00	0	E	A	88.5	0.0	0.0	3.0	0.0	62.9	0.9	0.1	0.0	0.0	0.0	0.0	0.0	27.7

Point Source, ISO 9613, Name: "PTAC, south wall 1, 27 units", ID: "!050000_PTAC_S1"																					
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)
22	649554.91	4780211.81	16.00	0	D	A	88.5	0.0	0.0	3.0	0.0	63.4	0.9	0.1	0.0	0.0	0.0	0.0	0.0	27.0
22	649554.91	4780211.81	16.00	0	N	A	88.5	0.0	-3.0	3.0	0.0	63.4	0.9	0.1	0.0	0.0	0.0	0.0	0.0	24.0
22	649554.91	4780211.81	16.00	0	E	A	88.5	0.0	0.0	3.0	0.0	63.4	0.9	0.1	0.0	0.0	0.0	0.0	0.0	27.0

Point Source, ISO 9613, Name: "Staybridges - Rooftop HVAC", ID: "!050002_HVAC01"																					
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)
23	649527.69	4780423.92	21.50	0	D	A	85.5	0.0	0.0	0.0	0.0	58.0	1.1	-0.0	0.0	0.0	0.0	0.0	0.0	26.4
23	649527.69	4780423.92	21.50	0	N	A	85.5	0.0	-3.0	0.0	0.0	58.0	1.1	-0.0	0.0	0.0	0.0	0.0	0.0	23.4
23	649527.69	4780423.92	21.50	0	E	A	85.5	0.0	0.0	0.0	0.0	58.0	1.1	-0.0	0.0	0.0	0.0	0.0	0.0	26.4
24	649527.69	4780423.92	21.50	1	D	A	85.5	0.0	0.0	0.0	0.0	61.8	1.6	-0.4	0.0	0.0	4.6	0.0	2.0	15.8
24	649527.69	4780423.92	21.50	1	N	A	85.5	0.0	-3.0	0.0	0.0	61.8	1.6	-0.4	0.0	0.0	4.6	0.0	2.0	12.8
24	649527.69	4780423.92	21.50	1	E	A	85.5	0.0	0.0	0.0	0.0	61.8	1.6	-0.4	0.0	0.0	4.6	0.0	2.0	15.8

Point Source, ISO 9613, Name: "Kitchen Exhaust Fan", ID: "!050001_RestA_KEF"																					
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)
25	649480.78	4780318.34	5.50	0	D	A	85.9	0.0	0.0	0.0	0.0	60.2	1.2	0.4	0.0	0.0	0.0	0.0	0.0	24.0
25	649480.78	4780318.34	5.50	0	N	A	85.9	0.0	0.0	0.0	0.0	60.2	1.2	0.4	0.0	0.0	0.0	0.0	0.0	24.0
25	649480.78	4780318.34	5.50	0	E	A	85.9	0.0	0.0	0.0	0.0	60.2	1.2	0.4	0.0	0.0	0.0	0.0	0.0	24.0
26	649480.78	4780318.34	5.50	1	D	A	85.9	0.0	0.0	0.0	0.0	61.3	1.3	-0.6	0.0	0.0	0.0	0.0	2.0	21.9
26	649480.78	4780318.34	5.50	1	N	A	85.9	0.0	0.0	0.0	0.0	61.3	1.3	-0.6	0.0	0.0	0.0	0.0	2.0	21.9
26	649480.78	4780318.34	5.50	1	E	A	85.9	0.0	0.0	0.0	0.0	61.3	1.3	-0.6	0.0	0.0	0.0	0.0	2.0	21.9

Point Source, ISO 9613, Name: "Staybridges - Rooftop HVAC", ID: "!050002_HVAC02"																					
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)
27	649534.86	4780387.23	21.25	0	D	A	85.5	0.0	0.0	0.0	0.0	59.2	1.3	-0.2	0.0	0.0	4.6	0.0	0.0	20.6
27	649534.86	4780387.23	21.25	0	N	A	85.5	0.0	-3.0	0.0	0.0	59.2	1.3	-0.2	0.0	0.0	4.6	0.0	0.0	17.6
27	649534.86	4780387.23	21.25	0	E	A	85.5	0.0	0.0	0.0	0.0	59.2	1.3	-0.2	0.0	0.0	4.6	0.0	0.0	20.6
28	649534.86	4780387.23	21.25	1	D	A	85.5	0.0	0.0	0.0	0.0	60.9	1.5	-0.3	0.0	0.0	0.0	0.0	2.0	21.5
28	649534.86	4780387.23	21.25	1	N	A	85.5	0.0	-3.0	0.0	0.0	60.9	1.5	-0.3	0.0	0.0	0.0	0.0	2.0	18.5
28	649534.86	4780387.23	21.25	1	E	A	85.5	0.0	0.0	0.0	0.0	60.9	1.5	-0.3	0.0	0.0	0.0	0.0	2.0	21.5

Point Source, ISO 9613, Name: "PTAC, north wall 2, 18 units", ID: "!050000_PTAC_N3"																					
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)
29	649571.46	4780197.98	16.00	0	D	A	86.7	0.0	0.0	3.0	0.0	63.8	1.0	0.1	0.0	0.0	21.2	0.0	0.0	3.7
29	649571.46	4780197.98	16.00	0	N	A	86.7	0.0	-3.0	3.0	0.0	63.8	1.0	0.1	0.0	0.0	21.2	0.0	0.0	0.7
29	649571.46	4780197.98	16.00	0	E	A	86.7	0.0	0.0	3.0	0.0	63.8	1.0	0.1	0.0	0.0	21.2	0.0	0.0	3.7

Point Source, ISO 9613, Name: "Kitchen Exhaust Fan", ID: "!050001_RestB_KEF"																					
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)
30	649467.20	4780253.79	5.50	0	D	A	85.9	0.0	0.0	0.0	0.0	61.8	1.4	0.1	0.0	0.0	0.0	0.0	0.0	22.6
30	649467.20	4780253.79	5.50	0	N	A	85.9	0.0	0.0	0.0	0.0	61.8	1.4	0.1	0.0	0.0	0.0	0.0	0.0	22.6
30	649467.20	4780253.79	5.50	0	E	A	85.9	0.0	0.0	0.0	0.0	61.8	1.4	0.1	0.0	0.0	0.0	0.0	0.0	22.6

Point Source, ISO 9613, Name: "HVAC", ID: "!050001_RestA_HVAC"																					
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)
31	649482.26	4780313.85	5.25	0	D	A	85.5	0.0	0.0	0.0	0.0	60.4	1.4	-0.0	0.0	0.0	0.0	0.0	0.0	23.8
31	649482.26	4780313.85	5.25	0	N	A	85.5	0.0	-3.0	0.0	0.0	60.4	1.4	-0.0	0.0	0.0	0.0	0.0	0.0	20.7
31	649482.26	4780313.85	5.25	0	E	A	85.5	0.0	0.0	0.0	0.0	60.4	1.4	-0.0	0.0	0.0	0.0	0.0	0.0	23.8
32	649482.26	4780313.85	5.25	1	D	A	85.5	0.0	0.0	0.0	0.0	61.4	1.6	-1.0	0.0	0.0	0.0	0.0	2.0	21.6
32	649482.26	4780313.85	5.25	1	N	A	85.5	0.0	-3.0	0.0	0.0	61.4	1.6	-1.0	0.0	0.0	0.0	0.0	2.0	18.6
32	649482.26	4780313.85	5.25	1	E	A	85.5	0.0	0.0	0.0	0.0	61.4	1.6	-1.0	0.0	0.0	0.0	0.0	2.0	21.6

Point Source, ISO 9613, Name: "Staybridges - Rooftop HVAC", ID: "!050002_HVAC03"																					
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)
33	649550.76	4780323.36	21.25	0	D	A	85.5	0.0	0.0	0.0	0.0	61.1	1.5	-0.3	0.0	0.0	4.6	0.0	0.0	18.7
33	649550.76	4780323.36	21.25	0	N	A	85.5	0.0	-3.0	0.0	0.0	61.1	1.5	-0.3	0.0	0.0	4.6	0.0	0.0	15.6
33	649550.76	4780323.36	21.25	0	E	A	85.5	0.0	0.0	0.0	0.0	61.1	1.5	-0.3	0.0	0.0	4.6	0.0	0.0	18.7

Point Source, ISO 9613, Name: "PTAC, west wall 1, 9 units", ID: "!050000_PTAC_W1"																					
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)
34	649580.27	4780254.44	16.00	0	D	A	83.7	0.0	0.0	3.0	0.0	62.9	0.9	0.1	0.0	0.0	2.3	0.0	0.0	20.6

Point Source, ISO 9613, Name: "PTAC, west wall 1, 9 units", ID: "!050000_PTAC_W1"																				
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)
34	649580.27	4780254.44	16.00	0	N	A	83.7	0.0	-3.0	3.0	0.0	62.9	0.9	0.1	0.0	0.0	2.3	0.0	0.0	17.6
34	649580.27	4780254.44	16.00	0	E	A	83.7	0.0	0.0	3.0	0.0	62.9	0.9	0.1	0.0	0.0	2.3	0.0	0.0	20.6
35	649580.27	4780254.44	16.00	1	D	A	83.7	0.0	0.0	3.0	0.0	62.9	0.9	0.1	0.0	0.0	22.6	0.0	31.9	-31.7
35	649580.27	4780254.44	16.00	1	N	A	83.7	0.0	-3.0	3.0	0.0	62.9	0.9	0.1	0.0	0.0	22.6	0.0	31.9	-34.7
35	649580.27	4780254.44	16.00	1	E	A	83.7	0.0	0.0	3.0	0.0	62.9	0.9	0.1	0.0	0.0	22.6	0.0	31.9	-31.7

Point Source, ISO 9613, Name: "HVAC", ID: "!050001_RestB_HVAC"																				
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)
36	649473.15	4780255.87	5.25	0	D	A	85.5	0.0	0.0	0.0	0.0	61.8	1.6	-0.3	0.0	0.0	0.0	0.0	0.0	22.5
36	649473.15	4780255.87	5.25	0	N	A	85.5	0.0	-3.0	0.0	0.0	61.8	1.6	-0.3	0.0	0.0	0.0	0.0	0.0	19.4
36	649473.15	4780255.87	5.25	0	E	A	85.5	0.0	0.0	0.0	0.0	61.8	1.6	-0.3	0.0	0.0	0.0	0.0	0.0	22.5

Point Source, ISO 9613, Name: "PTAC, west wall 2, 9 units", ID: "!050000_PTAC_W2"																				
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)
37	649588.33	4780250.83	16.00	0	D	A	83.7	0.0	0.0	3.0	0.0	63.0	0.9	0.0	0.0	0.0	4.8	0.0	0.0	18.0
37	649588.33	4780250.83	16.00	0	N	A	83.7	0.0	-3.0	3.0	0.0	63.0	0.9	0.0	0.0	0.0	4.8	0.0	0.0	14.9
37	649588.33	4780250.83	16.00	0	E	A	83.7	0.0	0.0	3.0	0.0	63.0	0.9	0.0	0.0	0.0	4.8	0.0	0.0	18.0

Point Source, ISO 9613, Name: "HVAC", ID: "!050001_RestB_HVAC"																				
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)
38	649471.80	4780251.71	5.25	0	D	A	85.5	0.0	0.0	0.0	0.0	61.9	1.6	-0.3	0.0	0.0	0.0	0.0	0.0	22.4
38	649471.80	4780251.71	5.25	0	N	A	85.5	0.0	-3.0	0.0	0.0	61.9	1.6	-0.3	0.0	0.0	0.0	0.0	0.0	19.4
38	649471.80	4780251.71	5.25	0	E	A	85.5	0.0	0.0	0.0	0.0	61.9	1.6	-0.3	0.0	0.0	0.0	0.0	0.0	22.4

Point Source, ISO 9613, Name: "Rooftop HVAC", ID: "!050000_HVAC01"																				
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)
39	649581.48	4780245.19	31.83	0	D	A	85.5	0.0	0.0	0.0	0.0	63.1	1.8	-0.5	0.0	0.0	0.0	0.0	0.0	21.1
39	649581.48	4780245.19	31.83	0	N	A	85.5	0.0	-3.0	0.0	0.0	63.1	1.8	-0.5	0.0	0.0	0.0	0.0	0.0	18.1
39	649581.48	4780245.19	31.83	0	E	A	85.5	0.0	0.0	0.0	0.0	63.1	1.8	-0.5	0.0	0.0	0.0	0.0	0.0	21.1

Point Source, ISO 9613, Name: "Rooftop HVAC (meeting room)", ID: "!050000_HVAC03"																				
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)
40	649586.73	4780226.07	5.52	0	D	A	85.5	0.0	0.0	0.0	0.0	63.4	1.9	-1.6	0.0	0.0	24.1	0.0	0.0	-2.3
40	649586.73	4780226.07	5.52	0	N	A	85.5	0.0	-3.0	0.0	0.0	63.4	1.9	-1.6	0.0	0.0	24.1	0.0	0.0	-5.3
40	649586.73	4780226.07	5.52	0	E	A	85.5	0.0	0.0	0.0	0.0	63.4	1.9	-1.6	0.0	0.0	24.1	0.0	0.0	-2.3

Point Source, ISO 9613, Name: "HVAC", ID: "!050001_RestA_HVAC"																				
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)
41	649488.21	4780313.01	5.25	0	D	A	82.5	0.0	0.0	0.0	0.0	60.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	20.6
41	649488.21	4780313.01	5.25	0	N	A	82.5	0.0	-3.0	0.0	0.0	60.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	17.6
41	649488.21	4780313.01	5.25	0	E	A	82.5	0.0	0.0	0.0	0.0	60.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	20.6

Point Source, ISO 9613, Name: "Rooftop HVAC", ID: "!050000_HVAC02"																				
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)
42	649564.11	4780205.93	31.83	0	D	A	85.5	0.0	0.0	0.0	0.0	63.6	1.9	-0.4	0.0	0.0	0.0	0.0	0.0	20.5
42	649564.11	4780205.93	31.83	0	N	A	85.5	0.0	-3.0	0.0	0.0	63.6	1.9	-0.4	0.0	0.0	0.0	0.0	0.0	17.5
42	649564.11	4780205.93	31.83	0	E	A	85.5	0.0	0.0	0.0	0.0	63.6	1.9	-0.4	0.0	0.0	0.0	0.0	0.0	20.5

Point Source, ISO 9613, Name: "HVAC", ID: "!050001_RestB_HVAC"																				
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)
43	649482.71	4780249.55	5.25	0	D	A	82.5	0.0	0.0	0.0	0.0	62.0	1.6	-0.4	0.0	0.0	0.0	0.0	0.0	19.3
43	649482.71	4780249.55	5.25	0	N	A	82.5	0.0	-3.0	0.0	0.0	62.0	1.6	-0.4	0.0	0.0	0.0	0.0	0.0	16.3
43	649482.71	4780249.55	5.25	0	E	A	82.5	0.0	0.0	0.0	0.0	62.0	1.6	-0.4	0.0	0.0	0.0	0.0	0.0	19.3