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Noise and Vibration Feasibility Study
Proposed Mixed-Use/Residential Development, Wynford Gardens – 175 Wynford Drive, Toronto, Ontario

Prepared for:

DVP Hotel Development LP
552 Wellington St. W., Suite 1500
Toronto, ON
M5V 2V5

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Project Number: 02000027

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1 INTRODUCTION AND SUMMARY

HGC Engineering was retained by DVP Hotel Development LP to perform a Noise and Vibration Feasibility Study for a proposed mixed-use development to be located east of the Don Valley Parkway (DVP) and north of Eglinton Avenue East in the City of Toronto, to support a zoning and site plan application. The proposed development includes the construction of four towers in two phases. Phase 1 is located on the west side of the site and will include two towers (54-storey and 45-storey) atop an 8-storey podium with hotel and residential uses. Phase 2 is located on the east side of the site and will include two residential towers (47-storey and 49-storey) atop an 8-storey podium with retail and residential uses.

Road traffic on Eglinton Avenue East and the DVP are the primary sources of noise. Road traffic on Wynford Drive, the Eglinton on-ramp to the DVP and rail traffic on the railway line to the east are considered as secondary sources of noise. Relevant traffic data was obtained from the City of Toronto, a traffic study for the site, Canadian National Railway (CN) and Metrolinx personnel. This data was used to predict future traffic sound levels at the locations of the proposed building façades and in the outdoor amenity areas. The predicted sound levels were compared to the guidelines of the Ministry of the Environment, Conservation and Parks (MECP) and the City to develop noise control recommendations for the proposed mixed-use/residential development.

The results of this study indicate that with suitable noise control measures integrated into the design of the buildings, it is feasible to achieve the indoor MECP guidelines sound levels from the various transportation noise sources. Central air conditioning and upgraded building constructions will be required for all proposed buildings. Warning clauses are recommended to inform future residents of the future traffic noise impacts.

The impact of vibrations from the future Eglinton Crosstown Light Rail Transit (LRT) line, located above ground near the subject site, approximately 30 m south of the proposed building foundations, has been reviewed. According to the TTC Noise and Vibration Impact Assessment for the future LRT line (by others), using the same track isolation system as that employed in the

Sheppard subway line will effectively mitigate vibration impacts adjacent to the underground tangent track section.

As per CN guidelines, ground-borne vibration measurements are not required for the proposed development as the CN rail right-of-way is located more than 75 metres away from the subject site.

When detailed floor plans and building elevations are available, a detailed noise study should be completed to refine acoustic recommendations. In addition, an acoustical consultant should review the mechanical drawings and details of demising constructions, when available, to help ensure that the noise impact of the development on the environment, and of the development on itself, are maintained within acceptable levels.

2 SITE DESCRIPTION AND SOURCES OF SOUND

The subject site is located east of the DVP, north of Eglinton Avenue East and west of Wynford Drive, specifically at 175 Wynford Drive in the City of Toronto, Ontario. A key plan is attached as Figure 1. A site plan prepared by Quadrangle Architects Ltd. dated September 15, 2020 is attached as Figure 2.

The development consists of four towers that share six levels of underground parking. Tower 1 and 2 are 54-storeys and 45-storeys, respectively, above a shared 8-storey podium. There are hotel suites, a daycare, and residential uses proposed on the podium. Tower 3 and 4 are 47-storeys and 49-storeys, respectively, above a shared 8-storey podium. Residential suites begin on the 2nd floor and extend to the roof.

Currently on the site is the Toronto Don Valley Hotel and Suites buildings, which will be demolished to make way for the new development. The surrounding lands are primarily residential in nature, and consist mainly of high-rise buildings. The area is considered to be Class I (urban) in terms of its acoustical environment.

A site visit was conducted by HGC Engineering personnel in May 2020 to make note of the acoustical environment. It was confirmed that road traffic on the DVP and Eglinton Avenue were the dominant sources of noise impacting the development, with lesser contributions from

Wynford Drive, the Eglinton Avenue DVP on-ramp and rail traffic on the GO Transit railway line.

The GO Transit Richmond Hill rail corridor is located approximately 350 m to the east of the site and has a single track. The North Toronto Subdivision operated by Canada Pacific Railway (CPR) is located beyond 500 m of the subject site and thus trains from this railway line have not been included in the analysis.

3 CRITERIA FOR ACCEPTABLE SOUND LEVELS

3.1 Road & Rail Traffic Noise

Guidelines for acceptable levels of road and rail traffic noise impacting residential developments are given in the MECP publication NPC-300 "Environment Noise Guideline Stationary and Transportation sources – Approval and Planning", release date October 21, 2013, and are listed in Table I below. The values in Table I are energy equivalent (average) sound levels [L_{EQ}] in units of A-weighted decibels [dBA].

Table I: Road and Rail Traffic Noise Criteria (dBA)

Area	Daytime L_{EQ} (16 hour) Road/Rail	Nighttime L_{EQ} (8 hour) Road/Rail
Outdoor Living Areas	55 dBA	--
Inside Bedrooms, sleeping quarters of hotels/motels	45 dBA / 40 dBA	45 dBA / 40 dBA
Inside Living/Dining Rooms	45 dBA / 40 dBA	45 dBA / 40 dBA
Inside Bedrooms	45 dBA / 40 dBA	40 dBA / 35 dBA

Daytime refers to the period between 07:00 and 23:00, while nighttime refers to the period between 23:00 and 07:00. The term "Outdoor Living Area" (OLA) is used in reference to an outdoor patio, a backyard, a terrace or other area where passive recreation is expected to occur. Balconies that are less than 4 m in depth are not considered to be outdoor living areas under MECP guidelines.

The MECP guidelines allow the daytime sound levels in an OLA to be exceeded by up to 5 dBA, without mitigation, if warning clauses are placed in the purchase and rental agreements to the

property. Where OLA sound levels exceed 60 dBA, physical mitigation is recommended to reduce the OLA sound level to below 60 dBA and as close to 55 dBA as technically, economically and administratively feasible. Note that not all OLA's necessarily require protection, if there are other protected outdoor areas accessible to future residents.

Indoor guidelines are 5 dBA more stringent for rail noise than for road noise, to account for the low frequency (rumbling) character of locomotive sound, and its greater potential to transmit through exterior wall/window assemblies.

A central air conditioning system as an alternative means of ventilation to open windows is required for dwellings where nighttime sound levels outside hotel/bedroom or living/dining room windows exceed 60 dBA or daytime sound levels outside hotel/bedroom or living/dining room windows exceed 65 dBA. Forced-air ventilation with ducts sized to accommodate the future installation of air conditioning by the occupant is required when nighttime sound levels at hotel/bedroom or living/dining room windows are in the range of 51 to 60 dBA or when daytime sound levels at hotel/bedroom or living/dining room windows are in the range of 56 to 65 dBA.

Building components such as walls, windows and doors must be designed to achieve indoor sound level criteria when the plane of window nighttime sound level is greater than 60 dBA or the daytime sound level is greater than 65 dBA due to road traffic noise, or when the nighttime sound level is greater than 55 dBA or greater than 60 dBA during the daytime due to rail traffic noise.

Warning clauses to notify future residents of possible noise excesses are also required when nighttime sound levels exceed 50 dBA at the plane of the hotel/bedroom or living/dining room window and daytime sound levels exceed 55 dBA in the outdoor living area and at the plane of the hotel/bedroom or living/dining room window due to road and rail traffic.

4 TRAFFIC NOISE ASSESSMENT

4.1 Road Traffic Data

Traffic data for the DVP and Eglinton Avenue were obtained from the City of Toronto Traffic Safety Unit and traffic data for the remaining roadways were obtained from the Transportation Impact Study prepared by LEA Consulting Ltd. dated February 19, 2013. Traffic volumes were also compared with data obtained from WSP personnel that was prepared for a nearby project. The more conservative numbers were used. Relevant pages are provided in Appendix A. These data were provided in the form of 24-hour counts and future traffic projections to the year 2030. Traffic volumes were conservatively assumed to grow at a typical rate of 2.5%/year on all roadways, and future average daytime (07:00 to 23:00) and night-time (23:00 to 07:00) hourly volumes that will exist in 10 years (2030) were calculated. An assumed day/night split of 90%/10% was used for all roadways. The posted speed limit on most of the roadways is 60 km/h with the exception of the Don Valley Parkway which has a posted speed limit of 90 km/h. In the acoustic model, traffic data from all the surrounding significant roadways were included. Table II summarizes the future traffic volume data used in this study.

Table II: 2030 Projected Road Traffic Data

Location	Day (Hourly Average 7am – 11pm)			Night (Hourly Average 11pm – 7am)			Speed (kph)
	Cars	Trucks	Truck %	Cars	Trucks	Truck %	
Don Valley Parkway northbound	6491	971	13 %	1443	215	13 %	90
Don Valley Parkway southbound	5911	884	13 %	1314	196	13 %	90
Eglinton Avenue East	3740	89	2.3 %	831	20	2.3%	60
Don Valley Parkway On-Ramp*	528	79	13 %	118	17	13 %	90
Wynford Drive	907	31	3.3%	200	7	3.3%	60

Note:
*Since data was not available for the Eglinton DVP on-ramp, data from the Wynford DVP on-ramp was used (as provided in the LEA traffic study)

4.2 Rail Traffic Data

Rail traffic data was obtained from both GO Transit and CNR (including VIA traffic) for Metrolinx's Bala Subdivision, and is contained in Appendix B. For freight and passenger trains, these data were escalated to the year 2030 at an annual rate of 2.5%, as required by MECP and CN guidelines. For GO trains, future volumes were supplied by GO Transit, and these volumes were used in the analysis. The rail volumes used in the analysis are summarized in Table III.

Table III: 2030 Projected and Ultimate Rail Traffic

Type of Train	Number of Trains Day/Night	Maximum Number of locomotives	Maximum Number of cars	Max Speed (KPH)
Freight	2.2/1.0	4	140	64
Passenger (VIA)	3.4/0	1	10	64
GO	10/0	1	12	56

4.3 Traffic Noise Predictions

To assess the levels of traffic noise that will impact the different façades and elevations of the buildings, predictions were made using a 3D computer modelling package (*Cadna-A version 2020 MR1: build 177.5010*). The model is based on the methods from ISO Standard 9613-2.2, "Acoustics - Attenuation of Sound During Propagation Outdoors", which accounts for reduction in sound level with distance due to geometrical spreading, air absorption, ground attenuation and acoustical shielding by intervening structures. The roads were included in the model using line sources, calibrated to levels predicted in STAMSON 5.04, a computer algorithm developed by the MECP.

The rail lines were included in the model as line sources with sound power levels equivalent to those published by the Department of Transportation (United States of America) Federal Transit Administration (FTA) in the publication entitled, "Transit Noise and Vibration Impact Assessment".

The model was used to predict traffic noise levels at each of the building facades and at the rooftop amenity areas.

Table IV shows the maximum predicted sound level at each location.

Table IV: Predicted Sound Level [dBA] at the façades and OLA from Future Traffic

Phase	Location	Description	Daytime OLA (07:00 - 23:00)*	Daytime Façade (07:00-23:00)	Nighttime Façade (23:00-07:00)
Phase 1	Podium	North	--	69	64
		East	--	63	58
		South	--	68	63
		West	--	71	66
	South Building (T1)	North	--	67	65
		East	--	62	57
		South	--	68	63
		West	--	70	65
	North Building (T2)	North	--	69	64
		East	--	63	58
		South	--	65	61
		West	--	69	64
	Outdoor Amenity Area (9/F)	--	57	--	--
Phase 2	Podium	North	--	67	62
		East	--	65	58
		South	--	60	55
		West	--	65	61
	North Building (T3)	North	--	67	62
		East	--	61	56
		South	--	56	49
		West	--	65	61
	South Building (T4)	North	--	64	60
		East	--	58	51
		South	--	60	55
		West	--	64	59
	Outdoor Amenity Area (9/F)	--	<55	--	--

5 TRANSPORTATION NOISE RECOMMENDATIONS

The following discussion outlines preliminary recommendations for building façade constructions, alternative ventilation requirements, and warning clauses to achieve the noise criteria stated in Table I.

5.1 Outdoor Living Areas

The majority of residential units have balconies that are less than 4 metres in depth (which are exempt from the definition of OLA under MECP guidelines).

The predicted daytime sound levels at the rooftop amenity area on the podium of Phase 1 and will be 57 dBA, 2 dBA in excess of MECP's limit of 55 dBA, assuming a standard 1.07 m high solid parapet or guard. This 2 dBA excess is acceptable with the use of a noise warning clause and has been accepted by the City in the past. Further physical mitigation will not be required in this area.

The predicted daytime sound levels at the rooftop amenity area on the podium of Phase 2 and will be less than 55 dBA, assuming a standard 1.07 m high solid parapet or guard. Further physical mitigation will not be required in this area.

5.2 Ventilation Requirements

The predicted daytime and night-time sound levels at some of the façades of the towers in both phases will exceed 65 dBA and 60 dBA, respectively, and thus central air conditioning systems are required so that windows may remain closed. Central air conditioning is expected for the proposed buildings in any case.

5.3 Building Constructions

Floor plans and elevations have not yet been sufficiently developed for the detailed acoustical specification of the building envelope.

Exterior Wall Constructions

The exterior walls of the residential towers may include spandrel glass and/or metal panels within an aluminum window system with sections of precast concrete. In this analysis, it has

been assumed that sound transmitted through elements other than the glazing elements is negligible in comparison. This is anticipated to be true for all exterior wall assemblies which are backed with an independent drywall partition with insulation.

Glazing

Assuming a typical window to floor area of 50% for the living/dining rooms (40% fixed and 10% operable) and 25% for the bedrooms (20% fixed and 5% operable), the minimum acoustical requirement for the basic window glazing, including glass in fixed sections, sliding doors, and operable windows, is STC-33 or lower for the proposed residential/hotel portion of the proposed buildings. The stated glazing requirements are subject to a recommended minimum of STC-33 given the urban nature of the site, to address spurious environmental noises that have not been specifically modelled. The calculated STC requirements assume insignificant sound transmission through the walls. These glazing requirements can be met using fairly standard sealed units. Note that acoustic performance varies with manufacturer's construction details, and these are only guidelines to provide some indication of the type of glazing likely to be required.

Operable sections include sliding glass doors and operable windows, and provided that they include a good seal, will not significantly affect overall performance. Operable windows and sliding glass doors must be well-fitted and weather-stripped.

Further Work

When detailed floor plans and building elevations are available, the glazing requirements should be refined based on actual window to floor area ratios.

6 VIBRATION FROM LIGHT RAIL TRANSIT

6.1 Vibration Criteria

Potential vibration impact from the future Eglinton Crosstown LRT must also be considered.

Vibration from the passage of the LRT vehicles may be transmitted via the ground and then transferred up through the structure. Vibration intrusions that are potentially unacceptable in the

building could take the form of either vibration which is clearly perceptible to the touch and/or which produces radiated noise levels in excess of the ambient acoustic environment.

A preliminary noise and vibration assessment of the future Eglinton Crosstown LRT was conducted by J. E. Coulter Associates Limited, with results summarized in a report dated February 26, 2010. The noise and vibration impact assessment criteria used in the report were based on a set of draft protocols developed by the TTC and the MECP. The vibration limit in these protocols is 0.1 mm/s (RMS), which is more stringent than other criteria often used to evaluate vibration levels in buildings. In general, vibration is not perceptible to humans at vibration velocity levels below 0.1 mm/s. The report also notes that no specific criteria were developed for re-radiated noise, but indicates that the low vibration limit of 0.1 mm/s attempts to reduce this impact as well.

6.2 Vibration Assessment

The findings of the report prepared by J. E. Coulter Associates Limited for the future Eglinton Crosstown LRT indicate that, if vibration isolation systems similar to the ones used in the newer Sheppard subway line are implemented for the proposed Eglinton LRT line, vibration associated with the portion of the line at the subject site should be within the 0.1 mm/s criterion at any typical setback distance (without excesses) and re-radiated noise is not expected to be an issue. Therefore, it is unlikely that future light-rail vehicles will cause perceptible vibration or significant levels of re-radiated noise at the proposed development. Thus, additional mitigation measures related to noise and vibration caused by the future LRT line are not expected to be required.

7 WARNING CLAUSES

MECP guidelines recommend that the following warning clauses be included in the property titles, purchase and sale agreements, and tenancy agreements of properties where anticipated traffic sound level excesses are identified.

(a) Purchasers/tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road/rail traffic may on occasion interfere with some activities of the dwelling occupants as the sound levels exceed the Municipality's and the Ministry of the Environment, Conservation and Parks' noise criteria.

(b) This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the Ministry of Environment, Conservation and Parks' noise criteria.

(c) This development is located adjacent to the Metrolinx's Eglinton Crosstown light rail transit line. Noise and vibration from LRT operations may occasionally be perceptible and/or audible in the building.

8 IMPACT OF THE DEVELOPMENT ON THE ENVIRONMENT

Sound levels from stationary (non-traffic) sources of noise such as rooftop air-conditioners, cooling towers, exhaust fans, etc. should not exceed the minimum one-hour L_{EQ} ambient (background) sound level from road traffic, at any potentially impacted residential point of reception, to comply with City of Toronto Municipal Code 591. Typical minimum ambient sound levels in the area are expected to be in the range of 55 dBA or more during the day and 50 dBA or more at night. Thus, any electro-mechanical equipment associated with this development (e.g. emergency generator testing, fresh-air handling equipment, etc.) should be designed such that they do not result in noise impact beyond these ranges.

9 IMPACT OF THE DEVELOPMENT ON ITSELF

Section 5.9.1 of the Ontario Building Code (OBC) specifies the minimum required sound insulation characteristics for demising partitions, in terms of Sound Transmission Class (STC) values. In order to maintain adequate acoustical privacy between separate suites in a multi-tenant building, inter-suite walls should meet or exceed STC-50. Walls separating a suite from a noisy space such as a refuse chute, or elevator shaft, should meet or exceed STC-55. In addition, it is recommended that the floor/ceiling constructions separating suites from any amenity or commercial spaces also meet or exceed STC-55. Tables 1 and 2 in Section SB-3 of the

Supplementary Guideline to the OBC provide a comprehensive list of constructions that will meet the above requirements.

Tarion's Builder Bulletin B19R requires the internal design of condominium projects to integrate suitable acoustic features to insulate the suites from noise from each other and amenities in accordance with the OBC, and limit the potential intrusions of mechanical and electrical services of the buildings on its residents. Where B19R certification is needed, an acoustical consultant is required to review the mechanical and electrical drawings and details of demising constructions and mechanical/electrical equipment, when available, to help ensure that the noise impact of the development on itself is maintained within acceptable levels.

10 SUMMARY OF RECOMMENDATIONS

The following recommendations are provided in regards to noise mitigation:

1. The proposed buildings should be equipped with central air conditioning systems that will allow the windows to remain closed.
2. Upgraded glazing constructions are required for the façades of the towers with exposure to the major roadways, as indicated in Section 5.3.
3. A detailed noise study should be conducted for the proposed buildings when detailed floor plans and elevations are available to refine the building façade and glazing construction with respect to traffic noise impacts based on actual window to floor area ratios.
4. Warning clauses should be included in the property and tenancy agreements and offers of purchase or sale to inform future owners/occupants of the road and future LRT noise issues and the presence of the roadways, as shown in Section 7.
5. Tarion Builder's Bulletin B19R requires that the internal design of condominium projects integrates suitable acoustic features to insulate the suites from noise from each other and amenities in accordance with the OBC, and limit the potential intrusions of mechanical and electrical services of the buildings on its residents. If B19R certification is needed, an acoustical consultant is required to review the mechanical and electrical drawings and

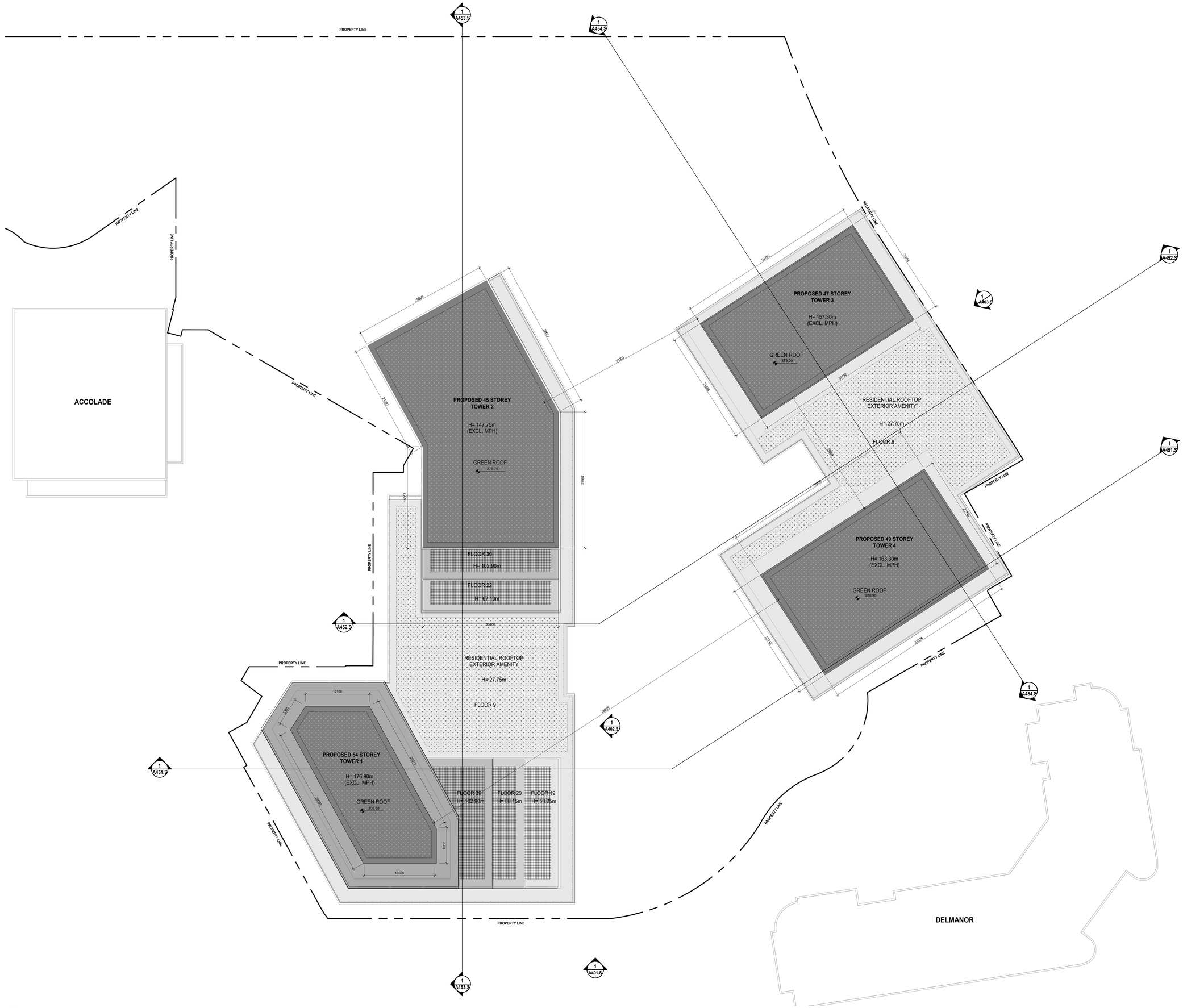
details of demising constructions and mechanical/electrical equipment, when available, to help ensure that the noise impact of the development on itself are maintained within acceptable levels. Outdoor sound emissions should also be checked to ensure compliance with the City of Toronto noise by-law (Toronto Municipal Code, Chapter 591).

10.1 Implementation

To ensure that the noise control recommendations outlined above are fully implemented, it is recommended that:

1. When detailed architectural floor plans and exterior elevation drawings are available, an acoustical engineer shall review the plans to provide recommendations for glazing elements based on actual window to floor area ratios.
2. Prior to the issuance of occupancy permits for this development, the City's building inspector or a Professional Engineer qualified to provide acoustical engineering services in the Province of Ontario should certify that the noise control measures for the development have been properly incorporated, installed and constructed.

Figure 1: Key Plan



1 A214.S ROOF PLAN
SCALE: 1 : 250

Figure 2: Proposed Site Plan

REVISION RECORD

ISSUE RECORD

Quadrangle

Quadrangle Architects Limited
901 King Street West, Suite 701 Toronto, ON M5V 3H5
t 416 598 1240 www.quadrangle.ca

175 Wynford Drive

175 Wynford Drive

for
Freed Developments + Fengate Properties

19063 1 : 250 MF AB
PROJECT SCALE DRAWN REVIEWED

Roof Plan

A214.S

2020-09-15 6:26:16 PM

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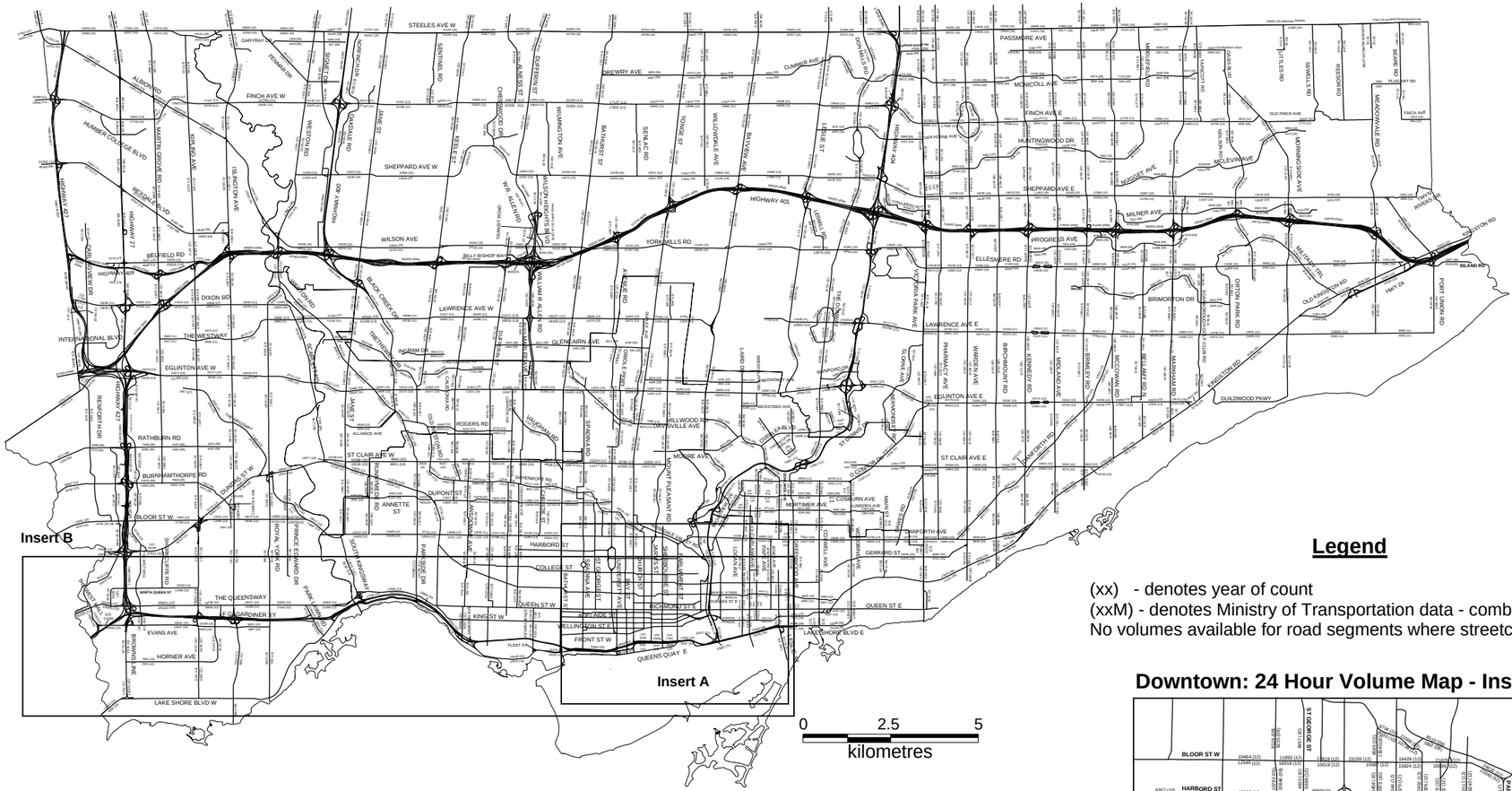
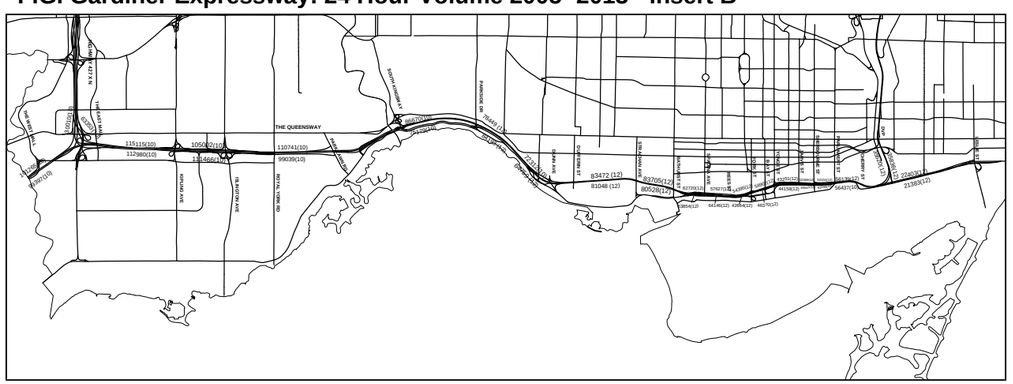
APPENDIX A

Road Traffic Data

Average Weekday , 24 Hour Traffic Volume, (Most Recent Counts from 2005-2013)



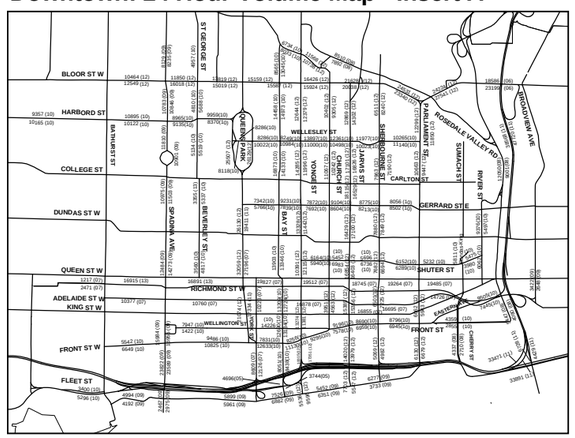
F.G. Gardiner Expressway: 24 Hour Volume 2005- 2013 - Insert B



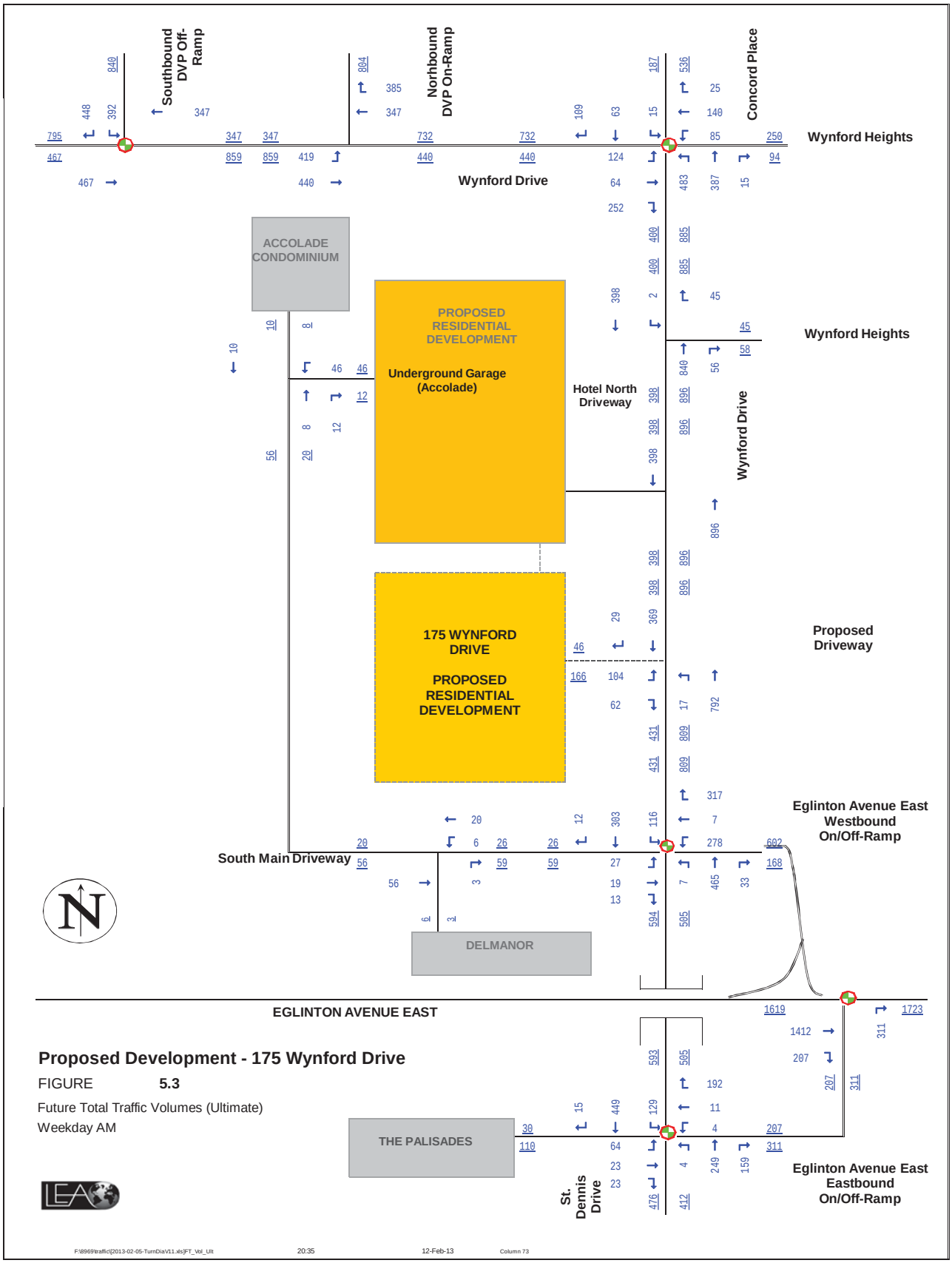
Legend

(xx) - denotes year of count
(xxM) - denotes Ministry of Transportation data - combined directional volume
No volumes available for road segments where streetcars exist

Downtown: 24 Hour Volume Map - Insert A



Transportation Services
Traffic Safety Unit
2013-9-30

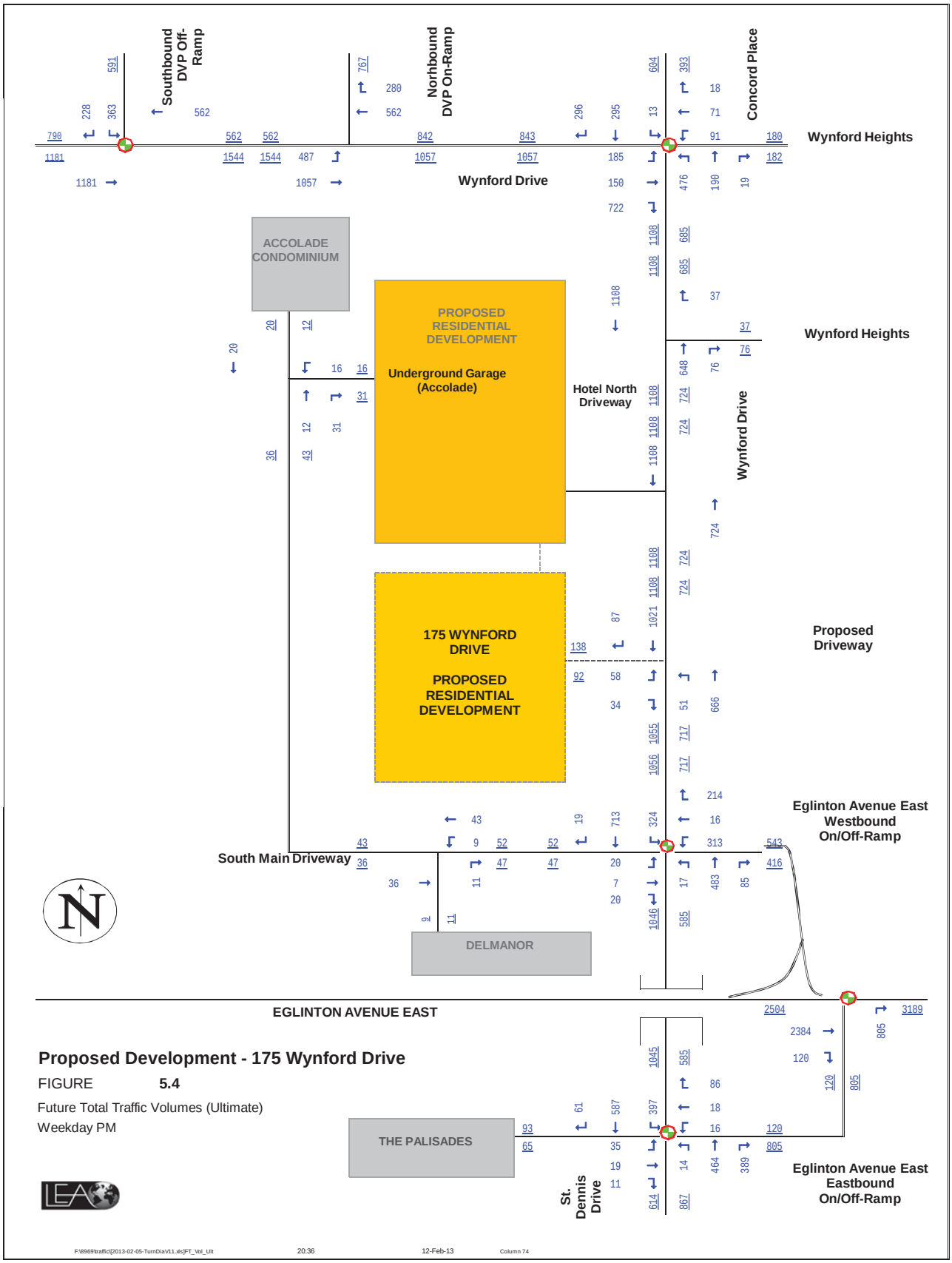


Proposed Development - 175 Wynford Drive

FIGURE **5.3**

Future Total Traffic Volumes (Ultimate)
Weekday AM

F:\8969\traffic\[2013-02-05-TurnDiaV11.xls]FT_Vol_Ult 20:35 12-Feb-13 Column 73



Proposed Development - 175 Wynford Drive

FIGURE **5.4**

Future Total Traffic Volumes (Ultimate)
Weekday PM

F:\8969\traffic\[2013-02-05-TurnDiaV11.xls]FT_Vol_Ult 20:36 12-Feb-13 Column 74

City of Toronto - Traffic Safety Unit

Turning Movement Count Summary Report

EGLINTON AVE AT LESLIE ST (PX 453)

Survey Date: 2014-May-03 (Saturday)

Survey Type: Routine Hours

Time Period	Vehicle Type	NORTHBOUND Exits	Left	Thru	Right	Total	EASTBOUND Exits	Left	Thru	Right	Total	SOUTHBOUND Exits	Left	Thru	Right	Total	WESTBOUND Exits	Left	Thru	Right	Total		Peds	Bike	Other
08:30-09:30	CAR	813	0	0	0	0	967	505	713	0	1,218	0	254	0	675	929	1,520	0	845	308	1,153	N	14	23	0
	TRK	15	0	0	0	0	17	11	11	0	22	0	6	0	18	24	37	0	19	4	23	S	0	0	0
AM PEAK	BUS	6	0	0	0	0	9	6	9	0	15	0	0	0	7	7	22	0	15	0	15	E	13	3	0
																						W	14	0	0
	TOTAL:	**834**	**0**	**0**	**0**	**0**	**993**	**522**	**733**	**0**	**1,255**	**0**	**260**	**0**	**700**	**960**	**1,579**	**0**	**879**	**312**	**1,191**				
16:00-17:00	CAR	1,335	0	0	0	0	1,750	951	1,253	0	2,204	0	497	0	849	1,346	1,898	0	1,049	384	1,433	N	8	0	0
	TRK	6	0	0	0	0	13	2	7	0	9	0	6	0	4	10	7	0	3	4	7	S	0	0	0
PM PEAK	BUS	10	0	0	0	0	17	9	16	0	25	0	1	0	9	10	28	0	19	1	20	E	6	0	0
																						W	6	0	0
	TOTAL:	**1,351**	**0**	**0**	**0**	**0**	**1,780**	**962**	**1,276**	**0**	**2,238**	**0**	**504**	**0**	**862**	**1,366**	**1,933**	**0**	**1,071**	**389**	**1,460**				
OFF HR AVG	CAR	1,152	0	0	0	0	1,638	813	1,197	0	2,010	0	441	0	848	1,289	2,000	0	1,152	339	1,491	N	11	5	0
	TRK	18	0	0	0	0	24	9	13	0	22	0	11	0	8	19	16	0	8	9	17	S	0	0	0
	BUS	10	0	0	0	0	17	9	16	0	25	0	1	0	10	11	27	0	17	1	18	E	8	1	0
																						W	8	0	0
	TOTAL:	**1,180**	**0**	**0**	**0**	**0**	**1,679**	**831**	**1,226**	**0**	**2,057**	**0**	**453**	**0**	**866**	**1,319**	**2,043**	**0**	**1,177**	**349**	**1,526**				
07:30-09:30	CAR	1,318	0	0	0	0	1,631	793	1,163	0	1,956	0	468	0	1,205	1,673	2,593	0	1,388	525	1,913	N	22	23	0
	TRK	34	0	0	0	0	32	21	16	0	37	0	16	0	27	43	68	0	41	13	54	S	0	0	0
2 HR AM	BUS	12	0	0	0	0	16	12	16	0	28	0	0	0	12	12	33	0	21	0	21	E	14	3	0
																						W	15	4	0
	TOTAL:	**1,364**	**0**	**0**	**0**	**0**	**1,679**	**826**	**1,195**	**0**	**2,021**	**0**	**484**	**0**	**1,244**	**1,728**	**2,694**	**0**	**1,450**	**538**	**1,988**				
16:00-18:00	CAR	2,438	0	0	0	0	3,392	1,725	2,406	0	4,131	0	986	0	1,654	2,640	3,745	0	2,091	713	2,804	N	13	0	0
	TRK	12	0	0	0	0	27	5	14	0	19	0	13	0	8	21	15	0	7	7	14	S	0	0	0
2 HR PM	BUS	24	0	0	0	0	32	23	31	0	54	0	1	0	17	18	49	0	32	1	33	E	11	1	0
																						W	12	0	0
	TOTAL:	**2,474**	**0**	**0**	**0**	**0**	**3,451**	**1,753**	**2,451**	**0**	**4,204**	**0**	**1,000**	**0**	**1,679**	**2,679**	**3,809**	**0**	**2,130**	**721**	**2,851**				
07:30-18:00	CAR	8,365	0	0	0	0	11,573	5,771	8,356	0	14,127	0	3,217	0	6,249	9,466	14,334	0	8,085	2,594	10,679	N	77	41	0
	TRK	118	0	0	0	0	152	63	80	0	143	0	72	0	66	138	147	0	81	55	136	S	0	0	0
8 HR SUM	BUS	75	0	0	0	0	116	72	112	0	184	0	4	0	67	71	189	0	122	3	125	E	57	8	0
																						W	60	4	0
	TOTAL:	**8,558**	**0**	**0**	**0**	**0**	**11,841**	**5,906**	**8,548**	**0**	**14,454**	**0**	**3,293**	**0**	**6,382**	**9,675**	**14,670**	**0**	**8,288**	**2,652**	**10,940**				

Total 8 Hour Vehicle Volume: 35,069

Total 8 Hour Bicycle Volume: 53

Total 8 Hour Intersection Volume: 35,122

Comment: COUNTED DURING DVP CLOSURE MAY 3, 2014

Printed On: 26 Nov, 2014 1:07:36PM

APPENDIX B

Rail Traffic Data

Sheeba Paul

From: Rail Data Requests <RailDataRequests@metrolinx.com>
Sent: May-01-20 10:05 AM
To: Sheeba Paul
Subject: RE: GO Rail - Traffic Volume Request, Toronto

Follow Up Flag: Follow up
Flag Status: Flagged

Good Day Sheeba,

Further to your request dated April 24th, 2020, the subject property, 175 Wynford Drive, North York is located in proximity to Metrolinx's Bala Subdivision which carries Richmond Hill GO Train services.

It's anticipated that GO service on this line will be comprised of diesel trains within (at least) a 10-year time horizon. The preliminary midterm weekday train volume forecast at this location, including both revenue and equipment trips is in the order of 10 diesel trains - 10 day, 0 night. Trains will be comprised of a single locomotive and up to 12 passenger cars.

The maximum track design speed at this location on this corridor is 35 mph (56 km/h).

There are no anti-whistling by-laws in place around the subject property.

Operational information is subject to change and may be influenced by, among other factors, service planning priorities, operational considerations, funding availability, and passenger demand.

It should be noted that this information is only as it pertains to Metrolinx trains. It would be prudent to contact other rail operators in the area directly for their rail traffic information.

I trust this information is useful. Should you have any questions or concerns, please do not hesitate to contact me.

Best Regards,
Terri Cowan
Third Party Projects Officer
Third Party Projects Review| Capital Projects Group
Metrolinx | 20 Bay Street, Suite 600 |Toronto, Ontario|M5J 2W3
T: 416-202-3903 C: 416-358-1595

METROLINX

From: Sheeba Paul [mailto:spaul@hgcengineering.com]
Sent: April-24-20 4:06 PM
To: Rail Data Requests
Subject: RE: GO Rail - Traffic Volume Request, Toronto

Hello

We are working on a noise study for a proposed mixed-use/residential development in Toronto, Ontario. The site is located at 175 Wynford Drive. A google link is provided below.

https://www.google.com/maps/place/175+Wynford+Dr,+North+York,+ON+M3C+1J3/@43.7254898,-79.3264996,16.73z/data=!4m5!3m4!1s0x89d4cda38ec19829:0x7fa4ac63e4205da5!8m2!3d43.7247726!4d-79.3273679

We are requesting rail data for GO Transit/Metrolinx for the railway line to the east of the site and under Eglinton Ave E.

- Rail data including number of trains per day/night, speed, number of cars and locomotives
- classification of the railway line (spur, mainline, secondary mainline etc).
- whistle on or off

Thank you.

Ms. Sheeba Paul, MEng, PEng
Senior Associate

HGC Engineering **NOISE | VIBRATION | ACOUSTICS**
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