

Environmental Noise & Vibration Assessment

**2400-2440 Dundas Street West,
Toronto, ON**

Fora Developments

200-2440 Dundas Street West
Toronto, ON M6P 1W9

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1.0 Introduction

SLR Consulting (Canada) Ltd. (SLR) was retained by Fora Developments (“the Client”) to prepare an environmental noise and vibration assessment for the proposed development at 2400-2440 Dundas Street West in Toronto, Ontario (“the Project site”). This report is in support of Zoning By-law Amendment (ZBA) planning application.

1.1 Focus of Report

In keeping with City of Toronto and Ministry of Environment, Conservation and Parks (MECP) requirements, this report examines the potential for:

- Impacts of the environment on the proposed development;
- Impacts of the proposed development on the environment; and
- Impacts of the proposed development on itself.

1.2 Nature of the Surroundings

The Project site is currently occupied by a two-storey commercial/retail and office building at the north end, and a FreshCo grocery store at the south end. In between the existing buildings is a surface parking lot. It is surrounded by the following:

- The CN/Metrolinx Weston and Lower Galt Subdivision rail corridor with residential townhouse and detached dwellings beyond to the east;
- A new residential condominium complex (LNX Condominiums), The Crossway apartment complex with ground floor commercial/retail/office space, and Bloor Street West beyond to the south;
- Dundas Street West with single-family residential dwellings beyond to the west. There are small commercial/retail/office land uses along Dundas Street West; and
- Office buildings, commercial and retail businesses on both sides of the rail corridor, and townhouses/residential dwellings beyond to the north.

A context plan is shown in **Figure 1**.

The proposed lands are located within Former City of Toronto By-Law No. 438-86, on lands currently zoned Industrial/Commercial, but designated as Mixed Use based on the Official Plan. Lands immediately surrounding the proposed development are generally zoned Mixed-Use/Commercial Residential along Dundas Street West and Bloor Street West and Residential further to the west, north and east, according to Former City of Toronto By-Law No. 438-86 and City of Toronto Zoning By-Law 569-2013.

1.3 Description of Proposed Development

The Project site is located at municipal address 2400-2440 Dundas Street West, Toronto. The two-storey commercial/retail/office building and FreshCo building that currently occupy the site will be demolished to accommodate the new development.

The proposed development is to include a mixed-use podium structure with two residential towers at the north end of the Project site (Building A), a mixed-use office/residential building at the south end (Building B), and one level of underground parking. Building A is to have a three-storey podium that includes live/work spaces, residential units, amenity spaces, office/retail uses, and a grocery store. Tower A1 (18 storeys) and Tower A2 (25 storeys) are to contain residential units. Building B will have ground

floor office space and residential units/amenity spaces at the 2nd floor and above, with a 36-storey residential tower. Site access will be from Dundas Street West. Road and pedestrian access at this location will also be provided to the Bloor GO Station kiss-and-ride area.

Development drawings are provided for reference in **Appendix A**.

PART 1: IMPACTS OF THE ENVIRONMENT ON THE DEVELOPMENT

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

- Transportation noise impacts from surrounding road and rail sources; and
- Stationary source noise impacts from surrounding employment lands, in accordance with the City of Toronto Terms of Reference;

The Project site is located outside of the Toronto Pearson Airport NEF 25 contour; therefore, an assessment of aircraft noise impacts was not completed.

2.0 Transportation Noise Assessment

2.1 Transportation Noise Sources

Sources with the potential to produce road traffic noise at the proposed development that were considered in this assessment include:

- Dundas Street West (including Toronto Transit Commission (TTC) streetcar operations); and
- Bloor Street West.

Furthermore, sources with the potential to produce rail traffic noise at the proposed development that were considered in this assessment include:

- CN passenger trains along the Weston Subdivision;
- GO/Metrolinx and Union Pearson Express (UPX) trains along the Weston Subdivision (Kitchener Service); and
- Metrolinx trains along the Lower Galt Subdivision (Milton Service).

Road and rail noise from these sources has been predicted, and this information has been used to identify façade, ventilation, and warning clause recommendations for the proposed development.

2.2 Surface Transportation Noise Criteria

2.2.1 Ministry of Environment Publication NPC-300

Noise-Sensitive Developments

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

Location-Specific Criteria

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

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

Type of Space	Time Period	Energy Equivalent Sound Exposure Level L_{eq} ^[5] (dBA)		Assessment Location
		Road	Rail ^[1]	
Outdoor Living Area	Daytime (0700-2300h)	55	55	Outdoors ^[2]
Living/Dining Room ^[3]	Daytime (0700-2300h)	45	40	Indoors ^[4]
	Night-time (2300-0700h)	45	40	Indoors ^[4]
Sleeping Quarters	Daytime (0700-2300h)	45	40	Indoors ^[4]
	Night-time (2300-0700h)	40	35	Indoors ^[4]
Notes: <ul style="list-style-type: none"> [1] Whistle noise is excluded for OLA noise assessments and included for Living/Dining Room and Sleeping Quarter assessments, if sounded. [2] Road and Rail sound levels are to be combined for assessment of OLA impacts. [3] Residence area Dens, Hospitals, Nursing Homes, Schools, Daycares are also included. During the nighttime period, Schools and Daycares are excluded. [4] An assessment of indoor noise levels is required only if the criteria in Table 3 are exceeded. [5] L_{eq} – the energy equivalent sound exposure level, integrated over the time period shown. 				

Outdoor Living Areas

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

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

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

Time Period	OLA Energy Equivalent Sound Level L_{eq} (dBA)	Mitigation/Warning Clause Requirements
Daytime (0700-2300h)	≤ 55	<ul style="list-style-type: none"> None
	56 to 60 inc.	<ul style="list-style-type: none"> Noise barrier OR Warning Clause A
	> 60	<ul style="list-style-type: none"> Noise barrier to reduce noise to 55 dBA OR Noise barrier to reduce noise to 60 dBA and Warning Clause B

Ventilation and Warning Clauses

Table 3 summarizes recommendations for ventilation where windows would potentially have to remain closed as a means of noise control. Despite implementation of ventilation measures where

recommended, if sound levels exceed the guideline limits in **Table 1**, warning clauses advising future occupants of the potential excesses are also recommended. Warning clauses also apply to OLAs.

Table 3: NPC-300 Ventilation and Warning Clause Requirements/Recommendations

Assessment Location	Time Period	Energy Equivalent Sound Exposure Level - L _{eq} (dBA)		Ventilation and Warning Clause Recommendations ^[2]
		Road	Rail ^[1]	
Outdoor Living Area	Daytime (0700-2300h)	56 to 60 incl.		Type A Warning Clause
Plane of Window	Daytime (0700-2300h)	≤ 55		None
		56 to 65 incl.		Forced Air Heating with provision to add air conditioning + Type C Warning Clause
		> 65		Central Air Conditioning + Type D Warning Clause
	Night-time (2300-0700h)	51 to 60 incl.		Forced Air Heating with provision to add air conditioning + Type C Warning Clause
		> 60		Central Air Conditioning + Type D Warning Clause
Notes: [1] Whistle noise is excluded from assessment. [2] Road and Rail sound levels is combined for determining ventilation and warning clause recommendations.				

Building Component Requirements

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

Table 4: NPC-300 Building Component Assessment Requirements

Assessment Location	Time Period	Energy Equivalent Sound Exposure Level - L _{eq} (dBA)		Component Requirements
		Road	Rail ^[1]	
Plane of Window	Daytime (0700-2300h)	> 65	> 60	Designed/Selected to Meet Indoor Requirements ^[2]
	Night-time (2300-0700h)	> 60	> 55	
Notes: [1] Whistle noise is to be included in the assessment, if sounded. [2] Building component requirements are assessed separately for Road and Rail, and then combined for a resultant sound isolation parameter.				

2.3 Traffic Data and Future Projections

2.3.1 Road Traffic Data

Year 2019 turning movement counts (TMCs) were obtained from the City of Toronto's Open Data Portal for the intersection of Dundas Street West and Bloor Street West. The Year 2019 traffic counts were projected to future year 2035 at a 2.0% per annum growth rate. This is considered to be a conservative assessment of roadway impacts, as the project traffic consultant has indicated analysis of growth rates concluded generally negative or stable growth trends as of 2022/2023.

Day/night splits of 90%/10% were assumed, as is recommended in the MECP ORNAMENT document.

For streetcars, SLR contacted the TTC in to request traffic counts. No response was received from the TTC. Therefore, this assessment has been completed using previously obtained streetcar volumes from 2018.

Copies of traffic data and calculations are provided for reference in **Appendix B. Table 5** summarizes the road traffic data used in the analysis.

Table 5: Summary of Road Traffic Data Used in Transportation Noise Assessment

Roadway Link	Future Traffic Volumes AADT ^[1]	% Day/Night Volume Split		Commercial Vehicle Breakdown ^[3]		Vehicle Speed (km/hr)
		Daytime %	Night-time %	% Medium Trucks	% Heavy Trucks	
Dundas Street West	30,037 ^[1]	90	10	3.4	1.1	40
Bloor Street West	33,280 ^[1]	90	10	2.6	1.2	40
TTC Streetcars	682 ^[2]	89	11	---	---	30
Notes: [1] Traffic volumes were projected to future year 2035 at a 2.0% per annum growth rate. [2] TTC streetcar data from 2018 was used in the assessment, considering traffic along the 504 King, 505 Dundas and 306 Carlton (night) TTC routes. [3] Total commercial vehicle traffic percentages calculated from turning movement count data. Ratio of medium to heavy trucks based on historical data from the SLR database, considering average ratios for non-industrial areas in the Greater Toronto Area (GTA).						

2.3.2 Rail Traffic Data

CN rail traffic data for the Weston Subdivision from Year 2018 was previously obtained by SLR for the section of railway in proximity to the Project site. SLR staff also previously contacted CN in May 2022 and confirmed that the 2018 data is still applicable; refer to **Appendix B**.

Rail traffic volumes and details from 2018 were projected to future year 2035 at a growth rate of 2.5%. This growth rate is commonly applied in rail transportation noise assessments.

Metrolinx provided future forecasted rail volume data for GO Train/Union Pearson Express (UPX) traffic along the Weston Subdivision (Kitchener Service) and GO Train traffic along the Lower Galt Subdivision (Milton Service). Forecasted rail traffic volumes were used in the assessment. All GO train locomotives were assumed to be diesel powered, and UPX trains were assumed to be Diesel Multiple Units (DMUs). Metrolinx correspondence is provided for reference in **Appendix B**.

The rail traffic data used in the assessment is summarized in **Table 6**, with modelling inputs included for reference in **Appendix B**.

The nearby rail crossings are grade-separated from the roadways. Therefore, whistle noise was not considered in the assessment.

Table 6: Summary of Rail Traffic Data Used in Transportation Noise Assessment

Railway Source	Train Type	Max. Locomotive per Train	Max. Cars per train	Forecasted Train Volumes		Travel Speed (km/hr)
Weston Subdivision	CN Passenger (diesel) ^[1]	2	10	7 ^[3]	4 ^[3]	129
	Metrolinx/GO (diesel)	2	12	128	24	121
	UPX (DMU) ^[2]	3	---	724	216	121
Lower Galt Subdivision	Metrolinx/GO (diesel)	1	12	38	6	121
Notes: [1] Rail traffic data provided by CN from year 2018 was projected to year 2035 at a 2.5% annual growth rate. [2] Metrolinx data represents forecasted future volumes. Additional correspondence with Metrolinx has confirmed UPX trains contain up to three (3) DMUs each.						

2.4 Predicted Sound Levels

Future road traffic sound levels at the proposed development were predicted using Cadna/A, a commercially available noise propagation modelling software. Roadways were modelled as line sources of sound, with sound emission rates calculated using the ORNAMENT algorithms, the road traffic noise model of the MECP. These predictions were validated and are equivalent to those made using the MECP's ORNAMENT or STAMSON v5.04 road traffic noise models. A STAMSON validation file is included for reference in **Appendix C**.

Rail traffic sound levels at the proposed development were predicted using the U.S. Department of Transportation Federal Transit Administration ("FTA") and Federal Railway Administration ("FRA") rail noise modelling algorithms included in the Cadna/A software. The FTA/FRA algorithms are the replacement models for the former MECP "STEAM" model and are written into the current draft version of MECP Publication NPC-306, which will replace the current NPC-206 guideline on transportation noise prediction. The FTA/FRA algorithms have been used in numerous Environmental Assessments ("EAs") for Metrolinx and CPR/CN railway projects, as well as in numerous land use planning projects across the province.

Sound levels were predicted along the facades of the proposed development using the "building evaluation" feature of Cadna/A. This feature allows for noise levels to be predicted across the entire façade of a structure.

Topographic contours and surrounding buildings from the City of Toronto Open Data Portal were included in the analysis. Ground absorption was modelled considering a value of $G = 0.0$ (reflective).

2.4.1 Façade Sound Levels

Predicted transportation façade sound levels (road and rail combined) for the proposed development, illustrating the ranges of predicted daytime and nighttime sound levels, are shown in **Figure 3** (daytime), **Figure 4** (nighttime), and are summarized in **Table 7**.

Table 7: Summary of Predicted Transportation Façade Sound Levels

Assessment Location	Building Façade ^[1]	Predicted Road Traffic Sound Levels ^[2]		Predicted Rail Traffic Sound Levels ^[2]		Total Predicted Road and Rail Traffic Sound Levels ^[2]	
		Leq Daytime (dBA)	Leq Night-time (dBA)	Leq Daytime (dBA)	Leq Night-time (dBA)	Leq Daytime (dBA)	Leq Night-time (dBA)
Building A Podium Floor 1 + Mezzanine	West	65	59	55	51	65	59
Building A Floor 3 Podium	North	58	52	70	66	70	66
	East	44	37	70	67	70	67
	South	57	51	68	64	68	64
	West	62	56	58	54	63	57
Building A Tower A1 (North)	North	61	55	70	66	70	66
	East	51	44	71	67	71	67
	South	58	52	68	64	68	64
	West	63	56	60	56	64	59
Building A Tower A2 (South)	North	58	51	69	65	69	65
	East	49	42	72	68	72	68
	South	55	49	69	65	69	65
	West	60	54	65	61	66	61
Building B Floor 2 Podium	North	60	53	64	60	65	61
	East	42	35	69	65	69	65
Building B Floor 3 Podium	North	60	53	64	60	65	61
	East	45	38	69	65	69	66
	South	54	48	65	61	65	62
	West	59	53	55	52	61	55
Building B Tower	North	59	53	64	61	65	61
	East	49	42	69	65	69	65
	South	56	50	64	61	64	61
	West	61	55	57	53	62	57
Notes: [1] Façade locations are shown in Figure 3 (daytime) and Figure 4 (nighttime) [2] Sound levels presented above are the highest for the identified building façade.							

The daytime/nighttime façade road and rail traffic sound levels are predicted to be above the thresholds described in **Table 4** at several locations within the proposed development; therefore, an assessment of building components is required. Refer to **Section 2.5**.

2.4.2 Outdoor Living Area Sound Levels

The OLAs requiring assessment for the proposed development are the east-facing Level 2 common outdoor amenity terrace associated with Building A (OLA 01), the east-facing Level 2 common outdoor amenity terrace associated with Building B (OLA 02), and the west-facing 13th floor terrace that is part of the Building B residential tower (OLA 03). The assessment locations for OLAs are shown in **Figure 5**; OLA sounds levels were assessed at a height of 1.5 m above the respective terraces.

As the proposed development includes common amenity spaces for all condominium occupants in the buildings, private terraces are not considered to be the only outdoor amenity spaces available. Therefore, an assessment of private terraces was excluded based on the definitions outlined in NPC-300.

The predicted OLA transportation noise levels are shown in **Figure 5** and summarized in **Table 8**.

Table 8: Summary of Predicted Transportation OLA Sound Levels

Assessment Location ^[1]	Predicted Transportation Sound Levels
	L _{eq} Daytime (dBA)
OLA 01	71
OLA 02	70
OLA 03	57
Notes: [1] OLA assessment locations are shown in Figure 5 .	

Predicted OLA sound levels at OLA 01 and OLA 02 exceed the criteria outlined in **Table 2**. Therefore, mitigation and warning clauses are required. Refer to **Section 2.5.3**.

2.5 Noise Control Measures

2.5.1 Façade Assessment

An assessment of indoor sound levels is required because façade sound levels due to transportation noise exceed thresholds summarized in **Table 4**.

Indoor sound levels and required facade Sound Transmission Classes (STCs) were estimated using the procedures outlined in National Research Council Building Practice Note 56 (BPN-56).

Detailed floor plans were not available at the time of the assessment. The preliminary façade requirements analysis is therefore based on the following assumptions:

- Non-glazing elements of the exterior wall were assumed to be rated at STC 50;
- For living/dining rooms, 70% of the exterior wall is vision glass/patio doors, and living/dining rooms have intermediate absorption; and
- For bedrooms, 50% of the exterior wall is vision glass, and bedrooms are very absorptive.

The building façade requirements based on the road and rail traffic sound levels and assumptions listed above are outlined in **Table 9** for units with one exposed façade, and in **Table 10** for corner units with two exposed facades.

Table 9: Summary of Façade Requirements for Proposed Development

Assessment Location	Building Façade ^[1]	Non-Glazing Façade Component	Glazing STC Requirements ^[2]	
			Bedroom (Sleeping Quarters)	Living/Dining Room
Building A Floor 1 + Mezzanine Podium	West	50	OBC	OBC
Building A Floor 3 Podium	North	50	36	34
	East	50	36	35
	South	50	34	32
	West	50	OBC	OBC
Building A Tower A1 (North)	North	50	36	34
	East	50	37	35
	South	50	34	32
	West	50	OBC	OBC
Building A Tower A2 (South)	North	50	34	33
	East	50	37	36
	South	50	35	33
	West	50	31	OBC
Building B Floor 2 Podium	North	50	30	OBC
	East	50	35	33
Building B Floor 3 Podium	North	50	30	OBC
	East	50	35	34
	South	50	31	30
	West	50	OBC	OBC
Building B Tower	North	50	30	OBC
	East	50	35	33
	South	50	30	OBC
	West	50	OBC	OBC

Notes: [1] Refer to **Figure 3** and **Figure 4** for façade location identification.

[2] OBC = windows meeting the minimum non-acoustic requirements of the Ontario Building Code (STC 29).

Table 10: Summary of Façade Requirements for Proposed Development – Corner Units

Assessment Location	Building Corner ^[1]	Non-Glazing Façade Component	Glazing STC Requirements	
			Bedroom (Sleeping Quarters)	Living/Dining Room
Building A Floor 3 Podium	Northeast	50	39	37
	Southeast	50	38	36
	Southwest	50	34	32
	Northwest	50	36	34
Building A Tower A1 (North)	Northeast	50	39	37
	Southeast	50	38	36
	Southwest	50	34	33
	Northwest	50	36	34
Building A Tower A2 (South)	Northeast	50	38	37
	Southeast	50	39	37
	Southwest	50	36	34
	Northwest	50	35	34
Building B Floor 2 Podium	Northeast	50	36	34
Building B Floor 3 Podium	Northeast	50	36	35
	Southeast	50	36	35
	Southwest	50	31	30
	Northwest	50	30	OBC
Building B Tower	Northeast	50	36	34
	Southeast	50	36	34
	Southwest	50	31	30
	Northwest	50	31	30
Notes: [1] Refer to Figure 3 and Figure 4 for façade location identification. [2] OBC = windows meeting the minimum non-acoustic requirements of the Ontario Building Code (STC 29).				

Where upgraded glazing is required, the combined glazing and frame assembly must be constructed to ensure the overall sound isolation performance of the entire window unit meets the specified STC rating. It is recommended that test data from the window manufacturer be reviewed to confirm the required acoustical performance is achieved.

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

2.5.2 Ventilation and Warning Clause Recommendations

The sound level triggers for possible warning clauses are summarized in **Table 2**. Where recommended, the warning clauses should be included in agreements registered on Title for the residential units and included in all agreements of purchase and sale or lease, and all rental agreements.

Based on the predicted façade noise levels central air conditioning and an MECP **Type D** warning clause are recommended for all residential suites in Building A and Building B.

Due to the proximity of the nearby CN/Metrolinx rail subdivisions, **Metrolinx** and **CN** warning clauses are also recommended.

All ventilation and warning clause recommendations for the proposed development are summarized in **Appendix D**.

2.5.3 OLA Mitigation Requirements

Two OLAs for the proposed development are predicted to have sound levels exceeding 60 dBA, as shown in **Figure 5** and **Table 8**.

The following barriers are required to achieve a predicted sound level of 60 dBA or less for OLA 01 and OLA 02:

- OLA 01: A sound barrier 2.0 m in height (above the roof) is required surrounding along the north and east edges of the 2nd-floor east-facing terrace, Building A. The location and extent of the required sound barrier is shown in **Figure 6**.
- OLA 02: A sound barrier 2.1 m in height (above the roof) is required surrounding the 2nd-floor east-facing terrace, Building B. The location and extent of the required sound barrier is shown in **Figure 6**.

The barriers can be composed of solid walls or other materials such as glass/plexiglass panels. The materials used to construct the barriers should be selected so that they have sufficient mass to adequately attenuate the road traffic noise (generally, a minimum surface density of 20 kg/m²). The barriers should be free of gaps and cracks on the sides and bottom, except for small, localized openings required for drainage purposes. The system should also be designed to withstand any wind loading.

An MECP **Type B** warning clause is also recommended for all residential units in the proposed development buildings. Refer to **Appendix D**.

OLA 03 (daytime sound level of 57 dBA) technically triggers a recommendation for an MECP **Type A** warning clause. Given the recommendation above for a **Type B** warning clause, the **Type A** warning clause is not deemed necessary as a duplicate.

3.0 Stationary Source Noise Assessment

Site visits to the Project site and surrounding area were completed by SLR personnel on December 8, 2022, and January 18, 2023. During the site visits, SLR staff conducted walk-arounds to identify stationary sources with potential to produce noise at the proposed development. Additional desktop/aerial imagery review was also carried out, including a review of the MECP Access Environment database. The MECP Guideline D-6 Potential Influence Areas were reviewed to identify possible industrial stationary sources with potential to impact the proposed development. Industries near the proposed development include the Bloor Go Station, TTC Keele Yard and Nitta Gelatin, respectively. Refer to **Figure 7**.

3.1 Bloor GO Station

Bloor GO Station is located east of the proposed development, with boarding platforms located immediately east of the Project site, and indoor station access located further to the south near Bloor Street West. No sources of mechanical noise associated with the GO Station were identified or audible from the Project site during the site visits.

SLR identified a standby emergency generator located approximately 27 m east of Building B, along the west side of the rail corridor right of way. The MECP Access Environment was reviewed to determine if the emergency generator was included as part of the Environmental Activity and Sector Registry; no permit was identified. As no permit was identified, it is assumed that the generator meets the exemption requirements of Ontario Regulation (O.Reg.) 524/98, including meeting a sound level specification of 75 dBA at 7 m distance. Furthermore, the emergency generator is located closer to and is more exposed to northeast corner residential units at the LNX Condominium residential development to the south at 2376 Dundas Street West, at which sound levels are required to meet applicable limits during routine testing. Sound levels from the emergency generator are therefore not expected to be of concern at the proposed development.

3.2 Nitta Gelatin Canada

Nitta Gelatin Canada Inc. is a Class III industry located approximately 500 m east of the proposed development. The facility holds an MECP EASR Number R-010-1113159456 (filed April 30, 2021). Although the proposed development lands are within 1000 m of this industry, the facility is outside the minimum 300 m recommended separation distance, with several blocks of intervening noise-sensitive receptors include mid-rise/high-rise buildings at Bloor Street West, east of Symington Avenue. Emissions from the facility are required to meet applicable sound level limits at these more exposed intervening receptors in accordance with their environmental approval, and sound levels exceeding applicable limits at the proposed development are not anticipated. The facility is not of concern with respect to noise.

3.3 TTC Keele Yard

The TTC Keele Yard is located approximately 200 m southwest of the proposed development, Building B. There are closer existing high-rise residential buildings than the proposed development, and low-rise residential dwellings immediately bounding the Keele Yard to the north, at which applicable sound level limits must be met. Therefore, noise from Keele Yard is not expected to be of concern at the Project site.

3.4 Other Commercial Land Uses

Given the proximity of the proposed development to the nearby commercial/retail/office land uses along Dundas Street West and Bloor Street West, a **Type E** warning clause is recommended for all residential units; refer to **Appendix D**.

4.0 Vibration Assessment

4.1 Industrial (Stationary) Sources

Based on the site visit completed by SLR staff on December 8, 2022, and January 18, 2023, and review of other land use proposals for the surrounding area, there are no existing or proposed industrial vibration sources in proximity to the proposed development. A detailed industrial vibration assessment was therefore not completed.

4.2 Transportation Sources

4.2.1 Vibration Guidelines

There is no specific MECP guideline with respect to railway vibration for land use approvals. Both CN and Metrolinx/GO Transit have published their own criteria, and both require that vibration impact assessments be conducted to ensure that adverse vibration impacts do not occur. The Federation of Canadian Municipalities and the Railway Association of Canada (FCM/RAC) document entitled “Guidelines for New Development in Proximity to Railway Operations” is also applicable for rail vibration and used as a reference tool of best practices for rail-adjacent development. Both CN and Metrolinx/GO endorse the FCM/RAC guidelines, which require the following:

- Ground-borne vibration transmission to be evaluated in a report through site testing to determine if dwellings within 75 metres of the railway rights-of-way will be impacted by vibration conditions in excess of 0.14 mm/sec Root Mean Square (RMS) between 4 Hz and 200 Hz.
- The monitoring system should be capable of measuring frequencies between 4 Hz and 200 Hz, \pm 3 dB with an RMS averaging time constant of 1 second.
- If determined to be in excess, vibration isolation measures will be required to ensure vibration levels in living areas do not exceed 0.14 mm/sec RMS at residential units within the development.

Furthermore, with respect to TTC streetcars and subways, there are no MECP vibration guidelines for land use approvals. Additionally, the TTC has not specified vibration limits or criteria for developments surrounding its infrastructure. However, the MECP has published criteria for specific TTC transit projects in the past and has draft criteria for general transit projects in the Province of Ontario.

Both the former MOECC/TTC 1993 “Protocols for Noise and Vibration Assessment” and the MOECC 2010 Draft “Guideline for Noise and Vibration Assessment of Transit Projects” require that vibration levels from TTC vehicle pass-by events, measured in terms of root-mean-square (RMS) vibration, should not exceed 0.10 mm/s at the point of reception, which in this case would be the proposed building foundations.

4.2.2 Vibration Sources

The Weston Subdivision and Lower Galt Subdivision are rail sources of vibration located northeast of the proposed development, immediately adjacent to the Project site. Ground-borne vibration due to rail traffic along this railway is the focus of this assessment.

FCM/RAC guidelines indicate the recommended minimum vibration influence area from a railway corridor is 75 m. The TTC Line 2 subway and the nearest TTC streetcar tracks at Dundas West Station are located more than 75 m from the proposed development. Furthermore, previous SLR experience indicates TTC vibration criteria of 0.10 mm/s (RMS vibration level) are typically met at much closer distances than the proposed development will be situated to these sources. A review of the Noise Impact Study for the development located immediately to the south (and closer to these sources) indicated vibration levels well below the applicable criteria. Therefore, TTC Line 2 and the TTC streetcar tracks have not been considered further in this vibration assessment.

4.2.3 Vibration Measurement Program

Measurements of ground-induced vibration due to rail traffic along the Weston and Lower Galt Subdivisions were made at the Project site. Measurements were conducted on December 8, 2022, for Building B (at the southern portion of the Project site, Location B) and on January 18, 2023, for Building A (at the northern portion of the Project site, Locations A1 and A2). Measurements were performed at several locations laterally across the Project site, to capture variability in ground borne vibration propagation characteristics. The setback distances were selected to correspond with the nearest setback of the residential towers associated with Building A and Building B, where vibration-sensitive receptors are expected.

The vibration measurement locations are shown in **Figure 8**.

The highest vibration levels were identified to occur during rail pass-by events when eastbound GO Trains pass by the Project site (without stopping at Bloor GO Station) along the westernmost tracks. Other trains measured as part of the program included eastbound/westbound UPX trains, eastbound/westbound GO trains that stop at the station, and eastbound GO trains that travel through Bloor GO station on middle tracks further from the Project site.

At least five (5) rail pass by events were captured on both measurement days.

Vibration velocity amplitudes were collected with Syscom MR3000C units sampling at a rate of 1024 Hz.

4.2.4 Vibration Measurement Data Processing

Collected vibration data were reviewed and post-processed using MATLAB to compute overall RMS vertical vibration levels.

The measured data were post-processed per the FCM/RAC guideline to compute the 1-second sliding window RMS amplitudes of the vibration velocity in units of mm/s.

Coupling losses/attenuation due to the proposed Building A and B structures were applied to the measured vibration levels. Vibration levels are attenuated as they travel from the soil and enter building structures, due to coupling losses between the soil and building foundation. In general, the larger (more massive) the structure, the greater the coupling losses, and correspondingly the lower the vibration levels in the structure. The U.S. Federal Transit Administration ("FTA") Transit Noise and Vibration Impact Assessment Manual, which is a widely used reference in rail vibration analysis, provides a method for assessing the impacts of building structures on interior vibration levels, where impacts (if any) could be experienced. The adjustments are in units of VdB.

In this assessment, the vibration levels the measured residential setback distances were adjusted using the method outlined in the FTA manual to account for what vibration levels would be experienced at the closest residential vibration-sensitive point of reception. For both Building A and Building B, this is

expected to be at the 2nd floor, where the nearest residential units will be located. The adjustments applied to the measured vibration levels are summarized as follows:

Foundation Coupling, Large Building on Piles	-10 VdB	FTA Manual Table 6-12
Floor-to-Floor Attenuation, 1 st to 2 nd Floor	-2 VdB	FTA Manual Table 6-13
Resonance amplification, centre of span	+6 VdB	FTA Manual Table 6-13
TOTAL ADJUSTMENT	-8 VdB	

4.2.5 Vibration Assessment Results

Table 11 summarizes vibration levels for Building A, and **Table 12** for Building B. The Tables present all adjusted measurement results for the worst-case pass by events described in **Section 4.2.3**, along with the highest measured level associated with other train types.

Table 11: Summary of Rail Vibration Levels – Building A Residential Towers – January 18, 2023

Train Pass-By Event	Description	Time	RMS Vibration Level			Compliance (Y/N)
			Location A1 ^[1]	Location A2 ^[1]	Criterion	
1	GO Train Eastbound - Closest Tracks	6:49 AM	0.061	0.045	0.14	Y
2	GO Train Eastbound - Closest Tracks	7:36 AM	0.056	0.062		Y
3	GO Train Eastbound - Closest Tracks	8:09 AM	0.052	0.062		Y
4	GO Train Eastbound - Closest Tracks	8:26 AM	0.052	0.064		Y
5	GO Train Eastbound - Closest Tracks	8:36 AM	0.053	0.056		Y
6	GO Train Eastbound - Closest Tracks	9:20 AM	0.059	0.061		Y
7	GO Train Eastbound - Middle Tracks	8:02 AM	0.042	0.054		Y
8	GO Train Eastbound - Middle Tracks	8:32 AM	0.056	0.067		Y
9	GO Train Eastbound - Middle Tracks	9:01 AM	0.056	0.055		Y
10	UPX Train - Eastbound	8:28 AM	0.037	0.051		Y
11	UPX Train - Westbound	8:09 AM	0.029	0.014		Y
12	GO Train Eastbound (Stops)	6:59 AM	0.029	0.036		Y
13	GO Train Westbound (Stops)	8:13 AM	0.030	0.039		Y
Notes: [1] Values have been adjusted to account for foundation coupling losses/attenuation, floor-to-floor attenuation, and resonance amplification as outlined in Section 4.2.4 .						

Table 12: Summary of Rail Vibration Levels – Building B Residential Tower – December 8, 2022

Train Pass-By Event	Description	Time	RMS Vibration Level		Compliance (Y/N)
			Location B1 ^[1]	Criterion	
1	GO Train Eastbound - Closest Tracks	6:51 AM	0.069	0.14	Y
2	GO Train Eastbound - Closest Tracks	7:38 AM	0.063		Y
3	GO Train Eastbound - Closest Tracks	8:09 AM	0.075		Y
4	GO Train Eastbound - Closest Tracks	8:23 AM	0.062		Y
5	GO Train Eastbound - Closest Tracks	8:42 AM	0.070		Y
6	GO Train Eastbound - Closest Tracks	9:21 AM	0.076		Y
7	GO Train Eastbound - Middle Tracks	8:02 AM	0.076		Y
8	GO Train Eastbound - Middle Tracks	8:31 AM	0.069		Y
9	GO Train Eastbound - Middle Tracks	8:59 AM	0.097		Y
10	UPX Train - Eastbound	8:24 AM	0.044		Y
11	UPX Train - Westbound	7:47 AM	0.036		Y
12	GO Train Eastbound (Stops)	8:14 AM	0.035		Y
Notes:	[1] Values have been adjusted to account for foundation coupling losses/attenuation, floor-to-floor attenuation, and resonance amplification as outlined in Section 4.2.4 .				

The RMS vibration levels are below the 0.14 mm/s RMS threshold in the vibration guidelines at the nearest vibration-sensitive point of reception in both Buildings A and B. Based on the current building design and setback distances of the residential units, vibration isolation/mitigation measures are not recommended for the proposed development.

PART 2: IMPACTS OF THE DEVELOPMENT ON ITSELF

5.0 Stationary Source Noise Impacts of the Development on Itself

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

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

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

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

PART 3: IMPACTS OF THE DEVELOPMENT ON THE SURROUNDING AREA

6.0 Stationary Source Noise Impacts on the Surrounding Area

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

Traffic volumes related to the proposed development will be small relative to existing traffic volumes within the area; therefore, additional traffic noise generated by the project is not of concern.

Other sources associated with the development that could create noise at sensitive locations within the surrounding neighbourhood are mechanical equipment (e.g., make up air units, cooling units, parking garage exhaust fans, etc.). Sound levels due to operation of these sources are required to meet MECP Publication NPC-300 requirements at all off-site noise sensitive receptors.

Off-site sound levels exceeding applicable limits are not anticipated given the elevated ambient sound levels in the area, and because systems will be designed to ensure that the applicable noise guidelines are met at on-site receptors.

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

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

7.0 Conclusions and Recommendations

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

Transportation Noise

- An assessment of transportation noise impacts from surrounding roadways and the adjacent rail corridor has been completed.
- Based on transportation façade sound levels upgraded glazing is required at several locations within the proposed development as outlined in **Section 2.5.1**.
- Ventilation and warning clause recommendations are outlined in **Section 2.5.2**.
 - o Central air conditioning and an MECP **Type D** warning clause are recommended for all residential units within Building A and Building B

- Sound levels at the Building A and Building B common outdoor terraces are predicted to exceed 60 dBA, and mitigation will be required as outlined in **Section 2.5.3**.
 - A 2.0 m high sound barrier is required for OLA 01 as shown in **Figure 6**.
 - A 2.1 m high sound barrier is required for OLA 02 as shown in **Figure 6**.
 - An MECP **Type B** warning clause is recommended for all residential units in the proposed development.
- Warning clauses should be included in agreements registered on Title for the residential units and included in agreements of purchase and sale/rental agreements. Warning clause recommendations are summarized in **Appendix D**.

Stationary Source Noise

- A review of the surrounding stationary noise sources was completed by SLR personnel during site visits to the area. SLR staff also reviewed available aerial photography and the MECP Access Environment database.
- The proposed development is located adjacent to Bloor GO Station; stationary noise from the station is not expected to be of concern.
- The proposed development is surrounded by existing noise-sensitive (residential) land uses. Commercial/retail/office buildings located in areas surrounding the proposed development are not expected to be of concern with respect to noise.
- An MECP **Type E** warning clause is recommended for all residential units.

Vibration

- No significant industrial vibration sources were identified within the surrounding area. Therefore, vibration impacts from industrial sources are not of concern.
- The proposed development is located adjacent to the CN/Metrolinx Weston and Lower Galt subdivision.
- Rail vibration measurements were performed by SLR on December 8, 2022, and January 18, 2023, at locations representing the nearest residential setback distances to the railway.
- Vibration levels were below applicable criteria, and no mitigation is required, as outlined in **Section 4.2.5**.

Overall Assessment

- Impacts of the environment on the proposed development can be adequately controlled with upgraded glazing, acoustic barriers, inclusion of ventilation and warning clause recommendations, as detailed in **Part 1** of this report.
- Impacts of the proposed development on itself are not anticipated and can be adequately controlled by following the design guidance outlined in **Part 2** of this report.
- Impacts of the proposed development on the surroundings are expected to meet the applicable guideline limits and can be adequately controlled by following the design guidance outlined in **Part 3** of this report.

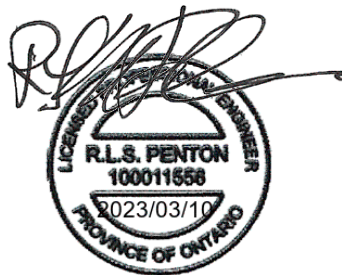
- As glazing requirements were approximated based on the generic room, façade and glazing dimensions, the glazing requirements should be re-assessed and reviewed by an Acoustical Consultant once detailed floor plans (room dimensions) and façade plans become available.
- As the mechanical systems for the proposed development have not been designed in detail, the acoustical design should be reviewed by an acoustical consultant later in the site plan approval process, or as part of the final building design.

Sincerely,

SLR Consulting (Canada) Ltd.



Keni Mallinen, M.A.Sc., P.Eng.
Acoustics Engineer



R.L. Scott Penton, P.Eng.
Principal Acoustics Engineer

Distribution: 1 electronic copy – Fora Developments
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8.0 References

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

National Research Council, Building Practice Note 56: Controlling Sound Transmission into Buildings, Canada 1985.

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

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

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

9.0 Statement of Limitations

This report has been prepared and the work referred to in this report has been undertaken by SLR Consulting (Canada) Ltd. (SLR) for Fora Developments, hereafter referred to as the “Client.” It is intended for the sole and exclusive use of the Client. The report has been prepared in accordance with the Scope of Work and agreement between SLR and the Client. Other than by the Client and by the City of Toronto in their role as land use planning approval authority, copying or distribution of this report or use of or reliance on the information contained herein, in whole or in part, is not permitted unless payment for the work has been made in full and express written permission has been obtained from SLR.

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Figures

Environmental Noise & Vibration Assessment

**2400-2440 Dundas Street West,
Toronto, ON**

Fora Developments

SLR Project No. 241.V14270.00001

March 8, 2023





FORA DEVELOPMENTS

2400-2440 DUNDAS STREET WEST, TORONTO

SITE PLAN

True North



Scale: 1:1000

Date: Mar. 08, 2023

Rev 1.0

Project No.
241.V14270.00001

METRES

Figure No.

2





FORA DEVELOPMENTS

2400-2440 DUNDAS STREET WEST, TORONTO

PREDICTED FAÇADE SOUND LEVELS – ROAD & RAIL – DAYTIME

True North



Scale:

1:1000

METRES

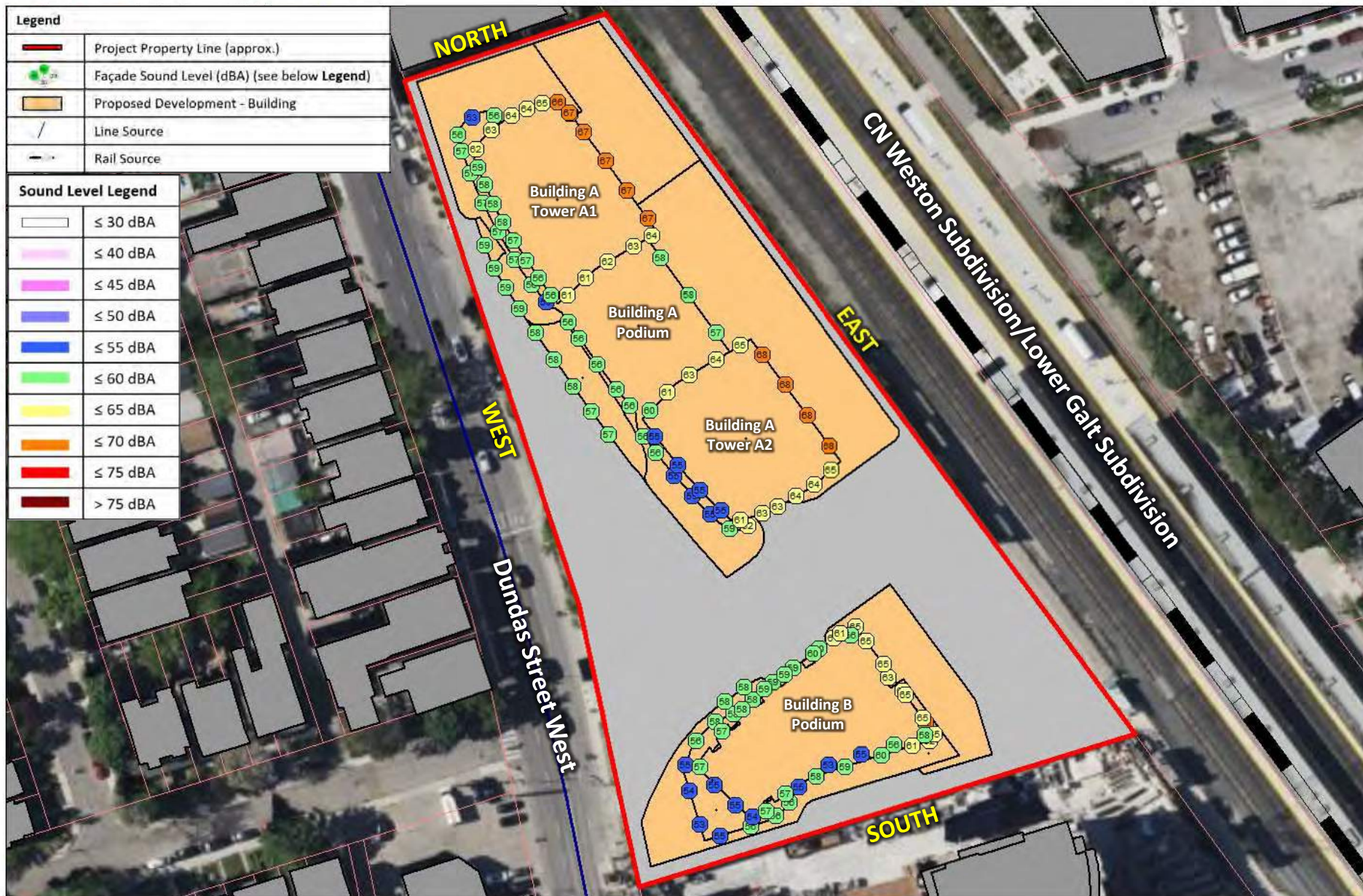
Date: Mar. 08, 2023

Rev 1.0

Figure No.

Project No.
241.V14270.00001

3



FORA DEVELOPMENTS

2400-2440 DUNDAS STREET WEST, TORONTO

PREDICTED FAÇADE SOUND LEVELS – ROAD & RAIL – NIGHT-TIME

True North



Scale:

1:1000

METRES

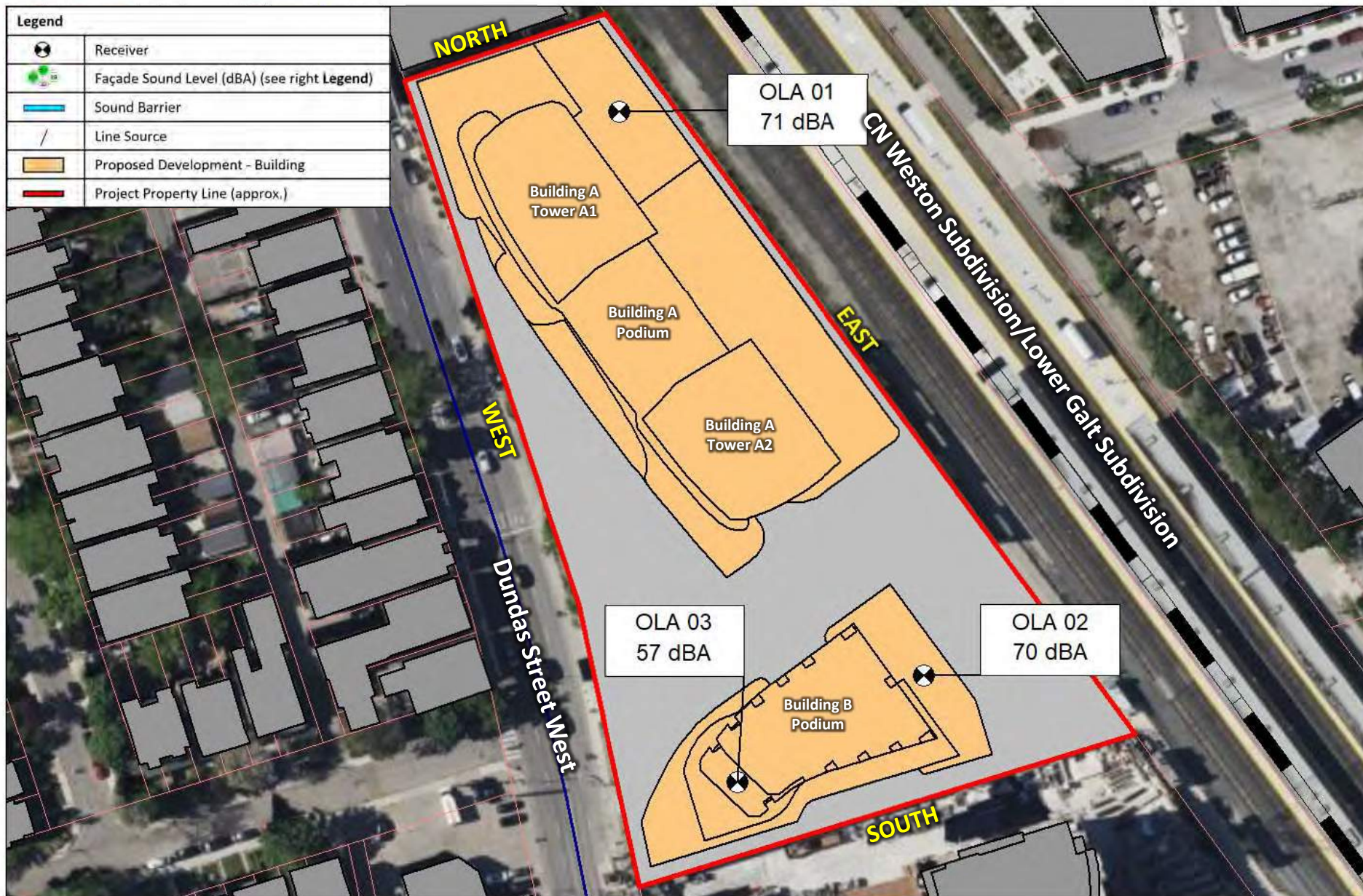
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Rev 1.0

Figure No.

Project No.
241.V14270.00001

4



FORA DEVELOPMENTS

2400-2440 DUNDAS STREET WEST, TORONTO

PREDICTED OUTDOOR LIVING AREA SOUND LEVELS – ROAD & RAIL – DAYTIME
UNMITIGATED

True North



Scale: 1:1000

Date: Mar. 08, 2023

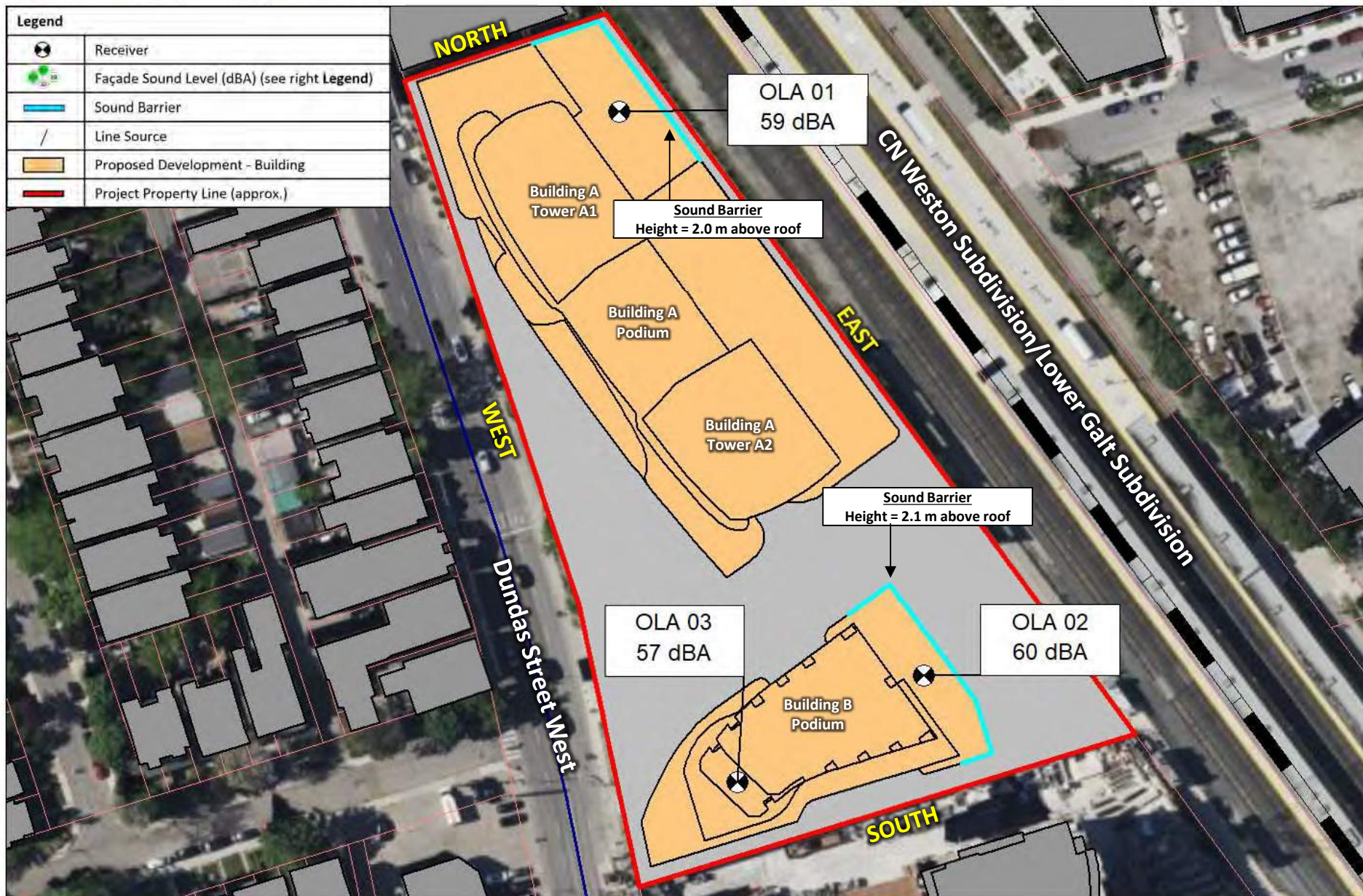
Rev 1.0

Project No.
241.V14270.00001

METRES

Figure No.

5



FORA DEVELOPMENTS

2400-2440 DUNDAS STREET WEST, TORONTO

PREDICTED OUTDOOR LIVING AREA SOUND LEVELS – ROAD & RAIL – DAYTIME
UNMITIGATED

True North



Scale:

1:1000

METRES

Date: Mar. 08, 2023

Rev 1.0

Project No.
241.V14270.00001

Figure No.

6



FORA DEVELOPMENTS

2400-2440 DUNDAS STREET WEST, TORONTO

SURROUNDING STATIONARY SOURCE LOCATIONS

True North



Scale:

1:5000

METRES

Date: Mar. 08, 2023

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Figure No.

Project No.
241.V14270.00001

6





FORA DEVELOPMENTS

2400-2440 DUNDAS STREET WEST, TORONTO

RAIL VIBRATION MONITORING LOCATIONS

True North



Scale: 1:1000

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241.V14270.00001

METRES

Figure No.

8



Appendix A Development Drawings

Environmental Noise & Vibration Assessment

**2400-2440 Dundas Street West,
Toronto, ON**

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SLR Project No. 241.V14270.00001

March 8, 2023

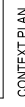


TORONTO, ONTARIO M6P 1W9



DRAWING LIST

2023-03-08



TGS STATISTICS

TGS STATISTICS

Revision	Date
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ISSUED FOR ZBA

23-03-00

giannone

Giorgio Petricone Associates Inc., Architects
965 Broadview Avenue, Toronto, Canada M9W 2M6

TABLE

2400-2440 DUNDAS STREET WEST

COVER SHEET

ACT NO.:	21115
TEST NUMBER	

2
2
2
2
2

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
REVISION


DATE


NOT FOR
CONSTRUCTION


PRELIMINARY


SITE PLAN LEGEND


 PROPOSED SHADE

 PRIMARY ENTRANCE

 SECONDARY ENTRANCE

 FIRE HYDRANT

 FIRE DROP CONNECTION

 MANHOLE

1. ISSUED FOR ZBA	23.03.08
REVISION	DATE



gionnane
petricone
associates

FORA
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SITE PLAN

PROJECT NO.	0000
CLIENT	FORA
DATE	2008
PROJECT NAME	2400 DUNDAS STREET WEST
SHEET NUMBER	A1.01

A1.01



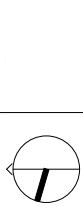
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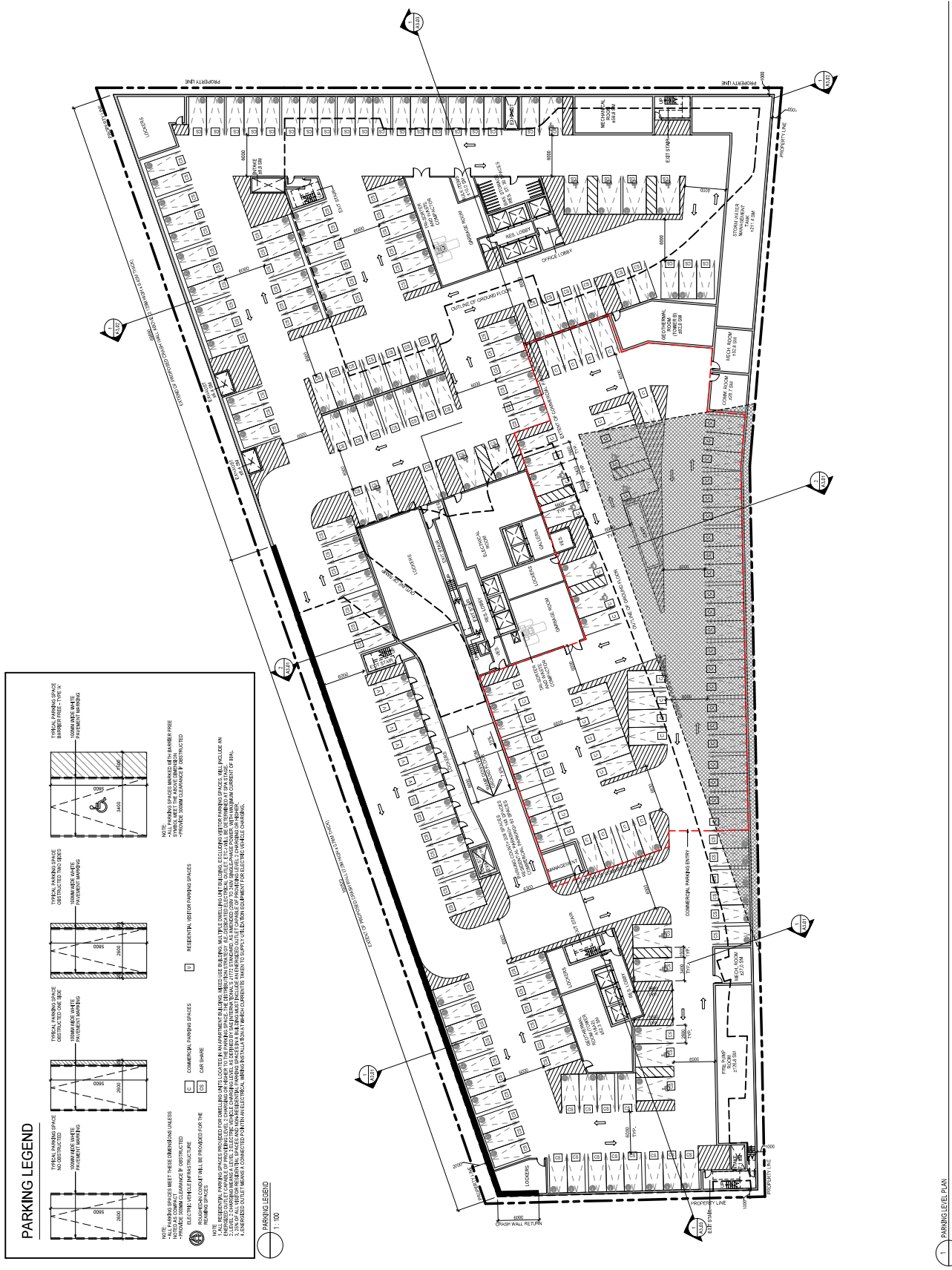
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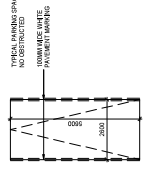
PARKING LEVEL PLAN

PROJECT NO.	DATE
CLIENT NO.	DATE
PROJECT NAME	DATE
SHEET NUMBER	DATE

A1.02



PARKING LEGEND



NOTE:
-ALL PARKING SPACES MEET THESE DIMENSIONS (MINIMUMS)
-PROVIDE 300MM CLEARANCE IF OBSTRUCTED
-PROVIDE 300MM CLEARANCE IF OBSTRUCTED
-PROVIDE 300MM CLEARANCE IF OBSTRUCTED

- 1. ALL RECREATIONAL VEHICLE PARKING SPACES MUST BE LOCATED IN AN UNPAVED AREA AND BE LOCATED IN AN UNPAVED AREA.
- 2. ALL RECREATIONAL VEHICLE PARKING SPACES MUST BE LOCATED IN AN UNPAVED AREA AND BE LOCATED IN AN UNPAVED AREA.
- 3. ALL RECREATIONAL VEHICLE PARKING SPACES MUST BE LOCATED IN AN UNPAVED AREA AND BE LOCATED IN AN UNPAVED AREA.
- 4. ALL RECREATIONAL VEHICLE PARKING SPACES MUST BE LOCATED IN AN UNPAVED AREA AND BE LOCATED IN AN UNPAVED AREA.

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PRELIMINARY

SITE PLAN LEGEND

PROPOSED DRIVE
PRIMARY EXISTING DRIVE
SECONDARY EXISTING DRIVE
FIRE HYDRANT
FIRE EXIST CONNECTION
MANHOLE

PROPOSED DRIVE
PRIMARY EXISTING DRIVE
SECONDARY EXISTING DRIVE
FIRE HYDRANT
FIRE EXIST CONNECTION
MANHOLE

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FORA

200-2440 DUNDAS STREET WEST
TORONTO, ONTARIO, CANADA

GROUND FLOOR PLAN

PROJECT NO.	DATE
CLIENT NO.	DATE
PROJECT NAME	DATE
SHEET NUMBER	DATE

A1.03



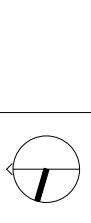
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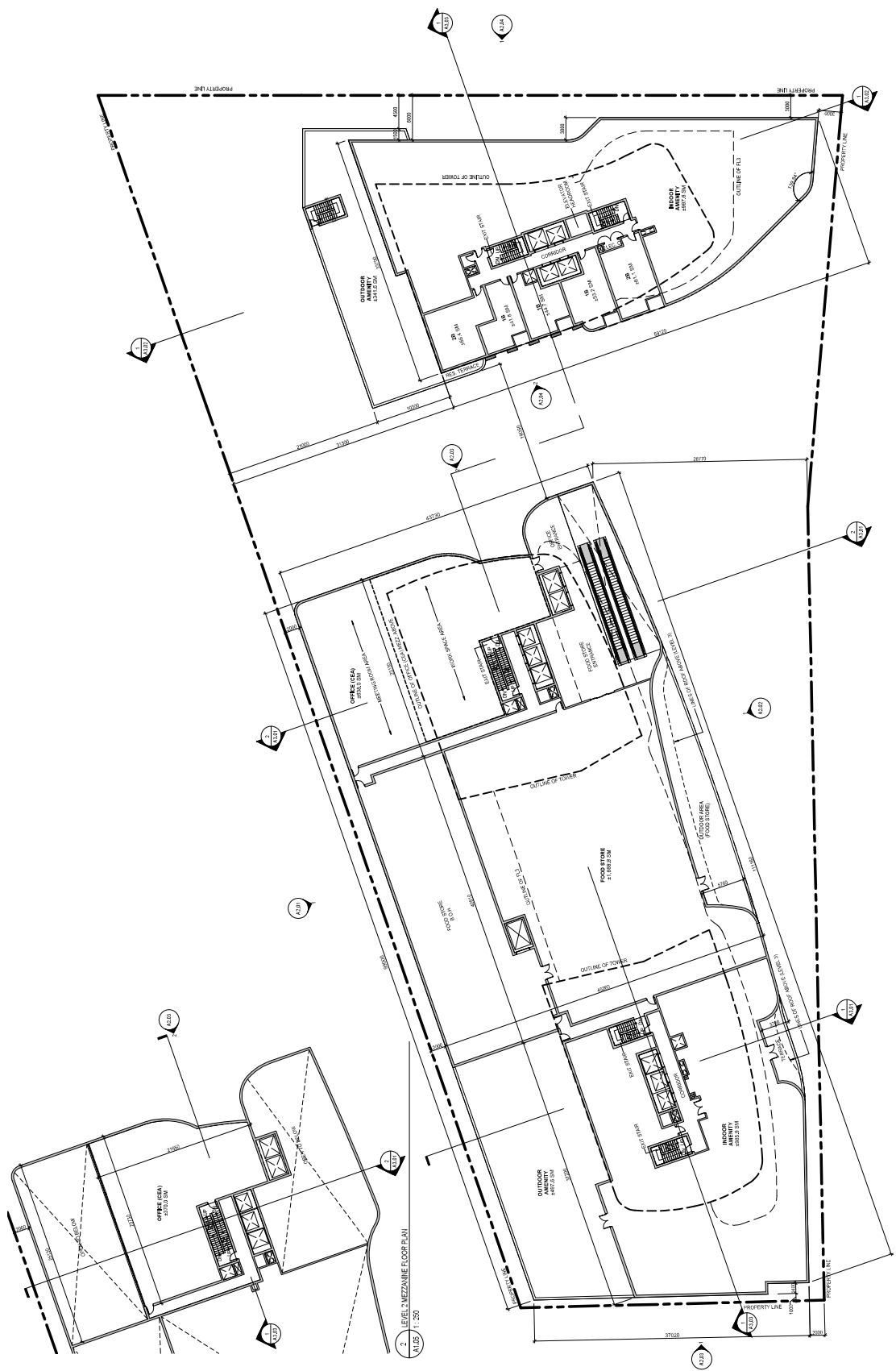
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2ND FLOOR PLAN

PROJECT NO.	0000
CLIENT NO.	0000
PROJECT NAME	2ND FLOOR
SHEET NUMBER	0000

A1.05



1. LEVEL: FLOOR PLAN
A1.05 / 1:250

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CONSTRUCTION**

PRELIMINARY

1. REVISED FOR ZBA	23.03.08
REVISION	DATE



**giannone
petriconi
associates**

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Toronto, Ontario M4W 2Y2
Tel: (416) 461-7766 Fax: (416) 461-2232 E: info@gpaa.com

FORA

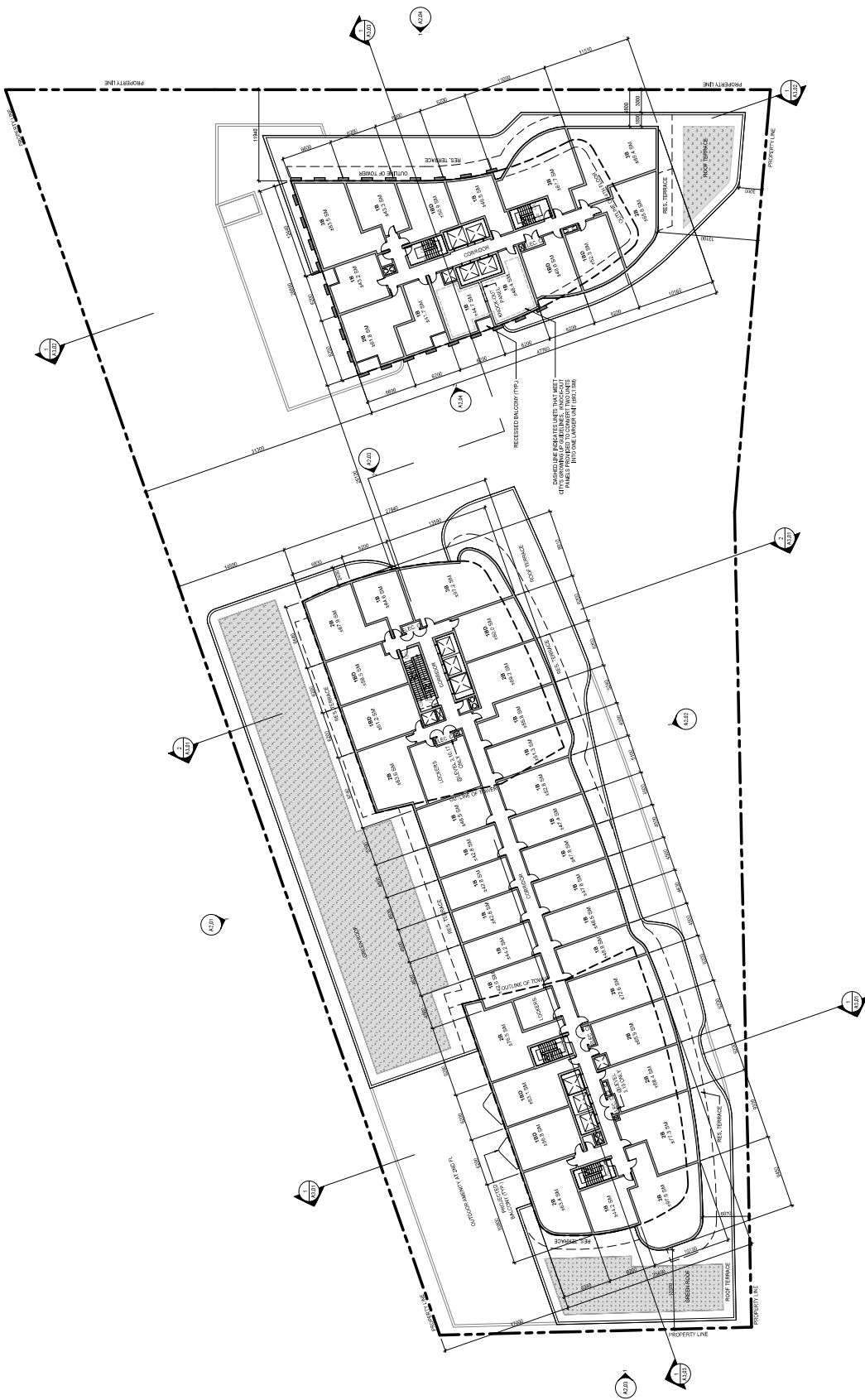
FORA Development Inc., 3600 Bayview Ave., Suite 200
Toronto, Ontario M4W 2Y2
Tel: (416) 330-2827 Fax: (416) 330-2828 E: info@fora.com

**2400 DUNDAS STREET WEST
TORONTO, ONTARIO, CANADA**

3RD FLOOR PLAN

DATE: 23.03.08	DRAWN: J. L. L.
DATE: 23.03.08	CHECKED: J. L. L.
DATE: 23.03.08	PROJECT LEAD: J. L. L.
DATE: 23.03.08	SHEET NUMBER: 1.06

A1.06



Revision _____ Date _____

CONSTRUCTION

PRELIMINARY

CONSTRUCTION

PRELIMINARY

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TORONTO, ONTARIO, CANADA

ISSUED BY:	GPJA
CHECKED BY:	GPJA
PROJECT START DATE:	22-04-06
PROJECT NO:	21115
SHEET NO.	

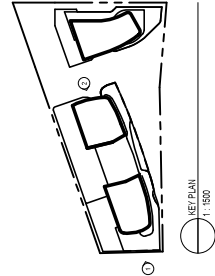
A2.01

LOT DATE: 2023-03-07 3:18:44 PM



1 EAST ELEVATION

$$\begin{array}{r} 1201 \overline{) 14318} \\ \underline{1201} \\ 2307 \\ \underline{2402} \\ 1058 \\ \underline{1201} \\ 157 \end{array}$$



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REVISION

NOT FOR CONSTRUCTION

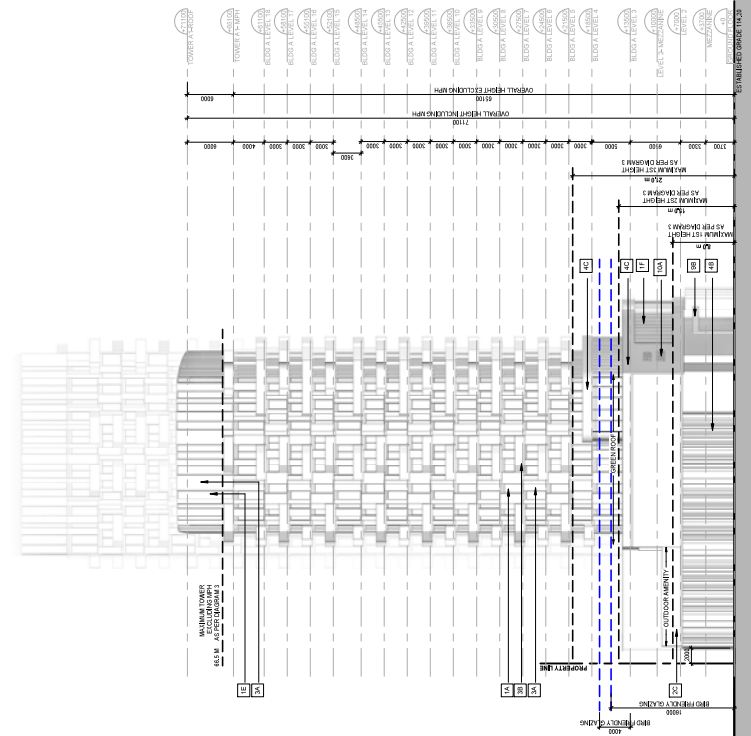
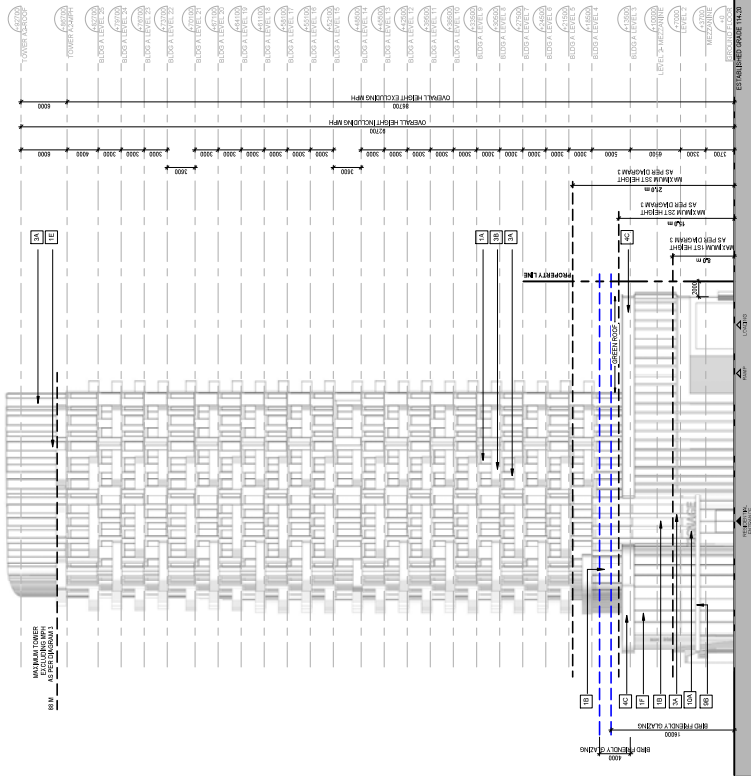
PRELIMINARY

EXTERIOR FINISH SCHEDULE

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5	CONCRETE TYPE 5
6	CONCRETE TYPE 6
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100	CONCRETE TYPE 100

EXTENT OF PRELIMINARY DESIGN

THESE DRAWINGS ARE PRELIMINARY AND NOT TO BE USED FOR CONSTRUCTION. THEY ARE PROVIDED FOR INFORMATION ONLY.



gionnane
petricono
associates

gionnane petricono associates inc. architects
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416-593-7100 F 416-593-7200 E info@petricono.com

FORA

200-2440 DUNDAS STREET WEST
TORONTO, ONTARIO, CANADA
416-593-7100 F 416-593-7200 E info@petricono.com

SCALE: 1/100

BUILDING A - NORTH &
SOUTH ELEVATIONS

NO.	DATE	BY	CHKD.
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1 TOWER A2 - NORTH ELEVATION

A2.03 1:300

2 TOWER A2 - SOUTH ELEVATION

A2.03 1:300

A2.03

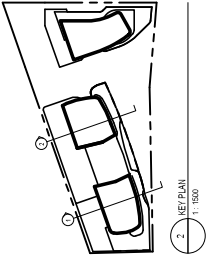
DATE: 2020-01-10 11:20 AM

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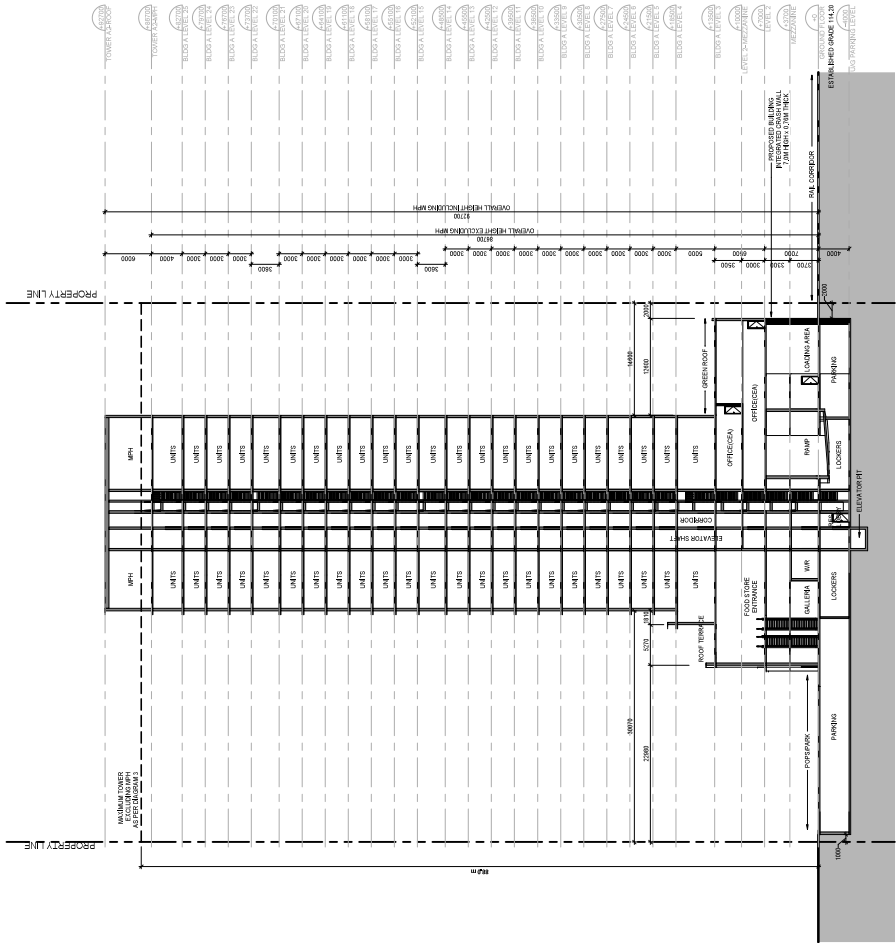
REVISION DATE

NOT FOR
CONSTRUCTION

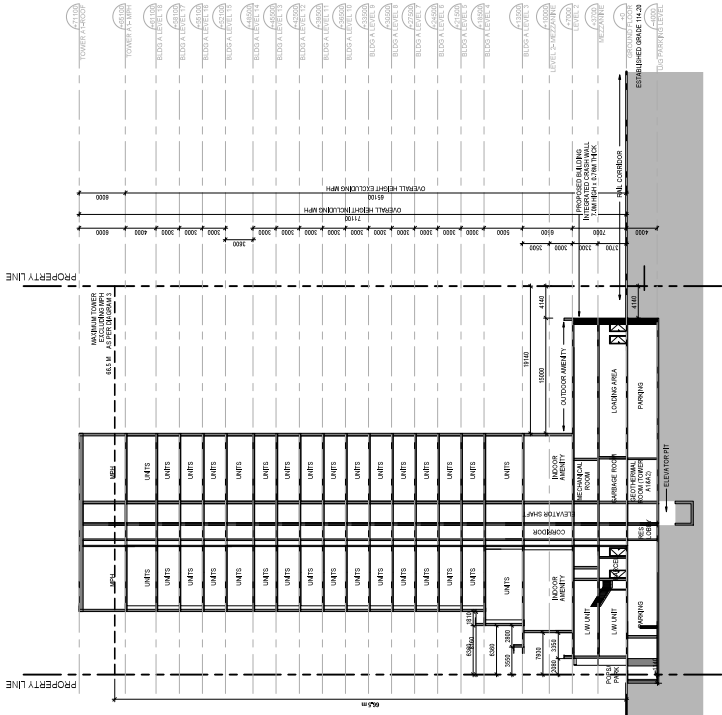
PRELIMINARY



2 KEY PLAN
1:1500



2 BUILDING EAST WEST SECTION - TOWER A2
A3.01 / 1:300



1 BUILDING EAST WEST SECTION - TOWER A1
A3.01 / 1:300

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petricono
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Tel: (416) 593-3857 Fax: (416) 593-3858 E: info@fora.com

BUILDING A EAST WEST
SECTION

PROJECT NO. DATE
PROJECT NAME DATE
SHEET NUMBER

A3.01

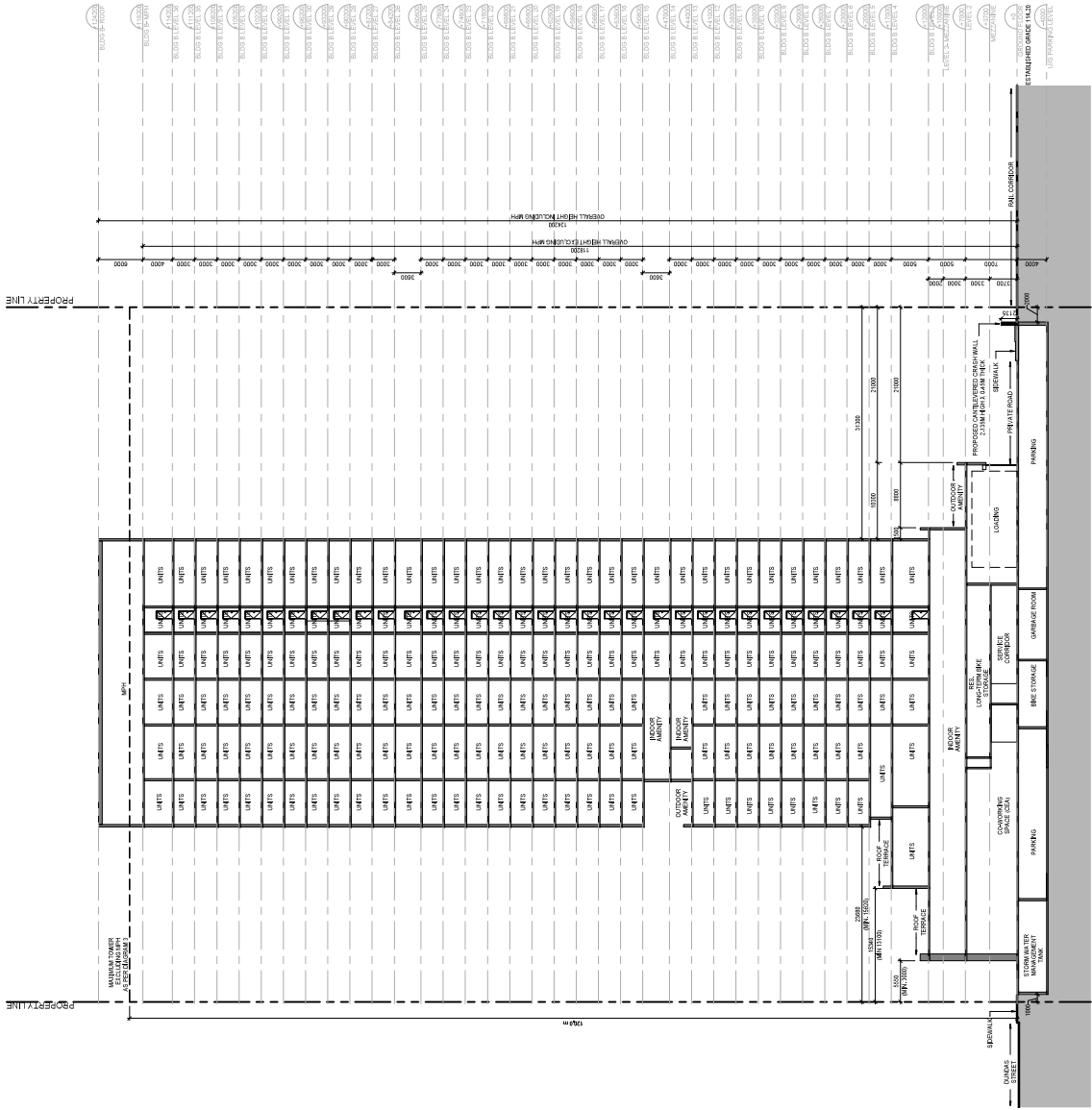
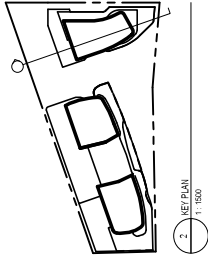
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REVISION DATE

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1. BUILDING FOR ZBA 23.03.08 Date

Revision

giannone
petricone
associates

Gianfranco Petricone Associates Inc., Architects
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FORA

Fora Development Inc., Major Reg.
2400 2440 DUNDAS STREET WEST
TORONTO, ONTARIO, CANADA

SHEET TITLE

BUILDING 3 EAST WEST
SECTION

DATE: 23.03.08
DRAWN BY: J. GIANFRANCO
CHECKED BY: J. GIANFRANCO
PROJECT START DATE: 2008
SHEET NUMBER: 1

A3.02

DATE: 23.03.08 1:300

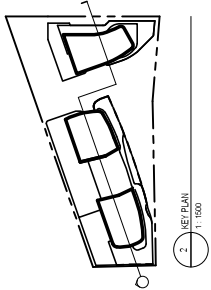
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PRELIMINARY

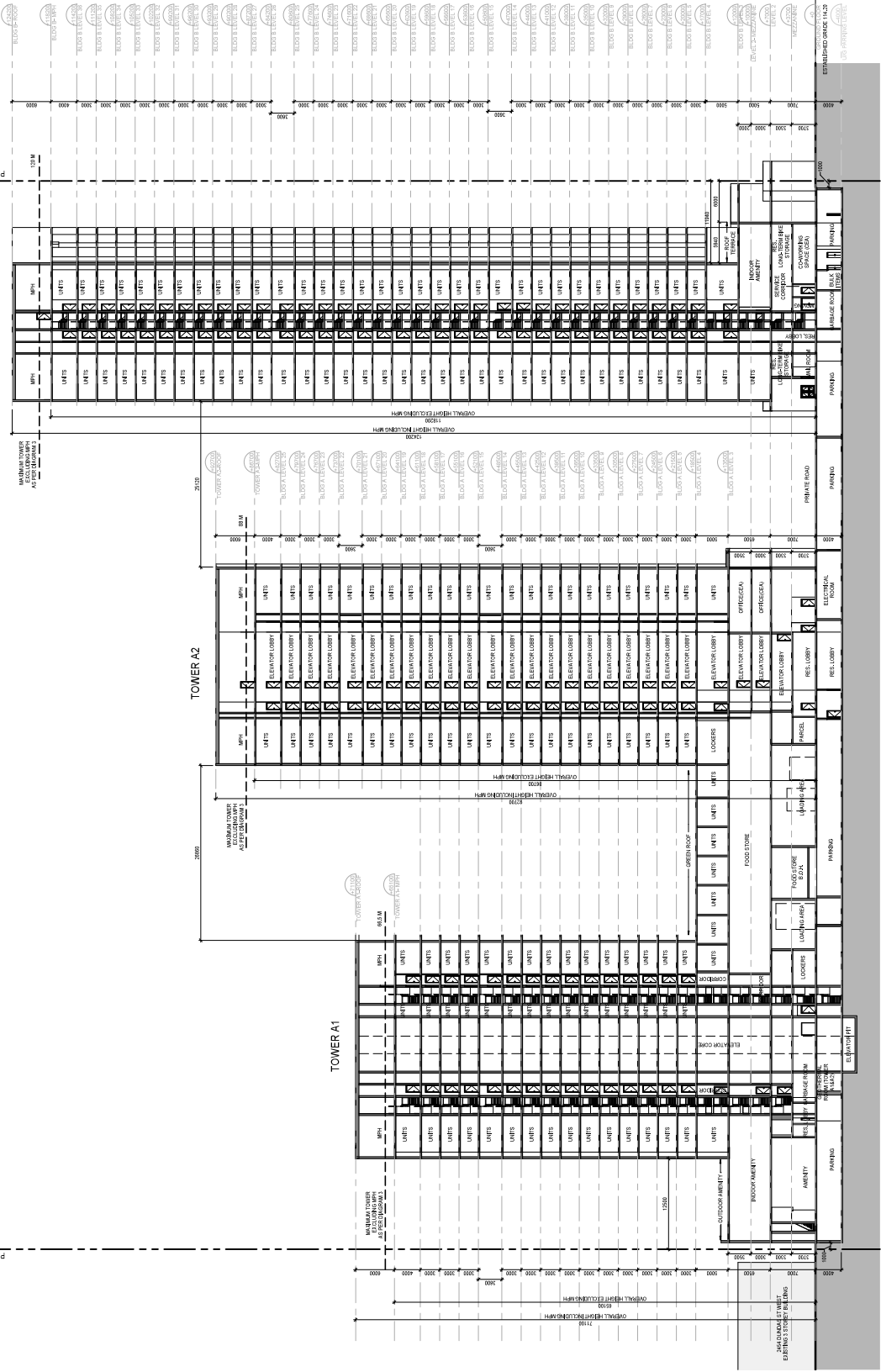
DATE



PROPERTY LINE

PROPERTY LINE

TOWER B



1. NORTH SOUTH SECTION
A3.03 1:300

A3.03

DATE: 2023-03-27 11:23:27 AM

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NORTH SOUTH SECTION

PROJECT NO.: 2400-2440 DUNDAS STREET WEST
DATE: 2023-03-27
SHEET NUMBER: A3.03

Appendix B Traffic Data and Calculations

Environmental Noise & Vibration Assessment

**2400-2440 Dundas Street West,
Toronto, ON**

Fora Developments

SLR Project No. 241.V14270.00001

March 8, 2023



Keni Mallinen

From: Rail Data Requests <RailDataRequests@metrolinx.com>
Sent: November 11, 2022 1:59 PM
To: Keni Mallinen
Subject: RE: Rail Traffic Data Request for Noise Study - 2400 Dundas Street West, north of Bloor Street, Toronto

Hi Keni,

Further to your request dated November 9, 2022, The subject lands (2400 Dundas Street West, Toronto) are located within 300 metres of the Metrolinx Weston Subdivision (which carries Kitchener GO, Milton GO, and UP Express rail service).

It's anticipated that GO rail service on this Subdivision will be comprised of diesel and diesel and electric trains. The GO rail fleet combination on this Subdivision will consist of up to 2 locomotives and 12 passenger cars. The typical GO rail weekday train volume forecast near the subject lands, including both revenue and equipment trips is in the order of 524 trains. The planned detailed trip breakdown is listed below:

Kitchener GO Service

	1 Diesel Locomotive	2 Diesel Locomotives		1 Diesel Locomotive	2 Diesel Locomotives
Day (0700-2300)	92	36	Night (2300-0700)	22	2

Milton GO Service

	1 Diesel Locomotive		1 Diesel Locomotive
Day (0700-2300)	38	Night (2300-0700)	6

It's anticipated that UP Express rail service at this location will be electrified and comprised of up to three (3) passenger cars. The planned detailed trip breakdown is listed below:

UP Express

	1 Electric Locomotive		1 Electric Locomotive
Day (0700-2300)	256	Night (2300-0700)	72

The current track design speed near the subject lands is 75 mph (121 km/h).

There are no *anti-whistling by-laws* in affect near the subject lands

With respect to future electrified rail service, Metrolinx is committed to finding the most sustainable solution for electrifying the GO rail network and we are currently working towards the next phase.

Options have been studied as part of the Transit Project Assessment Process (TPAP) for the GO Expansion program, currently in the procurement phase. The successful proponent team will be responsible for selecting and delivering the right trains and infrastructure to unlock the benefits of GO Expansion. The contract is in a multi-year procurement process and teams have submitted their bids to Infrastructure Ontario and Metrolinx for evaluation and contract award. GO Expansion construction will get underway in late 2022 or 2023.

However, we can advise that train noise is dominated by the powertrain at lower speeds and by the wheel- track interaction at higher speeds. Hence, the noise level and spectrum of electric trains is expected to be very similar at higher speeds, if not identical, to those of equivalent diesel trains.

Given the above considerations, it would be prudent at this time, for the purposes of acoustical analyses for development in proximity to Metrolinx corridors, to assume that the acoustical characteristics of electrified and diesel trains are equivalent. In light of the aforementioned information, acoustical models should employ diesel train parameters as the basis for analyses. We anticipate that additional information regarding specific operational parameters for electrified trains will become available in the future once the proponent team is selected.

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 only pertains to Metrolinx rail service. It would be prudent to contact other rail operators in the area directly for rail traffic information pertaining to non-Metrolinx rail service.

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

Regards,

Tara

Tara Kamal Ahmadi

Junior Analyst

Third Party Projects Review, Capital Projects Group

Metrolinx | 20 Bay Street | Suite 600 | Toronto | Ontario | M5J 2W3



From: Keni Mallinen <kmallinen@slrconsulting.com>

Sent: November 8, 2022 4:12 PM

To: Rail Data Requests <RailDataRequests@metrolinx.com>

Subject: Rail Traffic Data Request for Noise Study - 2400 Dundas Street West, north of Bloor Street, Toronto

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Good day,

We are working on a noise study for a proposed development on the east side of Dundas Street West, north of Bloor Street West (site address: 2400 Dundas Street West). The site is next to the Bloor GO/UPX Station. I have attached an aerial image of the approximate site location for reference.

Can you please provide forecasted rail traffic data for this section of the track, north of Bloor Street, for GO trains and UPX trains?

Further to this, would you be able to provide an estimate of the number of 'through trains' compared to 'trains stopping at Bloor GO Station'?

Please let me know if you require any further information regarding this request.

Thank you,

Keni



Keni Mallinen, M.A.Sc., P.Eng.

Acoustics Engineer

☎ +1 226 706 8080

📠 +1 226 203 7385

E kmallinen@slrconsulting.com

SLR Consulting (Canada) Ltd.
100 Stone Road West, Suite 201, Guelph, ON N1G 5L3



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Train Count Data

**System Engineering
Engineering Services**

1 Administration Road
Concord, ON, L4K 1B9
T: 905.669.3264
F: 905.760.3406

TRANSMITTAL

To: Novus Environmental
Destinataire : 150 Research Lane, Suit
105,
Guelph, ON
N1G 4T2

Project : WTN-3.84 – 2280 Dundas St W, Toronto, ON

Att'n: Jafar Al-Khalaf

Routing: jafara@novusenv.com

From: Michael Vallins
Expéditeur :

Date: 01/22/2018

Cc: Adjacent Development
CN via e-mail

☐ Urgent ☐ For Your Use ☐ For Review ☒ For Your Information ☐ Confidential

**Re: Train Traffic Data – CN Weston Subdivision near Dundas St W in
Toronto, ON**

Please find attached the requested Train Traffic Data; this data does not reflect GO Metrolinx Traffic. The application fee in the amount of **\$500.00 +HST** will be invoiced.

Should you have any questions, please do not hesitate to contact the undersigned at 905-669-3264.

Sincerely,
CN Design & Construction

Michael Vallins P.Eng
Manager of Public Works
public_works_gld@cn.ca

Date: 2018/01/22

Project Number: WTN-3.84 – 2280 Dundas St W, Toronto, ON

Dear Jafar Al-Khalaf:

Re: Train Traffic Data – CN Weston Subdivision near Dundas St W in Toronto, ON

The following is provided in response to Jafar Al-Khalaf 2018/01/11 request for information regarding rail traffic in the vicinity of Dundas St W in Toronto at approximately Mile 3.84 on CN's Weston Subdivision.

Typical daily traffic volumes are recorded below. However, traffic volumes may fluctuate due to overall economic conditions, varying traffic demands, weather conditions, track maintenance programs, statutory holidays and traffic detours that when required may be heavy although temporary. For the purpose of noise and vibration reports, train volumes must be escalated by 2.5% per annum for a 10-year period.

Typical daily traffic volumes at this site location are as follows:

***Maximum train speed is given in Miles per Hour**

	0700-2300			
Type of Train	Volumes	Max.Consist	Max. Speed	Max. Power
Freight	0	140	25	4
Way Freight	0	25	25	4
Passenger	4	10	80	2

	2300-0700			
Type of Train	Volumes	Max.Consist	Max. Speed	Max. Power
Freight	0	140	25	4
Way Freight	0	25	25	4
Passenger	2	10	80	2

The volumes recorded reflect westbound and eastbound freight and passenger operations on CN's Weston Subdivision.

Except where anti-whistling bylaws are in effect, engine-warning whistles and bells are normally sounded at all at-grade crossings. There are no at-grade crossing in the immediate vicinity of the study area at Mile 3.84. Anti-whistling bylaws are not in effect at this crossing. Please note that engine warning whistles may be sounded in cases of emergency, as a safety and or warning precaution at station locations and pedestrian crossings and occasionally for operating requirements.

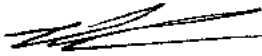
With respect to equipment restrictions, the gross weight of the heaviest permissible car is 286,000 lbs.

The double mainline track is considered to be continuously welded rail throughout the study area.

The Canadian National Railway continues to be strongly opposed to locating developments near railway facilities and rights-of-way due to potential safety and environmental conflicts. Development adjacent to the Railway Right-of-Way is not appropriate without sound impact mitigation measures to reduce the incompatibility. For confirmation of the applicable rail noise, vibration and safety standards, Adjacent Development, Canadian National Railway Properties at Proximity@cn.ca should be contacted directly.

I trust the above information will satisfy your current request.

Sincerely,



Michael Vallins P.Eng
Manager of Public Works
public_works_gld@cn.ca

Keni Mallinen

From: Umair Naveed <Umair.Naveed@cn.ca> on behalf of GLD-Permits <permits.gld@cn.ca>
Sent: May 13, 2022 4:19 PM
To: Keni Mallinen
Subject: RE: Rail Traffic Data Request for Noise Study - Bloor Street/Dundas Street West, Toronto (SLR Project: 209.30128.00000)

Good Afternoon

The Attached data is still valid.

Thanks,

Team GLD

From: Keni Mallinen <kmallinen@slrconsulting.com>
Sent: Friday, May 13, 2022 1:58 PM
To: GLD-Permits <permits.gld@cn.ca>
Subject: RE: Rail Traffic Data Request for Noise Study - Bloor Street/Dundas Street West, Toronto (SLR Project: 209.30128.00000)

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Good day,

My apologies for the quick follow-up on this.

It turns out we have previous data for this portion of the CN Weston Subdivision used in the previous study for the same development site, from 2018.

Before purchasing new data, would you be able to first comment on whether the attached data would still be applicable for use in our noise study?

Thank you and best regards,
Keni



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From: Keni Mallinen

Sent: May 05, 2022 4:57 PM

To: permits.gld@cn.ca

Subject: Rail Traffic Data Request for Noise Study - Bloor Street/Dundas Street West, Toronto (SLR Project: 209.30128.00000)

Good day,

We are working on an update to a noise study in the vicinity of Bloor Street West and Dundas Street West (2280 Dundas Street West). The site is relatively close to the Bloor GO/UPX Station. I have attached an aerial image of the approximate site location for reference.

Do you have rail traffic data available for purchase for this location?

Please let me know if you require any further information regarding this request.

Thank you,
Keni

Bloor Street West at Dundas Street West (PX 327)

count_date	location_id	location	time_start	time_end	sb_cars_r	sb_cars_t	sb_cars_l	nb_cars_r	nb_cars_t	nb_cars_l	wb_cars_r	wb_cars_t	wb_cars_l	eb_cars_r	eb_cars_t	eb_cars_l	sb_truck_r	sb_truck_t	sb_truck_l	nb_truck_r	nb_truck_t	nb_truck_l	wb_truck_r	wb_truck_t	wb_truck_l	eb_truck_r	eb_truck_t	eb_truck_l	sb_bus_r	sb_bus_t	sb_bus_l	nb_bus_r	nb_bus_t	nb_bus_l	wb_bus_r	wb_bus_t	wb_bus_l	eb_bus_r	eb_bus_t	eb_bus_l	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 07:30:00-05:00	2019-01-15 07:45:00-05:00	11	183	1	18	67	0	23	130	16	44	212	6	0	5	0	3	0	0	0	0	0	0	1	6	0	0	2	3	0	2	0	3	0	0	1	0	0
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 07:45:00-05:00	2019-01-15 08:00:00-05:00	10	189	0	37	88	0	26	133	16	46	246	3	0	1	0	2	7	0	0	7	1	0	9	0	0	5	2	0	5	0	2	0	0	0	4	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 08:00:00-05:00	2019-01-15 08:15:00-05:00	9	194	0	35	97	0	28	131	20	48	219	6	0	5	0	1	3	0	1	1	1	1	3	3	0	0	4	3	0	2	0	4	2	0	1	1	0
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 08:15:00-05:00	2019-01-15 08:30:00-05:00	9	186	1	40	96	0	24	129	17	39	246	5	0	7	0	0	2	0	1	4	1	2	8	0	0	4	3	0	6	0	2	0	4	0	2	0	0
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 08:30:00-05:00	2019-01-15 08:45:00-05:00	14	199	0	43	100	0	26	144	15	59	262	8	0	2	0	0	2	0	0	0	0	1	2	9	1	0	4	2	1	3	0	3	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 08:45:00-05:00	2019-01-15 09:00:00-05:00	7	179	0	29	108	0	22	136	18	39	244	6	0	1	0	0	2	0	0	1	0	1	4	1	0	4	4	0	5	0	4	0	0	0	0	1	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 09:00:00-05:00	2019-01-15 09:15:00-05:00	15	144	0	40	84	0	15	104	18	41	252	7	0	5	0	1	0	0	0	2	0	1	11	1	0	4	1	0	3	0	2	1	0	0	1	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 09:15:00-05:00	2019-01-15 09:30:00-05:00	21	147	0	37	74	0	23	138	21	42	231	7	0	3	0	0	1	0	1	4	0	3	8	0	1	2	3	0	1	0	2	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 10:00:00-05:00	2019-01-15 10:15:00-05:00	17	104	1	35	87	0	30	90	20	34	167	8	0	3	0	1	5	0	2	5	0	4	6	1	0	4	2	0	3	0	2	0	0	0	1	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 10:15:00-05:00	2019-01-15 10:30:00-05:00	15	122	0	27	124	0	26	106	18	32	151	7	0	1	0	1	8	0	1	4	3	1	8	1	0	5	1	0	4	0	1	0	0	0	0		
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 10:30:00-05:00	2019-01-15 10:45:00-05:00	18	115	0	27	102	1	20	83	15	25	112	11	1	3	0	0	4	0	2	6	1	2	5	0	0	3	1	0	2	0	1	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 10:45:00-05:00	2019-01-15 11:00:00-05:00	18	103	2	25	82	1	28	96	18	32	154	8	2	5	0	0	8	0	1	7	1	0	6	1	0	3	2	0	4	0	3	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 11:00:00-05:00	2019-01-15 11:15:00-05:00	12	91	2	20	88	2	17	112	20	33	114	10	0	8	0	1	2	0	2	9	0	2	8	3	0	3	2	0	6	0	1	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 11:15:00-05:00	2019-01-15 11:30:00-05:00	12	100	0	29	123	1	24	81	13	33	122	11	0	7	1	0	6	0	0	7	1	0	6	0	0	4	1	0	3	0	2	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 11:30:00-05:00	2019-01-15 11:45:00-05:00	23	91	1	29	130	0	33	107	15	40	127	16	1	5	1	0	6	0	2	3	2	1	2	2	0	3	2	0	3	0	1	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 11:45:00-05:00	2019-01-15 12:00:00-05:00	21	89	0	25	96	1	33	100	18	31	97	8	2	4	0	1	4	0	1	8	0	2	3	1	0	5	1	0	3	0	1	0	0	0	1	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 12:00:00-05:00	2019-01-15 12:15:00-05:00	9	91	1	23	99	2	28	110	14	43	104	8	1	3	0	0	5	0	0	6	0	0	3	0	0	3	3	0	4	0	3	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 12:15:00-05:00	2019-01-15 12:30:00-05:00	11	84	1	40	102	0	24	107	22	32	111	20	0	4	0	0	3	0	0	12	1	2	3	0	0	1	1	0	3	0	2	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 12:30:00-05:00	2019-01-15 12:45:00-05:00	17	104	2	26	116	1	23	129	17	23	132	14	0	4	0	0	6	0	1	5	0	2	2	0	0	6	1	0	3	0	1	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 12:45:00-05:00	2019-01-15 13:00:00-05:00	12	78	2	21	122	2	28	126	19	43	110	14	0	1	0	1	6	0	1	6	0	2	7	0	0	3	2	0	5	0	3	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 13:00:00-05:00	2019-01-15 13:15:00-05:00	20	92	1	27	140	2	21	124	24	38	104	9	0	5	0	0	3	1	0	5	1	0	4	0	0	5	2	1	5	0	1	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 13:15:00-05:00	2019-01-15 13:30:00-05:00	19	91	2	32	142	1	18	141	14	36	124	13	0	3	0	0	7	0	0	4	1	0	0	0	0	4	1	0	2	0	2	0	0	0	2	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 13:30:00-05:00	2019-01-15 13:45:00-05:00	21	115	0	36	143	0	32	129	11	28	123	10	0	3	0	0	3	0	0	10	0	0	2	0	0	2	2	0	5	0	2	3	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 13:45:00-05:00	2019-01-15 14:00:00-05:00	14	96	0	41	171	1	27	155	20	44	120	14	2	0	0	0	3	0	3	3	0	0	5	0	0	5	1	0	2	0	1	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 14:00:00-05:00	2019-01-15 14:15:00-05:00	17	110	0	29	217	0	42	179	24	26	154	7	1	1	0	0	3	0	1	5	0	0	2	0	1	3	2	0	5	0	2	1	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 14:15:00-05:00	2019-01-15 14:30:00-05:00	14	111	0	43	203	0	50	182	22	45	146	8	0	1	0	0	2	0	2	4	0	0	1	0	0	6	2	0	4	0	2	1	1	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 14:30:00-05:00	2019-01-15 14:45:00-05:00	12	97	0	27	222	1	46	182	32	35	189	12	0	2	0	1	3	0	2	3	1	1	0	0	0	2	2	1	2	0	2	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 14:45:00-05:00	2019-01-15 15:00:00-05:00	7	121	0	34	217	0	57	225	33	26	158	10	0	1	0	0	1	0	1	3	0	1	1	0	0	4	4	0	4	0	2	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 15:00:00-05:00	2019-01-15 15:15:00-05:00	10	94	3	34	195	0	45	183	24	39	161	17	0	2	0	2	1	0	0	5	0	0	1	0	0	6	2	0	6	0	3	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 15:15:00-05:00	2019-01-15 15:30:00-05:00	13	129	1	35	227	0	43	173	29	43	221	13	0	2	0	0	2	0	3	2	0	0	1	0	0	4	2	0	6	0	1	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 15:30:00-05:00	2019-01-15 15:45:00-05:00	6	119	0	35	191	1	53	189	34	29	185	14	0	0	0	0	3	0	0	3	0	0	2	0	0	7	2	0	3	0	3	0	0	0	0	0	
1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 15:45:00-05:00	2019-01-15 16:00:00-05:00	11	110	3	40	189	4	59	184	35	35	142	17	1	0	0	0	1	0	1	2	0	0	0	0	0	1	2	0	2	0	1	0	0	0	0	0	

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 306 CARLTON

Version: 002

ROUTING CODE(S): _0,

COUNT: 1130 ON 2002-NOV-04:M-F (FROM 01:28 TO 05:20)

STOP CARD: 3 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: MONDAY A.M. TRIPS., RUNS 2,7 AND 11 USED BUSES.



EB CONTROL POINT: 28 COLLEGE AT YONGE ST

TORONTO TRANSIT COMMISSION

EASTBOUND PERIOD 1: 00:00 TO 08:59

ROUTE

<u>STOP</u>	<u>LOCATION</u>	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	<u>ACCUM.</u>	<u>VEHICLES</u>	<u>AVG. LOAD</u>
1	DUNDAS WEST STATION	0	0	0	0	12	0.0
2	EDNA AT DUNDAS ST W	0	0	0	0	12	0.0
3	DUNDAS ST W AT BLOOR ST W	0	0	0	0	12	0.0
4	DUNDAS ST W AT RONCESVALLES	0	2	0	2	12	0.2
5	DUNDAS ST W AT HOWARD PK	0	1	0	3	12	0.3
6	DUNDAS ST W AT SORAUREN	0	0	0	3	12	0.3
7	DUNDAS ST W AT STERLING RD	0	1	0	4	12	0.3
8	DUNDAS ST W AT ST HELENS	0	0	0	4	12	0.3
9	COLLEGE AT LANSDOWNE	0	3	0	7	12	0.6
10	COLLEGE AT BROCK	0	0	0	7	12	0.6
11	COLLEGE AT DUFFERIN	0	12	0	19	12	1.6
12	COLLEGE AT RUSHOLME	0	0	0	19	12	1.6
13	COLLEGE AT DOVERCOURT	0	0	1	18	12	1.5
14	COLLEGE AT OSSINGTON AVE	0	8	1	25	12	2.1
15	COLLEGE AT CRAWFORD	0	1	0	26	12	2.2
16	COLLEGE AT GRACE	0	1	1	26	12	2.2
17	COLLEGE AT CLINTON	0	2	2	26	12	2.2
18	COLLEGE AT EUCLID	0	3	0	29	12	2.4
19	COLLEGE AT BATHURST ST	0	5	2	32	12	2.7
20	COLLEGE AT BORDEN	0	1	0	33	12	2.8
21	COLLEGE AT AUGUSTA	0	1	2	32	12	2.7
22	COLLEGE AT SPADINA AVE	0	10	3	39	12	3.3
23	COLLEGE AT BEVERLY	0	3	0	42	12	3.5
24	COLLEGE AT MCCAUL	0	3	0	45	12	3.8
25	COLLEGE AT UNIVERSITY	0	5	4	46	12	3.8
26	COLLEGE AT ELIZABETH	0	0	0	46	12	3.8
27	COLLEGE AT BAY ST	0	0	0	46	12	3.8
28	COLLEGE AT YONGE ST	0	16	17	45	12	3.8
29	CARLTON AT CHURCH	0	16	2	59	12	4.9
30	CARLTON AT JARVIS	0	1	3	57	12	4.8
31	CARLTON AT SHERBOURNE	0	2	5	54	12	4.5
32	CARLTON AT ONTARIO	0	0	0	54	12	4.5
33	CARLTON AT PARLIAMENT	0	1	1	54	12	4.5
34	PARLIAMENT ST AT GERRARD LOWER	0	1	2	53	12	4.4
35	GERRARD AT SACKVILLE	0	0	4	49	12	4.1
36	GERRARD AT SUMACH	0	4	2	51	12	4.3
37	GERRARD AT RIVER	0	3	6	48	12	4.0
38	GERRARD AT BLACKBURN	0	0	0	48	12	4.0
39	GERRARD AT BROADVIEW	0	4	5	47	12	3.9
40	GERRARD AT DEGRASSI	0	0	1	46	12	3.8
41	GERRARD AT LOGAN	0	1	1	46	12	3.8
42	GERRARD AT CARLAW	0	3	0	49	12	4.1
43	GERRARD AT PAPE	0	1	5	45	12	3.8
44	GERRARD AT MARJORY	0	0	1	44	12	3.7
45	GERRARD AT JONES	0	2	3	43	12	3.6

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 306 CARLTON

Version: 002

ROUTING CODE(S): _0,

COUNT: 1130 ON 2002-NOV-04:M-F (FROM 01:28 TO 05:20)

STOP CARD: 3 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: MONDAY A.M. TRIPS., RUNS 2,7 AND 11 USED BUSES.



EB CONTROL POINT: 28 COLLEGE AT YONGE ST

TORONTO TRANSIT COMMISSION

EASTBOUND PERIOD 1: 00:00 TO 08:59

ROUTE							
<u>STOP</u>	<u>LOCATION</u>	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	<u>ACCUM.</u>	<u>VEHICLES</u>	<u>AVG. LOAD</u>
46	GERRARD AT LESLIE	0	1	1	43	12	3.6
47	GERRARD AT ALTON	0	0	0	43	12	3.6
48	GERRARD AT GREENWOOD	0	4	4	43	12	3.6
49	GERRARD AT WOODFIELD	0	3	7	39	12	3.3
50	GERRARD AT ASHDALE	0	1	0	40	12	3.3
51	GERRARD AT COXWELL	0	4	4	40	12	3.3
52	COXWELL AT UPPER GERRARD	0	1	4	37	12	3.1
53	GERRARD UPPER AT BEATON	0	0	0	37	12	3.1
54	GERRARD UPPER AT BOWMORE	0	0	0	37	12	3.1
55	GERRARD UPPER AT KINGSMOUNT	0	0	1	36	12	3.0
56	GERRARD UPPER AT WOODBINE AVE	0	0	2	34	12	2.8
57	GERRARD UPPER AT GOLFVIEW	0	0	3	31	12	2.6
58	GERRARD UPPER AT GLENMOUNT	0	0	1	30	12	2.5
59	GERRARD UPPER AT NORWOOD	0	0	0	30	12	2.5
60	GERRARD UPPER AT MAIN	0	0	3	27	12	2.3
61	MAIN ST AT CNR STN (S DANFORTH)	0	0	0	27	12	2.3
62	MAIN ST AT DANFORTH AVE	0	0	17	10	12	0.8
63	MAIN STATION	0	0	10	0	12	0.0
TOTALS FOR PERIOD 1: 00:00 TO 08:59		0	131	131	2055	756	2.7

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 306 CARLTON

Version: 002

ROUTING CODE(S): _0,

COUNT: 1130 ON 2002-NOV-04:**M-F** (FROM 01:28 TO 05:20)

STOP CARD: 3 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: MONDAY A.M. TRIPS., RUNS 2,7 AND 11 USED BUSES.



EB CONTROL POINT: 28 COLLEGE AT YONGE ST

TORONTO TRANSIT COMMISSION

EASTBOUND PERIOD 1: 00:00 TO 08:59

PERIOD RIDING INDEX = 2.7 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 15.7 STOPS

AVERAGE ONS/VEHICLE-STOP = 0.2

AVERAGE ONS/TRIP = 10.9

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 306 CARLTON

Version: 002

ROUTING CODE(S): _0,

COUNT: 1130 ON 2002-NOV-04:M-F (FROM 00:42 TO 05:38)

STOP CARD: 3 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: MONDAY A.M. TRIPS., RUNS 2,7 AND 11 USED BUSES.



WB CONTROL POINT: 36 CARLTON AT YONGE ST

TORONTO TRANSIT COMMISSION

WESTBOUND PERIOD 1: 00:00 TO 08:59

ROUTE

<u>STOP</u>	<u>LOCATION</u>	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	<u>ACCUM.</u>	<u>VEHICLES</u>	<u>AVG. LOAD</u>
1	MAIN STATION	0	24	0	24	20	1.2
2	MAIN ST AT DANFORTH AVE	0	14	0	38	20	1.9
3	MAIN ST AT CNR STN (S DANFORTH)	0	0	0	38	20	1.9
4	MAIN ST AT GERRARD	0	5	6	37	20	1.9
5	GERRARD UPPER AT NORWOOD	0	2	1	38	20	1.9
6	GERRARD UPPER AT GLENMOUNT	0	0	1	37	20	1.9
7	GERRARD UPPER AT GOLFVIEW	0	0	0	37	20	1.9
8	GERRARD UPPER AT WOODBINE AVE	0	5	3	39	20	2.0
9	GERRARD UPPER AT KINGSMOUNT	0	0	1	38	20	1.9
10	GERRARD UPPER AT BOWMORE	0	0	3	35	20	1.8
11	GERRARD UPPER AT BEATON	0	1	0	36	20	1.8
12	GERRARD UPPER AT COXWELL	0	3	1	38	20	1.9
13	COXWELL AT LOWER GERRARD	0	10	3	45	20	2.3
14	GERRARD AT ASHDALE	0	3	0	48	17	2.8
15	GERRARD AT HIGHFIELD	0	2	2	48	17	2.8
16	GERRARD AT GREENWOOD	0	6	1	53	17	3.1
17	GERRARD AT PRUST	0	1	0	54	17	3.2
18	GERRARD AT LESLIE	0	4	0	58	17	3.4
19	GERRARD AT JONES	0	1	0	59	17	3.5
20	GERRARD AT MARJORY	0	4	2	61	17	3.6
21	GERRARD AT PAPE	0	0	4	57	17	3.4
22	GERRARD AT CARLAW	0	2	3	56	17	3.3
23	GERRARD AT LOGAN	0	2	2	56	17	3.3
24	GERRARD AT DEGRASSI	0	0	1	55	17	3.2
25	GERRARD AT BROADVIEW	0	9	14	50	17	2.9
26	GERRARD AT ST MATHEWS	0	1	0	51	17	3.0
27	GERRARD AT RIVER	0	7	3	55	17	3.2
28	GERRARD AT SUMACH	0	2	3	54	17	3.2
29	GERRARD AT SACKVILLE	0	1	0	55	17	3.2
30	GERRARD AT PARLIAMENT	0	7	2	60	17	3.5
31	PARLIAMENT ST AT CARLTON	0	1	1	60	17	3.5
32	CARLTON AT ONTARIO	0	1	0	61	17	3.6
33	CARLTON AT SHERBOURNE	0	8	3	66	17	3.9
34	CARLTON AT JARVIS	0	2	5	63	17	3.7
35	CARLTON AT CHURCH	0	8	2	69	17	4.1
36	CARLTON AT YONGE ST	0	42	25	86	17	5.1
37	COLLEGE AT BAY ST	0	1	4	83	17	4.9
38	COLLEGE AT ELIZABETH	0	1	1	83	17	4.9
39	COLLEGE AT QUEENS PARK	0	6	5	84	17	4.9
40	COLLEGE AT MCCAUL	0	3	2	85	17	5.0
41	COLLEGE AT ST. GEORGE	0	7	0	92	17	5.4
42	COLLEGE AT SPADINA AVE	0	10	10	92	17	5.4
43	COLLEGE AT MAJOR	0	2	1	93	17	5.5
44	COLLEGE AT BORDEN	0	0	2	91	17	5.4
45	COLLEGE AT BATHURST ST	0	3	11	83	17	4.9

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 306 CARLTON

Version: 002

ROUTING CODE(S): _0,

COUNT: 1130 ON 2002-NOV-04:M-F (FROM 00:42 TO 05:38)

STOP CARD: 3 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: MONDAY A.M. TRIPS., RUNS 2,7 AND 11 USED BUSES.



WB CONTROL POINT: 36 CARLTON AT YONGE ST

TORONTO TRANSIT COMMISSION

WESTBOUND PERIOD 1: 00:00 TO 08:59

ROUTE								
STOP	LOCATION	START	ONS	OFFS	ACCUM.	VEHICLES	AVG. LOAD	
46	COLLEGE AT EUCLID	0	1	1	83	17	4.9	
47	COLLEGE AT CLINTON	0	2	7	78	17	4.6	
48	COLLEGE AT GRACE	0	1	3	76	17	4.5	
49	COLLEGE AT CRAWFORD	0	1	3	74	17	4.4	
50	COLLEGE AT OSSINGTON AVE	0	3	8	69	17	4.1	
51	COLLEGE AT DOVERCOURT	0	0	7	62	17	3.6	
52	COLLEGE AT HAVELOCK	0	0	5	57	17	3.4	
53	COLLEGE AT DUFFERIN	0	4	22	39	17	2.3	
54	COLLEGE AT BROCK	0	0	5	34	17	2.0	
55	COLLEGE AT LANSDOWNE	0	0	14	20	17	1.2	
56	DUNDAS ST W AT STERLING	0	0	0	20	17	1.2	
57	DUNDAS ST W AT SORAUREN	0	0	4	16	17	0.9	
58	DUNDAS ST W AT MORROW AVE	0	0	1	15	17	0.9	
59	DUNDAS ST W AT RONCESVALLES	0	0	9	6	17	0.4	
60	DUNDAS ST W AT BLOOR	0	0	1	5	16	0.3	
61	DUNDAS WEST STATION	0	0	5	0	16	0.0	
TOTALS FOR PERIOD 1: 00:00 TO 08:59		0	223	223	3255	1074	3.0	

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 306 CARLTON

Version: 002

ROUTING CODE(S): _0,

COUNT: 1130 ON 2002-NOV-04:**M-F** (FROM 00:42 TO 05:38)

STOP CARD: 3 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: MONDAY A.M. TRIPS., RUNS 2,7 AND 11 USED BUSES.



WB CONTROL POINT: 36 CARLTON AT YONGE ST

WESTBOUND PERIOD 1: 00:00 TO 08:59

PERIOD RIDING INDEX = 3.0 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 14.6 STOPS

AVERAGE ONS/VEHICLE-STOP = 0.2

AVERAGE ONS/TRIP = 11.2

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 504 KING

Version: 002

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:20)

STOP CARD: 28 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 & 20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514 Cherry into service on June 19, 2016.



EB CONTROL POINT: 31 KING ST W AT YONGE ST

TORONTO TRANSIT COMMISSION

EASTBOUND PERIOD 1: 07:00

ROUTE

STOP	LOCATION	START	ONS	OFFS	ACCUM.	VEHICLES	AVG. LOAD
1	DUNDAS WEST STATION	0	4723	0	4723	208	22.7
3	EDNA AT DUNDAS ST W	0	0	0	526	22	23.9
4	RONCESVALLES AT BOUSTEAD	0	181	97	4807	208	23.1
5	RONCESVALLES AT HOWARD PARK	0	296	231	4872	208	23.4
6	RONCESVALLES AT GRENADIER	0	181	337	4716	208	22.7
7	RONCESVALLES AT HIGH PARK BLVD	0	288	751	4253	208	20.4
8	RONCESVALLES AT GALLEY	0	233	467	4019	207	19.4
9	RONCESVALLES AT MARION	0	185	614	3590	206	17.4
10	RONCESVALLES AT QUEEN ST W	0	910	680	3820	225	17.0
11	KING ST W AT WILSON PARK RD	0	87	94	3813	221	17.3
12	KING ST W AT DOWLING	0	307	303	3817	221	17.3
13	KING ST W AT JAMESON	0	964	626	4155	221	18.8
14	KING ST W AT DUNN	0	433	188	4400	221	19.9
15	KING ST W AT SPENCER	0	432	213	4619	221	20.9
16	KING ST W AT DUFFERIN	0	1075	593	5101	224	22.8
17	KING ST W AT FRASER	0	416	98	5419	224	24.2
18	KING ST W AT ATLANTIC	0	832	286	5965	224	26.6
19	KING ST W AT SUDBURY	0	191	70	6086	224	27.2
20	KING ST W AT SHAW	0	471	135	6422	225	28.5
21	KING ST W AT STRACHAN	0	673	161	6934	225	30.8
22	KING ST W AT NIAGARA	0	232	120	7046	225	31.3
23	KING ST W AT TECUMSETH	0	239	180	7105	225	31.6
24	KING ST W AT BATHURST ST	0	1069	495	7679	226	34.0
25	KING ST W AT PORTLAND	0	704	399	7984	226	35.3
26	KING ST W AT SPADINA AVE	0	1086	1034	8036	226	35.6
27	KING ST W AT BLUE JAYS WAY	0	676	456	8256	224	36.9
28	KING ST W AT JOHN	0	537	713	8080	225	35.9
29	KING ST W AT UNIVERSITY	0	952	3276	5756	225	25.6
30	KING ST W AT BAY ST	0	760	1087	5429	225	24.1
31	KING ST W AT YONGE ST	0	3048	1457	7020	225	31.2
32	KING ST E AT CHURCH	0	359	457	6922	224	30.9
33	KING ST E AT JARVIS	0	354	1459	5817	221	26.3
34	KING ST E AT SHERBOURNE	0	534	1086	5265	221	23.8
35	KING ST E AT ONTARIO ST	0	257	808	4714	221	21.3
36	KING ST E AT PARLIAMENT	0	402	790	4326	221	19.6
37	KING ST E AT TRINITY	0	97	213	4210	197	21.4
38	KING ST E AT SACKVILLE	0	67	171	4106	197	20.8
39	KING ST E AT SUMACH	0	162	275	3993	197	20.3
40	KING ST E AT RIVER ST	0	327	382	3938	197	20.0
41	QUEEN ST E AT CARROLL	0	75	288	3725	195	19.1
42	QUEEN ST E AT BROADVIEW	0	677	855	3547	195	18.2
43	BROADVIEW AT DUNDAS ST E	0	386	191	3742	188	19.9
44	BROADVIEW AT MT STEPHEN	0	109	123	3728	183	20.4
45	BROADVIEW AT GERRARD	0	587	601	3714	183	20.3
46	BROADVIEW AT LANGLEY	0	195	168	3741	182	20.6

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

Version: 002

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:20)

STOP CARD: 28 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &
20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514
Cherry into service on June 19, 2016.

EB CONTROL POINT: 31 KING ST W AT YONGE ST



EASTBOUND PERIOD 1: 07:00

ROUTE

<u>STOP</u>	<u>LOCATION</u>	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	<u>ACCUM.</u>	<u>VEHICLES</u>	<u>AVG. LOAD</u>
47	BROADVIEW AT WITHROW	0	111	153	3699	181	20.4
48	BROADVIEW AT MILLBROOK	0	51	98	3652	179	20.4
49	BROADVIEW AT WOLFREY	0	25	160	3517	178	19.8
51	BROADVIEW STATION	0	0	3517	0	178	0.0
TOTALS FOR PERIOD 1: 07:00		0	26956	26956	240804	10141	23.7

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

Version: 002

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:20)

STOP CARD: 28 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 & 20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514 Cherry into service on June 19, 2016.

EB CONTROL POINT: 31 KING ST W AT YONGE ST



EASTBOUND PERIOD 1: 07:00

PERIOD RIDING INDEX = 23.7 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 8.9 STOPS

AVERAGE ONS/VEHICLE-STOP = 2.7

AVERAGE ONS/TRIP = 119.3

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 504 KING

Version: 002

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:20)

STOP CARD: 28 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 & 20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514 Cherry into service on June 19, 2016.



EB CONTROL POINT: 31 KING ST W AT YONGE ST

TORONTO TRANSIT COMMISSION

EASTBOUND PERIOD 2: 23:01

ROUTE

STOP	LOCATION	START	ONS	OFFS	ACCUM.	VEHICLES	AVG. LOAD
1	DUNDAS WEST STATION	0	262	0	262	18	14.6
3	EDNA AT DUNDAS ST W	0	0	0	4	1	4.0
4	RONCESVALLES AT BOUSTEAD	0	6	1	267	18	14.8
5	RONCESVALLES AT HOWARD PARK	0	0	3	264	18	14.7
6	RONCESVALLES AT GRENADIER	0	4	17	251	18	13.9
7	RONCESVALLES AT HIGH PARK BLVD	0	6	22	235	18	13.1
8	RONCESVALLES AT GALLEY	0	0	17	218	18	12.1
9	RONCESVALLES AT MARION	0	0	15	203	18	11.3
10	RONCESVALLES AT QUEEN ST W	0	19	45	177	21	8.4
11	KING ST W AT WILSON PARK RD	0	0	4	173	16	10.8
12	KING ST W AT DOWLING	0	5	19	159	16	9.9
13	KING ST W AT JAMESON	0	14	64	109	16	6.8
14	KING ST W AT DUNN	0	4	15	98	16	6.1
15	KING ST W AT SPENCER	0	1	19	80	16	5.0
16	KING ST W AT DUFFERIN	0	36	18	98	16	6.1
17	KING ST W AT FRASER	0	3	4	97	16	6.1
18	KING ST W AT ATLANTIC	0	25	11	111	16	6.9
19	KING ST W AT SUDBURY	0	4	1	114	15	7.6
20	KING ST W AT SHAW	0	17	7	124	17	7.3
21	KING ST W AT STRACHAN	0	8	3	129	18	7.2
22	KING ST W AT NIAGARA	0	4	2	131	18	7.3
23	KING ST W AT TECUMSETH	0	5	2	134	18	7.4
24	KING ST W AT BATHURST ST	0	52	26	160	19	8.4
25	KING ST W AT PORTLAND	0	15	19	156	19	8.2
26	KING ST W AT SPADINA AVE	0	100	13	243	18	13.5
27	KING ST W AT BLUE JAYS WAY	0	28	18	253	19	13.3
28	KING ST W AT JOHN	0	59	9	303	18	16.8
29	KING ST W AT UNIVERSITY	0	39	85	257	18	14.3
30	KING ST W AT BAY ST	0	12	13	256	18	14.2
31	KING ST W AT YONGE ST	0	80	39	297	19	15.6
32	KING ST E AT CHURCH	0	16	27	286	19	15.1
33	KING ST E AT JARVIS	0	0	13	273	17	16.1
34	KING ST E AT SHERBOURNE	0	10	19	264	17	15.5
35	KING ST E AT ONTARIO ST	0	1	14	251	17	14.8
36	KING ST E AT PARLIAMENT	0	34	41	244	18	13.6
37	KING ST E AT TRINITY	0	2	7	239	16	14.9
38	KING ST E AT SACKVILLE	0	1	4	236	16	14.8
39	KING ST E AT SUMACH	0	7	26	217	16	13.6
40	KING ST E AT RIVER ST	0	10	22	205	16	12.8
41	QUEEN ST E AT CARROLL	0	0	3	202	16	12.6
42	QUEEN ST E AT BROADVIEW	0	16	40	178	16	11.1
43	BROADVIEW AT DUNDAS ST E	0	17	13	182	15	12.1
44	BROADVIEW AT MT STEPHEN	0	0	10	172	14	12.3
45	BROADVIEW AT GERRARD	0	19	23	168	14	12.0
46	BROADVIEW AT LANGLEY	0	1	3	166	14	11.9

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

Version: 002

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:20)

STOP CARD: 28 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &
20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514
Cherry into service on June 19, 2016.

EB CONTROL POINT: 31 KING ST W AT YONGE ST



EASTBOUND PERIOD 2: 23:01

ROUTE

<u>STOP</u>	<u>LOCATION</u>	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	<u>ACCUM.</u>	<u>VEHICLES</u>	<u>AVG. LOAD</u>
47	BROADVIEW AT WITHROW	0	2	8	160	14	11.4
48	BROADVIEW AT MILLBROOK	0	4	5	159	14	11.4
49	BROADVIEW AT WOLFREY	0	1	6	154	14	11.0
51	BROADVIEW STATION	0	0	154	0	14	0.0
TOTALS FOR PERIOD 2: 23:01		0	949	949	9119	807	11.3

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

Version: 002

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:20)

STOP CARD: 28 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 & 20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514 Cherry into service on June 19, 2016.

EB CONTROL POINT: 31 KING ST W AT YONGE ST



EASTBOUND PERIOD 2: 23:01

PERIOD RIDING INDEX = 11.3 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 9.6 STOPS

AVERAGE ONS/VEHICLE-STOP = 1.2

AVERAGE ONS/TRIP = 45.2

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 504 KING

Version: 002

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:15)

STOP CARD: 28 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 & 20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514 Cherry into service on June 19, 2016.



WB CONTROL POINT: 24 KING ST E AT YONGE ST

TORONTO TRANSIT COMMISSION

WESTBOUND PERIOD 1: 07:00

ROUTE

STOP	LOCATION	START	ONS	OFFS	ACCUM.	VEHICLES	AVG. LOAD
1	BROADVIEW STATION	0	3541	0	3541	171	20.7
3	ERINDALE AT BROADVIEW	0	70	0	3611	171	21.1
4	BROADVIEW AT DANFORTH AVE	0	103	1	3209	146	22.0
5	BROADVIEW AT WOLFREY	0	201	34	3880	171	22.7
6	BROADVIEW AT MILLBROOK	0	106	39	3947	172	22.9
7	BROADVIEW AT WITHROW	0	193	130	4010	173	23.2
8	BROADVIEW AT LANGLEY	0	159	83	4086	174	23.5
9	BROADVIEW AT JACK LAYTON WAY	0	87	215	3958	174	22.7
10	BROADVIEW AT GERRARD	0	657	497	4118	175	23.5
11	BROADVIEW AT MT STEPHEN	0	107	91	4134	175	23.6
12	BROADVIEW AT DUNDAS ST E	0	250	247	4137	188	22.0
13	BROADVIEW AT QUEEN ST E	0	722	742	4117	202	20.4
14	QUEEN ST E AT CARROLL	0	378	111	4384	198	22.1
15	KING ST E AT RIVER	0	510	347	4547	198	23.0
16	KING ST E AT SUMACH	0	360	170	4737	198	23.9
17	KING ST E AT SACKVILLE	0	140	70	4807	198	24.3
18	KING ST E AT TRINITY	0	116	97	4826	197	24.5
19	KING ST E AT PARLIAMENT	0	539	205	5160	201	25.7
20	KING ST E AT ONTARIO	0	789	339	5610	204	27.5
21	KING ST E AT SHERBOURNE	0	1033	582	6061	204	29.7
22	KING ST E AT JARVIS	0	1133	299	6895	204	33.8
23	KING ST E AT CHURCH	0	468	305	7058	207	34.1
24	KING ST E AT YONGE ST	0	1717	2947	5828	208	28.0
25	KING ST W AT BAY ST	0	806	735	5899	208	28.4
26	KING ST W AT UNIVERSITY	0	2752	819	7832	208	37.7
27	KING ST W AT JOHN	0	469	716	7585	208	36.5
28	KING ST W AT PETER	0	319	713	7191	208	34.6
29	KING ST W AT SPADINA AVE	0	917	1250	6858	209	32.8
30	KING ST W AT PORTLAND	0	348	870	6336	209	30.3
31	KING ST W AT BATHURST ST	0	524	897	5963	210	28.4
32	KING ST W AT TECUMSETH	0	158	251	5870	209	28.1
33	KING ST W AT NIAGARA	0	113	219	5764	209	27.6
34	KING ST W AT STRACHAN	0	166	619	5311	209	25.4
35	KING ST W AT SHAW	0	162	579	4894	209	23.4
36	KING ST W AT SUDBURY	0	60	189	4765	208	22.9
37	KING ST W AT JEFFERSON	0	211	544	4432	209	21.2
38	KING ST W AT JOE SHUSTER WAY	0	53	316	4169	209	19.9
39	KING ST W AT DUFFERIN	0	725	1108	3786	209	18.1
40	KING ST W AT SPENCER	0	159	265	3680	203	18.1
41	KING ST W AT DUNN	0	169	294	3555	203	17.5
42	KING ST W AT JAMESON	0	437	856	3136	203	15.4
43	KING ST W AT DOWLING	0	263	262	3137	202	15.5
44	KING ST W AT WILSON PARK RD	0	61	122	3076	202	15.2
45	KING ST W AT QUEEN ST W	0	166	657	2585	202	12.8
46	RONCESVALLES AT QUEEN ST W (1)	0	895	189	3291	180	18.3

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

Version: 002

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:15)

STOP CARD: 28 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &
20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514
Cherry into service on June 19, 2016.

WB CONTROL POINT: 24 KING ST E AT YONGE ST



WESTBOUND PERIOD 1: 07:00

ROUTE

<u>STOP</u>	<u>LOCATION</u>	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	<u>ACCUM.</u>	<u>VEHICLES</u>	<u>AVG. LOAD</u>
47	RONCESVALLES AT MARION	0	579	138	3732	179	20.8
48	RONCESVALLES AT GARDEN	0	464	188	4008	182	22.0
49	RONCESVALLES AT FERMANAGH	0	636	271	4373	182	24.0
50	RONCESVALLES AT GRENADIER	0	307	138	4542	182	25.0
51	RONCESVALLES AT HOWARD PARK	0	350	309	4583	183	25.0
52	RONCESVALLES AT BOUSTEAD	0	53	202	4434	181	24.5
53	DUNDAS ST W AT BLOOR	0	14	279	4169	181	23.0
55	DUNDAS WEST STATION	0	0	4169	0	181	0.0
TOTALS FOR PERIOD 1: 07:00		0	25715	25715	245617	10286	23.9

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

Version: 002

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:15)

STOP CARD: 28 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 & 20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514 Cherry into service on June 19, 2016.

WB CONTROL POINT: 24 KING ST E AT YONGE ST



WESTBOUND PERIOD 1: 07:00

PERIOD RIDING INDEX = 23.9 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 9.6 STOPS

AVERAGE ONS/VEHICLE-STOP = 2.5

AVERAGE ONS/TRIP = 122.5

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 504 KING

Version: 002

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:15)

STOP CARD: 28 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 & 20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514 Cherry into service on June 19, 2016.



WB CONTROL POINT: 24 KING ST E AT YONGE ST

TORONTO TRANSIT COMMISSION

WESTBOUND PERIOD 2: 23:01

ROUTE

STOP	LOCATION	START	ONS	OFFS	ACCUM.	VEHICLES	AVG. LOAD
1	BROADVIEW STATION	0	138	0	138	18	7.7
3	ERINDALE AT BROADVIEW	0	2	0	140	18	7.8
4	BROADVIEW AT DANFORTH AVE	0	1	1	134	17	7.9
5	BROADVIEW AT WOLFREY	0	3	4	139	18	7.7
6	BROADVIEW AT MILLBROOK	0	0	3	136	18	7.6
7	BROADVIEW AT WITHROW	0	11	2	145	18	8.1
8	BROADVIEW AT LANGLEY	0	0	2	143	18	7.9
9	BROADVIEW AT JACK LAYTON WAY	0	0	2	141	18	7.8
10	BROADVIEW AT GERRARD	0	16	18	139	18	7.7
11	BROADVIEW AT MT STEPHEN	0	1	12	128	17	7.5
12	BROADVIEW AT DUNDAS ST E	0	14	17	125	18	6.9
13	BROADVIEW AT QUEEN ST E	0	33	34	124	19	6.5
14	QUEEN ST E AT CARROLL	0	15	1	138	19	7.3
15	KING ST E AT RIVER	0	17	12	143	19	7.5
16	KING ST E AT SUMACH	0	17	9	151	19	7.9
17	KING ST E AT SACKVILLE	0	4	0	155	19	8.2
18	KING ST E AT TRINITY	0	3	0	158	19	8.3
19	KING ST E AT PARLIAMENT	0	33	5	186	20	9.3
20	KING ST E AT ONTARIO	0	7	13	180	20	9.0
21	KING ST E AT SHERBOURNE	0	51	8	223	19	11.7
22	KING ST E AT JARVIS	0	23	6	240	19	12.6
23	KING ST E AT CHURCH	0	43	5	278	22	12.6
24	KING ST E AT YONGE ST	0	99	107	270	22	12.3
25	KING ST W AT BAY ST	0	45	6	309	21	14.7
26	KING ST W AT UNIVERSITY	0	131	24	416	21	19.8
27	KING ST W AT JOHN	0	35	25	426	22	19.4
28	KING ST W AT PETER	0	58	27	457	23	19.9
29	KING ST W AT SPADINA AVE	0	65	78	444	23	19.3
30	KING ST W AT PORTLAND	0	37	42	439	22	20.0
31	KING ST W AT BATHURST ST	0	47	36	450	22	20.5
32	KING ST W AT TECUMSETH	0	19	2	467	22	21.2
33	KING ST W AT NIAGARA	0	7	14	460	22	20.9
34	KING ST W AT STRACHAN	0	5	32	433	22	19.7
35	KING ST W AT SHAW	0	17	47	403	22	18.3
36	KING ST W AT SUDBURY	0	44	10	437	23	19.0
37	KING ST W AT JEFFERSON	0	11	12	436	23	19.0
38	KING ST W AT JOE SHUSTER WAY	0	19	18	437	23	19.0
39	KING ST W AT DUFFERIN	0	34	117	354	23	15.4
40	KING ST W AT SPENCER	0	11	31	334	20	16.7
41	KING ST W AT DUNN	0	3	32	305	20	15.3
42	KING ST W AT JAMESON	0	10	74	241	20	12.1
43	KING ST W AT DOWLING	0	7	30	218	20	10.9
44	KING ST W AT WILSON PARK RD	0	5	11	212	19	11.2
45	KING ST W AT QUEEN ST W	0	0	39	173	19	9.1
46	RONCESVALLES AT QUEEN ST W (1)	0	25	30	168	16	10.5

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

Version: 002

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:15)

STOP CARD: 28 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &
20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514
Cherry into service on June 19, 2016.

WB CONTROL POINT: 24 KING ST E AT YONGE ST



WESTBOUND PERIOD 2: 23:01

ROUTE

<u>STOP</u>	<u>LOCATION</u>	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	<u>ACCUM.</u>	<u>VEHICLES</u>	<u>AVG. LOAD</u>
47	RONCESVALLES AT MARION	0	4	13	159	15	10.6
48	RONCESVALLES AT GARDEN	0	11	9	161	15	10.7
49	RONCESVALLES AT FERMANAGH	0	2	19	144	15	9.6
50	RONCESVALLES AT GRENADIER	0	6	4	146	15	9.7
51	RONCESVALLES AT HOWARD PARK	0	11	10	147	15	9.8
52	RONCESVALLES AT BOUSTEAD	0	0	13	134	15	8.9
53	DUNDAS ST W AT BLOOR	0	0	5	129	15	8.6
55	DUNDAS WEST STATION	0	0	129	0	15	0.0
TOTALS FOR PERIOD 2: 23:01		0	1200	1200	12793	1020	12.5

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

Version: 002

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:15)

STOP CARD: 28 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 & 20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514 Cherry into service on June 19, 2016.

WB CONTROL POINT: 24 KING ST E AT YONGE ST



WESTBOUND PERIOD 2: 23:01

PERIOD RIDING INDEX = 12.5 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 10.7 STOPS

AVERAGE ONS/VEHICLE-STOP = 1.2

AVERAGE ONS/TRIP = 52.2

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 505 DUNDAS

Version: 002

ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:M-F (FROM 07:07 TO 25:21)

STOP CARD: 16 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather during survey.



EB CONTROL POINT: 23 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

EASTBOUND PERIOD 1: 07:00

ROUTE

STOP	LOCATION	START	ONS	OFFS	ACCUM.	VEHICLES	AVG. LOAD
1	DUNDAS WEST AT OUTER PLATFORM	0	1401	0	1401	107	13.1
3	DUNDAS ST W AT RONCESVALLES	0	169	59	1511	107	14.1
4	DUNDAS ST W AT HOWARD PK	0	99	75	1535	107	14.3
5	DUNDAS ST W AT SORAUREN	0	158	99	1594	108	14.8
6	DUNDAS ST W AT STERLING RD	0	28	63	1559	108	14.4
7	DUNDAS ST W AT ST HELENS	0	3	7	1555	108	14.4
8	DUNDAS ST W AT LANSDOWNE	0	389	178	1766	132	13.4
10	DUNDAS ST W AT BROCK	0	328	126	1968	132	14.9
11	DUNDAS ST W AT SHERIDAN	0	201	60	2109	133	15.9
12	DUNDAS ST W AT DUFFERIN	0	573	130	2552	133	19.2
13	DUNDAS ST W AT GLADSTONE	0	219	66	2705	133	20.3
14	DUNDAS ST W AT LISGAR	0	237	92	2850	133	21.4
15	DUNDAS ST W AT DOVERCOURT	0	268	134	2984	133	22.4
16	DUNDAS ST W AT OSSINGTON	0	636	306	3314	134	24.7
17	DUNDAS ST W AT SHAW	0	178	59	3433	133	25.8
18	DUNDAS ST W AT GRACE	0	168	70	3531	133	26.5
19	DUNDAS ST W AT BELLWOODS	0	190	85	3636	133	27.3
20	DUNDAS ST W AT EUCLID	0	272	167	3741	133	28.1
21	DUNDAS ST W AT BATHURST ST	0	1121	496	4366	139	31.4
22	DUNDAS ST W AT DENISON	0	239	115	4490	138	32.5
23	DUNDAS ST W AT SPADINA AVE	0	1396	722	5164	147	35.1
24	DUNDAS ST W AT HURON	0	464	102	5526	146	37.8
25	DUNDAS ST W AT BEVERLEY	0	370	177	5719	145	39.4
26	DUNDAS ST W AT MCCAUL	0	283	265	5737	144	39.8
27	DUNDAS ST W AT UNIVERSITY	0	750	1370	5117	143	35.8
28	DUNDAS ST W AT CHESTNUT ST	0	128	286	4959	143	34.7
29	DUNDAS ST W AT BAY ST	0	309	948	4320	144	30.0
30	DUNDAS ST W AT YONGE ST	0	1932	2152	4100	140	29.3
31	DUNDAS ST E AT VICTORIA	0	242	201	4141	140	29.6
33	DUNDAS ST E AT CHURCH	0	164	268	4037	138	29.3
34	DUNDAS ST E AT JARVIS	0	200	469	3768	137	27.5
35	DUNDAS ST E AT SHERBOURNE	0	156	532	3392	136	24.9
36	DUNDAS ST E AT ONTARIO	0	37	202	3227	136	23.7
37	DUNDAS ST E AT PARLIAMENT	0	305	1001	2531	136	18.6
39	DUNDAS ST E AT SACKVILLE	0	116	305	2342	113	20.7
40	DUNDAS ST E AT SUMACH	0	83	159	2266	113	20.1
41	DUNDAS ST E AT RIVER	0	215	242	2239	113	19.8
42	DUNDAS ST E AT MUNRO	0	34	112	2161	113	19.1
43	DUNDAS ST E AT BROADVIEW	0	189	316	2034	114	17.8
44	BROADVIEW AT MT STEPHEN	0	67	105	1996	110	18.1
45	BROADVIEW AT GERRARD	0	478	398	2076	109	19.0
47	BROADVIEW AT LANGLEY	0	86	31	2131	108	19.7
48	BROADVIEW AT WITHROW	0	74	55	2150	108	19.9
50	BROADVIEW AT MILLBROOK	0	50	43	2157	108	20.0
51	BROADVIEW AT WOLFREY	0	27	48	2136	108	19.8

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

Version: 002

ROUTE: 505 DUNDAS

ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15: **M-F** (FROM 07:07 TO 25:21)STOP CARD: 16 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather during survey.



EB CONTROL POINT: 23 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

EASTBOUND PERIOD 1: 07:00

ROUTE

<u>STOP</u>	<u>LOCATION</u>	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	<u>ACCUM.</u>	<u>VEHICLES</u>	<u>AVG. LOAD</u>
52	BROADVIEW AT DANFORTH AVE	0	7	252	1891	108	17.5
53	BROADVIEW STATION	0	0	1891	0	108	0.0
TOTALS FOR PERIOD 1: 07:00		0	15039	15039	139917	5925	23.6

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 505 DUNDAS

Version: 002

ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15: **M-F** (FROM 07:07 TO 25:21)

STOP CARD: 16 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather during survey.



EB CONTROL POINT: 23 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

EASTBOUND PERIOD 1: 07:00

PERIOD RIDING INDEX = 23.6 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 9.3 STOPS

AVERAGE ONS/VEHICLE-STOP = 2.5

AVERAGE ONS/TRIP = 102.3

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 505 DUNDAS

Version: 002

ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:M-F (FROM 07:07 TO 25:21)

STOP CARD: 16 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather during survey.



EB CONTROL POINT: 23 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

EASTBOUND PERIOD 2: 23:01

ROUTE

STOP	LOCATION	START	ONS	OFFS	ACCUM.	VEHICLES	AVG. LOAD
1	DUNDAS WEST AT OUTER PLATFORM	0	31	0	31	8	3.9
3	DUNDAS ST W AT RONCESVALLES	0	3	4	30	8	3.8
4	DUNDAS ST W AT HOWARD PK	0	1	1	30	7	4.3
5	DUNDAS ST W AT SORAUREN	0	0	6	24	7	3.4
6	DUNDAS ST W AT STERLING RD	0	0	2	22	7	3.1
7	DUNDAS ST W AT ST HELENS	0	1	0	23	7	3.3
8	DUNDAS ST W AT LANSDOWNE	0	4	6	21	9	2.3
10	DUNDAS ST W AT BROCK	0	3	0	24	9	2.7
11	DUNDAS ST W AT SHERIDAN	0	3	1	26	9	2.9
12	DUNDAS ST W AT DUFFERIN	0	10	1	35	9	3.9
13	DUNDAS ST W AT GLADSTONE	0	2	0	37	9	4.1
14	DUNDAS ST W AT LISGAR	0	10	1	46	9	5.1
15	DUNDAS ST W AT DOVERCOURT	0	6	1	51	9	5.7
16	DUNDAS ST W AT OSSINGTON	0	15	4	62	9	6.9
17	DUNDAS ST W AT SHAW	0	3	0	65	9	7.2
18	DUNDAS ST W AT GRACE	0	2	2	65	9	7.2
19	DUNDAS ST W AT BELLWOODS	0	1	1	65	9	7.2
20	DUNDAS ST W AT EUCLID	0	1	5	61	9	6.8
21	DUNDAS ST W AT BATHURST ST	0	14	10	65	10	6.5
22	DUNDAS ST W AT DENISON	0	5	2	68	10	6.8
23	DUNDAS ST W AT SPADINA AVE	0	17	6	79	10	7.9
24	DUNDAS ST W AT HURON	0	8	0	87	10	8.7
25	DUNDAS ST W AT BEVERLEY	0	18	2	103	10	10.3
26	DUNDAS ST W AT MCCAUL	0	5	2	106	10	10.6
27	DUNDAS ST W AT UNIVERSITY	0	19	17	108	10	10.8
28	DUNDAS ST W AT CHESTNUT ST	0	5	6	107	10	10.7
29	DUNDAS ST W AT BAY ST	0	11	0	118	10	11.8
30	DUNDAS ST W AT YONGE ST	0	61	22	157	10	15.7
31	DUNDAS ST E AT VICTORIA	0	19	1	175	10	17.5
33	DUNDAS ST E AT CHURCH	0	6	27	154	10	15.4
34	DUNDAS ST E AT JARVIS	0	6	7	153	10	15.3
35	DUNDAS ST E AT SHERBOURNE	0	4	33	124	10	12.4
36	DUNDAS ST E AT ONTARIO	0	1	10	115	10	11.5
37	DUNDAS ST E AT PARLIAMENT	0	4	31	88	10	8.8
39	DUNDAS ST E AT SACKVILLE	0	1	11	78	9	8.7
40	DUNDAS ST E AT SUMACH	0	1	5	74	9	8.2
41	DUNDAS ST E AT RIVER	0	1	12	63	9	7.0
42	DUNDAS ST E AT MUNRO	0	0	6	57	9	6.3
43	DUNDAS ST E AT BROADVIEW	0	4	14	47	9	5.2
44	BROADVIEW AT MT STEPHEN	0	0	1	46	7	6.6
45	BROADVIEW AT GERRARD	0	1	10	37	7	5.3
47	BROADVIEW AT LANGLEY	0	1	2	36	7	5.1
48	BROADVIEW AT WITHROW	0	0	0	36	7	5.1
50	BROADVIEW AT MILLBROOK	0	0	1	35	7	5.0
51	BROADVIEW AT WOLFREY	0	0	0	35	7	5.0

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 505 DUNDAS

Version: 002

ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15: **M-F** (FROM 07:07 TO 25:21)STOP CARD: 16 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather during survey.



EB CONTROL POINT: 23 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

EASTBOUND PERIOD 2: 23:01

ROUTE

<u>STOP</u>	<u>LOCATION</u>	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	<u>ACCUM.</u>	<u>VEHICLES</u>	<u>AVG. LOAD</u>
52	BROADVIEW AT DANFORTH AVE	0	0	1	34	7	4.9
53	BROADVIEW STATION	0	0	34	0	7	0.0
TOTALS FOR PERIOD 2: 23:01		0	308	308	3103	413	7.5

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 505 DUNDAS

Version: 002

ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15: **M-F** (FROM 07:07 TO 25:21)

STOP CARD: 16 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather during survey.



EB CONTROL POINT: 23 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

EASTBOUND PERIOD 2: 23:01

PERIOD RIDING INDEX = 7.5 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 10.1 STOPS

AVERAGE ONS/VEHICLE-STOP = 0.7

AVERAGE ONS/TRIP = 30.8

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 505 DUNDAS

Version: 002

ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:M-F (FROM 07:02 TO 25:13)

STOP CARD: 16 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather during survey.



WB CONTROL POINT: 32 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

WESTBOUND PERIOD 1: 07:00

ROUTE

STOP	LOCATION	START	ONS	OFFS	ACCUM.	VEHICLES	AVG. LOAD
1	BROADVIEW STATION	0	1791	0	1791	113	15.8
2	ERINDALE AT BROADVIEW	0	61	1	1851	113	16.4
3	BROADVIEW AT DANFORTH AVE	0	76	4	1923	113	17.0
4	BROADVIEW AT WOLFREY	0	78	14	1987	113	17.6
5	BROADVIEW AT MILLBROOK	0	47	26	2008	113	17.8
7	BROADVIEW AT WITHROW	0	54	45	2017	113	17.8
8	BROADVIEW AT LANGLEY	0	49	35	2031	113	18.0
9	BROADVIEW AT SIMPSON	0	27	86	1972	113	17.5
10	BROADVIEW AT GERRARD	0	402	276	2098	119	17.6
11	BROADVIEW AT MT STEPHEN	0	81	37	2142	120	17.9
12	BROADVIEW AT DUNDAS ST E	0	343	158	2327	132	17.6
13	DUNDAS ST E AT MUNRO	0	142	70	2399	128	18.7
14	DUNDAS ST E AT RIVER	0	384	211	2572	128	20.1
15	DUNDAS ST E AT SUMACH	0	209	141	2640	128	20.6
16	DUNDAS ST E AT SACKVILLE	0	393	168	2865	128	22.4
18	DUNDAS ST E AT PARLIAMENT	0	1017	205	3677	134	27.4
19	DUNDAS ST E AT ONTARIO	0	235	45	3867	134	28.9
20	DUNDAS ST E AT SHERBOURNE	0	523	169	4221	134	31.5
21	DUNDAS ST E AT JARVIS	0	303	140	4384	134	32.7
22	DUNDAS ST E AT CHURCH	0	312	260	4436	136	32.6
24	DUNDAS ST E AT VICTORIA	0	326	382	4380	138	31.7
25	DUNDAS ST E AT YONGE ST	0	2727	1768	5339	140	38.1
26	DUNDAS ST W AT BAY ST	0	890	271	5958	146	40.8
27	DUNDAS ST W AT CHESTNUT ST	0	258	149	6067	147	41.3
28	DUNDAS ST W AT UNIVERSITY	0	1091	736	6422	148	43.4
29	DUNDAS ST W AT MCCAUL	0	385	453	6354	149	42.6
30	DUNDAS ST W AT BEVERLEY	0	203	278	6279	149	42.1
31	DUNDAS ST W AT HURON	0	128	343	6064	149	40.7
32	DUNDAS ST W AT SPADINA AVE	0	927	1698	5293	153	34.6
33	DUNDAS ST W AT DENISON	0	188	351	5130	150	34.2
34	DUNDAS ST W AT BATHURST ST	0	553	1457	4226	150	28.2
35	DUNDAS ST W AT EUCLID	0	148	356	4018	134	30.0
36	DUNDAS ST W AT GRACE	0	150	269	3899	134	29.1
37	DUNDAS ST W AT CRAWFORD	0	52	188	3763	134	28.1
38	DUNDAS ST W AT OSSINGTON	0	297	769	3291	135	24.4
39	DUNDAS ST W AT DOVERCOURT	0	141	297	3135	133	23.6
40	DUNDAS ST W AT RUSHOLME RD	0	96	229	3002	133	22.6
41	DUNDAS ST W AT GLADSTONE	0	49	212	2839	133	21.3
42	DUNDAS ST W AT DUFFERIN	0	143	686	2296	133	17.3
43	DUNDAS ST W AT SHERIDAN	0	59	167	2188	132	16.6
44	DUNDAS ST W AT BROCK	0	88	260	2016	132	15.3
46	DUNDAS ST W AT LANSLOWNE	0	178	638	1556	132	11.8
47	DUNDAS ST W AT STERLING RD	0	44	41	1559	109	14.3
48	DUNDAS ST W AT SORAUREN	0	66	133	1492	110	13.6
49	DUNDAS ST W AT MORROW AVE	0	59	155	1396	110	12.7

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 505 DUNDAS

Version: 002

ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15: **M-F** (FROM 07:02 TO 25:13)STOP CARD: 16 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather during survey.



WB CONTROL POINT: 32 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

WESTBOUND PERIOD 1: 07:00

ROUTE

<u>STOP</u>	<u>LOCATION</u>	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	<u>ACCUM.</u>	<u>VEHICLES</u>	<u>AVG. LOAD</u>
50	DUNDAS ST W AT RONCESVALLES	0	39	137	1298	109	11.9
51	DUNDAS ST W AT BLOOR	0	4	107	1195	109	11.0
52	DUNDAS WEST STATION	0	0	1195	0	109	0.0
TOTALS FOR PERIOD 1: 07:00		0	15816	15816	153663	6199	24.8

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 505 DUNDAS

Version: 002

ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15: **M-F** (FROM 07:02 TO 25:13)

STOP CARD: 16 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather during survey.



WB CONTROL POINT: 32 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

WESTBOUND PERIOD 1: 07:00

PERIOD RIDING INDEX = 24.8 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 9.7 STOPS

AVERAGE ONS/VEHICLE-STOP = 2.6

AVERAGE ONS/TRIP = 103.4

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 505 DUNDAS

Version: 002

ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:M-F (FROM 07:02 TO 25:13)

STOP CARD: 16 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather during survey.



WB CONTROL POINT: 32 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

WESTBOUND PERIOD 2: 23:01

ROUTE

STOP	LOCATION	START	ONS	OFFS	ACCUM.	VEHICLES	AVG. LOAD
1	BROADVIEW STATION	0	103	0	103	11	9.4
2	ERINDALE AT BROADVIEW	0	1	0	104	11	9.5
3	BROADVIEW AT DANFORTH AVE	0	6	0	110	11	10.0
4	BROADVIEW AT WOLFREY	0	2	1	111	11	10.1
5	BROADVIEW AT MILLBROOK	0	1	6	106	11	9.6
7	BROADVIEW AT WITHROW	0	0	4	102	11	9.3
8	BROADVIEW AT LANGLEY	0	0	6	96	11	8.7
9	BROADVIEW AT SIMPSON	0	1	2	95	11	8.6
10	BROADVIEW AT GERRARD	0	5	8	92	11	8.4
11	BROADVIEW AT MT STEPHEN	0	3	5	90	11	8.2
12	BROADVIEW AT DUNDAS ST E	0	0	6	84	11	7.6
13	DUNDAS ST E AT MUNRO	0	2	4	82	10	8.2
14	DUNDAS ST E AT RIVER	0	6	26	62	10	6.2
15	DUNDAS ST E AT SUMACH	0	3	10	55	10	5.5
16	DUNDAS ST E AT SACKVILLE	0	1	5	51	10	5.1
18	DUNDAS ST E AT PARLIAMENT	0	14	12	53	11	4.8
19	DUNDAS ST E AT ONTARIO	0	1	4	50	11	4.5
20	DUNDAS ST E AT SHERBOURNE	0	11	9	52	11	4.7
21	DUNDAS ST E AT JARVIS	0	5	0	57	11	5.2
22	DUNDAS ST E AT CHURCH	0	3	1	59	11	5.4
24	DUNDAS ST E AT VICTORIA	0	3	3	59	11	5.4
25	DUNDAS ST E AT YONGE ST	0	59	16	102	11	9.3
26	DUNDAS ST W AT BAY ST	0	18	9	111	11	10.1
27	DUNDAS ST W AT CHESTNUT ST	0	6	1	116	11	10.5
28	DUNDAS ST W AT UNIVERSITY	0	30	7	139	11	12.6
29	DUNDAS ST W AT MCCAUL	0	6	3	142	11	12.9
30	DUNDAS ST W AT BEVERLEY	0	8	5	145	11	13.2
31	DUNDAS ST W AT HURON	0	0	3	142	11	12.9
32	DUNDAS ST W AT SPADINA AVE	0	11	10	143	11	13.0
33	DUNDAS ST W AT DENISON	0	6	11	138	11	12.5
34	DUNDAS ST W AT BATHURST ST	0	13	26	125	11	11.4
35	DUNDAS ST W AT EUCLID	0	8	12	121	10	12.1
36	DUNDAS ST W AT GRACE	0	0	6	115	10	11.5
37	DUNDAS ST W AT CRAWFORD	0	0	8	107	10	10.7
38	DUNDAS ST W AT OSSINGTON	0	13	15	105	10	10.5
39	DUNDAS ST W AT DOVERCOURT	0	7	4	108	10	10.8
40	DUNDAS ST W AT RUSHOLME RD	0	1	6	103	10	10.3
41	DUNDAS ST W AT GLADSTONE	0	1	9	95	10	9.5
42	DUNDAS ST W AT DUFFERIN	0	3	18	80	10	8.0
43	DUNDAS ST W AT SHERIDAN	0	1	9	72	10	7.2
44	DUNDAS ST W AT BROCK	0	4	7	69	10	6.9
46	DUNDAS ST W AT LANSLOWNE	0	0	17	52	10	5.2
47	DUNDAS ST W AT STERLING RD	0	0	1	51	8	6.4
48	DUNDAS ST W AT SORAUREN	0	0	4	47	8	5.9
49	DUNDAS ST W AT MORROW AVE	0	0	2	45	8	5.6

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 505 DUNDAS

Version: 002

ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15: **M-F** (FROM 07:02 TO 25:13)STOP CARD: 16 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather during survey.



WB CONTROL POINT: 32 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

WESTBOUND PERIOD 2: 23:01

ROUTE

<u>STOP</u>	<u>LOCATION</u>	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	<u>ACCUM.</u>	<u>VEHICLES</u>	<u>AVG. LOAD</u>
50	DUNDAS ST W AT RONCESVALLES	0	1	3	43	8	5.4
51	DUNDAS ST W AT BLOOR	0	0	0	43	8	5.4
52	DUNDAS WEST STATION	0	0	43	0	8	0.0
TOTALS FOR PERIOD 2: 23:01		0	367	367	4232	495	8.5

RIDING COUNT - 2. PASSENGER ACTIVITY BY STOP REPORT

Report: TRIPS_DM - 002

ROUTE: 505 DUNDAS

Version: 002

ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15: **M-F** (FROM 07:02 TO 25:13)

STOP CARD: 16 COUNT COVERAGE/METHOD: **FULL(1X)/MANUAL**

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather during survey.



WB CONTROL POINT: 32 DUNDAS ST W AT SPADINA AVE

WESTBOUND PERIOD 2: 23:01

PERIOD RIDING INDEX = 8.5 (AVERAGE OCCUPANCY)
AVERAGE TRIP LENGTH = 11.5 STOPS
AVERAGE ONS/VEHICLE-STOP = 0.7
AVERAGE ONS/TRIP = 33.4

ORNAMENT - Sound Power Emissions & Source Heights

Ontario Road Noise Analysis Method for Environment and Transportation

Road Segment ID	Roadway Name	Link Description	Speed (kph)	Period (h)	Total Traffic Volumes	Auto %	Med %	Hvy %	Auto	Med	Heavy	Road Gradient (%)	Cadna/A Ground Absorption G	PWL (dBA)	Source Height, s (m)	Reference Leq (dBA)
Dundas_avg	Dundas Street West	Daytime Impacts	40	16	27033	95.5%	3.4%	1.1%	25817	919	297	0	0.00	80.6	1.0	65.5
		Nighttime Impacts	40	8	3004	95.5%	3.4%	1.1%	2869	102	33	0	0.00	74.1	1.0	59.0
Bloor_avg	Bloor Street West	Daytime Impacts	40	16	29952	96.2%	2.6%	1.2%	28814	779	359	0	0.00	81.0	1.0	65.9
		Nighttime Impacts	40	8	3328	96.2%	2.6%	1.2%	3202	87	40	0	0.00	74.4	1.0	59.4

RT / Custom - Sound Power Emissions & Source Heights

Ontario Road Noise Analysis Method for Environment and Transportation

Streetcars

Rail Segment ID	Railway Name	Link Description	Speed (kph)	Period (h)	Vehicle Type	Streetcars	Cadna/A Ground Absorption G	PWL (dBA)	Source Height (m)	Reference SPL @ 15m (dBA)
TTC_Streetcars_avg	TTC Streetcars Route 306, 504, 505	Daytime Impacts	30	16	ALRV	605	0.00	78.5	0.5	47.65
		Nighttime Impacts	30	8	ALRV	77	0.00	72.6	0.5	47.65

RAILWAY SOURCES																		
Description	Train Type	M.	ID	Lw'		Train Class	Correct. Track (dB)	Vmax (km(km/h)	Height		A_att	E_Att	Length (m)	Train Type 1 Type	No.		Speed (km/h)	Throttle (1 to 8)
				Day (dBA)	Night (dBA)				A (m)	E (m)					Day	Night		
CN - Weston Sub - Passenger Locomotive	Diesel Passenger		CNPassenger_loco	59.5	59.8	(local)	0		0.6		r		1414	FTA_COMM_LOC_DE	13	7	129	8
CN - Weston Sub - Passenger Wheel	Diesel Passenger		CNPassenger_wheel	56.3	56.4	(local)	0		0.6		r		1414	FTA_COMM_CAR	61	31	129	0
GO - Weston Sub (Kitchener) - Locomotive	Diesel Passenger		GO_Weston_loco	70.7	65.7	(local)	0		0.6		r		1414	FTA_COMM_LOC_DE	164	26	121	8
GO - Weston Sub (Kitchener) - Wheel	Diesel Passenger		GO_Weston_wheel	69.8	65.5	(local)	0		0.6		r		1414	FTA_COMM_CAR	1536	288	121	0
GO - Lower Galt (Milton) - Locomotive	Diesel Passenger		GO_LowerGalt_loco	64.4	59.4	(local)	0		0.6		r		1414	FTA_COMM_LOC_DE	38	6	121	8
GO - Lower Galt (Milton) - Wheel	Diesel Passenger		GO_LowerGalt_wheel	64.5	59.5	(local)	0		0.6		r		1414	FTA_COMM_CAR	456	72	121	0
UP Express - Locomotive	Diesel Multiple Unit		UPX_loco	70.4	67.9	(local)	0		0.6		r		1414	FTA_COMM_DMU	768	216	121	8

Appendix C STAMSON Output File

Environmental Noise & Vibration Assessment

**2400-2440 Dundas Street West,
Toronto, ON**

Fora Developments

SLR Project No. 241.V14270.00001

March 8, 2023





FORA DEVELOPMENTS

2400-2440 DUNDAS STREET WEST, TORONTO

COMPARISON OF CADNA/A AND STAMSON – ROAD NOISE

True North



Scale: 1:1000 METRES

Date: Mar. 08, 2023 Rev 1.0 Figure No.

Project No.
241.V14270.00001

C1



STAMSON 5.04 NORMAL REPORT Date: 27-02-2023 19:52:26
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: st5.te Time Period: 16 hours

Description: STAMSON Validation - Sample Calculation

Road data, segment # 1: Dundas St W

Car traffic volume : 25817 veh/TimePeriod
Medium truck volume : 919 veh/TimePeriod
Heavy truck volume : 297 veh/TimePeriod
Posted speed limit : 40 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Dundas St W

Angle1 Angle2 : -90.00 deg 80.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 16.50 m
Receiver height : 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Dundas St W

Source height = 1.02 m

ROAD (0.00 + 64.85 + 0.00) = 64.85 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	80	0.00	65.52	0.00	-0.41	-0.25	0.00	0.00	0.00	64.85

Segment Leq : 64.85 dBA

Total Leq All Segments: 64.85 dBA

TOTAL Leq FROM ALL SOURCES: 64.85

Appendix D Warning Clause, Ventilation and Barrier Summary

Environmental Noise & Vibration Assessment

**2400-2440 Dundas Street West,
Toronto, ON**

Fora Developments

SLR Project No. 241.V14270.00001

March 8, 2023



Ventilation, Warning Clause and Barrier Summary

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

A summary of the warning clause and ventilation recommendations is included in **Table D1**.

MECP Type B: “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 traffic may on occasions interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment.”

MECP Type D: “This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment.”

MECP Type E: “Purchasers/tenants are advised that due to the proximity of the adjacent commercial/retail facilities, noise from the facilities may at times be audible.”

Metrolinx: “Purchasers are advised that Metrolinx (formerly GO Transit) or its assigns or successors in interest has or have a right-of-way within 300 metres from the land the subject thereof. There may be alterations to or expansions of the rail facilities on such right-of-way in the future, including the possibility that the railway or its assigns or successors as aforesaid may expand its operations, which expansion may affect the living environment of the residents in the vicinity, notwithstanding the inclusion of any noise and vibration attenuating measures in the design of the development and individual dwelling(s). Metrolinx will not be responsible for any complaints or claims arising from use of such facilities and/or operations on, over or under the aforesaid right-of-way.”

CN: “Purchasers are advised that Canadian National Railway Company (CNR) or its assigns or successors in interest has or have a right-of-way within 300 metres from the land the subject thereof. There may be alterations to or expansions of the rail facilities on such right-of-way in the future, including the possibility that the railway or its assigns or successors as aforesaid may expand its operations, which expansion may affect the living environment of the residents in the vicinity, notwithstanding the inclusion of any noise and vibration attenuating measures in the design of the development and individual dwelling(s). CNR will not be responsible for any complaints or claims arising from use of such facilities and/or operations on, over or under the aforesaid right-of-way.”

Table D1: Summary of Ventilation and Warning Clause and Barrier Recommendations

Development Building/Location	Barrier Requirement ^[1]	Ventilation Recommendation	Warning Clause(s)
Building A – Podium		Central AC	Type B, Type D, Type E, CN, Metrolinx
Building A – Tower A1		Central AC	Type B, Type D, Type E, CN, Metrolinx
Building A – Tower A2		Central AC	Type B, Type D, Type E, CN, Metrolinx
Building A – 2 nd Floor Common Amenity Terrace ^[1]	North and east edge surrounding OLA 01	2.0 m above roof	---
Building B – Podium		Central AC	Type B, Type D, Type E, CN, Metrolinx
Building B – Residential Tower		Central AC	Type B, Type D, Type E, CN, Metrolinx
Building B – 2 nd Floor Common Amenity Terrace ^[1]	North, east and south edges surrounding OLA 02	2.1 m above roof	---

Notes: [1] Refer to **Figure 6** for required barrier locations and extents.

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