May 27, 2022

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Chairman & Members
Planning and Development Committee
City of Mississauga
300 City Centre Drive
Mississauga, ON
L5B 3C1

Re: Dundas Corridor Policy Implementation Project - Draft Official Plan Amendment

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We are counsel to Ahmed Group (1000 Dundas St. E.) Inc. and Ahmed Group (1024 Dundas St. E.) Inc. (together herein "**Ahmed Group**"), landowners of 1000 & 1024 Dundas Street East (the "**Subject Property**"). Ahmed Group has plans to redevelop the Subject Property, envisioning a four-storey podium along with 16 and 20 storey mixed use towers with at-grade commercial uses and 462 purpose-built rental apartment units (the "**Redevelopment**"). The Subject Lands are presently designated as Mixed Use and part of the Dixie Employment Area.

The Ahmed Group appeared before the Planning and Development Committee on May 9, 2022 and made oral submissions in regard to the Major Transit Station Areas Official Plan Amendment ("**MTSA OPA**"). At that time, we raised concerns with respect to height limitations proposed for the Subject Property. As a result of our submissions, Staff were directed to meet with the Ahmed Group to discuss the Redevelopment. Correspondence between the Ahmed Group planning consultant and staff exchanged prior to the meeting is attached to this letter. Subsequent to this correspondence and our discussion with City Staff on May 27, 2022, City Staff consented to host a Development Application Review Committee ("**DARC**") meeting. We wish to thank the Planning and Development Committee for their assistance in arranging this upcoming DARC meeting for the Redevelopment.

Separately we have reviewed the Dundas Corridor Policy Implementation Project Draft Official Plan Amendment ("**DCP OPA**") in the context of the Redevelopment. In our view, Mixed Use Limited is a more appropriate designation for the Subject Property and all lands along Dundas Street not within an employment area detailed in the Regional Official Plan adopted April 28th, 2022, because it will allow residential uses on the said lands only if the City is satisfied through appropriate studies that introduction of sensitive uses would be compatible with the existing employment uses in surrounding area, such as Mother Parker's. In this regard, we attach a Noise and Vibration Impact Study which concludes that the Redevelopment would be compatible with the surrounding uses, including Mother Parker's, subject to appropriate mitigation. We request that staff be directed to amend the designation of the Subject Property to Mixed Use Limited on the draft map "Protected Major Transit Station Area Schedule 11-G".

In addition, in order to be in conformity with the Region's new Official Plan, the Subject Property should be removed from the Dixie Employment Area. The Regional Official Plan does not designate the Subject Property as being within an employment area. Therefore, the City's Official Plan cannot designate the same lands as employment area without creating non-conformity with the upper-tier's

official plan. To resolve the non-conformity, staff should be directed to remove the Subject Lands from the Dixie Employment Area.

Thank you for considering our requests. We look forward to addressing the Committee at its upcoming meeting on May 30, 2022.

Yours truly,

Gowling WLG (Canada) LLP

Peter Gross

PG

From: Gross, Peter
To: Gross, Peter
Subject: City of Mississauga Official Plan Amendment & Zoning Bylaw Amendment For 1000 & 1024 Dundas Street East To Implement The Dundas Connects Master Plan
Date: May-27-22 3:24:55 PM

FYI

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From: **Hugh Lynch** <Hugh.Lynch@mississauga.ca>
Date: Thu, May 19, 2022 at 4:39 PM
Subject: RE: City of Mississauga Official Plan Amendment & Zoning Bylaw Amendment For 1000 & 1024 Dundas Street East To Implement The Dundas Connects Master Plan
To: John Lohmus <JohnLohmus@outlook.com>
CC: Romas Juknevicius <Romas.Juknevicius@mississauga.ca>, Moe Ahmed <m@ahmed.group>, Bashar Al-Hussaini <Bashar.Al-Hussaini@mississauga.ca>, Jose Garreton <jose@ahmed.group>, Luisa Galli <Luisa.Galli@mississauga.ca>, Marianne Cassin <Marianne.Cassin@mississauga.ca>

Hello John –

I wasn't able to connect with you by phone today.

I was calling to reach out with respect to the discussion concerning these lands, and how they fit within how applications can be managed within the Regional MCR framework.

I trust that you are aware of Region of Peel OP policy 5.6.2.8, which permits conversion of employment lands only through a Municipal Comprehensive Review. In our view, and having to take direction from the upper tier municipality, the City is currently not in a position to accept development applications where there is explicit direction from the upper tier that prohibits these conversions on a site-by-site basis.

I am sure that you are aware that the Region has adopted a new Official Plan that alleviates this current policy, allowing for such conversions within their plan's framework. However, until such time that the Minister approves the regional plan, this regime is not in place and policy 5.6.2.8 remains in effect.
Although a DARC meeting has not been held for your clients' land, which will still be required, I am writing to advise that an approved Regional Official Plan Amendment, in force and effect, will be required as a complete application requirement for filing an Official Plan Amendment and/or Rezoning application with the City of Mississauga for residential uses on the subject lands. Appreciating that the new Regional Plan provides relief from the Region's current policy, this complete application requirement will be applicable until the Minister approves the Regional OP; afterwards it will not, as this policy relief will have been achieved.
That said, we are prepared to continue the discussion with your team with respect to the development potential for these lands. I hope that you appreciate that we are managing a number of landowner interests city-wide with respect to conversions. In this regard, I will be meeting with my management next Wednesday March 26th to determine if and how we can accommodate DARC requests for development applications respecting these conversions in the City. Unfortunately, I am tied up most of the day on Thursday in an OLT matter, but if your team is available on Friday, I'd be happy to arrange a meeting with our Policy staff, Development staff and yourselves to discuss these issues.

Sincerely,

Hugh Lynch
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City of Mississauga | Planning and Building Department,
Development and Design Division

May 27, 2022

Peter Gross
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File no. T996985

Mr. Hugh Lynch
City of Mississauga
Manager, Development, South Area
300 City Centre Drive
Mississauga, ON L5B 3C1

Sent via email: Hugh.Lynch@mississauga.ca

Dear Mr. Lynch,

Re: 1000 & 1024 Dundas Street East
Official Plan Amendment and Zoning Bylaw Amendment to Implement The Dundas Connects Master Plan

---

We are counsel to Ahmed Group (1000 Dundas St. E.) Inc. and Ahmed Group (1024 Dundas St. E.) Inc. (together herein "**Ahmed Group**"), landowners of 1000 & 1024 Dundas Street East (the "**Subject Property**"). As you are aware, Ahmed Group has plans to redevelop the Subject Property. The redevelopment plans envision a four-storey podium along with 16 and 20 storey mixed use towers with at-grade commercial uses and 462 purpose-built rental apartment units (the "**Redevelopment**").

In October 2021, our client submitted a formal application to the City to hold a Development Application Review Committee ("**DARC**") meeting to consider its Redevelopment. However, by letter dated November 17, 2021, City Staff denied our client's application for the DARC meeting on the grounds that such a meeting would be premature, pending the outcome of the Region's Municipal Comprehensive Review ("**MCR**") work with respect to Major Transit Station Areas ("**MTSA**").

The Region completed its MCR with respect to MTSAs when it had adopted its new Official Plan on April 28, 2022.

Despite my client's formal application for a DARC meeting to redevelop its Subject Property some eight months earlier, City Staff scheduled a Statutory Public Meeting of the Planning and Development Committee (the **"Committee**") on May 9, 2022 regarding the City's draft Major Transit Station Areas Official Plan Amendment ("**MTSA OPA**"). At no time was Ahmed Group given an opportunity to consult with Staff prior to the Public Meeting.

At the Public Meeting, on behalf of Ahmed Group we raised objections with respect to the maximum height proposed for the Subject Property. In response to our submissions, the Committee directed City Staff to meet informally with Ahmed Group to discuss the

Redevelopment proposal. It was clear from the debate that the Committee intended the informal meeting to be a meaningful opportunity to discuss the Redevelopment and for staff to consider our concerns.

Waiting to hear from City Staff in relation to the informal meeting, Ahmed Group wrote to City Staff on May 16, 2022, requesting that the informal meeting be scheduled and proposed five dates on which the meeting could take place.

In your email response to the request dated May 19, 2022, you advised that on the basis of Regional policy 5.6.2.8, conversion of employment lands could only occur through a MCR and therefore, the City would not accept Ahmed Group's planning applications to allow the Redevelopment. Regional policy 5.6.2.8 might, under some circumstances, possibly be a basis for Council to refuse to approve a conversion application brought outside of a MCR process. However, there is no legislative or policy basis that allows City Staff to rely on policy 5.6.2.8 to refuse to merely accept an application by my client.

Further in your email of May 19, 2022, you also state that an approved Regional Official Plan Amendment ("**ROPA**") is also a requirement for a complete application. In our view, there is no basis for imposing such a requirement. The complete application requirement in the *Planning Act* applies to information or material that an applicant needs to provide Council with in order to consider the application. In this case, the ROPA is not information that the applicant can provide. Similarly, the Mississauga Official Plan speaks to reports and studies that may be required for a complete application. It does not speak to planning instruments approved by the Minister.

Finally, you have stated that a DARC meeting will be required prior to filing a complete application and that the City is not in a position to convene a DARC meeting at the present time. Section 22(3.1) of the *Planning Act* requires that an applicant be permitted to consult with the City prior to making an application for an Official Plan Amendment. In our view, none of the *Planning Act*, the Mississauga Official Plan or the City's pre-consultation by-law allow complete application requirements to be used as a basis for refusing to hold a DARC meeting. Accordingly, the DARC meeting should be scheduled without any further delay.

We look forward to discussing these issues with you in greater detail at the meeting scheduled for 10:00 am on May 27, 2022.

Sincerely,

Gowling WLG (Canada) LLP

Peter Gross

Peter Gross

REPORT

1000 AND 1024 DUNDAS STREET EAST

MISSISSAUGA, ONTARIO

NOISE AND VIBRATION IMPACT STUDY

RWDI #2200461

April 29, 2022

SUBMITTED TO

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VERSION HISTORY

Index	Date	Description	Prepared by	Reviewed by
1	December 10, 2021	Draft	MPP	SVG
2	April 29, 2022	Final	SVG	GER

STATEMENT OF LIMITATIONS

This report entitled 1000 - 1024 Dundas St E was prepared by RWDI Air Inc. (RWDI) for Ahmed Group of Companies (Ahmed Group). The findings and conclusions presented in this report have been prepared for the Client and are specific to the project described herein (Project). The conclusions and recommendations contained in this report are based on the information available to RWDI when this report was prepared. Because the contents of this report may not reflect the final design of the Project or subsequent changes made after the date of this report, RWDI recommends that it be retained by Client during the final stages of the project to verify that the results and recommendations provided in this report have been correctly interpreted in the final design of the Project.

The conclusions and recommendations contained in this report have also been made for the specific purpose(s) set out herein. Should the Client or any other third party utilize the report and/or implement the conclusions and recommendations contained therein for any other purpose or project without the involvement of RWDI, the Client or such third party assumes any and all risk of any and all consequences arising from such use and RWDI accepts no responsibility for any liability, loss, or damage of any kind suffered by Client or any other third party arising therefrom.

Finally, it is imperative that the Client and/or any party relying on the conclusions and recommendations in this report carefully review the stated assumptions contained herein and to understand the different factors which may impact the conclusions and recommendations provided.

EXECUTIVE SUMMARY

RWDI was retained to prepare a Noise and Vibration Impact Study (NVIS) for the proposed mixed-use development on two properties municipally known as 1000 - 1024 Dundas Street East, in the City of Mississauga, Ontario. The proposed development will consist of a 16-storey and 20-storey mixed-use building, comprised of 12 and 16 storey towers on top of a 4-storey podium containing retail uses, and residential apartment units. This assessment was completed to support the Official Plan Amendment (OPA) and Zoning Bylaw Amendment submission as required by the City of Mississauga.

This site is exposed to noise from road traffic on Dundas Street East and Tomken Road to the northwest, and Constitution Boulevard and Stanfield Road to the northeast. The site is exposed to noise from rail traffic on the Metrolinx GO Transit (Milton) commuter line and CP Rail on the CP Galt Subdivision rail corridor to the southeast.

A screening level assessment was completed for stationary sources in the vicinity of the proposed development. The combined sound levels from stationary sources at a lawfully permitted existing Class II facility within the potential influence zone, and unregulated rooftop sources on nearby commercial and residential properties, were found to potentially exceed the applicable Class 1 sound level criteria.

The following noise control measures are recommended for the proposed development:

1. Installation of central air-conditioning so that all suites' windows can remain closed.
2. The inclusion of noise warning clauses related to:
    a. Transportation sound levels at the building façade and in the outdoor amenity areas,
    b. Proximity to railway line,
    c. Proximity to commercial/industrial land-use,
    d. Class 4 Area Notification.
3. Obtain formal confirmation from the land use planning authority of Class 4 area classification, as per MECP publication NPC-300.
4. Minimum sound isolation performance:
    a. Suite bedroom window glazing with minimum sound isolation performance of STC-36,
5. Construction of perimeter noise barriers along the outdoor amenity areas.

There were no sources of vibration within 100 meters of the property, thus no vibration analysis is required.

At this stage in design the impact of the development on itself and its surroundings could not be quantitatively assessed. However, the impact on both the building itself and its surroundings is expected to be feasible to meet the applicable criteria. We recommend that the building design is evaluated prior during detailed design to ensure that the acoustical design is adequately implemented to meet the applicable criteria.

Based on the results of this assessment, the proposed development is recommended for approval from the noise and vibration impact aspect.

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1 INTRODUCTION

RWDI was retained to prepare a Noise and Vibration Impact Study (NVIS) for the proposed mixed-use development on two properties municipally known as 1000 - 1024 Dundas Street East, in the City of Mississauga, Ontario. The proposed development will consist of a 16-storey and 20-storey mixed-use building, comprised of 12 and 16 storey towers on top of a 4-storey podium containing retail uses, and residential apartment units. This assessment was completed to support the Official Plan Amendment (OPA) and Zoning Bylaw Amendment submission as required by the City of Mississauga. The context site plan is shown in **Figure 1**.

This site is exposed to noise from road traffic on Dundas Street East and Tomken Road to the northwest, and Constitution Boulevard and Stanfield Road to the northeast. The site is exposed to noise from rail traffic on the Metrolinx GO Transit (Milton) commuter line and CP Rail on the CP Galt Subdivision rail corridor to the southeast.

There were no sources of vibration within 100 meters of the property, thus no vibration analysis is required.

A screening level assessment of nearby stationary sources was conducted. Conservative assumptions for potential noise emissions from Class I and Class II facilities within 70-meters from the development property line were included in the stationary source assessment. One lawfully permitted Class III facility was identified within the 1000-meter potential zone of influence.

This assessment was based on design drawings dated August 23rd, 2021. Assessment of outdoor amenity spaces was based on a February 4, 2022, conceptual landscape plan. Both are provided in **Appendix D**.

2 APPLICABLE CRITERIA

Applicable criteria for transportation noise sources (road and rail), stationary noise sources and rail vibration are adopted from the Ontario Ministry of the Environment, Conservation and Parks (MECP) NPC-300 Environmental Noise Guideline (MOE, 2013), with a summary of the applicable criteria included with **Appendix A**.

The proposed development site would be characterized as a “Class 1 Area”, which is defined according to NPC-300 as an area with an acoustical environment typical of a major population centre, where the background sound level is dominated by the activities of people, usually road traffic, often referred to as "urban hum."

In the case where a stationary source has an Environmental Compliance Approval (ECA) or an Environmental Activity and Sector Registry (EASR) permit with the MECP and would be put in a position where it is no longer in compliance with the applicable sound level criteria due to the encroachment of the proposed new development, source specific mitigation and/or formal classification of the proposed development lands as a “Class 4 Area” (refer to C.4.4.2 “Class 4 Area” in NPC-300) would be required. In this case, coordination and agreements between the stationary source owner, proposed new development owner, the land-use planning authority and potentially the MECP would be needed. Furthermore, in this situation, the inclusion of a warning clause “Type F” in purchase and lease agreements for all units would be required. This warning clause is presented in **Appendix B**.

3 IMPACT OF THE ENVIRONMENT ON THE PROPOSED DEVELOPMENT

3.1 Transportation Source Assessment

3.1.1 Road Traffic Volume Data

Turning Movement Counts (TMCs) at the intersections of Dundas Street East and Tomken Road, and Dundas Street East and Constitution Boulevard/Stanfield Road provided detailed traffic volumes for the two peak time periods: AM peak between 07:00 to 09:00 hours and PM peak between 16:00 to 18:00 hours. The TMCs were used to determine the traffic volume and types of vehicles on each link during the AM and PM peaks interval which were assumed to be 9% and 10% of the Annual Average Daily Traffic (AADT), respectively. The maximum AADTs obtained from the approximation of each of these periods was used for the AADT for the respective roadway.

The traffic volumes for each of the respective roadways were increased at a rate determined by the City of Mississauga Transportation and Works Department, in correspondence included in **Appendix E**, to represent the predicted 10-year horizon volumes from existing levels to 2031. Projected growth rates are compounded for two periods, from existing to 2026 and then to 2032 to consider future volumes with the redevelopment of Dundas Street East. Modeled placement of the proposed development façade facing Dundas Street East is 11-meters from the nearest eastbound vehicle travel lane. Alignment of Dundas Street East accounts for future widening of the roadway to eight lanes to accommodate two additional center lanes for future Bus Rapid Transit, as shown in drawings in **Appendix D**.

A summary of the traffic data used is included in **Table 1** below with more detailed information included in **Appendix E**.

Table 1: Road Traffic Volumes

Roadway	Segment	2032 Future Traffic (AADT)	% Day/Night	Speed Limit (km/hr)	% Trucks
Dundas Street East	East of Stanfield/Constitution	14466	90% /10%	60	7
	Between Stanfield/Constitution and Tomken	15490			5
	West of Tomken	14673			5
Tomken Road	North of Dundas	7194	90% /10%	60	4
Constitution Blvd	North of Dundas	2590	90% / 10%	40	4
Stanfield Road	South of Dundas	4707	90% / 10%	50	8

3.1.2 Rail Traffic Volume Data

Metrolinx GO Transit commuter trains and CP Rail freight trains travel along the CP Galt Subdivision rail corridor, approximately 175 meters south of the proposed development site. Future Metrolinx GO Transit Milton (GO Milton) commuter line rail volume data was obtained from Metrolinx. Freight rail volumes are not provided by the rail authorities (CN and CP). As such, typical volumes based on rail line type (e.g. principal main line, secondary line) have been assumed as a basis for the analysis.

The data used for the analysis is summarized in **Table 2**, with details of the data used included in **Appendix D**.

Table 2: Rail Volumes and Configuration

Train Type	Daytime	Nighttime	Type of Locomotive	No of Locomotives	No of Cars	Speed (km/h)
GO Milton	38	6	Diesel	1	12	113
CP Freight	16	8	Diesel	4	100	100

3.1.3 Representative Receptors

The selection of receptors affected by transportation noise sources was based on the drawings reviewed for this assessment. Using the "building evaluation" feature of Cadna/A, each façade of the residential buildings was assessed.

Outdoor Living Areas (OLAs) would include outdoor areas intended and designed for the quiet enjoyment of the outdoor environment and which are readily accessible from the building. OLAs may include any common outdoor amenity spaces associated with a multi-unit residential development (e.g. courtyards, roof-top terraces), and/or private backyards and terraces with a minimum depth of 4m provided they are the only outdoor living area for the occupant. Daytime sound levels were assessed at the following identified OLAs:

- OLA_01: Level 4 Rooftop Outdoor Amenity / Green Roof (rear)
- OLA_02: Level 4 Rooftop Outdoor Amenity / Green Roof (front, facing Dundas Street East)

The OLAs are based on a conceptual landscape plan and indicated in **Figure 2**.

3.1.4 Transportation Source Assessment - Analysis and Results

Sound levels due to the adjacent transportation (road and rail) sources were predicted using the RLS-90 standard (RLS,1990), and FTA method (FTA, 2018) as implemented in the Cadna/A software package. A comparison using MECP's Ontario Road Noise Analysis Method for Environment and Transportation (ORNAMENT), as implemented in STAMSON version 5.04, was conducted for the worst-case building façade along Dundas Street East.

To assess the impact of transportation noise on suites, the maximum sound level on each façade was determined with the results summarized in **Table 3**.

Table 3: Predicted Ground Transportation Source Sound Levels – Plane of Window

Building Section	Road		Rail		Road + Rail		Notes
	Day L_{EQ}, 16hr	Night L_{EQ}, 8hr	Day L_{EQ}, 16hr	Night L_{EQ}, 8hr	Day L_{EQ}, 16hr	Night L_{EQ}, 8hr	
2-Storey Lower Podium (Ground & 1st Floor)	67	61	56	56	67	61	1
2-Storey Upper Podium (2nd & 3rd Floor)	67	61	59	59	67	61	1
16 Storey Tower	65	58	62	62	65	62	1
20 Storey Tower	60	53	64	64	64	64	1

Notes:

1. The acoustical performance of building components must be specified to meet the indoor sound level criteria. Installation of air conditioning to allow for windows and doors to remain closed, warning clause "Type D". Refer to **Appendix C** for guidance regarding air-conditioning as a noise mitigation measure.

The results of the STAMSON model are provided in **Appendix E**, and are comparable to the results in **Table 3**.

Given the location and nature of the development, it is likely that air-conditioning will be installed in all units. Therefore, warning clause "Type D" is recommended for the entire development.

To assess the impact of transportation noise on the qualifying OLAs for the development, predicted sound level results are summarized in **Table 4**.

Table 4: Transportation Sound Levels in Outdoor Living Areas (OLAs)

Receptor	Description	Daytime L_{EQ}, 16hr	Notes
OLA_01	Level 4 Rooftop Outdoor Amenity / Green Roof (rear)	61 dBA	1
OLA_02	Level 4 Rooftop Outdoor Amenity / Green Roof (front)	60 dBA	2

Notes:

1. Noise mitigation is recommended to meet the ≤55 dBA OLA sound level criterion. If noise controls are not feasible to meet the 55 dBA criterion for technical, economic or administrative reasons, an exceedance of 5 dB may be acceptable (to a maximum sound level of 60 dBA). In this case, a warning clause "Type B" is recommended.
2. For OLA sound levels >55 dBA and ≤60 dBA, noise controls may be applied to meet the 55 dBA criterion. If noise control measures are not provided, a warning clause "Type A" is recommended.

3.2 Stationary Source Assessment

Stationary sources could be grouped into two categories: those sources at facilities that have a permit with the MECP through an ECA or an EASR; and those that are exempt from ECA or EASR permit requirements.

In the case where a stationary source has an ECA or EASR permit with the MECP, and would be put in a position where it is no longer in compliance with the applicable sound level criteria due to the encroachment of the proposed new development, source specific mitigation and/or formal classification of the proposed development lands as a "Class 4 Area" (refer to C.4.4.2 "Class 4 Area" in NPC-300) would be required. In this case, coordination and agreements between the stationary source owner, proposed new development owner, the land-use planning authority and potentially the MECP would be needed.

In the case where a stationary source is exempt from ECA or EASR permit requirements with the MECP, the noise provisions of the applicable Municipal Code and guidance from NPC-300 would be applicable. In this case, mitigation of sound levels due to stationary sources would be from a due diligence perspective to avoid nuisance complaints from future occupants of the proposed new development. Mitigation could be in the form of mitigation at the source (with agreement from the stationary source owner) and/or mitigation at the receptor through site and building element design (building orientation, acoustical barriers, façade sound insulation design).

3.2.1 Land-Use Compatibility Review (D-6 Guideline Assessment)

The MECP Guideline D-6 (MOE, 1995) was used as a tool to classify the identified industries and asses their potential influence on the proposed development. The classifications and setback guidelines are summarized in **Appendix A**.

Three identified facilities have potential areas of influence that extend onto the subject lands. One site considered to be commercial rather than industrial is discussed, as it shares a property line with the subject lands. The facilities are summarized in Table 3.

Table 5: Facilities Potentially Influencing the Proposed Development

Industry Class	Industry	Potential Influence Area	Actual Separation Distance
N/A	Closeout King – Retail Outlet	-	15 m (inclusive of a buffer)
II	Mother Parker's Tea and Coffee Inc. (2530 Stanfield Rd) – Food and Beverage Manufacturing	300 m	125 m
II	Mother Parker's Tea and Coffee Inc. (2470 Stanfield Rd) – Food and Beverage Manufacturing	300 m	178 m
III	Tonolli Canada Ltd. – Secondary Lead Smelting Facility	1000 m	744 m

The Class II facility, Mother Parkers Tea and Coffee Inc. (ECA #9340-AHXLJM, **Appendix F**) has the potential to influence the proposed development. The proposed development encroaches on the facility, in that it introduces a closer noise sensitive receptor to the facility than the current nearest receptor, potentially resulting in Mother Parkers no longer complying with the applicable sound level criteria, triggering the Class 4 condition described in Section 3.2. Tonolli Canada is not included in this assessment as there are closer noise sensitive receptors to that facility to which it would need to meet the applicable limits.

3.2.2 Stationary Source Modeling

Noise from stationary sources is assessed to ensure the proposed development would not affect any environmental noise permits (ECAs or EASRs) of surrounding industrial or commercial properties and to ensure an adequate sound environment would be present for the future residents of the proposed development. Facilities such as residential towers are typically exempt from environmental noise permits but may have sources of noise such as mechanical equipment. Sound levels from these residential towers are assessed to ensure a comfortable sound environment. Sound from facilities, such as industrial facilities, that could require an environmental noise permit are assessed strictly against MECP sound level limits to ensure that the proposed residential use is compatible with the existing industrial and commercial uses.

RWDI conducted a screening level land-use compatibility assessment based on the guidance of the MECP D-6 Guideline (MOE, 1995a). Stationary sources of noise surrounding the proposed development were identified using publicly available aerial and street-level imagery and MECP's Access Environment database.

Based on the potential noise impact from the Mother Parkers facility supplementary noise modeling has been conducted to estimate the maximum sound source contribution resulting in compliance with the nighttime levels at the current nearest sensitive receptor to that facility. Establishing those levels in the model allows for an estimation of the most impactful operating condition from Mother Parkers on the proposed development to further inform the stationary source assessment.

3.2.2.1 Representative Receptors

Using the "building evaluation" feature of Cadna/A, each façade of the residential buildings was assessed to determine the worst-case receptor location.

3.2.2.2 Assumed Sources and Sound Power Levels

Stationary sources of noise surrounding the proposed development were identified using publicly available aerial imagery and street-level imagery. Rooftop stationary sources identified include single and multi-fan heating and ventilation air-conditioning units. Truck travel routes are included where truck loading bay areas are identified. Proxy sound level for the rooftop stationary sources and other stationary sources included are presented in Table 6.

Table 6: Stationary Source Sound Power Level Assumptions

Source	Proxy Data / Calculation	Sound Power Level (dBA)	Duty Cycle	
			Daytime and Evening (07:00h – 23:00h)	Nighttime (23:00h – 07:00h)
HVAC_1Fan	Proxy Data	84	Continuous	Continuous
HVAC_2Fan	Proxy Data	87	Continuous	Continuous
HVAC_4Fan	Proxy Data	90	Continuous	Continuous
Average Transport Truck	Proxy Data	104	2Truck/hour @ 10km/hr	1Truck/hour @ 10km/hr
Mother Parker's Mechanical Equipment	Proxy Data	103.5	Continuous	Continuous

The assumed sound power level values and duty-cycles for the stationary sources are based on reasonable assumptions for the source type. Continuous operation of the HVAC units and moving trucks at area facilities represent the worst-case hour for the daytime and nighttime periods. Continuous operation of the mechanical equipment at Mother Parker's Tea and Coffee Inc. is represented by a single continuous sound level and combined with the moving average transport truck, results in predicted compliance with that facility's most-impacted receptor nighttime limit.

3.2.2.3 Analysis and Results

Stationary source noise modelling was carried out using the Cadna/A software package, a commercially available implementation of the ISO 9613 (ISO, 1994 and ISO, 1996) algorithms. The predicted sound levels are assessed against both the Class 1 and Class 4 Area limits (refer to **Appendix A**).

The predicted sound levels during the worst-case 1-hour from existing stationary sources are presented in **Table 7**. Included in the noise model is the 2m noise barrier as shown in the drawings.

Table 7: Predicted Sound Levels at Worst-case Receptor Locations – Continuous Stationary Sources

Time Period	All Sources at Worst-Case Receptor		Permitted Sources at Worst-Case Receptor		Sound Level Criteria		Notes
	Outdoor $L_{EQ,1hr}$	Plane of Window $L_{EQ,1hr}$	Outdoor $L_{EQ,1hr}$	Plane of Window $L_{EQ,1hr}$	Class 1 Outdoor / Plane of Window L_{EQ-1hr}	Class 4 Outdoor / Plane of Window L_{EQ-1hr}	
Daytime-Evening 0700-2300h	52 dBA	57 dBA	47 dBA	48 dBA	50 / 50 dBA	55 / 60 dBA	Meets Class 4 Criteria
Nighttime 2300-0700h [1]	--	57 dBA	--	48 dBA	-- / 45 dBA	-- / 55 dBA	Meets Class 4 Criteria for Permitted Sources

Note: [1] Outdoor areas are not assessed during the nighttime period.

As shown in **Table 7**, the daytime-evening and nighttime continuous sound levels at the sound levels at the façade due to existing stationary sources are predicted to exceed the applicable Class 1 sound level criteria, and meet the Class 4 criteria for permitted sources based on screening level noise modelling analysis.

3.3 Recommendations

Based on the noise impact assessment results, the following recommendations were determined for the project. Recommendations are provided for both transportation sources and stationary sources.

3.3.1 Transportation Sources

The following recommendations are provided to address transportation sources.

3.3.1.1 Building Façade Components

Due to the elevated transportation sound levels in the area, acoustical design of the façade components including spandrel, window glazing, and exterior doors, are recommended to be specified for the proposed development.

To assess the development's feasibility, preliminary window glazing, and exterior balcony door sound isolation requirements were determined. These were based on following assumptions:

- Typical residential living room:
  - Glazing 60% of façade, Door: 20% of façade
  - 55% Façade to floor area Ratio

- Typical residential bedroom:
  - Glazing 80% of façade, Door: N/A
  - 81% Façade to floor area Ratio
- Acoustical character of rooms: High absorption finishes/furniture for bedrooms and intermediate absorption finishes/furniture for living rooms.

Based on the predicted plane of window sound levels and the assumptions listed above, recommendations for the minimum sound insulation ratings for the building components were determined using the National Research Council of Canada "BPN-56 method" (NRCC, 1985). The reported results are in terms of Sound Transmission Class (STC) ratings as summarized in **Table 8**.

Table 8: Recommended Facade Component Minimum Sound Insulation Rating

Portion of Development	Most Impacted Façade	Window Glazing	Exterior Door	Façade Wall
2-Storey Lower Podium (Ground & 1st Floor)	North	STC 34	OBC	OBC
2-Storey Upper Podium (2nd & 3rd Floor)	North	STC 34	OBC	OBC
16 Storey Tower	North	OBC	OBC	OBC
20 Storey Tower	South	STC 36	OBC	OBC

Notes:

1. "OBC" denotes that the noise insulation design is not required to be specified. Building envelope assemblies meeting the minimum Ontario Building Code (OBC) requirements will also exhibit sufficient noise reduction to meet the interior sound level criteria.
2. Exterior walls to include a minimum brick veneer or masonry equivalent for the façade with exposure to the railway line.

The maximum requirement for the window glazing was determined to be STC-36, and OBC for the exterior door, which is considered feasible as this can be achieved by various double-glazed configurations of insulated glazing units.

Applying the assumptions used as a basis to determine the glazing requirements, the applicable indoor transportation source sound level criteria are predicted to be achieved.

We recommend that the façade construction is reviewed during detailed design to ensure that the indoor sound level limits will be met, and that the window/door supplier is requested to provide STC laboratory test reports as part of shop drawing submittal to confirm that the glazing/door components will meet the minimum STC requirements.

3.3.1.2 Ventilation Recommendations

Due to the transportation sound levels at the plane of the façade, central air conditioning is recommended for the proposed development to allow for windows and doors to remain closed as a noise mitigation measure. Further, prospective purchasers or tenants should be informed by a warning clause "Type D".

3.3.1.3 Outdoor Living Areas

Due to exposure to transportation sources, the predicted sound levels in OLAs are predicted to be elevated. The combined (rail and road) daytime average sound levels for the OLA included in the assessment is in excess of 61 dBA. To reduce the transportation sound levels in OLAs to meet the applicable criteria, noise barriers are recommended.

The recommended geometry of the noise barriers designed to meet 55 dBA and 60 dBA are included with **Figure 3**. The barrier heights are summarized in **Table 9**. General guidance with respect to noise barrier design is included with **Appendix C**.

Table 9: Barrier Height Recommendations for OLAs

Receptor	Description	Predicted OLA Sound Level	Barrier Height (m) to Meet Sound Level Criterion	
		Daytime L_{EQ}, 16hr	≤ 55 dBA[1]	≤ 60 dBA[2]
OLA_01	Level 4 Rooftop Outdoor Amenity / Green Roof (rear)	61 dBA	3 m	1.25 m
OLA_02	Level 4 Rooftop Outdoor Amenity / Green Roof (front)	60 dBA	1.2 m / 2.1 m[3]	N/A[4]

Notes:

1. Refer to Figure 3a for barrier geometry to meet 55 dBA.
2. Refer to Figure 3b for barrier geometry to meet 60 dBA. A warning clause "Type B" is recommended in cases where the OLA sound level is >55 dBA (to a maximum of 60 dBA).
3. Barrier sections have different heights as shown in Figure 3a.
4. If noise control measures are not provided, a warning clause "Type A" is recommended.

3.3.2 Stationary Sources

Based on the assumptions and analysis results presented herein, the proposed development would be acoustically feasible provided the following planning decisions and noise control measures are implemented:

1. Obtain formal confirmation from the land-use planning authority that a Class 4 area classification will be designated for the site, as per MECP publication NPC-300.

2. Warning clause "Type F "related to Class 4 area designation.

Due to the proximity of the proposed development to the commercial and industrial facilities, a warning clause "Type E" is recommended to inform prospective occupants of the potential for audible noise from these facilities.

3.3.3 Warning Clauses

The following warning clauses are recommended for the proposed development:

1. NPC-300 Type A or B to address transportation sound levels in Outdoor Living Areas (OLAs)
2. NPC-300 Type D to address transportation sound levels at the plane of window
3. Proximity to Railway Line Warning Clause
4. NPC-300 Type E to address proximity to commercial/industrial facilities
5. NPC-300 Type F for Class 4 Area Notification

Warning clauses are recommended to be included on all development agreements, offers of purchase and agreements of purchase and sale or lease. The wording of the recommended warning clauses is included with **Appendix B**.

4 IMPACT OF THE PROPOSED DEVELOPMENT ON ITS SURROUNDINGS AND ON ITSELF

On-site stationary sources for the development are expected to consist of HVAC related equipment in the roof-top mechanical penthouse as well as various exhaust fans. Further, consideration should be given to control airborne and structure-borne noise generated within the proposed development.

Within the development itself the main sources of noise that are likely to affect the uses of the building are the mechanical systems. The potential noise impact of the commercial component of the development is recommended to be reviewed during detailed design, to ensure the applicable criteria will be met.

Provided that best practices for the acoustical design of the building are followed, noise from building services equipment associated with the development are expected to be feasible to meet the applicable sound level criteria due to the nature (residential/mixed-use) of the proposed development.

5 CONCLUSIONS

RWDI was retained to prepare a Noise and Vibration Impact Study (NVIS) for the proposed mixed-use development on two properties municipally known as 1000 and 1024 Dundas Street East, in the City of Mississauga, Ontario. The proposed development will consist of a 16-storey and 20-storey mixed-use building, comprised of 12 and 16 storey towers on top of a 4-storey podium containing retail uses, and residential apartment units. This assessment was completed to support the Official Plan Amendment (OPA) and Zoning Bylaw Amendment submission as required by the City of Mississauga.

This site is exposed to noise from road traffic on Dundas Street East and Tomken Road to the northwest, and Constitution Boulevard and Stanfield Road to the northeast. The site is exposed to noise from rail traffic on the Metrolinx GO Transit (Milton) commuter line and CP Rail on the CP Galt Subdivision rail corridor to the southeast.

A screening level assessment was completed for stationary sources in the vicinity of the proposed development. The combined sound levels from stationary sources at a lawfully permitted existing Class II facility within the potential influence zone, and unregulated rooftop sources on nearby commercial and residential properties, were found to potentially exceed the applicable sound level criteria.

The following noise control measures are recommended for the proposed development:

1. Installation of central air-conditioning so that all suites' windows can remained closed.
2. The inclusion of noise warning clauses related to:
    a. Transportation sound levels at the building façade and in the outdoor amenity areas,
    b. Proximity to railway line,
    c. Proximity to commercial/industrial land-use,
    d. Class 4 Area Notification.
3. Obtain formal confirmation from the land use planning authority of Class 4 area classification, as per MECP publication NPC-300.
4. Minimum sound isolation performance:
    a. Suite bedroom window glazing with minimum sound isolation performance of STC-36,
5. Construction of perimeter noise barriers along the outdoor amenity areas.

There were no sources of vibration within 100 meters of the property, thus no vibration analysis is required.

At this stage in design the impact of the development on itself and its surroundings could not be quantitatively assessed. However, the impact on both the building itself and its surroundings is expected to be feasible to meet the applicable criteria. We recommend that the building design is evaluated during detailed design to ensure that the acoustical design is adequately implemented to meet the applicable criteria.

Based on the results of this assessment, the proposed development is recommended for approval from the noise and vibration impact aspect.

6 REFERENCES

1. Ontario Ministry of the Environment (MOE), August 2013, Publication NPC-300, Environmental Noise Guideline Stationary and Transportation Sources – Approval and Planning (MOE, 2013).
2. Richtlinien für den Lärmschutz an Strassen (RLS). BM für Verkehr, Bonn, 1990 (RLS, 1990).
3. Ontario Ministry of the Environment (MOE) Publication Guideline D-6, "Compatibility Between Industrial Facilities and Sensitive Land Uses", July 1995 (MOE, 1995).
4. Ontario Ministry of the Environment (MOE), 1989, ORNAMENT Ontario Road Noise Analysis Method for Environment and Transportation, Technical Publication (MOE, 1989)
5. Controlling Sound Transmission into Buildings (BPN-56), National Research Council Canada (NRCC, 1985).
6. Federal Transit Administration, U.S. Department of Transportation, Transit Noise and Vibration Impact Assessment, 2018 (FTA, 2018).
7. The Railway Association of Canada (RAC), Guidelines for New Development in Proximity to Railway Operations (RAC, 2013).
8. Institute of Transportation Engineers (ITE), 2010, *Traffic Engineering Handbook, 6th Edition* (ITE, 2010)
9. International Organization for Standardization (ISO), 1994b, International Standard ISO 9613-1:1994, Acoustics – Attenuation of Sound during propagation outdoors. Part 1: Calculation of the absorption of sound by the atmosphere. (ISO, 1994)
10. International Organization for Standardization (ISO), 1996, International Standard ISO 9613-2:1996, Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation (ISO, 1996)
11. Ontario Ministry of the Environment (MOE), 1978, Model Municipal Noise Control Bylaw, which includes Publication NPC-103 – Procedures, and Publication NPC-104 – Sound Level Adjustments.

FIGURES

Context Site Plan

True North

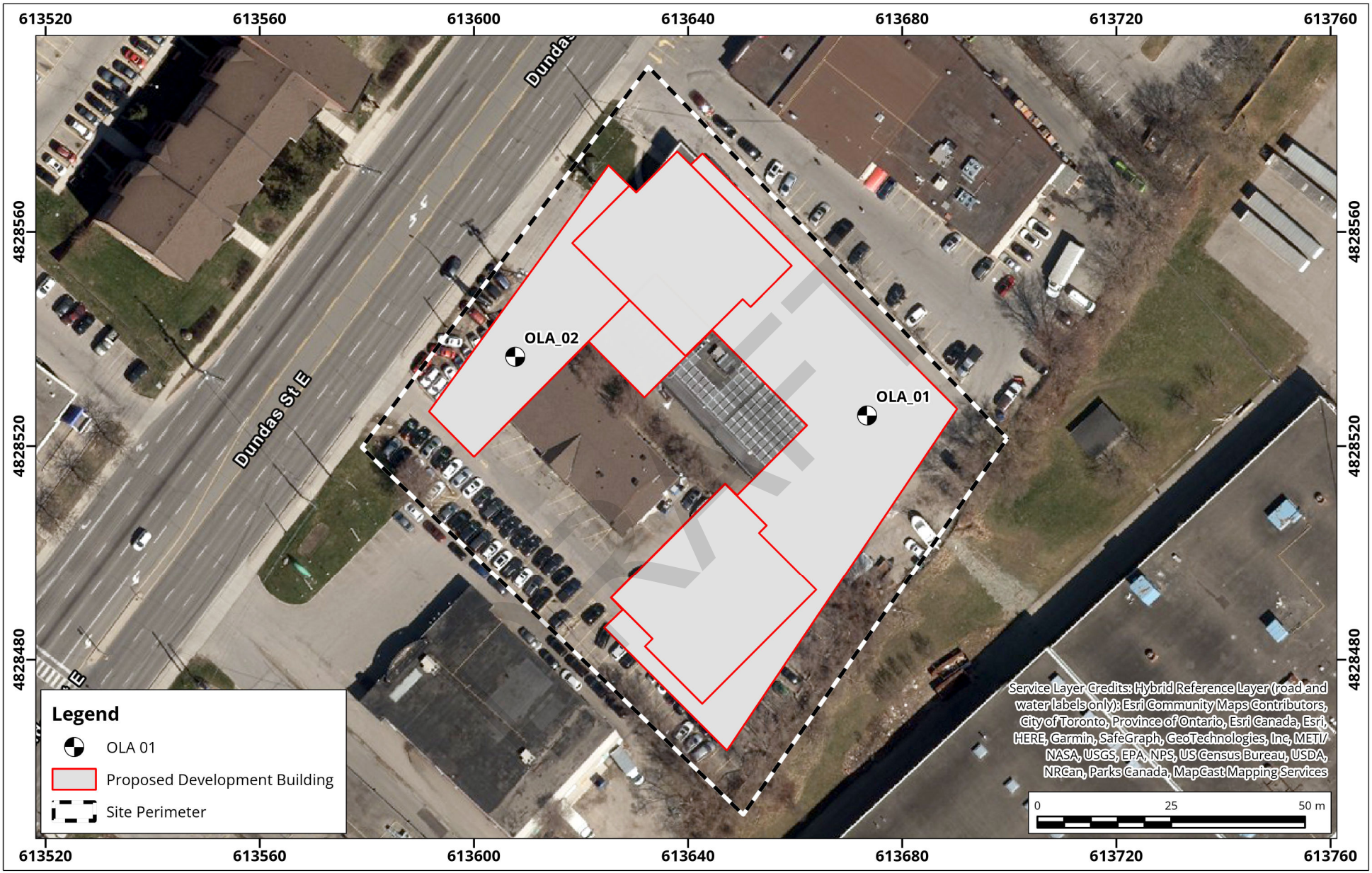
Drawn by: RCL	Figure: 1
Approx. Scale:	1:10,000
Date Revised:	Apr 26, 2022

Map Projection: NAD 1983 UTM Zone 17N

1000-1024 Dundas Street E - Mississauga, ON

Project #: 2200461

Map Document: D:\GIS\99_closed\TEMP\2200461_1000&1024-DundasStreet\2200461_1000-1024 Dundas St E.aprx



Outdoor Living Areas (OLAs)

True North

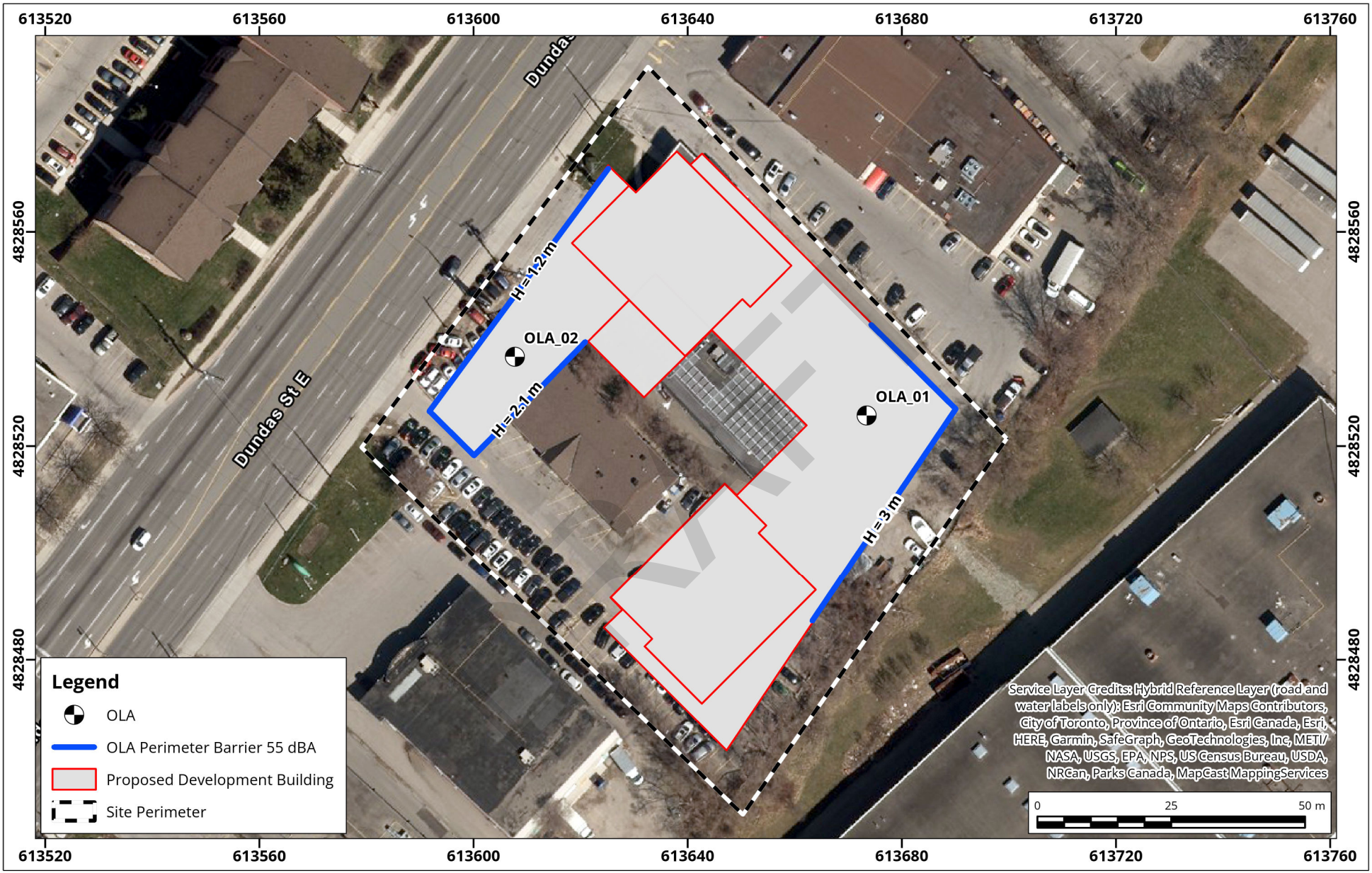
Drawn by: RCL	Figure: 2
Approx. Scale:	1:1,000
Date Revised: Apr 26, 2022	

Map Projection: NAD 1983 UTM Zone 17N

1000-1024 Dundas Street E - Mississauga, ON

Project #: 2200461

Map Document: D:\GIS\99_closed\TEMP\2200461_1000&1024-DundasStreet\2200461_1000-1024 Dundas St E.aprx



Building Barrier to Meet 55 dBA

True North

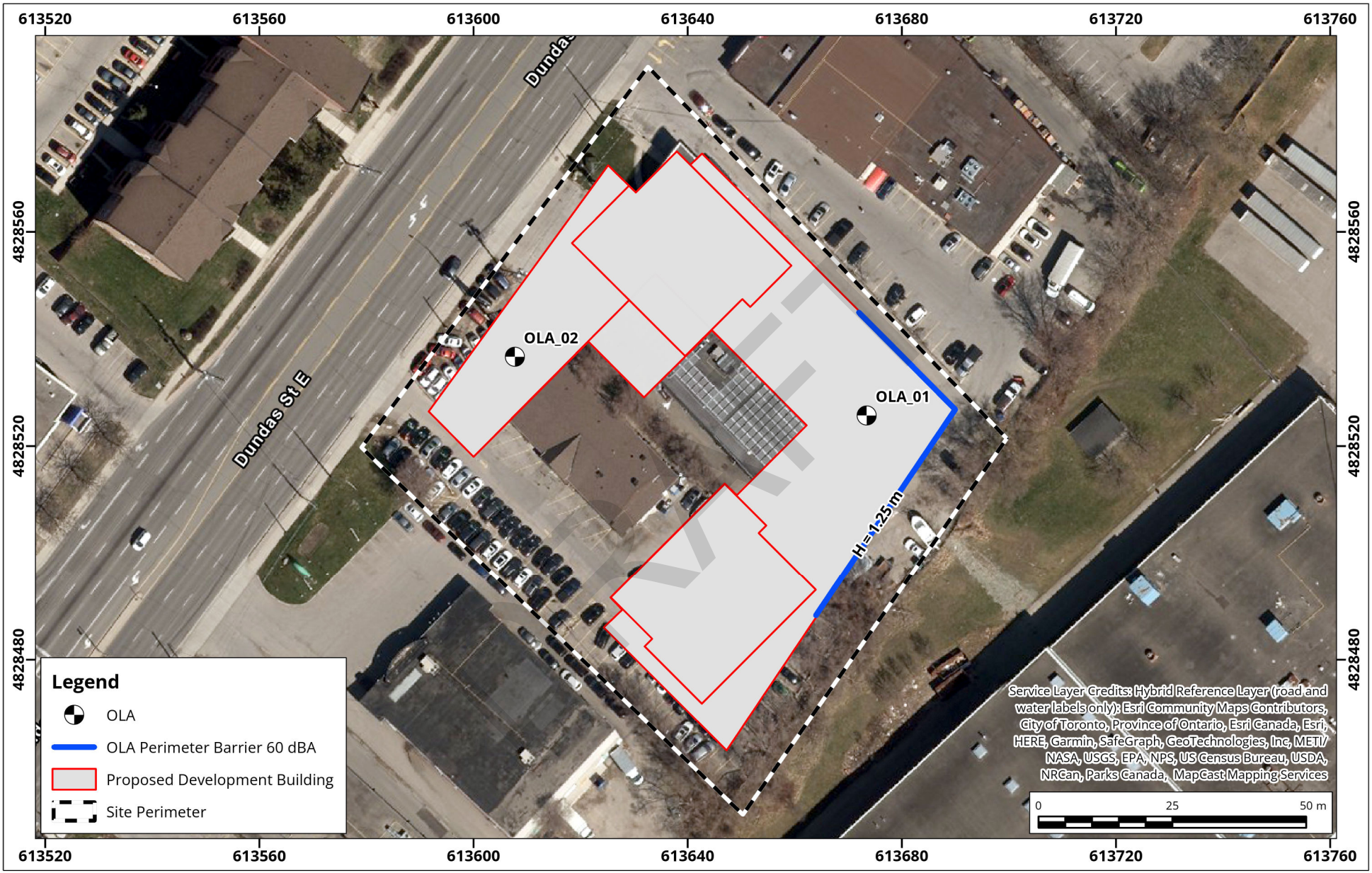
Drawn by: RCL	Figure: 3a
Approx. Scale:	1:1,000
Date Revised:	Apr 26, 2022

Map Projection: NAD 1983 UTM Zone 17N

1000-1024 Dundas Street E - Mississauga, ON

Project #: 2200461

Map Document: D:\GIS\99_closed\TEMP\2200461_1000&1024-DundasStreet\2200461_1000-1024 Dundas St E.aprx



Building Barrier to Meet 60 dBA

True North

Map Projection: NAD 1983 UTM Zone 17N

1000-1024 Dundas Street E - Mississauga, ON

Project #: 2200461

Drawn by: RCL	Figure: 3b
Approx. Scale:	1:1,000
Date Revised:	Apr 26, 2022

Map Document: D:\GIS\99_closed\TEMP\2200461_1000&1024-DundasStreet\2200461_1000-1024 Dundas St E.aprx

APPENDIX A

APPENDIX A: CRITERIA

A.1 Transportation Sources

Guidance from the Ontario Ministry of the Environment, Conservation and Parks (MECP) NPC-300 Environmental Noise Guideline was used to assess environmental noise generated by transportation-related sources. There are three aspects to consider, which include the following:

i. Transportation source sound levels in indoor living areas (living rooms and sleeping quarters), which determines building façade elements (windows, exterior walls, doors) sound insulation design recommendations.
ii. Transportation source sound levels at the plane of the window, which determines air-conditioning and ventilation system recommendations and associated warning clauses which inform the future occupants that windows and doors must be closed in order to meet the indoor sound level criteria.
iii. Transportation source sound levels in Outdoor Living Areas (OLAs), which determines OLA noise mitigation and related warning clause recommendations.

A.1.1 Road and Rail

A.1.1.1 Indoor Sound Level Criteria

For assessing sound originating from transportation sources, NPC-300 defines sound level criteria as summarized in Table 1 for indoor areas of sensitive uses. The specified values are maximum sound levels and apply to the indicated indoor spaces with the windows and doors closed.

Table 1: Indoor Sound Level Criteria for Road and Rail Sources

Type of Space	Source	Sound Level Criteria (Indoors)	
		Daytime $L_{eq,16\text{-}hr}$ 07:00h – 23:00h	Nighttime $L_{eq,8\text{-}hr}$ 23:00h – 07:00h
Living Quarters Examples: Living, dining and den areas of residences, hospitals, nursing homes, schools and daycare centres	**Road**	45 dBA	
	Rail	40 dBA	
Sleeping Quarters	**Road**	45 dBA	40 dBA
	Rail	40 dBA	35 dBA

NPC-300 also provides guidelines for acceptable indoor sound levels that are extended to land uses and developments which are not normally considered noise sensitive. The guideline sound level criteria presented in Table 2 are provided to inform good-practice design objectives.

Table 2: Supplementary Indoor Sound Level Criteria for Road and Rail Sources

Type of Space	Source	Sound Level Criteria (Indoors)	
		Daytime $L_{eq,16\text{-}hr}$ 07:00h – 23:00h	Nighttime $L_{eq,8\text{-}hr}$ 23:00h – 07:00h
General offices, reception areas, retail stores, etc.	**Road**	50 dBA	-
	Rail	45 dBA	-
Theatres, places of worship, libraries, individual or semi-private offices, conference rooms, reading rooms, etc.	**Road**	45 dBA	-
	Rail	40 dBA	-
Sleeping quarters of residences, hospitals, nursing/retirement homes, etc.	**Road**	-	40 dBA
	Rail	-	35 dBA
Sleeping quarters of hotels/motels	**Road**	-	45 dBA
	Rail	-	40 dBA

A.1.1.2 Outdoor Living Areas (OLAs)

Outdoor Living Areas (OLAs) would include outdoor areas intended and designed for the quiet enjoyment of the outdoor environment and which are readily accessible from the building.

OLAs may include any common outdoor amenity spaces associated with a multi-unit residential development (e.g. courtyards, roof-top terraces), and/or private backyards and terraces with a minimum depth of 4m provided they are the only outdoor living area for the occupant. The sound level criteria for outdoor living areas is summarized in Table 3.

Table 3: Sound Level Criteria – Outdoor Living Area

Assessment Location	Sound Level Criteria (Outdoors)	
	Daytime $L_{eq,16\text{-}hr}$ 07:00h – 23:00h	Nighttime $L_{eq,8\text{-}hr}$ 23:00h – 07:00h
Outdoor Living Area (OLA) (Combined Road and Rail)	55 dBA	-

A.1.1.3 Outdoor and Plane of Window Sound Levels

In addition to the sound level criteria, noise control measures and requirements for ventilation and warning clauses requirements are recommended for residential land-uses based on predicted transportation source sound levels incident in the plane of window at bedrooms and living/dining rooms, and/or at outdoor living areas. These recommendations are summarized in Table 4 below.

Table 4: Ventilation, Building Component, and Warning Clauses Recommendations for Road/Rail Sources

Assessment Location	Transportation Sound Level (Outdoors)		Recommendations
	Daytime $L_{eq,16\text{-}hr}$ 07:00h – 23:00h	Nighttime $L_{eq,8\text{-}hr}$ 23:00h – 07:00h	
Plane of Window (Road)	> 65 dBA	> 60 dBA	Installation of air conditioning to allow windows to remained closed. The sound insulation performance of building components must be specified and designed to meet the indoor sound level criteria. Warning clause "Type D" is recommended.
	≤ 65 dBA > 55 dBA	≤ 60 dBA > 50 dBA	Applicable for low and medium density development: Forced-air ventilation system to allow for the future installation of air-conditioning. Warning clause "Type C" is recommended. Applicable for high density development: Air conditioning to allow windows to remained closed. Warning clause "Type D" is recommended.

Assessment Location	Transportation Sound Level (Outdoors)		Recommendations
	Daytime $L_{eq,16\text{-}hr}$ 07:00h – 23:00h	Nighttime $L_{eq,8\text{-}hr}$ 23:00h – 07:00h	
Plane of Window (Rail [1, 2])	> 60 dBA	> 55 dBA	The acoustical performance of building façade components should be specified such that the indoor sound level limits are predicted to be achieved. Warning clause "Type D" is recommended.
	> 60 dBA ($L_{eq,\ 24hr}$) and < 100m from tracks		Exterior walls consisting of a brick veneer or masonry equivalent for the first row of dwellings. Warning clause "Type D" is recommended.
Outdoor Living Area (Combined Road and Rail [3])	≤ 60 dBA > 55 dBA	-	If sound levels are predicted to exceed 55 dBA, but are less than 60 dBA, noise controls may be applied to reduce the sound level to 55 dBA. If noise control measures are not provided, a warning clause "Type A" is recommended.
	> 60 dBA	-	Noise controls (barriers) should be implemented to meet the 55 dBA criterion. If mitigation is not feasible to meet the 55 dBA criterion for technical, economic or administrative reasons, an exceedance of 5 dB may be acceptable (to a maximum sound level of 60 dBA). In this case a warning clause "Type B" would be recommended.

Notes:

1. Whistle noise is included (if applicable) in the determination of the sound level at the plane of window.
2. Some railway companies (e.g. CN, CP) may require that the exterior walls include a brick veneer or masonry equivalent for the façade facing the railway line, regardless of the sound level.
3. Whistle noise is not included in the determination of the sound level at the OLA.

A.1.1.4 Rail Layover Sites

NPC-300 provides a sound level limit for rail layover sites to be the higher of the background sound level or 55 dBA $L_{eq,1\text{-}hr,}$ for any one-hour period.

A.1.1.5 Rail Vibration Criteria

An assessment of rail vibration is generally recommended for developments within 75m of a rail corridor or rail yard, and adjacent to or within a setback of 15m of a transit (subway or light-rail) rail line.

The generally accepted vibration criterion for sensitive land-uses is the threshold of perception for human exposure to vibration, being a vibration velocity level of 0.14 mm/s RMS in any one-third octave band centre frequency in the range of 4 Hz to 200 Hz.

This vibration criterion is based on a one-second exponential time-averaged maximum hold root-mean-square (RMS) vibration velocity level and is consistent with the Railway Associations of Canada (RAC, 2013) guideline, the U.S. Federal Transit Authority (FTA, 2018) criterion for residential land-uses, the Toronto Transit Commission (TTC) guidelines for the assessment of potential vibration impact of future expansion (MOEE/TTC, 1993).

A.1.2 Aircraft

Land-use compatibility in the vicinity of airports is addressed in Ministry of the Environment, Conservation, and Parks (MECP) Guideline NPC-300 (MOE, 2013). The guideline provides recommendations for ventilation, and noise control for different Noise Exposure Forecast (NEF) values, which would be based on NEF contour maps available from the airport authority. The NEF values can be expressed as $L_{A,eq,24hr}$ sound levels by using the expression NEF = $_{LA,eq,24hr}$ -32 dBA.

Table 5: Indoor Sound Level Criteria for Aircraft Sources

Assessment Location	Indoor Sound Level Criteria NEF ($L_{eq, 24hr}$) [1]
Living/dining/den areas of residences, hospitals, schools, nursing/retirement homes, daycare centres, etc.	NEF- 5 (37 dBA)
Sleeping quarters	NEF-0 (32 dBA)

NPC-300 also provides guidelines for acceptable indoor sound levels that are extended to land uses and developments which are not normally considered noise sensitive. The guideline sound level criteria presented in Table 6 are provided to inform good-practice design objectives.

Table 6: Supplementary Indoor Sound Level Criteria for Aircraft Sources

Assessment Location	Indoor Sound Level Criteria[1]
General offices, reception areas, retail stores, etc.	NEF-15 (47 dBA)
Individual or semi-private offices, conference rooms, etc.	NEF-10 (42 dBA)
Sleeping quarters of hotels/motels, theatres, libraries, places of worship, etc.	NEF-5 (37 dBA)

Table 7: NPC-300 Sound Level Criteria for Aircraft (Outdoors)

Assessment Location	Outdoor Sound Level Criteria[1]
Outdoor areas, including OLA	NEF-30 (62 dBA)

Table 8: Ventilation, Building Component, and Warning Clauses Recommendations for Aircraft Sources

Assessment Location	Aircraft Sound Level NEF ($L_{EQ,24\text{-}hr}$)	NPC-300 Requirements
Outdoors	≥NEF 30	Air conditioning to allow windows to remained closed. The sound insulation performance of building components must be specified and designed to meet the indoor sound level criteria. Warning clauses "Type D" and "Type B" are recommended.
	< NEF 30 ≥ NEF 25	The sound insulation performance of building components must be specified and designed to meet the indoor sound level criteria. Applicable for low and medium density development: Forced-air ventilation system to allow for the future installation of air-conditioning. Warning clause "Type C" is recommended. Applicable for high density development: Air conditioning to allow windows to remained closed. Warning clause "Type D" is recommended.
	< NEF 25	Further assessment not required

A.2 Stationary Sources

A.2.1 NPC-300 Sound Level Criteria – Stationary Sources

Guidance from the MECP NPC-300 Environmental Noise Guideline is used to assess environmental noise generated by stationary sources, for example industrial and commercial facilities.

Noise from stationary sources is treated differently from transportation sources and requires sound levels be assessed for the predictable worst-case one-hour average sound level (L_{eq}) for each period of the day. For assessing sound originating from stationary sources, NPC-300 defines sound level criteria for two types of Points of Reception (PORs): outdoor and plane of window.

The assessment criteria for all PORs is the higher of either the exclusion limit per NPC-300 or the minimum background sound level that occurs or is likely to occur at a POR. The applicable exclusion limit is determined based on the level of urbanization or "Class" of the area. The NPC-300 exclusion limits for continuously operating stationary sources are summarized in Table 9.

Table 9: NPC-300 Exclusion Limits – Continuous and Quasi-Steady Impulsive Stationary Sources (LAeq-1hr)

Time Period	Class 1 Area		Class 2 Area		Class 3 Area		Class 4 Area	
	Outdoor	Plane of Window	Outdoor	Plane of Window	Outdoor	Plane of Window	Outdoor	Plane of Window
Daytime 0700-1900h	50 dBA	50 dBA	50 dBA	50 dBA	45 dBA	45 dBA	55 dBA	60 dBA
Evening 1900-2300h	50 dBA	50 dBA	45 dBA	50 dBA	40 dBA	40 dBA	55 dBA	60 dBA
Nighttime 2300-0700h	--	45 dBA	--	45 dBA	--	40 dBA	--	55 dBA

Notes:

1. The applicable sound level criterion is the background sound level or the exclusion limit, whichever is higher.
2. Class 1, 2 and 3 sound level criteria apply to a window that is assumed to be open.
3. Class 4 area criteria apply to a window that is assumed closed. Class 4 area requires formal designation by the land-use planning authority.
4. Sound level criteria for emergency backup equipment (e.g. generators) operating in non-emergency situations such as testing or maintenance are 5 dB greater than the applicable sound level criteria for stationary sources.

For impulsive sound, other than quasi-steady impulsive sound, from a stationary source, the sound level criteria at a POR is expressed in terms of the Logarithmic Mean Impulse Sound Level (L_{LM}), and is summarized in Table 10.

Table 10: NPC-300 Exclusion Limits – Impulsive Stationary Sources (L_{LM})

Time Period	Number of Impulses in Period of One-Hour	Class 1 and 2 Areas		Class 3 Areas		Class 4 Areas	
		Outdoor	Plane of Window	Outdoor	Plane of Window	Outdoor	Plane of Window
Daytime (0700-2300h)	9 or more	50 dBAI	50 dBAI	45 dBAI	45 dBAI	55 dBAI	60 dBAI
Nighttime (2300–0700h)		-	45 dBAI	-	40 dBAI	-	55 dBAI
Daytime (0700-2300h)	7 to 8	55 dBAI	55 dBAI	50 dBAI	50 dBAI	60dBAI	65 dBAI
Nighttime (2300–0700h)		-	50 dBAI	-	45 dBAI	-	60 dBAI
Daytime (0700-2300h)	5 to 6	60 dBAI	60 dBAI	55 dBAI	55 dBAI	65 dBAI	70 dBAI
Nighttime (2300–0700h)		-	55 dBAI	-	50 dBAI	-	65 dBAI
Daytime (0700-2300h)	4	65 dBAI	65 dBAI	60 dBAI	60 dBAI	70 dBAI	75 dBAI
Nighttime (2300–0700h)		-	60 dBAI	-	55 dBAI	-	70 dBAI
Daytime (0700-2300h)	3	70 dBAI	70 dBAI	65 dBAI	65 dBAI	75 dBAI	80 dBAI
Nighttime (2300–0700h)		-	65 dBAI	-	60 dBAI	-	75 dBAI
Daytime (0700-2300h)	2	75 dBAI	75 dBAI	70 dBAI	70 dBAI	80 dBAI	85 dBAI
Nighttime (2300–0700h)		-	70 dBAI	-	65 dBAI	-	80 dBAI
Daytime (0700-2300h)	1	80 dBAI	80 dBAI	75 dBAI	75 dBAI	85 dBAI	90 dBAI
Nighttime (2300–0700h)		-	75 dBAI	-	70 dBAI	-	85 dBAI

Notes:

1. The applicable sound level criterion is the background sound level or the exclusion limit, whichever is higher.

A.2.2 D-Series Guidelines

The MECP D-series guidelines (MOE, 1995) provide direction for land use planning to maximize compatibility of industrial uses with adjacent land uses. The goal of Guideline D-6 is to minimize encroachment of sensitive land uses on industrial facilities and vice versa, in order to address potential incompatibility due to adverse effects such as noise, odour and dust.

For each class of industry, the guideline provides an estimate of potential influence area and states that this influence area shall be used in the absence of the recommended technical studies. Guideline D-6 also recommends a minimum separation distance between each class of industry and sensitive land uses (see Table 11). Section 4.10 of D-6 identifies exceptional circumstances with respect to redevelopment, infill and mixed-use areas. In these cases, the guideline suggests that separation distances at, or less than, the recommended minimum separation distance may be acceptable if a justifying impact assessment is provided.

Table 11: Summary of Guideline D-6

Industry Class	Definition	Potential Influence Area	Recommended Minimum Separation Distance (property line to property line)
Class I	Small scale, self-contained, daytime only, infrequent heavy vehicle movements, no outside storage.	70 m	20 m
Class II	Medium scale, outdoor storage of wastes or materials, shift operations and frequent heavy equipment movement during the daytime.	300 m	70 m
Class III	Large scale, outdoor storage of raw and finished products, large production volume, continuous movement of products and employees during daily shift operations.	1000 m	300 m

Guideline D-6 provides criteria for classifying industrial land uses, based on their outputs, scale of operations, processes, schedule and intensity of operations. Table 12 provides the classification criteria and examples.

Table 12: Guideline D-6 Industrial Categorization Criteria

Criteria	Class I	Class II	Class III
Outputs	• Sound not audible off property • Infrequent dust and/ or odour emissions and not intense • No ground-borne vibration	• Sound occasionally audible off property • Frequent dust and/ or odour emissions and occasionally intense • Possible ground-borne vibration	• Sound frequently audible off property • Persistent and intense dust and/ or odour emissions • Frequent ground-borne vibration
Scale	• No outside storage • Small scale plant or scale is irrelevant in relation to all other criteria	• Outside storage permitted • Medium level of production	• Outside storage of raw and finished products • Large production levels
Process	• Self-contained plant or building which produces / stores a packaged product • Low probability of fugitive emissions	• Open process • Periodic outputs of minor annoyance • Low probability of fugitive emissions	• Open process • Frequent outputs of major annoyances • High probability of fugitive emissions
Operation / Intensity	• Daytime operations only • Infrequent movement of products and/or heavy trucks	• Shift operations permitted • Frequent movements of products and/or heavy trucks with majority of movements during daytime hours	• Continuous movement of products and employees • Daily shift operations permitted
Examples	• Electronics Manufacturing • Furniture refinishing • Beverage bottling • Auto parts • Packaging services • Dairy distribution • Laundry and linen supply	• Magazine printing • Paint spray booths • Metal command • Electrical production • Dairy product manufacturing • Feed packing plant	• Paint and varnish manufacturing • Organic chemicals manufacturing • Breweries • Solvent recovery plant • Soap manufacturing • Metal manufacturing

APPENDIX B

APPENDIX B: WARNING CLAUSES

Warning clauses are recommended to be included on all development agreements, offers of purchase and agreements of purchase and sale or lease. Warning clauses may be used individually or in combination.

The following warning clauses are recommended based on the applicable guidelines; however, wording may be modified/customized during consultation with the planning authority to best suit the proposed development:

B.1 Transportation Sources

NPC-300 Type A: Recommended to address surface transportation sound levels in OLAs if sound level is in the range of >55 dBA but ≤ 60 dBA, and noise controls have not been provided.

"Purchasers/tenants are advised that sound levels due to increasing road traffic (rail traffic) (air traffic) may occasionally 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."

NPC-300 Type B: Recommended to address surface transportation sound levels in OLAs if the sound level is in the range of >55 dBA but ≤ 60 dBA, and noise controls have been provided. Recommended to address outdoor aircraft sound levels ≥NEF 30.

"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 (rail traffic) (air 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."

NPC-300 Type C: Applicable for low and medium density developments only, recommended to address transportation sound levels at the plane of window.

"This dwelling unit has been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of central air conditioning by the occupant in low and medium density developments 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."

NPC-300 Type D: Recommended to address transportation sound levels at the plane of window.

"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."

Proximity to Railway Line: Metrolinx/CN/CP/VIA Warning Clause for developments that are within 300 metres of the right-of-way

"Warning: [Canadian National Railway Company] [Metrolinx / GO] [Canadian Pacific Railway Company] [VIA Rail Canada Inc.] or its assigns or successors in interest has or have a right-of-way within 300 metres from the land the subject hereof. 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/Metrolinx/GO/CPR/VIA will not responsible for any complaints or claims arising from use of such facilities and/or operations on, over or under the aforesaid right-of-way."

B.2 Stationary Sources

NPC-300 Type E: Recommended to address proximity to commercial/industrial land-use

"Purchasers/tenants are advised that due to the proximity of the adjacent industrial/commercial land-uses, noise from the industrial/commercial land-uses may at times be audible."

NPC-300 Type F: Recommended to for Class 4 Area Notification

"Purchasers/tenants are advised that sound levels due to the adjacent industry (facility) (utility) are required to comply with sound level limits that are protective of indoor areas and are based on the assumption that windows and exterior doors are closed. This dwelling unit has been supplied with a ventilation/air conditioning system which will allow windows and exterior doors to remain closed."

APPENDIX C

APPENDIX C: NOISE MITIGATION GUIDANCE

C.1 Acoustic/Noise Barrier

Generally, noise controls to attenuate transportation sound levels at Outdoor Living Areas (OLAs) would consist of the implementation of acoustic/noise barriers with materials that would meet the guidance included in NPC-300, for example:

- A wall, berm, wall/berm combination or similar structure, used as a noise control measure, and high enough to break the line-of-sight between the source and the receptor.
- The minimum surface density (face weight) is 20 kg/m^2
    - Many materials could satisfy the surface density requirement, e.g. wood, glass, concrete, Plexiglas, Acrylite.
    - The required thickness can be determined by dividing the 20 kg/m^2 face weight by the material density (kg/m^3). Typically, this would imply:
        - 50 mm (2") of wood
        - 13 mm (0.5") of lighter plastic (like Plexiglas or PVC)
        - 6 mm (0.25") of heavier material (like aluminum, glass, concrete)
- The barrier should be structurally sound, appropriately designed to withstand wind and snow load, and constructed without cracks or surface gaps. Joints between panels may need to be overlapped to ensure surfaces are free of gaps, particularly for wood construction.
- Any gaps under the barrier that are necessary for drainage purposes should be minimized and localized, so that the acoustical performance of the barrier is maintained.
- If a sound absorptive face is to be included in the barrier design, the minimum noise reduction coefficient is recommended to be NRC 0.7.

C.2 Building Ventilation and Air Conditioning

The use of air conditioning itself is not a noise control measure; however, it allows for windows and doors to remain closed, thereby reducing the indoor sound levels.

NPC-300 provides the following guidance with respect to implementation of building ventilation and air conditioning:

a. the noise produced by the proposed ventilation system in the space served does not exceed 40 dBA. In practice, this condition usually implies that window air conditioning units are not acceptable;
b. the ventilation system complies with all national, provincial and municipal standards and codes;
c. the ventilation system is designed by a heating and ventilation professional; and
d. the ventilation system enables the windows and exterior doors to remain closed.

Air conditioning systems also need to comply with Publication NPC-216, and/or any local municipal noise by-law that has provisions relating to air conditioning equipment.

APPENDIX D

Appendix A


DUNDAS
STREET EAST
STANFIELD
ROAD
3038
3036
3034
3032
3030
3028
3039
3037
3035
3033
3031
3029
3027
3026
3025
935
965
985
1011
1055
3040
1085
920
960
980
992
1000
1024
1030
1050
1060
1090
2580
2572
50 m

Appendix B

1000 - 1024 DUNDAS STREET EAST

WZMH

Mississauga, Ontario
Project #: 07395.000

AUGUST 23 2021

1. Proposed building GFA

Gross Floor Area Calculation for Residential

the sum of areas of each storey of a building measured from the exterior of outside walls but shall not include any part of the building used for motor vehicle parking

Gross Floor Area Calculation for Non Residential

the sum of areas of each storey above or below established grade, measured from exterior of outside wall but excluding the following:

A) mechanical floor area
B) stairwells, washrooms or elevators
C) enclosed area used for collection or storage of disposable or recyclable waste
D) above or below established grade used for motor vehicle parking or loading spaces
E) lunch room, lounges or fitness below grade
F) accessory outdoor tank

PRELIMINARY GFA

PROPOSED BUILDING GFA	RESIDENTIAL GFA		INDOOR AMENITY		OUTDOOR AMENITY		RETAIL		Res GFA + Indoor Amenity TOTAL RESIDENTIAL GFA		USABLE RES AREA	EFFICIENCY %
	sm	sf	sm	sf	sm	sf	sm	sf	sm	sf	sm	USABLE RES / TOTAL RES GFA
ABOVE GRADE												
GROUND	2,786	29,988	209	2,250	215	2,314	790	8,503	2,995	32,238	1,871	62%
2ND	4,100	44,132							4,100	44,132	3,593	88%
3RD	4,064	43,744							4,064	43,744	3,562	88%
4TH	4,064	43,744							4,064	43,744	3,562	88%
5TH (450-BLDG A)(335-BLDGB)	845	9,095	715		709	7,632			1,560	16,792	630	40%
6TH (780X2)BLDG A+B	1,560	16,792							1,560	16,792	1,340	86%
7TH	1,560	16,792							1,560	16,792	1,340	86%
8TH	1,560	16,792							1,560	16,792	1,340	86%
9TH	1,560	16,792							1,560	16,792	1,340	86%
10TH	1,560	16,792							1,560	16,792	1,340	86%
11TH	1,560	16,792							1,560	16,792	1,340	86%
12TH	1,560	16,792							1,560	16,792	1,340	86%
13TH	1,560	16,792							1,560	16,792	1,340	86%
14TH	1,560	16,792							1,560	16,792	1,340	86%
15TH	1,560	16,792							1,560	16,792	1,340	86%
16TH	1,560	16,792							1,560	16,792	1,340	86%
17TH (750-BLDG B)	780	8,396							780	8,396	670	86%
18TH	780	8,396							780	8,396	670	86%
19TH	780	8,396							780	8,396	670	86%
20TH	780	8,396							780	8,396	670	86%
TOTAL	**36,139**	**388,997**	**924**	**9,946**	**924**	**9,946**	**790**	**8,503**	**37,063**	**398,942**	**30,638**	83%

***Note 1: balconies are excluded in residential GFA**
Note 2: main loading area is shared with Retail therefore excluded in the GFA
Note 3: parking ramp from ground going down to P1 is part of below grade therefore excluded from GFA

RESIDENTIAL GFA TOTAL **	37,063
RETAIL AREA	790
TOTAL AREA ON SITE	**37,853**

****Residential GFA total includes Indoor amenity and common spaces such as elevators, elevator lobbies, corridors and lobby areas**

DENSITY

SITE AREA	**8,115.12**
AREA ON SITE	**37,853**
PROPOSED DENSITY OVER ENTIRE SITE	**4.66**

2. Proposed building unit mix

PROPOSED BUILDING UNIT MIX

PODIUM	1BED	1BED+D	2BED	2BED+D	3BED	TOTAL
GROUND	3	12	6	3	2	26
2ND	6	17	9	4	10	46
3RD	8	16	8	4	11	47
4TH	8	16	8	4	11	47
TOTAL PODIUM UNITS	**25**	**61**	**31**	**15**	**34**	**166**

TOWER A	1BED	1BED+D	2BED	2BED+D	3BED	TOTAL
5TH	4		2			6
6TH - 16TH (X11/FL)	77		33		11	121
TOTAL TOWER A UNITS	**81**		**35**		**11**	**127**

TOWER B	1BED	1BED+D	2BED	2BED+D	3BED	TOTAL
5TH	2		2			4
6TH - 20TH (X15/FL)	105		45		15	165
TOTAL TOWER B UNITS	**107**		**47**		**15**	**169**

TOTAL UNITS ON SITE	**213**	**61**	**113**	**15**	**60**	**462**
Percentage	46.1%	13.2%	24.5%	3.2%	13.0%	100%

3a. PARKING REQUIREMENTS

	UNIT COUNT	*RESIDENTIAL / VISITORS RATIO REQUIRED*	*TOTAL*
PROPOSED	*462*	*0.9*	*415*
TOTAL PARKING REQUIRED (RESIDENTIAL + VISITORS)			*415*

3b. NEW BUILDING PROPOSED PARKING SUPPLY

RESIDENTIAL / VISITORS	*PROPOSED*	*SITE TOTAL*
P1	*201*	*415*
P2	*205*	

PRELIMINARY

WZMH ARCHITECTS

1000-1024 DUNDAS
MISSISSAUGA, Ontario

STATISTICS

Project No: 07395.000	Date AUGUST 23, 2021
Scale: 1:300	Drawing No: 1

PRELIMINARY

WZMH ARCHITECTS		1000-1024 DUNDAS MISSISSAUGA, Ontario	SITE PLAN	Project No: 07395.000	Date AUGUST 23, 2021
				Scale: 1:750	Drawing No: 2

PRELIMINARY

WZMH ARCHITECTS

1000-1024 DUNDAS
MISSISSAUGA, Ontario

P1 PARKING LEVEL

Project No: 07395.000	Date AUGUST 23, 2021
Scale: 1:300	Drawing No: 3

PRELIMINARY

WZMH ARCHITECTS

1000-1024 DUNDAS
MISSISSAUGA, Ontario

P2 PARKING LEVEL

Project No: 07395.000	Date AUGUST 23, 2021
Scale: 1:300	Drawing No: 4

PROPOSED PROPERTY LINE

8.0

4.5

RETAIL

RETAIL

RETAIL

RETAIL

RETAIL

CANOPY ABOVE

VEST

LOBBY

34sm AMENITY

4.5

BOH

CACF

MAIL

STAGING LOADING

MOVE IN

BIKE RAMP

RAMP TO P1

7.500

AMENITY 130sm

DROP OFF

VEST

1B+D 63sm

1B+D 63sm

1B+D 63sm

1B+D 63sm

1B+D 63sm

1B+D 63sm

1B+D 63sm

1B+D 63sm

25.0

OUTDOOR AMENITY

EXISTING 1 STOREY BUILDING

DROP OFF

CANOPY ABOVE

5.6

VEST

AMENITY 45sm

CACF

LOBBY

MAIL

BOH

TYPE 'B' SPACE 3.5m(W)x10.0m(L)x4.0m(H)

2B 68sm

2B+D 97sm

2B 76sm

2B 76sm

3B 130sm

PATIO

1B 63sm

MOVE-IN

PATIO

1B+D 63sm

2B 72sm

1B 53sm

2B+D 87sm

2B+D 80sm

2B 72sm

2B 68sm

1B+D 67sm

1B+D 65sm

1B+D 65sm

1B+D 65sm

1B 54sm

3B 81sm

4.5

PATIO

7.5

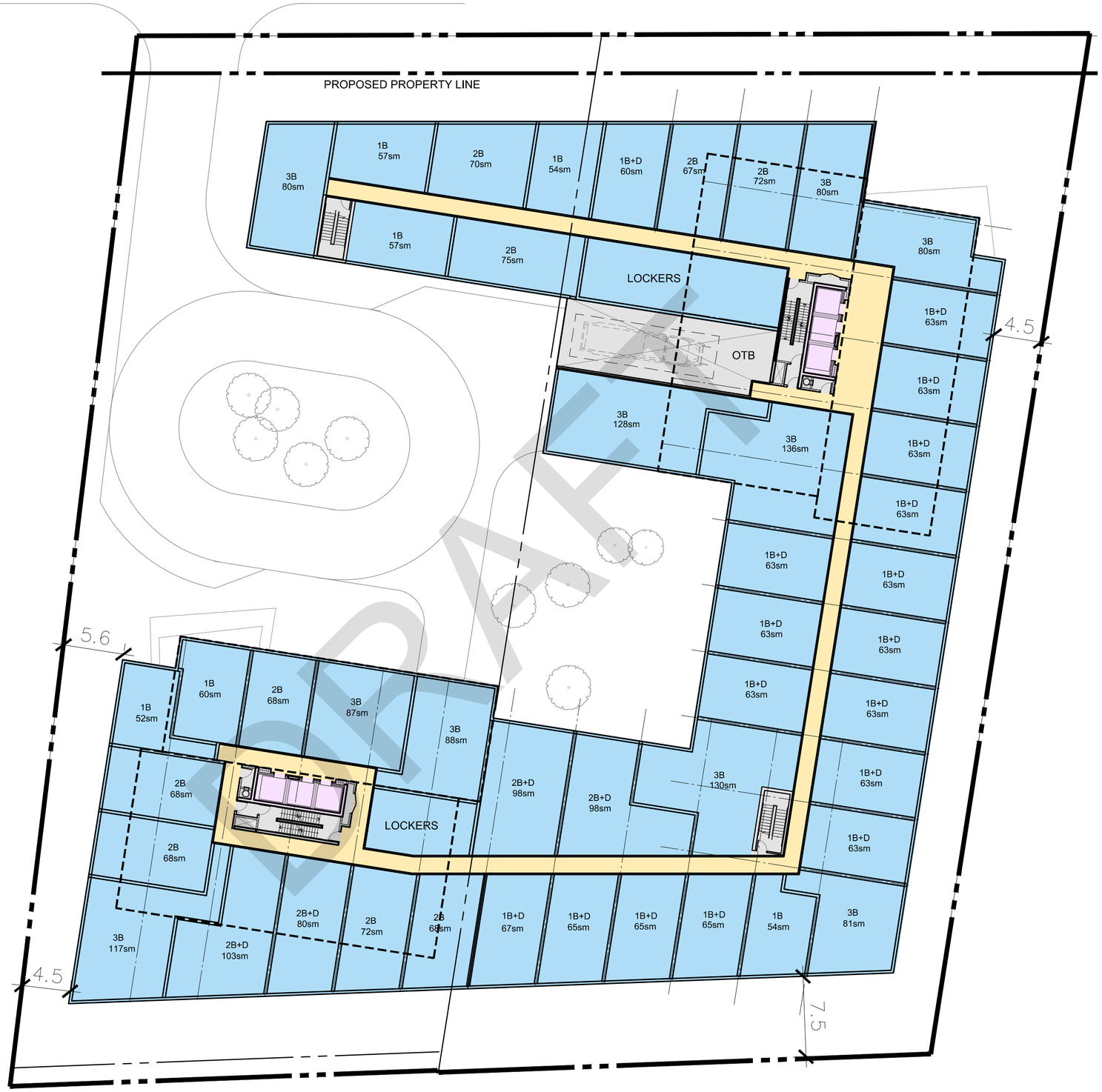
PRELIMINARY

WZMH ARCHITECTS

1000-1024 DUNDAS
MISSISSAUGA, Ontario

GROUND FLOOR PLAN

Project No: 07395.000	Date AUGUST 23, 2021
Scale: 1:300	Drawing No: 5



PRELIMINARY

WZMH ARCHITECTS	1000-1024 DUNDAS MISSISSAUGA, Ontario	SECOND FLOOR PLAN	Project No: 07395.000	Date AUGUST 23, 2021
			Scale: 1:300	Drawing No: 6

PRELIMINARY

WZMH ARCHITECTS	1000-1024 DUNDAS MISSISSAUGA, Ontario	3RD - 4TH FLOOR PLAN	Project No: 07395.000	Date AUGUST 23, 2021
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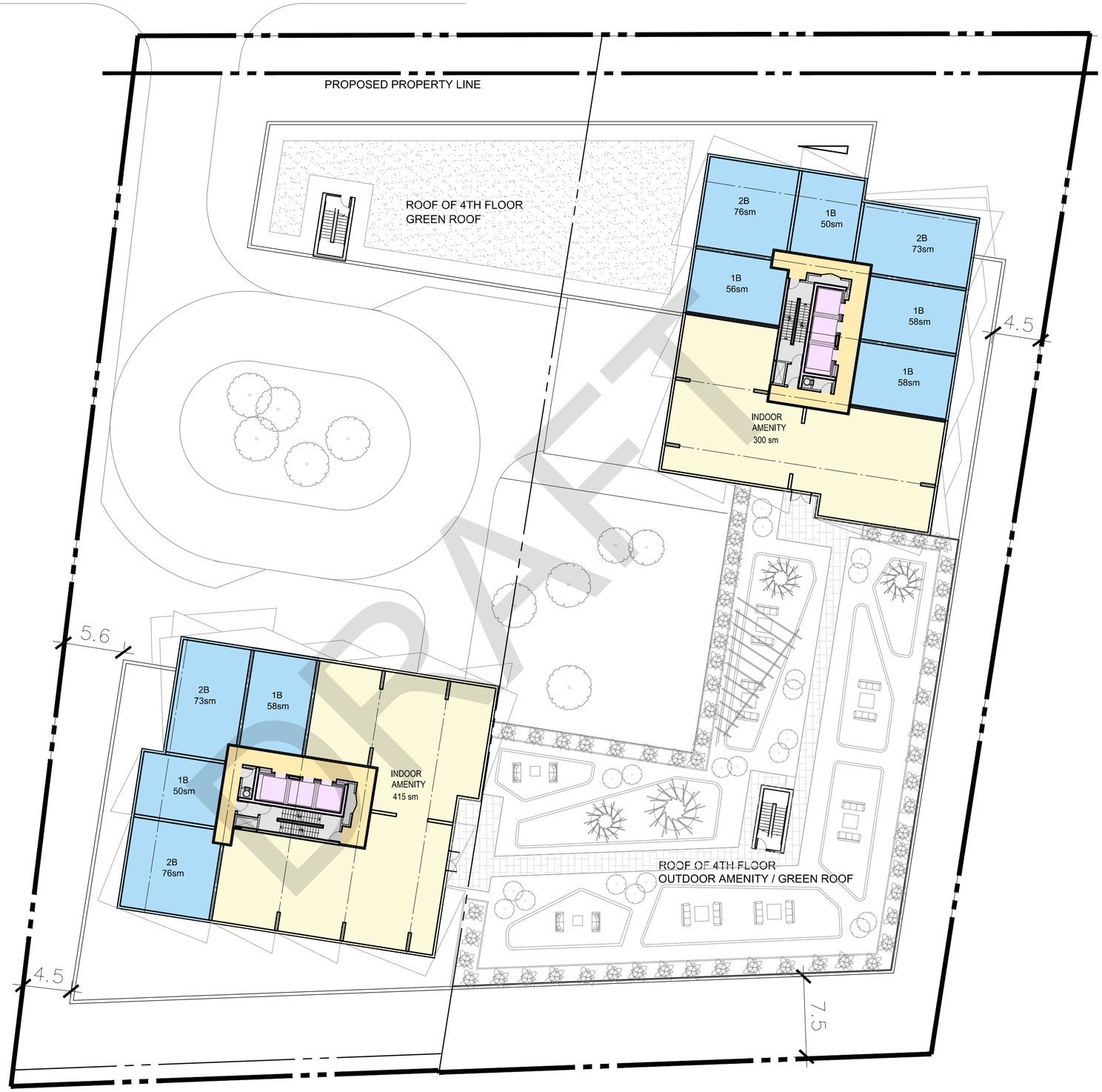

PRELIMINARY

WZMH ARCHITECTS		1000-1024 DUNDAS MISSISSAUGA, Ontario	5TH FLOOR PLAN	Project No: 07395.000	Date AUGUST 23, 2021
				Scale: 1:300	Drawing No: 8

PRELIMINARY

WZMH ARCHITECTS	1000-1024 DUNDAS MISSISSAUGA, Ontario	6TH - 17TH FLOOR PLAN (BLDG A) 6TH - 19TH FLOOR PLAN (BLDG B)		Project No: 07395.000	Date AUGUST 23, 2021
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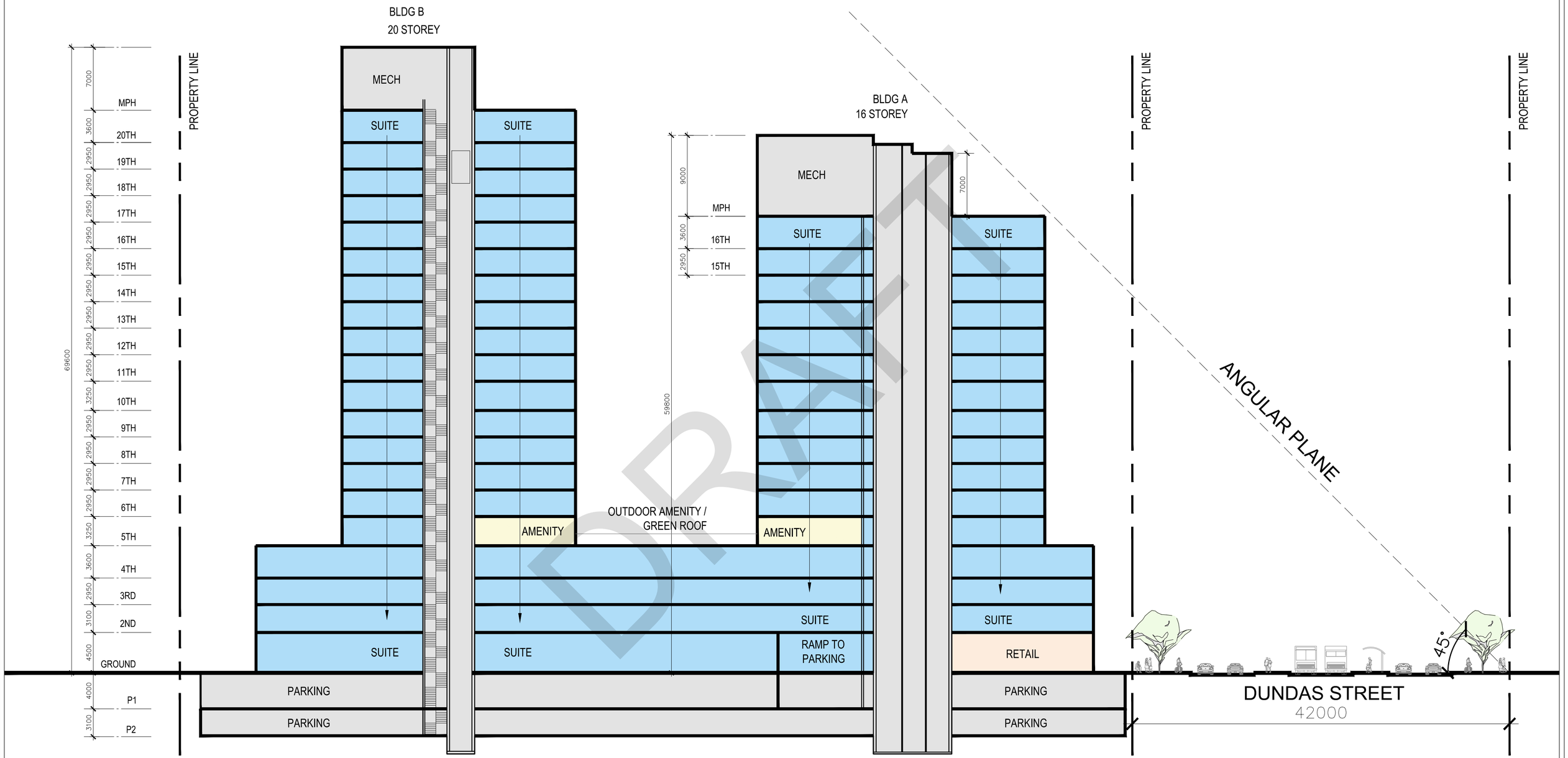


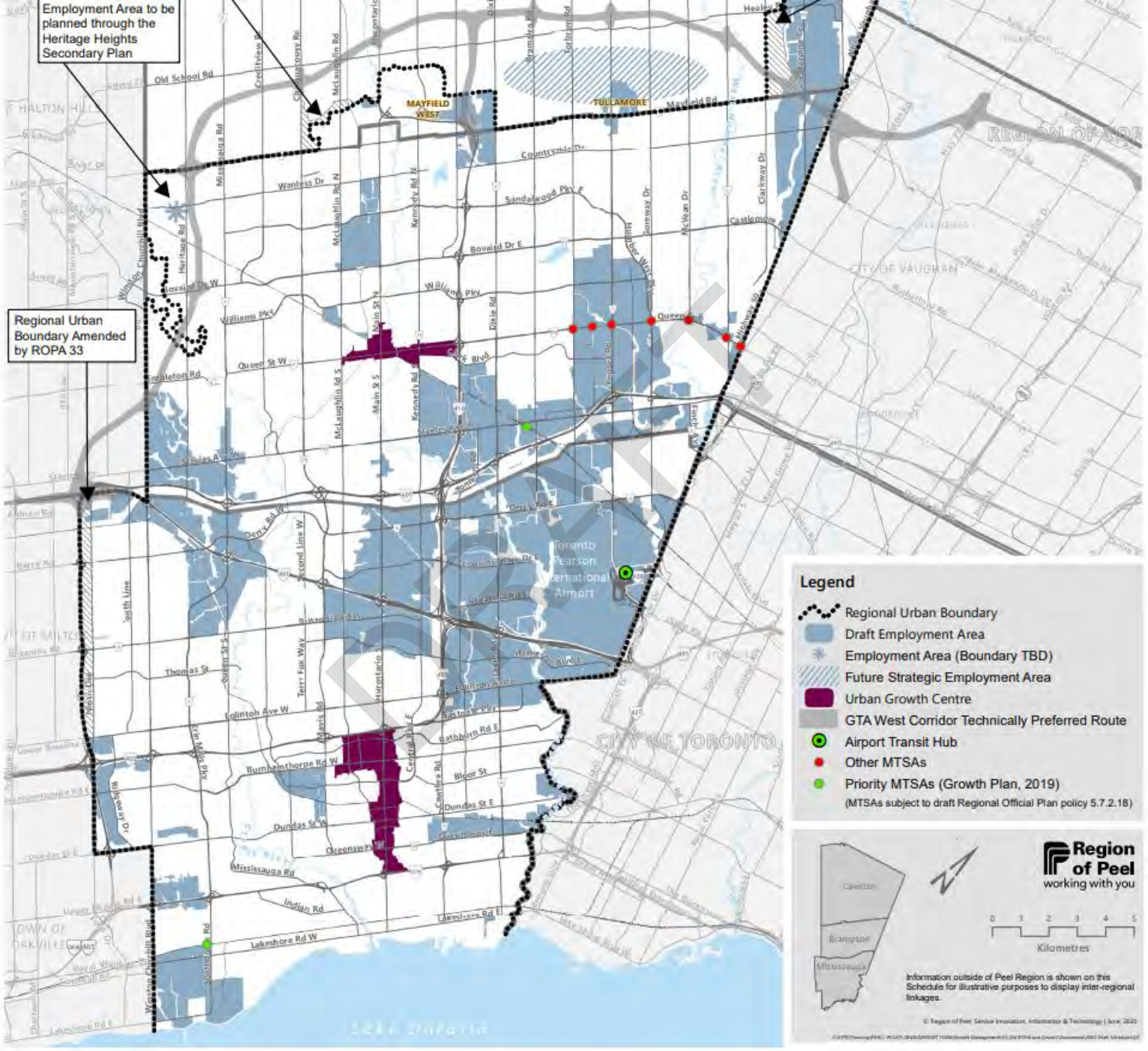
PRELIMINARY

WZMH ARCHITECTS	1000-1024 DUNDAS MISSISSAUGA, Ontario	BUILDING SECTION	Project No: 07395.000 / Date AUGUST 23, 2021 Scale: 1:300 / Drawing No: 10

PRELIMINARY

WZMH ARCHITECTS		1000-1024 DUNDAS MISSISSAUGA, Ontario	3D IMAGES	Project No: 07395.000 / Date AUGUST 23, 2021 Scale: NTS / Drawing No: 11

Appendix C


Employment Area to be planned through the Heritage Heights Secondary Plan
Regional Urban Boundary Amended by ROPA 33
MAYFIELD WEST
TULLAMORE
Toronto Pearson International Airport
CITY OF VAUGHAN
CITY OF TORONTO
Lake Ontario
Legend
Regional Urban Boundary
Draft Employment Area
Employment Area (Boundary TBD)
Future Strategic Employment Area
Urban Growth Centre
GTA West Corridor Technically Preferred Route
Airport Transit Hub
Other MTSAs
Priority MTSAs (Growth Plan, 2019)
(MTSAs subject to draft Regional Official Plan policy 5.7.2.18)
Region of Peel
working with you
Caledon
Brampton
Mississauga
0 1 2 3 4 5
Kilometres
Information outside of Peel Region is shown on this Schedule for illustrative purposes to display inter-regional linkages.

Appendix D


CLOSEOUT KING
EVERYTHING
50% OFF
Brand name clothing
Kitchenwares
Cosmetics
Toys

Appendix E

Appendix F


Google

Appendix G


935 DUNDAS ST. E.
For Rent

Appendix H

Appendix I


DRAFT

PRELIMINARY CONCEPT - OPTION 3

URBAN FARM

VIEWING PLATFORM

RUNNING TRACK

LOUNGE AREA

POOL & LOUNGE ARE

CHILDREN'S AREA

OPEN LAWN

PET AREA

BBQ AND LOUNGE

PRIVATE BBQ AND LOUNGE

CO-WORKING SPACE

APPENDIX E

Andrew Lambert

From: Rail Data Requests <RailDataRequests@metrolinx.com>
Sent: Thursday, December 2, 2021 8:44 AM
To: Amy Patenaude
Cc: Andrew Lambert
Subject: RE: 1000-1024 Dundas Street East - RWDI project number 2200461

Good morning Amy,

Further to your request dated November 30, 2021, the subject lands (1000-1024 Dundas Street East, Toronto) are located within 300 metres of the CP Galt Subdivision (which carries Milton GO rail service).

It's anticipated that GO rail service on this Subdivision will be comprised of diesel trains. The GO rail fleet combination on this Subdivision will consist of up to 1 locomotive 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 44 trains. The planned detailed trip breakdown is listed below:

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

The current track design speed near the subject lands is 70 mph (113 km/h).

There are *anti-whistling by-laws* in affect at Haines Road, Stanfield Road, and Loreland Avenue at-grade crossings.

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.

Best regards,
Harrison Rong
Project Coordinator, Third Party Projects Review
Metrolinx
20 Bay Street | Suite 600 | Toronto | Ontario | M5J 2W3

From: Amy Patenaude <Amy.Patenaude@rwdi.com>
Sent: November 30, 2021 2:16 PM
To: Rail Data Requests <RailDataRequests@metrolinx.com>
Cc: Andrew Lambert <Andrew.Lambert@rwdi.com>
Subject: 1000-1024 Dundas Street East - RWDI project number 2200461

Good Day,

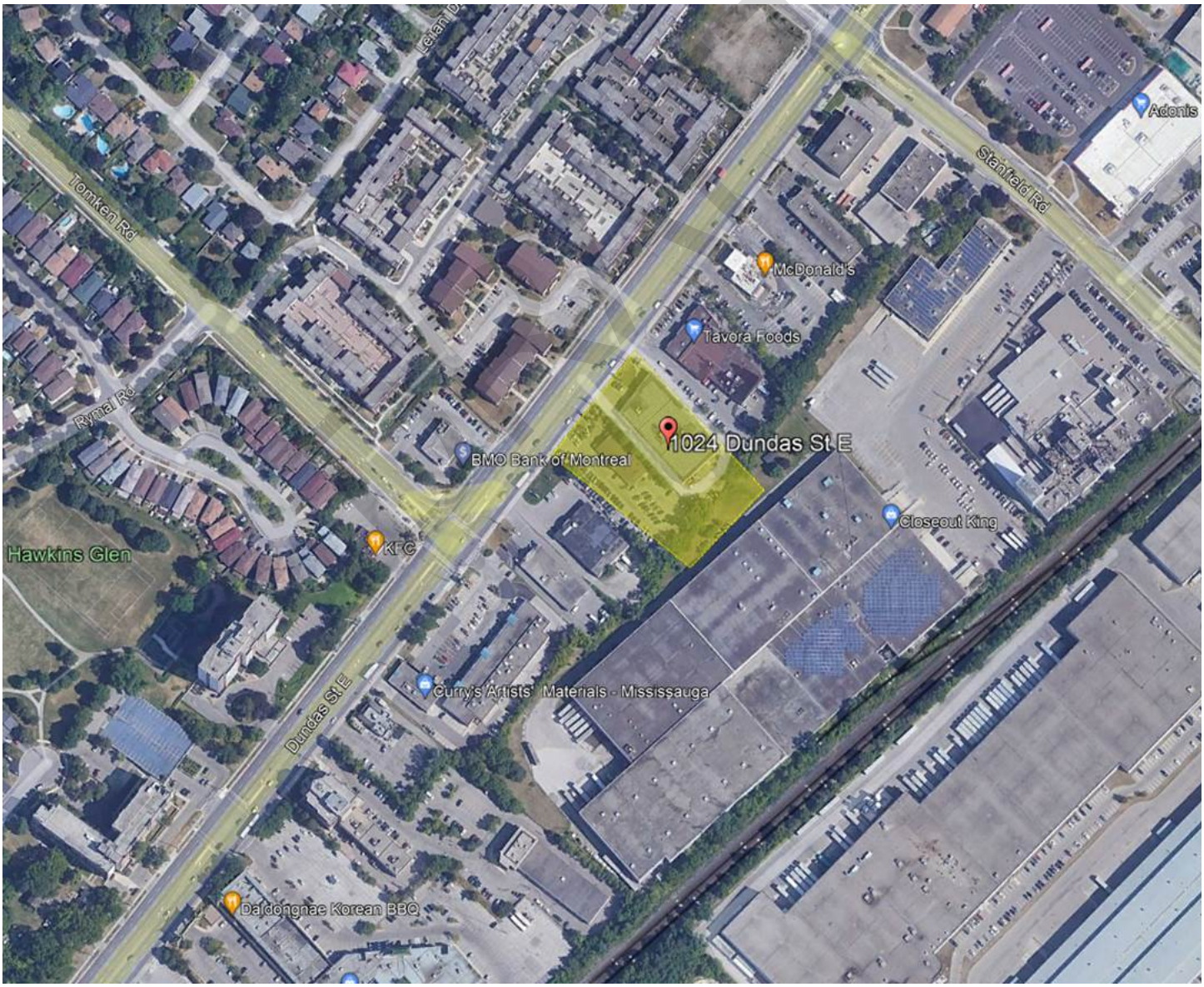
We are doing a noise study for the above-noted property and require the following information:

- Growth rate per annum for a 10-year period
- Day and night train volumes
- Average number of cars per train
- Number of Locomotives per train
- Maximum permissible speed
- Whistles used at crossings in the area
- Type of track (continuously welded, or jointed)
- Any idling of locomotive in the vicinity, and approximate duration of idling

If you could provide us an estimated turnaround time for data, it would be much appreciated.

Thank you.

Amy



Amy Patenaude | Senior Technical/Administrative Assistant
Americas Noise/Acoustics/Vibration
RWDI
600 Southgate Drive, Guelph, ON N1G 4P6 Canada
Direct Line: 226-314-1280
Office Tel: (519) 823-1311 ext 2393 | Fax: (519) 823-1316
rwdi.com

Turning Movement Count - Details Report

Location..... CONSTITUTION BLVD @ DUNDAS ST E / STANFIELD RD

Municipality..... Mississauga

Road 1 CONSTITUTION BLVD **Road 2** DUNDAS ST E / STANFIELD RD

Count Date..... Thursday, February 13, 2014

		North Approach					South Approach					East Approach					West Approach				
Time Period		LT	TH	RT	Heavy	TOT	LT	TH	RT	Heavy	TOT	LT	TH	RT	Heavy	TOT	LT	TH	RT	Heavy	TOT
07:00	07:15	11	11	3	2	25	20	9	26	13	55	20	97	7	15	124	4	383	21	13	408
07:15	07:30	26	12	4	1	42	24	4	13	8	41	23	105	2	12	130	5	419	40	21	464
07:30	07:45	15	15	4	4	34	24	7	14	10	45	22	157	5	20	184	2	405	46	14	453
07:45	08:00	23	10	10	3	43	16	17	30	8	63	41	144	6	18	191	4	451	38	26	493
08:00	08:15	10	15	7	2	32	24	12	15	6	51	34	153	9	17	196	5	331	51	22	387
08:15	08:30	10	7	4	1	21	19	9	18	1	46	30	155	10	11	195	4	348	49	18	401
08:30	08:45	13	8	7	0	28	25	13	25	4	63	34	164	14	24	212	6	380	50	21	436
08:45	09:00	10	11	9	6	30	30	16	27	9	73	41	173	15	28	229	14	370	53	25	437
11:00	11:15	7	7	6	0	20	19	9	14	7	42	5	239	3	17	247	2	248	14	14	264
11:15	11:30	12	11	2	0	25	18	18	28	9	64	25	250	9	22	284	9	278	25	18	312
11:30	11:45	12	8	5	1	25	40	17	40	8	97	21	259	15	29	295	10	258	21	17	289
11:45	12:00	11	8	3	1	22	40	17	30	9	87	20	246	6	24	272	13	299	30	23	342
12:00	12:15	14	4	6	1	24	44	17	36	8	97	21	256	7	13	284	11	257	28	15	296
12:15	12:30	9	11	4	1	24	25	10	31	4	66	32	276	9	23	317	10	281	31	16	322
12:30	12:45	9	9	7	0	25	40	17	21	6	78	33	242	14	20	289	18	249	20	17	287
12:45	13:00	13	12	2	0	27	40	11	19	10	70	38	260	11	16	309	8	252	25	11	285
13:00	13:15	14	8	7	0	29	29	12	19	9	60	42	271	10	35	323	13	237	34	22	284
13:15	13:30	16	17	3	2	36	20	11	25	11	56	30	273	8	30	311	8	246	19	24	273
13:30	13:45	7	9	4	0	20	17	9	21	7	47	32	262	8	23	302	10	232	22	21	264
13:45	14:00	8	7	3	1	18	28	11	21	6	60	33	270	8	29	311	7	239	28	23	274
15:00	15:15	8	11	4	0	23	33	16	21	1	70	22	329	14	16	365	4	221	27	10	252
15:15	15:30	5	15	9	3	29	56	22	23	11	101	25	347	20	15	392	8	233	27	16	268
15:30	15:45	29	12	4	1	45	66	37	43	6	146	40	355	15	25	410	20	313	14	24	347
15:45	16:00	17	10	4	4	31	46	35	23	8	104	29	330	15	26	374	11	314	35	20	360
16:00	16:15	30	13	5	0	48	43	22	54	10	119	39	467	19	21	525	10	321	12	29	343
16:15	16:30	23	24	1	1	48	57	31	37	6	125	35	372	24	16	431	14	285	30	20	329
16:30	16:45	14	20	3	0	37	51	34	24	6	109	34	419	12	23	465	10	252	26	18	288
16:45	17:00	17	15	4	1	36	43	33	28	4	104	27	443	19	24	489	17	285	18	16	320
17:00	17:15	18	22	1	2	41	61	30	29	2	120	29	452	9	15	490	8	335	27	18	370
17:15	17:30	16	15	2	0	33	57	28	30	18	115	23	418	15	16	456	9	284	38	17	331
17:30	17:45	17	8	5	1	30	39	18	32	5	89	21	425	19	17	465	9	273	27	10	309
17:45	18:00	11	12	3	2	26	39	13	26	6	78	27	422	14	20	463	8	269	29	22	306
Total	.....	455	377	145	41	977	1133	565	843	236	2541	928	9031	371	660	10330	291	9548	955	601	10794

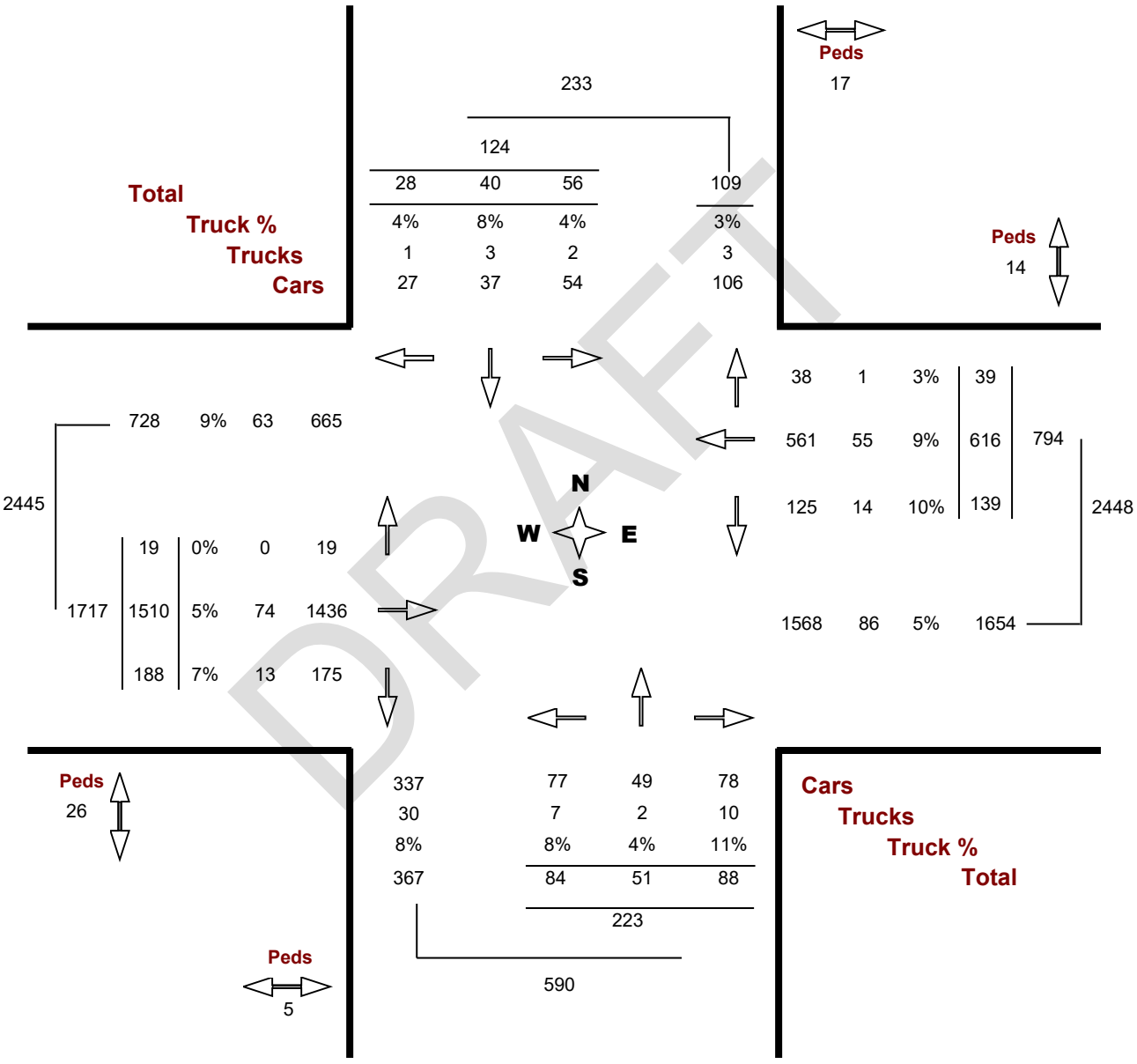
Turning Movements Report - AM Period

Location..... CONSTITUTION BLVD @ DUNDAS ST E / STANFIELD RD

Municipality..... Mississauga **GeoID.....** 350932

Count Date..... Thursday, 13 February, 2014 **Peak Hour.....** 07:45 AM — 08:45 AM

Road 1 CONSTITUTION BLVD **Road 2** DUNDAS ST E / STANFIELD RD



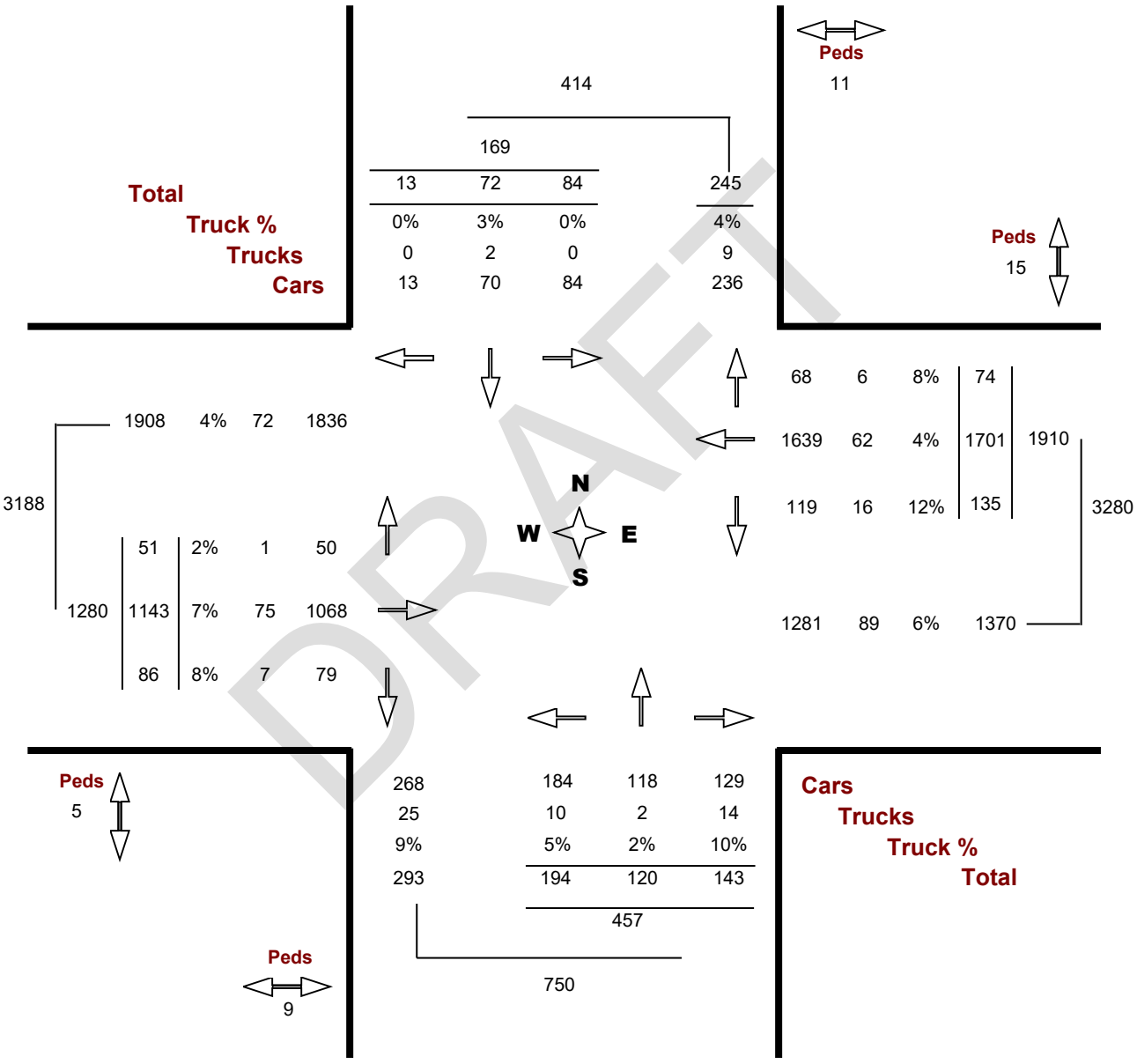
Turning Movements Report - PM Period

Location..... CONSTITUTION BLVD @ DUNDAS ST E / STANFIELD RD

Municipality..... Mississauga **GeoID.....** 350932

Count Date..... Thursday, 13 February, 2014 **Peak Hour.....** 04:00 PM — 05:00 PM

Road 1 CONSTITUTION BLVD **Road 2** DUNDAS ST E / STANFIELD RD



Turning Movement Count - Details Report

Location..... DUNDAS ST E @ TOMKEN RD

Municipality..... Mississauga

Road 1 TOMKEN RD **Road 2** DUNDAS ST E

Count Date..... Thursday, February 06, 2014

		North Approach					South Approach					East Approach					West Approach				
Time Period		LT	TH	RT	Heavy	TOT	LT	TH	RT	Heavy	TOT	LT	TH	RT	Heavy	TOT	LT	TH	RT	Heavy	TOT
07:00	07:15	63	2	44	3	109	0	0	0	0	0	2	88	27	5	117	38	238	2	12	278
07:15	07:30	67	1	36	5	104	0	0	0	0	0	5	99	39	7	143	39	302	1	15	342
07:30	07:45	80	2	69	6	151	0	0	1	0	1	0	115	70	14	185	65	354	1	10	420
07:45	08:00	88	2	49	7	139	0	0	1	1	1	1	109	44	11	154	55	389	0	13	444
08:00	08:15	78	2	63	8	143	0	2	2	0	4	0	123	50	9	173	80	403	0	14	483
08:15	08:30	86	4	73	2	163	3	1	2	0	6	0	139	55	12	194	75	378	2	13	455
08:30	08:45	69	0	64	5	133	0	1	9	0	10	4	172	49	15	225	47	414	3	23	464
08:45	09:00	86	4	56	8	146	0	0	3	0	3	2	188	49	21	239	67	397	2	19	466
11:00	11:15	45	4	28	0	77	6	7	12	1	25	5	189	26	19	220	24	232	5	6	261
11:15	11:30	50	0	55	7	105	4	3	11	0	18	5	198	44	18	247	42	264	8	16	314
11:30	11:45	62	2	40	5	104	1	3	6	0	10	10	253	37	13	300	50	219	4	13	273
11:45	12:00	71	4	41	7	116	2	2	4	0	8	8	253	42	12	303	53	228	4	16	285
12:00	12:15	82	5	73	3	160	4	3	7	0	14	5	258	60	9	323	47	271	4	16	322
12:15	12:30	52	7	55	2	114	0	3	8	0	11	7	251	59	20	317	50	317	3	21	370
12:30	12:45	95	3	78	2	176	6	5	7	0	18	7	311	62	16	380	44	300	4	16	348
12:45	13:00	85	7	46	8	138	2	1	4	0	7	4	257	50	9	311	35	289	5	22	329
13:00	13:15	51	2	57	0	110	11	4	10	0	25	7	282	49	21	338	39	252	11	19	302
13:15	13:30	68	3	56	2	127	5	2	8	0	15	0	283	54	17	337	45	262	11	18	318
13:30	13:45	73	4	55	4	132	10	2	7	0	19	3	267	57	13	327	43	278	4	16	325
13:45	14:00	75	3	54	9	132	8	4	9	0	21	5	298	46	19	349	38	271	5	17	314
15:00	15:15	80	7	65	6	152	10	4	17	2	31	8	309	72	21	389	51	300	6	24	357
15:15	15:30	90	2	60	5	152	11	6	9	0	26	8	293	72	14	373	56	254	11	15	321
15:30	15:45	76	5	48	8	129	14	6	12	0	32	6	315	57	15	378	55	258	13	19	326
15:45	16:00	71	2	65	5	138	3	1	4	0	8	7	335	62	20	404	67	243	6	18	316
16:00	16:15	86	3	65	5	154	11	7	12	0	30	11	356	77	15	444	65	259	9	19	333
16:15	16:30	66	3	49	5	118	9	6	17	3	32	8	337	67	17	412	68	246	7	4	321
16:30	16:45	81	4	65	4	150	6	2	10	1	18	4	402	96	18	502	79	285	10	19	374
16:45	17:00	81	3	59	7	143	6	3	10	0	19	11	369	94	16	474	77	261	7	14	345
17:00	17:15	74	6	70	5	150	14	8	18	2	40	8	414	89	13	511	64	271	20	10	355
17:15	17:30	78	9	72	7	159	11	4	16	3	31	9	393	98	15	500	62	251	8	6	321
17:30	17:45	73	2	64	6	139	0	0	0	0	0	10	412	81	18	503	63	240	18	9	321
17:45	18:00	59	4	50	5	113	3	1	8	0	12	6	384	68	14	458	57	231	4	10	292
Total	.....	2341	111	1824	161	4276	160	91	244	13	495	176	8452	1902	476	10530	1740	9157	198	482	11095

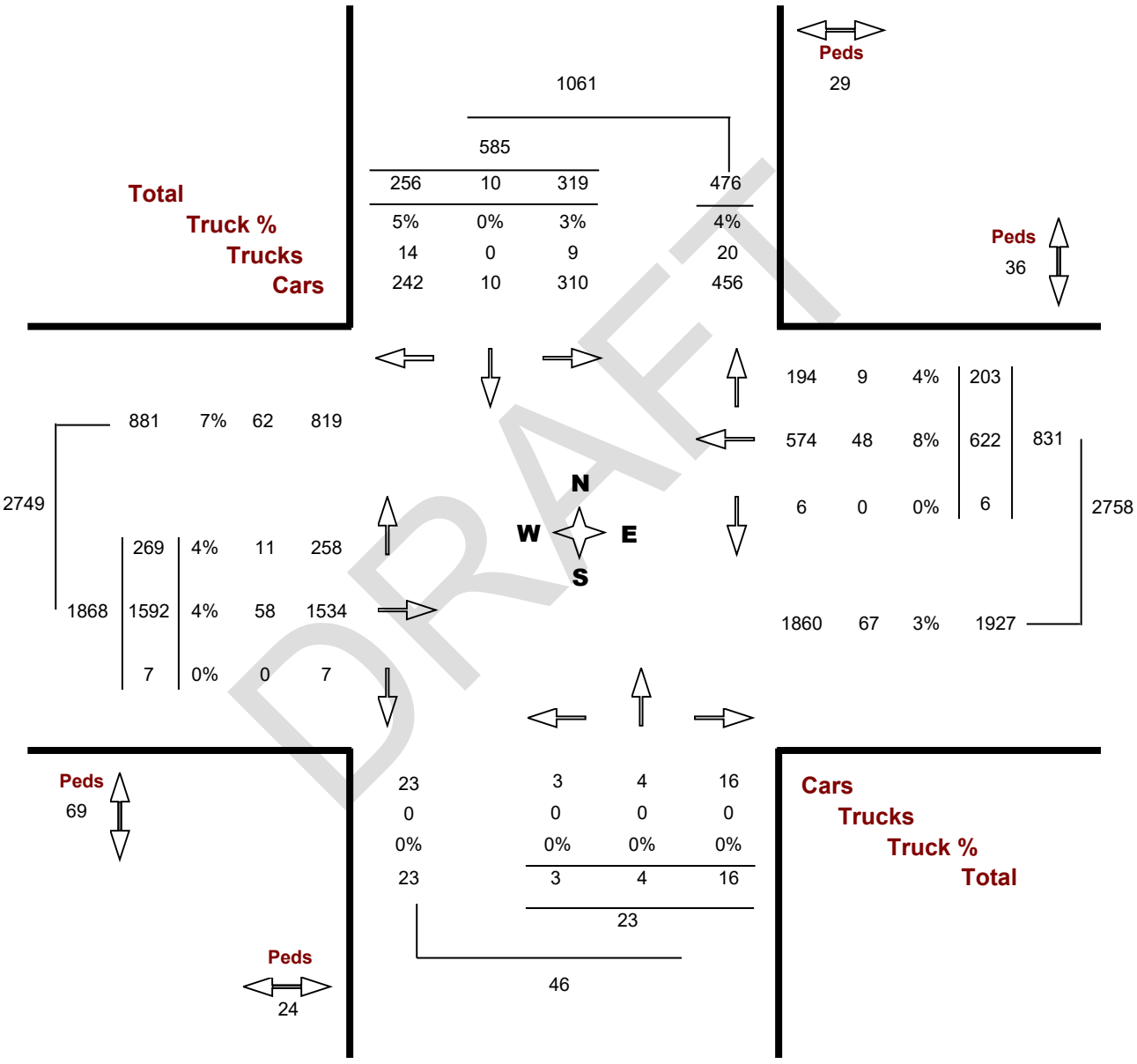
Turning Movements Report - AM Period

Location..... DUNDAS ST E @ TOMKEN RD

Municipality..... Mississauga **GeoID.....** 350812

Count Date..... Thursday, 06 February, 2014 **Peak Hour.....** 08:00 AM — 09:00 AM

Road 1 TOMKEN RD **Road 2** DUNDAS ST E



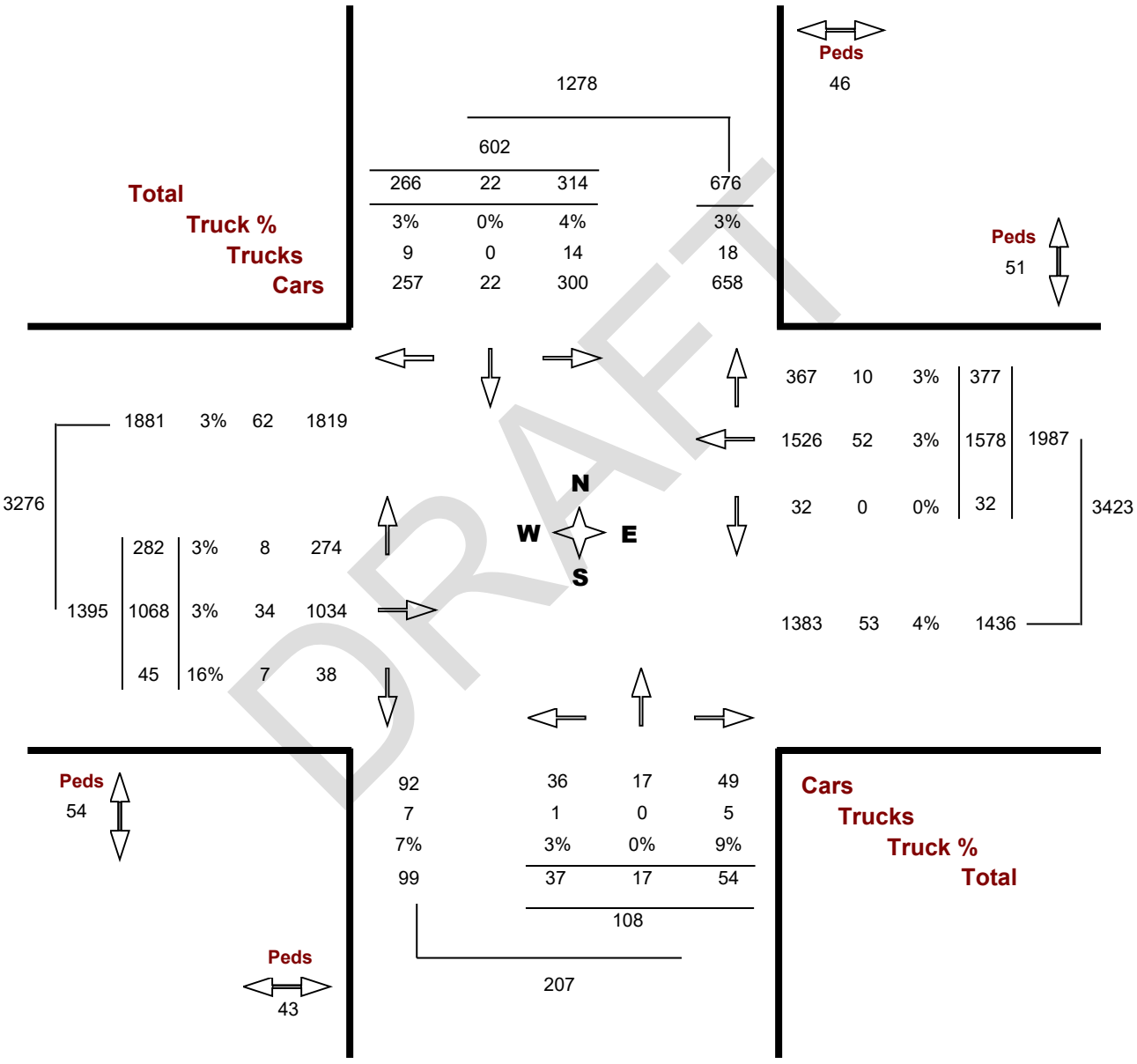
Turning Movements Report - PM Period

Location..... DUNDAS ST E @ TOMKEN RD

Municipality..... Mississauga **GeoID.....** 350812

Count Date..... Thursday, 06 February, 2014 **Peak Hour.....** 04:30 PM — 05:30 PM

Road 1 TOMKEN RD **Road 2** DUNDAS ST E



From: Tyler Xuereb <Tyler.Xuereb@mississauga.ca>
Sent: Friday, November 26, 2021 1:56 PM
To: James Emerson
Subject: RE: Dundas Street Growth Rates

Hi James,

Below are the recommended growth rates to be used along Dundas Street and Tomken Road.

Dundas Street

	Compounded Annual Growth from Existing to 2026	
	EB	WB
AM Peak	0.5%	1.5%
PM Peak	0.5%	1.0%

	Compounded Annual Growth from 2026 to 2031	
	EB	WB
AM Peak	-6.0%	-4.5%
PM Peak	-5.0%	-6.0%

Tomken Road

	Compounded Annual Growth from Existing to 2026	
	NB	SB
AM Peak	2.0%	3.0%
PM Peak	3.0%	2.0%

Compounded Annual Growth from 2026 to 2031

	NB	SB
AM Peak	1.0%	0.0%
PM Peak	0.0%	2.0%

Note:

In regards to the compounded annual growth rates from existing to 2026 on Tomken Road, our travel demand model is forecasting approximately an additional 200 vehicles in the NB and SB directions for both AM and PM peak periods. Based on our observed count data it shows approximately 600-700 vehicles along Tomken Road and assuming this additional 200 vehicles we have calculated the above growth rates.

Regards,

Tyler Xuereb
Transportation Planning Analyst
T 905-615-3200 ext.4783
Tyler.xuereb@mississauga.ca

City of Mississauga | Transportation and Works Department,
Infrastructure Planning and Engineering Services Division

Please consider the environment before printing.

From: James Emerson <James.Emerson@ghd.com>
Sent: Wednesday, November 24, 2021 6:36 PM
To: Tyler Xuereb <Tyler.Xuereb@mississauga.ca>
Cc: Will Maria <William.Maria@ghd.com>
Subject: RE: Dundas Street Growth Rates

Hi Tyler,

Sorry to keep asking about this but we've had an update to our TOR :
"Upon further review and discussion with the BRT project team, please include 5 year (pre-BRT & full moves access) and 10 year (post BRT & RIRO access) horizon scenarios from the date of the report. "

So could we get the growth rates for Dundas and Tomken up to 2031?

James Emerson
Civil Engineering EIT
Engineering Assistant, Transportation Planning

GHD
GHD - Proudly employee-owned | ghd.com
111 Brunel Road Suite 200, Mississauga, ON L4X 1Z3
D +1 905 814-4412 **E** James.Emerson@ghd.com

Connect

Please consider the environment before printing this email

From: Tyler Xuereb <Tyler.Xuereb@mississauga.ca>
Sent: Tuesday, November 23, 2021 12:21 PM
To: Will Maria <William.Maria@ghd.com>
Cc: James Emerson <James.Emerson@ghd.com>
Subject: RE: Dundas Street Growth Rates

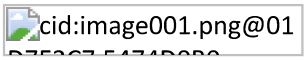
Hi Will,

Thank you for your email.

BRT operation is not set to take place until 2028 at the earliest, I advised James that the BRT would be included in the growth rates when he first requested rates for 2029. Since the new horizon year is 2026 BRT will not be included.

In addition, I had to make some adjustment in our model and will send you new growth rates hopefully by end of day tomorrow.

Regards,



Tyler Xuereb
Transportation Planning Analyst
T 905-615-3200 ext.4783
Tyler.xuereb@mississauga.ca

City of Mississauga | Transportation and Works Department,
Infrastructure Planning and Engineering Services Division

Please consider the environment before printing.

From: Will Maria <William.Maria@ghd.com>
Sent: Monday, November 22, 2021 5:49 PM
To: Tyler Xuereb <Tyler.Xuereb@mississauga.ca>; Michael Turco <Michael.Turco@mississauga.ca>
Cc: James Emerson <James.Emerson@ghd.com>
Subject: Dundas Street Growth Rates

Hi Tyler, we received the growth rates for Dundas Street from you for the area between Tomken and Stanfield.
I was surprised to see that there was not reduction in traffic volumes along Dundas Street once the BRT is implemented like we see along Hurontario Street.
We have a six lane road that is being reduced to four lanes.
Existing 2016 traffic volumes show upwards of 1700 trips along Dundas Street in the peak direction on travel lanes.

If we continue to grow this traffic to 2026 and reduce the lanes from three to two, I'm not sure how the existing signalized intersections are going to be able to accommodate the future volume of traffic considering the volume surpasses the theoretical capacity of two arterial travel lanes.
Can you confirm that the modelling does not anticipate a reduction in traffic volumes to account for the reduction if travel lanes due to the BRT.
Thanks,

Will

William C. Maria, P.Eng.
Transportation Planning Lead

GHD Ltd.
T: 905 814 4397 | C: 647 229 8541 | V: 881397 | F: 905 890 8499 | E: will.maria@ghd.com
6705 Millcreek Drive Unit 1 Mississauga ON L5N 5M4 | **www.ghd.com**
WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

From: Tyler Xuereb <Tyler.Xuereb@mississauga.ca>
Sent: Friday, November 19, 2021 1:39 PM
To: James Emerson <James.Emerson@ghd.com>
Subject: RE: TMC-City of Mississauga

Hi James,

Below are the recommended growth rates compounded annually from existing to 2026 for Dundas Street and Tomken Road.

Dundas Street

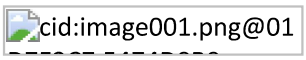
	Compounded Annual Growth from Existing to 2026	
	EB	WB
AM Peak	1.0%	1.0%
PM Peak	0.5%	1.0%

Tomken Road

	Compounded Annual Growth from Existing to 2026	
	NB	SB
AM Peak	2.5%	3.5%

PM Peak	3.0%	2.0%

Regards,



Tyler Xuereb
Transportation Planning Analyst
T 905-615-3200 ext.4783
Tyler.xuereb@mississauga.ca

City of Mississauga | Transportation and Works Department,
Infrastructure Planning and Engineering Services Division

Please consider the environment before printing.

STAMSON 5.0 NORMAL REPORT Date: 26-04-2022 12:01:28
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 1024dnds.te Time Period: 1 hours
Description: Dundas Street Facade, inclusive of road widening plans

Road data, segment # 1: Dundas EB

Car traffic volume : 416 veh/TimePeriod
Medium truck volume : 8 veh/TimePeriod
Heavy truck volume : 12 veh/TimePeriod
Posted speed limit : 60 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Dundas EB

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 15.00 m
Receiver height : 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: Dundas WB

Car traffic volume : 416 veh/TimePeriod
Medium truck volume : 8 veh/TimePeriod
Heavy truck volume : 12 veh/TimePeriod
Posted speed limit : 60 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 2: Dundas WB

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 32.00 m
Receiver height : 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Dundas EB

Source height = 1.29 m

ROAD (0.00 + 64.79 + 0.00) = 64.79 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	64.79	0.00	0.00	0.00	0.00	0.00	0.00	64.79

Segment Leq : 64.79 dBA

Results segment # 2: Dundas WB

Source height = 1.29 m

ROAD (0.00 + 61.50 + 0.00) = 61.50 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	64.79	0.00	-3.29	0.00	0.00	0.00	0.00	61.50

Segment Leq : 61.50 dBA

Total Leq All Segments: 66.46 dBA

TOTAL Leq FROM ALL SOURCES: 66.46

APPENDIX F

Ontario

Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en matière de changement climatique

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL
NUMBER 9340-AHXLJM
Issue Date: January 31, 2017

Mother Parker's Tea & Coffee Inc.
2530 Stanfield Road
Mississauga, Ontario
L4Y 1S4

Site Location: 2530 Stanfield Road
Mississauga City, Regional Municipality of Peel
L4Y 1S4

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

- one (1) natural gas fired, batch type, green coffee bean roasting machine (Roaster #2), having a nominal roasting capacity of 2,000 kilograms per hour of green beans and a maximum heat input of 3,165,000 kilojoules per hour, equipped with; one (1) natural gas fired catalytic afterburner (source R2-Y1), having a maximum heat input of 989,500 kilojoules per hour; one (1) green bean charging station (source R2-Y3); and one (1) cooling dry type cyclone (source R2-Y2), venting into the air as per Schedule "A";

- one (1) natural gas fired, batch type, green coffee bean roasting machine (Roaster #3), having a nominal roasting capacity of 4,535 kilograms per hour of green beans and a maximum heat input of 8,927,410 kilojoules per hour, equipped with; one (1) natural gas fired catalytic afterburner (sources R3-Y1), having a maximum heat input of 4,167,250 kilojoules per hour; one (1) green bean charging station (source R3-Y3); one (1) cooling conveyor/quench exhaust dry type cyclone (source R3-Y2) and one (1) secondary heat exhaust (source R3-Y5); venting into the air as per Schedule "A";

- one (1) reverse air type baghouse dust collector (source DC-3, to control emissions from a coffee roaster (Roaster #3) equipped with 63.33 square metres of polyester coated needle felt filter bags, venting into the air as per Schedule "A";

- one (1) natural gas fired, batch type, green coffee bean roasting machine (Roaster #4), having a nominal roasting capacity of 2,500 kilograms per hour of green beans and a maximum heat input of 4,386,100 kilojoules per hour, equipped with; one (1) natural gas fired afterburner (source R4-Y1), having a maximum heat input of 2,214,130 kilojoules per hour; one (1) green bean charging station and dry type cyclone (source R4-Y2); one (1) cooling and destoning dry type cyclone (source R4-Y4); and one (1) heat recovering unit and dry type cyclone (source R4-Y10), venting into the air as per Schedule "A";

- one (1) natural gas fired, batch type, green coffee bean roasting machine (Roaster #5), having a nominal roasting capacity of 1,200 kilograms per hour of green beans and a maximum heat input of 2,584,750 kilojoules per hour, equipped with; one (1) natural gas fired afterburner (source R5-Y1), having a maximum heat input of 896,750 kilojoules per hour; one (1) green bean charging station and dry type cyclone (source R5-Y3); one (1) cooling dry type cyclone (source R5-Y2); and one (1) destoning dry type cyclone (source R5-Y4), venting into the air as per Schedule "A";

- one (1) reverse air type baghouse dust collector (source DC-1, to control emissions from a coffee chaff collection system that serves four (4) coffee roasters, equipped with 18.48 square metres of polyester needle felt filter bags, venting into the air as per Schedule "A";

all in accordance with the Application for Approval (Air & Noise) submitted by Mother Parker's Tea & Coffee Inc. dated June 15, 2016, and Adrian Khan, and all supporting information associated with the application.

SCHEDULE "A"

Source ID	Description	Flow Rate (cubic metre per second)	Exit Diameter (metre)	Height Above Roof (metre)	Height Above Grade (metre)
Roaster Machine #2					
R2-Y1	Catalytic Afterburner Exhaust	0.89	0.71	21.8	32.7
R2-Y2	Cooling Cyclone Exhaust	5.0	0.71	19.9	30.8
R2-Y3	Green Bean Exhaust	0.19	0.32	1.3	29.7
Roaster Machine #3					
R3-Y1	Catalytic Afterburner Exhaust	2.6	0.76	2.7	21.2
R3-Y2	Cooling Conveyor Cyclone Exhaust	7.78	1.12	3.3	21.8
R3-Y3	Green Bean Exhaust	0.47	0.34	1.9	20.4
DC-3	Baghouse Dust Collector Exhaust	0.73	0.43	1.6	20.1
Roaster Machine #4					
R4-Y1	Afterburner Exhaust	0.86	0.63	5.1	16.0
R4-Y2	Cooling Cyclone Exhaust	5.06	1.1	29	13.8
R4-Y4	Destoning Cyclone Exhaust	3.01	0.73	2.2	13.1
R4-Y10	Green Bean Pre Warming Cyclone Exhaust	0.89	0.32	3.5	14.4
Roaster Machine #5					
R5-Y1	Afterburner Exhaust	1.9	0.32	8.6	15.4
R5-Y2	Cooling Cyclone Exhaust	2.48	0.54	3.82	10.6
R5-Y3	Green Bean Cyclone Exhaust	0.15	0.20	3.05	9.8
R5-Y4	Destoning Cyclone Exhaust	1.33	0.36	3.05	9.8
Chaff Collection System					
DC-1	Baghouse Dust Collector Exhaust	0.73	0.25	-	16.3

For the purpose of this environmental compliance approval, the following definitions apply:

1. "Approval" means this Environmental Compliance Approval, including the application and supporting documentation listed above.

2. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with Ministry noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a Facility.

3. "Acoustic Audit" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the Facility, assessed to determine compliance with the Performance Limits for the Facility regarding noise emissions, completed in accordance with the procedures set in Publication NPC-103 and reported in accordance with Publication NPC-233.

4. "Acoustic Audit Report" means a report presenting the results of an Acoustic Audit, prepared in

accordance with Publication NPC-233.

5. "Company" means Mother Parker's Tea & Coffee Inc., that is responsible for the construction or operation of the Facility and includes any successors and assigns.

6. "District Manager" means the District Manager of the appropriate local district office of the Ministry, where the Facility is geographically located.

7. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended.

8. "Equipment" means the equipment described in the Company's application, this Approval and in the supporting documentation submitted with the application, to the extent approved by this Approval.

9. "Facility" means the entire operation located on the property where the Equipment is located.

10. "Independent Acoustical Consultant" means an Acoustical Consultant who is not representing the Company and was not involved in preparing the Acoustic Assessment Report or the design/implementation of Noise Control Measures for the Facility and/or Equipment. The Independent Acoustical Consultant shall not be retained by the Acoustical Consultant involved in the noise impact assessment or the design/implementation of Noise Control Measures for the Facility and/or Equipment.

11. "Manual" means a document or a set of documents that provide written instructions to staff of the Company.

12. "Ministry" means the ministry of the government of Ontario responsible for the EPA and includes all officials, employees or other persons acting on its behalf.

13. "Publication NPC-103" means the Ministry Publication NPC-103 of the Model Municipal Noise Control By-Law, Final Report, August 1978, published by the Ministry as amended.

14. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995 as amended.

15. "Publication NPC-300" means the Ministry Publication NPC-300, "Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning, Publication NPC-300", August, 2013, as amended.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. The Company shall ensure that the Equipment is properly operated and maintained at all times. The Company shall:

(1) prepare, not later than three (3) months after the date of this Certificate, and update, as necessary, a Manual outlining the operating procedures and a maintenance program for the Equipment, including:

(a) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;

(b) emergency procedures;

(c) frequency of inspection and replacement of the filter material in the Equipment;

(d) procedures for any record keeping activities relating to operation and maintenance of the Equipment; and

(e) all appropriate measures to minimize fugitive dust and odorous emissions from all potential sources;

(2) implement the recommendations of the Manual; and

(3) retain, for a minimum of two (2) years from the date of their creation, all records on the maintenance, repair and inspection of the Equipment, and make these records available for review by staff of the Ministry upon request.

RECORD RETENTION

2. The Company shall retain, for a minimum of two (2) years from the date of their creation, all records and information related to or resulting from the recording activities required by this Certificate, and make these records available for review by staff of the Ministry upon request. The Company shall retain:

(1) all records on the maintenance, repair and inspection of the Equipment;

(2) the log book which contains all records on the preventative and control measures implemented for each source of fugitive dust emission identified in the Best Management Practices Plan;

(3) all records on the environmental complaints; including:

(a) a description, time, date and location of each incident;

(b) wind direction and other weather conditions at the time of the incident;

(c) the name(s) of Company personnel responsible for handling the incident;

(d) the cause of the incident;

(e) the Company response to the incident; and

(f) a description of the measures taken to address the cause of the incident and to prevent a similar occurrence in the future, and the outcome of the measures taken.

NOTIFICATION OF COMPLAINTS

3. The Company shall notify the District Manager, in writing, of each environmental complaint within two (2) business days of the complaint. The notification shall include:

(1) a description of the nature of the complaint;

(2) the time, date and location of the incident;

(3) the wind direction and other weather conditions at the time of the incident; and

(4) the name(s) of Company personnel responsible for handling the incident.

AFTERBURNERS

4.1 The Company shall ensure that the afterburners are operated to comply, at all times, with the following requirements:

(a) The temperature of a minimum 870 degrees Celsius is established in the dwell chamber of the afterburner and 450 degrees Celsius for the catalytic afterburner, before waste stream from the coffee roasting process is directed to the afterburner;

(b) The temperature in the dwell chambers, as measured by the thermocouple, is maintained at a minimum of 870 degrees Celsius (450 degrees Celsius for the catalytic afterburner), at a point representing minimum 1 second residence time at all times when the afterburners are in operation and waste stream gases are directed to the afterburners for destruction.

4.2 The Company shall continuously monitor and record the temperature in the dwell chambers, when the afterburners are in operation. The continuous temperature monitoring and recording system shall comply with the following requirements:

PARAMETER: Temperature
LOCATION: The sample point for the continuous temperature monitoring and recording shall be located at a location where the measurements are representative of the minimum temperature of the gases leaving the dwell chamber of the afterburner.
PERFORMANCE: The continuous temperature monitoring and recording system shall meet the following minimum performance specifications for the following parameters. **PARAMETERS/SPECIFICATION** 1. Type: Shielded "K" type thermocouple, or equivalent. 2. Accuracy: ± 1.5 percent of the minimum gas temperature.
DATA RECORDER: The data recorder must be capable of registering continuously the measurement of the monitor without a significant loss of accuracy and with a time resolution of 1 minute or better.
RELIABILITY: The monitor shall be operated and maintained so that accurate data is obtained during a minimum of 95 percent of the time for each calendar quarter.

NOISE

5.1 The Company shall, at all times after the completion of the Noise Abatement Action Plan in Schedule "B", ensure that the noise emissions from the Facility comply with the limits set out in Ministry Publication NPC-300.

NOISE ABATEMENT ACTION PLAN

6.1 The Company shall implement the Noise Abatement Action Plan described in Schedule "B".

6.2 The Company shall ensure that the Noise Abatement Action Plan shall achieve compliance of the noise emissions from the Facility with the limits set out in Ministry Publication NPC-300.

ACOUSTIC AUDIT

7.1 The Company shall carry out Acoustic Audit measurements on the actual noise emissions due to the operation of the Facility. The Company:

(a) shall carry out Acoustic Audit measurements in accordance with the procedures in Publication NPC-103;

(b) shall submit an Acoustic Audit Report on the results of the Acoustic Audit, prepared by an Independent Acoustical Consultant, in accordance with the requirements of Publication NPC-233, to the District Manager and the Director, not later than thirty-nine (39) months after the date of this Certificate.

7.2 The Director:

(a) may not accept the results of the Acoustic Audit if the requirements of Publication NPC-233 were not followed;

(b) may require the Company to repeat the Acoustic Audit if the results of the Acoustic Audit are found unacceptable to the Director.

SCHEDULE "B"

Noise Abatement Action Plan

The following Noise control measures shall be installed no later than 36 months following the issue date of this Approval:

An acoustic silencer shall be installed on each of the following sources (identification code as per Table B1 of the Acoustic Assessment Report) , capable of providing the following minimum decibel values of insertion loss in 1/1 octave bands:

		Centre Frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
Source	**Source ID**	**Minimum Insertion Loss, Decibels**							
Exhaust 130-11	130-11	3	14	24	25	23	16	-	-
Exhaust 162-11	162-11	5	14	22	24	22	15	2	-
Roaster Machine #3 Dust Collector/Filter	408-11	1	12	18	26	22	18	1	-
Exhaust 465-10	465-10	3	7	16	26	21	16	-	-
Chaff Collection Air Filter Exhaust	NS-06	1	12	18	26	22	18	1	-
Vacuum Pump Exhaust Pipe	NS-07	-	-	-	8	15	25	-	-
GL 1/2 Vacuum Pump Exhaust	NS-12	-	-	-	5	17	18	-	-
Vacuum Pump Exhaust	NS-52	-	-	-	5	25	6	-	-
Roaster Machine #2 Afterburner	R2-Y1	-	3	10	26	13	-	-	-
Roaster machine # 3 Afterburner	R3-Y1	-	13	18	27	22	16	-	-
Roaster Machine # 3	R3-Y2	8	16	19	26	25	18	1	-

Cooling Conveyor Cyclone									
Roaster Machine #4 Afterburner	R4-Y1	-	6	10	13	10	-	-	-
Roaster Machine #4 Cooling (Dust Collector)	R4-Y2	-	-	5	23	25	19	12	-
Roaster Machine #5 Cooling	R5-Y2	-	2	11	26	19	11	-	-

Post-Abatement Acoustic Audit;

Following the completion of the installation of the above noise control measures, an Acoustic Audit shall be performed and an Acoustic Audit Report shall be submitted as per Condition No. 7 of this Approval.

The reasons for the imposition of these terms and conditions are as follows:

1. Condition Nos. 1 and 2 are included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the Act, the Regulations and this Certificate.

2. Condition No. 3 is included to require the Company to notify staff of the Ministry so that compliance with the Act, the Regulations and this Certificate can be verified.

3. Condition No. 4.1 is included to outline the minimum requirements considered necessary to prevent an adverse effect resulting from the operation of the oven.

Condition No. 4.2 is included to require the Company to gather accurate information on a continuous basis so that the environmental impact and subsequent compliance with the Act, the regulations and this Certificate can be verified

4. Condition No. 5.1 is included to provide minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Facility/Equipment.

5. Condition No. 6 is included to require the Company to implement a Noise Abatement Action Plan designed to ensure that the noise emissions from the Facility will be in compliance with applicable limits set in the Ministry's noise guidelines.

6. Condition No. 7 is included to require the Company to gather accurate information and submit an Acoustic Audit Report in accordance with procedures set in the Ministry's noise guidelines, so that the environmental impact and subsequent compliance with this Certificate can be verified.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 5318-6SCNRC issued on August 28, 2006.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, 1993 , S.O. 1993, c. 28 (Environmental Bill of Rights), the Environmental Commissioner, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Environmental Commissioner will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

1. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The environmental compliance approval number;
6. The date of the environmental compliance approval;
7. The name of the Director, and;
8. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The Environmental Commissioner
1075 Bay Street, Suite 605
Toronto, Ontario
M5S 2B1

AND

The Director appointed for the purposes of Part II.1 of the Environmental Protection Act
Ministry of the Environment and Climate Change
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

This instrument is subject to Section 38 of the Environmental Bill of Rights, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at www.ebr.gov.on.ca , you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 31st day of January, 2017

Rudolf Wan, P.Eng.
Director
appointed for the purposes of Part II.1 of
the *Environmental Protection Act*

JK/
c: District Manager, MOECC Halton-Peel
Stuart Bailey, OSB Services