

# **Noise Feasibility Study**

## **Proposed Residential Development**

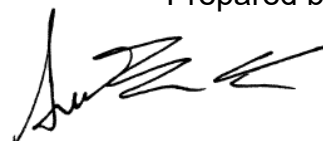
### **Wyndham Street and Main Street**

### **City of Mississauga, Ontario**

Prepared for:

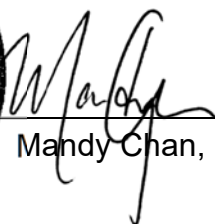
City Park (Main St.) Inc.  
950 Nashville Road  
Kleinburg, Ontario, L0J 1C0

Prepared by



Swetha Kulandaivelan, BAsC, EIT

and



Mandy Chan, PEng

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HGC Engineering Project Number: 01700353

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**Figure 1: Key Plan**

**Figure 2: Proposed Site Plan**

**Figure 3: Site Plan Showing Ventilation Requirements**

# 1 INTRODUCTION AND SUMMARY

HGC Engineering was retained by City Park Homes Inc. to perform a noise feasibility study for a proposed residential development located at the intersection of Wyndham Street and Main Street, in the City of Mississauga, Ontario. The residential development site is proposed to include 26 townhouse units. The analysis includes an assessment of road traffic noise of the proposed residential dwellings in accordance with Ministry of the Environment, Conservation and Parks (MECP) guidelines. The study is required by the City of Mississauga as part of the planning and approvals process.

This report reflects the latest version of the site plan prepared by Flanagan Beresford & Patterson Architects last revised October 8, 2019, and addresses comments received from the City of Mississauga, included as Appendix C.

Road traffic data was obtained through correspondence with the City of Mississauga. The data was provided in the form of ultimate road traffic data and was used to predict future traffic sound levels at the façades of the proposed residential buildings and in rear yard outdoor living areas. The predicted sound levels were compared to the guidelines of the MECP and the City of Mississauga.

The sound level predictions indicate that the future road traffic sound levels will exceed MECP guidelines at the dwelling units closest to Main Street. Forced air ventilation systems with ductwork sized for the future installation of central air conditioning by the occupant will be required for the dwellings closest to Main Street at the east end of the site. For all dwelling units in the development, building constructions meeting the minimum requirements of the Ontario Building Code will provide sufficient acoustical insulation. Acoustic barriers may be required, at the discretion of the municipality, for the rear yard of the flanking end units with exposure to Main Street. Warning clauses are also recommended to inform future occupants of the traffic noise impacts.



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## 2 SITE DESCRIPTION AND SOURCES OF SOUND

Figure 1 shows a key plan which identifies the location of the proposed residential development. The residential development is located to the north of the Wyndham Street and Main Street intersection in the City of Mississauga, Ontario. The proposed site plan prepared by Flanagan Beresford & Patterson Architects last revised on October 8, 2019 is included as Figure 2. The residential development site is proposed to include five blocks of 26 three-storey townhouse units, with Blocks 1, 2, and 3 consisting of common element condominium townhouses, and Blocks 4 and 5 consisting of freehold units.

The surrounding lands are residential and there is a river to the northeast. There is a Canadian Pacific (CP) railway line more than 400 m to the southwest of the subject site. Due to all the intervening land uses, railway noise is not expected to have a significant impact on the development.

Traffic noise on Main Street was found to be dominant noise source in the area. Main Street is a two-lane roadway (1 lane in each direction) in this area. There are no significant sources of stationary noise within 300 m of the subject site.

## 3 CRITERIA FOR ACCEPTABLE SOUND LEVELS

### 3.1 Road Traffic Noise Criteria

Guidelines for acceptable levels of road traffic noise impacting residential developments are given in the MECP publication NPC-300, “Environmental Noise Guideline Stationary and Transportation Sources – Approval and Planning”, Part C release date October 21, 2013 and are listed in Table 1 below. The values in Table 1 are energy equivalent (average) sound levels [ $L_{EQ}$ ] in units of A weighted decibels [dBA].

**Table 1: Road Traffic Noise Criteria**

	Daytime $L_{EQ}$ (16 hour)	Nighttime $L_{EQ}$ (8 hour)
Outdoor Living Areas	55 dBA	--
Inside Living/Dining Rooms	45 dBA	45 dBA
Inside Bedrooms	45 dBA	40 dBA

Daytime refers to the period between 07:00 and 23:00. Nighttime refers to the time period between 23:00 and 07:00. The term "Outdoor Living Area" (OLA) is used in reference to an outdoor patio, backyard, terrace, children's playground or other area where passive recreation is expected to occur.

The guidelines in the MECP publication allow the sound level limit in an Outdoor Living Area to be exceeded by up to 5 dBA, without mitigation, if warning clauses are placed in the property agreements, offers of purchase and sale and rental agreements to the properties. Where future OLA sound levels exceed 60 dBA, physical mitigation is required to reduce the OLA sound level to below 60 dBA and as close to 55 dBA as technically, economically and administratively feasible.

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

Building components such as walls, windows and doors must be designed to achieve indoor sound level criteria when the nighttime plane of window sound level will be greater than 60 dBA or the daytime plane of window sound level will be greater than 65 dBA. The use of warning clauses to notify future residents of possible excesses is also required.

## **4 TRAFFIC SOUND LEVEL ASSESSMENT**

### **4.1 Road Traffic Data**

Ultimate road traffic information for Main Street was obtained from City of Mississauga personnel and is provided in Appendix A. Road traffic information for Wyndham Street was unavailable and thus assumed to be equal to a similar City of Mississauga roadway, Church Street; nevertheless, traffic from this roadway was found to be negligible (per the results shown in Appendix B). A posted speed limit of 50 km/h was used for Main Street. A commercial vehicle percentage of 3% was used,

split into 1.65% medium trucks and 1.35% heavy trucks, along with a day-night split of 90%/10%.

Table 2 summarizes the traffic volumes used in the analysis.

**Table 2: Ultimate Road Traffic Data**

Road Name		Cars	Medium Trucks	Heavy Trucks	Total
Main Street	Daytime	7001	119	98	7218
	Nighttime	3501	60	49	3610
	<b>Total</b>	<b>10 502</b>	<b>179</b>	<b>147</b>	<b>10 828</b>

## 4.2 Road Traffic Noise Predictions

Future traffic sound levels were predicted using STAMSON version 5.04, a computer algorithm developed by the MECF. Sample STAMSON output is included in Appendix C.

Sound levels were predicted at the plane of the living/dining room and bedroom windows during the daytime and nighttime hours to investigate ventilation requirements. Sound levels were also predicted in the outdoor living areas to determine noise barrier requirements. The results of these predictions, without mitigation, are summarized in Table 3. Prediction locations are shown in Figure 2.

**Table 3: Predicted Sound Levels, Without Mitigation, [dBA]**

Prediction Location	Description	Daytime – in OLA L <sub>EQ</sub> -16 hr	Daytime – at the Façade L <sub>EQ</sub> -16 hr	Nighttime – at the Façade L <sub>EQ</sub> -8 hr
Freehold Block 4: Unit 1	Flanking exposure to Main St.	58	61	54
Freehold Block 5: Units 4-7	Exposure to Wyndham St.	<55	<55	<50
Freehold Block 4: Units 2-3	Exposure to Wyndham St.	<55	<55	<50
Block 1: Units 1-8	Some exposure to Wyndham and Main St.	<55	<55	<50
Block 2: Unit 13	Flanking exposure to Main St.	<55	56	50
Block 2: Unit 14	Flanking exposure to Main St.	57	61	54



Prediction Location	Description	Daytime – in OLA L <sub>EQ-16 hr</sub>	Daytime – at the Façade L <sub>EQ-16 hr</sub>	Nighttime – at the Facade L <sub>EQ-8 hr</sub>
Block 3: Unit 15-19	Exposure to Main St.	<55	61	54

## 5 TRAFFIC NOISE RECOMMENDATIONS

The predictions indicate that the future traffic sound levels will exceed MECP guidelines at the dwellings closest to Main Street. Recommendations to address these excesses are discussed below.

### 5.1 Outdoor Living Areas

The predicted daytime sound levels in the OLA of Freehold Block 4: Unit 1 and Block 2: Unit 14, with flanking exposure to Main Street will be 58 and 57 dBA, respectively, which is 2 to 3 dBA in excess of the MECP's limit of 55 dBA. The 2 to 3 dBA sound level excess is acceptable to the MECP, if they are acceptable to the municipality with the use of appropriate warning clauses without requiring physical mitigation. The City has required in the past a table of barrier heights to meet sound levels of 55 to 59 dBA and the table is provided below. A 2.0 m high acoustic wall, as shown on Figures 2 and 3, will reduce the sound levels in the OLAs of both units to less than 55 dBA.

**Table 4: Summary of Barrier Heights Required to Meet Various Sound Levels**

Prediction Location	Resultant Sound Level (dBA)				
	55	56	57	58	59
Freehold Block 4: Unit 1 and Block 2: Unit 14	2.0	--	--	--	--

As a general note, an acoustic barrier may be a combination of an acoustic wall and an earth berm. The wall component of the barrier should be of a solid construction with a surface density of no less than 20 kg/m<sup>2</sup>. The walls may be constructed from a variety of materials such as wood, brick, pre-cast concrete or other concrete/wood composite systems provided that it is free of gaps or cracks. The heights and extents of the barriers should be chosen to reduce the sound levels in the OLA's to below 60 dBA and as close to 55 dBA as is technically, administratively and economically feasible, subject to the approval of the municipality respecting any applicable fence height by-laws.

The predicted daytime sound levels in the OLA's of the remainder of the lots are less than 55 dBA,

thus physical mitigation will not be required.

## 5.2 Indoor Living Areas

The predicted sound levels at the plane of the windows of Freehold Block 4: Units 1 and 2, Block 2: Units 13 and 14, and Block 3: Units 15-19 are up to 61 dBA during the daytime and up to 54 dBA during the nighttime hours. These units will require forced air ventilation systems with ductwork sized for the future provision of central air conditioning systems by the occupant. This requirement is typically satisfied through the installation of forced air heating systems. These units are indicated in Figure 3.

The remaining lots have no specific ventilation requirements.

## 5.3 Building Façade Constructions

All the lots in the development will have nighttime sound levels less than 60 dBA and daytime sound levels less than 65 dBA. Any double glazed window construction and exterior wall construction meeting the minimum requirements of the Ontario Building Code (OBC) will provide adequate sound insulation for all the dwelling units in the development.

## 5.4 Warning Clauses

The MECP guidelines recommend that warning clauses be included in the property and tenancy agreements and offers of purchase and sale for all units with anticipated traffic sound level excesses. Examples are provided below.

Suggested wording for future dwellings with sound level excesses the MECP criteria is given below:

Type A:

Purchasers and tenants are advised that sound levels due to increasing road traffic may occasionally interfere with some activities of the dwelling occupants as the sound levels activities exceed the Municipality's and the Ministry of the Environment, Conservation and Parks' noise criteria.

Suggested wording for future dwellings for which physical mitigation has been provided is given below.

Type B:



Purchasers/tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road and rail traffic may occasionally interfere with some activities of the dwelling occupants as the sound levels exceed the City's and the Ministry of the Environment, Conservation and Parks' noise criteria. The acoustical barrier as installed shall be maintained, repaired or replaced by the owner. Any maintenance, repair or replacement shall be with the same material, to the same standards and having the same color and appearance of the original.

Suitable wording for future dwellings with minor excesses and requiring forced air ventilation systems is given below.

Type C:

This dwelling unit has been fitted with a forced air heating system and the ducting etc., was sized to accommodate central air conditioning. Installation of central air conditioning will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the Municipality's and the Ministry of the Environment's noise criteria. (Note: The location and installation of the outdoor air conditioning device should be done so as to minimize the noise impacts and comply with criteria of MECP publication NPC-300, as applicable.)

These sample clauses are provided by the MECP as examples and can be modified by the Municipality as required.

## 6 SUMMARY AND RECOMMENDATIONS

In summary, HGC Engineering has reviewed the site plan and performed calculations to determine the potential road traffic noise impact on the residential properties with respect to MECP guidelines. The following are the recommendations.

1. Forced air ventilation systems with ductwork sized for the future installation of central air conditioning system will be required for Freehold Block 4: Units 1 and 2, Block 2: Units 13 and 14, and Block 3: Units 15-19. The location, installation and sound ratings of the air conditioning devices should comply with NPC-300, as applicable.
2. Building constructions meeting the minimum requirements of the Ontario Building Code will provide sufficient acoustical insulation for the indoor spaces for all the lots in the subdivision.
3. Acoustic barriers may be required by the municipality for the two flanking unit adjacent to Main

Street.

4. Warning clauses should be used to inform future residents of the traffic noise issues.

The following table summarizes the noise control recommendations and noise warning clauses for the lots in the proposed subdivision. Please see Figures 2 and 3, for reference.

**Table 4: Summary of Noise Control Requirements and Noise Warning Clauses**

Lot	Acoustic Barrier	*Ventilation Requirements	Type of Warning Clause	Building Façade Constructions
Freehold Block 4: Unit 1	✓ <sup>(1)</sup>	Forced Air	A, B, C	OBC
Freehold Block 4: Unit 2, Block 2: Unit 13	--	Forced Air	A, C	OBC
Block 2: Unit 14	✓ <sup>(1)</sup>	Forced Air	A, B, C	OBC
Block 3: Units 15-19	--	Forced Air	A, C	OBC
Remaining Dwellings	--	--	--	OBC

Notes:

-- no specific requirement

<sup>(1)</sup> See Section 5.1

OBC – meeting the minimum requirements of the Ontario Building Code

\* The location, installation and sound rating of the air conditioning condensers must be compliant with MECP Guideline NPC-300, as applicable.

## 6.1 Implementation

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

1. If noise barriers are required by the municipality, prior to subdivision approval, the municipality requires a Professional Engineer qualified to provide acoustical engineering services in the Province of Ontario to review the grading plans of two flanking units adjacent to Main Street to certify that the noise control barriers as approved have been incorporated.
2. Prior to assumption of the subdivision, the Municipality's building inspector or a Professional Engineer qualified to perform acoustical engineering services in the Province of Ontario

should certify that the noise control measures have been properly incorporated, installed and constructed.



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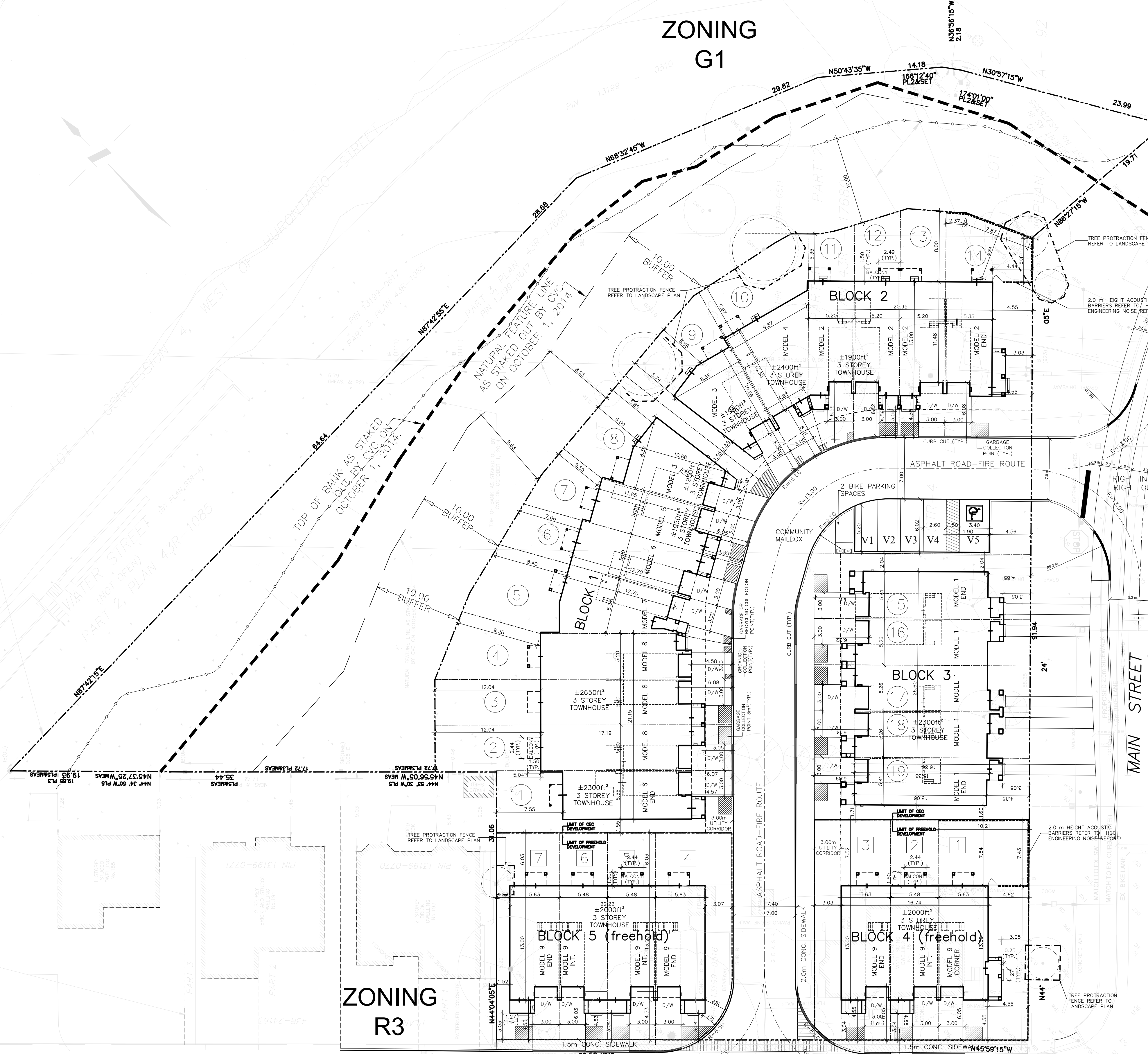


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Figure 1: Key Plan





**SITE STATISTICS - FREEHOLD TOWNHOUSES ALONG WYNDHAM STREET (BLOCK 2 & 9 UNITS 1-7)**

ZONING : RM5-XX

NET SITE AREA	608.66 m <sup>2</sup>	622.43 m <sup>2</sup>
	1237.09 m <sup>2</sup>	0.3942 Ha
	0.1231 Ha	

BUILDING COVERAGE (INCLUDING PORCH) (EXCLUDING EXTERIOR STEPS AND REAR DECKS )	533.71 m <sup>2</sup>	43.35%
LANDSCAPE OPEN SPACE	575.55 m <sup>2</sup>	46.70%
ROADS, DRIVEWAYS, PARKING (INCLUDING SIDE WALK)	121.83 m <sup>2</sup>	9.90%

PARKING	REQUIRED	PROVIDED
REQUIRED PARKING @ 2 SPACES PER UNIT (7 UNITS)	14	
RESIDENT PARKING PROVIDED: 1 PER UNIT ON DRIVEWAY 1 PER UNIT IN ATTACHED GARAGE		7
TOTAL	14	14

LOT #	Unit Model	LOT AREA (m <sup>2</sup> )	GFA (m <sup>2</sup> ) (Proposed)	GFA (m <sup>2</sup> ) (Permitted)	NO. OF BEDROOM
1	Model 9 corner	256.74	192.56	±220.46	3
2	Model 9 INT.	137.45	103.09	±193.72	3
3	Model 9 END	214.35	160.76	±210.80	3
4	Model 9 INT.	125.61	146.71	±210.80	3
5	Model 9 INT.	129.24	96.93	±193.72	3
6	Model 9 INT.	129.27	96.95	±193.72	3
7	Model 9 END	168.32	148.50	±210.80	3

LOT #	FRONTAGE AT 7.5 M	WIDTH OF LOT	LANDSCAPE AREA REQUIRED	LANDSCAPE AREA PROVIDED
1	10.20	10.15	64.19	159.60
2	5.48	5.48	34.36	45.92
3	8.58	6.06	53.59	120.51
4	8.66	4.75	48.90	101.09
5	5.48	5.48	32.31	37.77
6	5.48	5.48	32.32	37.86
7	7.15	7.14	42.08	74.83

DENSITY: 7 UNITS = 56.864 UPhA

TOTAL GFA : 1475.73 m<sup>2</sup>

FLOOR SPACE INDEX (FSI) Gross floor area = 1475.73 • 1.987 •

FLOOR SPACE INDEX (FSI) Gross site area = 1231.09

\* Will update based on final floor plan design

NOTE:

The lot frontage, lot area, and lot coverage as currently shown are not certified.

The lot frontage, lot area calculations will be certified by an accredited Ontario Land and Surveyor at the time of creating the parcels of land through the registration of a reference plan when the Condominium application is processed.

**SITE STATISTICS - COMMON ELEMENT CONDOMINIUM TOWNHOUSES (BLOCK 1, 2 & 3 UNITS 1-19)**

ZONING : RM6-XX

GROSS SITE AREA	8108.05 m <sup>2</sup>	2.004 Ac	0.811 Ha
NATURAL FEATURE & 10 M BUFFER AREA	2857.01 m <sup>2</sup>	0.7063 Ac	0.2857 Ha
FREEHOLD TOWNHOUSE AREA	1231.09 m <sup>2</sup>	0.3042 Ac	0.1231 Ha
NET SITE AREA	4019.95 m <sup>2</sup>	0.9834 Ac	0.4020 Ha
BUILDING COVERAGE (INCLUDING PORCH) (EXCLUDING EXTERIOR STEPS AND REAR DECKS )	1555.98 m <sup>2</sup>	38.71%	
LANDSCAPE OPEN SPACE	321.12 m <sup>2</sup>	32.86%	
ROADS, DRIVEWAYS, PARKING (INCLUDING SIDE WALK)	1142.85 m <sup>2</sup>	28.43%	

PARKING	REQUIRED	PROVIDED
REQUIRED PARKING @ 2 SPACES PER UNIT (19 UNITS)	38	
RESIDENT PARKING PROVIDED: 1 PER UNIT ON DRIVEWAY 1 PER UNIT IN ATTACHED GARAGE		19
TOTAL	38	19

LOT #	Unit Model	LOT AREA (m <sup>2</sup> )	FLOOR AREA (m <sup>2</sup> )	GFA (m <sup>2</sup> ) (Proposed)	GFA (m <sup>2</sup> ) (Permitted)	NO. OF BEDROOM	FRONTAGE AT 7.5 M	WIDTH OF LOT	LANDSCAPE AREA REQUIRED	LANDSCAPE AREA PROVIDED
1	Model 6 END	190.22	241.44	±214.05	217.1	7.12	47.55	104.42		
2	Model 8	202.77	263.72	±242.94	242.94	5.20	50.69	96.40		
3	Model 4	181.25	236.72	±242.94	242.94	5.20	45.31	74.89		
4	Model 8	178.46	253.82	±237.18	237.18	5.20	38.88	44.61	75.42	
5	Model 7	190.76	249.36	±217.58	217.58	4.75	40.00	47.69	86.81	
6	Model 6	137.82	217.03	±199.28	199.28	5.21	52.3	34.45	46.58	
7	Model 5	136.20	203.69	±181.16	181.16	5.20	34.78	59.29		
8	Model 3	181.82	201.16	±181.16	181.16	7.00	40.08	40.02	97.27	
9	Model 3	181.27	201.16	±181.16	181.16	6.96	40.06	43.23	110.12	
10	Model 4	189.83	250.35	±229.54	229.54	5.48	33.38	47.45	85.12	
11	Model 2	133.86	198.34	±176.74	176.74	5.43	33.5	33.46	46.09	
12	Model 2	146.04	198.30	±176.71	176.71	5.22	52.4	36.51	60.80	
13	Model 2	142.30	198.30	±176.71	176.71	5.20	52.0	35.57	57.74	
14	Model 2 END	146.16	204.15	±181.13	181.13	5.90	9.90	61.54	163.20	
15	Model 1 END	183.59	235.10	±211.87	211.87	7.45	7.45	45.90	78.63	
16	Model 1	129.41	237.90	±208.62	208.62	5.26	5.26	32.35	26.31	
17	Model 1	129.20	237.90	±208.62	208.62	5.26	5.26	32.35	26.28	
18	Model 1	128.98	237.90	±208.62	208.62	5.26	5.26	32.24	26.13	
19	Model 1 END	172.23	244.83	±213.74	213.74	7.07	7.11	43.05	85.21	

DENSITY: 13 UNITS = 47.264 UPhA

TOTAL GFA : 3889.75 m<sup>2</sup>

FLOOR SPACE INDEX (FSI) Gross floor area = 3889.75 • 0.9676

FLOOR SPACE INDEX (FSI) Gross site area = 4019.95

\* Will update based on final floor plan design

NOTE:

The lot frontage, lot area, and lot coverage as currently shown are not certified.

The lot frontage, lot area calculations will be certified by an accredited Ontario Land and Surveyor at the time of creating the parcels of land through the registration of a reference plan when the Condominium application is processed.

**REAR YARD AREA CALCULATION FOR COMMON ELEMENT CONDOMINIUM TOWNHOUSES BLOCK 1 & 2**

LOT #	REAR YARD REQUIRED (m <sup>2</sup> ) (5.5m x 7.5m)	REAR YARD GIVEN (m <sup>2</sup> )
1	41.25	53.09
2	41.25	89.69
3	41.25	68.18
4	41.25	69.68
5	41.25	82.18
6	41.25	39.88
7	41.25	52.59
8	41.25	58.74
9	41.25	71.39
10	41.25	81.02
11	41.25	41.57
12	41.25	54.08
13	41.25	51.04
14	41.25	72.42

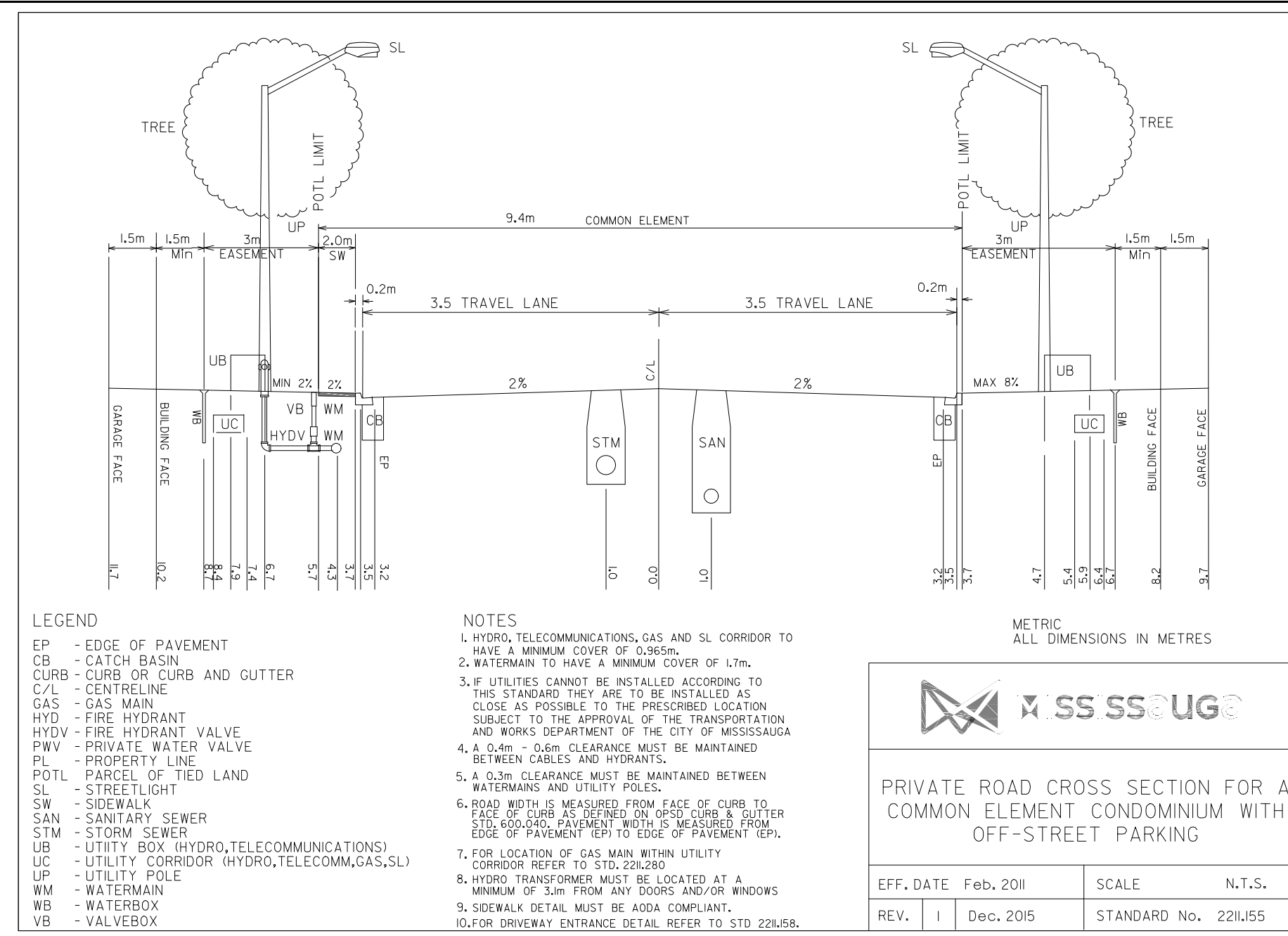
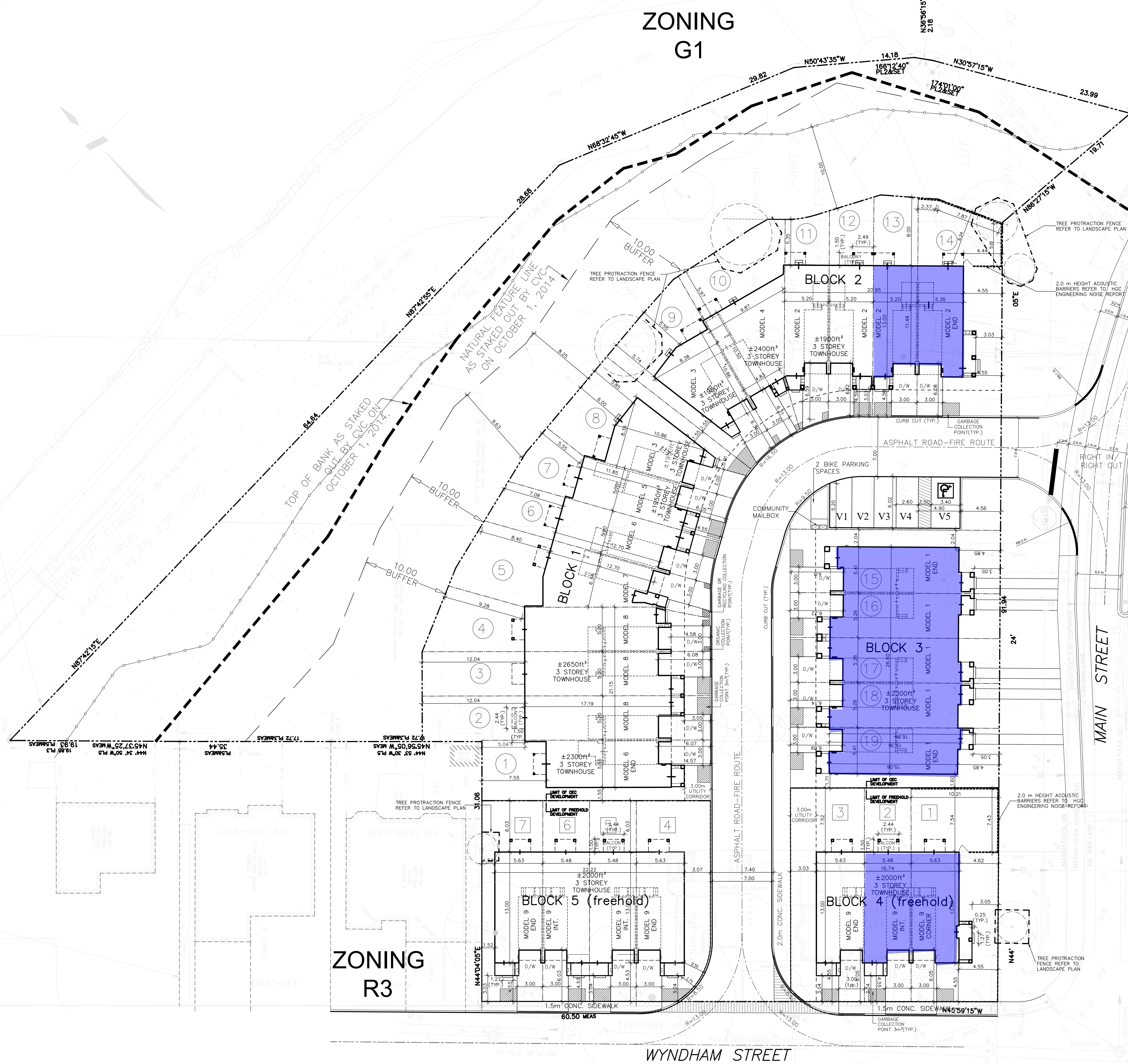
**REVISIONS**

Date	Rev.	Description
10/06/2019	02	Issued the Acoustic Noise Section per engineering comments
10/06/2019	03	Updated per comments
10/06/2019	04	Updated per comments
10/06/2019	05	Updated per engineering comments
10/06/2019	06	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	07	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	08	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	09	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	10	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	11	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	12	Added 10m Buffer Line Block 3 for Flood Line
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10/06/2019	58	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	59	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	60	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	61	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	62	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	63	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	64	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	65	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	66	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	67	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	68	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	69	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	70	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	71	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	72	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	73	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	74	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	75	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	76	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	77	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	78	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	79	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	80	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	81	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	82	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	83	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	84	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	85	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	86	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	87	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	88	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	89	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	90	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	91	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	92	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	93	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	94	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	95	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	96	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	97	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	98	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	99	Added 10m Buffer Line Block 3 for Flood Line
10/06/2019	100	Added 10m Buffer Line Block 3 for Flood Line

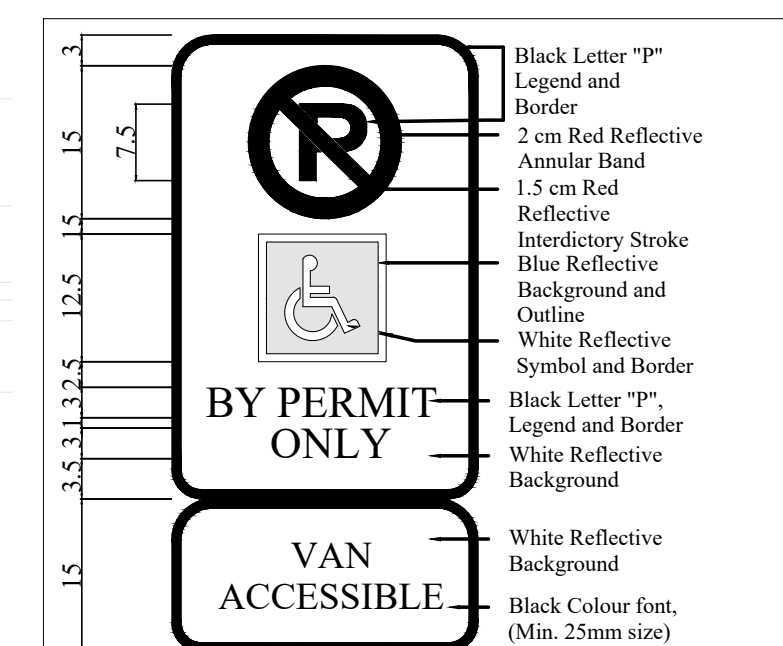
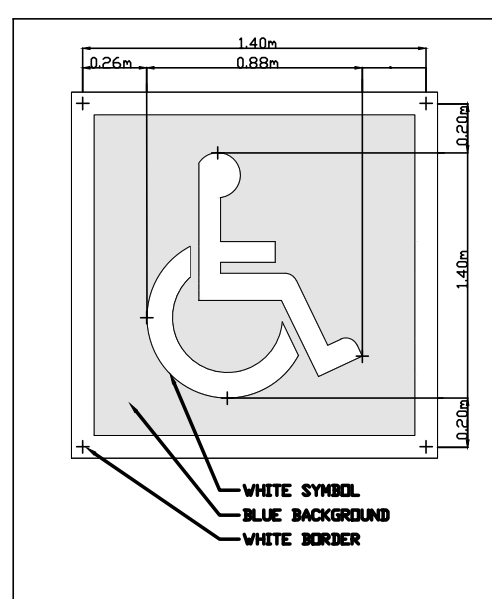
SITE STATISTICS - FOR TOTAL SITE		
GROSS SITE AREA		8108.05 m <sup>2</sup> 2.004 Ac 0.811 Ha
TOTAL PROPOSED GFA(NCL FREEHOLD TOWNHOUSE BLOCK 1~2 & CEC TOWNHOUSE BLOCK 1, 2& 3)		5365.48 m <sup>2</sup>
TOTAL DENSITY	26 UNITS 0.811 HA	= 32.06 UP/Ha
TOTAL FLOOR SPACE INDEX (FSI)	Gross floor area Gross site area	= 5365.48 8108.05 = 0.6617

SITE STATISTICS - COMMON ELEMENT CONDOMINIUM TOWNHOUSES (BLOCK 1, 2 & 3/UNITS 1-19)	
ZONING : RM6-XX	
GROSS SITE AREA :	8108.05 m <sup>2</sup> 2.004 Ac 0.811 Ha





Forced air heating with ducts sized for future installation of air conditioning by the occupant



REAR YARD AREA CALCULATION FOR COMMON ELEMENT CONDOMINIUM TOWNSHUES BLOCK 1 & 2			SITE STATISTICS - FOR TOTAL SITE	
LOT #	REAR YARD REQUIRED (m <sup>2</sup> ) (5.5mX7.5m)	REAR YARD GIVEN (m <sup>2</sup> )		
1	41.25	53.09	GROSS SITE AREA	8108.05 m <sup>2</sup> 2,004 ac 0.811 ha
2	41.25	89.69	TOTAL PROPOSED GFA(INCL. FREEHOLD TOWNHOUSE BLOCK 1-2 & CEC TOWNHOUSE BLOCK 1, 2 & 3)	5365.48
3	41.25	68.18	TOTAL DENSITY	26 UNITS 0.811 HA = 32.06 Upl/ha
4	41.25	69.68	TOTAL FLOOR SPACE INDEX (FSI)	Gross floor area = 5365.48 Gross site area = 8108.05 = 0.6617
5	41.25	82.18		
6	41.25	39.88		
7	41.25	52.59		
8	41.25	58.74		
9	41.25	71.39		
10	41.25	81.02		
11	41.25	41.57		
12	41.25	54.08		
13	41.25	51.04		
14	41.25	72.42		

SITE STATISTICS -

COMMON ELEMENT CONDOMINIUM TOWNSHUES  
(BLOCK 1, 2 & 3 / UNITS 1-19)

ZONING: RM6-XX

GROSS SITE AREA:

8108.05 m<sup>2</sup>

2,004 ac

0.811 ha

5365.48

26 UNITS

0.811 HA = 32.06 Upl/ha

Gross floor area = 5365.48

Gross site area = 8108.05 = 0.6617

NATURAL FEATURE & 10 M BUFFER AREA	2,004 Ac 0.811 Hectare 2857.01 m <sup>2</sup> 0.7060 Ac 0.2857 Hectare
FREEHOLD TOWNHOUSE AREA	-1231.09 m <sup>2</sup>
NET SITE AREA	4019.95 m <sup>2</sup> 0.9524 Ac 0.4020 Hectare
BUILDING COVERAGE (INCLUDING PORCH) (EXCLUDING EXTERIOR STEPS AND REAR DECKS ) LANDSCAPE OPEN SPACE	1555.98 m <sup>2</sup> 36.71% 1321.12 m <sup>2</sup> 32.56%
ROADS,DRIVEWAYS,PARKING(INCLUDING SIDE WALK)	1142.85 m <sup>2</sup> 28.43%

PARKING	REQUIRED	PROVIDED
REQUIRED PARKING @ 2 SPACES PER UNIT (19 UNITS)	38	
RESIDENT PARKING PROVIDED: 1 PER UNIT ON DRIVEWAY 1 PER UNIT IN ATTACHED GARAGE		19 19
VISITOR PARKING VISITOR PARKING REQUIRED 19 UNITS X 0.25/UNIT	5	
VISITOR PARKING PROVIDED (INCLUDED + REQUIRED TYPE A ACCESSIBLE PARKING)		5
TOTAL	43	43

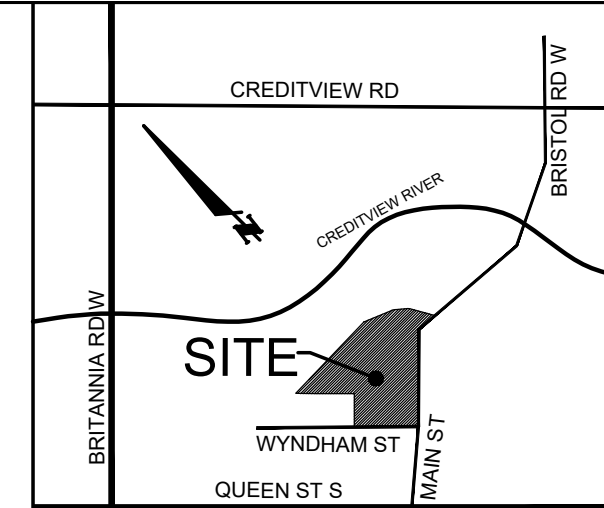
LOT #	Unit Model	LOT AREA (sq. ft.)	FLOOR AREA (sq. ft.)	GFA (sq. ft.) (Proposed Maximum)	NO. OF PERSONS	PROPOSED F.T.M. #	NO. OF STREETS	LANDSCAPE AREA PROVIDED (sq. ft.)	REQUIRED (sq. ft.)	PROVIDED (sq. ft.)
1	Model 8 END	202.27	241.44	214.05	3	7.11	7.12	47.55	104.42	104.42
2	Model 8	200.77	263.72	242.94	3	7.20	5.20	50.69	96.40	96.40
3	Model 8	181.25	236.72	242.34	3	5.20	5.20	45.31	74.89	74.89
4	Model 8	178.64	236.72	242.34	3	5.20	5.20	44.82	74.89	74.89
5	Model 7	190.76	249.36	217.58	3	4.75	4.00	47.69	86.81	86.81
6	Model 3	137.82	217.03	199.28	2	5.21	5.23	34.45	46.68	46.68
7	Model 3	137.82	217.03	199.28	2	5.21	5.23	34.45	46.68	46.68
8	Model 1	181.85	201.16	181.16	3	7.00	4.08	40.02	97.77	97.77
9	Model 3	181.85	201.16	181.16	3	6.96	4.06	43.23	101.12	101.12
10	Model 4	189.87	250.35	222.54	3	4.48	3.38	47.45	85.12	85.12
11	Model 2	133.86	198.34	176.71	3	5.22	5.20	36.51	60.05	60.05
12	Model 2	146.04	198.30	176.71	3	5.22	5.24	36.51	60.05	60.05
13	Model 2	142.30	198.30	176.71	3	5.20	5.20	35.57	57.74	57.74
14	Model 8 END	246.16	245.16	181.13	3	9.90	9.60	61.59	163.20	163.20
15	Model 8	193.59	237.90	206.62	3	5.20	4.50	45.90	78.60	78.60
16	Model 1	228.41	237.90	206.62	3	5.26	5.26	32.35	26.31	26.31
17	Model 1	129.29	237.90	206.62	3	5.26	5.26	32.35	26.28	26.28
18	Model 1	129.29	237.90	206.62	3	5.26	5.26	32.35	26.28	26.28
19	Model 1	129.29	237.90	206.62	3	5.26	5.26	32.35	26.28	26.28
20	Model 1 END	172.23	244.53	231.74	3	7.07	7.11	43.05	85.21	85.21

DENSITY  $\frac{19 \text{ UNITS}}{0.4020 \text{ HA}} = 47.264 \text{ Up/HA}$

TOTAL GFA : 3889.75 m<sup>2</sup> \*

FLOOR SPACE INDEX (FSI)  $\frac{\text{Gross floor area}}{\text{Gross site area}} = \frac{3889.75}{4019.95} = 0.9676$

\* Will update based on final floor plan design



# KEY PLAN N.T.S.

## LEGEND

	PROPOSED GRADES
	LOT CENTER
	PROPOSED GRADE
	HIGH POINT & PROPERTY LINE
	HIGH POINT & BUILDING
	DIRECTION OF FLOW
	FINISHED FLOOR LEVEL
	TOP OF FOUNDATION WALL
	FINISHED BASEMENT SLAB
	UNDER OF FOOTINGS
	STREET LINE
	HYDRANT
	TRANSFORMER
	BELL PEDESTAL
	CABLE TO PEDESTAL
	CATCH BASIN
	VALVE CHAMBER
	DOWNSPOUT
	COMMUNITY MAILBOX
	WATER SERVICE
	STORM & SANITARY CONNECTION
	EXTERIOR DOOR LOCATION
	SWALE DIRECTION
	STANDARD PLAN
	REVERSE PLAN
	"STOP" SIGN
	ACCESSIBLE PARKING SIGN
	HYDRO METER
	GAS METER
	SANITARY MANHOLE
	STORM MANHOLE
	SANITARY PIPE
	STORM PIPE
	WATER PIPE
	HYDRO LINE
	GAS MAIN
	SOUND BARRIER FENCE
	3/4 AWG TRIPLEX ALL COMP EDDY WIRE PVC SECONDARY CABLE
	PROPERTY LINE (C&G)
	PROPERTY LINE (F&H&D)
	NATURAL FEATURE LINE
	10' M BUFFER LINE
	DROPPED CURB
	MUNICIPAL ADDRESS (UNIT)

Date	Ref.	Description
02/09/2007	C2	Updated the Acoustic Noise Incidents per engineering comments
02/09/2007	C2	Updated per Acoustic Noise Incidents
06/10/2007	C2	Updated per engineering comments
06/11/2007	C2	Updated per engineering comments
06/12/2007	C2	Updated per engineering comments
07/01/2008	IT	PERFORM SITE LUM BLOCK 2 PER 5,000 LUM
07/12/2008	C2	UPDATED LUM SCHEDULE AT FRONT BLOCK 283 AND ADJUSTED SITE LUM ACCORDINGLY
02/09/2008	C2	ADDED BUILDING FOOTPRINTS
06/12/2008	SP	REVISED AS PER THE CITY COMMENTS DATED MAY 15, 2008
11/01/2009	SP	REVISED PER CITY SURETY PREPARED BY DATE
11/06/2009	SP	REVISED AS PER THE CITY COMMENTS
06/12/2009	C2	UPDATED SITE PLAN
06/12/2009	SP	UPDATED PRELIMINARY SITE PLAN
04/25/2010	SP	PRELIMINARY SITE PLAN

Brown  
 SP  
 Date  
 06/05/17  
 Checked  
 Approved  
 Printed  
 09/26/19  
 CAD File  
 171371-SP14.DWG  
 The Architect has not been retained to  
 provide a general review of the work,  
 and assumes no responsibility for the  
 findings of the contractor or sub-contractors  
 to carry out this work in accordance  
 with the Contract Documents.  
 are to be reported to the Architect  
 Single copies of documents are not to be  
 relied independently of all copies of the  
 Contract Documents.  
 The contractor shall verify all dimensions  
 and Contract Documents. Any discrepancies  
 prior to the commencement of the work.  
 Under no circumstances shall the Contractor  
 or sub-contractors proceed in uncertainty.  
 Do not scale drawings.

**architects inc.**  
70 Sifton Road, Unit #01,  
Woodbridge, Ontario, L4L 8B9  
(905) 265-2688

---

File Number to Draft Plan  
(21T-M17007 W11)

Zoning File Number (OZ 17 20)

**CITY PARK  
(MAIN ST.)  
HOMES INC.**

950 Nashville Road Kleinburg,  
Ontario L0J 1C0  
Tel: 905-552-5200  
Fax: 905-552-5201

---

**36,38,40,44 & 46  
MAIN STREET**

PROPOSED COMMON ELEMENT CONDOMINIUM & FREEHOLD TOWNHOUSE DEVELOPMENT  CITY OF MISSISSAUGA, ONTARIO	
Sheet Title	SITE PLAN
Scales	1:250
Sheet Number	17-1371-SP1



# **APPENDIX A**

Road Traffic Data

Date: 01-Jun-17

## NOISE REPORT FOR PROPOSED DEVELOPMENT

### REQUESTED BY:

Name: Victor Garcia

Company: HGC Engineering



### PREPARED BY:

Name: Jacqueline Hunter

Tel#: (905) 615-3200

Location: Main Street and Church Street

Look Up ID#: 374

## ON SITE TRAFFIC DATA

Specific	Street Names			
	Church Street	Main Street		
AADT:	4000	10,827		
# of Lanes:	2 lanes	2 lanes		
% Trucks:	2%	3%		
Medium/Heavy Trucks Ratio:	55/45	55/45		
Day/Night Traffic Split:	90/10	90/10		
Posted Speed Limit:	40 km/h	50 km/h		
Gradient of Road:	< 2%	< 2%		
Ultimate R O W:	20 m	26m		

### Comments:

Ultimate Traffic Only



## **APPENDIX B**

Sample STAMSON 5.04 Output

STAMSON 5.0            NORMAL REPORT            Date: 19-09-2019 14:00:28  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: block1\_f.te            Time Period: Day/Night 16/8 hours  
Description: Block 1, Units 1 to 8, Facade

Road data, segment # 1: Main Street (day/night)

-----  
Car traffic volume : 9452/1050 veh/TimePeriod \*  
Medium truck volume : 161/18 veh/TimePeriod \*  
Heavy truck volume : 132/15 veh/TimePeriod \*  
Posted speed limit : 50 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 10827  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 1.65  
Heavy Truck % of Total Volume : 1.35  
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Main Street (day/night)

-----  
Angle1    Angle2 : -90.00 deg    90.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 0 / 0  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 50.00 / 50.00 m  
Receiver height : 7.50 / 1.50 m  
Topography : 2 (Flat/gentle slope; with barrier)  
Barrier angle1 : -90.00 deg    Angle2 : 90.00 deg  
Barrier height : 7.50 m  
Barrier receiver distance : 20.00 / 20.00 m  
Source elevation : 0.00 m  
Receiver elevation : 0.00 m  
Barrier elevation : 0.00 m  
Reference angle : 0.00

↑

Road data, segment # 2: Wyndam Steet (day/night)

-----  
Car traffic volume : 3528/392 veh/TimePeriod \*  
Medium truck volume : 40/4 veh/TimePeriod \*  
Heavy truck volume : 32/4 veh/TimePeriod \*  
Posted speed limit : 40 km/h  
Road gradient : 0 %

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 4000  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 1.10  
Heavy Truck % of Total Volume : 0.90  
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 2: Wyndam Steet (day/night)

-----  
Angle1 Angle2 : -90.00 deg 90.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 0 / 0  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 35.00 / 35.00 m  
Receiver height : 7.50 / 4.50 m  
Topography : 2 (Flat/gentle slope; with barrier)  
Barrier angle1 : -90.00 deg Angle2 : 90.00 deg  
Barrier height : 9.00 m  
Barrier receiver distance : 7.50 / 7.50 m  
Source elevation : 0.00 m  
Receiver elevation : 0.00 m  
Barrier elevation : 0.00 m  
Reference angle : 0.00

↑

Results segment # 1: Main Street (day)

-----  
Source height = 1.08 m

Barrier height for grazing incidence

-----  
Source ! Receiver ! Barrier ! Elevation of  
Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)  
-----+-----+-----+-----  
1.08 ! 7.50 ! 4.93 ! 4.93

ROAD (0.00 + 47.88 + 0.00) = 47.88 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.04	63.09	0.00	-5.45	-0.12	0.00	0.00	-9.63	47.88

-----

Segment Leq : 47.88 dBA

↑

Results segment # 2: Wyndam Steet (day)

Source height = 0.97 m

Barrier height for grazing incidence

Source	!	Receiver	!	Barrier	!	Elevation of
Height (m)	!	Height (m)	!	Height (m)	!	Barrier Top (m)
0.97	!	7.50	!	6.10	!	6.10

ROAD (0.00 + 39.64 + 0.00) = 39.64 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	55.71	0.00	-3.68	0.00	0.00	0.00	-12.39	39.64

Segment Leq : 39.64 dBA

Total Leq All Segments: 48.49 dBA



Results segment # 1: Main Street (night)

Source height = 1.08 m

Barrier height for grazing incidence

Source	!	Receiver	!	Barrier	!	Elevation of
Height (m)	!	Height (m)	!	Height (m)	!	Barrier Top (m)
1.08	!	1.50	!	1.33	!	1.33

ROAD (0.00 + 34.49 + 0.00) = 34.49 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.22	56.60	0.00	-6.39	-0.59	0.00	0.00	-15.13	34.49

Segment Leq : 34.49 dBA



Results segment # 2: Wyndam Steet (night)

Source height = 1.00 m

Barrier height for grazing incidence

```

-----
Source      ! Receiver      ! Barrier      ! Elevation of
Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)
-----+-----+-----+-----
          1.00 !          4.50 !          3.75 !          3.75

```

ROAD (0.00 + 29.27 + 0.00) = 29.27 dBA

```

Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-----
   -90    90    0.05  49.35   0.00  -3.85  -0.13   0.00   0.00 -16.10  29.27
-----

```

Segment Leq : 29.27 dBA

Total Leq All Segments: 35.63 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 48.49  
(NIGHT): 35.63

↑

↑

Filename: block1\_o.te            Time Period: 16 hours  
Description: Block 1, Units 1 to 8, OLA

Road data, segment # 1: Main Street  
-----

Car traffic volume : 9452 veh/TimePeriod \*  
Medium truck volume : 161 veh/TimePeriod \*  
Heavy truck volume : 132 veh/TimePeriod \*  
Posted speed limit : 50 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Main Street  
-----

Angle1    Angle2            : -90.00 deg    90.00 deg  
Wood depth                :        0        (No woods.)  
No of house rows           :        0  
Surface                    :        1        (Absorptive ground surface)  
Receiver source distance : 70.00 m  
Receiver height            : 1.50 m  
Topography                :        2        (Flat/gentle slope; with barrier)  
Barrier angle1            : -90.00 deg    Angle2 : 90.00 deg  
Barrier height             : 7.50 m  
Barrier receiver distance : 5.00 m  
Source elevation           : 0.00 m  
Receiver elevation         : 0.00 m  
Barrier elevation          : 0.00 m  
Reference angle            : 0.00



Road data, segment # 2: Wyndam Steet  
-----

Car traffic volume : 3528 veh/TimePeriod \*  
Medium truck volume : 40 veh/TimePeriod \*  
Heavy truck volume : 32 veh/TimePeriod \*  
Posted speed limit : 40 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 2: Wyndam Steet  
-----

Angle1    Angle2            : -90.00 deg    90.00 deg  
Wood depth                :        0        (No woods.)  
No of house rows           :        0  
Surface                    :        1        (Absorptive ground surface)  
Receiver source distance : 35.00 m

Receiver height : 1.50 m  
 Topography : 2 (Flat/gentle slope; with barrier)  
 Barrier angle1 : -90.00 deg Angle2 : 90.00 deg  
 Barrier height : 9.00 m  
 Barrier receiver distance : 7.50 m  
 Source elevation : 0.00 m  
 Receiver elevation : 0.00 m  
 Barrier elevation : 0.00 m  
 Reference angle : 0.00

↑

Results segment # 1: Main Street

-----

Source height = 1.08 m

Barrier height for grazing incidence

-----

Source Height (m)	! Receiver ! Height (m)	! Barrier ! Height (m)	! Elevation of ! Barrier Top (m)
1.08 !	1.50 !	1.47 !	1.47

-----

ROAD (0.00 + 37.37 + 0.00) = 37.37 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.22	63.09	0.00	-8.18	-0.59	0.00	0.00	-16.95	37.37

-----

Segment Leq : 37.37 dBA

↑

Results segment # 2: Wyndam Steet

-----

Source height = 0.97 m

Barrier height for grazing incidence

-----

Source Height (m)	! Receiver ! Height (m)	! Barrier ! Height (m)	! Elevation of ! Barrier Top (m)
0.97 !	1.50 !	1.39 !	1.39

-----

ROAD (0.00 + 33.58 + 0.00) = 33.58 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.14	55.71	0.00	-4.18	-0.38	0.00	0.00	-17.58	33.58

-----

Segment Leq : 33.58 dBA

Total Leq All Segments: 38.89 dBA



TOTAL Leq FROM ALL SOURCES: 38.89





STAMSON 5.0            NORMAL REPORT            Date: 19-09-2019 13:27:13  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b1U13\_F.te            Time Period: Day/Night 16/8 hours  
Description: Block 2, Unit 13, Facade

Road data, segment # 1: Main Street (day/night)

-----  
Car traffic volume : 9452/1050 veh/TimePeriod \*  
Medium truck volume : 161/18 veh/TimePeriod \*  
Heavy truck volume : 132/15 veh/TimePeriod \*  
Posted speed limit : 50 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 10827  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 1.65  
Heavy Truck % of Total Volume : 1.35  
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Main Street (day/night)

-----  
Angle1 Angle2 : -90.00 deg 60.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 0 / 0  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 30.00 / 30.00 m  
Receiver height : 1.50 / 4.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Results segment # 1: Main Street (day)

-----  
Source height = 1.08 m

ROAD (0.00 + 56.22 + 0.00) = 56.22 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	60	0.66	63.09	0.00	-5.00	-1.87	0.00	0.00	0.00	56.22

-----

Segment Leq : 56.22 dBA

Total Leq All Segments: 56.22 dBA

↑

Results segment # 1: Main Street (night)

-----

Source height = 1.08 m

ROAD (0.00 + 50.07 + 0.00) = 50.07 dBA

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

-----

-90	60	0.58	56.60	0.00	-4.76	-1.77	0.00	0.00	0.00	50.07
-----	----	------	-------	------	-------	-------	------	------	------	-------

-----

Segment Leq : 50.07 dBA

Total Leq All Segments: 50.07 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 56.22

(NIGHT): 50.07

↑

↑

STAMSON 5.0            NORMAL REPORT            Date: 19-09-2019 15:31:08  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b1u13\_o.te            Time Period: 16 hours  
Description: Block 2, Unit 13, OLA

Road data, segment # 1: Main Street  
-----

Car traffic volume : 9452 veh/TimePeriod \*  
Medium truck volume : 161 veh/TimePeriod \*  
Heavy truck volume : 132 veh/TimePeriod \*  
Posted speed limit : 50 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Main Street  
-----

Angle1 Angle2 : -45.00 deg 45.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 0  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 37.00 m  
Receiver height : 1.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Results segment # 1: Main Street  
-----

Source height = 1.08 m

ROAD (0.00 + 53.26 + 0.00) = 53.26 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-45	45	0.66	63.09	0.00	-6.51	-3.32	0.00	0.00	0.00	53.26

-----

Segment Leq : 53.26 dBA

Total Leq All Segments: 53.26 dBA

↑

TOTAL Leq FROM ALL SOURCES: 53.26

↑

↑

STAMSON 5.0            NORMAL REPORT            Date: 19-09-2019 12:33:53  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: Block 2 Unit 14.te            Time Period: Day/Night 16/8 hours  
Description:Block 2, Unit 14, Facade

Road data, segment # 1: Main Street (day/night)

-----  
Car traffic volume : 9452/1050 veh/TimePeriod \*  
Medium truck volume : 161/18 veh/TimePeriod \*  
Heavy truck volume : 132/15 veh/TimePeriod \*  
Posted speed limit : 50 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 10827  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 1.65  
Heavy Truck % of Total Volume : 1.35  
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Main Street (day/night)

-----  
Angle1 Angle2 : -90.00 deg 90.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 0 / 0  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 18.50 / 18.50 m  
Receiver height : 7.50 / 7.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Results segment # 1: Main Street (day)

-----  
Source height = 1.08 m

ROAD (0.00 + 60.57 + 0.00) = 60.57 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.49	63.09	0.00	-1.36	-1.16	0.00	0.00	0.00	60.57

-----

Segment Leq : 60.57 dBA

Total Leq All Segments: 60.57 dBA

Results segment # 1: Main Street (night)

-----  
Source height = 1.08 m

ROAD (0.00 + 54.08 + 0.00) = 54.08 dBA

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

-90	90	0.49	56.60	0.00	-1.36	-1.16	0.00	0.00	0.00	54.08
-----	----	------	-------	------	-------	-------	------	------	------	-------

-----  
Segment Leq : 54.08 dBA

Total Leq All Segments: 54.08 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 60.57  
(NIGHT): 54.08

STAMSON 5.0            NORMAL REPORT            Date: 19-09-2019 15:55:21  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b2u14\_o.te            Time Period: 16 hours  
Description: Block 2, Unit 14, OLA

Road data, segment # 1: Main Street  
-----

Car traffic volume : 9452 veh/TimePeriod \*  
Medium truck volume : 161 veh/TimePeriod \*  
Heavy truck volume : 132 veh/TimePeriod \*  
Posted speed limit : 50 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Main Street  
-----

Angle1 Angle2 : -30.00 deg 45.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 0  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 19.00 m  
Receiver height : 1.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Results segment # 1: Main Street  
-----

Source height = 1.08 m

ROAD (0.00 + 57.34 + 0.00) = 57.34 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-30	45	0.66	63.09	0.00	-1.70	-4.04	0.00	0.00	0.00	57.34

-----

Segment Leq : 57.34 dBA

Total Leq All Segments: 57.34 dBA

↑

TOTAL Leq FROM ALL SOURCES: 57.34

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 19-09-2019 16:12:56  
 MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b2u14\_ob.te                      Time Period: 16 hours  
 Description: Block 2, Unit 14, OLA w/Barrier

Road data, segment # 1: Main Street

-----  
 Car traffic volume : 9452 veh/TimePeriod \*  
 Medium truck volume : 161 veh/TimePeriod \*  
 Heavy truck volume : 132 veh/TimePeriod \*  
 Posted speed limit : 50 km/h  
 Road gradient : 0 %  
 Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Main Street

-----  
 Angle1    Angle2                      : -30.00 deg    45.00 deg  
 Wood depth                            : 0                      (No woods.)  
 No of house rows                      : 0  
 Surface                                : 1                      (Absorptive ground surface)  
 Receiver source distance : 19.00 m  
 Receiver height : 1.50 m  
 Topography : 2                      (Flat/gentle slope; with barrier)  
 Barrier angle1 : -30.00 deg    Angle2 : 45.00 deg  
 Barrier height : 2.00 m  
 Barrier receiver distance : 5.00 m  
 Source elevation : 0.00 m  
 Receiver elevation : 0.00 m  
 Barrier elevation : 0.00 m  
 Reference angle : 0.00

↑

Results segment # 1: Main Street

-----  
 Source height = 1.08 m

Barrier height for grazing incidence

-----  

Source	! Receiver	! Barrier	! Elevation of
Height (m)	! Height (m)	! Height (m)	! Barrier Top (m)
-----+-----+-----+-----			
1.08 !	1.50 !	1.39 !	1.39

ROAD (0.00 + 50.42 + 0.00) = 50.42 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-30	45	0.55	63.09	0.00	-1.59	-4.00	0.00	0.00	-7.07	50.42

-----  
Segment Leq : 50.42 dBA

Total Leq All Segments: 50.42 dBA



TOTAL Leq FROM ALL SOURCES: 50.42





STAMSON 5.0            NORMAL REPORT            Date: 19-09-2019 13:51:43  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: block3\_f.te            Time Period: Day/Night 16/8 hours  
Description: Block 3, Units 15 to 19, Facade

Road data, segment # 1: Main Street (day/night)

-----  
Car traffic volume : 9452/1050 veh/TimePeriod \*  
Medium truck volume : 161/18 veh/TimePeriod \*  
Heavy truck volume : 132/15 veh/TimePeriod \*  
Posted speed limit : 50 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 10827  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 1.65  
Heavy Truck % of Total Volume : 1.35  
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Main Street (day/night)

-----  
Angle1 Angle2 : -90.00 deg 90.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 0 / 0  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 18.00 / 18.00 m  
Receiver height : 7.50 / 7.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Results segment # 1: Main Street (day)

-----  
Source height = 1.08 m

ROAD (0.00 + 60.74 + 0.00) = 60.74 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.49	63.09	0.00	-1.18	-1.16	0.00	0.00	0.00	60.74

-----  
Segment Leq : 60.74 dBA

Total Leq All Segments: 60.74 dBA



Results segment # 1: Main Street (night)

-----

Source height = 1.08 m

ROAD (0.00 + 54.26 + 0.00) = 54.26 dBA

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

-----

-90	90	0.49	56.60	0.00	-1.18	-1.16	0.00	0.00	0.00	54.26
-----	----	------	-------	------	-------	-------	------	------	------	-------

-----

Segment Leq : 54.26 dBA

Total Leq All Segments: 54.26 dBA



TOTAL Leq FROM ALL SOURCES (DAY): 60.74

(NIGHT): 54.26



STAMSON 5.0            NORMAL REPORT            Date: 19-09-2019 13:46:59  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: FB29\_F.te            Time Period: Day/Night 16/8 hours  
Description: Freehold Block 2, Units 4 to 7 & Freehold Block 9, Units 2 & 3, Facade

Road data, segment # 1: Wymdham (day/night)

-----  
Car traffic volume : 3528/392    veh/TimePeriod    \*  
Medium truck volume : 40/4    veh/TimePeriod    \*  
Heavy truck volume : 32/4    veh/TimePeriod    \*  
Posted speed limit : 40 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 4000  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 1.10  
Heavy Truck % of Total Volume : 0.90  
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Wymdham (day/night)

-----  
Angle1    Angle2 : -90.00 deg    90.00 deg  
Wood depth : 0    (No woods.)  
No of house rows : 0 / 0  
Surface : 1    (Absorptive ground surface)  
Receiver source distance : 15.00 / 15.00 m  
Receiver height : 7.50 / 7.50 m  
Topography : 1    (Flat/gentle slope; no barrier)  
Reference angle : 0.00

Results segment # 1: Wymdham (day)

-----  
Source height = 0.97 m

ROAD (0.00 + 54.55 + 0.00) = 54.55 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.50	55.71	0.00	0.00	-1.17	0.00	0.00	0.00	54.55

-----

Segment Leq : 54.55 dBA

Total Leq All Segments: 54.55 dBA

Results segment # 1: Wymdham (night)

-----  
Source height = 1.00 m

ROAD (0.00 + 48.18 + 0.00) = 48.18 dBA

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

-90	90	0.50	49.35	0.00	0.00	-1.17	0.00	0.00	0.00	48.18
-----	----	------	-------	------	------	-------	------	------	------	-------

-----  
Segment Leq : 48.18 dBA

Total Leq All Segments: 48.18 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 54.55  
(NIGHT): 48.18

STAMSON 5.0                      NORMAL REPORT                      Date: 19-09-2019 15:51:43  
 MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: FB2\_0.te                      Time Period: 16 hours  
 Description: Freehold Block 2: Units 4 to 7 and Freehold Block 9: Units 2 to 3 OLA

Road data, segment # 1: Wyndham St

```
-----
Car traffic volume : 3528 veh/TimePeriod *
Medium truck volume : 40 veh/TimePeriod *
Heavy truck volume : 32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)
```

Data for Segment # 1: Wyndham St

```
-----
Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 29.00 m
Receiver height : 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 90.00 deg
Barrier height : 7.50 m
Barrier receiver distance : 3.00 m
Source elevation : 0.00 m
Receiver elevation : 0.00 m
Barrier elevation : 0.00 m
Reference angle : 0.00
```



Results segment # 1: Wyndham St

Source height = 0.97 m

Barrier height for grazing incidence

```
-----
Source ! Receiver ! Barrier ! Elevation of
Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)
-----+-----+-----+-----
0.97 ! 1.50 ! 1.45 ! 1.45
```

ROAD (0.00 + 36.13 + 0.00) = 36.13 dBA

Angle1 Angle2 Alpha RefLeq P.Adj D.Adj F.Adj W.Adj H.Adj B.Adj SubLeq

-----

-90	90	0.23	57.93	0.00	-3.51	-0.60	0.00	0.00	-17.69	36.13
-----	----	------	-------	------	-------	-------	------	------	--------	-------

---

Segment Leq : 36.13 dBA

Total Leq All Segments: 36.13 dBA



TOTAL Leq FROM ALL SOURCES: 36.13



STAMSON 5.0            NORMAL REPORT            Date: 19-09-2019 12:02:14  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: unit\_1~1.te            Time Period: Day/Night 16/8 hours  
Description: Freehold Block 9, Unit 1, Facade

Road data, segment # 1: Main Street (day/night)

-----  
Car traffic volume : 9452/1050 veh/TimePeriod \*  
Medium truck volume : 161/18 veh/TimePeriod \*  
Heavy truck volume : 132/15 veh/TimePeriod \*  
Posted speed limit : 50 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 10827  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 1.65  
Heavy Truck % of Total Volume : 1.35  
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Main Street (day/night)

-----  
Angle1 Angle2 : -90.00 deg 90.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 0 / 0  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 17.50 / 17.50 m  
Receiver height : 7.50 / 7.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

Results segment # 1: Main Street (day)

-----  
Source height = 1.08 m

ROAD (0.00 + 60.93 + 0.00) = 60.93 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.49	63.09	0.00	-1.00	-1.16	0.00	0.00	0.00	60.93

-----

Segment Leq : 60.93 dBA

Total Leq All Segments: 60.93 dBA

Results segment # 1: Main Street (night)

-----  
Source height = 1.08 m

ROAD (0.00 + 54.44 + 0.00) = 54.44 dBA

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

-90	90	0.49	56.60	0.00	-1.00	-1.16	0.00	0.00	0.00	54.44
-----	----	------	-------	------	-------	-------	------	------	------	-------

-----  
Segment Leq : 54.44 dBA

Total Leq All Segments: 54.44 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 60.93  
(NIGHT): 54.44



STAMSON 5.0            NORMAL REPORT            Date: 19-09-2019 15:37:45  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: fb9u1\_o.te            Time Period: 16 hours  
Description: Freehold Block 9, Unit 1, OLA

Road data, segment # 1: Main Street

-----  
Car traffic volume : 9452 veh/TimePeriod \*  
Medium truck volume : 161 veh/TimePeriod \*  
Heavy truck volume : 132 veh/TimePeriod \*  
Posted speed limit : 50 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Main Street

-----  
Angle1    Angle2            : -60.00 deg    60.00 deg  
Wood depth                : 0            (No woods.)  
No of house rows         : 0  
Surface                    : 1            (Absorptive ground surface)  
Receiver source distance : 15.00 m  
Receiver height           : 1.50 m  
Topography                : 1            (Flat/gentle slope; no barrier)  
Reference angle           : 0.00

↑

Results segment # 1: Main Street

-----  
Source height = 1.08 m

ROAD (0.00 + 60.76 + 0.00) = 60.76 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-60	60	0.66	63.09	0.00	0.00	-2.32	0.00	0.00	0.00	60.76

-----

Segment Leq : 60.76 dBA

Total Leq All Segments: 60.76 dBA

↑

TOTAL Leq FROM ALL SOURCES:            60.76

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 19-09-2019 15:39:03  
 MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: f1\_olab.te                      Time Period: 16 hours  
 Description: Freehold Block 9, Unit 1, OLA w/Barrier

Road data, segment # 1: Main Street

-----  
 Car traffic volume : 9452 veh/TimePeriod \*  
 Medium truck volume : 161 veh/TimePeriod \*  
 Heavy truck volume : 132 veh/TimePeriod \*  
 Posted speed limit : 50 km/h  
 Road gradient : 0 %  
 Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Main Street

-----  
 Angle1    Angle2                      : -60.00 deg    60.00 deg  
 Wood depth                            : 0                      (No woods.)  
 No of house rows                      : 0  
 Surface                                : 1                      (Absorptive ground surface)  
 Receiver source distance : 15.00 m  
 Receiver height                        : 1.50 m  
 Topography                             : 2                      (Flat/gentle slope; with barrier)  
 Barrier angle1                        : -60.00 deg    Angle2 : 60.00 deg  
 Barrier height                         : 2.00 m  
 Barrier receiver distance : 5.00 m  
 Source elevation                        : 0.00 m  
 Receiver elevation                      : 0.00 m  
 Barrier elevation                       : 0.00 m  
 Reference angle                        : 0.00

↑  
 Results segment # 1: Main Street

-----  
 Source height = 1.08 m

Barrier height for grazing incidence

-----  

Source	! Receiver	! Barrier	! Elevation of
Height (m)	! Height (m)	! Height (m)	! Barrier Top (m)
-----+-----+-----+-----			
1.08 !	1.50 !	1.36 !	1.36

ROAD (0.00 + 53.65 + 0.00) = 53.65 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-60	60	0.55	63.09	0.00	0.00	-2.24	0.00	0.00	-7.20	53.65

-----  
Segment Leq : 53.65 dBA

Total Leq All Segments: 53.65 dBA



TOTAL Leq FROM ALL SOURCES: 53.65



## **APPENDIX C**

### City of Mississauga Comments



ACOUSTICS



NOISE



VIBRATION

October 11, 2019

**Planning and Building Department**  
**Planning Division**  
**City of Mississauga**  
300 City Centre Drive  
Mississauga, Ontario  
L5B 3C1

**Re: City of Mississauga Comments, Proposed Residential Development, Wyndham Street and Main Street, Noise Feasibility Study – City of Mississauga File No. T-M17007 W11**

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To whom it may concern,

As requested, we have prepared the following supplementary information regarding the Noise Feasibility Study, for the proposed residential development located at Wyndham Street and Main Street, in response to comments received by the City of Mississauga's Planning and Building Department.

**Urban Designer Comments**

14. Updated June 06/2019 comment remains: The updated noise study has not been received with this submission. Acoustic fences along Main Street should be setback to 3.0 meters matching the townhouse porches. Acoustic fences should not project past the front porch of the townhouses of Block 1 (Freehold) and Block 2 (CEC). Amend the noise study to reflect these changes.

Per comments from civil engineering, the acoustical fence setback cannot be revised. The planned fence setback is as is to allow for a stormwater pipe easement.

**Development Engineering Comments**

- i. On page 4, paragraph 4.1, correct the percentage of heavy trucks shown as it is not consistent with the data provided by the City's Transportation and Infrastructure Management section. Review that any result derived from the same is correct.

This has been corrected.

- ii. Review Table 2: Ultimate Road Traffic Data on page 4, to provide values consistent with the medium/heavy truck ratio and the percentage of trucks as shown on the data provided by the City's Transportation and Infrastructure Management section.

This has been corrected.

- iii. Confirm if for the freehold Unit 4 exposed to Wyndham St. the predicted sound levels without mitigation is within the limits and show so on Table 3, page 5.

Confirmed. Please see Table 3, Page 4, Row 2.

- iv. As Figures 2 and 3 on the report are the reference on the length and location of the recommended 2.0 m high acoustic barrier, please ensure the same is distinguishable on the mentioned figures.

Please see revised the site plan.

- v. Ensure blocks/lots described and shown are consistent with the drawings and all other information supporting this application.

Report has been revised to be consistent with latest site plan.

- vi. As a new configuration of the proposed Noise barriers is presented within the drawings supporting the 2nd submission, the Noise report is to be updated to provide the noise levels achieved with this new configuration.

Please see Table 4 on page 5, with supporting calculations in Appendix B.

- vii. Provide all STAMSON calculations supporting the report analysis and recommendations.

Please see Appendix B.

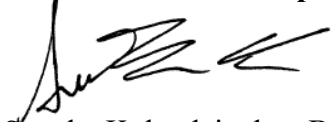
- viii. Provide sound levels without mitigation. If sound levels exceed 60dBA provide barrier heights recommendations to achieve sound levels between 55 dBA and 60 dBA. If sound levels of 55 dBA cannot be met, provide justification of why alternative heights are not technically, economically or administratively feasible.

This has been addressed in Section 5.

We trust this meets your current requirements.

Yours truly,

**Howe Gastmeier Chapnik Limited**



Swetha Kulandaivelan, BAsc, EIT

abutting streets and intersections. The garage faces should not be setback with the second floor overhanging as this creates a deep depression that detracts from the design quality of the townhouses. On Block 1 (CEC) and Block 2 (CEC) townhouses address the design and layout of internal end units. These units have small irregularly shaped front porches and anomalous floor plan proportions. End units are to be designed in a manner that enhances the character of the development. Provide elevations and floor plans of all townhouse units more comments may be made at this time.

**Created :** 2018-02-23 12:29:22 **Last Modified :** 2019-06-17 16:47:19

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| 11 | RECOMMENDATION<br>REPORT | <p>Updated June 06/2019 comment remains: An illustrated Urban Design Study has not been received with this resubmission. The items listed below have not been demonstrated to the satisfaction of Urban Design as required. This is requested since no building elevations have been provided and information is required about the character and compaibility of the development The proposed development is to conform to the following standards and guidelines: - Urban Design Handbook for Low Rise Multiple Dwellings - Historic Streetsville Urban Design Guidelines - Section 14.11 Streetsville Community Node policies of the Mississauga Official Plan - Section 9 Build a Desirable Urban Form of the Mississauga Official Plan (note policies related to Community Nodes) Please provide an illustrated urban design summary demonstrating how the development contributes to each of these policies.</p> <p><b>Created :</b> 2018-02-23 12:29:22 <b>Last Modified :</b> 2019-06-17 16:47:19</p> |
| 12 | RECOMMENDATION<br>REPORT | <p>Updated June 06/2019 comment remains: Due to the high visibility of Block 3 (CEC) the front elevation should be upgraded to complement and enhance the character of the area. In this regard, upgrade the main elevation with high quality building materials characteristic of the area, incorporate visual interest and pattern, a strong base, building articulations and projections, interesting roof forms, detail and trim, and a design that addresses its prominent location in Streetsville. Elevations fronting Main Street should be designed to create a gateway into the community and compliment the architectural characteristics of the historic center.</p> <p><b>Created :</b> 2018-03-02 14:07:03 <b>Last Modified :</b> 2019-06-17 16:47:19</p>   |
| 13 | RECOMMENDATION<br>REPORT | <p>Updated June 06/2019 comment remains: The side elevations of Block 1 (freehold) and Block 2 (CEC) facing onto Main Street should be designed in a manner equal to the front elevation in detail, trim, the orderly placement of windows and roof forms. Designs for these side elevations should locate the main entry facing the side lot fronting Main Street. The front doors of all dwellings within the subdivision are to be clearly visible from the street.</p> <p><b>Created :</b> 2018-03-02 14:07:03 <b>Last Modified :</b> 2019-06-17 16:47:19</p>   |
| 14 | RECOMMENDATION<br>REPORT | <p>Updated June 06/2019 comment remains: The updated noise study has not been received with this submission. Acoustic fences along Main Street should be setback to 3.0 meters matching the townhouse porches. Acoustic fences should not project past the front porch of the townhouses of Block 1 (Freehold) and Block 2 (CEC). Amend the noise study to reflect these changes.</p> <p><b>Created :</b> 2018-02-23 12:29:22 <b>Last Modified :</b> 2019-06-17 16:47:19</p>  |
| 15 | RECOMMENDATION<br>REPORT | <p>Updated June 06/2019 comment remains: The updated noise study has not been received with this submission. A Noise Feasibility Study was prepared by Howe Gastmeir Chapnik Limited HGC Engineering dated November 14, 2017. Prior to final approval we wish to review copies of the standard agreements of purchase and sale or lease related to transactions on the subject lands so as to ensure that warning clauses listed in Schedule 'B' of the Development Agreement and in the noise analyses have been included in the documents.</p> <p><b>Created :</b> 2018-02-23 12:29:22 <b>Last Modified :</b> 2019-06-17 16:47:19</p>   |
| 16 | RECOMMENDATION<br>REPORT | <p>Updated June 06/2019 comment remains: See T&amp; W Traffic Comments #1, 2, 5, 8, and 10: Urban Design supports the recommendations and access to Main Street is to be removed from the plans. A turnaround area is to be provided to facilitate the ingress and egress of emergency / waste collection vehicles through the Wyndham Street access to the site. A municipal sidewalk along Wyndham Street is required.</p> <p><b>Created :</b> 2018-10-12 10:51:42 <b>Last Modified :</b> 2019-06-17 16:47:19</p>   |

## DEVELOPMENT SERVICES

Contact: Tel.:

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| 1 | DRAFT APPR | <p>Prior to the registration of the above-noted plan of subdivision, the following item is to be complied with by the applicant to the satisfaction of the Development Services Section, Business Services Division, Planning and Building Department: 1. The applicant is required to register restrictions on title to all the lots/blocks prohibiting the transfer of the lots/blocks</p> |
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required on both sides. Applicant is to include this utility corridors as part of the CEC road not to be part of the freehold units 3 and 4. Additional setbacks could be required from this utility corridor which could cause modifications on the units configuration or loose units, (xviii) Ensure the cross-sections provided show existing property line and ultimate property line as well as top of bank and existing and proposed grades. (xix) Clarify if matching existing grades at the property line along the CEC lot 2 (westerly L corner). Contact this reviewer for clarification. If matching existing grades, please clearly show so. Otherwise, show proposed grades, (xv) All drawings shall be consistent among them. Servicing Plan is showing the WM and SAN connections to the CEC blocks right at the limit of the utility corridor while the landscape plans are showing it stopping at another location. Please revise and modify accordingly.

**Created :** 2018-11-08 16:06:42 **Last Modified :** 2019-07-09 10:23:58

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| 3 | RECOMMENDATION REPORT | <p>[NOISE REPORT REQUIREMENTS] [Updated July 8, 2019. Still Outstanding. Response matrix mentioned that the Noise Report to be provided under separate cover but the same has not been received by this section] [Updated November 08, 2018. Items requested on 1st submission are still outstanding. In addition, new comments No. vi), Vii) and viii) have been added based on the information received within this 2nd Submission.] [Previous, 1st submission comments] This department received a Noise Feasibility study, prepared by HGC Engineering, dated November 14, 2017. The report is to be reviewed to address the following: (i) On page 4, paragraph 4.1, correct the percentage of heavy trucks shown as it is not consistent with the data provided by the City's Transportation and Infrastructure Management section. Review that any result derived from the same is correct. (ii) Review Table 2: Ultimate Road Traffic Data on page 4, to provide values consistent with the medium/heavy truck ratio and the percentage of trucks as shown on the data provided by the City's Transportation and Infrastructure Management section; (iii) Confirm if for the freehold Unit 4 exposed to Wyndham St. the predicted sound levels without mitigation is within the limits and show so on Table 3, page 5. (iv) As Figures 2 and 3 on the report are the reference on the length and location of the recommended 2.0 m high acoustic barrier, please ensure the same is distinguishable on the mentioned figures. (v) Ensure blocks/lots described and shown are consistent with the drawings and all other information supporting this application. (vi) As a new configuration of the proposed Noise barriers is presented within the drawings supporting the 2nd submission, the Noise report is to be updated to provide the noise levels achieved with this new configuration; (vii) Provide all STAMSON calculations supporting the report analysis and recommendations; (viii) Provide sound levels without mitigation. If sound levels exceed 60dBA provide barrier heights recommendations to achieve sound levels between 55 dBA and 60 dBA. If sound levels of 55 dBA cannot be met, provide justification of why alternative heights are not technically, economically or administratively feasible.</p> <p><b>Created :</b> 2018-02-28 11:15:29 <b>Last Modified :</b> 2019-07-08 14:06:02</p> |
| 5 | RECOMMENDATION REPORT | <p>[PROVIDE EXISTING UTILITIES/SERVICES LOCATION] [Updated July 8, 2019. Still Outstanding. Response matrix mentioned that utilities design is to be provided by separate and will be provided once available. To note that confirmation is also required in regards to the need for the 3 m utility corridor on both sides of the CEC road. Also, applicant is to include those corridors as part of the CEC block and shall not be part of the freehold townhouses.] [Updated November 08, 2018. As within the 2nd submission this item was not addressed, this condition remains outstanding.] The applicant shall provide full-scale, dimensioned engineering drawings which include the as-constructed location of all existing services and utilities and the proposed servicing, utility and landscaping works within the Main Street boulevard and travelled road. Please note that any/all proposed transformers/utility boxes are to be located outside of the municipal right-of-way on private property.</p> <p><b>Created :</b> 2018-02-28 11:15:30 <b>Last Modified :</b> 2019-07-08 15:14:29</p>   |
| 6 | RECOMMENDATION REPORT | <p>[Updated July 8, 2019. Items shown below still Outstanding] [Updated November 08, 2018. The items below remain outstanding.] The supporting drawings are to be revised to address the following concerns and illustrate the feasibility of the proposed common element condominium development: i) include and clearly depict the minimum 3.0 m (10 ft.) utility corridor within the minimum 4.5 m (14.8 ft.) front yard setback, ensuring that steps and/or any landing/porch area does not encroach within this area. Additionally, no item such as services from the freehold townhouses can encroach within this CEC utility corridor. Revise/modify proposal accordingly. iii) Revise all private condominium roads to the standard crowned centreline of pavement, (provide crowned road with 2% crossfall as per City's standards), iv) Provide functional grading details for a typical POTL block and clearly illustrate all POTL boundaries, (vi) Revise/Modify the limits of the proposed freehold blocks to ensure the utility corridor from the CEC development doesn't encroach with it. Any service for the CEC development shall be outside the freehold development limits. Include also these utility corridors as part of the CEC road block shown on the Draft Plan and update the freehold</p>  |



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| 4  | RECOMMENDATION<br>REPORT | <p>July 10, 2019 --- Comment remains as a note. The City of Mississauga Fees and Charges By-law 0429-2008 includes an advertising fee for costs associated with providing Public Meeting Notice by newspaper advertisement. A minimum charge of \$2,000.00 is payable at time of application submission. If costs exceed \$2,000.00, the balance is to be paid prior to the Recommendation Report being considered by Council. The cost of the newspaper advertisement for this application was \$_____, therefore, the balance payable to the City of Mississauga is \$_____.</p> <p><b>Created :</b> 2018-05-14 14:09:16    <b>Last Modified :</b> 2019-07-10 16:49:46</p>   |
| 5  | RECOMMENDATION<br>REPORT | <p>July 10, 2019 --- Comment remains as a note. Fees and Charges By-law 0539-2004 established a Public Meeting Notice Fee which covers costs associated with providing public meeting notice by mail to be payable at the time of the notice. By-law 0539-2004 has been superceded by Fees and Charges By-law 0429-2008. The current fee is \$0.57 per mailing notice. The applicable fee is to be paid prior to the preparation of the recommendation report and will be determined at the time the public notices are mailed.</p> <p><b>Created :</b> 2018-05-14 14:09:16    <b>Last Modified :</b> 2019-07-10 16:49:46</p>  |
| 7  | NOTE:                    | <p>Resubmission must be accompanied by a covering Letter by the Applicant/Agent that addresses all comments made by City Departments and external agencies.</p> <p><b>Created :</b> 2018-05-14 15:18:51    <b>Last Modified :</b> 2019-07-10 16:52:37</p>  |
| 8  | BYLAW ENACTMENT          | <p>In the event the recommendation report is not considered by Planning and Development Committee or Council within 9 months of the public meeting, the applicant is responsible for the cost of the mailing of the recommendation meeting notices. The current fee is \$0.57 per mailing notice. The applicable fee is to be paid prior to the enactment of the by-law.</p> <p><b>Created :</b> 2018-05-14 14:09:16    <b>Last Modified :</b> 2019-07-10 16:52:37</p>   |
| 10 | RECOMMENDATION<br>REPORT | <p>The third and most recent submission indicated that the following studies/documents were to be provided under seperate cover: 1. Revised Arborist Report 2. Revised Noise Report 3. Written document signed by a Qualified Person as specified in Section 5 of Ontario Regulation 153/04 4. Revised Traffic Impact Statement None of these documents have been received. Please include these documents in the next formal submission.</p> <p><b>Created :</b> 2019-07-10 17:19:38    <b>Last Modified :</b> 2019-07-11 14:10:01</p>  |
| 11 | RECOMMENDATION<br>REPORT | <p>Planning Justification Report July 10, 2019 --- Once issues pertaining to traffic, site engineering, limits of development, and urban design have been addressed to the City's satisfaction, please provide an updated Planning Justification Report that reflects the final proposed development and addresses all deficiencies/typo's previously noted.</p> <p><b>Created :</b> 2019-07-10 16:32:23    <b>Last Modified :</b> 2019-07-11 13:56:21</p>   |
| 12 | RECOMMENDATION<br>REPORT | <p>Draft Implementing Documents July 5, 2019 - The Draft OPA reflects the proposed land designations. The Draft Zoning By-law reflects the proposed zoning. Comment remains as a withheld as the proposal is to be modified to address outstanding comments. November 29, 2018 - Comment remains, the current versions of the Draft OPA does not reflect the proposed land designations to Residential Medium Density on the schedules. Please ensure accuracy of the draft MOPA as requested. Provide updated draft OPA and Zoning By-law to reflect any revised plans. The applicant is responsible for the requested exceptions/amendments to accomodate any future development plans for the site. May 14, 2018 - The current versions of the Draft OPA and By-law does not reflect the proposed number of units (19 common element townhouses and 7 freehold) and proposed land designations to Residential Medium Density on the schedules. The Draft By-law text references a change from R3 and G1 to RM5-xx, RM6-xx, R3 and G1 zoning but the schedules attached does not include the R3 zone. Please ensure accuracy of the draft by-law and MOPA requested. Provide updated draft OPA and Zoning By-law to reflect any revised plans. The applicant is responsible for the requested exceptions/amendments to accomodate any future development plans for the site.</p> <p><b>Created :</b> 2018-05-14 15:18:51    <b>Last Modified :</b> 2019-07-11 13:56:21</p> |
| 13 | RECOMMENDATION<br>REPORT | <p>Site Design July 5, 2019 - Comment Remains. Please incorporate Urban Design Comments (See T17007 ASR) into the next resubmission. November 29, 2018 - comment remains May 14, 2018 - Mississauga Official Plan: The subject property is located within the Streetsville Neighbourhood Character Area and designated Residential Low Density I, which only permits detached dwellings. To the west of site are large detached homes fronting on Wyndham</p>  |