HGC ENGINEERING

Howe Gastmeier Chapnik Limited
2000 Argentia Road, Plaza One, Suite 203
Mississauga, Ontario, Canada L5N 1P7
t: 905.826.4044

Traffic and Stationary Noise Feasibility Study
Proposed Lakeside Village Plaza
5353 Lakeshore Road
Burlington, Ontario

Prepared for:

United Burlington Retail Portfolio Inc.
986 St. Clair Ave. W.
Toronto, Ontario
M6A 1E2

Prepared by



Victor Garcia, PEng

Reviewed by

Sheeba Paul, MEng, PEng

April 18, 2018

Table of Contents

1 Introduction & Summary 1
2 Site Description & Noise Sources 2
3 Noise Level Criteria 3
3.1 Road Traffic Noise 3
3.2 Criteria Governing Stationary (Industrial) Noise Sources 4
4 Traffic Noise Predictions 5
4.1 Road Traffic 5
4.2 Road Traffic Noise Prediction 5
5 Traffic Noise Recommendation 6
5.1 Outdoor Living Areas 6
5.2 Indoor Living Areas and Ventilation Requirements 6
5.3 Building Facade Constructions 7
5.4 Warning Clauses 7
6 Impact of the Development on the Environment 8
7 Impact of the Development on Itself 9
8 Stationary Source Assessment 9
8.1 Assumed Worst-Case Operating Scenarios 11
8.2 Prediction Results 11
9 Summary of Recommendations 12
9.1 Implementation 13

Figure 1 – Key Plan
Figure 2 – Proposed Site Plan Showing Prediction Locations
Figure 3 – Proposed Site Plan Showing Ventilation Requirements
Figure 4 – Aerial Plan Showing Receptor and Stationary Source Locations

Appendix A – Road Traffic Information
Appendix B – Supporting Information

1 Introduction & Summary

HGC Engineering was retained by United Burlington Retail Portfolio Inc. to conduct a noise feasibility study for a proposed mixed use redevelopment to be located at 5353 Lakeshore Road in the City of Burlington, Ontario. The proposed redevelopment will consist of a new mixed use community with a number of development blocks to be phased. There will be a range of buildings of varying heights including townhomes, apartment units, restaurant, retail and a grocery store. The surrounding lands are primarily existing residential and commercial. This study is in support of an Official Plan Amendment and rezoning applications to facilitate the development.

The study assesses the latest site plan for the development prepared by Cynthia Zahoruk Architect Inc., last revised March 21, 2018, and also incorporates the City of Burlington pre-consultation comments dated January 24, 2018, provided in Appendix B.

The primary noise source impacting the site was determined to be road traffic on Lakeshore Road. Road traffic data for Lakeshore Road was obtained from the City of Burlington and was used to predict future traffic sound levels at the locations of the proposed residential buildings. The predicted sound levels were compared to the guidelines of the Ministry of Environment and Climate Change (MOECC) and the municipality.

Sound level predictions indicate that future traffic sound levels during the daytime and nighttime at the dwelling units will exceed MOECC guidelines but feasible means exist to reduce sound levels to meet the sound level limits. Any exterior wall, and double glazed window construction meeting the minimum requirements of the Ontario Building Code (OBC) will provide adequate sound insulation for the dwelling units. A detailed noise study should be conducted for the proposed roof top equipment of the residential buildings and the proposed commercial, restaurant and grocery store when the equipment is selected. As a recommendation, the rooftop equipment may be enclosed in a mechanical penthouse to reduce noise emissions at off-site sensitive receptors. A computer model of the area was created, using acoustic modelling software, in order to predict the sound levels at the locations of adjacent sensitive proposed and existing residential receptors. The results indicate that the sound emissions from the proposed commercial building (grocery store) has the potential to exceed the guidelines and mitigation measures are provided in the form of a property line barrier and

roof for the loading area. The existing mechanical rooftop sources on the arena and southerly apartment buildings are below the MOECC sound level limits and further mitigation is not required. When detailed roof plans and building elevations are available, the sound levels of the commercial buildings (including the grocery store) should be verified such that MOECC sound level limits are met at the adjacent receptors.

2 Site Description & Noise Sources

The site is located at 5353 Lakeshore Road in Burlington, Ontario. Figure 1 is a key plan illustrating the location of the site. The latest site plan of the redevelopment prepared by Cynthia Zahoruk Architect Inc., last revised March 21, 2018 is shown in Figure 2 and also shows the prediction locations. The proposed redevelopment will consist of a new mixed use community with a number of development blocks to be phased. There will be a range of buildings of varying heights in the form of townhomes, apartments, restaurant, commercial and retail. A Food Basics is currently located at the northeast corner of the site, which is proposed to continue in the redevelopment.

A site visit was made by HGC Engineering personnel on January 19, 2017 to make observations of the acoustic environment and to identify the significant noise sources in the vicinity. The acoustical environment surrounding the site is urban in nature. The site currently contains a commercial plaza containing a Food Basics and other commercial uses. To the west of the site is a Husky gas station and a commercial plaza. South, east and north of the site are various existing high and low density residential buildings and senior's residences. Skyway Arena is located to the north of the subject site. There is a parking lot in between the site and the arena building. There is a small condenser unit on the northwest corner roof of the arena which has been included in the analysis. A review of an aerial photo of the area indicates there are some rooftop mechanical equipment on the roof of the residential buildings on the south side of the Lakeshore Road. The impact of these buildings on the proposed development has been included in the analysis. Burloak Waterfront Park is located to the southeast of the site. Sounds were not audible from the sources discussed above, during the time of the site visit. There are no other significant sources of stationary noise within 500 m of the subject site.

3 Noise Level Criteria

3.1 Road Traffic Noise

Guidelines for acceptable levels of road traffic noise impacting residential developments are given in the MOECC publication NPC-300, "Environmental Noise Guideline Stationary and Transportation Sources – Approval and Planning", dated August 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: MOECC Road Traffic Noise Criteria (dBA)

Area	Daytime L_{EQ} (16 hour) Road	Nighttime L_{EQ}(8 hour) Road
Outdoor Living Area	55 dBA	--
Living/Dining Room	45 dBA	45 dBA
Bedroom	45 dBA	40 dBA

Daytime refers to the period between 07:00 and 23:00, while nighttime refers to the period between 23:00 and 07:00. The term "Outdoor Living Area" (OLA) is used in reference to an outdoor patio, a backyard, a terrace or other area where passive recreation is expected to occur. Balconies that are less than 4 m in depth are not considered to be outdoor living areas under NPC-300.

The MOECC guidelines allow the daytime sound levels in an Outdoor Living Area to be exceeded by up to 5 dBA, without mitigation, if warning clauses are placed in the purchase and rental agreements to the property. Where OLA sound levels exceed 60 dBA, physical mitigation is recommended to reduce the OLA sound level to 55 dBA. If 55 dBA is not technically, economically or administratively feasible, excesses no more than 5 dBA are permitted with warning clauses.

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

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

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

3.2 Criteria Governing Stationary (Industrial) Noise Sources

NPC-300 is also used to investige Land Use Compatibility issues with regard to noise. Noise from the proposed development may potentially impact neighbouring noise sensitive land uses due to the air conditioning units on the proposed commercial buildings. In terms of background sound, the development is located in an urban (Class 1) acoustical environment which is characterized by an acoustical environment dominated by road traffic and human activity.

The facade of a residence (i.e., in the plane of a window), or any associated usable outdoor area is considered a sensitive point of reception. NPC-300 stipulates that the exclusionary sound level limit for a stationary noise source in an urban Class 1 area is taken to be 50 dBA during daytime hours (07:00 to 23:00), and 45 dBA during nighttime hours (23:00 to 07:00). If the background sound levels due to road traffic exceed the exclusionary limits, then the background sound level becomes the criterion. The background sound level is defined as the sound level that occurs when the stationary source under consideration is not operating, and may include traffic noise and natural sounds.

The developer's responsibilities are identified in NPC-300, which states that it is the developer's responsibility to ensure that the applicable sound level criteria are met. If noise sources are identified which generate excessive sound levels, source controls are generally favoured by the MOECC although NPC-300 further states that outdoor noise control, such as barriers/screens or building design measures at the noise sensitive land use are acceptable.

4 Traffic Noise Predictions

4.1 Road Traffic

Traffic data for Lakeshore Road was obtained from the City of Burlington Transportation Services Department, in the form of turning movement counts for the year 2014, provided in Appendix A. A commercial vehicle percentage of 2.8% was used in the analysis and was further split into 1.7% medium trucks and 1.1% heavy trucks. A posted speed limit of 50 km/h was used. Traffic volumes were conservatively assumed to grow at a rate of 2.5% per year to the year 2028.

Table 2: Projected Road Traffic Data for 2028

Road Name		Cars	Medium Trucks	Heavy Trucks	Total
Lakeshore Road	Daytime	15 522	272	176	15 970
	Nighttime	1 724	30	20	1 774
	Total	**17 246**	**302**	**196**	**17 744**

4.2 Road Traffic Noise Prediction

To assess the levels of traffic noise which will impact the site in the future, predictions were made using a numerical computer modeling package (*Cadna-A version 2018 build 161.4801*). The model is based on the methods from ISO Standard 9613-2.2, "*Acoustics - Attenuation of Sound During Propagation Outdoors*", which accounts for reduction in sound level with distance due to geometrical spreading, air absorption, ground attenuation and acoustical shielding by intervening structures.

The road noise sources have been included in the model using the basic road element included in *Cadna/A*, which follows the German guideline RLS-90 for road traffic noise predictions. Our experience suggests that road sound levels predicted by RLS-90 are reasonably accurate. The model road traffic values have been qualified to be within 0.5 dBA of those predicted in STAMSON 5.04, a computer algorithm developed by the MOECC.

The distance setbacks of the buildings indicated on the site plan were used in the analysis, along with an aerial photo of the area to determine the distance to the surrounding roadways. The acoustic requirements may be subject to modifications if the site plan is changed significantly.

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

Prediction Location	Description	Daytime – at Façade $L_{EQ(16)}$	Nighttime – at Façade $L_{EQ(8)}$
[A]	Block B	<55	<50
[B]	Block F	62	55
[C]	Block H	61	54
[D]	Phase 3/4 Podiums	63	56

Note: Reflective ground surface has been used in the analysis.

5 Traffic Noise Recommendation

The predictions indicate that the future traffic sound levels during the daytime and nighttime at the dwelling units will exceed MOECC guidelines.

5.1 Outdoor Living Areas

Balconies may be provided for individual dwelling units that are less than 4 m in depth. These balconies are not considered to be outdoor living for areas assessment under MOECC guidelines, and therefore physical mitigation will not be required. Rooftop terraces less than 4 m in depth also do not have physical mitigation requirements.

5.2 Indoor Living Areas and Ventilation Requirements

Provision for the Future Installation of Air Conditioning

The predicted nighttime sound levels at the plane of the bedroom windows of the proposed buildings closest to Lakeshore Road will be between 51 and 60 dBA at night and between 56 and 65 dBA during the daytime. To address these excesses, the MOECC guidelines recommend that these dwelling units be equipped with an alternative means of ventilation to open windows. The guidelines also recommend warning clauses for these buildings. Window or through-the-wall air conditioning units are not recommended for any residential units because of the noise they produce and because

the units penetrate through the exterior wall which degrades the overall noise insulating properties of the envelope. The location, installation and sound ratings of the outdoor air conditioning devices should minimize noise impacts and comply with criteria of MOECC publication NPC-300, as applicable.

5.3 Building Facade Constructions

The dwelling units within the development will have daytime and nighttime sound levels at the top storey façade that are less than 65 and 60 dBA respectively. For these units, any exterior wall, and double glazed window construction meeting the minimum requirements of the Ontario Building Code (OBC) will provide adequate sound insulation.

5.4 Warning Clauses

The MOECC guidelines recommend that warning clauses be included in the property and/or tenancy agreements for all the dwellings with anticipated traffic sound level excesses. The following noise warning clauses are required for specific units as indicated in Table 6.

Suggested wording for future dwellings with sound levels that exceed the MOECC criteria but do not require physical mitigation measures is given below.

Type A:

> Purchasers/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 exceed the sound level limits of the Municipality and the Ministry of the Environment and Climate Change.

Suggested wording for future dwellings requiring forced air ventilation systems is given below.

Type B:

> 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 and Climate Change.

Suggested wording to identify the proximity of the future commercial facilities is given below.

Type C:

> Purchasers/tenants are advised that due to the proximity of the adjacent institutional and commercial facilities, noise from the commercial facilities may at times be audible.

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

6 Impact of the Development on the Surrounding Environment

It is expected that any increase in local traffic associated with the development will not be substantial enough to affect noise levels significantly.

MOECC Publication NPC-300 stipulate sound level limits for new stationary (non-traffic) sources of noise. The sound level limit for a stationary source which operates in a Class 1 urban environment is related to the minimum one-hour L_{EQ} ambient (background) sound level, at any potentially impacted residential point of reception. HGC Engineering has not performed monitoring of the background sound levels in the area during all daytime and nighttime hours. As a conservative approach, a minimum daytime sound level of 50 dBA and a minimum nighttime sound level of 45 dBA can be assumed during the quietest hours. These criteria apply to equipment such as rooftop air-conditioners, cooling towers, exhaust fans, standby generators, etc.

At the time of this study, the design of the proposed buildings was in its initial stages, and the mechanical systems had not yet been developed. An acoustical consultant should review the design of the mechanical building systems and the equipment selections when they have been determined, to help ensure that the noise levels emitted by the development to the environment will meet the City of Burlington bylaw and MOECC guideline requirements. Enclosing the mechanical equipment inside mechanical penthouses is recommended.

7 Impact of the Development on Itself

The impact of the development on itself can be categorized into noise intrusions transmitted between adjacent spaces, and noise generated by mechanical systems or other equipment within the building.

Section 9.11.1 of the Ontario Building Code (OBC) specifies the minimum required sound insulation characteristics for demising partitions, in terms of Sound Transmission Class (STC) values. In order to maintain adequate acoustical privacy between separate suites in a multi-tenant building, inter-suite walls should meet or exceed STC-50. Walls separating a suite from a noisy space such as a refuse chute, or elevator shaft, should meet or exceed STC-55. In addition, it is recommended that the floor/ceiling constructions separating suites, amenity spaces and retail spaces also meet or exceed STC-55. Tables 1 and 2 in Section SB-3 of the Supplementary Guideline to the OBC provide a comprehensive list of constructions that will meet the above requirements. It is recommended that partitions be selected 3 to 4 points above tables so that performance in the field meets these minimum specifications. If required, HGC Engineering can provide assistance in selecting partition and floor/ceiling constructions to meet the OBC requirements, or reviewing any non-standard constructions for conformance.

8 Stationary Source Assessment

An analysis was conducted to consider the potential impact of noise from the redeveloped Food Basics, specifically the loading bays, at the neighboring noise sensitive receptors and on the proposed residential buildings within the proposed redevelopment.

A preliminary analysis indicates that sound levels exceed at the dwellings to the north, east and on the closest buildings of the proposed redevelopment. Acoustic mitigation will need to be provided for the loading bays of the proposed Food Basics.

Source sound levels for typical rooftop equipment and trucking activities, and assumed operational information (outlined below) were used as input to a predictive computer model (Cadna/A version 2018 build 161.4801), in order to estimate the sound levels from the proposed facility at the neighbouring residences. Cadna/A is a computer implementation of ISO Standard 9613-2, "Acoustics – Attenuation of Sound During Propagation Outdoors – Part 2: General Method of

Calculation", which takes into account attenuation due to distance (geometrical spreading), shielding by intervening structures, air attenuation and ground absorption.

The closest residential receptors are the existing residences to the north of the proposed grocery store and the proposed residential building to the west, which are indicated on Figure 4. R1 is a 2-storey single detached dwelling; R2 is a proposed 11-storey residential building which is a part of the proposed site.

The following information was used in the analysis.

- The proposed grocery store was assumed to be 4.0 m in height.
- Deliveries may occur anytime during the day. Each truck engine may idle for 15 minutes to be unloaded. Some of these trucks will be equipped with refrigeration units (reefers) which are assumed to operate for a full hour. Each truck accessing the loading bays is assumed to drive from Hampton Heath Road at a speed of 10 km/hr, and maneuver to the loading area, and exit onto Kenwood Avenue. Typical truck noise data from past project files of HGC Engineering for numerous grocery stores and retail plazas of similar sizes and occupancies was used in the analysis.
- There are rooftop HVAC units on the apartment buildings to the south of Lakeshore Road and a condenser unit on the roof of the arena building to the north of the subject site. The height of the rooftop units was estimated and sound data was obtained from the manufacturer spec sheets and from past similar project files of HGC Engineering. Sound data for the roof top units is attached in Appendix C.

8.1 Assumed Worst-Case Operating Scenarios

In this impact assessment, we have considered the following worst-case (busiest hour) scenarios for daytime and nighttime to be as follows:

Assumed daytime worst-case hour scenario:

- Two tractor trailer trucks accessing the loading area, idling for 15 minutes each, one with an operating refrigeration unit ("reefer") for a full hour;
- All rooftop equipment operating continuously at full capacity;

Assumed night-time worst-case hour scenario:

- One tractor trailer accessing the loading area, idling for 5 minutes, with an operating refrigeration unit ("reefer") for 30 minutes.
- HVAC rooftop equipment operating continuously at 50% cycle, or 30 minutes in an hour and the existing condenser unit on the arena operating for 20 minutes in an hour.

8.2 Prediction Results

The predicted sound levels at the closest existing and proposed residences (R1 and R2) are summarized in the following table. The location of the noise sources and receptors are shown in Figure 4.

Table 4: Unmitigated Predicted Sound Levels from the Proposed Grocery Store and Nearby Rooftop Units at the Sensitive Receptors [dBA]

Receptor	Criteria (Day/Night)	Daytime – in OLA	Daytime – at Facade	Night-time at Facade
R1 (2-storey residence to the north)	50/45	59	59	56
R2 (proposed 11-storey residential building)	50/45	--	49	47

These results indicate that sound levels from the proposed grocery store redevelopment under the worst case operational scenario, may exceed the criteria the nearest proposed residential receptors

during daytime and/or nighttime hours. Recommendations are provided in the following section. The existing rooftop units on the arena and apartment buildings to the south of Lakeshore Road are expected to be below the MOECC criteria.

Recommended Mitigation Measures

Analysis was conducted to determine if additional physical noise mitigation measures for the loading area could reduce the predicted sound levels to meet the criteria. It was determined that the height of the noise barrier along the property line should be a minimum of 5.4 m in height to address noise from the trucks and refrigeration units. A roof structure above the loading bays should also be installed in order to mitigate noise at the proposed 11-storey residential building to the west.

With the above mitigation measures in place, the predicted sound levels are shown below:

Table 5: Mitigated Predicted Sound Levels from the Proposed Grocery Store and Nearby Rooftop Units at the Sensitive Receptors [dBA]

Receptor	Criteria (Day/Night)	Daytime – in OLA	Daytime – at Facade	Night-time at Facade
R1 (2-storey residence to the north)	50/45	47	48	45
R2 (proposed 11-storey residential building)	50/45	--	48	45

9 Summary of Recommendations

Sound level predictions indicate that future traffic sound levels during the daytime and nighttime at the dwelling units will exceed MOECC guidelines but feasible means exist to reduce sound levels to meet the sound level limits. The following list as well as Table 6 summarize the recommendations made in this report. The reader is referred to Figure 3, as well as previous sections of the report where these recommendations are applied and discussed in more detail.

Transportation Noise

1. Forced air ventilation systems with ductwork sized for the future installation of central air conditioning by the occupant are required for the buildings closest to Lakeshore Road.

2. Noise warning clauses to inform the occupants of the sound level excesses should be placed in the property and tenancy agreements and agreements of purchase and sale.

Stationary Noise

3. Property line acoustic barrier along the north, 5.4 m in height as shown in Figure 4 and roof structure above the loading bays of the proposed grocery store. A noise warning clause should be placed in the property and tenancy agreements and agreements of purchase and sale for the proposed dwellings on the site.

4. A detailed noise study should be conducted when roof top equipment for the commercial and residential buildings is selected.

Table 6: Summary of Noise Control Requirements and Warning Clauses

Phase No.	Acoustic Barrier	Ventilation Requirements*	Type of Warning Clause	Required AIF for Glazing
Phase 3 and 4	--	Forced Air	A, B, C	OBC
Phase 1, 2 and 5	--	--	C	OBC

Notes:
-- no specific requirement
* The location, installation and sound rating of the air conditioning condensers must be compliant with MOECC Guideline NPC-300, as applicable.
OBC – Ontario Building Code

9.1 Implementation

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

1. Prior to the issuance of building permits for this development, the City'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.

2. Prior to registration, the City'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, installed and constructed.



Figure 1 - Key Plan

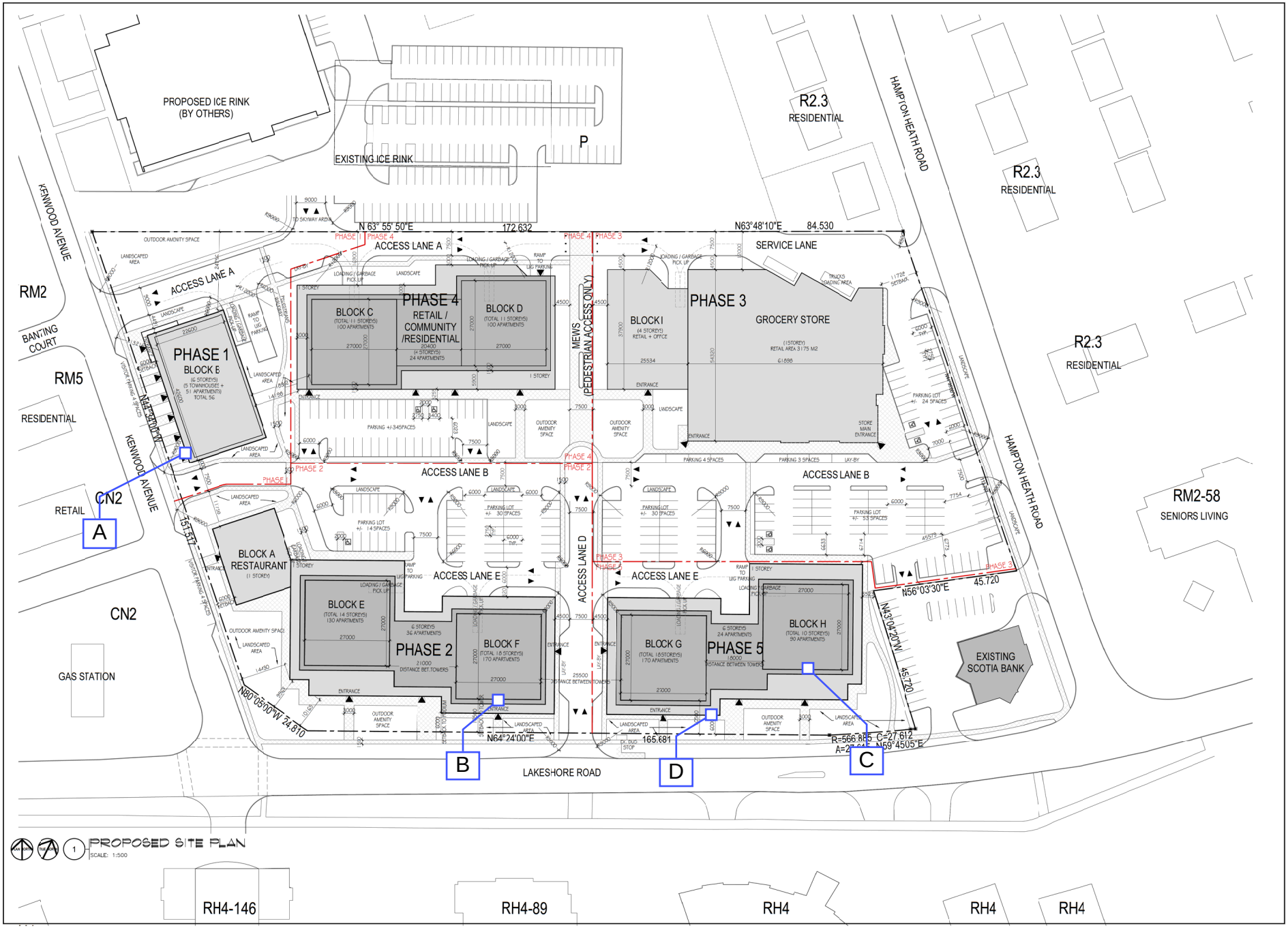


Figure 2 - Proposed Site Plan Showing Prediction Locations

CYNTHIA ZAHORUK ARCHITECTS
3077 NEW STREET,
BURLINGTON, ON L7N1M6
905.331.4480

ONTARIO ASSOCIATION OF ARCHITECTS
CYNTHIA ZAHORUK LICENCE 4488

NOTES:
1.THE CONTRACTOR OR PROJECT MANAGER WILL CHECK AND VERIFY ALL DIMENSIONS AND JOB CONDITIONS ON THE JOB AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. COORDINATION OF WORK IS THE RESPONSIBILITY OF THE CONTRACTOR OR OWNER/CONTRACTOR
2.THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNTIL SIGNED BY THE ARCHITECT.
3.ALL DRAWINGS ARE THE PROPERTY OF THE ARCHITECT AND MAY NOT BE COPIED, REPRODUCED OR ALTERED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.
4.DO NOT SCALE THE DRAWINGS.

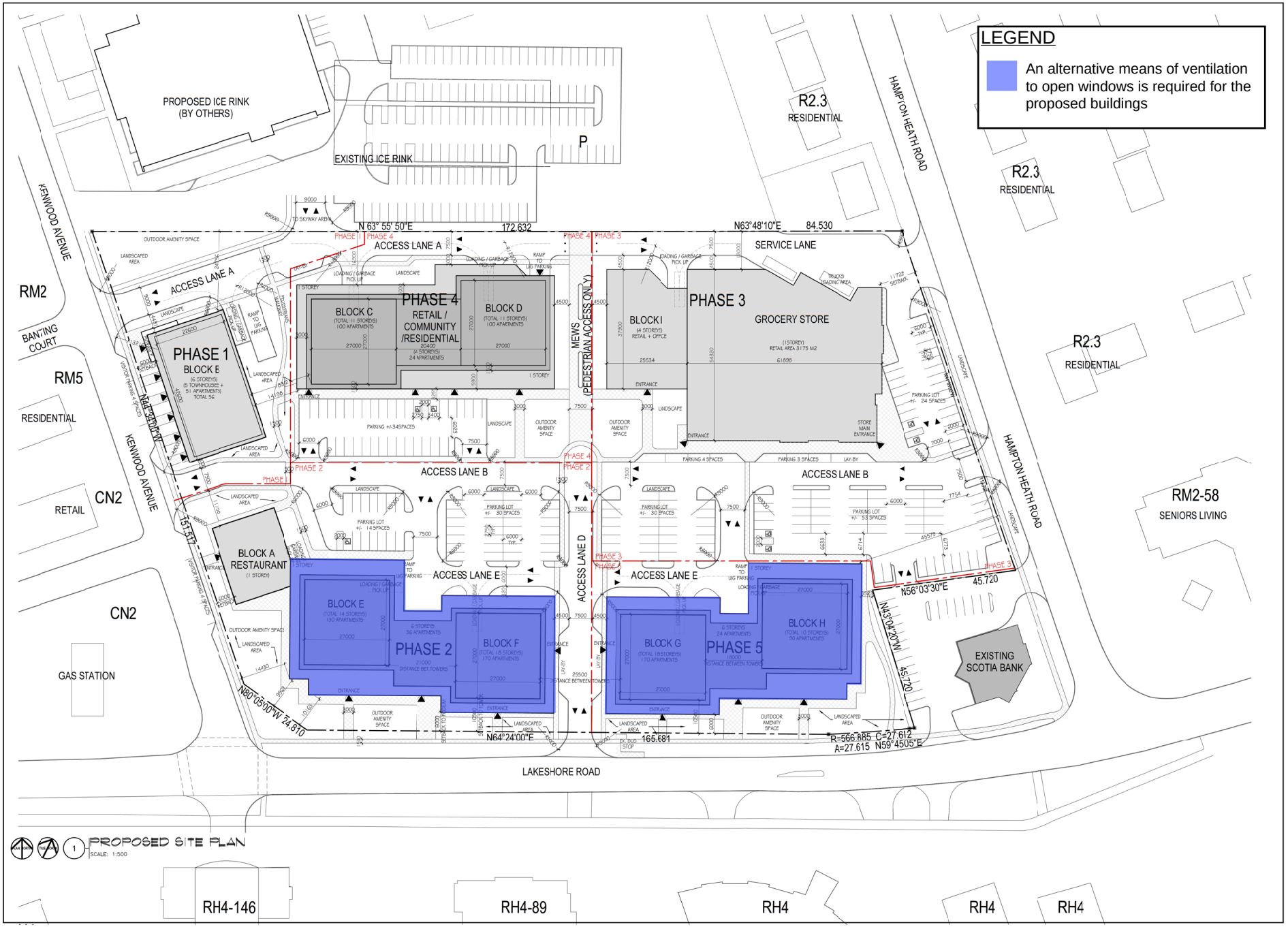
DD/MM/YY	REVISION
2/03/2018	ISSUED FOR PLANNERS REVIEW

SCALE: 1 : 500
DRAWN BY: N.S.
PRINT DATE: 04/08/2017

LAKESIDE VILLAGE
MIXED USE DEVELOPMENT
5353 LAKESHORE ROAD, BURLINGTON, ON

PROPOSED SITE PLAN

A 1.0



1 PROPOSED SITE PLAN
SCALE: 1:500

Figure 3 - Proposed Site Plan Showing Ventilation Requirements

CYNTHIA ZAHORUK ARCHITECTS
3077 NEW STREET,
BURLINGTON, ON L7N1M6
905.331.4480

ONTARIO ASSOCIATION OF ARCHITECTS
CYNTHIA ZAHORUK LICENCE 4488

NOTES:
1. THE CONTRACTOR OR PROJECT MANAGER WILL CHECK AND VERIFY ALL DIMENSIONS AND JOB CONDITIONS ON THE JOB AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. COORDINATION OF WORK IS THE RESPONSIBILITY OF THE CONTRACTOR OR OWNER/CONTRACTOR
2. THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNTIL SIGNED BY THE ARCHITECT.
3. ALL DRAWINGS ARE THE PROPERTY OF THE ARCHITECT AND MAY NOT BE COPIED, REPRODUCED OR ALTERED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.
4.DO NOT SCALE THE DRAWINGS.

DD/MM/YY	REVISION
2/03/2018	ISSUED FOR PLANNERS REVIEW

SCALE: 1 : 500
DRAWN BY: N.S.
PRINT DATE: 04/08/2017

LAKESIDE VILLAGE
MIXED USE DEVELOPMENT
5353 LAKESHORE ROAD, BURLINGTON, ON

PROPOSED SITE PLAN

A 1.0



Figure 4: Aerial Plan Showing Receptor and Stationary Source Locations

APPENDIX A

Road Traffic Data

Lakeshore Rd @ Kenwood Ave

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 9:00:00

One Hour Peak
From: 8:00:00
To: 9:00:00

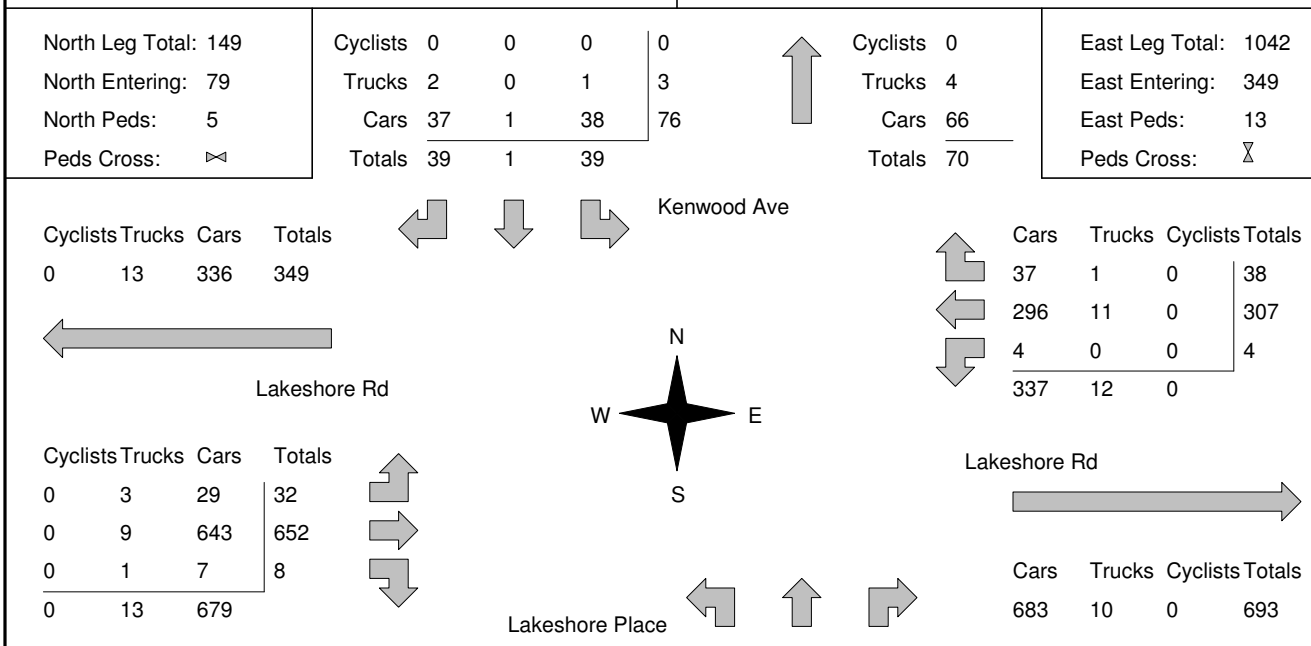
Municipality: Burlington
Site #: 0000201133
Intersection: Lakeshore Rd & Kenwood Ave
TFR File #: 3
Count date: 27-Mar-2014

Weather conditions:
Overcast/Dry

Person(s) who counted:
Rick

**** Signalized Intersection ****

Major Road: Lakeshore Rd runs W/E



Comments

Lakeshore Rd @ Kenwood Ave

Mid-day Peak Diagram

Specified Period
From: 11:00:00
To: 14:00:00

One Hour Peak
From: 11:30:00
To: 12:30:00

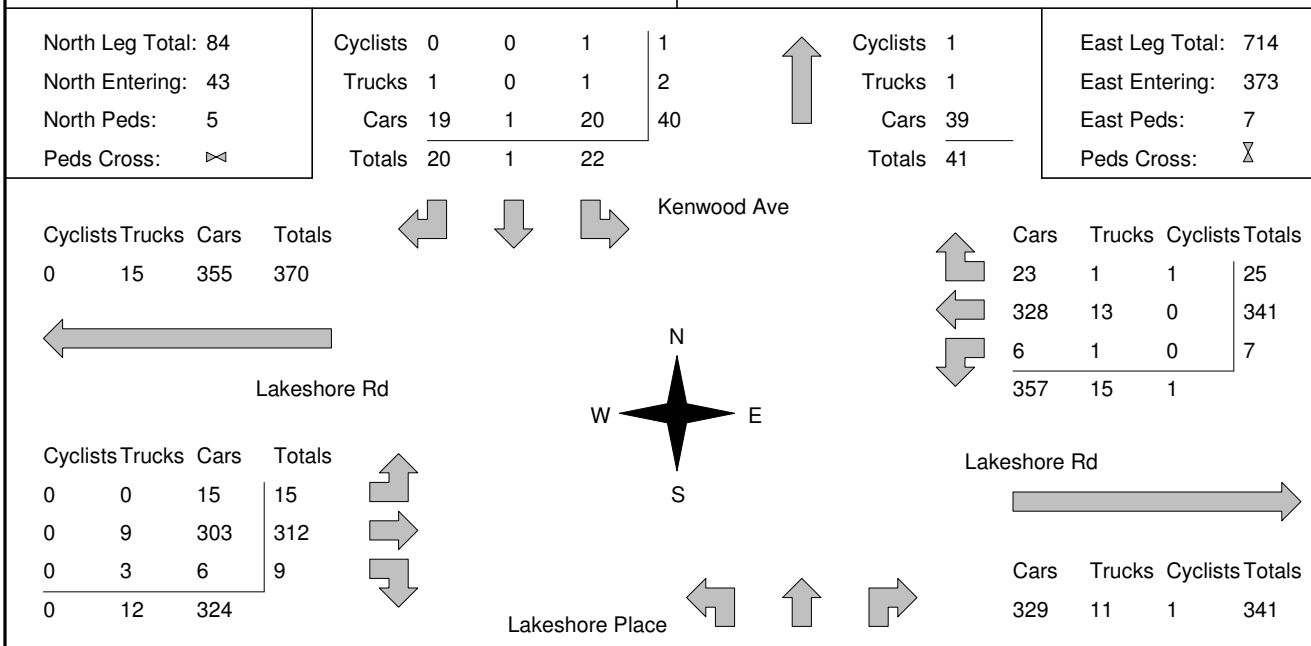
Municipality: Burlington
Site #: 0000201133
Intersection: Lakeshore Rd & Kenwood Ave
TFR File #: 3
Count date: 27-Mar-2014

Weather conditions:
Overcast/Dry

Person(s) who counted:
Rick

**** Signalized Intersection ****

Major Road: Lakeshore Rd runs W/E



Comments

Lakeshore Rd @ Kenwood Ave

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 16:15:00
To: 17:15:00

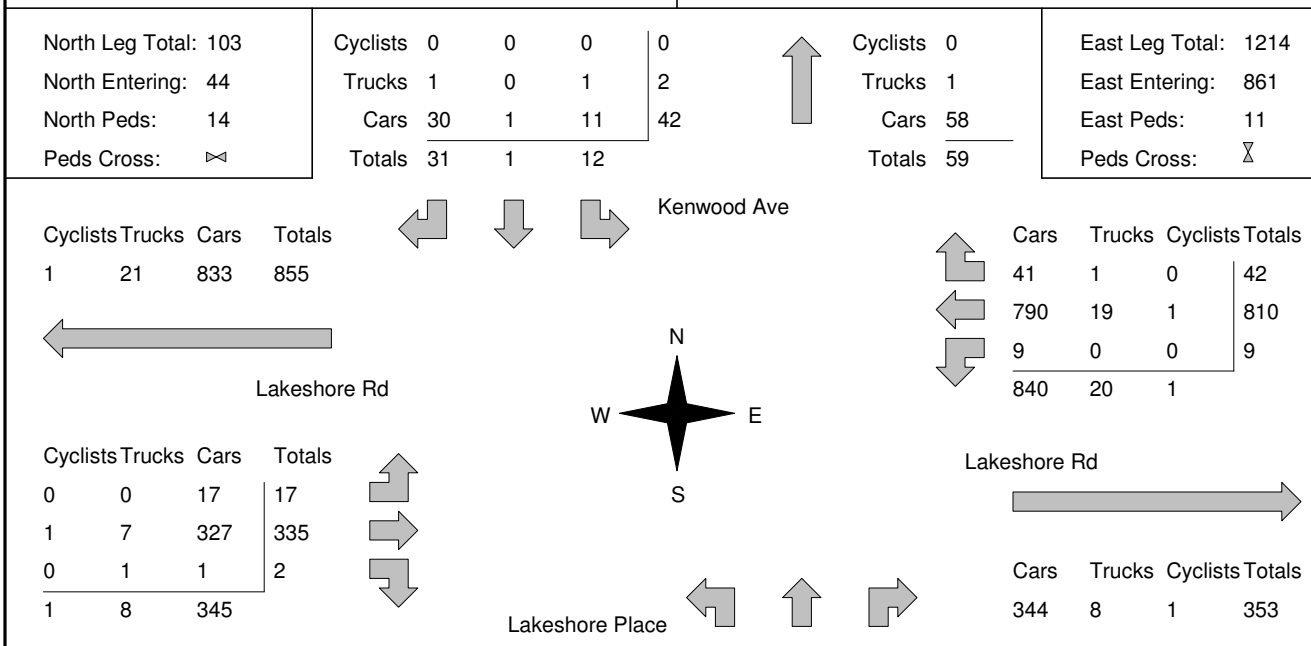
Municipality: Burlington
Site #: 0000201133
Intersection: Lakeshore Rd & Kenwood Ave
TFR File #: 3
Count date: 27-Mar-2014

Weather conditions:
Overcast/Dry

Person(s) who counted:
Rick

**** Signalized Intersection ****

Major Road: Lakeshore Rd runs W/E



Comments

Lakeshore Rd @ Kenwood Ave

Total Count Diagram

Municipality: Burlington
Site #: 0000201133
Intersection: Lakeshore Rd & Kenwood Ave
TFR File #: 3
Count date: 27-Mar-2014

Weather conditions:
Overcast/Dry

Person(s) who counted:
Rick

**** Signalized Intersection ****

Major Road: Lakeshore Rd runs W/E

North Leg Total:	818			
North Entering:	426			
North Peds:	68			
Peds Cross:	⋈			
Cyclists	1	0	2	3
Trucks	14	0	12	26
Cars	218	9	170	397
Totals	233	9	184	
Cyclists	1			
Trucks	14			
Cars	377			
Totals	392			
East Leg Total:	7176			
East Entering:	3749			
East Peds:	78			
Peds Cross:	⧖			

Kenwood Ave

Cyclists	Trucks	Cars	Totals
7	112	3648	3767

Cars	Trucks	Cyclists	Totals
228	6	1	235
3372	93	6	3471
40	3	0	43
3640	102	7	

Lakeshore Rd

N
W E
S

Cyclists	Trucks	Cars	Totals
0	8	145	153
1	84	3124	3209
0	6	49	55
1	98	3318	

Lakeshore Rd

Cars	Trucks	Cyclists	Totals
3326	98	3	3427

Lakeshore Place

Peds Cross:	⧖			
West Peds:	29			
West Entering:	3417			
West Leg Total:	7184			
Cars	98			
Trucks	9			
Cyclists	0			
Totals	107			
Cars	58	4	32	94
Trucks	5	0	2	7
Cyclists	0	0	0	0
Totals	63	4	34	
Peds Cross:	⋈			
South Peds:	79			
South Entering:	101			
South Leg Total:	208			

Comments

Lakeshore Rd @ Kenwood Ave

Annual Average Daily Traffic Diagram

Total Factor = Monthly Factor(1.04) x Daily Factor(0.91) x 24 Hour Factor(1.85) = 1.750840

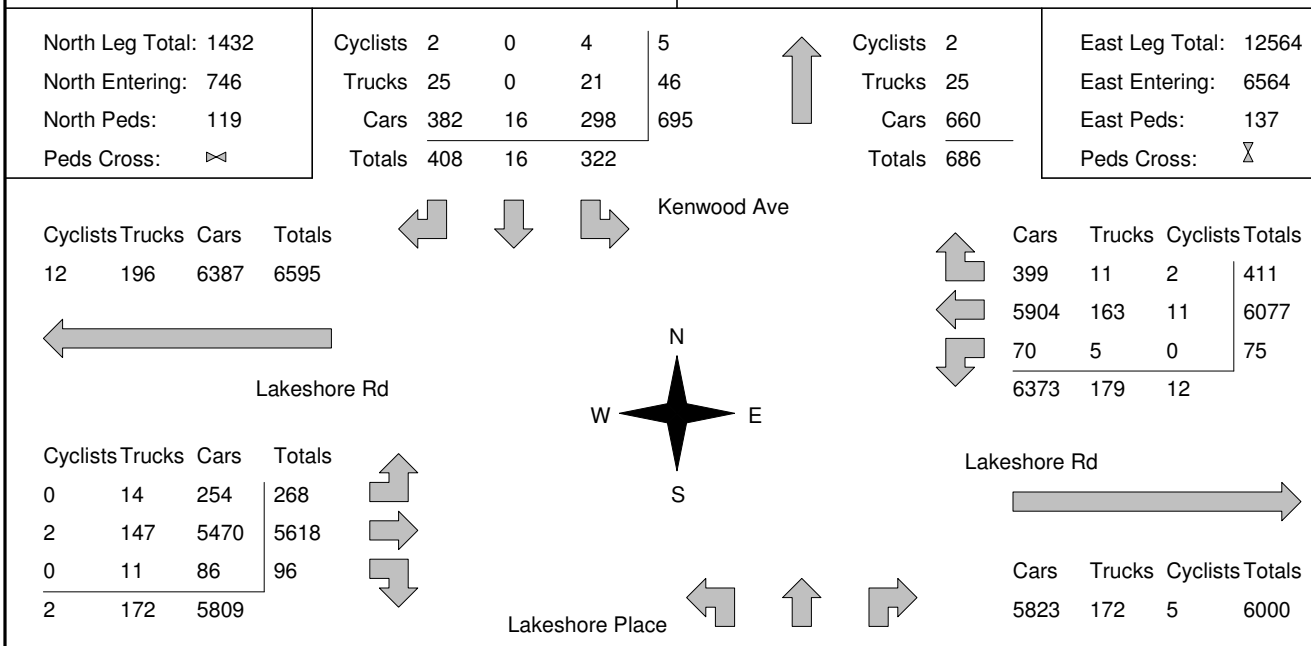
Municipality: Burlington
Site #: 0000201133
Intersection: Lakeshore Rd & Kenwood Ave
TFR File #: 3
Count date: 27-Mar-2014

Weather conditions:
Overcast/Dry

Person(s) who counted:
Rick

**** Signalized Intersection ****

Major Road: Lakeshore Rd runs W/E



Comments

APPENDIX B

Supporting Information

	PHASE 1
	BLOCK B - RESIDENTIAL
EX. AREA TO BE DEMOLISHED	2,400 SQ.M.
EXISTING AREA TO REMAIN	7,950 SQ.M.
NEW FLOOR AREA	6,000 SQ.M.
EX. PARKING TO REMAIN	534 SPACES
NEW SURFACE PARKING	4 SPACES
NEW U/G PARKING	90 SPACES
TOTAL PROPOSED PARKING	628 SPACES
REQUIRED PARKING 5 TOWNHOUSES 18 2-BED UNITS 33 1-BED UNITS RETAIL PARKING (4SP/100 SQ.M)	 5 X 2 = 10 18 X 1.25 = 22.5 33 X 1 = 33 7950 X 0.8 / 100 X 4 = 254
TOTAL REQUIRED PARKING	320 SPACES

NOTES:

- PHASING STRATEGY HAS TAKEN INTO CONSIDERATION THE FOLLOWING PARAMETERS:
  - MOST EFFICIENT SERVICING SEQUENCE
  - TRAFFIC AND PARKING PERSPECTIVE
  - EXISTING TENANTS RELOCATION

-THIS PHASING STRATEGY IS SUBJECT TO CHANGE AND UPDATES BASED ON DEVELOPERS AND MARKET NEEDS.

-LOCATION OF PHASE LINES IS SUBJECT TO CHANGE BASED ON STRUCTURAL REVIEW FOR THE EXISTING BUILDING AND DETERMINATION OF THE MOST SUITABLE LOCATION.



PLAN NORTH TRUE NORTH 1 PHASE 1
SCALE: 1:500

CYNTHIA ZAHORUK
ARCHITECTS
3077 NEW STREET,
BURLINGTON, ON L7N1M6
905.331.4480

ONTARIO ASSOCIATION OF ARCHITECTS
CYNTHIA ZAHORUK
LICENCE
4488

NOTES:
1.THE CONTRACTOR OR PROJECT MANAGER WILL CHECK AND VERIFY ALL DIMENSIONS AND JOB CONDITIONS ON THE JOB AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. COORDINATION OF WORK IS THE RESPONSIBILITY OF THE CONTRACTOR OR OWNER/CONTRACTOR
2.THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNTIL SIGNED BY THE ARCHITECT.
3.ALL DRAWINGS ARE THE PROPERTY OF THE ARCHITECT AND MAY NOT BE COPIED, REPRODUCED OR ALTERED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.
4.DO NOT SCALE THE DRAWINGS.

DD/MM/YY	REVISION
21/2/2018	ISSUED FOR PLANNERS REVIEW

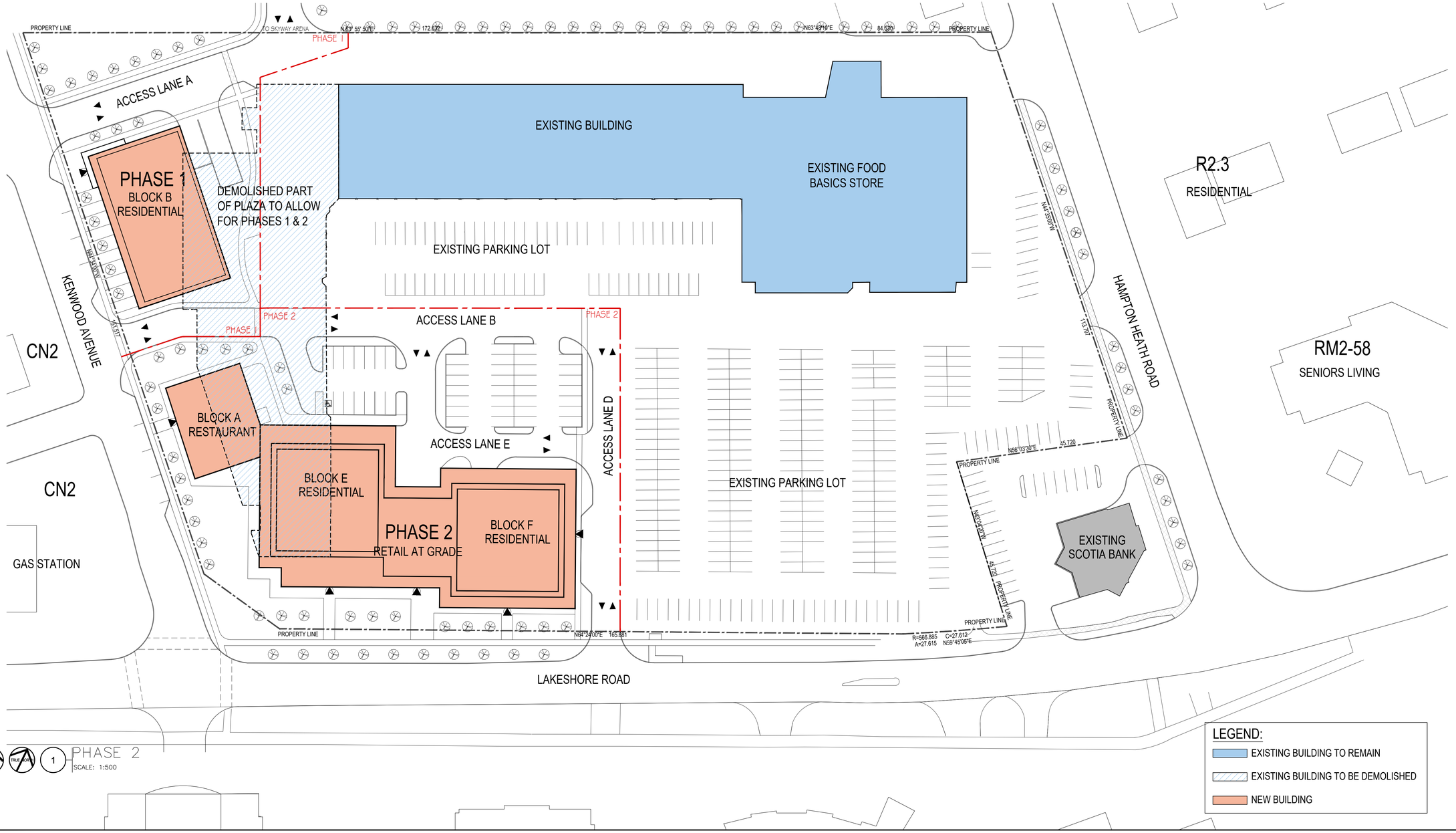
SCALE: 1 : 500
DRAWN BY: N.S.
PRINT DATE: 04/08/2017

LAKESIDE VILLAGE
MIXED USE DEVELOPMENT
5353 LAKESHORE ROAD, BURLINGTON, ON

PROPOSED PHASING PLAN - PHASE 1

PH 1.0

	PHASE 1	PHASE 2	OVERALL SITE
	BLOCK B - RESIDENTIAL	BLOCKS A - E - F - RETAIL AT GRADE - RESIDENTIAL	
EX. AREA TO BE DEMOLISHED	2,400 SQ.M.	3,900 SQ.M.	3,900 SQ.M.
EXISTING AREA TO REMAIN	7,950 SQ.M.	6,450 SQ.M.	6,450 SQ.M.
NEW FLOOR AREA	6,000 SQ.M.	30,100 SQ.M.	36,100 SQ.M.
EX. PARKING TO REMAIN	534 SPACES	320 SPACES	320 SPACES
NEW SURFACE PARKING	4 SPACES	48 SPACES	52 SPACES
NEW U/G PARKING	90 SPACES	300 SPACES	390 SPACES
TOTAL PROPOSED PARKING			762 SPACES
REQUIRED PARKING TOWNHOUSES 2-BED UNITS 1-BED UNITS RETAIL (4 SP/100 SQ.M)	 5 X 2 = 10 18 X 1.25 = 22.5 33 X 1 = 33 7950 X 0.8 / 100 X 4 = 254	 -- 120 X 1.25 = 150 216 X 1 = 216 9530 X 0.8 / 100 X 4 = 305	 5 X 2 = 10 138 X 1.25 = 173 249 X 1 = 249 9530 X 0.8 / 100 X 4 = 305
TOTAL REQUIRED PARKING			737 SPACES



1 PHASE 2
SCALE: 1:500

CYNTHIA ZAHORUK ARCHITECTS
3077 NEW STREET,
BURLINGTON, ON L7N1M6
905.331.4480

ONTARIO ASSOCIATION OF ARCHITECTS
CYNTHIA ZAHORUK
LICENCE
4488
ONTARIO ASSOCIATION OF ARCHITECTS

NOTES:
1.THE CONTRACTOR OR PROJECT MANAGER WILL CHECK AND VERIFY ALL DIMENSIONS AND JOB CONDITIONS ON THE JOB AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. COORDINATION OF WORK IS THE RESPONSIBILITY OF THE CONTRACTOR OR OWNER/CONTRACTOR
2.THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNTIL SIGNED BY THE ARCHITECT.
3.ALL DRAWINGS ARE THE PROPERTY OF THE ARCHITECT AND MAY NOT BE COPIED, REPRODUCED OR ALTERED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.
4.DO NOT SCALE THE DRAWINGS.

DD/MM/YY	REVISION
21/2/2018	ISSUED FOR PLANNERS REVIEW

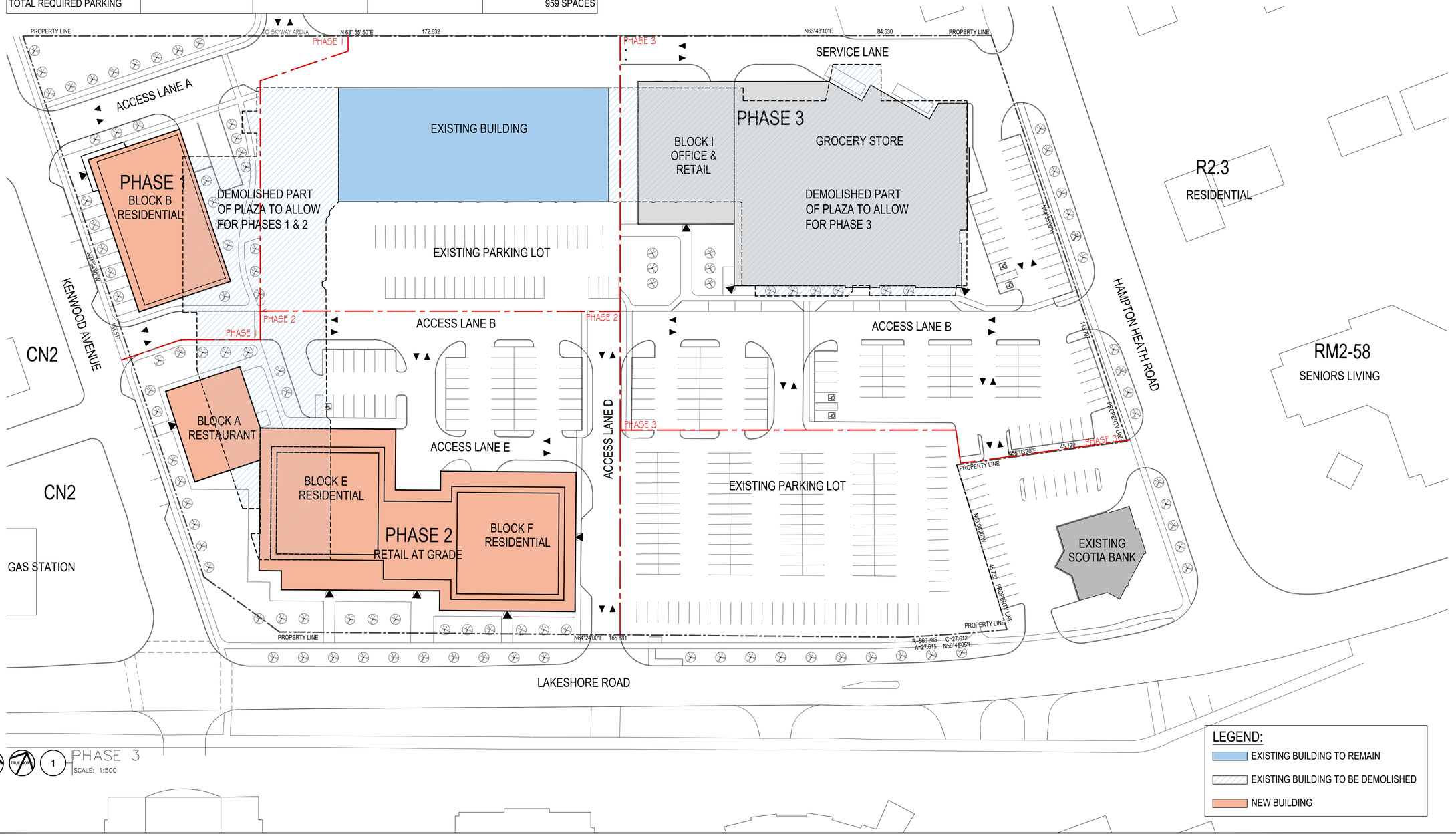
SCALE: 1 : 500
DRAWN BY: N.S.
PRINT DATE: 04/08/2017

LAKESIDE VILLAGE
MIXED USE DEVELOPMENT
5353 LAKESHORE ROAD, BURLINGTON, ON

PROPOSED PHASING PLAN - PHASE 2

PH 2.0

	PHASE 1	PHASE 2	PHASE 3	OVERALL SITE
	BLOCK B - RESIDENTIAL	BLOCKS A - E - F - RETAIL AT GRADE - RESIDENTIAL	BLOCKS I & GROCERY STORE - RETAIL & OFFICES	
EX. AREA TO BE DEMOLISHED	2,400 SQ.M.	3,900 SQ.M.	8,170 SQ.M.	8,170 SQ.M.
EXISTING AREA TO REMAIN	7,950 SQ.M.	6,450 SQ.M.	2,180 SQ.M.	2,180 SQ.M.
NEW FLOOR AREA	6,000 SQ.M.	30,100 SQ.M.	6,775 SQ.M.	42,870 SQ.M.
EX. PARKING TO REMAIN	534 SPACES	320 SPACES	178 SPACES	178 SPACES
NEW SURFACE PARKING	4 SPACES	48 SPACES	114 SPACES	166 SPACES
NEW U/G PARKING	90 SPACES	300 SPACES	--	390 SPACES
TOTAL PROPOSED PARKING				734 SPACES
REQUIRED PARKING TOWNHOUSES 2-BED UNITS 1-BED UNITS RETAIL (4 SP/100 SQ.M) OFFICE (3.5 SP/100 SQ.M) GROCERY STORE (10 / 100SQ.M)	 5 X 2 = 10 18 X 1.25 = 22.5 33 X 1 = 33 7950 X 0.8 / 100 X 4 = 254	 -- 120 X 1.25 = 150 216 X 1 = 216 9530 X 0.8 / 100 X 4 = 305	 -- -- -- 3080 X 0.8 / 100 X 4 = 99 2700 X 0.8 / 100 X 3.5 = 76 3175 X 0.8 / 100 X 10 = 254	 5 X 2 = 10 138 X 1.25 = 173 249 X 1 = 249 6160 X 0.8 / 100 X 4 = 197 2700 X 0.8 / 100 X 3.5 = 76 3175 X 0.8 / 100 X 10 = 254
TOTAL REQUIRED PARKING				959 SPACES



1 PHASE 3
SCALE: 1:500

LEGEND:
- EXISTING BUILDING TO REMAIN
- EXISTING BUILDING TO BE DEMOLISHED
- NEW BUILDING

CYNTHIA ZAHORUK
ARCHITECTS
3077 NEW STREET,
BURLINGTON, ON L7N1M6
905.331.4480

ONTARIO ASSOCIATION OF ARCHITECTS
CYNTHIA ZAHORUK
LICENCE
4488

ONTARIO ASSOCIATION OF ARCHITECTS

NOTES:
1.THE CONTRACTOR OR PROJECT MANAGER WILL CHECK AND VERIFY ALL DIMENSIONS AND JOB CONDITIONS ON THE JOB AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. COORDINATION OF WORK IS THE RESPONSIBILITY OF THE CONTRACTOR OR OWNER/CONTRACTOR
2.THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNTIL SIGNED BY THE ARCHITECT.
3.ALL DRAWINGS ARE THE PROPERTY OF THE ARCHITECT AND MAY NOT BE COPIED, REPRODUCED OR ALTERED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.
4.DO NOT SCALE THE DRAWINGS.

DD/MM/YY	REVISION
21/2/2018	ISSUED FOR PLANNERS REVIEW

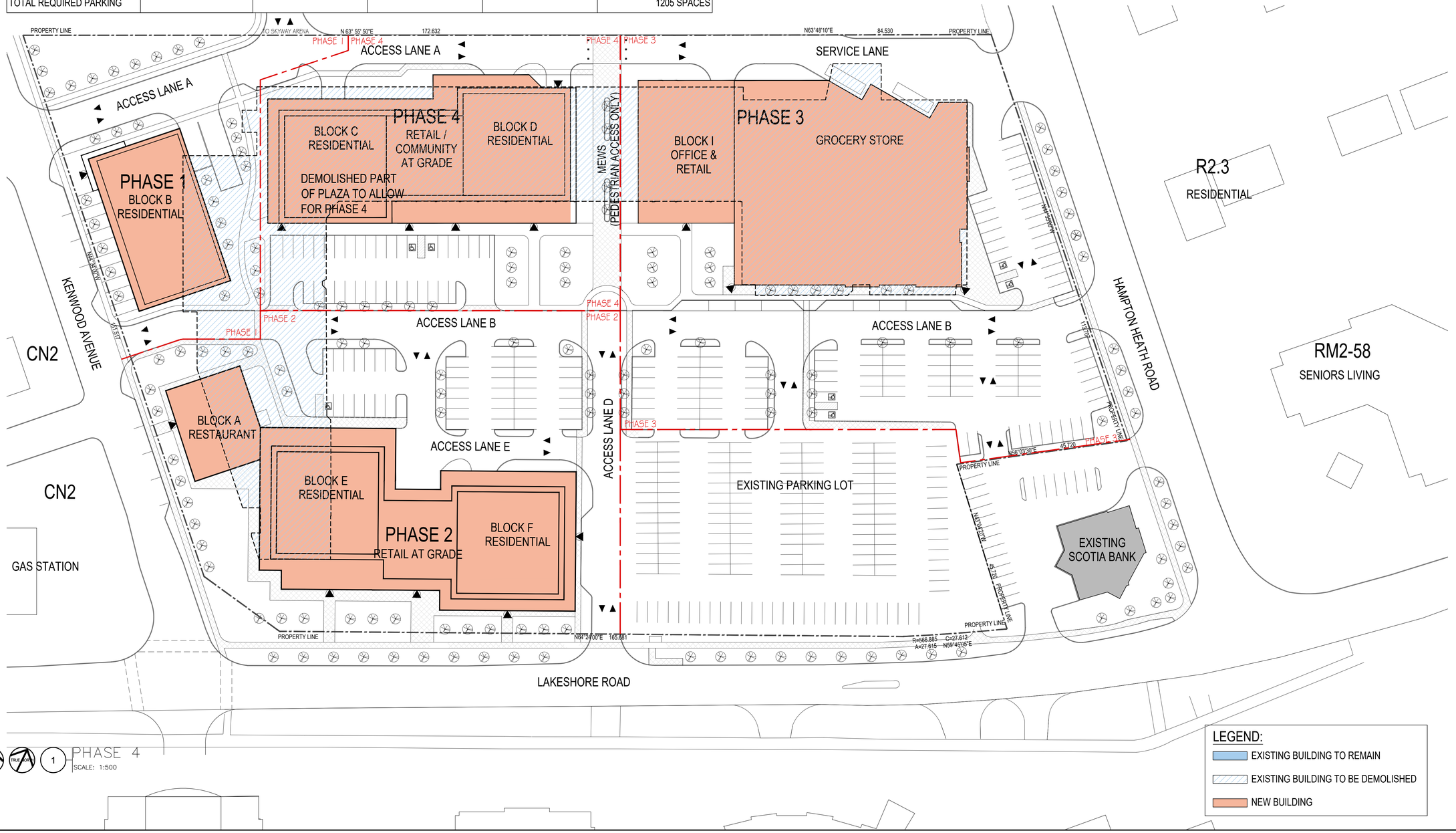
SCALE: 1 : 500
DRAWN BY: N.S.
PRINT DATE: 04/08/2017

LAKESIDE VILLAGE
MIXED USE DEVELOPMENT
5353 LAKESHORE ROAD, BURLINGTON, ON

PROPOSED PHASING PLAN - PHASE 3

PH 3.0

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	OVERALL SITE
	BLOCK B - RESIDENTIAL	BLOCKS A - E - F - RETAIL AT GRADE - RESIDENTIAL	BLOCKS I & GROCERY STORE - RETAIL & OFFICES	BLOCKS C & D-RETAIL & OFFICES AT GRADE-RES.	
EX. AREA TO BE DEMOLISHED	2,400 SQ.M.	3,900 SQ.M.	8,170 SQ.M.	10,350 SQ.M.	10,350 SQ.M.
EXISTING AREA TO REMAIN	7,950 SQ.M.	6,450 SQ.M.	2,180 SQ.M.	--	--
NEW FLOOR AREA	6,000 SQ.M.	30,100 SQ.M.	6,775 SQ.M.	21,720 SQ.M.	64,590 SQ.M.
EX. PARKING TO REMAIN	534 SPACES	320 SPACES	178 SPACES	138 SPACES	138 SPACES
NEW SURFACE PARKING	4 SPACES	48 SPACES	114 SPACES	34 SPACES	200 SPACES
NEW U/G PARKING	90 SPACES	300 SPACES	--	550 SPACES	940 SPACES
TOTAL PROPOSED PARKING					1278 SPACES
REQUIRED PARKING TOWNHOUSES 2-BED UNITS 1-BED UNITS RETAIL (4 SP/100 SQ.M) OFFICE (3.5 SP/100 SQ.M) GROCERY STORE (10 / 100SQ.M)	 5 X 2 = 10 18 X 1.25 = 22.5 33 X 1 = 33 7950 X 0.8 / 100 X 4 = 254	 -- 120 X 1.25 = 150 216 X 1 = 216 9530 X 0.8 / 100 X 4 = 305	 -- -- -- 3080 X 0.8 / 100 X 4 = 99 2700 X 0.8 / 100 X 3.5 = 76 3175 X 0.8 / 100 X 10 = 254	 -- 72 X 1.25 = 90 152 X 1 = 152 6300 X 0.8 / 100 X 4 = 201 2700 X 0.8 / 100 X 3.5 = 76 3175 X 0.8 / 100 X 10 = 254	 5 X 2 = 10 241 X 1.25 = 263 401 X 1 = 401 6300 X 0.8 / 100 X 4 = 201 2700 X 0.8 / 100 X 3.5 = 76 3175 X 0.8 / 100 X 10 = 254
TOTAL REQUIRED PARKING					1205 SPACES



1 PHASE 4
SCALE: 1:500

CYNTHIA ZAHORUK
ARCHITECTS
3077 NEW STREET,
BURLINGTON, ON L7N1M6
905.331.4480

ONTARIO ASSOCIATION OF ARCHITECTS
CYNTHIA ZAHORUK
LICENCE
4488

ONTARIO ASSOCIATION OF ARCHITECTS

NOTES:
1.THE CONTRACTOR OR PROJECT MANAGER WILL CHECK AND VERIFY ALL DIMENSIONS AND JOB CONDITIONS ON THE JOB AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. COORDINATION OF WORK IS THE RESPONSIBILITY OF THE CONTRACTOR OR OWNER/CONTRACTOR
2.THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNTIL SIGNED BY THE ARCHITECT.
3.ALL DRAWINGS ARE THE PROPERTY OF THE ARCHITECT AND MAY NOT BE COPIED, REPRODUCED OR ALTERED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.
4.DO NOT SCALE THE DRAWINGS.

DD/MM/YY	REVISION
21/2/2018	ISSUED FOR PLANNERS REVIEW

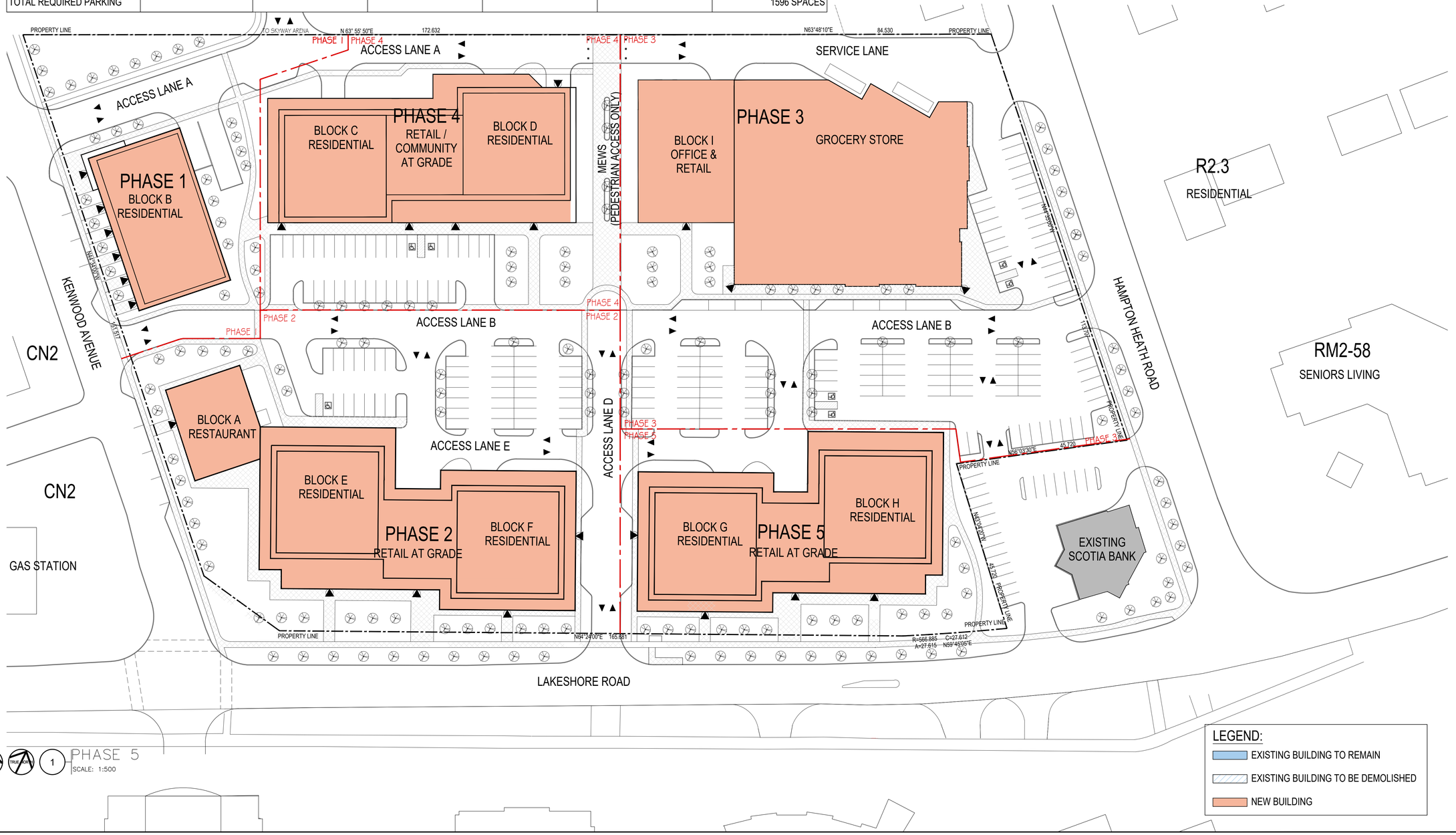
SCALE: 1 : 500
DRAWN BY: N.S.
PRINT DATE: 04/08/2017

LAKESIDE VILLAGE
MIXED USE DEVELOPMENT
5353 LAKESHORE ROAD, BURLINGTON, ON

PROPOSED PHASING PLAN - PHASE 4

PH 4.0

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	OVERALL SITE
	BLOCK B - RESIDENTIAL	BLOCKS A - E - F - RETAIL AT GRADE - RESIDENTIAL	BLOCKS I & GROCERY STORE - RETAIL & OFFICES	BLOCKS C & D-RETAIL & OFFICES AT GRADE-RES.	BLOCKS G & H - RETAIL AT GRADE - RESIDENTIAL	
EX. AREA TO BE DEMOLISHED	2,400 SQ.M.	3,900 SQ.M.	8,170 SQ.M.	10,350 SQ.M.	--	--
EXISTING AREA TO REMAIN	7,950 SQ.M.	6,450 SQ.M.	2,180 SQ.M.	--	--	--
NEW FLOOR AREA	6,000 SQ.M.	30,100 SQ.M.	6,775 SQ.M.	21,720 SQ.M.	26,200 SQ.M.	90,790 SQ.M.
EX. PARKING TO REMAIN	534 SPACES	320 SPACES	178 SPACES	138 SPACES	--	--
NEW SURFACE PARKING	4 SPACES	48 SPACES	114 SPACES	34 SPACES	--	200 SPACES
NEW U/G PARKING	90 SPACES	300 SPACES	--	550 SPACES	210 SPACES	1150 SPACES
TOTAL PROPOSED PARKING						1350 SPACES
REQUIRED PARKING						
TOWNHOUSES	5 X 2 = 10	--	--	--	--	5 X 2 = 10
2-BED UNITS	18 X 1.25 = 22.5	120 X 1.25 = 150	--	72 X 1.25 = 90	110 X 1.25 = 138	320 X 1.25 = 400
1-BED UNITS	33 X 1 = 33	216 X 1 = 216	--	152 X 1 = 152	174 X 1 = 174	575 X 1 = 575
RETAIL (4 SP/100 SQ.M)	7950 X 0.8 / 100 X 4 = 254	9530 X 0.8 / 100 X 4 = 305	3080 X 0.8 / 100 X 4 = 99	6300 X 0.8 / 100 X 4 = 201	8780 X 0.8 / 100 X 4 = 281	8780 X 0.8 / 100 X 4 = 281
OFFICE (3.5 SP/100 SQ.M)			2700 X 0.8 / 100 X 3.5 = 76	2700 X 0.8 / 100 X 3.5 = 76	2700 X 0.8 / 100 X 3.5 = 76	2700 X 0.8 / 100 X 3.5 = 76
GROCERY STORE (10 / 100SQ.M)			3175 X 0.8 / 100 X 10 = 254	3175 X 0.8 / 100 X 10 = 254	3175 X 0.8 / 100 X 10 = 254	3175 X 0.8 / 100 X 10 = 254
TOTAL REQUIRED PARKING						1596 SPACES



1 PHASE 5
SCALE: 1:500

CYNTHIA ZAHORUK
ARCHITECTS
3077 NEW STREET,
BURLINGTON, ON L7N1M6
905.331.4480

ONTARIO ASSOCIATION OF ARCHITECTS
CYNTHIA ZAHORUK
LICENCE
4488
ONTARIO ASSOCIATION OF ARCHITECTS

NOTES:
1.THE CONTRACTOR OR PROJECT MANAGER WILL CHECK AND VERIFY ALL DIMENSIONS AND JOB CONDITIONS ON THE JOB AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. COORDINATION OF WORK IS THE RESPONSIBILITY OF THE CONTRACTOR OR OWNER/CONTRACTOR
2.THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNTIL SIGNED BY THE ARCHITECT.
3.ALL DRAWINGS ARE THE PROPERTY OF THE ARCHITECT AND MAY NOT BE COPIED, REPRODUCED OR ALTERED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.
4.DO NOT SCALE THE DRAWINGS.

DD/MM/YY	REVISION
21/2/2018	ISSUED FOR PLANNERS REVIEW

SCALE: 1 : 500
DRAWN BY: N.S.
PRINT DATE: 04/08/2017

LAKESIDE VILLAGE
MIXED USE DEVELOPMENT
5353 LAKESHORE ROAD, BURLINGTON, ON

PROPOSED PHASING PLAN - PHASE 5

PH 5.0

CITY OF Burlington

DEVELOPMENT APPLICATION PRE-CONSULTATION FORM

Meeting Date: January 24, 2018	**Property Owner:** Joe Elmaleh, Glanelm Property Management
Site Address: 5353 Lakeshore Road	**Applicant / Address / Phone / Email** Dana Anderson, MHBC Planning, Urban Design & Landscape Architecture, 442 Brant Street, Suite 204, Burlington, ON, L7R 2G4, 905-639-8686 x226, danderson@mhbcplan.com
Site Area: 3.8 ha	

APPLICATION TYPE (check applicable applications):

Local Official Plan Amendment	X	Zoning By-law Amendment	X	Plan of Subdivision		Parkway Belt Amendment	
Other Application							

1. **Brief description of proposed development:**

   -Mixed use redevelopment of existing plaza -supermarket to remain

   -900 residential units (234 uph), building heights ranging from 6 to 18 storeys

   -mix of underground and surface parking

2. **Conformity with Regional Official Plan Designation?** YES x NO _____

   Has an application been made to amend the Regional Official Plan: YES _____ NO x

3. **Existing Official Plan Designation:** Large Scale Neighbourhood Commercial

   Conformity with City Official Plan land use designation? YES _____ NO x

   If 'NO' what is the nature of the OP amendment needed? Community Commercial

4. **Existing Zoning:** CN1-63

   Conformity with existing zoning? YES x NO _____

   If 'NO' what is the nature of the zoning amendment needed? CC1-exception

5. **Design Guidelines in effect?** YES __x__ NO _____

Name of Design Guidelines **Tall Building Design Guidelines**

6. **Is the property listed in Municipal Heritage Register, designated under the Ontario Heritage Act or adjacent to a designated property?**

YES _____ NO __x__

---

7. **Fees Required at Time of Application**

APPLICATION	CITY	REGION	CONSERVATION HALTON	PROVINCE
Official Plan Amendment:	21,119.00	8,215.64	-	-
Rezoning - Base Fee: (70%) Rezoning - Variable Fee:	13,933.50 200,000.00	969.08	-	-
Subdivision - Base Fee: Subdivision - Variable Fee:	-	-	-	-
Parkway Belt Amendment:	-	-	-	-
TOTAL	$235,052.50	$9,184.72	-	-

Separate cheques are payable to City, Region, Conservation Halton and Province (Ministry of Finance.)

Please note that development fees will increase in January 2017.

8. **Additional Agencies to be contacted:** **Burlington Hydro, Union Gas**

9. **Neighbourhood Meeting**

Is a neighbourhood meeting required? (e.g. residential intensification / infill, increased height and/or density, abutting residential zone, other neighbourhood/community impacts).

YES __x__ NO _____ TO BE DETERMINED ____

If "YES" a Neighbourhood Meeting **will be** required

- *The Neighbourhood meeting will be held after submission and public circulation of the application.*
- *Meeting logistics will be organized by the City Building Department.*
- *The Ward Councillor, the applicant, City planner and other City staff as determined will attend the Neighbourhood Meeting. Presentations will be made by the City planner about the planning process and by the applicant about the development proposal.*
- *The meeting will be chaired by the City planner, or by the Ward Councillor.*

10. **Section 37 Agreement**

Is this an application for increased height and/or density? YES __x__ NO ____

If "YES" a Section 37 Agreement **may be** required.

11. Required Information for Complete Application

Reports, Studies, Plans * *(See Appendix for additional details)* **All identified reports must be submitted in Accessible PDF form before an application is deemed complete.**		Number of Paper Copies (plus one in PDF form) If Study is Required	Required Study (Yes/No)
6.1	Planning Justification Report	8	Yes
6.2	Conceptual Site Plan Layout	15	Yes
6.3	Draft Plan of Subdivision	15	No
6.4	Storm Water Management Report	8	FSR
6.5	Functional Servicing Report (Including Water, Stormwater & Wastewater)	9	Yes
6.6	Tree Inventory and Protection Plan	9	Yes
6.7	Traffic Impact Study with TDM Plan Parking Justification Report if reduced parking	7	Yes Yes
6.8	Top-of-Bank Demarcation	6	No
6.9	Environmental Evaluation Report	7	No
6.10	Noise Feasibility Study	7	Yes
6.11	Shadow Analysis	3	Yes
6.12	Environmental Site Screening Checklist	5	Yes
6.13	Phase One or Two Environmental Site Assessment/ Record of Site Condition Report	5	Phase One RSC later
6.14	Land Assembly Documents	2	No
6.15	Height Survey of adjacent buildings	2	Yes
6.16	Heritage Impact Statement	3	No
6.17	Archaeological Report	3	No
6.18	Wind Impact Study	3	Yes
6.19	Sensitive Land Use (Risk Assessment) Report	6	No
6.20	Agricultural Impact Assessment Report	6	No
6.23	Preliminary Waste Management Plan	4	Yes
6.23	Other (specify) Urban Design Brief Grading, Drainage & Servicing Plans Geotechnical Report Draft Zoning By-law 3D Model of Proposed Building(s)	 5 12 4 2 1	 Yes Yes Yes Yes No

12. **ADDITIONAL COMMENTS:** See attached notes

NOTES:

1. Notwithstanding the fees noted above, all fees are payable based on the rate in the fee schedule by-law in effect on the date the payment is made. Further fees, such as variable fees may be required at a later date as per the fee schedule by-law.

2. The purpose of this document is to identify the information required to commence processing a complete application as set out in the Planning Act. Pre-consultation does not imply or suggest any decision whatsoever on behalf of City staff or the Corporation of the City of Burlington to either support or refuse the application.

3. This document expires 120 days from the date of signing or at the discretion of the Director of City Building. Please note that development application fees may change during this period and it is the applicant's responsibility to ensure that the correct fees are paid at time of application.

4. The City may require the peer review of a technical report submitted by the applicant. If this is required, the applicant will be advised and will be charged a fee equal to the cost of the peer review.

5. In the event this Pre-consultation Document expires prior to the application being accepted by the City, another document may be required.

6. An application submitted without the information identified in this Pre-consultation Document may be recommended for refusal based on insufficient information to properly evaluate the application.

7. Acknowledgement of Public Information:
The applicant acknowledges that the City considers the application forms and all supporting materials, including studies and drawings, filed with any application to be public information and to form part of the public record. With the filing of an application, the applicant consents to the City photocopying and releasing the application and any supporting materials either for its own use in processing the application or at the request of a third party, without further notification to or permission from the applicant. The applicant also hereby states that it has authority to bind its consultants to the terms of this acknowledgement.

8. It may be determined during the review of the application that additional studies or information will be required as a result of issues arising during the processing of the application.

9. The applicant must grant permission for municipal and agency staff to visit and access the property while the application is being processed.

10. There may also be financial requirements arising from the application, including, but not limited to, park dedication, development charges, payment of outstanding property taxes, deferred local improvement charges, costs for lifting 0.3-metre reserves, and reimbursement for road widening acquisition or road improvements.

11. All electronic file submissions must be named using the following naming protocol:
"Address_StudyName_MM-DD-YYYY". If a document is revised and resubmitted the file name should indicate that it is a revised submission and the date of the revision should be noted:
"Address_StudyName_Revised_MM-DD-YYYY".

12. Digital copies of all plans are required along with paper copies. Digital plans must be submitted in Autocad and/or GIS Shapefile format that must be geospatially positioned to match the City of Burlington's Geographic and Projected Coordinate Systems (Geographic Coordinate System: GCS_North_American_1983; Projected Coordinate System: NAD83_UTM_ZONE 17N).

Staff and Agency Signatures:

Rosalind Minaj		Jan 24 2018
Planning Staff	Planning Staff (Signature)	Date
Annette Simpsa		Jan 24/18
Site Engineering Staff	Site Engineering Staff (Signature)	Date
V. Aykroyd.		Jan 24/18
Site Engineering Staff	Site Engineering Staff (Signature)	Date
ROB PEACHEY		Jan 24/18
Capital Works Staff	Capital Works Staff (Signature)	Date
DAN OZIMKOVIC		JAN 24/2018
Transportation Staff	Transportation Staff (Signature)	Date
Brian Hudson		January 24/18
Regional Staff	Regional Staff (Signature)	Date
John Kisneris		Jan 24, 2018
Regional Staff	Regional Staff (Signature)	Date
Conservation Halton Staff	Conservation Halton Staff (Signature)	Date

Proponent Signatures:

In signing this agreement, I acknowledge that the drawings, reports and other requirements indicated above must be submitted, along with a completed application form, any information or materials required by statute, the required application fees and a copy of this agreement in order for the planning application to be considered complete. In addition, I have read and agreed to the Notes listed above.

Property Owner	Property Owner (Signature)	Date
Dana Anderson		Jan 24, 2018
Agent	Agent (Signature)	Date

(I have authority to bind the owner)

APPENDIX—REQUIREMENTS FOR REPORTS/STUDIES AND PLANS

6.1 Planning Justification Report
A qualified planner (Registered Professional Planner) must submit a report providing planning justification for the proposed amendment in light of the principles, objectives and policies of the City's Official Plan and the technical studies accompanying the application. The goal of the report is to document how the proposed departure from the local policies and regulations represents good planning and is in the public interest. The report must: describe the site context; address applicable provincial and regional policy; describe the proposal in detail including preliminary site plan details if applicable; address applicable local Official Plan policies (e.g. policies relating to compatibility, intensification, redesignation criteria and conversion policies); describe how the proposal meets Council approved Design Guidelines, discuss findings of the technical studies in the context of the Part II Functional Policies of the Official Plan; and other Council policy.

6.2 Conceptual Site Plan Layout
General plan required showing proposed building envelopes, driveways, parking and landscape areas.

6.3 Draft Plan of Subdivision
The plan of subdivision map is to contain information required under Section 51(17) of the Planning Act, as well as: legend, map scale, boundary of property to be subdivided, north marker, address, registered plan number, lot and concession, date plan prepared and date of any revisions, name of person or firm who prepared the plan, all landowners names, signatures and date, and the Ontario land surveyor's name, signature and date.

6.4 Storm Water Management Report
Required in accordance with Part II, Section 2.11.3 subsections a) & d) of the Official Plan.

6.5 Functional Service Report
Required in accordance with Part II, Section 2.11.3 subsection e) of the Burlington Official Plan. Required for all applications in urban areas in accordance with Part III, Sections 87-89 of the Regional Official Plan. Municipal (Urban) Servicing Guidelines are available from the Region of Halton.

6.6 Tree Inventory and Preservation Study
Required when a property under application contains woodlots, tree stands or hedgerows, in accordance with Part II, Section 6.0 of the City's Official Plan and Part IV, Sections 146-147 of the Regional Official Plan. A tree survey must be prepared by a qualified professional, identifying all existing trees, their type, size and condition, those trees proposed to be removed and retained, and the methods to be used to ensure preservation of those trees to be retained.

6.7 Traffic/Transportation Impact Study
Required for applications as set out in Part II, Subsection 3.2.2 d) of the City's Official Plan and Part IV, Sections 171-173 of the Regional Official Plan. Contact City Transportation Planning staff (City roads) or Regional Public Works staff (Regional roads) for background information and to discuss TIS assumptions. For Regional roads, applicants are referred to the "Guidelines for the Preparation of Traffic Impact Studies". MTO must be contacted for lands near provincial highways

6.8 Top-of-Bank Demarcation
Required for applications on any property containing, or abutting a creek or valley feature, Lake Ontario or Burlington Bay shoreline, in accordance with Part II, Section 9.2.2 subsection b) and Part III, Section 6.4.2, subsections d) and e) of the City's Official Plan. Applicant's surveyor must meet on-site with representatives of the City Engineering Department and Conservation Halton to survey the top of bank and/or floodline, and this surveyed line shall be incorporated into the applicant's subdivision or site plan. A geotechnical report may be required to identify stable top-of-bank.

6.9 Environmental Evaluation Report
Required for applications as set out in Part II, Section 2.5 of the City's Official Plan, the Regional Official Plan and the Region's Environmental Impact Assessment guidelines. These assessments will be reviewed by the Halton Ecological and Environmental Advisory Committee (EEAC).

6.10 Noise and Vibration Study
Required for applications as set out in Part II, Section 3.3.2, subsections r), s) and t), and Part II, Section 3.7.2, subsections d), e) and f) of the City's Official Plan, Part IV, Sections 142-143 of the Regional Official Plan, and for all properties abutting arterial roads. In the case of Regional roads, applicants shall refer to the Region's "Noise Attenuation Policy for Regional Roads," dated October 2000.

6.11 Shadow Analysis
Required for all applications where, in the opinion of the City Building Department, the proposal may result in impacts on adjacent properties from sun shadowing, in accordance with Part III, Section 2.5.2, subsection (vii) of the City's Official Plan. Guidelines for this analysis are contained in the City's Site Plan Application Guidelines.

6.12 Environmental Site Screening Checklist
Required for all applications as set out in the "Protocol for Reviewing Development Applications with respect to Contaminated Sites," dated March 2003. Applicants should contact the Region of Halton for historical data and any environmental records.

6.13 Phase One or Two Environmental Site Assessment/Record of Site Condition Report (prepared in accordance with O.Reg. 153/04)
Required to assess site contamination in accordance with Part II, Section 2.4, subsections i) and j) of the City's Official Plan. All requirements of O. Reg. 153/04 must be met for Phase One and Two studies and required Records of Site Condition (RSCs). A letter of reliance from the Environmental Consultant/Qualified Person, confirming the City of Burlington and the Region of Halton can rely on the information contained in the report(s) is required. All reports must be signed by a Qualified Person as defined under O.Reg. 153/04.

6.14 Land Assembly Documents
Required for applications where, in the opinion of the City Building Department, the assembly of additional lands is required to facilitate orderly development of the area. Applicants are required to submit documentation demonstrating that a reasonable, bona fide offer has been made to acquire such lands.

6.15 Height Survey of adjacent buildings
Required for all residential infill and intensification rezoning applications, in accordance with City Council policy. A surveyor's report must identify the highest points of the existing adjoining roofs measured from the existing average grade of the shared property line.

6.16 Heritage Impact Statement
Required as determined by Planning staff for any property designated pursuant to the Ontario Heritage Act, identified on the City's Inventory of Heritage Resources, or for any property located adjacent to a designated or otherwise inventoried property.

6.17 Archaeological Report
Required for all applications in or near areas of archaeological potential, as determined by the Region of Halton. Reports must be completed in accordance with Provincial requirements and the Regional Archaeological Master Plan.

6.18 Wind Impact Study
May be required, as determined by Planning staff, for any building over 6 storeys in height. The report will provide information related to wind comfort conditions for pedestrians both on and around the development.

6.19 Sensitive Land Use (Risk Assessment) Report
Required for applications proposing sensitive land uses in proximity to existing industrial uses, or proposing industrial uses in proximity to existing sensitive uses, in accordance with Part II, Section 2.7.3 subsections n) & o) and Part II, Section 4.3 subsection d) of the City's Official Plan, Part IV, Sections 146-147 of the Regional Official Plan, and the Ministry of the Environment D-6 series guidelines.

6.20 Agricultural Impact Assessment Report
Required for applications as set out in Part II, Subsection 13.3 e) of the City's Official Plan and for certain proposals in certain designations in the Regional Official Plan. Guidelines for these assessments are available from the Region of Halton, and these assessments will be reviewed by the Halton Agricultural Advisory Committee (HAAC).

6.21 Hydrogeology Study
Required for all applications in areas subject to private water and septic services, as set out in Part IV, Subsection 2.1.3 b) and Part IV, Subsection 3.3 d) of the City's Official Plan, the Regional Official Plan and the Region's "Guidelines for Hydrogeological Studies and Standards for Private Services, revised June 2000. Applicants should contact the Halton Health Department for more details regarding site-specific studies, which must be approved by the Region following a peer review.

6.23 Other
Any other studies as determined to be necessary to facilitate proper consideration of the application.

Preconsultation Meeting Notes

5353 Lakeshore Road - January 24, 2018

Attendees:
Rosalind Minaji, Dan Ozimkovic, Annette Simpson, Rob Peachey, Vanessa Aykroyd - City of Burlington
Brian Hudson, John Kisneris –Region of Halton
Dana Anderson, Ben Hannam – MHBC Planning
Nevine Soliman -Cynthia Zahoruk Architects

Description of Development Concept:

- Mixed Use development with retail, office, supermarket and high rise residential.
- Building heights range from 6 to 18 storeys. A total of 900 residential units and 17,835m^2 of non-residential uses are proposed.
- Parking to be provided as both surface and underground.
- Have tried to incorporate joint access with the Skyway Arena.
- This concept includes phasing. Some shift in terms of height and density. Broader range of built form with some mid and low rise buildings throughout the development.
- Probably about 2 weeks from submission.
- Have met with Planning staff to discuss urban design. Tall Building Design Guidelines are followed.

Planning Comments:

- The site is designated as Neighbourhood Commercial which allows residential use on the 2nd and 3rd storey of retail and service commercial buildings. An Official Plan Amendment and rezoning to a modified Community Commercial designation will be required to facilitate this level of development.
- Current Official Plan policies for the Community Commercial designation requires that the floor area for freestanding residential, hospitality, entertainment, recreation and office uses shall not exceed half of the total floor area of the site.
- The new Official Plan, currently under consideration by Council, identifies this site as a Secondary Growth Area and located on a future Frequent Transit Service Corridor. The site is also designated as Neighbourhood Centre.
- Secondary Growth Areas are expected to accommodate growth within the permissions and densities of the assigned land use designations. These areas are not expected to result in a significant relocation of planned growth outside of the Primary Growth Area, and generally shall be limited to a mid-rise building form.
- The Neighbourhood Centre designation generally permits buildings between two and six storeys in height and up to 11 storeys with a rezoning application. However, the draft policies allow for consideration of one or more tall buildings through an Official Plan Amendment as part of the comprehensive development of a large Neighbourhood Centre site.
- Compatibility with surrounding neighbourhoods will be key in this redevelopment. Technical assessments will be required including: height survey of adjacent buildings, shadow study, wind study, noise and vibration from mechanical equipment. Building design should incorporate podiums and terracing to enhance pedestrian comfort.
- Appreciate that the existing retail commercial function is being retained – especially the supermarket.
- Appreciate the provision of the shared access point with the redeveloped Skyway Arena and the design of the pedestrian accesses through to Skyway Park.
- Avoid driveways crossing the open space amenity block between the proposed development and Skyway Park. Access Lane A should be a cul de sac from each end - resulting in safe pedestrian access to the park and less cut-through traffic. A significant amenity space should be provided, along with a pedestrian promenade.

- This significant increase in height and density must be justified through strong urban design. The City would like to see more amenity space at grade surrounding the new buildings and pedestrian areas. This should be a neighbourhood – not just a collection of buildings in a retail parking lot. The amount of surface parking should be reduced and some underground customer parking provided.
- A Planning Justification Report is required:
    - to discuss the impact of Provincial, Regional and local planning policy on the proposed development;
    - to explain why the requested development is desirable and represents good planning;
    - to discuss how the results of required technical studies have been used to refine the redevelopment proposal; and
    - to explain how the proposed development is compatible with surrounding land uses including setbacks, massing, and design.
- Section 37 benefits may be required

Region of Halton Planning Comments:

- The subject lands are located within the Urban Area. The range of permitted uses and creation of lots within in the Urban Area is to be in accordance with local official plans and zoning bylaws
- 2009 ROP Policy 89(3) requires all development within the Urban Area to be on full municipal services.
- S.156(1) of the ROP requires proponents of development applications to have regard for the Region's Healthy Community Guidelines. A review the Healthy Community Guidelines should be included as part of the Planning Justification Report.
- In accordance with In accordance with S.147(17) of the Region's Official Plan, a property is to be free of contamination prior to any development taking place
    - Regional Environmental Site Screening Questionnaire to be submitted with the application
    - Phase One ESA at the time of application (prepared to O.Reg 153-04 standards and with a Letter of Reliance), Phase Two may be required depending on the results of the ESA
    - Change to a more sensitive land use, RSC required
- Waste Management: Consider the movement of waste throughout the site, and off-site
    - Site specific zoning may be affected by Regional waste collection requirements (9 m truck overhead clearance, 13 m turning radii etc.)
    - Please refer to the Region's Development Design Guidelines for Source Separation of Solid Waste (Section 2.3 etc.)
- Required Plans/Studies:
    - Regional Review Fee's
    - Planning Justification Report
    - Functional Servicing Report, Site Servicing Plan (part of FSR)
    - Environmental Site Screening Questionnaire & Phase One ESA
    - RSC required for approval
    - Waste Management plan recommended

Region of Halton Servicing Comments:

- Halton Region watermains exists within Lakeshore Road, Kenwood Avenue and Hampton Heath Road. The Region's operating maps show a watermain somewhere in the vicinity of along the north part of the property and the City of Burlington parkland. It will need to be investigated by the owner and the civil engineering consultant, what is the purpose of this watermain and what it is servicing, whether servicing this property, the City park property and buildings, or both. Whether there is an easement registered on title as well, with the corresponding purpose.
- Halton Region wastewater mains exist within Kenwood Avenue and Hampton Heath Road.
- A Halton Region trunk wastewater main (sanitary sewer) and sanitary sewer forcemain exist within Lakeshore Road adjacent to the proposed development. Any proposed trunk wastewater main connection

lateral requires special review and Regional permission to connect into, and it should be noted that permission is not always guaranteed.

- The developer should undertake to locate the size and location of all watermains, water services, water meters, wastewater mains (sanitary sewers), wastewater (sanitary) services, stormwater mains and stormwater services that exist within the road right-of-way, to the property and within the property and place them on an Existing Site Servicing Plan drawings within their reports. Public and private utility companies can be utilized for this purpose.
- The Region has the Elizabeth Gardens Wastewater Pumping Station downstream of this property that services the area. The station has a defined rated capacity that cannot be exceeded.
- A Functional Servicing Report is required to be prepared by the developer's civil engineering consultant (watermains, water services, fire hydrants, water meters, sanitary sewer mains, sanitary sewer services, stormwater mains and stormwater services) to show options for how the property is proposed to be serviced according to City of Burlington and Halton Region standards. Local watermain and wastewater main (sanitary sewer) hydraulic analysis should be completed by the developer's consultant as well for the local sewers and the drainage area down the to the nearest trunk sewer. The consultant should include details about other developments properties in the drainage area in their analysis of the local sewers (if any). The report should speak to the number/type of units proposed and the phasing of the development with respect to the impacts on the Region's water distribution system and wastewater collection system. Phasing, timing of the development, and required/available capacity shall be detailed in the report. The consultant will include details about potential external main upsizing or main extensions to accommodate the development, etc.. They will also list future forecast Regional capital works projects in the area.
- The FSR report should incorporate Fire Flow Rate Testing. The proponent should undertake fireflow rate testing of representative Regional fire hydrants in the area, with the proponent's fireflow contractor and Region forces present. Include within the Report a copy of the fireflow rate testing results, and the Fire Underwriters Survey (FUS) requirements for the development. This information will help to assist in informing the watermain design and watermain hydraulic modelling analysis that is being undertaken by the proponent's consultants.
- Further to the formal hydraulic analysis requirement, the developer's consultant can utilize the Region's current water and wastewater models (if required). The developer's civil consulting engineering firm will be required to enter into a Data License Agreement prior to obtaining any digital information from the Region.
- The FSR should include information related to all the other Utilities infrastructure in the area and potential conflicts.
- The FSR should show the existing site services and note how they are proposed to be decommissioned to make way for the development. What will happen to the bank property.
- The FSR and the Planning Reports should speak to the proposed phasing the re-development and all the dates out into the future, including building demolition information, new construction information, detailed site statistics for retail/commercial areas, and detailed information regarding the breakdown of residential units and bedroom counts. The phasing information should be a stand-alone document that is revised regularly by the developer. And provided to the Region upon request.
- New development must be on the basis of full municipal services.
- The developer should be aware of the Region's Multi-Unit Servicing Policy with respect to the number and location of water meters.
- Regional policies state that water and sanitary services cannot cross lot lines, the owner will ensure this throughout the process. Each lot must be independently serviced if it is proposed to be a separate lot, or separate condominium ownership.
- Any major servicing works, etc, required for this project would fall under the Regional Servicing Agreement process, including securities, Agreement registration, developer's liability insurance and the payment of Agreement fees.
- Servicing of a standard nature is required to go through the Regional Services Permit process.
- The size and scope of, utility trench and road cut, road restoration shall be to the satisfaction of the City of Burlington.

- Watermain and wastewater main (sanitary) servicing capacity is not guaranteed at the OPA and rezoning stage. Servicing of development in the Burlington area of Halton Region is on a first-come-first-serve basis. The owner can pre-consult about servicing capacity with the Region at any time in the future going forward. This current development proposal capacity will be reviewed closely and commented upon at the time of Planning application receipt. Should a servicing capacity issue be identified at that time then it will have to be dealt with, working through it with the Region. Servicing capacity is deemed to be in hand at the issuance of a Regional Servicing Agreement, Special Financial Agreement, and Regional Services Permit which is reviewed and obtained toward the end of the City's Site Plan approval process, or Regional Servicing Agreement.
- The Region has initiated a Burlington Water Servicing Strategy Review and it is forecast to be completed this year. Please feel free to contact the Region at any time regarding the status of the review.
- As always, acquiring land for development purposes and hiring consultants, at this time, is at the risk of the developer.
- Any water services and sanitary services that currently exist to the property that will not be utilized for any reason will be required to be disconnected right at the respective main by the developer.
- The developer's site servicing consultant can preconsult with the Region at any time regarding their proposed draft site servicing water design, wastewater design and identified utility conflicts (including storm), and including services not crossing lot lines.
- The Region would like to receive confirmation in writing when any required formal land assembly has taken place at the OPA and ReZoning stage in order for servicing to conform with Regional Policies, that water and wastewater services do not and will not cross lot lines for different property owners.
- The developer should prepare a Solid Waste Management Plan to the satisfaction of the Region. The Plan shall have regard for the Region's Solid Waste Management Guidelines. The Solid Waste Management Guidelines are available on-line at http://www.halton.ca , Regional Official Plan (ROP) Guidelines, Development Design Guidelines for Source Separation of Solid Waste.
- The developer will inform the City, and the Region, whether they will be submitting a Site Plan application at the same time as the OPA and ReZoning applications for timing purposes and issues identification and resolution purposes.

Site Engineering Comments:

- The deemed Right of Way (ROW) of Kenwood Avenue is 20m, deemed ROW of Hampton Heath Road is 20m, and deemed ROW of Lakeshore Road is 30m, all ROW's are City of Burlington roads and are at the deemed width, no widenings required.
- There are a couple of Capital Works projects in our budget and forecast for the area, subject to change: Minor Reconstruction of Kenwood Ave & Bromley Road area in 2019 (RD-RR-1635); Lakeshore Road Path (Appleby Line to Burloak Drive) in 2019 (RD-SW-1121); Sidewalk construction Bromley Road (Kenwood Ave – Linwood Cres) in 2019 (RD-SW-1611); Mohawk Park renewal of park assets in 2017 (PO-PR-1659). Information on future Capital Works projects is available on our website www.burlington.ca .
- From our GIS mapping it appears as though the property is outside of Conservation Halton regulated areas and Floodplain, however, this shall be confirmed at submission future application.
- There are two existing bus stops fronting the site, one on Lakeshore and one on Hampton Heath, please consider/incorporate in your design
- We advise the applicant to consult with Burlington Hydro early on in the process regarding supply for the proposed development.
- There is a Union Gas pipeline on Lakeshore Drive fronting the property (on the south side), please contact Union Gas to determine any requirements they may have when constructing in close proximity to their utility.
- Please incorporate clear pedestrian connections (sidewalks) form Lakeshore, Kenwood and Hampton Heath and throughout the development. It looks like the sidewalk along Access Lane D doesn't go all the way to Lakeshore – it should.
- Please incorporate at-grade bicycle parking for both residents and retail customers at the buildings, and consider bike parking at underground residential vehicle parking spaces, i.e. on the wall at the space, maybe the spaces are a bit deeper to incorporate?

- When designing the underground parking please consider pedestrian movements, i.e. safe/delineated areas at exits to stairwells and elevators, strategic placement of barrier free parking and access aisles to the elevators, etc.
- Please consider electric car charging stations in the underground parking, and consider ductwork for future electric car charging stations at individual parking spaces, if residents want to install in the future.
- When designing the underground parking entrances, please ensure there is a 6.0m "flat" landing area at the top and that the sight lines are considered especially where there are sidewalks crossing over the entrance. i.e. ensure the front of vehicles does not have to overhang the sidewalk to be able to look to see if safe to exit the underground parking.
- There are overhead utilities along the north property line directly adjacent to Skyway Park, there is no easement indicated in our GIS, the utility (Burlington Hydro?) may require an easement across these lands. From an urban forestry perspective, it is preferable to bury the hydro in this area (at the edge of asphalt) so that trees can be planted in between the property and the park edge.
- RSC required, as it change to a more sensitive use. To make the application complete we require at minimum a Phase One Environmental Site Assessment prepared in accordance with O. Reg. 153/04 including a letter of reliance confirming the City (and Region of Halton) may rely on the information provided in the report. We will also require copies of all subsequent environmental reports required to obtain and listed on the RSC.
- Stormwater Management Report : the following information was previously provided to Nick Constantin:
    - Quality Control: enhanced (80% TSS removal) and a treatment train approach incorporating LID, and that we look to the TRCA/CVC LID guidelines
    - Quantity Control: 100 year post development to 5 year pre development
    - Confirmation of capacity of outlet system
    - If there is any permanent dewatering required as a result of underground parking it needs to be confirmed how it will be dealt with and/or included in the SWM design, depending on volume (if proposed to be collected and discharged) a permit to take water may be required, groundwater quality will also need to be considered to determine how it is discharged
    - Rooftop storage will not count towards the storage requirements
    - Quantity controls must use an orifice tube (not plates).
    - No surface ponding in accessible parking spaces or accessible routes
    - No surface ponding in a 5 year storm
    - Need to accommodate any external drainage areas into the design and ensure there is no negative effect on existing surrounding properties
    - Need to confirm condition of receiving system (i.e. video inspection)
    - Show overland flow route Overland Flow Route should not be directed through the proposed center entrance off of Lakeshore
    - If you have any questions regarding SWM criteria please contact us (umar.malik@burlington.ca or annette.simpson@burlington.ca
- Geotechnical Report : underground parking & possible LID for SWM, need to assess groundwater conditions and if there is any permanent dewatering required to be managed in the SWM. Depending on the results of the Geotechnical assessment of groundwater a full Hydrogeologist assessment of groundwater may be required.
- Detailed Grading and servicing plans, also including:
    - city trees to be shown on drawing and boundary trees over 100mm in diameter within 3m of the property line), indicate which trees are proposed to be removed.
    - Need to include grades on adjacent properties enough to determine existing drainage patterns
    - Although snow storage is a site plan issue, we ask that it be considered at this stage to ensure there is enough room on site as required parking spaces cannot be used for snow storage. Our strong preference is that snow is stored on a soft surface (grass) which allows for some pre-treatment prior to entering the storm system. The islands in the parking areas (as long as there's no sidewalk in them) could be expanded a bit to allow for snow storage and possibly bio swales for a treatment train approach to SWM

- Show any proposed or existing retaining walls (there is a retaining wall around the Scotia Bank property)
- We would strongly encourage the Applicant's Civil Engineer to daylight the area of the proposed service connections to accurately locate the existing infrastructure (sewers, water, bell, hydro, cable, etc.) and determine inverts before completing detailed design work.

- Noise Feasibility Study:
  - For the development itself and need to see if there are any negative impacts on surrounding existing residential.
  - Please note that the Skyway Arena to the north of the site may also be a stationary source that will need to be reviewed, there are also high-rise buildings to the south that may have mechanical equipment (rooftop/underground parking fans & venting) that may also be stationary sources.
  - Please advise the noise consultant that reflective surface should be used in Stamson calculations
  - Please also advise the noise consultant that although NPC-300 tables indicate 60dBA in the OLA with warning clauses, it is not acceptable to the City, we request that all possible measures be taken to control the noise in the OLA to 55dBA, if not feasible, then we request calculations to confirm what levels could be achieved, i.e. 60dBA would require a 3m noise barrier, 59 a 3.5m, 58dBA a 4.0m, etc. all the way to 55dBA.
- Summary for RZ/OPA:
  - Stormwater Management Report
  - Detailed Servicing, Grading & Drainage drawings
  - Noise Feasibility Study
  - Geotechnical Report (to quantify Groundwater and if LID proposed)
  - Record of Site Condition
  - Tree preservation (and removal) plan
- At the Site Plan Stage:
  - Erosion control plan
  - Construction Management Plan
  - Utility coordination plan
  - Landscape plans
  - Snow storage
  - Would like to see bike racks incorporated
  - Would like to see pedestrian connections
  - Sign details/location
  - Lighting/Photometrics details/drawing, as per City of Burlington Accessibility Design Standards and City of Burlington Outdoor Lighting Guidelines, available on our website.
  - Precondition survey of surrounding buildings and vibration monitoring for the duration of construction
  - Applicant is advised that a new Standard is in effect as of July 12, 2017, S-114-B, requiring any disturbance to the municipally owned ROW asphalt to be restored curb to curb for the entire frontage(s) of the property, it may also mean that a City contractor will complete the works, and the costs borne by the Applicant.

Capital Works Parks & Open Space Comments:

- Acknowledge the movement of access lane "A" onto the development site and alignment with Banting Court. A formal agreement will be required to secure and ensure access to the arena is uninterrupted. Access point may require further adjustment to ensure functionality of the arena drop off and parking lot and any Fire route requirements.
- Cash in lieu of park dedication will be required. The City may be willing to accept park dedication for the triangle of land north of Access Lane A.
- Access lane A has a gate, how will this work with fire routes?

- The outdoor amenity space in the north west corner needs to be designed in coordination with the Park/Arena site to maximize pedestrian flow between the park and development site.
- The amenity space located in Skyway Park by the parking lot requires further exploration with the city.
- It is unclear where the access to underground parking is located for phase 1.
- Please consider enhancements to the public realm along Kenwood, Lakeshore Rd. and Hampton Heath to achieve complete streets concept (wider sidewalks, etc.).
- Layby parking on Kenwood will be considered by Transportation Services staff.
- Please consider enhancement of the Hampton Heath connection to Burloak regional waterfront park
- There doesn't appear to be any accessible parking spaces provided.
- The outdoor amenity areas seem to be pushed to the outside edges of the site, please consider an increase to amenity space in the interior of the site.
- Please confirm the loading/garbage pickup is integrated into the interior of the building.
- Please provide high quality architectural finishes along the buildings facing the park.

Capital Works – Urban Forestry Comments:

- We ask that no trees be removed from site until after the Official Plan/Rezoning has been completed/ approved
- Tree Preservation Plan: There are a large number of City Trees along the frontages (approximately 38). Trees along Kenwood are ASH, the remainder a mix of Norway and Silver Maple, Ornamental Pear, Ivory Silk Lilac, Austrian Pine and Flowering Crabapple. The trees are in varying condition. A complete tree preservation plan as well as inventory and assessment of health and structural condition of City trees is requested prior to any proposed removals being considered. Any proposed City Tree removal will require Council Approval.
- Please refer to the City of Burlington Tree Preservation and Protection Specification SS12A for further tree protection details.
- There are no boundary trees to consider.
- Conceptual Landscape Plan: Please be advised that the City will be implementing minimum soil volume requirements for tree planting in the near future. Generally speaking they are $30m^3$ per tree, volume accommodations are made for shared planting spaces and size of tree. The largest deciduous tree possible for the available above ground space is requested. Planting depth is usually measured at 0.9-1.2m in depth. Please plan plantings accordingly on top of parking garage structures – the extents/limits of which are to be shown on all landscaping and tree preservation documents.

Transportation Services Comments:

- Traffic Impact study and Parking Justification Report(if asking for parking reduction) will be required
- Travel Demand Management Plan needs to be included as part of Traffic Impact Study
- Encourage the provision of a shared access on Kenwood Avenue with the arena that would align with Banting Court
- Encourage alignment of the proposed access south of Block B with the existing access to Parkwood Plaza
- Accessible parking spaces should be included
- Provide east-west, north-south pedestrian connection through the proposed parking lot
- Parking lot layout and proposed lay-by spaces will be reviewed at the site plan stage