

**From:** Jeffrey @ LAND LAW <[jeffrey@landplanlaw.com](mailto:jeffrey@landplanlaw.com)>

**Sent:** Friday, March 13, 2020 4:41 PM

**To:** Clerks Richmondhill <[clerks@richmondhill.ca](mailto:clerks@richmondhill.ca)>; bernardKDA <[bernardKDA@richmondhill.ca](mailto:bernardKDA@richmondhill.ca)>; [council\\_members.trh@richmondhill.ca](mailto:council_members.trh@richmondhill.ca); [regional.chair@york.ca](mailto:regional.chair@york.ca)

**Subject:** Yonge Bernard KDA - further comments on behalf of North Elgin Centre Inc. (March 13, 2020)

Att: City of Richmond Hill Council and Staff

I represent North Elgin Centre Inc. and am providing comments to the City today as requested on the City's website.

<https://www.richmondhill.ca/en/find-or-learn-about/yonge-street-and-bernard-key-development-area.aspx>

These comments are further to ones already provided to Staff and the public by North Elgin's consultants.

To give context to these comments, North Elgin refers to its concept plan on file with the City along with its Development Concept vision presented to the Public Open House held in December 2019 (excerpt in link below).

As of today, North Elgin has not received any explanation for the proposed height and density shown in the latest draft Secondary Plan and Zoning Bylaw, nor the rationale for a public road or the proposed revised parking rates.

While we appreciate Staff's efforts to-date, there are significant problems with the latest draft documents posted on the City's website as well as the HDR traffic and parking report.

From North Elgin's perspective, ***the key issues are:***

1. Maximum Height of 30 storeys - There is no explanation for this height limit, especially for corner properties such as North Elgin's which can achieve, without any impact, 36 storeys or more, at the southwest corner of the property. This has been demonstrated through angular plane and other studies on file with the City.

**Recommendation** - the height limit in storeys for towers at or close to the intersection should be increased to 36 - 38 storeys.

2. Density - There is no explanation for the assignment of density to all sites on the latest draft planning instruments, nor why NEC's lands would be limited to 4.5 FSI. NECs concept plan on file with the City clearly demonstrate that the site can easily accommodate 5.5 FSI especially if LEA's parking strategy is implemented which North Elgin is committed to do in order to resolve its appeals.

**Recommendation** - the density assigned to NEC lands should be not less than 5.5 FSI.

3. Roads - Link D and signalized intersection - For the reasons set out in the attached letter and report from LEA, there is no justification for Link D to become a public road. Moreover, it is important for the residents to know that North Elgin does not support a public road which would encourage and allow by pass traffic to infiltrate the residential neighbourhood to the east of the north east quadrant of the Yonge Bernard KDA. What North Elgin's plan allows for is (a) continued shared vehicular access with Richmond Hill Retirement Residence (at 70 Bernard) and (b) pedestrian and cycling access through the site to a proposed park (which would be stratified).

North Elgin is aware that Staff have engaged external consultants for yet another study called a strata study which is not currently available. This study is not necessary. Either you agree to make the most efficient use of lands in a KDA through strata title - which already exists in Richmond Hill (for example,

Great Lands woonerf road at Yonge and 16) or stratified parks (which exists in Markham and other municipalities) or you do not. Strata parks are already permitted in the Part 1 Plan.

**Recommendation** - Link D should be removed as a public road from the plan and changed to a private road (similar to the segment recommended for the lands in the south east quadrant of the KDA) with provision for public pedestrian and cycling access.

4. Potential signalized intersection north of Bernard at Link D and Yonge - the BRT is under construction and there is no authorization for a break to now be made to the centre line median of the BRT. For the reasons set out in the LEA report attached, a signal at this location is not warranted.

**Recommendation** - the schedules to the Plan and Zoning Bylaw should be revised to delete the reference to "potential signal".

5. Greenway and OS designation on NEC lands - a well defined drainage channel exists along the north side of the NEC lands. This channel serves as the north boundary of the north east quadrant of the KDA. It is fenced on both sides and public access is not permitted. The entire NEC site (1.84 ha) is developable and should be designated KDA with no greenway or OS. No explanation has been given by Staff or TRCA for any greenway or OS zoning on the NEC lands. There is no flood issue.

**Recommendation** - the schedules to the Plan and Zoning Bylaw should be revised to remove any greenway or OS designation.

6. Minimum Non Residential Density - Staff (presumably with support of Regional Staff) now require 15% of the total FSI (or GFA) assigned to a property to be non residential GFA. The rationale appears to be that its part of the Region's vision for a "complete community". The complete community policies also include provision for purpose built rental housing. **Those who seek to provide purpose built rental housing and to create zero car households in a mixed use transit supportive development (like North Elgin) should not be burdened with the above requirement.**

**Recommendation** - the 15% requirement should be removed or lowered to a realistic amount.

7. Parking Rates and TDM - the latest parking rates proposed for the KDA (by HDR) are deficient for the reasons set out in the LEA report attached. Many TDM items are missing from the bylaw - for example mandatory car share, compact car spaces etc. It is not clear why staff have not adopted the parking strategy set out in the LEA report which has been on file with the City for quite some time.

**Recommendation** - the parking rates to be included in the zoning bylaw shall be revised to implement the recommendations in the LEA report.

8. Restaurant Use including Drive-Thru - -the latest draft of the bylaw does not clearly specify these uses as being permitted uses. Such uses in a mixed use development are now common place and are an essential service with provision for delivery personnel parking spaces or customer curb side pick up spaces along with various forms of pick up windows. Technology is changing the way food is ordered, pick-up and or delivered. NECs concept plan can facilitate such uses.

**Recommendation** - the bylaw should be revised to specifically include restaurant and drive thru facilities.

9. Holding Provision - the Plan and bylaw now call for a holding provision to be placed on all sites within the KDA. The rationale for use of a holding provision has not been demonstrated, nor have the specific criteria upon which a hold would be lifted justified. In principle, North Elgin is not opposed to a holding provision being applied to its KDA zoning. However as currently drafted, removal of the H provision is based on highly discretionary criteria including construction by the Region of certain roads external to the KDA. As set out in the LEA report, the HDR report does not justify the transportation related triggers proposed in the bylaw.

**Recommendation** - the holding provision should be deleted as the criteria are not appropriate.

A meeting has been requested with Staff to clarify these and other matters. Moreover, information has been sought from the Region of York regarding the status of Richmond Hill's housing starts and completions from 2017 to the present.

We believe the information to be disclosed from the Region will show that both York Region and Richmond Hill are aware that Richmond Hill has not met its annual housing targets contemplated in the latest DC bylaw and that affordable and attainable housing has not been built.

North Elgin's development vision seeks to address this concern.

North Elgin is determined to resolve its appeals with all concerned based on these comments and others provided earlier through the KDA process.

Would the clerks department please confirm receipt of this communication and make same available to the public.

Thank you.

**Jeffrey E Streisfield**, BA LLB MES  
Land Lawyer & Land Development Manager

**LANDLAW**<sup>TM</sup>  
[www.landplanlaw.com](http://www.landplanlaw.com)

416.460.2518

Planning & Development Approvals  
Municipal & Environmental Law  
Boundary & Property Disputes  
Trials, Hearings, OMB (LPAT) and Court Appeals

*Creating and Protecting Land Value in Ontario | Advocating for Housing Options Choice and Affordability TM*

This e-mail may be privileged and/or confidential, and the sender does not waive any related rights and obligations.



March 13<sup>th</sup>, 2020

**Reference Number:** [19146]

**City of Richmond Hill**  
225 East Beaver Creek Road  
Richmond Hill, ON  
L4B 3P4

**RE: LEA Stakeholder Comments in Response to the *Yonge/Bernard Key Development Area Peer Review and Transportation Assessment Update – Revised Draft* Prepared by HDR in Support of the City of Richmond Hill’s Yonge-Bernard KDA Secondary Plan Update and Draft Zoning By-law 111-17**

## 1 INTRODUCTION

In 2018, LEA Consulting Ltd. (“LEA”) was retained by North Elgin Centre Inc. (NEC) to provide transportation consulting services for the property addressed as 11005 Yonge Street and located at the northeast corner of Yonge Street and Bernard/Canyon Hill Avenue in the City of Richmond Hill (herein referred to as the “subject site”). The subject site is located within the Yonge-Bernard KDA Secondary Plan (herein referred to as the “Plan”), which was adopted by the City in November 2017. The Plan and comprehensive Zoning By-law 111-17 (the “Zoning By-law”) for the KDA lands were subsequently appealed to the LPAT and are currently under appeal, including by NEC (LPAT File PL180073). The Plan proposed several recommendations for the transportation network within the KDA, including new streets and parking rate requirements. In 2017, a traffic impact study titled, “Yonge Street and Bernard Avenue Key Development Area Richmond Hill Secondary Plan Transportation Considerations”, was subsequently conducted by BA Group as a response to Town council for the road recommendations proposed in the Yonge-Bernard KDA Secondary Plan and will be referenced in this report as the “BA Report”.

Since adoption of the Plan in 2017 and the subsequent appeals of the Plan to the LPAT, in late 2019 and early 2020, City Staff have conducted a further review of the Yonge and Bernard Key Development Area Secondary Plan and Zoning By-law and are proposing several modifications to the Plan and By-law in response to Council directives and issues raised by appellants through the appeals process, and to clarify provisions of the original By-law 111-17. In order to inform City Staff’s proposed modifications to the Plan and By-law, the City retained HDR to conduct a Peer Review and Assessment Update of the BA Report. The HDR Report (2020) and updated draft Plan and By-law 111-17 were issued for public consultation in February 2020 and are available on line on the City’s website.

LEA has previously conducted a review of the background planning context for the Bernard KDA, followed by a traffic operational review of the proposed road network as initially recommended by the BA Report. Following the issuance of the HDR Report and the updated draft Plan and draft By-law 111-17, LEA has reviewed these documents as they relate to the northeast quadrant of the KDA. LEA’s comments and concerns regarding the HDR Report on behalf of NEC are provided below in response to the City’s requests for comments on the HDR Report, the Plan and the Zoning By-law to be delivered by March 13<sup>th</sup>, 2020.



## 2 REVIEW OF THE YONGE/BERNARD KEY DEVELOPMENT AREA PEER REVIEW AND TRANSPORTATION ASSESSMENT UPDATE – REVISED DRAFT

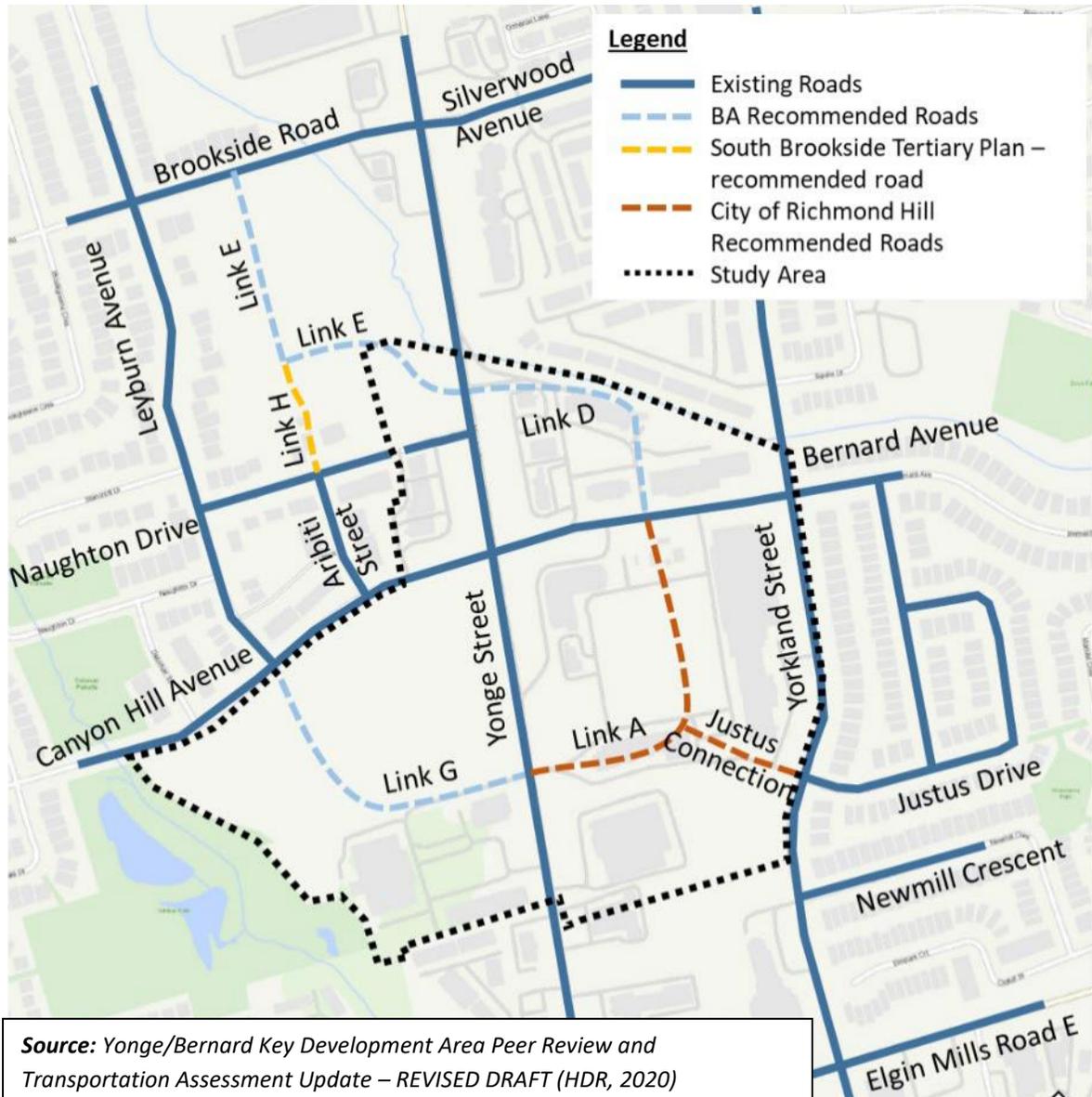
Following a review of the HDR Report conducted for the City and intended to inform policy development towards an updated Plan and By-law, LEA has the following comments regarding the proposed road Link “D”, recommended parking rate requirements, development assumptions, the assumed timing of development, and the recommended approach to travel demand management (TDM).

### 2.1 PROPOSED ROAD LINK “D”

A key recommendation identified in the Plan was a public street to connect Yonge Street to Bernard Avenue along the north and east sides of the NEC-owned lands. The proposed road link, referred to as Link D in the BA and HDR Reports, continues to be recommended. The Plan also included a new signalized intersection at Yonge Street and Link D, which continues to be recommended by the HDR Report. The proposed changes to the study area road network are shown in **Figure 2-1**.



Figure 2-1: Recommended Road Network for Bernard KDA



LEA has several concerns with a Public Roadway for Link D, as follows:

1. *Traffic Benefits of the Proposed Roadway*

LEA has reviewed the HDR Report and notes that, similar to the BA Report, the assessment of future traffic operations was only conducted for the proposed road network, not for the existing network. A comparison of the future total traffic operations on the existing versus the proposed network was therefore not provided, and the improvements associated with implementing Link D on its own cannot



be accurately assessed. To fully understand the impacts of the proposed road network and Link D specifically, a baseline analysis would be required for the future traffic volumes.

Further, Richmond Hill Official Plan (RHOP) policy 3.5.6.5 provides that the primary function of local streets is to provide direct access and facilitate the movement of low volumes of traffic to collector and some arterial streets and that local streets **shall be designed to minimize through traffic**. HDR do not address this policy, nor explain:

a) why a 20m ROW would be required or is appropriate, as opposed to an 18m ROW, or a 15.5m ROW (approved for the Baif Yonge Street lands per RHOP, Policy 6.15(h)), or

b) why a private road with an easement for public access (to pedestrian and cycling facilities) is not appropriate based on NEC's development concept plan, and parking strategy as recommended by LEA.

## 2. *Traffic Benefits of the Proposed Signalized Intersection*

A sensitivity analysis was subsequently conducted to assess whether a signalized intersection at Yonge Street and Link D is warranted. The results of this sensitivity analysis indicated that without signalization, several movements that are already experiencing capacity constraints would perform worse if the intersection was implemented unsignalized. Under future total conditions, the eastbound left, southbound through-right, and northbound left at the Yonge Street and Canyon Hill/Bernard Avenue intersection all operate worse with a volume-to-capacity (v/c) ratio over 1 if the proposed intersection is unsignalized. It is noted in the analysis, however, that the eastbound left and southbound through-right movements would operate with a v/c ratio of 1 or more **even if** the proposed intersection is signalized. Similarly, the southbound through-right and westbound left movements at Yonge Street and Brookside Road/Silverwood Avenue would operate with a v/c ratio greater than 1 if the intersection is unsignalized, but would operate with v/c ratios of 1.01 and 0.99, respectively, **even if** the intersection is signalized. While the proposed signal at Yonge Street and Link D would help to mitigate congestion already anticipated for the study area, the cause of congestion cannot be attributed to the proposed signal alone and LEA therefore would not support the requirement for a signalized intersection based on this rationale.

The reassignment of the traffic volumes between Table 4-27 (2041 AM Total Future) and Table 4-29 (2041 AM Total Future Removing Proposed Signal at Yonge and Link D/E) were not provided. It is unknown how traffics were reassigned. The Synchro results for the unsignalized intersection of Yonge and Link D/E were not provided. Please provide details of the missing analyses and rationale of the traffic reassignment. Without this information the signal warrant would not be supported.

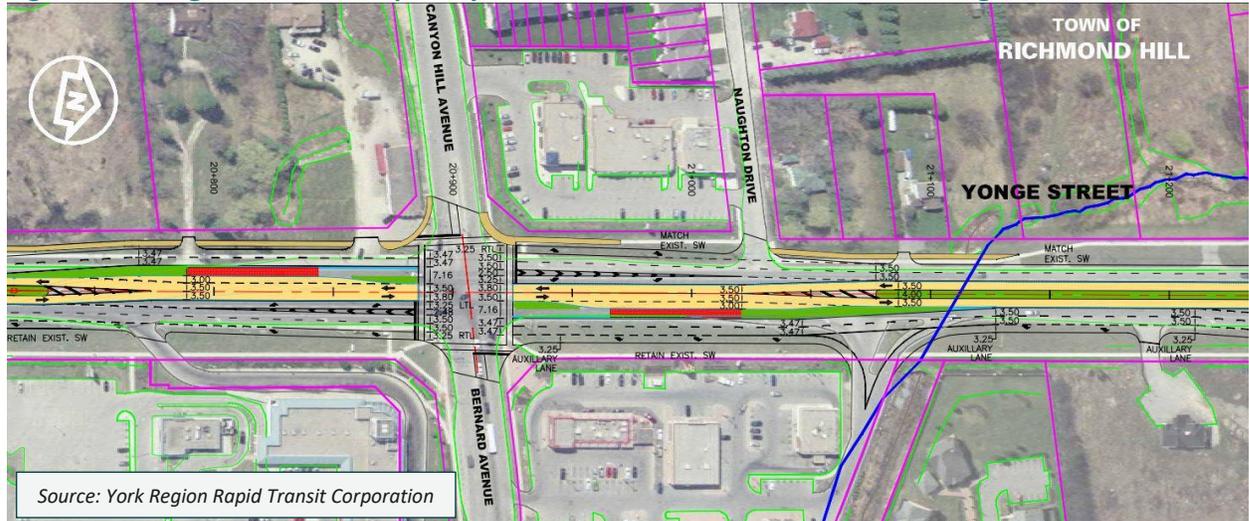
## 3. *Spacing Concerns for the Proposed Signalized Intersection*

The proposed signalized intersection does not meet the York Region minimum spacing requirements for Regional roads between Bernard Avenue. The proximity of another signal on Yonge Street will have impacts to the delay of northbound and southbound traffic, as well as the future Viva Yonge Street Rapidway which is currently under construction. It should also be noted that the design drawings for the Viva Yonge Street Rapidway alignment at this location indicate a centre landscaped median with no



breaks (from the Yonge Bernard BRT station north to the next BRT station) and includes a right-in/right-out access for the subject site at Yonge Street, as shown in **Figure 2-2**.

**Figure 2-2: Yonge Street Viva Rapidway Environmental Assessment Preferred Alignment**

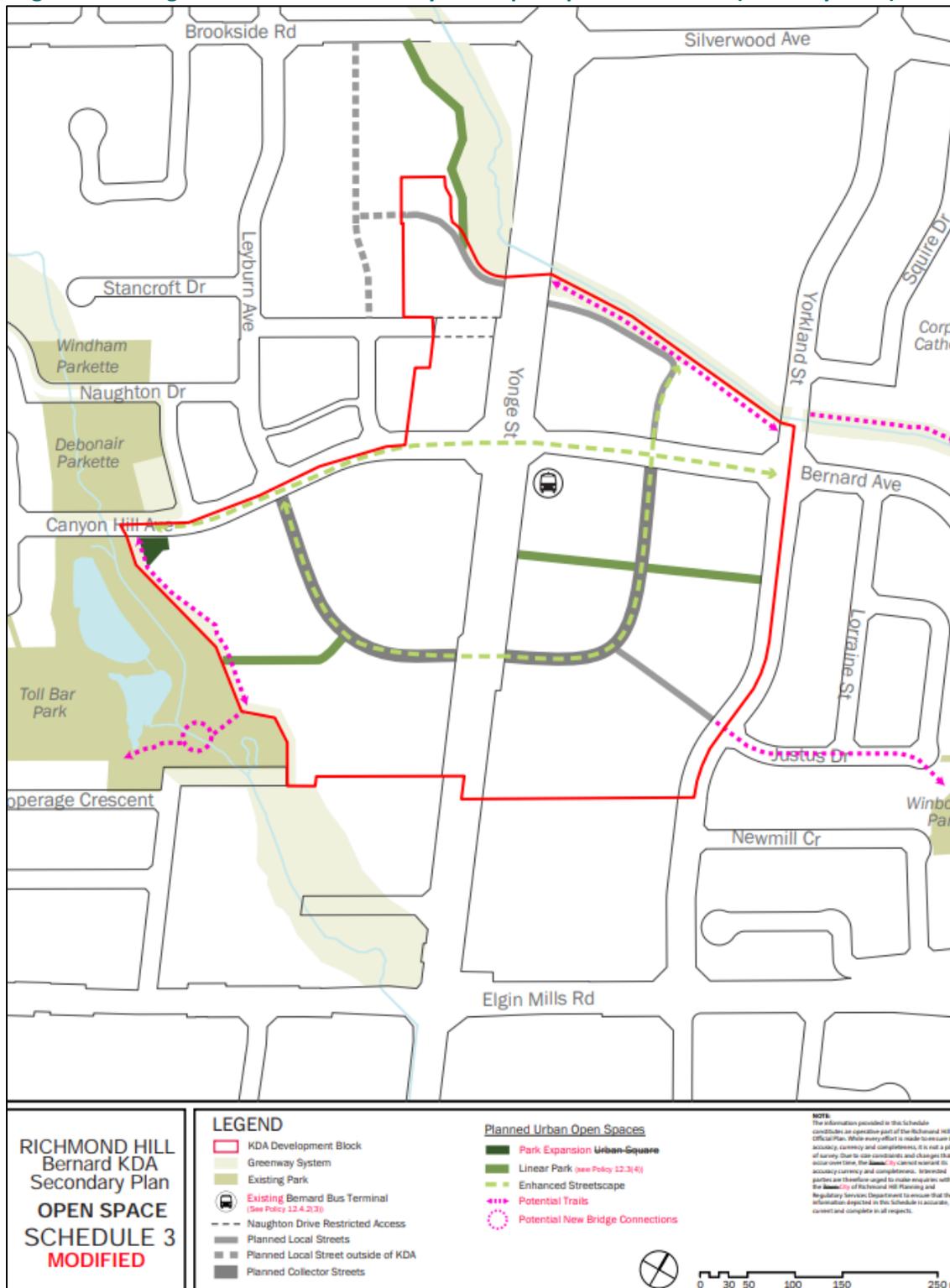


**4. Inconsistency between the modified Bernard KDA Secondary Plan Open Space Schedule 3 (February 2020) and the proposed Link D**

Link D is proposed to function as a local road in the HDR Report, regardless of future ownership. Further, the HDR Report identifies Link D as a component of the recommended future cycling network proposed to include bike lanes. It is noted that the modified Bernard KDA Secondary Plan Open Space Schedule 3 dated February 2020 identifies the proposed Link D as a planned local street, with a potential trail connection identified along the northeastern boundary of NEC lands as shown in **Figure 2-3**. In LEA's opinion, it would be unreasonable to recommend two separate active transportation facilities running adjacent to each other on the same property.



Figure 2-3: Yonge Bernard KDA Secondary Plan Open Space Schedule 3 (February 2020)





## 2.2 RECOMMENDED PARKING RATE REQUIREMENTS

The parking strategy providing in the HDR Report (2020) refers to a best practice review and comparison of rates required by other municipalities with comparable built form and transit service characteristics to the Yonge and Bernard KDA.

1. *The new recommended minimum residential parking rates have not been justified and should not be considered as an appropriate absolute minimum rate*

The new recommended residential parking rates equate to 0.1-0.2 spaces less per unit for residential development while visitor rates have remained the same when compared to the rates initially proposed in the Yonge-Bernard KDA Plan Zoning By-law 111-17. It should be noted that the rates identified in By-law 111-17 were based on the Draft Richmond Hill Parking Strategy that was prepared by HDR in 2010. This study is now 10 years old, and simply applying a uniform reduction to these parking rates does necessarily reflect differing car ownership trends amongst different unit types nor the opportunity to further reduce parking demand and support transit and active transportation options through TDM measures.

Further, any new minimum and maximum residential parking rates and parking strategy should support both the Region's and City's:

- (a) transit modal split targets as set out in ROP policy 7.2.26 & RHOP Policy 3.5.1.15;
- (b) climate change strategy to reduce CO2 emissions; and
- (c) housing affordability objectives applicable to KDAs (35% target),

by removing the requirement to construct a parking space for each new residential unit and by allowing for the unbundling of the cost of a parking space from the cost of a new residential unit (whether it be ownership or rental).

LEA has already recommended to City Transportation Staff a new minimum blended rate of 0.65 spaces per residential unit, together with mandatory car share, bicycle parking, EV charging stations and other measures to be incorporated into the Zoning By-law to influence change to more non-auto modes of travel, address housing affordability and give priority to public transit and active transportation options.

LEA's recommended parking strategy and rates (attached as Appendix A) are critical to supporting a change to non-auto modes of travel and support transit ridership and investment. More importantly, the landowner, NEC, is committed to achieving the above objectives through NEC's development concept plan on file with the City.

## 2.3 FSI AND DEVELOPMENT ASSUMPTIONS

The HDR Report identifies several assumptions made with regards to future FSI and development proposed for the Yonge and Bernard KDA and extended study area.



1. *Transit modal splits assumed for residential, office and retail development for the 2031 base scenario do not appear to account for the effect of TDM measures and reduced minimum parking rate requirements*

It is understood from the HDR Report that transit modal splits assumed for the 2031 base scenario were based off of the Transportation Tomorrow Survey (TTS) data for the 2016 census year. The HDR Report notes that it was unclear how the BA Report arrived at the assumed 17% transit modal split for the 2031 scenario. The AM period transit modal splits applied to the HDR Report are 18% for residential, 9% for office, and 5% for retail uses. The PM period was not assessed in the report. For the 2041 future total scenario, the assumed transit modal splits were 30% for residential to align with the both the Region's 2031 and City's future mode share targets, 12% for office, and 10% for retail.

It is unclear how the 30% transit modal split will be achieved for residential uses as the transit modal split calculations were not tied to any TDM measures. Additionally, the relatively lower transit modal splits for office uses are based on 2016 TTS travel trends, while the retail transit modal split is based on surveys conducted by the BA Group. The transit modal splits assumed for the HDR Report therefore do not appear to consider advancements in TDM strategies (and technologies) nor do they seek to support a shift in commuter culture and travel trends as the Yonge-Bernard KDA develops and intensifies.

2. *Maximum FSI that can be accommodated does not accurately reflect the transit service availability of the Yonge and Bernard KDA*

As indicated in the HDR Report, a key objective of the report was to assess the KDA transportation network based on a desire for higher density and development within the area, as directed by City Council in 2019. It is noted that, while transit trip generation and proposed transit service are assessed in the report, the maximum density determined for the KDA is based on critical movements for vehicle traffic operations only. Specifically, critical movements at the Yonge Street and Elgin Mills intersection and at the Yorkland Street and Elgin Mills intersection were noted as movements which will determine the KDA's future density. While it is understood that the HDR Report identifies several movements which will experience capacity constraints under future total conditions, it is also understood that transit service will not have reached capacity and that there is significant opportunity to improve transit service frequency within the KDA and extended study area considered in the HDR Report. Considering the existing and future capacity of transit service accessible to the Yonge and Bernard KDA and the NEC site, LEA is of the opinion that it is not appropriate to limit development potential based on vehicle traffic operations alone.

3. *It is unclear how active and anticipated development within the Yonge and Bernard KDA were considered in the assessment of future total transportation conditions*

The HDR Report included a list of active developments currently identified within the Yonge and Bernard KDA and extended study area. LEA notes, however, that this list only includes development proposals that are already active and does not include additional development potential. Lands including the NEC lands were not included in the list, despite their potential for future development. Additionally, the HDR Report uses York Region's EMME Model to determine future traffic volumes for the KDA and extended study area. It is therefore unclear whether the Region's EMME Model accounts for additional development potential not yet proposed. The HDR Report assumes that the Region's EMME Model accounts for background growth to 2031 and 2041, however it is unclear how background growth is incorporated into the model, nor how LEA's recommended parking strategy would affect the model.



## 2.4 TIMING OF DEVELOPMENT

1. *Unclear how the HDR Report supports the holding provision proposed in the Plan and Zoning By-law*

The HDR Report does not support or provide recommendations for the holding provision proposed in the Plan and Zoning By-law.

## 2.5 APPROACH TO TRANSPORTATION DEMAND MANAGEMENT (TDM)

The HDR Report outlines several TDM measures based on the BA Report recommendations. This section of the HDR Report is considered to be preliminary as a city-wide TDM strategy update is developed.

1. *Travel Demand Management (TDM) strategy should account for advancements in TDM measures and emerging technologies for future consideration*

The TDM measures considered in the HDR Report are generally consistent with those recommended as part of the BA Report and are included as a sub-section to the HDR Report's Parking Strategy. While LEA is generally in agreement with the direction of the proposed TDM measures, they are not included in the proposed Zoning By-law. Further, it is noted that additional emerging technologies could be considered as a way to further influence travel demand towards active and public transit modes. It is understood that the Parking and TDM Strategy Update is ongoing and intends to provide recommendations to be applied city-wide. LEA is of the opinion that the resulting TDM Strategy should maintain flexibility to accommodate emerging technologies, such as autonomous vehicles or mobile applications providing real-time multi-modal travel data, as more studies assessing their effectiveness become available.

## 3 CONCLUSIONS

Following our review of the HDR Report on behalf of NEC, LEA has identified several concerns with the assumptions and recommendations being made in the report. For the reasons detailed above, LEA does not support several assumptions and recommendations relating to the proposed road Link D, recommended parking rate requirements, maximum supportable FSI and development plans, and the approach to TDM.

### 3.1 PROPOSED ROAD LINK D

With regards to the Link D proposed to be located on NEC lands, LEA does not support:

1. The conclusion that the proposed roadway offers significant traffic benefits over maintaining the existing road network, or the road network shown in NEC's concept plan;
2. The conclusion that the proposed signal at Link D and Yonge Street offers significant traffic benefits over an unsignalized intersection at that location without a full understanding of the traffic analysis to support this recommendation;



3. The location of the proposed signalized intersection at Yonge Street and Link D as it conflicts with York Region minimum spacing requirements for Regional roads and the proposed Viva Yonge Street Rapidway alignment;
4. That the proposed Link D and signalized intersection are necessary for the NEC lands to achieve the density proposed by staff or by NEC based on NEC's concept plan, including implementation of LEA's recommended parking strategy; and
5. The recommended functionality of Link D as a local road that includes bike lanes as these recommendations are inconsistent with the Bernard KDA Secondary Plan Open Space Schedule 3 recommendations for NEC lands. This results in a redundancy.

### **3.2 RECOMMENDED PARKING RATE REQUIREMENTS**

With regards to the parking strategy provided in the HDR Report, LEA does not support:

1. That the new recommended minimum residential parking rates are justified and will adequately support the Region's and City's transit modal split targets, climate change strategy to reduce CO2 emissions, and housing affordability objectives applicable to KDAs. LEA's recommended parking strategy (see Appendix A) recommends residential parking rates in support of these objectives.

### **3.3 FSI AND DEVELOPMENT ASSUMPTIONS**

With regards to the assumptions made for transit modals splits, maximum supportable FSI, and anticipated development within the Yonge and Bernard KDA, LEA does not support the following:

1. That the assumed transit modals splits account for the effect of TDM measures and reduced minimum parking rate requirements recommended by LEA's recommended parking strategy (see Appendix A); and
2. That the maximum supportable FSI in the Yonge and Bernard KDA should be determined based on vehicle traffic operational constraints when additional capacity is available for other modes, especially if LEA's recommended parking strategy is implemented.

### **3.4 APPROACH TO TRANSPORTATION DEMAND MANAGEMENT (TDM)**

With regards to the preliminary TDM strategy, LEA is of the opinion that:

1. Consistent with LEA's parking strategy, certain TDM measures should be included in the by-law; and
2. As the TDM strategy is developed further, advancements in TDM measures and emerging technologies should be included in the Zoning By-law or as part of Site Plan Approval.



Should you have any questions regarding the above-noted comments, please do not hesitate to contact the undersigned at (905)-470-0015 ext. 284, or at [nchan@lea.ca](mailto:nchan@lea.ca).

Yours truly,

**LEA CONSULTING LTD.**

Nixon Chan, M.A.Sc., P.Eng., PTOE, PMP  
Manager, Transportation Engineering

:mr

Encl.: Appendix A: Draft LEA Recommended Parking Strategy Submitted to the City of Richmond Hill and Updated to Reflect the City's Comments, titled, *Bernard KDA Parking Standards Review Report – 11005 Yonge Street City of Richmond Hill (Final Draft – Updated March 2020)*

# APPENDIX A

**Bernard KDA Parking Standards Review Report - 11005  
Yonge Street City of Richmond Hill (Final Draft -  
Updated March 2020)**



North Elgin Centre Inc.

# BERNARD KDA PARKING STANDARDS REVIEW REPORT

**11005 Yonge Street  
City of Richmond Hill**

**FINAL DRAFT**

Updated March 2020

19146

## DISCLAIMER

*This Report represents the work of LEA Consulting Ltd (“LEA”). This Report may not be relied upon for detailed implementation or any other purpose not specifically identified within this Report. This Document is confidential and prepared solely for the use of North Elgin Centre Inc. Neither LEA, its sub-consultants nor their respective employees assume any liability for any reason, including, but not limited to, negligence, to any party other than North Elgin Centre Inc. for any information or representation herein.*

## TABLE OF CONTENTS

<b>1</b>	<b>Introduction .....</b>	<b>4</b>
<b>2</b>	<b>Site Context .....</b>	<b>5</b>
<b>3</b>	<b>Policy Context.....</b>	<b>7</b>
3.1	<i>Growth Plan for the Greater Golden Horseshoe, 2017 .....</i>	7
3.1.1	Section 2: Where and How to Grow .....	9
3.1.2	Section 3: Infrastructure to Support Growth.....	9
3.2	<i>Oak Ridges Moraine Conservation Plan, O Reg 140/02, s. 18. ....</i>	10
3.3	<i>YORK REgion official plan 2010 (ROP) &amp; 2016 York Region Transportation Master plan .....</i>	10
3.4	<i>York Region Transit Oriented Development Guidelines .....</i>	12
3.5	<i>2041 Regional Transportation Plan Draft.....</i>	12
3.5.1	Strategy #3: Optimize the Transportation System.....	13
3.6	<i>Richmond Hill Parking Strategy – FINAL DRAFT REPORT (2010) .....</i>	13
3.7	<i>Yonge and Bernard Key Development Area Secondary Plan .....</i>	14
3.8	<i>Richmond Hill Confirmatory By-Law 64-19.....</i>	14
<b>4</b>	<b>Transit Oriented Development Strategies .....</b>	<b>14</b>
4.1	<i>Parking Rates .....</i>	15
4.1.1	Existing By-law Rates.....	15
4.1.2	Best Practices Review .....	16
4.1.3	Recommended Parking Rates .....	19
4.2	<i>Car Share Rate .....</i>	21
4.2.1	Examples of Car-share Rates.....	22
4.2.2	Recommended Car-share Rates.....	22
4.3	<i>Carpool Rates.....</i>	23
4.3.1	Examples of Carpool Rates.....	23
4.3.2	Recommended Carpool Rates.....	23
4.4	<i>Compact Car Spaces.....</i>	24
4.4.1	Examples of Compact Car Space Provisions.....	24
4.4.2	Recommended Compact Car Spaces .....	24
4.5	<i>Shared Parking Rate.....</i>	25
4.5.1	Examples of Shared Parking Rates .....	25
4.5.2	Shared Parking Formula .....	26
4.6	<i>Electric Vehicle Parking .....</i>	26
4.6.1	Examples of Electric Vehicle Parking.....	26
4.6.2	Recommended Electric Vehicle Parking Rates.....	27
<b>5</b>	<b>Conclusions .....</b>	<b>28</b>

## LIST OF TABLES AND FIGURES

Table 1: Parking Strategies – Richmond Hill Parking Strategy (Draft Final June 2010).....	13
Table 2: Bernard KDA By-law 111-17 Parking Standards.....	15
Table 3: Comparison of Parking Standards Between By-law 49-12 By-law 111-17.....	17
Table 4: City of Toronto By-law 569-2013 Minimum Parking Requirements.....	19
Table 5: Recommended Parking Rates for Zoning By-law 111-17.....	20
Table 6: Maximum Allowable Reduction in the Minimum Required Parking.....	22
Table 7: City of New Westminster Parking Dimensions for Standard and Compact Vehicles.....	24
Table 8: Parking Dimensions for Standard and Compact Vehicles.....	24
Table 9: Shared Parking Formula from By-law 49-12.....	25
Table 10: Shared Parking Formula for the City of Vaughan.....	25
Table 11: Occupancy Rates for Shared Parking Formula.....	26
Table 12: Recommended Parking Minimum and Maximum Parking Rates for the Yonge Bernard KDA...	29
Table 13: Occupancy Rates for Shared Parking Formula.....	29
Figure 1: 11005 Yonge Street WalkScore.....	5
Figure 2: Development Concept Plan for NEC Lands at 11005 Yonge St., Richmond Hill.....	6
Figure 3: Major Transit Station Areas, Richmond Hill.....	8
Figure 4: Aerial Image of Yonge and 16th KDA.....	16
Figure 5: City of Toronto Zoning By-law Policy Areas Map.....	18

## 1 INTRODUCTION

LEA Consulting Ltd. (“LEA”) was retained by North Elgin Centre Inc. (NEC) to review the Secondary Plan and Zoning By-law 111-17 for the Yonge and Bernard Key Development Area (Bernard KDA) in the City of Richmond Hill, and to prepare a report supporting and outlining a sustainable parking strategy, including parking rates, for NEC’s concept plan on file with the City. It is understood that in the Fall of 2019, the City of Richmond Hill began undertaking a Parking and TDM Strategy study, which will provide parking policy direction for off-street parking standards and requirements throughout the City, including within the Bernard KDA. The policy review and subsequent recommendations outlined further in this report are intended to support key land use planning and transportation policies along and within intensification areas such as the Bernard KDA. In particular, this report seeks to support key policy goals such as improving affordability of new housing units, promoting travel by public transit and active transportation modes, and reducing greenhouse gas emissions by supporting the creation of zero-car housing units in Richmond Hill.

LEA has conducted a review of Provincial Policies, York Region’s Official Plan and Transportation Master Plan (TMP), Richmond Hill’s Official Plan, the Bernard KDA Secondary Plan and Zoning By-law 111-17, in addition to other City plans and KDA policies, with a focus on parking policies. While it is clear that the policies in the Bernard KDA Secondary Plan highlight the goals of connectivity, mobility, and pedestrian improvements within the Bernard KDA, LEA finds that Zoning By-law 111-17 associated with the KDA does not reflect the goals and objectives of these policies.

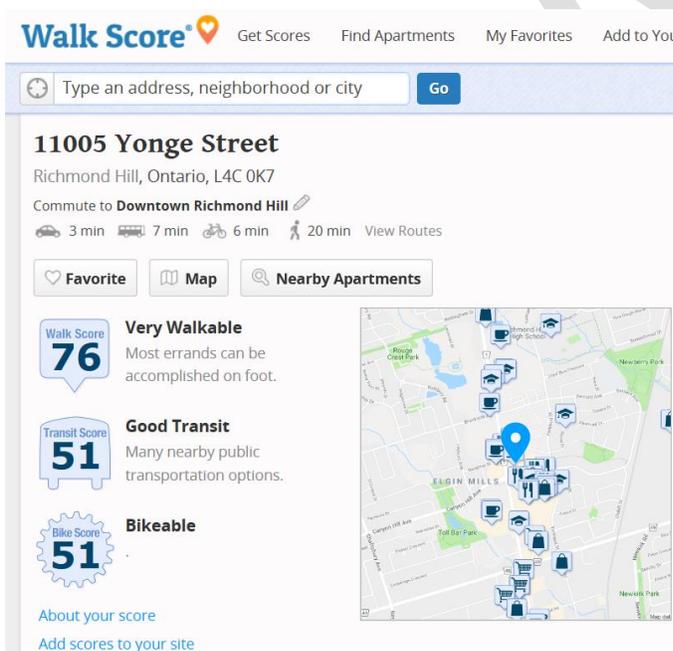
## 2 SITE CONTEXT

NEC is the owner of a property located at 11005 Yonge Street (the Subject Site), on the north-east corner of Yonge Street and Bernard Avenue and within the settlement area as defined by the Oak Ridges Moraine Conservation Plan (ORMCP). The subject site is also located within the Yonge-Bernard KDA (per Schedule A1, A2, and A4 of the City’s OP Part I, as well as within the Yonge-Bernard Secondary Plan (herein referred to as the “Plan”), which was adopted by the City in November 2017. The Plan and the comprehensive Zoning By-law 111-17 for the KDA lands are under appeal to the LPAT (LPAT File PL180073). The Plan proposes new streets within the KDA area with the primary objective of creating a “finer grain street network”, as well as several transportation policies to be considered in the development of the area.

The subject site is located along the existing express Viva bus routes and the future Viva Rapidway and is across the street from the Bernard Bus Terminal. The subject site is well-served by transit providing local and regional connections. It should also be noted that the provincial government has recently announced plans to extend the Yonge Subway line north to Richmond Hill Centre Station, which is directly connected to the site by Viva. The site is considered “very walkable” by WalkScore.com as can be seen in **Figure 1**, demonstrating that the site provides connections to amenities and facilities. WalkScore.com provides scores for how walkable, transitable and cyclable an address is depending on the connections available nearby.

The transit connections and walkability of the site demonstrates that it is a prime location to implement transit-oriented development.

**Figure 1: 11005 Yonge Street WalkScore**



(source: WalkScore.com)

The subject site is currently occupied by North Elgin Centre, a shopping plaza comprised of three one-story retail buildings, two drive-thru restaurants, and surface parking. A seniors’ residence is located east of the subject site. NEC intends to redevelop the property based on the concept plan below and has provided LEA with the latest development concept plans, shown in **Figure 2** and subsequent direction to consider more



### 3 POLICY CONTEXT

The following planning policies and documents were reviewed in context of the subject site and KDA:

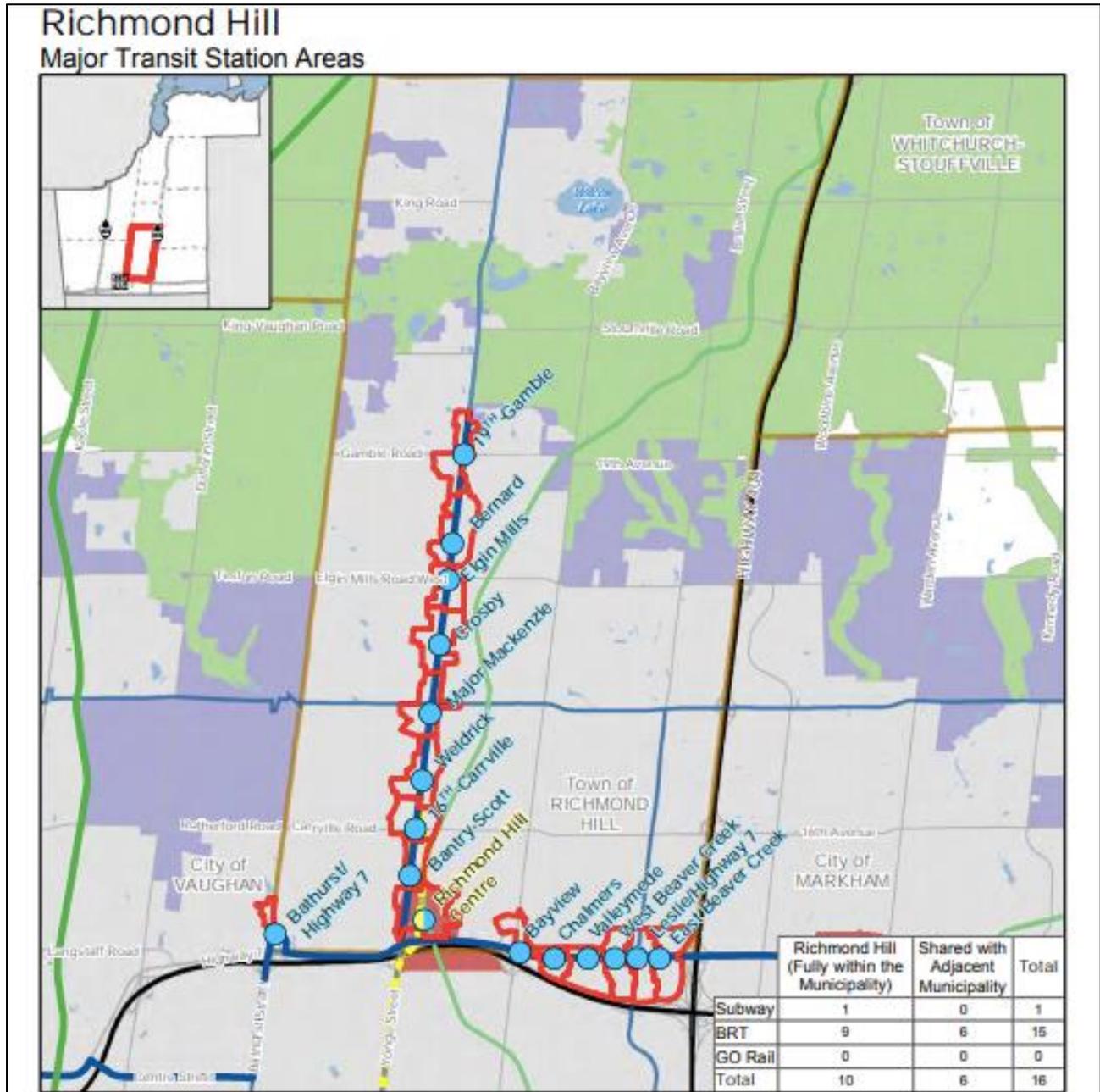
- ▶ Growth Plan for Greater Golden Horseshoe 2017
- ▶ Oak Ridges Moraine Conservation Plan, O Reg 140/02, s. 18.
- ▶ Provincial Policy Statement 2014 and draft Provincial Policy Statement 2019
- ▶ York Region Official Plan
- ▶ 2041 Regional Transportation Plan (Draft)
- ▶ 2016 York Region Transportation Master Plan
- ▶ Richmond Hill Parking Strategy – Final Draft Report June 2010
- ▶ Yonge and Bernard Key Development Area Secondary Plan and the associated BA Group Transportation Report
- ▶ Zoning By-law 111-17
- ▶ Richmond Hill Confirmatory By-law 64-19, extracted from the Special Council Meeting C#16-19 held April 16, 2019 and the May 2019 Council Resolution

The following sections detail each of those planning policies or documents.

#### 3.1 GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE, 2017

The Growth Plan for Greater Golden Horseshoe, 2017, is a regional growth management plan for the Greater Golden Horseshoe area, in which Bernard KDA is located. This plan identifies urban intensification areas and strives to achieve complete communities that are compact and transit-oriented. It prioritizes a regional vision for transit investments, especially for *major transit station areas* and *strategic growth area*. The Bernard KDA is envisioned to be a *major transit station area*, as it is mentioned in the Yonge and Bernard Development Area Secondary Plan and as noted in Regional reports.

Figure 3: Major Transit Station Areas, Richmond Hill



The Growth Plan for the Greater Golden Horseshoe contains the policies below, in relation to *major transit station areas*<sup>1</sup>.

<sup>1</sup> Growth Plan for Greater Golden Horseshoe (2017). Online: [http://placestogrow.ca/index.php?option=com\\_content&task=view&id=430&Itemid=14#3.2.2](http://placestogrow.ca/index.php?option=com_content&task=view&id=430&Itemid=14#3.2.2)

### 3.1.1 Section 2: Where and How to Grow

- 2.2.4.8: “All *major transit station* areas will be planned and designed to be *transit-supportive* and to achieve *multimodal* access to stations and connections to nearby *major trip generators* by providing, where appropriate:
  - connections to local and regional transit services to support *transit service integration*;
  - *infrastructure* to support *active transportation*, including sidewalks, bicycle lanes, and secure bicycle parking; and
  - commuter pick-up/drop-off areas.”
- 2.2.4.9: “Within all *major transit station areas*, development will be supported, where appropriate, by:
  - planning for a diverse mix of uses, including second units and *affordable housing*, to support existing and planned transit service levels;
  - fostering collaboration between public and private sectors, such as *joint development* projects;
  - providing alternative development standards, such as reduced parking standards; and
  - prohibiting land uses and built form that would adversely affect the achievement of *transit-supportive densities*.”

In the review of the Zoning By-law 111-17, it is observed that the By-law does not reflect the Growth Plan policies 2.2.4.8 and 2.2.4.9. Policy 2.2.4.9 requires major transit station areas to address housing affordability considerations and provide lower development standards, which were completely disregarded in the Zoning By-law. The parking requirements in the Zoning By-law appear to originate from the 2010 Final Draft Parking Strategy. These standards are not supportive of transit policies, as mentioned in policy 2.2.4.8. Those parking requirements will continue to encourage single-occupancy vehicle trips and will not achieve multimodal transportation. In addition, commuter pick-up/drop-off areas were not integrated into the Zoning By-law, contrary to the requirements in policy 2.2.4.8.

### 3.1.2 Section 3: Infrastructure to Support Growth

- 3.2.2.4: “Municipalities will develop and implement *transportation demand management* policies in official plans or other planning documents or programs to:
  - increase the *modal share* of alternatives to the automobile, which may include setting modal share targets;
  - prioritize active transportation, transit and goods movement over single-occupant automobiles;
  - expand infrastructure to support active transportation; and
  - consider the needs of *major trip generators*.”

Policy 3.2.2.4 in the Growth Plan requires the municipalities to implement Transportation Demand Management (TDM) in planning documents. Except for the bicycle parking rates, Zoning By-law 111-17 does not contain sufficient TDM measures to address the desired transit modal split of 30% in Richmond Hill’s Urban Areas or 50% in Regional Centres and Corridors during peak periods by 2031, as specified in the Regional Municipality of York Official Plan Policy 7.2.26, and maintains unnecessarily high minimum vehicle parking rates based on the draft Richmond Hill Parking Strategy from 2010.

### 3.2 OAK RIDGES MORAINÉ CONSERVATION PLAN, O REG 140/02, S. 18.

The Oak Ridges Moraine Conservation Plan (ORMCP) is prescribed through O. Reg. 140/2 under the Oak Ridges Moraine Conservation Act, 2001, and provides direction for land use planning, resource management, and environmental protection for lands within the Oak Ridges Moraine to stakeholders in the planning process, such as municipalities and landowners. S. 18 of the ORMCP pertains to Settlement Areas, and provides direction to guide land use planning in a manner that supports the development of complete and low-carbon communities, with a focus on developing transit and active-transportation supportive development. Specifically, s. 18 sets out the following planning directives related to sustainable, active transportation and transit-supportive growth and intensification for Settlement Areas:

- 18.(1): The purpose of Settlement Areas is to focus and contain urban growth by,
  - (0.a) encouraging the development of communities that provide their residents with convenient access to an appropriate mix of employment, transportation options and local services and a full range of housing and public service facilities;
  - (a) minimizing the encroachment and impact of development on the ecological functions and hydrological features of the Plan Area;
  - (b) promoting the efficient use of land with transit-supportive densities, through intensification and redevelopment within existing urban areas; and;
  - (c) providing for the continuation and development of urban land uses consistent with the growth management strategies identified in the applicable official plans. O. Reg. 140/02, s. 18 (1); O. Reg. 141/17, s. 10 (1).
- 18.(2) Settlement Areas also have the objectives of,
  - (c.1) promoting the locating of two or more compatible public services in one building or place that is conveniently situated so as to be accessible to local residents by walking, cycling and, where available, public transit;
  - (c.2) ensuring that development takes place in a manner that reduces greenhouse gas emissions

### 3.3 YORK REGION OFFICIAL PLAN 2010 (ROP) & 2016 YORK REGION TRANSPORTATION MASTER PLAN

Yonge Street is designated as a Regional Corridor and a Regional Rapid Transit Corridor according to Maps 1 and 11 of the ROP. The ROP contains several policies which prioritizes transit and promotes an increase in transit usage along parking management, including:

- 7.1.1 To require that appropriate Transportation Demand Management measures to reduce single occupancy automobile trips are identified in transportation studies and in development applications.
- 7.1.2 To work with local municipalities, Metrolinx and other stakeholders to support local Smart Commute associations.
- 7.1.3 To manage the supply of parking in Regional Centres and Corridors, consistent with the policies in Section 5.4 of this Plan.

- **7.2.19** To recognize transit as a Regional strategic investment priority and a key element of York Region's urban structure.
- **7.2.21** To develop transit corridors and related infrastructure necessary to establish the York Region Transit and Viva network as illustrated on Map 11.
- **7.2.22** To work with partners to complete the transit network, as illustrated on Map 11, including subway line extensions, Metrolinx enhancements, the 407 Transitway and other rapid transit corridors.
- **7.2.23** To ensure communities are planned with the early integration of transit.
- **7.2.24** To provide preferential treatment for transit vehicles on Regional streets designated as Regional Transit Priority Network on Map 11, including the construction of *high-occupancy vehicle lanes*, dedicated transit lanes, transit signal priority and other transit priority measures within the right-of-way.
- **7.2.26** To achieve an overall transit modal split of 30 per cent during peak periods in the Urban Area and 50 per cent in the Regional Centres and Corridors by 2031.
- 5.3.9 That parking shall be managed in a manner consistent with policies 5.2.10, 5.4.8, 5.4.9 and 5.4.26.c of this Plan.
- 5.2.10 That secondary plans and zoning by-laws shall, in consultation with the Region and related agencies, incorporate parking management policies and standards that include:
  - a. reduced minimum and maximum parking requirements that reflect the walking distance to transit and complementary uses;
  - b. shared parking requirements, where possible, reflecting variances in parking demand between complementary uses on a time-of-day, weekday/weekend, and monthly basis;
  - c. on-street parking;
  - d. site design that orients the main building entrance(s) to face the public street(s), provides a pedestrian friendly urban form, and where appropriate, as determined by the local municipality, does not permit the placement of surface parking spaces between the main building entrance and the major street;
  - e. the design of surface parking to support redevelopment and retrofitting; and,
  - f. preferential locations for carpooling and car-sharing spaces and bicycle storage requirements.
- 5.4.8 That secondary plans and zoning by-laws shall, in consultation with the Region and related agencies, incorporate parking management policies and standards that include:
  - a. reduced minimum and maximum parking requirements that reflect the walking distance to transit and complementary uses;
  - b. shared parking requirements where possible, reflecting variances in parking demand between complementary uses on a time-of-day, weekday/weekend, and monthly basis;
  - c. site design that orients the main building entrance(s) to faces the public street(s), provides a pedestrian friendly urban form, and where appropriate, as determined by the

local municipality, does not permit the placement of surface parking spaces between the main building entrance and the major street;

- d. an approach that anticipates and plans for the transition of surface parking to structured/underground parking as site development evolves; and,
- e. preferential locations for carpooling and car-sharing spaces

The York Region Transportation Master Plan (TMP) sets out sustainable principles to guide policies in prioritizing pedestrians and transit developments<sup>2</sup>. Policy 61, under section 8.4.1, states the following:

- The Region will “consider opportunities for engaging directly with individuals and families to encourage sustainable travel choices, in order to maximize future uptake of facilities and services for walking, cycling, carpooling and public transit.”

Zoning By-law 111-17 continues to apply parking rates developed ten years ago. These rates are expected to continue to encourage automobile-dependency, which does not align with ROP policies as well as Policy 61 of the TMP. To reduce parking rates, the TMP provides a variety of parking management recommendations. Under Section 4.3.4, it suggests intensification areas to incorporate the strategies, as follows:

- Lower parking requirements,
- Promote shared parking rates, and
- Offer parking reductions in exchange for the provision of carpool, car-share and bicycle parking.

### 3.4 YORK REGION TRANSIT ORIENTED DEVELOPMENT GUIDELINES

The Transit Oriented Development Guidelines are tools that will support the long-term transit investments in the community<sup>3</sup>. The goal is to support areas that are experiencing transit growth with strategies, which will generate ridership and improve the transit system. Parking is one of the six themes to be focused on. The report suggests multiple vehicle parking design guidelines. The following points are considered to be relevant to this study:

- “Reduce the prominence of surface parking,
- Adjust the quantity of parking to reflect the level of transit service;
- Link parking supply with Transportation Demand Management (TDM) programs;
- Promote shared parking arrangements among neighbourhood properties.”

### 3.5 2041 REGIONAL TRANSPORTATION PLAN DRAFT

The final draft of the 2041 Regional Transportation Plan (2041 RTP) identifies transportation planning for the Greater Toronto and Hamilton Area (GTHA) for the next 25 years, in which the Bernard KDA is located in. The 2041 RTP sets out the visions, goals, and strategies in establishing well-integrated transportation system for the GTHA. Of the strategies outlined in the document, the following priority action is considered appropriate for the Bernard KDA<sup>4</sup>.

<sup>2</sup> 2016 York Region Transportation Master Plan. Online: [https://www.york.ca/wps/wcm/connect/yorkpublic/d7ec2651-8dc5-492e-b2a0-f76605edc122/16296\\_TmpFinalBigBook\\_NovWEB-FIX.pdf?MOD=AJPERES](https://www.york.ca/wps/wcm/connect/yorkpublic/d7ec2651-8dc5-492e-b2a0-f76605edc122/16296_TmpFinalBigBook_NovWEB-FIX.pdf?MOD=AJPERES)

<sup>3</sup> York Region Transit-Oriented Development Guidelines. Does not have URL link, but can be found online in the York Region website.

<sup>4</sup> Final Draft 2041 Regional Transportation Plan. Online:

[http://www.metrolinx.com/en/docs/pdf/board\\_agenda/20180308/20180308\\_BoardMtg\\_Draft\\_Final\\_2041\\_RTP\\_EN.pdf](http://www.metrolinx.com/en/docs/pdf/board_agenda/20180308/20180308_BoardMtg_Draft_Final_2041_RTP_EN.pdf)

### 3.5.1 Strategy #3: Optimize the Transportation System

- Priority Action 3.7: “Make TDM a priority, which includes
  - Collaborate to develop and implement TDM programs as required by the Growth Plan
  - Deliver TDM programming to support all new rapid transit services, transit station areas, and areas impacted by major construction and events.
  - Reinvigorate carpooling with a compelling and user-friendly online regional platform integrated with trip planning and payment tools, and drive participation.”

In the draft of 2041 RTP, Priority Action 3.7 strongly suggests the municipality is to establish Transportation Demand Management (TDM) approaches to transit station areas, as required by the policy 3.2.2.4 in the Growth Plan. One of the points highlights the need for carpooling services, however carpooling is not incorporated in Zoning By-law 111-17.

## 3.6 RICHMOND HILL PARKING STRATEGY – FINAL DRAFT REPORT (2010)

The Richmond Hill Parking Strategy contains parking requirements for specific areas, including the Bernard KDA. The Draft Report focuses on measures that will promote the effective usage of parking facilities. It aims to lower vehicle ownership and encourage active transportation, transit usage, and transit-oriented development. In this report, it recommends the KDA apply the parking strategies, as indicated in **Table 1**. It suggests reducing the parking standards for the Downtown area of Richmond Hill, which includes the subject area, by 20-30%<sup>5</sup>. Also, maximum parking supply rates are recommended to be 25% higher than the minimum rates. The document has never been finalized, nor its recommended parking rates ever tested against current planning policies.

**Table 1: Parking Strategies – Richmond Hill Parking Strategy (Draft Final June 2010)**

	Downtown Local Centre and KDAs	Richmond Hill Regional Centre	Rapid Transit Corridors	Business Parks	Rest of Richmond Hill
Reduced on-site parking supply requirements	✓	✓	✓		
Maximize use of on-street and/or off-site public parking	✓	✓	✓		
Implement shared parking formula for mixed-use developments	✓	✓	✓	✓	✓
Cash-in-lieu	✓	✓			
Parking charges for non-residential development	✓	✓	✓		
Travel Demand Management	✓	✓	✓	✓	✓

<sup>5</sup> Town of Richmond Hill (2010). "Richmond Hill Parking Strategy – Final Draft Report" [Online]. Available: <https://www.richmondhill.ca/en/shared-content/resources/documents/RH-Parking-Strategy-Final-Draft.pdf>

### 3.7 YONGE AND BERNARD KEY DEVELOPMENT AREA SECONDARY PLAN

The Secondary Plan is proposed as an amendment to the City of Richmond Hill Official Plan. This Secondary Plan focuses on the area of Yonge Street and Bernard Avenue, known as Bernard KDA. It specifies policies in managing growth and enhancing retail and commercial development. The Bernard KDA is envisioned to become a mixed-use urban centre that supports a transit, cycling, and pedestrian-oriented development. Furthermore, a bus terminal is located at the Bernard KDA, which is considered as part of the infrastructure of the Major Transit Station Area as indicated in the Growth Plan.

The Secondary Plan requires new development to implement a TDM Strategy, in accordance with Section 12.4.3.5<sup>6</sup>. The purpose of a TDM Strategy is to reduce automobile dependency and to shift to more sustainable modes of transportation. BA Group prepared a traffic impact study titled, “Yonge Street and Bernard Avenue Key Development Area Richmond Hill Secondary Plan Transportation Considerations”, for the Yonge-Bernard KDA Secondary Plan and recommended several TDM strategies. However, TDM strategies are not contained in Zoning By-law 111-17. The following TDM strategies from this report should have been included in the Zoning By-law:

- ▶ Section 12.4.3.1: “The Town shall encourage and support implementing car-share facilities in the Bernard KDA.”
- ▶ Section: 12.4.3.5.i – “Car-sharing programs and preferential car-share parking”
- ▶ Section: 12.4.3.5.j – “Preferential carpool parking”
- ▶ Section: 12.4.3.5.k – “Paid parking for non-residential parking”
- ▶ Section: 12.4.3.5.m – “Electric vehicle charging stations or roughins”

### 3.8 RICHMOND HILL CONFIRMATORY BY-LAW 64-19

On April 16, 2019, the City of Richmond Hill passed a resolution which provides policy direction regarding the KDA Secondary Plan and Zoning By-law. The Council resolution directs that adjustments be made to the parking standards contained in the Zoning By-law in order to support transit and the City’s housing affordability objectives, including the provision of new apartment units without parking spaces. City Council gave direction to embrace the following items in the revised parking standards:

- ▶ Active transportation and transit,
- ▶ Carpooling,
- ▶ Car Sharing,
- ▶ Electric Vehicle charging stations,
- ▶ Bicycle stands,
- ▶ Small compact car spaces, and
- ▶ Other Transportation Demand Management Measures (TDM).

## 4 TRANSIT ORIENTED DEVELOPMENT STRATEGIES

The following section contains strategies and recommendations to be implemented for the subject site and KDA. These strategies should be incorporated in a revised Zoning By-law for the KDA.

LEA has outlined six effective strategies:

- 1) New lower minimum and maximum parking rates,

<sup>6</sup> Yonge and Bernard Key Development Area Secondary Plan (2017). Online: <https://www.richmondhill.ca/en/shared-content/resources/documents/Bernard-KDA---Secondary-Plan---Adopted.pdf>

- 2) car-share rates,
- 3) carpool rates,
- 4) compact car spaces,
- 5) shared parking rate, and
- 6) electric vehicle parking spaces.

For context, each section below outlines what is contained in the existing Zoning By-law 111-17. This will be compared to alternative parking standards in other municipalities within North America. Based on this best practice review, LEA will outline the parking strategies and recommendations for rates to be included in the Zoning By-Law for the Yonge Bernard KDA. Further, it is understood that By-law 111-17 specifies minimum bicycle parking space requirements for residential, visitor, and non-residential uses in addition to minimum vehicle parking standards. It is expected that By-law 111-17 will continue to require minimum bicycle parking standards that meet or exceed the requirements currently specified in the By-law to support reduced parking requirements and the City and Region’s goals with regards to encouraging active transportation use and reduced automobile dependence.

## 4.1 PARKING RATES

### 4.1.1 Existing By-law Rates

**Table 2** shows the current minimum and maximum parking standards set out in Zoning By-law 111-17. It includes residential and non-residential parking standards. It is observed that the By-law retains parking requirements as suggested by the 2010 Richmond Hill Draft Parking Strategy. These rates are not appropriate for the Yonge Bernard KDA for the reasons discussed in this report.

**Table 2: Bernard KDA By-law 111-17 Parking Standards**

Use	Minimum Parking Space Standard	Maximum Parking Space Standard
<b>Residential (parking space per Dwelling Unit or portion thereof)</b>		
<i>Apartment Dwelling</i>		
Bachelor	0.8	1.0
1-bedroom	0.9	1.1
2-bedroom	1.0	1.25
3-bedroom+	1.2	1.5
Visitor	0.15	0.2
<i>Apartment Dwelling (Rental Tenure)</i>		
Bachelor	0.75	0.9
1-bedroom	0.85	1.05
2-bedroom	1.0	1.25
3-bedroom+	1.2	1.5
Visitor	0.15	0.2
<b>Non-Residential (parking space per 100m<sup>2</sup> of Gross Floor Area or portion thereof, unless otherwise specified)</b>		
Major Office	2.0	2.5
Commercial (equal to or less than 10,000m <sup>2</sup> of Gross Floor Area)	4.0	5.0

Commercial (greater than 10,000m <sup>2</sup> Gross Floor Area)	3.0	3.75
Medical Offices/Clinics	5.4	6.75
Place of Assembly including Assembly Hall, and Place of Worship	4.8	6.0
Financial Institution	4.6	5.7
Veterinary Clinics	3.5	4.4
Arts and Cultural Facilities	5.0	6.3
Social Services	5.0	6.3

#### 4.1.2 Best Practices Review

##### 4.1.2.1 City of Richmond Hill, Ontario

In 2011, the OMB approved Zoning By-law 49-12 which is a site-specific By-law applicable to 9251 Yonge Street (located at the southeast corner of Yonge Street and 16<sup>th</sup> Avenue). The intersection of Yonge Street and 16<sup>th</sup> Avenue is within one of Richmond Hill’s KDAs. Both KDAs (Yonge/16<sup>th</sup> and Yonge/Bernard) share relatively similar characteristics as shown in **Figure 4**. Both KDAs are well served by public transit, including the Viva BRT network along Yonge Street. In addition, the Walk Score for both KDAs have high standings, which indicates the presence of a functional and accessible pedestrian network. Yonge Street & 16<sup>th</sup> Avenue has a Walk Score of 75<sup>7</sup> and Yonge Street & Bernard Avenue has a Walk Score of 79<sup>8</sup>. Furthermore, both intersections have similar existing land developments, predominately consisting of retail and commercial stores with massive parking lots.

**Figure 4: Aerial Image of Yonge and 16th KDA**



<sup>7</sup> Walk Score. Available: <https://www.walkscore.com/score/yonge-st-and-16th-ave-richmond-hill-on-canada>

<sup>8</sup> Walk Score. Available: <https://www.walkscore.com/score/yonge-st-and-bernard-ave-richmond-hill-on-canada>

Due to its similar features, growth, and location, the parking standards in By-law 49-12 can be a reference for the Bernard KDA By-law. In comparison to the Bernard KDA, the parking rates found in By-law 49-12 are lower. A comparison chart between the two By-laws is displayed in **Table 3**. Noticeably, the minimum parking requirements in By-law 42-12 are lower than the Bernard KDA By-law by approximately 0.1 to 0.3 parking space/unit, depending on the unit type. Due to the significant advancement of transit and non-auto modes in the years since Zoning By-law 42-12 was produced (2011), the Bernard KDA By-law should have strived for a more sustainable and forward-thinking parking management strategy.

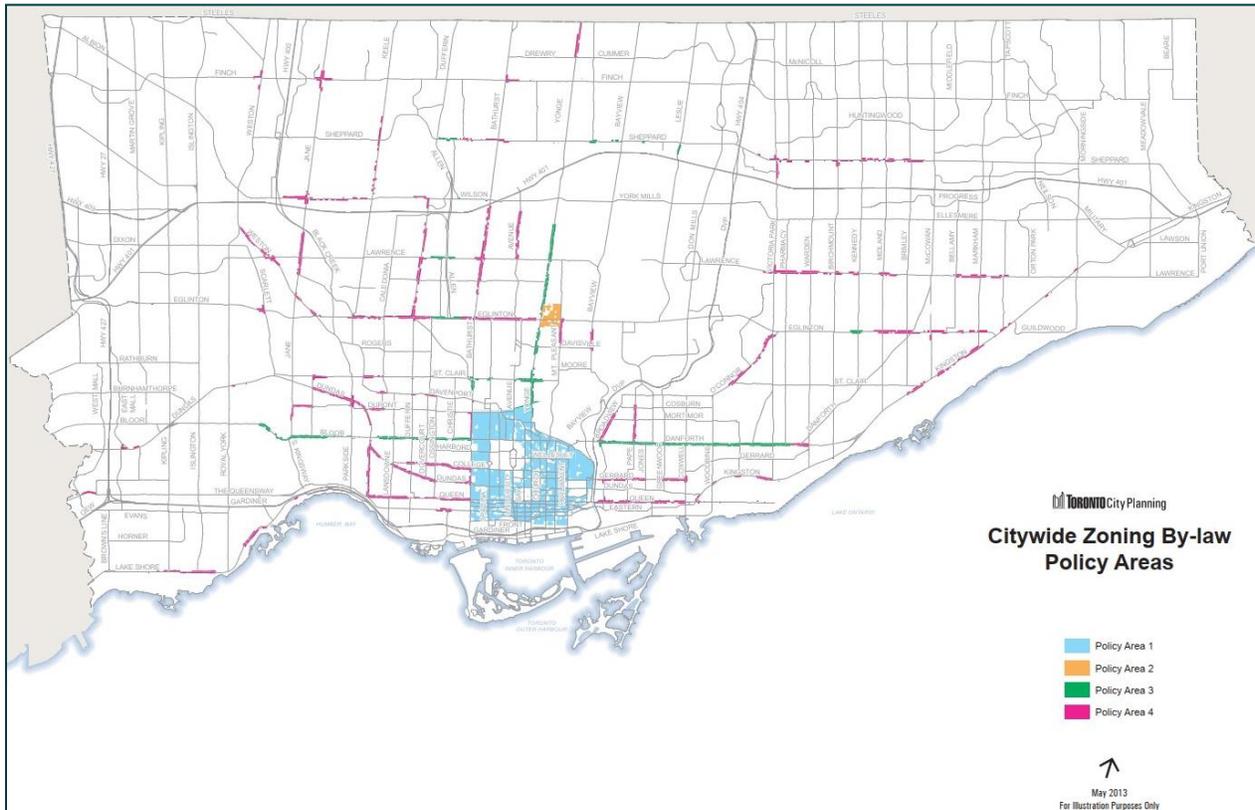
**Table 3: Comparison of Parking Standards Between By-law 49-12 By-law 111-17**

Unit type – Category	Parking Rate / Unit			
	Yonge/16 <sup>th</sup> By-law 49-12 (Apartment Dwelling)		Yonge/Bernard By-law 111-17 (Apartment Dwelling)	
	Min.	Max.	Min.	Max.
Bachelor Unit < 55 m <sup>2</sup>	0.5	0.8	0.8	1.0
1-bedroom Unit < 55 m <sup>2</sup>	0.7	1.0	0.9	1.1
1-bedroom Unit < 55 m <sup>2</sup> , ≤ 67 m <sup>2</sup>	0.8	1.1		
1-bedroom Unit < 65 m <sup>2</sup> , ≤ 83 m <sup>2</sup>	0.9	1.2		
2-bedroom Unit < 83 m <sup>2</sup> , ≤ 102 m <sup>2</sup>	1.0	1.3	1.0	1.25
2-bedroom Unit > 102 m <sup>2</sup>	1.1	1.5		
3-bedroom+ Unit > 102 m <sup>2</sup>	1.2	1.6	1.2	1.5
Visitor Parking	0.15	0.2	0.15	0.2

#### 4.1.2.2 City of Toronto, Ontario

City of Toronto By-law 569-2013 separates the urban intensification into four levels, with Policy Areas 1 to 4. Policy Area 1 is located in the downtown core with the most transit access, while Policy Areas 2 to 4 are generally less intensified than Policy Area 1 but more intensified than non-policy areas, and are located along corridors serviced by transit outside of the downtown core as shown in **Figure 5**.

Figure 5: City of Toronto Zoning By-law Policy Areas Map



Given that the City of Toronto Policy Areas 2 to 4 represent areas appropriate for intensification along transit routes outside of the established downtown core, the parking rates for these areas were deemed to be more appropriate comparisons to the Bernard KDA parking rates as per By-law 111-17. The minimum and maximum residential and non-residential parking rates of the City of Toronto By-law 569-2013 are summarized in **Table 4**<sup>9</sup>, with the By-law 111-17 rates provided for comparison.

<sup>9</sup> City of Toronto Zoning By-law 569-2013. Online: [https://www.toronto.ca/zoning/By-law\\_amendments/ZBL\\_NewProvision\\_Chapter200.htm](https://www.toronto.ca/zoning/By-law_amendments/ZBL_NewProvision_Chapter200.htm)

**Table 4: City of Toronto By-law 569-2013 Minimum Parking Requirements**

Use	Minimum & Maximum Parking Rates / Unit					
	Existing Bernard KDA		Toronto (Policy Area 2 & 3)		Toronto (Policy Area 4)	
	Min.	Max.	Min.	Max.	Min.	Max.
<i>Residential Uses</i>						
Bachelor	0.8	1.0	0.6	0.9	0.7	1.0
1-bedroom	0.9	1.1	0.7	1.0	0.8	1.2
2-bedroom	1.0	1.25	0.9	1.3	0.9	1.3
3-bedroom	1.2	1.5	1.0	1.5	1.1	1.6
Visitor	0.15	0.2	0.1	n/a	0.15	n/a
Minimum & Maximum Parking Rates / 100m <sup>2</sup> GFA						
<i>Non-Residential Uses</i>	Bernard KDA		Toronto (Policy Area 2)		Toronto (Policy Area 3 & 4)	
Major Office	2.0	2.5	1.0	1.4	1.0	2.0
Commercial incl. restaurant uses (=/ $<$ 10,000m <sup>2</sup> of GFA)	4.0	5.0	Retail Store / Retail Service (All Sizes)			
			1.0	4.0	1.0	4.0
Commercial incl. restaurant uses ( $>$ 10,000m <sup>2</sup> GFA)	3.0	3.75	Eating Establishment (All Sizes)			
			0	4	0	5
Medical Offices/Clinics	5.4	6.75	Medical Offices			
			1.0	3.5	1.5	6.0
			Clinics (Policy Area 2 & 3)		Clinics (Policy Area 4)	
0.4	0.8	0.6	1.0			
Place of Assembly incl. Assembly Hall, and Place of Worship	4.8	6.0	Place of Assembly Only			
			4.5	n/a	5.5	n/a
Financial Institution	4.6	5.7	2.0	4.5	2.0	4.5
Veterinary Clinics	3.5	6.3	1.0	n/a	1.0	n/a
Arts and Cultural Facilities	5.0	6.3	Community Centre			
			0.5	1.3	0.5	1.3
			Art Gallery			
			0.5	n/a	0.5	n/a
			Performing Arts Studio			
0.5	1.3	0.5	1.3			

#### 4.1.3 Recommended Parking Rates

In reviewing the best practices above, there is a noted connection between proximity to transit and minimum parking requirements. Considering the presence of the Bernard bus terminal within the Bernard KDA, the direct connection future development will have to the VIVA rapid transitway and Richmond Hill's transportation hierarchy (Policy 3.5.1.2) and transit-oriented development goals (Policy 3.5.4), LEA recommends the rates summarized in **Table 5**.

**Table 5: Recommended Parking Rates for Zoning By-law 111-17**

Residential Parking Rates *Subject to Note 1 below				
Use	Minimum Rates / Unit		Maximum Rates / Unit	
	Existing	Recommended	Existing	Recommended
Bachelor	0.8	0.5	1.0	0.7
1-Bedroom	0.9	0.7	1.1	0.9
2-Bedroom	1.0	0.9	1.25	1.1
3-Bedroom	1.2	1.0	1.5	1.5
Visitor	0.15	0.15	0.2	0.2
Non-Residential Parking Rates * Subject to a shared parking formula				
Use	Minimum Rates / 100m <sup>2</sup>		Maximum Rates / 100m <sup>2</sup>	
Major Office	2.0	1.0	2.5	2.0
Commercial including restaurant uses (equal to or less than 10,000m <sup>2</sup> of GFA)	4.0	1.0	5.0	3.0
Commercial including restaurant uses (greater than 10,000m <sup>2</sup> GFA)	3.0	0	3.75	3.5
Medical Offices/Clinics	5.4	0.6	6.75	6.0
Place of Assembly incl. Assembly Hall, and Place of Worship	4.8	4.5	6.0	5.5
Financial Institution	4.6	2.0	5.7	4.5
Veterinary Clinics	3.5	1.0	6.3	1.5

1. Notwithstanding the parking rates in Table 5, the minimum blended residential parking rate for all residential units located on a lot shall be 0.65 spaces per residential unit, or lower for purpose-built rental units, and the maximum blended residential parking rate for all residential units shall be no more than 1.0 spaces per residential unit, excluding visitor parking.

#### 4.1.3.1 Recommended Residential Rates

The recommended minimum residential rates are closely aligned with the City of Toronto’s minimum parking rates for Policy Area 3, while the maximum recommended rates are closely aligned with the minimum parking rates for Policy Area 4. As discussed in **Section 4.1.2.2**, Policy Areas 3 and 4 include areas outside of the downtown core that are appropriate for intensification, with the former predominantly located along subway and streetcar routes operating in a dedicated right-of-way and the latter along bus and streetcar routes mostly operating in mixed-traffic. The recommended rates are therefore intended to ensure that development within the Bernard KDA supports the City and Region’s transportation goals while maintaining flexibility for developments to apply a parking rate in line with similarly located developments that reflect either the existing or future transportation context of the Bernard KDA.

A key provision of both the minimum and maximum rates recommended by LEA is the creation of non-automobile households. This will ensure that required parking rates applicable to the Bernard KDA will not only support key policy goals of increasing transit ridership and supporting transit-oriented development, but will also contribute to Richmond Hill’s housing affordability objectives applicable to KDAs (35% target) by removing the requirement to construct a parking space for each new residential unit and allowing the cost of a parking space to be unbundled from the cost of a new residential unit. Allowing up to 35% of units to be

provided without a dedicated parking space would enable development within the Bernard KDA to support both Richmond Hill's transportation and affordable housing objectives through reduced parking requirements than are currently applicable under By-law 111-17. Similarly, enforcing the above recommended minimum parking rates would result in a maximum of 1 parking space per residential unit to be provided for the remaining 65% of units. The transportation and affordable housing goals of the City and Region would, therefore, lend themselves to support a blended rate of 0.65 parking spaces per unit, or lower for purpose-built rental units, which would support the compatible goals of creating non-automobile households (together with alternative mobility options discussed below) and addressing housing affordability and reduced greenhouse gas emissions in the Bernard KDA.

#### 4.1.3.2 Recommended Non-Residential Rates

The recommended non-residential parking rates closely match those of the City of Toronto's Policy Area 4 rates, and provide flexibility for various non-residential uses to apply a minimum or maximum parking rate. These rates are consistent with the non-residential uses located in areas of Toronto that are predominantly located along existing bus and streetcar routes but outside of the downtown core, and are supportive of encouraging alternative travel modes to the personal automobile.

The above referenced rates are intended to influence change to more non-automobile modes of travel for both residential and non-residential uses and address housing affordability concerns. The rates are adequate to support a change to non-automobile modes of travel, thereby supporting the target transit modal split for York Region and encouraging ridership of existing and under-construction transit services within Bernard KDA.

To support LEA's recommended reductions in residential and non-residential parking rate requirements from the rates specified in By-law 111-17, it is further recommended that transit-oriented development strategies applicable to the Bernard KDA be expanded to include car share, carpool, and shared parking rates, as well as requirements for parking facilities dedicated to electric vehicles and compact cars, as discussed in the following sections.

## 4.2 CAR SHARE RATE

Car-sharing provides an alternative opportunity for travel, without reliance on car ownership. Car-sharing programs serve as a temporary service for personal and employment purposes. Adopting car-share initiatives can reduce auto-dependency and parking spaces. To understand the beneficial effects of car-sharing initiatives, IBI examined the impacts of car share programs in the City of Toronto and other jurisdictions. The IBI report reveals that about one shared car removes about 8-10 individual cars off the road<sup>10</sup>. This can be demonstrated through the investigation of the car-sharing operations, such as AutoShare and Zipcar. AutoShare and Zipcar indicate that 15% and 40% of the members abandoned their personal cars, respectively. Currently, there is no provision for car-sharing in Zoning By-law 111-17, although there is provision for car-sharing in other Richmond Hill Zoning By-laws.

<sup>10</sup> IBI Group (2009). Online: "Parking Standards Review: Examination of Potential Options and Impacts of Car Share Programs on Parking Standards" [Online] Available: <http://www.urbandb.com/document/ibi-group-parking-standards-review-examination-of-potential-options-and-impacts-of-car-share-programs-on-par...-2009-03-01.pdf>

## 4.2.1 Examples of Car-share Rates

### 4.2.1.1 Seattle and Vancouver

The IBI study considered car-share parking requirements in Seattle and Vancouver. **Table 6** shows the reduction of parking spaces with the substitution of car share spaces<sup>11</sup>.

**Table 6: Maximum Allowable Reduction in the Minimum Required Parking**

Size of Development (# of Units)	Seattle		Vancouver	
	Max # Car Share Spaces	Max Allowable Reduction	Max # Car Share Spaces	Max Allowable Reduction
10	1	1	0	0
30	2	5	1	3
60	4	11	1	3
120	8	23	2	6
250	16	47	4	12
450	28	84	8	24

### 4.2.1.2 City of Richmond Hill, Ontario

Richmond Hill By-law No.49-12 (applicable to 9251 Yonge Street) provides for a minimum of 2 car share spaces. By-law 49-12 also provides that for every 1 car-share parking space, 5 parking spaces can be reduced to a maximum reduction of 25 spaces. This means that maximum number of car share spaces cannot exceed 5 in order to achieve a parking space reduction of 25 spaces. The By-law applicable to the Great Lands site (also at Yonge 16 KDA) requires a minimum of 4 car share parking spaces with a maximum parking space reduction of 16 spaces.

### 4.2.1.3 City of New Minister, British Columbia

The City of Westminster Zoning By-law 6680, 2001, section 150.74, has adopted car-share (co-operative) rates<sup>12</sup>. For every car-share parking space provided, up to 5 required parking spaces can be reduced. Car-share parking spaces can only take up to a maximum of 10% of the required parking spaces.

## 4.2.2 Recommended Car-share Rates

It is recommended that the Bernard KDA Zoning By-law be revised with the following requirements:

- a minimum of two car-share spaces be provided on site;
- that each car share parking space be clearly signed and located closest to a building entrance;
- that for every car-share parking space provided, five residential parking spaces can be reduced; and
- that the replacement/reduction of parking spaces due to car-share should not comprise more than 10% of the total site minimum parking requirement.

<sup>11</sup> IBI Group (2009). Online: "Parking Standards Review: Examination of Potential Options and Impacts of Car Share Programs on Parking Standards" [Online] Available: <http://www.urbandb.com/document/ibi-group-parking-standards-review-examination-of-potential-options-and-impacts-of-car-share-programs-on-par...-2009-03-01.pdf>

<sup>12</sup> City of New Westminster Zoning By-law 6680, 2001. Online: [https://www.newwestcity.ca/database/files/library/100\\_Introduction\(14\).pdf](https://www.newwestcity.ca/database/files/library/100_Introduction(14).pdf)

## 4.3 CARPOOL RATES

SmartCommute Markham Richmond Hill (SCMRH) was created to address traffic congestion. SmartCommute is an initiative in promoting sustainable alternatives to single occupancy vehicle travel. As the City of Richmond Hill has adopted this system, the tool is already established in the community to help with the transition of traveling behavior. Carpooling services is one of the programs that SCMRH participates in. SmartCommute has a free online tool that matches trips with other employers who take similar travel routes. To encourage carpooling, the provision of carpool spaces will further promote the participation of this service. These carpooling spaces should be prioritized to be located near building entrances. Zoning By-law 111-17 does not support carpool rates.

### 4.3.1 Examples of Carpool Rates

#### 4.3.1.1 *Town of Newmarket, Ontario*

The Town of Newmarket Urban Centres Secondary Plan proposed that carpool spaces must be provided with these rates<sup>13</sup>:

- At a minimum of 2 spaces; or,
- At a minimum of 5% of the total required parking supply for employment uses.

#### 4.3.1.2 *City of Vaughan, Ontario*

The City of Vaughan Comprehensive Zoning By-law supports car pooling with the following approach<sup>14</sup>:

- 5 spaces, or
- 5% of the office and industrial parking spaces on site.

#### 4.3.1.3 *City of New Westminister, British Columbia*

The City of Westminister Zoning By-law 6680, 2001, section 150.64, supports carpooling for office, industrial and institutional uses<sup>15</sup>. It requires 5% of the total parking spaces (with more than 30 off-street parking spaces) to be reserved for carpooling services.

### 4.3.2 Recommended Carpool Rates

Carpool spaces aligns with the vision to shift away from the usage of auto-dependency vehicles. Also, it reduces the parking supply for employment (non-residential) uses. Carpool spaces should be located nearby to building entrances to increase the visibility and viability of carpooling as a transportation mode.

It is recommended that the Zoning By-law include provision for carpool spaces at the following rate:

- A minimum of 2 spaces

<sup>13</sup> Town of Newmarket Urban Centres Secondary Plan, Parking Standards Background Study (2016):

<https://www.newmarket.ca/LivingHere/PublishingImages/Pages/Planning%20and%20development/Urban-Centres-Zoning-By-law-Project/Newmarket%20Parking%20Study%20-%20Draft%20Final%20Report%20October%2014%202016.pdf>

<sup>14</sup> City of Vaughan Comprehensive Zoning By-law, Review of Parking Standards by IBI Group (2010). Online:

[https://www.vaughan.ca/projects/policy\\_planning\\_projects/city\\_wide\\_parking\\_standards\\_review/General%20Documents/FINAL%20DRAFT%20TTR\\_2010-04-15%20Web%20Version%20%282%29.pdf](https://www.vaughan.ca/projects/policy_planning_projects/city_wide_parking_standards_review/General%20Documents/FINAL%20DRAFT%20TTR_2010-04-15%20Web%20Version%20%282%29.pdf)

<sup>15</sup> City of New Westminister Zoning By-law 6680, 2001. Online: [https://www.newwestcity.ca/database/files/library/100\\_Introduction\(14\).pdf](https://www.newwestcity.ca/database/files/library/100_Introduction(14).pdf)

## 4.4 COMPACT CAR SPACES

Compact car spaces are designed to be narrower and shorter than a standard parking space. Compact car spaces allow for a more efficient parking arrangement in a parking structure. Zoning By-law 111-17 does not provide for compact car spaces.

### 4.4.1 Examples of Compact Car Space Provisions

#### 4.4.1.1 City of Richmond Hill By-law 49-12

Richmond Hill By-law 49-12 allows for compact car spaces to be utilized on site up to a maximum of 10% of all required parking. The dimensions of a compact car space are 4.8m by 2.4m.

#### 4.4.1.2 City of New Westminster, British Columbia

City of New Westminster has adopted compact/small car parking spaces<sup>16</sup>. **Table 7** shows the difference between the dimensions of a standard and compact vehicle space. All the dimensions of the compact vehicle space are less than the standard vehicle space.

**Table 7: City of New Westminster Parking Dimensions for Standard and Compact Vehicles**

Angle	Width of Parking Space (m)		Length of Parking Space (m)		Width of Aisle (m)	
	Standard	Compact	Standard	Compact	Standard	Compact
90	2.6	2.44	5.5	4.87	6.93 (two-way)	6.93 (two-way)
Parallel	2.6	2.44	6.7	5.49	3.7 (one-way)	3.35 (one-way)

#### 4.4.1.3 City of Marlborough, Massachusetts

In accordance with the City of Marlborough Zoning By-law, Section 650-48.C, it specifies the dimensions of the standard and compact parking spaces, as indicated in **Table 8**<sup>17</sup>. It is optional to provide compact parking spaces at a development, but up to 33% of the parking spaces can be reserved for compact parking spaces. Each space shall be clearly identified with a sign that states “Compact Cars Only”.

**Table 8: Parking Dimensions for Standard and Compact Vehicles**

Angle	Width of Parking Space (m)		Length of Parking Space (m)		Width of Maneuvering Aisle – 1-way (m)		Width of Maneuvering Aisle – 2-way (m)	
	Standard	Compact	Standard	Compact	Standard	Compact	Standard	Compact
61-90	2.72	2.44	5.49	4.88	7.31	6.70	7.31	6.70
Parallel	2.72	2.44	6.10	4.88	3.66	3.66	6.1	5.49

### 4.4.2 Recommended Compact Car Spaces

It is recommended to allow up to 10% of the parking requirement can be compact car spaces, with minimum dimensions of 4.8m x 2.4m for perpendicular spaces and 5.5m x 2.45m for parallel spaces.

<sup>16</sup> City of New Westminster. Online: [https://www.newwestcity.ca/council\\_minutes/0421\\_08/CW/Reports/CW2.pdf](https://www.newwestcity.ca/council_minutes/0421_08/CW/Reports/CW2.pdf)

<sup>17</sup> City of Marlborough, Zoning By-law § 650-34. Online: <https://ecode360.com/9217781>

## 4.5 SHARED PARKING RATE

Shared parking allows multiple land-use activities to access the same parking spaces at different peak demands of the day. This approach serves as a pooled parking resource and operates best with mixed-use developments. There is no discussion of shared parking calculations in Zoning By-Law 111-17.

### 4.5.1 Examples of Shared Parking Rates

#### 4.5.1.1 City of Richmond Hill, Ontario

Richmond Hill By-law 49-12 contains a shared parking formula, dictating that the minimum supply of non-residential parking can be reduced in accordance with the time of day occupancy. The maximum supply calculated based on the occupancy rates displayed in **Table 9** will dictate the required shared supply.

**Table 9: Shared Parking Formula from By-law 49-12**

Type of Use	Occupancy Rate (Percentage of Peak Requirements)			
	Morning before 12 PM	Noon 12-1 PM	Afternoon 1-6PM	Evening After 6PM
Office	100%	90%	100%	10%
Commercial	80%	95%	90%	90%
Restaurant	30%	100%	50%	100%
Residential – Visitor	20%	20%	60%	100%

#### 4.5.1.2 City of Vaughan, Ontario

Currently, the City of Vaughan Comprehensive Zoning By-law incorporates shared parking rates for mixed-use development in the Metropolitan Centre Zone. **Table 10** displays the specified shared parking rates<sup>18</sup>.

**Table 10: Shared Parking Formula for the City of Vaughan**

Land Use	Morning	Noon	Afternoon	Evening
Percent of Peak Period Parking Demand (Weekly)				
Business and Professional Office	100%	90%	95%	10%
Retail Stores	65%	90%	80%	100%
Eating Establishment	20%	100%	30%	100%
Residential	80%	55%	80%	100%
Percent of Peak Period Parking Demand (Saturday)				
Business and Professional Office	10%	10%	10%	10%
Retail Stores	80%	85%	100%	40%
Eating Establishment	20%	100%	50%	100%
Residential	100%	100%	100%	100%

<sup>18</sup> City of Vaughan Comprehensive Zoning By-law, Review of Parking Standards by IBI Group (2010). Online: [https://www.vaughan.ca/projects/policy\\_planning\\_projects/city\\_wide\\_parking\\_standards\\_review/General%20Documents/FINAL%20DRAFT%20TTR\\_2010-04-15%20Web%20Version%20%282%29.pdf](https://www.vaughan.ca/projects/policy_planning_projects/city_wide_parking_standards_review/General%20Documents/FINAL%20DRAFT%20TTR_2010-04-15%20Web%20Version%20%282%29.pdf)

#### 4.5.2 Shared Parking Formula

Notwithstanding the above, it is recommended to follow the rates and calculations provided by the *Richmond Hill Parking Strategy* to identify the maximum shared parking demand, as shown in **Table 11** below. Guidelines and calculations can be found in the *Richmond Hill Parking Strategy* under Section 4.4.

**Table 11: Occupancy Rates for Shared Parking Formula**

Type of Use	Occupancy Rate (Percentage of Peak Requirements)			
	Morning before 12 PM	Noon 12-1 PM	Afternoon 1-6 PM	Evening After 6 PM
Office	100%	90%	100%	10%
Commercial	80%	95%	90%	90%
Restaurant	30%	100%	50%	100%
Residential – Visitor	20%	20%	60%	100%

*Occupancy rates for additional land use can be obtained from field surveys or Shared Parking, 2<sup>nd</sup> Edition (ULI, 2005).*

Subsequent changes in land use at each mixed-use site will require revisions to the shared parking analysis to determine if the new total shared parking demand can be accommodated at the site. The shared parking formula shall be monitored and updated within 2 to 4 years of development occurring within the KDA.

## 4.6 ELECTRIC VEHICLE PARKING

Vehicles are a significant source of greenhouse gas emissions (GHG). As specifically noted in the ORMCP Section 18(2)(c.2), new development should occur in a manner to reduce GHG emissions. Switching passenger, freight and transit vehicles from gasoline or diesel to electric and other low-carbon fuels is a central part of the plan to reduce GHG emissions and work towards the ORMCP objectives for Settlement Areas. The transition to electric and other low-carbon fuels will also significantly reduce local air pollutants. While the City has several City-owned electric vehicle (EV) charging stations, providing charging stations for residential and commercial uses is a key strategy to enhance electric vehicle usage throughout the City.

### 4.6.1 Examples of Electric Vehicle Parking

#### 4.6.1.1 City of Toronto, Ontario

The City of Toronto, as part of the *Toronto Green Standards* requires all mid to high rise buildings to be designed to provide 20% of the building's parking spaces to accommodate electric vehicle supply equipment.<sup>19</sup>

Based on this study, the City of Toronto requires:

- ▶ A minimum of 20-25% of all parking spaces to be built with priority parking spaces for electric vehicle parking, depending on the location, to the standards of the Ontario Building Code
- ▶ The remainder of the parking spaces should be designed to accommodate electric vehicle charging equipment at a later time.

<sup>19</sup> <https://www.toronto.ca/city-government/planning-development/official-plan-guidelines/toronto-green-standard/toronto-green-standard-version-3/mid-to-high-rise-residential-all-non-residential-version-3/air-quality-for-mid-to-high-rise-residential-all-non-residential-development/>

#### 4.6.1.2 City of Vancouver, British Columbia

The City of Vancouver Building Code By-law 10908 requires 100% EV-ready stalls in all multi-unit residential new builds and 10% of parking stalls in commercial buildings, as of March 14, 2018. Comprehensive Zoning By-law proposed to provide with this approach<sup>20</sup>:

- ▶ 5 spaces, or
- ▶ 5% of the office and industrial parking spaces on site.

#### 4.6.2 Recommended Electric Vehicle Parking Rates

Electric Vehicles, while not reducing auto vehicle trips, reduces the greenhouse gas emissions associated with gasoline or diesel engines. LEA recommends electrical vehicle rates, in line with the City of Toronto and similar municipalities:

- Dedicate 20% of the residential parking and commercial parking spaces with electric vehicle equipment in priority locations (EVP Spaces), and
- Design all remaining residential parking spaces to be EV ready.

<sup>20</sup> City of Vaughan Comprehensive Zoning By-law, Review of Parking Standards by IBI Group (2010). Online: [https://www.vaughan.ca/projects/policy\\_planning\\_projects/city\\_wide\\_parking\\_standards\\_review/General%20Documents/FINAL%20DRAFT%20TTR\\_2010-04-15%20Web%20Version%20%282%29.pdf](https://www.vaughan.ca/projects/policy_planning_projects/city_wide_parking_standards_review/General%20Documents/FINAL%20DRAFT%20TTR_2010-04-15%20Web%20Version%20%282%29.pdf)

## 5 CONCLUSIONS

In conclusion, the parking standards currently contained in Zoning By-law 111-17 are not appropriate for the Bernard KDA, which is a significant intensification area within York Region and Richmond Hill.

The proposed parking strategies and implementation rates outlined above will provide significantly more support to developing the transit-oriented mixed-use development now contemplated by City Council. The recommended strategies and rates provided in this report contain sufficient flexibility to encourage higher order transit usage and active transportation in conjunction with reduced automobile use, and therefore support key land use planning and transportation policies such as the Region and City's target of 35% affordable housing in KDAs and the Region's target transit modal split of 50% in Regional Corridors and Centres by 2031. Specifically, the proposed parking strategies will:

- ▶ Encourage and facilitate an important shift to non-auto modes of mobility.
- ▶ Provide future residents with more sustainable choices for transportation, including non-automobile households.
- ▶ Support Yonge Street as a rapid transit corridor with a focus on active transportation options.

The recommended transit supportive parking policy for the Yonge Bernard KDA and NEC site includes the following:

- ▶ New minimum and maximum parking rates as per **Table 12** below together with a new minimum blended parking rate of 0.65 spaces per dwelling unit to address housing affordability considerations by reducing parking space construction costs, and enabling non-automobile households to be created.
- ▶ Provisions for car-share parking spaces, with the following requirements:
  - a) a minimum of two car-share spaces be provided on site;
  - b) that each car share parking space be clearly signed and located closest to a building entrance;
  - c) that for every car-share parking space provided on site, five residential parking spaces can be reduced; and
  - d) that the replacement/reduction of parking spaces due to car-share should not comprise more than 10% of the total site total minimum parking requirement.
- ▶ Provisions for compact parking spaces, with the following requirements:
  - a) up to 10% of the parking requirement can be compact car spaces; and
  - b) compact spaces will provide with minimum dimensions of 4.8m x 2.4m for perpendicular spaces and 5.5m x 2.45m for parallel spaces.
- ▶ Notwithstanding the parking rates set in **Table 12**, non-residential parking supplies may be shared, given that:
  - a) the supply is provided in accordance with the peak time of day shared parking demand, calculated using the rates as shown in **Table 13** below. Guidelines and calculations can be found in the *Richmond Hill Parking Strategy* under Section 4.4; and
  - b) Subsequent changes in land use at each mixed-use site will require revisions to the shared parking analysis to determine if the new total shared parking demand can be accommodated at the site. The shared parking formula shall be monitored and updated within 2 to 4 years of development occurring within the KDA.

- ▶ Provisions for electric vehicle parking spaces, with the following requirements:
  - a) Dedicate 20% of the residential parking and commercial parking spaces with electric vehicle equipment in priority locations (EVP Spaces); and
  - b) Design all remaining residential parking spaces to be EV ready.

**Table 12: Recommended Parking Minimum and Maximum Parking Rates for the Yonge Bernard KDA**

Residential Parking Rates * subject to Note 1		
Use	Minimum Rates / Unit	Maximum Rates / Unit
Bachelor	0.5	0.7
1-bedroom	0.7	0.9
2-bedroom	0.9	1.1
3-bedroom	1.0	1.5
Visitor	0.15	0.2
Non-Residential Parking Rates * Subject to a shared parking formula as per Table 13 below		
Use	Minimum Rates / 100m <sup>2</sup>	Maximum Rates /100m <sup>2</sup>
Major Office	1.0	2.0
Commercial including restaurant uses (equal to or less than 10,000m <sup>2</sup> of Gross Floor Area)	1.0	3.0
Commercial including restaurant uses (greater than 10,000m <sup>2</sup> Gross Floor Area)	0	3.5
Medical Offices/Clinics	0.6	6.0
Place of Assembly including Assembly Hall, and Place of Worship	4.5	5.5
Financial Institution	2.0	4.5
Veterinary Clinics	1.0	1.5
Arts and Cultural Facilities	1.0	1.5
Social Services	1.0	2.0

1. Notwithstanding the parking rates in Table 12, the minimum blended residential parking rate for all residential units located on a lot shall be 0.65 spaces per residential unit, or lower for purpose-built rental units, and the maximum blended residential parking rate for all residential units shall be no more than 1.0 spaces per residential unit, excluding visitor parking.

**Table 13: Occupancy Rates for Shared Parking Formula**

Type of Use	Occupancy Rate (Percentage of Peak Requirements)			
	Morning before 12 PM	Noon 12-1 PM	Afternoon 1-6 PM	Evening After 6 PM
Office	100%	90%	100%	10%
Commercial	80%	95%	90%	90%
Restaurant	30%	100%	50%	100%
Residential – Visitor	20%	20%	60%	100%

