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Project: 192019

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**Re: Traffic Impact Statement, Commercial Development, 1401 Sackville Drive, Middle Sackville, NS**

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Mr. Saleh,

Harbourside Transportation Consultants has completed a traffic impact statement, as per Halifax Regional Municipality (HRM) requirements, to support the application for a proposed commercial development located at 1401 Sackville Drive in Middle Sackville, Nova Scotia.

**Study Area and Site Context:** The proposed development site is located at 1401 Sackville Drive, on the southeast corner of the intersection of Sackville Drive and Executive Drive. The site context is illustrated in Figure 1.

Sackville Drive is a rural arterial road that runs parallel to Highway 101. In the vicinity of the proposed development, Sackville Drive has one lane in each direction and a posted speed limit of 70 km/h. There are 1.5m wide on-street bike lanes present on both sides of the roadway. Sackville Drive is connected to Highway 101 through Margeson Drive, located approximately 600 metres north of the site.

Executive Drive is a local residential road with a posted speed limit of 50 km/h. Sidewalks are provided on one side of the roadway. The intersection of Sackville Drive and Executive Drive is an unsignalized intersection with stop control on Executive Drive and Beaconsfield Way.

Sackville Drive is serviced by Halifax Transit Route 83 – Springfield, bus stops are located before and after Executive Drive. Route 83 provides service from Springfield Avenue in Middle Sackville to the Sackville Terminal in Lower Sackville where it connects to seven other routes.

**Description of Proposed Development:** The proposed development will include a strip mall type building with 7,000 square feet of commercial space. The commercial space will include multiple tenants and could include land uses such as retail, restaurant and service uses. The development plan for the site is shown in Figure 2.

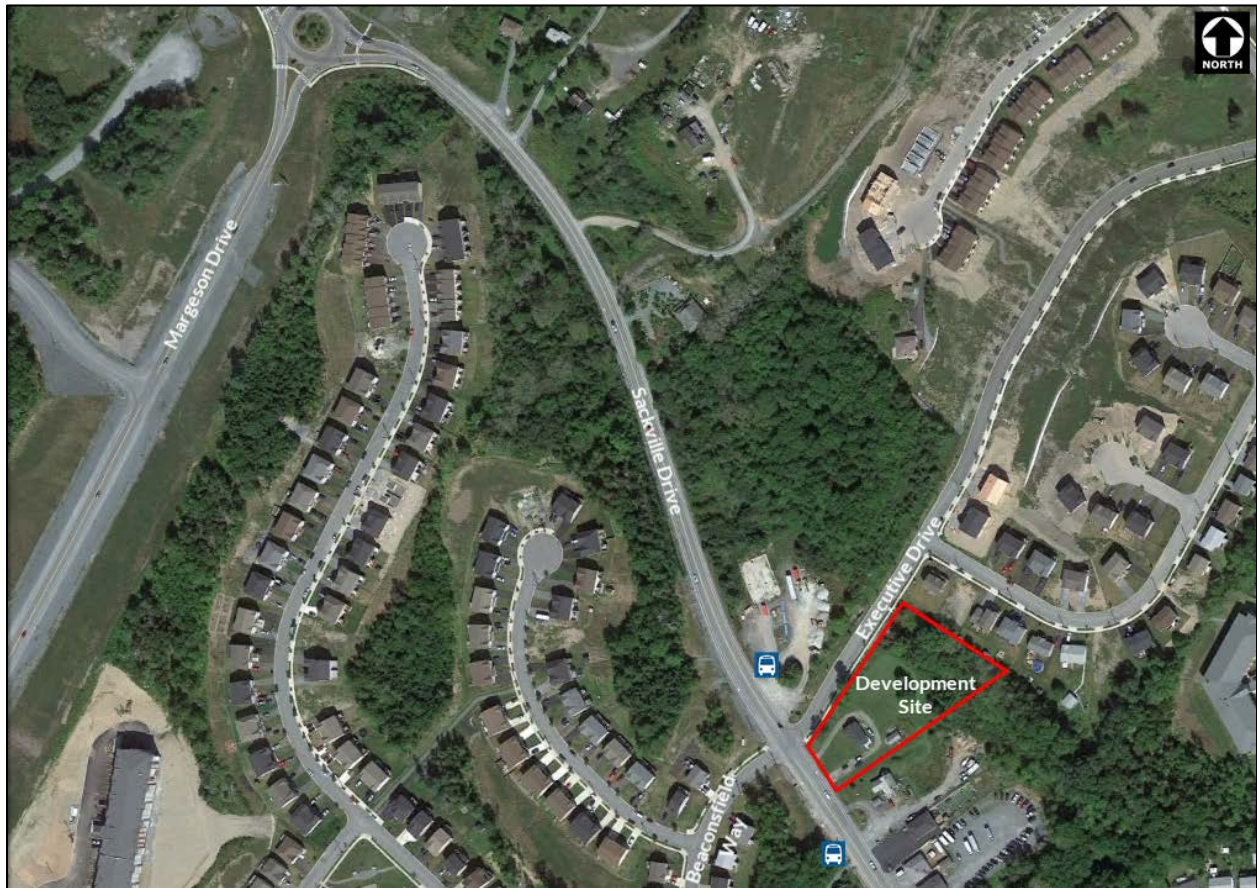


Figure 1: Site Context

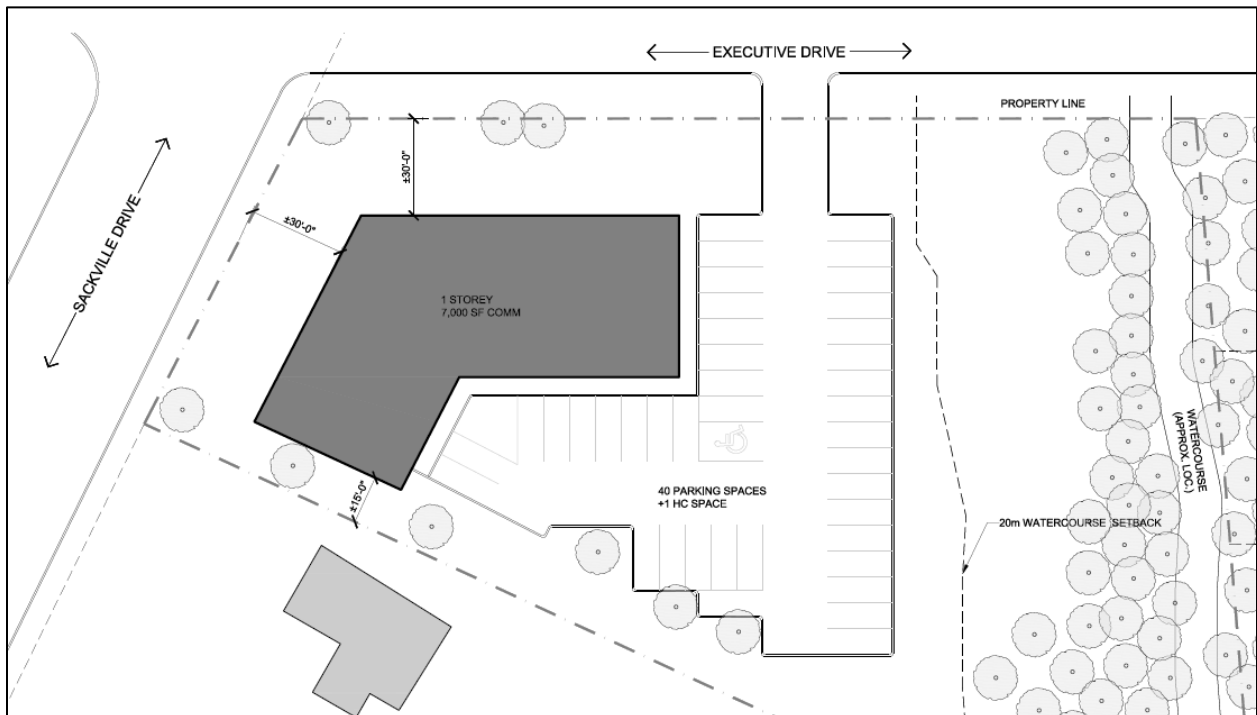


Figure 2: Development Plan

**Access:** Access to the proposed development will be provided from Executive Drive. The two existing residential driveways on Sackville Drive will be removed.

The sight distance at the proposed driveway location was reviewed against HRM requirements, for a local roadway with a posted speed limit of 50 km/h, the HRM *Design Guidelines* indicate that 65 metres of sight distance is required at a driveway. Looking to the right from the proposed driveway location, the sight line extends past the intersection of Executive Drive and Fringe Drive; there will be over 65 metres of sight distance at the driveway. Looking to the left from the proposed driveway location there will be slightly less than 65 metres of sight distance available due to the proximity of the stop-controlled intersection of Sackville Drive and Executive Drive.

**Parking:** According to the *Sackville Land Use By-Law*, for retail stores, service and personal service shops exceeding 5,000 square feet of gross floor area (GFA), 5.5 parking spaces are required per 1,000 square feet of GFA. In addition to the required parking spaces, the by-law required one reserved parking space for the mobility disabled per 15-100 parking spaces.

A total of 38.5 parking spaces and one reserved parking space for the mobility disabled are required for the 7,000 square feet commercial space. The development plan includes 40 vehicle parking spaces and one reserved parking space for the mobility disabled which meets the parking requirements.

**Estimation of Site Generated Trips:** The proposed commercial development will consist of a strip mall and include neighbourhood type commercial and service land uses development. Since there are no detailed plans available for the type of commercial or service land uses at this time, a number of assumptions were made for neighbourhood type commercial land uses that could be included on the site based on the land uses observed at similar commercial developments. Potential land uses include small retail stores, a bank and a restaurant.

Due to the neighbourhood-type nature of the commercial development, a number of trips to the development will consist of pass-by trips. Pass-by trips are traffic already travelling on Sackville Drive while making a trip to another destination that will make an intermediate stop at the site. These trips are existing traffic and do not consist of “new” trips generated by the development. The trip estimates were reduced by 25 percent to reflect pass by trips. The remaining trips are primary or “new” trips to the development, which consist of traffic travelling on Sackville with the specific purpose of visiting the site.

The vehicle trip generation estimates for the proposed development were quantified using trip generation rates obtained from the 10<sup>th</sup> edition of the *Trip Generation Manual* published by the Institute of Transportation Engineers (ITE). The weekday morning (AM) and afternoon (PM) peak hours trip generation estimates for the proposed development are summarized in Table 1. The proposed development is expected to generate 36 primary trips in the AM peak hour (21 trips in/15 trips out) and 61 primary trips in the PM peak hour (33 trips in/28 trips out).

It is anticipated that the new vehicle trips associated with the proposed development can be accommodated along Sackville Drive with a negligible impact on traffic operations. It should be noted that this consists of a high-level qualitative assessment, therefore no analytical capacity calculations have been completed to support the assessment.

Table 1: Trip Generation Estimates

Land Use <sup>1</sup>	Units		Trip Generation Rates <sup>2</sup>						Trips Generated <sup>3</sup>					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
ITE LUC 814 - Variety Store	3	1000 ft <sup>2</sup>	3.18	57%	43%	6.84	52%	48%	10	6	4	21	11	10
ITE LUC 912 - Drive-In Bank	2	1000 ft <sup>2</sup>	9.50	58%	42%	20.5	50%	50%	19	11	8	41	21	20
ITE LUC 932 - High-Turnover Restaurant	2	1000 ft <sup>2</sup>	9.94	55%	45%	9.77	62%	38%	20	11	9	20	12	8
<b>Vehicle Trips (vph)</b>									<b>49</b>	<b>28</b>	<b>21</b>	<b>82</b>	<b>44</b>	<b>38</b>
Commercial Pass-by Trips (25 percent)									13	7	6	21	11	10
<b>Primary Vehicle Trips (vph)</b>									<b>36</b>	<b>21</b>	<b>15</b>	<b>61</b>	<b>33</b>	<b>28</b>
Notes:														
1. Land use codes are from the Trip Generation Manual, 10th edition, Institute of Transportation Engineers, 2017.														
2. Trip generation rates are in 'vehicles per hour per unit.'														
3. Trips generated are in 'vehicles per hour'.														

**Summary and Conclusions:** Harbourside Transportation Consultants has completed a traffic impact statement, as per Halifax Regional Municipality requirements, to support the development application for a proposed commercial development located at 1401 Sackville Drive in Middle Sackville, Nova Scotia. The following conclusions were gathered from the traffic impact statement:

- The proposed development will include a strip mall-type building with 7,000 square feet of commercial space. The commercial space will include multiple tenants and could include land uses such as retail, restaurant and service uses.
- The vehicle trip generation estimates for the proposed development were quantified using trip generation rates obtained from the ITE Trip Generation Manual (10th edition). Due to the neighbourhood-type nature of the commercial development, the trip estimates were reduced by 25 percent to reflect pass by trips. The proposed development is expected to generate 36 primary trips in the AM peak hour (21 trips in/15 trips out) and 61 primary trips in the PM peak hour (33 trips in/28 trips out).
- It is anticipated that the new vehicle trips associated with the proposed commercial development can be accommodated along Sackville Drive with a negligible impact on traffic operations.

If you have any questions or additional discussion, please feel free to contact the undersigned.

Regards,

Originally Signed

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