

October 8th, 2024



RE: 24-568 Sonnys Road – Traffic Impact Statement

DesignPoint Engineering & Surveying Ltd. is pleased to submit this traffic impact statement for the proposed development at 5249 Sonnys Road, Upper Tantallon. The preliminary design includes a 2-story building with 32 residential units on the upper floor and a ground floor commercial to accommodate an expanded Home Hardware store.

Site Location

The site is located on St Margaret's Bay Road, Upper Tantallon near the intersection of Peggys Cove Road. An existing driveway serves the parcel (PID 41454133) on Sonnys Road.

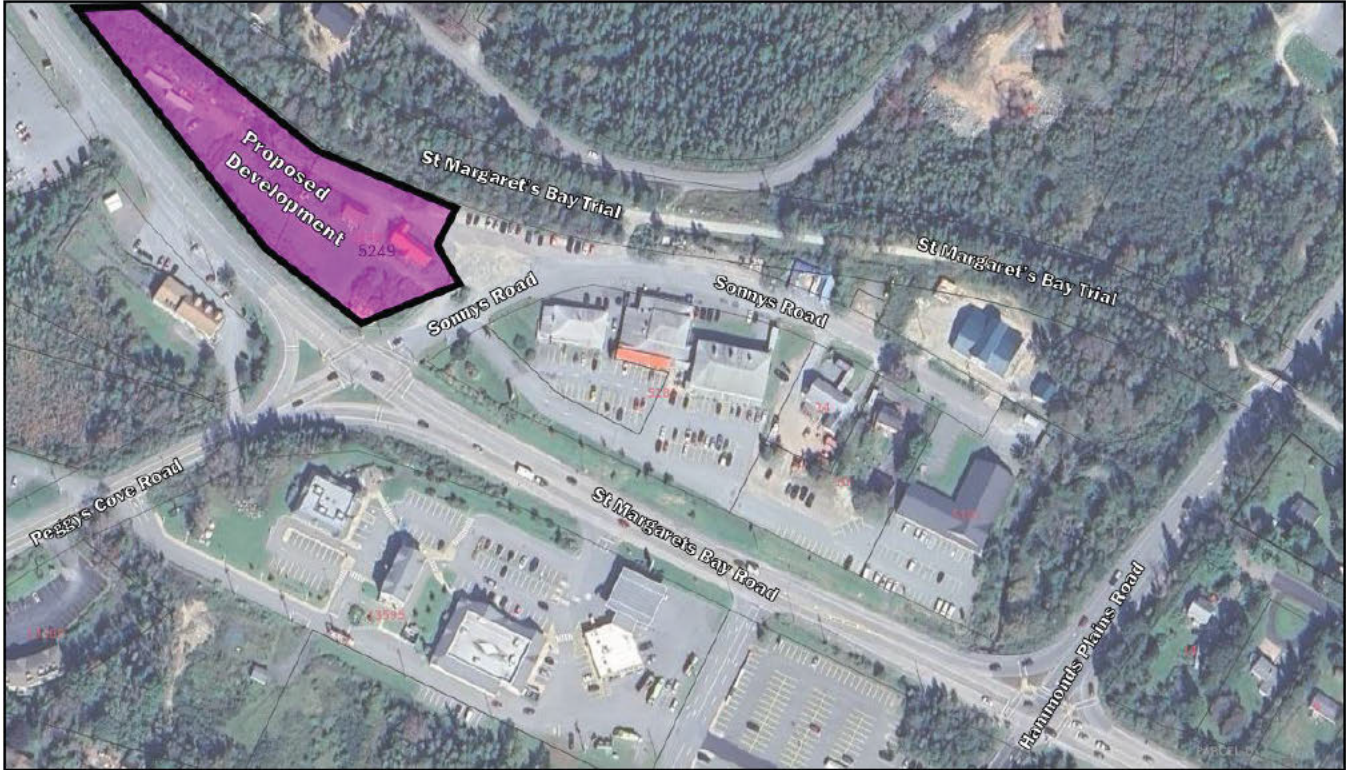


Figure 1: Location of the proposed development

St. Margaret's Bay Road

St. Margaret's Bay Road is a two-lane arterial road that runs in a general north-to-south direction. There is a posted speed limit of 60 kph. There are gravel shoulders along the roadway.

Sonnys Road

Sonnys Road is a two-lane east-west local roadway with gravel shoulders. The roadway forms the east leg of the signalized intersection. It provides access to a number of commercial properties and parking to the St. Margarets Bay Trail.

Peggys Cove Road

Peggy Cove Road is a two-lane east-west arterial roadway that is owned and operated by the Nova Scotia Department of Public Works (NSDPW). The roadway has a posted speed limit of 70 km/hr and gravel shoulders.

Proposed Site Description

This proposal involves redeveloping at the lots the 5249 St Margarets Bay Road and 51 Sonnys Road. The proposed site layout includes a private driveway (that loops through the development). The general configuration of the site is shown in the figure below:

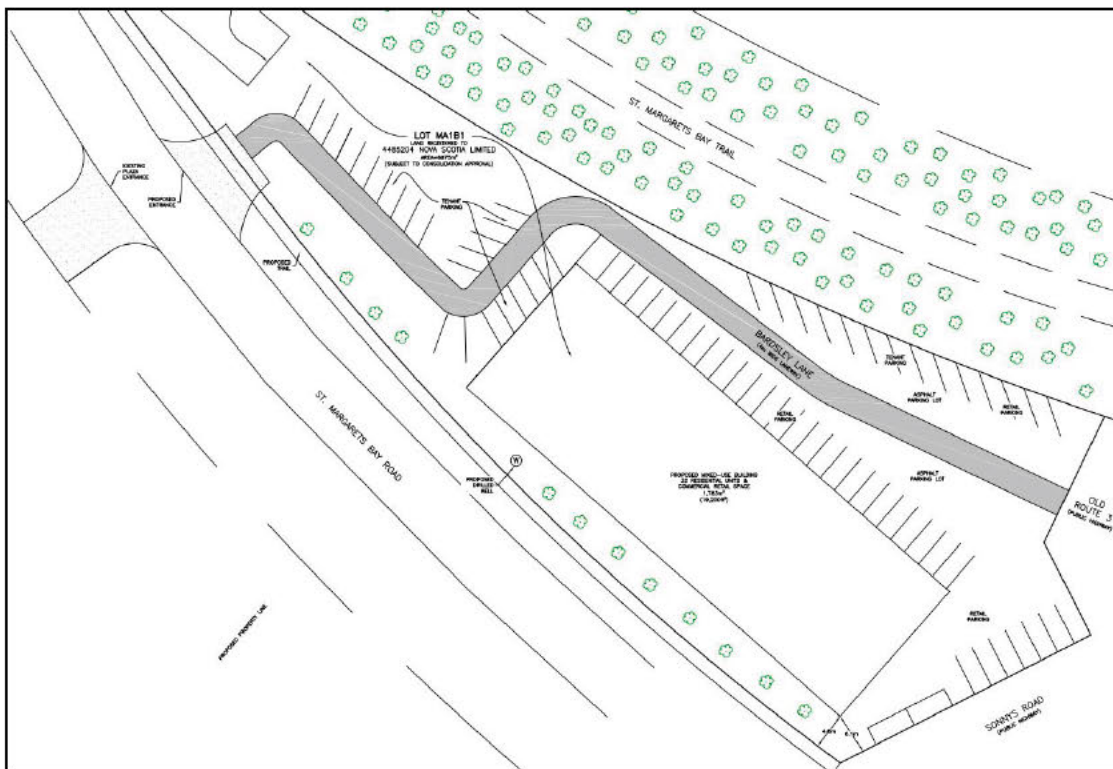


Figure 2: Proposed site plan

Trip Generation

Site-generated trips have been estimated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th edition. The land codes 221 and 812 for Multi-family Housing and Building Materials / Lumber Store were used. The site is expected to generate 44 two-way trips during the AM Peak and 56 two-way trips during the PM Peak.

Table 1: Trip generation calculations per ITE Trip Generation Manual, 11th edition.

Land Use	Code	Units	Variable	Trip Generation Rates ¹						Trips Generated			
				AM Peak			PM Peak			AM Peak		PM Peak	
				Rate	In	Out	Rate	In	Out	In	Out	In	Out
Multifamily Housing (Mid-Rise)	221	34	Dwellings	0.37	23%	77%	0.39	61%	39%	3	10	8	5
Building Materials and Lumber Store	812	19.2	1000 Sq.Ft GFA	1.59	62%	38%	2.25	46%	54%	19	12	20	23
Total Estimated Site Generated Trips										22	22	28	28
Estimated Site Generated Trips										44		56	
Notes:	1. Trip generation rates from ITE Trip Generation Manual , 11th Edition, average rates												

Access Review

The proposed site layout has two (2) access points to the proposed development (See Figure 2). There is an existing driveway access on Sonny's Road and proposed access on St. Margarets Bay Road. The general location of the proposed access points is shown below.



Figure 3: Access points

Stopping sight distance (SSD) is the minimum required observation distance for a vehicle to perceive and stop for obstacles at a given speed.

Intersection sight distance is the time gap a design vehicle needs to judge and safely enter an intersection.

This portion of St. Margarets Bay Road has a posted speed limit of 60 kph. To reflect the nature of this roadway and likely operating speeds, a design speed of 70 kph was used to assess adequate sight distances.



Figure 5: St. Margarets Bay Road looking north



Figure 4: St. Margarets Bay looking south

Field visits were carried out on September 6th & 9th, 2024 to review the access points and to determine the available sight distances at the location. A summary of the findings is provided in Table 2.

Table 2: Summary of Sight Distances for proposed access on St. Margaret’s Bay Road

Approach	Design Speed	Minimum SSD*	Minimum ISD* for right turns	Minimum ISD* for left turns	Measured Sight distance
Northbound	60	105	130	150	120 m
Southbound					>200 m

*As per TAC manual

The proposed access on St. Margarets Bay Road meets all sight distance requirements for the southbound approach.

On the northbound approach, the available sight distance was measured at 120 m which does not meet the ISD requirements for left turns at this location. Based on our review of the location, we believe that if the land adjacent to the right-of-way is cleared this will open the available sight distance. We recommend that the developer clear the land and reassess the available sight distance. If adequate sight distance is not achieved at this location, we recommend that the driveway be limited to right-in/right-out movements only.

Conclusion

The proposed development on Sonny's Road in Upper Tantallon includes 32 residential units and ground-floor commercial space for an expanded Home Hardware store. The development is expected to generate 44 AM & 56 PM two-way trips. Access is via the existing driveway and a new proposed access on St Margarets Bay Road. SSD criteria for the proposed access were met in the southbound approach. ISD was not met for the northbound approach for a left turn movement at this location.

We recommend clearing the sightlines (by removal of vegetation and regrading if needed) adjacent to the roadway to improve the visibility of the access to achieve the full 150 metres of sight distance for the northbound approach.

Alternatively, we recommend limiting the access to a right-in right-out configuration.

If you have any questions about this traffic impact statement, please contact me at ellen.dalton@designpoint.ca.

Thank you,
DesignPoint Engineering & Surveying Ltd.

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