April 11, 2023

4343314 Nova Scotia Ltd.

Attention: Marius Ardelean

RE: Herring Cove Road Subdivision off Angler Drive– Traffic Impact Statement

DesignPoint Engineering & Surveying Ltd. is pleased to submit this traffic impact statement for a new residential development in Herring Cove. The project consists of 57 new dwelling units located off Angler Drive.

Site Location

The site is located off Angler Drive in behind Civic 870-872 Herring Cove Road. Access to Herring Cove Road will be via Angler Drive and/or Glen Baker Drive.

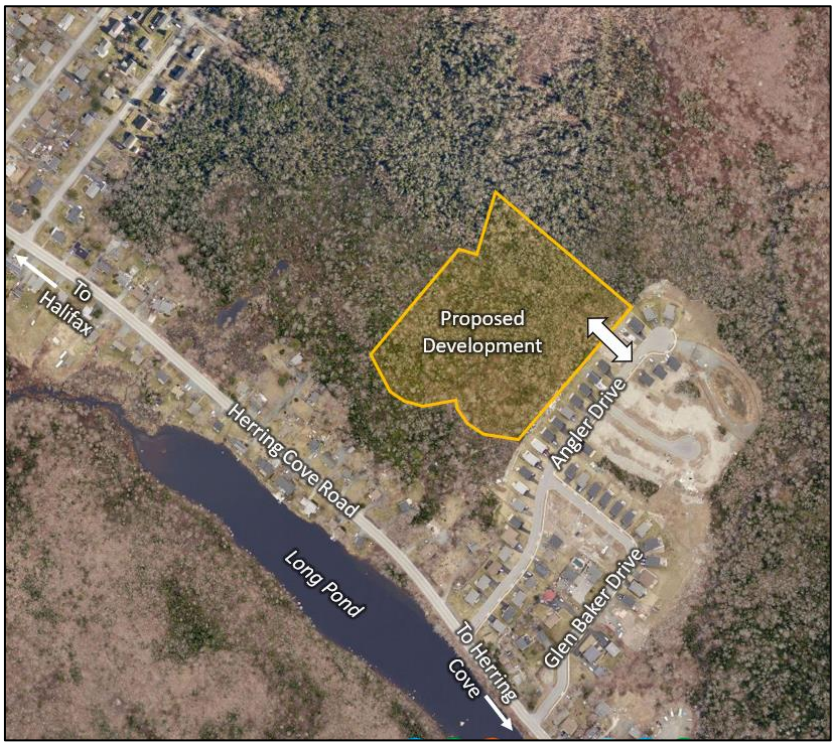

Figure 1 - Location of Proposed Development (Access location noted by arrow)

Angler Drive is a two-lane urban local road with a posted speed of 50 km/h and a sidewalk along the east side. Herring Cove Road is a two-lane rural arterial with a posted speed of 50 km/h and has paved bicycle lanes on both sides of the road. A transit stop is located on Herring Cove Road approximately 150 m to the north of Angler Drive

Site Description

This proposal involves the construction of a new public road off Angler Drive and the creation of 41 new lots with a total of 57 new dwelling units planned for these properties. A sidewalk will connect the new units to the sidewalk on Angler Drive.

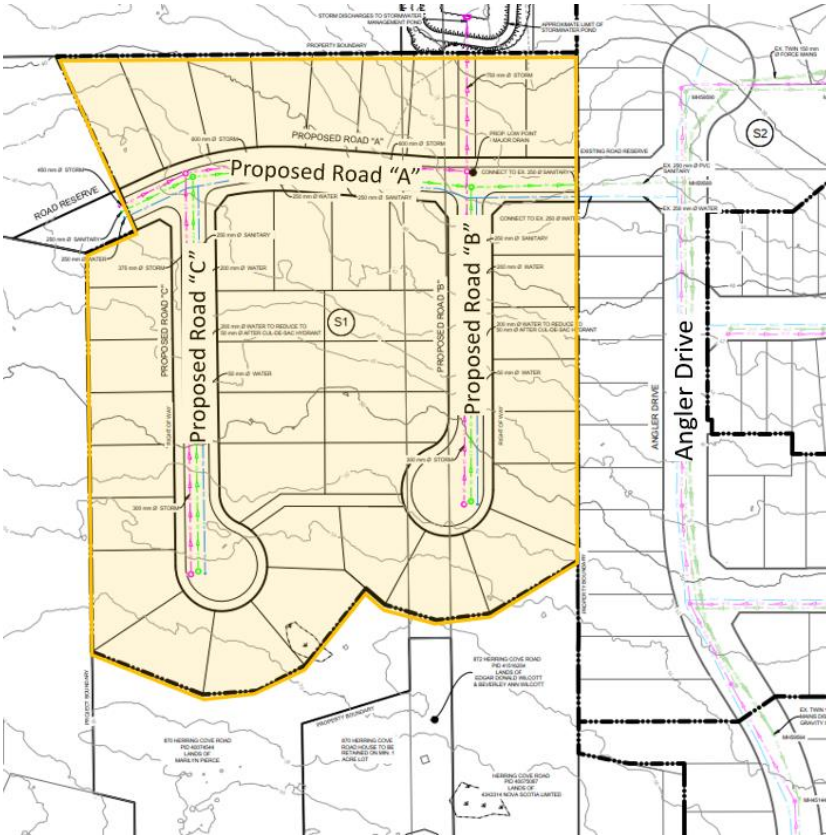

Figure 2 - Proposed site plan

Existing Conditions

Traffic data was collected at the intersection of Herring Cove Road and Angler Drive on Wednesday, March 29, 2023. The following traffic volumes were observed:

Table 1 - Existing Peak Hour Traffic Volumes

	Herring Cove Road Southbound		Herring Cove Road Northbound		Angler Drive Westbound	
	Through	Left	Right	Through	Right	Left
AM Peak (7:45 - 8:45)	157	1	2	286	7	2
Midday Peak (11:30 - 12:30)	204	5	1	197	14	1
PM Peak (5:00 - 6:00)	312	8	0	192	9	0

Trip Generation

Site generated trips have been estimated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual,* 11th edition. The precise distribution of residential units between single family homes, duplex units, and secondary suites is still in flux so for the purposes of this study we have calculated the full unit count as single family homes. Trip generation calculations are provided in Table 2. The development is expected to generate 40 two-way vehicle trips during the AM peak hour and 54 two-way vehicle trips during the PM peak hour.

Table 2 - Trip generation calculations from the ITE Trip Generation Manual, 11th Edition

Land Use	Land Use Code	Units	Trip Generation Rates						Trips Generated			
			AM Peak			PM Peak			AM Peak		PM Peak	
			Rate	In	Out	Rate	In	Out	In	Out	In	Out
Single Family Detached Housing	210	57	0.70	0.25	0.75	0.94	0.63	0.37	**10**	**30**	**34**	**20**
Estimated Site Generated Trips									40		54	
Notes	1. Trip generation rates from the ITE Trip Generation Manual, 11th Edition											

Access

Primary access to the site will be off Herring Cove Road via Angler Drive. The existing intersection of Angler Drive and Herring Cove Road is stop controlled with no auxiliary turning lanes. A site visit was completed to confirm stopping sight distances at this location.

Figure 3 - View from Angler Drive looking to the north (left image) and to the south (right image)

Minimum stopping sight distances are defined by the Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads.* A summary of the minimum stopping sight distances and measured stopping sight distances for the access location is provided in Table 3. The access location exceeds the minimum stopping sight distance for a 60 km/h design speed in each direction.

Table 3 - Stopping Sight Distance Assessment

Direction of Travel	Minimum Stopping Sight Distance (m)	Measures Stopping Sight Distance (m)	Result
Southbound	85	130	Pass
Northbound	85	180	Pass

An auxiliary turning lane analysis has been completed for the PM peak hour which is the critical movement at this location. For the purposes of this analysis, we have assumed that 90% of PM trips in the development are coming from the north (outbound direction). This results in 30 new left turn movements into the site during the PM peak hour. Combined with the existing traffic volumes observed at the intersection results in a total of 38 left turns, which represents 11% of the southbound volume.

Using the MTO warrant for left turn storage lanes on two-lane highways, a southbound left turn lane would not be required, as shown in the following figure.

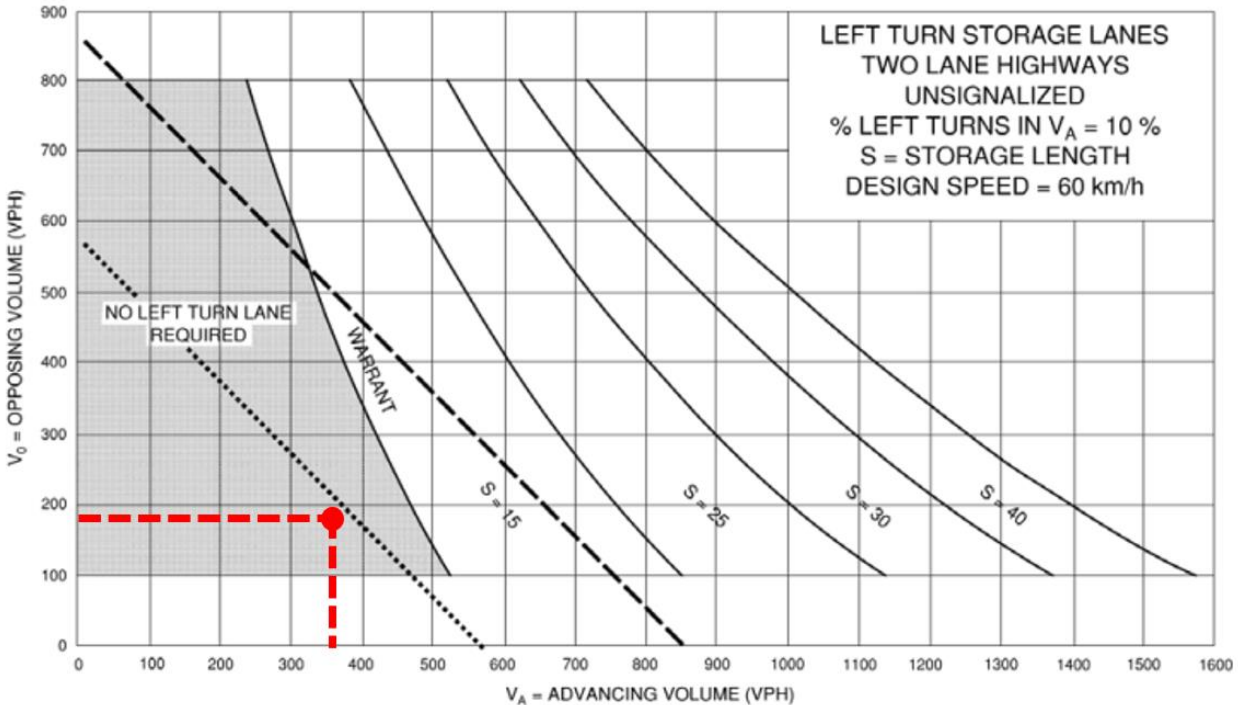

Figure 4 - Left turn warrant for Angler Drive at PM peak

Conclusion

The proposed development includes 57 residential units. The development is expected to add 40 vehicle trips to Herring Cove Road during the AM peak hour and 54 vehicle trips during the PM peak hour. This volume of traffic does not warrant auxiliary lanes and is anticipated to have a negligible impact on the roadway and surrounding network.

Primary access to the site is via Angler Drive at Herring Cove Road. Sight distance criteria is met in both directions for the existing intersection based on a design speed of 60 kph.

No upgrades to Herring Cove are needed to accommodate the proposed development.

If there are any questions about this traffic statement, please feel free to contact me directly at ellen.dalton@designpoint.ca.

Thank you,
DesignPoint Engineering & Surveying Ltd.

Original Signed

Ellen Dalton, P.Eng.
Transportation Engineer & Principal