

January 30, 2025

The Links at Brunello
 1300-200 Barrington Street
 Halifax, NS B3J 3K1
 Email: andrewgiles@eastlink.ca

Attention: Andrew Giles

RE: 24-155 Brunello Nordic Spa Traffic Impact Statement

Background

DesignPoint Engineering and Surveying has been engaged to prepare a traffic impact statement for a Nordic Spa for the Links at Brunello master plan community. The Links at Brunello is a large master planned community permitted through a development agreement.

The development agreement permits a mixed-use golf community with different types of dwelling units and commercial uses surrounding the Links at Brunello Golf Course in Timberlea. The development is now being built through several phases. A portion of the development and the phase boundaries are shown below. This Traffic Impact Statement will consider the impact a proposed Nordic Spa will have on the street network. The proposed spa is identified by the red circle in Figure 1.



Figure 1 - Brunello Development Phases 8-12

Site Description

The proposed spa will be located next to the Golf Course clubhouse just off Brunello Boulevard. It is expected to operate 7-days per week. For the purposes of estimating peak hour trips, the following assumptions have been made with respect to its operation:

- Operating Hours: 9 am to 9 pm
- First Appointment: 9 am
- Last Appointment: 6 pm
- Average Stay: 4 hours
- Appointment intervals: 15 minutes
- Max Daily Appointments: 260 per day
- Avg Daily Appointments (70%): 180 per day
- Auto Occupancy: 2 per car

Based on a desktop review of popular hours of nearby spas and information provided by the client, it is expected that peak usage would occur around 12:00 pm.

Based on the above assumptions, arrivals would be constant at 45 clients per hour starting at 9:00 am and ending at 6:00 pm. Departures would be constant at 45 clients per hour starting at 1:00 pm and would peak at 60 clients per hour at 7 pm.



Figure 2-Client Arrivals



Figure 3-Client Departures

Brunello Phases 8-12 Traffic Impact Study

This study examined the traffic impact generated by Phases 8-12 of the Brunello development. The spa site was not included in the original traffic impact study which considered the following scenarios.

- Existing Traffic (2021)
- Baseline Traffic (2026 plus Phase 7)
- Phases 8 and 9 Traffic (plus Baseline Traffic)
- Phases 10 and 11 (plus all previous phases)
- Phase 12 (including all previous phases, 2025 Completion)

The analysis of the existing roadway network revealed that upgrades to the Timberlea Village Parkway (TVP) at St Margarets Bay Road intersection were needed without the addition of development traffic. The study concluded that with development, traffic signals would be needed at the Marketway South intersection. The study noted that the remaining intersections will operate well with future traffic volumes but noted that side streets will begin to perform poorly as volumes increase over time.

Baseline Conditions

The baseline conditions for this traffic impact statement includes traffic signals at the St Margarets Bay Road and Marketway South intersections. It does not include signals at the Brunello intersection.

While the Brunello 8-12 TIS recommended signals at this intersection, the need will depend on the timing of development and side street traffic volumes. Rather than make assumptions based on phasing, we recommend that traffic volumes at this intersection be monitored on a yearly basis to see if and when signals are warranted.

The original study forecast a five-year buildout (2021-2025). Based on development trends, a 2031 horizon year is probably more realistic. For this analysis, we assumed 50% of the trips generated would be assigned to the network. This will align with the forecast completion of the Spa.

Trip Generation

The proposed spa site is not expected to generate any AM peak hour trips. It is estimated to generate 23 inbound and 23 outbound vehicle trips during the PM peak hour.



Trip Distribution and Assignment

Trip distribution and assignment was based on the Phases 8-12 traffic impact study.

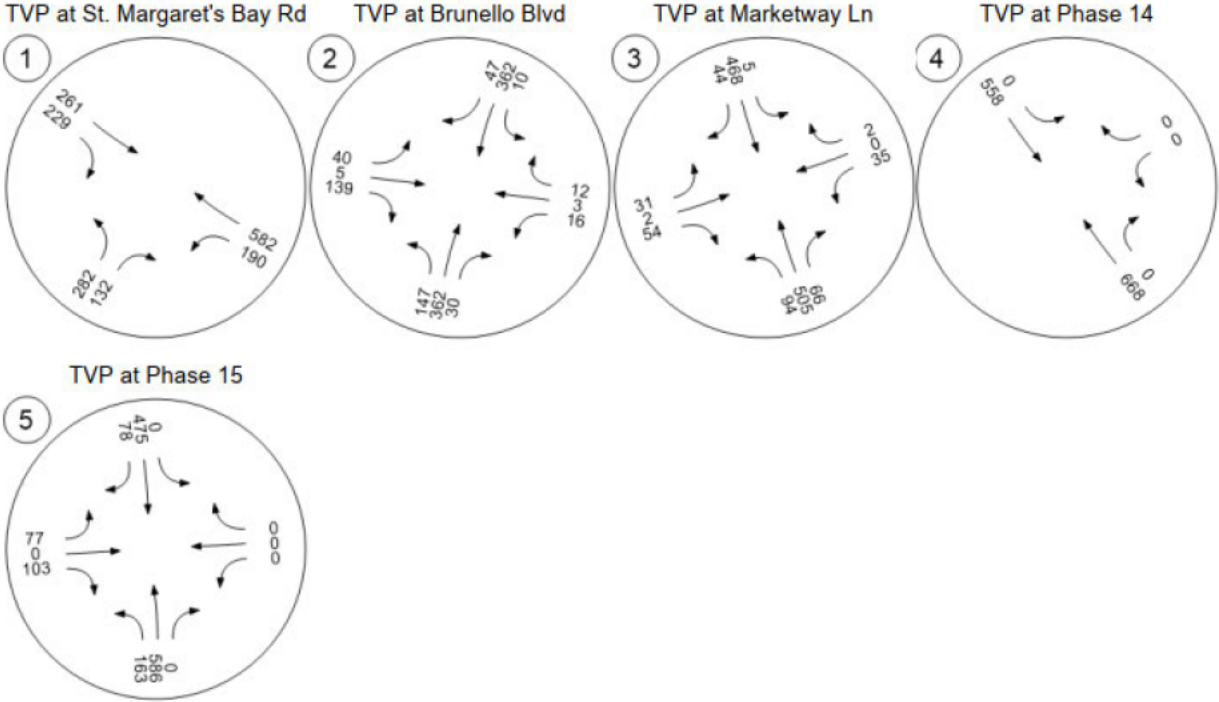


Figure 4: Total PM Peak Traffic Assignment

Analysis

A level of service (LOS) analysis for the Total PM peak hour traffic volume was carried out with upgraded street network. The results are shown in Table 1. Since the site does not contribute to the AM peak hour, it was not included in the analysis.

Table 1- 2025 Total PM Peak LOS Analysis

PM Peak Hour -50% Buildout Traffic with Spa														
LOS Criteria	Intersection Control	Timberlea Village Pkwy						St. Margarets Bay Rd			St. Margarets Bay Rd			Intersection
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
Vehicle Count		282		132				261	229	582	190			
v/c		0.81		0.42				0.26	0.27	0.39	0.58			
Delay (s)		26.7		21.3				6.6	6.8	13.5	9.9			
LOS		C		C				A	A	B	A			
95th% Queue (m)		55.2		21.9				20.4	18.3	26.7	59.9			
LOS Criteria	Intersection Control	Timberlea Village Pkwy			Timberlea Village Pkwy			Brunello Blvd			Maple Grove Ave			
Vehicle Count		40	5	139	10	362	47	40	5	139	16	3	16	
v/c		0.84			0.01			0.31	0.03	0.24	0.18	0.02	0.02	
Delay (s)		8.7			8.2			44.3	40.6	12.4	49.7	34.4	17.2	
LOS		A		A	A		A			C			E	
95th% Queue (m)		3.8			0.2			10.7		7.0			6.1	
LOS Criteria	Intersection Control	Timberlea Village Pkwy			Timberlea Village Pkwy			Marketway Ln			Amalfi Way			
Vehicle Count		94	505	66	5	468	44	31	2	54	35	0	2	
v/c		0.10			0.01			0.29	0.02	0.11	0.39	0.00	0.00	
Delay (s)		9			9			48	33	13	62		33	
LOS		A		A	A		A	E	D	B	F		D	
95th% Queue (m)														
LOS Criteria	Intersection Control	Timberlea Village Pkwy			Timberlea Village Pkwy						Phase 14			Intersection
Vehicle Count			668			558								
v/c														
Delay (s)														
LOS				A			A				N/A		N/A	
95th% Queue (m)														
LOS Criteria	Intersection Control	Timberlea Village Pkwy			Timberlea Village Pkwy			Marketway Ln			Phase 15			Intersection
Vehicle Count		163	586			78	475	77	0	103	0	0	0	
v/c		0.25	0.48	0.00	0.00	0.42	0.07	0.50	0.57	0.00	0.00			
Delay (s)		4.2	6.9	0.0	0.0	8.4	5.7	41.4	40.9	0.0	0.0			
LOS		A	A	A	A	A	A		D			A		
95th% Queue (m)		8.5	59.2	0.0	0.0	0.0	57.7	6.5	32.3	0.0	0.0			

The level of service analysis from the upgraded road network shows that except for the Marketway North intersection, the recommended upgrades outlined in the Brunello Phases 8-12 TIS will accommodate a 50% buildout of traffic volumes.

The Marketway North intersection operates at a LOS F. This is due to the side street delays which is typical for stop-controlled intersections along busy roadways. Most of the delay can be attributed to background traffic volume growth on the Timberlea Village Parkway. Traffic generated by the Spa Development will represent less than 3 percent of the overall intersection traffic volume.

To avoid delays, motorists will choose alternate routes. For the Amalfi westbound approach, commuters will have the option of using the Maple Grove Avenue approach. For the Marketway Eastbound approach, commuters will have the option of using the Marketway south intersection.

Summary

A Nordic Spa is planned for the Links at Brunello Community just off Brunello Boulevard near the golf course clubhouse. Based on a desktop survey and input from our client, the facility is not expected to generate any trips during the AM peak hour period (7-9 am). It is expected to generate 46 PM peak hour trips (4-6 pm)

Using the results Brunello Phase 8-12 traffic study results as a starting point, a level of service (LOS) analysis was carried out in accordance with the HRM Guide for Transportation Impact Studies. The study examined five key intersections along the Timberlea Village Parkway corridor. The study assumed that the St Margarets Bay Road and Marketway South intersections would be signalized, and the remaining intersections would remain stop controlled.

The analysis indicates that except for the Marketway North intersection, all intersections operate within HRM guidelines. This is acceptable given the low side street volumes and the alternate routes which are available.

In summary, traffic from the Spa site is not expected to trigger the requirement for signals at Brunello Boulevard intersection. The timing of signals will be determined based on annual reviews of the intersection as development progresses.

Thank you,
DesignPoint Engineering & Surveying Ltd.



Paul. V. Burgess, M.Eng., P.Eng
Senior Transportation Engineer.

