

June 20, 2019

Ms. Michelle Cleary
 c/o Maple Tree Montessori Inc.
 3008 Oxford St, Suite 102
 Halifax, NS, B3L 2W5

[Via Email: michelle@mapletreemontessori.ca]

**RE: Traffic Impact Statement
 6583 Quinpool Road, Halifax, NS**

Dear Ms. Cleary:

Plans are being prepared for the expansion of a child care facility within an existing residential unit at 6583 Quinpool Road in Halifax, NS (PID 00013276). This is the Traffic Impact Statement (TIS) required to accompany the development application.

SITE DESCRIPTION AND PLANNED DEVELOPMENT

The proposed development includes the expansion of a 14-student pre-school facility increased to 20 students within the existing residential unit at 6583 Quinpool Road (as well as the adjacent undeveloped parcel on Poplar Street-PID#612341, See Figure 1). The existing house is located on the northwest corner of Quinpool Road and Poplar Street (See Photo 1).

The expanded pre-school facility, which will occupy the main floor of the approximately 3,950 sq. ft. house, will operate as a 'Montessori' pre-school capable of accommodating up to approximately 20 children with 3 staff. The expanded site is expected to be operational by the end of 2019. In addition, it is expected that the house will remain inhabited in its current residential use.



Figure 1 – Location of Proposed Development



Photo 1 – Looking south on Poplar Street toward Quinpool Road. The site is the first house on the right.

DESCRIPTION OF EXISTING STREETS AND INTERSECTIONS

Quinpool Road (See Photos 2 and 3) is a 4-lane arterial street that runs east-west on the Halifax Peninsula approximately 2.5km between Robie Street and the Armdale Roundabout. In the vicinity of the site, sidewalks are present on both sides of the street and on-street parking is prohibited. The speed limit is 50km/h.



Photo 2 – Looking west on Quinpool Road from the site

Poplar Street (See Photos 1 and 4) is a 2-lane local residential street that runs north-south approximately 500m between Quinpool Road and Chebucto Road. Sidewalks are present on both sides of the street.



Photo 3 – Looking east on Quinpool Road from the site

Daytime on-street parking is unrestricted on the east side of the street. On the west (site) side there is 15-minute parking (8AM-5PM, Mon-Fri) while westside daytime parking is restricted north of the site (See Photo 1). The speed limit is 50km/h.

The intersection of Quinpool Road and Poplar Street (See Photo 1) is a T-intersection with stop control on the Poplar Street approach. The Quinpool Road – Connaught Avenue intersection (See Photo 2) is located approximately 50m west of the site and is a major signalized intersection.



Photo 4 – Looking north on Poplar Street from the site

SITE ACCESS

Vehicular access to the site is from an existing driveway on Poplar Street, located approximately 35m north of Quinpool Road. The driveway can accommodate parking for up to approximately 3-4 vehicles. Drop-off and pick-up access (vehicle trips) for the child care facility will primarily be made from the on-street parking on Poplar Street.

Access to the site from Quinpool Road is restricted to pedestrians only, as there is no existing driveway and on-street parking is prohibited.



TRANSIT

The site is well served by public transportation with several Halifax Transit routes operating in front of or within 500 metres of the site. With full implementation of *Moving Forward Together Plan* (Halifax

Transit 2016) there will be 4 frequent service corridor routes and 3 other transit routes within 500 metres of the site. Existing and planned transit routes are summarized in Table 1.

Table 1 – Existing and Planned Future Halifax Transit Routes

	Fronting Site (Quinpool Road)	Approx 300 m E (Oxford Street)	Approx 500 m N (Chebucto Road)
Existing Routes	#9, 32, 123	#1, 14	#2, 3, 5, 14
Planned Routes (<i>Moving Forward Together Plan</i>)	#9A/9B, 123, 127	#1, 24	#2, 3, 24

ACTIVE TRANSPORTATION

The Halifax Regional Municipality is planning to install a Local Street Bikeway (LSB) running east-west on Oak Street / Allan Street, approximately 250 metres north of the site. This LSB is planned to connect to the Windsor Street bicycle lanes and provide broad bicycle connectivity to the area. Installation of this LSB is planned in 2018.

TRIP GENERATION FOR PROPOSED SITE

The existing site includes a single-family home with a pre-school capable of accommodating up to approximately 14 children between the ages of 3 and 5 years. A planned expansion of the pre-school is anticipated to provide space for 20 students between the ages of 3 and 5 years.

Trip Generation, 10th Edition (Institute of Transportation Engineers (ITE), Washington, 2017) provides trip generation estimates for weekday peak hour trips for a "Day Care Center". Trip generation estimates, prepared using rates from *Trip Generation*, are included in Table 2. It is estimated that the expanded pre-school (20 students) will generate about 15 trips (8 entering and 7 exiting) during the AM peak hour and 15 trips (7 entering and 8 exiting) during the PM peak hour. However, when trips generated by the existing pre-school are considered, it is estimated that the expanded site will generate 4 additional two-way trips (2 entering and 2 exiting) during the AM peak hour and 4 two-way trips (2 entering and 2 exiting) during the PM peak hour.

Table 2 – Estimated Trip Generation for Proposed Development

Land Use	Units ³	Trip Generation Rates ¹				Trips Generated ²			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		In	Out	In	Out	In	Out	In	Out
Day Care Center (ITE 565)	14 Students	0.41	0.37	0.37	0.42	6	5	5	6
Trip Generation Estimates for Existing Day Care						6	5	5	6
Day Care Center (ITE 565)	20 Students	0.41	0.37	0.37	0.42	8	7	7	8
Trip Generation Estimates for Proposed Day Care						8	7	7	8
Estimated Additional Trips Generated by Development						2	2	2	2
Notes: 1. Trip generation rates are 'vehicles per hour per unit' for Day Care Center (Land Use Code 565), published in <i>Trip Generation, 10th Edition</i> (Institute of Transportation Engineers, Washington, 2017).									
2. Vehicles per hour for peak hours, based on the AM and PM 'Peak Hour of Generator'.									
3. Units - Number of Students enrolled in the Day Care Center.									

It is known that drop-offs will not be permitted until after 8:30AM, which makes it likely that the peak hour of drop-off trips will not coincide with that of the adjacent streets. Based on experience at a similar Montessori pre-school on the Halifax Peninsula, afternoon pick-up times are typically concentrated between 3-4PM, which is also likely to occur outside the peak hour of adjacent streets.

SUMMARY

1. Plans are being prepared for the expansion of a 14-student child care facility within an existing residential unit at 6583 Quinpool Road (as well as the adjacent empty lot on Poplar Street – PID#612341) in Halifax, NS. The expanded facility will be a 'Montessori' pre-school and will accommodate up to 20 students between the ages of 3 and 5, along with three staff. It is anticipated that the pre-school will be operational by the end of 2019.
2. Vehicular access to the proposed development will be from Poplar Street. Since the site driveway can accommodate only 3-4 vehicles, it can be assumed that the majority of drop-off and pick-up traffic will use on-street parking on Poplar Street.
3. Unrestricted daytime on-street parking is permitted on the east side of Poplar Street. On the west side of Poplar Street, on-street parking is prohibited between 8AM-5PM, Monday to Friday. On-street parking in front of the site on Quinpool Road is prohibited.
4. Using published rates from *Trip Generation, 10th Edition* (Institute of Transportation Engineers, Washington, 2017), it is estimated that the pre-school (20 students) will generate about 15 two-way trips (8 entering and 7 exiting) during the AM peak hour and 15 two-way trips (7 entering and 8 exiting) during the PM peak hour.
5. When trips generated by the existing pre-school are considered, it is estimated that the expanded site will generate 4 additional two-way trips (2 entering and 2 exiting) during the AM peak hour and 4 two-way trips (2 entering and 2 exiting) during the PM peak hour.
6. It is expected that the AM and PM peak hours associated with child drop-off and pick-up will occur outside of the AM and PM peak hours experienced on adjacent streets.

CONCLUSION

7. The vehicle trips that will be generated by the proposed child care facility are not expected to have any significant impact on the level of performance of Quinpool Road, Poplar Street, or other streets and intersections in the vicinity.

If you have any questions or comments, please contact me by email at patrick.hatton@wsp.com or by telephone at 902-536-0954.

Sincerely,
Originally Signed

Patrick Hatton, P.Eng.
Traffic & Transportation Engineer
WSP Canada Inc.

