



Ref. No. 161-04044 Task 3

May 31, 2016

Ms. Ashley Blissett, P. Eng
Senior Development Engineer
Halifax Regional Municipality
PO Box 1749
HALIFAX NS B3J 3A5

RE: Traffic Impact Statement, Proposed Multi-Tenant Residential Building with Ground Floor Commercial Space, Bayers Road & Young Street between Oxford Street and Connolly Street, Halifax, NS

Dear Ms. Blissett:

W M Fares Group is preparing plans to construct a multi-unit residential building with ground floor commercial space on a site west of Oxford Street that has frontages on both Bayers Road and Young Street (Figure 1). The proposed development will include approximately 113 apartment units, 9,450 square feet of neighbourhood oriented commercial space, and approximately 127 underground parking spaces. The development will be served by a driveways on Bayers Road at the west site boundary and Young Street at the east site boundary (Figure 2). This is the Traffic Impact Statement (TIS) required to accompany the development application.

Description of Development Site - The site bisects the block between Bayers Road and Young Street just west of Oxford Street (Figure 1). The site is now occupied by five buildings on Bayers Road, including two single family dwellings, two apartment buildings (total approximately 12 units), and a commercial building (approximately 4,700 square feet). The Young Street frontage portion of the site is now occupied by nine buildings, including six single family dwellings and three apartment buildings (total eight units).



Figure 1 - Proposed development site on Bayers Road and Young Street between Oxford Street and Connolly Street.

Bayers Road is an east-west arterial street with one eastbound and two westbound travel lanes. The street has curb, gutter, and sidewalks on both sides (Photos 1 and 2). Parking is permitted on both sides of the street adjacent to the site, however, parking and stopping is prohibited on the north side between 4 PM and 6 PM, Monday to Friday.

The street is served by Halifax Transit routes 1, 17, 80, and 81 with bus stops near the site. There is a marked school crosswalk with activated amber flashing beacons at the east side of Connolly Street and pedestrian signals are included at the Bayers Road / Oxford Street intersection east of the site. A traffic count obtained by HRM at the Bayers Road / Oxford Street intersection at the end of October 2014 indicated two-way volumes of 1,110 vehicles per hour (vph) during the AM peak hour and 1,160 vph during the PM peak hour on Bayers Road adjacent to the site.

Visibility is good on both Bayers Road approaches to the parking garage driveway at the west end of the site as illustrated in Photos 1 and 2. Since the proposed building (Figure 2) is set back from the sidewalk, there is expected to be good visibility between drivers exiting the parking garage driveway and pedestrians on the sidewalk.

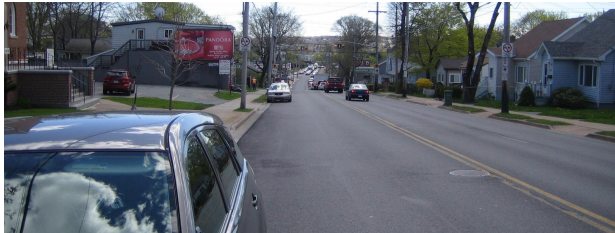


Photo 1 - Looking west on Bayers Road towards Connolly Street from the parking garage driveway.



Photo 2 - Looking east on Bayers Road towards Oxford Street from the parking garage driveway.

Young Street is an east-west two-lane local street with curb, gutter, and sidewalks on both sides (Photos 3 and 4). While parking is permitted on the south side of the street adjacent to the site, parking is prohibited from 8 AM to 6 PM on the north side. A traffic count obtained by HRM at the Oxford Street / Young Street intersection during 2007 indicated two-way volumes of 180 vehicles per hour (vph) during AM and PM peak hours on Young Street adjacent to the site. While the count is nine years old, it is expected that volumes on Young Street at this location have not changed significantly and are indicative of relatively low peak hour volumes of approximately 200 vph.

Visibility is good on both Young Street approaches to the parking garage driveway at the east end of the site as illustrated in Photos 3 and 4. Since the proposed building (Figure 2) is set back from the sidewalk, there is expected to be good visibility between drivers exiting the site and pedestrians on the sidewalk.



Photo 3 - Looking east on Young Street towards Oxford Street from the parking garage driveway.

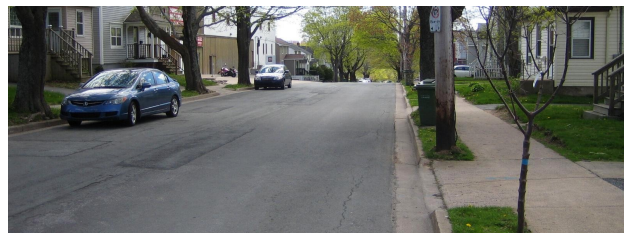


Photo 4 - Looking west on Young Street towards Connolly Street from the parking garage driveway.

Trip Generation estimates for the proposed and existing land uses, prepared using published trip generation rates from *Trip Generation, 9th Edition*, (Institute of Transportation Engineers, 2012), are included in Table 1.

Since the 14 existing buildings on the site (which include 8 single family dwellings, 20 apartment units and approximately 4,700 SF of commercial space) will be removed, trips now generated by the existing land uses which are included in background volumes around the site have been considered as a 'credit' when determining additional vehicle trips that will be generated by the redeveloped site.

It is estimated that the proposed mid-rise apartment building with ground level commercial space will generate about 47 two-way vehicle trips (18 entering and 29 exiting) during the AM peak hour and 70 two-way vehicle trips (37 entering and 33 exiting) during the PM peak hour. However, when trips generated by the existing 14 buildings on the site are considered as a credit, it is estimated that the redeveloped site will generate 28 additional two-way vehicle trips (10 entering and 18 exiting) during the AM peak hour and 41 additional two-way vehicle trips (21 entering and 20 exiting) during the PM peak hour.

Table 1 - Trip Generation Estimates for Proposed Development and Existing Land Uses									
Land Use ¹	Units ²	Trip Generation Rates ³				Trips Generated ³			
		AM Peak		PM Peak		AM Peak		PM Peak	
		In	Out	In	Out	In	Out	In	Out
Trip Generation Estimate for the Proposed Development									
Mid-Rise Apartment (Land Use 223)	113 units	0.09	0.21	0.23	0.16	11	23	26	19
Specialty Retail (Use Code 826) ⁴	9,450 KGLA	0.76	0.60	1.19	1.52	7	6	11	14
Trip Generation Estimates for Proposed Development						18	29	37	33
Trip Generation Estimate for the Existing Land Uses									
Single Family (Land Use 210)	8	0.19	0.56	0.63	0.37	2	4	5	3
Mid-Rise Apartment (Land Use 223)	20 units	0.09	0.21	0.23	0.16	2	4	5	3
Specialty Retail (Use Code 826) ⁴	4,700 KGLA	0.76	0.60	1.19	1.52	4	3	6	7
Trip Generation Estimates for Existing Site Buildings ⁵						8	11	16	13
Estimated Additional Trips Generated by the Redeveloped Site									
Additional Vehicle Trip Estimates for the Redeveloped Site ⁶						10	18	21	20
NOTES: 1. Rates are for the indicated Land Use Codes, <i>Trip Generation, 9th Edition</i> , Institute of Transportation Engineers, 2012. 2. KGLA is 'Gross Leasable Area x 1000 square feet'. 3. Rates are 'vehicles per hour per unit'; trips generated are 'vehicles per hour for peak hours'. 4. The Speciality Retail (Land Use 826) rate for 'Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 PM' has been used. Since there is no published rate for the AM peak hour of adjacent street for this Land Use, and since AM peak hour trips to Speciality Retail are generally low, AM trip rates have been assumed to be 50% of the PM rate with reversal of the directional split. 5. These are the trips generated by existing single family homes, residential apartment units and commercial space on the site which can be considered as a 'credit' for site trip generation estimates for the redeveloped site. 6. These are the estimated additional trips that will be generated by the redeveloped site after consideration of the 'credit' for trips generated by the existing land uses on the site.									

Trip Distribution - While the two parking garage levels for the approximately 127 parking spaces are interconnected by a ramp, 120 spaces (84%) are directly accessed by the Bayers Road driveway, and 27 spaces (16%) are directly accessed by the Young Street driveway. Traffic using the parking garage driveways will be distributed east and west on Bayers Road and Young Street, with the majority of trips expected to use the Bayers Road driveway.

Additional Adjacent Development - The 'Future Development' site shown on the site plan (Figure 2) is proposed as a multi-unit residential building with ground floor commercial space at 3090 Oxford Street in the southwest corner of the Bayers Road and Oxford Street intersection. That proposed development includes approximately 29 apartment units, 10,200 square feet of commercial space, and 29 underground parking spaces, with a parking garage driveway on Oxford Street.

Summary -

1. The proposed development west of Oxford Street with frontages on both Bayers Road and Young Street will include a multi-unit residential building with approximately 113 apartment units, 9,450 square feet of neighbourhood oriented commercial space, and approximately 127 underground parking spaces.
2. The development will be served by a driveways on Bayers Road at the west site boundary and Young Street at the east site boundary. Since the proposed building is set back from the sidewalk at both driveway locations, there is expected to be good visibility between drivers exiting the site and pedestrians on the sidewalk.
3. The site is now occupied by five buildings on Bayers Road, including two single family dwellings, two apartment buildings with a total of 12 units, and an approximately 4,700 square foot commercial building, The Young Street frontage is now occupied by nine buildings, including six single family dwellings and three apartment buildings (total eight units).
4. Site generated trips for the development include approximately 47 two-way vehicle trips (18 entering and 29 exiting) during the AM peak hour and 70 two-way vehicle trips (37 entering and 33 exiting) during the PM peak hour. However, when trips generated by the existing 14 buildings on the site are considered as a credit, it is estimated that the redeveloped site will generate 28 additional two-way vehicle trips (10 entering and 18 exiting) during the AM peak hour and 41 additional two-way vehicle trips (21 entering and 20 exiting) during the PM peak hour.
5. The site is well served by pedestrian facilities and transit services. There are sidewalks on all streets adjacent to the site and Halifax Transit provides service for several routes along Bayers Road with bus stops near the site. There is a marked school crosswalk with activated amber flashing beacons across Bayers Road at the east side of Connolly Street and pedestrian signals are included at the Bayers Road / Oxford Street intersection east of the site.
6. While traffic volumes are relatively high on Bayers Road (two-way volumes of 1,100 vehicles per hour (vph) during the AM peak hour and 1,160 vph during the PM peak hour), Young Street peak hour volumes are expected to be relatively low with approximately 200 vph in each of the AM and Pm peak hours.

7. A 'Future Development' of a 29 multi-unit residential building with approximately 10,200 square feet of ground floor commercial space is proposed east of the site at 3090 Oxford Street in the southwest corner of the Bayers Road and Oxford Street intersection.

Conclusions -

8. Since vehicle trips estimated to be generated by this site will be distributed east and west on both Bayers Road and Young Street, the low to moderate numbers of additional trips are not expected to have any significant impact to the level of performance of adjacent streets and intersections, or the regional street network.
9. Since vehicle trips generated by the proposed site, as well as the proposed development on Oxford Street, will be distributed on the local grid street system, traffic generated by the two sites is not expected to have a significant cumulative impact to traffic performance.
10. Since the site has good pedestrian connections, as well as good transit service on Bayers Road, it is possible that the numbers of site generated vehicle trips could be less than the estimated numbers.

If you have any questions or comments, please contact me by Email to ken.obrien@wspgroup.com or telephone 902-443-7747.

Sincerely:

ORIGINAL SIGNED

Ken O'Brien, P. Eng.
Senior Traffic Engineer
WSP Canada Inc.

