



August 31, 2021

Mr. Cesar Saleh, P. Eng.
VP Planning and Design
W.M. Fares Architects
3480 Joseph Howe Drive, 5th Floor
HALIFAX NS B3L 4H7

Sent via Email to cesar.saleh@wmfares.com
(Project 171-00927 Task 26)

RE: Traffic Impact Statement for Proposed Multi-Unit Residential Building with Ground Floor Commercial Space, 1200 and 1216 Cole Harbour Road, Dartmouth

Dear Mr. Saleh:

This is the Traffic Impact Statement (TIS) that you require for the Proposed Multi-Unit Residential Building with Ground Floor Commercial Space, 1200 and 1216 Cole Harbour Road, Dartmouth.

W. M. Fares Architects is preparing plans for a mixed use development on the south side of Cole Harbour Road between Perron Drive and John Stewart Drive. The west end of the site is vacant land and Cole Harbour Community Recreation Center building which will be demolished is at the east end of the site. The proposed development (Figure 1) will include approximately 88 apartment units, 18,500 square feet of commercial space, and 126 parking spaces (60 inside and 66 surface).

Description of Road and Site Accesses - Cole Harbour Road is a four lane street with continuous two-way left turn center lane adjacent to the site (Photos 1 to 4). The street has curb and sidewalk on both sides. There is a marked crosswalk with actuated flashing amber beacons just west of the Perron Drive intersection west of the site. The posted speed limit is 60 km/h.

Two driveways are planned for the site (Figure 1); one near an existing curb cut at the east end of the site for the outside parking lot (Photos 1 and 2) and another near an existing curb cut at the west end of the site for the inside parking level (Photos 3 and 4). Visibility is adequate on both Cole Harbour Road approaches to both proposed driveway locations. Also, since the building will be a minimum of six meters from the property line, there will be good visibility between exiting drivers and pedestrians on the sidewalk.

Traffic Volumes - Traffic count data obtained by HRM at the John Stewart Drive intersection just east of the site during November 2019 indicated Cole Harbour Road two-way volumes of 1430 vehicles per hour (vph) during the AM peak hour and 1460 vph during the PM peak hour.



Photo 1 - Looking west towards Perron Drive from the east driveway.



Photo 2 - Looking east towards John Stewart Drive from the east driveway.



Photo 3 - Looking west towards Perron Drive from the west driveway.



Photo 4 - Looking east towards John Stewart Drive from the west driveway.

Transit Service - There are bus stops for both directions of travel for Halifax Transit Route 401 just east of Perron Drive intersection at the west end of the site.

Trip Generation - Trip generation estimates have been prepared (Table 1) for the proposed land uses using published trip generation rates and equations from *Trip Generation, 10th Edition*, Institute of Transportation Engineers, 2017, except as noted. It has been assumed that the proposed approximately 18,500 SF of commercial space will be developed as 50% office and 50% retail. Trips generated by the existing building at the eastern end of the site which will be demolished have not been considered in the site review.

After consideration of a 15% reduction for non-auto trips, it is estimated that the proposed development will generate 51 two-way vehicle trips (25 entering and 26 exiting) during the AM peak hour and 73 two-way trips (36 entering and 37 exiting) during the PM peak hour.

Table 1 - Trip Generation Estimates for Proposed Development									
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
Estimated Trips Generated by Proposed Land Uses									
Mid-Rise Apartment (Land Use 221)	88 units	AM Peak Hour $\ln(T) = 0.98 \ln(x) - 0.98$ PM Peak Hour $\ln(T) = 0.96 \ln(x) - 0.63$				8	22	24	15
Small Office Building (Land Use 712)	9.25 KGFA	1.59	0.33	0.78	1.67	15	3	7	15
Specialty Retail (Land Use 826) ⁴	9.25 KGLA	0.76	0.60	1.19	1.52	7	6	11	14
Trip Generation Estimates for the Proposed Development						30	31	42	44
15% Reduction - Non-vehicle Trips ⁵						5	5	6	7
Adjusted Vehicle Trip Estimates for Proposed Development						25	26	36	37
NOTES: 1. Equations and rates are for indicated Land Use Codes, <i>Trip Generation, 10th Edition</i> , Institute of Transportation Engineers, 2017, except as noted. 2. Units are 'Number of Residential Units'; KGFA is 'Gross Floor Area x 1000 square feet'; 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. Since <i>10th Edition</i> does not have Specialty Retail, rates for Land Use 826 from the <i>9th Edition</i> have been used. Since there is no published rate for the AM peak hour for this Land Use, and since AM peak hour trips to Specialty Retail are generally low, AM trip rates have been assumed to be 50% of the PM rate with reversal of the directional split. 5. While the Halifax Integrated Mobility plan has a target for 26% non-auto trips within the Inner Suburban Region, a 15% reduction for non-auto trips has been used for this site to provide a more conservative auto trip generation estimate.									

Summary -

- The proposed development at 1200 and 1216 Cole Harbour Road will include approximately 88 apartment units, 18,500 square feet of commercial space, and 126 parking spaces (60 inside and 66 surface).
- Cole Harbour Road is a four lane street with continuous two-way center left turn lane adjacent to the site. The street has curb and sidewalk on both sides. There is a marked crosswalk with actuated flashing amber beacons just west of the Perron Drive intersection west of the site. The posted speed limit is 60 km/h.
- Two driveways are planned for the site; one near an existing curb cut at the east end of the site and another near an existing curb cut at the west end of the site. Visibility is adequate on both Cole Harbour Road approaches to both proposed driveway locations.

4. After consideration of a 15% reduction for non-auto trips, it is estimated that the proposed development will generate 51 two-way vehicle trips (25 entering and 26 exiting) during the AM peak hour and 73 two-way trips (36 entering and 37 exiting) during the PM peak hour.
5. A turning movement count obtained by HRM just east of the site during November 2019 indicated Cole Harbour Road two-way volumes of 1430 vehicles per hour (vph) during the AM peak hour and 1460 vph during the PM peak hour.
6. Halifax Transit Route 401 serves Cole Harbour Road past the site with existing bus stops for both directions of travel just east of Perron Drive intersection near the west end of the site.

Conclusion -

7. Since Cole Harbour Road peak hourly volumes are moderate for a four lane street and site generated trips are low to moderate, vehicle trips generated by the site are not expected to have any significant impact to the performance of the adjacent street, intersections, or the regional street network.

If you have any questions, please contact me by Email to ken.obrien@wsp.com or telephone 902-452-7747.

Sincerely,

Original Signed

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

