

August 7, 2019

Mr. Blaise Morrison
 Manager, Development & Planning
 The Armour Group Limited

[Via Email: bmorrison@armourgroup.com]

RE: Addendum - Traffic Impact Statement - Kings Wood Apartments, Dartmouth, NS

Dear Mr. Morrison:

This is an Addendum Traffic Impact Statement for the infill development at the site of Kings Wood Apartments at 1000 Micmac Boulevard in Dartmouth, NS (PID 40173627) that was previously reviewed in a September 2018 Traffic Impact Statement by WSP. This Addendum is required to account for the planned modifications to the configuration and number of residential units:

- The number of residential (apartment) units has been modified from 210 to 162.
- Previously the units were being developed in two (one 14-storey, one 8-storey) apartment buildings, however the development now includes one building only.

SITE DESCRIPTION AND PLANNED DEVELOPMENT

The site is currently developed with the existing Kings Wood Apartments building, containing approximately 130 units and approximately 130 spaces of surface parking for residents and visitors. The site is bounded by Micmac Boulevard in the north and east, existing apartment developments in the south, and HRM greenspace in the west.

The proposed development now includes the construction of one additional (15-storey) apartment building. No modifications are planned for the existing 130-unit apartment building (Kings Wood Apartments, See Figure 1). With development, there is expected to be approximately 198 parking spaces including surface and underground parking.



Figure 1 – Site Plan

DESCRIPTION OF EXISTING STREETS AND INTERSECTIONS

Micmac Boulevard (See Photos 1 and 2) is a 2-lane collector street that runs just north of the site and connects to Woodland Road, Mic Mac Mall, and Highway 111 (at Exit 5). Traffic volume data provided by HRM Traffic Management indicate the two-way volume on Micmac Boulevard in this area is approximately 340 and 810 vehicles during the AM and PM peak hours, respectively. NSTIR is currently reviewing this intersection in conjunction with HRM to develop options for safety and capacity modifications. In the vicinity of the site, there is concrete sidewalk on the south (site) side of the street. The posted speed limit is 50km/h.



Photo 1 - Looking Left (to the west) on Micmac Boulevard from the site access



Photo 2 - Looking right (to the east) on Micmac Boulevard from the site access

Horizon Court (See Photo 3) is a 2-lane private street that runs north from Micmac Boulevard and serves as a driveway for existing apartments.

The intersection of Micmac Boulevard at Horizon Court / Site Driveway (See Photos 1, 2, and 3) operates as a four-legged intersection with STOP control on Horizon Court and the site driveway with free flow traffic on Micmac Boulevard. There is an existing marked crosswalk crossing Micmac Boulevard at the east leg of the intersection.



Photo 3 - Looking north from the site toward Horizon Court

The intersection of Micmac Boulevard at Mic Mac Mall (the Bay) / Kings Wood Apartments (See Photo 4) is a four-legged signalized intersection with signalized pedestrian crossings at the north and east approaches.



Photo 4 - Looking west along Micmac Boulevard toward the signalized site access (the site is on the left)

SITE ACCESS

Vehicular access to the developed site will continue to be via the driveway at Micmac Boulevard opposite Horizon Court (See Photos 1 and 2) with secondary site access to Micmac Boulevard opposite the signals at Mic Mac Mall (near The Bay, See Photo 4). There is a shrub that should be removed or pruned and growth monitored to improve visibility of eastbound traffic on Micmac Boulevard approaching the Horizon Court access (See Photo 1).

PUBLIC TRANSIT

The site is well served by public transit with stops in each direction immediately in front of the site (See Photo 2). The site is also within 200 metres of the Micmac Terminal (See Photo 5) and its six Halifax Transit routes (#10, 54, 55, 56, 66, and 72).



Photo 5 – Looking east from the site toward the Micmac Terminal

It is noted that the existing bus stop (ID 7211) on the north (non-site) is not currently accessible as it lacks a bus stop pad and sidewalk connecting to the marked crosswalk at Horizon Court. As Micmac Boulevard is identified as a Transit Priority Corridor, HRM should install a bus stop pad at the existing stop location and add a sidewalk connection to the marked crosswalk at Horizon Court. This will benefit existing and ongoing developments in the area and align with the priorities of the IMP.

TRIP GENERATION

The following trip generation estimates for the existing planned development and the proposed revised number of apartment units are summarized in Table 1:

- Original Planned Development - Trip generation estimates for the original planned development include an estimated 76 two-way trips (20 entering and 56 exiting) during the AM peak hour and an estimated 92 two-way trips (56 entering and 36 exiting) during the PM peak hour.
- Revised Planned Development - Trip generation estimates for the revised development include an estimated 58 two-way trips (15 entering and 43 exiting) during the AM peak hour and an estimated 71 two-way trips (43 entering and 28 exiting) during the PM peak hour.
- Trip Reductions - The proposed changes in land use represents a decrease of an estimated 18 two-way trips (5 less entering and 13 less exiting) during the AM peak hour and a decrease of an estimated 21 two-way trips (13 less entering and 8 less exiting) during the PM peak hour.

Table 1 – Trip Generation Estimates

Land Use	Units ²	Trip Generation Rates				Trips Generated ³			
		AM Peak		PM Peak		AM Peak		PM Peak	
		In	Out	In	Out	In	Out	In	Out
Trip Generation Estimate for original Residential Development¹									
Multifamily Housing (Mid-Rise) (Land Use 221)	210	0.09	0.27	0.27	0.17	20	56	56	36
Trip Generation Estimate for revised Residential Development¹									
Multifamily Housing (Mid-Rise) (Land Use 221)	162	0.09	0.27	0.27	0.17	15	43	43	28
Reduction in trips generated by the revised development						-5	-13	-13	-8
Notes: 1. Trip generation rates are 'vehicles per hour per unit' for the indicated land use, prepared using published rates from <i>Trip Generation, 10th Edition</i> (Institute of Transportation Engineers, Washington, 2017). 2. Units are number of residential units. 3. Vehicles per hour for peak hours									

With the proposed site expecting to be generate less than 100 peak hour trips in either peak hours, the development will have little to no effect on nearby intersections.

SUMMARY

1. This *August 2019 Addendum Traffic Impact Statement* has been prepared to review changes to the proposed residential / commercial development since development plans were submitted to HRM in September 2018.
2. While previously submitted development plans included two apartment buildings (14 storey and 8 storey) with a combined 210 apartment units, the revised land use considered in this Addendum includes one building with 162 apartment units.
3. Vehicular access to the site will continue to be from Micmac Boulevard opposite Horizon Court. Access to the existing apartments within the site will continue to be via the driveway at Horizon Court and at the signalized intersection at Mic Mac Mall.
4. Trip generation estimates for the revised development include about 58 two-way trips (15 entering and 43 exiting) during the AM peak hour and 71 two-way trips (43 entering and 28 exiting) during the PM peak hour. This represents a decrease of 18 two-way trips (5 less entering and 13 less exiting) during the AM peak hour and a decrease of 21 two-way trips (13 less entering and 8 less exiting) during the PM peak hour.

RECOMMENDATIONS

5. HRM and NSTIR should continue to work together in their review and investigation of options to provide safety and capacity modifications for the nearby Woodland Avenue at Micmac Boulevard / Lancaster Drive intersection and include surrounding developments within their review.
6. HRM should install a bus stop pad at the existing stop location and add a sidewalk connection to the marked crosswalk at Horizon Court.

CONCLUSION

7. With convenient access to transit (Micmac Terminal) and adjacent shopping (Mic Mac Mall), the trips generated by the proposed apartment units are not expected to have a significant impact on the level of performance of Mic Mac Boulevard or on other nearby streets and intersections.

If you have any questions or comments, please contact me by email at courtney.mccarthy@wsp.com or by telephone at 902-536-0982.

Sincerely,

Original Signed

Courtney McCarthy, P.Eng.
Traffic & Transportation Engineer
WSP Canada Inc.