Ref. No. 171-00095

March 2, 2017

Maggie Holm
Principal Planner, Urban Enabled Applications
Halifax Regional Municipality
40 Alderney Drive, 2nd Floor
Dartmouth, NS B3J 3A5 *[Via Email: holmm@halifax.ca]*

RE: Traffic Impact Statement, Proposed Residential Development
59 Kearney Lake Road, Halifax, NS

Dear Ms. Holm:

Plans are being prepared for a multi-unit residential building at 59 Kearney Lake Road in Halifax, NS (See Figure 1). The proposed development, a 40-unit apartment building, will be completed on two existing parcels (PID 00325795 / PID 40045724), one of which is presently occupied by a single family dwelling. This is the Traffic Impact Statement (TIS) required to accompany the Pre-Application for Land Use By-law Amendment.

Site Description- The proposed development site comprises two parcels (Civic 59 and Parcel 397) (Figure 2). There is currently a single family home located at Civic 59 that will be demolished as part of the development, while Parcel 397 is unoccupied. The driveway for the development will be located at approximately the same location as the existing driveway at Civic 59 near the west end of the site.

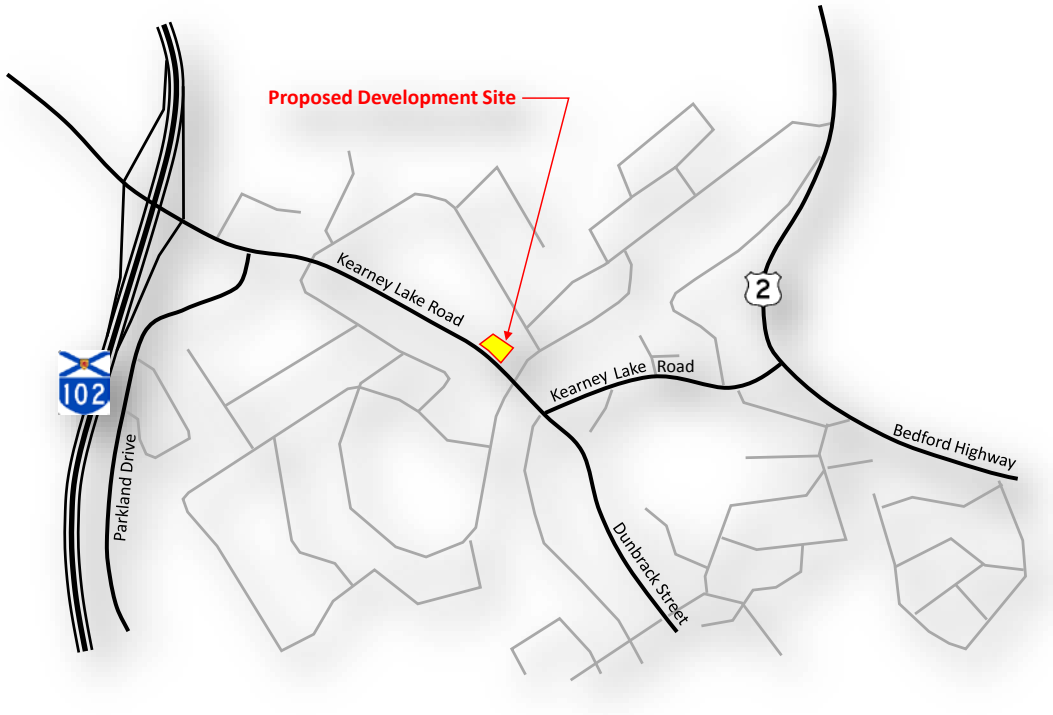

Figure 1: Proposed Development Site

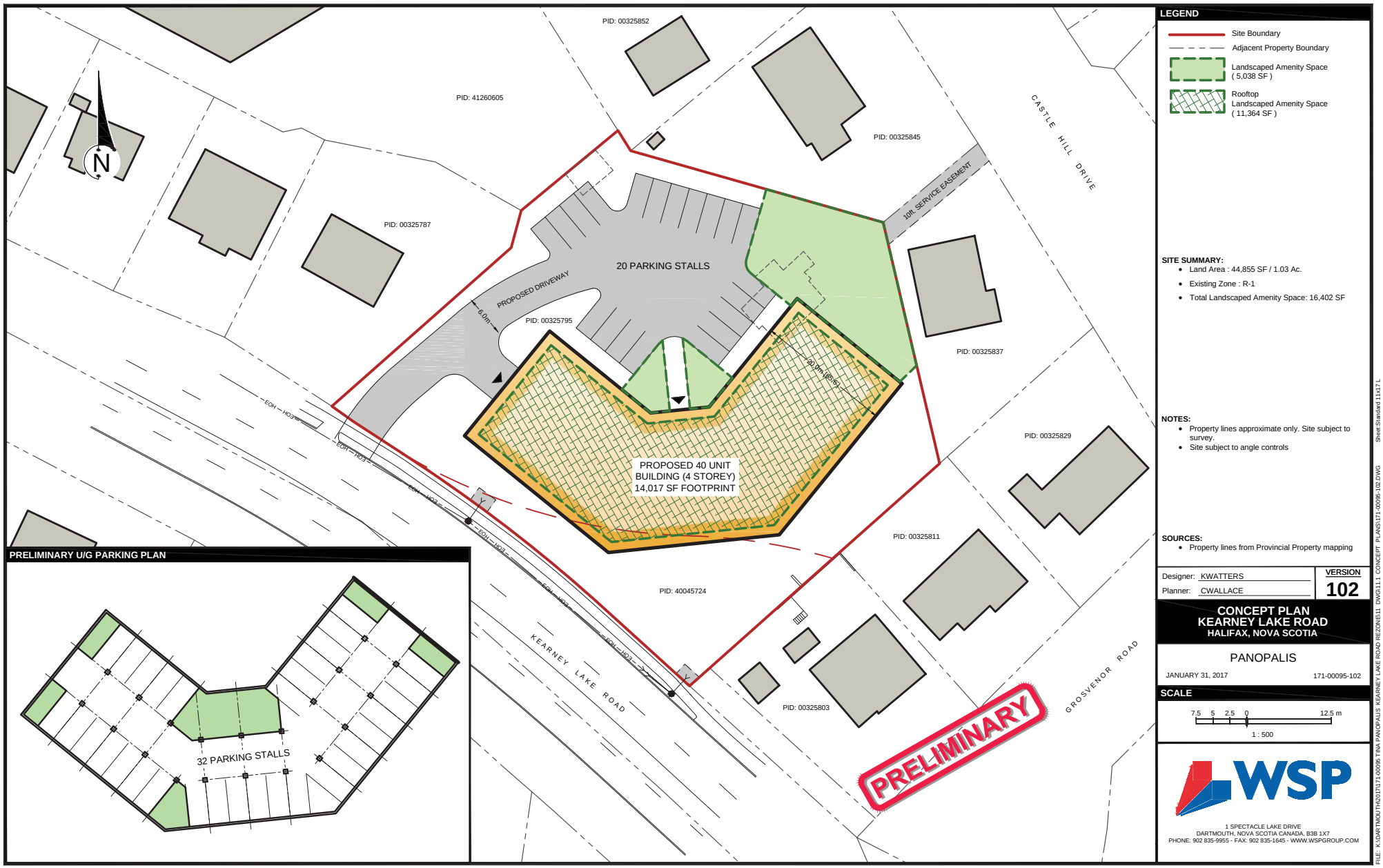

Figure 1: Site Concept Plan

Description of Proposed Development – The proposed development is a four-storey, 40-unit apartment building (See Figure 2). The apartment building will include one level of underground parking (32 spaces) as well as an approximately 20-space surface parking lot.

Street Description– Kearney Lake Road is a collector street that runs approximately 4km between the Bedford Highway and Larry Uteck Boulevard. Adjacent to the proposed development, it has two traffic lanes in each direction with curb and sidewalk on both sides of the street (Photo 1). Machine counts collected by HRM on Kearney Lake Road in the vicinity of the proposed development during June 2015 indicate 2-way average annual weekday traffic (AAWT) volumes of 16,200 vehicles per day (vpd). The posted speed limit is 50km/h.

Photo 1: Looking east on Kearney Lake Road

Description of Site Access – Access to the development is proposed via a driveway at the west end of the site in the vicinity of the existing site driveway. The driveway, located approximately 200m west of Dunbrack Street (Photo 3 and Photo 4), is located just east of a vertical crest in the road profile that creates an approximate downhill grade of 3% (eastbound approach) and uphill grade of 6% (westbound approach) on Kearney Lake Road at the driveway. Stopping sight distance (SSD), measured from a driver eye height of 1.05 m to a 150 mm object, was observed on both approaches to the driveway. Results of the SSD investigation are summarized below:

- Measurements recorded for the eastbound approach to the site driveway indicate 76m of available SSD, which exceeds the 75m required for an approach speed of 55km/h on a -3% (downhill) grade; and,
- Measurements recorded for the westbound approach to the site driveway indicate 78m of available SSD, which exceeds the 77m required for an approach speed of 60km/h on a +6% (uphill) grade.

Photo 2: Proposed driveway location at 59 Kearney Lake Road

Photo 3: Looking to the left (east) from the proposed site driveway

Photo 4: Looking to the right (west) from the proposed site driveway

Trip Generation **–** Trip generation estimates, prepared using published rates from *Trip Generation, 9th Edition* (Institute of Transportation Engineers, 2012), are summarized in Table 1. It is estimated that the 40 apartment units will generate about 20 2-way vehicle trips (4 entering and 16 exiting) during the AM peak hour and 25 2-way vehicle trips (16 entering and 9 exiting) during the PM peak hour.

Table 1 - Trip Generation Estimates

Land Use [1]	Units	Trip Generation Rates[2]				Trips Generated[2]			
		AM Peak		PM Peak		AM Peak		PM Peak	
		In	Out	In	Out	In	Out	In	Out
Apartment (ITE 220)	40	0.10	0.41	0.40	0.22	4	16	16	9
Total Estimated Trips						4	16	16	9

Notes: 1. Land use codes are from *Trip Generation, 9th Edition, Institute of Transportation Engineers, 2012.*
2. Trip generation rates are 'vehicles per hour per unit.'. Trips generated are 'vehicles per hour' for AM and PM peak hours.

Transit **–** Halifax Transit operates bus routes 2 (Wedgewood), 16 (Parkland), 33 (Tantallon Express) and 86 (Basinview Express) near the site on Kearney Lake Road. There is a westbound stop located approximately 200m west of the site and an eastbound stop near the east end of the site.

Summary and Conclusions **–**

1. Plans are being prepared for a 40-unit apartment building at 59 Kearney Lake Road in Halifax, NS. The proposed development will be completed on two existing parcels at 59 Kearney Lake Road, which is currently occupied by a single family home.

2. Vehicular access to the proposed development will be via a driveway on Kearney Lake Road located approximately 200m west of Dunbrack Street. Stopping sight distances on both approaches to the proposed driveway were observed to be adequate based on observed approach grades and an approach speed of 55km/h.

3. It is estimated that the 40 apartment units will generate a total of 20 2-way vehicle trips (4 entering and 16 exiting) during the AM peak hour and 25 2-way vehicle trips (16 entering and 9 exiting) during the PM peak hour.

4. Given the limited number of apartment units being proposed and good connectivity to higher order streets and transit, site generated trips are not expected to significantly impact levels of performance on the adjacent streets and intersections.

If you have any questions or comments, please contact me by email at mike.connors@wspgroup.com or by telephone at 902-835-9955 (extension 385).

Sincerely:

Original Signed

Mike Connors, P. Eng.
Transportation Engineer
WSP Canada Inc.

Original Signed

Carly MacEacheron, EIT
Traffic Engineer-in-Training
WSP Canada Inc.