South Park Towers Redevelopment
Traffic Impact Statement

August 2015

Prepared for

Servant Dunbrack McKenzie & MacDonald Ltd

JRL consulting

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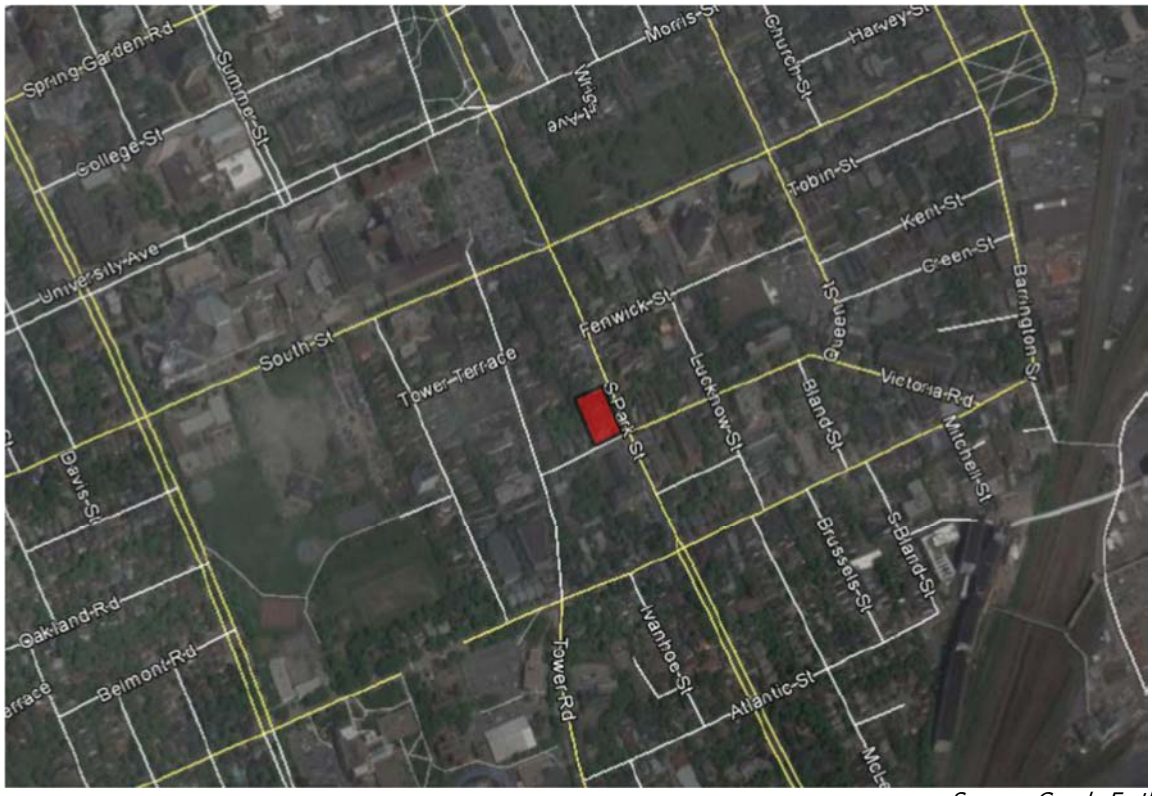
1 Introduction

1.1 Background

Servant Dunbrack McKenzie & MacDonald Ltd. in conjunction with Kassner Goodspeed Architects Ltd. Limited are working on a proposal to redevelop the existing South Park Towers apartment building at the northwest corner of the intersection of South Park Street and Victoria Road in Halifax, Nova Scotia. Exhibit 1.1 shows the site in red in the context of the surrounding area in the south end of Halifax.

Exhibit 1.1 – Proposed Redevelopment of South Park Towers in Halifax, Nova Scotia



Source: Google Earth

The existing South Park Towers has a total of 56 apartments while the two adjacent properties that will be redeveloped include a single family home as well as a triplex.

The proposed redevelopment will retain a total of 51 apartment units in the existing building with an additional 35 apartment units plus 5,600 sqft commercial space on the ground floor that will likely be a café or restaurant. A total of 65 parking spaces will be provided on site with a combination of underground parking (48) and surface parking (17).

Refer to the following exhibits of concept floor plans of the proposed development in Halifax, Nova Scotia as provided by Servant Dunbrack McKenzie & MacDonald Ltd and Kassner Goodspeed Architects Ltd as well as a photos of the existing buildings including South Park Towers.

Exhibit 1.2 – South Park Towers Redevelopment Area of Impact

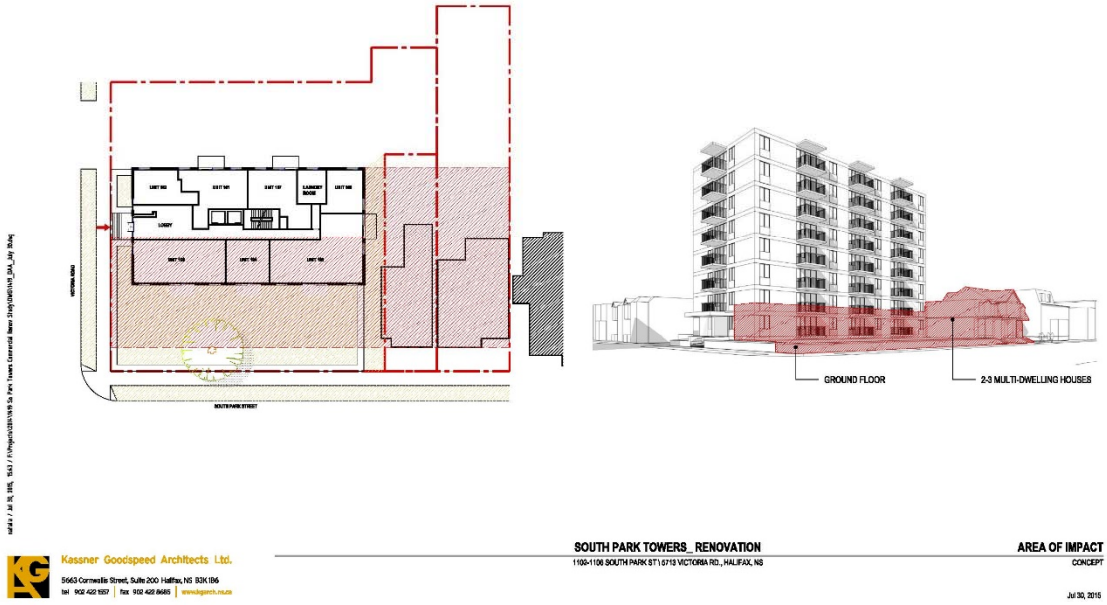


Exhibit 1.3 – South Park Towers Redevelopment Rendering

Exhibit 1.4 – South Park Towers Redevelopment Existing Ground Floor Plan

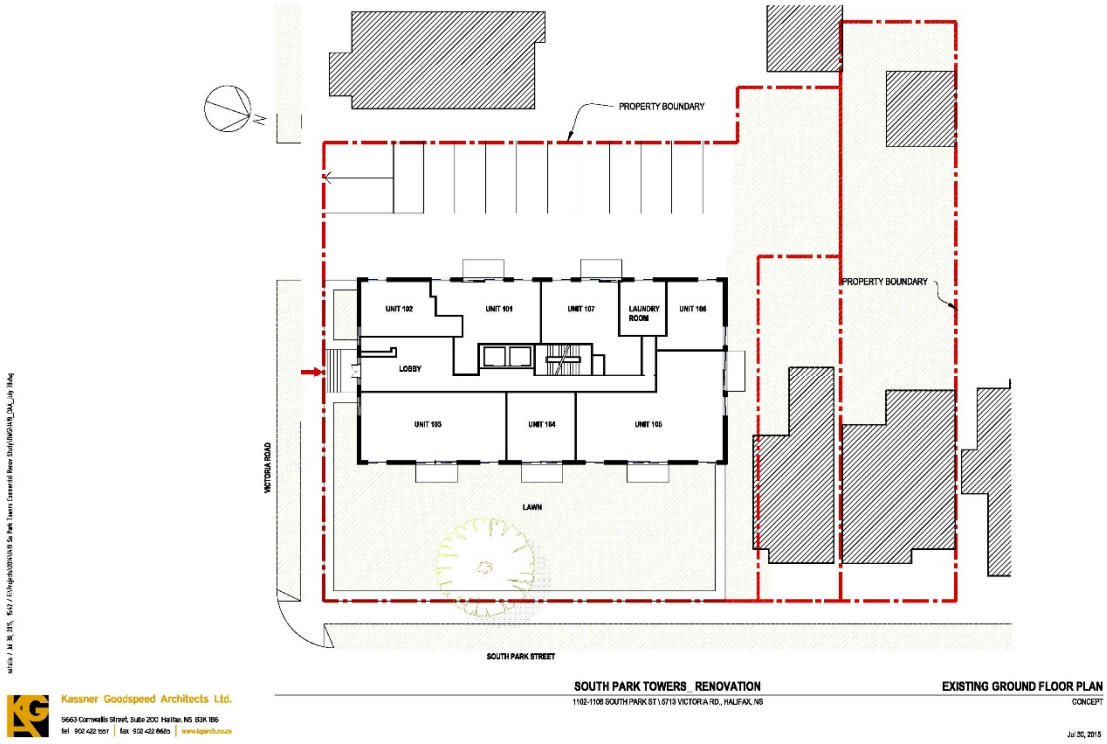


Exhibit 1.5 – South Park Redevelopment Proposed Site and Roof Plan

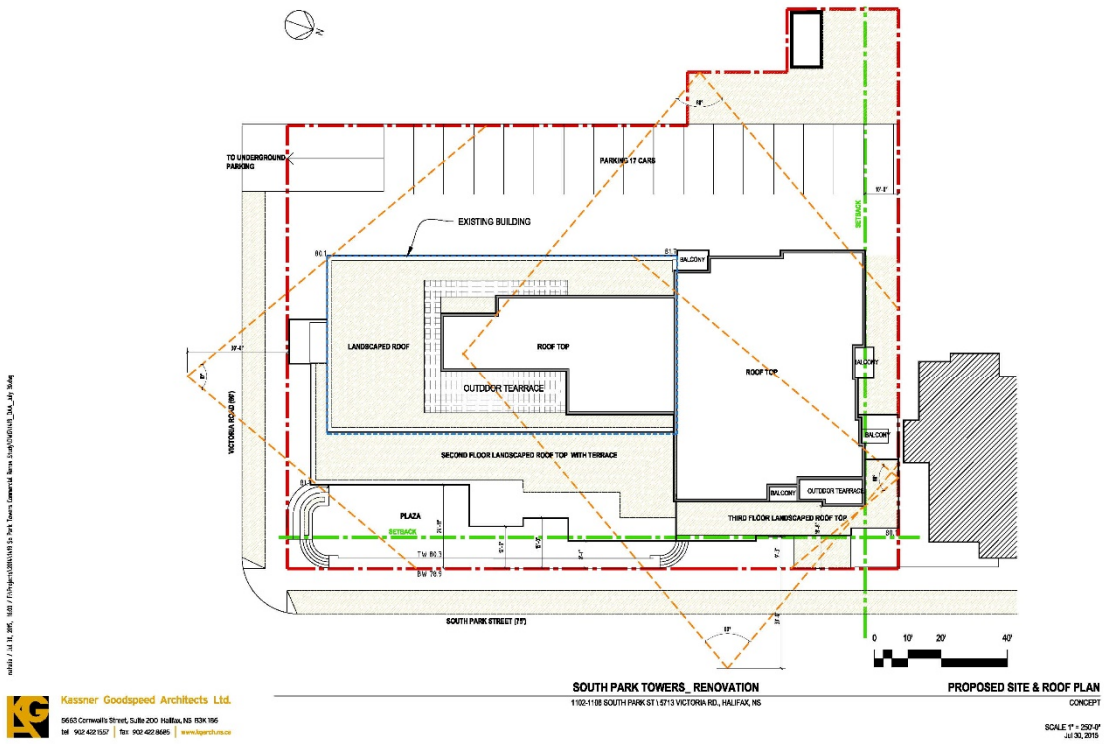


Exhibit 1.6 – South Park Towers Redevelopment Proposed Basement Floor Plan

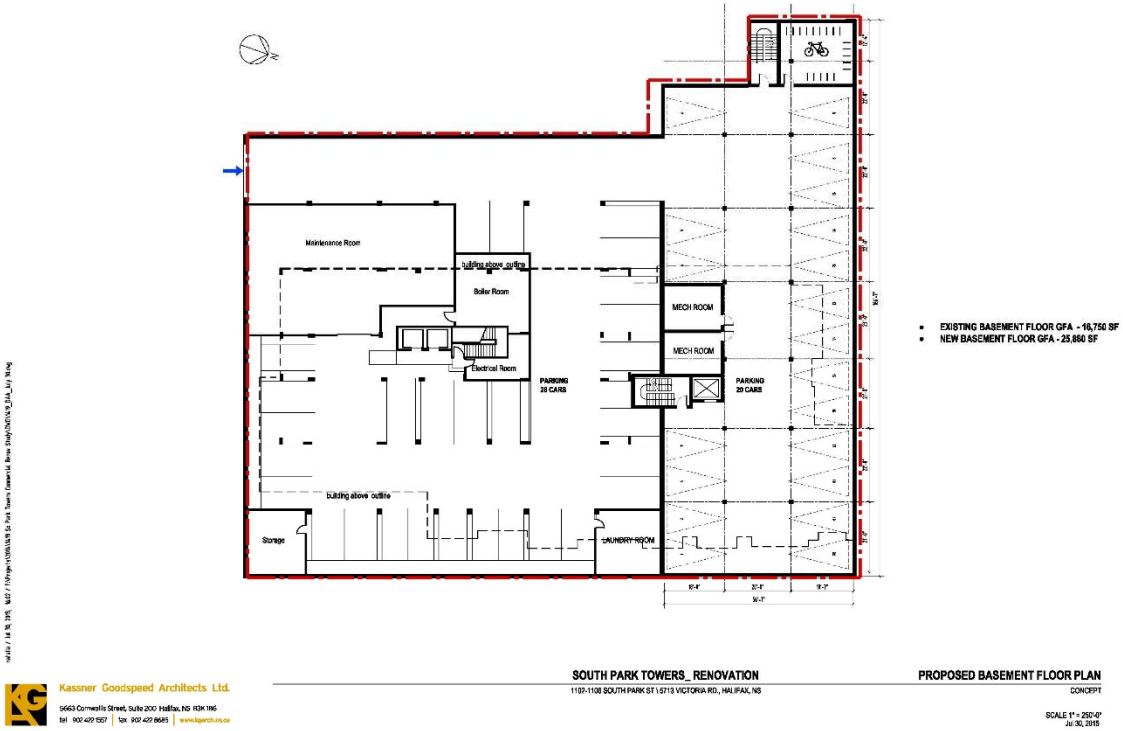


Exhibit 1.7 – South Park Towers Redevelopment Proposed Ground Floor Plan

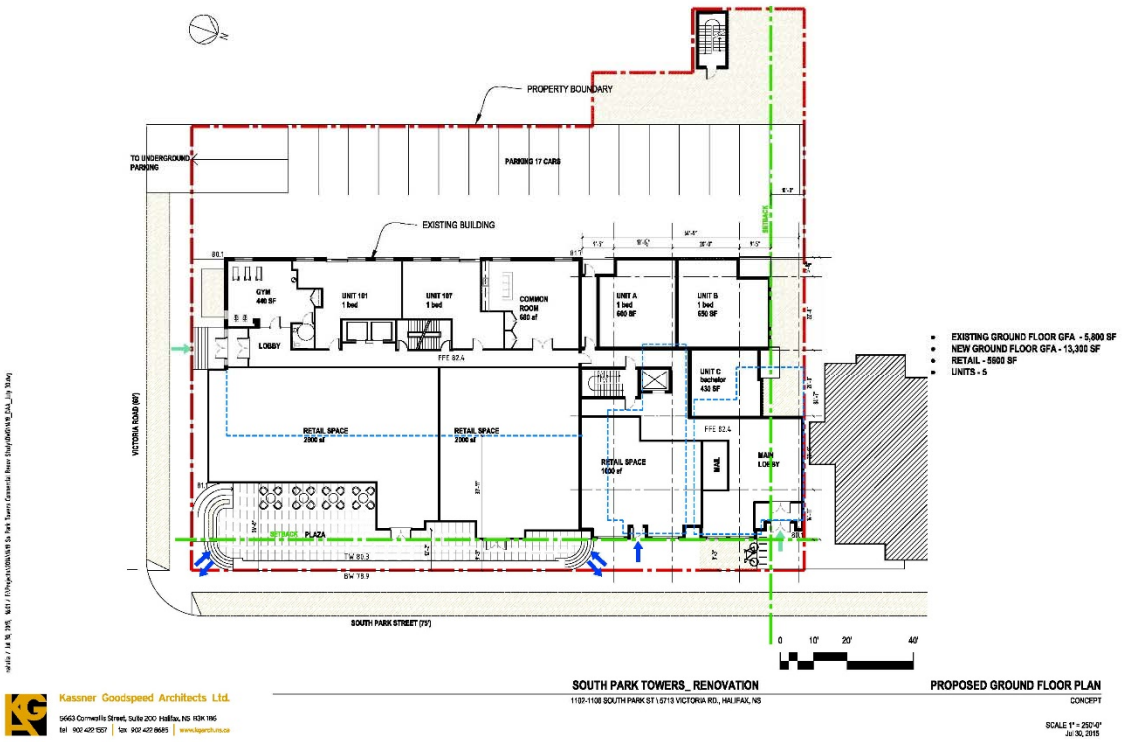


Exhibit 1.8 – South Park Towers Redevelopment Proposed Second Floor Plan

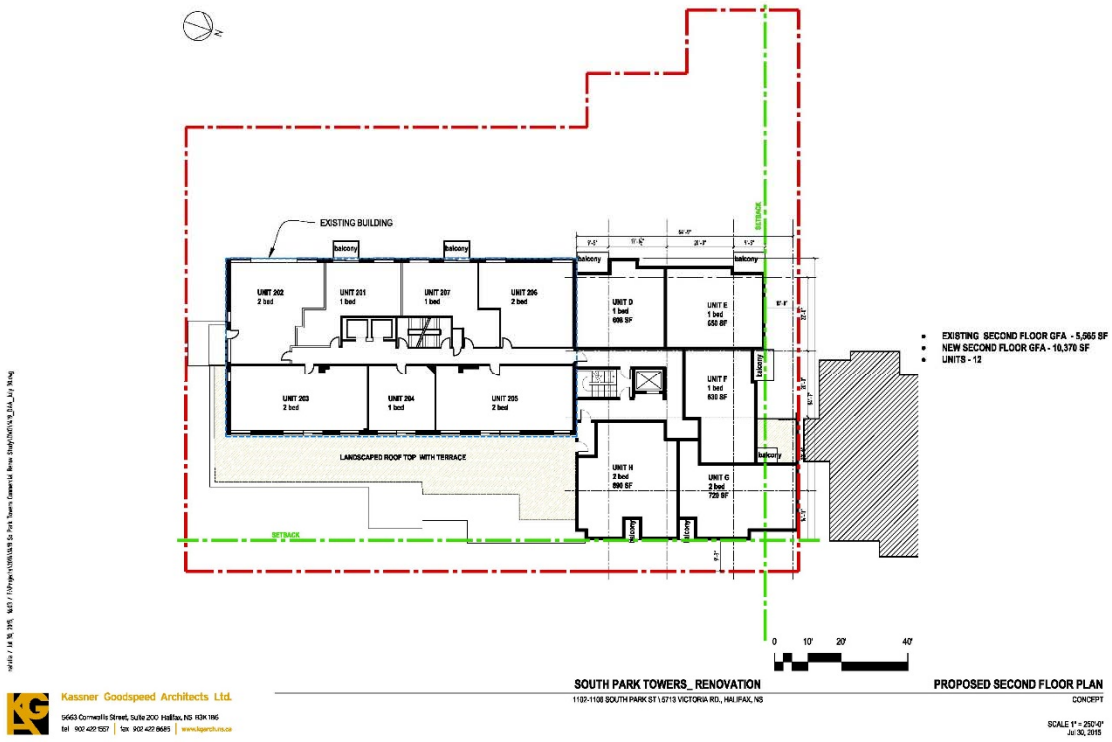


Exhibit 1.9 – South Park Towers Redevelopment Proposed Third Floor Plan

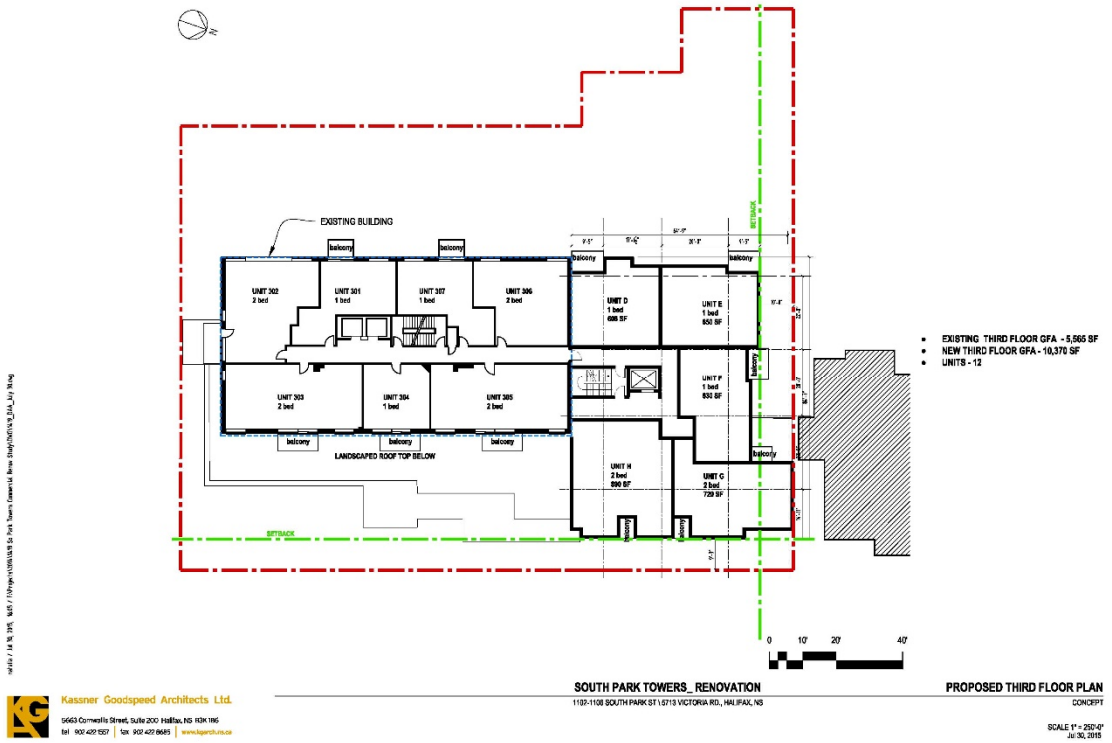


Exhibit 1.10 – South Park Towers Redevelopment Proposed 4-8 Floor Plan

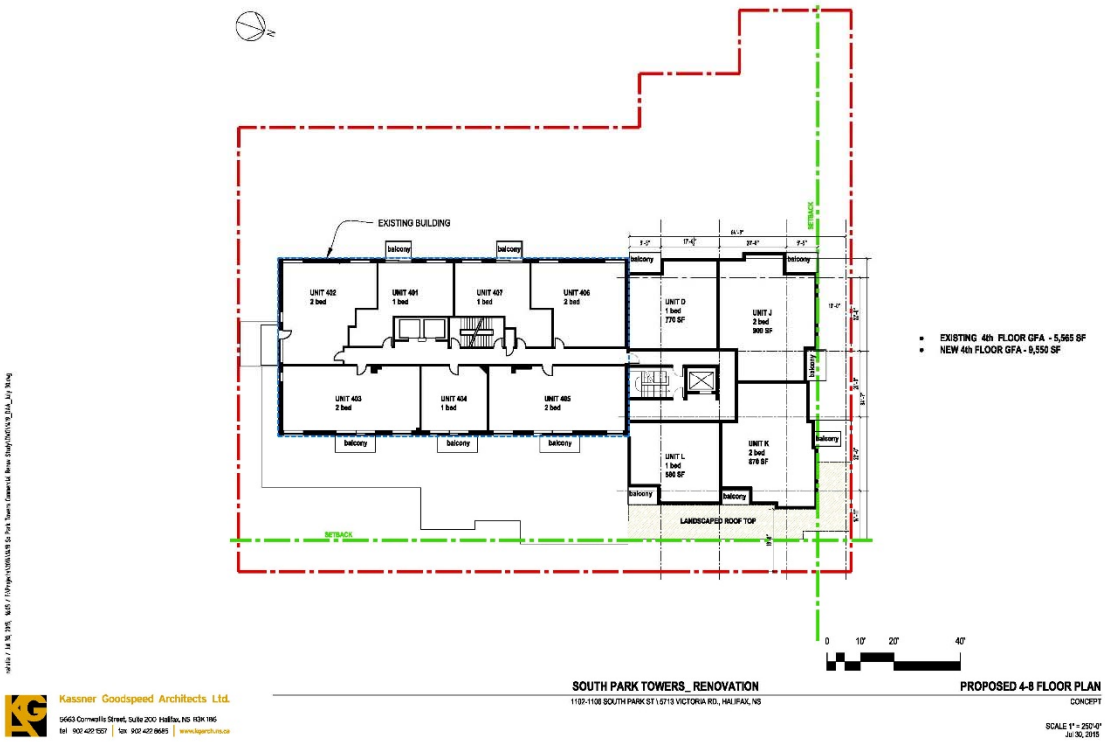


Exhibit 1.11 – South Park Towers Redevelopment Proposed Ninth Floor Plan

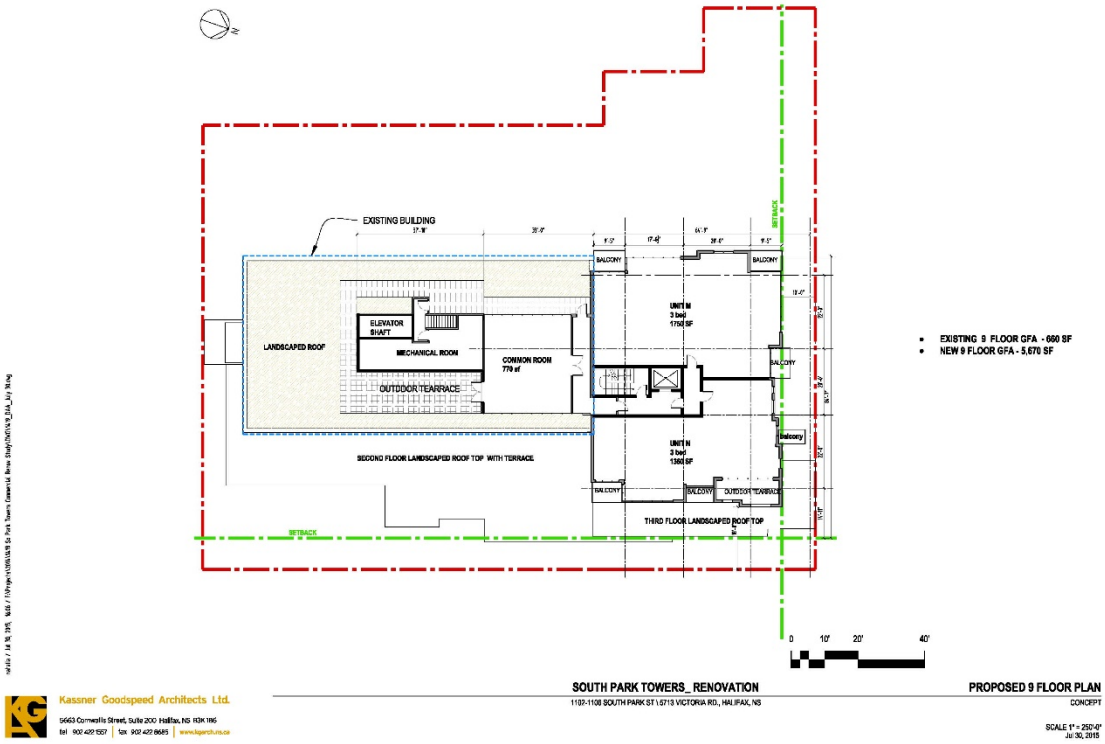


Exhibit 1.12 – Existing South Park Towers

Exhibit 1.13 – Existing South Park Towers and Adjacent Single Family Home and Triplex

JRL consulting inc. was retained by SDMM to prepare a Traffic Impact Statement (TIS) to assess the potential traffic impacts of the proposed redevelopment of South Park Towers in Halifax, Nova Scotia.

The purpose of a Traffic Impact Statement is to provide a high level overview of a proposed development including estimates of site-generated traffic along with an initial review of existing traffic counts in the general area of the proposed development. This information will form part of the initial application to HRM which will be reviewed by staff and council. We are pleased to submit this report which summarizes our findings and provides the information required by HRM for review.

2 Existing Traffic Conditions

2.1 Description

The principal routes affected by this proposed development are South Park Street and Victoria Road. Exhibit 2.1 summarizes HRM's Characteristics of Street Classes from HRM's Municipal Service Systems Design Guidelines.

Exhibit 2.1 - HRM Characteristics of Street Classes

Characteristic	Arterial Street	Major Collector	Minor Collector	Local Industrial	Local Street
1. Traffic Service Function	First Consideration	Traffic movement primary consideration, land access secondary consideration, some parking	Traffic movement of equal importance with land access, parking permitted	Traffic movement secondary consideration with land access primary consideration, parking permitted	Traffic movement secondary consideration with land access primary consideration, parking permitted
2. Land Access Function	Limited Access with no parking				
3. Range of design traffic average daily volume	More than 20,000	12,000 to 20,000 or more	Up to 12,000	Less than 3,000	Less than 3,000
4. Characteristics of traffic flow	Uninterrupted flow except at signals; w/ pedestrian overpass	Uninterrupted flow except at signals and crosswalks	Interrupted flow	Interrupted flow	Interrupted flow
5. Average running speed in off-peak conditions	50-70 km/hr	40-60 km/hr	30-50 km/hr	15-30 km/hr	15-30 km/hr
6. Vehicle types	All types	All types but trucks may be limited	All types with truck limitation	All types	Passenger and service vehicles, transit buses; large vehicles restricted
7. Connects to	Expressways, arterials, major collectors, minor collectors	Expressways, arterials, major collectors, minor collectors, some locals	Arterials, major collectors, minor collectors, locals	Some major collectors, minor collectors, locals	Some major collectors, minor collectors, locals

South Park Street is a major collector that runs from Sackville Street to Inglis Street in the south end of Halifax. It provides access to apartments, restaurants, hospitals, parks and many residential homes near the proposed development. There are concrete sidewalks built to HRM specifications on both sides of South Park Street. The posted speed limit is 50km/hr.

Victoria Road is a local road that runs from Tower Road to Inglis Street in the south end of Halifax. It provides access to apartments and residential homes in the area. There are concrete sidewalks built to HRM specifications on both sides Victoria Road. The posted speed limit is 50km/hr.

Refer to Exhibit 2.2 for photos of the Study Area around the proposed redevelopment of the South Park Towers apartment building in Halifax, Nova Scotia.

Exhibit 2.2 – Study Area Photos

South Park Street looking north with South Park Towers on left

South Park Street looking south at Victoria Road

Victoria Road looking east at South Park Street

Victoria Road looking west at South Park Street

South Park Street looking south with South Park Towers on right

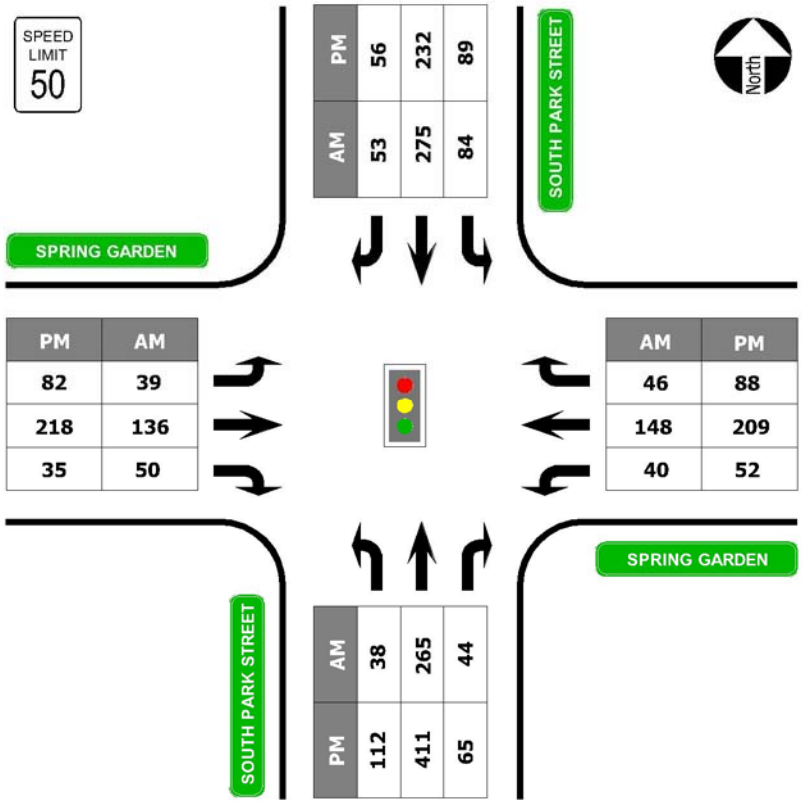
South Park Towers from Victoria Road

2.2 Existing Traffic Volumes

We completed a site review of the proposed development and analyzed the existing transportation network in the general area which includes South Park Street and Victoria Road.

We checked with HRM for recent counts at the South Park Street/Victoria Road intersection but they didn't have any data for that intersection. HRM did provide 2010 manual traffic counts at the signalized Spring Garden Road at South Park Street intersection which is located approximately 750 meters north of the proposed redevelopment for another traffic statement completed by JRL consulting. We applied a 2% annual growth factor to estimate the traffic at this intersection in 2015 as summarized in Exhibit 2.3.

Exhibit 2.3 – Spring Garden Road at South Park Street Estimated Traffic Volumes 2015



2.3 Existing Trip Distribution

HRM counts at the Spring Garden Road/South Park Street intersection provide an indication of trip distribution at that intersection which may apply near the proposed development located to the south on South Park Street. With multiple route options for residents living in the area we do expect traffic volumes on South Park Street to be relatively balanced though we do expect more traffic heading north in the morning to work and other destinations in the AM peak hour.

2.4 Transit and Pedestrians

The study area is well serviced by Metro Transit through major transit routes 10, 14, 17 and 18 as shown in Exhibits 2.4 through 2.7. There are concrete sidewalks on both sides of South Park Street and Victoria Road near the proposed development and the area is pedestrian friendly including a marked RA-5 crosswalk on South Park Street at Victoria Road.

Exhibit 2.4 – Halifax Transit Route 10 Dalhousie Map

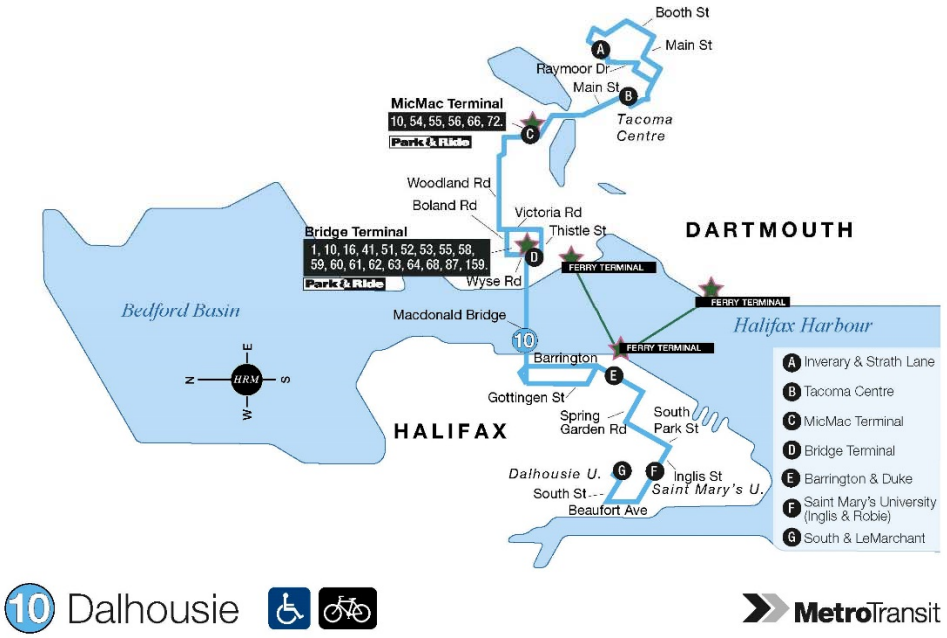


Exhibit 2.5 – Halifax Transit Route 14 Leiblin Park Map

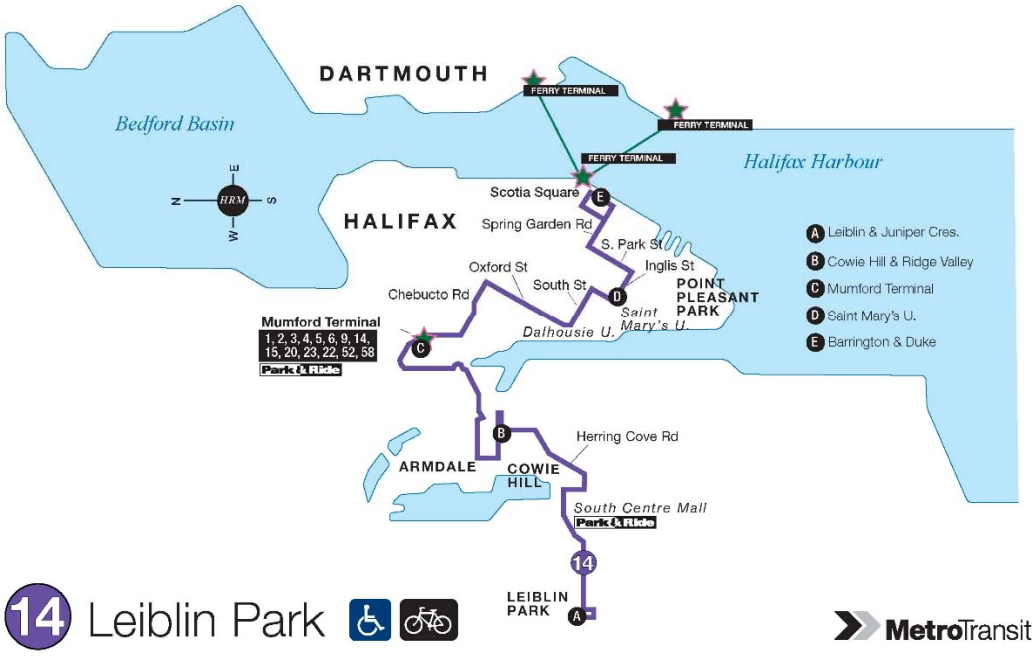


Exhibit 2.6 – Halifax Transit Route 17 Saint Mary's Map

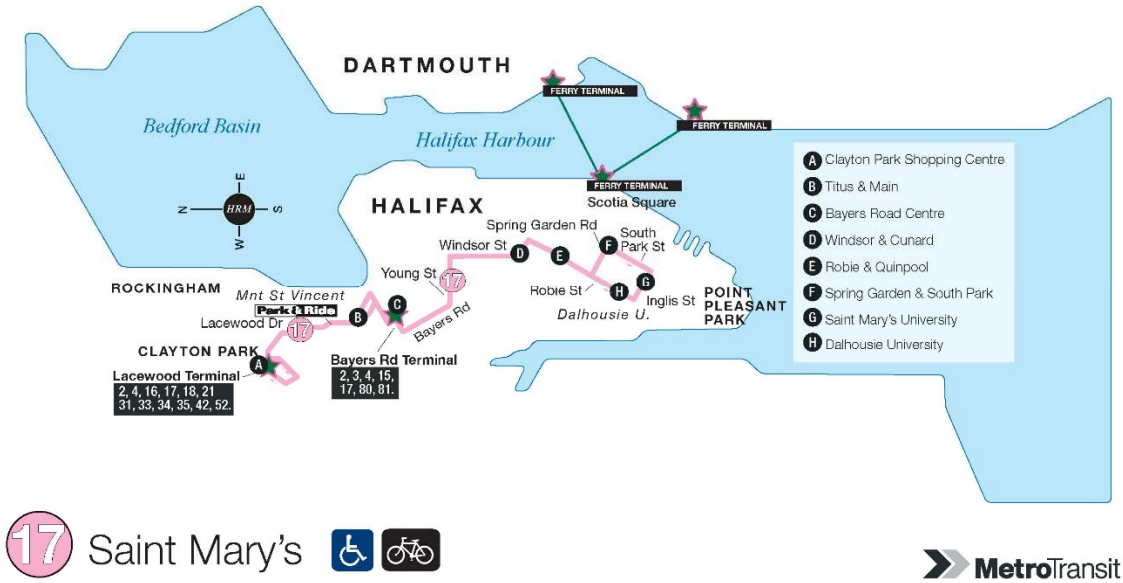


Exhibit 2.7 – Halifax Transit Route 18 Universities Map

3 Site Generated Traffic

3.1 Trip Generation

The proposed redevelopment will retain a total of 51 apartment units in the existing building with an additional 35 apartment units plus 5,600 sqft commercial space on the ground floor that will likely be a café or restaurant.

It will replace the existing South Park Towers has a total of 56 apartments while the two adjacent properties that will be redeveloped include a single family home as well as a triplex.

We assessed the theoretical net increase in traffic that will be generated by the proposed redevelopment by estimating trips generated today by the existing development

We completed trip generation estimates using equations provided in Institute for Transportation Engineer's Trip Generation Manual Ninth Edition. We used the following ITE Land Use Codes to assess site generated trips for the existing site and proposed developments.

- ITE Land Use 210 Single Family Detached Housing

"Single-family detached housing includes all single-family detached homes on individual lots. A typical site surveyed is a suburban subdivision." The unit of measurement for average vehicle trip ends is dwelling units.

- ITE Land Use 220 Apartment

"Apartments are rental dwelling units that are located within the same building with at least three other dwelling units, for examples quadraplexes and all types of apartment buildings." The unit of measurement for average vehicle trip ends is dwelling units.

- ITE Land Use 933 High Turnover (Sit-Down) Restaurant

"Consists of sit-down, full service easting establishments with typical duration of stay of approximately one hour. This type of restaurant is usually moderately priced and frequently belong to a restaurant chain. Generally, these restaurants serve lunch and dinner; they may also be open for breakfast and are sometimes open 24 hours a day." The unit of measurement for average vehicle trip ends is 1,000 Square Feet Gross Floor Area.

Exhibit 3.1 – Existing Estimated Site Generated Traffic Volumes at South Park Towers

LAND USE	QUANTITY	AM PEAK			PM PEAK		
		TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT
Single Family Detached Housing	1	1	25%	75%	1	63%	37%
				1		1	
Apartments	59	33	20%	80%	50	65%	35%
			7	26		33	18
TOTAL		**34**	**7**	**27**	**51**	**33**	**18**

Exhibit 3.2 – Future Estimated Site Generated Traffic Volumes at South Park Towers

LAND USE	QUANTITY	AM PEAK			PM PEAK		
		TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT
Apartments	86	46	20%	80%	65	65%	35%
			9	37		42	23
High Turnover Restaurant	5,600 sqft	61	55%	45%	55	60%	40%
			33	27		33	22
TOTAL		111	42	64	120	75	45

The addition of 27 residential apartment units at this location has the potential to reduce traffic entering the Halifax Peninsula as the location will promote use of transit, walking and cycling. This location may also attract tenants without vehicles as a result of its close proximity to transit and other services within walking distance including downtown Halifax which could generate less traffic than estimated.

An urban infill development like this as proposed has the potential to generate significantly less traffic that ITE rates would estimate as we expect the proposed restaurant/café component to attract the majority of its customers from people who already live and work in the general area so these are not net new site generated trips.

The potential estimated net variance in traffic by the proposed redevelopment of South Park Towers is summarized in Exhibit 3.3.

Exhibit 3.3 – Estimated Net New Future Traffic Volumes South Park Towers

LAND USE	QUANTITY	AM PEAK			PM PEAK		
		TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT
TOTAL		73	36	37	69	42	27

3.2 Pass By Trips

We expect that the commercial component of the proposed development will attract a significant portion of its trips from the existing traffic passing by the site. These pass-by trips do not add new traffic to the surrounding transportation network; however, they are included in the traffic volumes entering and exiting the site. Essentially, pass-by trips are intermediate stops of a trip that already exists on the transportation network. They are not diverted from another roadway. For example, ITE estimates that a High Turnover Restaurant has an average of 43% pass-by trips in the PM peak.

4 Conclusions and Recommendations

- This Traffic Impact Statement has provided a high level overview of the proposed redevelopment of South Park Towers at the northwest corner of the South Park Street/Victoria Road intersection in Halifax, Nova Scotia.

- It includes an estimate of existing site generated trips; total new site generated trips as well as an analysis of existing traffic volumes in the surrounding area.

- An urban infill development like this as proposed has the potential to generate significantly less traffic that ITE rates would estimate as we expect the proposed restaurant/cafe to attract the majority of its customers from people who already live and work in the general area so these are not net new site generated trips.

- The residential component of the proposed redevelopment has potential to reduce traffic entering the peninsula if it attracts residents who currently live off the peninsula and work in this area. The close proximity to numerous key transit routes may reduce the estimated traffic generated by the apartment units as provided in this report.

- Based on ITE Trip Generation Rates, we estimate that the proposed redevelopment of South Park Towers will generate an additional 73 vehicle trips in the AM peak hour and an additional 69 vehicle trips in the PM peak hour after our analysis of the estimated trips generated by the existing buildings in comparison to the estimated future site generated traffic. These totals do not include an adjustment for pass-by-trips.

- Site generated traffic will most likely follow existing trip distribution patterns along South Park Street and Victoria Road in the AM and PM peak hours.

- The site is located close to major transit links and in a pedestrian and bicycle friendly area so it fits well with HRM's Active Transportation Program that aims to help residents bike, walk and use other human power ways to move around the city.