

***Application for Rezoning from R-1 (Single Family Residential) to R-3  
(Multiple Family Residential- Medium Density)***

***Lancaster Drive/Woodland Avenue/Cannon Terrace-Dartmouth***

***First Baptist Church- Dartmouth***

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***January 5, 2018***

***Shelley Dickey Land Use Planning***

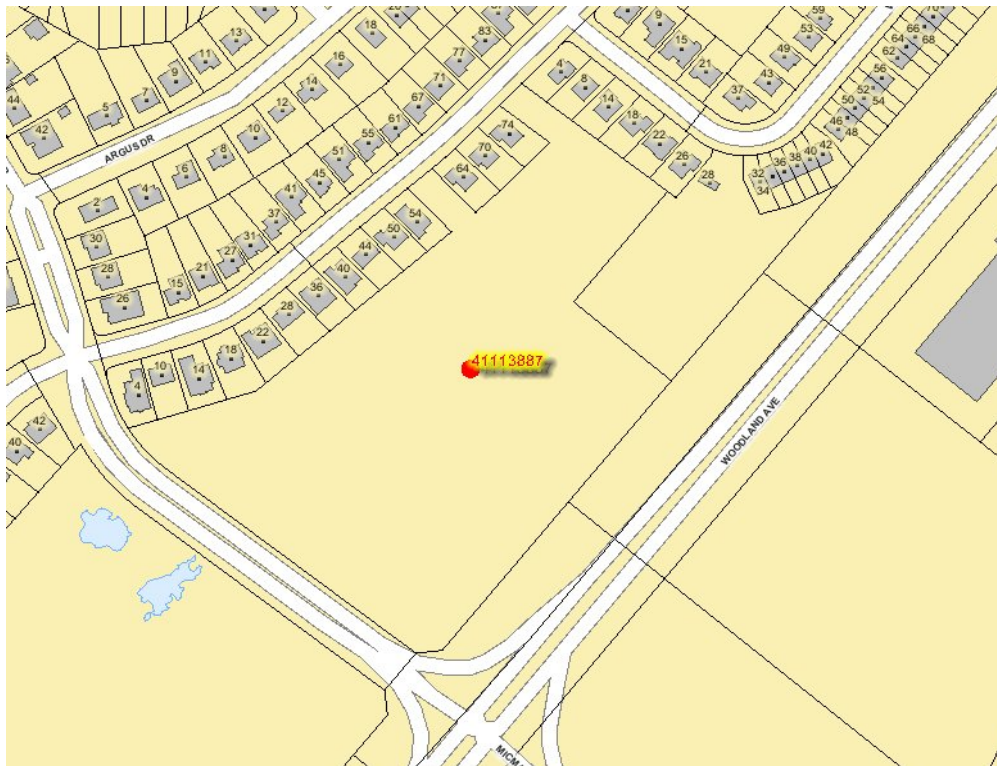
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**Introduction:**

I am pleased to submit this application for rezoning on behalf of First Baptist Church - Dartmouth to enable the future use of a portion of the property, which is the future home of the Church and located at the intersection of Lancaster Drive and Woodland Avenue, for medium density multiple unit residential dwellings. We are requesting a rezoning of 2.75 acres of this property from the R-1 (Single Family Residential) zone to the R-3 (Multiple Family Residential- Medium Density) zone of the Dartmouth Land Use Bylaw.



**Supporting Material:**

In support of this application the following materials are included:

- Completed planning application form
- Application fee of \$2600 (cheque)
- Conceptual Site plan
- Servicing schematic
- Traffic Impact Statement
- Electronic copies of above material

### **The Property:**

This 8.26 acre property is located at the corner of Lancaster Drive and Woodland Avenue and spans north to Cannon Terrace (see attached site plan). It has 575 feet of frontage on Woodland Avenue and 592 feet of frontage on Lancaster Drive. There are two extensions of the property onto Cannon Terrace giving the land two access points and approximately 100 feet of frontage on this street. The site is gently sloping upward toward the north and north east and has a small wetland near the intersection of Woodland Avenue and Lancaster Drive. The site is a combination of wooded area on the east, south and west boundaries and is generally cleared in the centre and north and northwest of the site where previous military housing was located. Remnants of the old road (Cannon Crescent) servicing these houses remains. The property is serviced with municipal water and waste water services.

### **Background/History:**

This property was originally DND land and contained military housing adjacent to the Albro Lake Naval Radio Station. It was purchased by First Baptist in 2003 from the Canada Lands Company as a larger (23 acre) parcel and has existed in its current configuration and area since 2007. When purchased this site was originally zoned as CDD (Comprehensive Development District) along with lands to the north and east. The site was rezoned to R-1 (Single Family Residential) in 2003 to allow the development of a place of worship and associated uses which are permitted in the R-1 zone of Dartmouth, but not in this specific CDD area (Canada Lands Parcels B and C- Woodland Avenue East) based on Policy H-3F of the Dartmouth MPS. Plans are currently underway for the development of the Church campus on this property with construction of a 15,000 square foot church anticipated to begin in spring 2018.

### **Planning Context:**

Under the Regional Municipal Planning Strategy (RMPS), this property is designated Urban Settlement and is situated in the Regional Centre. It is also within the area identified as the Mic Mac Mall Regional District Growth Centre. In this growth centre a mix of high density residential, commercial, institutional and recreation uses are encouraged.

This property is located within the Dartmouth Municipal Secondary Planning Strategy area and is designated Residential and zoned R-1 (Single Family Residential) under the Dartmouth LUB. This zone allows the development of a place of worship with associated halls, single unit dwellings, and various defined institutional and recreational facilities.

All of the land abutting this property is designated Residential and zoned CDD (Comprehensive Development District).

**Neighbourhood Context:**

To the north and east of the site are single family dwellings which were constructed as part of Willow Ridge on Cannon Terrace (see conceptual site plan). To the west across Lancaster Drive is a large parcel of undeveloped land. South of the site is Woodland Avenue (a Provincial highway) with a 9 storey apartment development (Avonhurst Gardens) and Maybank Field located south of Woodland Avenue. To the northeast of the site is a combination of single family dwellings and townhouse dwellings on Viridian Drive, with a vacant parcel approved by development agreement in 2007 for a four storey (50 foot tall) 44 unit, multiple unit residential building adjacent to the First Baptist Church site and Woodland Avenue.

**Proposal:**

It has been determined that approximately 5.5 acres of this 8.26 acre parcel will be required to accommodate a 30,000 square foot church with up to 300 parking spaces and generous landscaped buffers and open space areas. Approximately 2.75 acres remains which are surplus to the Church's requirements now and into the foreseeable future.

This 2.75 acre parcel provides an opportunity for the future development of medium density housing adjacent to or in conjunction with the First Baptist Church campus. The portion of the parcel proposed for multiple unit residential uses would be approximately 120,000 square feet and would have frontage on both Woodland Avenue (575 feet) and on Lancaster Drive (197 feet). It is envisaged that this parcel, given its location and context to surrounding existing and proposed developments, would be suitable for 2 buildings of 5-6 storeys (moderate height) accommodating up to 120 residential units (medium density).

As proposed the development of 120 units on this 2.75 acre property would result in an overall density of 43 units per acre. This density is within the range of medium density contemplated in the R-3 zone of the Dartmouth Land Use Bylaw.

It is our understanding that in order to permit medium density housing on this portion of the site as described above, a two- step process is required by the current Dartmouth MPS and LUB.

The first step is the rezoning of this parcel from the R-1 to the R-3 zone to allow the further consideration of a specific medium density residential proposal. The rezoning must substantially comply with the provisions of Implementation Policy IP-1 (c) of the Dartmouth Municipal Planning Strategy.

The second step is that, once a detailed proposal is prepared, a development agreement be approved which substantially complies with Implementation Policy IP-5 and Implementation Policy IP-1 (c) of the Dartmouth MPS. This development agreement would determine the specific and detailed characteristics of any proposed medium density building or buildings including building placement, height, density, massing, amenity space, traffic, parking, materials, and design.

This application is requesting a rezoning from R-1 to R-3 only at this time, and not a development agreement for a specific development proposal.

### **Rationale for Rezoning:**

It is our opinion that this portion of the First Baptist Church site, located at the intersection of Woodland Avenue and Lancaster Drive, is well suited for medium density multiple unit residential development as proposed. The following characteristics of the site favour this form of residential development:

#### Regional Plan Policy:

The Regional Plan (2014) designates the area around Mic Mac Mall, which includes this property, as a Regional District Growth Centre. In this growth centre it is envisaged that there will be a variety of high density residential, commercial, recreational and institutional land uses. It is further stated that in the growth centre it would be most appropriate for new development adjacent to an established residential area to be in the form of medium density residential uses.

This proposed site for rezoning to R-3 is located on the edge of an existing mixed density residential neighbourhood and will be separated from this housing by a major institutional use- the new First Baptist Church. Given this relative situation, the development of medium density moderate height multiple unit dwellings on this site is supported by current Regional Plan policy.

#### Location and Access:

This property is located at a significant signalized intersection, and is bordered by a major Provincial highway. This site has good transit access as it is near a park and ride facility and the Mic Mac Mall Transit Terminal. There are two bus routes which run along Lancaster Drive (66- Penhorn and 72 Portland Hills) to Burnside and Dartmouth Crossing and there is access to both the 10 (Dalhousie) route directly to the Bridge Terminal and onward to Halifax and to the 56 (Dartmouth Crossing) routes across Woodland Avenue at the park and ride facility. These road and transit routes adjacent to or near the site allow convenient access to all major employment, commercial, and recreational centers in Dartmouth and Halifax.

In addition to the convenient access of this site by vehicle or transit, it is located close to major commercial, recreational and school uses which can be accessed by walking or cycling. It is accessible by foot via an existing sidewalk to Mic Mac Mall with its concentration of office, retail, and service uses. It is also close to community recreational facilities including Maybank Field and Albro Lake beach. There is a forested park (Cyril Smith Golden Acres Park) with an entrance at the corner of Lancaster Drive and Sea King Drive. The property is within the catchment areas of an elementary school, (John MacNeil), a junior high school (John Martin) and a high school (Dartmouth High) which are all operating under capacity based on published 2017 school enrollment statistics.

With the construction of the new First Baptist Church the site will also be adjacent to a major community facility which will not only provide worship services for its members, but is also intended to serve as focus for community events and activities.

#### Compatibility with Surrounding Neighbourhoods:

The surrounding neighbourhoods of Lancaster Ridge and Willow Ridge contain various housing forms including single family dwellings, two unit dwellings, townhouses, and an approved 44 unit 50 foot (4 storey) multiple unit dwelling at 28 Viridian Drive directly adjacent to the site. There are also a number of higher rise multiple unit dwellings uses in the vicinity including the 18 and 14 storey apartment towers of Horizon Court. The Avonhurst Gardens complex fronting directly on Woodland Avenue is 9 storeys high.

This proposed R-3 site would be physically separated from the existing dwellings on Viridian Drive and Cannon Terrace by the Church campus with its building, parking, and open space area. There is a dedicated driveway access and egress onto Lancaster Drive proposed for the future multiple unit residential site. There would be no opportunity for vehicular access from the multiple unit dwellings across the Church Campus site and onto Cannon Terrace.

This configuration serves to minimize any impact of multiple unit residential development on the existing neighbourhood as this new development is physically separated from existing homes by the 5.5 acre Church campus (an R-1 use), and there would be no traffic generated from the medium density residential site directly onto the existing residential streets of Lancaster Ridge and Willow Ridge.

In addition the proposed development of moderate height multiple unit buildings along Woodland Avenue, combined with the retention of the existing mature trees, will provide an effective transition from the existing lower density residential uses and the Church to the major collector road of Woodland Avenue.

Transportation and Piped Service Capacity:

The existing transportation and piped services in this area of Lancaster Ridge and Willow Ridge have sufficient capacity to service the development of medium density multiple unit residential uses which would be facilitated by a rezoning to R-3.

A traffic information statement (TIS) was produced which used as its basis the development of a 30,000 square foot church on 5.5 acres of the current First Baptist property and 120 residential units in one or two moderate rise multiple unit buildings on 2.75 acres of this property. The TIS assumed two driveways which provide dedicated access and egress to the Church campus and the multiple unit housing area respectively, and a secondary access on Cannon Terrace providing access and egress to the Church campus only. In the TIS it is assumed that the Church will not generate a significant number of trips during either the a.m. or the p.m. peak periods.

The TIS has concluded that there would be a total of 63 vehicle trips generated by this residential development during the AM peak period and 83 during the PM peak period. Given the proximity of transit routes and nodes to this site, there is the potential that this number of trips could be lower. It is concluded that Lancaster Drive and Woodland Avenue, as major collectors, have the capacity to accommodate this additional traffic during the AM and PM peak period.

Similarly the existing water, wastewater and storm water services have sufficient capacity to service development as proposed in this area. Services in Lancaster Ridge and Willow Ridge were originally designed and constructed assuming an overall density of 27 persons per acre. The existing built density, including the approved 44 unit apartment building, is approximately 25 persons per acre. The development of up to a 30,000 square foot church and up to 120 units in multiple unit dwellings would result in the equivalent of 37 persons per acres for the 8.26 acre Church property. In total this would produce a final build out density in this service area of 26.4 persons per acre which is below the capacity of the systems as designed and constructed

Other Considerations:

*Wetland:*

There is a small wetland on the site at the corner of Woodland Avenue and Lancaster Drive which was originally part of a larger area infilled by the construction of Lancaster Drive.

This wetland was studied in 1999 as part of the Woodland East Planning and Traffic Study. It was determined that there was no inflow or outflow from this wet area and that it receives

drainage from overland surface water flows and rainfall only. It was concluded that the wet area is not significant from an ecological/biological standpoint. However, it is intended that this wetland will be retained and will be designated as a “no build area” in any future residential development of this site.

*Buffer along Woodland Avenue:*

Currently the Department of Transportation and Infrastructure Renewal regulates development adjacent to Woodland Avenue as a Provincial Highway in this location. There is a requirement that within 30 feet (10 metres) the right of way, no structure be built and no other improvements made to the land such as paving. In addition there is a 10 foot (3 metre) buffer from this right of way in which no existing trees and vegetation can be disturbed.

The proposed site plan with the preliminary concept for R-3 development on this site respects both the 30 foot no build zone and the 10 foot vegetative buffer. The current density and height of the mature trees in this buffer would serve to reduce the impacts of traffic for the residents of the future multiple unit residential development.

A complete analysis of all of the provisions of Policy IP-1 (c) is attached as Attachment 1- Policy Analysis Matrix.

**Community Open House:**

On November 16, 2017 a voluntary open house was held with invitations distributed to all properties within Lancaster Ridge and Willow Ridge (approximately 400 invitations). This open house was attended by approximately 40 members of these neighbourhoods. The conceptual plans for the development of the entire First Baptist Church site, including the Church Campus and the proposed Medium Density Residential Area, were discussed at this open house. The concerns raised at the meeting related mainly to increases in the volume of traffic on Lancaster, Woodland Avenue and Cannon Terrace, and the potential for overly dense or tall multiple unit residential development to occur with a rezoning to R-3.

Traffic and Access: The Traffic Impact Statement has demonstrated that there is considerable excess capacity in Lancaster Drive to support this development and that the traffic generated by this development will not result in significant increases in traffic volume on Lancaster Drive. In addition the proposed design of access and the relative location of the proposed R-3 parcel will mean that traffic will only enter and exit from Lancaster Drive and not from Cannon Terrace. It was also noted at the open house that having additional driveway access points and potential crosswalks along Lancaster Avenue could serve to slow traffic along this stretch of Lancaster which would be an overall positive impact for the community.



Density and Height: It is our opinion that a moderate rise (5-6 storey), medium density (100- 120 unit) development would be suitable for this site due to a substantial separation from the established residential neighbourhood that is created by the Church campus. The required future development agreement for this property when R-3 zoning is in place, would further ensure that appropriate limits are placed for height, density and design which would result in a project that is suitable for this area and compatible with the surrounding neighbourhoods. It was also noted at the meeting that the development of 5 to 6 storey buildings at this location may serve as a good acoustic buffer between the existing neighbourhood and Woodland Avenue.

Finally it was noted by some attendees of the open house that it would be convenient to have small scale neighbourhood commercial uses on the site such as a pub, a café or a small store on the ground floor of future multiple unit buildings.

#### **Summary/Conclusion:**

In conclusion, the addition of approximately 120 units of medium density housing in buildings not exceeding 5 or 6 stories at this strategic intersection separated and buffered from the existing neighbourhoods by an institutional use, serves to complement the mixed density of residential development in the surrounding community. It also presents the opportunity to provide a range of housing option as envisaged in the Regional Plan of 2014 in a manner which is compatible with existing neighbourhoods.

Medium density housing in this area with its underutilized piped and transportation infrastructure will allow additional housing in the Regional Centre in a manner which avoids the redevelopment and loss of existing building stock, and in a way which avoids the direct juxtaposition of areas of lower and medium density residential uses.

We trust that this application submission is complete and satisfactory and look forward to advancing this planning process.

Respectfully submitted;

Shelley Dickey

***Shelley Dickey Land Use Planning***

**Attachment 1: Policy Analysis Matrix**

Implementation Policy IP-1 (c)	
Policy	Analysis
<p>In considering zoning amendments and contract zoning, Council shall have regard to the following:</p> <p>(1) that the proposal is in conformance with the policies and intent of the Municipal Development Plan</p>	<p>The area proposed for rezoning is within the Residential designation of the Dartmouth MPS. This designation is intended for and supports a wide range of residential zones including the R-3 zone.</p>
<p>(2) that the proposal is compatible and consistent with adjacent uses and the existing development form in the area in terms of the use, bulk, and scale of the proposal</p>	<p>The conceptual site plan for the existing Church property has been designed to ensure that the 2.75 acres site proposed to be rezoned to R-3 to allow medium density housing is adjacent to an approved R-3 development at 28 Viridian Drive, and is located at the intersection of Lancaster Drive and Woodland Avenue. Any R-3 development on this site would not be adjacent to any existing R-1, R-2 or townhouse dwelling and would be well separated from these existing uses by the Church campus with its associated parking, and green space. Multiple unit dwellings on this parcel are in keeping with the existing mixed use residential focus of Lancaster Ridge and Willow Ridge.</p> <p>A rezoning to R-3 would permit the consideration of a development agreement for a multiple unit building or buildings. Any future development agreement would determine an acceptable and compatible bulk and scale of a proposed building or buildings for this R-3 property.</p>
<p>(3) provisions for buffering, landscaping, screening, and access control to reduce potential incompatibilities with adjacent land uses and traffic arteries</p>	<p>The R-3 portion of the property would be buffered from the Church portion and from Woodland Avenue by a combination of landscaping and existing treed buffers. These buffers will reduce any potential incompatibilities with the traffic artery of Woodland Avenue and the Church for the future residents in this R-3 site.</p> <p>The proposed R-3 area will not be directly adjacent to any existing residential uses in the</p>

	neighbourhood. In addition, there is separate access to the R-3 and the Church portions of the site to reduce any potential for traffic incompatibilities.
(4) that the proposal is not premature or inappropriate by reason of:	
(i) the financial capability of the City is to absorb any costs relating to the development	There are no costs of this rezoning for the Municipality
(ii) the adequacy of sewer and water services and public utilities	There is sufficient water and sewer capacity to service this 2.75 acre parcel as an R-3 development site as proposed.
(iii) the adequacy and proximity of schools, recreation and other public facilities	All schools which serve this area are under capacity based on 2017 enrollment statistics. All of the schools could be accessed from this property without the need to cross Woodland Avenue. There are adequate passive and active recreation areas of all levels within walking distance of this property to serve the need of the future residents.
(iv) the adequacy of transportation networks in adjacent to or leading to the development	The TIS has determined that Lancaster Drive and Woodland Avenue have sufficient capacity to accommodate the increase in peak period traffic which would be expected to be generated by the development of up to 120 residential units on this site.
(v) existing or potential dangers for the contamination of water bodies or courses or the creation of erosion or sedimentation of such areas	There are no watercourses in the vicinity with the exception of the wetland at the corner of Woodland and Lancaster. Any potential downstream deleterious effects of sedimentation or erosion will be effectively mitigated through On-site Sedimentation and Erosion Control Practices for Construction Sites.
(vi) preventing public access to the shorelines or the waterfront	N/A as this property is not adjacent to the shore or waterfront
(vii) the presence of natural, historical features, buildings or sites	There are no known historic features on this property.
(viii) create a scattered development pattern requiring extensions to truck facilities and public services while other such facilities remain under utilized	The rezoning of this property will help to create a more compact development pattern as it will permit infill residential development which will utilize excess capacity in existing transportation networks and piped services.
(ix) the detrimental economic or social effect that it may have on other areas of the City.	Medium density housing in this area using underutilized piped and transportation services will have positive economic and social impacts for other areas of the municipality. It will allow for the accommodation of residential demand within the Regional Centre in a manner which avoids the redevelopment and loss of existing building stock and the

	direct juxtaposition of areas of lower and medium density residential uses.
(5) that the proposal is not an obnoxious use	Medium density housing is not an obnoxious use.
(6) that controls by way of agreements or other legal devices are placed on proposed developments to ensure compliance with approved plans and coordination between adjacent or nearby land uses and public facilities. Such controls may relate to, but are not limited to, the following:	The rezoning of this property to R-3 under current policies of the Dartmouth Municipal Planning Strategy is only the first step in its development. Any proposed multi-unit dwelling or dwellings on this property would require the negotiation of a development agreement which could only be approved if it addresses all of the following criteria of Section 6.
(i) type of use, density, and phasing	See above
(ii) emissions including air, water, noise	See above
(iii) traffic generation, access to and egress from the site, and parking	See above
(iv) open storage and landscaping	See above
(v) provisions for pedestrian movement and safety	See above
(vi) management of open space, parks, walkways	See above
(vii) drainage both natural and sub-surface and soil-stability	See above
(viii) performance bonds.	See above
(7) suitability of the proposed site in terms of steepness of slope, soil conditions, rock outcroppings, location of watercourses, marshes, swamps, bogs, areas subject to flooding, proximity to major highways, ramps, railroads, or other nuisance factors	<p>The site is relatively and consistently flat with a slope of less than 6 percent. Subsoils are primarily Burnside till which provides a suitable base for future proposed construction and there are no rock outcroppings.</p> <p>The site does include an existing wetland which will be designated as a no build area in future development.</p> <p>The site is located adjacent to a Provincial limited access highway (Woodland Avenue). It is a requirement that a setback and natural vegetative buffers be retained adjacent to this highway.</p>
(8) that in addition to the public hearing requirements as set out in the Planning Act and City by-laws, all applications for amendments may be aired to the public via the "voluntary" public hearing process established by City Council for the purposes of information exchange between the applicant and residents. This voluntary meeting allows the residents to clearly understand the proposal previous to the formal public hearing before City Council	A voluntary community open house and information session was held to discuss this rezoning as well as the construction of the Church by right and the integration of these two components on the site with the surrounding community. It is our opinion that the concerns raised at this meeting regarding increased traffic and traffic movements have been adequately addressed by the traffic impact statement. Furthermore it is our opinion that the concerns raised relative to the potential impact resulting from the form

	and function of medium density residential uses for the existing residential uses have been addressed by the placement of the medium density residential parcel on the opposite side of the Church parcel, and by requiring all access and egress to Lancaster Drive.
(9) that in addition to the foregoing, all zoning amendments are prepared in sufficient detail to provide:	This application is being made as a rezoning request only and not for the required development agreement for any specific multiple unit residential uses at this time. Conceptual information has been provided setting out general parameters for the use, massing, bulk, height and site plans for future residential development with respect to the current requirements of the R-3 zone.
(i) Council with a clear indication of the nature of proposed development, and	See above
(ii) permit staff to assess and determine the impact such development would have on the land and the surrounding community	See above



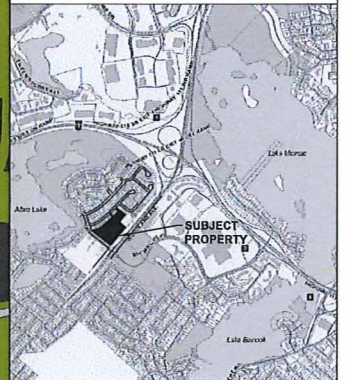


**B.D. STEVENS**

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**KEY PLAN**  
SCALE: 1:25000

North



Issued


A 15.DEC.17 Issued for Planning Application

Stamp



**Original Signed**

Project

**The Trustees of the  
First Baptist Church,  
Dartmouth**

0 Cannon Terrace,  
Dartmouth, NS  
PID 40873846

Drawing

**Conceptual Site Plan**

Disclaimer

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Drawn By

MGVZ

Project Number

822

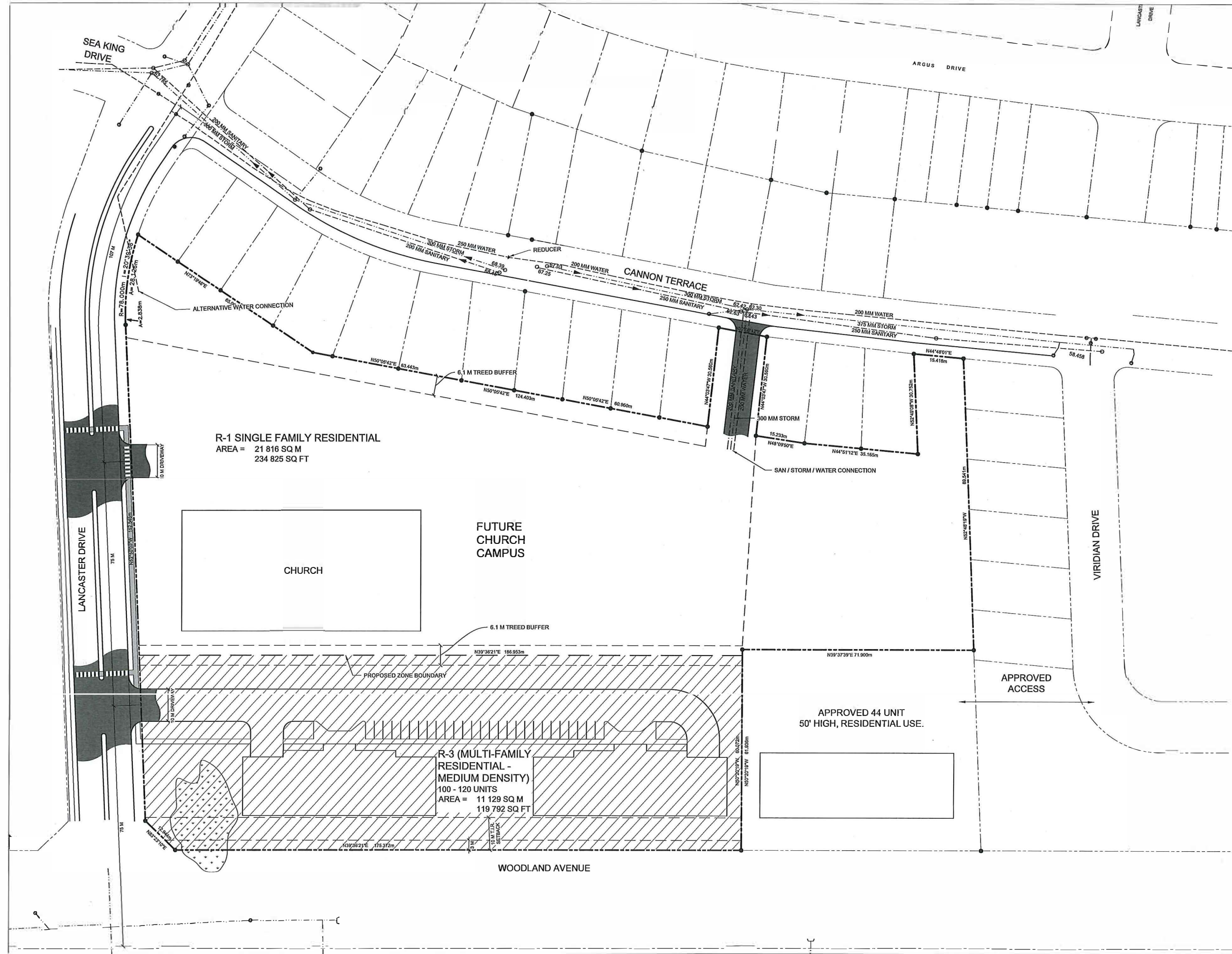
Designer

MGVZ

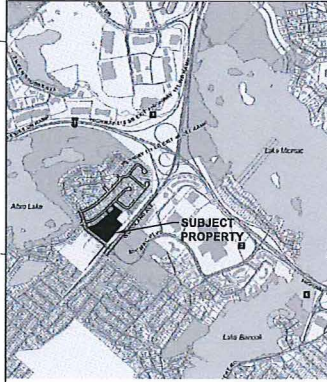
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KEY PLAN  
 SCALE: 1:25000

North

Issued


A 15.DEC.17 Issued for Planning Application

Stamp

Original Signed

Project

The Trustees of the  
First Baptist Church,  
Dartmouth

0 Cannon Terrace,  
 Dartmouth, NS  
 PID 40873846

Drawing  
**Service Schematic**

Disclaimer

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Drawn By	MGVZ	Designer	MVZ
		Drawing Number / Rev.	<b>101 - A</b>

# First Baptist Church Traffic Impact Statement

January 2018

Prepared for  
B.D Stevens Limited

**JRL consulting**



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Prepared by  
Jeff R. LeBlanc, P.Eng., PMP

# 1 Introduction

## 1.1 Background

B.D Stevens, on behalf of the owner First Baptist Church, are working on a proposal to develop lands at the corner of Woodland Avenue and Lancaster Drive in Dartmouth, Nova Scotia

Exhibit 1.1 shows the site in red in the context of the surrounding area.

Exhibit 1.1 – Woodland Avenue at Lancaster Drive in Dartmouth, Nova Scotia



Source: Google Earth

The land is currently vacant and the proposed development will include a 30,000 sqft church with surface parking and two apartment buildings with a total of 100-120 units. The church will have access from Lancaster Drive and Cannon Terrace while the apartment units will have access from Lancaster Drive only.

Refer to the following Exhibits for a proposed site plan and rendering of the site plan by B.D. Stevens.

Exhibit 1.2 – First Baptist Church Dartmouth Site Plan

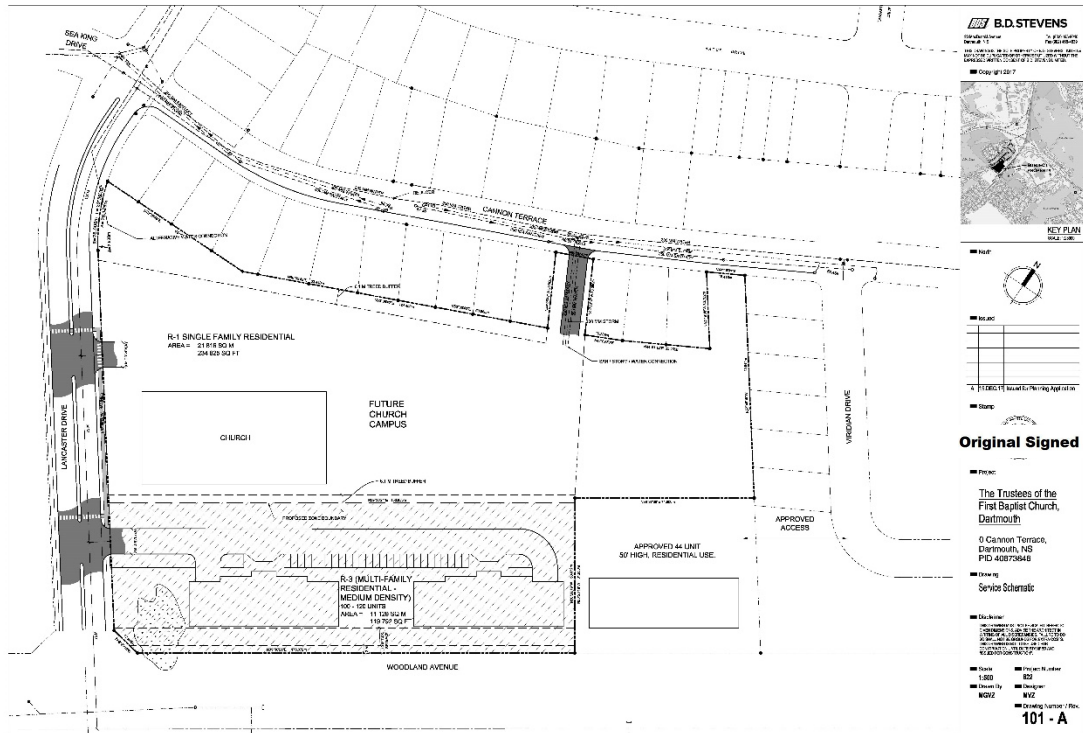


Exhibit 1.3 – First Baptist Church Dartmouth Site Plan Rendering



JRL consulting inc. was retained by B.D. Stevens to prepare a Traffic Impact Statement (TIS) to assess the potential traffic impacts of the proposed development of First Baptist Church in Dartmouth, 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 development are Woodland Avenue and Lancaster Drive. 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

**Woodland Avenue** is a major collector that runs northeast from Marine Drive where it transitions to Nova Scotia Highway 118 after its intersection with Lancaster Drive. Access is controlled in this area and there is a concrete median along its length near the proposed development. There is a concrete sidewalk located along the eastern side of Woodland Avenue south of Lancaster Drive. The posted speed limit is 60km/hr near Lancaster Drive which reduces to 50km/hr to the south.

**Lancaster Drive** is a major collector that starts at Woodland Avenue and circles around a residential area to the west of Woodland Avenue. It becomes Mic Mac Boulevard east of Woodland Avenue which is a key access point for Mic Mac Mall and other commercial and residential land uses. There is a concrete sidewalk on its south side near the proposed development. The posted speed limit is 50 km/hr.

Refer to Exhibit 2.2 for photos of the Study Area around Woodland Avenue and Lancaster Drive.



Exhibit 2.2 – Study Area Photos



Woodland Avenue at Lancaster Drive/Mic Mac Boulevard looking north



Woodland Avenue at Lancaster Drive/Mic Mac Boulevard looking south



Mic Mac Boulevard at Woodland Avenue looking west



Lancaster Drive at Cannon Terrace/Sea King Drive looking west



Lancaster Drive at Cannon Terrace/Sea King Drive looking east

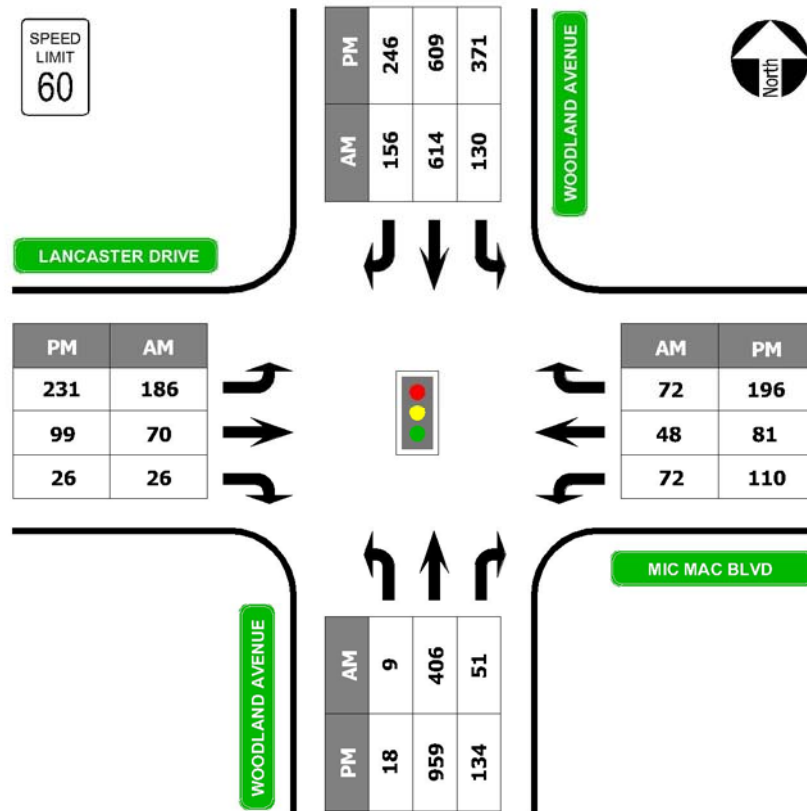
## 2.2 Existing Traffic Volumes

We completed a site review on December 17, 2017.

HRM completed turning movement counts at the Woodland Avenue/Lancaster Drive/Mic Mac Boulevard intersection in May 2017 as summarized in Exhibit 2.3

We note that the eastbound traffic on Lancaster Drive approaching Woodland Avenue is 282 vehicles in the AM peak hour and 356 vehicles in the PM peak hour. Westbound traffic on Lancaster Drive in front of the proposed development is 213 vehicles in the AM peak hour and 345 vehicles in the PM peak hour.

Exhibit 2.3 – Woodland Avenue at Lancaster Drive/Mic Mac Blvd Existing Traffic 2017



### 2.3 Trip Distribution

HRM counts at the Woodland Avenue/Lancaster Drive/Mic Mac Boulevard intersection provide an indication of trip distribution in the area and we expect that traffic generated by the proposed First Baptist Church development will follow the same patterns.

### 2.4 Transit and Pedestrians

The study area is well serviced by Metro Transit through major transit routes 10, 56, 66 and 72 as shown in Exhibits 2.4 through 2.7. A Halifax Transit Park and Ride facility is located east of Woodland Avenue at Maybank Field. There is a concrete sidewalk on the south side of Lancaster Drive and Mic Mac Boulevard that crossed Woodland Avenue with pedestrian call buttons at this signalized intersection. In addition, there is a concrete sidewalk on the west side of Woodland Avenue south of Lancaster Drive/Mic Mac Mall Boulevard.



Exhibit 2.4 – Halifax Transit Route 10 Dalhousie Map



Effective Date: August 1, 2015

Exhibit 2.5 – Halifax Transit Route 56 Dartmouth Crossing Map



Effective Date: February 20, 2017



Exhibit 2.6 – Halifax Transit Route 66 Penhorn Map

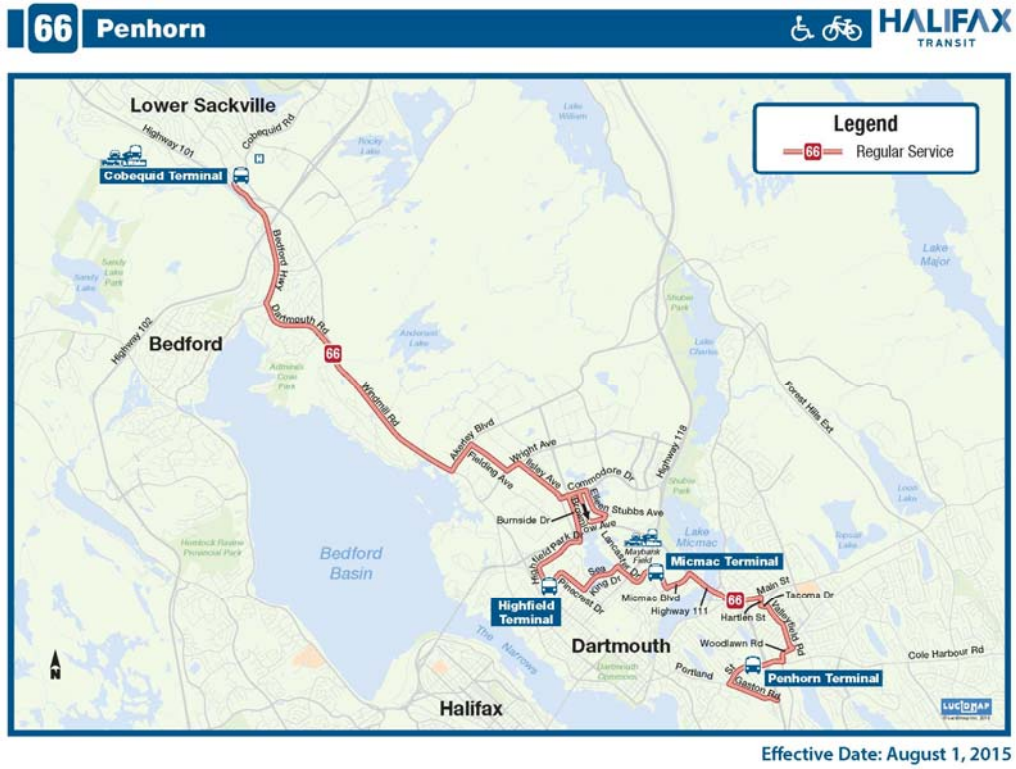
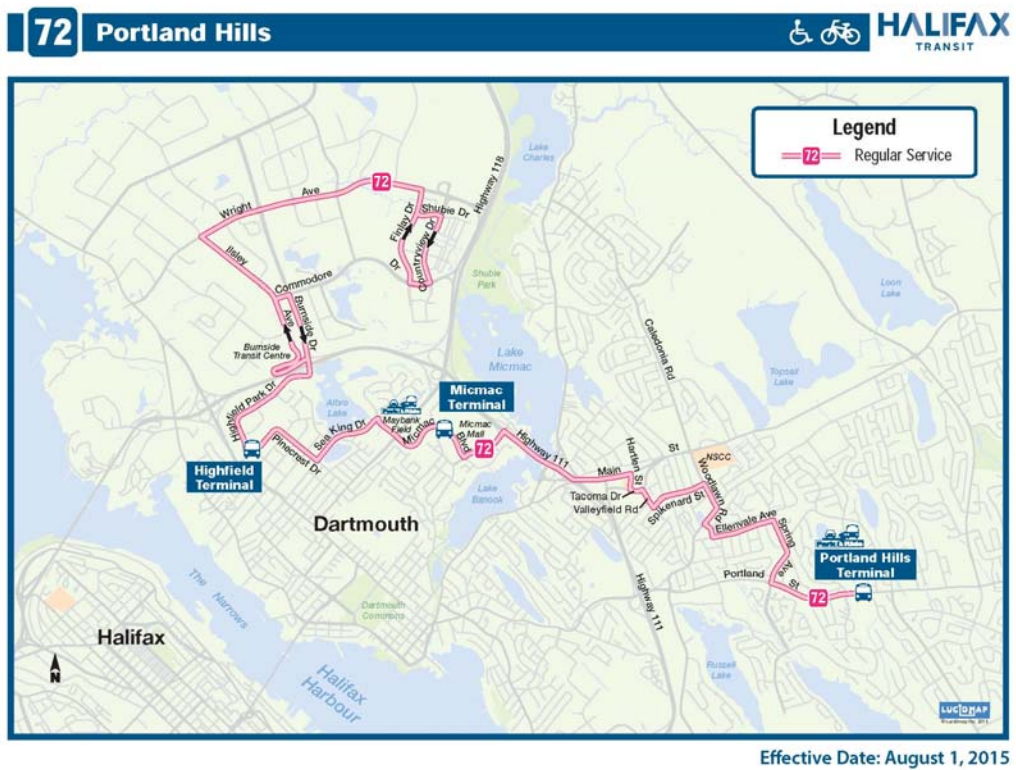


Exhibit 2.7 – Halifax Transit Route 72 Portland Hills Map



### 3 Site Generated Traffic

#### 3.1 Trip Generation

The proposed 30,000 sqft church will not generate any significant traffic during the AM and PM peak hour periods as services and other activities associated with churches generally take place outside of these peak periods. We have not included trip generation estimates for this portion of the proposed development.

The site plan indicated that there will be two apartment buildings with between 100-120 units so we have assessed 120 units in this report as a maximum scenario.

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:

- 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.

Exhibit 3.1 – Estimated Site Generated Traffic Volumes for First Baptist Church

LAND USE	QUANTITY	AM PEAK			PM PEAK		
		TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT
Apartments	120	63	20%	80%	84	65%	35%
			13	50		54	29
<b>TOTAL</b>		<b>63</b>	<b>13</b>	<b>50</b>	<b>84</b>	<b>54</b>	<b>29</b>

## 4 Conclusions and Recommendations

- This Traffic Impact Statement has provided a high level overview of the proposed development of the First Baptist Church at the Woodland Avenue/Lancaster Drive/Mic Mac Boulevard intersection in Dartmouth that will include a 30,000 sqft church and 100-120 apartment units in two buildings.
- It includes an estimate of new site generated trips and an analysis of existing traffic volumes in the surrounding area.
- Based on ITE Trip Generation Rates, we estimate that the proposed development (120 apartment units) will generate 63 new vehicle trips in the AM Peak Hour and 84 new vehicles in the PM Peak Hour.
- Site generated traffic will most likely follow existing trip distribution patterns along Lancaster Drive and Woodland Avenue in the AM and PM peak hours.
- Eastbound traffic on Lancaster Drive approaching Woodland Avenue is 282 vehicles in the AM peak hour and 356 vehicles in the PM peak hour. Westbound traffic on Lancaster Drive in front of the proposed development is 213 vehicles in the AM peak hour and 345 vehicles in the PM peak hour. All of these values are well below capacity for this link and traffic volumes will continue to be well below capacity with the addition of site generated traffic as outlined above.
- 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.
- The close proximity to numerous key transit routes may reduce the estimated traffic generated by the apartments based on ITE rates as provided in this report.