Planning Advisory Committee
February 7th, 2022

To: **Chair and Members of Rothesay Planning Advisory Committee**

From: **Brian L. White, MCIP, RPP**
Director of Planning and Development Services

Date: **Monday, January 31, 2022**

Subject: **Rezoning - 43 Unit Apartment Building – 145 Hampton Road**

Applicant/owner:	Mark Hatfield, Director	**Applicant/owner:**	Propertystar Inc.
Mailing Address:	11 Elliot Road Quispamsis, NB E2G 2B5	**Mailing Address:**	11 Elliot Road Quispamsis, NB E2G 2B5
Property Location:	145-147 Hampton Road	**PIDs:**	30266845, 00243097
Plan Designation:	Commercial	**Zone:**	Central Commercial
Application For:	43-unit / mixed used commercial apartment building		
Input from Other Sources:	Director of Operations		

ORIGIN:
An application from Mark Hatfield, Director of PropertyStar Inc. to rezone 5914m² (1.46 acres) of land (see Map 1) at 145-147 Hampton Road from Central Commercial to the Multi-Unit Residential Zone [R4] for a 43-unit / mixed used commercial apartment building subject to the terms of a development agreement.

Figure 1 - Architectural Rendering of Proposed 43 Unit Apartment Building

BACKGROUND:
The subject parcels (PIDs 30266845, 00243097) are located along the mid-point of Hampton Road's commercial corridor and are designated and zoned for Commercial uses.

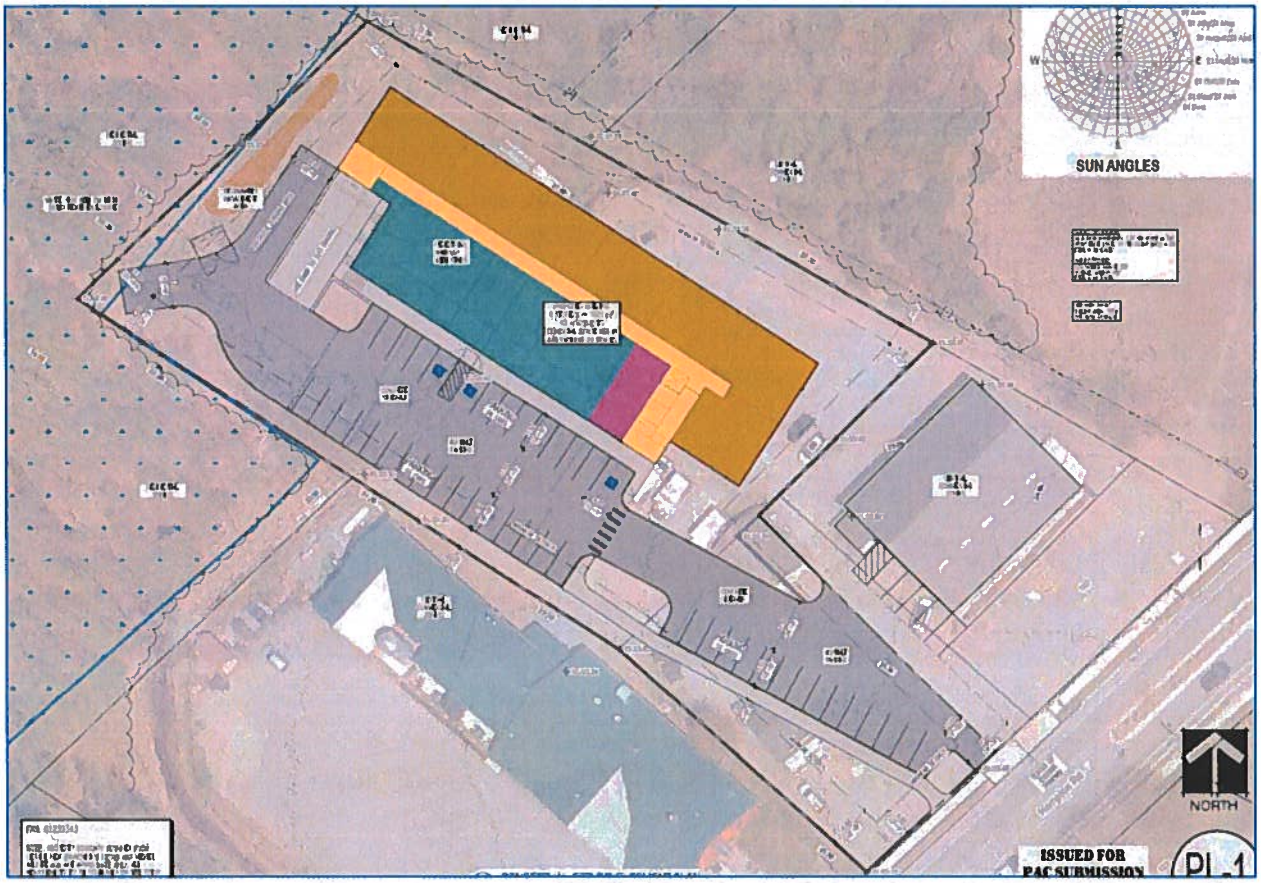


Figure 2 - Site of 145-147 Hampton Road Proposed Apartment Building

The Municipal Plan By-law 1-20 does contain policy direction (see Policy HDR-4 follows) that would allow Council to consider the application.

The commercial areas in Rothesay are focal points for residents, whether they are shopping or socializing. Council recognizes this function of commercial space as potential opportunity sites where ***higher density residential may be added*** *as a means of providing people with better access to the Town's services, to reduce sprawl, to permit a livelihood that allows for walkability and less car dependence, and to increase density in and around the Town's commercial areas.*

Policy HDR-4 High-density Residential:
COUNCIL SHALL Consider that High-density Residential development may be appropriate **throughout the Commercial Designation**[1], and may consider multi-unit dwellings through the re-zoning and development agreement process where such development demonstrates compliance with the following requirements:

[1] Although the property is not designated Commercial Council can consider amendments to the Zoning By-law on lands that adjoin a different land use designation (see Policy IM-14 Adjoining Designations)

a) Subject lands are adjacent to or in close proximity to collector or arterial streets and transit routes;

b) The maximum density does not exceed 100 square metres of land per apartment unit;

c) Subject lands are adequate in size relative to the intensity and scale of the proposed land development;

d) The subject lands do not exceed 1 acre in total area (or 40 apartment units);

e) Underground parking is provided;

f) Require the developer provide a technical wind and shadow study, to be completed by a certified professional, to ensure the proposed development does not generate excessive wind or cast a shadow on abutting properties or public road right-of-way that would detract from the quality, enjoyment, or use of the space.

g) Require the developer to complete a traffic impact assessment for the proposed development on the surrounding area completed by a qualified transportation engineer or other technical specialist;

h) Excellence in site design best practices addressing features such as Crime Prevention through Environmental Design (CPTED) principles, urban design, and high quality landscaping; and

i) A building design of high quality that is consistent with community values and architectural best practices.

ANALYSIS:

Policy HDR-4 High-density Residential	Staff Comment
Subject lands are adjacent to or in close proximity to collector or arterial streets and transit routes;	The proposed building has frontage on Hampton Road. A traffic impact statement was prepared to determine any additional traffic enhancement or requirements.
The maximum density does not exceed 100 square meters of land per apartment unit;	The 2 properties have a total area of 7931.6m² (~2 acres) and the applicant intends to utilize 5914m² of the land for the 43 unit building which does not exceed the 100m² of land per apartment unit. The existing commercial building at 147 Hampton Road will remain on its newly reconfigured lot of approximately ~2000m².
Subject lands are adequate in size relative to the intensity and scale of the proposed land development;	The proposed building would be located in an area containing a variety of uses including a restaurant and microbrewery, dentist office, grocery store, dry cleaners and low-density residential uses off Monaco Drive.
The subject lands do not exceed 1 acre in total area (or 40 apartment units);	As noted the entire parcel of land has a total area of 5143.5m², which exceeds the (4000m²) limit on project density however, the project density at 43 units when combined with affordable housing density bonusing complies with the policy restriction on density. .

Underground parking is provided;	The proposal includes indoor parking on the building's main level and a combination of sheltered and open surface parking.
Require the developer provide a technical wind and shadow study, to be completed by a certified professional, to ensure the proposed development does not generate excessive wind or cast a shadow on abutting properties or public road right-of-way that would detract from the quality, enjoyment, or use of the space.	The applicant has submitted a technical shadow study of the proposed building.
Require the developer to complete a traffic impact assessment for the proposed development on the surrounding area completed by a qualified transportation engineer or other technical specialist;	The applicant has submitted a traffic assessment and Staff are still reviewing the submission.
Excellence in site design best practices addressing features such as Crime Prevention through Environmental Design (CPTED) principles, urban design, and high quality landscaping; and	Staff note that because the proposed building includes ground floor commercial and it is important that the residential entrance be defined such that it is not confused with the commercial businesses and non-residents do not enter the residential portion of the building. Staff believe the residential entrance should better accentuated and well defined with landscaping, architectural design, lighting and signage.
A building design of high quality that is consistent with community values and architectural best practices.	Staff believe that the flat roof modern style of architecture in this mixed-use neighbourhood achieves good design as the scale, bulk and height of the building is appropriate to the existing or desired future character of Hampton Road and surrounding buildings. Staff are encouraged by use of wood siding in combination with other materials to add warmth and texture to the building. However, the building with the exception of the commercial storefronts is clad in vinyl siding. Staff would recommend that PAC review the aesthetic of the siding in more detail. Staff are also concerned that roof parapet signs over the commercial storefronts is not appropriate in this mixed-use application and will create a visual nuisance for second floor residents of the building. Staff recommend that signage be limited to awning signs incorporated into an awning valance. Awnings along commercial face of the building can provide a sense of scale as well as separating the storefront from the upper stories. Another acceptable sign would be projecting signs

	or wall mounted signs that enhance the character of the residential building. Staff note that lighting of the commercial signs should be restricted in their application to prevent light spillage into the upper level residential units.

DEVELOPMENT AGREEMENT:

Staff will prepare a development agreement for PAC's review before proceeding to Council. A development agreement is a contract between Rothesay and the property owners that specify the details and obligations of the individual parties concerning the proposed development. Implementation Policy IM-13 states that Council shall consider development agreement applications pursuant to the relevant policies of the Municipal Plan and consideration of the following:

Implementation Policy IM-13	Staff Review
A. That the proposal is not premature or inappropriate by reason of:	
1) The financial capability of Rothesay to absorb any costs relating to the development;	The applicant will bear the cost of the development and no cost burdens are anticipated for the Town.
2) The adequacy of municipal wastewater facilities, storm water systems or water distribution systems;	Staff believe that the municipal infrastructure is adequate for the proposed development.
3) The proximity of the proposed development to schools, recreation or other municipal facilities and the capability of these services to satisfy any additional demands;	Staff believe the schools, recreation or other municipal facilities in the neighbourhood are adequate for the proposed development.
4) The adequacy of road networks leading to or within the development; and	Staff are still reviewing the traffic study.
5) The potential for damage or destruction of designated historic buildings and sites.	There are no historic buildings or sites identified within the project's vicinity.
B. that controls are placed on the proposed development so as to reduce conflict with any adjacent or nearby land uses by reason of:	
1. Type of use;	The multi-unit residential is a compatible use with the surrounding businesses.
2. Height, bulk and lot coverage of any proposed building;	Staff believe the building is appropriate to the lot and surrounding area.
3. Traffic generation, access to and egress from the site, and parking; open storage; and	Staff are reviewing the traffic study.
4. Signage.	Staff recommend that the applicant provide more details on the signage that can be incorporated into the development agreement, with the goal of ensuring a pleasant and livable environment for residents.

C. That the proposed development is suitable in terms of the steepness of grades, soil and geological conditions, proximity to watercourses, or wetlands and lands that are vulnerable to flooding.	The applicant has conducted an environment study of the property and received a watercourse alteration permit from the Department of Environment for the construction of an apartment building.

KENNEBECASIS VALLEY FIRE DEPARTMENT:
As is required by Municipal Plan **Policy FR-7,** the KVFD must review proposals for new development projects to ensure that public safety and firefighting concerns are addressed. KV Fire Department are still reviewing the proposed development.

POLLING:
Staff will prepare a polling notification letter to be sent to surrounding property owners.

RECOMMENDATIONS:
Staff recommend the Planning Advisory Committee consider the following MOTION:

A. PAC HEREBY Tables the rezoning application for 145 Hampton Road pending the receipt of a supplemental staff report containing the following:
    1. Additional project details from the applicant;
    2. Staff review and recommendation of traffic and access;
    3. Polling results;
    4. Review by KVFD; and
    5. Draft development agreement and rezoning By-law.

Report Prepared by: Brian L. White, MCIP, RPP
Date: Monday, January 31, 2022

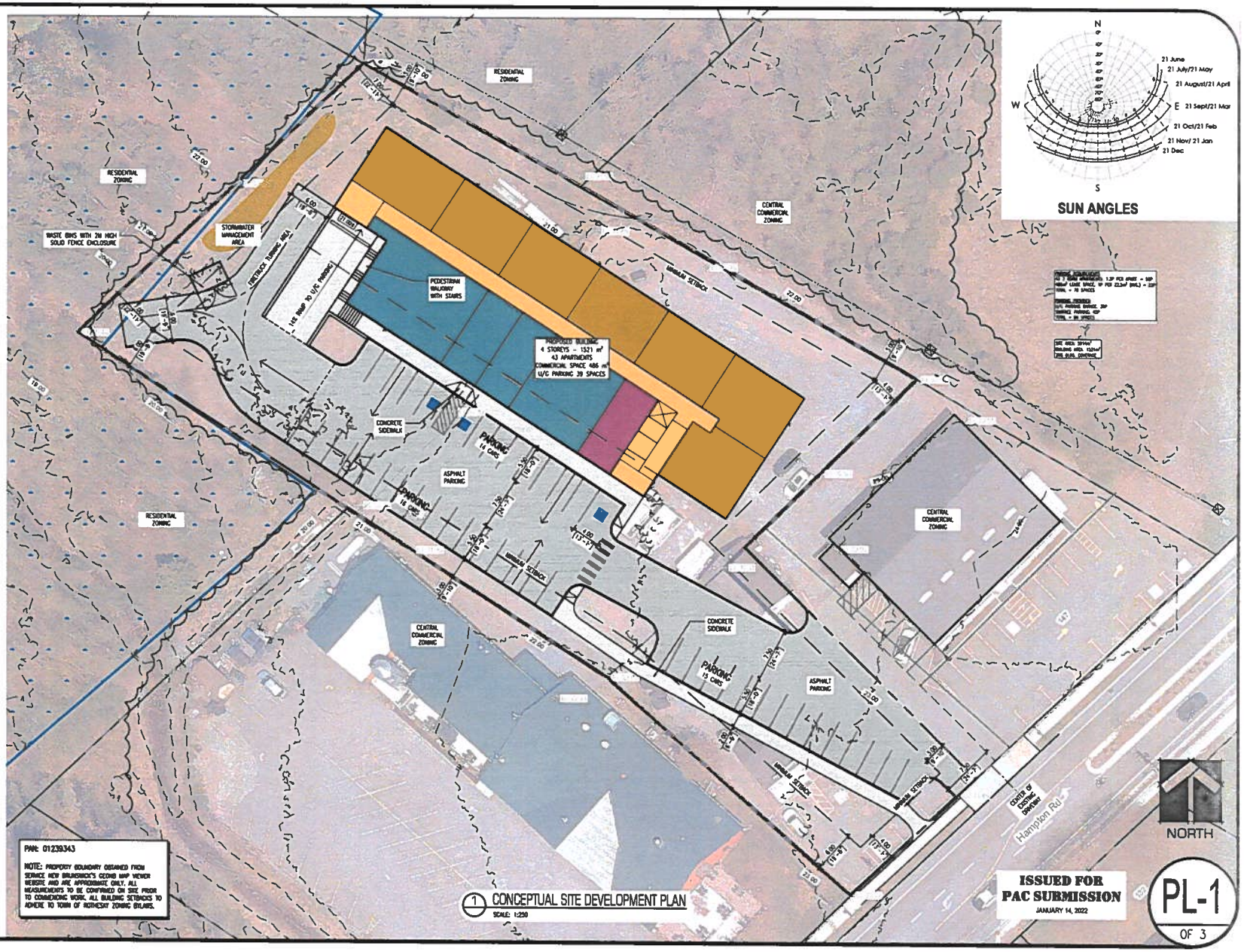
ATTACHMENTS

Map 1	Property Location Map
Attachment A	Proposed Development Submission from Applicant

PROPERTY STAR

145 HAMPTON ROAD

ROTHESAY, NEW BRUNSWICK



PAN: 01239343

NOTE: PROPERTY BOUNDARY OBTAINED FROM SERVICE NEW BRUNSWICK'S GEONB MAP VIEWER WEBSITE AND ARE APPROXIMATE ONLY. ALL MEASUREMENTS TO BE CONFIRMED ON SITE PRIOR TO COMMENCING WORK. ALL BUILDING SETBACKS TO ADHERE TO TOWN OF ROTHESAY ZONING BYLAWS.

1 CONCEPTUAL SITE DEVELOPMENT PLAN
SCALE: 1:250

ISSUED FOR PAC SUBMISSION
JANUARY 14, 2022

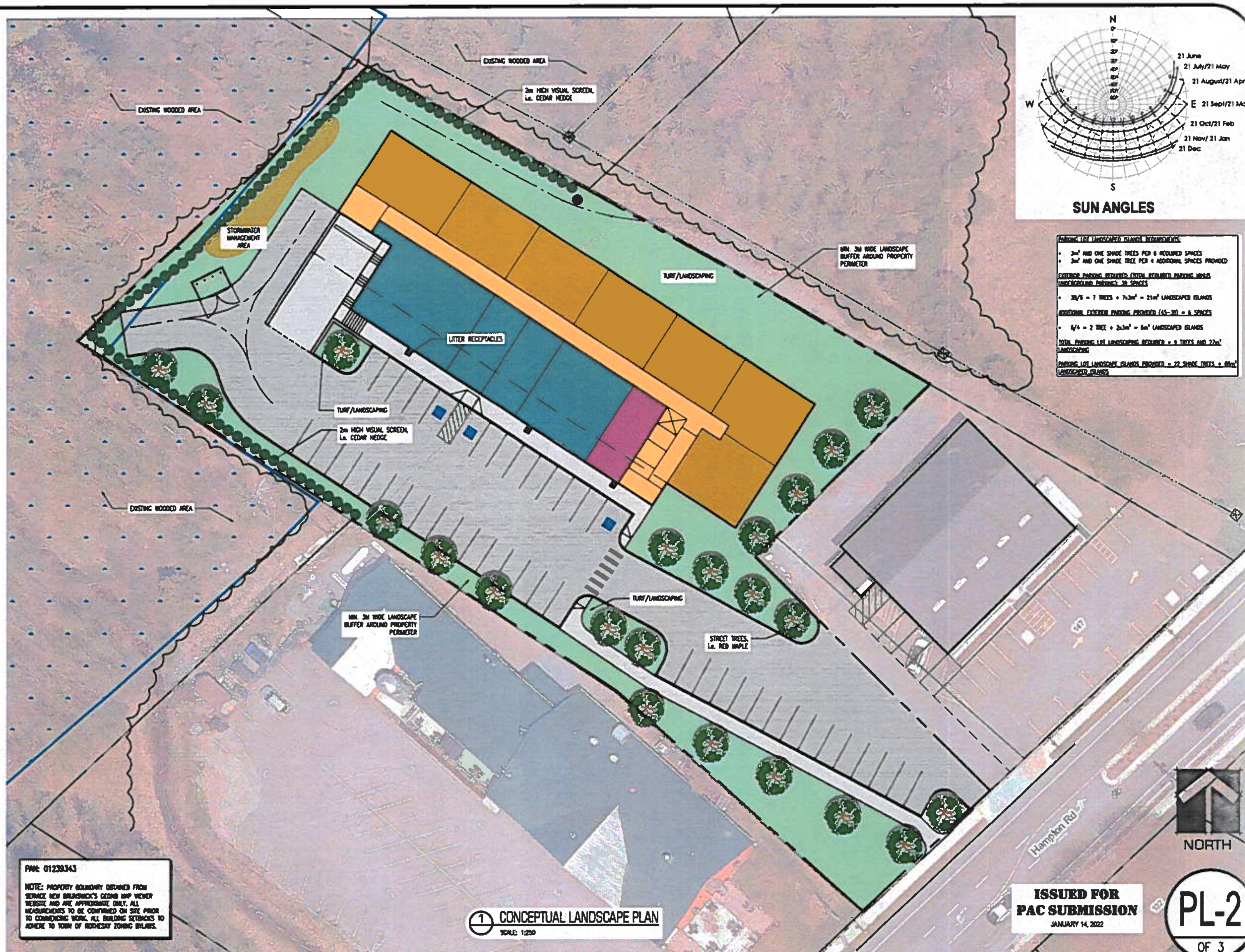
PL-1
OF 3

Polyline Designs Inc.
RESIDENTIAL / COMMERCIAL BUILDING DESIGN
SITE AND LANDSCAPE DESIGN
ARCHITECTURAL SUPPORT TECHNOLOGY
DRAFTING and GRAPHIC SERVICES
MONCTON OFFICE, 205 LESLIE STREET, MONCTON, NB E1C 6M7
T: 506.850.3638 e: mail@polylinedesigns.ca
SUSSEX OFFICE, 437 PICKELL ROAD, PICKELL, NB E4E 5J7
T: 506.434.1187 e: billy@polylinedesigns.ca
www.POLYLINEDESIGNS.CA

PROPERTYSTAR 145

145 HAMPTON ROAD

ROTHESAY, NEW BRUNSWICK



PARKING LOT LANDSCAPED ISLANDS REQUIREMENTS:

- $3m^2$ AND ONE SHADE TREES PER 6 REQUIRED SPACES
- $3m^2$ AND ONE SHADE TREE PER 4 ADDITIONAL SPACES PROVIDED

EXTERIOR PARKING REQUIRED (TOTAL REQUIRED PARKING MINUS UNDERGROUND PARKING): 39 SPACES

- 39/6 = 7 TREES + $7 \times 3m^2$ = $21m^2$ LANDSCAPED ISLANDS

ADDITIONAL EXTERIOR PARKING PROVIDED (45–39) = 6 SPACES

- 6/4 = 2 TREE + $2 \times 3m^2$ = $6m^2$ LANDSCAPED ISLANDS

TOTAL PARKING LOT LANDSCAPING REQUIRED = 9 TREES AND $27m^2$ LANDSCAPING

PARKING LOT LANDSCAPE ISLANDS PROVIDED = 22 SHADE TREES + $88m^2$ LANDSCAPED ISLANDS

PAN: 01239343

NOTE: PROPERTY BOUNDARY OBTAINED FROM SERVICE NEW BRUNSWICK'S GEONB MAP VIEWER WEBSITE AND ARE APPROXIMATE ONLY. ALL MEASUREMENTS TO BE CONFIRMED ON SITE PRIOR TO COMMENCING WORK. ALL BUILDING SETBACKS TO ADHERE TO TOWN OF ROTHESAY ZONING BYLAWS.

(1) CONCEPTUAL LANDSCAPE PLAN

SCALE: 1:250

Polyline Designs Inc.

RESIDENTIAL / COMMERCIAL BUILDING DESIGN
SITE AND LANDSCAPE DESIGN
ARCHITECTURAL SUPPORT TECHNOLOGY
DRAFTING and GRAPHIC SERVICES

MONCTON OFFICE: 208 LESLIE STREET, MONCTON, NB E1C 6A7

SUSSEX OFFICE: 437 PICADILLY ROAD, PICADILLY, NB E4E 6J7

WWW.POLYLINEDESIGNS.CA

ISSUED FOR PAC SUBMISSION

JANUARY 14, 2022

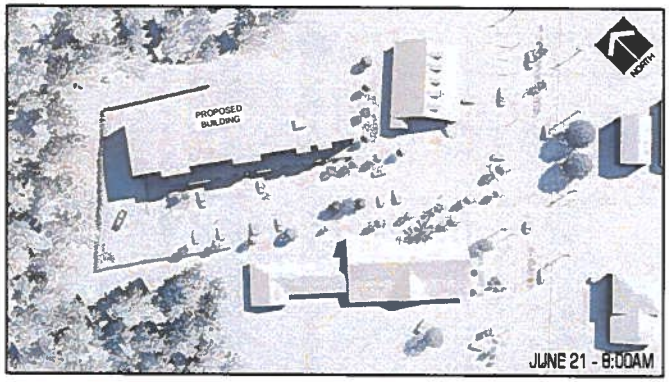
PL-2

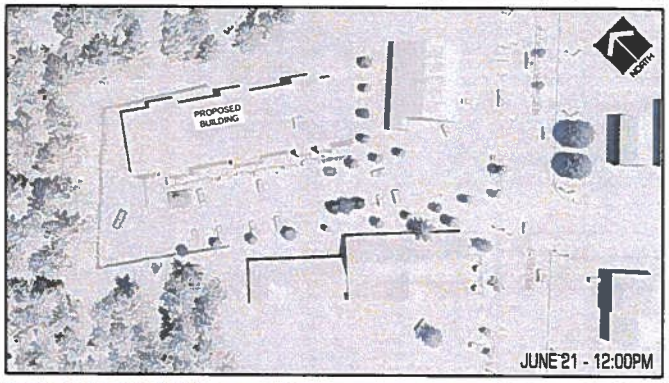
OF 3

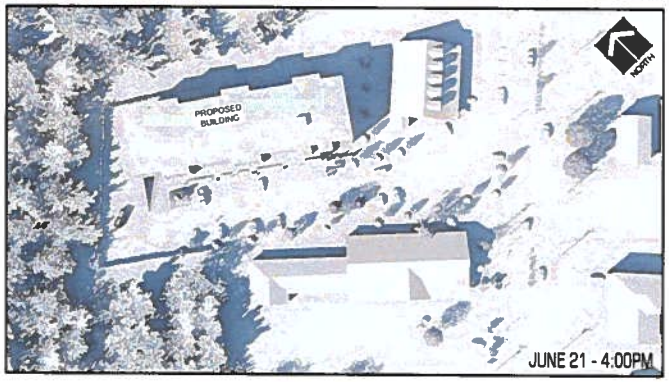
PROPERTYSTAR 145

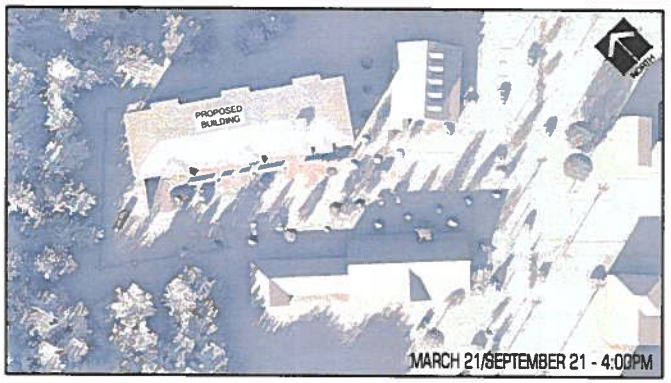
145 HAMPTON ROAD

ROTHESAY, NEW BRUNSWICK

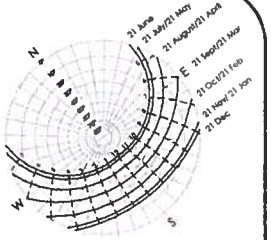








1 SHADOW STUDY
SCALE: NTS



SUN ANGLES

ISSUED FOR PAC SUBMISSION
JANUARY 14, 2022

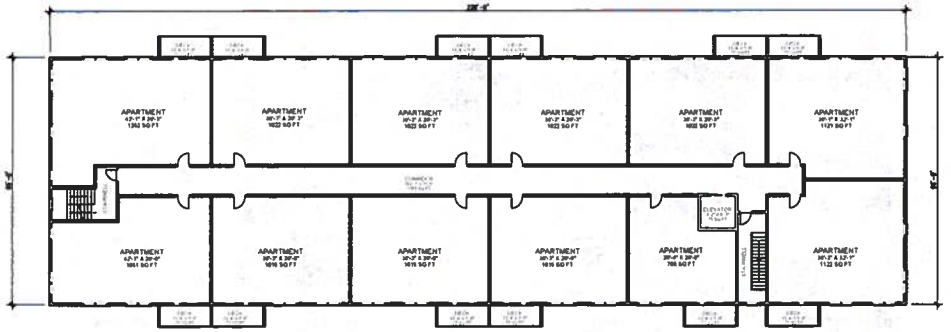
PL-3
OF 3

Polyline Designs Inc.
RESIDENTIAL / COMMERCIAL BUILDING DESIGN
SITE AND LANDSCAPE DESIGN
ARCHITECTURAL SUPPORT TECHNOLOGY
DRAFTING and GRAPHIC SERVICES
MONCTON OFFICE, 200 LESLIE STREET, MONCTON, NB E1C 9J7
T: 506.800.3639 • E: mail@polylinedesigns.ca
SUSSEX OFFICE, 437 PICKNEY ROAD, PICKNEY, NB E4E 5J7
T: 506.434.1157 • E: kelly@polylinedesigns.ca
WWW.POLYLINEDESIGNS.CA

PROPERTYSTAR 145

145 HAMPTON ROAD

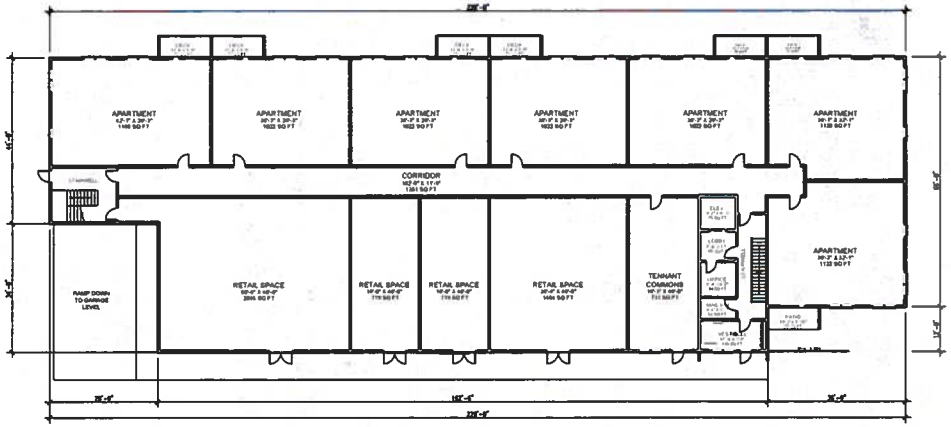
ROTHESAY, NEW BRUNSWICK



3 LEVEL-2, 3, 4 FLOOR PLAN

SCALE: 1/16"=1'-0"

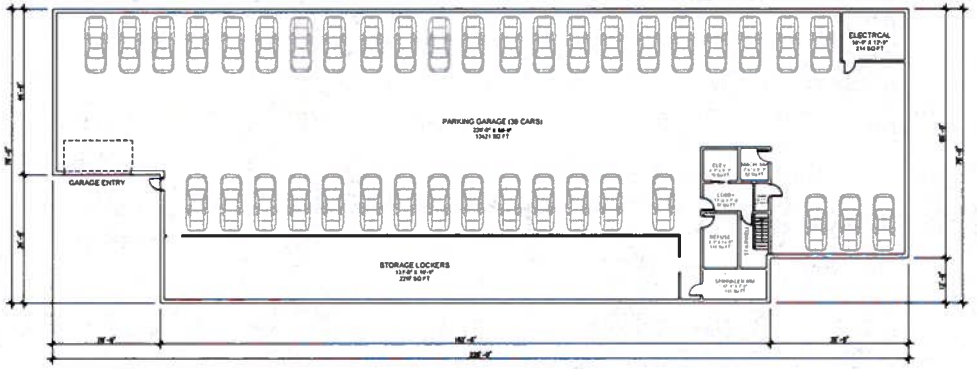
FLOOR AREA 15,048 S.F.
12 APARTMENTS



2 LEVEL-1 FLOOR PLAN

SCALE: 1/16"=1'-0"

FLOOR AREA 16,365 S.F.
7 APARTMENTS
TENNANT COMMONS 731 S.F.
RETAIL SPACES 4,978 S.F.



1 LEVEL-0 FLOOR PLAN

SCALE: 1/16"=1'-0"

FLOOR AREA 16,365 S.F.
39 VEHICLE PARKING SPACES

Polyline Designs Inc.

ARCHITECTURAL / COMMERCIAL BUILDING DESIGN
SITE AND LANDSCAPE DESIGN
ARCHITECTURAL SUPPORT TECHNOLOGY
DRAFTING and GRAPHIC SERVICES

MONCTON OFFICE: 205 LEVIS STREET, MONCTON, NB E1C 0H7
T. 506.855.3539 | C.

SUSSEX OFFICE: 427 PICKARD ROAD, PICKARDVILLE, NB E4E 3J7
T. 506.434.1157 | C.

WWW.POLYLINEDESIGNS.CA

ISSUED FOR PAC SUBMISSION

JANUARY 14, 2022

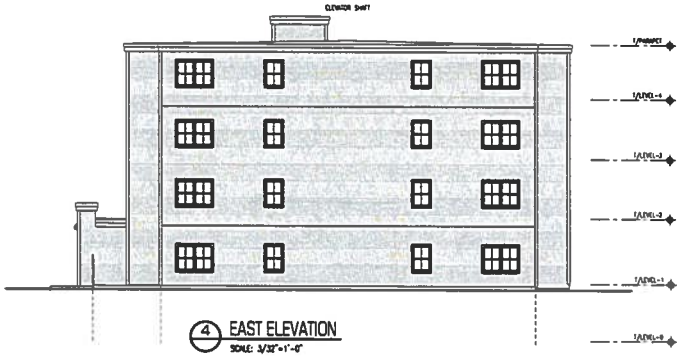
PA-1

OF 2

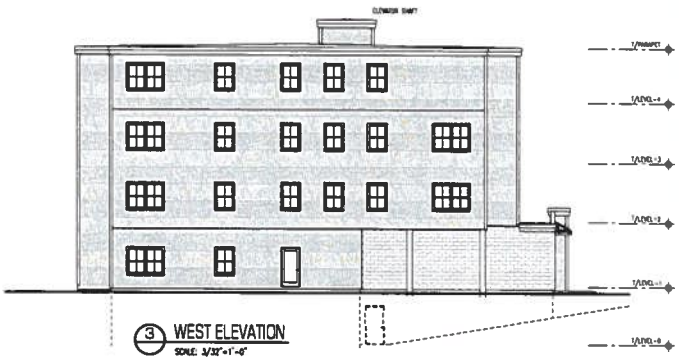
PROPERTYSTAR 145

145 HAMPTON ROAD

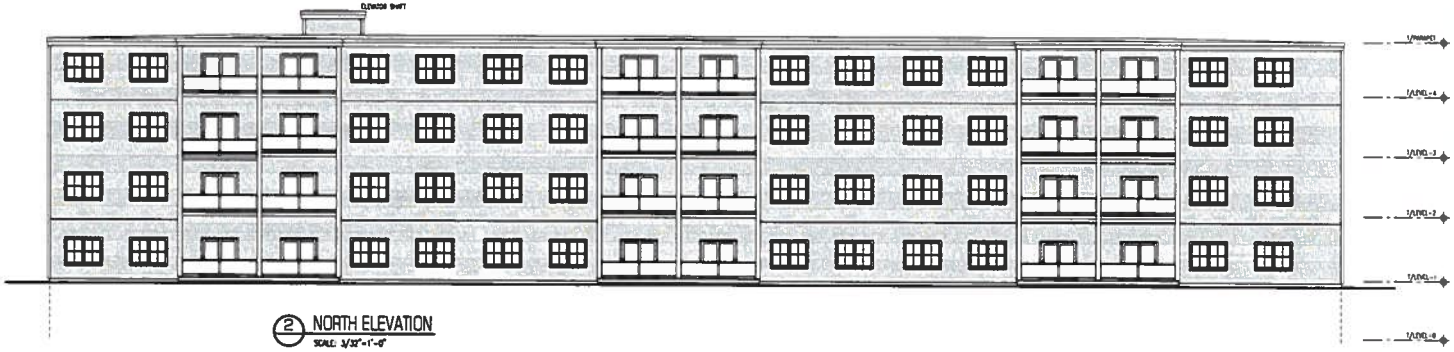
ROTHESAY, NEW BRUNSWICK



4 EAST ELEVATION
SCALE: 3/32"=1'-0"



3 WEST ELEVATION
SCALE: 3/32"=1'-0"



2 NORTH ELEVATION
SCALE: 3/32"=1'-0"

1 SOUTH ELEVATION
SCALE: 3/32"=1'-0"

ISSUED FOR PAC SUBMISSION
JANUARY 14, 2022

Polyline Designs Inc.
RESIDENTIAL / COMMERCIAL BUILDING DESIGN
SITE AND LANDSCAPE DESIGN
ARCHITECTURAL SUPPORT TECHNOLOGY
DRAFTING and GRAPHIC SERVICES
MONCTON OFFICE: 205 LESLIE STREET, MONCTON, NB E1C 6W7
T: 506.850.3630 x C:
SUSSEX OFFICE: 437 PICKOLY ROAD, PICKOLY, NB E4E 3J7
T: 506.434.1157 x C:
WWW.POLYLINEDESIGNS.CA


PROPERTYSTAR 145
Polyline Designs
PROPERTYSTAR 145
43 UNIT APARTMENT + COMMERCIAL
HAMPTON ROAD, ROTHESAY, NB


COMMERCIAL / RETAIL
PROPERTYSTAR 145
Polyline Designs
PROPERTYSTAR 145
43 UNIT APARTMENT + COMMERCIAL
HAMPTON ROAD, ROTHESAY, NB


Polyline
Designs
PROPERTYSTAR 145
43 UNIT APARTMENT + COMMERCIAL
HAMPTON ROAD, ROTHESAY, NB


Polyline
Designs
PROPERTYSTAR 145
43 UNIT APARTMENT + COMMERCIAL
HAMPTON ROAD, ROTHESAY, NB


Polyline
Designs
PROPERTYSTAR 145
43 UNIT APARTMENT + COMMERCIAL
HAMPTON ROAD, ROTHESAY, NB


Polyline
Designs
PROPERTYSTAR 145
43 UNIT APARTMENT + COMMERCIAL
HAMPTON ROAD, ROTHESAY, NB


STOP
PROPERTYSTAR 145
43 UNIT APARTMENT + COMMERCIAL
HAMPTON ROAD, ROTHESAY, NB
Polyline
Designs

506.433.4427 (Sussex)
506.652.1522 (Saint John)
info@dmse.ca
www.dmse.ca

DON-MORE SURVEYS & ENGINEERING LTD.

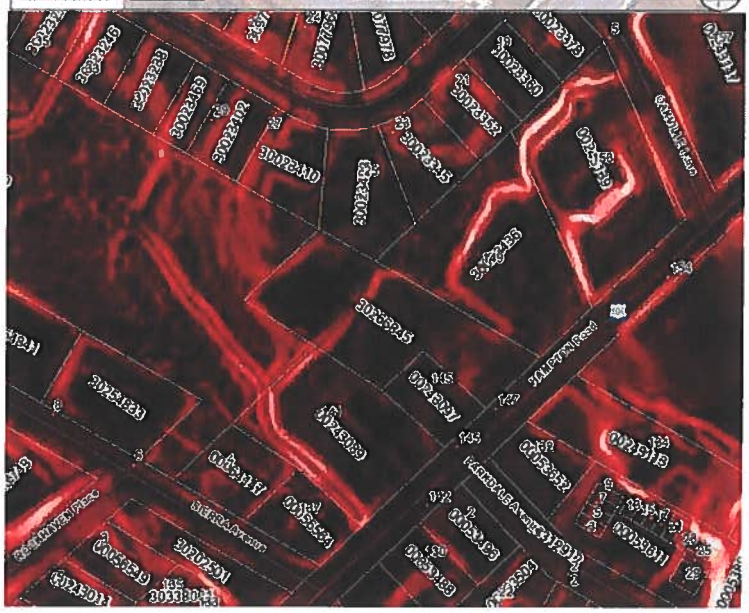
Ref: 21358-StormwaterReview

January 14, 2022

Mr. McLean,

Re: 145 Hampton Road - Homestar - Stormwater Review

Don-More Surveys & Engineering Ltd. (Don-More) has been engaged to perform a high level review of a proposed development at the above address relative to a stormwater management strategy.



We have been provided with a revised conceptual site plan prepared by Polyline Designs dated January 13, 2022 and this review is limited to details shown on this site plan.

Existing Site

The existing site can be characterised as a generally flat area with two existing buildings. The front area of the site is an asphalt parking area. The rear portion of the site is gravel. The rear area is bisected by a drainage channel flowing southwest from the vacant property at 149 Hampton Road. This drainage channel connects with a larger channel flowing northwest along the southern side of 141 Hampton Road and the combined channel flows northwest into an existing wetland area which eventually drains into Salmon Creek.

Stormwater Management Approach

The proposed site plan shows the new building sitting on the northern portion of the site and

lying on top of the existing drainage channel. This channel would need to be rerouted along the northern and western sides of the new building.

The new site would be designed to perform stormwater management to limit peak flows to pre development levels. Water draining from the parking areas would be directed to a Stormscepter to provide treatment of water quality. Below are preliminary design ideas for how this will be achieved.

The new building has a flat roof. We would plan to detain water on the roof of the building using flow controllers on the roof drains. Typically we design this system to pond the equivalent of 100mm of water in a 100 year event.

The new parking area would be designed to have a catch basin system which will collect the water and direct it to a Stormscepter, then discharge to the western corner of the property. The parking lot around the catch basins will be graded to create "ponds" at the catch basins and Inlet Control Devices (ICD's) will be installed on the catch basins to limit peak flows into the piped system. This results in water ponding on the parking area in peak rain events.

Following detailed design and once modelling of these two approaches has been completed, if additional measures are required to reduce peak flows we would look at either a traditional stormwater management pond at the western corner of the property, or underground storage under the parking areas.

Closing

We trust this is sufficient for your present needs. Please feel free to contact the undersigned at 506.636.2136 or at at@dmse.ca for any additional information or clarification.

Yours truly,

Don-More Surveys & Engineering Ltd.

Andrew Toole

Andrew Toole, NBLS, P.Eng.

506.433.4427 (Sussex)
506.652.1522 (Saint John)
info@dmse.ca
www.dmse.ca

DON - MORE
SURVEYS &
ENGINEERING LTD.

Ref: 21358-WaterDemands

November 23, 2021

Mr. McLean,

Re: 145 Hampton Road - Water Demands - Homestar

Don-More Surveys & Engineering Ltd. (Don-More) has been engaged to perform hydrant flow testing and analyse available flows relative to projected demands for a proposed new development located at 145 Hampton Road.

We understand the proposed development is a 6 story building with a footprint of 1275m². There are 48 proposed apartment units as well as commercial space on the first floor.

Using the Fire Underwriters Survey 1999 version, we can calculate the projected firefighting demands for the building. Full calculations are included in Appendix A. From this we see for non-combustible construction a peak demand of 1308gpm, and for limited combustible construction a peak demand of 1482gpm.

We can then calculate the peak domestic demands for the building. 48 residential units create a max hourly demand of 23gpm. Commercial space is harder to account for as uses can vary widely. Shopping centre demands are typically 2000-5000L/1000m²/day. As a conservative number, we will use 5000L/1000m²/day as our max day demand. This gives a combined max hourly demand of 24gpm.

A hydrant flow test was conducted on November 23, 2021. Details of this test are included in schedule B.

Looking at a total combined projected demand of 1506gpm (1482gpm+24gpm), and comparing to the hydrant flow test we see a projected system pressure of about 33psi at peak demand. This is considered acceptable and based on this information we feel the system will support this development.

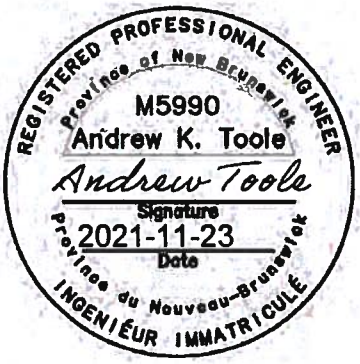
Closing

We trust this is sufficient for your present needs. Please feel free to contact the undersigned at 506.636.2136 or at at@dmse.ca for any additional information or clarification.

Yours truly,

Don-More Surveys & Engineering Ltd.

Andrew Toole
Andrew Toole, NBLS, P.Eng.



T 506.433.4427
T 506.652.1522

4-60 Maple Avenue, Sussex, NB E4E 2N5
16 Fulton Lane, Saint John, NB E2H 2W4

www.dmse.ca
info@dmse.com

Appendix A

Projected Flow Calculations

T 506.433.4427
T 506.652.1522

4-60 Maple Avenue, Sussex, NB E4E 2N5
16 Fulton Lane, Saint John, NB E2H 2W4

www.dmse.ca
info@dmse.com

Fire Flow Calculations
21358- 145 Hampton Road

From "Fire Underwriters Survey- 1999 Water Supply for Public Fire Protection"

$F = 220C\sqrt{A}$

where: F= required fire flow in litres per minute (LPM)
C= Coefficient related to the tyoe of construction
A= Total floor area (m^2)

Part 1: Determining an Esitmate of Fire Flow

Assuming fire resistive construction (**C=0.6**)

Note: For fire resistive buildings, consider the two largest ajoinging floors plus 50% of each floor immediatley above them.

A= 2*1275+(0.5*4*1275) = **5100 m^2** ***(This assumes underground parking is ignored as it is at least 50% buried)***

F= 9426.69 LPM

Part 2: Reduction for Non-Combustible or Limited Combustible

For Non-Combustible (-25%)	F=	**7070.01**	**LPM**
For Limited Combustible (-15%)	F=	**8012.68**	**LPM**

Part 3: Reduction for Sprinklers (-30%)

For Non-Combustible	F=	**4949.01**	**LPM**
For Limited Combustible	F=	**5608.88**	**LPM**

Range of Demands depending on Non-Combustible vs Limited Combustible:

1307.5	**GPM**
1481.9	**GPM**

Note: The are additional reductions related to sprinklers therefore this should be considered a consetvative flow rate

Domestic Demand Calculations
21358- 145 Hampton Road

Residential Portion of Building

Units	48	Units			
Population	120	Persons (2.5 people/unit)			
Site area	N/A	m²			

Domestic Demands

Average Daily Demand	410	L/person				
Max daily demand	680	L/person				
Max hourly demand	1025	L/person				
Avg Day	0.569	l/s	34.2	l/min	9.0	Gal/min (US)
Max day	0.944	l/s	56.7	l/min	15.0	Gal/min (US)
Max hour	1.424	l/s	85.4	l/min	22.6	Gal/min (US)

Commerical portion of building

area	1275	m²		
			shopping centre (2000-5000 L/1000m²/Day)	
using	5000	L/1000m²/day as max day demand		
Avg Day	3844	L/day	0.7	Gal/min (US)
Max day	6375	L/day	1.2	Gal/min (US)
Max hour	9609	L/day	1.8	Gal/min (US)

Total Domestic Demand

Avg Day	9.7	Gal/min (US)
Max day	16.1	Gal/min (US)
Max hour	24.3	Gal/min (US)

Appendix B

Hydrant Flow Test

T 506.433.4427
T 506.652.1522

4-60 Maple Avenue, Sussex, NB E4E 2N5
16 Fulton Lane, Saint John, NB E2H 2W4

www.dmse.ca
info@dmse.com

Project: Homestar
Date: November 23, 2021
Location: 145 Hampton Road, Rothesay

DON - MORE
SURVEYS & ENGINEERING LTD.

System Info:

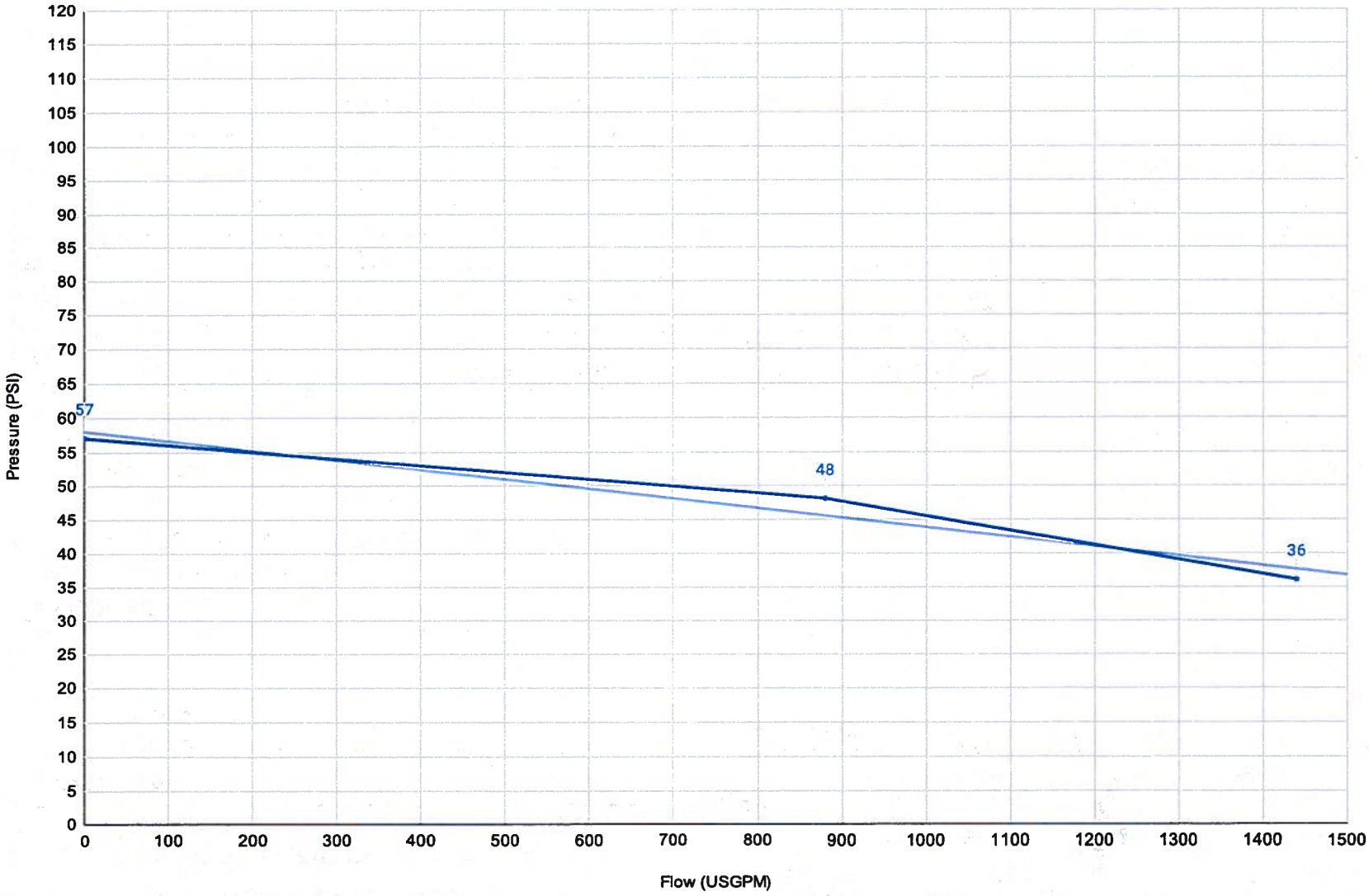
Pipe size: 200mm
Looped: Yes
Notes:

Test Data:

Residual Hydrant: 8 Parkdale Avenue
Flow Hydrant: Intersection of Parkdale & Hampton Roads
Static pressure: 57 psi
Time of Test: 9:10 AM
Pitot coefficent: 0.88

Test #	# of outlets	Orifice sizes (inches)	Pitot readings (psi)	Equivalent flow (usgpm)	Total flow (usgpm)	Residual Pressure (psi)
0	0			0	0	57
1	1	2.5	29	880	880	48
2	2	2.5	19	720	1440	36
3	1	2.5		0	0	
4	2	2.5		0	0	
5	1	2.5		0	0	
6	2	2.5		0	0	

Water Flow Test Summary




CHAPEL Road
HOLLAND Drive
200mm Ø PVC
ROBINSON Street

December 10, 2021

Mark Hatfield
Owner & CEO
Homestar Inc.
11 Elliott Road
Quispamsis (NB) E2E 2B5

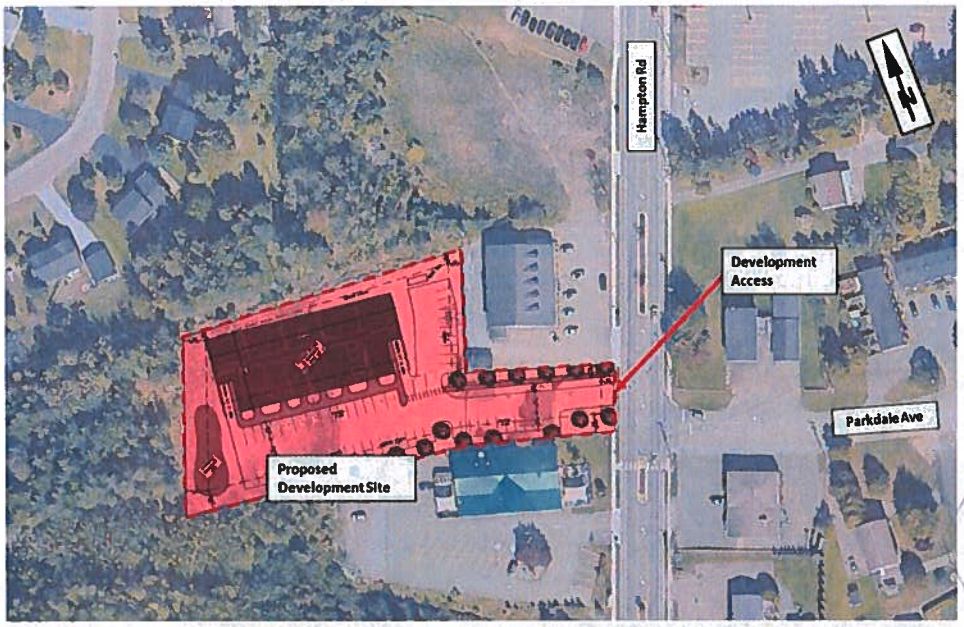
Subject: **Traffic Impact Statement – 145 Hampton Road Development**
Englobe Ref. 2112601

1 INTRODUCTION

A new multi-use development has been proposed at 145 Hampton Road in the Town of Rothesay. The development will consist of 55 dwelling units, 445m^2 of ground floor retail lease space as well as underground and surface level parking. The proposed development site plan, which is included in **Appendix A**, shows the size and location of the proposed building and the proposed parking lot configuration. The proposed development will be accessible via a single access on Hampton Road.

As part of the development approval process, the Town of Rothesay requires that a Traffic Impact Statement (TIS) be completed for this development. The primary areas of focus are whether the development will impact traffic operations along Hampton Road, identifying the left turn lane requirements into the development, and reviewing the proposed vehicle and pedestrian accesses. Englobe Corp. has been retained to complete this TIS. The Study Area for the TIS is shown in **Figure 1**.

Figure 1: Study Area



2 INFORMATION GATHERING

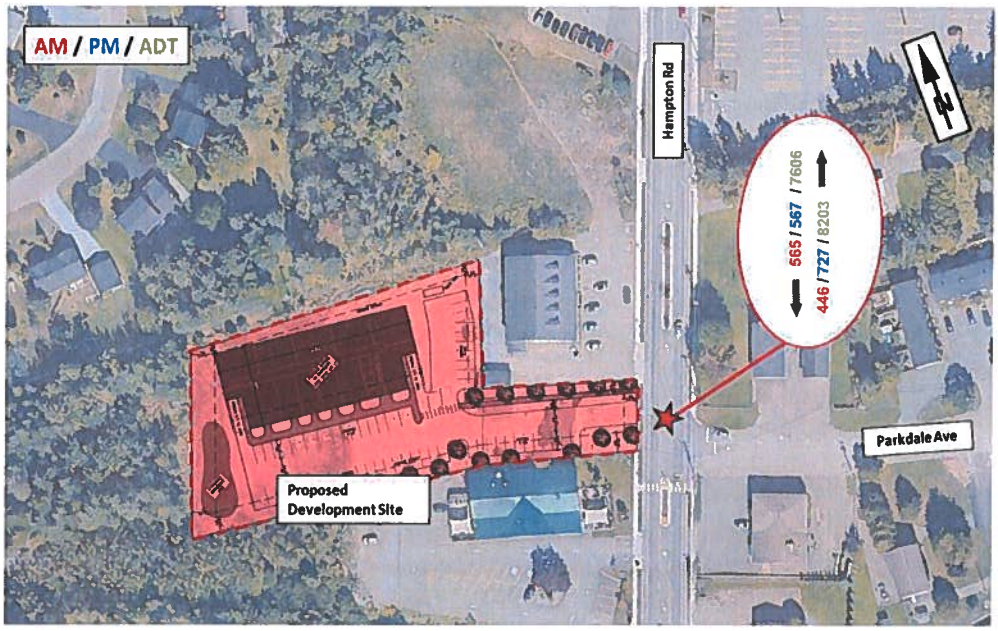
2.1 STREET AND INTERSECTION CHARACTERISTICS

Hampton Road is a collector street that is oriented in the north-south direction and has an AADT of approximately 15,800 vehicles/day near the proposed development. Hampton Road has a speed limit of 50 km/h and features concrete sidewalks along both sides of the street. Hampton Road features one lane in each direction with a center lane that alternates between curbed medians and left turn lanes within the study area. In front of the proposed development access, the center lane is used as a southbound left turn lane for vehicles turning onto Parkdale Avenue.

2.2 TRAFFIC DATA

Traffic data that were collected by the study team for another project at the intersection of Hampton Road and Marr Road on February 17th 2016 were used for the analysis. These traffic counts were completed during the peak 6 hours of the day from 7:30 to 9:30 AM, 11:30 AM to 1:30 PM and from 4:00 to6:00 PM. An annual growth factor of 1.0% was applied to the data to estimate the 2022 peak hour volumes on Hampton Road. The 2022 peak hour and estimated daily volumes are shown in **Figure 2**. The traffic count data are provided in **Appendix B**.

Figure 2: 2022 Background Peak Hour and Daily Volumes



3 DEVELOPMENT TRAFFIC

3.1 TRIP GENERATION

Trip generation rates for the proposed development were estimated using the 9th Edition of the Institute of Transportation Engineer's (ITE) *Trip Generation Manual*. The Developer provided information regarding the size and type of development that is planned. The development will consist of a single building with 55 dwelling units and a 445 m^2 (4,790 ft^2) retail lease space on the ground floor. ITE Land Use #221 (Multifamily Housing – Mid-Rise) was used to generate trips for the residential units and ITE Lane Use #826 (Specialty Retail Center) was used to generate trips for the retail space. The resulting vehicle trip generation is shown in **Table 1**. To remain conservative, it was assumed that all of these trips would be made by motor vehicle and that there would be no synergies between the two land uses.

Table 1: Traffic Generation for the Proposed Development

DEVELOPMENT	SIZE	AM PEAK HOUR			PM PEAK HOUR			DAILY TOTAL
		In	Out	Total	In	Out	Total	
Multifamily Housing - Mid-Rise (ITE Land Use #221)	55 Dwelling Units	5	15	20	15	9	24	299
Specialty Retail Center (ITE Land Use #826)	4790 ft^2	5[1]	5[1]	10[1]	15	18	33	243
Trip Generation Total		**10**	**20**	**30**	**30**	**27**	**57**	**542**

[1]*The ITE Trip Manual does not provide a rate for Specialty Retail during the AM peak of the adjacent street so a nominal volume of 5 vehicles entering and exiting was applied.*

3.2 TRIP IMPACT ASSESSMENT

The development traffic volumes were compared to the existing traffic volumes on Hampton Road to estimate the net increase in traffic that should be expected on the roadway as a result of the development. **Table 2** shows the percentage increase of traffic for the AM peak hour, PM peak hour and for an average weekday. The results indicate that the development will cause Hampton Road traffic volumes to increase by approximately 3.5%. This is equivalent to less than 4 years of background growth along a typical roadway.

Table 2: Hampton Road Traffic Volume Impacts

TIME PERIOD	BACKGROUND VOLUMES ON HAMPTON ROAD	DEVELOPMENT TRAFFIC	PERCENT INCREASE
AM Peak Hour	1,011	30	3.0%
PM Peak Hour	1,294	57	4.4%
Weekday	15,809	542	3.4%

Based on the above, the Study Team does not expect that the development will have significant impacts on the existing traffic operations of Hampton Road.

4 LEFT TURN LANE WARRANT

A left turn lane analysis was completed using the Ontario Geometric Design Guide for the northbound left turning movement into the development. The Ontario Guide uses a series of nomographs that are a function of the peak hour left turning volume, advancing volume, opposing volume, and design speed to determine if a left turn lane is warranted at an unsignalized intersection. To estimate the turning movement volumes with the development in place, the development volumes that were generated in **Section 3** were added to Hampton Road based on the existing traffic distributions on the street. The peak hour turning movement volumes used for the analysis are presented in **Figure 3**. The posted speed limit on Hampton Road is 50 km/h, therefore 60 km/h was selected as the design speed. The results of the left turn warrant analysis are presented in **Table 3** and **Figure 4**.

Figure 3: Peak Hour Turning Movement Volumes with the Development

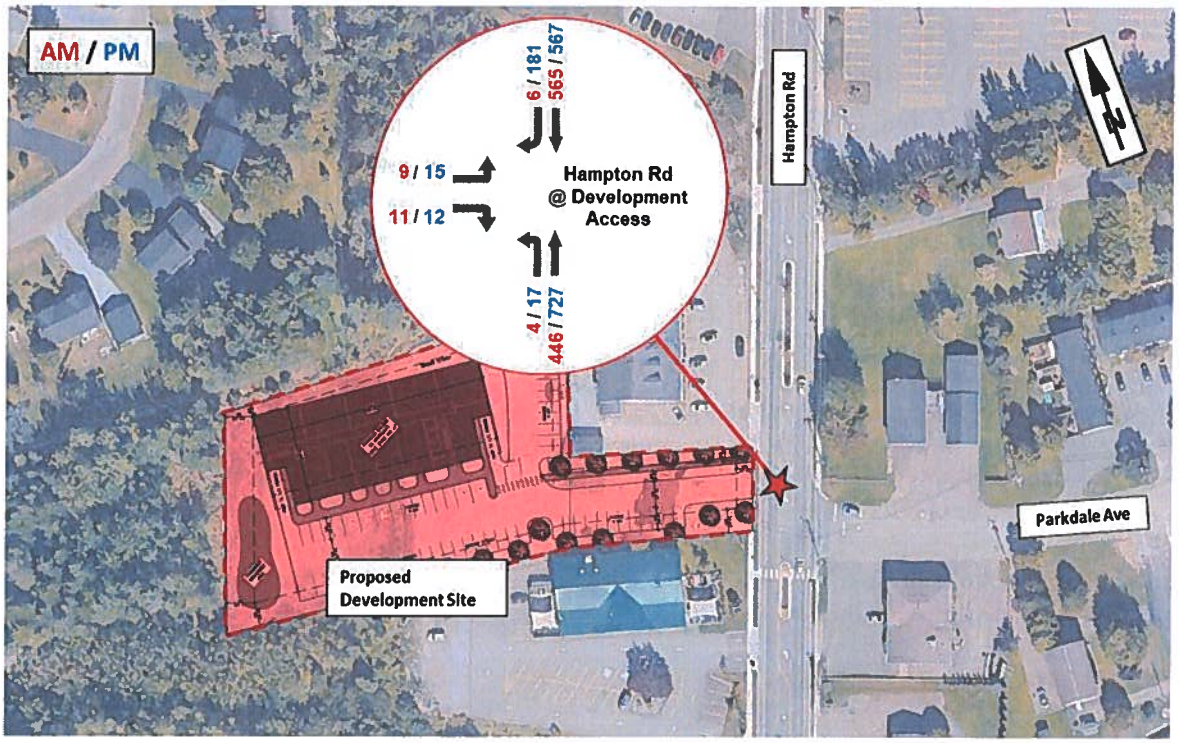
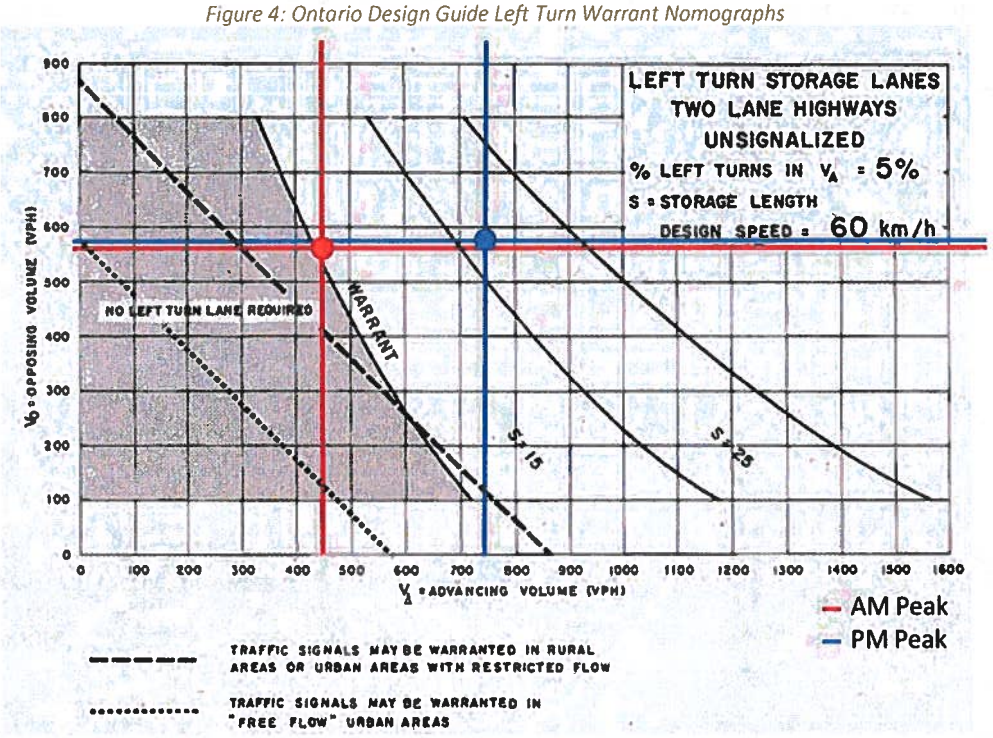


Table 3: Ontario Design Guide Warrant Results

PERIOD	ADVANCING VOLUME (VPH)	OPPOSING VOLUME (VPH)	LEFT TURN PERCENTAGE	WARRANTED?
AM Peak	450	571	0.8%	No[1]
PM Peak	744	580	2.3%	No[1]

[1]Not warranted because the left turn percentage is less than 5% of the advancing volumes

Figure 4: Ontario Design Guide Left Turn Warrant Nomographs



Both left turn percentages are lower than 5%, which is the lowest left turn percentage available in a nomograph. As a result, this nomograph overestimated the need for a left turn lane during the AM Peak (0.8% left turns) and during the PM peak (2.3% left turns). Based on this, **a left turn lane is not warranted at the development access for northbound left turning vehicles**. If the left turning volumes were to increase to the point that they reach 5% of the advancing volume on Hampton Road, a left turn lane should be considered at that time. 5% left turns would be equivalent to 23 left turning vehicles in the AM peak hour and 37 left turning vehicles in the PM peak hour.

5 ACCESS CONSIDERATIONS

5.1 VEHICLE ACCESS

5.1.1 DRIVEWAY WIDTH

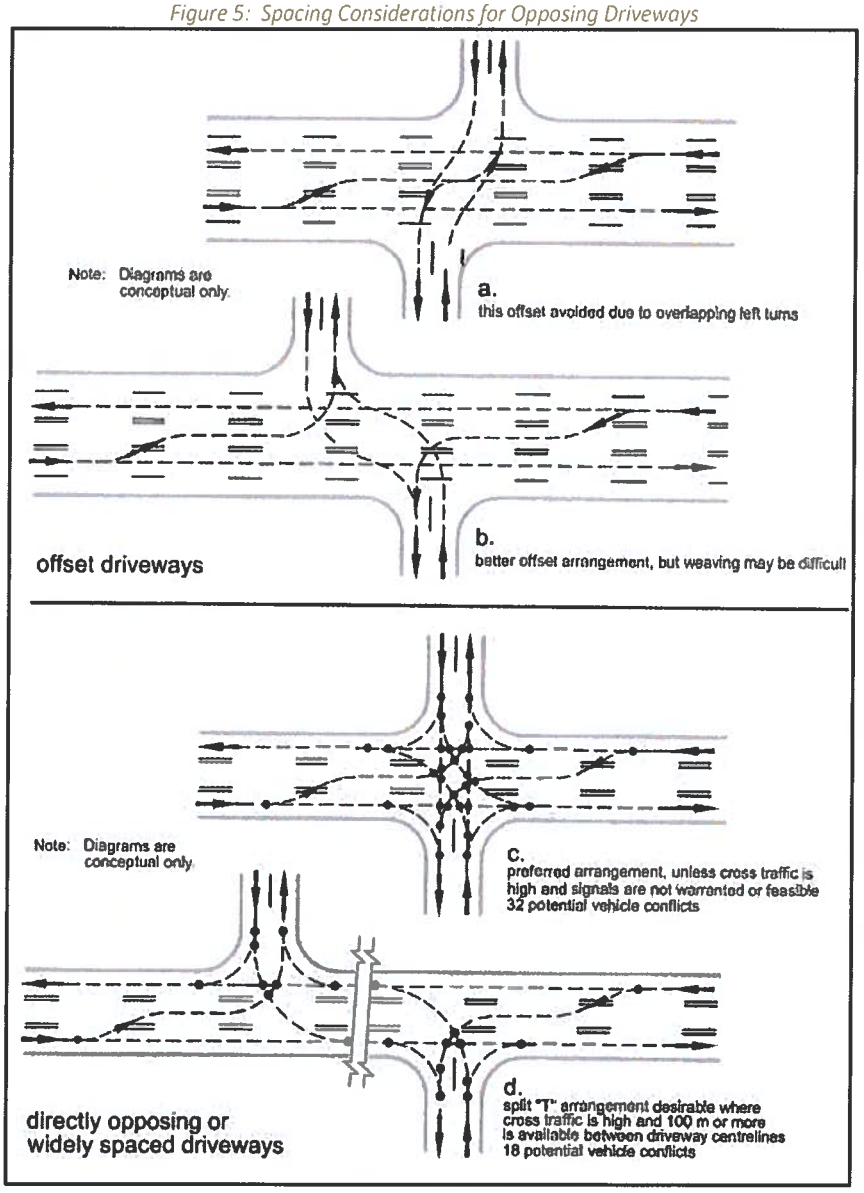
The Study Team completed a review of the proposed development access. The development site plan shows a single access on Hampton Road approximately 6m south of the existing access to 147 Hampton Road. The width of the proposed access is 6.5m. The TAC Design Guide recommends widths between 7.2 and 12.0m for commercial and multi-unit residential driveways. **It is therefore recommended that the access be widened to fit within this range.**

5.1.2 ACCESS LOCATION

The centreline of the access as shown on the site plan is offset approximately 10 m north of Parkdale Avenue. This access location does not constitute good design practice as outlined in the TAC Design Guide (Chapter 8 -Access). TAC recommends that accesses on opposite sides of the road either be located directly

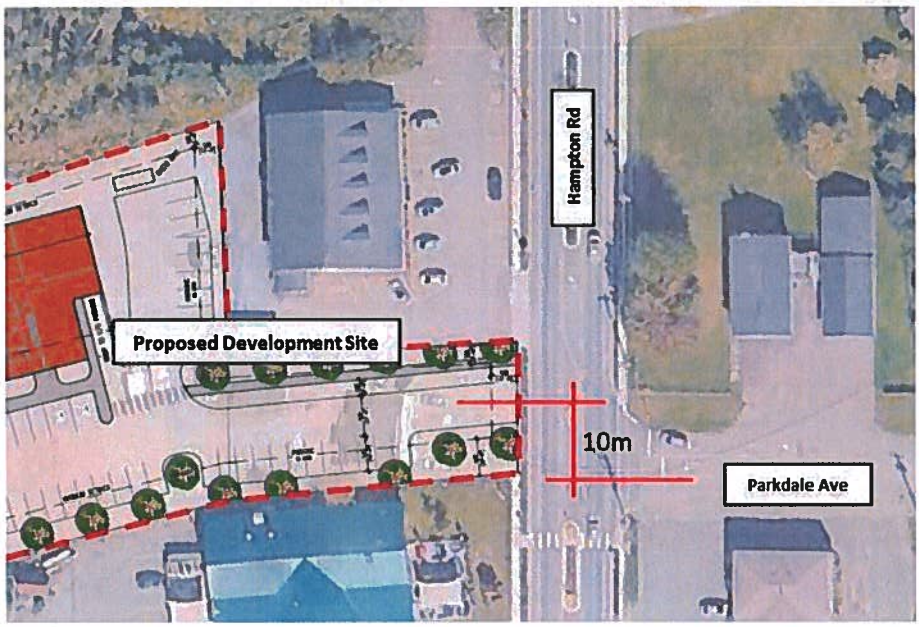
opposite each other or offset far enough to accommodate left turn queue space into each access. The current proposed access location is equivalent to Option A as identified in **Figure 5** below. This configuration will create conflict between northbound drivers attempting to turn left into the development and southbound drivers attempting to turn left onto Parkdale Avenue. The proposed access location and it's offset to Parkdale Avenue is shown in **Figure 6**. It is recommended that the development access be shifted to the north as much as possible. Maintaining a shared access at the location of the existing access on the property would be preferred as this would reduce conflicts with left turn traffic and would make use of the existing left turn lanes.

Figure 5: Spacing Considerations for Opposing Driveways



Source: TAC Geometric Design Guide for Canadian Roads, Chapter 8, Figure 8.9.3

Figure 6: Development Access Offset from Parkdale Avenue



5.2 PEDESTRIAN ACCESS

The Study Team completed a review of the existing pedestrian infrastructure on Hampton Road as well as the proposed pedestrian infrastructure within the development site. Hampton Road currently features concrete sidewalk along both sides of the street. A pedestrian crosswalk with ground mounted signs is currently featured across Hampton Road approximately 17m south of the proposed development access. The proposed development site plan shows pedestrian pathways extending along the north side of the development access and across the front of the building. A crosswalk is also featured within the parking lot between these two sections of pathway. This should provide sufficient pedestrian connectivity within the development site.

6 CONCLUSIONS

The key findings and recommendations of this Traffic Impact Statement are summarized as follows:

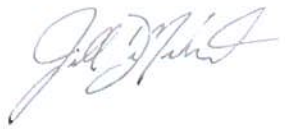
1. The proposed development, which would be located on the west side of Hampton Road across from Parkdale Avenue, includes a building with a total of 55 dwelling units and 445 m^2 of retail lease space, as well as an underground and surface parking lot.
2. It is expected that the proposed development will generate 30 vehicle trips during the AM Peak hour (10 entering/20 exiting), 57 vehicle trips during the PM Peak hour (30 entering/27 exiting) and a total of 542 one-way trips daily.
3. The development is expected to increase traffic volumes on Hampton Road by approximately 3.5%, which is equivalent to less than 4 years of background growth. The Study Team does not expect significant impacts to Hampton Road as a result of the development.
4. A left turn lane warrant was completed for vehicles turning left into the development from Hampton Road. The analysis concluded that a left turn lane would not be warranted at the

development access because the left turning volumes during the AM and PM peak hours would be less than 5% of the advancing traffic volume. If the AM or PM peak hour left turn volumes reach 23 or 37 vehicles, respectively, a left turn lane into the development should be considered at that time.

5. Based on a review of the proposed development access, it was determined that the proposed width of 6.5m does not meet the TAC guidelines which recommended a width in the range of 7.2m and 12.0m for a two-way multi-unit residential development access. It is recommended that the access be widened to fit within this range.
6. The proposed access location will create conflicts between left turn traffic entering the development and left turn traffic entering Parkdale Avenue. It was recommended that the access be shifted as far north as possible. Maintaining a shared access at the location of the existing access on the property would be the preferred option and would reduce left turn conflicts.
7. Based on a review of the proposed pedestrian infrastructure, it was concluded that sufficient pedestrian connectivity will be provided within the development site and to the existing pedestrian infrastructure on Hampton Road.

We trust the enclosed is to your satisfaction. If, however, additional information should be required, please communicate with the undersigned.

Yours very truly,



Jill DeMerchant, P.Eng., M.Eng.

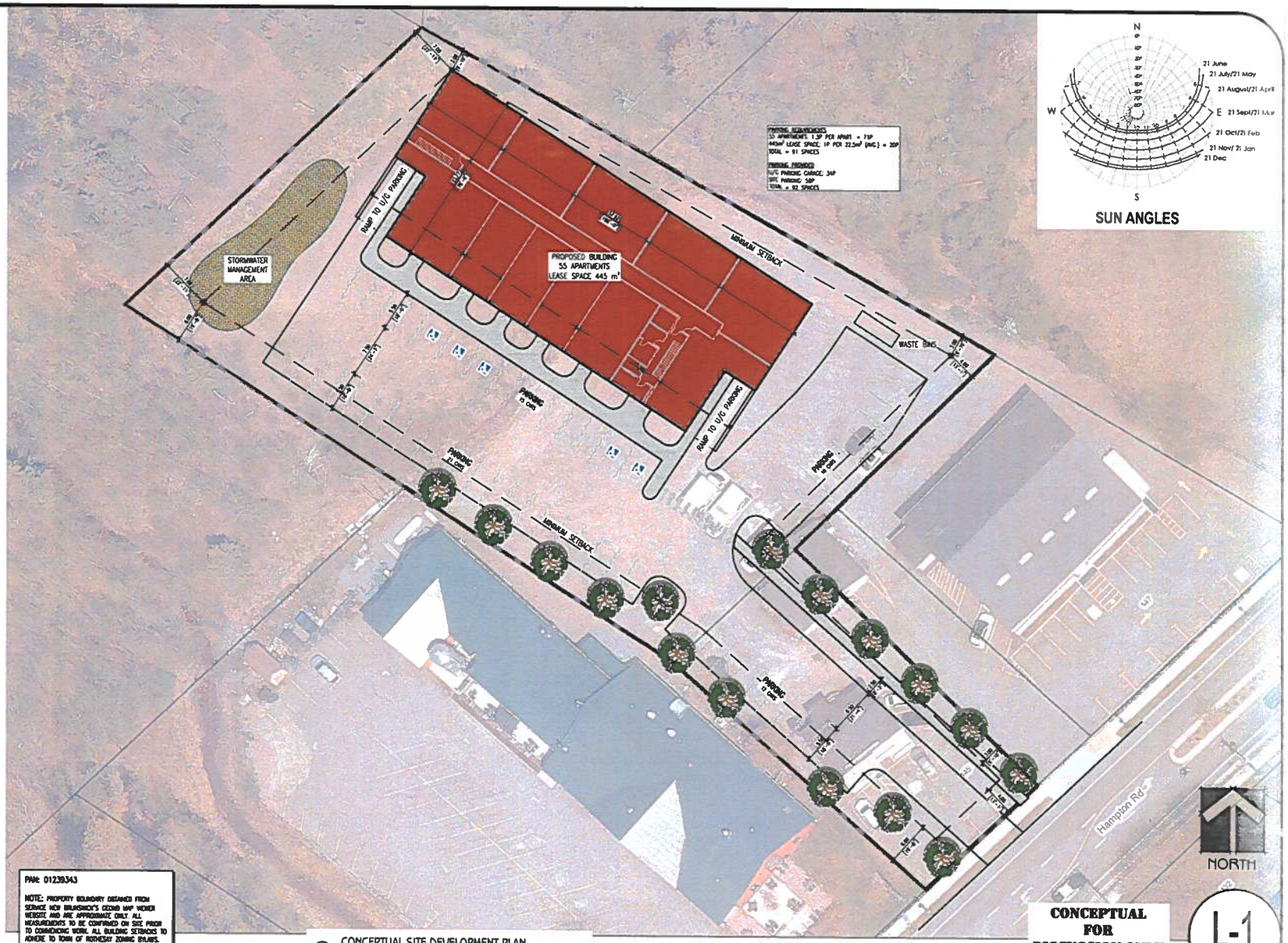
Transportation Engineer

Appendix A: Site Plan

COMPLEX 145

CONCEPTUAL SITE PLAN

ROTHESAY, NEW BRUNSWICK



PD POLYLINE DESIGNS

MUNICIPAL / COMMERCIAL BUILDING DESIGN
ARCHITECTURAL SUPPORT TECHNOLOGY
DRAFTING and GRAPHIC SERVICES

437 PICKELL ROAD - PICKELL, NEW BRUNSWICK - E4E 5J7
TEL: 506.434.1197 FAX: 506.433.5498 EMAIL: info@polylinedesigns.ca

PAN: 01239343

NOTE: PROPERTY BOUNDARY OBTAINED FROM SERVICE NEW BRUNSWICK'S GEOMAP WEB VIEWER WEBSITE AND ARE APPROXIMATE ONLY. ALL MEASUREMENTS TO BE CONFIRMED ON SITE PRIOR TO COMMENCING WORK. ALL BUILDING SETBACKS TO ADHERE TO TOWN OF ROTHESAY ZONING BYLAWS.

1 CONCEPTUAL SITE DEVELOPMENT PLAN SCALE 1:250

CONCEPTUAL FOR DISCUSSION ONLY

OCTOBER 29 2021

L-1

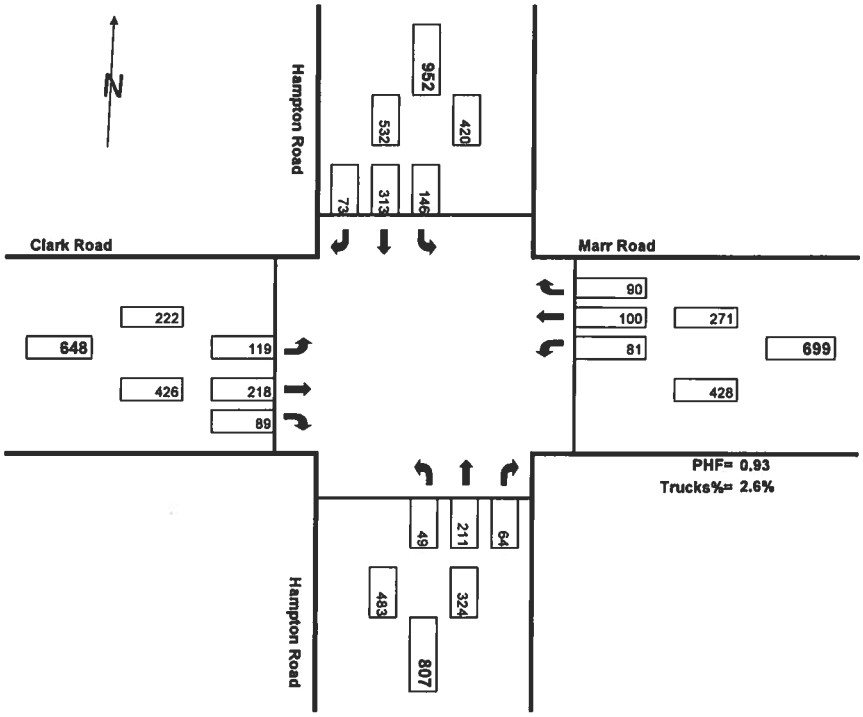
OF 1

Appendix B: Traffic Data

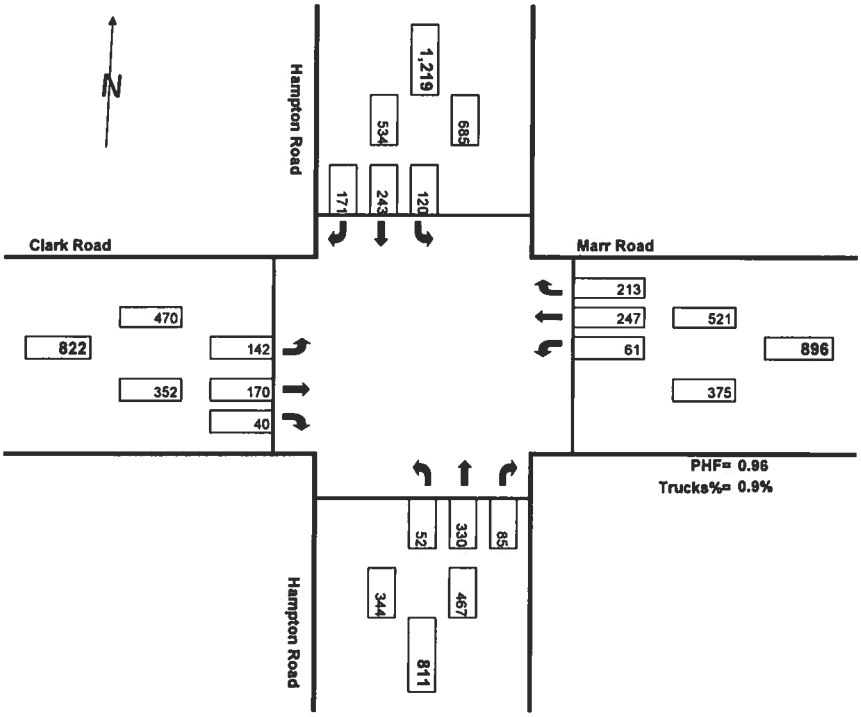
Traffic Count Summary
AM and PM Peak Hours

Hampton Road/Marr Road

AM Peak Hour 07:45 - 08:45



PM Peak Hour 16:15 - 17:15



Traffic Count Summary
AADT

Hampton Road/Marr Road