

<b>Title:</b>	Construction Funding for Roundabout at Allendale and Prince Philip
<b>Date Prepared:</b>	December 4, 2019
<b>Report To:</b>	Committee of the Whole
<b>Councillor/Theme:</b>	Sandy Hickman- Transportation
<b>Ward:</b>	4

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## **Decision/Direction Required:**

Direction is required to solicit funding from the Provincial Government to build a roundabout at Allendale and Prince Philip.

## **Discussion – Background and Current Status:**

The Memorial University Area Traffic Study was commissioned in 2014, by the City of St. John's, Memorial University of Newfoundland and the Provincial Department of Community Services with a purpose to examine the longer-term transportation infrastructure needs in and around the University area. This partnership was formed based on the premise that there are four major parties that have a vested interest and responsibility for the traffic conditions in the study area. Each of these four parties sat on the project steering committee:

- i. The City of St. John's
- ii. Memorial University of Newfoundland
- iii. Eastern Health - Health Sciences Centre, General Hospital and Janeway Children's Health and Rehabilitation Centre
- iv. Government of Newfoundland and Labrador - Confederation Building

The MUN Traffic Study final recommendations were collaboratively prioritized with the interested parties. The attached Decision Note outlines the prioritized recommendations and proposed funding split leading to the study's approval by Council in 2017. The attached presentation provides an up-to-date overview of the top 10 priorities, and highlights progress and upcoming opportunities.

The roundabout at Allendale and Prince Philip Drive is the top priority infrastructure project recommended by the MUN Traffic Study. In September 2017, Harbourside Transportation Consultants was retained to prepare the detail design and cost estimate tender-ready package for the construction of this roundabout (CD# R2017-09-25/17). Now being wrapped up, this work represents a tender-ready construction package for the roundabout.

**Key Considerations/Implications:**

**1. Budget/Financial Implications**

The preparation of a roundabout detail design and cost estimate cost \$39,675.00 (including HST), and exploring an option with multi-use underpasses cost an additional \$13,800 (CD# R2017-09-25/17). This work was funded entirely by the City of St John's.

The attached MUN Traffic Study Decision Note proposed that costs for the Allendale & Prince Philip roundabout be split 75%/25% between the Provincial Government and the City of St John's respectively. The attached letter was sent to the Provincial Government to solicit funding for recommendations of the MUN Area Traffic Study. At an in-person meeting that followed this letter, it was decided to pursue funding for a Transit Terminal through the Public Transit Infrastructure Funding (PTIF) program.

No funding has been allocated for construction of this project by any of the interested parties.

Roundabout construction is estimated to cost in excess of \$2 million, a final estimate is expected by mid December 2019.

**2. Partners or Other Stakeholders**

Memorial University of Newfoundland

Eastern Health - Health Sciences Centre, General Hospital and Janeway Children's Health and Rehabilitation Centre

Government of Newfoundland and Labrador - Confederation Building

General public

**3. Alignment with Strategic Directions/Adopted Plans**

This does not directly address any of the actions identified in the 2019 Action Plan for the 2019 – 2022 City of St. John's Strategic Plan. However, it does support goal M2 to "Improve safety for all users on a well-maintained street network."

**4. Legal or Policy Implications**

n/a

**5. Privacy Implications**

n/a

**6. Engagement and Communications Considerations**

Public engagement related to the project was completed as part of the MUN area Traffic Study.

Decision/Direction Note

Construction Funding for Roundabout at Allendale and Prince Philip

A communications plan is required to keep the public informed of traffic changes well in advance of, and during the construction of this project. As this intersection sees a high volume of local and regional traffic, communication tactics must be coordinated and promoted with partners such as MUN, Eastern Health and the provincial government.

**7. Human Resource Implications**

Staff time is required to pursue funding, procurement and manage construction.

**8. Procurement Implications**

A tender-ready package is prepared for construction.

**9. Information Technology Implications**

n/a

**10. Other Implications**

n/a

**Recommendations:**

Prepare a letter to the Minister of Transportation and Works to request cost sharing for construction of a roundabout at Allendale and Prince Philip.

**Prepared by/Date:**

Marianne Alacoque, Transportation System Engineer

Signature: \_\_\_\_\_

**Approved by/Date:**

Garrett Donaher, Manager – Transportation Engineering

Signature: \_\_\_\_\_

**Attachments:**

MUN Traffic Study Decision Note (June 14, 2019)

MUN Traffic Study Overview Presentation (December 2019)

Letter to Minister of Transportation and Works, Re: MUN Area Traffic Study (February 19, 2018)

# DECISION/DIRECTION NOTE

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<b>Title:</b>	MUN Area Traffic Study
<b>Date Prepared:</b>	June 14, 2017
<b>Report To:</b>	His Worship the Mayor and Members of Council
<b>Councillor and Role:</b>	Councillor Sandy Hickman, Project Representative
<b>Ward:</b>	Ward 4

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## **Decision/Direction Required:**

To accept the MUN Area Traffic Study Final Steering Committee Report, its recommendations, and approve next steps toward implementation.

## **Discussion – Background and Current Status:**

The Memorial University Area Traffic Study was commissioned in 2014, by the City of St. John's, Memorial University of Newfoundland and the Provincial Department of Community Services with a purpose to examine the longer term transportation infrastructure needs in and around the University area. This partnership was formed based on the premise that there are four major parties that have a vested interest and responsibility for the traffic conditions in the study area. The Study Area is shown in an attachment to this briefing note. The four interested parties are:

- i. The City of St. John's
- ii. Memorial University of Newfoundland
- iii. Eastern Health - Health Sciences Centre, General Hospital and Janeway Children's Health and Rehabilitation Centre
- iv. Government of Newfoundland and Labrador - Confederation Building

Each of these four parties contributed equally to the funding of the study and sat on the project steering committee.

The focus of the terms of reference were on

- traffic performance / congestion on the roads in the study area
- pedestrian safety on the MUN campus and crossing the roads in the study area
- public transit and transportation demand management
- a review of the recommendations from the 2007 MUN Campus Master Plan

The study started with data gathering and consultation. The nine groups below were identified as key stakeholders and their input was sought:

- i. Newfoundland Department of Transportation and Works
- ii. Eastern Health
- iii. MUN – Facilities Management Division

# ST. JOHN'S

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- iv. Metro Bus
  - v. MUN Students Union (Graduate and Undergraduate)
  - vi. C.A. Pippy Park Commissions
  - vii. Bicycle Newfoundland
  - viii. Provincial Department for Advanced Education and Skills
  - ix. Health and Community Services

A project website with an interactive map for providing feedback was also created and an online survey was conducted to better understand the needs of the public in the area.

The culmination of the consultation work, technical analysis, steering committee guidance, and close work with key stakeholders has resulted in the identification and prioritization of key recommendations from the study. This list is found in the attached Project Prioritization and Funding Table and complemented by the attached Summary of Key Recommendations. A description of these key recommendations follows.

The traffic analysis was performed at two levels of detail. First a detailed analysis focused on six of the key intersection in the study area was completed. The remaining 14 intersections were evaluated using a high level analysis to identify improvements that may be required in the long term. These two groups of intersections are shown in the Study Area figure attached.

#### *Short Term Infrastructure*

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Short Term Infrastructure recommendations are highlighted in the attachments using green.

Based on the detailed traffic analysis it was found that major intersection improvements are required in the short term along Prince Philip Drive. Prince Philip Drive is already served by large intersections controlled by traffic signals. Modifications to satisfy the traffic requirements were investigated but no reasonable solutions were identified. These intersections were tested with roundabout control as opposed to traffic control signals and found to operate well under those conditions. Three roundabouts are recommended along Prince Philip Drive in the short term, at:

- i. Allendale Road
- ii. Clinch Crescent (east) / Westerland Road
- iii. Thorburn Road

Along Elizabeth Avenue the need for a few turning lane improvements were identified for the short term. These improvements would take place at the intersection of Westerland Road and at the intersection of Allendale Road / Bonaventure Avenue.

Though not an infrastructure project, a recommendation was made to study the intersection of Freshwater Road at Stamps Lane / Oxen Pond Road as this is currently a bottleneck in the local road network. In fact, issues at this intersection are known to spill back onto Elizabeth Avenue. This study has been initiated at a staff level by Transportation Engineering and will

be brought to Council when complete. Infrastructure recommendations in the area are likely to stem from this study.

#### Roundabout at Prince Philip Drive and Allendale Road

The roundabout at Prince Philip Drive and Allendale Road is the first planned infrastructure project to stem from the MUN Area Traffic Study. In 2017 the City of St. John's Council approved funding to complete a design and full project cost estimate for this roundabout.

The desire has been expressed by some to use this project to highlight the possibilities for forward looking design. This video shows how in some cases a grade separation can be used to provide for pedestrian and cyclist passage separate from vehicle traffic:

<https://youtu.be/XpQMgbDJPok?t=242>

When the design contract is awarded council will be given the option to include this type of treatment as an additional piece of work on top of the basic design recommended by the MUN Area Traffic Study.

#### *Long Term Infrastructure*

Long Term Infrastructure recommendations are highlighted in the attachments using blue.

The long term traffic analysis identified many other improvements that should be protected for as they may be required in the future. These projects include:

- Multiple roundabouts throughout the network
- Corridor upgrades along Clinch Crescent and Prince Philip Drive
- A new roadway Link through Pippy Park
- Gateway features and other street landscaping

#### *Pedestrian Safety*

Pedestrian Safety recommendations are highlighted in the attachments using yellow.

A thorough review of MUN campus pedestrian crossings was conducted. In addition the need to provide separate crossing facilities for pedestrians travelling between buildings on the north and south side of Prince Philip Drive was assessed.

Three key recommendations resulted from this assessment. First, to provide a new pedway link between the Education Building and the new Core Science Facility. This would be immediately adjacent Prince Philip Drive and Clinch Crescent (east) / Westerland Road. A second pedway link between the new Core Science Facility and the Health Sciences Complex (via the Parking Garage on Artic Avenue) completes a key pedestrian desire line. Finally, several minor adjustments to pedestrian markings and signage throughout Campus are recommended.

#### Pedway between Core Science Facility and Parking Garage

The MUN Area Traffic Study found that this connection would greatly benefit those visiting MUN and the Health Sciences Complex. This link would complete a weather protected pedestrian network completely separated from traffic that extends from the Health Sciences Complex through the Core Science Facility to the main MUN Campus. In addition the recommended Transit Terminal could be located to directly tie into this pedestrian network providing vastly improved transit options for people visiting the Health Sciences Complex and MUN.

Eastern Health (in a letter attached) has expressed concern with this link. They feel that the intention of the Parking Garage is to serve Eastern Health and MUN needs within the Health Sciences Complex and that providing this link would detract from that.

Based on MUN records the Parking Garage was constructed based on parking needs being expressed by both Eastern Health and Memorial University. The Parking Garage is constructed on Memorial University land and is operated by Memorial University. Memorial University and Eastern Health have an agreement in place governing the shared use of the parking garage, which recognizes that Eastern Health's use of the garage is subject to Memorial University's parking needs. At present Eastern Health has availability for overflow employee parking on the 4th floor of the garage with the remaining balance of the garage divided between permit and pay and display spaces, controlled by the University.

It appears that there is a misunderstanding with respect to the use of the Parking Garage on Artic Avenue that is influencing opinions on this pedway link. Based on the justifications for this link the connection to the Parking Garage is a tertiary issue. There is a strong case for the pedway link regardless of the use of the Parking Garage. As such, it has been included within the project prioritization and funding table despite the concerns of Eastern Health.

#### Pedway Costs

St. John's Conference Centre (SJCC) pedway to Delta Hotel is about 83m and was tendered for \$1.65M.

Core Science Facility Pedway was given a high level estimate of \$4.5M. This was based on a 75m long pedway of much higher quality than a basic connection like the SJCC pedway.

A high level estimate to remove and reconstruct the 87.5m pedway connecting the Chemistry Building and the Earth Sciences Building was \$4M. Costs are higher than may otherwise be expected on this pedway due to the removals cost being included in the estimate.

Based on this experience the cost of a pedway is expected to be between \$20,000 per linear metre and \$60,000 per linear metre. The pedway from the Core Science Facility to the parking garage would be fairly basic and about 120m long. A cost of \$25,000 per linear metre leads to an estimate of \$3M for this pedway. The pedway from the parking garage to the Health Sciences Complex (at the future Animal Care Building) would likely demand a

higher level of quality and would be about 75m long. A cost of \$40,000 per linear metre leads to an estimate of \$3M for this pedway as well. However, Eastern Health would like to take advantage of this pedway construction to provide redundancy for critical services from their physical plant east of Clinch Crescent. The cost of this aspect of the project are unknown but would increase the project total substantially.

### *Transit and TDM*

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Transit and TDM recommendations are highlighted in the attachments using orange.

Transportation Demand Management (TDM) is the implementation of a variety of initiatives designed to lower the number of vehicles on the road at peak times. These may include:

- improving alternative transportation options such as transit or walking/cycling
- offering incentives to leave your car at home such as carpooling incentives
- increasing the perceived cost of choosing to travel via personal vehicle such as by increasing parking fees

A wide variety of public transit service enhancements and TDM measures are discussed and recommended in this section. Two of the key recommendations in this section ranked very highly in the prioritization. These are:

- i. implement a universal transit pass (U-pass) program
- ii. construct a Transit Terminal on MUN campus

These two recommendations are closely related and support many of the minor recommendations of the Transit and TDM section. The additional key recommendations to implement transit priority and enhance scheduling resources also go hand in hand with these primary recommendations. In fact, transit priority is already being pursued by Metrobus and Transportation Engineering as a method to improve reliability of transit service.

### *General Network Improvements*

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General Network Improvements are highlighted in the attachments using pink.

Many infrastructure projects around the study area were identified that are not required in the short term to alleviate traffic congestion issues. While not strictly required these projects offer a variety of benefits to the travelling public and people in and around the MUN Campus. The five key projects identified in this category are described below.

#### *Elizabeth Avenue Corridor Upgrade*

This project would see a new enhanced cross section for the length of Elizabeth Avenue between Freshwater Road and Allendale Road / Bonaventure Avenue. This cross section would maintain only one lane in each direction but would include additional landscaping, a multi-use trail, access management, and roundabouts to smooth traffic flow and provide a safer more pleasant environment along the front of MUN Campus.

Because of the size of this project it has the most tie-ins to other projects in the priority list.

#### Morrissey Road Realignment and Adjustments

This project would see Morrissey Road at Prince Philip Drive closed and Morrissey Road re-routed to the east where it would join Prince Philip Drive at a new roundabout controlled intersection.

An important part of this project is the desire to create a multi-purpose underpass along the existing Morrissey Road to Livyer's Loop alignment. This would serve as a grade separated connection for pedestrians, cyclists, and possible maintenance vehicles. Feasibility has not been confirmed and no costing for this portion of the project has been estimated.

#### Westerland Road Realignment

Realigning Westerland Road would involve closing the existing alignment and building a new road along the western edge of the MUN Campus that would connect Prince Philip Drive at University Avenue with Elizabeth Avenue at Whiteway Street.

This relocation of Westerland Road eliminates a large number of vehicle – pedestrian conflicts by moving the vehicle traffic outside of the main campus area.

#### Russell Road Realignment

A simple realignment of Russell Road to connect to Elizabeth Avenue opposite Rodney Street. This improves traffic operations in the area and facilitates the access management required as part of the Elizabeth Avenue Corridor Upgrade. It does however impact the building at 208 Elizabeth Avenue which is owned by MUN and used for offices.

#### Turn Lane Upgrades at Mt. Scio Road and Allendale Road

Left turn lanes on Mt. Scio Road have been identified as a short term improvement in this study and have been requested by the public previously. While not essential this is a relatively low cost improvement that will allow this intersection to operate reasonably well into the future.

## Key Considerations/Implications:

### 1. *Budget/Financial Implications*

The estimated cost for surface works in the short term infrastructure priority list is \$22.6M. **This does not represent the full costs for the identified projects. This estimate does not include property acquisition, utility relocation, work required on underground services, etc.** Some projects in the list are mutually exclusive and the recommended Transit Terminal is a major investment that has not been costed.

The financial component of the decision recommended in this briefing note is to approve the proposed funding splits so that they can be forwarded to the MUN Board of Regents and then a joint funding request be submitted to the Province.

**2. *Partners or Other Stakeholders***

Eastern Health, MUN, and the Provincial Department of Community Services have been the City's partners on this study. Many other groups have been consulted as stakeholders in the MUN Area.

**3. *Alignment with Strategic Directions/Adopted Plans***

The process followed in the completion of this study and the recommendations that stem from it support the following strategic directions and goals:

Neighbourhoods Build our City

Promote a safe and secure city

Improve neighbourhood-level services

A Culture of Cooperation

Improve multi-level government relations

Create effective City-education collaborations

Fiscally Responsible

Explore cost-sharing programs/foundations/models

Responsive and Progressive

Create a culture of engagement

**4. *Legal or Policy Implications***

There are several recommendations in the MUN Area Traffic Study report that support a more progressive transportation policy than is currently in place at the City. However, these are not necessarily actionable without further review by City council on individual questions over time.

**5. *Engagement and Communications Considerations***

Upon adoption of the study it would be prudent to provide the public with access to the study report and summary of recommendations. A public notice may be required in coordination with MUN and possibly other study partners.

**6. *Human Resource Implications***

n/a

**7. Procurement Implications**

None at this time.

**8. Information Technology Implications**

n/a

**9. Other Implications**

This decision represents a commitment to major traffic improvements in the study area. However, at this stage the individual projects are still unfunded.

**Recommendation:**

That the MUN Area Traffic Study be accepted by Council and incorporated into the City's planning for development and capital works in the area.

Further, that the proposed funding scheme be forwarded to the MUN Board of Regents for their information and following that a joint funding request be prepared by MUN and the City of St. John's to solicit project funding from the Provincial Government.

**Prepared by:**

Garrett Donaher, Transportation Engineer

Signature: \_\_\_\_\_

**Approved by:**

Brendan O'Connell, Director of Engineering

Signature: \_\_\_\_\_

GD/

**Attachments:**

Study Area

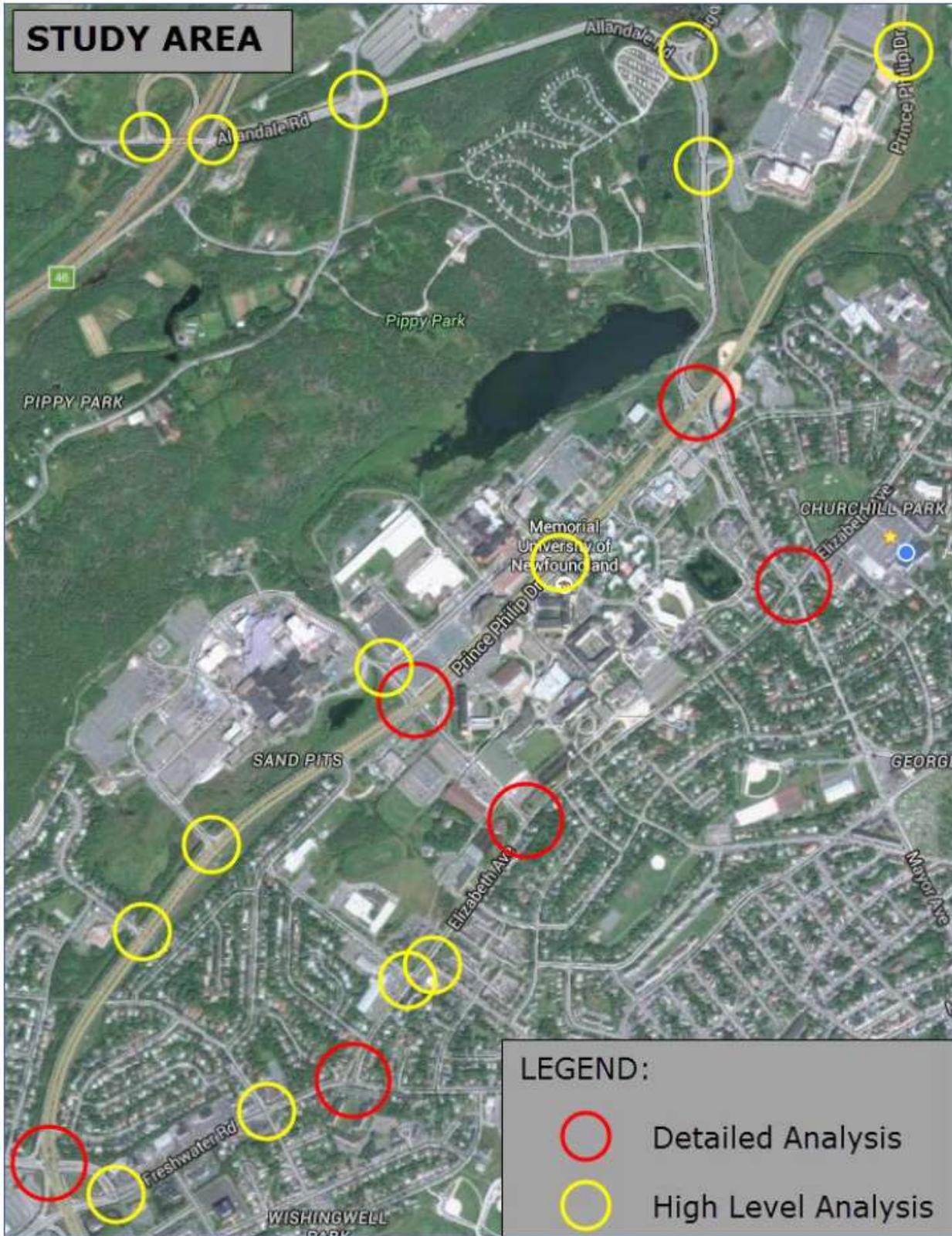
Project Priority and Funding Table

Summary of Key Recommendations

MUN Board of Regents Support

Eastern Health Letters

# STUDY AREA



# PROJECT PRIORITY AND FUNDING TABLE

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The table below provides the priority listing of projects based on stakeholder collaboration. The key short term traffic infrastructure improvements are highlighted in green in the first table. The second table contains recommended infrastructure that may be required in the long term (highlighted in blue) but should only be protected for at this point, not actively planned or funded.

Additional highlights in this table are yellow for Pedestrian Safety, orange for Transit and TDM, and pink for General Network Improvements. This highlighting colour scheme matches the colour scheme used in the Summary of Key Recommendations attachment below.

The “Cost Ref” table provides the source of the cost estimate. These references are mostly to the cost summary tables in the executive summary of the study report (Table A and Table B). Other sources are described as needed.

**Road infrastructure costs are estimated based on surface works only. They do not include property acquisition, utility relocation, work required on underground services, etc. They should not be considered as full project costs.** The full project cost for road infrastructure should be estimated at 50% to 100% higher than the cost of the surface works for budgeting purposes. This will vary on a project by project basis and requires more detailed design work to be determined. Similarly, other project costs noted below may only reflect the main component cost and not the full project cost.

With the caveats above on the costs of these projects the values provided below should be considered for the order of magnitude of a project only and not be relied upon for budgeting. The proposed funding split is more important at this stage as the true project estimates would be determined based on future work.

The project funding splits proposed below are based on the original concept of the MUN Area Traffic Study: that there are multiple parties that have a vested interest and responsibility in traffic conditions in the study area. Given that MUN, Eastern Health, and the Government of Newfoundland and Labrador are all provincial entities the proposed splits have been simplified to either the Province or the City. In case where all four interested parties benefit from the proposed project the split is proposed to be ¼ to each resulting in a ¾ share for the Province and a ¼ share to the City. In other cases there may only be one or two interested parties and the splits in these cases have been proposed to reflect that.

From the perspective of the City of St. John's the key short term traffic infrastructure improvements highlighted in green below are the key projects to pursue. The full priority list represents the combined priorities of many stakeholder groups.

Priority	Improvement Item (short term projects)	Cost Estimate	Cost Ref	Funding
1	U-Pass	Revenue neutral		User fee
2	Roundabout Prince Philip Drive and Allandale Road Prince Philip Improvements	\$1.6M \$300K	A.1 ½B.6	75% Province 25% City
3	Pedway Education Building to Core Science Facility	\$4.5M	Pedway Costs	100% Province
4	MUN Transit Terminal	Dependant on scope and location		33% Federal 33% Province 33% City
5	Westerland Road Realignment (including Extension of Irwin's Road and Lambe's Lane)	\$1M	B.ii	100% Province
	Roundabout at Prince Philip	\$900K	B.E	75% P / 25% C
	Roundabout at Freshwater	\$600K	B.B	50% P / 50% C
	Prince Philip Improvements	\$400K	½(B.3+B.4)	75% P / 25% C
6	Turn Lane Upgrades at Elizabeth Avenue and Bonaventure/Allandale	\$200K	A.4	75% Province 25% City
	Turn Lane Upgrades at Mt. Scio Road & Allendale Road	\$55K	City of St. John's Internal	75% Province 25% City
	Pedestrian Crossings on Campus	Minor improvements not estimated		100% Province
	Oxen Pond Road and Freshwater Road Study (Infrastructure recommendations to follow study)	To be completed by staff		100% City
7	Roundabout Prince Philip Drive and Clinch Crescent (East)/Westerland Road	\$1.2M	A.2	75% Province 25% City
	Prince Philip Improvements	\$400K	½(B.4+B.5)	
8	Prince Philip and Livyer's Loop Roundabout Prince Philip Improvements	<u>Parkway</u> \$1.1M \$550K	B.G ½(B.5+B.6)	<u>Parkway</u> 75% Province 25% City
	Closure of Morrissey Road at Prince Philip and realignment	<u>Internal MUN</u> \$250K	B.8	<u>Internal MUN</u> 100% Province
	Multi-purpose Underpass	Unknown		
9	Pedway Core Science Facility to Parking Garage	\$3M	Pedway Costs	100% Province
	Pedway Parking Garage to Health Sciences Complex (excludes service redundancy)	\$3M		
10	Elizabeth Avenue Corridor Upgrades	\$1.6M	B.1 + B.2	50% Province 50% City
	Russel Road Realignment	Not estimated		50% Province 50% City

Priority	Improvement Item (short term projects)	Cost Estimate	Cost Ref	Funding
11	Roundabout Prince Philip Drive/Columbus Drive and Thorburn Road	\$1.8M	A.3	75% Province 25% City
12	Turn Lane Upgrades at Westerland Road & Elizabeth Avenue	\$150K	A.5	50% Province 50% City

The total for all short term projects is \$22.6M. **This does not represent the full costs for the identified projects. This estimate does not include property acquisition, utility relocation, work required on underground services, etc.** Please note that some projects are mutually exclusive, others are closely tied together, and still others have not been estimated. For example, turn lane improvements along Elizabeth Avenue (#6 and #12 below) would become redundant if the Elizabeth Avenue Corridor improvement project (#10) was advanced. Similarly, the Westerland Road realignment (#5), and roundabouts on Elizabeth Avenue (#13 and #16) are closely tied to the Elizabeth Avenue Corridor improvement project (#10) and should be considered in tandem.

The splits for these projects are proposed to form the basis of a funding request to the Province. This is the key financial component of the current decision. Based on the proposed splits the \$22.6M is divided into approximately \$19.3M to the Province and \$3.3M to the City.

Priority	Improvement Item (Long Term – not to be requested at this time)	Cost Estimate	Cost Ref	Funding
13	Roundabout Elizabeth Avenue and Allandale Road/Bonaventure Avenue	\$1M	B.C	50% Province 50% City
14	Roundabout Prince Philip Drive and Clinch Crescent (West) Prince Philip Improvements	\$900K \$250K	B.D ½B.3	75% Province 25% City
15	Roundabout Clinch Crescent and Arctic Avenue	\$750K	B.I	100% Province
16	Roundabout Freshwater Road and Elizabeth Avenue	\$750K	B.A	100% City
17	Roundabout Allandale Road and Confederation Building Entrance	\$750K	B.L	75% Province 25% City
18	New Clinch Crescent Connector with Mt. Scio Road Roundabout at Clinch Improvements to Clinch	\$3M \$750K \$300K	B.i B.J B.7	100% Province
19	Roundabout Allandale Road and Mt. Scio Road	\$1.2M	B.K	50% Province 50% City
20	Roundabout Allandale Road and Higgins Line	\$750K	B.M	50% Province 50% City

The total for long term projects is \$10.4M. This is for information purposes only. Based on the proposed splits the \$10.4M is divided into approximately \$8.45M to the Province and \$1.95M to the City.

# SUMMARY OF KEY RECOMMENDATIONS

## Short Term Infrastructure

- a) Roundabout at Allendale & Prince Philip
- b) Roundabout at Clinch (east) & Prince Philip
  - includes Irwin's / Pedagogue realignment
- c) Roundabout at Thorburn & Prince Philip
- d) Turn lane upgrade at Westerland & Elizabeth

## Pedestrian Safety

- a) Provide pedway to Core Science Facility from Education Building
- b) Provide pedway to Health Sciences Centre from Core Science Facility via Parking Garage
- c) Upgrade markings and signage for crosswalks

## Long Term Infrastructure

- a) Roundabouts across network
- b) Corridor upgrades
- c) Pippy Park Link
- d) Gateways and other streetscaping

## Transit & TDM

- a) Upgrade to transit terminal
- b) U-pass and eco-pass programs
- c) Transit priority
- d) Enhanced scheduling resources

## General Network Improvements

- a) Elizabeth corridor upgrade
- b) Morrissey realignment & adjustments
- c) Westerland realignment
- d) Russell realignment
- e) Turn lane upgrades at Mt. Scio & Allendale



## MUN Area Traffic Study

summary of key recommendations

# MUN BOARD OF REGENTS SUPPORT



## Board of Regents

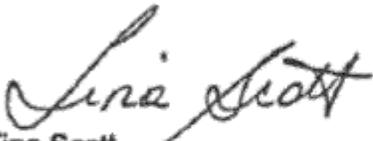
St. John's, NL Canada A1C 5S7  
Tel: 709 864 8281  
regents@mun.ca www.mun.ca

April 10, 2017

**TO:** Dr. Gary Kachanoski, President and Vice-Chancellor  
**FROM:** Tina Scott, Secretary to the Board of Regents  
**SUBJECT:** Memorial University Area Traffic Study

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This is to advise that the Board of Regents, through an e-mail poll conducted April 6 – 10, 2017, supported the prioritization of transportation infrastructure needs and authorized the University Administration to work with the City of St. John's to begin applying for funding to advance these priorities as outlined in the background documentation. It is understood that the project specific approvals will be sought from the Board of Regents, as needed, pursuant to the University Capital Projects Policies.

  
Tina Scott  
Secretary to the Board of Regents

**c:** Dr. N. Golfman  
Mr. K. Decker  
Ms. A. Browne

# EASTERN HEALTH LETTERS



Infrastructure Support  
3<sup>rd</sup> Floor, General Hospital  
300 Prince Philip Drive  
St. John's, NL  
Canada A1B 3V6  
Telephone: (709) 777-8172  
Facsimile: (709) 777-7079  
www.easternhealth.ca

APR 24 2017

April 17, 2017

Mr. Jeff Boland  
Director of Facilities Management  
Memorial University of Newfoundland  
230 Elizabeth Avenue  
St. John's, NL  
A1B 3X9

Dear Mr. Boland:

**RE: MEMORIAL UNIVERSITY TRAFFIC STUDY – PEDWAY FROM CORE SCIENCE  
BUILDING TO PARKING GARAGE**

This letter is in response to the Memorial University (MUN) Traffic Study.

Please be advised that Eastern Health does not support a pedway from the future Core Sciences building to the parking garage. The parking garage was constructed to address parking issues at the Health Sciences Complex only and, as a result, should not be used by staff or visitors of the main MUN campus.

As such, please cease any plans to construct a pedway to the parking garage from the future Core Sciences as there should be no pedestrian traffic requiring a pedway.

Sincerely,



Daniel J. Parsons, P. Eng.  
Project Manager, Planning & Engineering  
Infrastructure Support

DP/sc

cc: George Butt  
Ken Baird  
Grant Vivian



April 17, 2017

Mr. Jeff Boland  
Director of Facilities Management  
Memorial University of Newfoundland  
230 Elizabeth Avenue  
St. John's, NL  
A1B 3X9

Dear Mr. Boland:

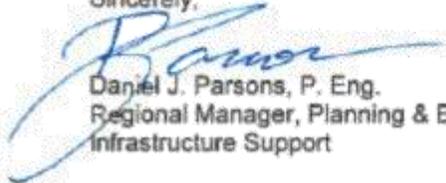
**RE: MEMORIAL UNIVERSITY OF NEWFOUNDLAND TRAFFIC STUDY  
RECOMMENDATIONS**

This letter is in regards to the Memorial University Traffic Study developed by Hatch Consulting. Eastern Health (EH) would like to provide the following list of their priorities:

- 1) New Clinch Crescent Connector with Mt. Scio Road
  - It is anticipated that most of the traffic would benefit from this connector which would divert a large percentage of traffic away from the parkway both coming East (Torbay and Area) and West (Mount Pearl/Paradise/CBS and beyond).
- 2) Pedway – Health Science Centre to Parking Garage
  - In addition to the requirement for pedestrian traffic, a pedway would look to bring critical services from the Annex to the Health Sciences Centre. This pedway would allow for the creation of redundancy in the routing of critical services.
  - This support is only for the connection between the HSC and the parking garage and not the link between the parking garage and the future Core Science Facility.

Eastern Health is willing to support a funding request for the above two (2) recommendations. All other recommendations put forward by the study are not a priority for EH and EH will not support a funding request on their behalf. However, these recommendations will still have an impact on operations at the Health Science Centre; any changes to public transit, road ways and pedestrian traffic that may impact EH patients, visitors and staff should be approved by EH prior to implementation.

Sincerely,



Daniel J. Parsons, P. Eng.  
Regional Manager, Planning & Engineering  
Infrastructure Support

DP/sc

cc: George Butt  
Ken Baird  
Grant Vivian

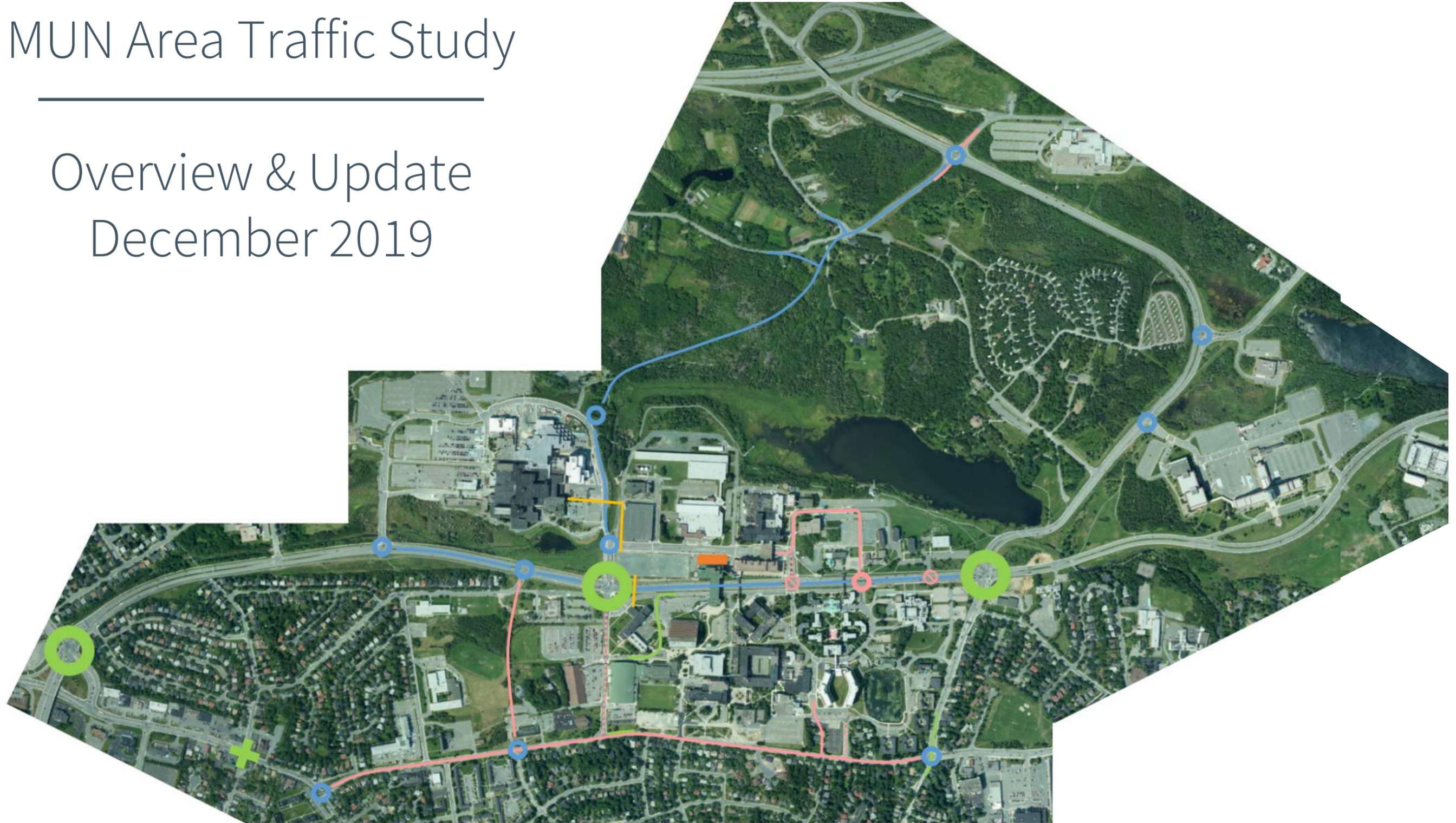
Infrastructure Support  
3<sup>rd</sup> Floor, General Hospital  
300 Prince Philip Drive  
St. John's, NL  
Canada A1B 3V6  
Telephone: (709) 777-8172  
Facsimile: (709) 777-7079  
www.easternhealth.ca

APR 25 2017

# MUN Area Traffic Study

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Overview & Update  
December 2019



# MUN Area Traffic Study

The MUN Area Traffic Study was commissioned in 2014.

The final report was accepted by Council in June 2017 and incorporated into the City's planning for development and capital works in the area.

# MUN Area Traffic Study

Four interested parties are:

- i. The City of St. John's
- ii. Memorial University of Newfoundland
- iii. Eastern Health - Health Sciences Centre, General Hospital and Janeway Children's Health and Rehabilitation Centre
- iv. Government of Newfoundland and Labrador - Confederation Building

# MUN Area Traffic Study

The focus of the terms of reference was on:

- traffic performance / congestion on the roads in the study area
- pedestrian safety on the MUN campus and crossing the roads in the study area
- public transit and transportation demand management
- a review of the recommendations from the 2007 MUN Campus Master Plan

### Short Term Infrastructure

- a) Roundabout at Allendale & Prince Philip
- b) Roundabout at Clinch (east) & Prince Philip - includes Irwin's / Pedagogue realignment
- c) Roundabout at Thorburn & Prince Philip
- d) Turn lane upgrade at Westerland & Elizabeth
- e) Turn Lane upgrades at Bonaventure & Elizabeth
- f) Study at Freshwater / Oxen Pond / Stamps

### Pedestrian Safety

- a) Provide pedway to Core Science Facility from Education Building
- b) Provide pedway to Health Sciences Centre from Core Science Facility via Parking Garage
- c) Upgrade markings and signage for crosswalks

### Long Term Infrastructure

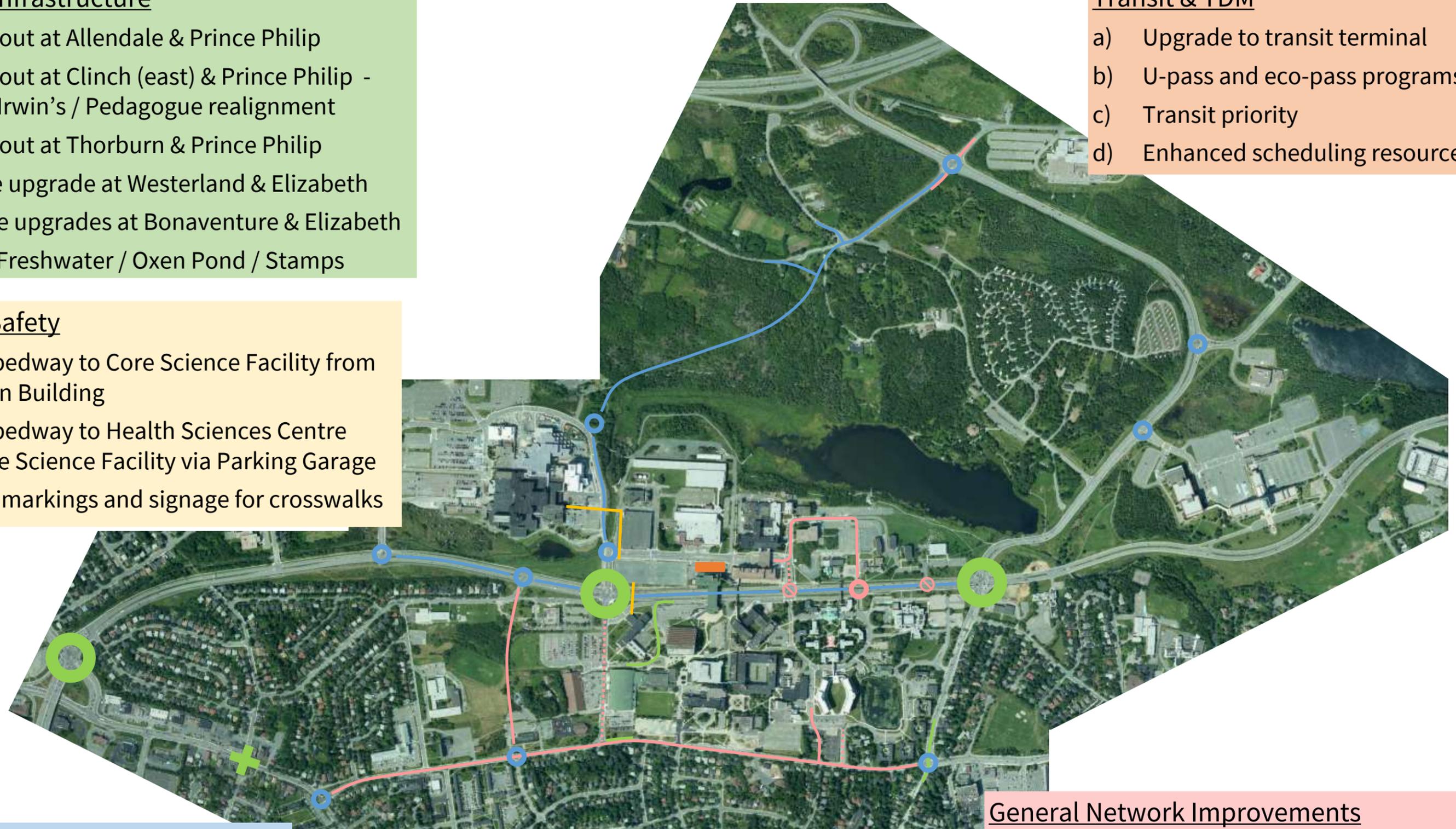
- a) Roundabouts across network
- b) Corridor upgrades
- c) Pippy Park Link
- d) Gateways and other streetscaping

### Transit & TDM

- a) Upgrade to transit terminal
- b) U-pass and eco-pass programs
- c) Transit priority
- d) Enhanced scheduling resources

### General Network Improvements

- a) Elizabeth corridor upgrade
- b) Morrissey realignment & adjustments
- c) Westerland realignment
- d) Russell realignment
- e) Turn lane upgrades at Mt. Scio & Allendale



## Short Term Infrastructure

### 2 Roundabout at Allendale & Prince Philip

- b) Roundabout at Clinch (east) & Prince Philip - includes Irwin's / Pedagogue realignment
- c) Roundabout at Thorburn & Prince Philip
- d) Turn lane upgrade at Westerland & Elizabeth

### 6 Turn Lane upgrades at Bonaventure & Elizabeth

### 6 Study at Freshwater / Oxen Pond / Stamps

## Pedestrian Safety

### 3 Pedway to Core Science Facility from Education Building

- b) Provide pedway to Health Sciences Centre from Core Science Facility via Parking Garage

### 6 Upgrade markings and signage for crosswalks

## Long Term Infrastructure

- a) Roundabouts across network
- b) Corridor upgrades
- c) Pippy Park Link
- d) Gateways and other streetscaping

## Transit & TDM

### 4 Upgrade to transit terminal

### 1 U-Pass

- c) Transit priority
- d) Enhanced scheduling resources

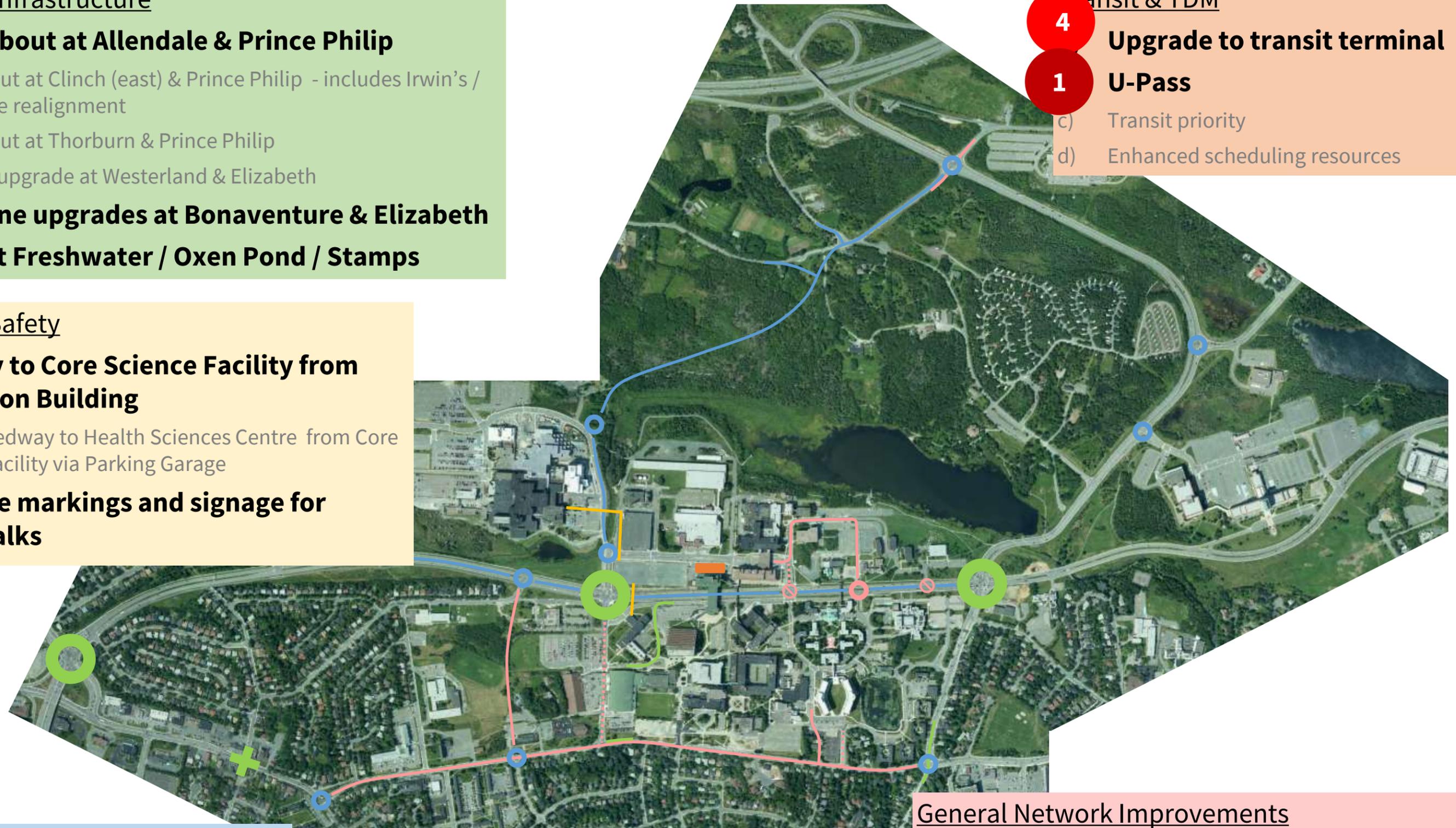
## General Network Improvements

- a) Elizabeth corridor upgrade
- b) Morrissey realignment & adjustments

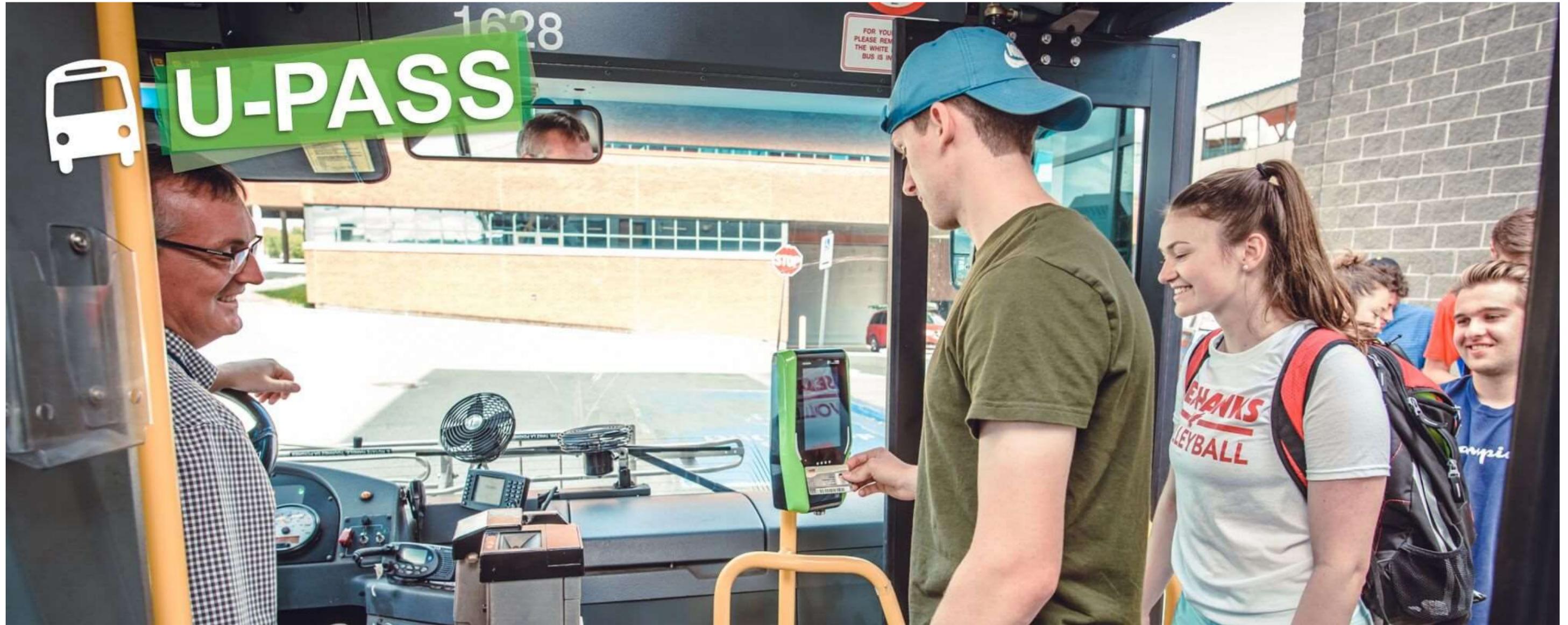
### 5 Westerland realignment

- a) Russell realignment

### 6 Turn lane upgrades at Mt. Scio & Allendale

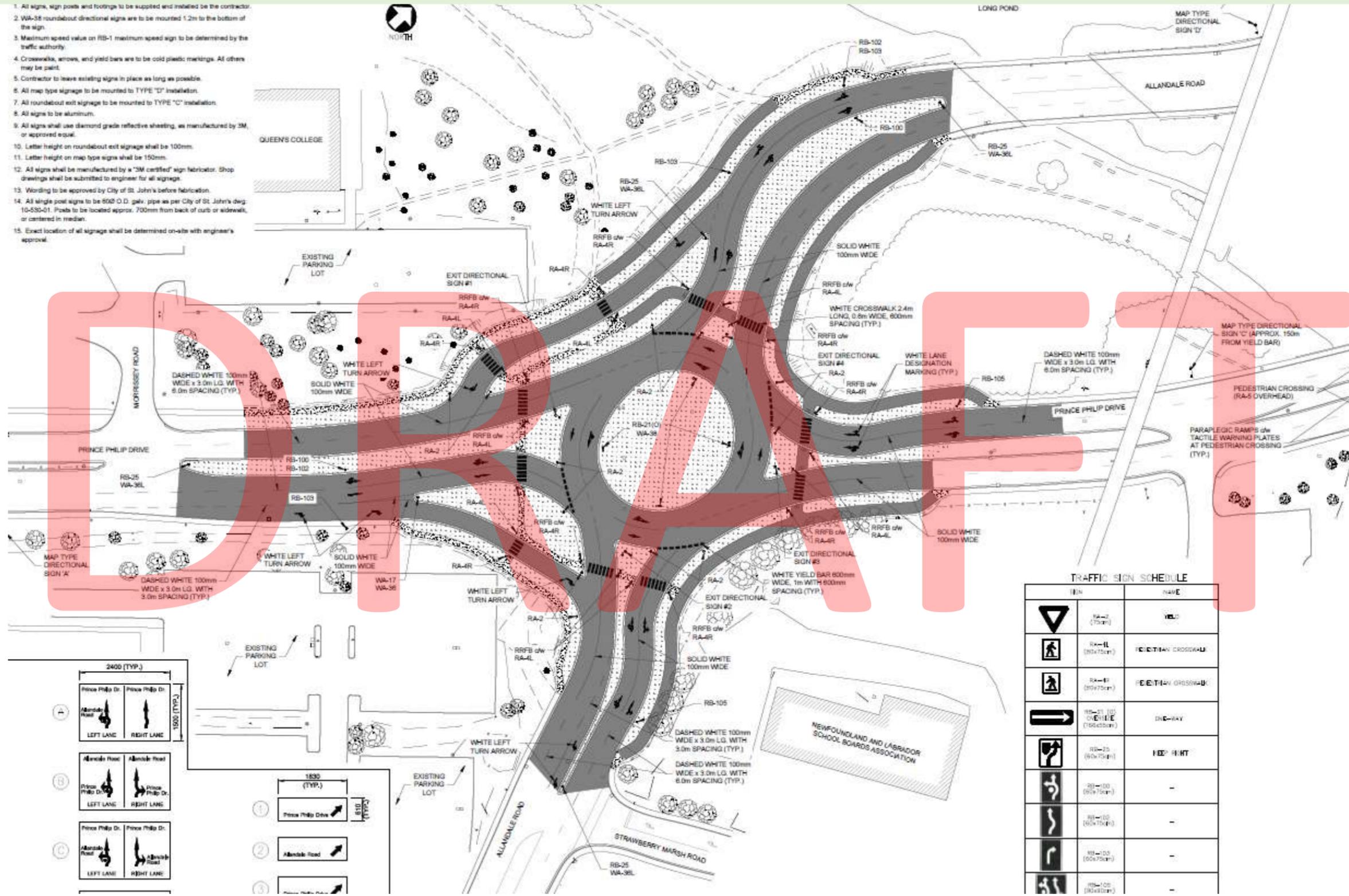


# Priority #1 Student U-Pass



# Priority #2 Roundabout at Allendale & Prince Philip

1. All signs, sign posts and footings to be supplied and installed by the contractor.
2. WA-38 roundabout directional signs are to be mounted 1.2m to the bottom of the sign.
3. Maximum speed value on RB-1 maximum speed sign to be determined by the traffic authority.
4. Crosswalks, arrows, and yield bars are to be cold plastic markings. All others may be paint.
5. Contractor to leave existing signs in place as long as possible.
6. All map type signage to be mounted to TYPE "D" installation.
7. All roundabout exit signage to be mounted to TYPE "C" installation.
8. All signs to be aluminum.
9. All signs shall use diamond grade reflective sheeting, as manufactured by 3M, or approved equal.
10. Letter height on roundabout exit signage shall be 100mm.
11. Letter height on map type signs shall be 150mm.
12. All signs shall be manufactured by a "3M certified" sign fabricator. Shop drawings shall be submitted to engineer for all signage.
13. Workings to be approved by City of St. John's before fabrication.
14. All single post signs to be 500 O.D. galv. pipe as per City of St. John's dwg. 10-530-01. Posts to be located approx. 700mm from back of curb or sidewalk, or centered in median.
15. Exact location of all signage shall be determined on-site with engineer's approval.



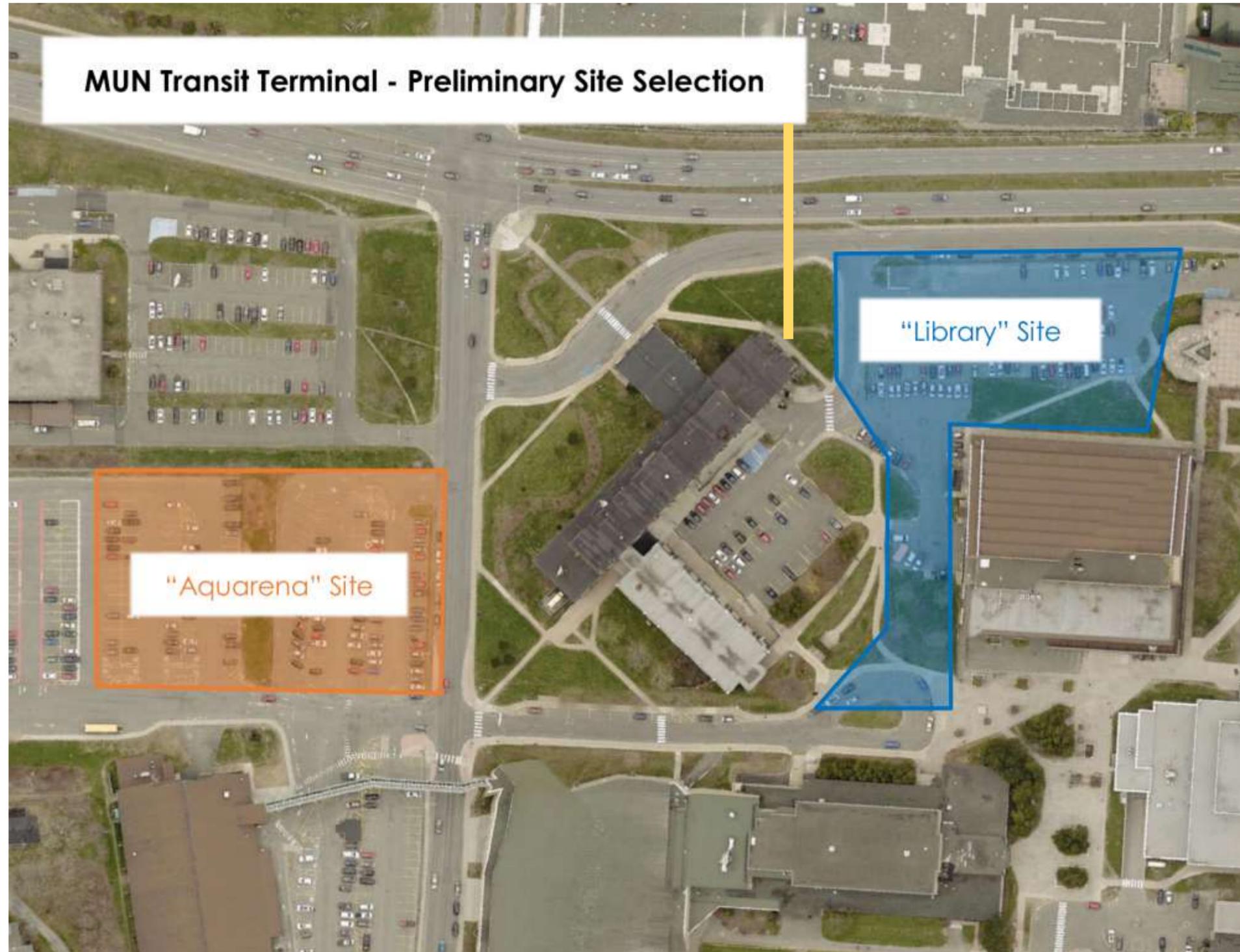
**TRAFFIC SIGN SCHEDULE**

SYM	NAME
	RA-2 (75x75cm) YIELD
	RA-1L (80x75cm) PEDESTRIAN CROSSWALK
	RA-1R (80x75cm) PEDESTRIAN CROSSWALK
	RB-21 (10) (100x55cm) ONE-WAY
	RB-25 (60x75cm) NO RIGHT
	RB-100 (80x75cm) -
	RB-105 (80x75cm) -
	RB-102 (80x75cm) -
	RB-103 (80x75cm) -
	RB-105 (80x75cm) -

# Priority #3 Pedway between Education & Core Science Facility



# Priority #4 MUN Transit Terminal



# Priority #5 Westerland Road Realignment



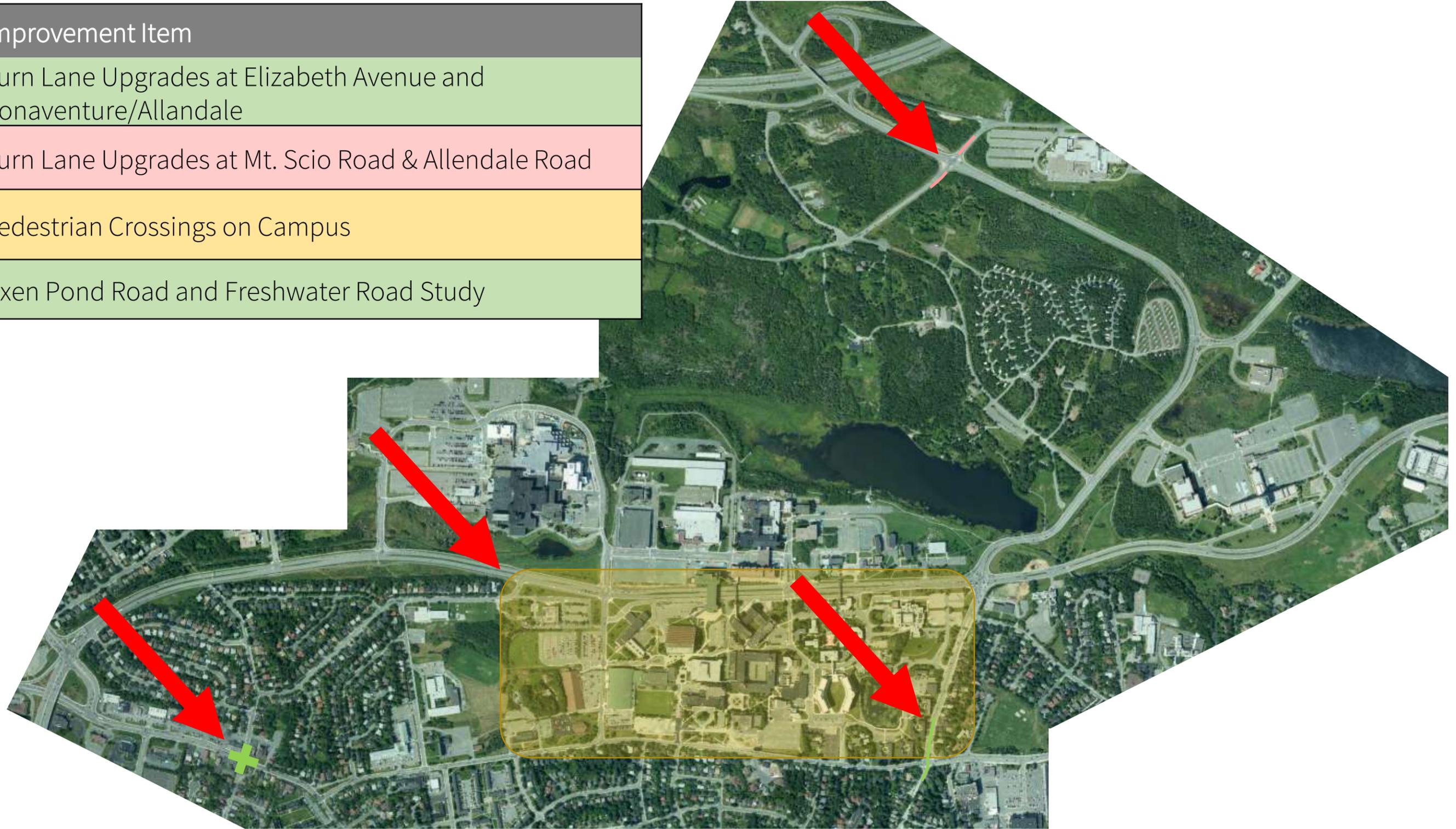
+ Roundabout at Prince Philip

+ Roundabout at Elizabeth

# Crosswalk improvements Installed 2015



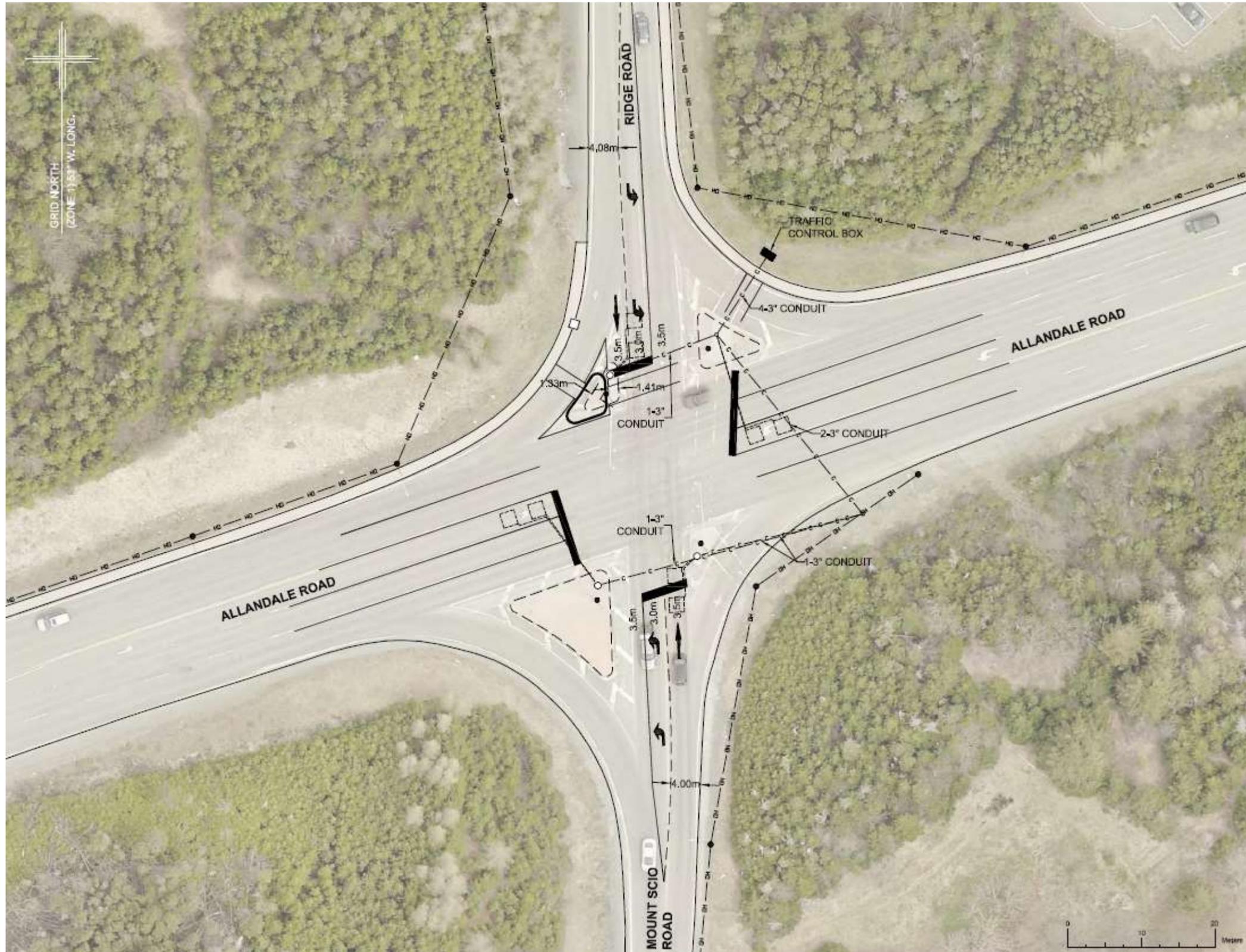
Priority	Improvement Item
6	Turn Lane Upgrades at Elizabeth Avenue and Bonaventure/Allendale
	Turn Lane Upgrades at Mt. Scio Road & Allendale Road
	Pedestrian Crossings on Campus
	Oxen Pond Road and Freshwater Road Study



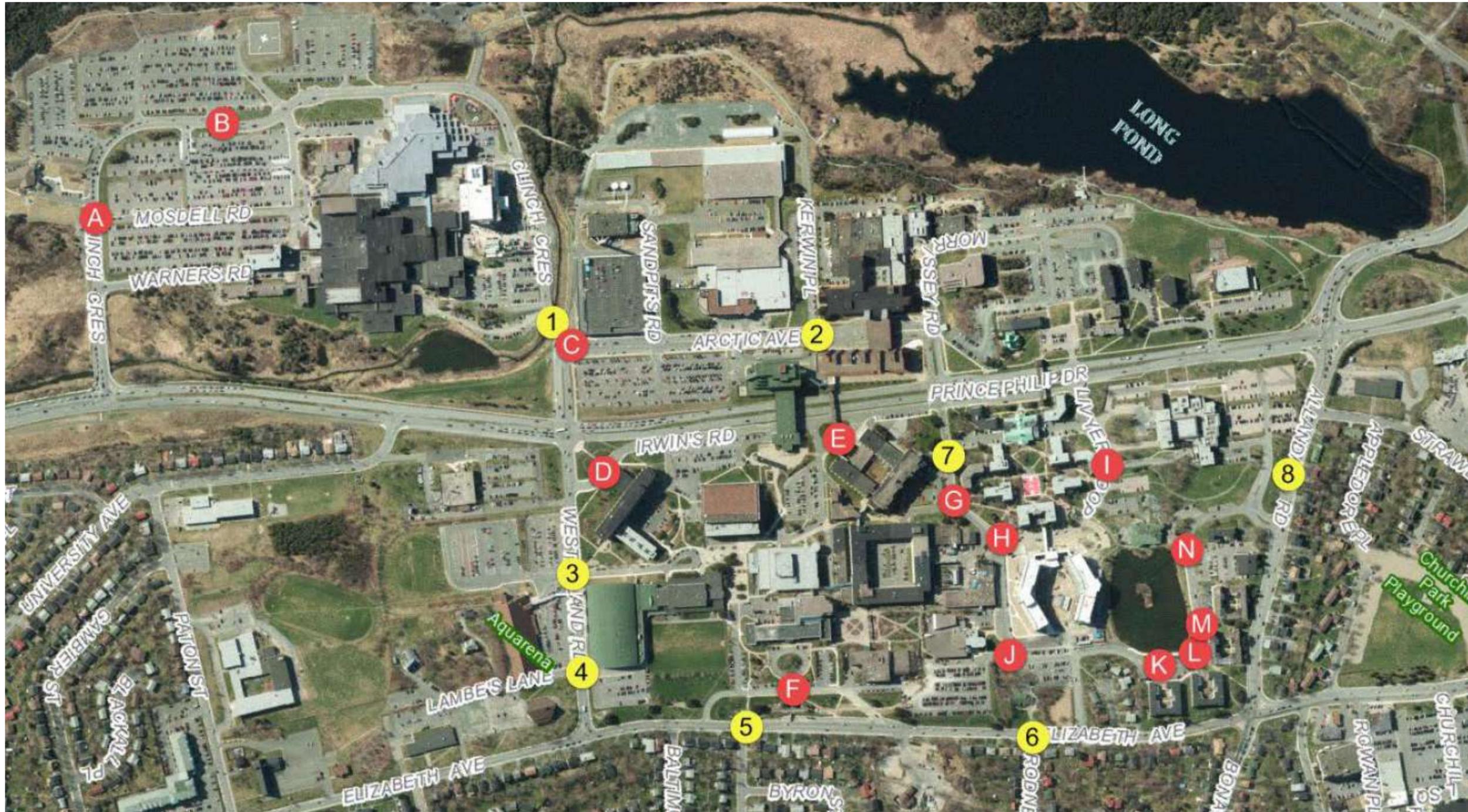
# Priority #6 Turn lane upgrades at Elizabeth & Bonaventure



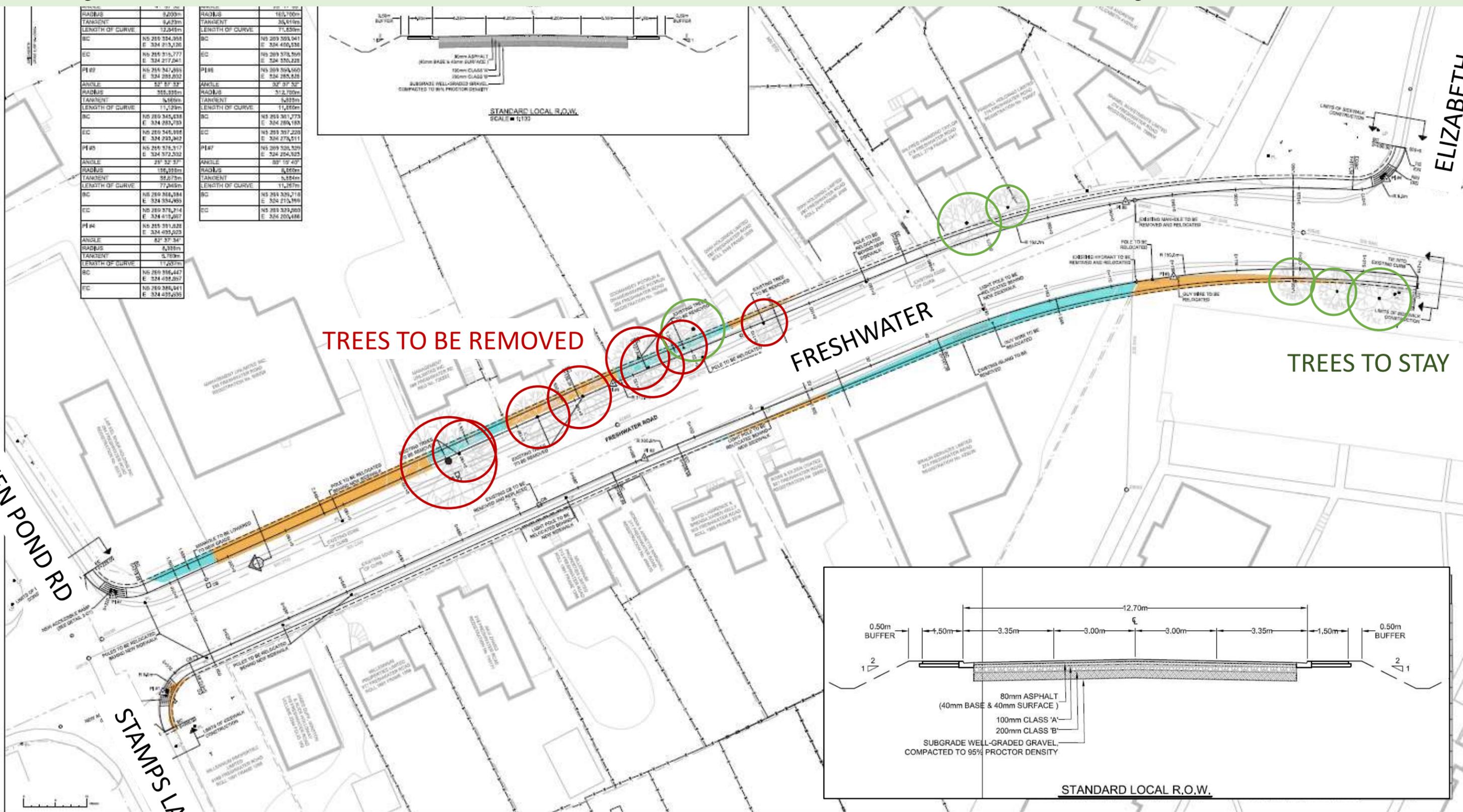
# Priority #6 Turn Lane Upgrades at Mt. Scio Road & Allendale Road



# Priority #6 Pedestrian Crossing Improvements on Campus



# Priority #6 Oxen Pond Road and Freshwater Road Study



RADIUS	8,200m	RADIUS	165,700m
TANGENT	8,423m	TANGENT	35,616m
LENGTH OF CURVE	32,546m	LENGTH OF CURVE	75,839m
BC	N5 289 324,284 E 324 213,136	BC	N5 289 329,941 E 324 400,336
EC	N5 289 315,777 E 324 217,241	EC	N5 289 370,569 E 324 330,228
PI#2	N5 289 347,265 E 324 282,202	PI#8	N5 289 353,665 E 324 285,828
ANGLE	32° 57' 32"	ANGLE	32° 37' 32"
RADIUS	355,338m	RADIUS	312,700m
TANGENT	3,669m	TANGENT	5,823m
LENGTH OF CURVE	11,129m	LENGTH OF CURVE	11,866m
BC	N5 289 345,838 E 324 283,793	BC	N5 289 301,773 E 324 289,183
EC	N5 289 345,898 E 324 283,842	EC	N5 289 307,229 E 324 279,511
PI#5	N5 289 376,317 E 324 372,202	PI#7	N5 289 326,329 E 324 284,925
ANGLE	29° 32' 37"	ANGLE	39° 19' 40"
RADIUS	185,298m	RADIUS	8,666m
TANGENT	39,279m	TANGENT	5,864m
LENGTH OF CURVE	77,269m	LENGTH OF CURVE	11,267m
BC	N5 289 368,284 E 324 334,689	BC	N5 289 329,718 E 324 279,399
EC	N5 289 374,714 E 324 419,287	EC	N5 289 329,269 E 324 282,486
PI#4	N5 289 371,228 E 324 403,203		
ANGLE	42° 37' 34"		
RADIUS	8,388m		
TANGENT	5,789m		
LENGTH OF CURVE	11,257m		
BC	N5 289 336,447 E 324 432,267		
EC	N5 289 336,841 E 324 432,695		

## Short Term Infrastructure

### 2 Roundabout at Allendale & Prince Philip

- b) Roundabout at Clinch (east) & Prince Philip - includes Irwin's / Pedagogue realignment
- c) Roundabout at Thorburn & Prince Philip
- d) Turn lane upgrade at Westerland & Elizabeth

### 6 Turn Lane upgrades at Bonaventure & Elizabeth

### 6 Study at Freshwater / Oxen Pond / Stamps

## Pedestrian Safety

### 3 Pedway to Core Science Facility from Education Building

- b) Provide pedway to Health Sciences Centre from Core Science Facility via Parking Garage

### 6 Upgrade markings and signage for crosswalks

## Long Term Infrastructure

- a) Roundabouts across network
- b) Corridor upgrades
- c) Pippy Park Link
- d) Gateways and other streetscaping

## Transit & TDM

### 4 Upgrade to transit terminal

### 1 U-Pass

### c) Transit priority

### d) Enhanced scheduling resources

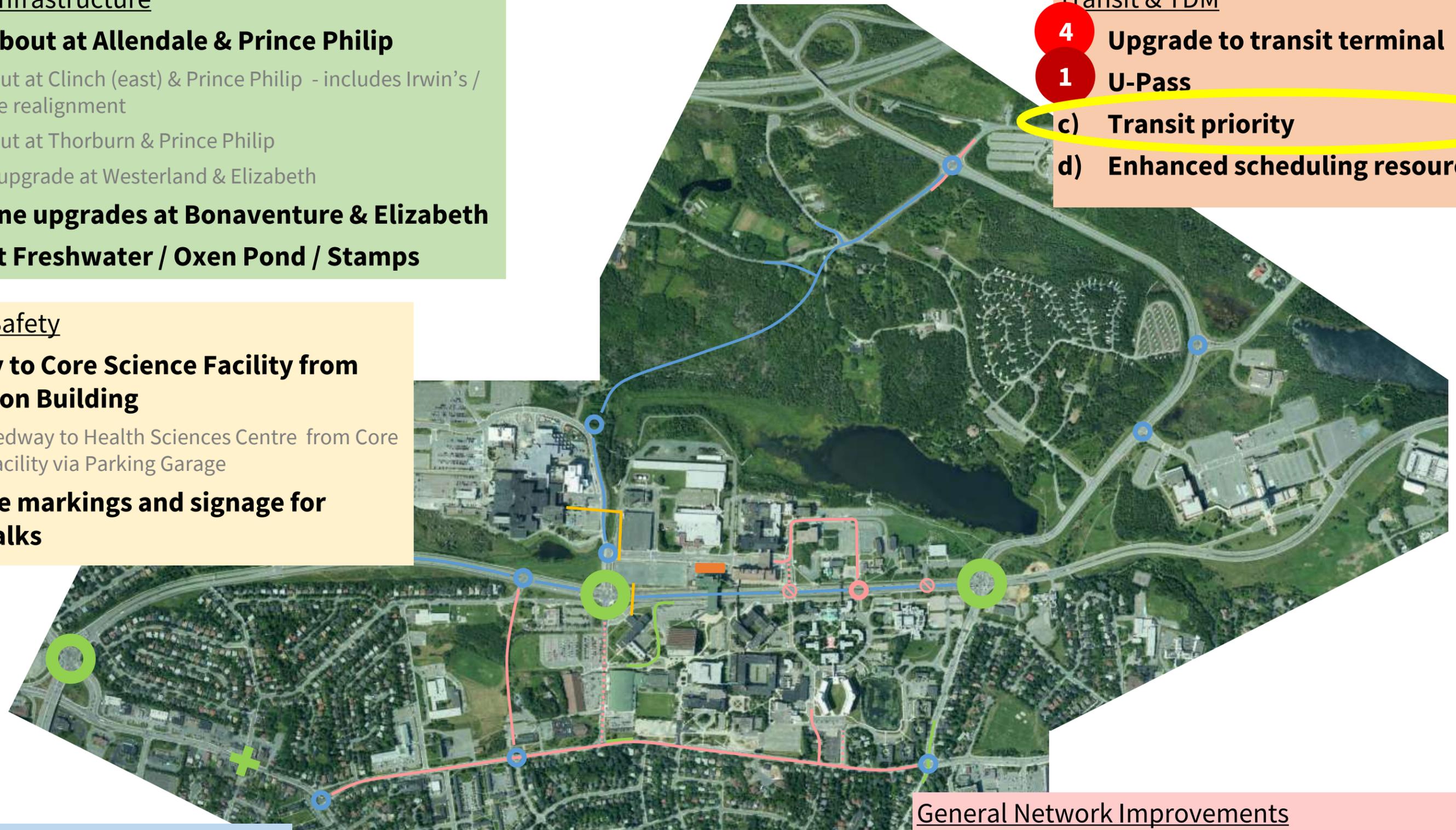
## General Network Improvements

- a) Elizabeth corridor upgrade
- b) Morrissey realignment & adjustments

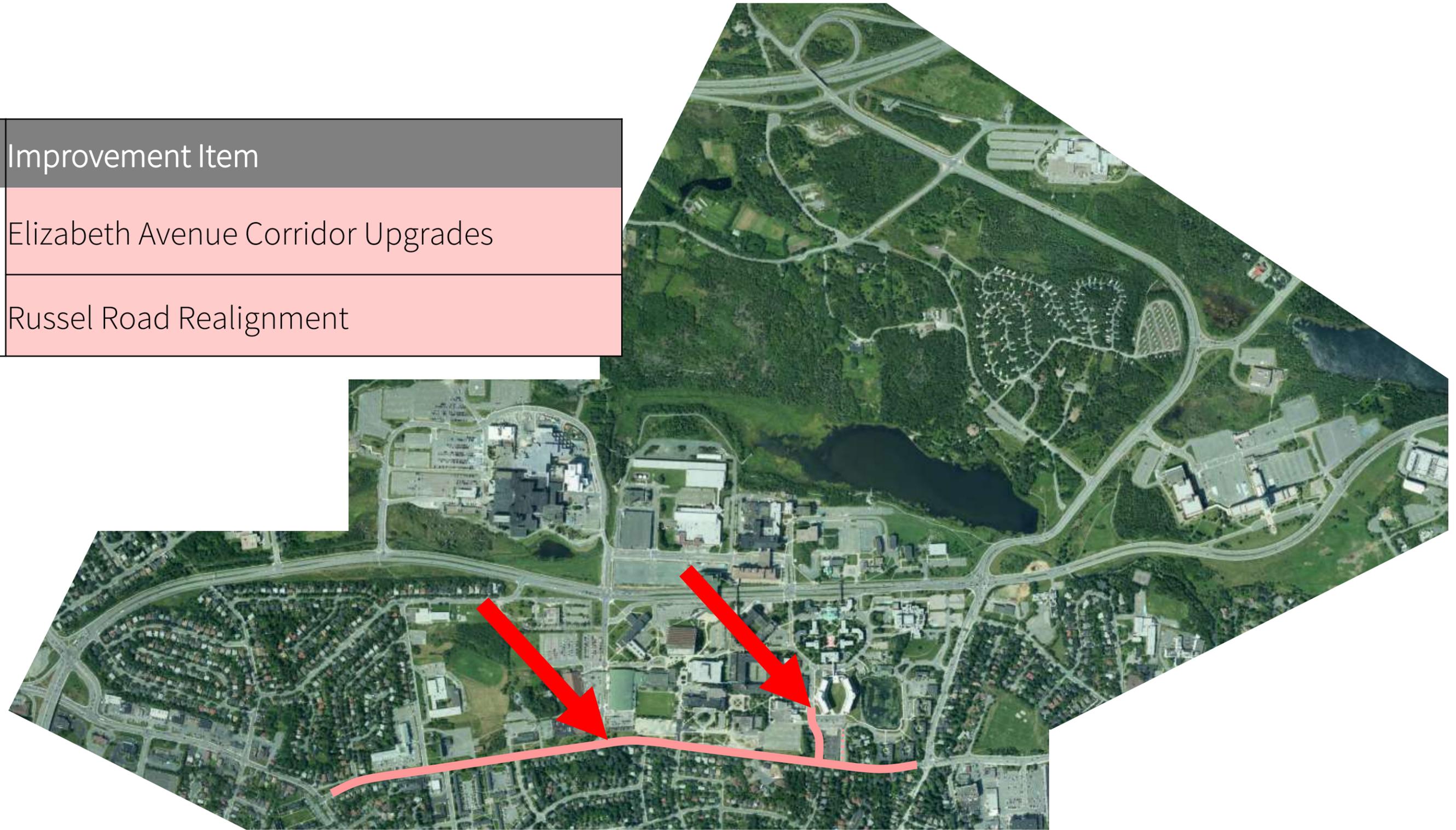
### 5 Westerland realignment

- d) Russell realignment

### 6 Turn lane upgrades at Mt. Scio & Allendale



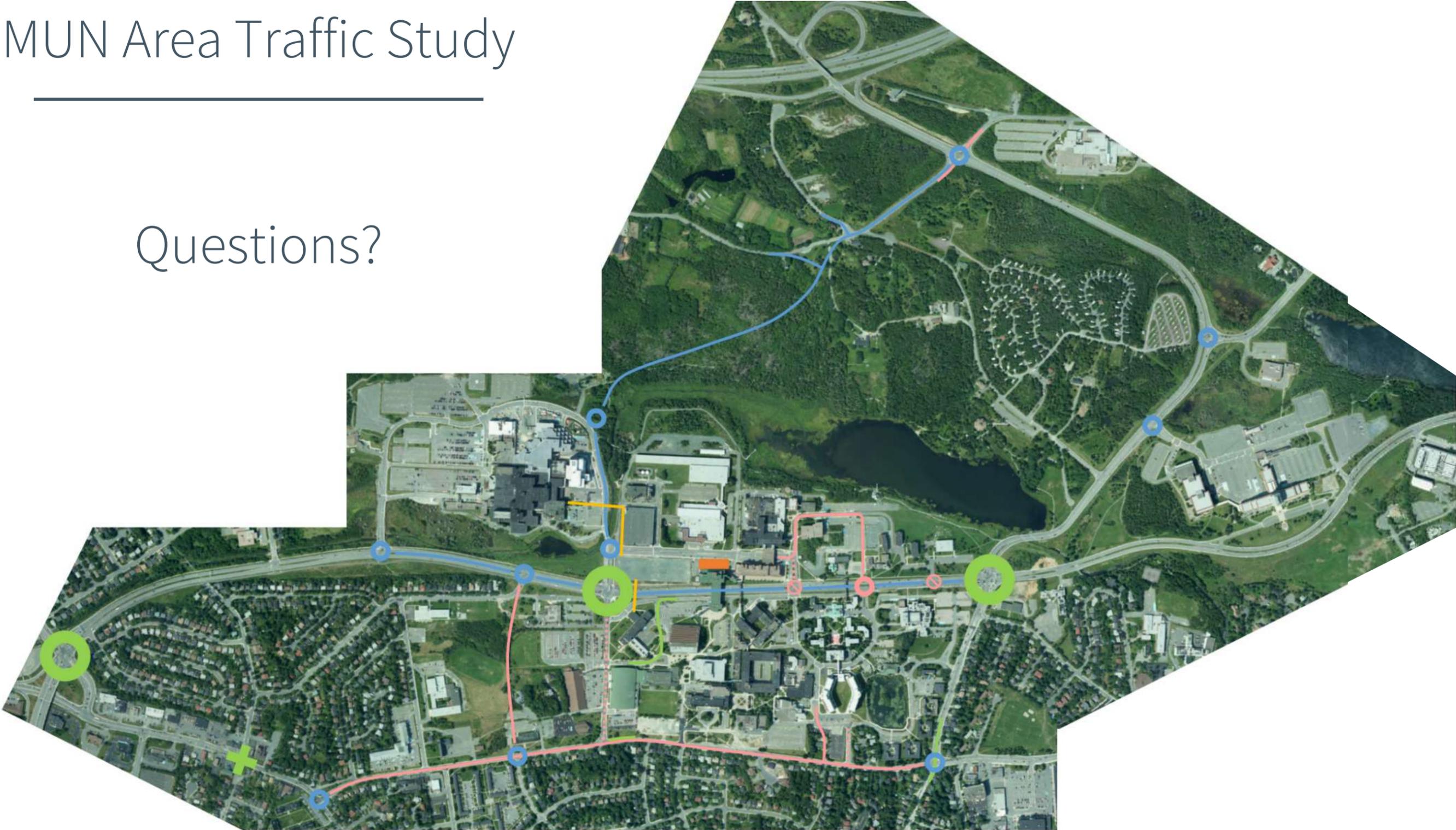
Priority	Improvement Item
10	Elizabeth Avenue Corridor Upgrades
	Russel Road Realignment



# MUN Area Traffic Study

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Questions?



February 19, 2018

Honourable Steve Crocker  
Minister of Transportation and Works  
5th Floor, West Block, Confederation Building  
P.O. Box 8700  
St. John's, NL A1B 4J6

Dear Minister Crocker:

**Re: MUN Area Traffic Study**

The MUN Area Traffic Study was commissioned in 2014, by the City of St. John's, Memorial University and the Provincial Department of Community Services with a purpose to examine the longer term transportation infrastructure needs in and around the University area. This partnership was formed based on the premise that there are four major parties that have a vested interest in, and responsibility for, the traffic conditions in the study area which extends from the intersection of Thorburn Road with Prince Philip Drive in the west to the Confederation Building in the east. The four interested parties are:

- i. The City of St. John's;
- ii. Memorial University of Newfoundland;
- iii. Eastern Health - Health Sciences Centre, General Hospital and Janeway Children's Health and Rehabilitation Centre;
- iv. Government of Newfoundland and Labrador - Confederation Building.

Each of these four parties contributed equally to the funding of the study and participated in the project steering committee.

The final study report identifies a large number of individual recommendations to improve traffic conditions in and around the study area. Of these, twelve key recommendations were identified in the following four categories: Short Term Infrastructure; Pedestrian Safety; Transit and Transportation Demand Management (TDM); and, General Network

Improvements. The MUN Area Traffic Study recommends that all of these projects be pursued in the short to medium term. Many of these key projects are interrelated or mutually exclusive.

An additional eight recommendations were categorized as Long Term Infrastructure. No immediate action is recommended for these Long Term Infrastructure projects but they should be considered in any decision that would impact the ability to implement these in the future.

The City of St. John's and Memorial University have been working together to prioritize the key recommendations identified. These are shown in the table attached in priority order. The category each recommendation falls in is also provided along with a proposed funding split.

Eastern Health, as one of the steering committee members, expressed a strong desire to develop the Pippy Park Link listed as recommendation #18 in the attached table. However, after consideration of the technical justification for this link and the impacts involved, this project was not recommended for further action.

Establishing the funding split is the next step in advancing these recommendations to implementation. The funding split values proposed below have been developed by the City of St. John's and Memorial University based on the following principles:

- i. Work completed along Prince Philip Drive serves the interest of all four original parties and should be split between them equally;
- ii. Eastern Health, Memorial University and the Confederation Building are all provincial parties and so the proposed funding split allocated to these entities is summarized as "Provincial";
- iii. Projects along Elizabeth Avenue serve the interest of the City of St. John's and the Province (representing Memorial University) and should be shared equally by only these two parties;
- iv. Projects that fall fully outside the limits of the City road reservation should be completed by the Province;
- v. Projects that fall toward the periphery of the study area and have no direct benefit to the provincial partners should be completed by the City of St. John's.

The identified key recommendations and proposed funding splits are provided in the table attached.<sup>1</sup> In the interest of time, the City of St. John's has already allocated resources to the advancement of several projects:

- Hired a design consultant to prepare a tender package for a roundabout at Prince Philip Drive and Allandale Road
- Allocated staff time to conducting the recommended study at Freshwater Road and Oxen Pond Road

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<sup>1</sup> Please note that while the long term infrastructure projects have been included for information, these projects do not form a part of this request for confirmation on the funding split.

- Commenced work to incorporate recommended turn lanes along Elizabeth Avenue in road rehabilitation

At this time we are not seeking funding for the priority projects listed in the attached list. Going forward we will seek to agree on a funding split model and then, as detailed cost estimates are prepared for each project, the partners in this effort will be in a position to seek appropriate funding. Please also find below a link to the Final Study Report.

Please let us know when it would be convenient to meet with you and other appropriate Departmental Representatives to discuss the results of this study in the spirit of pursuing funding to advance the projects identified.

Sincerely,



Danny Breen  
Mayor, City of St. John's



Dr. Gary Kachanoski  
President and Vice-Chancellor,  
Memorial University

- C. Honourable Al Hawkins - Minister of Advanced Education, Skills and Labour  
Honourable Dr. John Haggie - Minister of Health and Community Services

**Attachment:**

Table of Key Recommendations from MUN Area Traffic Study

**See also:**

Final Study Report Available Online:

[http://www.stjohns.ca/sites/default/files/files/publication/MUN Area Traffic Study\\_2016.pdf](http://www.stjohns.ca/sites/default/files/files/publication/MUN%20Area%20Traffic%20Study_2016.pdf)

Priority	Recommendation	Category	Funding
1	U-Pass	Transit and TDM	User fee
2	Roundabout Prince Philip Drive and Allandale Road Prince Philip Improvements	Short Term Infrastructure	75% Province 25% City
3	Pedway Education Building to Core Science Facility	Pedestrian Safety	100% Province
4	MUN Transit Terminal	Transit and TDM	33% Federal 33% P / 33% C
5	Westerland Road Realignment (including Extension of Irwin's Road and Lambe's Lane) Roundabout at Prince Philip Roundabout at Freshwater Prince Philip Improvements	General Network Improvements	100% Province 75% P / 25% C 50% P / 50% C 75% P / 25% C
6	Turn Lane Upgrades at Elizabeth Avenue and Bonaventure/Allandale	Short Term Infrastructure	75% Province 25% City
	Turn Lane Upgrades at Mt. Scio Road & Allendale Road	General Network Improvements	75% Province 25% City
	Pedestrian Crossings on Campus	Pedestrian Safety	100% Province
	Oxen Pond Road and Freshwater Road Study (Infrastructure recommendations to follow study)	Short Term Infrastructure	100% City
7	Roundabout Prince Philip Drive and Clinch Crescent (East)/Westerland Road Prince Philip Improvements	Short Term Infrastructure	75% Province 25% City
8	Prince Philip and Livyer's Loop , Closure of Morrissey Road at Prince Philip and realignment, Multi-purpose Underpass	General Network Improvements	<u>Parkway</u> 75% P / 25% C <u>Internal MUN</u> 100% Province
9	Pedway Core Science Facility to Parking Garage Pedway Parking Garage to Health Sciences Complex (Option to include critical services redundancy)	Pedestrian Safety	100% Province
10	Elizabeth Avenue Corridor Upgrades Russel Road Realignment	General Network Improvements	50% Province 50% City
11	Roundabout Prince Philip Drive/Columbus Drive and Thorburn Road	Short Term Infrastructure	75% Province 25% City

Priority	Recommendation	Category	Funding
12	Turn Lane Upgrades at Westerland Road & Elizabeth Avenue	Short Term Infrastructure	50% Province 50% City
13	Roundabout Elizabeth Avenue and Allandale Road/Bonaventure Avenue	Long Term Infrastructure	50% Province 50% City
14	Roundabout Prince Philip Drive and Clinch Crescent (West) Prince Philip Improvements	Long Term Infrastructure	75% Province 25% City
15	Roundabout Clinch Crescent and Arctic Avenue	Long Term Infrastructure	100% Province
16	Roundabout Freshwater Road and Elizabeth Avenue	Long Term Infrastructure	100% City
17	Roundabout Allandale Road and Confederation Building Entrance	Long Term Infrastructure	75% Province 25% City
18	New Clinch Crescent Connector with Mt. Scio Road Roundabout at Clinch Improvements to Clinch	Long Term Infrastructure	100% Province
19	Roundabout Allandale Road and Mt. Scio Road	Long Term Infrastructure	50% Province 50% City
20	Roundabout Allandale Road and Higgins Line	Long Term Infrastructure	50% Province 50% City