

# Niagara Region

## Bender Hill Sewage Pumping Station

### Options Analysis

Schedule B: Municipal Class Environmental Assessment

Public Information Centre

September 24<sup>th</sup>, 2019

City of Niagara Falls City Hall, Committee Room 2A & 2B

5:00 – 8:00 pm

# Welcome!

Please sign in and take a comment sheet.

Meeting is a “drop-in” format with display materials.

Take an information bulletin and review the display materials.

Members of the study team are available to answer questions.

We welcome your feedback as your opinion will influence this study.

Please place comment sheets in the box provided.

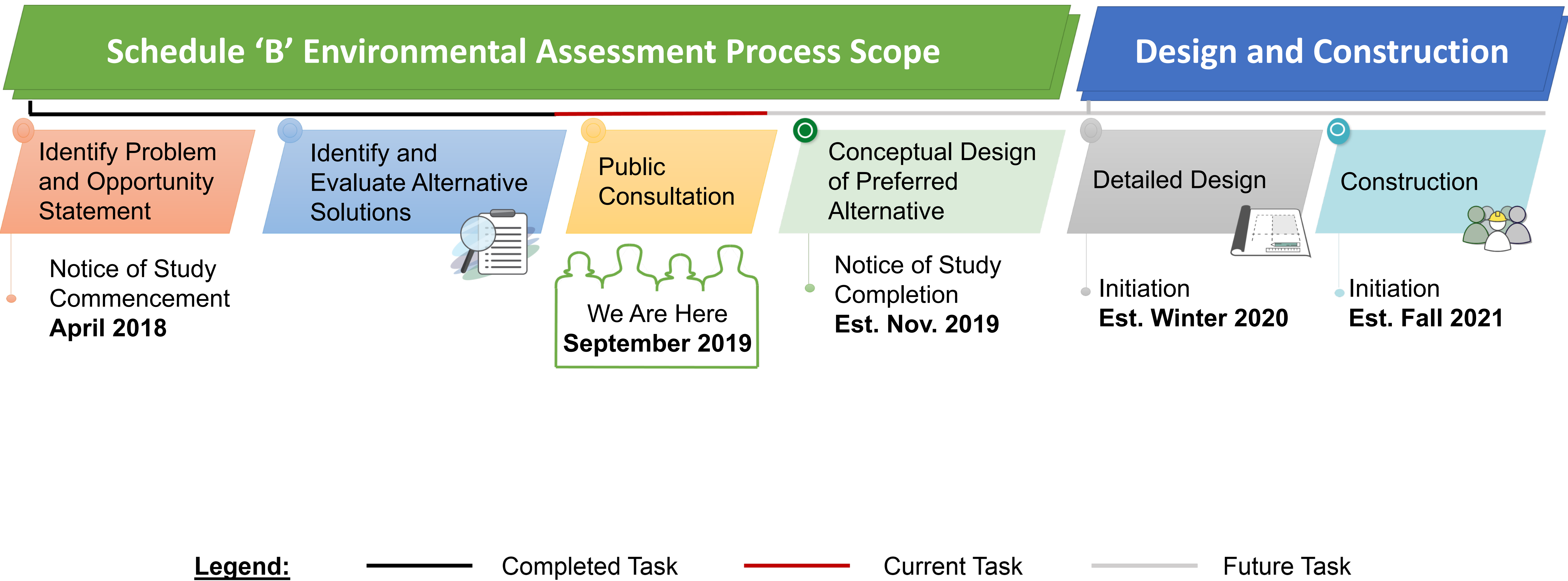
## Why are we here?

The purpose of today’s meeting is to introduce the project, gather information, and solicit feedback.



Please note that photos and videos will be taken during this event. If you have any issues, please speak to a member of the project team.

This project is following the **Class Environmental Assessment** process, which is a decision-making process that all Ontario municipalities follow for infrastructure projects.



## Problem and Opportunity Statement

The purpose of this study is to determine a preferred alternative for the necessary upgrades at the Bender Hill Pumping Station, the goal is to achieve the following:

- Increase station capacity to meet 2041 servicing needs
- Improve worker health and safety and accessibility
- Prevent the ingress of corrosive road salt to the station
- Replace aging infrastructure and equipment
- Provide a wider platform for pedestrian traffic and WEGO bus riders



*This is defined as the Problem Opportunity Statement under the Class EA process*

## Bender Hill Pumping Station Background Details:

- Located at 5615 River Road in the City of Niagara Falls
- Commissioned in 1962; has since undergone minor upgrades
- Planned future development will require additional station capacity

## Project Stakeholder Infrastructure

To Ontario Highway 420

Hiram Street

**City of Niagara Falls:**  
Owns the Underground  
Water and Wastewater  
Infrastructure.

To Clifton Hill

Rainbow Bridge

River Road

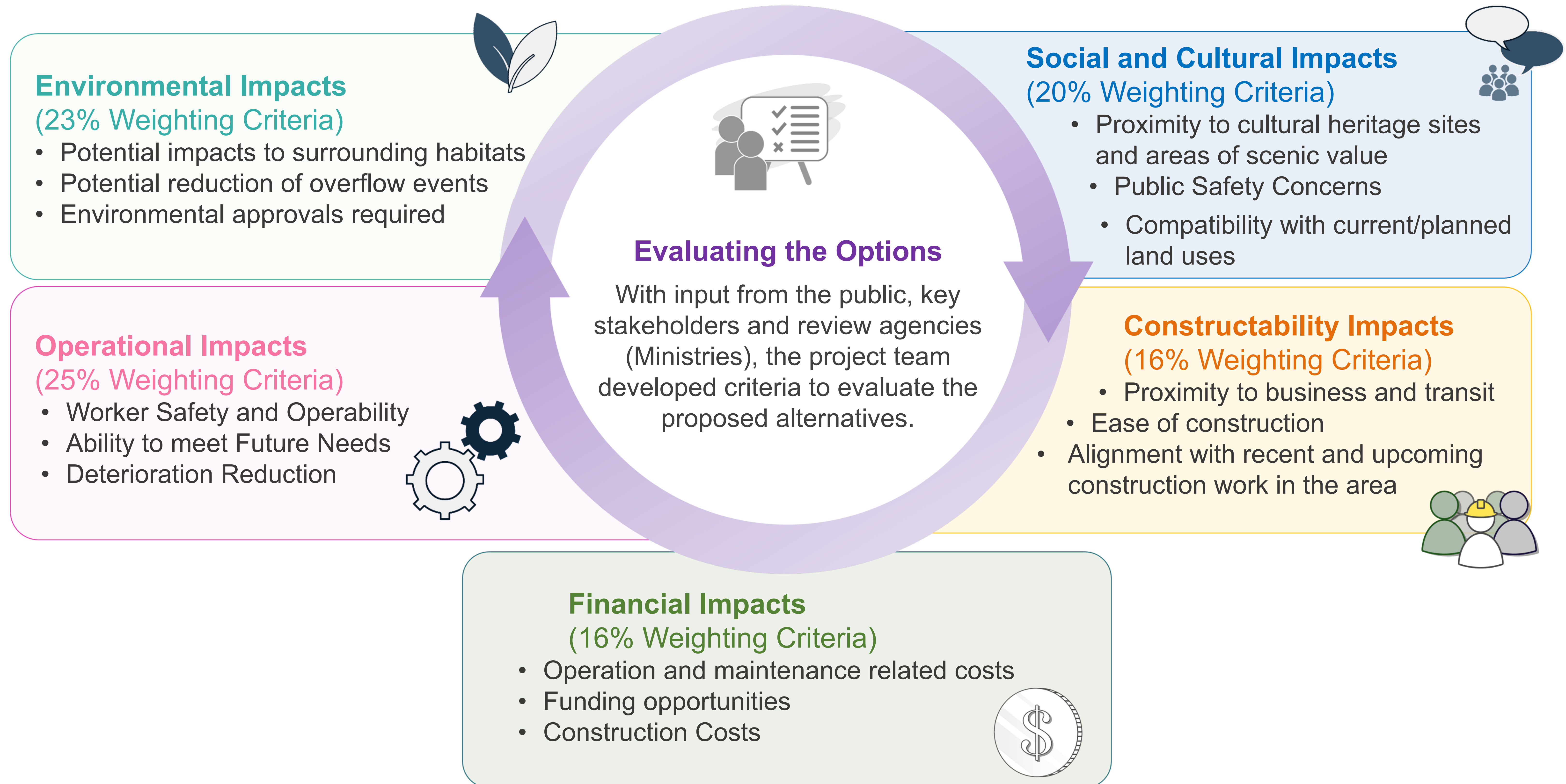
River Road

**Niagara Parks  
Commission:** Manages  
WE GO Bus Services &  
Owns River Rd.

**Niagara Region:** Owns the  
Bender Hill Pumping Station,  
the Station Forcemain and  
Some Wastewater  
Infrastructure Coming Into  
the Station.

| Alternative Solutions                                                                                                                                                                | Scope of Work                                                                       |                                                                                     |                                                                                     |                                                                                     |                                                                                     | Fulfills Problem Statement |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------|
|                                                                                                                                                                                      |  |  |  |  |  |                            |
| <b>Alternative 1: Do Nothing</b><br>No changes to equipment or infrastructure                                                                                                        |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                            |
| <b>Alternative 2: Station Rehabilitation &amp; Upgrades</b><br>Replacement of components and repairs to the existing station’s structure with relocation of WEGO Bus Stop            | ✓                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                            |
| <b>Alternative 3: Station Replacement (Existing Location)</b><br>Demolition and construction of a new station at the same location                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     | ✓                                                                                   |                            |
| <b>Alternative 4: New Station (Bird Kingdom Parking Garage)</b><br>Construction of a new station in the Bird Kingdom Parking Garage                                                  |                                                                                     | ✓                                                                                   |                                                                                     |                                                                                     |                                                                                     | ✓                          |
| <b>Alternative 5: New Station (Corner of John St. and River Rd.)</b><br>Construction of a new station at the corner of John St. & River Rd.                                          |                                                                                     | ✓                                                                                   |                                                                                     |                                                                                     |                                                                                     | ✓                          |
| <b>Alternative 6: New Station (East side of River Rd.)</b><br>Construction of a new station on the East side of River Rd. adjacent to the existing site                              |                                                                                     | ✓                                                                                   |                                                                                     |                                                                                     |                                                                                     | ✓                          |
| <b>Alternative 7: Station Rebuild and Upgrades</b><br>Decommissioning Seneca Pump Station and redirect flows to Bender Hill Pump Station                                             | ✓                                                                                   |                                                                                     |                                                                                     | ✓                                                                                   |                                                                                     | ✓                          |
| <b>Alternative 8: Station Rehabilitation and New Station (Tourist Core)</b><br>Minor rehabilitation and new station in tourist core with redirected flows from Bender Hill           |                                                                                     | ✓                                                                                   |                                                                                     | ✓                                                                                   |                                                                                     | ✓                          |
| <b>Alternative 9: Station Upgrades and Road Realignment</b><br>Replacement of components and structural repairs with realignment of River Rd. and relocation of WEGO Bus Stop        | ✓                                                                                   |                                                                                     | ✓                                                                                   |                                                                                     |                                                                                     | ✓                          |
| <b>Alternative 10: Station Replacement and Road Realignment</b><br>Replace station infrastructure in the same location with realignment of River Rd. and relocation of WEGO Bus Stop |                                                                                     |                                                                                     | ✓                                                                                   |                                                                                     | ✓                                                                                   | ✓                          |

Legend of scope of work

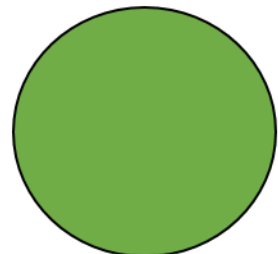


# Long List of Alternative Evaluation Screening



| Alternatives                                                         | Environmental<br>(23%) | Social<br>(20%) | Constructability<br>(16%) | Financial<br>(16%) | Operational<br>(25%) | Summary<br>Score |
|----------------------------------------------------------------------|------------------------|-----------------|---------------------------|--------------------|----------------------|------------------|
| 1 - Do Nothing                                                       |                        |                 |                           |                    |                      |                  |
| 2 - Station Rehabilitation & Upgrades                                |                        |                 |                           |                    |                      |                  |
| 3 - Station Replacement (Existing Location)                          |                        |                 |                           |                    |                      |                  |
| 4 - New Station (Bird Kingdom Parking Garage)                        |                        |                 |                           |                    |                      |                  |
| 5 - New Station (Corner of John St. and River Rd.)                   |                        |                 |                           |                    |                      |                  |
| 6 - New Station (East Side of River Rd Adjacent to Existing Station) |                        |                 |                           |                    |                      |                  |
| 7 - Station Rebuild and Upgrades                                     |                        |                 |                           |                    |                      |                  |
| 8 - Station Rehabilitation and New Station (Downtown Tourist Core)   |                        |                 |                           |                    |                      |                  |
| 9 - Station Upgrades and Road Realignment                            |                        |                 |                           |                    |                      |                  |
| 10 - Station Replacement and Road Realignment                        |                        |                 |                           |                    |                      |                  |

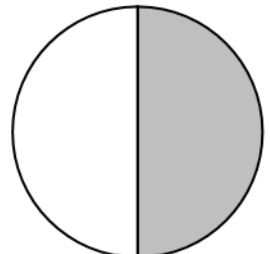
**Legend of Impact per Category:**



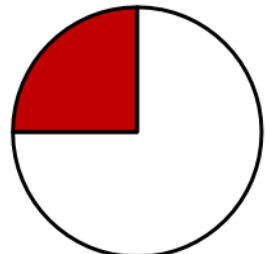
Major Positive



Minor Positive



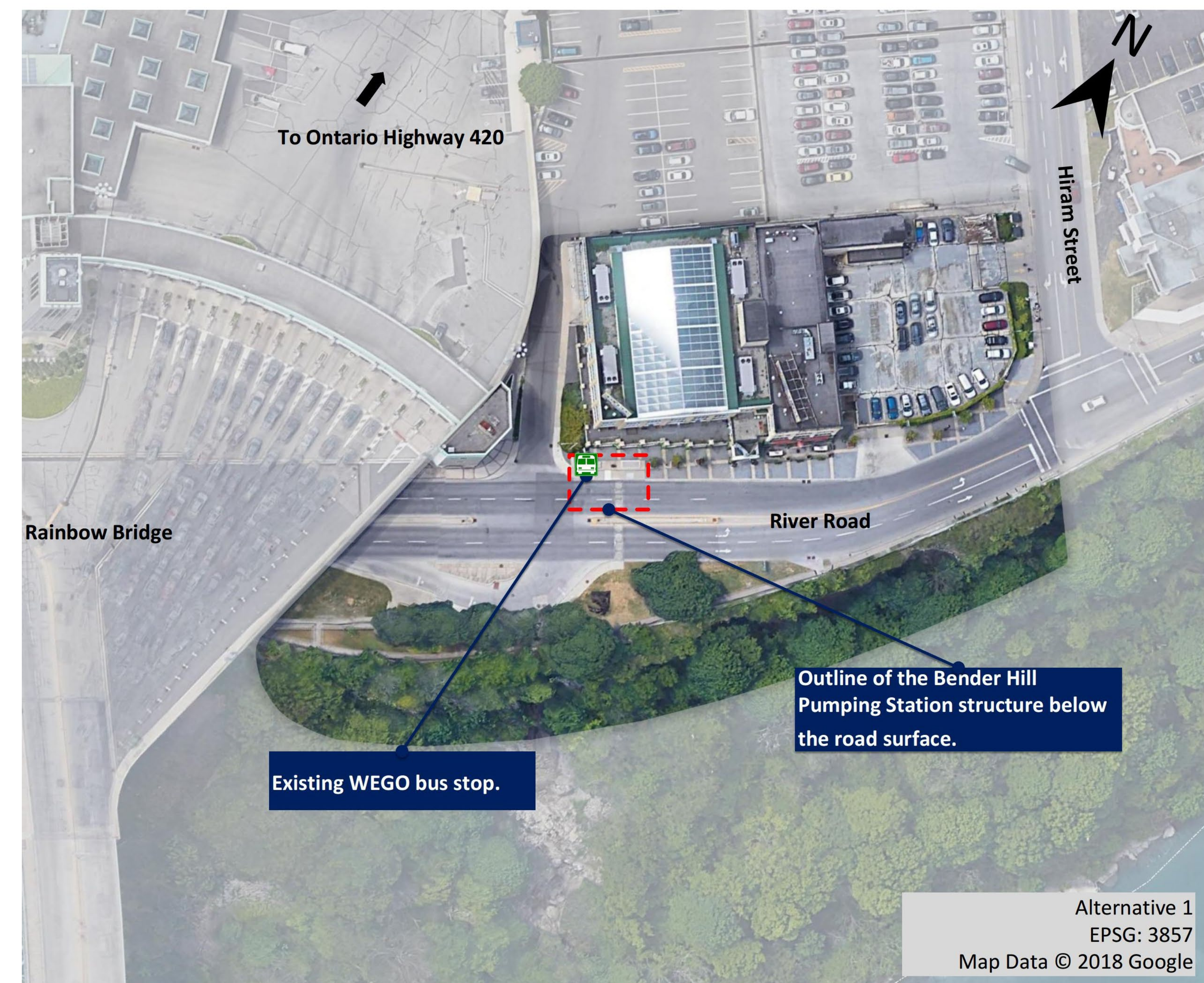
Neutral



Negative

# Alternative 1: Do Nothing

No changes to equipment or infrastructure



*This is a mandatory alternative under the EA Process*



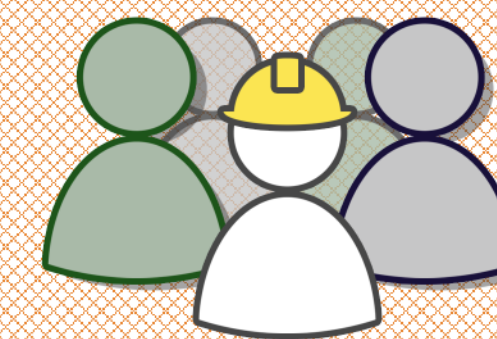
No upgrades for resiliency and protection from potential overflows



No increase in space for pedestrians



Station Access close to existing WEGO bus stop



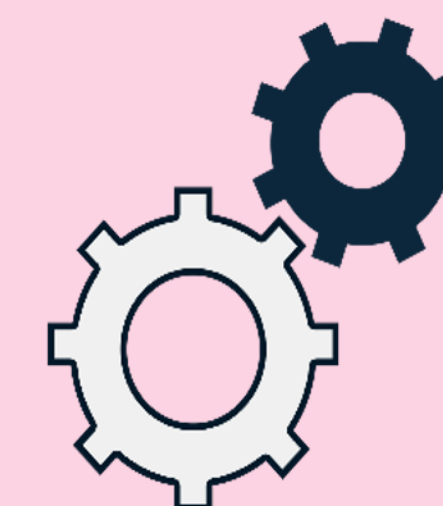
No construction Impacts as there is no construction



Continued increase in maintenance costs and service disruptions



No Capital Cost



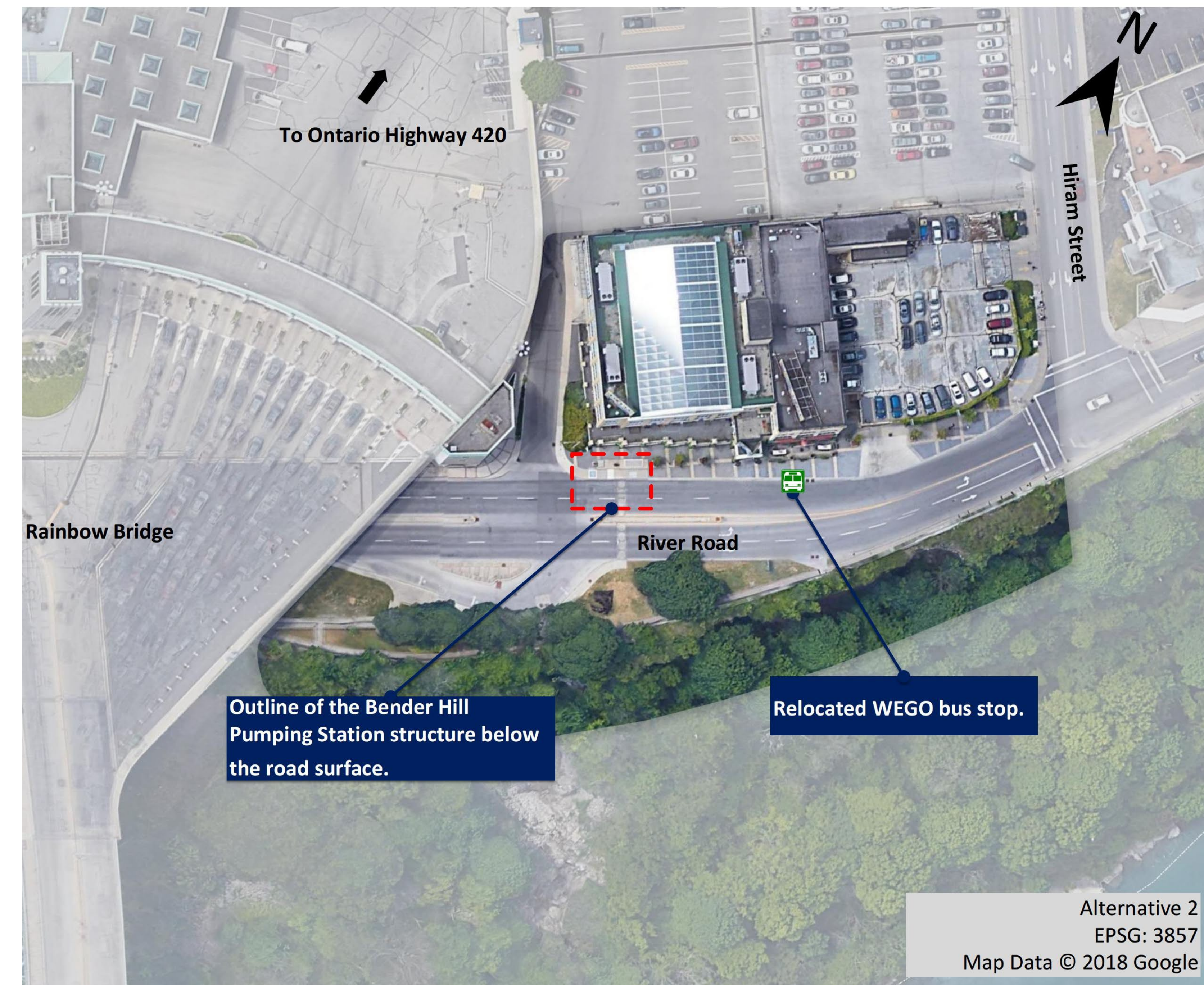
Continued safety risk for station operators



Continued station corrosion due to road salt

# Alternative 2: Station Rehabilitation & Upgrades

Replacement of components and repairs to the existing station's structure with relocation of WEGO Bus Stop



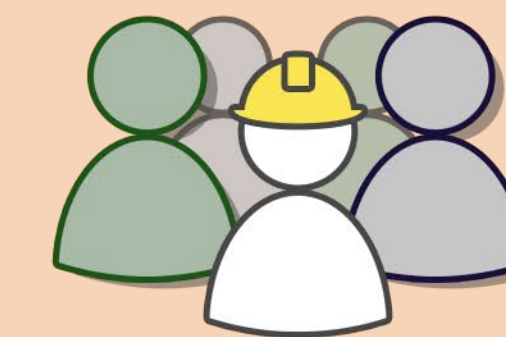
Increased station resiliency and protection for potential overflows



Pedestrian impact as existing station is within the sidewalk and road



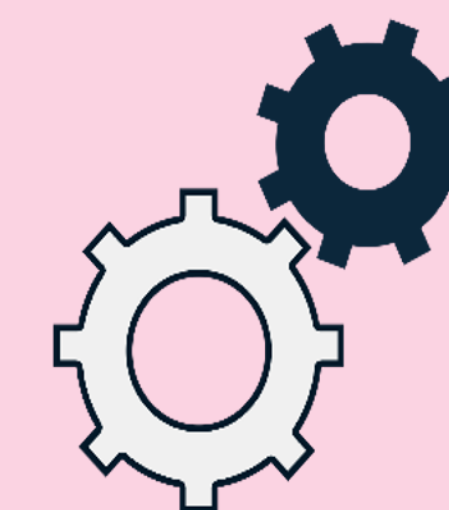
Station Access close to existing WEGO bus stop



Lengthy construction impact due to station location and site constraints



Low cost alternative



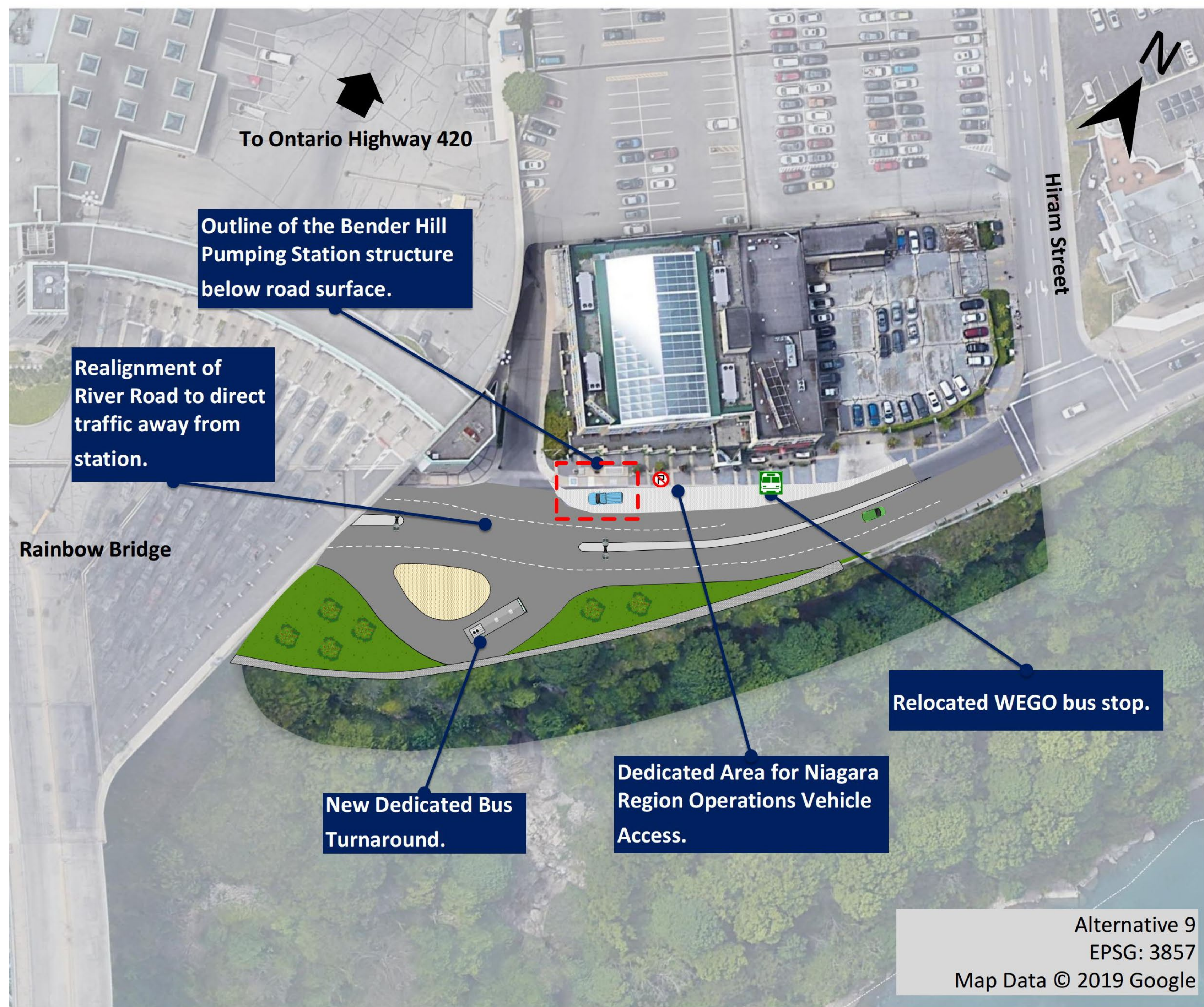
Continued safety risk for station operators



Reduction in salt corrosion as a result of the WEGO bus stop relocation

# Alternative 9: Station Upgrades and Road Realignment

Replacement of components and structural repairs with realignment of River Rd. and relocation of WEGO Bus Stop



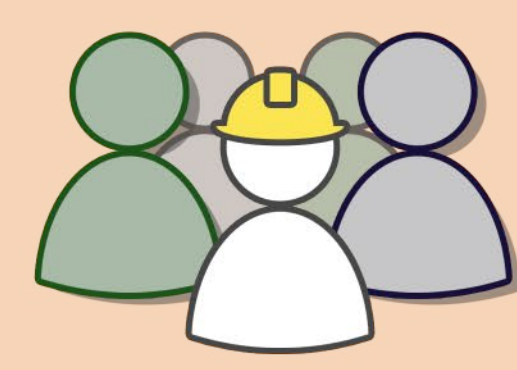
Alternative 9  
EPSG: 3857  
Map Data © 2019 Google



- ✓ Reduced overflow frequency as a result of station capacity increase
- ✓ Increased station resiliency due to upgrades



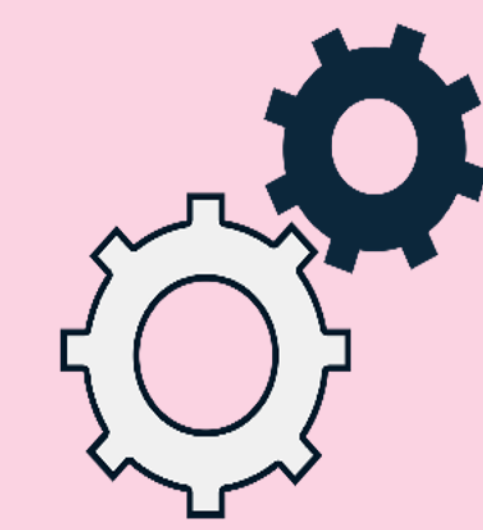
- ✓ Improved public safety as the station access is no longer in an active lane of traffic, and is now further from the WEGO Bus Stop



- ✗ Major temporary impact in the area during road realignment



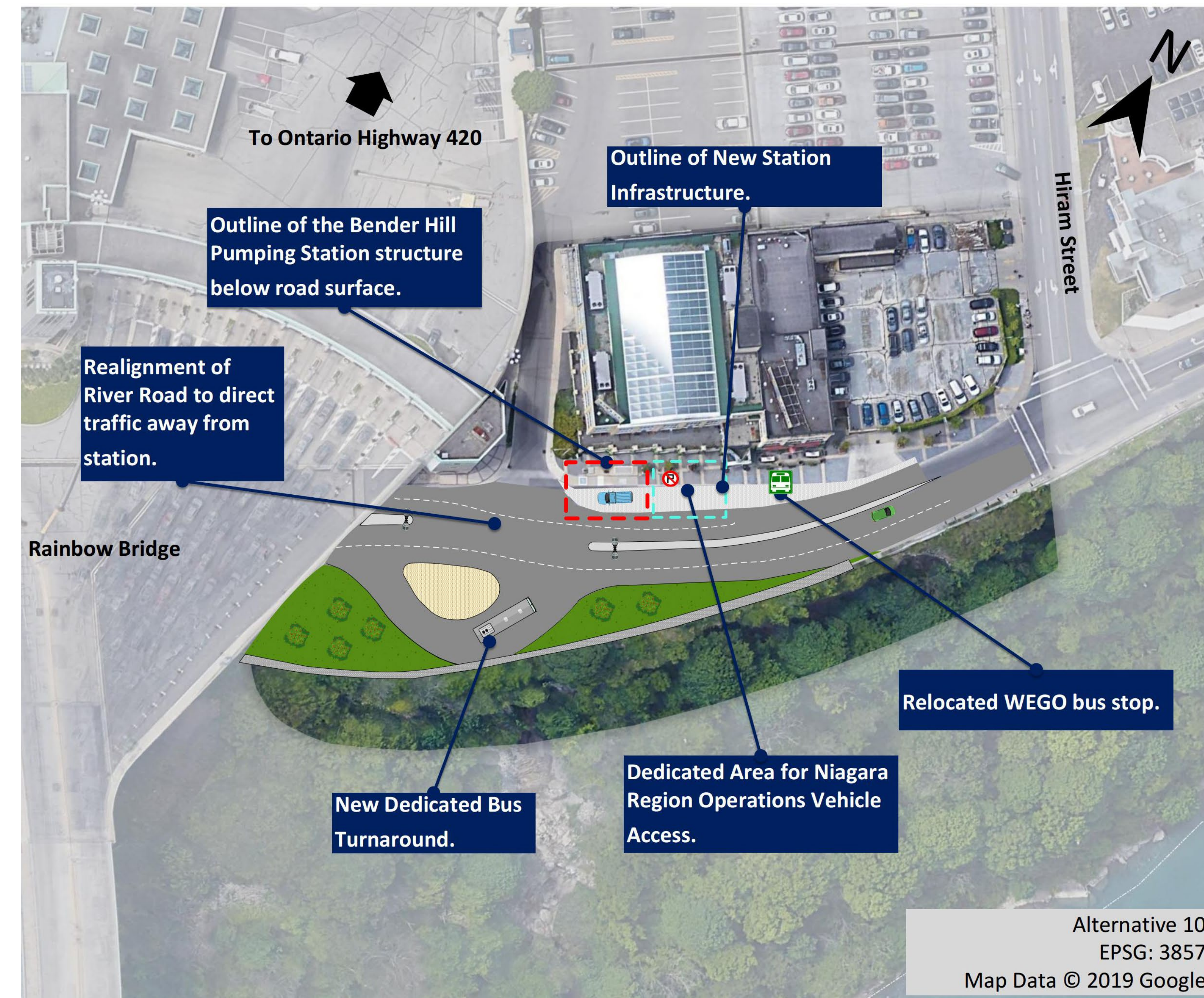
- ✓ Medium cost alternative



- ✓ Increased equipment and structure service life
- ✓ Increased operator safety
- ✓ Reduced corrosion due to bus stop relocation

# Alternative 10: Station Replacement and Road Realignment

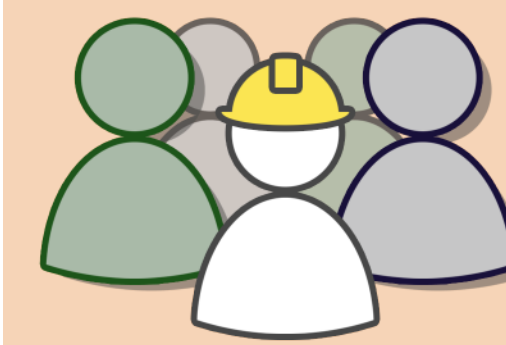
Replace station in the same location with realignment of River Rd. and relocation of WEGO Bus Stop



- ✓ Reduced overflow frequency as a result of station capacity increase
- ✗ Major impact due to rock excavation



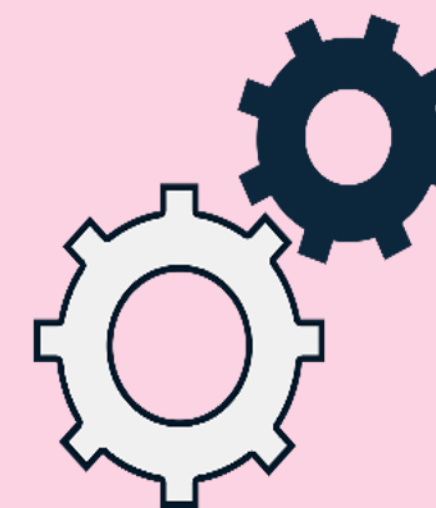
- ✓ Improved public safety as the station access is no longer in an active lane of traffic, and is now further from the WEGO Bus Stop



- ✗ Extended period of construction with major impact to surrounding businesses
- ✗ Major impact in for surrounding businesses as rock excavation is required



- ✗ High cost alternative



- ✓ Increased equipment and structure service life
- ✓ Increased operator safety
- ✓ Reduced corrosion as result of bus stop relocation

| Alternatives                                  | Environmental<br>(23%) | Social<br>(20%) | Constructability<br>(16%) | Financial<br>(16%) | Operational<br>(25%) | Summary<br>Score |
|-----------------------------------------------|------------------------|-----------------|---------------------------|--------------------|----------------------|------------------|
| 1 - Do Nothing                                |                        |                 |                           |                    |                      |                  |
| 2 - Station Rehabilitation & Upgrades         |                        |                 |                           |                    |                      |                  |
| 9 - Station Upgrades and Road Realignment     |                        |                 |                           |                    |                      |                  |
| 10 - Station Replacement and Road Realignment |                        |                 |                           |                    |                      |                  |

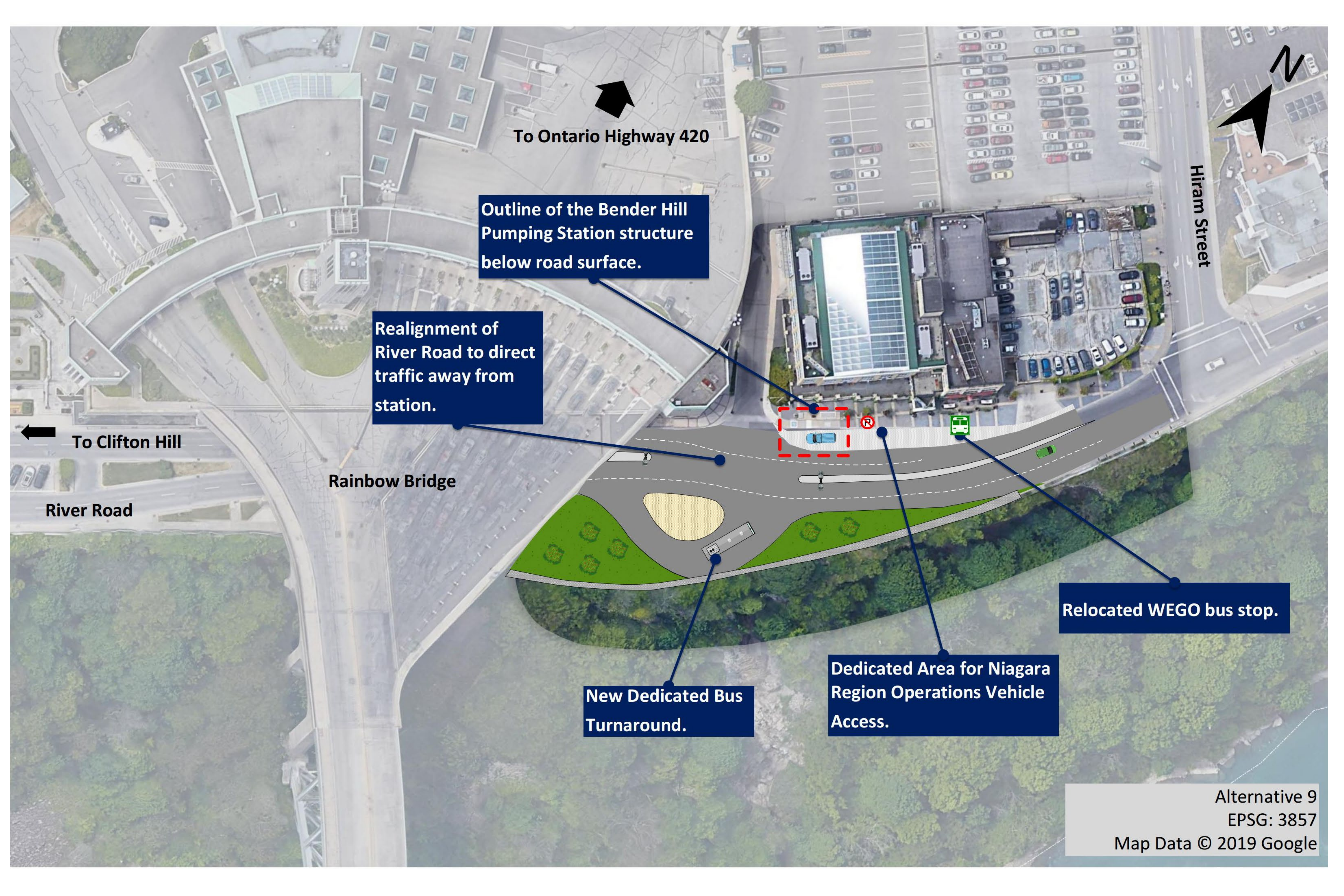
**Legend of Impact per Category:** Major Positive    Minor Positive    Neutral    Negative

**Following evaluation of the short-listed alternatives, the preferred solution is Alternative 9, replacement of components and repairs to station structure with realignment of River Rd.**

- ✓ Allows for Increase to Station Capacity
- ✓ Increases Operator Safety as Station is off the Road
- ✓ Provides a dedicated Access Lane for Operations and Maintenance Work
- ✓ Reduces Entry of Corrosive Agents into Station
- ✓ Cost Effective Alternative
- ✓ Provides Additional Benefits to area due to relocation of road

**PROBLEM STATEMENT OBJECTIVES:**

- Increase station capacity to meet 2041 servicing needs
- Improve worker health and safety and accessibility
- Prevent the ingress of corrosive road salt to the station
- Replace aging infrastructure and equipment
- Provide a wider platform for pedestrian traffic and WE GO bus riders



To Ontario Highway 420

Outline of the Bender Hill Pumping Station structure below road surface.

Realignment of River Road to direct traffic away from station.

To Clifton Hill

River Road

Rainbow Bridge

Hiram Street

Relocated WEGO bus stop.

New Dedicated Bus Turnaround.

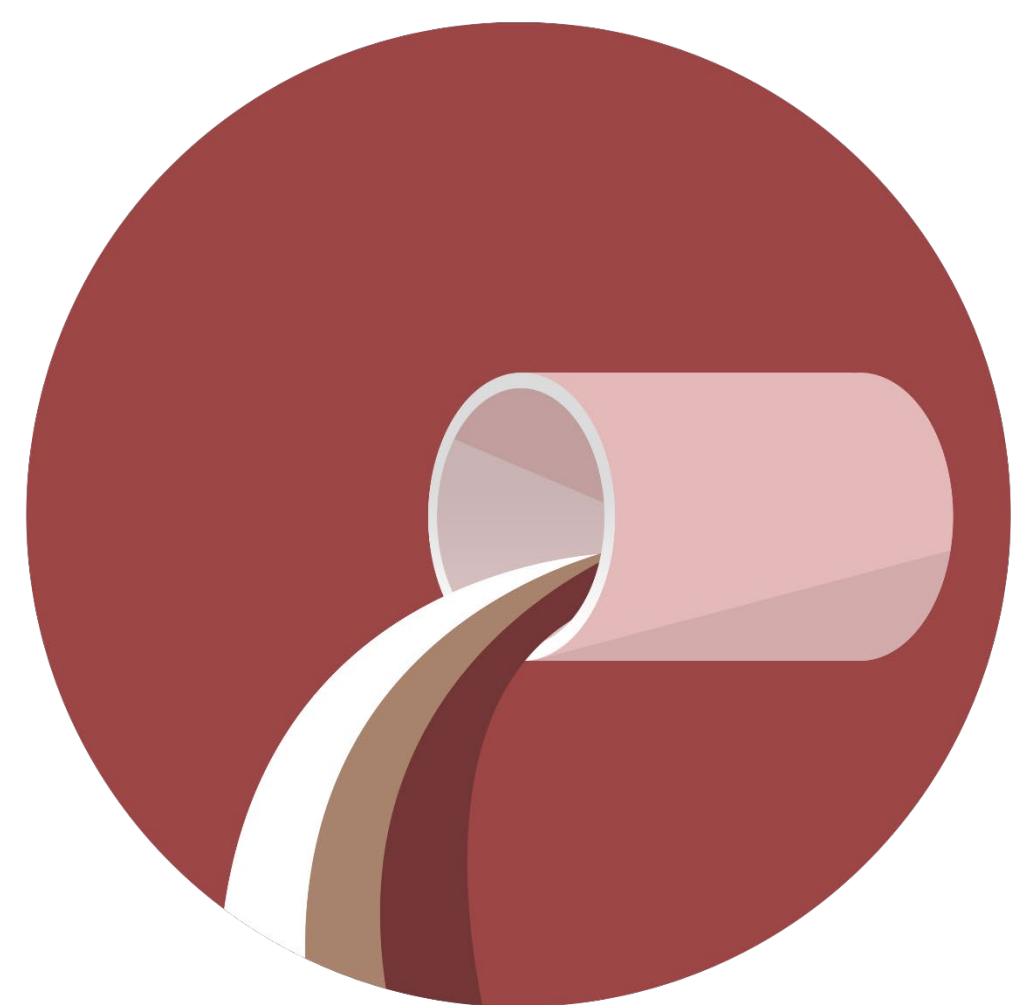
Dedicated Area for Niagara Region Operations Vehicle Access.

## What is an Overflow?

- Overflow is the discharge of untreated wastewater to the natural environment, in the case of Bender Hill, the Niagara River
- Normally takes place during heavy rainfall and/or thaw events when clean water entering the collection system exceeds its capacity

## Bender Hill's Existing Overflow Status:

- The overflow for the Bender Hill SPS discharges to the Niagara River, North of the Rainbow Bridge
- Occurs rarely at this location relative to other Regional facilities



## Preferred Alternative Will Reduce the Station's Overflow Frequency:

- Increased station capacity is expected to assist in reducing the potential for overflows by conveying more flow to the Stanley Avenue Wastewater Treatment Plant

## Site Considerations and Partnerships:

- ***Niagara Parks Commission***

The preferred alternative provides connectivity with the Queen's Park Master Plan in the following:

- Right of Way state of good repair completed under one construction project
- Streetscaping & Landscaping Improvements
- Opportunity for traffic improvements

The preferred alternative facilitates traffic improvements of WEGO bus services in this core tourist area with the implementation of a dedicated bus turnaround.

- ***City of Niagara Falls***

The preferred provides an opportunity for the improvement of underground infrastructure in the area.

### COMBINED BENEFITS:

- Construction and Engineering Costs Savings
- Minimization of Customers and Businesses Impact through the replacement of infrastructure for all stakeholders under one project
- Increased Pedestrian Safety

## Next Steps

Following this PIC, the project team will:

- Review and consider stakeholder input received during this PIC.
- Select the preferred alternative solution.



### Thank you for Participating, Get Engaged!

We want to hear from you! Please let us know your thoughts by filling out a comment form.

Your feedback will be considered during the evaluation process.

## How to Contact the Project Team

If you have any questions or comments, please contact the following:

A silver pushpin is pinned to the top of a white rectangular card.

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