



WELCOME

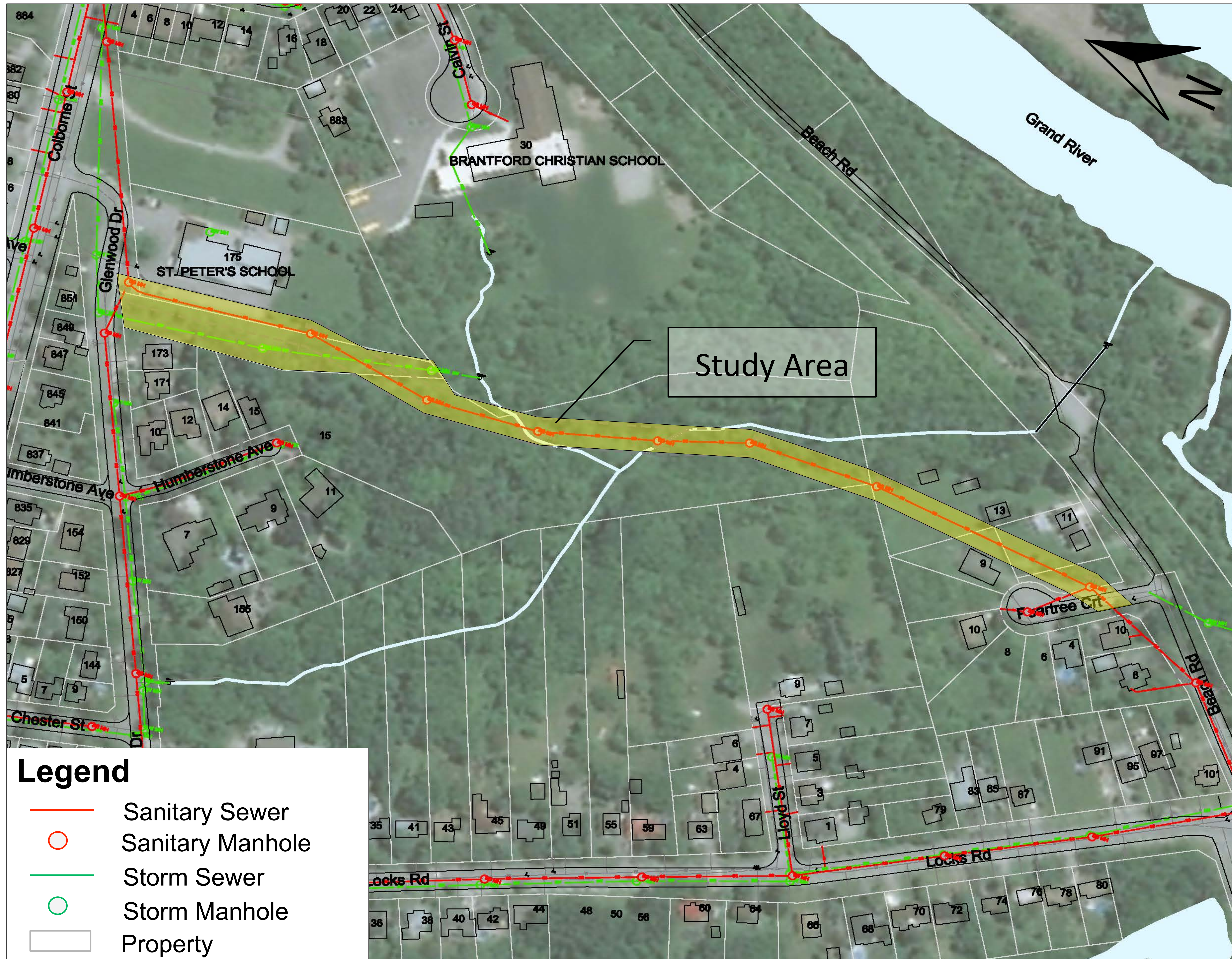
Utility Access Route between Glenwood Drive and Peartree Court Environmental Assessment
PUBLIC INFORMATION CENTRE
June 10th, 2021

Your comments are encouraged and appreciated, as this will provide us an opportunity to address project issues and concerns.



STUDY AREA

The study area is between Glenwood Drive and Peartree Court , along a series of City maintained sanitary and storm sewers.



STUDY PURPOSE / PROBLEM DEFINITION



The Wastewater Collection system, including sanitary and storm sewers, are valuable assets owned by the City of Brantford.

The sewer network from Glenwood Drive to Peartree Court extends through a natural environment setting which has overgrown since construction. This limits opportunities for the City to undertake regular maintenance, inspection, or emergency repairs.

This study is being carried out to identify constraints on access, potential future risks, and ultimately provide a formal access to City's sewer infrastructure.

VIRTUAL PUBLIC INFORMATION CENTRE PURPOSE



This Virtual Public Information Centre (PIC) is Designed to:

- Present information on existing conditions
- Present alternative access options
- Present study process and timelines

To gain community input on:

- Existing conditions information
- Identification of opportunities and constraints
- Alternative evaluation criteria and scoring
- Selection of preferred solutions

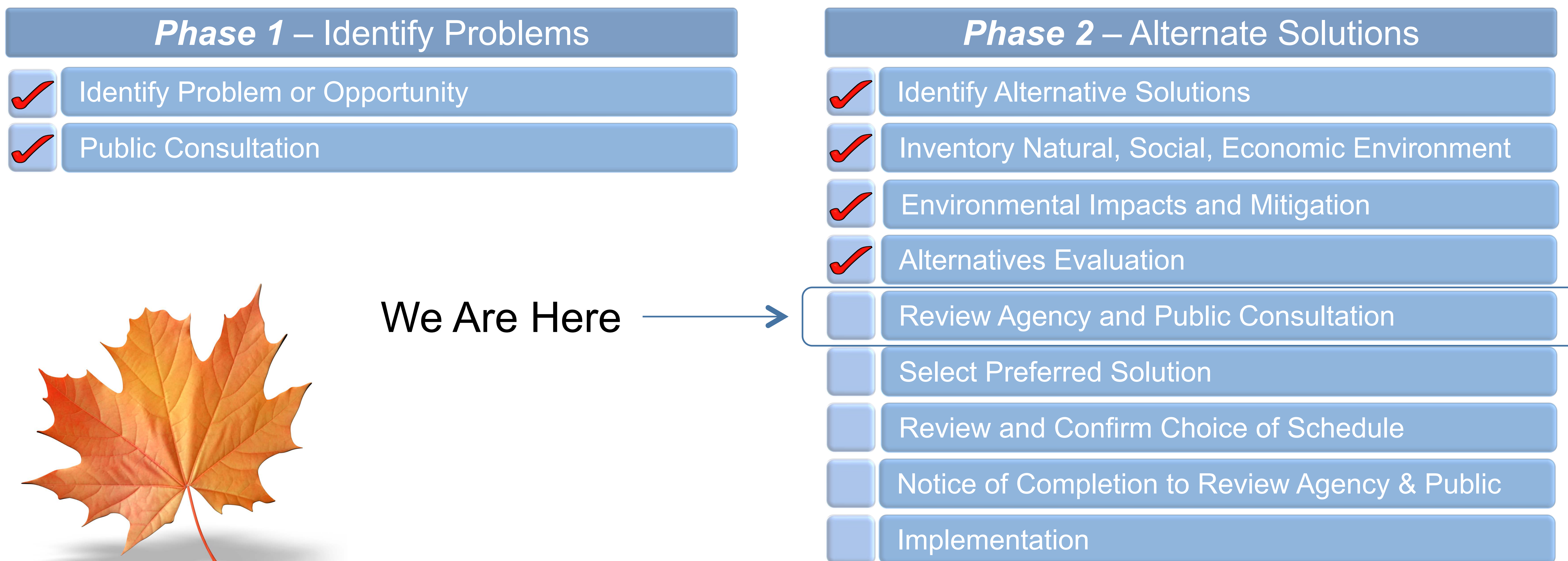


MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT PROCESS

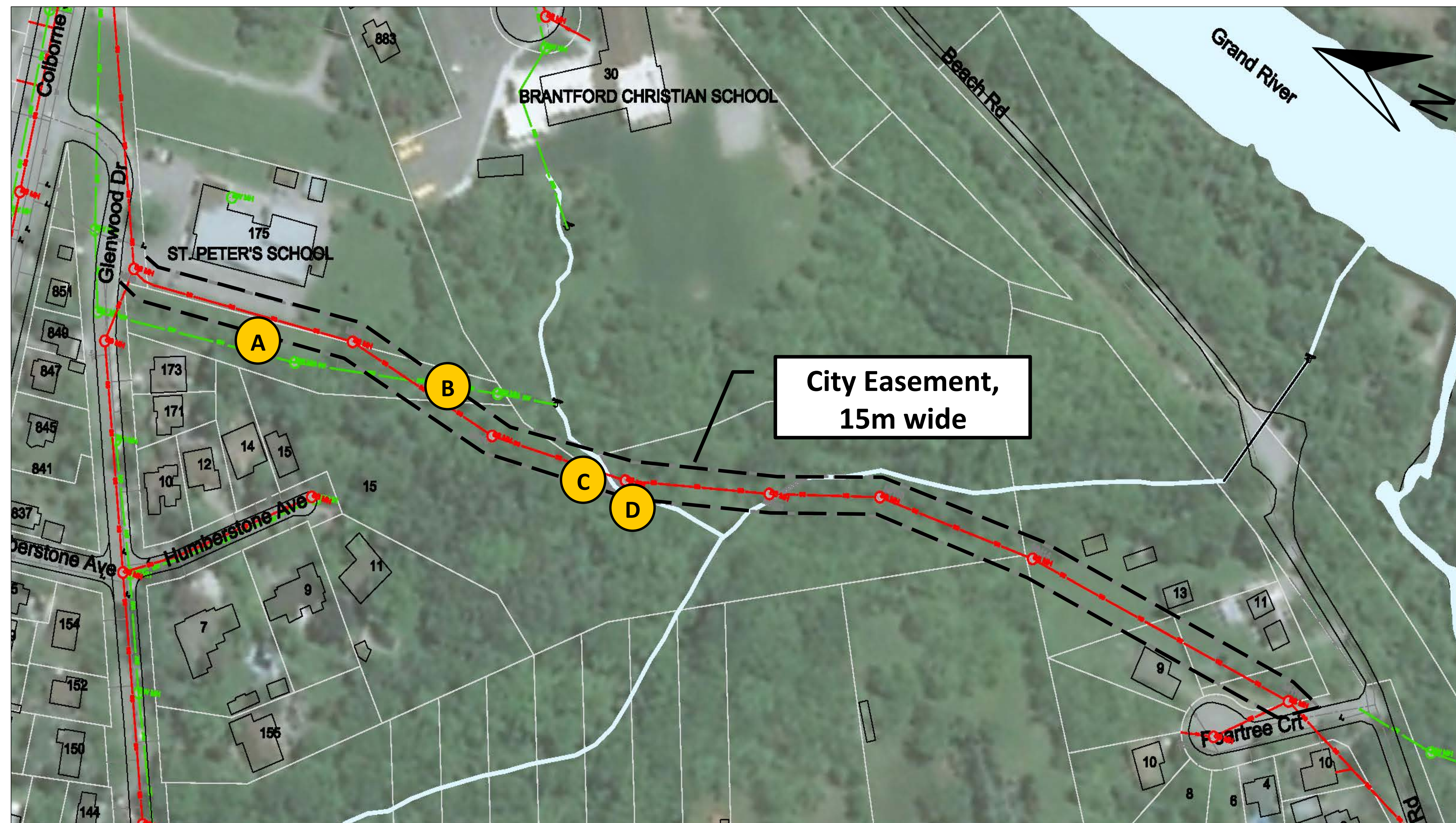
CLASS EA PROCESS - SCHEDULE B

Many projects related to municipal systems are similar in nature, are carried out routinely, and have predictable and mitigatable environmental effects which are investigated according to the Municipal Engineers Association “Municipal Class Environmental Assessment” (October 2000, as amended in 2007 & 2011).

This study is being undertaken as a Schedule B project under the Municipal Class Environmental Assessment process. The flow chart illustrates the key steps to be undertaken as part of the EA process.



EXISTING CONDITIONS



C. Previous emergency erosion protection for exposed sanitary sewer and manhole (2019)



D. Previous emergency erosion protection for exposed sanitary manhole

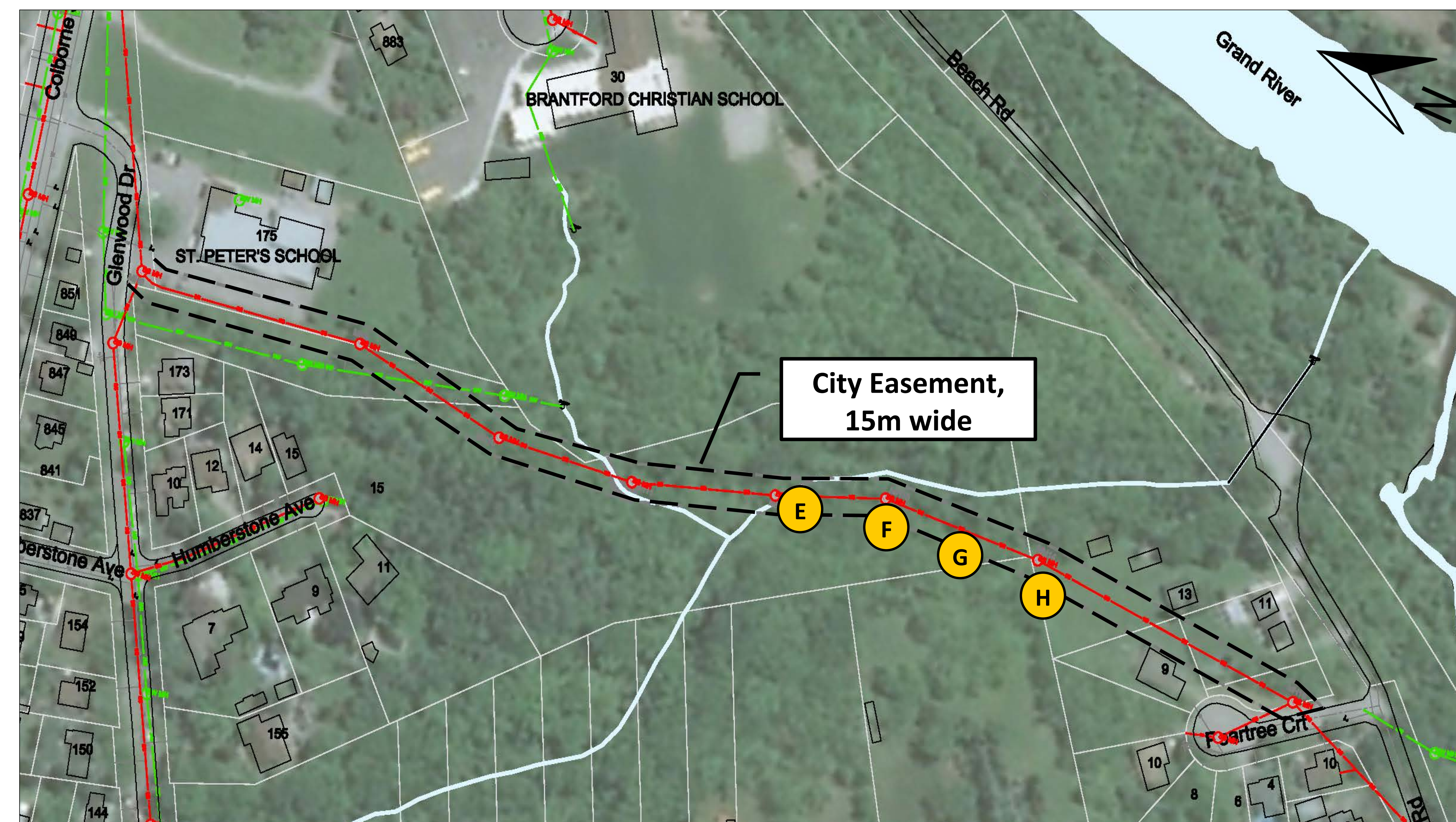


A. City right of way west of St. Peter's School looking towards Glenwood Drive



B. Steep slope along sanitary sewer easement from Glenwood Drive into valley

EXISTING CONDITIONS



G. Vegetation overgrown within sanitary sewer easement limiting maintenance vehicle access



E. Existing CSP culvert over sanitary sewer crossing



F. Sanitary manhole in close proximity to existing watercourse



H. Sanitary manhole within private property, looking toward Peartree Court

EXISTING UTILITIES

Utility	Sanitary Sewer	Storm Sewer	Culvert
Size	900 – 1050mm	525mm	1500mm
Length	550m	205m	20m
Material	Asbestos Cement	Concrete	Corrugated Steel
Year	1962	1974	1962
Infrastructure	8 x Manholes	2 x Manholes 1 x Outlet	Stone retaining structure
Easement	City Permanent Easement, 15m wide	-	-

- These utilities, including sewers and manholes require regular inspection, maintenance, and emergency flushing.
- A stable access road that can be use by vehicles ranging from pickup trucks to flusher truck is necessary to perform such activities.



An example of flusher truck that City uses.

TERRESTRIAL ECOLOGY

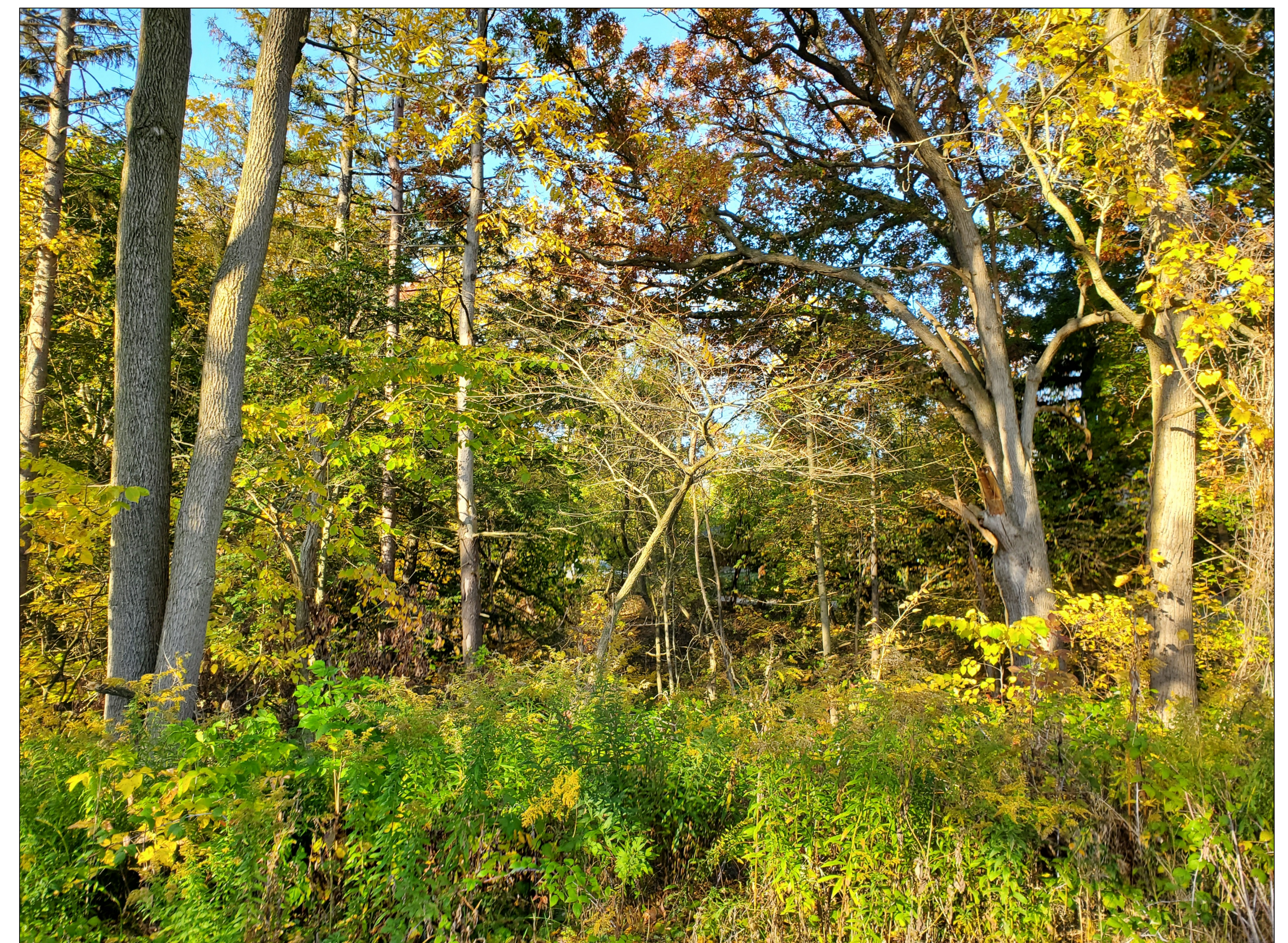
Ecological Land Classification (ELC) is a standard practice used to describe, identify, classify and map vegetation communities on the landscape.

In total, 4 vegetation communities are identified within the study area. Community types ranged from lowland forests to woodlands, including various species from deciduous to coniferous.

Particularly, multiple Oaks of large size, indicating an age of greater than 100 years, were observed within the Dry White Oak Woodland community (WODM3-3) – southwest extent of the study area.



WODM4-4 (CUW1): Dry – Fresh Black Walnut Deciduous
Woodland Type



WODM3-3 (CUW1): Dry White Oak Woodland Type

VEGETATION COMMUNITY CLASSIFICATION

Legend

-  Study Area
-  Ecological Land Classification (ELC)
-  Butternut
-  Butternut Habitat (50m radius)



ELC Vegetation Communities

- FOCM6 (CUP3-9) – Naturalized Coniferous Plantation
- FOD7-3 – Fresh-Moist Willow Lowland Deciduous Forest
- WODM3-3 (CUW1) – Dry White Oak Woodland
- WODM4-4 (CUW1) – Dry-Fresh Black Walnut Deciduous Woodland

VASCULAR PLANTS

A total of 130 Vascular plant species have been identified, including:

- Native Species: 55 (42.3%)
- Introduced Species: 34 (26.2%)
- Species identified only to genus : 16 (26.2%)

Significance of the identified species are as per the following:

- Species at Risk: 1
 - Butternut, *Juglans cinerea* (Endangered)
- Provincially Rare Species: 2
 - Pignut Hickory, *Carya glabra* (S3)
 - Honey Locust, *Gleditsia triacanthos* (S2)
- Regionally Rare Species: 9



Virginia Stickseed (*Hackelia virginiana*) –
Uncommon in Brant County



Pignut Hickory (*Carya glabra*) – S3; Rare
in Brant County

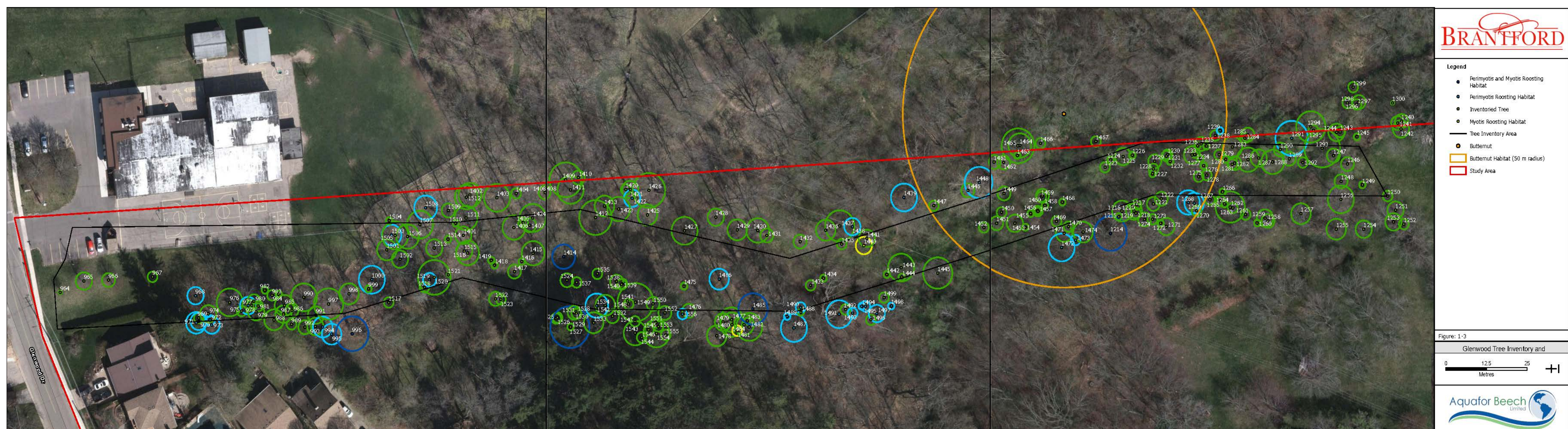


Butternut (*Juglans cinerea*) – Endangered,
Species at Risk

TREE INVENTORY

A comprehensive tree inventory was completed for the study area by Aquafor in September and October 2020, and January 2021.

- Trees greater than 10cm diameter were inventoried in proximity to the sanitary and storm sewers. A total of 281 trees were identified, consisting of 22 species.
- Removal of trees may be required to accommodate access road construction. In addition, removal of trees growing directly above the underground sewers are recommended in order to limit root intrusion and groundwater infiltration into the sanitary sewer.
- However, compensation for the removal of trees will be provided in accordance with City of Brantford's and Grand River Conversation standards.



The study assessed aquatic habitat and fishery within the small tributary of Grand River to define existing conditions:

- The tributary mostly receives discharges from the stormwater outlets behind St. Peters School and Brantford Christian School, and then confluences with another storm channel off Glenwood Drive.
- The creek maintains minimal flow under low flow conditions upstream of confluence.
- Instream Vegetation was generally absent within the tributary, and minimal as overhanging riparian cover.
- Number of minor and major fish barrier(s) were observed throughout the study area, such as the culvert inlet at Beach Road of which grate has been blocked by woody debris.
- Although the project is not intended to alter the existing creek, the proposed access route is expected to be in close proximity and/or cross the creek. In turn, There are opportunities to improve the overall aquatic habitat within the study area.



EVALUATION CRITERIA

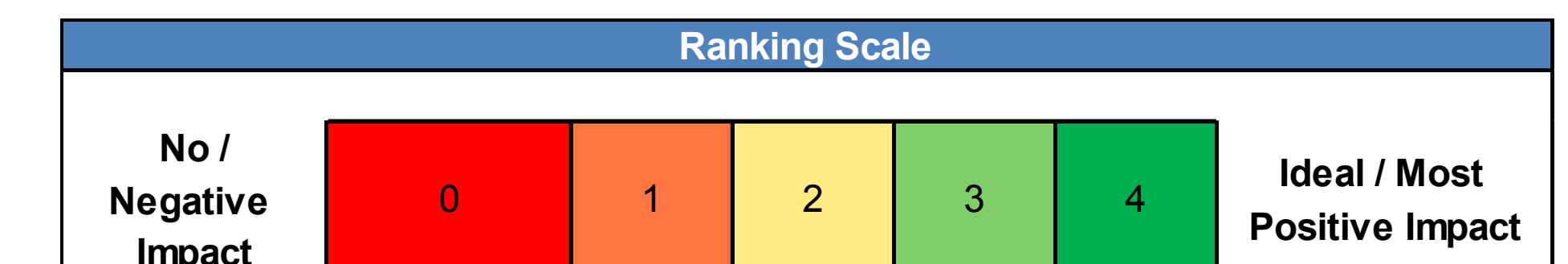


Utility Access Route between Glenwood Drive to Peartree Court
Environmental Assessment

There are four alternative approaches being considered for this project:

1. Do Nothing
2. Access Road from Both Ends with A Turn-Around
3. Access Road from Glenwood with A Turn-Around
4. Through Access Road between Glenwood and Peartree

The following criteria will be used to evaluate each alternative to determine the preferred route for the access road between Glenwood Drive and Peartree Court. The evaluation uses a normalized ranking scheme to provide equal weighting for each category of evaluation criteria. A ranking scale from 0 (no / negative impact) to 4 (ideal / most positive impact) is applied to each criterion.



Comment sheets are provided to collect public feedback on the evaluation criteria and preliminary evaluation / outcome.

Technical & Engineering Criteria

Impact on City Infrastructure and Utility	Inspection, maintenance, and repair access provided to City-owned infrastructure, notably sanitary and storm sewers.
Access Feasibility	Route accessibility and ease-of-use for maintenance trucks and vehicles.
Lifespan of Works	Expected lifespan / years of works before intervention needs to be repeated.

Physical & Natural Environment

Terrestrial Habitat and Vegetation	Improvements or impacts to terrestrial habitat, including loss and replacement of vegetation and natural corridor connectivity.
Aquatic Habitat and Fisheries	Improvements or impacts to fish and aquatic habitat, including substrate, overhanging vegetation, turbidity, and connectivity.

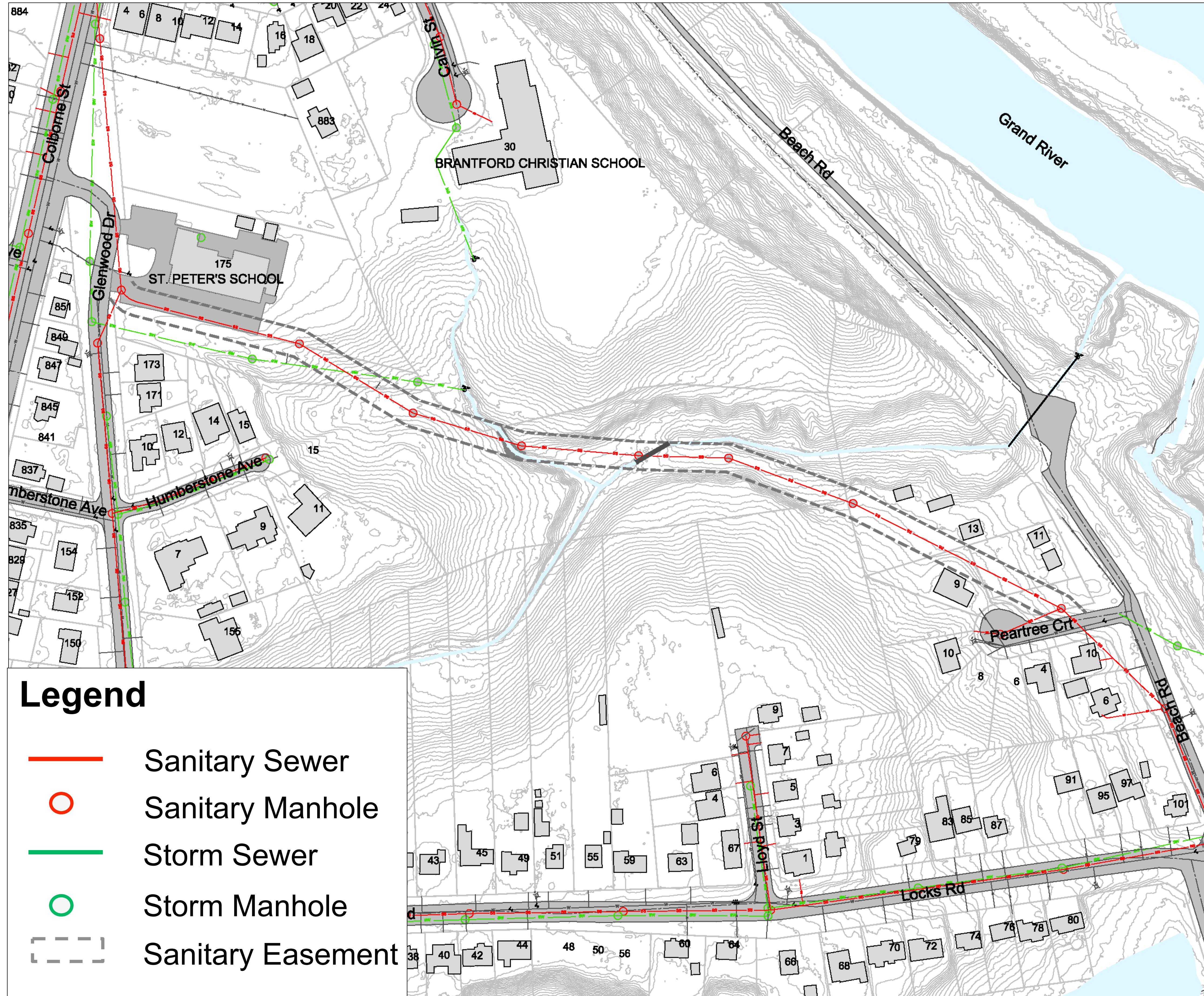
Social & Cultural Criteria

Landowner Impacts	Impacts or disturbance to adjacent properties due to construction.
Property Intrusion	Disturbance to private properties when City uses the access road, including potential damage/intrusion beyond easement limit.
Aesthetic Value and Community Benefits	Changes to aesthetic value of surrounding lands.

Economic Criteria

Capital Costs	Detailed design, permitting and construction costs for the proposed works
Life Cycle Costs	Anticipated temporary / emergency works during the lifespan

Potential Alternative #1 Do Nothing



Existing Conditions / Do Nothing

Alternative # 1 – Do Nothing

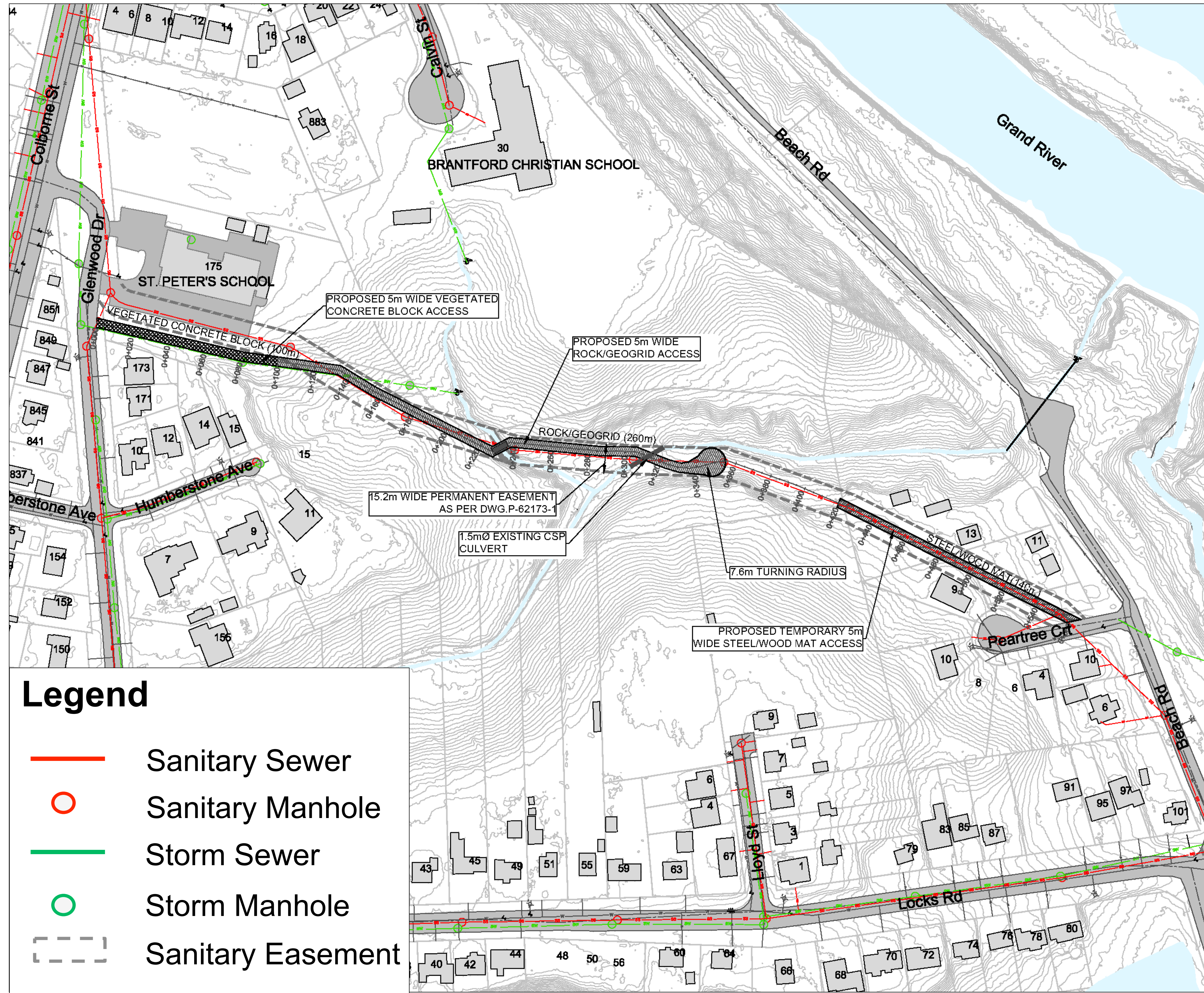
Definition: No formal access road proposed.

Description: This alternative would involve leaving the site as-is, allowing for vegetation to continue growing within the easement. Existing constraints limiting vehicle access to perform regular inspection and maintenance, and repairs for the sewer infrastructures will remain. Potential risks associated with sewer blockage, pipe leakage, sewer/manhole exposure would not be identified and addressed.

Although no capital costs have been assigned to this alternative, costs associated with repairs under emergency conditions (i.e., failure) would be incurred.

Potential Alternative #2

Access Road from Both Ends with A Turn-Around



Temporary Steel Plates



Rock Geogrid Access Road

Alternative # 2 – Access Road from Both Ends with A Turn-Around

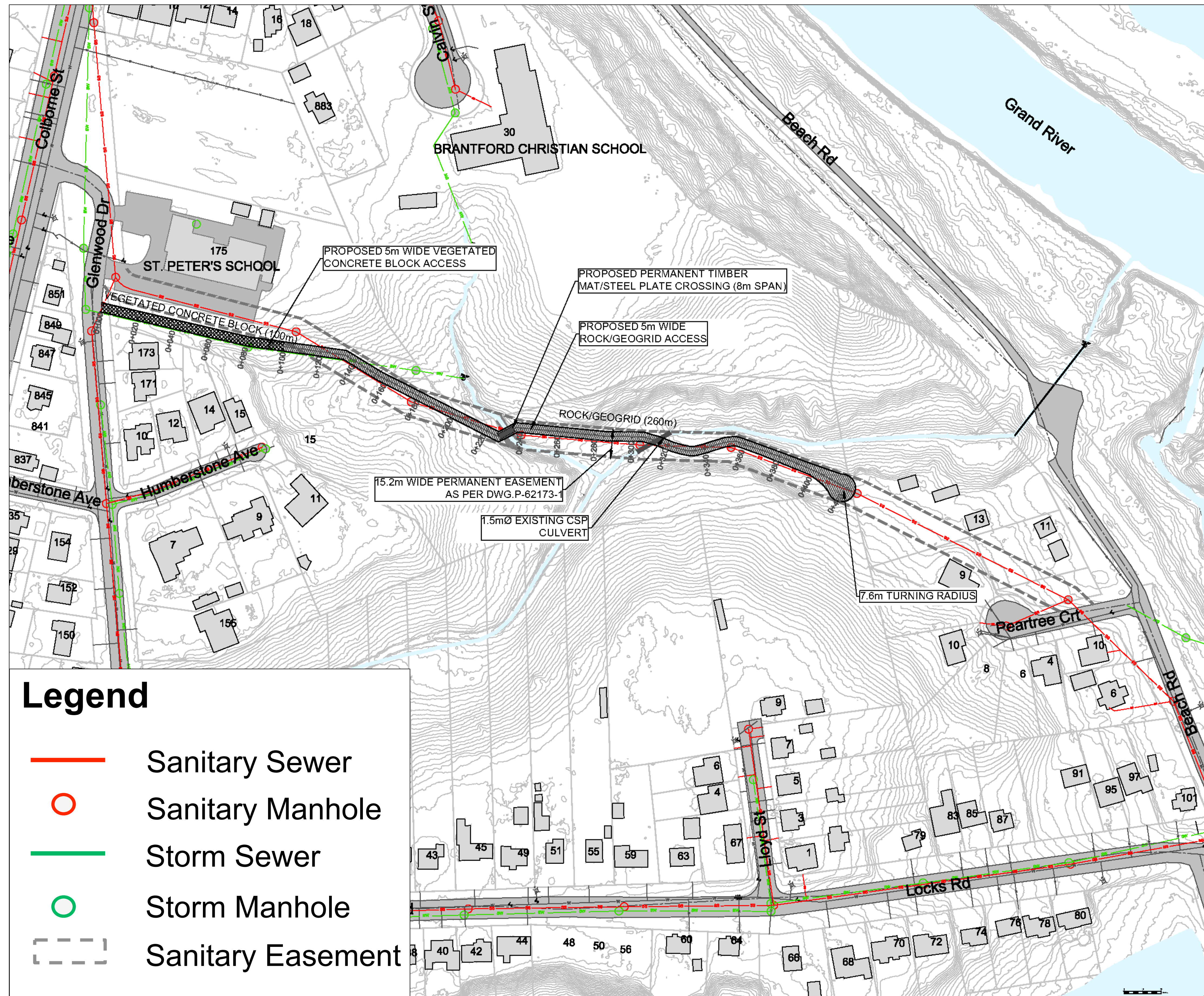
Definition: Constructing a permanent access route from Glenwood Dr with a turnaround ~360m, as well as a temporary access from Peartree Ct to the last manhole within Valley only as required.

Description: This alternative would involve constructing the permanent access using vegetated concrete block mats within the City maintained sod area, and riprap within the valley. Temporary wood/steel matting are proposed to protect private backyards when access from Peartree is required. During construction, this option will involve a relatively moderate-high level of disruption to landowners, local residents, and habitat (including existing vegetation). In addition, every time City wishes to access from Peartree, disturbance to the landowners is expected. However, all disrupted areas will be restored with native plantings and seed mixes designed to provide stability and sustainability.

The lifespan of these works are generally defined as long, however, temporary matting and restoration of sodding within private properties will be required following each access from Peartree Ct.

Potential Alternative #3

Access Road from Glenwood with A Turn-Around



Rock Geogrid Access Road

Alternative # 3 – Access Road from Glenwood with A Turn-Around

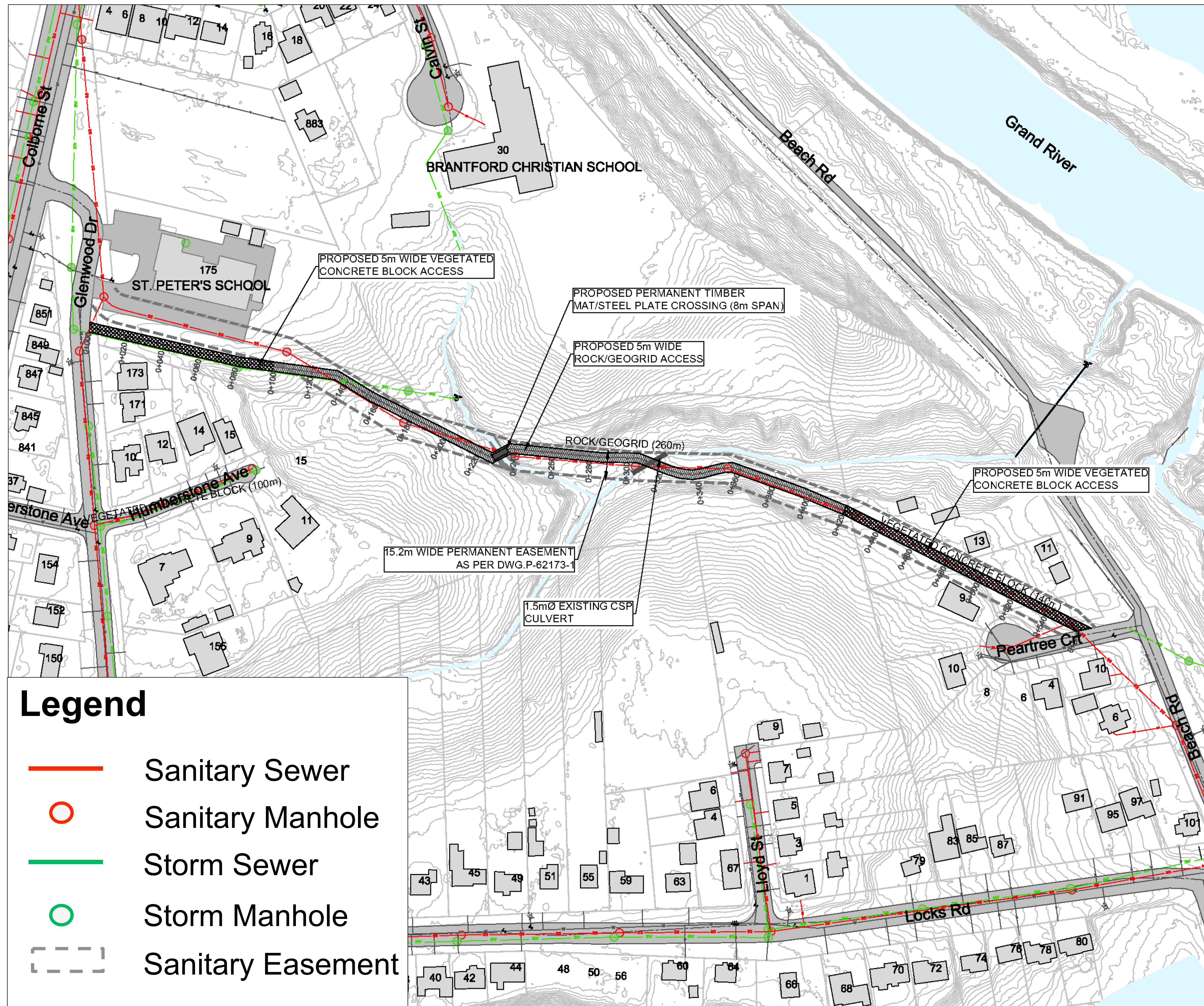
Definition: Constructing a permanent access route from Glenwood Dr with a turnaround ~420m to the last manhole within the valley.

Description: This alternative would involve constructing the permanent access road primarily using riprap within the valley, combined with vegetated concrete block mats within the City right of way off Glenwood. Access to all sanitary manholes within the valley will be provided by this alternative. Constrained by the limit of existing easement, a turnaround of maximum radius of 7.6m is proposed at the end of the road, which is not considered overly sufficient for large flusher trucks. During construction, this option will involve a relatively level of disruption to landowners, local residents, and habitat (including existing vegetation). However, all disrupted areas will be restored with native plantings and seed mixes designed to provide stability and sustainability.

The lifespan of these works are generally defined as long with minimal maintenance required.

Potential Alternative #4

Through Access Road between Glenwood and Peartree



Vegetated Concrete Block Mats



Rock Geogrid Access Road

Alternative # 4 – A Through Access Road between Glenwood and Peartree

Definition: Constructing a permanent through access route from Glenwood Dr to Peartree Ct, 540m.

Description: This alternative would involve constructing the permanent access primarily using riprap within the valley, as well as vegetated concrete block mats within the grassy area at either end. This alternative obviated the need for a turning point within the easement and driving up the steep slope to Glenwood. The proposed vegetated concrete block mats are designed to promote grass growth which will blend into the surrounding lands. During construction, this option will involve a relatively high level of disruption to landowners, local residents, and habitat (including existing vegetation). However, all disrupted areas will be restored with native plantings and seed mixes designed to provide stability and sustainability.

The lifespan of these works are generally defined as long with minimal maintenance required.

EVALUATION OF ALTERNATIVES



Utility Access Route between Glenwood Drive to Peartree Court Environmental Assessment

The preliminary evaluation of alternatives is presented below, with Alternative 3 selected as the preliminary preferred alternative for access. Your comments on the ranking and preferred method of restoration are encouraged and appreciated. The study team will compile and review all feedback, and will then finalize the selection of preferred alternative for the project.

EVALUATION CRITERIA		Alternative 1 - Do Nothing		Alternative 2 - Access Road from Both Ends with A Turn-Around		Alternative 3 - Access Road from Glenwood with A Turn-Around		Alternative 4 - Through Access Road between Glenwood and Peartree	
		Score	Explanation	Score	Explanation	Score	Explanation	Score	Explanation
Technical and Engineering Criteria	Description of Criteria	0.0		2.1		2.3		2.5	
Impact on City Infrastructure and Utility	Inspection, maintenance, and repair access provided to City-owned infrastructure, notably sanitary and storm sewers.	0	Ongoing vegetation growth leading to continued access restrictions to sanitary sewers and manholes	4	Access provided to all manholes with the study area, either permanent or temporary	4	Permanent access provided to all manholes with the study area	4	Permanent access provided to all manholes with the study area
Access Feasibility	Route accessibility and ease-of-use for maintenance trucks and vehicles	0	No Access Route Constructed	3	All manholes generally accessible, but steep exit incline and tight turnaround radius poses potential accessibility limitations	3	All manholes generally accessible, but steep exit incline and tight turnaround radius poses potential accessibility limitations	4	Permanent and stable access to all manholes.
Lifespan of Works	Expected lifespan of works before intervention needs to be repeated	0	No access route constructed, repairs will continue on an emergency only basis	3	Lifespan of permanent access route is high, with temporary access to be assembled and disassembled as required	4	Lifespan of permanent access route is high.	4	Lifespan of permanent access route is high
Physical and Natural Criteria	Description of Criteria	2.5		1.9		1.3		1.6	
Terrestrial Habitat and Vegetation	Improvements or impacts to terrestrial habitat, including loss and replacement of vegetation and natural corridor connectivity.	4	No impacts on terrestrial habitat or vegetation	3	Some vegetation loss and impacts on terrestrial habitat along a section of the easement from Glenwood Drive due to access route construction.	1	Most significant vegetation loss and impacts on terrestrial habitat along easement within the valley, due to extended length and the turnaround area.	2	Significant vegetation loss and impacts on terrestrial habitat along easement within the valley.
Aquatic Habitat & Fisheries	Improvements or impacts to fish and aquatic habitat, including substrate, overhanging vegetation, turbidity, and connectivity.	4	No impact on aquatic & fisheries habitats	3	Minimal impact to aquatic health	3	Minimal impact to aquatic health	3	Minimal impact to aquatic health
Social and Cultural Criteria	Description of Criteria	2.3		0.6		1.7		1.0	
Landowner Impacts	Impacts or disturbance to adjacent properties due to construction	4	No impacts to adjacent landowners	1	Significant disturbance to surrounding property owners due to permanent access route construction, specifically the Peartree Court landowners.	2	Moderate disturbance to surrounding property owners due to permanent access route construction.	1	Significant disturbance to surrounding property owners due to permanent access route construction, specifically the Peartree Court landowners.
Property Intrusion	Disturbance to private properties when City uses the access road, including potential damage/intrusion beyond easement limit.	4	No impacts to private properties	1	Temporary access poses significant amount and duration of disturbance to Peartree Court landowners. Potential damage to the property beyond easement limit.	3	Minimal impacts on private lands when using the access road.	2	Some disturbance to the Peartree landowners when using the access road, however no damage to the property is expected.
Aesthetic Values	Changes to the aesthetic value of surrounding properties	3	No long term change to aesthetic value, but emergency access will negatively impact short term aesthetics	1	The permanent access route will not negatively impact the long term aesthetics, however the temporary access will negatively impact short term aesthetics of Peartree Court properties	3	The permanent access route will not negatively impact the long term aesthetics of the area.	2	The permanent access route will not negatively impact the long term aesthetics within the valley. The proposed vegetated mats will blend into the existing grassland of Peartree properties, however, concrete blocks will still be visually present.
Economic Criteria	Description of Criteria	1.3		1.6		1.9		1.6	
Capital Costs	Detailed design, permitting and construction costs for the proposed works	4	No capital cost to City	3	3rd highest costs associated with permanent access route including turnaround	2	2nd highest costs associated with permanent access route including turnaround	1	Highest costs associated with full-length permanent access route
Life Cycle Costs	Anticipated temporary/emergency access during the lifespan	0	Installation, removal, and restoration of emergency access to any point along the easement whenever required	2	Installation, removal, and restoration of temporary access route from Peartree Court whenever required	4	No anticipated temporary or emergency access	4	No anticipated temporary or emergency access
TOTAL SCORE		6.0		6.1		7.1	Preliminary Preferred Alternative	6.7	

NEXT STEPS

PUBLIC CONSULTATION – JUNE - JULY, 2021

- Receive PIC feedback, incorporate input and update results – www.brantford.ca/UtilityAccessPIC
- Compile and review feedback. Confirm or adapt preliminary preferred alternatives.



SUBMIT EA PROJECT FILE AND OBTAIN AGENCY APPROVALS – FALL 2021

- EA Project file posted for 30 day review period.

DETAILED DESIGN & IMPLEMENTATION

- Detailed design and permitting completed by 2021
- Construction timing scheduled for Summer - Fall, 2022.

To provide comment, or to be added to the study stakeholder list, please contact:

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THANK YOU

**For Participating In Utility Access Route
Between Glenwood Drive To Peartree Court
Environmental Assessment Study**