



TOWN OF
PETERBOROUGH
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To: Peterborough Select Board
From: Seth MacLean, Public Works Director
Date: September 17th, 2026
Subject: Canal Bypass Relocation Project – Construction and Consulting Cost Summary

Purpose

The purpose of this memorandum is to summarize the work completed to date on the Historic Canal Drainage Relocation Project, present the results of the engineering, constructability, and cost-development efforts previously authorized by the Select Board, outline the anticipated project scope and budget, and provide staff's recommendation regarding implementation of the permanent drainage relocation alternative.

Background

On February 3rd, 2026, the Select Board heard concerns regarding the historic canal located beneath private property in the downtown area. During that discussion, concerns were raised regarding the condition of the canal, its role in conveying municipal stormwater, and the Town's continued reliance on infrastructure located beneath private property. In response, the Board directed staff to further investigate existing conditions and evaluate potential long-term solutions for the Town's stormwater system.

Following that discussion, the Town retained Hoyle, Tanner & Associates to undertake an Underground Canal Evaluation. The scope of that work included collection of historical records and utility information, closed-circuit television inspection of the canal, GPS mapping of the canal's location, investigation of inflow sources and utility connections, and preparation of a technical report documenting findings and evaluating potential alternatives for addressing municipal stormwater conveyance in the area. The study focused specifically on the section of canal extending between Depot Street and Main Street and included evaluation of alternatives such as canal rehabilitation, lining, partial abandonment, and rerouting of stormwater infrastructure.

As part of that work, Hoyle, Tanner & Associates compiled historical records, mapped existing underground utilities, explored the canal system, evaluated hydraulic requirements, developed conceptual alternatives, prepared planning-level construction cost estimates, and ultimately recommended a preferred long-term alternative for further advancement. The findings of that study established the technical basis for future actions by the Select Board and staff.

On May 19th, 2026, following completion of the evaluation effort, the Select Board directed staff and the Town's consulting engineers to proceed with further development of the permanent drainage relocation alternative. The chosen option relocates municipal stormwater infrastructure into the public right-of-way

and eliminates reliance on portions of the historic canal system beneath private property while maintaining the Town's ability to convey stormwater through the downtown area.

On July 14th, 2026, the Select Board authorized an engineering agreement with Hoyle, Tanner & Associates to proceed with design development, permitting, construction administration planning, and implementation support necessary to advance the project toward construction.

Recognizing the urgency of advancing a permanent solution, and understanding the practical challenges associated with designing, permitting, procuring, and constructing a project of this magnitude within a single construction season, the Select Board also understood that staff would work closely with a qualified contractor during design development to obtain constructability review, value-engineering input, scheduling coordination, and real-world construction pricing.

This collaborative approach allowed engineering development and construction planning to proceed concurrently while maintaining full engineering oversight and regulatory review. Staff's understanding throughout this effort was that a traditional sequence of completing final design, advertising for bids, receiving bids, awarding a contract, and then mobilizing construction would likely have delayed implementation beyond a timeframe that would reasonably allow completion during the current construction season.

Accordingly, contractor participation during design development was utilized to align design decisions with construction realities, identify opportunities for cost savings, evaluate schedule feasibility, and develop an implementation strategy capable of being executed as expeditiously as possible.

That effort ultimately resulted in the proposal submitted by Mountainshade LLC and the project findings summarized in this memorandum.

Project Scope

The Historic Canal Drainage Relocation Project consists of substantially more than installation of new drainage piping. The project includes a coordinated series of stormwater, utility, roadway, and pedestrian infrastructure improvements necessary to permanently relocate municipal stormwater infrastructure into the public right-of-way.

Major project components include:

Stormwater Infrastructure Improvements

- Construction of a new municipal storm drainage system along Depot Street and Main Street.
- Permanent rerouting of municipal stormwater currently conveyed through the historic canal system.
- Construction of new drain manholes, catch basins, and associated drainage infrastructure.
- Modifications to the existing canal.
- Construction of brick masonry bulkheads and transition structures necessary to disconnect portions of the historic canal from active municipal service.

Water Utility Improvements

- Relocation of existing water mains.
- Relocation of affected water services.
- Installation of valves, hydrants, fittings, and related appurtenances.

- Pressure testing and chlorination of newly installed water infrastructure.

Sanitary Sewer Improvements

- Relocation of sanitary sewer infrastructure.
- Reconnection of existing sewer services.
- Reconstruction and modification of manholes.
- Sewer testing and acceptance procedures.

Utility Coordination

- Coordination and relocation of electrical and communications infrastructure impacted by the proposed work.
- Utility protection measures.
- Temporary service provisions where required.
- Roadway and Pedestrian Improvements
- Sidewalk reconstruction.
- Granite curb reconstruction.
- Asphalt pavement restoration.
- Pavement markings.
- Traffic control measures.
- Maintenance of pedestrian access during construction.
- Environmental and Construction Controls
- Erosion and sediment controls.
- Dewatering operations.
- Soil and material management procedures.
- Utility protection requirements.
- Construction testing and inspections.

Project Budget

The proposal submitted by Mountainshade LLC for the construction portion of the project totals \$780,363.00. Staff recommends carrying a 10% Owner's Contingency in the amount of \$78,036.30, resulting in a construction budget of \$858,399.30.

Although the project has progressed through 90% design development, it remains a complex utility reconstruction project within a constrained downtown corridor. The contingency is intended to provide flexibility should unforeseen utility conflicts, subsurface conditions, quantity adjustments, or constructability issues arise during construction. The contingency is not being carried with the expectation that it will be spent, but rather to ensure sufficient budget authority exists should unexpected conditions be encountered.

In addition to construction costs, staff recommends carrying an environmental consulting services budget associated with Wilcox & Barton in the amount of \$81,210.00.

The proposed services include:

- Project management and coordination among the Town, Hoyle, Tanner & Associates, Mountainshade LLC, and the New Hampshire Department of Environmental Services (NHDES).
- Technical review of project specifications, contractor certifications, health and safety plans, soil and groundwater management plans, and related environmental documentation.
- Preparation of a contractor Health and Safety Plan, if necessary.
- On-call environmental consulting and construction support services throughout the project.
- Sampling and characterization of excavated soil stockpiles to determine disposal requirements and evaluate whether potentially impacted materials can be managed as non-hazardous waste.
- Preparation of contained-out determinations, if required, to support more favorable disposal classifications.
- Dewatering oversight, including operation and monitoring of groundwater treatment systems, groundwater sampling, treatment system management, and discharge coordination.
- Coordination with the Town regarding management and discharge of groundwater generated during construction.
- Environmental data management, review of analytical results, and support for soil and groundwater management decisions.
- Preparation of a final soil excavation and dewatering summary report documenting environmental management activities completed during construction.

Because contaminated materials may potentially be encountered during excavation activities, staff further recommends carrying a soil Management and disposal allowance of \$274,375.00. This allowance is based upon the planning-level opinion of probable costs prepared by Wilcox & Barton and includes potential costs associated with waste characterization, laboratory analysis, environmental monitoring, transportation, disposal, and regulatory compliance activities.

The extent to which these environmental services and soil management activities may ultimately be required remains unknown at this time. Actual costs could range from little or no expenditure to the full amount carried within the allowance depending upon conditions encountered during construction.

Accordingly, the total recommended project budget is \$1,213,984.30, consisting of:

- \$780,363.00 for the proposed construction contract with Mountainshade LLC.
- \$78,036.30 for a 10% Owner's Contingency associated with construction activities.
- \$81,210.00 for environmental consulting services provided by Wilcox & Barton, Inc..
- \$274,375.00 for potential soil characterization, environmental oversight, transportation, management, and disposal activities that may be required if contaminated materials are encountered during construction.

While the full budget reflects the Town's maximum reasonably foreseeable exposure associated with project implementation, significant portions of the environmental and soil management allowances may ultimately remain unused depending upon actual field conditions encountered during construction. The recommended budget is intended to provide sufficient flexibility to complete the project without interruption should unforeseen environmental conditions be encountered while maintaining appropriate fiscal controls and oversight.