

## MEMORANDUM

DATE: January 24, 2024

TO: Travis Ahern – Town of Holliston

FROM: Brian Mahoney – Pare

CC: Sean Reese – Town of Holliston  
James Keast – Town of Holliston  
Robert Walker – Town of Holliston  
Greg Berube – Pare  
Allen Orsi – Pare  
Matt Dunn – Pare

RE: **Bridge Replacement and Dam Improvements**  
Woodland Street Bridge/Factory Pond Dam  
Holliston, Massachusetts  
Pare Project Nos. 22225.00 & 22225.03

This memorandum has been prepared to summarize the scope of work and provide an estimated schedule and a preliminary construction cost estimate for the Woodland Street Bridge Replacement and Factory Pond Dam Improvements Project in Holliston, Massachusetts. In general, the proposed work consists of the replacement of Bridge No. H-20-008, which carries Woodland Street northbound and southbound over Bogastow Brook, replacement of the Factory Pond Dam spillway, rehabilitation of the earthen dam embankment, and improvements to the downstream (east) channel. Demolition work includes removal of the existing spillway structure, the existing Woodland Street bridge, and the existing abandoned bridge structure located downstream (east) of the Woodland Street bridge. The work also includes full depth pavement construction along Woodland Street, guardrail installation at the bridge approaches, sidewalk reconstruction along the west side of Woodland Street, and construction of a stormwater treatment area northeast of the bridge.

The proposed bridge/highway work includes, but is not limited to, the following:

- Removal and disposal of the existing bridge, stone channel walls, downstream bridge, and catch basin and drainage pipe located at the north bridge approach.
- Construction of a pre-engineered precast concrete box culvert (19'-0" clear span, 10'-0" rise), cast-in-place safety curb and sidewalk, S3-TL4 metal bridge rails, precast concrete end posts, and concrete approach slabs and wingwalls.
- Slope and channel regrading and installation of riprap at the downstream end of the proposed bridge.
- Installation of new stormwater catch basins, drainage pipes, and a bioretention basin.
- Full depth asphalt pavement reconstruction, installation of guardrails, and asphalt sidewalk reconstruction.

- Permanent underground relocation of the existing water main at the bridge.
- Installation of control of water systems, including a diversion system, upstream and downstream cofferdams, and excavation dewatering systems to allow construction of the bridge replacement and dam improvements.

The proposed dam work includes, but is not limited to, the following:

- Removal and disposal of the existing spillway, including the existing stoplogs, training walls, spillway weir, floor slab, and other components.
- Installation of a permanent steel sheet pile cutoff wall through the dam.
- Construction of a cast-in-place concrete spillway structure, including a mass footing, labyrinth weir wall, and training walls.
- Installation of ancillary components, including low-level and mid-level outlet systems, metal grating access walkways, and other components.
- Embankment improvements, including installation of riprap slope protection along the upstream slope and regrading of the crest to remove low points along the dam.

Woodland Street is currently closed at the bridge, and it is anticipated to remain closed throughout construction. The design of the bridge replacement and dam improvements is in progress, and the project is anticipated to be advanced to the 75% level of design by March 2024. A summary of the estimated project milestones is included below:

- 75% Design Submission (to Town) – *late February/early March 2024*
- 100% Design Submission (to Town and MassDOT District 3) – *late March/early April 2024*
- Chapter 85 Approval - Phase 1 (Pare Design and Details) – *late May 2024*
- PS&E Submission (to Town) – *early June 2024*
- Ready to Advertise Construction Contract (Pending Permit Approvals) – *mid-June 2024*
- Advertise Construction Contract – *mid-November 2024*
- Bid Due Date – *mid-December 2024*
- Bid Opening – *late December 2024*
- Issue Construction Contract NTP – *January 2025*
- Chapter 85 Approval - Phase 2 (Fabricator Drawings and Calculations) – *April 2025*
- Open Roadway – *Friday, August 22, 2025*
- Project Complete – *early 2027*

A summary of the Preliminary Opinion of Probable Construction Cost is included below:

Bridge/Highway		\$2,561,300.00	
Dam		\$1,692,000.00	
<b>Project Subtotal</b>		<b>\$4,253,300.00</b>	
Misc. & Contingency	10%	\$426,000.00	<i>Rounded to the nearest \$1,000</i>
Mobilization & Demobilization	5%	\$213,000.00	<i>Rounded to the nearest \$1,000</i>
Contract Bonds and General Requirements	8%	\$341,000.00	<i>Rounded to the nearest \$1,000</i>

**PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST** **\$5,240,000.00** *Rounded to the nearest \$10,000*



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January 24, 2024

Please note that the construction cost estimate and project schedule are provided for general information and planning purposes only and are based on the current level of design. Estimated construction costs may vary as the design progresses and the design/permitting schedule may be impacted by actual agency review periods.

Along with plans advanced to the 75% level of design, a complete Opinion of Probable Construction Costs with a summary of the work items, estimated quantities, and units of measurement will be provided with the 75% Design Submission.

A Preliminary Opinion of Probable Construction Cost and Preliminary Project Schedule are enclosed with this memorandum. Should you have any questions or require further information, please do not hesitate to contact us.

Enclosures

Preliminary Opinion of Probable Construction Cost  
Preliminary Project Schedule

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**Woodland Street Bridge Replacement and Factory Pond Dam Improvements Project**

Replacement of Bridge No. H-20-008

Holliston, Massachusetts

Pare Project No.: 22225.00/.03

Date: January 24, 2024

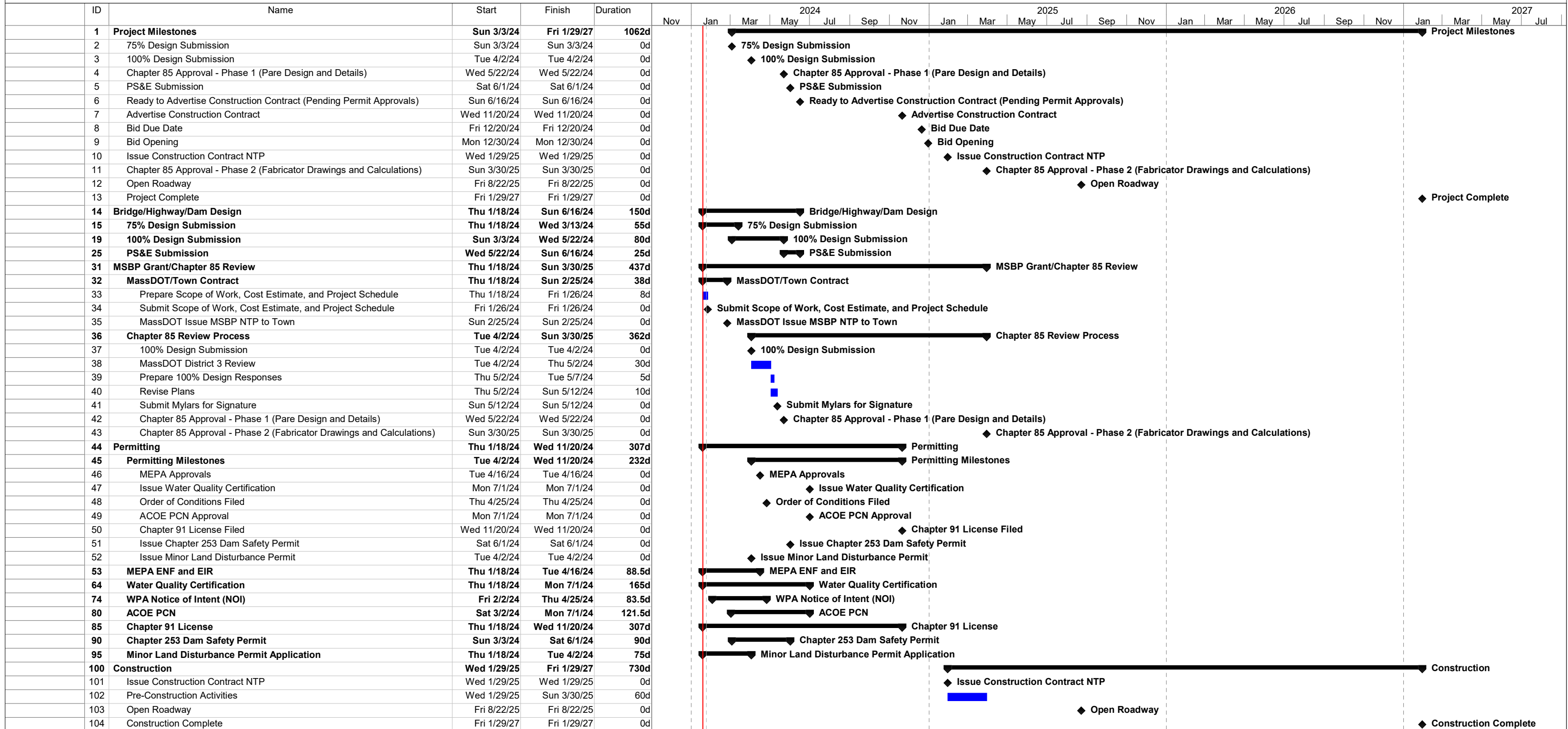
**PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST**

<b>BRIDGE</b>		<b>\$ 1,965,200.00</b>	
Bridge Structure	\$ 1,220,800.00		Box culvert, safety curbs and sidewalk, bridge rails, wingwalls, curtain wall, approach slabs
Structure Demolition and Excavation	\$ 100,300.00		Removal of existing bridges and channel walls, excavation for new structures and downstream riprap
Pavement at bridge	\$ 110,000.00		Bridge surface and protective courses
Gravel Borrow and Downstream Channel Reconstruction	\$ 87,100.00		Backfill material for structures; riprap, crushed stone, and geotextile fabric for downstream channel
Control of Water/Water Diversion	\$ 447,000.00		Cofferdams, diversion system, impoundment drawdown
<b>HIGHWAY</b>		<b>\$ 596,100.00</b>	
Highway Demolition and Excavation	\$ 117,900.00		Clearing and grubbing, excavation, removal of existing guardrails and curbs, sediment control
Stormwater Drainage and Bioretention Basin	\$ 83,600.00		Catch basins, frames and grates, drainage pipes, bioretention basin
Water Main Relocation	\$ 99,000.00		Permanent underground relocation of the existing water main at bridge
Pavement and Sidewalk Reconstruction	\$ 180,600.00		Full depth pavement reconstruction and sidewalk replacement
Guardrails and Curbs	\$ 88,900.00		Guardrails, guardrail transitions and end treatments, curbs
Site Finishing	\$ 9,800.00		Loam, seeding, pavement milling mulch
Temporary Traffic Control	\$ 16,300.00		Temporary fencing, barricades, barriers, drums, and signing
<b>BRIDGE/HIGHWAY SUBTOTAL</b>		<b>\$ 2,561,300.00</b>	
<b>DAM</b>		<b>\$ 1,692,000.00</b>	
Spillway Replacement	\$ 1,528,000.00		Dam excavation and demolition, sheet pile cutoff wall, spillway structure, ancillary components
Upstream Slope and Crest	\$ 164,000.00		Riprap slope protection, crest regrading, dam site finishing
<b>DAM SUBTOTAL</b>		<b>\$ 1,692,000.00</b>	
<b>PROJECT SUBTOTAL</b>		<b>\$ 4,253,300.00</b>	
10%	Misc. & Contingency	\$ 426,000.00	<i>Rounded to the nearest \$1,000</i>
5%	Mobilization & Demobilization	\$ 213,000.00	<i>Rounded to the nearest \$1,000</i>
8%	Contract Bonds and General Requirements	\$ 341,000.00	<i>Rounded to the nearest \$1,000</i>
<b>PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST</b>		<b>\$ 5,240,000.00</b>	<i>Rounded to the nearest \$10,000</i>

# Town of Holliston

## Woodland Street Bridge Replacement and Factory Pond Dam Improvements Project

### Preliminary Project Schedule



Task █ Milestone ◆ Summary ▶ Critical Path █