



# Public Meeting

## Holmes Dam Stream Restoration



Town of Plymouth, Massachusetts | September 29, 2015

# Welcome

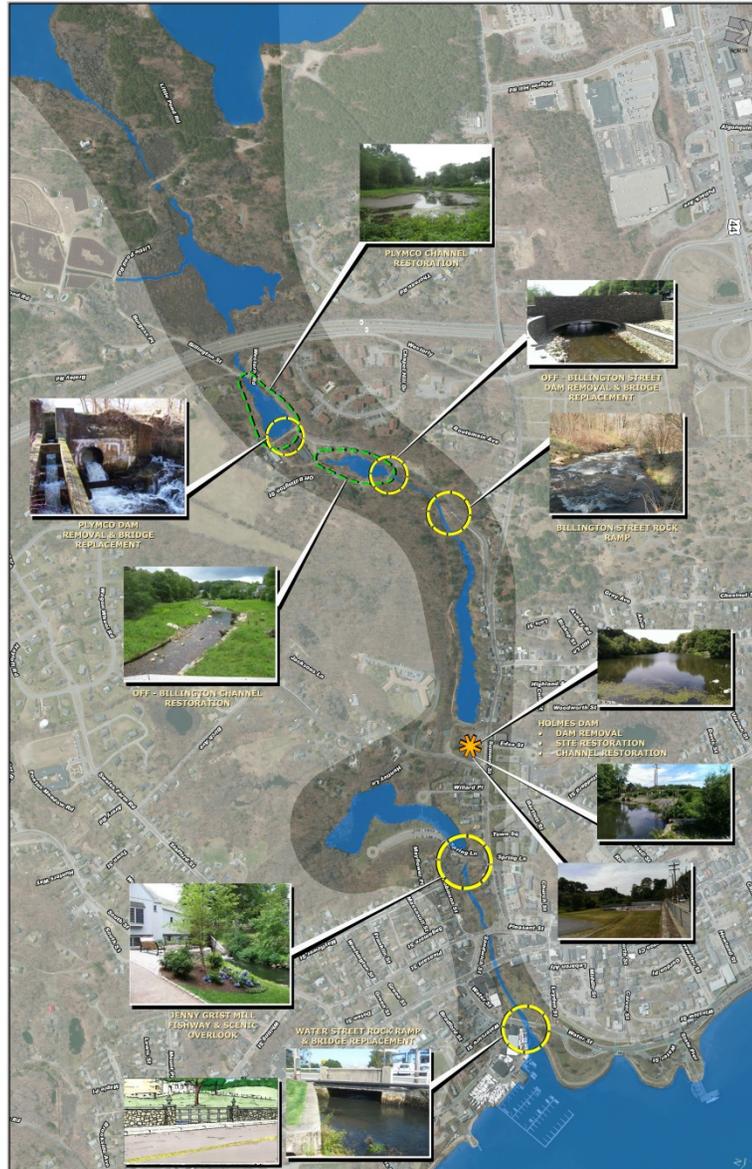
- Tonight's Agenda

- ✓ This is the second public meeting for this project
- ✓ We will briefly recap the overall context of the project
- ✓ We will report on progress from last neighborhood meeting in early June
- ✓ We will present detailed design elements
- ✓ We will review next steps & schedule
- ✓ We welcome your input

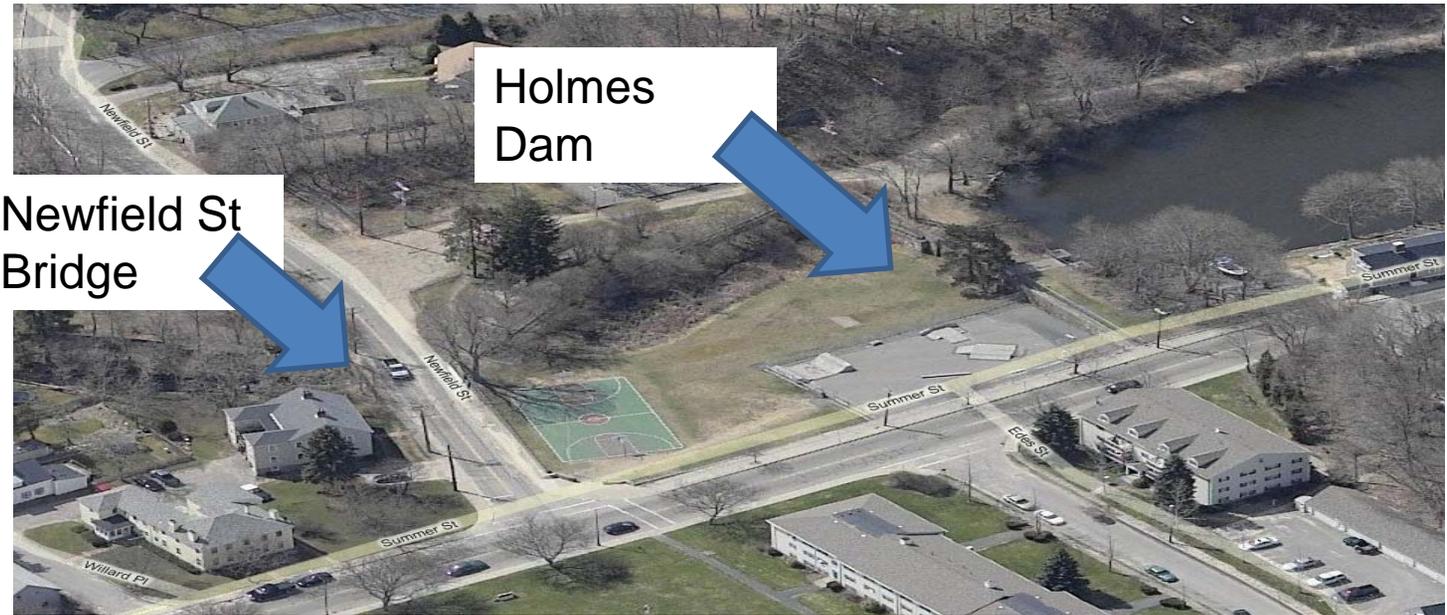
- Project Team Introductions

- ✓ Project Partners: Department of Marine and Environmental Affairs (DMEA), National Oceanic and Atmospheric Administration (NOAA) Restoration Center, Division of Ecological Restoration (DER), United States Fish and Wildlife Service (USFWS)
- ✓ Engineering : Milone and MacBroom, Inc.

# Town Brook Corridor



# Project Site



# Recap of Project Goals & Objectives

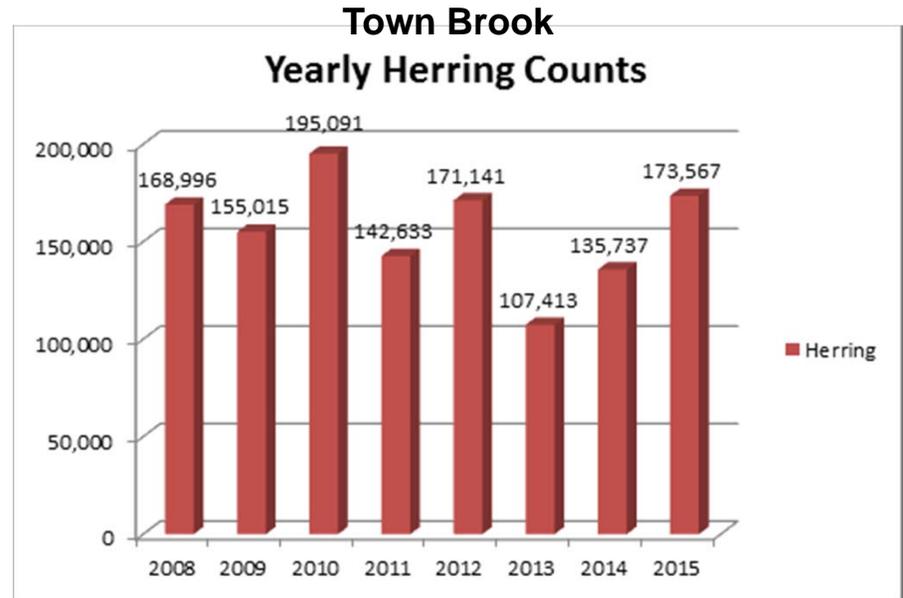
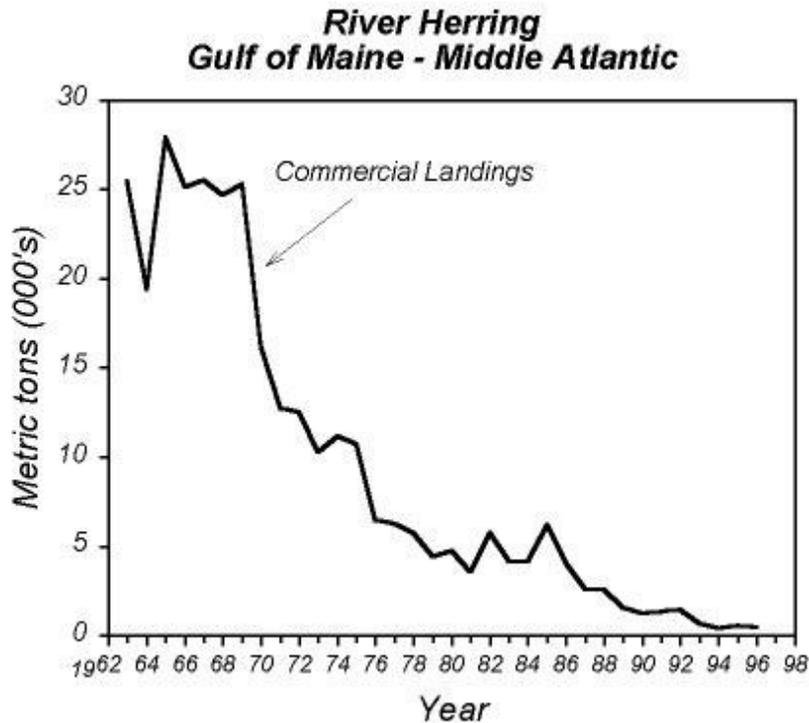
- Increase Public Safety
- Properly Manage Accumulated Sediment
- Remove Potential for Downstream Inundation Due to Dam Failure
- Eliminate Long-Term Maintenance Costs of Dam and Appurtenances
- Improve Park Aesthetics
- Restore Riverine Habitat and Fish Passage
- Benefit Commercial and Recreational Fisheries



Photo 10 – Close-up of spalling along vertical joint in concrete portion of downstream wall



# River Herring



## River Herring

- 2006 Alewife and Blueback listed as NOAA Species of Concern due to decline in populations
- Migrate from saltwater to freshwater to spawn. Water Temp 50° to return to natal fresh water stream to spawn.
- When water is 61-66° the eggs will hatch. After hatching <1% will survive the first migration as juveniles.



Alewife photo credit: Jerry Prezioso, NOAA

# Benefit of river herring to fisheries

- New England Fisheries Management Council meeting today in Plymouth to discuss bycatch of river herring
- National Importance of fish passage restoration to provide forage and bait fish for commercial and recreational fisheries
- Food source for seals, whale and birds



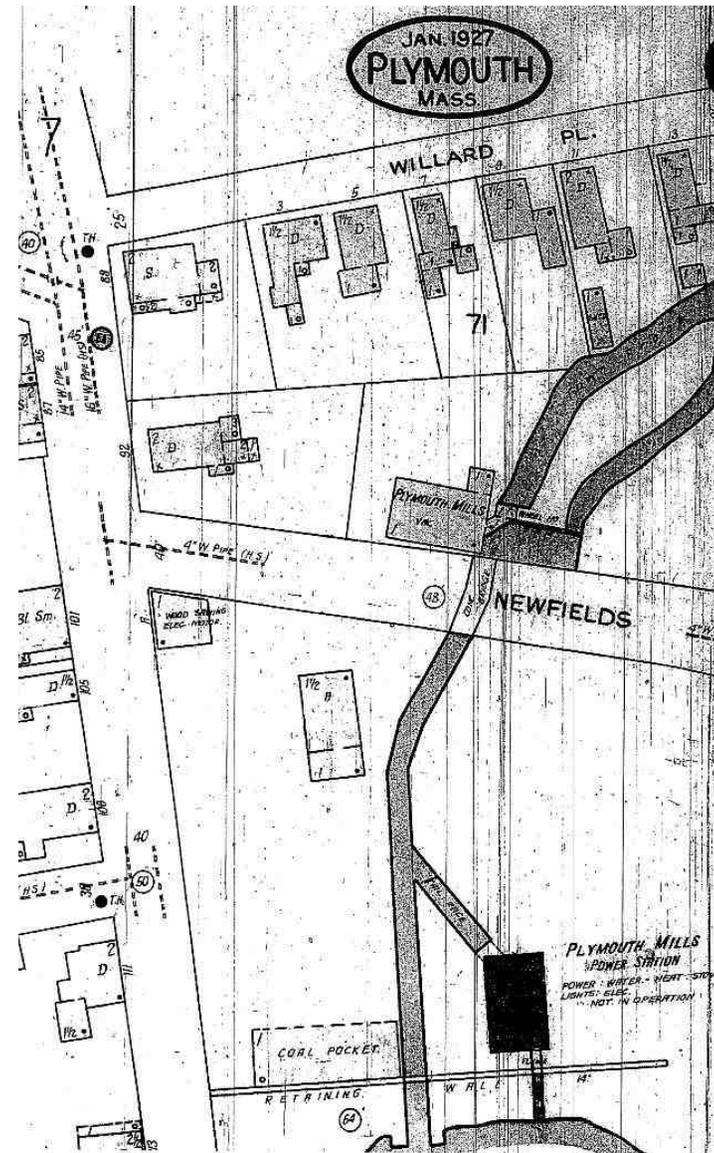
# Summary of Key Work Elements Undertaken

- Bathymetric and Upland Survey
- Wetland Delineation
- Hydraulic Modeling
- Sediment Sampling & Analysis
- Utility Assessment
- Dam Removal Alternatives Analysis
- Preliminary 75% Design
- Archeological Investigations
- Communications with DPW on Park Rehabilitation



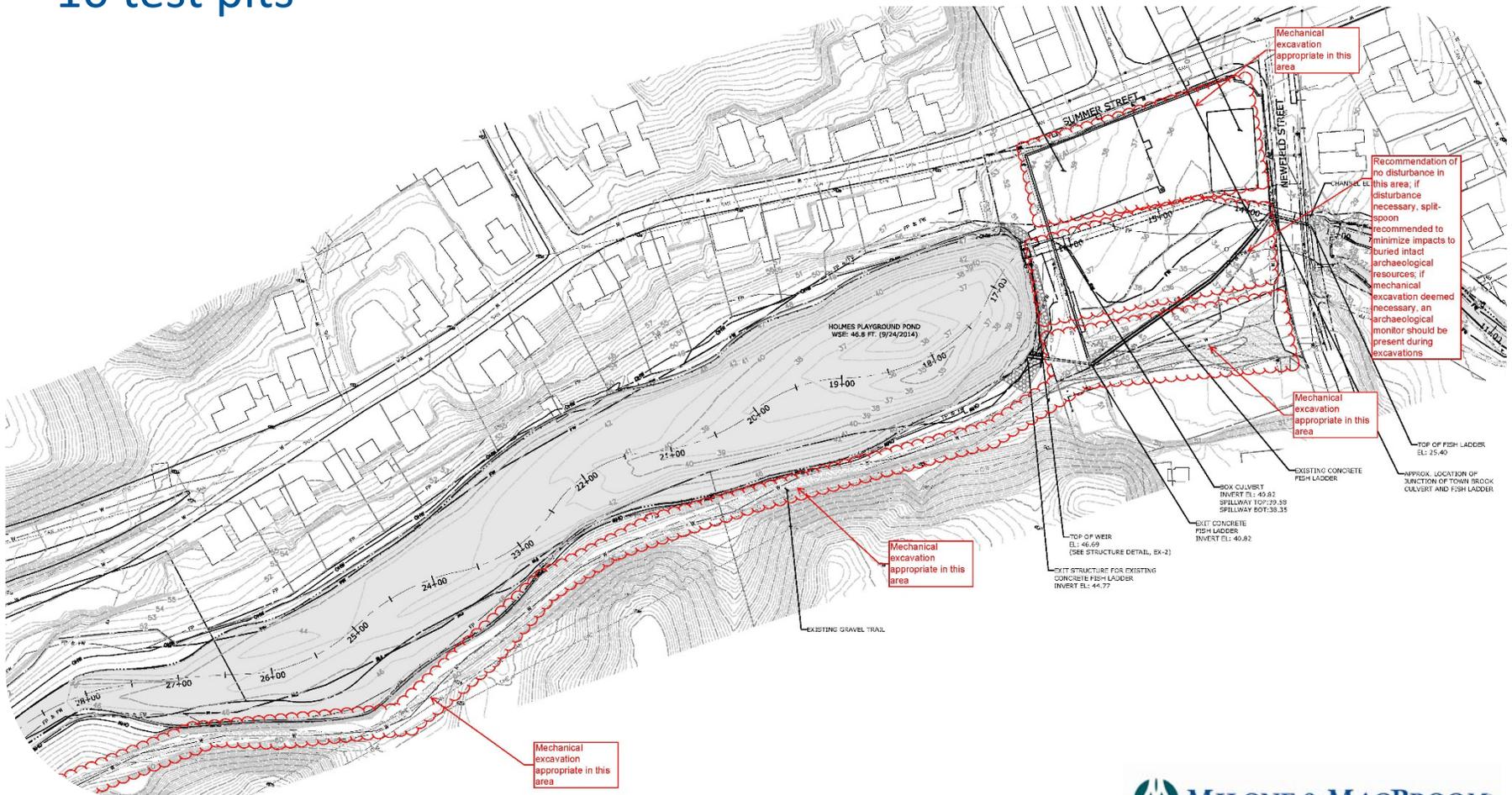
# Historical Significance of Site

- Received Sanborn maps of the Holmes Dam/Newfield Street area from 1906, 1912, 1927 in February 2015
- Historical maps indicate the site previously contained the Robinson Iron Co. Rolling Mills, which later became the Plymouth Mills Power Station
- The Plymouth Mills Tack Factory was located on the northern bank, downstream of Newfield Street and utilized a dam downstream of Newfield Street, the remnants of which still remain in the raceway channel



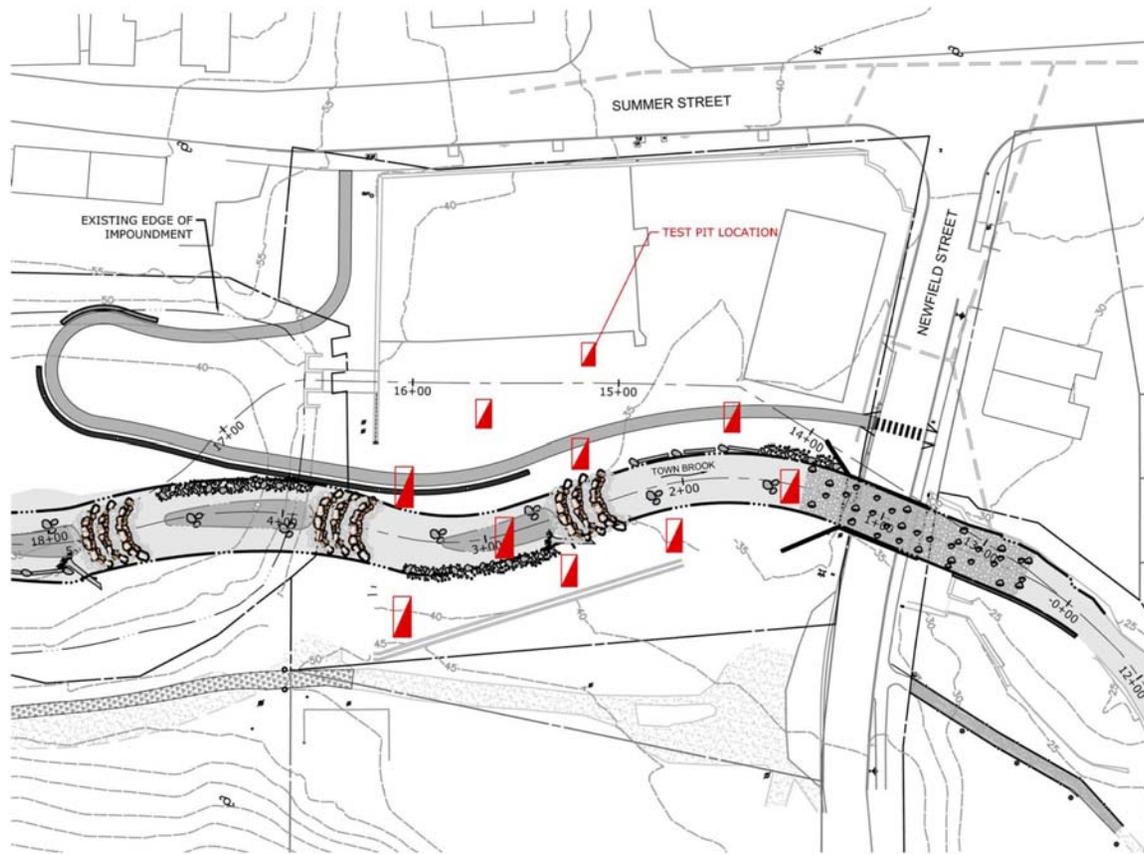
# Status of Archeological Investigations

- Archaeological Survey by PAL, Inc. out of Pawtucket, RI
- Reconnaissance survey to be completed in the fall 2015
- 10 test pits



# Status of Supplemental Soil Testing

- John Kitchen, PG, LSP at Civil & Environmental Consultants, Inc. to complete soil testing downstream of the dam concurrently with the archaeological work

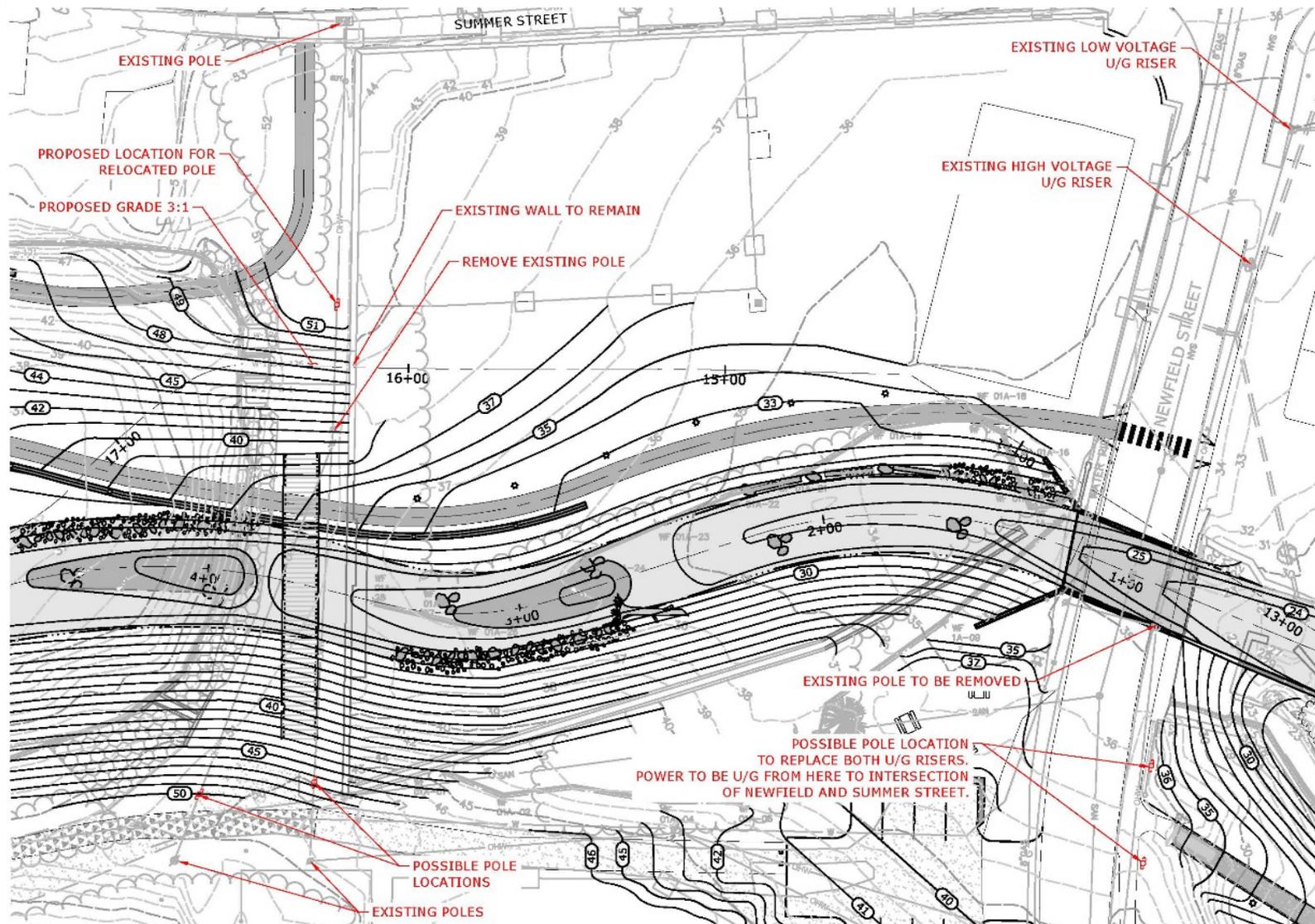


# Status of Utility Coordination

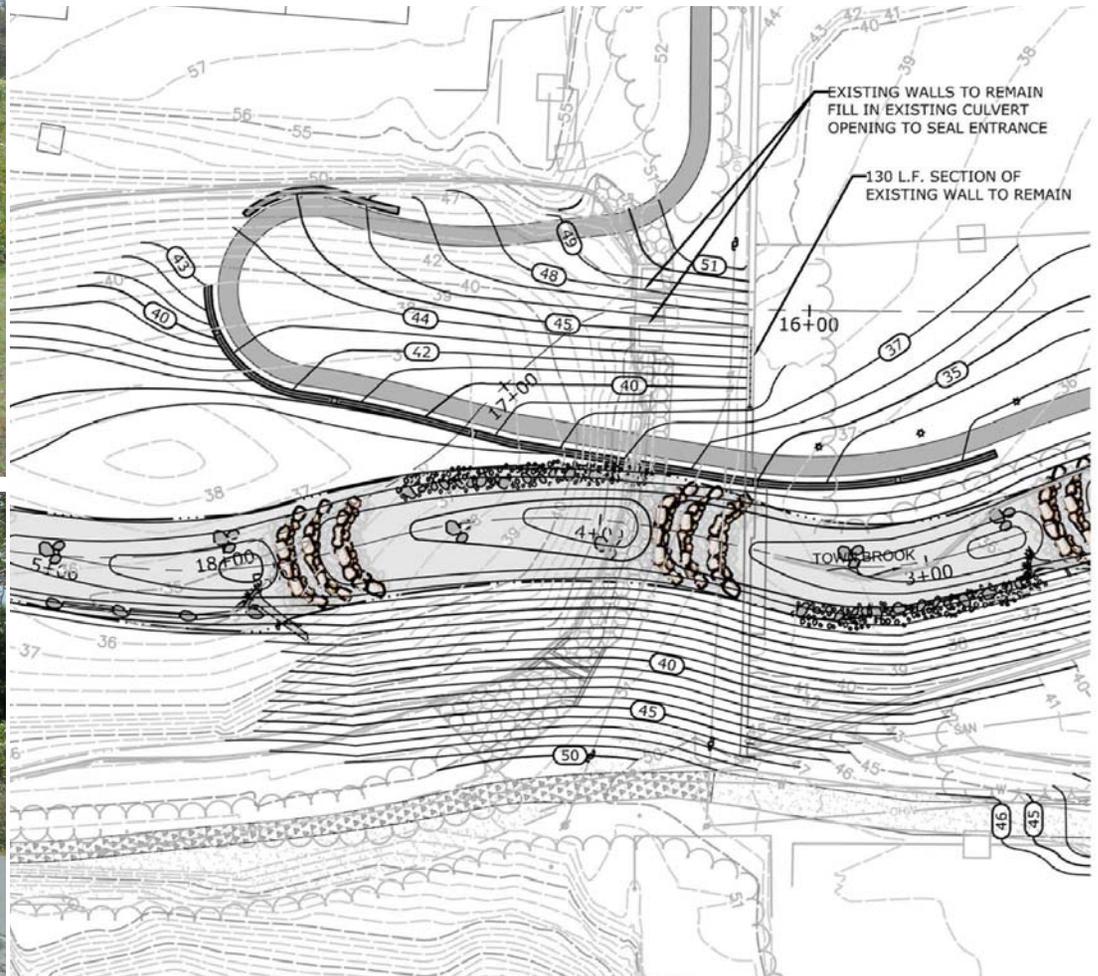
- Utility Coordination with Eversource Energy (formerly NSTAR)
- Existing overhead wires to remain over dam, but utility pole to be relocated to the north. Portion of existing dam wall to remain as a retaining wall.
- Existing utility poles at Newfield Street will be relocated and electric lines to be relocated underground on the south side of Newfield Street.



# Utility Pole Relocation



# Preliminary Design – Dam Removal



# Perspective View from Newfield Street



EXISTING CONDITIONS



PROPOSED CONDITIONS

# Park Rehab

Working in Collaboration with Parks Division and Community Preservation Committee for reconstruction of park area

- Reconstruction of skateboard park
- Reconstruction of basketball court
- Enhanced landscape features



# Preliminary Design – Channel Upstream of Dam



# Perspective View from Summer Street Dock



EXISTING CONDITIONS

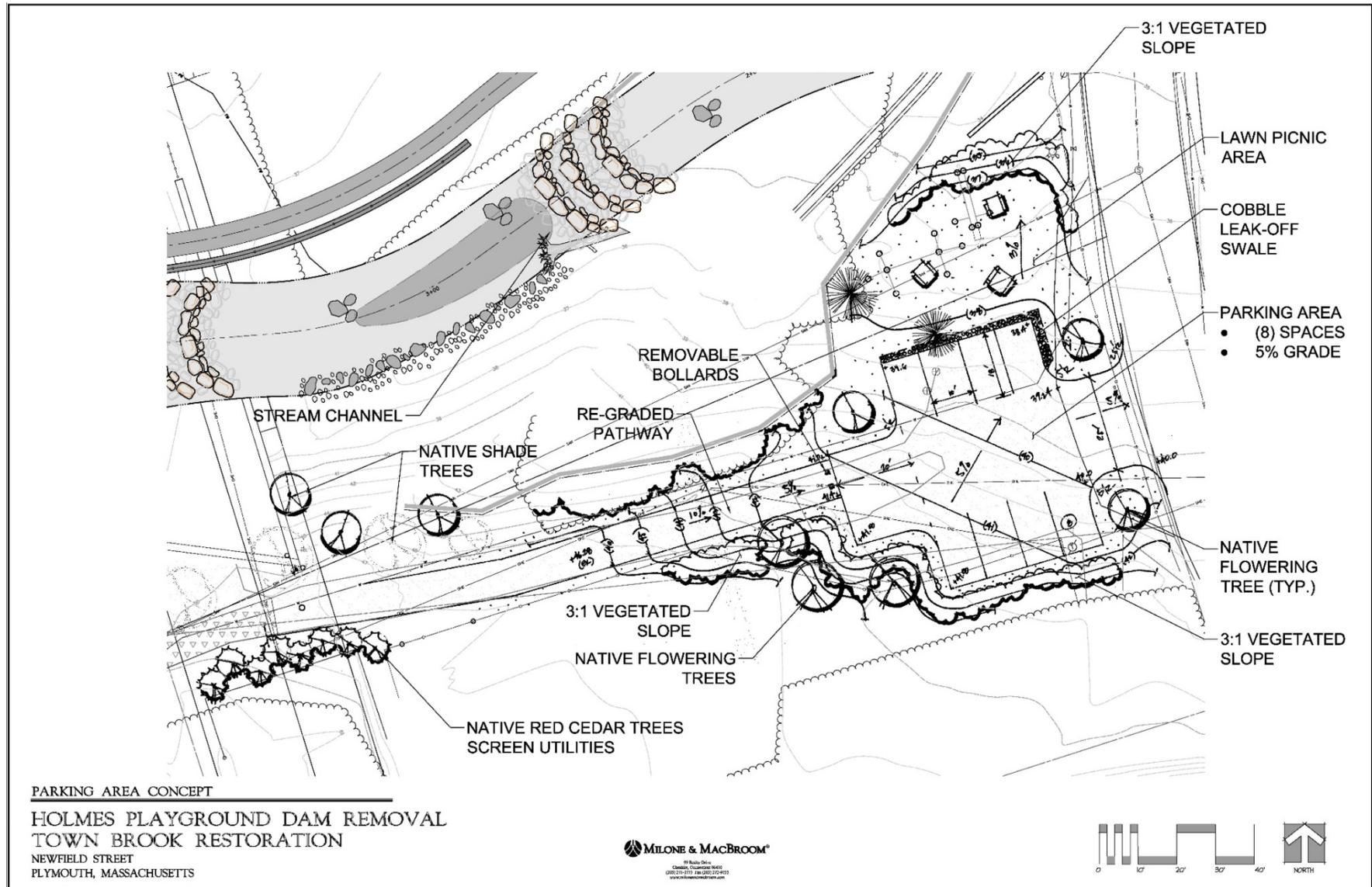


PROPOSED CONDITIONS

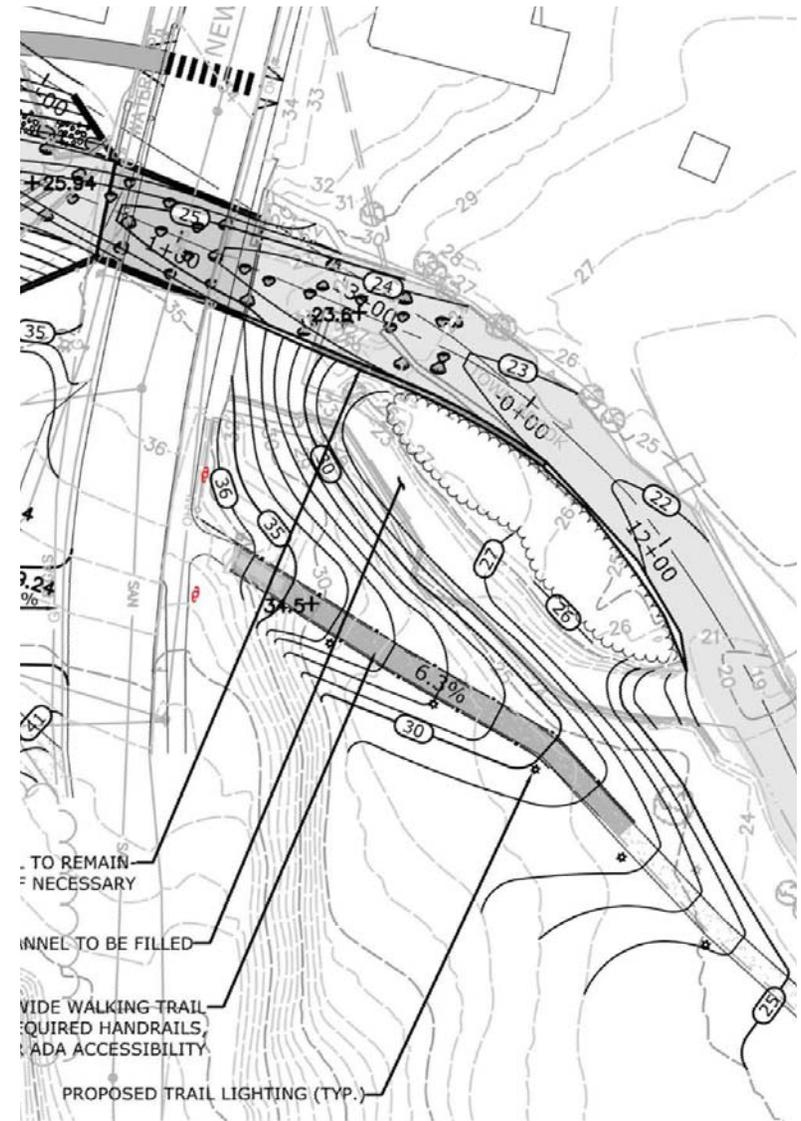
# Preliminary Design – Existing Parking Area



# Preliminary Design – Reconfigured Parking



# Preliminary Design – Downstream of Bridge



# Next Steps & Schedule

- Apply for and obtain regulatory permits (Fall 2015, 6-12 month process)
- Secure grant funding for construction in conjunction with Newfield Street Bridge
- Construction target 2017



# Thank you & Input

Thank you – we appreciate your time and input!

