

## Bartlet Mall Restoration Project

PRESENTATION TO NEWBURYPORT PLANNING BOARD

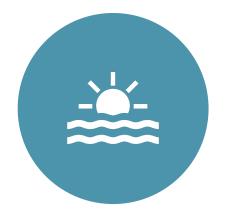
JULY 19, 2023



### Presentation overview



INTRODUCTION & PROJECT OVERVIEW



ALTERNATIVES & PRECEDENTS

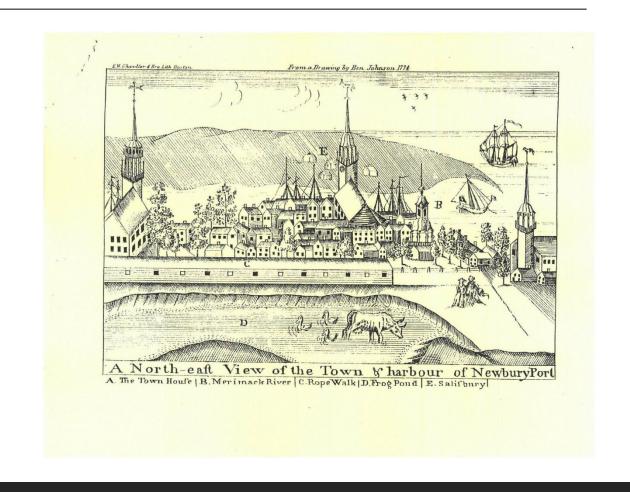


QUESTIONS

### Introduction: Park history

Newburyport's original Town Common

- ■1600-1700's: Livestock, rope making, training for Revolutionary War militia
- ■1800: transformed into a park
- ■1805: Federal Courthouse built, water inlet/outlet cut off
- ■1891: fountain installed to attempt to clean the water
- ■1987: fountain restored but quickly deteriorated due to lack of clean water



### Introduction: Park history

Charles Eliot's vision, early 1900's

- Protective granite edge
- •Circulation of water (via fountain)
- Meticulously sloped lawn, water and highbranched trees frame the beauty of the space (no flowering plants)
- Complete the NW corner slope



### Project overview: what we are doing?

Bartlet Mall Restoration Project:

- •Water is stagnant and unhealthy
- Existing pond sediments have high nutrient loads that contribute to harmful algal blooms as well as levels of other urban contaminants
- Project entails dewatering the pond, installing a liner to separate water column from existing impacted sediments, installing a bedrock well and outflow to keep water at a consistent level, and circulating water to keep it healthy



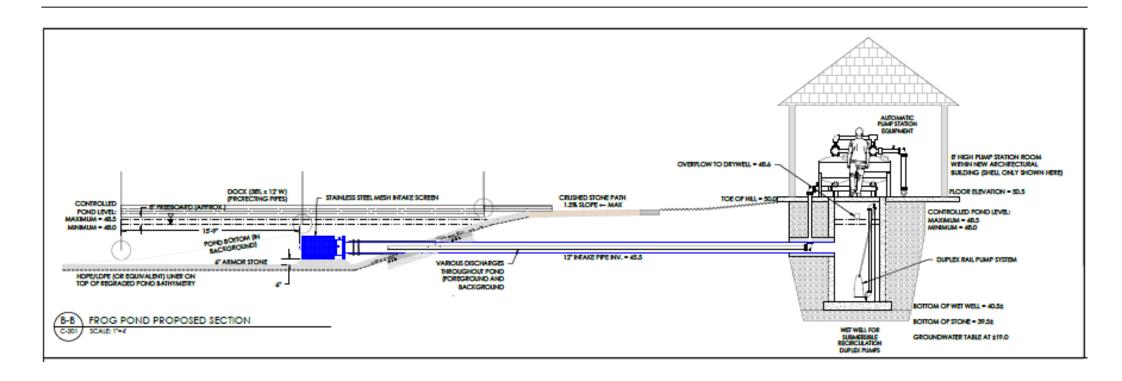
### Project introduction: why we are here?

Bartlet Mall lies within the DOD:

- As part of our efforts to restore the water quality of the Pond, we need to construct a small pump house to hold a wet well, filtration & pump systems to store and protect the equipment
- Addition of a structure within the DOD requires a Special Permit
- •This is a necessary change from the original proposal to bury a vault



# Project introduction: why do we need a pump house?



### Project overview: a critical moment

Complex project with many pieces that must be carefully orchestrated:

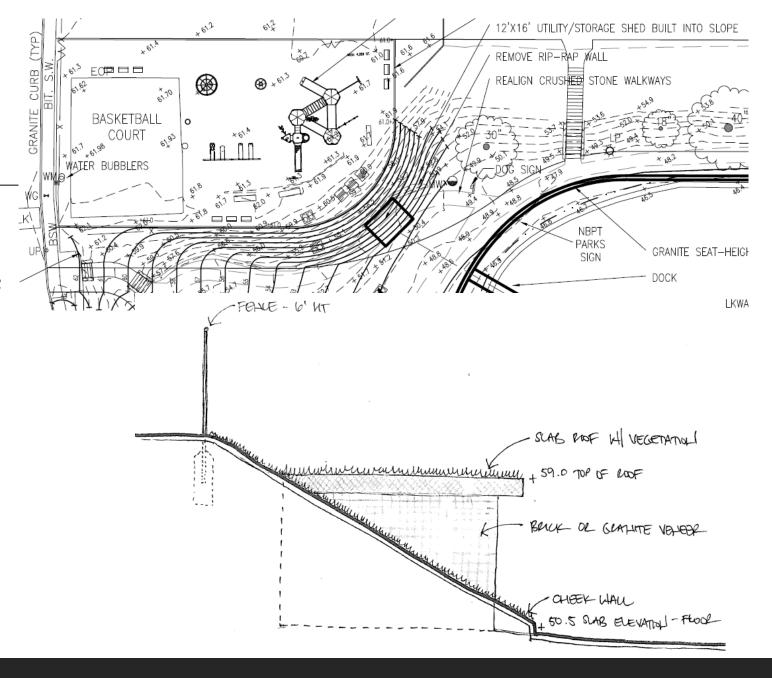
- Water quality problem demands a unique solution
- Funding for the project via CPA bond
- Political and public support for the project
- Project will promote health, safety, and welfare of residents by protecting our cultural heritage and enhancing opportunities for cultural tourism



# Alternatives studied

#### Embedded vault:

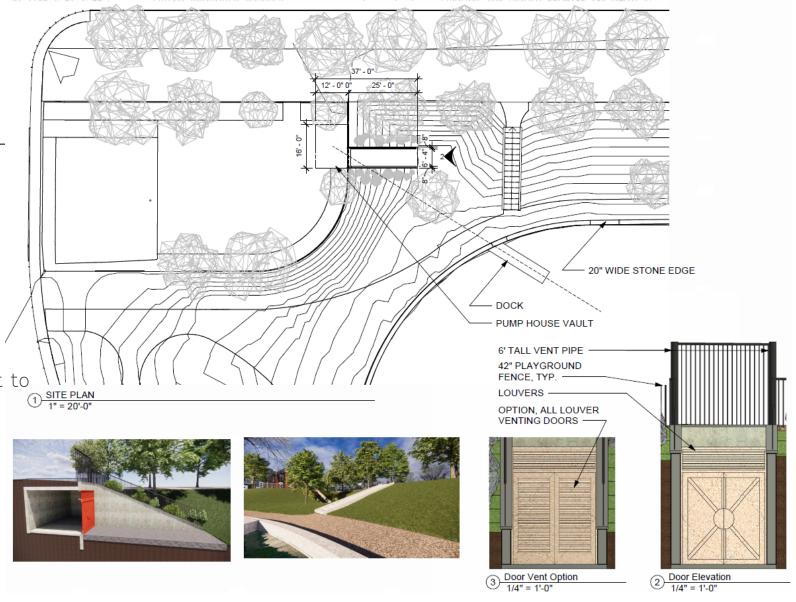
- Visibly prominent at nose of slope
- Construction sequencing challenge with playground installation
- Climate control needed inside vault to protect equipment
- •High structural & geotechnical costs



# Alternatives studied

#### Embedded vault:

- Excessive grading work needed
- Removal of large mature tree
- Construction sequencing challenge with playground installation
- Climate control needed inside vault to protect equipment
- High structural and retaining wall costs
- Permit required confined space/engulfment risk



# Alternatives studied

Two pits with hatches scenario:

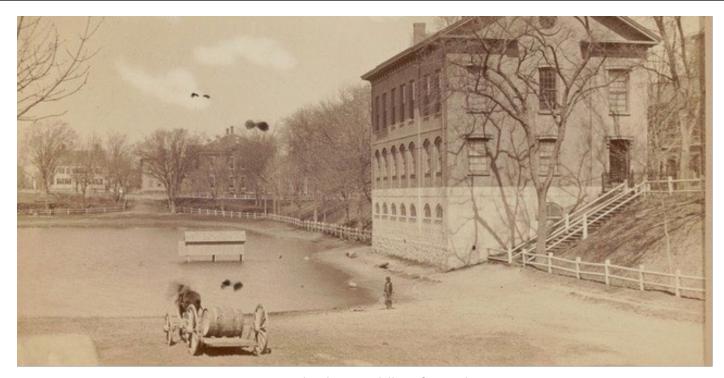
- •First pit for wet well, second pit for pump, filtration & recirculation systems
- •Engulfment risk with pressurized pipes & pond water being above the level of pit/permit required confined space/more difficult to repair any breaks (specially trained operators & repair crews)
- •Climate control needed inside vault to protect equipment
- High structural costs

Vault at opposite end of park:

Too visible



## Precedent image



Fire shed in middle of pond

### Precedent images



Boone Sq Park (Olmsted) KY



Prospect Park NY



Bullfinch gatehouse Washington DC



Fisher Hill Reservoir, Brookline



Bushy Park, England



Rockport, Maine



Acadia National Park

### Project request

#### Pump house:

- Elevation at street: +/-62.5
- Elevation at pump house: +/-50.0
- Height of structure: +/-12' at peak
- Materials and design to compliment the Courthouse

#### Requests from NHC:

- Rotate building
- Shift it further from pathway
- Architectural detailing
- Brick façade requirement



1" = 30'-0"

### Option B: based on NHC feedback



### Option C: based on NHC feedback





Questions?

Photo Credit: Bob Watts