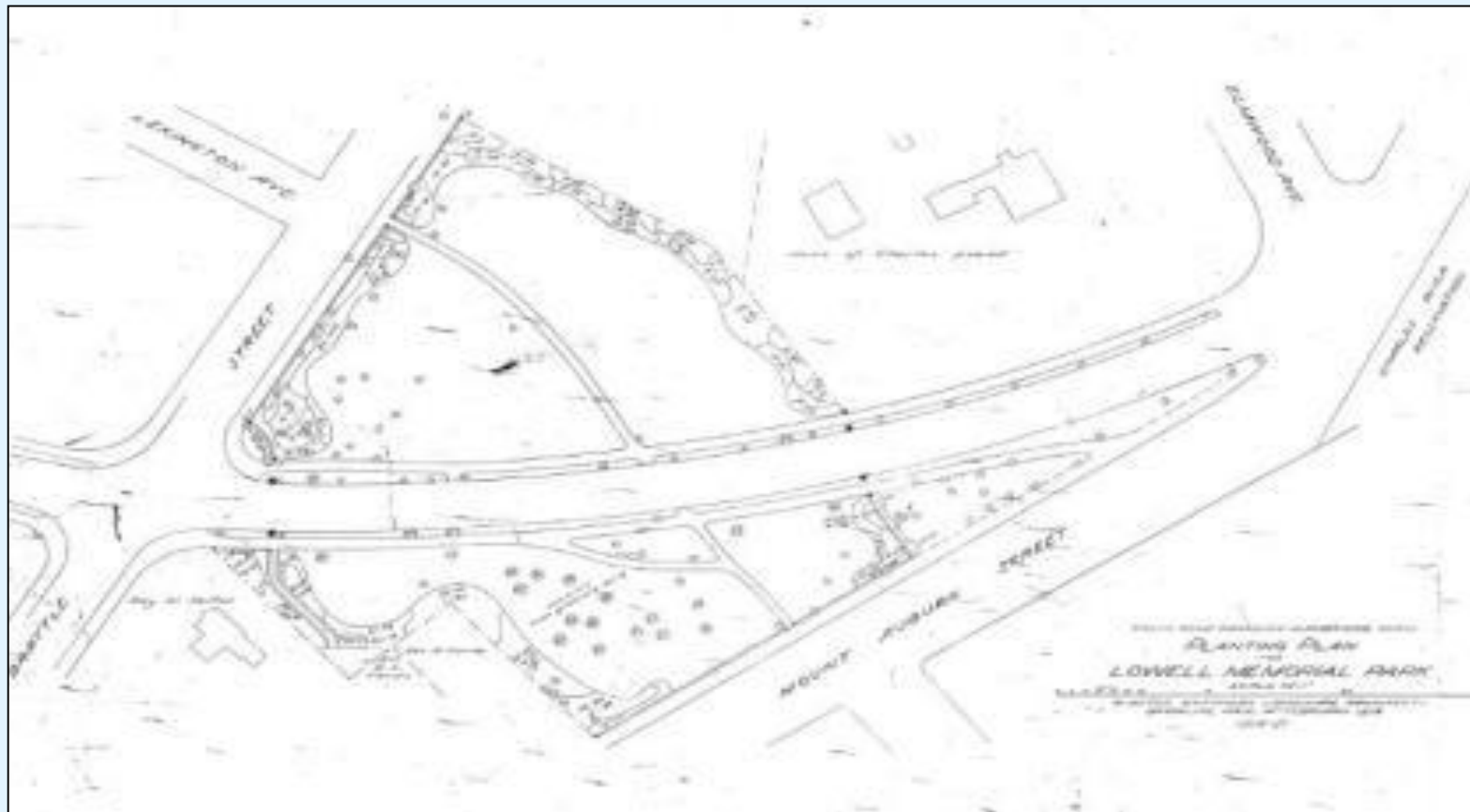


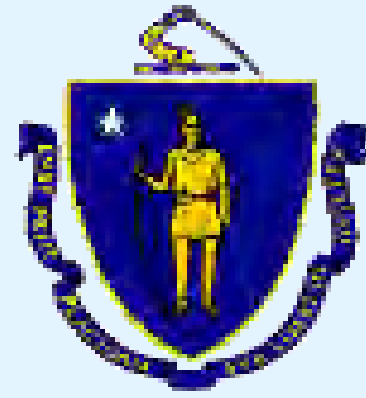
Lowell Memorial Park

Historic Landscape Rehabilitation

Preliminary Design

March 18, 2019





Commonwealth of Massachusetts

Governor

Charles D. Baker

Lt Governor

Karyn E. Polito

Energy and Environmental Secretary

Matthew A. Beaton

Department of Conservation and Recreation Commissioner

Leo Pierre Roy

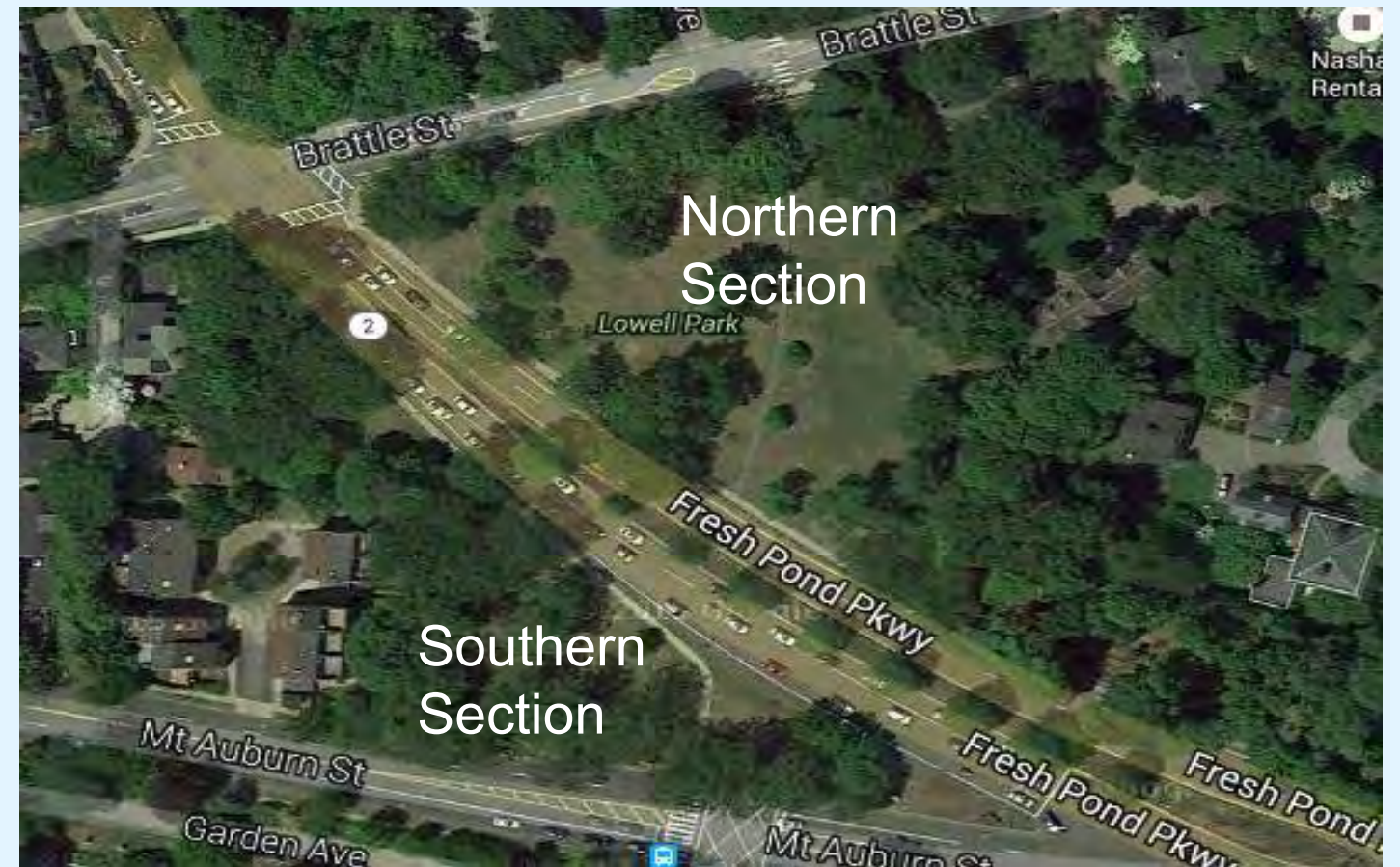


DCR Mission

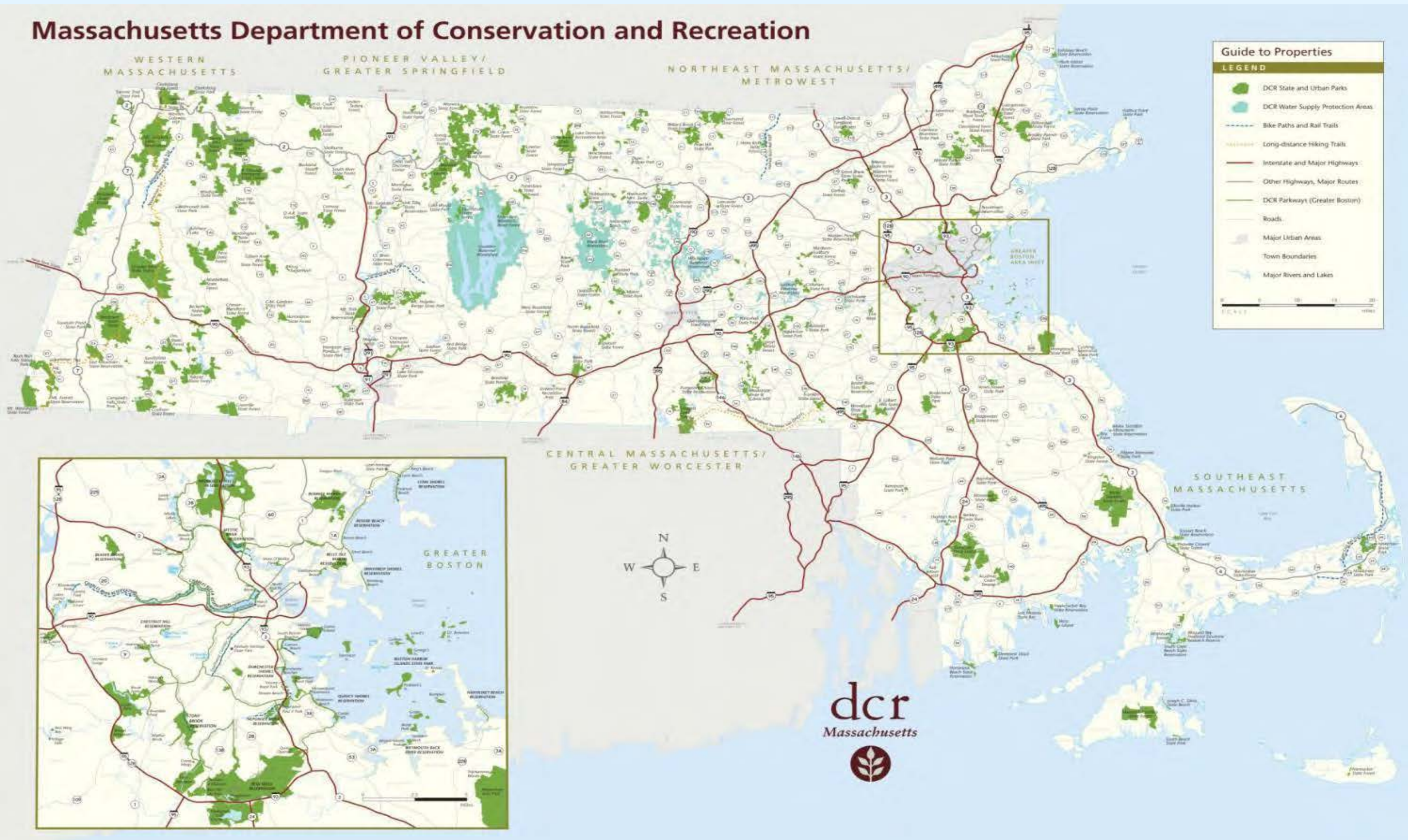
*To protect, promote and enhance our
common wealth of natural, cultural
and recreational resources for the
well-being of all.*

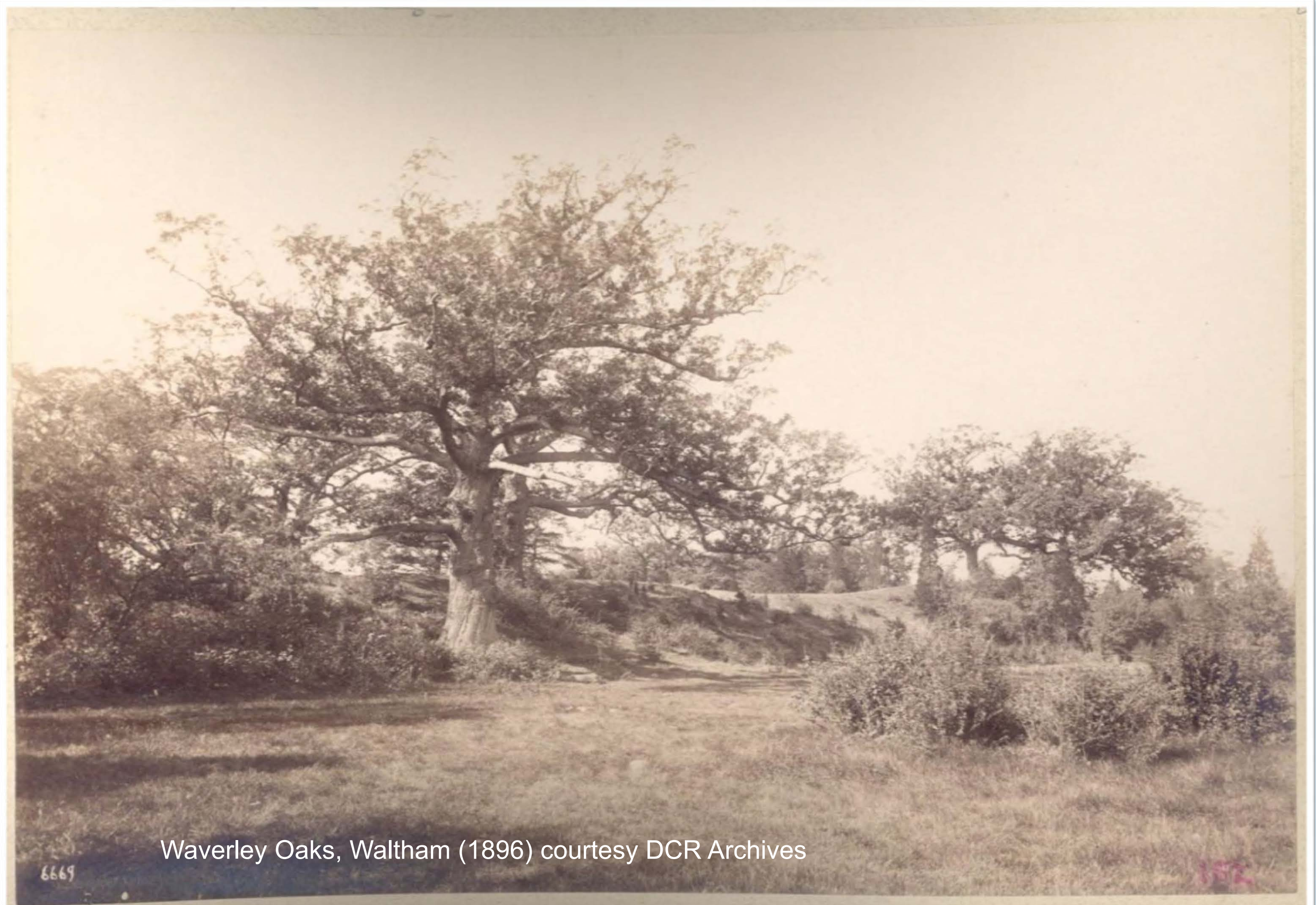
Purpose of the Meeting

- Presentation of assessment and preliminary recommendations for landscape rehabilitation
- Review options for walls and pathways in Southern Section
- Hear public comments



Massachusetts Department of Conservation and Recreation





Waverley Oaks, Waltham (1896) courtesy DCR Archives

6669

1896

What is Lowell Memorial Park?



Elmwood



Olmsted Brothers design






Early Metropolitan Park

What is Lowell Memorial Park?

Historic Site

Elmwood

– Oliver



- Gerry
 - Lowell
- 
- An aerial photograph of a residential neighborhood. A blue arrow points from the top right towards a specific location at the intersection of Elmwood and Brattle streets. The area is densely packed with houses and trees. Other visible streets include Channing and Brattle.

National Historic Landmark

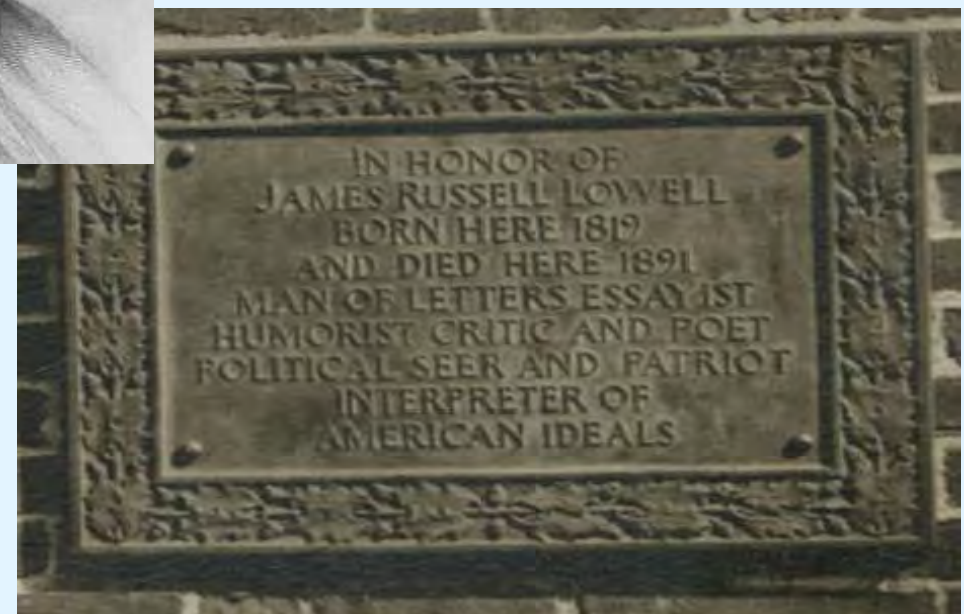


From 1877 City of Cambridge map, Franklin View Co.
(Courtesy Norman B. Leventhal Map Center at the Boston
Public Library)

What is Lowell Memorial Park?

**Memorial to
James Russell Lowell
(1819-1891)**

- Fireside Poet
- Abolitionist
- Ambassador



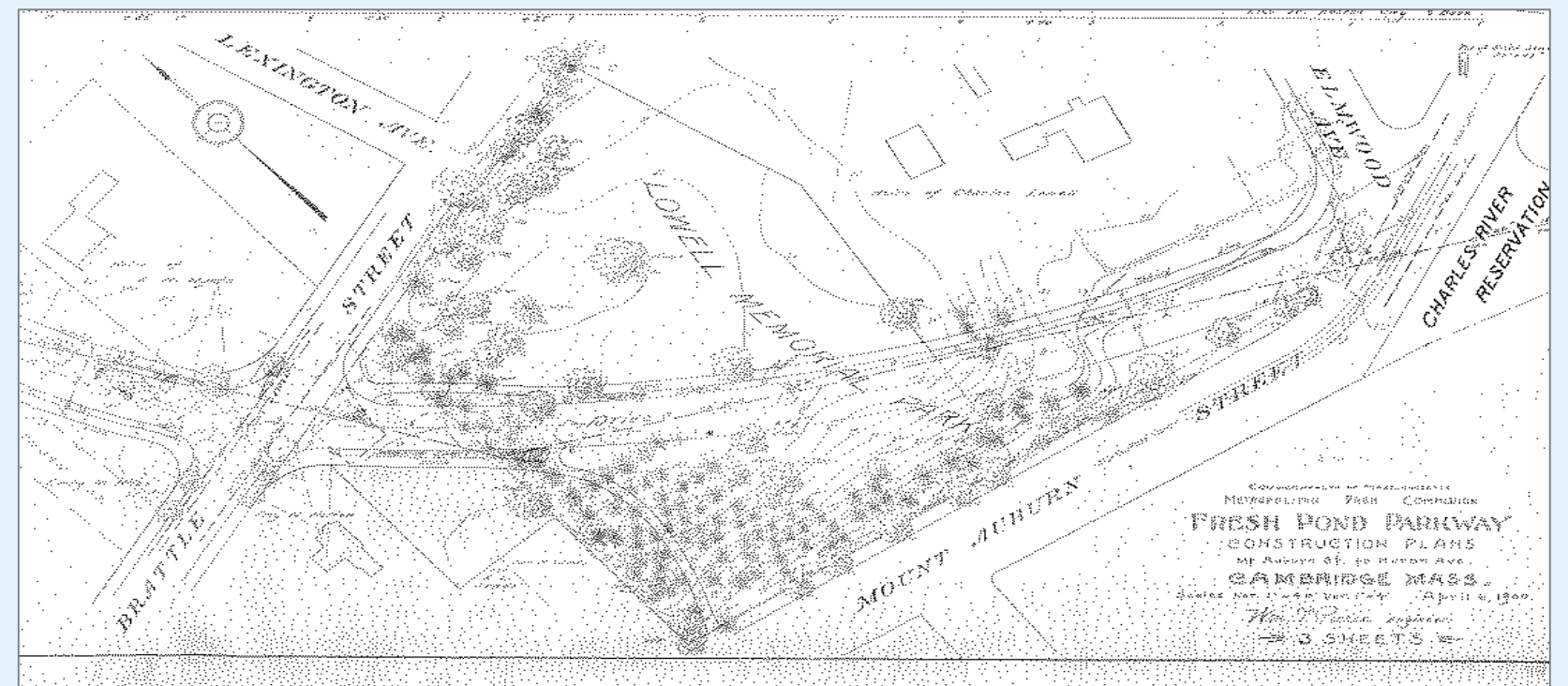
What is Lowell Memorial Park?

Part of Nation's First Regional Park System

- Metropolitan Park System of Greater Boston
- National Register of Historic Places

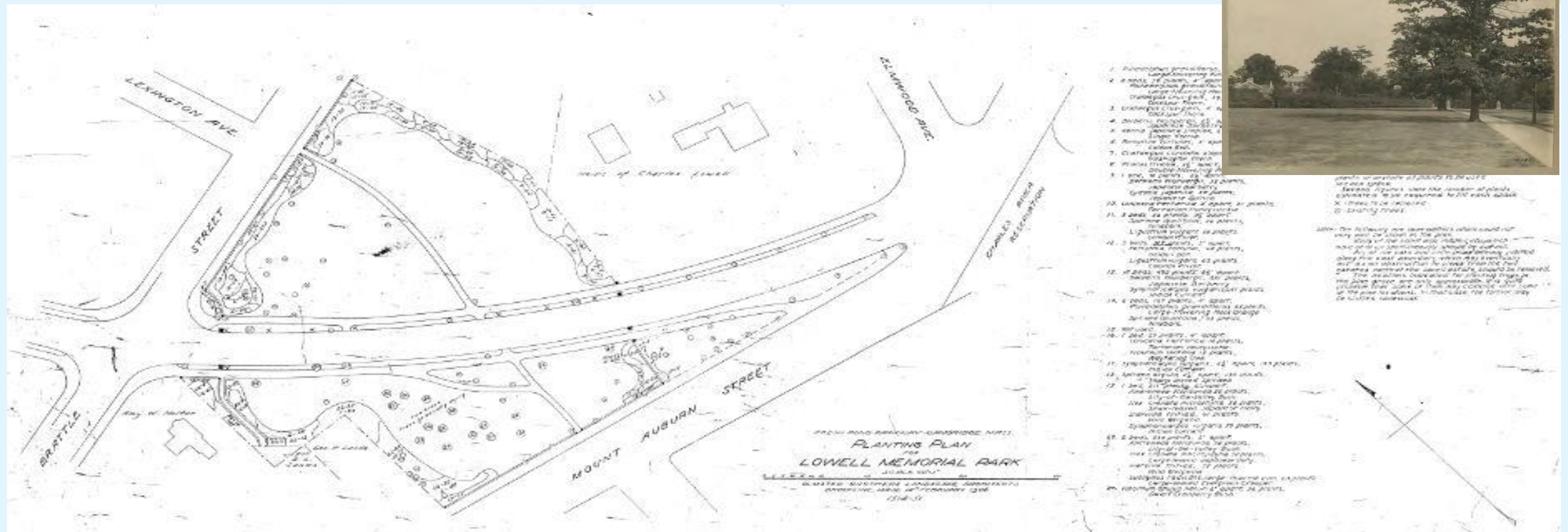


1900 Atlas of Middlesex Co.
(Courtesy of Cambridge Historical Commission)



What is Lowell Memorial Park?

Work of a noted designer – The Olmsted Brothers



Project Background

- 2012 DCR listening session
- 2014 Public Meeting
 - Cultural landscape Report
 - Wall Assessment
- 2015 Mt Auburn/Fresh Pond Parkway Traffic Study
- 2016 Wall Repairs in Big Lowell
- 2019 Partnership grant with City of Cambridge for Landscape Rehab Design (KZLA hired)





STUDIES

VIEWS

WALKWAYS

- ACCESSIBILITY
- SIDEWALKS

WALLS & PIERS

- WALL ALIGNMENTS

VEGETATION

- 1906 OLMSTED PLANTING PLAN & PALETTE
- 1906 PLANTING VS. TODAY SPECIES & MASSING
- TREE REMOVALS
- TREE PLANTINGS
- SHRUB PLANTINGS
- INVASIVE SPECIES

SITE AMENITIES

MISCELLANEOUS SITE CONDITIONS





CIRCA 1910 IMAGE OF PARK & PARKWAY



2018 VIEW OF PARK & PARKWAY



BIG LOWELL FROM ACROSS THE PARKWAY



LITTLE LOWELL FROM ACROSS THE PARKWAY

DEPT. OF CONSERVATION & RECREATION
LOWELL MEMORIAL PARK

FROM AROUND PARK, INTO PARK
 VIEWS

SUMMER 2018

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BIG LOWELL FROM BRATTLE STREET



BIG LOWELL FROM FRESH POND PARKWAY



LITTLE LOWELL FROM FRESH POND PARKWAY



LITTLE LOWELL FROM FRESH POND PARKWAY NEAR MT. AUBURN ST

DEPT. OF CONSERVATION & RECREATION
LOWELL MEMORIAL PARK

FROM AROUND PARK, INTO PARK
VIEWS

SUMMER 2018

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COOLIDGE STREET FROM LITTLE LOWELL



MOUNT
AUBURN
STREET FROM
LITTLE LOWELL

FRESH POND PARKWAY FROM BIG LOWELL



FRESH POND
PARKWAY LITTLE
LOWELL





MOUNT AUBURN STREET RESIDENCES



BRATTLE STREET RESIDENCES



BRATTLE STREET RESIDENCES



DEPT. OF CONSERVATION & RECREATION
LOWELL MEMORIAL PARK

FROM PARK, OUT
 VIEWS

SUMMER 2018

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WALKWAY THROUGH BIG LOWELL



SIDEWALK
ALONG
FRESH POND
PARKWAY



WALKWAY THROUGH LITTLE LOWELL

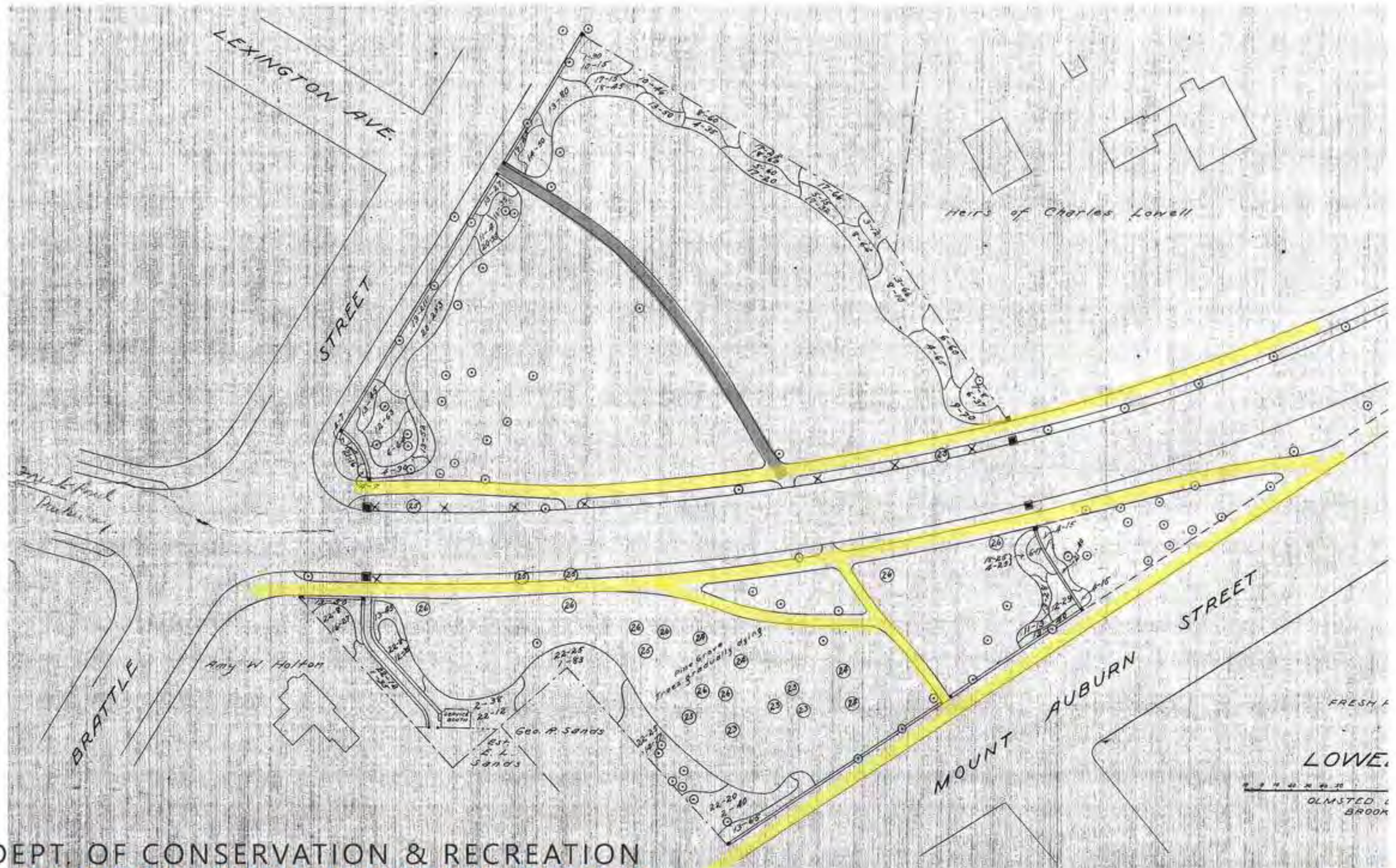


LITTLE LOWELL
SIDEWALK
CONDITIONS





DESIRE LINES IN THE TURF AT THE TRIANGLE BETWEEN FRESH POND PARKWAY & MOUNT AUBURN STREET
(NOTE THEY ARE MORE DISTINCT ALONG MOUNT AUBURN STREET FROM WHERE THE SIDEWALK ENDS AT THE PARK GATEWAY OUT TO THE PARKWAY)





END PIER & CAPSTONES ABUTTING
RESIDENCE ON MOUNT AUBURN STREET



CAST-IN-PLACE CAPSTONE
REPLACEMENTS



WALL CONDITIONS:
MORTAR LOSS, MISSING
BRICKS, LOSS OF
FLASHING, CRACKING, ETC.





PIER/WALL
TERMINATION
AT FRESH POND
PARKWAY NEAR
BRATTLE STREET

WALL
TERMINATION
AT BRATTLE
STREET/ FRESH
POND PARKWAY
INTERSECTION IN
LITTLE LOWELL





PEDESTRIAN GATEWAY ON MOUNT
AUBURN STREET



PIER/WALL TERMINATION AT
FRESH POND PARKWAY IN
LITTLE LOWELL





MIS-ALIGNED PIERS AT WEST SIDE



VIEW OF LITTLE LOWELL EASTERN PIER
FROM BIG LOWELL PIER



Stickney & Austin designed post and tablet c.1906.
Enlargement at right (Courtesy DCR Archives)

IMAGES OF ORIGINAL PLAQUES FROM CLR



LEGEND

-  BITUMINOUS CONCRETE:
 - 48"-54" WIDE
 - POOR CONDITION
-  CONCRETE:
 - 60" WIDE
 - FAIR CONDITION
-  CONCRETE:
 - 72" WIDE
 - FAIR CONDITION
-  NON-DCR CONCRETE SIDEWALK:
 - 50"-100" WIDE
 - FAIR CONDITION

PAVEMENT CONDITIONS:

- GOOD = RELATIVELY NEW PAVEMENT WITH NO CRACKING, PATCHES, OR TRIPPING HAZARDS
- FAIR = LITTLE DELAMINATION (IF CONCRETE), LIMITED CRACKING OR PATCHES
- POOR = EVIDENCE OF HEAVING, CRACKING, AND/OR TRIPPING HAZARDS



RECOMMENDATIONS

-  BIG LOWELL
INTERNAL PATHWAY:
 - WIDEN TO 60"
 - CONCRETE
-  BIG LOWELL
PARKWAY SIDEWALK:
 - ENSURE CLEARANCE
OF 72"
 - CONCRETE
-  LITTLE LOWELL
PARKWAY SIDEWALK/
INTERNAL PATHWAY:
 - ENSURE CLEARANCE
OF 60"
 - CONCRETE
-  MOUNT AUBURN
SIDEWALK:
 - CONSIDER
EXTENDING
TO PARKWAY
(MASSDOT), OR
SHORTEN
 - CONCRETE
-  BRATTLE STREET
SIDEWALK:
 - NO IMPROVEMENTS



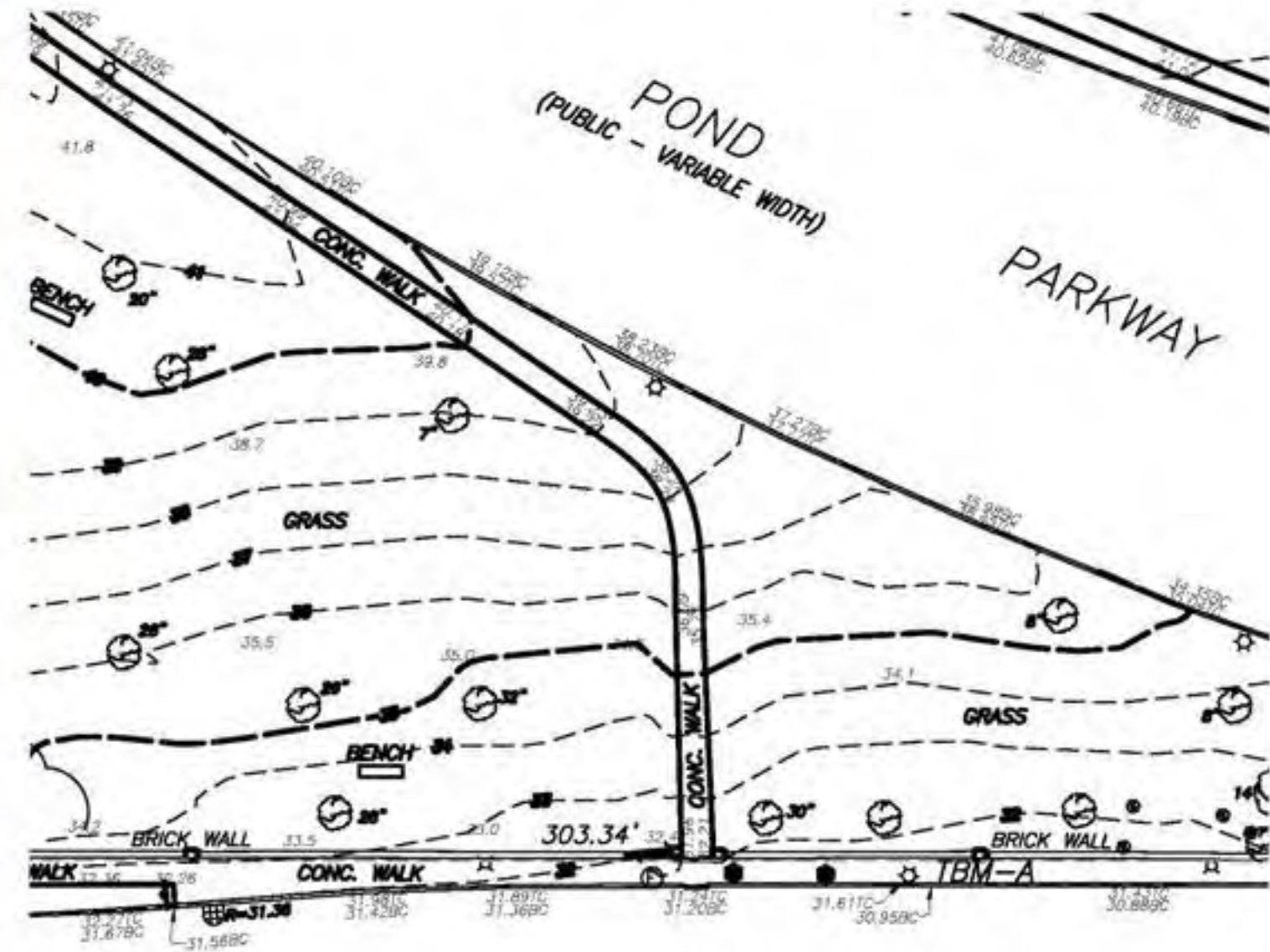
ROAD SAFETY AUDIT & RECOMMENDATIONS BY MASSDOT (2016)

- Formalize third travel lane on Fresh Pond Parkway southbound near intersection with Mount Auburn Street
- OR
- Reduce Fresh Pond Parkway southbound to two lanes & use gore striping to discourage travel in third lane
- Provide crosswalks across western leg of Mount Auburn Street & Fresh Pond Parkway at intersection with Gerry's Landing Road
- Repair/reconstruct failing sidewalks





WALKWAY THROUGH LITTLE LOWELL



EXISTING CONDITIONS SURVEY

MOUNT AUBURN ST

FRESH POND PARKWAY

8.3%

8.6% - 9.5%

5% - 6%

LEGEND

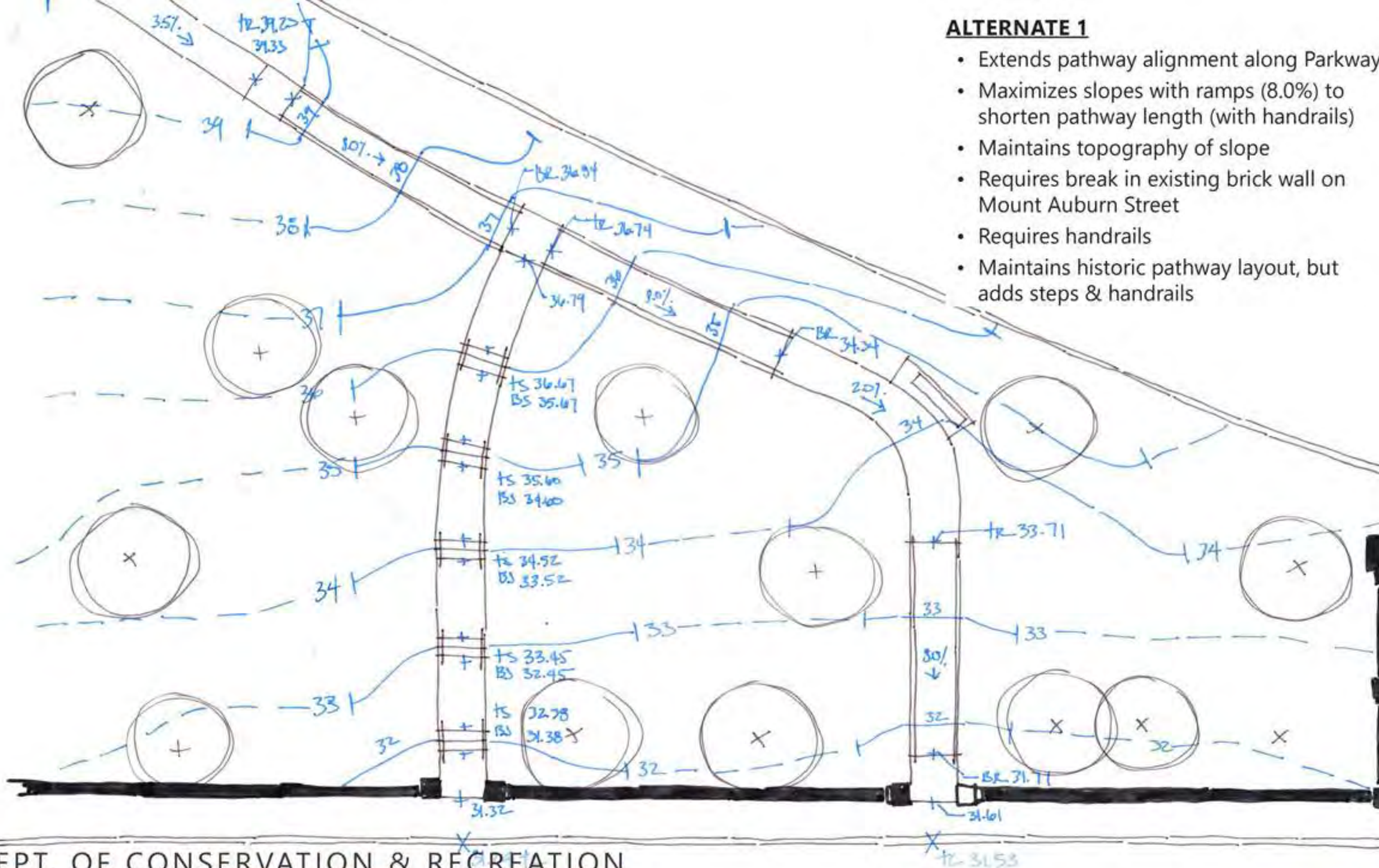


> 5.0% SEGMENTS
(DOES NOT MEET
ADAAG)



ALTERNATE 1

- Extends pathway alignment along Parkway
- Maximizes slopes with ramps (8.0%) to shorten pathway length (with handrails)
- Maintains topography of slope
- Requires break in existing brick wall on Mount Auburn Street
- Requires handrails
- Maintains historic pathway layout, but adds steps & handrails



ALTERNATE 1

"BIG LOWELL"

FRESH POND PARKWAY

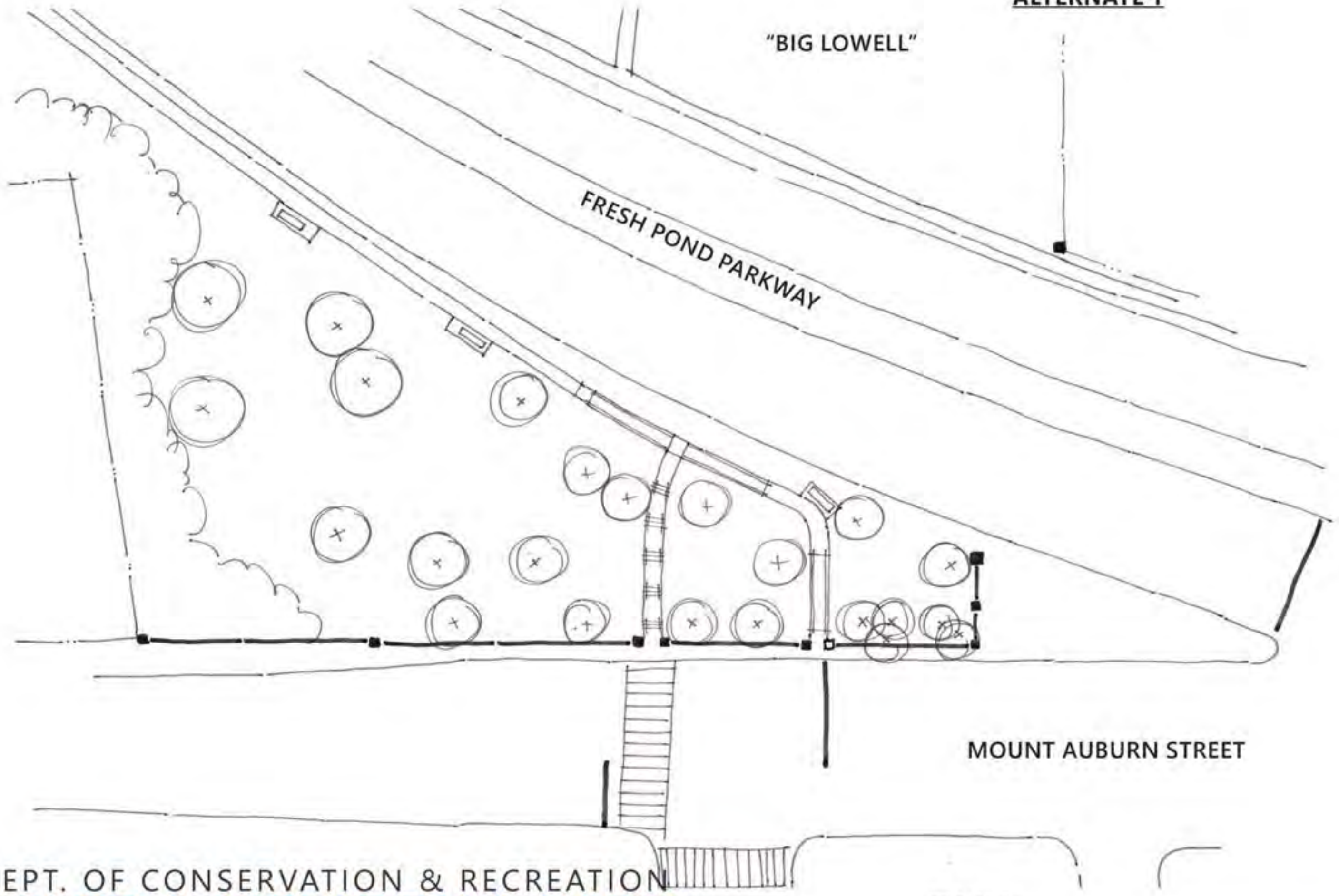
MOUNT AUBURN STREET

DEPT. OF CONSERVATION & RECREATION
LOWELL MEMORIAL PARK

LITTLE LOWELL
ACCESSIBILITY

FEBRUARY 2019

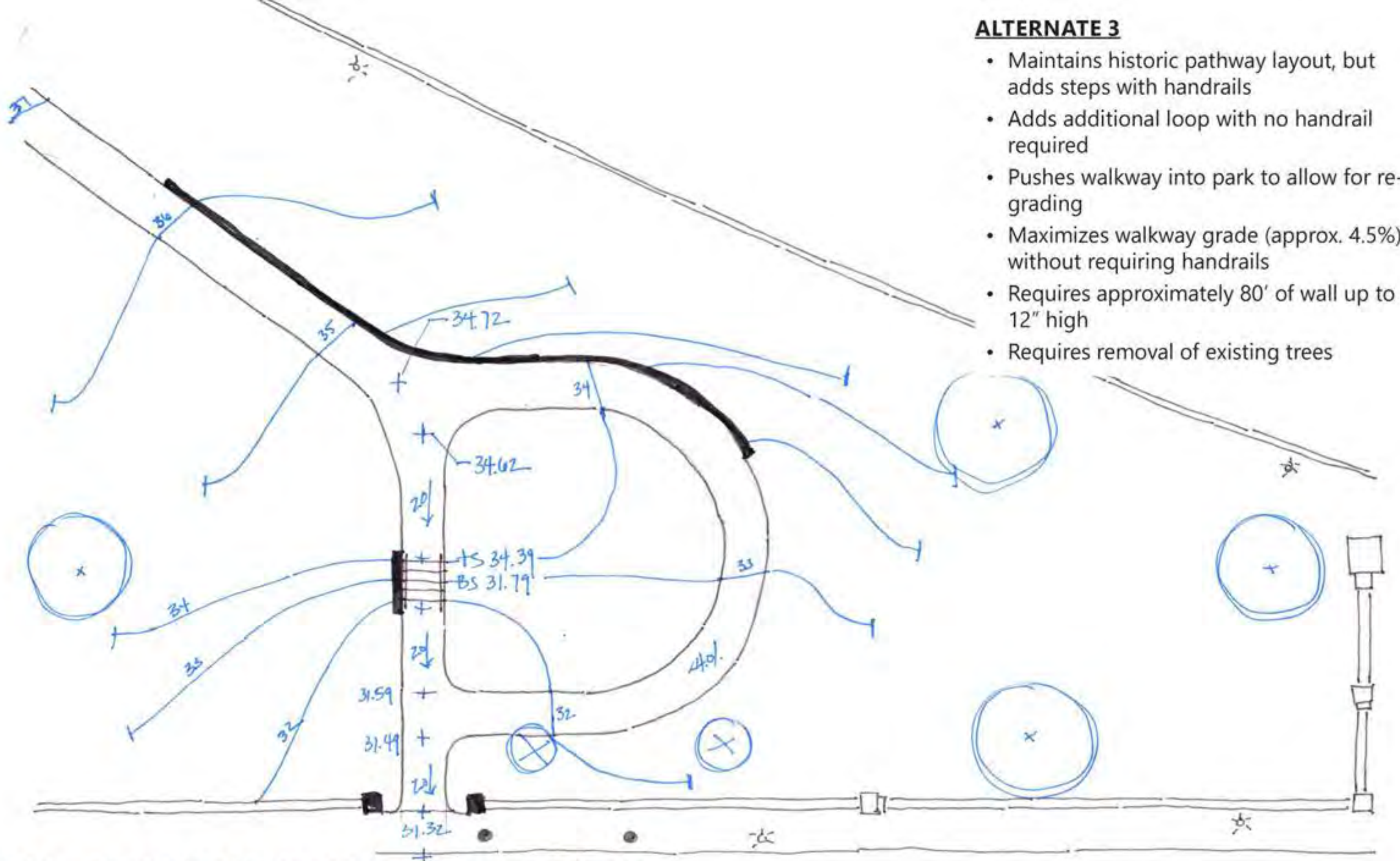
kzla



ALTERNATE 2

- Extends walkway along Fresh Pond Parkway
- Maintains similar alignment of existing walkway
- Changes topography of slope significantly
- Requires removal of existing trees
- No stairs, ramp, or handrail required
- Re-grades full extent of walkway from relocated pier for shallow grade (approx. 3.2%) for ease of pedestrians
- Requires approximately 435' of wall up to 60" high
- Requires removal of existing trees

-
- ALTERNATE 2**
- Extends walkway along Fresh Pond Parkway
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 - Changes topography of slope significantly
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 - Requires approximately 435' of wall up to 60" high
 - Requires removal of existing trees



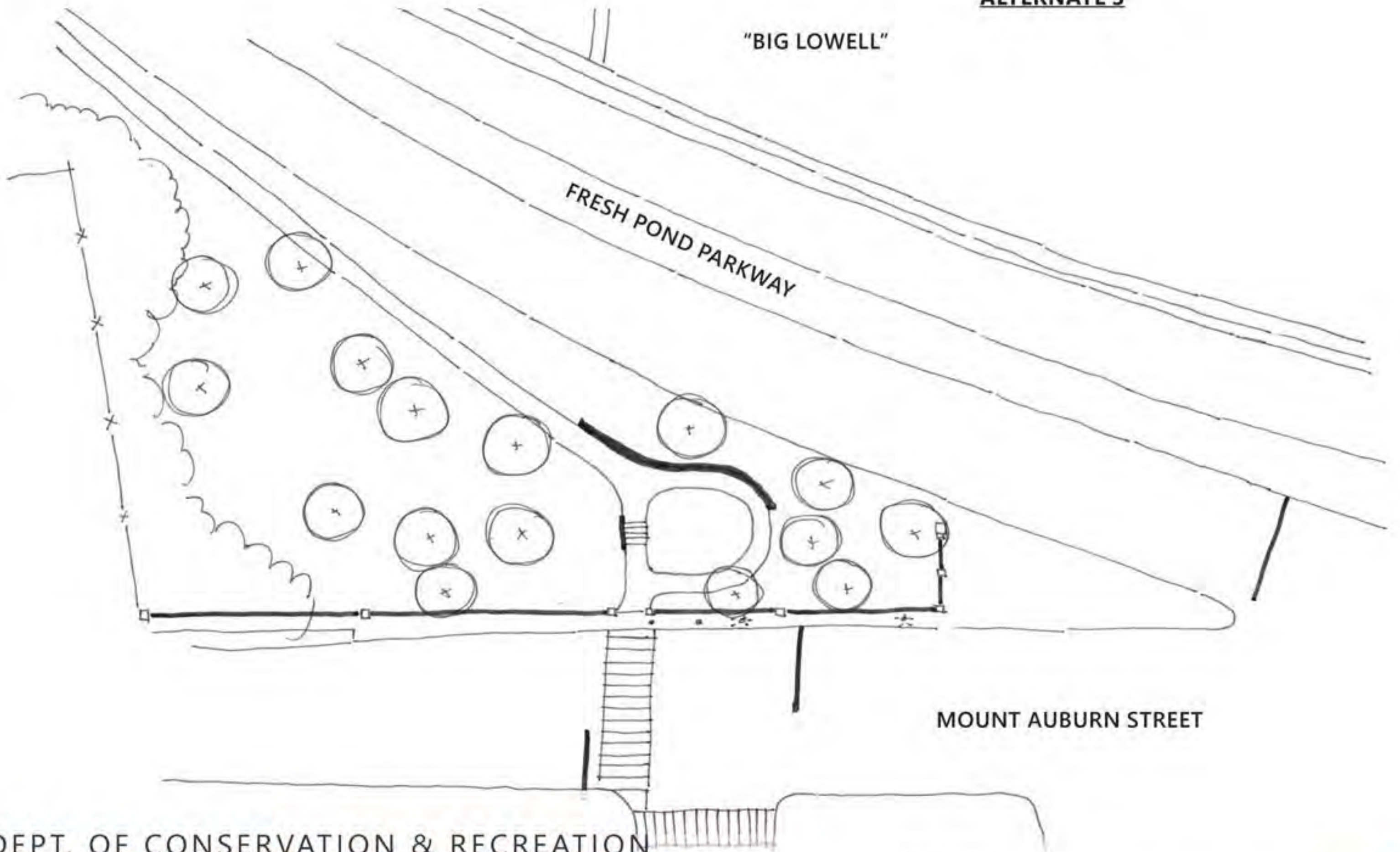
ALTERNATE 3

- Maintains historic pathway layout, but adds steps with handrails
- Adds additional loop with no handrail required
- Pushes walkway into park to allow for re-grading
- Maximizes walkway grade (approx. 4.5%) without requiring handrails
- Requires approximately 80' of wall up to 12" high
- Requires removal of existing trees

"BIG LOWELL"

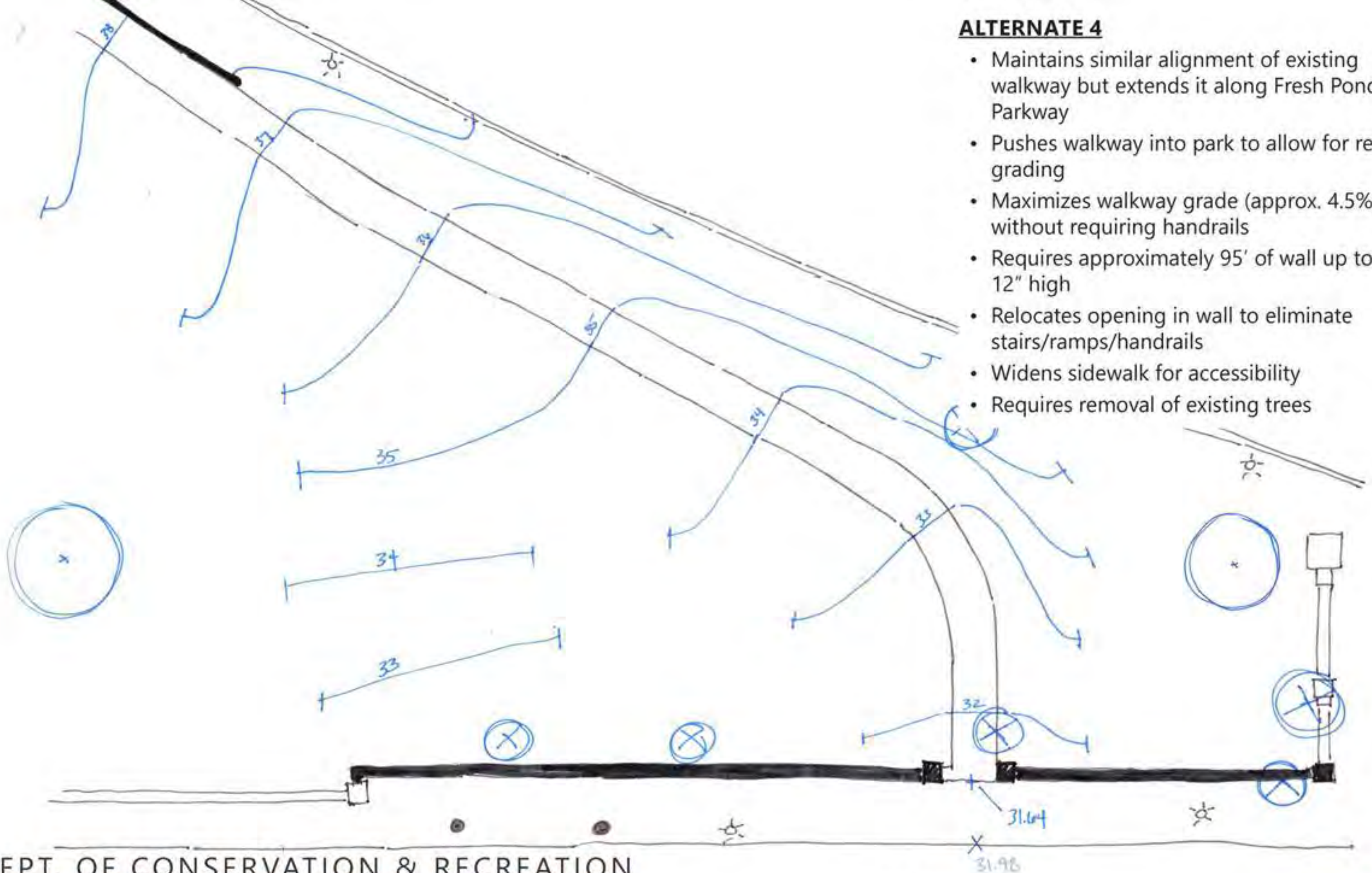
FRESH POND PARKWAY

MOUNT AUBURN STREET

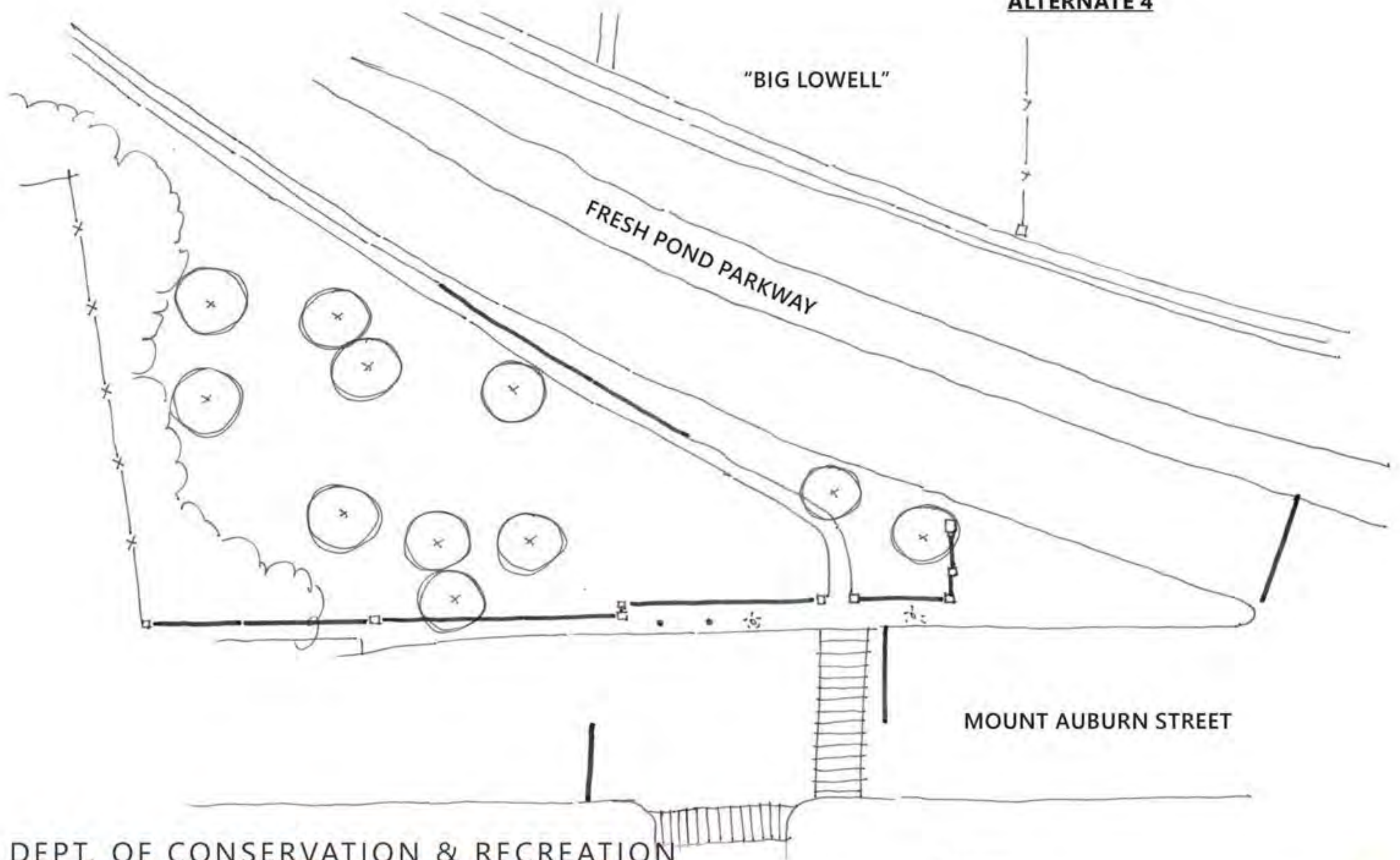


ALTERNATE 4

- Maintains similar alignment of existing walkway but extends it along Fresh Pond Parkway
- Pushes walkway into park to allow for re-grading
- Maximizes walkway grade (approx. 4.5%) without requiring handrails
- Requires approximately 95' of wall up to 12" high
- Relocates opening in wall to eliminate stairs/ramps/handrails
- Widens sidewalk for accessibility
- Requires removal of existing trees



ALTERNATE 4



LEGEND

- BRICK WALL
- BRICK PIER
- RESTORED BRICK WALLS
- RESTORED PIERS



- LEGEND**
- BRICK WALL
 - BRICK PIER
 - RESTORED BRICK WALLS
 - RESTORED PIERS
 - STUDY AREAS



RECOMMENDATIONS FOR REPAIRS (2014)

- Reset all limestone coping with dowels
- Replace missing limestone coping stones
- Remove, dispose & replace all flashing
- Replace missing brick
- Reconstruct severely cracked areas and displaced, dislodged & bulged wall segments
 - Reuse original brick
- Re-point the entire wall
- Reset settled granite foundation stones
- Rebuild wall at snapped headers (corners)
- Regrade soil around the wall where granite foundation stones are buried
- Prune any vegetation touching the wall
- Fully clean entire wall to remove biological growth & any graffiti
- Install repair mortar in small spalls in coping stones

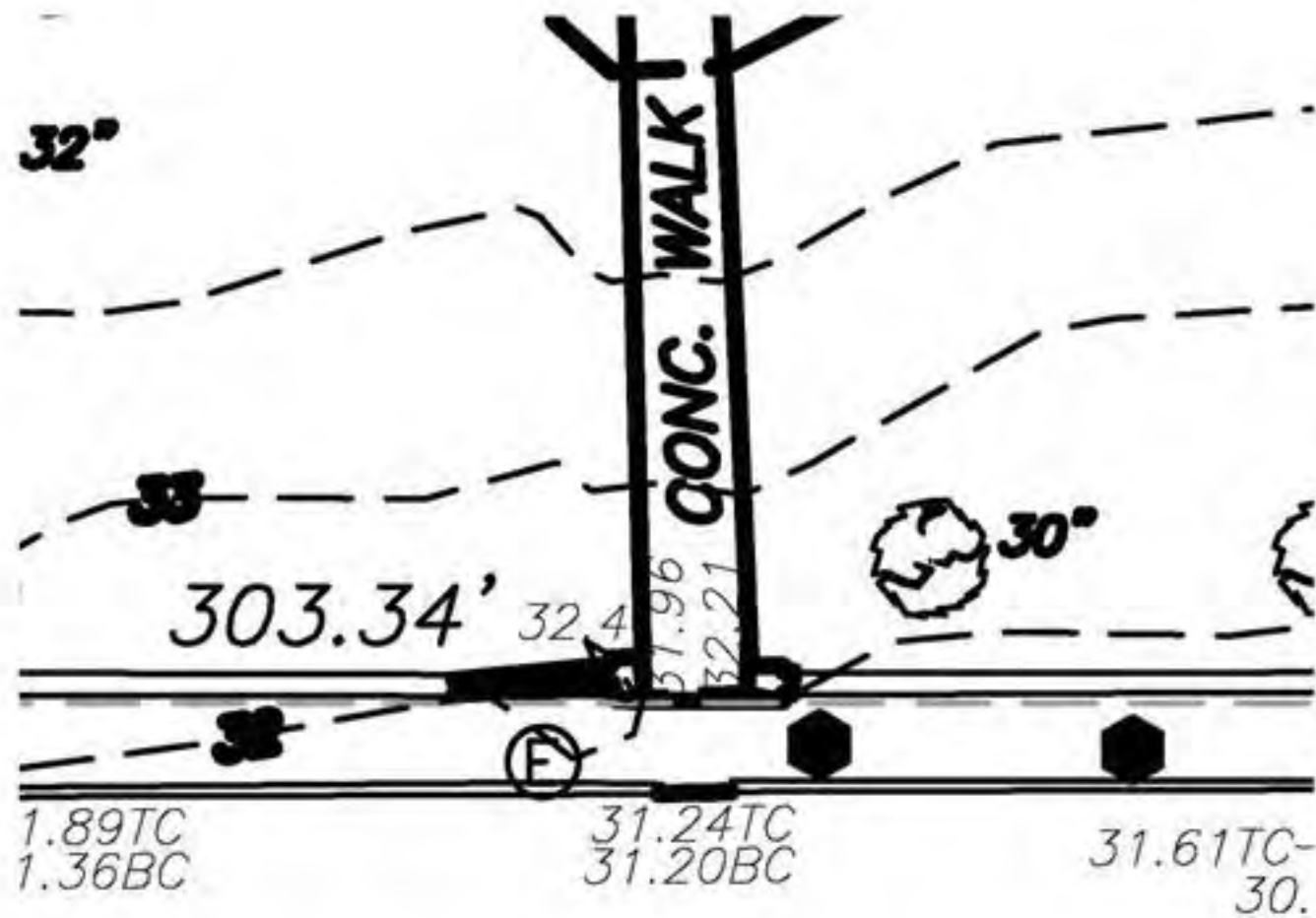




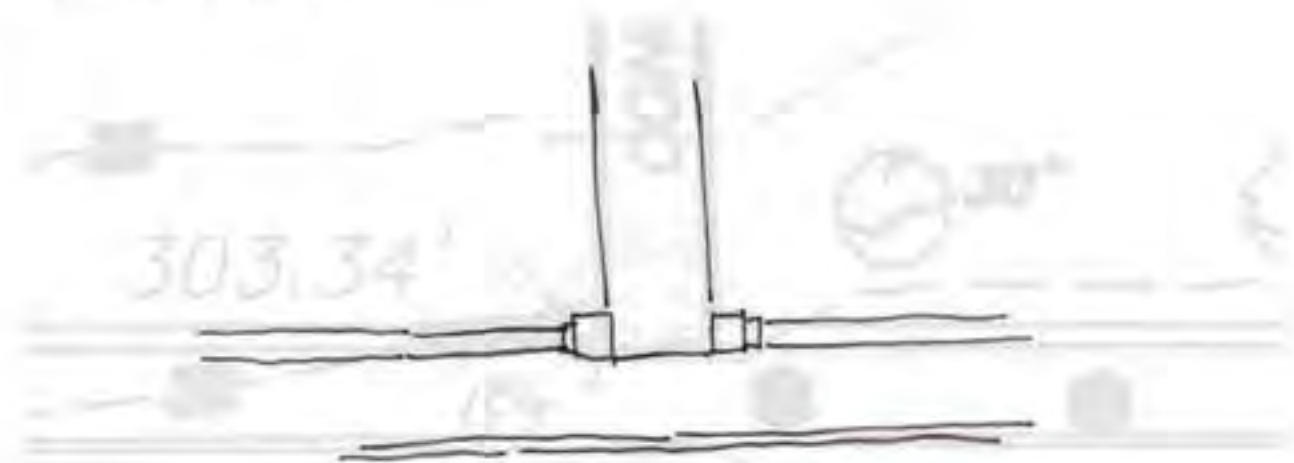
RECOMMENDATION

- Pushes wall and piers back to allow 6 feet clear at pier
- Realigns piers across Parkway
- Realigns wall segment parallel to Parkway
- Shortens wall segment





ALTERNATE 1



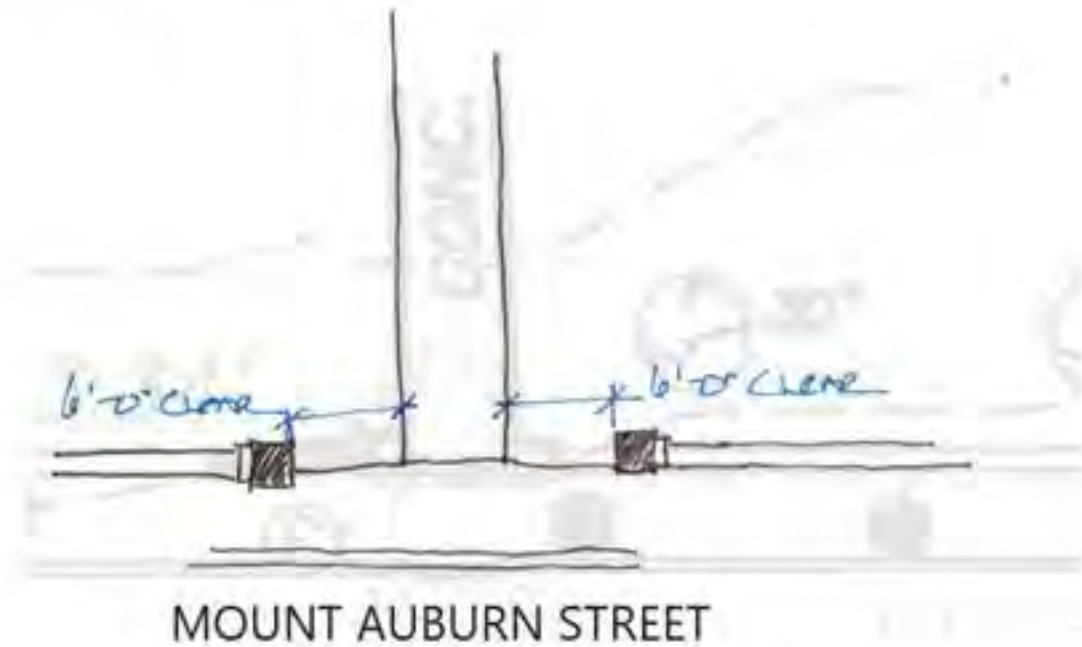
MOUNT AUBURN STREET



ALTERNATE 1

- Reconstruct wall & piers in historic location

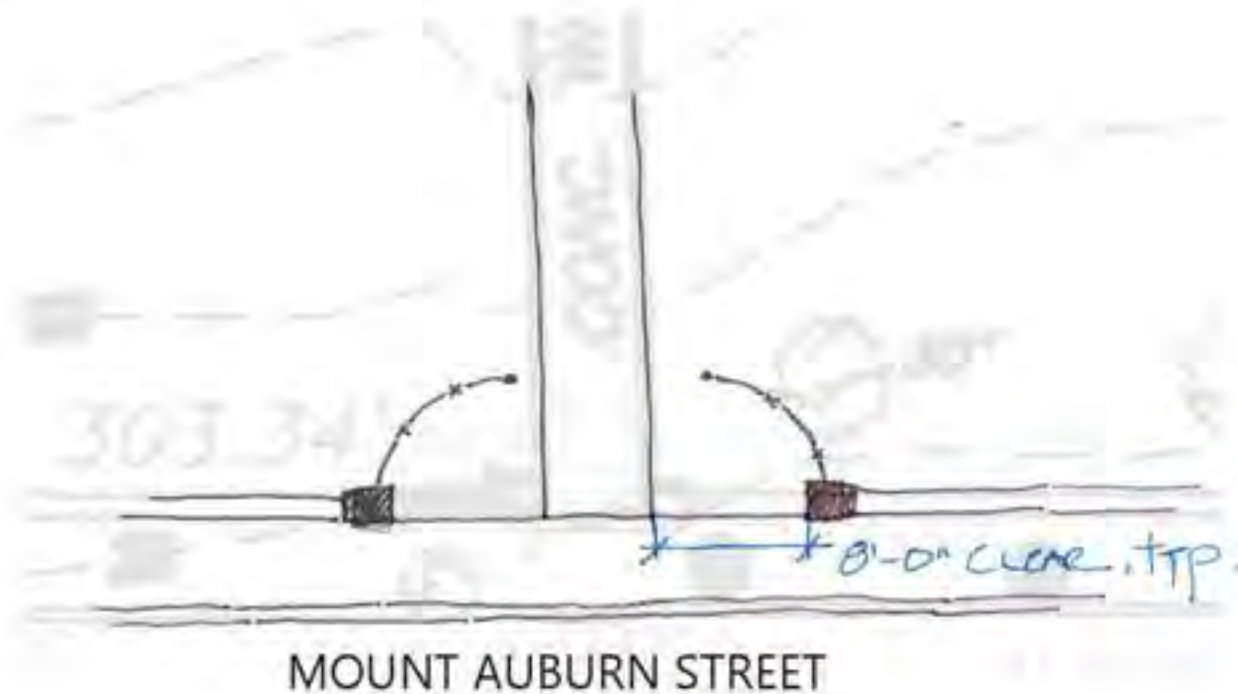
ALTERNATE 2



ALTERNATE 2

- Reconstruct wall in historic location
- Offset piers by 6 feet on either side of pathway

ALTERNATE 3



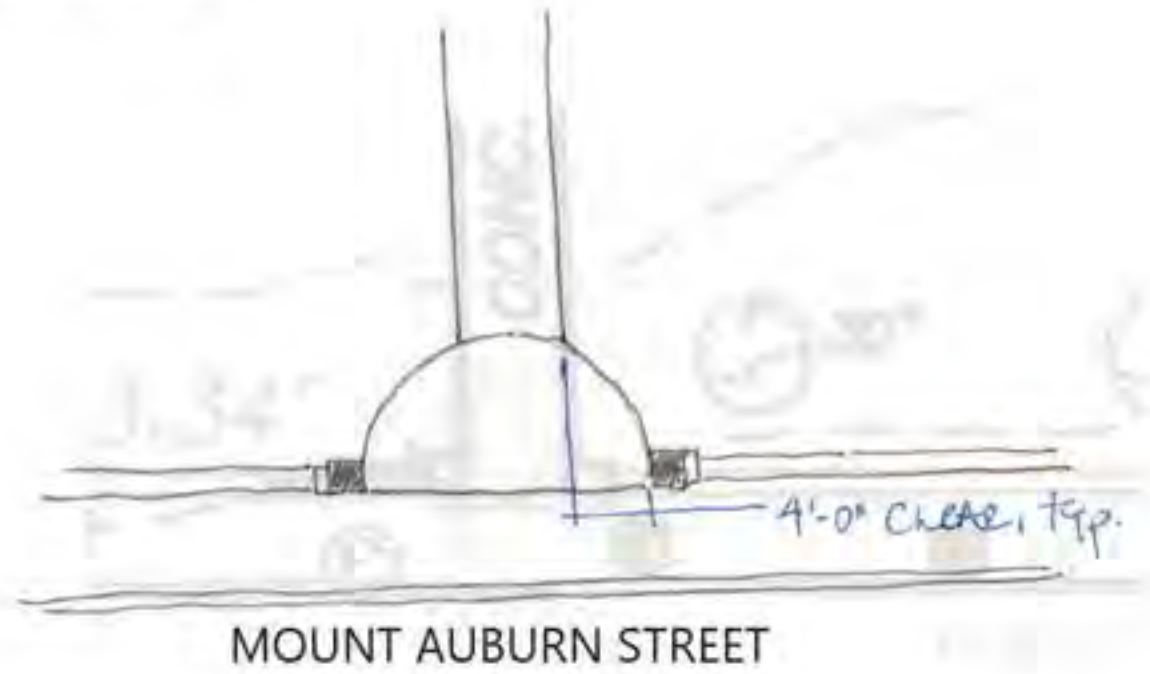
ALTERNATE 3

- Reconstruct wall in historic location
- Offset piers by 8 feet on either side of pathway
- Create new arced gateway (arc similar to Brattle Street/Parkway intersection of Big Lowell) with metal fence*

*May depend on preferred accessible walkway



ALTERNATE 4



ALTERNATE 4

- Reconstruct wall in historic location
- Offset piers by 4 feet on either side of pathway
- Create gateway space in hardscape

LEGEND

- ANCIENT MAPLE
- OAK
- NORWAY MAPLE
- ASH
- PINE
- HEMLOCK
- HOP HORNBEAM
- MISC. ORNAMENTAL



DEPT. OF CONSERVATION & RECREATION
LOWELL MEMORIAL PARK

TREES
EX. VEGETATION

SUMMER 2018

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1906

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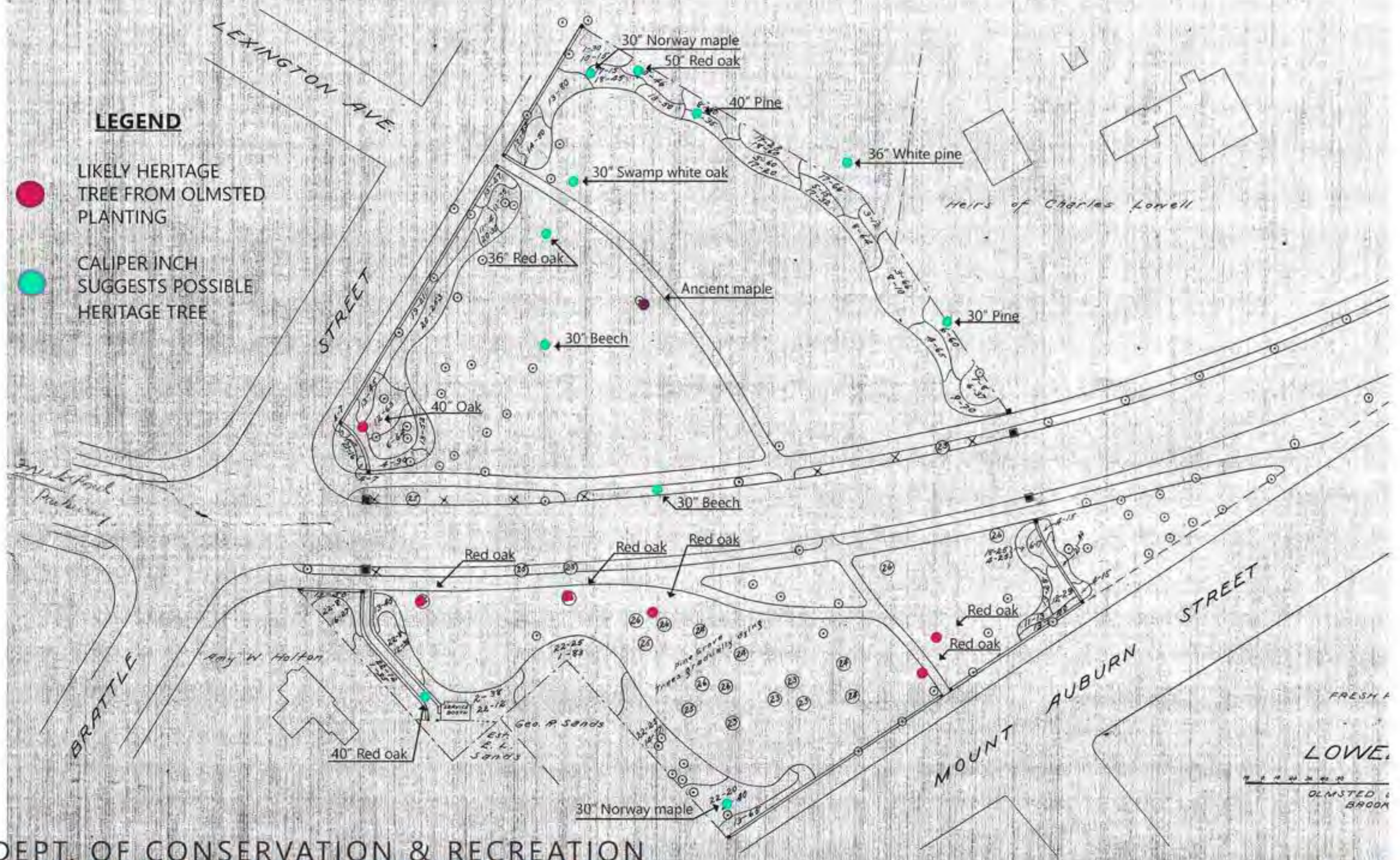
DEPT. OF CONSERVATION & RECREATION
LOWELL MEMORIAL PARK

1906 VS. 2018 PLANTINGS
TREE COMPARISON SUMMER 2018



LEGEND

- LIKELY HERITAGE TREE FROM OLMSTED PLANTING
- CALIPER INCH SUGGESTS POSSIBLE HERITAGE TREE



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LOWELL MEMORIAL PARK

POTENTIAL HERITAGE TREES
 TREE COMPARISON SUMMER 2018

kzla



1906 Olmsted planting plan: tree & shrub massing








2018 Existing planting: tree & shrub massing

LEGEND

- TREE PLANTING
- SHRUB PLANTING

LEGEND

-  DEAD, DYING, OR DAMAGED TREE
-  TREES INCONSISTENT WITH OLMSTED BROTHERS PLAN
-  TREES IN POOR LOCATION FOR PATHWAY RESTORATION
-  TREES WITHIN 5 FEET OF WALLS
-  TREE STUMPS TO BE REMOVED



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LOWELL MEMORIAL PARK

PROPOSED REMOVAL
 PLANTING

SUMMER 2018

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LEGEND

- EXISTING TREE
- PROPOSED TREE



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LOWELL MEMORIAL PARK

PROPOSED
 PLANTING

FEBRUARY 2019

kzla

OLMSTED TREES for BIG LOWELL

- *Crataegus crus-galli* Cockspur hawthorn (3)
- *Crataegus phaenopyrum* Washington hawthorn (7)
(*C. cordata*) (Thornless)
- *Prunus triloba* Double-flowering plum (8)
- *Tilia x europaea* (*T. vulgaris*) European linden (23)

ADDITIONAL TREES for BIG LOWELL

- *Quercus rubra* Red oak: Street tree

OLMSTED TREES for LITTLE LOWELL

- *Crataegus crus-galli* Cockspur hawthorn (2)
- *Pinus nigra* (*P. austriaca*) Austrian pine (22)
- *Tilia x europaea* (*T. vulgaris*) European linden (23)
- *Quercus rubra* Red oak (26)

* Massachusetts listed invasive/prohibited plant species

ADDITIONAL TREES for LITTLE LOWELL

- Additional trees from DCR recommended list

OLMSTED SHRUBS for BIG LOWELL

- *Philadelphus grandiflorus* Mock orange (1/2/14)
- *Kerria japonica* Japanese kerria (5)
- *Chaenomeles japonica*
(*Cydonia japonica*) Flowering quince (9)
- *Physocarpus opulifolius*
(*Spiraea opulifolia*) Ninebark (11/14)
- *Symphoricarpos orbiculatus*
(*S. vulgaris*) Indian currant/Coralberry
(13/17/19)
- *Viburnum lantana* Wayfaring tree (16)
- *Spiraea x arguta* Sharp-leaved spirea (18)
- *Pieris floribunda*
(*Andromeda floribunda*) Lily-of-the-valley bush (19/20)
- *Diervilla trifida* Bush honeysuckle (19/20)
- *Ilex crenata 'Microphylla'* Dwarf-leaved Japanese holly
(19/20)
- *Viburnum opulus 'Nana'* Dwarf cranberry bush
viburnum (21)

OLMSTED SHRUBS for LITTLE LOWELL

- *Philadelphus grandiflorus* Mock orange (1/2/14)
- *Forsythia suspensa var. fortunei*
(*F. fortunei*) Weeping forsythia (6/12)
- *Physocarpus opulifolius*
(*Spiraea opulifolia*) Ninebark (11/14)
- *Symphoricarpos orbiculatus*
(*S. vulgaris*) Indian currant/Coralberry (13)
- *Viburnum lantana* Wayfaring tree (16)
- *Spiraea x arguta* Sharp-leaved spirea (18)
- *Viburnum opulus 'Nana'* Dwarf cranberry bush
viburnum (21)

LEGEND

-  NORWAY MAPLES
-  KNOTWEED
-  BAMBOO
-  ENGLISH IVY





SITE BENCH



WATER FOUNTAIN & VAULT

*Not to be replaced



IN-PARK SITE LIGHTING



PARK RULES SIGNAGE

- LEGEND**
- SITE BENCH
 - SIGN
 - WATER FOUNTAIN
 - VAULT
 - STREET LIGHT
 - NEW STREET LIGHT



LEGEND



PROPOSED LIGHT
LOCATIONS





SPRING CITY LIGHTING: PARK CENTRAL



SPRING CITY LIGHTING: RIVERSIDE



STERNBERG LIGHTING: WARRENVILLE



STERNBERG LIGHTING: AVENUE



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LOWELL MEMORIAL PARK

IN-PARK SITE LIGHTING
 SITE FURNISHINGS FEBRUARY 2019

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DCR SHURCLIFF BENCH



VICTOR STANLEY: C-138



CANTERBURY DESIGNS: 1890 BENCH





SAMPLE DCR PARK SIGNAGE

LEGEND

-  PARK SIGNAGE AT ENTRIES
-  INTERPRETIVE SIGNAGE
-  HISTORIC WALL PLAQUES



LEGEND

-  TURF ISSUES
-  REMOVE TURF & MULCH
-  STUMPS
-  DEPRESSIONS
-  BROKEN PAVEMENT
-  TREE IN WALL
-  OLD LIGHT CONNECTION



RECOMMENDATION

- A** Rebuild walls & piers in Little Lowell
- B** Recreate Little Lowell entry on Mount Auburn Street
- C** Improve pedestrian circulation in and around the park
 - C1** Widen pathway through Big Lowell
 - C2** Create universally accessible pathway through Little Lowell
- D** Re-establish Olmsted Brothers planting design throughout the park
 - D1** Restore shrub border
 - D2** Restore tree massing balance
 - D3** Eliminate invasive & aggressive plant species
- E** New site lighting plan
- F** Update site amenities, including benches & signage
 - F1** Restore historic plaques
- G** Rehabilitate turfgrass areas



Questions & Answers

Additional Information

For more information: www.mass.gov/dcr/past-public-meetings

If you have comments or suggestions on this project:

Submit online: www.mass.gov/dcr/public-comment

Write: Department of Conservation and Recreation
Office of Public Outreach
251 Causeway Street, Suite 600
Boston, MA 02114

Deadline: April 2, 2019

Note: Public comments submitted to DCR may be posted on the DCR website in their entirety, and no information, including contact information, will be redacted.

If you wish to subscribe to a DCR general information or project-related listserv: contact DCR's Office of Community Relations at 617-626-4973 or Mass.Parks@state.ma.us.