CNA
CAMBRIDGEPORT NEIGHBORHOOD ASSOCIATION, INC.

dcr MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION

MAGAZINE BEACH

COMPLETION OF PHASE 2 DESIGN

MEETING 3

DCR Public Meeting

Thursday, October 20, 2015 - 6:30 p.m. – 8:00 p.m.
Morse School, 40 Granite Street, Cambridge, MA

Commonwealth of Massachusetts

Governor

Charles D. Baker

Lieutenant Governor

Karyn E. Polito

Energy and Environmental Secretary

Matthew A. Beaton

Department of Conservation and Recreation Commissioner

Leo P. Roy

dcr
Massachusetts

DCR Mission Statement

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

dcr MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION

PARTNERSHIPS

City of Cambridge

Cambridgeport Neighborhood Association

Massachusetts Department of Conservation and Recreation

Charles River Conservancy

Riverside Boat Club

Charles River Watershed Association

City of Cambridge

Mayor

E. Denise Simmons

Acting City Manager

Lisa C. Peterson

Director of Community Planning

Stuart Dash

Executive Director, Cambridge Historical Commission

Charles M. Sullivan

CNA
CAMBRIDGEPORT
NEIGHBORHOOD
ASSOCIATION, INC

Cambridgeport Neighborhood Association

President

Cathie Zusy

To promote public participation and a sense of community within and for the benefit of the Cambridgeport neighborhood and to provide a forum for dialogue and action to improve and maintain the quality of life in the neighborhood.

Magazine Beach Committee

Decia Goodwin, Brian Conway, Richard Garver, David Torrey, Olivia Fiske, Marge Amster, Peter Klinefelter, Ken Carson, and Cathie Zusy

www.magazinebeach.org

RELATED PARTNERSHIP ACTIVITIES

- POWDER MAGAZINE
  - Exterior renovation
  - Interior renovation
- INVASIVE REMOVAL
  - Charles River Watershed Association
- WADING POOL REMOVAL
- RIVERSIDE BOAT CLUB BOATHOUSE EXPANSION
  - Legislation and fundraising required

SITE LOCATION

SITE LOCATION

dcr MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION

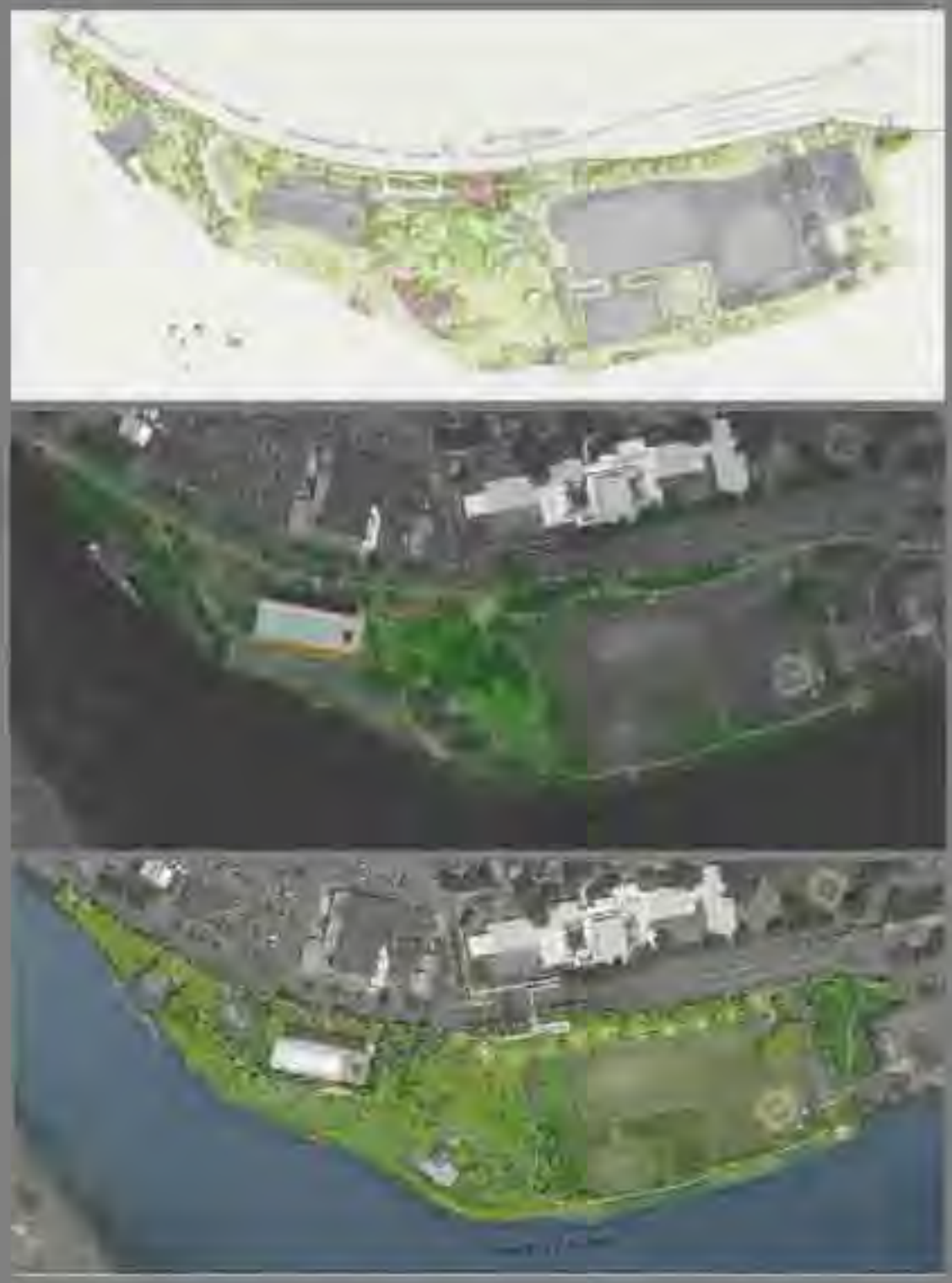
MEETING PURPOSE

REVIEW FEEDBACK FROM
MEETING 1 (September 30, 2015)

REVIEW FEEDBACK FROM
MEETING 2 (November 15, 2015)

PRESENT FINAL PLAN

PROVIDE COMMENTS



PROJECT GOALS AND OBJECTIVES

1. **Plan for current and future generations of park users**
   - Seek and incorporate public input
   - Partner with stakeholders and funding groups
   - Collaborate with the City of Cambridge and other governmental agencies
   - Build in possibility and do not preclude future change
   - Create elements for all ages and abilities

2. **Create greater engagement with the Charles River**
   - Widen the boat launch and add two overlooks and a dock
   - Modify the planted edge
   - Orient visitors toward the river with defined entrances and circulation
   - Provide grassy beach and Charles River Reservation features in prominent locations.

PROJECT GOALS AND OBJECTIVES

3. **Enhance the natural experience at the Park (especially the Captain's Island/Powder Magazine area)**
   - Remove the broken wading pool and remove other visible utilities
   - Organize the pathway system
   - Minimize presence of vehicles by relocating parking
   - Prune, repair, and replace trees
   - Organize tables, benches, and other amenities around a central space
   - Include natural play features

PROJECT GOALS AND OBJECTIVES

4. **Build for a sustainable future**

   - Rejuvenate the tree canopy by removing declining trees and planting diverse species

   - Include storm water features that underpin the park with resilient elements such as rain gardens and pervious pavements

   - Incorporate smart infrastructure to allow for better maintenance such as irrigation, lighting, electrical conduit, and stabilized soils

   - Include a 10'-wide multi-use path along Memorial Drive for safer and more enjoyable walking, jogging, and cycling experiences (and more sustainable commuting choices).

PROJECT GOALS AND OBJECTIVES

5. **Integrate the pool with the park**

   - Create a grassy lawn where there now is pavement between the swimming pool and the river.

   - Incorporate landscape features including seating and planting along the pool fencing to buffer views of the fence and frame views from the pool to the river.

6. **Protect existing assets**

   - Organize new elements around existing trees and activities

   - Enhance existing passive activities such as expanding and opening the Powder Magazine terrace so that the structure can better serve as a venue for events and sunset watching.

CONSULTANT TEAM

Landscape Architect:
Crosby I Schlessinger I Smallridge, LLC
Boston, MA

Permitting And Environmental:
Epsilon Associates, Inc.
Maynard, MA

Civil And Electrical Engineering:
Garcia, Galuska, Desousa, Inc.
Dartmouth, MA

Surveyor:
Meridian Associates
Beverly, MA

Soil Scientist:
Pine & Swallow Environmental
Groton, MA

Geotechnical Engineer:
GEI Consultants, Inc.
Franklin, MA

Structural Engineer:
Hardesty & Hanover
Boston, MA

Site Furnishing:
Mitch Ryerson
Allston, MA

PROJECT OVERVIEW & WHAT WE'VE LEARNED

MEETING 1 PLAN – SEPTEMBER 2015

TOPIC	LIKES	DISLIKES	COMMENTS
FUNCTION/PLAN	Extent of project	Include Memorial Dr, overall project	Keep primary functions the same Consider night-time functions, food vendors, bathrooms
CIRCULATION/PATHS	Framework, parking	Path quantity, organization, hierarchy	Consider up/downstream paths
ENTRIES	Location pretty good	Need to be smaller, more subtle. Link to Magazine St	Consider noise, furnishing Consider a barrier at Magazine St
PLANTING/VEGETATION	Canopy, lawn, beach, invasives maintenance	Phase 1 River edge, invasives maintenance	Clarify maintenance, consider flood zone, marshes, other species
FEATURES	Terrace expansion, spray, umbrellas, parking	Minimize terrace, parking	Keep parking the same
UTILITIES		Need lighting, water source, power for performance areas	Irrigation and Park Maintenance

COMMUNITY INPUT - SYNOPSIS

TOPIC	LIKES	DISLIKES	COMMENTS
FUNCTION/PLAN	Overall plan is good	Need to include sports fields	
CIRCULATION/PATHS	Framework clarity	Make sure service vehicles at Magazine	Keep path inside the park
ENTRIES	Smaller entries are good	Pleasant St entrance too large	Include noise buffering elements
PLANTING/VEGETATION	Canopy rejuvenation View improvement at River	Any tree removal is unnecessary Don't replant the river edge	Work to diversify tree type/ages Clarify the planting plan
FEATURES	Diverse features	Changing Magazine Terrace	Develop spray feature now
UTILITIES	Including lighting	Power for performance increases noise	Specify and clarify plan, unclear
MAINTENANCE	3 year plan for trees	Need irrigation	

COMMUNITY INPUT - SYNOPSIS

Everyone's efforts showing results

DESIGN ELEMENTS

1. PATHWAYS
2. PARK ENTRANCES
3. PARKING
4. PERFORMANCE AREAS
5. PLAY AREAS
6. TERRACE AND PATIO
7. PICNIC
8. GRASSY BEACH
9. SPRAY AREA
10. DOCK
11. BOAT LAUNCH AND OVERLOOKS
12. LIGHTING
13. VEGETATION

dcr CNA CSS

MAGAZINE BEACH RESTORATION

PHASE 2 DESIGN DRAWING

CAMBRIDGE, MA 10.20.2016

OVERALL PLAN

PRIMARY AREAS

Pathways tie the park together – orienting visitors and defining spaces

PATHWAY FRAMEWORK

PUBLIC COMMENTS

1. Path should be 14’ wide with diverging 6’ paths that maneuver around obstructions
2. Kudos for rationalizing the pathway system and improving connections for the riverfront system. Wider roadway path with uniform 10’ and buffer is great. I strongly recommend moving the path inside the fence . . .
3. Make MULTIUSE path a dedicated safe, slow, mostly-WALKING PATH, safe for children and seniors. Bike commuters need more space: give them 2 lanes of Mem. Dr.

PATHWAY FRAMEWORK

Existing 5’ path

Path/parking connector

Existing path at beach

Shared use path dimension

Shared use path brings majority of travelers into the park, retains 5' road edge path

ROADWAY PATH

Stabilized stone dust path

Bituminous path with surface aggregate to match stone dust

RIVER PATH

Entrances

Parking

Riverfront Features

Play Elements

Performance Area

Powder Magazine Terrace

Picnic

INDIVIDUAL FEATURES

Entrances
Parking
Riverfront Features
Play Elements
Performance Area
Powder Magazine Terrace
Picnic

PARK ENTRANCES

PUBLIC COMMENTS

1. I like the lilly pad shaped entrances that announce the park. Also like the entrance furniture/seating suggestions and informational signage opportunities
2. We prefer the smallest "Design Alternative" for the intersection of the pathways at the base of the Mem Dr. footbridge… Perhaps this area could accommodate one or two benches as a meeting place. The low stone wall is an excellent idea. It may discourage crossing and block some sound.

PARK ENTRANCES

SIGNAGE AND RESERVATION MARKING

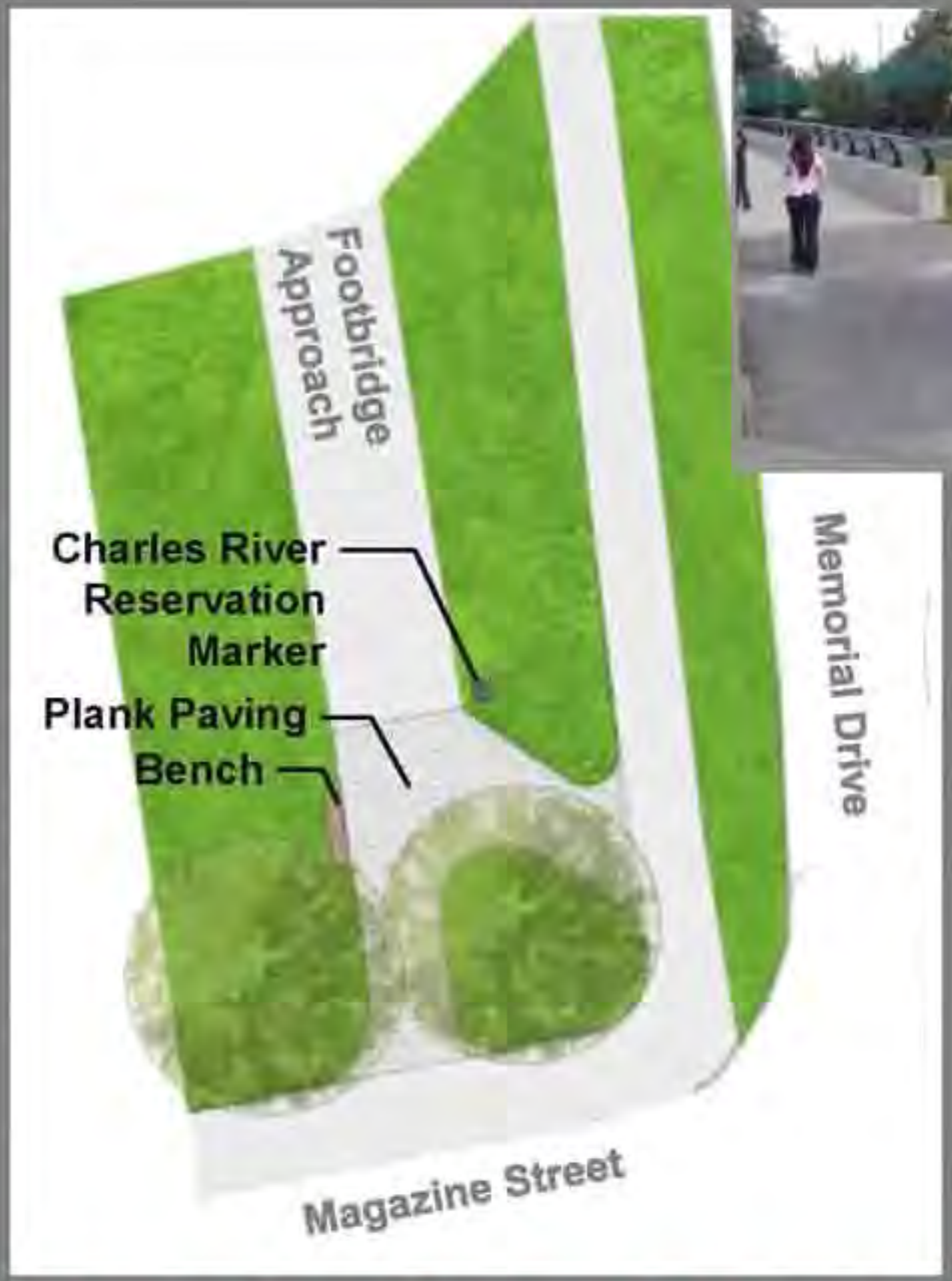
CHANGE IN PAVEMENT – PLANK PAVING

PLANTING – RAINGARDENS AND MEADOWS

PARK ENTRANCES – COMMON FEATURES

Plank Paving
Threshold
Reservation
Bollard
Pleasant St
Shared use path,
10' wide
Memorial Drive
Seating
Raingarden
Kiosk/Signage
Existing tree
Charles River

PARK ENTRANCE AT PLEASANT STREET



Existing entrance to footbridge

PARK ENTRANCE AT MORSE SCHOOL

PARK ENTRANCE FROM MAGAZINE ST FOOTBRIDGE

Rendering of proposed entrance feature.

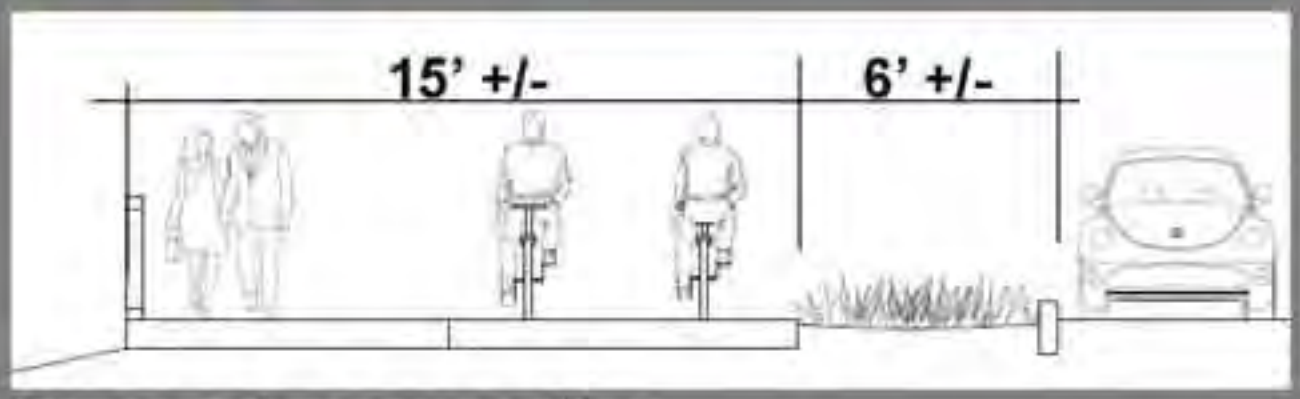
Layout on site
Note, existing declining oak will be removed.

PARK ENTRANCE FROM MAGAZINE ST FOOTBRIDGE

Rendering of proposed wall. 5' wide path traverses between wall and Memorial Drive

LOW WALL AT MAGAZINE STREET

Proposed plan



Proposed cross section

Existing entrance – no view to water

BROOKLINE STREET ENTRANCE

Entrances
Parking
Riverfront Features
Play Elements
Performance Area
Powder Magazine Terrace
Picnic

PARKING

PUBLIC COMMENTS

1. The entire area (Riverside BC) and parking needs to be defined.
2. Please focus on potential cyclist/pedestrian conflicts at driveways to parking...
3. ...the arrangement of paved surface area ...should be designed to maximize usable parking spaces while minimizing the total square footage of impervious surface

PARKING - WEST

Existing parking

Raised Driveway Crossing

Memorial Drive

Rain gardens

Riverside Boat Club

River Path

Accessible Parking

Permeable Pavers

Overlook Deck

Pool

PARKING – POOL AND BOATHOUSE

TRAILER PARKING – EXISTING BOATHOUSE

TRAILER PARKING – FUTURE BOATHOUSE

PARKING – BOATHOUSE ACCOMODATION

PUBLIC COMMENTS

1. Attention needs to be paid to structuring the intersections of driveways and paths with the safety of pedestrians and cyclists in mind.
2. Proposed changes to hardscape and parking at the Mem Drive turnout increase costs and restrict public access...Leave the turnout as is.
3. The small 'D' shaped parking plan works-there should be accommodations & available parking spaces for food trucks. There should be a handicapped accessible space.

PARKING - MAGAZINE ST

PARKING – Magazine Street

Signage at all crossings

Connected raingarden

Food truck space

Raised driveway crossings

Entrances
Parking
Riverfront Features
Play Elements
Performance Area
Powder Magazine Terrace
Picnic

CAPTAINS ISLAND FEATURES

PUBLIC COMMENTS

1. Trash and recycling receptacles must be installed and emptied regularly with additional pickups scheduled after events.
2. Future park events should have vehicular access to the Powder Magazine Area
3. Maintain existing passive / picnic uses.
4. Add grilling stations
5. Don't do anything without a tenant
6. Add bike rental stations such as Hubway
7. Add lighting
8. Not adding lighting that would encourage/attract uses that are likely to generate more noise.
9. Include 911 call boxes

Existing utilities

Aged pavements

Broken furnishings

CAPTAINS ISLAND FEATURES

Entrances

Parking

Riverfront Features

Play Elements

Performance Area

Powder Magazine Terrace

Existing Soccer Field

Existing Basin

Powder Magazine

PERFORMANCE AREAS

Large performance on site

Graded berm

Electrical bollard

Tree Basket
Log Way
Log Way
Powder
Magazine

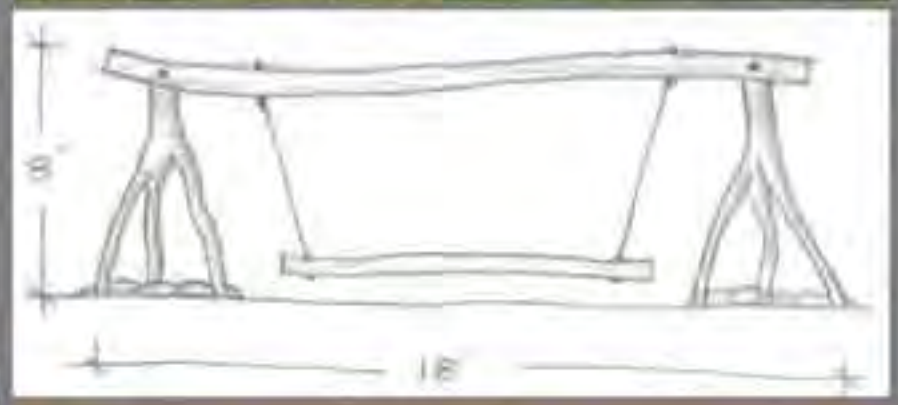
Log way

Tree basket motif and precedent image

PLAY AREAS

Zelkova grove

Netting "Nest"



2 Sided Swinging Bench

6- 8 Person Swinging Bench

PLAY AREAS

Existing parapet and retaining wall

Precedent grassy terrace with stone seating walls

TERRACE AND PATIO

Three regular, two double size tables

Existing tables

Accessible tables

PICNIC

Trash and recycling

Room for food trucks

Hot coal container

Drinking fountain / Bottle filler

PICNIC - TOOLS

MAGAZIN

MEMORIAL DRIVE

Pole Lights Along Interior Path

Conduit to Allow for Future Lighting as Needed

Powder Magazine

Example LED luminaire

LIGHTING

Entrances
Parking
Riverfront Features
Play Elements
Performance Area
Powder Magazine Terrace
Picnic

RIVERFRONT FEATURES

PUBLIC COMMENTS

1. Most of the docks, lookouts, kayak launch all look too small in plan view.
2. Terracing from the Powder Magazine looks too small…take advantage of the existing slope and turn the space into a small attractive amphitheater with westerly facing views.
3. Umbrellas – don't need them.
4. The design of the boat ramp should include an at-grade path leading into the river.
5. Manicured lawns such as the proposed "grassy beach" attract huge flocks of Canada geese, which produce large quantities of odorous and unsightly excrement … measures should be taken to discourage geese…such as installing visual and/or audio deterrents.
6. Include public education opportunities

Mowed invasives for regatta

Temporary regatta dock

Existing seating at river edge

RIVERFRONT FEATURES

Trees at pool fencing

Cambridge tradition!

Moveable beach chairs

Proposed Section

GRASSY BEACH

Ground spray example – kid actuated

Natural materials, low key water

Pool
Spray Deck
8' Path

4 season use

SPRAY AREA

Commissioners Landing Dock

Boat Launch and River Path

Existing boat launch, in use.

Weathervane

View to RBC and downriver

Proposed overlook – similar to Braille Trail, in Watertown, MA

BOAT LAUNCH AND OVERLOOKS

PUBLIC COMMENTS - SHORE

- While access to the water is crucial, being able to SEE the water is also very important. The high vegetation between the bathhouse and the playing fields prevent park users from seeing and enjoying the river. They need to be replaced by low growth vegetation and kept lower than hip width.

- I am concerned about the proposed trimming of the hedge along the water's edge. ..If the hedge is trimmed people will go into the tall grasses or rain gardens and the bird habitat in the hedges will be lost.

VEGETATION

PUBLIC COMMENTS - TREES

- I have zero issues with removal of trees in acknowledgement of the new ones will be planted in their place, aligning with the park's landscape vision and plan. This will result in a better, more durable, more organized park. Tree planting & removal are a simply necessity in advancing to a better park.
- Designation "invasive" is not an adequate excuse for removing a plant, especially if it's a mature tree, sequestering carbon, ... Replacement of such trees with saplings, 2-for-1 is the usual numbers game. To report previous public comment as "avoid taking too many trees" for this . . . misstates public concern…

VEGETATION

RIVER EDGE VEGETATION

Existing rushes at river

Riparian Edge – maintenance crew

Shoreline revisions at existing "Hedge" area.

RIPARIAN EDGE

Salt tolerant grasses,
Spartina alterniflora

Sedges

BEACH EDGE

NATURALIZED SHORE EDGE

BEACH EDGE PLANTING

SYMBOL	BOTANICAL NAME	COMMON NAME
cc	*Carex crinita*	Fringed Sedge
cs	*Carex stricta*	Tussock sedge
ep	*Eleochans palustris*	Spikerush
jc	*Juncus canadensis*	Canada Rush
je	*Juncus effusus*	Soft Rush
sa	*Scirpus atrovirens*	Green Bulrush
sc	*Scirpus cyperinus*	Woolgrass

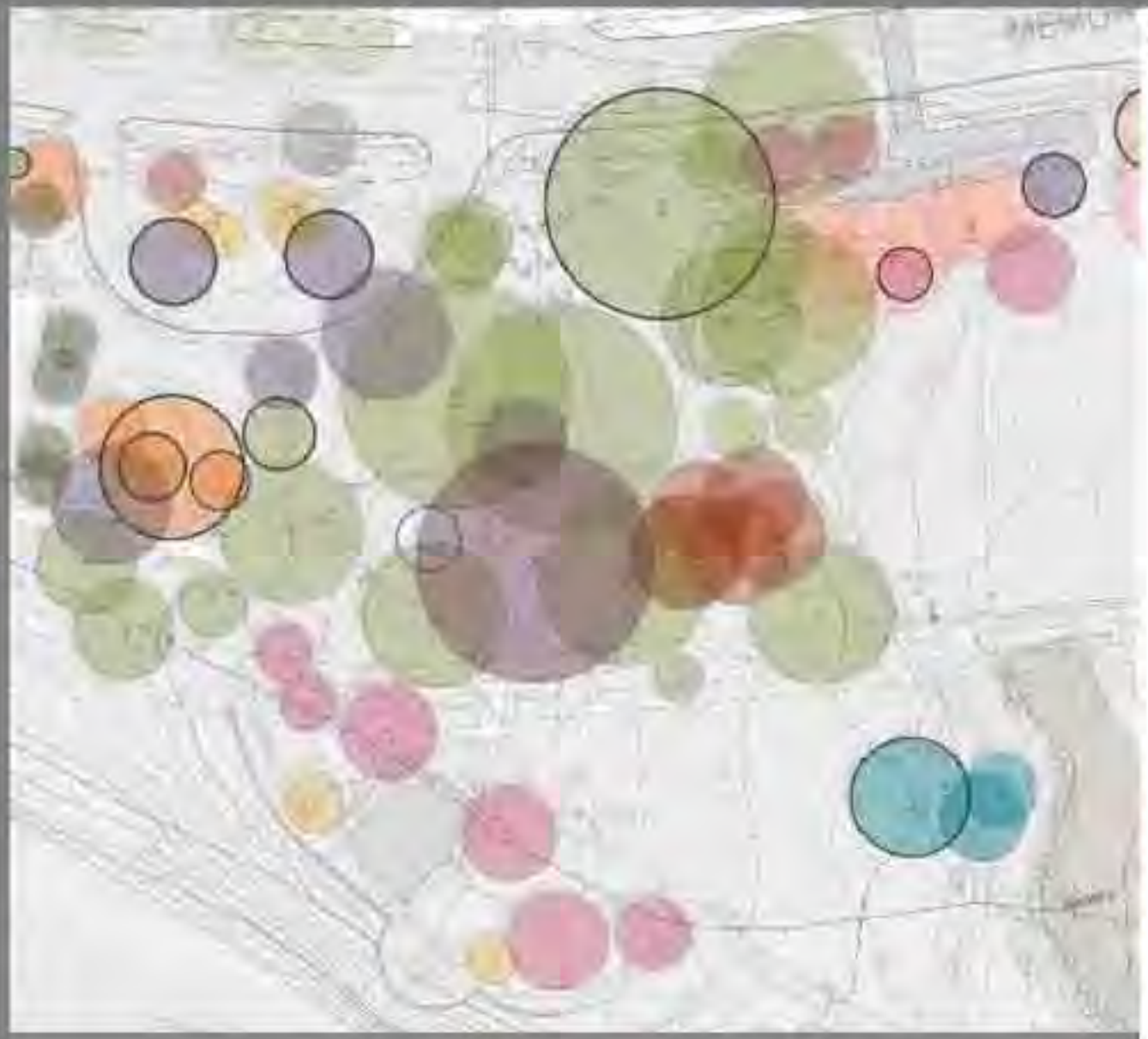
NATURALIZED SHORE EDGE

SYMBOL	BOTANICAL NAME	COMMON NAME
ai	*Asclepias incarnata*	Swamp milkweed
em	*Eupatorium maculayum*	Joe-Pye weed
Iv	*Ilex verticillata* "Winter Red"	Winter Red Winterberry
Rp	*Rosa palustris*	Swamp Rose
Sl	*Spiraea latifolia*	Broad-leaf Meadowsweet
St	*Spiraea tomentosa*	Steeplebush

RIVER EDGE EMERGENT

SYMBOL	BOTANICAL NAME	COMMON NAME
ap	*Alisma plantago-aquatica*	Water Plantain
iv	*Iris versicolor*	Blue Flag Iris
pc	*Pontedaria cordata*	Pickerelweed
[illegible]	*Peltandra virginica*	Arrow Arum

RIVER EDGE– WORKING PLANT LIST (PARTIAL)



OTHERS
ORNAMENTAL TREE
ASH
NORWAY MAPLE
HORSE CHESTNUT
WETLAND
LOCUST
LONDON PLANE
HACKBERRY
POPLAR
ZELKOVA
CHERRY
MAPLE
LINDEN TREE
UNKNOWN
OAK
PINE
OUTSIDE OF SCOPE
DECLINING

TREE CANOPY - SURVEY

DECLINING TREES

EXISTING TREE TO KEEP (APPROXIMATELY 154 OF 211)

EXISTING TREE TO REMOVE (57)

EXISTING DECLINING TREE (46)

MAGAZINE BEACH RESTORATION

EXISTING TREE PLAN

CAMBRIDGE, MA 10.20.2016

	Individual Trees	Annual Carbon Sequestration
EXISTING TREES	220 Approx	18.6 ton
TREES TO REMAIN	154 Approx	17.9 ton
TREES TO REMOVE	57	4.7 ton

Assumption: all trees have full size canopy including declining trees

CANOPY PLAN - REMOVALS

EXISTING TREE TO REMAIN (APPROXIMATELY 154 OF 231)

PROPOSED TREE (92)

MAGAZINE BEACH RESTORATION

PROPOSED TREE PLAN

CAMBRIDGE, MA 10.20.2016

	Individual Trees	Annual Carbon Sequestration: Construction	Tree Maturity
EXISTING TREES	220 Approx	32.6 ton	
TREES TO REMAIN	154 Approx	17.9 ton	
PROPOSED TREES	92	0.7 ton	16.3 ton
TOTAL TREES	244 Approx	18.6 ton	34.2 ton

Assumption: all trees have full size canopy including declining trees

CANOPY PLAN - INSTALLATIONS

TREES

	BOTANICAL NAME	COMMON NAME
A	*Alnus sp.*	Alder Species
AB	*Amelanchier x 'Autumn Brilliance'*	Autumn Brilliance Serviceberry
AR	*Acer rubrum*	Red Maple
AS	*Acer sacharinum*	Silver Maple
AU	*Acer saccharum*	Sugar Maple
BN	*Betula nigra*	River Birch
GD	*Gymnocladus dioicus*	Kentucky Coffee Tree
GT	*Gleditsia tr.inermis Halka*	Halka Honeylocust
HT	*Halesia tetraptera*	Mountain Silverbell
JV	*Juniperus virginiana*	Eastern Red Cedar
KP	*Koelreuteria paniculata*	Golden Rain Tree
LL	*Larix laricina*	American Larch
LS	*Liquidambar styraciflua*	Sweet Gum
LT	*Liriodendron tulipifera*	Tulip-tree
NS	*Nyssa sylvatica*	Black Tupelo
OA	*Oxydendron arboreum*	Sourwood
PA	*Platanus x axenfolia 'Bloodgood'*	Bloodgood London Planetree
QB	*Quercus bicolor*	Swamp White Oak
QC	*Quercus coccinea*	Scarlet Oak
QR	*Quercus rubra*	Red Oak
SA	*Salix alba 'Tristis'*	Golden Weeping Willow
SM	*Salix matsudana*	Corkscrew Willow
TC	*Tilia cordata 'Glenleven'*	Glenleven Littleleaf Linden
UM	*Ulmus americana 'Valley Forge'*	Valley Forge Elm
UM	*Ulmus americana 'Princeton'*	Princeton Elm

Proposed Tree List

CANOPY PLAN – WORKING TREE LIST

Rain Garden
Grassy Beach
Lawn
Picnic Lawn
Performance Lawn
Basin Meadow
Pruned Existing
Naturalized Shore
Emerging Sedges

GROUND PLANE - INSTALLATION

SHRUBS

	BOTANICAL NAME	COMMON NAME
Aa	*Aronia arbutifolia 'Brilliantissima'*	Brilliant Chokeberry
Ca	*Clethra alnifolia 'Hummingbird'*	Hummingbird Summersweet
Cs	*Cornus sericea 'Baileyi'*	Bailey's Red Twig Dogwood
Hi	*Hamamelis x intermedia 'Arnold Promise*	Arnold Promise Witchhazel
Hv	*Hamamelis virginiana*	Common Witchhazel
Ig	*Ilex glabra 'Nordic'*	Inkberry
Iv	*Ilex verticillata 'Sparkleberry'*	Sparkleberry Winterberry
Lb	*Lindera benzoin*	Spicebush
Vc	*Vaccinium corymbosum*	Highbush Blueberry
Vd	*Virburnum dentatum*	Arrowwood Virburnum
Vr	*Virburnum rhytidophyllum*	Leatherleaf Virburnum

STORMWATER GARDENS (RAIN GARDENS) - INTERIOR / IRRIGATED

SYMBOL	BOTANICAL NAME	COMMON NAME
ai	*Asclepias incarnata*	Swamp Milkweed
iv	*Iris versicolor*	Harlequin Blueflag
lc	*Lobelia cardinalis*	Cardinal Flower
ls	*Lobelia siphilitica*	Great Blue Lobelia
cp	*Caltha palustris*	Yellow Marsh Marigold
cl	*Carex Lupulina*	Hop Sedge
cr	*Carex lurida*	Shallow Sedge
cs	*Carex scoparia*	Broom Sedge
cg	*Chelone glabra*	White Turtlehead
mr	*Mimulus ringens*	Allegheny Monkeyflower
sc	*Scirpus cyperinus*	Woolgrass
vh	*Verbena hastata*	Swamp Verbena
ac	*Aster cordifolius*	Blue Wood Aster
al	*Aster laevis*	Smooth Blue Aster
em	*Eupatorium maculatum*	Joe-Pye Weed
ep	*Eupatorium perfoliatum*	Common Boneset

GROUND PLAN – PARTIAL RAIN GARDEN AND SHRUB

CANOPY AND TURF REJUVENATION – TURF PLAN

Primary Sun/Shade Turf Zone

Primary Infiltration Zone

RAINGARDEN

GRASSY BEACH

LAWN

PICNIC LAWN

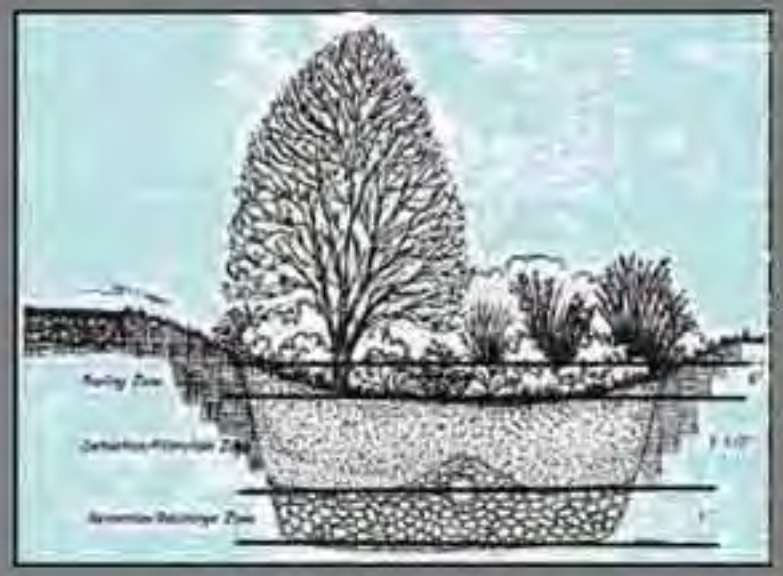
GROUND PLANE - MATERIALS

PERFORMANCE LAWN

WETLAND

MEADOW

GROUND PLANE - MATERIALS



GROUND PLANE - MAINTENANCE

PICNIC TIME!

NEXT STEPS

- SCHEDULE
  - BID DOCUMENTS COMPLETE — WINTER 2016
  - PERMITS — SPRING 2017
  - CONSTRUCTION BID — SPRING-SUMMER 2017
  - CONSTRUCTION – POSSIBLY PHASED — 2017-2018
- FUNDING
  - PENDING FUNDING
  - PROJECT ESTIMATED AT $4-5M
- COMMENTS

MAGAZINE BEACH RESTORATION

PHASE 2 DESIGN DRAWING

CAMBRIDGE, MA 10.20.2016

OVERALL PLAN

Additional Information

For more information:
[illegible]

If you have questions or concerns, or wish to subscribe to a DCR general information or project-specific **listserv:** contact DCR's Office of Community Relations at 617-626-4973 or [illegible].