Charles River Pathways

Dr. Paul Dudley White Bike Path

Museum of Science to Watertown Square

Analysis of the South Shore
with conceptual design Proposal

Charles River Conservancy
August 2006
Prepared by Ofri Gilan

“The mission of the Charles River Conservancy is to make the parklands more active, attractive and accessible for all”.

Improving the 17 miles of pathways along the shoreline will make it safer and easier, thus encouraging increased use for commuting and recreation. This report gives an overview of the current state of the southern shore, lists recommendations, shows examples from elsewhere and illustrates potential underpasses.

Section Analysis

Overview

Section A- Galen St. bridge to Nth Beacon St. bridge

Section B- Nth. Beacon St. bridge to Arsenal St. bridge

Section C- Arsenal St. bridge to Eliot bridge

Section D- Eliot bridge to Weeks footbridge

Section E- Western Ave bridge to River St. bridge

Section F- River St. bridge to BU bridge

Section G- BU bridge to Harvard bridge

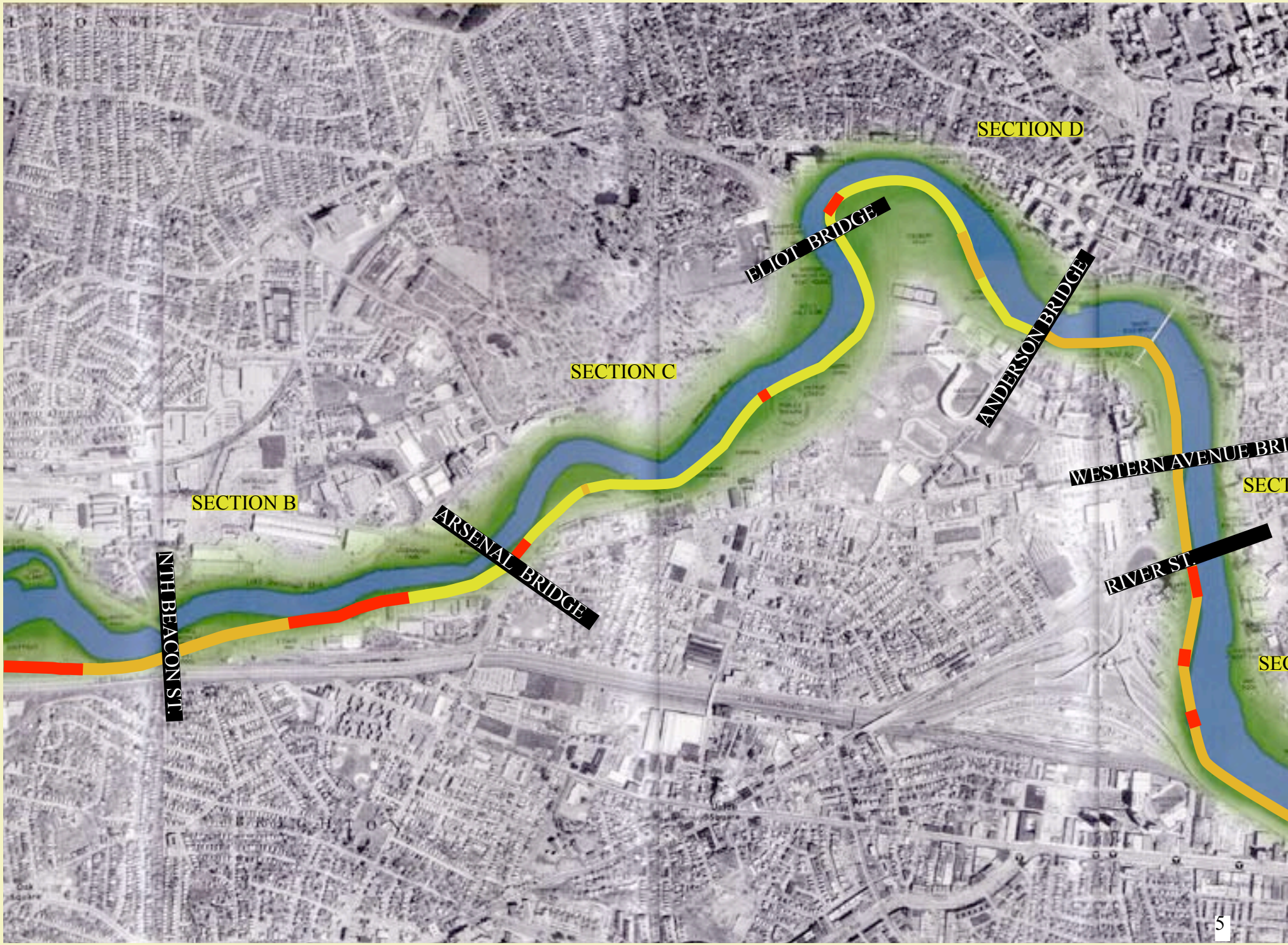
Section H- Harvard bridge to Longfellow bridge

Section I- Longfellow bridge to Craigie bridge

Good

Fair

Poor


SECTION D
ELIOT BRIDGE
ANDERSON BRIDGE
SECTION C
WESTERN AVENUE BRI
SECT
SECTION B
ARSENAL BRIDGE
NTH BEACON ST.
RIVER ST.
SEC


CRAIGIE BRIDGE
SECTION I
LONGFELLOW BRIDGE
SECTION H
HARVARD BRIDGE
SECTION G
BU BRIDGE
DGE
TION E
CTION F

Section A

Galen St. Bridge
to North Beacon St. Bridge

Narrow path immediately adjacent to the road

Dangerous Intersection:
Blindspot due to height of vegetation and angle of intersection; No pedestrian traffic light

Avenue of root heaves

Alternative route created by cyclist providing a safer option to the paved path

Masterplan P.160 (1 of 2)

Goals

• Improve pedestrian safety and experience along Nonantum Road.

• Open views to the river.

• Increase the riverbank width where possible.

Recommendations

• Relocate Nonantum Road to the south to create more open space next to the river if the MBTA bus yard at Galen Street becomes available.

• Eliminate one eastbound lane of Nonantum Road between Galen Street and Charlesbank Road. Widen the pathway to a ten-foot multiuse path. Provide a six- to eight-foot planting strip with a continuous row of street trees to protect and separate the path from the parkway.

• Eliminate guardrails made obsolete by this additional setback from the embankment. Where guardrails are necessary, use the recommended MDC standard to blend well with the landscape.

• Establish a new pedestrian bridge in the vicinity of Maple Street or at the bend in the river where long views are afforded in two directions. This new bridge would shorten the walking loops in the Upper Basin and mark the transition from the open boat basin to the narrow river channel at Watertown Square. The bridge design must reflect the special character of the Charles River Basin.

• Add a pedestrian phase to the existing signal at Galen Street and place a pedestrian crosswalk across Nonantum Road.

• Establish and maintain scenic vistas at bends in the Charles to capture long views up and down the river.

• Develop a memorandum of understanding with abutters including the Massachusetts Turnpike Authority, the Perkins School for the Blind, and the Arsenal development group—that supports maintenance of the wooded banks on the landside of the parkways that give the Upper Basin its rural feel.

Master plan p.158 (2 of 3)

Goals

• Establish safe pedestrian connections to the Basin, along the shore, and between Squibnocket Park, the Watertown Front, and Daly Field.

Recommendations

• Install new pedestrian signals at Charlesbank Road and at the east side of the intersection of Nonantum Road and North Beacon Street.
Add a pedestrian phase to the existing traffic signal on the west side of that intersection.
Add a crosswalk across Nonantum Road in front of the Newton Yacht Club and align the crosswalk, signal, and handicapped ramp at the intersection of Nonantum Road and Brooks Street.

• Set the paved pathway further back from Nonantum Road to provide a more suitable environment for parkway trees and to protect people on the path more fully from traffic.

Replace the missing oaks next to the path and establish a second row further back from the roadway to define the pathway.

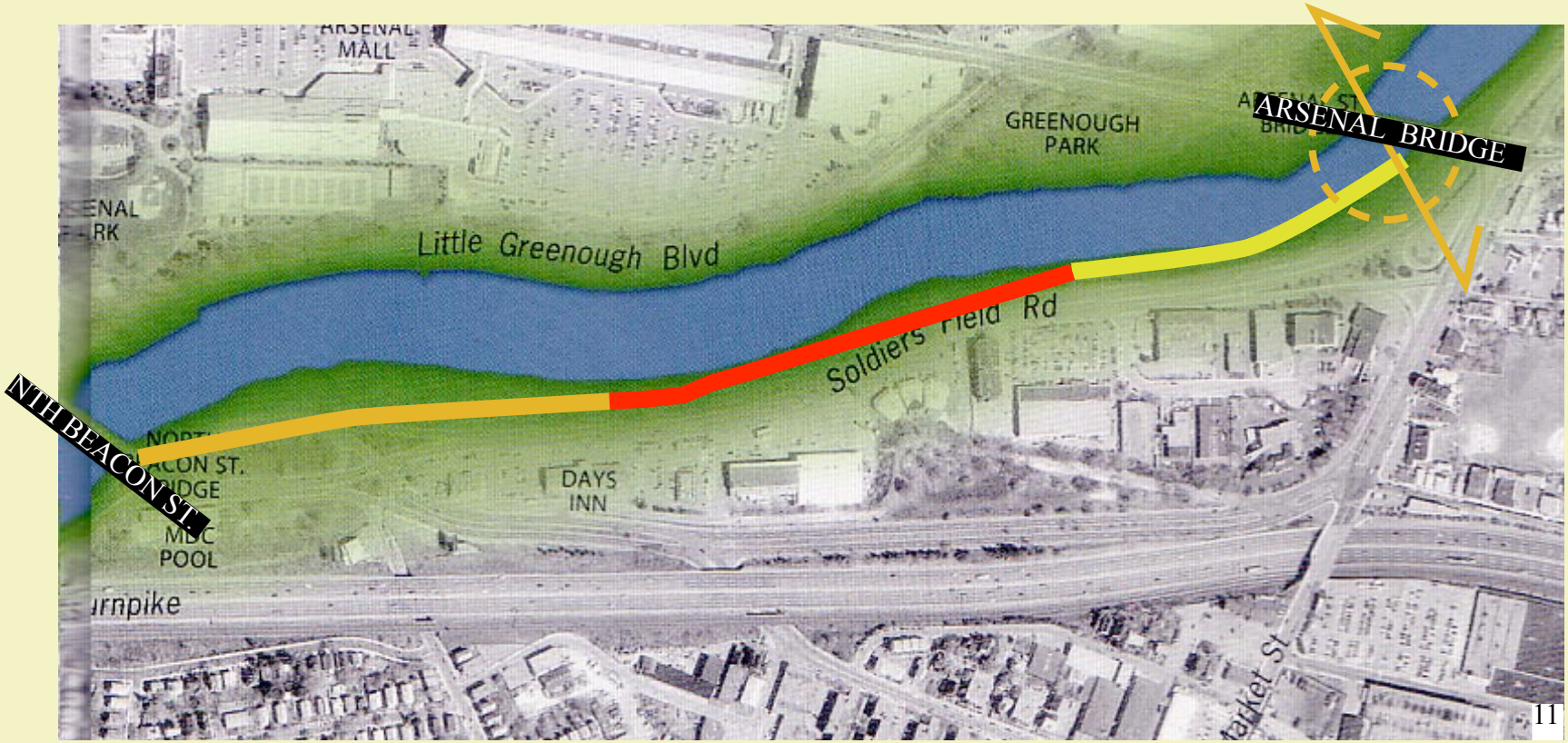
• Establish a soft path set back from the water's edge for walkers and joggers with clear views of the river. Ensure a public right-of way in front of any future boating facilities.

Hazards on bike path along Nonantum Rd.

Hazards on bike path along Nonantum Rd.

Section B

North Beacon St. Bridge to Arsenal St. Bridge



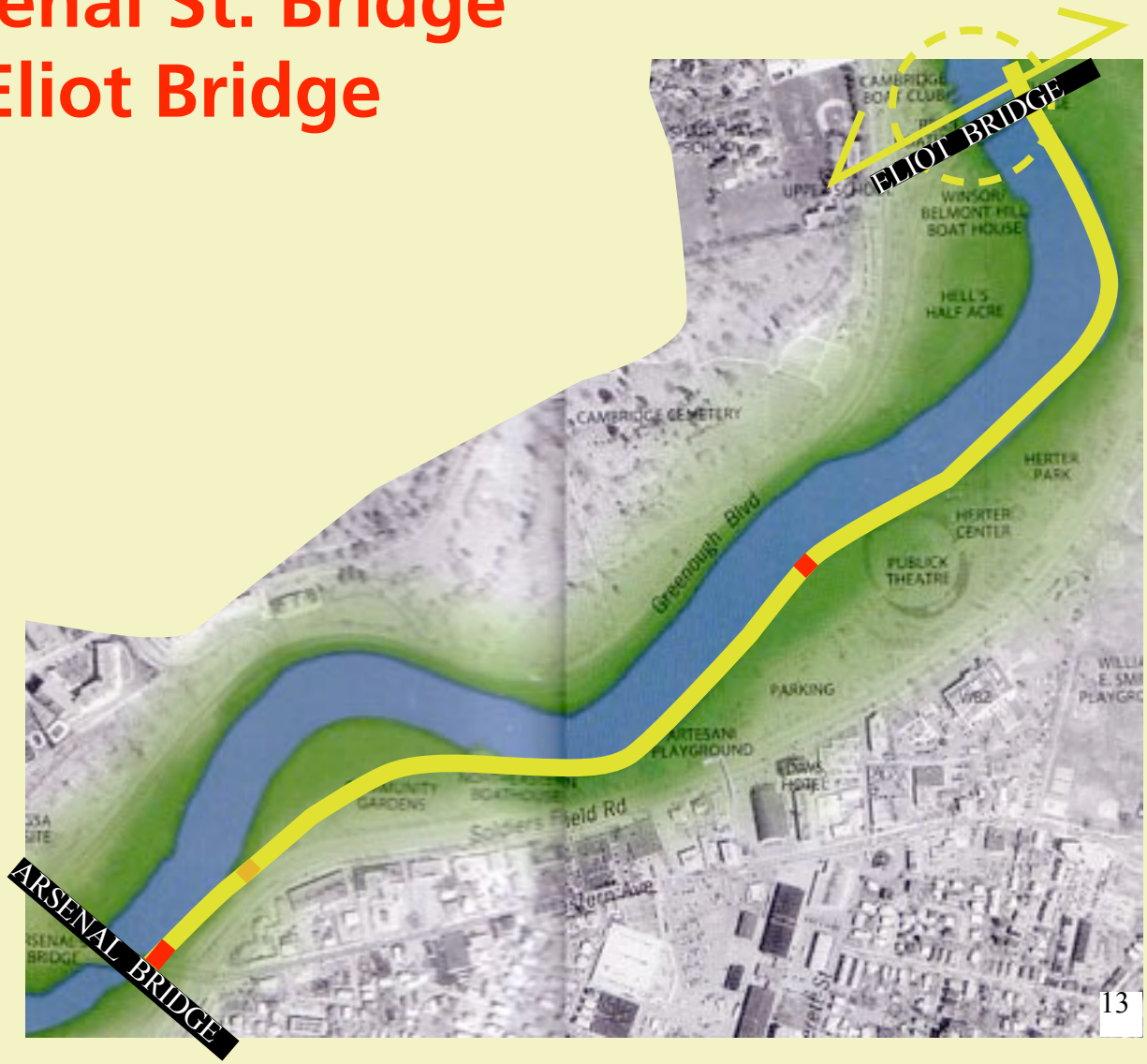
Surface has much root damage and vegetation intrudes into path.

Dangerous Intersection:
Blindspot due to height of vegetation and angle of intersection; No pedestrian traffic light; ramp is broken

Arsenal St.
Blind spot when approaching the bridge

Section C

Arsenal St. Bridge to Eliot Bridge



Sink hole, opposite Northeastern University boat house

Board walk bridge near Publick Theatre is slippery when wet.
Transition from the asphalt is rough

Surface humps along this section of the path.

Parking lot is used to store dumpsters, hay bales and composing materials, blocking the path entrance.

Alternative Solutions

Picture courtesy Christopher Porter

Tunnel under the Boston end of the Eliot Bridge, looking upriver toward Christian Herter Park

Since the tunnel does not drain, a raised deck would help, particularly the in-lie skaters and the pedestrians to use underpass even after rain.

opening the side of the tunnel
will increase light exposure and
improve its drainage capabilities

Eliot Bridge - proposal

Examples Bicycle Underpasses

Melbourne, Australia

Melbourne, Australia

This example shows how to make a new pedestrian/ cyclists underpass underneath an old bridge structure and along the water's edge

Pathway along the water's edge has arches open to the water, allowing natural light to reflect off the water and increase visibility and thus security

Providence, RI.

Section D

Eliot Bridge to Weeks Footbridge

Weeks' pedestrian bridge could be improved by building a ramp to allow wheels' use. Little ramp strips to allow bike access.

On the way up to Anderson bridge, path narrows and it is blocked by a pole. The path could potential be tucked under the bridge

The view to the river is blocked by the high vegetation

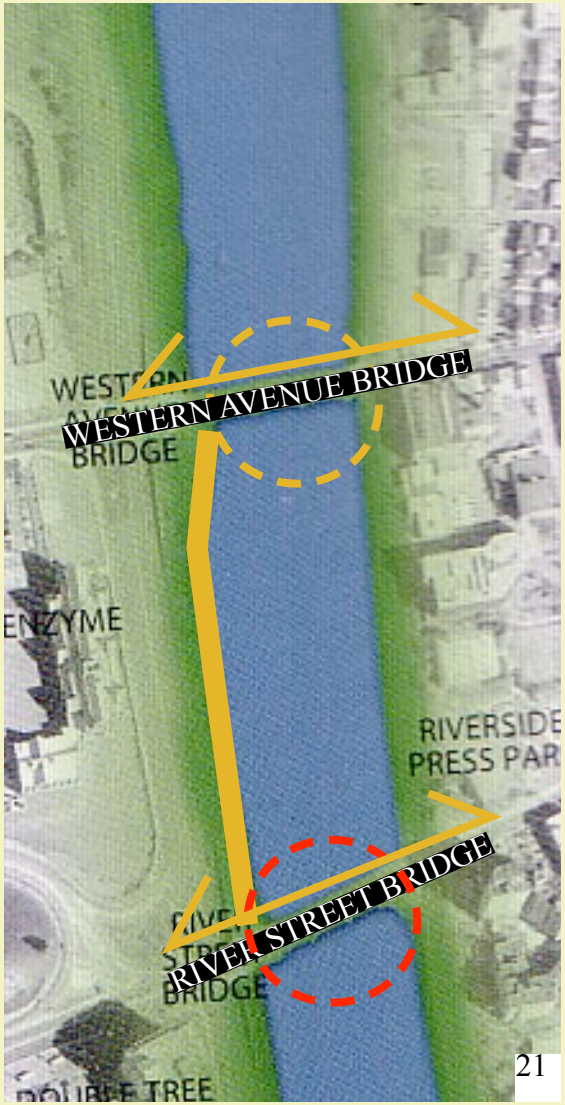
Anderson Bridge, narrow path and tight curve

Section E

Western Avenue Bridge to River St. Bridge

The River St./ Soldier Field Road intersection lacks any safe pedestrian crossings in any direction. Though there are crosswalks, there are no pedestrian signals nor any pedestrian signal phases (designated, safe times to cross the road). The 1965- vintage traffic signals have no “walk” signal of any sort. All intersections involve sharing the right of way.

What is needed here is a sharing of the road that gives a fair shake to pedestrians and cyclists, in-line skaters, and joggers. With the expected increase in pedestrian use (due to the Harvard/ Allston development project), this intersection poses as a serious liability for the Department of Conservation and Recreation (DCR).
Of particular concern is the crossing at the River Street Bridge. As the weakest link in the Dudley White Pathway, it is affecting the strength of the path as a whole.
(River St. report)



River St. bridge zebra crossing is not aligned with the ramp; no pedestrian crossing light.

Corner stone is broken; lack of ramp

Very narrow path

Blind spot at River St. bridge

Vegetation is blocking the view to the water

Proposed underpass at Western Avenue

An underpass will assist cyclists to avoid dangerous intersection.

Examples from Melbourne, Australia

Bicycle path is tucked between the freeway and the river-bank.

Section F

River St. Bridge to BU Bridge

Great underpass

Pedestrian crossing should accommodate ramp for wheel access

Very narrow path, very close to the road

When approaching the BU bridge from Cambridge. The path is accessible only by riding along commonwealth Avenue and re-crossing Storrow Drive at the overpass without a bike ramp.

p. 118 Master plan

Improve the continuity and safety of movement along and across the river.

Use the abandoned half of the Grand Junction Railroad Bridge to provide pedestrian and bicycle access between the north and south banks of the reservation. A multiuse path for foot and wheeled traffic would occupy the unused side of the bridge bed, and the active rail line would be securely separated from this pathway. Build an earthen embankment ramping up to the railroad bridge from the upstream approach on the south side. If the roadbed can not be used, cantilever the pathway off the railroad bridge on the upstream side. Establish connections in four directions.on the north bank

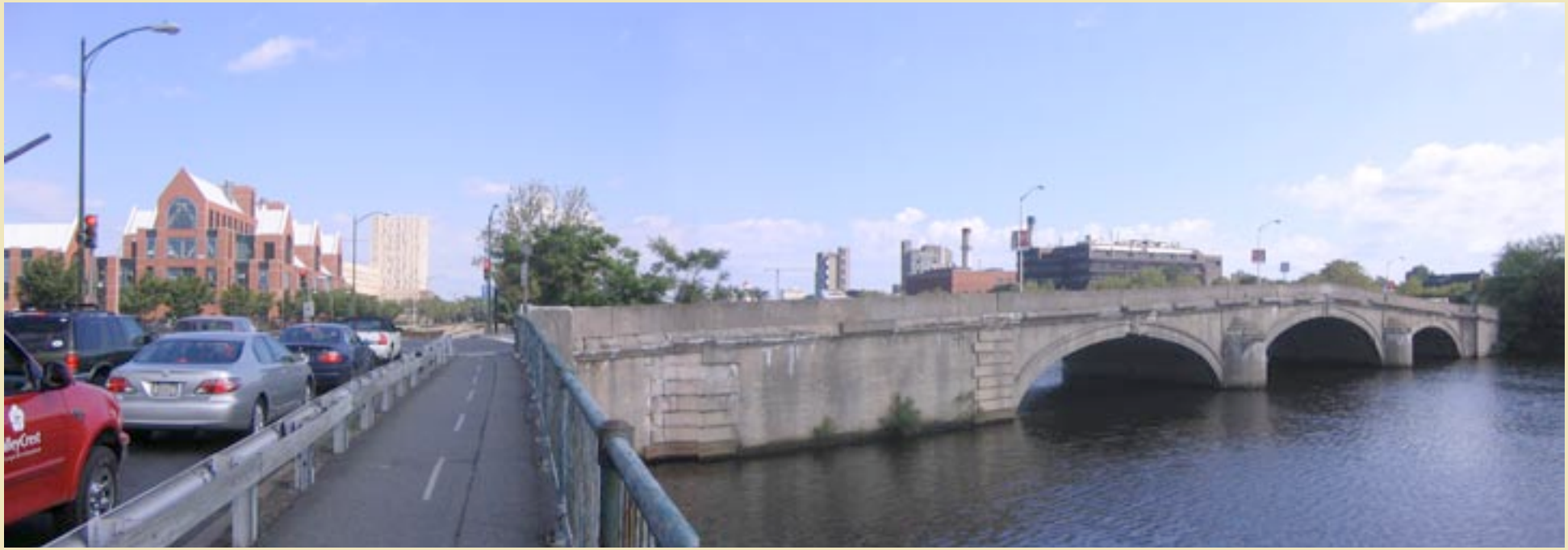
• In the event that active use of the rail lines is discontinued, connect Boston University's athletic fields and the Beacon rail yards directly to the Basin. Future development of the parcel fronting the approach to the Boston University Bridge also would provide an excellent opportunity for a direct connection to the river.

• Future rebuilding of the Boston University Bridge should provide pedestrian overlooks to take full advantage of the views up and down the river.

Goals

• Provide a better buffer between traffic and pedestrians.
• Widen the path approach to the River Street Bridge by means of a cantilevered structure, if necessary, and provide smooth continuous pavement.

Masterplan p.123

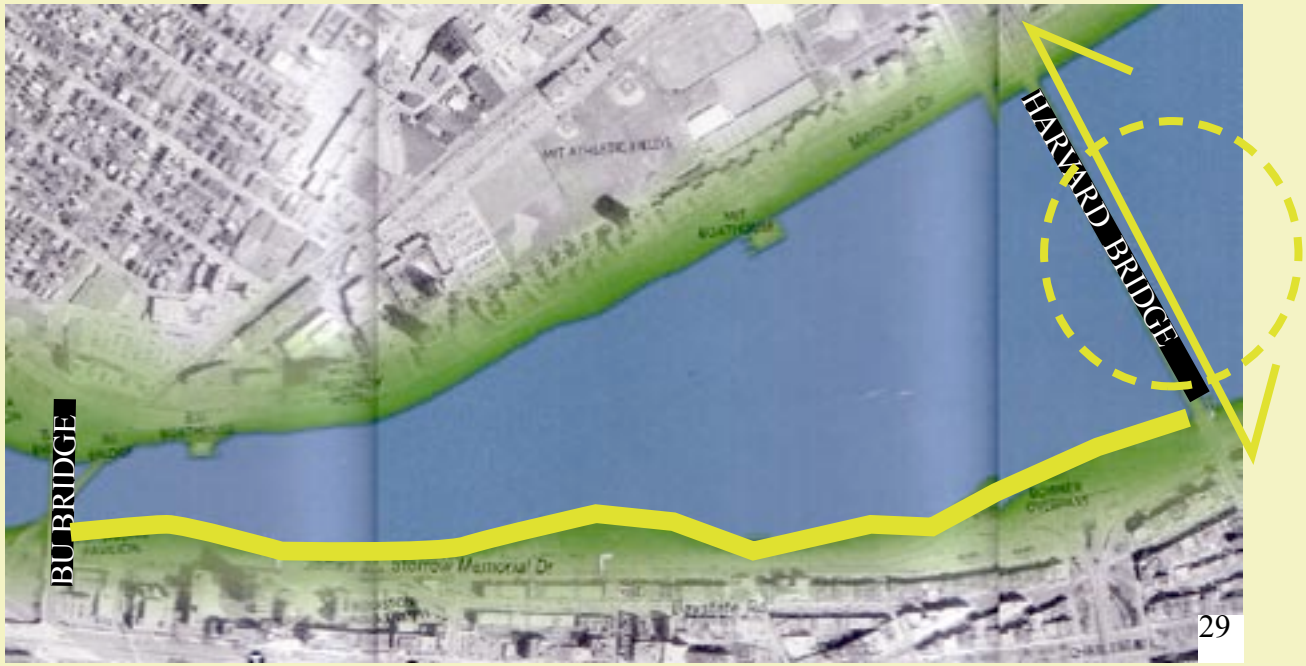


Existing condition of River St. Level crossing

Proposal for River St. underpass

Section G

BU Bridge
to Harvard Bridge



Great pathway with an alternative path for wheel free use

Perfect ramp connection to Harvard bridge from bike path

Perfect underpass under Harvard bridge

This ramp connects the bike path and Back Bay

Section H

Harvard Bridge
to Longfellow Bridge

Great overpass. It is difficult to find the way to this overpass and the river from Back Bay

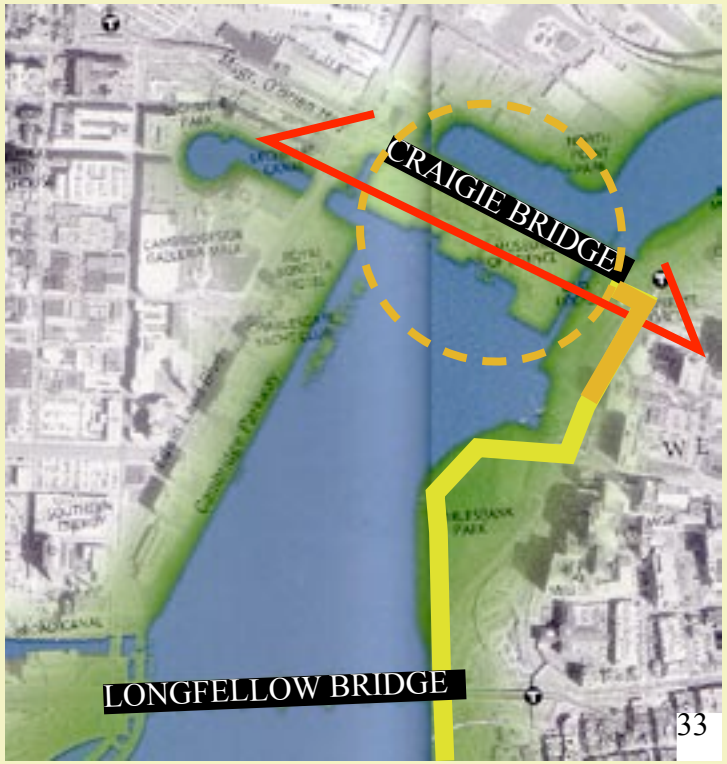
Sign honors initiator of bike path

Pleasant ride

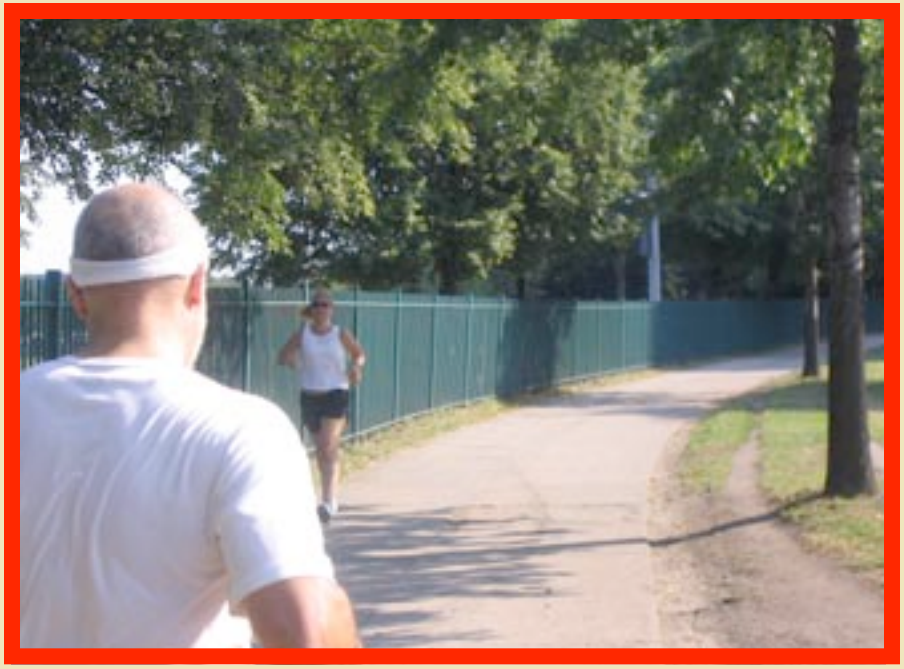
Great pathway

Section I

Longfellow Bridge to Craigie Bridge



Nice shoreline ride



Narrow path adjacent to the road

Proximity to a busy road makes the ride unpleasant. Explore pathway along water edge

Priorities

Top priority
Second top priority

Intersections

River St
Galen St.

Western Avenue
North Beacon St.
Arsenal St.
Anderson
Craigie

Connections

BU bridge
Longfellow bridge
Craigie bridge

Galen St. bridge
North Beacon St. bridge
Arsenal St. bridge
Anderson bridge
Weeks footbridge
Western Ave. bridge
River St. bridge

Pathway surface

Section A
Section B
Section F (parts)

Section E
Section F
Section I (near Craigie)

To learn more about the Charles River Conservancy's work or to add input to this effort visit their website: www.thecharles.org

Credits

Thank you for your help:

Chris Porter- Charles River Path Report

MassBike

John Allen- Pathway pictures

Kol Peterson (River Street report, on CRC website)

CRC volunteers

MDC masterplan (on CRC website)

Peter Munkenbeck- General advice

Andrew Brophy- Melbourne pictures