PEQUOSSETTE RIVERWAY
Design Visions for the Urban River Edge
Watertown, Massachusetts
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Submitted to the Department of Architecture in partial fulfillment of the requirements for the degree MASTER OF ARCHITECTURE at the Massachusetts Institute of Technology.
February 2000

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The thesis of this project is to activate and connect both sides of the Charles River for the community of Watertown. As of today, there has been a great deal of work to improve the recreational path linking Boston and Cambridge through Watertown to Waltham, Newton, and Weston. Nevertheless, the heavy car traffic of Watertown Square prohibits most of the community from engaging the river. Moreover, the people of Watertown need a place to gather and interact. This project will also provide a platform to receive visitors and performers from outside.

The site selected to remedy this situation exists across the river from Watertown Square, and is currently isolated on three sides by roads and dominated by a vacated MBTA bus storage barn. The site’s existing auto road, Nonantum Road, now abutting the river’s edge, will be relocated to a widened existing Water Street to accommodate traffic. This change will result in a large gain of waterfront access for the town. Since the MBTA busses are no longer stored at this location, the bus barn will be razed to make way for a new complex. This new cluster of proposed buildings will secure a variety of inhabitable green parkland with outdoor performance pavilions, seating for individuals or groups, boat landings, and a promenade through the park. In addition, two new footbridges will physically link the site to the other side of the riverbank allowing residents to cross the river without encountering the dense vehicle traffic of the existing bridge.
I would like to thank Amy for all of her love and support
before and during my studies at MIT, and now for our new married life.
Also, I would like to thank my Mom and Dad, for all their confidence, love, and strength from birth,
and Fernando Domeyko, for his caring, wisdom and friendship.
The Town Seal, designed by Charles Brigham, architect.
# Table of Contents

- Introduction 9
- Site 10
- **Design**: Initial Moves and Massing Studies 18
- **Program**: Development and Diagrams 22
- Final Model 24
- Architectural Elements 26
- Architectural Drawings 32
- Cut-Away Section Perspectives 40
- Renderings 42
- Walk-Through Animation Stills 50
- Summary 57
- Bibliography and Illustration Credits 58
- **Appendix A**: Historical Maps of Watertown 60
Upper Charles River Reservation
Introduction

The town of Watertown, founded in 1630, has a rich and varied history that continues to evolve. As a settlement, its identity first changed from "a frontier enclave to an agricultural center, then becoming a center for mills and manufacturing, and finally a densely populated residential bed- room community for Boston. The first known inhabitants of the region were the Pequosette Indians. This tribe cultivated corn in the marshy fields along the riverbanks and netted herring at the falls where the Watertown Dam now stands." (O’Hearn, Michael, Watertown-Cradled by the Charles)

Today, Watertown Square is known primarily as a traffic intersection with little street life during the day and especially at night. There are several well-known restaurants in the area, but few places to gather and enjoy any other activities. However, Watertown now has a great opportunity to strengthen its cultural identity by developing a lively civic gathering place along the Charles River. Reclaiming this valuable waterfront land with relocation of part of the Nonantum Road and the razing of the vacant MBTA bus barn will make way for the following design proposal. This proposal will include an inviting complex with parkland and an outdoor plaza that will help define the center of town. For the residents of Watertown two footbridges linking the two sides of the riverbank will make pedestrian access a priority.

The implementation of this design seeks to enhance civic pride for the people of Watertown while countering the problem of isolation. Advancements in technology and communications have enhanced the opportunities in the global exchange of ideas and information; however, with less human interaction there has been a corresponding isolation of individuals, neighbors and a consequent lack of positive communal experiences. With the Internet and other virtual space blurring the line of workplace and home, it is important that public space be well designed so that communities have a place where they can interact. These spaces need to be accessible to all.
IZZ
CHARLES RIVER
EXISTING OPEN SPACE
HEAVILY TRAVELED AUTO ROADS
PROPOSED SITE
Corresponding site images on opposite page.
1. View from existing dock across river towards proposed site.

2. Existing Nonantum Road to be relocated and replaced by waterfront park and pavilions.

3. Existing vacated MBTA bus barn.

4. Existing MBTA drivers' lounge and bus queuing area.
5. Vacant MBTA bus barn viewed from across the river.

6. View from Charles River Road across river towards site.
7. Activity on the river with existing bus barn in the background.

8. Image of new boat line from coming Cambridge which currently turns around one half mile before site.

9. View from existing dock across river with Watertown Square beyond to the right.
Extended View of Charles River
Relocation of Nonantum Road

As seen in the image on the left, the initial design move of relocating part of Nonantum Road to Water Street provides the site with a large waterfront edge. Previously, the existing road made pedestrian access to the site difficult and crowded the recreational path abutting the river.
Initial Massing Studies

Block massing models were used to study the context of the site which includes the heavy traffic volume of Galen Street and the possibilities of activating both sides of the river. The program of several small theaters and cinemas sis represented by the block volumes along the edge of the river. The sketch below conveys the idea of cinema space below with outdoor seating above for small performances. The massing along the street edge was designed to block out visual and noise distractions from vehicle traffic. As the program developed the volumes in the landscape were gradually condensed to share lobby space and services.
The sketch above portrays a figure viewing the open plaza from the outdoor stage.

This diagram shows the preliminary arrangement of (1) an outdoor stage, (2) an open air plaza and (3) a large cinema volume.
Section Study

The original section drawing at the bottom of the page shows desired activities in the park and along the river. Within the building suspended cinema volume with seating and performance platforms face the river. A deployable screen for films will be lowered for the audience inside. Café and reading spaces will also be connected to the park at the lower level.

The visual and acoustic requirements for a cinema resulted in this initial scheme, which is also seen in the sectional sketch above on the right, to be changed to that of the image on the left providing a permanent screen abutting the street edge. Platforms used to enter the cinema will then allow views along the river that are not possible at ground level.
Plan Sketches

The location of the cinema screens and general program massing was also dealt with in the plan sketches above. Entry and shared lobby space for several cinemas was investigated. The idea of a restaurant along the river also came into play. The restaurant will provide views of the activity both in the park and along the river. The requirement of a commuter-parking garage for the MBTA bus lines was another component of the program massing.

Finally, the cinemas became aligned along the Water Street edge of the site providing a continuous park promenade along the river. Several small pavilions, a main stage, and boat landings will then provide places for public activity in the park. The transverse section below reveals the activities within the main building and how they engage the park and the river.
Program

To bring life to the site during the day and at night, the developed program includes three movie cinemas, a riverside restaurant, a café along the park's promenade, retail and exhibition space, and a small plaza for visiting performance artists where films can also be shown during the summertime. An additional building, presented as the large rectangular building mass in its preliminary design, contains the required 450 commuter parking spaces and a health club facility, which takes full advantage of the river's recreational path. The necessities of the MBTA bus line have been met with a bus turnaround and queuing location that abuts the garage and is separated from the active plaza. A lounge for the bus drivers at the end of their route is connected to the garage with a view along Water Street and towards the end of the park.

At the ground level of the cinema building, retail space with views through to the park and river, a newsstand, and a covered waiting area for the MBTA bus line will seek to create an active streetscape for the urban edge. Above this activity, billboard advertisements will occupy the back surface of the suspended cinemas projecting out towards the neighboring car dealership and Galen Street. Meanwhile, the building's cinema lobbies, suspended interior viewing platforms, and café engage the river side of the site.
Final Model

In the site model, the urban context of Watertown is represented by modeled contours with the existing aerial image of Watertown in black and white. The open green space along the river, including the proposed site, is represented by corrugated cardboard.
Architectural Elements

Vertical, horizontal, and volumetric elements are used to make the shorter dimension of the site, from Water Street to the river, appear wider. Columns, half height walls, stair volumes and concrete pavilions in the landscape are put into play to begin to divide up the space. Each element has a relation to the other components. When a person occupies the lower landing of an interior stair, he or she may look outside and see the a similar dock like pavilion on either side of the riverbank.
A column and its relation to another column, tree trunk, or person begins to activate the distance between the two objects. Meanwhile, the half height walls provide a place to be other than the center of the lobby. Also, the openings of the half height walls become thresholds that are passed when entering a different space.

The hand drawn image on the opposite page shows how a pavilion might be occupied. The plan image above graphically reveals how the pavilions and interior stairs are located in relationship to each other.

1. View of lower stair concrete volume with landscaped concrete pavilions beyond the half height walls.

2. View from café bar showing a row of stair volumes.
**Streetscape Design**

These drawings portray proposed street life along the widened Water Street. The suspended cinemas cantilever over part of the sidewalk to provide covering for pedestrians and those waiting for a bus during inclement weather. Additional shelter may be found at the newsstand seen to the left in the image above.

With the cinema volumes held up by columns, transparent glass provides views into the retail stores and beyond to the park. At night, the underside of the cinemas will be well lit to highlight the activity below.
Media Screen

This rear projection screen will face Galen Street to inform travelers of important news events and local weather conditions. Live performances from the main stage of the site's outdoor plaza will also be shown. At night this will become a marker for traveling into Watertown Square. Pedestrians may view the screen from the park space in front or see a reversed image from several platforms and low walls behind the screen. These elements breakdown the scale of the side wall to the main cinema. In addition, either side of the screen may be used for artistic performances including video installation, laser projection, and color backdrop or silhouette projections for dance performers. Finally, the projector could also be hooked up to a computer cable line enabling web-broadcasts from Watertown schools and community groups.
Noise Barrier and Plaza Study

These sketches describe the determined dimensions of the pedestrian wall that will provide a buffer for the plaza from the auto road. The wall will allow some visual connection by providing slits every twelve feet. These openings will not allow a child to pass through them.

View towards the main stage from the plaza.
View from main stage towards plaza.
Northeast Isometric
1. View of footbridge and boat landing from opposite side of river.

2. View along park towards outdoor plaza.
Sketch of deflected south lighting above suspended viewing platforms and lobby.

North lighting of skylights above exhibition space on lower floor between cinema volumes.

Sketch studies for stabilizing suspended platforms.
Transverse Section

The section shows the locations of the suspended cinema screen located on the street edge with the outside wall surface used for advertisements projecting towards the existing car dealership and Galen Street. Below the cinema volumes is retail and exhibition space accessible from the lobby and street entrance. Above the lobby and café on the riverside, suspended viewing platforms provide views down into the park and river.
Cut-Away Section Perspective

The sectional image below shows the main cinema with balcony seating and café seating in the lower lobby. The upper reception may be used for private functions and special events. On the street side is a newsstand for the commuters.
Cut-Away Section Perspective

The deflected south lighting above the viewing platforms creates a warmer light condition than that of the diffused north lighting between the cinema volumes for circulation and exhibition. At night, the artificial lighting in the lobby and café make this section of waterfront along the Charles River secure for people in the park. Landscape benches and columns in the park provide places for people to gather. Finally, from the street some of the lobby and park activity may be observed through translucent and transparent glazing systems below the cinema. Hopefully, this will entice pedestrians on the street to enter the complex so that they will discover the beauty of the park and the river.
Cinema Lobby

The rendered view on the opposite page shows how the vertical columns pass through the horizontal plane of the viewing platforms to the beams supporting the roof and platform suspension cables. These same columns also define the depth of the space by marking the distance between the viewer and the trunks of the trees along the river edge.
Café

The image on the facing page captures the connection of the café seating to the park promenade. Low walls, columns and different flooring define the interior circulation zones. The undersides of the suspended viewing platforms are also revealed. The forces acting upon the platforms’ suspension cables can be seen in the diagram below.
Suspended Platform and Plaza

Views to the main outdoor stage, into the park and along the river are envisioned in the rendering on the opposite page. The diagram below describes how the horizontal roof above the café, which breaks down the scale of the lobby, frames views to the sky and park.
Suspended Platform and Framed Views

The image on the facing page presents a view from one of the cinemas towards the Charles River. The cinema is connected to a viewing platform by a light bridge. In addition, translucent framing elements attached to the skylight deflectors call out certain views of the river and beyond. For example, the spires of some of the churches along Mount Auburn Street are recognized. Meanwhile, transparent glass dominates the ground level to visually connect it to the park.
Viewing Platforms
View of proposed design at night from existing dock platform across the river.
Summary

For any city or town that continues to grow like Boston, Cambridge and Watertown, urban planning and good architectural design are of utmost importance. Similar to Manhattan’s investment in the creation of Central Park, Watertown now has the opportunity to reclaim a part of its most valued land.

Since the selected site for this thesis proposal exists between the varying speeds of the river and the dense hurried pace of urban street travel, the program design should differ from each street edge to the river. Providing only park space at the site would fail to deal with the noise and pollution of Galen Street and the neighboring car dealership. Instead, the site needs to be activated with an appropriate built program that provides a buffer from the street to a defined park and river edge. The site also needs to be well lit at night for evening activities and security.

The citizenry of Watertown needs a location for public activities to take place in order to help attract people to the square. Many of the private businesses in the square suffer due to the deterrence of pedestrian travel caused by the large and heavily used traffic intersection. When one does arrive in the square by vehicle or foot there is nowhere to go. Instead of a place with activity, the square has become a place with little life. Most people do not care to visit, shop in, stop, or walk to an area that feels like a dead end and currently exists devoid of interesting activity.

One remedy to help cure this situation is to link the two sides of the river with several footbridges and provide a place where people can meet and interact. Many of the great cities of the world have active riverbanks that celebrate both nature and human life consequently instilling a sense of civic pride. Unfortunately, with the condition of the existing recreational path and very poor lighting at night there is a higher incidence of crime. For many residents and visitors the thought of exploring the river after dusk is not an option. This design proposal seeks to help Watertown discover the possibility for secure and celebrated town life waiting on the banks of the Charles.
Bibliography

**Illustration Credits**


Page 10-12 - Original site image from www.ortho.mit

Page 16 & 17 - Original map image from Flood Map, Watertown Town Hall.


Watertown

1720

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From Lake to B 863

Temporary Line between

the Contract lands

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a Scale of five miles - the last run is in feebly rods

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60 PEQUOSETTE RIVERWAY