



Chicago Lakefront Design and Connection with its Northern Neighbor Observation – Sensitivity - Conservation

ARCH 572 - Fall 2011
Design: Behavior & Environment

Professor Malnar, AIA
Architectural Design Studio
Email: malnar@illinois.edu

“WATER IS THE FOUNDATION of life. It is a key driver of ecosystems and economic development.” – Peter Annin
The Great Lakes Water Wars, page 256
www.greatlakeswaterwars.com

“Public Ground – A Common to Remain Forever Open Clear and Free of any Buildings, or other Obstructions Whatever.” With these words, written on the edge of a lakefront map in 1836, the land along Lake Michigan was given to the people of Chicago. However, the 1836 decree to keep Chicago’s lakefront **“Open Clear and Free of any Buildings, or other Obstructions Whatever”** does not occur along its entire 30 mile shoreline.

At the northern border of Chicago there are buildings and rubble rock which prevent access to the lakefront. Many of the people living in the adjacent Chicago and Evanston neighborhoods



have been opposed to any development in this area. One of their rallying cries is ecology, yet few know that the Chicago lakefront is an engineering marvel with some of these obstructions built during emergency situations. Your design challenge is to redesign this lakefront site adding lakefill. This will require the simultaneous design of the new land topography, four new small public buildings and the re-design of two façades of a typical 1920’s brick Chicago multi-unit condominium building into a unified park complex. This must be accomplished while maintaining the privacy of the existing residents.

Aerial photo of the northern border of Chicago and southern border of Evanston. © Google Earth



Unfortunately the 1836 decree actually prevents some people, such as the elderly and young families from using the lakefront. The intent of this decree was to allow the general public access to nature. Buildings such as public restrooms, boat houses and cafés help the lakefront facilitate the intent of those words. In fact, according to Grant Park conservancy President Bob O'Neill, "One of the complaints we get a lot is that there are surprisingly few places to eat along the

waterfront." But while these buildings are desired by the general public they are not wanted by the people currently living on these inaccessible areas of the lakefront.

The project intent is to educate people to the realities of the life of Lake Michigan, help them understand the importance of water, by celebrating the Lake Michigan waterfront. But this must be done while also addressing the current residents concerns for security, views and visual and sonic privacy. To do this, an understanding of the 21st century role of the architect in managing the complex interests of numerous groups and the environment will be a necessary component of the project. This studio will explore the intersecting spheres of the local neighborhood, citizens of Chicago and Evanston and the environment. A symbiotic relationship must be formed with nature and the life forces of Lake Michigan.

Specifically, you are to create a new site with lakefill, design four new public park facility buildings and two new façades (with roof plan) on existing building so that people can directly sense the natural phenomena created by **water, wind, sand and sun.**

"Without a complex knowledge of one's place, and without the faithfulness to one's place on which such knowledge depends, it is inevitable that the place will be used carelessly, and eventually destroyed."

– Wendell Berry

The 'Regional Motive' in A Continuous Harmony, 68-69

SITE PLAN and ARCHITECTURE The site must provide people the opportunity to directly experience the sensory aspects of the environment.

Provision must be made for people to have the ability to touch the water from:

1. Solid surface erosion protection areas
2. Sand pathway through dune grasses
3. Sand beach

And the erosion protection area should express Lake Michigan's level changes as they occur over time.

Site Location: Chicago Evanston Border



THE LAST FOUR MILES: A PLAN TO COMPLETE CHICAGO'S LAKEFRONT PARKS
DETAIL PLAN: LOYOLA PARK TO CHICAGO/EVANSTON BORDER

Source: <http://fotp.org/last-4-miles>



**Site plan must include:
Lakefront public walkway and bicycle path**

What are the characteristics of a great pathway?

Pathways will be an important component as they need to encourage people to walk and bicycle more often in order to build a healthier population. The new buildings and pathways must be located so that they minimize any interference with the view of the lakefront of the current residents living in the area.

- € north/south orientation with access for local neighborhood residents arriving from the west
- € as a public health service and to acquire Federal transportation funds the walkway must encourage local residents to walk in the sun for at least 20 minutes a day

Chicago Metropolitan Agency for Planning noted in their “Weekly Update” email of 6-18-10 “Speaking of healthy living, the Federal Highway Administration reports that biking and walking trips have increased 25 percent nationally since 2001. Last year the federal government doubled its funding for bicycle and pedestrian programs, to \$1.2 billion annually, though not without some controversy.” The U.S. Department of Transportation's revised "bike-ped" policy could have an important impact on the funding of this project.

Basic Program for new buildings:

Kayak Boat House / Kayak Lesson Center / Lake Michigan Education Center

- € Storage for 50 kayaks (local neighborhood residents & tour owner storage)
- € Column free area to facilitate gathering of 30 people for kayak lessons or local community meetings
- € When not occupied the building is to serve as an educational tool that provides information on the history and life forces of Lake Michigan

Café

- € Seat 40 people indoors and have a equivalent area for outside tables
- € Will specialize in serving Chicago water, local micro-beers, Midwest handcrafted wines, Metropolis coffee and tea
- € Primarily accessed by walking, running or bicycle
- € Nearby bike rack
- € Delivery access and garbage pick-up area to be visually screened
- € Two male and Two female restroom for café patrons only with handicap assisability
- € Building to serve as educational tool that provides information on the importance of water to life and the need to protect and conserve it.

Covered Arrival/Waiting Area – to serve Café

- € Uses car and taxi drop-off area with only minimal parking for the handicap and elderly
- € Drop-off and pick-up area for taxis and buses
- € Valet drop-off area for Café
- € Seating for people waiting to be picked-up during different weather conditions

Comfort Stations / Public Restrooms

- € Separate building or entry from Café
- € Placement – accessible to but not directly on pedestrian, jogging and bicyclist pathways
- € Size – to accommodate the following:
 - Men's = 3 water closets, 2 urinals, 3 wash basins, 1 mirror
 - Women's = 5 water closets, 3 wash basins, 1 mirror
 - Family / Handicapped – Families with young children and wheelchair accessibility (also consideration for the blind)
- € Mirrors – not located over wash basins
 - Be aware of what the mirror is reflecting. Do not place it where people standing outside near the entry can see interior actions.
 - Reduces the amount of hair clogging sink drains
- € Safety – Access by two remotely located door (door typically open during summer days)
- € Lifeguard Locker Room – 6 lockers and seating
- € Materials selected 1st for durability, maintenance and hygiene (concrete floor recommended) and 2nd for energy efficiency and sustainability
- € Outdoor drinking fountain for:
 - adults and children
 - wheelchair accessible
 - ground level fountain for dogs

- € Roofed outdoor waiting area for shade for protection from the hot summer sun and protection from sudden thunder and lightning storms. Locate to take advantage of the cooling summer breeze
 - € Must be able to be secured in the evening to prevent becoming a homeless shelter
 - € Seating, tables and lounging elements to be a permanent part of the facility
- € Include nearby bike rack

Outdoor Livable Space & Sustainable Exterior Façades

New Solutions for Existing Building – 7737 & 7739 Eastlake Terrace, Chicago

Neighborhood – East Rodgers Park – 60626

For background read: <http://www.dreamtown.com/neighborhoods/east-rodgers-park.html#history>



“When placelessness prevails, people are rarely committed to maintaining the cultural or ecological features of the places where they reside. They lack feelings of responsibility and stewardship for sustaining the spirit of their place.”

– Stephen R. Kellert

Building for Life: Designing and Understanding the Human-Nature Connection, 60



The redesign of the existing buildings' façades must provide security, visual and sound insulation from those using the pathways, private outdoor balconies and terraces for the residents, and increase energy efficiency and sustainability. Since the north façade of the building is the first building seen by people entering the northern gateway of Chicago it is endowed with the task of providing the first impression to the city.

At Chicago's northern city limits is Juneway Beach and Rodgers Park Beach. Separating the two beaches are four multi-unit residential buildings built in the 1920's. The north façade of 7739 Eastlake Terrace is the first building seen when entering Chicago as one drives south on Sheridan Road. It is built with common brick an inexpensive, unglazed brick used for surfaces not intended to be seen. It is not an inspiring introduction to a city known internationally for its great architecture. This is also the first location where there is no public access to the lakefront. In the 1980's the level of Lake Michigan was at a high level with waves causing severe damage to the buildings and flooding of the adjacent roads. The rubble rock was placed as an emergency measure to limit erosion on the east side of the building. The Army Corp of Engineers approached the rising water defensively. Their mandate did not include the concerns of the Chicago Park District which are for public access to parkland, beaches and aesthetics.

Components of the project:

- € Analyze the architectural characteristics of the front façade of the northern building.
- € Exploit the lakeside location to the fullest with private transition spaces such as balconies and roof terraces.
 - Create a variety of outdoor spaces, each with its own character while maintaining building continuity
 - Maximize natural light to enhance the indoor environment and connect residents to the outdoors by the design of focused views
- € Erosion protection must occur on the east façade and address the changing water level of Lake Michigan
- € Establish privacy (visual and sound) and provide security for the condominium owners
- € Materials must be selected for their sustainability properties with a special concern for moisture, thermal seasonal ranges, and sound reduction
- € Windows and outdoor spaces must respond to the different conditions climatic (sun & wind) existing on the north, and east side of the buildings. The north (street) elevation must be preserved

Note: The 7737 and 7739 Eastlake buildings are separated by a driveway which must be maintained.

Sustainability Requirements:

- € Use predominate south-west wind patterns for ventilation
- € Use balconies and terraces on the south façade as shading devices to reduce solar/heating loads within the building
- € Select materials to mitigate temperature changes to reduce energy use for heating and cooling
- € Collect and use rain water to irrigate the balcony and roof terrace plantings when possible
- € Use daylight as much as possible to reduce energy needs
- € Use solar panels or photovoltaic film to support electrical lighting needs in the new additions

€ Follow Bird-Safe-Building Guidelines published by the New York City Audubon Society

Field Trips in Chicago

1. Chicago and Evanston lakefront – group tour
2. Self-guided tour of Chicago of Millennium Park
 - a. BP Bridge by Frank O. Gehry and Nichols Bridgeway by Renzo Piano
 - b. Crown Fountain by Jaume Plensa executed by Kreuck & Sexton
 - c. Cloud Gate by Anish Kapoor
 - d. Lurie Garden by Gustafson Guthrie Nichol Ltd, Piet Oudolf and Robert Israel
 - e. Bicycle Pavilion by David Steele of Muller & Muller in conjunctions with the Chicago Department of Transportation (located north-east of Pritzker Pavilion)
3. Self-guided tour of Skyspace by James Turrell University of Illinois at Chicago campus (completed in 2006 and at that time Turrell's 15th permanent skyspace installation) Located on the southwest corner of Halsted and Roosevelt. (This space requires time to sit, look up and watch the sky.)

Major Due Dates:

Mid-review Presentation of Schematic Design – October date TBA

Final Presentation Design Review –December date TBA

Revised Project Submitted on CD and posted on web – Last day of studio at 4:00 pm

TWO MEMBER TEAM: The project will be designed by a two member team. Students will arrange their own team. The complex requires four new architectural facilities and two new outdoor living façades with a green roof terrace. The work load must be shared equally. Each member of the team will be directly responsible for three components of the project and must design at least one of the new facilities and one of the outdoor living façades. The components can be designed individually or as a team. If you decide to design the components individually they must still work together as a complex. It will be necessary for both members of the team to work together to develop the site plan and locate the buildings to take full advantage of their location. Both members of the team will have an equal role in the oral presentations.

EVALUATION: Projects will be evaluated based on their ability to optimize site conditions, establish new urban connections, and advocate the idea of respecting and honoring water. Since the goal of architecture is to ultimately have the project built, it will be important to mediate the local residents' reservations. The redesign of the facades of the existing condominium buildings will serve to illustrate to the neighborhood how they can be renovated to provide security, improve sound insulation and facilitate outdoor living. Both the new and renovated buildings must actively illustrate how people and their buildings are an integral part of the web of life that depends on the health of Lake Michigan. Each building type must express its distinct function, relate to the unique site conditions yet work as a unified complex. It will be necessary to research water issues, Lake Michigan, the local neighborhoods, Chicago policies, non-profit organizations and projects that illustrate innovative waterfront development.

Approximate Weighing of Course Requirements:

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| 20% | Site Development (team responsibility) <ul style="list-style-type: none">• Public – waterfront area with pathways directly to the east of the condominiums connecting Rodgers Park and Juneway Park |
| 50% | Waterfront Amenities (individual responsibility for 25% of components) <ul style="list-style-type: none">• Comfort Station (10%)• Kayak Boat Storage (10%)• Café (10%)• New building façades and roof plan on existing building to address aesthetic, sustainability, security and outdoor living issues (10%)• Covered Waiting Area with seating (5%)• Hardscape access to water with seating (5%) |
| 20% | Presentations to reviewers <ul style="list-style-type: none">• Mid-review (5%)• Final presentation (15%) |

- 10% Project revisions
- Development based on reviewers comments (7%)
 - Web site posting of presentation to communicate ideas to general public (3%)

Evaluation of Components of project for mid-review & final presentation based on the following

Site Plan

- Conceptual Idea and clarity of concept statement
- Unified strategy for movement is evident (people, wind, water, sun, ice, etc.)
- Works with the natural forces of Lake Michigan
- Relationship of buildings to shoreline
- Appropriate explanation of each elements placement on site and their inter-relationship
- Pathways from parking areas, bicycle lanes, jogging and walking paths
- Pathways between facilities establish a clear relationship
- Clear entries to buildings which work with pathways and distinguish public from private areas
- Pathways provide moments where a sense of anticipation or surprise occurs
- Places of shade and rest occur along the pathways
- Sustainability issues and appropriate relationship to nature (wind, sun, trees, water, etc.)
- Consideration of service delivery and garbage pick-up

The grade for the architecture will be based on the following components.

- Conceptual Idea and clarity of concept statement
- Value of water and nature articulated and an understanding of Lake Michigan and revealed in design
- Relationships of existing neighborhood and buildings to new site and buildings
- Beautiful design of new building plans and sections
- Façade with wall development and roof plan taking advantage of the junction between indoors & outside on existing building
- Green sustainability and weathering issues considered
- Local materials celebrated

Oral Presentation

- Clear and concise concept statement
- Articulate statement on current issues and values toward water
- Clear explanation of site and building design

Overall Course Goals and Student Learning Objectives

Upon successful completion of this course, you will be able to:

“One of the most necessary experiences in an architectural education is to learn to listen to the murmur of the site.” Rafael Moneo, Pritzker Prize

1. Understand the History of a Place – Recognizing how the words, *“Public Ground – A Common to Remain Forever Open Clear and Free of any Buildings, or other Obstructions Whatever”* written on the edge of a lakefront map in 1836 still have the power to unite the people of Chicago, cause fierce debate and drive architectural concepts.
2. Importance of Direct Experience and Observation – When engaged in site analysis how an architect must raise sensations to the level of perception.
3. Work with a Consultant – Learning how important it is to work with and use the expertise of a coastal geologist when working on waterfront sites.
4. Consider the Future Welfare of the Planet – Understanding the importance of water and through design reduce future problems that the population will face.

5. Maintain Public / Private Space – Recognizing the importance of maintaining the separation of public and private spaces to people living in a neighborhood.
6. Promote Public Health – How through the design of public pathways and building amenities architects can encourage people to engage in outdoor activities thus supporting a healthier population.
7. Designing with Nature and for Beauty –
 - a. Designing each building to express its type and be located appropriately within a park setting; and
 - b. Creating a coherent complex out of a diverse building program.

Required Readings:

Occasionally readings and continual research will be required. You are required to use the Ricker Library and supplement it with material located on the web. Assigned readings will be either available in the library, placed in our class folder on the web or available in a standard digital format to be transferred to your computer.

- Author’s Note, Prologue, Chapters 1 & 2, and Epilogue, *The Great Lakes Water Wars* by Peter Annin, pages xi-xv, 3-39, and 273-275.
- “Andy Goldsworthy: Ephemeral Integration,” in *Balance: Art and Nature* by John K. Grande, pages 85-92
- “Along the Horizon A World Appears: George Morrison and the Pursuit of an American Indian Esthetic,” by David Martinez, in *American Indian Thought: Philosophical Essays*, edited by Anne Waters (Malden, MA: Blackwell Publishing Ltd., 2004, pages 256–262.
- *Forever Open, Clear, and Free* by Lois Wille (Originally published 1972) Chapter 8 – “Daniel Burnham Makes a Plan,” pages 82-98
- “Prelude,” *An Autobiography* by Frank Lloyd Wright
- Chicago Bike Sharing Program Arrives by Jennifer, Slosar, *Skyline*, August 11, 2010 (3 pages)
- “Eleven Principals for Creating Great Community Places,” by Projects for Public Spaces
- “Understanding the NIMBY and LULU Phenomena: Reassessing Our Knowledge Bans and Informing Future Research” by Carissa Schively *Journal of Planning Literature* February 2007 vol. 21 no. 3 255-266
- “Bird-Safe Building Guidelines,” published by the New York City Audubon Society, Inc., May 2007, Project Director: Kate Orff, RLA, pages 1 – 59 (a lot of pictures).

“The last four miles: Friends of the Parks unveils a plan for an entirely-open Chicago lakefront” by Blair Kamin, *Chicago Tribune*, June 9, 2009 <http://featuresblogs.chicagotribune.com/theskyline/2009/06/the-last-four-miles-friends-of-the-park-unveils-a-new-plan-for-an-entirelyopen-lakefront-html>

Friends of the Parks: <http://fotp.org/last-4-miles>

<http://fotp.org/> Scroll down to Programs. Click on: [The Last Four Miles Plan offers recreational, economic and ecological benefits to Chicago](#) to find: <http://fotp.org/benefits-of-the-last-four-miles> Select to read a few of the articles on the benefits of parks.

Taking Steps to Implement Last Four Miles: <http://fotp.org/news/taking-steps-to-implement-last-four-miles>

“Against the Last Four Miles, or at least the last two on the North Side” Begun: June 10, 2009

<http://featuresblogs.chicagotribune.com/theskyline/2009/06/against-the-last-four-miles-or-at-least-the-last-two-on-the-north-side-.html?cid=6a00d834518cc969e20120a5f18237970c#comment-6a00d834518cc969e20120a5f18237970c>

Stop the Landfill: <http://stopthelandfill.org/default.aspx>

Recommended Books:

- *Building for Life: Designing and Understanding the Human-Nature Connection* by Stephen R. Kellert (Washington: Island Press, 2005).
- *Design for Fun: Playgrounds* by Marta Rojals del Alamo, 2005.
- *Forever Open, Clear and Free: The Struggle for Chicago's Lakefront* by Lois Wille, 1972.
- *The Great Lakes Water Wars* by Peter Annin, 2006.
- *On Weathering, Surface Architecture* by David Leatherbarrow and Mohsen Mostafavi
- *Sensory Design* by Joy Monice Malnar and Frank Vodvarka, 2004.
- *Why Architecture Matters: Lessons from Chicago* by Blair Kamin, 2001. Part Four, “The Lakefront: Democratic Vistas, pages 279-363.

Recommended Web Sites:

Alliance for the Great Lakes: www.greatlakes.org

City of Chicago, Department of Water Management

<http://egov.cityofchicago.org/city/webportal/portalEntityHomeAction.do?entityName=Water&entityNameEnumValue=43>

International Energy Conservation Code (IECC)

http://www.illinoisbiz.biz/dceo/Bureaus/Energy_Recycling/IECC.htm

Pedestrian and Bicycle Information Center: <http://www.walkinginfo.org/index.cfm>

Classic Reference Sources:

Jacobs, Jane. *The Death and Life of Great American Cities*. New York: Vintage Books, 1961

Lynch, Kevin. *Managing the Sense of a Region*. Cambridge: MIT Press, 1976.

William H. Whyte. *The Social Life of Small Urban Spaces*. New York: Project for Public Spaces, 1980.

“How hard it is, sometimes, to trust the evidence of one's senses! How reluctantly the mind consents to reality.” - Norman Douglas, writer