

SENIOR STUDIO:

BRIDGING GOWANUS | Affordable Housing & Waterfront Access

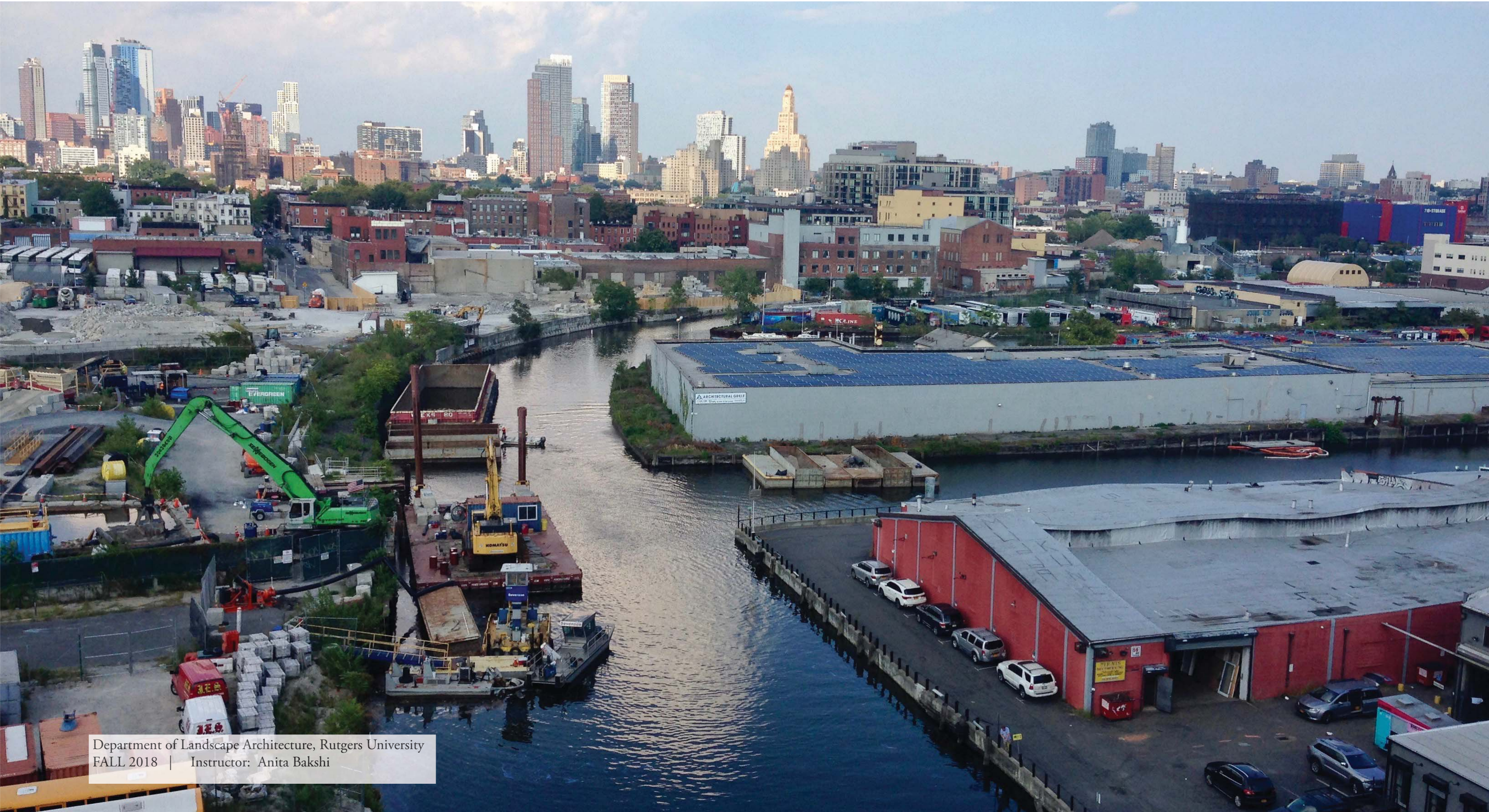




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INTRODUCTION



Senior Studio -- Housing & Open Space

Bridging Gowanus - Affordable Housing & Waterfront Access

The neighborhood of Gowanus, in Brooklyn NYC, is one of 13 areas in the city being rezoned for affordable housing. This June, 2018 the city published their Draft Framework, *Gowanus: A Framework for a Sustainable, Inclusive, Mixed-Use Neighborhood*. This outlines their overarching goals and general concepts for land use, building heights, community space, and more. It will serve as the basis for the Draft Neighborhood Plan and Zoning Proposal, which will come out this winter. Now is time to influence this plan, and to make design proposals that think through how the zoning regulations could result in different forms.

For this studio we will partner with the Gowanus Canal Conservancy who is working on a Waterfront Access Plan, and the Gowanus Lowlands Plan (with SCAPE). We will begin by working on urban design proposals that consider how to design within the zoning ordinance to create housing and open space, adequately address public transportation and parking needs, mitigate contamination and flooding risk, and meet the needs of the residents. We will then shift in scale to zoom in on developing open space concepts for housing and recreational areas. There will be three main sites of focus: The Gowanus Green Site (Public Place), a former gas plant that will be developed for housing; The 9th Street Bridge, where we will consider the question of how open space can “bridge” the canal; and Wycoff Gardens, a NYCHA site where two new buildings will be developed as part of the NYCHA NextGen Plan.



Deliverables

Final products will be a booklet that documents the research and design process, research papers, and reproductions of models and drawings. The ideas developed through the semester will be presented to the client at the end of the semester. They will support ongoing public discussion about how to deal with a range of urban challenges faced when attempting to create a more sustainable future for a dense city facing the challenges of adequate public transportation, overcrowding, and economic growth.

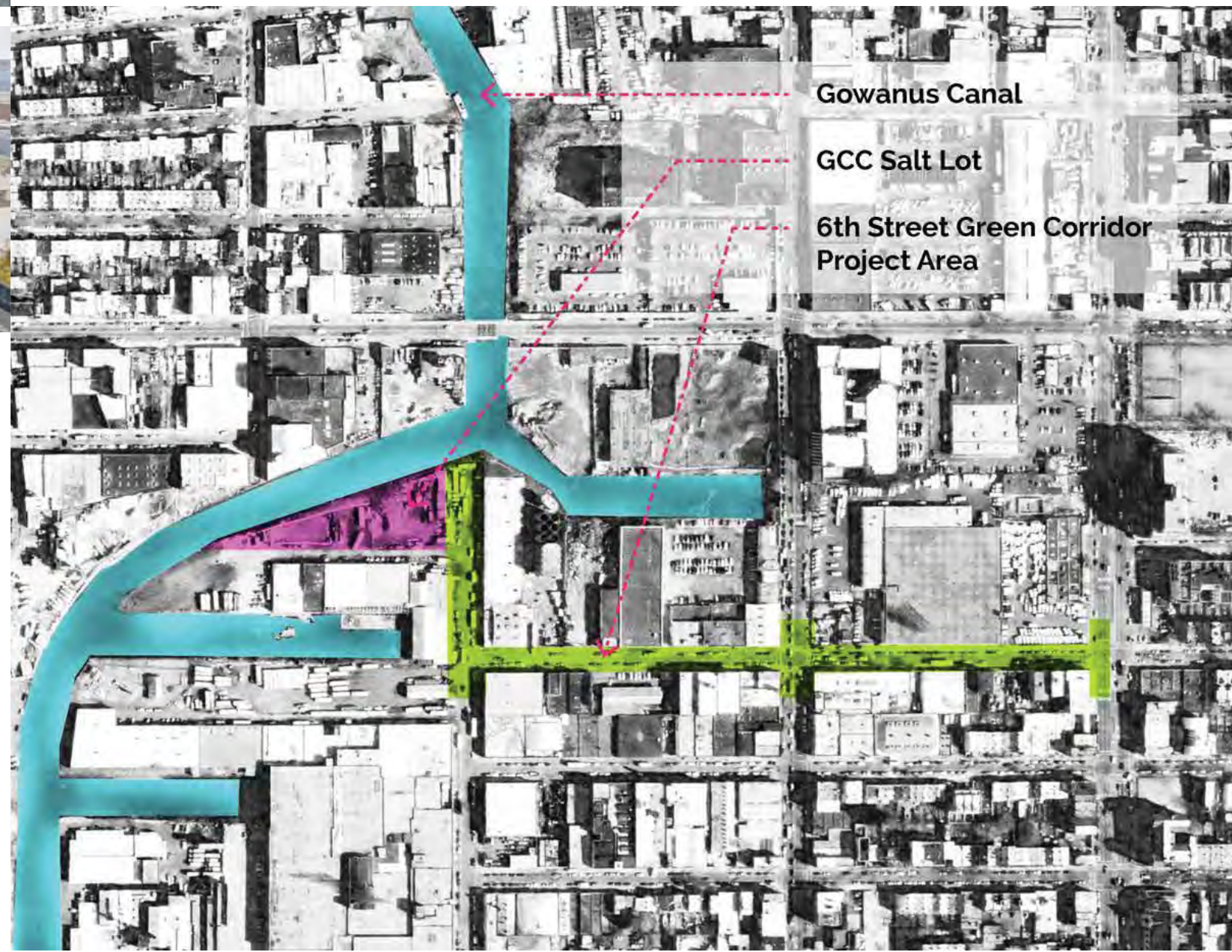
Gowanus Canal Conservancy - 6th Street Green Corridor - plan by Apiary Studio



Gowanus Lowlands Plan - Images by SCAPE

Learning Objectives:

1. Approach a complex design problem, and independently structure complex design problems.
2. Investigate the methodological relationship between survey, analysis, and design decisions.
3. Integrate external values (public / stakeholders) and internal values (professional standards / ethics) into the design process.
4. Develop a comprehensive urban design that meets and possibly exceeds professional standards.
5. Design and graphically represent high quality open spaces.
6. Create a professional quality report booklet to communicate research and design ideas in a manner that is useful to the client.







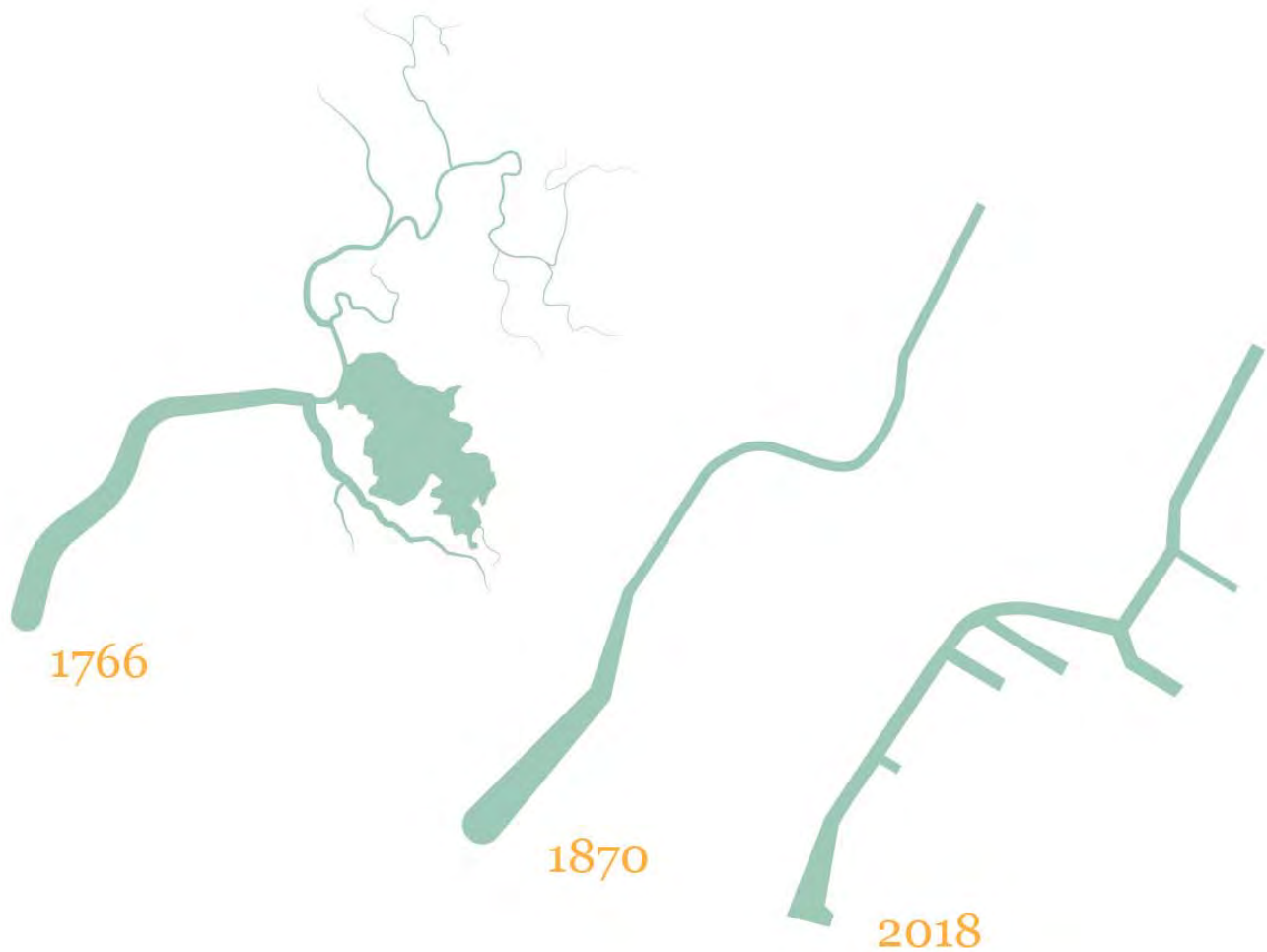
INVENTORY & ANALYSIS

History and Context

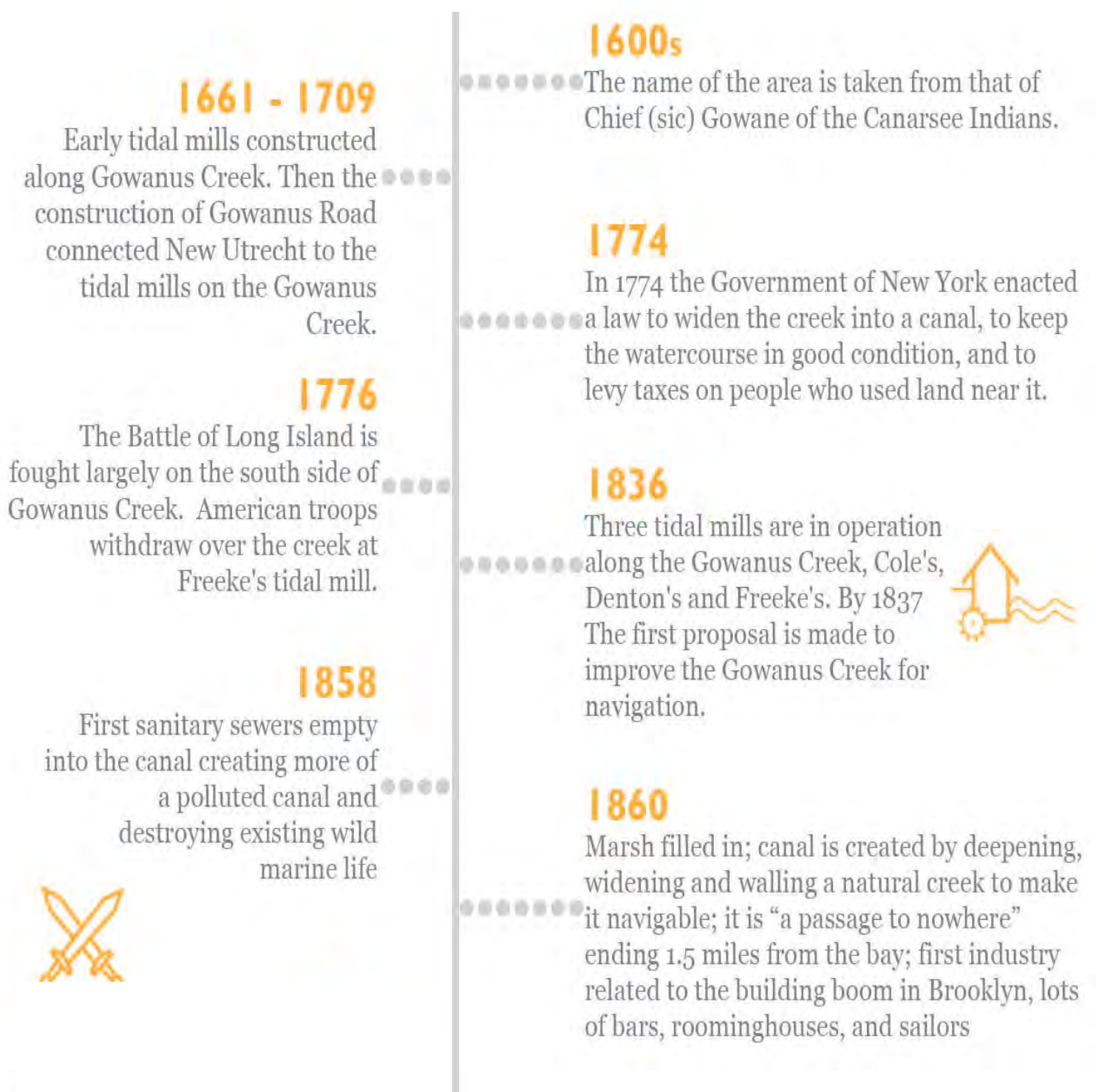
Alex Ciorlian, Wes Masco, Diosmiry Rodriguez, Wenjia Yan

The Gowanus Canal was one of the nation’s busiest and most polluted industrial waterways. A high level of contamination still exists in the water. Originally, the Gowanus was a tidal creek within a saltwater marsh inhabited by the Lenape Indians and then Dutch settlers. In 1776 the Gowanus played a major role in the first major battle of the Revolutionary War, the Battle of Brooklyn. In the first half of the 19th century, farms and water mills still existed but by 1867 the City of Brooklyn bulkheaded the canal and dredged it for Industrial uses that helped to build 19th century New York City.

Gowanus Canal Over Time



Timeline



1902

The Brooklyn Rapid Transit Corporation opens a new power generating station along the canal. Coal delivered by water supplied 32 boilers. The station had 2700 kW generators for both AC and DC power.

1987

In 1987, the Red Hook Treatment Plant was opened, diverting more sewage input from the canal. This \$375 million plant collected waste from the existing Bond Street sewer and brought the total of combined sewer overflow (CSO) points in the city to 14.

2001

Governor Pataki announces \$270,000 grant for the Gowanus, part of \$1mil for 7 sites in Brooklyn and Queen

2008

New York State Department of Environmental Conservation (DEC) request the Environmental Protection Agency(EPA) nominate the Gowanus Canal to the Superfund National Priorities list(NPL)

1948

Repeated calls have been made to revitalize the economy and the environment of the Gowanus area. The first major U.S. law that would allow this, a law to address water pollution, was the Federal Water Pollution Control Act of 1948.

1995 - 1999

The canal's pumping systems is rebuilt. The new system can move 200,000,000 million gallons (754,000 cubic meters) daily

2004

"The Gowanus Canal Conference: Perspectives on Environmental Restoration" at Brooklyn College organized by GCCDC, Corps of Engineers, and funded by a grant from Con Edison, features 200 researchers, community leaders, elected officials and environmental advocates DEP finalizes plans for \$40 million upgrade to the flushing tunnel, changing from a single to a triple propeller

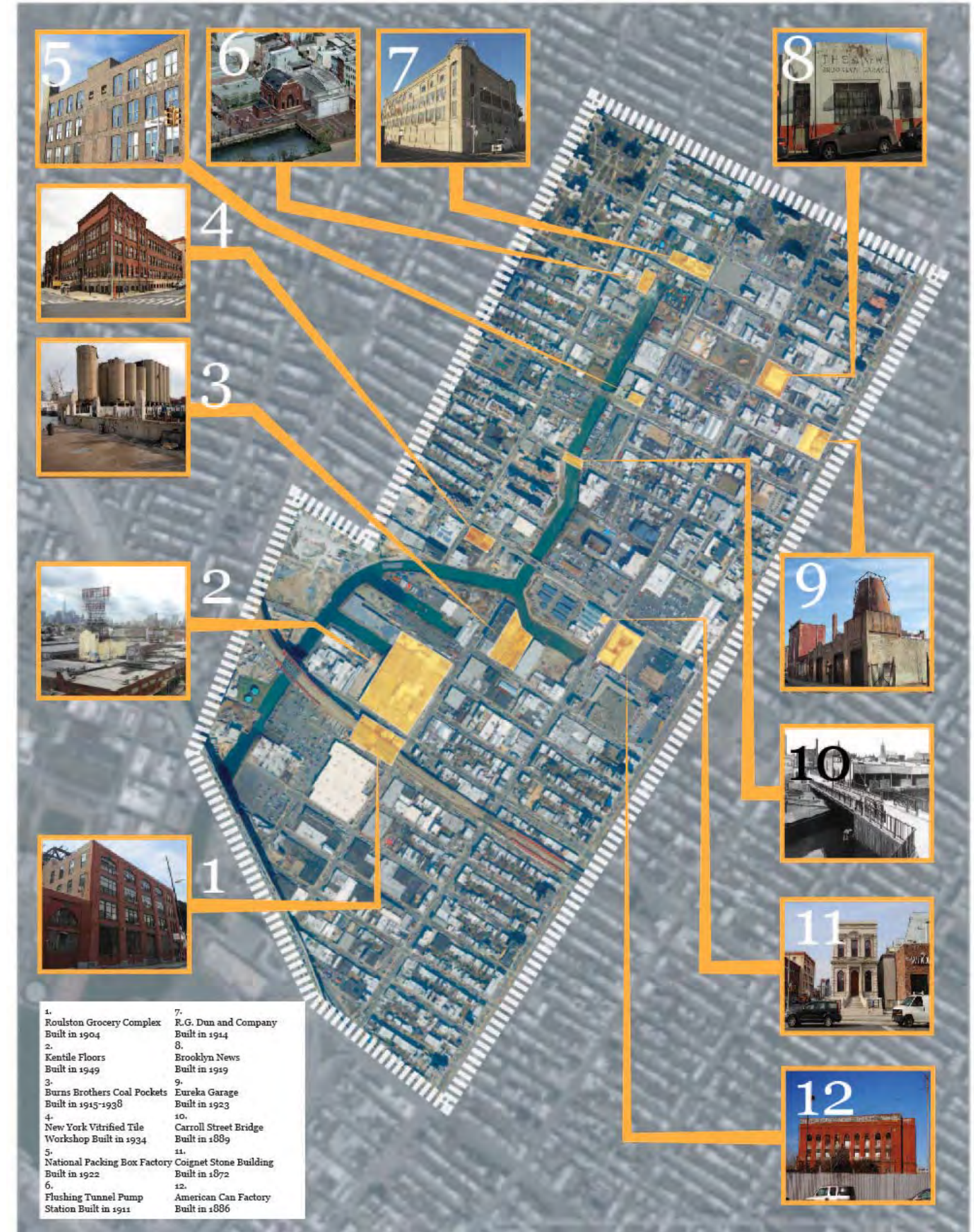
2013-22

REMEDIAL DESIGN

Preparation of technical plans and specifications to implement the remedy for the canal. From 2017 to 2022 the construction of the remedy; Dredging the canal.



Historical Sites



Context



DESIRED CONNECTIONS

The goal of this map is to highlight areas of the surrounding local community that could benefit from increased accessibility to both the Gowanus Canal, as well as the surrounding waterfronts. Red Hook is a desirable location due to its ferry dock. Wykoff Gardens, a NYCHA site, being a dense residential building, would benefit from an increased accessibility to the greenspaces along the canal. Whole foods promotes access to fresh food and should be accessible to all local residents. Lastly the lack of east to west connectivity in the area is a hindrance to the residence of the park Slope area, and could benefit from the amenities within Gowanus as well as Red Hook.

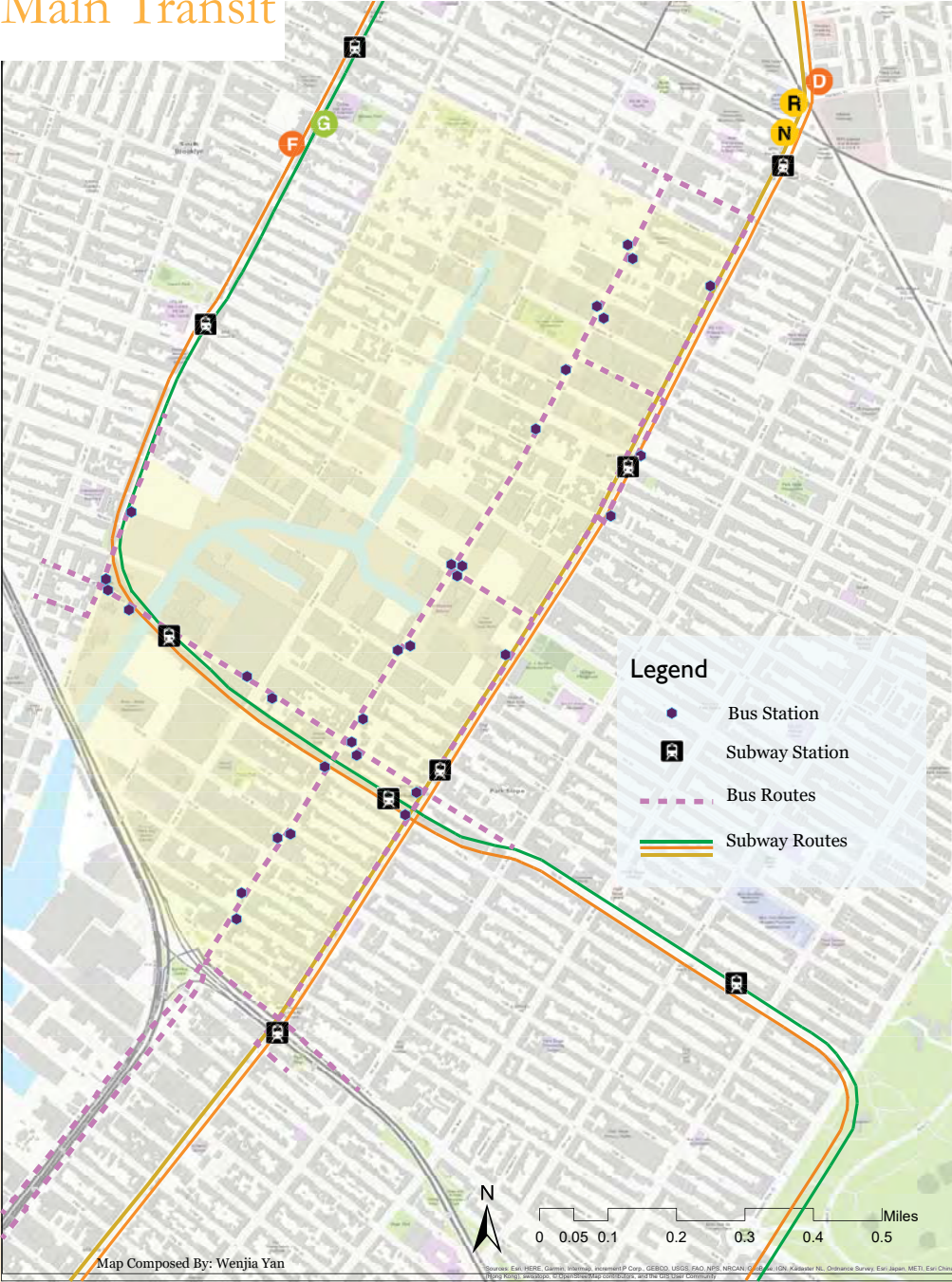


Transportation Overview

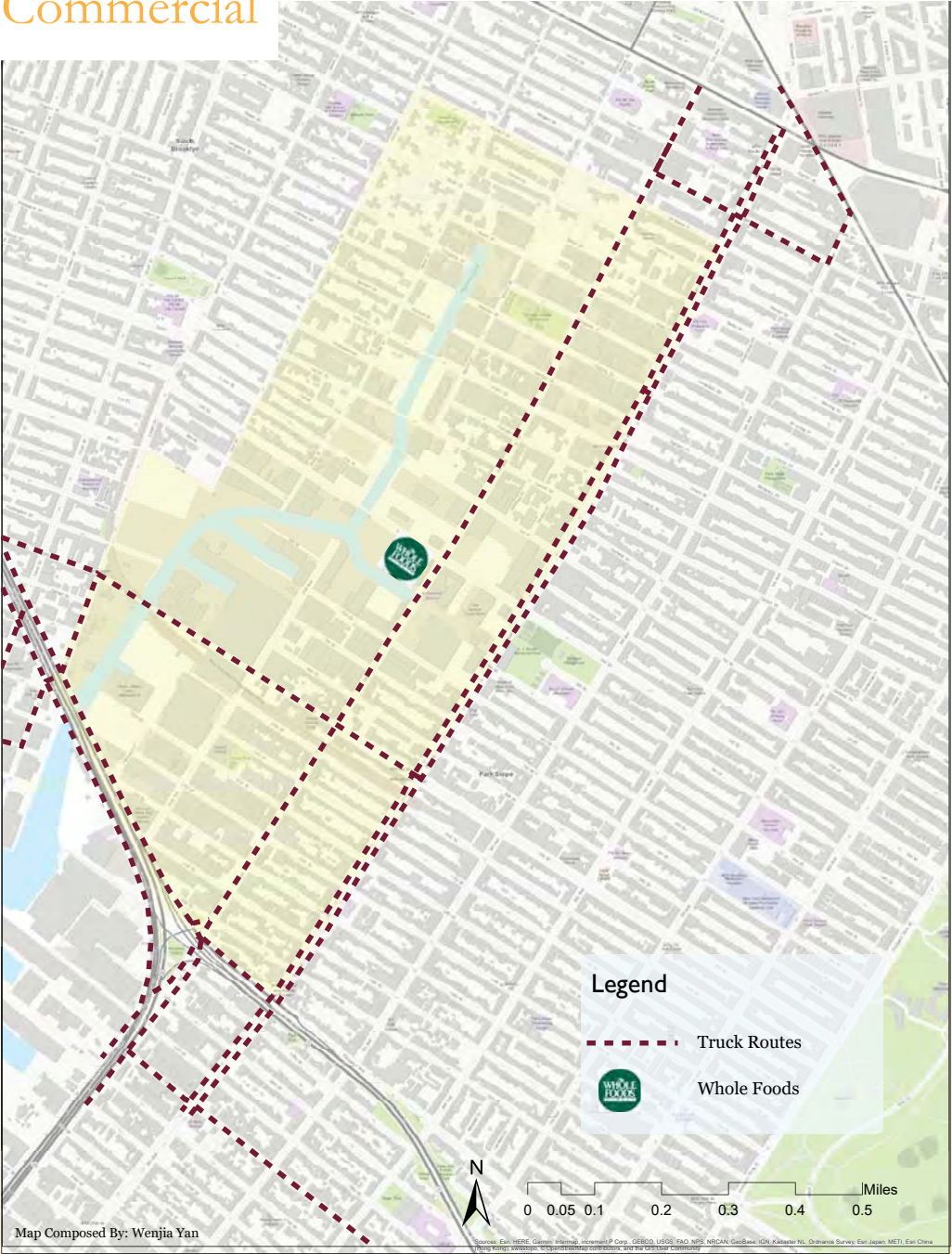
Pedestrian



Main Transit



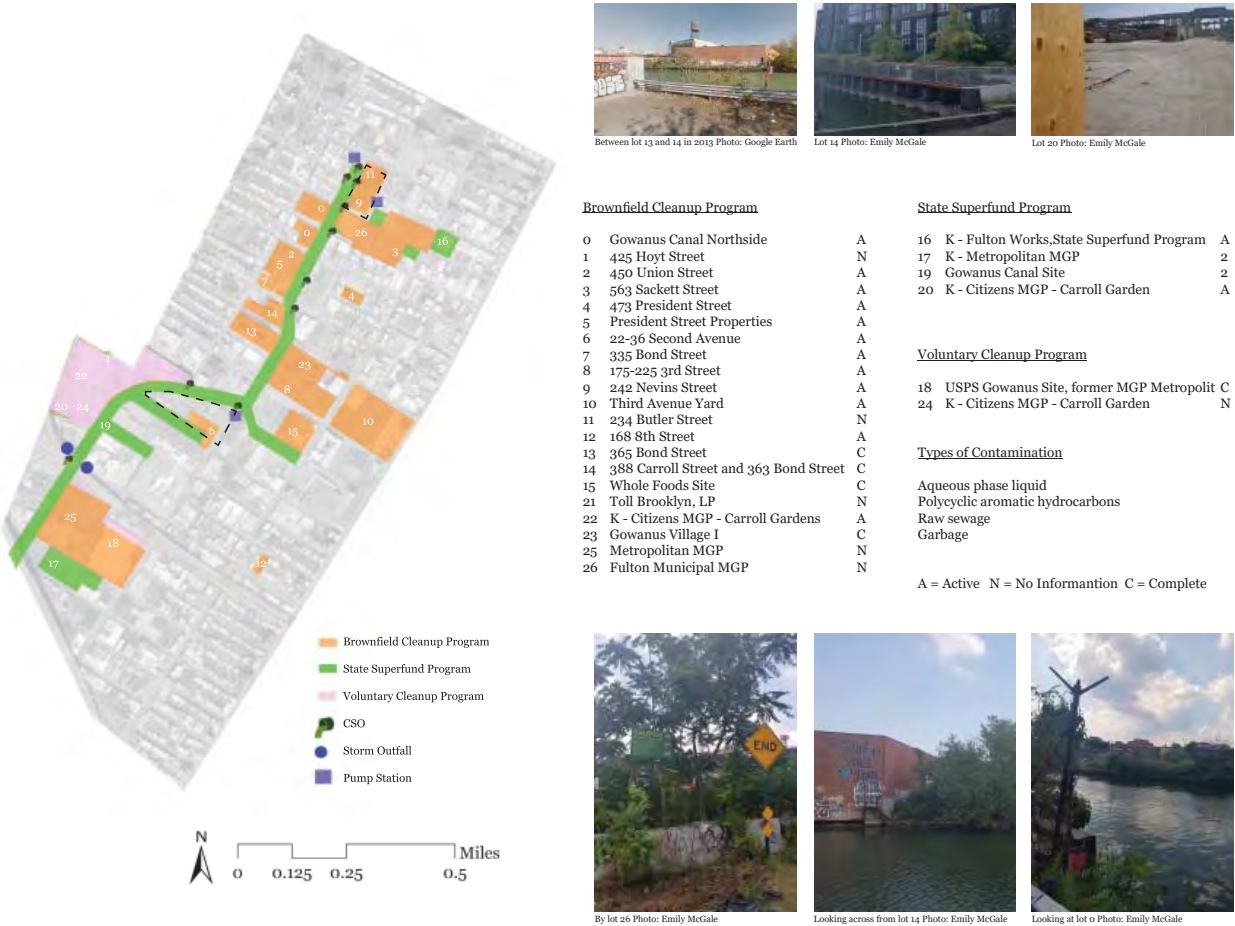
Commercial



Environmental Analysis

Emily McGale, Alexis Lo, Emily Otterbine, Robert Cook

Contamination and Remediation

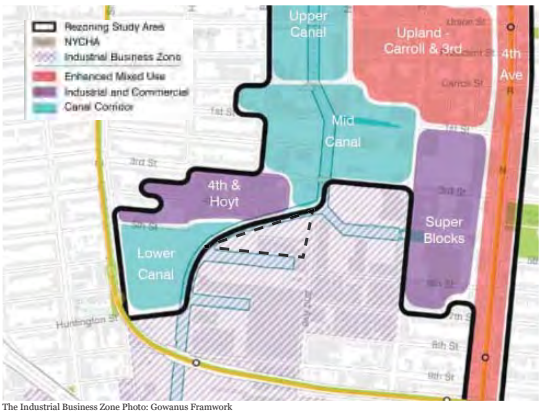


SEWER TANK LOCATIONS

8 MG Sewage Tank



4 MG Sewage Tank



Projected 100 Year Storm Sea Level 2020s to 2050s

The 100 year Floodplain is projected to increase 11 inches by 2020 and 31 inches by 2050.

PHOTOS SHOW FLOODING AND DAMAGE from Hurricane Sandy (2012).

This map is made with FEMA's Preliminary Work Map data and the New York Panel on Climate Change's 90th Percentile Data.



Oil Sheen On Gowanus Canal

Photo: pandemoniumforasking.blogspot.com



Oil Sheen On Sackett

Photo: pandemoniumforasking.blogspot.com



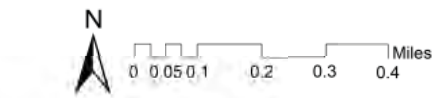
Bus Storage Yard in Redhook

Photo: thedailylife.brooklynbusinessnews



Flood Line on 2nd and Bond

Photo: pandemoniumforasking.blogspot.com



Green Space and Sustainable Systems



Opportunities Map



Demographics and Social Inventory

Emily Toth, Monica Lee, Jacob Choi, Alex Glasser

It is important to analyze the social spaces and demographics of Gowanus in order to complete a thorough site analysis. The data presented gives a general outline of what the neighborhood consists of demographically. It also gives an idea of the social context of the community as well. These maps give general information about the city that could be referred and correlated into the design project. The redevelopment opportunity map consists of several locations rated on a general lot, what some possible redevelopment sites can be.

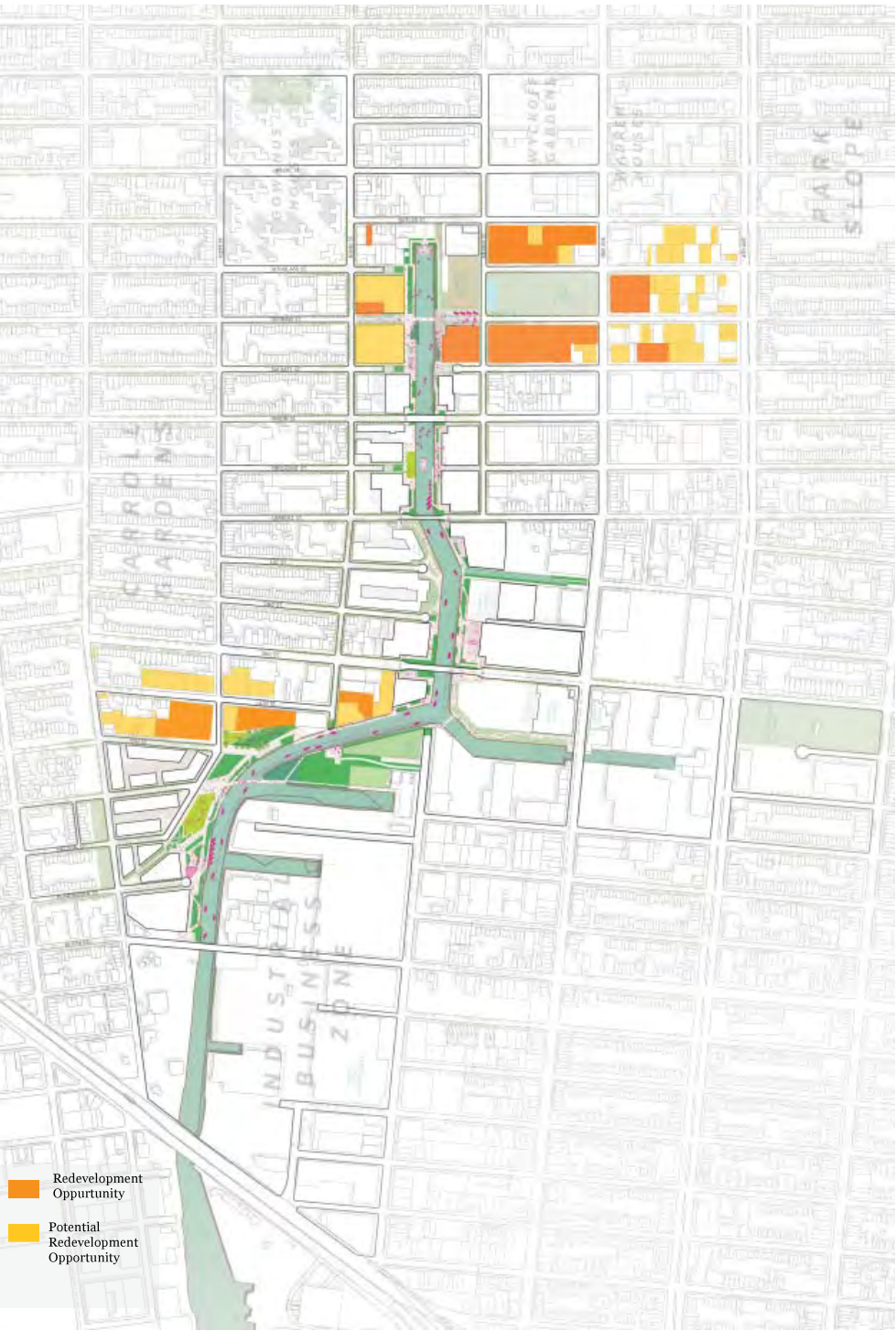
Building/Lot Condition Survey



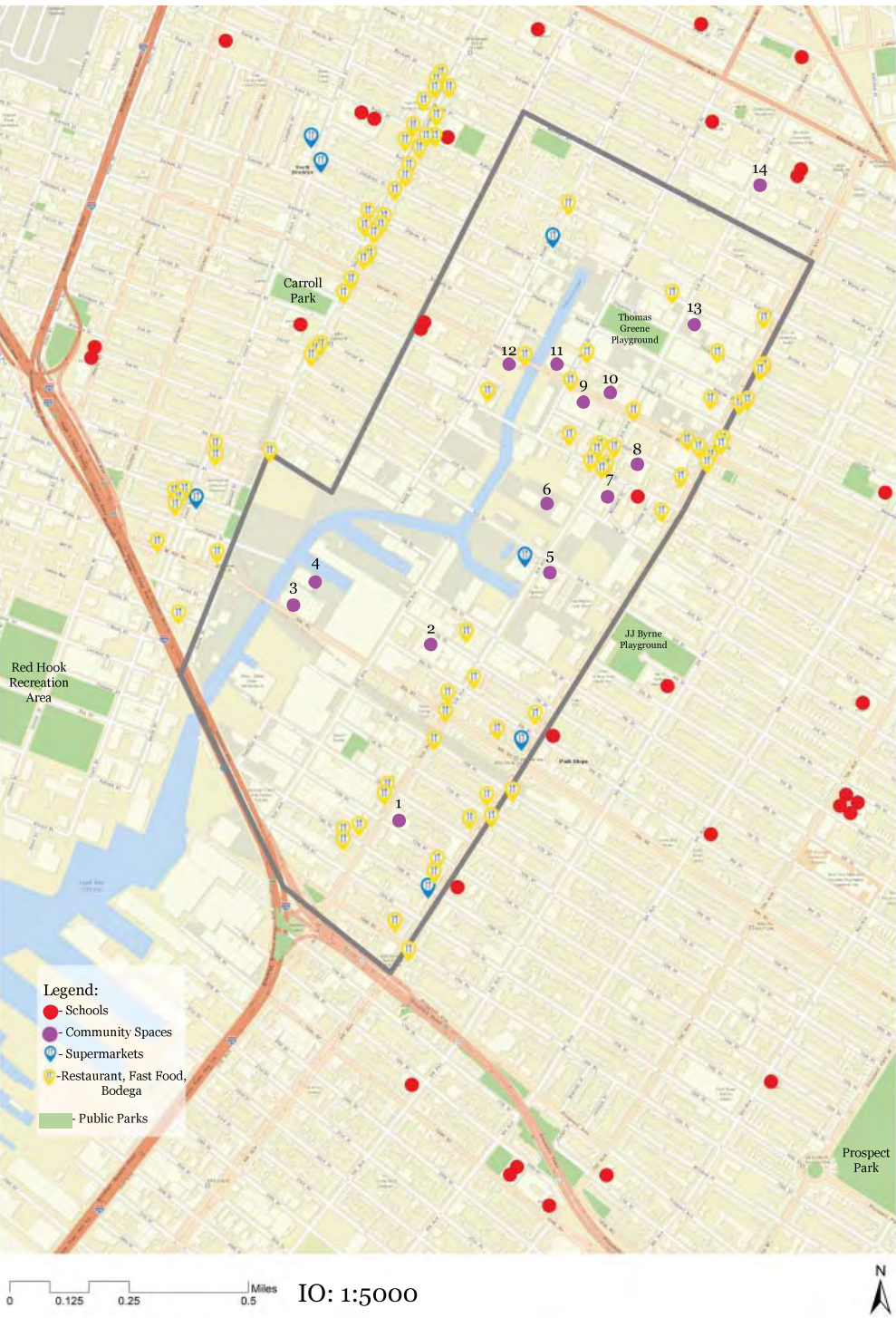
Social Spaces

1. The Yard: Gowanus
Is a cozy co-working space
2. The Gowanus Studio Space
Emerging-artist complex with gallery & studio spaces, plus woodworking, printmaking & metal shops
3. Gowanus Loft
Community art center and project room located in Gowanus offering events and exhibits
4. Small City
Is a cozy co-working space located right on the Gowanus Canal
5. Old American Can Factory
Is the site of several creative venues, including the Issue Project Room and an arts and events space, as well as the weekly Makers Market
6. BRT Powerhouse
Old powerhouse building being transformed to community art space and exhibits
7. ShapeShifter Lab
Performance venue with shows and art exhibits
8. Spaceworks NYC
Develops space for all New Yorkers to gather and engage in their creative and cultural practices
9. The Royal Palms
Shuffleboard courts draw playful crowds to this big bar with food trucks & occasional live music
10. MIRROR Tea House
Japanese Cafe and multipurpose event space hosting weekly public events
11. National Packing Box Factory
A community interdisciplinary gallery and reading room
12. Pig Beach
Outdoor beer garden and community event/gathering space
13. Gowanus Arts Building
Multifloor building that serves as a community and art hub for Gowanus, offering a wide range of practices
14. NYC Resistor
Community center located right outside Gowanus

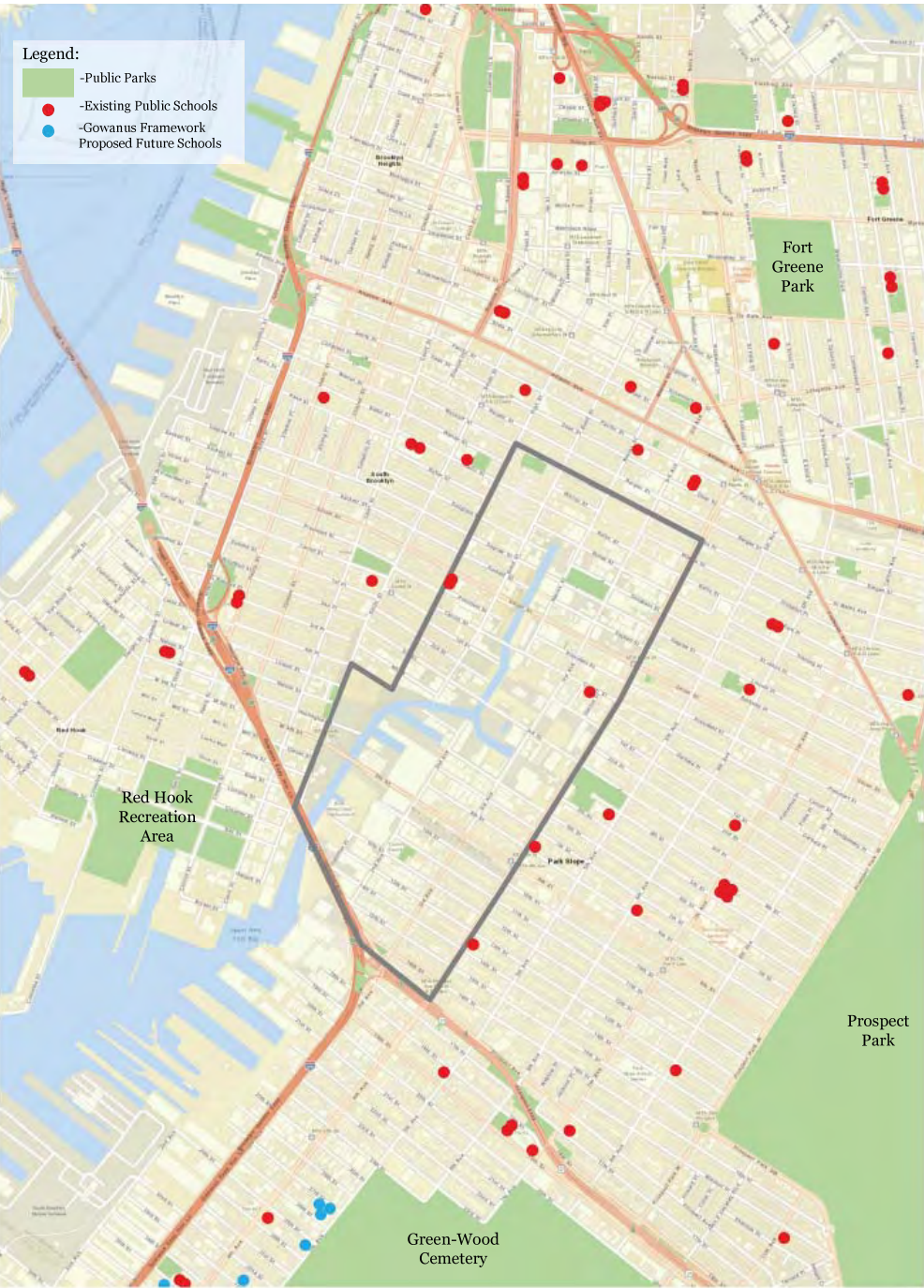
Redevelopment Opportunities



Social Spaces of Gowanus Area

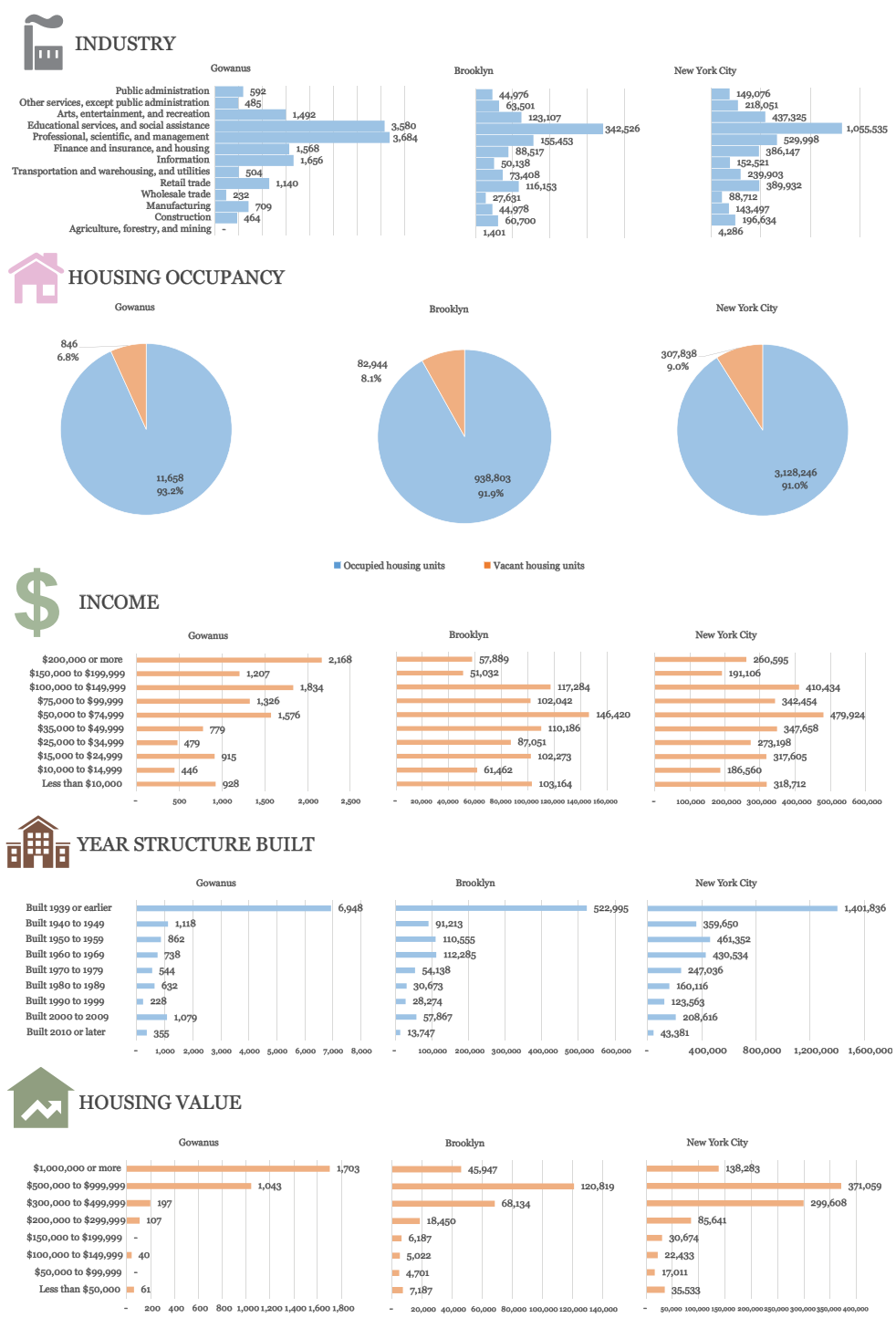
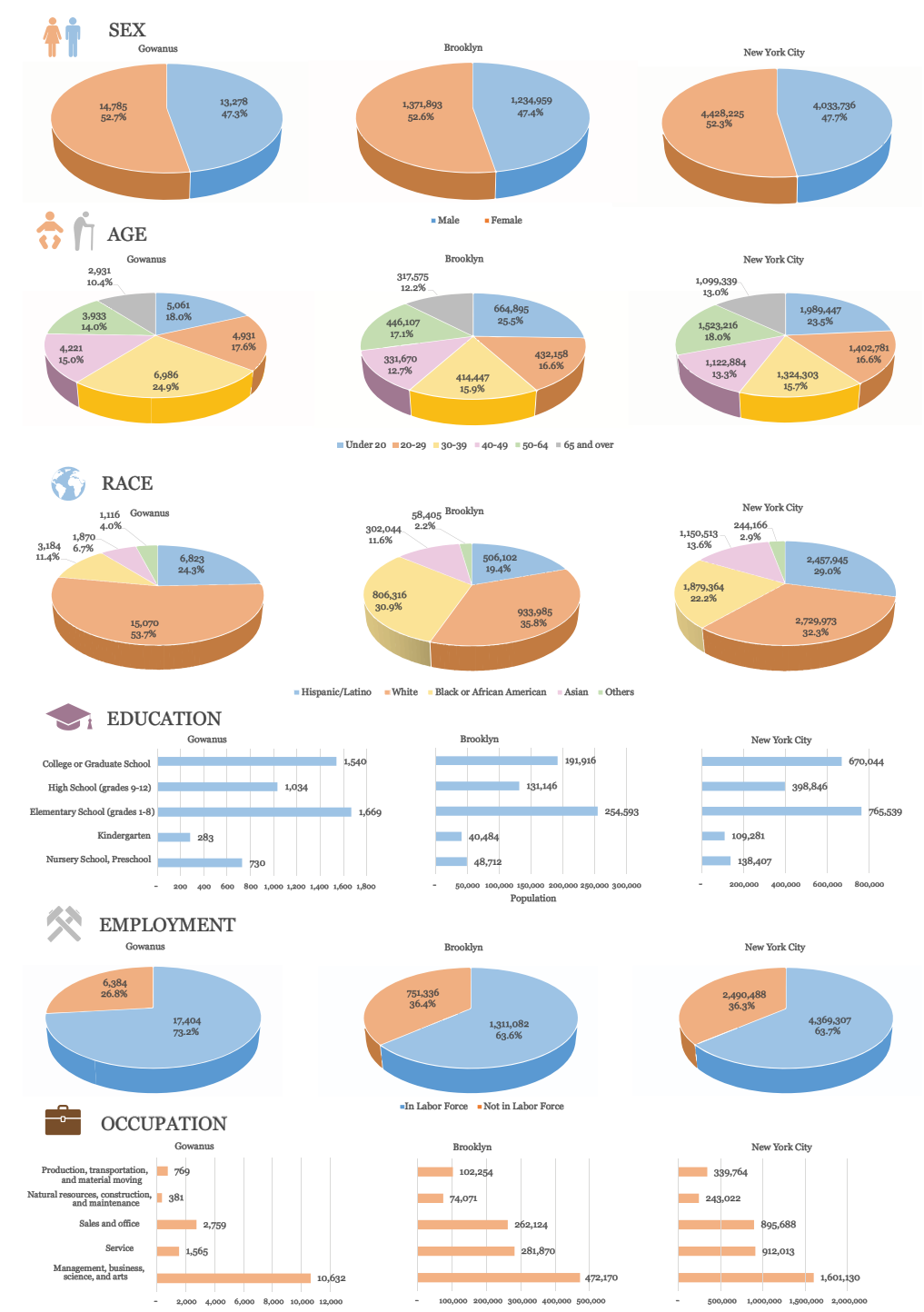


Parks and Schools Around Gowanus



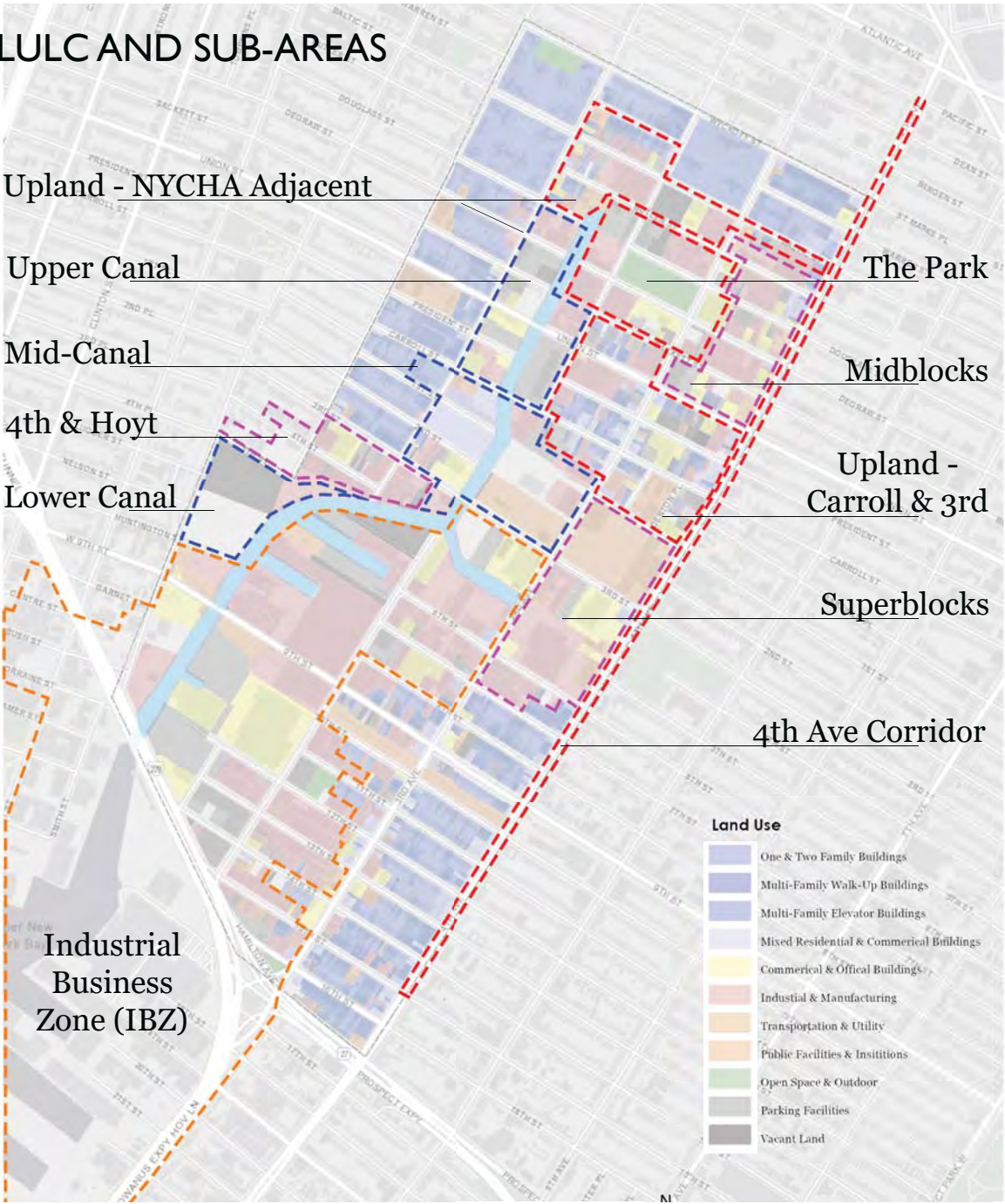
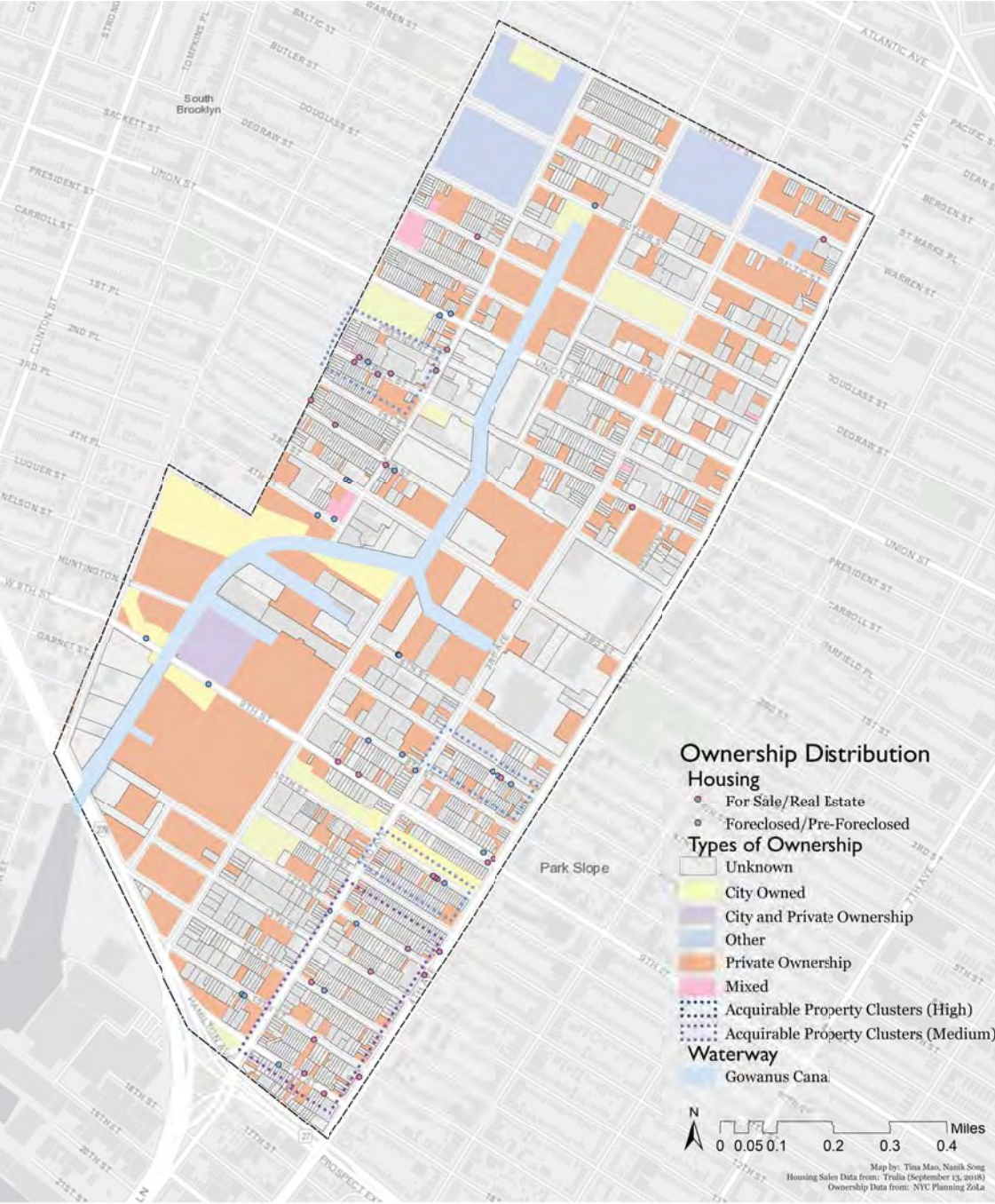
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Demographics of Gowanus



Landuse and Housing

Meng Guo, Grace Li,Tina Mao, Nanik Song



- Goals:**
- Identify acquirable properties for redevelopment opportunities
 - Locate clusters of developable land
 - Note areas with high rates of ownership change possibilities

- Potential Development Opportunities**
- Highest Opportunity: City Ownership (Yellow) and State/Federal (Beige)
 - Medium Opportunity: Mixed tax-exempt properties: owned by a public entity (Blue)
 - Low Opportunity: City/Private (Rose) and Private (Orange)

- Types of ownership**
- Unknown: Usually private ownership
 - City Owned: City Ownership
 - City/Private: Mixed City ownership and Private Ownership
 - Other: Public Authority; State or Federal ownership
 - Private: Either the tax lot has been started an "in rem" action or it was once city-owned
 - Mixed: Fully tax-exempt property that could be owned by the city, state, or federal government; public authority; or a private institution (excludes property with city-owned, private owned, mixed and other ownership)

Upland - NYCHA Adjacent

- Baltic St lacks inviting pedestrian streetscape and supportive uses for the three NYCHA communities it connects
- Encourage local services and retail with a focus on NYCHA needs
- Allow new residential development along Baltic St
- Promote and incentivize non-residential uses identified by the community as priorities, such as supermarkets, community facilities, light industry and arts uses

4th Ave Corridor

- Largest corridor and one of the main thoroughfares in Brooklyn
- Encourage broader range of compatible uses, including potential for multiple-floors of commercial uses/non-residential space
- Require active ground floor uses

Midblocks

- Promote opportunities for people to work in the vicinity of their residences, and accessible to transit
- Modify loading requirements to reflect business needs and reduce conflicts between trucks, pedestrians and other street users
- Promote and incentivize job-generating uses and restrict as-of-right hotels

Superblocks

- Improve streetscape conditions and connections to the street grid and 4th St turning basin as properties redevelop in the long-term
- Support expansions and developments with a mix of uses
- Increase allowable density for industrial, commercial and arts-oriented uses
- Consider permitting higher density mixed-use with affordable housing along 4th Ave and along 3rd St
- Consider permitting new housing on parts of 7th St with a predominant residential block character

4th St and Hoyt St

- Support adaptive reuse of larger loft-style buildings at Bond and 4th St
- Promote connections to future waterfront public access areas and promote a continuous esplanade along the western side of the Canal
- Bring residential uses along Smith Street into conformance with zoning

Upland - Carroll St and 3rd Ave

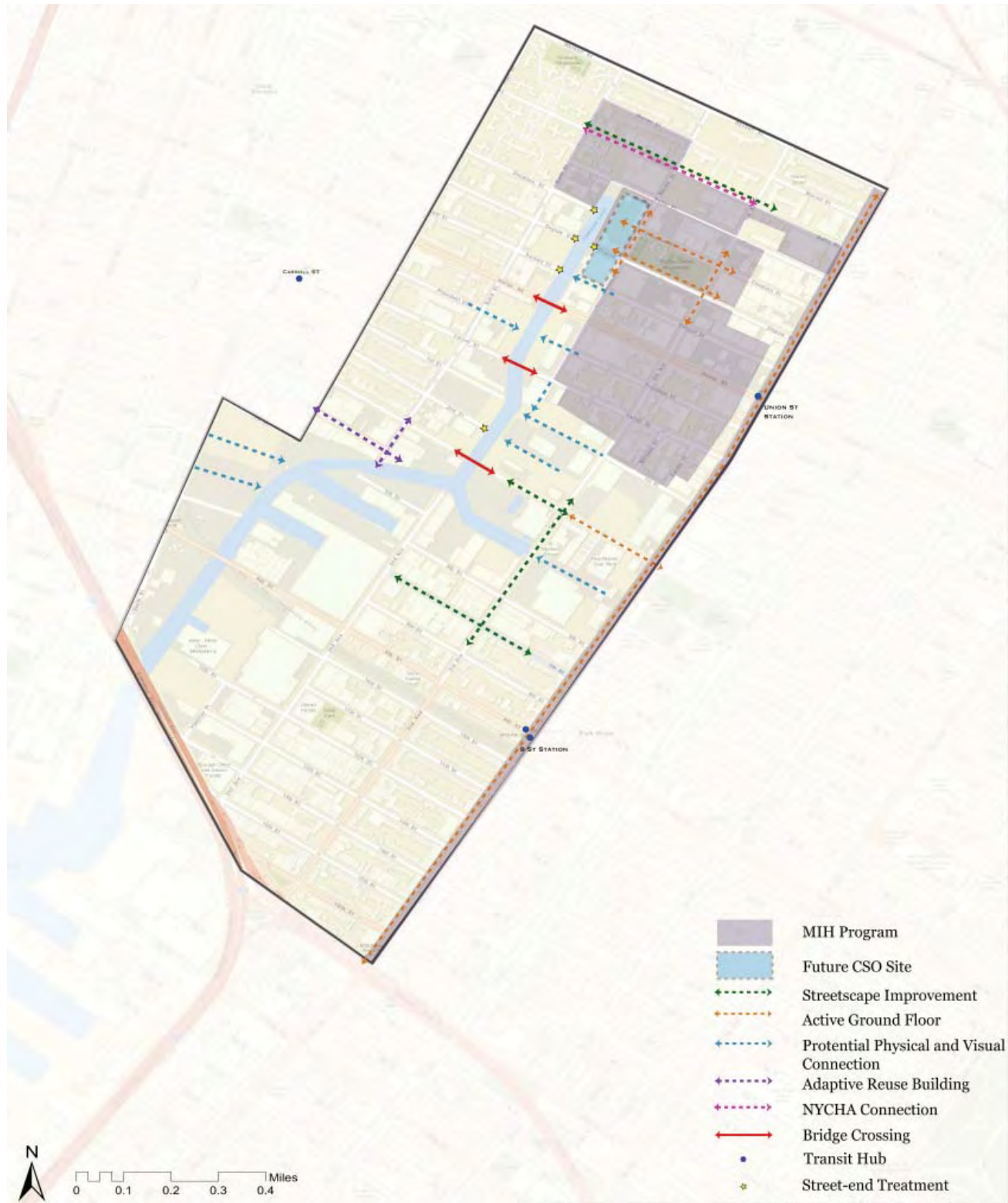
- Bring residential uses into conformance with zoning and support resilient upgrades to homes in the floodplain
- Allow for contextual enlargements and support individual live-work projects as practicable
- Make Mandatory Inclusionary Housing (MIH) program applicable within the area, requiring permanently affordable housing to be included in new developments

The Park

- Support a remediated, reconstructed Thomas Greene Playground integrated with surrounding streets through active non-residential edges and connection to new open space, future Canal esplanade and the NYCHA communities
- Catalyze clean-up efforts around the Canal and upland brownfield sites
- Enhance 3rd Ave streetscape, while balancing needs of trucks and through traffic
- Require active ground floors along 3rd Ave and Thomas Green Playground
- Adapt key streets with measures for pedestrian and driver safety and efficient freight and delivery for area businesses

Upper and Mid-Canal

- Catalyze site remediation and development
- Connect future waterfront public open space to future CSO facility site's open space and to existing open space at Thomas Greene Playground and nearby NYCHA communities
- Promote uses with consideration of the proximity to 3rd Ave, 3rd St, BRT Powerhouse and existing residential development
- Ensure built form responds to the Canal width, the future waterfront esplanade and surrounding neighborhood context
- Support environmental cleanup of sites and resilient landscape and building design
- Allow residential development at a medium to moderate density along the Canal and a higher density along 3rd Ave to create new housing at a mix of incomes
- Require all waterfront developments to provide and maintain well-designed public open spaces
- Allow and promote a mix of uses on ground floors and second floors to support and active and diverse waterfront
- Leave adequate light and air at the Canal and appropriate relationship to adjacent context
- Identify where supplemental open spaces should be located along the waterfront
- Identify where visual linkages and upland connections are needed to enhance access and visibility to the Canal
- Facilitate visual and physical access to the 1st St Turning Basin
- Establish bulk regulations that promote the reuse of certain buildings



Goals and Strategies:

Superblocks:

- Reinforce an active hub of businesses and employment.
- Improve streetscape conditions and connections to the street grid and 4th Street Turning Basin as properties redevelop in the long-term.
- Consider permitting higher density mixed-use with affordable housing along 4th Avenue and along 3rd Street.
- Consider permitting new housing on parts of 7th Street with a predominant residential block character.

4th St and Hoyt St:

- Reinforce an active hub of businesses and employment.
- Support adaptive reuse of larger loft-style buildings at Bond and 4th streets.
- Create height, setback and other building envelope regulations for developments or enlargements that are compatible with the neighborhood character.

Upland - Carroll St and 3rd Ave:

- Make MIH program applicable within the area, requiring permanently affordable housing to be included in new developments.
- Our Lady Of Peace occupies a full block across from another neighborhood institution, 505 Carroll Street, which is undergoing an expansion of its light industrial and artist space.

Upland - NYCHA Adjacent:

- Improve streetscape conditions and connections between NYCHA communities and existing and future open spaces and job opportunities.
- Support adaptive reuse of larger-loft style industrial buildings.
- Make MIH program applicable within the area, requiring permanently affordable housing to be included in new developments.
- Baltic Street is a key corridor and is one of five west-to-east connections near or over the Canal.

The Park:

- Enhance 3rd Avenue streetscape, while balancing needs of trucks and through traffic.
- Allow higher density mixed-use around Thomas Greene Playground and 3rd Avenue.
- Require active ground floors along 3rd Avenue and Thomas Greene Playground.
- Make MIH program applicable within the area, requiring permanently affordable housing to be included in new developments.
- Maintain existing zoning to promote reuse of certain loft buildings.

4th Ave Corridor:

- Leverage redevelopment to provide significant affordable housing on previously rezoned portions of 4th Avenue.
- Improve streetscape and safety.
- Make MIH program applicable within the area, including on the previously rezoned portion of 4th Avenue, requiring permanently affordable housing to be included in new developments.



Community Values & Research

Devin Fields, Giselle Pena, Katherine Rodriguez, Phia Trinidad

Design Proposals

Wyckoff Gardens

Two building project by NYCHA (The New York City Housing Authority) in collaboration with Next Generation (a program that produces long-term goals for housing in New York) to propose more affordable housing in Brooklyn and help bring revenue to their almost bankrupt economic status.

The NYCHA Next Gen program collected data from local residents before making any design decisions on the new buildings' proposal.

RESIDENTIAL NEEDS/WANTS:

- Better landscape around Wyckoff Gardens and have more integrative spaces for community members
- Enhanced security
- More green infrastructure
- Uniformity amongst existing and proposed structures
- Better accessibility to commercial use in neighborhood
- More parking

The NYCHA Next Gen program hopes to fulfill resident's needs as well as produce enough revenue to get out of their current debt of approximately \$16 billion dollars.

NYCHA NEXT GEN GOALS:

- Achieve financial stability
- Provide better living conditions for current and future residents
- Create a connection with the Gowanus Canal program to establish outreach for better communal integration
- Provide and preserve current affordable housing to its residents
- Increased safety and security
- Maximize use of ground floor spaces (parking, playgrounds, etc.)

Many of the residential needs/ wants correspond to NYCHA Next Gen's goals. The Wyckoff Gardens redevelopment plan has been in process since 2015 but has not yet been finalized.



Areas for new buildings at Wyckoff Gardens



Rendering for proposed building at Wyckoff Gardens



Gowanus Green

- The project will provide 774 units of rental and for-sale housing
- 65,000 square feet of community and retail space.
- Seventy percent of the units will be affordable to households with incomes between 30 percent and 130 percent of area median income.
- More than 100 apartments will be affordable rentals for seniors.

CANAL PARK

- Accessible from 2 Distinct locations 1.3 acre city owned
- Outdoor Amphitheater
- Expansive ground floor terraces

SWALE TRAIL

- Shrubs and planting along streets to slow the movement of stormwater collected on the site roofs, open spaces & private streets before meeting the canal.

ENVIRONMENTAL STEWARDSHIP AND SUSTAINABLE DESIGN

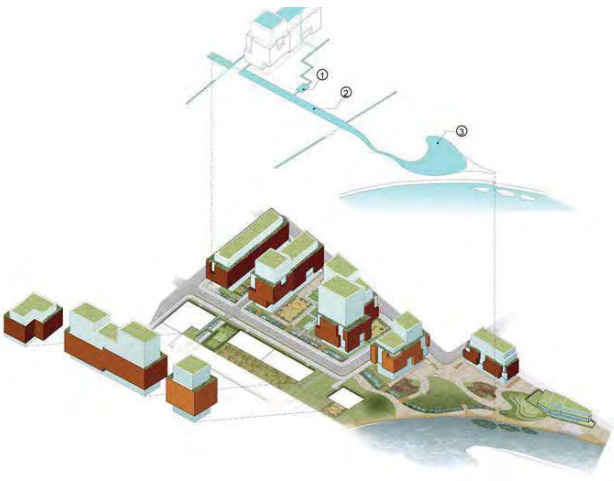
- Committed to environmentally sustainable buildings.
- Network of open spaces
- Over 50% is programed for Landscaping, Parks & other recreational uses.

RECREATIONAL AND EDUCATIONAL FEATURES

- Facilitate community gathering
- Waterfront facilities for outdoor and Environmental groups
- Art programing in the park, local art.

COMMUNITY RETAIL INTEGRATION

- Wellness Center Retail : Vendors with focus on fitness, healthful eating, physical health.
- Weekly farmers market
- Daycare
- Plant Nursery
- Art Gallery
- Bicycle Shop
- Bars/Restaurants
- Gowanus Green will go through ULURP (The Uniform Land Use Review Procedure)
- City Owned property
- Changes in Zoning District
- Changes to the City Map (New Public Streets)
- Special permits to allow sites to be developed
- At least 3 public hearings



Gowanus Lowlands

DESIGN

- The canal will rise and fall with sloping banks, raised lookout points, and forested seating.
- Performance spaces, cafes, picnic areas, boathouses, and playgrounds.
- Connecting the area with coastal planting palette, site specific designs and industrial materials.
- Adapted local ecosystem throughout watershed's network of parks and forested corritors.
- Green roofs, detention tanks, mitigation basins, bioswales and water treatment parks.

A NETWORK OF PARKS

- Connect Parks , Existing parks, Green end corridors, and Esplanades and supplemental public access areas, created through waterfront zoning. Salt marsh restoration in turning basins and along edges

- Creating landscapes that adapt to rising sea levels.
- Stormwater management streets
- Restoring salt marshes in turning basins
- Building water storage and filtration gardens at street ends
- Green roofs and constructed bird habitat
- Floating and in water aquatic habitat (Floating Wetlands)
- Regenerating the urban forest
- Daylighting historic creeks

COMMUNITY CONNECTOR

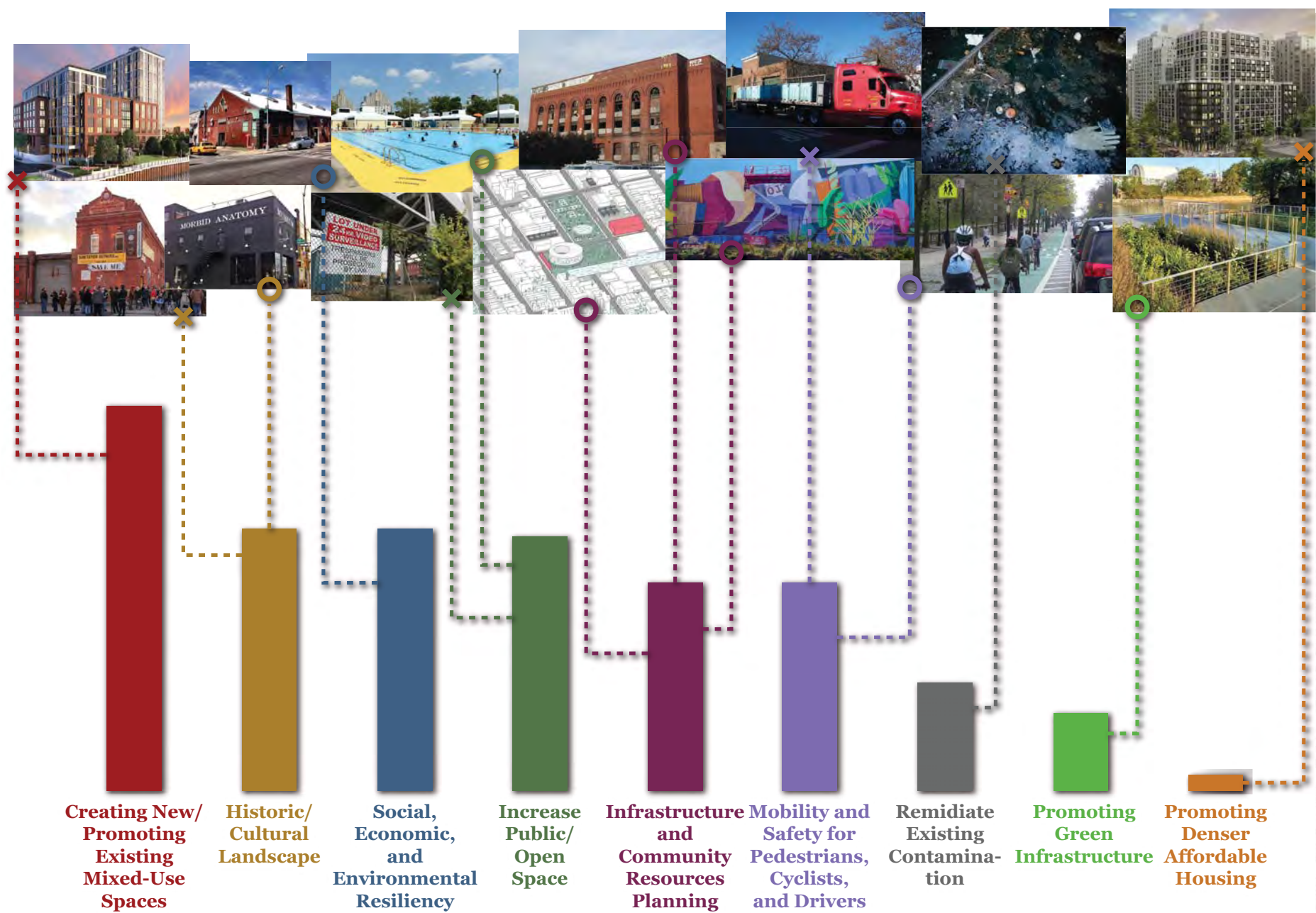
- Expanding the existing bicycle network
- Connecting Brooklyn greenway to the canal
- Enhancing commercial, mixed use and industrial corridors
- Extending east-west streets toi the canal edge
- Introducing new bridges for pedestrians and cyclists
- Signage and wayfinding strategy
- Site-specific art to interpret the unique history and issues

A WILD URBAN WATERWAY

- Stepped get downs
- Kayak and small boat access
- Raised overlook platforms
- Vegetated Banks
- Stormwater management sites
- Eco-educations hubs
- Aquatic restoration sites

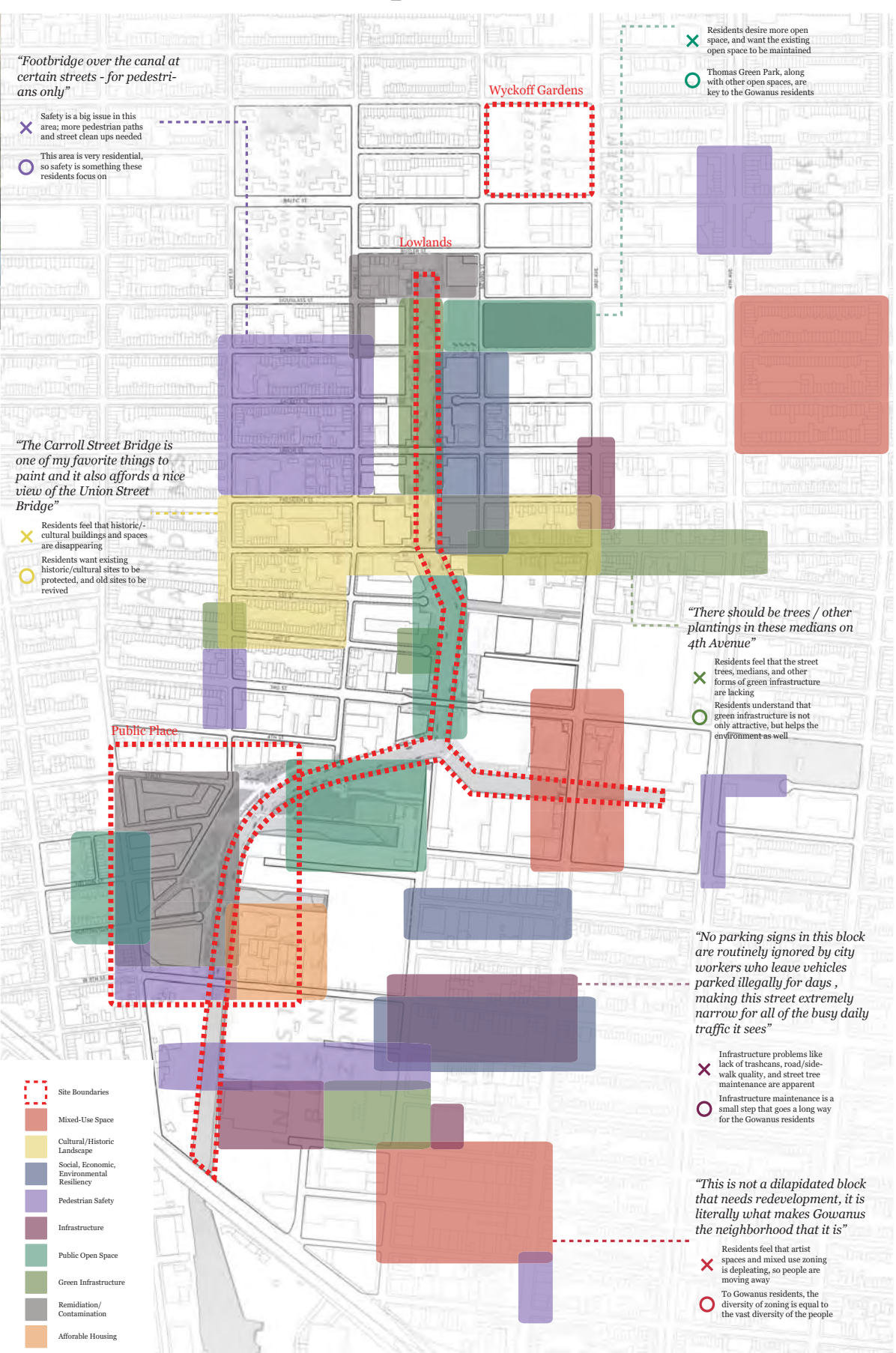


Community Vision



The above graph shows the distribution of 231 residents’ comments about what they love about Gowanus and what they feel should be improved. Data was gathered from PlanGowanus.com and Gowanus Atlas. Comments were sorted into categories outlined by the Gowanus Framework.

Community Values Map



DESIGN PROJECTS



CRUSTACEANS AND BIVALVES

- Ribbed Mussels
- Blue Crabs
- Horseshoe Crabs
- Fiddler Crabs

AQUATIC

- Arrowhead (*Sagittaria subulata*)
- Widgeon Grass (*Ruppia maritima*)

• Salt Marsh Cordgrass (*Spartina alterniflora*)

The Gowanus Lowlands

Alexis Lo, Emily Otterbine, Emily McGale, Robert Cook



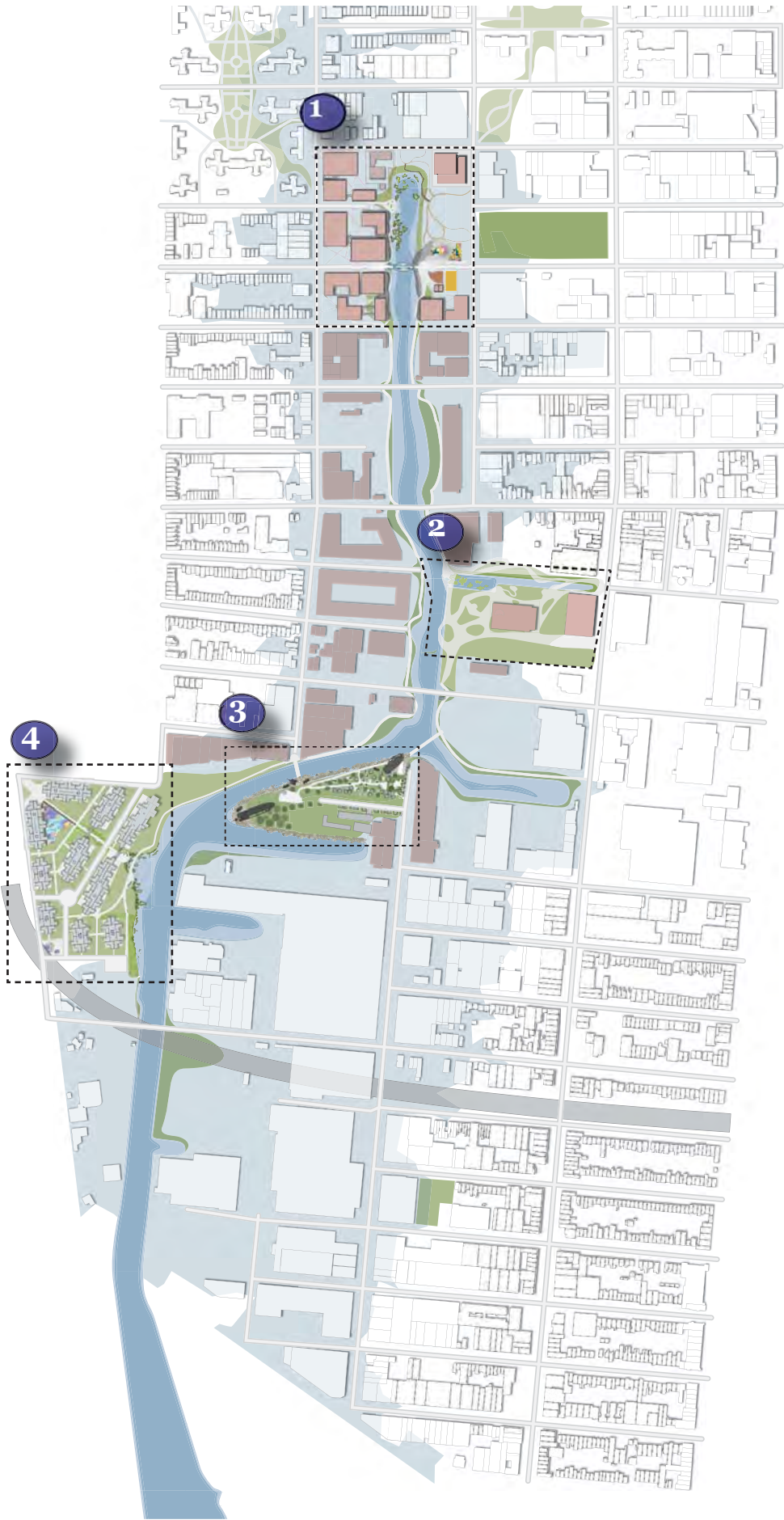
PROJECT GOALS

- This project explored the long-term development of the Gowanus Canal into a floodable landscape that would allow for new forms of recreational, residential and commercial uses to remain in place as sea-levels rise.
- The design concept is to soften the edges of the canal through deliberately phased strategies over a period of 50 years.
- The cleanup of the canal would be enhanced through the creation of a number of habitat islands in the canal, which are inaccessible to people other than through boardwalk pass throughs.
- The design seeks to create a balance between wildlife habitat and public parks and plazas for people to use by exploring different layered typologies that create hierarchies in section.
- Another main goal of the design is to develop a strategy for vertical retreat in response to future climate change and sea-level rise scenarios.
- The is executed through the creation of canal-side architecture employing amphibious first floors and pass throughs of rain gardens and alluvial fingers, as well as a pre-fabricated modular building typology supported by a steel structural framework that allows for units to “retreat” to higher levels in future scenarios.
- This project was created for an undergraduate studio in the Department of Landscape Architecture at Rutgers University.

DESIGN POINTS

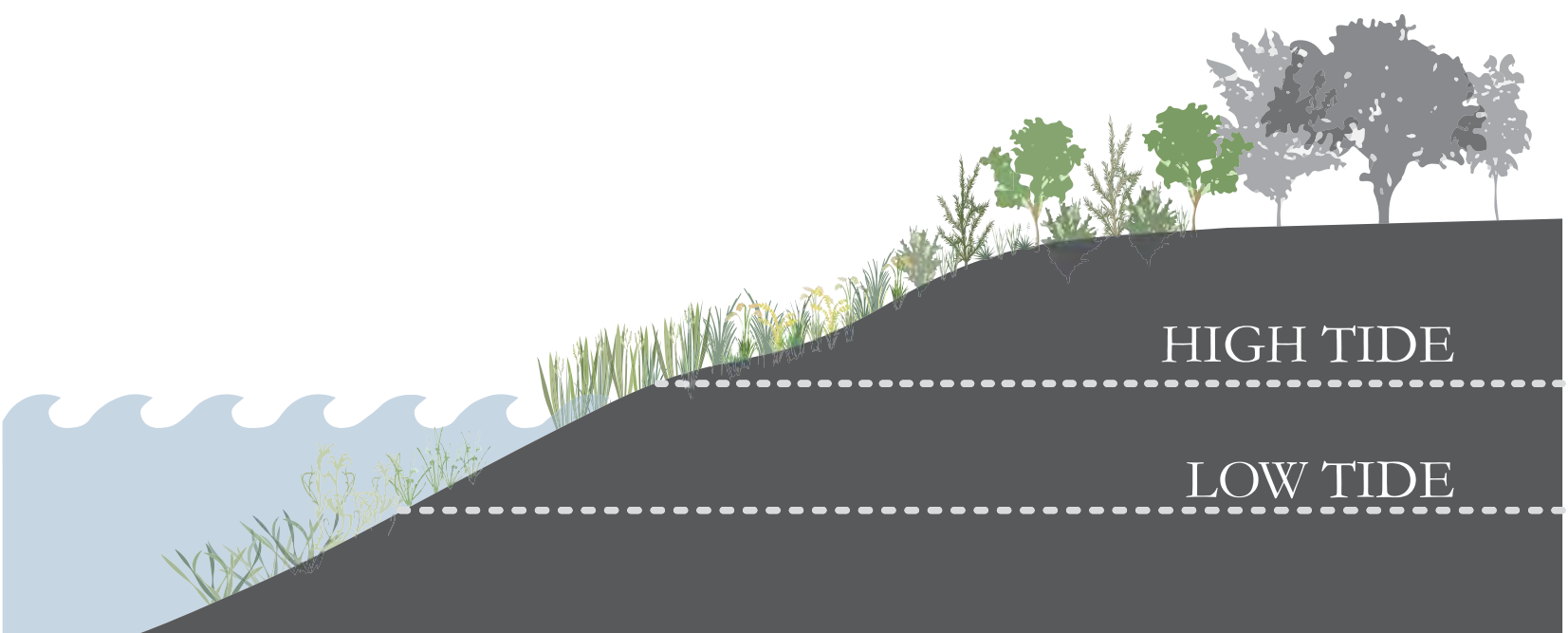
- Soften the edges of the canal through deliberately phased strategies over a period of 50 years.
- Enhance canal cleanup thorough the creation of a number of habitat islands in the canal, which are inaccessible to people other than through boardwalk pass throughs.
- Develop a strategy for vertical retreat in response to future climate change / sea-level rise scenarios.
- Create canal-side architecture employing amphibious first floors and pass throughs of rain gardens and alluvial fingers.
- Reintroduce native plants as well as plants that perform important ecosystem functions and create habitat for select species





Key For Master Plan

- 1 DeGraw Street
 - 2 1St Street Stream
 - 3 The Salt Lot
 - 4 Public Place
- Retrofitting
 - Open Space
 - Canal Extension
 - Esplanade
 - 2050 S.L.R. (100 Year Storm)



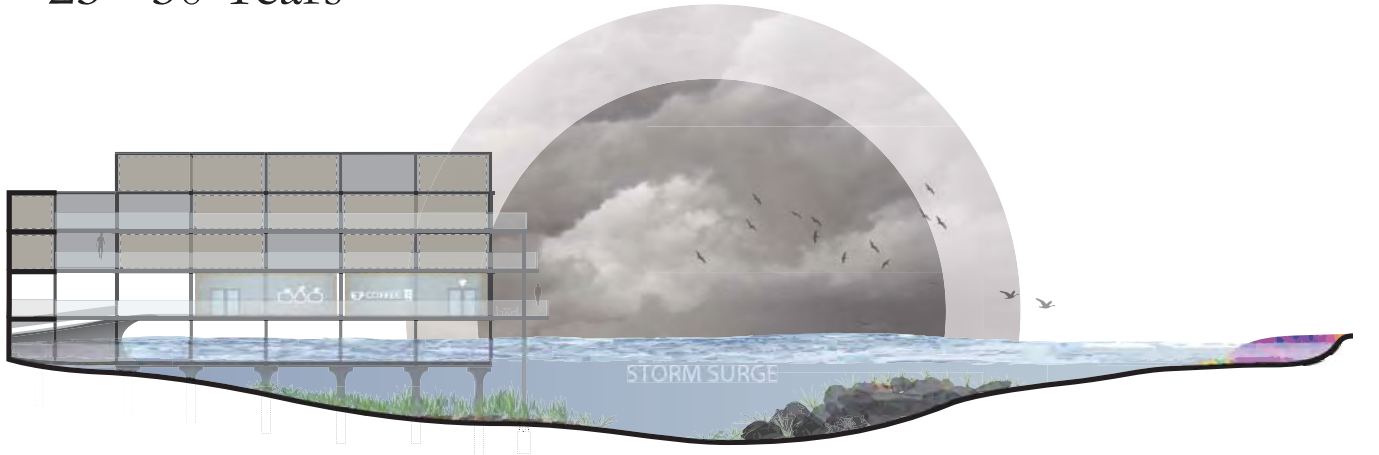
Development
Phasing Sections



10 Years



25 - 50 Years



The Future

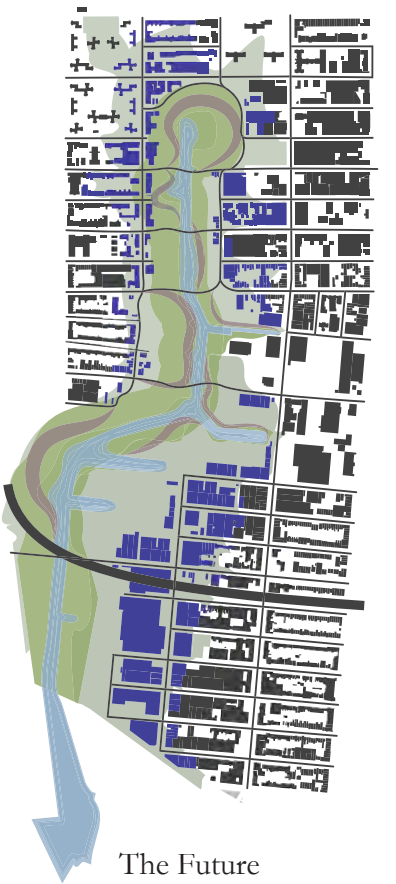
Phasing Diagrams



10 Years
Pedestrian access in and out of the canal, bridges will be repaired, identify vacant lot potentials around the canal



25-50 Years
Soften edges, create habitat islands, vegetate the area, expand the canal, retrofit buildings



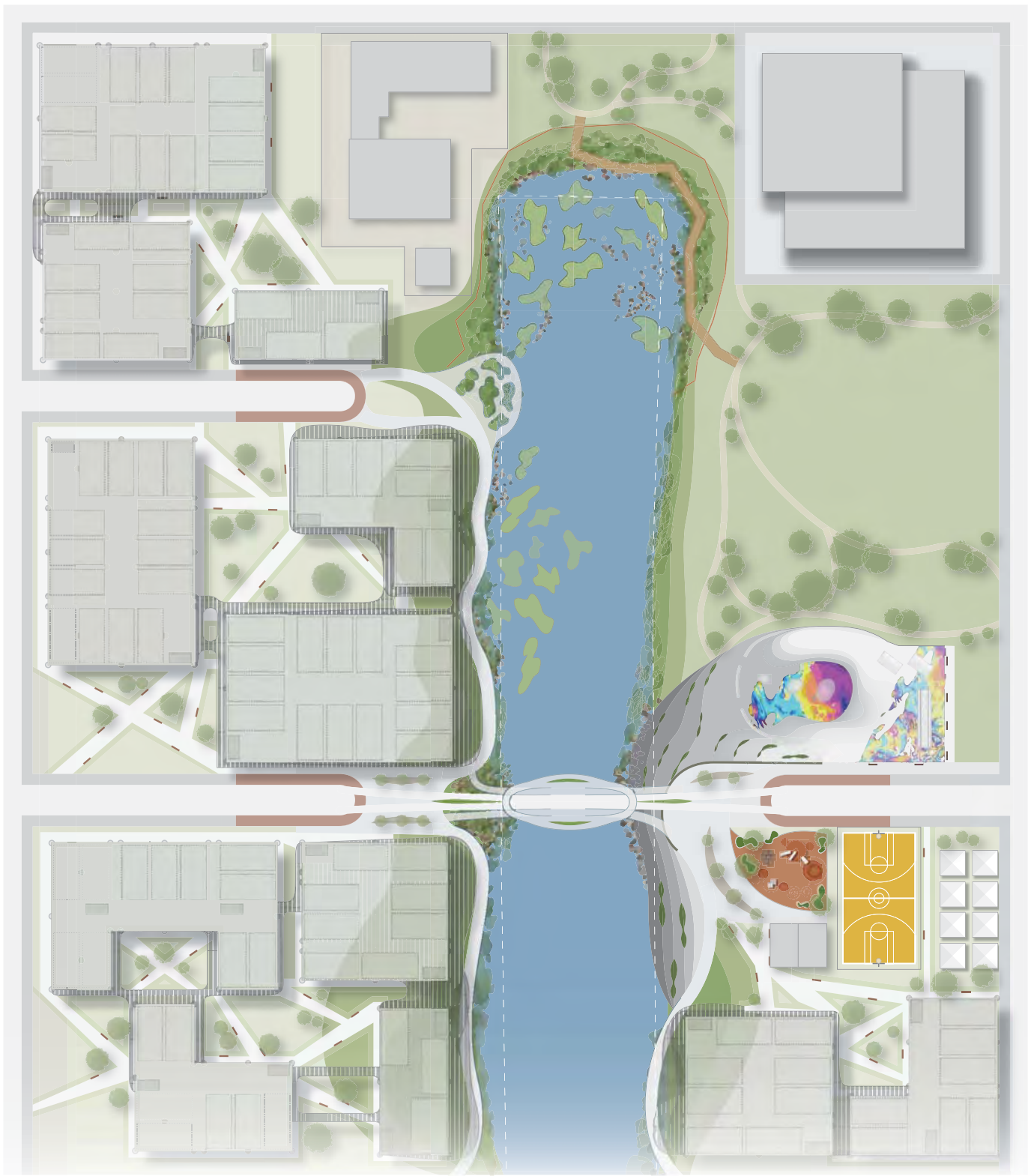
The Future
Nature takes over, vertical retreat begins, pedestrian access through bridge connections



DEGRAW STREET

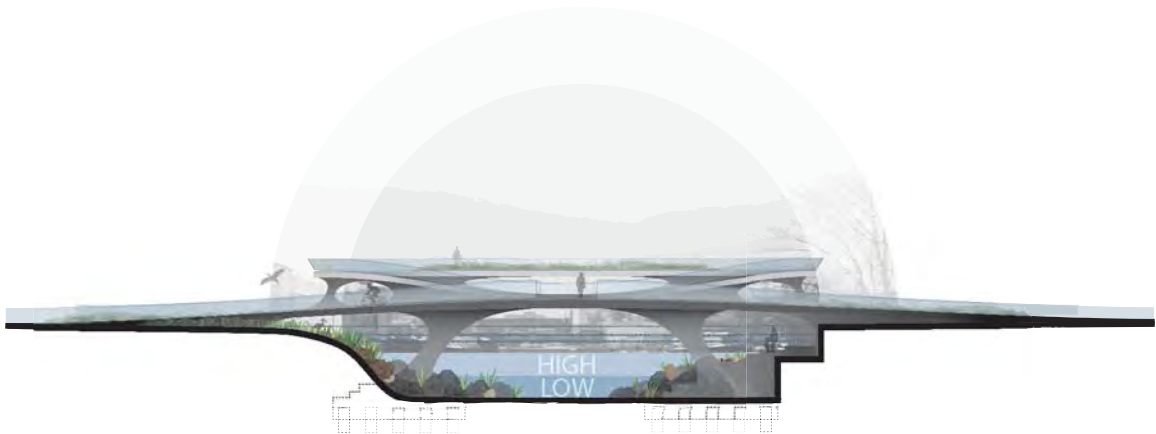
Emily Otterbine

Site Plan

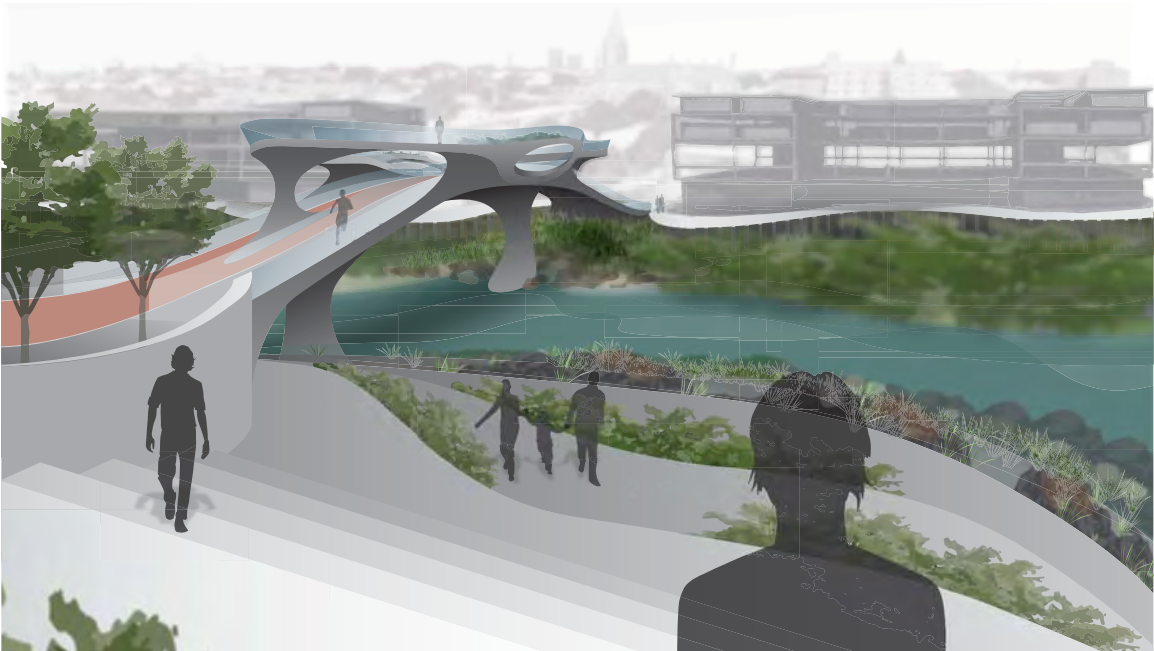


Illustrates a strategy development that allows for vertical retreat, employing modular architectural elements set into a framework that creates public space on 2 levels and adaptive residential units above.

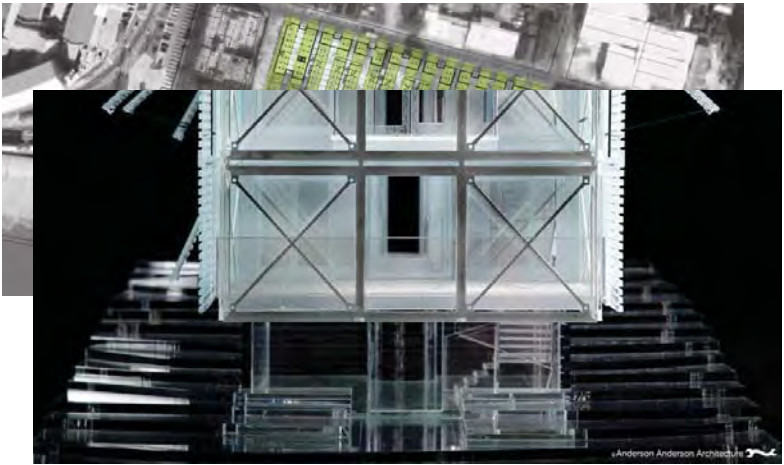
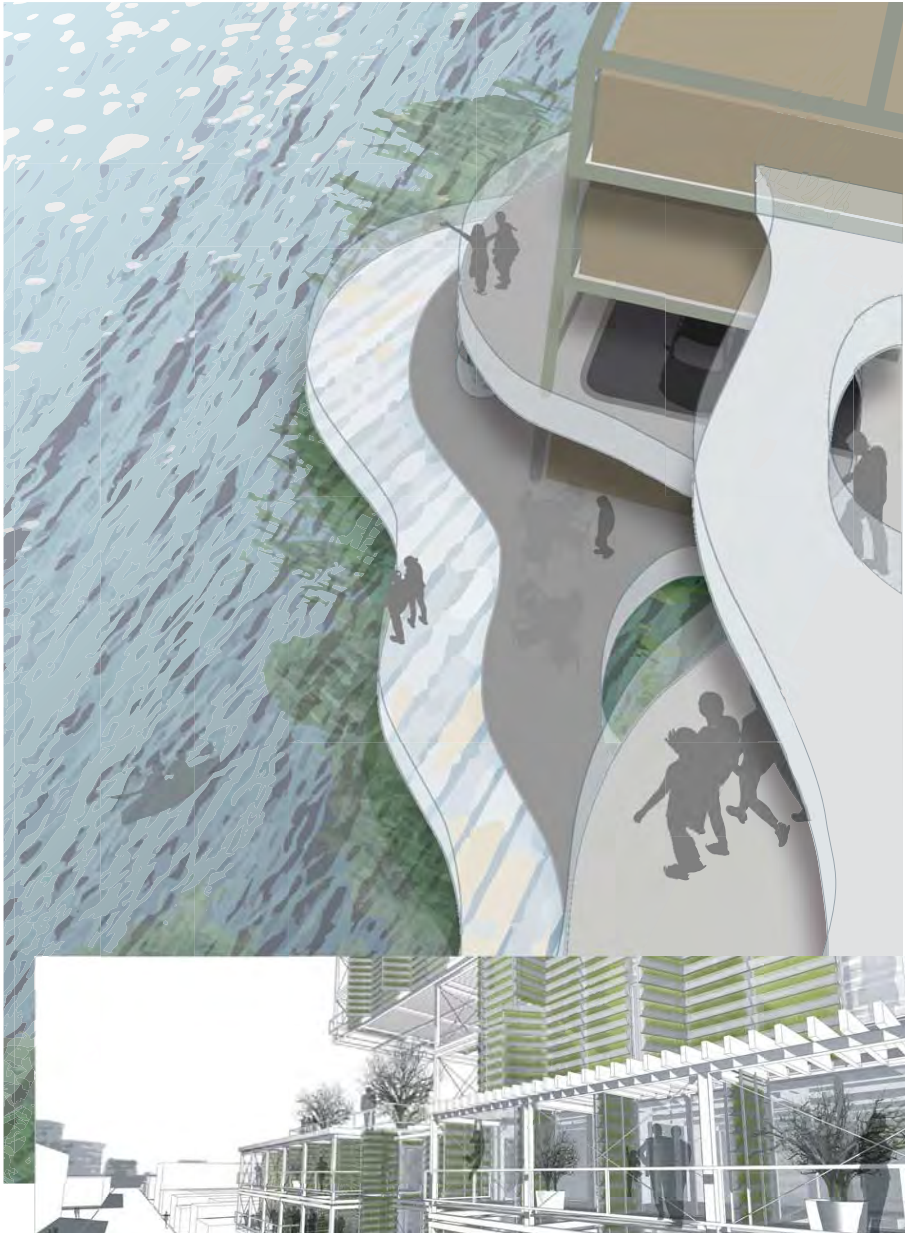
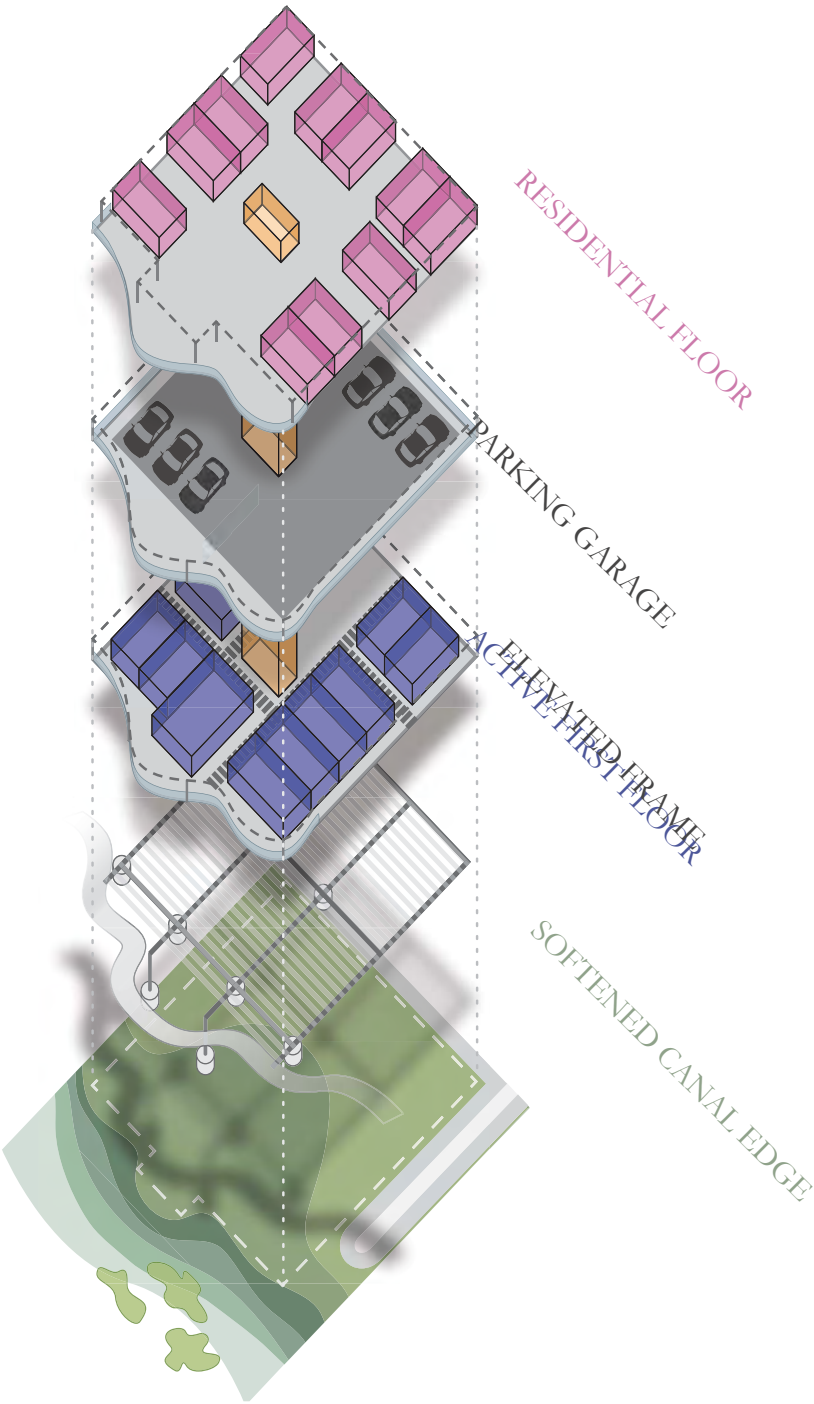
Bridge Section



Bridge Perspective



Amphibious Building



1st STREET STREAM

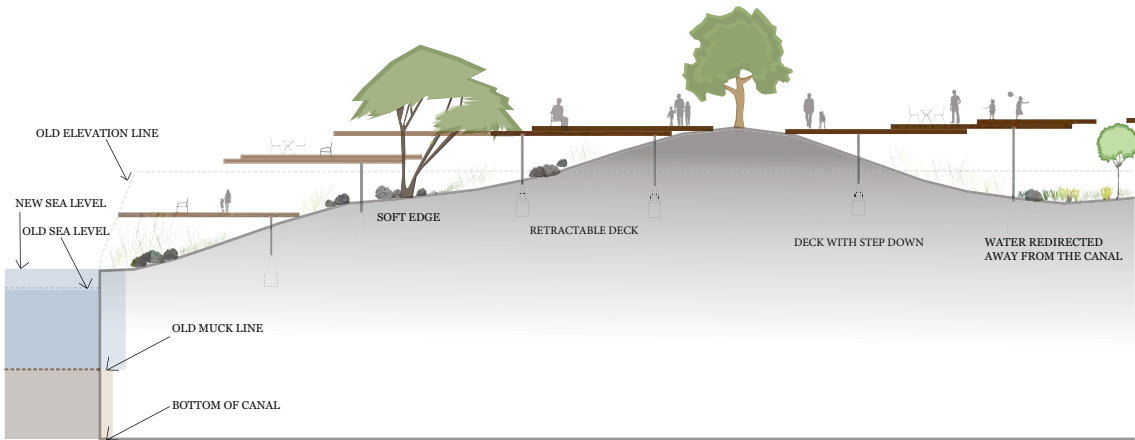
Emily McGale

Site Plan

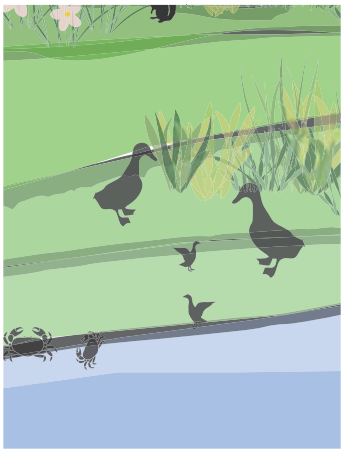


The site is currently located off 3rd Ave in Gowanus Brooklyn. In 1938, the property was turned over to the Williamsburg Power Plant Corporation and used as a central power station. The property was transferred to the New York City Transit System in 1950, where it was used as an electrical sub-station and switching yard until 1996. Prospective plans for this area include the historic BRT Power House transforming in to a public makers space and the 1st street turning basin adjacent to the canal will be a process of phasing for daylighting the stream.

Deck Section



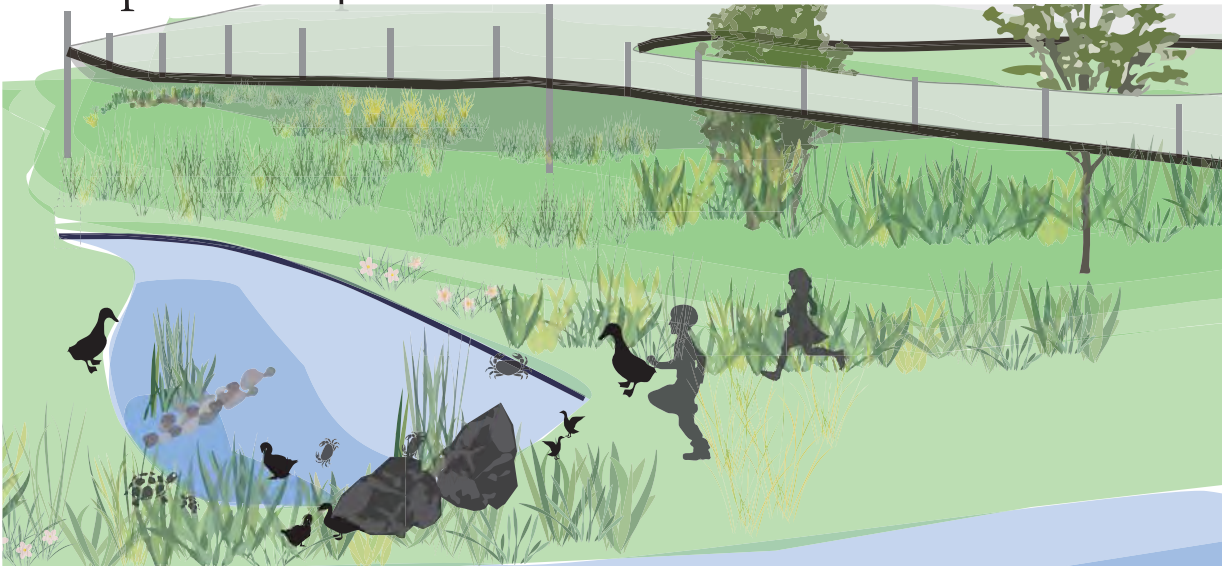
Deck Perspective



Cafe Perspective



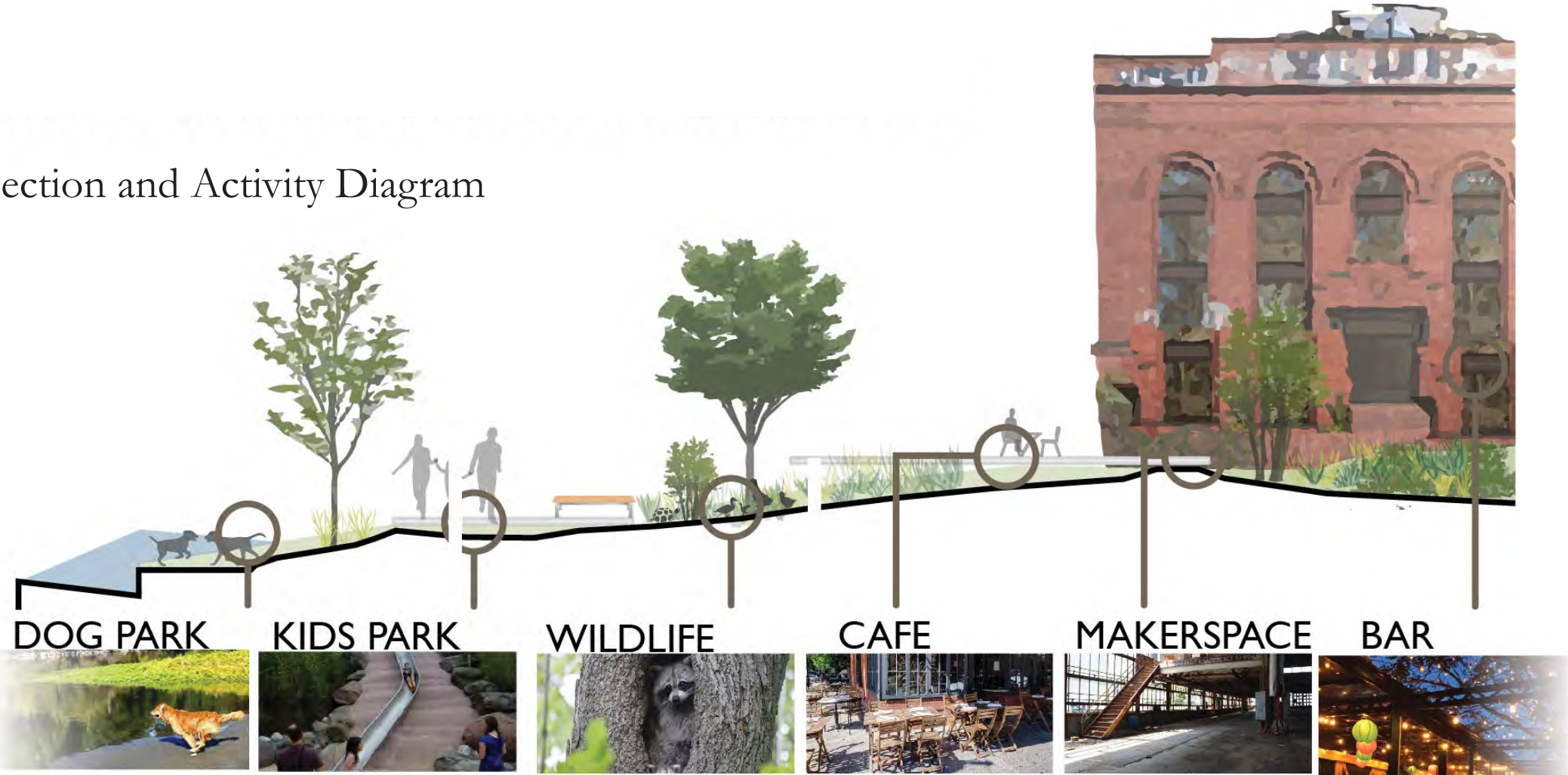
Tidepool Perspective



Spontaneous Vegetation 2028



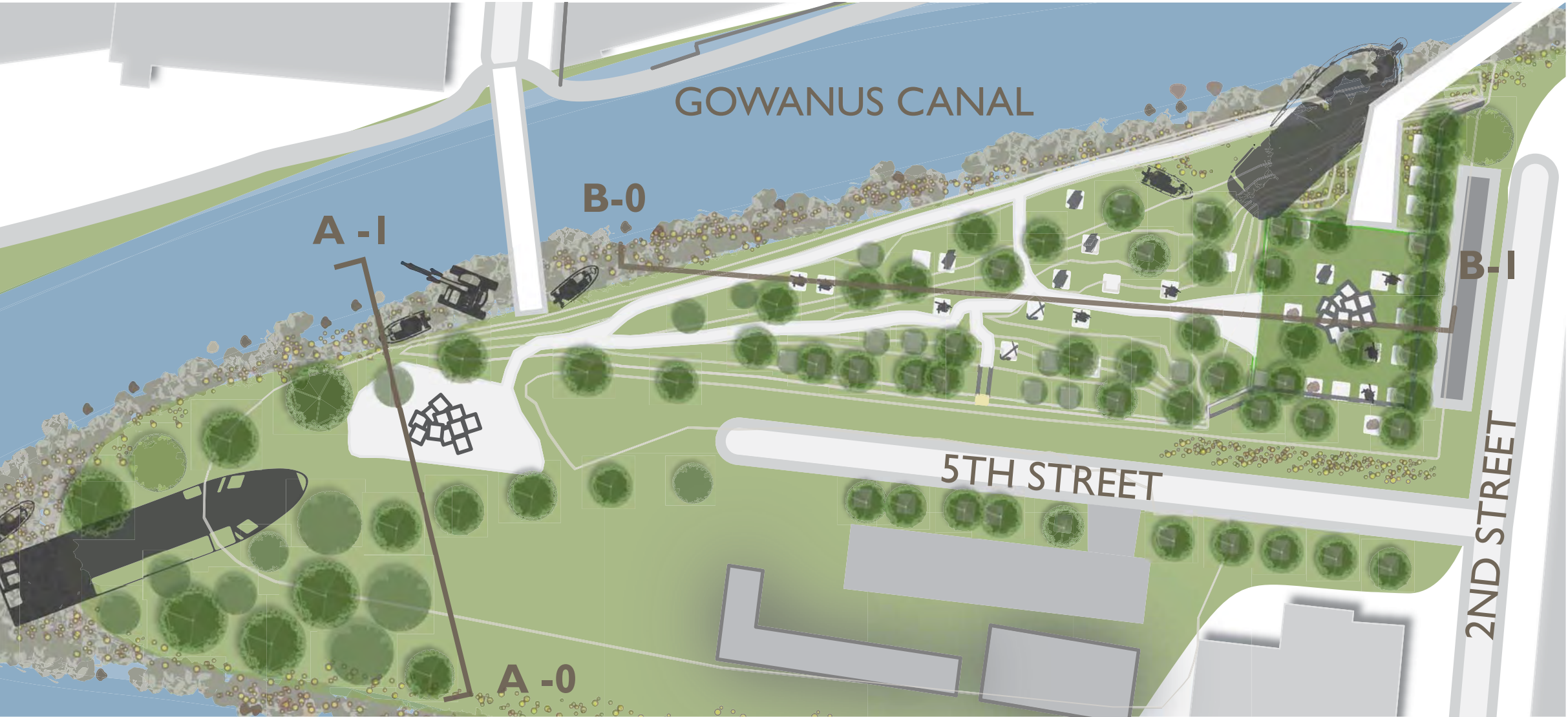
Section and Activity Diagram



THE SALT LOT

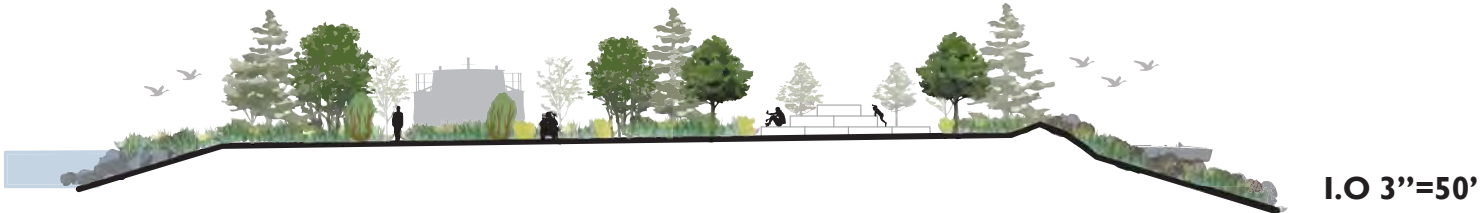
Rob Cook

Site Plan



A spacial cohesion of the site between the Gowanus history and its once native plant species. The Salt Lot will contain a functional museum landscape that references all historical aspects of Gowanus. This includes water, plants, industry, and culture. The design will also mainly employ materials found during the dredging and cleanup of the Gowanus Canal. Boats, barges, cars, rusty machinery, and parts of old buildings that have found their way to the bottom of the Gowanus will tell their stories and be exhibited for visitors. Native trees and species that were once native to the area will have a special “collection” exhibit. The soft edge will include tide pools to harbor future habitat growth once dredging is complete, as well as serve as a green connection between public place and the Whole Foods Market.

SECTION A



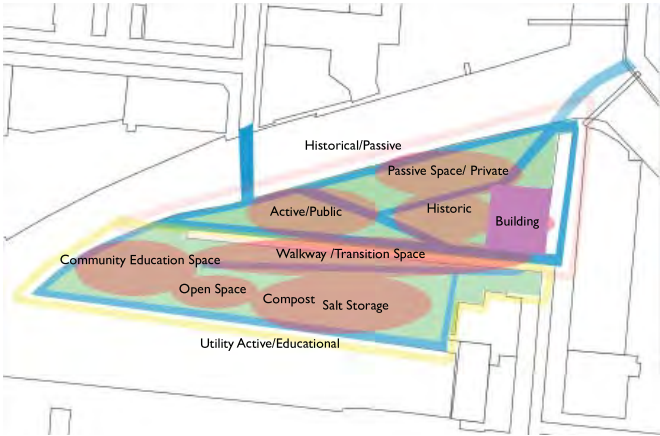
SECTION B



DREDGING UP HISTORY



The objects dredged up during the cleanup process will be cleaned and catalogued and treated like artifacts found when placed on display in the outdoor museum. The Salt lot will be broken into four main areas. An artifact area, a historic plant and tree allee, an ecologic restoration zone and coastal edge around the penninsula. The Final area will be a space that will be used as salt storage by the municipality and a space for existing community programs.



WILIKIA PROJECT PLANT SOURCE LIST

The Species below are just a few of the hundreds of plants likely found on the island of Manhattan in 1609.

- | | |
|-------------------|-------------------|
| Red Maple | Salt Marsh |
| Silver Maple | Cordgrass |
| Sugar Maple | Saltmeadow |
| Fragrant Sumac | Cordgrass |
| Flameleaf Sumac | Black Grass |
| Water Hemlock | (Juncus) |
| Winterberry Holly | Salt Grass |
| Flowering Dogwood | Marsh Elder |
| Redosier Dogwood | Seaside Goldenrod |
| American Chestnut | Beach Plum |
| Northern Red Oak | Purpletop Tridens |
| Tulip Tree | New York Aster |
| Serviceberry | Coastal Blue Stem |



RENDERINGS

Pictured from Left to Right.

Historic Tree Allee, Top of Facility Scramble, Walkway Tidepool Edge.



PUBLIC PLACE

Rob Cook

Site Plan



WEST VIEW PERSPECTIVE



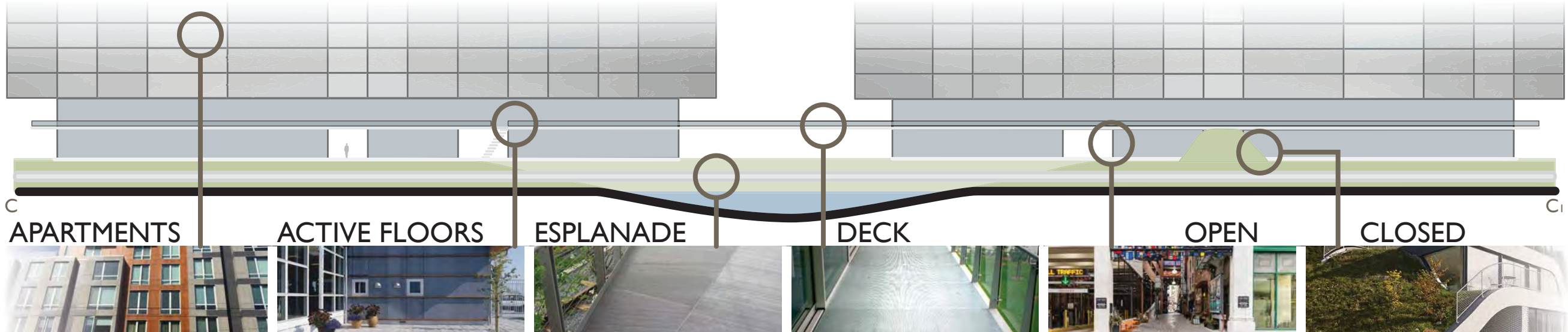
5TH STREET PLAZA



MIXED-USE BUILDING FRAMEWORK

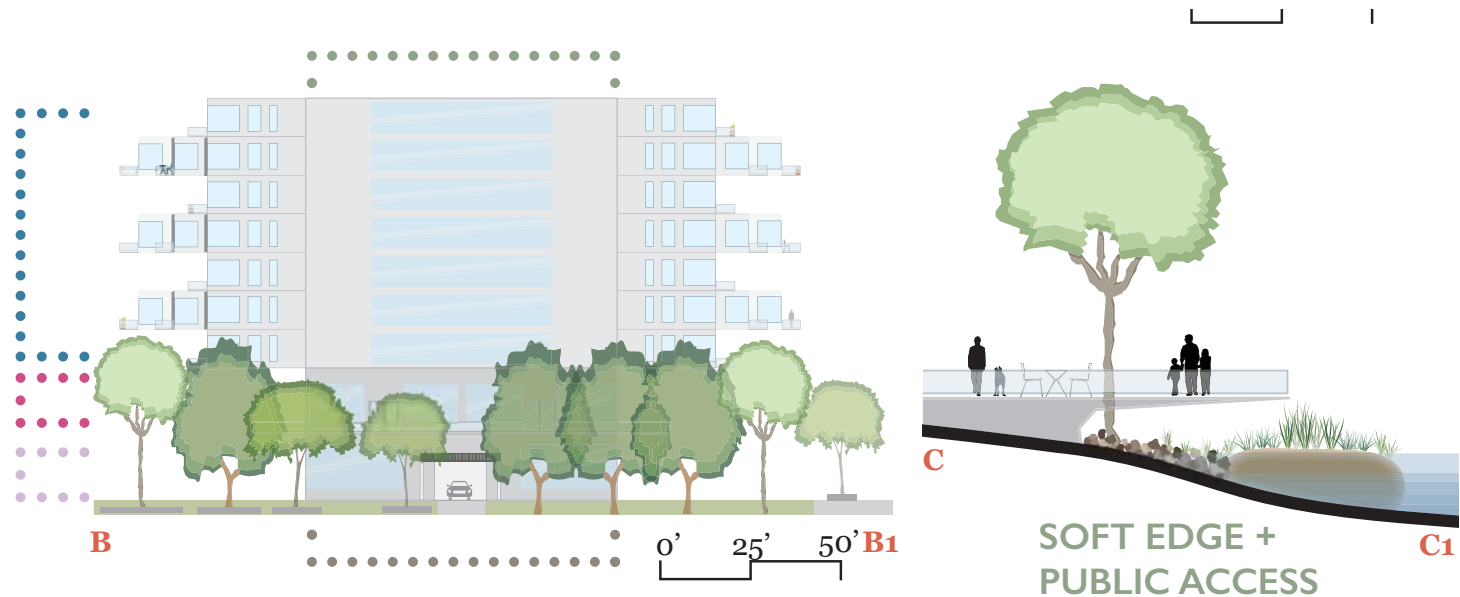
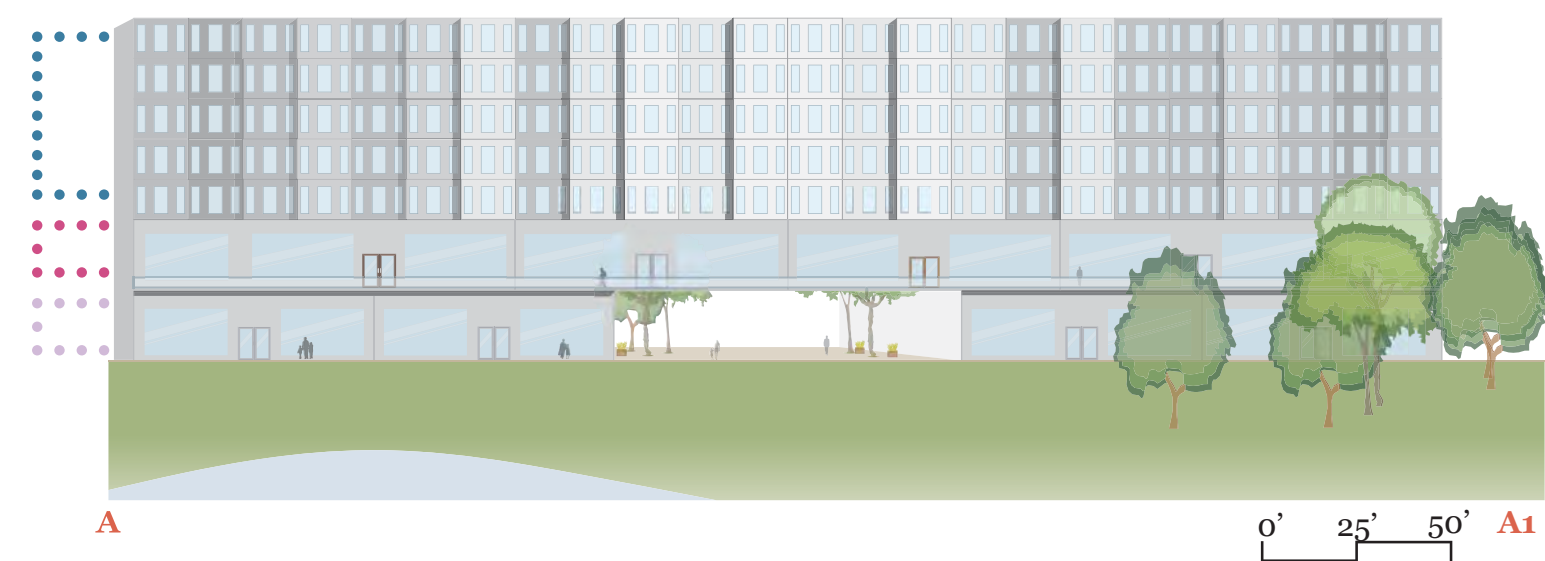


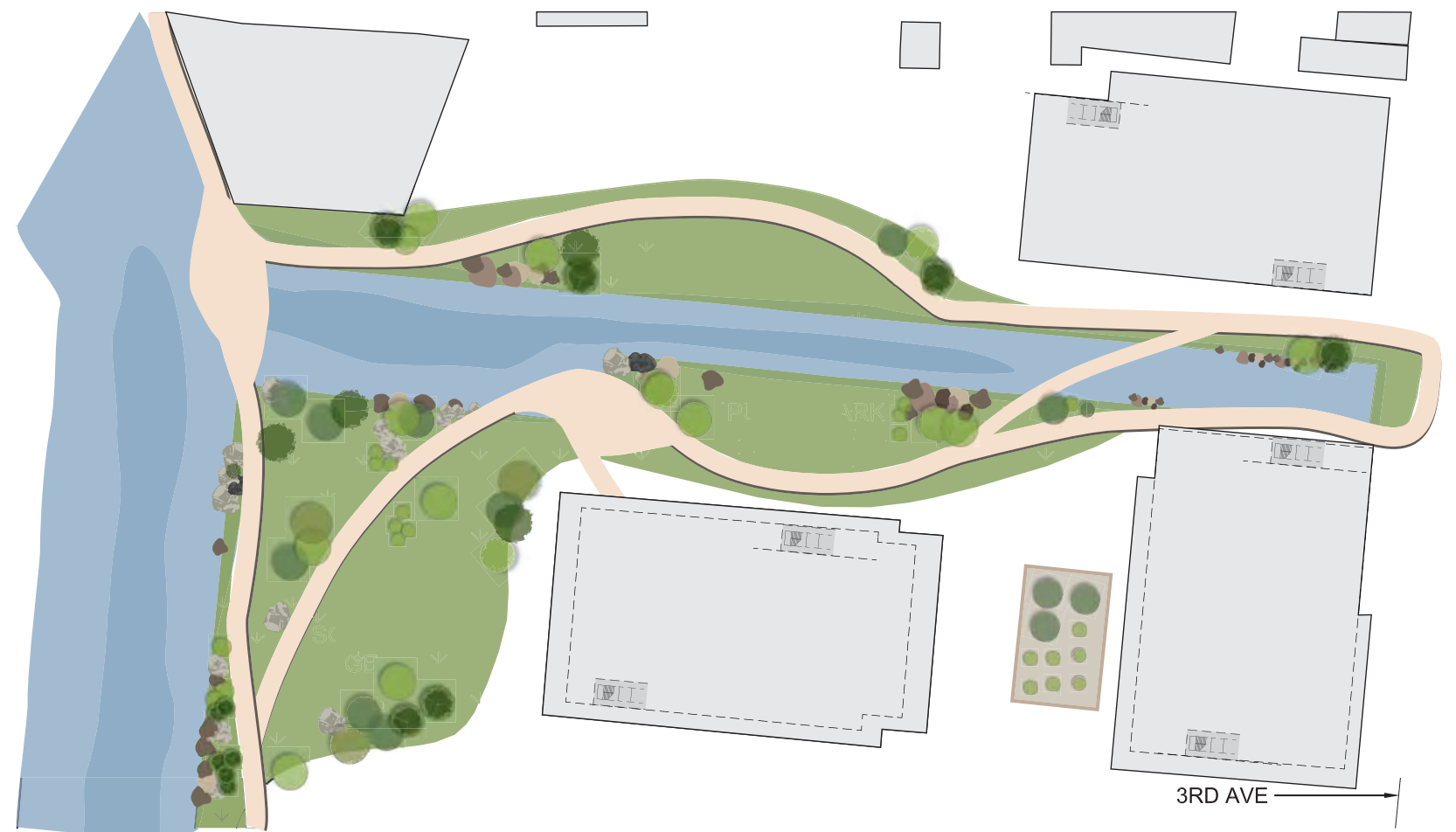
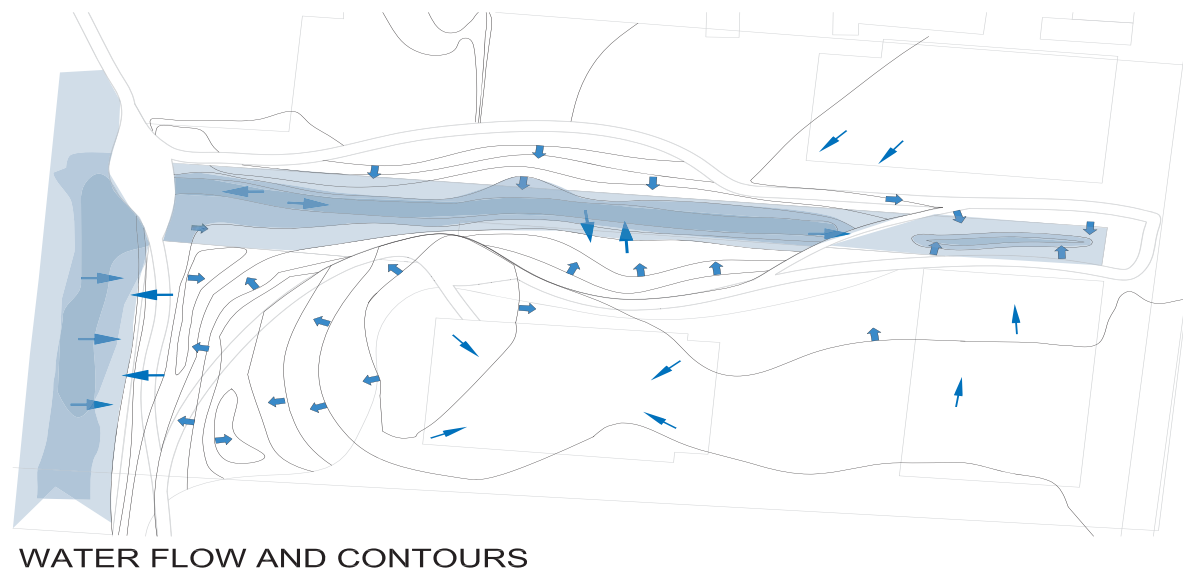
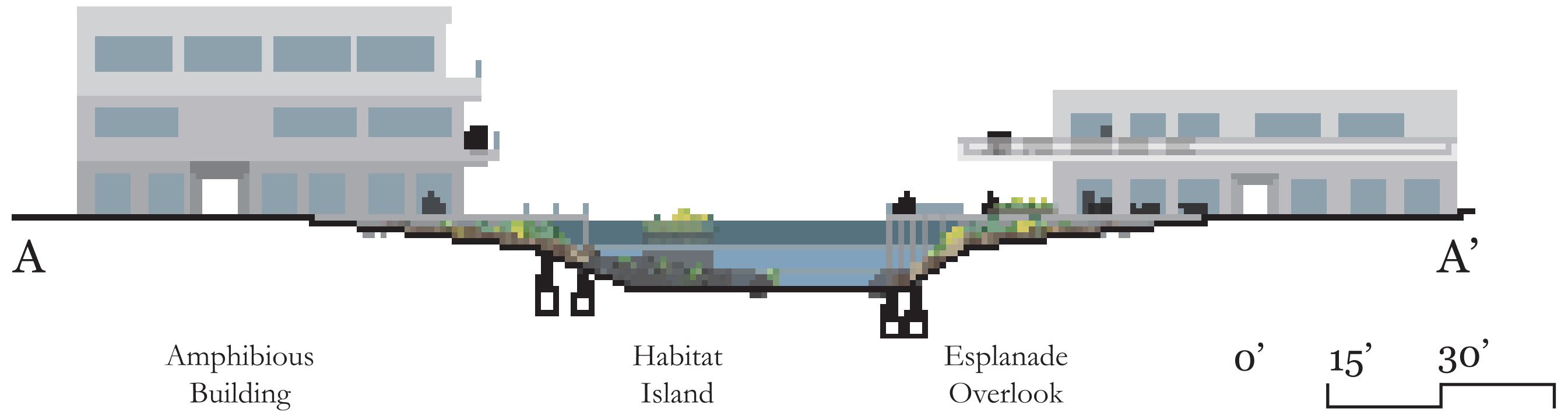
MATERIALS AND PASS-THROUGH DIAGRAM





SECTIONS:





Models

Degraw St Amphibious Building



The Salt Lot



1st Street Stream





Connecting Gowanus

Meng Guo, Grace Li, Gisselle Pena, Katherine Rodriguez



PROJECT GOALS

- Connect NYCHA residents to the canal through streetscape improvements and a network of walkways and temporary gathering spaces.
- Create integrated design strategies to give visual clues to people to inhabit and use interstitial urban spaces.
- enhance open space at Wyckoff by removing fencing and creating gathering spaces while creating a privacy buffer at the two new market-rate buildings.
- Enhance connectivity at the new pedestrian bridge at Degraw Street to create fluid connections between changes in level, using the bridge to form a flood barrier and create distinct spaces at the new park at Nevins Street.

DESIGN POINTS

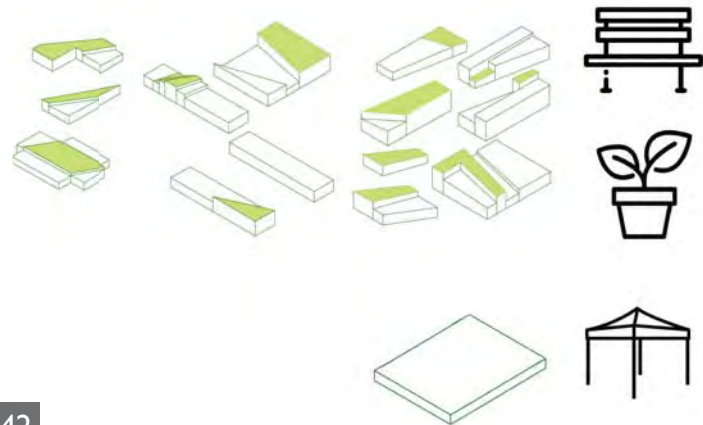
- VACANT LOTS ACTIVATION
 - Creating temporary Open Spaces
 - Furthering the possibility to be a permanent site
 - Connecting communities to open spaces throughout Gowanus
 - Easy access to other sites
 - Large spaces for any type of activities
 - Opening a community ownership dialogue
- Connect NYCHA residents to the canal through streetscape improvements and a network of walkways and temporary gathering spaces.
- Create integrated design strategies to give visual clues to people to inhabit and use interstitial urban spaces.
- Enhance open space at Wyckoff Gardens & Gowanus Houses by removing fencing and creating gathering spaces while creating a privacy buffer at the two new market-rate buildings.
- Create a series of flexible spaces to be used at all times of the day by a variety of different urban citizens.



Master Plan



Common Elements



Context Map

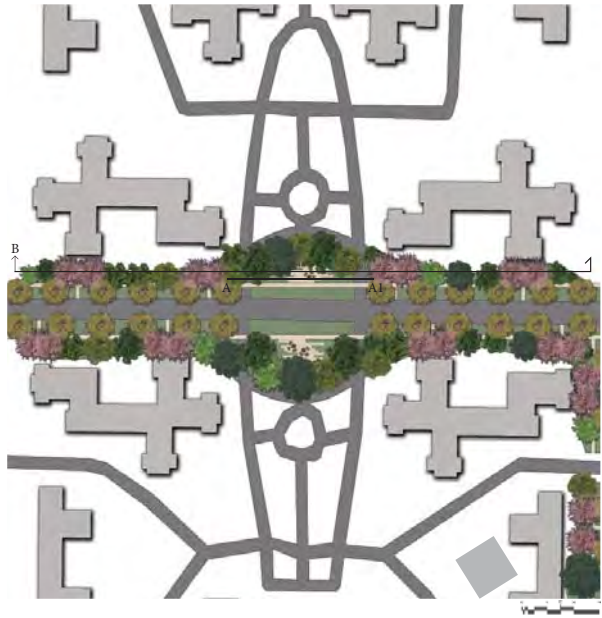


Circulation Map



Baltic Street Street Scapes

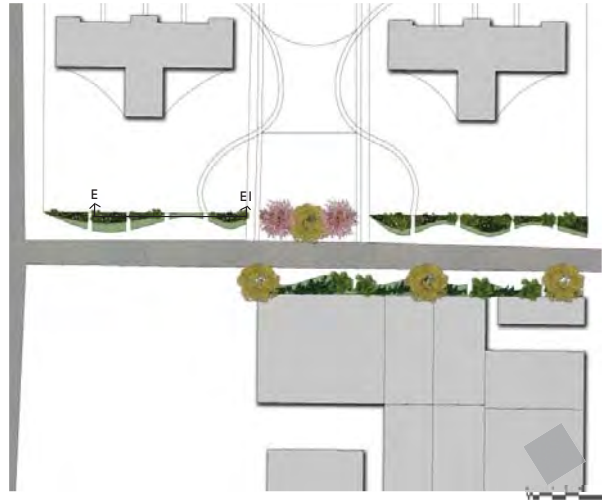
Part A: Gowanus House



Part B: Industrial Site



Part C: Wyckoff



Summary: Create identities throughout Baltic and Nevins St. Connect residential, vacant lots and green spaces. Lead people to touch the Gowanus Canal. Improve streetscape. Provide more seating and gathering spaces.

Meng Guo
10/30/2018
Group 5: Connecting Gowanus

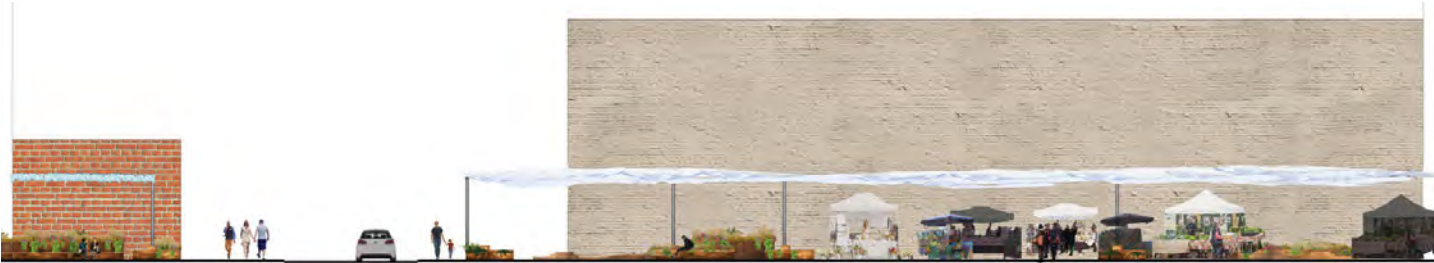
Gowanus Vacant Lots Activation



GREEN CORRIDORS THROUGH VACANT LOTS



VACANT LOT WITH RECYCLED PLASTIC BOTTLES CANOPY 1"=100' "GIANT'S ALLEY"



VACANT LOT WITH FABRIC CANOPY 1"=100'



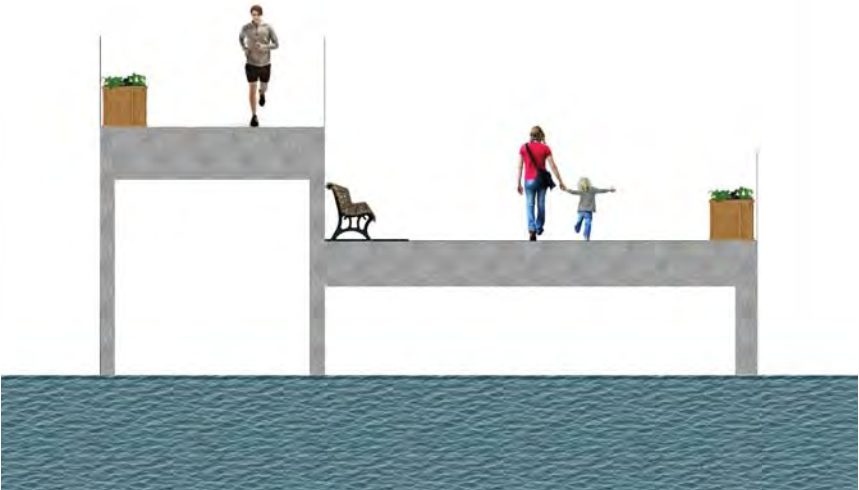
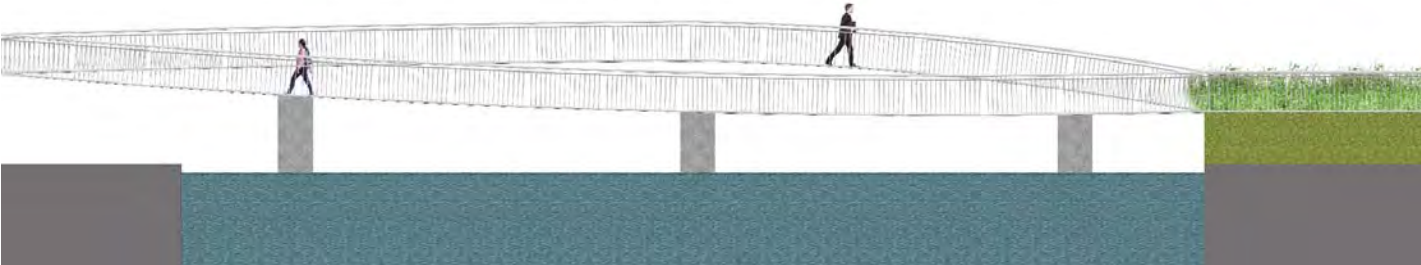
VACANT LOT WITH FABRIC CANOPY 1"=100'

Degraw Street Bridge and Nevins Park

Site Plan:



Section and Elevations:



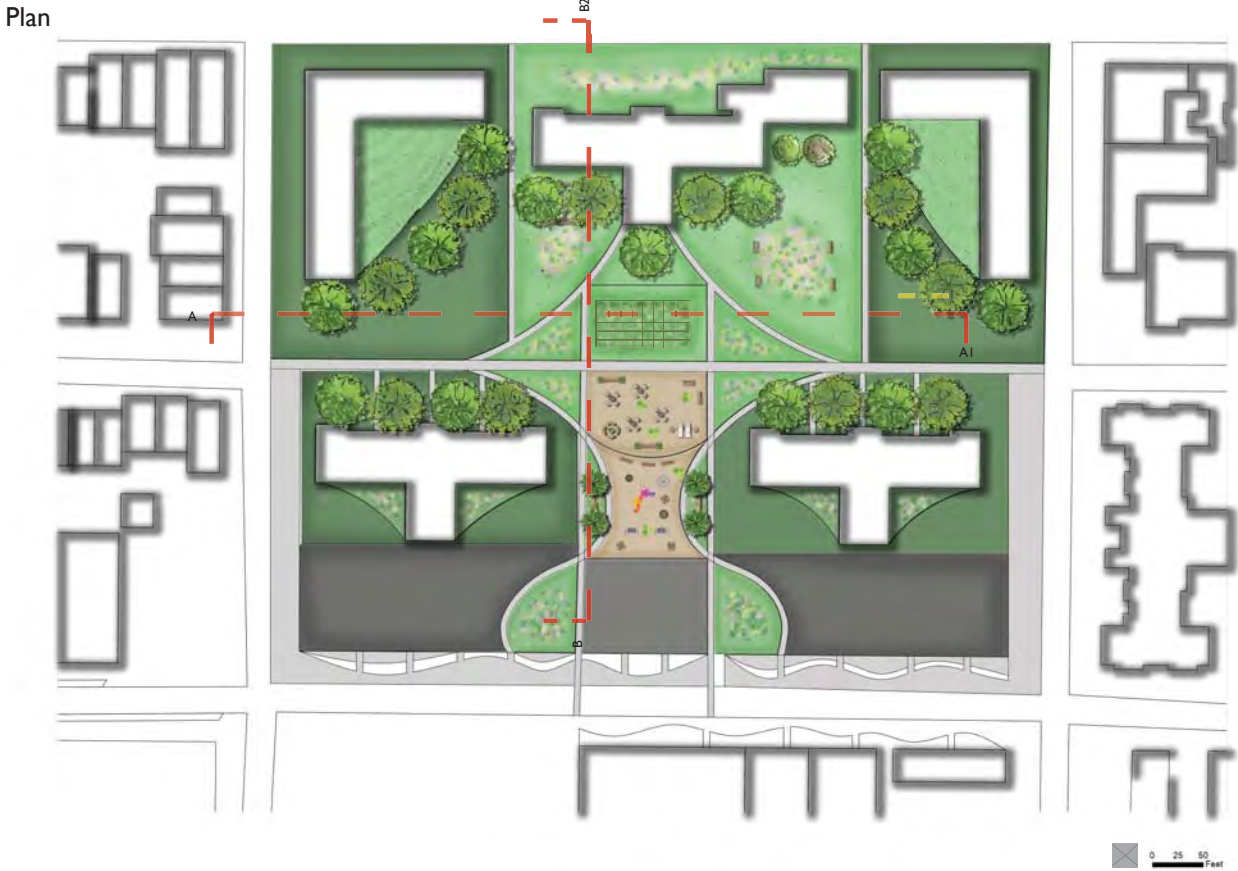
Perspectives:



Grace Li
10/30/2018
Group 5 : Connection Gowanus

Wyckoff Gardens

Plan



Sections



Perspective

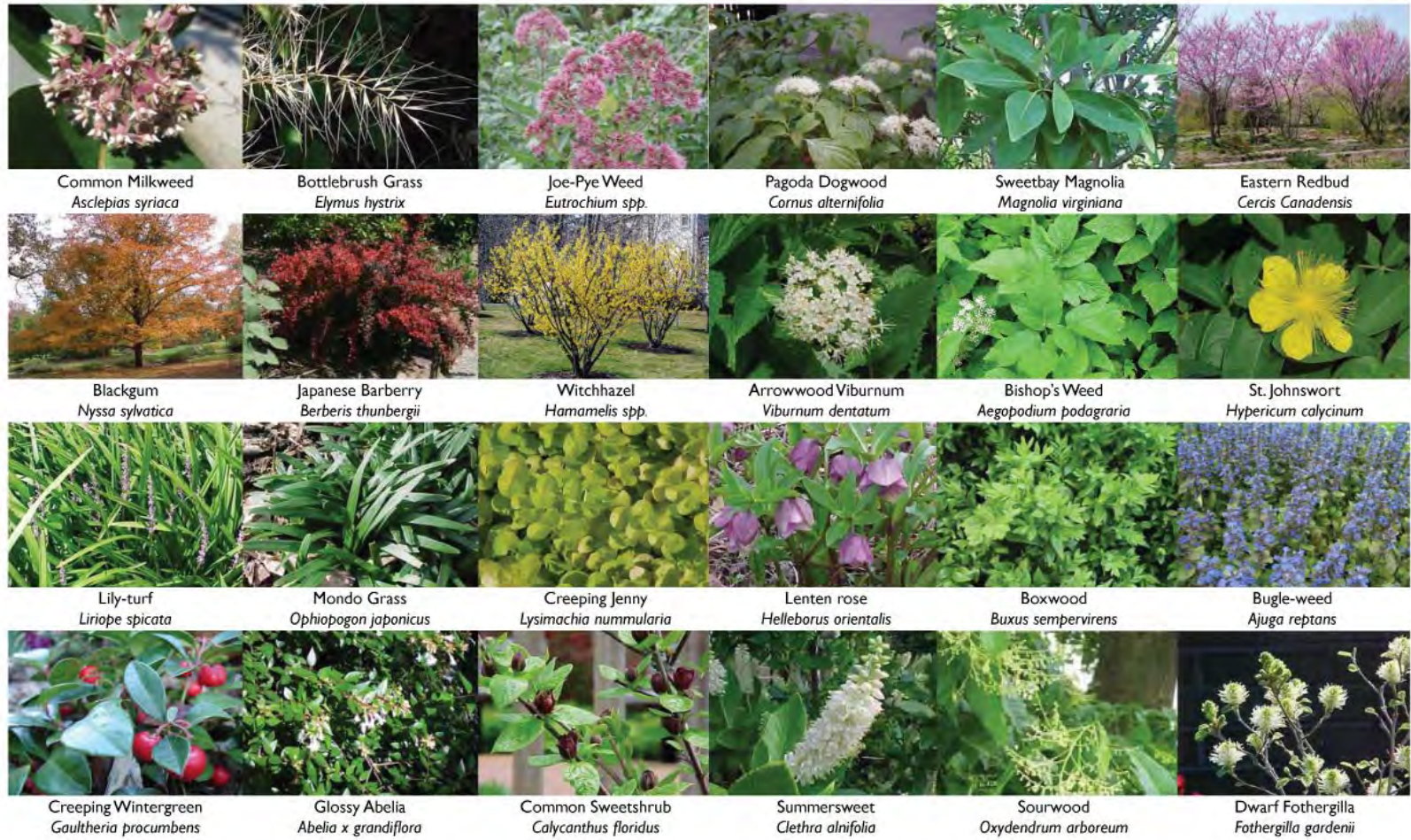


Gisselle Pena
10/30/2018
Group 5: Connecting Gowanus

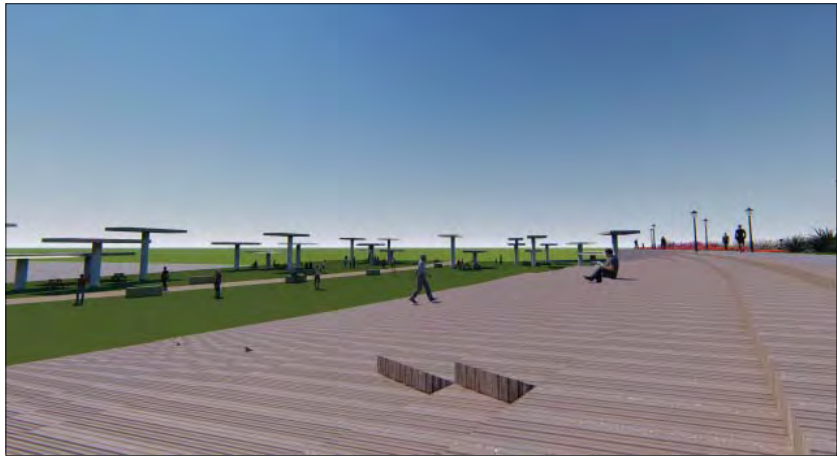
Street Scape



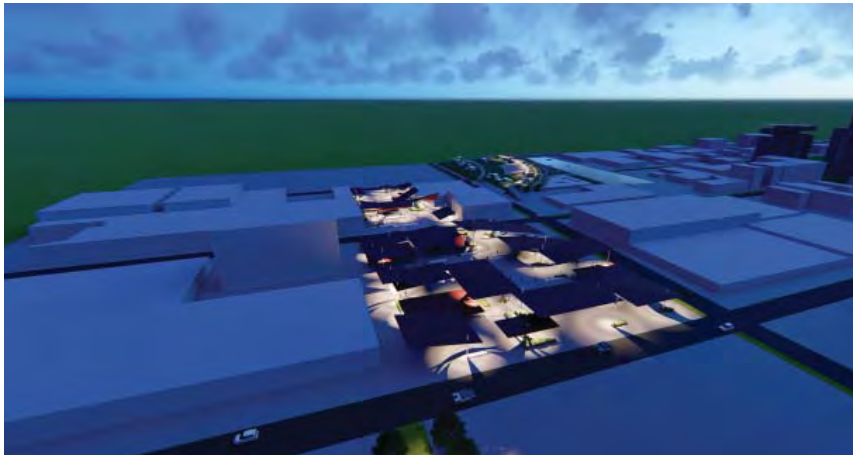
Plant Palette



Degraw St Park



Wyckoff



Gowanus House

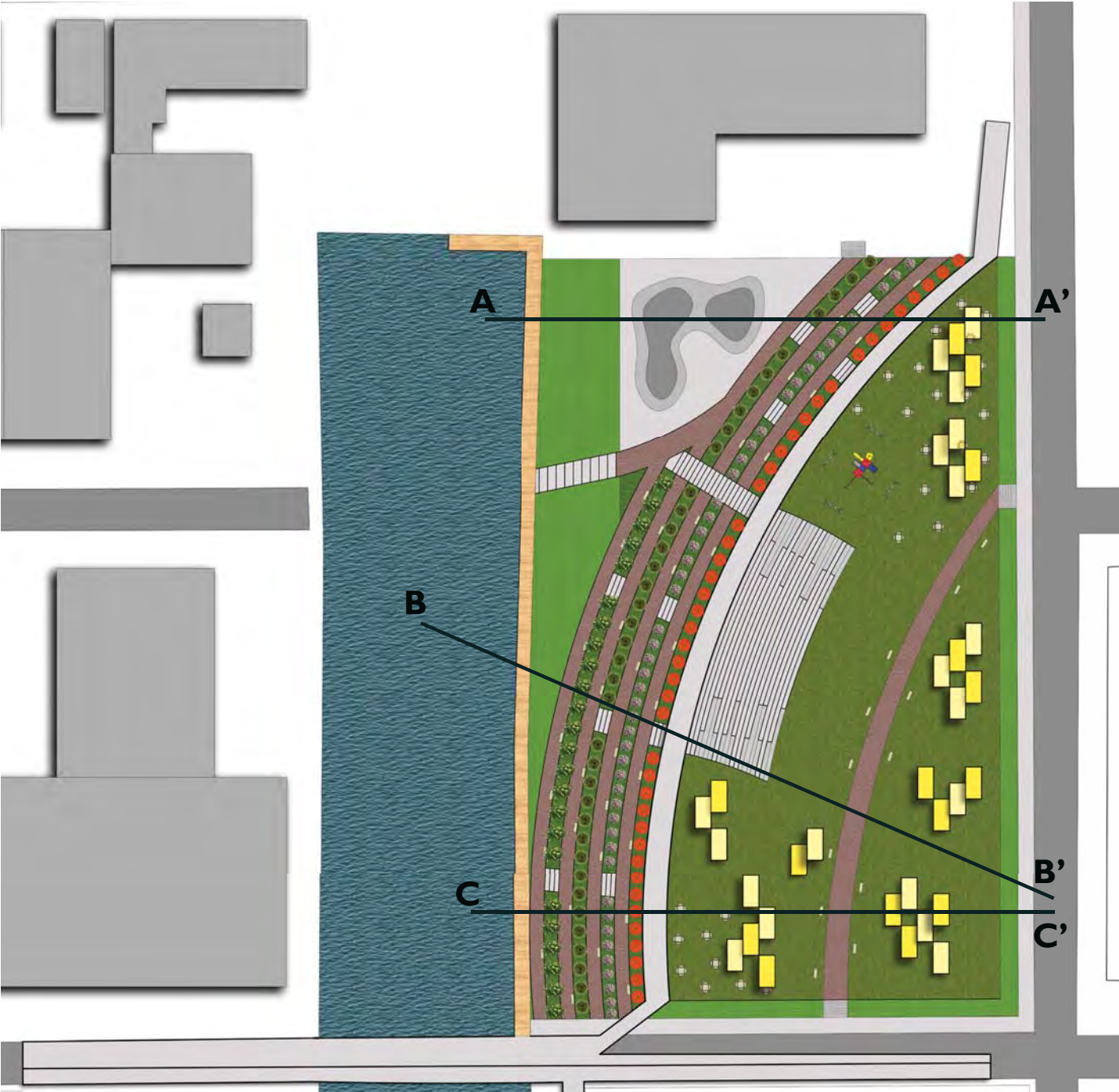


Large Vacant Lots

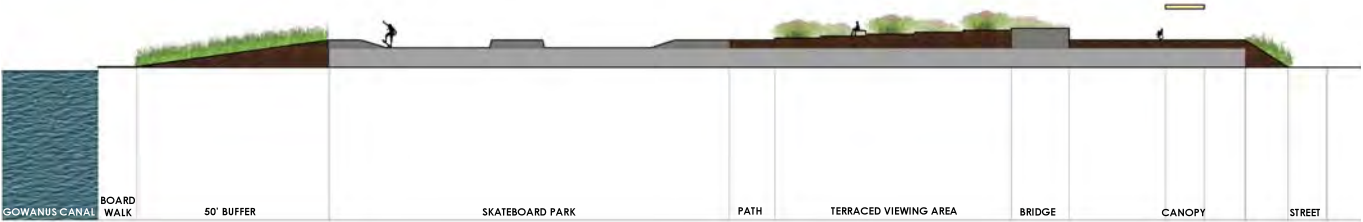


Degraw St. Bridge & Nevins Park

SITE PLAN



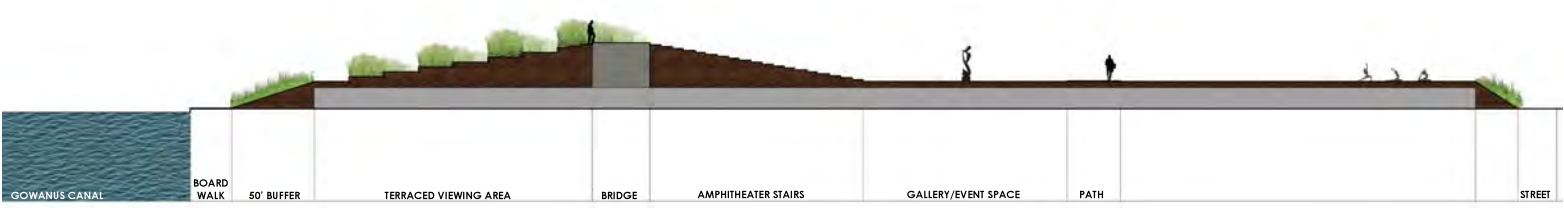
SECTION A-A'



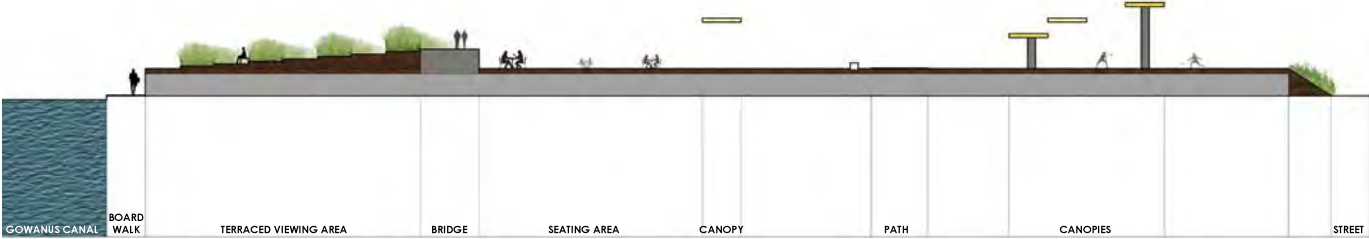
PERSPECTIVES



SECTION B-B'



SECTION C-C'



DESCRIPTION

The Degraw St. Bridge is a connecting point between the two sides of the Gowanus Canal. It provides access to a large park space, know as Nevins Park. Residents and people who visit this area can relax in teh park and enjoy the view, allow children to play around in the large lawn area, or appreciate a show or even that can be put up in front of the amphitheater stairs. As the park itself provides a lot of green space, it is almost like another Central Park, but on that is closer to home for the residents. Shade is provided by canopies that are either solid and block the light completely, or by transparent canopies that allow some light through. The bridge that makes it's way across the park acts as a flood barrier that will prevent flooding to the surrounding area.

The perspectives to the left give better understandings of various activities within Nevins Park. A different in the time of day it is will also provide more information as to how the park will look after it gets dark.

The sections on the bottom primarily shows the changes in elevations throughout the park. As there is a CSO tank underneath the park, everything needs to start at about five feet above ground. Two feet on top of the tank provides soil for the lawn and stabilizes the surrounding structures. The differentiating heights of the canopies can also be shown. They not only provide shade, but also acts as a visual element for the area.

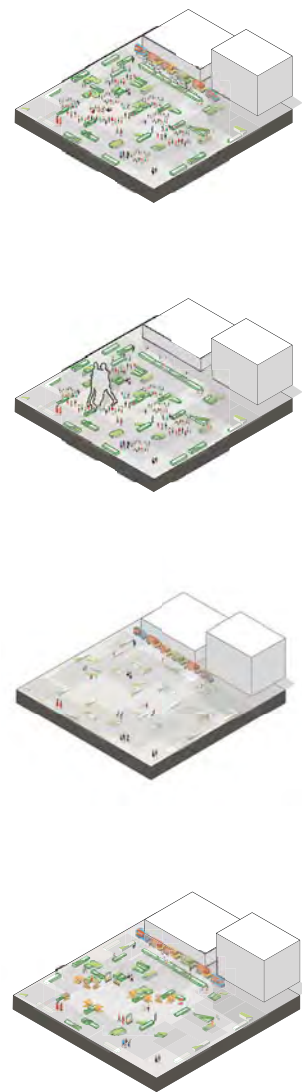
Vacant Lots Occupancy

Katherine Rodriguez

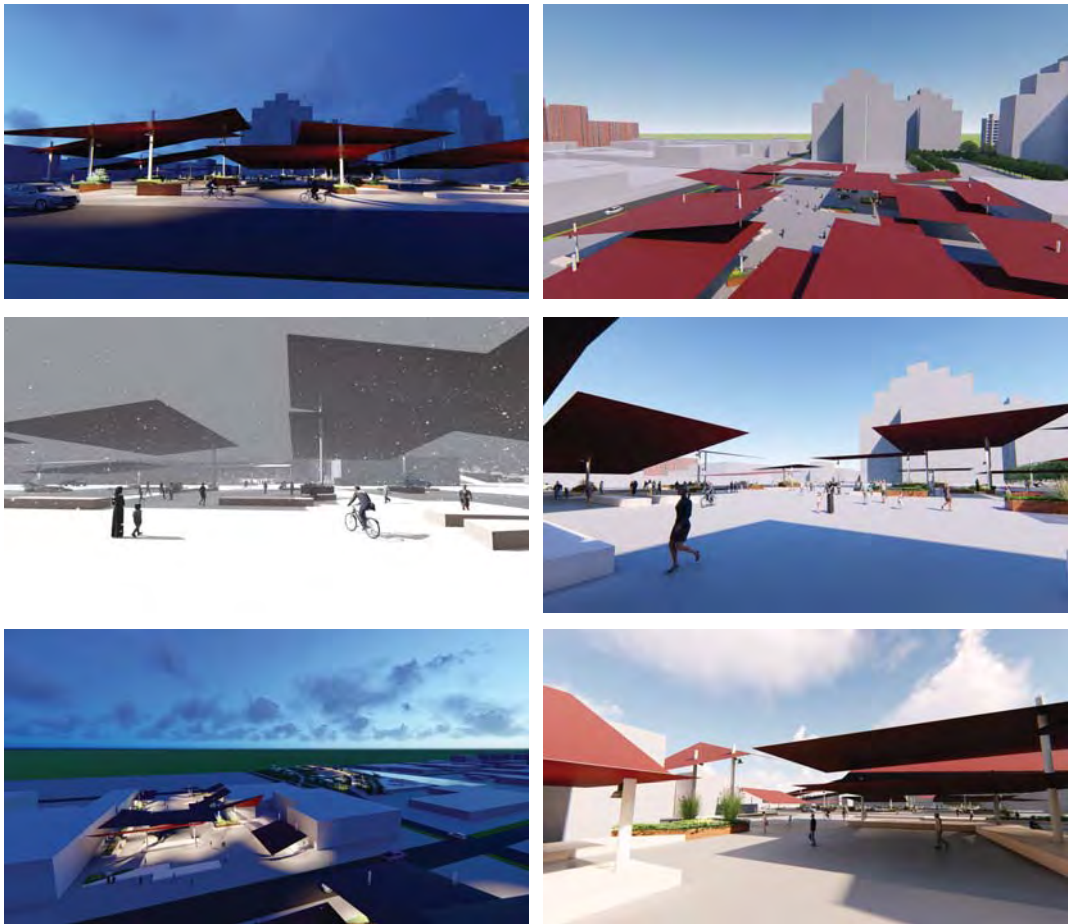


THROUGH THE SITE

POSSIBILITIES



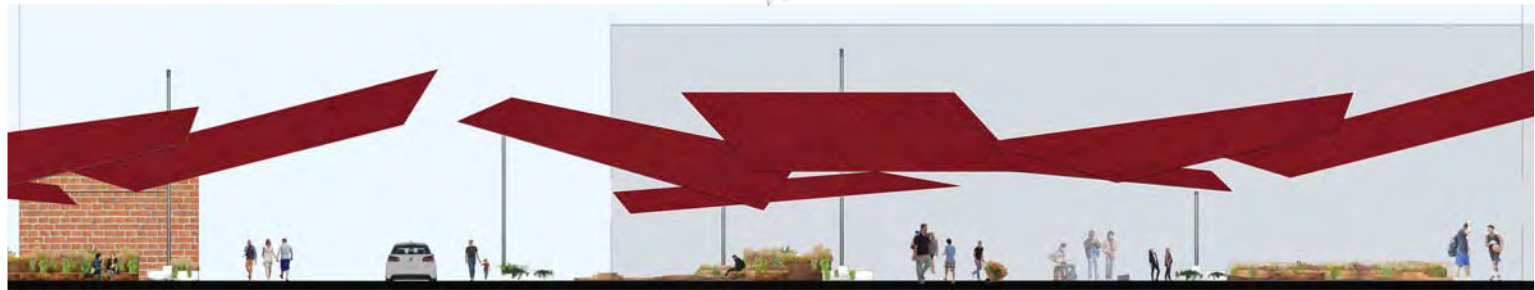
DAY & NIGHT



Claiming vacant spaces across the street Gowanus, creating flexible spaces where the program as well as canopy height and location, can change based on how residents see fit.

Through this design I hope to raise awareness about what these spaces could become.

Creating further discussion about permanent access to open spaces.



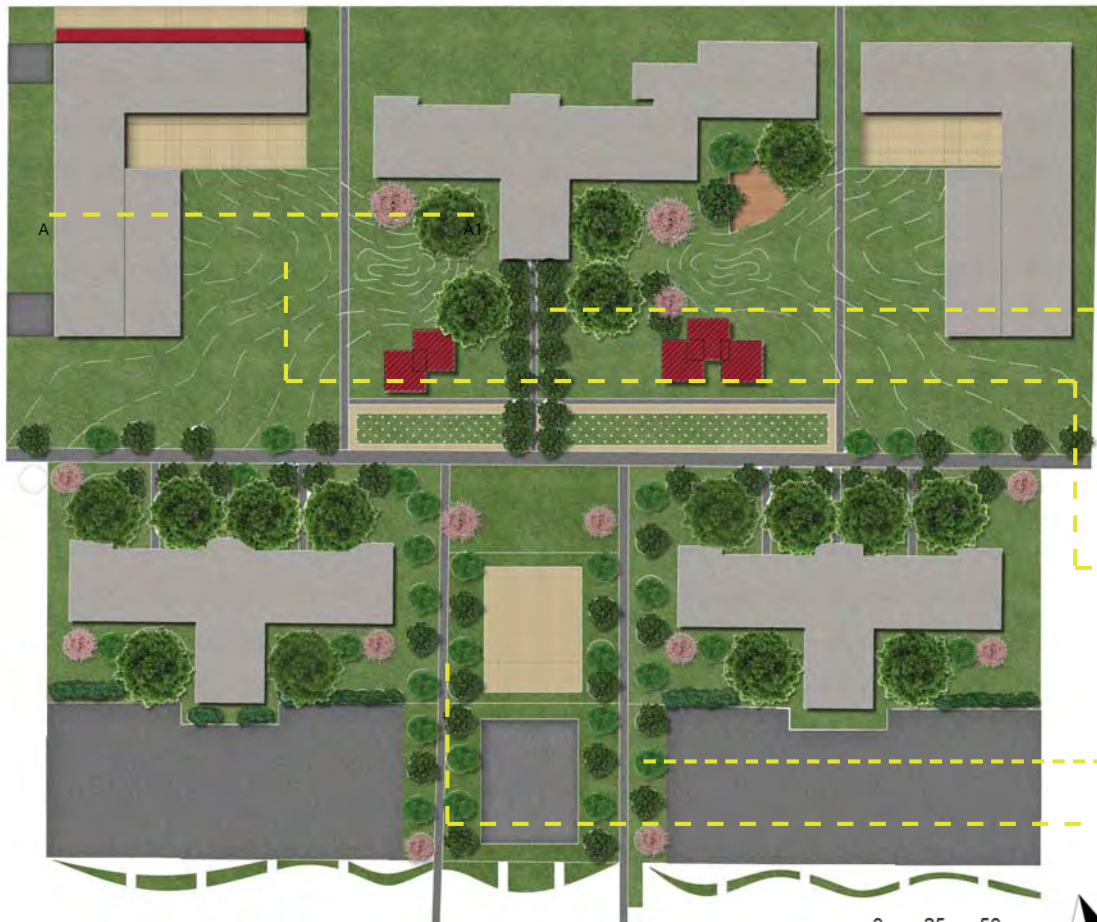
B-B1



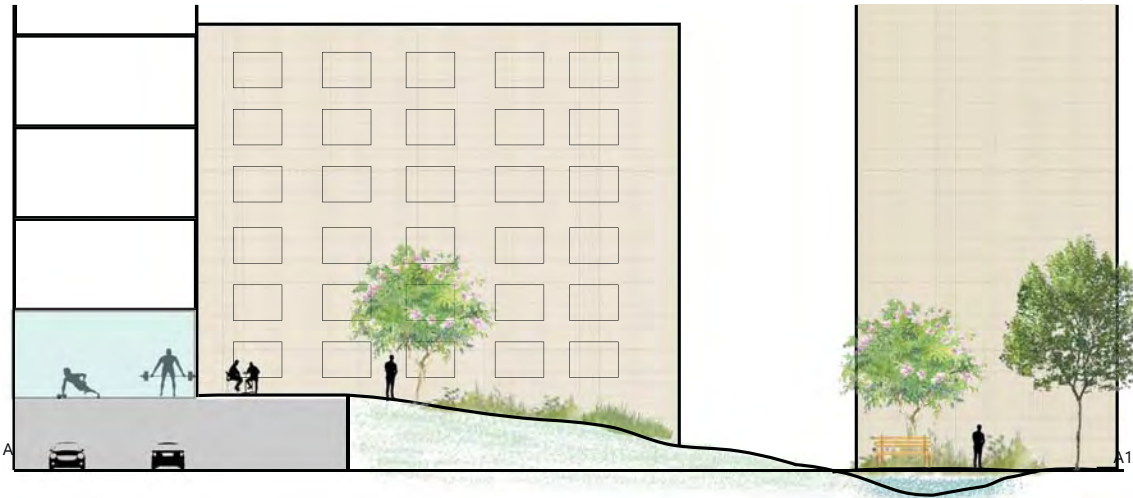
A-A1

Wyckoff Gardens

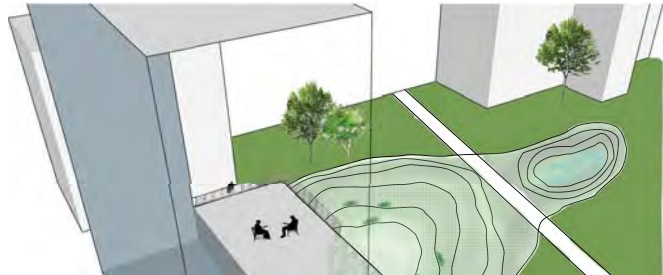
Gisselle Pena
PLAN VIEW



SECTION A



AXON VIEW



PERSPECTIVES



Gowanus House

Site Plan



Possible Activities



BREAK DANCE



BAND



FARMERS MARKET

Perspectives



ENTRANCE ONE



ENTRANCE TWO



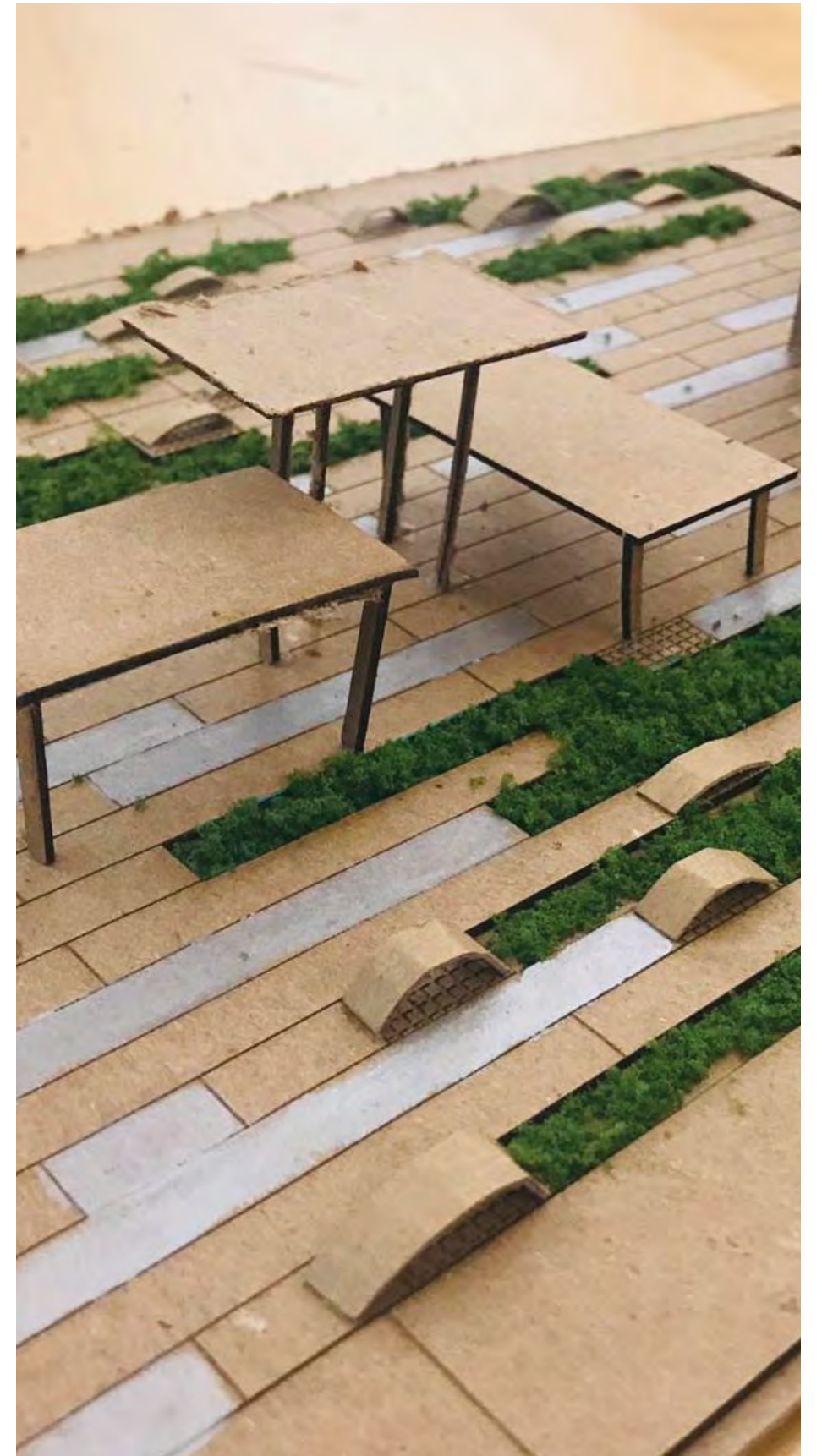
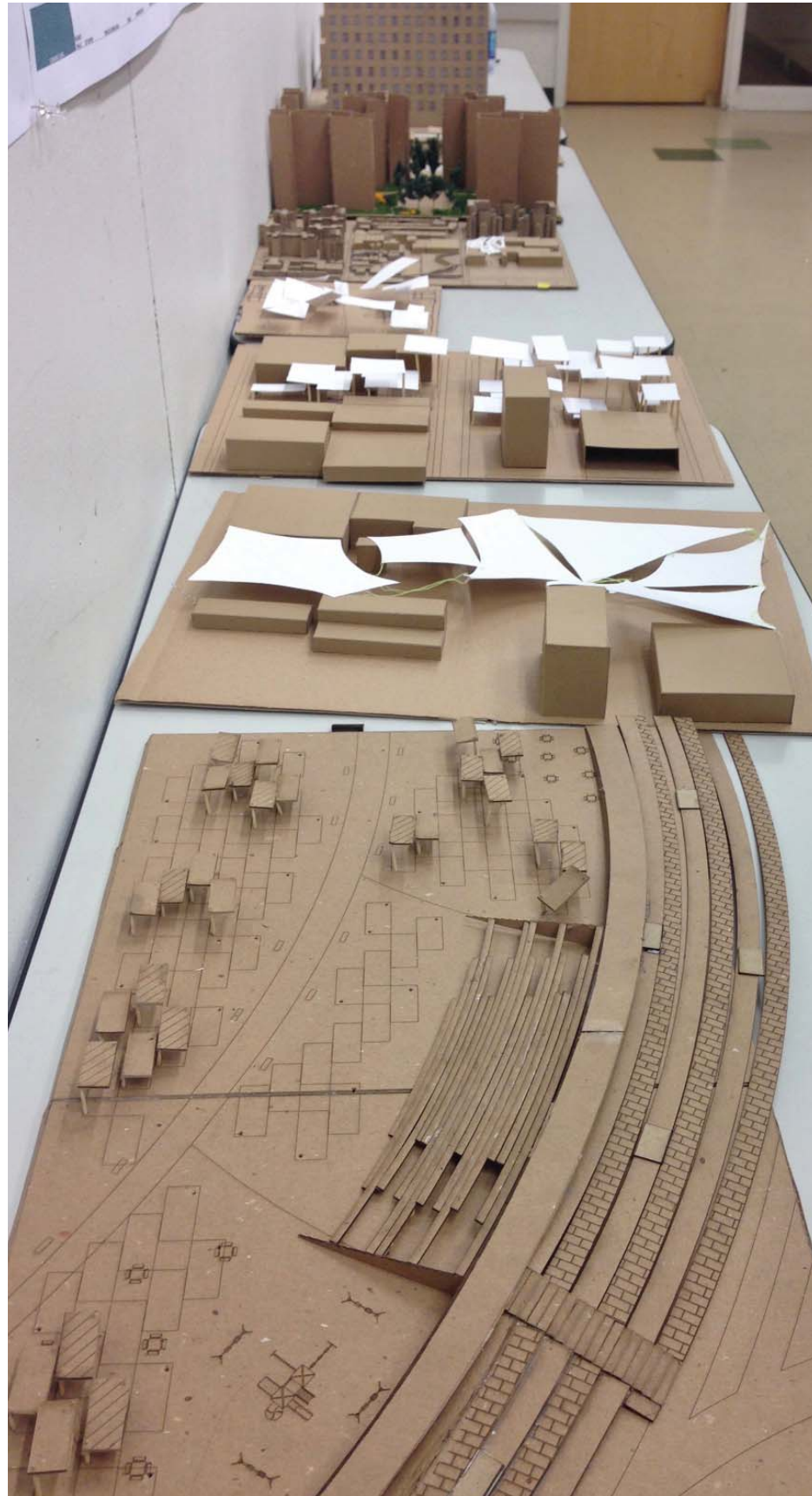
Sections

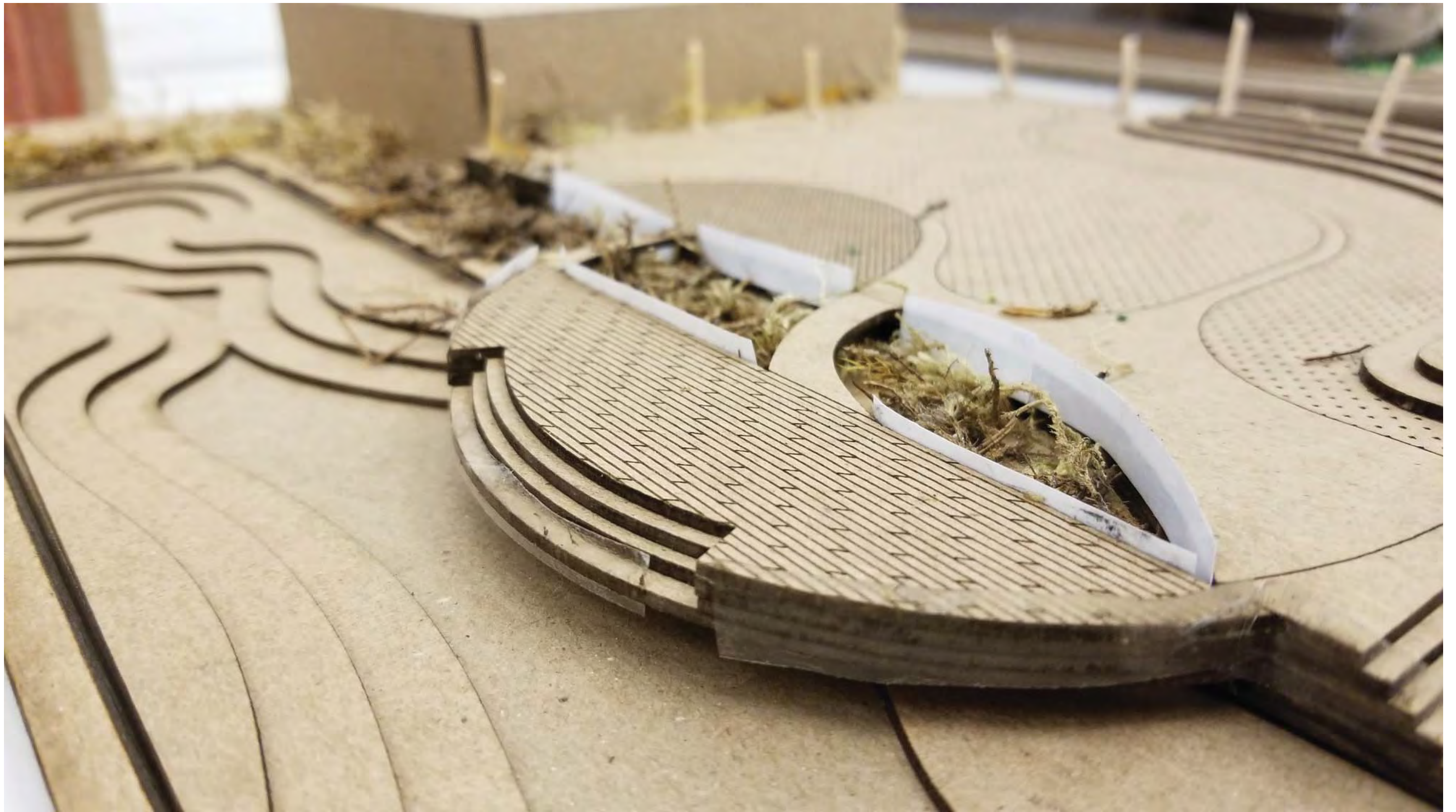


Perspectives



Models





The Gowanus Link

Jacob Choi, Devin Fields, Phia Trinidad, Wes Masco

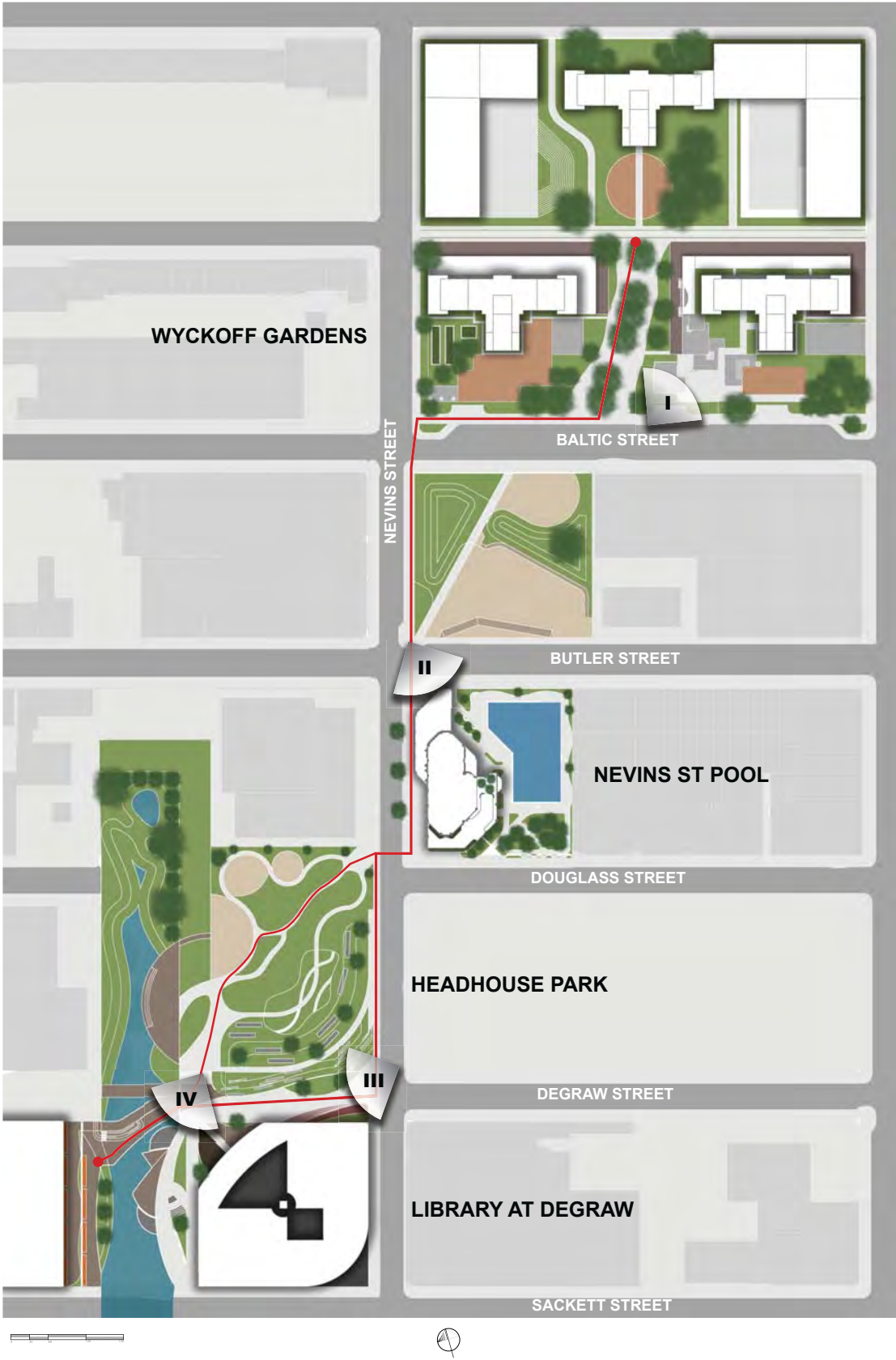


PROJECT GOALS

- Provide Wyckoff residents with more community space, both inside and outside of Wyckoff
- Create public space at the canal with a strong visual connection to Baltic Street to bring NYCHA residents to canal
- Utilize 6 block typologies as a framework for creating appropriate and context sensitive sites
- Place these typologies in dialogue with residents' wants and desires as outlines in NYCHA tenants' survey and Gowanus Framework Open Houses
- Utilize a library and education building to create a new North Canal neighborhood hub which will serve to address key social and economic goals from the Draft Framework including:
 - Providing job access for NYCHA residents
 - Defining employer needs and developing training and education models



Master Plan



Gowanus Wants & Needs

FROM GOWANUS FRAMEWORK & WYCKOFF GARDENS COMMUNITY PRINCIPALS



PICNIC AND
BBQ AREAS



SMALL
BUSINESS
INCUBATOR



EARLY
EDUCATION
FACILITY



DOG WALK
AREA



WOMEN AND
MINORITY
OWNED
BUSINESSES



RELOCATED
PUBLIC
POOL



JOB
TRAINING



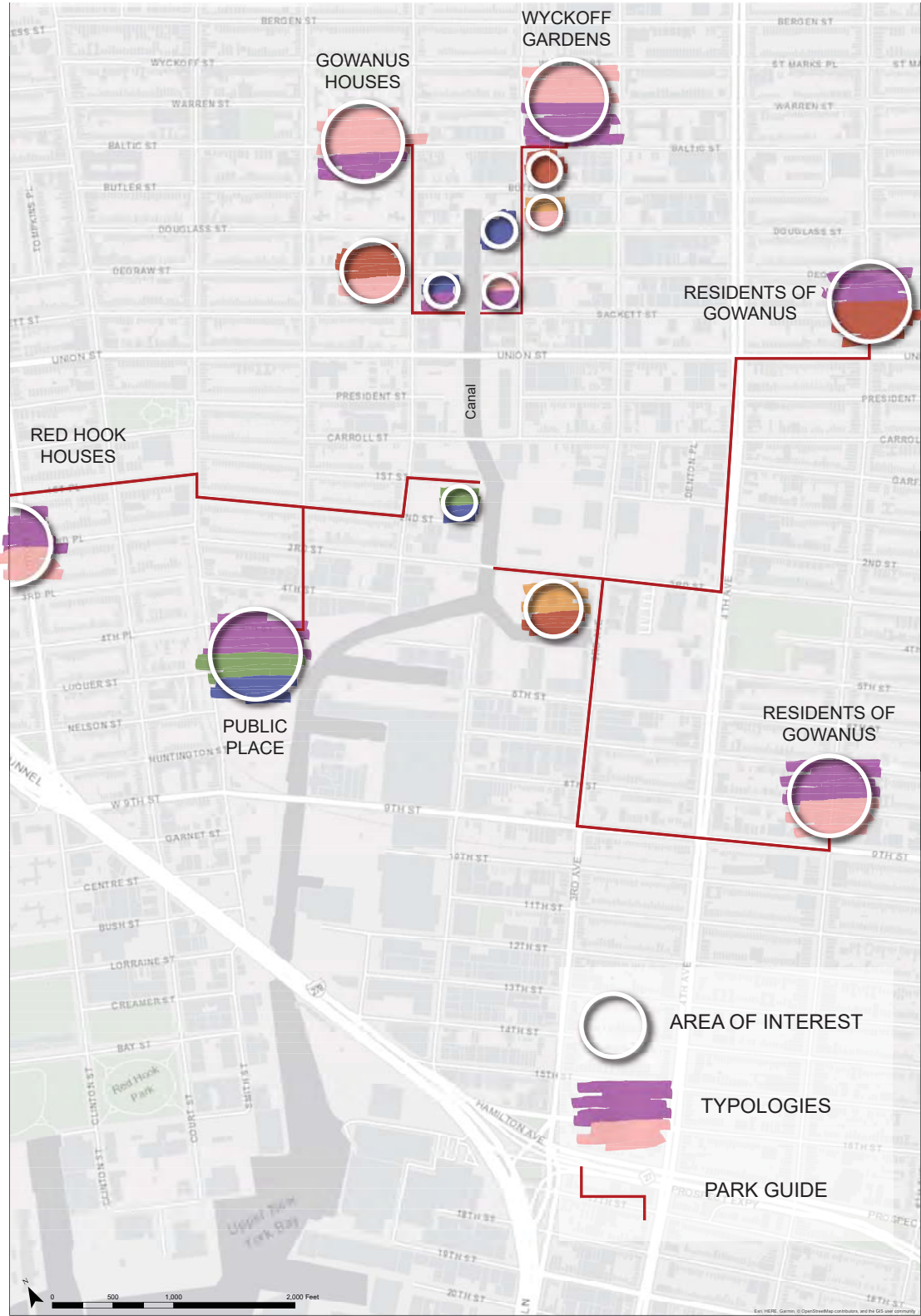
ACCESS TO
CANAL



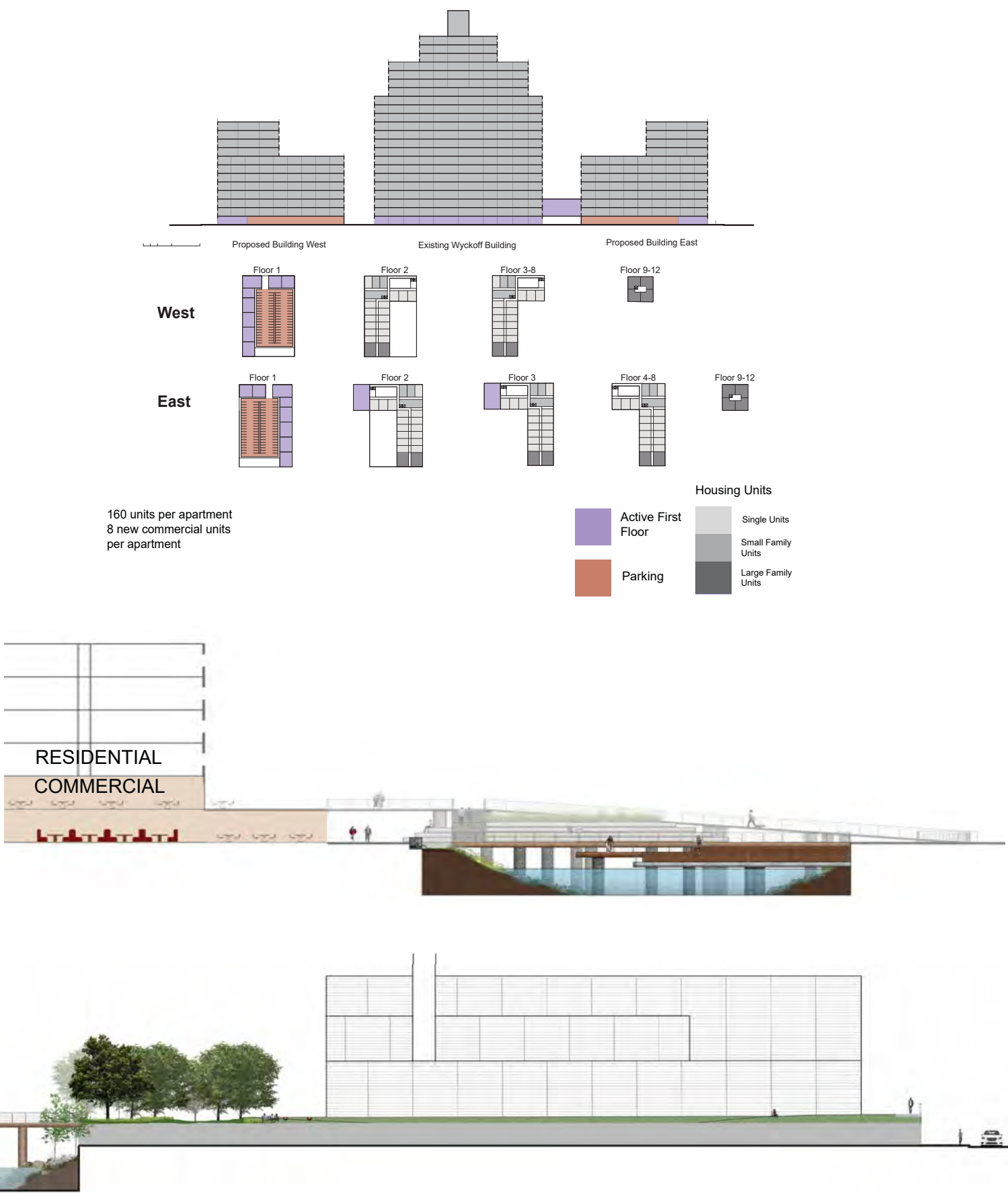
THE GOWANUS MIX



Context Diagram

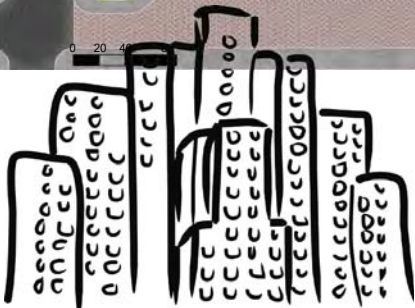
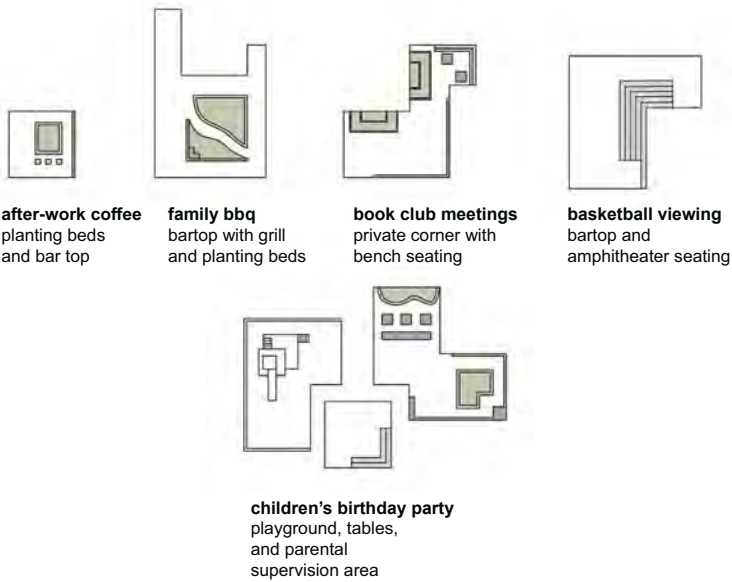


Building Section of Proposed Wyckoff Housing





SUGGESTED TERRACE PROGRAMS



To mitigate the effects of new, market-rate development in this NYCHA lot, this design centers its focus on the current residents' specific wants and needs. It focuses on smaller scale interventions instead of the masterplanning route that requires big investments and commitments. The scale and intentionality of this intervention provides short-term quality of life improvements for current Wyckoff Gardens residents.

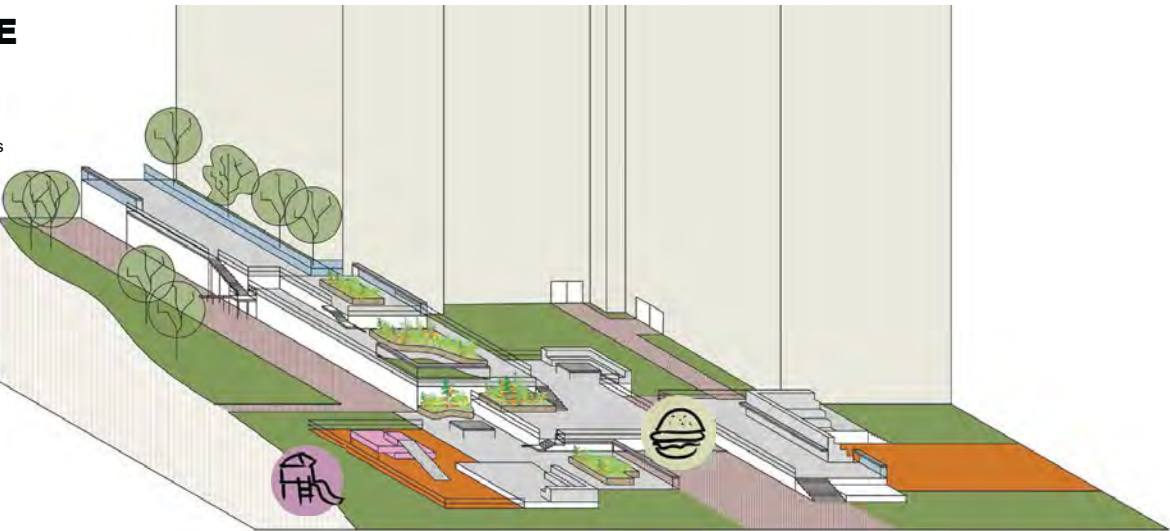
NYCHA RESIDENTS WANTS AND NEEDS

from THE WYCKOFF GARDENS COMMUNITY PRINCIPLES



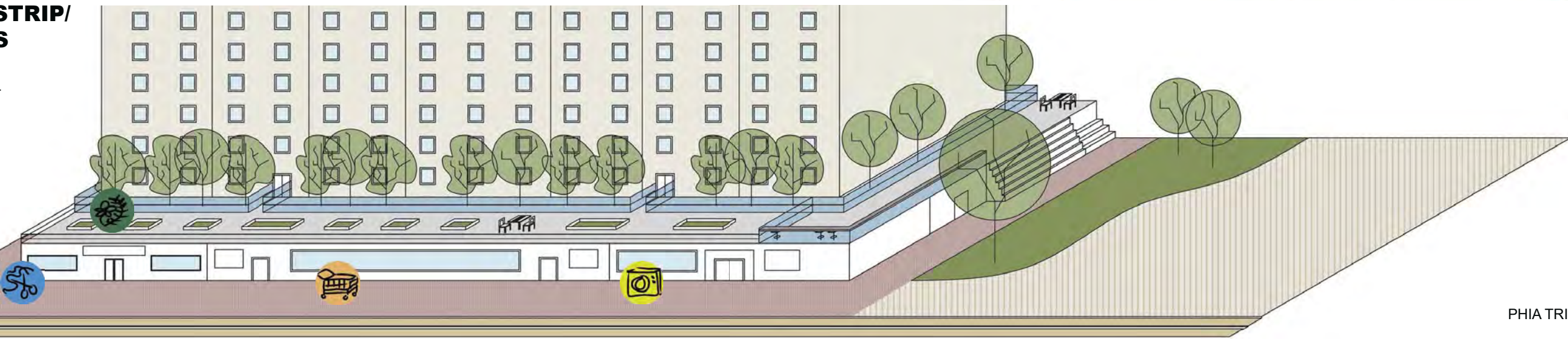
BACK TERRACE

Terraces at the rear of the existing southeast Wyckoff building are designed to allude to stoops, an important architectural element in surrounding Brooklyn. These terraces differentiate the ground plane and create spaces for specific activities.



COMMERCIAL STRIP/ GARDEN PLOTS

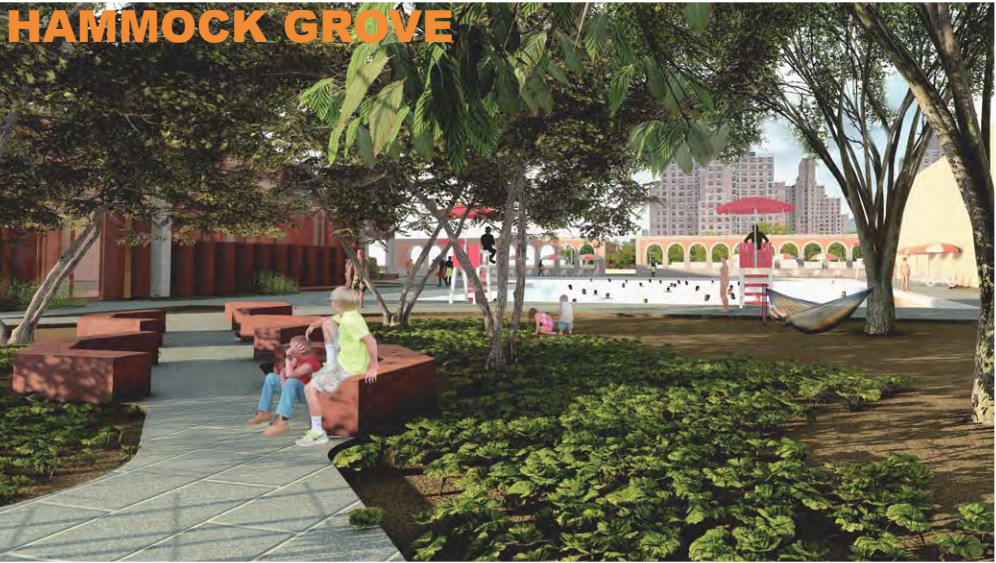
Commercial lots are to be retrofitted onto existing Wyckoff Buildings to activate the inner spaces of the block. These properties will include the desired commercial spaces cited in The Wyckoff Gardens Community Principles. These business, like a barber shop and affordable grocery store, provide residents with invaluable resources right below their apartment units.



Nevins St Pool

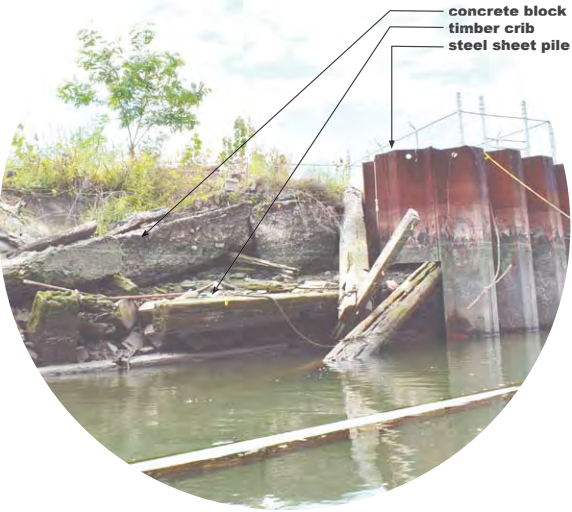


HAMMOCK GROVE

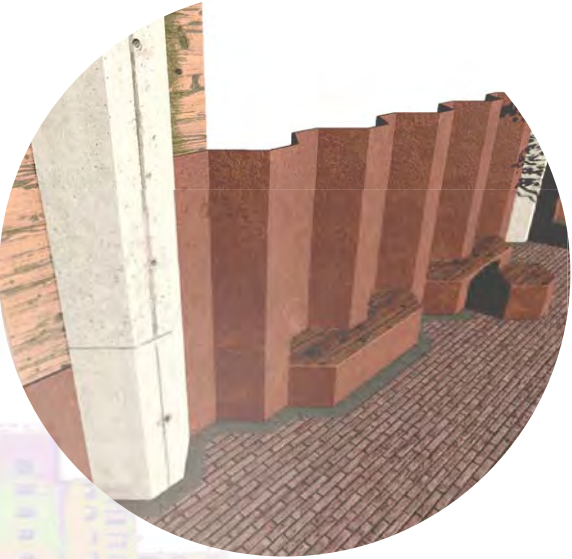


MATERIALS

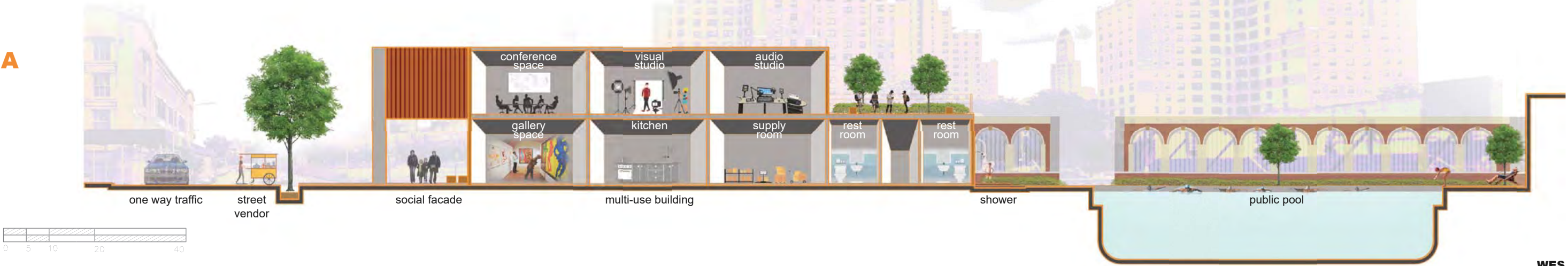
Gowanus Canal Bulkhead Inventory Survey: Marine Consulting



SOCIAL FACADE



A



Headhouse Park



SITE PLAN

SCALE: 1" = 30'

0' 30' 60' 120'

SECTION A-A'

SCALE: 1/16" = 1'

0' 8' 16' 32' 128'



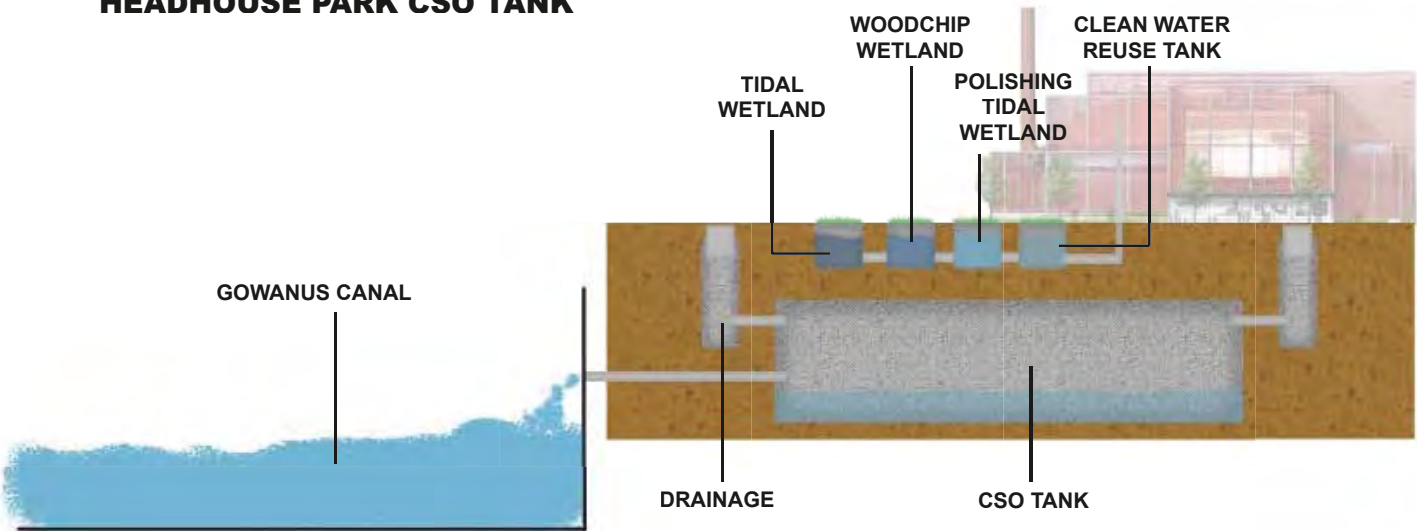
GOWANUS CANAL

DECK

WETLAND



HEADHOUSE PARK CSO TANK



HEADHOUSE PARK

HEADHOUSE BUILDING

WOOSEOK (JACOB) CHOI



LIBRARY

Provides the residents of gowanus with access to literature, computers, printers, community spaces, and job training.

HAMMOCK GROVE

A place for residents to relax in the plaza outside the library. The orange poles reflect the structural beams of the library and repeat a sense of verticality.

AMPITHEATRE

Visable from the lecture hall within the library, the ampitheatre serves as an outside “stoop” for the residents to use for relaxing, learning, or programmed entertainment.

CANOE DOCKS

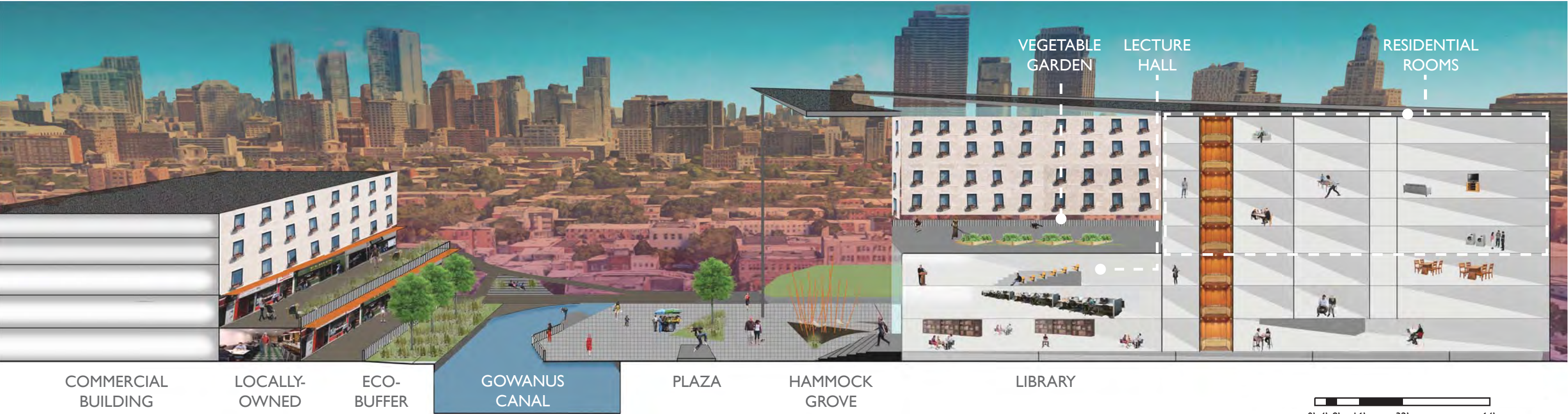
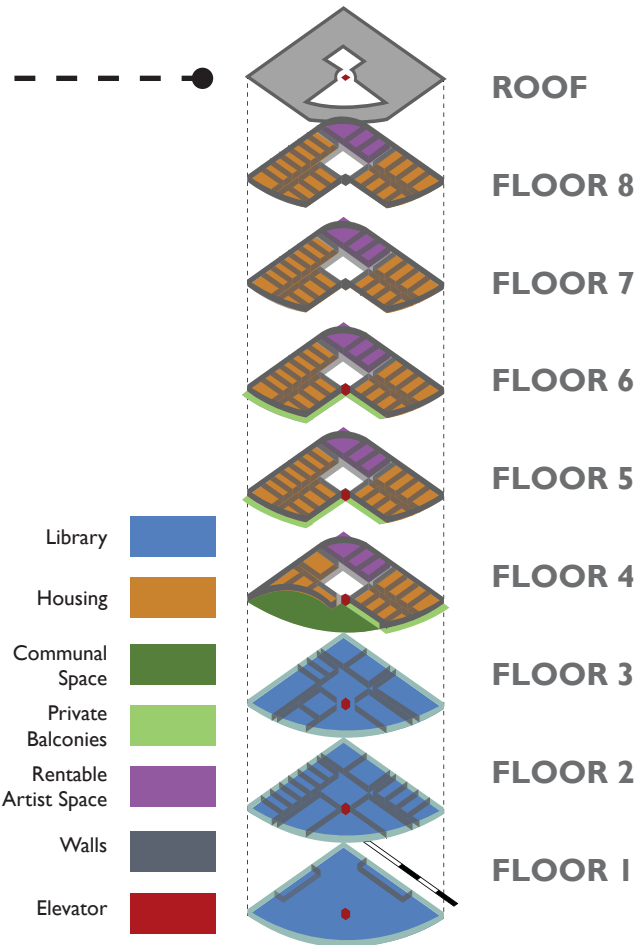
Floodable docks are provided for gowanus canoers to make their way to the plaza.

PEDESTRIAN BRIDGE

An easy way for all residents to cross the canal, focusing on the wants of connectivity by the current residents.

COMMERCIAL CORRIDOR

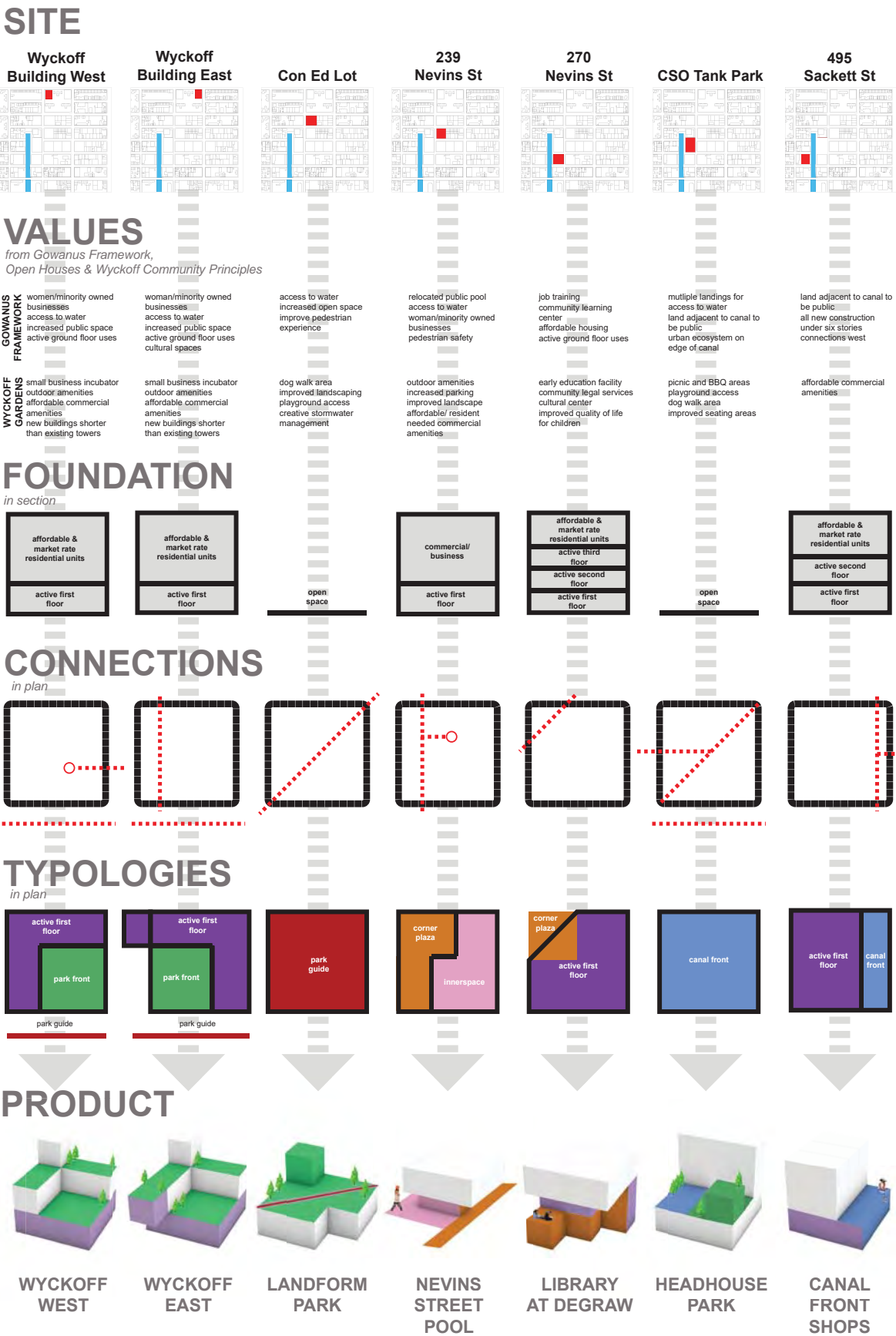
An easy way for all residents to cross the canal, focusing on the wants of connectivity by the current residents.



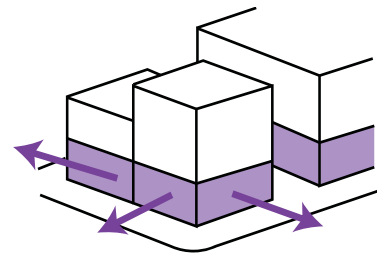
Typologies Map



Design Process

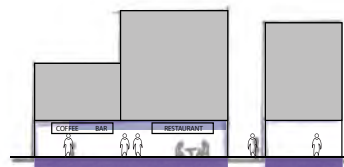


Active First Floor

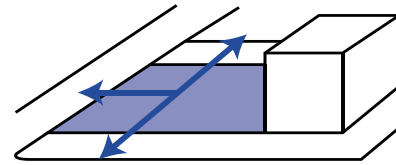


Converting the first floor of a multi-story building into an active space that is open to the public

- Can be completely permeable, or a mix of private and public
- The spaces within can have different uses



Canal Front

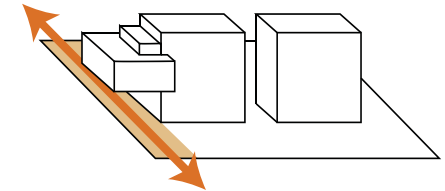


Where a large portion of an urban block can provide public and/or private canal access due to its adjacency to the canal

- Must be directly adjacent to the canal
- Usually adjacent to public space

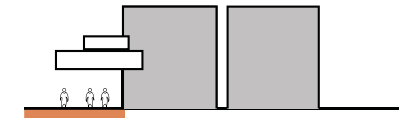


Corner Plaza

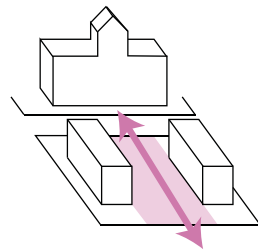


Lifting existing portions of residential spaces to create pocket plazas on the street corners, allowing better pedestrian circulation

- Normally adjacent to a public space
- Can stretch the length of a building to create clear paths and open sightlines

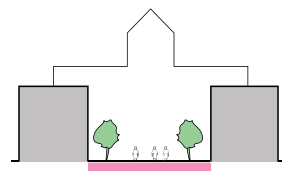


Innerspace

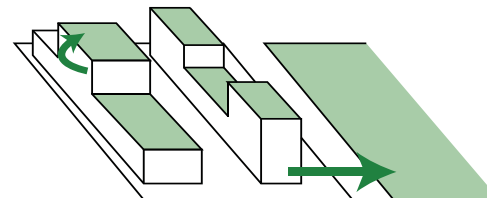


Creating transitional spaces to connect different land uses together, unique from the streetscape

- Preferably an open space that leads to public spaces, such as school, park, etc.

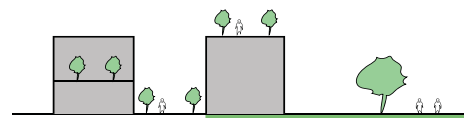


Park Front

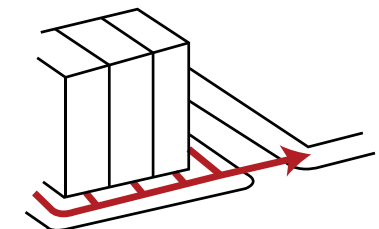


Creating connecting spaces for residences adjacent to existing green spaces

- Can be private or public
- Preferably next to tall, tightly packed residential areas
- Taller residential gains open space on top of building

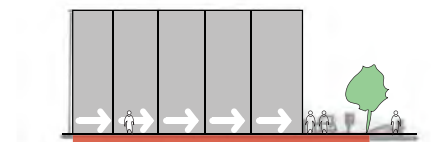


Park Guide

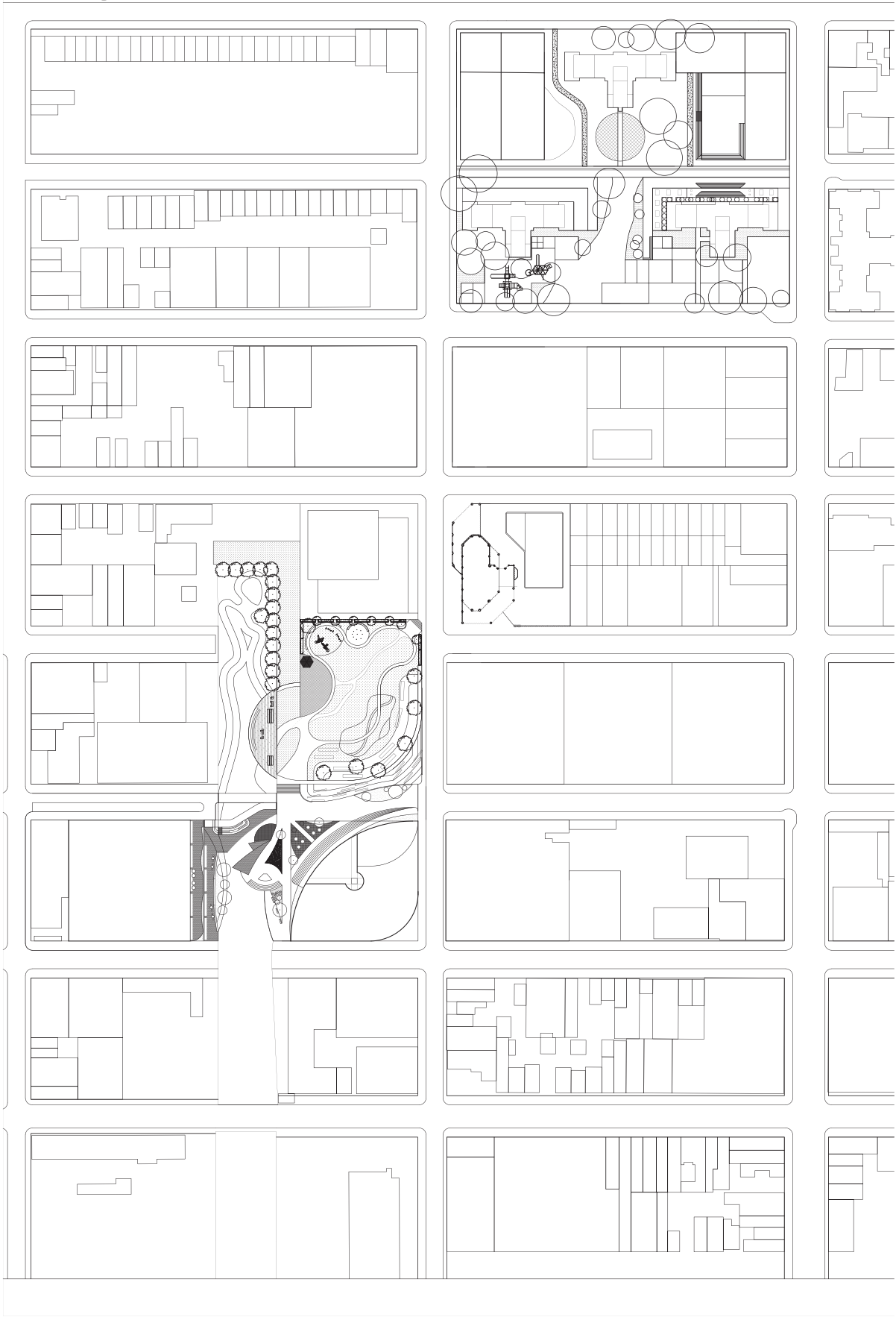


Painted lines and signage on the streetscape guiding residents of an urban center to their nearest form of open/public space

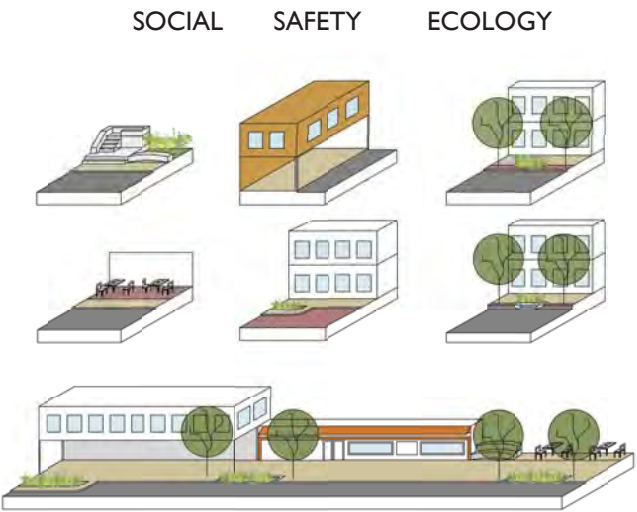
- Can guide to any of the other typologies
- Normally starts at a residential urban block with tightly packed housing



Design Process



Park Guide Elements



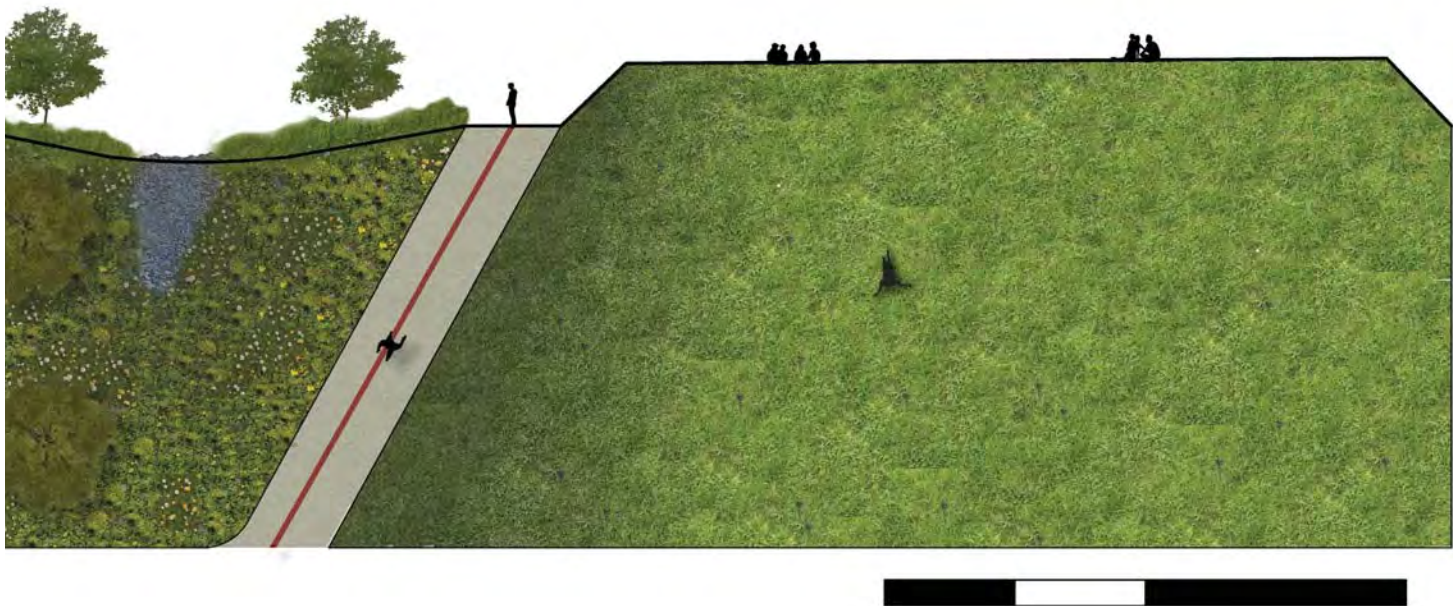
Wyckoff Commercial Corridor



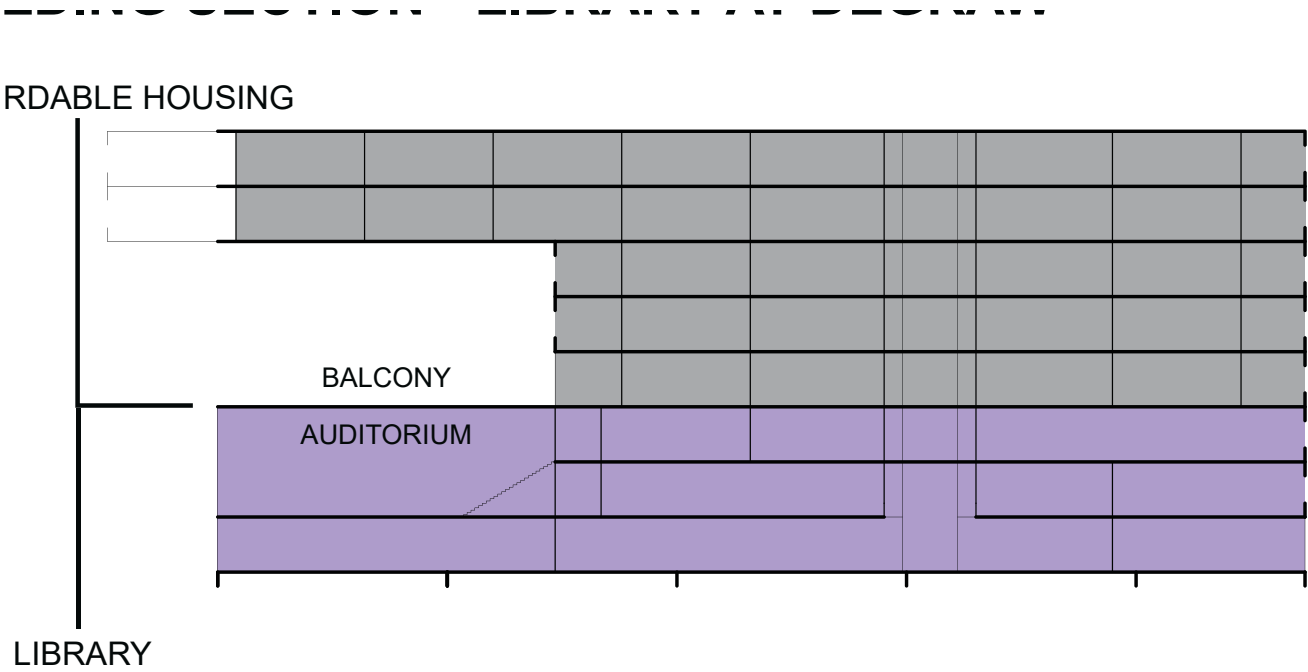
Nevins Street Pool



Landform Park

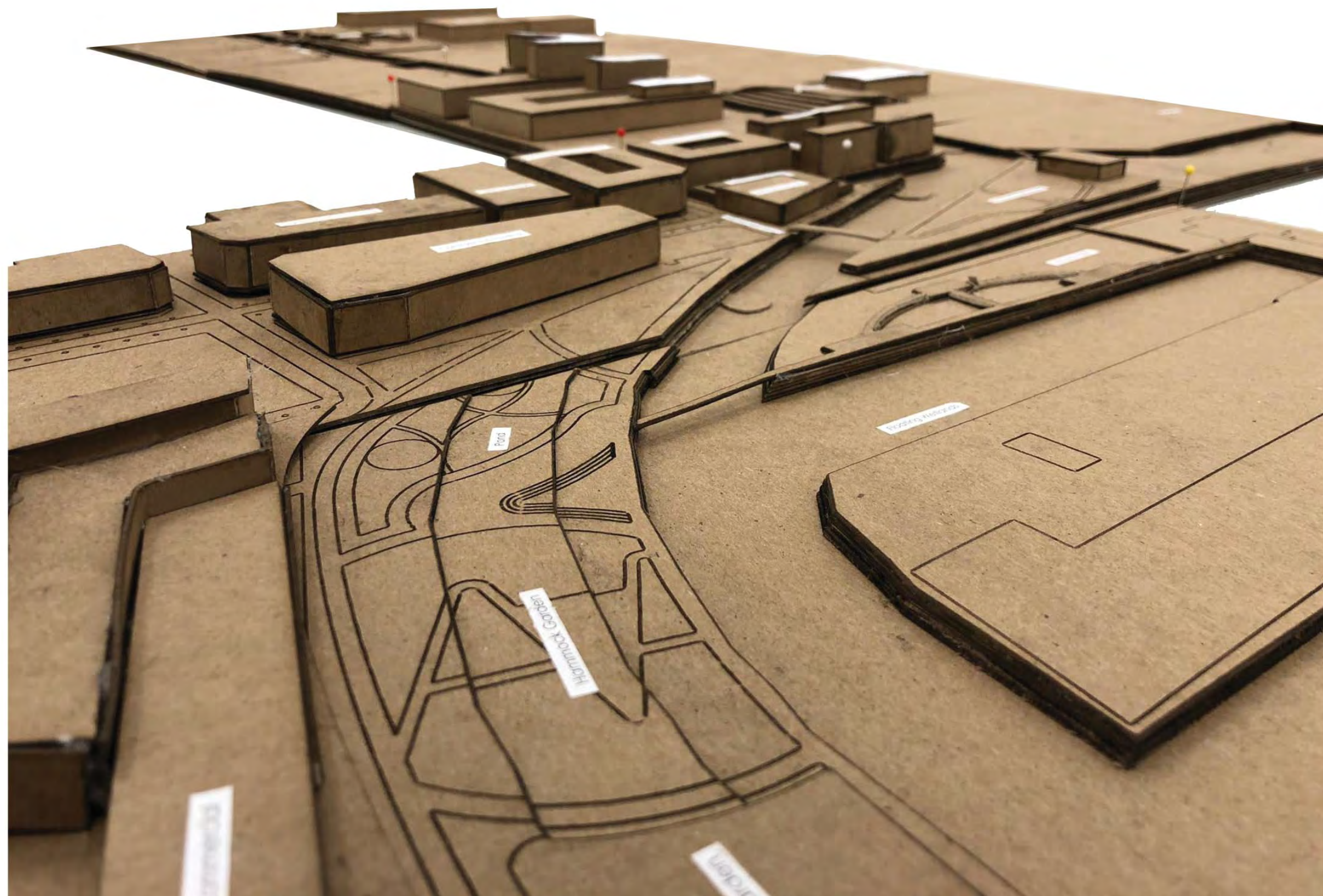


Library at Degraw



Models





Live Ends

Emily Toth, Monica Lee, Diosmiry Rodriguez, Alex Glasser



PROJECT GOALS

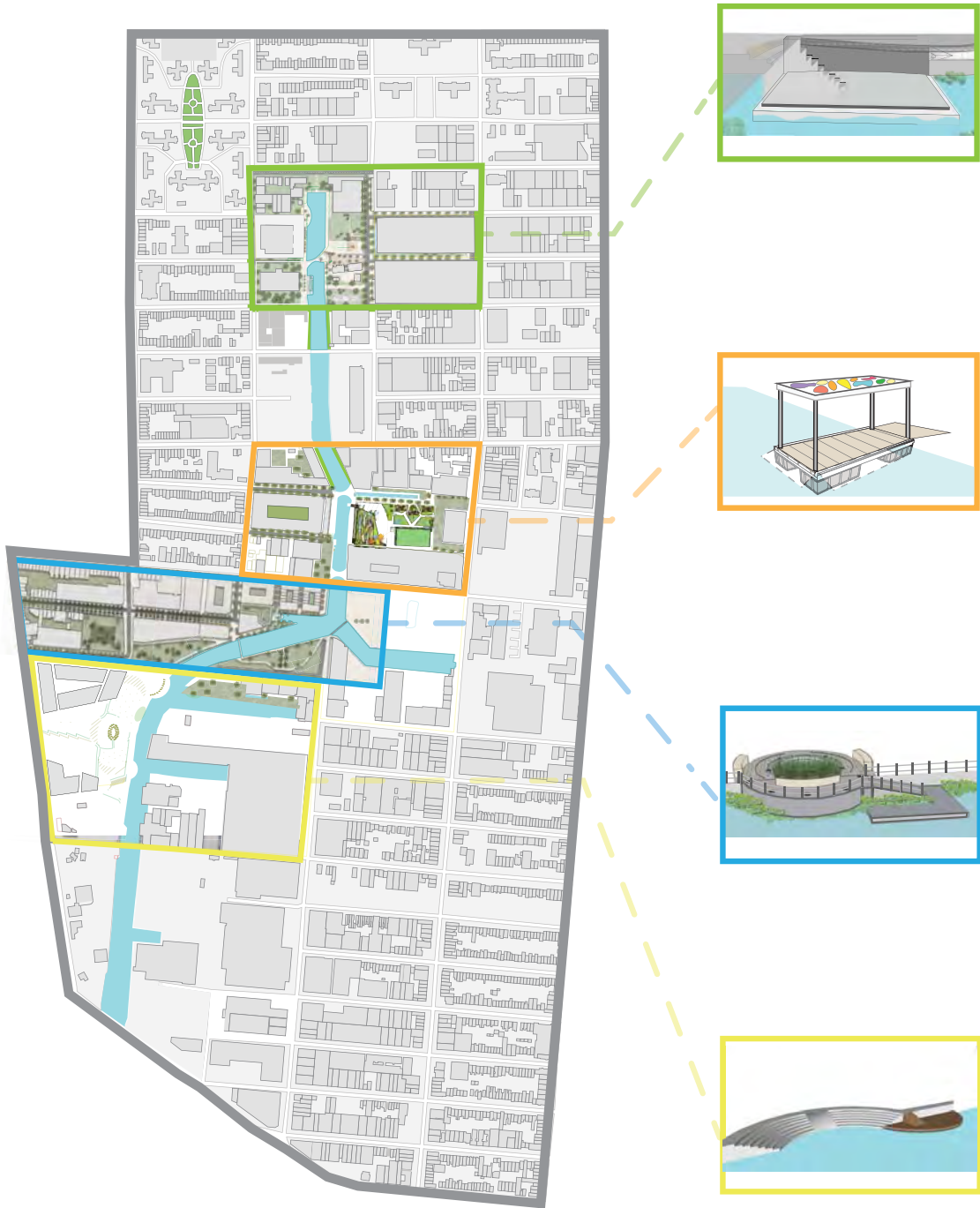
- This site aims to reconnect the waterfront to the residential communities beyond Front Street and Bay Street. Therefore, the residential area is designed for more than just apartment buildings, and is instead a multi-use space that includes retail and recreation. This is made clear with an obvious gesture that brings a bridge on to the roof of the main structures and erases the strict boundaries between public and private that are prevalent in the existing residential buildings along the waterfront.
- This project focuses on creating new forms of engagement with ecological processes. This is communicated in a subtle way, rather as an overly didactic space that hits visitors over the head with information in the form of plaques and informational signs. This does not read as an obviously educational space, but rather evokes curiosity. This is a more sustainable and long-term approach to engaging community interest.
- Ecology meets aesthetics to create design that informs people over time as they engage with the site, especially through a renewed connection and relationship to the waterfront.
- Since this project will create many new residential units along a vulnerable waterfront area, 4 layers of protection are employed to strengthen this edge including:
 1. Wave breaks made of E-Concrete along the edges of the shore.
 2. Mounds that are layered to absorb and break the power of the oncoming wave surges from storms.
 3. A canal street element that retains the flood water.
 4. Residential buildings with parking on the ground floor and berms that protect the residents from future storm surges.
- The orientation of the buildings, parks, and public spaces are derived through a close investigation of view corridors. These view corridors lead to the Manhattan skyline, the Lower Bay, and the Verrazano Bridge. The public space designs are based on the shapes of the oyster shells—a common design language throughout the site. Built spaces are arranged to keep the waterfront area open and public, and alignments are made between the neighborhood beyond Bay Street and the waterfront.
- A sculpture park transforms the edge into a dynamic social space that invites users to weave through and over enlarged econcrete blocks as sculptural pieces within the landscape. The park also serves an ecological purpose by turning into a flooding landscape. The social space alongside the housing building also reflects the econcrete-inspired aesthetics to create cohesion throughout all the social space.
- Sloping mounds bring users up from the social spaces below to a relaxing commercial area. This area overlooks most the site and gives users a dynamic view of rejuvenated area. We proposed a café to attract users to this elevated area that gives our residential area a more mixed-use space. The mound also serves as a protective barrier to the parking area located behind it, demonstrating that our mound has a functional and aesthetic purpose.



LIVE ENDS

Master Plan

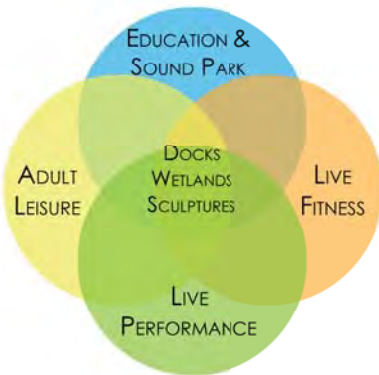
Goal: To connect the Gowanus community to the waterfront and waterway by providing accessible open spaces, transforming 'dead' ends to 'live' ends, and creating unique docking stations for watercraft.



Context

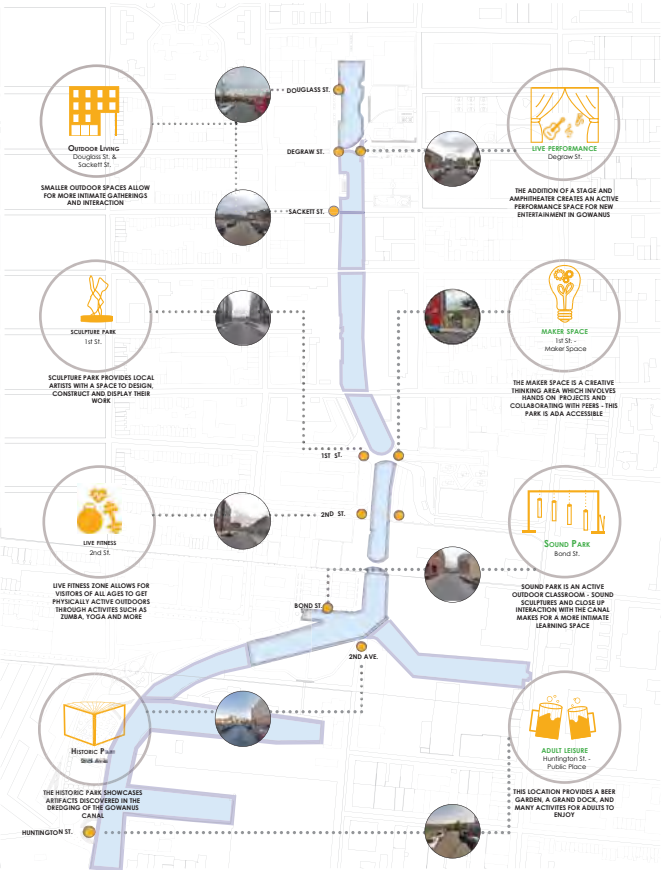


Theme

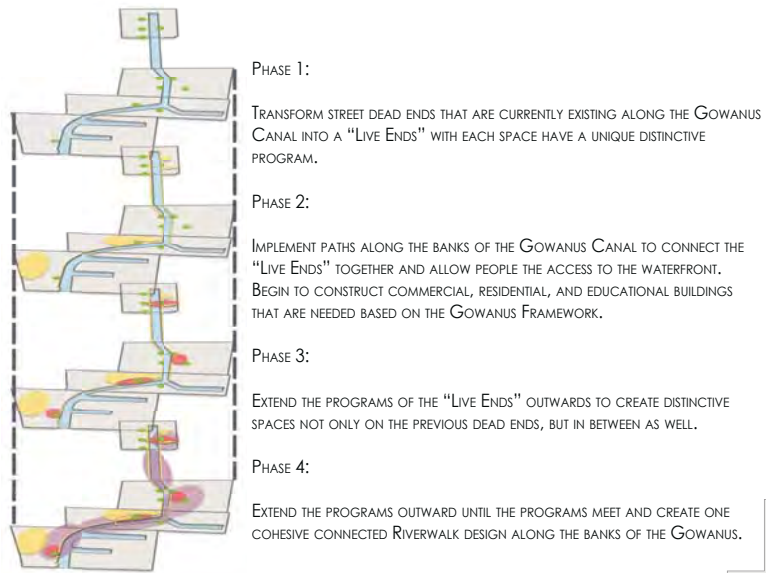


ADULT LEISURE	EDUCATION & SOUND PARK	LIVE FITNESS	LIVE PERFORMANCE
EDUCATION & SOUND PARK: WIND CHIMES	LIVE FITNESS: PLAYGROUND	LIVE PERFORMANCE: MAKER SPACE EXHIBITS	ADULT LEISURE: COMMERCIAL SERVICES
LIVE FITNESS: OPEN LAWN/WORKOUT SESSIONS	LIVE PERFORMANCE: MAGIC SCHOOL BOAT LESSONS	ADULT LEISURE: ROWING CLUB	EDUCATION & SOUND PARK: EDUCATIONAL PERFORMANCES
LIVE PERFORMANCE: GRASS AMPHITHEATER	ADULT LEISURE: SOUND SCULPTURES FOR LEISURE	EDUCATION & SOUND PARK: DISABILITY LESSONS	LIVE FITNESS: RECREATIONAL FIELDS

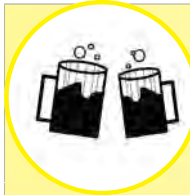
Moments Board



Phase

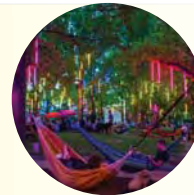


Alex Glasser, Diosmiry Rodriguez, Emily Toth, Monica Lee



HUNTINGTON STREET - ADULT LEISURE

THIS LOCATION PROVIDES A BEER GARDEN, A GRAND DOCK, AND MANY ACTIVITIES FOR ADULTS TO ENJOY. THIS SPACE PROVIDES AN ABUNDANT OF COMMERCIAL AND RESIDENTIAL AMENITIES AS WELL AS A WATERFRONT CONNECTED PARK.



SPRUCE STREET HARBOR PARK



CHICAGO RIVERWALK



SAN ANTONIO RIVERWALK



BRYANT PARK

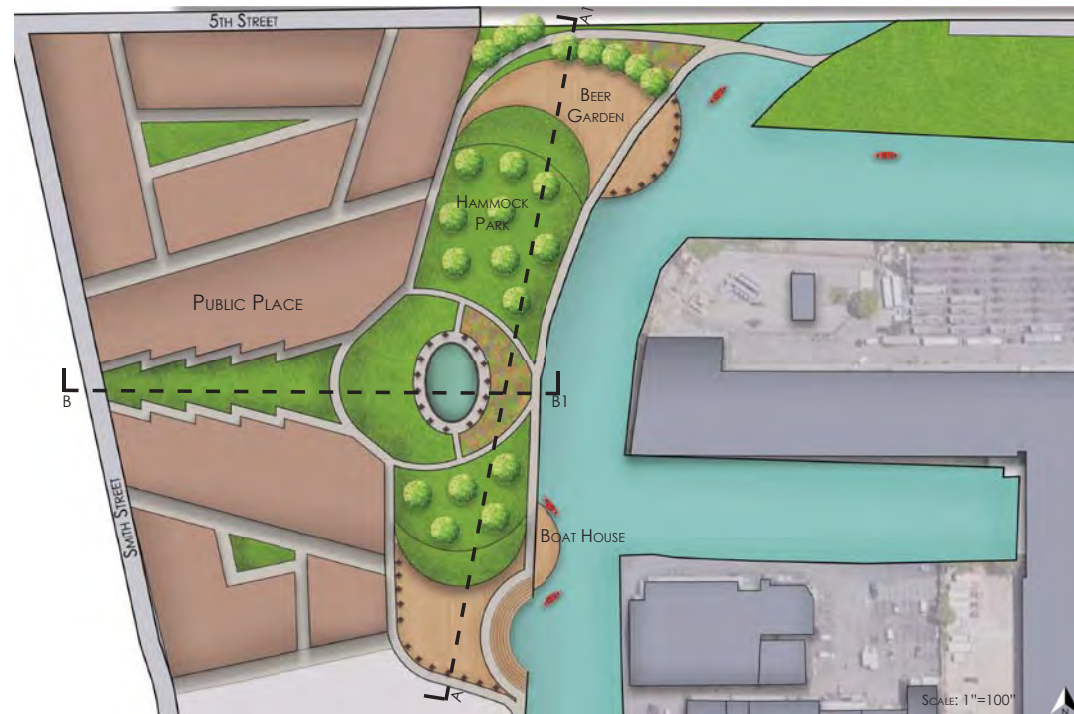


WUNDER GARTEN

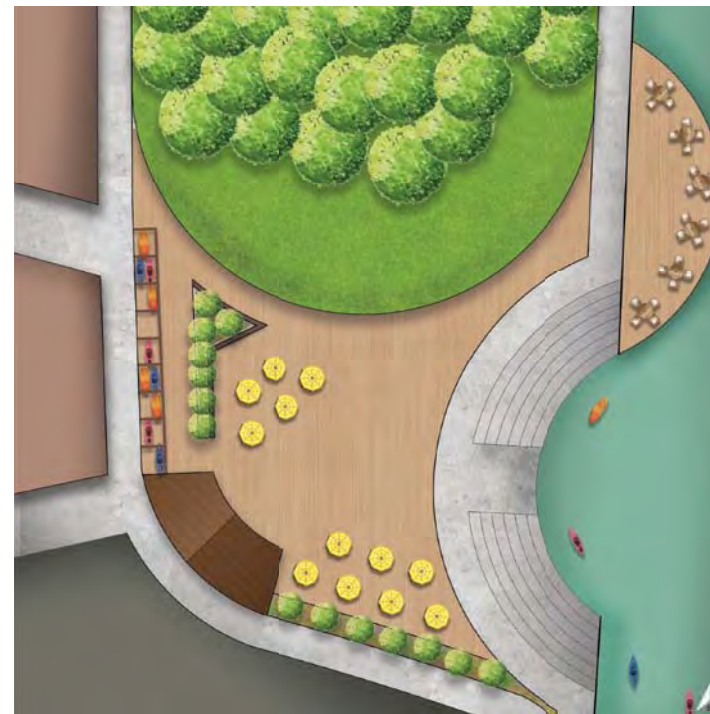


ABERDEEN CITY GARDEN

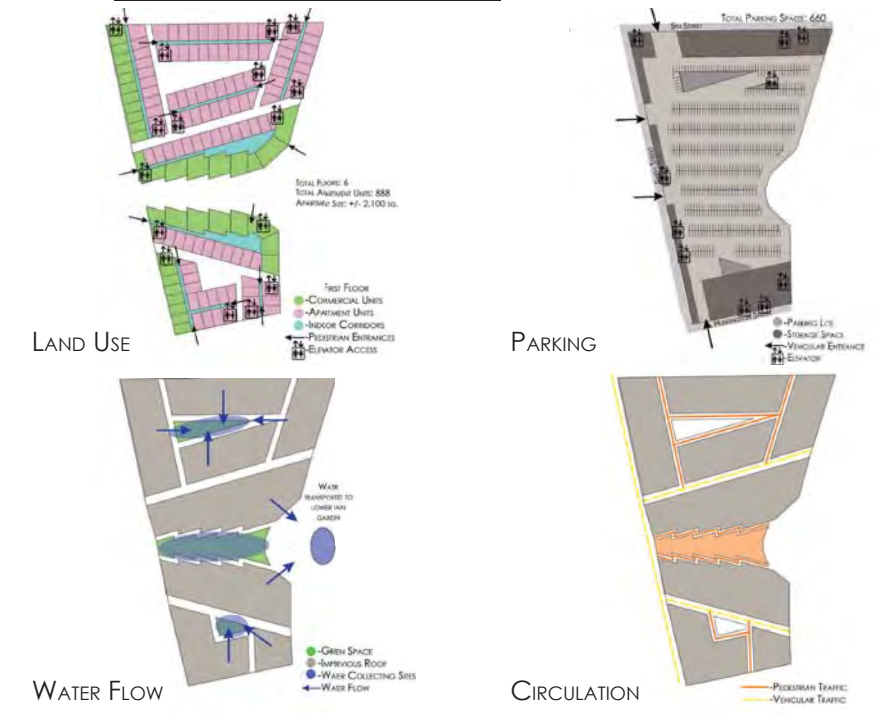
PLAN



BOAT HOUSE ENLARGEMENT PLAN



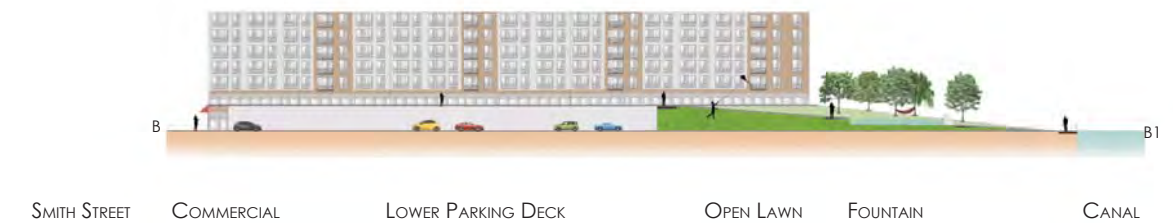
PUBLIC PLACE DIAGRAM



PERSPECTIVES



CROSS SECTIONS



SCALE: 1"=50'



1st Street - Makerspace & Live Performance

Create accessible outdoor spaces that connect to the Makerspace, with opportunities for creative activities and performance spaces.



Big U Master Plan

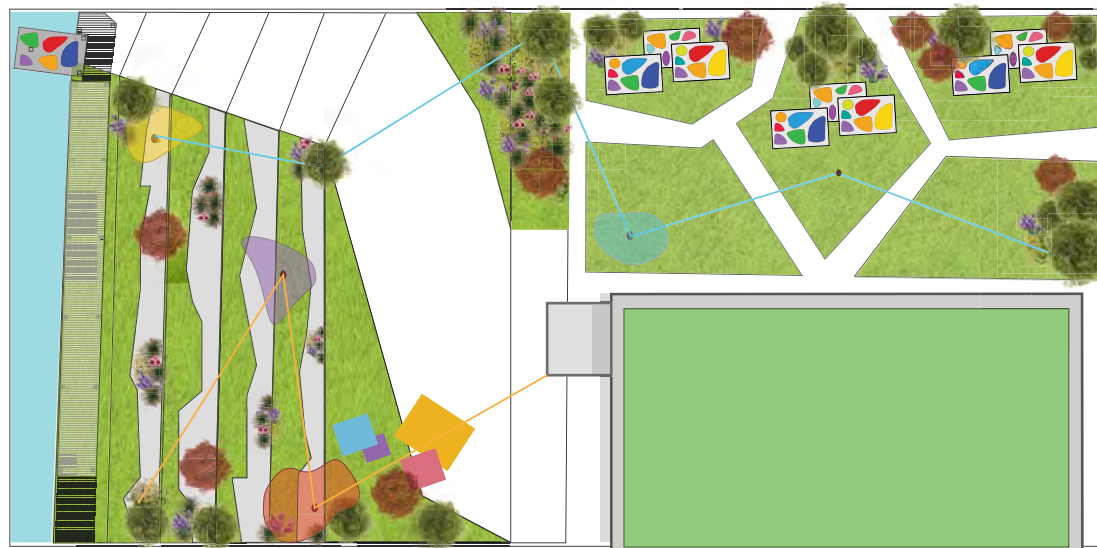


Roberto Burle Marx Designs

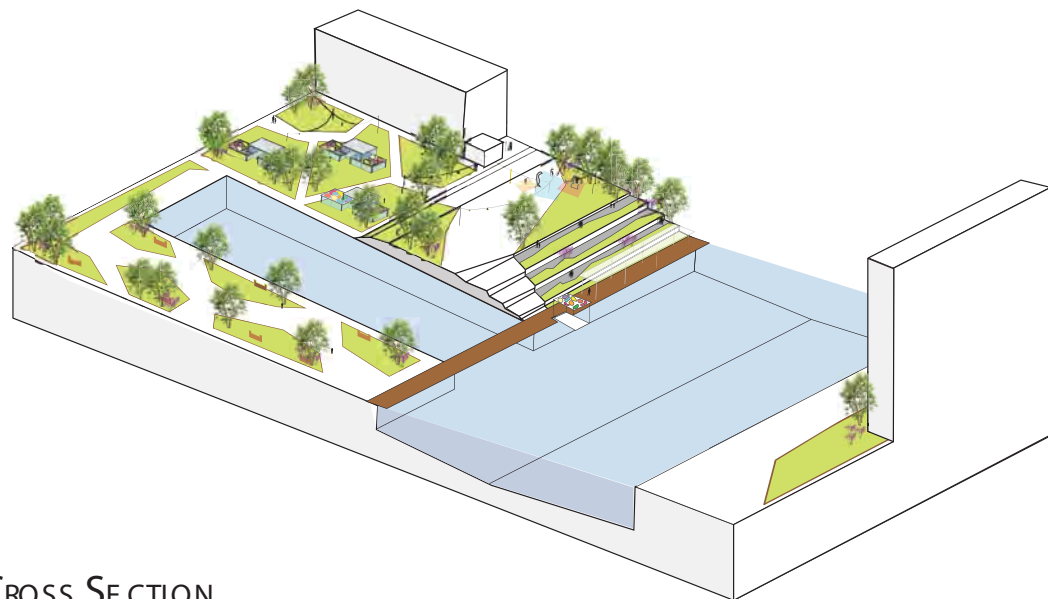


Claude Comier

Plan



Axon



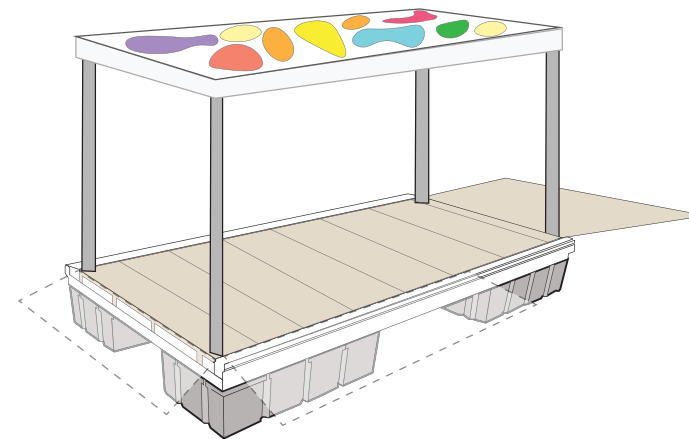
CROSS SECTION



Section and Materials



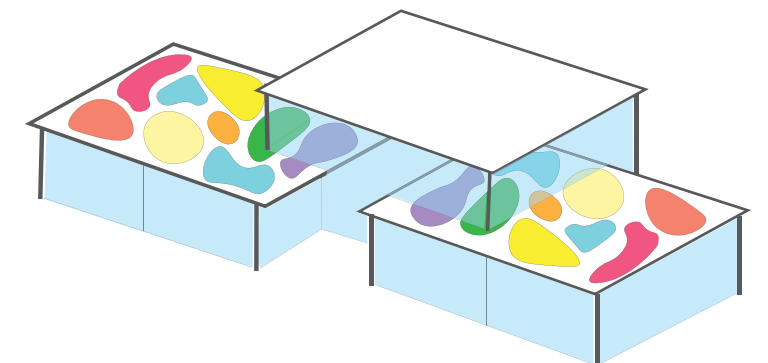
Dock



Planting Palette



Makerspace Pavilion



DEGRAW STREET - LIVE PERFORMANCE

THE GOAL OF DEGRAW STREET IS TO CREATE A DESTINATION AT THE END OF THE CANAL WITH OPPORTUNITIES FOR MULTIPLE RECREATIONAL ACTIVITIES AS WELL AS CREATING A LARGE OUTDOOR LIVINGROOM FOR THE COMMUNITY TO GATHER.



AMPITHEATER



PARIS POOL BARGE



11TH STREET
BRIDGE PARK



CHICAGO RIVERWALK

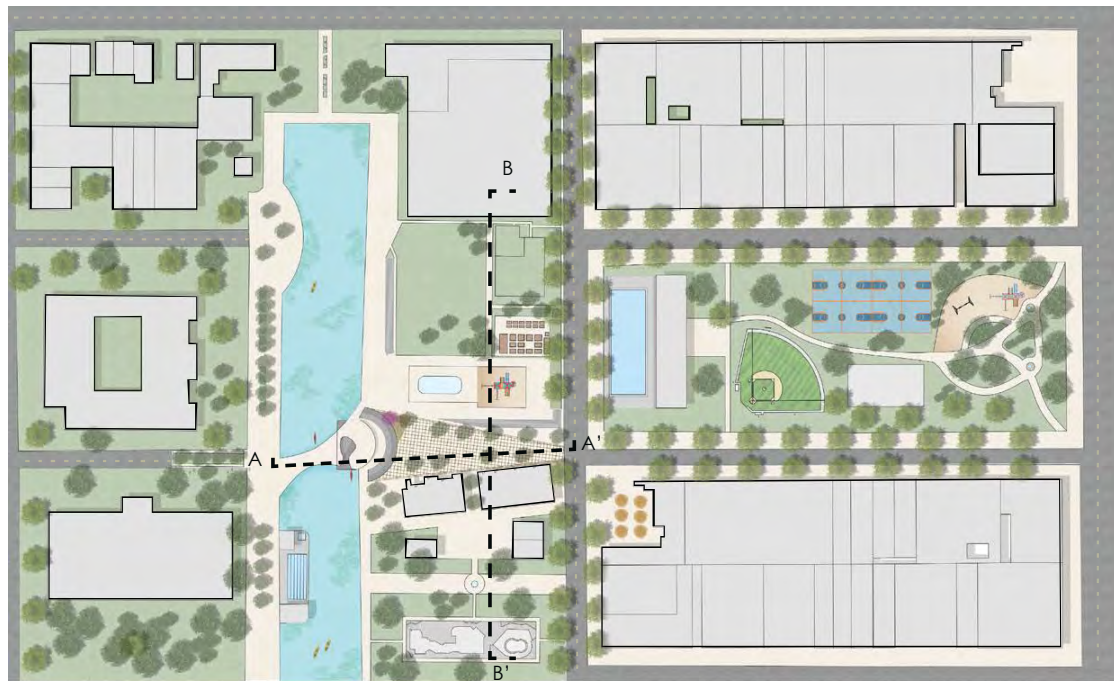


THE GOODS LINE



SPACE CAVIAR

PLAN



SCALE I.O: 1"=50'

ACTIVITY DIAGRAM



Legend

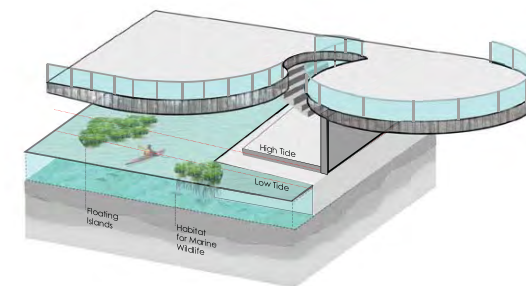
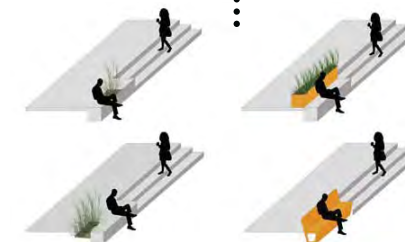
- Live Fitness
- Adult Lesiure
- Live Performance
- Education
- 1 Great Lawn
- 2 Dog Park
- 3 Community Garden
- 4 Water Feature
- 5 Playground
- 6 Plaza
- 7 Amphitheater
- 8 Dock
- 9 Commercial Plaza
- 10 Skate Park
- 11 Mixed Use Commerical
- 12 Pool
- 13 Pool House
- 14 Baseball Field
- 15 Basketball Courts
- 16 Handball Courts
- 17 Picnic Area
- 18 Head House

ENLARGEMENT PLAN



SCALE I.O: 1"=20'

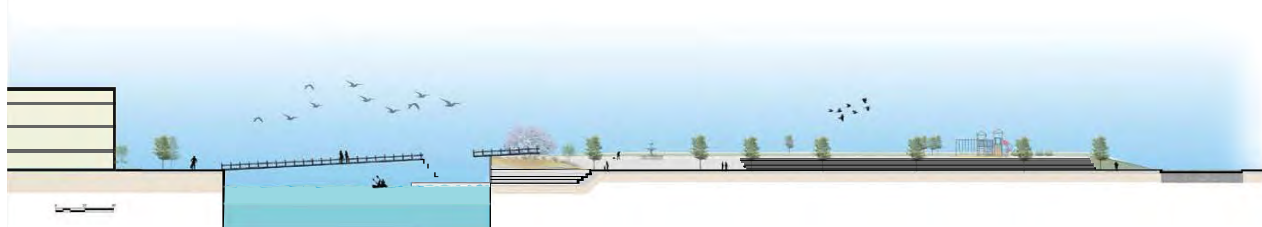
STAIR DIAGRAM



PERSPECTIVES



SECTION A-A'

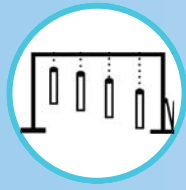


SCALE I.O: 1"=20'

SECTION B-B'



SCALE I.O: 1"=20'



BOND STREET - EDUCATION AND SOUND PARK

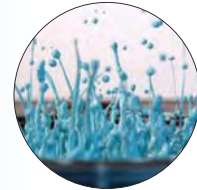
THE GOAL OF SOUND PARK IS TO CREATE EXTERIOR CLASSROOM SPACES FOR PEOPLE OF ALL AGES SPECIFIC TO GOWANUS. IT IS A PLAYFUL AND INTERACTIVE LANDSCAPE THAT KEEPS ACTIVE DURING THE DAY AND NIGHT.



RECLAIMED OXYGEN TANKS



THE SINGING RINGING TREE



WATER VIBRATION THROUGH SOUND



ROOFTOP PLAYGROUND

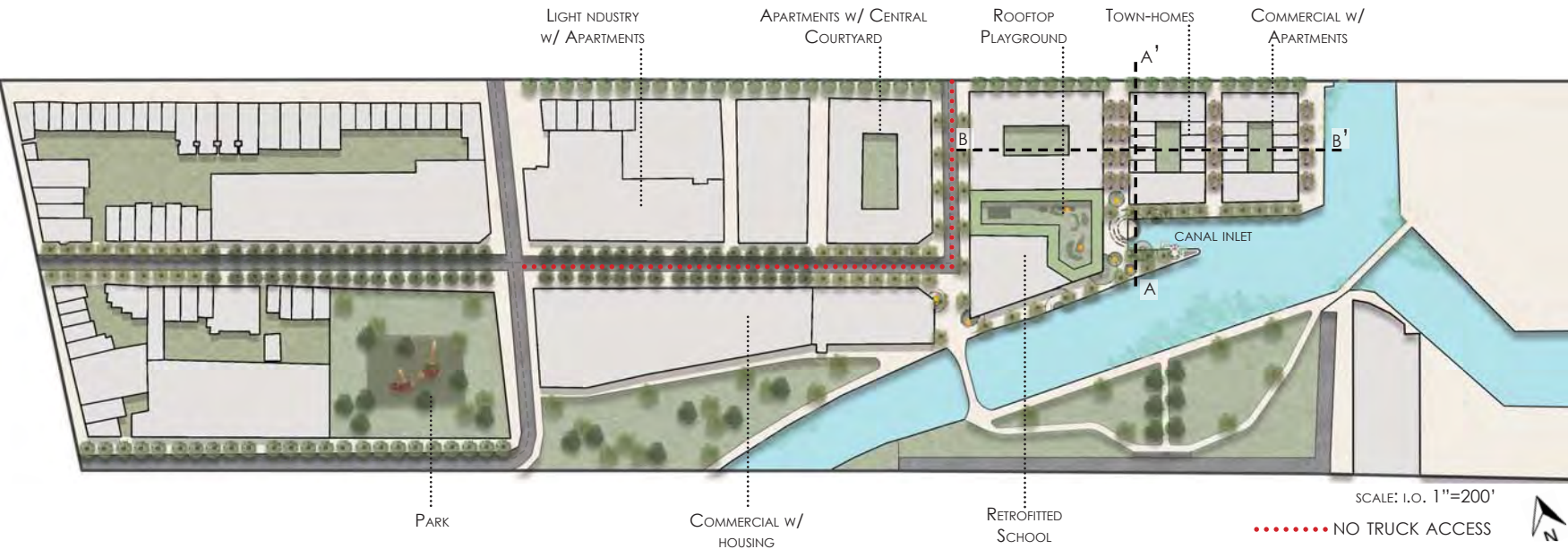


LAKE GEORGE FLOATING CLASSROOM



THE RIPPLE EFFECTS

PLAN



ENLARGEMENT PLAN



PERSPECTIVES



MAGIC SCHOOL BOAT EDUCATIONAL TOUR

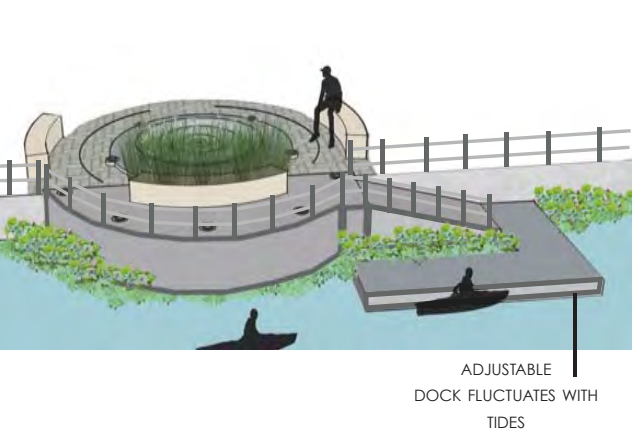


ROOFTOP PLAYGROUND VIEW



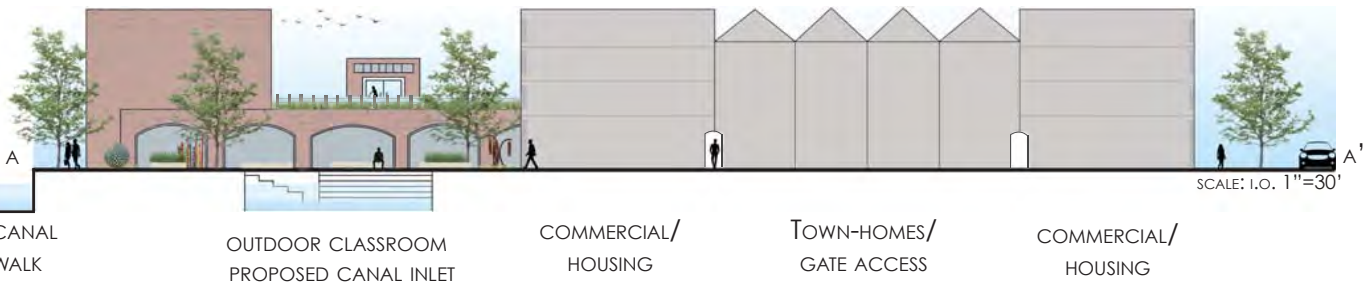
OUTDOOR CLASSROOM FEATURING SOUND SCULPTURE

DOCK DIAGRAM



ADJUSTABLE DOCK FLUCTUATES WITH TIDES

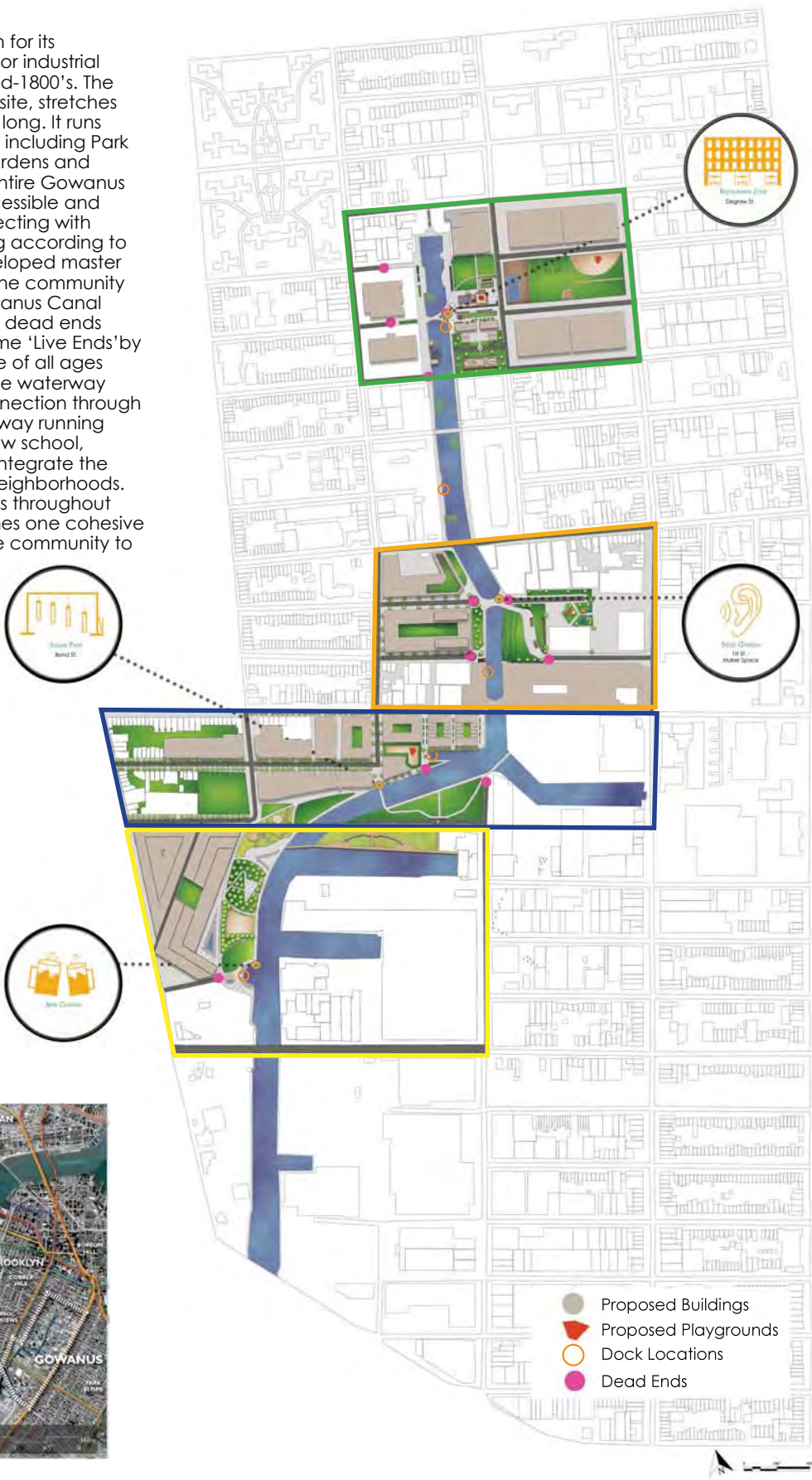
CROSS SECTIONS



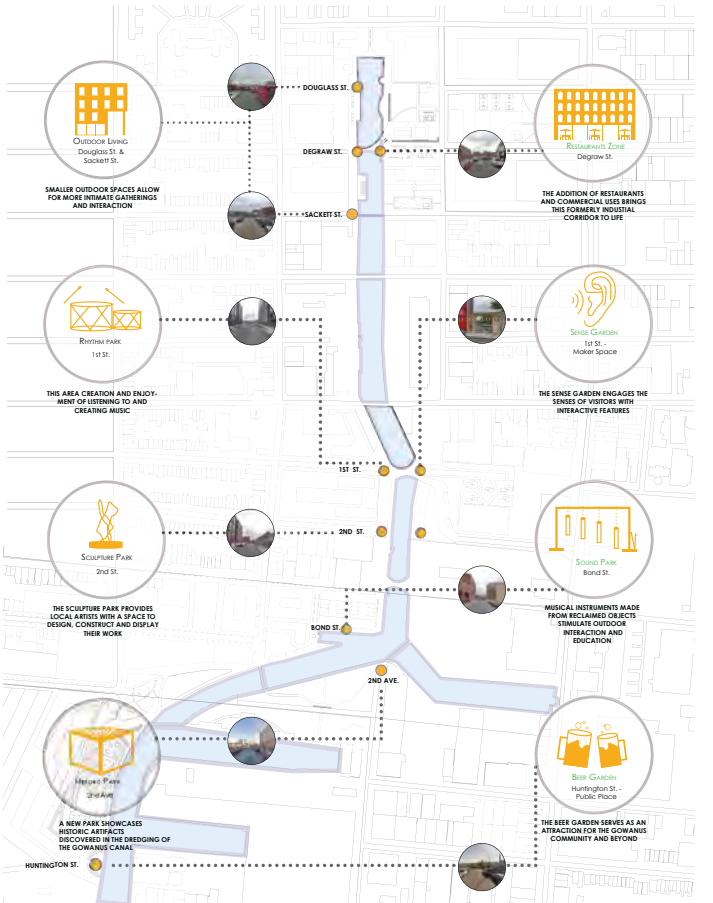
'LIVE ENDS' MASTER PLAN

ALEXANDER GLASSER, DIOSMIRY RODRIGUEZ, EMILY TOTH, MONICA LEE

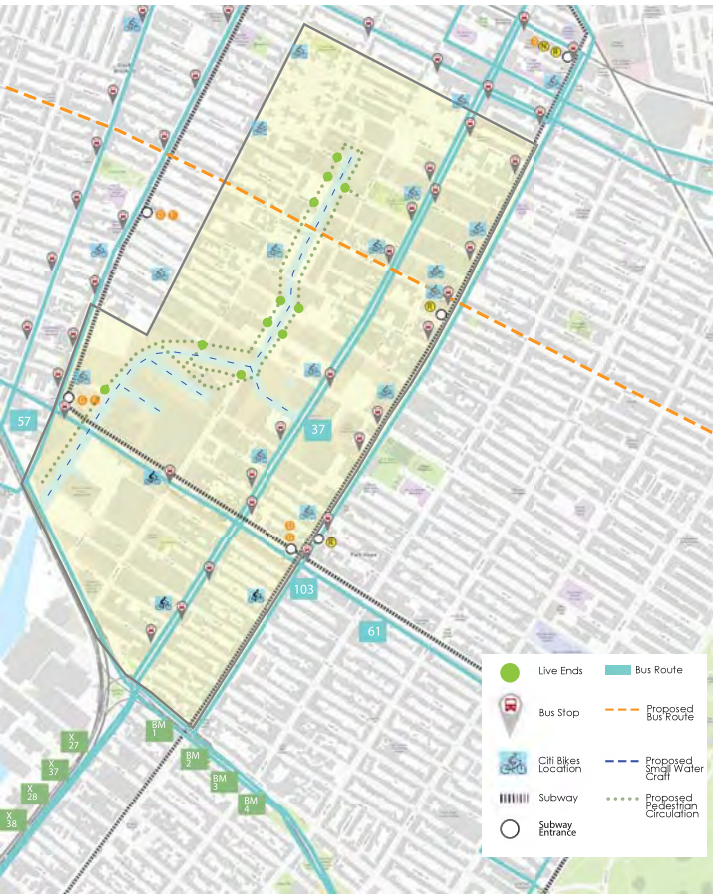
The Gowanus Canal is known for its industrial past of being a major industrial transportation route in the mid-1800's. The canal, currently a superfund site, stretches 100 feet across and 1.8 miles long. It runs through several communities including Park Slope, Cobble Hill, Carroll Gardens and Red Hook. The goal for the entire Gowanus area is to create a more accessible and active open space by connecting with communities and developing according to a more cohesive and redeveloped master plan. Our group focuses on the community and its spaces after the Gowanus Canal has been remediated. Street dead ends through out the canal become 'Live Ends' by adding programs , for people of all ages and interests, to each site. The waterway also becomes an active connection through a series of docks and a pathway running the length of the canal. A new school, residences, and food stores integrate the canal with the surrounding neighborhoods. With the addition of moments throughout the canal, the space becomes one cohesive open and active area for the community to come together.



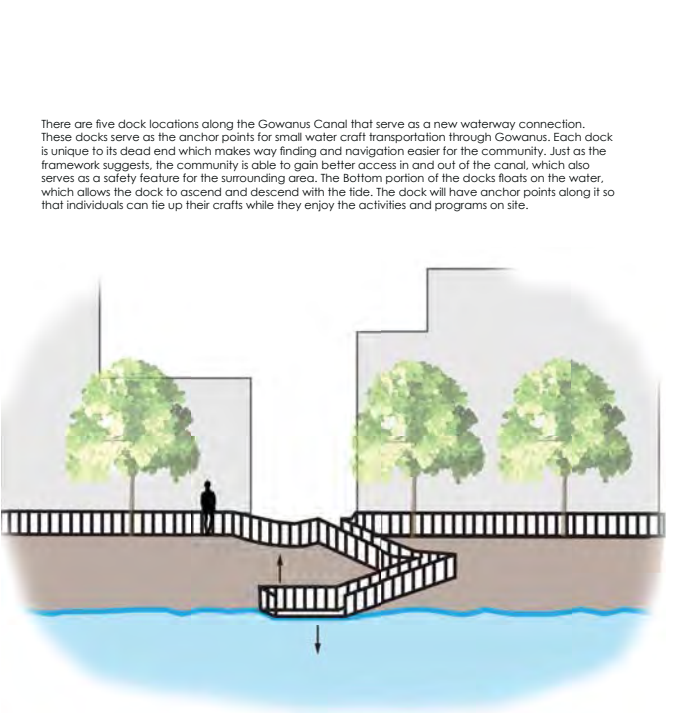
MOMENTS ON THE GOWANUS: 'LIVE ENDS'



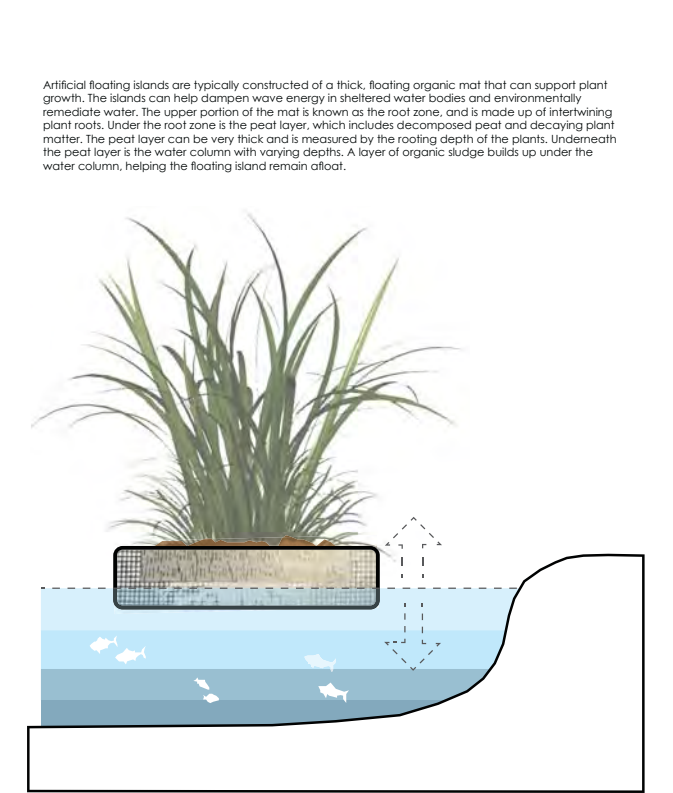
MOMENTS ON THE GOWANUS: 'LIVE ENDS'



DETAILS OF DOCK



DETAILS OF FLOATING ISLAND



HUNTINGTON STREET - PUBLIC PLACE & BEER GARDEN

EXISTING SITE PHOTOS & PRECEDENT PHOTOS



SPRUCE STREET HAROR PARK



CHICAGO RIVERWALK



BRYANT PARK



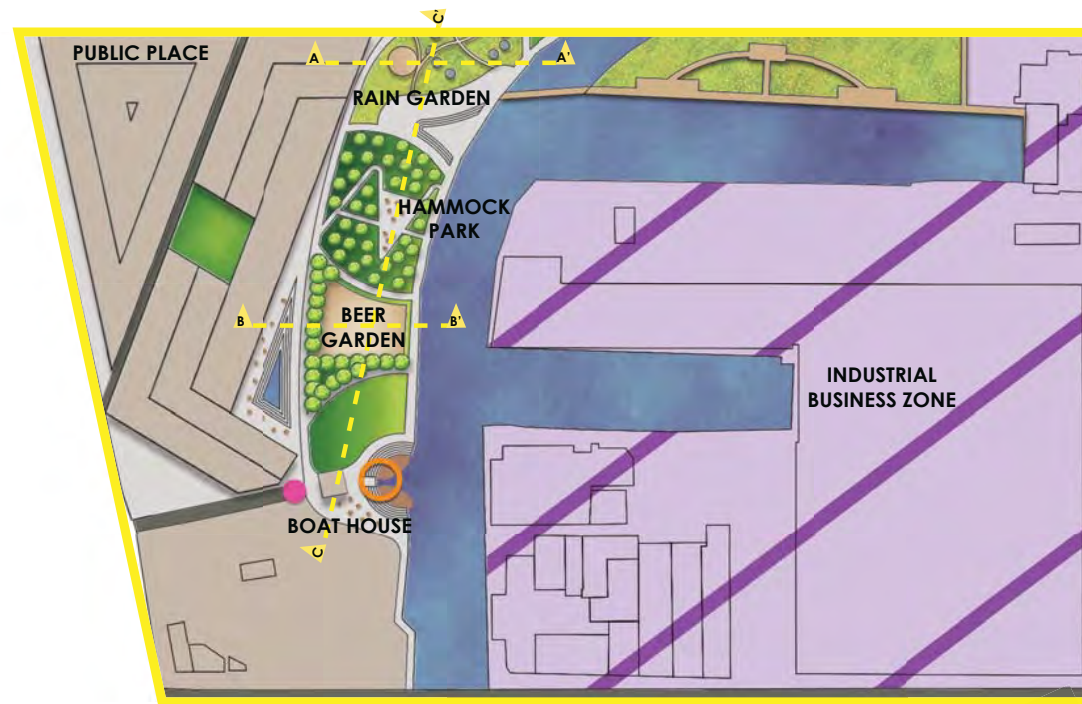
SAN ANTONIO RIVERWALK



WUNDER GARTEN BEER GARDEN

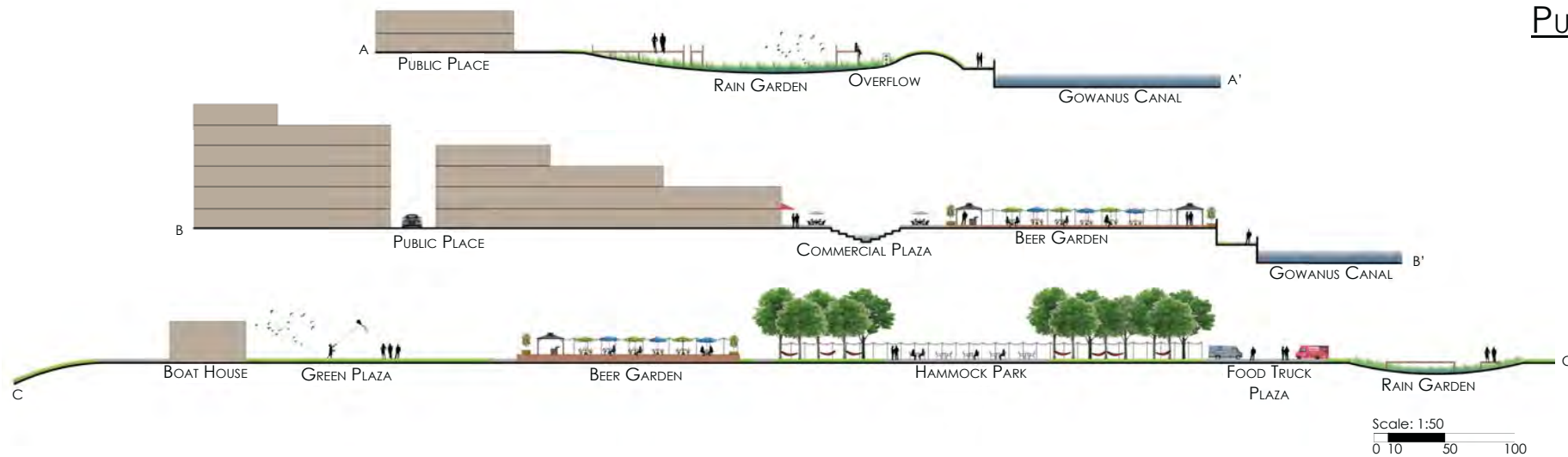
PLAN

The "Live End" at Huntington Street is transformed into a beer garden and a boat house that supports the local resident's needs and wants while at the same time creating a multitude of activities for all age groups. The focus of this site was to embrace activities generally aimed for adults, but at the same time providing kid friendly spaces, sustainable techniques, and visual links. To achieve that goal, some highlight features were added to the area, including a new beer garden, a new hammock park, a commercial plaza, as well as an interactive rain garden. On top of it all a boat house/yacht club is being implemented on the site to create a linkage between the community and the canal. An important feature of this site is the implementation of Public Place, which is revamped to include housing, commercial uses, community spaces, as well as a parking deck. With the addition of this new development, the site will create a wide variety of activities while at the same time bring the community together.

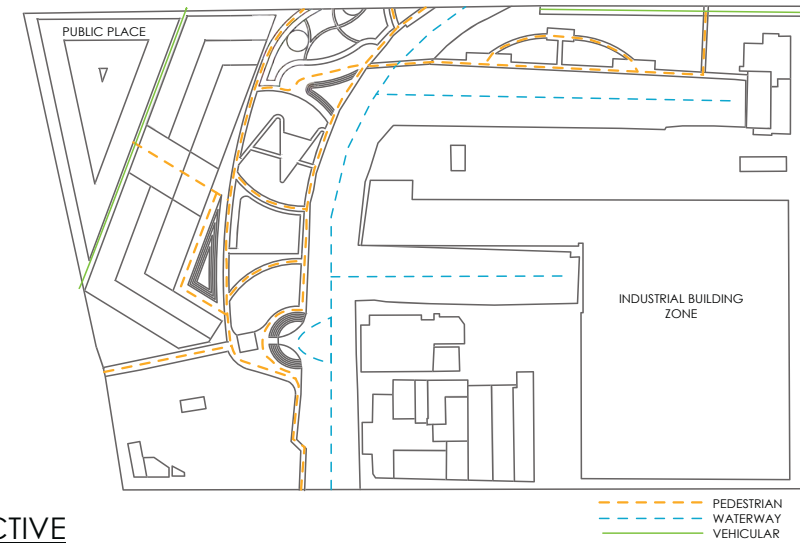


ENLARGED PLAN NOT TO SCALE*

SECTIONS



CIRCULATION DIAGRAM



PERSPECTIVE

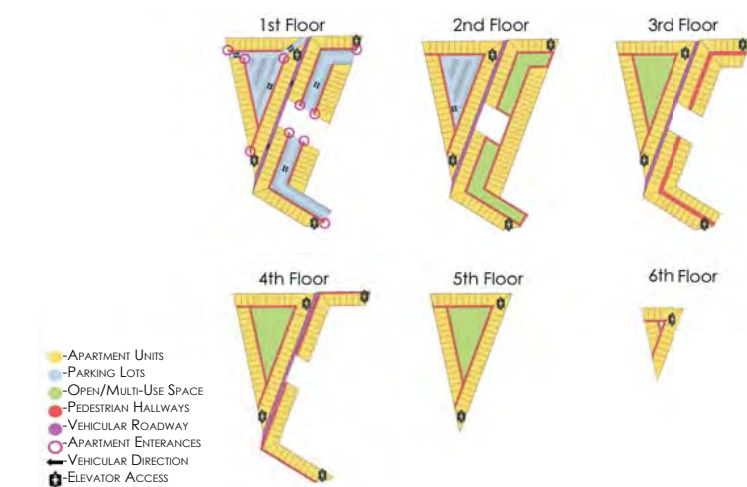


EXISTING HUNTINGTON STREET



PROPOSED HUNTINGTON STREET

PUBLIC PLACE DIAGRAM



EXISTING SITE PHOTOS & PRECEDENT PHOTOS



RECYCLED OXYGEN TANKS



ROOFTOP PLAYGROUND IN SPAIN



OUTDOOR CHIMES

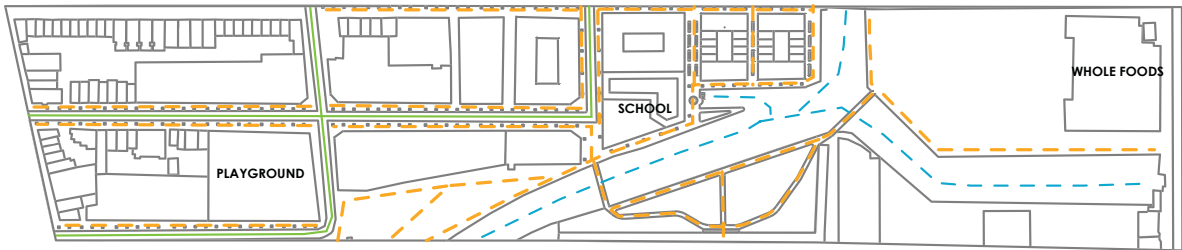


OUTDOOR DRUMS



OUTDOOR FLOOR PIANO

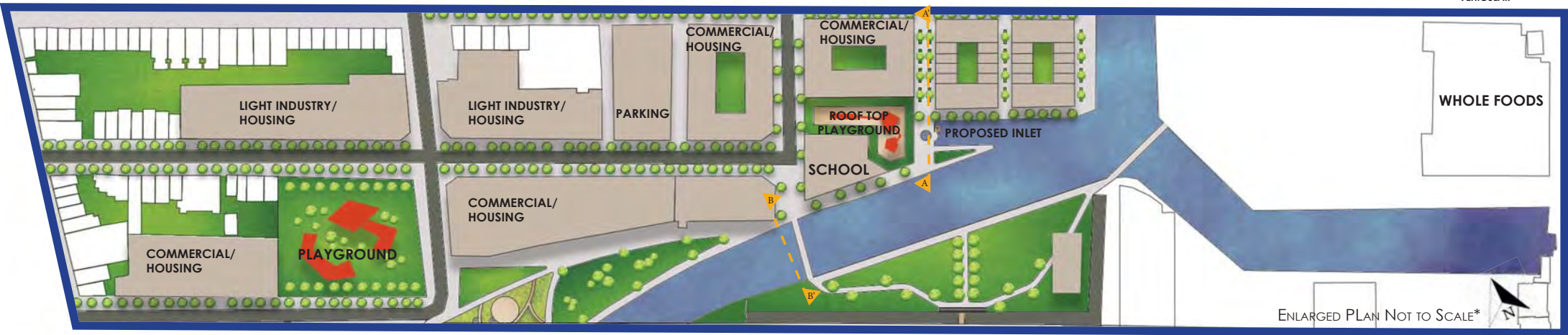
CIRCULATION DIAGRAM



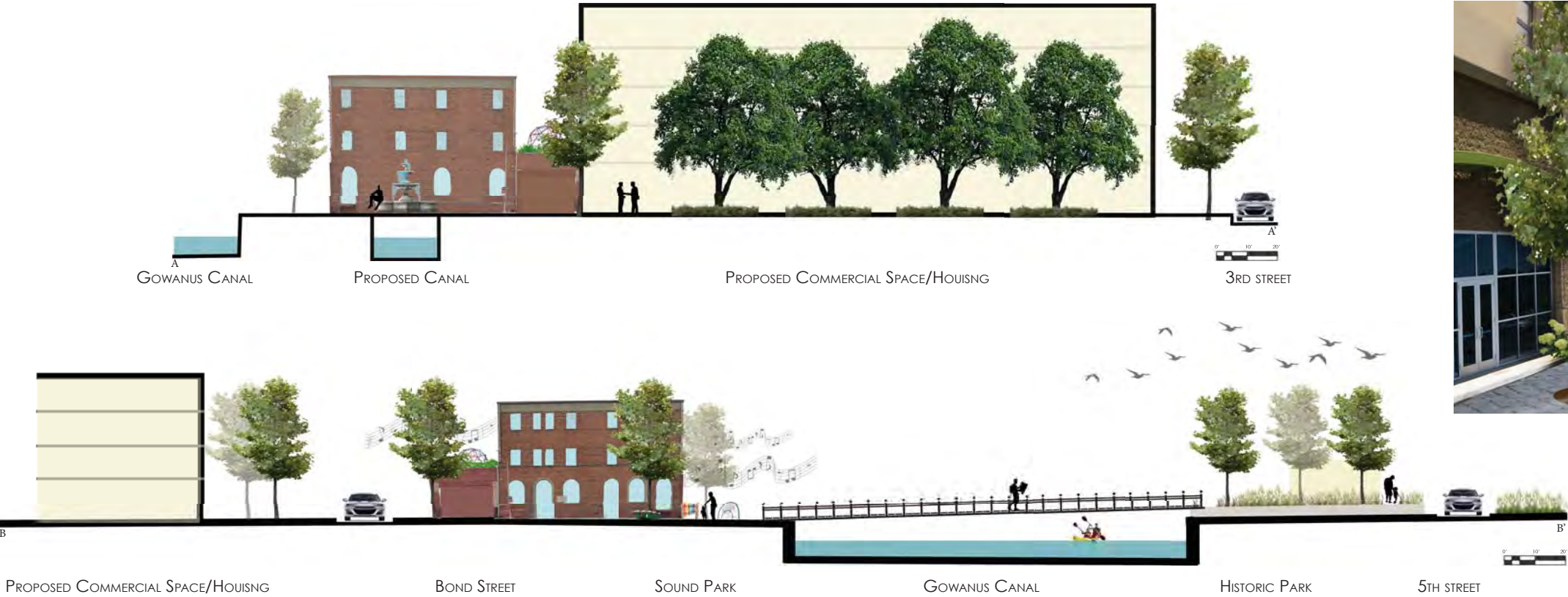
- PEDESTRIAN
- WATERWAY
- VEHICULAR

PLAN

The "Live End" at Bond Street transformed into a music park that supports the nearby school which occupies a retrofitted industrial building. The focus of the site was to embrace outdoor education and creating visual links, similar to the City Beautiful movement. To achieve that goal, some highlight features were added into the area, including a new music park, a rooftop garden and playground, a historic park just across the Gowanus, tree alleys, and a new canal inlet that is meant to be used as a more intimate space and visual link between the community and canal. The site is also revamped to include housing, commercial uses, light industrial space, and a parking deck with a unique facade. With the addition of this new development, the site will have easy ground floor access and greater interaction with community members.



SECTIONS



PERSPECTIVE



PROPOSED BOND STREET AND SOUND PARK



EXISTING BOND STREET



PROPOSED NEW SCHOOL BUILDING

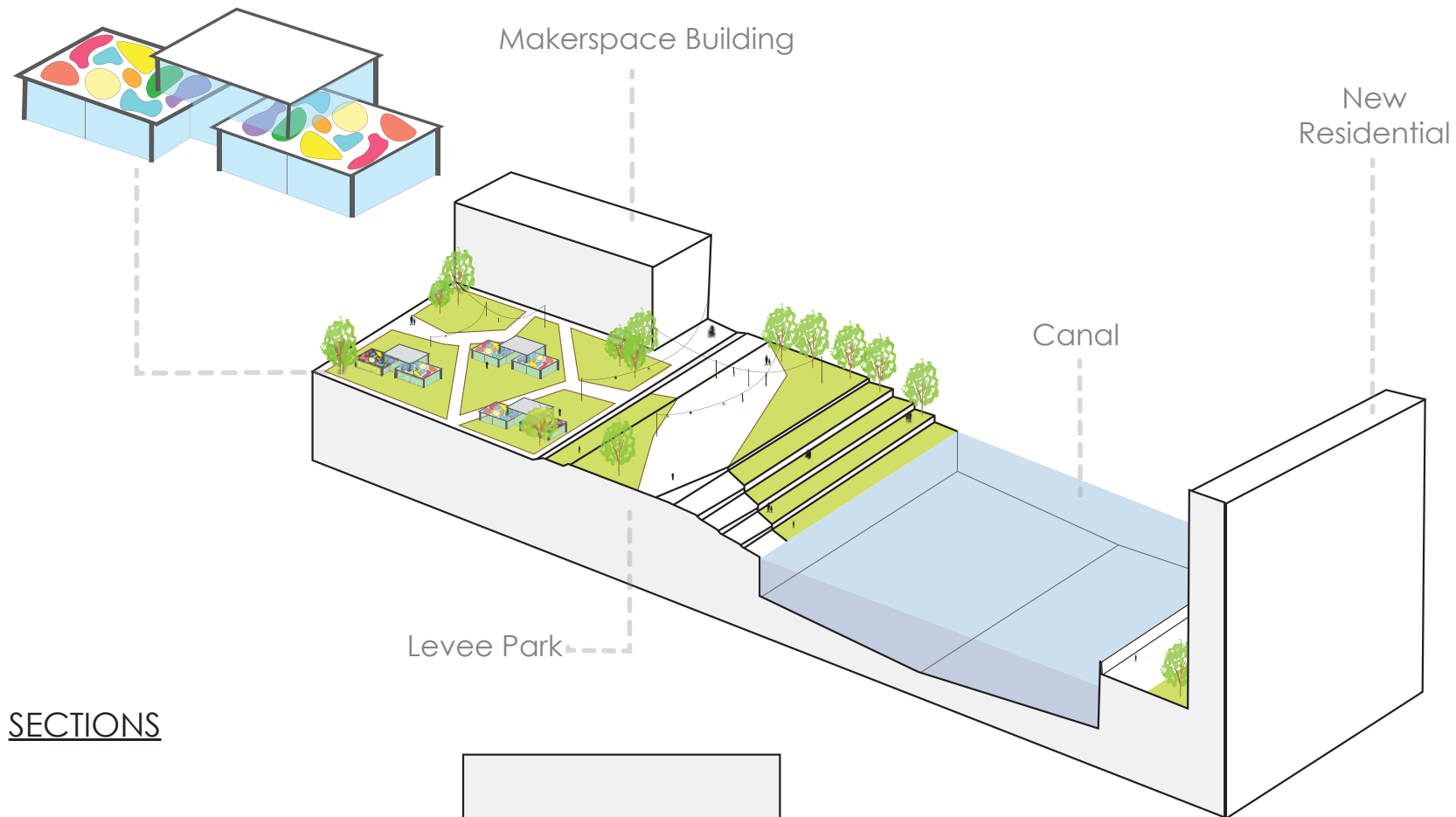
1st Street - Maker Space & Sense Garden

Diosmiry Rodriguez

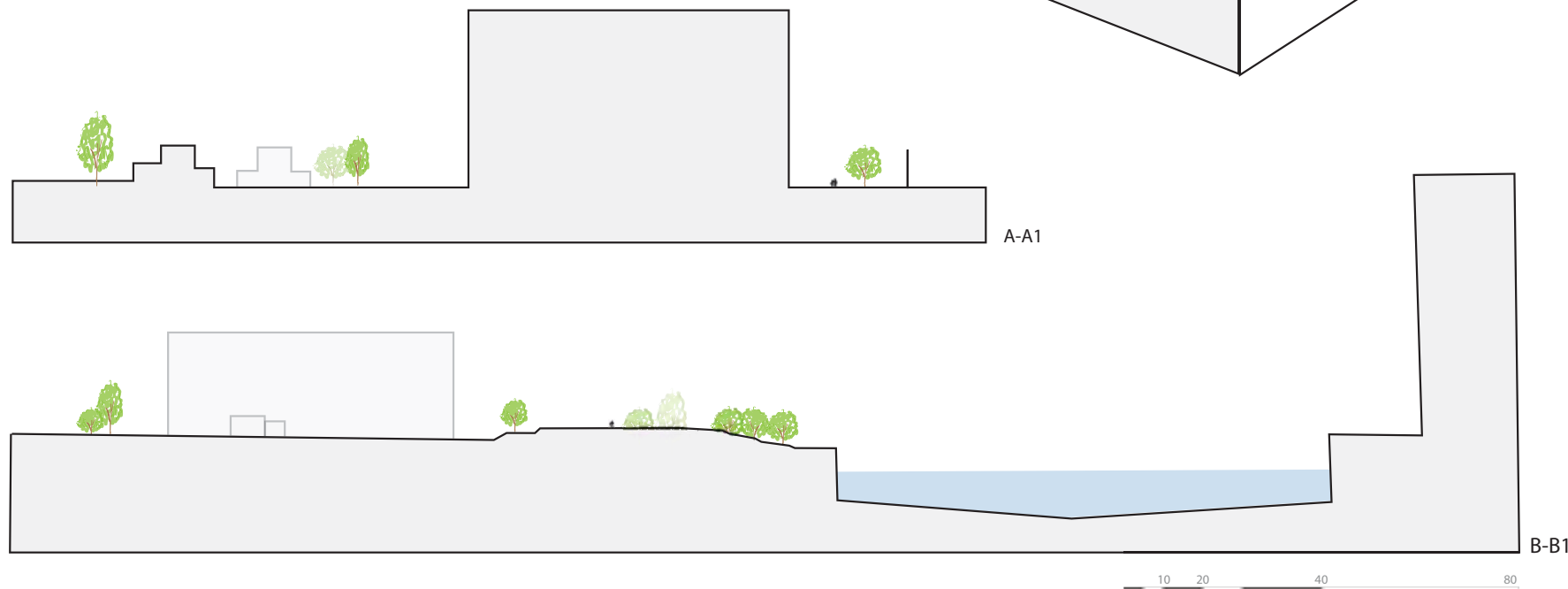
There are over 54 million Americans who have a disability. That's nearly 19% of the U.S. population. This number continues to grow as a larger percentage of our population acquires disabilities, often as a result of aging or disabilities incurred in combat. For this reason this design focuses on easy access to park and recreation. Makerspaces are the new hot topic and the ADA community needs to be a part of it.

AXON

Makerspace Pavilion



SECTIONS



PLAN



PERSPECTIVE



EXISTING SITE & PRECEDENT PHOTOS



Claude Comier Designs



Makerspace Building



Roberto Burle Marx Designs



New York's Big U Master Plan

DEGRAW STREET - RESTAURANTS ZONE & ACTIVE HUB

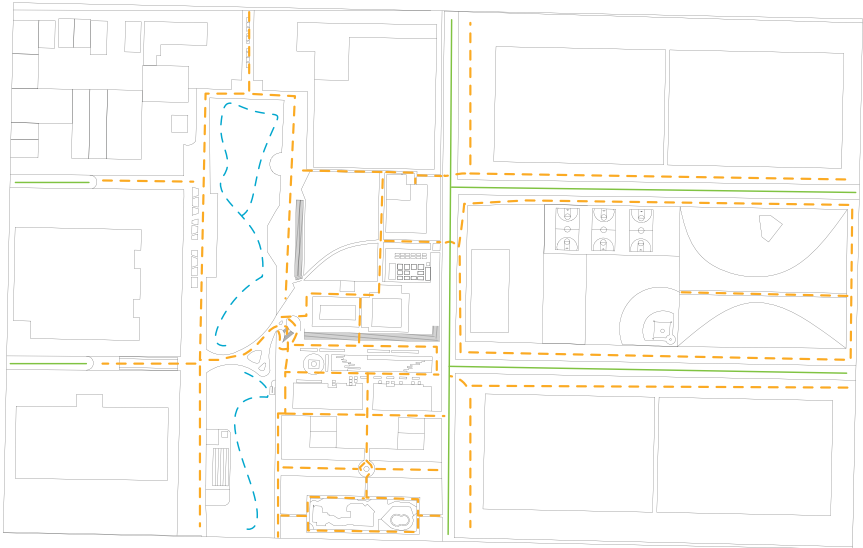
PLAN

The Degraw Street dead end is the creation and enhancement of accessible open space throughout the neighborhood. The park will serve as an important resource for providing much-needed access to passive and active recreation. This new open space will serve the Gowanus goals and visions for including opportunities to improve the local environment and encourage the community to explore and play outside as well as creating a social hub through the rezoning of existing infrastructure. By introducing more commercial and retail in the area, the Degraw street area will become a gathering spot for the community.



CIRCULATION DIAGRAM

Alex Glasser



PERSPECTIVE



STAIR DIAGRAM



PRECEDENT PHOTOS



PARIS POOL BARGE



STAIR DESIGN



THE GOODS LINE

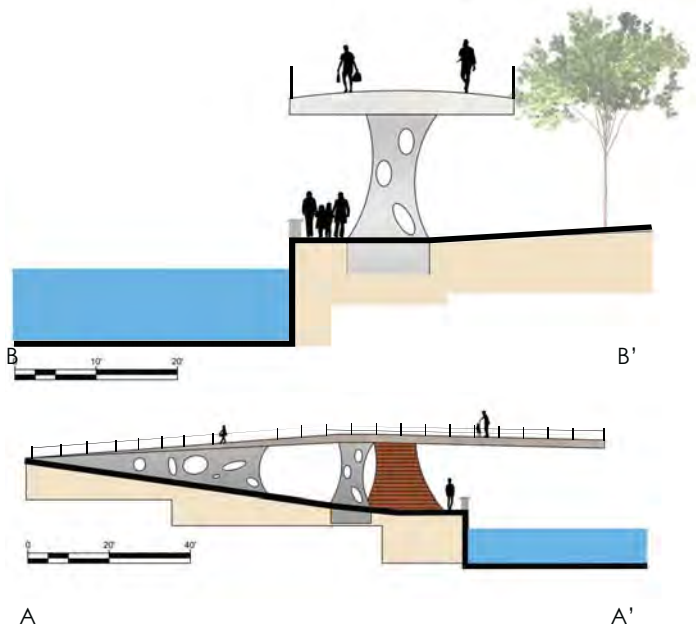


WATER FEATURES



CHICAGO RIVER WALK

SECTIONS







Sustainable Gowanus

Alexander Ciorlian, Tina Mao, Nanik Song, Wenjia Yan



Concept: Dirty to Clean

3 Step Phasing Plan

Phase 1: Clean Up Canal

Focus within the Canal Boundary

Techniques:

- Floating Gardens
- Fish / Oyster Hotels
- Mr. Water Wheel
- Underflow Dam (Captures floating gases and oils)

Phase 2: Revitalize the Canal! Bring it back the life.

Ambitions:

- Introduce habitats (fish, wildlife, bird, and insect's populations)
- Have cleaner water for humans to interact with (get closer to the water)

Phase 3: Design the Canal to show sustainable values that connect to the Gowanus Community

Affordable Housing:

Solar Panel Implementation

Capture storm water runoff into a filtration system

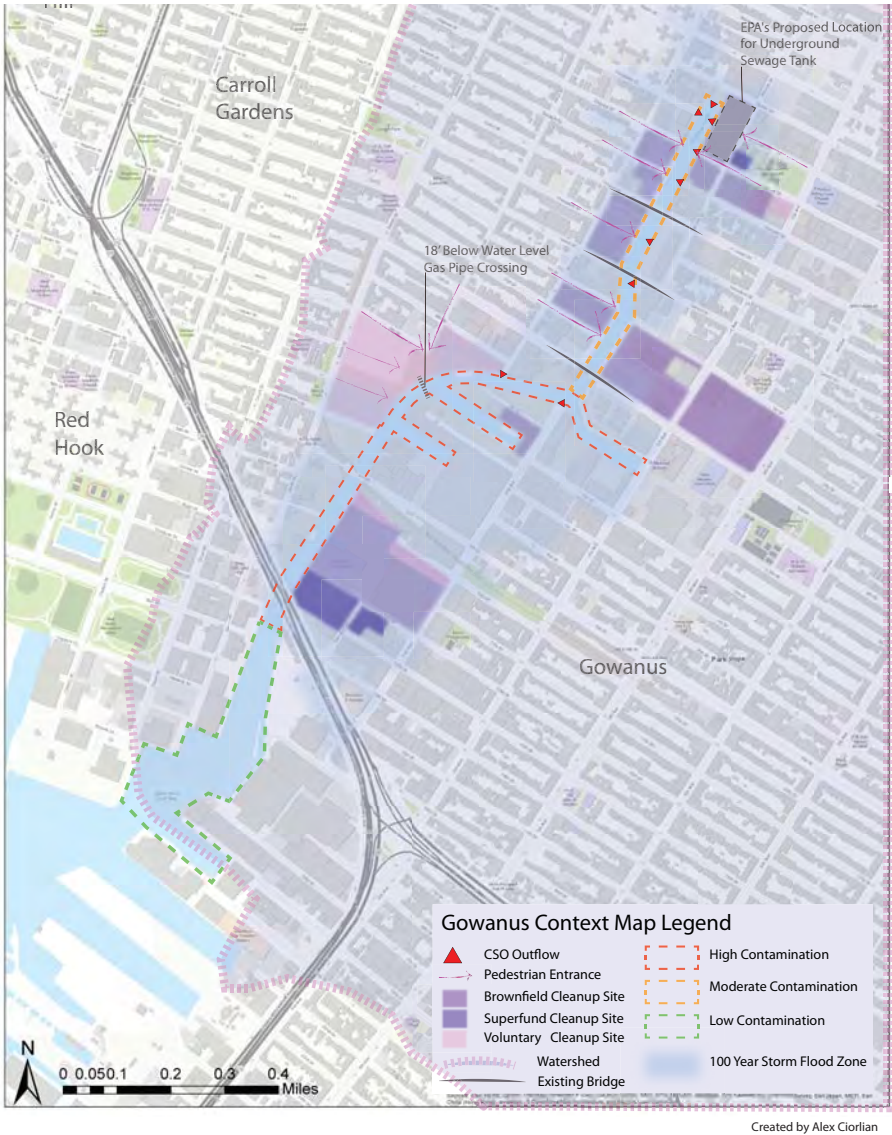
- Store and clean
- Reuse for outdoor irrigation
- Reuse for toilet water
- Reduces flow into canal

Amenities:

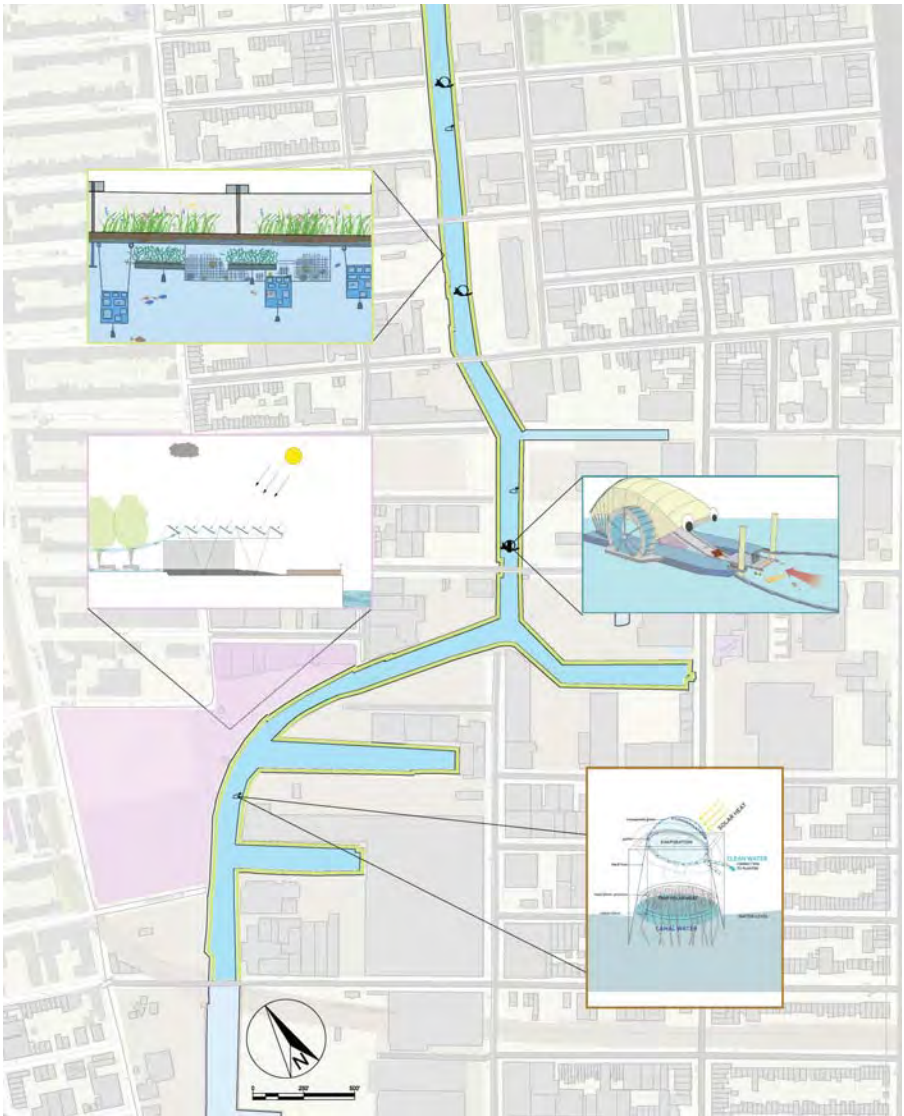
- 1st Floor Parking Design
- Open Space (Education Centers)
- Green Houses
- Playground



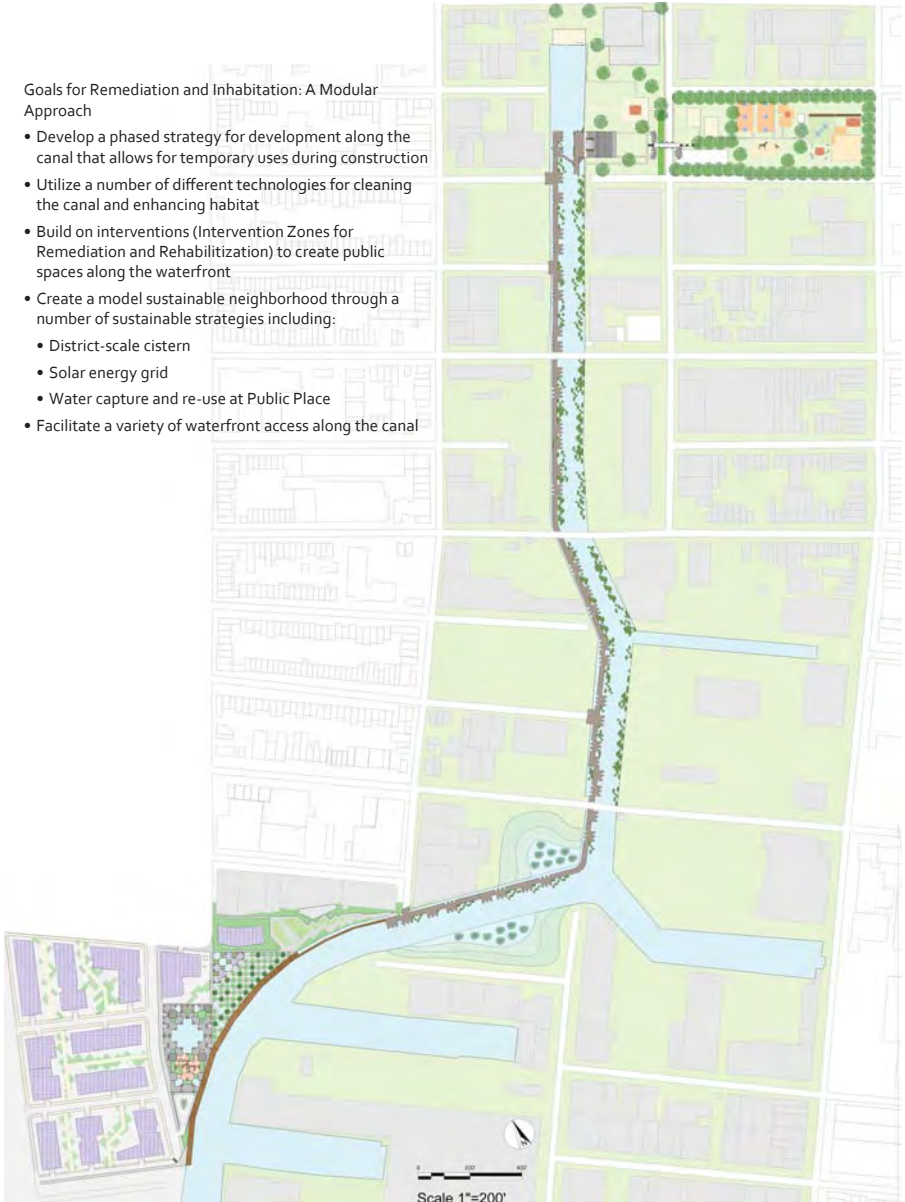
Context Map



Intervention Zones



Site Plan



Phases of the Gowanus

A glimpse of the future for the Gowanus Canal



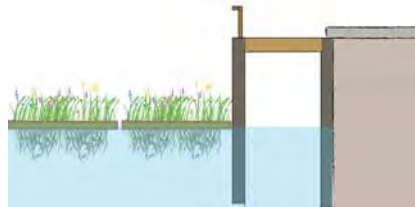
Phase 1 - Floating Garden



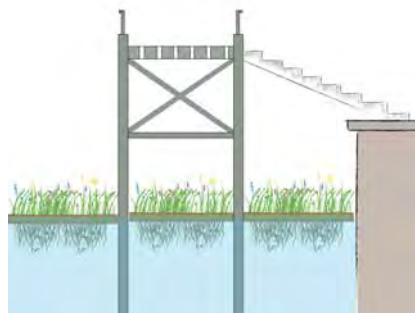
Phase 2 - Human Interaction



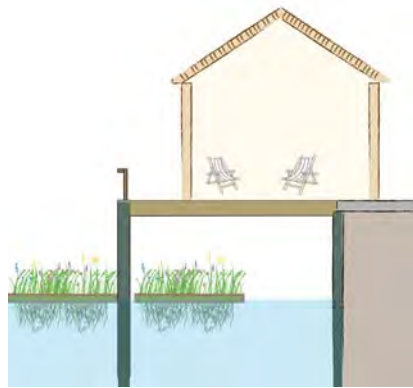
Phase 3 - Water Accessibility



Phase 3 - Boardwalk



Phase 3 - Catwalk



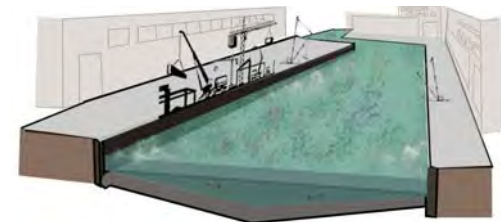
Phase 3 - Pavilion

Created by Tina Mao and Wenjia Yan

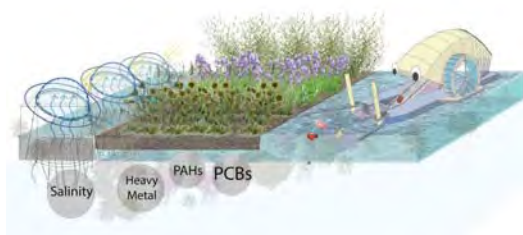
Concept

TechBoards

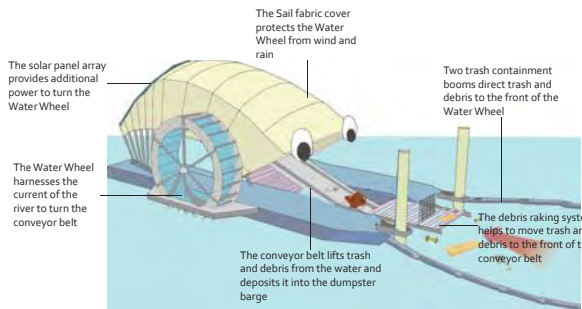
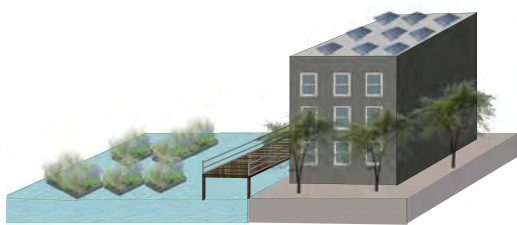
Plant Palette



Clean Up Phase



Development Phase

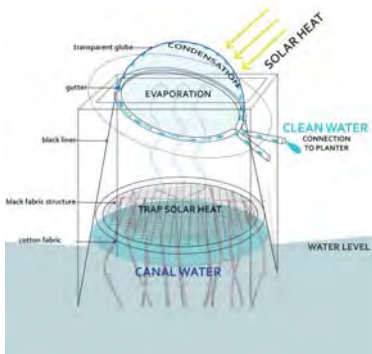
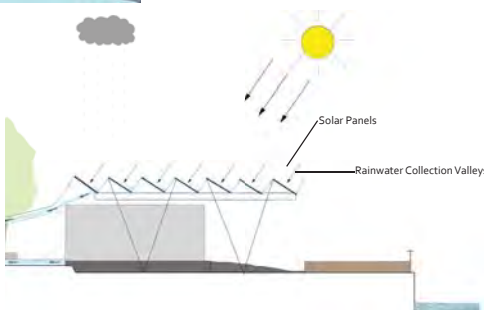


Mr. Water Wheel

- The inner Water Wheel is capable of removing 50,000 lbs. of trash every day
- On a sunny day the solar panels can produce 30 kilowatt/hours of electricity. That's enough to power a typical home for one day

Buildings collaboration with Solar Panels

- Solar panels of the site and buildings to optimizes passive heating and cooling, and provides for solar energy generation
- Rainwater Collection Valleys to collect stormwater runoff to one place and reuse it

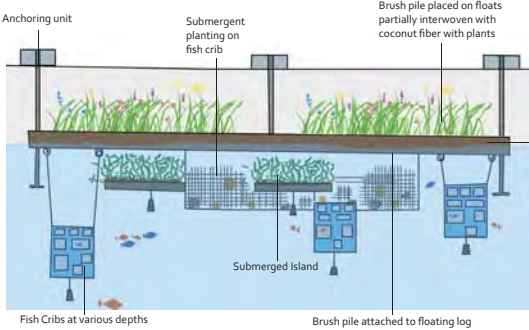


Solar Still

- A solar still evaporates the water with substances dissolved in it causing the heat of the Sun to evaporate water so that it may be cooled and collected, thereby purifying it.
- The sun's energy heats water to the point of evaporation. As the water evaporates, water vapor rises, condensing into water again as it cools and can then be collected. This process leaves behind impurities, such as salts and heavy metals, and eliminates microbiological organisms. The end result is pure distilled water.

Floating Garden

- The floating gardens have a special interaction with aquatic life
- System used to support both edible fish and edible plants
- The fish waste fertilizes the plants, and the plants filter the water for the fish.
- Its hyper efficient use of space is part of its appeal when thinking about feeding our planet sustainably.
- Provide much-needed room to species trying to establish themselves on the river scene, and of course, the plants clean up the river while they provide crucial shelter and cover.
- Potential species that can use the gardens: Fish, birds, and insects



Algae:



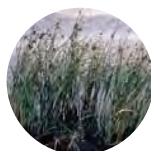
Thivy & Doshi
Cystoseira indica



Maiden's Hair Plant
Chlorodesmis sp.



Tall Fescue
Festuca arundinacea



Saltmarsh Bulrush
Bolboschoenus maritimus

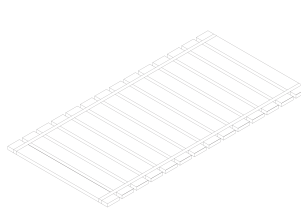


Swamp Rose Mallow
Hibiscus moscheutos

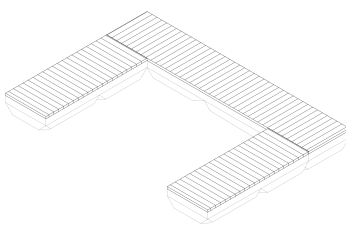


- Red circle: Polychlorinated biphenyls (PCBs)
- Green triangle: Polycyclic aromatic hydrocarbons (PAHs)
- Blue X: Heavy Metals

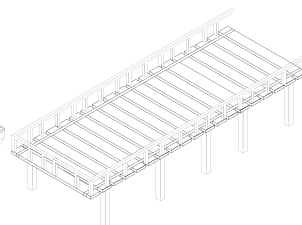
Kit of Parts



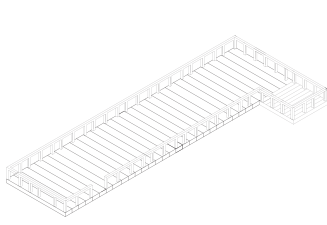
Floating Boardwalk



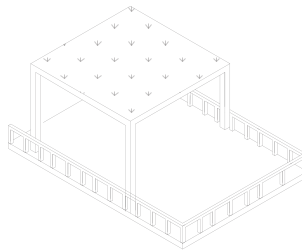
Floating Dock



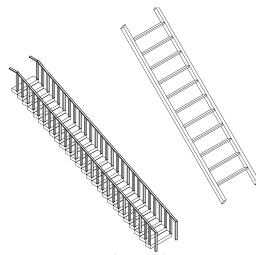
Catwalk



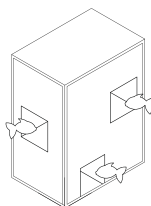
Boardwalk



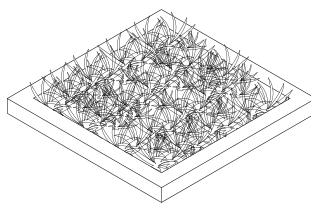
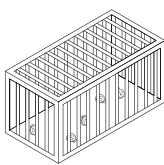
Pavilion with Green Roof
or Solar Panels on top



Stairs and Ladder

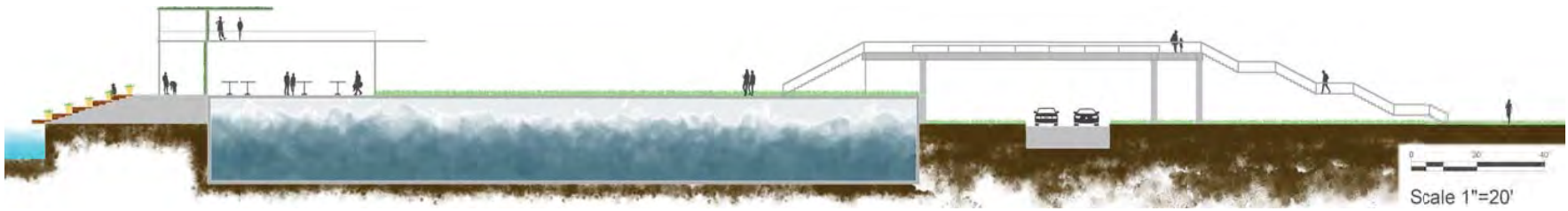
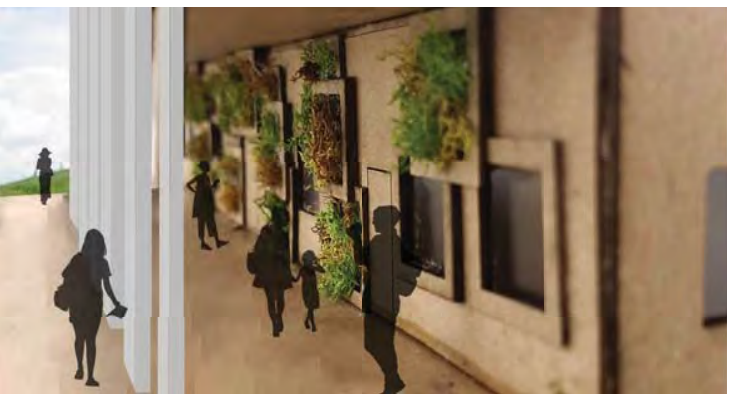
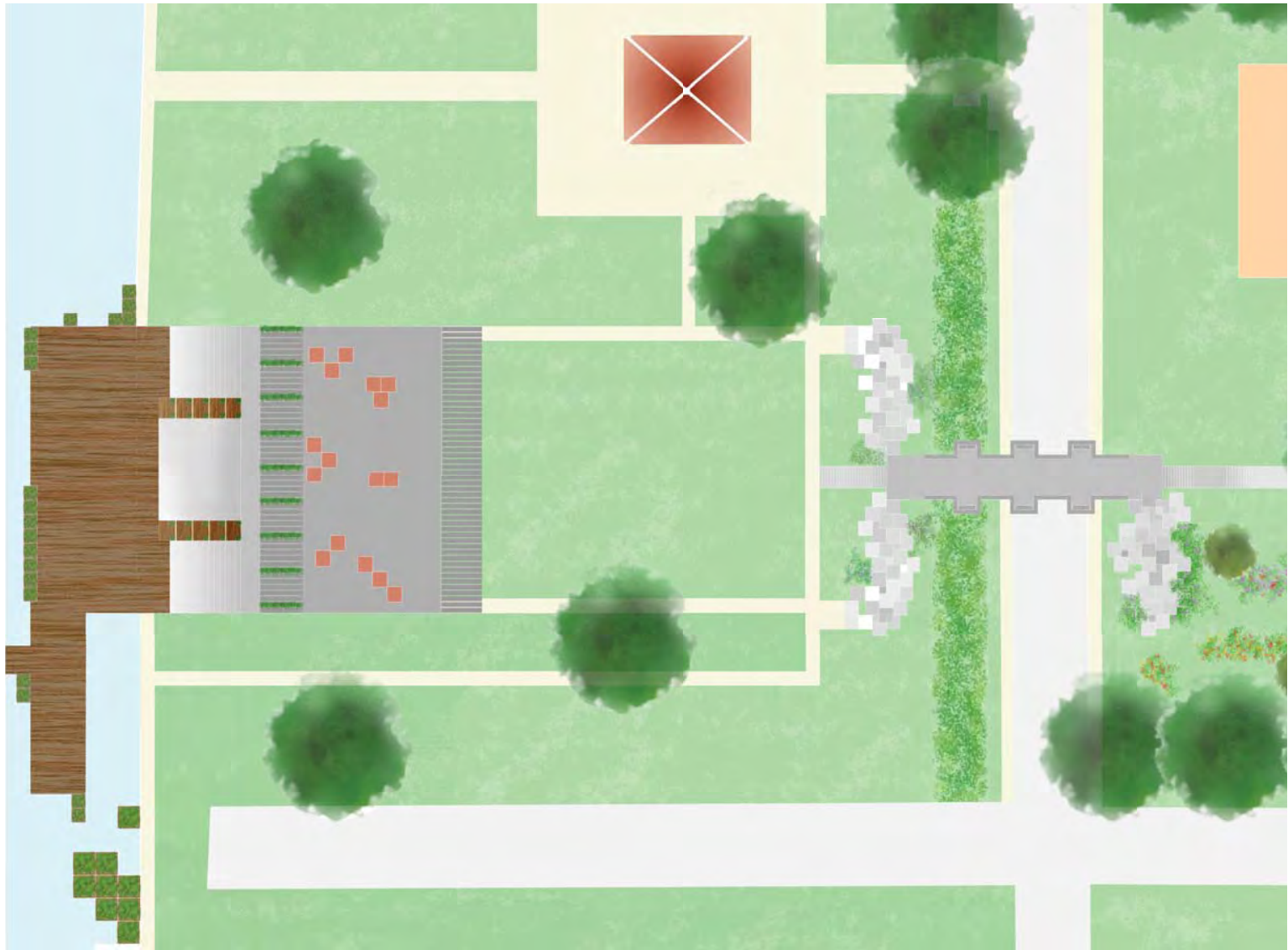


Fish Hotels and Oyster Cage



Floating Garden

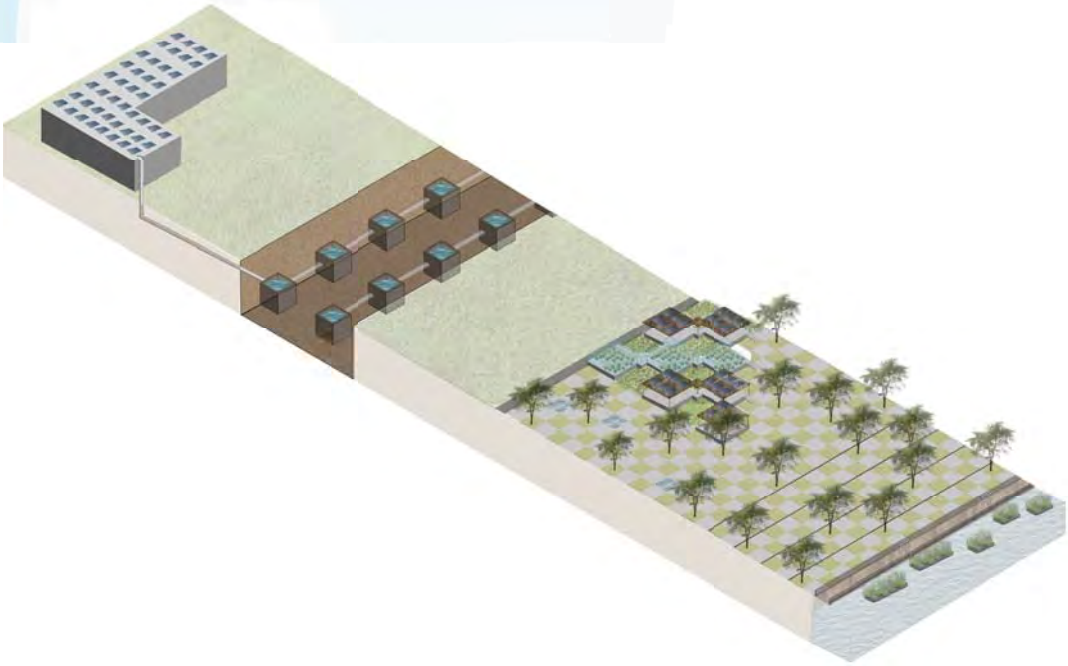
Thomas Green



Thomas Green Park is proposing to have a sewage storage tank be installed underground across Nevins Street. The storage tank will raise existing grade 8 feet high next to the canal and the park. To address this issue, a proposed bridge from Thomas Green Park to the Gowanus canal's edge will be a gateway to connect people to the water. The bridge will be high enough to accomodate commercial trucks and lead people to the Gowanus programmable multi level space allowing for differentiated usage and different ways to experience the canal. The building will have an ADA ramp accessible to the canal's boardwalk for everyone to experience the canal.



Public Place



Created by Tina Mao and Wenjia Yan

Design Process

Sustainable Modular Gowanus
Alex Giorlan Nanik Song Tina Mao Wenjia Yan



Techboard

Mr. Water Wheel

- The solar panel array provides additional power to turn the Water Wheel
- The Water Wheel harnesses the current of the river to turn the conveyor belt
- The conveyor belt lifts trash and debris from the water and deposits it into the dumpster lunge
- The debris raking system helps to move trash and debris to the front of the conveyor belt
- Two trash containment booms direct trash and debris to the front of the Water Wheel
- The sail fabric cover protects the Water Wheel from wind and rain

- The inner Water Wheel is capable of removing 50,000 lbs. of trash every day
- On a sunny day the solar panels can produce 30 kilowatt/hours of electricity. That's enough to power a typical home for one day

Buildings collaboration with Solar Panels

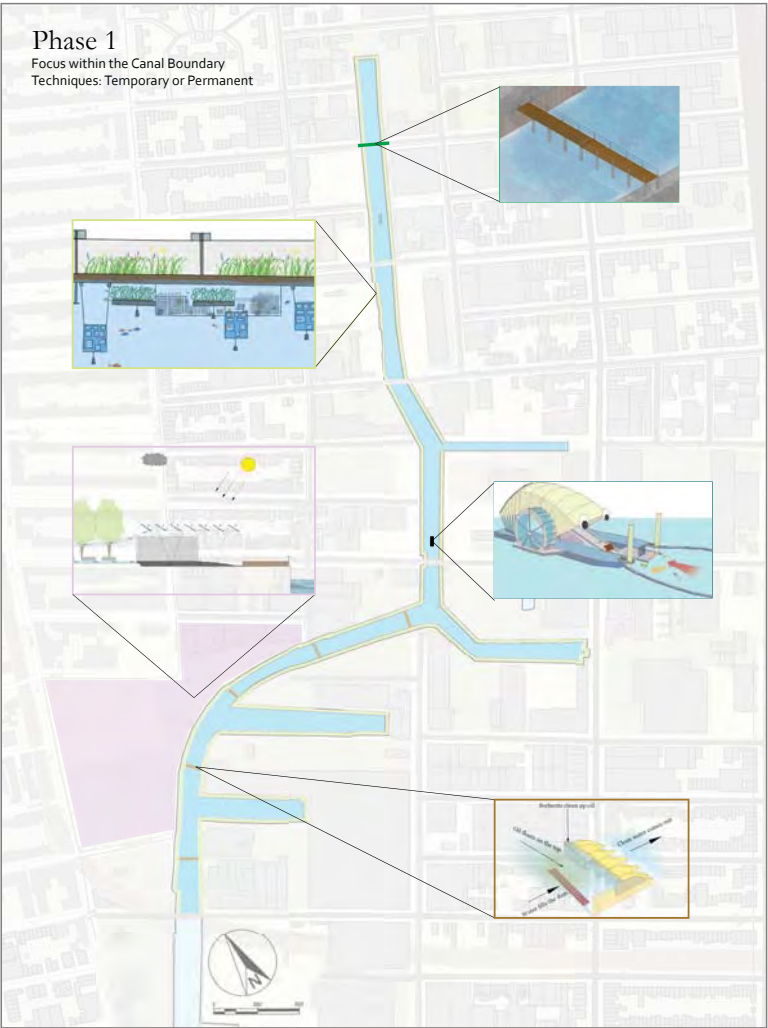
- Solar panels of the site and buildings to optimize passive heating and cooling, and provides for solar energy generation
- Rainwater Collection Valleys to collect stormwater runoff to one place and reuse it

Instant UnderFlow Dam

- It is used to block or dam streams, small rivers or ditches for spill response, water supply or as a temporary cofferdam to work in streams. Useful life that ranges between 20 and 25 years.
- It enables to control, contain and collect toxic spill in emergency situations.
- It is equipped with low release holes that can be opened or closed at any time, even when in use. Also controls water levels where the pollutants float. When opened, the diameter of each release hole is 4.5" (±1.5 cm)
- It allows clear water to run its course while pollutants remain trapped on the surface. This confinement makes it possible to block the flow of the spill, contain the emergency zone and the response time. The release holes can be opened or closed even when in use.

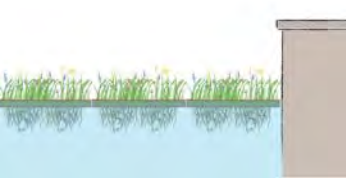
Floating Garden

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Phases of the Gowanus

A glimpse of the future for the Gowanus Canal



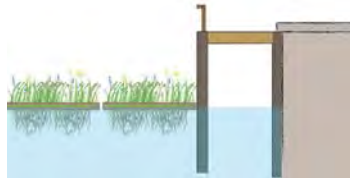
Phase 1 - Floating Garden



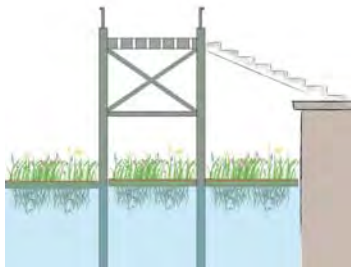
Phase 2 - Human Interaction



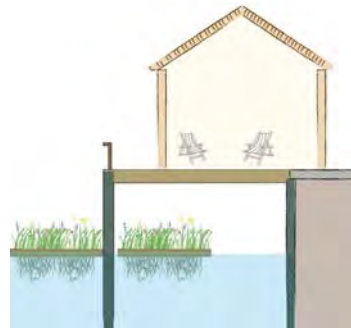
Phase 3 - Water Accessibility



Phase 3 - Boardwalk



Phase 3 - Catwalk



Phase 3 - Pavilion



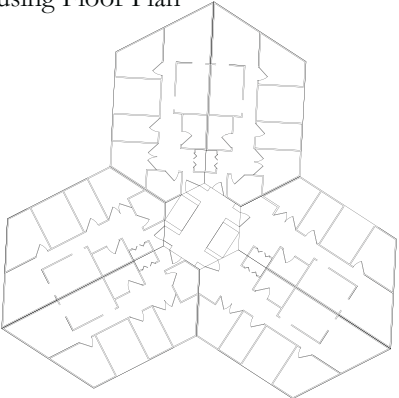
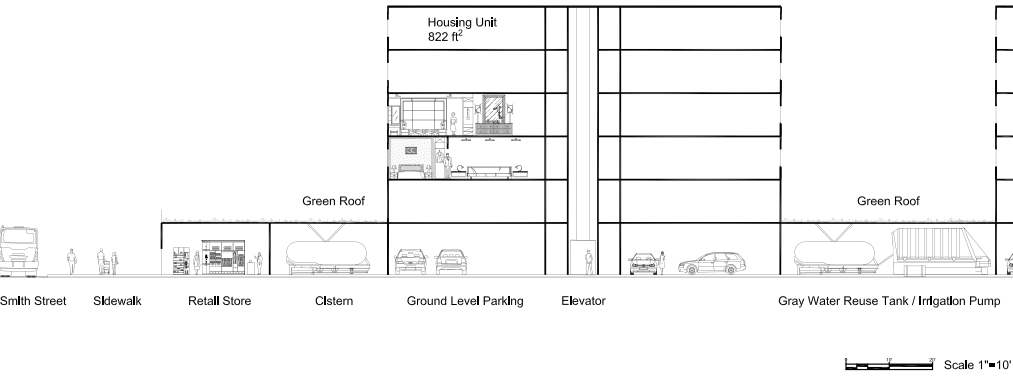
Public Place Housing Plan

Alex Gortian Nanik Song Tina Mao Wenja Yan

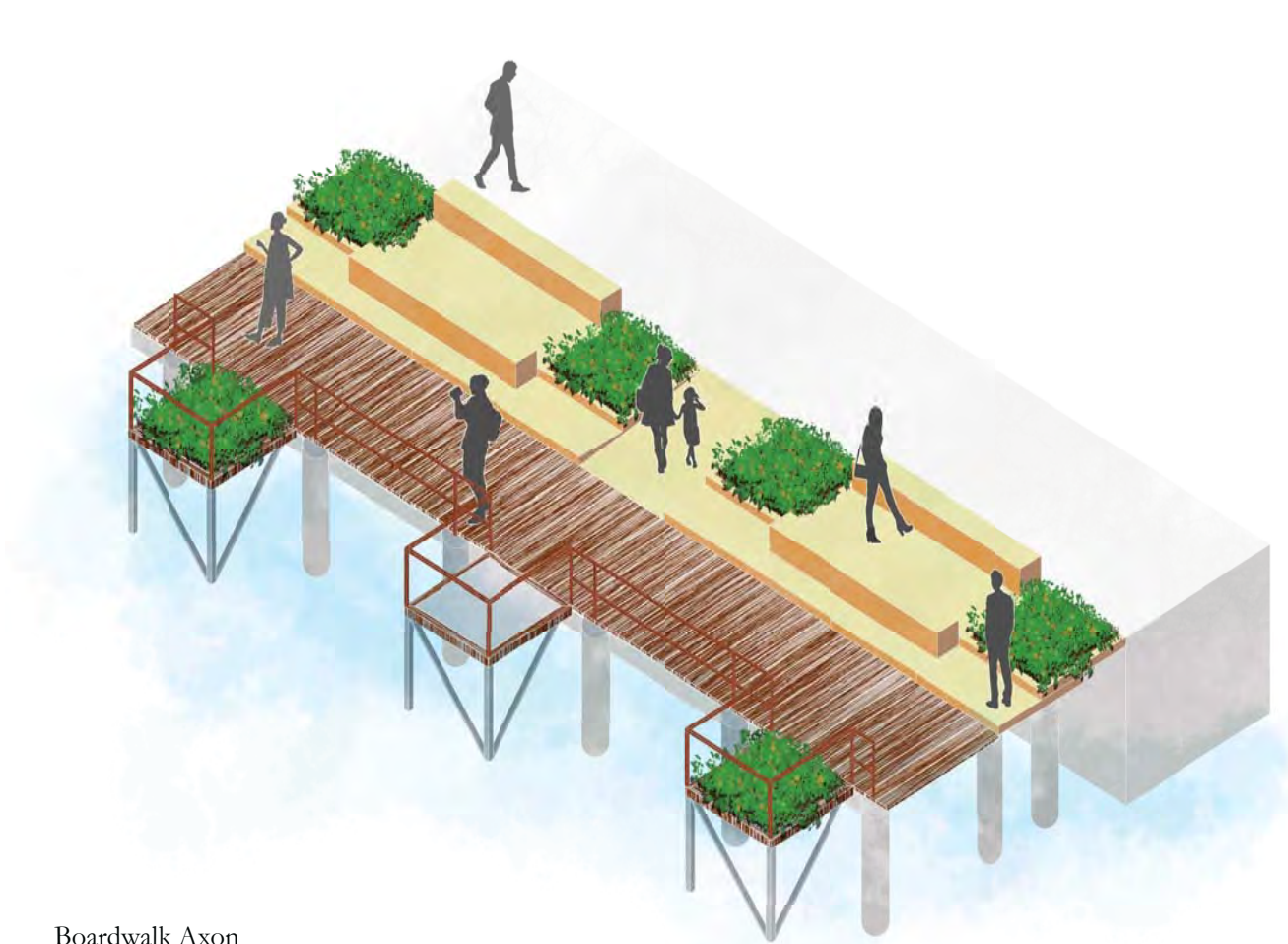


Section A - A'

Housing Floor Plan



Boardwalk Axon



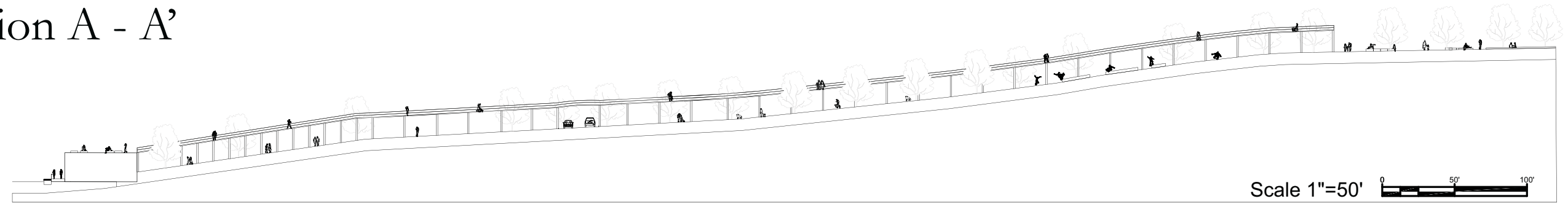
Floating Garden Concept



Extended Thomas Green Park



Section A - A'



Section B - B'

