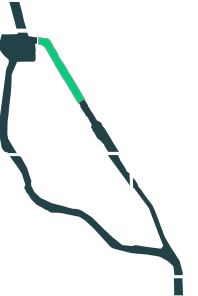


3.3 The North Reach

Habitat + Programming



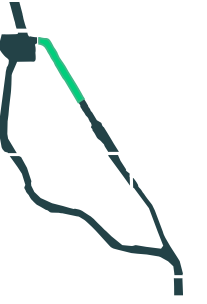
Theme: Food, Gathering + Art

- Picnic areas
- Gathering steps
- Nature Cinema / Projection wall or mural
- Rooftop Events
- Shallow water / spawning grounds
- Bubble line aerators
- Pollinator hotels
- Habitat Sculptures



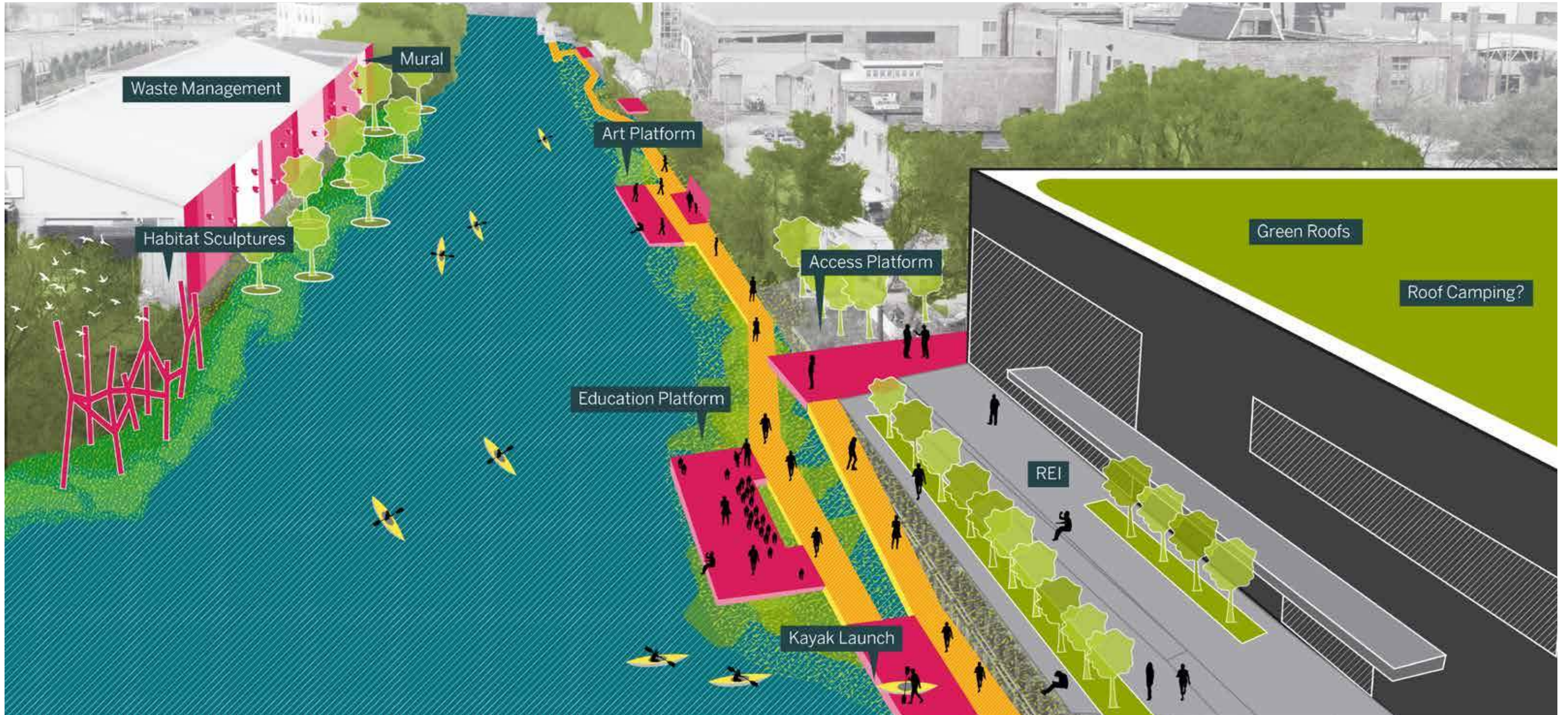
3.3 The North Reach

Habitat + Programming



Theme: Food, Gathering + Art / Outdoor Learning + Recreation

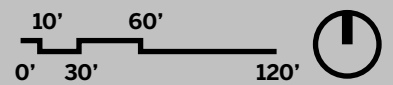
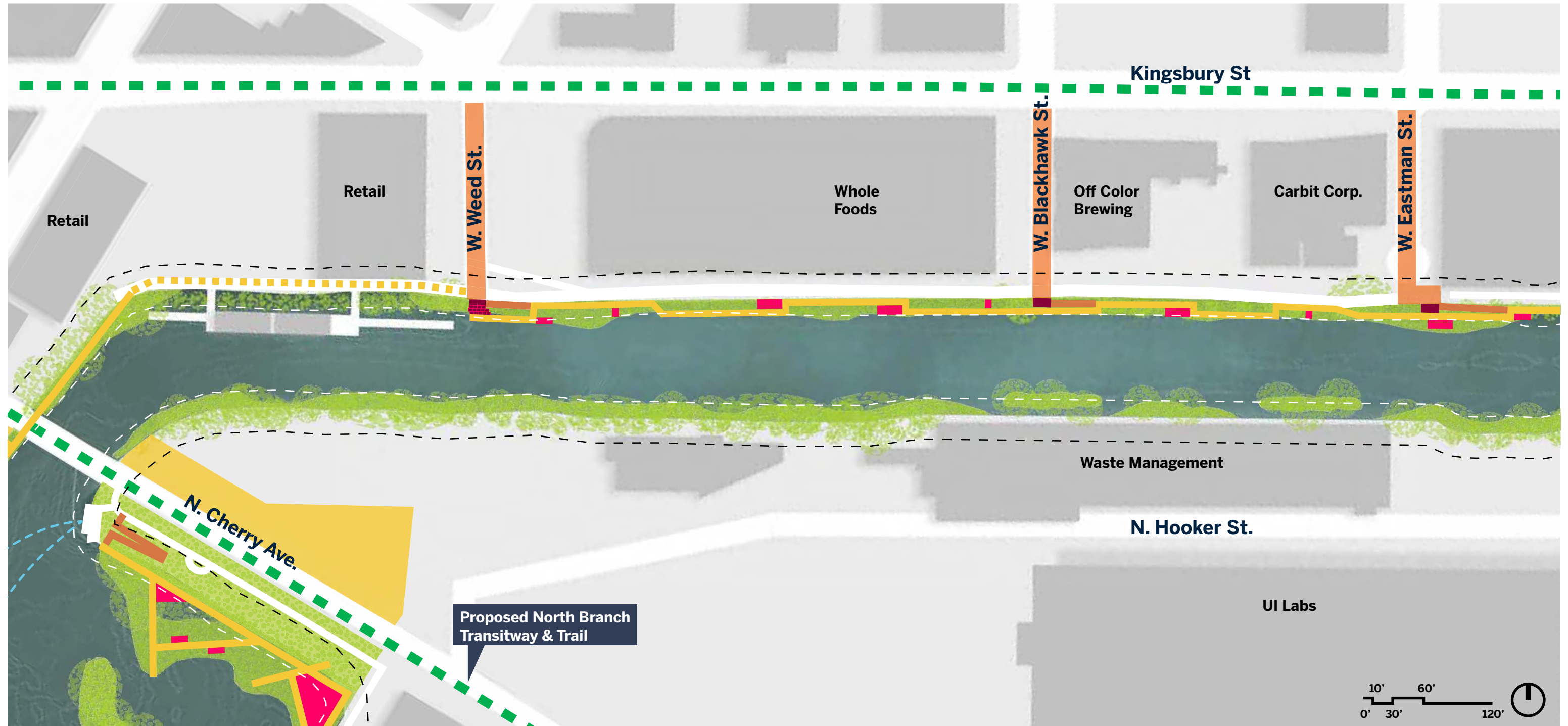
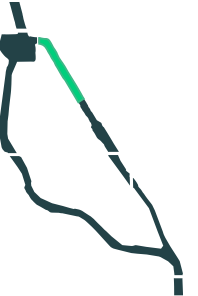
- Art / Education program platforms
- Murals
- Kayak launch
- Aeration sculptures
- Floating trees
- Purple Martin houses
- Pollinator roof gardens
- Roof camping



3.3 The North Reach

Proposed Framework

- Floating Pathway
- Access
- Overlooks
- Floating Program Platforms
- Habitat
- New Public Spaces
- Proposed Greenway
- Water Taxi Route

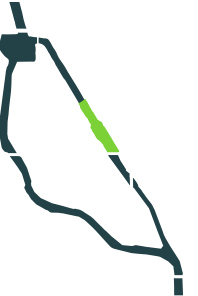


3.3 The North Reach

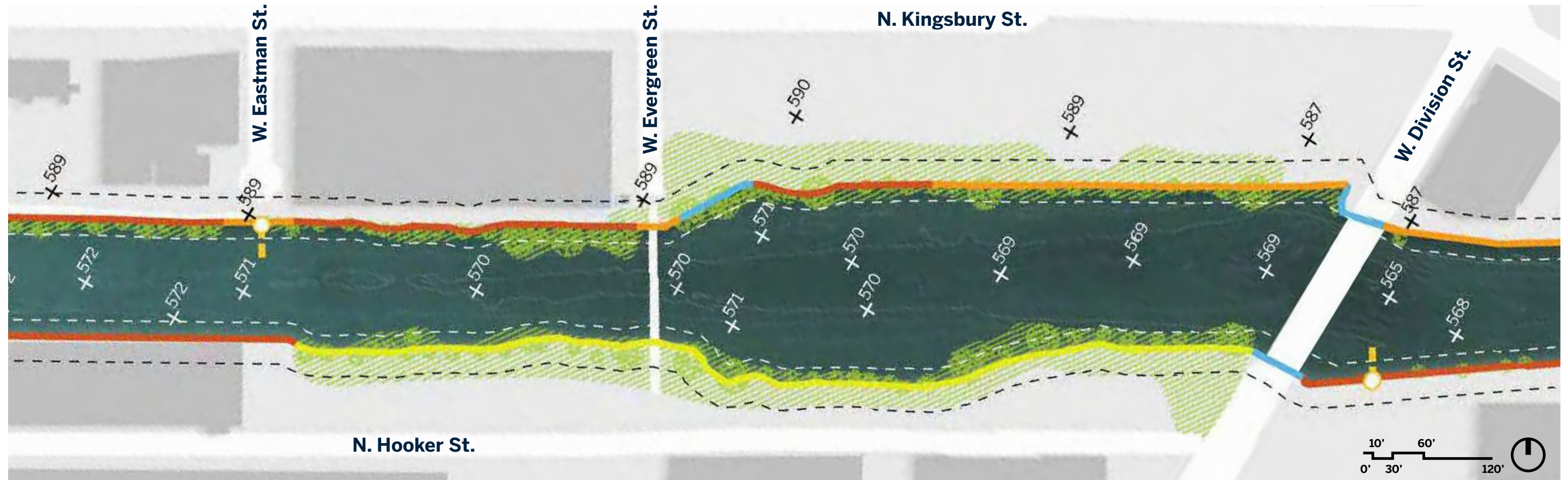
Existing Conditions

- + Spot Elevations
- Existing Access Points
- Sheetpile Edge
- Heavy Timber
- Concrete
- Limestone
- Naturalized
- Rip Rap
- Sewer Outfalls
- Future Parks

Chicago City Datum (CCD)
579.88ft



The North Reach segment 2b is the stretch of river between W. Eastman St. to the north and W. Division St. bridge to the south.



3.3 The North Reach

Habitat + Programming



Theme: Outdoor Learning + Recreation

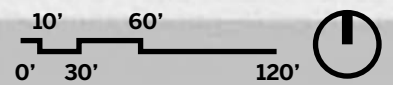
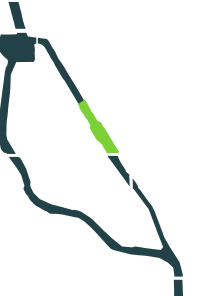
- Kayaking + canoeing
- Water experience station
- Citizen science
- Naturescapes
- Instream floating wetlands
- Turtle snags and habitats
- Fish nursery
- Inboard wetland



3.3 The North Reach

Proposed Framework

- Floating Pathway
- Access
- Overlooks
- Floating Program Platforms
- Habitat
- New Public Spaces
- Proposed Greenway
- Water Taxi Route



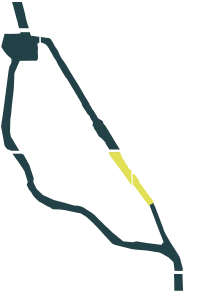
3.3 The North Reach Conceptual Vision



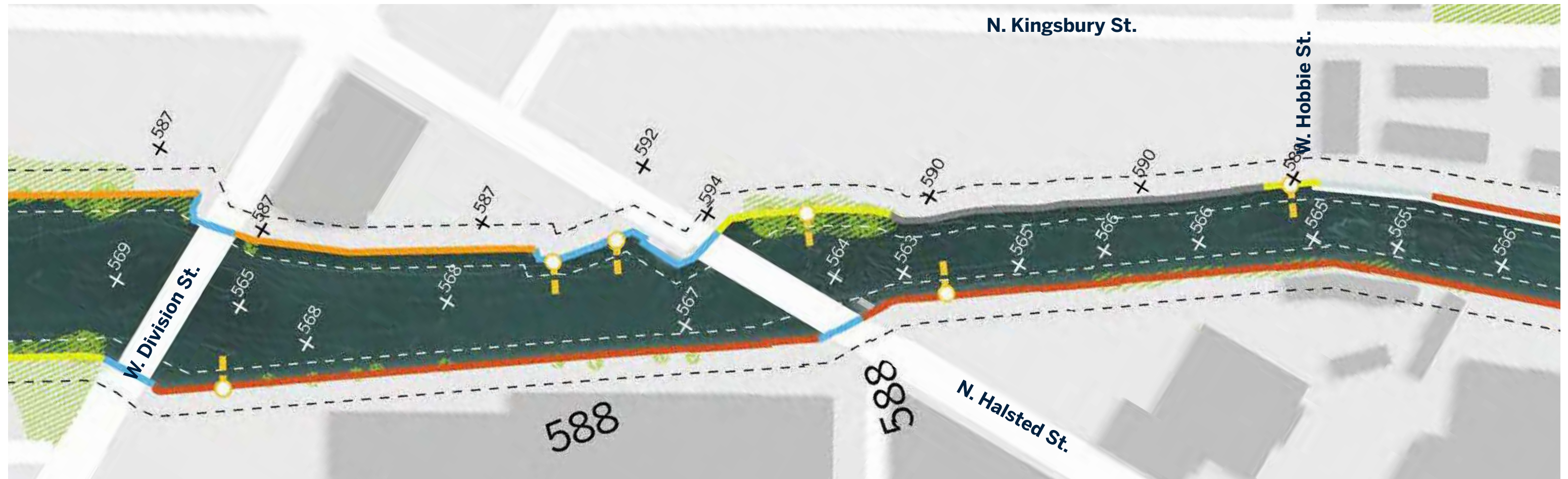
3.4 The South Reach

Existing Conditions

- + Spot Elevations
 - Existing Access Points
 - Sheetpile Edge
 - Heavy Timber
 - Concrete
 - Limestone
 - Naturalized
 - Rip Rap
 - Sewer Outfalls
 - Future Parks
- Chicago City Datum (CCD)
579.88ft

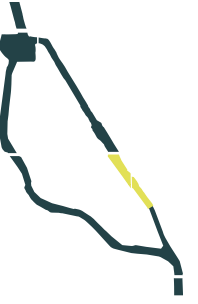


The South Reach segment 3a is the stretch of river from W. Division St. bridge to W. Hobbie St.



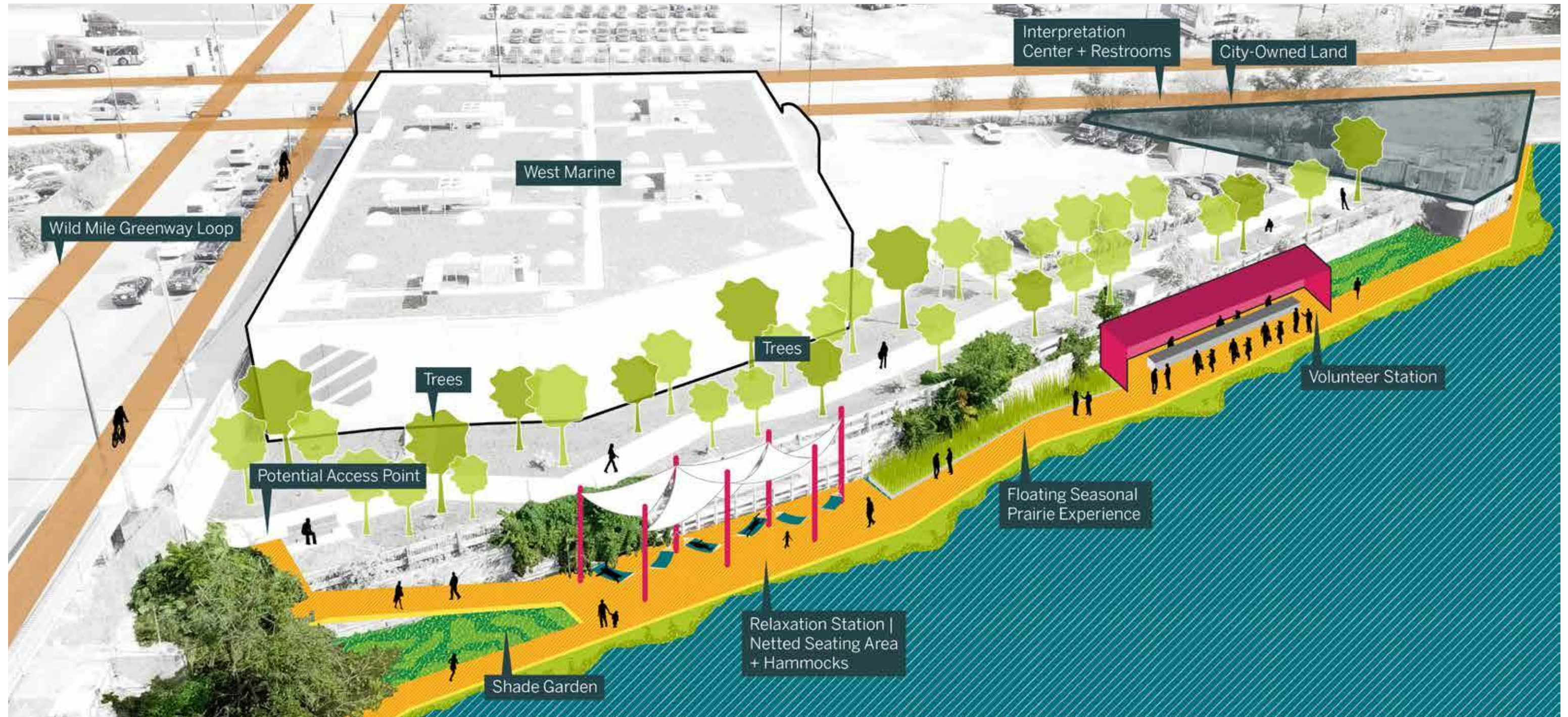
3.4 The South Reach

Habitat + Programming



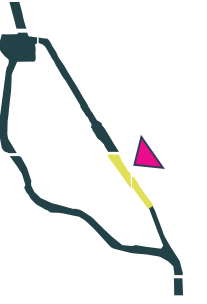
Theme: Observing + Hanging Out

- Paths for strolling
- Hammocks
- Netted-seating
- Volunteer stations
- Native tree plantings
- Protected waters
- Pollinator gardens
- Interpretive signage



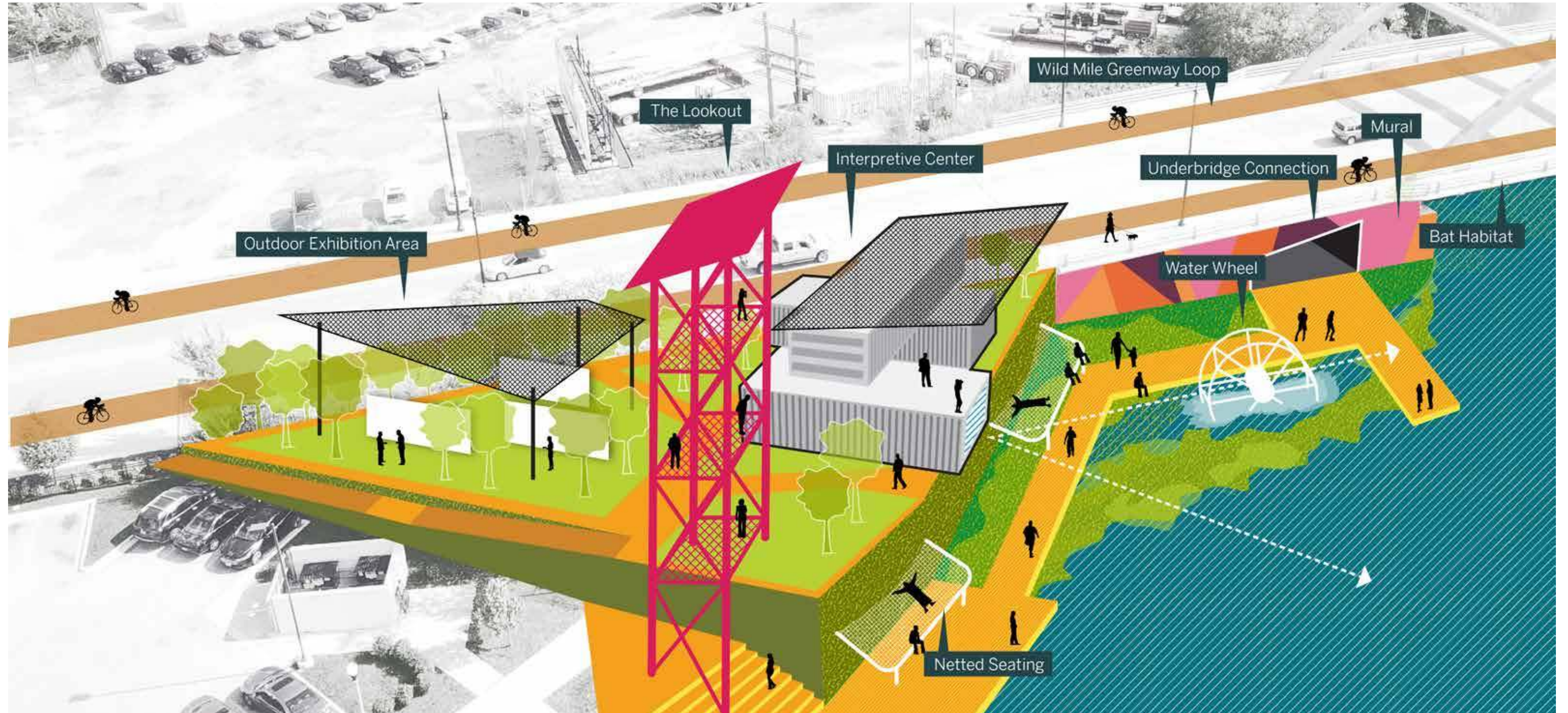
3.4 The South Reach

Habitat + Programming



Theme: The Lookout | Observing + Hanging Out

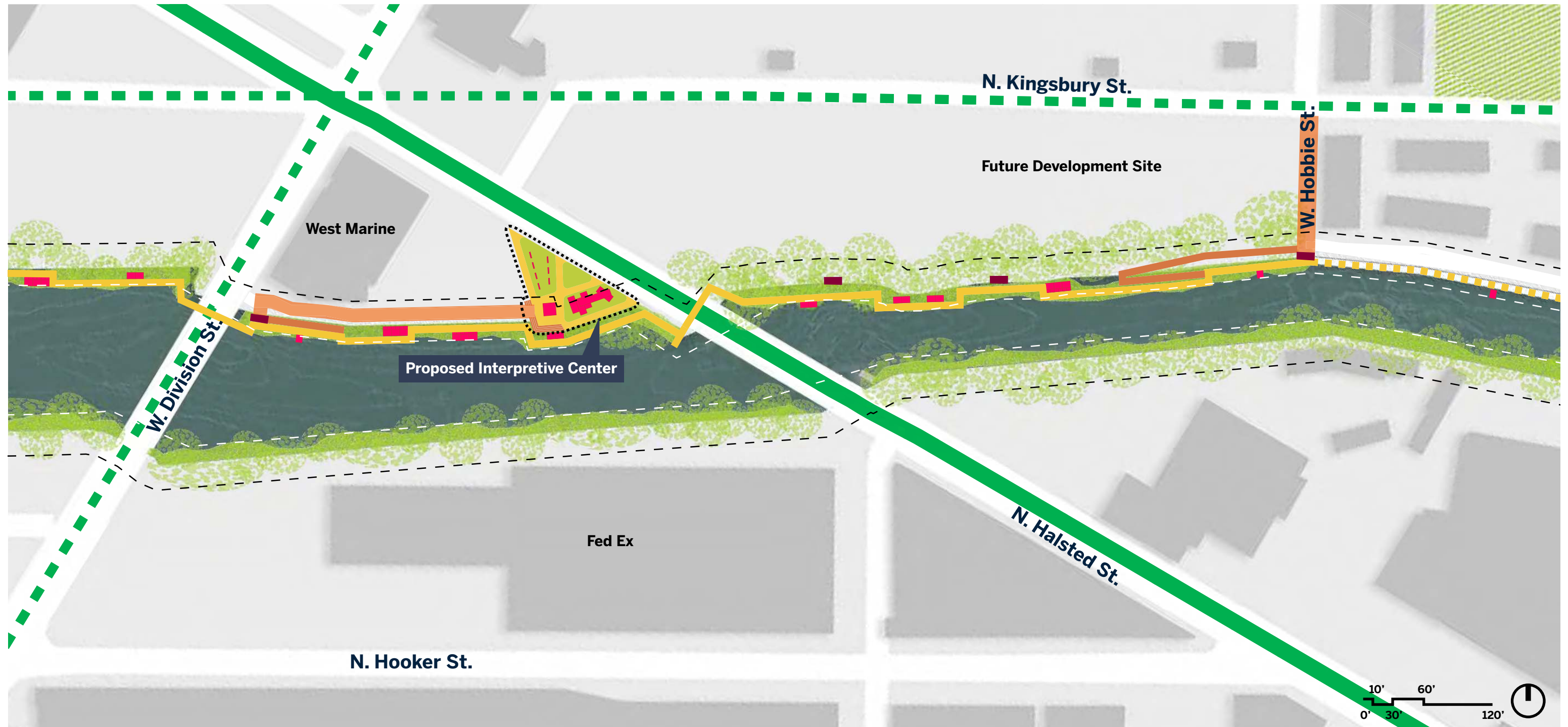
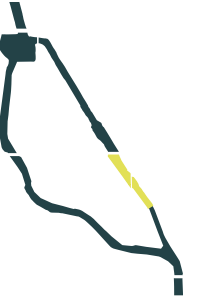
- The Lookout / Observation tower
- Interpretive center
- Educational exhibits
- Volunteering / learning spaces
- Waterwheel
- Underwater habitat installations
- Underbridge bat habitat
- Mussel habitats



3.4 The South Reach

Proposed Framework

- Floating Pathway
- Access
- Overlooks
- Floating Program Platforms
- Habitat
- New Public Spaces
- Proposed Greenway
- Water Taxi Route

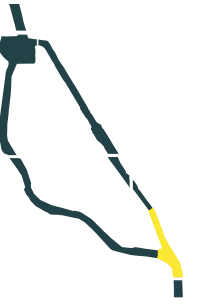


3.4 The South Reach

Existing Conditions

- + Spot Elevations
- Existing Access Points
- Sheetpile Edge
- Heavy Timber
- Concrete
- Limestone
- Naturalized
- Rip Rap
- Sewer Outfalls
- Future Parks

Chicago City Datum (CCD)
579.88ft

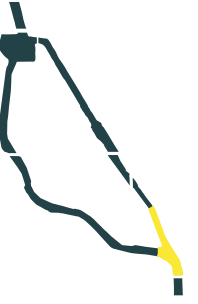


The most southern reach, segment 3b spans from W. Hobbie St. down to W. Chicago Ave.



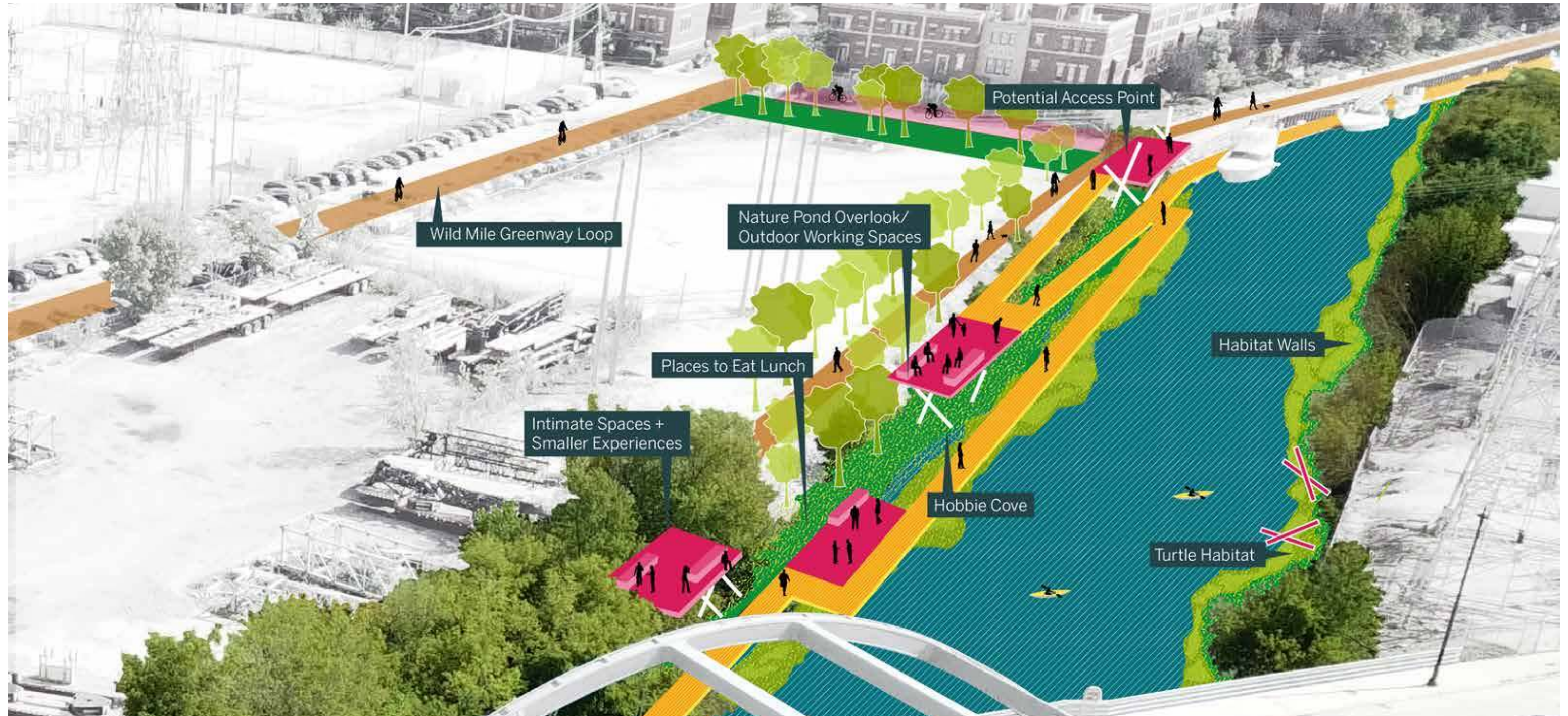
3.4 The South Reach

Habitat + Programming



Theme: Observing + Hanging Out / Living + Working

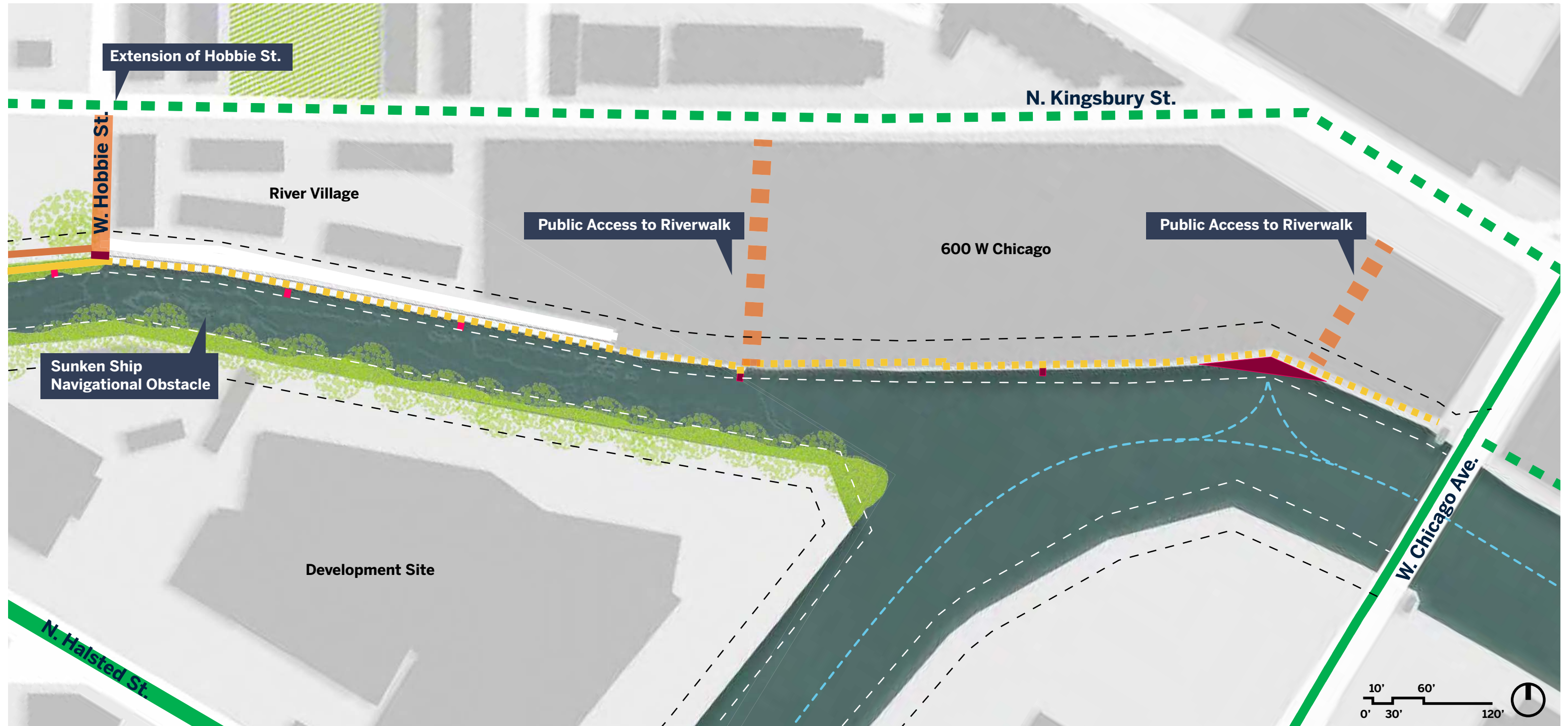
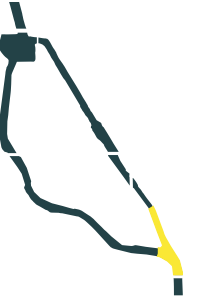
- Places to work
- Places to meet
- Places to eat
- Intimate spaces
- Terraced habitat walls
- Turtle piers
- Bird perches
- Water fowl feeding areas



3.4 The South Reach

Proposed Framework

- Floating Pathway
- Access
- Overlooks
- Floating Program Platforms
- Habitat
- New Public Spaces
- Proposed Greenway
- Water Taxi Route



3.4 The South Reach Conceptual Vision



04 Implementation



4.0 Implementation

How to Build the Wild Mile

Now that the roadmap is complete.

The framework plan reaffirms the guiding principles or ethic of the Wild Mile that we put wildlife first and we connect people with nature.

The framework plan includes a kit of parts to construct the floating path, educational platforms, river overlooks, and floating habitats. The inherent modular, and nature inspired design provides flexibility and adaptability to customize parts to serve the communities' needs.

Also central to the overall framework has been the Army Corps of Engineers who have provided a framework to incorporate floating habitat within the 20-ft river edges. Still maintaining a navigable channel in the middle for paddle craft and rowers, the edges allow the "de-channelization" of the river and adding habitat value to the rivers' edge.

The next step is to build the team.

The team starts first with property owners, and obtaining permission to attach to and to use their riverfront space. NeighborSpace, which is a City created not for profit community land trust, is equipped to secure access agreements or easements from property owners for the Wild Mile.

The team also includes the technical expertise to design and construct the floating paths and habitats, and the science and education groups to develop a program for the space. The space is envisioned to be flexible to accommodate a range in programming at different times of the day or different times in the season.

Planning for stewardship starts before the project ever hits the ground. Cleanup days bring people closer to the river, to make a tangible difference to improve the river, and to help volunteers envision how parts of the Wild Mile fit together.

Urban Rivers started a River Rangers program getting volunteer stewards to get in the river on kayaks to maintain the floating habitats.

A space needs to be selected

Where to start is most always is decided on existing conditions and context. The existing conditions determine the ease or difficulty to access, place, and construct the Wild Mile floating platforms and habitats. Context brings more visibility to a project site, and adds activity to an existing space leveraging already built improvements.

The Wild Mile will start as a collection of community managed spaces

Efforts are already underway. Led by Urban Rivers, Near North Unity, and NeighborSpace, efforts are already underway with pilot floating gardens in front of Whole Foods and a partnership with REI at the end of EastmanStreet to attach a Wild Mile educational platform next to the kayak launch.

Wild Mile events that occurred in April 2019 included:

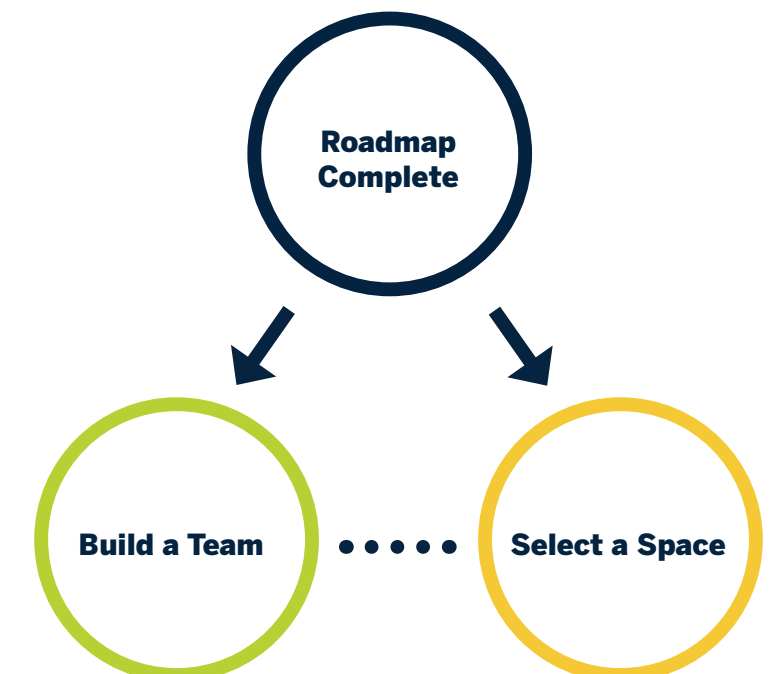
- Groupon on river cleanup day
- Whole Foods on Wild Mile art display
- Waste Management on habitat installs
- REI on educational activity
- Other events and efforts

The momentum has already started

The Wild Mile is a new kind of park space. There already is and there will be shared responsibility to program and manage the Wild Mile. Community involvement will be need to help with these efforts as the collection of programmed spaces expand.

Over time the Wild Mile will grow into a coordinated program with more structured governance

A more formalized dedicated structure will be needed as the Wild Mile grows in size, programming, and stewardship. That structure will need to include broader representation from stakeholders, community, science, art and education to work on fundraising, programming, design and implementation, maintenance, and continued community involvement. Envisioned to be a public private partnership, a range of funds and partners have the ability to be included. The Wild Mile Community Framework Vision preserves the basis for the governance to follow.



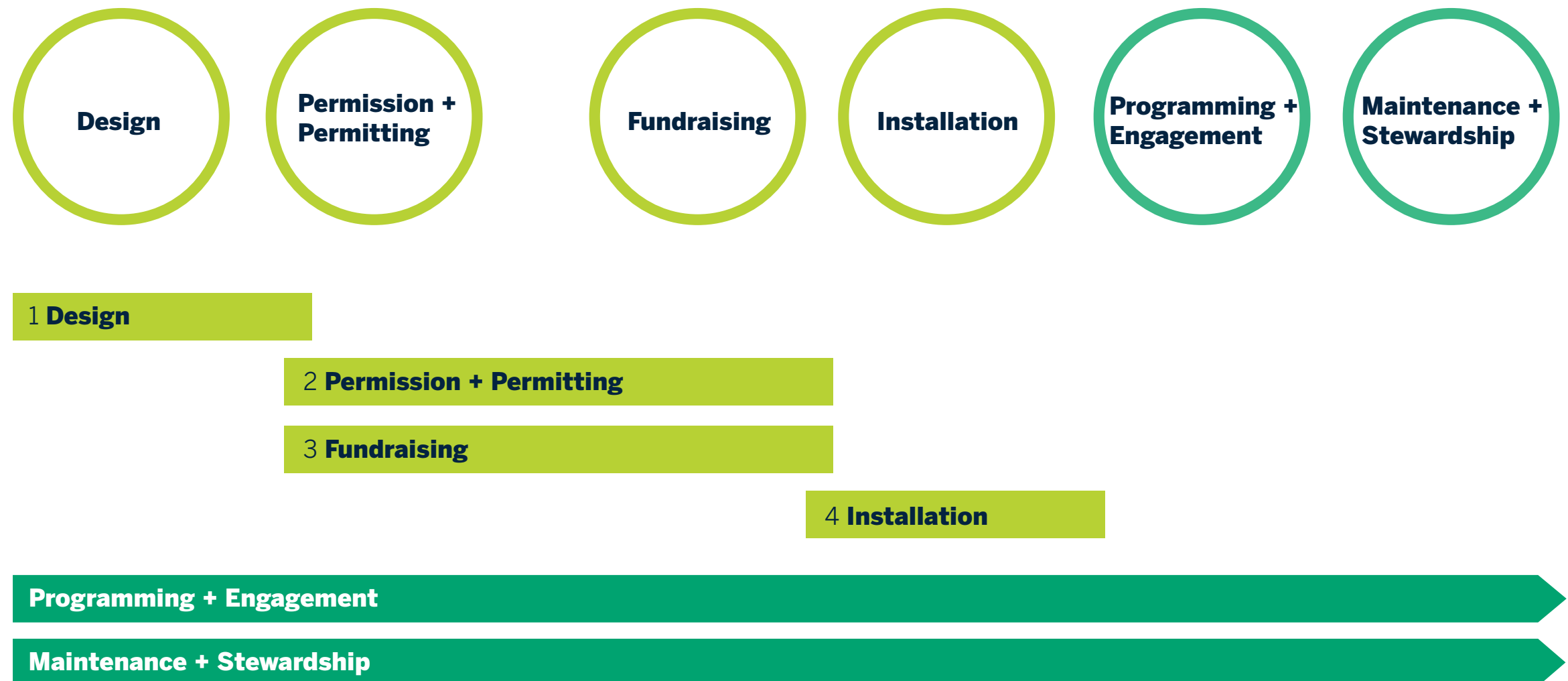
4.0 Implementation

The Wild Mile Working Groups

Below are the working groups and steps needed to make the Wild Mile Vision a reality. The amount of effort will depend on the location, existing conditions, and scale of project proposed.

Over the lifetime of the project, the Maintenance + Stewardship is an important component of the project, and can range from one time volunteers to more dedicated site stewards adopting spaces.

Programming + Engagement is also an ongoing effort to build river related educational or art programs, and to connect schools to participate in the design, installation, maintenance, and programming of the Wild Mile.

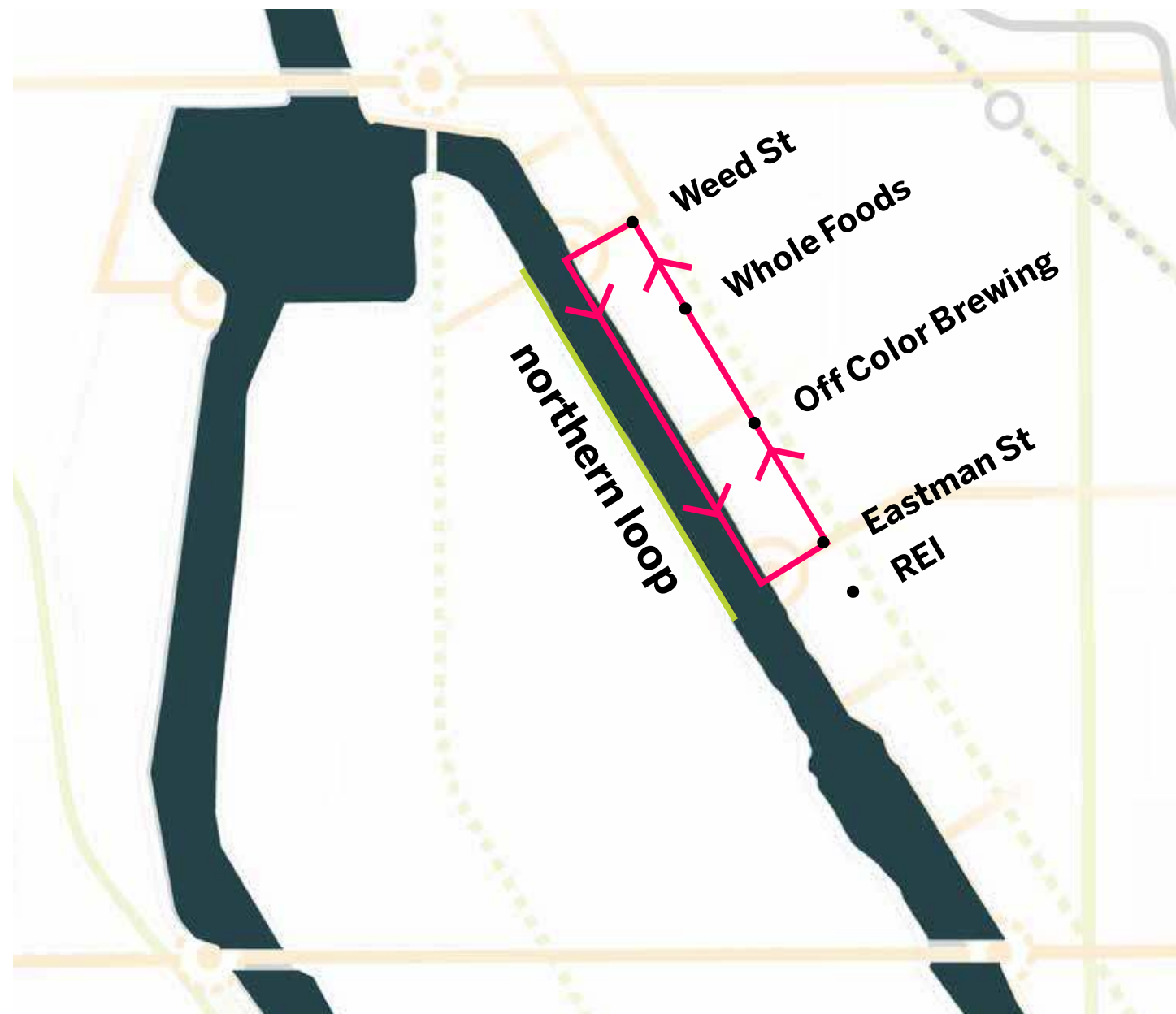


4.0 Implementation

Growing the Momentum

Activity on the Wild Mile Northern Loop is underway which lends this location to be the first segment to start.

- Urban Rivers floating habitat installations next to Waste Management
- Whole Foods has a riverwalk
- New REI store with riverwalk and ramp down to a floating kayak launch
- Reconstructed Eastman Street
- Wild Mile Educational Learning Dock to attach to the kayak launch (summer 2019 installation)



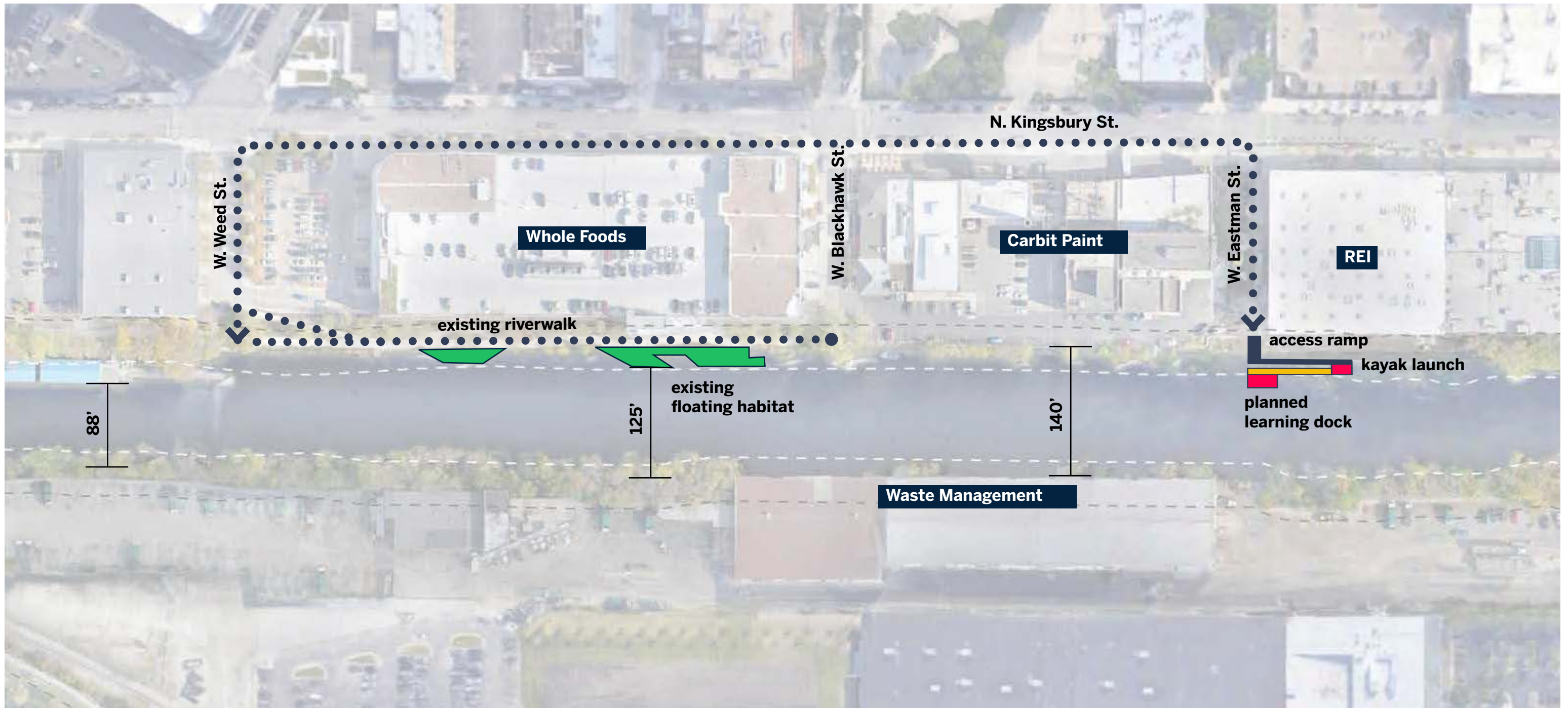
4.0 Implementation

Existing Assets

W. Eastman St. to W. Weed St. | Completing the Northern Loop

- Floating Pathway
- Floating Program Platforms
- Floating Habitat Rafts
- Access Points
- Access Ramp
- Existing

Connecting existing improvements creates the Northern Loop and a first segment to the Wild Mile.



4.0 Implementation

Starting with the Path

W. Eastman St. to W. Weed St. | Completing the Northern Loop

The floating path and street end ramp is the first step and the building block for the public to safely access the river.

The cost of this first floating path is approximately \$1.3-\$1.5M. The recommendation is that the City fund this from Open Space Impact Fees. Impact Fees are fees collected from new residential units that are used to fund new open space projects.

1. W. Weed St. Access Point
2. Continuous Walkway from W. Eastman St. to W. Weed St.
3. Floating Habitat

- Floating Pathway
- Floating Program Platforms
- Floating Habitat Rafts
- Access Points
- Access Ramp
- Existing



4.0 Implementation

Adding Wild Mile Components

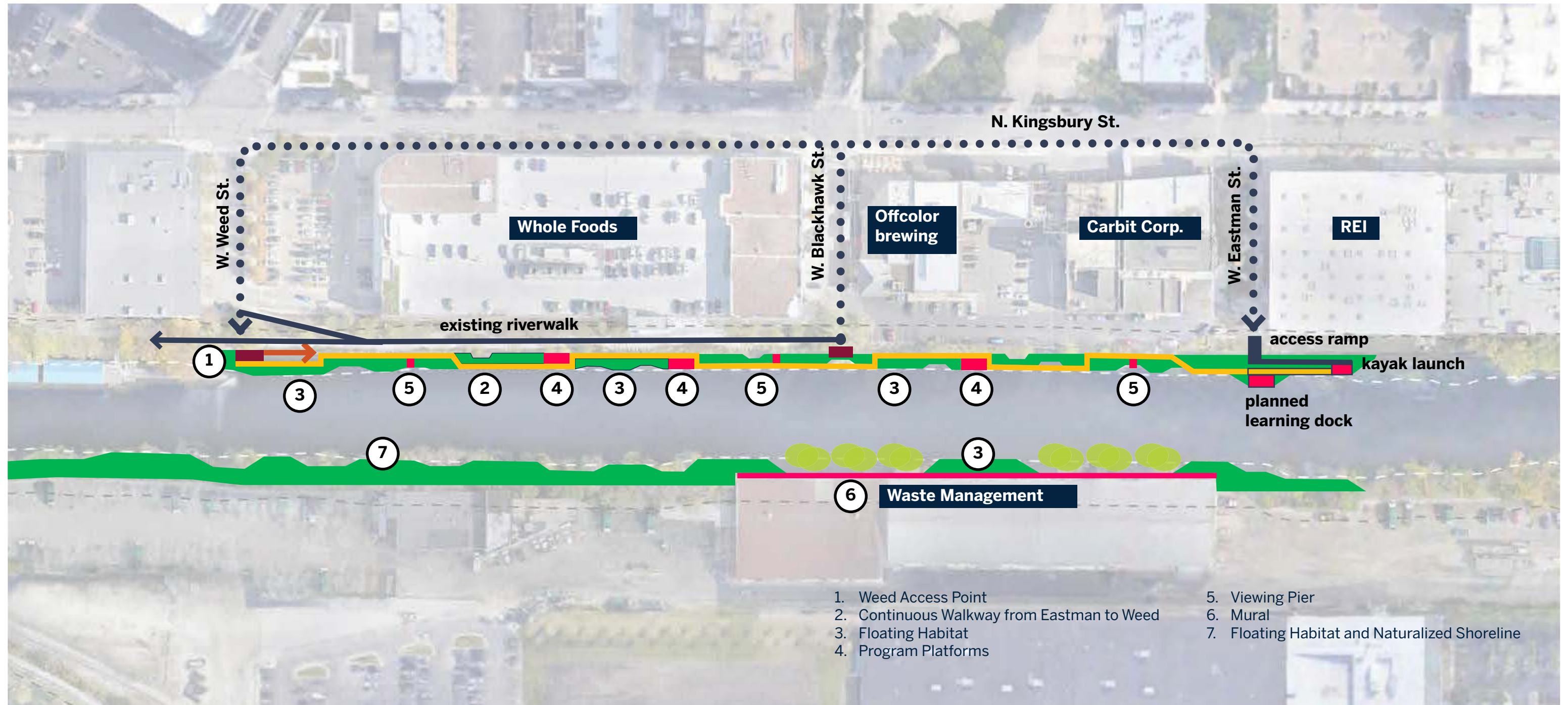
W. Eastman St. to W. Weed St. | Completing the Northern Loop

- Floating Pathway
- Floating Program Platforms
- Floating Habitat Rafts
- Access Points
- Access Ramp
- Existing

Modular in design, the City's investment to fund the floating path allows the Wild Mile partners to leverage private funds or grants to add floating wildlife habitat, program platforms, river overlooks, and other art or education installations.

Utilizing the Wild Mile Community Framework, potential funders can select modules or components to add to the base foundation floating path. Partners can include schools or art programs to develop a program for the nature

space. Modular in design, the components can be added incrementally, suited to the capacity for the provided program and for the amount of stewardship.



4.0 Implementation

Wild Mile Components

W. Eastman St. to W. Weed St. | Completing the Northern Loop

Component	Items	Quantity	Unit	Cost / Unit	Total
The Trail					
	Floating Pathway, Decking, Seating, Lighting, Access Ramps, Stairs, and Overlook	1,260	LF	\$1,100	\$1,386,000
The Program					
	Small Floating Program Platform Viewing Pier (S) - 7.5'x10'	3	EA	\$10,000 to \$20,000	
	Medium Floating Program Platform Activity Platform (M) - 7.5'x20'	1	EA	\$20,000 to \$36,000	
	Large Floating Program Platform - Gathering / Classroom Platform (L) - 11.25'x30'	3	EA	\$60,000 to \$112,000	
The Habitat					
	Floating Habitat Rafts	350-400	EA	\$1,000 to \$1,500	
	Instream Floating Habitat Rafts	0	EA	\$1,200 to \$1,500	
	Floating Tree Rafts - High Buoyancy Raft	10	EA	\$1,500 to \$1,800	
	Fixed to Edge Habitat: Sheet Pile Planters, Submerged Habitat	3,050	LF	\$75	
	Habitat Sculptures: Turtle Snags, Purple Martin Houses, Pollinator Hotels, Bird Perches, Rookery, Bat Shelters	40	EA	\$1,200	
	Naturalized or Enhanced Edge: Geotextile Terraces, Articulating Concrete Mats	1,035	LF	\$350	
	Aeration Installation: Waterfall, Bubble Aerators, Water Wheel	0	EA	\$5,000 to \$10,000	
Street ROW					
	Street Improvements at Access Points: Sidewalk, Landscaping, Seating, Bike Racks, Signage and Wayfinding				
Public Art					
	Murals	1	EA	\$50,000	

Clarifications and Conditions

1. Cost estimates, unit costs, and quantities are based on a preliminary concept developed with the City of Chicago Department of Planning and Development. Actual quantities and unit costs are subject to change based on final design, engineering, and site conditions. The costs stated herein are provided by the Wild Mile Framework Vision Project Team. The costs are approximate, and in no way are guaranteed nor an offer of work by the Wild Mile Framework Vision Project Team.
2. This is an independent concept opinion of probable cost for the Wild Mile Components.
3. This estimate is based on the "Completing the Northern Loop" project laid out on pages 124-129 of the Wild Mile Framework Vision document. Sketches of the Wild Mile Components envisioned to complete thprise the Wild Mile are shown on pages 50-55 and 132-133.
4. Estimate assumes new trees to be 2-1/2" to 3" caliper, no 'big trees' have been included
5. Estimate includes a contingency cost to cover unforeseen conditions
6. This is a Conceptual Cost Estimate, design is currently in the concept stage. the Wild Mile Framework Vision Project Team has no control over the contractor's labor or their method of determining pricing or over competitive bidding or market conditions, this Opinion of Probable Cost is based on our best judgement and experience with the construction industry. the Wild Mile Framework Vision Project Team cannot guarentee that proposals, bids, or actual construction costs will not vary from this estimate based on conceptual information.
7. Estimate includes all labor, material and equipment to complete the work.

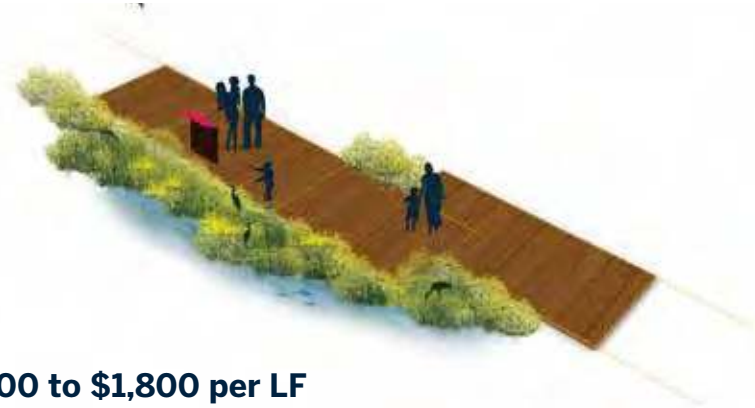
4.0 Implementation

Wild Mile Components

Modular in composition, the Wild Mile will be comprised of a series of components. This kit of parts allows for incremental implementation.

Continous Pathway

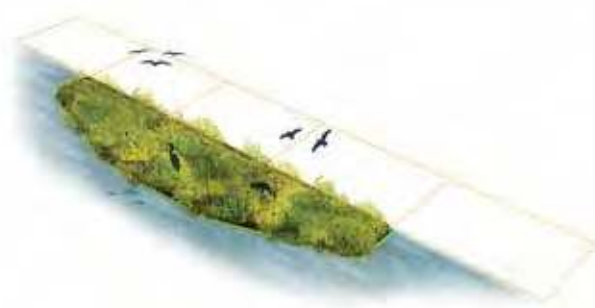
- Connect-A-Dock Modules
- Composite Decking
- Interpretive Signage
- LED Lighting
- Benches
- Trash Receptacles
- Ladders
- Life Rings



Cost \$1,000 to \$1,800 per LF

Floating Habitat Raft

- Bio-Matrix Water Wetland Raft
- Native Plants
- Subsurface Fish Habitat



Cost \$1,000 to \$2,000 each

Floating Tree Raft

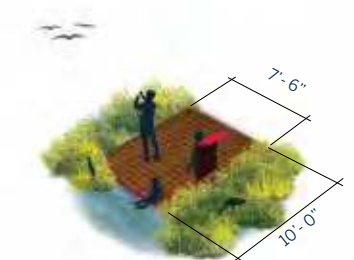
- Bio-Matrix Water Wetland Raft
- Native Plants
- Anchor



Cost \$1,500 to \$2,500 each

Viewing Pier (S)

- Connect-A-Dock Large Floating Module (1)
- Composite Decking
- Interpretive Signage (1)
- LED Lighting
- Trash Receptacle (1)
- Bench (1)



Cost \$10,000 to \$18,000

Activity Platform (M)

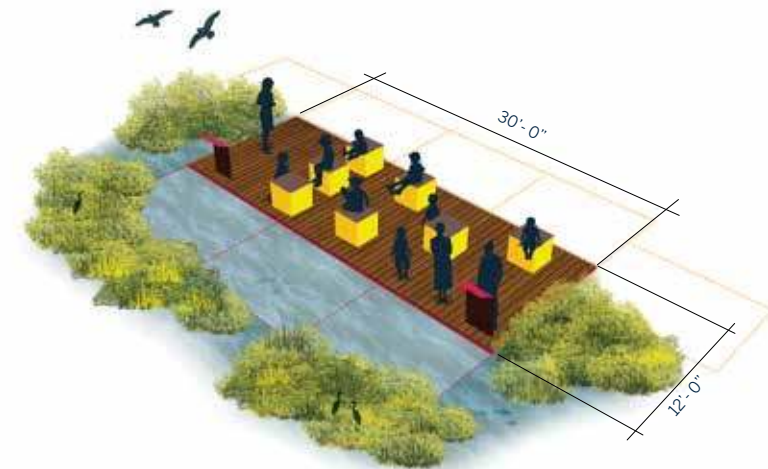
- Connect-A-Dock Large Floating Module (2)
- Composite Decking
- Interpretive Signage (1)
- LED Lighting
- Trash Receptacle (1)
- Bench (2)
- Storage Container (1)



Cost \$20,000 to \$36,000

Gathering / Classroom Platform (L)

- Connect-A-Dock Large Floating Module (3)
- Connect-A-Dock Medium Floating Module (6)
- Composite Decking
- Interpretive Signage (2)
- LED Lighting
- Trash Receptacle (2)
- Bench (multiple)
- Storage Container (2)
- Other



Cost \$62,000 to \$112,000

4.0 Implementation

Wild Mile Components

Modular in composition, the Wild Mile will be comprised of a series of components. This kit of parts allows for incremental implementation.

Overlook

- Guardrail
- Interpretive Signage



Cost \$15,000 to \$25,000

Gathering Steps

- Porous concrete steps attached to seawall



Cost \$5,000 to \$10,000

Short Ramp

- Overlook
- +/- 40' long ramp
- Hand railing



Cost \$22,000 to \$32,000

Long Ramp

- Overlook
- +/- 80' long ramp
- Hand railing



Cost \$25,000 to \$35,000

4.0 Implementation

Time of Day and Seasonality

The Wild Mile is part of the Chicago Riverwalk, whose hours of operation is from 6:00 am to 11:00 pm. The goal is to program the Wild Mile throughout the day with a variety of activities.

The Wild Mile aims to be accessible to all, year round. Due to the fact that this is a floating amenity in the water, portions of the boardwalk may need to be closed during severe or inclement weather conditions.

Stewardship

There will be shared responsibility to program and manage the Wild Mile. Community involvement will be needed to help with these efforts and is welcomed. Stewardship will play a large role in the success of the Wild Mile and something that is on-going now prior to implementing the floating pathway. Those interested can volunteer to partake in river cleanup, monitoring wildlife, and tending to the floating gardens.

The Urban Rivers team has a River Ranger program in place allowing for all ages and abilities to be involved in: reporting on plant health and wildlife sightings, removing trash buildup, weeds and invasive species, performing scientific tasks to measure the installation's impact on the ecosystem, while helping the community and local wildlife.



Urban Rivers River Ranger Program

Signage and Wayfinding

Signage and wayfinding along the Wild Mile should be consistent with the Chicago River Brand Standards and Guidelines, which is in place to unify the riverwalk trail throughout the City. The Brand Standards and Guidelines include the Riverwalk logo, informational signage, mile markers, and amenity icons.

Safety and Security

Design Considerations

The City recommends that the following considerations be part of future design programs for the Wild Mile. This list is intended to represent some, but not all, of the possible safety elements and refer to the Chicago Riverwalk Design Guidelines. This list is not intended to replace compliance with all codes, standards, and requirements of authorities having jurisdiction; all of which should be understood by future design teams:

- Install safety ladders and life rings along the vertical seawalls at river overlooks and large gathering spaces next to the river.
- Install life rings, life vests and throw ropes along the wild mile and at street access points along the floating pathway.
- Install smart LED lighting systems placed along the edge of the floating pathway throughout the Wild Mile for safety.
- Install cameras to monitor wildlife and detect human activity (or any malicious activity) within the Wild Mile.
- Signage using icons from the Chicago River Brand Standards and Guidelines located along the multi-use trail, within and outside the riverfront, should be used for safety information.



Wild Mile Wayfinding and Singage

05 Appendix

5.1 Habitat Matrix

5.2 Plant Palette

5.3 Acknowledgements



Appendix 5.1 Habitat Matrix

Habitat Matrix

	Existing Edge Type ¹	Plants ²			Key Food Webs ⁴	Time to Install (months) ⁵	Potential Issues ⁶	Rough Cost ⁷	Rank ⁸
Floating (Fixed to Existing Edge)									
<i>Floating Pollinator Garden</i>	a,b,d,e,h	P, E	Flying insects (bees, flies, butterflies, beetles); spiders; hummingbirds; songbirds		plant > invertebrates > bats, birds; plant (fruit, seeds) > small mammals, birds; plant roots > small fish, crayfish	0-3	C	Raft cost	1
<i>Floating Wetland</i>	a,b,d,e,h		Flying insects (bees, flies, butterflies, beetles); spiders; songbirds		plant > terrestrial invertebrates > bats, birds; plant > aquatic invertebrates > fish/turtle; plant > turtle; plant > muskrat	0-3	C	Raft cost	1
<i>Floating Amphibian Pond and Garden</i>	a,b,d,e,h	E, S, Also, open water with pebble bottom	plant (fruit, seeds) > small mammals, birds;		Plant > tadpoles; Plant > invertebrate > frogs, toads, salamanders	0-3	C	Raft cost	1
<i>Mussel trays (flow through connectors between plant-ed rafts)</i>	a,b,d,e,h	S	Native mussels (aquatic insects will colonize)		Plankton > mussels (filter feeders); aquatic insects > frogs, dragonfly nymphs; adult flying insects > bats, birds, frogs, adult dragonflies	0-3	C	Raft cost	1
<i>Multi-Species Haul-out Raft (with outriggers for turtles to climb on)</i>	a,b,d,e,h	S, E, short plants only; nothing tall enough to hide a heron	Turtles; frogs, perching birds; ducks.		Key function for turtles and frogs is basking. Turtles and frogs will eat algae, aquatic invertebrates (worms, snails and clams, larval insects, crayfish and other crustaceans, etc.), and fish. Perching birds (herons, cormorants) eat fish and crayfish. Ducks eat aquatic vegetation and small aquatic invertebrates.	0-3	C	Raft cost	1
<i>Floating Trees</i>	a,b,d,e,h	D (trees)	Songbirds; insects		plant > invertebrates > birds/bats; plant > birds	0-6	C	2	1
<i>Turtle Snags (away from shore but tethered to existing edge)</i>	a,b,d,e,h	None	Painted turtle, map turtle, other native turtles; frogs		Key function is basking. Turtles and frogs will eat algae, aquatic invertebrates (worms, snails and clams, larval insects, crayfish and other crustaceans, etc.), and fish.	0-3	---	Use fallen logs from arboretum, parks (labor cost)	1
<i>Curtains /Hula Skirts⁹</i>	i	None (algae will naturally colonize the skirts)	Aquatic invertebrates, small fish, crayfish, tadpoles		algae > invertebrates, tadpoles, small fish > fish/crayfish > aquatic birds heron, cormorant)/turtles	included with floating walkways	---	\$0.40 LF for knotless mesh 14" deep	1
<i>Bird Perches</i>	a,b,c,d,e,f	None	Birds (kingfisher, cormorant, herons, raptors, songbirds)		Key function is perching. Kingfisher may dive for fish from the perch; prefers horizontal structure over middle of stream	0-6	---	Design-dependent	2
<i>Fish Habitat Beneath Floating Rafts</i>	1,2,4	No plants; cubbies, pipes, or other structure attached to bottom of floating gardens	Fish(resting, spawning, rearing)		Key function is shelter. Fish will eat algae, aquatic invertebrates (worms, snails and clams, larval insects, crayfish and other crustaceans, etc.) and other fish.	0-3	---	Design-dependent (\$50 minimum)	1
Fixed to River Bottom									
<i>Submerged Sheetpile or Gabion (with clean sand/gravel behind)</i>	a,b,d	S, E	Fish, mussels, aquatic invertebrates in nearshore sand/gravel shallows		plant > invertebrates > bats, birds; plant (fruit, seeds) > small mammals, birds; plant roots > small fish, crayfish	0-6	A	plus sand/gravel fill; design-dependent; > \$5,000	2

Appendix 5.1 Habitat Matrix

Habitat Matrix

	Existing Edge Type ¹	Plants ²			Key Food Webs ⁴	Time to Install (months) ⁵	Potential Issues ⁶	Rough Cost ⁷	Rank ⁸
<i>Post/Piling "fence" (with clean sand/gravel behind)</i>	a,b,d	S, E	Fish, mussels, aquatic invertebrates in near-shore sand/gravel shallows; perching birds on flat-topped posts		plant > aquatic invertebrates > fish, crayfish plant > adult invertebrates > bats, birds	0-6	A	plus sand/gravel fill; design-dependent; > \$5,000	2
<i>Articulating Concrete Block (ACB) Mats (in erosion-prone north reach)</i>	d (south of Cherry St. Bridge)	S, E, F	Fish, mussels, aquatic invertebrates in near-shore sand/gravel		plant > aquatic invertebrates > fish, crafish; plant > adult invertebrates > bats, birds; plant (leaves, fruit, seeds) > terrestrial invertebrates, birds, small mammals		A	plus overlying sand/gravel; costs not readily available (Shoretac®)	4
<i>Perch-Sculptures</i>	a,b,c,d,e,f,h	None	Birds (kingfisher, cormorant, herons, raptors, songbirds)		Key function is perching; kingfisher may dive for fish from the perch.	6-18	A,B	Design- dependent	3
<i>Fish Shelter (artificial reef; structural habitat)</i>	a,b,d,e,h	None	Fish (resting, spawning, rearing)		Key function is shelter. Fish will eat algae, aquatic invertebrates (worms, snails and clams, larval insects, crayfish and other crustaceans, etc.) and other fish.	0-3		Design- dependent (\$50 minimum)	1
<i>Purple Martin Gourds</i>	a,b,c,d,e,f,h (c is priority)	None	Purple martin		Key function is shelter. Purple martins will eat flying insects.	0-3		\$230 each set (16 gourds and pole)	1
Naturalization of Existing Edge									
<i>Fabric-Pocketed Retaining Wall</i>	a,b,c,d	D (upper pockets); F, E (lower pockets)	Flying insects (bees, flies, butterflies, beetles); spiders; hummingbirds; songbirds		plant > pollinators/other terrestrial insects plant > invertebrates > bats/birds; plant (fruit, seeds) > small mammals/songbirds	0-6	A (maybe), C, D (maybe)	(\$80 per ft ²) including pump and irrigation tubing	2
<i>Wall planters for climbing/trailing vines and shrubs</i>	a,b	V (trailing vine at top of wall and climbing vine at bottom of wall)	Flying insects (bees, flies, butterflies, beetles); spiders; hummingbirds; songbirds		plant > pollinators/other terrestrial insects plant > invertebrates > bats/birds; plant (fruit, seeds) > small mammals/songbirds	0-3	---	Design-dependent (\$50 minimum)	1
<i>Fish Shelter (shelves, cubbies, tubes, or other structure attached to walls)</i>	a,b,d,	None	Fish (resting, spawning, rearing)		Key function is shelter. Fish will eat algae, aquatic invertebrates (worms, snails and clams, larval insects, crayfish and other crustaceans, etc.) and other fish.	0-3	---	Design- dependent (\$50 minimum)	1
<i>Geotextile Geocell Terraces</i>	d,e	S, E, F	Fish, mussels, aquatic invertebrates in near-shore sand/gravel		plant > aquatic invertebrates > fish, crayfish; plant > adult invertebrates > bats, birds; plant (leaves, fruit, seeds) > terrestrial invertebrates, birds, small mammals	6-12	---	~1.00 – 1.25 per ft ² plus sand/gravel fill	2
Upland Installations									
<i>Trees and Pollinator Gardens</i>	f	D, P, V	Flying insects (bees, flies, butterflies, beetles); spiders; hummingbirds; songbirds		plant > invertebrates > bats/birds; plant (fruit, seeds) > small mammals/birds; plant roots > beetle grubs/voles	0-3	---	Design- dependent (\$50 minimum)	1
<i>Bat Shelters</i>	g	None	Bats, swallows		Key function is shelter. Bats will eat flying moths and other insects.	6-12	B	~\$300 WAG	1
<i>Rookery</i>	f	None	Black-crowned night heron, other herons (?)		Key function is roosting. Herons will eat fish, frogs, and crayfish.	6-18	A,B	Design-dependent	3

Appendix 5.1 Habitat Matrix

Habitat Matrix

	Existing Edge Type ¹	Plants ²			Key Food Webs ⁴	Time to Install (months) ⁵	Potential Issues ⁶	Rough Cost ⁷	Rank ⁸
<i>Bee Hotels</i>	a,b,c,d,e,f	P	Mason bee and other native bees		Key function is shelter. Bees will eat pollen and nectar.	0-6		6" reeds: \$30/100; wood for frame \$50; copper roof \$30; total ~\$100 each.	1
<i>Purple Martin Gourds</i>	a,b,c,d,e,f,h (c is priority)	None	Purple martin		Key function is shelter. Purple martins will eat flying insects.	0-3		\$230 each set (16 gourds and pole)	1
<i>Geotextile Geocell Terraces</i>	f	P, D	Flying insects (bees, flies, butterflies, beetles); spiders; hummingbirds; songbirds		plant > invertebrates > bats/birds; plant (fruit, seeds) > small mammals/birds; plant roots > beetle grubs/voles	0-6	---	~1.00 – 1.25 per ft ²	2
Aeration Features									
<i>Waterfall/Waterwall</i>	a, b	None	Birds		Key function is aeration, which supports aquatic invertebrates/fish and all their predators.	6-12	B,D	3	2
<i>Water Trough Sculpture</i>	d	E, S(Possibly watercress or similar small submerged or emergent)	Aquatic invertebrates in gravel; birds; bats		Key function is aeration, which supports aquatic invertebrates/fish and all their predators	12-18	B,D	4	3
<i>Bubble Line Aerator</i>	h,i	None	Fish		Key function is aeration, which supports aquatic invertebrates/fish and all their predators.	0-6	D	(\$549 per 100 LF) + compressor	1
<i>Water Wheel</i>	a,b,d	None	Birds		Key function is aeration, which supports aquatic invertebrates/fish and all their predators.	12-18	B,D	4	3

Notes:

- Existing Edge Types:** (a) sheet pile or timber wall; (b) concrete wall; (c) building; (d) naturalized vegetated edge; (e) riprap; (f) upland; (g) underside of bridge spans; (h) mid-channel; (i) floating walkways and docks
- Native plant species** with wildlife value: P=pollinator mix; D=upland drought tolerant; V=trailing/climbing vines and shrubs; F=facultative wetland; E=emergent; S=submersed; T=Floating Trees. See separate tables of plant names.
- Native animal species** attracted by this habitat (although it will also support other species).
- Primary food webs** supported by the habitat are listed; many other trophic pathways will exist (for example, bacterial decomposition).
- Time:** Estimated lead time to install the feature, assuming availability of funds and crew
- Potential Issues:** (A) Requires special expertise, heavy equipment, potentially a permit; (B) Requires vetting by planning team and other stakeholders; (C) seasonal constraint such as not planting in winter, etc.; (D) requires electricity; --- none
- Relative cost:** Costs are for materials only (no soft costs)
- Rank** in order of priority based on overall feasibility (difficulty, cost, other factors); 1 is most feasible.
- All floating boardwalks** and other rafts without sufficient plant roots will include skirts to provide shelter for aquatic invertebrates, tadpoles, and small fish.

Plant Palette

Instructions

The Wild Mile Framework Vision Plant Palette expands upon the “Appendix 7.4: Plant Palette”, laid out in the Chicago River Design Guidelines.

This Plant Palette has been formatted as an Excel workbook and is designed as a tool to aid in the selection of native plants for habitat restoration and native landscaping projects in the Chicago area. The “WildMileNativePlants” worksheet acts as the main repository for the plant list and associated information. Each additional worksheet allows the user to isolate specific plant lists for a particular intended use, such as attracting certain types of organisms, or being placed in a particular habitat type.

Selected References

- Wild Mile Plant List for Birds <https://www.audubon.org/native-plants/search?zipcode=60642>
- Wild Mile Plant List for Caterpillars and Butterflies <https://www.audubon.org/native-plants/search?zipcode=60642>
- Wild Mile Plant List (Nuts, Seeds, Fruits for Birds) <https://www.audubon.org/native-plants/list/3abde43f-91c4-47eb-be41-723e5b5151d2>
- <http://www.illinoiswildflowers.info/>
- Kaufman, K., J. Sayre, and K. Kaufman. 2015. Field Guide to Nature of the Midwest. Houghton Mifflin. 416 pages.
- Wilhelm, G., L. Rericha, and M. Lowther. 2017. Flora of the Chicago Region: A Floristic and Ecological Synthesis. Indiana Academy of Sciences.

Notes

¹ Plants are listed alphabetically by scientific name.

² Plants provide multiple services to numerous of animals over weeks, months, or even year-round. These columns represent a few of the dominant relationships expected in the Wild Mile area. Many more complex ecosystem services are not shown (for example, birds eating insects on plants attractive to “other herbivorous insects”).

³ Plant Habitat Groups Recommended for Wild Mile: Note that a given plant may be assigned more than one habitat code.

D Dry upland (reseeding annuals, perennials, trees for wildlife food and shelter)

E Emergent (roots in water, tops above water); provide forage, shelter, or spawning substrate for turtles, fish, frogs, toads, salamanders, or their prey.

F Facultative (tolerates wetland and upland; at river edge with occasional flooding)

P Pollinator mix (reseeding annuals, perennials, small trees specific to butterflies, moths, bees, hummingbirds)

S Submersed (entire plant under water); provides forage, shelter, or spawning substrate for turtles, fish, frogs, toads, salamanders, or their prey.

T Floating trees (small-to-medium-sized trees for planting on rafts; roots must tolerate continuous submersion)

V Trailing/climbing vines (selectively planted to soften and vegetate vertical concrete, steel, or wooden walls that cannot be removed.

⁴ Current plants (volunteer or intentionally planted) in the Wild Mile or Vicinity

Urban Rivers: Planted on floating islands (•) or observed growing along Wild Mile (+); ü indicates previous success in floating rafts; x indicates poor growth in floating rafts

LPZ Nature Boardwalk: Planted (•) and Volunteer (+) Plants

Chicago River Design Guidelines: Appendix 7.4 Plant Palette (•)

Appendix 5.2 Plant Palette

Plant Palette

Common Name	Scientific Name ¹	Provides Food, Shelter, or Breeding Material ²																					Habitat Code ³						Current Use ⁴			Special Habitat Value and Other Notes ⁵															
		Fruits, Nuts, Seeds	Caterpillars/Butterflies, Moths	Other Herbivorous Insects	Fish and Amphibians	Turtles	Cardinals & Grosbeaks	Chickadees & Titmice	Crows & Jays	Finches	Hummingbirds	Mockingbirds & Thrashers	Nuthatches	Orioles	Sparrows	Thrushes	Vireos	Waxwings	Wood Warblers	Woodpeckers	Wrens	Waterfowl (Ducks, Coot)	Semiaquatic Birds (Heron, Egret)	Muskrat	Small Mammals	D	E	F	P	S	T		V	Wild Mile (Urban Rivers)	LPZ Boardwalk	Chicago River Design Guidelines											
Box Elder	<i>Acer negundo</i>	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•													+			Snapping turtle; dioecious							
Silver Maple	<i>Acer saccharinum</i>	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•												•+										
Sugar Maple	<i>Acer saccharum</i>	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•														•								
Sweet Flag	<i>Acorus calamus</i>	•		•	•	•																•		•														•			Shoreline stablization						
Ohio Buckeye	<i>Aesculus glabra</i>		•	•			•	•	•		•	•	•	•	•	•	•	•	•	•	•																	•									
Common Water Plantain	<i>Alisma subcordatum</i>				•	•																		•															•	•		Slow water					
Nodding Wild Onion	<i>Allium cernuum</i>			•																																			•								
Speckled Alder	<i>Alnus rugosa</i>	•					•	•		•			•	•	•	•	•	•	•	•	•			•															•	•							
Juneberry	<i>Amelanchier arborea</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•	•																			•							
Allegheny Service-Berry	<i>Amelanchier laevis</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•	•																										
False Indigo	<i>Amorpha fruticosa</i>		•	•																																					•						
Big Bluestem	<i>Andropogon gerardi</i>	•					•	•	•	•		•																													•	•		Aggressive			
Thimbleweed	<i>Anemone cylindrica</i>																																							•			Toxic foliage				
Red Columbine	<i>Aquilegia canadensis</i>										•	•		•	•	•	•	•	•	•	•																		x	•							
Jack-in-the-Pulpit	<i>Arisaema triphyllum</i>	•					•	•	•	•																																					
Black Chokeberry	<i>Aronia melanocarpa</i>	•							•		•		•	•	•	•	•	•	•	•	•																										
Poke Milkweed	<i>Asclepias exaltata</i>		•	•							•	•	•	•	•	•	•	•	•	•	•																					•					
Swamp Milkweed	<i>Asclepias incarnata</i>	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																					✓	•	•			
Common Milkweed	<i>Asclepias syriaca</i>	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																						•				
Butterfly Weed	<i>Asclepias tuberosa</i>	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																						•	•			
Whorled Milkweed	<i>Asclepias verticillata</i>		•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																						•				
Paw Paw	<i>Asimina triloba</i>		•	•																																											Zebra swallowtail host

Appendix 5.2 Plant Palette

Plant Palette

Common Name	Scientific Name ¹	Provides Food, Shelter, or Breeding Material ²																				Habitat Code ³						Current Use ⁴			Special Habitat Value and Other Notes ⁵										
		Fruits, Nuts, Seeds	Caterpillars/Butterflies,Moths	Other Herbivorous Insects	Fish and Amphibians	Turtles	Cardinals & Grosbeaks	Chickadees & Titmice	Crows & Jays	Finches	Hummingbirds	Mockingbirds & Thrashers	Nuthatches	Orioles	Sparrows	Thrushes	Vireos	Waxwings	Wood Warblers	Woodpeckers	Wrens	Waterfowl (Ducks, Coot)	Semiaquatic Birds (Heron, Egret)	Muskrat	Small Mammals	D	E	F	P	S		T	V	Wild Mile (Urban Rivers)	LPZ Boardwalk	Chicago River Design Guidelines					
River Birch	<i>Betula nigra*</i>	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																				
Paper Birch	<i>Betula papyrifera</i>	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																				
Common Beggarsticks	<i>Bidens frondosa</i>																																	•	•	•					
Side-Oats Grama	<i>Bouteloua curtipendula</i>	•					•	•	•	•		•								•															•						
Bluejoint	<i>Calamagrostis canadensis</i>	•																																	•	•					
Marsh Marigold	<i>Caltha palustris</i>	•	•		•	•																														✓			earliest bloom		
Bluebell-of-Scotland	<i>Campanula rotundifolia</i>										•	•		•	•		•	•																							
Bristly Sedge	<i>Carex comosa</i>	•			•	•	•	•	•	•		•								•																	•	•	nutrient buffer		
Frank's Sedge	<i>Carex frankii</i>	•			•	•	•	•	•	•		•								•																	•	•	nutrient buffer		
Common Lake Sedge	<i>Carex lacustris</i>	•			•	•	•	•	•	•		•								•																	•	•	nutrient buffer		
Bottlebrush Sedge	<i>Carex lurida</i>	•			•	•	•	•	•	•		•								•																	•	•	nutrient buffer		
Palm Sedge	<i>Carex muskingumensis</i>	•			•	•	•	•	•	•		•								•																	•	•	nutrient buffer		
Fox Sedge	<i>Carex stipita</i>	•			•	•	•	•	•	•		•								•																	•	•	nutrient buffer		
American Hornbeam	<i>Carpinus caroliniana</i>	•	•				•	•	•	•		•	•	•	•	•	•	•	•	•	•																•				
Shag-Bark Hickory	<i>Carya ovata</i>	•	•				•	•	•	•		•	•	•	•	•	•	•	•	•	•																	•			
New Jersey Tea	<i>Ceanothus americanus</i>		•	•																																		•			
Common Hackberry	<i>Celtis occidentalis</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•	•																	•+			
Buttonbush	<i>Cephalanthus occidentalis</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•	•																	•	•	•	
Hornwort, Coontail	<i>Ceratophyllum demersum</i>				•	•																																			

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		Fruits, Nuts, Seeds	Caterpillars/Butterflies, Moths	Other Herbivorous Insects	Fish and Amphibians	Turtles	Cardinals & Grosbeaks	Chickadees & Titmice	Crows & Jays	Finches	Hummingbirds	Mockingbirds & Thrashers	Nuthatches	Orioles	Sparrows	Thrushes	Vireos	Waxwings	Wood Warblers	Woodpeckers	Wrens	Waterfowl (Ducks, Coot)	Semiaquatic Birds (Heron, Egret)	Muskrat	Small Mammals	D	E	F	P	S		T	V	Wild Mile (Urban Rivers)	LPZ Boardwalk	Chicago River Design Guidelines			
Redbud	<i>Cercis canadensis</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•																			
White Turtlehead	<i>Chelone glabra</i>		•	•			•	•	•		•	•	•	•	•	•	•	•	•	•													•	•		Baltimore checkerspot butterfly host			
Woodbine	<i>Clematis virginiana</i>																																						
Large-Flower Tickseed	<i>Coreopsis grandiflora</i>	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•																			
Lance-Leaf Tickseed	<i>Coreopsis lanceolata</i>	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•																			
Tall Coreopsis	<i>Coreopsis tripteris</i>	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•																			
Red Osier Dogwood	<i>Cornus alba</i> or <i>C. sericea</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•													✓	•+	•				
Alternate-Leaf Dogwood	<i>Cornus alternifolia</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•																			
Swamp dogwood	<i>Cornus obliqua</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•																			
Gray Dogwood	<i>Cornus racemosa</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•																		Aggressive	
American Hazelnut	<i>Corylus americana</i>	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•																			
Cock-Spur Hawthorn	<i>Crataegus crus-galli</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•																			
Purple Prairie Clover	<i>Dalea purpurea</i>																																						
White Prairie Clover	<i>Dalea</i> spp.																																						
Swamp Loosetrife	<i>Decodon verticillatus</i>		•	•	•	•																																	
Illinois Tick Trefoil	<i>Desmanthus illinoensis</i>		•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•																			
Shooting Star	<i>Dodecatheon meadia</i>	•																																					
Pale Purple-Coneflower	<i>Echinacea pallida</i>	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•																			
Purple-Coneflower	<i>Echinacea purpurea</i>	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•																			

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		Fruits, Nuts, Seeds	Caterpillars/Butterflies, Moths	Other Herbivorous Insects	Fish and Amphibians	Turtles	Cardinals & Grosbeaks	Chickadees & Titmice	Crows & Jays	Finches	Hummingbirds	Mockingbirds & Thrashers	Nuthatches	Orioles	Sparrows	Thrushes	Vireos	Waxwings	Wood Warblers	Woodpeckers	Wrens	Waterfowl (Ducks, Coot)	Semiaquatic Birds (Heron, Egret)	Muskrat	Small Mammals	D	E	F	P	S		T	V	Wild Mile (Urban Rivers)	LPZ Boardwalk	Chicago River Design Guidelines		
Canada Wild Rye	<i>Elymus canadensis glaucifolius</i>			•																				•	•		•											
Rattlesnake-Master	<i>Eryngium yuccifolium</i>		•	•																						•									•			Borer moth host (federal candidate species)
Eastern Wahoo	<i>Euonymus atropurpureus</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•	•							•				•		•				
Common Boneset	<i>Eupatorium perfoliatum</i>		•	•			•	•	•		•	•	•	•	•	•	•	•	•	•	•								•				•	•+				
Trumpetweed	<i>Eutrochium fistulosum</i>		•				•	•	•		•	•	•	•	•	•	•	•	•	•	•												•					
Joe Pye Weed	<i>Eutrochium maculatum</i>	•	•																														•	•				
Sweet-Scented Joe-Pye-Weed	<i>Eutrochium purpureum</i>		•				•	•	•		•	•	•	•	•	•	•	•	•	•	•					•								•				
American Beech	<i>Fagus grandifolia</i>	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•													•				
Queen of the Prairie ^T	<i>Filipendula rubra</i>	•																															✓	•			threatened in Illinois	
Virginia Strawberry	<i>Fragaria virginiana</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•	•																	Aggressive
Spotted Crane's-Bill	<i>Geranium maculatum</i>	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					•												
Fowl Manna Grass	<i>Glyceria striata</i>																																			•		
Kentucky Coffee Tree	<i>Gymnocladus dioicus</i>		•								•																								•		seeds, leaves are toxic	
American Witch-Hazel	<i>Hamamelis virginiana</i>	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•													•	•			Late winter pollen
Sneezeweed	<i>Helenium autumnale</i>			•																															•			
Woodland Sunflower	<i>Helianthus divaricatus</i>		•				•	•	•		•	•	•	•	•	•	•	•	•	•	•					•									•+			

Appendix 5.2 Plant Palette

Plant Palette

Common Name	Scientific Name ¹	Provides Food, Shelter, or Breeding Material ²																				Habitat Code ³						Current Use ⁴			Special Habitat Value and Other Notes ⁵								
		Fruits, Nuts, Seeds	Caterpillars/Butterflies, Moths	Other Herbivorous Insects	Fish and Amphibians	Turtles	Cardinals & Grosbeaks	Chickadees & Titmice	Crows & Jays	Finches	Hummingbirds	Mockingbirds & Thrashers	Nuthatches	Orioles	Sparrows	Thrushes	Vireos	Waxwings	Wood Warblers	Woodpeckers	Wrens	Waterfowl (Ducks, Coot)	Semiaquatic Birds (Heron, Egret)	Muskrat	Small Mammals	D	E	F	P	S		T	V	Wild Mile (Urban Rivers)	LPZ Boardwalk	Chicago River Design Guidelines			
Whiskered Sunflower	<i>Helianthus hirsutus</i>	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				•													
Few-Leaf Sunflower	<i>Helianthus occidentalis</i>		•				•	•	•		•	•	•	•	•	•	•	•	•	•	•													•					
Jerusalem-Artichoke	<i>Helianthus tuberosus</i>	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																		
Smooth Oxeye	<i>Heliopsis helianthoides</i>				•	•					•	•	•	•	•	•	•	•	•	•	•	•	•				•							•+			moderately aggressive		
Water Star Grass	<i>Heteranthera dubia</i>																																						
Crimson-eyed Rosemallow	<i>Hibiscus moscheutos</i>		•	•																														•	•				
Common Winterberry	<i>Ilex verticillata</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•	•													•	•				
Spotted Touch-Me-Not	<i>Impatiens capensis</i>	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																		
Blue Flag Iris	<i>Iris virginica shrevei</i>		•		•	•																													✓	•	•		
Black Walnut	<i>Juglans nigra</i>		•				•	•	•		•	•	•	•	•	•	•	•	•	•	•																		
Common Rush	<i>Juncus effusus</i>		•		•	•																														•	•	•	shoreline stabilization
Eastern Red-Cedar	<i>Juniperus virginiana</i>	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																		
Water Willow	<i>Justicia americana</i>																																		•				
June Grass	<i>Koeleria cristata</i>			•																																•		sandy soil	
American Larch	<i>Larix laricina</i>	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•												•		needs acidic soil	
Small Duckweed	<i>Lemna minor</i>				•	•																																	
Forked Duckweed	<i>Lemna trisulca</i>				•	•																																	
Round-Headed Bush Clover	<i>Lespedeza capitata</i>	•	•	•																																	•	•	especially beetles
Rough Blazing Star	<i>Liatris aspera</i>	•	•																																				
Cat-Tail Gayfeather	<i>Liatris pycnostachya</i>										•	•				•	•	•	•	•	•															x	•		
Dense Gayfeather	<i>Liatris spicata</i>										•	•				•	•	•	•	•	•														x	•			
Michigan Lily	<i>Lilium michiganense</i>		•	•																																	•		

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		Fruits, Nuts, Seeds	Caterpillars/Butterflies, Moths	Other Herbivorous Insects	Fish and Amphibians	Turtles	Cardinals & Grosbeaks	Chickadees & Titmice	Crows & Jays	Finches	Hummingbirds	Mockingbirds & Thrashers	Nuthatches	Orioles	Sparrows	Thrushes	Vireos	Waxwings	Wood Warblers	Woodpeckers	Wrens	Waterfowl (Ducks, Coot)	Semiaquatic Birds (Heron, Egret)	Muskrat	Small Mammals	D	E	F	P	S		T	V	Wild Mile (Urban Rivers)	LPZ Boardwalk	Chicago River Design Guidelines	
Northern Spicebush	<i>Lindera benzoin</i>	•	•	•			•	•	•																												
Tulip Tree	<i>Liriodendron tulipifera</i>																																			•	
Cardinal-Flower	<i>Lobelia cardinalis</i>		•	•			•	•	•		•	•	•	•	•	•	•	•	•	•	•													•	•		
Great Blue Lobelia	<i>Lobelia siphilitica</i>		•	•			•	•	•		•	•	•	•	•	•	•	•	•	•	•													✓	•	•	
Wild Lupine	<i>Lupinus perennis</i>		•																					•		•											Karner blue butterfly host (endangered)
Monkeyflower	<i>Mimulus ringens</i>		•																																•		<i>near Chelone glabra</i> for checkerspot butterfly
Wild Four-o'clock	<i>Mirabilis nyctaginea</i>		•	•							•															•											
Scarlet Beebalm	<i>Monarda didyma</i>		•				•	•	•		•	•	•	•	•	•	•	•	•	•	•						•								•		
Wild Bergamont	<i>Monarda fistulosa</i>		•				•	•	•		•	•	•	•	•	•	•	•	•	•	•						•								•	•	can be aggressive
Horse Mint	<i>Monarda punctata</i>		•				•	•	•		•	•	•	•	•	•	•	•	•	•	•						•								•	•	
Red Mulberry	<i>Morus rubra</i>	•	•	•			•	•	•		•	•	•	•	•	•	•	•	•	•	•			•											+		dioecious; do not plant invasive white mulberry (<i>M. alba</i>)
Water Milfoil	<i>Myriophyllum sibiricum</i>				•	•																															<i>M. spicatum</i> is not native
Slender Naiad	<i>Najas flexilis</i>				•	•																															

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Lotus	<i>Nelumbo lutea</i>		•	•	•																	•													•	muddy bottom to 4 ft; slow water; aggressive	
Yellow Water Lily	<i>Nuphar advena</i>		•	•	•	•																•	•	•											•	muddy bottom to 5 ft; slow water; turtles	
White Water Lily	<i>Nymphaea odorata</i>		•	•	•	•																•	•	•											•	muddy bottom to 8 ft; slow water; turtles	
Blackgum	<i>Nyssa sylvatica</i>		•	•			•	•	•	•				•	•	•	•	•	•	•		•		•											•	autumn fruit	
Devil's Tongue	<i>Opuntia humifusa</i>	•	•																			•													•	shelters snakes	
Eastern Hop-Hornbeam	<i>Ostrya virginiana</i>	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•															•		
Switch Grass	<i>Panicum virgatum</i>	•	•	•			•	•	•	•				•										•												•	salt tolerant; winter cover;
Virginia-Creeper	<i>Parthenocissus quinquefolia</i>	•	•	•			•	•	•		•	•	•	•	•	•	•	•	•	•															•+		
Wild Blue Phlox	<i>Phlox divaricata</i>		•				•	•	•		•	•	•	•	•	•	•	•	•	•															•		
Ninebark	<i>Physocarpus opulifolius</i>	•	•	•																					•										•		
Obedient plant	<i>Physostegia virginiana</i>			•						•																									•	needs moisture	
American Pokeweed	<i>Phytolacca americana</i>	•					•	•	•	•	•			•																					•+		
Eastern White Pine	<i>Pinus strobus</i>	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•																	
American Sycamore	<i>Platanus occidentalis</i>	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•																•	
Pickerel Weed	<i>Pontederia cordata</i>	•	•		•	•																														•	

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Eastern cottonwood	<i>Populus deltoides</i>		•				•	•	•		•	•	•	•	•	•	•	•	•	•																		stabilize riverbank	
Quaking Aspen	<i>Populus tremuloides</i>		•				•	•	•		•	•	•	•	•	•	•	•	•	•																			
Common Pondweed	<i>Potamogeton natans</i>				•	•																•	•	•												•			
Long-leaved Pondweed	<i>Potamogeton nodosus</i>				•	•																•	•	•												•			
American Plum	<i>Prunus americana</i>	•	•	•			•	•	•		•	•	•	•	•	•	•	•	•	•	•					•										•			
Great Lakes Sand Cherry	<i>Prunus pumila</i>	•	•	•			•	•	•		•	•	•	•	•	•	•	•	•	•	•					•													
Black Cherry	<i>Prunus serotina</i>	•	•	•			•	•	•		•	•	•	•	•	•	•	•	•	•	•																•		
Choke Cherry	<i>Prunus virginiana</i>	•	•	•			•	•	•		•	•	•	•	•	•	•	•	•	•	•																		
Narrow-Leaf Mountain-Mint	<i>Pycnanthemum tenuifolium</i>	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				•												•		
American Mountain-Mint	<i>Pycnanthemum virginianum</i>		•	•							•	•	•	•	•	•	•	•	•	•	•																•	•	•
Northern White Oak	<i>Quercus alba</i>		•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																		
Swamp White Oak	<i>Quercus bicolor</i>	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																	•	•
Bur Oak	<i>Quercus macrocarpa</i>	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																	•	•
Chinkapin Oak	<i>Quercus muehlenbergii</i>	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																	•	
Pin Oak	<i>Quercus palustris</i>	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																		
Northern Red Oak	<i>Quercus rubra</i>	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																	•	
Black Oak	<i>Quercus velutina</i>	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																	•	
Swamp Buttercup	<i>Ranunculus septentrionalis</i>		•	•																				•															wet edge
Yellow Water Crowfoot	<i>Ranunculus flabellaris</i>		•	•	•	•																	•																

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White Water Crowfoot	<i>Ranunculus longirostris</i>		•	•	•	•																•		•														
Gray-Head Mexican-Hat	<i>Ratibida pinnata</i>		•	•							•		•	•		•	•	•	•	•						•								•				
Fragrant Sumac	<i>Rhus aromatica</i>	•	•	•			•	•	•		•	•	•	•	•	•	•	•	•	•						•								•			5-star for rooftops	
Smooth Sumac	<i>Rhus glabra</i>	•	•	•			•	•	•		•	•	•	•	•	•	•	•	•	•						•												
Stag-Horn Sumac	<i>Rhus typhina</i>	•	•	•			•	•	•		•	•	•	•	•	•	•	•	•	•						•								•				
Golden Currant	<i>Ribes aureum</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•							•											
Wild Climbing Rose	<i>Rosa setigera</i>		•	•							•	•															•					•						
Black Raspberry	<i>Rubus occidentalis</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•						•												
Black-Eyed-Susan	<i>Rudbeckia hirta</i>		•				•	•	•		•	•	•	•	•	•	•	•	•	•						•								•	•			
Green-Head Coneflower	<i>Rudbeckia laciniata</i> , others	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•							•					•	•					
Common Arrowhead	<i>Sagittaria latifolia</i>	•	•			•				•												•		•		•								•				
Pussy Willow	<i>Salix discolor</i>		•				•	•	•		•	•	•	•	•	•	•	•	•	•															✓			
Sandbar Willow	<i>Salix interior</i>		•	•		•					•	•	•	•	•	•	•	•	•	•		•		•	•										•		can be aggressive	
Black Willow	<i>Salix nigra</i>		•				•	•	•		•	•	•	•	•	•	•	•	•	•															•			
American Black Elderberry	<i>Sambucus nigra ssp. canadensis</i>	•							•		•	•	•	•	•	•	•	•	•	•														•	•			
Sassafras	<i>Sassafras albidum</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•							•							•				
Lizard's Tail	<i>Saururus cernuus</i>				•	•					•	•	•	•	•	•	•	•	•	•														✓			wood duck	
Little Bluestem	<i>Schizachyrium scoparium</i>	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•					•									•	•			
Hardstemmed Bulrush	<i>Schoenoplectus acutus</i>	•	•	•	•				•		•	•	•	•	•	•	•	•	•	•		•	•	•									•	•	•			
Dark Green Rush	<i>Scirpus atrovirens</i>	•	•	•	•				•		•	•	•	•	•	•	•	•	•	•		•	•	•									•	•	•			
River Bulrush	<i>Scirpus fluviatilis</i>	•	•	•	•				•		•	•	•	•	•	•	•	•	•	•		•	•	•									•	•	•			

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New England American-Aster	<i>Symphotrichum (Aster) novae-angliae</i> and other species	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•													•	•	•				aggressive
Eastern Arborvitae	<i>Thuja occidentalis</i>		•	•			•	•	•		•	•	•	•	•	•	•	•	•	•	•															•				
American Basswood	<i>Tilia americana</i>	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																			
Common Spiderwort	<i>Tradescantia ohiensis</i>					•																		•													•			
American Elm	<i>Ulmus americana</i>	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•															+	•+			stabilize riverbank
Lowbush Blueberry	<i>Vaccinium angustifolium</i>	•			•		•	•			•		•		•		•		•			•														•				
Highbush Blueberry ^E	<i>Vaccinium corymbosum</i>	•	•				•	•	•		•	•	•	•	•	•	•	•	•	•	•																			
Eel Grass	<i>Vallisneria americana</i>				•	•																	•	•	•											•			filters water	
Blue Vervain	<i>Verbena hastata</i>		•	•			•																			•									•	•	•		drought resistant	
Hoary vervain	<i>Verbena stricta</i>		•	•							•															•														
Common Ironweed	<i>Vernonia fasciculata</i>		•	•							•		•	•		•	•	•	•	•	•															•	•	•		
Missouri Ironweed	<i>Vernonia missurica</i>		•	•							•		•	•		•	•	•	•	•	•																			
Maple-Leaf Arrow-Wood	<i>Viburnum acerifolium</i>	•	•	•			•	•	•		•	•	•	•	•	•	•	•	•	•	•																			
Nanny-Berry	<i>Viburnum lentago</i>	•	•	•			•	•	•		•	•	•	•	•	•	•	•	•	•	•																•	•		red admiral
Riverbank Grape	<i>Vitis riparia</i>	•	•	•			•	•	•		•	•	•	•	•	•	•	•	•	•	•																•			giant swallowtail
Prickly Ash	<i>Zanthoxylum americanum</i>		•				•	•	•		•	•	•	•	•	•	•	•	•	•	•	•		•																
Wild Rice	<i>Zizania aquatica, Z. palustris*</i>	•	•				•	•	•														•																to 3 ft deep	

Appendix 5.3

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Joe Alonzo
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Jason Biernat
Luann Hamilton
Philip Banea

Alderman Water Burnett Jr, 27th Ward

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Phil Willink, Independent Research Biologist
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Matthew James, U.S. Coast Guard
Jason Lach, Chicago Fire Department
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Jack Westerman, Carbit Paint Company
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