

Port Lands Flood Protection & Enabling Infrastructure Public Consultation #2

18 July 2018

Michael Van Valkenburgh Associates, Inc.
Landscape Architects

Meeting Agenda

Parks + River



MVVA

Bike + Pedestrian
Circulation; Ecology; Park
+ River Programming

Roads + Municipal Infrastructure



WSP / DTAH

Cherry St,
Commissioners St, +
Don Roadway

Bridges



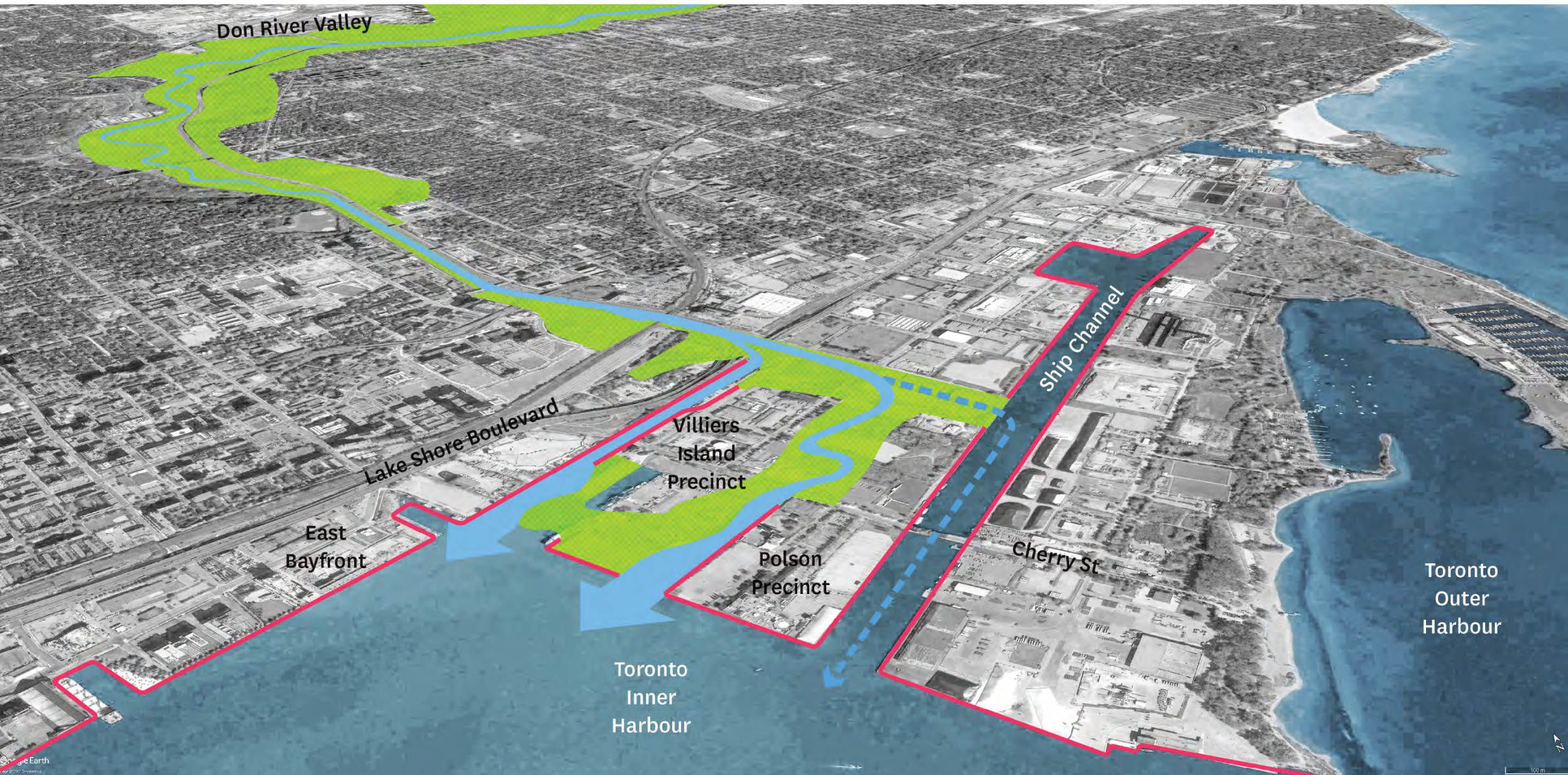
Grimshaw / Entuitive

Cherry St South and
North, Commissioners St,
+ Lake Shore Bridges

Toronto's Large Urban Parks



Bringing The Don River Valley to the City



Don River Valley

Lake Shore Boulevard

East Bayfront

Villiers Island Precinct

Polson Precinct

Ship Channel

Cherry St

Toronto Inner Harbour

Toronto Outer Harbour

Public Consultation #1 - 22 February 2018



The Fundamental Challenge

A **Coherent** and **Integrated** Solution;

Flood Control

Naturalization

Place Making

Project Feedback - Parks and River

Community (Survey + Consultation)

- **Integrate the natural and the urban.**
- **Maximize naturalization opportunities (immersive nature)** and ensure connections for wildlife.
- Consider a mix of hardscaping (e.g. public squares for gathering, plazas) and natural green space.
- **Vibrancy/animation, especially along the water's edge.**
- Facilitate public water activities and connections/**access to the water.**
- Create active transportation/recreational opportunities
- Connection to surrounding neighbourhoods and the broader waterfront park system.
- Accessibility by transit and multiple modes.
- Accessibility for diverse groups of people.
- Integrate history through preserving local heritage and culture (adaptive reuse, art.)
- **Create views of the inner harbour and city.**
- Maintenance.
- **All season use.**

SAC/TAC/LUAC

- **Water access** and watercraft storage.
- Don't over program to allow for **nature to be the primary experience.**
- **Flexibility of spaces** to accommodate economic diverse population.
- Recognition of First Nations and industrial heritage.
- Universal access.
- **Protection of habitat and limiting access to naturalized areas.**
- Integrated transportation solutions.

Design Review Panel (01/24)

- Landscape ecology and **the connection of the river to the lake** could become part of **Toronto's signature identity.**
- Continue to **develop** the spatial, conceptual and programmatic **connectivity between the new naturalized river and** the larger ecological and spatial condition coming down through **the Don Valley.** Link those two more strongly.
- Keep developing the **river as a catalytic concept.**
- Tie programing and river armouring.

Valley Frame



Upland Forest



Duffin's Creek

Urban Frame



High Park,
Toronto, ON

Bloor Street West

Parkside Drive

Roncesvalles
Village

Bloor West
Village

Grenadier
Pond

West
Pond

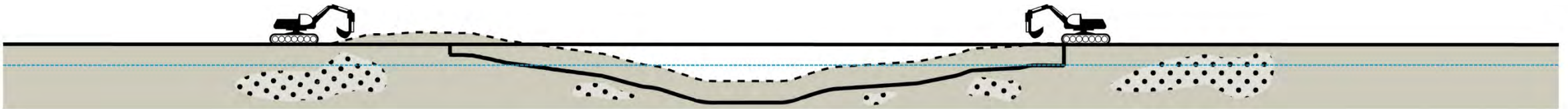
The Queensway

Gardiner Expressway

The River as a Catalytic Concept

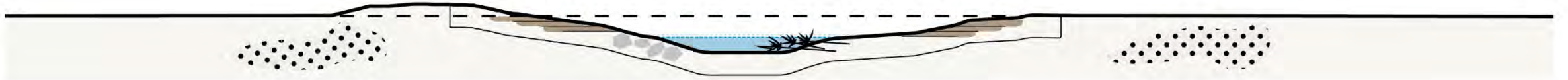


Constructing an Urban River Park



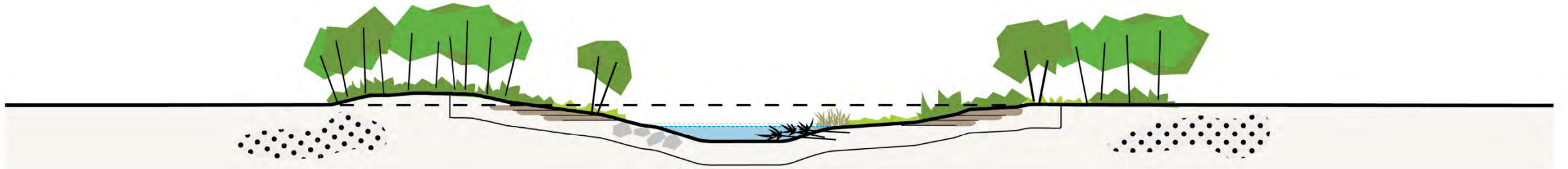
1. Soil Cleaning + Earthworks

Constructing an Urban River Park



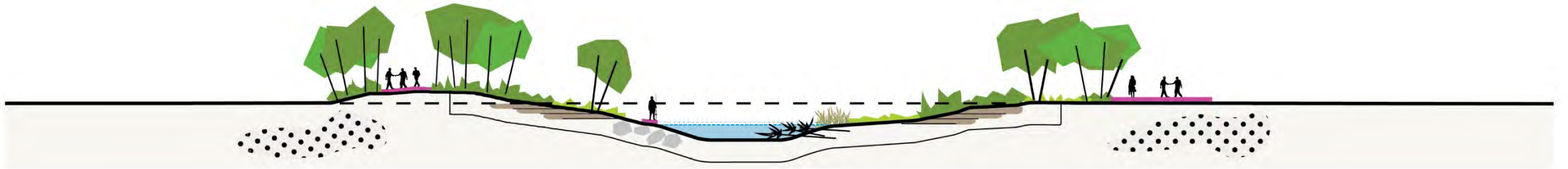
2. Shaping + Stabilizing the River

Constructing an Urban River Park



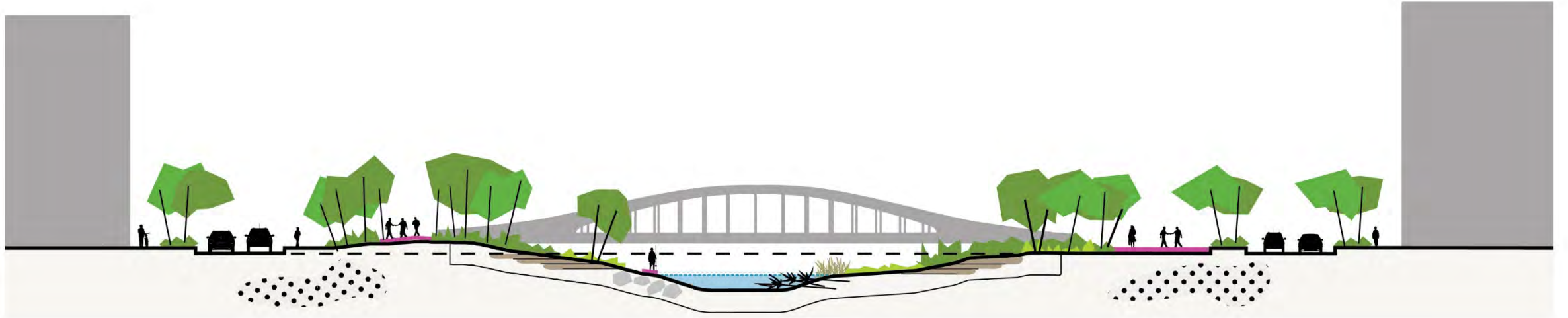
3. River Ecologies + Habitat

Constructing an Urban River Park



4. Park + River Programming

Constructing an Urban River Park



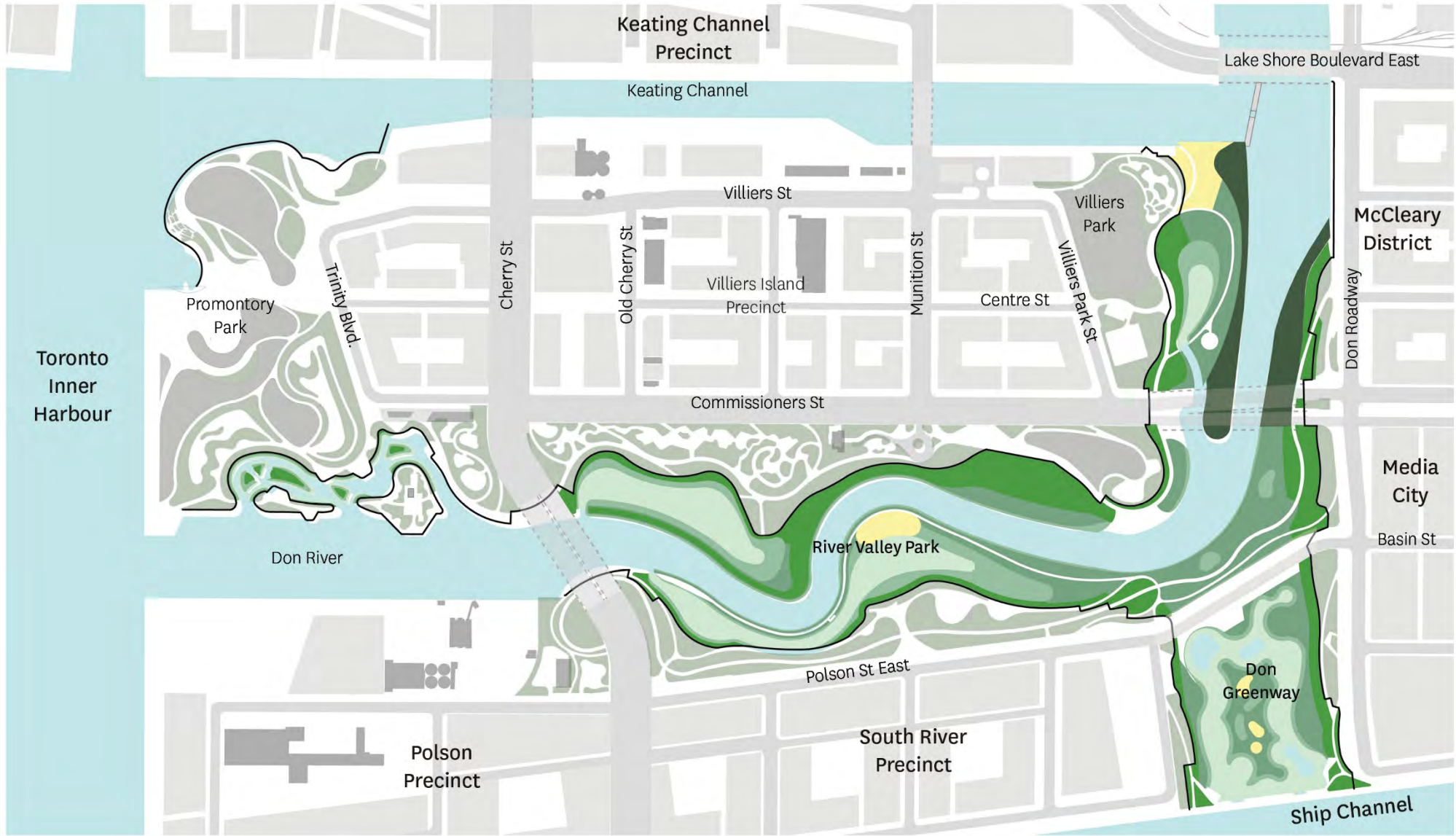
5. Building + Precinct Infrastructure

Engineering an Ecological System



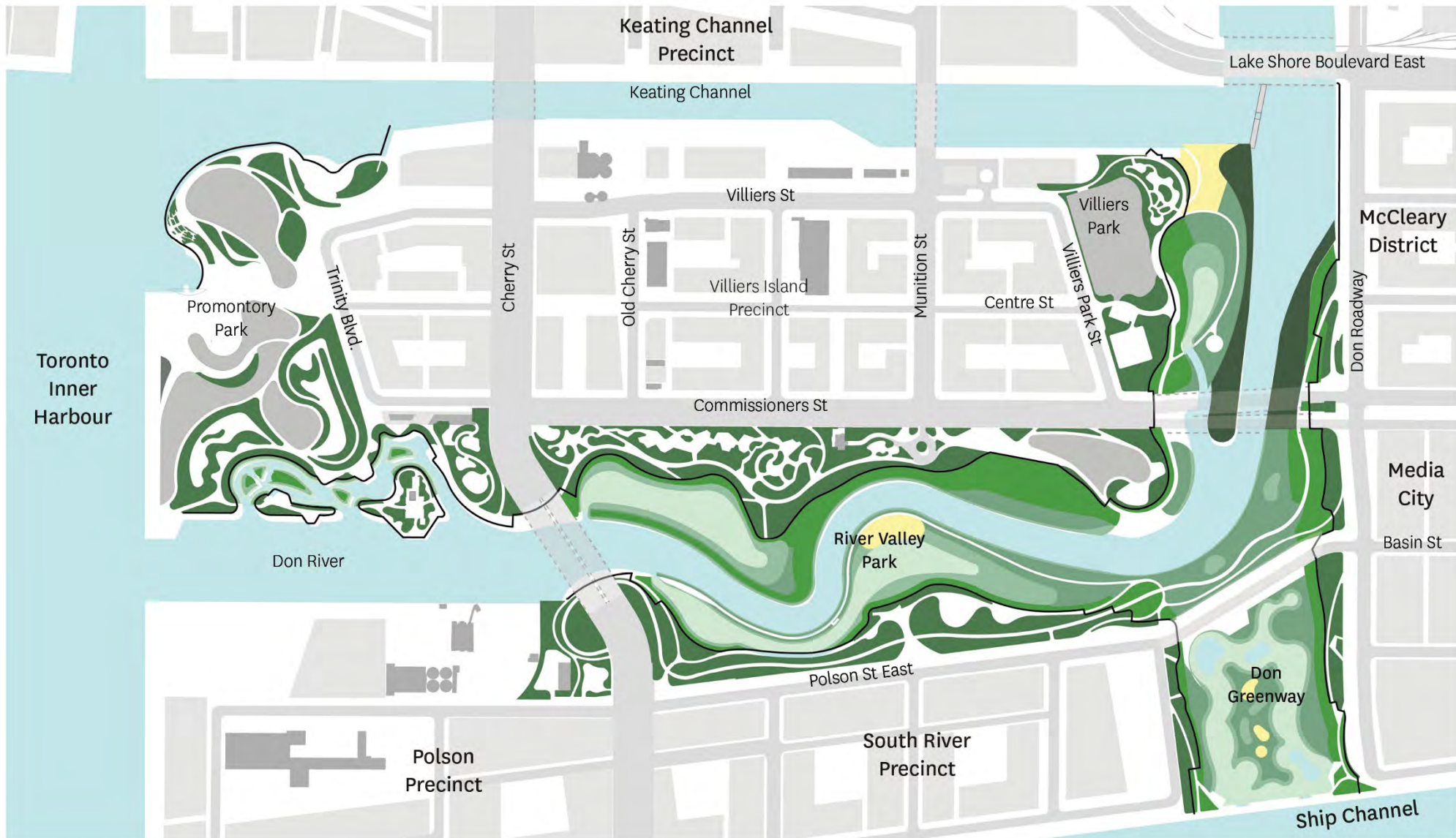
Engineering an Ecological System for the Don River

- Submergent Marsh: 72.5 - 74.2
- Emergent Marsh: 74.2 - 75.0
- Meadow Marsh: 75 - 75.50
- Thicket Swamp: 74.7 - 75.75
- Floodplain Forest: 75.0 - TOB
- Upland Forest: > TOB
- Planted Armour Stone
- Top of Bank (TOB)

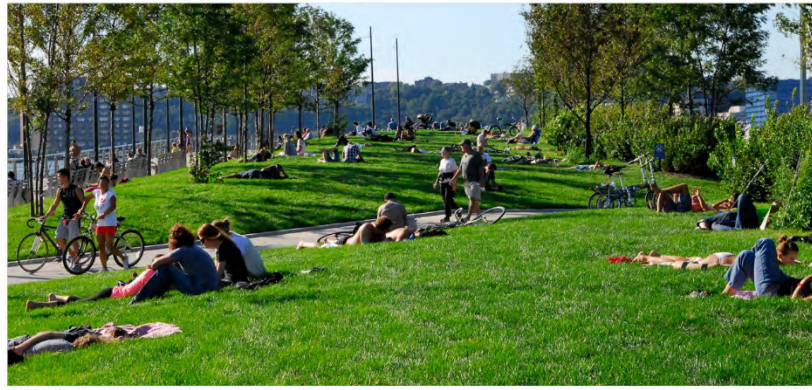


Bringing the Banks of the Don River to the City

- Submergent Marsh:
72.5 - 74.2
- Emergent Marsh:
74.2 - 75.0
- Meadow Marsh:
75 - 75.50
- Thicket Swamp:
74.7 - 75.75
- Floodplain Forest:
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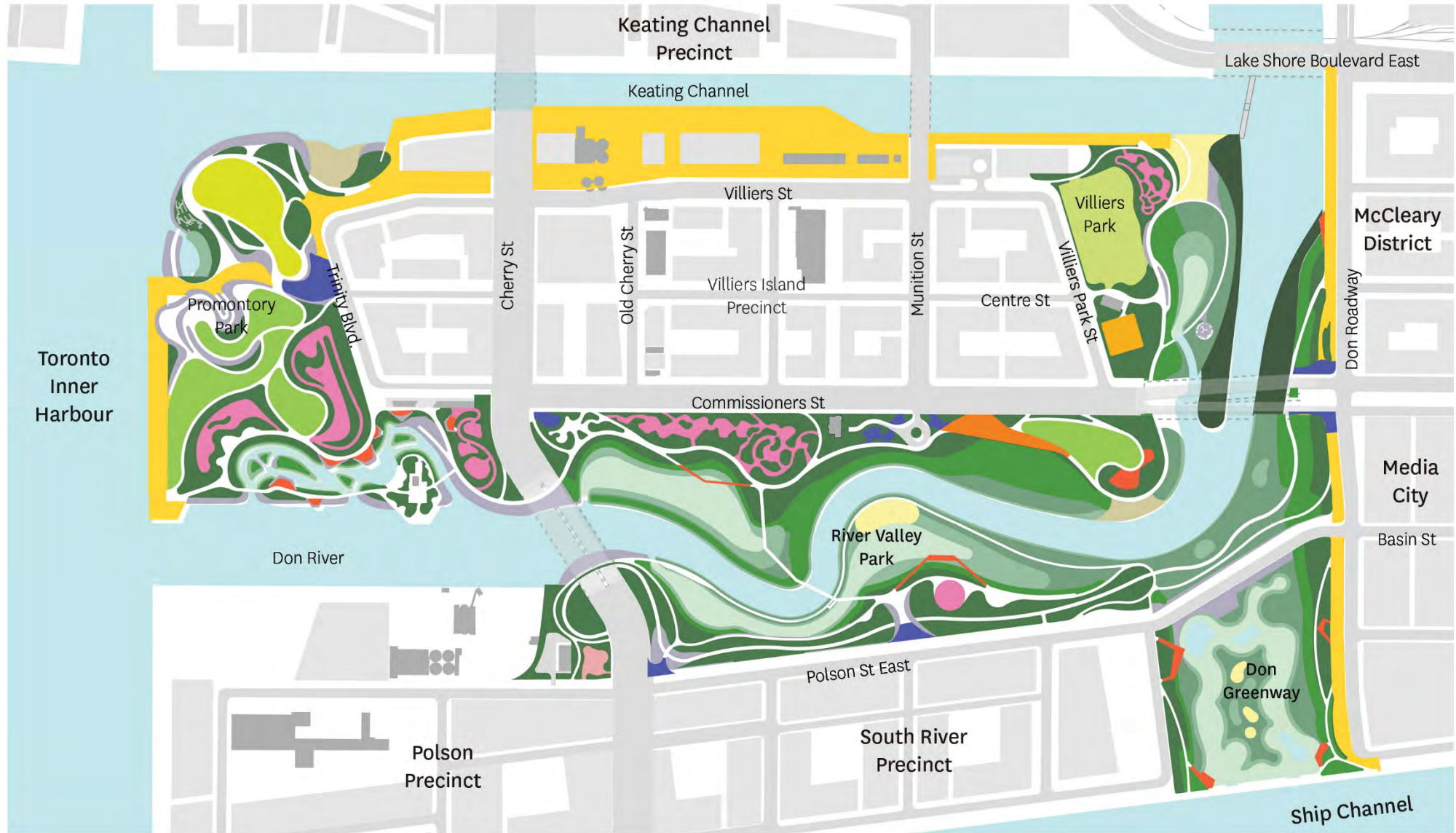


Diverse Programming within the Landscape Framework









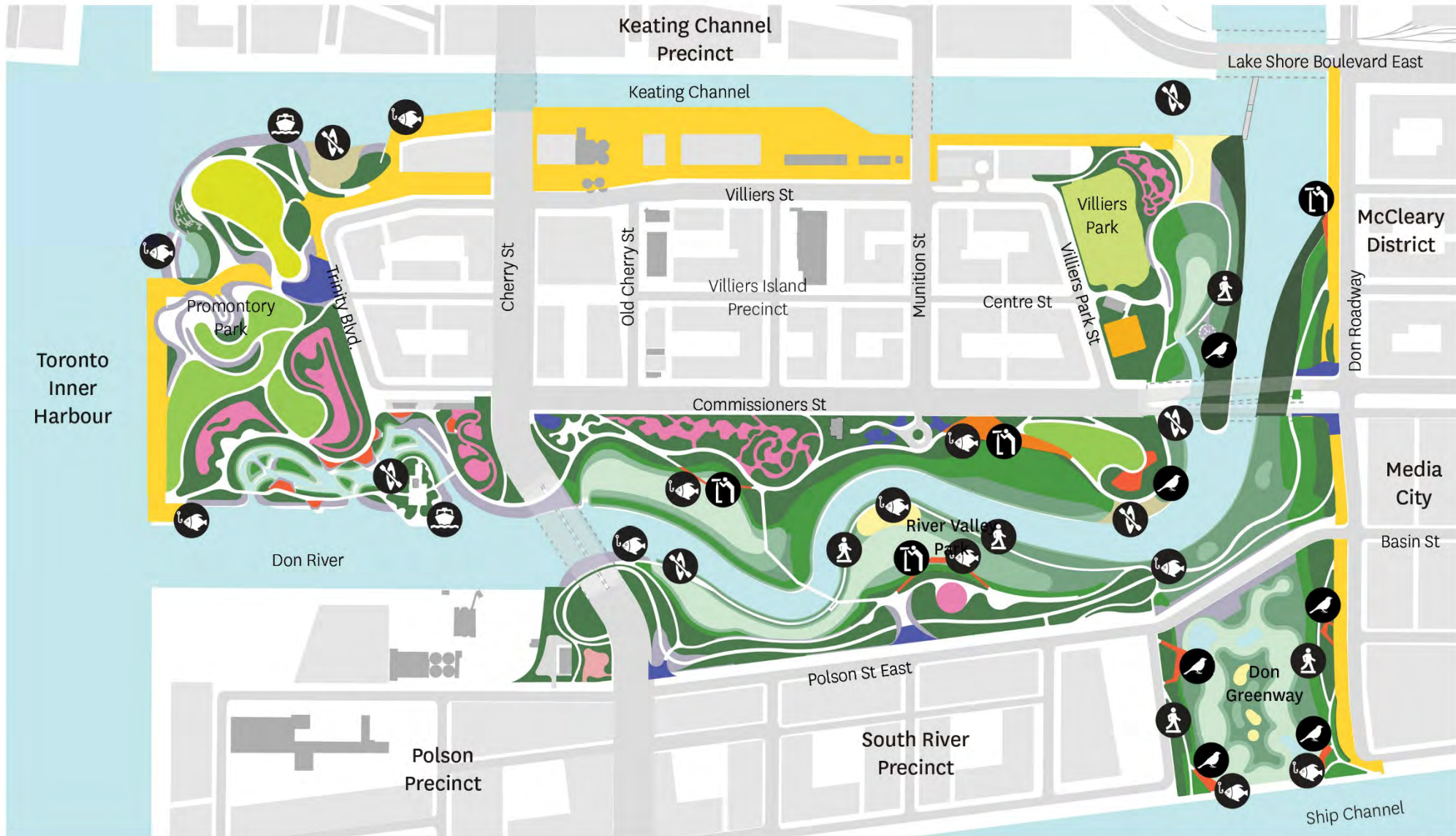
Park Programming - Full Vision

- New Building
- Playscape
- Court Sports
- Dog Park
- Overlook
- Picnic Terrace
- Urban Promenade
- Plaza
- Event Lawn
- Passive Use Lawn
- Multi-use Field
- Rocky Harbour Edge
- Submergent Marsh
- Emergent Marsh
- Meadow Marsh
- Thicket Swamp
- Vernal Pool
- Planted Armour Stone
- Wooded Upland
- Floodplain Forest
- Gravel Beach



River Programming - Full Vision

-  Fishing Node
-  Water Taxi Landing
-  Nature Exploration
 - Nature Trail
 - Snowshoeing
 - Cross Country Skiing
-  Boating
-  Bird Watching
-  Overlook
 - Eco Education / Interpretation



A Park for People - Full Vision



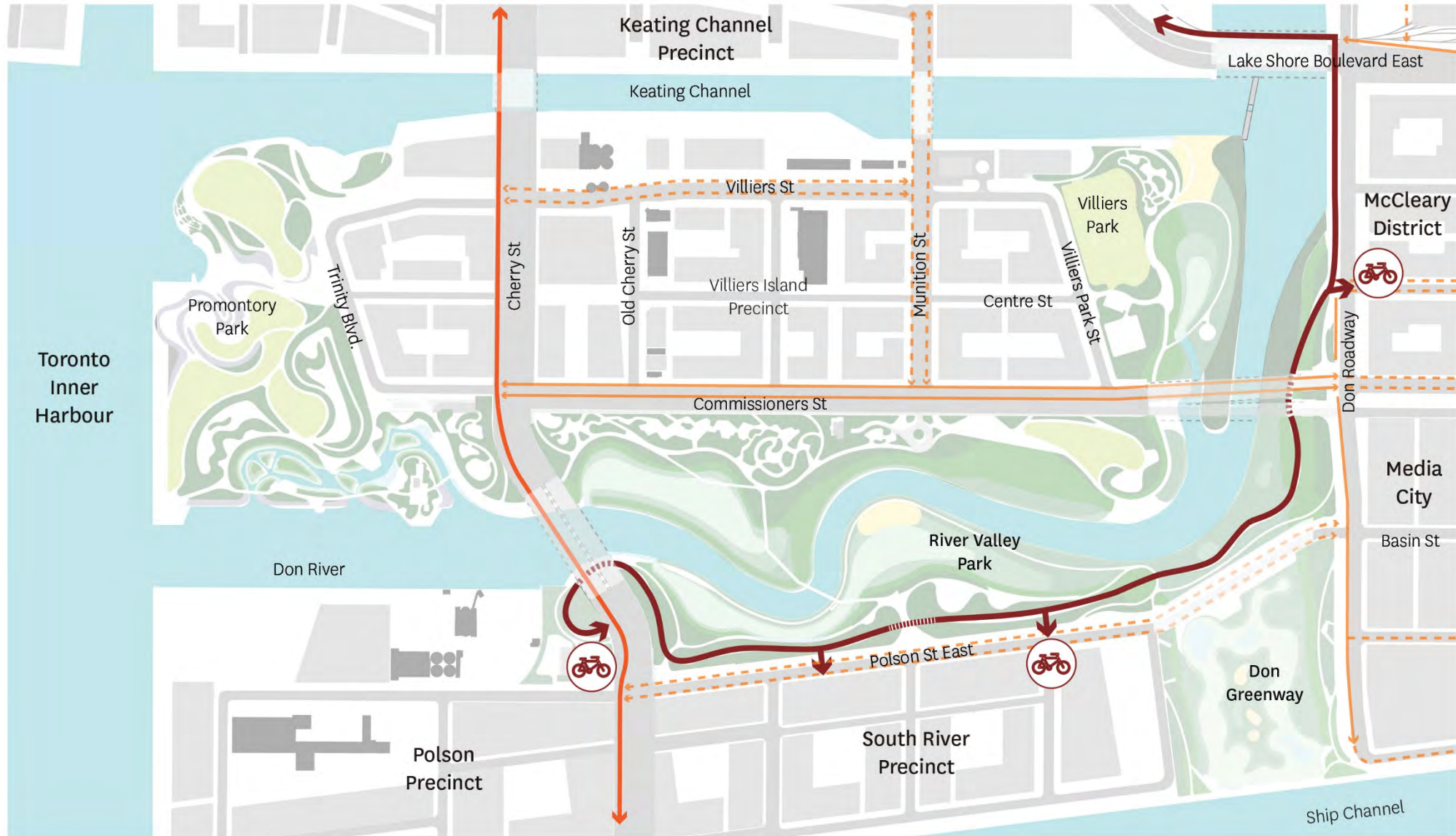
Pedestrian and Bicycle Circulation

Reconnecting The Lower Don Trail To The River



Bicycle Path Network Diagram

- Lower Don Trail
- Bicycle Entrance
- Martin Goodman Trail
- Commuter Bike Lane
- Future Commuter Bike Lane



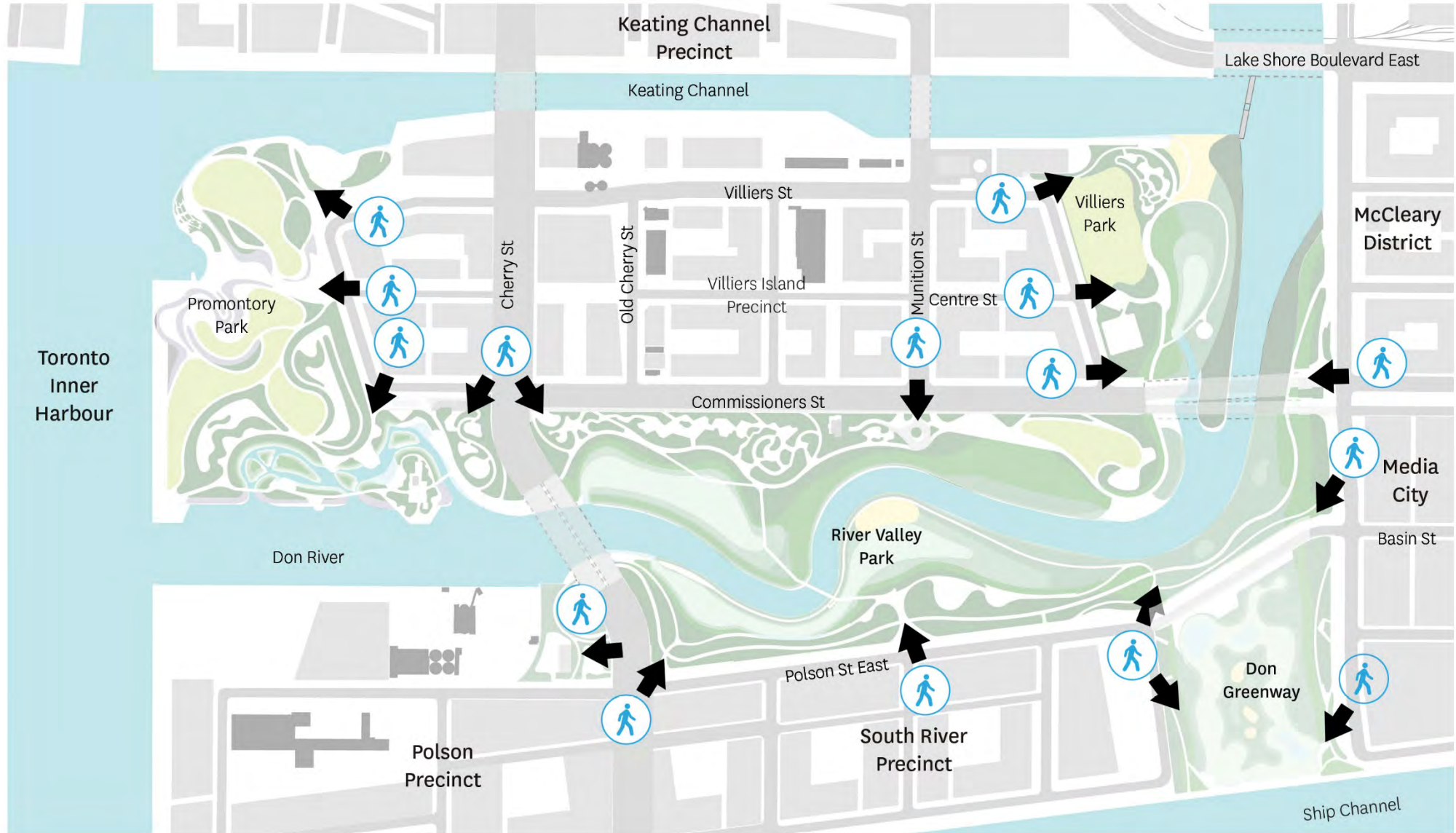
View Looking South At River Valley Park



Pedestrian Park Entrances

➔ Accessible Park Entrance

🚶 Pedestrian Access



View Looking Southeast from Main Park Entry at Commissioners Street

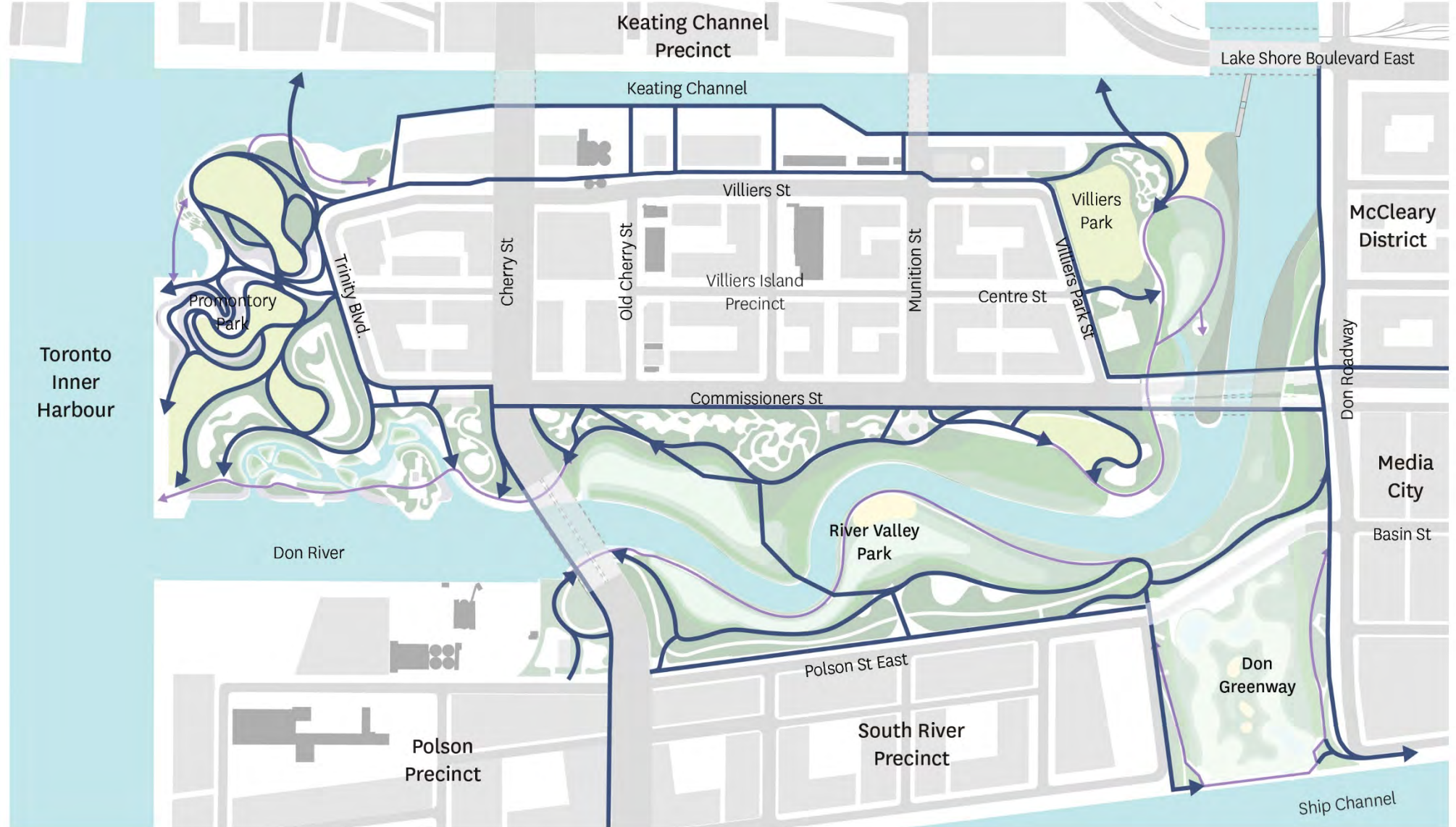


View Looking West from Main Park Entry at Centre Street



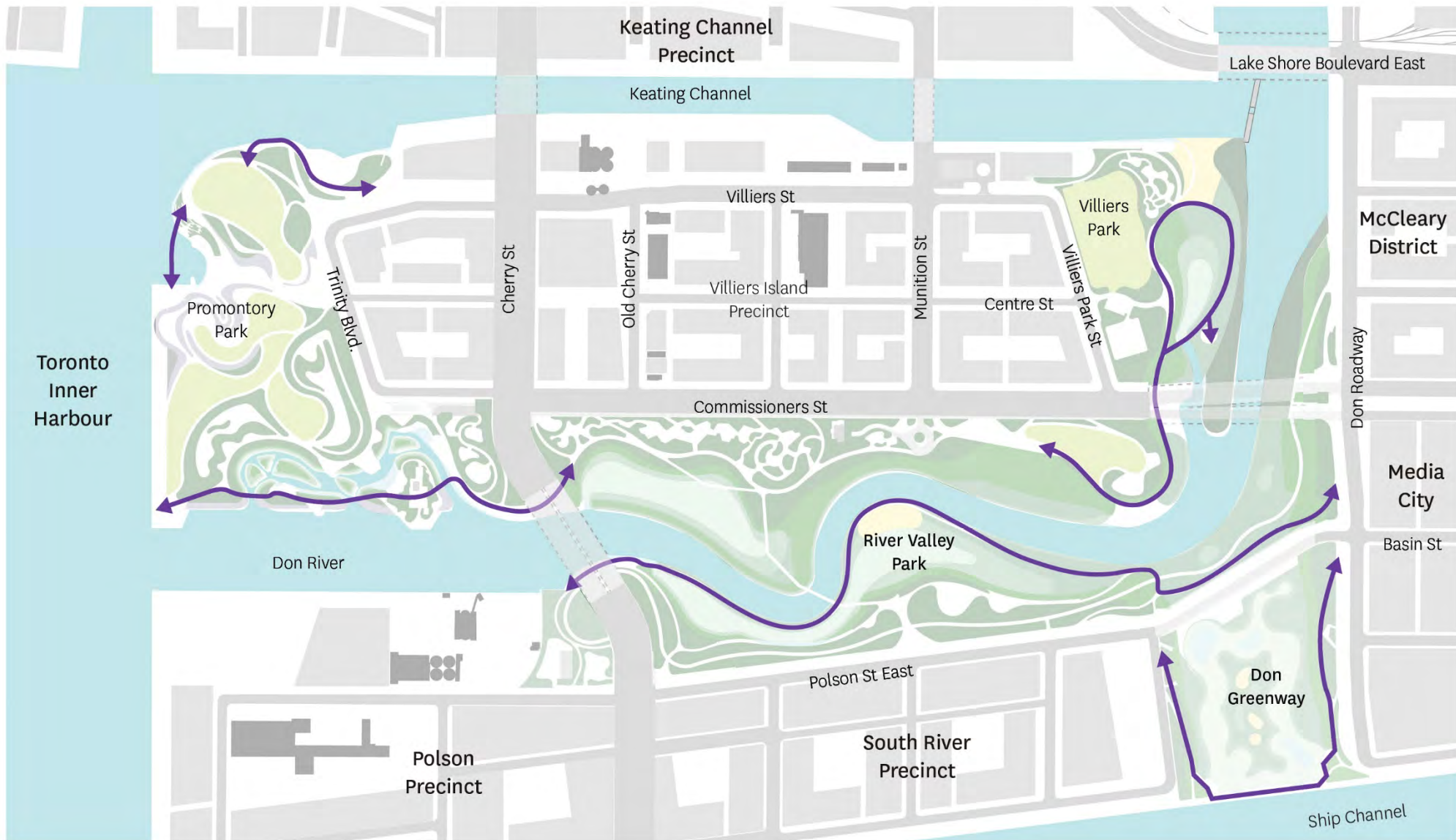
Upland Path Network

- Upland Path
- River's Edge Trail



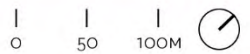
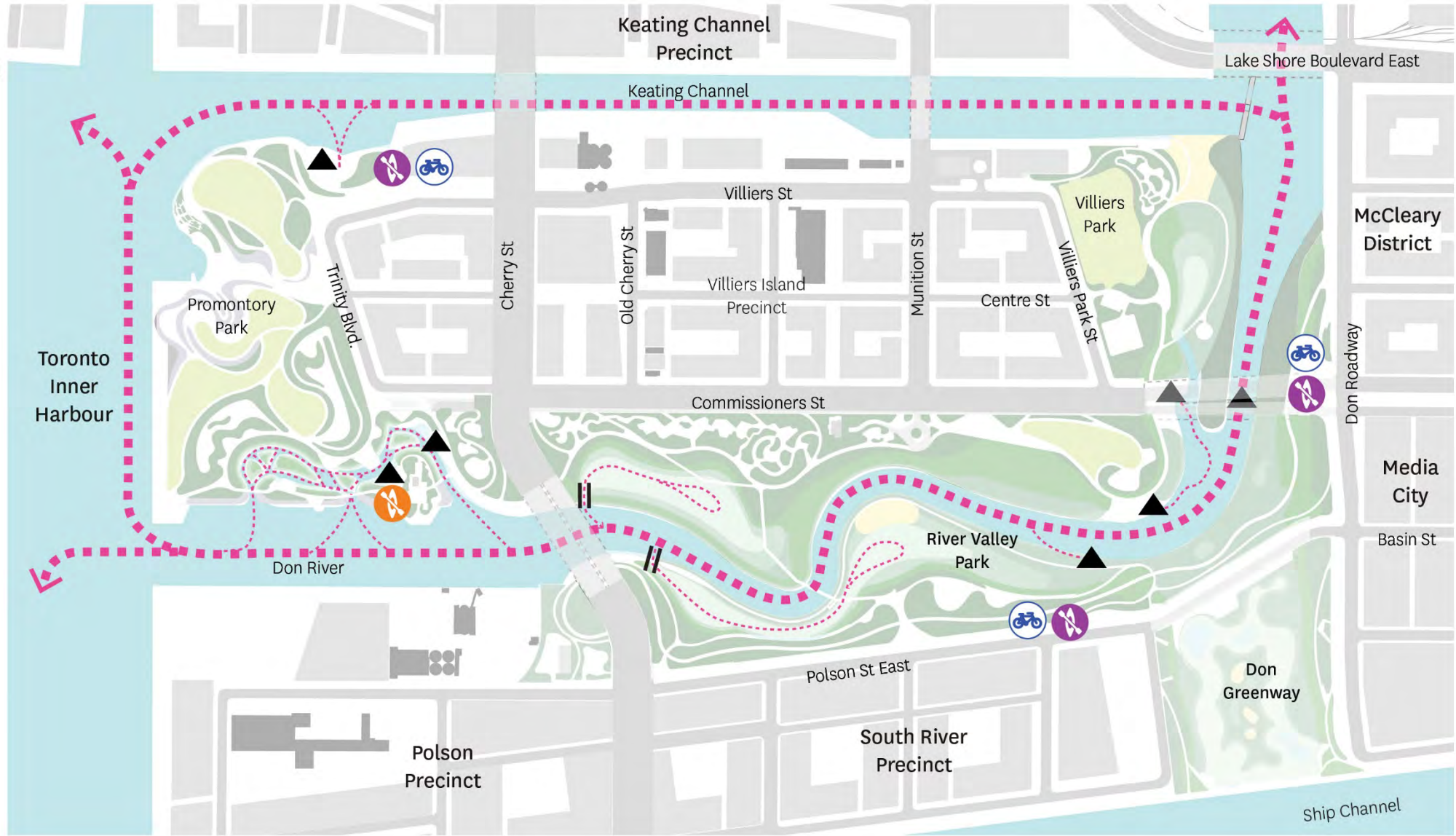
Water's Edge Trail

→ River's Edge Trail



Water Circuit

- Primary Kayak Circulation
- Secondary Kayak Circulation
- Kayak Launch
- Kayak Share
- Canoe Cove Rental
- Bike Share @ Kayak Share
- Portage



Ecological Systems

Performance Criteria and Design Considerations for the River



Design Considerations:

- Immobile channel form under regulatory flood
- Urban estuary hydrology and hydraulics
- Recreation use/park programming



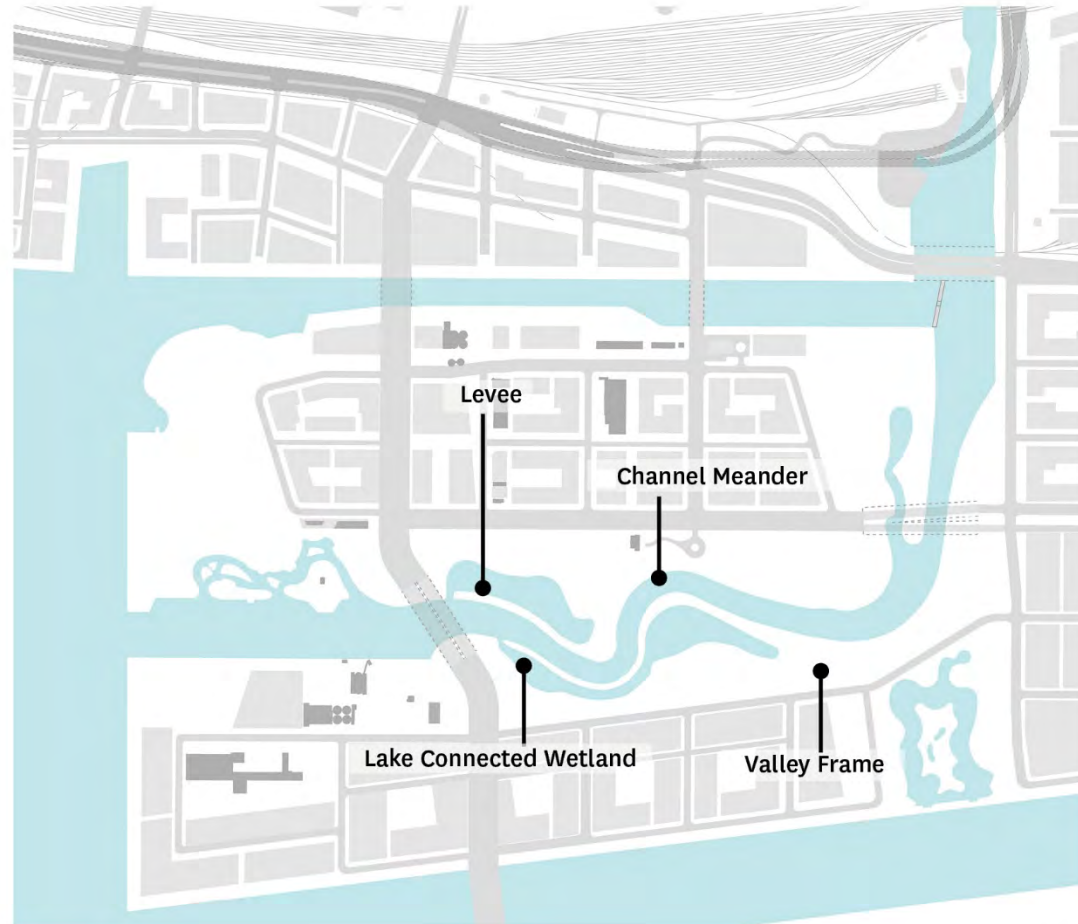
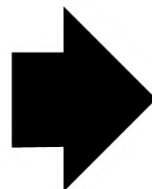
Performance criteria:

- Flood conveyance and capacity
- Contiguous riparian corridor
- Habitat complexity
- Analog idea for geomorphology, hydraulics, and ecology
- Analytical approaches

Design Shapes and Features Informed by Research



Rouge River



Lower Don Mouth



0 100 200M

Wetland Levee Trail



View Looking Northeast from Levee Trail at River Valley Park

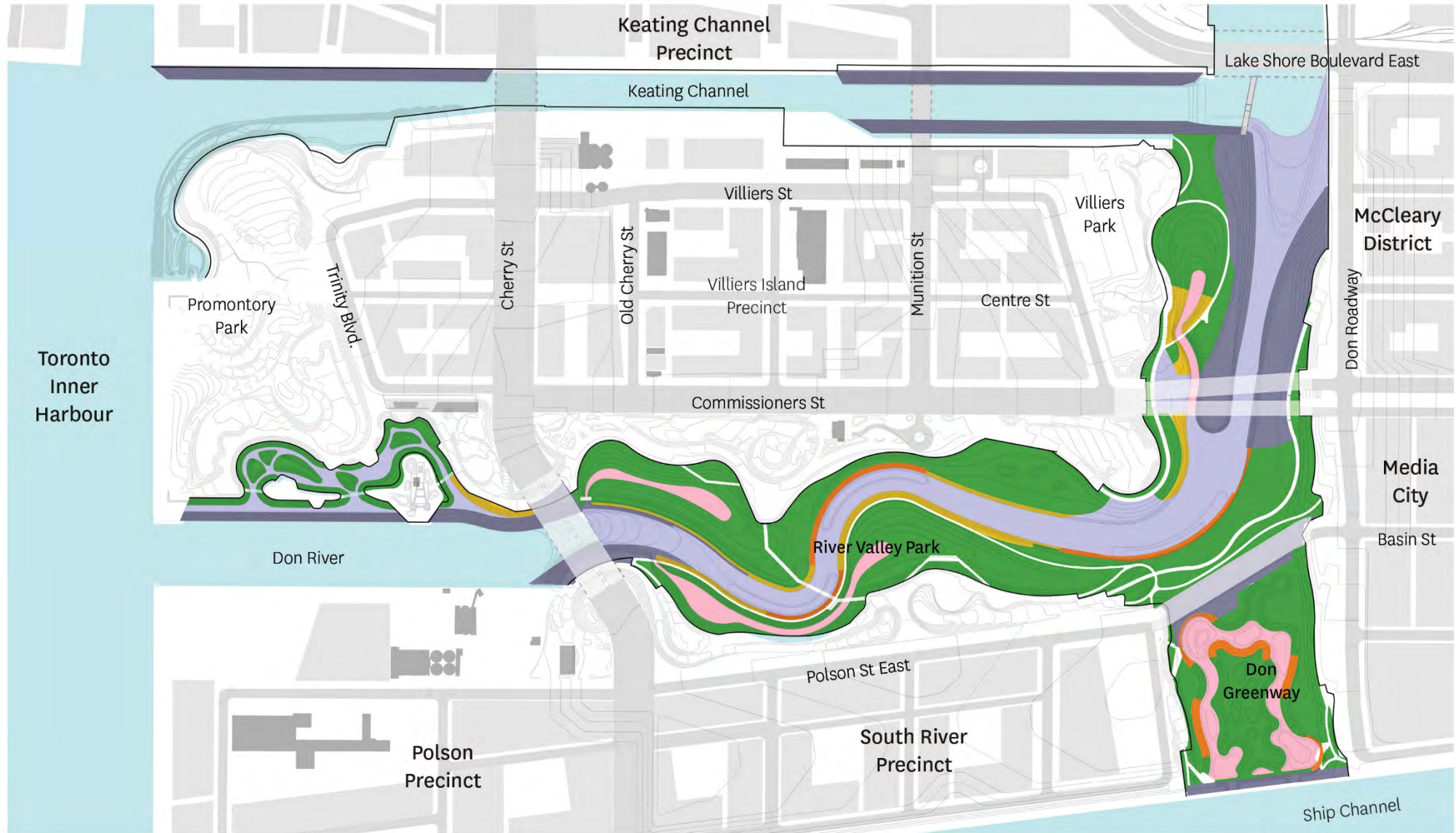


River Flow: Engineering and Resilience



River Stabilization Strategies

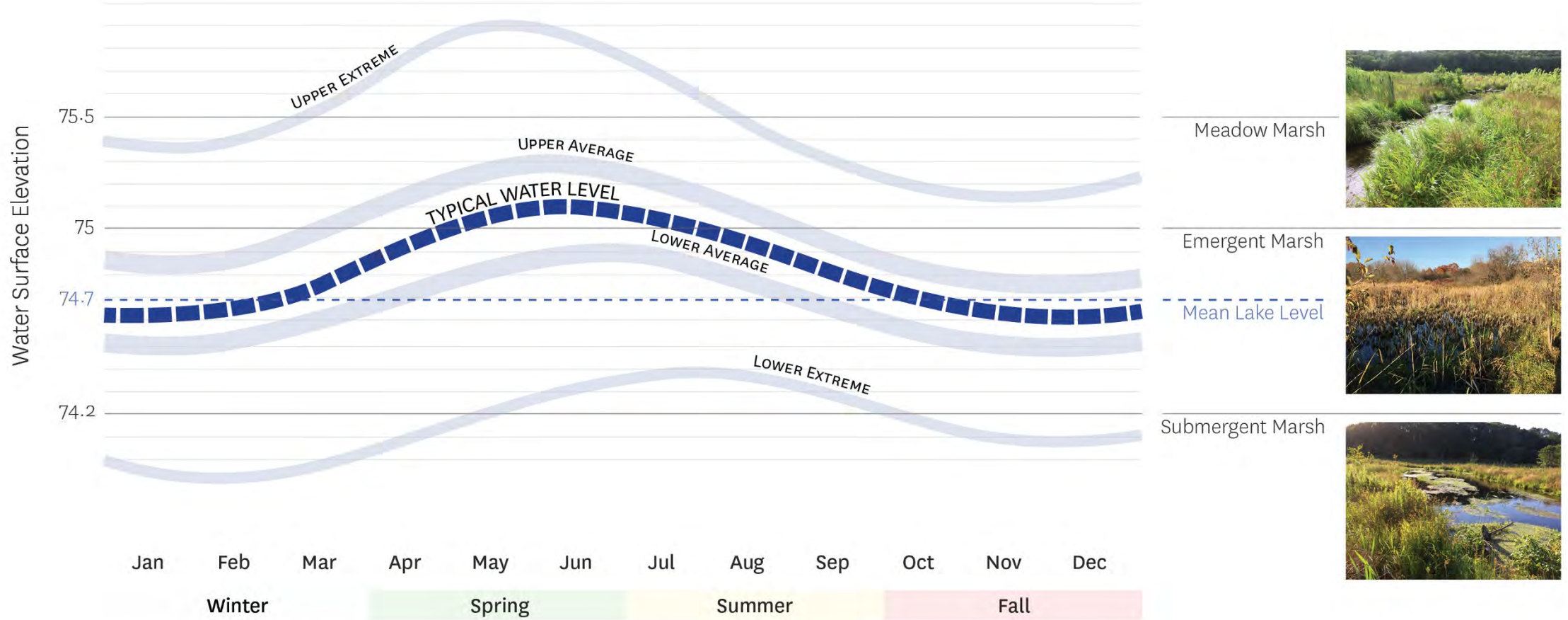
- Open Water
- Floodplain Planting
- Bioengineered Bank (FES)
- Crib Wall
- Stone Armour
- Habitat Gravel
- Spawning Gravel
- Top of Bank (TOB)





Baseflow

Seasonal Water Fluctuations Influence on Plant Community Distribution



River Ecology: Target Plant Communities



Aquatic



Submergent Marsh



Emergent Marsh



Meadow Marsh



Thicket Swamp



Floodplain Forest



Upland Forest



Planted Armour Stone



Vernal Pool

River Ecology: Constructed Habitat



Bird Boxes



Anchored Wood



Osprey Platforms

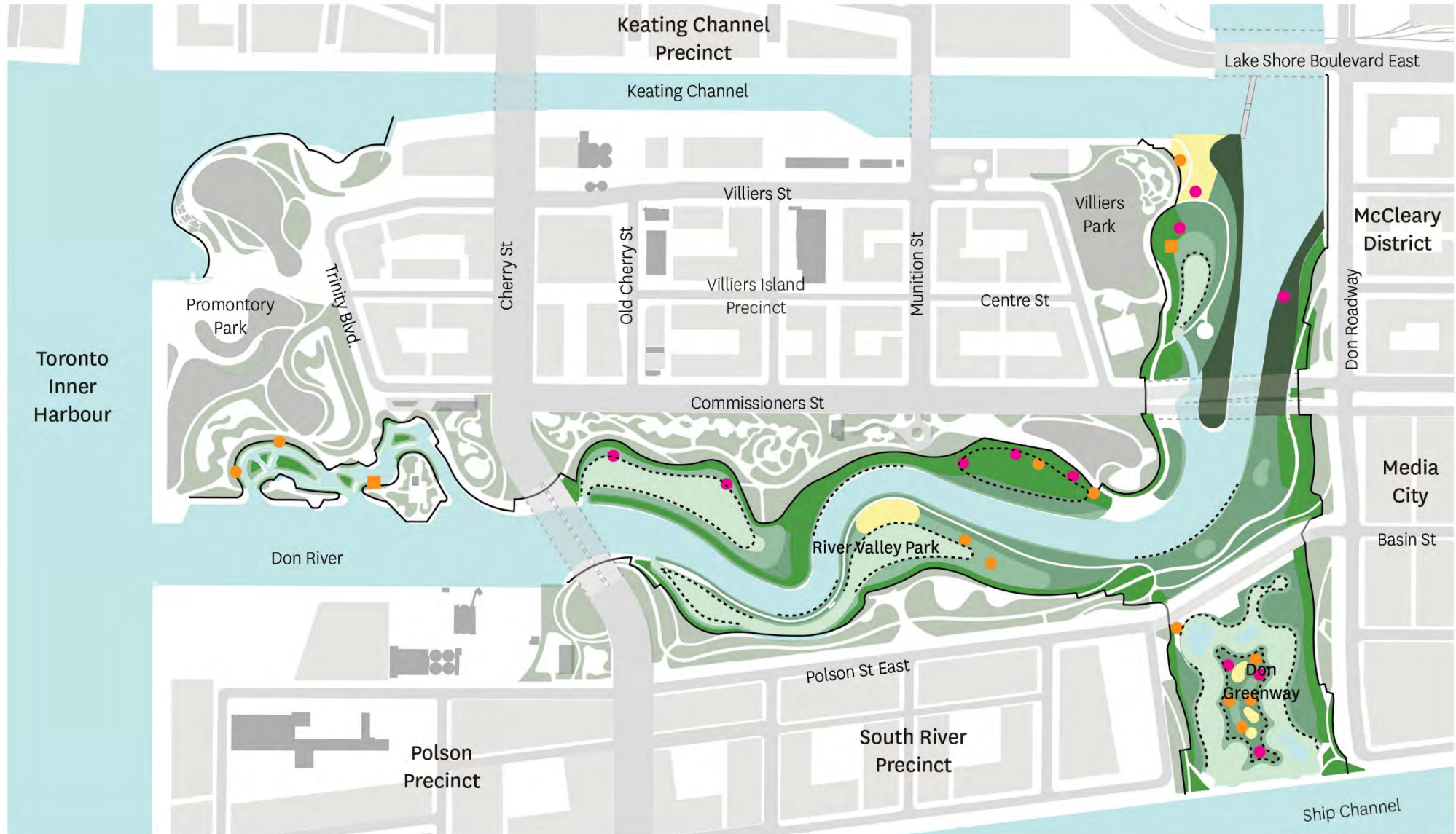


Turtle Habitat



River Ecology: Plant Communities and Habitat

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- Emergent Marsh:
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> TOB
- Planted Armour Stone
- Vernal Pool
- Nest Boxes
- Turtle Bank Habitat
- Anchored Wood Habitat
- Nesting Platform
- Top of Bank (TOB)



River Ecology: Aquatic

Flora



Fauna



Rock Bass



Gizzard Shad



White Bass



White Sucker



Emerald Shiner



Northern Pike

River Ecology: Submergent Marsh

Flora



Fauna



Green Frog



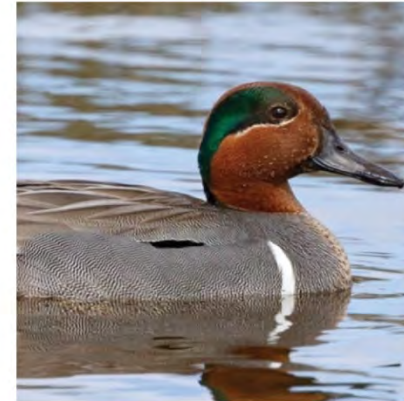
Painted Turtle



Muskrat



Belted Kingfisher



Green-winged Teal



Great Blue Heron

River Ecology: Emergent Marsh

Flora



Fauna



Long-tailed Weasel



Marsh Hawk



Mallard



Common Yellowthroat



Red-winged Blackbird



Swamp Sparrow

River Ecology: Meadow Marsh

Flora



Fauna



American Toad



Meadow Vole



Monarch Butterfly



Coyote



American Goldfinch



Willow Flycatcher

River Ecology: Floodplain and Upland Forest

Flora



Fauna



Eastern Chipmunk



Eastern Cottontail



Eastern Grey Squirrel



Sharp Shinned Hawk



Red Fox



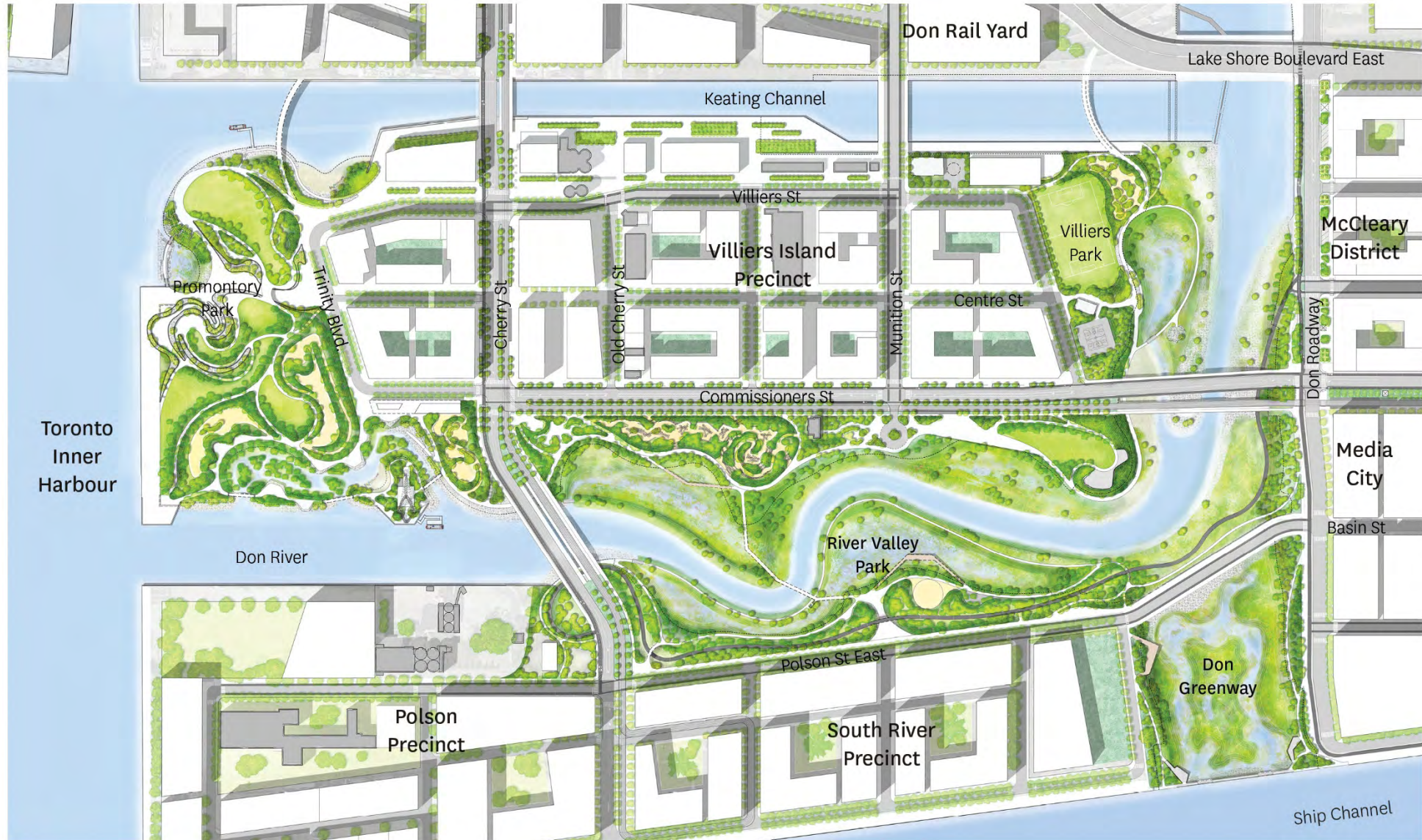
Wood Frog

View Looking East from Wetland at River Valley Park



Park and Programming

Full Vision Plan



Funded Project Areas



Program Opportunities at Park Uplands



Wooded Uplands



City Wide Destination Playscape



Heritage Commemoration



Prospect Overlook

Program Opportunities at Park Uplands



Water's Edge Promenade



Passive Use-Lawns

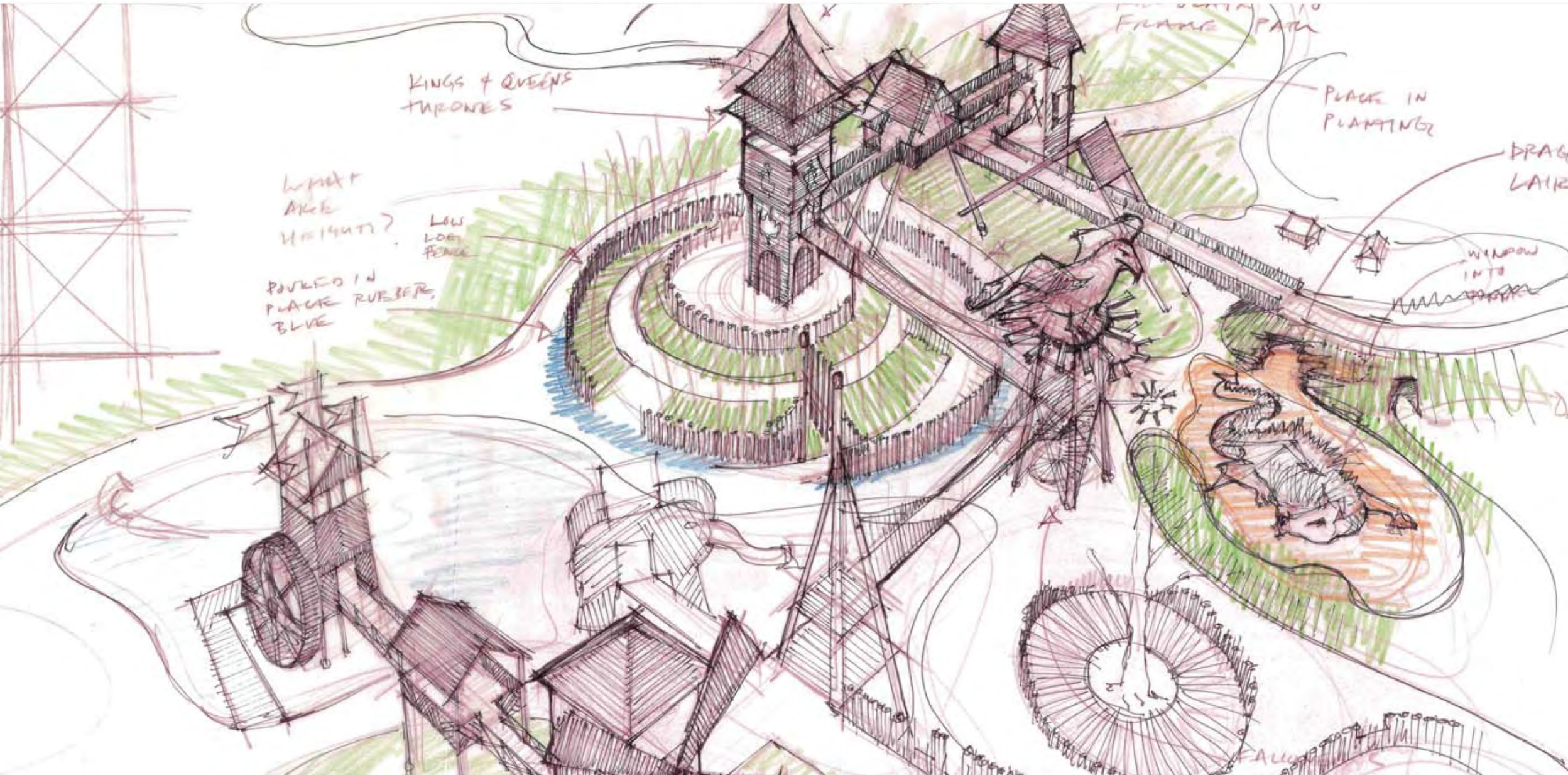


Civic Water Play Areas



Court Sports

Play Aspiration Precedents



Play Aspiration Precedents



Play Aspiration Precedents



Program Opportunities at Don River Valley



Nature Trails



Gravel Beaches



Picnics and Fire Pits



Aquatic Research

Program Opportunities at Don River Valley



Boardwalks



Fishing



Cross Country Skiing



Canoe/Kayak Access

Promontory Park - Plan



Toronto Inner Harbour



Promontory Park - Bird's Eye View



Canoe Cove - Bird's Eye View



Centre Street

Villiers Island
Precinct

Trinity Boulevard

Commissioners Street

Cherry Street

River Valley
Park

Overlook

Canoe
Launch

Overlook

Top of Bank

Promontory
Park South

Overlook

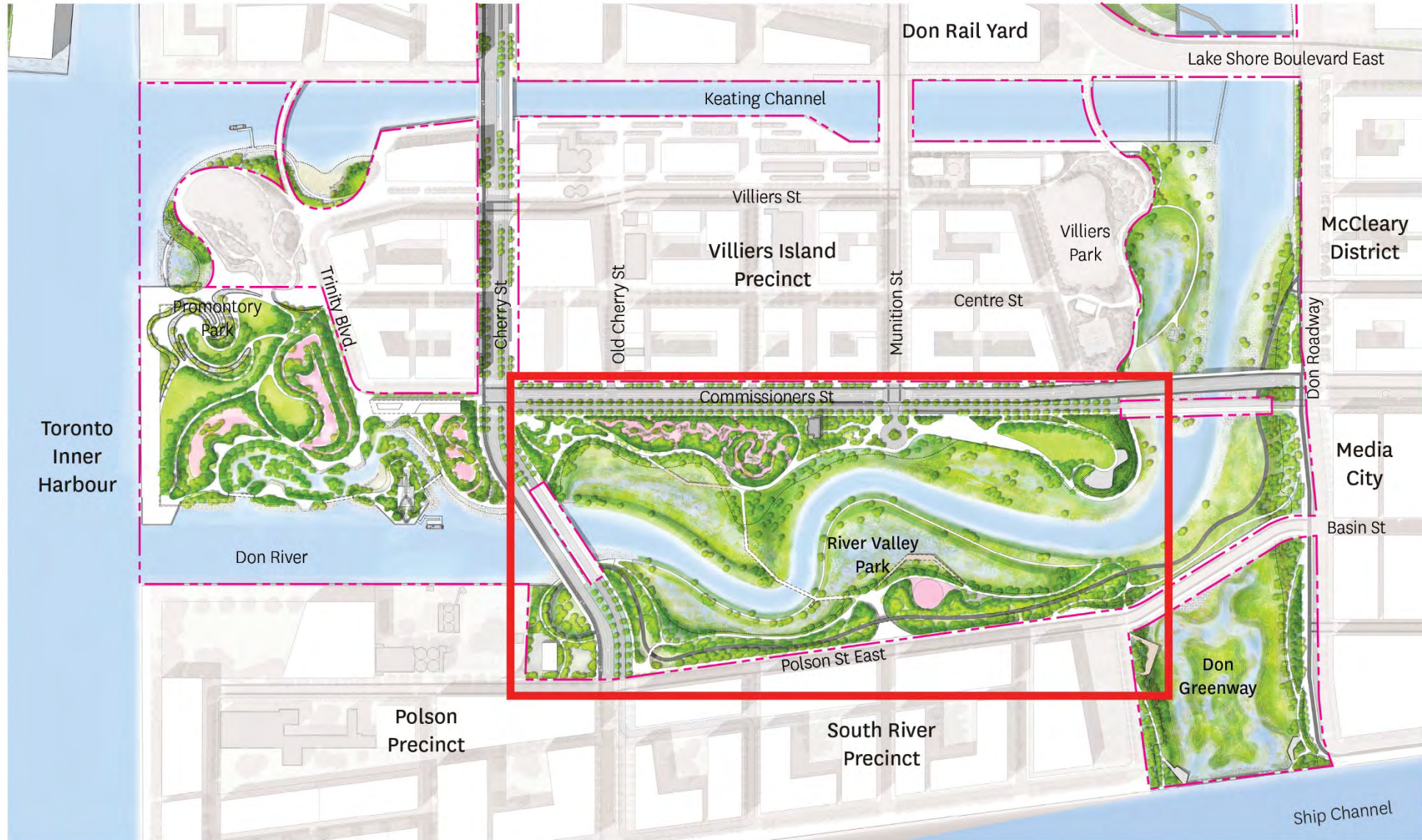
Overlook

Don River

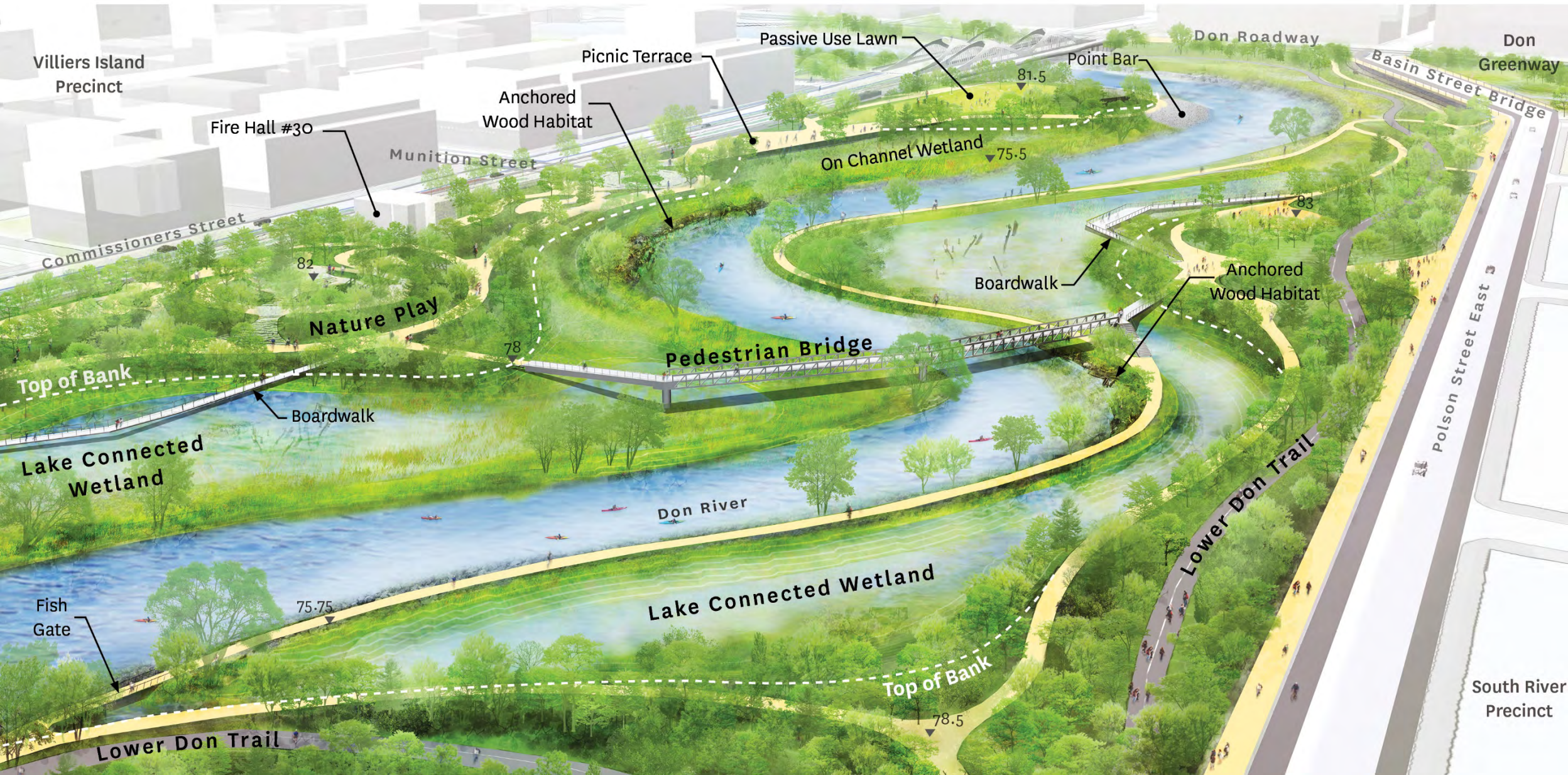
View Looking East from Canoe Cove at Promontory Park



River Valley Park - Plan



River Valley Park - Bird's Eye View



Villiers Island Precinct

Fire Hall #30

Munition Street

Anchored Wood Habitat

Picnic Terrace

Passive Use Lawn

Point Bar

Don Roadway

Don Greenway

Basin Street Bridge

Commissioners Street

82

Nature Play

78

Pedestrian Bridge

Boardwalk

Anchored Wood Habitat

83

Top of Bank

Boardwalk

Lake Connected Wetland

Don River

Fish Gate

75.75

Lake Connected Wetland

Top of Bank

78.5

Lower Don Trail

Lower Don Trail

Polson Street East

South River Precinct

View Looking North from Pedestrian Bridge at River Valley Park



View Looking South from Picnic Terrace at River Valley Park



View Looking South from Point Bar at River Valley Park



Don Greenway - Plan



Toronto Inner Harbour

Don Rail Yard

Lake Shore Boulevard East

Keating Channel

Villiers St

Villiers Island Precinct

Villiers Park

McCleary District

Promontory Park

Trinity Blvd.

Cherry St

Old Cherry St

Munition St

Centre St

Don Roadway

Commissioners St

Media City

Don River

River Valley Park

Basin St

Polson Precinct

Polson St East

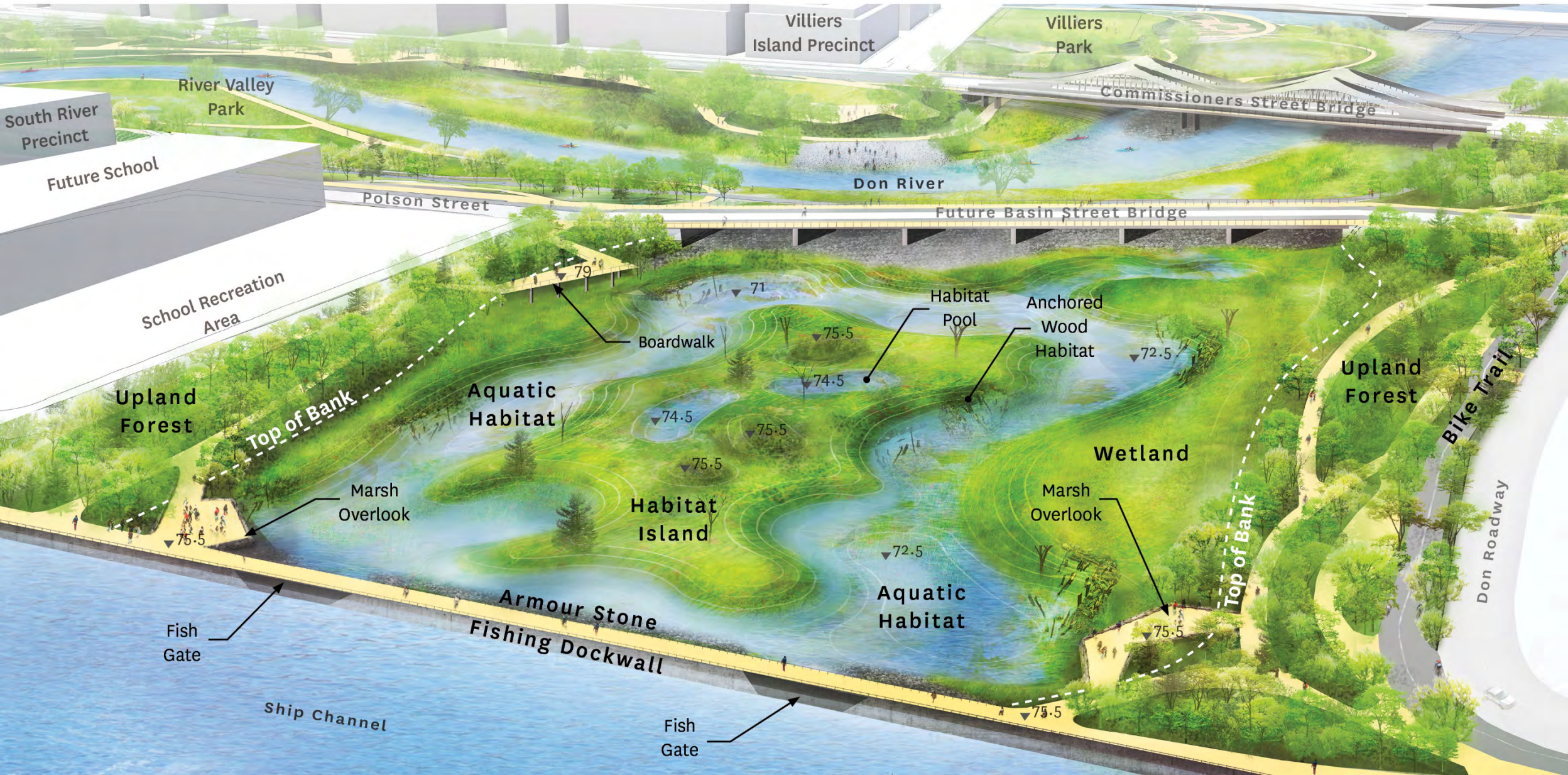
South River Precinct

Don Greenway

Ship Channel



Don Greenway - Bird's Eye View



View Looking East from Overlook at Don Greenway



Villiers Park - Plan



Toronto Inner Harbour

Promontory Park

Trinity Blvd.

Cherry St

Old Cherry St

Muniton St

Centre St

Commissioners St

Polson St East

Don Roadway

Basin St

Ship Channel

Don Rail Yard

Lake Shore Boulevard East

Keating Channel

Villiers St

Villiers Island Precinct

Villiers Park

McCleary District

Media City

River Valley Park

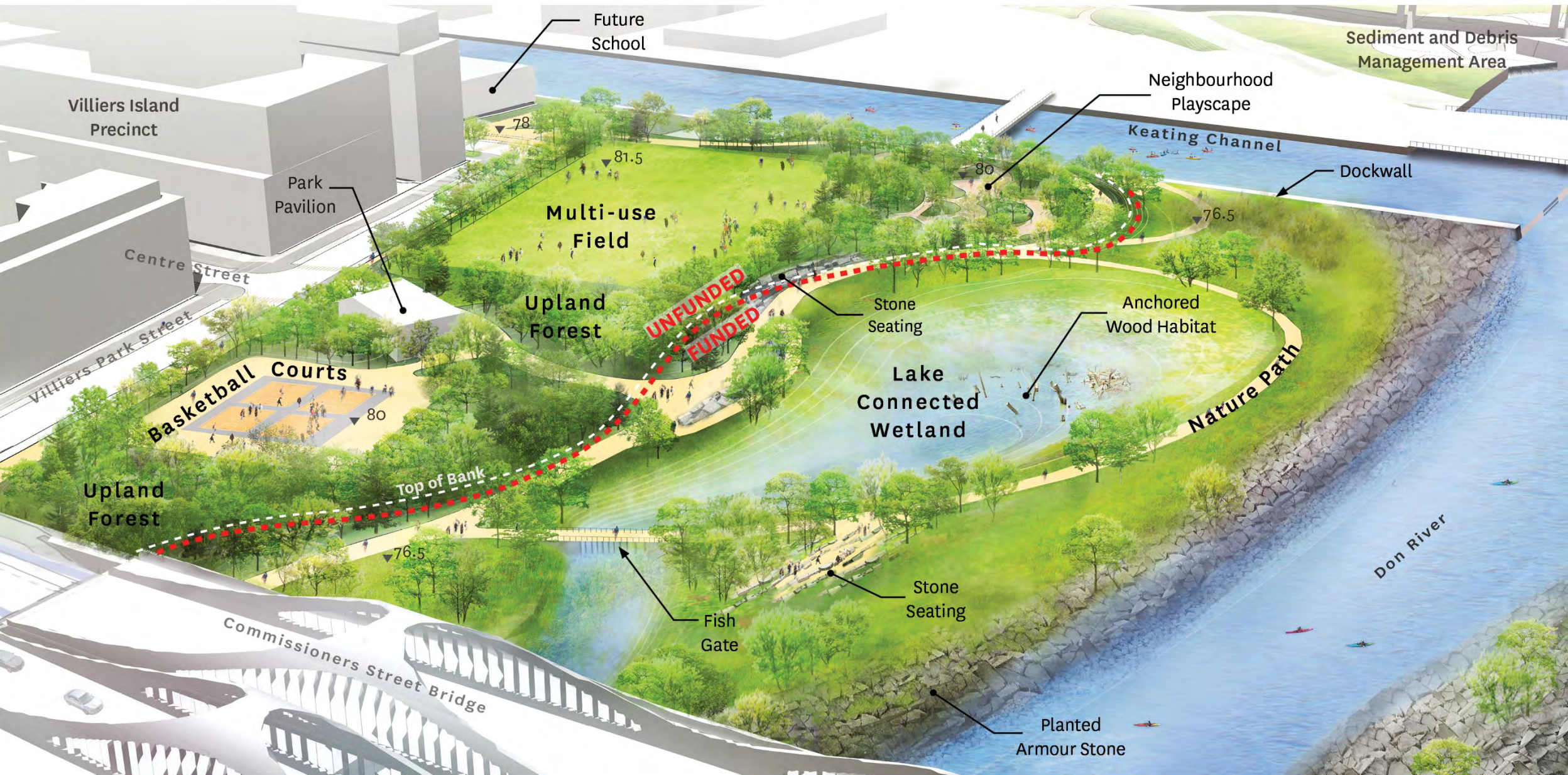
Don Greenway

Polson Precinct

South River Precinct



Villiers Park - Bird's Eye View



View Looking South at Ice Management Area at Villiers Park



Roads and Public Realm

Project Feedback - Roads

SAC

- **Consider separating different modes of transportation.**
- **Provide familiar street typologies.**
- **Consider environmental conditions.**
- **Accessibility through the park to adjacent neighbourhoods.**
- **Materiality.**

Design Review Panel (01/24)

- Consider spilling the park onto the street and making the plantings more irregular.
- Distribute street elements differently to make the street feel less wide.
- Ensure pedestrians are brought forward with as much thought as vehicles and cyclists.



URBAN

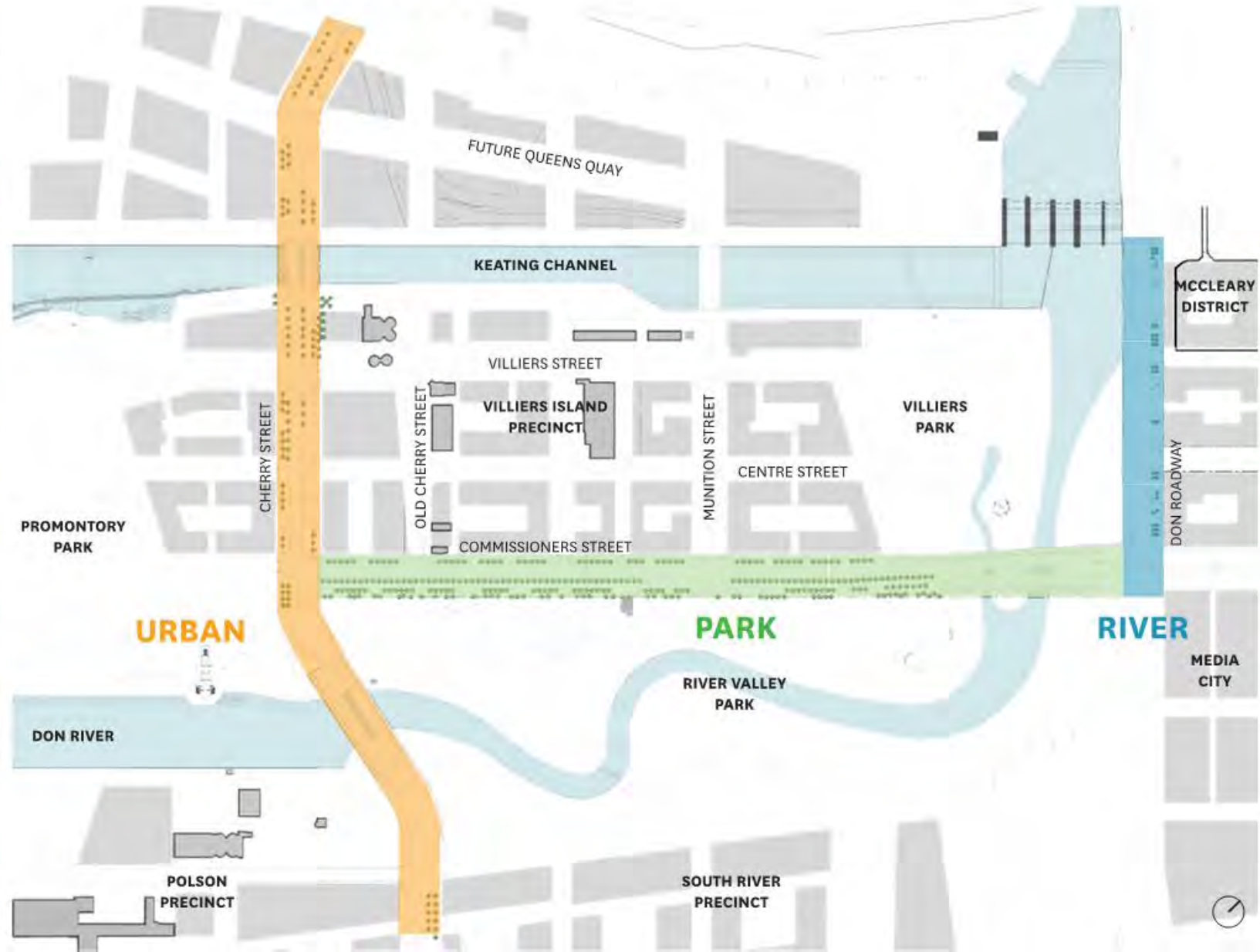


PARK



RIVER

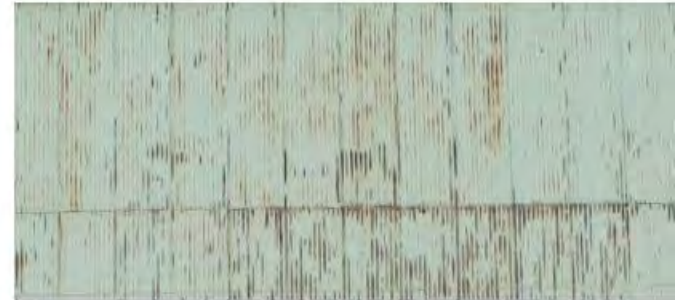
Street Identities



Connecting the Industrial Heritage of the Past...



Existing Cherry St Bridge at Shipping Channel



Materiality of the Site

and the Naturalized Landscape of the Future River



Hunter's Point South Waterfront Park, Queens, NY



Portland, Oregon

Bringing Life to the Street...



Programmed Gathering

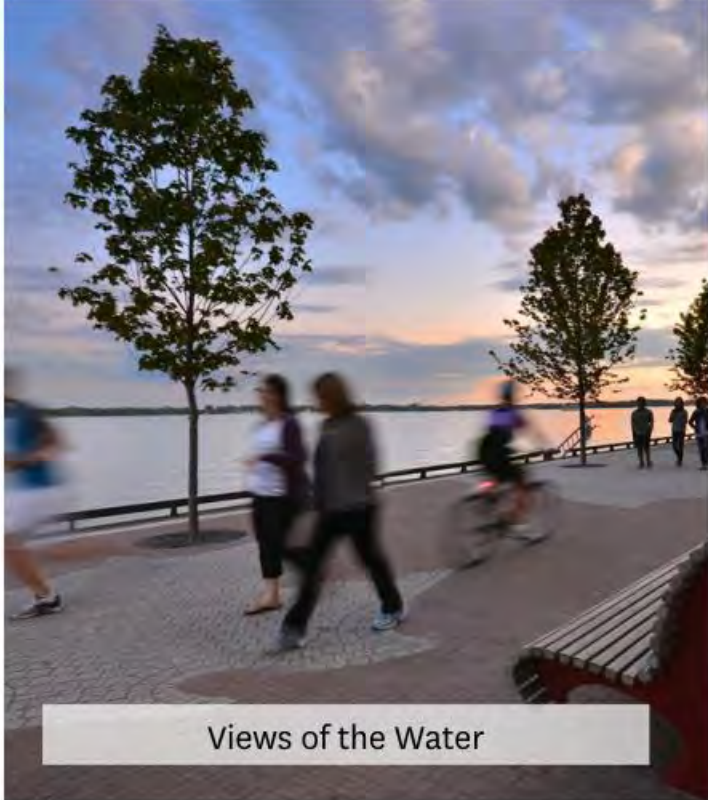


Moving People



Extension of Building Functions

Creating Opportunities for...



Views of the Water

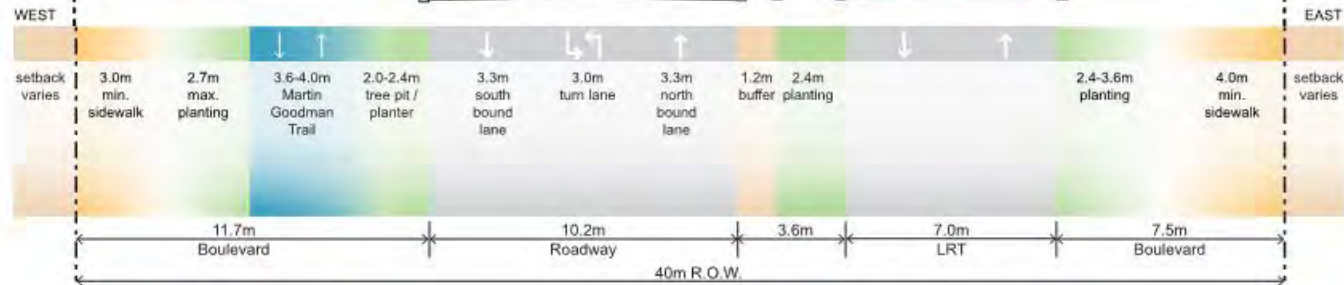


Reconnecting with People



Reconnecting with Nature

New Cherry Street



New Cherry Street

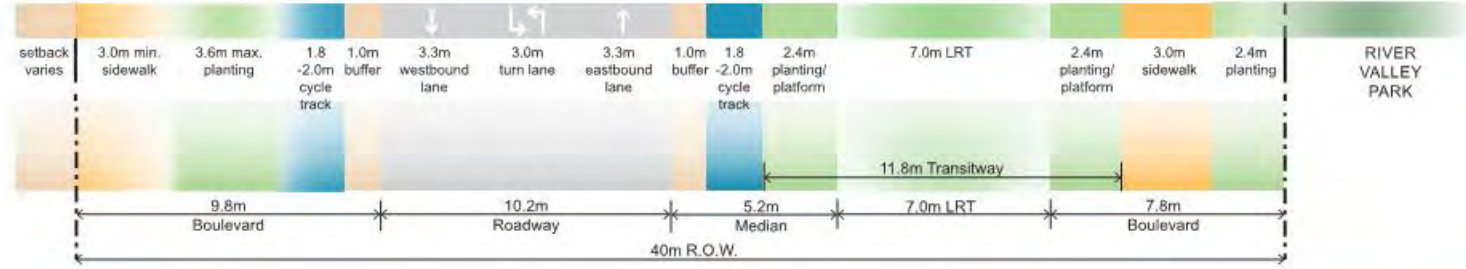


Commissioners Street

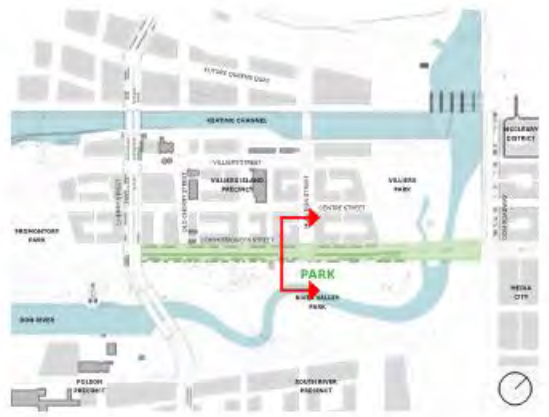


NORTH

SOUTH



RIVER VALLEY PARK



Commissioners Street



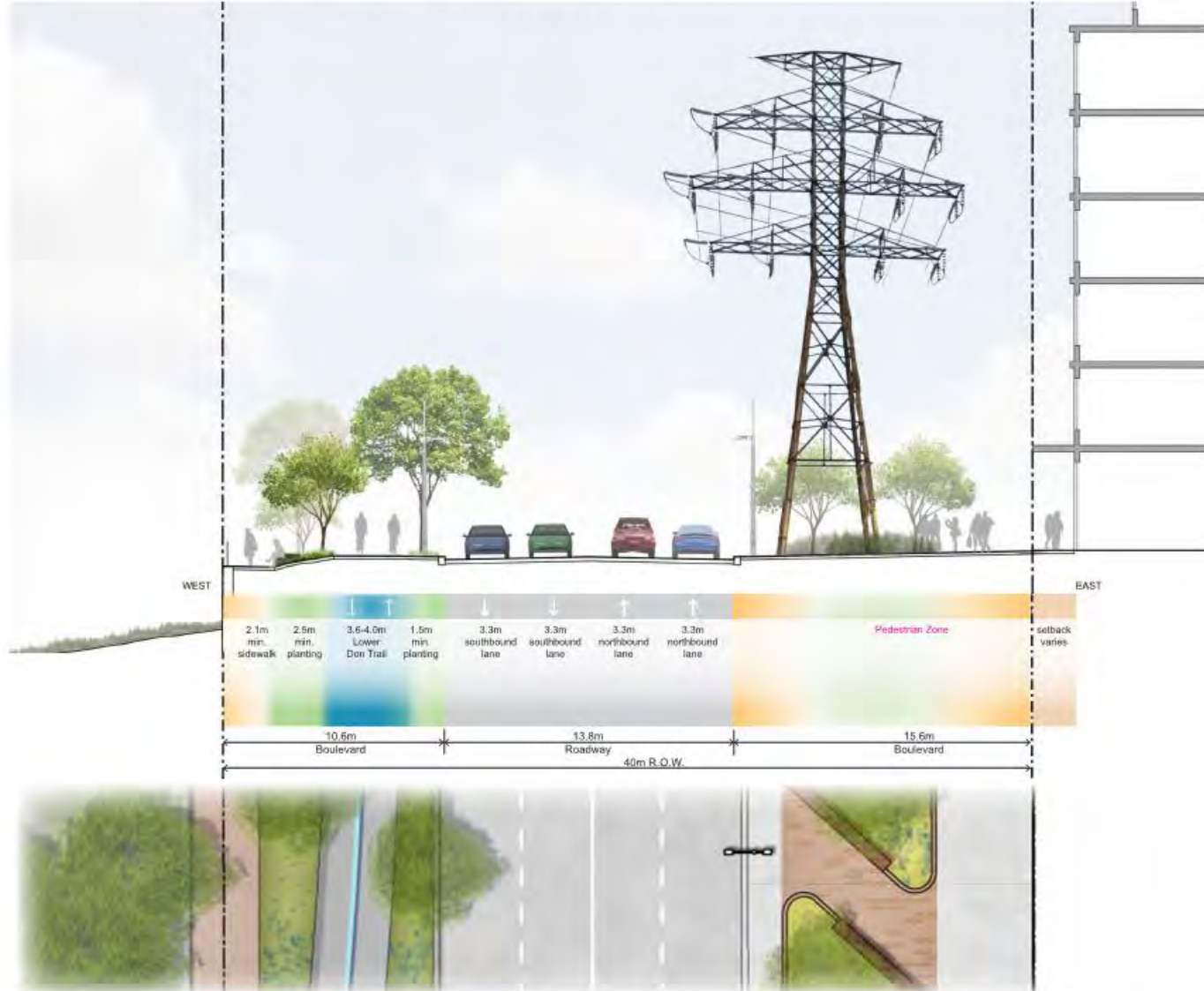
Don Roadway

River Identity

- Enhance expansive open vistas
- Maintain required clearances to existing Hydro One infrastructure
- Provide amenity space for adjacent commercial developments (eg. food trucks at curb side)
- Integrate naturalized planting strategy to reflect a river's edge ecosystem



Don Roadway



Don Roadway



A Collection of Bridges

Project Feedback - Bridges

Design Review Panel (02/21 + 04/18)

- Create an “open” form so as not to obstruct views of the water.
- Develop the bridge form to be elegant.
- Design must consider all components (e.g. light poles, LRT Overhead Contact System)
- Consider how weather affects the people crossing the bridge.

SAC

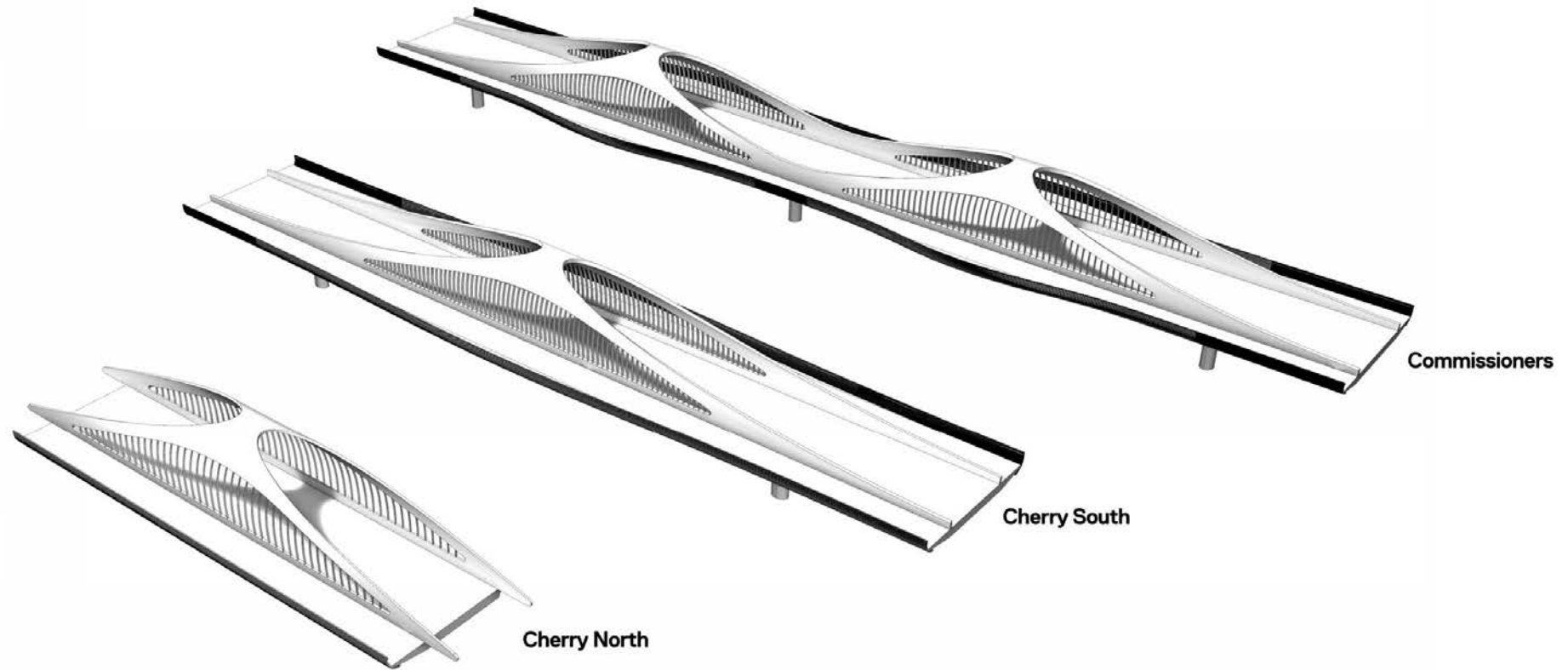
- Access to/from bridges should include stairs and ramps.
- Consider grade separation between pedestrian and cyclists.
- Consider wind breaks for pedestrian comfort.
- Bridge illumination considerations:
 - Restrict lighting of the water (fish habitat.)
 - Consider lighting impact on bird migration.

Full Vision (including funded and unfunded)



- 1. Cherry North
- 2. Cherry South
- 3. Commissioners

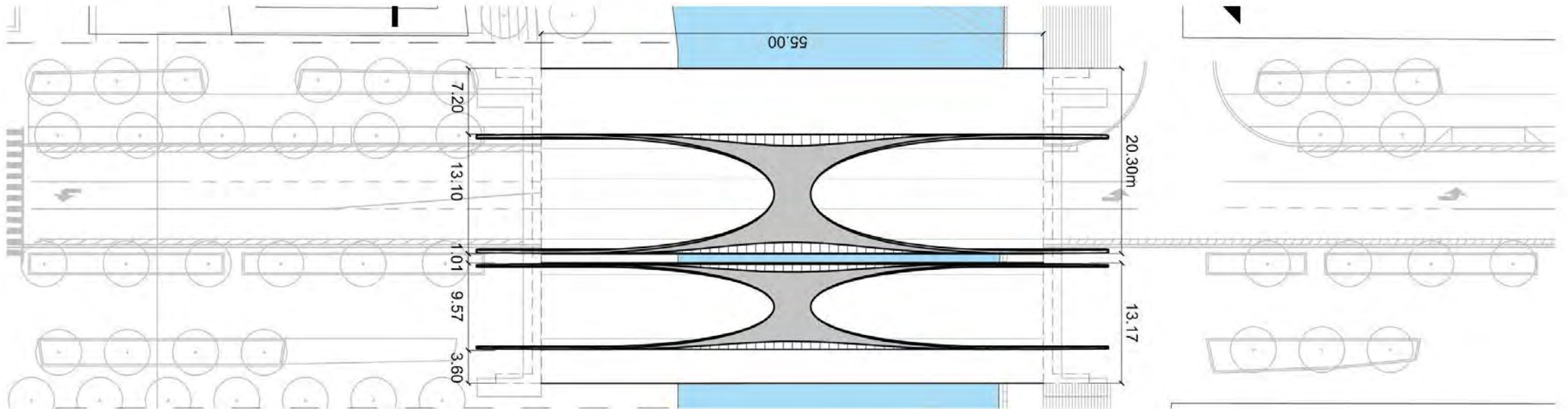
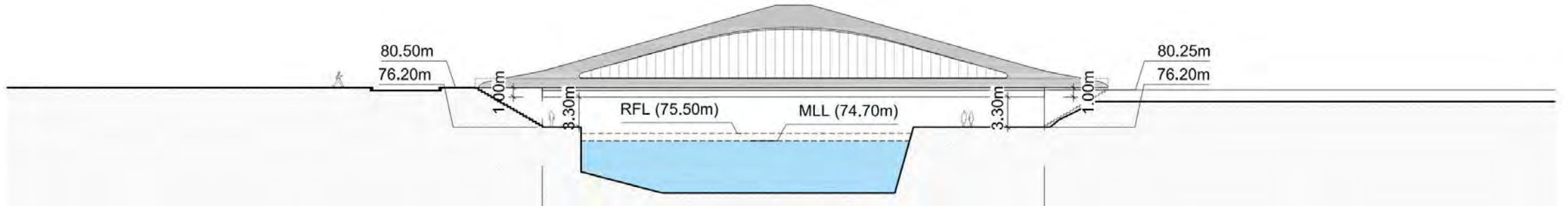
Family of Bridges



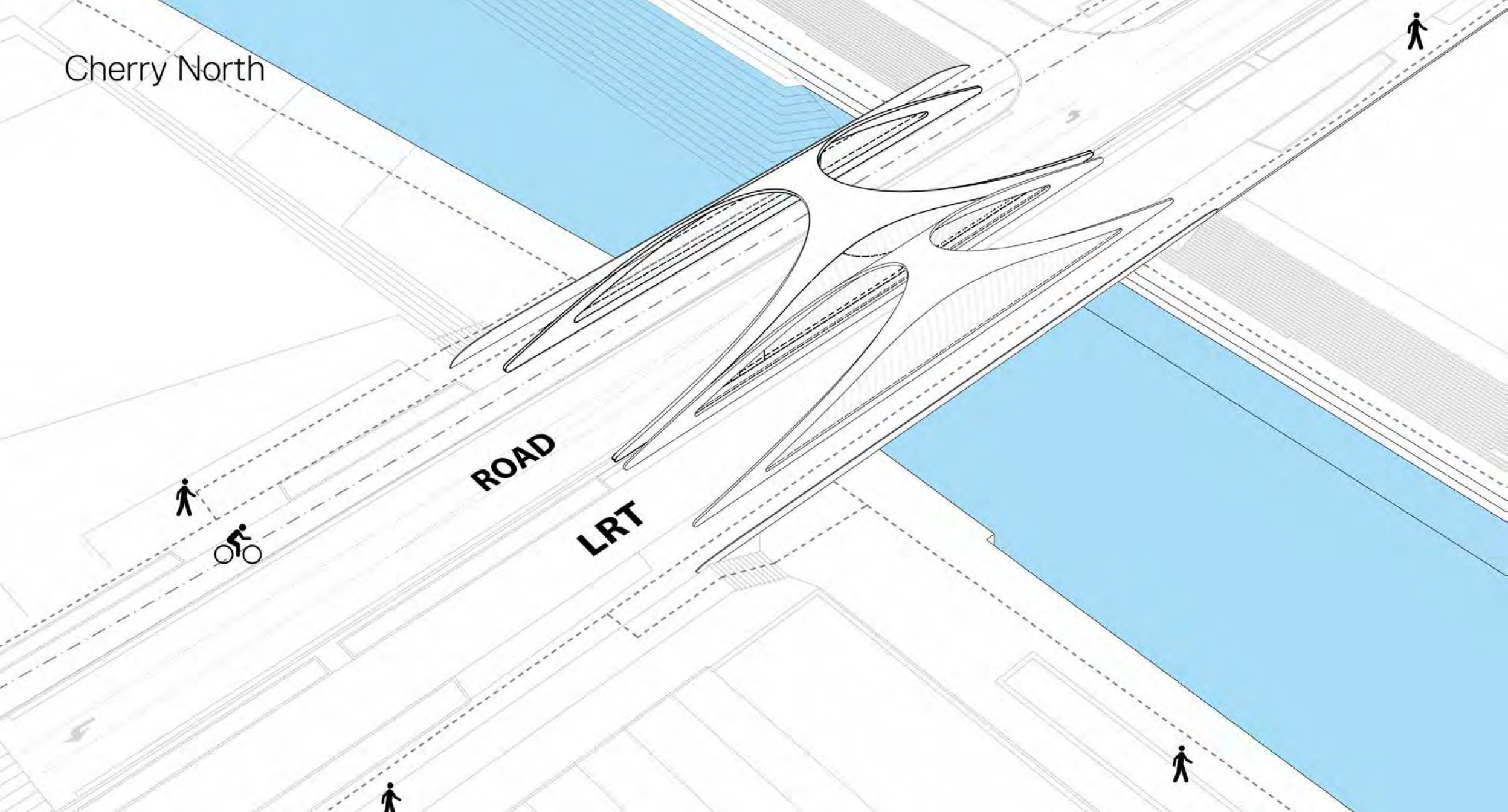


Cherry North Bridge

Cherry North



Cherry North

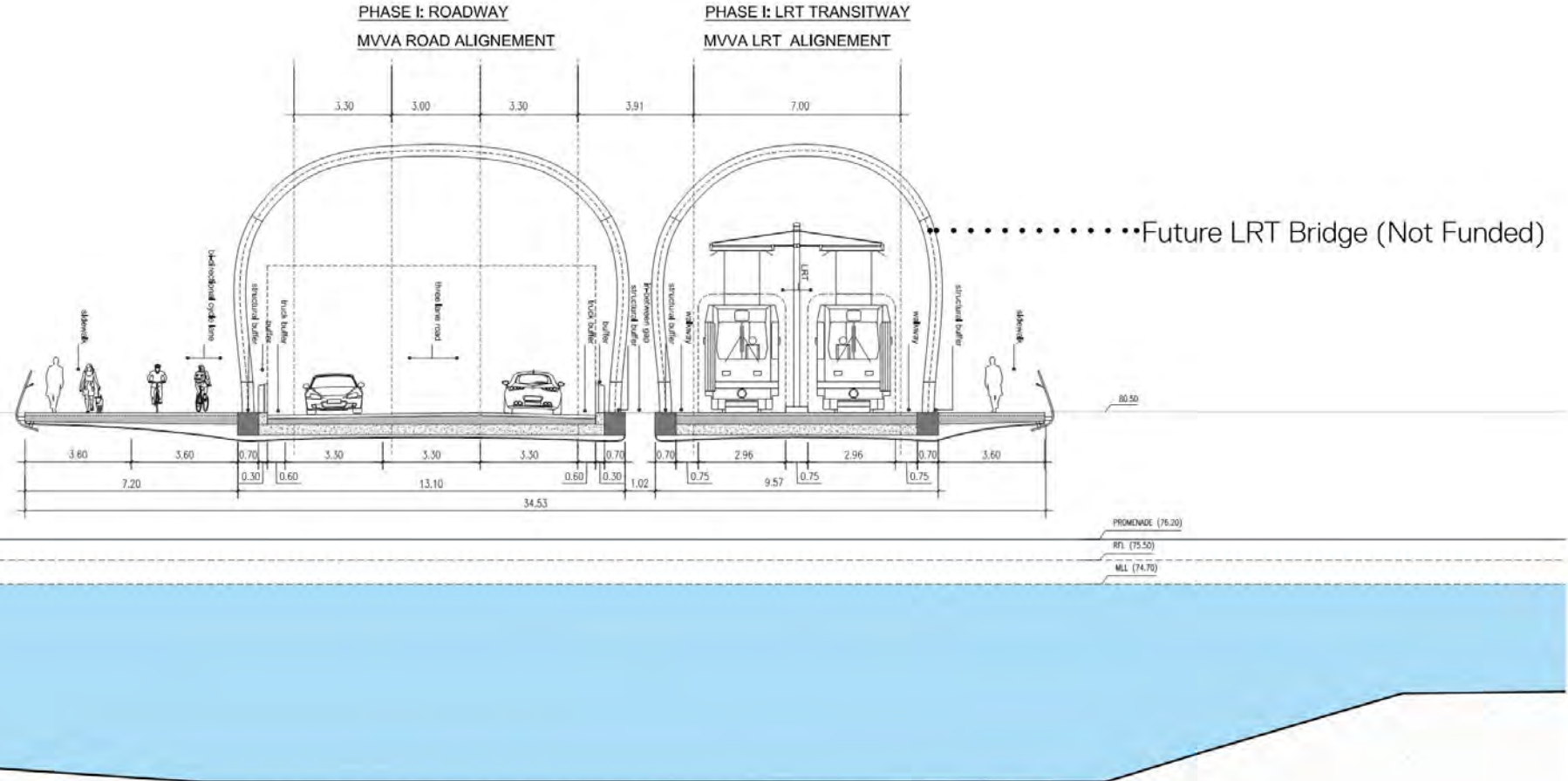


ROAD

LRT



Cherry North



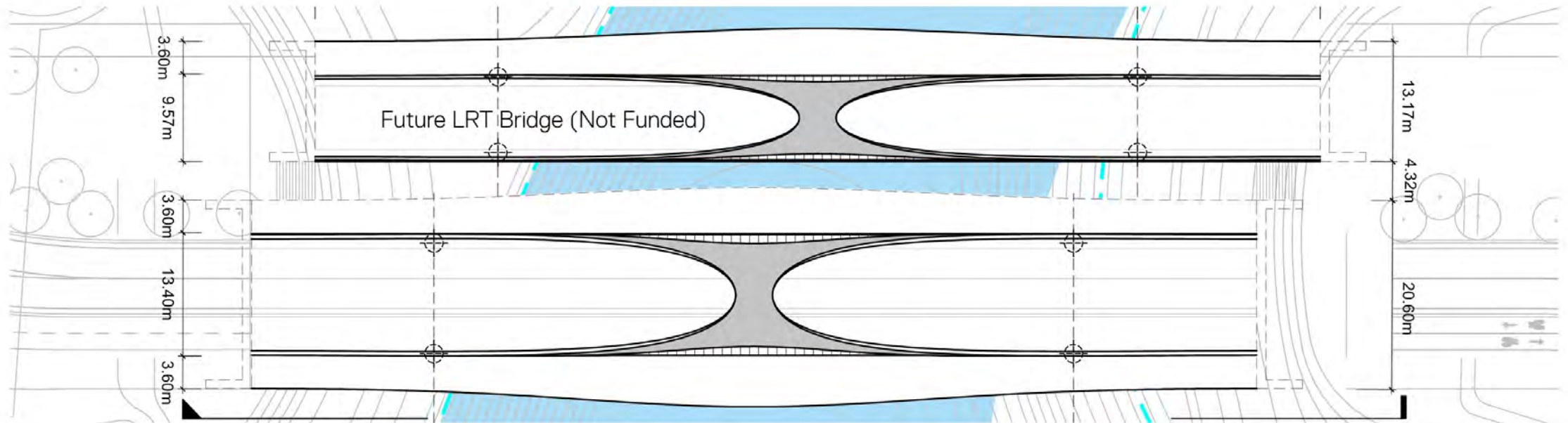
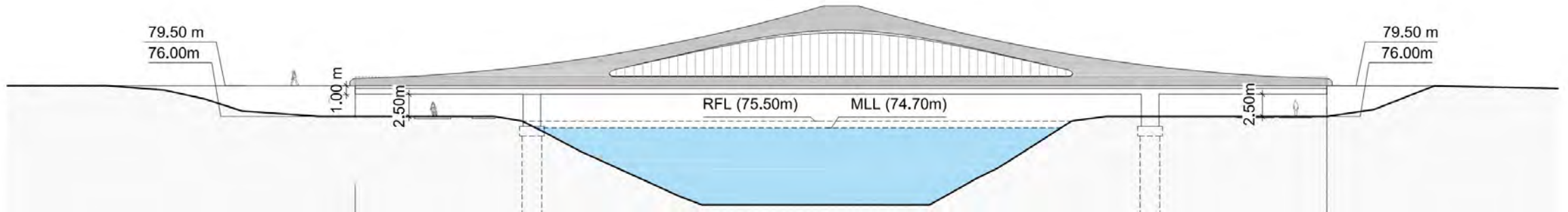
Cherry North
View from Keating Channel Promenade





Cherry South Bridge

Cherry South



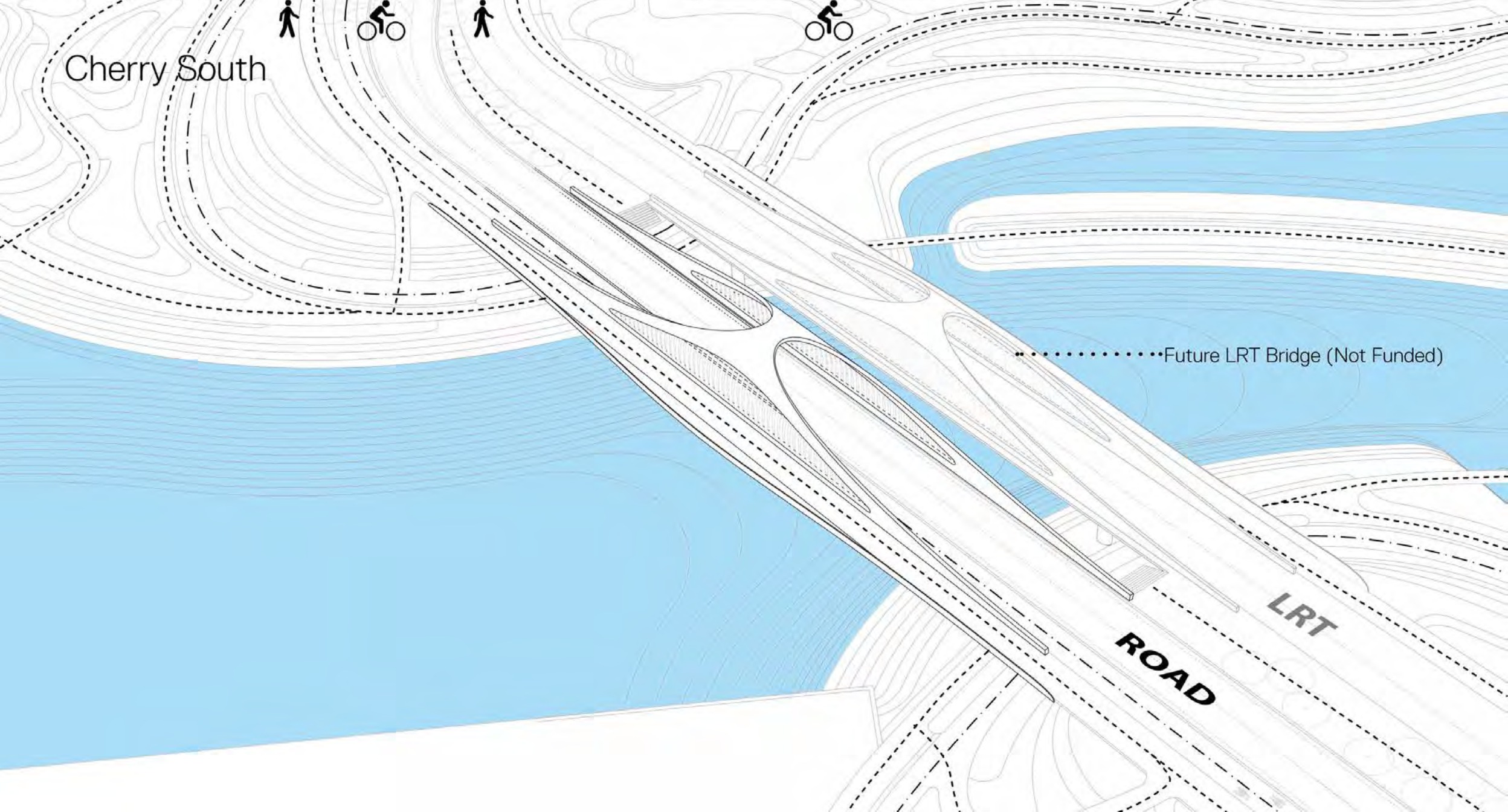
Cherry South



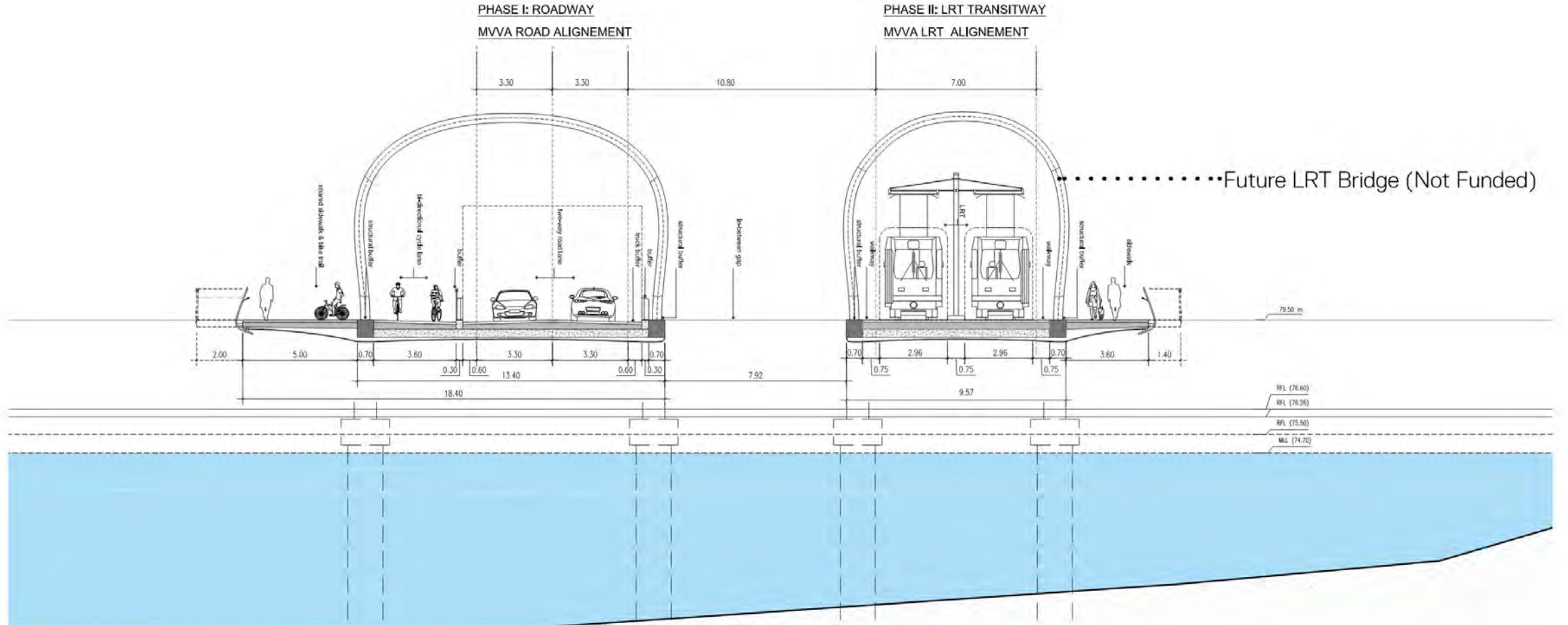
.....Future LRT Bridge (Not Funded)

ROAD

LRT



Cherry South



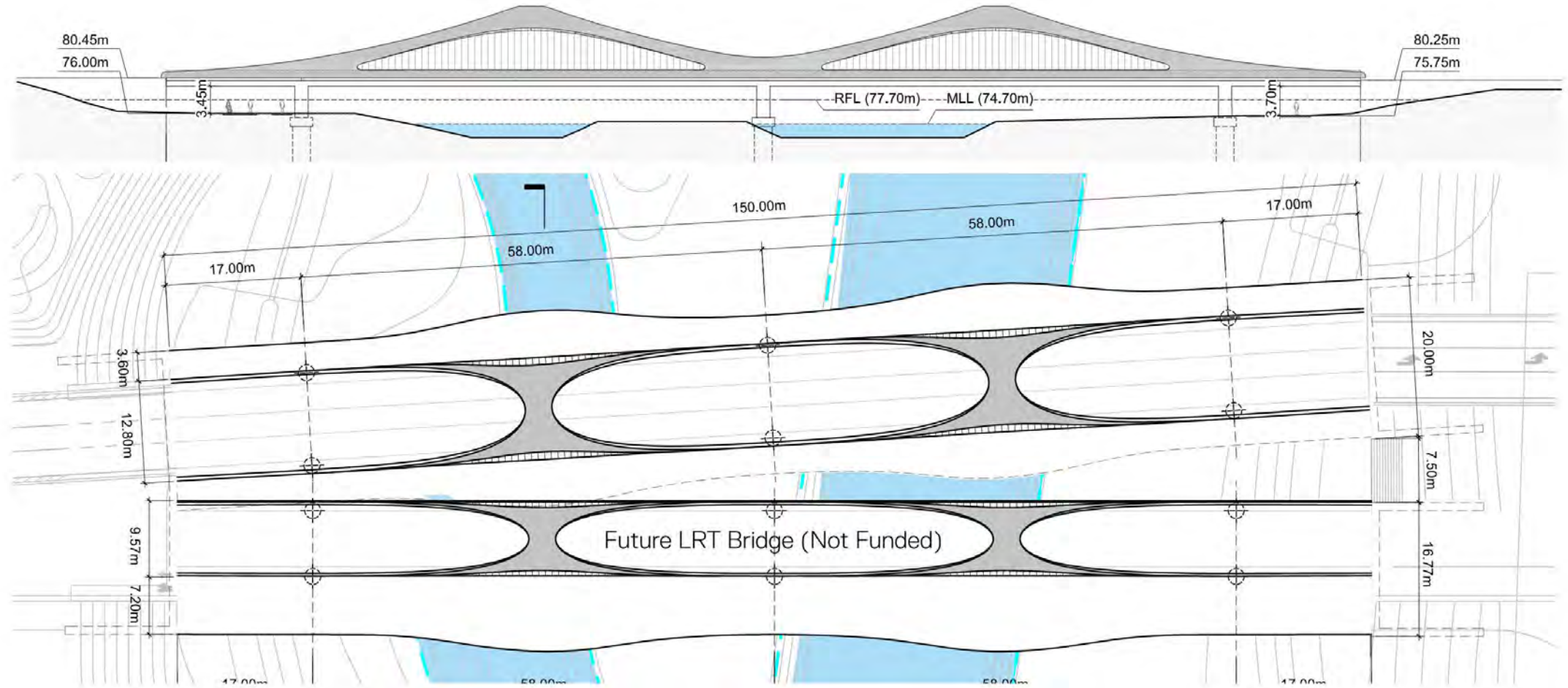
Cherry South
View from River Valley Park



An architectural rendering of the Commissioners Bridge, featuring a modern, curved design with a white, ribbed upper section and a dark, cylindrical lower section. The bridge is supported by several thick, white, cylindrical pillars. In the background, a city skyline with various rectangular buildings is visible under a cloudy sky. The foreground shows a grassy area with some people walking and a person riding a bicycle.

Commissioners Bridge

Commissioners



Commissioners

Future LRT Bridge (Not Funded)

ROAD

LRT

Commissioners
View from River Valley Park



..... Future LRT Bridge
(Not Funded)

Furniture Studies



