

Port Lands Flood Protection & Enabling Infrastructure Detailed Design 60%

Waterfront Toronto Design Review Panel:
Third Submission

26 September 2018

WSP • DTAH

Design Review Panel Comments

18 April 2018

Ensure that the plan is forward thinking in terms of where the traffic will naturally go and where car parking will be accommodated during the transition phases.

Parking needs accommodated on private sites. No on-street parking provided. PU/DO accommodated on Commissioners and local streets. Concept to support AV future.

Ensure pedestrians are brought forward with as much thought as vehicles and cyclists.

Safety for vulnerable users top priority.

Think about the opportunity to economize with the streets by minimizing some of the plantings to integrate larger development parcels, give more space to the park or just make the street easier to cross.

*ROW is set by Policy + Design Framework.
Crossings of roadway informed by narrow lanes.
Further narrowing possible with AV future.*

Community Consultation Feedback

18 July 2018

Support for physical separation between vehicles, pedestrians and cyclist with preference for taller planters.

Types of separation will have to consider accessibility and visibility.

Preference for bicycle lanes at same level with roadway and separated by a curb.

Variety of physical separation between cyclists and other users. Details informed by context and transportation function.

Port Lands Streets: Introduction

Policy Framework

Project Objectives

Street Context

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Policy Framework: Setting the Stage



Central Waterfront
Secondary Plan
2003



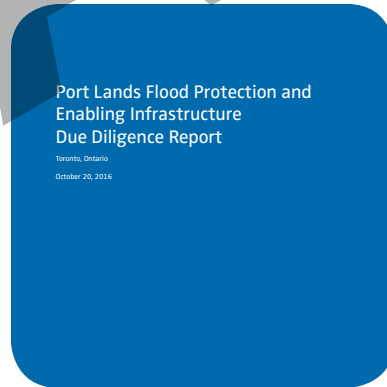
Design Competition
"Port Lands Estuary"
May 2007



Keating Channel
Precinct Plan
May 2010



Port Lands
Acceleration Initiative
September 2012



Port Lands FPEI Due
Diligence Report
October 20, 2016



Port Lands
Planning Framework
September 2017

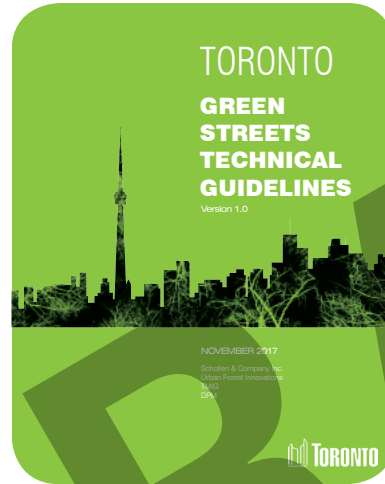


Villiers Island
Precinct Plan
September 2017

Policy Framework: Leading Edge



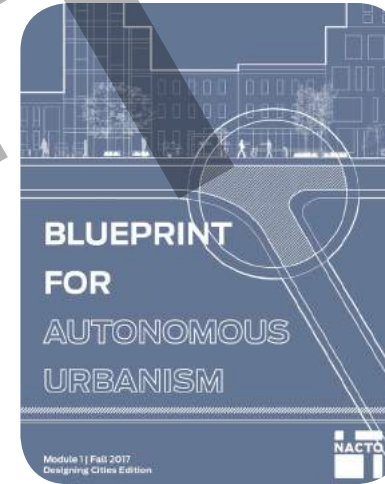
Toronto Complete Streets Guidelines
January 2017



Toronto Green Streets Guidelines
November 2017



WT Resilience + Innovation Framework for Sustainability
May 31, 2017



Blueprint for Autonomous Urbanism [NACTO]
Fall 2017

The Port Lands: 21st Century Toronto

Streets designed for People, Placemaking, and Prosperity.

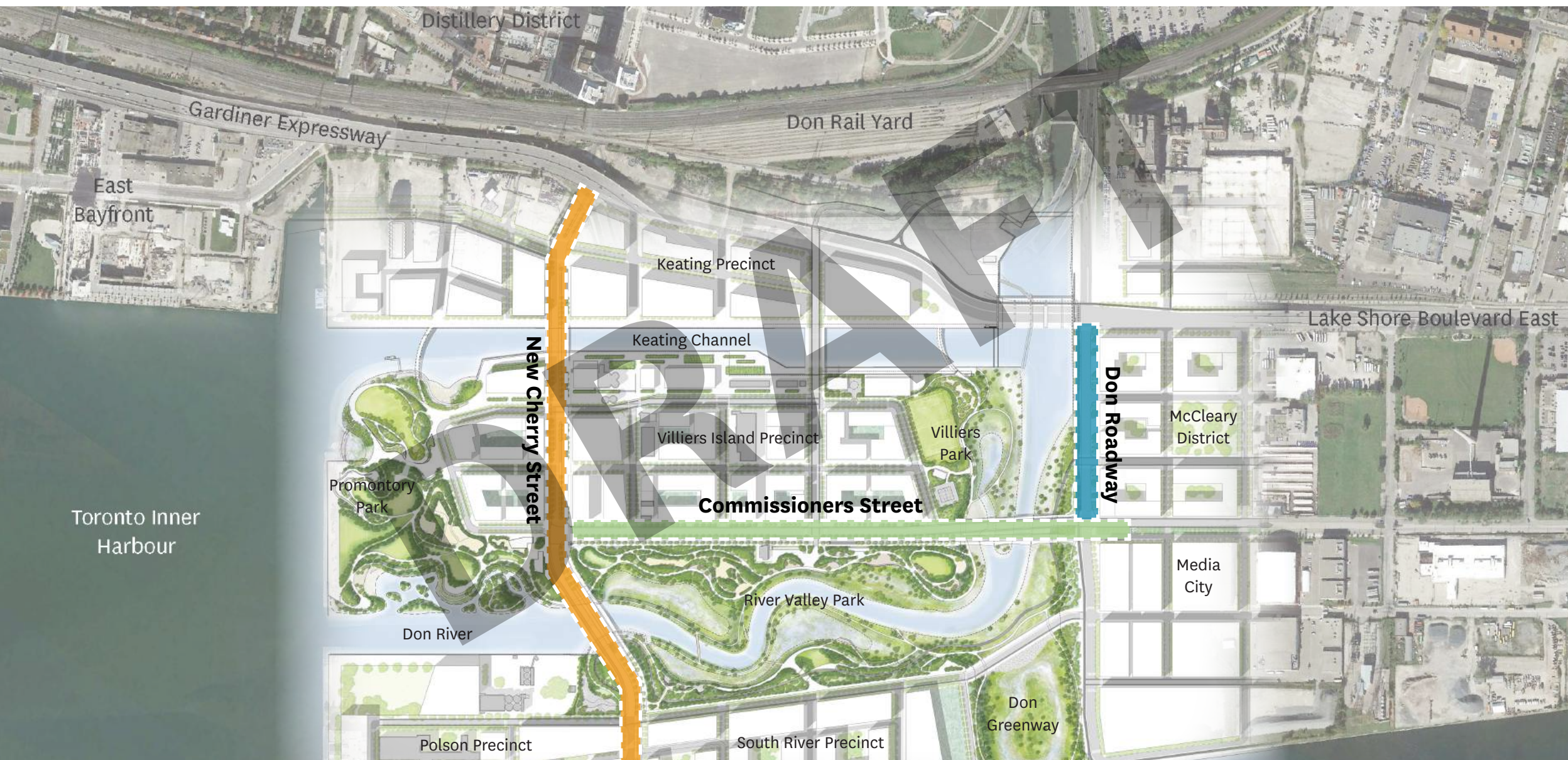
Streets for the Port Lands are safe and equitable for all road users that promote a high quality of life with enhanced mobility.

Streets for the Port Lands are sustainable and resilient, addressing the needs of today and ready for what the future may bring.

Streets for the Port Lands are important public spaces that are vital, vibrant, and beautiful—supporting the users and uses that help to define them.

Streets for the Port Lands are efficient, flexible, adaptable, cost effective, and a model for streets throughout the City of Toronto.

Three Streets for the Port Lands



Distillery District

Gardiner Expressway

East Bayfront

Don Rail Yard

Keating Precinct

Keating Channel

Villiers Island Precinct

Villiers Park

Commissioners Street

Promontory Park

River Valley Park

Don River

Don Roadway

McCleary District

Lake Shore Boulevard East

Media City

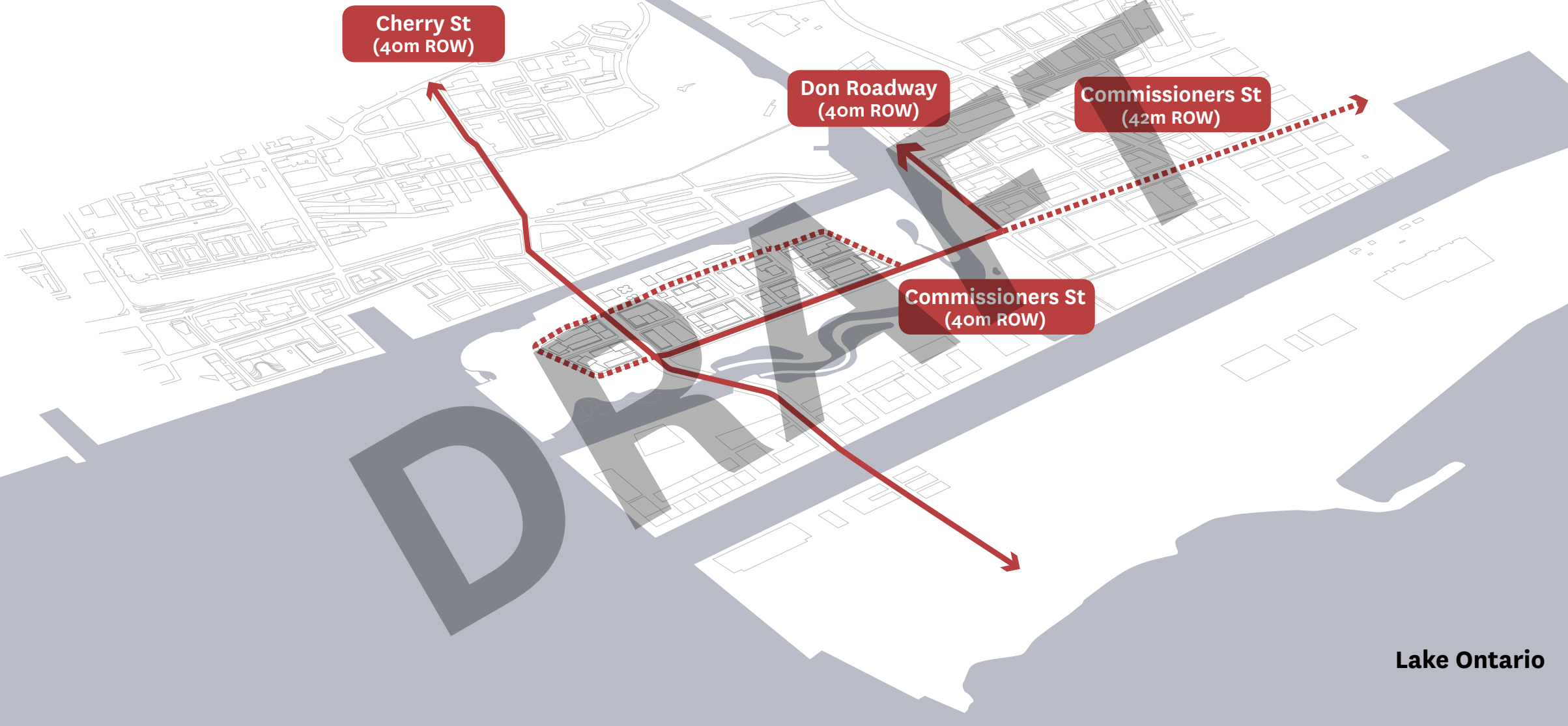
Toronto Inner Harbour

Polson Precinct

South River Precinct

Don Greenway

Three Streets: Available Space (Public ROW)



Lake Ontario

Three Streets: Link (Transportation Function)

Link To City Mainland + Port Lands Destinations
High Volume of Users
Multi-Modal Transportation Network
Goods + Services Movement





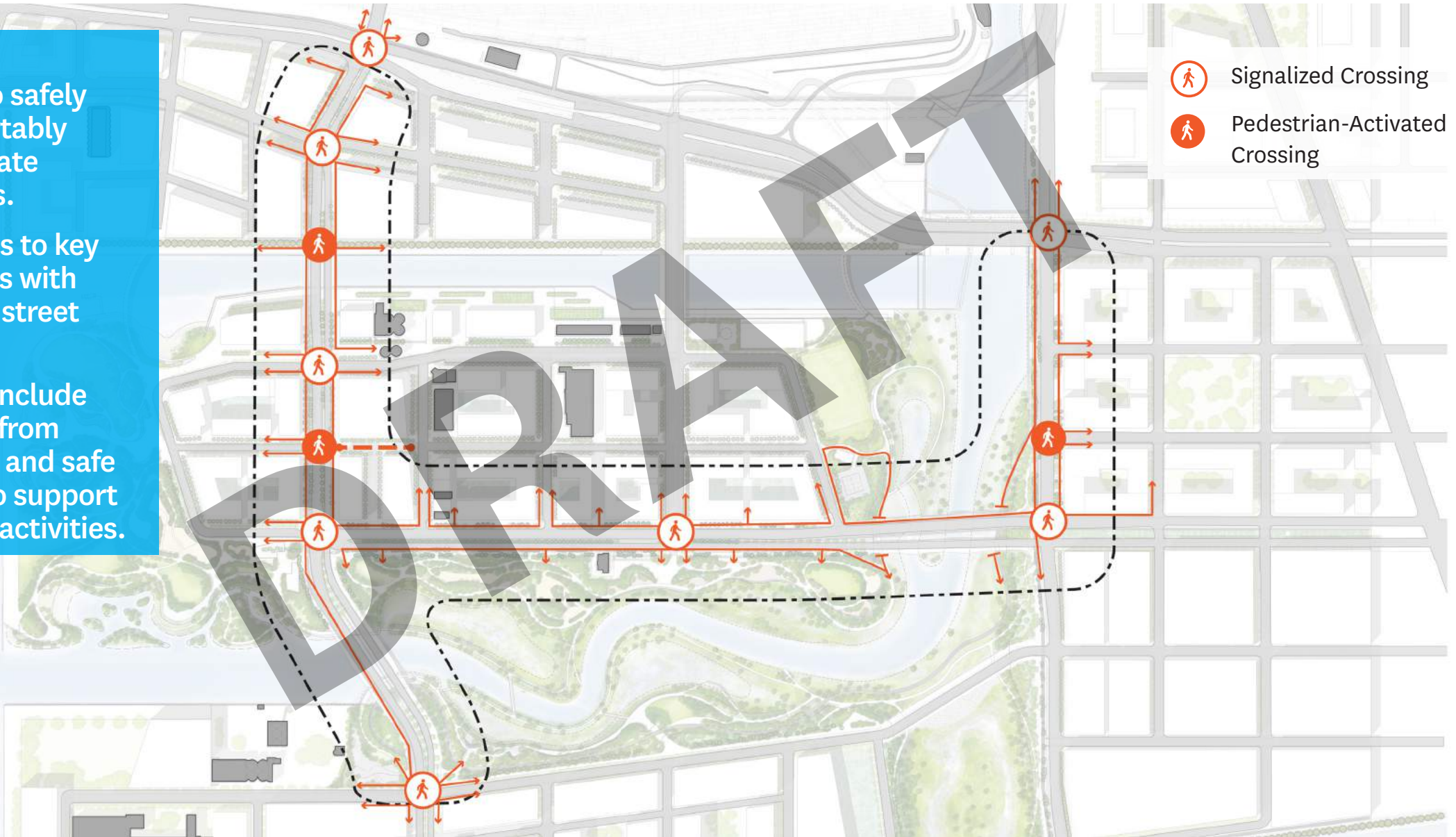
Pedestrian Network

All streets designed to safely and comfortably accommodate pedestrians.

Connections to key destinations with convenient street crossings.

All streets include separation from other users and safe crossings to support pedestrian activities.

-  Signalized Crossing
-  Pedestrian-Activated Crossing








Cycling Network

Connections to Martin Goodman Trail, Lower Don Trail, Lake Shore Trail, and broader existing + planned on-street and of-street City infrastructure.

All streets designed to safely accommodate cycling with physical separation from other users.







-  Bike Share Station
-  Bike Comfort Station
-  Multi-Use Trail
-  Unidirectional Protected Cycle Track
-  Sharrow

Transit Network

Cherry and Commissioners are part of the broader surface transit network within dedicated rights-of-way.

Connected to Queens Quay, King Street via the West Don Lands, and to the future Broadview extension through the South of Eastern and PIC Precincts.



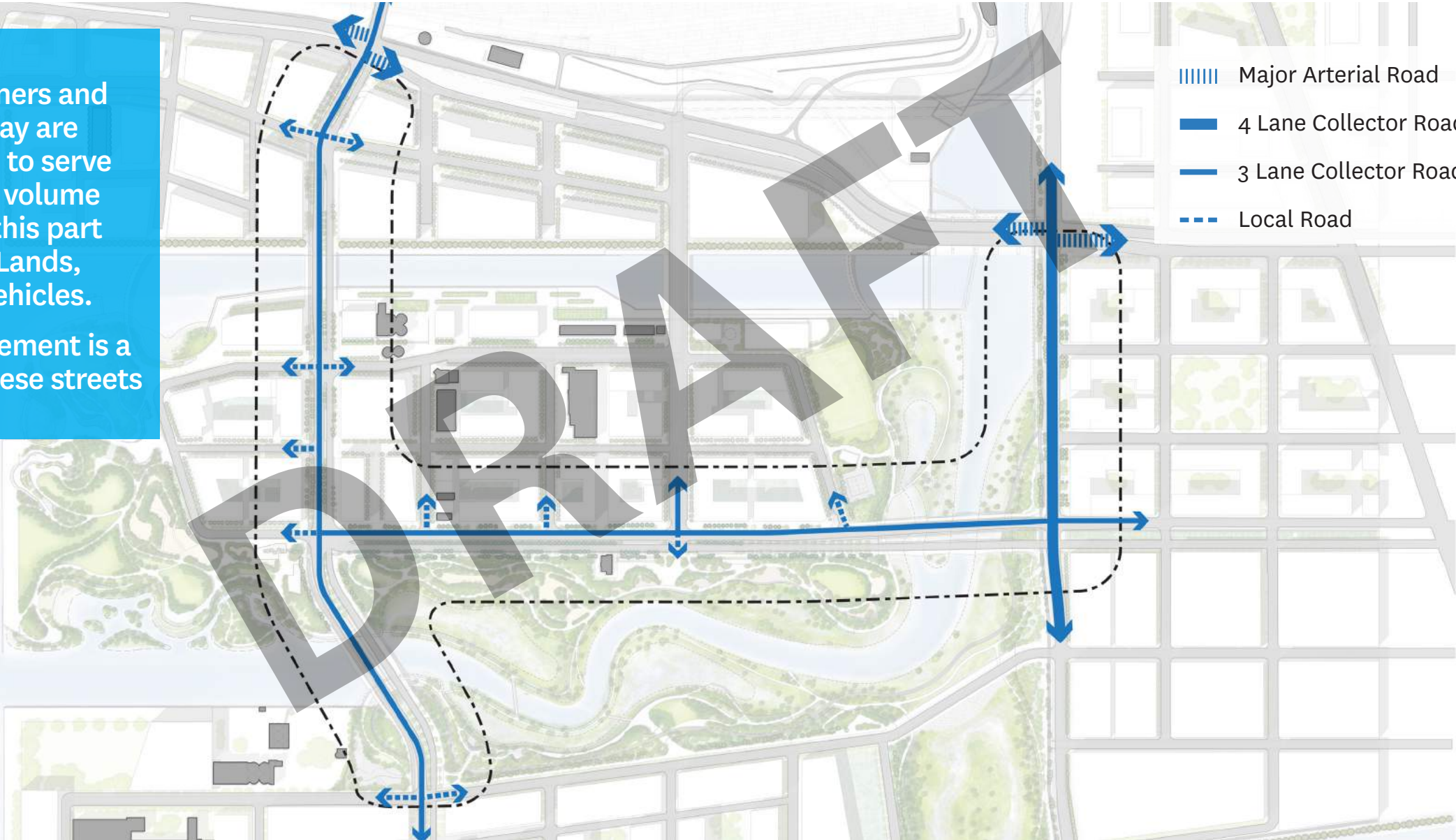
-  Transit Stop
-  Proposed Cherry Street LRT Route
-  Future Cherry Street LRT Extension
-  Future Queens Quay East LRT Extension

Vehicles and Goods Movement Network

Cherry, Commissioners and Don Roadway are anticipated to serve the highest volume of users in this part of the Port Lands, including vehicles.

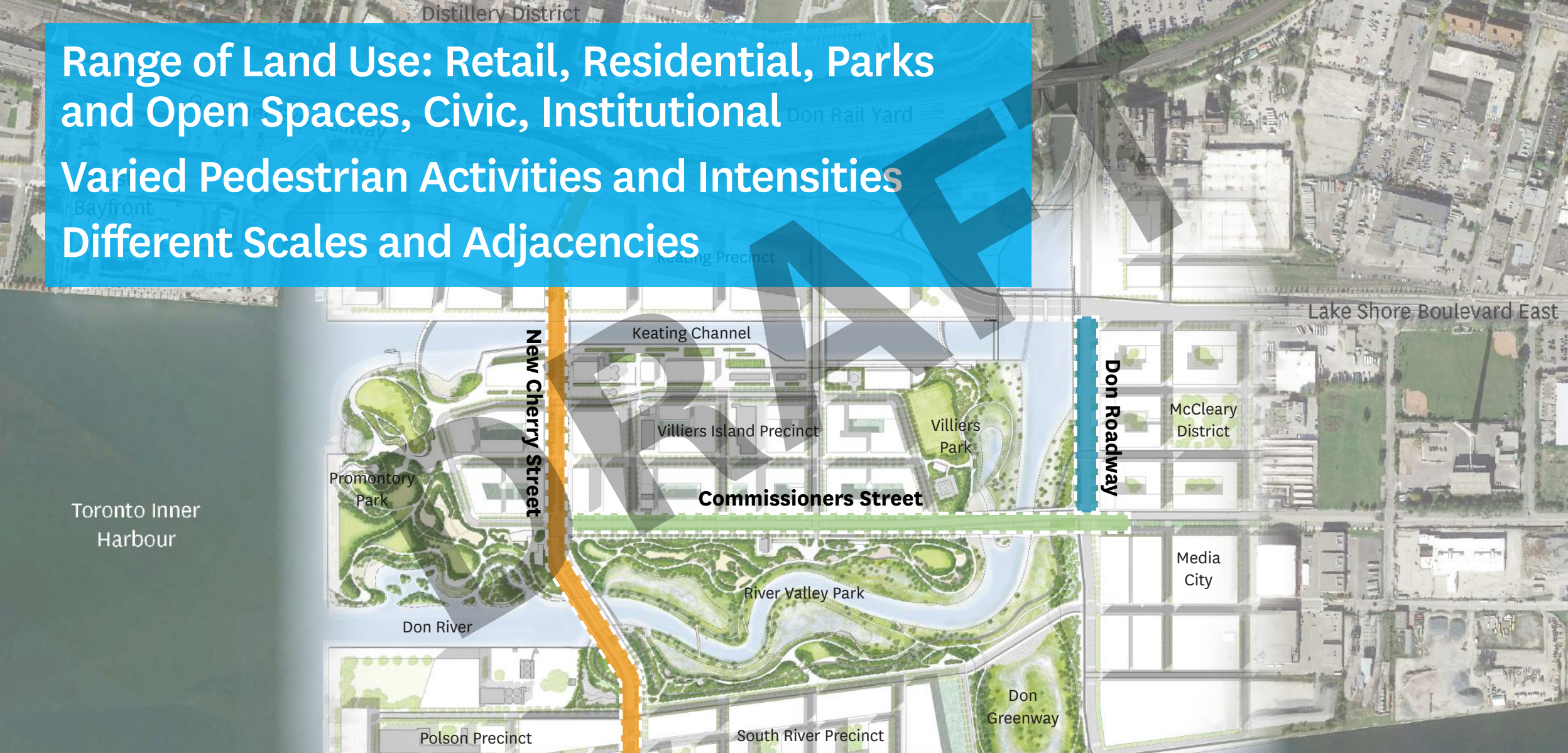
Goods movement is a vital role these streets will serve.

- ||||| Major Arterial Road
- 4 Lane Collector Road
- 3 Lane Collector Road
- - - Local Road

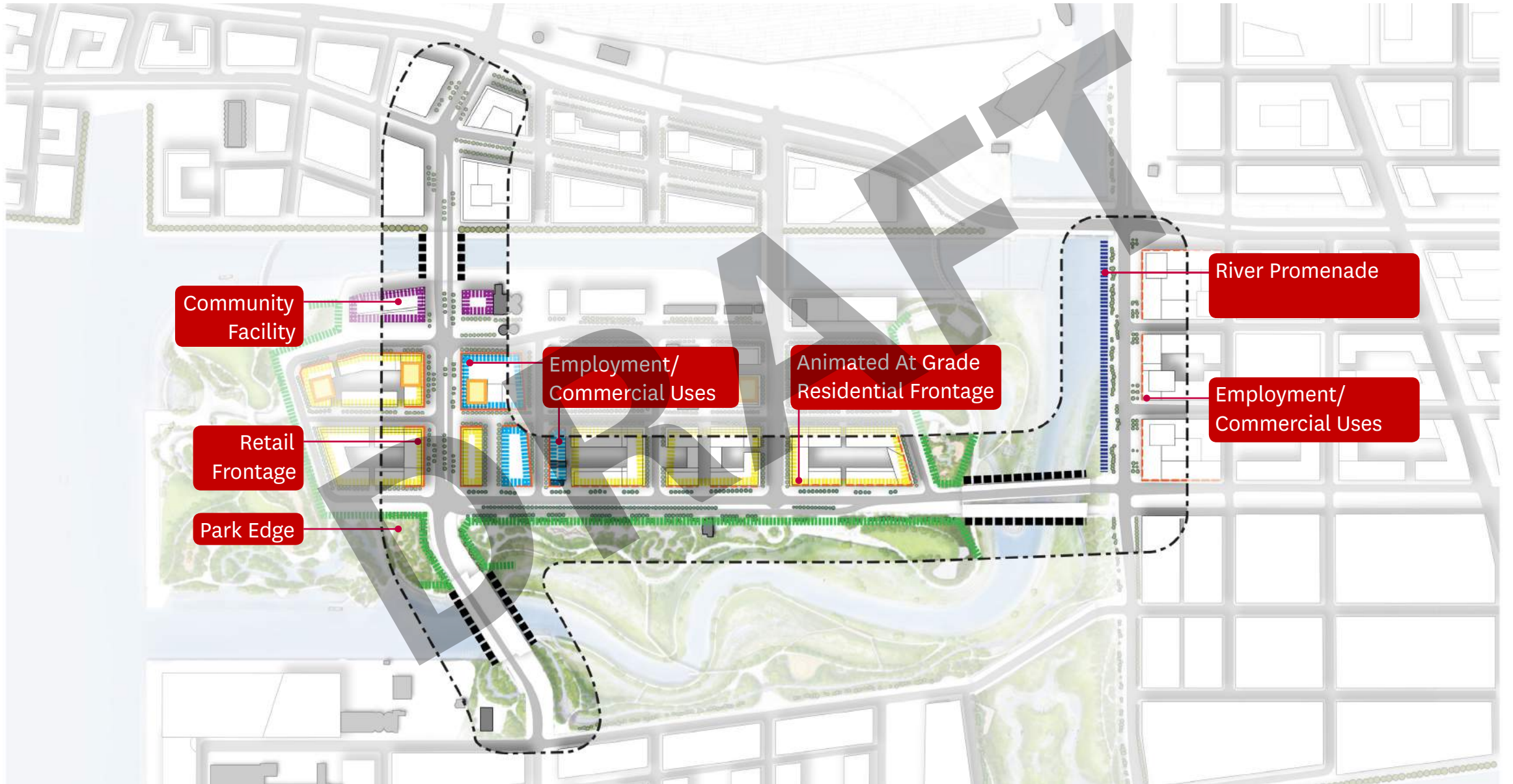


Three Streets: Place (Land Use Context)

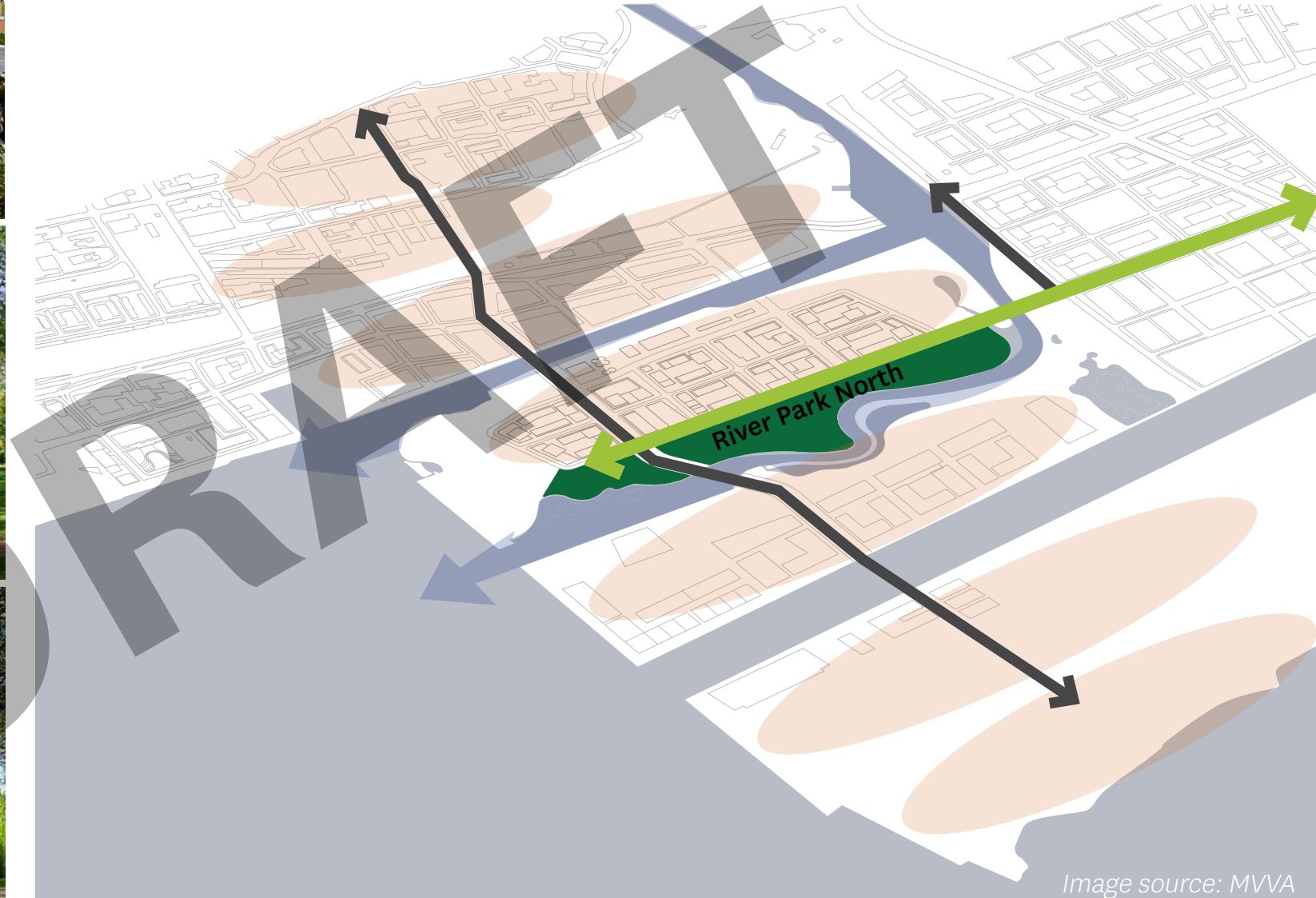
Range of Land Use: Retail, Residential, Parks and Open Spaces, Civic, Institutional
Varied Pedestrian Activities and Intensities
Different Scales and Adjacencies



Frontages: Uses at Grade



Commissioners Street: The Neighbourhood + Park Edge



Don Roadway: A New River Threshold

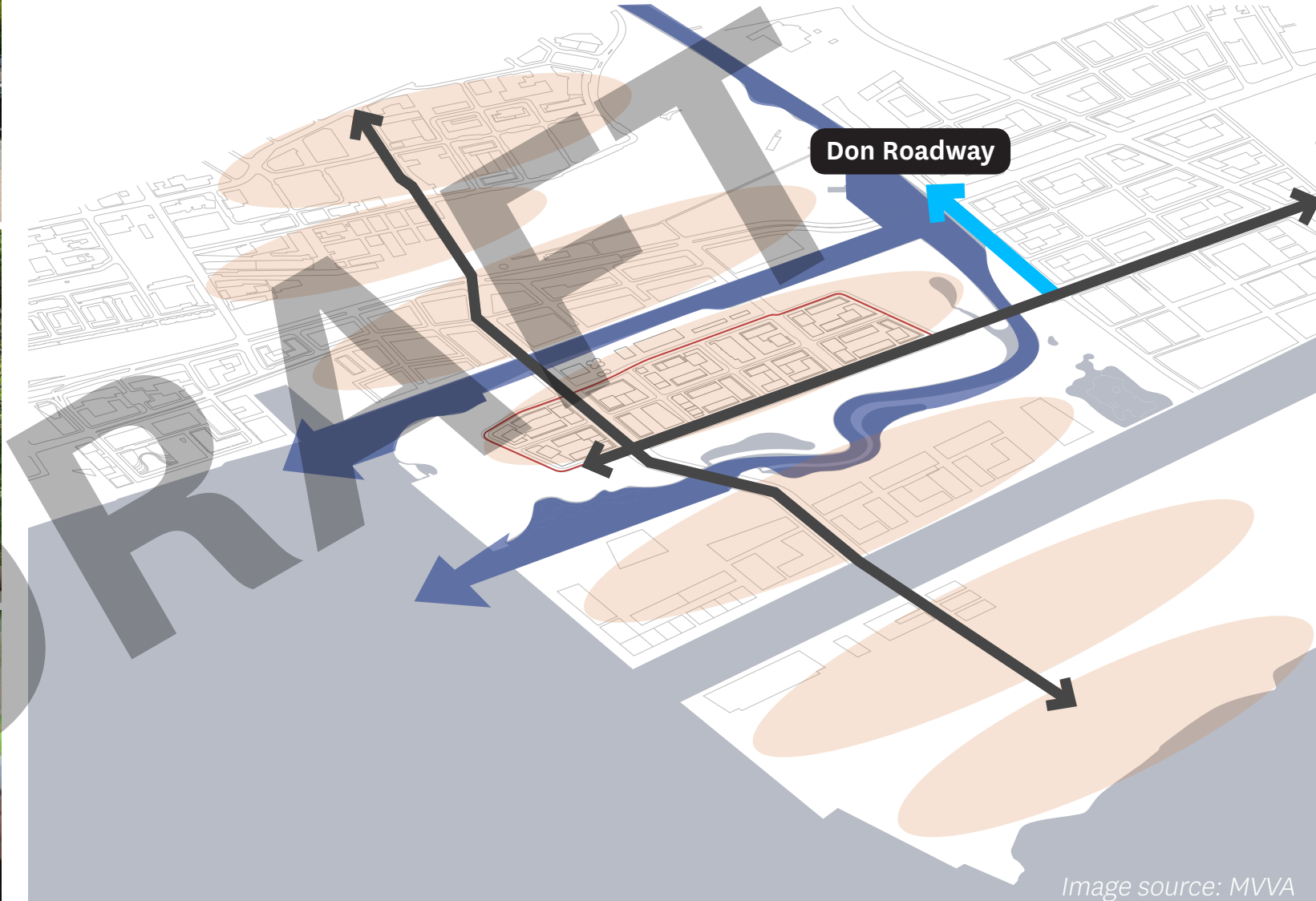


Image source: MVVA

Cherry Street: Connecting the City to the Port Lands

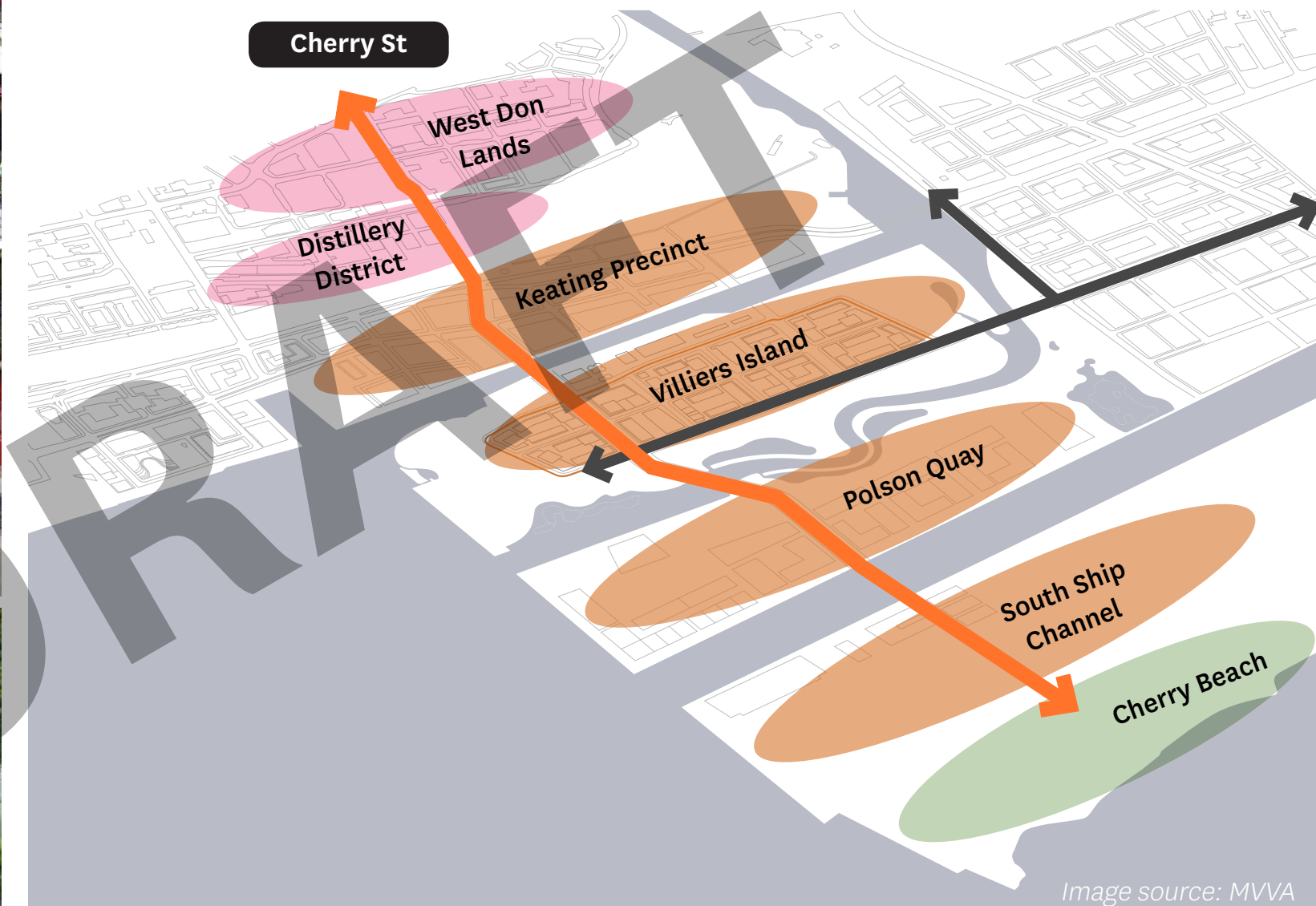


Image source: MVVA

**A Design Vision for
Three Streets**

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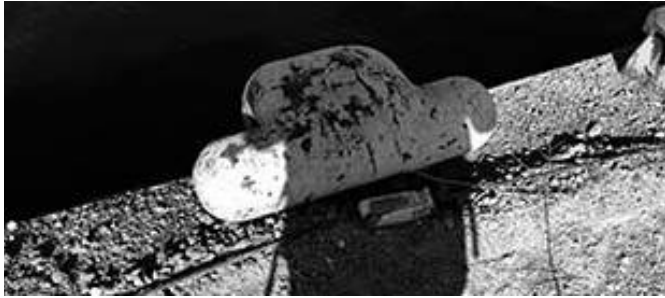
Vision/Big Idea

A new community defined by landscape and natural process; the resuscitation of the river forming a framework for a new part of the city, allowing for the succession of place from pioneer to maturity.

All this leads to streets that can learn and evolve, promoting a different kind of urban street that is informed by natural systems, streets that are smart and adaptable for today and tomorrow.



Inspired by the Industrial Heritage of the Port Lands...



...and the Naturalized Landscape of the Future River.



Bringing People to the Street...



Programmed Gathering

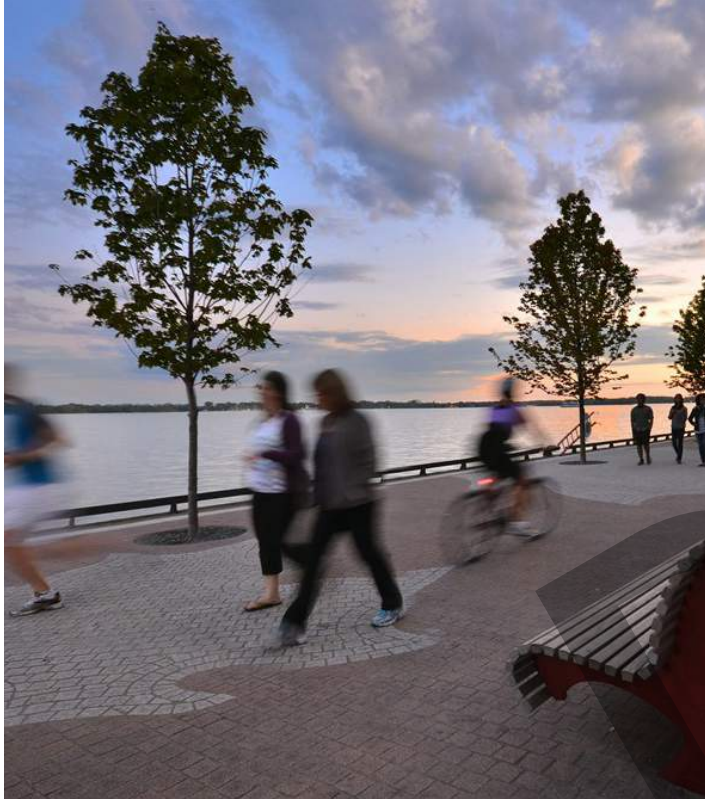


Active + Efficient Movement



Extension of Building Functions

...and Creating Opportunities for Public Life in a Transformative New Community.



Views of the Water



Reconnect with Others



Reconnect with Nature

Commissioners Street
The Port Lands Parkway

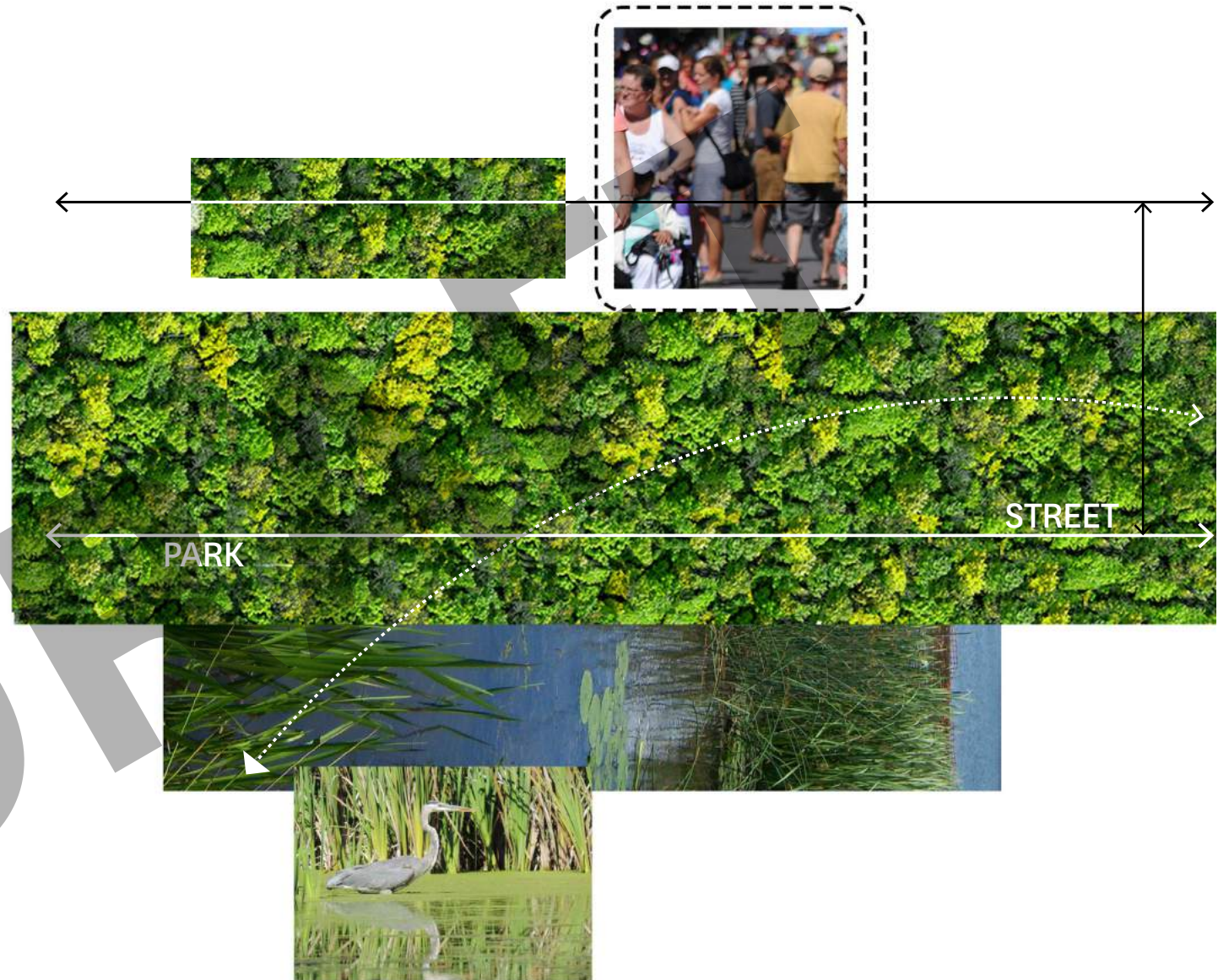
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Commissioners Street

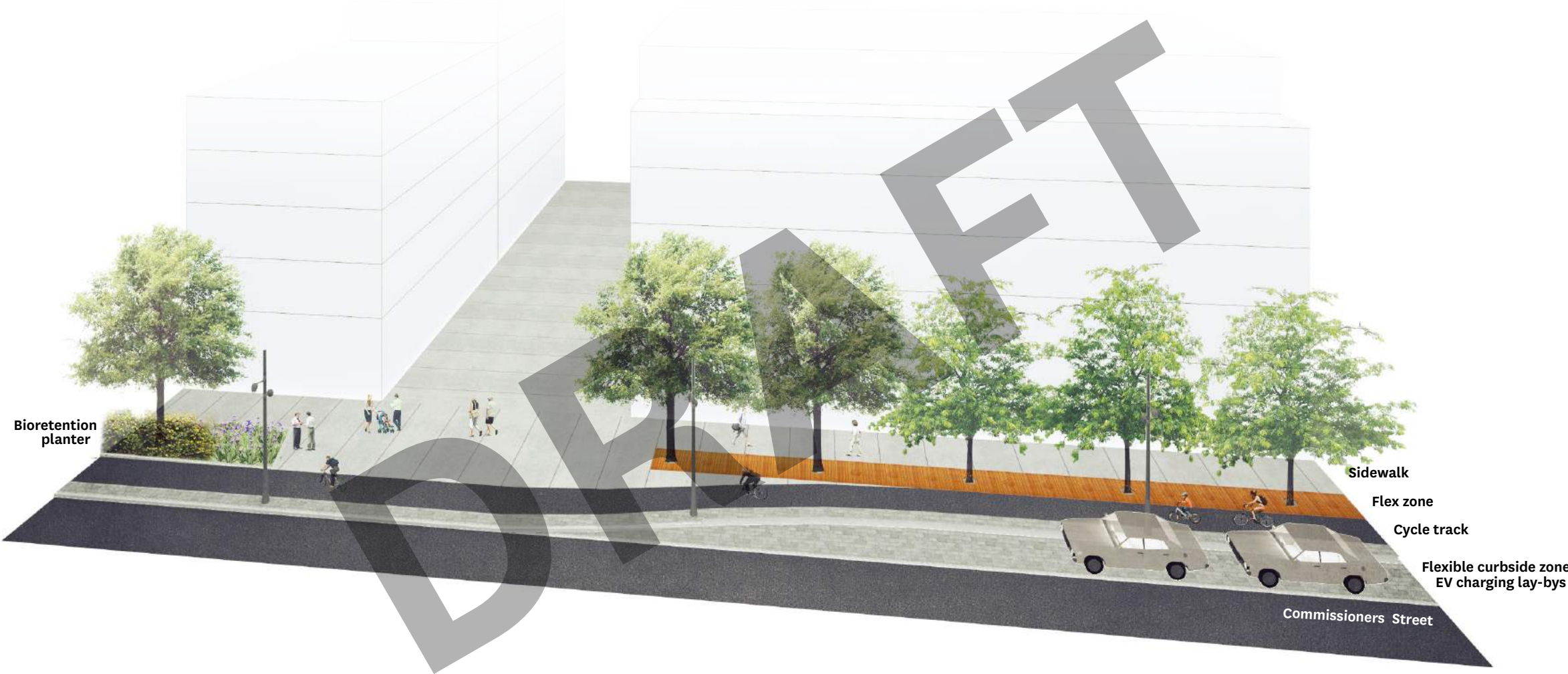
The River Valley Park has a strong influence on the arrangement and design vocabulary for this asymmetrical street.

The sequence of spaces along the street is more linear with a large expansive tree canopy dominating the street experience.

The north side is active and urban while the south affords all users a more green and relaxed character.



Commissioners Street: north side



Bioretention planter

Sidewalk

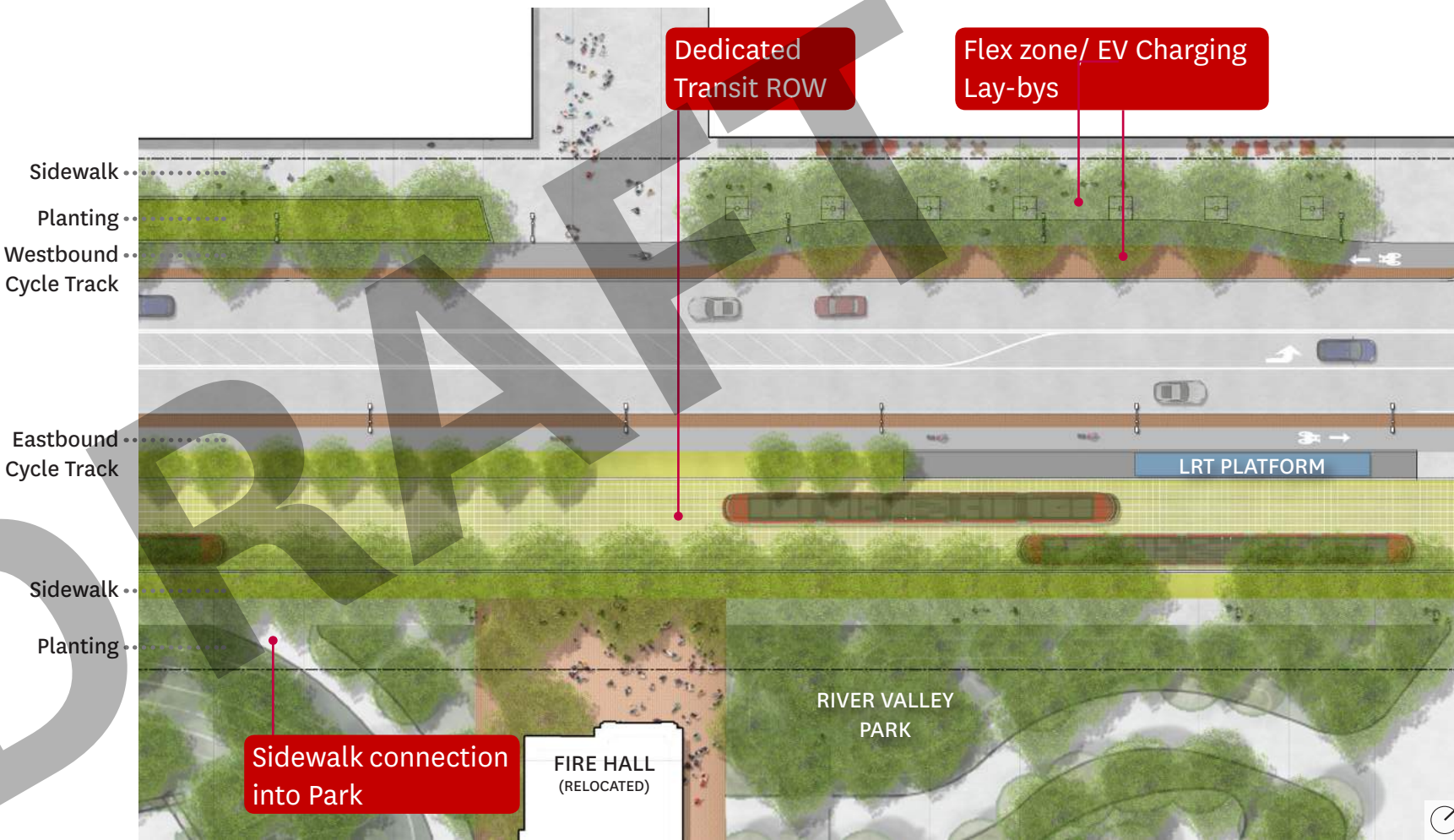
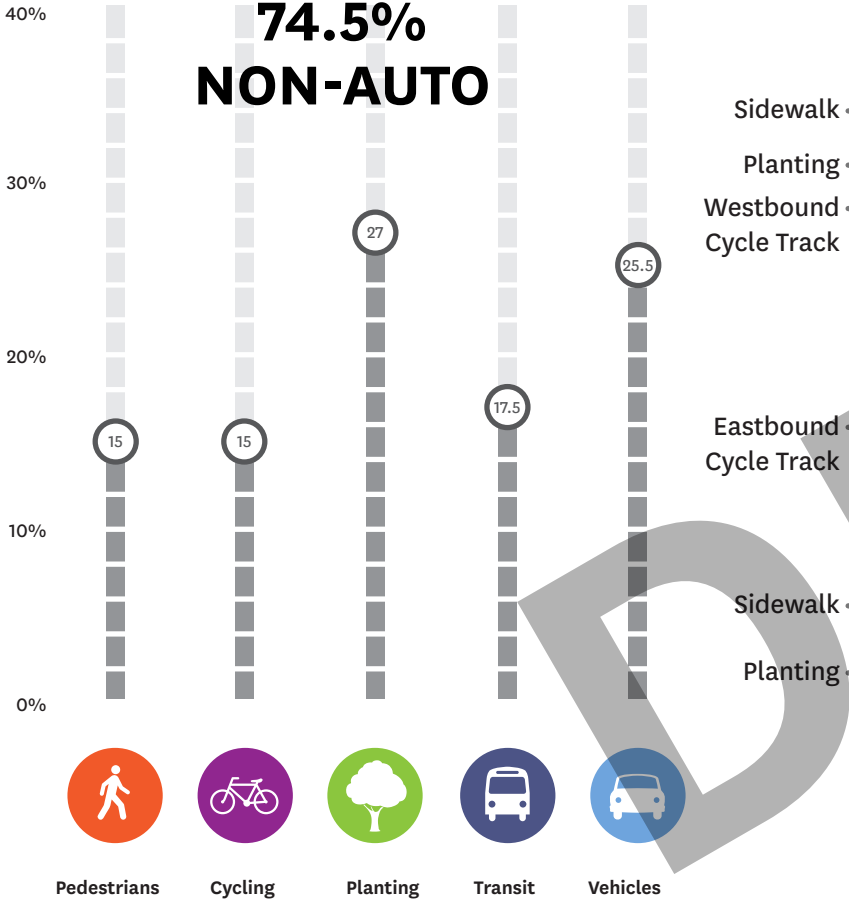
Flex zone

Cycle track

Flexible curbside zone
EV charging lay-bys

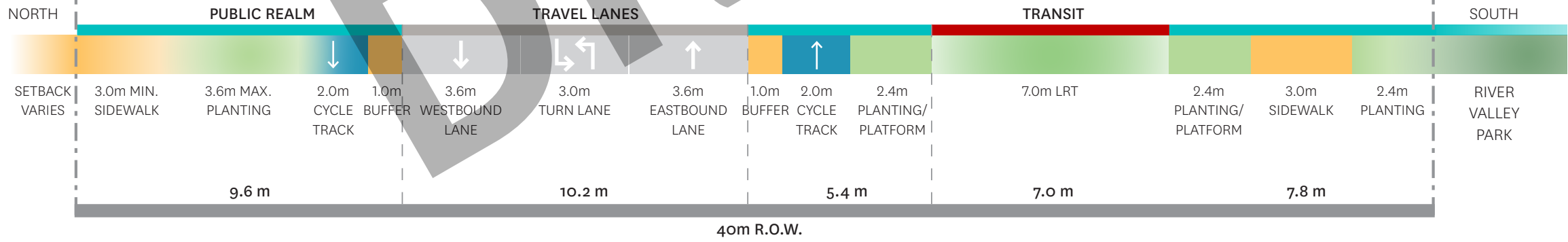
Commissioners Street

Commissioners Street



Space Allocation by User

Commissioners Street (view east)



Commissioners Street (view west)



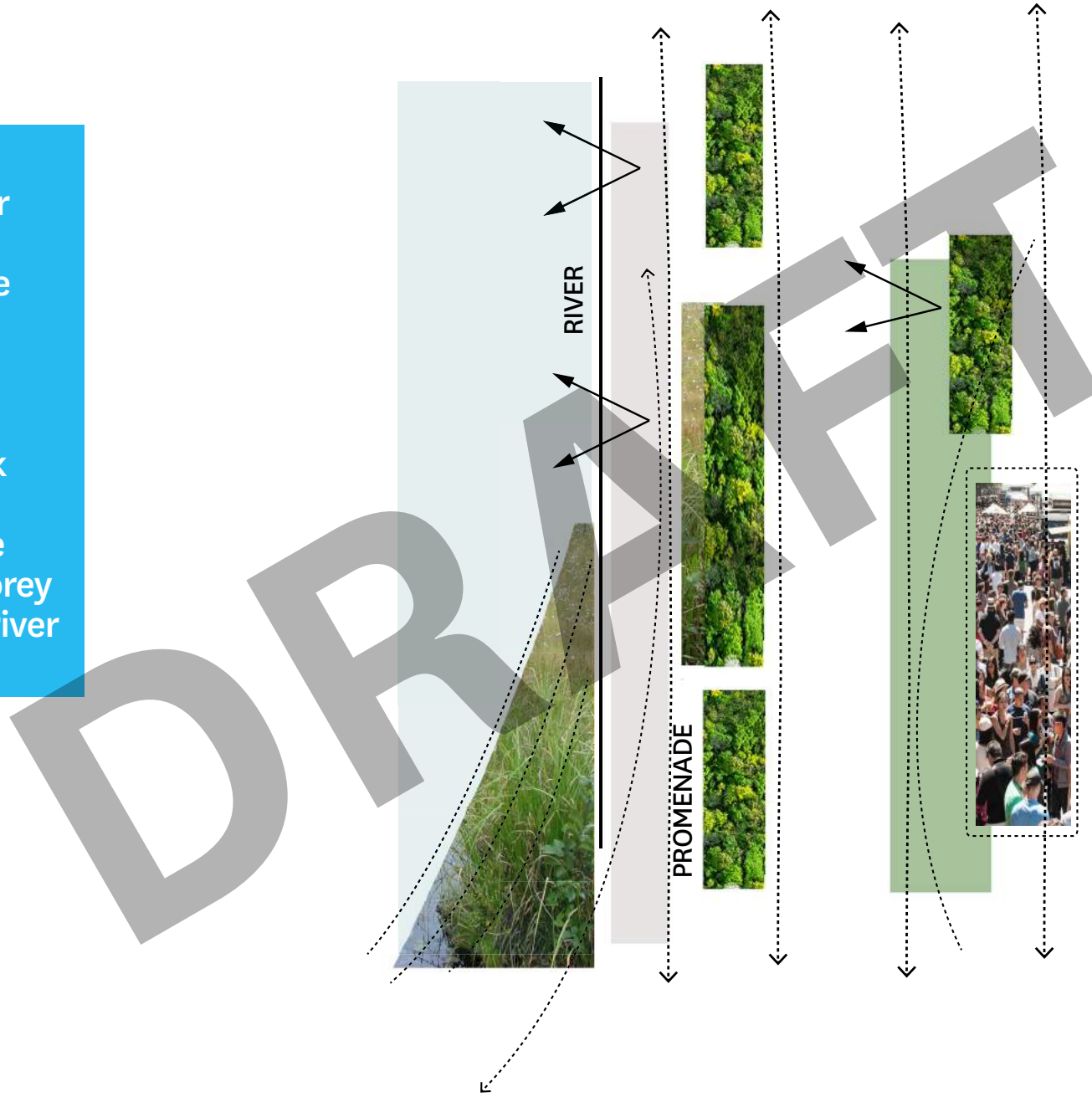
Don Roadway
A New River Promenade

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Don Roadway

On one side the regeneration of the Lower Don Estuary, the other a new neighbourhood—the McCleary District—and an active hydroelectric transmission corridor.

Both east and west speak to one another through a common material palette and naturalistic understory planting inspired by the river ecology.



Don Roadway: East Side



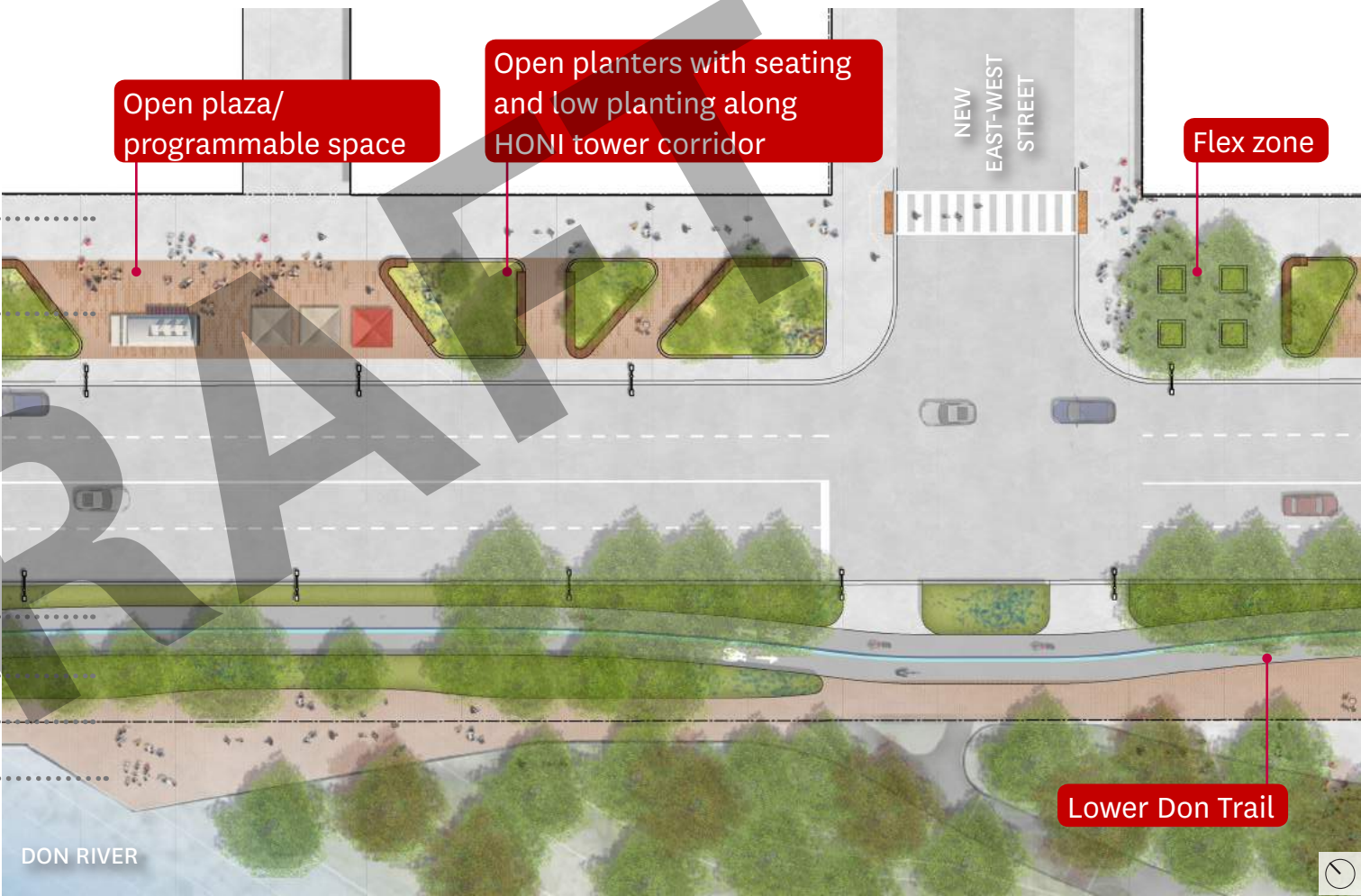
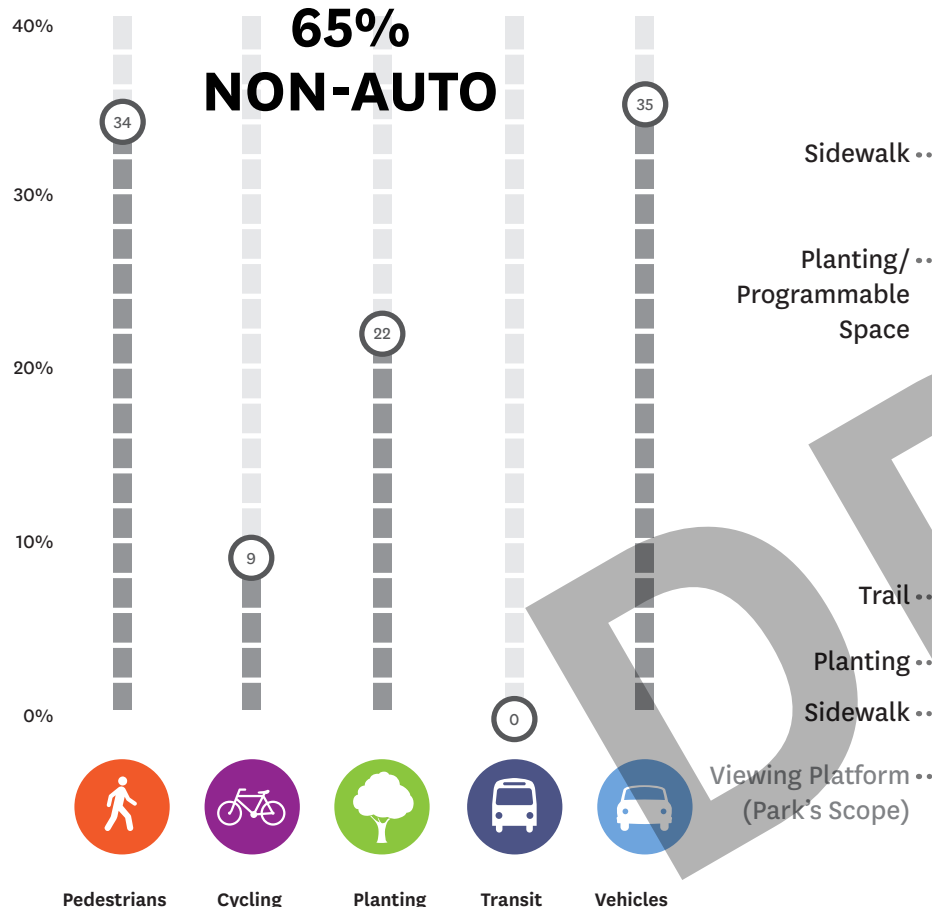
Open plaza/ Programmable space

Don Roadway

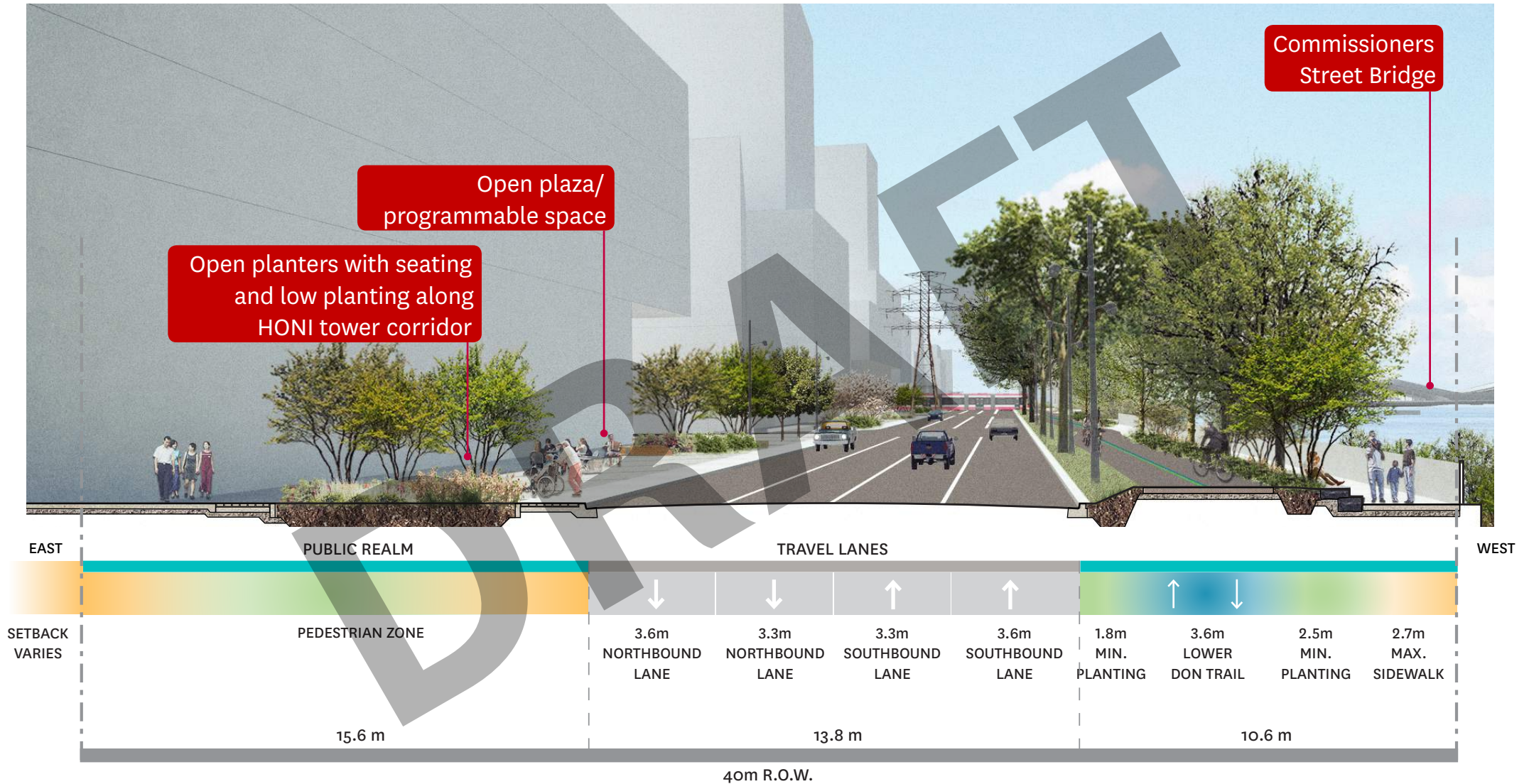
Pedestrian Zone

HONI Tower Buffer To Road

Don Roadway



Don Roadway (view south)



Don Roadway West (view south)



Don Roadway East (view south)



New Cherry Street
Urban Boulevard to Forest

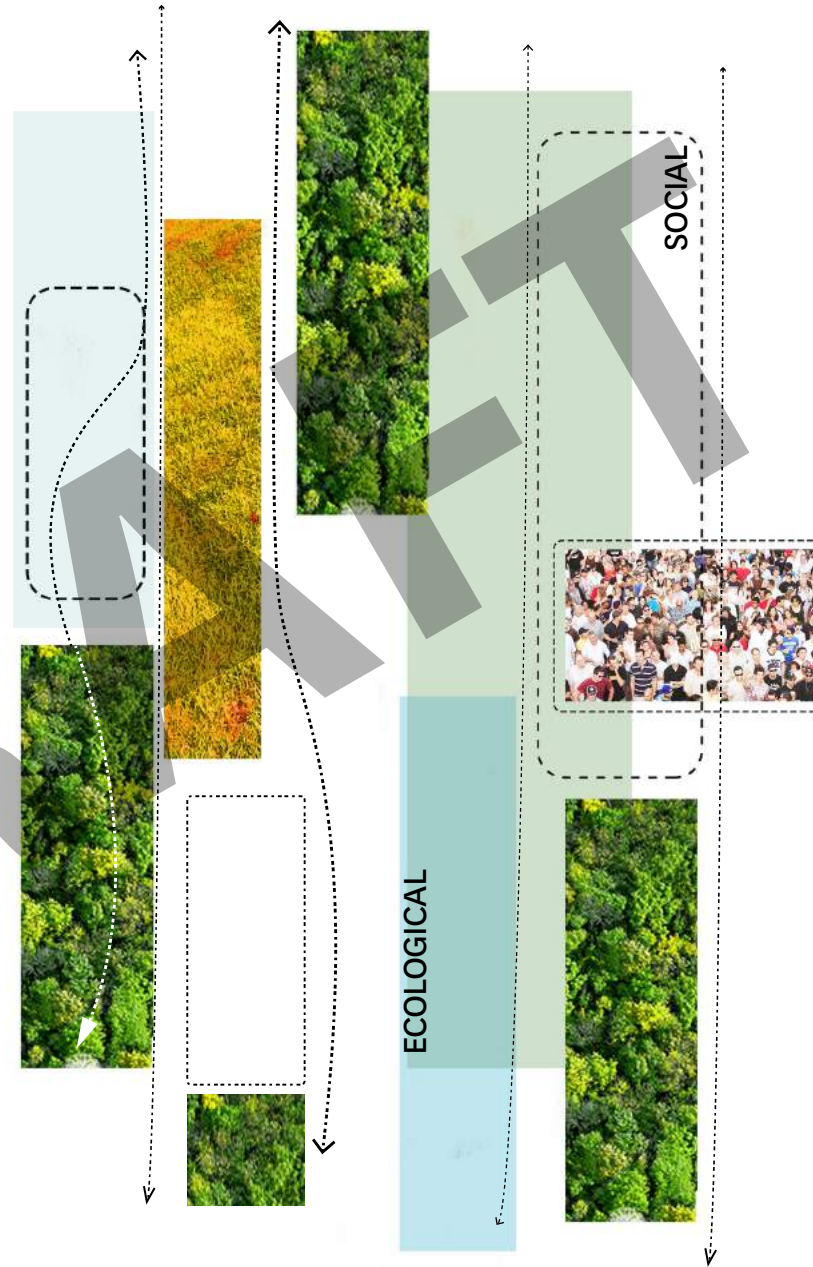
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New Cherry Street

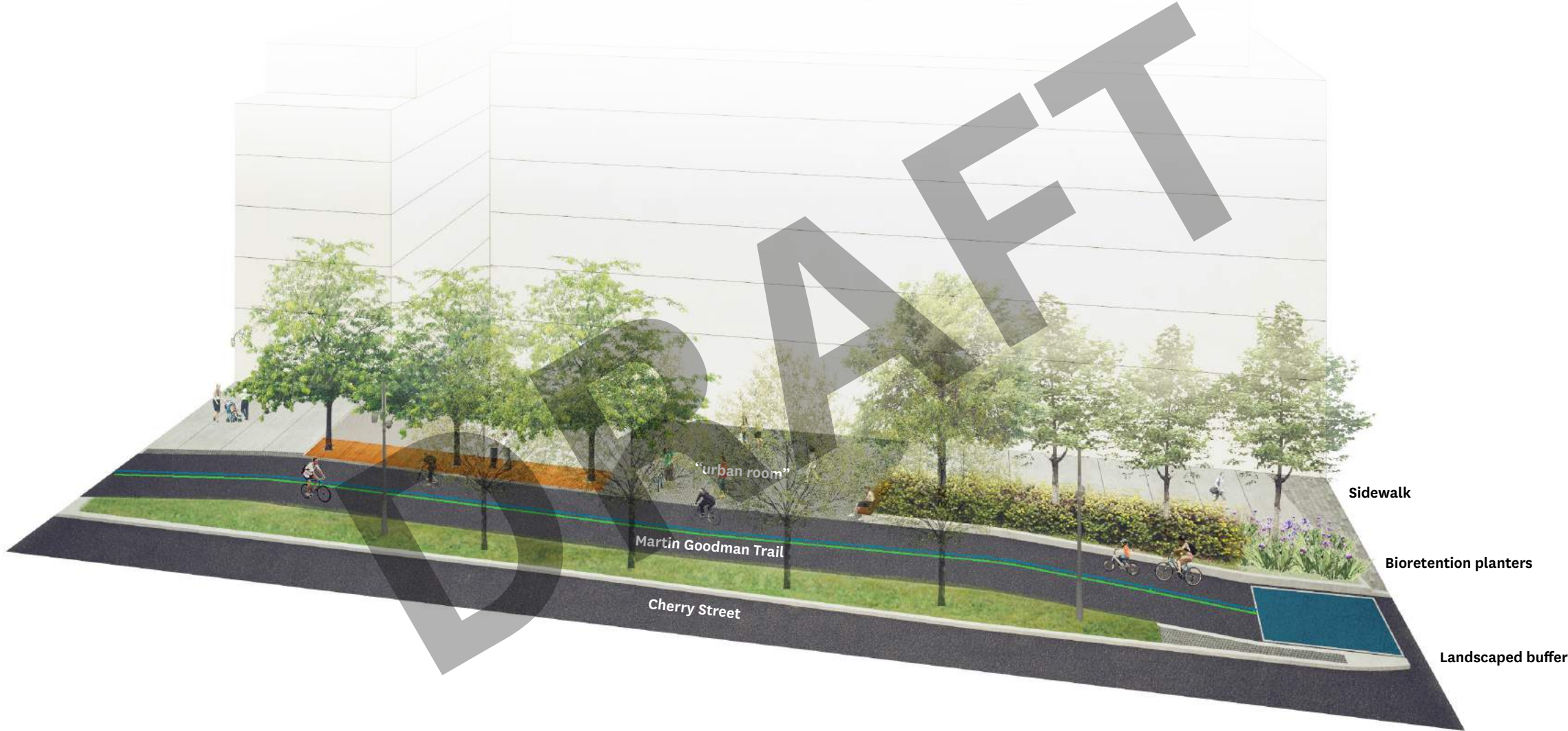
An urban street that connects neighbourhoods and offers a sequence of moments, inviting users to weave along and experience a range of flexible spaces and “urban rooms”.

New Cherry will evolve from an urban boulevard to a forest with a broader canopy to strengthen its character, improve environmental performance, and anticipate a changing climate.

The innovative way in which New Cherry can respond to the new future is a template for street design throughout Toronto.



New Cherry Street: West Side



New Cherry Street: East Side



Sidewalk

Bioretention planters

Furnishing zone

Cherry Street

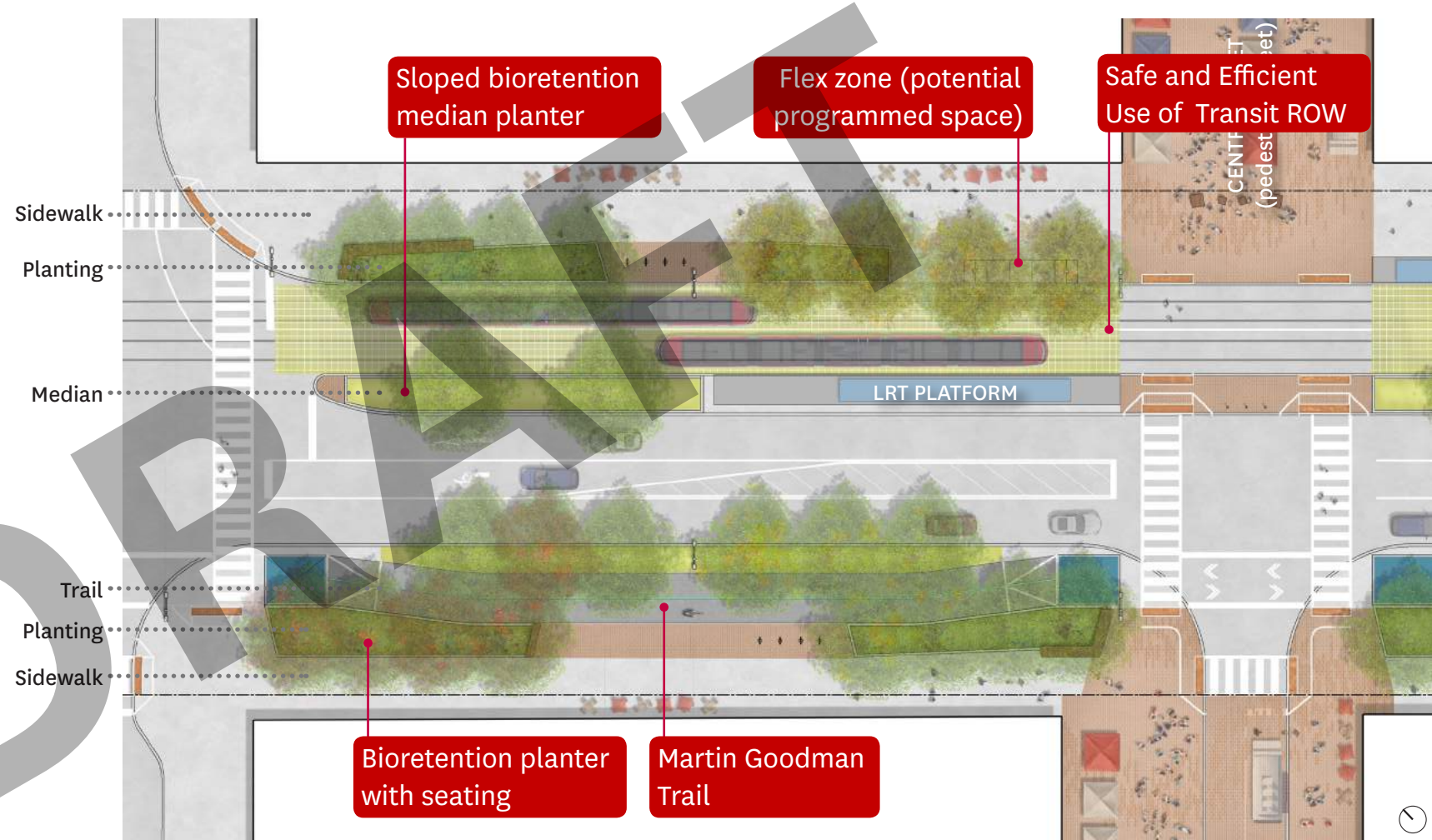
TTC ROW

Flex Space

New Cherry Street



Space Allocation by User



New Cherry Street: Future

Initial phases will provide the organizing framework. With AV there would be future opportunity to refine the streets into a more mature condition that can better deal with changing needs and climate change.

AV Future

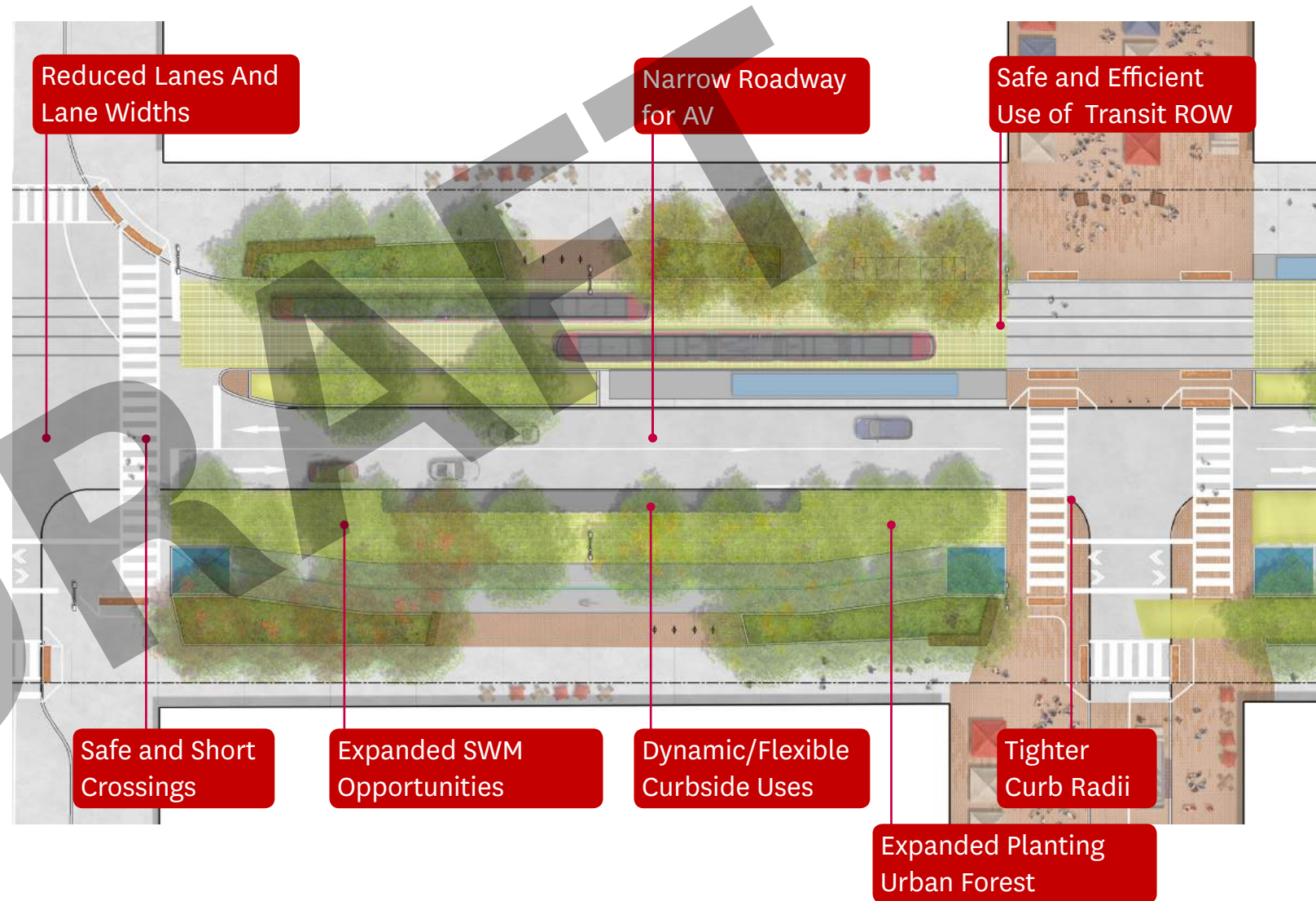
- Slower vehicle speeds
- Fewer and more narrow travel lanes
- Reallocated roadway space
- Tighter curb radii to improve safety
- Provision for flexible curbside uses

Response To Climate Change

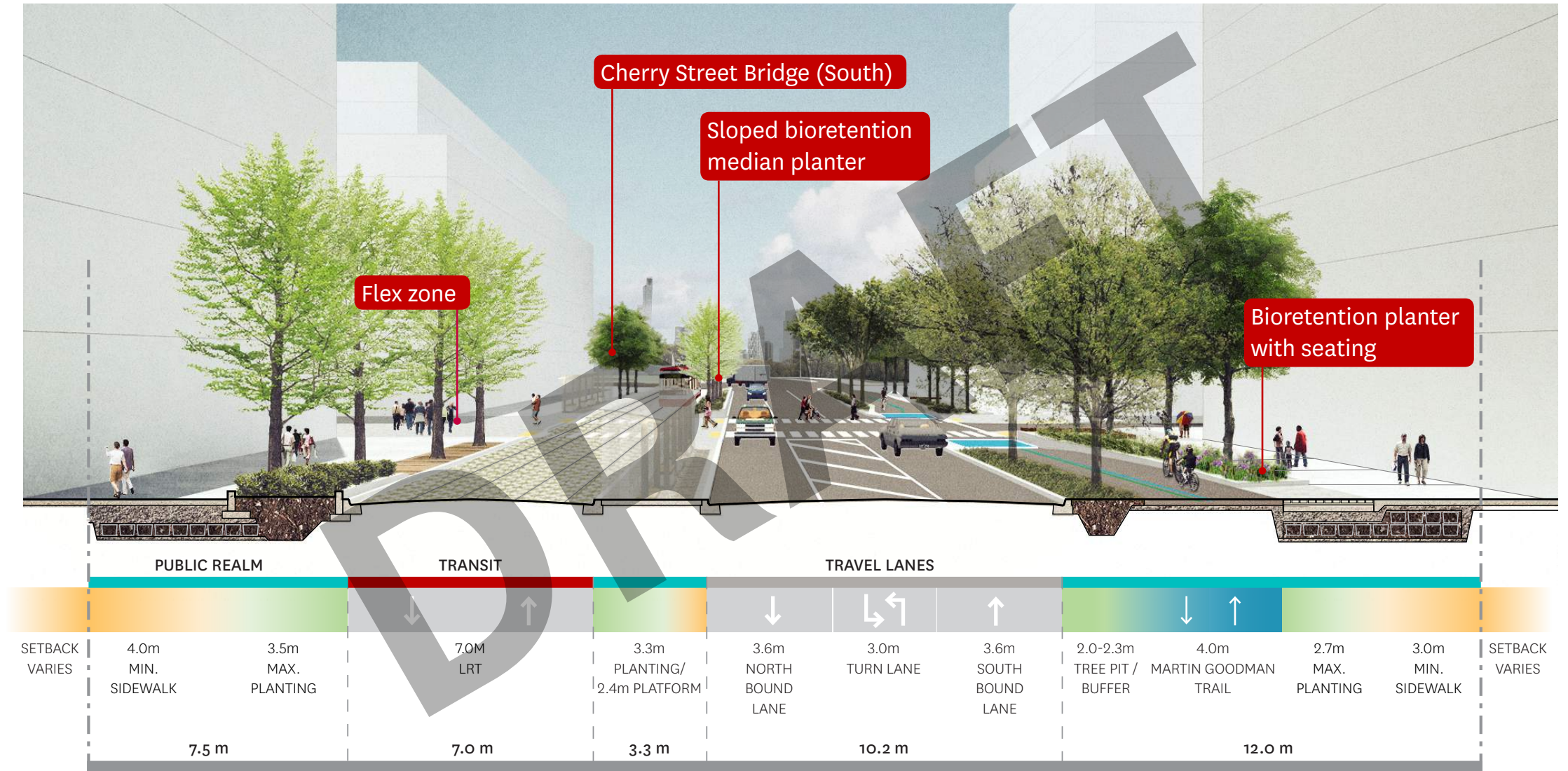
- Improved stormwater management
- Expanded urban tree canopy
- Enhanced microclimatic amelioration

Thinking Ahead

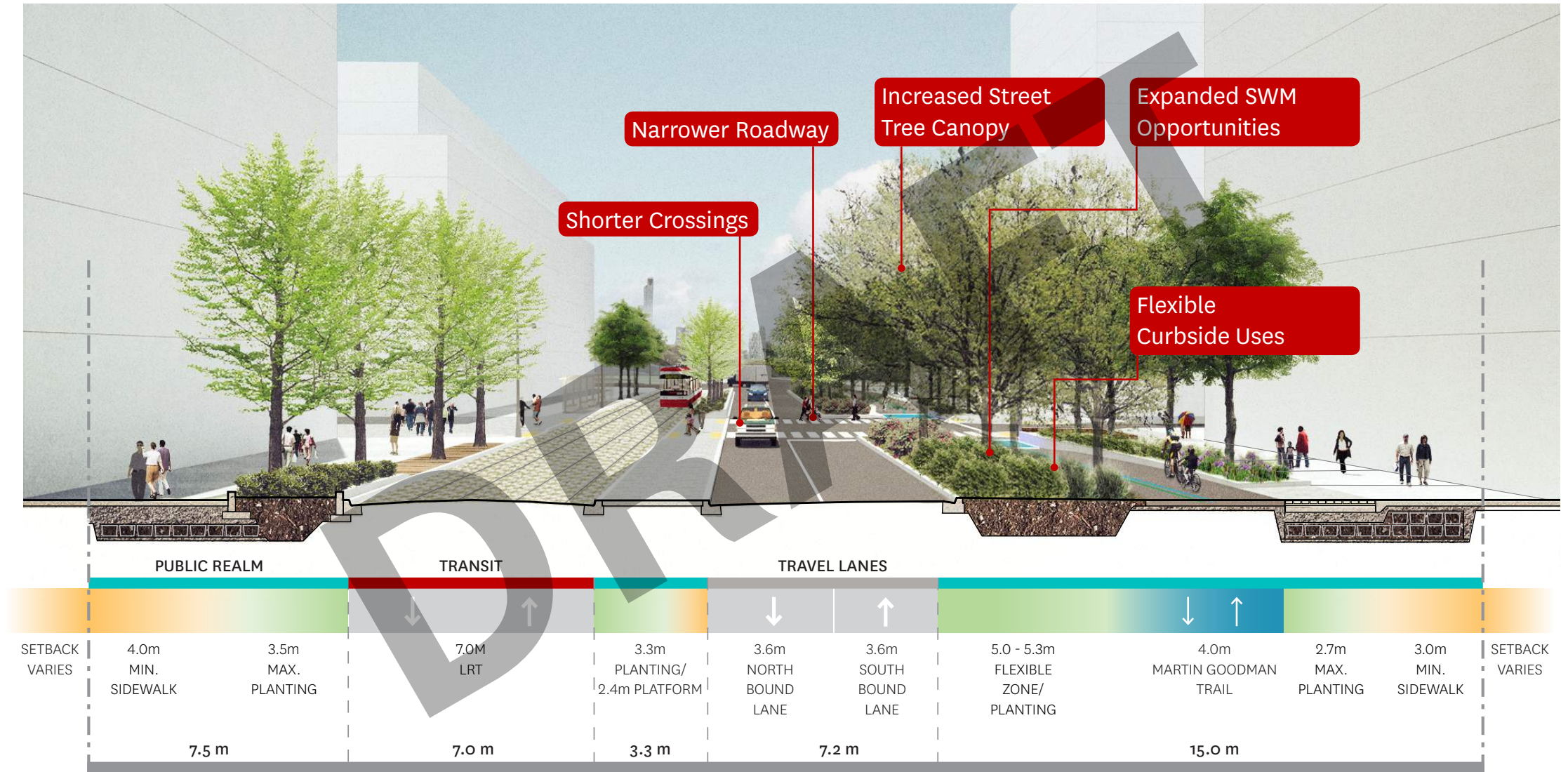
Locate below grade infrastructure today to not preclude future opportunities for change.



New Cherry Street: Initial (view south)



New Cherry Street: Future (view south)



Planting: Tree Types and Canopy



Planting: Seasonal Interest



Ginkgo



Tamarack



Highbush Cranberry



Tufted Hair Grass



Blue Flag



Red Maple



Red Oak



Rugosa Rose



Eastern Redbud



Spirea

Materials and Details



Pavers



Pavers



Cast-in-place concrete - exposed aggregate



Timber seating



Wood slat seating



LED Lighting - Selux Olivio



LED Lighting - WE-EF PFL540



Tree grate panels



Armourstone seat wall



City of Toronto - Coordinated Street Furniture

Innovative Design Elements

Today

Future Proof -Electrical/Data
Adaptive Signal Technology
Dedicated Signal Phasing
Signal Optimization
EV Charging Stations : Lay-By Locations
LED Lighting
Smart Pole Technology
Green Wave Technology
Photo Luminescent Pavement Markings
Heated Pavement: Bike Lanes
Landscape Driven L.I.D Approach
Adaptable + Flexible Spaces
Future Proof-Locations for Infrastructure

Future

Narrower Roadway to support AV Urbanism
Expanded SWM Technology
Increased Street Tree Canopy
Lay-by Locations: Curbside Coding
AV Charging
Power Generating Pavement
Solar Roads

Summary

Port Land Streets inspired by the landscape driven transformation of the Lower Don River and the Port Lands.

Safe, Equitable, and Beautiful
Sustainable and Resilient
Cost Effective and Adaptable
Climate and Energy Positive
Future Ready

Project Schedule - Anticipated Construction Schedule

