

URBAN
STRATEGIES
INC



VILLIERS ISLAND PRECINCT PLAN

SEPTEMBER 2017





ARUP

TAYLOR HAZELL
ARCHITECTS



Waterfront Toronto, the City of Toronto and the Villiers Island precinct planning team gratefully acknowledge the consultation and participation of representatives of the Mississaugas of New Credit First Nation in the preparation and this precinct Plan.

We also thank all participant from the Stakeholder Advisory Committee and the Landowners and Users Advisory Committee for their continued input throughout the precinct planning process.

SECTION 1 SETTING THE CONTEXT

1.1 Overview and Purpose	1
1.1.1 Introduction	1
1.1.2 The Port Lands Planning Framework	2
1.1.3 Precinct Planning	2
1.1.4 Interpretation of the Precinct Plan	2
1.1.5 Structure of the Document	3
1.2 Planning Policy Context	5
1.2.1 Provincial Policy Statement	5
1.2.2 The Growth Plan	5
1.2.3 City of Toronto Official Plan	5
1.2.4 Making Waves – Central Waterfront Secondary Plan	6
1.2.5 Port Lands Planning Framework	6
1.2.6 Don Mouth Naturalization and Port Lands Flood Protection EA and Lower Don Lands Infrastructure Master Plan EAs	6
1.2.7 Gardiner Expressway and Lakeshore Boulevard Reconfiguration EA and Integrated Urban Design Study	7
1.2.8 Waterfront Sanitary Master Servicing Plan EA	7
1.2.9 Port Lands and South Eastern Transportation and Servicing Master Plan	7
1.3 The Making of an Island	8
1.3.1 An Evolving Shoreline	8
1.3.2 A Special Place on the Waterfront	12
1.3.3 Creating an Island through Flood Protection	14
1.4 The Area Today	22
1.4.1 Surrounding Uses and Context	16
1.4.2 Land Use, Activity and Ownership	18
1.4.3 Heritage Resources	20

SECTION 2 VISION AND STRUCTURING MOVES

2.1 Precinct Plan Vision	24
2.2 Guiding Principles	26
2.3 Climate Positive Precinct	27
2.3.1 Climate Positive Framework	27
2.4 Villiers Island Development Plan	28
2.5 Structuring Moves	30
2.6 Character Areas	32
2.6.1 Keating Channel Promenade and Old Cherry Street	35
2.6.2 Harbourside and New Cherry Street	41
2.6.3 Centre Street	45
2.6.4 Commissioners Street and River Park	49
2.6.5 Villiers Park	53

SECTION 3 STRATEGIES AND GUIDELINES

3.1 Climate Positive Precinct

3.1.1 Climate Positive Framework	58
3.1.2 Transportation: Active Mobility and Electrification	59
3.1.3 Public Realm: Inspired by Nature	59
3.1.4 Buildings: Optimized Built Form and Passive Design	59
3.1.5 Energy Infrastructure: Local and Low-Carbon	60
3.1.6 Resiliency and Adaptation to Climate Change: Port Lands Flood Protection	61

3.2 Mobility, Transportation and Access

3.2.1 Street Network and Hierarchy	62
3.2.2 Transit	62
3.2.3 Pedestrian, Cycling Network, and Multi-use Trails	74
3.2.4 Water Transportation	76
3.2.5 Parking, Servicing and Loading	78

3.3 Open Space and Public Realm

3.3.1 Parks and Open Space Network	80
3.3.2 Public Art Strategy	87

3.4 Heritage

3.4.1 Heritage Conservation	88
3.4.2 Heritage Structures and Flood Works	90
3.4.3 Natural Heritage and Indigenous Culture	92

3.5 Activity and Uses

3.5.1 Mixed-use Residential	94
3.5.2 Destination/Catalytic Use	94
3.5.3 Land Use Implementation Considerations	96
3.5.4 Affordable Housing Strategy	97
3.5.5 Community Services and Facilities	98

3.6 Built Form

3.6.1 Built Form Principles	102
3.6.2 Low-rise Buildings	103
3.6.3 Base Buildings and Mid-rise Buildings	106
3.6.4 Tall Buildings	112
3.6.5 Grade-level Built Form Guidelines	118
3.6.6 Built Form and Micro-climate Considerations	122
3.6.7 Views	123
3.6.8 Density and Development	129

3.7 Municipal Infrastructure

3.7.1 Municipal Servicing	130
3.7.2 Stormwater Management	132

SECTION 4 IMPLEMENTATION

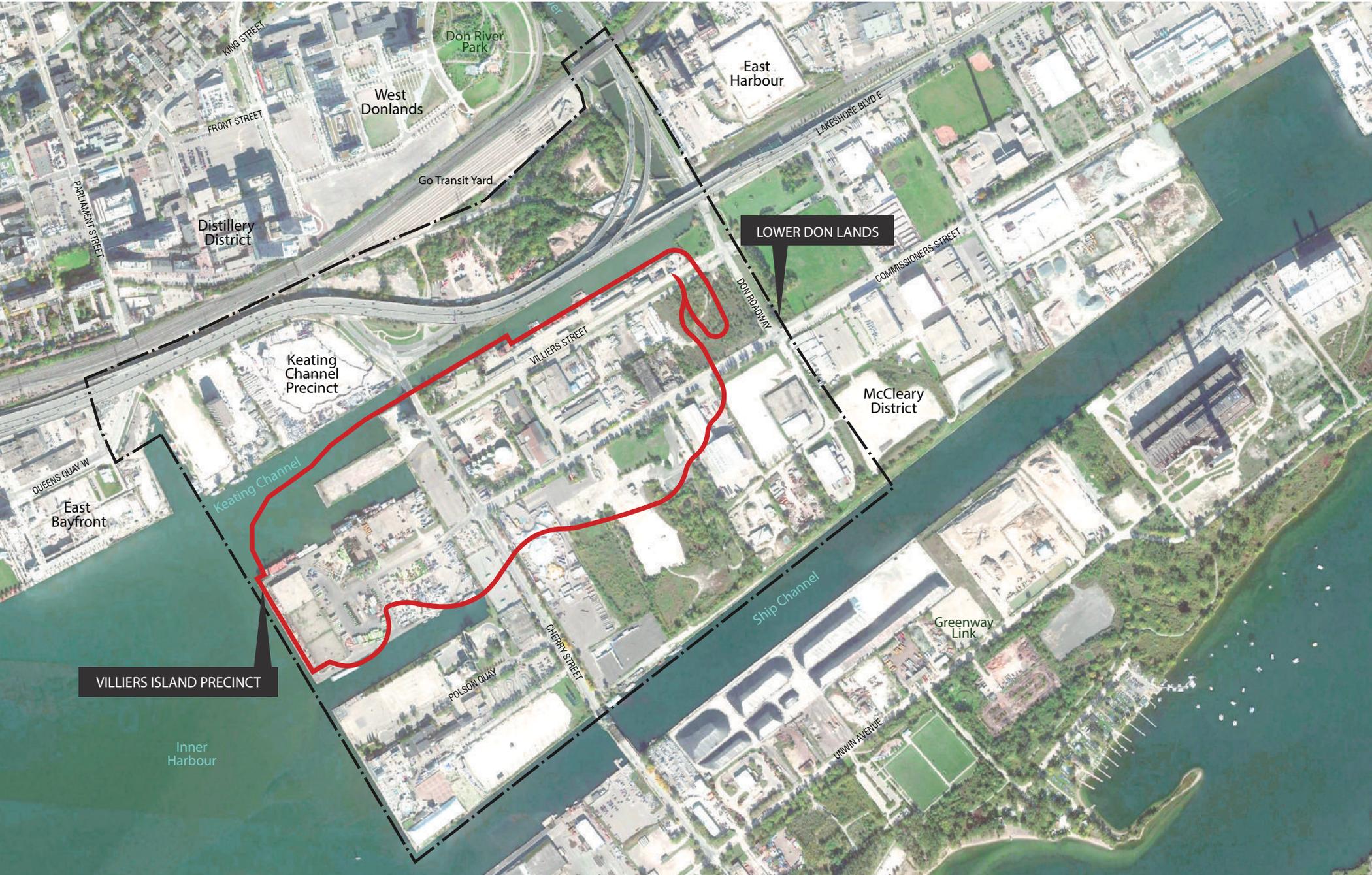
4.1 Implementation

4.1.1 Flood Protection and Enabling Works	135
4.1.2 Approvals, Statutory Planning and Future Studies	136

List of Figures	138
List of Images	139
Image Credits	139

SECTION 1

SETTING THE CONTEXT



1.1 OVERVIEW AND PURPOSE

The Villiers Island Precinct Plan provides a vision and planning framework to guide the comprehensive development of Villiers Island in Toronto's Port Lands. Villiers Island will transform from an industrial port into a mixed-use island created through extensive flood protection measures including the re-naturalization of the Don River and the restoration of the historic Keating Channel. As the first mixed-use community in the Port Lands, Villiers Island will kick-start revitalization, contributing to the creation of a series of unique and memorable districts.

1.1.1 Introduction

The Villiers Island Precinct holds an important place in the transformation of Toronto's waterfront. The area is located in Toronto's Port Lands, to the east of the downtown core. It is currently a 33.5 hectare area, bounded by the Inner Harbour to the west, the Keating Channel to the north, the Don Roadway and future Don Greenway to the east, and Commissioners Street and the future Don Valley lands to the south (see Figure 1).

The land base associated with Villiers Island today was created with dredge from Lake Ontario and filling in Ashbridge's Marsh. The land creation included the formation of Cousins Quay and Essroc Quay. All lands were created for the purposes of a creating a new industrial district in the city.

Villiers Island will be created through a series of transformative infrastructure to re-naturalize the Don River, restore the historic Keating Channel, and protect the Port Lands from flood risk. As the first precinct within the Port Lands to redevelop, Villiers Island will set the stage for future regeneration.

Villiers Island will become a special island community that demonstrates a new relationship between the city, river and lake predicated on sustainability, resiliency and innovation. The Island will be a complete community rich in local amenities, and a regional destination with special parks and cultural, civic and retail amenities. As Toronto's first mixed-use community primed to achieve climate positive goals, Villiers Island will showcase innovative and sustainable community design, and celebrate the area's industrial and natural heritage.

This Precinct Plan builds on over fifteen years of waterfront revitalization. Toronto's waterfront is currently experiencing unprecedented renewal, as new innovative parks and mixed-use communities continue to reshape this former industrial waterfront landscape. Villiers Island will provide the connective tissue between the Central Waterfront precincts, the downtown core and the Port Lands, linked together by the river, open space and transportation systems.

◀ FIGURE 1. Aerial image illustrating the Villiers Island Precinct context

1.1.2 The Port Lands Planning Framework

The development of the Port Lands Planning Framework began in November 2013 as a joint collaboration between the City Planning Division and Waterfront Toronto. The Framework is a high-level, long-term plan that will provide the basis and rationale for modifications to the Central Waterfront Secondary Plan as it relates to the Port Lands. The Framework is a blueprint that establishes a refined and refreshed vision for the Port Lands, guiding the transformation and evolution of the Port Lands over the coming decades.

The Port Lands Planning Framework was prepared concurrently with this Precinct Plan. The Port Lands Planning Framework will guide the physical transformation of the Port Lands from a primarily industrial and employment area to a vibrant, mixed-use city district. The Framework is comprehensive in nature, establishing the vision for the Port Lands' transformation and details directions and recommendations related to land use, parks and open spaces, cultural heritage, complete and inclusive communities, movement and access, built form, arts and culture, sustainability, biodiversity, servicing and implementation.

The Planning Framework builds on the outcomes of previous and concurrent planning initiatives, including the results of the Port Lands Acceleration Initiative, the Environmental Assessment for the Don Mouth Naturalization and Port Lands Flood Protection Project and precinct plans completed and underway. These are described further in Section 1.2.

1.1.3 Precinct Planning

Precinct planning is one of the primary mechanisms to translate the Central Waterfront Secondary Plan and Port Lands Planning Framework policies on an area-specific scale. Precinct plans provide design and land use directions that build on and enhance the policies contained in these higher-level documents. Precinct plans are required to support zoning by-law amendments for new mixed-use communities and to ensure comprehensive and orderly development processes.

The Villiers Island Precinct Plan sets out a comprehensive vision, guiding principles and strategies and guidelines with a higher level of specificity and detail to bridge from Official Plan and Secondary Plan policies to zoning by-laws and plans of subdivision, including considerations for street and block networks, height and massing standards, public realm, heritage and linkages between parks and open spaces. The Precinct Plan also codifies the importance of developing a complete community through the inclusion of community services and facilities, public art, heritage conservation, active transportation routes, affordable housing, and environmental sustainability and resiliency.

The Precinct Plan was developed alongside a robust consultation process, including presentations to the Waterfront Design Review Panel, meetings with the Stakeholder Advisory Committee and the Land Owners and Users Advisory Committee, public meetings, and extensive and collaborative work between Waterfront Toronto and the City of Toronto.

1.1.4 Interpretation of the Precinct Plan

The Villiers Island Precinct Plan is an instructive document that provides detailed direction to provide context for and to inform zoning by-law amendments. The Plan incorporates and builds on the policy directions in the Port Lands Planning Framework. It also incorporates the major public infrastructure associated with Environmental Assessments completed for the area.

In accordance with the Central Waterfront Secondary Plan, all future development applications will be required to address the vision, guiding principles and strategies and guidelines for Villiers Island established through this Precinct Plan.

1.1.5 Structure of the Document

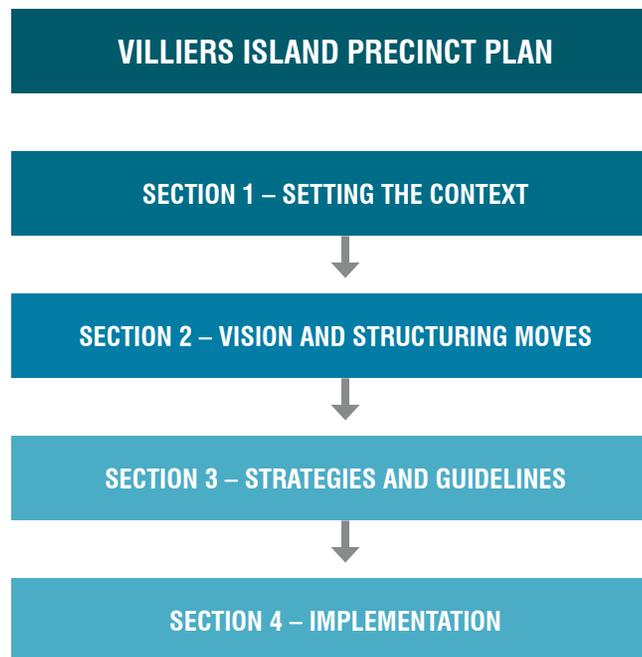
The Precinct Plan is divided into four sections - each containing descriptive text, planning and design direction, figures and precedent images to explain and visualize the transformation of Villiers Island.

Section 1 – Setting the Context summarizes the area’s existing conditions and contextualizes the importance of Villiers Island within the larger city environment.

Section 2 – Vision and Structuring Moves describes the vision and guiding principles that will inform the transformation of the Island, details the structural elements of the Plan, and describes the various character areas within the Island.

Section 3 – Strategies and Guidelines details the various technical elements of the Plan, organized by theme, including climate-positive design, mobility and access, parks and open spaces, heritage, activity and uses, built form, and municipal infrastructure.

Section 4 – Implementation describes the mechanisms to implement this Plan and regulate the redevelopment of the lands, highlighting inter-related and supplementary studies and required statutory approvals.



TORONTO OFFICIAL PLAN

Long-Term Vision for the City

CENTRAL WATERFRONT SECONDARY PLAN

Four Core Principles and Big Moves for the Central Waterfront Area

PORT LANDS PLANNING FRAMEWORK

More detailed, context specific framework for the Port Lands to guide precinct planning, Zoning By-laws or Development Permits and site planning

STRATEGIES

More detailed strategies for specific elements that apply across the Port Lands geography e.g. Truck Management Strategy or a Low-Carbon Energy Strategy

PRECINCT OR CONTEXT PLANNING

Finer-grained, detailed planning for sub areas prior to enacting Zoning By-laws, Development Permits or site planning

ZONING BY-LAWS/ DEVELOPMENT PERMIT SYSTEM

The precision or detailed controls over the use of land that implements Official Plan policy and precinct planning directions. Holding provisions may be utilized to ensure orderly development.

PLANS OF SUBDIVISION/ SEVERANCES

Orderly servicing and development of large parcels

SITE PLANS

The detailed design and technical aspects of a proposed development, including sustainability elements.

BUILDING PERMITS

Formal permission to begin the demolition, construction, addition or renovation of a building



FIGURE 2. Diagram illustrating the waterfront planning process

1.2 PLANNING POLICY CONTEXT

The Villiers Island Precinct Plan builds on a number of previous planning initiatives and technical studies. The Precinct Plan is consistent with a policy framework that envisages the development of mixed-use and transit-supportive urban environments, while conserving heritage assets and enhancing a special waterfront district.

1.2.1 Provincial Policy Statement

Issued under the authority of Section 3 of the *Planning Act*, Provincial Policy Statements (PPS) provide policy direction on matters of provincial interest related to land use planning and development. The Province issued a new PPS in 2014. The PPS 2014 sets out the Province's current vision for the built environment, and provides direction for managing land and resources over the long term to achieve livable and resilient communities. The PPS 2014 provides policy direction on a wide range of matters, including the efficient use of land and resources, promoting energy efficiency, supporting active transportation and transit, accommodating a range and mix of housing types and conserving cultural heritage resources.

Special Policy Area

The PPS regulates development in flood plains and prohibits development in areas that are flood plains, unless a Special Policy Area (SPA) has been approved to regulate development within an area. A portion of Villiers Island is subject to a SPA designation. An amendment to the SPA was advanced in 2010, referred to as Official Plan Amendment 388, which replaced the majority of the SPA designation in the Lower Don Lands and implemented a two zone concept for flood plain management. This Amendment was appealed to the Ontario Municipal Board and is not in force and in effect. The Amendment is proposed to be repealed. A comprehensive approach to resolving the SPA is now anticipated in light of the tri-government funding for the Port Lands Flood Protection project.

1.2.2 The Growth Plan

The Growth Plan (2016) provides a framework for implementing the provincial government's vision for building stronger, prosperous communities by better managing growth within the Greater Golden Horseshoe. Much like with the PPS (2014), the Growth Plan represents current provincial planning policy. The Growth Plan places an emphasis on building compact and complete communities, protecting what is important, and directing growth to settlement areas and prioritizing intensification, with a focus on strategic growth areas. Strategic growth areas are defined to include urban growth centres, major transit station areas and brownfield sites, such as Villiers Island, and greyfields.

1.2.3 City of Toronto Official Plan

The City's Official Plan is a long-term vision for how the city should grow. Villiers Island is located within the Downtown and Central Waterfront area. While the City's Official Plan is not in effect in the Central Waterfront area, it provides important insight into long-term, broader city building objectives for this area. It recognizes the Central Waterfront as a unique opportunity for employment and residential growth. New business ventures and neighbourhoods in the Central Waterfront are seen as an extension to Toronto's downtown area, strengthening and contributing to the vitality of the economy and urban lifestyle appeal.

1.2.4 Making Waves - Central Waterfront Secondary Plan

The Central Waterfront Secondary Plan (CWSP) was adopted by City Council in 2003 as an amendment to the former City of Toronto Official Plan to state key public priorities and opportunities for Toronto's waterfront. It provides an overall framework to guide the revitalization and redevelopment of Toronto's waterfront, and sets out parameters for precinct planning. The CWSP is predicated on four key principles:

- Removing barriers/making connections;
- Building a network of spectacular waterfront parks;
- Promoting a clean and green environment; and
- Creating dynamic and diverse new communities.

The CWSP sets out the key directions for the future of the waterfront, including improving transportation connections, reserving public access to the water's edge, and re-naturalizing the mouth of the Don River. The Plan envisions that the Port Lands will be transformed into a number of urban districts and a place for new creative and green industries alongside the hustle and bustle of the working port.

The Port Lands were envisioned as generally developing at a medium-scale with some lower elements and higher buildings in appropriate locations. Lower buildings are to be located along the water's edge, with retail and community activities concentrated at accessible locations to form a focus for the area.

1.2.5 Port Lands Planning Framework

The CWPS is currently under appeal at the Ontario Municipal Board. The Planning Framework seeks to resolve the outstanding appeals. It also advances comprehensive policy directions to guide the Port Lands transformation over the long-term. Elements of the Framework include:

- Updating and refreshing the vision for the Port Lands;
- Establishing more detailed land use direction to provide clarity and certainty as development proceeds;
- Establishing and protecting for a range of parks and open spaces, including “locking in” the outcomes of the amended, finalized and approved Don Mouth Naturalization and Port Lands Flood Protection Environmental Assessment (DMNP EA);
- Providing direction for the appropriate conservation of heritage resources, and interpretation and commemoration of First Nations history in the area;
- Identifying community infrastructure priorities and minimum housing requirements needed to support new inclusive and complete communities;
- Identifying the transportation network (streets, transit and pedestrian/cycling facilities) needed to connect the Port Lands with the broader city and support development as largely established through the Environmental Assessments undertaken in the area;

- Identifying the character of specific areas and providing more detailed urban design and built form direction;
- Providing direction for arts and culture;
- Establishing benchmarks and policy directions to achieve a net zero energy district, effectively resulting in zero emissions, as well as other directions related to innovation and sustainability;
- Ensuring that the Port Lands' landscapes and habitats can continue to support a rich diversity of life as the area urbanizes; and
- Providing implementation and phasing direction, including the identification of early activation project ideas.

1.2.6 Don Mouth Naturalization and Port Lands Flood Protection EA and Lower Don Lands Infrastructure Master Plan EAs (2010, 2013 amendments)

Naturalizing the Don Mouth River and providing flood protection to the Port Lands is an important and long-standing goal of waterfront planning and revitalization in Toronto.

In 2004, the TRCA on behalf on Waterfront Toronto initiated the Don Mouth Naturalization and Port Lands Flood Protection Environmental Assessment (DMNP EA) to consider ways to naturalize the river channel, including creating a new mouth of the river, valley and associated flood protection work to remove flood risk.

Lower Don Lands Design Competition

In 2007, Waterfront Toronto held an urban design competition for the Lower Don Lands to generate inspiring ideas for the future of the area, with the goals of creating an iconic identity for the Don River, and creating a bold and comprehensive concept design to integrate the new river mouth in an urban context.

The Michael Van Valkenburgh Associates' (MMVA) winning concept design formed the basis of the preferred alternative through the DMNP EA process. Waterfront Toronto and the City of Toronto prepared the Lower Don Lands Infrastructure Master Plan and EA (LDL MP EA) in conjunction to the DMNP EA. The LDL MP EA considered several transportation and infrastructure systems to recommend a servicing and infrastructure approach for the Lower Don Lands.

DMNP EA and LDL EA Amendments (2013)

In 2011, the City of Toronto initiated the Port Lands Acceleration Initiative (PLAI) to examine ways to move forward with the revitalization of the Port Lands. This included a further expansion of the DMNP EA and the preparation of a thorough business case and financing plan.

The Initiative identified a refined alternative to the original DMNP EA, that slightly realigned the Don River, the river mouth and flood protection greenway. This refined approach allows for the phased development of the Port Lands, and provides for a balanced mix of new development, public parkland and open space, and also protect for continued port activities in the future.

As a result, the TRCA and Waterfront Toronto initiated amendments to the DMNP EA and LDL EA in 2013. In January 2015, the Province approved the DMNP EA, approving the planned naturalization of the Don River Mouth.

The Port Lands Planning Framework incorporates the work completed through both the DMNP EA and the LDL EA. It establishes and protects for a range of parks and open spaces, including locking in the outcomes of the amended, finalized and approved DMNP EA.

OTHER STUDIES AND INITIATIVES

1.2.7 Gardiner Expressway and Lakeshore Boulevard Reconfiguration EA and Integrated Urban Design Study (2009-11; 2013-ongoing)

One of the key elements for the revitalization of the Central Waterfront is the redesign of the Gardiner Expressway Corridor. In 2009, the City of Toronto and Waterfront Toronto initiated an individual EA to examine the potential reconfiguration of the Gardiner Expressway between Jarvis Street and Logan Avenue. In 2015, Toronto City Council approved a hybrid option for the Expressway, which entails maintaining the elevated expressway between Lower Jarvis Street and Cherry Street, removing the Gardiner-DVP connection, and introducing a redesigned connection point along an alignment closer to the rail corridor. The second public comment period on the EA closed July 28, 2017.

1.2.8 Waterfront Sanitary Servicing Master Plan (WSSMP)

In 2012, the City of Toronto completed a comprehensive wastewater servicing plan for the Central Waterfront area. The EA determined that the preferred servicing approach would be to introduce a deep, gravity-fed sewer installed by micro-tunnelling along a central street in Villiers Island and Commissioners Street in the balance of the Port Lands. The sewer would connect to an upgraded Carlaw Avenue interconnecting sewer at Eastern Avenue and convey sanitary flows to the Mid-Toronto Interceptor. The LDL EA Amendments amended the location of the sewer in Villiers Island along Commissioners Street. An interim pumping station would be introduced at the Don Roadway and Commissioners Street until such as a time as the balance of the sewer on Commissioners Street and Carlaw Avenue are upgraded.

The City is in the process of updating the WSSMP. This Precinct Plan assumes the deep, gravity-fed sewer would be installed on Commissioners Street in Villiers Island, connecting to the interim pumping station.

1.2.9 Port Lands and South of Eastern Transportation and Servicing Master Plan

The City of Toronto has undertaken a Transportation and Servicing Master Plan for the Port Lands and South of Eastern areas, excluding the Lower Don Lands. The EA identified preferred transportation and municipal servicing solutions to support the Port Lands' transformation and continued employment growth in the South of Eastern area. The Port Lands Official Plan modification incorporates the preferred transportation solutions emerging from this EA. An Official Plan Amendment is also being prepared to implement the preferred transportation solutions in the South of Eastern area.

1.3 THE MAKING OF AN ISLAND

Over the past century, Toronto's eastern shoreline along Lake Ontario evolved from marshland at the Don Mouth into an industrial working port district (see Figure 3). The re-naturalization of the Don River and the re-routing of the river mouth represents the continued evolution of the area, reinventing it into a new lively island on Toronto's waterfront.

1.3.1 An Evolving Shoreline

At the confluence of the Don River and Lake Ontario, the Villiers Island area originally consisted of marshland, known as Ashbridges Bay. The area was the traditional hunting and fishing territory of diverse Indigenous peoples.

In the late 1880s, European settlers began to build summer cottages along the sand spit adjacent to the Toronto Islands. By the 1890s, following years of industrial growth in Toronto and human industrial waste draining into the Don River, Ashbridges Bay became a health hazard. As a solution, the City Engineer E.H Keating called for the construction of a channel along the north of the marsh with openings into the Toronto Harbour.

In 1911, the Toronto Harbour Commission was formed to develop, maintain and manage Toronto's harbour. The Harbour Commission created the Toronto Waterfront Development Plan to transform Ashbridges Bay into the Toronto Industrial District. To bring the plan to fruition, 260 hectares of marshland in Ashbridges Bay needed to be reclaimed through dredging and infilling. In 1916, the Keating Channel was reinforced with concrete dockwalls and the surrounding marshlands filled. The lands known as Cousins Quay today were some of the last areas to develop through lake filling activities in the 1930s.

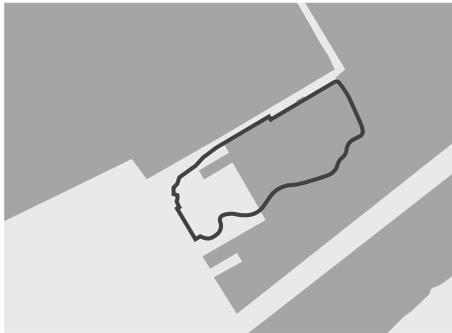
In 1959, the opening of the St. Lawrence Seaway spurred a new wave of port development; however by the late 1960s development slowed. This downturn ushered in a number of challenges, including neglect, pollution and flood risk, in both the Don River and the Keating Channel.

By the late 1980s, Torontonians became interested in transforming this vital piece of the Toronto waterfront and re-establishing the natural habitat of the Don River. Calls for transformation instigated the DMNP EA. This DMNP EA process culminated in plans for a new river and Don Greenway configuration.

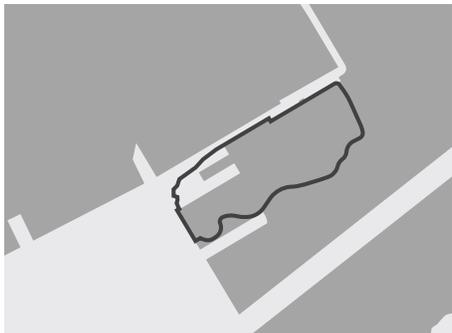
Through the naturalization of the Don River, the city will be reconnected to a significant piece of its former natural landscape, while the industrial heritage of the island will be showcased through the preservation and adaptive reuse of heritage structures and the restoration of the Keating Channel.



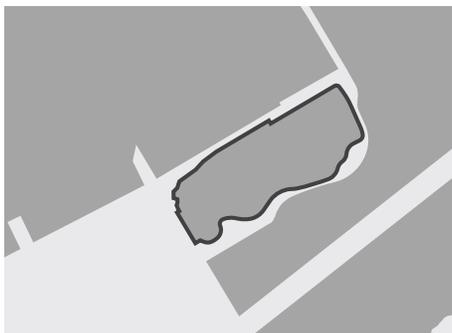
Toronto Shoreline **1882**



Toronto Shoreline **1931**



Toronto Shoreline **2017**



Toronto Shoreline **FUTURE**



IMAGE 1. Illustrations (left) and images (right) illustrating the evolution of the waterfront, from the 1880s to 2017

From Marshland to Industrial Port to Villiers Island

FIGURE 3. Timeline illustrating the evolution of the waterfront, from the 1880s to 2017

Early history

Marshland estuary known as Ashbridges Bay at the mouth of the Don River used by Indigenous Peoples for hunting, fishing and recreating.

1890

Keating Channel created through lake-filling.



1916

Keating Channel completed as the mouth of Don River is redirected to its current alignment.



1960-1980s

Don River becomes increasingly polluted and a public concern.



Early 1800s -1880s

Residents of York occupy sand spit and peninsula adjacent to the marsh and construct summer cottages along the spit.

Early 1911-1912

Harbour Commission Plan forms and develops plan to transform Ashbridges Bay into Toronto Industrial District and dredges 260 hectares of marshland.



1930s

Cousins Quay lands created through lake-filling.

1959

St. Lawrence Seaway opens spurring new wave of port development.



1999

Toronto Waterfront Revitalization Task Force forms and creates Waterfront Toronto to carry out waterfront revitalization.



2003

Central Waterfront Secondary Plan adopted.



2007

Waterfront Toronto holds design competition for Lower Don Lands and winning design reimagines waterfront and mouth of the Don River.



2011-2012

Port Lands Acceleration Initiative examines ways to advance the revitalization and redevelopment of the Lower Don Lands and Port Lands.

2017-2020

City of Toronto and Waterfront Toronto lead accelerated flood protection, detailed design and planning, and initial development and infrastructure.



1989

Task Force to Bring Back the Don forms and calls for a new vision for the Don River and Port Lands.

2004-2006

TRCA initiates Don Mouth Naturalization and Port Lands Flood Protection Environmental Assessment to consider ways to naturalize the river channel and mouth.

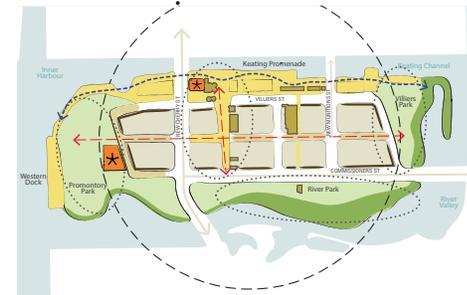


2010

Lower Don Lands Framework Plan is adopted.

2013 - 2017

Villiers Island Precinct Plan and Port Lands Planning Framework processes underway.



2020-2040

Development and full build out of Villiers Island community.

1.3.2 A Special Place on the Waterfront

Villiers Island is strategically positioned on Toronto's waterfront. Located within Toronto's Central Waterfront and the Port Lands, the Island will form a seam connecting the waterfront districts to the north and west and the evolving Port Lands to the south and east.



The New Mouth of the Don River

Villiers Island will be located at the new mouth of the Don River, and connect to the larger Lower Don River system.



Where Urban Meets Natural

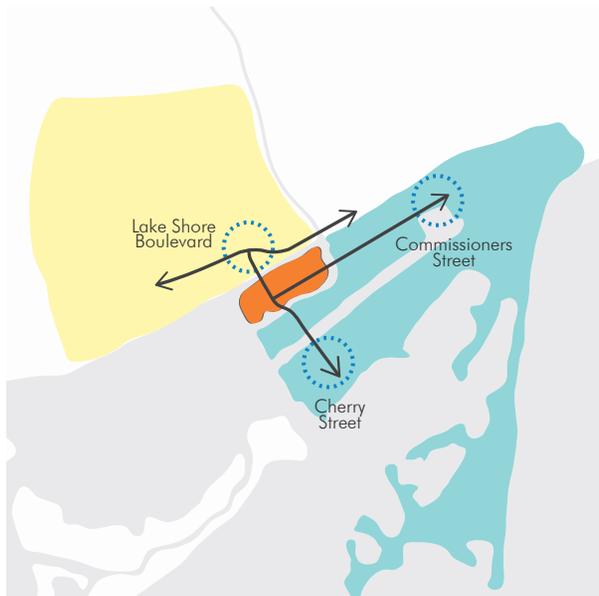
Villiers Island will be a place where natural and urban environments interconnect. It will become an extension of the Central Waterfront, the Don Valley trail system and the Toronto Islands.



The Heart of a Large Regeneration Effort

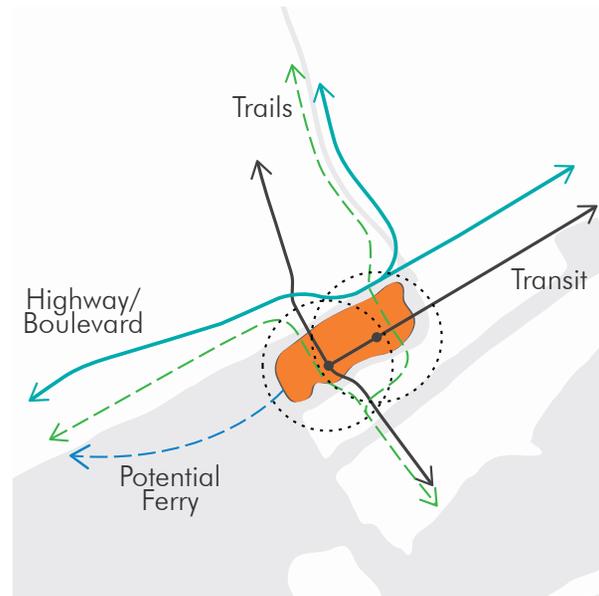
The Precinct is located at the heart of a number of regeneration districts at various stages of redevelopment and renewal, including the waterfront precincts under development to the north and west, and the industrial port areas to the south and east.

▼ **FIGURE 4.** Diagrams illustrating Villiers Island's special relationship to the waterfront



A Gateway to the Port Lands

Villiers Island will become the key gateway to the Port Lands and the connection between the main waterfront precincts and downtown, with north, south and east links to the Port Lands.



The Intersection of Key Mobility Routes

Villiers Island is located at the crossroads of regional and urban mobility routes, including Lake Shore Boulevard East, the Gardiner Expressway, the Don Valley Parkway, future transit corridors with connections into the Port Lands, and a network of waterfront and river trails.



Industrial Heritage

Villiers Island and the Keating Channel represent the original site of the Harbour Commissioner's Industrial District and contain a number of heritage buildings and structures, with linkages to neighbouring industrial areas such as Gooderham and Worts.

1.3.3 Creating an Island through Flood Protection

The Villiers Island Precinct Plan builds on the directions from the Port Lands Planning Framework, Lower Don Lands Framework Plan, the DMNP EA and LDL MP EA. These studies provide a framework for coordinated flood protection, naturalization and infrastructure to support the future development of the Lower Don Lands.

1 **Creating the New River Valley and A New Island**

As part of the naturalization of the Don Mouth, the lake area surrounding Cousins Quay and Essroc Quay will be filled. The lands south of Commissioners Street and east of the Don Roadway will be cut, charting a new course for the Don River. Through these land cut and lake-filling activities, the Don Mouth will be rerouted, creating a new naturalized valley system and the land known as Villiers Island as illustrated in Figure 6.

2 **Flood Protection and Re-grading**

To protect these lands from flood risk, the majority of the Precinct area will be re-graded by a minimum of one to three metres, as set out in the DMNP EA. Grading will be subject to further study through the detailed design of the DMNP. Grading at heritage buildings and structures should be minimized.

3 **Flood Plain and Associated Setbacks**

All new development will be set back from the top of the slope of the new valley system by ten metres, per the TRCA, City of Toronto Official Plan policies and the Port Lands Planning Framework.

4 **Keating Channel and Dockwalls to Remain**

The historic dockwalls along the Keating Channel will remain and be preserved (see Figure 6). A substantial portion of the western dockwall will continue to be active for ship mooring. The dockwalls will be structurally reinforced with stone revetments. Through the creation of the river valley, the Keating Channel will become a secondary spillway for the Don River.

5 **Realigning Cherry Street**

Cherry Street will be realigned to the west of the current crossing of the Keating Channel, as set out in the DMNP EA and the LDL MP EA. It is renamed New Cherry Street for the purposes of this Precinct Plan.

New Cherry Street and the Keating Channel crossing will shift west of the existing Cherry Street to become the primary north-south connection into the Island. The existing Keating Channel bridge and abutments will be removed to mitigate flood impacts. Munition Street will be shifted east of its existing location to provide a potential secondary connection across the Channel.

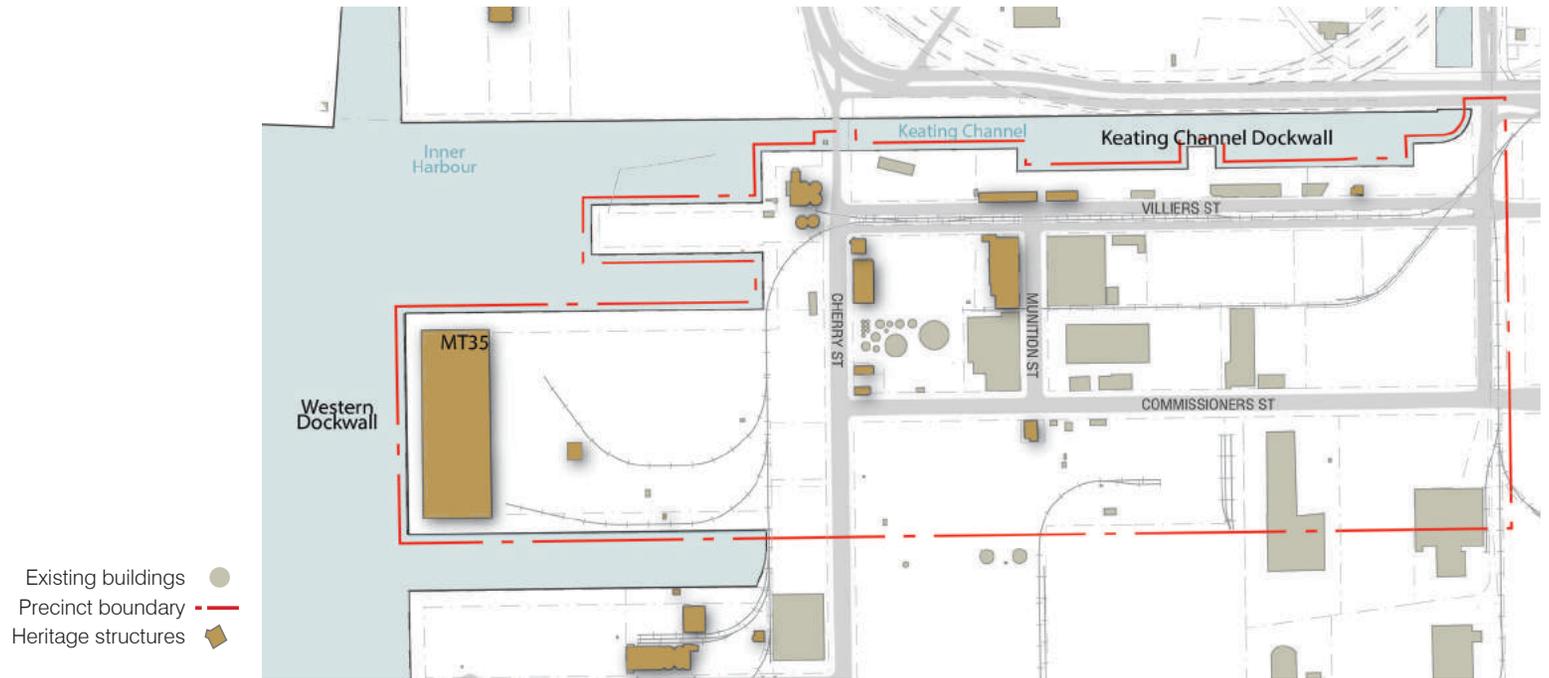


FIGURE 5. Existing conditions

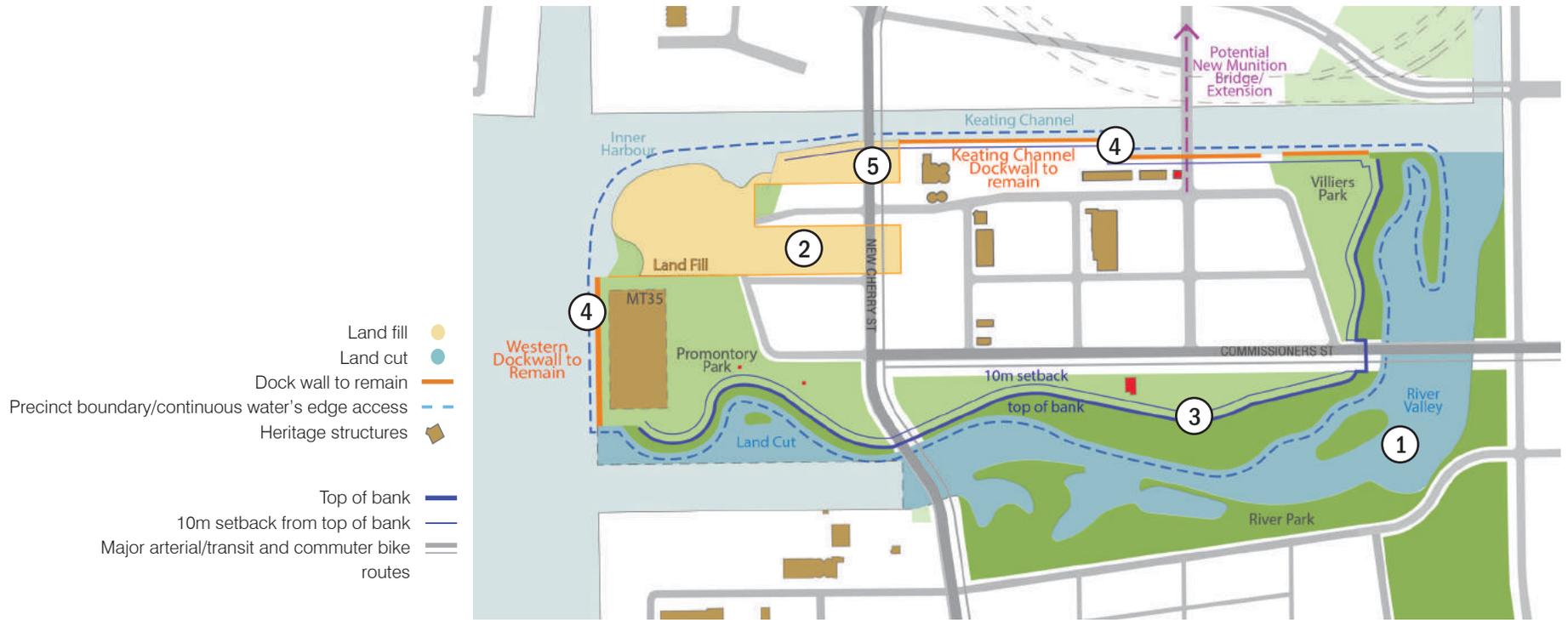


FIGURE 6. Future conditions - Villiers Island

1.4 THE AREA TODAY

Today, the Precinct area is made up of Cousins Quay and Essroc Quay, the lands east of Cherry Street to the Don Roadway, and the lands south of Keating Channel to the area south of Commissioners Street.

1.4.1 Surrounding Uses and Context

The Villiers Island Precinct area is currently embedded within an urban geography that varies in its use, activity and form, from active industrial and commercial areas to the south and east, to evolving waterfront precincts and major arterial and infrastructure corridors to the north.

Significant changes are planned for the Villiers Island and surrounding area. As articulated in the Keating Channel Precinct Plan, the Port Lands Planning Framework and the emerging plans for the Unilever Precinct, the surrounding area will become a vibrant, mixed-use city district and employment hub.

Industrial to the South - Polson Quay, located south of the Precinct, contains a concrete distribution facility and entertainment complex, bounded by the Ship Channel to the south. South of the Ship Channel are lands used for shipping, navigation and transportation uses. The Port Lands Planning Framework envisages Polson Quay as an intriguing and interesting place that supports a mix of uses that may evolve into a live/work area

Film and Creative Hub to the East - The McCleary District is located to the east of Villiers Island, and has a mix of private and public ownership. It contains a number of specialized film studios, in addition to commercial, private recreation facilities and industrial and vacant uses. The McCleary District is envisaged as a dense, transit-oriented, complete mixed-use community and a hub of activity.

Keating Channel and West Don Lands to the North - The Keating Channel Precinct is located to the north of Villiers Island. Existing uses in this area include a number of vacant and former industrial lands south of Lake Shore Boulevard. This area is planned for mixed-use redevelopment as guided by the Keating Channel Precinct Plan. The former Unilever lands are located to the east of the Don River. These lands are envisaged as a future employment hub. The West Don Lands, located north of the Keating Channel Precinct, is an evolving neighbourhood with residential, commercial uses and community amenities.

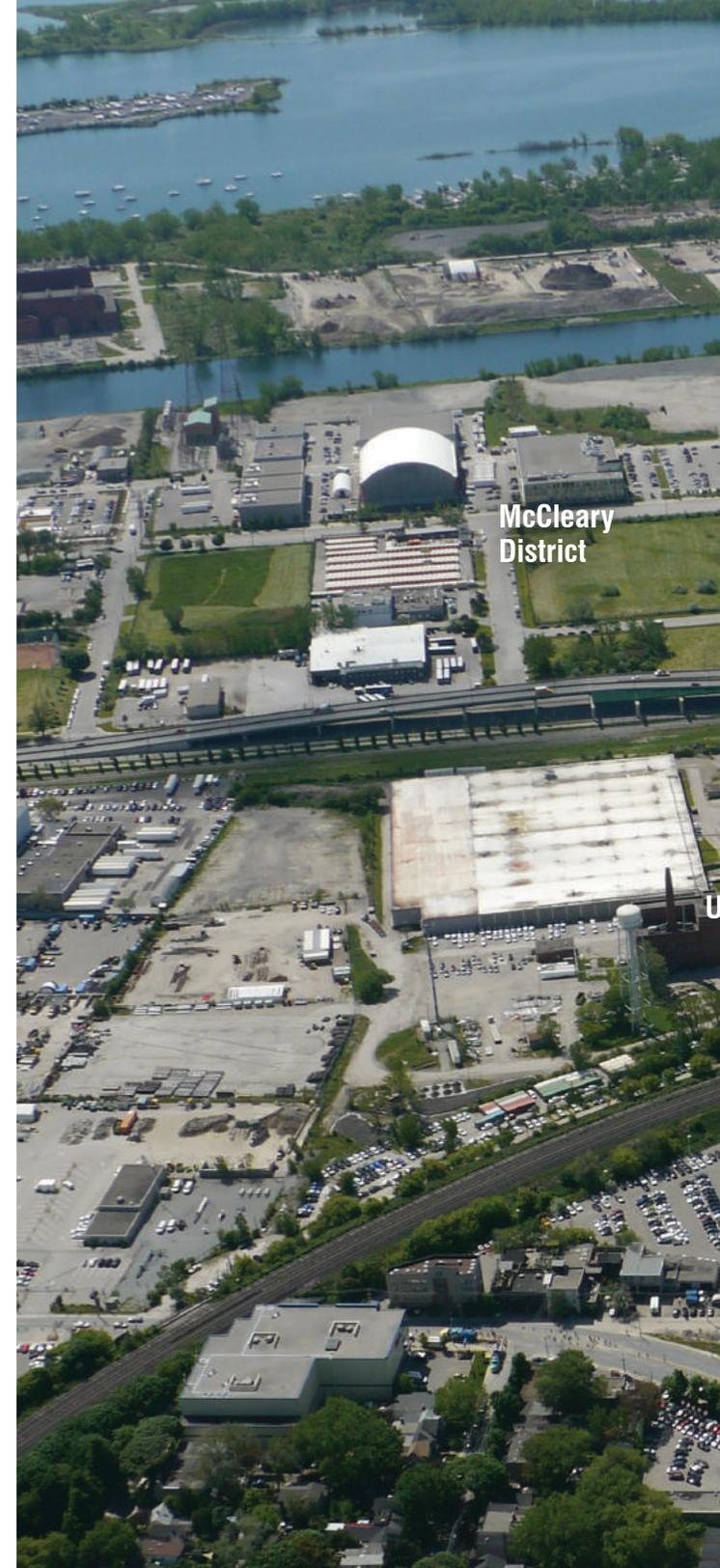


IMAGE 2. Aerial image illustrating the surrounding context



Cherry Beach

Ship Channel

Polson Quay

Inner Harbour

Keating Channel

Keating Channel Precinct

Unilever Precinct

Don River

West Don Lands

1.4.2 Land Use, Activity and Ownership

The Precinct Plan area currently contains a mix of industrial, commercial and vacant land (see Figure 7). The dockwalls along the Keating Channel are actively used, and the western harbour dockwall remains in operation. Current employment and commercial uses include sound and film studios and small-scale restaurants and retail uses.

Property is mostly owned by public agencies (City of Toronto and Waterfront Toronto), with the exception of 33 Villiers Street, 309 Cherry Street and 39 Commissioners Street, which are privately owned (see Figure 8).

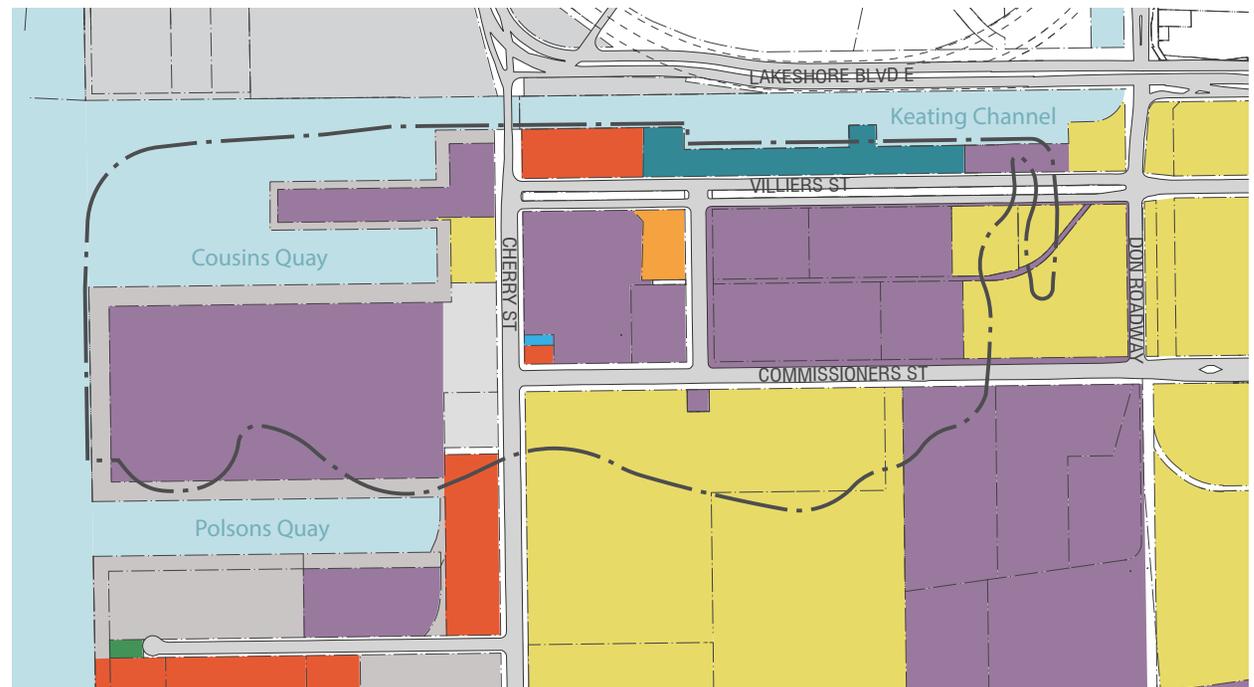


FIGURE 7. Existing conditions land use plan

- Utilities
- Transportation
- Parking
- Film Studio / Sound Studio
- Industrial / Warehousing
- Commercial
- Temporary Use / Vacant

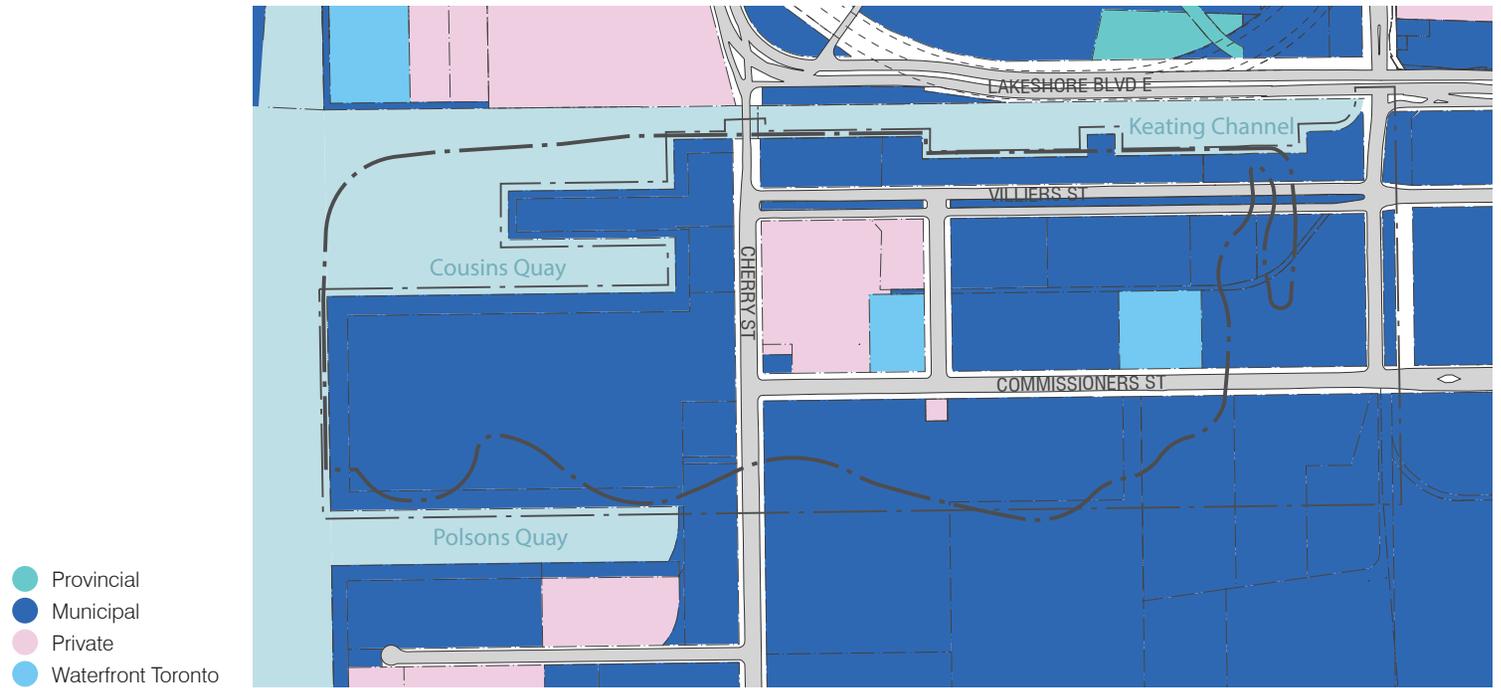


FIGURE 8. Existing conditions - land ownership



IMAGE 3. Existing uses along Cherry Street



IMAGE 4. Cousins Quay, existing conditions

1.4.3 Heritage Resources

The Villiers Island Precinct area includes a series of heritage assets, together telling the story of the Island's evolving character (see Figure 9). The heritage structures are demonstrative of successive waves of development in the Port Lands, and include heritage structures associated with the 1912 Harbour Commission Plan and post-war development following the completion of the St. Lawrence Seaway in 1959. In total, there are eight Listed heritage resources and one Designated heritage resource on the City's Inventory of Heritage Properties. Views that are integrated into the Listings and Designations, including the Silos as the terminus of Villiers Street, are also important heritage resources.

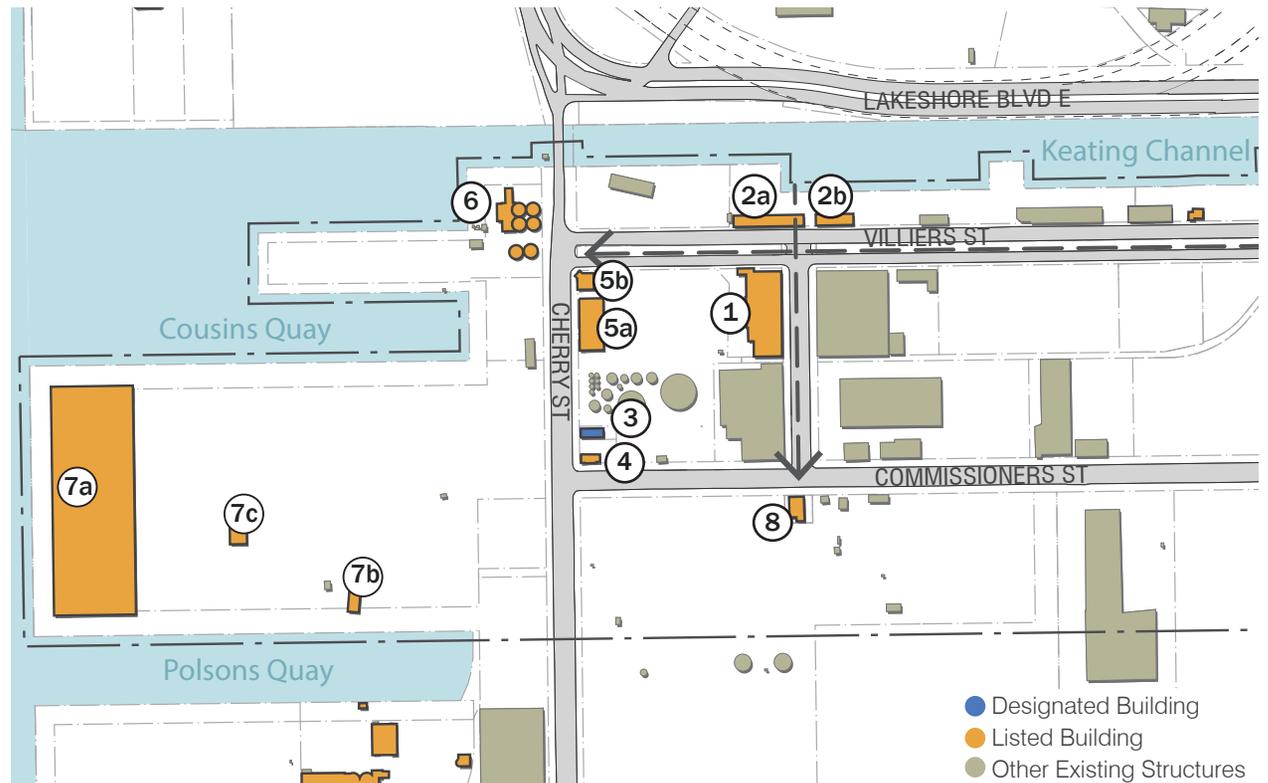


FIGURE 9. Existing conditions - heritage resources



IMAGE 5. 1921 Bank of Montreal (Construction, p. 371)



IMAGE 6. 1923 Ashbridges Bay Fire Hall (City of Toronto Archives, Series 372, Subseries 1, Item 597)



IMAGE 7. 1916 August 24 Harbour Commission building under construction (Toronto Harbour, The Passing Years)



IMAGE 8. 1914 View southeast showing Keating Channel, the Harbour Commission Workshop and Office, and Queen's City Foundry (Toronto Public Library, Baldwin Collection, 942-1-9)

IMAGE 9. 1930 View southeast from Cherry St and Villiers St (Toronto Public Library, Baldwin Collection, 942-1-9)

The Listed and Designated Heritage structures in the Precinct include the following:

- 1 33 Villiers Street/16 Munition Street – **Queen's City Foundry** (built c1917) was one of the original industrial buildings constructed in the Port Lands following the 1912 Toronto Harbour Commission Plan.
- 2 62 Villiers Street – **Toronto Harbour Commission workshop and office** (built c1916) and the **Toronto Dry Dock Company building** (built c1920) were the first buildings completed by the Toronto Harbour Commission, and housed the original Harbour Commissioner's office.
- 3 281 Cherry Street – **The Toronto Hydro Substation building** (c1930) was designated in 2012. The two storey building was built to provide power to the Port Industrial District.
- 4 275 Cherry Street – **Dominion Bank Branch** (c1920) provided financial services to expanding industrial users in the area, and was converted to a restaurant in the 1930s.
- 5 309 Cherry Street – **William McGill and Company Building** (5a) and **Bank of Montreal building** (c1920)(5b) were constructed as part of the first phase of building construction in the Port Lands.
- 6 312 Cherry Street - **Lake Ontario Portland Cement Company Silos** (c1957 and 1962) formerly in use by Essroc Italecmenti Group are prominent landmarks, marking the entrance into the Port Lands and terminating the view westward along Villiers Street. They were constructed after Century Coal vacated the lands by the Lake Ontario Portland Cement Company.
- 7 242 Cherry Street – **Marine Terminal Building No. 35** (7a) and **Atlas Crane** (c-1959 and 1961) (7b) occupy the majority of lands known as Cousins Quay, and contain a warehouse and lift-structure to handle cargo associated with the opening of the St. Lawrence Seaway. The **forklift building** (7c) is similarly important to the complex, given that the Terminal was designed for forklifts to transport cargo between ships and trucks.
- 8 39 Commissioners Street – **Toronto Fire Hall No. 30**, known as Ashbridges Bay Fire Hall (c 1922-1923), was built by the Toronto Harbour Commission to attract industries to the area through the provision of municipal services.

Cultural Heritage Landscapes

In addition to the Listed and Designated Heritage structures, existing industrial assets and landscapes within the Precinct contribute to the sense of place, identity and industrial character of the area. The Keating Channel, Villiers Street and Cherry Street together form a historical cluster, representative of the area's previous industrial and port activity.

Historic assets and landscapes in the area contributing to the sense of place include:

- The Keating Channel edged by concrete dockwalls;
- The western dock, providing an active dock for large metal ship mooring; and
- Rail spurs, demonstrating evidence of the link between rail and shipping activity in the district.



SECTION 2

VISION AND STRUCTURING MOVES



2.1 PRECINCT PLAN VISION

The re-naturalization of the Don Valley will spark a new chapter in the transformation of Toronto's waterfront, following in the legacy of robust revitalization along the city's water's edge (see Figure 10). Villiers Island will kick start a new wave of change and reurbanization in the Port Lands, showcasing a renewed connection between the river, lake and city. The following vision, principles, and character area descriptions articulate the ambitions for Villiers Island.



FIGURE 10. 3-dimensional view of the waterfront



FIGURE 11. Bird's eye view of Villiers Island

Villiers Island will evolve from an industrial port to a connected and complete island community with great parks and open spaces along four distinct water's edges. It will be an international model for sustainable city-building. As a gateway to the Port Lands, Villiers Island will become significant as a regional destination and distinct as a sustainable community. The Island's industrial and natural heritage will contribute to a sense of place. The Island will offer exciting new waterfront experiences for residents and visitors, providing places for people to live, work, shop, explore, relax and connect with nature (see Figure 11).

2.2 GUIDING PRINCIPLES

Building on the Central Waterfront Secondary Plan's core principles and big moves and the Port Lands Planning Framework's vision and objectives, the guiding principles advance a vision for the Island, and direct its evolution into a unique and memorable island community.

- 01 Animate and activate the water's edges to provide a variety of memorable experiences along the river, harbour and channel edges
- 02 Create a network of spectacular open spaces and waterside parks to serve the local community, city and region
- 03 Provide a catalytic use opportunity to reinforce the Island's identity as a regional destination
- 04 Reinforce the Island as a gateway to the waterfront and the Port Lands
- 05 Celebrate the area's industrial heritage character and legacy through conservation
- 06 Prioritize pedestrian, cycling and transit infrastructure to, from and within the Island by providing connected pedestrian and cycling networks and optimizing planned transit infrastructure
- 07 Plan for a diverse, mixed-use and inclusive community with employment opportunities and a range of affordable and family-oriented housing opportunities
- 08 Provide a variety of building forms to support a comfortable and inviting public realm and establish a distinct skyline
- 09 Develop an innovative model for a climate-positive urban community and demonstrate excellence in community design
- 10 Ensure that the Precinct Plan and supporting infrastructure are viable and implementable

2.3 CLIMATE POSITIVE PRECINCT

Sustainability is essential to the revitalization of Toronto's eastern waterfront. Villiers Island will showcase real-world solutions that help mitigate climate change that exceed the Port Lands wide ambitions for a net-zero energy district. Waterfront Toronto will demonstrate environmental leadership by piloting and developing the Island as the first neighbourhood in the city primed to achieve a climate positive outcome. The City of Toronto and Waterfront Toronto aim to show leadership on sustainable development at Villiers Island, by creating and communicating real-world solutions that help mitigate climate change. These actions to support carbon reductions will create environmental, social and economic co-benefits for the city such as improved air quality, increased green space, improved energy and food security and economic development.

2.3.1 Climate Positive Framework

TransformTO, the City of Toronto's proposed climate change strategy, lays out an action plan to achieve 80% greenhouse gas (GHG) reductions by 2050, as well as interim GHG reductions targets, as per the 2007 Climate Change Action Plan, unanimously adopted by Council. Villiers Island will showcase real-world solutions that help mitigate climate change that exceeds the Port Lands wide ambitions for a net zero energy district. Waterfront Toronto will demonstrate environmental leadership by piloting and developing the Island as the first neighbourhood in the city primed to achieve a climate positive outcome.

In addition to greenhouse gas emissions reductions, Villiers Island will also form new resilient neighbourhood that is positioned to respond to the stresses and shocks of a changing climate. It will feature inclusive, intelligent and connected places that use technology to improve quality of life, enhance the human experience through design excellence, and connect people to nature through biophilic design – that is, to design and create public spaces inspired by natural systems, aiming to foster environmental restoration and increase ecological function.

These priorities for Toronto's waterfront districts, including Villiers Island, are described in Waterfront Toronto's Resilience and Innovation Framework for Sustainability. This framework's development was guided by local, national and international best practices and in consultation with the Framework Steering Committee and Advisory Committee, the waterfront community and members of the Waterfront Toronto team.

What is the Climate Positive Framework and C40 Climate Positive Development Program?

The Climate Positive Framework is a roadmap that leads new developments to achieve net-negative operational greenhouse gas (GHG) emissions associated with energy, waste and transportation. Villiers Island is one of the 17 inaugural projects included in the C40 Climate Positive Development Program launched by the Clinton Climate Initiative in 2009 (see Figure 12).

By reducing local emissions as much as possible, and offsetting the remainder by lowering emissions from adjacent neighbourhoods through creation or regeneration of green spaces as carbon sinks, or the export of clean energy, the development of Villiers Island will effectively reduce overall GHG emissions from Toronto, as well as and Canada's national emissions.

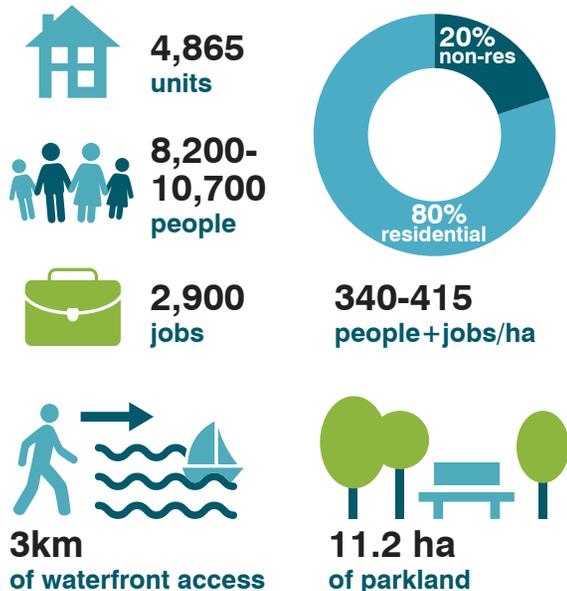


FIGURE 12. Illustration of the 17 cities participating in the C40 Climate Positive Development Program

2.4 VILLIERS ISLAND DEVELOPMENT PLAN

Villiers Island will offer a vibrant blend of interconnected urban waterfront destinations structured around a street and block pattern that responds to the Island’s special open space and heritage attributes. Although the Island is small in size – only a ten-minute walk from edge to edge, it will provide a variety of experiences for residents, workers and visitors. (see Figure 13)

As seen in Figure 14, the Island consists of a fine-grain street and block structure, made up of ten development blocks, three west-east streets and six north-south streets, set within a green and blue loop along the edges of the Island. The development blocks will accommodate a variety of building types, sizes and styles, which will collectively reinforce the streets and open spaces of Villiers Island. The street and block pattern maintains the heritage structures in their existing locations, wherever possible, and provides views to the water, surrounding city skyline and heritage structures.



A Series of Special Waterfront Places

The Island’s western terminus will be anchored by Promontory Park and a Catalytic Use overlooking the Inner Harbour with views to Toronto’s downtown core. Promontory Park will become one of Toronto’s landmark waterfront destinations. The eastern boundary of the Island will be framed by Villiers Park, a hub for the local Villiers community with connections to River Park and the naturalized river valley.

The two parks will be connected by Centre Street, the central spine of the Island and the primary pedestrian thoroughfare.

The Keating Channel Promenade and Old Cherry Street will form the Island’s vibrant northern edge. This active cluster will celebrate the Island’s industrial legacy. New Cherry Street and Commissioners Street will provide circulation and transit corridors to the surrounding precincts, connected to pedestrian-focused streets and a network of multi-use trails and water-based transportation.

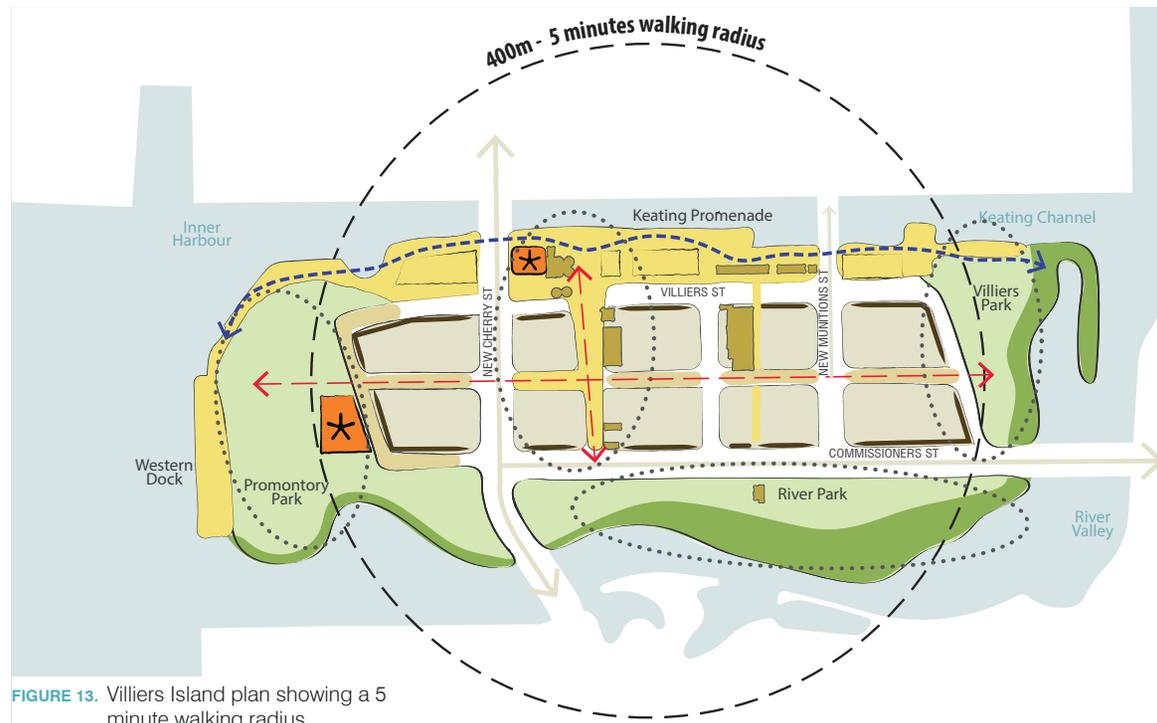


FIGURE 13. Villiers Island plan showing a 5 minute walking radius



FIGURE 14. Villiers Island development plan

- | | | | | | |
|--|--------------------------|--|----------------------|--|----------------------------------|
| | Precinct boundary | | Shared street | | Promenade or pedestrian priority |
| | Catalytic use | | Parks and open space | | Potential stormwater facility |
| | Heritage building | | Marshland | | Streetcar stop |
| | MT35 footprint | | | | |
| | Proposed building | | | | |
| | Priority retail frontage | | | | |

2.5 STRUCTURING MOVES

Six structuring moves work together to create a distinct island community with a diversity of uses, amenities and attractions, wrapped by a variety of waterside parks and open spaces.



1. A Green and Blue Loop

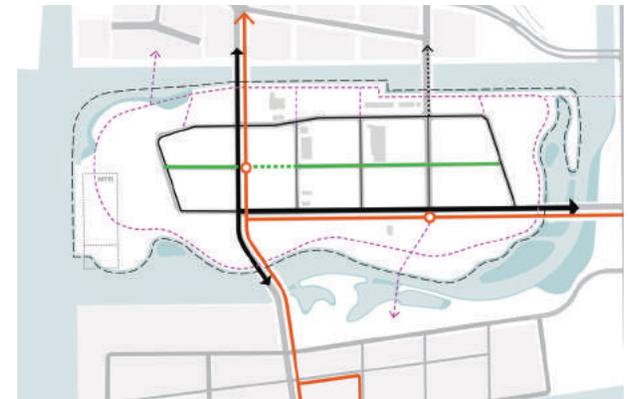
The Island will be surrounded by four distinct waterside edges: the historic Keating Channel, the Inner Harbour and the naturalized valley lands along the east and south edges of the Island. Each of these edges will have special qualities and characters, and provide different opportunities for people to engage with water.

A generous green loop with varied public open spaces will wrap around these waterside edges, showcasing distinct urban, industrial and natural conditions. The green and blue loop will include a network of open spaces providing a range of waterside experiences, framed by strong building edges with a variety of building types and forms.



2. A Central Living Room

The Keating Channel will function as a central spine, or “living room”, stitching together Villiers Island to the south and the Keating Channel Precinct to the north. Its central location reinforces its prominence on the waterfront, creating a focal point for cultural venues, cafés and restaurants that can spill out onto the water’s edge.



3. A Connected Island

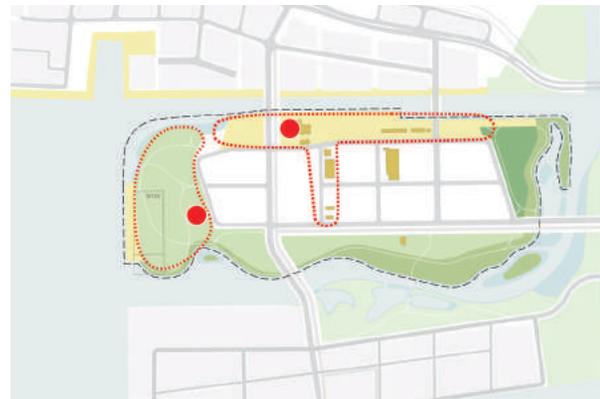
A fine-grained street and block pattern and new connections into and through the Island will support multi-modal movement including watercraft use. A dedicated transit route along New Cherry Street and Commissioners Street will serve the community and connect to the broader city and Port Lands. The fine-grain street and block pattern will support safe and balanced movement within the Island, including a central east-west spine that runs through the heart of the Island connecting its major parks and destinations. The central spine will provide for long views of the Inner Harbour to the west and the Commissioner’s Incinerator’s chimney stack to the east.

▼ FIGURE 15. Diagrams illustrating the structuring moves



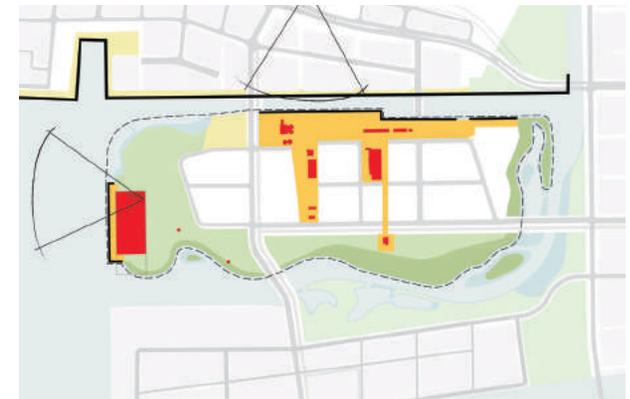
4. A Complete Island

Villiers Island is envisioned as a complete and sustainable community, offering a mix of uses and amenities that support living, working, shopping, learning, and relaxing. It will also provide a mix of affordable and family-oriented housing opportunities for people of varied ages and income levels, supported by local employment and commercial opportunities. Residents, workers, and visitors will benefit from a suite of community services and facilities, including cultural venues, restaurants, cafés, playgrounds, a school, daycares and community space.



5. A Destination Island

Villiers Island will have a transformational effect on the entire Port Lands, and represents the next generation of Toronto's waterfront revitalization. The Island will attract visitors from the Toronto region and beyond with vibrant waterfront amenities. As an anchor to the extensive parks and open space network, a Catalytic Use site will be reserved for a significant cultural or civic facility, drawing people to the Island. A secondary Catalytic Use site co-located with community uses at the iconic Lake Ontario Portland Cement Company Silos will draw people to the Keating Promenade and Old Cherry Street.



6. An Island with History

Villiers Island represents a holistic approach to city-building in Toronto, forging together natural, industrial, and intangible heritage. Along the southern and eastern edge, the realigned and re-naturalized Don Mouth and valley lands will reflect the characteristics of the original Ashbridges Bay marshland. The design and revival of Villiers Street, the Keating Channel and Old Cherry Street will showcase the history of the Toronto's Harbour Commission's plans and the area's evolving industrial heritage, with views of surrounding industrial landmarks. Merging the Island's history with a contemporary approach to sustainable planning, including the development of Toronto's first climate positive precinct, represents a new kind of city building.

2.6 CHARACTER AREAS

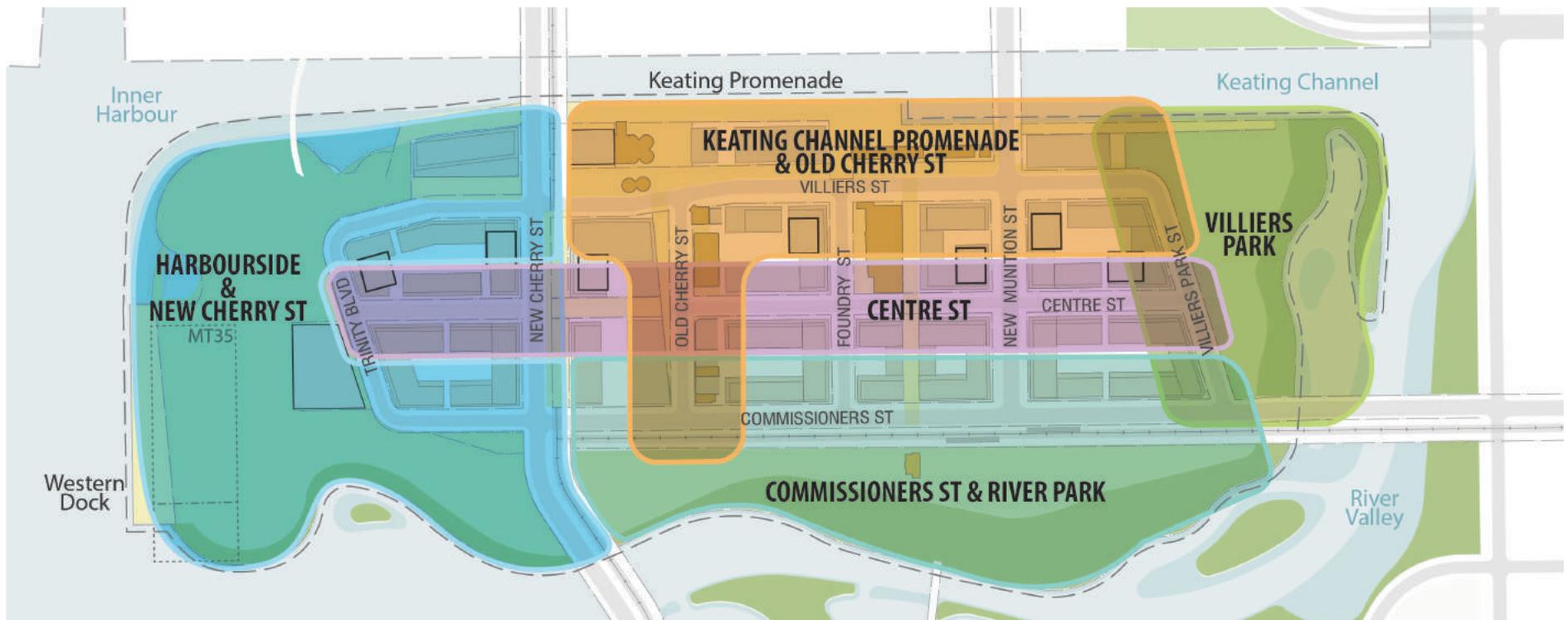


FIGURE 16. Precinct character areas

Distinct character areas take inspiration from the Island's varied urban, industrial and natural landscapes, and offer different place-making opportunities.

There are five character areas planned for Villiers Island (see Figure 16), each with a distinct but interconnected place-making vision. Each character area comprises elements including parks and open spaces, heritage structures and special places suitable for programming and activities (see Figure 17).



FIGURE 17. Villiers Island character area elements

- | | | |
|--|--|--|
| 1. Promontory Park | 9. Marina Square | 16. Mixed-use and Employment-related Buildings |
| 2. Catalytic Use | 10. School | 17. Queen's Foundry Building |
| 3. Trinity Footbridge | 11. Villiers Street Promenade | 18. Old Munitions Street Pedestrian Link |
| 4. Community Centre | 12. Overlook Plaza | 19. Villiers Park with Multi-use Field |
| 5. Keating Channel Promenade | 13. Western Dock | 20. Relocated Fire Hall |
| 6. Silos Square | 14. The Old Cherry Street Historic Buildings | 21. A Continuous Waterfront Pathway |
| 7. Low-rise Waterfront Buildings | 15. The Old Cherry Street Diagonal Plaza | 22. River Valley Marshland |
| 8. The Harbour Commission and Dry Dock Buildings | | |



Promontory Park

New Cherry Street

Silos Square

Keating Promenade

Keating Channel

Marina Square

Villiers Street

Centre Street

2.6.1 Keating Channel Promenade and Old Cherry Street



The Keating Channel Promenade and Old Cherry Street character area will function as the central living room for the entire Island. Its low scale, mix of community and commercial uses, and celebration of history will generate some of the most energetic spaces in Villiers Island.

2.6.1.1 Character Area Overview

Keating Channel Promenade and Old Cherry Street will become a cohesive heritage cluster in the Island, marked by the restored Keating Channel, the Lake Ontario Portland Cement Company Silos and the concentration of fully retained and re-purposed heritage structures along Villiers Street and Old Cherry Street.

The Promenade's canal frontage will consist of a wide urban promenade, lined with low-rise waterside cafés, restaurants and civic and commercial buildings and the re-purposed Harbour Commission buildings. Together with the low-rise heritage buildings and new commercial and mixed-use buildings along Old Cherry Street and the south side of Villiers Street, this area will become a distinctive and intimate public gathering space, contrasted by urban intensity to the north, south and west. In this way, the character area will function as the central living room for Villiers Island and the Keating Channel Precinct to the north.

◀ FIGURE 18. Keating Channel Promenade visualization

2.6.1.2 Central Living Room

The Keating Channel will become one of the most distinctive features on Toronto's waterfront, celebrating Toronto's historic urban canal. The channel will stitch together Villiers Island and the Keating Channel Precinct to form a central living room (see Figure 19), creating a focal point for activity. It will become one of the most active and energetic parts of the waterfront, with a series of plazas along the Promenade and cultural venues public attractions, cafés and restaurants along the water's edge.

In Villiers Island, the channel will be framed by low-rise buildings with active uses along the Promenade and south side of Villiers Street, mid-rise buildings along the north side of Villiers Street, and moderately-scaled tall buildings at key points along the corridor.

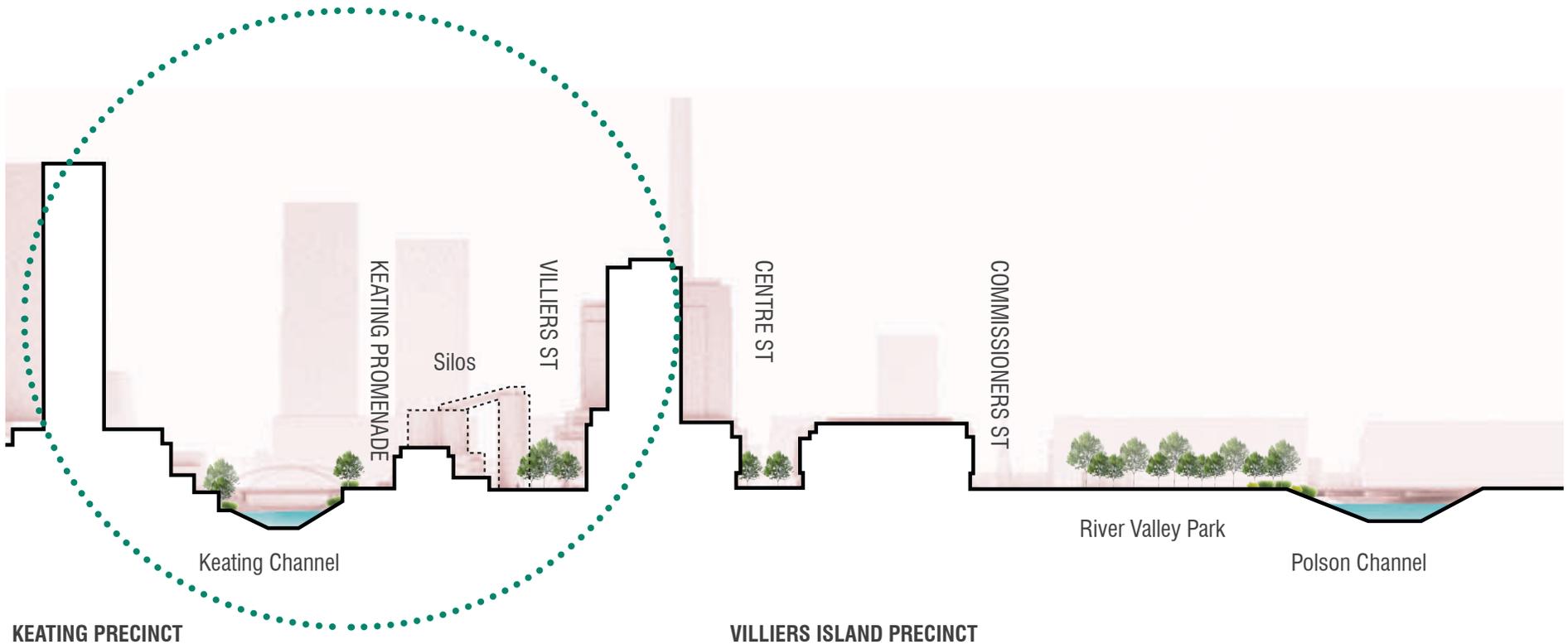


FIGURE 19. Section diagram demonstrating the central living room concept

2.6.1.3 Keating Channel Promenade and Villiers Street Elements

The **Keating Channel Promenade** will consist of a series of elements that together reinforce its function as the most important and distinctive gathering space on Villiers Island. The Promenade will be multi-tiered, with upper and lower promenade areas along the Keating Channel dockwall, comprising a total width of 19 metres along the majority of the Channel edge, west of New Munition Street.

The Promenade pedestrian spine will connect a number of distinct public gathering spaces. At its western extent, a series of undulating stairs along the lower elevation of the Harbour Commission buildings may provide opportunities for gathering,

viewing activity along the channel. The **Catalytic Use** and **Silos Square** will activate the Silos with a small-scale institutional or community use.

A water-related gathering space, **Marina Square**, will be located at the edge of the Promenade north of Foundry Street. The Square will be a special hardscape plaza providing opportunities for programmed events and small-scale boating activities. South of Marina Square, the **Harbour Commission and Dry Dock buildings** and a series of low-rise new buildings will create a cohesive active channel-side district with active waterside uses, including large outdoor cafés and patios facing the water's edge. Potential uses on

the upper storeys of the buildings on the Keating Promenade include small-scale offices, workshops and other creative employment uses.

Villiers Street, running parallel to the Keating Channel Promenade, will feature the **Villiers Street Promenade**, which will be a pedestrian-only zone. This pedestrian promenade will cut through the northern and southern portion of the Lake Ontario Portland Cement Company Silos structure.

1. The Keating Channel Promenade
2. Catalytic Use
3. Silos Square
4. Marina Square
5. The Harbour Commission and Dry Dock Buildings
6. Villiers Street
7. Villiers Street Promenade

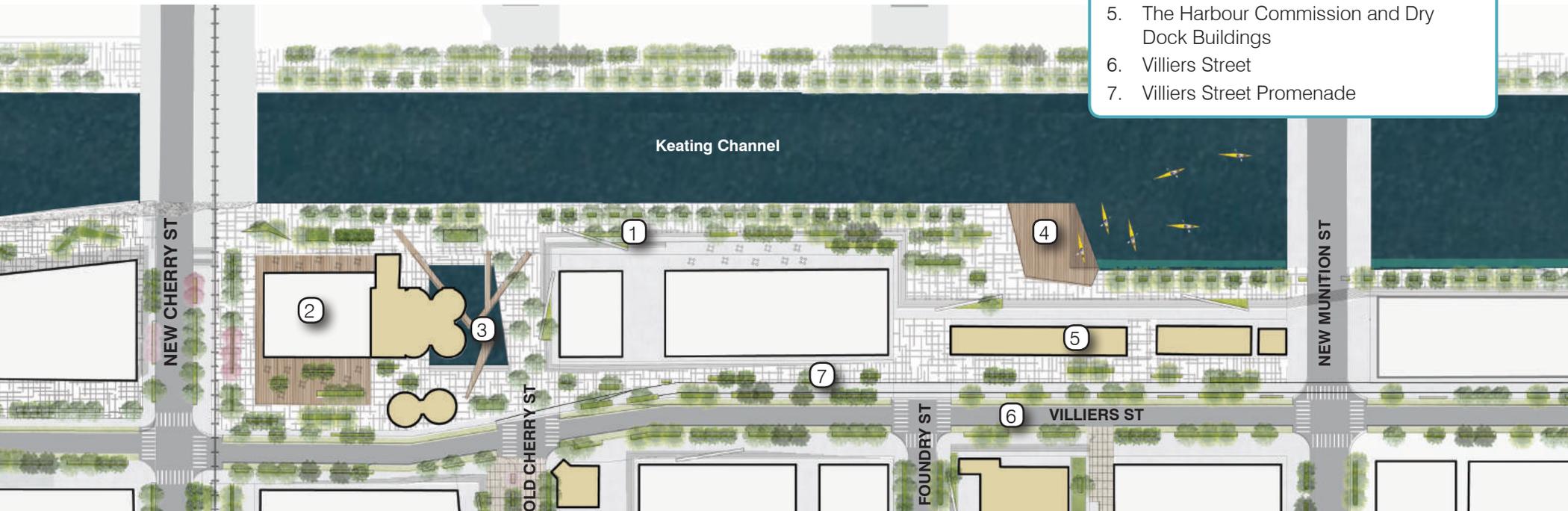


FIGURE 20. Keating Promenade illustrative plan



River Park

Old Cherry St

Villers St

New Cherry St

Silos Square

Keating Promenade

Keating Channel

2.6.1.4 Old Cherry Street Elements

Despite the short distance it covers – only a 2 minute walk – **Old Cherry Street** will host a collection of special spaces that celebrate the Island’s heritage. **Silo Square**, a gathering space adjacent to the repurposed Lake Ontario Portland Cement Company Silos, may feature an innovative water garden and a series of boardwalks and pathways through the square. This will be subject to a more detailed heritage study and conservation strategy.

On the east side of Old Cherry Street, the **Old Cherry Street historic buildings** will be adaptively reused with commercial and small-scale employment and retail uses at grade.

On the west side of Old Cherry Street, the **Old Cherry Street diagonal plaza** will be created by angling mixed-use and employment-related buildings. This plaza will provide a street-level gathering space and open up views to Silos Square.

Mixed-use and employment-related buildings should cluster along the west side of Old Cherry Street. An office building with an indoor atrium may offer the potential to create a publicly accessible winter garden or galleria.

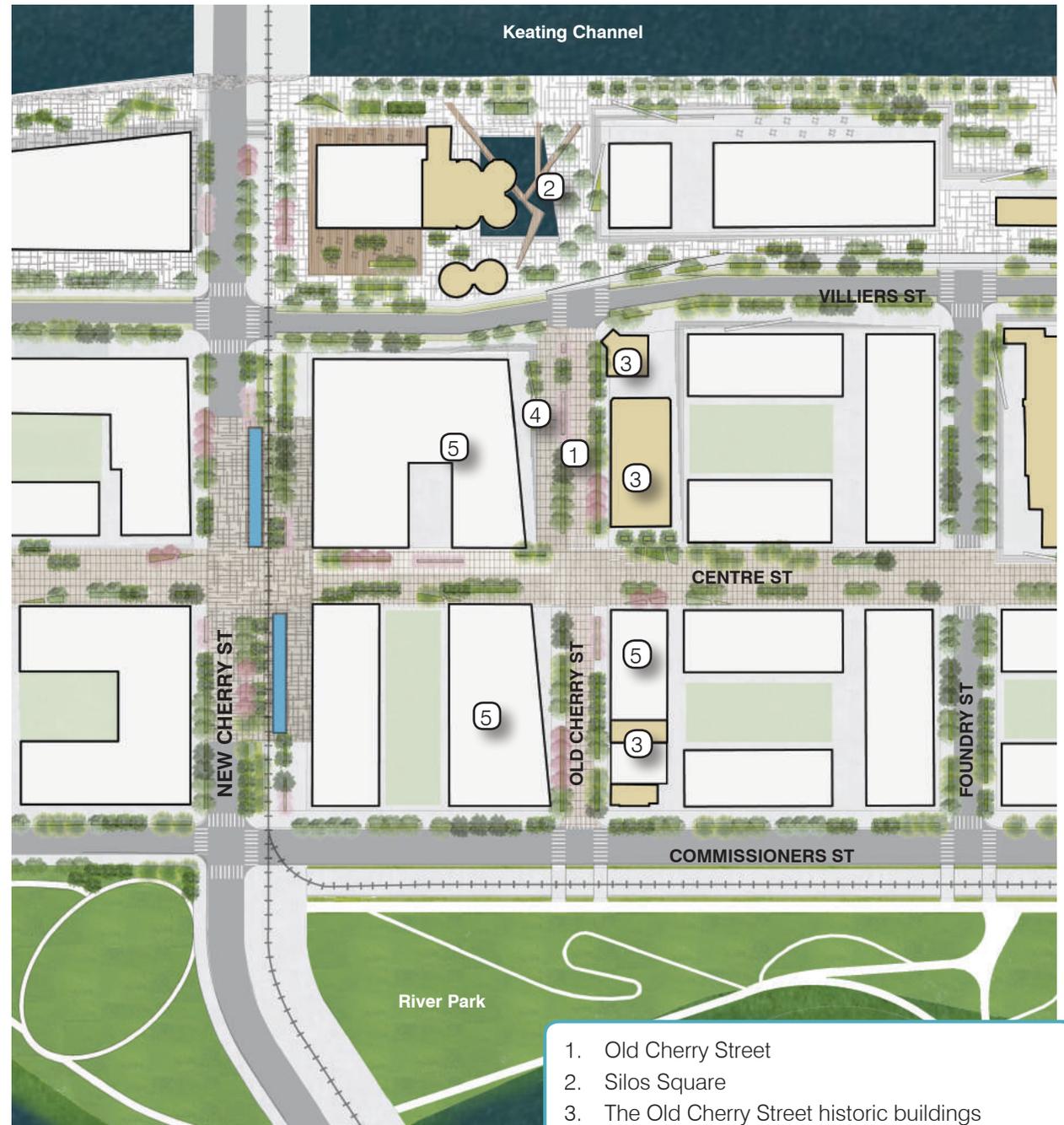


FIGURE 22. Old Cherry Street illustrative plan

- 1. Old Cherry Street
- 2. Silos Square
- 3. The Old Cherry Street historic buildings
- 4. The Old Cherry Street diagonal plaza
- 5. Mixed-use and employment-related buildings

◀ FIGURE 21. Old Cherry Street visualization



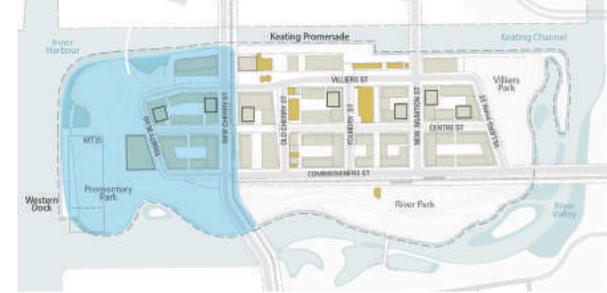
Silbs
Square

Keating Promenade

New Cherry Street

Keating Channel

2.6.2 Harbourside and New Cherry Street



The Harbourside and New Cherry Street character area will be the main gateway and point of arrival to the Island. Promontory Park and a Catalytic Use will anchor the character area, together generating a distinct sense of place that celebrates the rich industrial history of the Island.

2.6.2.1 Character Area Overview

Upon entering Villiers Island by way of New Cherry Street, visitors will encounter a mixed-use environment with lively commercial frontages flanking a wide boulevard, extensive pedestrian, cycling and transit infrastructure, and heritage structures emblematic of an industrial past. The character area will celebrate the Island's industrial heritage by integrating Marine Terminal Building No. 35 and Atlas Crane into the landscape concept for Promontory Park.

A consistent frontage of mid-rise buildings will frame Promontory Park. Tall buildings will step back from the park, increasing in height toward New Cherry Street. This will create a varied and dynamic skyline that provides views both into and out of the Island. This character area will also be defined by its excellent pedestrian, transit, and cycling access.

Together the elements of the Harbourside and New Cherry Street character area will combine to create a special place that signals arrival to a unique waterfront cityscape.

◀ FIGURE 23. Harbourside and New Cherry Street visualization



1. The Western Dock
2. A Continuous Waterfront Park Trail
3. An Elevated Promontory
4. The Catalytic Use
5. Overlook Plaza
6. Trinity Boulevard
7. Trinity Footbridge
8. New Cherry Street
9. Community Centre
10. New Cherry Street Arrival Plaza
11. Mixed-use and Employment-related Buildings

2.6.2.2 Character Area Elements

The Harbourside and New Cherry Street character area is comprised of varied and dynamic elements that transition from green and blue edges to an urban neighbourhood. The western edge of the Island is anchored by the **western dock**, which will provide opportunities for public water access including light recreational boating when ships are not docked in the harbour. The dock will connect to a series of coves and a new rocky edge along the northern portion of the park, with connection to the Keating Channel below the New Cherry Street bridge. The area under the bridge will be well lit, inviting and safe.

The Marine Terminal Building No.35, a Listed heritage structure may be incorporated in whole or in part into the design of the western edge of Promontory Park. Other industrial structures including Atlas Crane and the Forklift will become defining features of the park landscape. South of the western dock, a **continuous waterfront park trail** will connect to River Park along the river valley. The southern portion of the Park will feature an **elevated promontory**, creating spectacular viewing points overlooking the harbour.

The eastern edge condition of Promontory Park will be anchored by the **Catalytic Use site**. This site will host a major cultural, civic, or institutional facility. This site will become a significant waterfront destination, marked by its exceptional waterfront architecture that leverages its location and relationship to the Inner Harbour and Promontory Park.

◀ FIGURE 24. Harbourside and New Cherry Street illustrative plan

Overlook plaza, at the eastern end of **Trinity Boulevard**, will form a complementary outdoor civic gathering space. The plaza will mark the arrival into Promontory Park, with connection from Trinity Boulevard and Centre Street to the western dock. The gathering space should hearken back to the historic Cousins Quay and incorporate a series of industrial-type walkways and footbridges, including the **Trinity footbridge** which will connect Villiers Island to the Keating Channel Precinct.

New Cherry Street will function as the active urban gateway into the Port Lands. It will be anchored by two structuring elements: the **Community Centre** and the **New Cherry Street arrival plaza**. The Villiers Community Centre will be designed as a highly visible waterfront community amenity, showcasing a renewed public relationship to the Keating Channel. The area between Villiers Street and the community centre should re-interpret the historic Essroc Quay, with possibilities for integration or adaptive reuse, showcasing the area's evolving footprint.

The New Cherry Street arrival plaza, located at the intersection of New Cherry Street and Commissioners Street, will be an important area for pedestrian arrival and movement into Harbourside. It should feature public realm amenities, including vegetation and street furniture, and a generous sidewalk width to allow for safe waiting areas. The New Cherry Street and Centre Street intersection should prioritize pedestrian crossing while calming traffic.

Finally, **mixed-use and employment-related buildings** should cluster along the east side of Old Cherry Street.



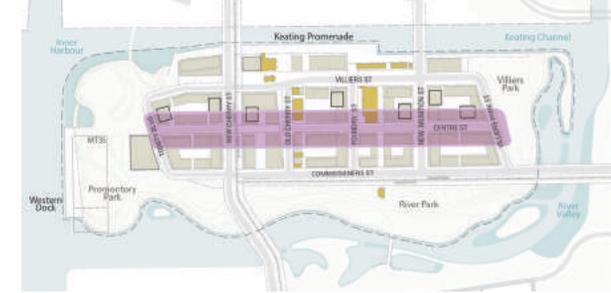
FIGURE 25. Bird's eye view of the southwest corner of Villiers Island





2.6.3 Centre Street

The Centre Street character area will function as the central pedestrian spine of Villiers Island, providing the connective tissue between Promontory Park and Villiers Park.



2.6.3.1 Character Area Overview

The Centre Street character area extends across the Island from Promontory Park to Villiers Park, and is entwined with the other four character areas as it extends from east to west. Centre Street will act as a primary pedestrian spine through the heart of Villiers Island, with a distinct mid-rise neighbourhood character. Although only five city blocks in length, Centre Street will have a varied character from west to east. The character area will transition from the main pedestrian arrival gateway into the Island at New Cherry Street to a quiet residential pedestrian mews at the eastern end.

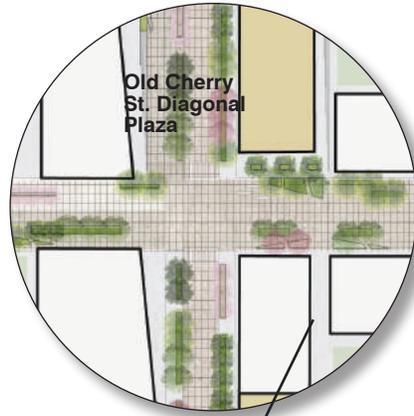
Centre Street will offer views to the water's edge at intersections with streets oriented north-south, reinforcing the sense of island living. With carefully designed buildings to mitigate against shadow impacts, an exceptional public realm, and a focus on pedestrian movement, Centre Street will be an intimate, residential street that allows community life to spill out into the street

◀ FIGURE 26. Centre Street visualization

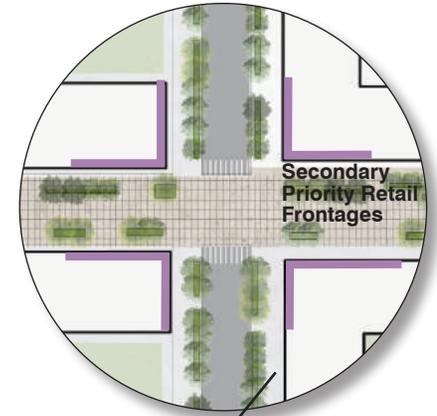
Trinity Boulevard interface



Old Cherry Street Intersection

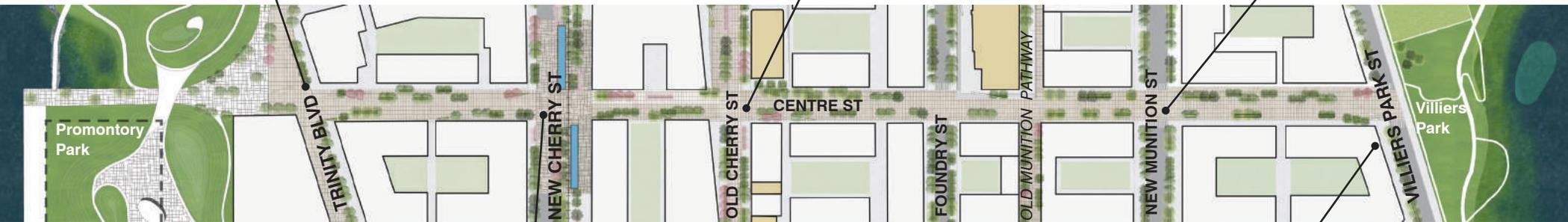


New Munition Street Intersection

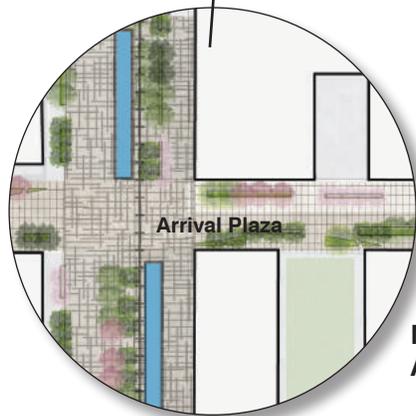


West

East

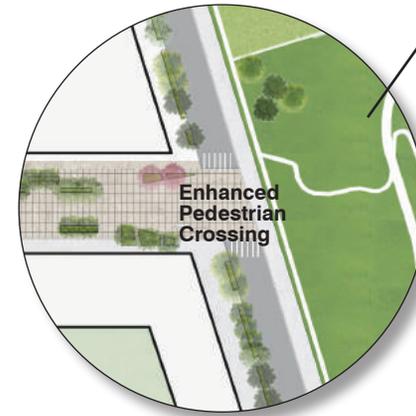


Arrival Plaza



New Cherry Street Arrival Plaza

Enhanced Pedestrian Crossing



Villiers Park Street intersection

FIGURE 27. Centre Street illustrative plan

2.6.3.2 Character Area Elements

In addition to connecting the major destinations of the Island's other character areas, the Centre Street character area will offer small intimate places to gather along the street. While the conditions along the street will vary at each intersection, the built form character will be consistent.

The Centre Street and **Trinity Boulevard interface** will mark the transition between the Villiers Island neighbourhood and Promontory Park. Moving east, Centre Street intersects with New Cherry Street, the location of the **New Cherry Street arrival plaza**. This plaza will function as an important location for pedestrian arrival to the Island, featuring pedestrian-friendly amenities including vegetation for shading, seating, and generous sidewalk widths to accommodate those waiting to board transit.

The stretch of Centre Street between New and Old Cherry Streets will be pedestrian only. At the eastern end of this passage, the **Old Cherry Street intersection** will prominently feature heritage structures.

Further east, the four corners at the intersection of Centre Street and **New Munition Street** will incorporate neighbourhood-oriented retail uses to animate the intersection and mark the secondary gateway into the island.

At its eastern terminus, the **Villiers Park Street intersection** will mark a transition from urban to open space through generous pedestrian crossing widths and special pavers.

Together, these elements will contribute to the vitality of the street and reinforce a focus on pedestrian movement.



IMAGE 10. Example of residential news, False Creek, Vancouver

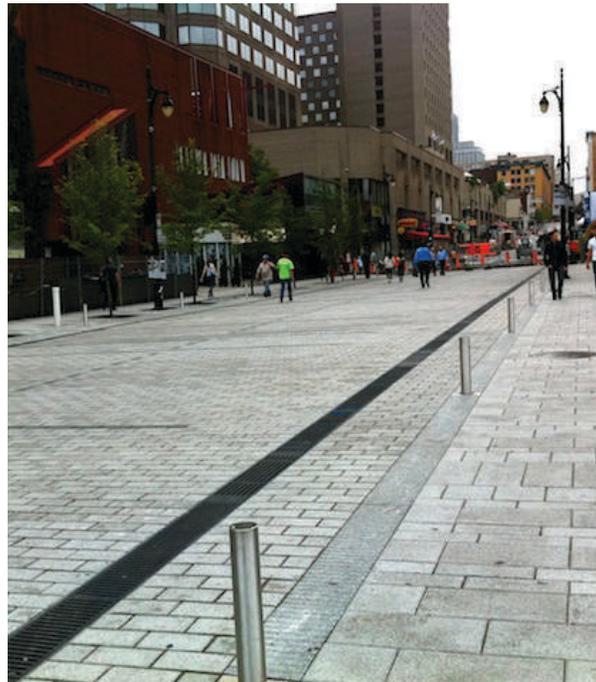


IMAGE 11. Example of a pedestrian friendly street with distinctive and light coloured paving, Vancouver



IMAGE 12. Precedent image of a cycling friendly street, Front Street, Toronto



Commissioners Street

River Park

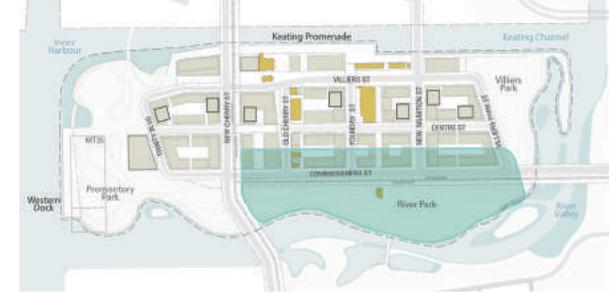
River Valley

2.6.4 Commissioners Street and River Park

The Commissioners Street and River Park character area will showcase a renewed relationship between city living and nature generated by the seamless interface between park and urban form.

2.6.4.1 Character Area Overview

Commissioners Street is the oldest, and primary, east-west street in the Port Lands. The portion of the street within Villiers Island will be characterized by its wide landscaped median, a multi-use trail, and a strong but varied building edge overlooking the expansive river valley. River Park, to its immediate south, will provide opportunities for walking and cycling with connections to a network of trails along with the river valley.



◀ FIGURE 28. Commissioners Street and River Park visualization

2.6.4.2 Character Area Elements

Commissioners Street and River Park character area will be defined by transit, recreation and nature. Spanning the distance between the river and Commissioners Street, River Park will form the northern embankment of the Don River valley lands. The upper valley lands will be well-forested to provide shade along the south facing slope, with **breaks at the north-south street termini** to allow for views across the river. These termini will connect to a pathway network with convenient access into River Park. At the park's southern extent, a **footbridge** will provide a connection to the Polson Quay District. **Pedestrian trails** will connect into Villiers Park under the Commissioners Street bridge.

These trails will bound the river valley wetlands, an area that will encourage an appreciation of nature.

This character area will also contain the **New Muniton transit stop**, located at the intersection of New Muniton Street and **Commissioners Street**. This transit stop will be equipped with wide pedestrian crossings into River Park. These crossings will accommodate greater pedestrian and cyclist flows given its connection to the recreational trails to the south.

The historic **Toronto Fire Hall** will be raised and shifted to the south at the foot of Old Muniton Street to accommodate the proposed street alignment. It will be repurposed with recreational, cultural and/or other complementary park-related uses, and include

a small hardscape plaza and viewing platform to look out across the river valley.

A **multi-use trail** will be located along the south side of the transit corridor. In addition to forming the northern edge of River Park, it will also be the primary east-west cycling route across the Island.



FIGURE 29. Commissioners Street and River Park illustrative plan

1. Breaks at the north-south street termini
2. Footbridge
3. Pedestrian trails
4. New Muniton transit stop
5. Commissioners Street
6. Toronto Fire Hall
7. Multi-use trail



IMAGE 13. Example of multi-use trail in the South Waterfront Park, Allegheny, Pittsburgh



IMAGE 14. Example of major transit street incorporating landscaping and cycling infrastructure, Queens Quay, Toronto



IMAGE 15. Example of pedestrian footbridge in Hammaby Sjostad, Sweden



River Valley

River Park

Commissioners Street

Villiers Park Street

Villiers Park

Villiers Street

Keating Channel

2.6.5 Villiers Park

The Villiers Park character area will feature an elementary school and a locally-oriented park. It will act as the threshold between the terminus of more urban areas to the west and Villiers Park to the east, with a mid-rise streetwall framing the Park's edge.

2.6.5.1 Character Area Overview

Located at the eastern end of the Island, Villiers Park will become one of two hubs for the local community, featuring an elementary school and local park with recreational space. It will be surrounded by water on three sides. Looking east and south, Villiers Park will offer views of the re-naturalized Don River Mouth, providing a celebratory vista of this transformational infrastructure. To the north, the Keating Channel will reinforce the island setting, a visual cue of no longer being on the mainland.



◀ FIGURE 30. Villiers Park visualization

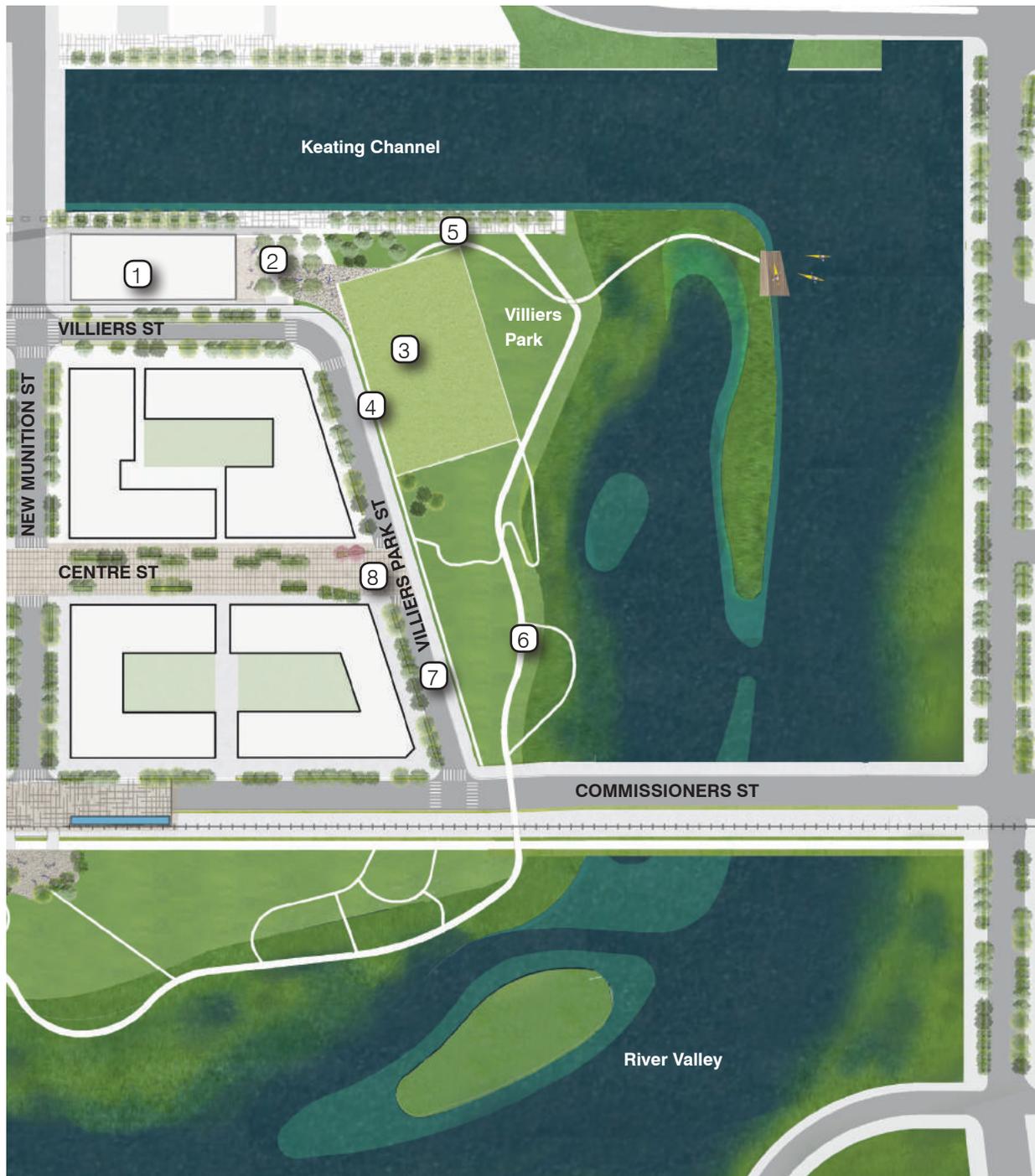


FIGURE 31. Villiers Park illustrative plan

2.6.5.2 Character Area Elements

The Villiers Park character area will deliver a suite of community focused elements. A **school** will be located along the Keating Channel. This school will become a signature urban waterfront education site, with a strong relationship to the Keating Channel. The school will be supported by a **public playground**, adding interest to the play space for all ages. A **multi-use field** with an open lawn will provide additional space for casual recreational play. A slope running the length of the athletic field will provide informal **audience seating** facing the field.

The **historic Keating Channel dockwall** and Promenade will define the northern edge of the area and connect the linear dock wall to the naturalized valley lands. The dockwall's eastern terminus provides an appropriate location for public art, sculpture or interpretive signage along the historic dock wall edge.

A **park trail** will run at the edge of Villiers Park and **Villiers Park Street**, with connections to the upper river walkway under the Commissioners Street bridge.

Finally, **pedestrian connections from Centre Street** will provide access into the interior of the Island into Villiers Island, with direct views of the industrial stacks to the east.

1. School
2. Public Playground
3. Multi-use Field
4. Audience Seating
5. Historic Keating Channel Dockwall
6. Park Trail
7. Villiers Park Street
8. Pedestrian Connections from Centre Street



IMAGE 16. Example of Kayak launch: Boat house at Clark Park, Chicago



IMAGE 17. Playground close to a waterfront promenade in the Hunters Point Park, New York



IMAGE 18. Example of mixed-use field in New York

SECTION 3

STRATEGIES AND GUIDELINES



This section of the Precinct Plan describes the strategies and guidelines for directing the change and evolution of Villiers Island. It details the planning and design directions for sustainability and climate positive design, the transportation network, public realm, heritage, activity and uses, built form, and municipal infrastructure. When combined, these strategies and guidelines provide a comprehensive and integrated roadmap to guide public and private investment and development on the Island.

The Plan's strategies and guidelines include the following:

3.1 Climate Positive Precinct

3.2 Mobility, Transportation and Access

3.3 Parks, Open Space and Public Realm

3.4 Heritage

3.5 Activity and Uses

3.6 Built Form

3.7 Municipal Infrastructure

Each section includes descriptive text to explain the planning and design directions, supporting graphics, plans, relevant photos and precedents, and policy directions and guidelines.



3.1 CLIMATE POSITIVE PRECINCT

Villiers Island is planned as Toronto's first climate positive precinct. It will be developed as an innovative 'climate positive' community, demonstrating excellence in carbon reduction and sustainable neighbourhood design.

3.1.1 Climate Positive Framework

Neighbourhood developments that rely on today's standard site and building practices result in buildings largely dependent on carbon-intensive energy sources, the personal automobile and the production of more waste.

The Port Lands Planning Framework sets out an ambitious objective for the Port Lands to be a net zero energy district. The recommended policy directions will foster the conditions needed to reduce emissions to zero and to the extent possible under current legislation. The directions mandate the use of passive design techniques for site and building design, as well as naturalized, low-impact approaches to storm water management. A Port Lands wide low-carbon energy feasibility study is also recommended to be undertaken to explore the optimal way to supply the entire area, including Villiers Island, with low-carbon energy.

Waterfront Toronto aims to advance an even more progressive environmental agenda for Villiers Island, by striving to reduce greenhouse gas emissions below zero, in accordance with the C40 Cities' Climate Positive Development Program. Climate Positive developments aim to significantly reduce overall emissions in the communities in which they are built, by addressing energy use in buildings, transportation fuels, and emissions from waste.

The Climate Positive Framework is a roadmap that leads new developments to achieve net-negative operational greenhouse gas (GHG) emissions associated with energy, waste and transportation.

Villiers Island is one of the 17 inaugural projects included in the C40 Climate Positive Development Program launched by the Clinton Climate Initiative in 2009. It also accounts for local offsets resulting from the preservation, creation, and regeneration of natural parks and green spaces (carbon sinks), as well as the local export of clean energy generated within the new development.

The objective is to develop Villiers Island as an innovative new model for a sustainable 'climate positive' community, while demonstrating excellence in neighbourhood design. The following sections elaborate upon specific aspects of the path to reducing GHG emissions below zero.

By reducing local emissions as much as possible and creating new green spaces that will act as carbon sinks, Villiers Island will play a role in ensuring Toronto can achieve its GHG emissions reduction targets. Additional opportunities for exporting clean energy will be further explored in more detailed planning – such as proposed roof top solar PV in Villiers Island or the potential for a series of low-carbon energy solutions across the Port Lands.

Additionally, Villiers Island will act as a pilot project for innovative greenhouse gas reduction approaches and technologies that can subsequently be employed in other Canadian or International urban developments to minimize or eliminate GHG emissions.

Climate Positive Neighbourhood Design Recommendations

In 2016, Waterfront Toronto commissioned the Villiers Island Climate Positive Assessment to study strategies that would optimally close the emissions reduction gap between the current plan and the Climate Positive target. This study identified six major neighbourhood design recommendations:

- Design to passive house standards with absolute energy targets;
- Optimize the urban form for energy harvesting and conservation;
- Maximize solar photovoltaic (PV) capacity;
- Meet remaining energy demand with district energy including cogeneration;
- Reduce car travel to only 25% of trips, and explore limiting non-electric vehicles; and
- Design with the 'climate positive' goal in mind.

In subsequent sections, this plan outlines implementation considerations for each of these strategies.

3.1.2 Transportation: Active Mobility and Electrification

Mobility on Villiers Island will be as energy efficient as possible, by reducing use of personal vehicles and prioritizing public transit and active mobility. To reduce emissions from transportation, all transportation energy demand should be supplied with non-emitting renewable energy. Electric vehicles are 82% more energy efficient than gas-powered vehicles.

To encourage sustainable transportation choices, the Island will empower residents and visitors to use low-carbon modes of transportation, enabled by proximity to jobs and amenities, frequent and excellent public transit options, and proper active transportation infrastructure, including dedicated cycling routes on New Cherry Street, New Munition Street, and Villiers Street, in addition to trails around the perimeter of Villiers Island, and Centre Street, which is designed as a woonerf with space for pedestrians and cyclists shared street.

To achieve Waterfront Toronto's aspirational Climate Positive status, nearly all personal vehicles at Villiers Island must be electric, supplied with low-carbon electricity from local renewable energy sources and the Ontario grid. This could be achieved through local tools such as priority parking for electric vehicles, robust EV charging infrastructure, and affordable community EV sharing. Although not currently viable in Toronto, restrictions on gasoline- or diesel-powered personal vehicles (such as a congestion charge, with exemptions for electric vehicles) would further reduce transportation emissions, and allow Villiers Island to achieve Climate Positive status.

According to the Villiers Island Climate Positive Assessment, 75% of trips must be made using active transportation or public transit. The long-term objective is to achieve a target of 85% of all trips to be via sustainable (non-personal automobile) transport mode across the Port Lands.

Villiers Island's unique location and context within Toronto's waterfront could also lead to alternative transportation options. For example, two 200-person electric ferries could shuttle people between the western Villiers Island dock and the Jack Layton Ferry Terminal. Public or private ferry services could also service nearby Ward's, Centre, and Hanlan's Islands.

3.1.3 Public Realm: Inspired by Nature

The green space and public realm of Villiers Island will be inspired by nature, and should be designed according to biophilic principles – to design and create public spaces inspired by natural systems, aiming to foster environmental restoration and increase ecological function. The design of the public realm on Villiers Island will seek to emulate biological forms and connect residents and visitors to their natural surroundings.

In addition to enhancing the human experience through improved connection with local natural elements, Villiers Island will employ biomimicry – the imitation of biological forms in design – and green infrastructure to further reduce energy use, material inputs, storm water runoff and noise, and to provide shade, opportunities for urban agriculture, and to improve the microclimate. For example, consistent with the Port Lands Planning Framework, Villiers Island will integrate permeable paving materials,

bioswales, green roofs, and natural stormwater channels where possible. The public realm on and adjacent to Villiers Island will carefully consider all impacts on biodiversity, aquatic health and urban forestry.

3.1.4 Buildings: Optimized Built Form and Passive Design

Buildings represent 48% of greenhouse gas emissions in Toronto, and as such, minimizing building energy consumption and optimizing passive solar gain will be essential to achieving the objective of Climate Positive status at Villiers Island.

The Port Lands Planning Framework directs buildings to be design passively, and to meet the minimum requirements in the applicable Toronto Green Standards. On publicly-owned land in the Port Lands, buildings will be required to exceed the Toronto Green Standard's highest performance measures and include new and emerging approaches for advancing a progressive sustainability agenda, and showcasing innovation, in accordance with the Area Specific Policy.

This includes designing buildings with a shape, scale, location, and orientation to both reduce incidences of heat loss and energy demand that minimizes shadowing on other buildings and ensures excellent sunlight conditions in the public realm and daylighting within interior spaces within a block. Additionally, buildings in the Port Lands will incorporate shading strategies or design features applied to south and west façades to reduce solar heat gain in the summer and cooling loads, and should minimize the ratio of windows on a façade. Windows should have a demonstrated ability to minimize heat loss, and should not exceed 50%

of a façade and a minimum sill height should be provided unless otherwise demonstrated through achieving passive design.

Additionally, the City of Toronto Zero Emissions Building Framework prompts new developments to attain higher levels of performance on total energy use intensity, thermal energy demand intensity, and greenhouse gas emissions intensity. The Framework recommends new measures that will help ensure modelled performance targets are realized in practice, including renewable energy generation, district energy connections, air tightness testing requirements, building commissioning requirements, submetering, and building labelling and disclosure of energy consumption.

The current Waterfront Toronto Minimum Green Building Requirements (Version 2.1) also result in higher performance of new buildings on Toronto's waterfront, featuring LEED Gold certification, in-suite sub-metering for all utilities, 50% energy cost savings, 65% reduction in peak heating demand, 30% reduction in peak cooling demand - all compared to the Model National Energy Code for Buildings. Furthermore, Waterfront Toronto is currently updating the MGBR, and will enable and encourage certification of even higher performance standards, such as the Passive House standard. All

development occurring on public lands is expected to adhere to Waterfront Toronto Minimum Green Building Requirements, and those developments on private lands are encouraged to also participate.

Waterfront Toronto undertook a study – the Villiers Island Climate Positive Assessment – to compare the emissions profile of the current Minimum Green Building Requirements with a typical Toronto development (a 23% improvement) and described how Villiers Island could reduce local GHG emissions by a further 77% to reach Climate Positive status.

As such, Waterfront Toronto plans to utilize the ultra-efficient Passive House Standard for buildings, which results in absolute thermal and electrical energy demand below 15 kWh/m² per year. The lower window-to-wall ratios and enhanced insulation of the Standard will dramatically reduce thermal energy demand, which will be further reduced through optimized payout and massing to leverage passive solar gain. Orienting buildings to harness free solar energy is a simple strategy to reduce greenhouse gas emissions from natural gas space heating, while also reducing energy costs. By optimizing the neighbourhood design, and ensuring that buildings are designed passively in accordance with the Port Lands Planning Framework, Villiers

Island can reduce heating demand over 95% compared to typical Toronto development.

The City of Toronto's Port Lands Energy Plan also offers guidelines for buildings in the Port Lands, including emphasizing the importance of reducing energy consumption, referencing passive design principles, as well as building-scale renewable energy solutions, such as building-integrated photovoltaics (BIPV), ground-source heating and cooling, small-scale bird-friendly wind turbines, and biomass combined heat and power (CHP).

3.1.5 Energy Infrastructure: Local and Low-Carbon

The Port Lands Energy Plan and Port Lands Planning Framework offer guidelines for achieving 'net zero energy import' for the overall area, which builds upon Council-approved policies in the Official Plan, in support of initiatives that "contribute towards an energy neutral built environment." The Port Lands Energy Plan aims to leverage the unique scale and opportunity of the area, to achieve 'net zero energy' through aggressive energy reduction targets and local low-carbon energy solutions. The Port Lands Planning Framework also calls for a Port Lands wide feasibility study to explore the optimal approach for

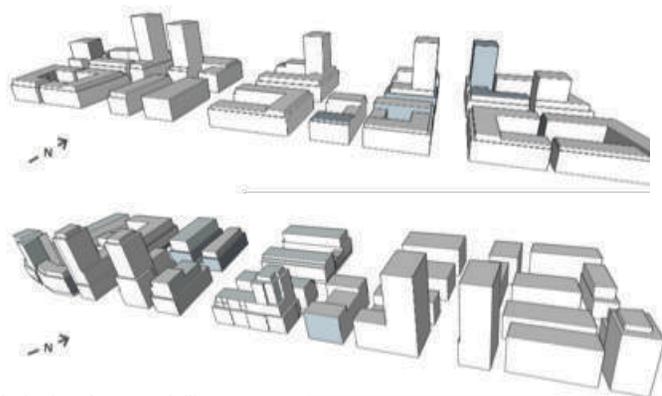


FIGURE 32. Technical carbon modelling

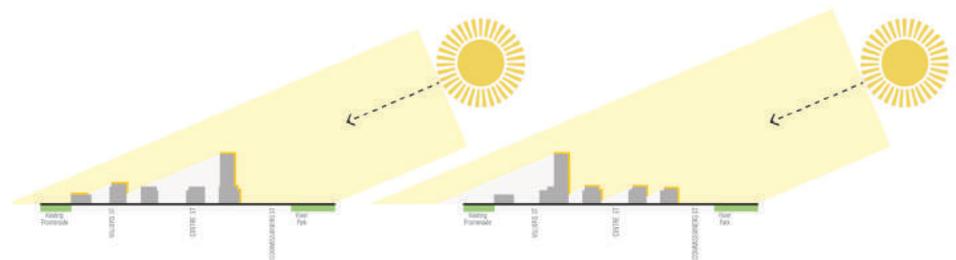


FIGURE 33. Diagram illustrating solar access during the winter months

introducing district energy plans in the Port Lands, which will examine the following:

- Heating, cooling and energy requirements needed for the Port Lands to become a net zero energy district;
- On-site renewable energy generation potential, balanced with other objectives, such as biodiversity and residential amenity;
- Opportunities to harness heating and cooling from existing industrial operations and the physical infrastructure needed;
- Opportunities to link into broader city-wide systems such as Deep Lake Water Cooling;
- Economies of scale associated with precinct scale or Port Lands-wide district energy plans, including the identification of benefits and issues;
- Financial implications to the City and/or impacts to Precinct Business and Implementation plans; and
- Life cycle costs and maintenance and operational requirements.

This overall Port Lands Energy Plan - extending beyond Villiers Island - emphasizes the importance of early infrastructure decisions that will enable a net-zero energy community, including reserving easements for block-scale energy networks and co-location of infrastructure with low-carbon energy solutions. These solutions may include lake water cooling, sewer heat recovery, ground-source heating and cooling, and biomass combined heat and power (CHP) plants. Upcoming design of water and wastewater infrastructure should explore opportunities for heat exchange with water supply mains and pumping stations, as well as heat recovery from sewage pumping stations, sewer lines, and building drains. Additionally, this plan suggests creation of a framework for low-carbon thermal energy network implementation, including partnerships to scale-up private investment that will enable a net-zero energy district.

To achieve Climate Positive status, the total annual neighbourhood energy consumption of 300,000 GJ (versus the current baseline estimate of 430,000 GJ, including gasoline, diesel, electricity, and natural gas) must be supplied by renewable zero-carbon energy sources, which could consist of 210,000 GJ of heat and 60,000 GJ of electricity from a biomass CHP facility, and the remaining 30,000 GJ of electricity supplied by solar PV.

As Villiers Island represents the first major development opportunity within the Port Lands, the energy system and infrastructure should align directly with the Port Lands Energy Plan, and should consider future growth and development in the vicinity. The design of other physical infrastructure such as parks, bridges, and electrical distribution equipment should explore opportunities to co-locate low-carbon energy sources (e.g. ground-source or lake-source piping under parks, bridges as utility corridors, heat recovery from electrical substations) to help achieve a net zero energy district.

3.1.6 Resiliency and Adaptation to Climate Change: Port Lands Flood Protection

Along Toronto's waterfront, and elsewhere around the world, the impacts of climate change are more apparent than ever. Extreme weather events are more frequent and severe, and changes in weather patterns are becoming more evident. To tackle these urgent issues created by climate change, new ways of planning and design need to be considered to reduce the vulnerability of human and natural systems and promote safe, resilient communities.

As described in Section 1.2.6, Waterfront Toronto is undertaking the Port Lands Flood Protection Project – with funding support from City of Toronto and Governments of Ontario and Canada. The Flood Protection Project will protect Villiers Island and the Eastern Waterfront from flooding, allowing the

entire area to better adapt to the impacts of climate change. The Port Lands Flood Protection Project will create two new outlets for the Don River, including a wide river valley, that will safely convey flood waters into Lake Ontario, as well as provide new parks, aquatic habitat and infrastructure such as roads, bridges and a transit right-of-way.

Within the neighbourhood, the design may integrate roof-top water storage solutions or green roofs, tree and vegetation plantings, high albedo materials, permeable surfaces, bioswales, and green walls – all solutions that leverage natural systems and human-made vegetative technologies to enhance the resiliency of Villiers Island. Additionally, the passive design approach for new buildings across the Port Lands will help to maintain livable indoor temperatures for longer periods of time under power outages, and will also assist in keeping buildings cool during extreme heat events. The provision of resilient energy infrastructure will also be considered. This includes establishing reception centres during times of power outages and providing reliable multi-residential backup power systems. The establishment of a localized micro-grid to provide power to the Port Lands could operate even if power is disrupted throughout the broader city, and will be further explored through the Port Lands wide district energy feasibility study.

The City of Toronto and Waterfront Toronto are currently developing a decision-making tool for water resource management tools with Ryerson University and the Toronto and Region Conservation Authority, which will be used to evaluate innovative water technologies and strategies for Villiers Island.

3.2 MOBILITY, TRANSPORTATION AND ACCESS

Villiers Island will be developed as a transit-supportive island community, with multiple connections between land and water. A fine-grain street network will support transit, walking and cycling to and within the Island, with links to the city mainland to the north and the Port Lands to the east and south.

3.2.1 Street Network and Hierarchy

Development will be structured by a public street network to promote cycling, transit and pedestrian movement. The fine-grain street and block pattern indicated by Figure 35 will provide access and circulation through Villiers Island with multiple connections to the city and the Port Lands. Street sections are provided on the following pages.

3.2.1.1 Major Streets

Major streets form the primary vehicular, cycling and transit connections through the Island and to the downtown and the Port Lands.

Commissioners Street will form the primary east-west connection through the Port Lands. It will be maintained in its current alignment and widened to accommodate dedicated transit and cycling lanes along River Park.

New Cherry Street will be located to the west of the existing Old Cherry Street alignment. Commissioners Street and New Cherry Street will be designed as complete streets, with transit, cycling, pedestrian and vehicular routes.

New Munition Street will provide a second north-south access point into the Island, with a bridge connection to the north across the Keating Channel. New Munition Street will be located to the east of the existing Munition Street to maintain the Toronto Harbour Commissioners buildings in their existing location.

3.2.1.2 Local Streets

Villiers Island will contain a fine-grain network of local streets, with a variety of street types, each contributing to a sense of place and character of the Island. Local streets will prioritize non-vehicular movement and flow. Local streets include Villiers Street, and a series of short north-south streets, with varying dimensions and characters, as illustrated and described on the following pages.

3.2.1.3 Shared Streets

Centre Street, Trinity Boulevard and Old Cherry Street will be designed as pedestrian-priority shared streets, where pedestrians, cyclists and motorists share the right-of-way. These streets will prioritize pedestrian movement and flow, and incorporate pavers, physical barriers and obstacles to signal to motorists that pedestrians come first. Overtime, vehicular traffic could be restricted on these streets.

The existing Cherry Street is renamed **Old Cherry Street** for the purposes of the Precinct Plan. It will be maintained its current alignment and will become a localized pedestrian-priority street.

Centre Street will be a new east-west street and will function as the 'spine' of the neighbourhood. It will be designed as a pedestrian-priority mews. It will be a curbside street with offset furniture and landscaping. Shared streets are described and illustrated in detail on the following pages.

3.2.2 Transit

Following the LDL MP EA, New Cherry Street and Commissioners Street will provide streetcar transit service, with dedicated right-of-ways, as shown in Figure 34. Buses may provide interim transit connection prior to the full build out of the Island and surrounding area. Figure 34 illustrates the planned transit network in the surrounding area.

There are two planned transit stops, one located at Centre Street and New Cherry Street, and the other at Commissioners Street and New Munition Street, indicated as streetcar platforms in Figure 35. These locations ensure the entire Villiers Island community will be within a 5 minute walking distance of transit.

The New Cherry Street and Centre Street intersection is planned as a transit hub for the Lower Don Lands area with potential bus service connections to the areas south of the Ship Channel.

The New Cherry and Centre Street and New Munition and Commissioners Street intersections must ensure safe pedestrian movement from the transit platform and across the intersections and transit lines. The New Cherry-Centre Street intersection should have a pedestrian only activated crossing to ensure safe pedestrian crossing.

- Transit hub
- Streetcar stop
- Streetcar in dedicated ROW
- Streetcar in mixed in traffic
- Protected for future Streetcar in dedicated ROW
- Bus in mixed traffic
- Relief Line
- SmartTrack / RER



FIGURE 34. Transit context map

- Streetcar Route and Platforms
- Major Streets
- Local Streets
- Shared Streets/Mews
- Pedestrian Only Street
- Trails

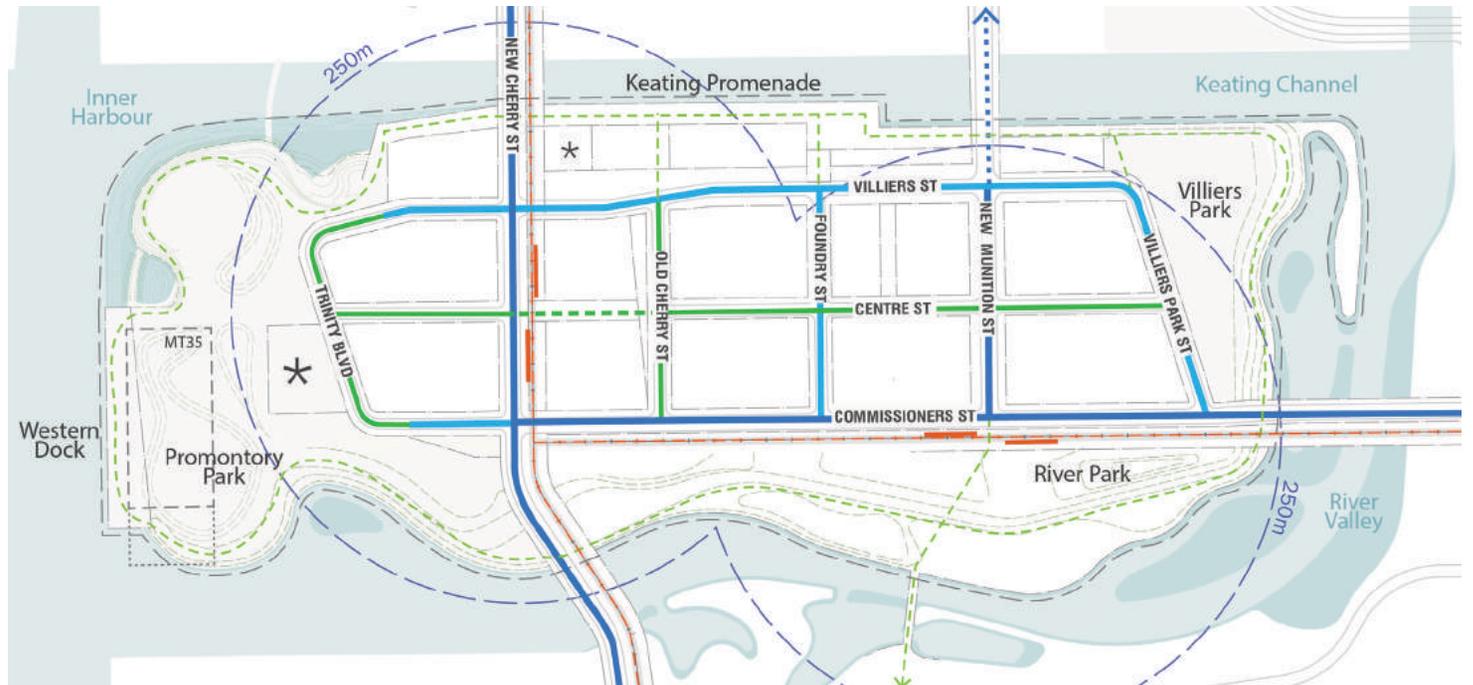


FIGURE 35. Proposed street network

Major Street: New Cherry Street

ROW: 40 metres

New Cherry Street will be designed as a complete street, to accommodate a variety of mobility options, including streetcar transit, cycling, walking, and private vehicle use. It will feature separated bike lanes and a dedicated transit way.

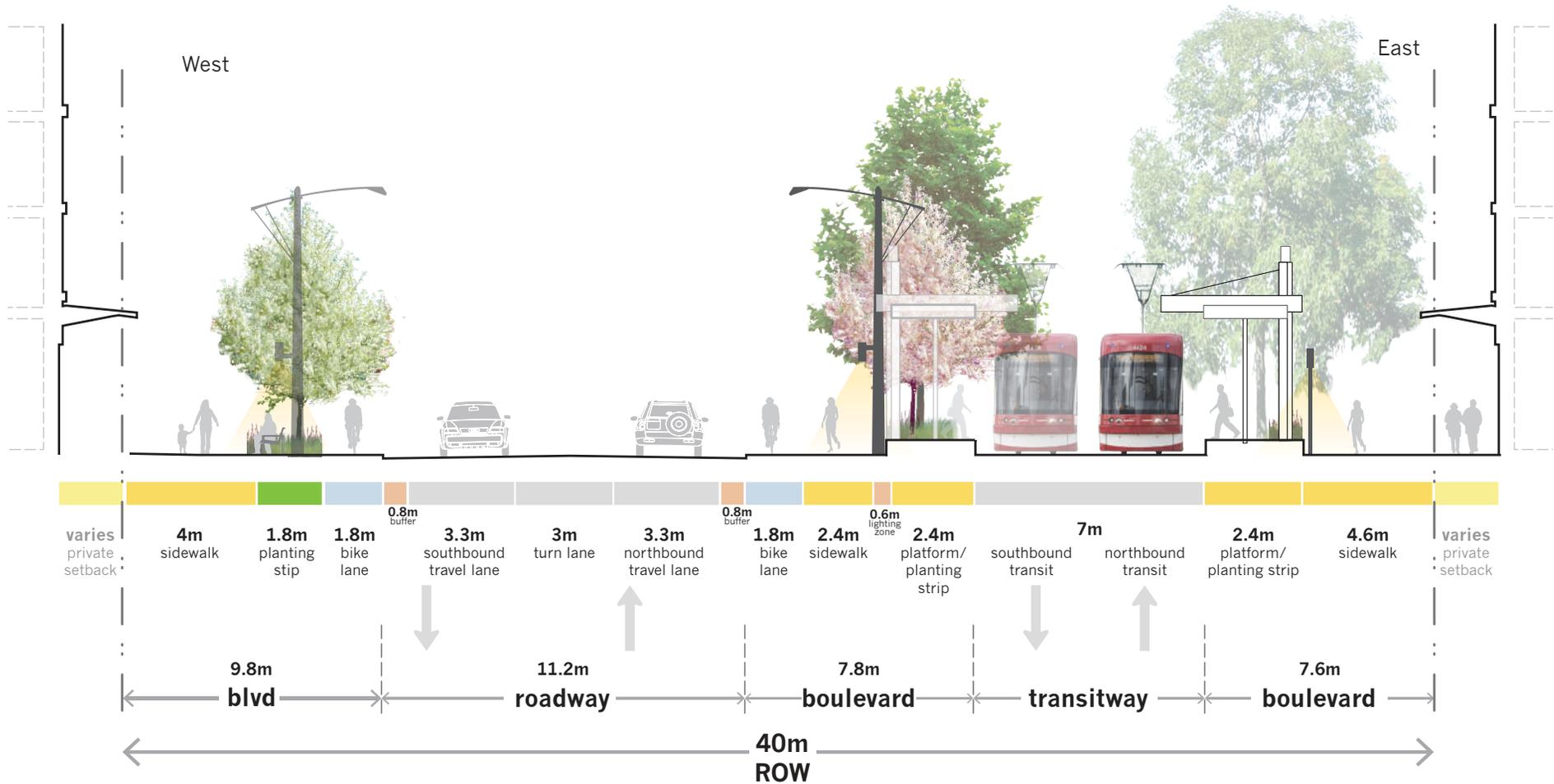
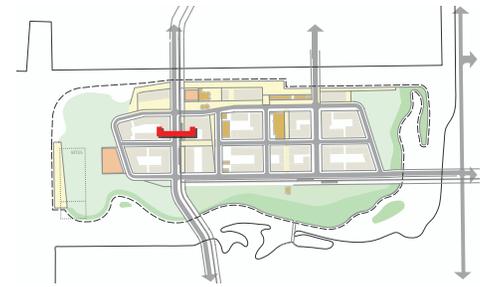


FIGURE 36. New Cherry Street cross section

Major Street: Commissioners Street

ROW: 40 metres

Commissioners Street will be designed as a complete street integrated into the River Park landscape. It will feature a dedicated cycling lane and a pedestrian pathway, located along the southern side of the dedicated transit route. The pedestrian pathway will form the northern edge of the park. Commissioners Street will form the primary east-west cycling route across the Island, and connect through the Port Lands to the east.

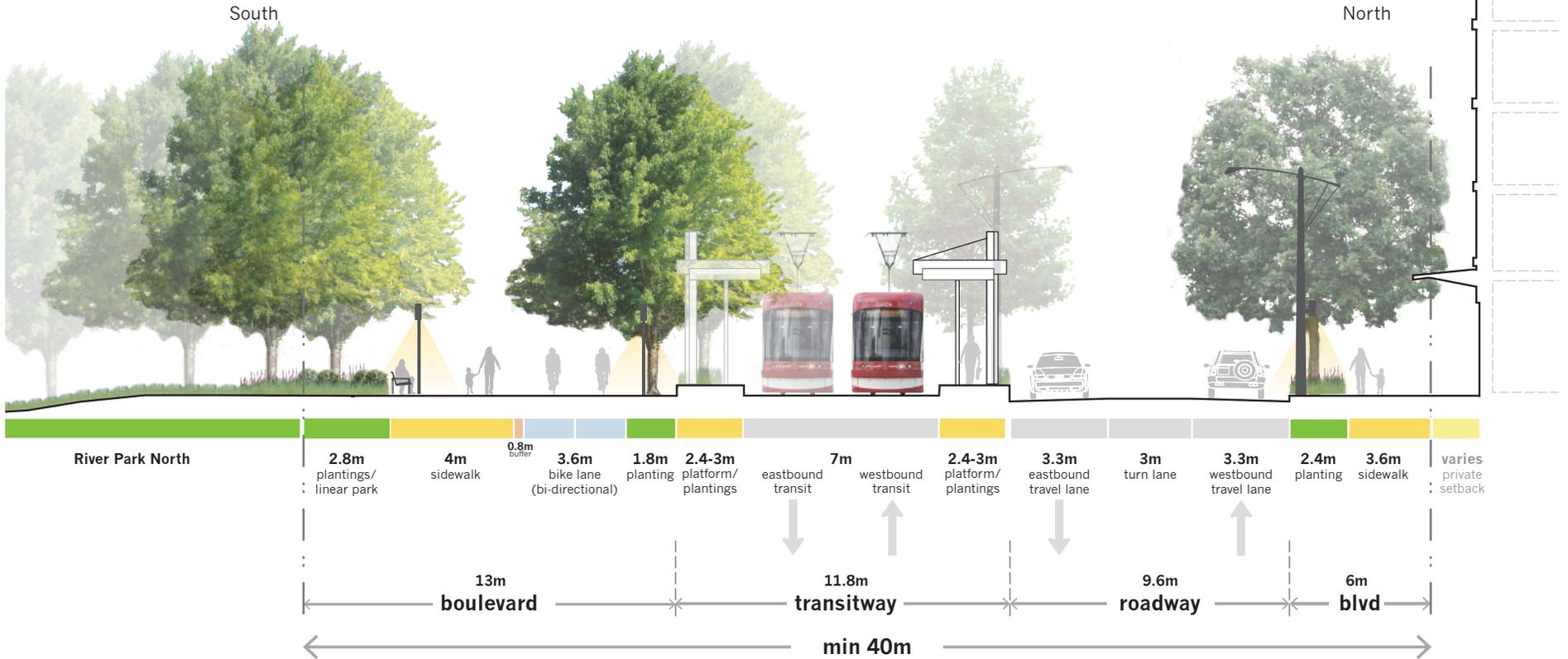
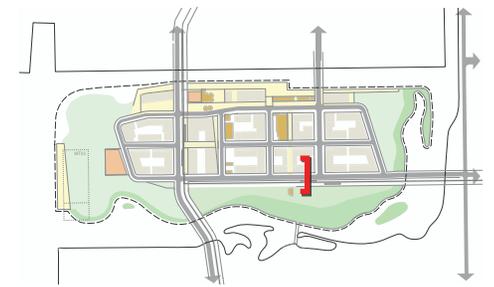


FIGURE 37. Commissioners Street cross section

Major Street: New Munitions Street

ROW: 30 metres

New Munitions Street will provide a second north-south access route into the Island, with a bridge connection across the Keating Channel. It will consist of separated bike lanes, vehicular travel lanes and parking lanes.

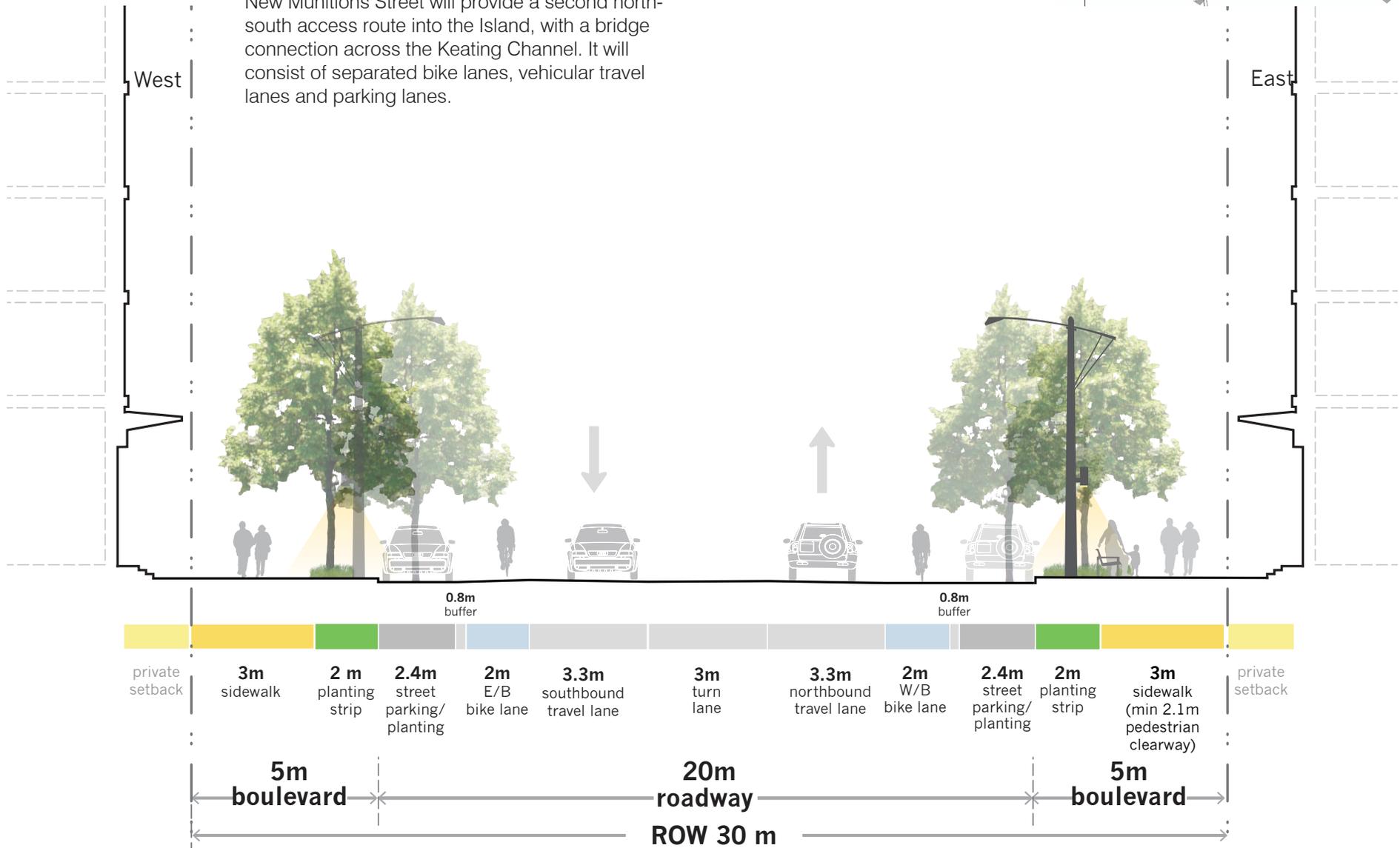
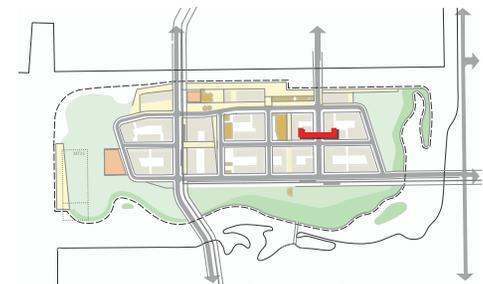


FIGURE 38. New Munition Street cross section

Local Street: Villiers Street

ROW: 32.2 metres

Villiers Street will be an animated, urban street with an asymmetrical character. The right-of-way will accommodate separated cycling lanes. The streetscape will reinterpret the historic scale and function of the existing street, including the existing rail spurs. It will feature an 8-metre wide promenade along the northern side. The promenade will merge with the Keating Channel Promenade at Silos Square to create a dynamic pedestrian experience.

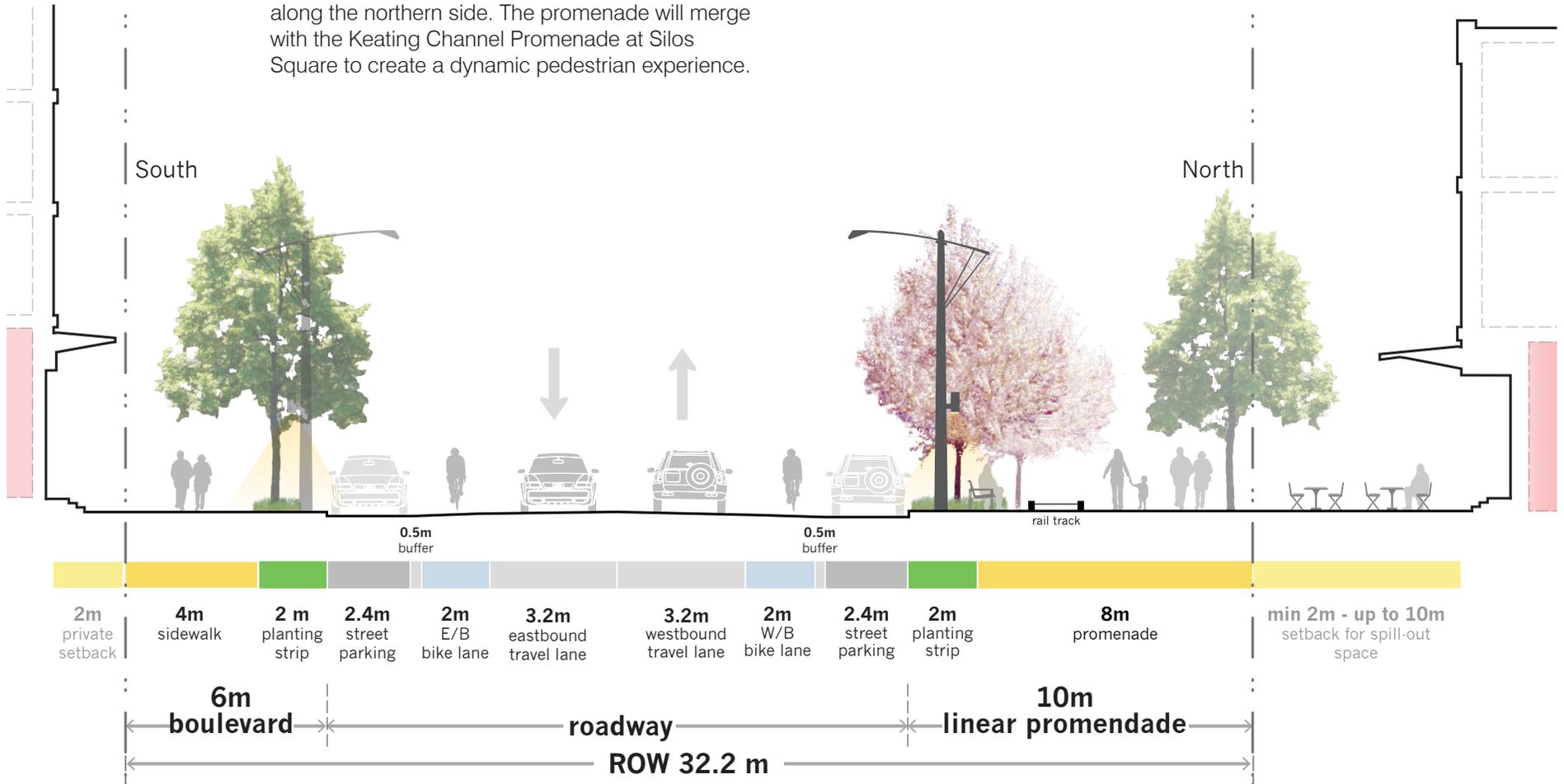
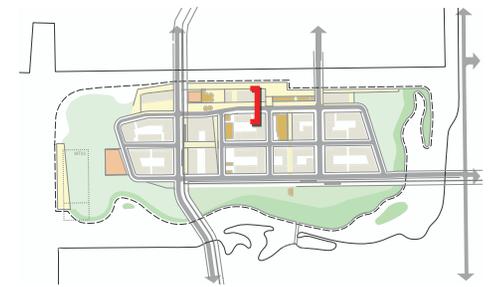


FIGURE 39. Villiers Street cross section

Local Street: Foundry Street

ROW: 20 metres

Foundry Street will be a new north-south local street. It will be designed as an intimate local street and provide connection from Villiers Street to Commissioners Street.

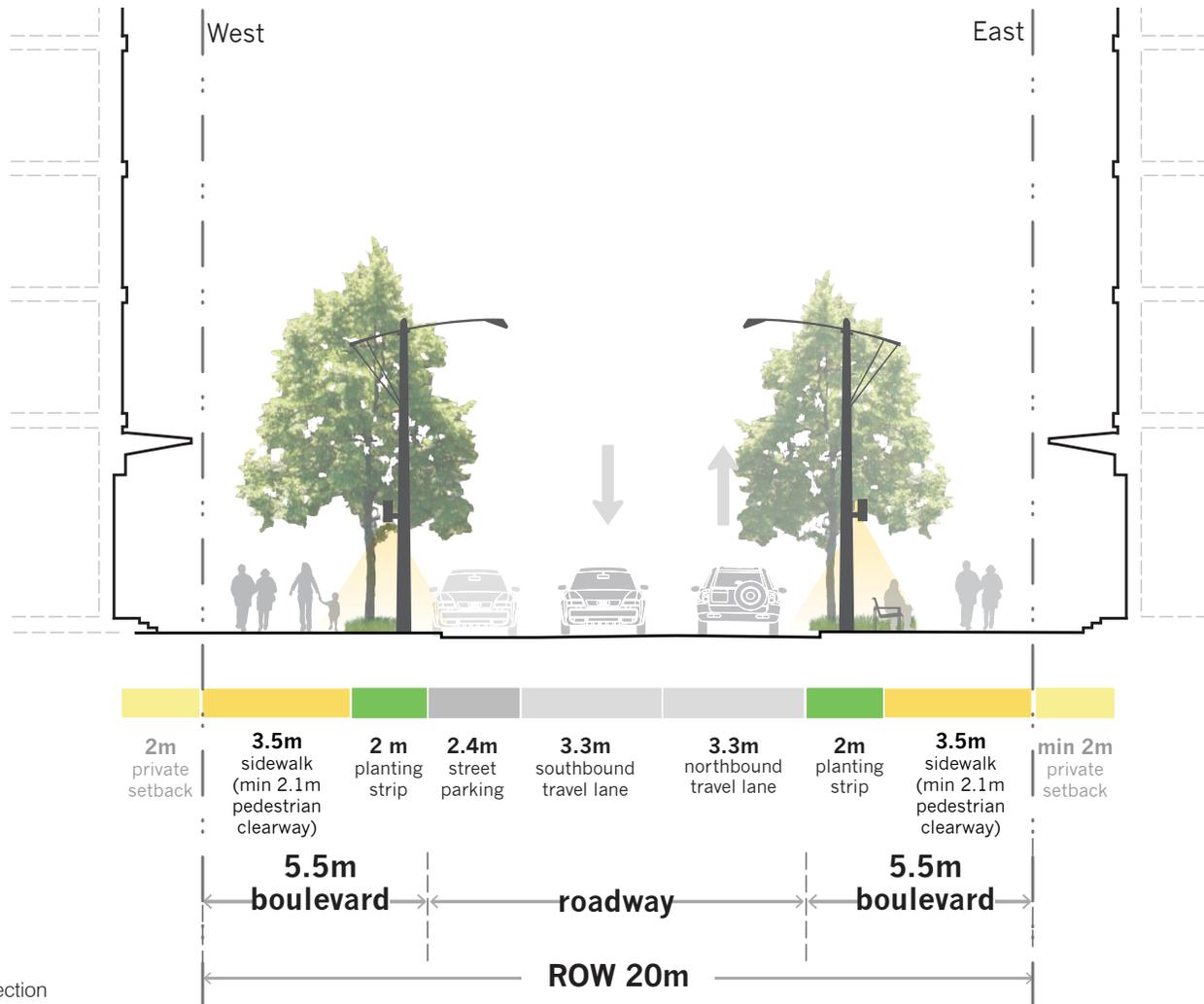
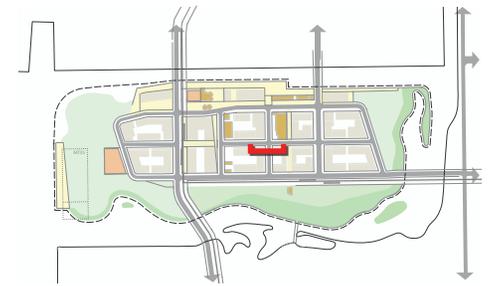
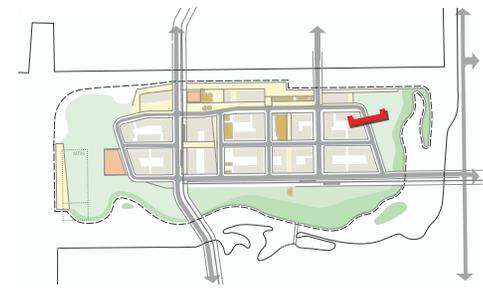


FIGURE 40. Foundry Street cross section



Local Street: Villiers Park Street

ROW: 20 metres

Villiers Park Street will mark the entry into Villiers Park at the eastern end of the Island, and offer a sense of journey and arrival into the park. The paving treatment of Centre Street will be extended across the intersection with Villiers Park Street to highlight the street's interface with Villiers Park.

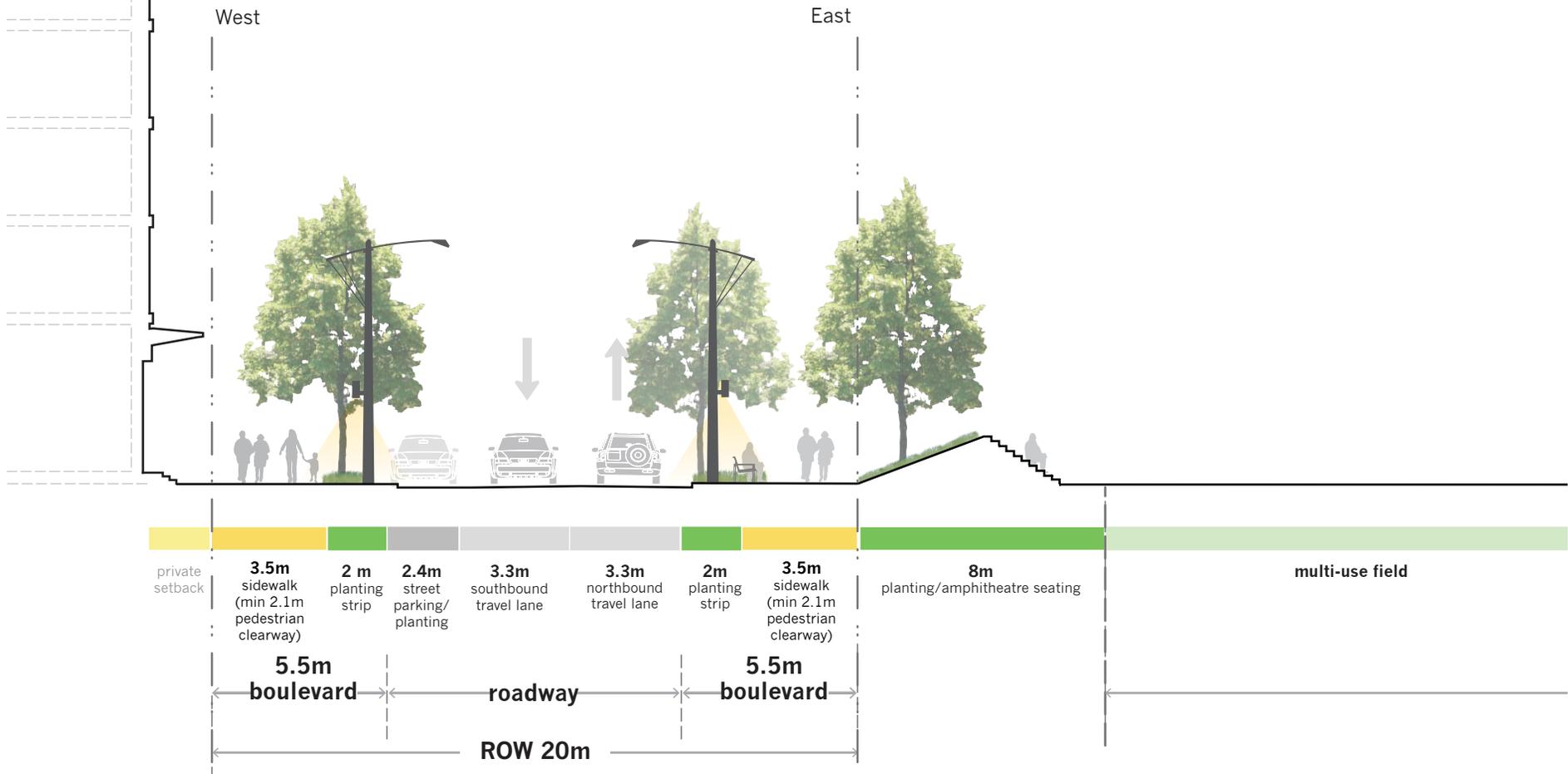


FIGURE 41. Villiers Park Street cross section

Shared Street: Centre Street

ROW: 20 metres

Centre Street will form the east-west spine through the Villiers Island neighbourhood. It will be a special pedestrian-priority mews.

Centre Street will be designed as a curbless street, with bollards and markings, signalling to motorists that pedestrians come first. There should be restricted vehicular traffic through this street, and limited servicing and access to development blocks.

The street will have an asymmetrical character, with a wider pedestrian boulevard along the northern side of the street.

The street paving treatment should be designed with a light palette to reflect sunlight. It should extend across all north-south intersections, creating raised areas at these crossings, with continuity from Promontory Park to Villiers Park. Additional pedestrian-scale elements include informal linear groupings of trees flanking the street length, on-street bicycle and vehicular parking areas, lighting, and street furniture.

During the spring to fall months, the parking lane could be adapted into an extension of the boulevard, with additional seating and landscaping. The street could also be closed to vehicular traffic for festivals and community events.

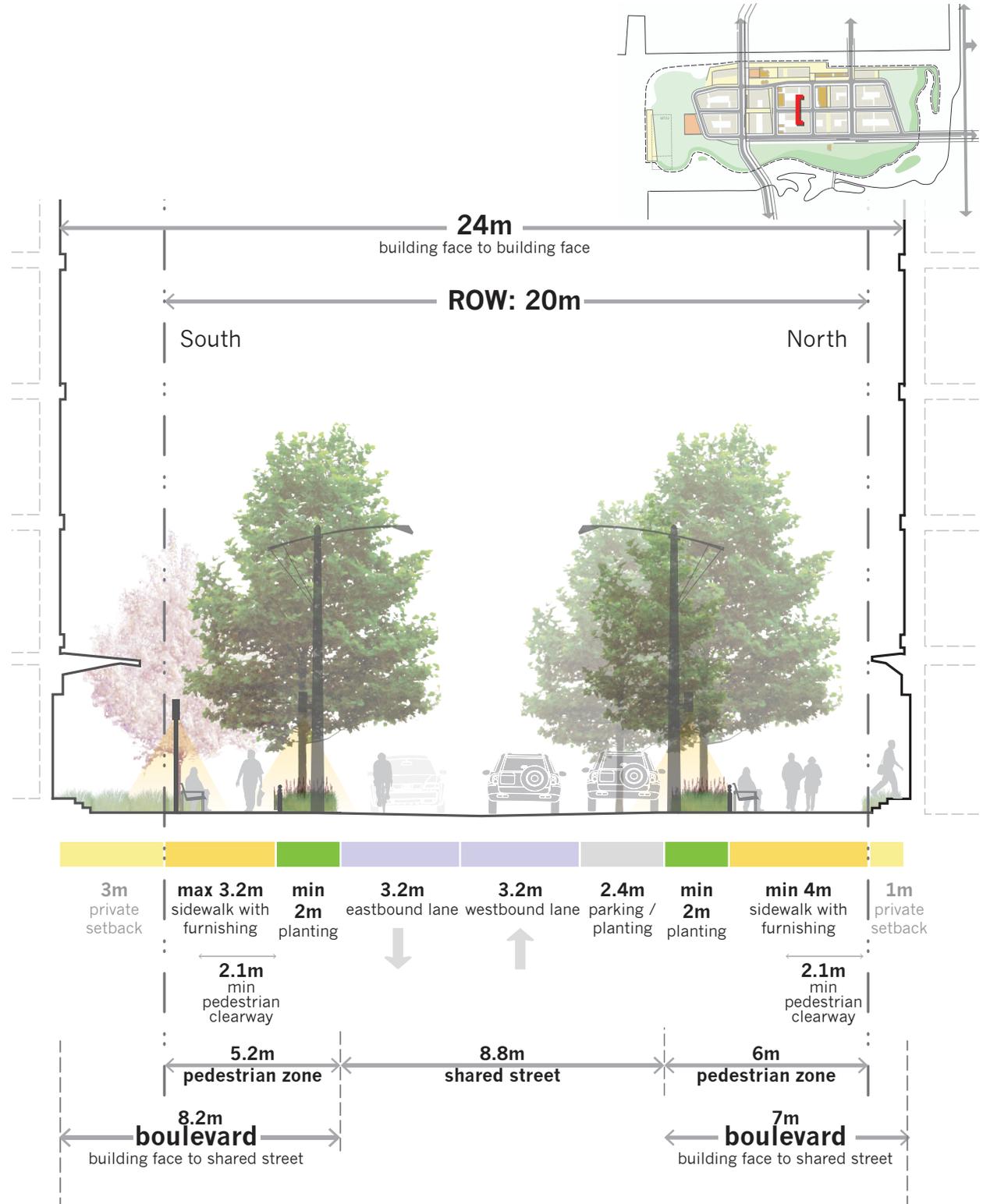


FIGURE 42. Typical Centre Street cross section with parking lane

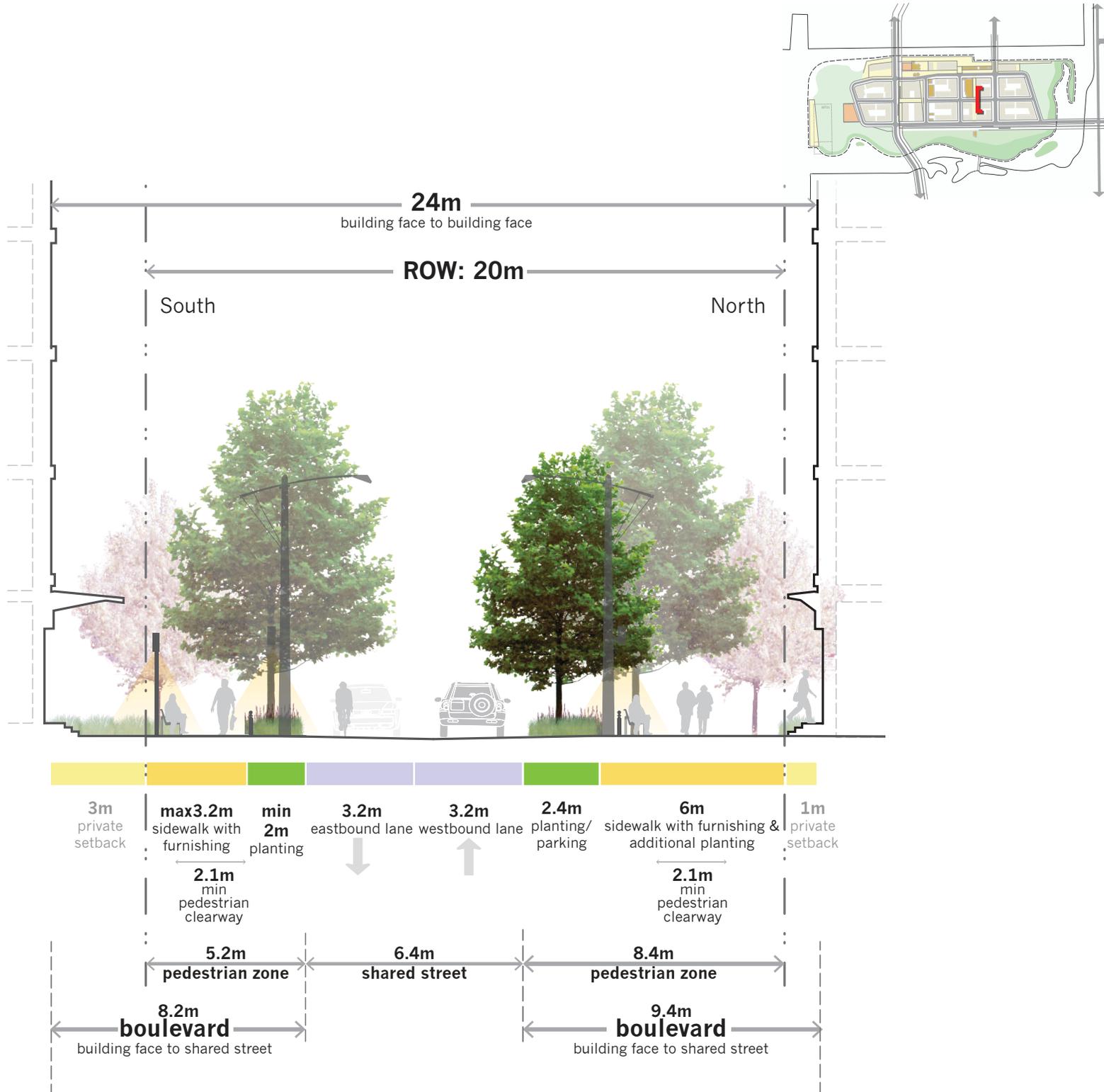


FIGURE 43. Typical Centre Street cross section with wider plantings and boulevard

Shared Street: Old Cherry Street

ROW: 20 metres

Old Cherry Street is the original north-south spine of Villiers Island. It will become the primary north-south pedestrian connection through the Island, linking Silos Square and the Keating Channel Promenade to the north, and Commissioners Street and the River Park to the south. Old Cherry Street is also an important view corridor, offering clear and unobstructed views of the Keating Channel, heritage structures and the River Valley.

Through appropriate street lighting, different species of vegetation, and public realm design elements, Old Cherry Street will provide an intimate, human-scale, and safe experience for pedestrians. Plantings and vegetation may reference plantings by the Harbour Commission, including poplar trees. Safety will be achieved through traffic calming measures, including plantings and public realm features, particularly at the crossing points on Villiers Street and Commissioners Street, where heritage and recreational attractions will generate significant foot traffic.

The Old Cherry Street right-of-way dimension allows for seasonal variation. During the spring and summer months, the parking lane could be removed and become an extension of the public sidewalk with space for seating and planting.

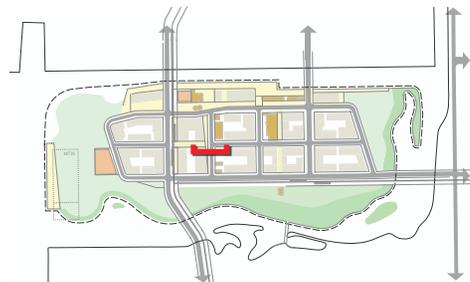
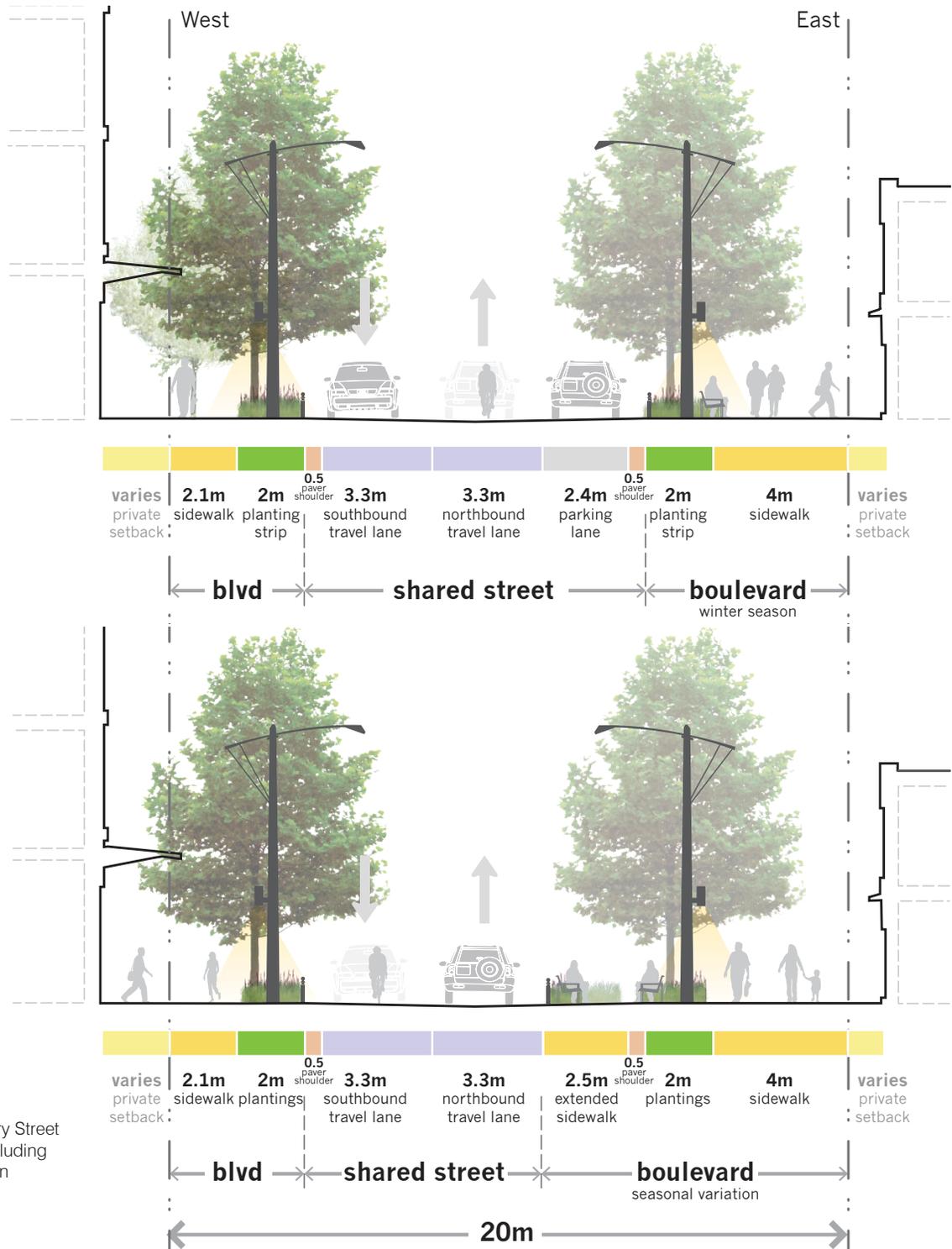


FIGURE 44. Typical Old Cherry Street cross section including seasonal variation



Shared Street: Trinity Boulevard

ROW: 20 metres

Trinity Boulevard forms the gateway into Promontory Park, at the western end of the Island. This new street will offer a sense of arrival to Promontory Park and the Catalytic Use. The western edge of the street together with Overlook Plaza and the Catalytic Use will mark the transition from the street grid to Promontory Park. The street should be designed as an extension of the park landscape to create a welcoming environment.

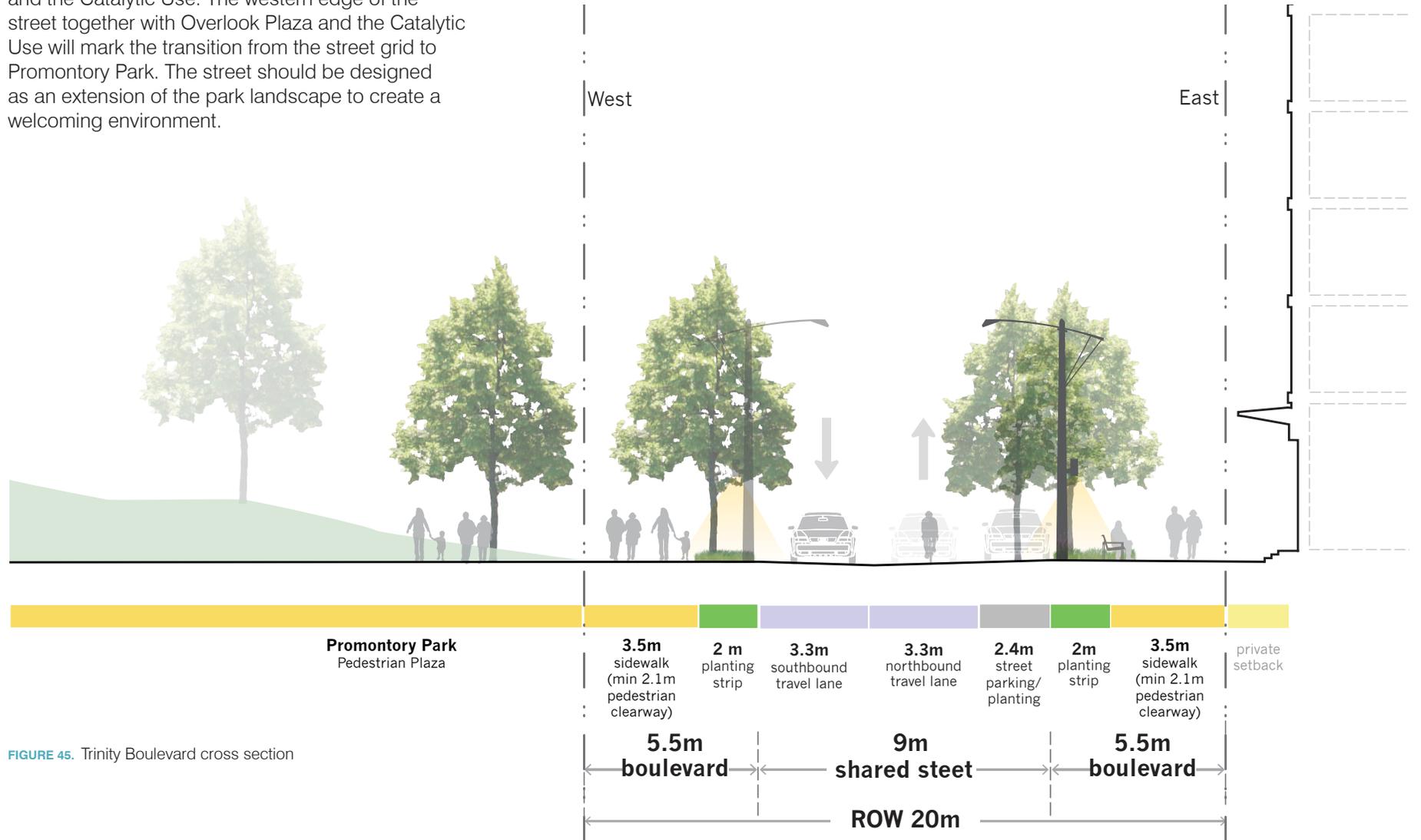
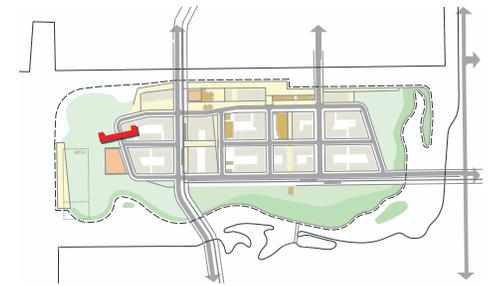


FIGURE 45. Trinity Boulevard cross section

3.2.3 Pedestrian, Cycling Network and Multi-use Trails

The Villiers Island cycling and pedestrian network includes multiple dedicated cycling lanes and multi-use pathways to ensure safe year-round movement for both commuter and recreational users. The pedestrian, cycling and multi-use trail network is shown on Figure 46.

3.2.3.1 Dedicated Cycling Route

As a continuation of the Martin Goodman Waterfront Trail and the Lower Don River Trail systems, cycling routes will connect through to the Island:

- New Cherry and Commissioners Streets will form the primary commuter cycling routes through the Island with connections to surrounding areas, with dedicated cycling lanes; and
- A secondary dedicated separated cycling route will connect into the Island via New Munition Street and Villiers Street.

3.2.3.2 Multi-use Recreational Trails

The Island will also feature a network of recreational trails. A multi-use recreational trail will connect into the Island via the Trinity Street footbridge and link into Promontory Park, and connect River Park and Villiers Park. The recreational trail will connect to the Polson Precinct via a footbridge across River Park and the River Valley. Recreational trails will wrap around the Island, with connections under the Commissioners Street and New Cherry Street bridges. The trail connections under bridges requires close attention in the detailed design process to ensure these connections are safe and inviting.

3.2.3.3 Pedestrian Connections

The entire Island is reachable within a 5 to 10 minute walk. The fine-grain street and block pattern encourages walking and pedestrian activity. Pedestrians will be able to walk along local streets or along the trail network. Streets will be designed with generous sidewalks.

Public Pedestrian-only Promenades and Plazas

- **Keating Channel Promenade** - a generous promenade, with a minimum dimension of 19 metres along the majority of the Promenade, west of New Munition Street and a pedestrian-only zone.
- **Villiers Street Promenade** - The north side of Villiers Street will feature a wide 8 metre promenade, which will be a pedestrian-only zone and reinterpret the current street median and rail tracks. The pedestrian promenade will extend through the northern and southern portion of the Lake Ontario Portland Cement Company Silos structure.
- **Centre Street, between New Cherry Street and Old Cherry Street** - This segment of Centre Street will be a pedestrian-only zone. This area will form the main point of arrival to the Island via transit.
- There are also two planned pedestrian-only pedestrian connections which will be secured as publicly accessible open spaces (POPs): the **Old Munition Street Pedestrian Link** and the **Old Cherry Diagonal Plaza**. These are described in the Public Realm section (Section 3.3.1.5).

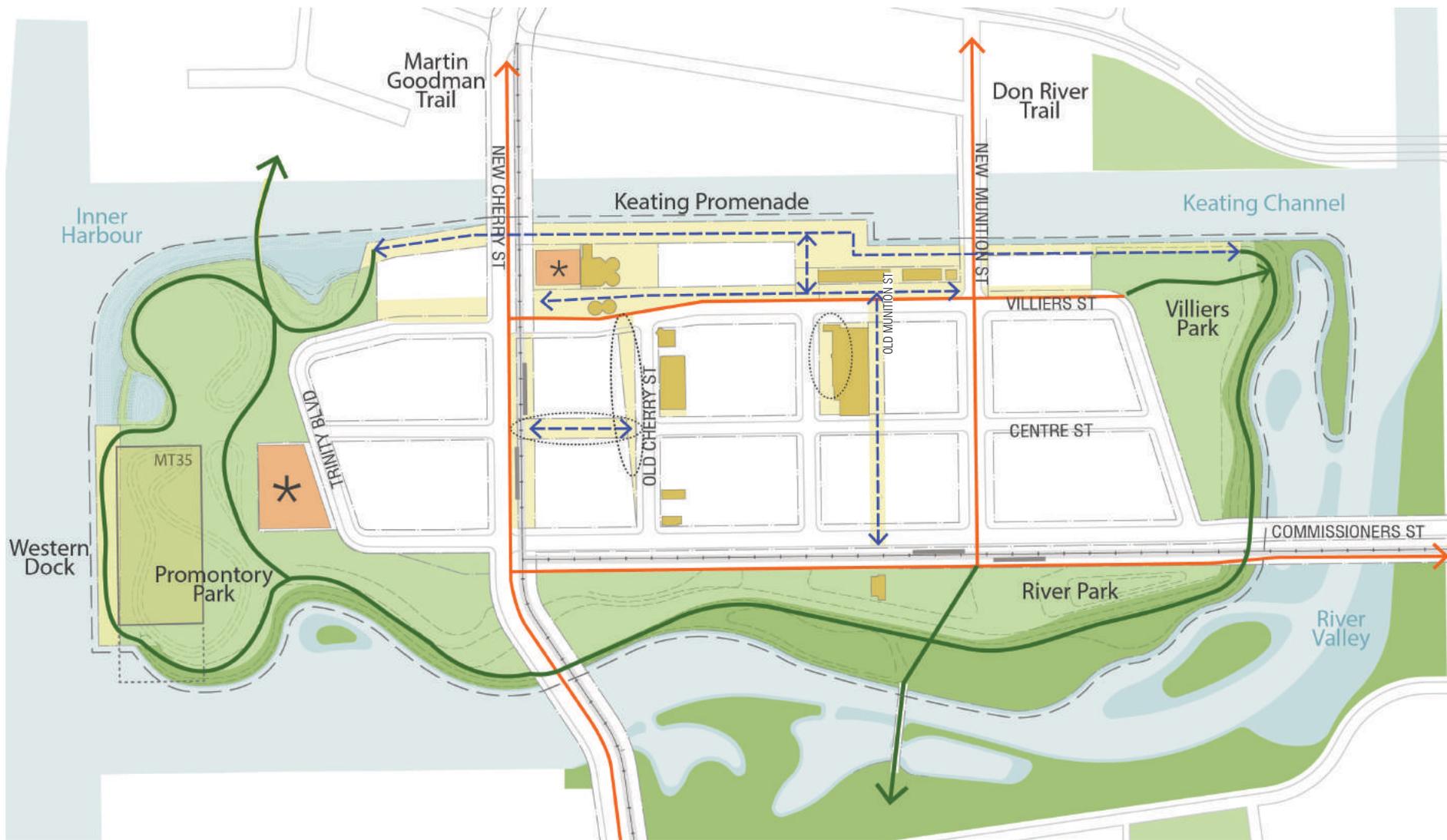


FIGURE 46. Pedestrian, cycling and multi-use trail network

- Dedicated Cycling Route
- Park Trails
- Small-scale Plaza
- ↔ Pedestrian Only

3.2.4 Water Transportation

Villiers Island offers the potential for water-based transportation, including ferries, water taxis and small-craft boat activity. Water-based transportation and opportunities to incorporate electric boat technology will be further explored in future planning and design phases. Potential water based transit is shown on Figure 47.

3.2.4.1 Ferry Access/Water Taxi

There is the potential to expand Toronto's ferry service link to connect the Port Lands to other waterfront destinations. The western dock provides a potential location for ferry service connection to the Jack Layton Ferry Terminal.

A water taxi terminal could also provide a valuable addition to the overall transportation network.

3.2.4.2 Small Boat Craft

The Keating Channel and its existing dockwalls offers potential launching points for small boat activity.

3.2.4.3 Non-motorized Recreational Boat Activity

The naturalized River Valley will provide launching points for non-motorized recreational boat activity, including canoeing and kayaking, with a launch point at the eastern edge of Villiers Park.



IMAGE 19. Precedent for Water Shuttle Access, London, UK



IMAGE 20. Precedent for Small Boat Craft, London



IMAGE 21. Precedent for Kayak launch, Three River water trail, Pittsburgh

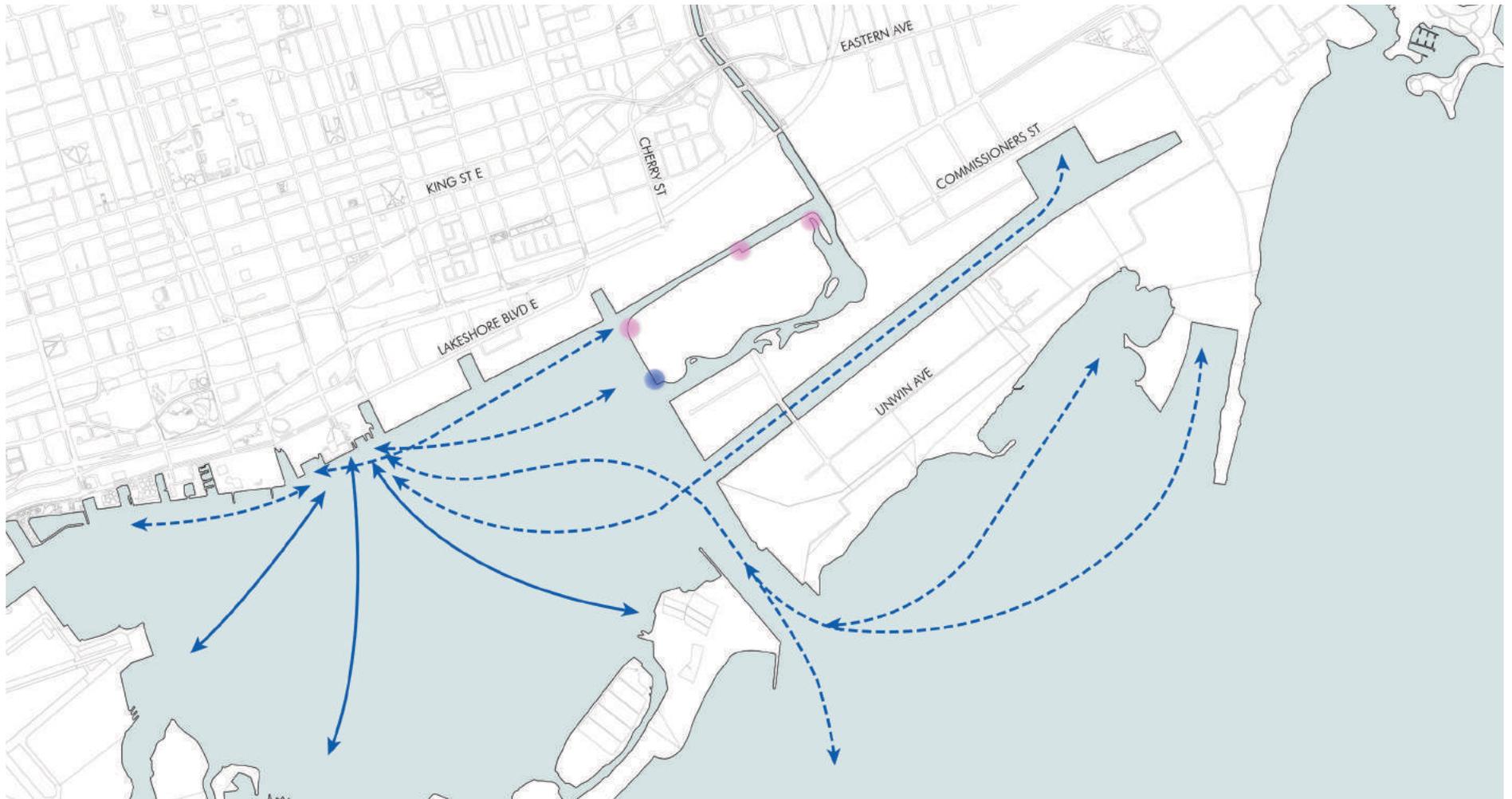


FIGURE 47. Water transportation plan

- Ferry Routes
- - - Potential Ferry Routes
- Potential Small boats/
Kayak Docking location
- Potential Ferry Docking location

3.2.5 Parking, Servicing and Loading

Parking, servicing and loading on the Island will be delivered and provided in a sensitive manner to minimize any negative impact on the public realm and promote active transportation as a priority.

3.2.5.1 Laneways and Vehicular Access

Laneways will provide access to loading and servicing for buildings (see Figure 49). The street and block pattern has been designed to ensure all blocks can be accessed via laneways, rather than relying on local streets. All laneways will have a minimum right-of-way of 6 metres.

Shared access and servicing is encouraged to reduce the number of vehicular access points and minimize the potential for pedestrian and vehicular conflicts.

Vehicular access and servicing will be sited to minimize the visual impact of driveways and parking entrances on the street.

3.2.5.2 Vehicular Parking

The long-term vision for Villiers Island is a climate positive island, incorporating low-carbon modes of transportation to significantly reduce the reliance on personal vehicles, incorporate electric and autonomous vehicles, and potentially move to a car free island over time. This Precinct Plan has been designed to minimize the need for automobile transportation. Strategies to minimize vehicular traffic and reduce parking requirements will be further explored during detailed design phases and development review.

On-street Parking

Villiers Street, segments of Centre Street, Old Cherry Street and Trinity Boulevard, and local north-south streets will provide on-street parking. On-street parking will be integrated into the streetscape design.

Below-grade Parking

All private development blocks will deliver underground parking contingent on water-table levels, groundwater conditions and soil remediation. Below-grade parking should be accommodated on two to three levels below each development block.

Given the small size of the Island and the extensive amount of public open space, standalone surface parking is not appropriate.

Above-grade Parking

One to two levels of above-grade parking may be accommodated within the centre of larger blocks. Above grade-parking will be covered by outdoor amenity areas, including central courtyards (see Figure 48).

Above-grade parking should not be visible from public view. Any above-grade parking elements must be wrapped with non-residential or residential uses to reduce negative impacts on the public realm.

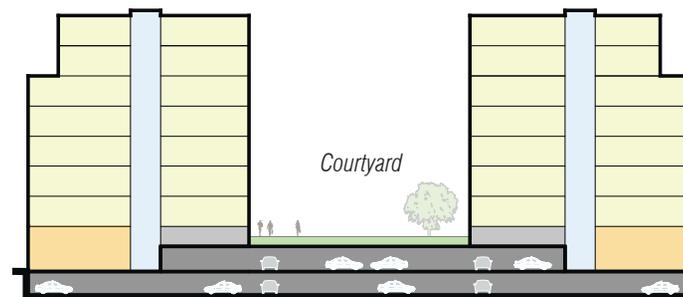


FIGURE 48. Above-grade and below-grade parking diagram



FIGURE 49. Servicing and access plan

- Potential Underground Parking Perimeter
- Potential Above-Grade Parking
- - - Laneways
- ▶ Potential Underground Parking/Servicing Access
- Potential Servicing Access

3.3 PARKS, OPEN SPACE AND PUBLIC REALM

A green and blue loop with varied parks and open spaces will wrap around the Island, providing different opportunities for people to enjoy the waterfront and the varied river, channel and lakefront edges.

3.3.1 Parks and Open Space Network

As illustrated by Figure 50, the Island will incorporate a comprehensive network of parks and open spaces focused on the diverse waterside edges, including:

- 1 **Promontory Park**, a large regional-scale destination and signature park overlooking the Inner Harbour;
- 2 **Villiers Park**, a community-scale park, with active recreational amenities for the local community;
- 3 **The Keating Promenade**, an urban and highly animated promenade along the historic Keating Channel, featuring a series of plazas including Silos Square; and
- 4 **River Park**, a naturalized park with recreational trails and programming along the river valley.

The Villiers Island parks system will connect to a larger network of waterfront parks and open spaces along Lake Ontario and the Lower Don Valley trail system.

As described in Section 3.3.1.5, in addition to the public parks and open spaces, there are two publicly accessible open spaces planned for the Island: the Old Cherry Diagonal Plaza and Old Munition Street Pedestrian Link.

Parkland Dedication

Parkland dedication will be provided in accordance with the Port Lands Planning Framework and the Port Lands Official Plan modification.

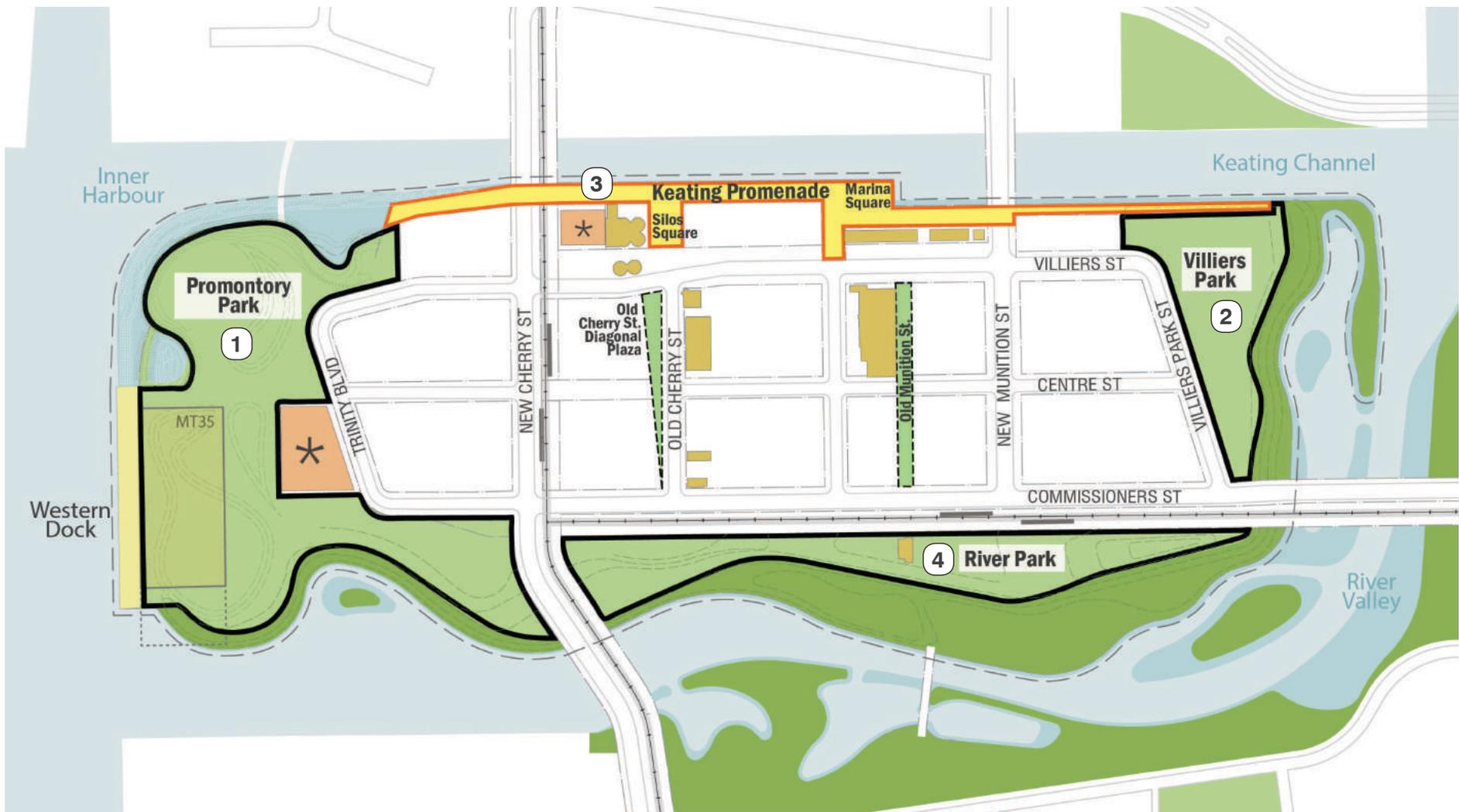


FIGURE 50. Parks and open space network plan

-  Keating Channel Promenade
-  POPs
-  Parks
-  Below Top of Bank
-  Heritage Structure

3.3.1.1 Keating Promenade, Silos Square and Marina Plaza

The Keating Promenade will feature a series of plazas and parkettes, with multi-layered promenade areas, connecting the Keating Channel and Villiers Street. This will form a highly animated urban edge of the Island and celebrate the area's industrial heritage. The Promenade will have a strong relationship and connection to the open spaces on the northern edge of the channel in the Keating Channel Precinct (see Figure 52).

Park Size: 1.2 hectares (3.1 acres)

Programming and Features:

- The Keating Promenade edge will include a multi-tiered promenade, with a 19 metre wide promenade along the majority of the Keating Channel length, west of New Munition Street;
- The historic dockwalls will be retained and form a hard edge along the channel;
- Silos Square, an urban square around the Lake Ontario Portland Cement Company Silos, offers the potential for an innovative water garden and series of pathways and boardwalks with connection to Old Cherry Street;
- Interim uses within the Silos, including community activities like exhibition spaces, pop-up shops, and workshops will be permitted;
- Marina Plaza is a hardscape plaza with opportunities for programmable event space and seating and gathering areas associated with an adjacent boat launch;
- Boat launch off Marina Plaza for small-scale boating.

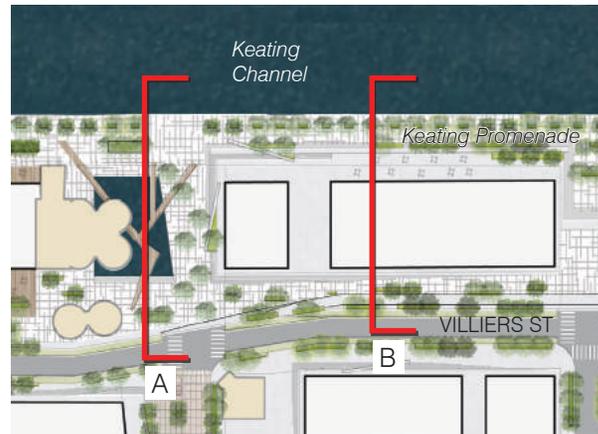


IMAGE 22. Precedent: example of plaza that engages with industrial heritage structures, Auckland, New Zealand



FIGURE 51. Cross Section A - Silos Square



IMAGE 23. Pedestrian Plaza accommodating grade difference, Lincoln Centre, NYC



IMAGE 24. Waterfront Promenade, Brooklyn NYC

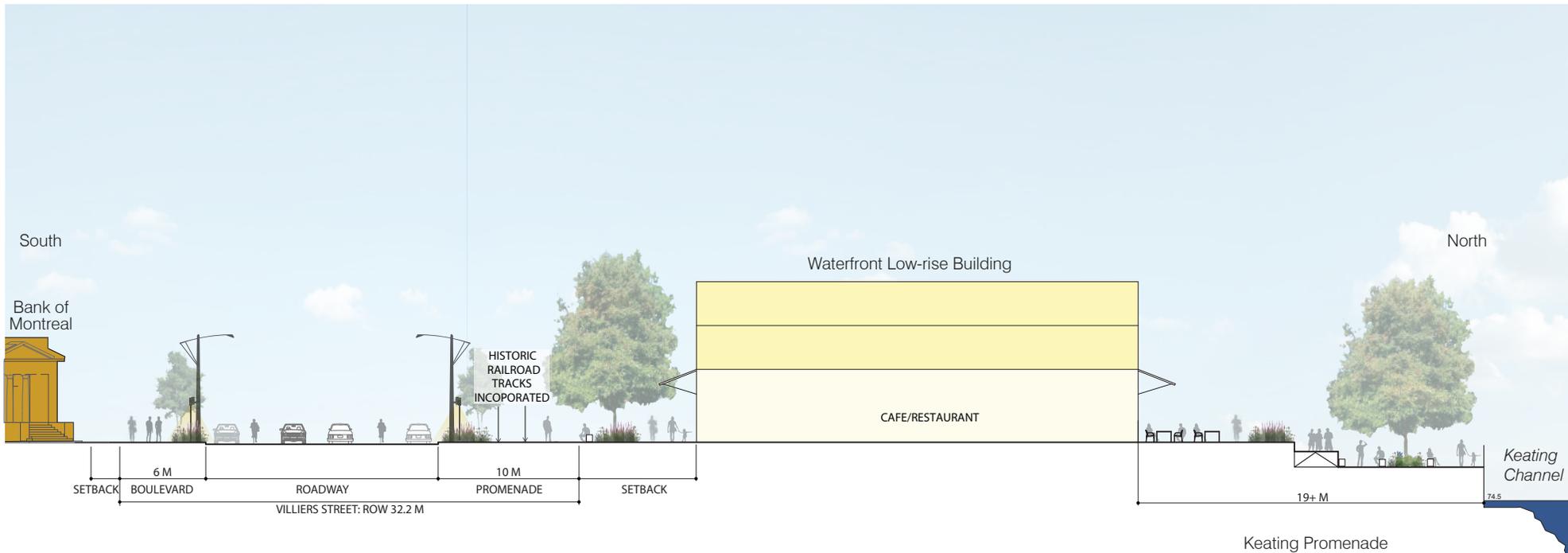


FIGURE 52. Cross Section B - Keating Promenade

3.3.1.2 Promontory Park

Promontory Park will be a regional-scale destination and signature park. The park will be anchored by the Catalytic Use building, and feature an undulating landscape with high and low points offering views across the Inner Harbour. The Catalytic Use building should be integrated with the overall design of the park, to ensure that there are clear views and a strong relationship from the building to the lake. A community centre located to the northeast of the park along the Keating Channel Promenade will contribute to an active park with a variety of recreational amenities and programming.

The park design should celebrate the industrial and natural heritage of the Island, and incorporate remnants of the existing Cousins and Essroc Quays, Marine Terminal Building No. 35 and the western dock. It will feature a lower and upper portion, and feature Overlook Plaza, which will mark the entry from Centre Street and Trinity Boulevard to the western dock and the harbour.

Park Size: 6.4 hectares (15.9 acres)

Programming and Features:

- Continuous multi-use pathways with connection to River Park, the western dock, and the Keating Channel;
- Variety of park programming and amenities including an event space, active recreation areas, public gardens and woodland areas, with year-round amenities;
- Naturalized coves and gravel beaches with water access and potential kayak/boat launching areas;
- The western dock and dockwalls will be retained as a hard edge; and
- Overlook Plaza, a hardscape area associated with the Catalytic Use site, with opportunity for water features and a playground space.



IMAGE 25. Example of outdoor seating , Hafencity Hamburg



IMAGE 26. Extensive lawn surfaces and use of grading in the Olympic Gardens, London, UK

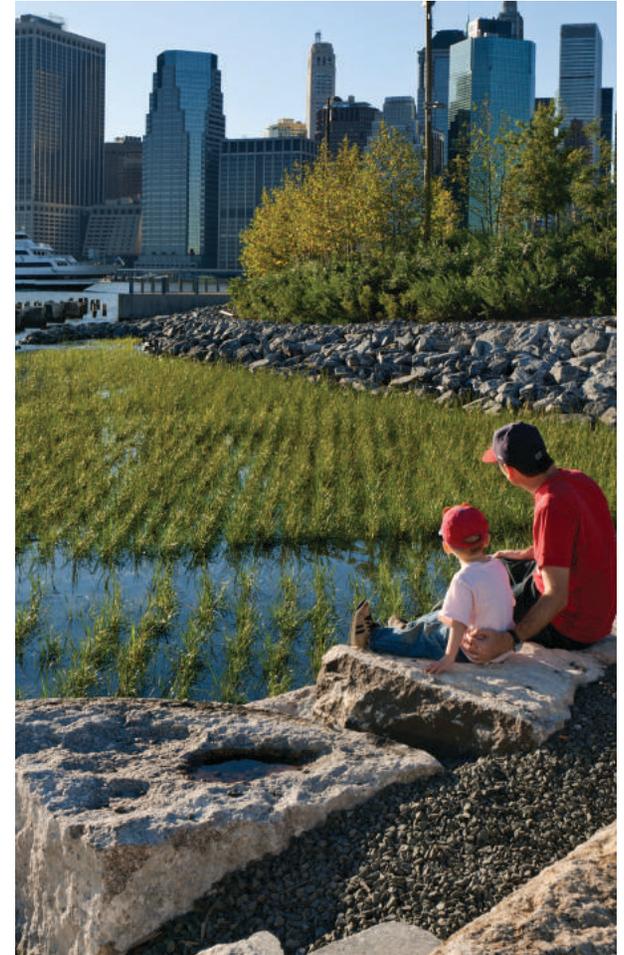


IMAGE 27. Example of naturalized coves in New York

3.3.1.3 River Park

River Park will consist of upper and lower park areas along the river valley, with views across the wetlands to industrial landmarks to the south.

River Park will primarily be a naturalized park with some active recreational amenities, and a place to enjoy nature.

Commissioners Street will form the northern edge of River Park, and the New Munition and Commissioners Street transit stop will provide direct transit connection into the park.

Park Size: 1.7 hectares (4.2 acres)

Programming and Features:

- Lower level recreational multi-pathway along the top of the bank of the river valley, with connection under the New Cherry Street and Commissioners Street bridges with access to Promontory Park and Villiers Park;
- Upper cycling and pedestrian route along Commissioners Street;
- Plaza and playground space and active recreation amenities associated with the historic Fire Hall;
- The Fire Hall should be repurposed with complementary park uses such as restaurants, cafés, museums, and/or indoor recreation space; and
- Upper woodland area and lower river valley and wetlands.

3.3.1.4 Villiers Park

Villiers Park will be a local park at the eastern end of the Island with locally-oriented active recreation. Villiers Park will have a strong relationship and synergy to the school along the Keating Channel Promenade.

The historic Keating Channel dockwall and Promenade will define the northern edge of the area and connect the linear dock wall to the naturalized valley lands. This edge of the park will mark the transition from the historic dockwall to the naturalized river.

Park Size: 1.2 hectares (3 acres)

Programming and Features:

- Multi-use recreational field;
- Kayak and canoe launch;
- Public playground space and viewing area;
- Continuous passive multi-use pathway, with connection to River Valley, below the Commissioners Street bridge;
- Multi-use walkway along Villiers Park Street; and
- Potential stormwater treatment facility along the edge of the Keating Channel Promenade, which should function as a public art/educational feature.



IMAGE 28. Precedent for River Park, London, UK



IMAGE 29. Precedent for Villiers Park, London, UK

3.3.1.5 Mid-block Pedestrian Connections

Mid-block pedestrian connections will contribute to the Island's porous pedestrian environment. Pedestrian connections will reinforce views to the heritage structures and the water's edge, allow for sunlight penetration, and additional pedestrian movement. These connections will be secured as publicly accessible open spaces (POPs) with public easements.

1 Old Cherry Diagonal Street Plaza: A small triangular plaza will showcase a view of the Lake Ontario Portland Cement Company Silos, on the west side of Old Cherry Street. This plaza will provide a pedestrian connection between Silos Square and Arrival Plaza at Centre Street.

2 Old Munition Street Pedestrian Link: The original alignment of Munition Street will be preserved as a mid-block north-south pedestrian connection, which will be well landscaped and inviting. It will be lined by the Queen's City Foundry building and a new mid-rise building to the east with grade-related units. This pedestrian connection will terminate in a view south of the relocated Fire Hall station in River Park. In order to secure the Pedestrian Link buildings the distance from building face to building face will be 14 to 18 metres.

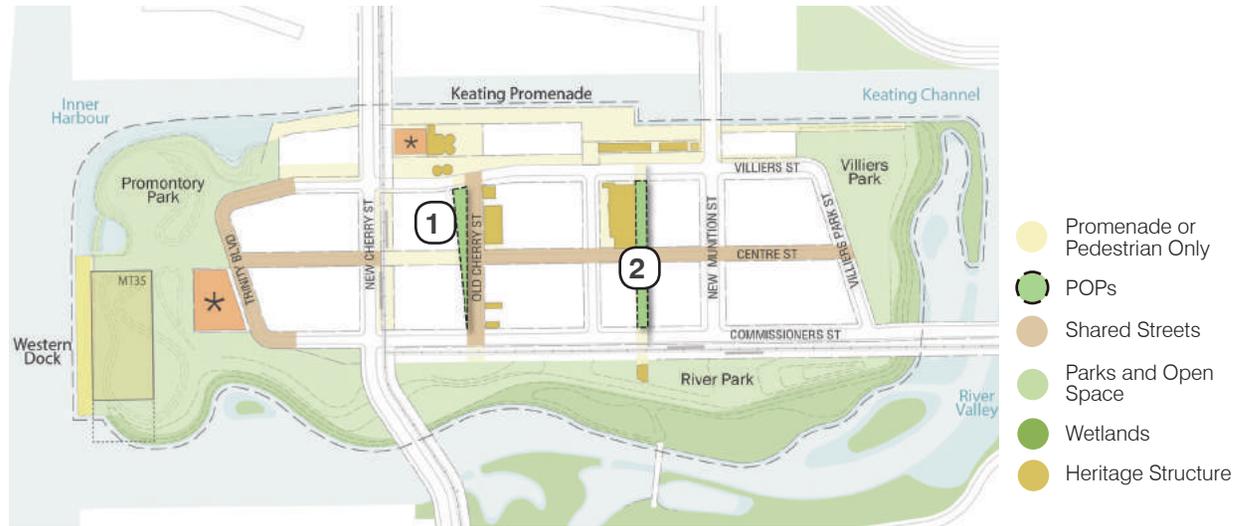


FIGURE 53. Mid-block pedestrian connections diagram



IMAGE 30. Precedent: Pedestrian plaza in Seattle



IMAGE 31. Precedent: Pedestrian-only linkage, Toronto

3.3.2 Public Art Strategy

Public art plays a vital role in major urban revitalization initiatives around the world. Successful programs infuse the urban experience with enlightening moments of reflection, and weave the co-existence of past, present and future seamlessly into the urban fabric.

As a steward of waterfront revitalization, Waterfront Toronto places a strong emphasis on the quality of the public realm and views the implementation of an inspiring public art program as a critical component of its success. The City of Toronto shares this value and supports the development of comprehensive public art programs for its neighbourhoods, as evidenced in its Central Waterfront Secondary Plan, which cites the importance of “a coordinated Central Waterfront public art program for both public and private developments” (Policy 14).

The Villiers Island Public Art Strategy expresses a vision for building an enduring and meaningful relationship between Torontonians and the new mouth of the Don River. Inspiring models like the West Don Lands and the Council approved plan for East Bayfront demonstrate that planning public art programs at the outset of development facilitates the emergence of thoughtfully curated precincts, offering meaningful and impactful collections for communities and the city as a whole. The priorities identified for Villiers Island are consistent with the goals of the City of Toronto and Waterfront Toronto as outlined in the Precinct Plan and in relation to the current understanding of the public and private development opportunities in the area.

The Public Art Strategy for Villiers Island sets out high level principles and goals, setting the stage for an integrated public art program that will be responsive to the area’s changes over time. It provides a framework of priorities and possibilities, allows for the subsequent development of specific and evolving art and programming opportunities, and encourages collaboration between Waterfront Toronto, the City, public and private partners, and stakeholders. It also recognizes artists as key partners in this process, with the intention of benefiting from their unique ability to analyze and question the existing landscape to help re-imagine our future. The Strategy has been informed by consultation with a local community of artists that has been making work in or around this area for several years.

Successful implementation of the Villiers Island Public Art Strategy is predicated on required 1% Public Art contributions for development on public lands and major infrastructure projects, as well as securing public art funding from developments on private lands. The intent is that public art contribution funds will be allocated to the appropriate projects identified in this Strategy and will be spent in compliance with the plan as they are received.

The Villiers Island Public Art Strategy proposes three different commission programs that will each function differently to engage artists and the public:

Engagement, Passages and Linkages Programs

This terminology has been chosen in order to develop a strategy for the public art program to connect artists and the public with the changing character of the island at various stages of development. This approach allows for flexibility wherein the criteria of form and media and other site specifics will be determined once more is known about the actual scope of the various sites as well as the possibilities and restrictions of commissioning public art works dictated at the time of implementation. At that point, all relevant partners will be consulted and involved in the various stages of development.

3.4 HERITAGE

Villiers Island holds an important part of Toronto’s pre-colonial, industrial and post-industrial history. As the Island transforms into a new mixed-use community at the confluence of Lake Ontario and the Don River, the area’s industrial, cultural and natural heritage will become defining qualities and contribute to a sense of place.

3.4.1 Heritage Conservation

This Precinct Plan takes inspiration from the area’s industrial and natural heritage. The Precinct Plan adopts a broad scale approach to interpret and commemorate the Island’s special and unique heritage.

The streets and blocks plan has been carefully designed to minimize impact on heritage structures and wherever possible, substantially retain and maintain buildings in their existing locations. Through the redevelopment of the Island, heritage structures may be adapted to a new use or conserved, and should become central features of the Island.

3.4.1.1 Heritage Conservation and Mitigation Strategies

Heritage structures illustrated in Figure 54 require a thoughtful conservation strategy to best conserve the structure, while allowing for its adaptive re-use.

Heritage Impact Assessments will be required prior to the alteration of heritage structures, in accordance with the City of Toronto Official Plan and the Port Lands Planning Framework. When a City-owned property on the Heritage Register is sold, leased or transferred to another owner, it will be designated under the *Ontario Heritage Act*. A Heritage Easement Agreement will be secured and monitored, and public access maintained to its heritage attributes, where feasible.

Conservation and mitigation strategies for Listed and Designated heritage structures will be subject to review and approval by the City of Toronto Heritage Preservation Services.

3.4.1.2 Cluster Approach, Heritage and Development

Heritage structures associated with the original Toronto Harbour Commission Plan are concentrated at the centre of the Island, along Old Cherry Street, Villiers Street, and Old Munition Street. The heritage of the Island will be conserved through a cluster approach. Maintaining the current relationships and treating the heritage structures and streetscapes as a cohesive group will aid in the protection of their individual heritage values and attributes and provide an opportunity for the buildings to be reinvigorated through a new plan.

In accordance with the Toronto Official Plan and the Port Lands Planning Framework, the following must be addressed in all development proposals adjacent to or involving a heritage structure.

Heritage structures illustrated on Figure 54 with the exception of the Marine Terminal Building No. 35, will be conserved in their entirety. Heritage structures and industrial assets may be adapted to new uses:

- New buildings must be physically and visually compatible with heritage structures and not negatively impact the heritage structure’s cultural values and attributes;

- New development adjacent to or in proximity to a heritage structure will incorporate transitions through appropriate setbacks, stepbacks and other built form and massing techniques. Where tall buildings are permitted, stepping down and tapering of heights and tall building components will be required to reinforce and distinguish the historic character, setting and scale of the resources;
- New development along the east side of Old Cherry Street and north side of Villiers Street should be carefully designed through siting, placing and massing to respect and create a desired street character and legible public realm; and
- Villiers Street, Old Cherry Street, Old Munition Street Pedestrian Link and Keating Channel Promenade should incorporate tailored public realm elements to communicate the area’s social and contextual values. Plantings and vegetation may reference plantings by the Harbour Commission. The historic rail tracks will be incorporated in the design of the public realm along Villiers Street.

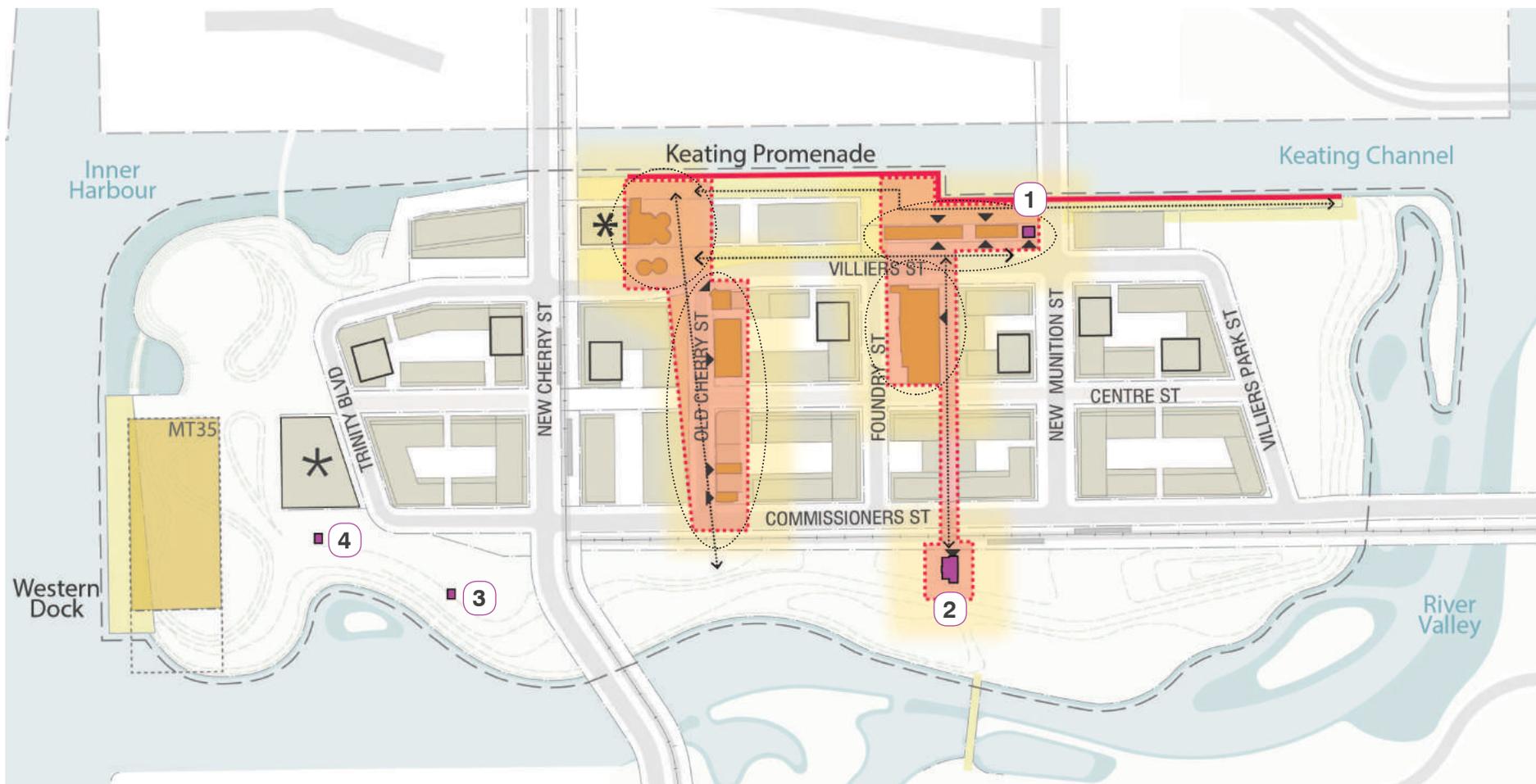


FIGURE 54. Heritage resources plan

- Relocated Heritage Structures
- 1 Dry Dock Building
- 2 Fire Hall No. 30
- 3 Atlas Crane
- 4 Fork Lift
- Heritage Structures in their original locations
- Heritage Structures Original Entrances
- Grading Challenges
- Historic Keating Dockwall
- Heritage Cluster

3.4.2 Heritage Structures and Flood Works

3.4.2.1 Heritage Structures to be Relocated

Due to the grading requirements and planned alignment of the Don Mouth and the configuration of Commissioners Street and Promontory Park, as set out by the DM NP EA and LDL MP EA, a few heritage structures cannot be maintained in their existing locations.

The Dry Dock Building and Atlas Crane will be relocated out of the flood plain and will have a new context. The Toronto Fire Hall will be shifted southward to allow for transportation infrastructure on Commissioners Street and maintain its context at the southern terminus of Munition Street. Conceptual alternate locations are indicated in Figure 54.

To ensure a strong relationship between the heritage buildings and park programming and detailed landscape design, the final alternate locations will be confirmed at the time of detailed design, and will be subject to a Heritage Impact Assessment.

3.4.2.2 Heritage Structures: Grading Considerations

As part of the flood protection measures, the majority of Villiers Island will need to be re-graded by a minimum of one to three metres, as set out in the DM NP EA. A detailed grading plan will be prepared as part of the detailed design process related to the flood protection and enabling works. Re-grading at heritage buildings and structures should be minimized, wherever possible.

The Harbour Commissioner buildings on Villiers Street, the Queen's City Foundry building and buildings along Old Cherry Street may be retained at their existing grades and be flood protected separately.

The following grading considerations will need to be considered through detailed design:

- **Maintaining the Old Cherry Street buildings at existing grades:** The heritage buildings along the east side of Old Cherry Street may be retained at the existing grades (76.8 m). A series of steps on the west side of Old Cherry Street would create a gathering area to the raised grades and future buildings on the west side.
- **Maintaining portions of the Keating Channel Promenade and Harbour Commission Buildings at existing grades:** The Keating Channel dockwall, east of New Cherry Street to the Don Greenway valley lands will be preserved and retained at its existing grade (76.8 m). This portion of the Keating Channel could be retained at the existing grades as a lower-level

promenade, and the Harbour Commission buildings and the northern cluster of the Lake Ontario Portland Cement Company Silos would be retained at existing grades. A series of steps and ramps would be required to mediate the grade change from Villiers Street.

- **Maintaining the Queen's City Foundry building at existing grades:** The Queen's City Foundry building is a large-scale building which would be difficult to lift to meet future grades. This building will be retained through the comprehensive development of the Island, and would need to be flood protected independently. There may be the potential to incorporate a plaza in front of the building to manage the grade change.

3.4.2.3 Marine Terminal Building No.35, Atlas Crane and Western Dock

The Marine Terminal Building No. 35 once occupied the majority of existing Cousins Quay. Due to the flood protection requirements and the future river valley, it would not be possible to retain the Marine Terminal Building No. 35 in its entirety. Due to a substantial fire in the summer of 2017, the majority of the Marine Terminal Building No. 35 burned down.

There are a number of objectives that should be considered when assessing the future of the remnants of the building and the design of Promontory Park:

- Assess the architectural form and expression, siting, structure and functional elements; and
- Assess various views of the building that are considered significant to understand to the importance of Marine Terminal Building No. 35 from a heritage perspective, and its connection to the history of Villiers Island and the broader waterfront.

A plan will be prepared to appropriately integrate the building in the design of Promontory Park. The DMNP EA states that a cultural heritage assessment report will be prepared for property, in collaboration with the City's Heritage Preservation Services. The report will include an assessment of the property's cultural value, the impacts on the property, and potential conservation and mitigation options.

In addition, Atlas Crane will be relocated and incorporated in the design of Promontory Park, and should become a public art feature, along with other industrial assets. The historic western dock will be retained and form the western edge of the dock. Promontory Park offers the potential to bring new life to the Island's industrial and natural heritage, through landscape design and interpretation.



IMAGE 32. Precedent image of industrial heritage integrated with park design, Duisburg-Nord, Germany

3.4.3 Natural Heritage and Indigenous Culture

Through the renaturalization of the Don River and the creation of the Don Mouth river, Villiers Island will establish a new connection between nature and the waterfront.

3.4.3.1 Archaeological Conservation and Management

In 2008, Waterfront Toronto, in partnership with the City of Toronto, completed an Archaeological Conservation and Management Strategy (ACMS) for the Central Waterfront. The ACMS provided additional analysis for areas with archaeological potential and determined the archaeological significance of potential resources.

In accordance with the Port Lands Planning Framework, the 2008 Waterfront Toronto Archaeological Conservation and Management Strategy (ACMS) will serve as the basis for future planning decisions with respect to the archaeological assessment process.

3.4.3.2 Indigenous Culture

The Island's origins as marshland and Indigenous peoples' hunting and fishing lands should be showcased through landscape design, public art and interpretation. The development of Villiers Island should increase awareness of the history and current activity of Indigenous culture. This should include:

- Continued engagement with Indigenous peoples through public realm and detailed design process;
- Increasing public awareness of the history and current activity of First Nations groups such as through integrating the Mississauga's of New Credit First Nations "Moccasin Identifier" project in landscape or trail projects;
- Naming public spaces using traditional names; and
- Including native plantings and rice gardens.



IMAGE 33. Precedent image, Thunder Bay Prince Arthur Landing



IMAGE 34. Precedent image, Thunder Bay Prince Arthur Landing



IMAGE 35. Precedent image, Toronto Trillium Park

3.5 ACTIVITY AND USES

Villiers Island will become a vibrant mixed-use community on Toronto's waterfront - and a place for all people to enjoy. The surrounding areas in the Port Lands, together with the Unilever Precinct to the northeast will have substantial employment uses. In contrast, Villiers Island will be a predominately residential community, complemented by a mix of retail, employment, recreational and cultural uses (see Figure 55).

3.5.1 Mixed-use Residential

The Port Lands Planning Framework identifies the majority of Villiers Island as a Mixed-use Residential district, with a broad range of uses such as residential, office, retail and services, institutional, recreational and cultural activities.

To ensure the Island develops as a complete community, a minimum of 20 percent of the Island's total gross floor area will be non-residential uses, which include employment/commercial uses, destination/catalytic uses, community facilities and retail uses. Employment/commercial uses and community facility and retail uses should concentrate between Old Cherry Street and New Cherry Street and along the Keating Channel Promenade.

3.5.1.1 Employment and Commercial Uses

- **New Cherry Street, east side:** Along New Cherry Street, office and employment uses will be encouraged, taking advantage of the transit gateway on the Island;
- **Old Cherry Street corridor:** Along the Old Cherry Street corridor, small-scale and creative employment uses offer the potential to reactivate and repurpose heritage buildings; and
- **Keating Channel Promenade:** New buildings along the Keating Channel Promenade will be developed with community-uses, or commercial and or small-scale employment uses with retail

uses at-grade. The Harbour Commissioner buildings should be restored and repurposed with new commercial uses to activate and animate the Promenade.

3.5.1.2 Retail Uses

Villiers Island will include urban and locally-oriented retail and service uses:

- **Priority Retail Streets and Frontages** are located along Villiers Street and the Keating Promenade, New Cherry Street and Old Cherry Street. Retail uses may include restaurants, cafés, galleries, small-scale grocery stores, studios and other service space. The site at New Cherry Street and Villiers Street is an appropriate location for a supermarket anchor; and
- **Secondary Priority Retail Streets** will be protected for on Centre Street in accordance with the Port Lands Planning Framework. Retail uses should concentrate at the corners of Centre Street-New Munition Street and Centre Street-Foundry Street. Retail uses at the corners may include convenience stores, coffee shops and other locally-oriented retail and service amenities. The design of Centre Street will accommodate the future conversion of live/work spaces into retail uses, ensuring the Street can evolve alongside market demand.

Refer to Section 3.6.5 of this Precinct Plan for further direction on built form guidelines related to retail uses and ground floor animation.

3.5.2 Destination/Catalytic Use

In order to attract visitors from across Toronto and beyond, a special destination will be developed on Villiers Island. Cultural, civic and tourist attractions act as catalysts, drawing people and interest from across the city and contributing to economic development and tourism. The range of uses could include event spaces, cultural centres, institutional/civic organizations or community hubs.

Catalytic Use/Destination Uses will be located in the following locations:

- **Promontory Park - Catalytic Use:** The site at the edge of Promontory Park is reserved for a destination/catalytic use. This site may host a civic, cultural or educational attraction to draw Toronto residents and visitors to the Island. The building should be integrated with Promontory Park, and designed to showcase views of the Inner Harbour; and
- **Silos - Catalytic Use:** A secondary Catalytic Use site at the Lake Ontario Portland Cement Company Silos is envisioned as a smaller community or institutional use. This building, together with the Lake Ontario Portland Cement Company Silos will mark the gateway into the Island. This building should be designed as part of the adaptive reuse of the historic Silos and integrated with the design of Silos Square.



FIGURE 55. Land use plan with retail frontages

- Employment/Commercial
- Destination/Catalytic Use
- Community Facility
- Residential
- Heritage Structure
- Parks and Open Spaces
- Priority Retail Streets and Frontages
- Secondary Priority Retail Streets

3.5.3 Land Use Implementation Considerations

3.5.3.1 Flood Protection and Land Use

Due to the flood control requirements, residential uses will not be permitted in any buildings that are retained at the existing grades and remain exposed to flooding.

Heritage buildings and any new buildings at existing grades will contain commercial and employment uses and must be flood proofed individually.

Any building to the west of New Cherry Street along the Keating Channel Promenade will need to be set back approximately 25 metres from the dockwall, in order to allow the reconstruction of the dockwall and associated tiebacks and structures.

3.5.3.2 Noise Mitigation and Air Quality

As part of the refinement of the studies to inform the Port Lands Planning Framework, a Noise and Air Quality Feasibility Study was undertaken by Golder Associates on behalf of the City of Toronto.

The study findings indicate that the primary impacts for the Island relate to stationary and impulse noise sources generated by the Cement Terminal at Polson Quay. Source mitigation at the Cement Terminal at Polson Quay and appropriate receptor mitigation will be required prior to rezoning lands for sensitive uses in Villiers Island. Appropriate source and receptor mitigation will be determined through the submission of detailed noise and/or air quality assessments. Any on-site source mitigation proposed at the Cement Terminal on Polson Quay will require the agreement of the operator of the Cement Terminal.

The built form approach described in Section 3.6 has been tailored to reflect the outcomes of the Noise and Air Quality Feasibility Study.

From an air quality perspective, emissions from the Port Lands Energy Centre (PEC) generally limit the height of buildings within the Port Lands, unless measures were taken to reduce emissions at the PEC. Areas closest to the PEC would not be able to exceed 20 storeys in height. Villiers Island would create compliance issues for the PEC if heights exceed 30 storeys. Due to the maximum heights permitted within Villiers Island, air quality related to PEC is not a significant concern.

3.5.4 Affordable Housing Strategy

The objective is to create complete inclusive communities that support a mix of incomes where members have the ability to age in place.

In pursuit of these objectives, provision for the following is essential within Villiers Island:

- Housing units with a range of sizes suitable for families with children;
- Opportunities for aging in place, including housing for seniors and appropriate support services;
- A mix of tenure types;
- A distribution of affordable housing throughout the Island built commensurate with the market housing; and
- A variation of densities and building typologies to reflect diverse building forms.

Similar to other waterfront precincts, the following affordable housing principles will help guide the provision of affordable housing within the Island:

- Deliver affordable rental housing units at the pace of market development;
- Create permanent and long-term affordable rental housing units;
- Utilize a variety of delivery options to achieve a mix of affordable housing types; and
- Provide transparency for requirements and flexibility of the use of different delivery method.

Both the Official Plan and Central Waterfront Secondary Plan (CWSP) support the development of complete communities, including a full range of housing types to support a mix of incomes and people living in their neighbourhoods throughout their lives. The overall goal for the Central Waterfront is that affordable rental housing comprise 20% of all housing units. Affordable rental housing is defined in the Official Plan as housing with total monthly costs that do not exceed the average rent across the City of Toronto for each unit size, as calculated by the Canada Mortgage and Housing Corporation.

In order to meet this objective, a combination of built units, land (equivalent to the land necessary to accommodate 20% of the residential gross floor area), and cash in lieu, will be secured to generate affordable rental housing, with priority given to units and land alone or in combination.

On publicly owned lands a minimum of 20% of units based on total gross floor area can be achieved through the provision of land sufficient to accommodate the units. This equate to roughly 790 units. This can be in the form of mixed-income buildings or stand alone and will be spread across the entire Island and made available commensurate to the market units. Funding and partnerships with affordable housing operators will also need to be secured to build and operate the units. In addition, Waterfront Toronto and the City of Toronto will work towards identifying opportunities to achieve an even higher percentage of affordable housing at deeper subsidies. This includes looking for opportunities to work with the private sector to deliver moderate rental housing opportunities and affordable ownership opportunities as well as working with the City's Affordable Housing Office to establish co-operative housing and rent-geared-to-income housing.

On privately owned lands, the preference will be to provide built units. Options are available to either provide 10% of the total units operated by the developer at a scaling rate or 5% units transferred to the City of Toronto in perpetuity. This equates to roughly 45-92 units. The 20% provision of land is also an option to private land owners, however the City would then be responsible for the bricks and mortar. Cash in lieu is not desirable and will be capped in order to achieve our goals of built units.

The location and timing of delivery of units will be carefully considered and provided during each major phase of development with the lands ready and available commensurate with the development of the market units. For instance, in the first phase of the development, the affordable housing units could be collocated with the community centre. A detailed affordable housing strategy will be developed as part of each phase on private and publicly owned lands.

3.5.5 Community Services and Facilities

Villiers Island will include a range of community services and facilities to meet the needs of the local community and wider area. Figure 57 indicates the conceptual locations and programming for community services and facilities on the Island.

3.5.5.1 School Services: Elementary School

The preferred location for an elementary school is along the Keating Channel Promenade, next to Villiers Park. The play area associated with the school should be located on the roof of the building.

This location provides an opportunity to co-locate the school and community park. The school site will animate the eastern end of the Keating Channel Promenade during the weekday.

Alternate location: As an alternate location, the school site may co-locate with the community centre and pool site and create an integrated community facility.

3.5.5.2 Multi-purpose Community Centre/Pool

A multi-purpose community centre will be located at the foot of New Cherry Street and Villiers Street, with an indoor pool, multi-purpose and gymnasium space.

This facility should be designed with high-quality architecture with a strong relationship to the Keating Channel. The site offers the potential to re-interpret the Essroc Quay, through architectural landscape design.

Alternate location: As an alternate, the community centre could be located together with the Lake Ontario Portland Cement Company Silos, and integrated with the adaptive reuse of Silos Square.



IMAGE 36. Precedent image of Uniliver City, Childcare space, Burnaby, BC

3.5.5.3 Childcare Services

There will be a need for at least two licensed non-profit childcare facilities, with a minimum of 62 spaces each. These facilities should be centrally located on the Island and integrated with a mixed-use/residential development.

3.5.5.4 Human Services

There will be at least one human agency service space for the community. This should be located within a mixed-use/residential building and/or co-located with the childcare facility.

3.5.5.5 Emergency Services: Fire Station

A new emergency services fire station is planned for either Villiers Island or the McCleary District. The fire station should be integrated within a larger development. A facility will be held at the northeast corner of New Munition Street and Commissioners Street.



IMAGE 37. Precedent image of Ecole Claude Bernard, Paris, France

Elementary School	1.5 ha approximate
Building footprint	3,650 sq.m.
Outdoor space	0.040 ha usable play-ground space
Community Centre	3,250 sq.m.
Indoor Pool	6 lanes pool
Multi-purpose space	465 sq.m.
Human Services	1850 sq.m.
Childcare Centre	980 sq.m., 62 spaces
Indoor Space	635 sq.m. Minimum
Outdoor Space	345 sq.m.
Fire Station	930 sq.m.

FIGURE 56. Community services and facilities space requirements



FIGURE 57. Community services and facilities plan

- Community Centre
- Elementary School
- Fire Station
- Public Playground
- Multi-Purpose Field
- Leash-free Zone

3.6 BUILT FORM



FIGURE 58. 3-dimensional view of the waterfront

Villiers Island in the City Context

Villiers Island holds an important place in the context of Toronto's natural and built landscapes at the intersection between the city, river and lake. Future vantages from Villiers Island looking west across Toronto's Inner Harbour will offer a unique sense of being in two distinct worlds at once: close to Toronto's thriving downtown, yet also intimately linked to the city's broader lake and rivershed setting. Visitors, residents and workers will enjoy its vibrant, beautiful and walkable environment through all seasons. These unique attributes call for a built form strategy that reinforces a distinct island experience, and will set the precinct apart from the surrounding development context.

Building on the direction in the Central Waterfront Secondary Plan and the Port Lands Planning Framework, Villiers Island will have a human-scale mid-rise character with some tall buildings of moderate height strategically located and scaled to the Island. Buildings will be carefully located within the Island to contribute to a high-quality public realm and comfortable pedestrian environment.

The following section details the built form considerations and guidelines for Villiers Island. All development proposals will be reviewed against these guidelines for consistency. The Built Form Framework is divided in the following sections:

3.6.1 Built Form Principles - establishes the overall built form principles which guide development on Villiers Island and address the island's unique qualities and characters as an island community.

3.6.2 Low-rise Buildings - details the direction for buildings up to five storeys.

3.6.3 Base-buildings and Mid-rise Buildings - details the direction for buildings from 1 to 10 storeys including directions on massing and articulation.

3.6.4 Tall Buildings - details the direction for buildings that rise above 10 storeys, including directions regarding tower locations, stepbacks, separation distances and heights.

3.6.5 Grade Level Built Form Guidelines - provides direction regarding the grade-level and relationship to the street and public realm.

3.6.6 Built Form and Micro-Climature Considerations - includes directions regarding sun/shadow and wind impacts.

3.6.7 Views - identifies views that require special consideration.

3.6.8 Density and Development - identifies densities for each of the ten development blocks.



FIGURE 59. Visualization of Villiers Island

3.6.1 Built Form Principles

The built form on Villiers Island will be planned, designed and developed in accordance with the following principles:

- 01** Create a varied and dynamic built form that contributes to the city and Port Lands skyline and creates visual interest
A variety of building types and scales will contribute to a distinct and dynamic skyline. Together with the evolving Port Lands, the ensemble of the skyline will contribute to the sense of place and identify for Villiers Island within Toronto's waterfront.
- 02** Reinforce distinct character areas and places in the Island
Villiers Island consists of a collection of special places with different relationships to the water's edge and the public realm.
- 03** Contribute to spectacular and comfortable all-season parks, open spaces and destinations
Villiers Island will be wrapped with a continuous green loop of parks and open spaces along its four waterside edges. This condition requires special consideration with regards to the public realm and micro-climate conditions.
- 04** Design the built form to frame and animate streets, parks and open spaces and respond to water edge conditions
To create a lively and animated district with an excellent pedestrian environment, the built form must have a good scale and relationship to street, parks and open spaces. Buildings will define streets and adjacent parks with continuous and strong building edges, with breaks and separation between buildings to allow for pedestrian access, as well as allowing for openness to the sky view.
- 05** Maintain and celebrate the built, cultural and natural heritage of the Island and surrounding Port Lands
Villiers Island has a special industrial and natural heritage context that will contribute to the identity of the Island as the precinct evolves. New development will establish sensitive transitions in scale, form, material and character to support and complement the heritage structures, define the different character areas and celebrate the history of the Island.
- 06** Position tall buildings in strategic locations to optimize proximity to transit nodes, define gateways and frame open spaces
Tall buildings will be located in strategic locations with special consideration to how they maintain and frame views in and out of Villiers Island, their contribution to the ensemble of the skyline, while ensuring that they are located, designed and massed to have a positive impact on the surrounding public realm.
- 07** Showcase views to the water and industrial landmarks
The built form will be designed to enhance views from the city to Villiers Island and views out to the Port Lands and the Inner Harbour. Heritage structures and industrial landmarks in and around Villiers Island including the Lake Ontario Portland Cement Company Silos, and the Hearn Generating Station, Ashbridges Bay and Commissioners Incinerator chimney stacks will continue to be dominant structures and landmarks in the area and remain prominent in the skyline.
- 08** Leverage passive solar gain and enable daylighting within buildings and open spaces
The location, design and massing of buildings can contribute to achieving climate positive goals by reducing energy demands through passive solar gain, while providing daylighting within interior courtyards.

3.6.2 Low-rise Buildings

Low-rise buildings will be located along the Keating Channel and east side of Old Cherry Street to create a cohesive pedestrian-oriented district. Low-rise buildings heights and locations are indicated on Figure 60 and range from 1 to 5 storeys, as described below. In addition, the Catalytic Use building within Promontory Park will be a low-scale signature building on the waterfront.

All ground floors will have a minimum 5 metre floor-to-floor height; all residential upper storeys will have a 3 metre floor-to-floor height; all commercial storeys will have a minimum 4 metre floor-to-floor height and the Catalytic Use Buildings will have a minimum 5 metre floor-to-floor height.



FIGURE 60. Low-rise buildings

3.6.2.1 Villiers Street North/Keating Promenade

- Buildings along the Keating Channel Promenade, east of New Cherry Street will be a maximum of 3 storeys, up to 15 metres. Buildings will respond the scale of the Harbour Commissioner and Dry Dock buildings, contribute to a high-quality pedestrian experience, and maximize sunlight along the Promenade;
- Buildings along the Keating Channel Promenade should incorporate substantial glazing and function as extensions of the public realm, with patio and spill out opportunities on both the northern and southern façades;
- The building on the east side of New Munition Street along the Keating Channel will be up to 3 storeys and the site for a future school. The school's main entrance should be located on Villiers Street and the northern façade should incorporate substantial glazing, and should include playful and whimsical design elements; and
- There will be one five storey building permitted along the Keating Channel Promenade to the immediate west of New Cherry Street. This site will accommodate a 2-storey community centre, with potential residential/commercial uses



IMAGE 38. Precedent image of Cornell Pollination Centre, Ground floors along the Keating Channel should be designed with substantial glazing and extensions of the public realm.

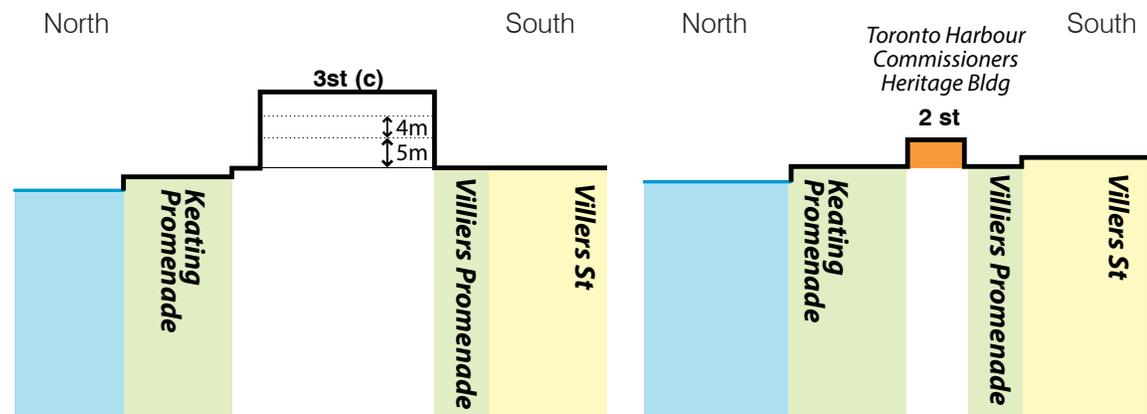


FIGURE 61. Diagram illustrating built form along the Keating Promenade

3.6.2.2 Old Cherry Street, east side

- Infill buildings along the east side of Old Cherry Street will be low-rise in scale, with a maximum height of 3 storeys, up to 15 metres. Buildings will maintain a consistent height and establish a sensitive transition in scale and character to the cluster of heritage along the street; and
- Infill buildings should be contemporary in design, and integrated with, but distinguishable from the heritage structures.

Further guidance related to the relationship between heritage buildings and new development is provided in Section 3.4.



IMAGE 39. Precedent image of Sir John A. MacDonald heritage and new building, Ottawa

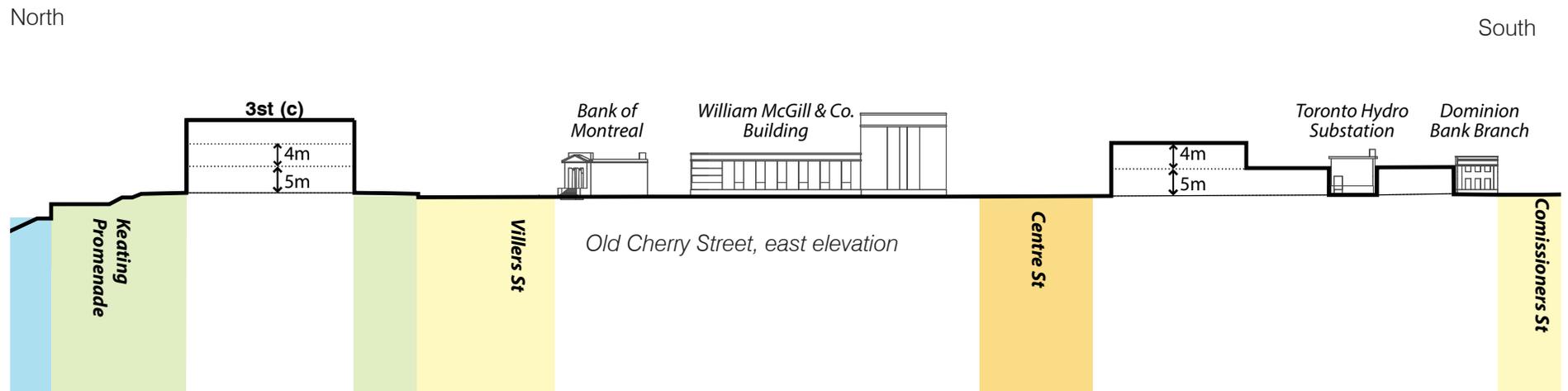


FIGURE 62. Diagram illustrating the built form along the west side of Old Cherry Street

3.6.3 Base Buildings and Mid-rise Buildings

Base and mid-rise buildings on Villiers Island will range from 6 to 10 storeys (19 - 32 metres) and will be the predominant building type of the Island. Base and mid-rise buildings will be designed to frame streets and create a consistent streetwall. Base and mid-rise buildings heights and locations are indicated on Figure 64. Base and mid-rise buildings should be no longer than 85 metres.

Base buildings are the lower portion of a tall building. Base buildings will be no taller than 8 storeys.

The height of base and mid-rise buildings will vary based on the character area and the relationship to heritage, street width and solar orientation. The overall distribution of base and mid-rise buildings on the Island is based on a staggered heights strategy, with lower heights along Commissioners Street and higher base and mid-rise building elements along Villiers Street. One of the opportunities gained from this approach is the potential to leverage passive solar gain on a precinct-wide basis and terrace the heights of buildings down towards River Park.

Mid-rise buildings will incorporate varying setbacks to reduce the perception of height from the street, create an excellent pedestrian environment and allow for sunlight access and sky views from the public realm.

Setbacks are an important massing technique to maintain a human scale and allow for a minimum amount of sun on the public realm by stepping upper storeys away from the street edges. Setbacks can also provide space for outdoor terraces, which can contribute to eyes on the street and contribute to a building's private amenity space.

All building's ground floors will have a minimum 5 metre floor-to-floor height; all residential upper storeys will have a 3 metre floor-to-floor height; all commercial storeys will have a minimum 4 metre floor-to-floor height.

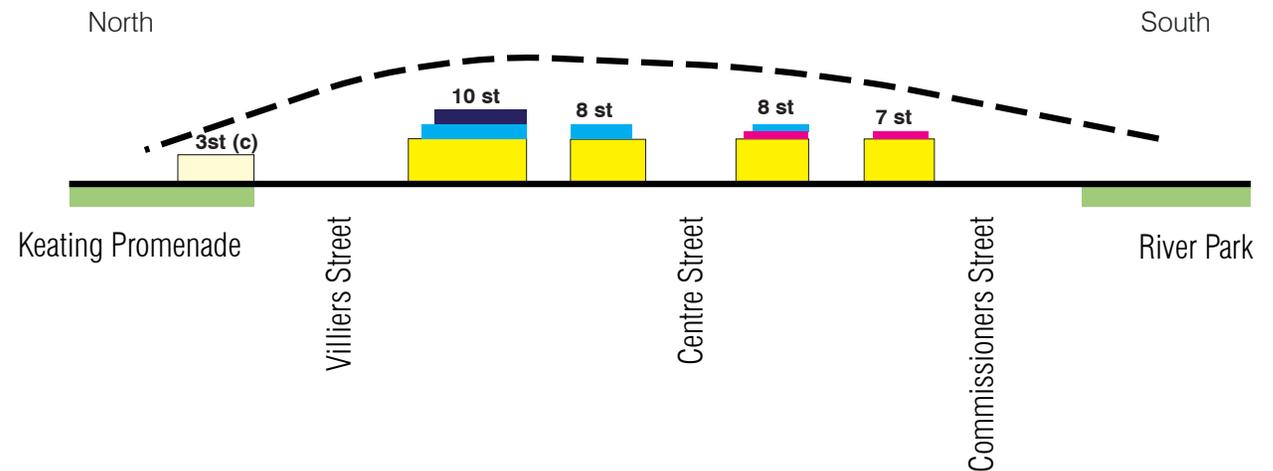


FIGURE 63. Diagram illustrating the base and mid-rise building height in a conceptual north-south cross section of the Island

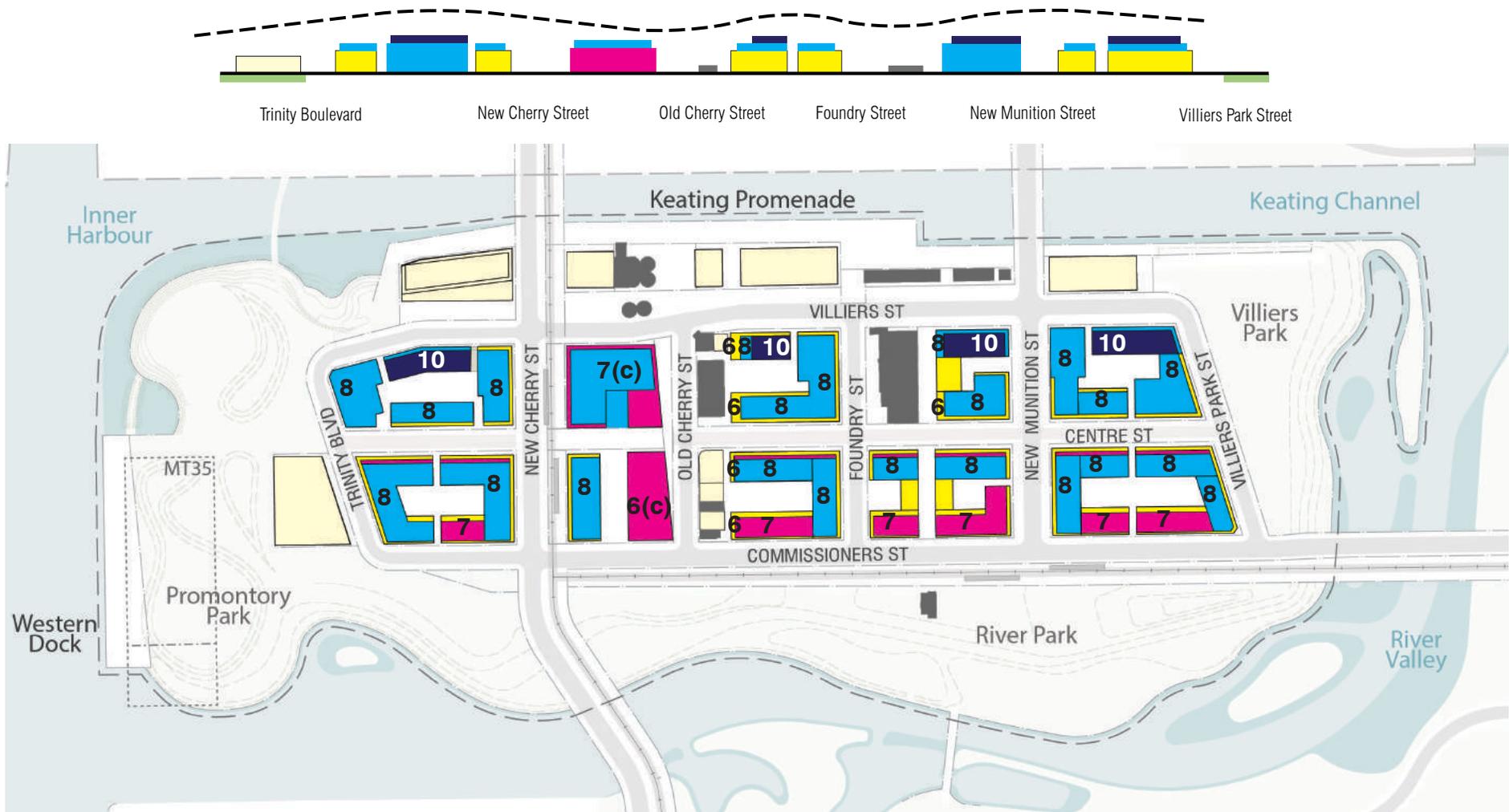


FIGURE 64. Low-rise, base and mid-rise building heights and locations

- Low Rise - up to 3 st (commercial) or 5st
- Mid Rise - up to 6 st
- Mid Rise - up to 7 st
- Mid Rise - up to 8 st
- Mid Rise - up to 10 st
- ★ Catalytic Use Building
- Heritage Building

3.6.3.1 North South Streets – New Cherry Street, New Munition Street and Trinity Boulevard

- Buildings with primary frontage on north-south streets will be permitted up to 8 storeys, and incorporate stepbacks at the 6th storey (see figure 65); and
- The height and scale of buildings fronting north-south streets will relate to the street right-of-way to create a pedestrian-friendly environment and leverage passive solar gain.

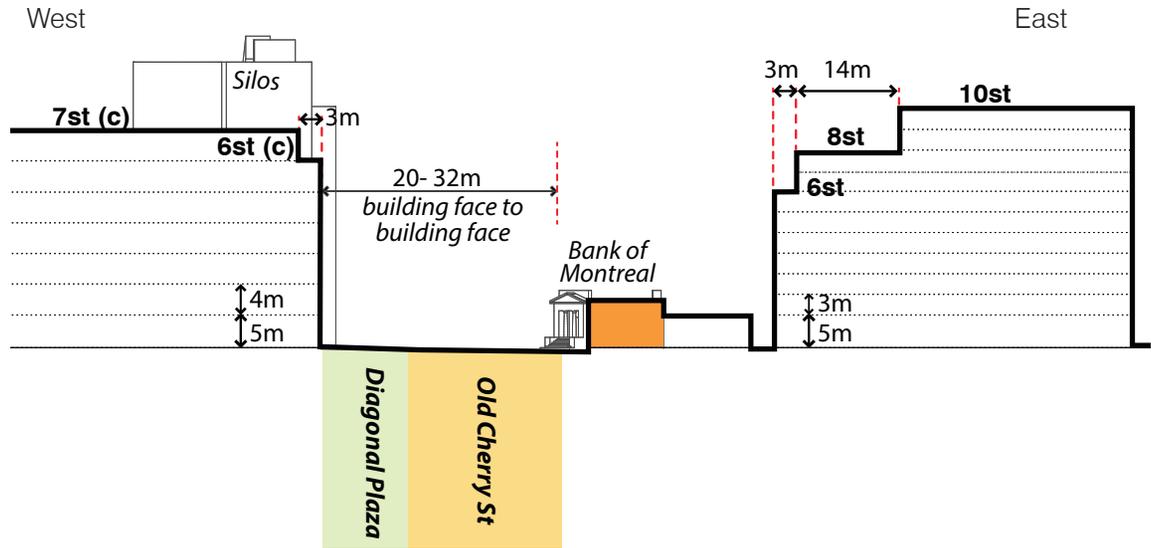


FIGURE 65. Old Cherry Street built form diagram

3.6.3.2 Old Cherry Street

- Buildings on the west side of Old Cherry Street will be permitted up to 6 to 7 storeys (22 metres);
- Buildings at this scale will relate to the street right-of-way and establish a transition in scale to the low-rise buildings along the east side of Old Cherry Street. These buildings are planned as commercial/office buildings; and
- Buildings to the immediate east of Old Cherry Street, facing east and west streets (Villiers Street, Centre Street, Commissioners Street) will incorporate a significant stepback in height to establish a sensitive transition in scale, as indicated in figure 66. For the portion of a building adjacent to a heritage structure, buildings should be a maximum of 6 storeys. Buildings directly adjacent to heritage structures should transition in height and scale via stepbacks and other massing techniques.

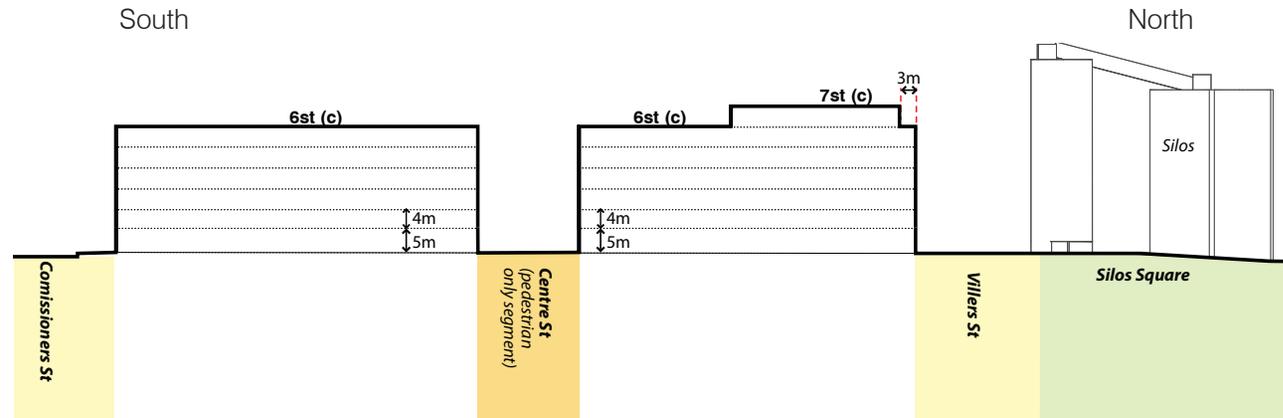


FIGURE 66. Old Cherry Street west side built form diagram

3.6.3.3 Commissioners Street, north side

- Buildings will be permitted up to 7 storeys (22 metres) to frame River Park, and leverage solar gain and minimize shadow impact on internal courtyards and buildings along Centre Street;
- Buildings on Commissioners Street will be encouraged to include variation in height, scale and articulation to establish architectural interest;
- Buildings will incorporate a front stepback at the 6th storey (south façade) with a minimum depth of 1.5 metres. Greater stepback areas are encouraged to create generous south facing terraces facing the River Valley with space for outdoor furniture (see figure 67); and
- Buildings will incorporate a stepback at the 6 storey (north façade) with a minimum depth of 3 metres up to 4.5 metres to minimize shadow impact on internal courtyards and on buildings on Centre Street (see figure 67).

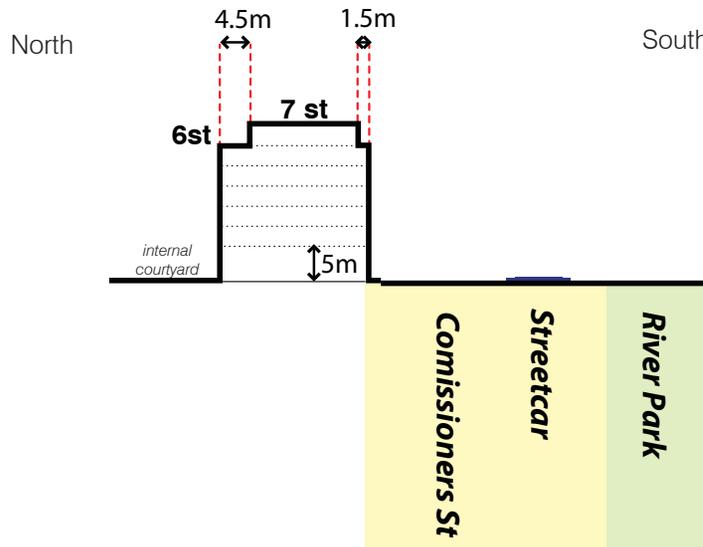


FIGURE 67. Commissioners Street north side built form diagram



IMAGE 40. Precedent: 7 storey tall building with stepback at the 6th storey, Dublin

3.6.3.4 Villiers Street, south side

- Buildings will be permitted up to 8 to 10 storeys, with stepbacks at the 6th or 8th storey, with a depth of 3 metres. The stepback area should incorporate outdoor terraces directly facing the Promenade;
- Base and mid-rise buildings will relate to the street right-of-way and create a comfortable pedestrian condition; and
- Buildings should provide additional stepbacks to minimize the perception of height from the street and the Keating Channel Promenade.

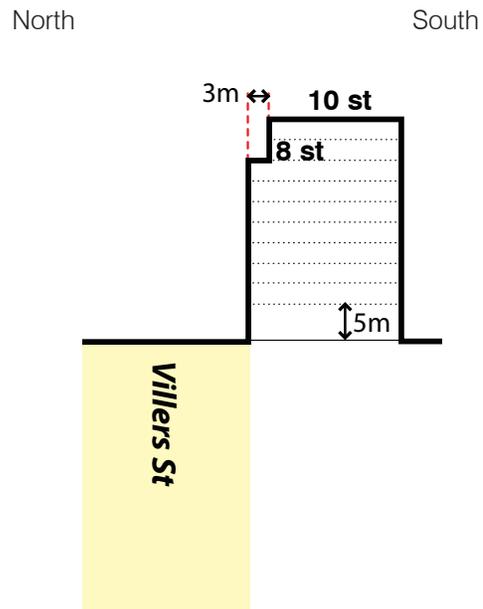


FIGURE 68. Villiers Street south side built form diagram

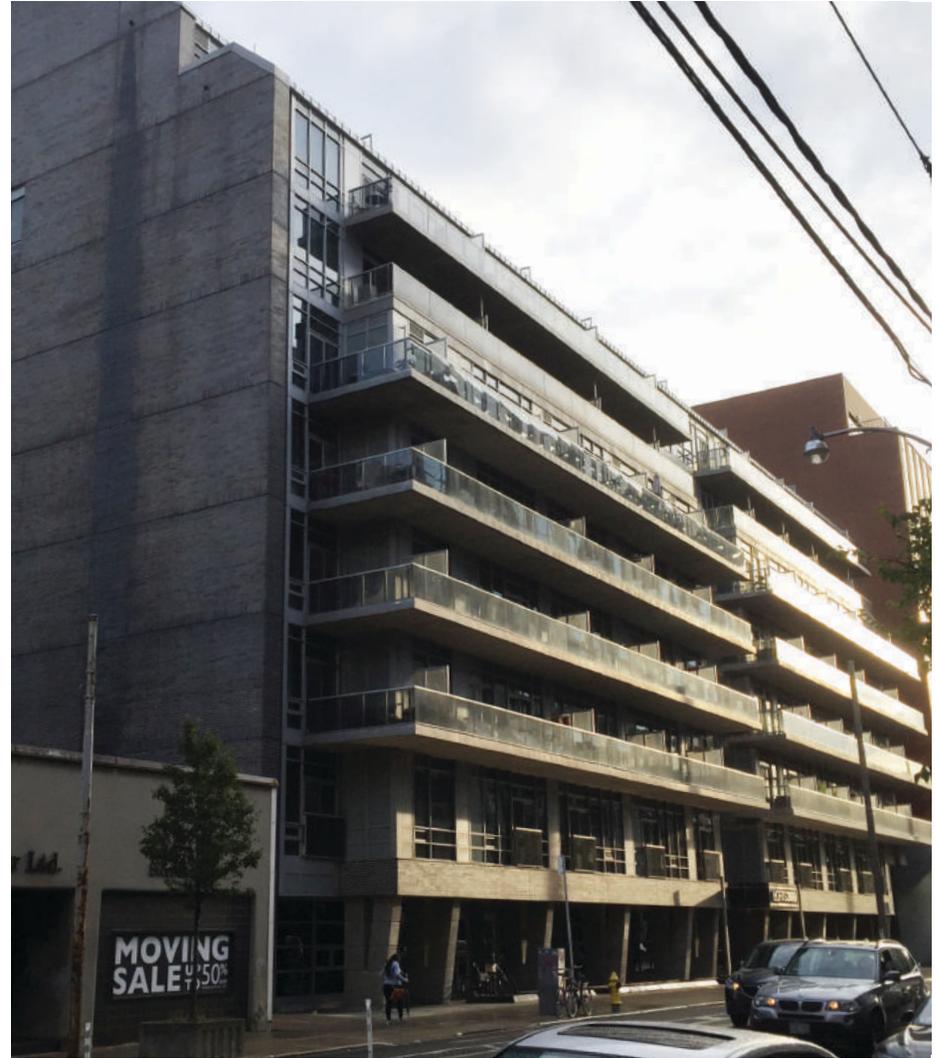


IMAGE 41. Precedent: 10 storey building that incorporates stepbacks at the 8th storey, Toronto

3.6.3.5 Centre Street

- Buildings will be permitted up to 8 storeys, with stepbacks at the 6th storey. Buildings along Centre Street will incorporate stepbacks and elevated penthouses to create a sense of intimacy and frame the pedestrian-focused street.
- On the north side of Centre Street, base buildings will incorporate a 3 metre wide stepback at the 6th storey; and
- On the south side of Centre Street, base buildings will incorporate two stepbacks at the 6th and 7th storeys, to maximize sunlight on the northern sidewalk area. Additional built form massing approaches should be considered to maximize sunlight on the street.

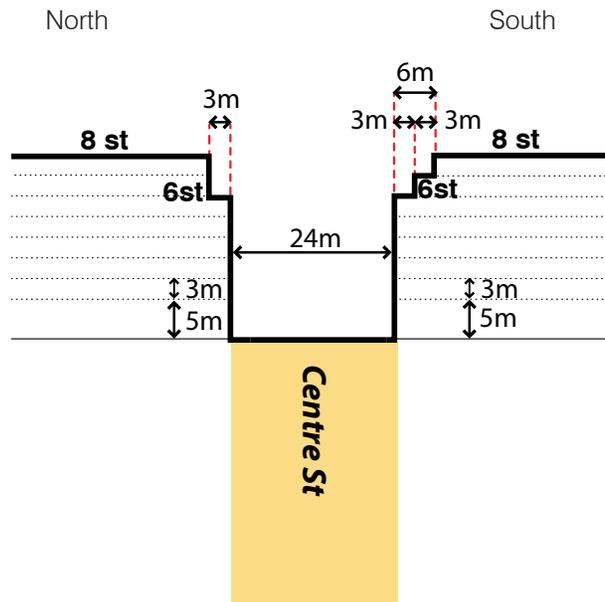


FIGURE 69. Centre Street built form diagram

4.6.3.6 Old Munition Street Pedestrian Link

- Along the Old Munition Street Pedestrian Link, buildings will be up to 6 storeys to create a more intimate residential-type pedestrian-only mews and create a transition in scale to the heritage building at 33 Villiers Street.



IMAGE 42. Precedent image of mid-rise buildings face an intimate pathway that incorporates stormwater measures, Portland OR

3.6.4 Tall Buildings

Tall buildings in Villiers Island will only be permitted in strategic locations, and contribute to a varied and interesting skyline and a mix of building types on the Island. The height, location and massing of tall buildings demand careful attention due to the impact tall buildings have on the public realm. Tall buildings within the Villiers Island context are defined as building portions that exceed the maximum heights established in Figure 64 (Low-rise, base and mid-rise building heights and locations).

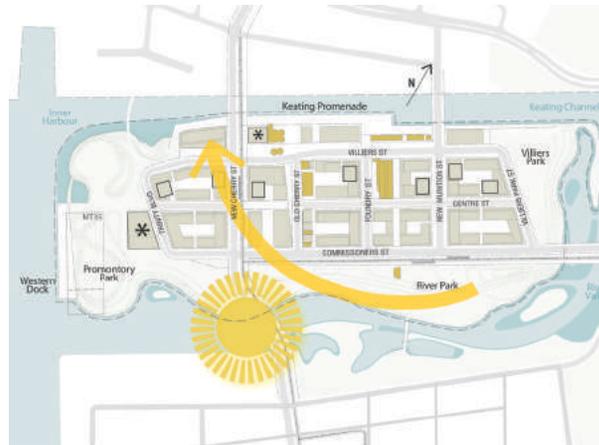
3.6.4.1 Tall Building Locations

The location, organization and orientation of tall buildings has been carefully considered to balance a number of planning and design considerations:



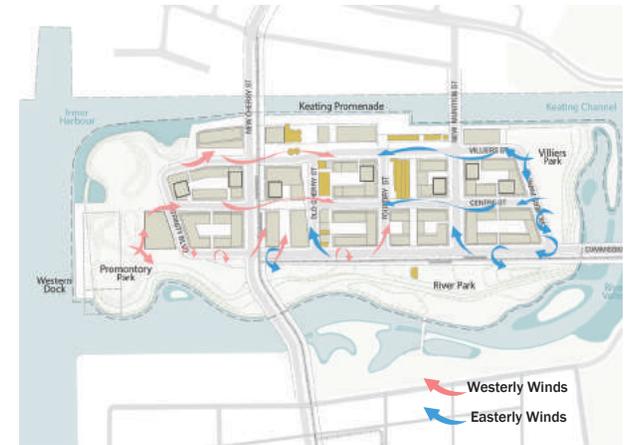
Maximize Sunlight on the Public Realm

Tall buildings will minimize shadow impact on the Island's parks and open spaces and ensure adequate sunlight on the public realm and natural habitat.



Leverage Passive Solar

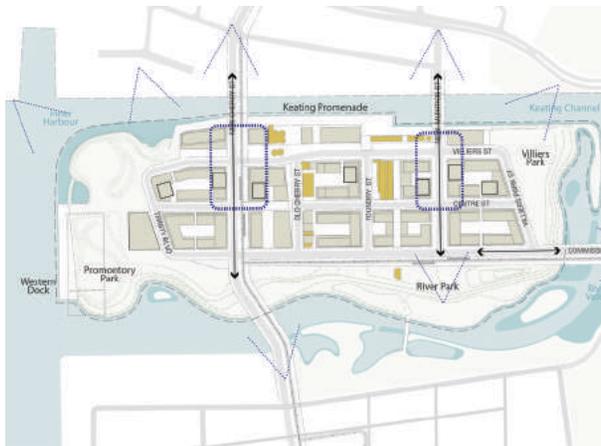
In order to reduce energy demands for buildings, tall buildings will be located strategically on the Island to maximize south facing sunlight exposure, capitalizing on the energy and benefits associated with passive solar gain.



Mitigate Wind Impact

Villiers Island is located in an area subject to strong winds. Tall buildings need to be carefully positioned to minimize wind impacts and create a comfortable public realm.

▼ **FIGURE 70.** Diagrams depicting the planning and design considerations for the location of tall buildings



Define Gateways

Tall buildings will define the two north-south gateways into the Island, along New Cherry Street and New Munition Street.



Proximity to Transit Stops

Tall buildings will be clustered around the New Cherry Street transit stop to ensure people and jobs are located in close proximity to transit.



Transition to Heritage Structures

To provide appropriate transitions in scale and form to the lower-scale heritage structures on the Island, tall buildings are not appropriate within close proximity to heritage structures. Tall buildings are also not appropriate in locations that would block or obstruct views to heritage structures in Villiers Island and the surrounding Port Lands.

The tall building locations on the Island will distinguish the scale and built form between the different character areas in the Island, and also distinguish the Island from the built form character in surrounding areas.

In addition to the considerations discussed on the preceding pages, tall buildings will also be located away from the Cement Terminal on Polson Quay to minimize noise mitigation concerns.

As indicated on Figure 71, tall buildings will be located within the development blocks bounded by Centre Street to the south and Villiers Street to the north. By locating tall buildings within these

blocks and staggering their locations, it is possible to minimize shadowing on surrounding buildings. This approach is optimal from a passive solar perspective on a precinct-wide basis and will contribute to reducing energy demands generated by buildings.

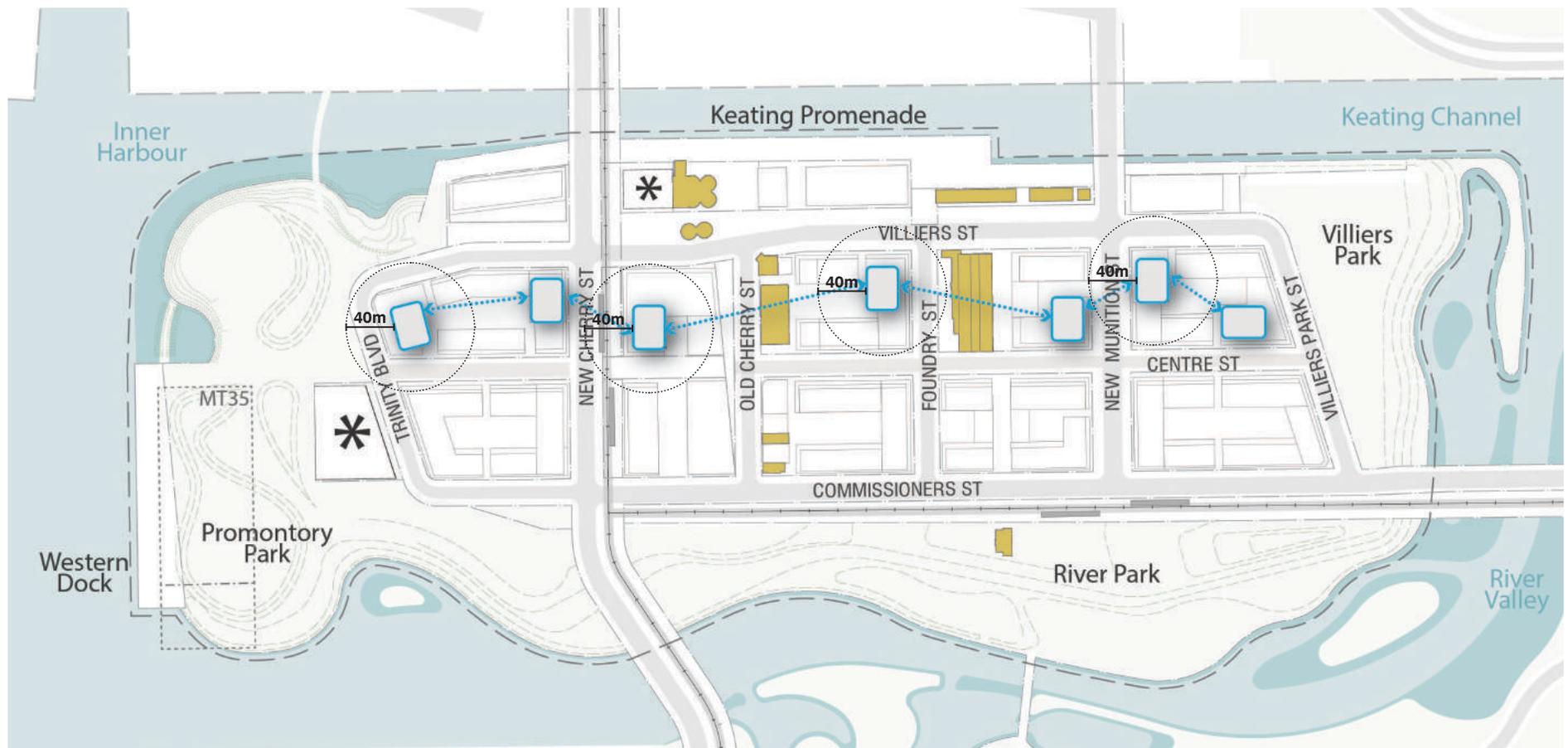


FIGURE 71. Tall building locations and separation

3.6.4.2 Tall Building Separation

Providing minimum distances between tall buildings helps to limit negative impacts on the public realm, and provides for sunlight, sky view and privacy.

To maximize sky view and light penetration, tall buildings will be separated by a minimum of 40 metres (excluding balconies).

This separation distance will ensure that tall buildings are well spaced from each other and do not become the dominant element in the skyline.

In addition, tall buildings will also be staggered on each block. This will ensure that tall buildings do not directly face another building.

3.6.4.3 Tall Building Steppedbacks

Tall buildings will be well set back from the base building and the street edge. Tall building steppedbacks will mitigate wind impacts, reduce the perception of tall buildings from the street and create a comfortable pedestrian environment.

Tall buildings will be stepped back from the base building frontage by a minimum of:

- 10 metres on the south side of Villiers Street to provide a substantial setback to the pedestrian-oriented Keating Channel Promenade and heritage structures;
- 6 metres on the north side of Centre Street along the length of the street, to preserve the character of Centre Street as a mid-rise street; and
- At least 3 metres on north-south streets.

3.6.4.4 Tall Building Setback to Heritage Structures

In order to establish a transition in scale to heritage structures within Villiers Island, tall buildings will be separated a minimum of 40 metres from the predominant face of heritage structures.

3.6.4.5 Tall Building Floorplates

Residential tall building floorplates for the portion of a building over 10 storeys will not exceed 750 square metres (excluding balconies). This floorplate size will ensure that daylight penetrates through to the streets and the perceived bulk of the building does not dominate the human-scale quality of the street.



IMAGE 43. Precedent image of residential building with a defined base building and tall element in Vancouver, BC

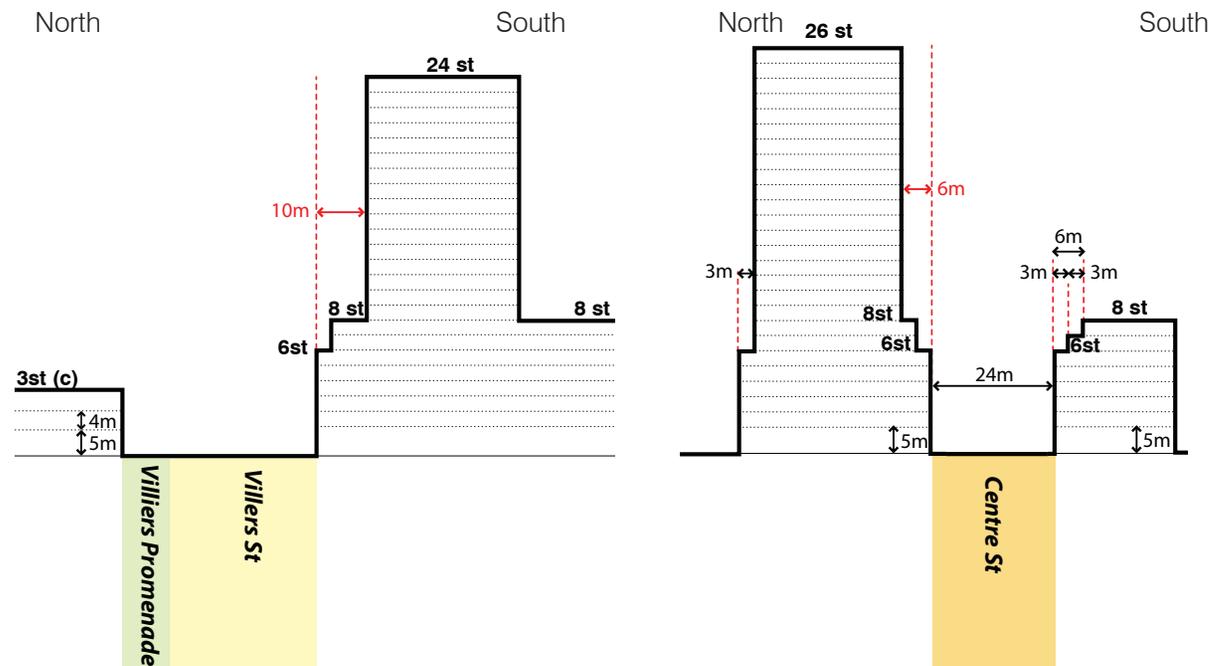


FIGURE 72. Section diagrams illustrating the tall building steppedbacks from Villiers Street and from Centre Street

3.6.4.6 Tall Buildings Heights Strategy

The heights of tall buildings in Villiers Island will contribute to an interesting skyline, maintain and enhance view corridors, and minimize shadow impact on parks and open spaces. The majority of tall buildings will be in the low to mid-twenties.

As indicated on Figure 73, four height ranges are appropriate for Villiers Island:

- **Tall 1:** Buildings up to and ranging between 80 and 89 metres (26 and 29 storeys);
- **Tall 2:** Buildings up to and ranging between 68 and 80 metres (22 to 26 storeys);
- **Tall 3:** Buildings up to and ranging between 62 and 68 metres (20 to 22 storeys); and
- **Tall 4:** Buildings up to 50 metres (16 storeys).

TALL 1 – up to 29 storeys (89 metres)

- The tallest element (Tall 1) will be located immediately west of New Cherry Street and south of Villiers Street. This is a highly visible location from downtown and the Central Waterfront and marks the primary gateway into the Island. This location is considered an opportunity site for an architecturally significant landmark building. It will be the tallest element in Villiers Island and frame the New Cherry Street gateway and transit stop.

TALL 2 – up to 26 storeys (80 metres)

- East side of New Cherry Street - a building will be permitted up to 80 metres (approximately 26 storeys). This building will frame the east side of the New Cherry Street gateway and transit stop; and
- West side of New Munition - a building will be permitted up to 80 metres (approximately 26 storeys). This building will frame the west side of the New Munition Street gateway and will be set back a minimum of 40 metres from Queen's City Foundry building.

TALL 3 – up to 24 storeys (74 metres)

- On the west side of Foundry Street, a tall building up 74 metres (24 storeys) will be permitted. The height and form of a tall building in this location must create a sensitive transition in scale to the nearby heritage properties along Old Cherry Street and the Queen's City Foundry building; and
- New Munition Street marks a secondary gateway into the Island, where tall buildings are appropriate. On the east side of New Munition Street, a building up to 24 storeys (74 metres) is permitted.

Tall 4 – up to 16 storeys (50 metres)

- The two ends of the Island, at Trinity Boulevard and Villiers Park Street will be marked with buildings in the range of 50 metres (16 storeys). Buildings at this height will minimize shadow on Promontory Park and the western cove, and Villiers Park.

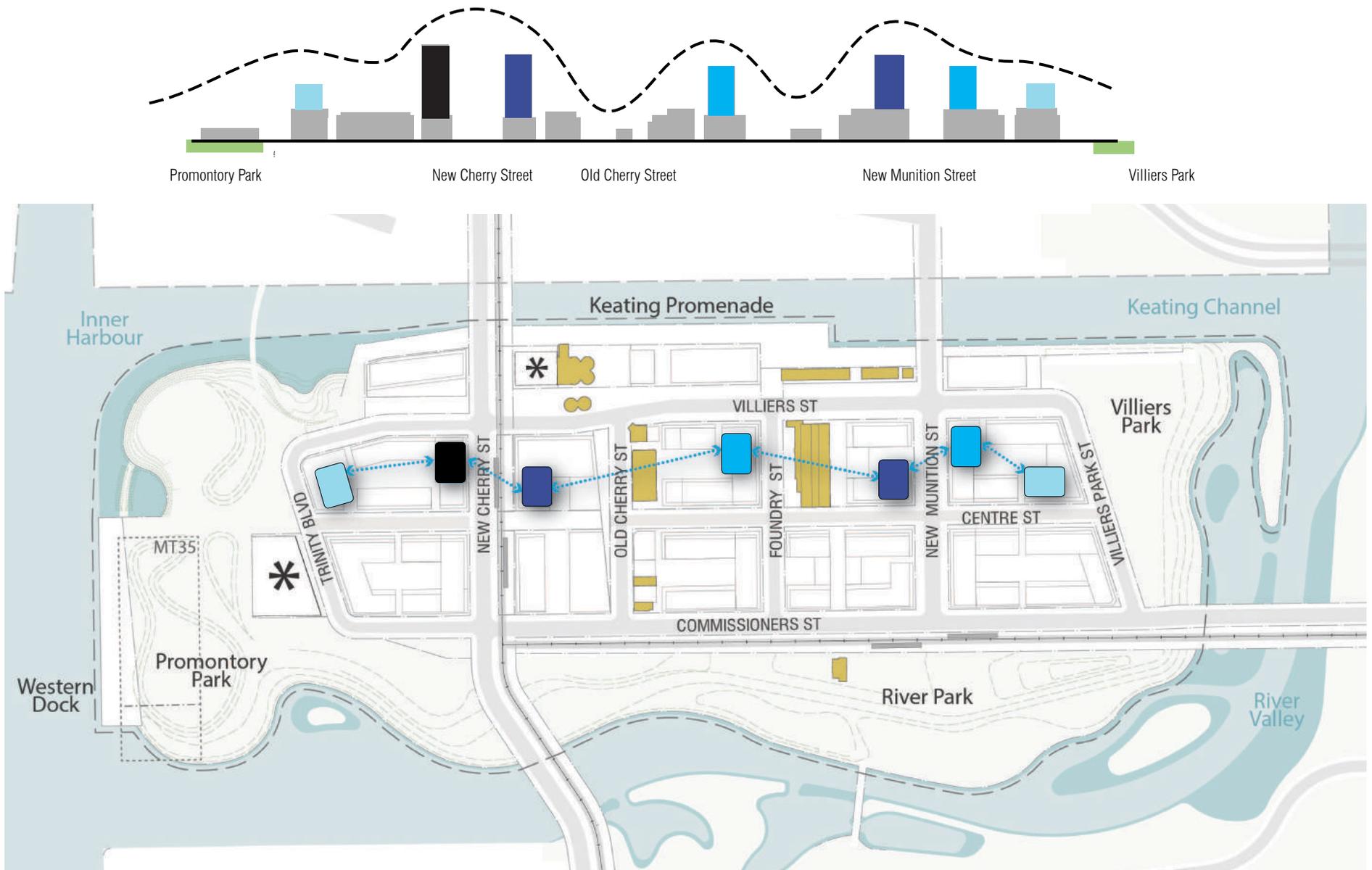


FIGURE 73. Tall building height strategy, plan and section diagram

- Tall 1: up to and ranging between 80m and 89m (26 and 29 storeys);
- Tall 2: up to and ranging between 68 and 80m (22 to 26 storeys)
- Tall 3: up to and ranging between 62 and 74 m (20 to 24 storeys)
- Tall 4: up to 50m (16 storeys).
- Heritage buildings

3.6.5 Grade Level Built Form Guidelines

The first floors of buildings are the main interface between the public and private realms. The ground floor should ensure high-quality dynamic spaces that contribute to vibrant pedestrian environment. Active uses will animate streets, parks and open spaces throughout the Island.

3.6.5.1 Ground Floor Height

All ground floor heights in Villiers Island will be a minimum of 5 metres in height (with the exception of existing heritage buildings). The minimum ground-floor height will create a consistent pedestrian experience, while allowing for flexibility of various ground level uses.

3.6.5.2 Uses At-grade and Ground Floor Animation

Priority Retail Street and Frontages

Villiers Street and the Keating Promenade, Old Cherry Street, New Cherry Street and portions of Trinity Boulevard will contain at-grade street-related retail and service uses, which will animate and active the public realm. Keating Channel has the potential for destination-type retail uses.

Ground floor commercial retail uses will also be encouraged elsewhere on the Island as Secondary Priority Retail Frontages on selected locations along Centre Street.

At-grade retail uses will be designed in accordance with the following guidelines:

- With the exception of residential lobbies and secondary entrances and exits, the ground floor of buildings in these locations will contain only non-residential uses. At-grade residential units in these areas are not appropriate;

- At-grade retail uses should include a minimum of 70% transparent glazing to permit a clear view from the street and include multiple entrances from the street;
- Retail signage should contribute to the architectural character of a building and the heritage of the Island; and
- Retail frontages should be fine-grain and allow for flexibility and adaptability to encourage a diversity of identity and character.

Animated At-grade Frontages

Animated at-grade frontages will be required along all frontages facing parks (along Villiers Park, Commissioners Street and Promontory Park) and along Centre Street west of New Cherry Street (see Figure 74).

Animated at-grade frontages will be designed in accordance with the following guidelines:

- Animated at-grade frontages will include doors, windows and common amenity areas with pedestrian activity fronting and directly accessible from the sidewalk;
- Ground floor façades should be devoted to transparent windows and doors, and visually open to allow maximum visual interaction between the sidewalk and interior spaces; and
- Ground floors will be designed to enable conversion to narrow frontage retail and be a suitable depth to accommodate retail and service uses.

Grade-related Residential and Live/Work Units

In some areas of the Island, grade-related residential units and live/work units are appropriate, including along Centre Street (east of New Cherry Street), and Old Munition Street Pedestrian Link.

Grade-related residential units will be designed in accordance with the following guidelines:

- Incorporate stairs and landscaping within the private setback area to provide a degree of separation and privacy from the street;
- Be designed with flexibility to allow for live/work opportunities and accommodate small-scale commercial, retail and service-related uses;
- Contribute to the overall neighbourhood character of Centre Street and a high-quality public realm.



FIGURE 74. Plan illustrating grade level frontages

- Priority Retail Street and Frontage
- Secondary Priority Retail Frontage
- Animated at Grade Frontage
- Grade-related Residential and Live/Work Units Frontage

3.6.5.3 Setbacks

Setbacks at grade help to expand the public realm and allow for increased space for pedestrian movement. Setbacks provide opportunities for widened pedestrian clearways, landscaping, street furnishings, entrance canopies, terraces and a buffer between the building face and public right-of-way. Setbacks from the front property line will be provided in specific locations to assure additional space for pedestrians, as illustrated by Figure 75.

- Promenade/pedestrian priority
- Old Cherry St diagonal plaza
- Centre Street enhanced setback
- 1 metre setback
- 2 metres setback
- 3 metres setback

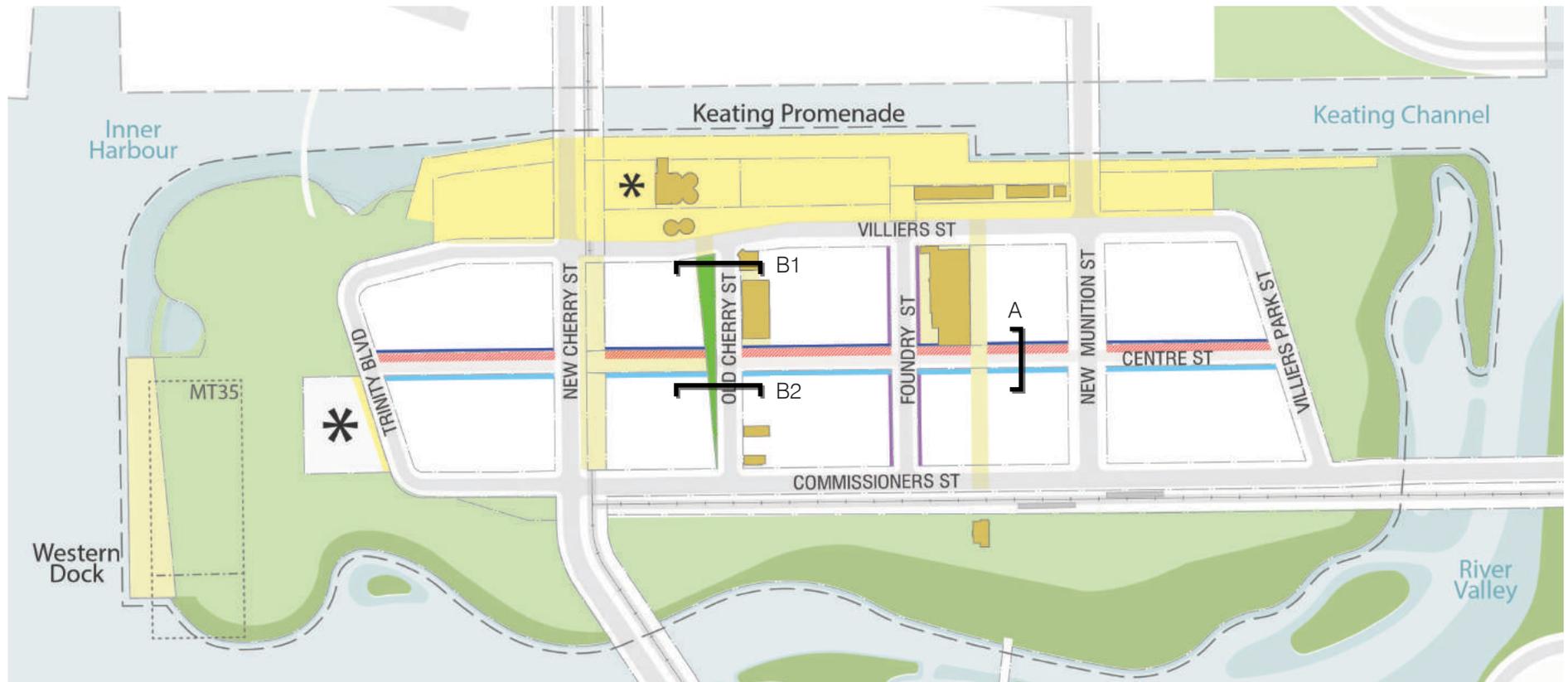


FIGURE 75. Plan illustrating setbacks

Foundry Street:

- Buildings on Foundry Street will be setback from the public right-of-way by 2 metres on both sides in order to create a 24 metre distance from building face to building face.

Centre Street

- Buildings along Centre Street will have varied setbacks from the public right-of-way with 1 metre on the north side and 3 metres on the south side to achieve a minimum distance of 24 metres from building face to building face; and
- The enhanced setback will ensure that there is a minimum of 5 hours of sunlight on the north side of Centre Street. This setback area will reinforce the mews-like character along Centre Street. It will create space for landscaping/ planting zone between the public right-of-way and the entrance to grade-related use.

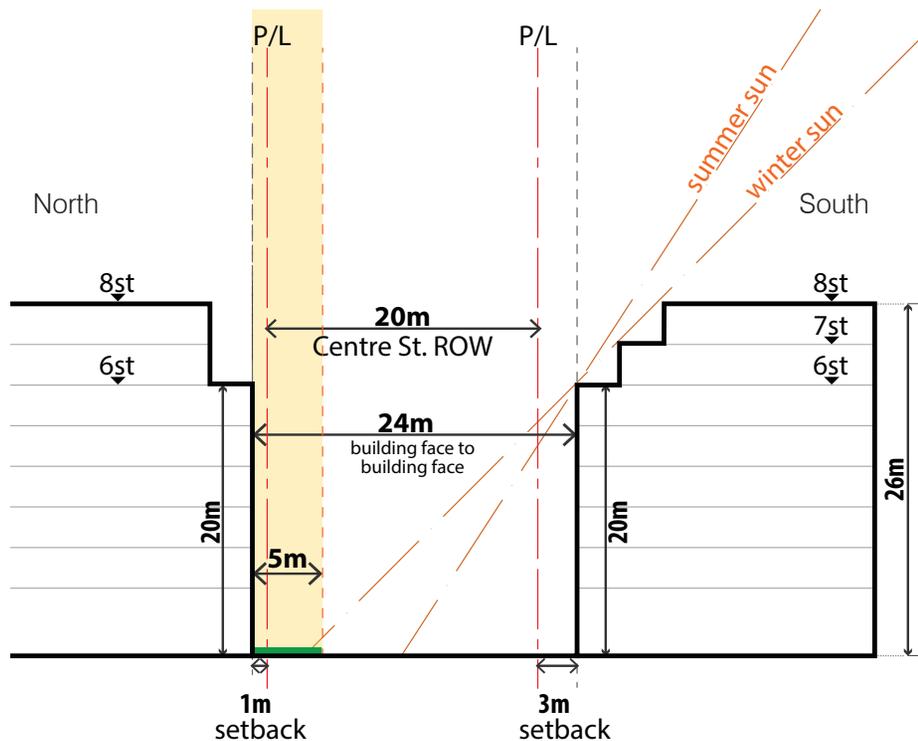


FIGURE 76. Section A: Diagram illustrating the setback along Centre Street

Old Cherry Street, west side:

- Buildings on the west side of Old Cherry will feature a diagonal set back area from the public right-of-way to create a pedestrian plaza in front of the buildings and reveal a view from the Silos Square to the River Valley.

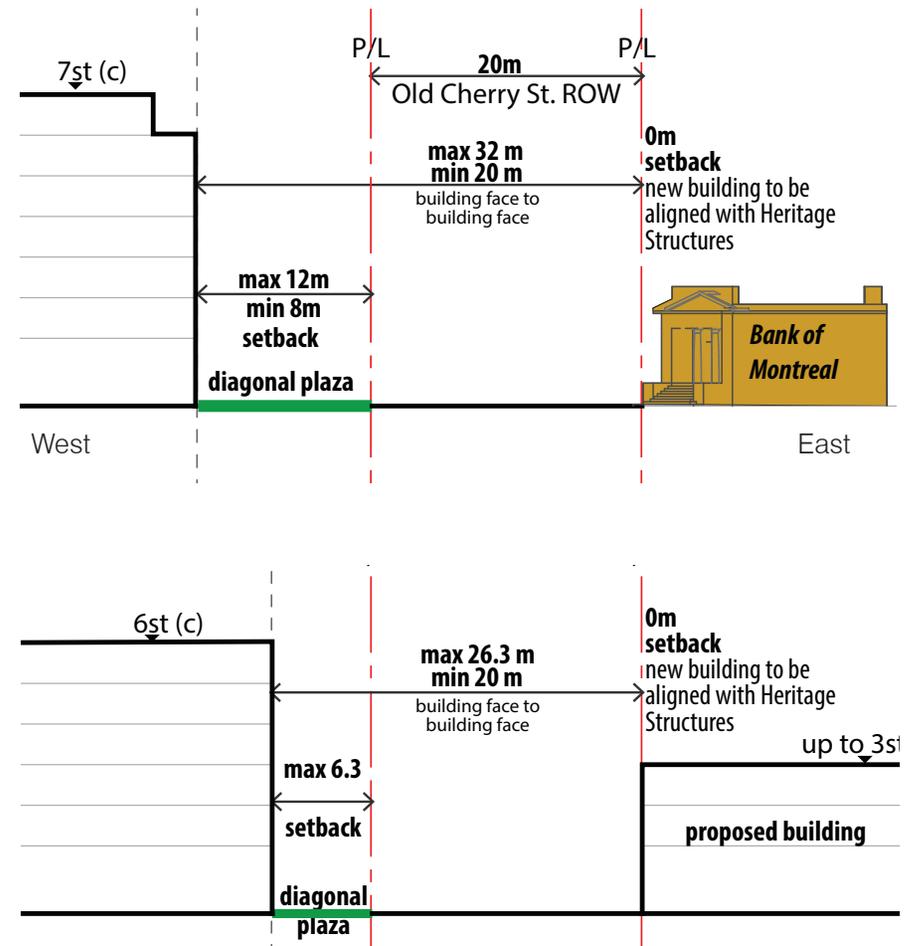


FIGURE 77. Section B1 and B2: Diagrams illustrating the setback along Old Cherry Street

3.6.6 Built Form and Micro-climate Considerations

Development on Villiers Island will contribute to an excellent public realm and pedestrian environment. The built form strategy has been carefully designed to minimize shadow impacts on parks and open spaces and minimize and mitigate pedestrian-level wind impacts.

3.6.6.1 Sun and Shadow

Development will minimize shadow impact on parks, open spaces and the public realm to achieve the following sunlight at the spring and fall equinoxes:

- 7 hours of continuous sunlight on naturalized wetlands (below top of bank), including the naturalized coves along the Keating Channel from 10:18 am;
- 8 hours of continuous sunlight on Promontory Park from 10:18 am;
- 6 hours of continuous sunlight on Villiers Park from 9:18 am;
- 8 hours of continuous sunlight on River Valley Park from 9:18 am;
- Minimal shadow on the Keating Channel Promenade at noon, and 5 hours of continuous sunlight from 1:18 pm;
- 5 hours of continuous sunlight from 1:18 pm with interspersed shadow cast by tall buildings until 3:18 pm on the northern side of Villiers Street;
- 5 hours of continuous sunlight from 12:18 pm along the northern edge of Centre Street; and
- 4 hours of continuous sunlight along Old Cherry Street from 10:18 am.

3.6.6.2 Wind Mitigation

Buildings will be located, massed, oriented and designed to mitigate uncomfortable ground level conditions wherever possible. Villiers Island is located in a highly exposed waterfront area, and wind mitigation is an important component of building massing and design.

RWDI Inc. prepared a Pedestrian Wind Assessment for the Precinct Plan and the built form strategy has been prepared to mitigate wind impacts, wherever possible. The findings indicate that mid-rise buildings with setbacks typically allow winds to pass over the buildings and thereby protect areas downwind of the buildings. This building type will be the predominant building type in the Island.

During the development and detailed design phase, the following potential solutions for wind mitigation should be considered:

- Where tall buildings are deemed appropriate, base buildings provide important wind control by deflecting wind from tall buildings, thereby keeping the wind above street level. In accordance with Section 3.6.4, the tall building setback distance from the base building will be substantial to maximize the podium's efficacy of wind down wash capture;

- Massing articulation such as chamfered, curved, or re-entrant corners on both tall buildings and highly exposed base-buildings may aid in reducing corner wind accelerations;
- Architectural features should be incorporated such as covered colonnades and large canopies on the base buildings along the east, west and south sides of the Island;
- Measures such as canopies over main entrances and recessing main entrances to protect them from winds;
- Incorporating localized wind screens and trellises on sidewalks, plazas, podiums and terraces; and
- Outdoor roof space may require additional wind mitigation to create comfortable environments. Typical wind mitigation would include tall, transparent parapets or wind screens to deflect winds up above the roof areas; and
- In addition, coniferous trees in the parks surrounding the buildings may minimize wind impacts, particularly along east-west streets such as Commissioners Street and Centre Street.

3.6.7 Views

At the southeast of Toronto's Inner Harbour, Villiers Island will be highly visible from downtown and the Central Waterfront. The location also provides impressive views of the city skyline, the Port Lands industrial heritage and the varied water's edges.

Views contribute to the sense of place, relationship to the city and the waterfront, and heritage character. The placement and heights of buildings and the design of parks and open spaces requires special consideration to maintain and contribute to views.

The Port Lands Planning Framework identifies views of the Port Lands and to the surrounding city. Expanding on the views identified and described in the Port Lands Planning Framework, the heights, location, and placement of buildings in Villiers Island will preserve and enhance views to the focal points and heritage structures, in accordance with Figure 78.



FIGURE 78. Views key map

01



FIGURE 79. Port Lands Skyline
From: Central Waterfront Promenade, from the foot of Yonge Street to Sherbourne Common (view illustrated from Sugar Beach)

1. Port Lands Skyline

Views to the Port Land's skyline along the Central Waterfront promenade from the foot of Yonge Street to Sherbourne Common will create a symbolic connection between the city and the next area of waterfront revitalization. The City's image will be enriched by the expansion of its skyline in a way that varies dramatically from that of the Downtown Toronto.

The Port Land's skyline will be curated and sculpted to convey the identity of the evolving city district by preserving views to and showcasing the collection of prominent heritage structures and landmarks. These consist of the Commissioners chimneystack, the Hearn and its chimneystack, the Lake Ontario Portland Cement Company Silos and any conserved attributes of Marine Terminal Building No. 35 as determined through a more detailed assessment. New development will be carefully sited and building heights controlled to ensure the landmarks remain dominant within the evolving skyline, with generous sky view surrounding the Hearn's chimneystack.

02

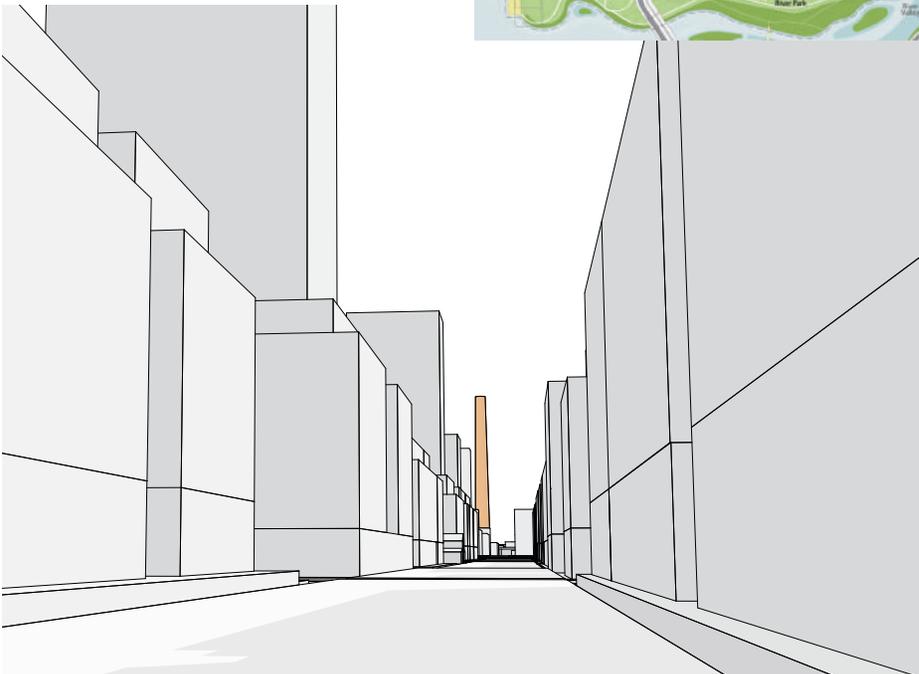


FIGURE 80. Commissioners Stack
From: Centre Street, Western end

2. Commissioners Stack

An intimate, oblique view of the historic Commissioner's Incinerator chimneystack, a totem of the Port Lands, will be achieved by generally aligning Centre Street in Villiers Island and a new east-west street in McCleary District to capture a long view of the chimneystack from the west, while preserving the historic Foundry building in its original location. Sky view will be provided around the chimneystack by stepping back development above a mid-rise height.

03

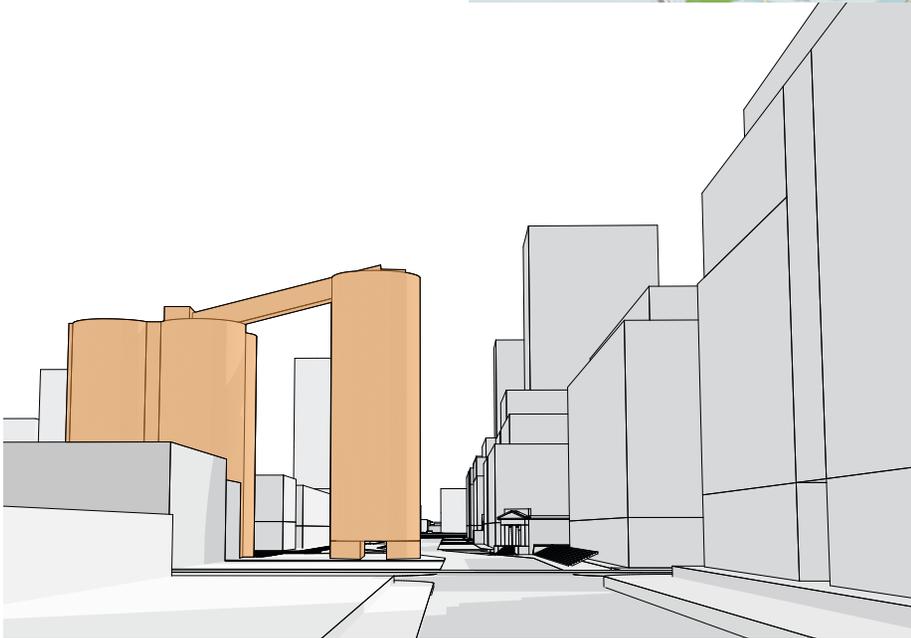


FIGURE 81. Villiers Street and Lake Ontario Portland Cement Company Silos
From: Promontory Park, looking east

04



FIGURE 82. Villiers Street, Lake Ontario Portland Cement Company Silos and Harbour
Commission Buildings
From: Villiers Park Street, looking west

3 and 4. Portland Cement Company Silos

Views from the east and west along Villiers Street will be dominated by the dramatic scale and prominent location of the Lake Ontario Portland Cement Company Silos at existing Cherry Street, and lined to the north by the historic Toronto Harbour Commissioners buildings. The Silos will be a distinctive centre piece for the street as it evolves into a pedestrian priority retail / recreation destination. Development will frame the view, ensuring that buildings are sited and oriented to maintain the prominence of the silos through setbacks and/or generous setbacks.

05

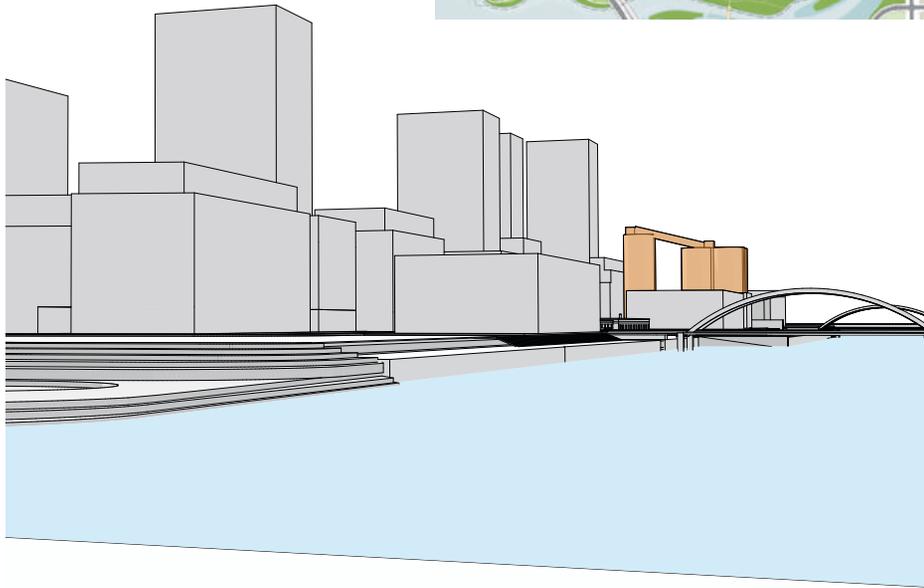


FIGURE 83. Keating Channel, Lake Ontario Portland Cement Company Silos and Toronto Harbour Commissioners Building
From: The eastern edge of the Keating Channel and the Don Roadway, looking west

06

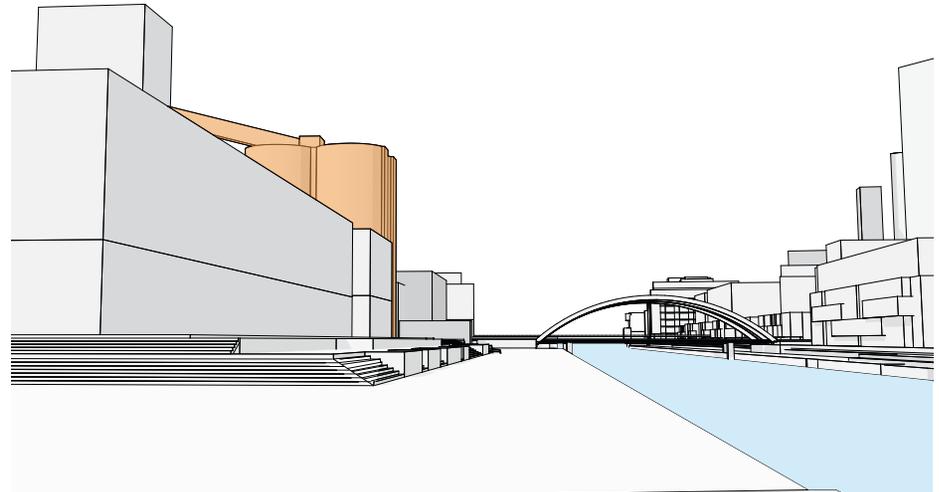


FIGURE 84. Keating Promenade, Lake Ontario Portland Cement Company Silos and Toronto Harbour Commissioners Building
From: Marina Square, looking west

5 and 6. Keating Channel, Lake Ontario Portland Cement Company Silos and Toronto Harbour Commissioners buildings

The Keating Channel, an important heritage asset and reminder of the Don River's historic reconfiguration, provides long views down the Channel to Villiers Island and emerging neighbourhoods in the Central Waterfront. This view prominently features the Lake Ontario Portland Cement Company Silos and Toronto Harbour Commission buildings, conveying a strong sense of place and celebrating the Port Lands heritage. Development adjacent to the Keating Channel Promenade will be low-rise in nature and be massed to maintain the prominence of the historic resources.

07

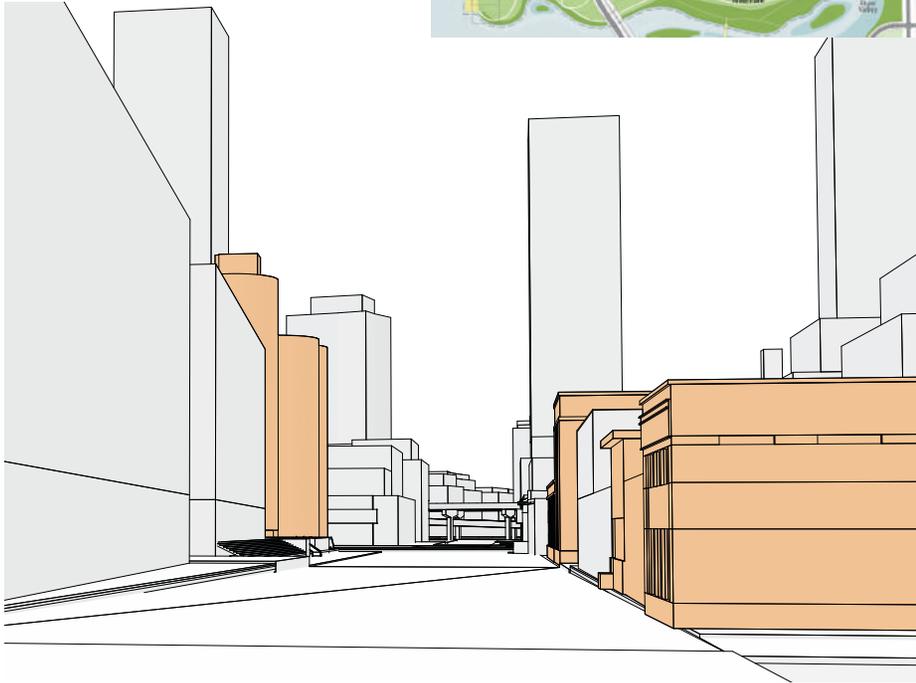


FIGURE 85. View of Old Cherry Street
From: Commissioners Street, looking north

7 and 8. Old Cherry Street

The view looking north on Old Cherry Street from Commissioners Street is framed by the Lake Ontario Portland Cement Company Silos to the west, and a cluster of heritage buildings to the east. Development along the east side of Old Cherry Street will be massed and sited to preserve views of these buildings and complement their low-rise scale. The tower elements within the Keating Precinct are seen further afield.

08

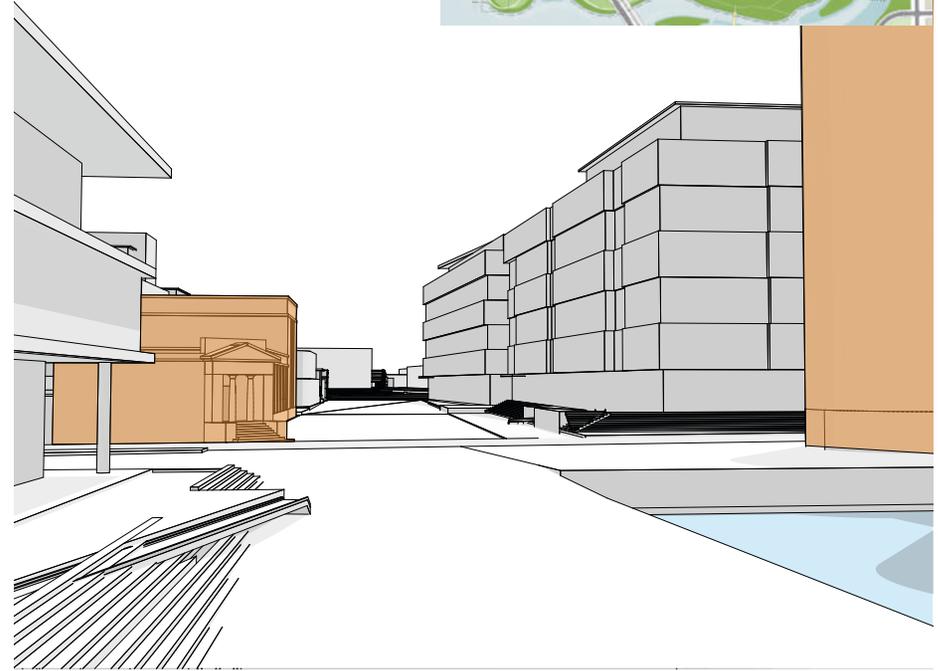


FIGURE 86. View of Old Cherry Street
From: Silos Square looking south

8. Old Cherry Street

The view looking south from Silo Square down Old Cherry Street and its ensemble of heritage buildings – the Bank of Montreal, William McGill and Company, Toronto Hydro Substation and the Dominion Bank buildings – on the east side of the street. Development on the east side of the street will be massed and sited to preserve views of the buildings and complement their low-rise scale.

09

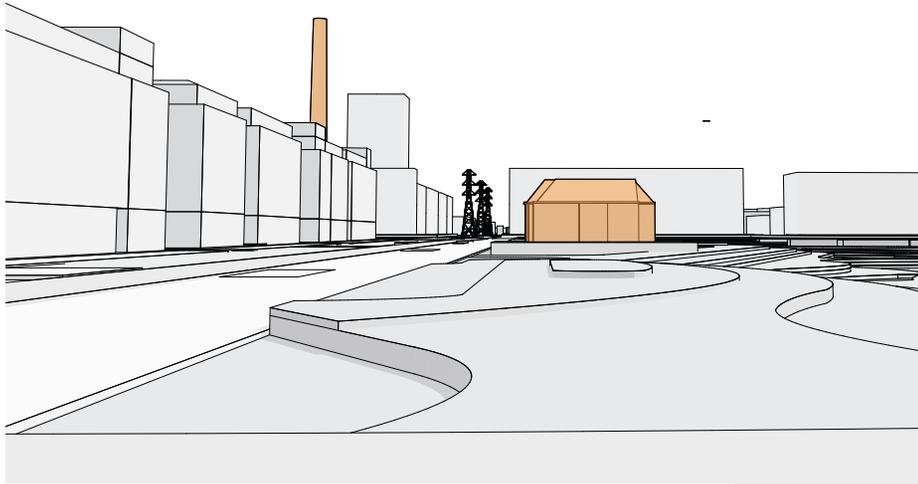


FIGURE 87. View of River Park, looking east
From: New Cherry Street south of Commissioners Street looking east

9. Commissioners Street and River Park

Views east and west along Commissioners Street will feature naturalized landscapes, including the new River Valley, estuary, and River Park to the south, and mid-rise built form to the north. The view corridor also provides direct views of Fire Hall No. 30, located adjacent to Commissioners, and the Hearn’s chimneystack.

10

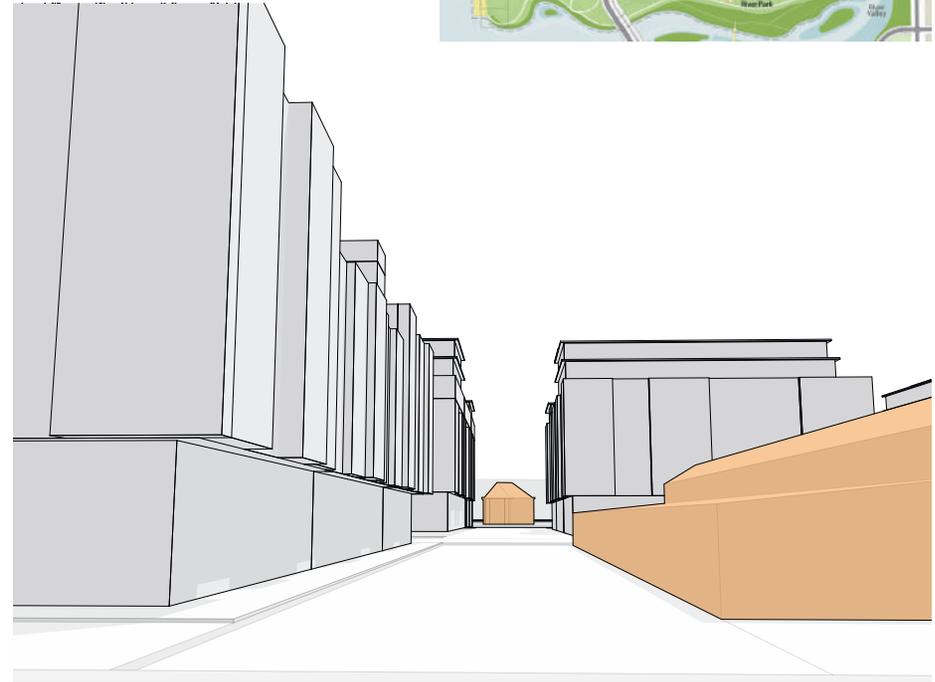


FIGURE 88. View of Fire Hall No. 30 looking south
From: Villiers Street at Old Munitions Street looking south

10. Fire Hall No. 30

Fire Hall No.30 at 39 Commissioners stands at the terminus of the current alignment of Munitions Street, with the Queen’s City Foundry building on the west side of Munitions Street. Fire Hall No. 30 will be relocated slightly south of the widened Commissioners Street. Munitions Street will be shifted eastward to preserve the Toronto Harbour Commissioners buildings. A mid-block connection in the street’s current location will be introduced, with the Fire Hall continuing to terminate the view of the connection.

3.6.8 Density and Development

A zoning by-law for Villiers Island will be prepared in the future for Villiers Island, which will translate the built form strategy articulated in this Precinct Plan into development permissions. Development permissions for residential and non-residential development will ensure that there is a critical mass of people and jobs on the Island, with an overall mid-rise built form character.

Figure 89 indicates the approximate density (expressed as a floor space index) for each development block within Villiers Island and the density associated with existing heritage structures.

The density for the residential and non-residential development blocks from the south side of Villiers Street to the north of Commissioners Street range from approximately 4.4 to 8.5 times the block area. These densities correspond with mid-rise and tall building types.

The blocks along the Keating Channel Promenade will contain non-residential and community facility uses with lower densities, ranging from approximately 2.1 to 3.1 times the block area. These densities correspond with low-rise building types.

- Developable Area
- Existing Dockwall
- Development Block
- Block with Heritage Structures
- Development Block with Catalytic Use Building
- Keating Promenade
- Park within Developable Area
- P00** Block number
- 0.0** Block Net FSI (Floor Space Index)

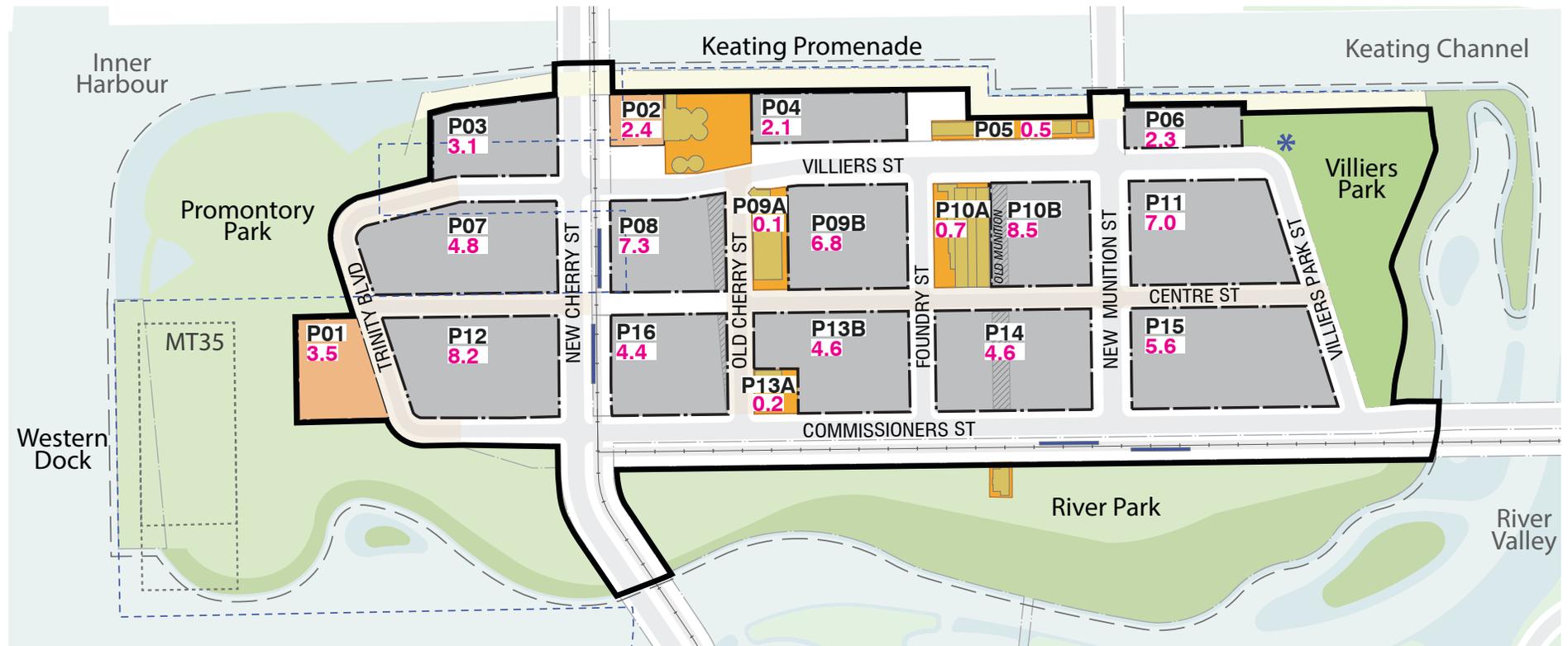


FIGURE 89. Density and development block plan

3.7 MUNICIPAL INFRASTRUCTURE

The redevelopment of Villiers Island will replace the existing infrastructure systems with contemporary infrastructure including stormwater management, water and wastewater systems. Villiers Island will demonstrate excellence in low-impact development and water conservation and reuse measures.

3.7.1 Municipal Servicing

3.7.1.1 Water Infrastructure

The development of Villiers Island and the Lower Don Lands will increase water demands and require the removal of much of the existing water supply network, as documented in the LDL MP EA. The water distribution system currently servicing the area will not support new higher density development in Villiers Island, and would limit opportunities for new land use and is not compatible with the public realm. The existing water supply system will be replaced with a modern system.

The water supply system approach defined in the LDL MP EA is maintained in the current water infrastructure approach. The water infrastructure plan will generally consist of a network of new watermains that maintain connectivity with the City's existing distribution system and provide a looped configuration of watermains within Villiers Island to facilitate water supply reliability and redundancy. New water infrastructure will be built wherever possible beneath the travel lanes of roadways. Private non-potable water distribution systems will be encouraged and facilitated through development.

Water conservation and reuse measures will also be permitted, promoted, and facilitated when practical, including, but not limited to:

- Water efficiency measures;
- Grey and/or black water reuse for non-potable water systems, such as irrigation and toilets; and
- Privately owned non-potable water distribution systems.

As noted in the LDL MP EA, the water distribution pipework sizing is driven by fire protection needs. Although measures will be undertaken to reduce potable water demands, such measures will generally not reduce the size of the linear pipework required to service the project.

Water Recommendations for Future Considerations:

- Additional consideration should be provided for exploring options for combined private and public non-potable water distribution systems;
- If non-potable pipe systems are included, overflow connections (within pipes or overland flow) should be provided to the stormwater management systems; and
- The potential for reusing existing watermains as conduits for future utilities should be explored.

3.7.1.2 Wastewater Infrastructure

The development of Villiers Island and the Lower Don Lands will require the removal of much of the existing wastewater discharge networks and will require higher capacity system. The LDL MP EA articulates the overall preferred wastewater design alternative. The existing sanitary and servicing infrastructure will be replaced and upgraded, with a new gravity sanitary sewer main along Commissioners Street to Don Roadway. A temporary sanitary sewer pumping station in the vicinity of Commissioners Street and Don Roadway will then convey sanitary sewage to Lake Shore Boulevard. The new sanitary sewers should be concrete encased.

The existing receiving sewer in Lake Shore Boulevard is currently undersized, built with negative slope, and has a hydraulic grade line near the existing road surface elevation at Cherry Street. Storage tanks at the temporary pump station may need to be sized to minimize sewage peak flows leaving the site to mitigate risks of increasing combined sewer overflows to the Don River and the Harbour. As development of the Lower Don Lands progresses, a new gravity trunk sewer will likely need to be constructed along Commissioners Street to Ashbridges Bay Sewage Treatment Plant.

Wastewater Recommendations for Future Considerations:

- Additional consideration should be provided for exploring options for combined private and public non-potable water distribution system;
- If non-potable pipe systems are included, overflow connections (within pipes or overland flow) should be provided to the stormwater management systems; and
- The potential for reusing existing watermains as conduits for future utilities should be explored.

- Conveyance System
- New Forcemain
- Ⓟ New Pump Station
- - - Future Conveyance System



FIGURE 90. Conceptual wastewater plan

- New 300mm Watermain
- New 400mm Watermain
- New 400mm Watermain Below Keating Channel
- Connection to Existing Watermain
- └ Pipe Cap
- - - Future 300mm Watermain by others
- - - Future 400mm Watermain by Others

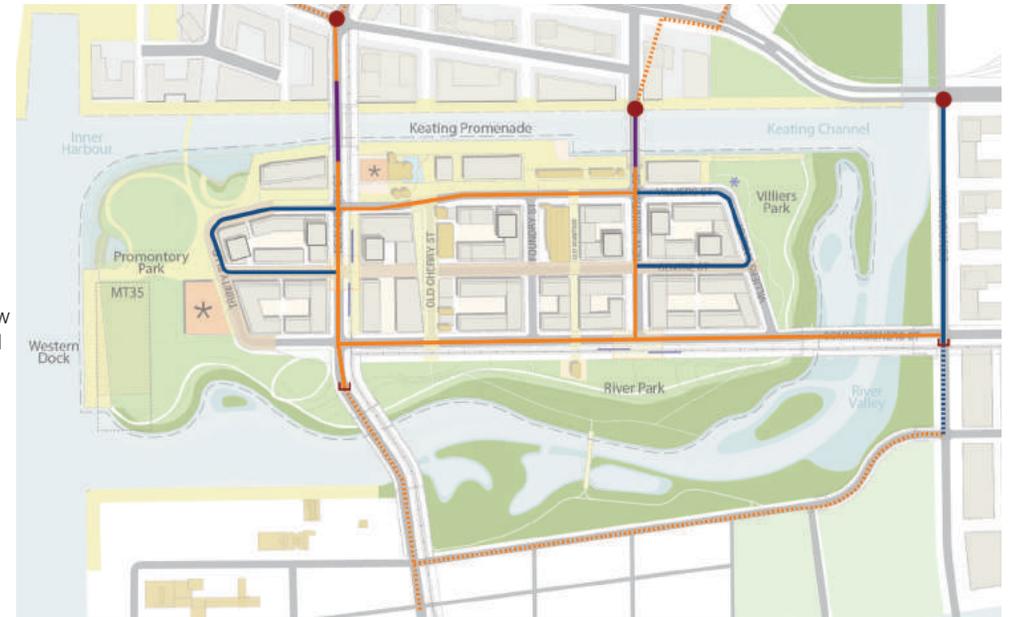


FIGURE 91. Conceptual water plan

3.7.1.3 General Site Servicing

- Phasing and responsibility for utility connections and common utility systems between Villiers Island and the Polson Quay precinct should be coordinated, including new stormwater, water, and wastewater connecting infrastructure and/or utility corridors across the new River Valley, and new wastewater systems along Commissioner's Street to the Ashbridges Bay Sewage Treatment Plant; and
- There may be the potential to locate sections of the water distribution system with other underground utilities in a common location. This can be achieved with the provision of utility corridors or joint utility trenches, accessible structures in which linear utility plant is organized and consolidated to make more efficient use of the right-of-way. Utility corridors may accomplish multiple goals: minimize disruptions to roadways caused by utility maintenance/repairs, maximize flexibility for phased utility construction, and minimize need for managing impacted soils/groundwater. Consideration should be given to providing utility corridor connections within Villiers Island, and below Keating Channel to connect Villiers Island to utility infrastructure north of Keating Channel. The utility corridors, subject to approval of the utility plant owners, should consider including provision for the following plant: energy distribution pipework, water service pipework, telecommunication cabling, gas, hydro, wastewater pipework, and vacuum waste collection pipework.

Recommendations for Future Considerations

- Existing hydro, natural gas, IT/communications, and pipeline infrastructure systems should be modified, replaced, and/or abandoned to accommodate the proposed configuration of roads and development lots, and to provide connections to utility system sources located outside of Villiers Island. The existence of numerous various private pipelines serving existing/previous industrial tenants will require contact with private owners for coordination of pipeline abandonments and/or modifications; and
- Existing servicing, including utility duct banks and gas mains, are routed across the bridges currently connecting to Villiers Island, and should be relocated in new joint utility corridors or underwater crossings.

3.7.2 Stormwater Management

The redevelopment of Villiers Island and the Lower Don Lands will require the removal of existing storm drainage infrastructure as the area is re-graded to elevate the existing grades for flood protection, create the new river channel and the flood protection spillway. The existing stormwater drainage system will be replaced with a modern stormwater management system.

The Precinct Plan is consistent with the LDL MP EA with regards to its stormwater management approach. The stormwater management approach consists of the following controls:

- Source Controls will be integrated throughout the precinct area to reduce stormwater runoff from key sources. Source controls include green infrastructure water retention and detention systems including green roofs, rainwater storage systems for reuse of rain water, and water gardens. Water Garden is non-technical term used to indicate potentially innovative water features to be designed to complement and enhance the character of the public spaces by bringing water into the public realm. Water Gardens are proposed in two public spaces: Silo Square and Overlook Plaza; and
- Conveyance Controls will be implemented at locations where stormwater runoff is conveyed from a source to a receiving water to reduce the amount of stormwater runoff and to reduce sediment and pollutants in the runoff. The proposed conveyance systems and associated controls include, but are not limited to green infrastructure systems (tree box filters, sand filters, etc.) and oil/grit separators; and

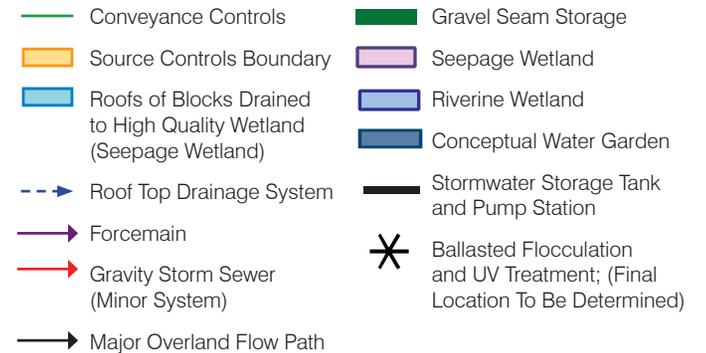
- End-of-Pipe Controls will be installed prior to ultimate discharge of stormwater runoff to the Don River or Lake Ontario to clean the runoff to the required water quality levels. Proposed End-of-Pipe Controls include new wetlands and a new storage tank and pump system to control stormwater flows to a new ballasted flocculation and ultraviolet (BF/UV) disinfection facility.

Stormwater Management Recommendations for Future Considerations:

- This Plan identifies a placeholder location for the BF/UV facility in Villiers Park adjacent to the school building, as recommended by the TRCA. If a single BF/UV facility is intended to serve both the Polson Quay and Villiers Island precincts, consideration should be given to relocating the BF/UV facility from Villiers Park to River Park at the south side of Villiers Island; and
- Infiltration practices should be avoided or carefully sited to avoid infiltrating to contaminated soil. Green infrastructure can be designed to provide quality of life benefits for the residents and visitors to Villiers Island, as well as improving stormwater quality and flood control. Stormwater wetland vegetation should be selected to be tolerant to inundation by water from the river and lake, and to provide aesthetically pleasing features. Stormwater wetlands and visible water features can be integrated into public open spaces, such as at the Lake Ontario Portland Cement Company Silos.



FIGURE 92. Conceptual stormwater management plan



SECTION 4

IMPLEMENTATION



4.1 IMPLEMENTATION

The creation of Villiers Island and the evolution of the Precinct is dependent on a number of critical flood protection and infrastructure investments. There are a number of additional studies, statutory processes, detailed design and technical agreements required before any development can proceed.

4.1.1 Flood Protection and Enabling Works

Currently, about 290 hectares (715 acres) of south-eastern downtown Toronto are at risk of flooding from the Don River watershed in the event of a provincially-defined regulatory storm. This area includes parts of the Port Lands, South Riverdale, Leslieville, south of Eastern Avenue and the East Harbour development site. As a result, these areas are within a provincially-designated Special Policy Area and cannot be redeveloped or revitalized until the flood risk is removed.

The Port Lands Flood Protection and Enabling Infrastructure Project (the Project) is a comprehensive plan for providing flood protection that will allow for the removal of land use restrictions and for creating development-enabling infrastructure, such as wastewater and stormwater systems, water mains, local roads and bridges, and a transit right-of-way, to further enable the revitalization of this prime waterfront location. The Project is the amalgamation of the DMNP EA and LDL MP EA into a comprehensive coordinated project.

The Project will create a new naturalized mouth for the Don River in the middle of the Port Lands between the Ship Channel and the Keating Channel, as well the foundations of Villiers Island. It will also create new habitat for natural species and will re-establish wetlands in the area, which provide social and environmental benefits and naturally moderate the effects of flooding and erosion.

The Project will remove the flood risk to about 240 hectares (593 acres), with the majority of the remaining lands designed to be flooded as they are located within the Keating Channel and the new naturalized river valley system. This plan was informed by extensive engagement and consultation with the public, government agencies, Indigenous Communities, stakeholders, landowners and developers, and is consistent with the Central Waterfront Secondary Plan.

4.1.2 Approvals, Statutory Planning and Future Studies

4.1.2.1 Official Plan Amendment to the Central Waterfront Secondary Plan

A proposed Official Plan Amendment to the Central Waterfront Secondary Plan for the Port Lands will be brought forward to Council concurrently with this Precinct Plan. The Amendment to the Central Waterfront Secondary Plan adds an additional layer of policies to the Secondary Plan to direct and regulate the redevelopment and transformation of Villiers Island.

4.1.2.2 Zoning By-law Amendment

A zoning by-law amendment for the Villiers Island Precinct Plan will be prepared at a later time. Given the Precinct area requires a significant amount of infrastructure and flood protection enabling works, a zoning by-law amendment will not be prepared concurrently with this Precinct Plan.

The rezoning of the Precinct lands will occur in phases. The zoning by-law amendment will be subject to a 'holding' provision, which is a tool under the *Planning Act* that requires certain conditions to be fulfilled before development is permitted. The zoning by-law will contain performance standards to achieve appropriate and desirable development, consistent with this Plan.

4.1.2.3 Additional Studies Required

The following additional studies will be required prior to development proceeding in Villiers Island:

- Additional noise and emission studies will be required prior to development proceed: Source mitigation at the Cement Terminal at Polson Quay and appropriate receptor mitigation will be required prior to rezoning lands for sensitive uses in Villiers Island. Appropriate source and receptor mitigation will be determined through the submission of detailed noise and/or air quality assessments. Any on-site source mitigation proposed at the Cement Terminal on Polson Quay will require the agreement of the operator of the Cement Terminal;
- An EA amendment to the LDL MP EA will be required to relocate Munition Street;
- A Naturalization Plan;
- Waterfront Toronto and the City of Toronto will undertake additional studies to achieve a Climate Positive Precinct;
- A detailed grading plan prepared in coordination with the TRCA will identify detailed strategies for managing grade changes related to flood protection, the design of public realm and mitigation measures related to heritage structures;
- View studies; and
- Housing issues reports.

4.1.2.4 Heritage

The long-term staged development of Villiers Island will require further studies and approvals. Heritage requirements should be incorporated into the scope of work for the consultants preparing these studies. These include:

- Adaptive Reuse Study (ARS) - conduct an ARS to determine an appropriate use that conserves the heritage value/attributes of the property;
- Detailed design for grading, roads and the public realm - ensure a heritage conservation architect and structural engineer familiar with heritage structures are part of the consultant team to provide recommendations and mitigation measures regarding grading options and to provide advice on interpretative materials or programs related to streetscapes and the public realm; and
- Heritage Conservation Strategies and Plans to implement restoration, commemoration, rehabilitation, adaptive re-use and conservation related activities.

Further, on publicly owned lands, a Heritage Easement Agreement will be required.

Taylor Hazell Architects has prepared a Heritage Impact Assessment for each heritage structure to review strategies related to the Precinct Plan including the streets and blocks plan. A Heritage Impact Assessment for listed and designated heritage structures will be required prior to the alteration of heritage structures.

4.1.2.5 Development Proposal Calls and Private Development Applications

Waterfront Toronto, together with input from the City of Toronto and the TRCA will hold development proposal calls for specific land blocks or groups of blocks. The proposal calls will ensure that as development proceeds, an appropriate range of uses, housing types, community facilities and amenities are secured and built. For privately owned lands, redevelopment will be undertaken through specific development applications and be in accordance with this Precinct Plan. Zoning by-law amendments may be initiated once development proposal calls have been issued.

4.1.2.6 Property Consolidation and Plan of Subdivision

The Precinct Plan's streets and block plan generally conforms to the current property ownership; however there are slight changes proposed to the property configuration. Through the redevelopment of the Precinct and the regulatory tools under the *Planning Act*, the existing blocks and property ownership will require slight modifications to secure new public streets and laneways.

The division of land will create land parcels that facilitate development consistent with this Precinct Plan. It is anticipated that the division of land where new street infrastructure is proposed will proceed by way of Plan of Subdivision.

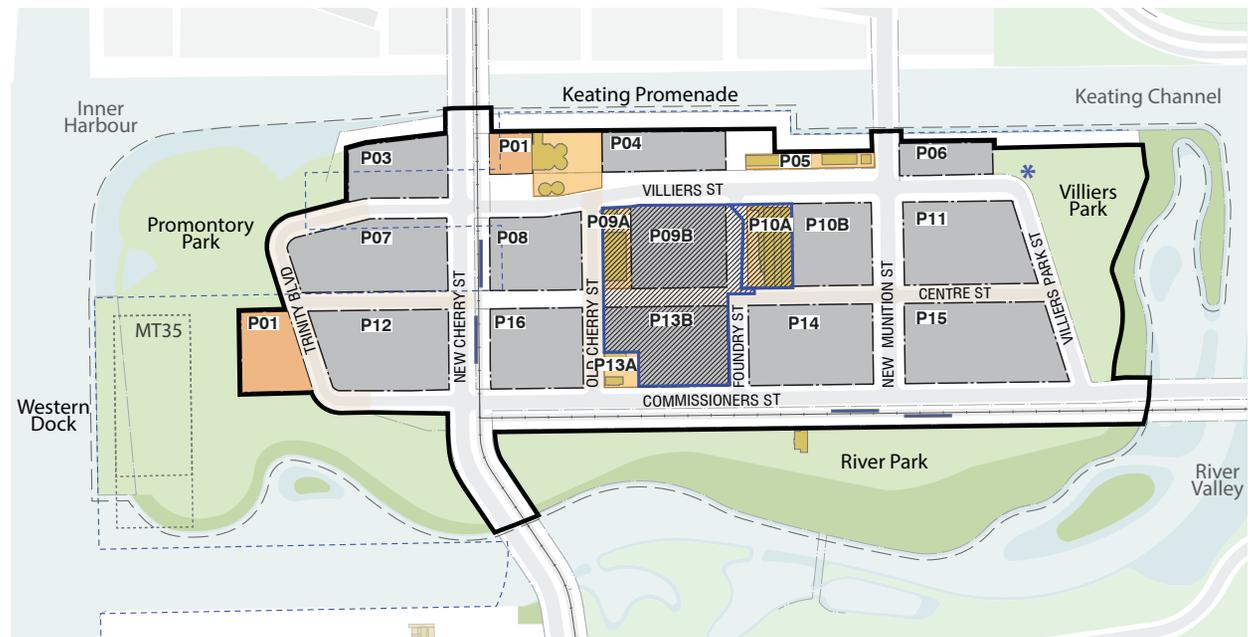


FIGURE 93. Property ownership block plan

- Developable Area
- - - Existing Dockwall
- ⊙ Development block - Public Ownership
- ⊙ Block with Heritage Structures
- ⊙ Development block with Catalytic Use Building
- ⊙ Private Ownership
- P00** Block number

List of Figures

Figure 1.	Aerial image illustrating the Villiers Island Precinct context	1	Figure 52.	Cross Section B - Keating Promenade	83
Figure 2.	Diagram illustrating the waterfront planning process	4	Figure 53.	Mid-block pedestrian connections diagram	86
Figure 3.	Timeline illustrating the evolution of the waterfront, from the 1880s to 2017	10	Figure 54.	Heritage resources plan	89
Figure 4.	Diagrams illustrating Villiers Island's special relationship to the waterfront	13	Figure 55.	Land use plan with retail frontages	95
Figure 5.	Existing conditions	15	Figure 56.	Community services and facilities space requirements	98
Figure 6.	Future conditions - Villiers Island	15	Figure 57.	Community services and facilities plan	99
Figure 7.	Existing conditions- land use plan	18	Figure 58.	3-dimensional view of the waterfront	100
Figure 8.	Existing conditions - land ownership	19	Figure 59.	Visualization of Villiers Island	101
Figure 9.	Existing conditions - heritage resources	20	Figure 60.	Low-rise buildings	103
Figure 10.	3-dimensional view of the waterfront	24	Figure 61.	Diagram illustrating built form along the Keating Promenade	104
Figure 11.	Bird's eye view of Villiers Island	25	Figure 62.	Diagram illustrating the built form along the west side of Old Cherry Street	105
Figure 12.	Illustration of the 17 cities participating in the C40 Climate Positive Development Program	27	Figure 63.	Diagram illustrating the base and mid-rise building height in a conceptual north-south cross section of the Island	106
Figure 13.	Villiers Island plan showing a 5 minute walking radius	28	Figure 64.	Low-rise, base and mid-rise building heights and locations	107
Figure 14.	Villiers Island development plan	29	Figure 66.	Old Cherry Street west side built form diagram	108
Figure 15.	Diagrams illustrating the big moves	31	Figure 65.	Old Cherry Street built form diagram	108
Figure 16.	Precinct character areas	32	Figure 67.	Commissioners Street north side built form diagram	109
Figure 17.	Villiers Island character area elements	33	Figure 68.	Villiers Street south side built form diagram	110
Figure 18.	Keating Channel Promenade visualization	35	Figure 69.	Centre Street built form diagram	111
Figure 19.	Section diagram demonstrating the central living room concept	36	Figure 70.	Diagrams depicting the planning and design considerations for the location of tall buildings	113
Figure 20.	Keating Promenade illustrative plan	37	Figure 71.	Tall building locations and separation	114
Figure 21.	Old Cherry Street visualization	39	Figure 72.	Section diagrams illustrating the tall building setbacks from Villiers Street and from Centre Street	115
Figure 22.	Old Cherry Street illustrative plan	39	Figure 73.	Tall building height strategy, plan and section diagram	117
Figure 23.	Harbourside and New Cherry Street visualization	41	Figure 74.	Plan illustrating grade level frontages	119
Figure 24.	Harbourfront and New Cherry Street illustrative plan	42	Figure 75.	Plan illustrating setbacks	120
Figure 25.	Bird's eye view of the southwest corner of Villiers Island	43	Figure 76.	Section A: Diagram illustrating the setback along Centre Street	121
Figure 26.	Centre Street visualization	45	Figure 77.	Section B1 and B2: Diagrams illustrating the setback along Old Cherry Street	121
Figure 27.	Centre Street illustrative plan	46	Figure 78.	Views key map	123
Figure 28.	Commissioners Street and River Park visualization	49	Figure 79.	Port Lands Skyline	124
Figure 29.	Commissioners Street and River Park illustrative plan	50	Figure 80.	Commissioners Stack (From: Centre Street, Western end)	124
Figure 30.	Villiers Park visualization	53	Figure 81.	Villiers Street and Lake Ontario Portland Cement Company Silos (From: Promontory Park, looking east)	125
Figure 31.	Villiers Park illustrative plan	54	Figure 82.	Villiers Street, Lake Ontario Portland Cement Company Silos and Harbour Commission Buildings	125
Figure 32.	Technical carbon modelling	60	Figure 83.	Keating Channel, Lake Ontario Portland Cement Company Silos and Toronto Harbour Commissioners Building (From: The eastern edge of the Keating Channel and the Don Roadway, looking west)	126
Figure 33.	Diagram illustrating solar access during the winter months	60	Figure 84.	Keating Promenade, Lake Ontario Portland Cement Company Silos and Toronto Harbour Commissioners Building (From: Marina Square, looking west)	126
Figure 35.	Proposed street network	63	Figure 85.	View of Old Cherry Street (From: Commissioners Street, looking north)	127
Figure 34.	Transit context map	63	Figure 86.	View of Old Cherry Street (From: Silos Square looking south)	127
Figure 36.	New Cherry Street cross section	64	Figure 87.	View of River Valley Park, looking east (From: New Cherry Street south of Commissioners Street looking east)	128
Figure 37.	Commissioners Street cross section	65	Figure 88.	View of Old Muniton Street pedestrian link looking south (From: Villiers Street at Old Muniton Street looking south)	128
Figure 38.	New Muniton Street cross section	66	Figure 89.	Density and development block plan	129
Figure 39.	Villiers Street cross section	67	Figure 90.	Conceptual wastewater plan	131
Figure 40.	Foundry Street cross section	68	Figure 91.	Conceptual water plan	131
Figure 41.	Villiers Park Street cross section	69	Figure 92.	Conceptual stormwater management plan	133
Figure 42.	Typical Centre Street cross section with parking lane	70	Figure 93.	Property ownership block plan	137
Figure 43.	Typical Centre Street cross section with wider plantings and boulevard	71			
Figure 44.	Typical Old Cherry Street cross section including seasonal variation	72			
Figure 45.	Trinity Boulevard cross section	73			
Figure 46.	Pedestrian, cycling and multi-use trail network	75			
Figure 47.	Water transportation plan	77			
Figure 48.	Above-grade and below-grade parking diagram	78			
Figure 49.	Servicing and access plan	79			
Figure 50.	Parks and open space network plan	81			
Figure 51.	Cross Section A - Silos Square	82			

List of Images

Image 1.	Illustrations (left) and images (right) illustrating the evolution of the waterfront, from the 1880s to 2017	9
Image 2.	Aerial image illustrating the surrounding context	16
Image 3.	Existing Uses Along Cherry Street	19
Image 4.	Cousins Quay, Existing Conditions	19
Image 5.	1921 Bank of Montreal (Construction, p. 371)	20
Image 6.	1923 Ashbridges Bay Fire Hall (City of Toronto Archives, Series 372, Subseries 1, Item 597)	20
Image 7.	1916 August 24 Harbour Commission building under construction (Toronto Harbour, The Passing Years)	20
Image 8.	1914 View southeast showing Keating Channel, the Harbour Commission Workshop and Office, and Queen's City Foundry (Toronto Public Library, Baldwin Collection, 942-1-9)	21
Image 9.	1930 View s.e. from Cherry St and Villiers St (Toronto Public Library, Baldwin Collection, 942-1-9)	21
Image 10.	Example of residential mews, False Creek, Vancouver	47
Image 11.	Example of a pedestrian friendly street, Vancouver	47
Image 12.	Precedent image of a cycling friendly street, Front Street, Toronto	47
Image 13.	Example of multi-use trail in the South Waterfront Park, Allengheny , Pittsburgh	51
Image 14.	Example of major transit street incorporating landscaping and cycling infrastructure, Queens Quay, Toronto	51
Image 15.	Example of Pedestrian footbridge in Hammaby Sjiostad, Sweden	51
Image 16.	Example of Kayak launch: Boat house at Clark Park, Chicago	55
Image 18.	Example of mixed-use field in New York	55
Image 17.	Playground close to a waterfront promenade in the Hunters Point Park, New York	55
Image 20.	Precedent for Small Boat Craft, London	76
Image 19.	Precedent for Water Shuttle Access, London, UK	76
Image 21.	Precedent for Kayak launch: Three River water trail, Pittsburgh	76
Image 22.	Precedent: example of plaza that engages with industrial heritage structures, Auckland, New Zealand	82
Image 23.	Pedestrian Plaza accommodating grade difference, Lincoln Centre, NYC	83
Image 24.	Waterfront Promenade, Brooklyn NYC	83
Image 25.	Example of outdoor seating , Hafencity Hamburg	84
Image 26.	Extensive lawn surfaces and use of grading in the Olympic Gardens, London, UK	84
Image 27.	Example of naturalized coves in New York	84
Image 28.	Precedent for River Park, London, UK	85
Image 29.	Precedent for Villiers Park, London, UK	85
Image 30.	Precedent: Pedestrian plaza in Seattle	86
Image 31.	Precedent: Pedestrian-only linkage, Toronto	86
Image 32.	Precedent image of industrial heritage integrated with park design, Duisburg-Nord, Germany	91
Image 33.	Precedent image, Thunder Bay Prince Arthur Landing	93
Image 34.	Precedent image, Thunder Bay Prince Arthur Landing	93
Image 35.	Precedent image, Toronto Trillium Park	93
Image 36.	Precedent image of Uniliver City, Childcare space, Burnaby, BC	98
Image 37.	Precedent image of Ecole Claude Bernard, Paris, France	98
Image 38.	Precedent image of Cornell Pollination Centre 104	
Image 39.	Precedent image of Sir John A. MacDonald heritage and new building, Ottawa	105
Image 40.	Precedent: 7 storey tall building with stepback at the 6th storey, Dublin	109
Image 41.	Precedent: 10 storey building that incorporates stepbacks at the 8th storey, Toronto	110
Image 42.	Precedent: Mid-rise buildings face an intimate pathway that incorporates stormwater measures, Portland OR	111
Image 43.	Precedent image of Residential building in Vancouver, BC	115

Image Credits

Image 1.	Port Lands Framework Plan
Image 2.	Urban Strategies Inc.
Image 3.	Urban Strategies Inc.
Image 4.	Urban Strategies Inc.
Image 5.	City of Toronto Archives
Image 6.	City of Toronto Archives, Series 372, Subseries 1, Item 597
Image 7.	City of Toronto Archives
Image 8.	Toronto Public Library, Baldwin Collection, 942-1-9
Image 9.	Toronto Public Library, Baldwin Collection, 942-1-9
Image 10.	MTDW Landscape Architects
Image 11.	MTDW Landscape Architects
Image 12.	MTDW Landscape Architects
Image 13.	Walker Macy
Image 14.	Brian Medina
Image 15.	Urban Strategies Inc.
Image 16.	Hedrich_Blessing
Image 17.	Albert Vecerka/Esto
Image 18.	David Sundberg/Esto
Image 19.	Urban Strategies Inc.
Image 20.	Creative Commons
Image 21.	maryshaw.
Image 22.	Creative Commons
Image 23.	Urban Strategies Inc.
Image 24.	James Corner Field Operations
Image 25.	ELBE and FLUT: http://www.hafencity.com/de/konzepte/die-freiraeume-der-westlichen-hafencity.html
Image 26.	https://londonlandscape.files .
Image 27.	MVVA
Image 28.	https://londonlandscape.files .
Image 29.	Urban Strategies Inc.
Image 30.	Urban Strategies Inc.
Image 31.	Urban Strategies Inc.
Image 32.	Mark Wolrab
Image 33.	David Whittaker
Image 34.	Brook McIlroy and Ryan Gorrie
Image 35.	Copyright Toronto Mike
Image 36.	Martin Tessler
Image 37.	Michel Denance
Image 38.	Tom Arban, Don Cochran
Image 39.	Doublespace Photography
Image 40.	Urban Strategies Inc.
Image 41.	Urban Strategies Inc.
Image 42.	Urban Strategies Inc.
Image 43.	Westbank

