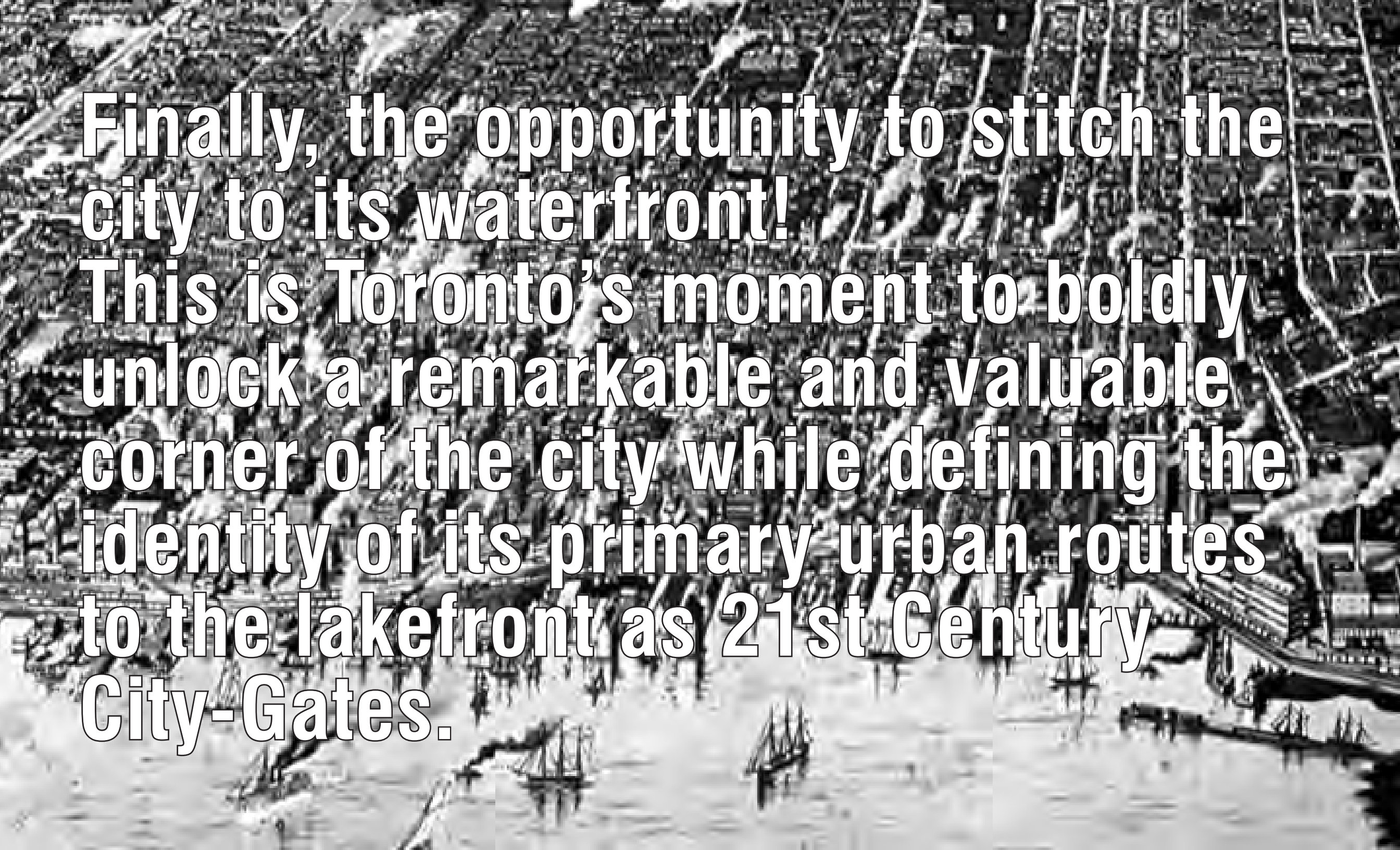


# STITCHING THE CITY TO ITS LAKEFRONT

WEST 8 + DTAH  
CECIL BALMOND, AGU  
ARUP  
HALSALL ASSOCIATES  
BA GROUP



Toronto Central Waterfront, 1878

An aerial, black and white photograph of a city waterfront. The foreground shows a large body of water with a bridge structure extending across it. The middle ground is filled with a dense urban landscape, including numerous buildings and streets. The background shows more of the city and the horizon. The text is overlaid on the image in a large, bold, white font with a black outline.

**Finally, the opportunity to stitch the city to its waterfront!  
This is Toronto's moment to boldly unlock a remarkable and valuable corner of the city while defining the identity of its primary urban routes to the lakefront as 21st Century City-Gates.**

## Narrative Summary

# Connectivity is the Aim and Ambition

**It is time to shift the focus. The debate about the waterfront and its connection to the city has most often centered on the most obvious barrier: the elevated structure of the Gardiner Expressway itself.**

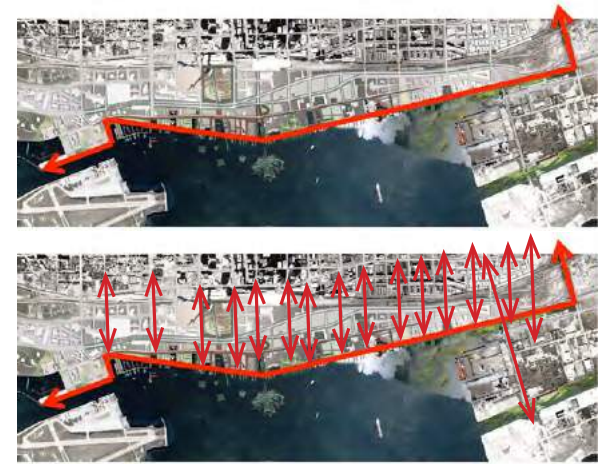
**We widen that focus to include the rail corridor and – most importantly – confront the north-south connections between the lakefront and the urban hinterland as a matter of priority.**

**This proposal takes two of Toronto's most under-considered elements – the north-south streetscape routes and the rail berm – as the starting points for developing a series of civic gateway linkages.**

**By concentrating upon the spatial quality and character of the north-south routes we are able to fulfill the need and desire for a fully connected urban fabric to the water's edge.**

**With the framework of a 'replace' option, this strategy unfolds a spectacular urban extension of the central district towards the east that is born from these connections – a series of legible north-south figures within the urban fabric. The grain of this new urban tissue will be dense and diverse, but of a smaller scale, in sharp contrast to the verticality of the skyline.**

**The result is the unlocking of new territories and potential to the east. Here, a new format for urban living in contact with water can be produced that is rivalled perhaps only by the Toronto Island community. At the mouth of the Don, a canal district that is fully connected by transit to the core, binds together formerly fragmented neighbourhoods from the West, East, Lower Don and Portlands to the Lakefront.**



### **One Waterfront Connected**

The Gardiner Opportunity will ensure the City maximizes its benefits from the enormous public investments taking place on waterfront revitalization.



View of downtown Toronto towards the lake - connectivity from the core city neighbourhoods to the lakefront is the ambition





**After Replacement**  
View looking east from Jarvis

# CONTENTS



## **STARTING POINTS**

**1. 'REPLACE'**

**2. N-S CORRIDORS**

**3. CANAL DISTRICT &  
URBAN EXTENSION**

# STARTING POINTS

---

## Statement on the 4 Lenses

**Today's solutions for infrastructure are inevitably hybrids, which take full advantage of the synergies between infrastructures, ecologies, and urban/civic amenities to propel the diverse needs of the contemporary city into an urban bundle that will redefine Toronto and its relation to the lakefront.**

**We offer a bundle of infrastructures – traffic, transit, public space and stormwater/ecology – that can be aligned into a strategic cross-section and delivered along a new alignment that will completely unlock a corner of the city for development of the highest quality and ambition.**

**Only with the consolidation of multiple infrastructures, multiple public agendas and overlapping logics can we begin to imagine an intervention in city-building at this scale.**

**Indeed, it becomes worthwhile to consider the Gardiner being replaced in another form as the 21st Century has taught us that when contemporary infrastructure is combined with environmental improvement, public transit and public realm or civic improvements it can have a transformative urban effect. This is certainly the case with the Gardiner.**

**For this reason, viewing the project through the multiple lenses of Environment, Economics, Transportation & Infrastructure, and Urban Design is natural – even necessary. The question is: what do**

**we prioritize, what drives the scheme? We believe that urbanism must be the guiding discipline within such an exercise; by its nature it is a broad, social discipline which is inherently comprehensive in its outlook and encompasses multiple lenses. Today, good urbanism is sustainable; sustainability carries multiple bottom-lines which ultimately expand the lenses to include social and cultural forces. In this sense, Toronto finds itself at a powerful moment about to chart a future for the city that embraces the multi-dimensional realities of contemporary urban life. These are questions about how we want to live in the city. Clearly this is not a singular issue.**

**To approach the Gardiner challenge we are forced to take a position about the city and about what it might promise in terms of citylife.**

## Starting points for approaching the Gardiner-Lakeshore challenge:

### One Waterfront Connected

The Gardiner opportunity can ensure the City maximizes its benefits from the enormous public investments on waterfront revitalization such that a reciprocal relationship between city and lake is guaranteed. We believe it is essential to empower the shoreline of the Don River as an extension of the primary waterfront part of a coherent Downtown Waterfront.

### The Promise of Toronto's Canal District for the 21st Century

This plan for replacing infrastructure will unlock a valuable territory to produce a new and distinct urban district that finally embraces the Lake – with a scale, built form, and materiality that give it coherence and identity. It will bind together a series of dislocated land parcels to build Toronto's next great neighbourhood and vital point of urban gravity towards the east.

### Creating Development Value

What could be the building typology and parcelization strategy to develop a prototype for a sustainable city district engaged with the water in a way Toronto has always dreamt of?

### A Series of 'City Gates' Connect the Lake with the Hinterland

Perpendicular connections from the lakefront to Old Town Toronto are necessary to bring the vitality of the city to the waterfront, and vice versa. 'City Gates' which widen and open up the miserable viaducts adding public programs at the rail berm will produce addresses at the threshold of the city and its waterfront.

### Ensure 'Replace' is Not Another 'Big Dig'

We recognize and prioritize the necessity for an integrated strategic project – one that is efficient, agile, combines multiple agendas, is politically robust and fiscally sound. The Gardiner cannot afford delays, escalating prices, political division, public frustration, traffic inconvenience, nor upheaval of city functions during the process of construction.

### Doubling Agendas

In today's political context, urban beltroads can no longer be considered an isolated traffic question. The Gardiner will inherently be a hybrid urban project. Our 21st Century infrastructure must now bundle multiple modes of movement, public space, and find new synergies that instrumentalize traffic, transit, and ecology to build a new public realm and urban district. In our scheme we identify the stormwater interceptor initiative that is part of the City of Toronto's Wet Weather Flow Master Plan as a potential partner in building the embankment infrastructure. The cleaning of stormwater at the scale of the district can become one of the neighbourhoods most memorable attractions – imagine: A place to swim in clean water in a canal in the city! And at the root of our work we believe in the joining of infrastructure and public space design such that these major capital investments of public funds provide concrete and tangible effects in building a spectacular public realm.

# 1. 'REPLACE'

## Not Simply a Traffic Problem

**Traffic is not the issue here. What is at stake is the question of how we will live in the city in the 21st Century.**

Over the last 50 years, Toronto has been a city disconnected from its waterfront. For Canada's greatest city, this is no longer acceptable.

### Toronto's Blue Edge

The radical public improvements being undertaken as part of the waterfront's revitalization offer the starting point to a more symbiotic relationship between city and lakefront.

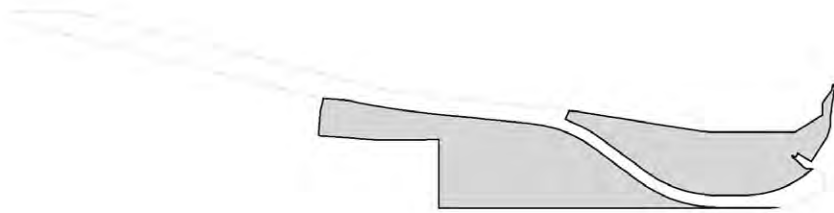
For the first time, we have the possibility to reconfigure the relationship between the vital and established core city districts with emerging waterfront precincts and new territories.

Is it worth thinking about the Gardiner surviving in a different configuration? There exist a remarkable set of potential outcomes with the 'Replace' option.

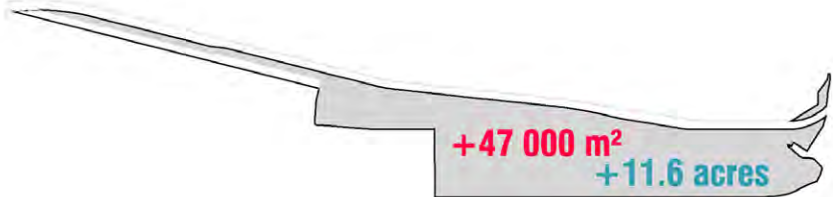


(right) The vision for the water's edge promenade and boardwalk, with the "Green Foot" double-row of Maple trees as the foreground for views to the lake.

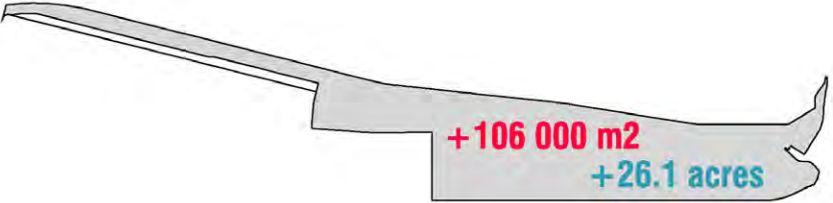
The Net Gain of Developable Land is Significant with the 'Replace' Option.



**EXISTING**  
257 000 m<sup>2</sup> 63.5 acres



**EMBANKMENT**  
304 000 m<sup>2</sup> 75.1 acres



**TUNNEL**  
363 000 m<sup>2</sup> 89.6 acres

**TOTAL DEVELOPABLE LAND**

**Existing Condition**

The territory is currently broken into awkward areas by divisive elevated infrastructure. The elevated structure is perceived as a barrier to the lakefront, and effectively restricts the extension of a coherent urban district, extending from the city.

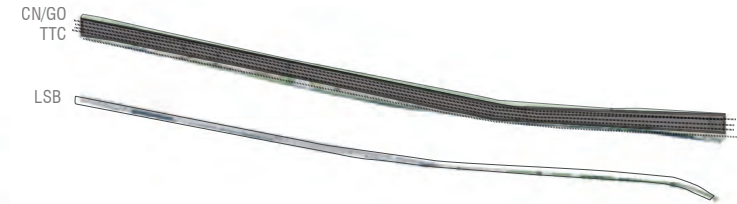
**Embankment Scheme**

This strategy takes on the collective problem of the rail berm and the Gardiner as one - directly addressing the potential of a new consolidated line of transportation that can also be re-considered as Toronto's city wall that is restored and animated to offer new civic gates between the city and its waterfront.

This is a practical scheme that is the most cost-effective; it is therefore the scheme we have started to elaborate upon within the framework of the competition.

**Tunnel Scheme**

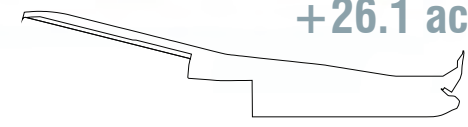
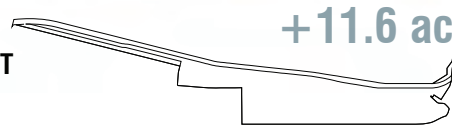
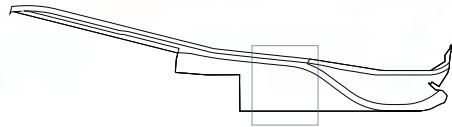
This strategy takes the 'problem' of the elevated Gardiner and, quite literally, puts it underwater. In terms of implementation this offers benefits linked to offshore construction and the elimination of congestion effects, however, the costs and complexities of such an undertaking are high and would require significant political will.



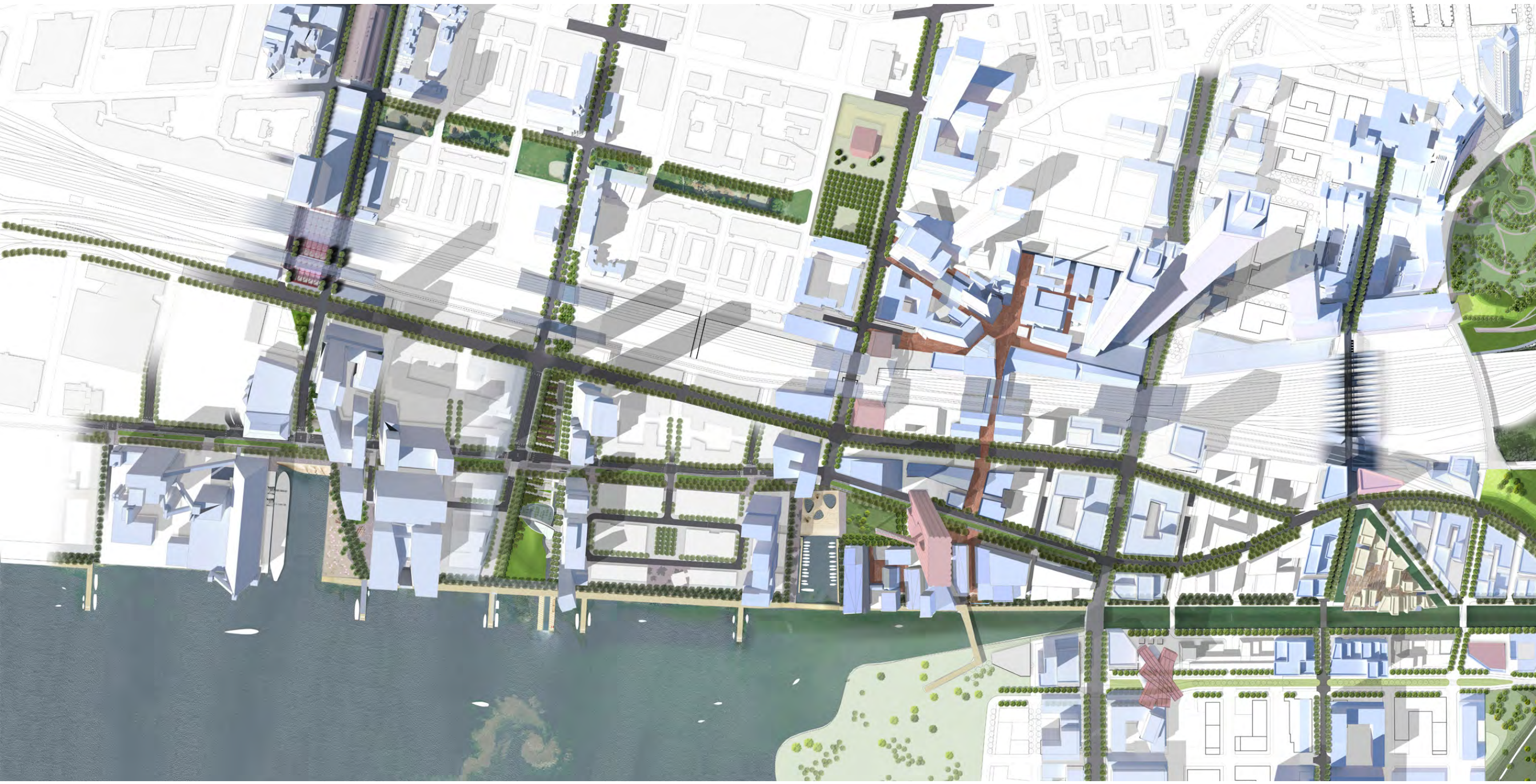
**EXISTING**  
63.5 acres  
\$

**EMBANKMENT**  
75.1 acres  
\$\$

**TUNNEL**  
89.6 acres  
\$\$\$



**CONSOLIDATE**

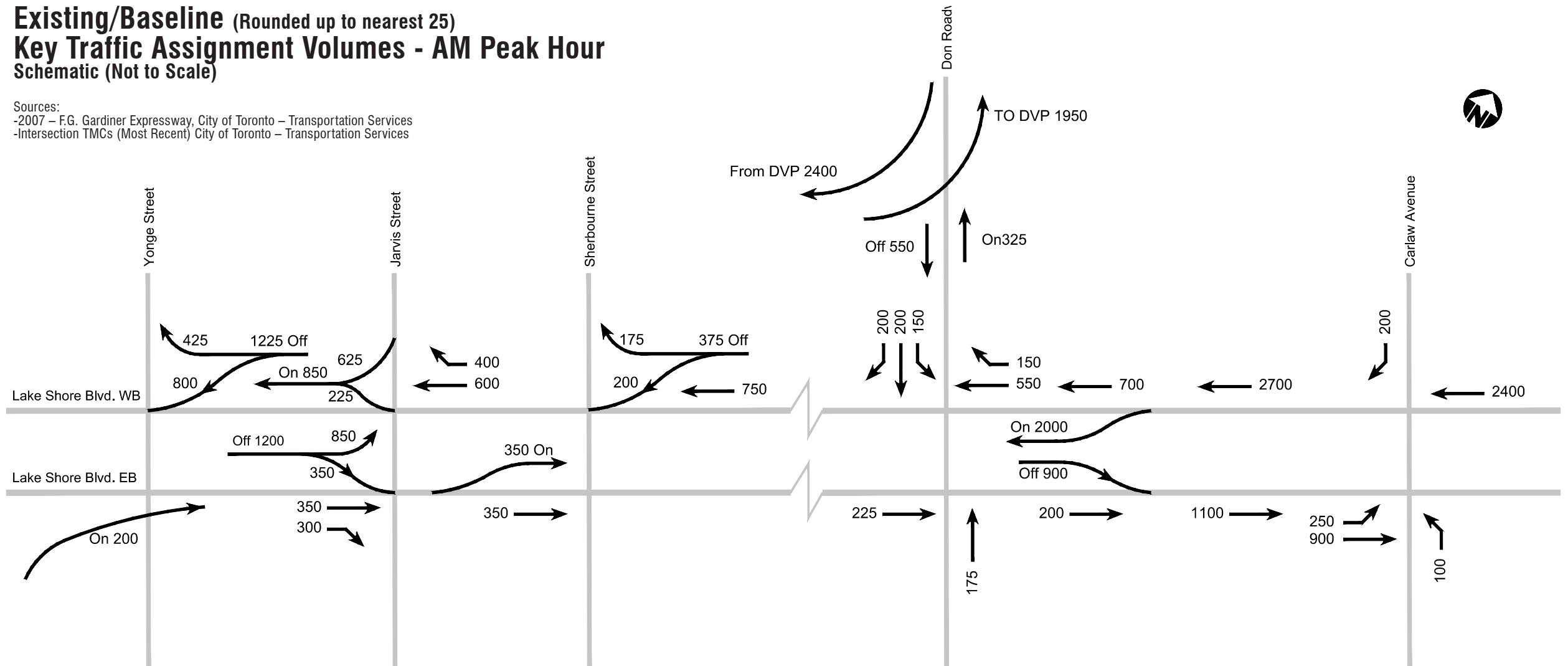






# Existing/Baseline (Rounded up to nearest 25) Key Traffic Assignment Volumes - AM Peak Hour Schematic (Not to Scale)

Sources:  
 -2007 - F.G. Gardiner Expressway, City of Toronto - Transportation Services  
 -Intersection TMCs (Most Recent) City of Toronto - Transportation Services





## Traffic Assessment

The essence of the transportation component of the Concept Plan is the replacement of the elevated Gardiner Expressway east of Jarvis Street with new road and transit network elements which would replicate the function of the corridor while enhancing transit service and offering transportation capacity capable of supporting the significant new development potential which would also be created by the Concept.

The principal new road and transit system elements included in the Concept Plan include:

- a four lane roadway located on a southward extension of the railway corridor berm which would convey Gardiner traffic to/from the Don Valley Parkway and to/from Lake Shore Boulevard to the east of the Don River
- a new set of directional ramps which would connect the embankment road to the Don Valley Parkway by crossing the river and passing under the rail corridor in a new underpass tunnel located just east of the existing railway underpass
- a new tunnel which would facilitate the conveyance of traffic between the embankment road and Lake Shore Boulevard east of the Don River
- a significant enhancement of the north-south streets which cross the under the rail corridor to dramatically reduce the barrier effect of the rail corridor and to enable these streets to fulfill the important role of facilitating north-south pedestrian and cycling movements

- the removal of the elevated expressway east of Jarvis Street and the re-development of Lake shore Boulevard (with a basic two lanes in each direction supported by left turn lanes where required) located so that continuous building frontage would be possible on both the north and south sides of the street
- the embankment road would be designed to accommodate rapid transit on structure in the median which would extend from Union Station east along the embankment roadway, through the tunnel to Lake Shore Boulevard, continue further east to the Beach Communities, and possibly be extended northward to connect with the Danforth Subway line
- an extension of Broadview southward from Eastern Avenue, across the railway corridor and south to Lake Shore Boulevard where it would extend further south to connect with Villiers and carry an extension of the Broadview streetcar line to the waterfront and intersect the new rapid transit line on Lake Shore Boulevard

It should be noted that in order to maximize the development and urban design opportunities associated with relocation of Lake Shore Boulevard, the concept also features the removal of the eastbound on-ramp from Lake Shore Boulevard east of Jarvis Street and the westbound off-ramp to Lake Shore Boulevard and Sherbourne Street east of Sherbourne Street.

The purpose of the traffic assessment has been to confirm that this new road network would support existing and baseline future AM Peak Hour Traffic volumes. It is assumed that the future non-local baseline traffic volumes in the area would generally be similar to the existing volumes and that the overall growth in travel demand generated by local development would both utilize current and future underutilized capacity in the local road network and added local capacity, and be offset by changes in travel behaviour arising from the extensive improvements to the GO Transit, local transit, cycling and pedestrian networks elements serving planned to serve the central area.

The AM Peak Hour traffic volumes illustrated in the Figure have been assembled from the best available source being the City of Toronto Transportation Services databases. The volumes have been adjusted modestly where necessary and have been rounded upwards to the nearest 25 vehicles per hour and only most relevant volumes have been illustrated.

The traffic which currently uses the eastbound on-ramp from Lake Shore Boulevard east of Jarvis Street and the westbound off-ramp to Lake Shore Boulevard and Sherbourne Street east of Sherbourne Street was re-assigned to the other available routes including the on-ramp from northbound Bay Street to the eastbound expressway, the westbound off-ramp to Yonge Street and Lake Shore Boulevard, the southbound off-ramp from the Don Valley parkway to Don Roadway, the northbound on-ramp from

Don Roadway to the Don Valley Parkway, and the Richmond / Adelaide ramps from / to the Don Valley Parkway (not shown). The resulting key AM Peak Hour volumes were re-assigned to the Concept Plan road network and the results are illustrated in the second Figure.

It should be noted that the major stream of Gardiner Lake Shore Corridor traffic would generally be accommodated by the new embankment roadway and its ramp connections to the Don Valley Parkway and Lake Shore Boulevard east of the Don River. Given the one-lane in each direction configuration of these connections illustrated in the Concept Plan there would be less vehicular capacity than the current two lane ramps provide. However, the one lane ramps would provide the capacity sufficient to accommodate about 90 percent of the existing volumes experienced during the AM Peak Hour. This should be acceptable given the increasing capacity of the GO Transit system and the substantial additional capacity offered by the expansion of the local transit services both already planned and as described in the Concept.

The re-assignment shown in the second Figure demonstrates that the relatively lower volumes of the remaining traffic can be accommodated by the network of streets formed of Broadview, Villiers, Cherry and the portion of Queens Quay which would be extended east of Cherry.

The road network supports LRT operation on Queens Quay, Cherry, Villiers and Broadview and would accommodate a higher

order rapid transit service along Lake Shore Boulevard east of Broadview, through the tunnel under the Don River and along the embankment road to Jarvis and further west to Union Station. The higher order rapid transit line could perform various functions including: a) providing a faster and higher capacity transit service between the core and the Beach Communities; b) provide relief of the Yonge Line and the Yonge Bloor Station by providing an alternative rapid transit route to the core; c) support intensification of the Lake Shore Boulevard corridor east of the Don River to Leslie Street, and d) provide additional capacity to augment the road system in the area.

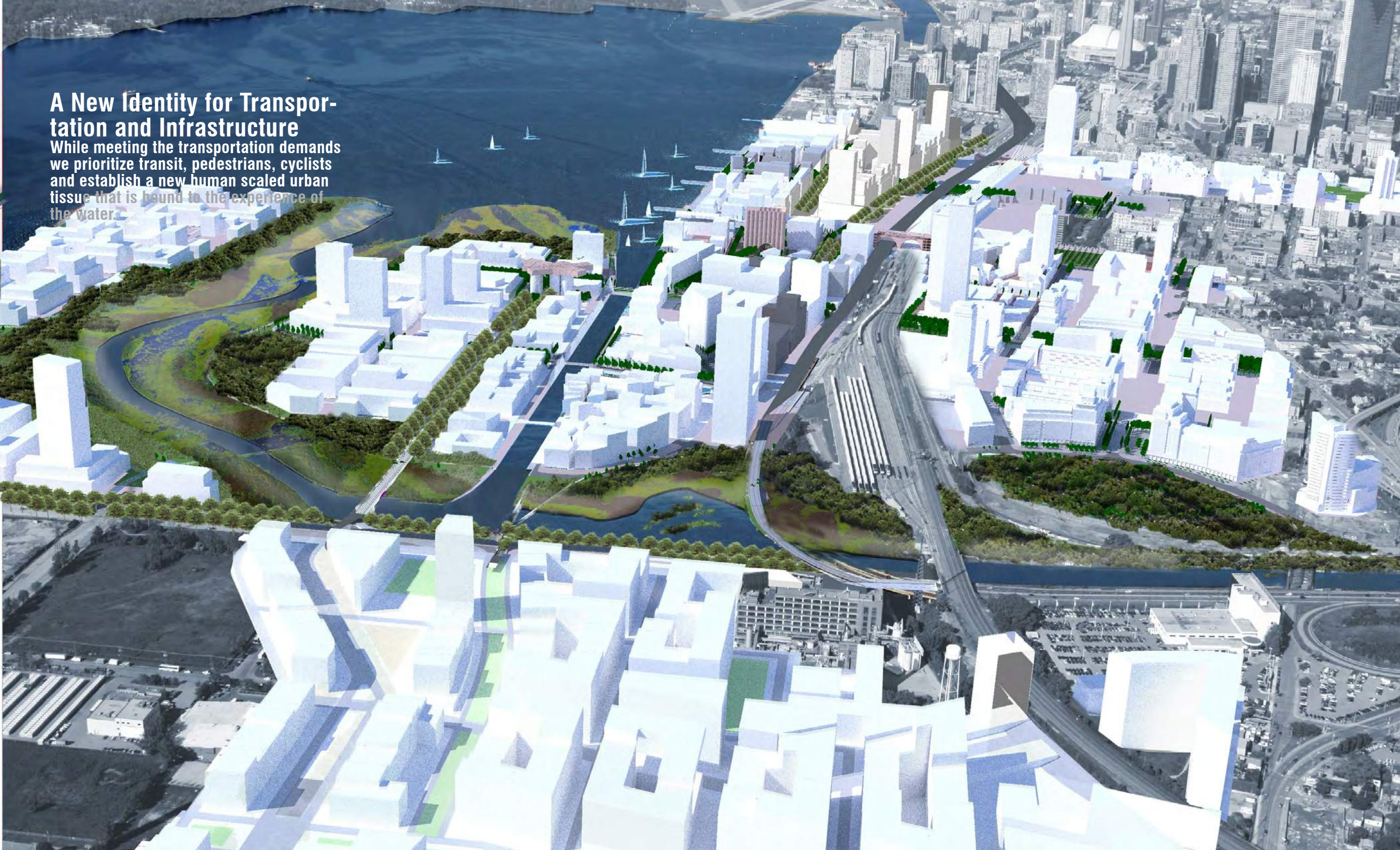
### **Harbour Lead Rail Line**

As acknowledged in the competition brief, use of the Harbour Lead rail line, its bridge across the Don River and the related Keating Rail Yard, has dropped off significantly over the past decades. While we appreciate the desire of rail authorities and serviced industries to maintain these facilities, we believe that the transformative potential of a comprehensive revitalization of this area should take precedence over this requirement in the brief. The incorporation of this rail facility into the revitalization proposal would have significant negative impacts on the potential of the overall endeavor. The cost, (both financial and physical), or replacing the rail infrastructure may not be economic and ultimately the transport needs of the serviced industries may much more cost effectively be serviced by truck. Accordingly, the Concept Plan has been developed based on that expectation and attendant abandonment of rail service dependent on the Harbour lead rail line across the Don River.



## A New Identity for Transportation and Infrastructure

While meeting the transportation demands we prioritize transit, pedestrians, cyclists and establish a new human scaled urban tissue that is bound to the experience of the water.



## Iconic Infrastructure

Structures of movement can become landmarks within the public realm that bring a strong identity to the district. Here, a language of expressive structures can expand upon the timber work being constructed at points along the Central Waterfront.



## Signature Bridges Crossing the Don River

The connection from Lake Shore Boulevard over the Don River should be celebrated with a signature bridge designed by Cecil Balmond.

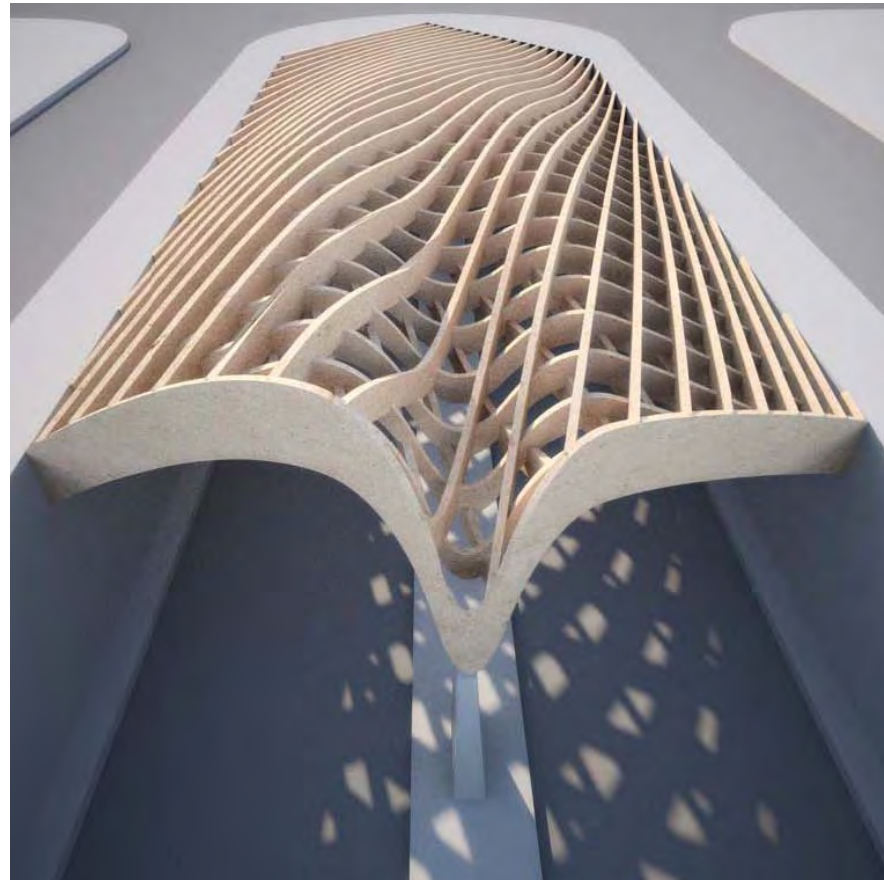
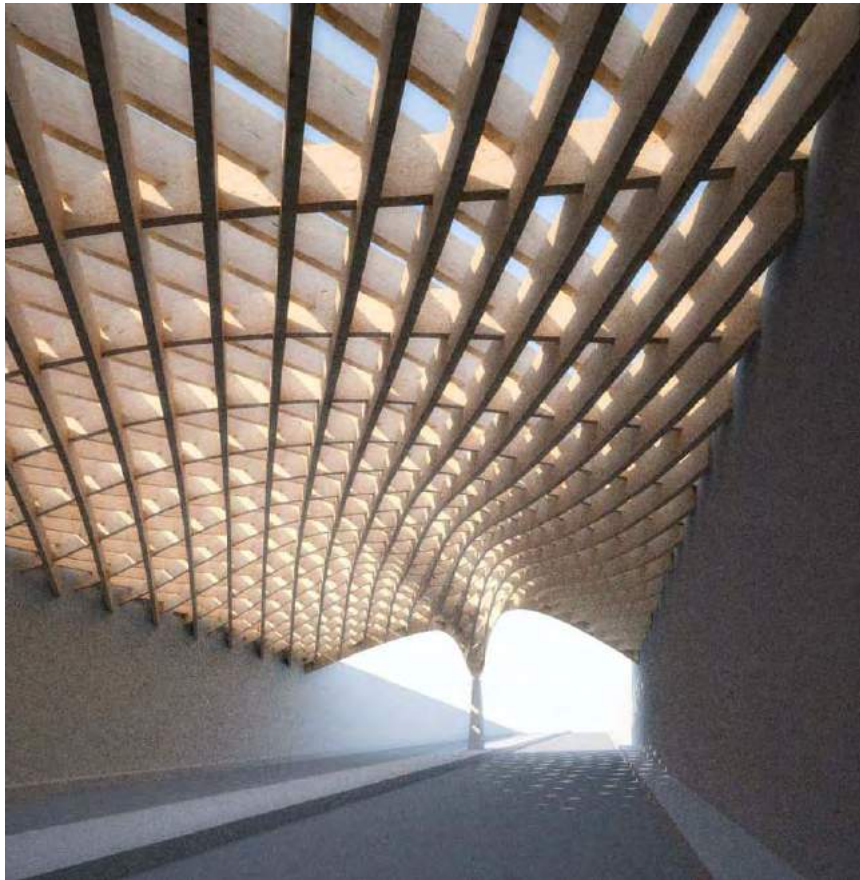
(below) Examples of a pedestrian bridge design by Cecil Balmond in Coimbra, Portugal which suggests the kind of expressive structure to define the mouth of the Don.





## Tunnel Portal - Design Splendour

At the mouth of the tunnel portal – the moment Lake Shore Boulevard dives under the Don River – we create an iconic symbol and gateway to the city. Using expressive timber structures, the tunnel portal can be the place for a spectacular canopy structure that creates a memorable gate experience.



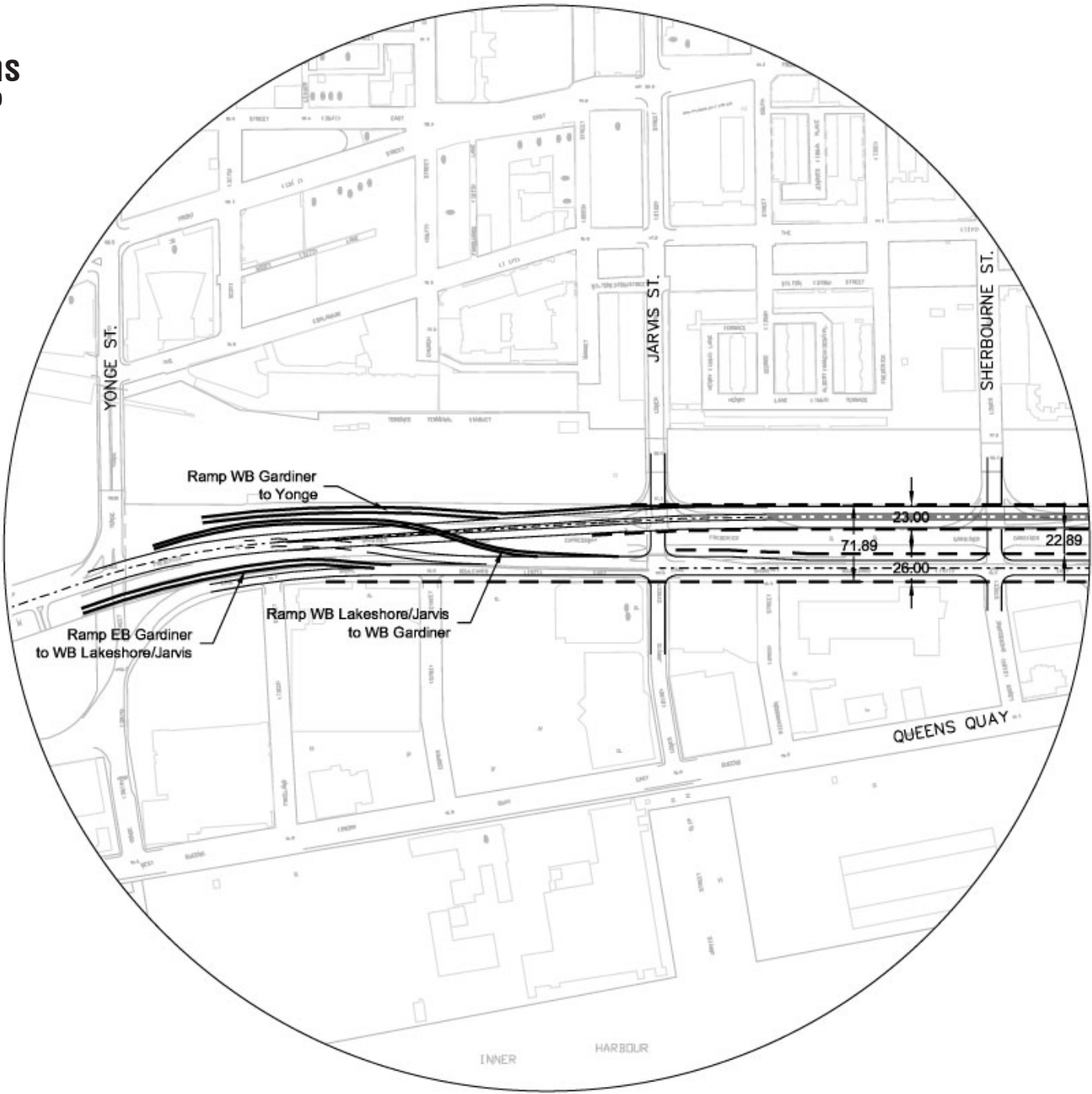
## Canal Bridges

The form and detailing of pedestrian timber bridges and Wavedecks from the Central Waterfront can be continued along the Keating Channel for coherence as a unified water's edge all the way to the Don.

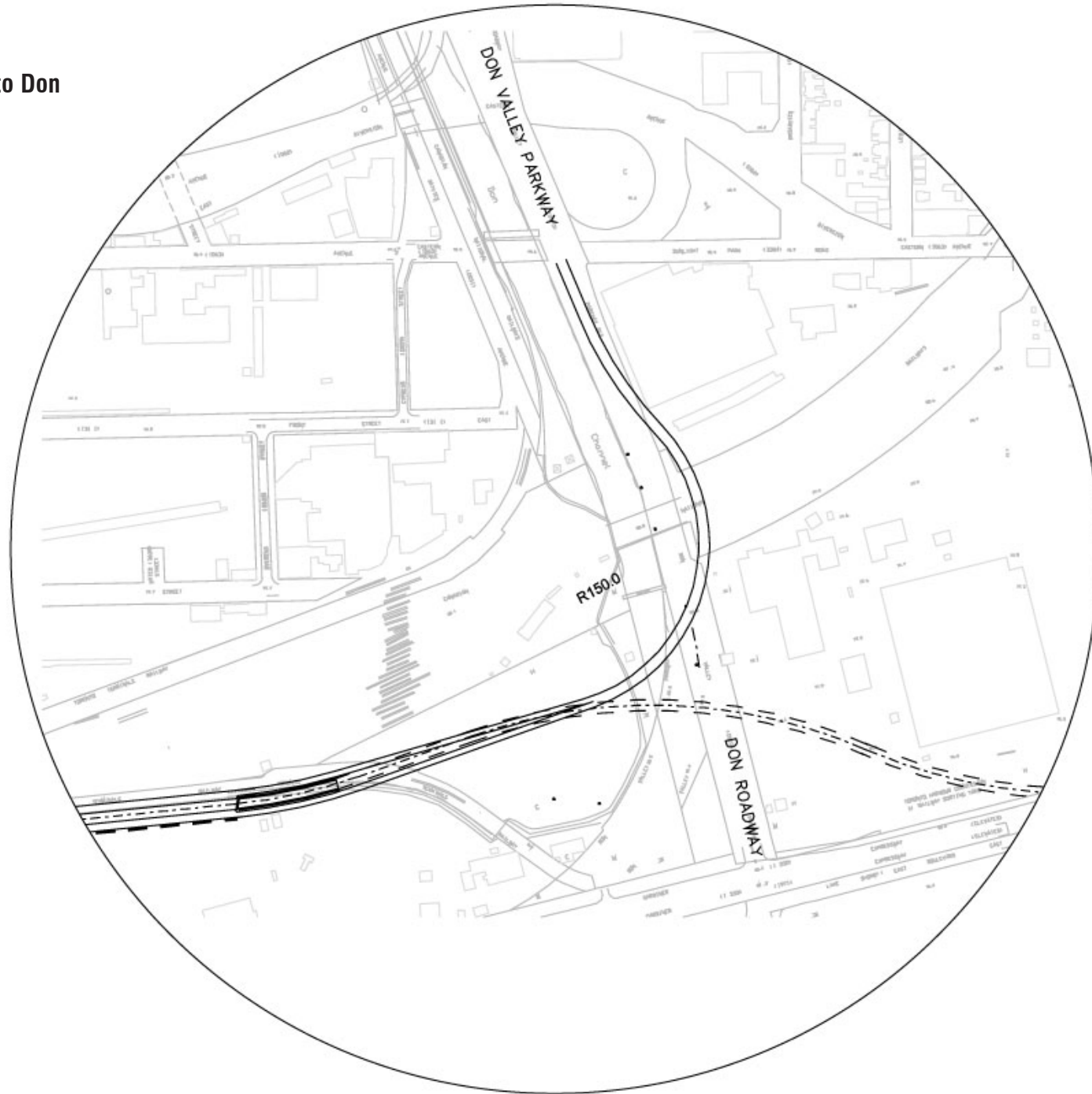


# Transportation Connections

West Connection, Embankment Road to existing Elevated Gardiner Expressway (west of Jarvis)

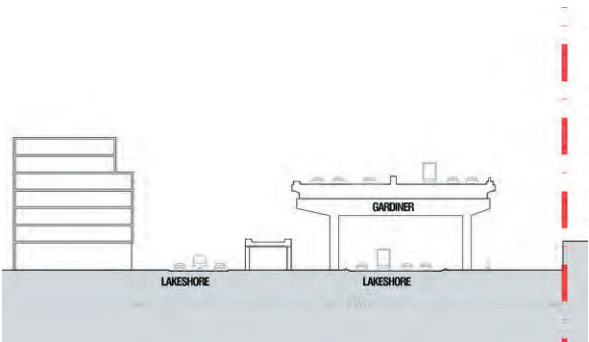


### East Connection, Embankment Road to Don Valley Parkway

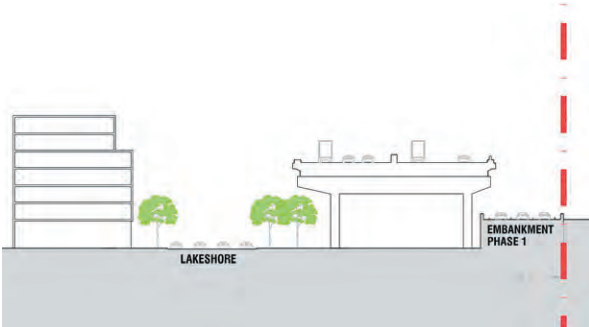
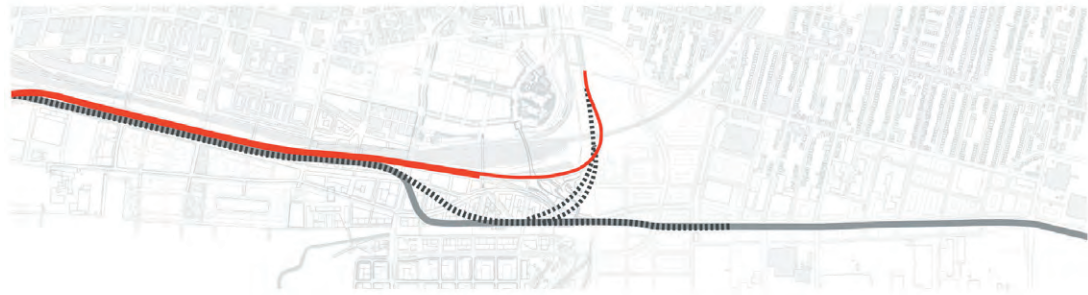


# Potential Phasing Strategy for the Scheme

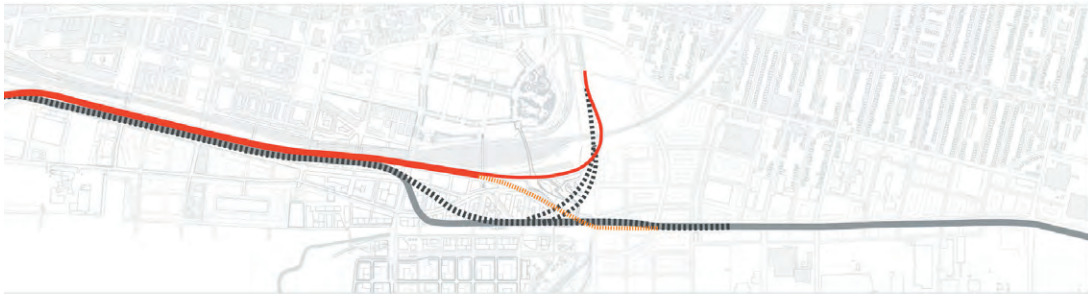
1. Existing



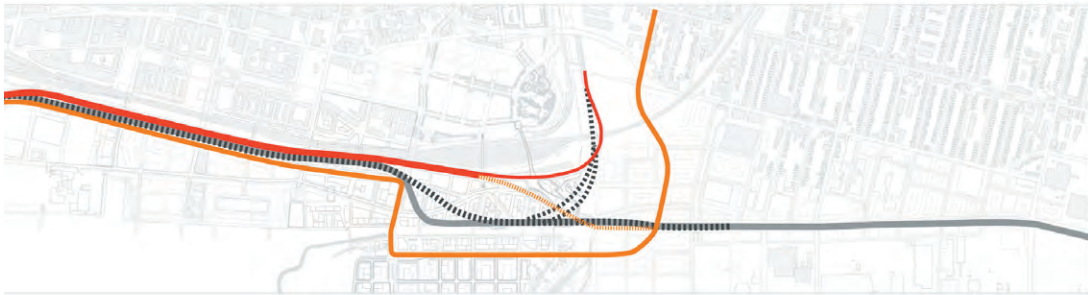
2. Embankment Road



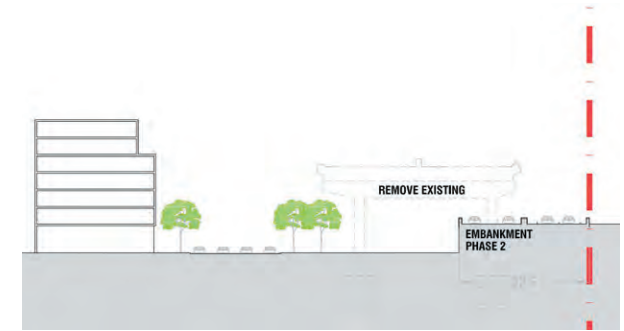
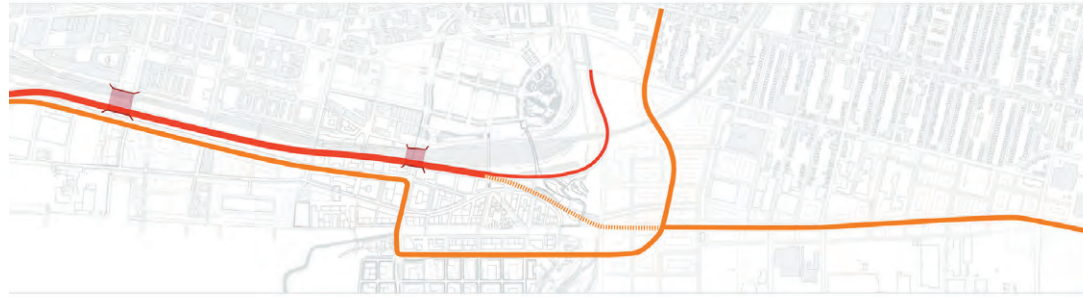
3. Tunnel Connection From Lake Shore Blvd. to Embankment Road



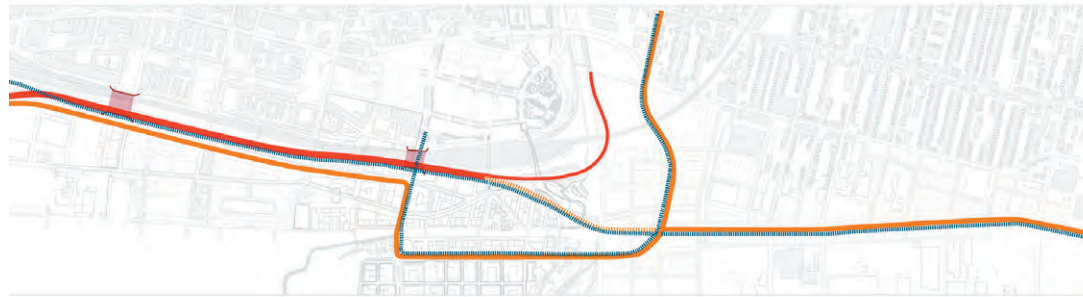
4. Lake Shore Reconfiguration and Extension of Broadview



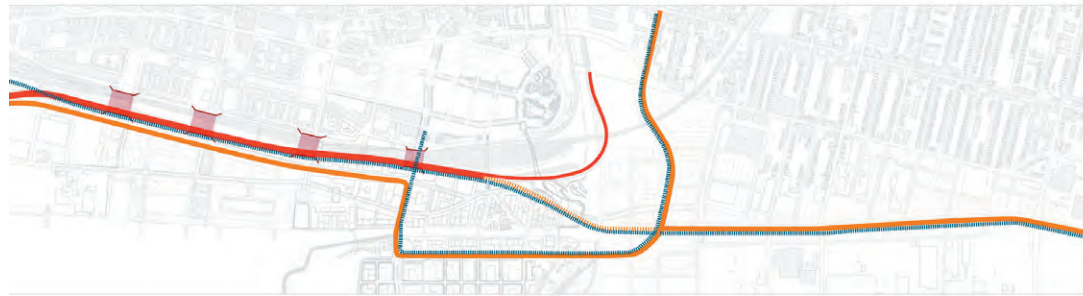
5. Remove the Gardiner and Lake Shore and Enhance the Gates (Jarvis & Cherry)



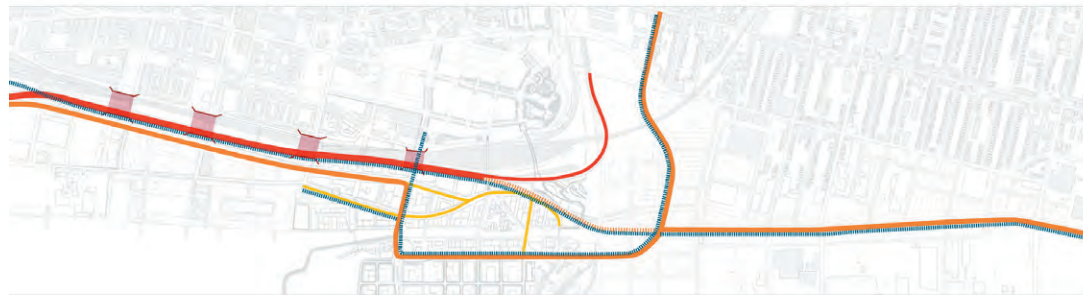
6. Add Transit



7. Continue Gates Enhancement



8. Queens Quay Extended with Transit Connection to Lake Shore Loop



## **2. NORTH-SOUTH** **CORRIDORS TO THE** **LAKEFRONT**

## Toronto Built an Infrastructural Wall

Seemingly without notice, the city accumulated a thick band of infrastructures that have cumulatively created a 'wall' separating city and lakefront. By addressing the north-south corridors, we take on the collective problem of the rail berm and Gardiner as one, to provide a solution for both the connectivity between the city and the waterfront and the need for a strong memorable identity for the streetscape routes and gates.

Pre-20th Century



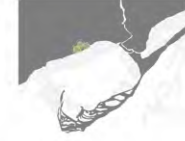
1915-1975



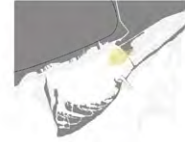
1975-2000



1793  
no city



1812  
to be a city

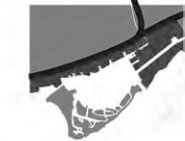


1908

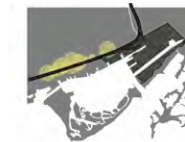
new city



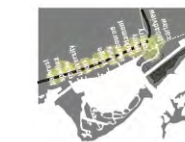
1916  
one city



1965  
divided city



2010  
re-emerging city



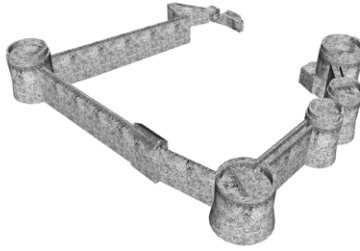
2020  
re-connected city

## City Wall as a Seam

### Articulating the Interface of the Inside/Outside

There is a legacy of city walls throughout history which offers a number of lessons. Most notably, we witness a transition towards hybrid infrastructures which combine multiple uses, evolving over time. The urbanization of the wall can become a means to redefine its presence in the urban fabric.

### Defence



Site  
King John's Castle  
Limerick, Ireland

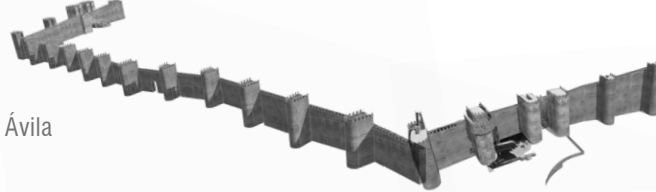
### Infrastructure



Aqueduct  
Aqueduct of Segovia  
Segovia, Spain

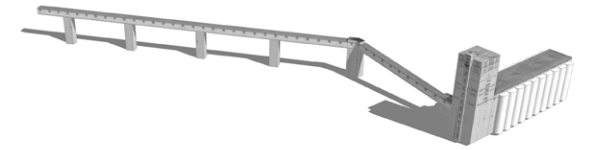
### City

Great wall of Ávila  
Ávila, Spain



### Industry

Silos de Mar del Plata  
Buenos Aires,  
Argentina



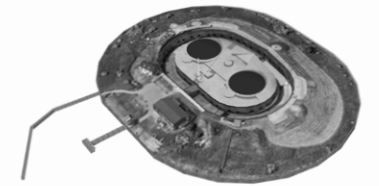
### Region

Great Wall of China  
Northern China



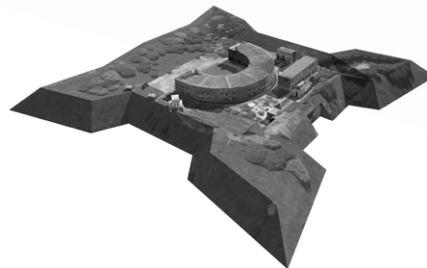
### Hybrid

Topographic utility  
Pampus Island  
IJsselmeer, Muiden,  
The Netherlands



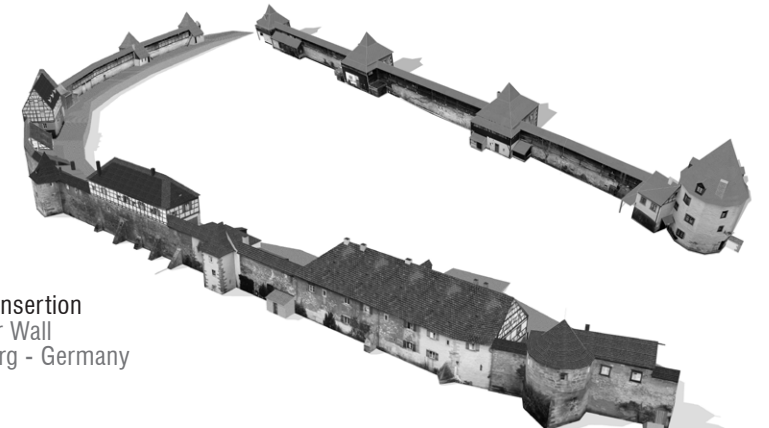
### Topographic

Fort Liefkenshoek  
Antwerp, Belgium



### Program Insertion

Seeweiher Wall  
Weißenburg - Germany





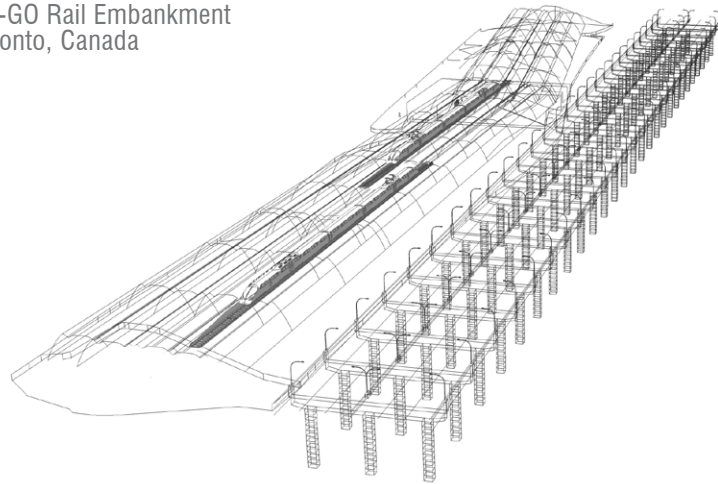
## Wall of Opportunity

### Overcoming the Barrier

There exists an incredible latent potential to not only beautify the viaduct, but rather develop it as a genuine peice of the city fabric, focused at the north-south crossings.

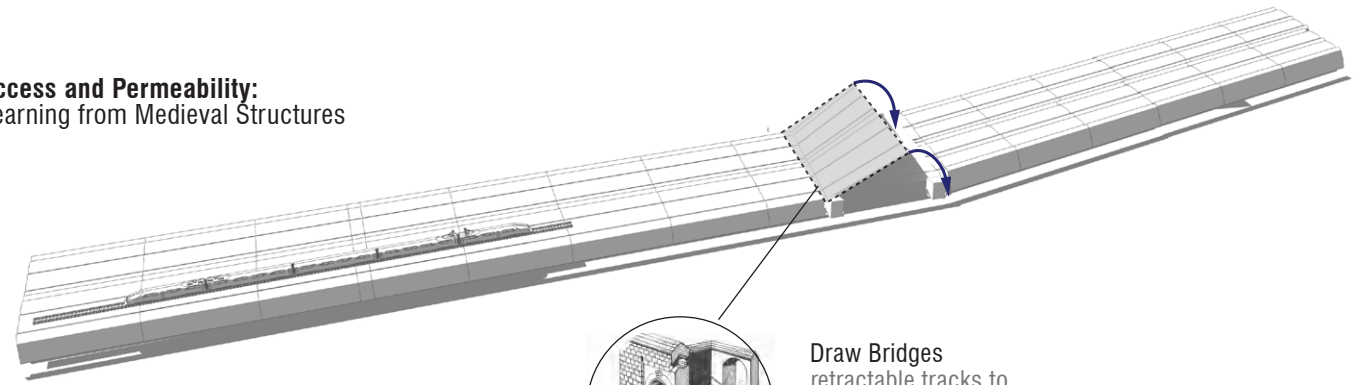


CN-GO Rail Embankment  
Toronto, Canada



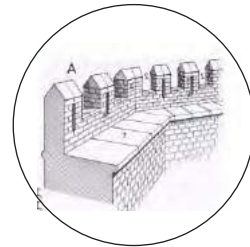
Gardiner Expressway  
Toronto, Canada

### Access and Permeability: Learning from Medieval Structures

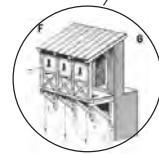


Draw Bridges  
retractable tracks to  
daylight gateways

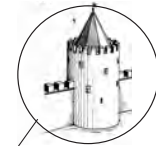
Allures  
elevated walkways  
connecting points of  
interest



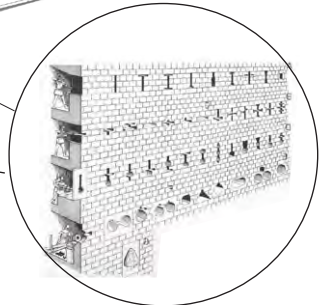
Hoardings  
simple parasitic  
structures to mark  
points of interest  
and access



Tower Gates  
potential for program  
and occupation



Loop Holes  
points of perforation  
of embankment wall



# Evolution of the City Gate: Towards a hybrid Solution

## Symbolic



530 BC: Portara Gate  
Naxos, Greece

300AD: Porte Maggiore  
Rome, Italy

1090: Porte de Mars  
Reims, France

## Defence



1090: Gate of Ávila  
Ávila, Spain

1211: Alexander's Gate  
Riga, Latvia

1255: King's Gate  
Königsberg, Germany

1300: La porte de Paris  
Cambrai, France

1386: New Fushan  
Gongyuan Gate  
Nanjing, China

1529: Altpörtel Gate  
Speyer, Germany

1556: Alamgeri Gate  
Lahore, Pakistan

## Ceremonial



1624: Oiyama-jinja  
Kanazawa, Japan

1624: Waterpoort  
Antwerp, Belgium

1778: Puerta de Alcalá  
Madrid, Spain

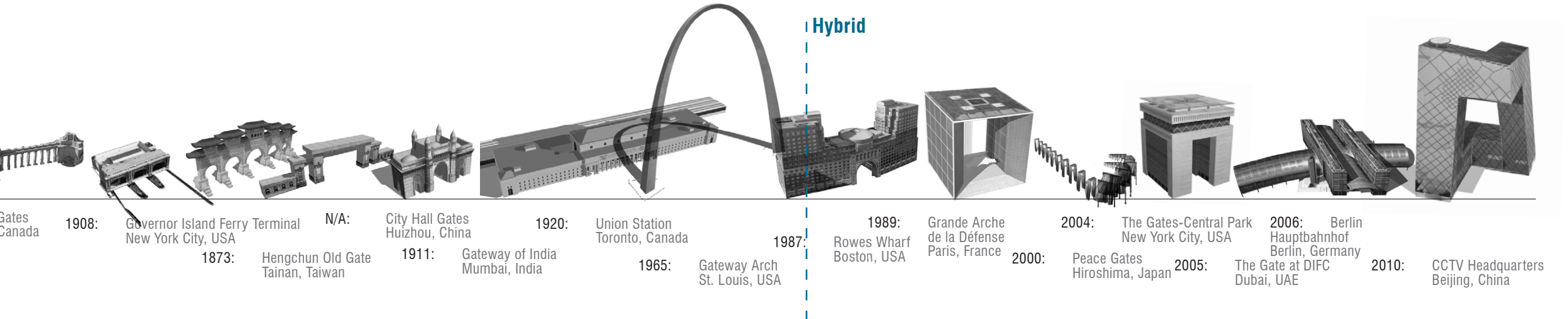
1788: Brandenburg Gate  
Berlin, Germany

1823: Arco Parque Independencia  
Tandil, Argentina

1838: Triumphal Gates  
Moscow, Russia

1873: Prince's Gate  
Toronto, Canada







COMMUNITY  
THE DISTILLERY  
HISTORIC DISTRICT  
TORONTO 18 CANADA

Orange sign

Visit...  
before...  
vis...

CAA

URBANDOG

KRO...  
BODY...  
MAINTEN...  
163 368...  
OR LEAS...  
Near Building...  
416-368-214

P  
\$7

LAKESHORE  
EAST

1m

LAKESHORE  
BLVD. EAST



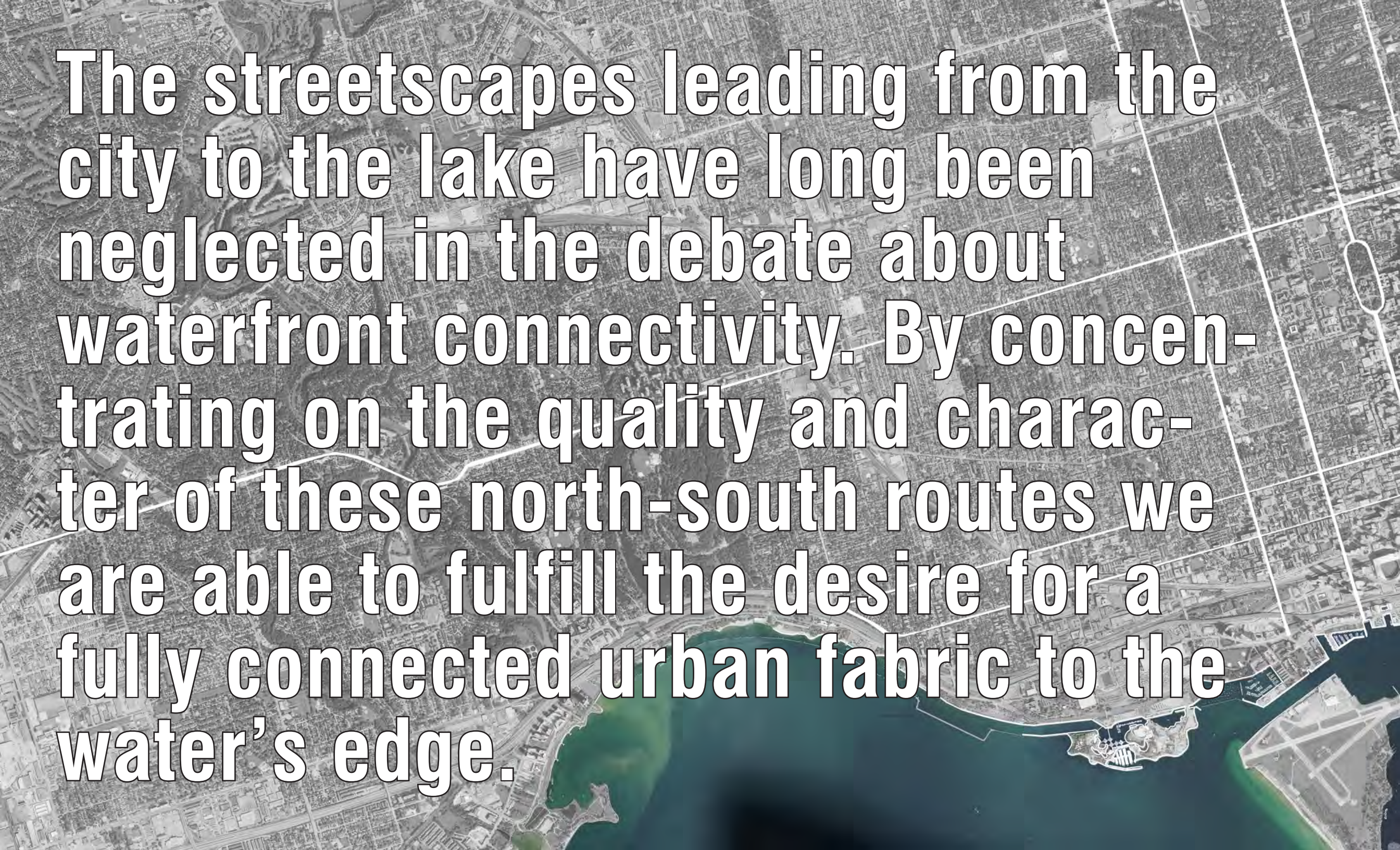
## **Actions to Achieve North-South Connectivity**

Today, we encounter the waterfront through a series of miserable viaducts. To uncover their latent potential as city gates we will:

- 1. Widen the openings to nearly double the sense of openness;**
- 2. Excavate depth to increase floor-to-ceiling height;**
- 3. Use pre-fabricated construction techniques but add claddings of warm materials;**
- 4. Add program wherever possible to invite the urban vitality and streetlife to penetrate the wall and enhance the continuity of urban tissue and activity to the water's edge.**

### **What form to connect with Toronto's Local Identities?**

Toronto is a city of culture and diversity - multiculturalism is in its DNA. The potential of the new city-gates lies in how their form and content can embrace the local, everyday functions and activities of the city. By emphasizing the continuity of urban programs rather than cliches of 'gateway representation', the body and soul of the city can extend seamlessly to the water's edge. This simple action could propel Toronto's rail berm wall into the civic gate for the 21st Century.



The streetscapes leading from the city to the lake have long been neglected in the debate about waterfront connectivity. By concentrating on the quality and character of these north-south routes we are able to fulfill the desire for a fully connected urban fabric to the water's edge.



BLOOR ST.  
QUEEN ST.  
KING ST.  
YONGE ST.  
JARVIS ST.  
SHERBOURNE ST.  
PARLIAMENT ST.  
CHERRY ST.  
BROADVIEW AVE.  
CARLTON AVE.  
LESLIE ST.

2.7 km  
2.75 km  
3.2 km  
3.3 km  
4.2 km  
4.1 km  
6.9 km

# Existing Conditions

Each of the streetscapes hold their own particular potential, related in part to their historical form and the functions of the neighbourhoods which have grown around them.



ST. LAWRENCE MARKET



ST. JAMES CATHEDRAL



JARVIS COLLEGIATE (1890's)



ALLAN GARDENS



JARVIS STREET BAPTIST CHURCH



CANADA NATIONAL BALLETS SCHOOL



ONTARIO COURT OF JUSTICE



REDPATH SUGAR FACTORY



ALL SAINTS CHURCH



56 SHERBOURNE



DAVID CROMBIE PARK



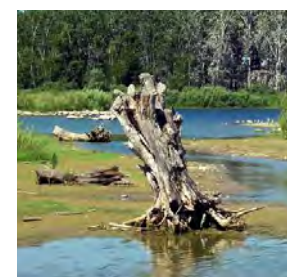
FRONT & SHERBOURNE ST



ESPLANADE







# View Corridors

Enhancing the potential spatial sequence and visual connections to the water from within the city are of prime importance, particularly with attention to the topographical implications of the vertical road alignment in relation to the rail berm and the framing or opening up of the street.

Jarvis



QUEEN ST.



KING ST. E.



FRONT ST.



THE ESPLANADE



RAILWAY



GARDINER



LAKESHORE BLVD. W.



QUEENS QUAY BLVD.

Sherbourne



QUEEN ST.



KING ST.



FRONT ST.



THE ESPLANADE



RAILWAY



GARDINER



LAKESHORE BLVD. E.



QUEENS QUAY BLVD.

Parliament



QUEEN ST.



KING ST. E.



FRONT ST.



MILL ST.



RAILWAY



GARDINER



LAKESHORE BLVD. W.



QUEENS QUAY BLVD.

Cherry



QUEEN ST.



KING ST. E.



EASTERN AVE.



FRONT ST.



MILL ST.



RAILWAY



KEATING CHANNEL BRIDGE



SHIP CHANNEL BRIDGE

Broadview



DUNDAS ST.



DUNDAS ST.



QUEEN ST.



QUEEN ST.



EASTERN AVE.



EASTERN AVE.



SUNLIGHT PARK RD.



SUNLIGHT PARK RD.

Carlaw



DUNDAS ST.



DUNDAS ST.



QUEEN ST.



QUEEN ST.



EASTERN AVE.



LAKESHORE BLVD.



LAKESHORE BLVD.



COMMISSIONERS ST.

Leslie



DUNDAS ST.



DUNDAS ST.



QUEEN ST.



EASTERN AVE.



LAKESHORE BLVD.



LAKESHORE BLVD.



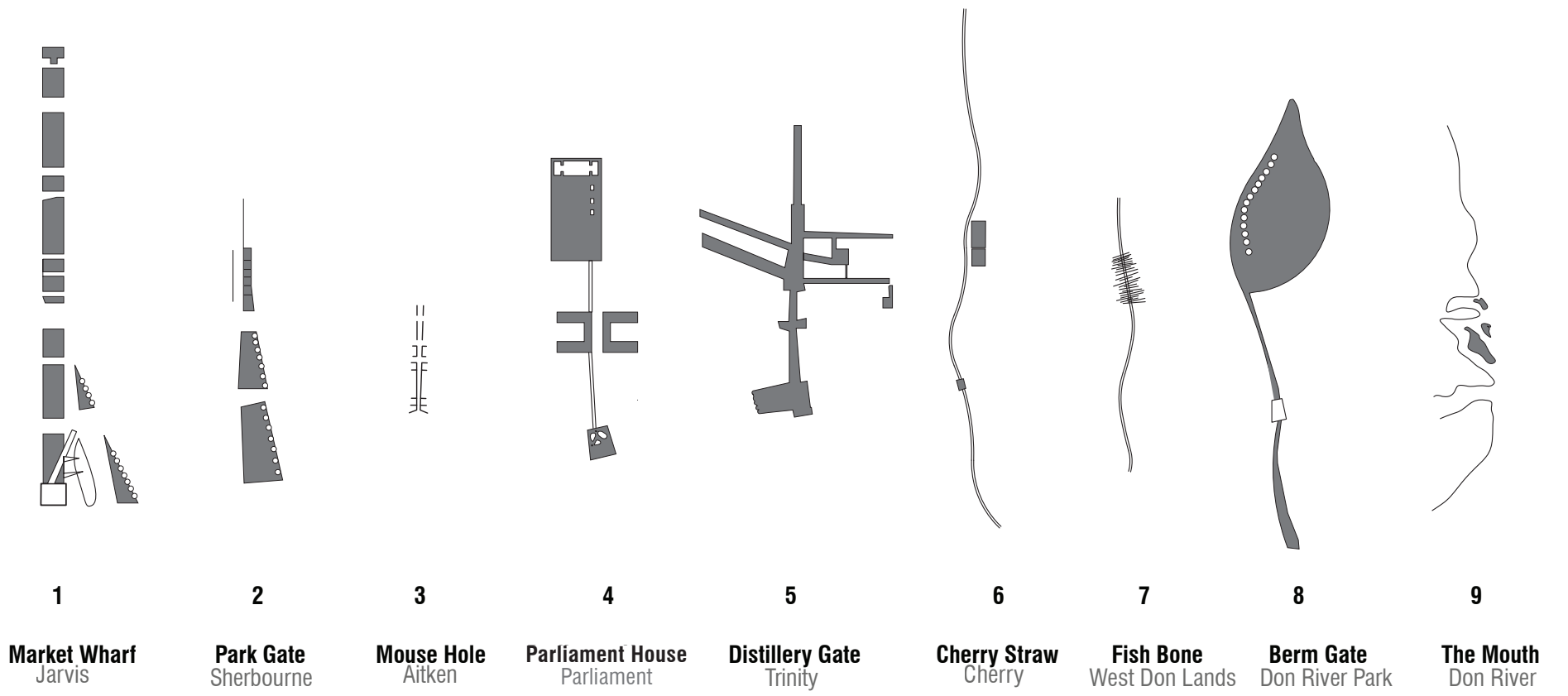
COMMISSIONERS ST.

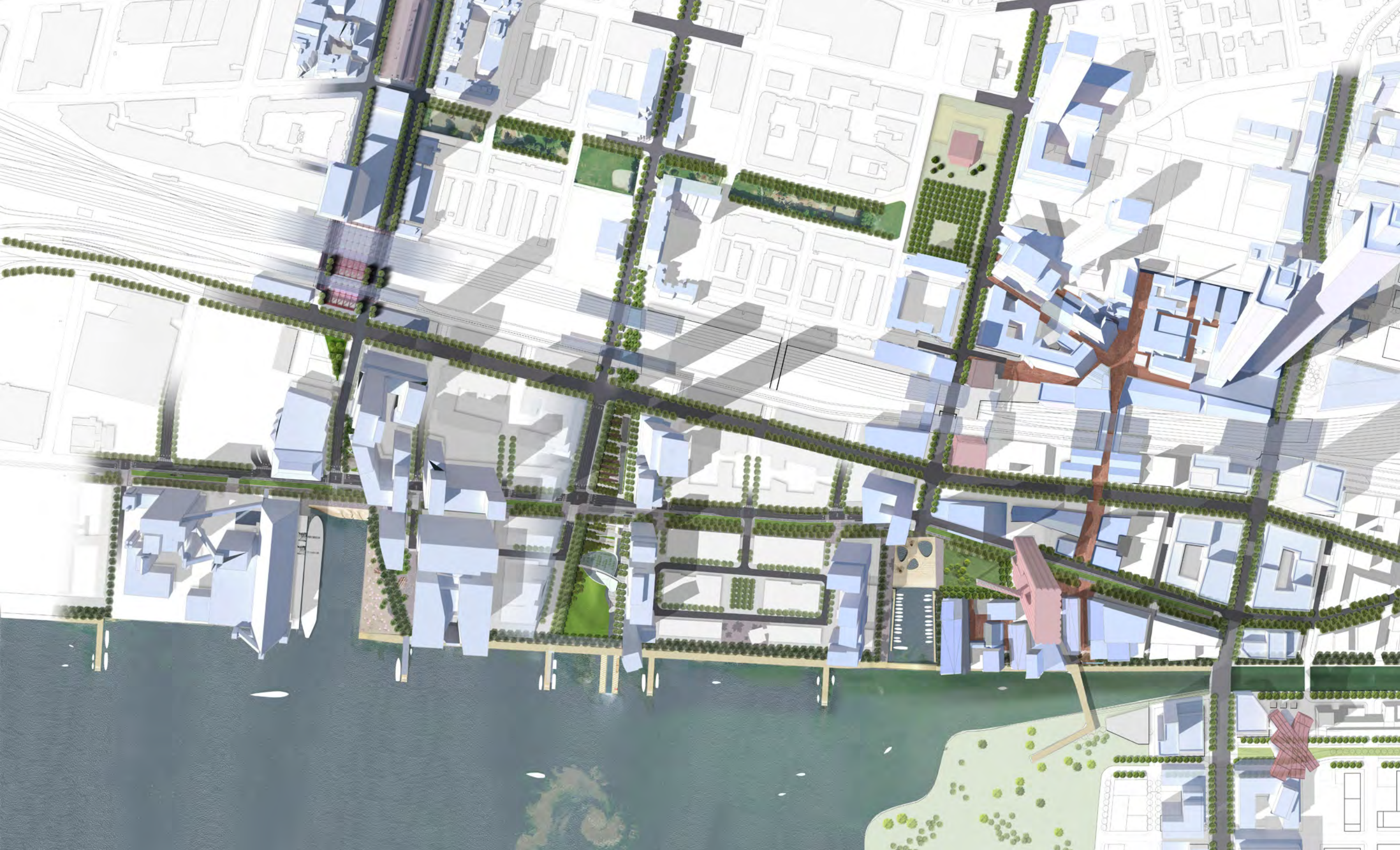


UNWIN AVE.

## A Collection of Key Figures Within the Urban Fabric that are Able of Unlock the City and Its Waterfront

These routes reflect the diverse character and (sometimes obscured) identity of the city. Above all, the gates facilitate the continuity of the urban tissue to the water's edge. In each case, public programs or public spaces are integrated within the north-south passage between the city and the waterfront. These programs and spaces are born out of the local condition and character of the streetscape and district. They produce a new identity and experience at the threshold of the waterfront.







# 1

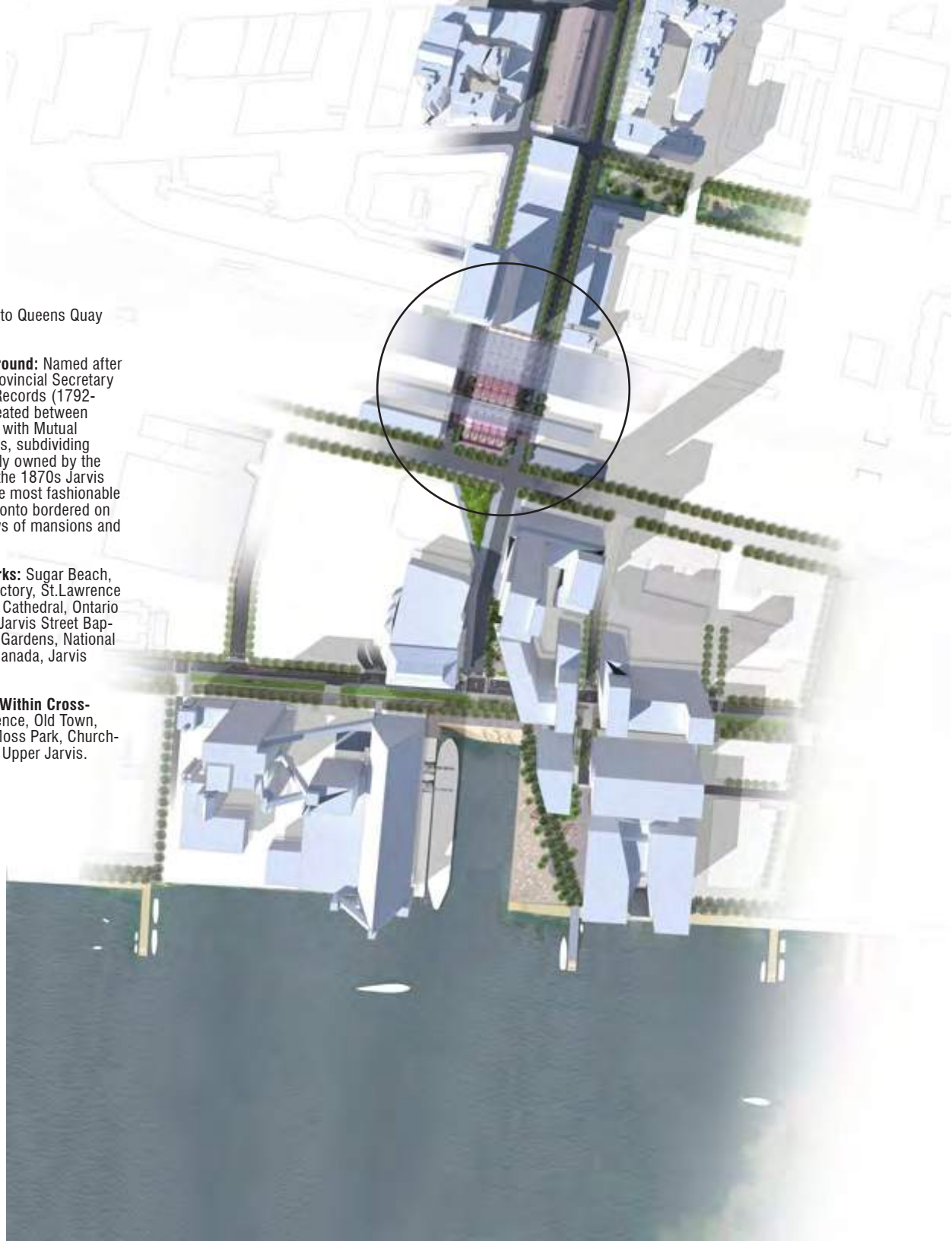
## Jarvis

**Extents:** 3.2 km  
from Bloor Street to Queens Quay  
Boulevard

**Historical Background:** Named after William Jarvis, Provincial Secretary and Registrar of Records (1792-1817) - it was created between 1846-1851 along with Mutual and George streets, subdividing properties formerly owned by the Jarvis family. By the 1870s Jarvis became one of the most fashionable addresses in Toronto bordered on both sides by rows of mansions and trees.

**Existing Landmarks:** Sugar Beach, RedPath Sugar Factory, St.Lawrence Market, St.James Cathedral, Ontario Court of Justice, Jarvis Street Baptist Church, Allan Gardens, National Ballet School of Canada, Jarvis Collegiate.

**Neighbourhoods Within Cross-Section:** St.Lawrence, Old Town, Garden District, Moss Park, Church-Wellesley Village, Upper Jarvis.



### Jarvis Open Market

Market Street and Lower Jarvis flank an expanded, flexible, open air temporary market space tucked under the rail berm. With the existing ground plane lowered to provide a more generous floor-ceiling height, a new public space that can host diverse events is created in the heart of the St.Lawrence District.



LIVE WITH CULTURE

TORONTO

# 2

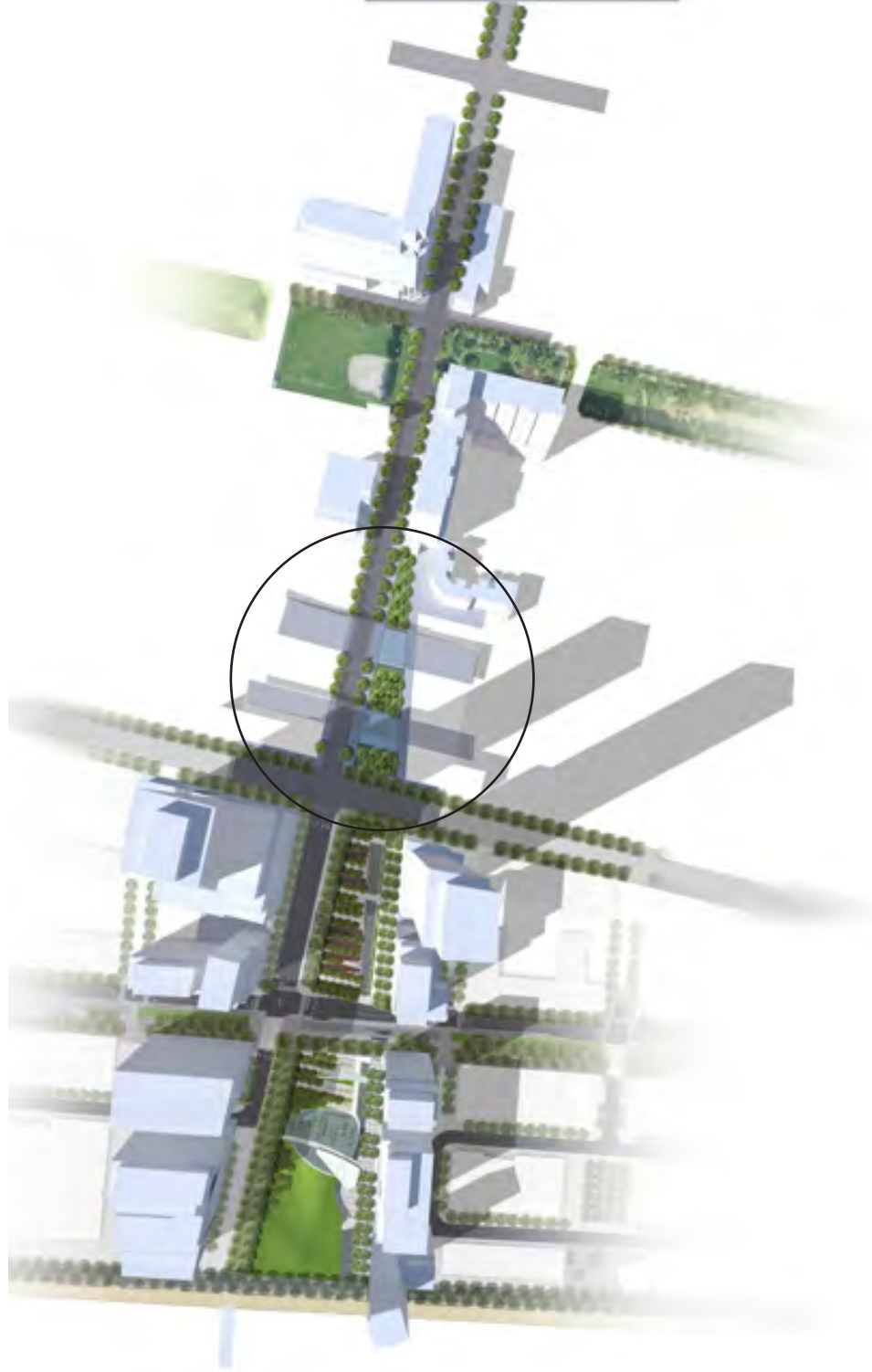
## Sherbourne

**Extents:** 3.3 km  
Sherbourne St. runs from Queens Quay E. ending in South Dr., north of Bloor St. E.

**Historical Background:** It was named after the town of Sherborne in Dorset, England, home of the Ridout family who immigrated to North America in the 1790's.

**Landmarks:** Sherbourne Park, The Esplanade, David Crombie Park, Moss Park.

**Neighbourhoods Within Cross-Section:** St. Lawrence, Old Town, Garden District, Moss Park, Cabbagetown South, Cabbagetown, Upper Jarvis, St. James Town, Rosedale.



**Sherbourne Green Gate**  
A bicycle-friendly passage separated from vehicular traffic which draws visitors into an inner world on the way towards the Sherbourne Common and the lakefront.







# 3

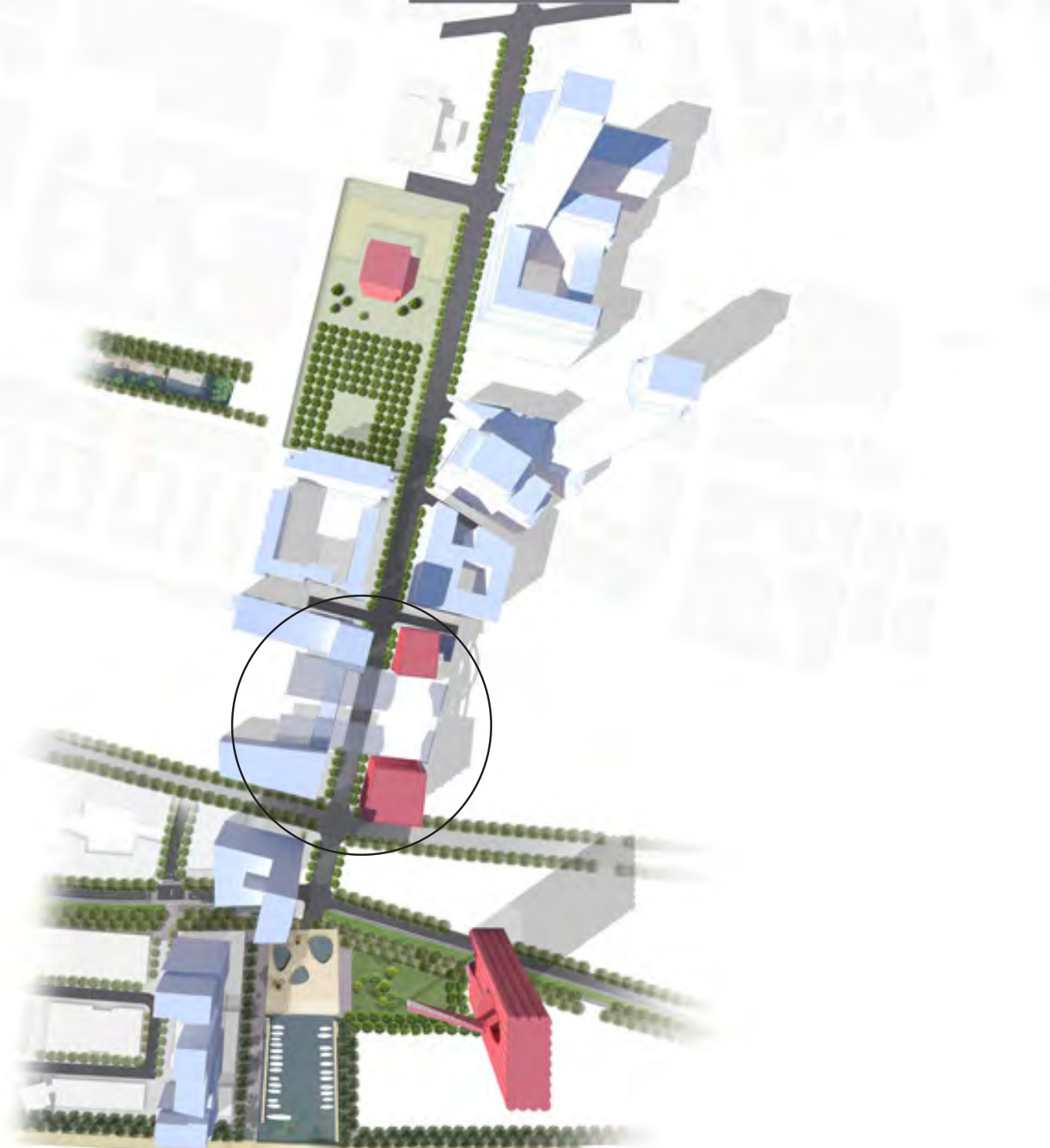
## Parliament

**Extents:** 2.75km  
Parliament St. runs from Queens Quay E. to Bloor St.E.

**Historical Background:** Parliament Street commemorates the first location of the Parliament buildings planned south of Front and Berkeley streets by Lieutenant Governor Simcoe. Completed in 1797, the buildings were burned down during the 1813 American invasion, then rebuilt and burned again during a chimney fire in 1824. The marginal, marshy eastern harbour location was deemed unhealthy and unsuitable by this time and new government buildings were eventually relocated to Queen's Park in 1892.

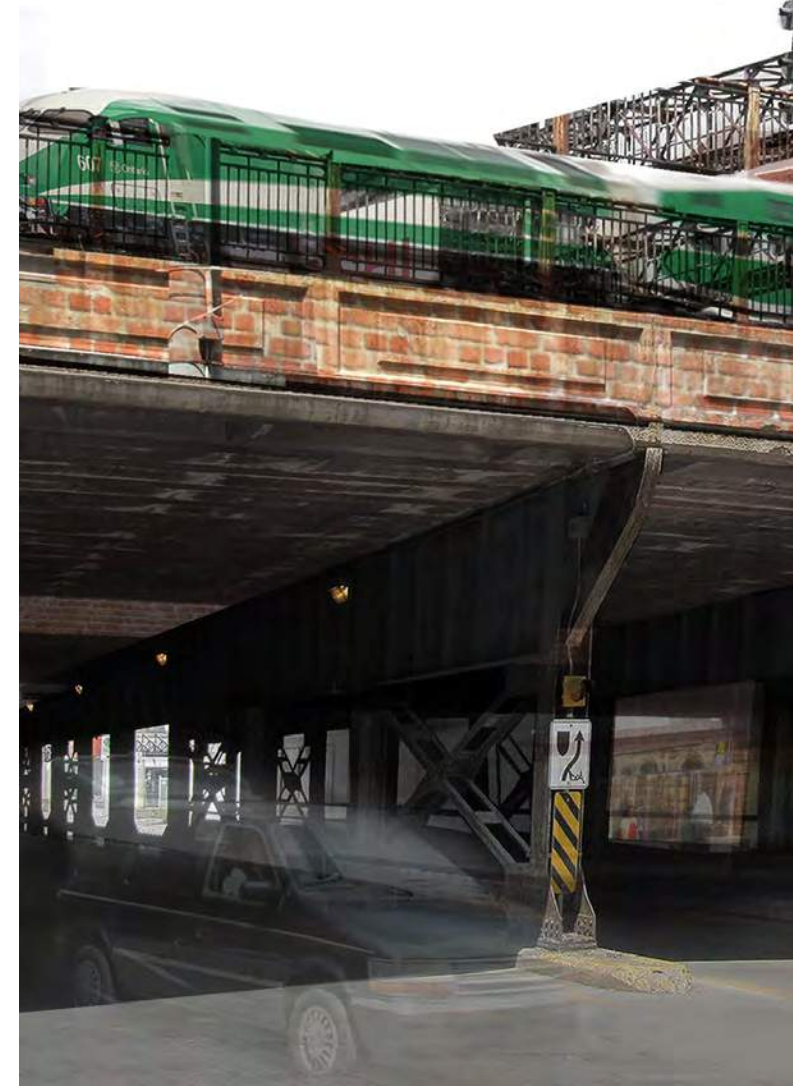
**Landmarks:** Archeological site of first parliament buildings, Parliament Wavedeck, Victory Soy Mills Silos, Distillery District, The Esplanade, Regent Park, St.James Cemetery

**Neighbourhoods Within Cross-Section:** Distillery District, West Don Lands, Old Town, Corktown, Moss Park, Cabbagetown South, Regent Park.



## Parliament Gate

Leading from a new archeological park on the site of Upper Canada's first Parliament buildings, this brick-clad gate widens the viaduct structure and provides a generous pedestrian environment. This widening invites a more seamless interface with animated streetfrontage from the Distillery District and St. Lawrence neighbourhood to flow towards Parliament Wavedeck and the lake.

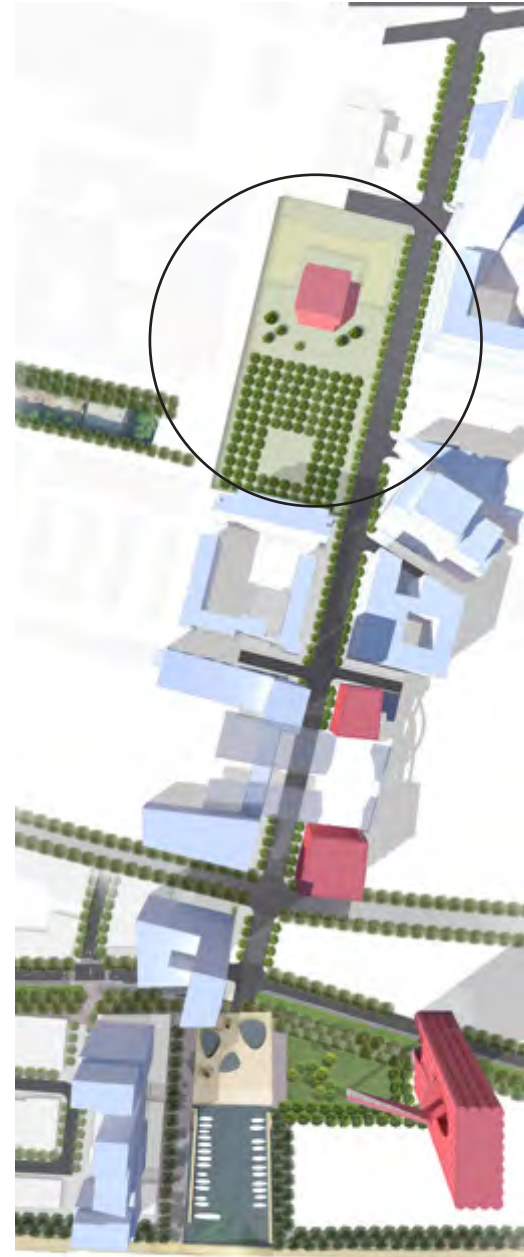






**The Site of Toronto's Early Beginnings:  
First Parliament**  
(Top) Images of Upper Canada's first parliament buildings, partially burned to the ground in the War of 1812. The archeological remnants still exist, and offer the potential for a cultural centre/museum set within an archaeological park - the ultimate green anchor at the seam of St.Lawrence and Distillery neighbourhoods.

**Archeological Remains Within a New Park**  
(Above) We propose to unearthing the covered-up remains of the Parliament buildings as a feature of a new park design. Marking the footprints of the 3 historic buildings plus adding a new Toronto Museum of Heritage within the park make this a living monument in the heart of an emerging district.



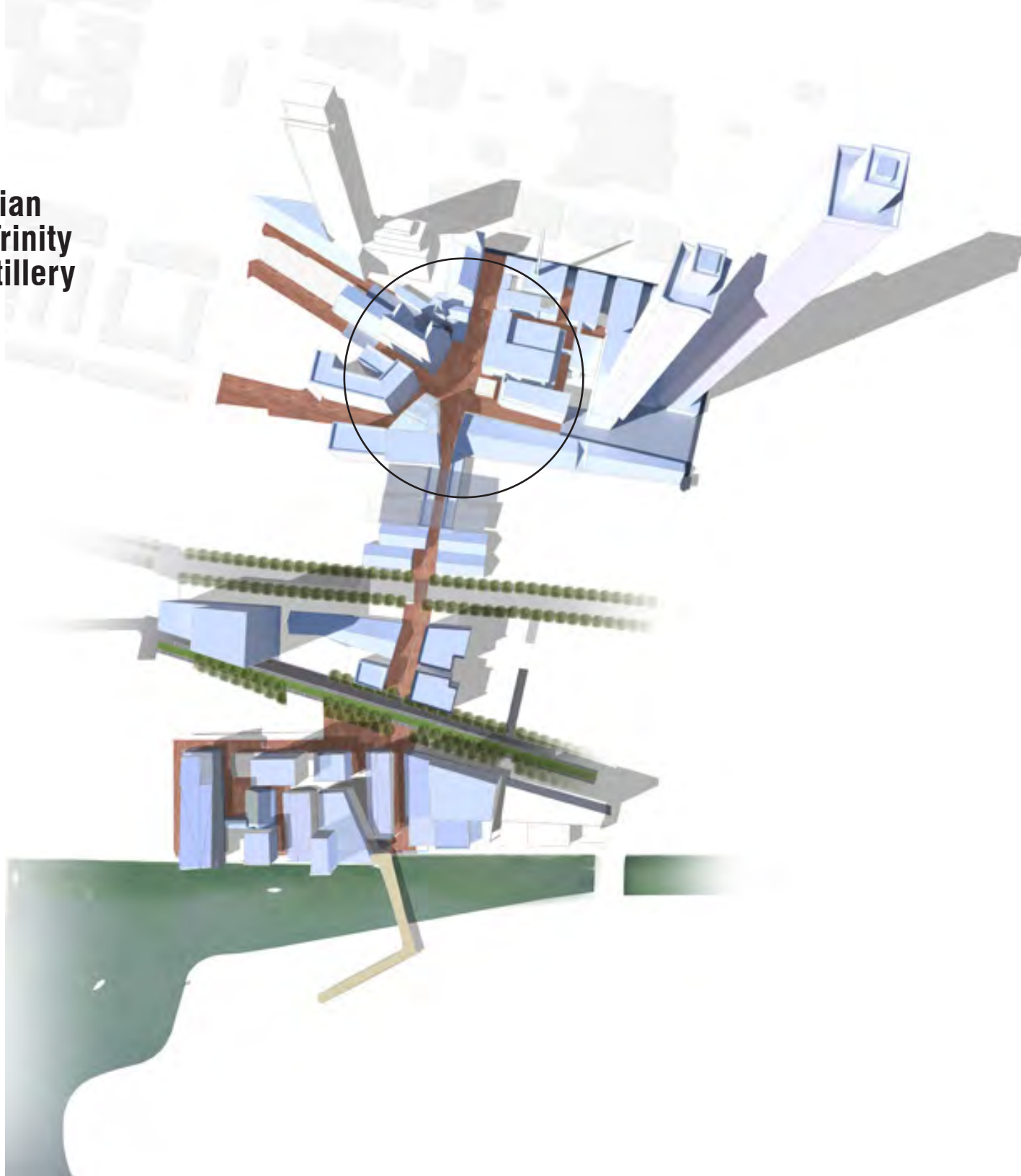


## Toronto Heritage Museum at the Original Parliament Archeological Site

An underutilized lot at the corner of Front and Parliament Streets hides the archeological remnants of Upper Canada's first parliament building. Here, lies the promise of an archeological park and new Heritage Museum that explores the often-overlooked history of the City of Toronto.

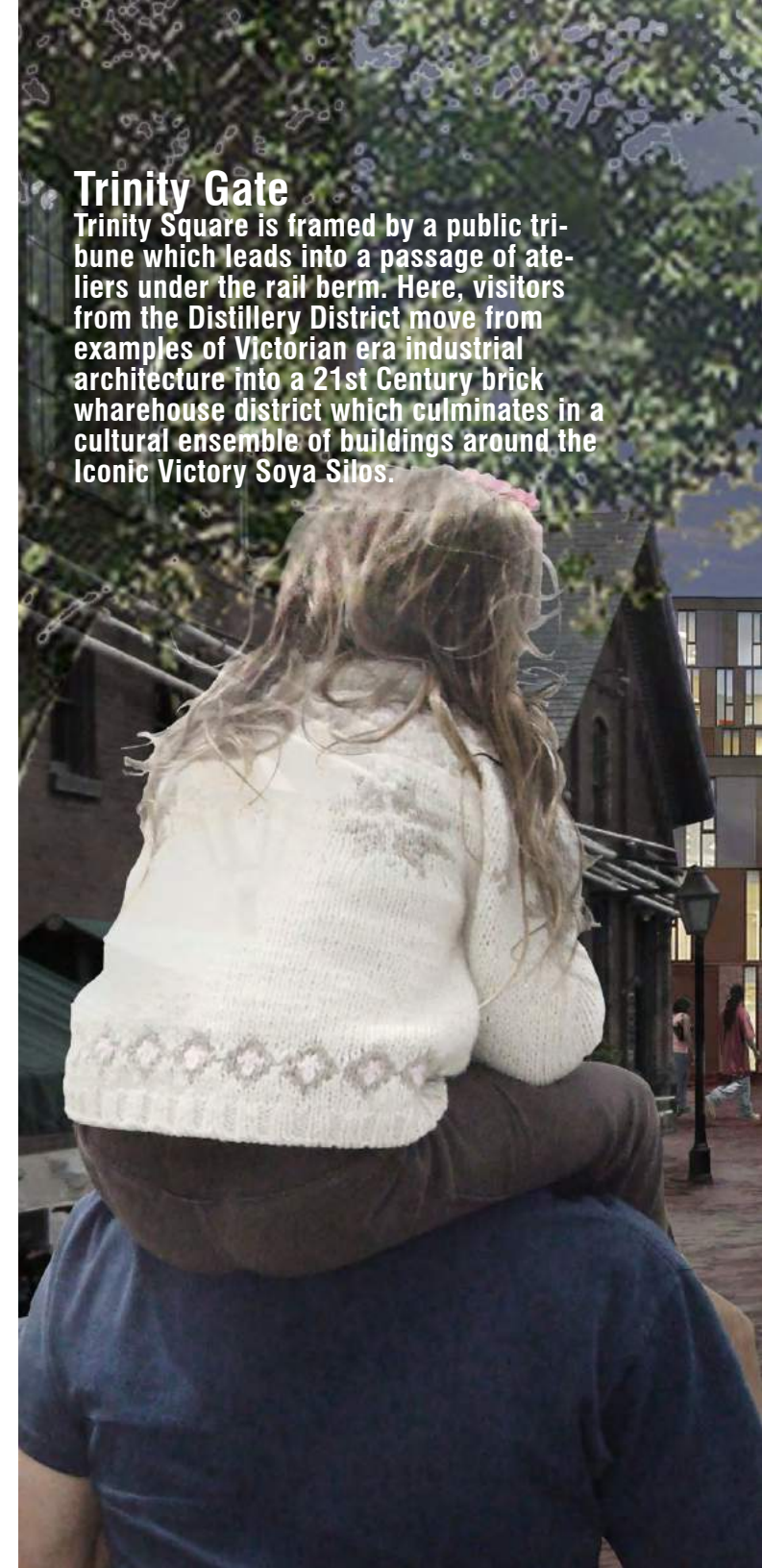
# 4

## New Pedestrian Passage at Trinity between Distillery and Silos



## Trinity Gate

Trinity Square is framed by a public tribune which leads into a passage of ateliers under the rail berm. Here, visitors from the Distillery District move from examples of Victorian era industrial architecture into a 21st Century brick warehouse district which culminates in a cultural ensemble of buildings around the iconic Victory Soya Silos.





# 4

## Cherry

**Extents:** 2.7km  
Cherry St. runs west of the Don River from Lake Ontario to Shuter St., changing its name to Sumach St. north of King St. E.

**Landmarks:** Cherry Beach, Toronto Windsurfing Club, Keating Channel, Cherry Street Bridge, Athletes' Village (Toronto 2015 Pan Am Games),

**Neighbourhoods Within Cross-Section:** Distillery District, West Don Lands, Corktown, Trefann Court.

**Potential Program:**  
Recreation – skate park under viaduct  
Convenience Retail/Supermarket built within rail embankment



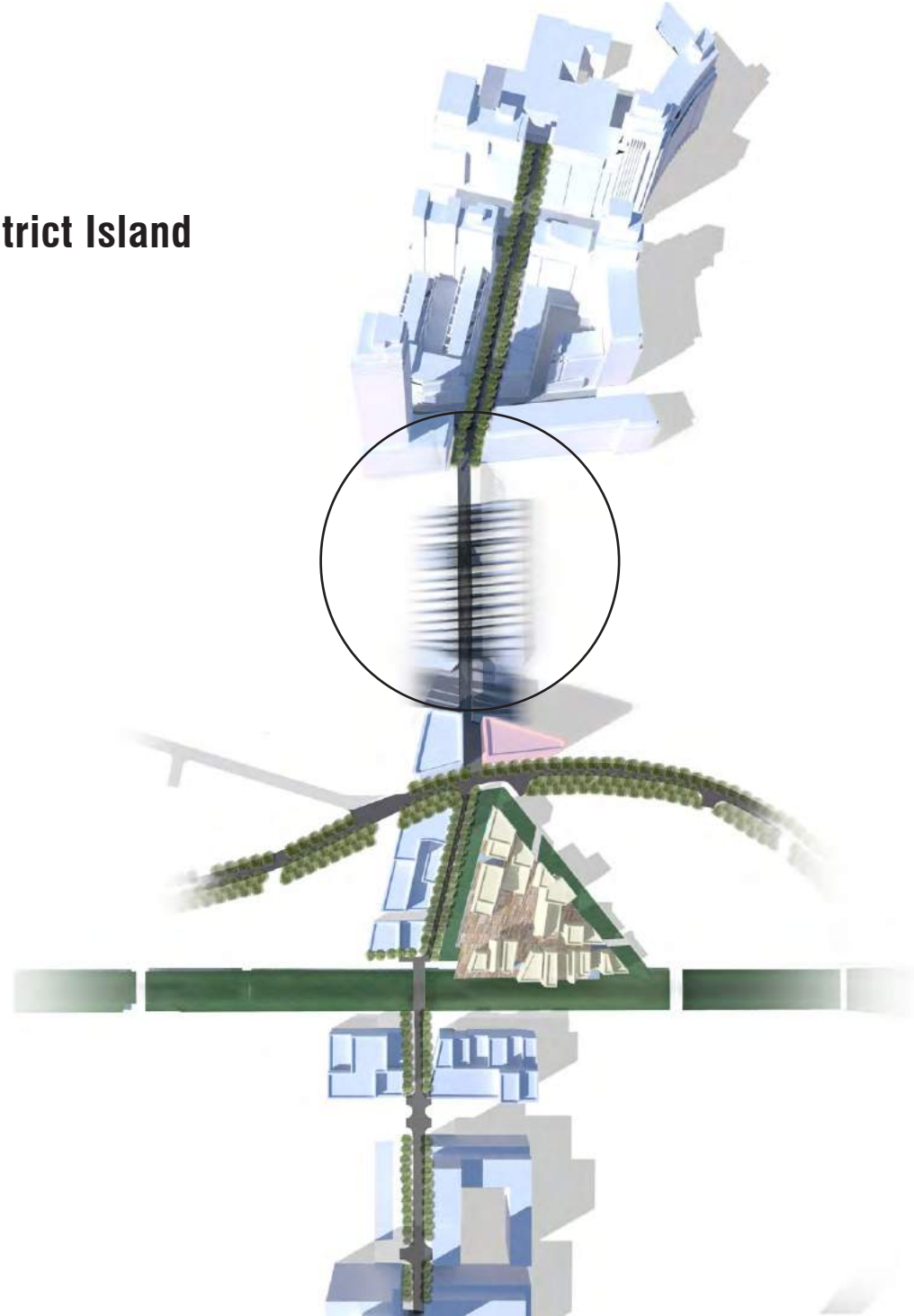


# 5

## New Pedestrian Passage at West Donlands to Canal District Island

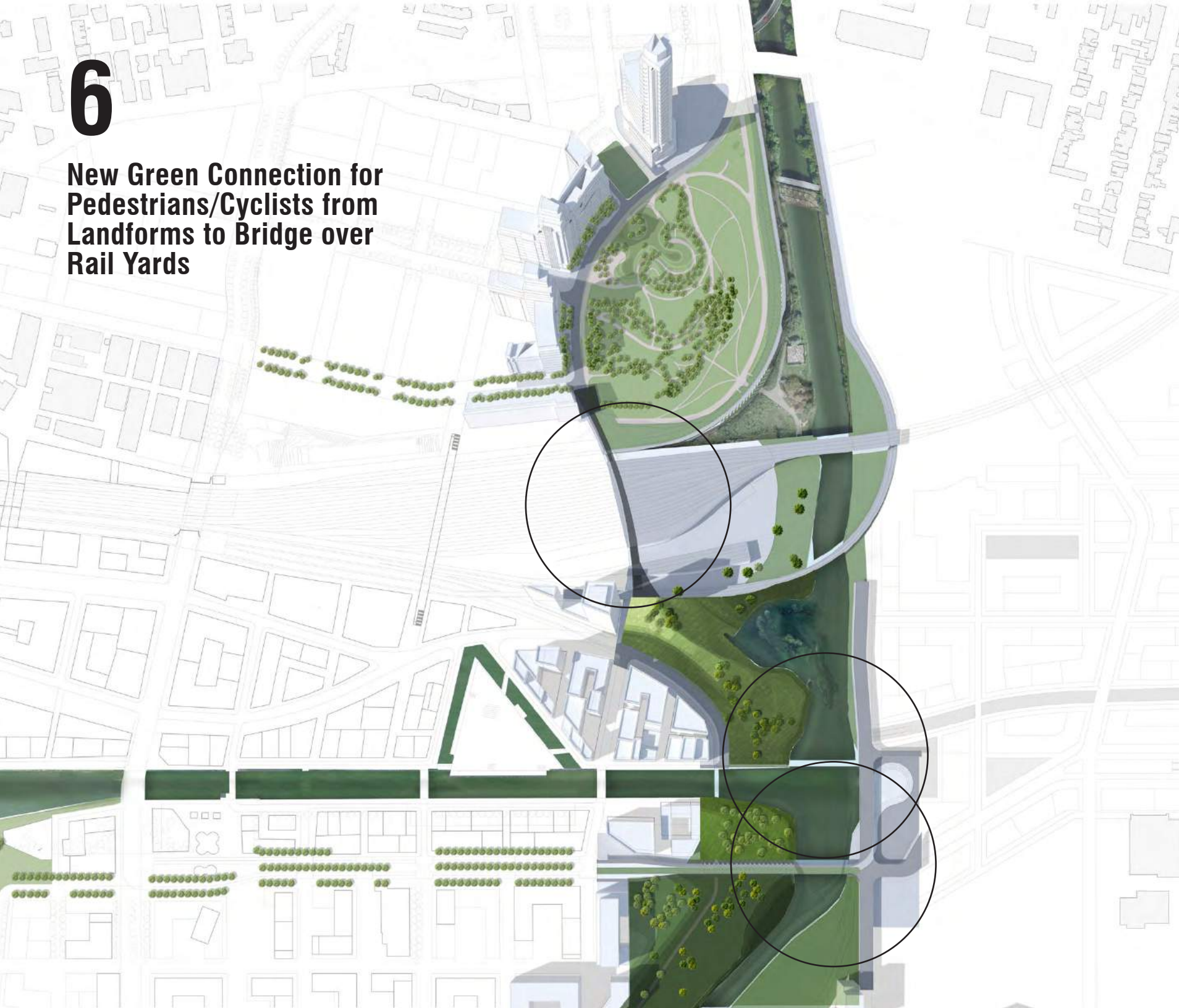
**Potential Program:**

Simple excavation bored through rail embankment to allow for pedestrian and bicycle connection between two neighbourhoods. Emphasis on creating skylights between tracks to allow for natural light into the public passage.



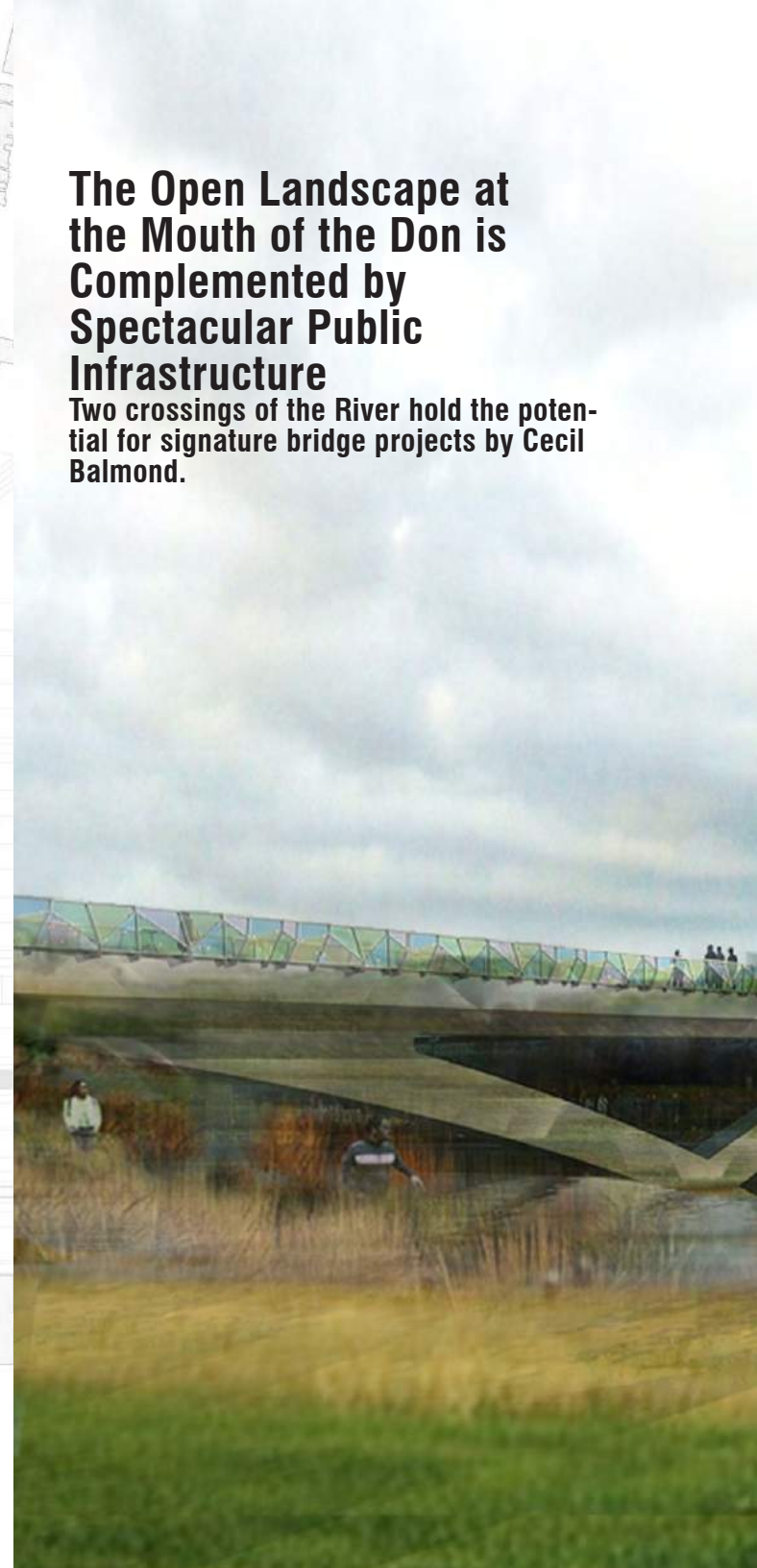
# 6

## New Green Connection for Pedestrians/Cyclists from Landforms to Bridge over Rail Yards

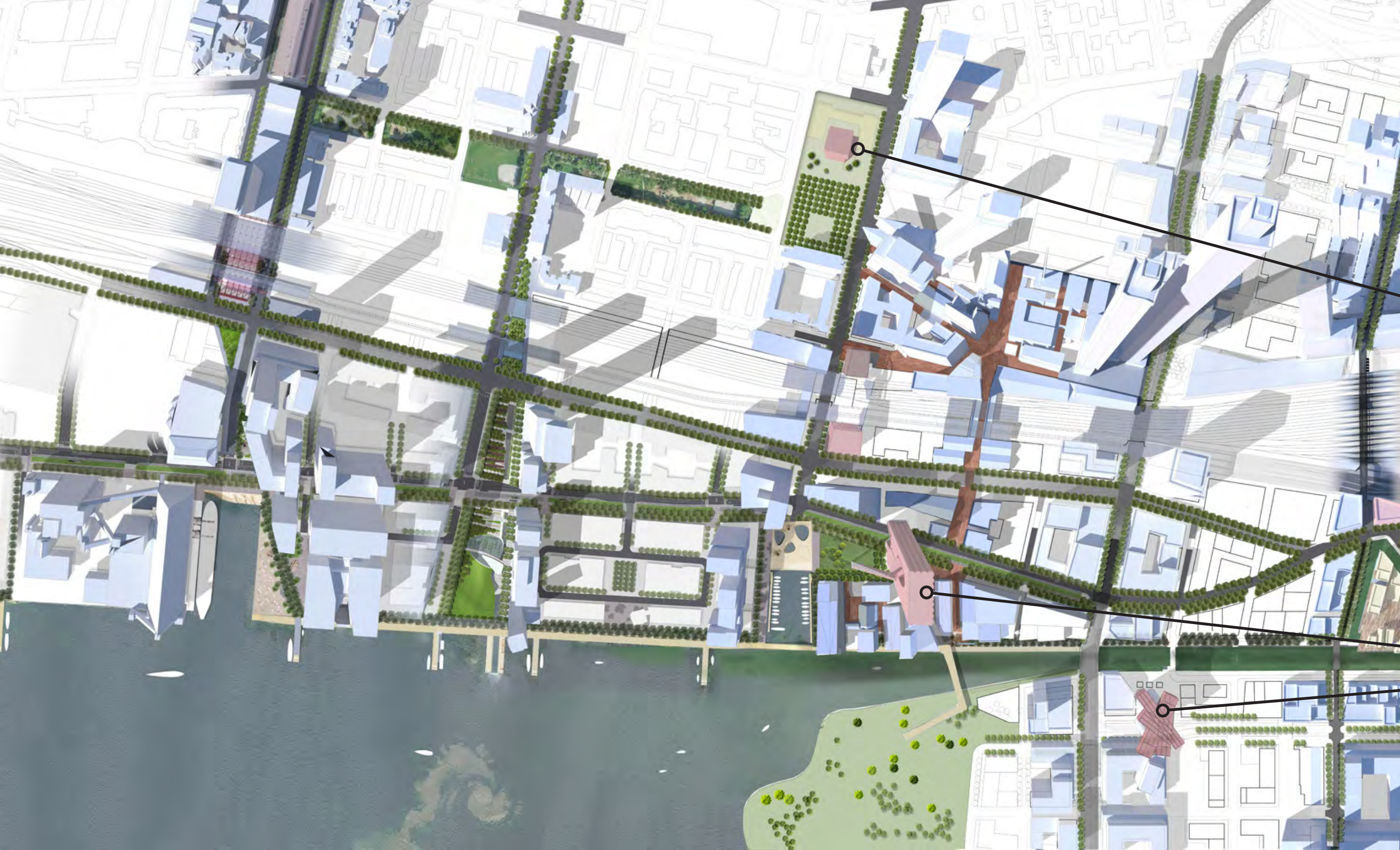


## The Open Landscape at the Mouth of the Don is Complemented by Spectacular Public Infrastructure

Two crossings of the River hold the potential for signature bridge projects by Cecil Balmond.

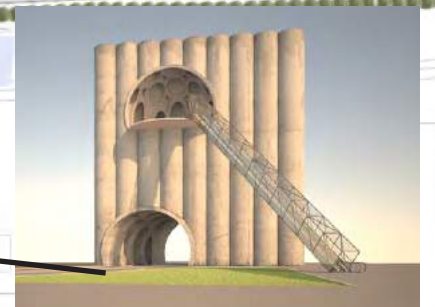






## Special Iconic Buildings are Set Within the District to Reinforce Local Identities and Civic Connections

These buildings should be designed with the highest level of architectural quality and work on an urban level as civic gateways. Their positioning within the plan helps to draw people towards the landmarks and associated public spaces.







## High Density, Low-Mid Rise

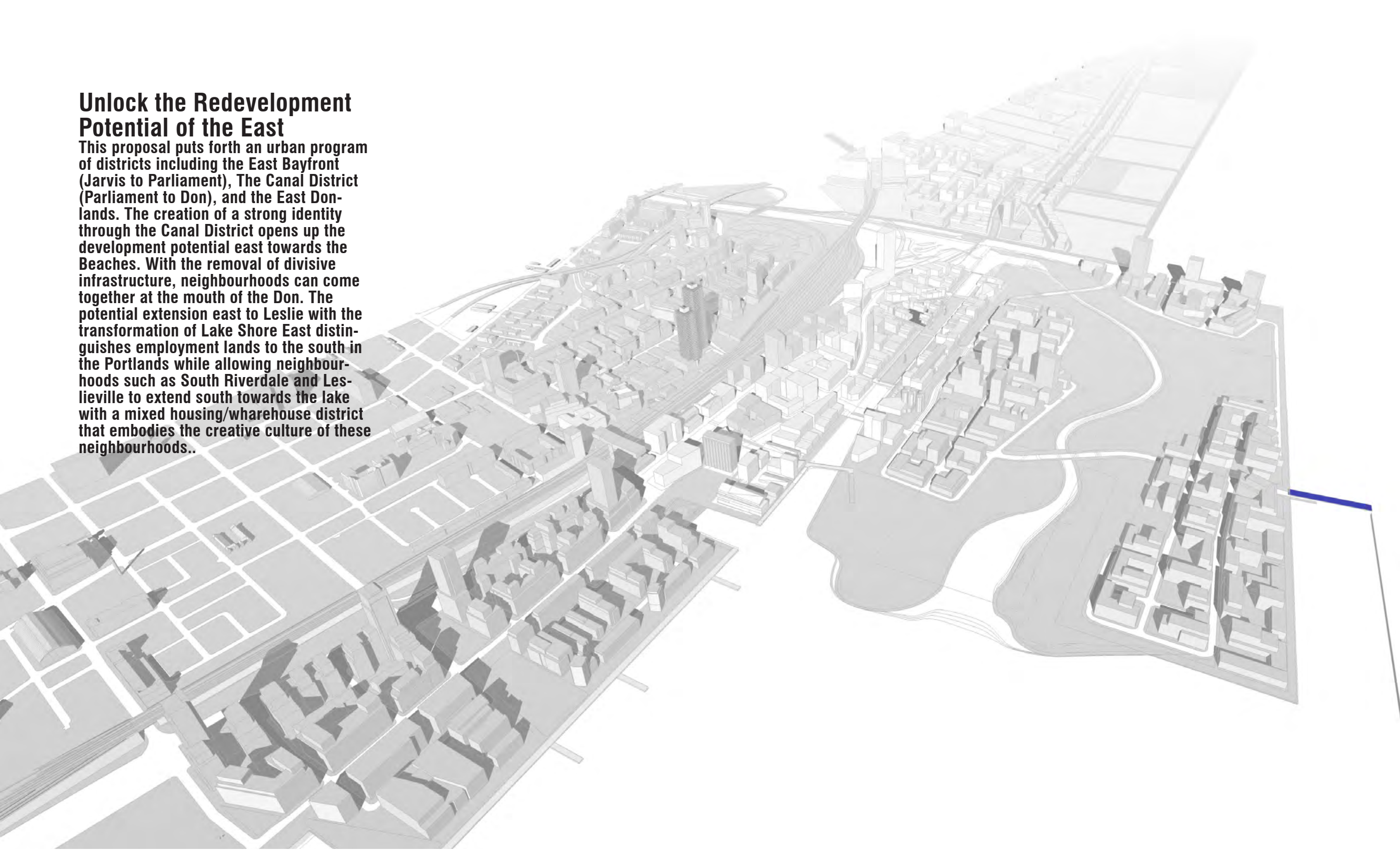
The proposal posits that Toronto seems to be trapped in a habit of producing the same urban forms of development, regardless of site location. We put forward a proposal built upon a notion of diverse, fine grain urban tissue. Diversity of building types, diversity of development and parcelization models, diversity of population demographics that better represent the diversity and DNA of Toronto itself. The economic logic is links closely with creative economies and the desire for a more sustainable development model.

**3. CANAL DISTRICT &**  
**URBAN EXTENSION**  
**OPENS UP THE EAST**



## Unlock the Redevelopment Potential of the East

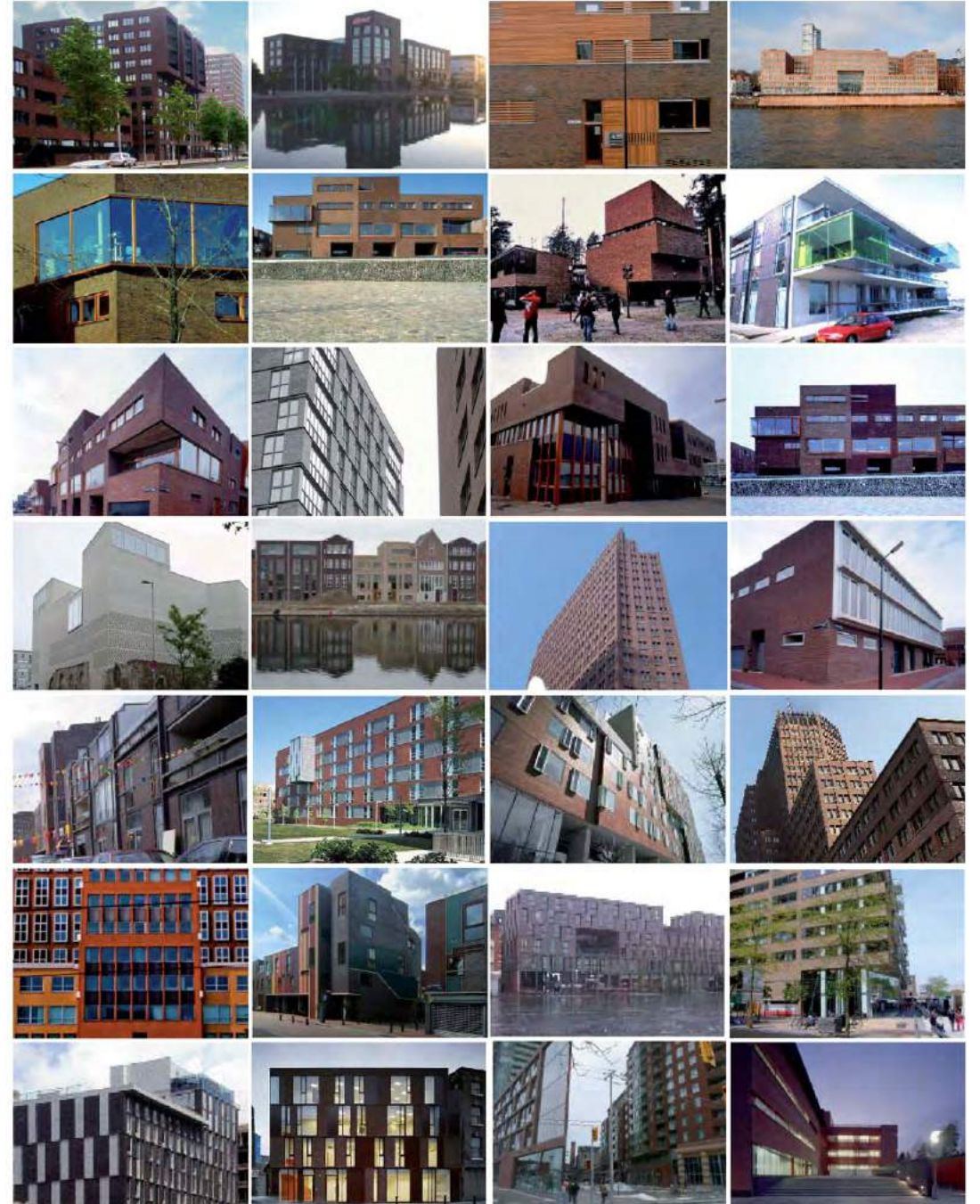
This proposal puts forth an urban program of districts including the East Bayfront (Jarvis to Parliament), The Canal District (Parliament to Don), and the East Donlands. The creation of a strong identity through the Canal District opens up the development potential east towards the Beaches. With the removal of divisive infrastructure, neighbourhoods can come together at the mouth of the Don. The potential extension east to Leslie with the transformation of Lake Shore East distinguishes employment lands to the south in the Portlands while allowing neighbourhoods such as South Riverdale and Leslieville to extend south towards the lake with a mixed housing/warehouse district that embodies the creative culture of these neighbourhoods..



## Coherence, Legibility, and Identity of the District

The new urban districts gathered at the mouth of the Don can take clues from Old Town Toronto in terms of scale, materiality, and block structure. As in the St. Lawrence district, the predominant use of brick as a building material effectively unifies the place as a coherent and memorable district - seemingly independent of the quality of the architecture itself. In Barceloneta (below) this city district distinguishes itself from Barcelona due to its consistent scale of built form and materials. Toronto's next waterfront precinct must set itself apart from the glass and steel and inhuman scale of some of the recent developments in the western downtown to guarantee its own sustainable future and quality of life for its inhabitants.





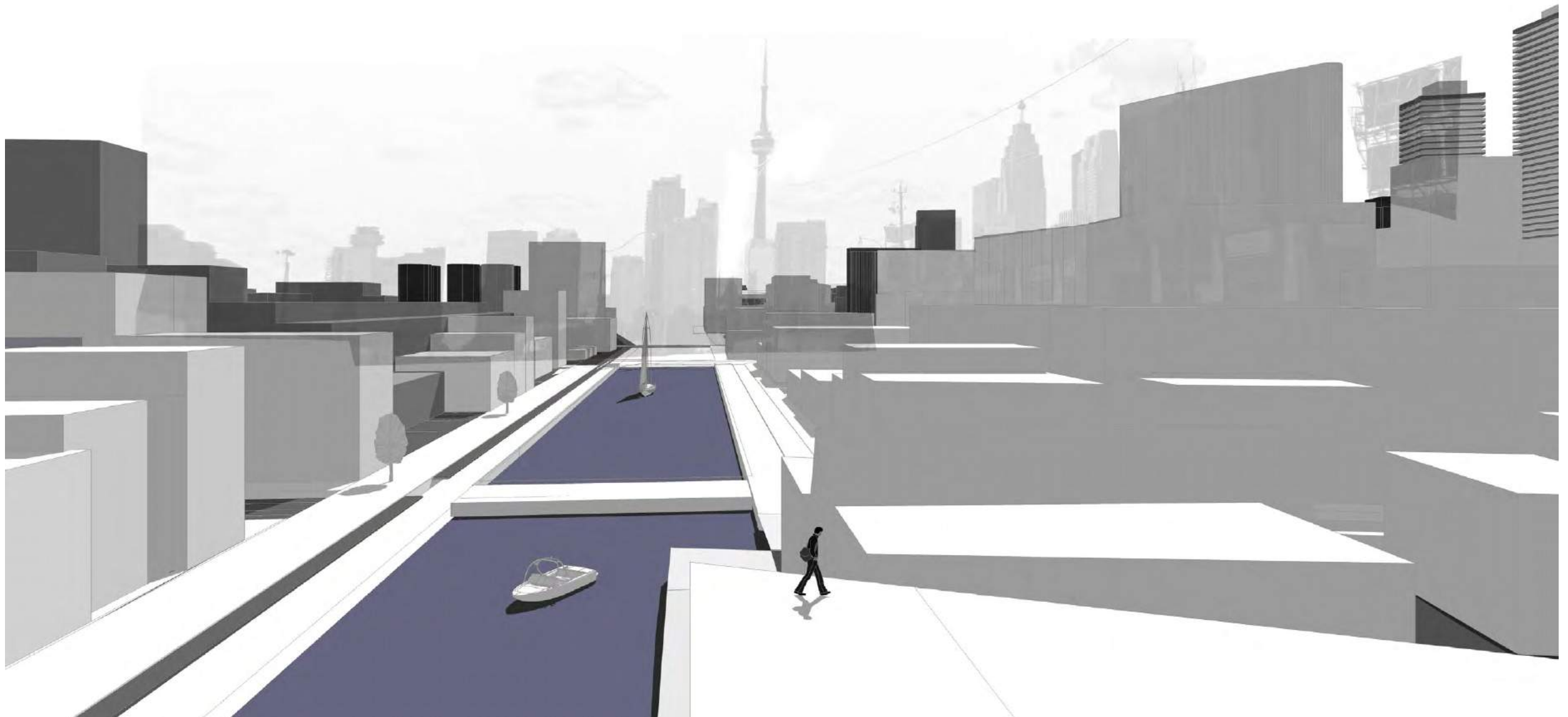


## Evolution of Contemporary timber narrow building types which draw from the Harbour Heritage and Promote a Fine Grain Neighbourhood



1860s. Sailors line up to unload their cargoes of grain at Gooderham's Wharf at the foot of Parliament Street.





## Water Living on the Island Next to the Metropolis

Those fortunate enough to be among the 262 home-owners on the Toronto Islands are able to experience a truly unique format of living within the city of Toronto. We know from other water-cities around the world that these unique areas also tend to have the highest real-estate values.



# Proliferation of 'Water Marketing' among Toronto's Condo Development

For those on the mainland, many of Toronto's staggering 500+ condo buildings compete for sales with promotional materials distinctly targeting water lifestyles. The relationship with water offered by these developments has been mostly reduced to a room with a view from high up in a generic skyline.



## Eau, they love it

Suzanne Wintrob, National Post Saturday, Jun. 19, 2010

Looking to own a piece of waterfront? By the looks of it, developers think everyone does and are eagerly pumping their high-rise and low-rise waterfront properties to anyone who will listen.

From Cobourg to downtown Toronto and all the way to Oakville and Burlington, the waterfront is abuzz with activity. Projects already on the market are pushing their last remaining units, while new developments are either awaiting final approval or are under construction and set to launch.

"People everywhere view waterfront ownership as a sound investment, especially in high demand areas," says Marc Hewitt, president of Niche Development Ltd. building Oakville's Edgemere Private Residences. "Waterfront land is a commodity, and in urban areas such as the GTA, it's a scarce commodity. That makes it a sound investment and something people take great pride in owning."

While Muskoka chairs and pesky black flies may be missing from this urban waterfront equation, it's the idea of waking up and gazing out at the lake -- or walking the dog a block or two to it -- that has purchasers hooked. Even the well-chosen names -- among them Bluwater, River City, South Beach and Westlake-- conjure up thoughts of sand castles and seagulls in a bid to heighten sales.

The lifestyle is so desirable that a decade ago the governments of Toronto, Ontario and Canada joined forces to create Waterfront Toronto, charged with overseeing the renewal of Toronto's waterfront. Derek Goring, director of development at Waterfront Toronto, says the corporation is taking a "holistic" approach to waterfront development by creating people-focused neighbourhoods with a mix of residences, commercial and retail space, public spaces, plus community necessities such as childcare, schools, community centres, libraries and access to transit.

Initially, 13,000 residential units are planned for Toronto's East Bayfront and West Don Lands areas -- 7,000 and 6,000 respectively -- with another 27,000 units expected over the next decade in those 'hoods plus North Keating by the Don River. At least 20% will be affordable housing, says Mr. Goring, and 20% will be rental. All will be LEED Gold-certified. One-quarter of residential design will be devoted to public green space, he adds. In fact, this summer, Canada's Sugar Beach at the foot of Jarvis Street and Sherbourne Park at the foot of Sherbourne Street will open in the East Bayfront area, with construction starting later this fall on Underpass Park and Don River Park in the West Don Lands.

"What makes Toronto's new waterfront communities so appealing is that, not only are they at the water's edge, but they are also in the heart of the city," says Mr. Goring. "This waterfront gives people the best of both worlds -- the beauty and tranquility of life at the lake and the culture and vitality of the urban experience."



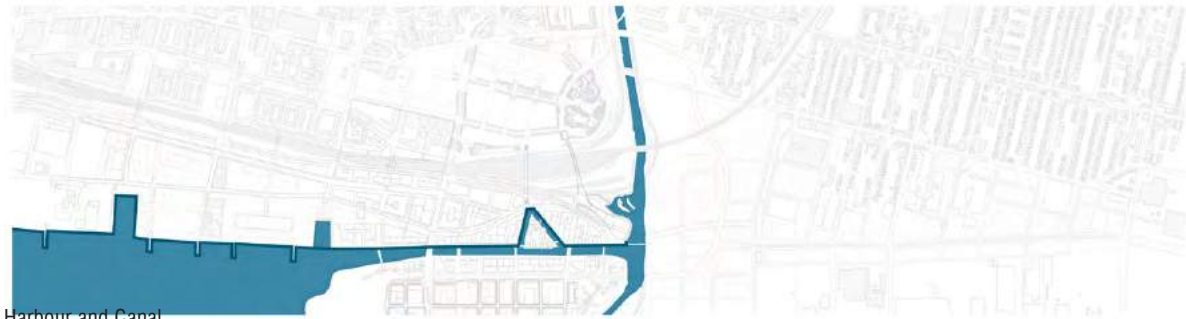
**Toronto's First District Born  
from its Relationship to the  
Water and Linked to the  
Downtown Core**







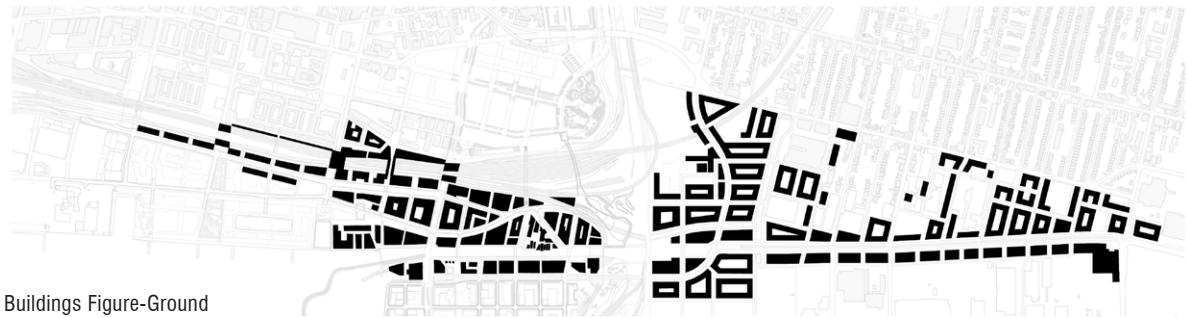
## **Scheme Diagrams**



Harbour and Canal



Traffic Movement



Buildings Figure-Ground



Bike Routes



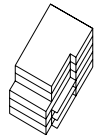
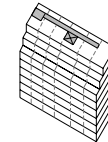
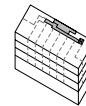
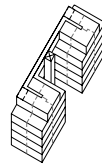
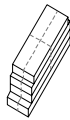
Open Space Figure-Ground



Transit Lines and Major Stations

# Toronto Development Precedents at a Range of Scales

This sampling of small, medium, and large sized urban developments within a single parcel suggests that the market is prepared for a strategy of fine grained urban texture, diverse building types.



**DUNDAS BUILDING**  
-899 Dundas St W

Length: 7m  
Depth: 13m  
Floors - 3  
Commercial at grade  
Residence and studio above  
Architect - Kohn Schnier



**SUPERKUL OFFICE**  
-2208 Dundas St W

Length: 7m  
Depth: 17m  
Floors - 3  
Office at grade and basement  
Residence above  
Architect - Superkul Inc



**ALISON SMITH GALLERY**  
-1412 Dundas St W

Length: 4m  
Depth: 25m  
Floors - 2  
Commercial gallery and office at grade  
Residence above  
Architect - Superkul Inc



**RIVERSIDE LOFTS**  
-747 Queen St E

Length: 11m  
Depth: 38m  
Floors - 4  
Commercial at grade  
Units - 12  
Developer - Streetcar Development Inc.



**645 KING ST W**

Length: 8m  
Depth: 30m  
Floors - 6  
Commercial and Office



**STAGEEAST LOFTS**

Length: 16m  
Depth: 57m  
Floors - 5  
Commercial at grade  
Residential units - 24  
Architect - Raw Design  
Developer - Neilas Inc.



**2 OSSINGTON**

Length: 33m  
Depth: 13m  
Floors - 4  
Units - 18  
Largest Suite - 927 sq.ft. (?)  
Smallest Suite - 400 sq.ft. (?)  
Architect - SMV Architects  
Developer - NDS Development



**CUBE LOFTS**  
- 799 College Street

Length: 26m  
Depth: 28m  
Floors - 6  
Units - 21  
Largest Suite - 196.58m<sup>2</sup> (2,115.97ft<sup>2</sup>)  
Smallest Suite - 50.45m<sup>2</sup> (543.04ft<sup>2</sup>)  
Architect - Raw Design  
Developer - Neilas Inc.



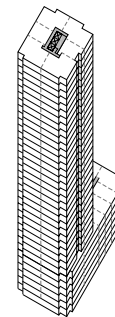
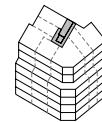
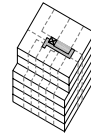
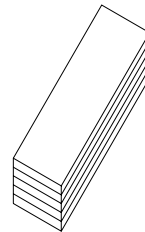
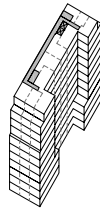
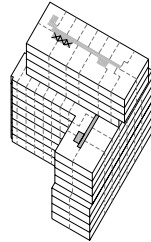
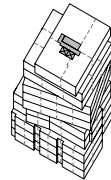
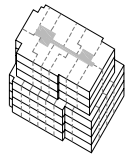
**CAMDEN LOFTS**  
- 29 Camden Street

Length: 40m  
Depth: 19m  
Floors - 8  
Units - 48  
Largest Suite - ?  
Smallest Suite - ?  
Architect - Core Architects Inc., Oleson Worland Architect  
Developer - Dundee Realty, Urban Capital Property Group



**19 RIVER STREET**

Length: 23m  
Depth: 37m  
Floors - 5  
Units - 38  
Height - 22.45m (73.65ft)  
Largest Suite - 105.82m<sup>2</sup> (1,139ft<sup>2</sup>)  
Smallest Suite - 71.44m<sup>2</sup> (769ft<sup>2</sup>)  
Architect - IBI Group  
Developer - Streetcar Development Inc.



**SYNC LOFTS**  
- 630 Queen Street East

Length: 43m  
Depth: 31m  
Commercial - 700m<sup>2</sup> (7,534.74F)  
Residential - 4,832.12m<sup>2</sup> (52,012.51F)  
Floors - 8  
Underground Floors - 2  
Height - 27.24m (89.37f)  
Number of Residential Suites - 97  
Architect - Arsenaull Architects  
Developer - Streetcar Development Inc.

**12 DEGREES CONDO**  
- Beverley St and Queen St

Length: 38m  
Depth: 32m  
Floors - 11  
Number of Suites - 95  
Largest Suite - 157.94m<sup>2</sup> (1,700F)  
Smallest Suite - 41.81m<sup>2</sup> (450F)  
Architect - Core Architects Inc.  
Developer - BSaR

**FASHION HOUSE**  
570 King St W

Length: 54m  
Depth: 57m  
Floors - 12  
Number of Residential Suites - 320  
Architect - Core Architects Inc.  
Developer - Freed Developments

**473 Adelaide St W**

Length: 16m  
Depth: 55m  
Floors - 11

**THE WRIGLEY LOFTS**  
245 Carlaw Ave.

Length: 25m  
Depth: 80m  
Floors - 5

**CORKTOWN DISTRICT**  
569 King St E

Length: 27m  
Depth: 27m  
Floors - 6  
Height - 21.4m (70.21f)  
Units - 46  
Commercial - 430.86m<sup>2</sup> (4,637.74F)  
Largest Suite - 142.88m<sup>2</sup> (1,537.95F)  
Smallest Suite - 42.74m<sup>2</sup> (460.05F)  
Architect - Quadrangle Architects Ltd.  
Developer - Streetcar Development Inc.

**549 King St E**

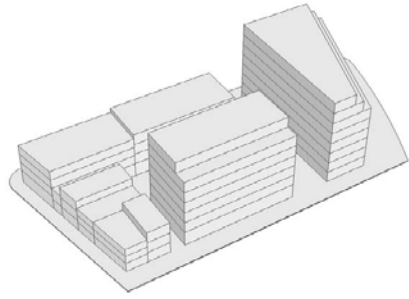
Length: 28m  
Depth: 24m  
Floors - 6  
Height - 21.2m (69.55f)  
Units - 48  
Commercial - 512m<sup>2</sup> (5,511.12F)  
Largest Suite - 142.88m<sup>2</sup> (1,537.95F)  
Smallest Suite - 42.74m<sup>2</sup> (460.05F)  
Architect - Quadrangle Architects Ltd.  
Developer - Streetcar Development Inc.

**18 Yorkville Ave**

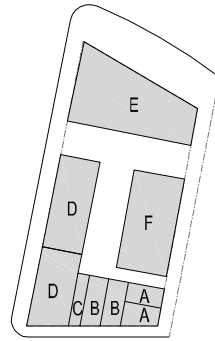
Base	Tower
Length: 26	Length: 26
Depth: 52m	Depth: 26m
Floors - 6	Floors - 30
Height - 107m (351.05f)	
Units - 314	
Largest Suite - 249.63m <sup>2</sup> (2,686.99F)	
Smallest Suite - 43.76m <sup>2</sup> (471.03F)	
Architect - Architects Alliance	
Developer - Great Gulf Homes	

# Application of Toronto Precedents to Typical Blocks

## Sample Development Scenerios



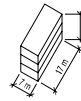
TYPICAL BLOCK - KEATING CHANNEL DISTRICT



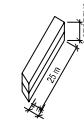
899  
DUNDAS  
ST W



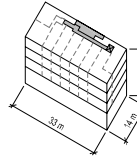
2208  
DUNDAS  
ST W



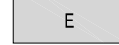
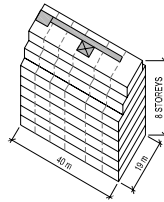
1412  
DUNDAS  
ST W



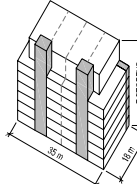
2 OSSINGTON



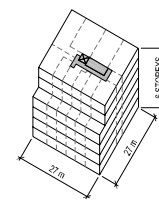
CAMDEN LOFTS



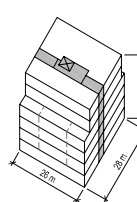
20 NIAGARA



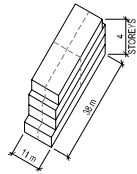
CORKTOWN DISTRICT  
-569 KING ST E



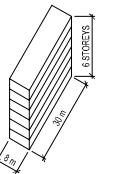
CUBE LOFTS



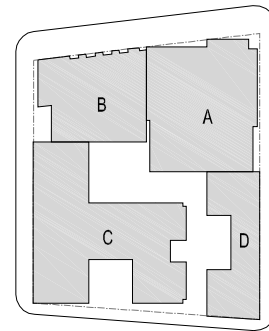
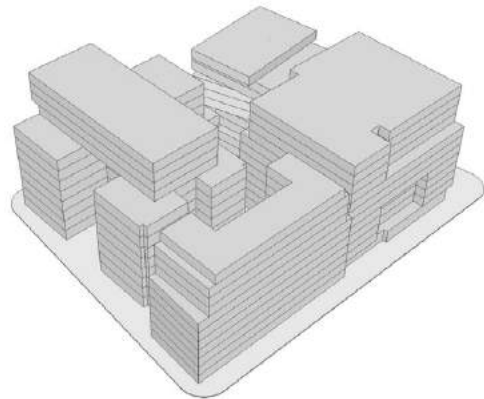
RIVERSIDE LOFTS  
- 747 QUEEN ST



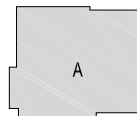
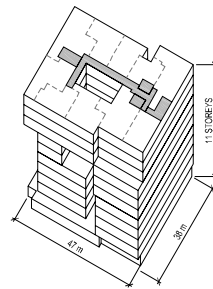
645  
KING ST W



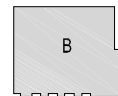
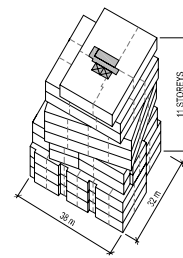
TYPICAL BLOCK - WEST OF CHERRY



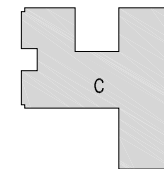
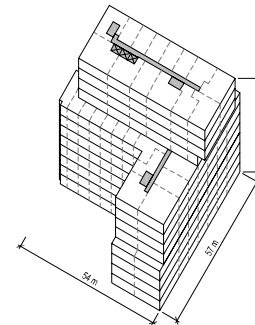
60 RICHMOND



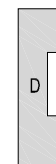
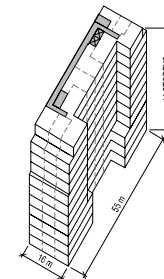
12 DEGREES



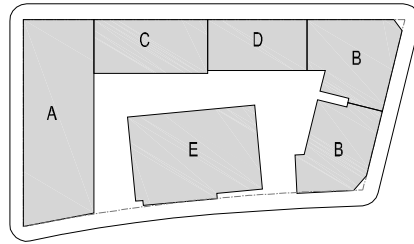
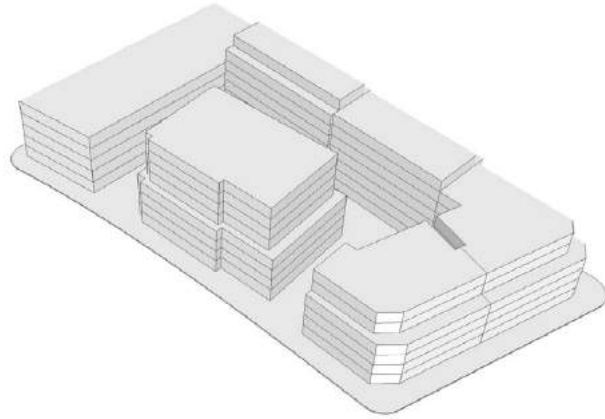
FASHION HOUSE  
- KING BUILDING



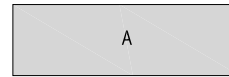
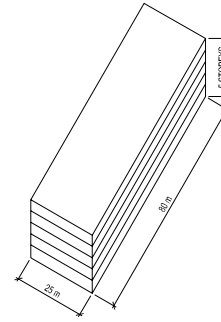
FASHION HOUSE  
- ADELAIDE BLDG



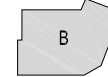
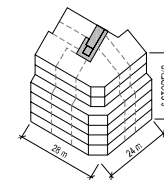
TYPICAL BLOCK - EAST DONLANDS



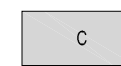
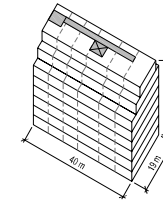
THE WRIGLEY LOFTS  
- 245 CARLAW



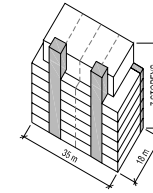
CORKTOWN DISTRICT  
- 549 KING ST E



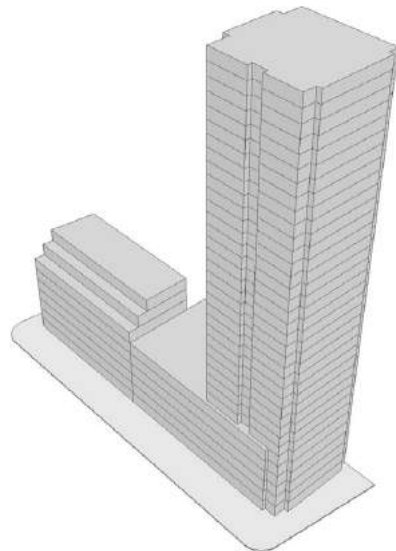
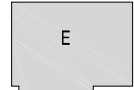
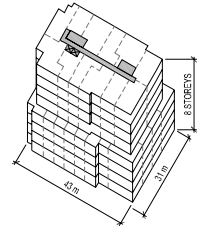
CAMDEN LOFTS



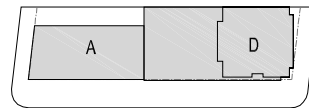
20 NIAGARA



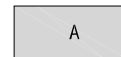
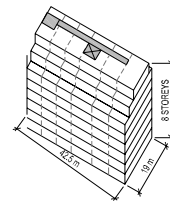
SYNC LOFTS



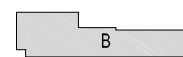
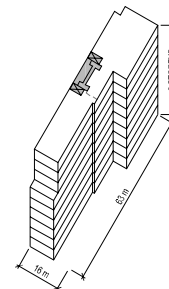
TYPICAL BLOCK - EMBANKMENT



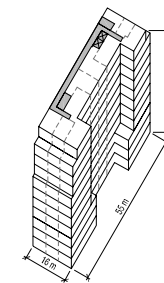
CAMDEN LOFTS



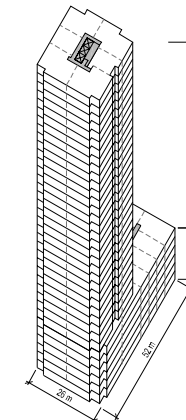
500 WELLINGTON



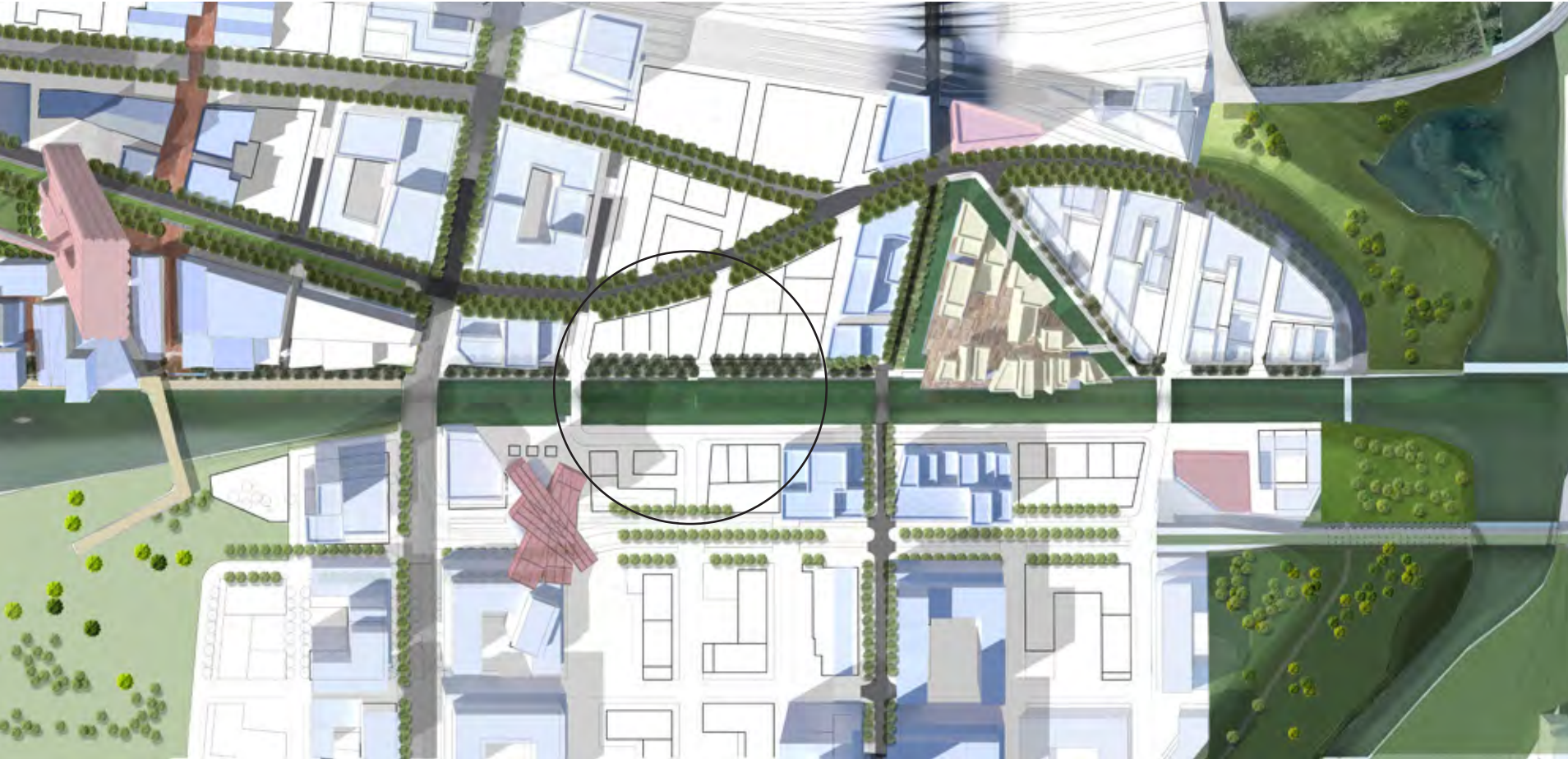
FASHION HOUSE  
- ADELAIDE BLDG



18 YORKVILLE



**Canal District**  
View east along the Keating Channel







**Then: Timber Piers, Wharves,  
and Sheds along the Harbour**

A vital land/water interface where the city and  
its lakefront were in continual exchange



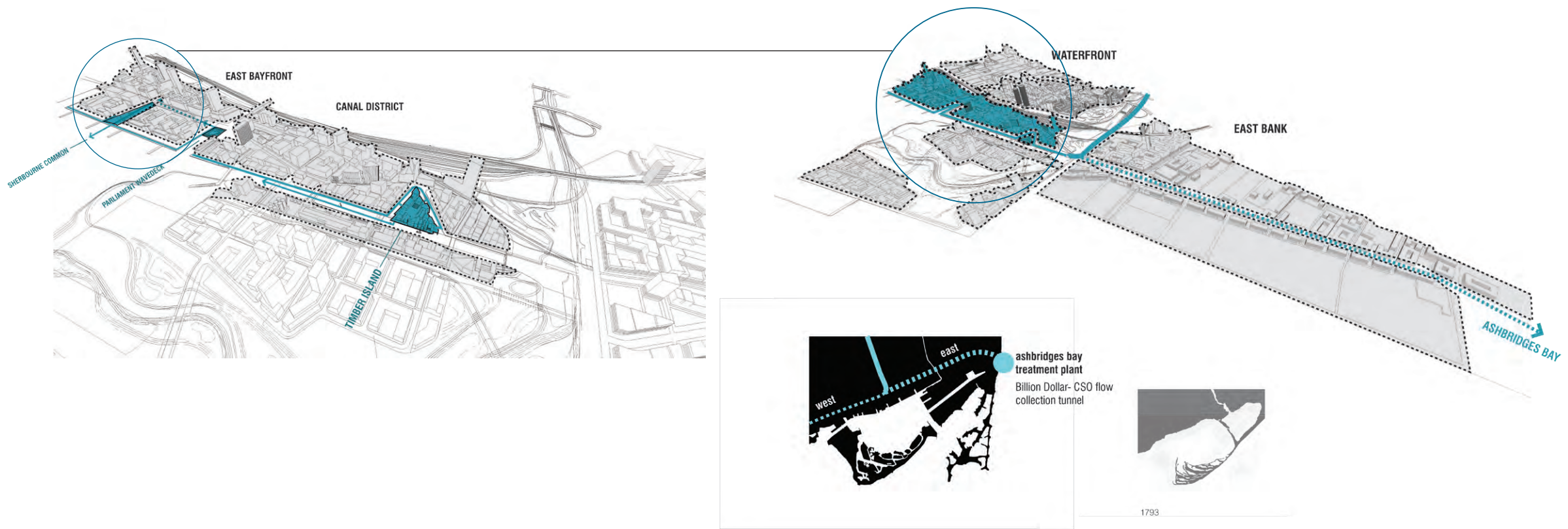
## Now: Canal Wharf Island

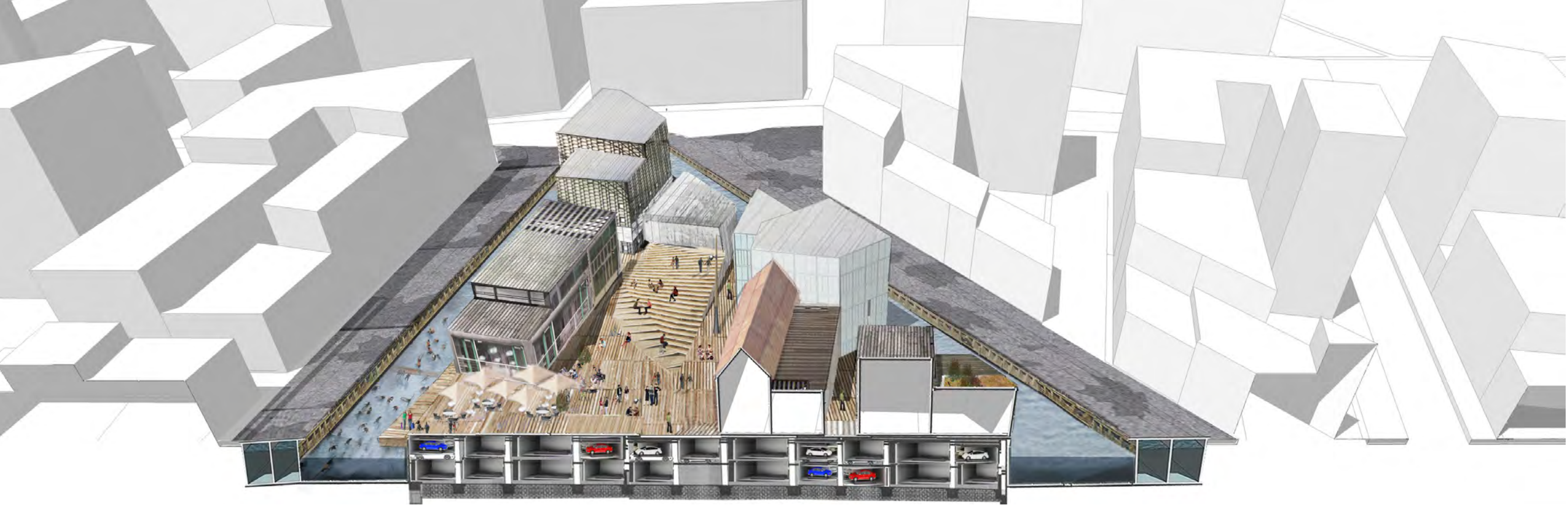
A pedestrianized timber triangular island features an eclectic mix of dense, small-scaled wooden buildings inspired by the timber sheds and structures of the historic harbour wharfs. The island forms the centre of the Canal District, filled with cafes, bars, restaurants and boutiques and a market square. It is surrounded by a canal inlet, which serves as the final natural UV stage in the water-cleaning process of the stormwater management system. Here, the canal becomes a central public amenity that is fit for canoeing, skating in winter – even swimming in summer!



# Stormwater Infrastructure as Public Amenity

The inner 'V' canal branching off of the Keating Channel provides the infrastructure for water-cleaning of stormwater for the overall district.





## Island Water-Cleaning Machine

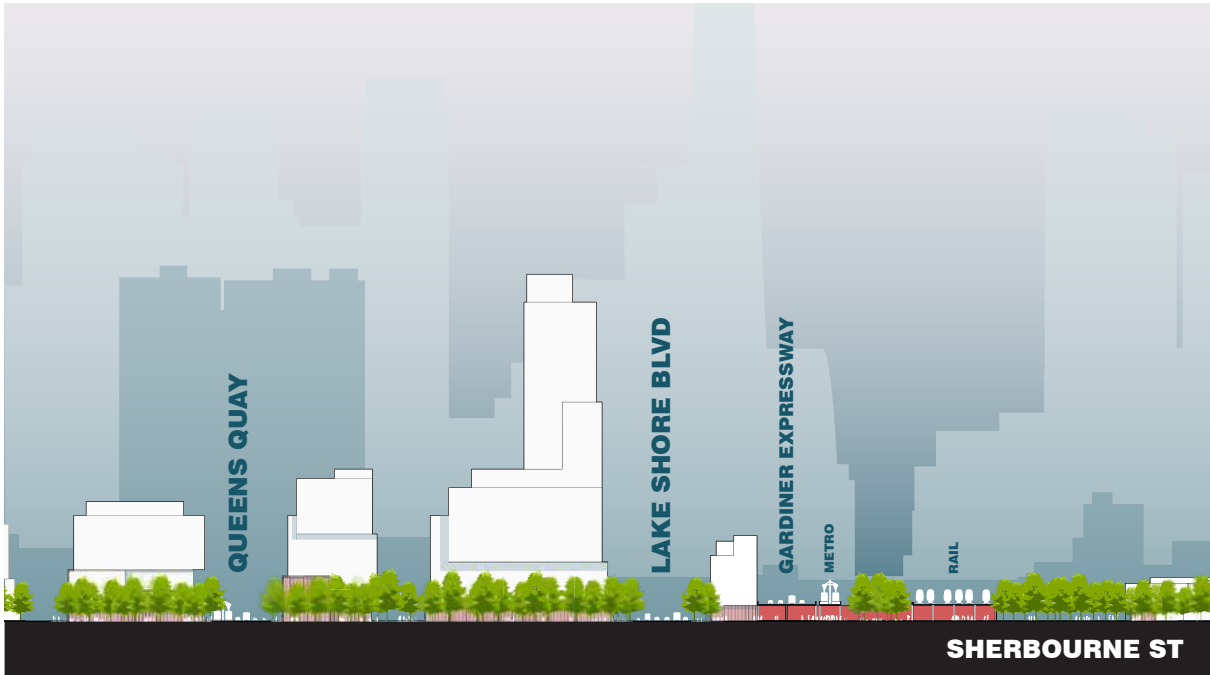
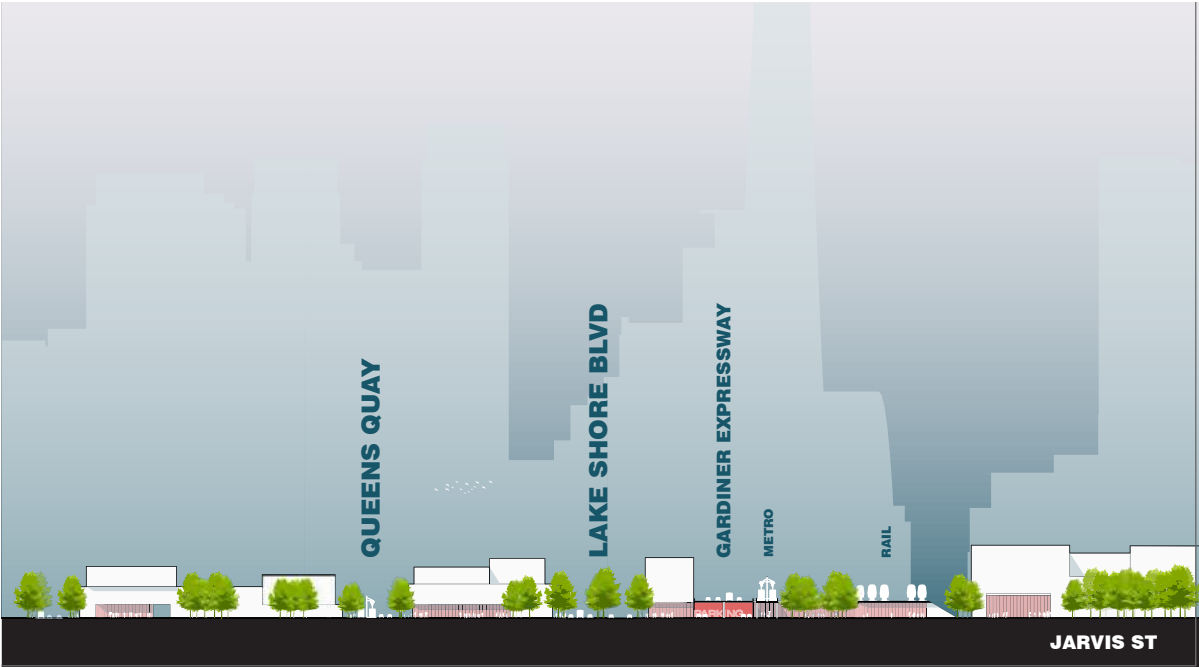
The infrastructure here is the public amenity. Tanks set within the dockwall provide the first phases of watercleaning. The 'V' canal provides natural UV cleaning and can be linked to an area safe for swimming. Underneath the island lies a parking resource for the core of the district.

## Timber Island, Intimate Scale

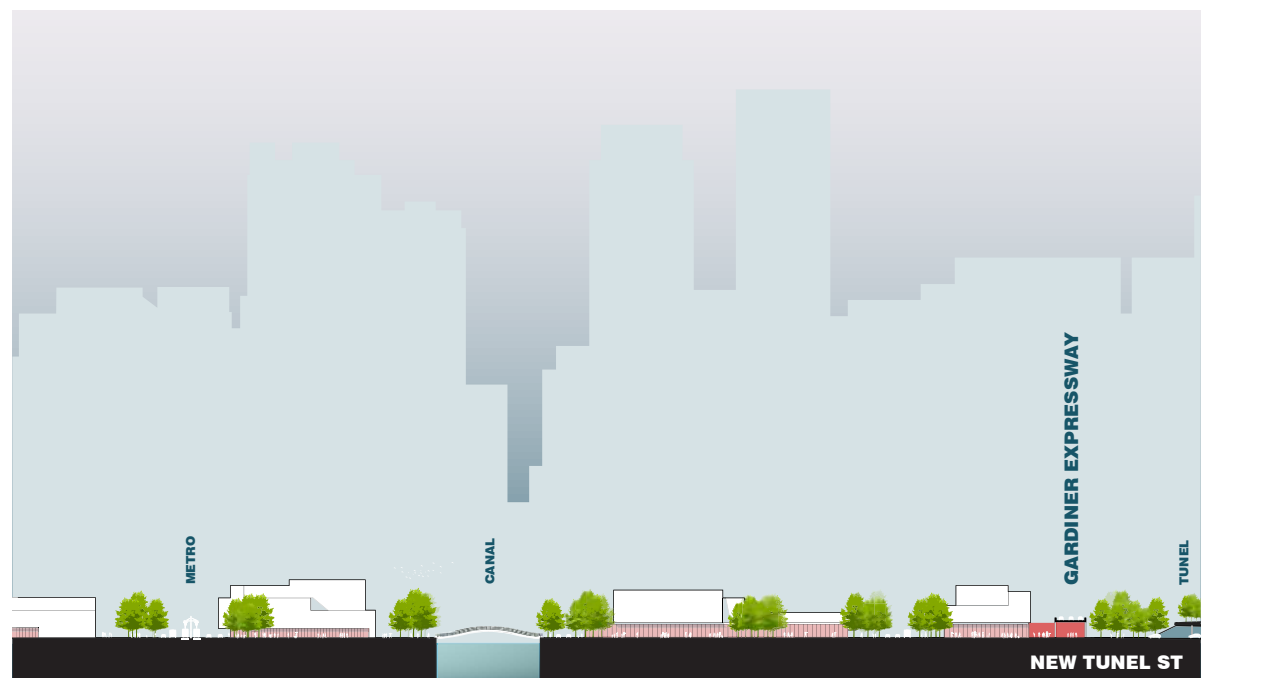
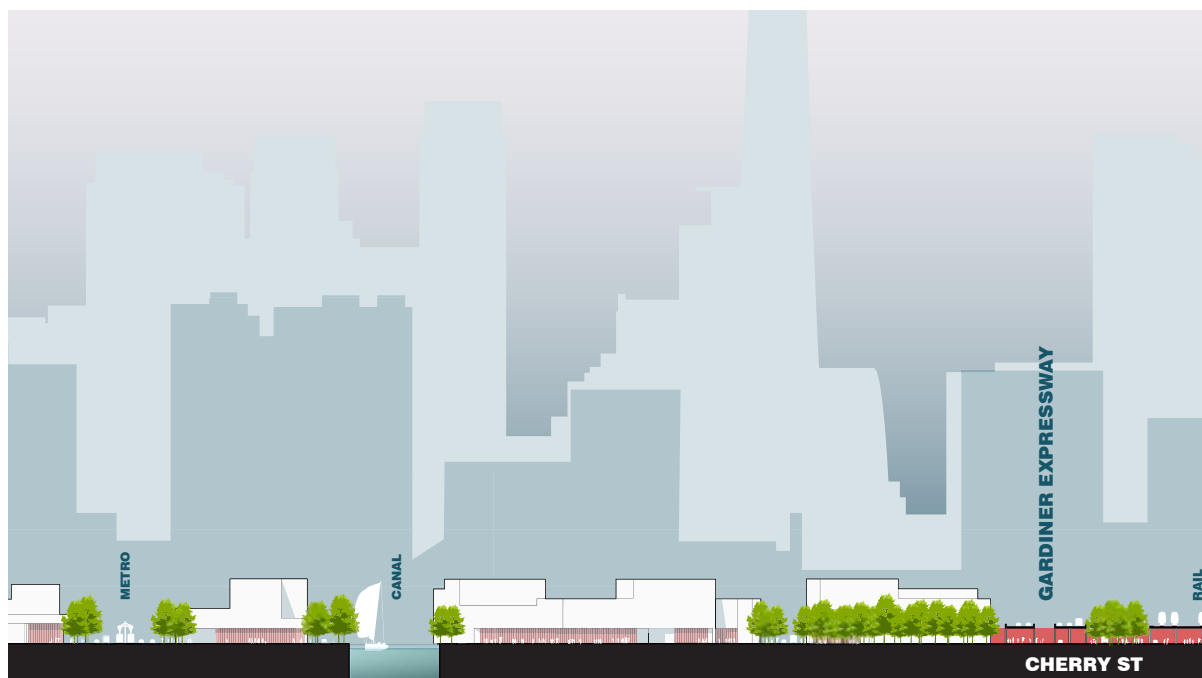
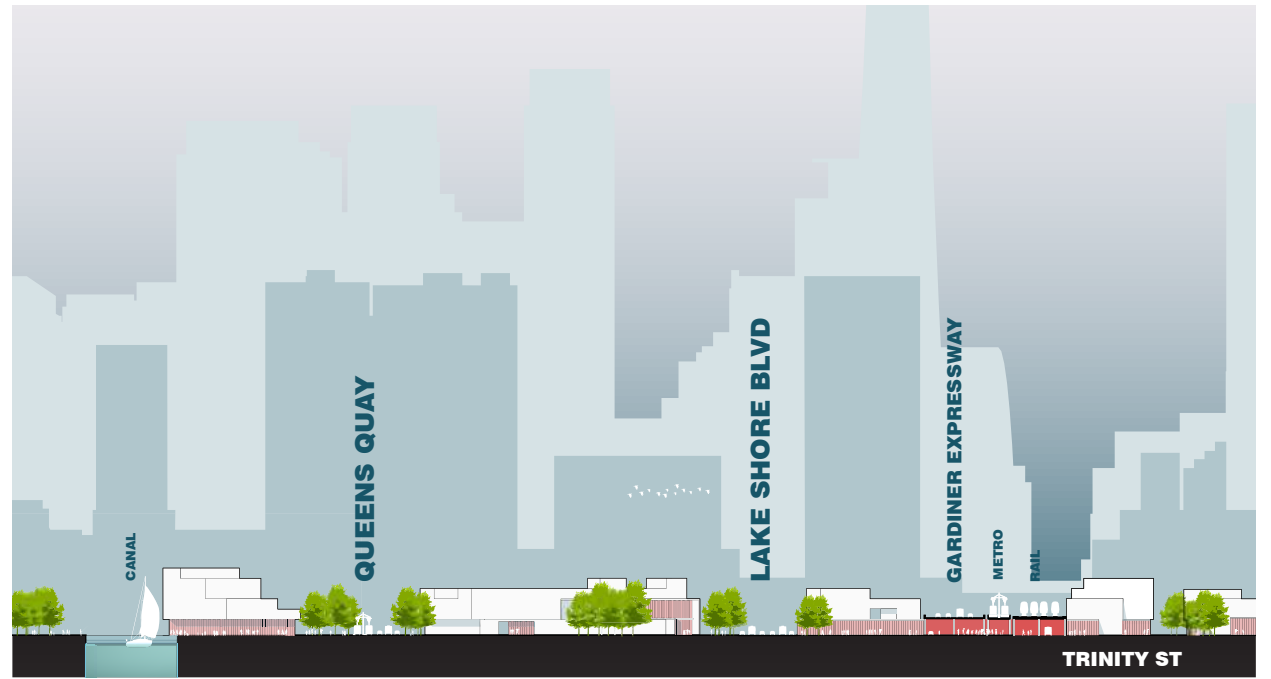
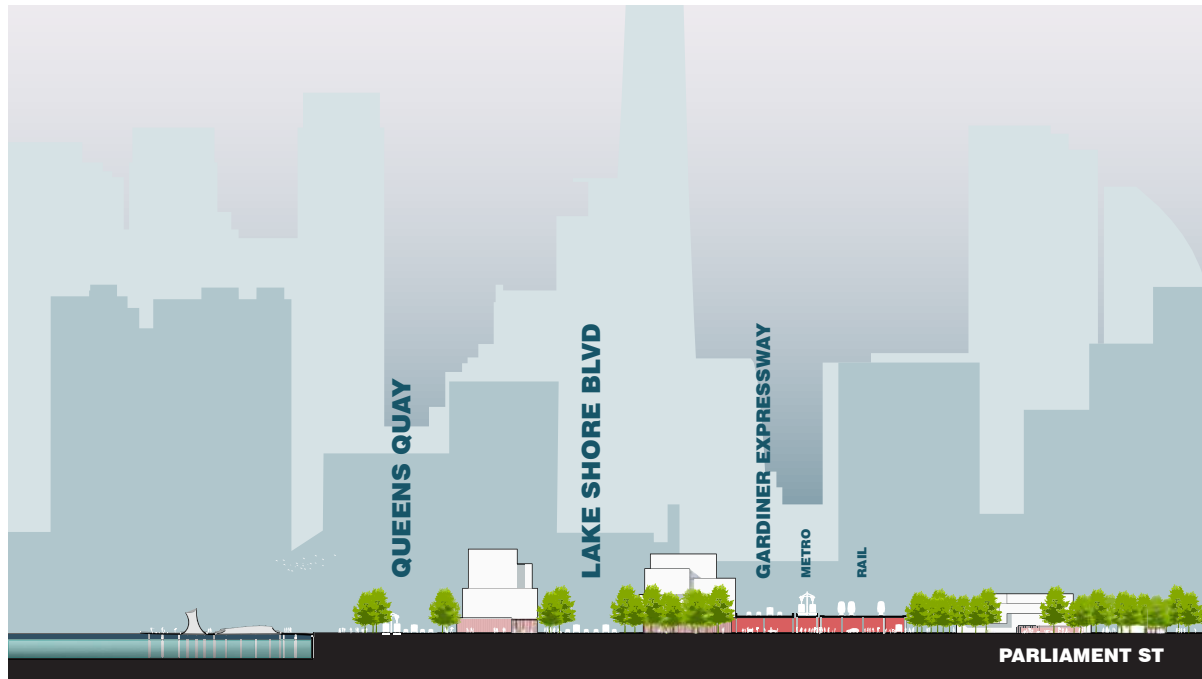
Scaled for pedestrians, Timber Island will become the winter place for gathering with its intimate spaces and comfortable micro-climate in all seasons.











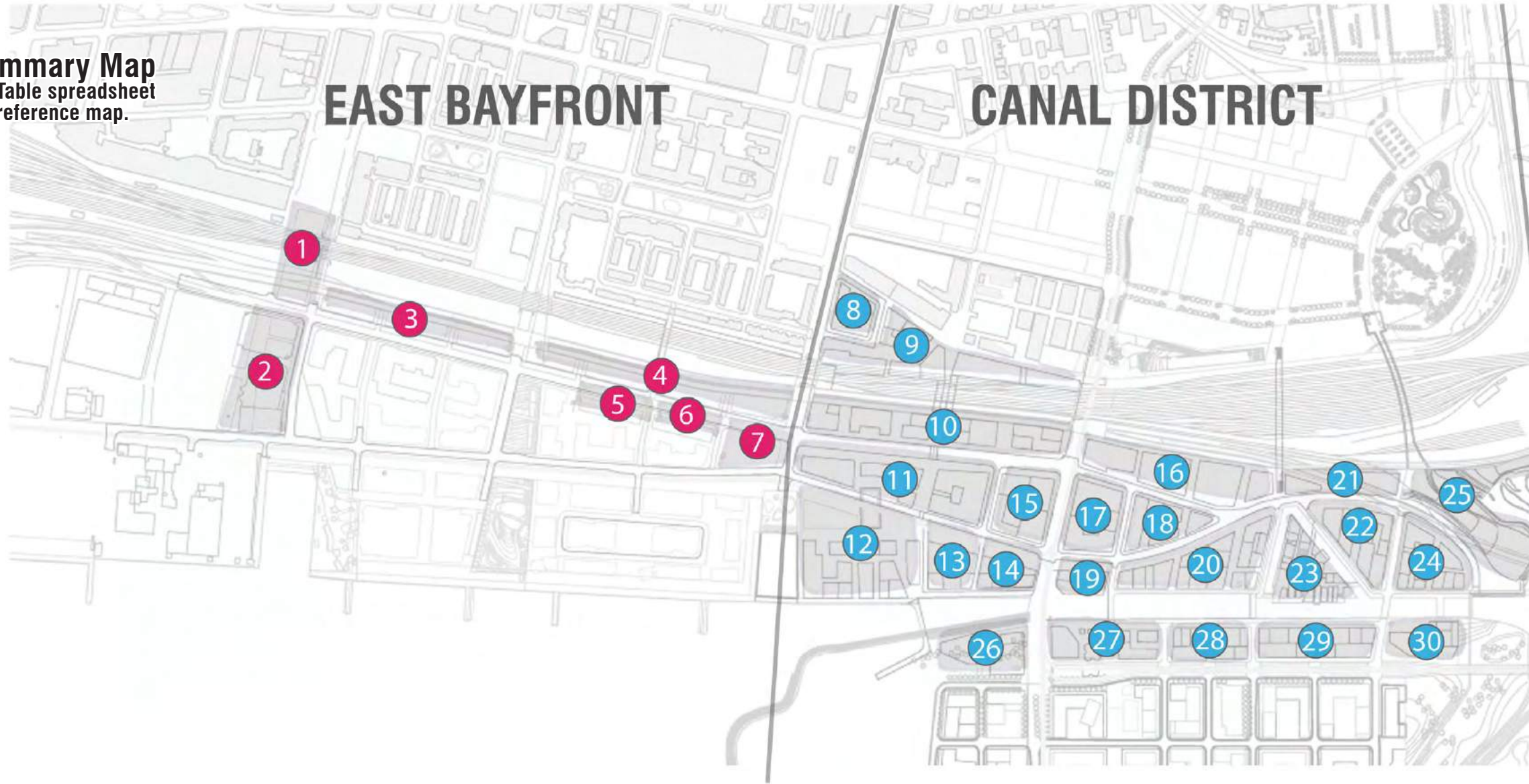


## Environment After

The mouth of the Don River is opened up so it has space to breathe, with a green shoreline that enhances the biotopes and aquatic habitat through the creation of islands, or shoals.



**Master Plan Summary Map**  
Refer to the Summary Table spreadsheet  
that accompanies this reference map.



# EAST DON LANDS

# SOUTH OF EASTERN





Block Number	Site Area	# OF BLDGS	BLDG	BLDG Height	Stories	Footprint	GFA	MAX Block Height	Max BLDG Stories
1	7997	1	A	5	1	4,357	4,357	4,357	5
<b>Total</b>	<b>8</b>	<b>1</b>		<b>5</b>	<b>1</b>	<b>4,357</b>	<b>4,357</b>	<b>4,357</b>	<b>5</b>
2	17773	3	A B C	20 20 20	6 6 6	1,675 1,596 5,998	10,050 9,576 35,988		
<b>Total</b>	<b>18</b>	<b>3</b>		<b>20</b>	<b>6</b>	<b>9,269</b>	<b>55,614</b>	<b>20</b>	<b>20</b>
3	9227	3	A B C	20 20 20	6 6 6	1,693 1,901 1,652	10,158 11,406 9,912		
<b>Total</b>	<b>9</b>	<b>3</b>		<b>20</b>	<b>6</b>	<b>5,246</b>	<b>31,476</b>	<b>20</b>	<b>20</b>
4	13417	4	A B C D	20 20 20 20	6 6 6 6	992 1,999 1,973 2,338	5,952 11,994 11,838 14,028		
<b>Total</b>	<b>13</b>	<b>4</b>		<b>20</b>	<b>6</b>	<b>7,302</b>	<b>43,812</b>	<b>20</b>	<b>20</b>
5	3368	1	A	20	6	1,879	11,274		
<b>Total</b>	<b>3</b>	<b>1</b>		<b>20</b>	<b>6</b>	<b>1,879</b>	<b>11,274</b>	<b>20</b>	<b>20</b>
6	3188	1	A	20	6	1,827	10,962		
<b>Total</b>	<b>3</b>	<b>1</b>		<b>20</b>	<b>6</b>	<b>1,827</b>	<b>10,962</b>	<b>20</b>	<b>20</b>
7	4617	1	A	20	6	3,090	18,540		
<b>Total</b>	<b>5</b>	<b>1</b>		<b>20</b>	<b>6</b>	<b>3,090</b>	<b>18,540</b>	<b>20</b>	<b>20</b>
8	5028	1	A	24	7	2,747	20,145		
<b>Total</b>	<b>5</b>	<b>1</b>		<b>24</b>	<b>7</b>	<b>2,747</b>	<b>20,145</b>	<b>24</b>	<b>24</b>
9	23034	5	A B C D E	25 6 6 9 9	8 1 1 2 2	2,549 3,904 2,498 2,986 1,680	19,542 5,205 3,331 6,967 3,920		
<b>Total</b>	<b>23</b>	<b>5</b>		<b>11</b>	<b>3</b>	<b>13,617</b>	<b>38,966</b>	<b>25</b>	<b>25</b>
10	17696	5	A B C D E	38 42 18 24 42	12 13 5 7 13	1,666 1,912 1,455 2,951 2,566	19,992 25,493 7,760 21,641 34,213		
<b>Total</b>	<b>18</b>	<b>5</b>		<b>33</b>	<b>10</b>	<b>10,550</b>	<b>109,099</b>	<b>42</b>	<b>42</b>
11	20221	4	A B C D	40 14 21 14	13 4 6 4	2,455 2,095 5,087 481	31,097 8,380 32,218 1,924		
<b>Total</b>	<b>20</b>	<b>4</b>		<b>22</b>	<b>7</b>	<b>10,118</b>	<b>73,618</b>	<b>40</b>	<b>40</b>
12	25727	6	A B C D E F	59 27 30 14 7 27	19 8 9 4 2 8	1,800 4,122 1,978 1,224 1,150 1,735	34,200 34,350 18,461 4,896 1,917 14,458		
<b>Total</b>	<b>26</b>	<b>6</b>		<b>27</b>	<b>8</b>	<b>12,009</b>	<b>108,282</b>	<b>59</b>	<b>59</b>
13	6746	1	A	25	8	4,242	32,522		
<b>Total</b>	<b>7</b>	<b>1</b>		<b>25</b>	<b>8</b>	<b>4,242</b>	<b>32,522</b>	<b>25</b>	<b>25</b>
14	5638	1	A	25	8	3,112	23,859		
<b>Total</b>	<b>6</b>	<b>1</b>		<b>25</b>	<b>8</b>	<b>3,112</b>	<b>23,859</b>	<b>25</b>	<b>25</b>
15	9701	1	A	35	11	5,997	65,967		
<b>Total</b>	<b>10</b>	<b>1</b>		<b>35</b>	<b>11</b>	<b>5,997</b>	<b>65,967</b>	<b>35</b>	<b>35</b>
16	15619	3	A B C	52 43 29	17 14 9	2,830 3,710 3,983	47,167 50,703 35,847		
<b>Total</b>	<b>16</b>	<b>3</b>		<b>41</b>	<b>13</b>	<b>10,523</b>	<b>133,717</b>	<b>52</b>	<b>52</b>
17	9357	1	A	24	7	5,844	42,856		
<b>Total</b>	<b>9</b>	<b>1</b>		<b>24</b>	<b>7</b>	<b>5,844</b>	<b>42,856</b>	<b>24</b>	<b>24</b>
18	7698	3	A B C	24 40 68	7 13 22	2,595 1,060 724	19,030 13,427 15,928		
<b>Total</b>	<b>8</b>	<b>3</b>		<b>44</b>	<b>14</b>	<b>4,379</b>	<b>48,385</b>	<b>68</b>	<b>68</b>
19	4600	1	A	20	6	2,449	14,694		
<b>Total</b>	<b>5</b>	<b>1</b>		<b>20</b>	<b>6</b>	<b>2,449</b>	<b>14,694</b>	<b>20</b>	<b>20</b>

20	17229	4	A	15	4	2,556	11,076		
			B	22	7	4,722	31,480		
			C	25	8	2,459	18,852		
			D	12	3	884	2,947		
<b>Total</b>	<b>17</b>	<b>19</b>	<b>6</b>	<b>10,621</b>	<b>6</b>	<b>10,621</b>	<b>64,355</b>	<b>25</b>	<b>8</b>
21	9278	3	A	52	17	1,498	24,967		
			B	24	7	889	6,519		
			C	124	41	1,592	64,741		
<b>Total</b>	<b>9</b>	<b>67</b>	<b>22</b>	<b>3,979</b>	<b>124</b>	<b>3,979</b>	<b>96,227</b>	<b>124</b>	<b>41</b>
22	10837	2	A	24	7	2,373	17,402		
			B	22	7	3,724	24,827		
<b>Total</b>	<b>11</b>	<b>7</b>	<b>6,097</b>	<b>42,229</b>	<b>24</b>	<b>6,097</b>	<b>42,229</b>	<b>24</b>	<b>7</b>
23	8841	6	A	14	4	1,384	5,536		
			B	9	2	334	779		
			C	15	4	1,405	6,088		
			D	13	4	645	2,580		
			E	14	4	1,067	4,624		
			F	15	4	213	805		
<b>Total</b>	<b>9</b>	<b>13</b>	<b>4</b>	<b>5,048</b>	<b>15</b>	<b>5,048</b>	<b>19,607</b>	<b>15</b>	<b>4</b>
24	10005	3	A	21	6	3,478	22,027		
			B	22	7	885	5,900		
			C	21	6	1,089	6,897		
<b>Total</b>	<b>10</b>	<b>21</b>	<b>6</b>	<b>5,452</b>	<b>22</b>	<b>5,452</b>	<b>34,824</b>	<b>22</b>	<b>7</b>
25	21562	0	0	0	0	0	0	0	0
<b>Total</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
26	9869	2	A	18	5	1,750	9,333		
			B	33	10	3,196	33,025		
<b>Total</b>	<b>10</b>	<b>26</b>	<b>8</b>	<b>4,946</b>	<b>33</b>	<b>4,946</b>	<b>42,359</b>	<b>33</b>	<b>10</b>
27	9967	3	A	14	4	1,680	6,720		
			B	17	5	1,406	7,030		
			C	11	3	485	1,455		
<b>Total</b>	<b>10</b>	<b>14</b>	<b>4</b>	<b>3,571</b>	<b>17</b>	<b>3,571</b>	<b>15,205</b>	<b>17</b>	<b>5</b>
28	6799	2	A	14	4	2,314	9,256		
			B	16	5	2,457	11,466		
<b>Total</b>	<b>7</b>	<b>15</b>	<b>4</b>	<b>4,771</b>	<b>16</b>	<b>4,771</b>	<b>20,722</b>	<b>16</b>	<b>5</b>
29	9874	2	A	16	5	3,457	16,133		
			B	16	5	3,657	17,066		
<b>Total</b>	<b>10</b>	<b>16</b>	<b>5</b>	<b>7,114</b>	<b>16</b>	<b>7,114</b>	<b>33,199</b>	<b>16</b>	<b>5</b>
30	8496	2	A	18	5	1,552	8,277		
			B	11	3	2,107	6,321		
<b>Total</b>	<b>8</b>	<b>15</b>	<b>4</b>	<b>3,659</b>	<b>18</b>	<b>3,659</b>	<b>14,598</b>	<b>18</b>	<b>5</b>
31	6161	2	A	20	6	2,108	12,648		
			B	20	6	750	4,500		
<b>Total</b>	<b>6</b>	<b>20</b>	<b>6</b>	<b>2,858</b>	<b>20</b>	<b>2,858</b>	<b>17,148</b>	<b>20</b>	<b>6</b>
32	10622	1	A	20	6	6,389	38,334		
<b>Total</b>	<b>11</b>	<b>20</b>	<b>6</b>	<b>6,389</b>	<b>20</b>	<b>6,389</b>	<b>38,334</b>	<b>20</b>	<b>6</b>
33	27864	3	A	20	6	2,617	15,702		
			B	20	6	4,722	28,332		
			C	20	6	7,535	45,210		
<b>Total</b>	<b>28</b>	<b>20</b>	<b>6</b>	<b>14,874</b>	<b>20</b>	<b>14,874</b>	<b>89,244</b>	<b>20</b>	<b>6</b>
34	28366	2	A	20	6	3,473	20,838		
			B	20	6	3,766	22,596		
<b>Total</b>	<b>28</b>	<b>20</b>	<b>6</b>	<b>7,239</b>	<b>20</b>	<b>7,239</b>	<b>43,434</b>	<b>20</b>	<b>6</b>
35	17760	2	A	20	6	5,643	33,858		
			B	20	6	4,728	28,368		
<b>Total</b>	<b>18</b>	<b>20</b>	<b>6</b>	<b>10,371</b>	<b>20</b>	<b>10,371</b>	<b>62,226</b>	<b>20</b>	<b>6</b>
36	10275	1	A	20	6	4,676	28,056		
<b>Total</b>	<b>10</b>	<b>20</b>	<b>6</b>	<b>4,676</b>	<b>20</b>	<b>4,676</b>	<b>28,056</b>	<b>20</b>	<b>6</b>
37	4390	2	A	20	6	1,047	6,282		
			B	20	6	1,406	8,436		
<b>Total</b>	<b>4</b>	<b>20</b>	<b>6</b>	<b>2,453</b>	<b>20</b>	<b>2,453</b>	<b>14,718</b>	<b>20</b>	<b>6</b>
38	11850	1	A	20	6	5,786	34,716		
<b>Total</b>	<b>12</b>	<b>20</b>	<b>6</b>	<b>5,786</b>	<b>20</b>	<b>5,786</b>	<b>34,716</b>	<b>20</b>	<b>6</b>
39	9895	1	A	20	6	6,309	37,854		
<b>Total</b>	<b>10</b>	<b>20</b>	<b>6</b>	<b>6,309</b>	<b>20</b>	<b>6,309</b>	<b>37,854</b>	<b>20</b>	<b>6</b>
40	7584	1	A	20	6	4,577	27,462		
<b>Total</b>	<b>8</b>	<b>20</b>	<b>6</b>	<b>4,577</b>	<b>20</b>	<b>4,577</b>	<b>27,462</b>	<b>20</b>	<b>6</b>
41	1596	0	0	0	0	0	0	0	0
<b>Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
42	1711	0	0	0	0	0	0	0	0
<b>Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
43	1576	0	0	0	0	0	0	0	0
<b>Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
44	15910	2	A	68	22	750	16,500		
			B	20	6	4,476	26,856		
<b>Total</b>	<b>16</b>	<b>44</b>	<b>14</b>	<b>5,226</b>	<b>68</b>	<b>5,226</b>	<b>43,356</b>	<b>68</b>	<b>22</b>
45	14277	2	A	20	6	4,243	25,458		
			B	20	6	2,420	14,520		
<b>Total</b>	<b>14</b>	<b>20</b>	<b>6</b>	<b>6,663</b>	<b>20</b>	<b>6,663</b>	<b>39,978</b>	<b>20</b>	<b>6</b>
46	6762	1	A	20	6	4,400	26,400		
<b>Total</b>	<b>7</b>	<b>20</b>	<b>6</b>	<b>4,400</b>	<b>20</b>	<b>4,400</b>	<b>26,400</b>	<b>20</b>	<b>6</b>
47	8406	1	A	20	6	4,642	27,852		
<b>Total</b>	<b>8</b>	<b>20</b>	<b>6</b>	<b>4,642</b>	<b>20</b>	<b>4,642</b>	<b>27,852</b>	<b>20</b>	<b>6</b>
48	24107	2	A	20	6	6,850	41,100		
			B	20	6	5,718	34,308		
<b>Total</b>	<b>24</b>	<b>20</b>	<b>6</b>	<b>12,568</b>	<b>20</b>	<b>12,568</b>	<b>75,408</b>	<b>20</b>	<b>6</b>
49	12042	1	A	20	6	6,642	39,852		
<b>Total</b>	<b>12</b>	<b>20</b>	<b>6</b>	<b>6,642</b>	<b>20</b>	<b>6,642</b>	<b>39,852</b>	<b>20</b>	<b>6</b>



50		4436	0	0	0	0	0	0	0	0	0	0	0
Total		4	0	0	0	0	0	0	0	0	0	0	0
51		2345	0	0	0	0	0	0	0	0	0	0	0
Total		2	0	0	0	0	0	0	0	0	0	0	0
52		2272	0	0	0	0	0	0	0	0	0	0	0
Total		2	0	0	0	0	0	0	0	0	0	0	0
53		630	0	0	0	0	0	0	0	0	0	0	0
Total		1	0	0	0	0	0	0	0	0	0	0	0
54		31959	0	0	0	0	0	0	0	0	0	0	0
Total		32	0	0	0	0	0	0	0	0	0	0	0
55		18517	2	A	20	6	5,143	30,858					
			20	B	20	6	5,113	30,678					
Total		19	20	6	10,256	61,536	20						
56		26466	2	A	20	6	6,301	37,806					
Total		26	20	6	1,529	9,174	20						
57		12606	2	A	20	6	4,419	26,514					
Total		13	20	6	3,313	19,878	20						
58		7158	2	A	20	6	2,501	15,006					
Total		7	20	6	1,905	11,430	20						
59		1932	1	A	20	6	1,143	6,858					
Total		2	20	6	1,143	6,858	20						
60		3934	1	A	20	6	2,190	13,140					
Total		4	20	6	2,190	13,140	20						
61		4066	1	A	20	6	2,201	13,206					
Total		4	20	6	2,201	13,206	20						
62		10043	2	A	20	6	2,970	17,820					
Total		10	20	6	2,973	17,838	20						
63		8617	1	A	20	6	4,950	29,700					
Total		9	20	6	4,950	29,700	20						
64		5169	1	A	20	6	2,857	17,142					
Total		5	20	6	2,857	17,142	20						
65		1855	1	A	20	6	1,082	6,492					
Total		2	20	6	1,082	6,492	20						
66		1307	1	A	20	6	760	4,560					
Total		1	20	6	760	4,560	20						
67		5133	1	A	20	6	3,310	19,860					
Total		5	20	6	3,310	19,860	20						
68		9472	2	A	20	6	1,962	11,772					
Total		9	20	6	3,368	20,208	20						
69		9050	2	A	20	6	2,639	15,834					
Total		9	20	6	2,641	15,846	20						
70		7034	2	A	20	6	2,099	12,594					
Total		7	20	6	553	3,318	20						
71		7411	2	A	20	6	1,799	10,794					
Total		7	20	6	1,571	9,426	20						
72		6926	2	A	20	6	1,898	11,388					
Total		7	20	6	1,898	11,388	20						
73		9177	1	A	20	6	2,365	14,190					
Total		9	20	6	2,365	14,190	20						
74		9272	2	A	20	6	2,390	14,340					
Total		9	20	6	2,404	14,424	20						
75		19360	2	A	20	6	5,757	34,542					
Total		19	20	6	4,777	28,662	20						
76		8522	2	A	20	6	2,456	14,736					
Total		9	20	6	4,912	29,472	20						
77		17893	2	A	20	6	2,848	17,088					
Total		18	20	6	2,282	13,692	20						
78		10756	2	A	20	6	3,529	21,174					
Total		11	20	6	2,241	13,446	20						
79		7823	2	A	20	6	2,211	13,266					
Total		8	20	6	4,422	26,532	20						
80		3982	1	A	20	6	2,228	13,368					
Total		4	20	6	2,228	13,368	20						
81		6385	1	A	20	6	2,547	15,282					
Total		6	20	6	2,547	15,282	20						
82		17303	2	A	20	6	4,326	25,956					
Total		17	20	6	3,301	19,806	20						
83		7140	1	A	20	6	3,574	21,444					
Total		7	20	6	3,574	21,444	20						





