

**WATERFRONT**Toronto

**TORONTO**  
**CENTRAL**  
**WATERFRONT**  
**INNOVATIVE DESIGN**  
**COMPETITION**

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1:10000 Context Plan

THERE EXISTS AN UNDENIABLE COGNITIVE RECOGNITION OF *the* CANADIAN LAKEFRONT, INTIMATELY BOUND TO THE MYTHOLOGY OF THE CANADIAN OUTDOORS. WHAT COULD BE ITS URBAN, METROPOLITAN EQUIVALENT? TORONTO CAN FINALLY DEFINE THIS PARADIGM THROUGH A VISION FOR THE CENTRAL WATERFRONT THAT BRINGS AN ECOLOGICALLY-PRODUCTIVE GREEN FOOT TO THE METROPOLIS. WE PROPOSE AN APPROACH THAT PRIORITIZES CONNECTIVITY, PUBLIC EXPERIENCE AND A SUSTAINABLE

FUTURE. WE EXPAND THE POTENTIAL OF TORONTO'S MOST IMPORTANT URBAN AND NATURAL RESOURCE BY CREATING A NEW MULTIPLE WATERFRONT WHERE THE POINT OF CONTACT BETWEEN THE CITY AND THE WATER IS PUBLIC, DIVERSE AND EXPRESSED THROUGH A MULTIPLICITY OF EXPERIENCES. THE "PRIMARY EDGE" *part 1*, THE "FLOATING WATERFRONT" *part 2* AND THE "BOULEVARD/SLIP-ENDS" *part 3* ARE THE THREE COMPONENTS WHICH STRUCTURE THIS NEW PUBLIC ENVIRONMENT.







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Toronto Central Waterfront Innovative Design Competition

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## **3 POSITIONS/ADDRESSING THE BRIEF**

### **THE WATERFRONT VISION**

### **THE NEW MULTIPLE WATERFRONT**

#### **PART I: "PRIMARY WATERFRONT"**

##### **I.I: A SET OF ELEMENTS**

NATIVE TREES & PLANTING

MATERIALS

BRIDGES

OPEN SPACE

DETAILS & FURNISHINGS

LIGHTING

#### **PART II: "FLOATING WATERFRONT"**

#### **PART III: "BOULEVARD/SLIP-ENDS"**

DIVERSE HINTERLAND OF TORONTO DRAWN TO THE LAKE

### **THE WATERFRONT VISION IN DETAIL**

LINES OF CULTURE/CULTURAL CONTINUITY TO THE SLIPS:

UNIVERSITY AVE. (YORK ST.)

TOWER TRAJECTORY TO VILLAGE

YONGE LANDING

REES SLIP

SPADINA AVE.

JARVIS ST.

PORTLAND SLIP

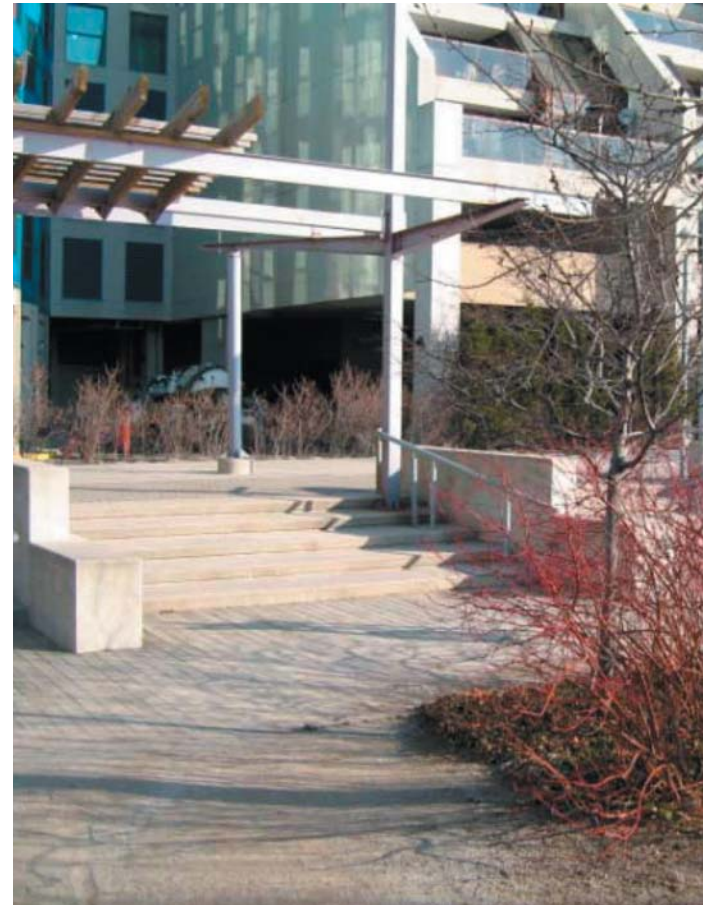
RIVER & BAY ECOLOGIES

ON SUSTAINABILITY

TEAM

## 3 POSITIONS:

Our approach to the central waterfront is not neutral; it is based on a few platforms that represent the foundation for our vision for Toronto's most important piece of waterfront. These positions inform the way in which we conceptualize and address every element of its design across all scales.



## 1 THE CULTIVATION OF INNOCENCE

The Toronto waterfront is currently marked by a conspicuous character: rather than expressing a clear idea of public space as is found in other cultural models around the world – the French heroic, Catalanian decorative, Scandinavian less-is-more sterility, among others – it represents itself through a recipe of small-scale “instant” public space. This “instant” recipe relies on a predictable blend of small scale elements: flowers, benches, lamp-posts, a tree and pergola, together serving a general public with a romantic idea of “innocent” activity. We insist upon a relevant form of public space and activity for Torontonians that reflects the ambition of the metropolis. The cultivation of innocence will never match the aspirations of a world city.





## 2 THE CANADIAN (URBAN) LAKEFRONT?

There exists a cognitive recognition of *the* Canadian lakefront. In a province of 250,000 lakes, the rustic scene of the cottage dock and mirrored lake seems embedded within our psyche and the mythology of the Canadian outdoors. Powerful elements of Canadiana compose this image. A foreground of rugged wilderness, mediated by a simple wooden dock stretching into the lake reflecting sky; everyday, natural materials with solid construction are set amidst a landscape with minimal human interventions where we are positioned to confront ourselves with our larger environment. This raises the question: What could be its urban, metropolitan equivalent?



## 3 BEYOND THE WATERFRONT CLICHÉS



Over the past 25 years, the waterfront has become the central field for large-scale urban renewal and city branding. The international arena of waterfront design has produced two tough clichés that stand as paradigms: Copacabana in Rio de Janeiro, Brazil and the Boston Inner Harbour, Massachusetts, USA. The first presents the perfect section, from built edge to water stretching relentlessly along the entire waterfront. The second posits that boring, sleeping waterfronts can only be revitalized by hysteric and commercial programming. Toronto must critically go beyond these precedents and establish its own image, appropriate to its status as a world city of diversity, culture and environment.



# SCALE, CONNECTIVITY, SUSTAINABILITY



## INTERPRETING THE BRIEF

From the TWRC competition brief as well as the Mayor's introduction to the project, we interpret the need to focus on three important aspects: to define the "central" waterfront, the primacy of connectivity & sustainability, and address the issue of identity.

### Size and Scale

Within the central waterfront we have sought to distinguish precisely what is "central" within this 3.5km stretch where the core city meets the lake. Ultimately, understanding the size and scale of the waterfront leads to a clear programmatic strategy. Establishing a centre and understanding its limits in no way undermines the need for continuity along the entire waterfront; it does, however, insist on being realistic about assessing the length one can extend waterfront "vitality." It is a question of dimension.

### Taking Connectivity & Sustainability Seriously

The brief says it explicitly: "connectivity", and "sustainability" are priorities for the central waterfront. We believe these are not simply panderings to political correctness, but rather the foundation for a serious commitment to a future that must be green and inclusive. In our proposal, we pursue an agenda of urban and cultural connectivity and sustainability with utmost earnestness.



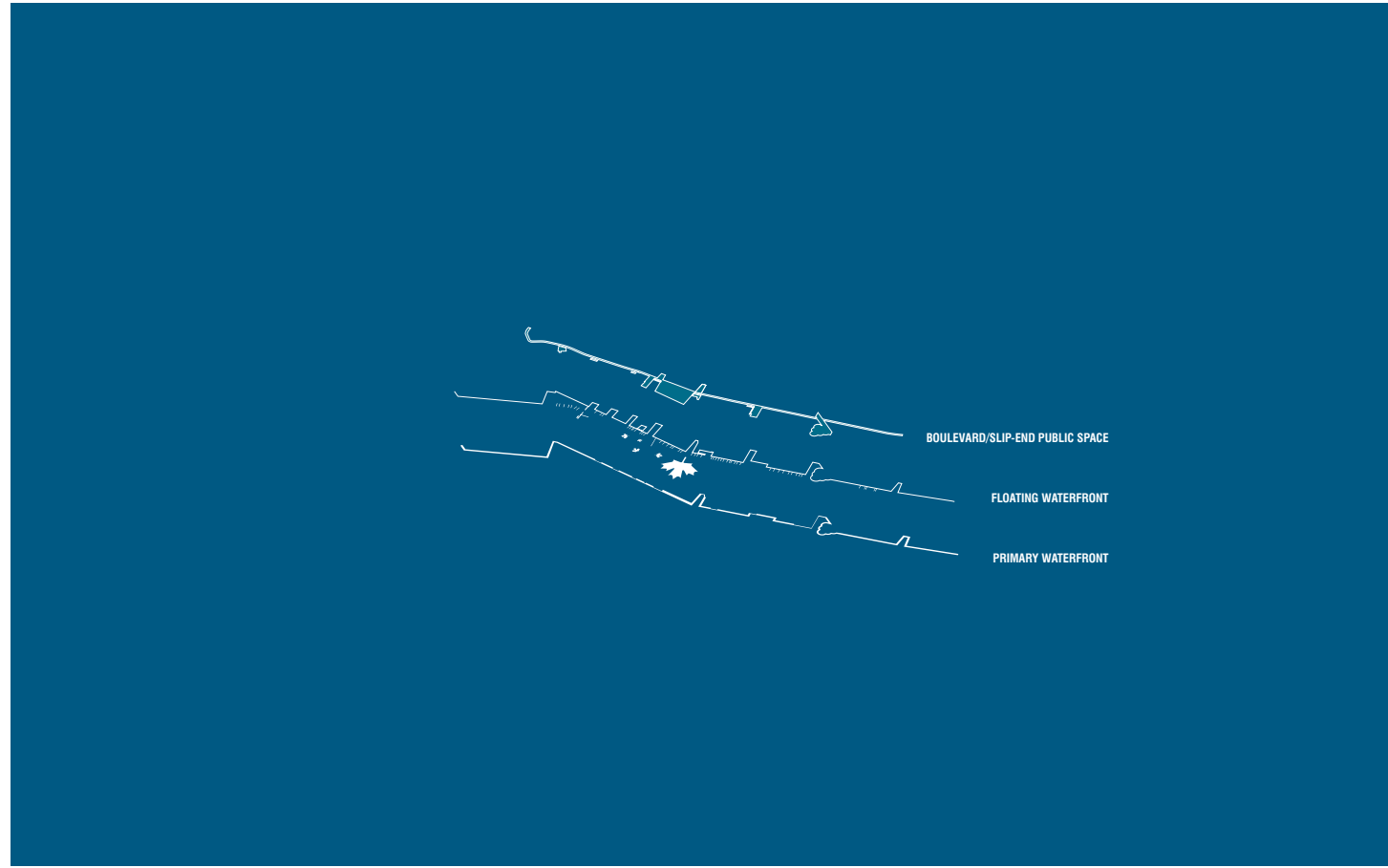


**THE  
WATERFRONT  
VISION**



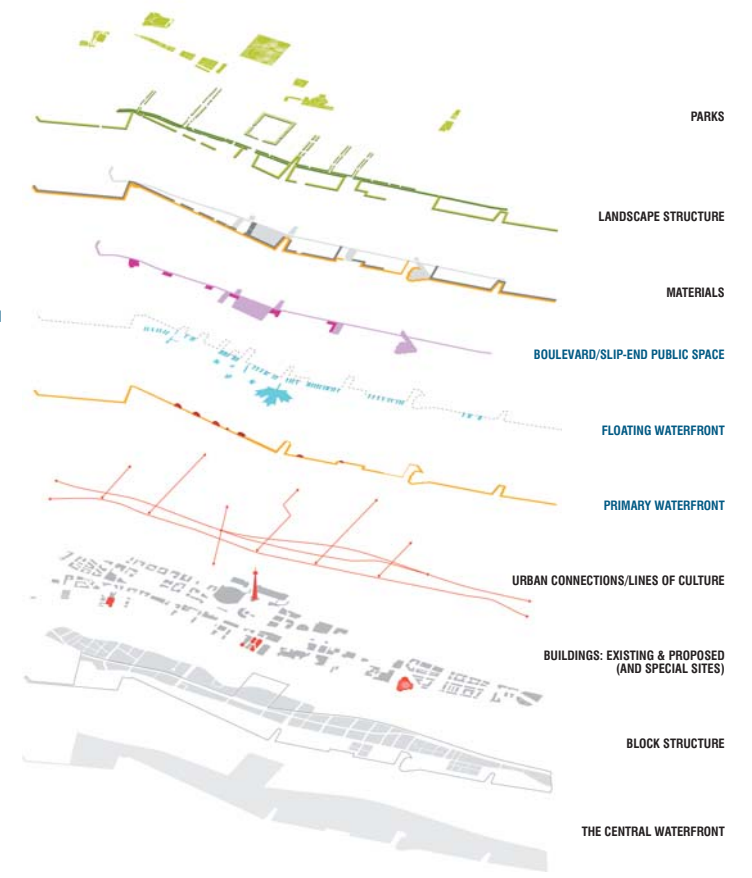






# THE NEW MULTIPLE WATERFRONT

The vision for an expanded experience of the waterfront is composed of three woven waterfront systems: part I – the “Primary Edge,” part II – the “Floating Waterfront” and part III – “Queen’s Quay/Slip-End Boulevard.”



KEY ISSUES IN THIS SECTION:  
CONTINUOUS PUBLIC PROMENADE



## THE NEW MULTIPLE WATERFRONT – PART I: “PRIMARY WATERFRONT”

We want variation and choice, but most of all, we want to be at the edge where the city meets the water. The new waterfront is conceived as a place with multiple edges; a woven, multiple waterfront. Designed with a clear hierarchy which supports subtle interactions between these various waterfronts, a series of experiences with diverse forms of contact with the lake and the city can be realized. The “Primary Edge” is the city’s new continuous public promenade.

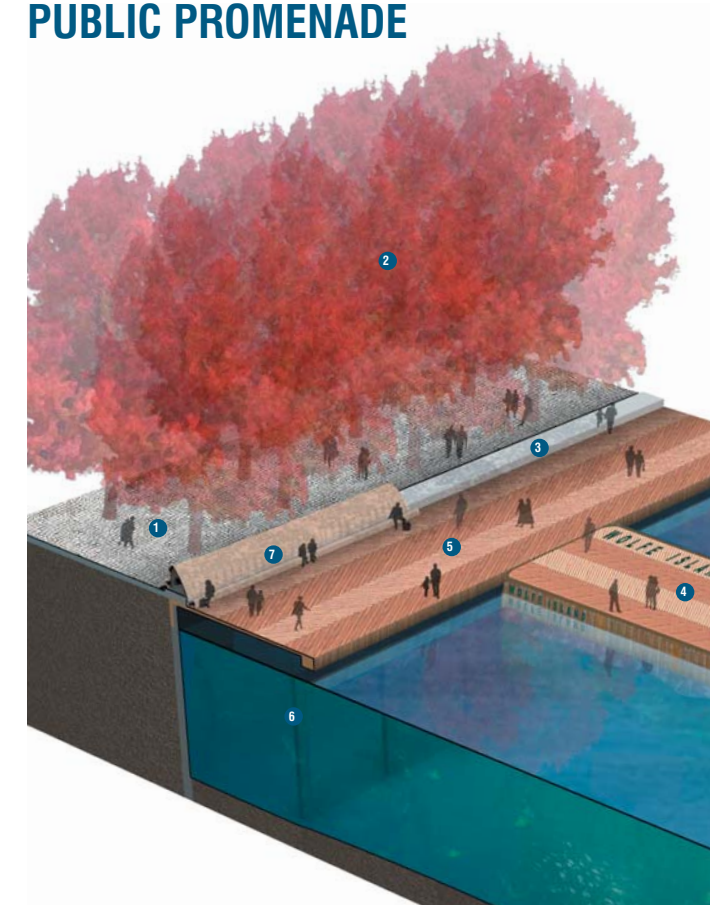






(top row) Series of precedent promenade images emphasizing the need for generosity of scale: Central Park; Atlantic City, Venice Beach.  
 (second row) Series of images of existing conditions along the current central waterfront edge characterized by inconsistency in public right-of-way and, in most cases, a meager dimension that limits potential use.

## PUBLIC PROMENADE



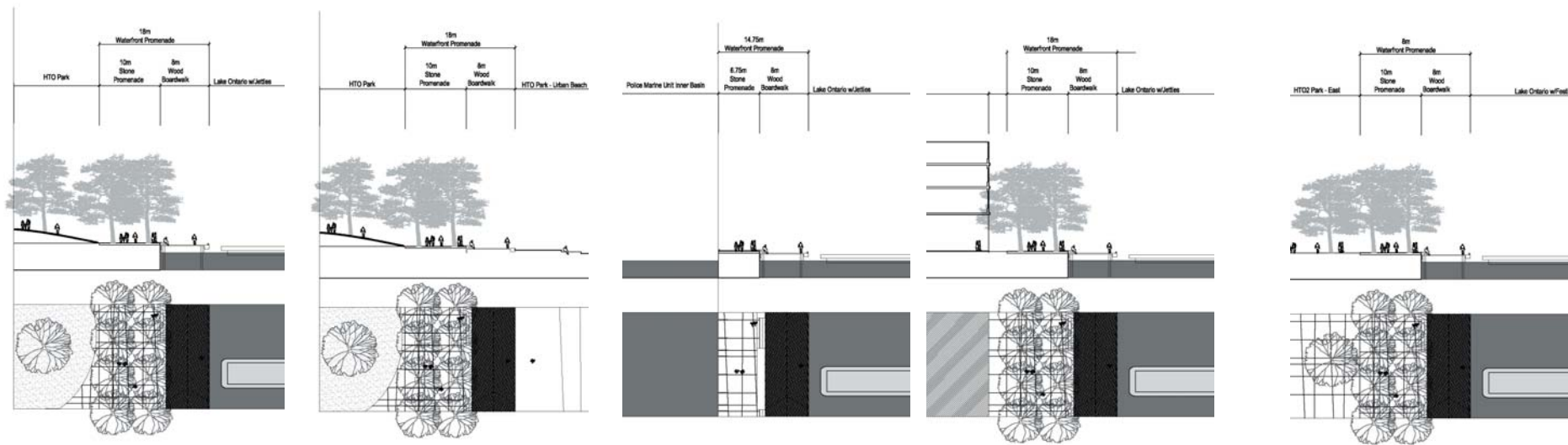
# 18m

## MINIMUM PUBLIC ROW

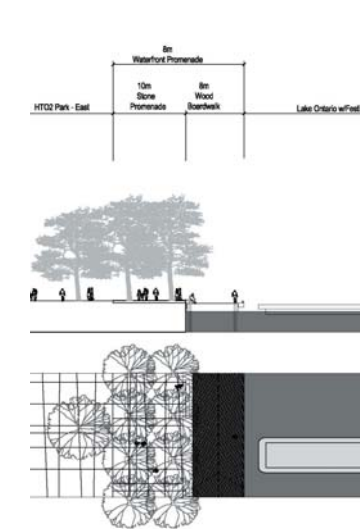
A generous dimension for the Primary Waterfront is essential to establish the appropriate metropolitan scale of the lakefront. We have determined an 18m ROW as the minimum general width necessary to accommodate the ideal promenade section. This dimension is based upon: the minimum spacing of trees to allow for a dense, green promenade with adequate room for trees to establish a solid root zone; the allowance for a mix of different types of movement including walking, jogging and in-line skating; and the appropriate diversity of spatial quality that allows for shade and protection within the tree canopy and the openness and exposure along the lake edge.

The promenade is public and continuous, extending the length of the central waterfront. It must adapt to a range of existing contexts and conditions; therefore, its section is changing and flexible. However, a consistency and coherence remains through the material treatment along its entire length. The promenade is formed by two principal parts: a granite promenade along the existing quay wall, plus a slightly lowered cantilevered wooden boardwalk that extends over the water. These two parts work as a pair, shrinking and expanding to ensure that a generous dimension is maintained.

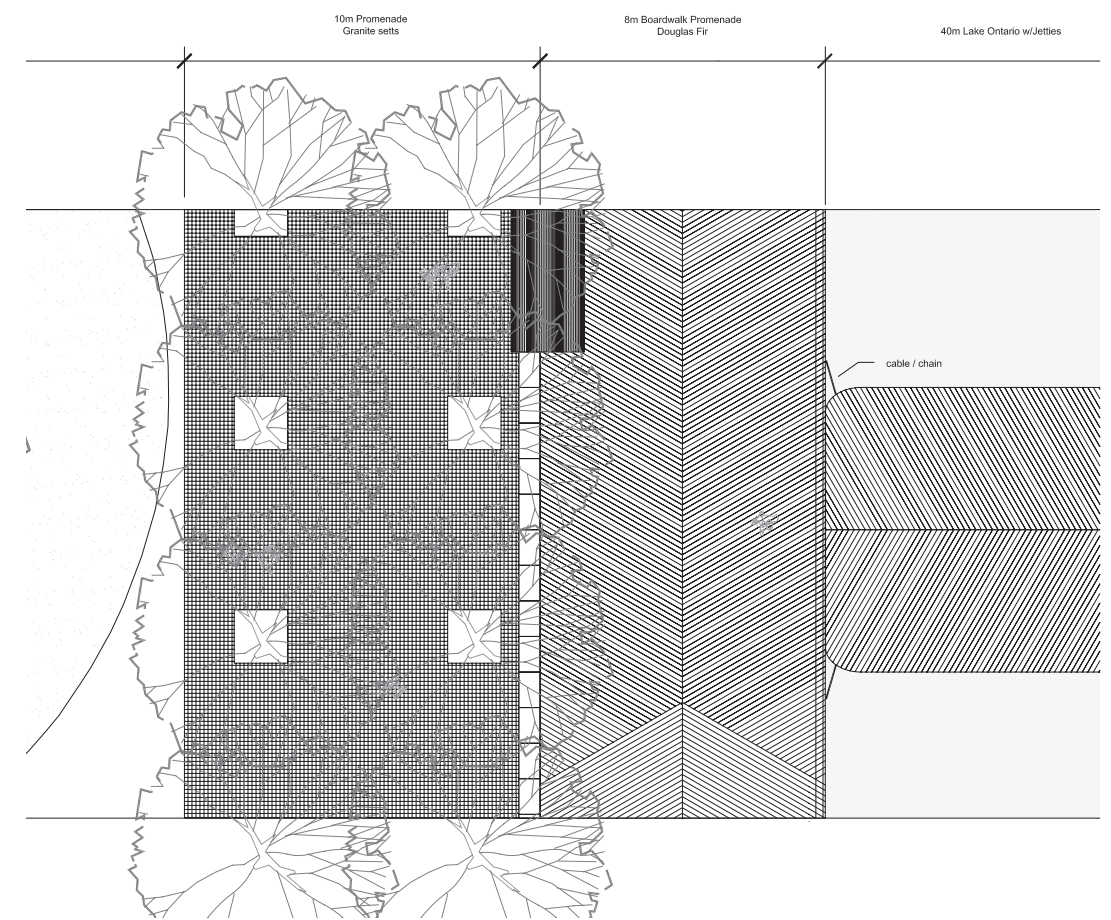
- 1 Granite paved promenade (min. 10m ROW)
- 2 Double row of Maples
- 3 Granite capstone step/bench
- 4 Pontoon (see Part II: "Floating Waterfront" section)
- 5 Wooden boardwalk (min. 8m, Douglas fir with herringbone pattern)
- 6 Column supports for cantilevered boardwalk
- 7 Wood linear bench (double-sided, see Part I.I: "Elements")



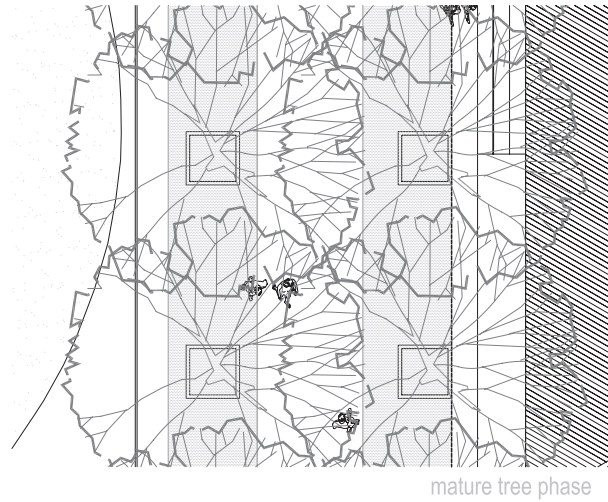
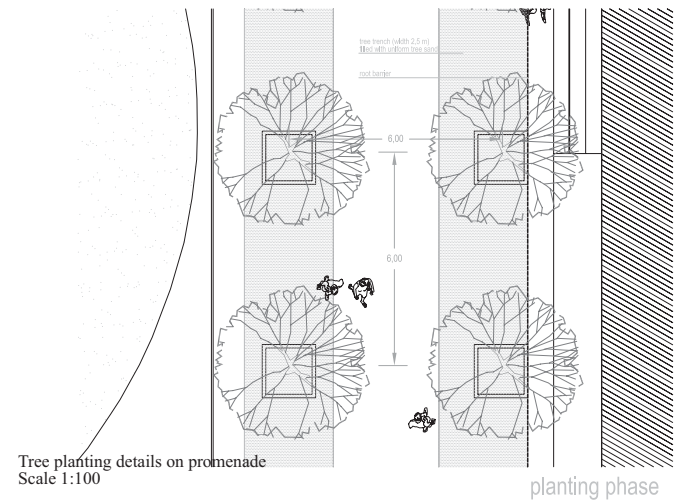
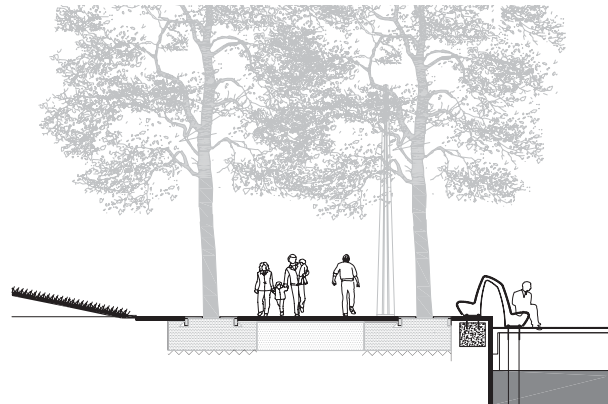
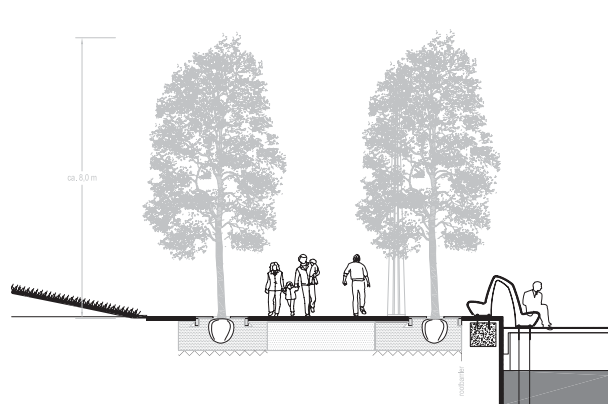
(above) Testing the section within the diverse edge conditions along the water's edge: (1) at HtO park; (2) at HtO urban beach; (3) at John Quay - the only point where the promenade must narrow; (4) at the new Harbour District, York Quay; (5) at HtO2 foot of Bay Street Park.



(right) Plan view of boardwalk and promenade Scale 1:100







**KEY ISSUES IN THIS SECTION:**  
MATERIALS, FIXTURES & FINISHES  
LIGHTING

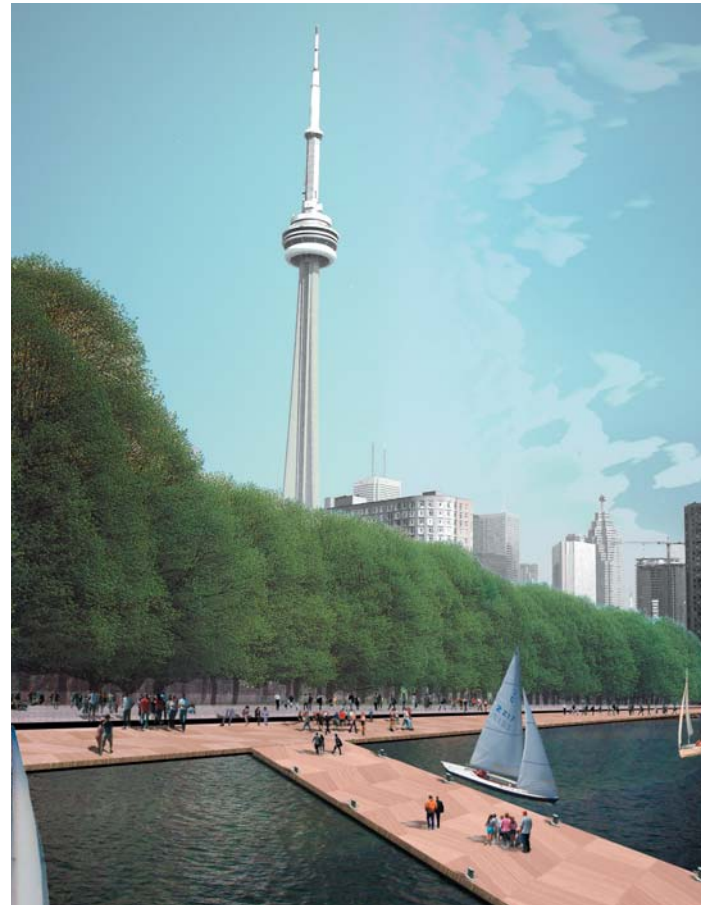


## THE NEW MULTIPLE WATERFRONT – PRIMARY ELEMENTS

A waterfront family of elements has evolved, descending from the wooden boardwalks of the primary edge promenade and timber bridges which characterize the new waterfront. The set of elements includes pavers, furnishings, fixtures and equipment. Each member reinforces the look and feel of the overall waterfront experience resulting in a coherent experience of the central waterfront that extends down to the details.

**NATIVE TREES & PLANTING**  
**PARKS/OPEN SPACE**  
**MATERIALS**  
**BRIDGES**  
**FURNITURE & DETAILS**  
**LIGHTING**





(top left) Maple trees, autumn colour  
 (top right) The Charles River Reservation in Cambridge, Boston is defined by a linear riverfront landscape predominated by trees indigenous to New England.  
 (right) Impression of the powerful impact of the green foot below the skyline.  
 (below) Native species to be considered for the Central Waterfront.



## ELEMENTS: NATIVE TREES & PLANTING

# PLANTING THE “GREEN FOOT” OF TORONTO

Big trees. Native species. The kind where you feel the seasons. These are essential to defining the Canadian lakeshore. There is currently a cultural disconnection occurring with regard to botany along the waterfront that has dislocated the landscape from its place, a result of the proliferation of assorted cultivars of trees introduced from England and beyond. The “green foot” of Toronto constructs a robust landscape with a strength and presence of equal majesty to the city’s skyline. From “naked waterfront” to “green foot,” an authentic Canadian wilderness is planted at the base of the metropolis.

A critical aspect of the “green foot” is the use of native species that are naturally adapted to the local area. The use of native plants encourages the conservation of the diversity of species that originally evolved in the Toronto region and develops a strong landscape identity for the city rooted in its landscape.

The natural landscape of the Lake Ontario shoreline is typically a beach, bluff or marsh. Few forests remain next to the lake having been logged and cultivated many generations ago. Still, at the mouths of creeks, the occasional land spit and in some parks one can still find the full scale of a forest edge. The leading edge of the waterfront is an ever-changing land-

scape. Stormy, deep lakes with choppy water make sure of this. As such, the shoreline is constantly renewing itself with pioneer species such as Cottonwood, Willow and Alder. Beyond the front lines, maple, oak and beech fortify a more stable and stately backdrop. We would like to capture the spirit of this condition along the ‘shoreline’ of the City. Some days will be calm and the bay still like a millpond; other days one will be able to lean into the wind and feel the full force of the lake. The treed landscape of our waterfront – the city’s new green facade – will be layered and robust, protective and sheltering, unbridled and regenerating. As is and should be.

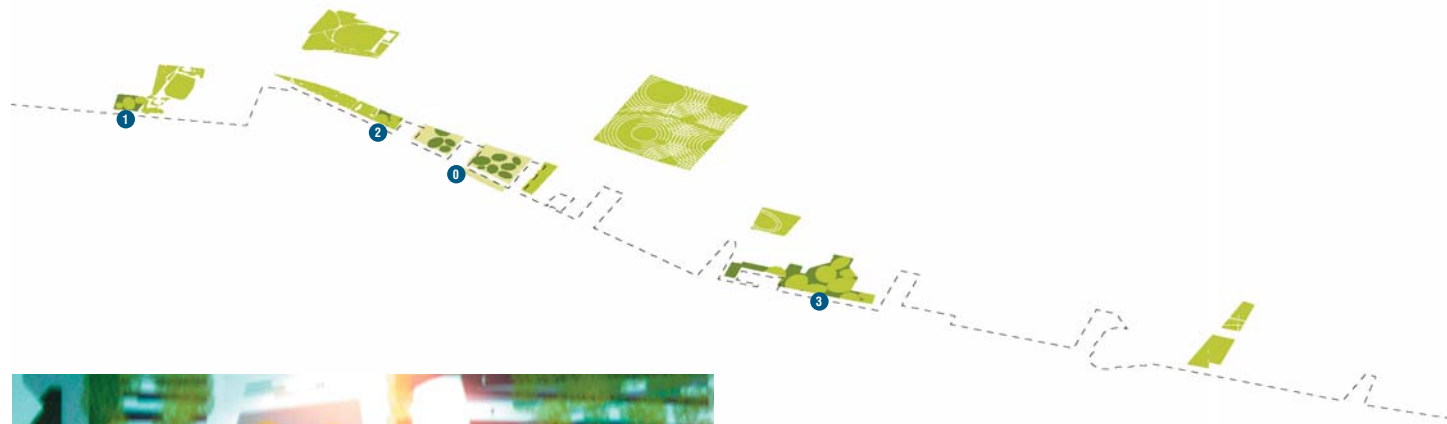
## ELEMENTS: PARKS/OPEN SPACE

# NEED WATERFRONT COHERENCE? HTO x 3

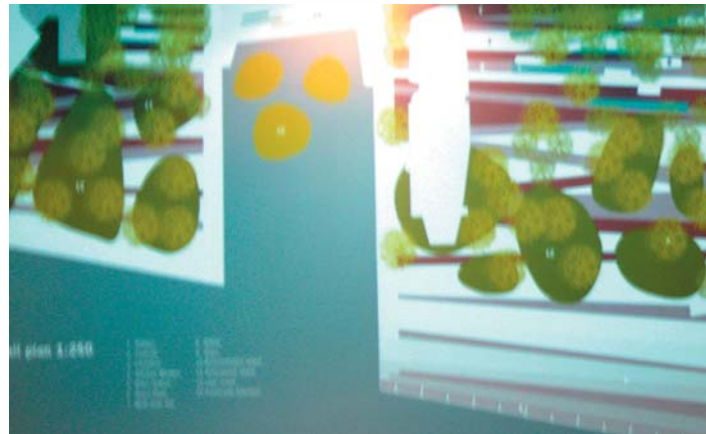
Repeat the things that work. Above all, we avoid the design gymnastics that tend to treat every open space as *the* chance for a designer to make a statement, producing a collection of incoherent public spaces fighting for attention, ultimately destroying the experience of the waterfront as a whole. For the addition of much-desired parks and open space we take an approach of selective proliferation and sublime simplification in establishing the foundation of the “green foot” landscape.

We are encouraged by the proposal for HtO developed by Janet Rosenberg + Associates with Claude Cormier architectes paysagistes. Part park, part urban square, part beach and public tribune, the HtO typology establishes an important precedent for future public spaces along the central waterfront.

Most of all, the clarity of this park’s form can be adapted to create a much-needed coherence and extend a language for waterfront greenspaces that becomes both legible and memorable. As we extend the HtO type, we alter the proportions of green areas vs. paved areas in new HtO parks to provide the foundation for the waterfront landscape that is as green as is sustainable.

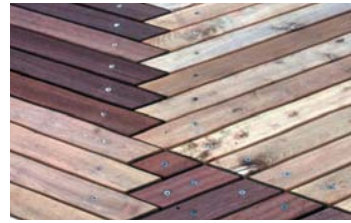
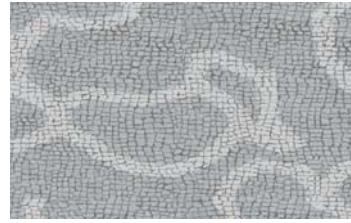


- 0 Original HtO park + urban beach
- 1 HtO+1 - Little Norway Park Extension
- 2 HtO+2 - Spadina Quay Wetland Renovation
- 3 HtO+3 - Harbour Square Park (East) Park Refurbishment



(left) HtO park design by Janet Rosenberg + Associates with Claude Cormier architectes paysagistes.



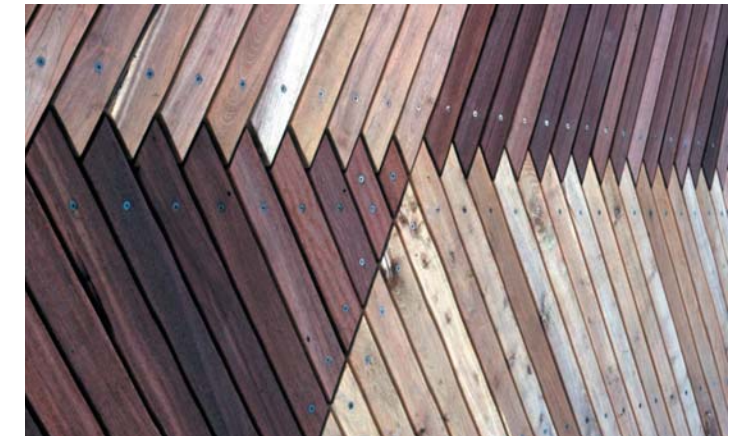


A simple palette of materials derived from the local landscape: locally quarried granite and locally sourced wood (Douglas fir). Each material is used expressively to build the identity of the central waterfront.

## ELEMENTS: MATERIALS

# MATERIALIZING THE WATERFRONT

Canadian granite. Canadian wood.  
*Refer to plan for extents of paving pattern and use of wood.*





## ELEMENTS: BRIDGES

# BRIDGES: “IT’S A TIMBER JOB”

Timber bridges rise out of the wooden boardwalk promenade to leap over slips, ensuring a continuous public promenade at the water’s edge. Both the form and material of the bridges shape a strong image for the central waterfront that is conceived in tandem with the heads of slip gateways. Simple timber construction with fine craftsmanship define these elements. A poetry along the lake edge evolves from the rhythm established by the bridges rising and descending over the slips and providing new vantage points to experience the lake and the city. A total of seven bridges, including a lift-bridge at Simcoe slip, produce an effect that is at once monumental and yet distinctly familiar.





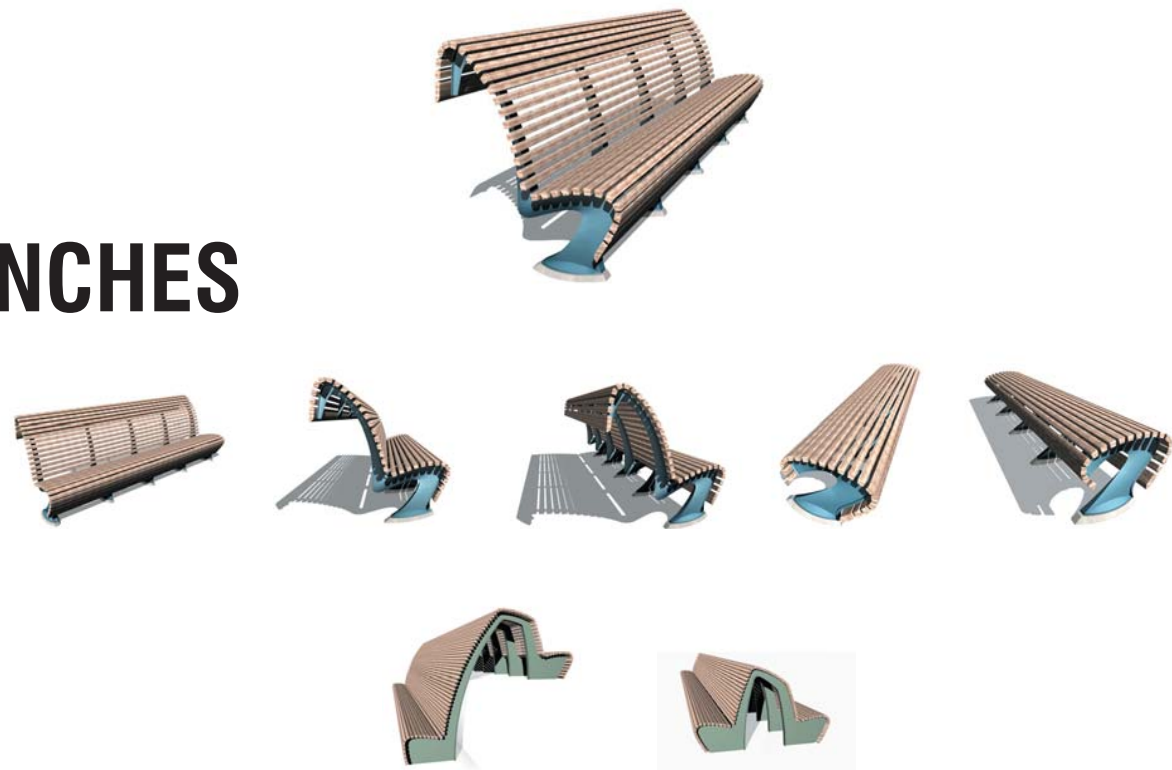


(above) References to traditional construction techniques and large-scale timber elements informed the bridge design.

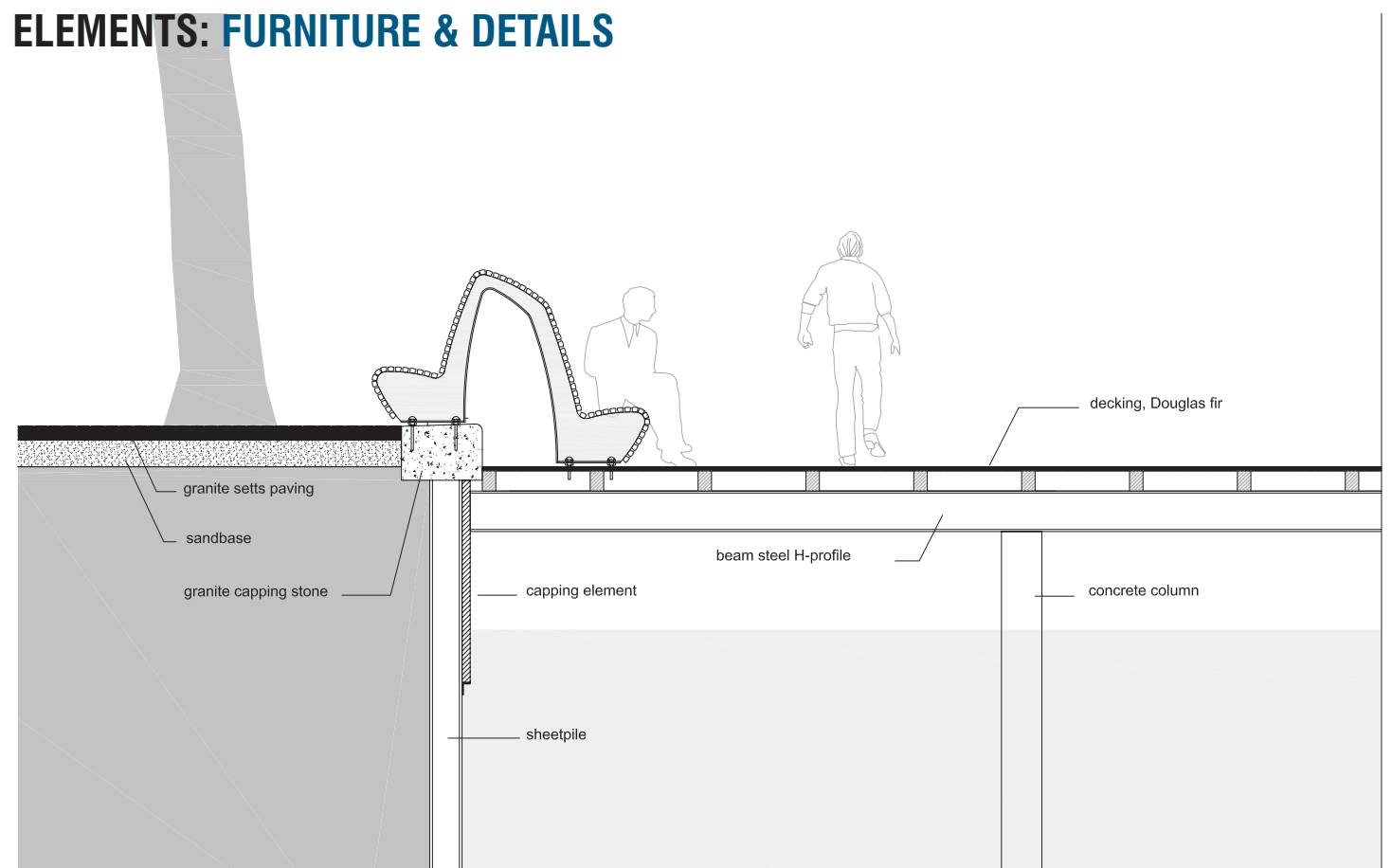
(opposite right) Varying spans of slips and water crossings produce a variety of bridge solutions. The bridges provide a filter to the inner slips, limiting access to smaller scale craft, while the larger boats find docking along the pontoons of the "floating waterfront."



# BENCHES



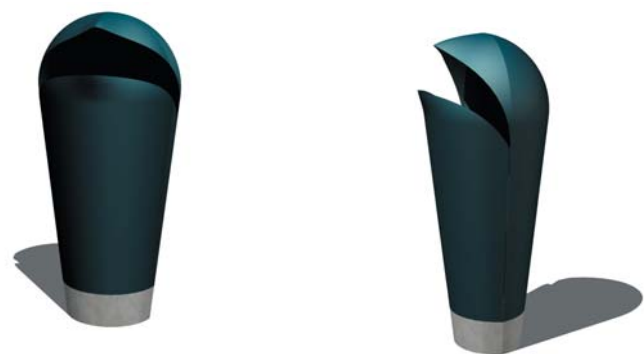
# ELEMENTS: FURNITURE & DETAILS

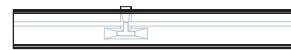




ELEMENTS: FURNITURE & DETAILS

## GARBAGE BINS

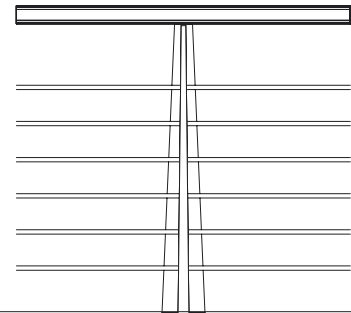




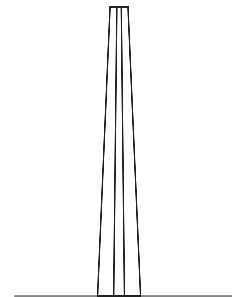
Top view, metal railing  
Scale 1:10



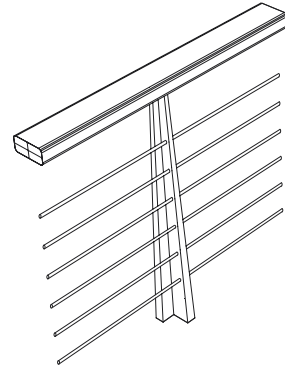
Top view, column  
Scale 1:10



Street-side Elevation  
Scale 1:10



Column detail  
Scale 1:10



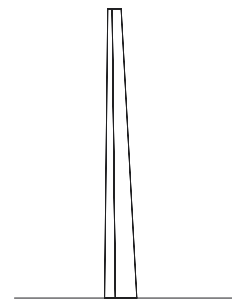
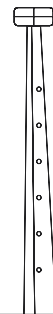
Axonometric Detail  
Scale 1:10

## ELEMENTS: FURNITURE & DETAILS

# CN (HAND)RAIL

Handrail for the heads of slips inspired by the great tower.

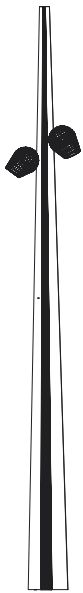
Side Elevation  
Scale 1:10







Plan view 1:10



Elevation 1:20



Rendering of lighting mast and light head detail.

## ELEMENTS: LIGHTING

# “MOONLIGHT WATERFRONT”

We imagine a waterfront where you could still connect with the cosmos, see the stars, feel the moonlight. A 6 lux lighting strategy as opposed to the typical high-intensity 100-200 lux waterfront. We propose to turn down the lights in order to see more.

**Waterfront Lighting:**  
Lighting on the waterfront will reinforce the overall plan; it is considered as part of the comprehensive vision and as a distinctly important element in defining both the identity and experience of the waterfront. Our vision is to illuminate the “green foot” of Toronto at the lake and create moods and mysteries rather than replicate daylight. We want to encourage all-season use and longer hours of activity along the waterfront. Our proposal paints scenes with light, from the macro to the micro, from the plan as a whole to tiny LED lights illuminating the trees. We also take into account the greater problem of too much light, which produces light pollution, up glare, wasted energy and capital, by making use of existing ambient light.

**Water’s Edge Lighting:**  
The water’s edge is a few minutes walk from Queen’s Quay, enough time for our eyes to adjust to changing landscape and changes in light. The dock-wall lights [solar powered LEDs], which reflect off the water, create a luminous edge along the harbour headline. The tower lights project a moody, white light and shadow texture on the boardwalk. Pools of light, reflections, dappled patterns contrast with the even glow of white light on Queen’s Quay’s corridor of walks, bike paths, streetcar tracks and roadway, a different experience - a different world - from the water’s edge.

**Slip-heads:**  
These wavy docks, fashioned in wood, part ramp, part deck, part stair, beckon us to the water’s edge where we can gaze across to the Toronto Islands or look back to city. The slip-head looks, feels and sounds different from city sidewalks. LEDs illuminate the stairs and the hand-rails. Long-life ‘Induction lamps’ wash light out of the grotto-like space beneath.

**Queens Quay Lighting:**  
Queen’s Quay has a rhythmical pairing of tower poles, structured for streetcar power support,

roadway light support and contrasting- projector lights for dappled light amongst the trees. The projector lights illuminate the tree canopy. The paired lights reinforce Queens Quay as the illuminated backbone of the waterfront. North-south streets key into the waterfront are supported with lights running back up into the city.

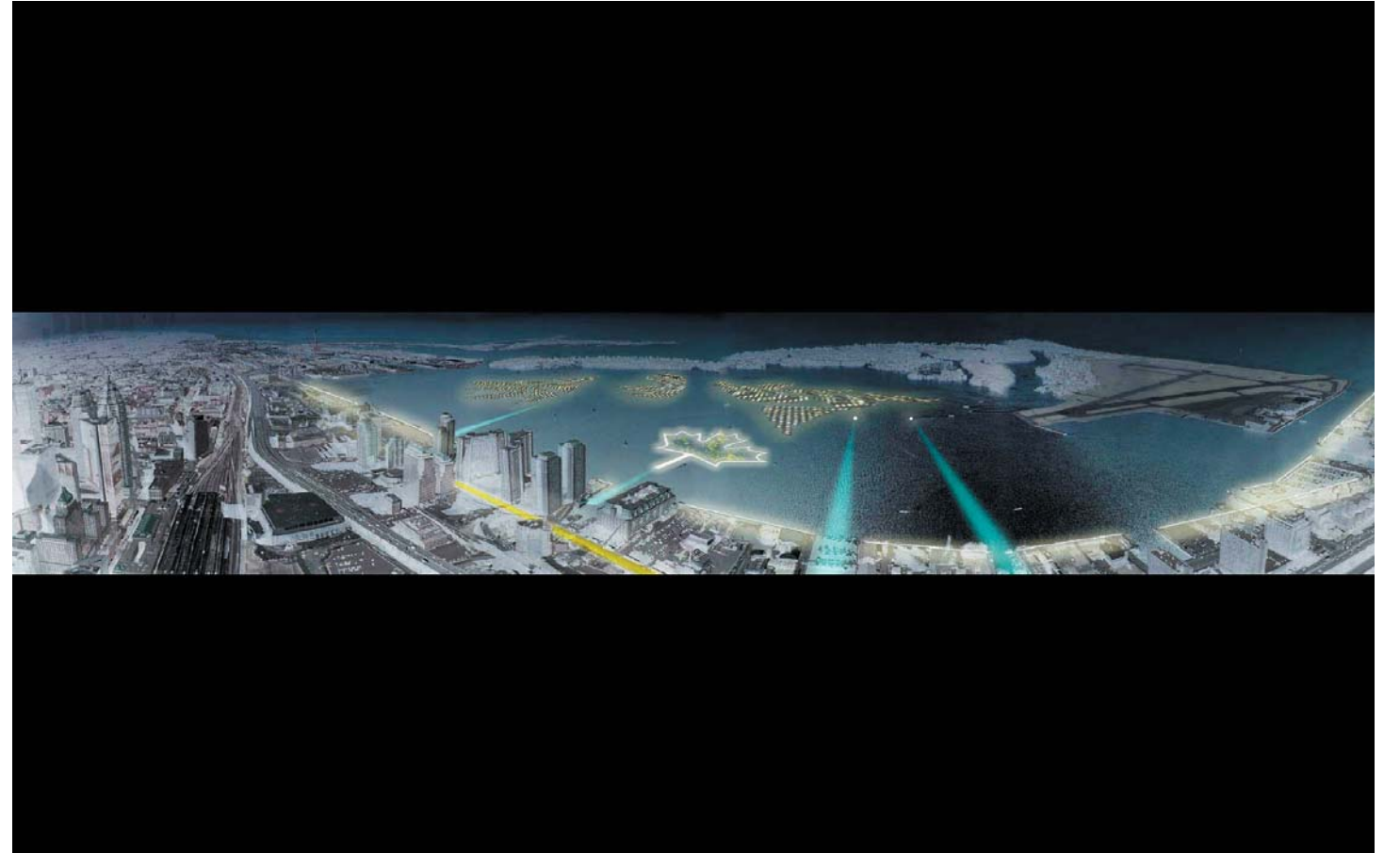
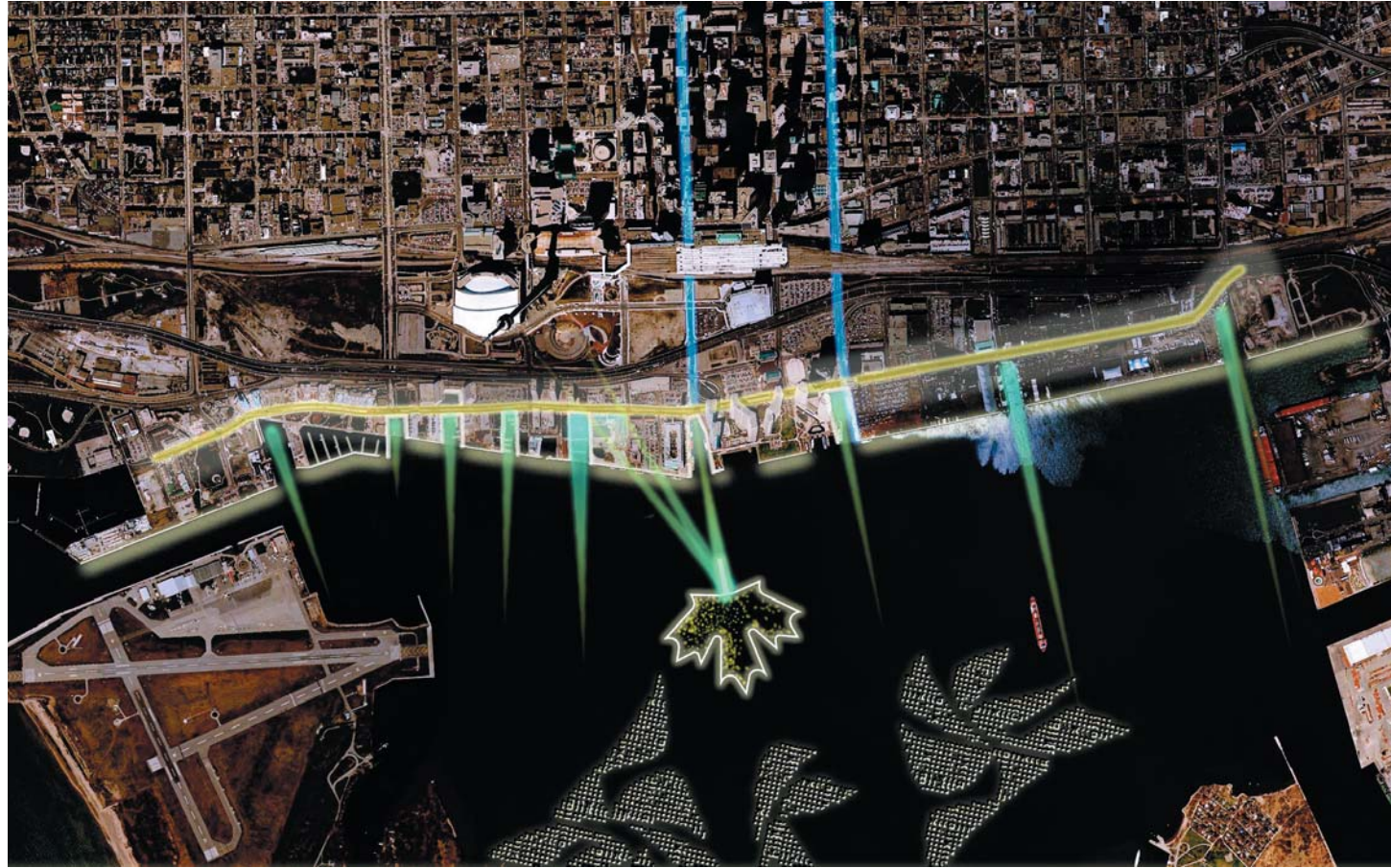
**North-South Streets:**  
Historically, there has been some confusion about where Toronto begins - some argue that the City begins along the old shoreline at Front Street, a view supported by the placement of Union Station, the city’s transit hub. Our view is different. We believe, that Toronto must begin at the physical waterfront, Toronto Bay, along Queen’s Quay. The North-South streetlights guide us to the water’s edge in the evening, through the interchanges and viaducts, sheltered by rows of trees.

**Light Buoys:**  
Out in the lake is a line of buoys, fitted with solar powered LEDs, lined on axis with the major north-south streets. These floating beacons draw our eyes at night, to remind us the Toronto Bay is part of the city.

**Ambient Light:**  
We can take advantage of unplanned light - a gift that spills out of bars and cafes, which are part of the character and appeal of the waterfront. The availability of ambient light needs to be considered in the overall light scheme to ensure that, as stated above, we do not over-light or waste energy and capital. The proposed York Quay and Yonge Quay harbour villages are illuminated largely with this kind of ambient light.







KEY ISSUES IN THIS SECTION:  
PUBLIC SPACES & PROGRAMMING  
WATER-BASED USES & RECREATION  
AQUATIC HABITAT & SUSTAINABILITY

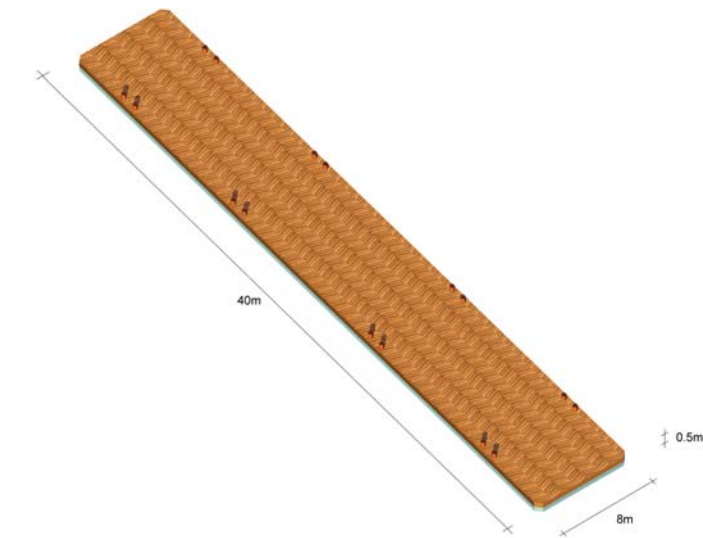
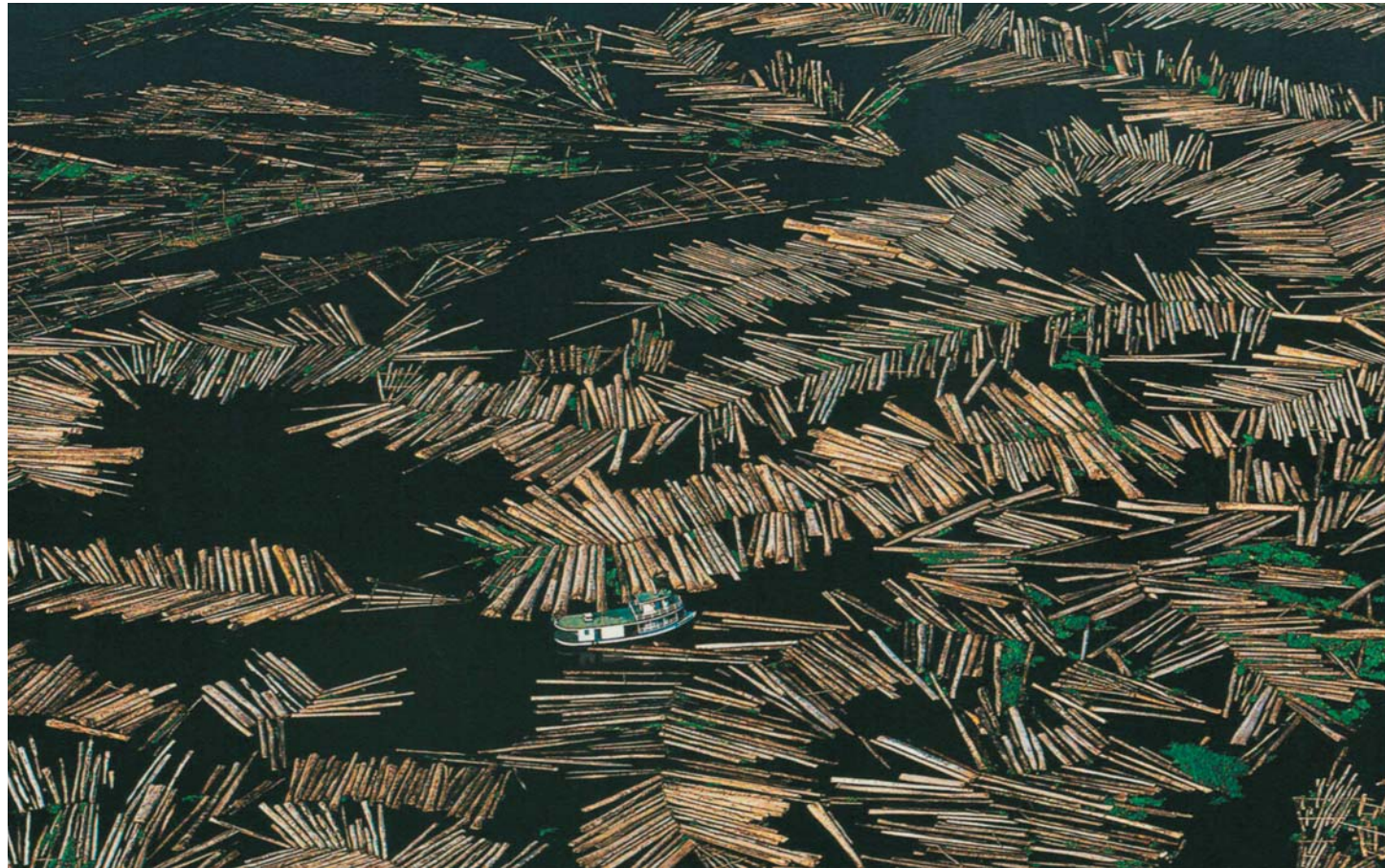


## THE NEW MULTIPLE WATERFRONT – PART II: “FLOATING WATERFRONT”

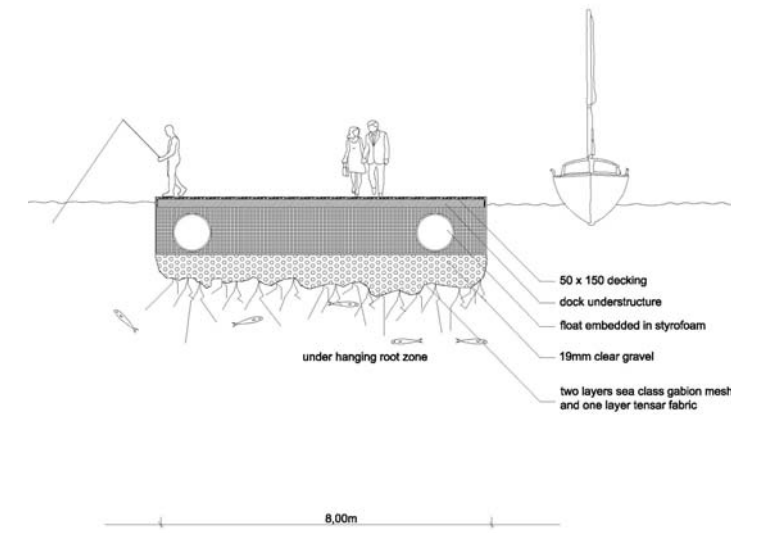
The floating waterfront dramatically expands the water’s edge condition, creating a “new” shoreline and public space type that is flexible and able to accommodate diverse activities, ecologies and special events, changing throughout the seasons. Its lower surface establishes a new aquatic habitat while its deck can host a variety of uses including providing for important boat-related docking needs.







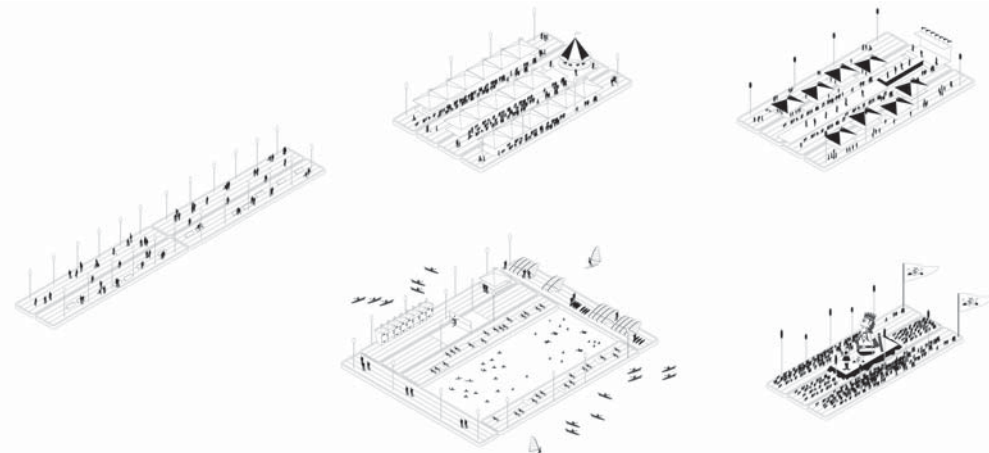
(above) The Toronto Pontoon, the city's new floating public space typology, boat landing and aquatic habitat.  
 (left) Floating logs



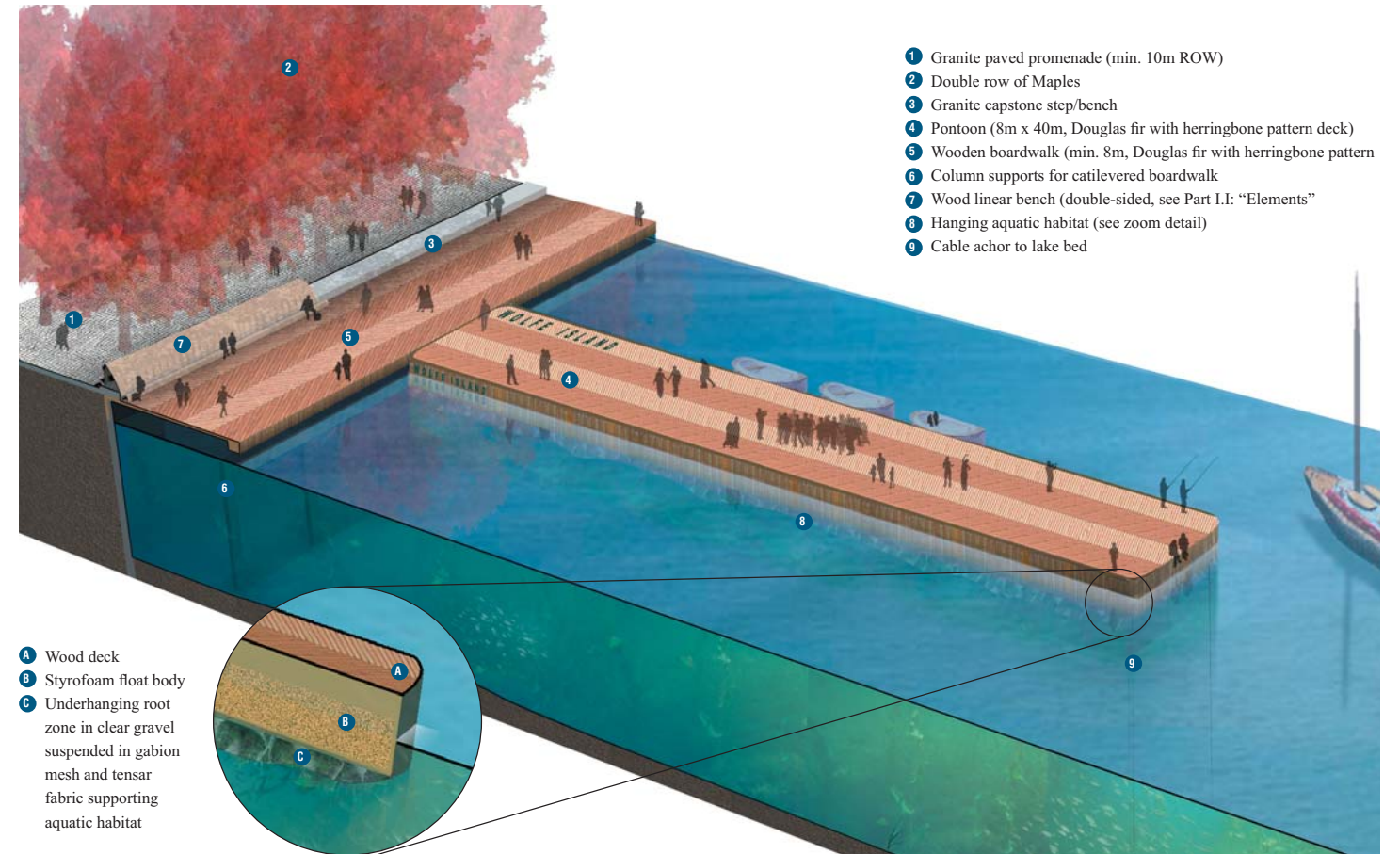
(above) Technical section of the floating pontoon.



(right) Programmatic flexibility: possible configurations of the pontoons to accommodate changing events and uses.



Pontoon seasonal management strategy  
 (below left) March - November: regular placement of pontoons along waterfront promenade.  
 (below right) December - February: winter placement of pontoons in sheltered areas of the bay free of ice. Primary storage in the Ship Channel of the Portlands (A) with potential alternative locations (B,C,D).



- 1 Granite paved promenade (min. 10m ROW)
- 2 Double row of Maples
- 3 Granite capstone step/bench
- 4 Pontoon (8m x 40m, Douglas fir with herringbone pattern deck)
- 5 Wooden boardwalk (min. 8m, Douglas fir with herringbone pattern)
- 6 Column supports for cantilevered boardwalk
- 7 Wood linear bench (double-sided, see Part I.I: "Elements")
- 8 Hanging aquatic habitat (see zoom detail)
- 9 Cable anchor to lake bed

- A Wood deck
- B Styrofoam float body
- C Underhanging root zone in clear gravel suspended in gabion mesh and tensar fabric supporting aquatic habitat







(top) Marking the territory: Nazca lines, Peruvian desert  
(above) Icon of land art: Robert Smithson's Spiral Jetty, Great Salt Lake, Utah

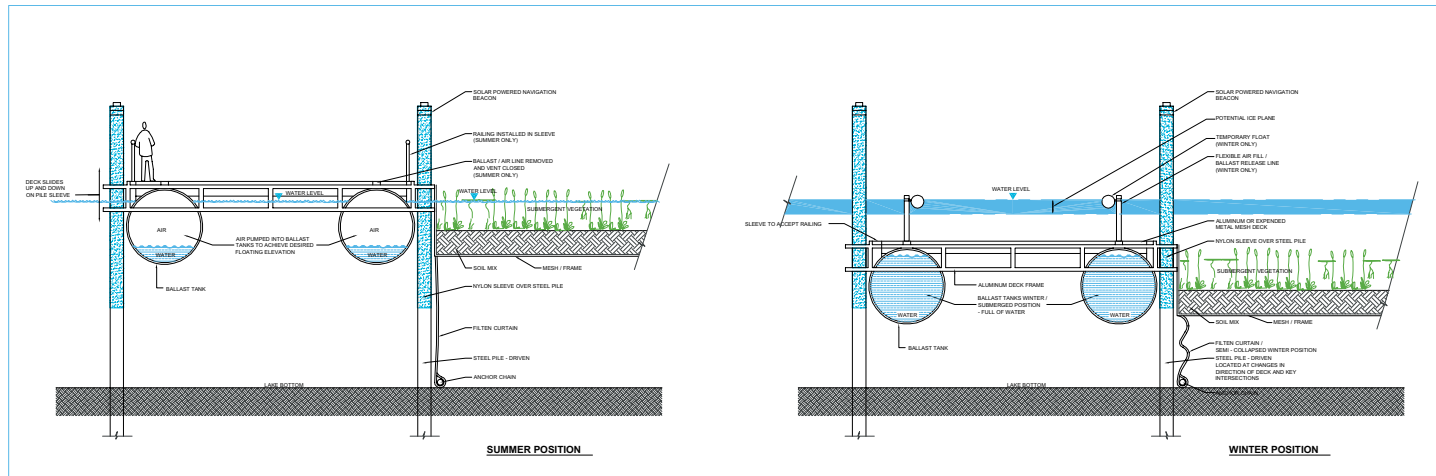
(below) Expression of the Canadian landscape in the urban lakefront.



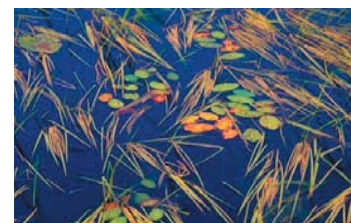
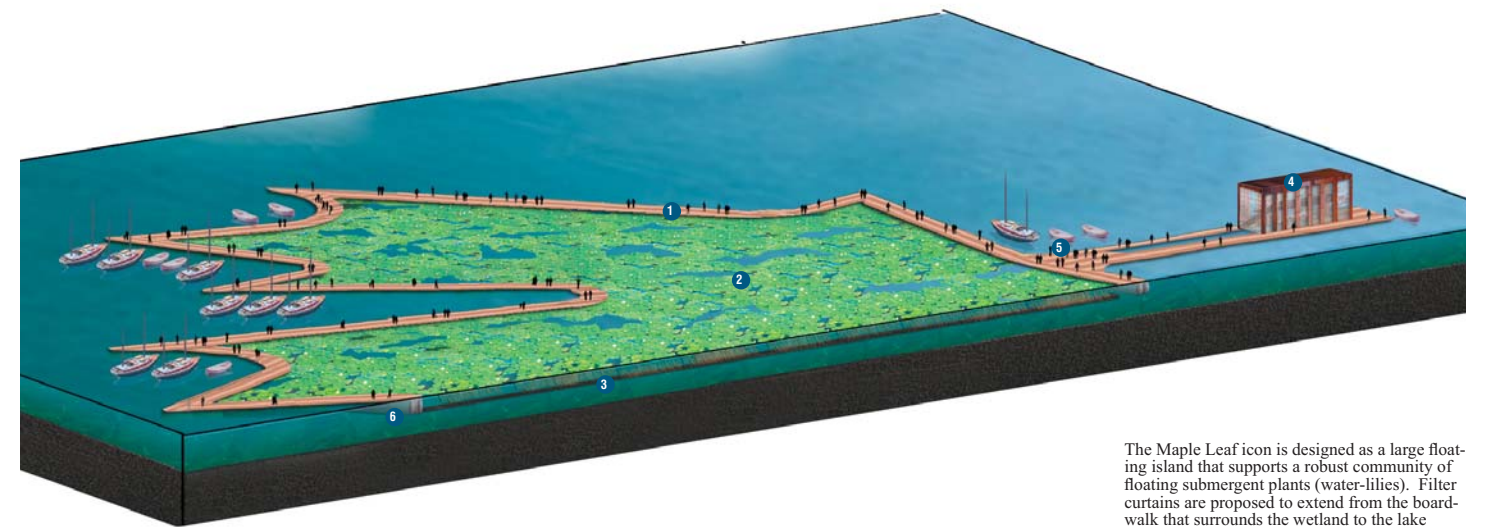
(opposite right) early morning fog during a jog and kayak around the maple leaf.







- 1 Maple Leaf Loop Boardwalk (XXkm Loop walkway, wooden deck)
- 2 Water-lily floating wetland
- 3 Filter curtain
- 4 'The Stem' Restaurant/Cafe with inner water garden and lookout
- 5 Water taxi stop
- 6 Ballast tank float



(above) Detail of floating Maple Leaf feature with ballasted submersible deck.  
 (left) submergent vegetation (floating water-lilies) within the Leaf feature wetland.

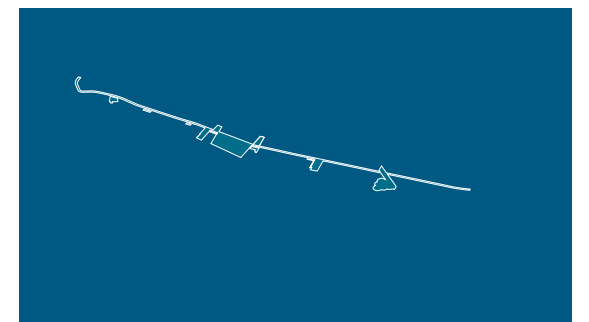
The Maple Leaf icon is designed as a large floating island that supports a robust community of floating submergent plants (water-lilies). Filter curtains are proposed to extend from the boardwalk that surrounds the wetland to the lake bottom. Stormwater from the proposed York Street overflow outlet from the biofilter system will be piped to the wetland for treatment. The filter curtains will serve to contain suspended solids and contaminants within the wetland to enhance treatment efficiency.

KEY ISSUES IN THIS SECTION:  
QUEEN'S QUAY BOULEVARD & STREETScape  
QUEEN'S QUAY STREETCAR TRANSIT WAY  
THE MARTIN GOODMAN TRAIL  
GATEWAYS AT THE HEADS OF SLIPS



## THE NEW MULTIPLE WATERFRONT – PART III: “QUEEN’S QUAY/SLIP-END BOULEVARD”

We take an integrated approach to the design of Queen’s Quay Boulevard and the heads of slips. The new Queen’s Quay is conceived in tandem with a series of new civic spaces where the city kisses the lake. A singular gesture with surprising variations to articulate the city’s first contact with the water’s edge, Queen’s Quay Boulevard and the 8 heads of slips define a new public environment that relates both the city and its greatest natural asset.



# QUEEN'S QUAY BLVD. STREETScape DESIGN

Queens Quay is the iconic waterfront boulevard that Toronto never had. The new Queen's Quay is designed as a generous public esplanade where the city and the water are bound into a new relationship. As the backbone of the central waterfront, spacious slip ends and vibrant urban culture will define Toronto's new lakeside boulevard for the 21st century.



This is the revival of the Walks and Gardens - the two hundred year old idea for public spaces alongside the city's southern-most street, extending from Coronation Park (Garrison Reserve) to the Mouth of the Don (Government Park).

Simcoe's Vision: History shows that the idea of a park along Toronto's waterfront is as old as the city itself. In September, 1793, a month after

The current configuration of Queens Quay is derived from the accommodation of vehicular traffic and the TTC corridor, with pedestrians inheriting the left over space. In order to become the social destination that the central waterfront should be, this relationship must be reversed.

The proposal for Queens Quay starts by leaving the TTC where it is - we think the cost for replacement would be needlessly prohibitive. However, by moving all of the traffic to the north side of the TTC corridor, a generous recreational trail can be realized to energize the esplanade. The transit corridor would sit in the pedestrian realm, rather than being stranded by four lanes of asphalt. Queens Quay would become a local collector road, and the major traffic would be pushed up to Lakeshore - the regional scale thoroughfare.

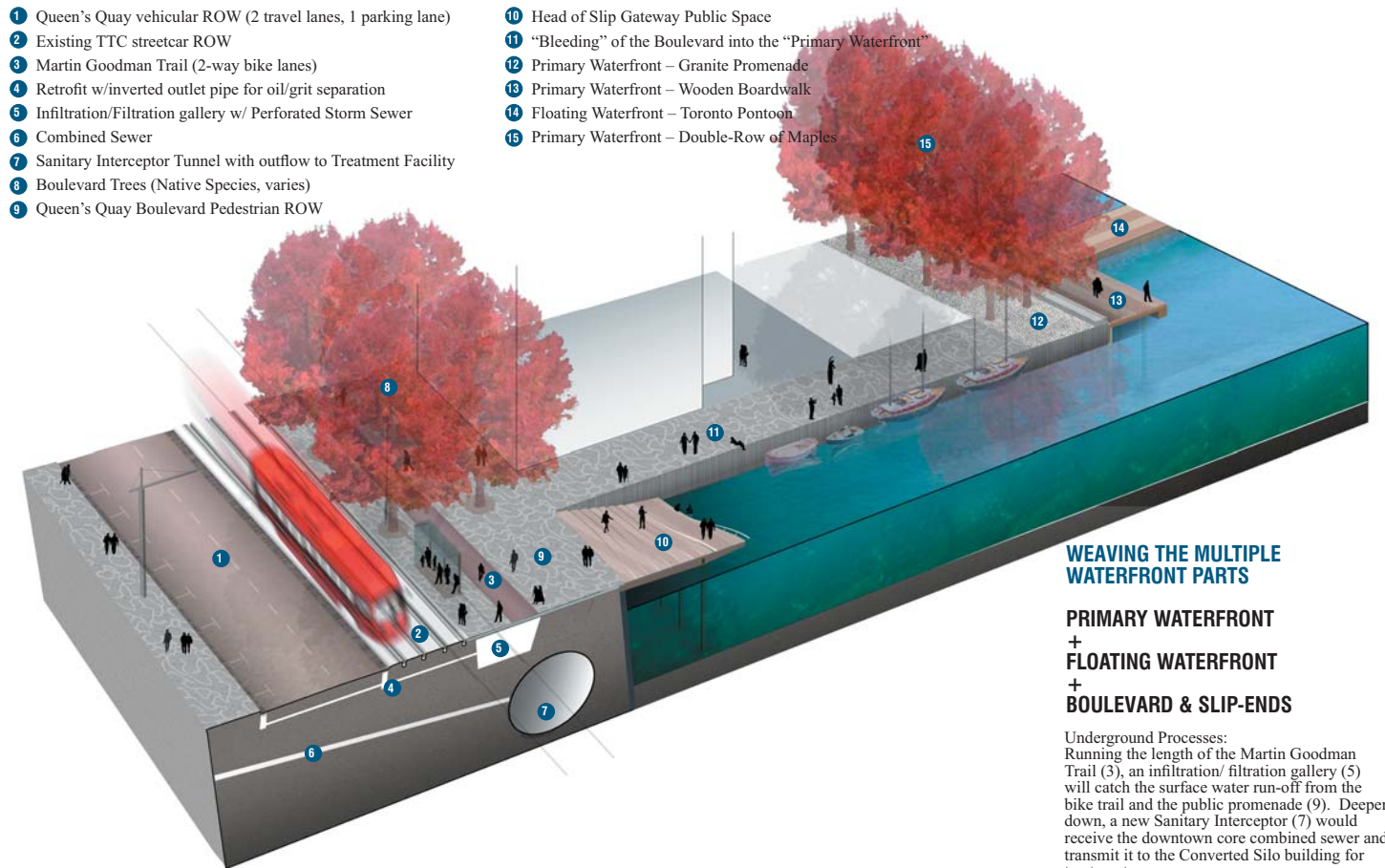
Governor John Graves Simcoe and his Queen's Rangers began clearing the Toronto townsite, the Hon. Peter Russell wrote his sister that Simcoe "has fallen so much in love with the land that he intends to reserve from population the whole front from the Town to the Fort-a space of nearly three miles." Simcoe's vision began to take specific form soon after when he set aside Toronto's two "bookends," the 1200-acre Garrison Reserve west of the town of York and the somewhat smaller King's or Government Park on the east between Berkeley Street and the Don River. But another twenty-five years would pass before formal steps were taken to link the bookends and put in place the next part of the grand plan - a thirty-acre strip of reserved land south of Front Street to the top of the bank of Lake Ontario between Berkeley and Peter Streets that would come to be known as the Walks and Gardens. (Stephen A. Otto, 2002-01-27)

The north (uptown) side of the street will accommodate parking where possible to re-activate the commercial strip. On the south (waterfront) side, the Martin Goodman trail and generous new public esplanade will see walking, cycling and rollerblading thrive in a symbiotic relationship. At a full four metres in width and with adjacent and opposing lanes, cycling and rollerblading will become a social event rather than a roadside commute. The wider walkway will open up the slip ends (now pinch points) as generous public spaces, gracious in scale to match the boulevard itself.

(left) Existing condition, Queen's Quay Boulevard looking east at Lower Spadina Avenue.

- 1 Queen's Quay vehicular ROW (2 travel lanes, 1 parking lane)
- 2 Existing TTC streetcar ROW
- 3 Martin Goodman Trail (2-way bike lanes)
- 4 Retrofit w/inverted outlet pipe for oil/grit separation
- 5 Infiltration/Filtration gallery w/ Perforated Storm Sewer
- 6 Combined Sewer
- 7 Sanitary Interceptor Tunnel with outflow to Treatment Facility
- 8 Boulevard Trees (Native Species, varies)
- 9 Queen's Quay Boulevard Pedestrian ROW

- 10 Head of Slip Gateway Public Space
- 11 "Bleeding" of the Boulevard into the "Primary Waterfront"
- 12 Primary Waterfront - Granite Promenade
- 13 Primary Waterfront - Wooden Boardwalk
- 14 Floating Waterfront - Toronto Pontoon
- 15 Primary Waterfront - Double-Row of Maples

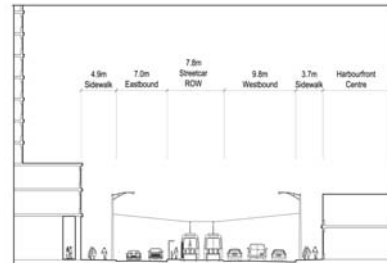


## WEAVING THE MULTIPLE WATERFRONT PARTS

### PRIMARY WATERFRONT + FLOATING WATERFRONT + BOULEVARD & SLIP-ENDS

Underground Processes:  
Running the length of the Martin Goodman Trail (3), an infiltration/ filtration gallery (5) will catch the surface water run-off from the bike trail and the public promenade (9). Deeper down, a new Sanitary Interceptor (7) would receive the downtown core combined sewer and transmit it to the Converted Silo building for treatment.

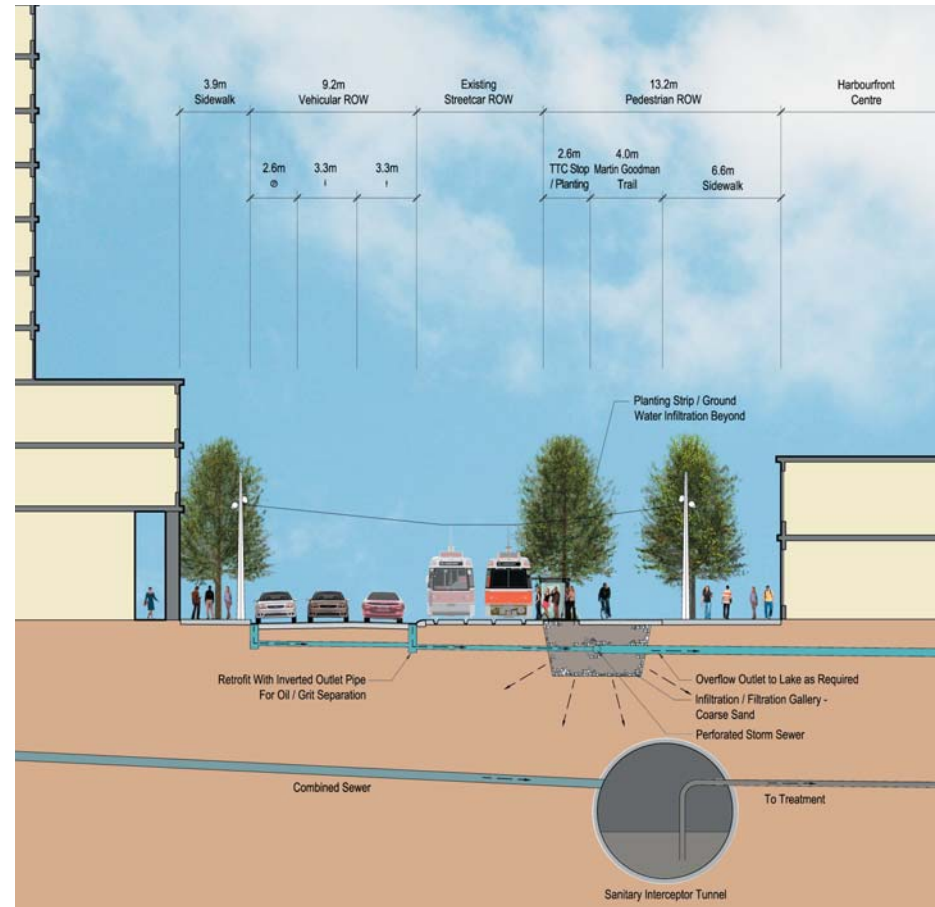




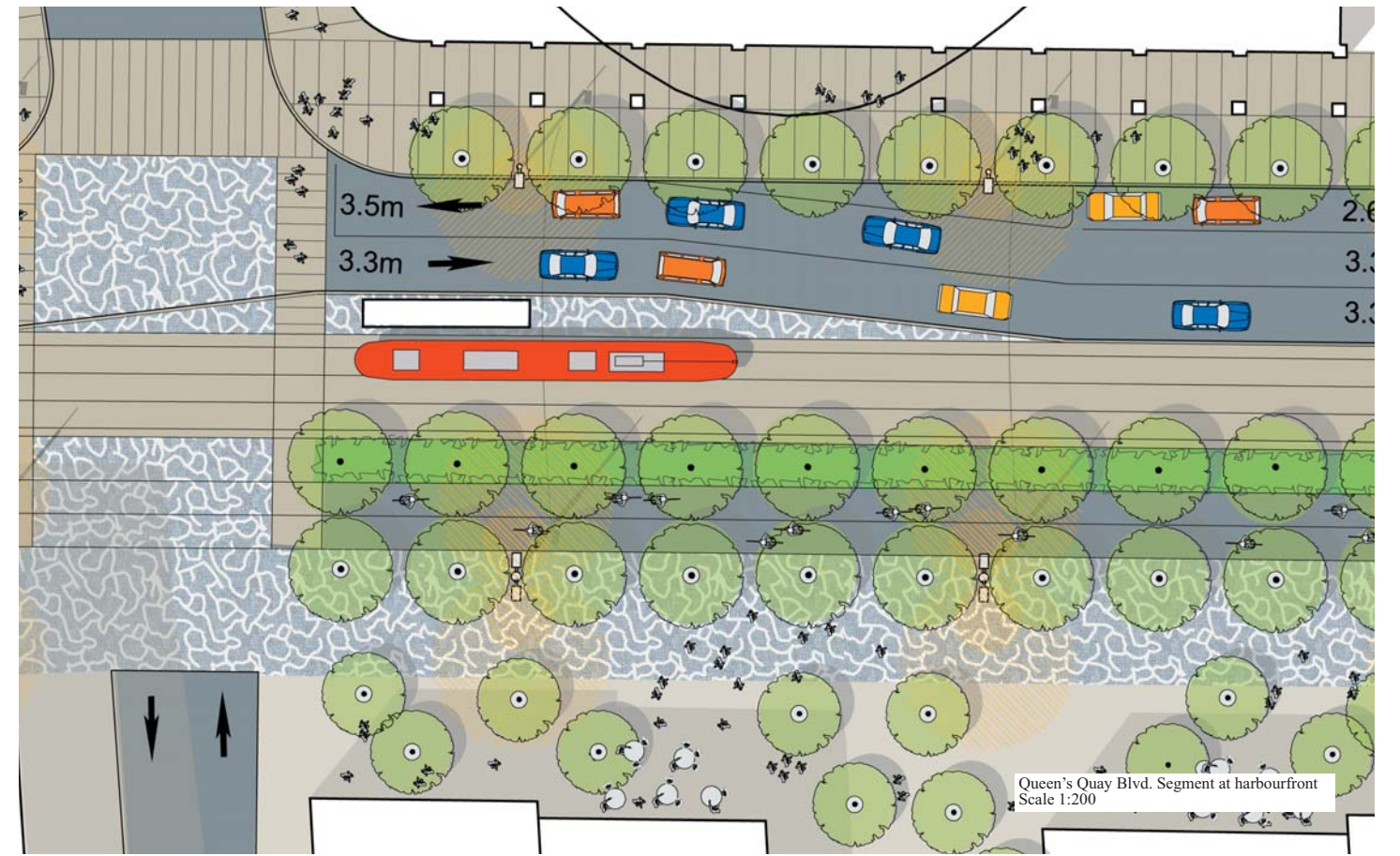
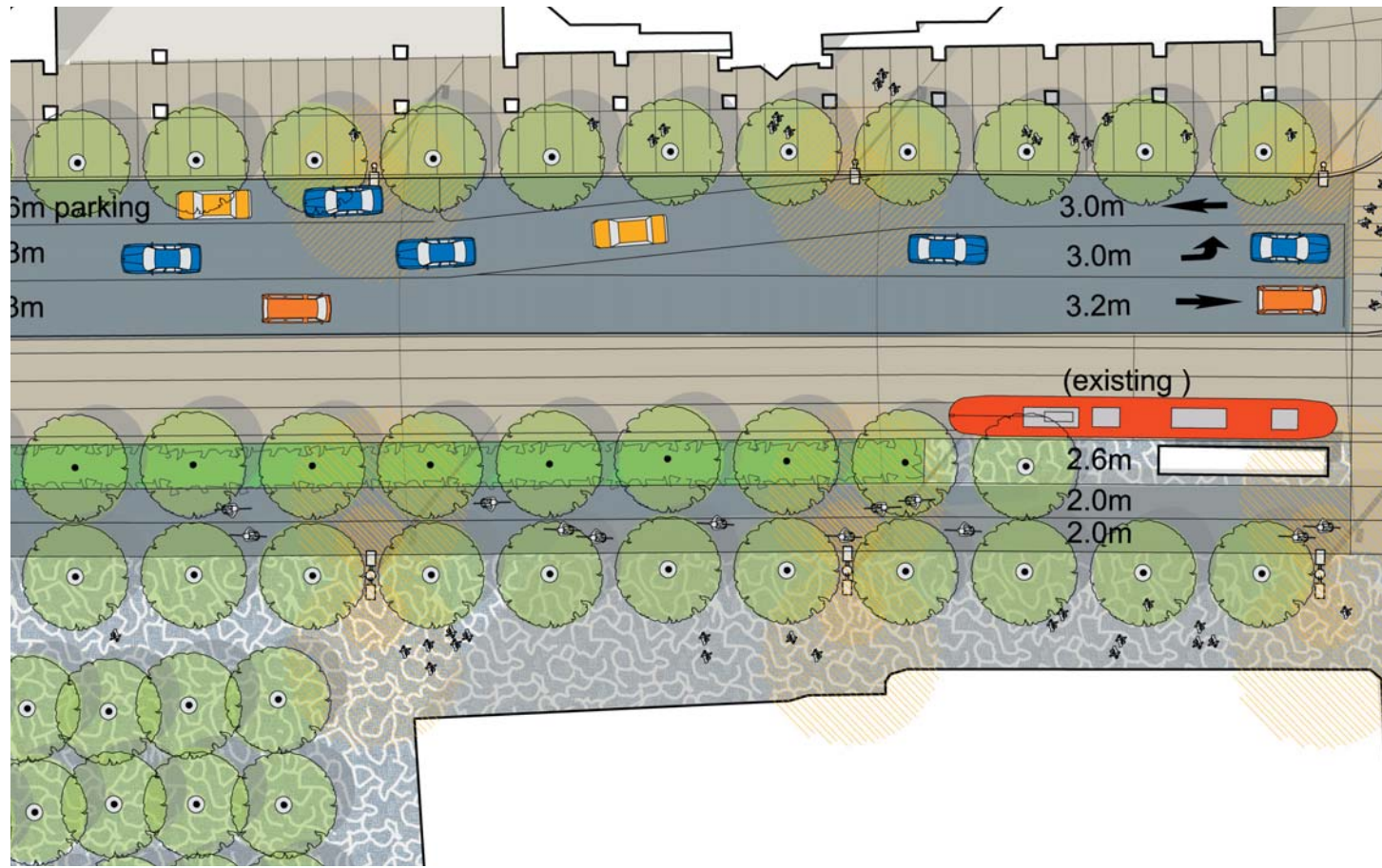
(above) Queen's Quay Blvd. existing condition section at Harbourfront Centre.

Queen's Quay Blvd. segment at Harbourfront: The Queens Quay redevelopment will leave the TTC tracks in place. As the traffic is moved to the north side of the TTC, the station stops will be moved to the near side of the intersections. This means that as opposed to the current condition on Spadina, streetcars will be able to offload passengers on a red light. There will be a left turn lane for exiting Queens Quay to go uptown or join the Lakeshore Boulevard. Intersections will be treated with a change of pavement right through to encourage an awareness of the confluence of different modes of transport.

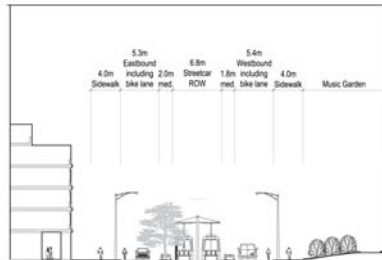
(right) Proposed Queen's Quay Boulevard Section at Harbourfront Centre  
Scale 1:200  
(opposite page) Impression of Queen's Quay Blvd. looking south west at Simcoe Street.







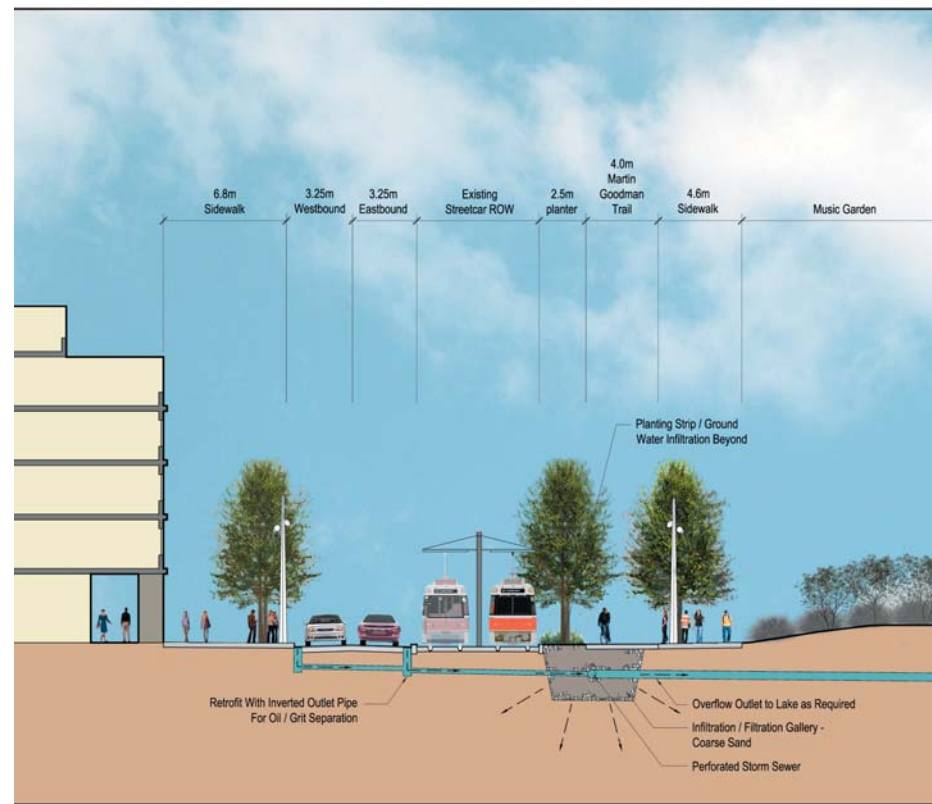




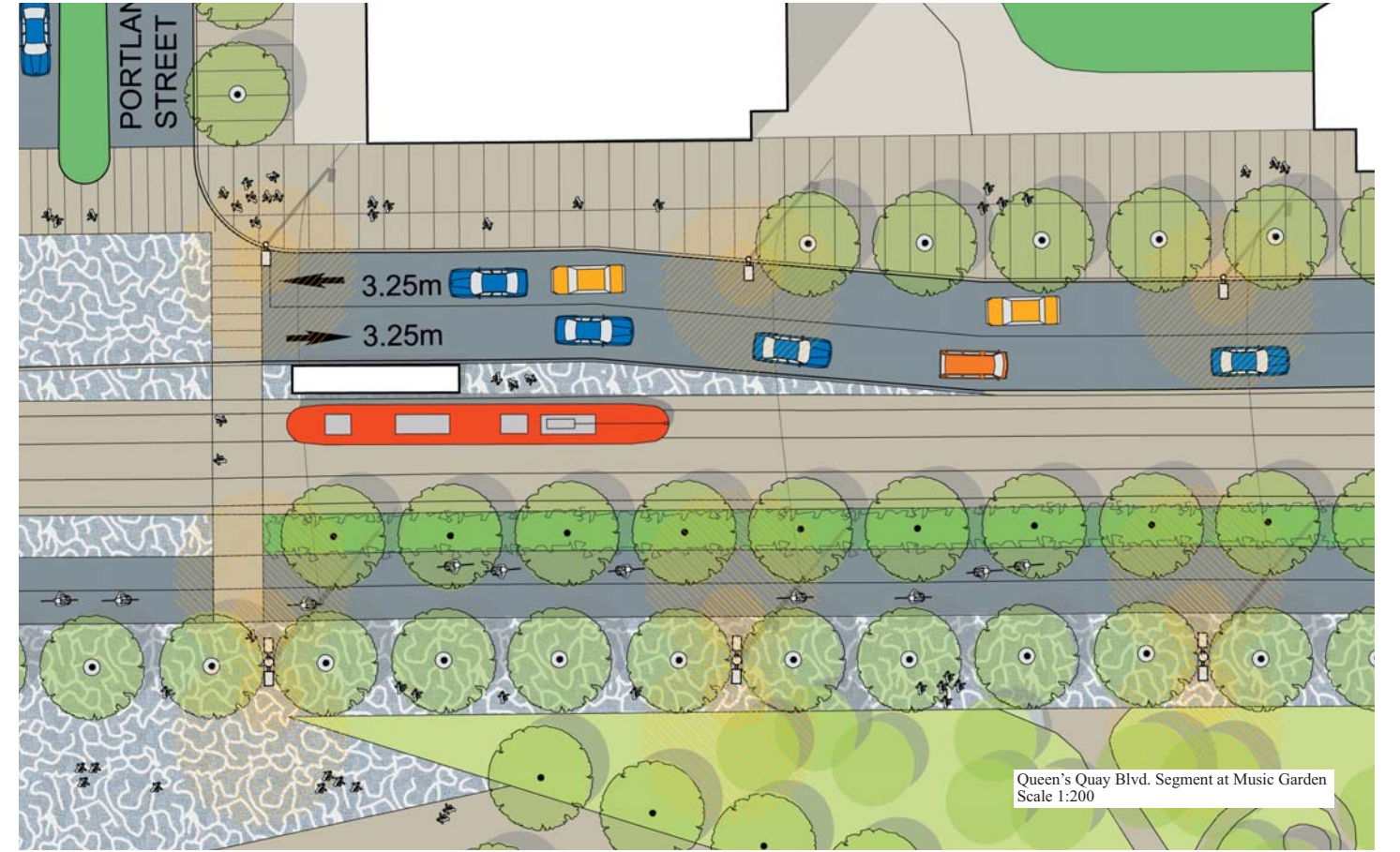
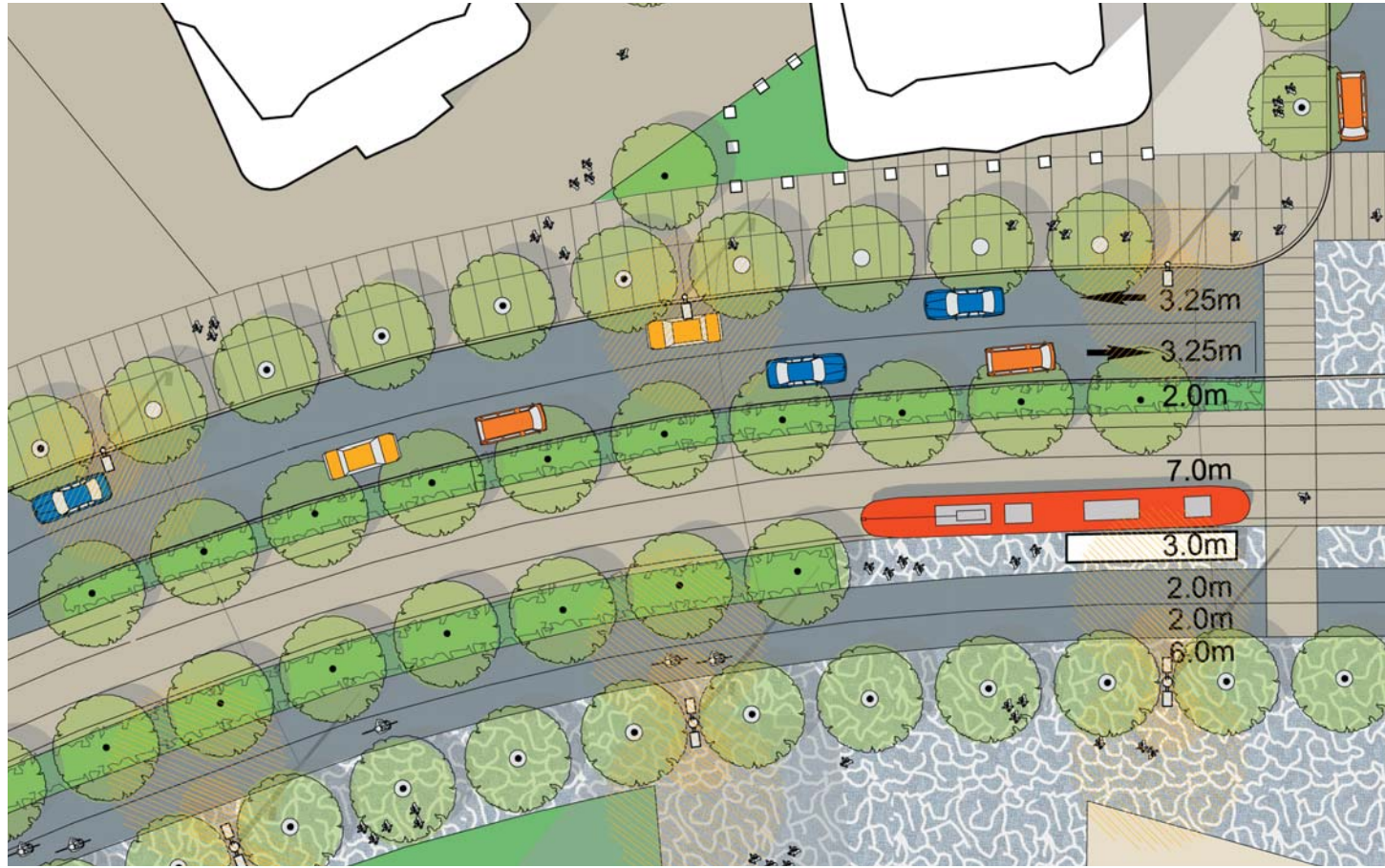
(above) Queen's Quay Blvd. existing condition section at Music Garden.

Queen's Quay Blvd. segment at Music Garden: The typical road sections at the Music Garden area of Queens Quay are narrower than those further to the east. That said, we propose continuing the same configuration all the way through. The north side will be the traffic lanes, but this time with no parking (this stretch is adjacent to condominiums with no commercial). An extra row of trees could be accommodated north of the TTC tracks, making this stretch of the boulevard a true greenway.

(right) Proposed Queen's Quay Boulevard Section at Music Garden  
Scale 1:200  
(opposite page) Impression of Queen's Quay Blvd. looking east at the Music Garden.

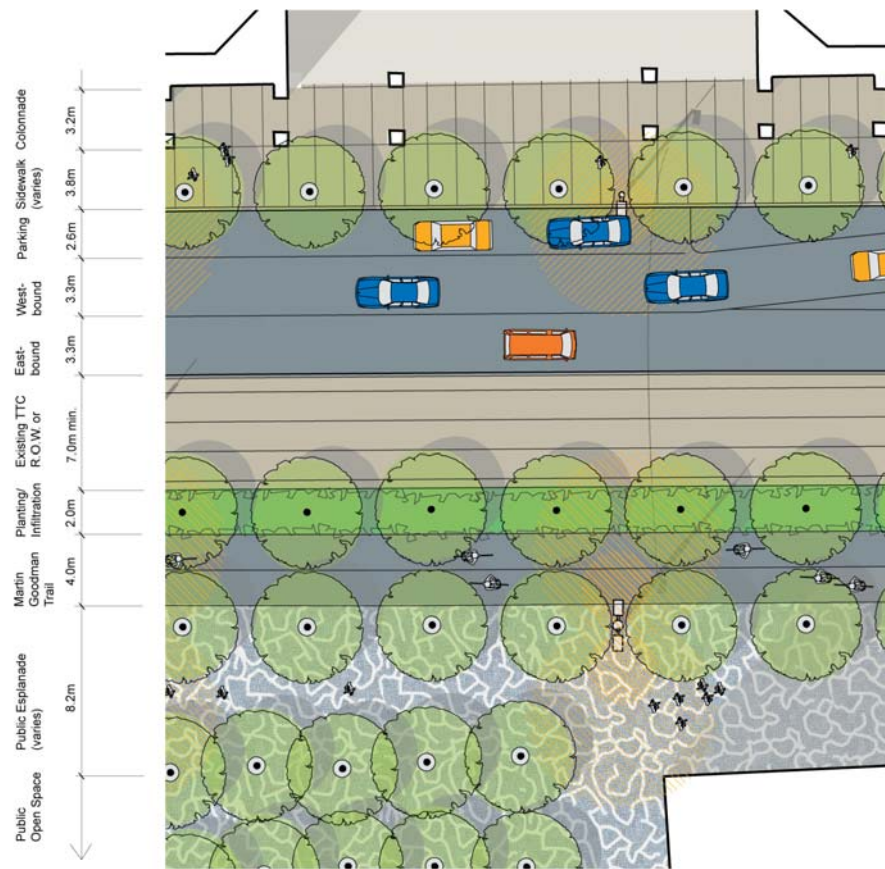






Queen's Quay Blvd. Segment at Music Garden  
Scale 1:200





(left) Detail of Queen's Quay Boulevard  
Scale: 1:200



(opposite left) Queen's Quay Boulevard proposed paving: pattern applied using granite pavers to distinguish the public realm of the Boulevard.  
(opposite right) View from the shady boulevard along Queen's Quay.









# QUEEN'S QUAY BLVD. TRANSIT ISSUES

A review of the existing transit facilities and proposed expansion in the Central Waterfront district revealed the existing and proposed portals on Queen's Quay Blvd. to be intrusive structures that are barriers to both linear and cross flow movements for pedestrians and cyclists. The exclusive right of way LRT designation (and implied express nature of service) are at odds with the desires for a scenic waterfront boulevard and vibrant street life.

Based on these observations, a number of options for an alternative to the current way of thinking were developed. These include:

## Option 1 New Portal Perpendicular to Queen's Quay Blvd.

This new portal, located one block east of York St. (see Detail A) would provide access to Union Station via the existing tunnel beneath Bay St.

At Union, the line would connect to the line proposed by TTC along Bremner Blvd., which would act as the main line to/from points east for commuters. The section of the Queen's Quay line west of the new portal would be used for local service only, on a loop up Bathurst or Fort York Blvd, and back to Union Station.

## Option 2 New Lakeshore Blvd. Line

This line would run in a dedicated right of way to provide high speed service along the Lakeshore Blvd. once the Gardiner Expressway has been dismantled.

In the interim, the Central Waterfront could be serviced by a new portal along Lakeshore Blvd. (see Detail B) with an interim connection to Queen's Quay along lower Yonge St. During this interim period, the section of the Queen's Quay line would function similar to Option 1 above. Ultimately, the Lakeshore line could be extended east and west (with a second portal) as a commuter line servicing both ends of the City, with the Queen's Quay line providing local service from Bathurst to Parliament or Cherry St.

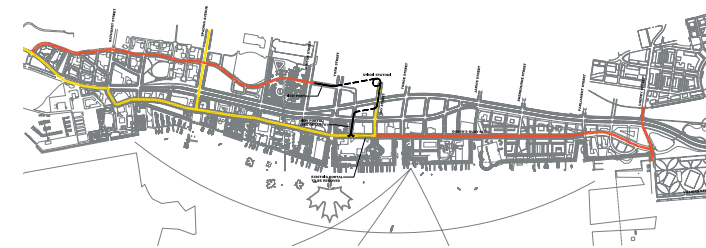
Both options include the removal of the existing portal on Queen's Quay Blvd. and no additional portal(s) on Queen's Quay in the future.

## Conclusions

Although further study is required to confirm feasibility, it is recommended that Option 2 be considered as the preferred scheme, for the following reasons:

- Eliminates existing and proposed portals on or near Queen's Quay Blvd.
- Provides a long term solution to increase transit ridership by commuters (thus reducing automobile use) from the west and east ends of the City.
- Provides local service only to the Central Waterfront and CN Tower communities, which can be better integrated with pedestrian and cycling activities to produce vibrant street life.

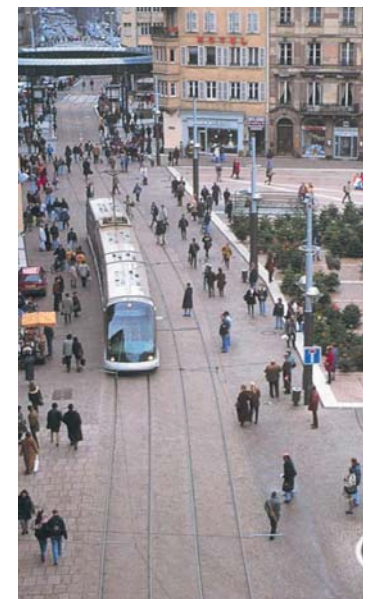
## LRT TRANSIT WAY



Option 1:  
New Portal Perpendicular to  
Queen's Quay Blvd.

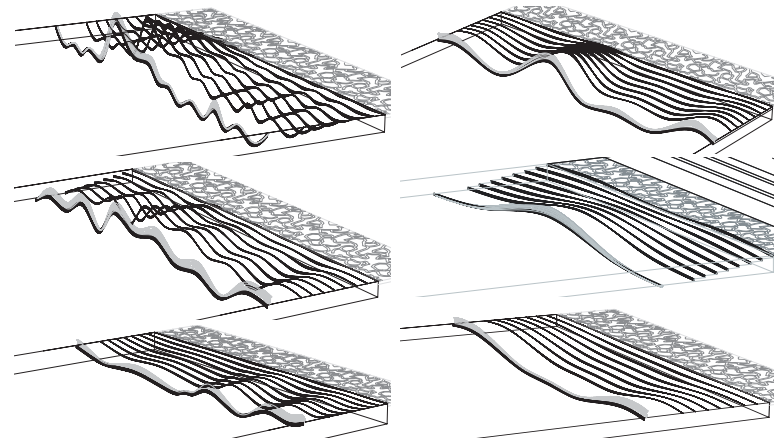


Option 2:  
New Lakeshore Blvd. Line



# HEADS OF SLIPS PUBLIC SPACE DESIGN

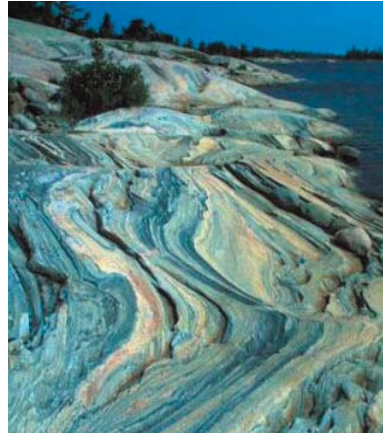
Seven steps to the lake. A simple articulation of the change in level between the Boulevard and the water is explored through a series of variations at the heads of slips. With utmost restraint, a new public space gateway is generated where the city kisses the lake, inspired by the sinuous contours of the shoreline.



Impression of the gateway public space created at the heads of slips, viewed from Queen's Quay Boulevard.

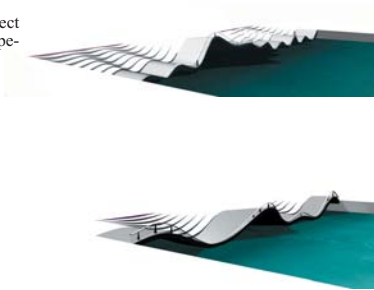
(opposite right) Studies in the variation of curvature to produce diverse conditions at the heads of slips, all within a coherent overall language.





(left) Contours of the Canadian Shield shoreline along Georgian Bay, Ontario.  
(below) Existing condition at the head of Spadina slip.

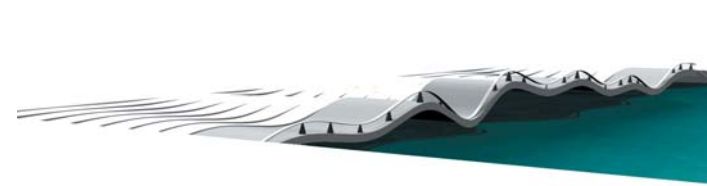
Shoreline coherence: a simple, undulating wave gesture becomes a prototype that is repeated at each slip end with subtle variations. Each slip end derives its character from the spatial qualities and activities suggested through its form; variations of contact with the water and prospect over the slip or the boulevard highlight the experience.



Slip-end Studies



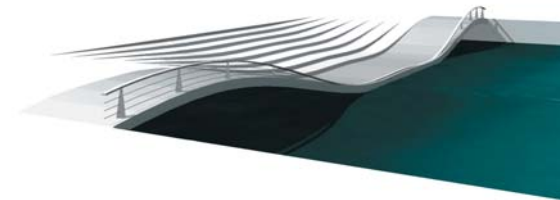
(below) Rock formations of the Canadian Shield inspire different relationships to the water surface.



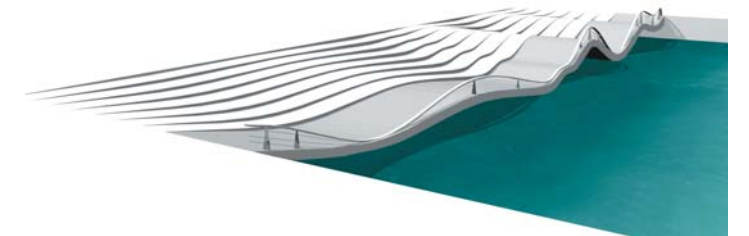
Simcoe Slip



Spadina Slip

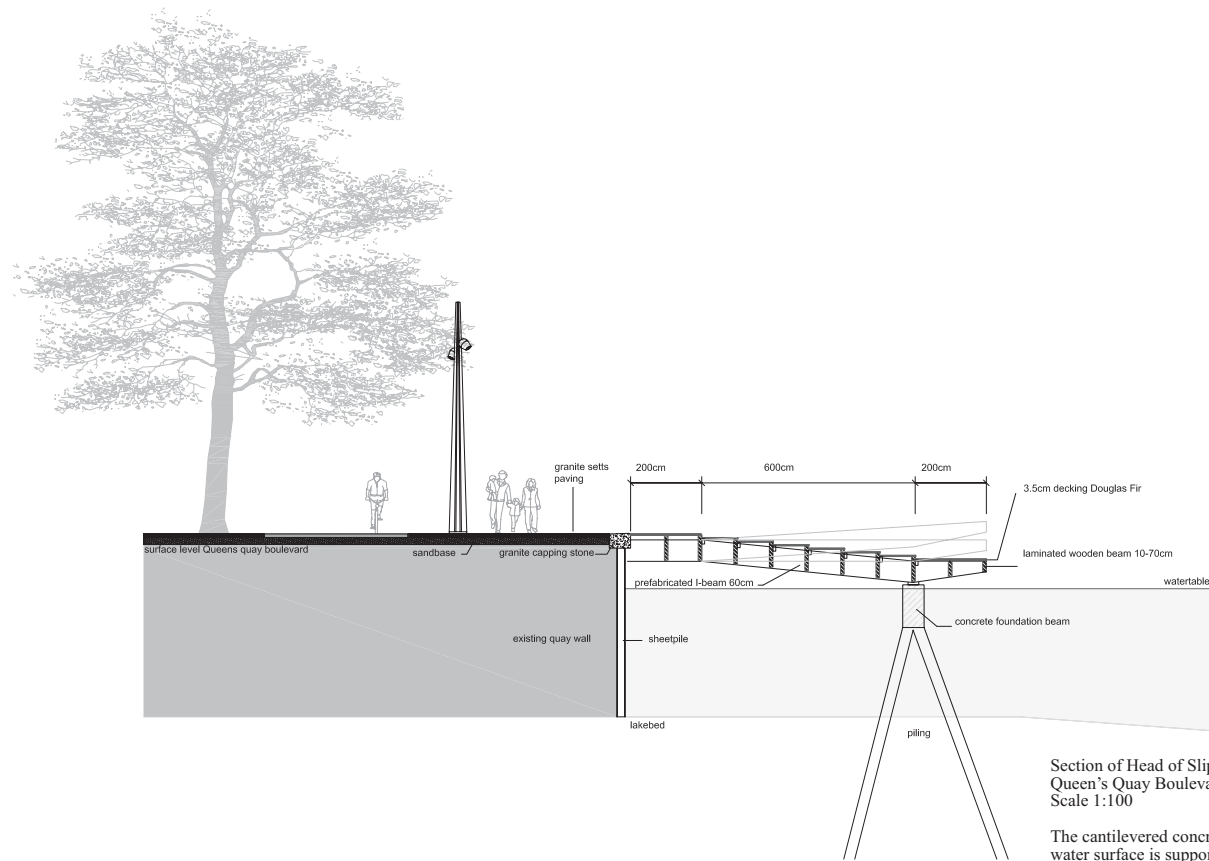


Rees Slip



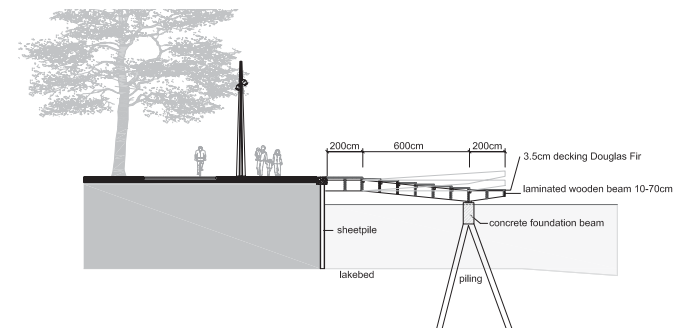
Portland Slip



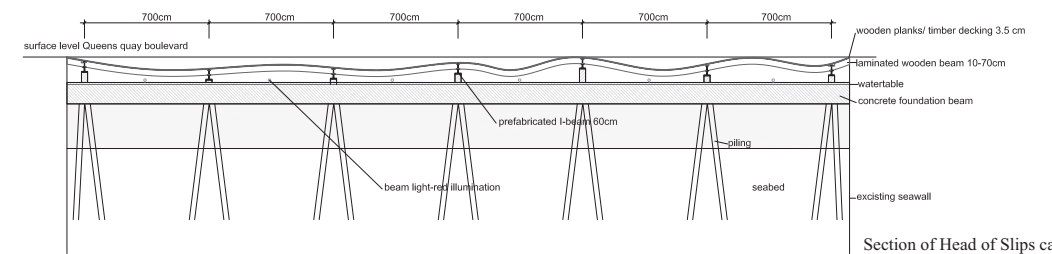


Section of Head of Slips typical interface with Queen's Quay Boulevard  
Scale 1:100

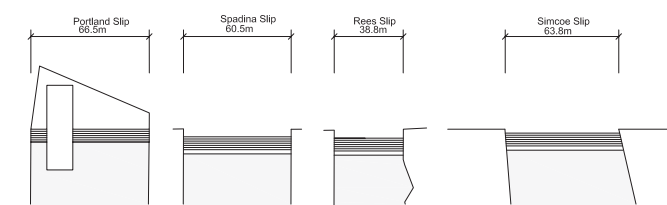
The cantilevered concrete structure over the slip water surface is supported by structural beams and columns at the low points of the undulating curve.



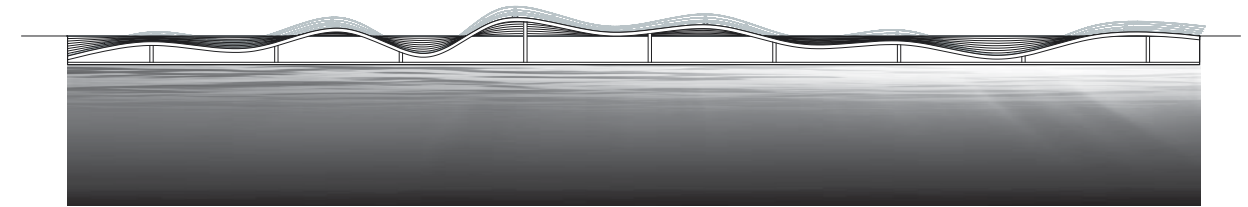
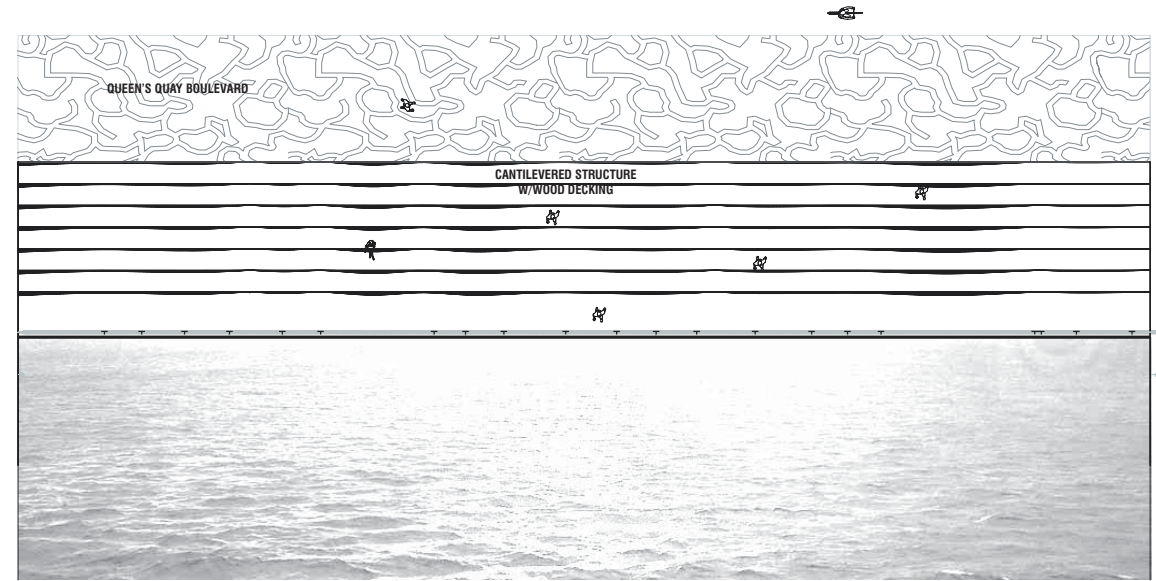
Section of Head of Slips cantilevered structure  
Scale 1:200



Section of Head of Slips cantilevered structure  
Scale 1:200



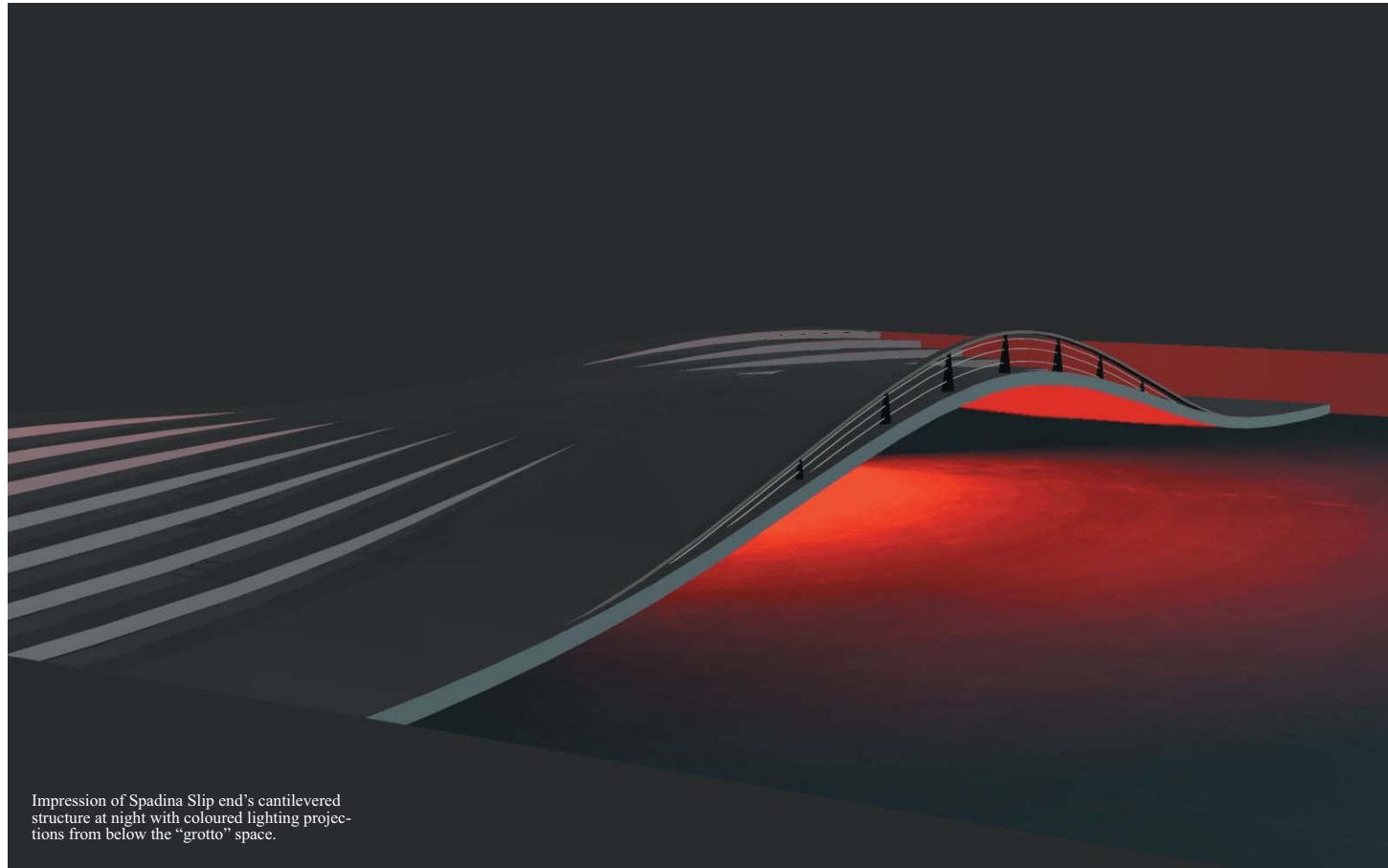
Dimensions of 4 Slip-ends under study



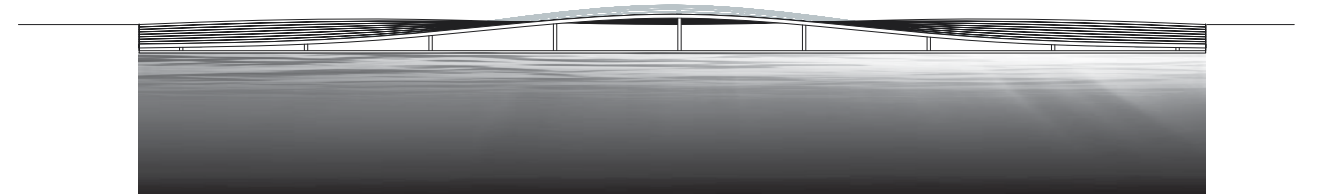
**SIMCOE SLIP**

Plan & Elevation at Simcoe Slip  
Scale 1:200



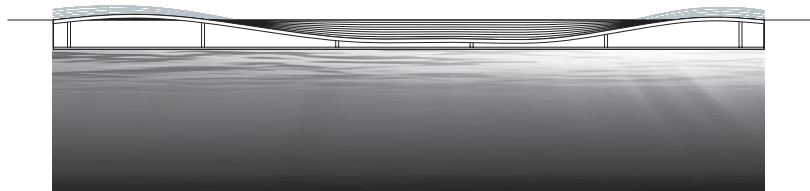
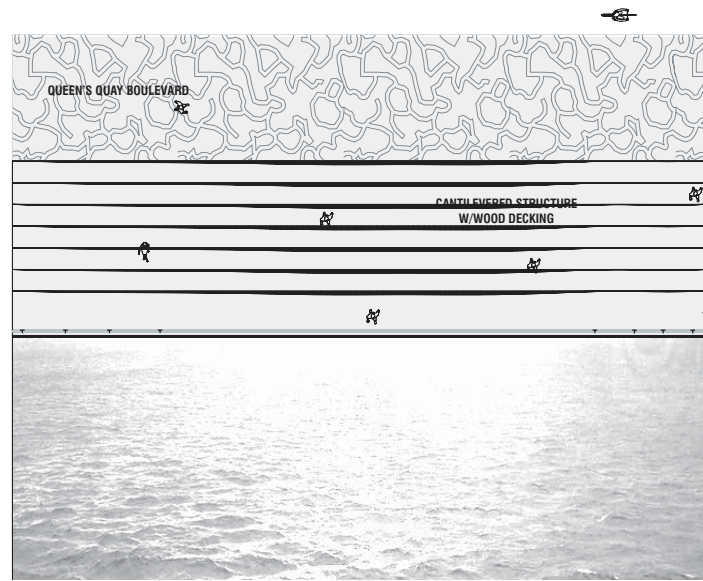


Impression of Spadina Slip end's cantilevered structure at night with coloured lighting projections from below the "grotto" space.



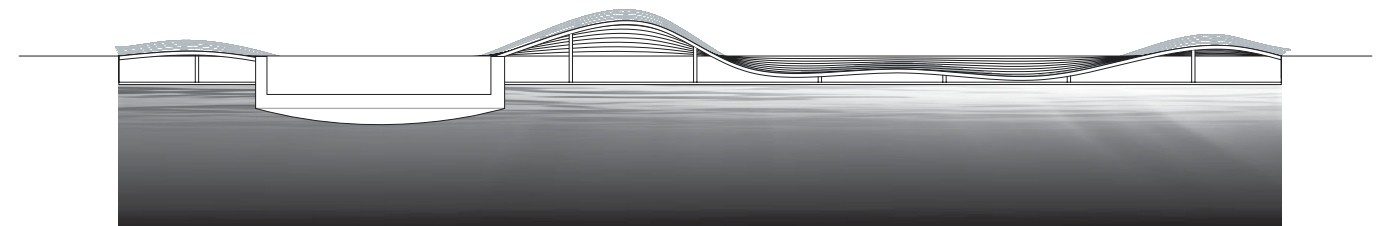
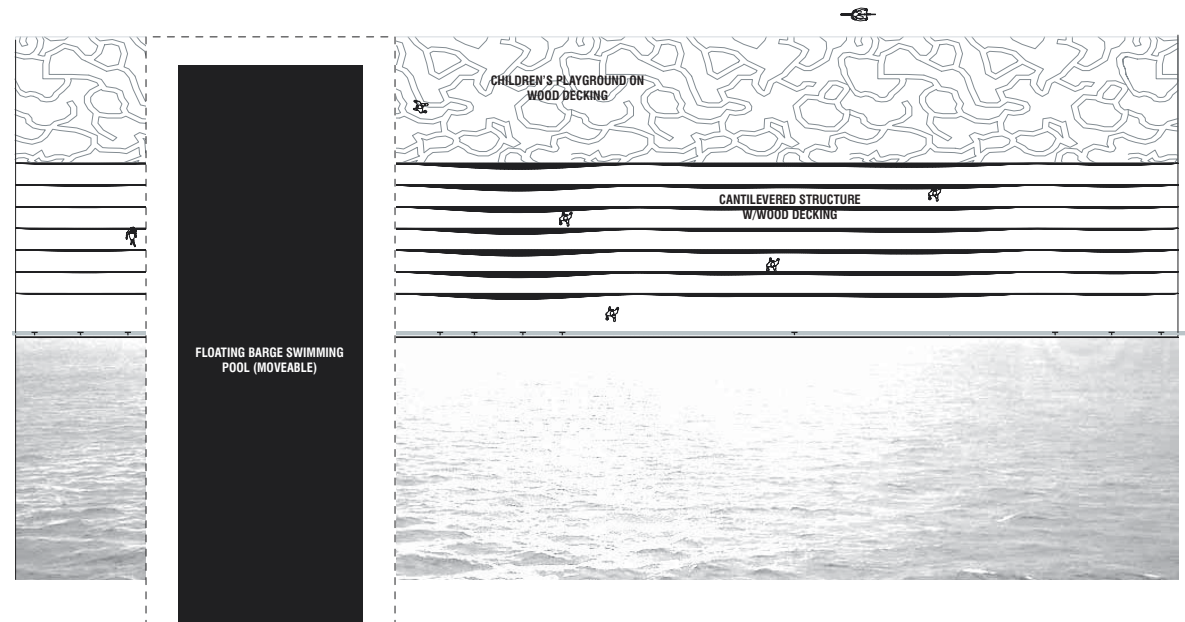
## SPADINA SLIP

Plan & Elevation at Spadina Slip  
Scale 1:200



**REES SLIP**

Plan & Elevation at Rees Slip  
Scale 1:200



**PORTLAND SLIP**

Plan & Elevation, at Portland Slip  
Scale 1:200

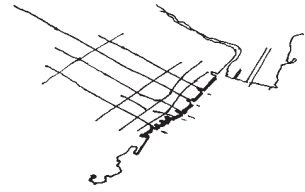




## **CULTURE FROM THE HINTERLAND DRAWN TO THE LAKE EDGE**

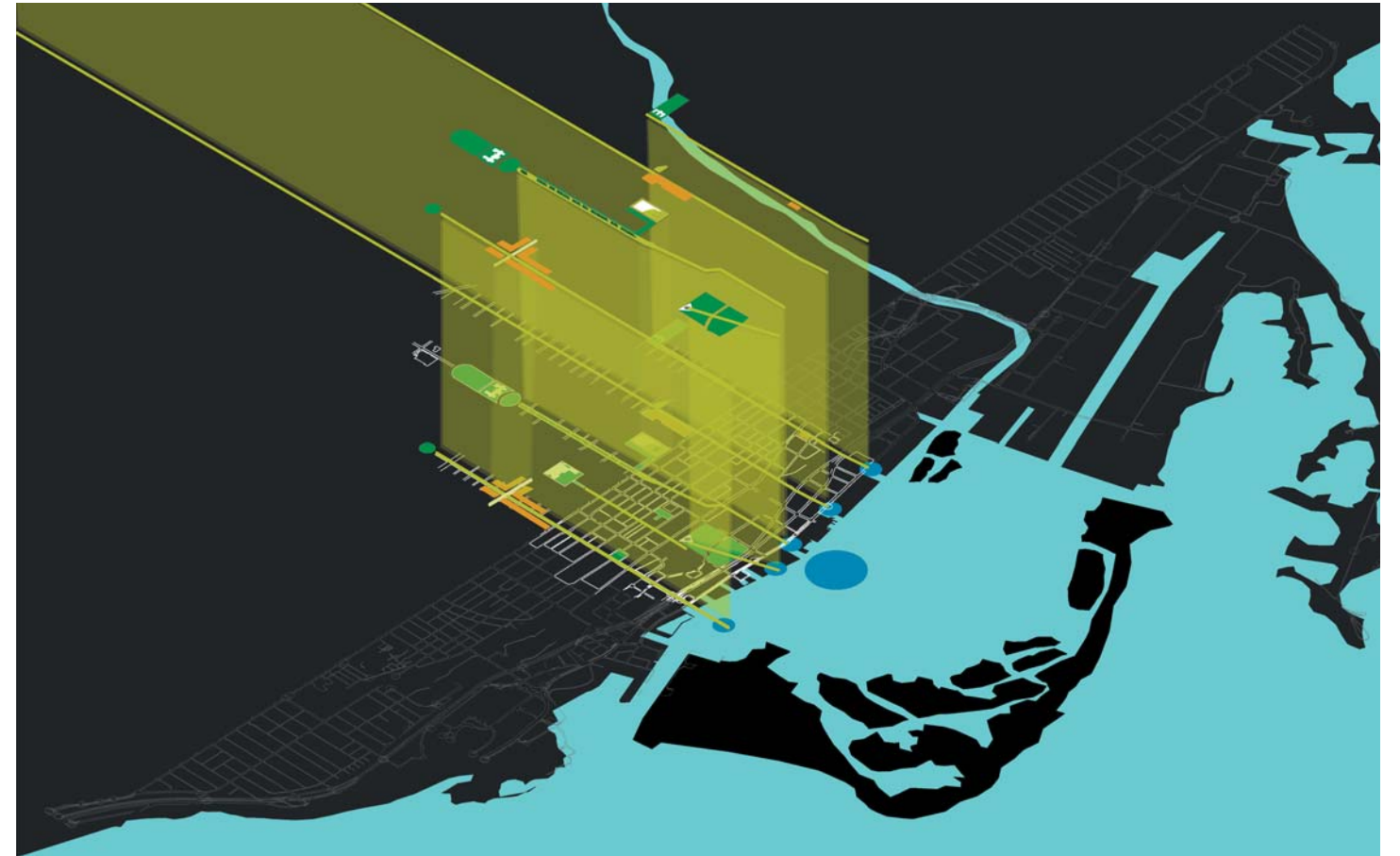
Reconnect the city to the water. Re-establish Toronto as a city that begins at the lake, where the vibrancy and diversity of the city and its culture find a point of expression and an address on the waterfront.





(above) Sequence of diagrams:  
 (1) Important north-south connections to the lake and cultural continuities within the urban tissue of Toronto; (2) Spadina Avenue featuring Spadina Circle and Chinatown; (3) CN Tower and its unexploited connection to the water, featuring the city's 553m landmark; (4) University Avenue/York Street, the avenue of political and institutional representation featuring Queen's Park and City Hall; (5) Yonge Street, the longest street in the world featuring Dundas Square and the Eaton's Centre; (6) Jarvis Street featuring Allen Gardens, the St. Lawrence Market and the old city.

(opposite right) Composite diagram of key lines of cultural continuity





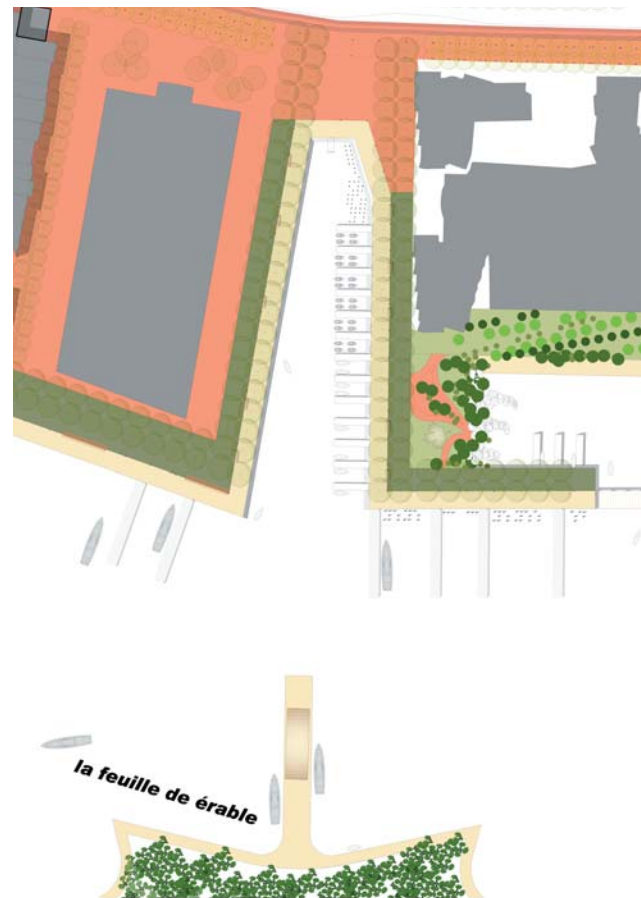


**THE  
WATERFRONT  
VISION IN DETAIL**









## LINES OF CULTURE: UNIVERSITY AVE./ YORK ST.

The terminus of Toronto's most formal avenue of political and institutional representation at the Lake. This line of culture gathers the provincial legislature at College Street, City Hall just east at Queen Street and its landing at the Lake is celebrated with the national symbol: the maple leaf.

York Street is the orphaned extension of University Avenue to the lake. Grand plans abandoned in 1930's City Beautiful didn't make it past the railways.

North of the viaduct, University Avenue is the axis joining the seats of the political and commercial establishment. It joins the legislature and Bay street. It is also home to the formative institutions of Upper Canada. Once the most-favoured promenade bordered by flowering chestnuts, the current landscape struggles in the shallow earth atop the subway. Sober buildings of substance and restraint now line the edges, and the grand gesture endures.

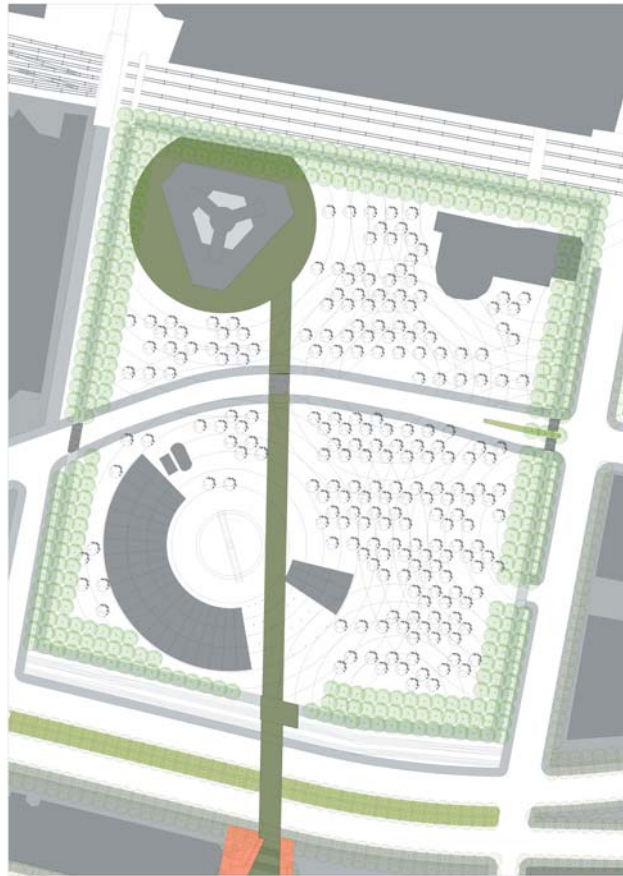
Always ready for a parade, University and York's role is to celebrate our sense of civic order and provincial pride. The street should march to the waterfront with flags waving and chestnuts blooming. It should remind us of the robust state of our union. We should be assured by its noble strength and permanence.

The street lands at the fulcrum of the waterfront. It parts the seawall and promenade leaving the vista free and distant. It connects our institutions to this place on Lake Ontario. The trajectory lands on the symbol of the nation. Our land. Vast, calm and restorative.

Wooden pillar with wooden 1:1 scale statue of John Graves Simcoe, founded of York (City of Toronto). At 30m high, the monument is a play of proportions; between being important and being human.







## LINES OF CULTURE: CN TOWER TRAJECTORY TO THE HARBOUR VILLAGE

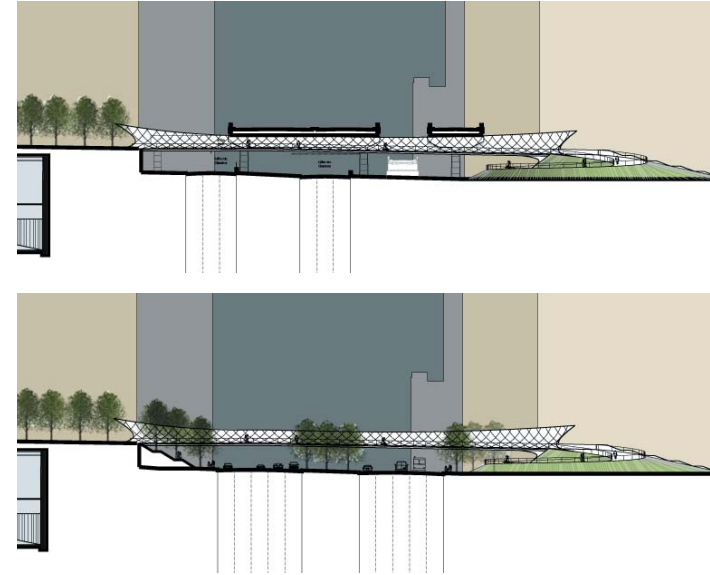
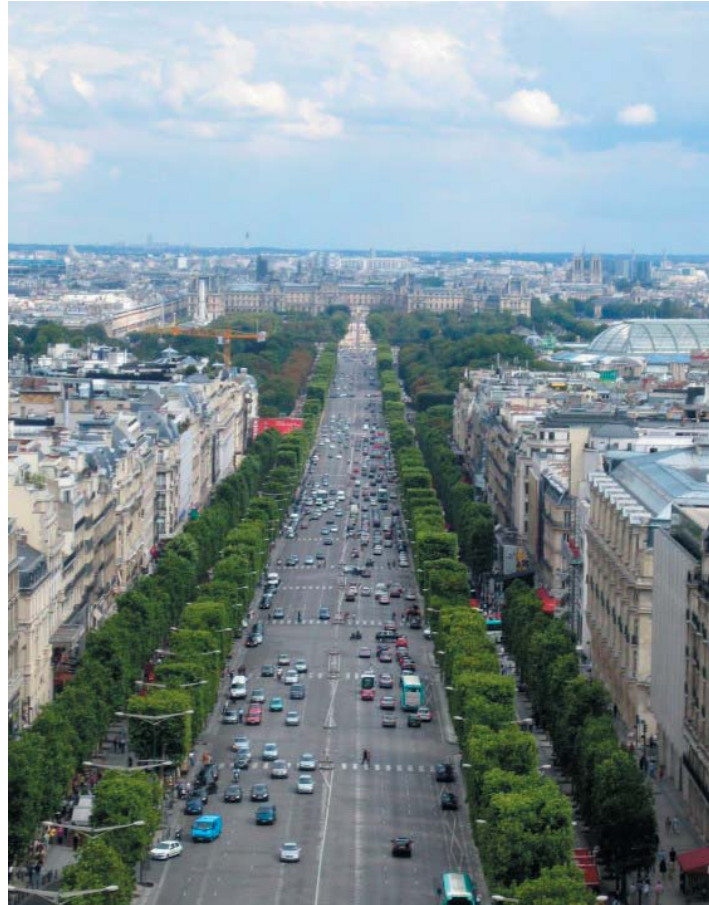
Toronto's most important landmark, the CN Tower is a stunning part of the city's skyline, however it remains a "footless" landmark. The condition of its base – the way in which it marks its presence on the ground and connects to the city and the waterfront – is an insult to the ambition of the tower. The tower site is perhaps the most under-explored piece of land in the country; it forms an important part of the central waterfront's revitalization.



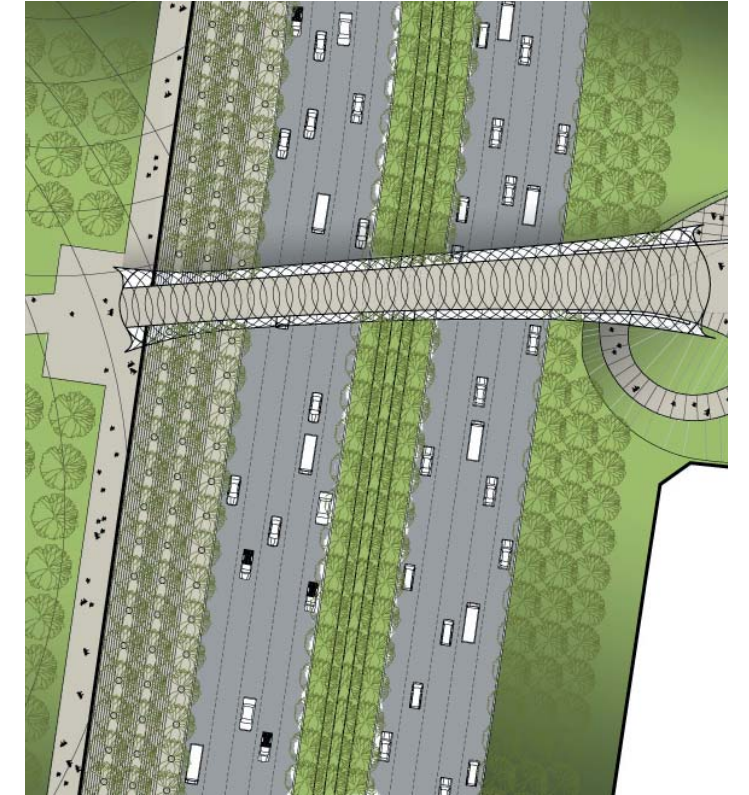
(above) The footless landmark: one of Toronto's greatest missed opportunities can now be integrated into the central waterfront.  
(right) The Eiffel Tower is implicated with the ground it sits upon; the Champs de Mars upholds the dignity of the tower.





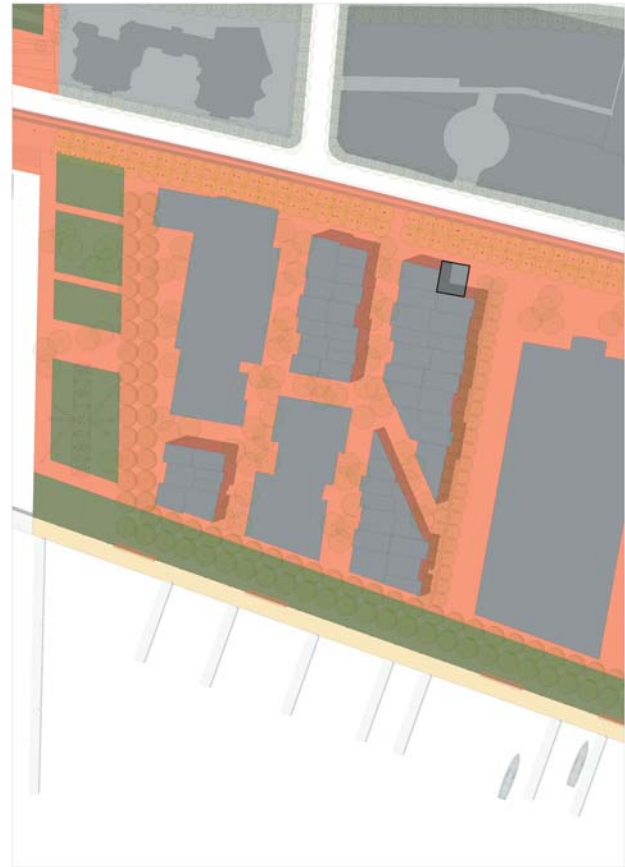


(top) Connection over Lakeshore Blvd. under elevated Gardiner Expressway.  
 (above) Connection over Lakeshore Blvd. with removed Gardiner.

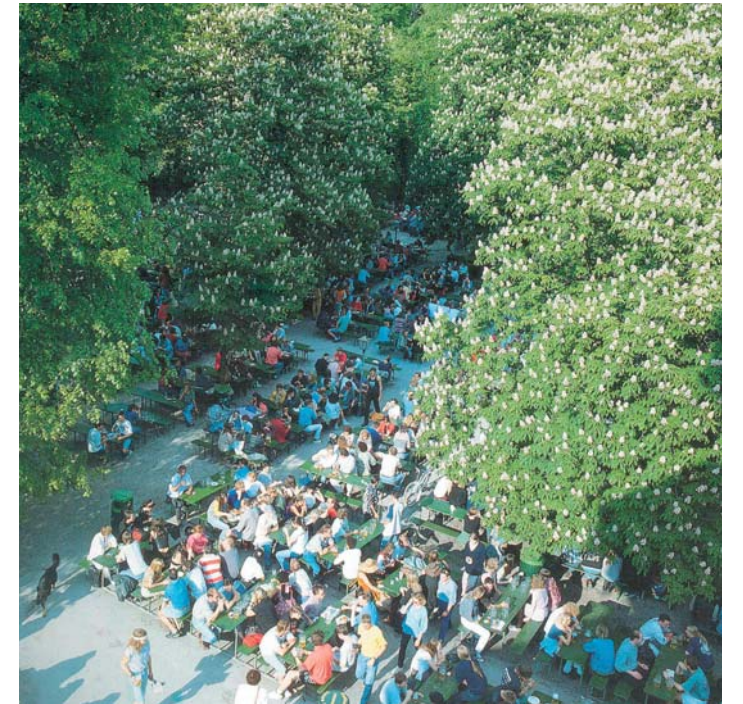


Plan view of Lakeshore Elysée (future scenario following removal of the elevated Gardiner Expressway) with bridge connection from CN Tower park to the waterfront.



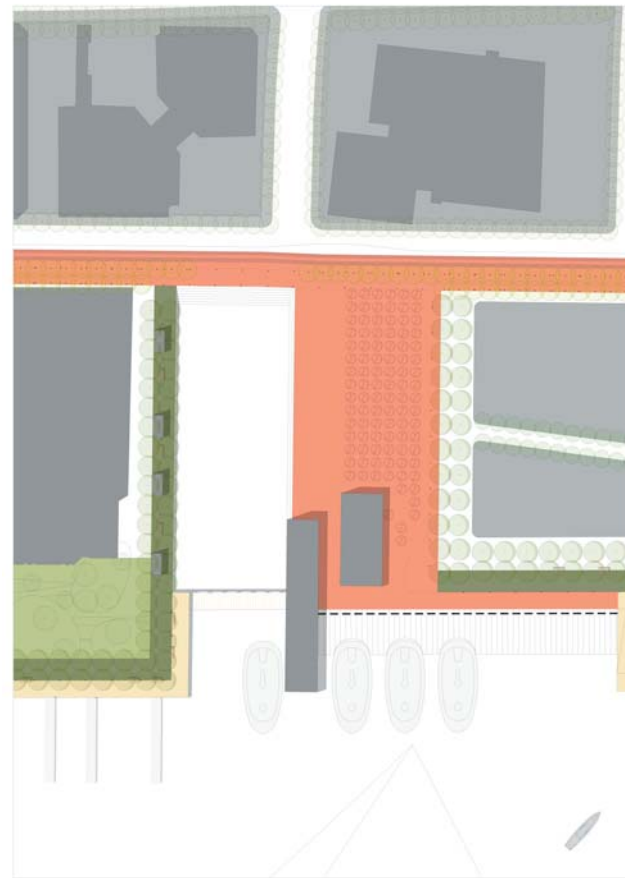


(upper left) The fine grain of Barceloneta;  
(upper right) the human scale of the harbour  
in Stavanger, Norway with places for people  
(lower right); (lower left) Quincy Market,  
Boston.



The character of the harbour village: green  
spaces scaled for social interaction.





## LINES OF CULTURE: YONGE LANDING

How do you terminate a 1,896km street?

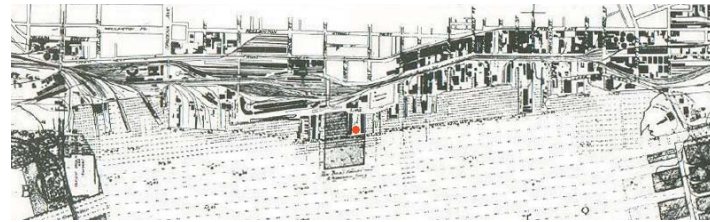
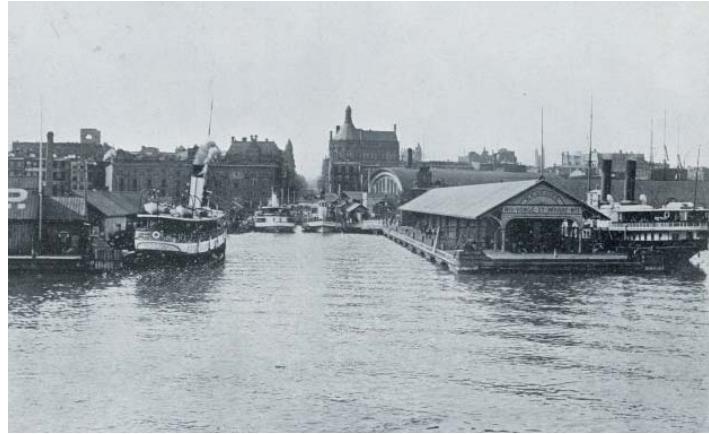
A reconstruction of the wharf buildings that marked the historic Yonge Wharf – a ferry terminal and market building – reactivates the memory of the city's past. At the foot of Yonge, everyday public functions and water-related activities are put in contact with Toronto's most dynamic street and framed to acquire a monumental status.

Yonge Street is Toronto's meridian - the middle of the city where counting begins east and west. It is the city's instinctive meeting place - the impromptu venue of the popular demonstrations and celebrations.

Yet the city's most symbolically high-charged street needs help, not least at its watery beginning.... But not so much help that it loses its gritty normal (neither refined nor hip, its seedy charm is both alluring and disarming) - its lore, rumour, dark side - its magnetism for wanderers and troubadours and the curious. The underworld is omnipresent - the subway is close to the surface here - the ground rumbles and there's a whiff of ozone from electric motors every couple of minutes.

The new Dundas Square seems to be about the right speed for Yonge Street. It has added punctuation to a very long urban paragraph and given legibility to the stretch between Square and Lake. Now it's time to fix the lake end. The key is the Quay. Bring back the ferry landing.

Ferries come and go. The Sam McBride chums and expels a bow wave while gliding into it's berth. The restless and the islanders line the gangplank. Contemplative and serene stragglers bring up the rear. Stepping off brings you to the city takes you away. The islands are removed. They have isolation, perspective, respite. The City is abrupt, immediate, busy, exciting. The landing is a place where these worlds collide, jostle and meld.

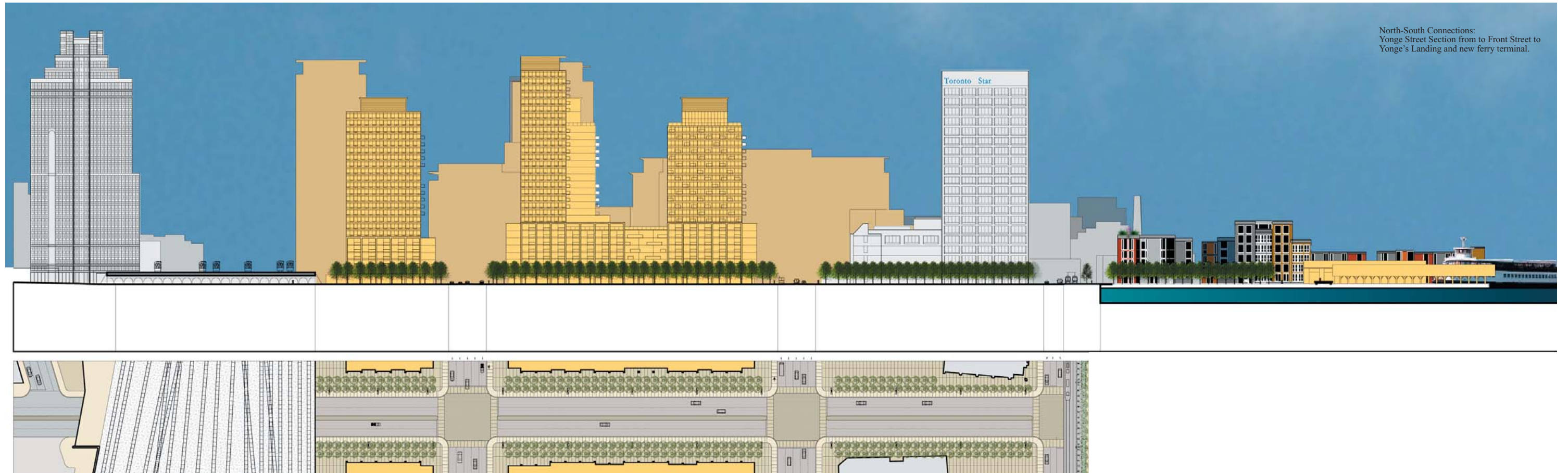


(top) Yonge Wharf (circa 1910)  
(above) Map of Toronto, 1912.  
(opposite) Winter impression at Yonge Slip





North-South Connections:  
Yonge Street Section from to Front Street to  
Yonge's Landing and new ferry terminal.





## LINES OF CULTURE: REES SLIP

At the end of a street that is quickly transforming into the cultural corridor of the new convergence of art/design/media, a romanticized Canadian Shield shoreline and the canoe and kayak basin will reflect a more distant past.

From the AGO and OCAD, John Street extends south to link CHUM/ City, Festival Hall, NFB, Princess of Wales Theatre, CBC, the Skydome (Rogers Centre) and the CN Tower. From here the corridor splits to follow the Tower Trajectory or connect to the Rees Street Slip. It is here that the lake will embrace the past with an exploration of aboriginal culture.







## LINES OF CULTURE: SPADINA AVE.

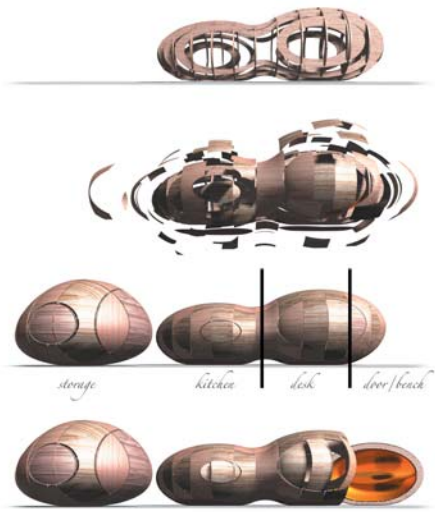
Spadina is unlike any other street in the city. While physically unique (unusually wide at 40m), Spadina's character springs from its constantly changing ethno-cultural mix. There is a great opportunity to extend Chinatown out into the lake; to claim its place on the waterfront. A floating restaurant. An archway in the bay, sitting proud as a cultural icon. A portal to the city; A place to land, a place to reflect.

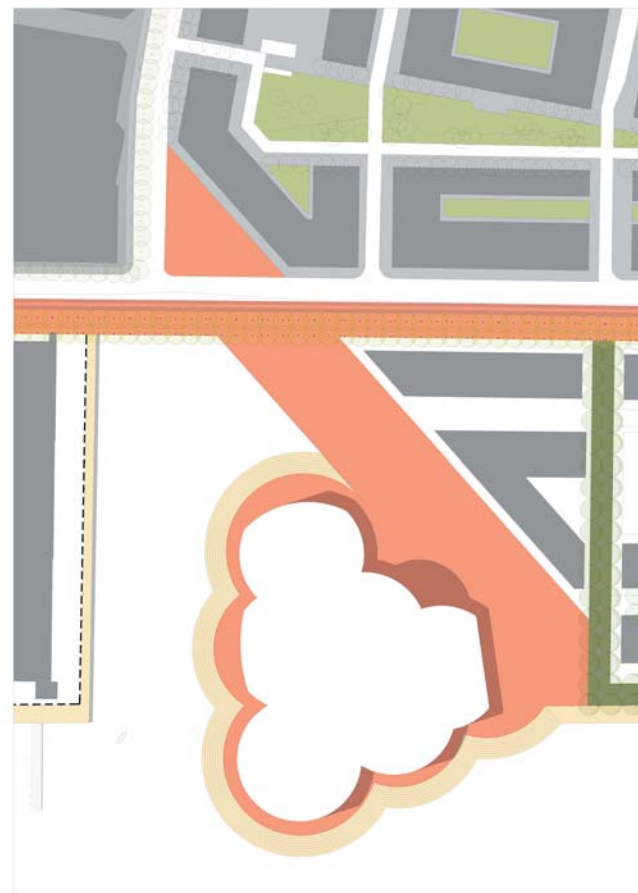
Spadina = Ishtadinauh (Ojibway), meaning "gentle rise of land", the name given to his home at the end of the street by Dr. William Baldwin, 1818.

Spadina Avenue is the cultural corridor of the city. It is diverse and layered. It is the foothold of the waves of immigration to Toronto. It is a street of connection and passage. It spans between shorelines of the Ice Age and the lakefront of our times. It links the formative formal open spaces of the City (Spadina Circle and Clarence Square).

Eastern and southern Europeans and the garment industries once predominated the corridor - now it is home to many with Asian backgrounds and new creative economies. The street has tension and contrast. People and places jostle for space and attention. Once home to a thriving garment industry, Spadina was the seat of socialism and human rights for labourers. It hosted the struggle and protest for women's rights. It has always been a place of human toil and expression.







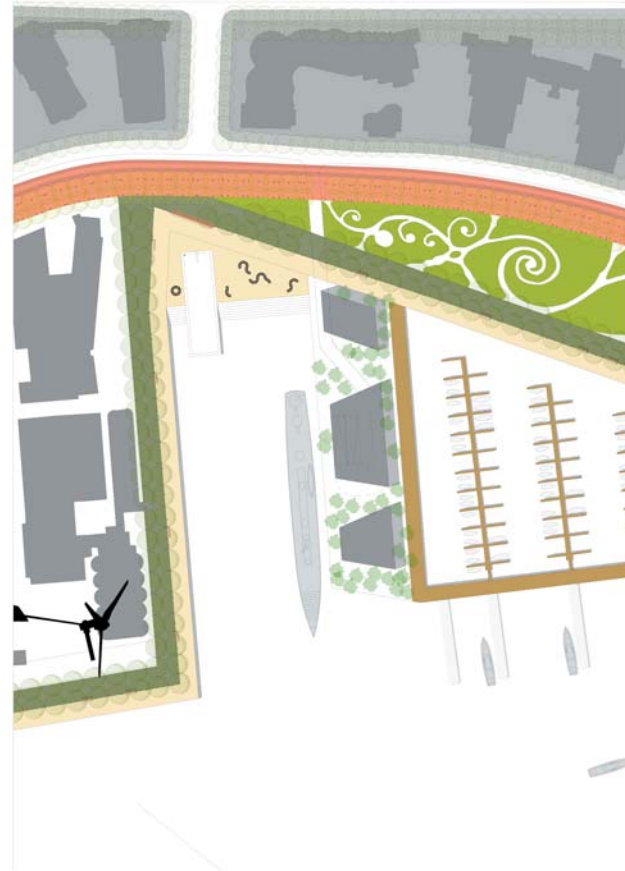
## LINES OF CULTURE: JARVIS ST.

In the future, where would a public institution of international scope and stature position itself on the central waterfront? The East Bayfront Precinct Plan already identifies the east side of the Jarvis Slip as an ideal site for a public landmark institution.

Once considered to be one of the most desirable addresses in the city, Jarvis street can be returned to its gracious, elm tree-lined past. It connects the National Ballet School, Allen Gardens, St. James Park and Cathedral, St. Lawrence Hall and Market and Neighbourhood to the Lake and the last remaining large operating industry at the Central Waterfront - Redpath Sugar.

The Jarvis Slip, a public space and a new major public institution on the east edge of the slip, at the threshold of the East Bayfront Neighbourhood, will establish the eastern "bookend" for the "central" Central Waterfront.





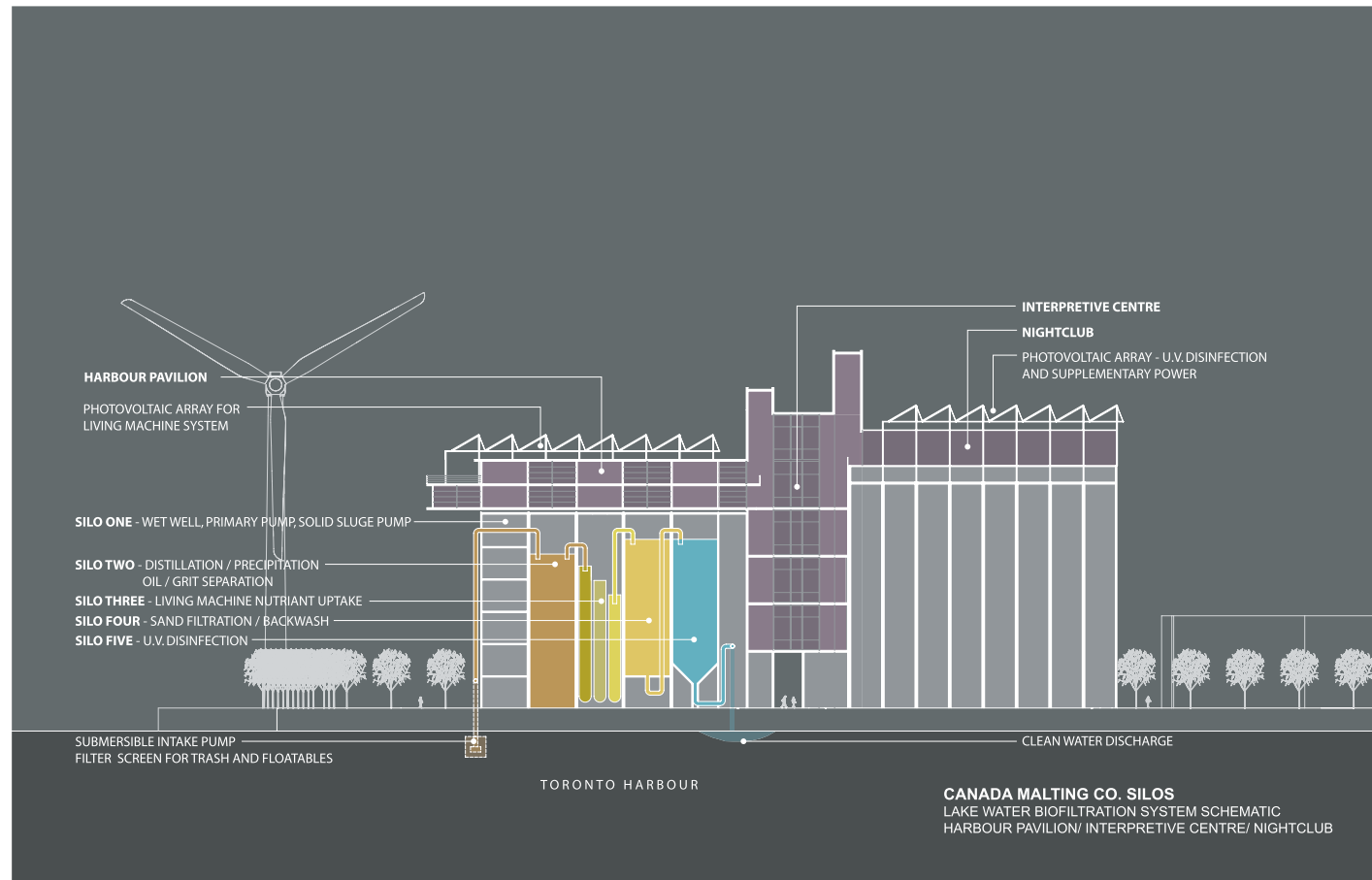
## LINES OF CULTURE: PORTLAND SLIP

The physical presence of Garrison Creek, a watercourse that was channelled underground in the 19th century, remains only as a topographical trace in several parks in the city. Its outflow into Lake Ontario at Portland Slip provides an opportunity to link an ecological narrative about the natural heritage of the city with a productive ecological intervention in the slip of the bay. Here, the iconic Canada Malting Silos are retrofitted as a water filtration plant where the ecological processes are made publicly visible and the venue is activated by a nightclub and restaurant on its roof to transform the environment by night.

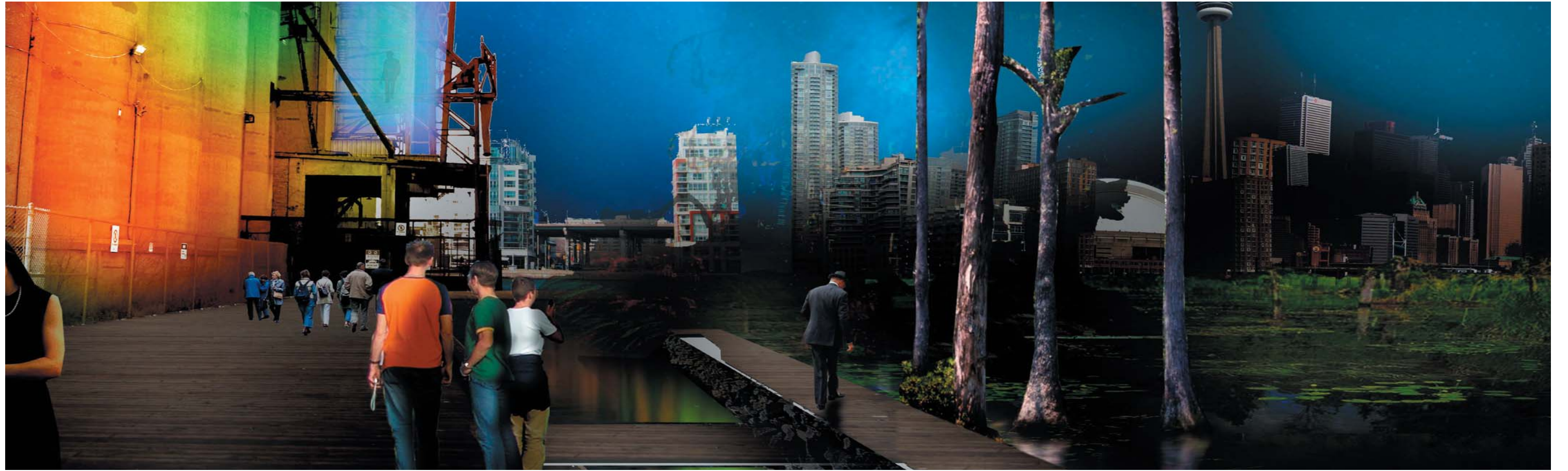
Portland Street (Dan Leckie Way) has great potential as an important new reconnection of city and waterfront.

Bridging the rail corridor will establish a direct link between Queens Street West and the Portland Slip Watergarden, connecting together the Victoria Square and Fort York National Historic Sites, the Community Park in the City Place Neighbourhood and Queen's Quay Boulevard.

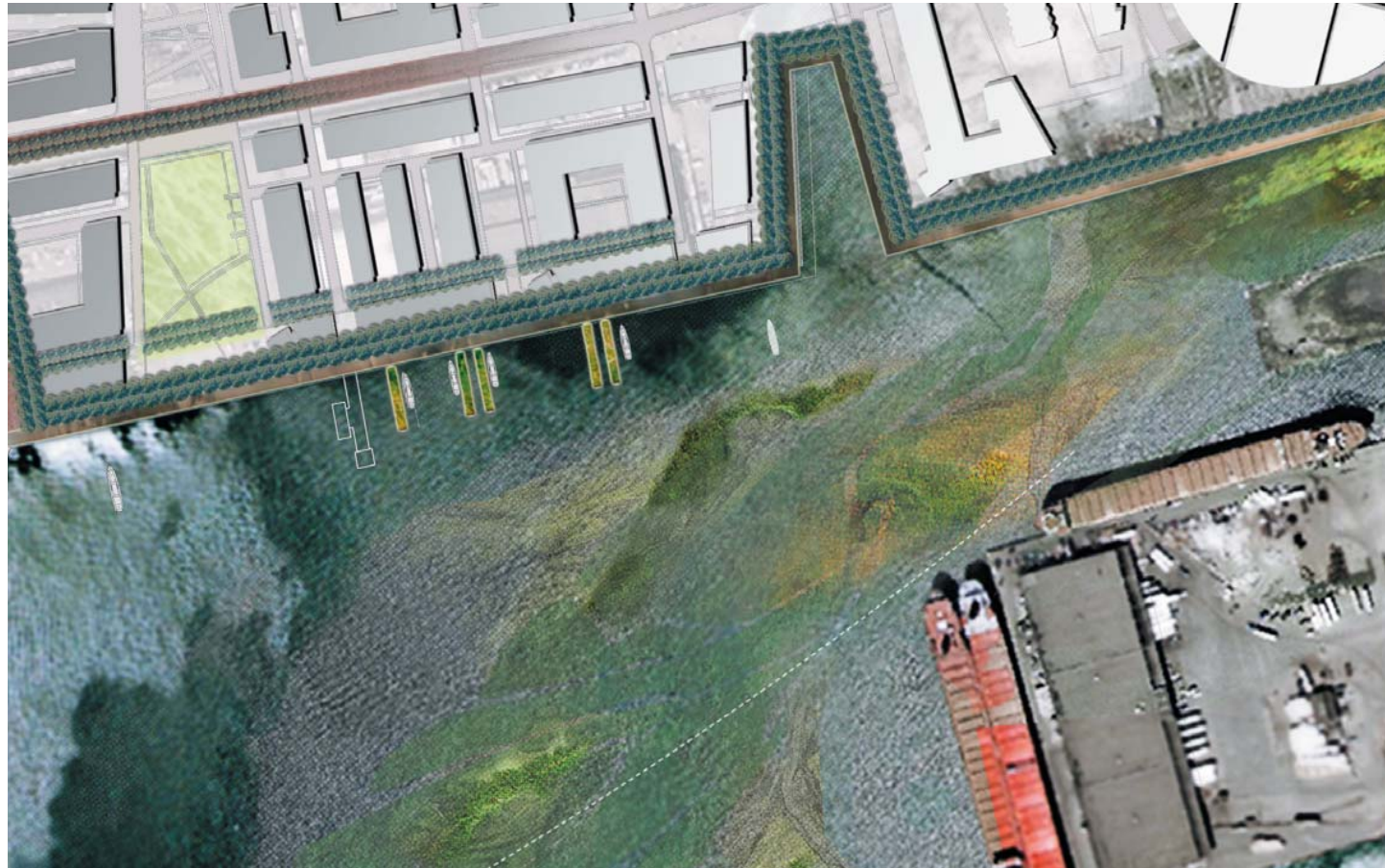
We see Portland Street as a primarily pedestrian and cycle connection on local streets, public parks and the new bridge across the rail corridor. Since it is one block away from Bathurst Street, a busy arterial and transit route, Portland Street is ideally situated as a recreational and commuter cycle route linking to the Martin Goodman Trail and the Railway Lands Linear Parks.











## SUMMARY OF SUSTAINABILITY FEATURES

Our vision for Toronto's Central Waterfront is underpinned by a commitment to enhance the overall ecological sustainability of the waterfront district and Toronto Bay. To achieve this, the proposal is founded on achieving the following objectives:

1. Enhancing water quality within Toronto Bay
2. Enhancing and diversifying terrestrial and aquatic habitat
3. Minimizing energy consumption
4. Improving air quality
5. Responding to natural riverine, lacustrine and successional processes

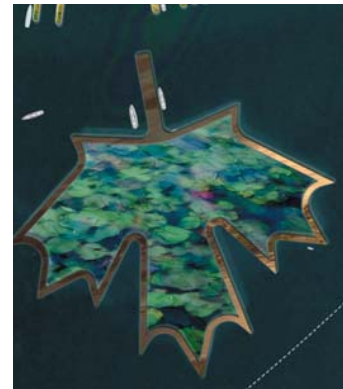
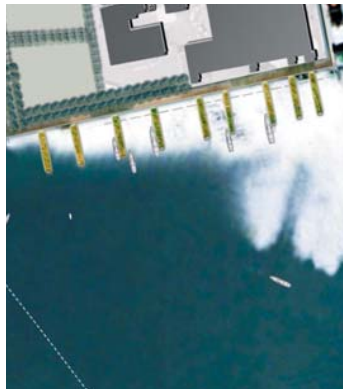
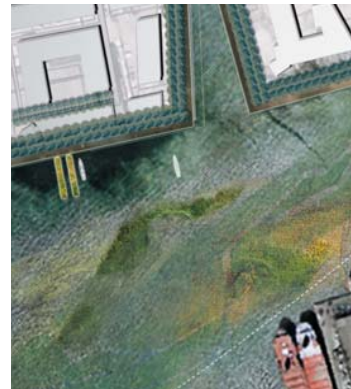
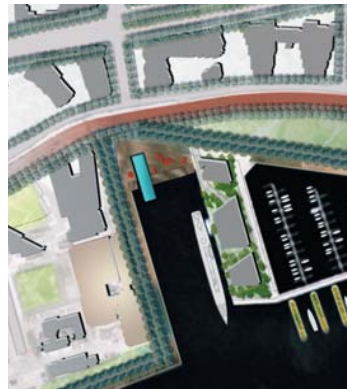
To achieve these objectives, the plan incorporates a suite of innovative solutions that are designed to work as an integrated system. A description of each component of the sustainability system is provided below:

### 1. Water Quality Improvement Initiatives

The scheme incorporates a number of initiatives that are designed with the overall goal of improving water quality within Toronto Bay. Primarily these initiatives are focussed on treating runoff at-source utilizing no-structural solutions, however, the plan also includes innovative proposals to cleanse water extracted from the lake as a means to gradually improve water quality within Toronto Bay. The following initiatives are proposed:

i. Queens Quay Promenade Stormwater Interceptor/Biofilter  
Beneath the promenade that will be created as a result of the reconfiguration of Queens Quay, a stormwater interceptor/biofilter is proposed. The biofilter will consist of a large, continuous trench filled with 50mm clear stone. Stormwater from the local system will be discharged into the biofilter utilizing porous pipes. A porous pipe will be installed near the top elevation of the stone mantle to function as a free flowing overflow outlet to convey major flows when the biofilter system is surcharged. The biofilter will serve to attenuate stormwater, provide filtration, support biological uptake of pollutants, encourage infiltration and mitigate water temperature increases. Oil/grit separator manholes will be installed on existing storm sewers to remove coarse sediment, oil and floatables to assist in extending the functional service life of the biofilter system.





ii. Roof Leader Disconnection

At present, roof leaders within the waterfront district are connected directly to the storm sewer system, adding to flow volumes, which in turn, will decrease the efficiency of the biofilter system with respect to treatment of sewage from the combined system and more contaminated runoff from road surfaces. Consequently, it is proposed that where possible, roof leaders from existing and proposed buildings be disconnected from the storm sewer system and redirected to a separate collection system that is designed to convey this relatively clean water to adjacent landscaped areas through a system of weeping tiles. The weeping tile system will serve to irrigate landscaped areas to enhance their health and sustainability of vegetation communities throughout the waterfront.

In addition to these two initiatives proposed within this Vision, the City of Toronto, as a component of its Wet Weather Flow Master Plan, is proposing to implement a system of tunnels that will intercept stormwater from a larger area of the City core and facilitate its treatment. Combined these three initiatives will work as an effective system to mitigate the impacts of stormwater on Toronto Bay, leading to an overall improvement in water quality.

iii. Lake Water Filtration Plants

To enhance water quality within the Bay, the adaptive re-use of the Victory Soya Mills and Canada Malting Plant silos is proposed to create two large filtration plants. Each silo complex is strategically located to treat water discharged into the Bay from two primary pollution sources, the Garrison Creek storm sewer and the

Don River. Water will be extracted from the Lake and pumped into the silos. Water will be treated in the silos using a sequence of natural processes and will then be discharged back into the lake as clean water. With respect to the Canada Malting facility, four silos are proposed to be utilized.

Silo 1 - Pre-treatment Silo  
- Pumping station and trash filter

Silo 2 - Distillation Silo  
- Distillation and centrifugal flow to remove coarse sediment and solids

Silo 3 - Living Machines  
- Nutrient/pollutant removal using aquatic plant material and biological processes

Silo 4 - Filtration  
- Graduated sand filter to remove remnant pollut-

ants  
Photovoltaic arrays on the roofs of the facilities are proposed to generate power for lighting and pumping. A water powered turbine is proposed to be located in the stream prior to discharge from the silo back into the lake to further supplement the power supply.

Each facility will offer amenities for viewing and interpretation.

iv. Don River Delta Marsh

In conjunction with the proposed naturalization of the mouth of the Don River, it is proposed that a delta marsh be developed at the confluence of the river and Toronto Bay. To catalyze the formation of the delta, the installation of a number of reef/islands is proposed. These islands will contain pocket wetlands and

will function as nodes around which the delta/wetland will form. Over time, material deposited around the islands will become colonized with emergent vegetation, evolving into a thriving and diverse marsh that will enhance water quality and provide habitat opportunities.

v. Floating Pontoons

Floating pontoons will be installed strategically within the bay area. Hosting a number of public activities on their top deck, these pontoons will also support the growth of trees, shrubs and wetland communities with the root mass extending below water level. The pontoons are designed to enhance fish habitat and improve water quality through pollutant uptake and filtration.

vi. Maple Leaf Icon

The Maple Leaf icon is designed as a large float-

ing island that supports a robust community of floating submergent plants (water-lilies). Filter curtains are proposed to extend from the boardwalk that surrounds the wetland to the lake bottom. Stormwater from the proposed York Street overflow outlet from the biofilter system will be piped to the wetland for treatment. The filter curtains will serve to contain suspended solids and contaminants within the wetland to enhance treatment efficiency.

Habitat Enhancement and Diversification

Aquatic and terrestrial habitat enhancement initiatives proposed to be integrated within the waterfront plan include the following:

- Don River delta marsh
- Nesting totems to be located around the perimeter of the bay to encourage Osprey/raptor nest-

ing with the objective of enhancing populations of these species and encouraging predation of nuisance waterfowl species  
- Shoals and shelter structures integrated into shoreline treatments and underwater structures  
- Submerged habitat structures associated with the proposed pontoons, Don River delta shoals and islands

*In addition to the components of the sustainability system described here, other initiatives to minimize energy consumption, improve air quality through the planting of an extensive population of large native trees and other initiatives are proposed as integral components of the waterfront plan.*



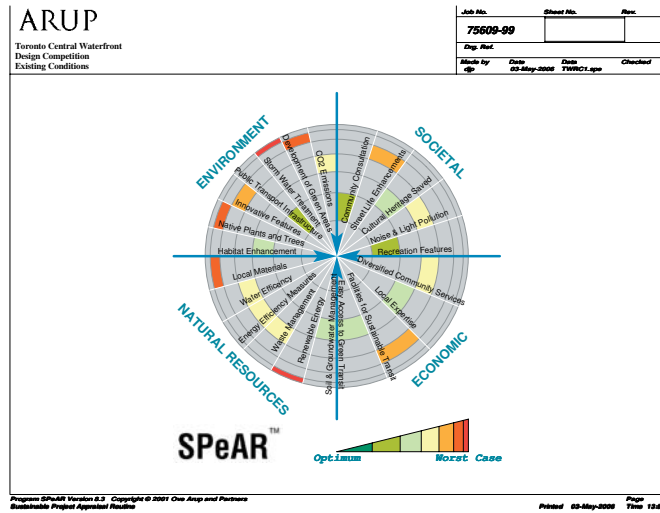
1. TOMMY THOMPSON PARK  
WORLD CLASS REFUGE FOR BIRDS AND KEY MIGRATORY STOP-OVER FOR BIRDS AND BUTTERFLIES
  2. THE BARRAGES  
DIVERSE HABITAT FOR BIRDS, HERPETOLOGY AND MAMMALS
  3. DON RIVER VALLEY  
FRAGMENTED CORRIDOR UNDERGOING RESTORATION
  4. OUTER HARBOUR / CHERRY BEACH ESA  
COTTONWOOD FOREST AND PINE / SIGNIFICANT BEACH / DUNE VEGETATION COMMUNITIES
  5. DON RIVER MOUTH REHABILITATION  
CRUCIAL INITIATIVE TO RESTORE THE LOWER DON RIVER
  6. DON RIVER GREENWAY  
LINKAGE BETWEEN LAKE ONTARIO AND THE LOWER DON RIVER
  7. HUMBER RIVER CORRIDOR AND MARSHES  
PROTECTIVE BARRAGE COMPLEX
  8. TORONTO ISLAND LAGOONS / OSWALD POINT DUNES  
DIVERSE HABITAT FOR BIRDS, FISH AND HERPETOLOGY
  9. GREENHUB POND  
WETLAND RESTORATION PROJECT
  10. SLOPPERS PARK WETLAND  
WATER QUALITY IMPROVEMENT PROJECT
- PROPOSED ENHANCEMENTS
- A. DON RIVER DELTA MARSH
  - B. TORONTO BAY NESTING HABITAT
  - C. TORONTO WATERFRONT FISH HABITAT ENHANCEMENTS
  - D. CANADA MALTING SILOS  
WATER QUALITY ENHANCEMENT - GARRISON CREEK WATERSHED
  - E. VICTORY BOYS MILLS SILOS  
WATER QUALITY IMPROVEMENT - DON RIVER WATERSHED
  - F. QUEEN'S QUAY PROMENADE  
BIOPILER / STORMWATER QUALITY ENHANCEMENT SYSTEM



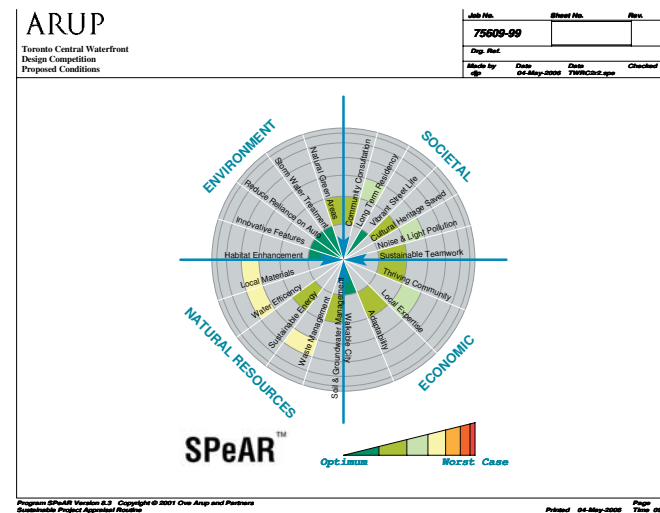
TORONTO WATERFRONT  
REVITALIZATION CORPORATION  
TORONTO WATERFRONT INNOVATIVE  
DESIGN COMPETITION  
ECOLOGICAL CONTEXT







**BEFORE**



**AFTER**

# ON SUSTAINABILITY

The TWRC is committed to making the Toronto waterfront both a national and global model for sustainable development. To clarify this intent to be leaders in sustainable development, the TWRC has created a Sustainability Checklist that defines how a project's success should be measured. Our team, which includes individuals able to address the economic, social, environmental and cultural dimensions of sustainability, has developed a plan that responds to this intent.

Our team will be using Arup's SPeAR™ as a tool to guide decisions and measure success throughout the project. We have modified the tool to measure the indicators you have identified as important in your Checklist. We have carried out a preliminary assessment of current conditions, and the conditions as proposed (see assessment diagrams opposite page).

Consistent with the focus stated in the Competition Document, we have targeted opportunities for enhancing and expanding aquatic habitats at the shoreline, and enhancing the water quality and ecosystem of the entire inner harbour. Specific initiatives include:

- Treatment of stormwater runoff in the proposed Queen's Quay Boulevard filtration system;
- Individual stormwater quality facilities at the eastern outfalls and potentially Garrison Creek;
- Conversion of the Victory Soya Mill and Canada Malting Silos into lake water biofiltration plants; and
- Floating islands of vegetation that act as "Lake Restorers".

Because the bay is a relatively closed system, the continual filtration of lake water within the bay will have far reaching benefits. The SPeAR™ assessment of the proposed design shows Habitat Enhancement and Storm Water Treatment at optimum.

Our intent is to utilize a holistic approach and create a design that addresses all indicators in your checklist. Other examples of improvements proposed include:

- Reducing the reliance on automobiles by enhancing walking, cycling, and transit infrastructure, and by changing Queen's Quay Blvd. from a four lane regional thoroughfare, to a two lane local network road;
- Creating a more walkable city by widening the boardwalk along the waters edge and the sidewalks along Queen's Quay Blvd.;
- Specifying all native plants in green spaces; and
- Improving the vibrancy of the community life through enhancements to the already popular Harbourfront Centre.

The SPeAR™ assessment to date shows that we have made improvements to almost all of your indicators. Prior to finalizing the design for this project we would recommend confirming the indicators used in the analysis are complete and accurate, and that the metrics being used are appropriate. With this criteria agreed to we will use this tool check the design at key milestones in the project, discuss opportunities and constraints for improved performance, and refine the design.



# PUBLIC PRESENTATION

May 15, 2006  
BCE Place Galleria, Toronto, Ontario, Canada



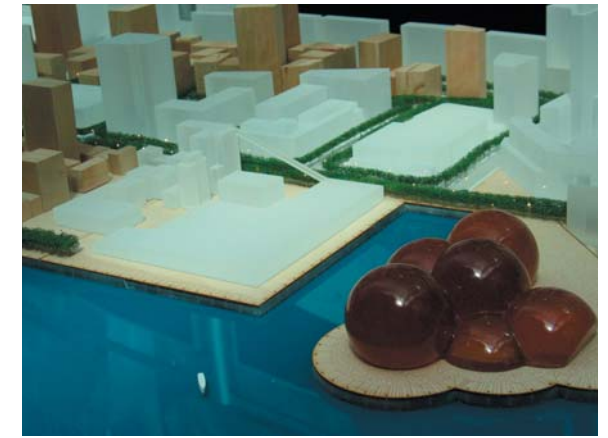


















# TEAM

This document was prepared for the Toronto Waterfront Revitalization Corporation as the comprehensive, formal submission for the Toronto Central Waterfront Innovative Design Competition. May 11, 2006  
It was prepared by:

## **West 8 urban design & landscape architecture**

West 8 urban design and landscape architecture b.v. was founded in 1987 by its principal Adriaan Geuze, as an international team of architects, landscape architects, urban designers and industrial engineers, designing landscape interventions, urban plans, squares, parks and gardens. Under the direction of Prof. Adriaan Geuze this diverse design team that is West 8, has been able to establish itself as a leading landscape and urban design practise within Europe.

With a hybrid multi-disciplinary approach as a method of confronting complex design issues, West 8 has extensive experience in large-scale urban planning, urban design and landscaping as well as a history of collaboration with world-class architects such as Richard Rogers Partnership, Steven Holl, Dominique Perrault, Rem Koolhaas, Ben van Berkel and Herzog de Meuron, to name a few.

## **du Toit Allsopp Hillier**

Established in 1985, Du Toit Allsopp Hillier (DTAH) are landscape architects, planners and architects (duToit Architects, DTA) with particular strengths in urban design. The split between architects and landscape architects is roughly equal. Their planning work is focused on urban design. They approach the related professions in the same way as they have organized their firm, as inseparable and vital components of planning and design. As landscape architects DTAH have planned and implemented urban squares, parks, campuses, streetscapes of all scales. DTAH have a significant body of work related to the key public spaces in the National Capital, some implemented by them, generally to national and international recognition.

## **Schollen & Company**

Schollen & Company Inc. is a landscape architectural consulting practice with offices in Toronto, Canada and Shanghai, China. The

firm specializes in ecosystem restoration and the design of sustainable landscapes with specific expertise in the rehabilitation of degraded urban landscapes. Schollen & Company Inc. has successfully completed landscape restoration and regeneration projects within every major watershed in the Greater Toronto Area including numerous projects within the City of Toronto.

## **Diamond + Schmitt**

Diamond and Schmitt Architects have received national and international recognition for urban planning and public building projects that achieve design excellence, display a deep understanding of the communities where they are located and are innovative in the ways in which user satisfaction is provided. The firm was established in 1975 and is comprised of fourteen principals, six associates, sixty two registered and graduate architects, seven senior technologists, one registered urban planner and twelve support staff, one hundred two in all.

## **Arup**

Arup in the United States is an integral part of the Arup Group, one of the world's largest independent engineering firms. Ove Arup founded his practice in London in 1946. Sir Ove's ideals and principles were, and are, driving forces within the firm. Foremost among his beliefs are total design -the integration of the design and construction processes and the interdependence of all the professions involved the creative nature of engineering design, the value of innovation and the social purpose of design. Since its founding, Arup has grown into an international group of multi-disciplinary practices with over 7,000 employees in the US, the United Kingdom, Europe, the Middle East, Africa, Australia and South East Asia.

## **Halsall Associates Limited**

Halsall's consultants plan, design and manage capital projects for building owners and managers. This includes structural and cladding

engineering, restoration engineering, capital planning, transaction advice and sustainable design management. In their role as sustainable design managers, Halsall does not compete with or replace the typical design team consultants. Their objective is to cut out the roadblocks to change. They educate, motivate and provide the technical support needed for teams to achieve the available opportunities. Their attitude is shaped by experience working on design teams for all building types for nearly 50 years, implementing repairs to existing buildings worth over \$40 million each year, preparing life cycle costing for several hundred buildings in all real estate categories, and working on making sustainable design a reality in all areas of their business for the last 5 years. Halsall have provided sustainable design advice on urban planning projects containing up to 6,000 housing units. They are currently facilitating the LEED certification process on 6 projects in Ontario ranging in size from \$2M to \$160M.

## **David Dennis Design**

David Dennis Design is a sole proprietor consulting company specializing in urban, industrial and lighting design. His skill set shows particular expertise in design and technical problem solving. David Dennis is an architect with a unique range of industrial design experience related to the components of urban design such as street furnishings and street lighting. Project highlights include the Railway lands family of lights, the City for Toronto Bicycle Ring and the Baldwin Steps in Toronto. David often collaborates with DTAH and has done so for the exterior lighting and furnishing package for the University of Ontario.