

Proposed Final Draft 7.0

Port Lands Implementation Strategy

April 29, 2006



TORONTO WATERFRONT
REVITALIZATION CORPORATION

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An aerial photograph of a port area. A wide river flows through the center, with several large industrial buildings and structures along its banks. A multi-lane highway runs parallel to the river on the left side. In the foreground, a large cargo ship is docked at a pier. The background shows a cityscape and a large body of water under a clear sky.

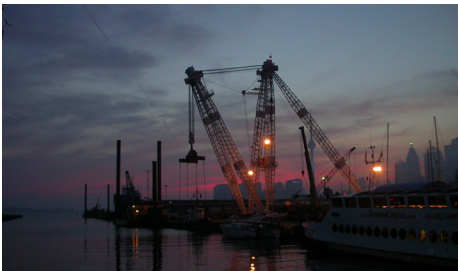
BLUE GREEN PORT LANDS:

A unique mix of uses in an environmentally sustainable, urban, transit supportive form, highly connected with its surroundings, and its blue and green open spaces.

BLUE GREEN PORT LANDS



Study Area



The Quays at Night



The Hearn Looking West to the City Centre



1. Executive Summary

The Port Lands Implementation Strategy is a road map for the regeneration of the Port Lands. It implements the policies of the Central Waterfront Secondary Plan through the creation of a finer grain of planning boundaries and consideration of phasing. Through the Implementation Strategy process a Long Term Vision for the Port Lands has emerged - an urban archipelago of new mixed use precincts - connected and intense, set within Toronto's most extensive area of urban dock wall and surrounded by a sea of green and blue open spaces. In this vision, mixed use means that industrial and employment uses and new neighbourhoods will coexist, making it possible to live and work in the Port Lands. Revitalization here will create exemplary sustainable communities and preserve the unique landscape and industrial heritage of this vast urban frontier.

The Port Lands Implementation Strategy is a unique document. It does not have the same status as conventional planning instruments such as official plans, precinct plans or zoning bylaws, nor does it go into the same level of detail.

Instead, it gathers together the recent and ongoing background work and examines potentials in order to provide recommendations that will guide the next level of planning and public and private investment in the Port Lands.

The Port Lands Implementation Strategy includes the:

- Identification of the precincts that will make up the Port Lands;
- Current thinking on the future land uses within the precincts;
- Planning for the Port Lands-wide infrastructure requirements to support the precincts;
- Phasing of planning for the overall development, infrastructure and public spaces of the Port Lands;
- Identification of any potential impacts of these changes on existing businesses and users and;
- Initial goals for form and fit of interim land uses in the Port Lands.

A primary goal of the Implementation Strategy is to set the above tasks in a context defined by reinvestment in several major open spaces - an important driver of revitalization.

These open spaces include: Commissioners Park, The Don Greenway and the Mouth of the Don; the emerging master plan for Lake Ontario Park, the implementation of Tommy Thompson Park and; the Inner Harbour, Ship Channel and the Turning Basin.

The Port Lands context is also defined by its apparent emptiness. Land use mapping in the Secondary Plan reinforces this impression in the way the "Revitalization Area" is represented. Although it is sparsely occupied, the Port Lands is not a "tabula rasa" - a clean slate. It is a living, breathing place. Revitalization of the Port Lands depends on strategies that promote the coexistence of emerging new mixed use precincts with ongoing industrial, employment and shipping related activities in the area.



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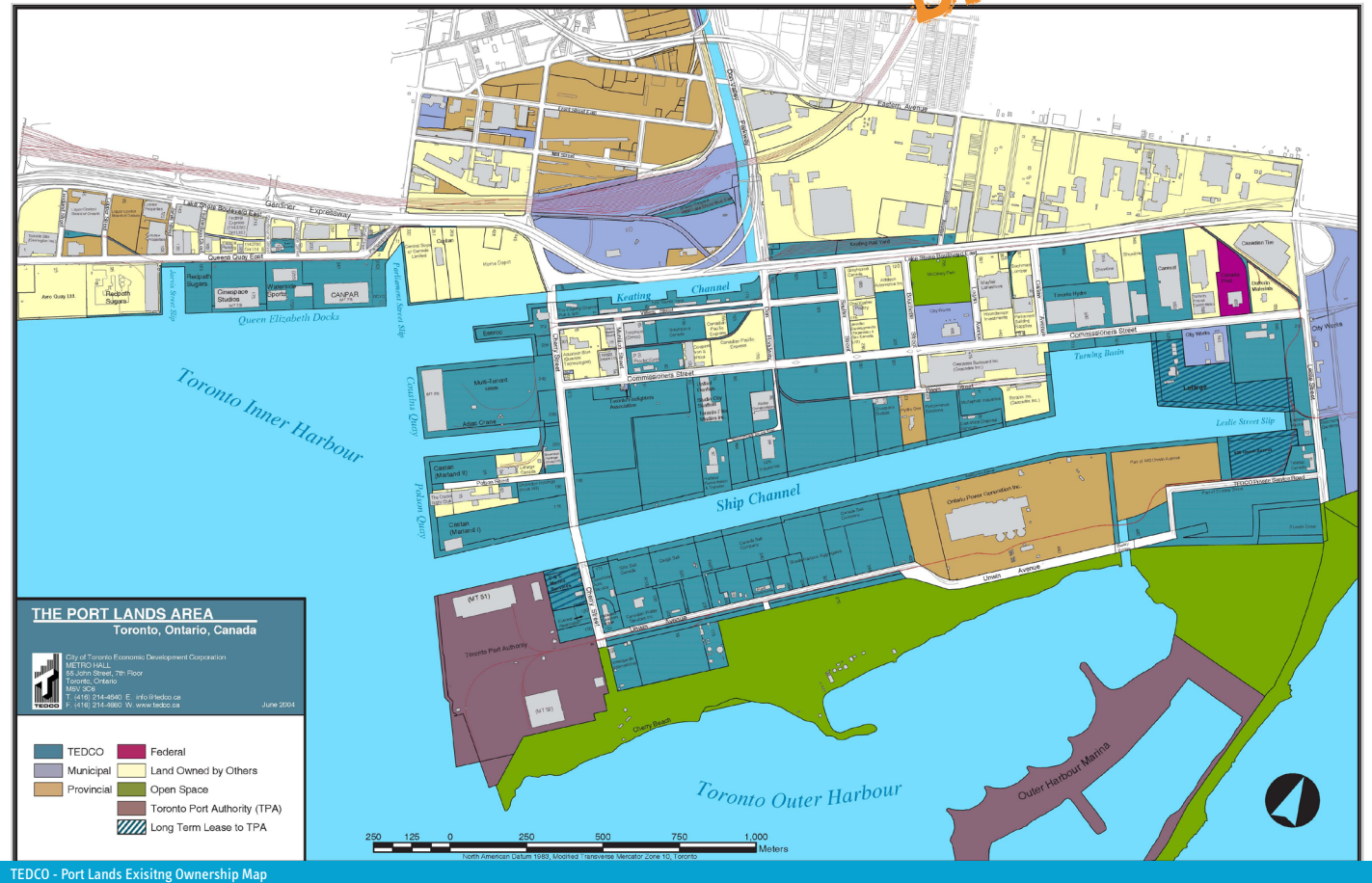
1.1. First Generation of Port Lands Revitalization

The Implementation Strategy proposes that the regeneration in the Port Lands will proceed in two distinct periods:

- A First Generation period of approximately 30 years (2005-2035), during which the focus will be on major new open space and public infrastructure investments and on the creation of significant new, high density mixed use urban precincts that will coexist with existing and revitalized employment and industrial uses.
- A Next Generation period (2035 and beyond) during which employment and industrial uses will continue to evolve and consolidate. This will create further opportunities for a broader mix of compatible uses to develop over time.

This distinction is important because it recognizes the long term presence of existing industrial uses and encourages planning at different scales - precincts and beyond.

The First Generation period is the focus of the Port Lands Implementation Strategy.



1.2. Study Process / Consultation

The Port Lands Implementation Strategy was undertaken in three phases:

- Phase 1 - Analysis of Current Initiatives;
- Phase 2 - Options for Phasing, Timing, and Future Vision and;
- Phase 3 - Strategic Recommendations.

All three phases were based on a consultative process that included the input of an Advisory Committee comprised of staff and advisors of the TWRC and:

- Representatives of the relevant City of Toronto Divisions;
- The Toronto Economic Development Corporation (TEDCO);
- The Toronto Region Conservation Authority (TRCA) and;
- the Toronto Port Authority (TPA)

In addition, a Community Advisory Committee was established that consisted of the local Councillor and invited members of the public who represent specific interest groups or constituencies.

Meetings with the Community Advisory Committee took place on February 16 2005, March 31 2005 and June 28 2005;

The general public were consulted in three public information meetings on November 25 2004, March 3 2005 and July 28 2005.

Port Lands land owners were consulted in a meeting on September 26, 2005.

TEDCO Port Lands tenants and leaseholders were consulted in a meeting on November 2, 2005.

1.3. Port Lands Principles

The strategic vision for the Port Lands that emerged through the Implementation Strategy process was based on the following principles that were articulated early on and confirmed as the strategy developed:

- Make it Urban

The Port Lands should be a new part of the city with a wide mix of uses in many diverse communities.

- Make it Intense - in form and feeling

Concentrate on developing new forms of Low-Rise High Density Development. Expect tall buildings - few and far between. Make it transit supportive.

- Keep it Working - live AND work here
- Practice Green Urbanism
- Make it Sustainable - Industries included
- Make it Connected

Create frequent links both internally and to the surrounding city neighbourhoods. Lake Shore Boulevard should be a seam not a boundary.

- Make it Green
- Keep it Wild;
- Keep it Unique - the Port Lands are full of Treasures;
- Make Neighbourhood Islands Surrounded by Green ... and Blue.

1.4. Focus of Early Activities

During the early years of the First Generation the focus will be on:

- Implementing the open spaces;
- Identifying infrastructure requirements;
- Preparing the western precincts for mixed-use development and;
- Developing revitalized employment areas in the eastern precincts to accommodate business relocations and new business opportunities.

The Port Lands Implementation Strategy identifies 10 individual precincts.

As the revitalization of the Port Lands proceeds the precincts will be structured by a major street framework and an integrated open space network that includes important bodies of water such as the Inner Harbour, the Slips, the Keating Channel and the Ship Channel/ Turning Basin.

The 10 precincts represent in total approximately 247 ha (610 acres) of gross developable area. The regional open space resources of the Don Greenway and Commissioners Park occupy an additional approximately 30 ha (74 acres). Lake Ontario Park, to the south, and the Don Mouth to the north will be a significant regional open space resources.

- Keep it Blue

Water is open space. Views should be preserved to to the harbour, the lake and the skyline at all times.

Create neighbourhoods that frame the Dock Wall - in a public way as soon as possible.

- Control What Can be Controlled

Focus urban design and zoning on results

- Interim Use is no Excuse

Mediocre design and suburban built form responses can be avoided through the implementation of Interim Use Guidelines and Conditions.

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1.5. Precinct Planning

The Port Lands Implementation Strategy is intended to lay the groundwork for more detailed precinct planning work, providing an the Port Lands neighbourhood structure and an approach to the planning of future infrastructure .

Precinct Plans will set out secondary streets and blocks, built form and land use directions, linkages between local parks and open spaces as well as to larger regional open spaces.

Precinct Planning in the Port Lands represents an opportunity to develop new approaches to performance criteria for access to light and sky views from the public realm and private open spaces.

The Quays and Central Port Lands precincts will be the focus of early Precinct Planning activities. Together with the Film Studio precinct where detailed design of a portion of the lands has commenced, these precincts represent approximately 43 ha (107 Acres) of developable land that are expected to be planned in the next several years.



1.6. Port Lands Phasing

The phasing strategy for the Port Lands focuses initial redevelopment activity north of the Ship Channel. Planning for and the creation of new parks and public open spaces is already under way. This will be followed by planning for the Quays and Central precincts - areas where the first phases of mixed use development potential is anticipated.

The timing of mixed use development south of the Ship Channel is tied to the completion of the required infrastructure investments to Unwin Avenue (including the construction of municipal services). (See Sec. 4.1)

During the First Generation period, the precincts east of the Don Greenway will be characterized by the continuation and ongoing revitalization of existing employment and industrial activities along with the development of new or relocated environmentally sustainable industries and businesses.

These precincts, The Hearn, Turning Basin, McCleary and Lake Shore have the potential to be the future home of recycling and energy related activities and green industries. Some of these employment uses could be relocations of those existing elsewhere in the Port Lands.

The Toronto Port is also designated as a precinct, in order to recognize its ongoing role as Toronto's port within the emerging mixed use and open space future of the Port Lands.

1.7. Next Steps

Planning activities that should follow the completion of the Implementation Strategy phase are outlined below:

- Conduct a preliminary engineering study and initiate an EA for the "Core Infrastructure Corridor" (see section 4.1);
- Start Quays and Central Port Lands Precinct Plans;
- Coordinate with TEDCO on detailed planning for the entire Film Studio Precinct as a mixed use area and Detailed Design Guidelines for Interim Use Sites;
- Move forward on Open Space initiatives: Lake Ontario Park; Commissioners Park; Don Greenway Concept Design and; Streetscape improvement program;
- Initiate Regional Sports Facility Feasibility Strategy and Transitional Playing Fields Design and Construction;
- Initiate Concept Design for Port Lands Arboretum;
- Coordinate with EAs for Don Mouth, Queen's Quay, Cherry Street transit and the Port Lands Transit EA;
- Coordinate with Lake Ontario Park Discovery Centre planning;
- Continue work on business relocation strategy and respond to relocation opportunities as leases become available.

In all of these planning activities it will be important to remember that The Port Lands:

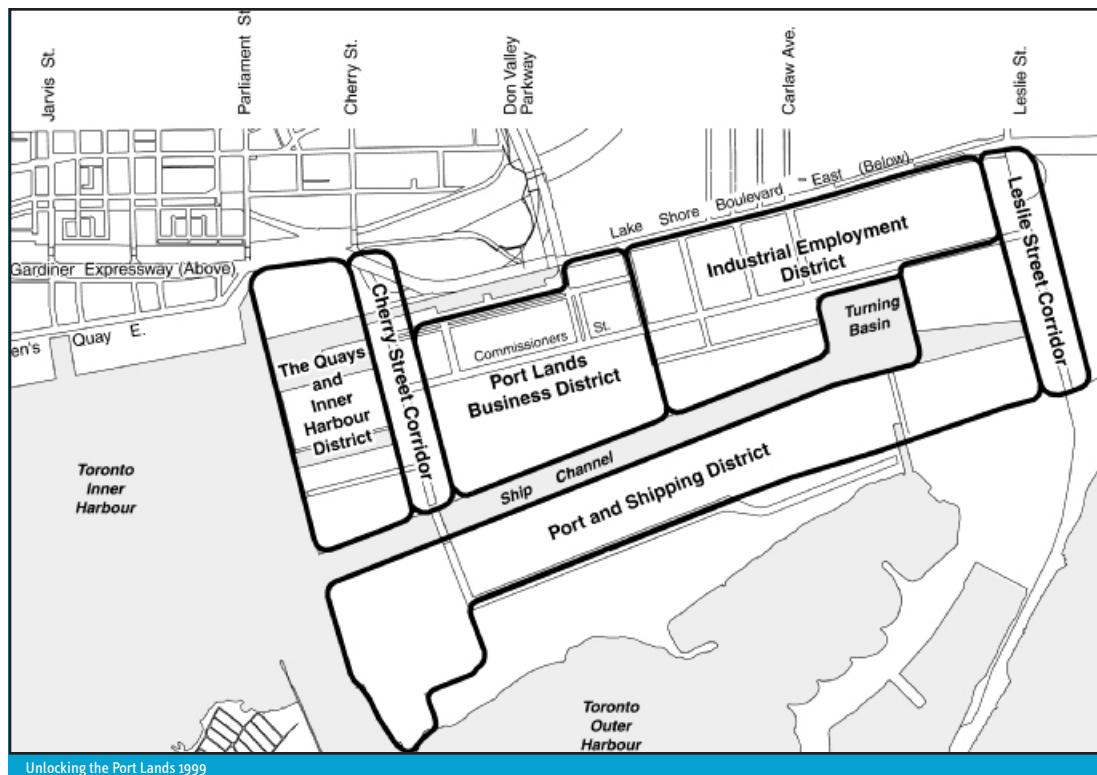
- is BIG - it will have many neighbourhoods;
- will take time - coexistence is the key;
- must be planned at different scales at the same time - Watershed, City, Waterfront, Infrastructure, Port Lands, Precincts;
- must be planned in a coordinated way - a digital database or GIS with 3d capabilities would aid in management of the long term vision.



2. Implementation Strategy Context

The Port Lands Implementation Strategy is built upon the foundations established by a number of background studies and policy documents that have been carried out over the past decade. Primary sources of policy background and direction for the Implementation Strategy are discussed in the sections which follow.

2.1 Unlocking the Port Lands (1999)



This City of Toronto Report and subsequent Public and Industry Forums identified challenges for the future of the Port Lands including:

- Balancing the community's desire to designate the water's edge as public space, with the water's edge needs of the recreational clubs, tour boat operators, and the industries that rely on dock wall access.
- Balancing the interest of existing industry to remain in their existing location, with the community's support for creating a major green space through the centre of the Port Lands.
- The interest of existing industry to remain in their existing location, with the community's support for consolidating truck-dependent industries to minimize truck traffic through the Port Lands.

The work of the Implementation Strategy is built upon these principles

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2.2 City of Toronto – Central Waterfront Secondary Plan – Making Waves (2002)

The Central Waterfront Plan is built on four core principles. These are:

1. Removing Barriers/Making Connections
2. Building a Network of Spectacular Waterfront Parks and Public Spaces
3. Promoting a Clean and Green Environment
4. Creating Dynamic and Diverse New Communities

“Making Waves” designated the Port Lands area as a “Reinvestment Area”. This land use designation includes specific intentions regarding Open Space, Transit and Pedestrian, Bicycle and Water Based Infrastructure. In particular, large scale regional open space and public realm elements were identified including:

- Commissioners Park;
- The Don Greenway;
- A Continuous Water’s Edge Promenade;
- Inner harbour Special Places and;
- Lake Ontario Park.







Smaller scale local parks and open spaces were not identified in the Secondary Plan as they are to be established through Precinct Planning.

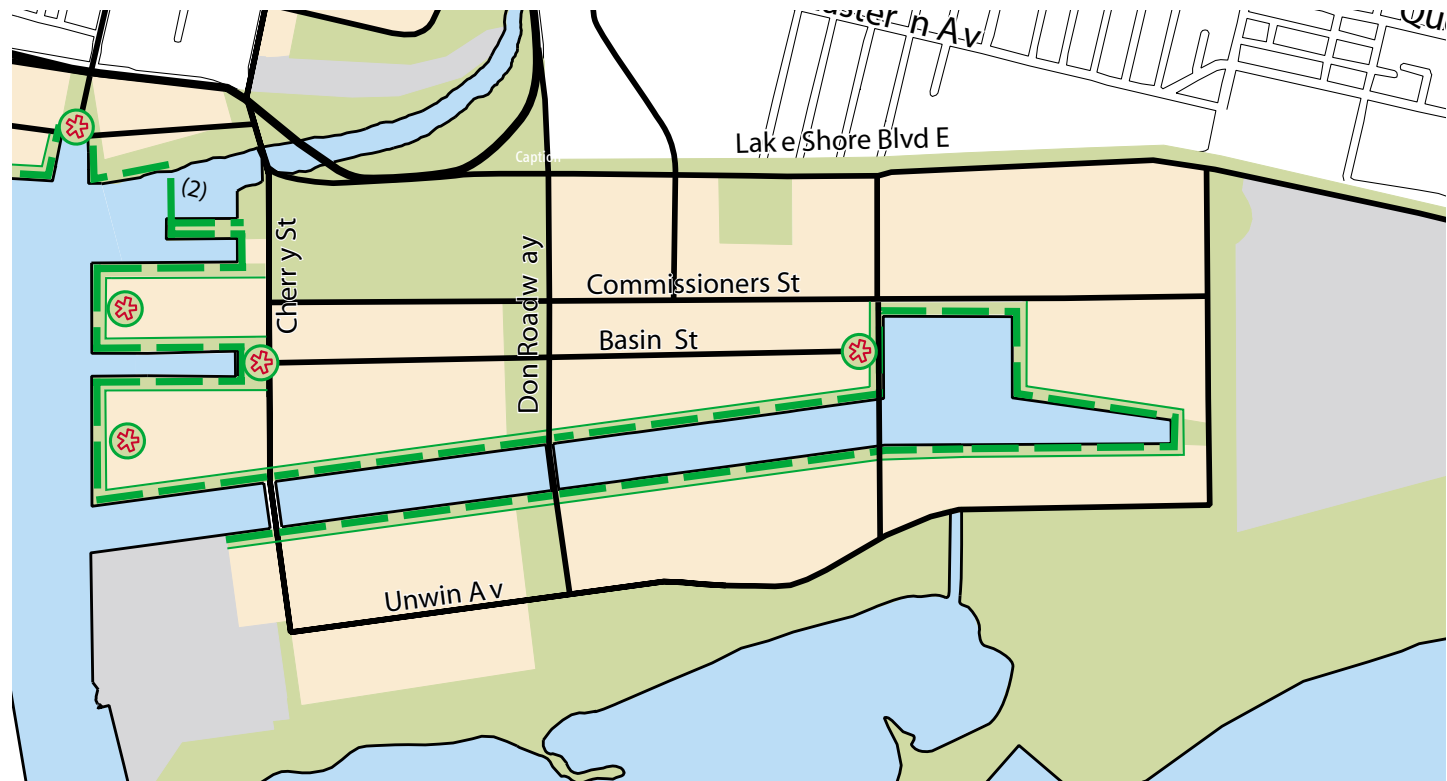
Discussion of the future land use in the Port Lands included the goal of opening up the Port Lands to urban development. In the Secondary Plan the long term vision for the Port lands is described as, “...a number of new urban districts set amid the hustle and bustle of Toronto’s port activities.” It is also an area where “...“green” industries can be incubated and thrive.”

New mixed use neighbourhoods in the Port Lands are also anticipated by the Secondary Plan. They will be “... developed at medium scale, with some lower elements and higher buildings at appropriate locations. Retail and community activities should be concentrated at accessible locations to form a focus for the area. Cherry Street and the new extension of Basin Street connecting Polson slip and the Turning Basin will be important components of this new centre.”

CENTRAL WATERFRONT SECONDARY PLAN LAND USE PLAN

MAP INDEX

-  PARKS AND OPEN SPACE AREAS (1) (3)
-  REGENERATION AREAS (3)
-  EXISTING USE AREAS (3)
-  FOOT OF YONGE SPECIAL STUDY AREA
-  PUBLIC PROMENADE (DOCKWALK / WATER'S EDGE)
-  INNER HARBOUR SPECIAL PLACES





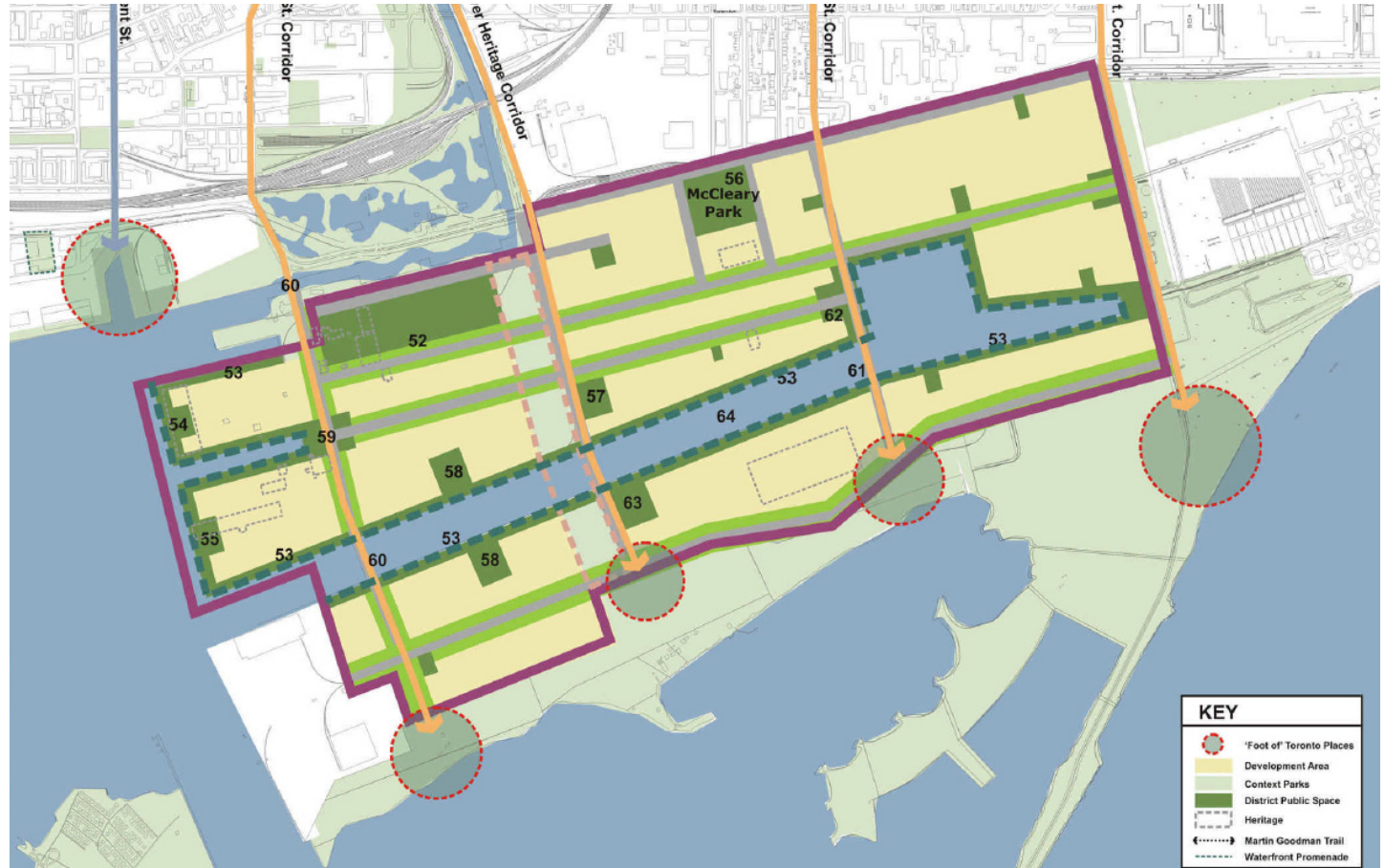
2.3 TWRC Central Waterfront Parks and Open Space Framework (2003)

In the TWRC's Parks and Open Space Framework, the Port Lands was identified as an individual "Key Public Space District". Within the Port Lands, the Open Space framework identified a number of key aspects of both the existing and future open space system. A number of important "Foot of Toronto Places" were noted along the interface between the Port Lands and Lake Ontario Park (which was itself clearly identified as an important "Legacy" element in the Framework).

The Vision for the Port Lands set out in the Framework is:

"...A diverse range of high quality public spaces that supports new waterfront communities and provides emerging water's edge context for development along the Quays and in relationship to Lake Ontario Park. This range of public spaces includes new urban plazas, continuous waterfront promenade, recreational playing fields, a regional sports complex, natural and habitat corridors, neighbourhood parks and a network of trails."

In addition to identifying individual components of this Vision, the Framework proposed a series of actions that would be required to achieve the vision. Many of these actions have been included in the Implementation Strategy.



TWRC Central Waterfront Parks and Open Space Framework Plan



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2.4 TWRC Business Plan and Associated Studies (2003)

The TWRC's 2003 Business Plan provided an estimated build out that would deliver over 41,000 housing units across the entire waterfront, of which approximately 20,000 were to be located in the Port Lands. The Business Plan assumed an aggressive pace of development and that major industries would be relocated.

The 2003 Business Plan also provided for a range of high density development formats.

Initial testing as part of the Implementation Strategy indicates that the number of units allocated to the Port Lands in the 2003 Business Plan and the anticipated development densities are achievable within the precinct structure that has emerged from the Implementation Strategy process.

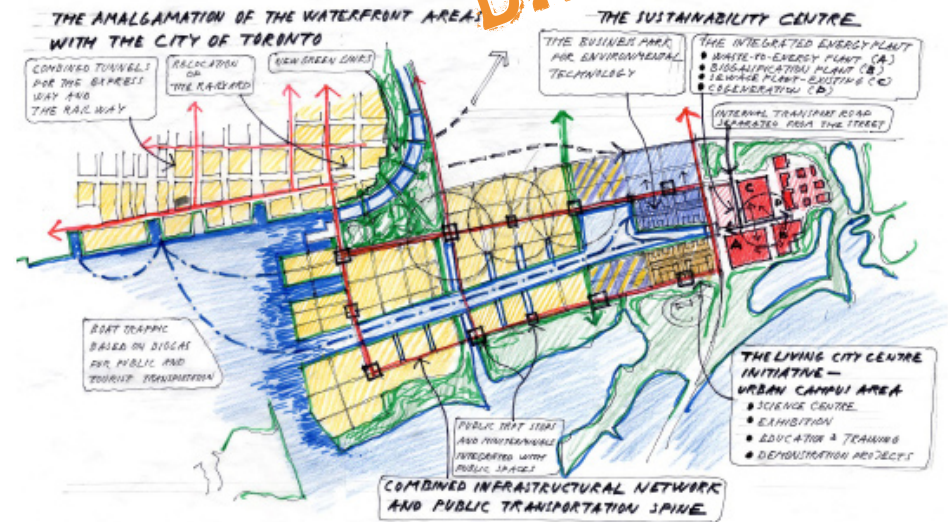
2.5 Swedish Sustainability Report (2003)

The Swedish Sustainability Report was prepared by university researchers, municipal officials and sustainability practitioners from Sweden - a country that is widely recognized as being a leader in sustainability technology and knowledge. In addition, the recent revitalization of a neglected waterfront area in the City of Stockholm, Hammarby Sjöstad, is an excellent reference for comparing sustainability initiatives at the Toronto Waterfront.

The purpose of the review was to ensure that all Toronto Waterfront Revitalization projects "are consistent with international best practice in sustainability". Observations and recommendations are made for each of five areas:

1. Precinct Planning;
2. Municipal Infrastructure
3. Building Design
4. Implementation (and,
5. Exemplary Initiatives

The Swedish Report recognizes the TWRC's Sustainability Framework (see section 2.6) as a critical document for managing and implementing sustainability, recommends on-going review of the policies, goals and targets and suggests that more detailed requirements be developed, i.e. a sustainability checklist for developers).



Sustainability Review for the TWRC - Swedish Expert Team

The Swedish Sustainability Report contains recommendations for the Port Lands including:

Increased connection with the adjacent parts of the City;

- The creation of a combined infrastructure network and Public Transportation Spine focused on Commissioners, Cherry and Leslie Streets and Unwin Avenue;
- The creation of a 'Sustainability Centre' that would integrate green employment uses, the recycling activities of the Port Lands and a new integrated energy plant (including a waste to energy plant and co-generation facilities);
- The creation of a District Energy distribution system;
- The potential use of vacuum driven sanitary sewer systems along with a wide variety of ways of addressing energy, water and waste management) and;
- Key areas to address in order to ensure sustainability of buildings - such as the creation of a Green Building Code).

2.6 TWRC Sustainability Framework (2004)

The TWRC's Sustainability Framework provides a strategy for incorporating sustainability principles in the revitalization of the waterfront. The Framework provides a vision of sustainability in the context of the waterfront and a detailed Action Plan in order to implement the vision. The Action Plan outlines goals for each of the following themes:

- Energy
- Land Use
- Transportation
- Sustainable Buildings
- Air Quality
- Human Communities
- Culture Resources
- Natural Heritage
- Water
- Materials and Waste
- Innovation

In addition to these goals, specific objectives have been developed, and for each objective, detailed strategies, actions and targets are listed based on best management practices and feedback from various agencies and workshops. The Framework takes into consideration the unique constraints and opportunities of the waterfront and highlights the highly interrelated character of the various goals and actions. For example, one objective may provide significant environmental, economic and social benefits across several theme areas.

The Sustainability Framework also provides a commitment from the TWRC to ensure that the waterfront revitalization results in Toronto becoming a world leader in sustainability, including how the TWRC as a corporation will adopt and promote sustainability principles.

2.7 TWRC Marine Strategy Study (2005)

Fundamental to the emerging Marine Strategy is the necessity to balance conventional "land based" approaches to planning on the waterfront with a perspective that plans from the water to the land. Emerging recommendations centre around the need for water based uses to be given the same level of priority in waterfront planning as land based uses.

Issues already identified in the Marine Strategy which need to be coordinated with the Port Lands Implementation Strategy include:

Access

- Access to the Waterfront and access to the water (land-water interface);
- Public expectations for unimpeded access to the waterfront (parks trails etc.) vs. the needs of marine users to get access to the water.
- Land Side and Water side facilities required to facilitate access to the water.
- Economic accessibility of water based activities and programs.

Compatibility

- Compatibility of marine uses and land uses. (eg. residential noise vs. impacts)
- Compatibility of different types of marine uses (eg. Rowing vs. sailing vs. power boats vs. shipping, etc.);
- Programming the use of the water.

Facilities and Infrastructure

- Condition of the Dock Wall
- Associated support facilities for Marine activities such as parking, mooring, fueling, etc.

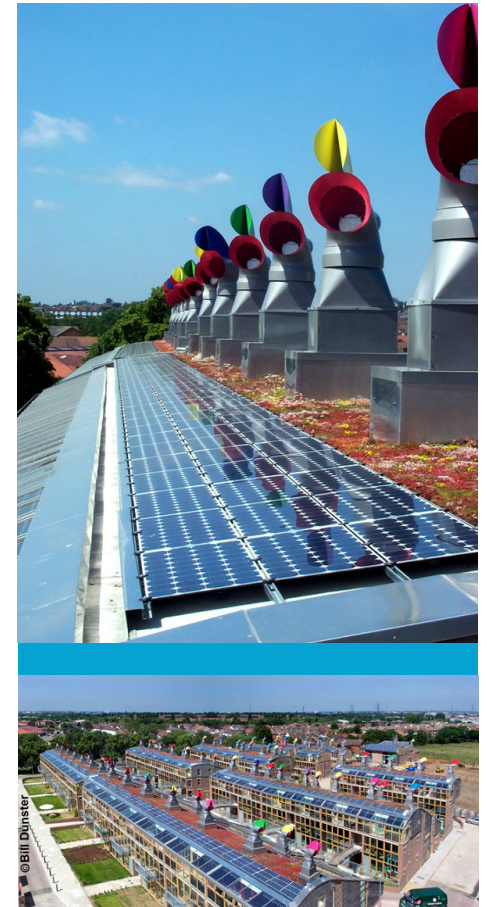
Environment

- Marine uses are highly dependent on the quality of the aquatic/shoreline environment.

2.8 Ongoing Project Context

In addition to these important background studies and policy documents, the Port Lands Implementation Strategy is also takes into account several ongoing design and planning initiatives in the Port Lands itself as well as in the immediately surrounding areas. These include:

- Lake Ontario Park and Parks Canada Discovery Centre planning processes;
- The FilmPort studio area plan;
- The Preliminary Design for Commissioners Park;
- The planning of the Lower Don Mouth Revitalization and Flood Control Measures (EA starting in 2005);
- The Leslie Street and Cherry Street Greening initiatives;
- The Concrete Consolidation Plan;
- Ashbridges Bay Treatment Plant Master Plan and;
- Port Lands Beautification Projects.



BedZed - Bill Dunster Architects - Hackbridge, Sutton, UK

BedZed is a carbon neutral urban development that exemplifies the goals of the TWRC Sustainability Framework



Spandauer Havelpromenade - Berlin (Germany) - Häfner-Jimenez

An example showing an open space access through a dock wall for Marine Transit and recreational uses.



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3. Future Directions for the Port Lands

Through the Implementation Strategy process a Long Term Vision for the Port Lands as an urban archipelago of new mixed use precincts, connected and intense, surrounded by a sea of green and blue open spaces has emerged. In this vision, mixed use means that industrial and employment uses and new neighbourhoods will coexist, making it possible to live and work in the Port Lands. Revitalization here will create exemplary sustainable communities and preserve the unique landscape and industrial heritage of this vast urban frontier.

The opportunities that exist in the Port Lands are unique and remarkable.

The vast scale of the place means that a number of new, urban, mixed use neighbourhoods can be created.

The open spaces, both existing and planned, will provide an unprecedented green and blue structure within which the new neighbourhoods will grow.

And the lands are almost all in public hands.

Achievement of a long term vision in the Port Lands requires the development of detailed strategies for the short to medium term that allow more immediate development decisions to be made with the future context in mind.

Specific recommendations are made within this strategy for revitalization that will take place in the next 30 years 2005-2035. In this

report we refer to the activities that take place during this period as the “First Generation of Port Lands Revitalization” or “First Generation”.

Illustrations and or predictions regarding longer term changes in the Port Lands, beyond 2035 are more difficult to make. We have attempted to identify and develop future scenarios for areas within the Port Lands that will likely evolve over a period longer than 30 years.

As noted above, the scale of the area (aggregate area of approximately 340 Hectares (850 Acres) is one of its primary assets as well as the source of complexity in the development of approaches to planning the area. The West Don Lands Precinct Plan area could fit into the Port Lands approximately 8 times, while the East Bayfront Precinct plan area would fit 9 times. The St. Lawrence Neighbourhood could fit in the area 12.5 times.

The Port Lands will evolve as a number of individual urban communities over time. This revitalization and transformation must coexist with existing and new employment/industrial activities.

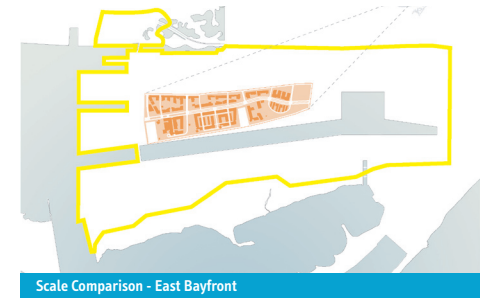
In city building terms, the achievement of a critical mass of mixed use development is what needs to be achieved here. Especially during the early stages it will be important to cluster initial developments, concentrating density and intensity of activity to form the nuclei of larger urban communities to come.

A sequential approach to the release of land for development purposes should be established in order to ensure that early development does not spread too thinly on the ground.

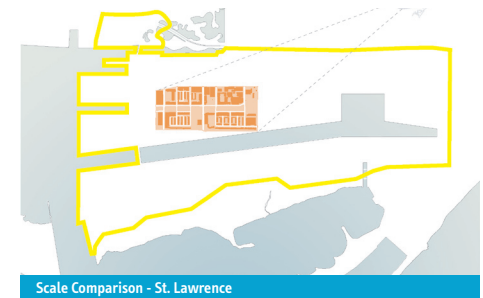
Building proposals that are inefficient, land consumptive and which do not support the long term vision should not be permitted in the Port Lands.



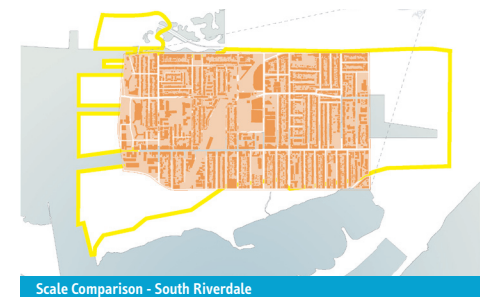
Scale Comparison - West Donlands



Scale Comparison - East Bayfront



Scale Comparison - St. Lawrence



Scale Comparison - South Riverdale



3.1. Interim Use Conditions

Interim proposals are of particular interest and importance in the Port Lands, because of the long time frame over which revitalization will take place. The key is for even temporary occupations to be exemplary and complete in the way that they address, represent or set the stage for the future of the of the Port Lands.

The terms “temporary” or “interim” in the Port Lands should apply to projects which do not achieve the full redevelopment potential that is indicated in the Precinct Plans, once they are developed.

The tenure of interim projects should not create potential interference with future development time frames. Their intensity and form will be important and should be addressed in either precinct planning activities or in the development of an overall package of interim use guidelines.

In addition to the estimated planning start and construction start timelines assigned to each Port Lands precinct the following interim conditions could apply to all proposed interim uses in order to ensure that not only interim uses do not preclude but indeed they support the longer term vision for a revitalized Port Lands.

Land Use Compatibility

- Land use which is compatible with long term vision of site;
- No new uses or extension of leases will be permitted within parks and open space components of the Port Lands;
- More specifically land uses should complement the Port Lands structure of key corridors (Leslie as green corridor, Unwin as Park Drive, Commissioners as commercial corridor and Cherry as Port Lands main street);
- New uses may not have adverse impact with regard to noise, vibration, dust or odour within the context of the future mixed use character of the Port Lands;
- Uses adjacent to public spaces should be compatible with public access and enjoyment of these spaces;
- Interim uses should make efforts to minimize the amount of parking, provide for bicycle parking facilities and seek shared parking with other uses when possible.

Site Design

- Building siting should not preclude future build out of the site, be located to create an address on the public street and does not preclude proposed future roads and trail connections;
- All open air storage should be attractively screened from view of public street or open space, including views from across Ship Channel;
- Surface parking should use permeable surface materials, be generously landscaped and sited away from street frontages or public spaces;
- New uses along the dock wall will provide for public accessible promenade of 20 metres along the inner harbour and Ship Channel.

Urban Design

- Building design and materials should be of a high quality and in keeping with the aspirations for a magnificent, sustainable and vibrant urban environment.
- Where possible compact and urban built form is encouraged

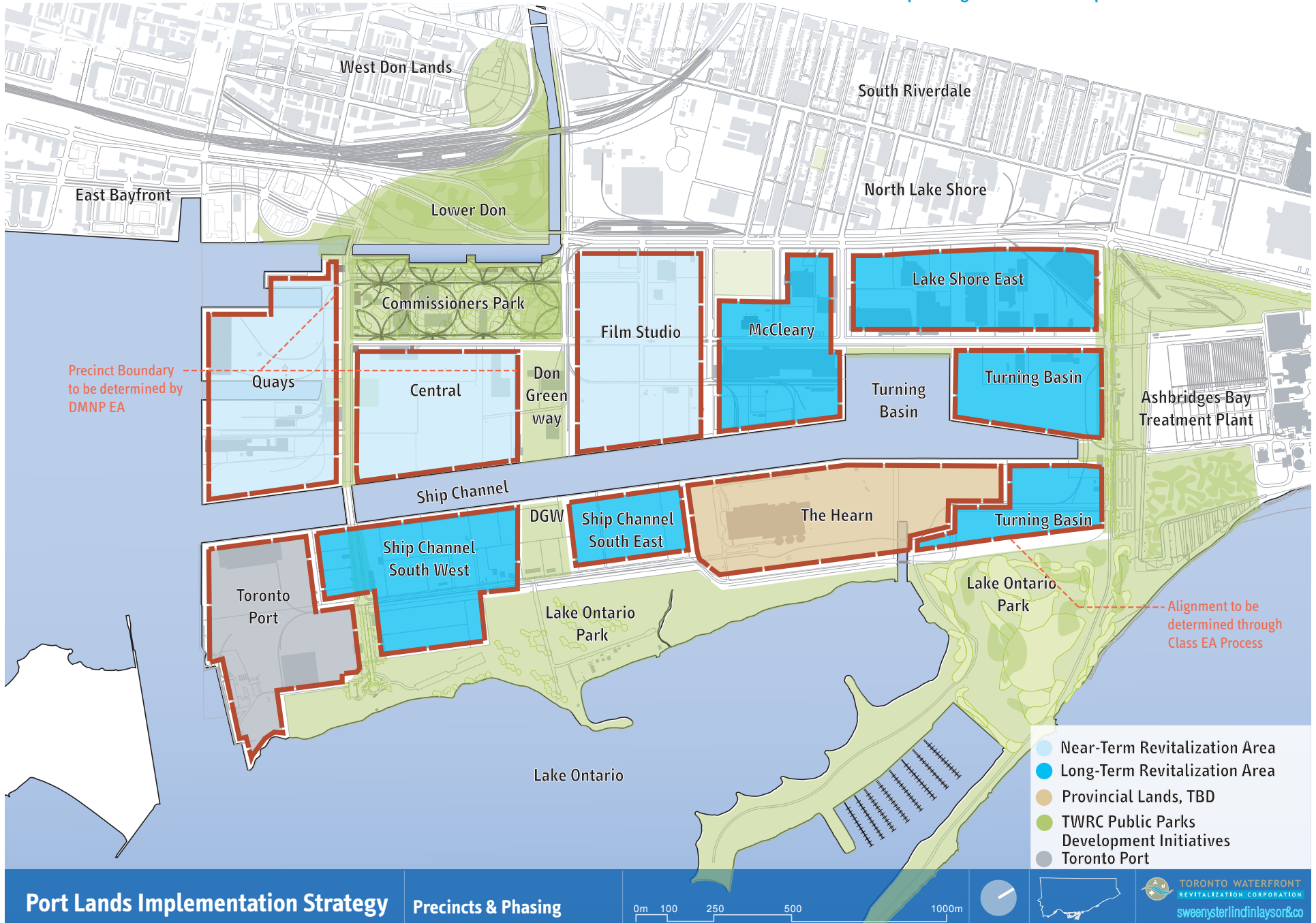
Sustainability

- Encourage use of solar panels and other sustainable building technologies;
- 50% of site to be landscaped
- Where possible storm water should be retained, treated and reused on-site;
- Landscape material should be predominantly native species.

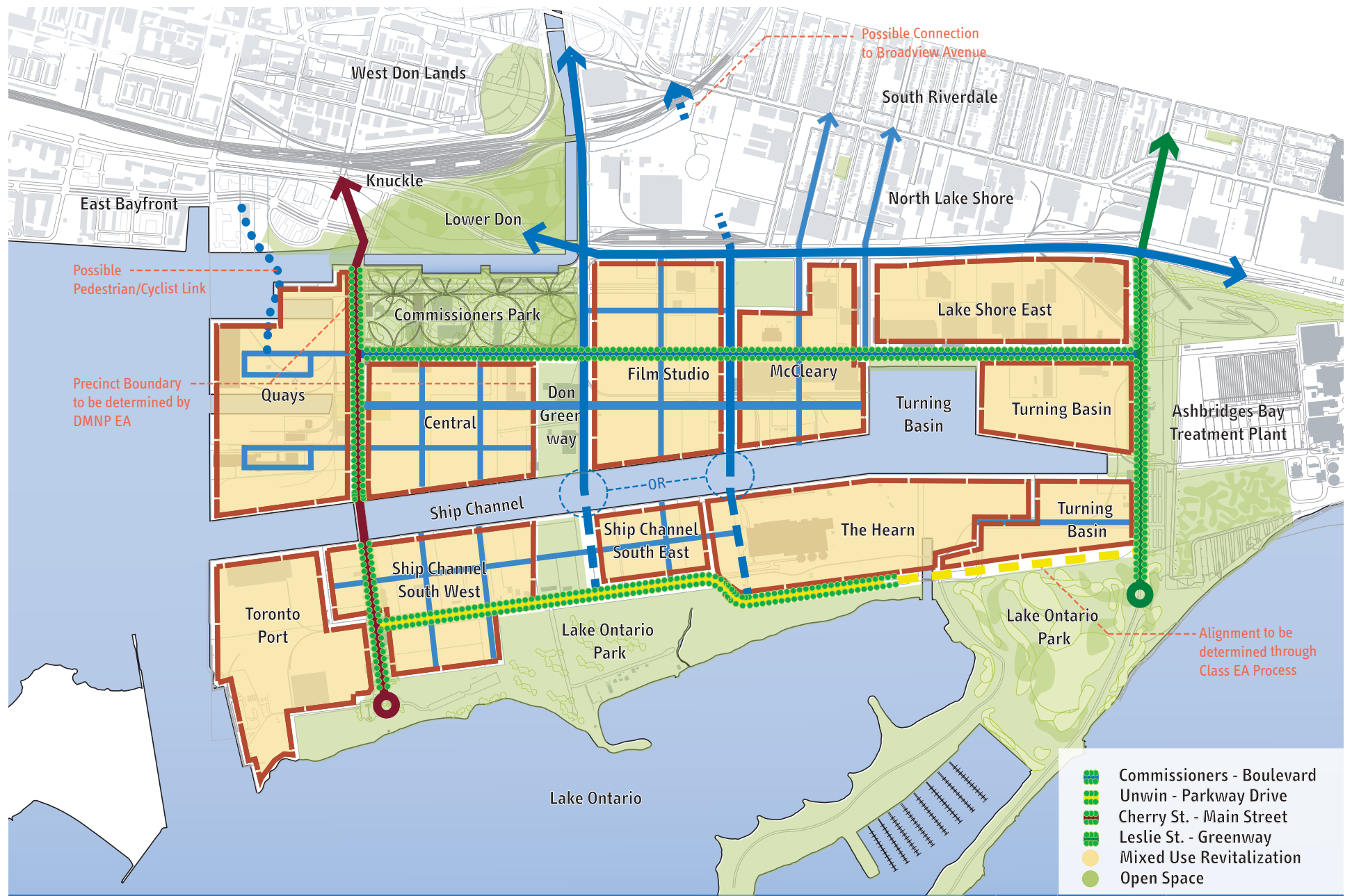


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Please Note: Timeframes on this map refer to the start of detailed planning within individual precincts.



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3.2. Precinct Planning Strategy

A series of 10 individual precincts have been identified (see the plan entitled Precincts and Phasing on page 12). An approach to the creation of a large scale urban structure in the Port Lands to support this series of new precincts can be found in the Urban Structure Plan on page 13.

More specific details regarding urban structure, built form and open space will be developed in the precinct planning processes which will follow the completion of the Implementation Strategy.

The precinct plans will provide background studies for eventual zoning changes that will enable revitalization in the Port Lands. The timing of precinct planning work is related to the anticipated timing of the introduction of any new residential, commercial or employment uses not permitted by the current, mainly industrial, zoning.

The Implementation Strategy has identified an approach to the phasing of the precinct planning work. The dates shown on the Precincts and Phasing Plan on page 10 refer to the initiation of precinct planning work for the individual precincts.

Precinct Plans for the Quays (Including Polson, Cousens and Essroc Quays) and the Central precincts should be carried out together in the relatively near future.

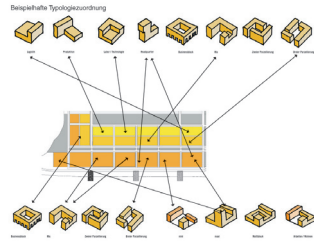
These precincts have the potential to be the location of early development, infrastructure and open space activities in the short to medium term. As well as providing an ability to respond in a definitive way to early applications and projects, considering these precincts together

(along with the parallel detailed planning for the proposed first phase Film Studio Complex and Commissioners Park and environmental assessments the Don Greenway and the “Core Infrastructure Corridor”) maximizes the potential for developing coordinated linkages between the precincts’ street and open space networks that would operate at the scale of the entire Port Lands area.

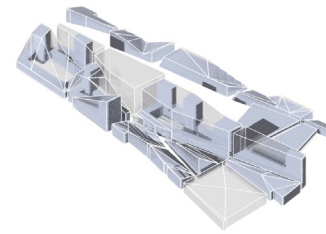
Important parameters that should be considered in the terms of reference for initial Precinct Planning processes include:

- The incorporation of environmental performance targets as set out in the Sustainability Framework and expanded on in the “Long List of Sustainable Design Activities”;
- The establishment of minimum densities as opposed to maximums;
- The elimination of maximum building heights in favour of performance standards that set the heights of future buildings by preserving public open space access to sunlight, and significant views to the major vistas and the potential to create positive micro climate conditions;
- Local open spaces that make up the green framework for the precincts should act as a “braid” that feeds into and through the major open spaces of the Port Lands;
- The development of innovative new “low rise high density” building types that have generous contiguous private landscaped space that is related in size to that of the unit and supports family housing in the Port Lands;
- Consideration of performance standards for family unit open spaces so that they receive at least 3 hours winter morning or afternoon sunlight access;
- Coordination of access to parking garages and service access at the scale of the individual blocks to reduce the number of entrances and curb cuts;
- All dwelling units in the Port Lands should be within a 2 minute walk (160m) to the water’s edge or to a public open space with full day sun access (or some other appropriate sunlight standard);
- All dwelling units and all employment uses in the Port Lands should be within a 5 minute walk of a transit stop;
- 75% of children living and attending school within the Port Lands without the need to be driven or bused.

3.3. New Approaches to Port Lands Zoning



Typological Zoning - KCAP
 The above illustration shows landuse and built form adjacencies on a lot by lot basis. As opposed to large-scale landuse planning this technique allows for a finer mixture of use given specified built form and design techniques to mediate between uses.



Performance Zoning - KCAP
 This diagram shows maximum building envelopes generated by sun-shadow performance standards as well as view protection. The resulting volumes are used for building envelopes that do not adversely affect the public realm.

Precinct Planning in the Port Lands represents an opportunity to develop new approaches zoning and other development form controls. There are, in effect, three types of zoning controls that are available to use.

Land Use:

- Operates in 2d in the gross scale typically but could be modified to create 3d program use. This could be a way to ensure diversity within the Port Lands by requiring more than one vertical use.

Built Form:

- Controls the ultimate envelope of the building. Often abused by dictating known or typical building types. Within the Port Lands it would be preferable to have very flexible built form regulations to allow for the development of new typologies that respond to the particular site of the Port Lands.

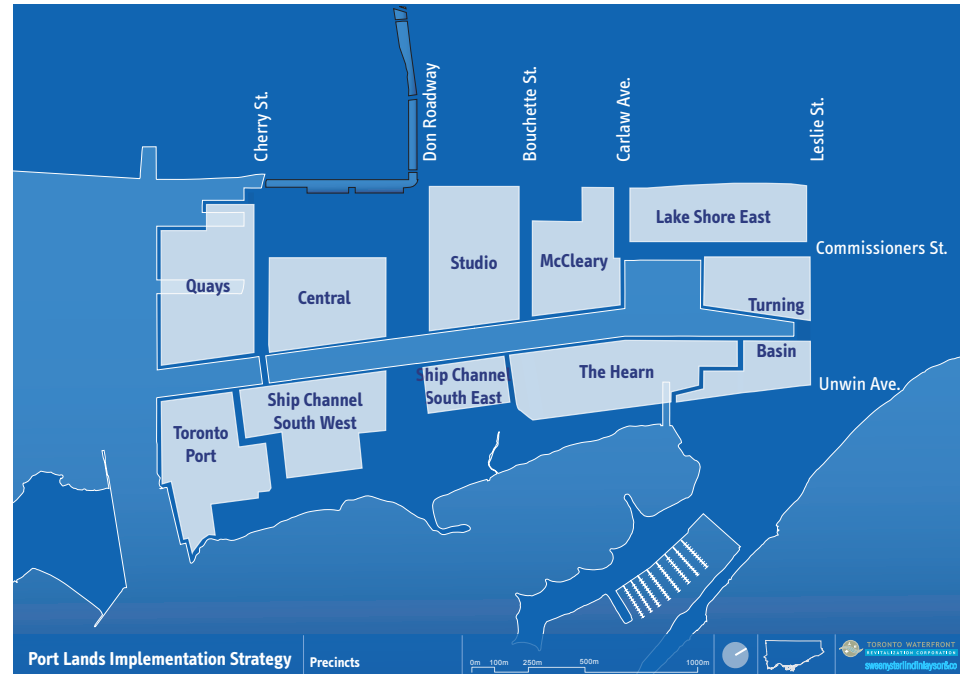
Performance:

- Performance based controls allow for more flexibility but require more work on a site by site basis. This approach could include to performance criteria for access to light and sky views from the public realm and private open spaces. It is essential in performance based to have a code literate and intelligent approval committee.

One approach that should be investigated in the Port Lands is the establishment of “base zoning” which would be something like the RA (Revitalization Area) zoning that was established for the West Don Lands, through the “King Parliament” Secondary Plan and Zoning Bylaw amendments in the mid 1990’s. This would establish the basics for the area as well as some basic performance criteria and streets and blocks and open space plans based on the Precinct Plans.

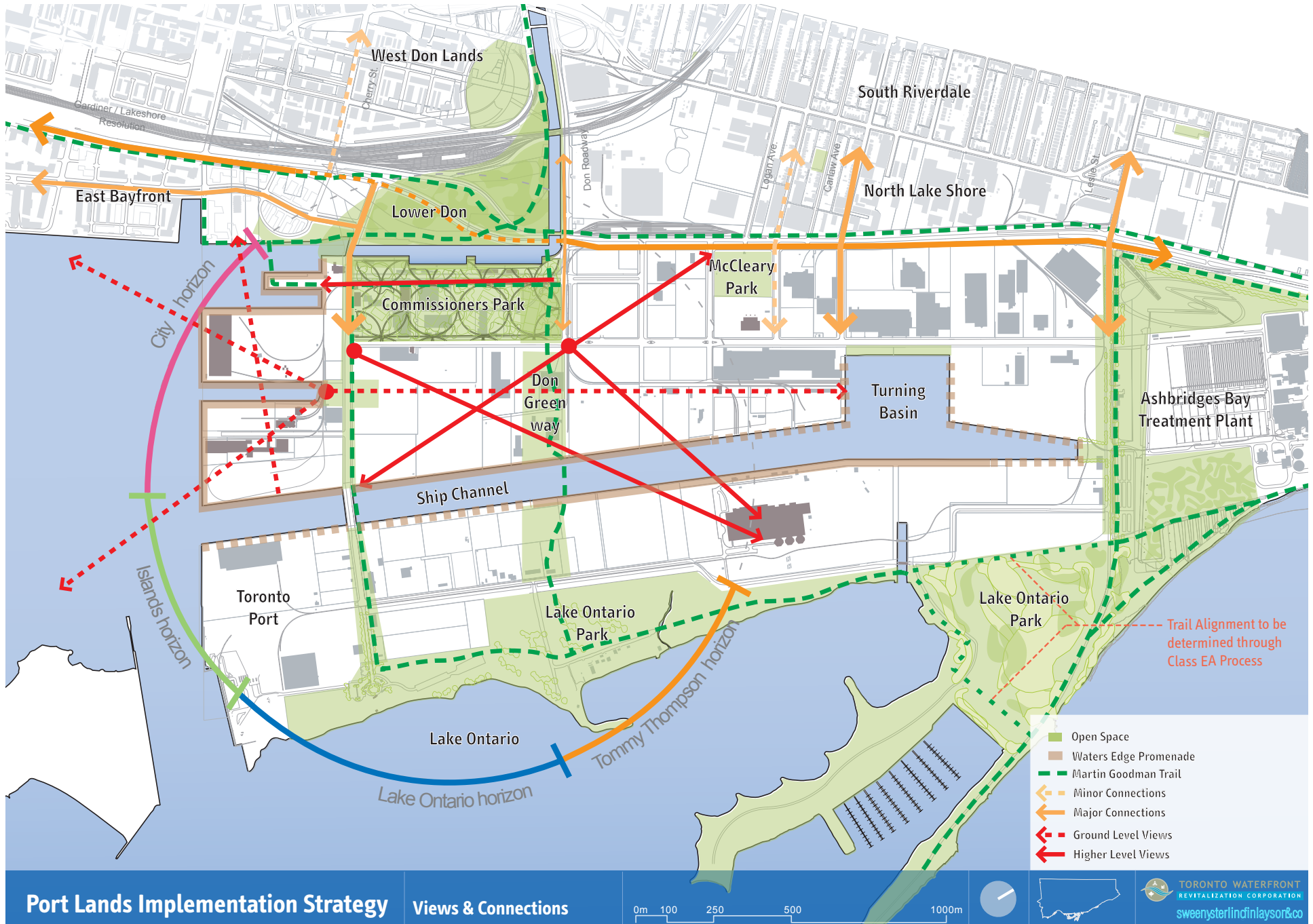
In the King Parliament example base zoning with a holding provision “H” was established. Removal of the “H” was subject to meeting certain conditions by means of the completion of a Plan of Subdivision for the appropriate area of the precinct. The appropriateness of such an approach for the Port Lands is one of a number that should be examined during initial Precinct Planning.

In all three cases the intent of the zoning should be explicit. This will allow for change to happen over time while preserving the long term goals of the Port Lands.





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3.4. The Quays (Including Polson, Cousens and Essroc Quays)



The Quays Precinct will be a new waterfront district characterized by exciting new open spaces and an extensive water's edge promenade that will provide a public vantage point from which to take in the view of the City's central core. Together, the Quays represent some of the City's most spectacular new city building opportunities.

The Quays will have a residential focus, serviced primarily from Cherry Street by the extension of Commissioners Street onto Cousens Quay and the continued use of Polson Street on Polson Quay. Improvements to the Water's Edge to create a continuous, publicly accessible promenade and the development of important inner harbour open spaces along the harbour faces of the quays and at the heads of the two slips will provide the primary large scale open space resources. Additional local parks and other public open spaces that link to these primary open space resources will also be located within the Quays precinct. Proximity and links to Commissioners Park to the east are important aspects of the Quays precinct.

It is anticipated that the future blocks facing Cherry Street, along with their counterparts on the adjacent areas of the Central precinct will form the main street and become a commercial centre for the Port Lands.

Polson Quay may be the location of early development activity. It includes several privately controlled properties, one of which is Canada Cement LaFarge an existing industrial use that is likely to be a long term presence and which will require ongoing dock wall access. Precinct planning for this part of the Quays will need to recognize and promote

coexistence with LaFarge as a long term industrial use and its desire to maintain an existing rail spur to the property.

Cousens Quay is entirely publicly owned and is the home of two important industrial artifacts: The Marine Terminal 35 building and the Atlas Crane. Precinct Planning for this part of the Quays will need to examine the potential for reuse and or long term accommodation of these structures. Cousens Quay may be considered as a possible site for a proposed Regional Sports Facility or other cultural/arts uses.

Essroc Quay will be a critical part of the emerging plans for the adjacent Don Mouth revitalization. The concrete silos are valuable symbols of the industrial heritage of the area and should be incorporated into all future plans for the area. Precinct Planning for this part of the Quays will examine the potential for this narrow quay to accommodate future building or open space functions including an important role in potential future pedestrian and cyclist connections to the East Bayfront.

In the future the Quays precinct will be characterized by relatively high density mixed use development, with medium scale buildings and strategically located taller buildings. The Quays district has the capacity to accommodate approximately 5700 dwelling units with an average parcel density of 4.0 FAR. It is anticipated that within this precinct the non residential capacity of the precinct is approximately 57,000 m².

Precinct Planning for the Quays is expected to start in 2006. No new interim uses should be encouraged in the Quays precinct.





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3.5. Central Precinct



The key feature of the Central Precinct will be its relationship with the key regional open spaces that form its edges and are the back bone of the long term vision for the Port Lands- Commissioners Park, the Don Greenway and the Ship Channel. Establishing links to these open spaces from the interior of the precinct will be a critical task in the future planning of this area.

The Central Precinct will be a mixed-use district with the potential to accommodate a wide range of non residential uses, especially at its eastern end, adjacent to the Don Greenway. The precinct will be serviced by several of the major streets within the Port Lands including Cherry Street, Commissioners Street and the new extension of Basin Street which will cross the precinct to intersect Cherry Street at the head of Polson Slip.

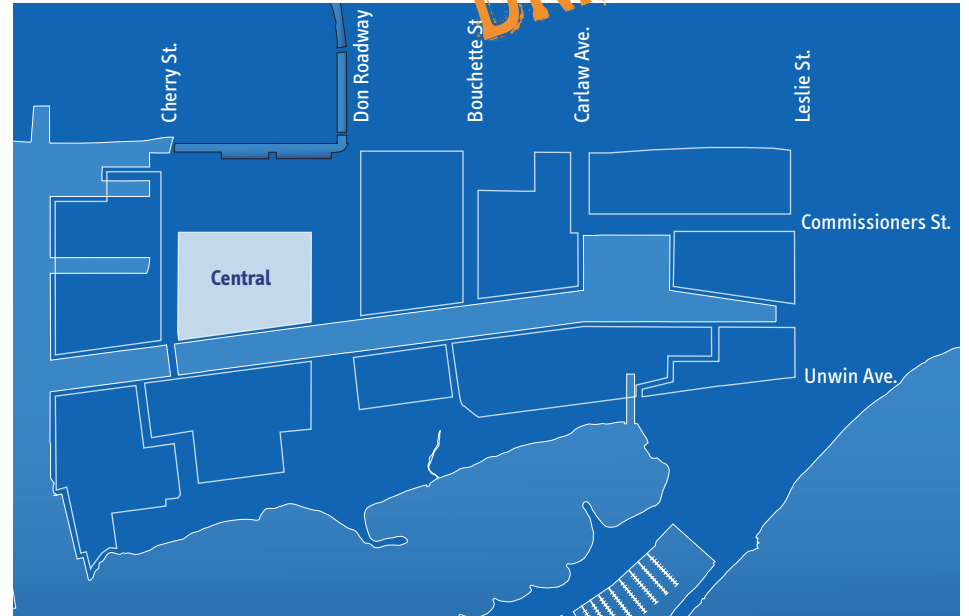
It is anticipated that the future blocks facing Cherry Street, along with their counterparts on the adjacent areas of the Quays will form part of an emerging main street for the Port Lands.

Precinct Planning for the Central precinct will identify complete streets and blocks and open space structure for the area as there are no secondary streets currently in existence. Particular attention should be paid to the development of an appropriate built form for the edge to the adjacent Don Greenway and to taking full advantage of the spectacular long views that will be offered by development sites and open spaces near the Ship Channel and near Commissioners Park.

The Central Precinct could be the location of new primary school facilities in conjunction with the development of family housing and the potential spin off from the possible location of the proposed Regional Sports Centre within the adjacent portions of Commissioners Park.

Development in the Central Precinct will be characterized by medium scale buildings - to encourage the provision of family housing and strategically located taller buildings. The Central Precinct has the capacity to accommodate approximately 4000 dwelling units with an average parcel density of 3.0 FAR. It is anticipated that the non residential capacity of the precinct is approximately 40,000 m2.

Precinct Planning for the Central Precinct is expected to start in 2006 in conjunction with the plan prepared for the Quays. No new interim uses should be encouraged in the Central Precinct.



3.6. Ship Channel South West

The Ship Channel South West will be the primary residential district south of the Ship Channel. It will include sports facilities and water related recreational and support uses in addition to its primary residential focus.

The precinct will be primarily serviced by an upgraded Unwin Avenue as well as the southern portion of Cherry Street. The upgrading of Unwin Avenue as part of the Core Infrastructure Corridor is critical to future development potential in this area. An East West Service Road will be necessary to facilitate access to the ongoing storage uses adjacent to the Ship Channel.

The precinct is dominated by surrounding open space resources including the Lake Ontario Park to the south, The Ship Channel to the north and the extension of the Don Greenway to the east. At the west end of the precinct, between the existing Toronto Port Authority facilities and Cherry Street there is a site that is a likely candidate for boating related activities. South of Unwin Avenue is another separate parcel that is suitable for sports and recreational activities that are related to and supportive of the plans for Lake Ontario Park. These two parcels could be future homes for:

- The RCYC dry-dock and storage facilities and Bayside Rowing Club west of the Cherry Street Bridge;
- Relocated Waterside Sports operations (from East Bayfront Precinct);
- Transitional Playing Fields (south of Unwin Avenue) and;
- Other compatible recreational facilities

Precinct Planning for the Ship Channel South West precinct will identify streets and blocks and an open space structure for the area as there are no secondary streets currently in existence. Early development activity in the precinct will coexist with the ongoing interim use of part of this area for shipping related activities. This may have an impact of the long term pattern of streets and blocks that emerges in this area.

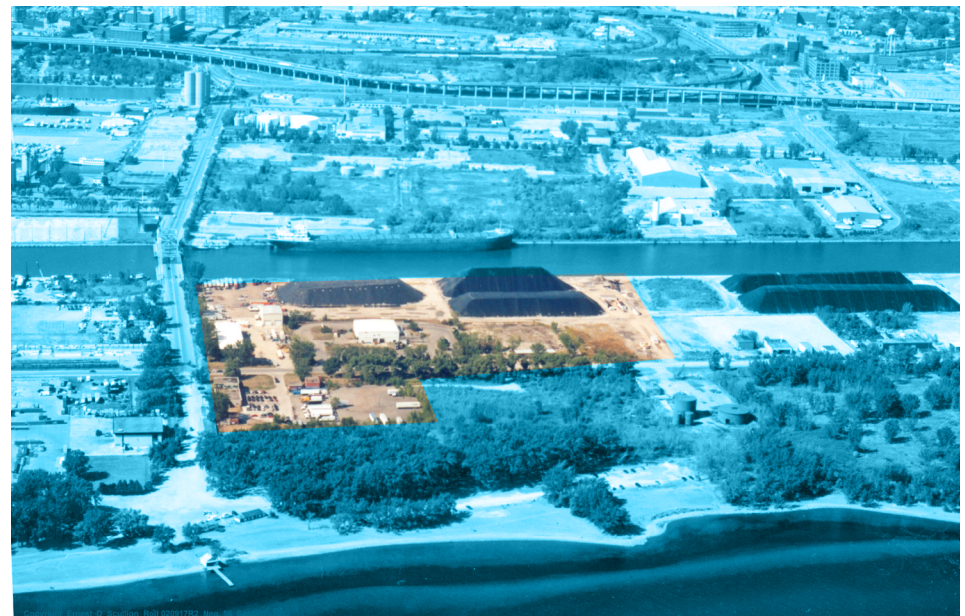
When revitalization does occur in this area, particular attention should be paid to the creation of an appropriate built form for the edge adjacent to the Don Greenway and to taking full advantage of the spectacular long views that will be offered by development sites and open spaces near the Ship Channel. Redevelopment in this part of the precinct would have the effect of opening up full public access to a large amount of the dock wall and would represent a shift in the patterns of use of this part of the ship channel from shipping to primarily recreational and residential.

Urban Catalyst projects in this precinct include the early construction of Transitional Playing Fields and associated support facilities south of Unwin. The south of Unwin section of this precinct has also been identified as a potential location for the proposed Regional Sports Facility.

In the future the areas that do redevelop with a residential focus will be characterized by medium density mixed use development, with medium scale buildings and strategically located taller buildings.

The Ship Channel South West precinct has the capacity to accommodate approximately 2700 dwelling units with an average parcel density of 2.0 FAR (when the areas south of Unwin and east of Cherry are taken into account). It is anticipated that the overall non residential capacity of the precinct is approximately 60,000 m².

Precinct Planning for the Ship Channel South West is expected to start in 2006-08. Parcels south of Unwin are subject to the outcome of Regional Recreation Facility and Transitional Playing Fields studies.





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3.7. Ship Channel South East



The Ship Channel South East is a smaller mixed use precinct serviced primarily from Unwin Avenue, bracketed by the Don Greenway on the west and the Hearn Generating Plant and its precinct to the east. The upgrading of Unwin Avenue as a major infrastructure element is critical to future development potential in this area.

At its west end, this precinct will make an edge to the southern extension of the Don Greenway while at its east end, future mixed use buildings will have to negotiate an appropriate built form relationship with the volume and character of the existing Hearn generating Plant and its future reuse.

Precinct Planning for the Ship Channel South East precinct will pay particular attention to the development of an appropriate built form for the edge to the adjacent Don Greenway and to taking full advantage of the spectacular long views that will be offered by development sites, water's edge promenade and open spaces near the Ship Channel. Redevelopment in this part of the precinct would have the effect of opening up full public access to a large amount of the dock wall.

Urban Catalyst projects in this precinct could include early construction of a Floating Pedestrian and Cyclist Bridge crossing the Ship Channel at the Don Greenways a pioneering infrastructure element. Such a feature would be designed so that it would permit the free passage of small craft and open through the use of a simple swing mechanism to allow passage of larger vessels. This bridge would establish an early version of the future infrastructure in this area and support the crossing of the Ship Channel by the open space of the

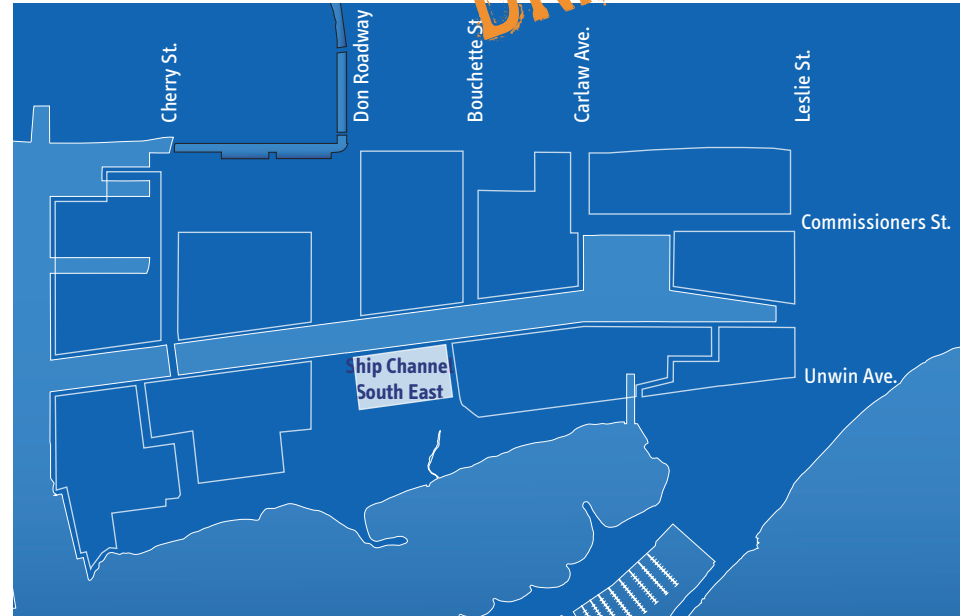
Don Greenway. A Floating Bridge could be designed as a permanent but flexible feature of the area that could eventually be moved and reused at another key Port Lands location in a similar "pioneering" infrastructure role.

The early construction of a Port Lands Arboretum / Nursery / Educational Facility adjacent to the Hearn Plant could also act as an Urban Catalyst in this precinct. Such a facility would include the activities that currently take place in the Fort York Garrison nursery. As well as functioning as an arboretum that provides active learning opportunities, such a facility could also be an early example of Port Lands interim planting strategies creating a green urbanism that supports the long term urban design goals for the area. The Ship Channel South East has also been discussed as the potential location for a Port Lands Soil Remediation Facility.

In the future the Ship Channel South East precinct will be characterized by a mix of medium scale buildings and a bias toward sustainable employment uses. The anticipated future development in this precinct could be preceded by high quality, definite term, interim industrial or employment uses.

At full build out, the Ship Channel South East precinct has the capacity to accommodate approximately 1,400 dwelling units with an average parcel density of 3.0 FAR. It is anticipated that the non residential capacity of the precinct is approximately 32,000 m².

Precinct planning is anticipated in 2006-08. Short- and long-term uses are dependent upon installation of Unwin Avenue service infrastructure.



3.8. Film Studio

The Film Studio Precinct's primary new uses are part of the "FilmPort" project that is located in the southern part of the precinct. The precinct as a whole is serviced primarily from Commissioners Street, the Don Roadway/DVP and Lake Shore Boulevard and comprises two distinct areas within its general boundary. The southern area (south of Commissioners St.) will accommodate a mix of uses made up of a combination of film industry related employment uses and a variety of mixed use development that includes commercial, residential and live work uses. The northern area includes private land holdings and has the potential to evolve into a mixed use area with more residential uses.

Initial development is occurring in the southern area which will be the core of the proposed FilmPort facility that will require a secure perimeter. Although public access will be limited within this secured perimeter, the design of the initial elements of the FilmPort facilities will protect for the rights of way of all primary and secondary streets identified in the Central Waterfront Secondary Plan for the area, including the extension of the alignment of Basin Street to the west to connect to the head of Polson Slip. Over time, as the public street system matures in adjacent precincts, this secure perimeter will become less necessary and areas of surface parking that are indicated in the current plans for FilmPort will be replaced by structured parking in later phases.

The early construction of the FilmPort facilities themselves should be seen as an Urban Catalyst for the Port Lands as this will attract a new and vital population to the area and provides a potential home for existing and

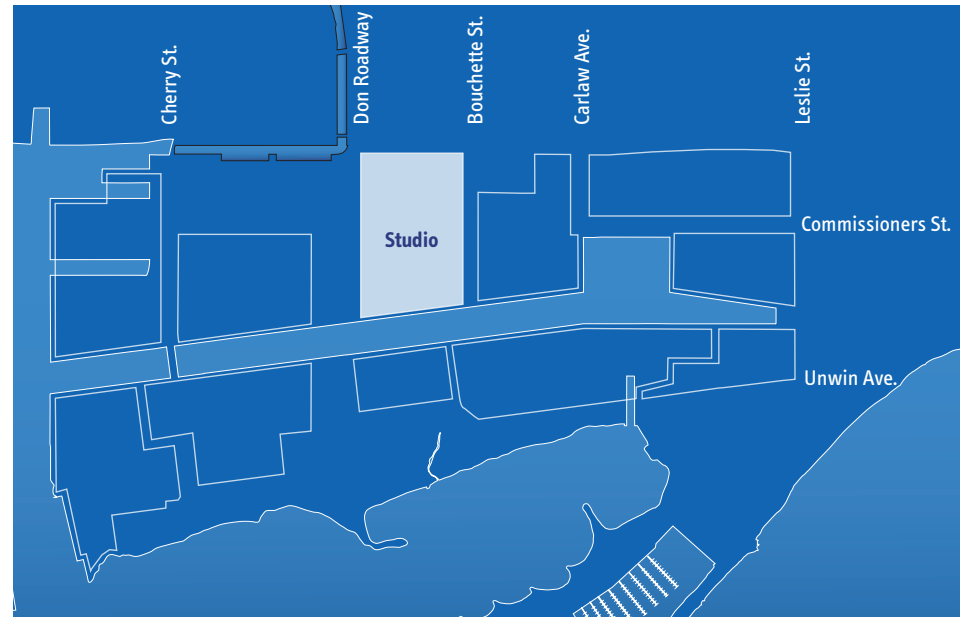
new related employment uses.

Ideally, the entire precinct would be the subject of a precinct planning exercise that is coordinated with those for the Quays and Central Precincts, prior to subsequent phases of development.

An additional challenge to be considered in the detailed planning of this area is the long term presence and configuration of the electrical transformer station on Bouchette Street, south of Basin Street and the high voltage distribution lines that are currently carried on pylons through the precinct to make a connection with the downtown core of the City. These facilities are a critical part of the "grid" of the city and will likely be maintained in some form in a permanent basis.

The Implementation Strategy recommends that when feasible, the high voltage lines be buried as they have an impact on development potential in areas through which they pass – in particular the future development parcels on the east side of the Don Roadway – facing onto the Don Greenway and Commissioners Park.

In the future the Film Studio precinct should be characterized by medium density mixed use development, with a bias toward the provision of high quality employment uses in medium scale buildings. Subject to a comprehensive approach to planning in this area and assuming some part of the Film Port lands being developed with residential units, the Film Studio precinct has the theoretical capacity to accommodate approximately 2,900 dwelling units with an average parcel density of 2.0 FAR. (including the Film Port project). It is anticipated that the non residential capacity of the precinct is approximately 86,000 m² including existing stable industrial and employment uses.





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3.9. McCleary

The McCleary Precinct is one of the precincts in the Port Lands that includes a number of stable employment uses and McCleary Park. It will evolve into a mixed use area over a much longer term. In the future, it will be characterized by mid scale development, with a bias toward the provision of high quality employment uses. There is the potential to relocate the Waste Transfer Station operation to another location such as the Port Lands Energy Centre.

The McCleary precinct is serviced primarily from Commissioners Street and Lake Shore Boulevard and includes an important link to and from the Port Lands in the form of Carlaw Avenue one of the few signalized crossings of Lake Shore Boulevard.

The precinct is home to Cascades Paper Products, a long standing industrial presence in the Port Lands on land that is privately held. Other existing elements that are expected to persist in the area include the former incinerator site and the private recreational facility adjacent to McCleary Park itself – the major open space resource in the area at the moment. McCleary Park is undergoing a redesign through the Parks Department of the City of Toronto at this writing, in order to bring its active recreation facilities up to date.

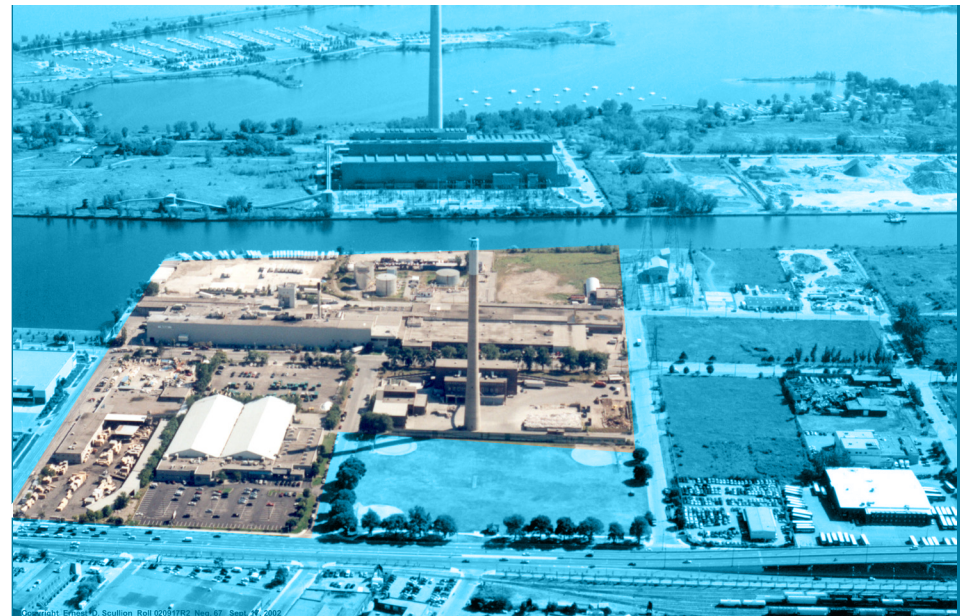
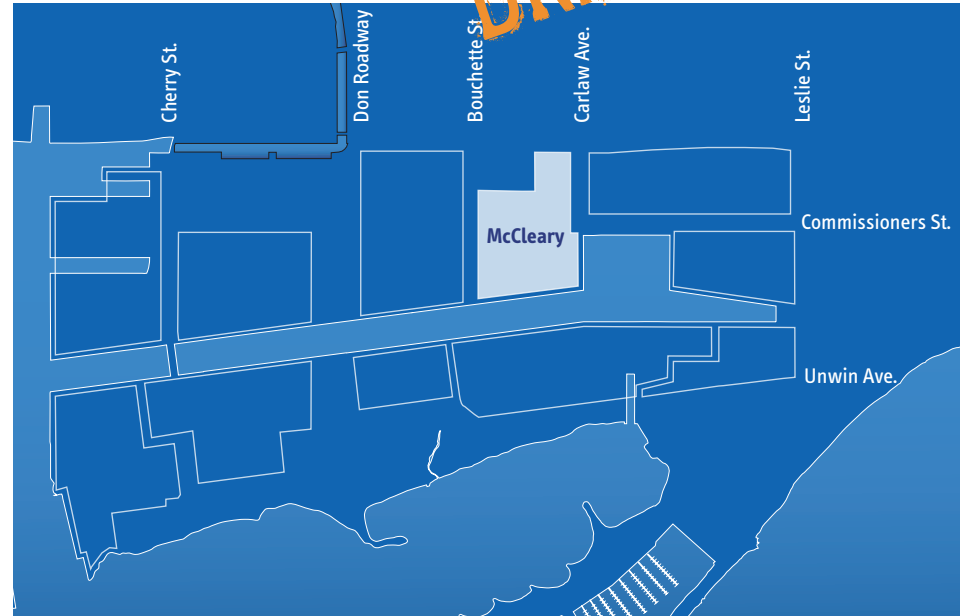
Precinct planning for this precinct will need to recognize the presence of Cascades as a long term industrial use and its need to maintain an existing rail spur to the property.

The anticipated Infrastructure Engineering studies and Environmental Assessments should also re-examine the feasibility of the extension of Carlaw south of Commission-



ers Street and the future crossing of the Ship Channel on this alignment that is illustrated in the Secondary Plan.

When the precinct does evolve it will be characterized by medium density mixed use development, with a bias toward the provision of high quality employment uses in medium scale buildings. The McCleary precinct has the capacity to accommodate approximately 2300 dwelling units with an average parcel density of 2.3 FAR. It is anticipated that the non residential capacity of the precinct is approximately 208,000 m².



3.10. Lake Shore East

The Lake Shore East precinct is the home to many stable employment, transportation and commercial uses which will evolve over a much longer term into a more mixed use area – in conjunction with emerging ideas for the future of the areas immediately to the north. There are some shorter term opportunities for infill on the Lake Shore frontage, as an extension of existing commercial and employment uses.

The Lake Shore East precinct is serviced by Commissioners Street, Lake Shore Boulevard and Leslie Street.

A new Canadian Tire store and some additional retail uses are under construction in a street frontage supportive form at the corner of Leslie and Lake Shore at time of this writing.

Precinct planning for this precinct will take place at a later date and will need to recognize the long term presence of many of the existing employment and industrial uses and the need to maintain an existing rail spur that crosses this precinct from the north to ultimately service the facilities of the Toronto Port Authority south of the Ship Channel. Longer term opportunities to promote permeability of this precinct including future road connections between Lake Shore and Commissioners Street should be explored in future precinct planning exercises.

Open space resources are scarce in this area. The primary open space is the Turning Basin Park located on the south side of Commissioners Street next to the Turning Basin. This is a narrow linear park whose primary role is to provide a public window onto the Turning Basin – which in itself is a significant open space that will contribute its unique character to the precinct as it evolves. Turning Basin Park has a publicly accessible dock wall, some on street parking adjacent and currently provides moorings for several boats.

Early Urban Catalyst projects for the Lake Shore East precinct could include enhanced streetscaping along the Lake Shore Boulevard frontage and the creation of accessible dock wall for public boat launching including the potential of a floating structure attached to the Turning Basin Park that could accommodate appropriate recreational uses and facilitate public launching of small boats.

In the future, Lake Shore East precinct will have a bias toward the provision of high quality employment uses in medium scale buildings. The Lake Shore East precinct has the capacity to accommodate approximately 400 strategically located dwelling units. It is anticipated that the non residential capacity of the precinct is approximately 150,000 m².





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3.11. Turning Basin

The Turning Basin precinct is the area of the Port Lands that surrounds the eastern end of the Ship Channel. This area has been established as the location for existing and relocated waterfront concrete facilities, through a separate planning process. Typically, employment uses in this area need and will continue to require dock wall access for shipping related activities.

The Turning Basin precinct includes the very eastern end of the Ship Channel itself, currently the home to Eastern Marine and the site occupied by Telesat Canada and Shaw Communications at 6 Leslie St. Leslie Street and a portion of Commissioners Street in this area are part of the Leslie Street Greening initiative. Martin Goodman Trail enhancements are included in this initiative.

The area opposite this precinct is covered by the greening plans for the Ashbridges Bay Treatment Plant. The precinct also has a significant frontage onto Lake Ontario Park.

The Turning Basin precinct is serviced by Commissioners Street, Unwin Avenue and Leslie Street and has an extensive dock wall frontage. The final alignment of Unwin Avenue across the southern edge of the precinct will be determined through an Environmental Assessment process. An east west service road connected to Leslie Street roughly parallel to Unwin Avenue that will facilitate the development of parcels that face the Ship Channel and parcels that face the future alignment Unwin Avenue as well as providing access to some potential re-use opportunities for the Hearn.

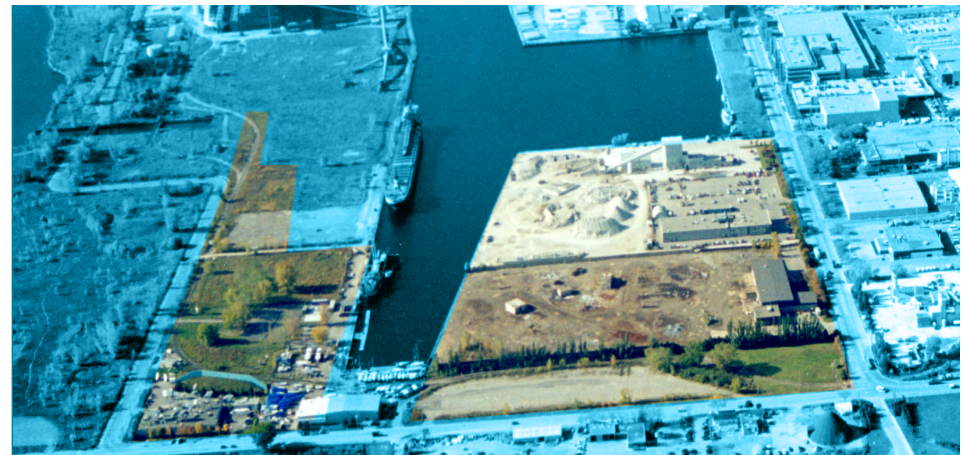
An existing rail spur that serves the Toronto Port Authority facilities on the inner harbour traverses the eastern edge of the precinct, parallel to Leslie Street. Maintenance of this rail spur will be required into the foreseeable future. Along Leslie Street, the rail spur has already been relocated to the west, freeing up a parcel of land that fronts directly onto the street that has some early to mid term development potential, as an extension of the street fronting built form that is developing just to the north in the Lake Shore East precinct with the construction of the new Canadian Tire store.

Part of this precinct is referred to as the “Concrete Campus” because of the consolidation of preexisting concrete batching operations with additional new concrete related activities that are either in the process of moving to this area from elsewhere in the Port Lands (Strada Aggregates) or the larger Toronto waterfront (St. Mary’s Bathurst Street Plant).

It is anticipated that these concrete related activities will be in place for a period of at least 20-25 years and perhaps as long as 50 years. As such, mixed use development in this precinct will not proceed until some time after 2035.

Major open space opportunities that present themselves in the Turning Basin precinct include the potential to convert the space between the east end of the channel and Leslie Street that is occupied by Eastern Marine to a park that offers a window on the channel from the street. Such a connection has been put forward in the Central Waterfront Secondary Plan, The TWRC Open Space Framework and the Greening of the Ashbridges Bay Treatment Plant.

In the longer term, the Turning Basin precinct has the potential to evolve into a more mixed-use area, primarily employment and commercial in nature, with some “main street type retail facilities, in mixed use buildings facing Leslie Street. In the longer term, the Turning Basin precinct has a capacity of approximately 50,000 m2 of non residential building.



3.12. The Hearn Precinct

The Hearn Precinct is the area south of the Ship Channel that includes the Hearn Generating Station and the Ontario Power Generation (OPG) lands to its east. This area is considered to be an appropriate location for a number of recycling and sustainable energy related activities and green industries some of which could be those existing elsewhere in the Port Lands. The Hearn precinct could be the location of a 'Sustainability Centre', identified in the Swedish Sustainability Report, that would integrate green employment uses, the recycling activities of the Port Lands and a new integrated energy plant (including a waste to energy plant and co-generation facilities).

It is anticipated that sustainable industrial activities such as these will be in place long term. As such, the Hearn Precinct has not been included as one of the precincts in the First Generation of Port Lands revitalization. Rather, it is anticipated that, with the exception of adaptive re-use of the Hearn Generating Station any future mixed use development in this precinct would not proceed until some time after 2035.

Critical to the future of this precinct is the resolution of the planning and design processes associated with the Port Lands Energy Centre (PEC), which at the time of this writing was proposed to be located in this area. The design of a Port Lands Energy Centre should establish sustainable energy solutions as a priority by providing a location for a centralized district energy plant, in addition to small-scale renewable energy demonstration projects and innovative design, e.g. geothermal heating and cooling, solar voltaic panels, waste-to-energy plants, wind turbines, etc.

It is important to note that at the time of this writing, the proposed Port Lands Energy Centre does not include these sustainable energy features.

It is anticipated that there will be a second parallel road access to Leslie Street that will traverse the eastern portion of the Hearn Precinct and connect through the southern portion of the Turning Basin precinct. This will allow the development of parcels that face the Ship Channel and parcels that face the new alignment of Unwin Avenue as well as providing access to some potential re-use opportunities for the Hearn.

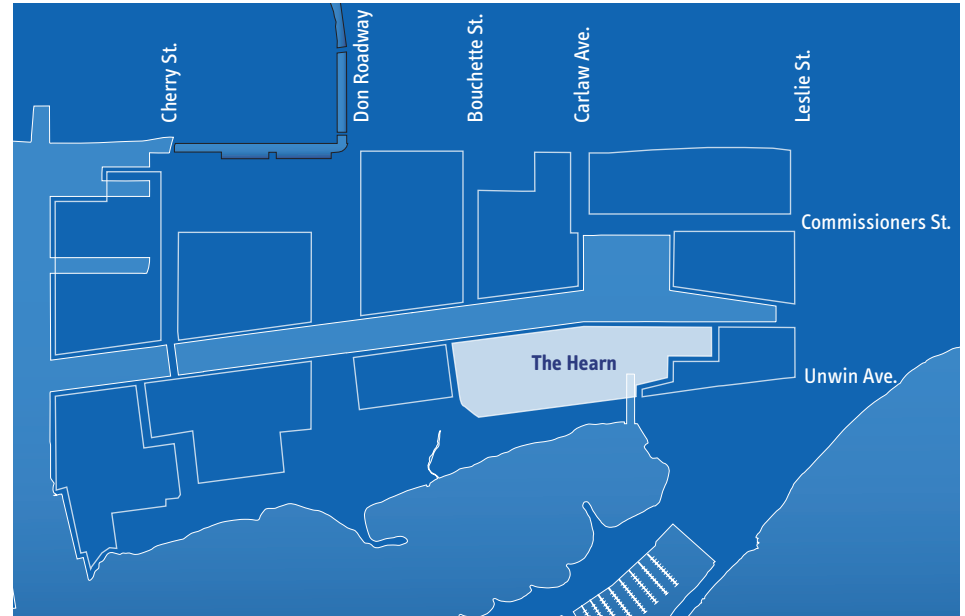
There are a myriad of potential uses to which the existing structure of the Hearn Generating Station could accommodate. It is an important component of the industrial heritage of the Port Lands and contains numerous large scale spaces within. It is understood that there are some significant issues associated with the reuse of this structure – in addition to finding uses that are capable of optimizing the use of the spaces themselves, there are concerns about the measures that will be required to stabilize its masonry envelope.

Potential adaptive re-uses that have been discussed for the Hearn Generating Station individually and in combination include:

- Smaller Scale Port Lands Energy Centre
- Relocated Waste Transfer Station
- Recycling industries
- Sports Facilities (private and public Including the proposed regional sports centre)
- Film Studios
- Retail Facilities
- Structured parking

In addition to the Hearn Plant Generating Station itself, there is some land to the south adjacent to Unwin Avenue that could be the site of additional building in the future.

It is anticipated that the non residential capacity of the precinct is approximately 60,000 m².





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3.13. Toronto Port

The Toronto Port precinct is the area currently occupied by the Toronto Port Authority at the south west corner of the Port Lands. It is the home of the International Ferry docks, a container port and a number of other shipping related activities. These activities are important to the economy of the City and are anticipated to continue in their current form and location for the foreseeable future.

Important future considerations in the Toronto Port include the coexistence of ongoing port activities, including the associated rail and truck traffic with Lake Ontario Park (Cherry Beach) and new recreational boating activities. These considerations include:

- The development of means of controlled means of access between Cherry Beach and the Port and the International Ferry Docks should be pursued in conjunction with the planning of Lake Ontario Park and;
- The coexistence of Lake Ontario Park with ongoing use of Unwin Avenue and the rail spur that runs parallel to it. The future design of Unwin Avenue will have to accommodate port access by trucks and trains as well as the park and mixed use development functions.
- The future use of the Ship Channel dock wall in the Toronto Port precinct for public access to water based transportation and other water based commercial activities such as water taxis, tour boats, boat rentals etc..



3.14. Estimated Precinct Yields

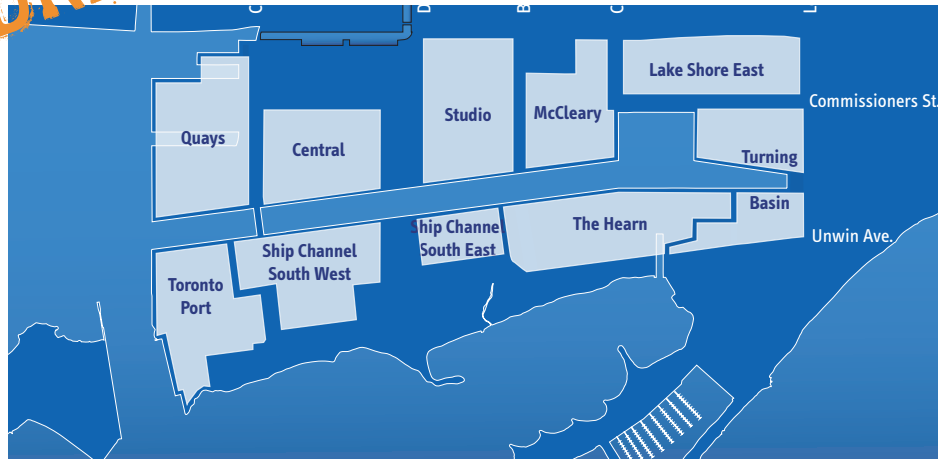
The Implementation Strategy anticipates development yield in the first generation period of approximately 19,400 dwelling units and 800,000 m2 of non residential space over the 10 precincts. The residential yields are slightly lower than the earlier 2003 TWRC Business Plan estimates, and the non residential space projections are higher. This is due to a more refined analysis of unencumbered lands within the Port Lands that may become available for redevelopment and a revisiting of the built form assumptions and residential absorption estimates contained within the 2003 Business Plan.

Some initial precinct plan level built form testing was carried out during the development of the Implementation Strategy on the Quays and Central precincts - in order to inform the discussion on anticipated development yields.

Together, The Quays and Central precincts, the two mixed use precincts expected to be the first to redevelop, represent the potential of approximately 10,000 residential units and 10,000 m2 of non residential space.

The resulting residential and non residential yields of this testing was used to extrapolate yields for the other first generation mixed use precincts. Non residential yields on precincts such as: The Hearn, Turning Basin and The Port were based on projected intensification of the ongoing patterns of use .

The combined total development potential represented by the 10 Port Lands precincts is outlined in the chart opposite.



3.15. Estimates of Market Uptake

Estimates of market uptake are based on the understanding that recent (5 Year) average annual GTA condominium absorption rate is approximately 10,000 Units (between Burlington and Clarington).

In the near term there is a projected demand for between 9,000 to 11,000 condominium units per year in the GTA. Of this the city of Toronto has typically attracted 70% of sales. The Waterfront has historically accounted for 300 to 350 units in 6 to 7 projects per year.

The TWRC 2003 Business Plan expected the Port Lands to contribute an annual average of approximately 750 Units.

There will be multiple waterfront development centres, with the initial concentration in the West Don Lands and East Bayfront as their precinct plans are complete.

As more projects are introduced, infrastructure improved and a wider range of housing types become available, the Waterfront absorption rates should increase to between 400 and 600 units per year.

The earliest that redevelopment could start in the Port Lands is 2008/2009 (following approximately 2 – 3 years of precinct planning and other planning processes. With an early start the first units would be available in 2010-2012.

Annual delivery of Port Lands units could ramp up to a theoretical average of between 600 - 800 Units . Even at these theoretical absorption rates the Port Lands would reach only 85% of the projected residential yield of 19,400 units, by 2035.

Precinct Schedule	Gross	Parcel Net	Residential Units	Non Residential
	Area (ha)	Area (ha)	90m2 per unit	m2
Quays	28.24	12.71	5,700	57,000
Central	24.12	13.27	4,000	40,000
Studio	26.51	17.23	2,900	86,000
McCleary	26.49	18.54	2,300	208,000
Lake Shore East	26.50	17.92	400	14,800
Ship Channel SW	25.02	15.01	2,700	61,000
Ship Channel SE	8.22	5.34	1,400	32,000
Mixed Use Totals	164.20	100.02	19,400	632,000
Hearn	30.42	N.A.		60,000
Turning Basin	25.03	N.A.		50,000
Port	26.58	N.A.		50,000
Employment Totals	82.03	N.A.		160,000
Port Lands Totals	246.23		19,400 Units	792,000



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3.16. Initial Built Form Testing

While the Implementation Strategy does not contain the level of detail that would be found in precinct plans - during the process a series of structure plan analyses and built form tests were carried out in order to test potential development yields and develop open space potentials at a scale that would create linkages between precincts.

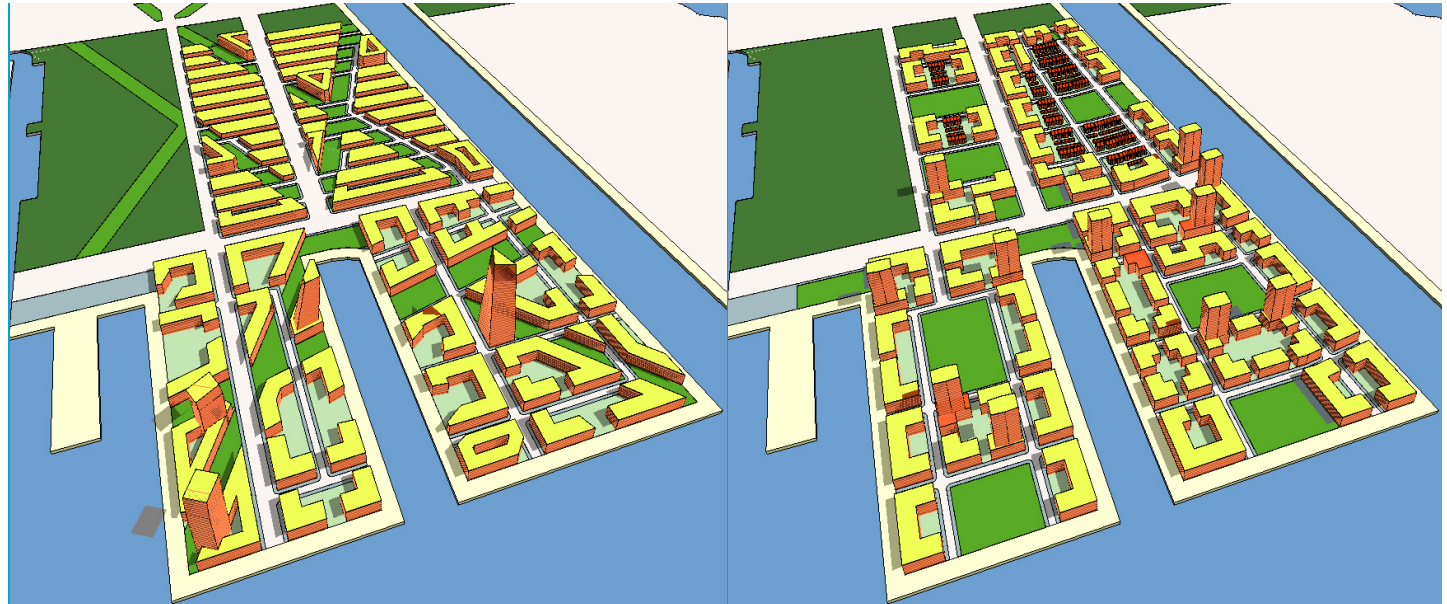
Early in Phase 1 a series of development form and phasing tests were carried out as a confirmation of assumptions that led to the 2003 TWRC Business Plan and to identify potential early development start locations.

In Phase 2 potential open space, street and block structures as well as preliminary building type assumptions were tested on the Quays and Central precincts. The results of these tests created initial residential and commercial development yield estimates identified potential urban design issues that could be addresses in precinct planning process that will follow the completion of the Implementation Strategy including the possibility of:

- Land use controls that maximize the potential for mixing of uses and tenures at all levels;
- Flexible built form regulations to allow for the development of new typologies;
- Performance based built form controls that could allow for even more flexibility.



Illustrations of possible greenway connections showing potential views.



Built Form Tests showing two different options for larger open space and road network systems. On the right is an illustration of a network of connected open spaces. On the left is a more traditional block & square pattern.



Cherry Street

4. Infrastructure Framework



Completion of these studies and EAs and the subsequent investment in infrastructure is key to the unlocking of the revitalization potential in the precincts south of the Ship Channel.

The four main elements of the Port Lands “Core Infrastructure Corridor” are the major existing streets:

- Cherry Street will be the “Main Street” of the Port Lands in the future, lined on both sides by street defining mixed use buildings, an urbane street that leads from the Keating Channel and Commissioners Park to the Ship Channel and across to connect to Unwin Avenue, Lake Ontario Park and the Port.
- Commissioners Street will be the Port Lands Spine, running east-west through the northern half of the area, connecting the future developments of the Central and Quays precincts with the emerging FilmPort and the existing industries and employment uses that will continue to be located in the eastern precincts .
- Leslie Street is already a Green Corridor that connects South Riverdale and Lake Shore Boulevard to Tommy Thompson Park and the future Lake Ontario Park. It will continue to evolve as streetscaping initiatives within the right of way combine with efforts to implement the Ashbridges Bay Treatment Plant Master Plan.
- Unwin Avenue will be a Park Street in the future, a tree lined boulevard, with development and industrial uses on its north side and a variety of park and recreational uses on its south side, with Lake Ontario Park making up the majority of the frontage. Like Villiers Street and parts of the Don Roadway, Unwin Avenue is a double width right-of-way. This situation may provide some flexibility in the phasing of much needed early repairs and improvements of Unwin Avenue before the full “Core Infrastructure Corridor” planning is complete.



Unwin Avenue

4.1. Core Infrastructure Corridor



The Implementation Strategy recommends a 2 stage approach to engineering studies and Environmental Assessment (EA) processes related to infrastructure investments. The first stage will support the First Generation period while the second will have a longer term focus addressing additional bridges etc.

The first stage of engineering studies and Environmental Assessment processes will:

- Determine the extent and state of repair and capacity of the existing sewer and water services north of the Ship Channel;
- Identify infrastructure needs to service lands in a phased manner;
- Determine the most appropriate alignment for Unwin Avenue east of the Hearn plant;
- Determine the location and initiate the design of a new bridge to replace the existing single lane “Bailey Bridge” over the Recirculation Channel and new services to support future development along the length of Unwin Avenue;
- Consider the potential for subsurface steam energy and vacuum waste systems and the need and feasibility to accommodate these facilities within the right-of-way;
- Study bridge crossing options and potential phasing implications; and,
- Consider future transit options and design implications with respect to right-of-way widths and alignments



Commissioners Street

Revitalization in the Port Lands will require significant investment in infrastructure. North of the Ship Channel, Investment will likely involve the upgrading of existing services and the extension of services where new public roads are constructed. South of the Ship Channel new infrastructure is required.

Pre-existing sewer and water facilities in the Port Lands exist within the rights-of-way that are part of what has been designated the “Core Infrastructure Corridor”.

It appears that, based on discussions with the City of Toronto, much of the existing sewer and water systems north of the Ship Channel, could accommodate the intensification that is anticipated in Implementation Strategy. The key issue with regard to the existing infrastructure is the determination of the current condition of the water and sewer system and the confirmation of its capacity and any other limitations.

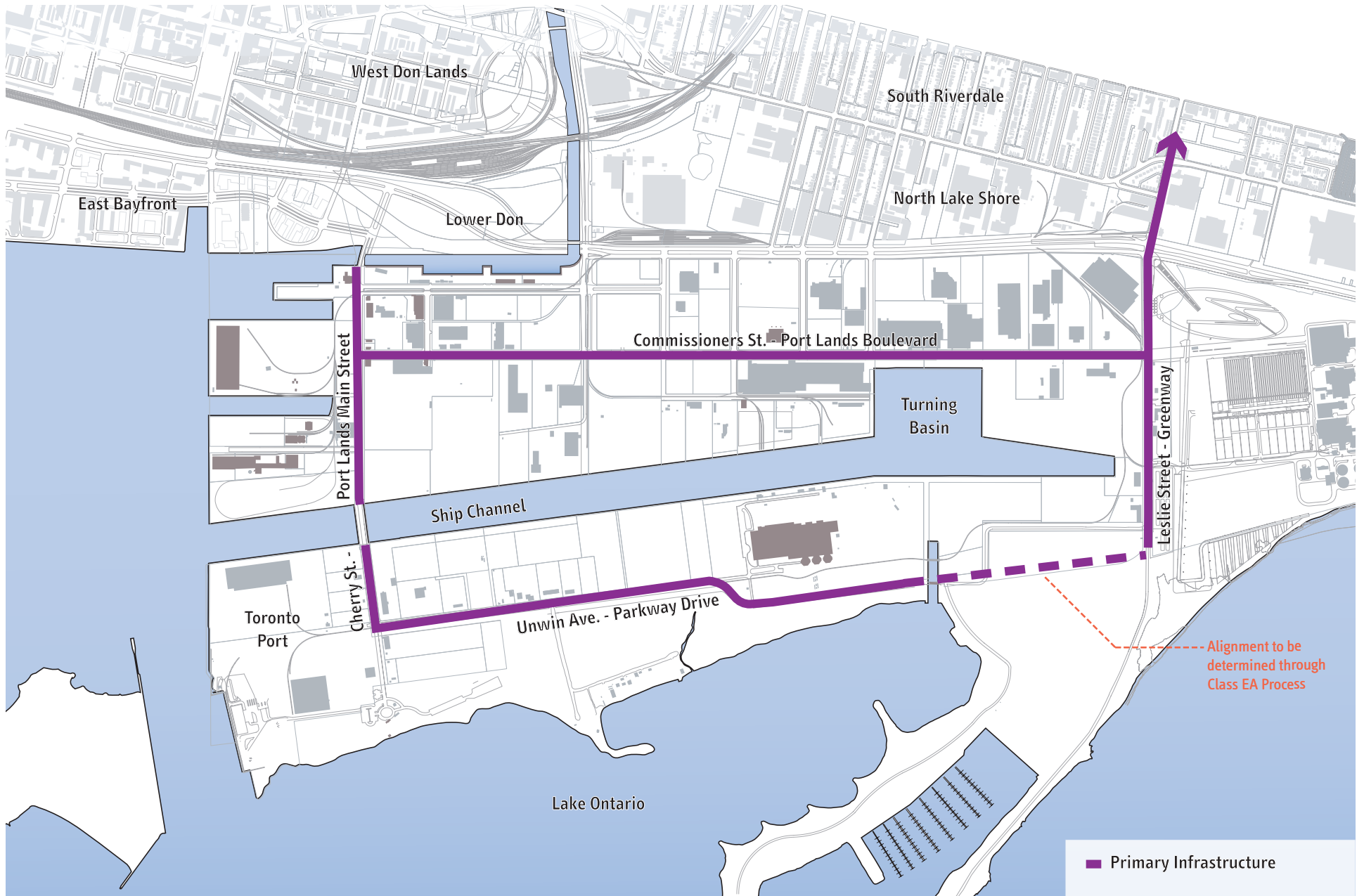
South of the Ship Channel only water facilities currently exist. Completely new water and sanitary systems will be required in this area to facilitate any intensive forms of development.



Leslie Street



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■ Primary Infrastructure



4.2. Grading & Soil Contamination:

Earlier Port Lands planning work resulted in a proposition to raise the current grades by as much as three metres throughout the area to facilitate future development. The concept of raising the grade of lands within the Toronto Port Lands was rooted in the following basic principles:

- The area is within the flood plain of the Don River. Raising the grade might eliminate the need for flood proofing measures;
- A new bridge may be required to cross the Ship Channel. The clearance under the bridge was thought to be sufficient to allow for uninterrupted vehicular traffic along the waters edge promenade. Raising the grade of the land surrounding the bridge would help facilitate the long and large approaches to the bridge necessary to provide sufficient clearance;
- Construction costs could be reduced by limiting the depth of building excavations into the water table, estimated to be between 1 and 2 metres below the current grades;
- Raising the grade would create a clean fill layer between contaminated soils reducing the cost and need for soil remediation and;
- Increasing the grades would assist in providing gravity flow for storm water runoff and sanitary sewer systems.

It is likely that some grade changes maybe incorporated into the more detailed precinct plans or specific developments principally to deal with local site conditions, design or landscaping treatments. There is, however, no need for a large scale grading plan as previously suggested.:

The impact of raising grades will not significantly impact the nature and characteristics of the flood plain. While raising the grades could lift some areas completely out of the flood impacted lands the existing flood characteristics, predicted to be less than 1 metre in depth, can be easily mitigated with commonly used flood proofing measures.

The assumptions surrounding the bridge design were based on a very high boat clearance of 8 m. It has been determined, through discussions with the Toronto Port Authority, that a clearance, no greater than the existing, bascule bridge of 3 metres is required. Therefore the assumptions with respect to approaches were invalid. Constructing a bridge that would facilitate vehicle passage under its approaches (along the dock wall) is not necessary and potentially not desirable from an urban design viewpoint.

The cost of construction in the Port Lands may be reduced by raising the grade to limit encounters with the water table. However, experience within Toronto, in similar conditions, has shown that when the property becomes marketable the extra costs associated with construction below the water table can be built into the development proforma. Raising the grades would not reduce the additional costs associated with the poor geotechnical condition of the site typically requiring foun-



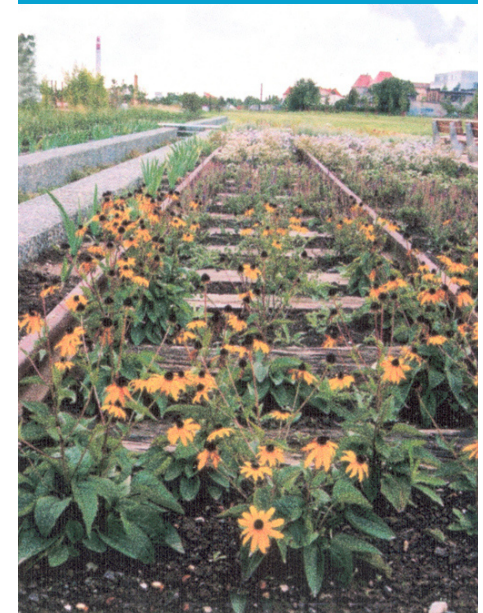
Landschaftspark Duisburg-Nord - Germany - Peter Latz

dations to be supported on piles.

Servicing the sites with the Port Lands can be accomplished with site or district specific strategies.

From a development phasing perspective, the re-grading of the site would create significant phasing challenges. The grades would all have to be raised at the same time to facilitate the proper area wide servicing. This will be difficult and costly to accomplish. It would also limit the ability for sites to be used on an interim basis.

While there are some advantages to a large scale grading initiative the costs and development issues associated with the timing and execution of the concept may not warrant the benefits that might be achieved.



Park Thüringer Bahnhof - Halle (Germany) - Heckel-Lohrer

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4.3. Crossing Strategy



Floating Bridge - Canary Warf - London



Borneo-Sporenburg Bridges - Amsterdam - West 8



Bike Lanes - Amsterdam

The presence of the Keating and Ship Channel within the Port Lands makes the consideration of the use of existing and the need for future bridge crossing critical to the redevelopment of the area.

4.3.1 Existing Crossings

Currently, there are three bridges with the Port lands:

- The Keating Channel Bridge, initially built in 1918 and reconstructed in 1968. This bridge is owned by the City of Toronto. No maintenance concerns with the structure where identified by the City;
- The Ship Channel Bridge, constructed in 1930, is a bascule bridge reported as being “state of the art” for bridge building at its time. This bridge is owned by the Toronto Port Authority and will need replacement within the next 15 to 20 years; and,
- The Circulating Channel Bridge on Unwin Avenue. This bailey bridge is owned by the Toronto Port Authority. Built as a temporary solution pending plans to redevelop the area it provides for only one lane of traffic only and has weigh restrictions. It will have to be replaced as part of the redevelopment of the lands south of the Ship Channel.

4.3.2 Planned Crossings

The Central Waterfront Secondary Plan identifies the extension of Carlaw Avenue as a recommended new point of crossing of the Ship Channel. The Implementation Strategy

has reviewed this alignment in the development of precinct and phasing strategies and recommends two alternative alignments, one on the alignment of the extension of the Don Roadway and another just to the west of the Hearn Generating Plant.

These two alternative alignments respond to concerns that a new bridge on the Carlaw extension would:

- Require the reconfiguration or removal of significant ongoing employment uses and;
- Create a barrier to the future water’s edge promenade on the west side of the turning Basin.

Either alternative would advance the goal of the Secondary Plan alignment - to create a network of connections through the centre of the Port Lands from South Riverdale to the south side of the Ship Channel.

In addition, a pedestrian crossing, that would link the East Bayfront with the Port Lands, at the mouth of the Keating Channel, in the same vicinity of the Keating Channel Bridge has also been suggested as way to provide a more seamless high quality pedestrian experience.

4.3.3 Bridge Phasing and Design Issues

While the replacement of the Ship Channel Bascule Bridge is not a priority project its replacement, or major overhaul is inevitable within 15 to 20 years. This will be one of the most significant infrastructure projects for the port lands and to ensure minimum disruption and proper implementation, consideration for

its renewal must be considered in the near term.

To allow for this, the Implementation Strategy suggests that a new Ship Channel transit/vehicular / pedestrian/bicycle crossing should be constructed on one of the two proposed alignments during the First Generation period. This will offer several advantages;

- The ability to close the bascule bridge for what ever time necessary to complete the improvements;
- The potential to extend services over the Ship Channel (not feasible with the current lift bridge);
- The potential to create a the final link from the Don Valley trail system to the Outer Harbour.

It is anticipated that construction of a new Circulating Channel bridge to replace the single lane Bailey bridge would be determined in conjunction with development phasing or the redevelopment of Lake Ontario Park. Detailed design and timing of replacement of the Circulating Channel and Ship Channel bridges and the potential creation of other crossing facilities in this area are also dependent on the outcome of a number of Environmental Assessments including:

- The Core Infrastructure Corridor EA (recommended);
- The Don Mouth Naturalization and port Lands Flood Protection EA and;
- The Don Greenway EA

With the above studies completed, and subject to their outcomes, we recommended that more detailed planning be initiated for a new bridge crossing in one of the two suggested alignments followed by a detailed plan to refurbish or replace the existing bascule bridge. Following these bridges, consideration could then be turned to:

- Replacement of the Keating Channel Bridge and;
- Replacement of the Unwin Avenue Bailey bridge.

It is also recommended that consideration of the feasibility and budget implications of the repair and long term reuse of the Ship Channel Bascule Bridge be included in the Core Area Infrastructure Corridor engineering studies and Environmental Assessment.


Under any circumstances, design for any crossing should consider that each bridge represents an important landmark and the highest level of design should be achieved.



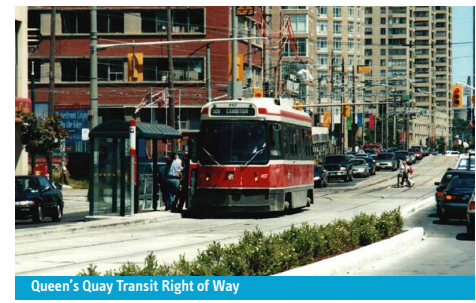
Bike Path - Amsterdam

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4.4. Port Lands Transit




Transit Right of Way - Amsterdam



Queen's Quay Transit Right of Way

This Implementation Plan puts a first priority of public transit as the principal long term method of movement.

The Central Waterfront Secondary Plan provides for dedicated transit rights-of way (ROW) within the existing street corridors. As an initial policy position this is appropriate as it provides for the protection of one of the more complex solutions to high frequency transit services. Protection of a ROW within the street allowance could allow for street cars, light rail, high occupancy vehicle lanes or other future transit alternatives.



Transit Right of Way - Amsterdam



Esplanade Vivier Merle - Lyon (France) - SOL Paysage



Spadina Transit Right of Way

The Secondary Plan policy however, does not limit alternative transit actions, that might have mid block alignments. This includes potential for seasonal water based ferry services. We envision that over the next 35 years other transit technologies may emerge that are superior to traditional approaches. In this case, the protected ROW will provide new opportunities for increased landscaped areas and or street related storm water facilities, improved pedestrian or bicycle routes or other public uses.



Transit Right of Way Reserved - Amsterdam



Tranway Right of Way - Strasbourg - Germany



Tramway - Lyon (France) - Atelier d'Architectes Bruno Dumetier

The Implementation Strategy recommends that:

- Precinct planning in the Port Lands continue to protect for transit in the dedicated rights of way as identified in the Central Waterfront Secondary Plan;
- Maintain and extend where possible current TTC bus service to the Port Lands. Transit service should be extended to reach the existing entrance to Tommy Thompson Park in advance of the com-

pletion of the Lake Ontario Park Master Plan;

- Plan for a phased introduction of more extensive transit service in the port lands in the form of regular bus service in the Core Infrastructure Corridor to support early phases of the Lake Ontario Park implementation and;
- Continue to examine additional transit connections from the Port Lands to the rest of the City with particular attention paid to the possible extension of the Broadview streetcar line to the south and the Leslie Street connections to the north.



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4.5. Community Facilities



Community Centre - Chicago, Illinois - Studio Gang



Fire Station - Moen & van Oosten Architekten, Rotterdam



Phoenix First Assembly Childrens Pavilion - DeBartolo Architects

The neighbourhoods that will emerge with the future Port Lands will, to a large extent, be “stitched” together by the community facilities which serve them. Schools, health care, day care, recreation centres other community services provide the basis for both formal and informal social bonds that, in turn create livable communities. The demand and timing for each facilities is dependent on the need expressed through the pace of development.

- Recreation Centres each serving up to 21,000 residents;
- Community service/human service space at 929 m2 to 1,858 m2 of space. 1 for each “community”;

It will be desirable to locate schools and recreational activities adjacent to or near the planned Commissioners Park, Don Greenway and Lake Ontario Park systems. Locating these facilities within close proximity to one another could yield benefits in terms of shared use of play areas or sports facilities.

The Central Waterfront Secondary plan anticipates the need in the Port Lands for:

- Elementary school or schools (6 to 10 are anticipated for the entire Central Waterfront at full build-out) on sites of 1.2 hectares if a single elementary school is located next to a public park or 1.82 hectares if a joint TDSB/TCDSB elementary school is located next to a public park - optimal facility must be sufficient to accommodate between 400 and 500 students.
- Possibly a high school on a site of approximately 2 hectares if a stand alone facility;
- Local Parkland at 2.0 hectares for each “community”;
- Day care centres (10 to 12 are anticipated for the entire Central Waterfront at full build-out) with a licensed capacity of 72 children each;
- Library at 650 m2 to 1,115 m2 preferably located at grade serving up to 25,000 residents;

The proposed Regional Sports Facility currently under consideration for the Port Lands could, for these reasons, be located within close proximity to one of these major recreational open spaces.

Urban school models which are not land consumptive (including the integration of school buildings in mixed use configurations) should be investigated within precinct plans.

While the extent, need and timing for these services cannot be determined until the precinct plans are developed, the general location and approach to the provisions of these services should be considered well in advance of development pressures to allow pro-active planning and allocation of land.



Sports Hall-Ingolstadt-Germany- Fink + Jocher



Elementary School, Amsterdam - Duinker, van der Torre



Milwaukee Rowing Club, Milwaukee, Wisconsin - Venter Denk Architects



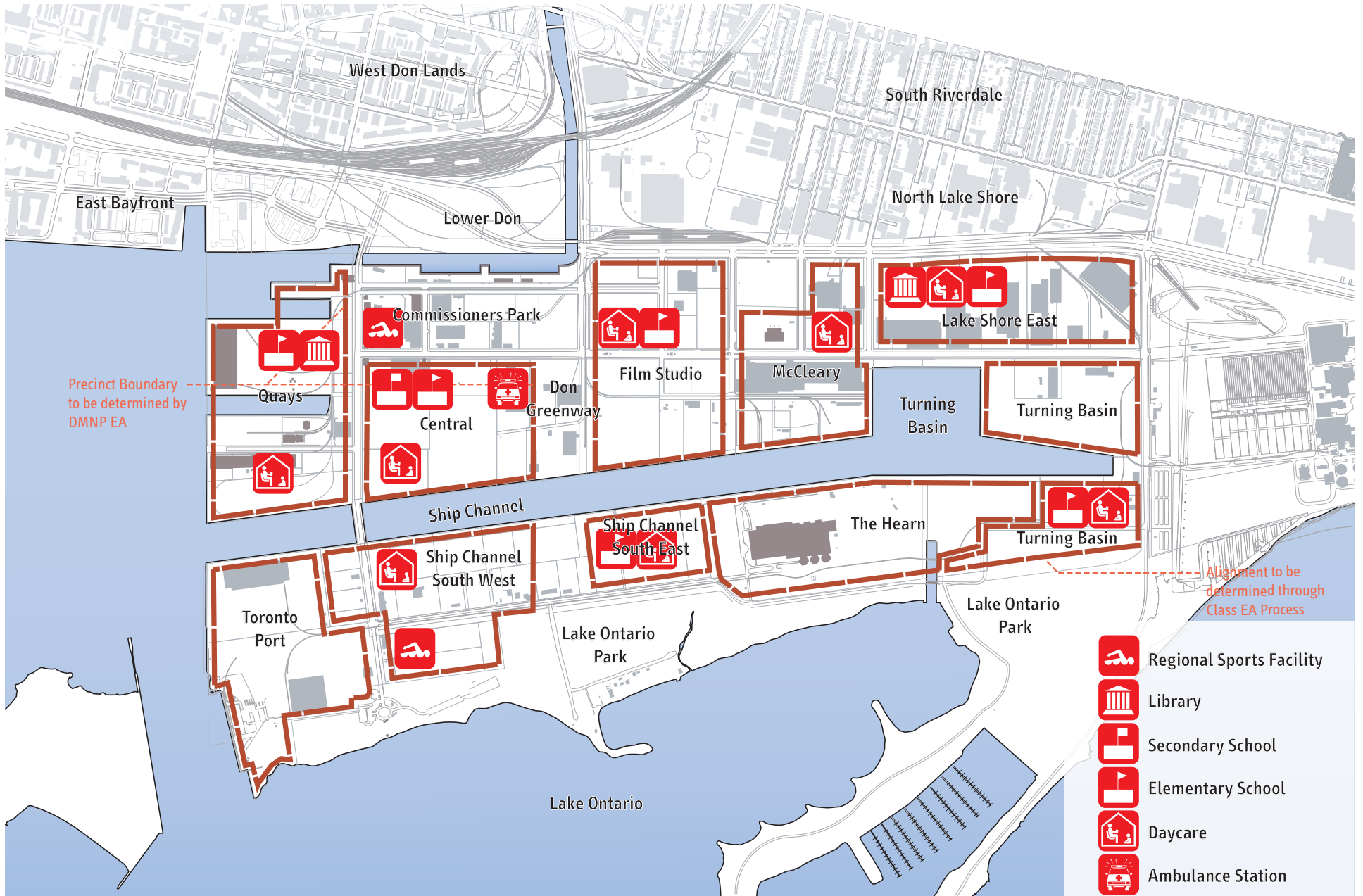
Maritime Youth House - Copenhagen - PLOT architects



Fire Station - Nanterre, France - Jean-Marc Ibos and Myrto Vitart









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Precinct Boundary to be determined by DMNP EA

Alignment to be determined through Class EA Process

-  Regional Sports Facility
-  Library
-  Secondary School
-  Elementary School
-  Daycare
-  Ambulance Station





4.6. Major Recreational Facility Locations / Options

Major recreational facilities in the Port Lands exist in three potential classes: Regional Sports Facilities; Commercial Sports Facilities with a city wide or regional base and; Local Recreational Facilities that support mixed use development within the Port Lands or within individual precincts.

Within the Port Lands, Regional Sports Facilities for which there is project funding already committed include:

Regional Sports Centre

A proposed Regional Sports Centre funded by federal government investment, this facility will be the subject of detailed programming, site location and project feasibility studies in 2006.

Candidate sites which have been examined and are considered suitable as part of the Port Lands Implementation Strategy include:

- Commissioners Park as a street defining building on Cherry Street;
- The Ship Channel South West Precinct, south of Unwin Avenue adjacent to Lake Ontario Park;
- Inside or near the Hearn Generating Plant;
- The Ship Channel South West Precinct, north of Unwin Avenue and;
- Essroc Quay and 2 Villiers Street.

Funding has been committed for the design and construction of this project.

Transitional Playing Fields

A Transitional Playing Field Complex (all weather playing fields suitable for soccer and associated support buildings) is proposed for the Port Lands. These fields have a life span of approximately 10 - 15 years. The suggested site is The Ship Channel South West Precinct, south of Unwin Avenue adjacent to Lake Ontario Park.

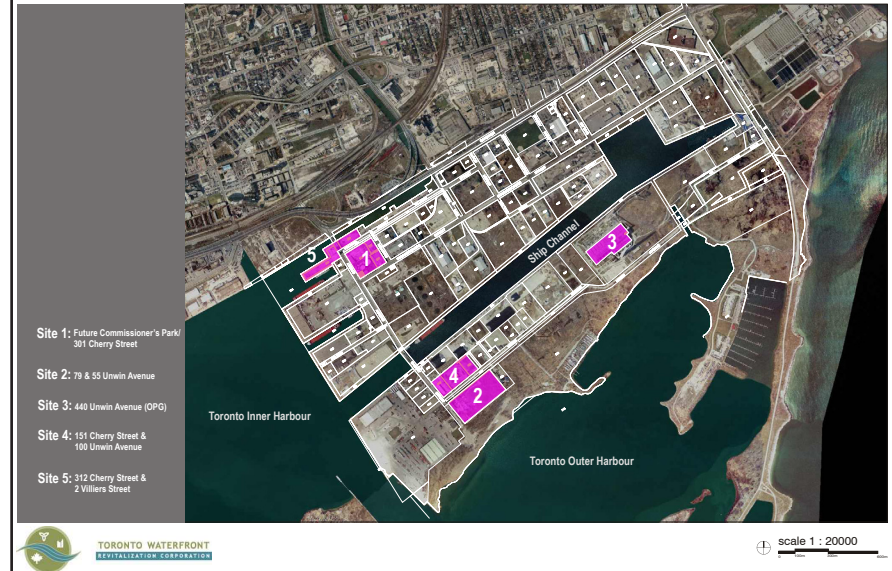
Funding has been secured for the design and construction of this project.

The location, programming and configuration of Commercial Sports Facilities and Local Recreational Facilities will be part of detailed precinct planning processes underway

Generally speaking it is recommended that such facilities be located nearby to local and regional open spaces within the precincts in order to benefit from potential synergies. Coordination and potential sharing of facilities with schools that may be located in the precinct should also be seriously considered in precinct planning.

These sharing strategies could also assist with the pressure and demand for parking. However, its expected these facilities will place pressure for large parking areas. Where facilities are permanent, structured parking should be employed. For the transitional playing fields, shared parking within the Lake Ontario Park system or on under used industrial lands to north (for interim periods) should be considered. Under any development circumstance, transit service should be confirmed as part of the development.

The Portlands: Regional Sports Complex: Potential Sites

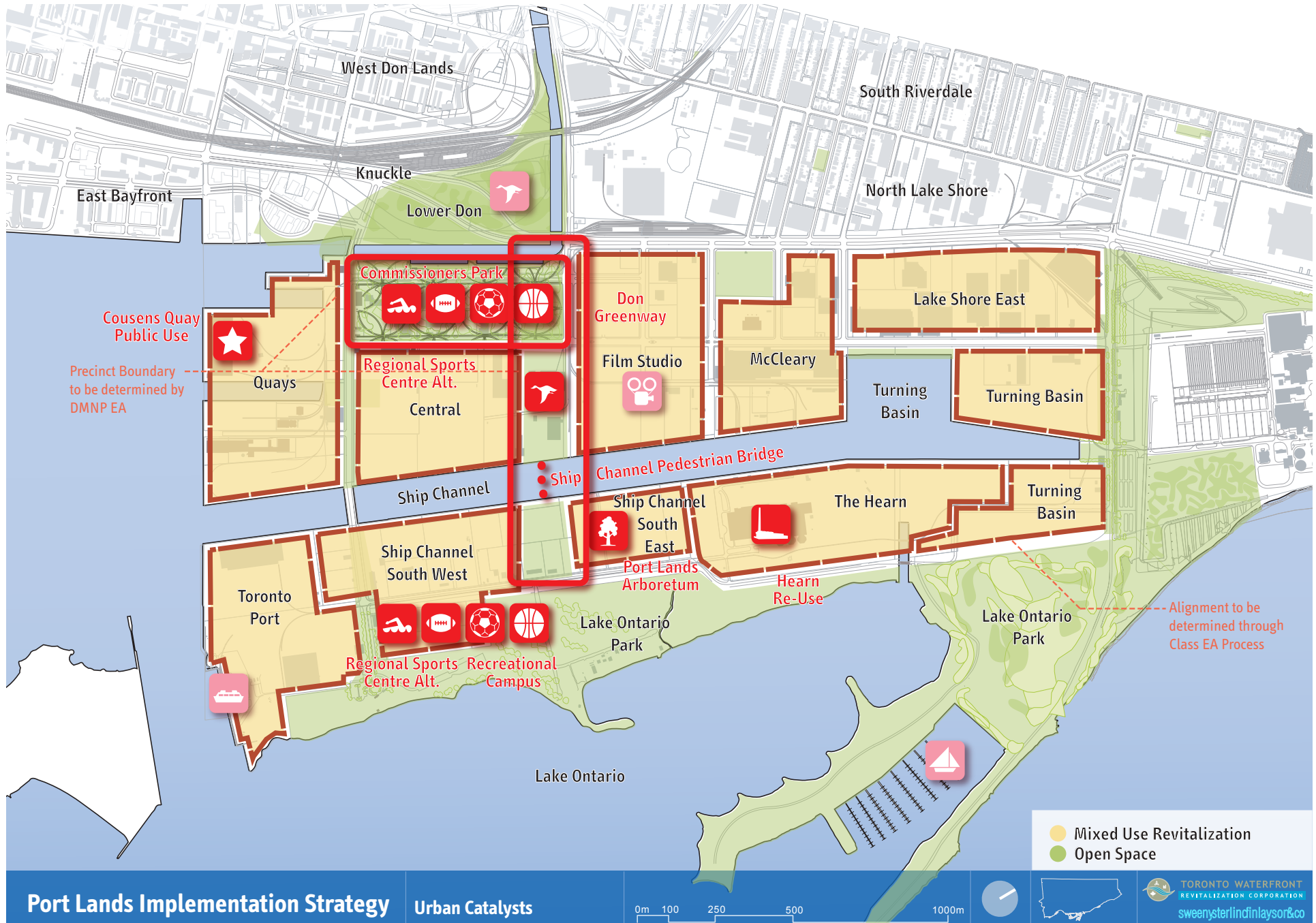


The Portlands: Transitional Sports Fields: Potential Sites





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4.7. Port Lands Sustainability



similar recommendation for area-wide strategies, such as district energy, stressing the importance of a coordinated infrastructure plan.

Other proposed activities are best implemented at a precinct or site plan level. Precinct plans deal with the land use planning issues, including linkages to neighbouring areas and green space and transportation networks. Site plans address building or site specific measures such as building orientation and amount of permeable surface area.



Vacuum System For Solid Waste - Envac - Stockholm, Sweden

4.7.1. Implementation Strategies Related to Sustainability

The redevelopment of the Port Lands provides an excellent opportunity to promote sustainable development. The TWRC identifies their commitment to sustainable development in the Sustainability Framework, (TWRC, July 2005). Based on this document, a long list of sustainable design actions was assembled with the purpose of developing an action plan for the next stages of development that includes actions identified by relevant studies such as the LEED Canada framework and the Swedish Sustainability Review.

Identifying the appropriate level of implementation for each of the proposed actions is key to the overall success of achieving sustainable development. For example, it is necessary that the TWRC develop certain policies at an area wide level, in order to take advantage of synergies with neighbouring precincts and other Waterfront developments currently underway. In addition, policies and targets could be developed as strategic guidelines at the area wide level and implemented as requirements of precinct plans and site plans.

Strategic policies include guidelines for energy, storm water, solid waste and pedestrian and bicycle linkages. In all of these cases, the per unit cost of infrastructure generally decreases while the environmental benefits increase for larger planning and population target areas.

The Swedish Sustainability Review makes

The Sustainability Framework identifies performance targets (both prescriptive and descriptive) for specific objectives and actions. Successive levels of planning (precinct plans, plans of subdivision and site plans) need to incorporate and build on these performance targets in order to ensure the creation of sustainable neighbourhoods. The long list of sustainable design actions identified implementation tools for each of the activities. In addition, activities were evaluated in order to identify initial feasibility/applicability to the Port Lands site, approximate cost implications and whether or not the technology is feasible for immediate implementation.

The evaluation criteria are as follows:

- Meets (or exceeds) Current Approval Requirements
- Feasible for Immediate Implementation
- Cost - Minimal/Neutral
- Cost - Likely Recoverable in 10 year Period

The following is an overview of key implementation recommendations, based on the categories established in the TWRC Sustainability Framework.



Southeast False Creek, Vancouver

Case Study:

Southeast False Creek, Vancouver

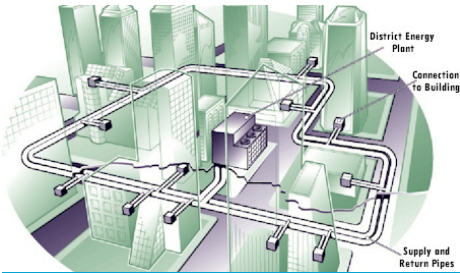
The redevelopment of Southeast False Creek in downtown Vancouver provides an excellent example of comprehensive sustainable development planning. Four background studies (transportation, urban agriculture, water & wastewater and energy) were undertaken for the 80 acre formerly heavy industry site. These background studies were used to identify sustainability objectives and corresponding implementation tools, such as Official Development Plan (ODP), zoning regulations, city bylaws, design guidelines, parks board, and residents. The various tools were then developed and, adopted if necessary, outlining environmental guidelines or specific environmental performance targets, depending on the implementation tool. For example, designing streets to maximize stormwater infiltration is incorporated in the ODP, whereas performance targets for on-site water collection are incorporated in the ODP as well as design guidelines and zoning regulations.



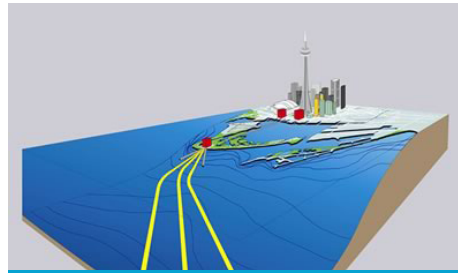
Marsh in Residential Area - Greenwich Peninsula, London



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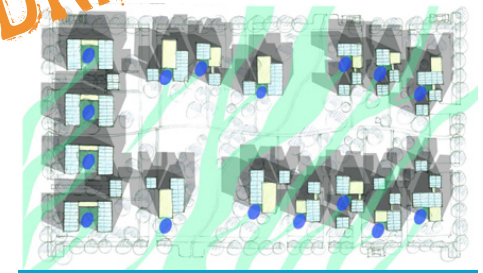
District Energy System



Deep Lake Water Cooling



Wind Generator - Exhibition Place



Solar and Wind Oriented Site Plan - William McDonough + Partners

4.7.2. Energy

As previously mentioned, the TWRC should create a Port Lands wide plan for energy, including a district energy plan and a strategy for renewable energy requirements. Technical studies should be undertaken to determine the feasibility of solar, wind, geothermal and methane energy generation. These studies should be coordinated with the planned creation of the Port Lands Energy Centre (see Section 3.9 Hearn Precinct) and/or other pilot projects or smaller scale initiatives, such as building-mounted wind turbines and solar panels.

At the precinct level, land use planning can address energy objectives by requiring mixed use and compact urban form. Closer proximity of retail, recreation and employment decreases dependency on automobile use, thus reducing nonrenewable energy requirements for transportation.

The Sustainability Framework identifies performance targets for energy efficient buildings. The ability to meet these targets needs to be demonstrated through the precinct plan and site plans. Additional measures, such as tracking greenhouse gas emissions in residential and commercial buildings, can be implemented at the site plan level.

Several opportunities were identified based on the unique characteristics of the Port Lands. The following opportunities should be considered:

- Co-generation opportunities with existing/new industries;
- Reuse of waste heat from Port Lands industries for local heating use, e.g. Cascades Paperboard mill;
- Heat recovery from main sewage treatment plant discharges;
- Direct cooling of buildings utilizing deep lake water;
- Wind generators (given proximity to lake and prevailing winds);
- Incorporating some or all of the above noted strategies in the evolving plans for the Port Lands Energy Centre.

4.7.3 Land Use

The coordination of infrastructure and land use that supports the principles of sustainable development, as outlined in Section 2 of the Sustainability Framework, is primarily achieved at an area-wide level, particularly with respect to district energy, transportation networks and parks and open spaces.

At the Precinct Plan scale targets can be established for pervious land and green space, designated car free zones and enhanced natural systems.

Site plans provide the opportunity to maximize daylighting and passive heating/cooling via building orientation. Other issues to address at the site plan level include: site specific brownfield remediation strategies (based on the TWRC strategy), four season pedestrian linkages and ensuring implementation of targets set in the Precinct plan.



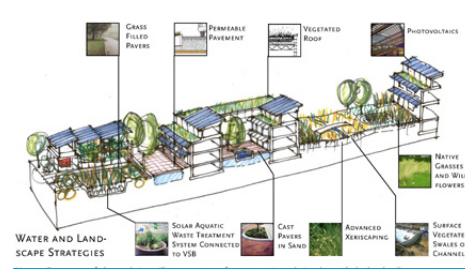
Car Free Zone - Lisbon, Portugal



Snow Removal on Bike Path



Tranway Right of Way - Strasbourg - Germany



Eco-Effective Design Strategies, - William McDonough + Partners,



Green Roof Conference Center - Salt Lake City - UT - Olin Partnership



Transit shelter - Delft - IPV Delft



Yellow Water Taxis - Sydney Australia



Toronto Ferry

4.7.4 Transportation

Aside from linkages with other areas and providing enhanced transit amenities, transportation objectives can be undertaken primarily at the precinct or site plan level. Precinct plans can promote alternative transportation by such activities as designating car free zones, restricting on-site parking, creating bike paths and pedestrian linkages, locating transit shelters near amenities, and requiring snow removal for bike paths. Area wide policy can be used to promote alternative transportation, while implementation occurs at both the precinct and site plan level via requirements for clean/green maintenance and waste management vehicles and installation of alternative refueling stations.

These objectives can be further promoted by site plans that encourage pedestrian scale design, require extensive on-site biking facilities, and support carpooling/car sharing.

Unique issues and opportunities for the Port Lands to be considered include the following:

- Undertake pro-active measures (for example from Transit Supportive Land Use Planning Guidelines, MTO/MMAH, 1992 and the CITE guidelines for sustainable transportation through site design) - to encourage transit use in order to maximize appeal of area to the maximum number of people;

4.7.5 Sustainable Buildings

In order to address the sustainability of buildings, policy guidelines should be developed at both an area wide and precinct level, and implemented at a site specific level. The TWRC should refine "green building" specifications and strategies for the Port Lands that promote the benefits of sustainable building strategies and develop specific performance measures, such as LEED certification. The Sustainability Framework identifies policy goals, such as LEED certification targets. Further TWRC activities include the development of a demo building, an awards program and education and awareness workshops for developers, builders, other members of the development industry, and home buyers.

Unique issues for the Port Lands to be considered when developing implementation tools include:

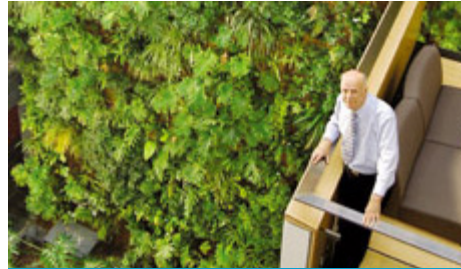
- Rectify the disconnected grid road system of the Port Lands;
- Create a more extensive network of pedestrian and bicycle linkages throughout the Port Lands;
- Review the potential of a transit connection to the Broadview Avenue streetcar line as suggested in the Secondary Plan. Issues to be resolved include: clearance under new Gardiner Expressway on ramp; the potential need to coordinate implementation of such a link with removal of Gardiner Expressway all together and; the complexities of land acquisition around and north of Lake Shore Boulevard.
- Investigate the potential for comprehensive Inner Harbour water based transit including water taxis.
- Consider ferry connections including: crossing the Eastern Gap as a shorter, less expensive route to Wards Island and; connections to the Outer Harbour for visitor access to Lake Ontario Park, and Tommy Thompson Park.
- Exposure to wind from Lake Ontario and;
- Connections to district energy and timing/phasing of district energy supply to buildings.



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DTAH to identify



Living Wall - University of Guelph - Diamond Schmitt Architects, Inc.



Volunteer stewardship



High Park Children's Garden

4.7.6 Outdoor Environmental Quality

Issues related to outdoor environmental quality can largely be addressed at the site plan level. The Sustainability Framework identifies land use planning and construction and demolition policies that promote outdoor environmental quality. These measures will be developed at the site plan level to monitor air quality during and after construction, as well as the potential release of VOCs from disturbance of contaminated soil and pesticides.

In addition, landscaping that reduces urban heat island and provides shading and wind resistance, and site planning that maximizes permeable surfaces should be undertaken, recognizing that due to soil contamination, sometimes it is better to avoid infiltrating water into the ground.

Unique issues for the Port Lands to be considered include:

- Air borne emissions during construction and demolition from disturbance of contaminated soil.

4.7.7 Indoor Environmental Quality

Similarly, issues related to indoor environmental quality are largely addressed at the site plan level based on guidelines identified in the Sustainability Framework. Issues include minimum indoor air quality performance, carbon dioxide monitoring, ensuring thermal comfort and selection of low-emitting building materials.

Unique issues for the Port Lands to be considered include:

- Air borne emissions from disturbance of contaminated soil.

4.7.8. Storm Water Drainage

In general, the Port Lands do not require the same approach to storm runoff as a land locked site might. There is no valley to flood with direct outfall to the lake. Storm water quality can however be improved with various cleansing techniques and the natural character of the features can provide both aesthetic and wildlife benefits.

The Port lands provide a unique opportunity to utilize open swales for road storm water drainage in so far as much of the road infrastructure has yet to be built and the high water table offers little fall for catch basins. The primary benefit of using swales, which could be included within the ROW of some of the primary streets such as Commissioners Street or Unwin Avenue, would be improvement of storm runoff water quality improvement prior to discharging into the lake. The larger streets offer the greatest opportunity as it will be difficult to create naturalized swales in tight urban ROW's, unless flanked by an open space corridor.

An alternative to the linear swale might be a low settling pond near the dock wall outfalls.

The limited fall of the land may also necessitate direct swale alignments which could influence the arrangement of streets or linear open spaces within the overall community structure.

4.7.9 Human Communities

The Sustainability Framework provides guidelines for new development to achieve "vibrant, welcoming, healthy and inclusive waterfront communities". Activities include cleaning up waterfront beaches, creating and maintaining green and open space for a range of activities, developing winter recreational programs, creating a mixed-income, diverse intergenerational community, developing noise and light pollution strategies, and promoting urban agriculture and the development of a community food strategy.

The TWRC will be responsible for implementing and monitoring the majority of these activities. Precinct plans will incorporate further requirements for achieving mixed use, diverse communities and ensuring noise and lighting issues are addressed.

Unique issues for the Port Lands to be considered include:

- Creation of "whole" communities in the Port Lands complete with the full range of infrastructure elements, transit and public services;
- Creation of a linked network of open space connections within the Port Lands;
- Establishment of a Port Lands Tree and Nursery;



MT 35



Storm Water Management -Durham College - dTAH



Recuperació Mediambiental del Tram Final del Llit del Riu Besòs



Storm Water Management -Durham College - dTAH

4.7.10 Cultural Resources

The Sustainability Framework provides guidelines to promote and protect cultural resources, including creating cultural and heritage destinations and creating a strong public image. The TWRC will be responsible for implementing and monitoring these activities.

Unique issues for the Port Lands to be considered include:

- Providing information about the historical development of the Port Lands
- Educational and interpretive opportunities through streetscape public realm design and;
- Preservation and adaptive reuse of the buildings that are the industrial heritage of the Port lands.

4.7.11. Water

The Sustainability Framework establishes a performance target for potable water use for both residential and commercial developments. In order to meet these targets, site plans need to demonstrate how the site, building design and infrastructure will reduce potable water use. Proposed methods include low flow toilets, storm water, grey water and black water reuse systems, and naturalized landscaping.

Unique opportunities for the Port Lands that should be considered include:

- Use raw lake water drawn from adjacent waters edge for non-potable uses;
- Use of reclaimed water from main sewage plant for irrigation or other purposes
- Treat on-site and/or reuse sanitary sewage on lands south of the ship channel to avoid need for sewer infrastructure.
- Convey clean roof-top water directly to lake where not needed for reuse
- Direct sanitary sewage from lands north of the ship channel to main treatment plant directly, avoiding the overtaxed Low Level Interceptor (LLI) on Eastern Ave.
- Discourage/eliminate infiltration due to soil contamination issues
- Minimize storm sewer construction; convey storm water via overland means or vegetated swales where possible to achieve bio-filtration and transpiration (e.g., along roadways, within medians of parking lots areas)
- Incorporate impermeable barriers at depth to prevent leaching of contaminants

- Discharge quality-enhanced storm water to lake directly, or to constructed water features on site

In addition, storm water management design measures, such as green roofs, are required that prevent or minimize storm water infiltration in areas of contamination.

4.7.12 Materials & Waste

The Sustainability Framework establishes a performance target for solid waste reduction. In order to achieve this target, precinct plans will need to develop solid waste management plans.

Unique issues for the Port Lands to be considered include:

- Synergies with existing recycling industries
- Creation of vacuum waste systems and;
- Composting opportunities with community gardens on Leslie Street

4.7.13 Innovation

The TWRC will be responsible for stimulating creativity and innovation in the Port Lands by establishing a recognition program and holding conferences and/or workshops.

Unique issues for the Port Lands to be considered include:

- Planning for zero net greenhouse gas emission neighbourhoods
- Port Lands Energy Centre (see Section 3.12 Hearn Precinct)

4.7.14 Emergency Preparedness

An area wide plan will address the community's ability to rebound to pre-crisis status. Once developed, further initiatives can be addressed by precinct and site plans.

Unique issues for the Port Lands to be considered include:

- Proximity to water



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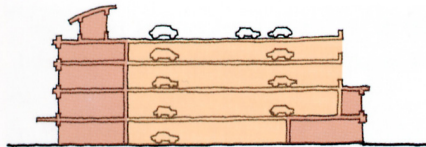
Structured Bicycle Parking - Amsterdam - VMX Architects



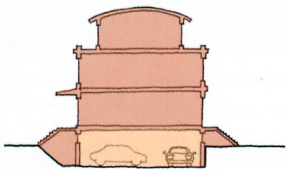
4.8. Parking Strategy



Raleigh Durham Airport Parking Structure - The Freelon Group



A shielded multi storey parking structure



An undercroft parking space

Back of House Parking Typologies

It is important that projects that are located within the First Generation Area deal with parking in a way that supports the future of the Port Lands as a transit supportive district within the City. As such, through the precinct planning process, it will be important to establish parking standards for residential and commercial development that reflect its future as an urban place.

Parking that is required or permitted under these urban parking standards should be provided in structured facilities – either below grade where feasible or above grade in mid block locations with coordinated entrances, wrapped with active building frontages. Temporary at grade facilities may be appropriate, to provide parking in advance of the implementation of Port Lands transit. However, such parking facilities must be constructed with appropriate planted and screened setbacks from adjacent property lines or street frontages and will be permitted only until transit is established within a 5 minute walk from the associated building.

Public facilities, such as schools, recreational centres and sports facilities must lead the way in supporting transit use in the Port Lands. As such all permanent public facilities should meet the same standards set for private development. It will be very important to include the costs associated with this sort of parking provision in the feasibility studies and initial budgeting exercises that are carried out for such facilities.

It is understood that there are desirable public uses that are either in the Port Lands now

or could relocate there in the future, that have some very legitimate special parking needs. Lake Ontario Park and Commissioners Park are important regional open space resources that will require an integrated approach to the provision of parking. Additional public or publicly accessible uses include tour boat and other small boat recreation related activities, that may need vehicle and well as watercraft and or trailer storage on a short to medium term basis.

While the need for parking in parks and in these other uses is recognized, the form in which it is met is critical. As with other users of the Port Lands, such parking should always be provided in a form that meets the standards of the future urban form of the area within they are located. Alternatives include specialized public facilities or accommodation within structured parking created within private development parcels and shared parking facilities with in nearby parks. It is important that these uses be identified in Precinct Planning processes and a solution for the location and funding of these specialized parking facilities be identified.

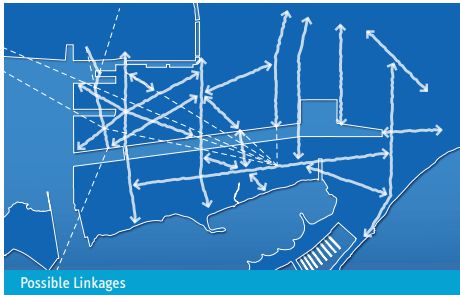
Consideration should be given to whether all public parking facilities in the Port Lands should be operated by a parking authority, either the Toronto Parking Authority or another body established by the TWRC specifically for the Port Lands so that revenues from public parking could be directed toward infrastructure costs in the area.

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Possible Linkages

5. Open Space Framework

Given the rich, unique setting of the Port Lands, strong visual as well as physical connections will add to the unique sense of place.

A unique characteristic of the emerging Port lands is the surrounding open space context. Lake Ontario Park, Commissioners Park, The Mouth of the Don and Don Greenway as well as the extensive Waters Edge will all be immediately accessible to the new Port Lands precincts. This proximity to regional open space facilities should in turn provide an opportunity to re focus the neighbourhood open space to more informal or passive uses such as gathering places, gardens and pre-school play.



Greenway Illustration - SSF&Co



The Hearn

5.1. Introduction

Parks and Open Spaces are key elements in the Port Lands Implementation Strategy. They are and will continue to be the focus of early investment in the Port Lands and are the first tangible signals that city building has started here.

Design and Environmental Assessment work is already underway on many of the major park and open space elements that will be located in and at the edges of the Port Lands including:

- Commissioners Park;
- The Don Greenway;

- The Transitional Playing Fields;
- The Don Mouth Naturalization and Port Lands Flood Protection Project and;
- Lake Ontario Park.

Precinct Planning based on the TWRC Central Waterfront Parks an Open Space Framework will establish additional major open space elements that will provide important linkages between the precincts of the Port Lands, a coordinated approach to the 8 km of water's edge dock wall and the numerous local parks that will be the focus of new mixed use neighbourhoods.

Parks and open spaces in the Port Lands will be built upon a unique structure of extensive, aging, dock wall that surrounds vast tracts of man made land - the legacy of the area's industrial heritage. This robust and rugged existing condition is overlaid by an opportunistic nature reasserting its presence wherever permitted to take root.

The water's edge and the water bodies it defines are also important open spaces within the Port Lands. Parks and Open spaces that

emerge in the Port Lands should celebrate these blue opens paces while creating new green ones by creating views and vistas to and from the water that allow residents and visitors alike to appreciate the relationship between Port Lands and the surrounding city, its vast scale, its gritty industrial past and the growing presence of a natural waterfront environment.

A wide range of open space types can be accommodated in the Port Lands. It will be important for each of them to be designed with both the immediate surroundings and the potential to act as part of a network of linked places in mind.

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5.2. Water is Open Space

Water is open space. Getting to it, being next to it, getting across it, getting into it are all important aspects of the future open space framework for the Port Lands. The waters edge will continue to define and reinforce the industrial legacy of the site, and in time will extend the promenade of the central waterfront. Marine activity will likely be more diverse mixing industrial or shipping with recreational uses. Management of these seemingly incompatible activities will be challenging but also characterizes the unique mix of uses that defines this place. Crossings should be seen as an opportunity to experience the water, unique structures or even shuttle vessels. Taking advantage of views across the water should be a significant determinant in shaping the future plan of the community.

5.3. The Wild Aspect of the Port lands

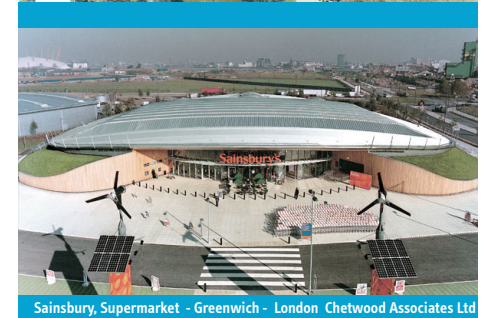
The Port Lands are today an urban wilderness in many ways. Most of the lands that are not officially occupied by active businesses or designated as park are in fact lands which lay “fallow” and are being regenerated by a rampant succession of wind borne native and exotic plants – creating a kind of wild garden, an unofficial landscape character that speaks of anticipation.

As the area contained within the Port Lands comes under increasing “official” scrutiny (in the form of this Implementation Strategy and the various Precinct Plans and other initiatives that will follow) it will be important to remember and respect this aspect of “wildness” in the future landscapes and public spaces that are eventually produced.

5.4. Sustainability

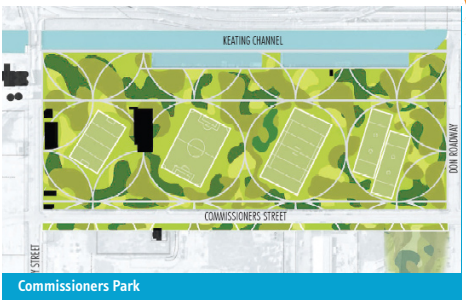
The TWRC has a strong commitment to sustainable planning and design that is detailed in Section 4.0. With respect to the open space and the public realm, there are a number of key sustainability strategies for the Port Lands that are important to the overall structure of the community. These include:

- Storm water collection and discharge quality;
- Roof water collection and use;
- Interim Site Greening and;
- On site Soil Remediation



Sainsbury, Supermarket - Greenwich - London Chetwood Associates Ltd

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Commissioners Park

5.5. Open Space Component Strategies



Commissioners Park Concept Plan



Lake Ontario Park

5.5.1. Lake Ontario Park

Lake Ontario Park is a new National Park legacy that will extend across the lake front south of the Port Lands including Tommy Thompson Park and Cherry Beach. The design of the Master Plan for Lake Ontario Park will commence in winter/spring 2006

Access

Access to Lake Ontario Park through the Port Lands open space linkages will be important. Entrances to the park will also have a strong relationship to the adjacent urban community. The existing points of access at Cherry and Leslie Streets are well-established and undergoing streetscape upgrades to improve links both physically and visually. Other potential points of access include the southerly extension of the Don Greenway and a second potential road or pedestrian bridge crossing closer to the turning basin.

Frontage

Unwin Avenue should provide strong open space identity and a strong edge to Lake Ontario Park and emphasize the distinctions between open space and urban areas. Park entrances should the points of access to reinforce this.



Neighborhood Park - Amsterdam



Neighbourhood Park - Seattle

5.5.2. Commissioners Park

Commissioners Park will be a major regional scale open space resource, connecting the Port Lands with the Lower Don .

In the short term, it is intended that active recreation fields will be constructed in either temporary or permanent locations within the property. In time, the park will assume a pivotal gateway role to the Port Lands from both Cherry Street and the Don Roadway. It will also be a significant catalyst to Port Lands redevelopment, raising the profile and visibility of the surrounding properties. Advancing implementation of Commissioners Park could provide a boost to Port Lands redevelopment generally.

Key issues to resolve in the detailed planning of the park include the feasibility of using a portion of the site for regional sports facilities, likely at the west end. This is one of a number of sites under consideration. The final configuration of the Don Greenway at the east end of the park also needs coordination. The detailed plan for Commissioners Park must also be coordinated with the Don Mouth Naturalization and Port Lands Flood Protection Project.

5.5.3. McCleary Park

McCleary Park is currently an active recreation Park used more on a regional basis through reservation of the ball fields. It does however serve an important role to South Riverdale simply because it is the largest immediate green space, even though access across Lake Shore Boulevard is limited. It also marks the end of the Gardiner Expressway and conversely acts as a gateway to Riverdale and the Port lands. The park is undergoing a design update by the Parks Department and should continue to serve the existing and the future resident community that eventually surrounds it.

5.5.4. Neighbourhood Parks

The Port Lands setting will offer future residents the benefit of both abundant regional active and passive open spaces resources by simply being close to the waterfront and the future Lake Ontario Park. This resource should relieve pressure on neighborhood parks and possibly school yards as the primary provider of active sports venues. In turn, neighbourhood parks may be somewhat refocused for playground, garden, linkage and other informal uses of open space. Sustainable functions should also be explored in relation to surrounding development. Since open space together with streets shape the visual corridors of urban development, consideration should be given in precinct planning to the unique viewing opportunities associated with the waterfront setting.



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Western Docks - Malmö (Sweden) - Röntfors Arkitektur och Landskap



Western Docks - Malmö (Sweden) - Röntfors Arkitektur och Landskap



Green Spillway - Thames Barrier Park - London - Patel Taylor and Groupe



Green Spillway - Thames Barrier Park - London - Patel Taylor and Groupe

5.5.5. The Don Greenway

The revitalization of the mouth of the Don River is the subject of an ongoing Environmental Assessment. Recommendations will be refined as the Don Mouth Naturalization and Port Lands Flood Protection Project EA advances.

Within the options considered, diversion of some to all of the low flow through channel within a greenway between the Keating and Ship channels is considered. Similarly, utilization of the greenway as an intermittent spillway for major flooding is also under consideration. The potential functions of the Don Greenway in this analysis include:

1. Hydraulic Function

Depending on the hydraulic function of the greenway, the land corridor required for water flow ranges from 100 m to 400 m wide. Depth will be a function of the water capacity and flow characteristics of a given option, varying between 1 m below existing grade or dock wall height to approximately 0.3 m above normal lake level (derived from the limit of common lake storm surge rise). Consequently, the size and nature of the spillway could vary significantly from the hydraulic perspective.

2. Storm Water

Ideally, a terrestrial corridor should incorporate a clean water channel. Sources for this feature could be from surrounding building roofs or open space runoff. If the Don River low flow remains directed to the harbour via Keating

Channel, storm water from the Port Lands should not be directed into the greenway. If low flow runoff was redirected to the greenway, additional storm water runoff from the Port Lands should not present an issue of further contamination. Water quality should be improved as much as possible prior to discharging into either the redirected channel or other lake directed outfalls.

3. Terrestrial Corridor Function

The greenway is primarily intended as a fly route and terrestrial corridor as opposed to primary habitat. The corridor should also facilitate a climbable waters edge to enable mammals to cross the channels completing the linkage between the Don valley and the lake. This would take the form of a stepped dock wall or naturalized incline to the waters edge, similar to the wetland at the foot of Spadina Avenue. A semi-continuous tree canopy and turf or ground cover is required within the open space link. This condition also allows for access by park users on trails or fields within the corridor. This is not to say that more natural landscape will not be included within the corridor, but that it need not be a limited-access natural area to perform this wildlife function.

Other Uses of the Greenway

The greenway may include common open space features such as sports fields, gardens and informal park spaces. While the intention is to create a green link, roadways, walkways or similar uses may also be located within the greenway provided that these features do not pose an impediment to the flow characteristics of a flooding spillway function. This

would imply that the circulation follow the lowered grades where necessary.

Land Use Efficiency

Key functional considerations in determining the size of the greenway include:

- The spillway function may be as little as 100 m wide (depressed section);
- A hard edge channel accommodating a 100% low flow channel could be as narrow as the existing lower Don channel, although this runs counter to the overall intent of naturalization off the edges. A hard edge or even partially soft edge flood channel would fit within a 100 m corridor;
- The Don River will continue to silt up and dredging the silt will continue to be necessary;
- It seems counter intuitive to relocate the need for dredging to the ship channel.
- The terrestrial function could work within the 100 m, assuming significant tree cover (60%+)



Museum Park - Rotterdam - Office for Metropolitan Architecture



Semi-Public Space - Borneo - Sporenberg - Amsterdam



Dock Wall - Borneo - Sporenberg - Amsterdam



Western Docks - Malmö (Sweden) - Råntfors Arkitektur och Landskap



Dock Wall - Bilbo (Spain) - Gabinete de Arquitectura Municipal

5.5.6. Integrated Semi-Public and Private Open Space

Within each development block there will be open space that is intended solely for the use of the residents. This includes fenced yards for grade related units, terraces and roof gardens. There will also be publicly accessible space that falls within the territory of private development, such as walkways through courtyards. The two complement each other since the private space provides a window on and sense of responsibility for the public component. This type of open space is an essential ingredient of the overall open space network providing a finer grain of design, interest and continuity to the network. It also provides a welcome level of self-directed enrichment and maintenance of some of the more humanly scaled spaces within the network.

Important considerations in the design of these spaces include:

- The development of connections between open spaces at the neighbourhood scale and beyond and;
- The creation of precinct and district scale view corridors.

5.5.7. Dock Walls

The Port Lands includes an extensive system of dock wall edges - with more linear frontage that the rest of the Toronto waterfront areas combined. There are two primary dock wall conditions - those facing the inner harbour and the long views back to the Central Core and those that line the Ship Channel.

Public Access

As a general rule, where possible, dock wall frontages should be public and publicly accessible. Dock wall frontages which must be restricted for customs or heavy industry should be retained in areas which will minimize disruption of promenade continuity. Areas where a strategy is necessary for coexistence of recreational uses and long term dock wall access for shipping related activities include: The "Concrete Campus" in the Ship Channel Precinct and; the Canada Cement LaFarge site in the Quays precinct.

Active, Multi-use Dock Walls

The dock walls were the primary building blocks in the creation of the industrial Port Lands. While the seaway is no longer as central as it was to the economy, the legacy of seaway shipping remains important to the City and defines the character of the Port Lands. A working dock wall remains a useful function and the intermingling of inhabited, natural and working waterfronts should be an objective for the Port Lands.

To enable multi-use of the dock wall, the following strategies should be considered:

- Maximize the amount of contiguous, publicly accessible use of the dock wall as soon as possible;
- Permit some level of public access, even in industrial areas (i.e. explore loading hours, limit immediate edge access, provide protection structures etc.);
- Provide vehicular access to the dock wall as well pedestrian walkways and recreation trails to facilitate and even encourage the intermingling of active, visible and approachable dock wall uses and businesses;
- Allow and encourage temporary recreational boat mooring and related support facilities;
- Devise public safety controls for the water's edge, which include some degree of personal responsibility for safety to minimize fencing off and "sanitizing" accessible areas.

Public Dock Wall Promenade

Some high use dock walls should be reserved primarily for public recreational uses such as the promenade along the Toronto Harbour overlooking the City skyline or adjacent to large Public Parks such as Commissioners Park. In these situations, there should sufficient space for a pedestrian promenade, a shared-use recreational trail, emergency vehicle access, and limited delivery vehicle access.



Semi-Public Space - GWL - terrein - Amsterdam - KCAP - West 8



Semi-Public Space - Borneo - Sporenberg - Amsterdam



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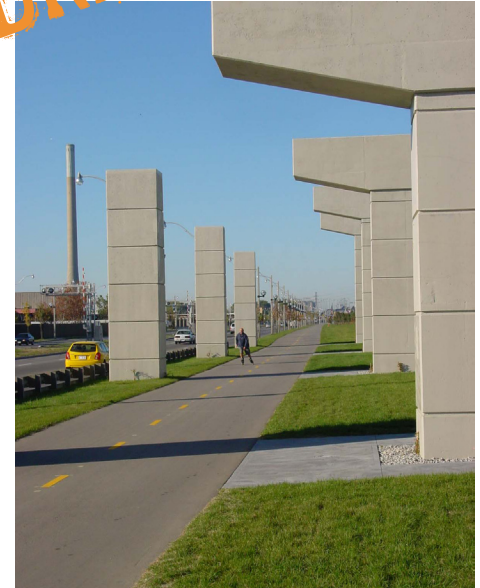
Flower Canal - Nursery Garden - France



Landschaftspark Duisburg-Nord - Germany - Peter Latz



Stadt als Garten - Hannover - Landschaftsarchitekt Kamel Louafi



Gardener Dismantling Project



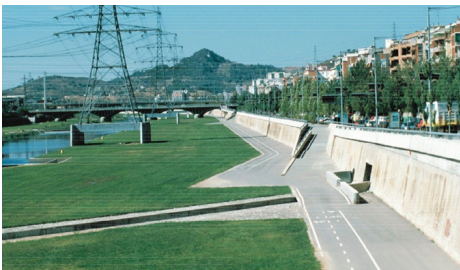
Ribera de Uribitarte - Bilbo (Spain) - Gabinete de Arquitectura

5.5.8. Extension of the Don Greenway - Ship Channel to Lake Ontario Park

The Don Greenway south of the Ship Channel is not intended to have a Don River flooding function but will extend the open space corridor to Lake Ontario Park. The vegetation cover of the corridor will likely remain the same as for the northern section, as would the climbability of the waters edge for mammals. The corridor width should also be of a scale to match it's terrestrial link function north of the ship channel and should there fore be a minimum of 100 m wide. Similarly, the corridor could contain normal passive park uses and circulation. There will likely be less need for recreational active uses in this segment given it's proximity to lake Ontario Park.



Stadt als Garten - Hannover (Germany) - Kamel Louafi



Mediambiental del Tram Final del Llit del Riu Besòs - Barcelona (Spain)

5.5.9. The Martin Goodman Trail

The Martin Goodman trail is a well-established recreational route through the Port Lands. It is an off road route on Lake Shore, Leslie, and south of Unwin. Portions of Cherry Street provide an on road continuation of the route. This trail is well used and should continue to be upgraded. In time, it may be worth considering relocation of the route to align with the Don Greenway. This would facilitate continuity of the off-road function, and be more in character with the balance of the facility. This would require another bridge crossing of the ship channel. Similarly, there has been speculation of a pedestrian, road or even transit bridge linking Cousins Quay to the East Bayfront. This potential bridge could also serve as suitable trail link in the future.



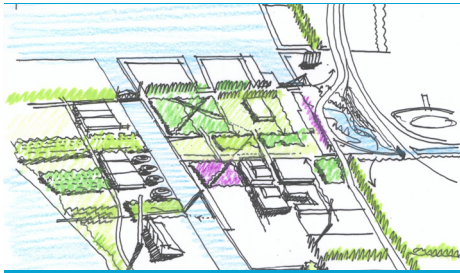
Recreational Trail, Seattle



Bike Path Next to Roadway, The Netherlands



Bike Path, Netherlands



Proposed Port Lands Plantations, DTAH



Street Light Proposal - David Dennis Design

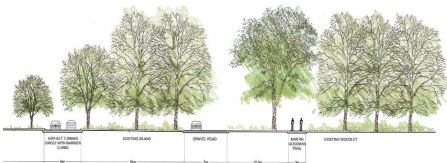


Street Lighting - Delft - IPV Delft



Bristol Legible City, Bristol, UK

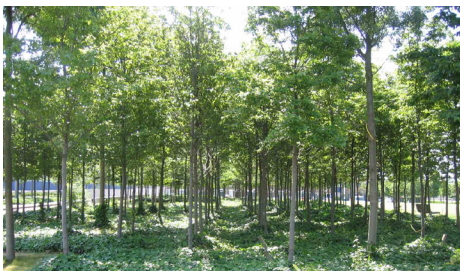
5.5.10. Urban Forestry, Landscape Structure and Temporary Greening



Cherry Beach Proposed Section, Schoellen & Company



Tree Nursery



Tree Plantation on Brownfield site, Greenwich Peninsula

In the Port Lands there have been modest attempts at greening. Some businesses have provided traditional boulevard upgrades but for the most part, nature has invaded and survived on its own. Where the landscape has self-seeded, wild thickets and early succession groves have given rise to a distinct character and positive improvement to the look and the environment of the Port Lands.

Street tree planting can provide an early and lasting impact in the Port Lands. Historically, key avenues of great cities have been defined with rows of trees in the first instance, the Champs Ellyse in Paris for example. The most successful installations will be those where trees will remain in soft landscape boulevards following construction since the roots will have minimal disruption during site development. Another important consideration will be the impact of the high water table on tree root growth.

Reinforcing the street tree plantation strategy, it may be possible to line the edge of vacant sites with additional rows of trees as a form of short term "green urbanism".

Temporary Plantations or Naturalizing Areas

Recognizing that development will take time, a strategy of encouraging more temporary landscape measures should be pursued. This could take the form of plantations of succes-

sional vegetation not unlike the reforestation programs in City parks and rights-of way, or even temporary crops or wildflowers. These strategies may also be used in the bioremediation of certain types of contaminated sites.

One of the potential ways of utilizing undeveloped sites in the short term is to establish a tree nursery and arboretum in the Port Lands. The nursery could take the form of a tree farm and or a tree planting staging area for the waterfront as a whole, replacing operations currently in Fort York.

Larger plantations of trees for replanting could green the Port Lands in the interim and provide an ongoing source for parks and streetscapes. The economic feasibility of this strategy would need to be tested but it is clear that it would have benefits to the environment and the appearance of the Port Lands.

The arboretum component might include display of street trees and possibly sustainable planting and design techniques for home landscaping. A program of this type could also expand into gardening activities.

A third component would be the parks chipping facility, which would provide mulch for public and park use as well as fire wood when available. This activity now takes place south of Unwin Avenue where new activities in Lake Ontario Park are anticipated.

5.5.11. Streetscape Furnishings

It would be fitting to reflect and reinforce the distinct character of the Port Lands with new streetscape furnishings including streetlights, utility poles, furniture such as benches and waste containers and signage. The distinct identity should honestly reflect the robust and no-nonsense character of the area as well as a well-designed contemporary expression.

Street lighting is one of the more prominent features of the streetscape. Considerations should include flexibility, dark sky friendly luminaires, multiple luminaire sizes for road and pedestrian applications within the same family, and multitasking capability on poles (power distribution, traffic signals, TTC traction power). New streetlights would be a key ingredient for improving the look of the Port in the short term.

5.5.12. Signage and Wayfinding

Signage and wayfinding for the Port Lands should be the aggregate of the various sub identities within the Port such as the Ferry Terminal, Lake Ontario Park, Commissioners Park; the Concrete Campus, the Martin Goodman Trail, The Don Greenway and so on. Each of these precincts or facilities would have their own identity and information systems.

A Port Lands way finding program should be established.



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Ⓢ (I) Current Scheme

TORONTO WATERFRONT
REVITALIZATION CORPORATION

Kees Christianse

BC7
High
Street W
Street N
Street E
Fly
OHK
10-8m

sweenystudioinlayson

Sketch by Kees Christianse showing possible diversity of built form in the Port Lands



6. Relocation Strategy

Revitalization in the Port Lands will be built around the coexistence of existing and new industrial and employment uses with new residential and recreational uses and open spaces. However, it is clear that the revitalization of the Port Lands will require the relocation of some uses over time.



6.1. Business Relocation Principles

Principles that should inform the Port Lands Relocation Strategy Include:

- Capture opportunities as leases become available;
- Coordinate relocations with phasing of public open space projects;
- Minimize public expenditures associated with relocations;
- Retain and revitalize Port Lands industries that are compatible with the long term vision – clean, green and sustainable.



6.2. Priority Areas

The Implementation Strategy suggests a phased and planned program of lease terminations, renewal and relocations and property buy outs. The strategy and timing of property decisions must be coordinated with the need for the land for the First Generation of land uses. The strategy is also based on the principal that some of these uses should be encouraged to remain in the Port Lands given their economic contributions to the City.

The initial areas where there are existing uses that must be addressed are within the Quays, the Central Precincts; Commissioners Park and the Don Greenway.



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7. Next Steps and Work Programmes

Implementation of the long term vision for the Port Lands will require Precinct Planning that leads to the definition of the large scale urban design frameworks that both characterizes the individual precincts and links them together. Specific zoning and building regulations as well as detailed streets and blocks plans will emerge from this level of consideration as they have in other Waterfront Precincts.

7.1. Planning Processes

A number of key planning studies are required to facilitate Port Lands revitalization. An Early Work Program has been established to set out priority next steps:

- Conduct a preliminary engineering study and initiate an Environmental Assessment for the “Core Infrastructure Corridor”;
- Start Quays and Central Port Lands Precinct Plans;
- Coordinate with TEDCO on detailed planning for the entire Film Studio Precinct as a mixed use area and Detailed design Guidelines for Interim Use Sites;
- Move forward on Open Space initiatives including: Lake Ontario Park; Commissioners Park and Streetscape program;
- Construct Regional Sports Facility and Transitional Playing Fields planning Site Selection and Planning;
- Initiate Don Greenway Concept Design Process and Don Mouth Naturalization;

7.2. Early Work Program - Planning

- Initiate Concept Design for Port Lands Arboretum;
- Initiate a TWRC Parking Strategy study;
- Initiate a Port Lands Transit EA;
- Coordinate with Environmental Assessments for Don Mouth, Queen’s Quay and Cherry Street transit;
- Coordinate with Lake Ontario Park Master Plan and Discovery Centre planning and;
- Continue work on business relocation strategy and respond to opportunities as leases become available.

7.3. Port Lands Projects (Funded)

Planning for a number of projects in and around the Port Lands was either underway or initiated during the writing of the Implementation Strategy. The projects set out below are ones for which funding currently exists in the TWRC’s 10 Year Plan (2005):

- Continuation of Leslie and Cherry Streets Greening Projects;
- Ongoing Martin Goodman Trail Improvements;
- Detailed Design and Construction of Commissioners Park;
- Detailed Design and Construction of Transitional Playing Fields;
- Detailed Design and Construction of Regional Sports Facility;
- Initiation of Design and Construction of the Port Lands Arboretum / Nursery;

7.3. Port Lands Projects (Not Currently Funded)

Other projects that are considered considerable or desirable within the Implementation Strategy for which funding currently does not exist include:

- Establishment of a Port Lands Soil Remediation Facility in the Ship Channel South East or Turning Basin precincts. This facility will also serve the East Bayfront and the Don Mouth Naturalization and Port Lands Flood Protection Project;
- Initial Unwin Avenue Repairs and Improvements;
- Ship Channel Bascule Bridge (Cherry Street) Repairs;
- Early Water’s Edge Dock Wall Improvements;
- Early public access to the Lands that will Eventually Make Up the Don Greenway;
- Cousens Quay and Other Urban Catalyst Projects;



8. Appendices



8.1. Port Lands Implementation Strategy Consultant Team

Sweeny&Sterling&Finlayson&

- Mark Sterling - Project Director and Manager / Urban Design
- Chris Hardwicke - Urban Design Lead
- Steven Kopp - Urban Designer

N. Barry Lyon Consulting Ltd.

- Mark Conway - Manager / Planning and Development Economics
- Barry Lyon - Development Economics
- Adrian Kozak - Real Estate Analyst

Dutoit Allsopp Hillier

- John Hillier - Landscape Architecture

KCAP - Rotterdam, NL

(Kees Christiaanse Architects / Planners)

- Kees Christiaanse - Waterfront Urban Design and Implementation Strategies

Dillon Consulting Limited

- Ann Joyner - Manager Planning / Sustainability Issues
- Claudio Covelli - Transportation Planning
- Joe Puopolo - Infrastructure Planning
- Mike Walters - Transportation Planning
- Sean Salvatori - Infrastructure Planning
- Karen Nasmith Planning / Sustainability Issues



8.2. Toronto Waterfront Revitalization Corporation

- John W. Campbell - President and Chief Executive Officer
- Edward J. Dato - Chief Financial Officer
- Christopher Glaisek - Vice President, Planning and Design
- Kristin Jenkins - Vice President, Public Affairs
- Kristy Findlay - Public Affairs Department



8.3. TWRC Program Manager Participants

- Melanie Hare - Project Manager (USI)
- Joe Berridge (USI)
- Pino DiMascio (USI)
- Karen Pitre (Lonsdale Group)
- Steve Willis (MMM)
- Bob Webb (MMM)
- Mary MacDonald(CH2MHill)



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8.4. Advisory Committee Members / Representatives

Toronto Waterfront Revitalization Corporation (TWRC)

- (See 8.2)

Toronto Economic Development Corporation (TEDCO)

- Jeff Steiner
- Bill Jackman
- Hon Lu

Toronto and Region Conservation Authority (TRCA)

- Adele Freedman

City of Toronto City Planning

- Ted Tyndorf
- Robert Freedman
- Eric Pedersen
- Mark Van Elsberg

Waterfront Project Secretariat

- Elaine Baxter-Trahair
- Jayne Naiman
- Pinelopi Gramatikopoulos

Toronto Port Authority

- Lisa Raitt
- Ken Lundy
- Michael Riehl

Toronto Community Housing Corporation (TCHC)

- Mark Gustlits
- Lorne Cappe