City of Hamilton
Setting Sail: West Harbour Planning Area Study

Opportunities and Challenges

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Setting Sail

Tell us what you think

Public input and feedback are critical to the success of the Setting Sail study. The City of Hamilton and its consultant team invite comments on this report. If you have comments, please submit them by January 31, 2002, to:

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1. Introduction and Context

Hamilton's West Harbour area, bounded by York Boulevard to the west, Cannon Street to the south, Wellington Street to the east and Hamilton Harbour to the north (see Figure 1), has been undergoing significant change in recent years, led by the City's investments in Pier 4 and Bayfront Parks and the creation of the Waterfront Trail. As Hamiltonians continue to rediscover their waterfront and lands become available for urban development, the area is destined to further evolve. Recognizing the opportunity, desire and pressures for change, the City of Hamilton initiated an integrated Land Use, Transportation and Infrastructure Master Plan Study ("the study") for the West Harbour Planning Area in August 2002.

The goal of the West Harbour Study, entitled Setting Sail, is to create a series of integrated plans that will guide investment and development in the area in coming years. The Study will make general recommendations based on a comprehensive review of the area and more detailed recommendations for Piers 5-8, where development pressures are strongest. It also entails a needs assessment of the previously proposed Perimeter Road.

The study is being done under the Environmental Assessment Act Municipal Class Environmental Assessment Process for integrated master plans (Municipal Engineers Association, June 2000). At a minimum, an integrated master plan must address the first two phases of the basic Class EA process: (1) description of the problems and opportunities, and (2) identification and evaluation of alternative solutions and selection of preferred solution. This report completes the first phase.

The initial phase of the study focused on an analysis of existing conditions in the area and consultation with City staff, key stakeholders and the general public. The findings from this work are summarized in Sections 3 and 4 of this report and are the basis for the key opportunities and challenges described in Section 2. The report concludes with a preliminary set of evaluation criteria. In the next phase of the project, the criteria will be reviewed and refined and alternative land use and transportation concepts will be developed for the study area.

Community Consultation

Phase 1 of the study involved extensive public consultation. Beginning on September 16th and 17th, 2002, a series of interviews were held with over sixty key stakeholders, including representatives from neighbourhood associations, business groups, industry, marinas and boat clubs, and other organizations, as well as City staff and councillors. The purpose of the interviews was to gather information about the study area and listen to individual perspectives on the opportunities and challenges.

On October 3rd, 2002, a Visioning Workshop was held, to which a group of key stakeholders were invited. The workshop provided an opportunity for stakeholders to share their perspectives and, in small groups, begin to identify the changes they envision on the waterfront and in the neighbourhoods. The common themes that emerged from the workshop are described in Section 4 of this report. A complete summary of the workshop is available on the City's web site (www.hamilton.ca). The materials produced during the workshop were displayed at a Public Open House held in the evening of October 3rd.

Planning Context

In addition to the City's investments in parkland and the Waterfront Trail, there are a number of recent initiatives that have implications for the future of West Harbour:

- The Framework Agreement signed by the City, the Federal Government and the Hamilton Port Authority in 2000 has had several pivotal effects, not least of which are the new collaborative relationship between the City and the Port Authority and the transition of ownership of Piers 1, 2 and 5 through 8 from the Port Authority to the City. Under the terms of the conveyance of Pier 8, the Port Authority has a 25-year lease conditional upon the continued use of the eastern portion of Pier 8 for shipping and navigation purposes.
- With the conveyance of Piers 5 through 8 to the City, interest in developing them for other uses has emerged from various sectors. Plans for one proposal, the Canada Marine Discovery Centre, at the west end of Pier 8, have been approved and are being implemented by Parks Canada, who now owns the 8.5-acre site in question.
- The recently-adopted ***Hamilton Port Authority Land Use Plan*** includes policies specific to Pier 8. While stating that existing uses on Pier 8 shall continue in the immediate term, the plan acknowledges that "in the medium to long term, more recreational and tourist related activities will be encouraged, building from the investment in the Marine Discovery Centre."
- The recently completed ***Downtown Secondary Plan*** recognizes the importance of the West Harbour waterfront to the ongoing revitalization of Downtown Hamilton. One of the plan's six principles is to strengthen connections to the waterfront and other surrounding features and attractions. Another principle addresses the need to increase the residential population Downtown by making it more attractive. To this end, there is a heavy emphasis on enhancing the quality of neighbourhoods, streets and public spaces. The plan sets a precedent for the Setting Sail study, both in terms of its focus on urban design and the quality of places and its reliance on the waterfront to help achieve its broad objectives.
- The new Downtown Plan is accompanied by a ***Downtown Transportation Master Plan***. As the study area for the plan extended northerly to Barton Street, there is an overlap with the West Harbour Planning Area, and therefore many of the guiding principles and recommendations have implications for the Setting Sail study. The key elements of the plan include conversion of some primary and secondary streets

from one-way to two-way; identification of street sections with excess lane capacity that can be used for improvements to the pedestrian environment; and modifications to streets that will encourage commuter and recreational cycling. James Street North and John Street North from Strachan southerly were converted to two-way in 2002. Secondary streets proposed for two-way conversion include Park Street south of Barton, MacNab Street from Cannon northerly, Hess Street south of Barton, and Hughson Street south of Barton.

- Acting on the recommendations of the Downtown Secondary Plan, the City is currently developing a ***Streetscape Master Plan*** for Downtown "mobility streets". These include Bay, James, John and Cannon Streets, portions of which fall within the West Harbour Planning Area. The goals of the master plan include enhancing the pedestrian amenity and civic image of mobility streets, strengthening linkages to the waterfront and establishing a high standard of design as a model for private sector initiatives.
- A number of regional highway infrastructure initiatives, including the planned Red Hill Creek Expressway and improvements to Highway 6, will alter regional travel patterns, particularly for commercial traffic, which in turn may have a bearing on the need for the previously proposed Perimeter Road.
- In dramatically improving the environment of the Harbour, the successful ***Remedial Action Plan*** (RAP) for Hamilton Harbour, has transformed its image and focused public attention on the opportunities to ensure future development in the region has a positive impact on the Harbour.

Together, the above initiatives set the stage for potentially dramatic changes on the West Harbour waterfront and a strengthening of the adjacent neighbourhoods. Currently, the four neighbourhoods wholly or partly within the study area—North End, Strathcona, Central and Beasley—are subject to individual Neighbourhood Plans. One of the challenges and opportunities of the Study is to reconcile and update the policies of these plans based on the vision and master plan to be developed for West Harbour as a whole. Each of these plans is briefly discussed below.

- The ***North End Waterfront Secondary Plan*** (1984) pre-dates the creation of Bayfront Park and the Framework Agreement between the City and the Port Authority. Nevertheless, in foreseeing opportunities on the waterfront, it addresses many of the issues that exist in the area today. The plan's principles seek to balance a desire for a mix of uses on the waterfront (but an emphasis on recreational uses) with the goal of limiting the impact of such uses on the core of the neighbourhood. Other goals include linking all green and open spaces "in imaginative and interesting ways," and maintaining the history of the area. The plan also places high importance on design considerations and features on the waterfront, "Hamilton's window on the water". The plan's Land Use Concept designates Bayyfront Park for medium intensity recreation uses, which should include "a major tourist attraction of international importance with the supporting commercial facilities." Pier 4 is designated for low intensity recreation uses, and Piers 5-7 for commercial/recreation uses. Pier 8, designated for high intensity

recreation uses, is termed a major activity area with commercial, residential and recreational uses intermingled.

- The *Strathcona Neighbourhood Plan and Programme* (1972) incorporates the widening of York Boulevard to 120 feet and the abutting medium and low-to-medium density residential and commercial uses proposed at the time. North of York Boulevard, the plan states the existing single-family development is to be retained; Barton Street should be closed between Queen and Greig Streets (to reduce its functional importance within the neighbourhood); and a two-acre park should be created at the northeast corner of Barton and Crooks.
- The goals of the fairly recent *Central Neighbourhood Plan* (1999) include conservation and promotion of heritage buildings and streets; improving connections to the waterfront park system; supporting and enhancing the viability of the residential community; elimination of incompatible industrial uses; pedestrian-oriented streets; and improved street connections with the Central Business District. Land use designations generally reflect the current pattern of land use; however, there are no lands designated industrial, as the plan's goal is to eliminate such uses over time. The existing and former industrial lands north of Barton and west of Tiffany Streets are designated a Special Policy Area "whose land uses will be determined once the West Harbourfront Plan is finalized" (the 1995 West Harbourfront Plan was never finalized or adopted by City Council). The plan does not incorporate the previously proposed Perimeter Road but states that proposals for the road must incorporate consultation with neighbourhood residents and a review of the neighbourhood plan to ensure its goals are retained in the design.
- The *Beasley Neighbourhood Plan* (1996) takes a stronger stance on the Perimeter Road, stating it needs to be constructed to accommodate heavy truck traffic and divert through-traffic away from neighbourhood streets. In designating the lands north of Cannon Street for residential, commercial or mixed use (as in Central, there are no industrial designations), the plan identifies seven Special Policy Areas, including the following four sites (proposed uses in brackets):
  - the supermarket site on Barton (street-related mixed commercial-residential);
  - the Stelco site on Wellington at the CN line (temporary sports park);
  - the LCBO warehouse site on Catharine Street, south of Robert (compatible residential)
  - the auto dealership on Cannon, between Elgin and Ferguson (4-storey residential)

  Favouring lower-density residential development that is compatible with the older residential areas, the plan eliminates high density residential land use designatons and encourages medium density residential close to Downtown. The plan also calls for more green space in the neighbourhood.

2. Summary of Key Opportunities and Challenges

Figure 2 illustrates the major opportunities within the West Harbour Planning Area. There are five overarching opportunities, broken down below into specific ideas and propositions to be explored as the study moves forward.

1. Create a cohesive, multi-use waterfront that capitalizes on the Harbour setting through the redevelopment of vacant and underutilized land.

The waterfront clearly affords the greatest opportunity for significant short-term change in the study area. The underutilized lands on Piers 5-8, now largely under City ownership, have the potential to be redeveloped with a mix of uses that augment and complement the existing recreational uses. The community generally supports development on Piers 5-8 that takes advantage of the Harbour, attracts tourists and will animate the waterfront year-round. Given that current uses on Piers 9 and 10 could relocate in the future, these lands have longer-term potential to be redeveloped. There is also the opportunity to enhance the stretch of waterfront from Bayfront Park to Pier 4 Park by adding amenities and improving access to the water's edge. Given the extent of waterfront land available for redevelopment and improvement, there is an opportunity to create a cohesive district containing a range of uses and offering a variety of waterfront experiences for local and Downtown residents as well as regional visitors and international tourists.

The challenges associated with redevelopment of the waterfront include the following:

- Ensuring new development respects the character of the North End neighbourhood and does not have significantly adverse impacts in terms of traffic and views;
- Providing continuous public access to the water's edge;
- Finding a sustainable solution to accommodate recreational boating facilities;
- Remediating any contaminated lands;
- Ensuring there is no adverse impact on water quality in the Harbour.

2. Strengthen existing neighbourhoods by fading out noxious industrial uses and redeveloping vacant and underutilized land.

Industrial land uses continue to have a strong presence in the study area, principally in the Barton-Tiffany area, but much of the industry has abandoned the study area, leaving behind vacant, frequently contaminated sites that are a blight on the neighbourhoods. The type and level of contamination of some of these sites will have a bearing on when and with what uses they are redeveloped. Nevertheless, they have the potential, at least in the long term, to be redeveloped with uses that are compatible with the existing residential fabric, be they employment, residential, institutional or open space. Encouraging remaining industrial uses to relocate and not

permitting new industries or industrial expansions would free up, over time, considerably more land with the potential, through redevelopment, to significantly enhance the image and livability of existing neighbourhoods.

In addition to the existing brownfields and noxious industrial uses, there are underutilized sites and others occupied by incompatible commercial uses in the Central and Beasley neighbourhoods, where new commercial, residential or mixed-use projects that fit with the residential fabric would be welcome.

3. Create a linked system of varied open spaces and trails.

West Harbour has a richness of parkland that could become the basis for a connected system of open spaces and trails threaded around and through the study area. Such a system could be created using existing parkland, surplus public land, redevelopment sites, historic water courses and abandoned rail lines. Interlaced with the open space system could be a network of enhanced streetscapes that provide connectivity and additional greenery.

A linked system of open spaces could be used to establish a framework for future waterfront development. In time, it would become an incredible resource for the neighbourhoods and the entire city, providing amenities, adding beauty and improving the ecology of the West Harbour.

Among the specific opportunities that would contribute to the creation of a linked open space system are the following:

- Extend the Waterfront Trail to Pier 8 and Eastwood Park;
- Incorporate into future development on Piers 5-8 a variety of linked open spaces, such as promenades, plazas, squares and parkettes;
- Use the open space reserve along Strachan Street to create open space and trail linkages;
- Enhance green and, where feasible, trail linkages along abandoned spur lines in the southeast corner of the study area;
- Enhance and "green" key connecting streetscapes;
- Increase, identify and enhance key access points to the open space system.

4. Improve the functionality, aesthetics and accessibility of existing neighbourhood parks.

Attractive, accessible parks with appropriate amenities are essential to the vitality of neighbourhoods. Central and Eastwood Parks are important neighbourhood parks but, for different reasons, are underutilized. Central Park, with very little street frontage, suffers from poor visibility and accessibility; it also has a generally run-down appearance and offers a limited range of amenities. Eastwood Park has plenty of street frontage and a mix of sports facilities but lacks a full range of neighbourhood recreational amenities, has some challenging edge conditions on the north and east

and also has a run-down appearance. The clear opportunity is to review the physical context, layout and amenities of both parks with an eye to enhancements that would make them more inviting and supportive of the neighbourhoods they serve.

5. Improve connections between the waterfront and the city.

The West Harbour waterfront can become the playground for residents of Downtown and surrounding neighbourhoods. It also draws visitors from across the region and has the potential to become a prominent tourist destination. One of the keys to dramatically increasing the Downtown population, as is the City's objective, is to significantly improve connections to the waterfront. Furthermore, the success of future development on the waterfront will depend in large part on such improvements. Among the many ways of improving connections are the following:

- Identify and enhance key access points to the waterfront;
- Establish a clear street hierarchy in the study area, potentially adopting the street classification system now used in the Downtown;
- Provide additional crossings over the rail corridor, potentially including a bridge over the rail yard;
- Mitigate the barrier effect of Barton Street east of James with streetscape and intersection enhancements
- Improve transit connections and walking routes between waterfront destinations and Downtown activity centres and parking facilities;
- Extend or expand transit service to serve future waterfront development;
- Establish, designate and promote a network of pedestrian and cycling routes;
- Develop a coordinated parking strategy for the waterfront.

3. Analysis of Existing Conditions

3.1 Land Use

The West Harbour Planning Area has a rich diversity of land uses that reflects its industrial and cultural heritage. Originally settled by Europeans in the early 19th century, the area soon became a bustling frontier port with the building of large docks between Bay and John Streets. Completion of the Great Western Railway in 1854 brought more docks, wharves and a large grain elevator. Marine foundries in North End and machine tool plants around the rail yard joined the boat builders, sail makers and repair shops that dotted the shoreline. The iron and steel industry in the area grew rapidly after 1870; other industries included textiles, tobacco, glass and two breweries. Housing for workers quickly developed in the North End beginning in the 1880s. After 1910, the focus of industry began to shift as swampy land east of the study area was filled in and developed with larger, modern plants. By the 1940s, recreational uses, present on the waterfront since the 1860s, dominated the North End Port, and local services shifted from boat building and repair to trucks and cars.[1]

Today, there remains a mix of residential, industrial and commercial uses in the West Harbour neighbourhoods, while the waterfront continues to have a strong recreational focus. Within this eclectic urban fabric are fairly distinct land use precincts (see Figure 3), which are described below.

Central Waterfront

The Central Waterfront, stretching from Desjardins Canal to Pier 9, constitutes Hamilton's urban waterfront, in contrast to the more natural environments of Cootes Paradise and the Lake Ontario shoreline. The city's original port and historic focal point for water-based recreation, it continues to be home for a number of boating facilities, including the Royal Hamilton Yacht Club, Leander Boat Club, Macassa Bay Yacht Club, and Harbour West Marina. The amount of near-shore boating activity, notably small-boat sailing, rowing and kayaking, in fact, makes this as much a "water use" precinct as a land use precinct.

In recent years, the Central Waterfront has been partly redefined by the development of Bayfront Park, Pier 4 Park and the Waterfront Trail. Both parks are well used in the summertime, and Bayfront Park has become an important civic space, where residents of the Hamilton region gather for various festivities, including Aquafest and fireworks displays. The Waterfront Trail has, in effect, opened up the waterfront from the Desjardins Canal to Bayfront Park for public access, recreation and enjoyment.

[1] Unterman McPhail Cuming Associates, *West Harbourfront Heritage Study*, February 1995.

One remarkable fact about the Central Waterfront is that almost the entirety of the property facing the water's edge is owned by the City of Hamilton, the exception being the future site of the Marine Discovery Centre on Pier 8, owned by the Federal Government. This creates the opportunity to enhance and further develop the Central Waterfront in a coordinated and coherent way to help ensure public objectives for the waterfront are met.

Clearly, the greatest opportunity for further development on the waterfront is on Piers 5 through 8. The bulk of vacant and underutilized land is on Pier 8, but notwithstanding the existing boating facilities, there is considerable additional underutilized land on Piers 5-7 with the potential to accommodate uses other than parking and boat storage. There is also an opportunity in the study to review the most appropriate uses for Piers 2 and 3 and consider additional amenities that would enhance Bayfront and Pier 4 Parks.

Piers 5 through 8 meet the North End neighbourhood along Guise Street. On the south side of Guise Street is a disjointed mix of office and residential uses, the latter at varying heights and densities. As alternative land use scenarios are considered for Piers 5-8, the land use transition between this portion of the waterfront and the adjacent North End neighbourhood should also be addressed.

See Section 3.6 for a summary of the environmental concerns that may be present on Piers 5-8.

Pier 9 and the Active Port

Pier 9 is owned by the Department of National Defense for its HMCS Star training facility. The City of Hamilton has first right of refusal in the event DND chooses to close or relocate the facility and dispose of the land. The City also has first right of refusal to purchase Pier 10, which is at the western end of the active Port of Hamilton. The Port's 2002 Land Use Plan envisions the general cargo facilities on Pier 10 being strengthened, with existing buildings being upgraded or replaced over time to meet changing needs. Lakeport Brewery occupies the southern half of Pier 10.

Although redevelopment of Piers 9 and 10 is not in the foreseeable future, there may be a long-term opportunity for land use change that would complement future development on Pier 8, provide public access to the water's edge and improve Eastwood Park's northern edge condition.

See Section 3.6 for a summary of the environmental concerns that may be present on Pier 9.

North End

The North End neighbourhood is a largely stable residential area of modest detached, semi-detached and row housing that reflects the area's workers heritage. At the heart of the community is a campus of schools and a community centre. There is a scattering of small-scale commercial uses along James Street and a few on Burlington Street. Recent private reinvestment in the neighbourhood in the form of house renovations and replacements is apparent.

North End's urban fabric is generally intact. There is an opportunity to strengthen the fabric with small-scale residential infill development on the few parcels of vacant or underutilized land. In time, there may be strategic opportunities to redevelop properties on James Street with mixed-use buildings that would reinforce the existing commercial uses and enhance the character of the street. As noted above, there may be long-term opportunities with the properties on Guise Street to create appropriate land use transitions between future uses on Piers 5-8 and the low-scale character of the neighbourhood. In the shorter term, the challenge is to ensure that future development has appropriate impacts on the land use character of the North End as a whole.

The Green Entry

The Green Entry precinct comprises the lands of Dundurn Park and Castle and Hamilton Cemetery, which is just outside the study boundary. Together, these fixtures in the Hamilton landscape are an outstanding asset, an invaluable open space resource that establishes a picturesque northwest entry into the heart of the city. Although there may be opportunities to augment the amenities in and improve connections to Dundurn Park, no significant land use change is envisioned for this precinct.

York Boulevard Entry Corridor

The Green Entry gives way to a much more urbanized York Boulevard as it bends at Dundurn Street. The established character of the street is defined by a mix of generally low-scale office, residential and other commercial uses on both sides, as well as the median of trees running down the middle. The scale and orientation of development and frequent gaps between buildings contribute to a lack of cohesion in the streetscape and discourage pedestrian activity. The function of York Boulevard as a high-volume, high-speed vehicular corridor may mean that it will always divide rather than connect the Strathcona neighbourhood. There is the opportunity, however, in the long term, through infill development and redevelopment to give the corridor a more consistent and appealing character. In the shorter term, streetscape improvements could make it both more attractive and pedestrian-friendly.

Strathcona North

The portion of the Strathcona neighbourhood north of York Boulevard is a stable residential enclave of mostly detached housing, with low-rise apartment buildings located at the foot of Locke Street and twin high-rise apartment buildings in the southeast corner of the precinct. Recent private reinvestment in the area is apparent, both new housing built, under construction or approved on Crooks and Barton Streets and in the form of renovations to existing homes. Whereas there is the potential for land use change along York Boulevard and in the abutting industrial precinct, there are no significant opportunities for land use change in Strathcona North.

CN Rail Yard

The rail yard occupies a vast space on the waterfront and has a dominant presence in the study area as a whole. It performs a vital role within the regional railway system, and its current operators have no plans to relocate the facility or reduce its size. Nevertheless, some consolidation and removal of rail track has occurred in the past, the result being a swath of vacant land south of CN's main line, running parallel to Stuart Street. The City also owns the site of the former truck terminal south of the rail yard. Although the ongoing presence of the rail yard and soil conditions may significantly restrict future development of these lands, other improvements could enhance their function as a buffer between the rail yard and future redevelopment that may occur on the former industrial lands to the south.

Should the opportunity arise to relocate the rail yard, it would create in turn an incredible opportunity to redevelop the site with uses that are compatible with the nearby residential neighbourhoods and in keeping with the future vision of the Central Waterfront.

Barton-Tiffany

The industrial area south of the rail yard has a long history but has gradually taken on a blighted appearance as industry has left and not been replaced. Most of the active industrial uses that remain are in close proximity to residential uses, creating some undesirable interfaces. The clear opportunity here is to encourage the replacement of all noxious industrial uses to make way for compatible land uses. The equally clear challenge to overcome is the environmental legacy of the abandoned and existing industries. For an overview of the environmental concerns within Barton-Tiffany, see Section 3.6.

Central North

The portion of the Central neighbourhood north of Cannon, between Hess and James Streets, contains an eclectic mix of land uses, including industrial, commercial,

institutional and residential. At its heart, east of Bay is a cluster of schools and churches. There is a wide mix of housing types within the precinct, with detached houses dominating. Along Cannon Street, between Bay and James Streets, the recent appearance of Asian restaurants and food stores suggests the emergence of a renewed and unique commercial area.

For the most part, the urban fabric of Central North, particularly between Bay and James Streets, is in tact, and incompatibilities among land uses are focused where the precinct meets the Barton-Tiffany industrial lands. There may be opportunities, however, for small-scale infill development and redevelopment that replaces underutilized parking lots, in the process strengthening both the neighbourhood and the James Street commercial corridor.

James Street North

James Street North is an intact "main street" commercial corridor, the primary one within the study area. The continuity of buildings and streetscaping give it a strong and positive identity. As both a civic space and retail destination, it appears to be relatively successful. The very recent conversion of James from one-way to two-way, by all evidence, has made it more attractive and vital. There is one notable opportunity for land use change on James Street, at the north end of the commercial strip, where vacant land and a parking lot sit opposite Liuna Station and Immigration Square. The broader opportunity is to support the commercial uses on James with appropriate residential intensification in the adjoining and nearby neighbourhoods.

There is also an opportunity to address the concerns of many residents in the study area about the number of social service agencies on James Street and to find the right balance between these uses and other desireable uses in the area.

Beasley North

The Beasley neighbourhood north of Cannon is an area of stark land use contrasts, where both auto and pedestrian-oriented commercial uses are nestled within a residential fabric defined by single-storey detached housing at one extreme and high-density apartment buildings at the other. The result is a fragmented pattern of land use and a neighbourhood that lacks identity. There is also an apparent deficiency of parkland.

The opportunity in Beasley North is to gradually redevelop the commercial uses that have a poor fit with the neighbourhood with mixed-use or residential projects that enhance the character and pedestrian environment of streets. One of the challenges is to address the neighbourhood's harsh edges—the rail corridor to the north, Cannon Street to the south, and the Detention Centre and former industrial lands to the east—

and improve connections to the waterfront open space system, Beasley Park and Downtown.

Wellington Industrial/Institutional Corridor

The land-consumptive industrial and institutional uses on either side of Wellington Street, north and south of CN's main line comprise a unique land use precinct, where most of the existing uses are isolated from one another and their surroundings. There is an opportunity, however, on the vacant industrial lands that run through the precinct for future redevelopment to enhance this corner of the study area and improve the visual and land use transition between the Beasley neighbourhood and the industrial land uses to the east. A potential future street crossing over the main line at Ferguson Avenue and enhancement of green linkages along the abandoned spur lines may significantly improve the prospects for redevelopment of the vacant land on both sides of Barton Street.

The clear challenge to redevelopment in this precinct is potential soil contamination. For an overview of the environmental concerns, see Section 3.6.

Key Land Use Opportunities and Challenges

The diversity of existing and historic land uses in the West Harbour Planning Area, and the complexity of its urban fabric, creates a wide range of opportunities and challenges. The table below identifies the key opportunities and challenges, and Figure 4 identifies Opportunity Sites within the study area. Opportunity Sites are where existing uses have the potential to change or be improved through redevelopment or other reinvestments that make a positive contribution to the surrounding neighbourhood or waterfront.

LAND USE	
Challenges	**Opportunities**
• Vacant and underutilized waterfront land • Potential impact of waterfront development on boating facilities (marinas, sailing schools and boat clubs) and other existing uses • Potential impact of future waterfront development on the North End	• Redevelop vacant and underutilized waterfront land to create a cohesive, multi-purpose district that capitalizes on the Harbour setting • Review the roles and functions of Bayfront and Pier 4 Parks in the context of the Central Waterfront as a whole • Provide sustainable facilities for recreational boating

LAND USE	
Challenges	**Opportunities**
• Fragmented York Boulevard streetscape	• Infill York Boulevard and create a cohesive, continuous streetscape
• Abandoned and underutilized land within rail corridor • Barrier effect of rail corridor	• Optimize use of the rail yard to reduce barrier effect • Convert non-essential land in rail corridor to neighbourhood-compatible uses or enhance as a buffer • Consider long-term opportunities to relocate the marshalling facilities
• Incompatability of industrial and residential land uses south of the rail yard • Vacant, underutilized and contaminated land within Barton-Tiffany	• Redevelop vacant industrial land and sites occupied by noxious uses in Barton-Tiffany with compatible employment, residential or other uses
• Fragmented pattern of conflicting land uses in Beasley • Underutilized land in Beasley	• Redevelop underutilized land in Beasley with compatible residential and commercial uses.
• Vacant, underutilized and contaminated land in the Wellington corridor	• Redevelop vacant and underutilized land in the Wellington corridor with neighbourhood-compatible uses
	• Provide a vision and policy framework to ensure the continued strengthening of the Strathcona, Central and Beasley neighbourhoods
	• Reinforce commercial and residential uses on James Street
	• Improve land-use transitions between the waterfront and North End

3.2 Open Space

The West Harbour Planning Area is blessed with a substantial parks and open space system, with Dundurn, Bayfront, Eastwood and Beasley Parks as primary anchors (see Figure 5). The challenge within the study area is not that there is not enough parkland, although the Beasley North neighbourhood appears to be somewhat deficient. Rather, there are two principal challenges:

- There is a lack of connectivity within the open space system. Strong physical, visual and environmental linkages within an open space system make it more visible, accessible and functional, not to mention ecologically healthier.

- The two key neighbourhood parks in the study area—Central and Eastwood—are not attractive, lack a full range of amenities and, by all appearances, are underutilized by area residents. The same is true of smaller Bayview Park. Central Park is highly internalized with very little street frontage, making it hard to see and access; it also lacks a coherent structure and offers only basic amenities. Eastwood Park does not have a visibility or access problem but has challenging edge conditions (HMCS Star to the north and Lakeport Brewery to the east) and, beyond sports facilities, lacks amenity and visual interest.

These two key challenges are broken down further in the table below and translated into opportunities, which are illustrated in Figure 6.

OPEN SPACE	
Challenges	**Opportunities**
• Lack of physical and visual connections within the open space system	• Extend the Waterfront Trail to Pier 8 and Eastwood Park • Incorporate into future development on Piers 5-8 a variety of linked open spaces, such as promenades, plazas, squares and parkettes that augment the waterfront park system and improve connectivity • Use the open space reserve along Strachan Street to create open space and trail linkages if not needed for new road • Enhance green and, where feasible, trail linkages along abandoned spur lines in the Wellington Industrial/Institutional Corridor • Enhance and "green" key connecting streetscapes

OPEN SPACE	
Challenges	**Opportunities**
	• Increase, identify and enhance key access points to the open space system
• Central Park: underutilized, internalized, lacks a coherent structure and frontage, hard to access	• Improve access to and visibility of Central Park and reprogram it to better meet neighbourhood needs
• Eastwood Park: underutilized, lack of non-recreational amenities, tough edges	• Enhance Eastwood Park to accommodate a wide range of activities and improve edge conditions • Identify appropriate future uses and streetscaping adjacent to Eastwood Park
• Bayview Park underutilized and lacking amenities	• Enhance and reprogram Bayview Park
• Beasley North deficient of parkland	• Seek open space land contribution in large redevelopments in Beasley North and on Ferguson Avenue • Enhance pedestrian and cycling connections from Beasley North to the North End and Central Waterfront
	• Identify, preserve and enhance key views and vistas of and from the waterfront

3.3 Access and Barriers

This section provides an overview of the system of access within the study area from an urban design perspective and identifies key barriers to pedestrian, bicycle and vehicular access. Section 3.4 deals specifically with the road network, vehicular traffic, parking and the previously proposed Perimeter Road, and Section 3.5 deals specifically with the public transit system.

The system of access within the study area is largely defined by a grid pattern of streets (see Figure 7). What is challenging about the street system is that there is no clearly established hierarchy within it. Virtually all of the streets have a uniform right-of-way width of 20 metres, and, except along the boundary streets and portions of James and Barton, abutting land uses are not a reliable indicator of how busy a street is intended to be. Therefore, it is not clear which are the primary vehicular routes to the waterfront and through the area generally.

The challenge of improving access to the waterfront is compounded by the lack of off-street public parking facilities in the study area. As part of a coordinated parking strategy, there may be opportunities to improve pedestrian and transit connections between the waterfront and Downtown activity centres and parking facilities.

Although the grid of streets is generally well connected, there are areas where it is "broken", specifically around Central Park and in the former industrial lands around Barton and Ferguson. A reconfiguration of Central Park to make it more visible and accessible may provide an opportunity to partially reconnect the streets that dead-end at the park, with trails if not actual streets. Redevelopment of the Barton-Ferguson may provide a similar opportunity. On Pier 8, there is an opportunity to extend the grid to service future development.

The Waterfront Trail has allowed people to explore the waterfront on foot or bicycle, but there is not yet a system of safe and comfortable pedestrian and bicycle routes connecting the waterfront to the rest of the city. This is an opportunity the Setting Sail study can begin to address.

Despite the highly-connected grid of streets, there are significant barriers within the study area. The slopes above the rail yard and Piers 3 and 4 are natural barriers that contain vegetation and act as a buffer between land uses that might otherwise conflict. The most significant barrier is the rail corridor, including the rail yard. Five road bridges currently cross the corridor east of the rail yard, with the opportunity for a sixth bridge at Ferguson Avenue. The more significant challenge and opportunity to explore is to provide access over the rail yard in one or more locations, with an eye to improving access to Bayfront Park and between Dundurn Park and the waterfront.

The other major barriers are the traffic corridors of York Boulevard, Cannon Street and Barton Street east of James Street. The character and traffic of these streets discourage walking and cycling between Downtown and the waterfront. Assuming traffic volumes do not decrease significantly on these streets, one of the keys to reducing their barrier effect is to make them safer and more comfortable to cross through streetscape and intersection enhancements.

The table below summarizes the key challenges and opportunities related to access and barriers:

ACCESS AND BARRIERS	
Challenges	**Opportunities**
• No clear street hierarchy	• Establish clear street hierarchy (potentially adopting the street classification system used in the Downtown)
• Lack of off-street parking facilities to serve waterfront special events and destinations	• Improve transit and pedestrian connections between the waterfront and Downtown parking facilities and activity centres
• Discontinuous grid of streets around Central Park • Discontinuous grid of streets in the Barton-Ferguson area	• Reconnect pieces of the grid with new streets or trails as part of a reconfigured Central Park • Reconnect pieces of the grid as the Barton-Ferguson area is redeveloped • Extend the existing grid of streets/paths to improve access to the waterfront
• No network of pedestrian and cycling routes connecting Downtown and the waterfront	• Establish, designate and promote a network of pedestrian and cycling routes
• Barrier effect of rail yard and rail trench	• Provide additional crossing over rail trench at Ferguson • Provide crossing(s) over rail yard to improve access to the waterfront from Dundurn Park, Strathcona and Central
• Barrier/isolating effect of York Boulevard, Cannon Street and Barton Street east of James	• Make York, Cannon and Barton more pedestrian-friendly through streetscape and intersection enhancements

3.4 Traffic

The Road Network

The study area is an old and very mature part of the city, and its road network reflects its heritage and highly urbanized environment. There are no major roadways within the study area, with the exception of roadways on the periphery such as York Boulevard, and to a lesser degree, the Wellington/Victoria and Cannon/Wilson one-way pairs. Major roadways could be characterized as major arterial roads with rights-of-way in the order of 30-36 m, and 4-6 lanes plus medians or turn lanes, such as Upper James Street or Upper Wentworth Street on Hamilton's Mountain. While there are certainly four-lane roads in the study area, there are no separate turn lanes, speed limits are 50 km/hr and not 60, and parking and loading is often permitted for much or all of the day, e.g. on James Street North and Burlington Street east of James.

Rail crossings with the main and spur lines at all roadways east of Mary Street are level crossings. Grade separations with the CN main line are present at Bay, MacNab, James, John, and Mary Streets, but condition of the bridges and crest curve geometry is extremely variable, resulting in limited visibility, especially with intersecting streets such as Strachan Street.

Virtually every roadway has a road allowance of 20m or less, with the exception of York Boulevard (26-36m) and Victoria Avenue (24m). There are many roadways within the study area that can be considered non-local in nature (see Figure 8), but it is difficult to distinguish between those that could be considered primary and those that could be considered secondary. Table 1 contains an inventory of the non-local streets within the study area.

Vehicular Traffic

Traffic volumes on the non-local streets within the study area have either declined or stayed much the same over the last 20 years, and traffic level of service on roadways within the study area is good, at Level of Service C or better in the peak hours. It must be noted that these very good levels of service in the peak hours on streets such as Cannon and Wilson are due in part to "no stopping" regulations in effect in the morning and/or afternoon peak hours. If parking and loading were permitted through the rush hours on one side, the level of service would still be acceptable for the most part, but if parking and loading were permitted on both sides, the level of service would be poor. Figure 9 shows that volumes into and out of the study area are relatively small in comparison to volumes on major routes such as York Boulevard, King Street, and Main Street near Highway 403. One example is Bay Street north of Barton Street, which has 540 vehicles in the peak hour, or about 5,000 per day. This volume is certainly larger than that normally considered to be near the upper limit for a purely local residential street, i.e., 1,000 vehicles per day. However, it is well within

the range for minor collector roadways and is less than the 7-8,000 vehicles per day that used Bay Street ten to twenty years ago. Because of the nature of the study area, many non-local roads act as minor or major collector roadways.

Transportation modeling has consistently demonstrated over the years that east-west traffic flows through a downtown screenline are less constrained than through the screenline located just east of Highway 403. This is because the total number of lanes and total capacity of streets at a downtown screenline includes Burlington, Barton, Cannon, Wilson, King, Main, Hunter, Herkimer, and Charlton Streets in the lower city, as compared to York Boulevard, King, Main, and Aberdeen Streets at the Hwy 403 screenline in the lower city.

To put it in simple terms, consider a north-south slice right through the lower city of Hamilton, from the Harbour to the escarpment. Many of the east-west roadways in that slice disappear before they reach Hwy 403, e.g., Burlington Street and Barton Street. There is more east-west capacity in the downtown than the capacity of the roadways just east of Hwy 403. The conclusion that may be drawn is that, except for some variation because of travel demands, the overall capacity of the downtown screenline could be reduced to be more consistent with the Hwy 403 screenline and with north-south connections between the east-west roadways. Alternatively, the overall capacity of the Hwy 403 screenline and north-south connectors could be increased to more closely match the downtown screenline.

Parking

Parking regulations have been modified over the years to balance mobility needs with providing parking and loading for the abutting properties where possible, and on-street regulations have generally been relaxed rather than being made more restrictive over the last 20 years. Reductions in available on-street parking or loading would adversely affect the abutting land uses because most of the buildings and properties are older and do not provide for parking and loading on site.

Off-street parking for commercial uses should not be considered part of an available inventory for public use. Three Municipal off-street parking lots are located within the study area, but all are located south of Barton Street and are modest in size, ranging from 24 to 54 spaces. Major events such as Aquafest put a significant strain on parking and access in the vicinity of Bayfront Park, and inconvenience many local residents.

Truck Traffic

Trucks do not need to enter the study area except for access to destinations within the study area, such as Lakeport Brewery or the active piers, and can stay on truck routes on the periphery, i.e., Wellington/Victoria and Cannon/Wilson/York Boulevard. Trucks and through traffic destined to the west on Hwy 403 from the Bayfront must use

the King Street interchange, and the most suitable route is Cannon-Queen-King-Hwy 403. An alternate route is Cannon-York-Dundurn-King-Hwy 403, but Dundurn Street is only one lane southbound, and operations on that link in the afternoon peak hour are congested, with traffic waiting for several signal cycles of the King/Dundurn traffic signal.

Truck volumes in and around the study area are shown on Figure 10. A review of truck volumes in and on the periphery of the study area indicates that the number of trucks weighing more than 4 tonnes entering and leaving the study area on Bay, James, and John Streets north of Barton Street is approximately 200 in a 7-hour period, and numbers of trucks entering and leaving the study area on Burlington Street west of Wellington Street is approximately 100 in a 7-hour period. While it is quite possible that these truck movements are entirely legitimate, in that truckers are using the shortest route from a truck route to their destination, it is also quite possible that some of these movements do not need to be there, and that enforcement by the Hamilton Police Service may have some impact on reducing those numbers.

The volumes of trucks on York Boulevard, King Street and Main Street east of Highway 403 are approximately 600 eastbound and 660 westbound in 7 hours, and this translates into approximately 2,500 truck movements a day. One of the basic questions to address in the needs assessment for the Hamilton Perimeter Road is whether or not a separate or enhanced facility/system is warranted to address these truck volumes. Not all of these trucks are going through the downtown, i.e., some of them are certainly destined to uses within the downtown, so not all of the 2,500 truck movements can be characterized as through truck traffic.

The Downtown Transportation Master Plan recommends that in the longer term, Wilson Street and King Street within the downtown area be converted to two-way traffic and Cannon and Main be maintained as the one-way by-pass roadways for the downtown, which is consistent with maintaining truck route connections between Highway 403 and the Wellington/Victoria one-way pair. Trucks carrying hazardous materials could be restricted by regulation to use specific truck routes such as Burlington Street/Industrial Drive to avoid the use of roadways within the study area or the downtown.

The addition of ramps to/from the Brantford direction at the existing York Boulevard/Hwy 403 interchange could be investigated, but the King Street/Hwy 403 interchange is closer to the Cannon/Wilson truck routes via Queen Street than to the York Boulevard interchange at Hwy 403 for traffic destined to the west.

A completed Red Hill Creek Expressway will attract some of the truck and through traffic destined to Hwy 403 westbound, Hwy 6 southbound, and former Hwy 56 southbound that is now using the King Street Interchange at Hwy 403.

Previously Proposed Perimeter Road

The name adopted for this proposed major arterial road in North Hamilton in earlier planning studies was the Industrial Perimeter Road, and it has been discussed in various planning documents since the 1960s. Redevelopment plans for the North End Neighbourhoods in 1963 included the Industrial Perimeter Road, and properties were acquired in the Strachan Street corridor through the Neighbourhood Improvement Program.

Other planning studies that promoted an Industrial Perimeter Road concept included the Hamilton Area Transportation Study (1963), the Hamilton Transportation Strategy Study (1973), the Hamilton-Wentworth Regional Official Plan (1982), and the City of Hamilton Official Plan (1982).

In 1978, the Industrial Perimeter Road Feasibility Study recommended a basic route for the Perimeter Road from Burlington Street to Highway 403, and following Regional Council endorsement of the basic route in 1978, property acquisition proceeded anew. From the mid-1980's to the present day, property acquisition has essentially been on a hardship case basis only.

The Hamilton Perimeter Road was studied quite intensively during the period 1987-1990. Options developed at that time included a shoreline option incorporating some property from CN and some property on fill, with creation of shoreline supportive of fish habitat. Embayments, selective filling, and small island creation were all proposed in conjunction with that option at the time. The shoreline option would now require relocation of the Waterfront Trail, so is less likely to merit further consideration. Another option was located on the north slope between York Boulevard and the CN Mainline, requiring retaining wall structures both uphill and downhill of the roadway.

The option adopted by Council in 1990, in principle, (see Figure 11) included an initial four-lane (ultimate six-lane) Burlington Street with centre median or turning lanes between Sherman Avenue and Victoria Avenue, an interchange with a combined Victoria/Wellington, a four-lane controlled access roadway at track level along the north side of the North-Northwest Spur, grade separations with roadways that already cross the CN tracks, an interchange with Bay Street, a crossing to the south side of the Stuart Street Yard, through the former Route Canada property (now owned by the City of Hamilton), under York Boulevard in a cut-and-cover tunnel, to a new interchange with Highway 403 south of the Desjardins Canal. Although the Ministry of Transportation was circulated as a commenting agency, no formal position was ever received from the MTO with respect to support or concerns with a new interchange between the High Level Bridge and the King Street Interchange on Highway 403.

In the period 1980 – 1983, major improvements were constructed for Burlington Street and Industrial Drive in Northeast Hamilton, significantly increasing the capacity

of Burlington/Industrial between the major employment centres in the bayfront area and the QEW. Completion of these works coincided with accelerated reductions in the workforce in the major employment centres such as Stelco and Dofasco, and the capacity of the Burlington/Industrial connection greatly exceeds the volumes now using the roadways.

The purpose of the Hamilton Perimeter Road project, as set out in the latest draft environmental assessment documentation from 1990, was to: address existing problems of truck traffic on downtown streets, through traffic on downtown streets, and through traffic on residential streets; alleviate future problems of congestion; and, support policies of encouraging economic development and enhancing the urban environment.

The Regional Transportation Review (1996) concluded that the Perimeter Road connecting to Hwy 403 was not justified within the planning horizon (2020), but that a first phase from Wellington/Victoria to Bay or Queen, at an estimated cost of $50 million, should be considered further to divert truck and through traffic around the downtown.

The Downtown Transportation Master Plan (2001) concluded that construction of a first phase of the Perimeter Road to Bay Street would change travel patterns in the downtown, with reductions in traffic on some streets and increases on others. Overall, total trips in the downtown study area were projected to decrease by only one percent. The Plan recommended that a first phase of the Perimeter Road not be considered further, as it would simply redistribute traffic from east-west streets (York and Cannon) to north-south streets (Bay and Queen), with very little overall benefit.

The current needs assessment is proceeding at a time when many things have changed since the heyday of the Bayfront industrial complex in the 1970's, and even since 1990, when Regional Council last looked at the Hamilton Perimeter Road as a whole. Demand for a Perimeter Road has not been growing because employment in the Bayfront Industrial Area has dropped substantially in the last two decades, and employment in general in Hamilton has not been growing in relation to residential development. Concepts for the Perimeter Road were developed at a time when the water lots (Piers 1-2) and Piers 5-8 were under the jurisdiction of the Hamilton Harbour Commission, and were considered available for continued or future shipping and navigation uses. With transfer of ownership of those piers to the City of Hamilton, and renewed interest in partnerships between the City and the new Hamilton Port Authority, the industrial focus has shifted easterly. Hamilton City Council has committed to building the Red Hill Creek Expressway, and the completion date is expected to be 2007. The Perimeter Road has been over 40 years in the making, and project costs of approximately 350 million dollars continue to generate debate at the municipal Council in terms of affordability and financing plans.

Other transportation projects or initiatives that may impact on the needs assessment for the Hamilton Perimeter Road include the completion of Highway 6 New, linking Highway 403 to the Hamilton airport and existing Highway 6 southwest of the airport. This new highway will initially be a two-lane controlled access facility with signalized intersections or grade separations with intersecting roads, and will substantially improve highway access to the airport. Another project in the very initial phases is the Mid-Peninsula Freeway, proposed to link the US border at Fort Erie/Buffalo with the GTA, providing an alternate route to the QEW corridor. While these projects do not have a direct bearing on the need for a Hamilton Perimeter Road, they may affect desire lines and distribution of traffic, and in particular, truck traffic.

The Hamilton Perimeter Road may be simple in concept, that being to provide a connection between Burlington Street/Industrial Drive and Highway 403, but the challenges in developing that concept into a workable, practical, and affordable design may well be insurmountable. The costs, environmental impacts, and tradeoffs in comparison to other alternatives may well result in the conclusion that the Hamilton Perimeter Road cannot be justified.

Key Challenges and Opportunities

The table below summarizes the key transportation-related challenges and opportunities:

TRANSPORTATION	
Challenges	**Opportunities**
• There are no major roadways within the study area • Traffic volumes have either stayed the same or declined on the non-local roads in the study area	• A street hierarchy for the non-local street system could be defined • Additional changes to on-street regulations or streetscaping to take advantage of excess capacity could be considered
• Parking regulations are in place to balance mobility needs with the parking and loading needs of abutting properties • There is little public off-street parking except at Bayfront Park • Major events such as Aquafest put a significant strain on parking and access	• Improved transit connections between the Downtown and the waterfront could reduce parking demand • On-street regulations that support and enhance abutting properties could be made more permanent through streetscaping improvements

TRANSPORTATION	
Challenges	**Opportunities**
• Trucks travel in significant numbers on Wellington/Victoria, Cannon/Wilson, and York Boulevard • Trucks do not need to enter the study area except for local deliveries and pick-ups	• Modifications to operating characteristics such as signal timing, progression, corner radii, and quality of paved surfaces could mitigate impacts of truck traffic • Streetscaping could reinforce that trucks are not welcome in some areas
• Traffic approaching Hwy 403 from the east can use the York Boulevard interchange for Toronto-bound trips, but must use the King Street interchange for Brantford-bound trips • Demand for a Hamilton Perimeter Road has not been growing because employment in the Bayfront Area has dropped • Burlington Street/Industrial Drive has excess capacity to the QEW	• Completion of the Red Hill Creek Expressway will provide another alternative for traffic destined to Hwy 403 west, Hwy 6 south, and former Hwy 56 south
• Estimated costs for the Hamilton Perimeter Road are approximately $350 million • A first phase as far as Bay or Hess/Queen would cost approximately $50 million and would have little benefit	• Less costly alternatives to the Perimeter Road may provide many of the benefits with few of the drawbacks
• Trails and walkways are discontinuous within the study area	• A continuous waterfront trail is feasible, and sidewalks may be enhanced through a combination of streetscaping and revised on-street regulations

3.5 Public Transit

Public transit services are well established within the West Harbour study area. The current bus routes within the area are shown in Figure 12 and are described below:

4 BAYFRONT Route

This route is central to the study area, operating in both directions along Burlington Street and James Street as far south as Murray Street. South of Murray, the route operates southbound along James into the downtown area and operates northbound along McNab Street and Murray to James from the Downtown area. The split in routing on McNab and James has been in place for well over 15 years and is due to the one-way traffic operations on those two streets.

The 4 BAYFRONT route is an extended route that provides transit service between the downtown area, the study area, the industrial areas along Burlington Street east to Parkdale Avenue and the east end residential areas on the east side of the Red Hill Creek valley. It also provides connections to a number of other bus routes in the downtown area and the east end of the City. The frequency of service on this route is summarized in the following Table.

	Weekdays	Saturdays	Sundays & Holidays
Peak Period	15 minutes	20 minutes	30 minutes
Mid-Day	20 minutes	20 minutes	30 minutes
Evening	20 minutes	30 minutes	30 minutes

2 BARTON Route

The 2 BARTON route provides service in the southwestern segment of the study area, operating in both directions along Barton Street, east of Hughson Street. Service to the downtown operates southbound along James and service from the downtown operates northbound along Hughson.

This route is a main route in the overall HSR network, connecting downtown Hamilton with the various activities along Barton Street east to the Bell Manor loop near Grays Road. It has established transfer connections with other HSR routes in the downtown and the east end of Hamilton. The route has relatively high ridership and the current routing has been well established for many years. The current service frequency on this route is as follows:

	Weekdays	Saturdays	Sundays & Holidays
Peak Period	7.5 minutes	10/7.5 minutes	30/15 minutes
Mid-Day	7.5 minutes	7.5 minutes	15 minutes
Evening	15 minutes	15 minutes	30 minutes

8 YORK Route

The 8 YORK bus route provides service along the southwest periphery of the study area. It provides service outbound from the downtown along Cannon Street and York Boulevard to Dundurn Street and inbound to the downtown along York.

This service is primarily a local feeder bus service providing service between the residential areas along York Blvd with the downtown area. The service frequency on this route is as follows:

	Weekdays	Saturdays	Sundays & Holidays
Peak Period	15 minutes	30 minutes	30 minutes
Mid-Day	30 minutes	30 minutes	30 minutes
Evening	30 minutes	30 minutes	30 minutes

Gore-to-Shore Shuttle

The "Gore-to-Shore" shuttle is a special service initiated by HSR in the summer of 2002. The route operated northbound on McNab Street, westbound on Strachan Street, southbound on Bay Street, eastbound on Barton Street and southbound on James Street within the study area. The route also provided coverage within the downtown area and the residential neighbourhood south of the downtown area. The route was operated from late June 2002 through to early September 2002. The intent of the service was to provide convenient shuttle service within the downtown area and between the downtown and Bayfront Park.

A small low floor bus was used on this route. The service operated every 30 minutes during the following time periods:

- Monday to Thursday from 11:00 AM to 6:00 PM
- Fridays from 11:00 AM to 10:00 PM
- Saturdays from 8:00 AM to 11:00 PM
- Sundays and Holidays from 11:00 AM to 6:00 PM

The hours provided travel during weekday lunch hour and after work time periods for downtown employees. Service was also provided through weekday afternoons for shoppers and downtown visitors. The Friday and Saturday service hours accommodated downtown shoppers and visitors as well as evening entertainment patrons. The Sunday service hours were designed for family travel during the day.

In addition to the foregoing transit services within the study area, there are several special bus services operating along York Boulevard. These include:

- 9 Rock Garden route providing summer weekend bus service to the Royal Botannical Gardens and cemetery area.
- Burlington Transit Fairview route operating between downtown Hamilton and Burlington. This route does not provide local service within Hamilton.

Accessible Transportation Services

The City of Hamilton provides Accessible Transportation Services (ATS) for persons unable to use the conventional public transit service due to a disability. Persons needing this service are required to register first with the ATS Office. They are then able to pre-book door-to-door wheelchair accessible transit service. The conventional bus routes noted above all have wheelchair accessible low floor buses in operation on these routes.

Challenges and Opportunities

The following challenges are noted regarding the current public transit services:

- The HSR service goal is to provide bus service within 400 metres of all development within the City. Almost the entire study area is within 400 metres of the existing bus services. The exceptions are:
  - The area east of Mary Street between Ferrie Street and Simcoe Street.
  - The outer extremities of Pier 8 and Pier 10
  - The area generally west of Caroline Street and north of Barton Street.

  At the present time most of the areas beyond 400 metres from a bus routes have non-residential land uses that do not have a need for public transit service.
- The public recreational areas on the waterfront (e.g., Bayfront Park, Pier 4 Park) are not well served by the established year round transit services. The provision of the "Gore-to-Shore" shuttle service during the summer of 2002 responded to this need for a short duration of about 10 weeks. However, these areas are not being well served during the balance of the year.
- The transit services within the study area have been established for many years on the current routes. Changes to these routes will be disruptive to existing customers and it will also be disruptive for residents living on possible new routes. This will limit the flexibility in changes to established bus routes to expand the areas of service coverage.
- Under current City budget restrictions and the lack of other sources of funding for public transit service, there is very little flexibility in the short term to improve transit services.

Opportunities:

- The "Gore-to-Shore" shuttle is a new service that has only operated for the 2002 summer season. This service has much more flexibility for expansion or modification to serve other new development along the waterfront in future. It could also be expanded beyond the 10-week summer period to accommodate transit travel between the harbour and the downtown at other times of the year.
- In the longer term, depending on the nature of future development on the waterfront, there may be an opportunity for the shuttle to be replaced with a dedicated year-round transit service between the harbour and Downtown, catering to residents and visitors.

- Plans for new development in the area and for new pedestrian trail facilities can be developed to provide direct access to established transit routes and bus stops. Higher density development in close proximity to established transit service and pedestrian facilities well integrated with bus stops is a proven strategy to increase public transit ridership.

A summary of the key challenges and opportunities related to public transit services in the West Harbour study area is provided in the following table.

PUBLIC TRANSIT	
Challenges	**Opportunities**
• A few areas are beyond the desired maximum walking distance from existing bus routes, including some waterfront areas.	• The "Gore to Shore" shuttle route could be extended to serve larger area of the waterfront and have expanded service hours and season.
• The 2 Barton, 4 Bayfront and 8 York routes are well established and cannot be readily changed without impacting the broader transit service network.	• Plans for new development in the West Harbour study area can have an increased focus on public transit service with development located closer to existing bus routes, pedestrian routes connecting to bus stops and similar land use friendly urban development.
• Public transit budget constraints limit the City's flexibility to expand or improve services.	• Public transit service improvements can be phased in as ridership develops. • Opportunities for private development to support public transit service improvements may be explored.

3.6 Servicing Infrastructure

Water Distribution Infrastructure

The study area lies within the water pressure districts H1 and H2 of the City of Hamilton water supply system. The existing watermains are shown in Figure 13.

In discussions with staff at the City of Hamilton, it was noted that there are no operational problems with the existing water distribution system in the study area. Any proposed development in the study area will have negligible impact on the existing system given the large heavy industrial and commercial uses in the H1 and H2 water pressure districts. Any proposed development (e.g., on Pier 8) will require some minor extension of the water distribution system.

Sanitary Sewer Servicing

The study area is currently being serviced by means of combined sewers. These sewers carry both sanitary wastewater flow and stormwater flow. The existing combined sewer system is shown in Figure 14.

City staff have stated that there are currently no operational problems with the sewer system in the study area. Given that the combined sewers have been sized to accommodate sanitary and stormwater flow, the existing system will thus have more than sufficient capacity under dry-weather flow conditions (i.e. sanitary flow only) to accommodate any proposed development in the study area.

Any proposed development will require some minor extension of the sewer system to accommodate the development. The areas proposed for development near the water's edge might require the sanitary flow to be pumped up into the existing sewer system. This will have to be reviewed on a project-by-project basis.

Storm Sewer Servicing

As previously stated, the study area is currently being serviced by means of combined sewers. During periods of wet weather, the stormwater is carried by means of the combined sewers to the Woodward Ave. Wastewater Treatment Plant (WWTP). When the capacity of the combined sewers is exceeded during large storm events, the additional flow is diverted to the existing Combined Sewer Overflow (CSO) tanks located in the study area. The location of these tanks is shown on the attached sewer drawing. This wastewater is then pumped to the WWTP when the plant has sufficient operating capacity.

City staff have indicated that there are no operational problems with the existing combined sewer system since the addition of the three CSO's. Given the large size of

the study area as well as its level of development, staff do not foresee the combined sewer system ever being totally separated.

For any redevelopment of land within the study area, the existing combined sewer system will thus have sufficient capacity.

For any new development near the water's edge, the stormwater will not be directed into the combined sewer system but shall instead be directed directly into the harbour. Quantity control of the stormwater shall not be required given the existing high level of imperviousness. Quality control of the stormwater, however, shall be required. Such quality control shall be site specific. Any new development shall be required to provide quality control to the requirements of the Hamilton Harbour Remedial Action Plan and as per the Stormwater Management Practices Planning and Design Manual, Ministry of the Environment and Energy, 1994.

Conclusion

As confirmed by the City of Hamilton, the existing combined sanitary/storm sewer system and the water distribution system each have sufficient capacity to accommodate any anticipated redevelopment of lands within the West Harbour study area. Exceptions would include any development scenarios that would produce large point loading of either wastewater or water consumption requirements. Such development alternatives, e.g., a stadium complex, would require further investigation and analysis.

Within the next phase of the West Harbour Planning Study, redevelopment alternatives and strategies will be examined for the lands within the study area. Assessment of the impacts on the municipal infrastructure each of the redevelopment alternatives and strategies considered will be undertaken.

3.7 Environmental Concerns

As part of the West Harbour Study, in recognition of the potential environmental constraints posed by historical and present industrial activity, Stantec completed an environmental review of three parcels of land located within the study area that have experienced significant industrial activity. Parcel 1 was situated in the Barton Street West and Tiffany Street area, Parcel 2 was situated from Piers 5 to 9 at the northern limit of the study area, and Parcel 3 was situated in the Barton Street East and Ferguson Avenue North area.

The objective of the environmental review was to provide input to the larger West Harbour study on the implications of existing environmental conditions for future land redevelopment. This was completed following the general format of a Phase I environmental site assessment (ESA), which included a historical review and Site reconnaissance visit.

Historical information regarding the Site was available from a variety of sources, including: a historical review prepared for City of Hamilton; insurance plans dating from the late 1800s to the 1960s; historical maps and atlases for the City of Hamilton; aerial photographs from 1954 to 1978; Hamilton city directory listings from the late 1800s to 1997; and several government and private environmental databases. Site reconnaissance documented current observed conditions at each property within the Site parcels. The historical and current data were compiled, and potential environmental concerns associated with a variety of land uses were identified.

The three main parcels each contain numerous properties with different land use histories. Accordingly, each parcel was subdivided into smaller sections for the purposes of describing the land use history and significant features of each property. Each section was reviewed to assess the likelihood that soil or groundwater could be impacted by common parameters of environmental concern, including metals, petroleum hydrocarbons, polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs) such as solvents, and semi-volatile organic compounds (SVOCs). The environmental concerns that were identified in the Site area are summarized below. The parcel section subdivisions and potential historical and current environmental concerns are illustrated in Figures E.1 to E.3.

Much of the study area, especially within Parcels 1 and 2 near the harbour, was filled with lakefill or other materials from the 1800s to mid-1900s, to provide suitable land surface for development, and to reclaim land from the harbour. The quality of the fill is not known and may represent an environmental concern throughout much of the study area. The railway yard fill and ballast quality is of particular concern within Parcel 1.

Although some land use within the parcels is residential, many current and historical commercial and industrial properties exist. Industries that were identified include: steel making; metal working; railway operations; machinery manufacturing; automotive fuelling, maintenance and repair; auto wrecking; warehousing; boat manufacturing, maintenance and repair; glass making; naval training base; paper products; municipal servicing, storage and road maintenance; and coal tar distillation.

The age of several of the above-listed industries dates from the early 1800s, when coal was the dominant heating and industrial fuel. Accordingly, several locations within the parcels were identified to be coal storage areas. Coal storage may have resulted in impacts to the quality of the underlying soil with respect to metals and PAH.

Emissions from the numerous steel industries in the area are likely to have deposited metals to the surficial soils within all three parcels, and this represents a potential environmental concern for the entire study area.

Building materials, although their assessment was outside the scope of work for this review, might include asbestos, lead paint or other designated substances, because of the age of the buildings. A designated substances survey should be conducted prior to the demolition of any existing buildings as part of redevelopment activities.

Specific items of environmental concern within the industrial properties at the three parcels include:

- Above ground and underground fuel storage tanks;
- Use, storage and waste generation of oils, solvents and other chemicals;
- Transformers with unknown PCB content;
- PCB storage and use;
- Release of vehicle fluids or fuel from automotive repair facilities, scrap yards or parking areas; and
- Metal or other material storage that may impact soil quality.

The following sections within Parcels 1 to 3 were interpreted to have a high potential impact with respect to three or more soil or groundwater parameters (as shown on Figures E.1 and E.3), and are therefore considered to be of greatest potential environmental concern:

- Parcel 1, Section 1 – lands west of Queen Street North and North of Barton Street West. The areas of most concern within this section are the former foundry properties, roundhouse and current cargo facilities located south of the main railway line. Diesel fuelling facilities and former coal storage areas in the western part of this section are also of environmental concern. The northern portion of this section might be less impacted than the above areas.

- Parcel 1, Section 5 – lands east of Hess Street North and south of Stuart Street. The areas of most concern within this section are the northern part that was used as a foundry, a metal recycling facility and a scrap yard, and the southwestern corner of the section that was used for auto repair and is currently a gasoline service station.
- Parcel 1, Section 6 – lands east of Caroline Street North and south of Barton Street West. This entire section is occupied by Rheem Canada, and has been involved in steel production and metal manufacturing for several decades.
- Parcel 1, Section 7 – lands east of Caroline Street North and south of Barton Street West. The portions of this section considered to be of most concern are the north-central part that has been used as a city works facility and part of the adjacent metal manufacturing facility, and a former coal tar distillation facility located in the southern part of the section.
- Parcel 3, Section 1 – lands east of Ferguson Avenue North and north of Barton Street East. Of most environmental concern in this area is the northern section that was formerly occupied by the Steel Co. of Canada. A former asphalt plant in the northwestern portion of the section is also of concern, as is the auto service and repair facility in the southeastern part of the section.
- Parcel 3, Section 2 – lands east of Ferguson Avenue North and south of Barton Street East. The portion of this section considered to be of most environmental concern is the southern area used for scrap metal and drum storage, and the adjacent paper products facility. Former coal storage areas and the presence of unidentified pipes in the northwestern part of the section indicated that this area is also of environmental concern.

The following sections were interpreted to have a high potential impact with respect to two soil or groundwater parameters, and a low potential impact with respect to the remaining four parameters (refer to Figures E.1 and E.2). They are therefore considered to be significant environmental concerns, in addition to the above sections:

- Parcel 1, Section 2 – rail yard lands east of Queen Street North. The portion of this section located south of the main tracks and west of the former station is considered most significant, because of the presence of materials storage and railway maintenance and storage areas in this part of the section.
- Parcel 1, Section 3 – lands east of Queen Street North and south of Stuart Street. This entire section is considered to be a significant environmental concern, because of the former steel foundry and materials storage areas that formerly occupied this section.
- Parcel 2, Section 4 – Pier 9. This section has been occupied by a DND naval facility since the 1940s, and is an environmental concern because of the features and substances indicated to be present at the DND facility. The most significant areas of the section are believed to be near the buildings and in the southern portion of the section, where transformers and a former incinerator were located.

The remaining parcels were interpreted to have two or fewer parameters with a high potential impact, and between two and four parameters with a low potential impact. These areas are of environmental concern; however, they are less significant from an environmental standpoint than the sections described above.

The environmental concerns have significant implications for redevelopment. It is expected that active soil remediation would be required to allow redevelopment of many of the properties for residential, parkland or commercial land uses. Groundwater remediation may also be required, if impacts extend below the water table. Where possible, the management strategy for impacted soil or groundwater could include a risk assessment component to develop site-specific clean up levels.

Several government initiatives exist or are under development to facilitate the redevelopment of historical industrial sites, such as those identified within much of the parcel areas, into useable urban space. These may prove to be of assistance in the planning stage of the redevelopment of the lands within Parcels 1 to 3 of the study area.

4. Common Themes

This section summarizes the common themes that emerged from the Setting Sail Visioning Workshop held October 3, 2002. The workshop gathered together a large and diverse group of stakeholders to begin creating a vision for the West Harbour Planning Area. The goals of the workshop were to identify the opportunities for change in the area and build consensus around a set of principles and values that should guide development of land use and transportation master plans for the area. A complete summary report on the workshop is available at the city's web site, www.hamilton.ca.

The common themes below, together with the findings in Section 3, provide the basis for the preliminary evaluation criteria outlined in Section 5, which will be reviewed and refined during the next phase of the Setting Sail study.

1. Protect and enhance the neighbourhoods while accommodating growth and change

The workshop participants acknowledged there is opportunity for significant change in the study area, particularly along the waterfront. There is a strong desire to see new development on abandoned, vacant and under-utilized land in the area. Nevertheless, there was unanimous opinion that new development on the waterfront should respect the scale and character of existing stable residential areas. And many participants felt strongly that no further land expropriation should occur.

New development generally should be in keeping with the neighbourhoods, i.e., not overly large in scale or excessive in height. There is a strong desire for new development to occur incrementally, guided by a holistic vision of the waterfront. Big projects and quick fixes should be resisted.

While respecting the existing character of the West Harbour area, future changes should also enhance the neighbourhoods. Existing commercial areas should be supported, and new retail and restaurant amenities should be added where appropriate. New development should contribute to enhancements of the area's open space system. Newly-created public places should be meaningful to the community.

2. Ensure continuous public access to the water's edge

An often-heard comment at the workshop was that the entirety of the water's edge should be publicly accessible. Although private development may be appropriate in certain locations on the waterfront, notably on Pier 8, it should not prevent the general public from pursuing one or more of a range of activities at the water's edge, including sitting, strolling, picnicking, cycling or rollerblading. The notion of

accessibility also applies to recreational boaters—wherever possible along the waterfront, boaters should be able to tie-up or moor their craft.

3. Animate the waterfront with a mix and balance of "waterfront-appropriate" land uses

Participants expressed support for a diversity of land uses along the waterfront, including open space, commercial, residential, entertainment and cultural uses, that together would animate the waterfront throughout the day, week and year. They feel there should be a balance of uses across the waterfront, with more passive, softer, greener uses located toward the west and more active, built uses located toward the east, notably on Pier 8.

The waterfront should contain a blend of uses unique within the city to create a special sense of place and a distinct attraction. Land uses should complement but definitely not compete with those Downtown. Above all, community representatives felt the uses on the waterfront must have a clear and positive relationship to the water; land uses that could be located elsewhere in the city should not be located here.

4. Enhance connections and reduce barriers within West Harbour and between it and Downtown

There is wide recognition of the need and opportunities to strengthen connections to and within the study area. The grid of streets in the area provides a fair degree of connectivity but significant barriers remain, notably the steep slope below Dundurn Park, the rail yard and the main rail line, which together effectively divide the study area. There are other major barriers that need to be addressed, including the parking and storage lots east of Pier 4, the busy section of Barton Street, and the large industrial and institutional sites within the area.

Enhancing connectivity means improving transportation connections—streets, trails and transit—but it also means preserving and strengthening visual and ecological connections. Key views and vistas of the waterfront should be preserved and reinforced, and green linkages should be added and enhanced within the open space system. On the transportation side, a continuous waterfront trail as close to the water's edge as possible is a key objective. And where feasible, the existing fine-grain grid of streets and blocks should be extended.

Besides improved east-west trail connections, there is also strong support for enhanced north-south connections to Downtown through such measures as enhanced streetscapes, signage, bicycle facilities and public transit. Improved connectivity to the Downtown can also be achieved with the development of land uses that complement but do not compete with Downtown land uses. Workshop participants felt that convenient connections to the parking infrastructure Downtown could mitigate traffic impacts from existing and new destinations on the waterfront.

5. Achieve compatible land use and built form

While it is widely acknowledged that the study area has historically and always will contain a wide range of land uses, there is a common desire for a high degree of land use and built form compatibility, which has not been achieved everywhere. The close proximity of heavy industrial uses to residential areas south of the rail yard and between automobile-oriented commercial uses and housing in the Beasley neighbourhood are not conducive to the strengthening of neighbourhoods. Similarly, the odd juxtaposition between the existing high-rise residential buildings on the waterfront and the adjacent low-scale housing should not be repeated.

Workshop participants felt strongly that, over time, existing industrial and other uses that detract from the area's quality of life should be encouraged to re-locate to more appropriate parts of the city. Existing and future brownfield sites should be cleaned up, capped or sealed, depending on the extent and type of contamination and their desired use, both to improve the area's overall environmental health and to pave the way for more compatible land uses. The industrial lands south of the rail yard and the rail yard itself, in the event it is ever relocated or becomes surplus, should ideally be converted to residential uses. Participants recognized that small-scale, light industrial uses may be appropriate on some sites and may be more achievable given soil conditions. New residential, employment and public uses, whether on the waterfront, on brownfield sites or as infill, should fit within and enhance the existing neighbourhood fabric.

6. Improve access significantly for all modes of transportation

Although traffic is not perceived to be a major problem in the study area generally, it is widely felt that existing traffic could be better managed, particularly during special waterfront events, and that with future development on the waterfront traffic management will be a critical issue. A common concern is that an influx of peak vehicular traffic in the West Harbour neighbourhoods could be detrimental to their character and quality of life. Therefore, future waterfront development should be dependent on a balanced transportation system, in which public transit, cycling, walking, and potentially ferries and water taxis have a significant role. To further mitigate the impacts of traffic, local streets should be clearly delineated from higher-order streets with the capacity to accommodate vehicles traveling to the waterfront and through the area.

The question of whether or not the previously proposed Perimeter Road should become part of the area's transportation system in the future was discussed during the workshop's small-group sessions. Although most participants felt the Perimeter Road was an idea from the past that had little merit in the current context, there were a few who view such a road as a needed truck route that by-passes Downtown. Those who oppose the Perimeter Road question whether it is affordable or physically feasible,

given the available land and grade changes at the western end of the study area. They also wonder if there is not a better use for the lands that have been reserved for the road and worry about its impacts as yet another barrier in the neighbourhoods.

7. Respect, reflect and interpret the city's heritage

Hamiltonians are proud of their city's industrial, marine and cultural heritage, and the study area, which was home to the city's original port and early industries, has a rich history. Those at the workshop felt strongly that this heritage should be reflected in the changes that occur on the waterfront. This can happen in a number of ways: by preserving and protecting historic waterfront uses; through the adaptive re-use of historic structures; by ensuring new buildings respect the architectural heritage of the area; with facilities and interpretive sites that educate the public about the city's waterfront heritage.

8. Demand excellence in the design of buildings, open spaces, streets and trails

According to the workshop participants, whatever new developments occur and new public spaces are created in the West Harbour area, their design must be of the highest quality. There is a recognition that the West Harbour waterfront is a district that has special significance for the city as a whole, and therefore should contain beautiful, inspiring, meaningful and memorable places. Both private developments and public improvements must contribute to achieving this objective. Waterfront projects, both public and private, should go through a rigorous process of design review, and design competitions should be held for key sites and open spaces. Over time, the City must ensure the public realm—the area's parks, squares, streets, trails and public buildings—is designed, up-graded and maintained to the highest standards.

9. Make the waterfront a year-round destination

There is a strong desire for the West Harbour waterfront to be a year-round destination. Parks and open spaces should be designed and programmed for winter use. A mix of uses along the waterfront, with some commercial and cultural uses at the water's edge, were seen as supportive of year-round activity. The idea of an outdoor skating rink on a portion of Pier 8 was supported by many in the workshop.

10. Support and encourage a diversity of marine activity

Everyone at the workshop agreed that a waterfront without boats, a variety of them and lots of them, was not much of a waterfront. A strong presence of marinas, boat clubs and sailing schools is therefore widely supported. In addition to pleasure boating, there is a desire for more commercial marine activity, including water taxis, ferry boats and excursion vessels. Future development and facilities on the waterfront should support and encourage such activity.

5. Preliminary Evaluation Criteria

Outlined below are preliminary evaluation criteria intended to guide the principal tasks in Phase 2 of the study—the development of alternative solutions and the selection of a preferred solution. They have been published in this report for discussion purposes; the intent is to refine the criteria based on community input and feedback. The criteria are grouped under three broad headings, which represent the categories of "environments" an Environmental Assessment Process is required to consider.

Natural:

Aquatic and terrestrial habitats
- Impacts on existing aquatic and terrestrial habitats
- Habitat enhancements

Shoreline modification
- Requirement(s) for and impacts of potential modifications to the existing shoreline

Soil quality
- Impacts on soil quality
- Ability to improve soil quality

Air quality
- Impacts on air quality
- Ability to improve air quality

Water quality
- Impacts on water quality
- Ability to improve water quality

Social:

Access to the water's edge
- Ability to maximize public access to the water's edge (from land and water)

Land use compatibility and diversity
- Proposed land uses compatible with/complementary to adjacent uses and predominant uses in the surrounding area
- Ability to eliminate or mitigate existing land use incompatibilities
- Diversity of land uses, particularly on the waterfront

Built form compatibility
- Proposed built form compatible in height and scale with adjacent current and/or future development
- Ability to eliminate or mitigate existing built form incompatibilities

Year-round waterfront activity
- Provision of a range of uses to suit the needs and tastes of all age groups
- Creation of a destination that will draw visitors to the city
- Inclusion of development/attractions which sustain population/visitation during the winter months
- Provision of uses that draw local, city-wide and regional communities

Connectivity
- Contribution to linkages in the open space system
- Ability to extend existing trails and create new trails
- Access to existing open spaces and trails
- Improvement to transit, pedestrian and cycling connections between Downtown and the waterfront
- Preservation or enhancement of key views and vistas
- Ability to extend the existing grid of streets
- Reduction or mitigation of physical barriers to access

Marine activity
- Ability to accommodate a full range of recreational boating opportunities
- Recognition and celebration of Hamilton's commercial port

Heritage
- Incorporation and celebration of Hamilton's unique cultural, industrial, port and marine heritage

Modes of transportation
- Contribution to a more balanced multi-modal system of transportation

Traffic
- Level of on-street congestion
- Infiltration of traffic into neighbourhoods
- Impact on parking and loading
- Impact on truck routes

Safety
- Impact on pedestrian safety
- Impact on cycling safety
- Impact on vehicular safety

Land Acquisition
- Need for and impact of acquisition of privately-held land

Economic:

Financial cost and feasibility
- Cost and affordability to the City
- Cost and affordability to other levels of government
- Cost and marketability to the private sector
- General impact on the tax base
- Potential for revenue generation for the public sector

Land acquisition
- Requirement for land acquisition

Impact on the economy
- Impact on local businesses
- Impact on Downtown businesses
- Impact on the regional tourism industry
- Impact on the operations of the Port

6. Next Steps

In the next phase of the Setting Sail study, alternative land use and transportation solutions will be developed that seek to address the opportunities and challenges identified in this report. The preliminary evaluation criteria will be refined based on feedback from key stakeholders and the general public before being used to evaluate the alternative solutions. The alternatives will be presented at a public open house expected to take place in March 2003. A preferred solution will then be selected, which will become the basis for a land use, transportation and infrastructure master plan for the West Harbour Planning Area.

Appendix: Figures and Tables

Legend

STUDY AREA BOUNDARY

Hamilton West Harbour Planning Area Study

Fig. 1: Aerial Photograph

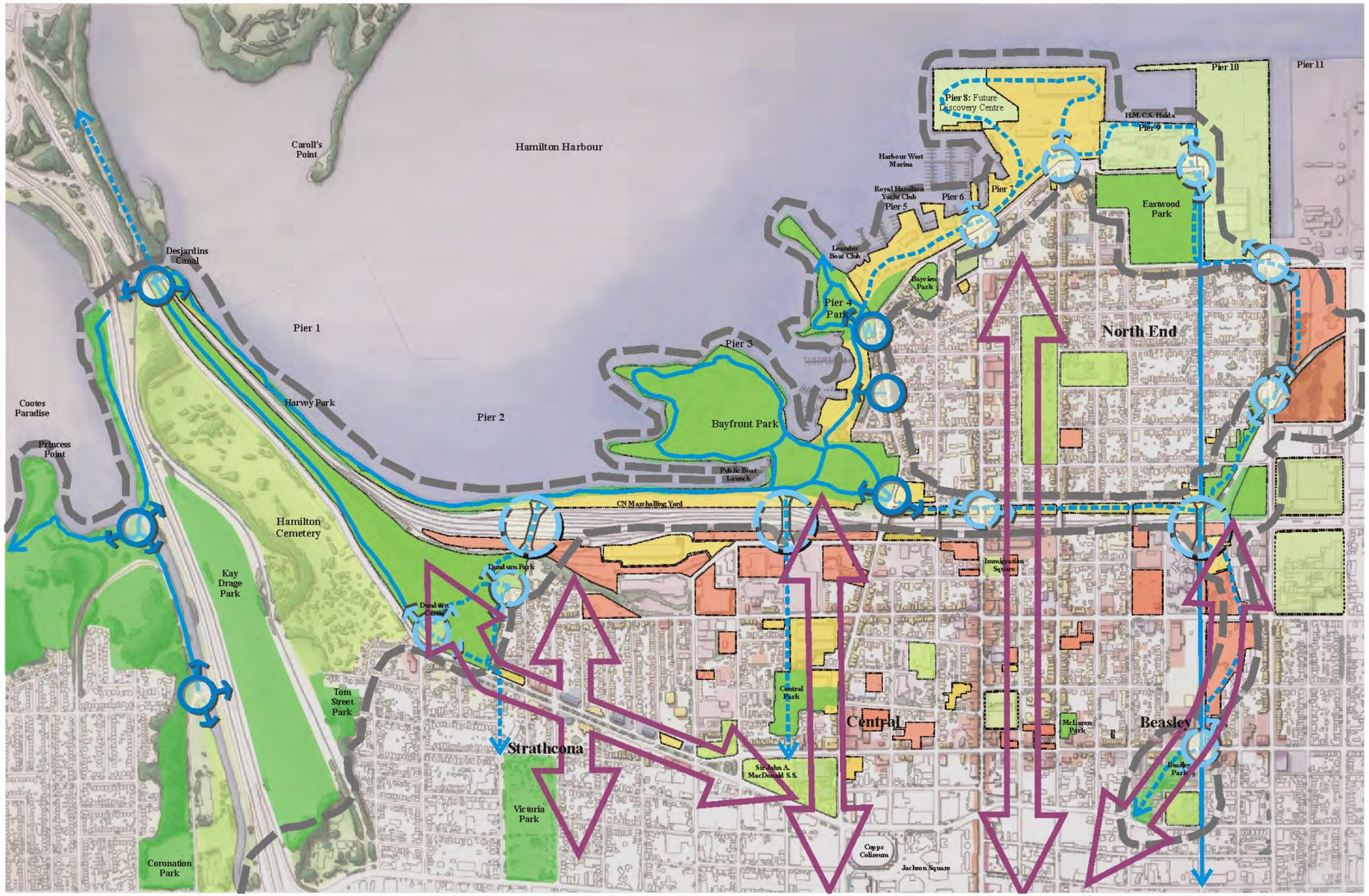
Not to scale

0 50m 100m 250m 500m

December 2002
Prepared for the City of Hamilton

Urban Strategies Inc.
Stantec Consulting
Paradigm Transportation Solutions Ltd.

setting sail



Legend

- EXISTING PUBLIC PARKS/OPEN SPACE
- CITY-OWNED PROPERTY
- OTHER PUBLICLY-OWNED PROPERTY
- OTHER OPPORTUNITY SITES
- EXISTING TRAIL
- POTENTIAL TRAIL
- EXISTING TRAIL HEAD CONNECTION
- POTENTIAL TRAIL HEAD CONNECTION
- POTENTIAL BRIDGE CONNECTION
- POTENTIAL TOTAL OPEN SPACE FRAMEWORK
- IMPROVED CONNECTIONS BETWEEN WATERFRONT AND DOWNTOWN

Hamilton West Harbour Planning Area Study

Fig. 2: Summary of Opportunities

Not to scale

0 50m 100m 250m 500m

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North

North

Hamilton West Harbour Planning Area Study

Fig. 3: Land Use Precincts

Not to scale

0 50m 100m 250m 500m

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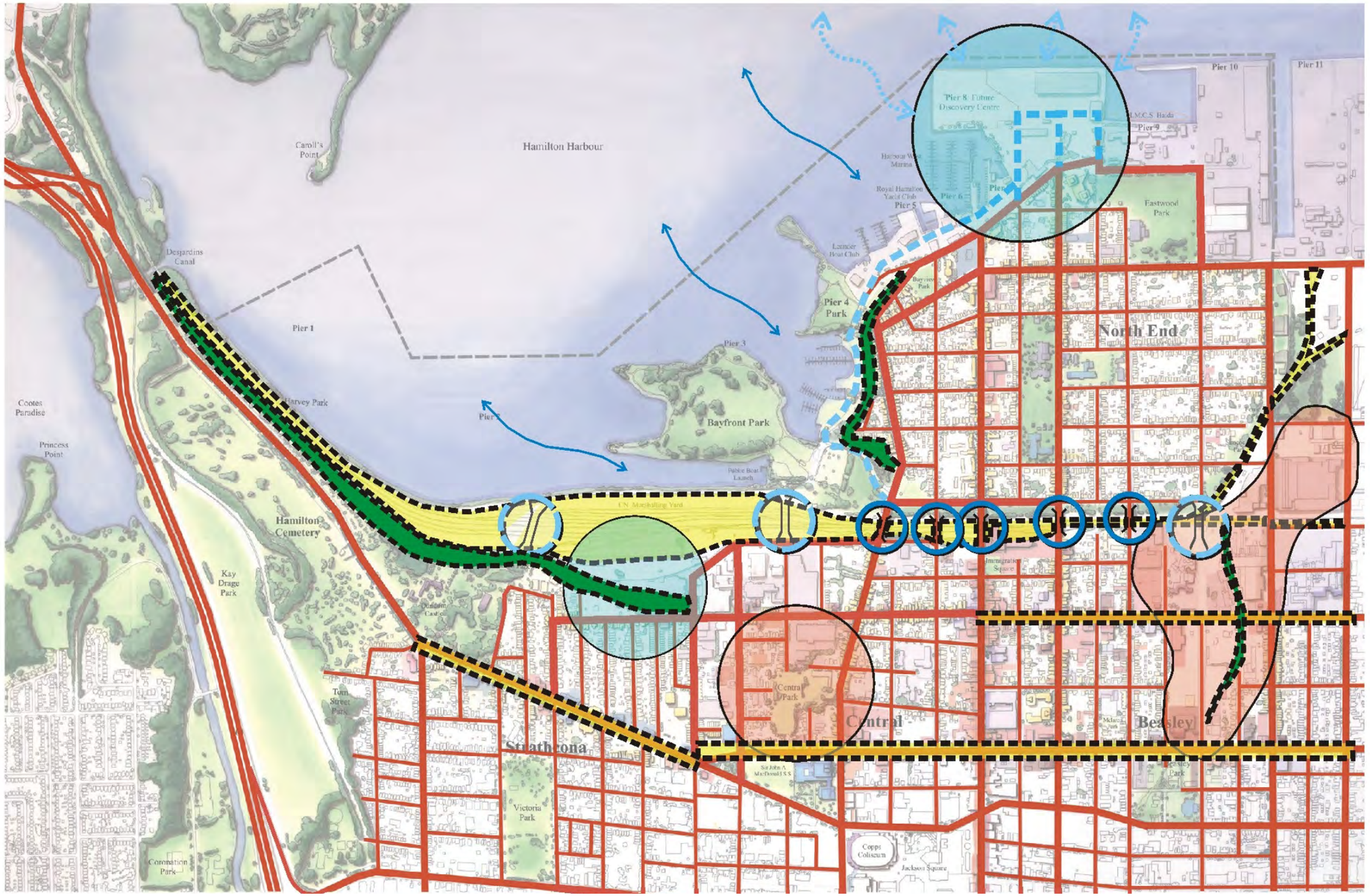

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- EXISTING MARINE ACCESS
- POTENTIAL MARINE ACCESS
- LOCAL STREET
- NON-LOCAL STREET
- AREAS OF DISCONTINUOUS GRID
- OPPORTUNITIES FOR GRID EXTENSIONS AND CONNECTIONS
- RAIL BARRIER
- TOPOGRAPHIC BARRIER
- ROAD BARRIER
- EXISTING CROSSING
- POTENTIAL FUTURE CROSSING
- POTENTIAL FUTURE CONNECTION

Hamilton West Harbour Planning Area Study

Fig. 7: Access and Barriers

Not to scale

0 50m 100m 250m 500m

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NON-LOCAL STREETS

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Fig. 8: Non-local Street System

Not to scale

0 50m 100m 250m 500m

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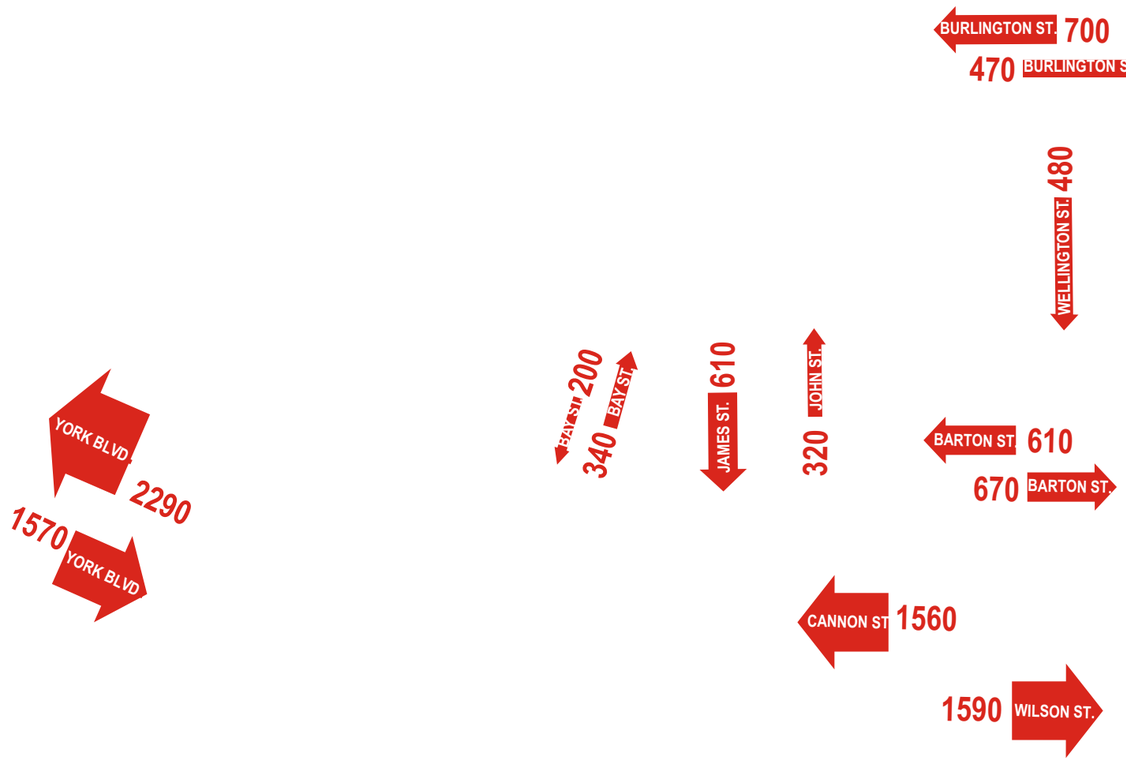

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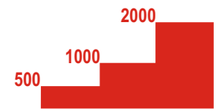
PM PEAK HOUR TOTAL
TRAFFIC VOLUMES



Hamilton West Harbour Planning Area Study

Fig. 9: Vehicular Traffic Volumes

Not to scale

0 50m 100m 250m 500m

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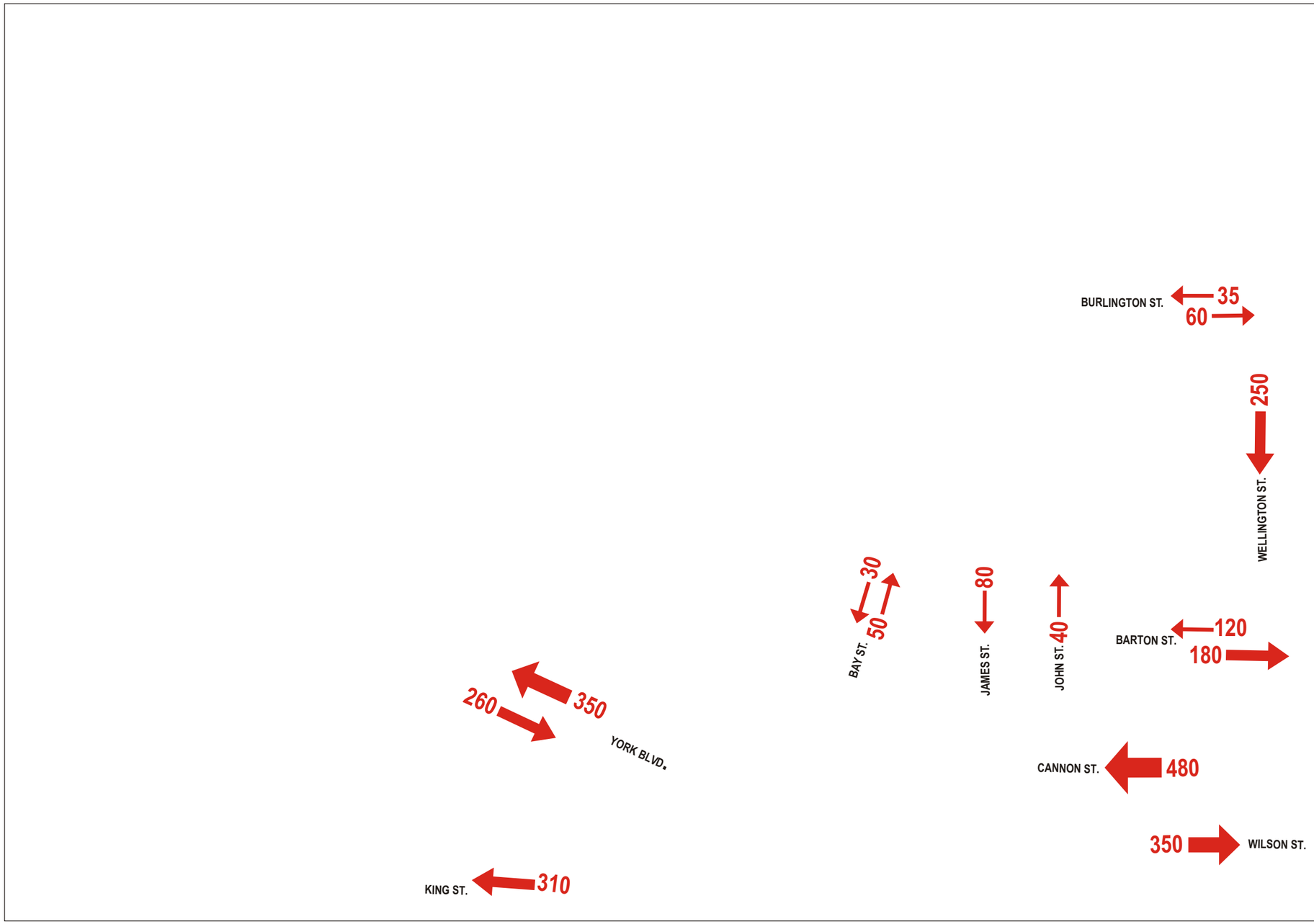

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7-HOUR TRUCK
TRAFFIC VOLUMES

1000
500

Hamilton West Harbour Planning Area Study

Fig. 10: 7-Hour Truck Traffic Volumes

Not to scale

0 50m 100m 250m 500m

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