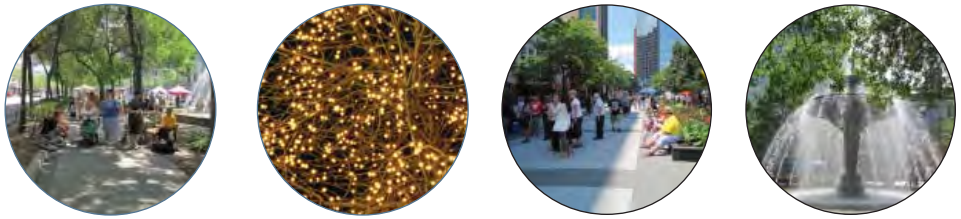

Gore Pedestrianization Initiative | Detailed Functional Plan

Prepared for the City of Hamilton
February 15, 2013

the mbtw group
In Collaboration with MJS Consulting and Aecom

Disclaimer

This Detailed Functional Plan has been prepared to confirm that the Preferred Concept Plan, approved in 2010, can be implemented, identifying conflicts, solutions, phasing and cost implications. The Functional Plan is not to be considered working drawings nor an exact representation of what will be built. It should be recognized that further refinement to the design may be required during the development of the working drawings, which is the next step in the implementation process.

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Introduction

1.0 Introduction

The MBTW Group was retained by the City of Hamilton in the Fall of 2011 to prepare the Detailed Functional Plan for the Gore Pedestrianization Initiative. The Functional Plan is based on the Preferred Conceptual Plan for the Gore Precinct that was prepared through 2008, 2009 and presented to the Public Works Committee January 2010 (FIGURE 01). The Functional Plan specifically assesses the feasibility of implementing the Conceptual Plan, identifies potential conflicts, risks and solutions and provides budgetary and phasing guidance for implementation. The Detailed Functional Plan is considered to be the precursor to construction working drawings, which will be undertaken in a separate process following the approval of this document. It should be recognized that further refinement to the site plan may be required during the development of the working drawings.

The Detailed Functional Plan:

- Confirms existing conditions such as underground servicing and above grade elements such as lighting, furnishings, trees, curbs, surfacing etc;
- Refines and adjusts the Preferred Concept Plan to 'fit' with confirmed existing conditions, mitigating conflicts where required;
- Addresses the functional requirements for vehicle access including turning radii, loading, parking and emergency circulation;
- Provides the 'best' technical dimensions and alignments for all components of pedestrian movement such as the Promenade, sidewalks and Urban Braille;
- Specifies the form, size, character and materiality of key design elements;
- Identifies known and potential conflicts and proposed solutions;
- Includes stakeholder input (see page 5)
- Confirms maintenance and operations requirements;
- Is consistent with the City of Hamilton park development standards and guidelines and conforms with Ontario Provincial Standards; and
- Includes recommendations on phasing, implementation, and costing.

Staff Stakeholder Input included the following City of Hamilton Departments:

- Tennessee Propedo, Acting Manager of Parks
- Ramona Maharaj, Senior Program Coordinator
- Terry Rinaldo, Supervisor (Parks North)
- Mike Field, Project Manager, Street Lighting
- Andrew Siguenia, Student, Street Lighting
- Khaldoon Ahmad, PED, Planning, Heritage & Urban Design
- Tami Sadonoja, Forestry & Horticulture
- Anne Winning, O&WM Support Services
- Andy McLaughlan, Transit (H.S.R.)
- Ed DeVries, PW OW&M
- Steve Barnhart, PW, ESI LAS Acting Manager
- Lawrence Stasiuk, PW, Landscape Architecture Services
- LeAnn Seely, PW, Landscape Architecture Services
- Leanne Cunliffe, PW, Traffic Engineering
- Gary Kirchknopf, PW, Traffic Engineering
- Darly Bender, PW, Transportation Planning
- Jaffar Hayat, Access & Equity
- Chris McCafferty, Senior Project Manager, Design

Public Stakeholder input was provided by:

- David Ricketts, Citizen, 3rd Great Grandson (DR)
- Michael Adkins, Chair, Heritage Permit Review Sub-Committee (MA)
- John Norris, Interested Citizen (JN)
- Steven Mahler, Hamilton Police Department (SM)
- Graham Crawford, Interested Citizen (GC)
- Alissa Denham-Robinson, Hamilton Municipal Heritage Committee (ADR)
- Kathy Drewitt, Downtown Hamilton BIA (KD)
- Claudio Palazzo, Interested Citizen (CP)
- Sylvia Cook, Monarchist League of Canada (SC)
- Susan Braithwaite, International Village BIA (SB)

Background documents and related reports referenced:

- City of Hamilton Barrier Free Design Guidelines, 2006
- Comprehensive Outdoor Lighting Study
- Gore Park Conditions Assessment, LAND Inc 2008
- Arborist Report for The Gore Master Plan Project, Urban Forest Innovations Inc., 2009
- City of Hamilton park development details and standards

The Vision Statement, Goals and Objectives developed during the evolution of the Preferred Concept Plan (FIGURE 02) were respected and maintained throughout the preparation of the Functional Plan. It is expected that these objectives continue to apply to the project throughout the next steps of the implementation process.

Please Note....

This document is intended to be reviewed in conjunction with the full sized Detailed Functional Plan Drawings.

FIGURE 01
Preferred Conceptual Plan for the Gore Precinct, 2010. Prepared by the MBTW Group.

The Gore Master Plan Project
Public Works Department, Open Space Development & Park Planning

Hamilton

VISION STATEMENT
The Gore is an urban oasis at the City's crossroads. People gather to share their heritage, participate in leisure and entertainment, and enjoy diverse shopping and dining. It is a cultural gem and a safe, inviting and accessible public destination where people meet before moving on, or stay to interact. "Meet me at the Gore" can be heard throughout the City as people make their daily plans.

GOAL
"In keeping with Hamilton's Downtown Secondary Plan, the goal of this project is to successfully address the current functional requirements of the Gore Area and to help The Gore take this next step in its continuing evolution, by finding a physical form that captures, reflects and celebrates the inherent essence of the space, and 'puts people first'."

OBJECTIVE #1	OBJECTIVE #2	OBJECTIVE #3	OBJECTIVE #4	OBJECTIVE #5	OBJECTIVE #6	OBJECTIVE #7	OBJECTIVE #8	OBJECTIVE #9	OBJECTIVE #10	OBJECTIVE #11
Safety	History / Heritage	Amenities	Social Service Programs	Maintenance	Greenspace / Park Design	Accessibility	Business Development	Programming	Inclusiveness	Community Character
CRITERIA	**CRITERIA**	**CRITERIA**	**CRITERIA**	**CRITERIA**	**CRITERIA**	**CRITERIA**	**CRITERIA**	**CRITERIA**	**CRITERIA**	**CRITERIA**
1.1 Improved visibility through the site from within (includes lighting) **1.2** Improved visibility into the site (includes lighting) **1.3** Pedestrians have right of way with emergency & Police vehicle access	**2.1** Respectful / improved treatment of Veterans' area & Cenotaph **2.2** Latter-day battles / Peacekeepers' recognition **2.3** Respectful treatment / interpretation of park heritage	**3.1** Pedestrian promenade **3.2** Provisions for The Gore to be a destination place (includes comfortable micro – climate) **3.3** Provisions for The Gore to be a meeting place	**4.1** Provisions for animation of the site to deter undesirable loitering **4.2** Design / amenities to make the space a destination for desirable activity **4.3** Focus of the site as heritage versus urban	**5.1** Use of high quality materials **5.2** Provide for snow removal operations **5.3** Utilities are upgraded to meet requirements, and blend w/ design aesthetic	**6.1** Incorporate Royal Connaught building forecourt **6.2** Consider & plan for existing tree disease / condition **6.3** Overall design is enhanced and aesthetically pleasing	**7.1** Barrier-free access through park **7.2** Maintained and/or incorporate Urban Braille **7.3** Clear-way through promenade & at store fronts	**8.1** Consider & support good pedestrian connections **8.2** Provisions for restaurant patios **8.3** Pedestrians have right of way, with delivery and service vehicles allowed	**9.1** Power supply for events **9.2** Space for gathering / variety of uses **9.3** Artwork and/or opportunities for artwork	**10.1** Space for people of all ages **10.2** Pedestrian focus **10.3** Space for families & no-cost amenities	**11.1** Express site identity as unique / special **11.2** Address community desire for gathering space **11.3** Essence of the place that is appropriate for its origin, and for Hamilton

FIGURE 02
Framework for the Preferred Conceptual Plan for the Gore Precinct, 2010.

2.2 Central Garden

The small square surrounding the existing Queen Victoria memorial will be retained and improved with new horticultural landscaping, the installation of a low ornamental fence to protect the planting areas and the installation of new benches. The position and integrity of the Queen Victoria Memorial and its surrounding square are maintained within the overall design of the block.

It is anticipated that this central downtown space will have high pedestrian traffic. The expanded park area provides the opportunity to incorporate new trees and seating in the form of a public square (Transit Square) with the West Node Landmark. Refer to Section 2.6.

The existing fountain is the primary focus of the Central Garden. An expanded paved apron surrounds the fountain to provide an over splash zone as well as new perimeter seating. Viewing of the fountain is a popular activity and additional seating is important. Greening of the Gore has also been identified as an important feature, and is provided with an expanded lawn. The Functional Plan maintains existing walkways into expanded grassed areas which incorporate new planting beds and seating. The layout reinforces a Victorian garden pattern with beds forming a series of places for informal seating and viewing of the seasonal plantings. The design strategy is to create an improved passive garden around the fountain and to strategically frame a continuous view along a central axis. New seating arcs at the east and west limits of the central garden provide new views over the garden.

The surface treatment of Hughson Street within the limits of the Gore is re-paved with textured concrete to emphasize the Promenade crossing through the street intersections. A portable stage can be positioned within the street at Hughson to host small programmed performances. Urban Braille will define and assist in pedestrian movement.

FIGURE 07
The fountain is to remain the main focus of the block.

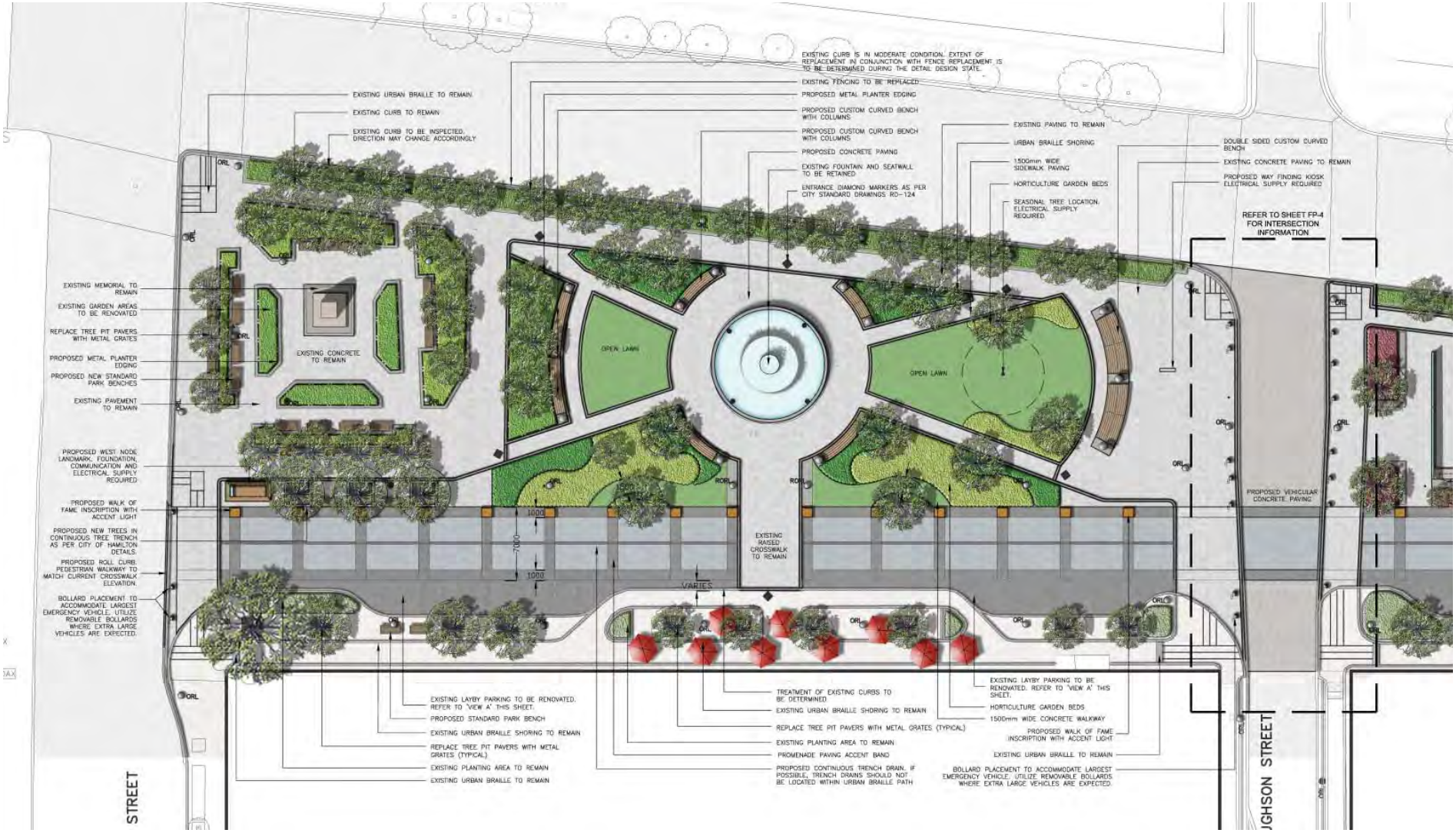


FIGURE 08
Detailed Functional Plan Design Drawing | Central Garden Block

2.3 Veterans' Place

The Cenotaph is centrally positioned in Gore Park mid block between Hughson and John and within the Veterans' Place Block. The Functional Plan supports the significance of this space by providing expanded gathering space on three sides.

A "Veterans' Wall" memorial is proposed near Hughson where Peacekeeping efforts can be recognized through inscription on a clear or semi-transparent plexi-glass wall.

The Cenotaph is relocated at the request of the Veterans Committee in order to better address crowds that gather for Remembrance Day ceremonies and to repair flaws in the feature's construction.

An expanded paved area around the Cenotaph accommodates ceremonial events. The perimeter is defined with seating niches for viewing of the Cenotaph. The paved space around the Cenotaph opens onto the Promenade which carries the Veterans' Parade to the Cenotaph.

A new lighting design has been provided for the Cenotaph to accommodate its new position.

The existing earth mound is removed to create an expanded lawn to the east and west of the Cenotaph. Veterans' Green provides desired additional grassed areas within the Gore as well as gathering space for ceremonies. The north and south edges of Veterans' Green incorporates a rhythm of Memorial Enclaves. These include lit seating and story telling walls that depict significant events and moments in time. Positioning of the enclaves allows pedestrian access between the Promenade and Veterans' Green. At night the lit markers will add additional animation to the Promenade, and in ground lights visually connect the Memorials Enclaves.

The eastern limit of Veterans' Green is defined by a paved seating area at the edge of John Street where space is also provided for a public art feature.

Detailing of all new elements will have regard for the existing monument and adjacent building materials, which will reinforce the genuine character of the site.

FIGURE 09
The Cenotaph, relocated, will continue to be the focus of Veteran's Place Block.

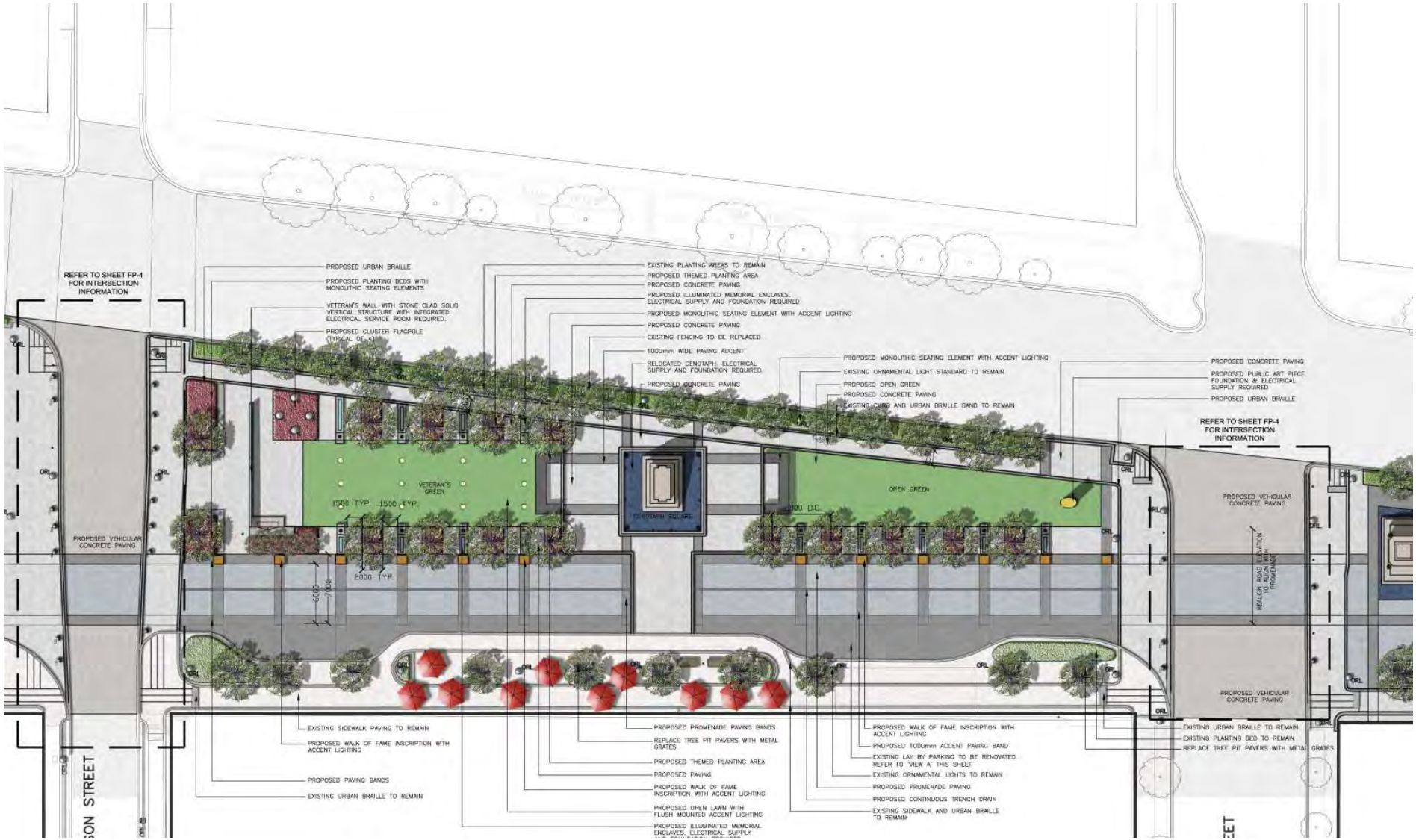


FIGURE 10
Detailed Functional Plan Design Drawing | Veteran's Place Block

2.4 Macdonald Square

The third block of the Gore, between John and Catharine, once served as a drop-off area and taxi stand for the former Royal Connaught Hotel.

The Functional Plan continues the Promenade through this block and provides a smaller drop-off area to support future building use.

Pedestrian movement is also provided along the building face which provides building access and continues the urban braille detailing through this block.

Vehicular access to an existing parking lot is provided on the eastern side of the building, off King Street. Bollards are provided to control vehicular flow.

The third block of the Gore features an East Node Landmark to coincide with the West Node to define the limits of the Gore Precinct. The feature will be defined as a small pavilion with a lit vertical marker to signify the Gore's gateway position on King Street. The interior of the pavilion will provide space for the Staff Groundskeeper to store required maintenance equipment. New seating and expanded paving is provided.

The Functional Plan relocates the Sir John A. Macdonald monument from Veterans' Place to a newly formed seating court called Macdonald Square. This expresses the monument as a prime anchor and feature element within this block. The statue is positioned on alignment with the Promenade. The court incorporates the existing significant white oak tree, new greening, seating, perimeter upright deciduous trees and a small water feature.

Along the face of the building the existing deciduous trees are maintained and additional trees are added to continue the rhythm of a tree canopy along the Promenade. Public art locations are added with places for new seating and raised planting beds to provide additional seasonal interest, texture and destination places along the way.

FIGURE 11
Portions of the MacDonald Square will also serve as a forecourt to the renovated former Royal Connaught Hotel building.

FIGURE 12
Detailed Functional Plan Design Drawing | MacDonald Square Block

Key Functional Plan Recommendations for the John Street Intersection:

01 The surface of this intersection is approximately 150mm below adjacent park spaces. The Promenade pavement surface should transition down (75mm) to a raised crosswalk through John Street within a short sloped area (within warning zone).

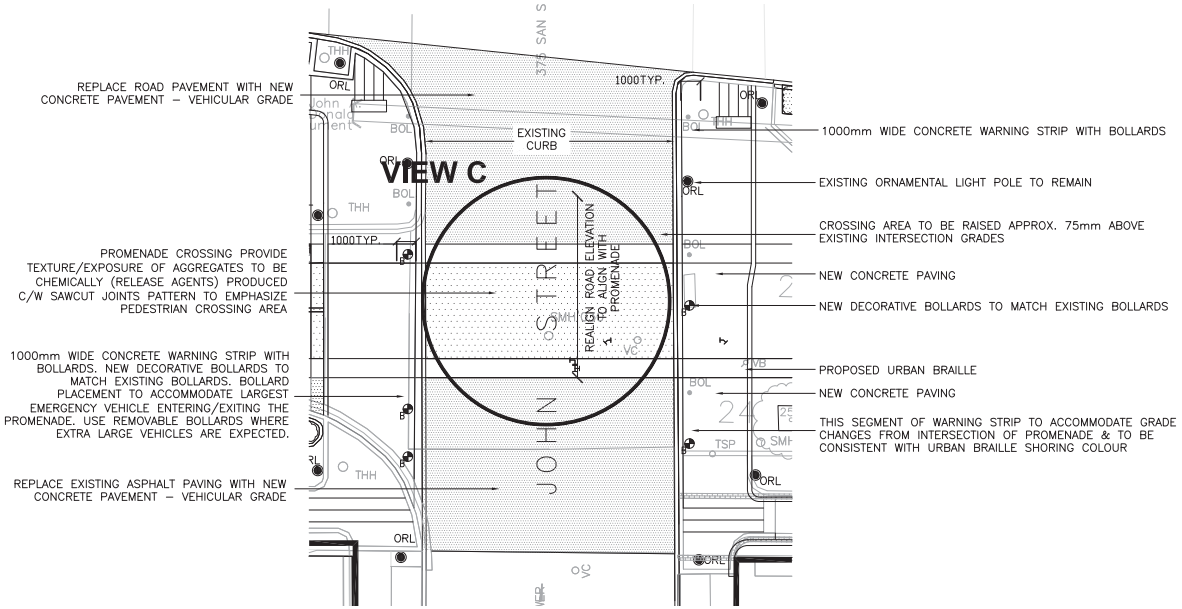
02 Articulate the continuation of the Promenade through the intersection through the use of a raised (75mm) crossing area including textured finishing and joint patterning to match Promenade Paving.

03 Provide a warning zone, created with high contrast paving and bollards where the Promenade interfaces with the street. The area will accommodate grade transitions.

04 Reconstruct intersection pavement, replace existing concrete and unit paving areas with new concrete paving.

05 Install black pavement paint to define the traffic lanes and turning instructions.

FIGURE 15
John Street Intersection is approximately 150mm below adjacent park spaces (full curbs present) and is composed of a combination of concrete and asphalt paving.



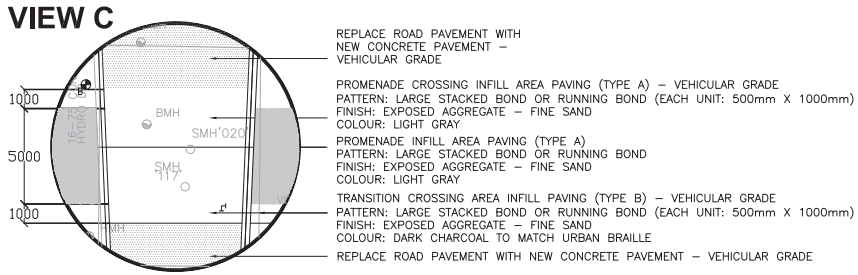
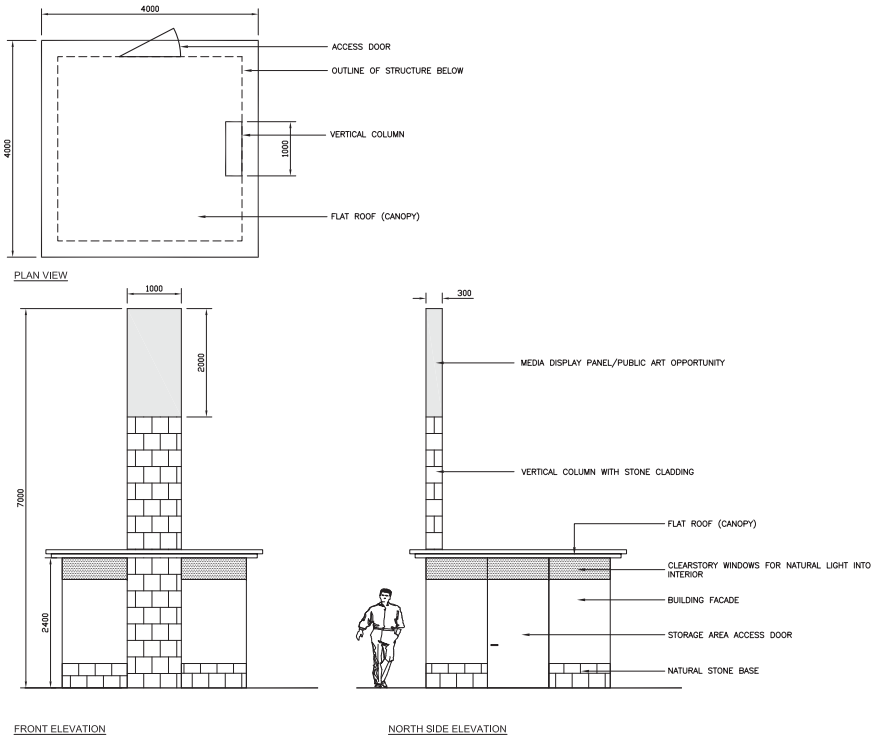


FIGURE 16
John Street Intersection



NOTES:

- TALL VERTICAL FEATURE APPROXIMATELY 7.0m IN HEIGHT TO MARK THE EAST END OF THE PRECINCT. VERTICAL FEATURE COULD BE CONSTRUCTED AS A LIGHT OR COULD INCLUDE A MEDIA DISPLAY PANEL AT THE TOP WHICH COULD BE PROGRAMMED TO SHOW A CLOCK, WEATHER PATTERNS, IMAGES, ETC.
- APPROXIMATELY 16 SQUARE METERS OF ENCLOSED, WEATHER PROTECTED AND SECURED STORAGE SPACE FOR PARK MAINTENANCE EQUIPMENT. DOOR TO BE PROVIDED ON THE NORTH SIDE OF THE STRUCTURE FACING KING STREET.
- BUILDING FACADE MATERIALS TO BE CONSISTENT WITH OTHER PROPOSED DESIGN FEATURES.
- WEST NODE LANDMARK WOULD BE COMPLIMENTARY TO THE WEST NODE LANDMARK AT THE WEST END OF THE CENTRAL GARDEN BLOCK.

FIGURE 24
East Node Landmark

FIGURE 25
East Node Landmark could be clad in a semi-transparent material to reduce the heaviness of the feature.

FIGURE 26
The tip of the East Node Landmark vertical feature could be a light to complement the West Node Feature's graphic display, or it could also integrate digital images and information.

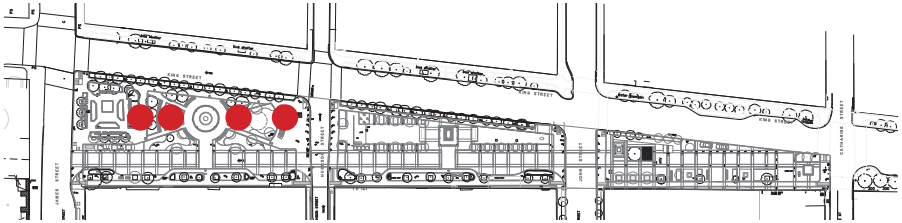
Custom Bench with Decorative Columns

The seating areas surrounding the existing fountain are conceived as a special place and are proposed as a series of custom curved benches `book ended` by free standing masonry columns. The columns are proposed to have two cap options, one with a metal planter and one with a stone or metal finial. The locations are identified more specifically on the Functional Plan Design drawings.

The custom bench with decorative columns include the following features:

- Black, glossy metal bench frame, back and arm rests. Seating surface to be high density and durable wood such as Ipe. Bench is to be manufactured to fit the particular radii of paved areas surrounding the fountain.
- Benches on the outer arcs are to be installed with columns with planters details. Inside arcs are to be installed with columns with finials.
- Planter details to be coordinated with Forestry and Beautification Division.
- Foundations are required for decorative columns.
- Columns may also be capped with a pre-cast or natural stone finial.

Refer also to the full sized Detailed Functional Plan Drawings.



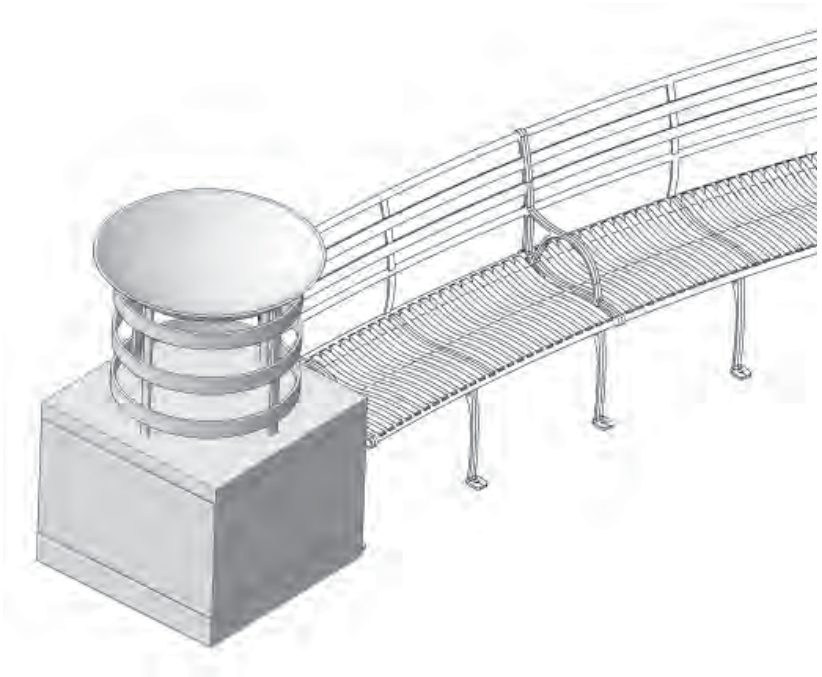


FIGURE 24
Custom Bench and Decorative Column with Planter

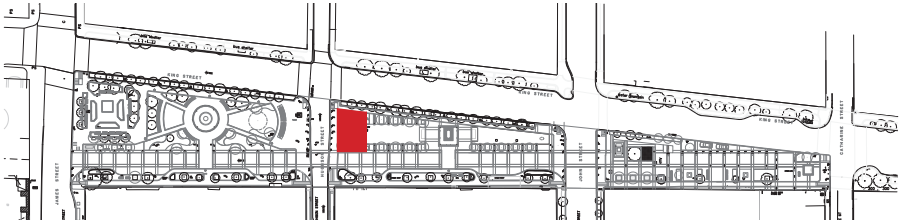
FIGURE 25
Column with Finial

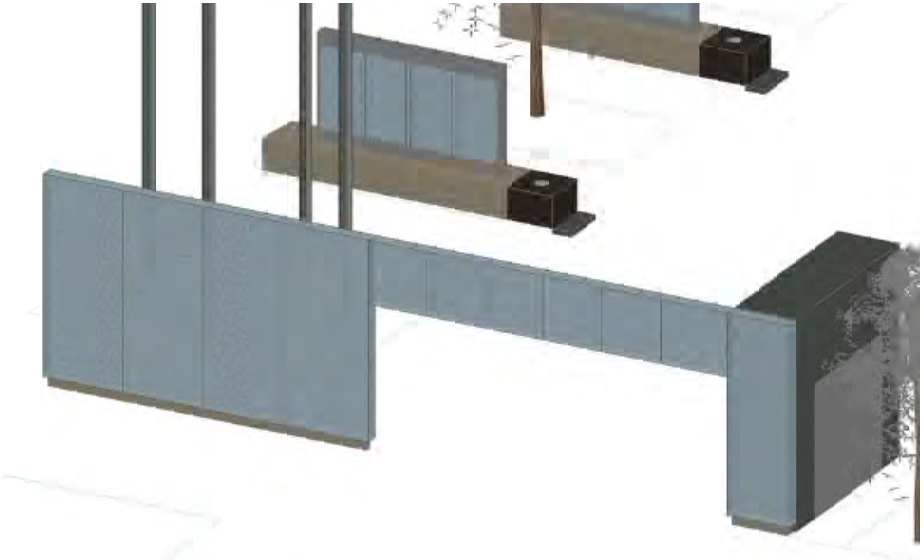
FIGURE 26
Custom Curved Bench

Veterans' Wall

The Veterans' Wall is envisioned as a free-standing glass wall and stone clad enclosure. The feature is intended to provide mass in the space while permitting permeable physical and visual access to spaces beyond. As per power distribution recommendations of this report, the solid portion of the wall should be designed to accommodate the new above ground power distribution centre for the Veterans' Place and Macdonald Square blocks. The Veterans' Wall includes the following features:

- Transparent, semi-transparent etched glass dedication wall for names, images and text. The glass wall should be designed with an opening to provide physical and clear visual access into the adjacent areas. The opening is to frame views to the Cenotaph.
- Stone clad wall to balance the glass portion and to provide necessary location for new power distribution equipment. The equipment will be accessed at the rear of the solid wall through a set of double doors. Enclosure size as per Section 2.15.
- Low landscape wall suitable for sitting and placing of memory bouquets.
- Themed landscape areas such as a poppy or lily garden; suitable to enhance the spirit of the feature.
- The Veterans' wall should be tastefully illuminated by discretely placed accent lighting.
- Ensure that the feature is not constructed overtop the decommissioned underground washroom building.





Refer also to the full sized Detailed Functional Plan Drawings.

FIGURE 30
Veterans' Wall - View from south-west

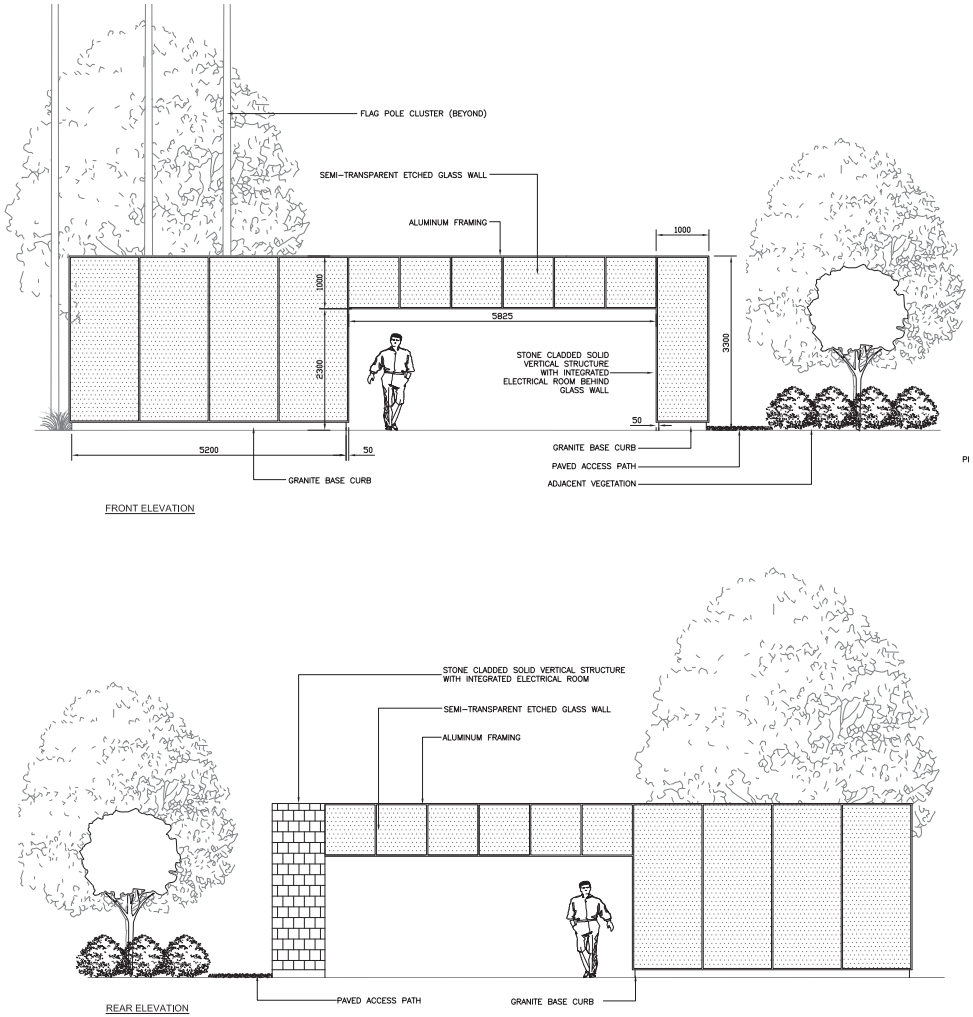
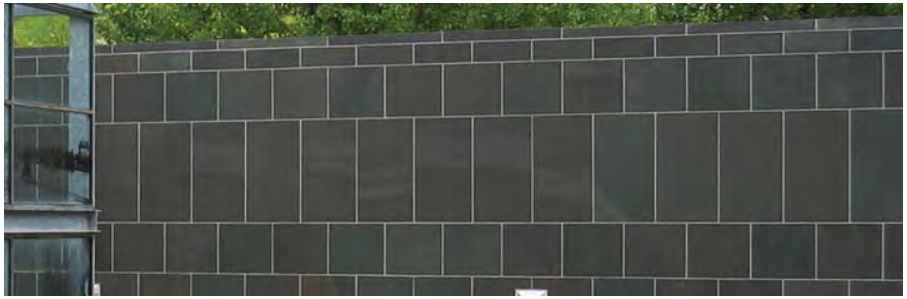


FIGURE 31
Veterans' Wall

Transparent etched glass wall



Stone clad wall

Theme gardens

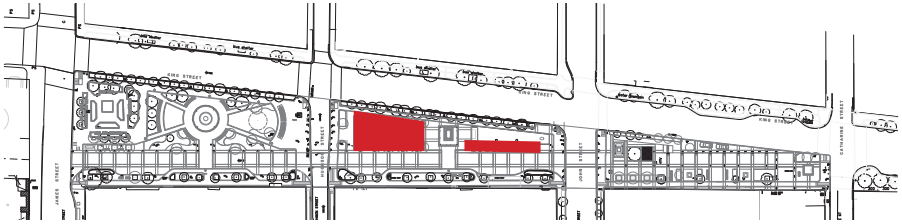
FIGURE 32
Veterans' Wall - Precedent Images

Memorial Enclaves

The Memorial Enclaves are proposed as a series of two sided, illuminated heritage interpretation panels constructed on a solid masonry base. The base design should extend past the panel structure to provide an area for seating. Enclaves should vary in length to respond to the location; the panel information however, would be unique to each location. The locations are identified more specifically on the Functional Plan Design drawings for the Veterans' Place block.

The Memorial Enclaves include the following features:

- Two sided heritage interpretation panel composed of images, stories and other text describing significant people, places or events.
- Solid base constructed of a combination of precast concrete and natural stone. Lighting for the feature should be integrated into the base structure.



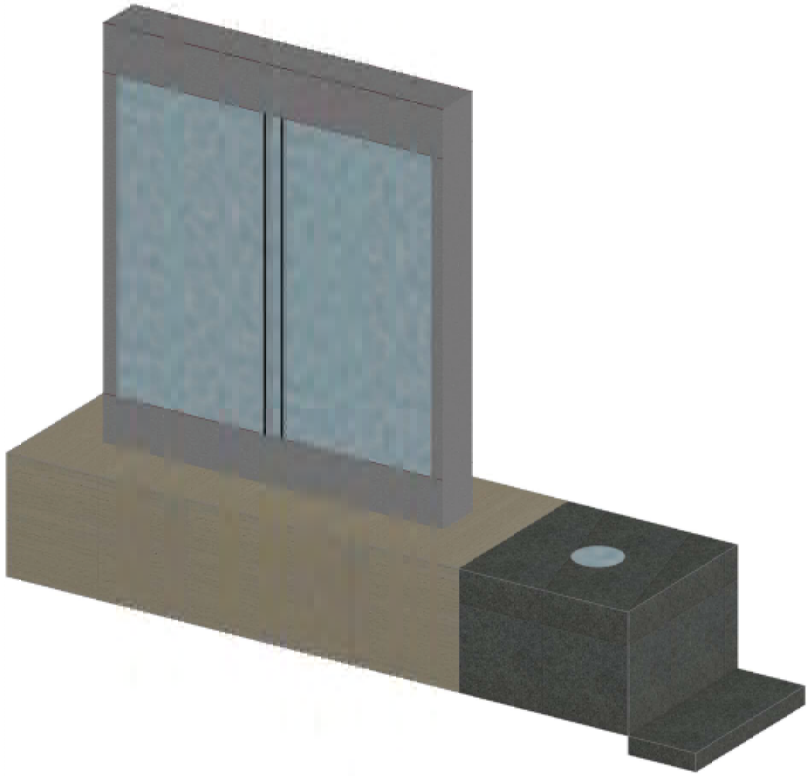
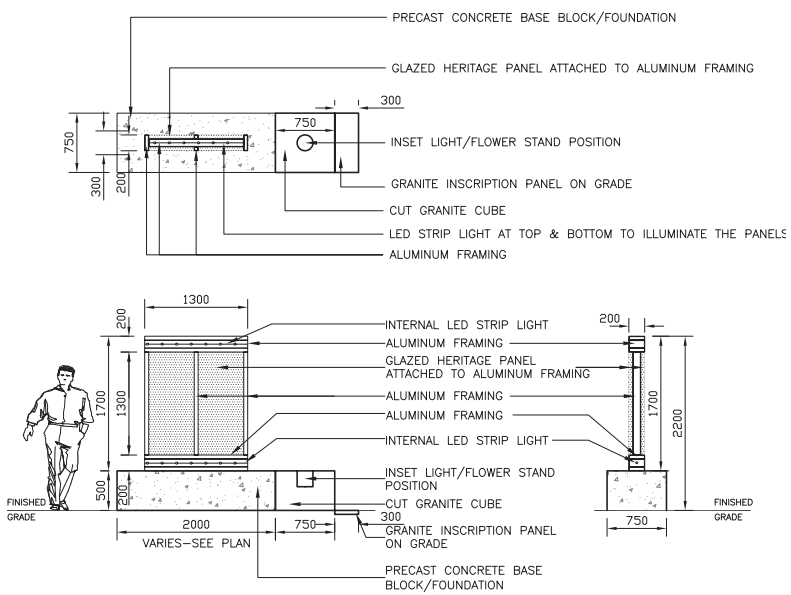


FIGURE 33
Memorial Enclaves

Refer also to the full sized Detailed Functional Plan Drawings.



NOTES:

- TWO SIDED HERITAGE INTERPRETATION PANEL COMPOSED OF IMAGES, STORIES AND OTHER TEXT DESCRIBING SIGNIFICANT PEOPLE, PLACES OR EVENTS.
- SOLID BASE CONSTRUCTED OF A COMBINATION OF MASONRY AND NATURAL STONE. LIGHTING FOR THE FEATURE SHOULD BE INTERNAL ALLOWING THE PANELS TO BE ILLUMINATED FROM WITHIN.

FIGURE 34
Memorial Enclaves

Heritage information should be a combination of images, graphics and text

The rhythm of the panels

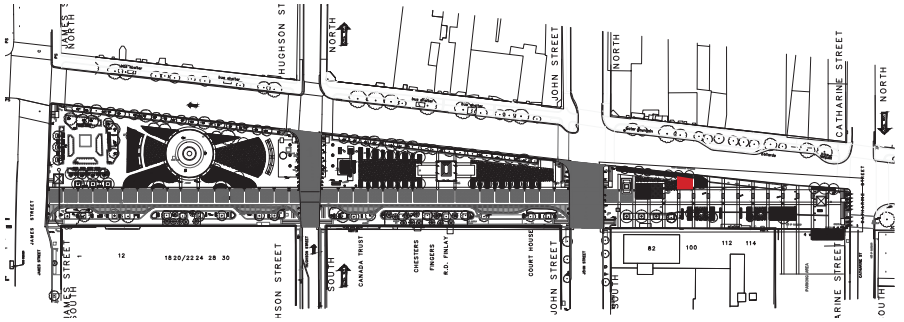
FIGURE 35
Memorial Enclaves - Precedent Images

Water Feature

A small Water Feature is proposed within the Macdonald Square Block to provide a water-based focus at the east end of the Precinct in combination with the relocated John A. Macdonald Memorial.

The Water Feature may include the following features:

- Water wall, trough and small water fall
- Bubblers to create animation and variation
- Perimeter drainage area or catch using specialty pavers
- Illumination to provide interest in the evening hours
- Design that has regard for the off-season appearance of water feature



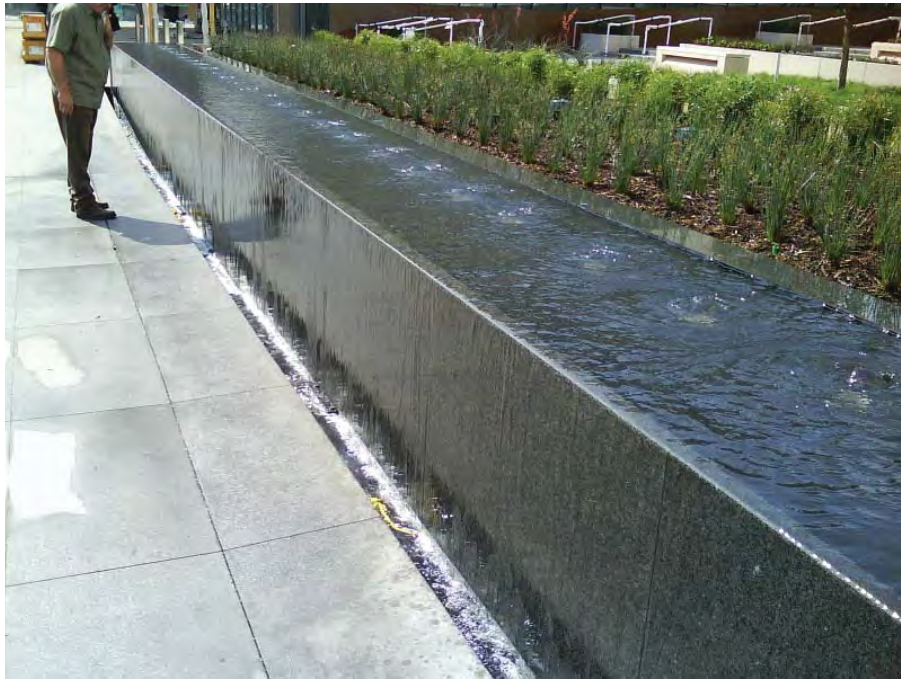


FIGURE 36
The Water Feature may include a scaled water fall or bubblers to create water-sound within the block.

Refer also to the full sized Detailed Functional Plan Drawings.

FIGURE 37
The Water Feature should also have a quiet setting where reflections can be captured in the still surface.

2.7 Vehicle Circulation

Although the south leg of King Street will be pedestrianized as the 'Promenade', access for emergency, special delivery and events vehicles will be required. The following key recommendations have been embedded in the Functional Plan design.

FIGURE 38
Vehicle access and circulation will still be required for emergency vehicles, deliveries and during special events.

Key Functional Plan Recommendations for Vehicle Circulation:

01 Ensure that pavement detailing, layout and construction is suitable to withstand loading from the expected emergency and special delivery vehicles and that pavement construction is consistent with the City Hamilton Standards for municipal roadways.

02 Maintain the existing layby locations and geometry.

03 Maintain a minimum 6.0m wide clearway, free of obstructions for access for fire trucks. Ensure that the fire department reviews and approves layout of pavements and other structures prior to construction.

04 Provide adequate turning radius geometry at the entry/exit points of the Promenade at James, Hughson, John Street and King Street East.

05 Central Garden Block: Maintain westbound one-way vehicle circulation providing an entry point at Hughson Street and exit at James Street.

06 Veterans' Place Block: Maintain westbound one-way vehicle circulation providing an entry point at John Street and exit at Hughson Street. Right-only turns shall be permitted at Hughson Street.

07 Macdonald Square Block: Provide vehicle access points at John Street and potentially through the King Street East layby. Access from King Street East to the parking area to the east of the Connaught will also be required. It is possible, that due to the narrowness of this block that emergency and delivery services could utilize King Street East and John Street for access and not require continuous access along the length of the block.

08 Signage along the Promenade should be re-evaluated and modified to ensure that the new operation requirements / restriction are advertised.

FIGURE 39
Gore Pedestrianization Functional Plan - Emergency and Special Delivery Vehicle Circulation

2.10 Site Grading

It is recommended by this Functional Plan that the road grades on the south leg of King Street, what will essentially become the Promenade, be raised by approximately 150mm in order to create flush situation between the Promenade, the park Precinct and the existing streetscape to the south. Currently the road section is crowned with storm drainage structures aligned along each curb line. Aecom was requested to review two possible options to address drainage in the Promenade. Refer to Appendix A for the full evaluation of the options. Option 1: Inverted Crown with Central Catch Basin Location is the preferred option for the Promenade and forms the basis of this recommendation.

Other areas of the Precinct will undergo minor regrading to accommodate the proposed design. It is anticipated that these areas will continue to be serviced by drainage structures in the road bed. A detailed grading analysis is required and will be performed during the detailed design stage of the project.

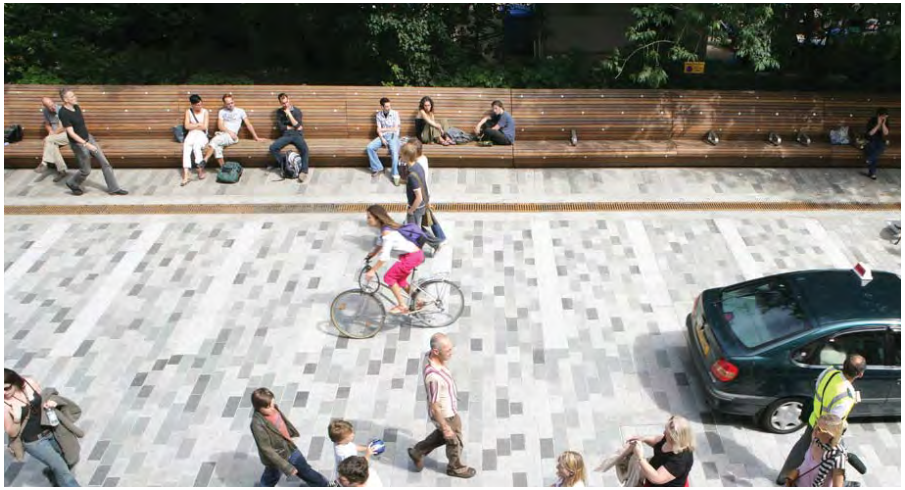


FIGURE 45
Utilize a trench drain system to ameliorate the Promenade grades.

Key Functional Plan Recommendations for Site Grading:

01 Raise road grades approximately 150mm to create a smooth uninterrupted surface (the "Promenade") between the streetscape to the south and the park.

02 Implement an inverted crown design with the low point approximately centred between the existing buildings and the park. Design cross slopes at maximum 2% to effect the most gentle grades across the Promenade as is possible.

03 To eliminate 'dishing' in the pavement surface, utilize a continuous trench drain system in the Promenade within the Central Garden and Veterans' Place blocks. Ensure the trench drain grate is both attractive and compliant with the City's accessibility standards. Coordinate drain location with Promenade paving patterns.

04 Utilize catch basin drainage in the Macdonald Square block. Ensure that castings have an upgraded appearance and are coordinated with paving patterns.

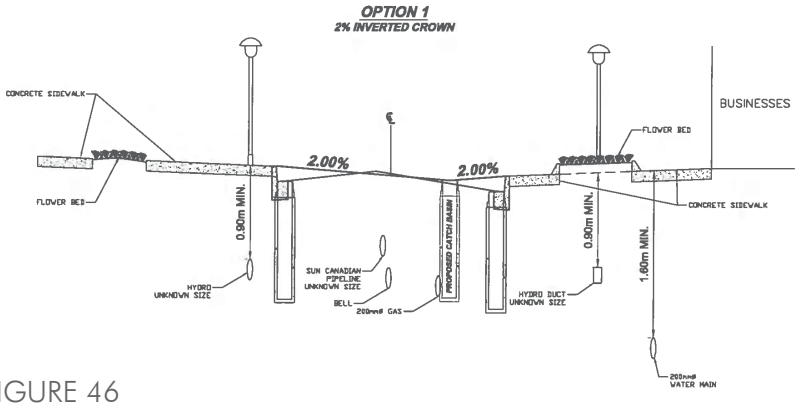


FIGURE 46
Proposed typical grading section for Promenade. Refer to technical memo prepared by Aecom, Appendix A

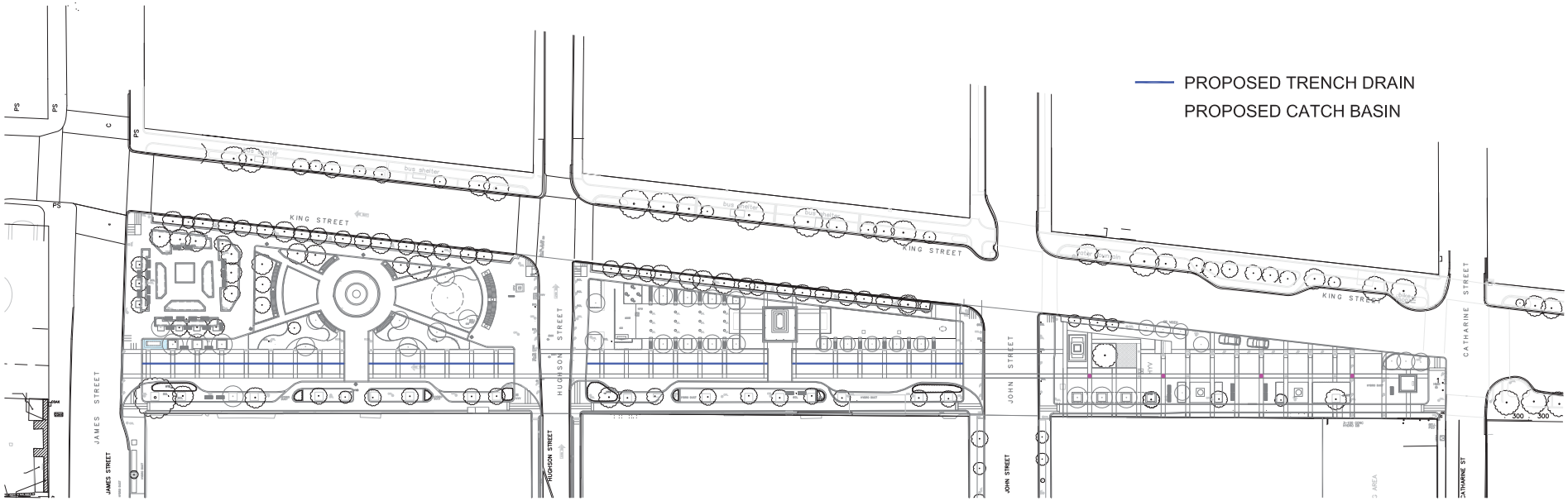


FIGURE 47
Gore Pedestrianization Functional Plan - Proposed Drainage Plan

Subgrade Washroom Building

An underground washroom building is located at the west end of the Hughson to John Street block. Currently this structure is completely buried and is only accessed through a hatch at the surface. The structure is no longer used as a washroom but instead houses functioning electrical equipment that provides services to the park. Based on information provided by the City, the structure is in poor condition and requires Confined Space Entry Certification for entry into the space. This type of certification is not typically required of City staff. To provide easily accessible electrical equipment, it is recommended that the equipment be moved to an above grade location and that the remaining underground structure be permanently closed to access. Recommendations for the above grade electrical equipment location is provided in other sections of this Plan. Refer also to the detailed assessment of the structure prepared by the City of Hamilton August, 2012.

Re-introducing a permanent public washroom into the precinct is not recommended in this Functional Plan for the following reasons:

- A public washroom facility was not included in the approved Preferred Conceptual Plan, which did undergo significant public engagement in its development. During the consultation period the topic of installing a permanent public washroom in the park was discussed and not supported. Concerns sited include those noted. It was also identified at the time (April 2009) that the MacNab Street Terminal is a public building with a washroom facility. This facility, however, would not be sufficient to accommodate an event in Gore Park. At such time, event based temporary facilities would be required.
- The existing underground 'vault', former washroom facility could not be reopened for use as a public washroom facility as it is in an advanced state of disrepair, currently contains electrical utility, and would not meet modern requirements for accessibility.
- A barrier-free washroom facility would be required to be above grade. This would necessitate introducing a full height serviceable building with opaque walls within the park precinct. A key objective of the park design is to maximize views through and to the site, primarily to address current issues associated with a perceived lack of safety in the space, particularly at night. A permanent building would impede views.
- The former washroom facility was taken out of commission due to a high occurrence of undesirable as well as illegal activity. Concerns over the impacts of this activity outweighed the benefits of the public washroom, and was therefore closed-up. Providing a public washroom facility again may provoke the return of undesirable loitering and / or improper and illegal use, which is in direct conflict with project criteria as well the mandate of the Downtown of Secondary Plan, to improve the pedestrian environment.
- There is concern that providing an enclosed 'private' space within the public realm will obscure active and passive surveillance; putting personal safety at risk. Even if the unit used was the type where the door opens automatically after a short duration of time has passed, the concerns remain as it does not take many minutes to engage in illegal and/or undesirable public realm activity.
- There are permanent barrier free public washrooms at the MacNab Street Transit Terminal, and in the Tourism Office, Visitor Information Centre in the Lister Block. Both of these City facilities have staff on site which, even though not dedicated to care of the washroom component of their facility, offer a presence that gives the impression of the space being monitored which in turn makes the undesirable activity less likely.
- Portable washroom facilities could be installed during special events as discussed with stakeholders during the public and staff stakeholder consultation process.

Should the City wish to pursue the re-introduction of a permanent washroom facility within the park, the following recommendations are made:

- Consider installing a prefabricated, compact, automated, universal public toilet unit similar to the Astral Media units being installed within Toronto's public realm, or the semi-open models used in some European Cities.
- Locate the unit centrally within the precinct, combined with the Veteran's Wall feature and integrated electrical room.
- The East Node Landmark could be an alternate location for the washroom facility however there are concerns regarding the remoteness of the location given the reduced number of pedestrians at this end of the precinct. Redevelopment of the Connaught Building may alleviate this concern.

Functional Plan Recommendations for the Existing Washroom Building:

01 Remove the electrical equipment from the underground washroom building to an above-grade location as per Section 2.15.

02 Ensure that the above grade location for electrical equipment is discretely designed and is not visually prominent. Refer to Section 2.6 Veterans' Wall.

03 Permanently close access to the underground washroom building through partial demolition and filling, or other acceptable method. Ensure that park features requiring a foundation are not constructed over the demolished washroom building.

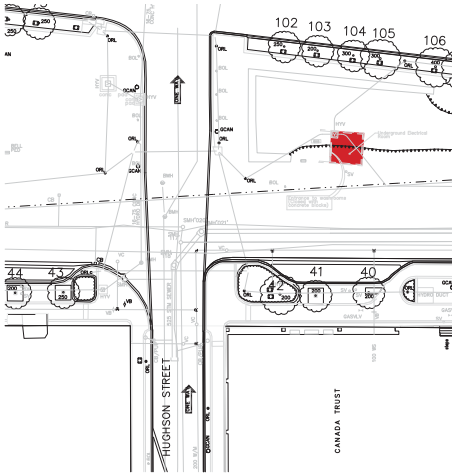


FIGURE 51
Location of Underground Washroom Building - Taken from survey information provided by the City of Hamilton.

FIGURE 52
Image of equipment inside underground washroom building. Provided by the City of Hamilton.

Geo-technical Study

The geotechnical report was prepared by Soil-Mat Engineers & Consultants Ltd on May 17, 2012 and revised on July 27, 2012. The report indicates that the existing roadway includes interlocking brick over a granular base ranging from 400 to 530mm thick. Fill material was found below the crushed stone layer to a depth of 3.5m below the surface consisting of gravel, sand, silt, clay and occasional brick and concrete rubble. Brown sand was found below the fill layer.

The geo-technical report is included as Appendix B.

Functional Plan Recommendations for Geo-technical Considerations:

01 The proposed pavement structure for the proposed roadway is for 200mm concrete wearing surface with 125mm crushed granular "A" stone compacted to 100% Standard Proctor Maximum Dry Density. The concrete should be 32MPa with a maximum water/cement ration of 0.45 and placed with a maximum slump of 100mm.

02 Proposed structures in the park should be placed on a crushed stone bedding of 400mm crushed granular "A" stone compacted to 100% Standard Proctor Maximum Dry Density. The crushed stone fill must extend laterally beyond the limits of the footings a minimum of 500mm plus an allowance for a slope of compacted fill at 1:1 slope to allow for a 'load spread' through the granular fill. The allowable bearing stress at Serviceability Limit State (SLS) should be limited to 125kPa (based on the total and differential settlements not exceeding 25mm) provided that the footings are a minimum of 800mm in width and provided with a minimum 1.2m of earth cover or equivalent to protect against frost damage.

03 Two samples from each borehole were submitted for laboratory analysis. The results identify Sodium Absorption Ratio (SAR) and Electrical Conductivity (EC) in all samples. This is generally a result of the use of de-icing salt for winter de-icing operations. Soil with EC and SAR may be reused within the site as backfill where engineering and geotechnical requirements can be met. Therefore, savings can be realized by providing a balance of fill requirements versus excavated materials.

04 Borehole #4 shows an exceedence of lead in the laboratory analysis which is beyond the limits of MOE table 3 (ICC). Excavated material from this area must be disposed of in a licensed facility.

05 The geotechnical report from Soil-Mat Engineers & Consultants Ltd should be consulted for further information.

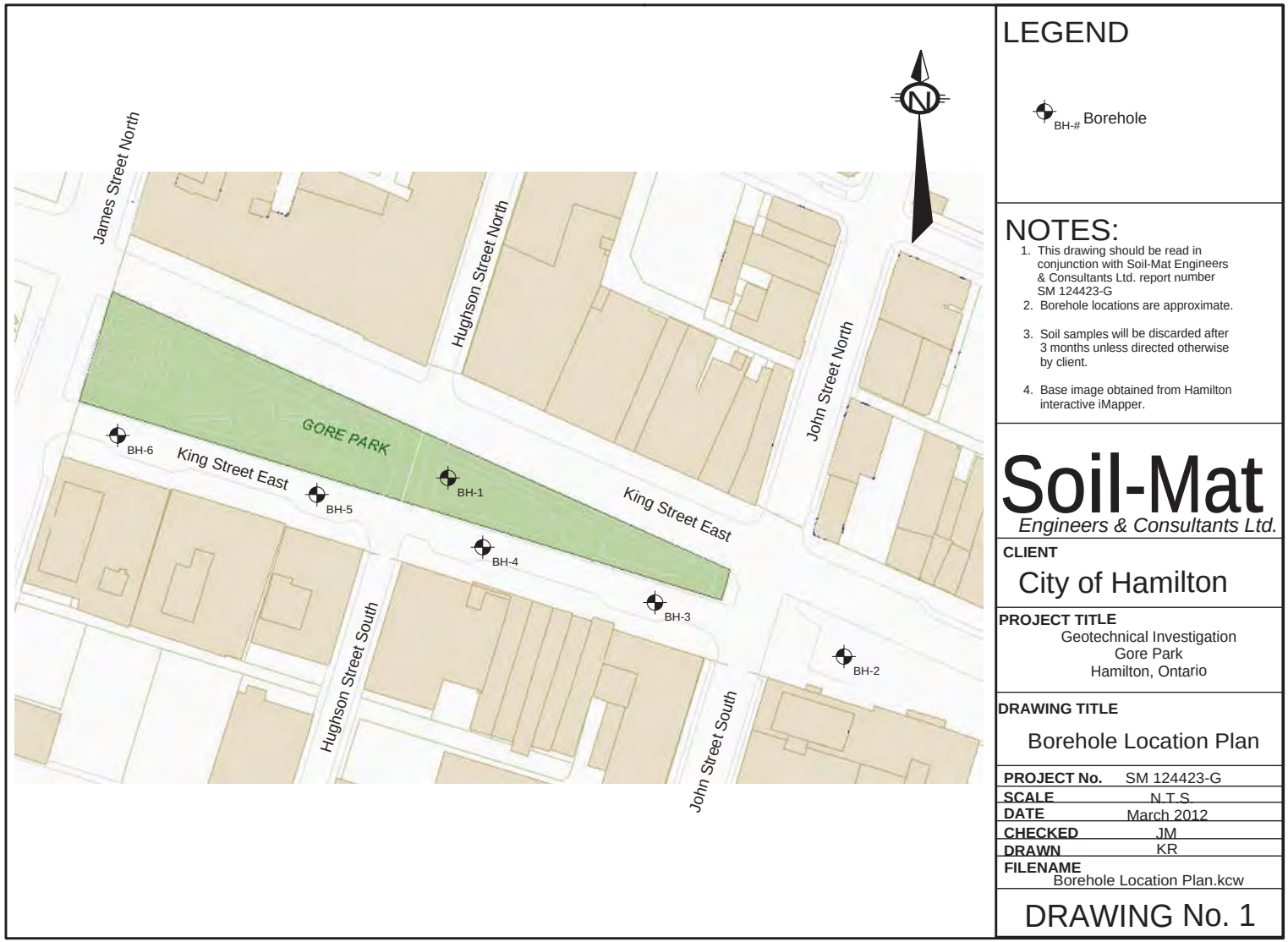


FIGURE 53
Borehole Location Map as prepared by Soil-Mat Engineers & Consultants Ltd.

2.12 Paving

The paving plan for the Precinct includes the following types of surfacing:

- Existing paving to remain
- New pavement to match existing
- Special paving
- Promenade paving
- Intersection Paving

Key Functional Plan Recommendations for Paving:

01 Integrate as much of the existing walkway pavement as is possible while being consistent with the vision for the project. Repair and replace as required ensuring that the interface between new and existing pavement provides seamless circulation for accessibility and the Urban Braille path. Powerwash existing remaining pavement to minimize the visual difference between and older and newer pavements.

02 New concrete paving tinting and finishing should match existing pavement where new and existing pavements meet. Transitions should be seamless.

03 Special paved areas are proposed to compliment unique features or areas of the park. Special paved areas are required to be accessible surfaces and must be designed to minimize differential settlement.

04 All new site paving treatments shall be low maintenance, easy to match/replace if required and must be structurally sound.

FIGURE 54
Existing paving (white concrete paving with tinted concrete banding) to remain. New pavement to match and blend seamlessly.

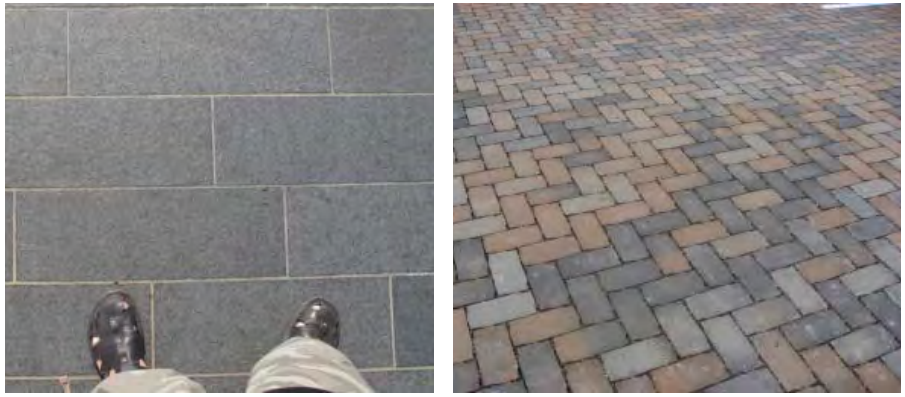


FIGURE 55
Special paving proposed includes granite and permeable paving. Refer to plans for locations.

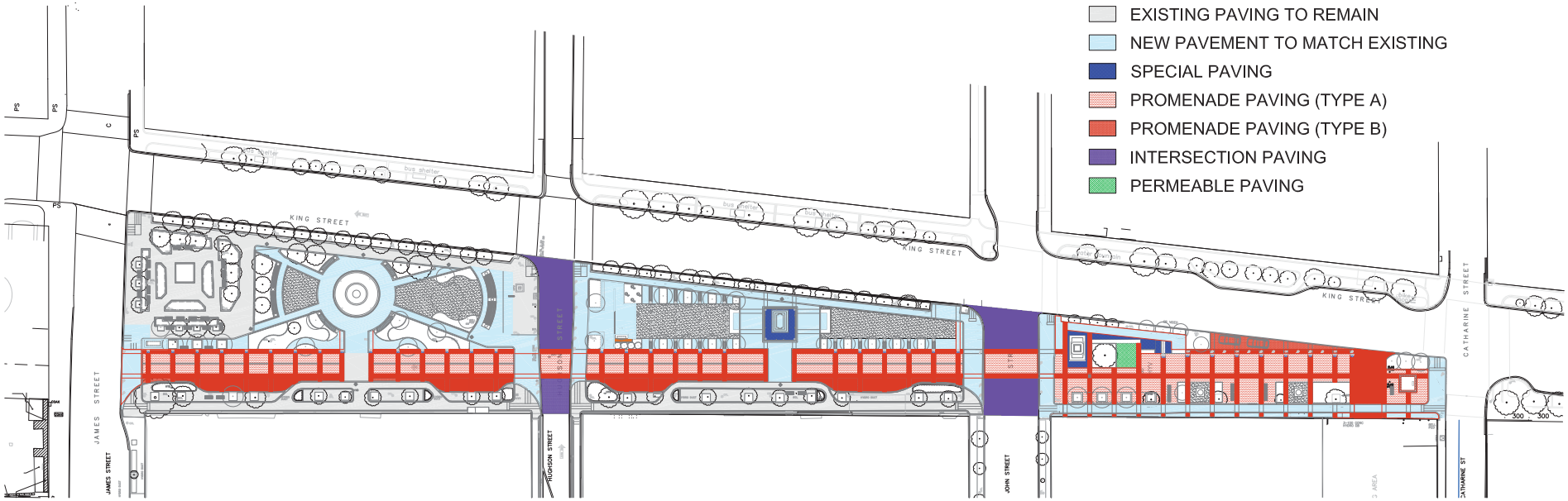


FIGURE 56
Gore Pedestrianization Functional Plan - Paving Key Plan

2.13 Landscaping

It is recommended that all soft landscaping areas, both existing and proposed, be designed consistently throughout to reinforce the Precinct as a whole. A number of existing soft landscaping areas will be retained in the implementation of the Final Design. Most of these areas have suffered dense shade, pedestrian compaction and have likely been exposed to high levels of de-icing salts. Most of the planting areas are bare or are sparsely vegetated. Lawn areas appear to be in moderate condition with some damage, due to compaction and salting, near the edges of pavement.

The existing trees within the Gore Precinct are predominantly Ash trees that are in slow decline. The trees were most recently assessed by and arborist in 2009, refer to the Arborist Report for The Gore Master Plan Project, Urban Forest Innovations Inc. City Forestry and Horticulture are being proactive across the City in consideration of trees with Emerald Ash Borer symptoms. Some trees may be removed prior to the implementation of new work. All attempts will be made to coordinate tree removal with the precinct's final design.

Within the overall planting regime, soft landscaping is to provide a 'garden-esque' effect and will support themes in a variety of areas. Themes to be addressed may include:

- Queen Victoria Memorial Garden
- Fountain Horticultural Beds
- Veterans' Wall and Green Gardens
- Macdonald Monument Gardens

FIGURE 57
There are many locations where soft landscaping has been impacted by dense shade, compaction and probable salt contamination.

Key Functional Plan Recommendations for Soft Landscaping:

01 Existing planting area soils should be tested and amended as required. Provide planting areas with a low ornamental border fence to protect the plant material and soil from compaction damage. Existing planting areas should be replanted with a planting scheme that is consistent with the overall Final Design.

02 It is estimated that the irrigation system in the park is approximately twenty years old. Some spray heads are missing, or are buried under soil or pavements, and there is evidence of over-spray. It is recommended that the irrigation system be replaced with a new system that includes high efficiency features, controls and accessories.

03 Metal fencing along the north edge of the park along King Street is in poor condition and is in need of repair and / or replacement. To reinforce a revitalized image for the park it is suggested that this metal fence be repaired or replaced. As the fence posts are embedded within a concrete curb it may be necessary to also replace the curb. The extent of curb replacement is to be determined during the detailed design stage.

04 A number of existing trees in pits, surrounded by pavement, are capped with unit paving. In most locations where this occurs, the pavers are buckling, causing a tripping hazard, or are beginning to limit trunk growth. Remove existing unit paver tree pit caps and replace with tree grate or open pit treatment.

05 Retain as many existing trees as is possible and integrate existing shrubs into the new planting plan where appropriate. Update the review and assessment of the existing trees on site.

06 Ensure that the final park design post-construction tree quantity equals the pre-construction condition.

07 Ensure that tree species selected for new planting will be resistant to pests such as Emerald Ash Borer.

08 Soft landscaping should be hardy, tolerant of urban conditions, and provide seasonal appeal.

09 Soft landscaping design should have regard for the principles of CPTED and shall facilitate video surveillance of the Precinct.

10 Planting plans should be reviewed and approved by the Horticulture Section and Forestry and Beautification.

Landscaping should reinforce the various themes within the Precinct.

Landscaping should be appealing during all seasons of the year.

Replace unit paver tree pit covers with metal grates or open pit treatment.

Provide an ornamental bed edge to protect new landscape areas.

FIGURE 58
Landscaping

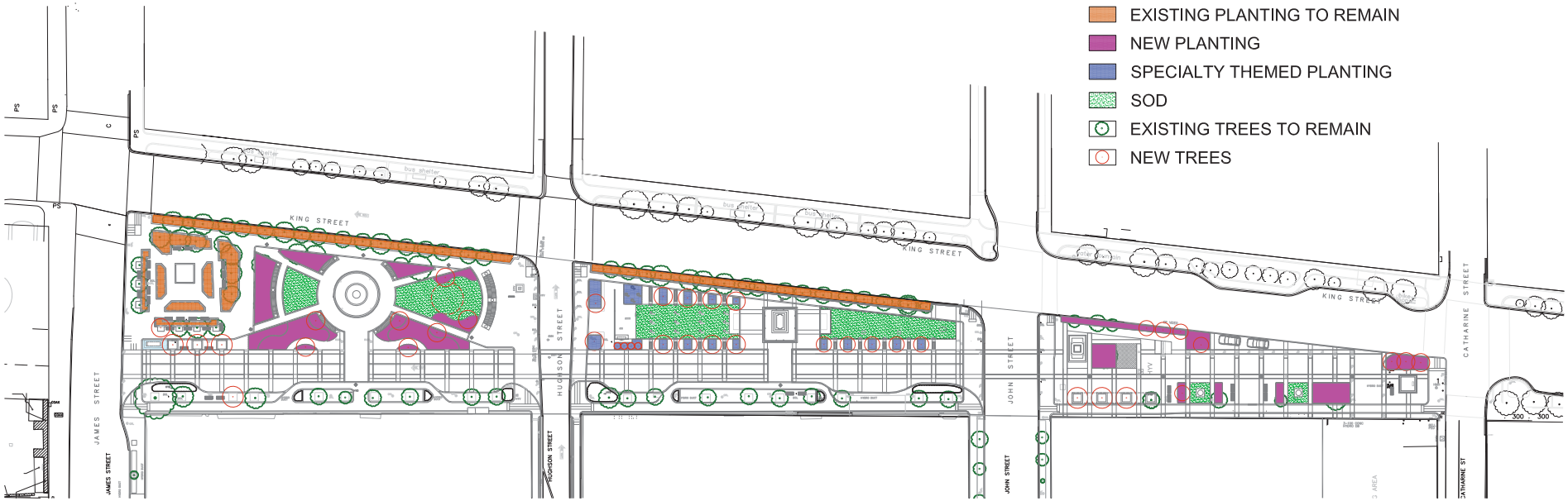


FIGURE 59
Gore Pedestrianization Functional Plan -Soft Landscaping Key Plan

2.14 Site Furnishings

As part of the pedestrianization initiative, it is recommended that the site furnishings be upgraded to support the defined vision for the Precinct. Site furnishings should be coordinated and complementary to the black / gold theme that has been established already in the light pole bases, bollards and signage.

Key Functional Plan Recommendations for Site Furnishings:

01 Provide a Precinct standard bench with back and arm rests to be used throughout. Bench should be black powder coated metal and permanently attached to the pavement below. The design should be classic, complementary to but not imitating the Victorian era.

02 Provide a custom curved bench surrounding the fountain that is classically designed with wood slats, back and arm rests. Bench should be black powder coated metal, permanently attached to the pavement below and coordinated with the proposed Column with Planter and Finial. Refer to Section 2.6.

03 Refurbish existing bollards and supplement as required with model to match existing.

04 Provide bike locking posts where appropriate. Select unobtrusive design that economizes space and blends into the landscape. Racks should be black, powder coated metal or stainless steel.

05 Utilize the City of Hamilton litter container for both litter and recycling. Customize the containers to include signage / logos for litter and recycling separation.

06 Incorporate the City of Hamilton Logo within the site furnishings design.

Recommended Standard Bench

Recommended Curved Bench

Recommended Bollard

Recommended Bike Locking Post

Recommended Litter and Recycling Container

Recommended Wayfinding Kiosk

FIGURE 60
Recommended Site Furnishings

2.15 Power Distribution

Power to the Gore Precinct is sourced from the existing Horizon utility vault on the west side of Hughson Street centred in the park block. Power comes to the existing underground washroom on the east side of Hughson where a 400 Amp 120/208 volt 3-phase 4-wire power service is located, providing power to the park and street lights, the fountain, tree lights and various pedestals / throughout the park. Three main issues exist with the current power distribution situation:

- The condition of the underground washroom where the electrical equipment has been retrofitted is very poor and creates a confined space which currently requires specialized certification for entry;
- The existing power supply to the underground building is very large considering what is being powered; and
- The lights illuminating the park and the adjacent streets are interconnected and cannot be shut off independently.

Functional Plan Recommendations for Power Distribution:

01 New 200 Amp 120/208 volt 3-phase 4-wire metered power service dedicated for James to Hughson block only (including fountain power) to be constructed at existing above grade stainless steel fountain cabinet at the NE corner of Hughson and King Street East. A larger cabinet may be required.

02 New 200 Amp 120/208 volt 3-phase 4-wire metered power service dedicated for Hughson to Catherine blocks only to be constructed into back of Veterans' Wall feature. Enclosure provided should be a minimum of 500mm deep, 2100mm wide by 2100mm height accessed by a set of double steel doors at the rear of the feature.

03 The existing 400 Amp service will have to be maintained until the proposed Phase Two works to maintain power service to Phase One. Phase 2 works should include work to the fountain control cabinet.

04 Provide new 120 volt lighting dedicated branch wiring distribution system for street lighting and park ambient lighting system to the existing decorative "Washington" lighting assemblies.

05 Existing pole-mounted receptacles for seasonal lighting are to be fed and controlled with the tree lighting, independently of the roadway lighting.

06 Provide new dedicated tree lighting distribution system for seasonal decorative lighting fed through street light poles and controlled with the pole mounted GFI receptacles. The 15 Amp 120 volt GFI tree receptacles supplied with while-in–use covers are to be located in the trees, 3 metres above grade and fed up the tree trucks with PVC jacketed Teck cables fastened to the tree with hot dipped galvanized 2-hole conduit clips and 1" galvanized wood screws.

07 Special event power is to be supplied independently of all other power distribution systems from the two metered power services.

08 Stainless steel surface, lockable power pedestals are to be located concealed in the planting beds and proposed landscaping where possible, to provide special event vendor power on a permit-use basis. The pedestals are to be custom made and be less than 450 above grade and be supplied with six, 15 Amp 120 volt duplex GFI receptacles, each on a dedicated circuit.

09 Locate the special event power pedestals to accommodate the proposed vendor layout plan to reduce the requirement and length of portable power cords.

FIGURE 61
It is recommended that power to the park be split into two services - one to this stainless steel panel (at corner of Hughson and King) and one integrated within to the Veteran's Wall feature.

2.16 Site Security

Maintaining the safety and security is a fundamental objective for redevelopment within the Precinct. Open and clear views through and to the site will facilitate both passive and active surveillance; all redevelopment efforts shall be designed to ensure that this objective is being met.

The Gore Precinct is currently monitored by the Hamilton Police department through three video surveillance cameras along King Street (North Leg) that are serviced by fibre wire. Both the City and the Police department have indicated that the surveillance system may need to be adjusted to accommodate new and relocated park elements. An analysis of this requirement should occur during the design and approval stages of the Final Design and should address ownership and operation responsibilities.

FIGURE 62
The Gore Precinct is, and will continue to be monitored by video surveillance.

The following recommendations are made with regards to Precinct Safety and Security:

Functional Plan Recommendations for Park Surveillance:

01 Maximize open and clear views through and to the site to facilitate both passive and active surveillance of all vulnerable areas of the park.

02 Ensure that low branches are trimmed up to maximize effectiveness of the existing camera locations.

03 Coordinate opportunities for the Hamilton Police Department to review the Final Design and provide input into CPTED concerns and additional/new camera locations if determined to be required.

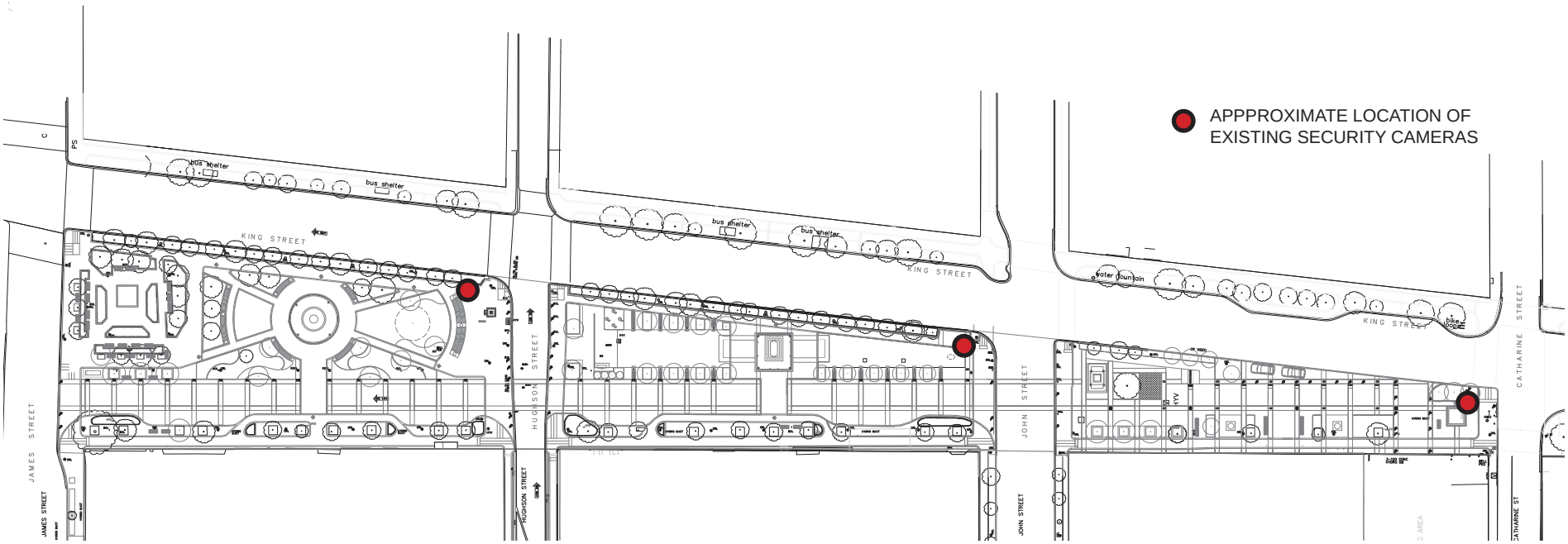


FIGURE 63
Gore Pedestrianization Functional Plan - Existing Video Surveillance Cameras

2.17 Special Events

Due to the narrow shape of the park most event set-up occurs in the wider block near James Street; the Central Garden block. Equipment used in the past has included PA and sound systems, amplifiers, temporary lighting, space heaters, one small amusement ride and a bouncy castle. Approximately 30 vendors presently need to be accommodated in the Central Garden block. In the future, it is possible that an additional 40 vendors could set up along the Promenade and within park spaces between James and John Street (first two blocks). City staff has suggested that each vendor would need two plugs.

Existing Special Events anticipated to be hosted in the Gore (Interest from other event organizers has been expressed but not yet confirmed) :

- Downtown BIA, Gore Park Promenade
- Open Streets Hamilton
- Supercrawl Music and Arts Festival
- Downtown BIA, Christmas in the Park

Key Functional Plan Recommendations for Special Events:

01 Ensure that electrical services are in place to support special events throughout the Precinct.

02 Electrical pedestals, junction boxes and cabinets should be discretely placed and constructed with high quality enclosures.

FIGURE 64
Christmas in the Park is a major event.

FIGURE 65
Open Streets Hamilton (within the Gore)

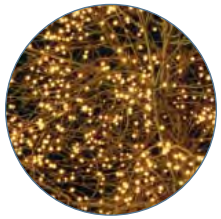
3.2 Recommended Additional Studies

The following additional studies are recommended prior to implementation:

- Updated Tree Inventory and Assessment
- Fountain Functional Assessment to examine the condition and efficiency of the current pump and circulation system, recommendations for improvements to system.

Appendix A
Technical Memos

Appendix B
Geotechnical Report



the mbtw group