



Port Elgin Waterfront Design Concept and Budget Allotment

Draft Final Report | October 2014

Prepared For:



Prepared By:



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1.0 Introduction

- 1.1 Background
- 1.2 Project Purpose
- 1.3 Study Process

1.0 Introduction

1.1 Background

The Port Elgin Main Beach was identified as a key destination in the Saugeen Shores Waterfront Master Plan, completed in 2013. It was identified due to its attraction for families to enjoy the pristine sand and clear water as well as its beautiful sunsets. It is a popular destination for local residents as well as tourists and visitors.

During the consultation process for the Waterfront Master Plan, it was determined that the Port Elgin Main Beach should be considered as the showpiece of the community, should be an attraction during all seasons, and is in need of a complete “makeover”.

1.2 Project Purpose

The purpose of the project is to (1) build upon the existing demonstration plan developed through the Waterfront Master Plan to create a year-round comprehensive vision and conceptual design for the Port Elgin Main Beach to enhance the destination potential of the Port Elgin Waterfront and (2) develop a cost estimate and phased implementation plan to guide the budgeting process.

1.3 Study Process

The project was undertaken in three phases as described below:

Phase 1 – Background Review and Analysis (August – September 2014)

The first phase consisted of a complete and comprehensive review of background materials and detailed analysis of local existing and surrounding conditions that provided the Project Team with a sound understanding of the project requirements. An initial community listening session was held during this phase.

Phase 2 – Preliminary Design Concepts (September – October 2014)

The second phase of the work program focused on developing draft conceptual designs for the waterfront and identifying the strengths and weaknesses of each. A Public Open House was held at the end of Phase 2 to present the conceptual options and receive feedback and further inputs to carry the design into Phase 3.

Phase 3 – Final Design Concept (October – November 2014)

The third phase focused on developing the final conceptual design and report for the Port Elgin Waterfront. An implementation plan and budget allotment were also included.



2.0 Context + Analysis

- 2.1 Site Context
- 2.2 Beach Size Comparison
- 2.3 Visual Analysis
- 2.4 Circulation and Destinations
- 2.5 Climate
- 2.6 Topography and Drainage
- 2.7 Parking Capacity
- 2.8 Beach Capacity
- 2.9 Opportunities and Constraints

2.0 Context + Analysis

2.1 Site Context

Regional Context

Port Elgin is located on the eastern shores of Lake Huron within the Town of Saugeen Shores. Port Elgin has a significant permanent population, while it is also a popular summer destination with its vast beaches, beautiful sunsets and exciting downtown shops.

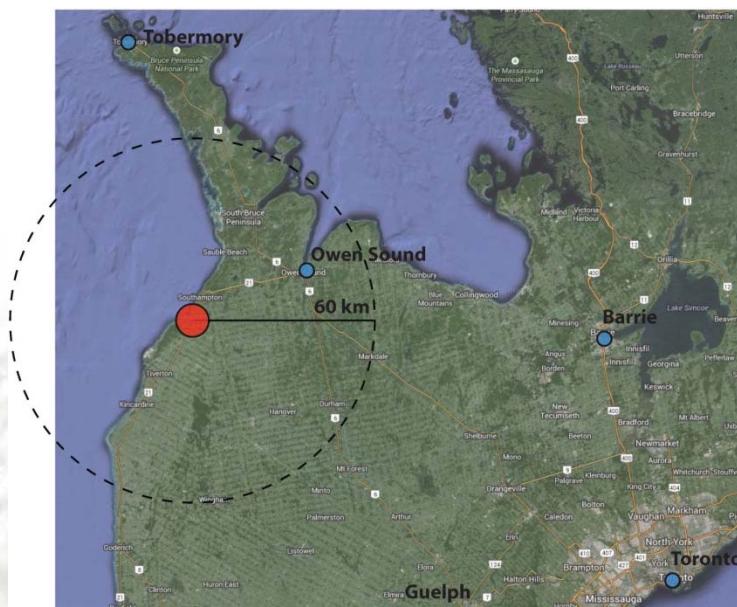


Figure 2.1: Regional Context Map

Local Context

The Port Elgin Main Beach study area is located between Elgin Street and Izzard Road. It is surrounded mainly by permanent and seasonal residential uses. The Main Beach lies adjacent to the Port Elgin Harbour which attracts a number of transient vessels each year.



Figure 2.2: Local Context Map



2.0 Context + Analysis

2.2 Beach Size Comparison

The Port Elgin Main Beach is a fairly large beach (27,555 m²) compared to other public beaches along the Lake Huron shoreline, with the exception of Southampton, which is nearly double the size (48,570 m²). Port Elgin's beach is wider than the other comparable beaches providing the potential for various beach-related zones or layers to exist.

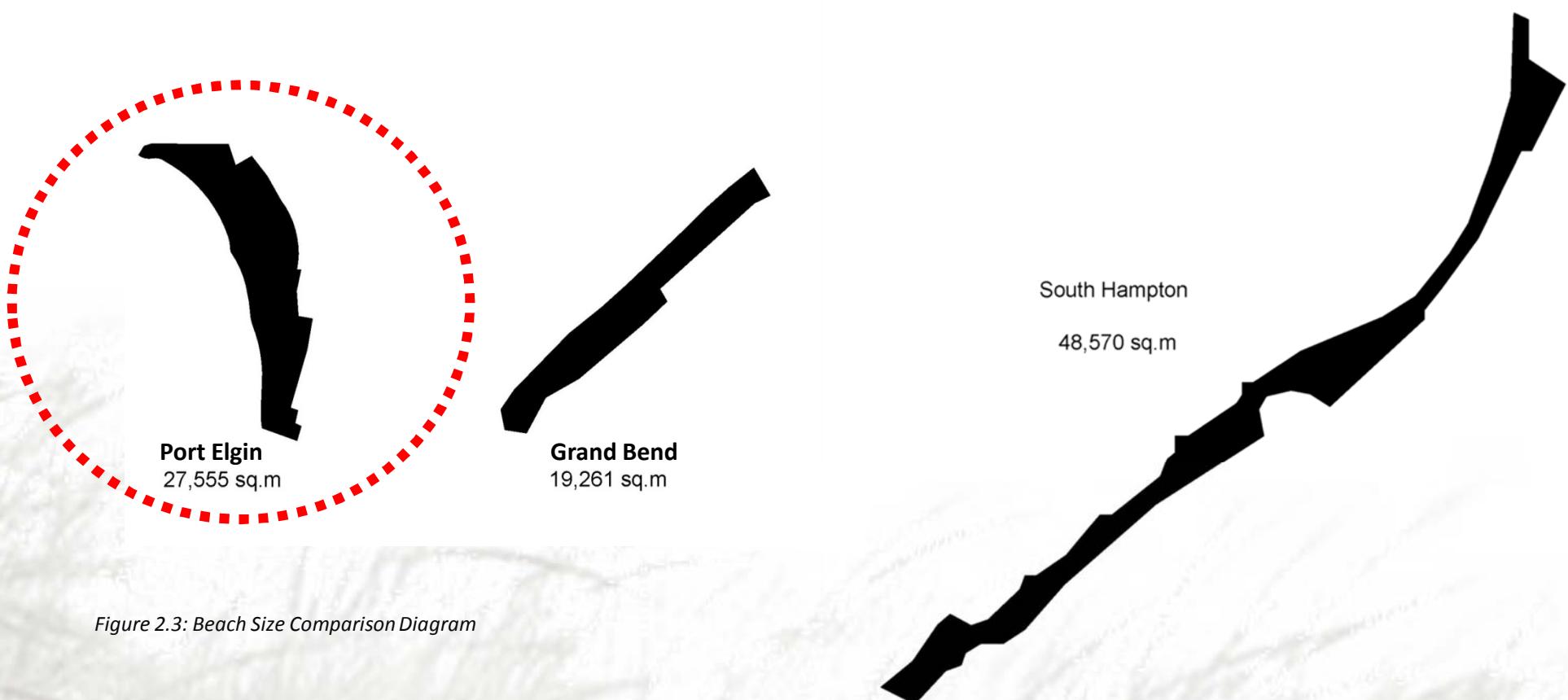


Figure 2.3: Beach Size Comparison Diagram

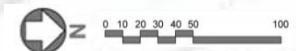
2.0 Context + Analysis

2.3 Visual Analysis

The existing conditions of the study area were documented through a visual site analysis. Identified are key facilities and amenities, issues, and areas of concern and conflict.



Figure 2.4: Visual Analysis



2.0 Context + Analysis

2.4 Circulation + Destinations

The road network surrounding the Main Beach area is configured in a grid pattern, allowing for adequate pedestrian, cyclist, and vehicular access. The two access points into the Main Beach area are both areas of conflict between pedestrians and vehicles due to a lack of definition. A number of pedestrian destinations are distributed throughout the study area; clear and defined linkages between these areas could be enhanced.

LEGEND

- Road Network
- Pedestrian Walkway
- Multi-Use Pathway
- Informal Cycling Corridor (on-road)
- Potential Cycling Route
- Surface Parking
-  Access Point / Gateway
-  Pedestrian / Vehicular Conflict Zone
-  Pedestrian Destination
- 1. The Beachside Café
- 2. Public Washrooms
- 3. The Station
- 4. Harbourlite Restaurant / Harbour Office



Figure 2.5: Circulation + Destinations Diagram

2.0 Context + Analysis

2.5 Climate

As illustrated in the adjacent diagram, winter prevailing winds, an important climatic elements which may impact upon user comfort, comes from multiple directions. Developing wind buffers through planting or artificial screens would be required to create a comfortable micro-climatic environment for the users to enjoy the beach area in the winter months. The Sun Exposure Analysis also indicates areas receiving maximum sun exposure which may be a welcoming element in the winter months while requiring some shading from trees or artificial canopies for user comfort in the summer.

LEGEND

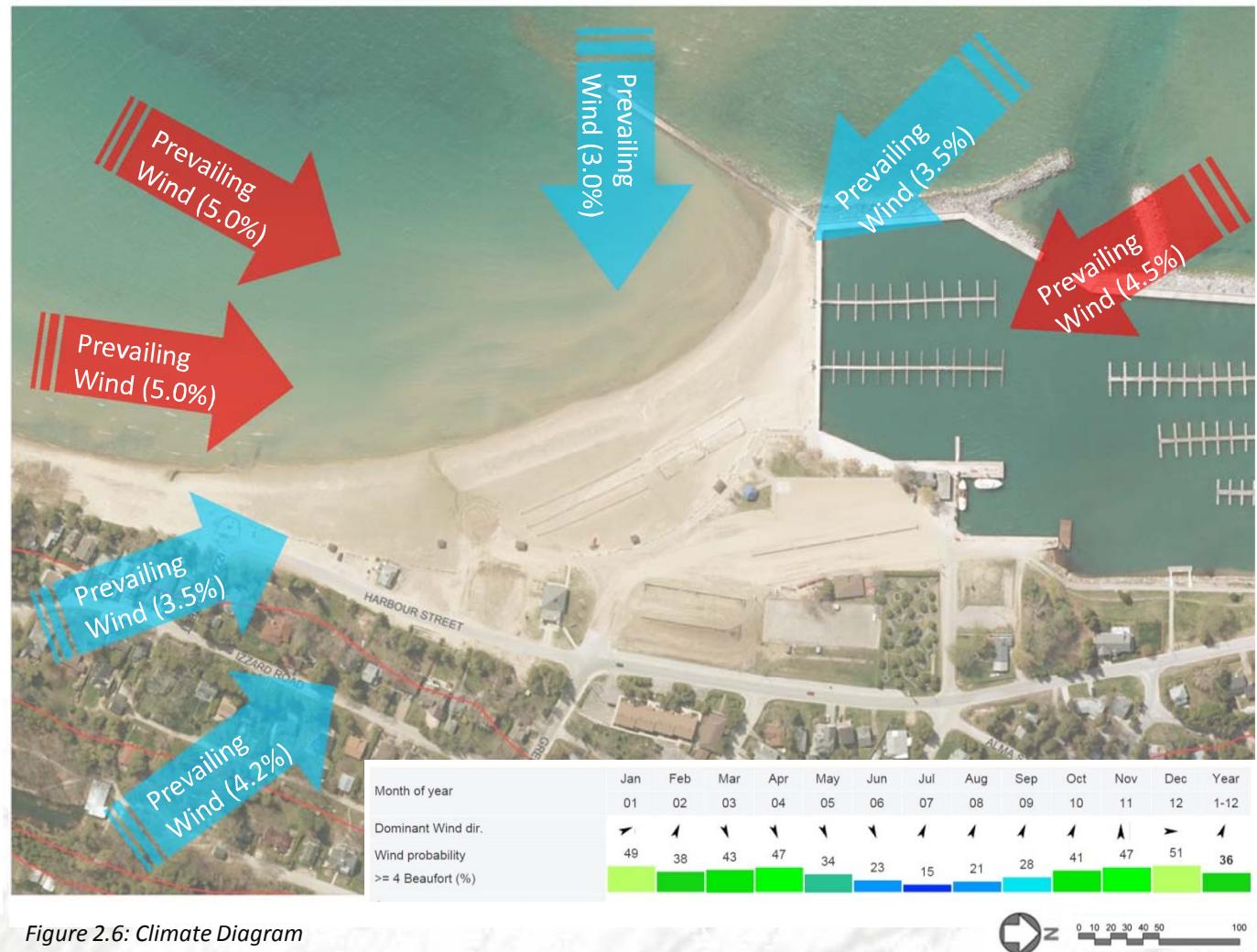
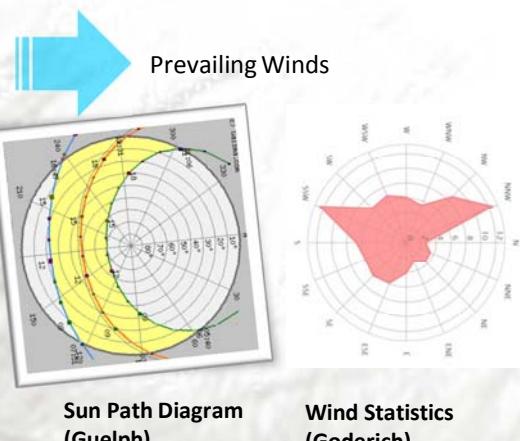


Figure 2.6: Climate Diagram

2.0 Context + Analysis

2.6 Topography + Drainage

The topography of the site and surrounding area is naturally sloped towards the lake, offering significant views westward from Green Street directly to the waterfront area. As a result of this topographic configuration, surface water drainage flows to the beach area from the high points towards downtown. However, once drainage arrives near the beach area, the topography levels out significantly contributing to slower water drainage and the wet sand conditions.

There is also an issue of water flowing out of a sub-drain pipe onto the beach near southern parking areas; alternative solutions to mitigate this should be further investigated.

LEGEND

- Blue arrow: Drainage Direction
- Red arrow: Water Outlet
- Red line: 5m Contour
- Blue line: Water
- Brown line: Sanitary / Sewer



Figure 2.7: Topography + Drainage Diagram

2.0 Context + Analysis

2.7 Parking Capacity

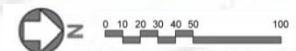
The total parking capacity for the Port Elgin Main Beach is approximately 389 parking spots. There are approximately 282 spaces located in the main lot and approximately 107 spaces along the street. It should be noted that this count is approximate given that the current parking area is largely undefined, with the exception of the angled parking across from the main lot along Harbour Street. Beach users are likely to park further away from each other since there are no parking lines for the spots. A width of 2.8 meters per parking spot was assumed to account for wider parking habits.

LEGEND

- Main Lot **Approx. 282 spaces**
- Street **Approx. 107 spaces**



Figure 2.8: Parking Capacity Diagram



2.0 Context + Analysis

2.8 Beach Capacity

After subtracting the sand dunes and volleyball area the general beach area is approximately 23,600 square metres. To ensure the maximum person capacity without degrading the beach experience British Columbia Parks considers a social carrying capacity method which suggests a low to medium beach density of 20 to 30 sq.m per person. Therefore, the beach capacity was calculated to range approximately from 787 to 1,180 people. It should be noted that the sand conditions (such as wet sand) also affect the usable beach area. The calculations also do not include the water capacity.

LEGEND

	General Beach Approx. 23,600 m ²
	Sand Dunes Approx. 3,200 m ²
	Volleyball Area Approx. 2,100 m ²



Figure 2.9: Beach Capacity Diagram

2.0 Context + Analysis

2.9 Opportunities + Constraints

Through the site investigation and analysis stage, a number of opportunities and constraints or challenges have been identified relative to the study area. The key opportunities and constraints have been identified on the adjacent diagram.

LEGEND

-  Vehicular Gateways
-  Existing Facilities / Activity Nodes
-  Pedestrian Gateways to the Beach
-  Vehicular Definition / Circulation
-  Beach Activity Zone (Wet Beach / Sand Erosion)
-  Beach Access Zone (Dunes / Preservation Measures)
-  Promenade Zone (Pedestrian Connectivity)
-  Activity Zone (Dry Activity Area)
-  Opportunity for Pedestrian Access (Definition)
-  Relationship with the Downtown and Connectivity
-  Potential Revitalization / Redevelopment Site

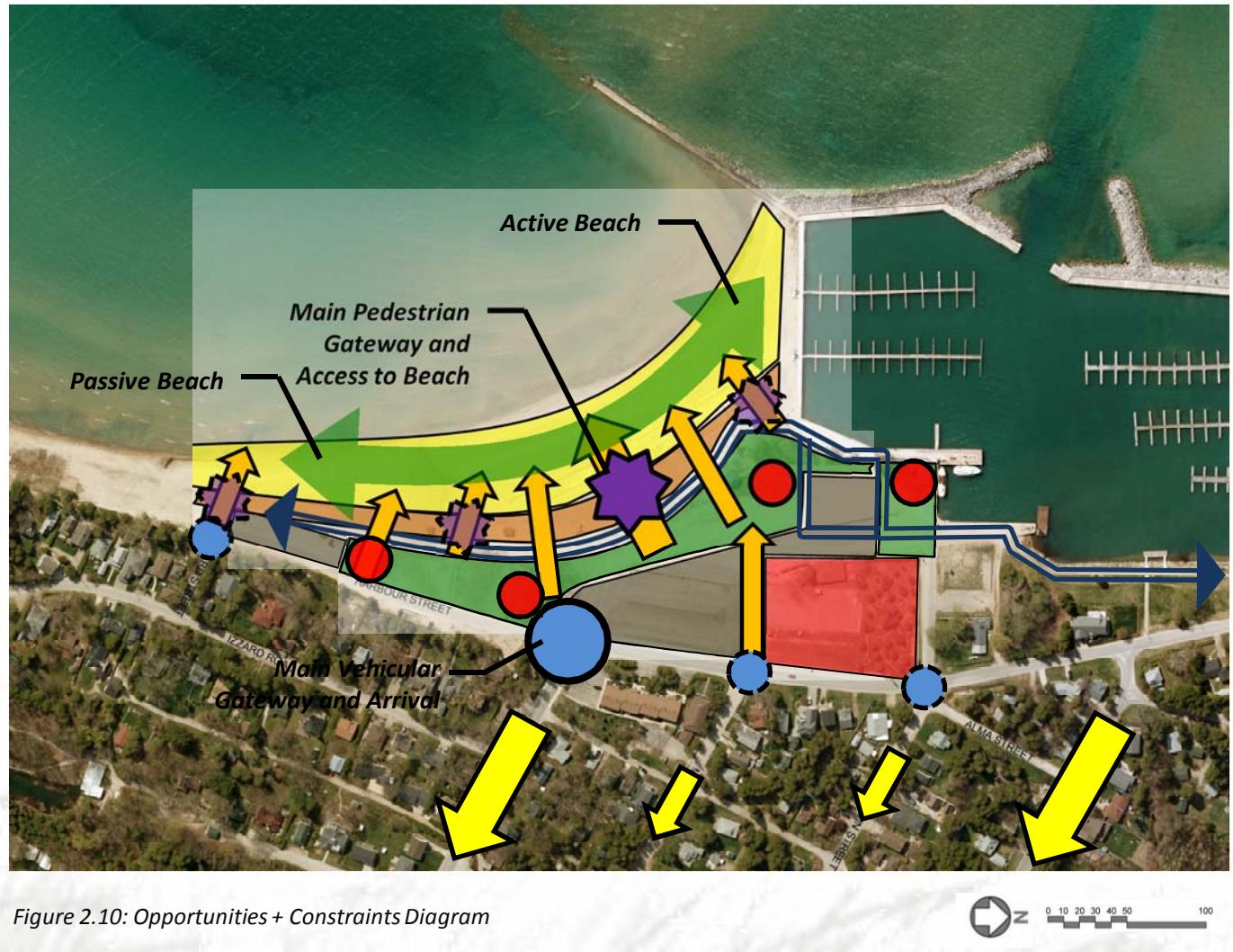
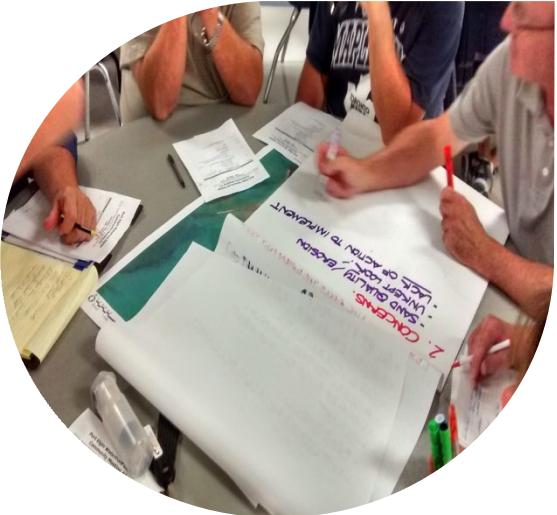


Figure 2.10: Opportunities + Constraints Diagram



3.0 Consultation Summary

3.1 Process Overview

3.2 Identified Strengths + Challenges

3.3 Vision and Priorities

3.0 Consultation Summary

3.1 Process Overview

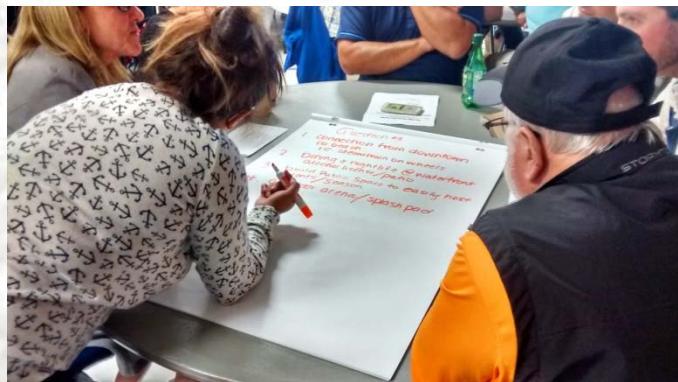
Developing a Waterfront Design Concept for the Port Elgin Main Beach requires that the entire community be engaged at the outset. The process is as important as the product that emerges. While the process to develop the Waterfront Design Concept is Town led, it must be community driven. From project initiation, the approach has been based on promoting inclusion and engaging members of the community in productive dialogue. The process is premised on a 'whole team approach' that fostered a sense of community ownership.

The process began by understanding the recommendations identified in the Waterfront Plan, completed in 2013, as well as recognizing that the Port Elgin Main Beach is the focal point of the entire waterfront. Given the important role that the Main Beach will play now and in Port Elgin's future, a transparent, open and collaborative planning model was imperative for project success.

Given the importance of a community-driven approach, a number of opportunities have been provided to date to allow members of the community to come forward with their ideas concerning the strengths, weaknesses and areas of opportunity for the Port Elgin Main Beach.

From the initial start up meeting on August 19th, 2014, members of the Consulting Team worked collaboratively with Town staff to design an effective engagement process at the community level. The engagement strategy is one that combined a number of critical component pieces including:

- One-on-One Interviews with Internal Staff (August 2014)
- Initial Community Listening Session / Workshop (August 28th, 2014)
- Community Open House – Presentation of Concept Options (September 25th, 2014)
- Online Questionnaires (August and September 2014)



Initial Community Listening Session (Aug. 28th, 2014)



3.0 Consultation Summary

3.2 Identified Strengths + Challenges

The following is a summary of the discussions at the initial community engagement sessions held August 28th, 2014. This summary provides an overview of the current strengths and perceived issues and challenges identified throughout the engagement process.

What do you like about the beach now?

- Aesthetics – sunsets, views, etc.
- Sense of Community
- Existing Facilities
- Activities / Events – concerts, flea market, etc.
- Recreation – volleyball, playground, promenade
- Natural Features – large sandy beach, etc.

What are your concerns related to the beach?

- Existing Facilities – in need of upgrades, signage, etc.
- Recreation / Activities / Events – concern for safety and visual appeal
- Maintenance Issues - garbage removal, washrooms
- Environmental – wet beach, invasive grasses, water quality
- Adjacent Uses, Linkages and Views
- Safety and Accessibility

3.3 Vision and Priorities

Based on the strengths, challenges, and opportunities, visions and priorities have been distilled and are summarized as follows:

Four Season Destination Community Accessibility and Linkages Family-Oriented Overall Beautification Upgraded Facilities Parking Lot Improvements and Organization Splash Pad / Winter Skating Active Transportation Facilities Dining and Nightlife Opportunities Connection with Downtown Water Sport Rentals / Outfitter More Evening Entertainment Extended Promenade Improved Beach Quality Wi-Fi Facility Improvements Improved Overall Maintenance Safety and Accessibility Improvements



4.0 Final Waterfront Design Concept

- 4.1 Summary of Key Issues
- 4.2 Waterfront Design Concept
- 4.3 Vehicular and Pedestrian Circulation Network
- 4.4 Concept Elements
- 4.5 Recommendations

4.0 Final Waterfront Design Concept

4.1 Summary of Key Issues

The final Waterfront Design Concept was created in response to comments received on the conceptual options (see Appendix A), with input from the public and stakeholder consultation process, as well as through discussions with Town staff and the Waterfront Ad Hoc Committee. The following is a summary of key issues related to the Port Elgin Main Beach area that have been addressed and resolved within the Final Design Concept:

- Focus on safe recreation activities that support the function of the site as a key destination and provide for environmental, social and economic sustainability.
- Expand existing washroom facility to include outdoor showers, water fountains and upgraded washrooms / change rooms.
- Add and update facilities that support the current uses and expand visitor and revenue generation opportunities.
- Develop an entertainment / multi-use structure that can accommodate existing and expanded uses and allow for partnerships with various organizations and events.
- Preserve existing views and vistas to the beach and lake through the implementation of landscape elements (tall trees, low understory plantings, etc.) that are sensitive to this issue.
- Improve the accessibility for active transportation users by providing user amenities, reducing conflict areas, and providing safe connections.
- Incorporate design standards that promote ecological objectives, such as LEED® and Sustainable Sites Initiative (ASLA), including low impact development (LID) measures, stormwater management / water recycling, use of recycled materials, etc.
- Ensure any new or upgraded facilities and amenities are compliant with the Accessibility for Ontarians with Disabilities Act (AODA), as appropriate.

4.0 Final Waterfront Design Concept

4.2 Waterfront Design Concept

As Port Elgin Main Beach serves as an important land and water resource within the Town of Saugeen Shores and has consistently been a significant destination over the decades for residents, tourists and visitors alike. It is important to ensure that the Design Concept balances the environmental, social, and economic sustainability of the site.

The Design Concept focuses on the Port Elgin Main Beach; the beach portion of which is recommended to be designated into an Active Beach and a Family Beach; this was supported by the community at the engagement sessions. The Active Beach area (located towards the south end) is envisioned to accommodate more active recreational uses such as the relocated volleyball courts, badminton, Frisbee, stand-up paddle boarding, kayaking, windsurfing, etc. The Family Beach (located towards the pier where there is shallow water) area is envisioned to accommodate more passive uses such as family picnicking, sandcastle / sculpture building, and a designated swimming area for children.



Active Beach Use - Volleyball



Family Beach Use – Sandcastle Building

As a result of the community feedback obtained, the Design Concept is based on Concept Option #2 with some modifications.. The final Waterfront Design Concept includes the following elements:

- Entertainment Node / Multi-Use Structure
- Addition and Enhancement of Washroom Building
- Extended Promenade
- Enhanced Arrival Area
- Beach Revitalization
- Beach Access Gateway Features
- Children's Dry Play Area
- Splash Pad / Ice Skating
- Waterfront Heritage Interpretation
- Fire Pit Area
- Naturalized Beach Planting
- Potential Rental / Commercial Activity Tents
- Enhanced Look-Out Points
- Re-Organized Parking Areas
- Service / Delivery Area
- Future Development Site

The key elements of the Design Concept are further described on the following pages.

4.0 Final Waterfront Design Concept

Final Design Concept

- 1) Main Beach Access (Access for Emergency and Maintenance Vehicles)
- 2) Children's Play
- 3) Enhanced Beach Arrival
- 4) Improved Washroom Building (*w/ Change Rooms, Outdoor Showers, Water Fountains, etc.*)
- 5) Pedestrian-Only Connection
- 6) Heritage Sculpture
- 7) Heritage Amusement Train Rails
- 8) Future Development Site
- 9) Trail Extension
- 10) Relocated Train Station
- 11) Potential Future Expansion
- 12) Sand Parking
- 13) Asphalt Access Road
- 14) Multi-Use / Entertainment Structure
- 15) Potential Rental / Commercial Activity Tents
- 16) Future Promenade Extension
- 17) Extended Promenade



Figure 4.1: Final Design Concept

4.0 Final Waterfront Design Concept

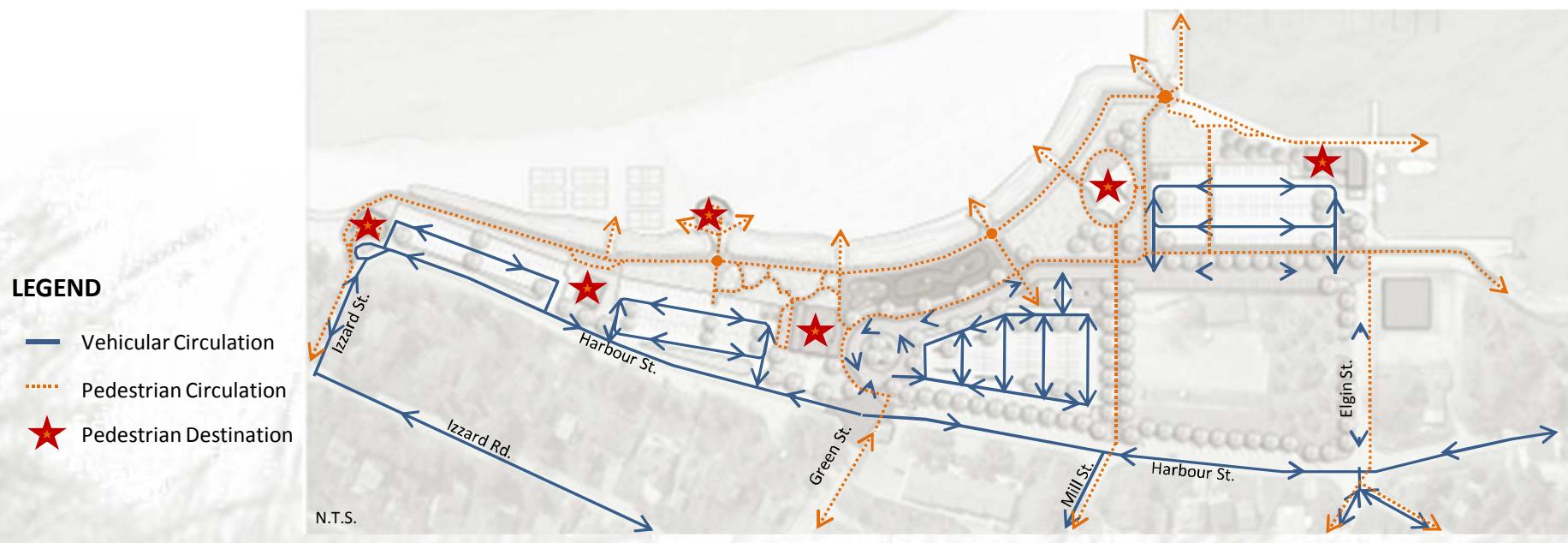
4.3 Vehicular and Pedestrian Circulation Network

Vehicular Circulation Network

Due to the largely unstructured nature of the existing parking areas and vehicular circulation network, it is recommended that an improved and organized vehicular circulation network be implemented. A central asphalt roadway through the site will provide a structure for the parking areas, define the various spaces, as well as provide definition and clarity to the pedestrian circulation network.

Pedestrian Circulation Network

The Design Concept incorporates a comprehensive and enhanced pedestrian circulation network. Extension of the promenade, safe pedestrian crossings at roads, pedestrian linkages to parking areas, a pedestrian-only connection from Harbour Street (at the foot of Mill Street) to the beach, and safe crossings for trail users at Elgin Street, all contribute to a clearly defined pedestrian circulation network. Providing secure bicycle parking that is in a visible location is also an important consideration, promoting all modes of active transportation and a healthy lifestyle.



4.0 Final Waterfront Design Concept

4.4 Concept Elements

Entertainment Node / Multi-Use Structure

It became clear through the consultation process that a large covered area for performances, events and ceremonies to take place was desired, as the current gazebo is not adequate. The structure can provide shelter, weather protection and improved acoustics for special events. A small maintained grass area (or artificial turf) around the hard surface performance area could be integrated into the design to allow for additional seating space for larger events.



Key Plan



Sand Fence
Naturalized Beach Planting and Trees
Accessible Parking
Maintained Grass Area
Entertainment / Multi-Use Structure and Performance Area
Pedestrian Walkway



Performance Area



Grass Seating Area



Iconic Multi-Use Structure

Figure 4.3: Entertainment Node / Multi-Use Structure Detail Area

4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

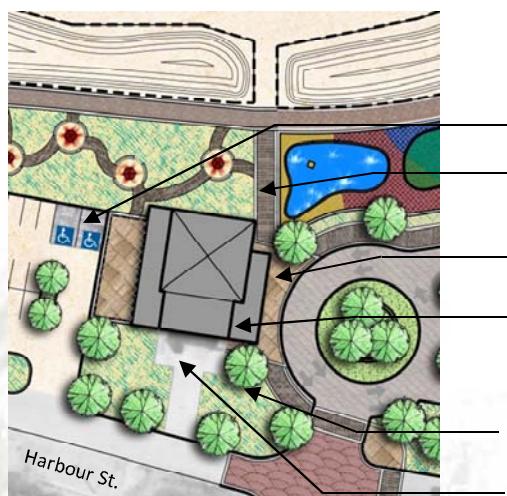
Addition and Enhancement of Washroom Building

The existing washroom facility is currently in need of upgrading. The facility should be expanded, increasing the size and capacity with additional stalls, sinks, changing areas, water fountain / bottle filling station, outdoor shower and foot washing station. The design shall comply with AODA standards to ensure that the facility is accessible for people of all ages and abilities.



Key Plan

Existing Washroom Building



- Accessible Parking
- Pedestrian Walkway / Connections
- Arrival Plaza
- Expanded Building to accommodate washroom improvements and outdoor showers
- Naturalized Beach Planting
- Service Access

Figure 4.4: Enhanced Washroom Building Detail Area



Outdoor Shower / Foot Wash Station



4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

Extended Promenade

The current promenade is a popular destination for visitors to watch the sunset, go for a stroll or to access the beach area. The promenade currently extends from the pier to the washroom building. It is recommended that the promenade be extended towards the south to Izzard Road which will provide a safe and accessible pedestrian route to the southern end of the study area connecting the look-out points and key destinations.

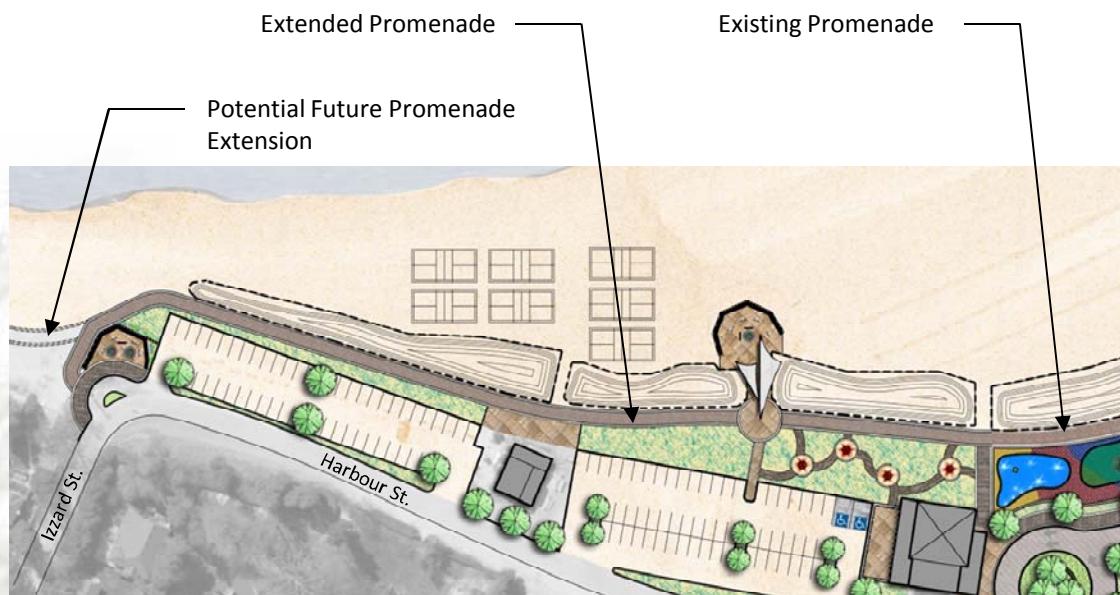
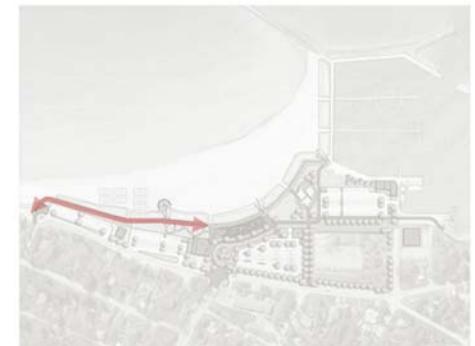


Figure 4.5: Extended Promenade Detail Area



Key Plan



Existing Promenade



Current Terminus of Promenade at Washroom Building

4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

Enhanced Arrival Area

The existing intersection at Green Street and Harbour Street, the main entrance area to the beach, currently does not provide visitors with a sense of arrival to the beach area. It is recommended that the intersection is improved to create safe and clearly defined pedestrian crossings with specialty paving and that a roundabout is implemented within the site to allow for a drop-off area, and improved and clear vehicular and pedestrian circulation. A four-way stop intersection should be considered here. This area also provides the opportunity for a beautified arrival gateway with enhanced planting, paving, and arrival feature such as a signage wall or themed sculptural elements.

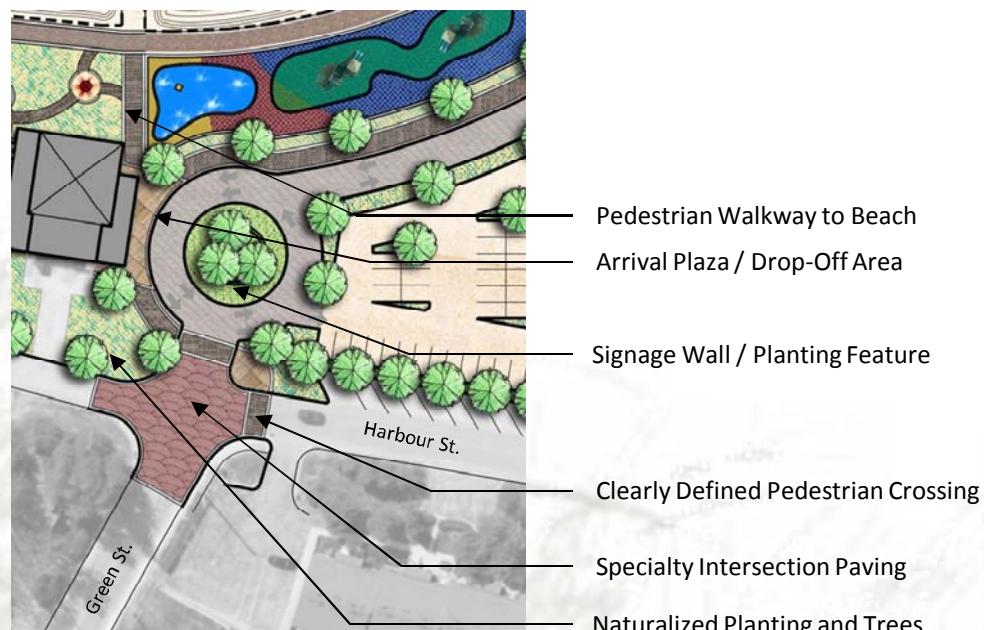
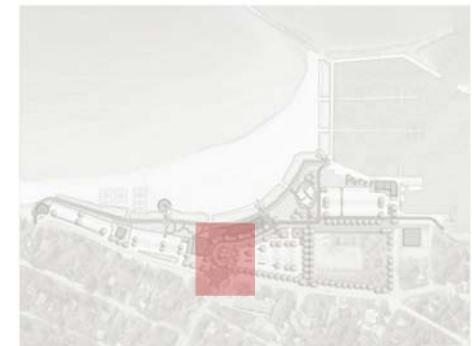


Figure 4.6: Enhanced Arrival Detail Area



Key Plan



Specialty Intersection Paving



Signage Wall and Planting at Arrival Plaza, Grand Bend, ON



4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

Enhanced Arrival Area



Existing Arrival Area for Port Elgin Main Beach



Key Plan



View of Proposed Enhanced Arrival Area for Port Elgin Main Beach

4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

Beach Revitalization

Reconfigured Sand Dunes

In order to address the existing issue of sand migration reconfigured and enhanced sand dunes are recommended to be implemented between the beach area and the promenade along the length of the promenade and the pier area. Temporary sand fencing shall be installed to protect the dunes and ensure establishment of the dune grasses. Once established the temporary sand fencing can be removed, while beach access points need to be defined to ensure the continued success of the dunes and prevent trampling. Designated access points shall be strategically placed along the length of the beach. Educational signage related to the sensitivity and necessity of re-establishing sand dunes should be displayed.



Re-establishing Sand Dune



Key Plan



Clearly Defined Beach Access Route



Figure 4.7: Reconfigured Sand Dunes Detail Area



Educational Signage

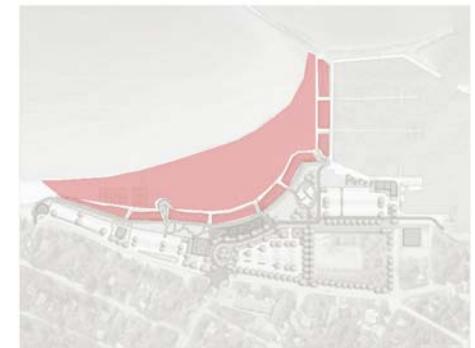
4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

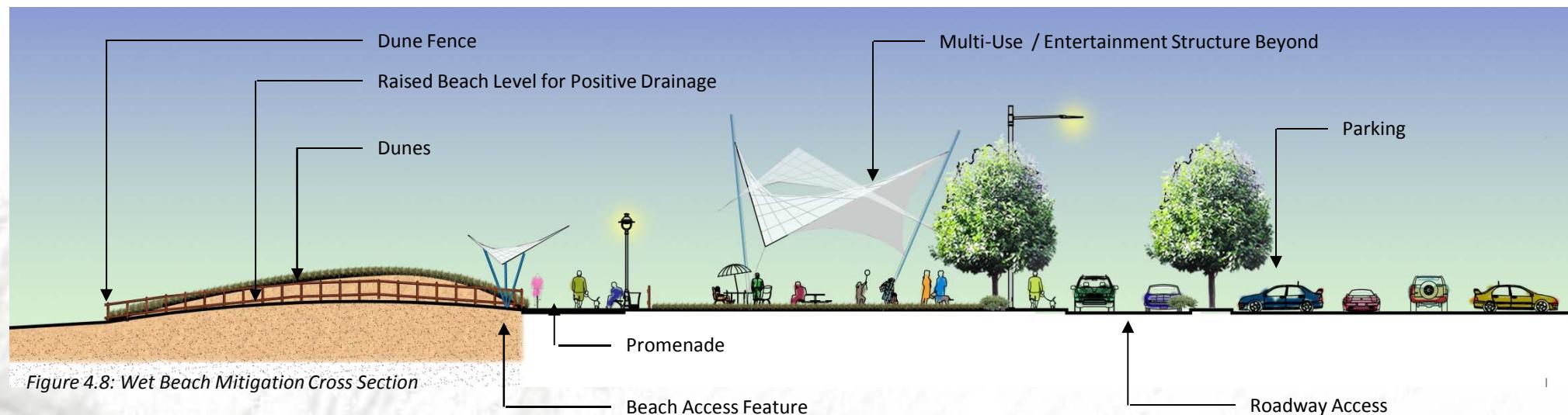
Beach Revitalization

Wet Beach Mitigation

To combat wet sand conditions it is proposed that the general level of the beach be re-graded and raised to generate a positive drainage slope. By creating a positive drainage slope, the fast draining water from the eastern neighbourhood will have less time to pool in the beach area and therefore drain into the lake quickly, creating drier sand conditions. Further study will be required to determine exact grading requirements.



Key Plan

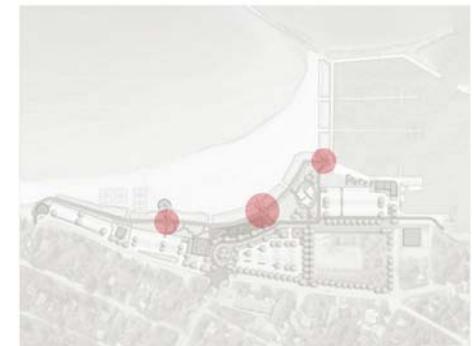


4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

Beach Access Features

Establishing pedestrian access points to the beach is important to ensure successful dune establishment and as a wayfinding element. These iconic features will reinforce the beach theme for Port Elgin as well as provide shade along the promenade. The main beach access will not only provide pedestrian access to the beach but shall also be designed to accommodate emergency and maintenance vehicles with a minimum width of 6 metres.



Key Plan

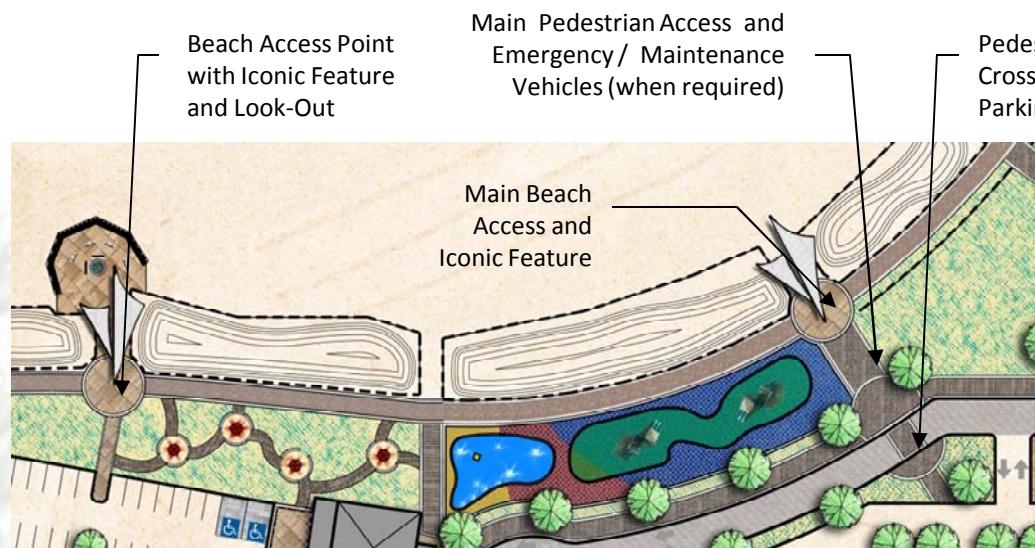
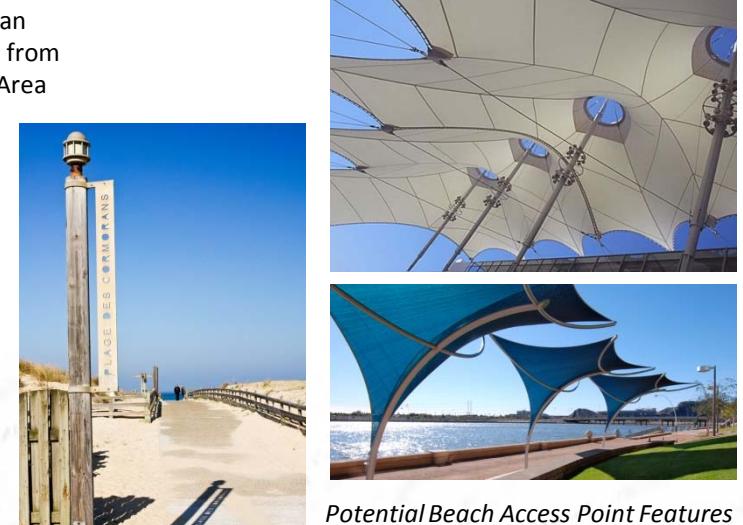


Figure 4.9: Beach Access Features Detail Area



4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

Children's Dry Play Area

An existing children's dry play area, located near the washroom building, is in need of upgrades. It is recommended that a new children's dry play area be implemented in the activity zone between the promenade and the parking area near the main entrance. This play area should have both junior and senior play facilities and shall have an adequate safety zone around the structure. The play structure is recommended to be accessible for all ages and abilities.

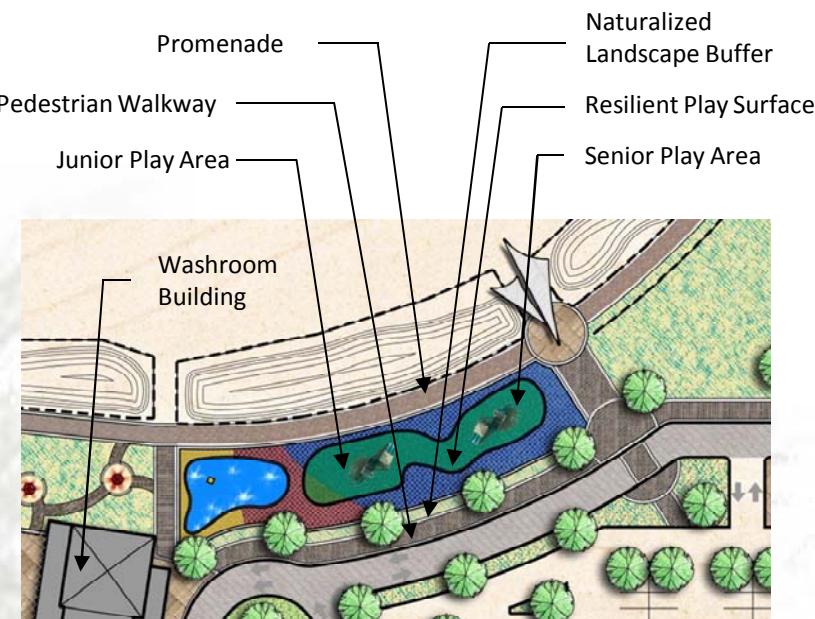


Figure 4.10: Children's Dry Detail Area



Key Plan



Potential Children's Junior Dry Play Area



Children's Senior Dry Play Area, Grand Bend, ON



4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

Splash Pad / Ice Skating

Incorporating a children's splash pad into the waterfront Design Concept was a clear direction that was identified during the community consultation sessions. The splash pad is recommended to be located between the washroom building and the dry play area within the activity zone. The splash pad is recommended to be fully accessible for all ages and abilities.

Another clear direction that came out of the community consultations was the need for four season uses at the beach. Consideration for ice skating is recommended to be incorporated into the splash pad design to accommodate users during the winter months. Winter wind buffers for human comfort shall be considered.

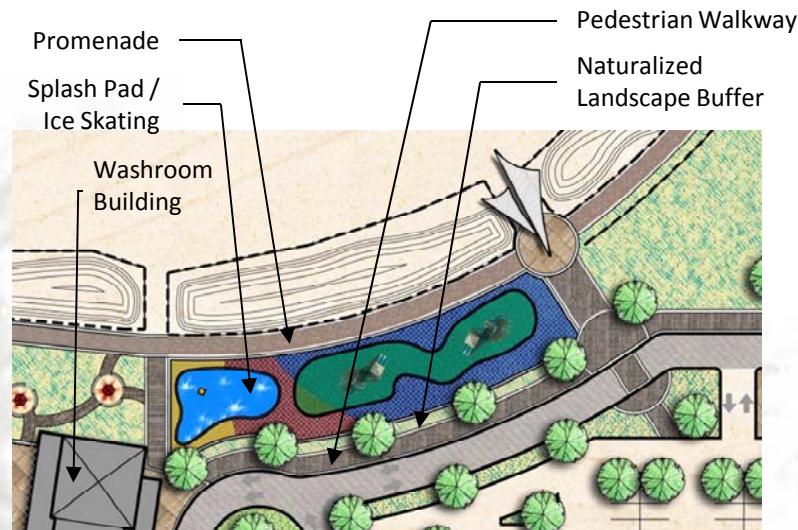
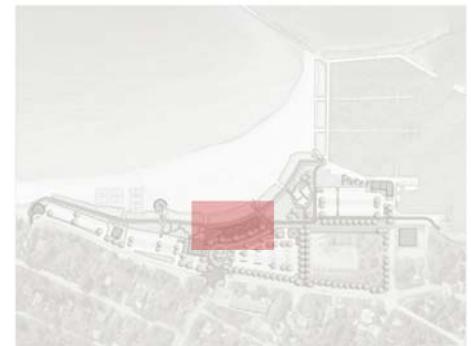


Figure 4.11: Splash Pad / Ice Skating Detail Area



Key Plan



Splash Pad / Ice Skating, Newmarket, ON



Splash Pad / Ice Skating, Guelph, ON

4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

Waterfront Heritage Interpretation

The existing amusement train and station, a popular summer attraction, is recommended to be relocated to North Shore Park, to the north of the beach area. It is important that this piece of Port Elgin's nostalgic beach history is not forgotten, therefore it is recommended that an interpretive node is developed to recognize the heritage of the waterfront including the amusement train. This could be done by leaving the train rails in their current location, provide the history of the Port Elgin Main Beach, the amusement train and station through interpretive signage, and / or hiring a local artist to create a sculpture to commemorate this heritage.

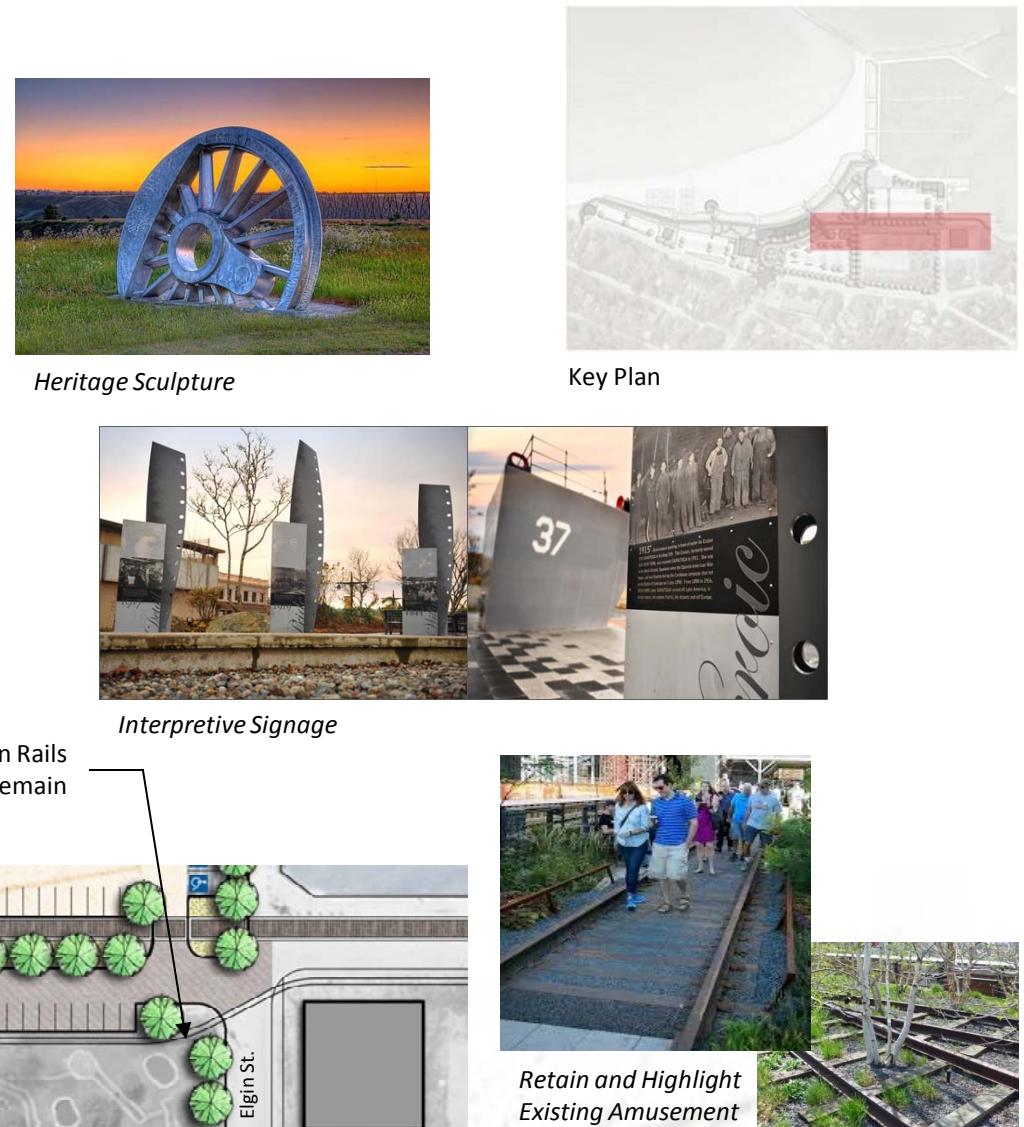


Figure 4.12: Beach Heritage Interpretation Detail Area

4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

Fire Pit Area

A key recommendation that came out of the Waterfront Master Plan for Saugeen Shores was the inclusion of fire pits at Port Elgin beach; this desire was reiterated through the community consultation sessions. It is recommended that the fire pits are located close to the improved washroom building. This area would be sand based and have stones strategically located around the fire for seating. The fire pit itself is recommended to have a protective mesh steel cover for safety. The fire pits would be usable year-round and would provide an additional use to the beach area all year-round.

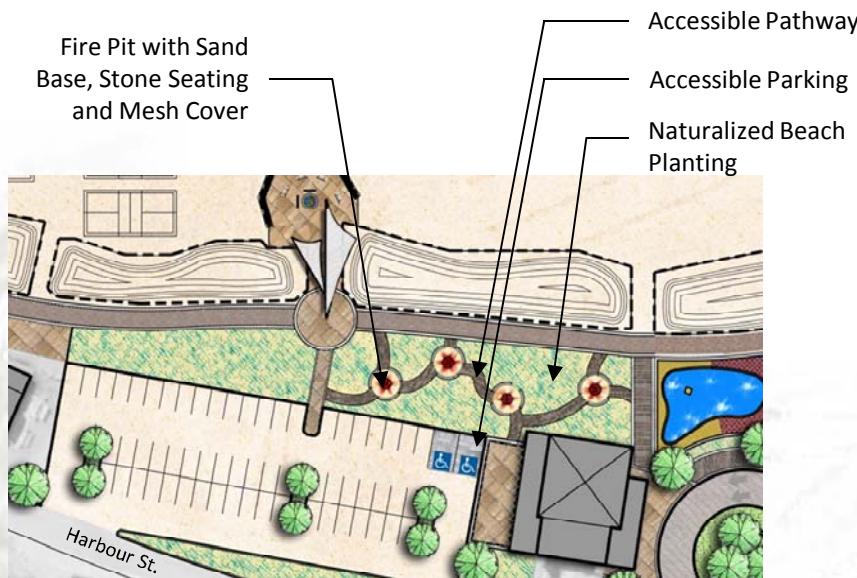


Figure 4.13: Fire Pit Detail Area



Key Plan



Family-Oriented Evening Activity



Multi-Season Usability



Safety Cover Recommended



4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

Naturalized Beach Planting

It is recognized that the existing mowed grass areas, particularly surrounding the washroom building, attract Canada Geese which results in a messy and unattractive area that people are not able to enjoy. Removing the mowed grass areas and replacing with naturalized beach planting will deter the geese to gather near the beach and will aide in deterring sand migration from the beach. This will occur in all planted areas, such as surrounding the entertainment / multi-use structure, within the parking areas, and on the east side of the promenade to separate the pedestrian walkway from the parking areas.



Key Plan



Naturalized Beach Planting



Rental Tents / Commercial Activity Node

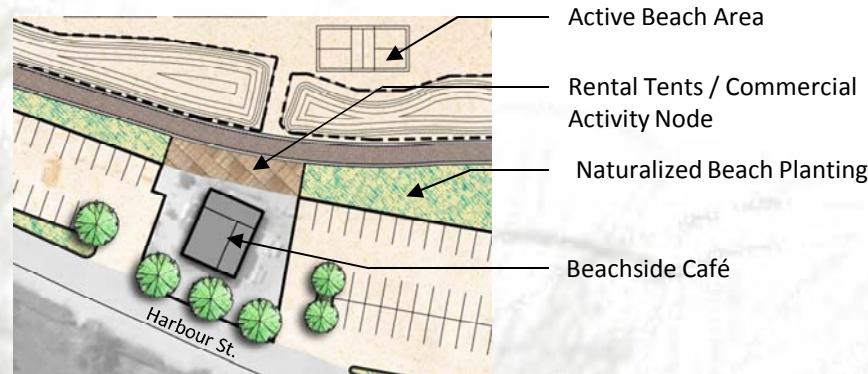


Figure 4.14: Commercial Activity Node Detail Area

4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

Enhanced Look-Out Points

The two existing sheet pile areas, located at Izzard Street and halfway between the washroom and Beach Café buildings, provide the opportunity for improvement and beautification, transforming them into enhanced look-out points. These areas will act as gathering nodes, with seating, landscaping, interpretive signage, and armour stone strategically placed to screen the sheet pile that is currently visible from the beach. These look-out points are envisioned to be fully accessible.

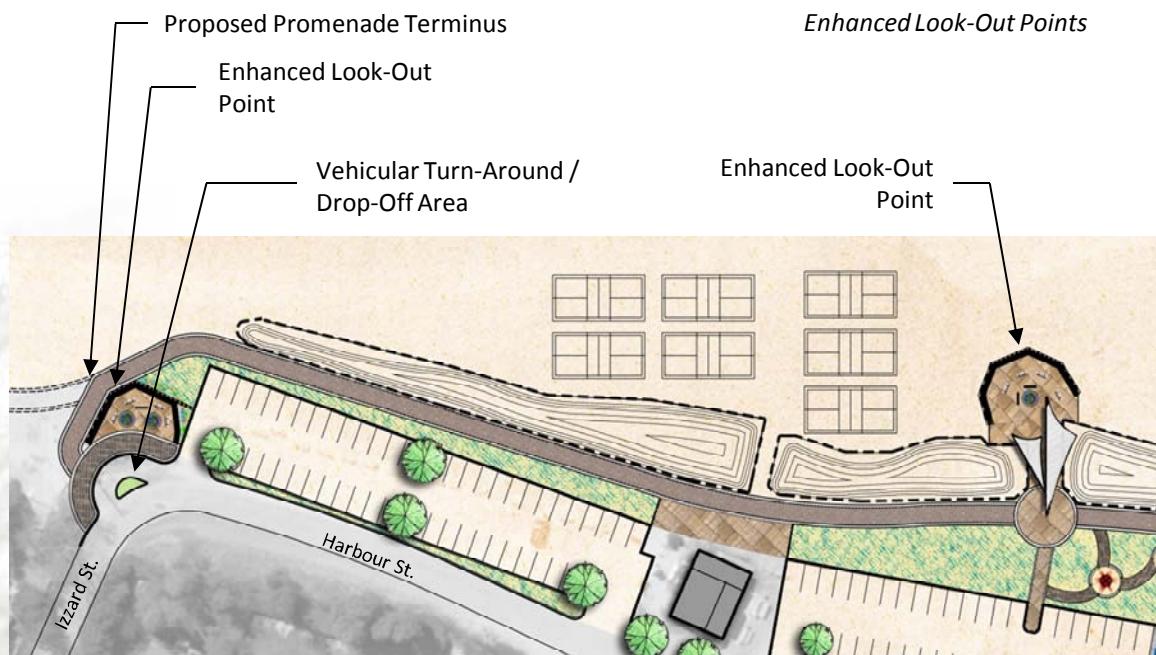


Figure 4.15: Enhanced Look-Out Points Detail Area



Enhanced Look-Out Points



Key Plan



Benches with View to Lake



Interpretive Signage

4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

Re-Organized Parking Areas

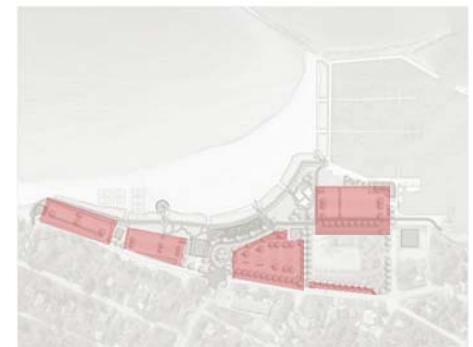
Providing more structure to the parking areas while maintaining as many parking spaces as possible is an important feature of the concept design. While the parking lots will be sand the parking rows will be delineated by landscaped islands with naturalized beach planting and trees providing some shade in the parking areas and well as helping to prevent sand migration. The southern two parking areas (south of the washroom building) will be further defined with planted islands along Harbour Street to provide structure to the areas and delineate the roadway. Accessible parking spaces have been strategically located along the length of the beach with easy access to the promenade and other accessible areas.



Figure 4.16: Re-Organized Parking Detail Area



Existing Unorganized and Underutilized Parking Area



Key Plan



Landscape Islands with Naturalized Planting



Accessible Parking with Permeable Paving

4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

Service / Delivery Area

The north parking lot (near the Harbour Office and Harbourlite Restaurant) delineates the service area for delivery vehicles only, located to the north of the landscaped island and accessible parking spaces. This will separate the service and regular vehicles, provide definition of space, and be clearly signed for "Service Vehicles Only". During the busy summer months deliveries could be limited to occur in the early morning or evening when the beach is not as busy to reduce potential conflicts.



Existing Service / Delivery Area



Key Plan

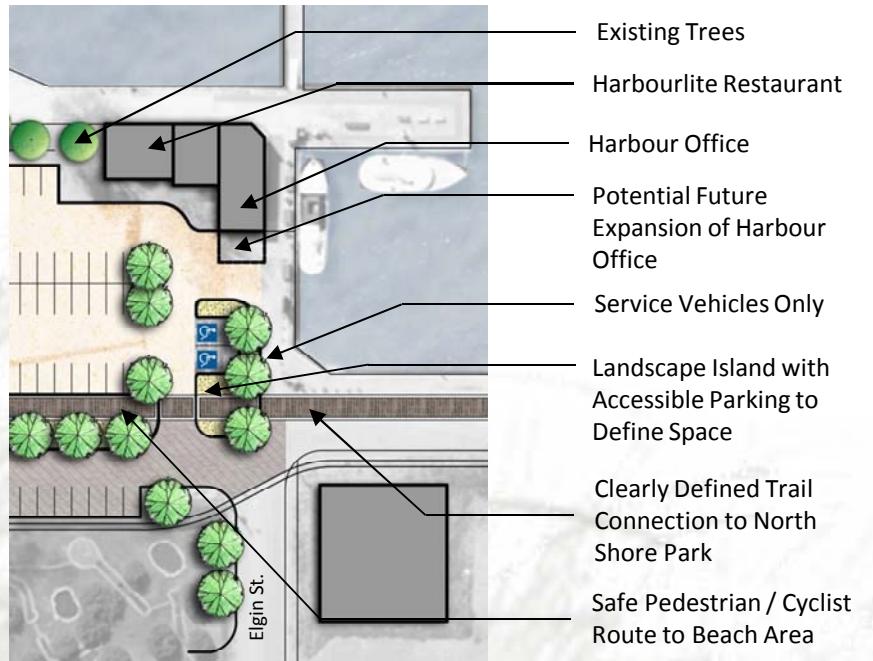


Figure 4.17: Service / Delivery Detail Area



Landscape Island to Define Service Area



Clearly Defined Trail Connection

4.0 Final Waterfront Design Concept

4.4 Concept Elements (Cont'd)

Future Development Site

The future development site, located at the intersection of Harbour Street and Elgin Street, has great potential for a contextually sensitive mixed-use development in the future. The existing attractions (mini golf, train station, etc.) are recommended to be relocated to North Shore Park.



Key Plan



Figure 4.18: Future Development Site Detail Area



Potential Future Development Site

4.0 Final Waterfront Design Concept

4.5 Recommendations

In addition to the elements identified in the Design Concept, a number of recommendations are provided for consideration by the Town of Saugeen Shores for the Port Elgin Main Beach area. These include:

Management, Maintenance and Operations

- Undertake a Maintenance and Operations Management Plan for Port Elgin Main Beach.
- Ensure that any new or upgraded facilities and amenities are compliant with the Accessibility for Ontarians with Disabilities Act (AODA), as appropriate.
- Undertake an annual assessment of the Design Concept progress to review projects completed to date, next steps, and future directions.

Other

- Investigate alternative solutions to address the water outlet pipe (located just south of the northern look-out point) through exploring creative and sustainable stormwater management techniques.
- Investigate the feasibility of implementing a shuttle service between the main beach and the downtown core to promote economic development and strengthen the relationship between these two significant assets.



5.0 Implementation Strategy

- 5.1 Priorities + Phasing Plan
- 5.2 Site Development Costs

5.0 Implementation Strategy

5.1 Priorities + Phasing Plan

The phasing plan was created keeping in mind short, medium and long term priorities and the logical phasing approach, while attempting to spread out costs to facilitate implementation. Large capital investment items such as the multi-use / entertainment structure and play areas were placed as long term priorities while beach revitalization measures such as the sand dunes and beach re-grading were placed first to ensure the beach's sustainability and continued health.

Potential Phasing

Short Term Priorities A

- Wet Beach Measures
- Sand Migration Measures
- Promenade Extension
- Washroom Facility Upgrades
- Fire Pit Area

Short Term Priorities B

- Entrance / Gateway Reconfiguration
- Lookouts
- Secondary Sand Migration Measures

Medium Term Priorities

- Beach Access Features
- Parking Definition
- Pedestrian Linkage
- Vehicular Turnaround

Long Term Priorities

- Multi-Use / Entertainment Structure
- Dryplay / Wetplay



Figure 5.1: Phasing Plan

5.0 Implementation Strategy

5.2 Site Development Costs

High level order of magnitude development cost estimates for the Design Concept elements have been developed. These are presented below. The total development cost for all elements in the Design Concept is in the range of \$6.6 million. It should be noted that the total cost does not include design fees but does include a 20% contingency and H.S.T. Detailed costing for each of the elements below can be found in Appendix B.

Short Term (Phase 1A)

Promenade	\$ 488,470.00
Enhanced Washroom	\$ 500,000.00
Sand Migration Measures	\$ 172,620.00
Miscellaneous Items	\$ 232,218.00
Phase 1A TOTAL	\$1,393,308.00

Short Term (Phase 1B)

Entrance + Activity Area	\$ 804,399.00
Miscellaneous Items	\$ 103,189.90
Phase 1B TOTAL	\$ 907,588.90

Medium Term (Phase 2)

Parking / Streetscape	\$ 809,510.00
Miscellaneous Items	\$ 103,475.50
Phase 2 TOTAL	\$ 914,985.50

Long Term (Phase 3)

Children's Play + Water Play	\$ 839,736.00
Structure	\$ 533,740.00
Miscellaneous Items	\$ 274,695.00
Phase 3 TOTAL	\$1,648,177.20



Appendices

Appendix A: Concept Options

Appendix B: Detailed Costing

Appendix A: Concept Options

Concept Option 1 – Nodal Concept



Appendix A: Concept Options

Concept Option 2 – Green Concept

LEGEND

- (P) Defined Parking
- (D) Development Site
- (WP) Water Play
- (DP) Dry Play
- (★) Beach Gateway Feature
- (●) Activity Node - Ex. Food / Services
- (○) Reconfigured Dune
- (○) Enhanced Arrival
- Promenade
- Pedestrian Street
- Streetscaping

 0 10 20 30 40 60 80 100
SCALE 1:2000



Figure A.2: Concept Option 2 – Green Concept

Appendix A: Concept Options

Concept Option 3 – Development Concept

LEGEND

-  Defined Parking
-  Development Site
-  Water Play
-  Dry Play
-  Beach Gateway Feature
-  Activity Node
- Ex. Food / Services
-  Reconfigured Dune
-  Enhanced Arrival
-  Promenade
-  Pedestrian Street
-  Streetscaping

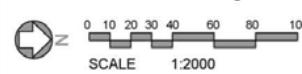


Figure A.3: Concept Option 3 – Development Concept

Appendix B: Detailed Costing

Preliminary Cost Estimate

PORT ELGIN MAIN BEACH						
Item#	Description	Quantity	Unit	Unit Cost	Subtotal	Totals
PHASE 1A						
1	Promenade					
1.1	HARDSCAPE					
1.1.1	Concrete Flush Curb	904	lm	\$120.00	\$108,480.00	\$488,470.00
1.1.2	LD Pedestrian Unit Paving on Concrete Base	1,306.00	m ²	\$200.00	\$261,200.00	
1.2	ILLUMINATION					
1.2.1	Pedestrian Lighting (20m o.c.)	28.00	ea.	\$1,500.00	\$42,000.00	
1.3	SOFTSCAPE					
1.3.1	Hanging Flower Baskets	28.00	ea.	\$75.00	\$2,100.00	
1.3.2	Perennials / Grass / Ground Cover (Naturalized Beach Landscape)	1,768.00	m ²	\$30.00	\$53,040.00	
1.3.3	Street Trees	3.00	ea.	\$550.00	\$1,650.00	
1.4	FIRE PIT AREA					
1.4.1	Firepits	4.00	ea.	\$4,000.00	\$16,000.00	
1.4.2	Armour Stone Wall @1 tier	40	lm	\$100.00	\$4,000.00	
2	Enhanced Washroom					
2.1.1	Washroom Upgrades (Architectural)	1.00	Lump sum	\$500,000.00	\$500,000.00	\$500,000.00
<i>Addition and Washroom Enhancements (Including AODA compliant)</i>						
<i>Showers with Outdoor Access</i>						
<i>Changeroom Enhancements</i>						
<i>Water Bottle Refilling Stations</i>						
<i>Façade Improvements and Extension</i>						
<i>Fridgeration for Multi-Season Water Play</i>						
3	Sand Migration Measures					
3.1	BEACH SOFTSCAPE					
3.1.1	Beach Rough Grading	5950	m ³	\$12.00	\$71,400.00	\$172,620.00
3.1.2	Sand Dune Fine Grading	2640	m ³	\$20.00	\$52,800.00	
3.1.3	Native Dune Grass /Perennials/ Ground Cover	5280	m ²	\$6.00	\$31,680.00	
3.1.4	Sand fence @ Dune/Sand Protection Area	1,116	lm	\$15.00	\$16,740.00	
4	Miscellaneous Items					
4.1.1	Demolition and Site Preparation	1.00	Lump sum	\$58,054.50	\$58,054.50	\$232,218.00
4.1.2	Site Servicing and Water	1.00	Lump sum	\$174,163.50	\$174,163.50	
						\$1,393,308.00

Appendix B: Detailed Costing

PHASE 1B					
5	Entrance and Activity Area				
5.1	VEHICULAR PAVING				
5.1.1	Raised Vehicular Concrete Curb	618.00	lm	\$125.00	\$77,250.00
5.1.2	Asphalt	2,266.00	m ²	\$55.00	\$124,630.00
5.2	STREETSCAPE ENHANCEMENTS				
5.2.1	Street Trees	26.00	ea.	\$550.00	\$14,300.00
5.2.2	LD Pedestrian Unit Paving on Concrete Base	1,073.00	m ²	\$200.00	\$214,600.00
5.2.3	Concrete Flush Curb	732.00	lm	\$120.00	\$87,840.00
5.2.4	Hanging Flower Baskets	16.00	ea.	\$75.00	\$1,200.00
5.3	ENHANCED INTERSECTION				
5.3.1	Concrete Flush Curb	86.00	lm	\$120.00	\$10,320.00
5.3.2	HD Vehicular Unit Paving	360.00	m ²	\$150.00	\$54,000.00
5.3.3	Sod	169.00	m ²	\$6.00	\$1,014.00
5.3.4	Perennials and Ornamental Grasses	80.00	m ²	\$50.00	\$4,000.00
5.4	CROSSWALKS				
5.4.1	Concrete Flush Curb	95.00	lm	\$120.00	\$11,400.00
5.4.2	HD Vehicular Unit Paving	94.00	m ²	\$150.00	\$14,100.00
5.5	ILLUMINATION				
5.5.1	Parking Street Lighting	4.00	ea.	\$3,000.00	\$12,000.00
5.5.2	Pedestrian Lighting (20m o.c.)	16.00	ea.	\$1,500.00	\$24,000.00
5.6	LOOKOUTS				
5.6.1	Armour Stone Wall @2 tier	60	lm	\$200.00	\$12,000.00
5.6.2	LD Pedestrian Unit Paving on Concrete Base	302.00	m ²	\$200.00	\$60,400.00
5.7	SAND MIGRATION MEASURES				
5.7.1	Perennials / Grass / Ground Cover (Naturalized Beach Landscape)	2,668.00	m ²	\$30.00	\$80,040.00
5.7.2	Sand fence @ Dune/Sand Protection Area	87	lm	\$15.00	\$1,305.00
6	Miscellaneous Items				
6.1.1	Demolition and Site Preparation	1.00	Lump sum	\$40,219.95	\$40,219.95
6.1.2	Site Furnishings (incl. picnic tables, benches, trash receptacles)	1.00	Lump sum	\$40,219.95	\$40,219.95
6.1.3	Irrigation	1.00	Lump sum	\$22,750.00	\$22,750.00
					\$907,588.90

Appendix B: Detailed Costing

PHASE 2						
7	Parking / Streetscape					
7.1	VEHICULAR PAVING					
7.1.1	Raised Vehicular Concrete Curb	1,664.00	lm	\$125.00	\$208,000.00	\$809,510.00
7.1.2	HD Vehicular Unit Paving	248.00	m ²	\$150.00	\$37,200.00	
7.2	STREETSCAPE ENHANCEMENTS					
7.2.1	Street Trees	87.00	ea.	\$550.00	\$47,850.00	
7.2.2	Perennials / Grass / Ground Cover (Naturalized Beach Landscape)	1,570.00	m ²	\$30.00	\$47,100.00	
7.2.3	LD Pedestrian Unit Paving on Concrete Base	944.00	m ²	\$200.00	\$188,800.00	
7.2.4	Concrete Flush Curb	488.00	lm	\$120.00	\$58,560.00	
7.3	CROSSWALKS					
7.3.1	Concrete Flush Curb	180.00	lm	\$120.00	\$21,600.00	
7.3.2	HD Vehicular Unit Paving	236.00	m ²	\$150.00	\$35,400.00	
7.4	ILLUMINATION					
7.4.1	Parking Street Lighting	10.00	ea.	\$3,000.00	\$30,000.00	
7.5	LUMP SUM FEATURES					
7.5.1	Beach Gateway Features	3.00	ea.	\$45,000.00	\$135,000.00	
7.5.2	Heritage Sculpture	1.00	ea.	TBD	TBD	
8	MISCELLANEOUS ITEMS					
8.1.1	Demolition and Site Preparation	1.00	Lump sum	\$40,475.50	\$40,475.50	\$105,475.50
8.1.2	Irrigation	1.00	Lump sum	\$65,000.00	\$65,000.00	
8.1.3	Train / Relocation	1.00	Lump sum	TBD	TBD	
						\$914,985.50

Appendix B: Detailed Costing

PHASE 3					
9	Children's Play & Water Play				
9.1	JUNIOR/SENIOR PLAY STRUCTURE & ELEMENTS W/COOL TOPPER	1	Lump sum	\$150,000.00	\$150,000.00
9.1.1	Engineered Wood/Hutchinson Sand Resilient Play Surface	375	m ²	\$100.00	\$37,500.00
9.1.2	P.I.P. Concrete curbs (raised)	70	lm	\$120.00	\$8,400.00
9.1.3	P.I.P. Concrete Wall @0.45m ht Seatwall	40	lm	\$600.00	\$24,000.00
9.1.4	Coordination cost	1	Lump sum	\$15,000.00	\$15,000.00
9.2	MULTI-SEASONAL WATER PLAY	1	Lump sum	\$190,000.00	\$190,000.00
9.2.1	P.I.P. Concrete Pad	150	m ²	\$100.00	\$15,000.00
9.2.2	Mechanical Services (inc: connections, refrigeration etc.)	1	Lump sum	\$250,000.00	\$250,000.00
9.2.3	P.I.P. Concrete Wall @0.60m ht	40	lm	\$600.00	\$24,000.00
9.2.4	Coordination cost	1	Lump sum	\$17,500.00	\$17,500.00
9.3	HARDSCAPE				
9.3.1	LD Pedestrian Unit Paving on Concrete Base	488.00	m ²	\$222.00	\$108,336.00
10	Structure				
10.1	LUMP SUM FEATURES				
10.1.1	Mixed-Use / Entertainment Structure	1.00	Lump sum	\$500,000.00	\$500,000.00
10.1.2	LD Pedestrian Unit Paving on Concrete Base	112.00	m ²	\$200.00	\$22,400.00
10.1.3	Concrete Flush Curb	81.00	lm	\$120.00	\$9,720.00
10.1.4	Sod	270.00	m ²	\$6.00	\$1,620.00
11	Miscellaneous Items				
11.1.1	Demolition and Site Preparation	1.00	Lump sum	\$68,673.80	\$68,673.80
11.1.2	Site Servicing and Water	1.00	Lump sum	\$206,021.40	\$206,021.40
					\$1,648,171.20
			Subtotal	\$4,864,053.60	\$4,864,053.60
			20% Contingency	\$972,810.72	\$972,810.72
			Subtotal	\$5,836,864.32	\$5,836,864.32
			13% HST	\$758,792.36	\$758,792.36
			TOTAL	\$6,595,656.68	\$6,595,656.68

*Note: Heritage Sculpture and Train Relocation not included