



CITY OF
FORT SASKATCHEWAN
ALBERTA

Fort Centre Park



Master Plan Update

April 2020

Fort Centre Park

Master Plan Update

prepared by



prepared for

CITY OF FORT SASKATCHEWAN

April 2020

Every effort has been made to ensure the accuracy of information contained within this document. However, location of roadway layout and configuration of stormwater management facilities are subject to minor revisions in the future and may not be developed exactly as illustrated.

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1.0

1.0 Executive Summary

Situated along the North Saskatchewan River and near downtown Fort Saskatchewan, Fort Centre Park is mostly an undeveloped open space. Approximately 40 ha in size, the site hosts a top of bank multi-use trail, a natural treed buffer along the River's edge, a large mowed grass area and a range of open natural areas that are prone to seasonal flooding. Past master plans and development recommendations have been completed for this Park. This Master Plan Update evaluated past plans and recommendations, aligned site opportunities and constraints against current recreational trends and needs of City residents, developed design options for the study area, gathered community input through open houses and established a final recommended plan and phasing strategy.

This Master Plan Update provides many of the same recreational opportunities as past plans, however includes more passive and unprogrammed open space. This approach concentrates active recreation to a much smaller area of the site, and allows for nature interpretation, additional wildlife habitat and sporadic play. With the current development of a new Highway 15 bridge over the River, there was an immediate need to extract borrow material from Fort Centre Park and develop ponds. This Plan established design criteria for these ponds to ensure that excavations would support the overall recreational program, enhance wildlife habitat, provide interpretive and learning opportunities and be a safe environment, year-round. Excavation of these ponds began prior to the completion of this Plan.

Two site development scenarios were established, providing a range of recreational opportunities leading from the upper terraces behind existing residential areas, over the lower plateau near the River, over the top of bank and opportunities for direct access to the River for non-motorized boating. These two concept plans were tested through three public open houses and meetings with internal City staff. With feedback in hand, these concept plans were refined to a single consolidated plan. Two phases of development have been recommended.

Public feedback demonstrated very active use of the waterfront park system in Fort Saskatchewan and strong interest in keeping a large proportion of the site as natural as possible. The Plan provides opportunities for active uses such as a wintertime ice sculpture area, walking and cycling trails, enhancements to the amphitheatre, court sports and a hand boat launch and dock on the River. A much larger proportion of the site includes more passive activities such as a pollinator garden, naturalized ponds for wildlife habitat and interpretive learning, replanting native vegetation and un-programmed open space. A strong message from the engagement program was to minimize vehicular access over the site and to accommodate a number of winter-time activities.

The final concept plan is recommended for development in two phases. The initial phase of development focuses on trail development, establishing a strong interpretive program and restorative measures to naturalizing the site and establishing new constructed natural areas. The proposed pond basins are already under construction and will be completed as part of the Highway 15 bridge redevelopment project. The second phase of development brings active recreational uses to the site and introduces vehicular traffic to help support the proposed site uses and to provide necessary maintenance and emergency services access. A Class D cost estimate was created for these two phases, and they include estimated costs of \$1,627,500.00 for Phase 1 and \$5,347,500.00 for Phase 2 development.

“Support the overall recreational program, enhance wildlife habitat, provide interpretive and learning opportunities and be a safe environment, year-round.”



2.0

2.0 Introduction



2.1 Purpose of the Plan

This Master Plan Update for Fort Centre Park evaluates past plans completed for the study area, understands current trends and needs for recreation to support City-wide needs and provides a recreational development scenario that is supported by the general public. The City of Fort Saskatchewan offers a wide range of recreational opportunities throughout the community, and this Plan helps to address gaps in recreational amenities offered to residents while not duplicating services offered elsewhere. The Plan also reflects current trends in recreation that has a much stronger affinity for nature restoration, preservation and interpretation than in past decades.

With the current construction of the Highway 15 bridge over the North Saskatchewan River and significant borrow material for the bridge project coming from Fort Centre Park, updating the master plan was time sensitive. Solidifying an acceptable plan for excavated ponds allowed designers and contractors working under contract to Alberta Transportation to proceed with construction activities. The final site design for excavated ponds included in this document suits the needs of the bridge redevelopment project, and at the time of completing this report that construction will be underway.

Fort Saskatchewan is at the north end of the system of North Saskatchewan River waterfront parks under the guidance of the River Valley Alliance (RVA). While the final Plan was developed to meet the recreation needs of Fort Saskatchewan residents and visitors, the broader objectives of the RVA and the types of recreational needs for this regional park system was an important factor in decision-making. Fort Centre Park is one of the City's last undeveloped waterfront parks that has the potential to add new access points to the River for varying recreational activities.

2.2 Project Objectives & Guiding Principles

The foundation of this project was developed upon the following objectives and guiding principles:

- Delivering a project-specific engagement strategy with the City and other project stakeholders to realize the full potential of local knowledge;
- Celebrating the rich history and Indigenous culture of the site and the region, particularly around historical uses of this park area in past generations;
- Reinforcing the mindset of a liveable winter community, and presenting the opportunity to integrate concepts of living in Canada with positive, year-round outdoor experiences;
- Developing a public realm that is compassionate to people with limited mobility and physical impairments, through development strategies that allow for a range of users;
- Providing universal accessibility for all people, regardless of their age or ability;
- Ensuring safety for people and pets as a primary concern, ensuring that all amenities conform to local, provincial and national safety standards and guidelines;
- Minimizing ecological impacts from all proposed development and long-term use, while providing a high quality and safe experience for users.

In Section 8.4 – Plan Alignment we describe how each of these objectives and principles were addressed through the final proposed Plan.

2.3 Overview of Project Process

Section 4.0 – Past Studies and Supporting Reports includes a summary of each study, report, plan and guiding document that was reviewed prior to design development. The following outlines the overall project process for this current Master Plan Update:

Part One: Background Review

Past master plans for the site and for Fort Saskatchewan's waterfront park system prescribed a range of recreational activities and development strategies for Fort Centre Park. These plans were reviewed in detail. Most of the site assessments included in these reports are still valid, such as environmental reviews, flood patterns and wetland classifications. On the other hand, this Plan considered current environmental conditions and developed recommendations for recreational, educational and interpretive opportunities that balance human use of the site with environmental sensitivities. The design team also reviewed other relevant plans, reports and City documents such as the Land Use Bylaw and Strategic Plan to ensure alignment between those documents and this Plan's recommendations.

Part Two: Preliminary Design

Two design concepts were developed, demonstrating both summertime and wintertime uses. Section 6.0 – Initial Concept Plans includes a summary of these two concept plans. The two concept plans were refined through meetings with City staff. The designs were also developed to inform the storm pond design component of the Highway 15 North Saskatchewan River Bridge project.

Part Three: Public Engagement

Three public open houses were held where the two concept plans were presented to the general public. Each open house included the opportunity for attendees to complete a survey, either online or paper based. A summary of the survey results has been included in Section 7.0 – Community Engagement.

An in-classroom session with a group of twenty-four (24) elementary school students was completed near the onset of the project. This provided the opportunity for students to learn about the basics of park design and

contribute to the design program of Fort Centre Park. Students completed design projects for the site that demonstrated their recreational program and interpretive opportunities. A summary of the student learning session, polled questions and activities completed has been summarized in Section 7.0 – Community Engagement.

Part Four: Design Refinement

The public engagement program as well as workshop sessions with internal City staff helped to determine design refinements. The two original concept plans were presented to the public. Discussions during open house sessions and feedback obtained through the surveys established a list of recommended changes to the overall concept plan. Nearly 70% of respondents had a preference for Concept #2, as shown in Section 6.2 – Concept Two. The design team worked with this concept to integrate other valid comments from the public and City staff, and then established a phasing strategy for two phases of implementation.

Part Five: Final Recommendations

A final recommended concept plan, as shown in Section 8.2 – Recommended Concept Plan and Phasing Strategy, was created in response to public and City staff feedback on the initial plans. This plan revisited each of the original project objectives and guiding principles, ensuring that it reflected the initial intent of the project. This stage of the plan also scrutinized the design against the environmental opportunities and constraints that were established through the site investigation and environmental review portion of the project. A Class D cost estimate was completed to understand the probable cost of implementation of the two phases, assuming work would be completed over the next ten (10) years.



3.0

3.0 Site Evaluation

3.1 The Site

Fort Centre Park is approximately 40 ha in size, with a combination of naturalized areas, native forest and mowed grass. Fort Centre Park lies within the south floodplain of the North Saskatchewan River Valley, underneath the Highway 15 bridge and north of downtown Fort Saskatchewan. The area has been long developed as a municipal park, and is dominated by manicured grass areas, fringed with small patches of aspen forest. Image 1 shows the site, looking from approximately halfway into the park looking south toward the Highway 15 bridge. A few wetlands lie within the park, on the east and west side of the bridge, and a drainage channel conveys flows from the east wetland toward the river. The site occupies the following legal lands: 1, 2, 7, 8, 9, and 10 in 31-54-22 W4 and 12 and 13 in 32-54-22 W4. The study area lies on the south side of the North Saskatchewan River Valley, which regionally, has a dominant landform of wide valley with broad river terraces. This side of the valley consists of terraces with a steep valley wall. The soil series is miscellaneous undifferentiated mineral. The soil subgroup is Orthic Regosol and has good drainage. The parent material is of variable texture

and not differentiated. Steep slopes occur along the edge of the site near an adjacent residential area.

The site is bound by the North Saskatchewan River to the north, Highway 15 to the west and urban development to the east and the south. Along the east edge of the site is the Fort Heritage Precinct that includes historic features such as the original 1875 Fort site, original Gaol site, Cultural Village, and new 1875 NWMP Fort reconstruction and Legacy Park. The Historic Precinct contains a significant collection of the City's historic monuments and heritage amenities.

Along the North Saskatchewan River top of bank is a paved multi-use pathway that forms part of the Trans Canada Trail. This trail provides connection to the urban service area and to other river valley park areas such as West River's Edge. Image 2 shows this trail in the context of the River, treed area and open mowed area of Fort Centre Park.



IMAGE 1 - VIEW OF THE SITE LOOKING SOUTHWARD TOWARD THE HIGHWAY 15 BRIDGE



IMAGE 2 - MULTI-USE TRAIL ALONG TOP OF BANK OF THE NORTH SASKATCHEWAN RIVER

IMAGE 3 - POORLY DRAINED MARSHY AREA ADJACENT TO A STORMWATER CHANNEL, SOUTHWEST CORNER OF THE SITE



Two stormwater outfalls lead from the urban service area to the south and into the southern portion of Fort Centre Park. Image 3 shows a depressed area along the southern boundary of the park at the toe of slope that conveys this stormwater to the west toward the North Saskatchewan River. This naturalized area remains un-managed, with no mowing activities or significant recreational use due to seasonal flooding.

The study area contains no named waterbodies, however it is immediately adjacent to the North Saskatchewan River. The 1:100-year floodplain for this part of the river valley shows that flow is contained in the river channel and should not impact the study area. At the same time, any improvements below top of bank, such as stairways or hand boat launch amenities, will be vulnerable to flooding and potential annual ice scour. There are three other mapped waterbodies near the study area including Ross Creek and

two unnamed creeks. The first unnamed creek is located approximately 530 m west of the study area. The second unnamed creek is located about 730 m west of the study area. In addition to the existing mapped waterbodies adjacent to the study area, stormwater management features (ditches to move water over the landscape) have created surface water features within the park. Additionally, there is a seasonal marsh in the southwest corner of the study area. There is not a great deal of information available on groundwater in the study area. The nearest well is about 100 m from the northeast extent of the study area and was created in 1956; at that time, the static water level was 78 ft (~24 m).¹

¹ [GOA] Government of Alberta. 2019. Alberta Water Well Information Database (or Baseline Water Well Test Database). Retrieved [26 June 2019], from <http://groundwater.alberta.ca/WaterWells/d/>

3.2 Environmental Overview

To determine the suitability of any proposed recreational development in Fort Centre Park, a desktop environmental overview of known environmental concerns was conducted. The literature review highlights the current conditions of the site, the environmental opportunities and constraints at present and recommendations to protect existing natural assets.

Methods

The biophysical parameters for the proposed Fort Centre Park project have been thoroughly described in previous iterations of the master plan. Therefore, existing information was assessed through a review of past reports and was checked and updated, as required, using the following sources:

- Biophysical information compiled within the 2017 Highway Twinning Study - Environmental Evaluation Highway 15, from Edmonton to Fort Saskatchewan, Alberta and the 2008 Fort Centre Park Master Plan;
- AGRASID (2019) was used to update the information on landforms and soils²;
- FWMIS (2019) was used to update the information on wildlife and fish, and ACIMS was used to update information about vegetation in the study area³; and
- AbaData (2019) and the Listing of Historic Resources (Alberta Culture and Tourism 2019) document were used to update information about historical resources in the study area⁴.

² AGRASID. 2019. *Alberta Agriculture and Forestry Agricultural Regions of Alberta Soil Inventory Database*

(AGRASID) online soil viewer c2015. Alberta Agriculture. [accessed 15 June 2019].

³ [FWMIS] Fisheries and Wildlife Management Information System. 2019. *Fish and Wildlife Internet Mapping Tool -Public*. Edmonton (AB): Alberta Environment and Parks.

⁴ Abacus Datagraphics Ltd. (Abadata). 2019. *Abadata Oilfield Mapping Software*.



Vegetation

Fort Centre Park is located in the Parkland natural subregion, the majority of which has long been cleared for agricultural use. The park area has been largely developed for agriculture and recreational use and the rest is aspen-grassland mosaic. Specifically, the vegetation in the study area is mostly manicured grass that is regularly mowed for maintenance. The edges of the site are forested with either mixed stands of aspen and other species or solely aspen. Previous studies identified twenty (20) species of rare plants recorded in the ACMIS database⁵. Nineteen (19) rare plants were identified in the updated ACIMS search performed for this current study. A rare plant survey of the park area for the planned construction activities for Highway 15 found no rare plant species⁶.

⁵ EDA Planning and Urban Design. 2008. Fort Centre Park Master Plan. Completed for the City of Fort Saskatchewan.

⁶ Tetra Tech. 2019. Highway 15 Rare Plant Survey. Prepared for Alberta Transportation.

Along the North Saskatchewan River and the upper reaches of the park site, there is a large amount of native vegetation that should remain intact because it is considered unique to the North Saskatchewan River Valley. Figure 1, taken from the Highway 15 North Saskatchewan River Bridge Wetland Assessment & Impact Report, identifies a portion of the Fort Centre site nearby the current bridge alignment being a seasonal graminoid marsh. This area can be a significant ecological and interpretive asset to the final concept plan.

“There is a large amount of native vegetation that should remain intact.”



IMAGE 4 - VIEW OF THE SITE SHOWCASING THE TYPICAL LANDSCAPE AND VEGETATION

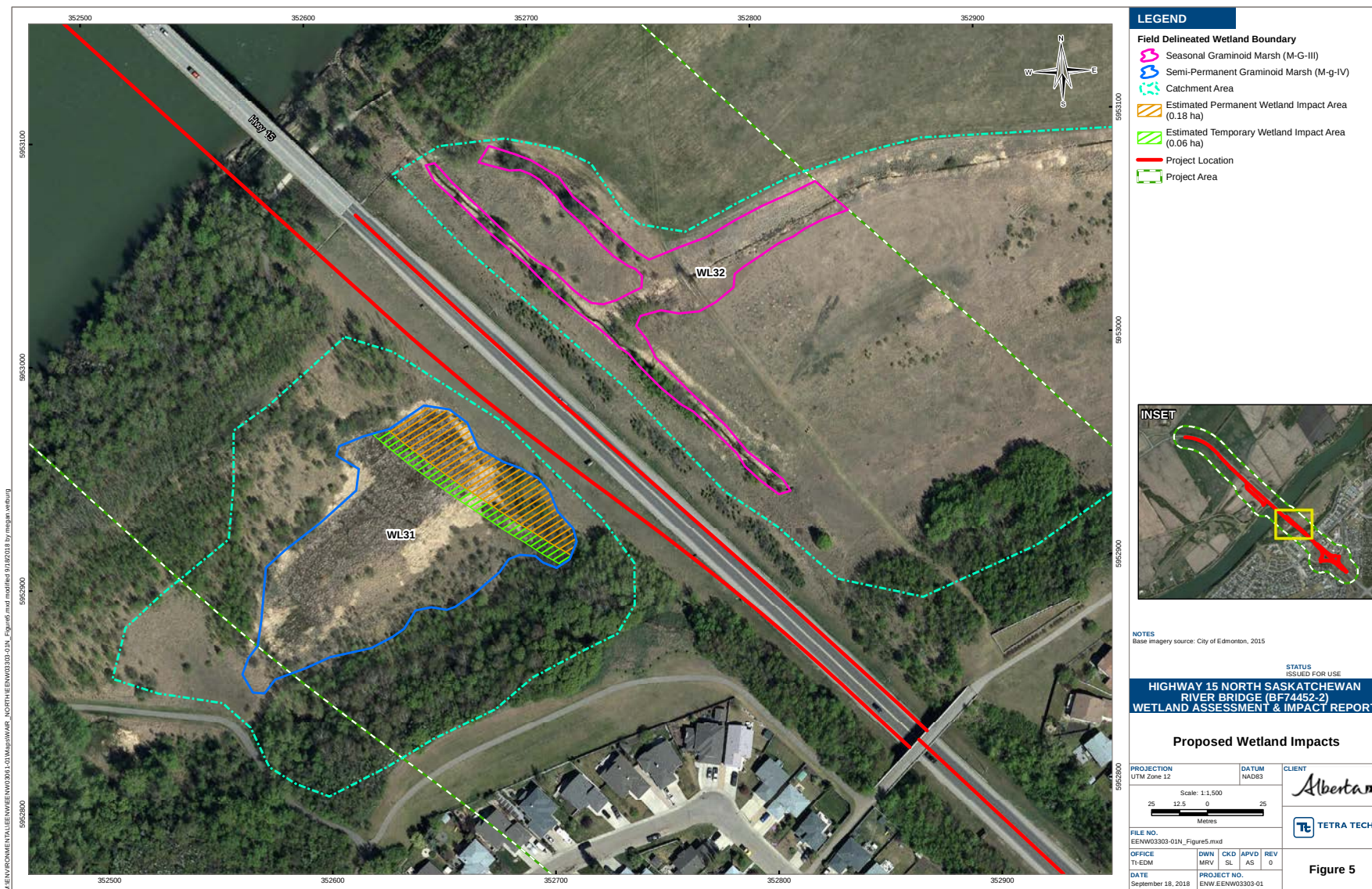


FIGURE 1 - IDENTIFICATION OF SENSITIVE AQUATIC FEATURES, HIGHWAY 15 NORTH SASKATCHEWAN RIVER BRIDGE WETLAND ASSESSMENT & IMPACT REPORT

Wildlife

The vegetated areas within the park provide movement corridors and cover for wildlife that may move through the area. The vegetated edge of the North Saskatchewan River Valley itself acts as a regional movement corridor as well. Therefore, it is important to maintain vegetation connectivity between the park and the adjacent valley lands, to continue to support wildlife and diversity.

A Fisheries and Wildlife Management Information System (FWMIS) search at 1 km radius did not find records of any wildlife species; however, at 3 km, past observations of American white pelican (*Pelecanus erythrorhynchos*), little brown bat (*Myotis lucifugus*), peregrine falcon (*Falco peregrinus*), and short-eared owl (*Asio flammeus*) were all listed. The legislative status of these species can be found in Figure 2. These species may utilize areas of suitable habitat in the park area currently; the type of habitat that supports them can also be found in Figure 2. Regardless of the presence of these species on site, the park concept plans do not appear to pose significant impact to their habitat. In fact, the proposed concept plans would enhance the amount of native habitat in the area by replacing some of the manicured grass with native vegetation. The LSA is in the Central Parkland natural subregion, which hosts a wide range of species in addition to those outlined by the FWMIS database. Within the aspen and willow communities, like those found in Fort Centre Park, species common to urban parks and woodlands can be found, such as white-tailed deer (*Odocoileus virginianus*), yellow warbler (*Setophaga petechia*), red-eyed vireo (*Vireo olivaceus*), and snowshoe hare (*Lepus americanus*). Many species of birds utilize the Central Parkland Natural Subregion and could also be found here. For example, the aquatic habitats in the region support many dabbling and diving ducks; at the park site, both the river and the wetland habitats offer suitable habitat for these species. Additionally, grebes (*Podicipedidae* spp.), American bittern (*Botaurus lentiginosus*), marsh wren (*Cistothorus palustris*), boreal chorus frog (*Pseudacris maculata*), wood frog (*Lithobates sylvaticus*), and Canadian toad (*Bufo hemiophrys*) all benefit from the numerous and productive wetlands in the Parkland Natural Subregion and would find suitable habitat in the wetlands and river habitats associated with the park.

FIGURE 2 - STATUS OF PREVIOUSLY OBSERVED WILDLIFE SPECIES, FWMIS (2019)

Common Name	Scientific Name	Federal Status ¹		Provincial Status		Habitat ⁴	Habitat Suitability Rating in LSA
		COSEWIC	SARA	Alberta Status ²	Wildlife Act Designation ³		
American White Pelican	<i>Pelecanus erythrorhynchos</i>	MP Candidate	Not at Risk	Sensitive	Not Listed	breeds colonially large lakes or rivers	Moderate
Peregrine Falcon	<i>Falco peregrinus anatum/tundrius</i>	Special Concern	Schedule 1 (Special Concern)	At Risk	Threatened	lakeshores, river valleys, urban areas, alpine meadows, river mouths, and open fields Migration: open areas.	High
Short-eared Owl	<i>Asio flammeus</i>	Special Concern	Schedule 1 (Special Concern)	May Be At Risk	Not Listed	lakeshores, river valleys, urban areas, alpine meadows, river mouths, and open fields Migration: open areas	High
Little Brown Bat	<i>Myotis lucifugus</i>	Endangered	Schedule 1 (Endangered)	May Be At Risk	Not Listed	generalist near waterbodies	High

¹Endangered= A wildlife species that is facing imminent extirpation or extinction; Special Concern = A wildlife species that may become a threatened or endangered species because of a combination of biological characteristics and identified threats; MP Candidate = A Mid-Priority candidate species identified by a species specialist subcommittee (SSC) that has not yet been assessed by COSEWIC, but is suspected of being at risk of extirpation or extinction (Government of Canada 2017, COSEWIC 2018).

²At Risk = Any species known to be "At Risk" after formal detailed status assessment and legal designation as "Endangered" or "Threatened" in Alberta; May Be At Risk= any species that may be at risk of extinction or extirpation and is therefore a candidate for detailed risk assessment; Sensitive = any species that is not at risk of extinction or extirpation but may require special attention or protection to prevent it from becoming at risk (AEP 2011).

³Threatened = a species likely to become endangered if limiting factors are not reversed (AEP 2015b), that is protected under provincial legislation.

⁴Pattie and Fisher 1999, Russell and Bauer 2000.

"It is important to maintain vegetation connectivity between the park and the adjacent valley lands, to continue to support wildlife and diversity."

Fish

The North Saskatchewan River is just northwest of the study area and provides habitat for a wide range of fish species. A FWMIS search indicated that the river is suitable habitat for a broad range of sport and forage fish species. Although sturgeon have been found in the River, there is no suitable habitat for them within the park area. The stormwater channel releasing into the river and through the park does not appear to support good fish habitat due to shallow depths and frequent dry periods.

Historical Resources

The location of the Fort Centre Park was selected, in part, because of its unique historical features. The Fort Heritage Precinct, which includes the site of the original Provincial Gaol (in comparison to the existing one), the Old Fort Trail, and graveyards are all adjacent to the existing park site. Additionally, the original ferry crossing of the North Saskatchewan River is located within the boundaries of the site. For these reasons, LSDs 3-10, and 16 of 31-54-22 W4 are classified as HRV 5a, with high potential for archaeological resources (object ID 13038). LSDs 11-13 of 32-54-22 W4 are HRV 1 a,h, which means they are designated under the Historical Resources Act as a Provincial Historic Resource⁷. The object ID for those resources is 65557. Finally, LSDs 12 and 13 of 32-54-22 W4 are HRV 3 a (object ID 64819) which means they are known to contain a significant historic resource and will likely need to be avoided. The HRV classifications are higher nearer to the Fort Heritage Precinct and site of the original Provincial Gaol (in comparison to the existing one). Those areas should be avoided as much as possible and a qualified archaeologist should visit the site to ensure compliance with the Historical

⁷ Alberta Culture and Tourism. 2019. *Listing of Historic Resources*. Edmonton (AB): Alberta Culture and Tourism. Available at: [https://open.alberta.ca/dataset/de0245f6-e476-4cee-8969-c280df18b828/resource/ad443a52-](https://open.alberta.ca/dataset/de0245f6-e476-4cee-8969-c280df18b828/resource/ad443a52-724e-4f32-aac5-043f5e3fa665/download/historic-resources-2019-06.pdf)

[724e-4f32-aac5-043f5e3fa665/download/historic-resources-2019-06.pdf](https://open.alberta.ca/dataset/de0245f6-e476-4cee-8969-c280df18b828/resource/ad443a52-724e-4f32-aac5-043f5e3fa665/download/historic-resources-2019-06.pdf) [Accessed 20 August 2019].

Resources Act. The site has been assessed for historical/cultural artifacts twice (1992 and 2018) and the areas that would undergo excavation turned up no materials of significance⁸.

3.3 Environmental Opportunities and Constraints

The desktop review identified several environmental sensitivities, including some (fisheries habitat, historical resources) protected under federal and/or provincial legislation. It also identified environmental resources, that if conserved would help enhance the ecological and aesthetic value of the park. A summary of potential constraints and opportunities applicable to the updated park Master Plan are listed below.

Constraints:

- Rare plants: Previous observations suggest potential presence of rare species. Presence should be confirmed with a field survey, because most sightings were reported several years ago;
- Existing aspen forest: Given the role of the river valley as a regional wildlife corridor, and the extensive areas of natural forest land, particularly west of the Highway 15 bridge, retention of the existing forests will be important here. Concepts that avoid or minimize new clearing in forested areas will help sustain the biodiversity of the site, in part by maintaining wildlife connectivity through this part of the river valley;
- Wetland in SW corner of park: Wetlands are protected under the provincial Water Act and Wetland Policy. Concepts should avoid impacting it and work to enhance it as a natural feature;
- Historical resources: The Fort Centre Park area has a rich cultural heritage that can be readily incorporated into park interpretation

⁸ The Archaeology Group. 2018. *Historical Resources Impact Assessment: Highway 15:04 & 05 Improvements: Twinning and Intersection Upgrades*. Prepared for Alberta Transportation.

planning. Sites with higher HRV rating should be avoided. Plans requiring ground disturbance will require assessment by a qualified archaeologist;

- Groundwater: Depth to groundwater could not be confirmed in this desktop analysis but given the location of this park on a river terrace, shallow groundwater flow is likely to occur. Concept plans that include excavation (e.g., naturalized stormwater construction or wetland enhancements) should be informed by a groundwater assessment;
- Steep slopes near residential area: Trail designs will require suitable gradients to maintain accessibility. Avoid options for trail construction on steep slopes to minimize geotechnical risks, and slope modifications (e.g., fill placement or excavation); and
- Soils and surficial geology: No potential concerns were identified relative to erodible soils (e.g., sandy soils). Regardless, construction plans that minimize erosion risk will help minimize issues during construction, or during operation stages.

Opportunities:

- North Saskatchewan River Valley: The river valley is an attractive natural feature, in part due to the native plant communities retained within it. Opportunity exists to enhance or improve those habitats (e.g., by restoring native vegetation in some of the manicured grass areas or adding additional wetland features);
- Past park development: Both infrastructure and cleared, open space exists within the current park area. Where new infrastructure and facilities might be added, consider placement within these open, manicured spaces to minimize additional clearing of native vegetation;
- Historical resources: This part of the North Saskatchewan River Valley contains several well-preserved and documented historical sites, a unique aspect of this part of the river valley. Some of those sites have already been developed as tourism attractions with supporting programming and established public awareness.

The preserved natural lands in the park contribute to the 'sense of place', presenting a landscape in which visitors can visualize the valley as the Indigenous Peoples, early fur traders, police and settlers saw it. Retaining native vegetation where possible or enhancing it will only add to the interpretive historical value of this area; and

- Wildlife presence: The abundance of wildlife in Fort Centre Park and within surrounding natural areas provides excellent interpretive and learning opportunities for visitors to the site. While active beaver activity is very destructive to treed areas, it offers an opportunity for interpretation on the role of beavers in riverine and wetland ecosystems.

3.4 Environmental Recommendations to the Plan

Although there are some constraints on possible enhancements to Fort Centre Park, strategic planning and careful placement of new park features can reduce potential effects and capitalize on opportunities. The largest constraints would be the known historical resources sites, naturally vegetated areas, the potential presence of rare plants, and wildlife connectivity. Those sensitive areas will require careful consideration during the future planning phases of the project, while they can be better enjoyed by the public if they are incorporated into the park and highlighted as areas of interest and importance. The presence of rare plants should be confirmed via survey by a qualified environmental scientist. If found, rare plants should not be removed or harmed, but they could be highlighted via signage as species of interest. The seasonal marsh should be maintained and highlighted as an area of interest in the park, showcasing the important features and benefits of wetlands.

Highlighting the historical and natural features of the park site would be a benefit to the community and would provide opportunities for the public to interact with their history and surroundings. The proposed enhancements to water features (e.g., constructed or expanded wetlands) could support local wildlife populations if created in a way that mimics natural systems.

Similarly, the enhancement of vegetation communities by restoring manicured grass to native vegetation, where possible may provide more habitat for wildlife. Such concepts would offer both ecological and recreational benefits at this site.

Native plants should be used where possible for creating habitat, enhancing the site and improving aesthetics. Native vegetation will best support the range of existing wildlife found on and nearby the site.

The constructed ponds on the site have the potential of being fed by stormwater that already passes overland through this site. This supply of water will ensure that water levels are maintained with a regular feed of water at each precipitation event. It is important to note, however, that storm water is not recommended for direct human contact such as swimming, or for building skating rinks over during winter months. Should human contact with the water or wintertime ice skating on the ponds be part of the recommended recreational program, the pond basin would be taken offline from the storm water system and be reliant on groundwater for recharge.

The North Saskatchewan River has an abundance of fish, however the way in which stormwater from Fort Centre Park leads into the River does not allow any fish to migrate from the River into the site. On the other hand, with sufficient flowing water through the conveyance channel any fish from Fort Centre Park may have the ability to migrate upstream from the site and into the River. With the design depth of the new ponds, they have the potential to adequately over-winter fish. However, it is not recommended that these ponds be stocked with fish in any way due to the potential for these imported fish to be released into the River.



4.0

4.0 Past Studies and Supporting Reports

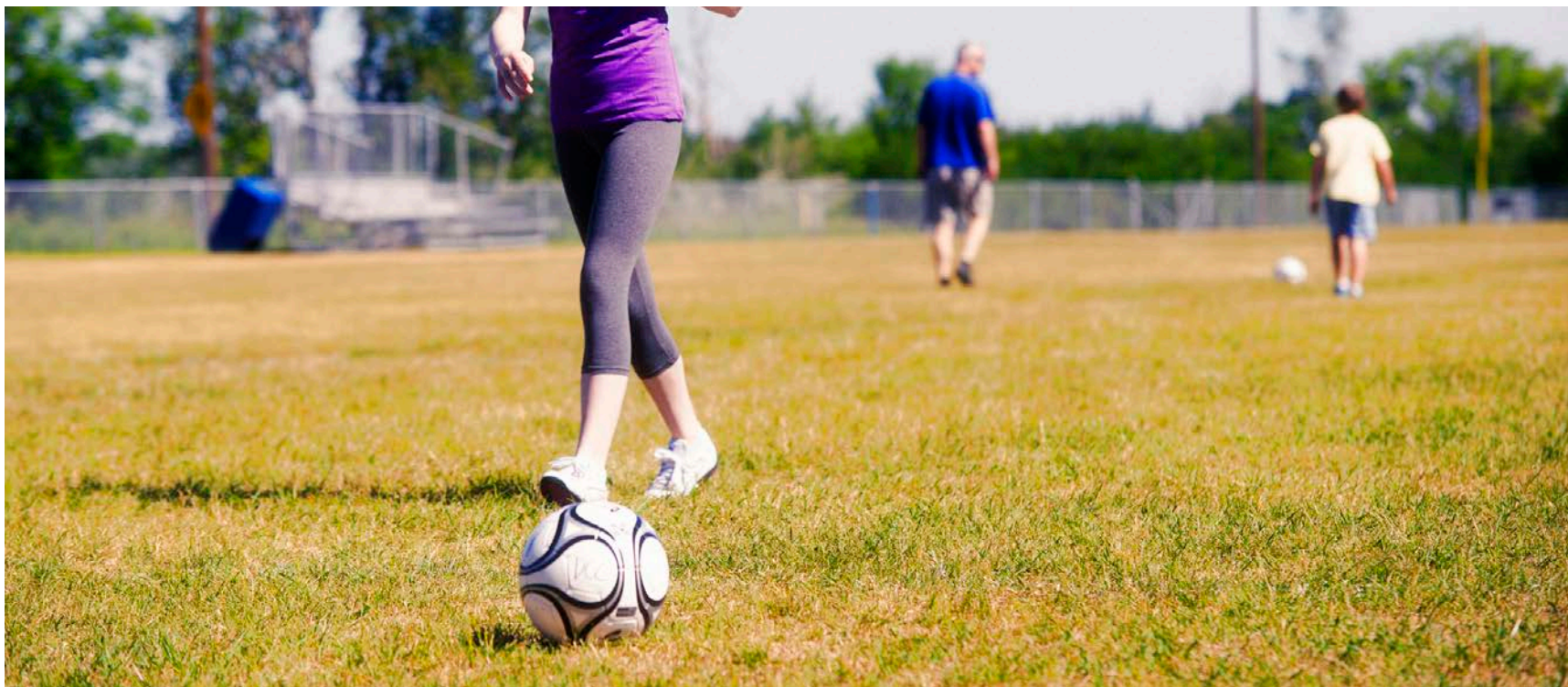
The review of past studies and supporting reports is important to ensure alignment with the strategic direction of approved methods, philosophies and statutory plans. Over time, strategic direction can change, and the recommendations of past reports needs to be revisited. To best inform this Master Plan Update and to determine alignment of this Plan's recommendations with other plans, several past studies and reports were reviewed at the onset of the project.

The previous master plans for Fort Centre Park recommend a series of potential amenities, some including:

- Trails and viewpoints - providing community access to the park and leading into the surrounding naturals areas and urban development;
- Water – excavated ponds that provide recreational opportunities such as wintertime skating, interpretation at constructed wetlands, wildlife enhancement, paddling, etc.;
- Day use area – year-round facility featuring a fully serviced change room and warmup shack pavilion;
- Terracing and hills – providing opportunities for tobogganing, terrain biking and hiking;
- Passive open space – endless opportunities for uses that require a large open space. Many activities may occur at one time due to the scale of the area;
- Play spaces – ranging from nature play to more formalized play amenities for a range of ages; and
- Access and parking – provision of vehicular access and parking to the site, from passenger vehicles to large group vans and busses.

These design recommendations were evaluated for their appropriateness to the site and their fit with the updated vision for Fort Centre Park. The following provides a summary of each past study and supporting plan that was reviewed, and the most important relevance to this current Master Plan Update:





4.1 2007 Fort Saskatchewan River Valley Recreational Study

A master plan for the Fort Saskatchewan River Valley was developed in 2007. This document provided a holistic vision for recreational development in the river valley and identified this study area as Fort Centre Park. Some of the primary recommended elements included:

- The construction of a 1.3 ha recreational lake;
- development of a stream leading from the constructed lake to an existing wetland;
- Development of an amphitheatre;

- Passive open space;
 - A day use area;
 - Interpretive viewpoints overlooking the North Saskatchewan River and site;
 - Provision of emergency access into the site; and
 - An urban reserve and fort site for future interpretive opportunities.
- Figure 3 identifies the proposed site development from this 2007 plan.

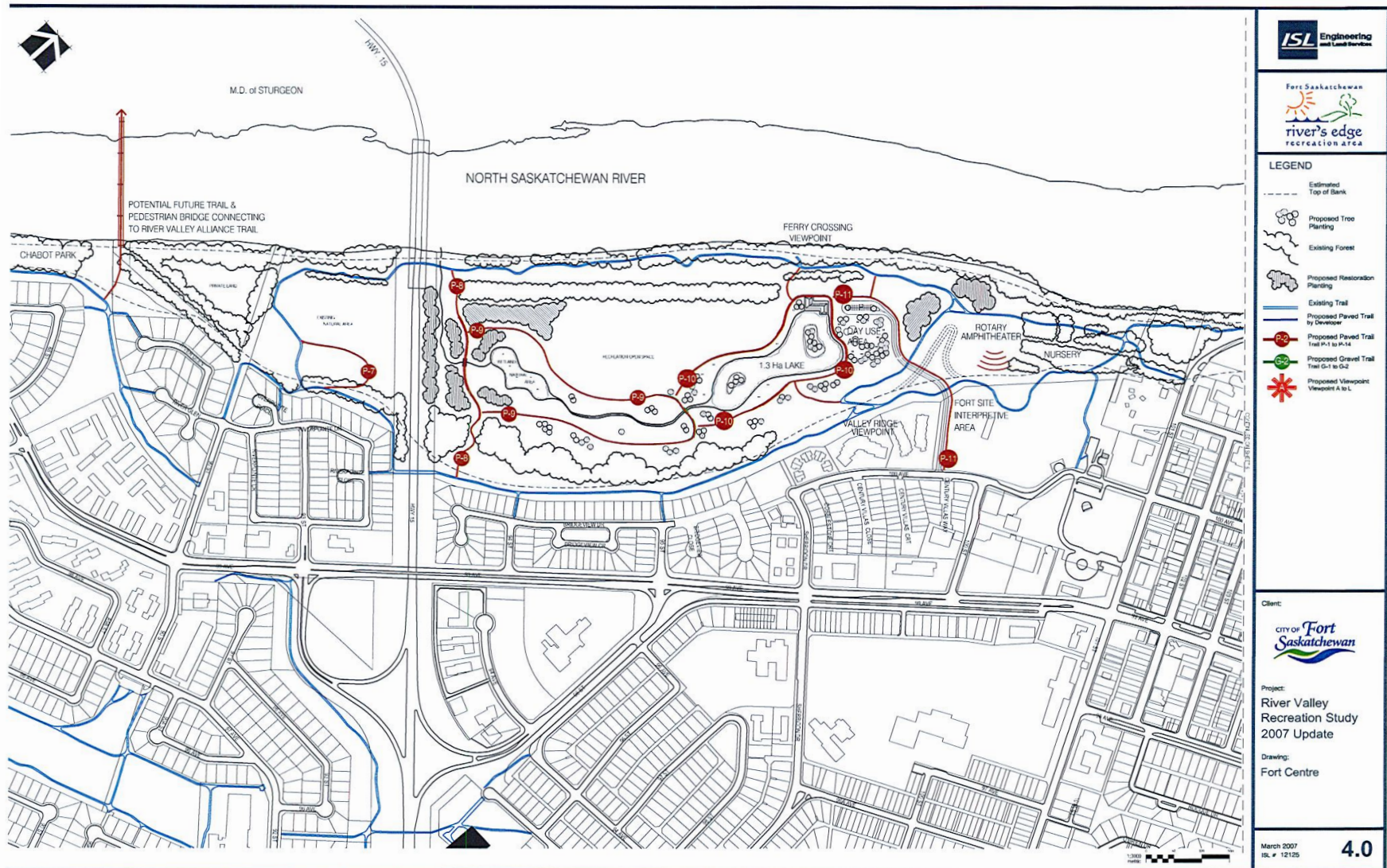


FIGURE 3 - SITE DEVELOPMENT CONCEPT, 2007 RIVER VALLEY RECREATIONAL STUDY

4.2 2008 Fort Centre Park Master Plan

The most recent master plan that is specific to Fort Centre Park was completed in 2008. This plan outlined a cursory environmental assessment that identified existing vegetation and wildlife, sensitive ecosystems, a study of wildlife movement and the suitability of developing site infrastructure. Most of this information is still relevant at the present time, as most of these conditions did not change. The plan established an initial concept plan, and then resulted in three (3) development options. The options were supported by a summary of each design feature, such as trails, interpretive opportunities, special events and potential winter-time activities.

The foundation of public involvement for the 2008 master plan included a stakeholder workshop. At this workshop, concept plans were reviewed with the goal of identifying current community needs, opportunities, cautions and components of a vision for the Park. Overall many of the comments gathered at this workshop are consistent with current public sentiment, such as the desire for the park to be well-connected to Legacy Park, developing with a sustainable mindset and being a manageable plan to implement. On the other hand, there was a stronger appetite for substantive development such as a marina and making the site a renowned destination for visitors to the region. Overall, the feedback of today places much less of an emphasis on making Fort Centre Park a regional or national destination, rather having a strong recreational and environmental protection program that well-serves local residents and user groups.

4.3 2013 Land Use Bylaw C10-13

Municipal land use bylaws designate different parcels of land into a number of different land use typologies, provide details on permitted and discretionary uses for each land use, regulate development as it relates to sizes, setbacks and required enhancements, amongst numerous other aspects to control development. The 2013 Land Use Bylaw identifies the land area of Fort Centre Park as PR – Parks and Recreation District. This district “is intended to provide for parks, open space and natural areas with minor accessory developments to serve the active and passive recreational needs of the

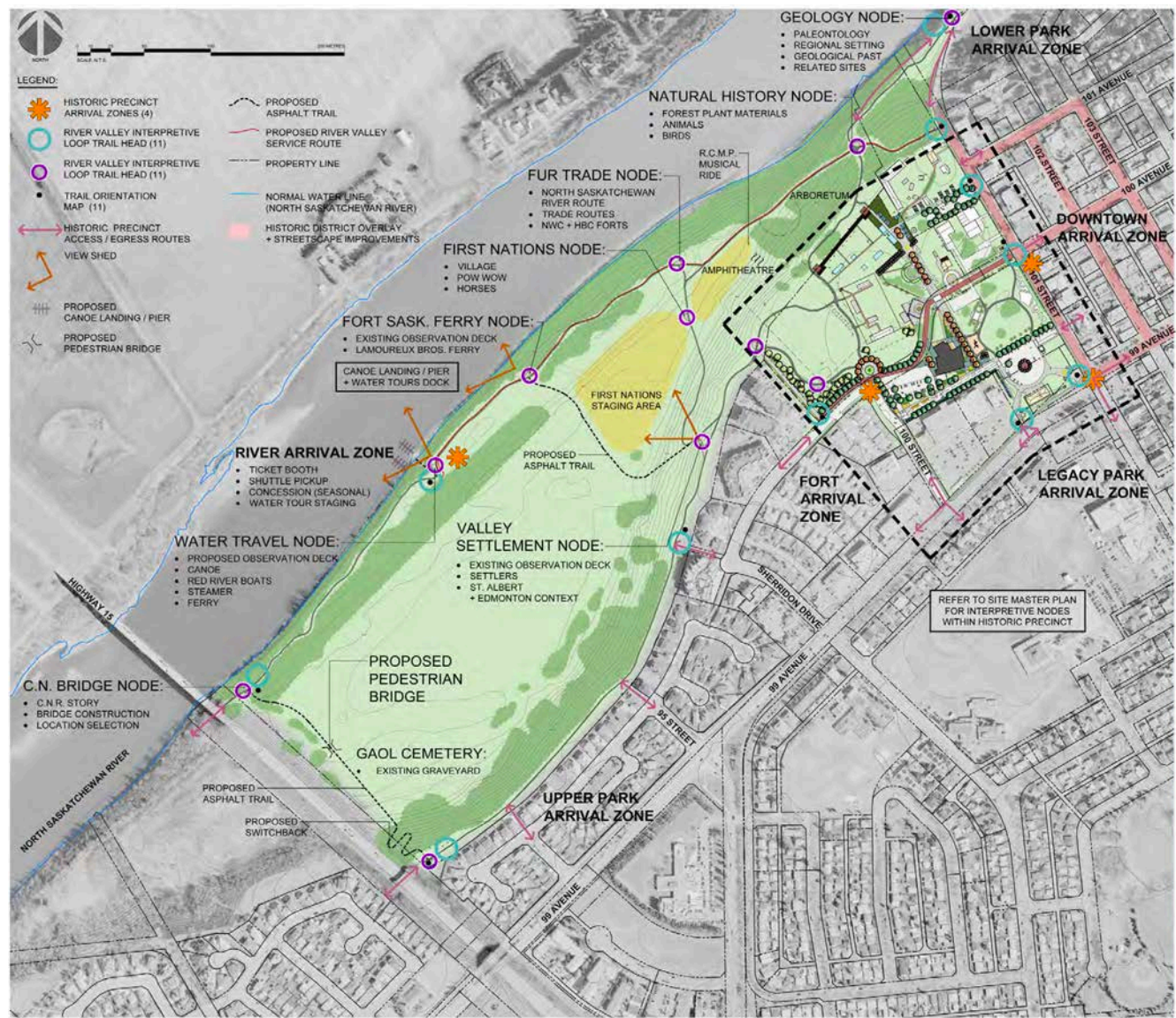
community.”⁹ All of the proposed amenities included in each of the concept plans included in this 2020 Fort Centre Park Master Plan Update would be classified as permitted uses. The only item that would be classified as a discretionary use, if included in the final program, would be a concession building that can be considered “eating and drinking establishment”. The land use also allows for the development authority to modify any prescribed parking standards that are associated with any particular amenity inside the park area.

4.4 2014 Historic Precinct Site Master Plan

While the Historic Precinct does not include the area known as Fort Centre Park, the 2014 Historic Precinct Site Master Plan included an interpretive plan that identified several themes for interpretive development. Figure 4 from the 2014 Historic Precinct Master Plan identifies the proposed interpretive development for Fort Centre Park, which is the primary intervention for Fort Centre Park recommended by this 2014 plan. Some of these themes included First Nations, fur trade, water travel, valley settlement and water transportation. Other design elements for Fort Centre Park included top of bank observation decks, a seasonal water transportation stop, a canoe landing and pier, a pedestrian bridge and trail connections. Within this master plan was a “First Nations Node” placed in Fort Centre Park, which was proposed as an area for people to “discover, revive, protect and demonstration First Nations past and present cultures through new visitor experiences and first-hand programs.”¹⁰ Another aspect of this master plan relevant to the Fort Centre Park area was the protection of the Gaol Cemetery.

⁹ 2013 City of Fort Saskatchewan Land Use Bylaw C10-13 “Schedule A”, pp. 202.

¹⁰ 2014 Historic Precinct Site Master Plan Guiding Document, pp. 31.



RIVER VALLEY LOOP INTERPRETIVE PLAN
MARCH 2014

FIGURE 4 - RECOMMENDED INTERPRETIVE PROGRAM - 2014 HISTORIC PRECINCT SITE MASTER PLAN

4.5 2014 Community Sustainability Plan Update

In 2014 the City completed an update to its Community Sustainability Plan, which “reflects the vision of our citizens for our community for the next 30 years. It builds upon the hard work of our founders, and points towards the legacy we wish to leave for our children. Its purpose is to provide overall guidance to community decision-making towards a sustainable future.”¹¹ One of five main priorities of the sustainability plan is the natural environment, which is noted as the foundation for all other elements of sustainability within the plan. Ten goals for the future of the natural environment were identified, most notably:

- Well maintained and utilized parks, greenbelts and greenways incorporating the natural environment with heritage and recreation;
- Regional river valley trail connections;
- The community valuing and respecting habitat and wildlife in balance with social needs of the community;
- Cautious or limited development in areas where it may impact habitat and wildlife; and
- A clean and healthy river with good habitat, safe public access and recreational opportunities.

The proposed development plan in this new Master Plan for Fort Centre Park is well-suited to meet the goals for the natural environment that are identified in the 2014 Community Sustainability Plan.

4.6 2015 Recreation Facilities & Parks Master Plan Update

A comprehensive review of recreation, culture and parks was completed in 2008. This Recreation, Culture and Parks Master Plan was updated in 2015, built on the foundation of public engagement. This Recreation Facilities & Parks Master Plan Update did not address the lands of Fort Centre Park. The closest land area that was included in this master plan update was the West River’s Edge site. Through the public engagement process, the third most

prominent community feedback was developing an outdoor recreational area, including green spaces, picnic areas, event parking, community gardens, a dog park, and expanded trail systems. Although the Recreation Facilities & Parks Master Plan Update recommended these new outdoor recreational activities be located at the West River’s Edge Recreational Area, placing some of the amenities in demand at Fort Centre Park may alleviate development pressure at West River’s Edge.

4.7 2018 Strategic Plan 2018-2022

The foundation of this Strategic Plan is built upon seven principles that were included in the Community Sustainability Plan, the most relevant to Fort Centre Park Master Plan being “stewardship of the environment” and “a community designed for people.” Numerous strategic initiatives are outlined in this strategic plan, the most relevant to Fort Centre Park planning including:

- Promoting City programming of public spaces to celebrate the City’s history and culture;
- Promoting a range of accessible cultural and recreational programming that meets the changing needs of residents; and
- Updating master plans/strategies including: Recreation, Facilities and Parks Master Plan Update (Dow Centennial Center site plan, Aquatics, Ice) in relation to community needs and demographics.

The Strategic Plan does not provide strategic goals or objectives that are specific to Fort Centre Park. The strategic initiatives listed are also challenging to achieve through a site-specific park master plan. On the other hand, the recommendations made for the design of Fort Centre Park do not contradict the goals and strategic initiatives of the 2018 Strategic Plan.

¹¹ City of Fort Saskatchewan. 2014. *City of Fort Saskatchewan Community Sustainability Plan, 2014 Update*.

5.0

5.0 Highway 15 Bridge Project

Concurrent to completing this master plan update, Alberta Transportation was working with a team of consultants to develop the design of an expanded bridge crossing for Highway 15 over the North Saskatchewan River. This bridge alignment defines the southwest boundary of Fort Centre Park, and the regional multi-use paved trail that exists along the River's top of bank passes below the current bridge crossing. Drivers passing along Highway 15 have a great vantage point looking northward into Fort Centre Park, and the Park therefore has excellent exposure for residents and visitors of Fort Saskatchewan.

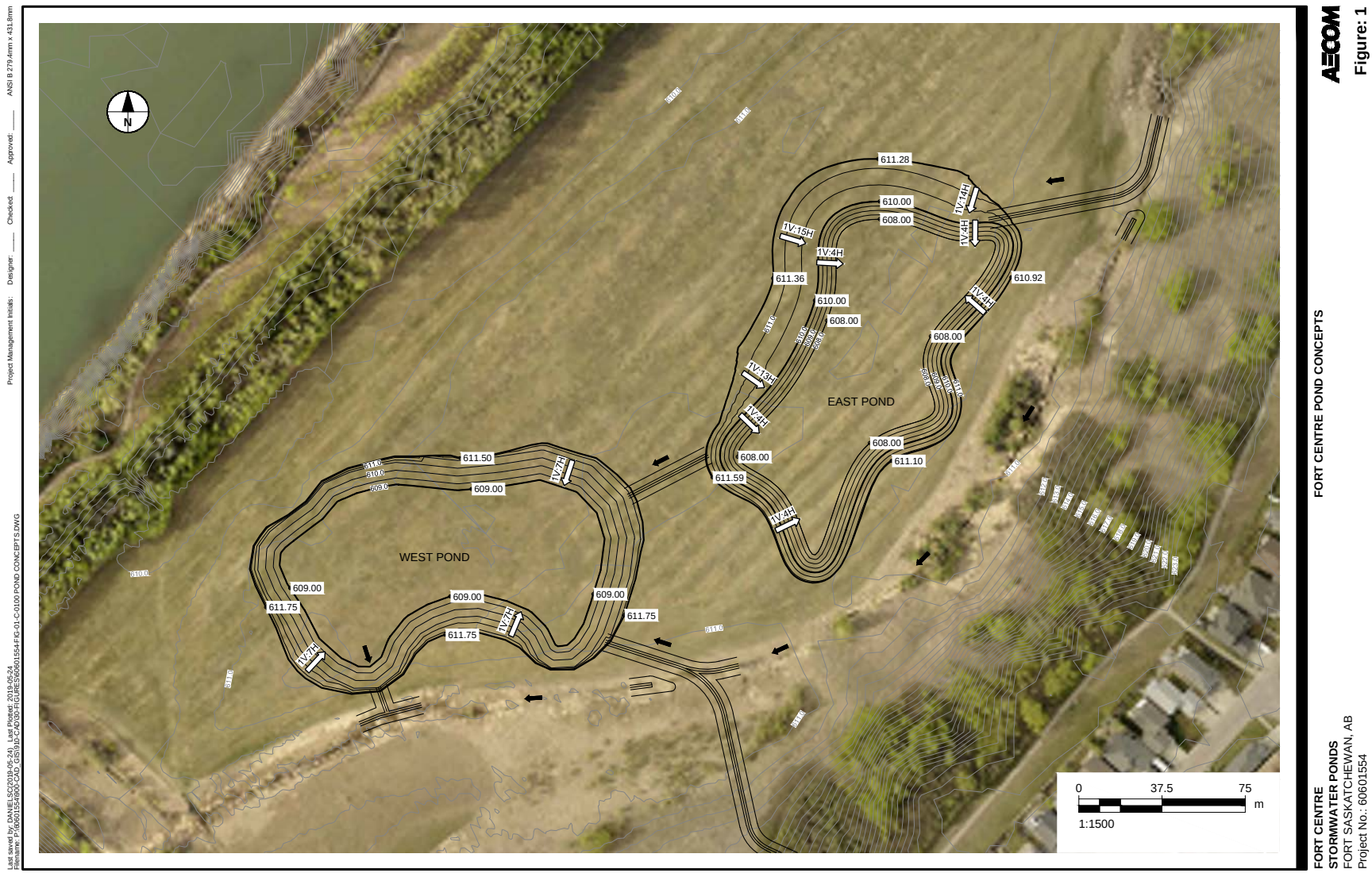
One of the primary motivations of completing a Master Plan Update for Fort Centre Park was to ensure that the construction at the Highway 15 bridge crossing would not have a negative impact on the future development of Fort Centre Park. Alberta Transportation made a request to the City of Fort Saskatchewan to extract a large amount of fill material from the Fort Centre Park area. The fill material would be used for in-stream embankments to construct the bridge piers. The estimated volume of material would allow for the development of one large pond, or potentially two smaller ponds. Through meetings between consulting teams and City staff, a design was arrived upon and construction began in fall 2019.

A Wetland Assessment & Impact Report was prepared as part of the pre-planning of this project. Figure 1 (shown previously) entitled "Proposed Wetland Impacts" identifies the current wetland boundaries nearby the Highway 15 bridge alignment and in Fort Centre Park. These wetland areas were to be protected and kept outside any bridge structure embankment or beyond excavated areas. The original design intent was to divert flow from the two existing storm outfalls at Fort Centre Park into two connected ponds, to ensure adequate water was available to keep these ponds at a safe and operational water level. The design of the pond side slopes was a critical component of the discussions between consulting teams, as the ideal design strategy that suited the Park's future design is constructed wetlands,

"One of the primary motivations of completing a Master Plan Update for Fort Centre Park was to ensure that the construction at the Highway 15 bridge crossing would not have a negative impact on the future development of Fort Centre Park."

providing a naturalistic aesthetic, interpretive and learning opportunities and added wildlife habitat. A wetland edge to the ponds also provides added safety for people, whereas people walking around the pond would have difficulty getting to open water with a significant band of emergent vegetation around the water's edge. On the other hand, the design allowed for the northern edge of the northerly pond to have a more gradual slope, making it safer for people to approach the water. This will encourage and concentrate human access at one end of one pond. Figure 5 identifies the proposed pond configuration.

Through the public engagement program for the Fort Centre Park Project, there was significant demand for recreational activities that engaged these ponds. The original design intent was to direct stormwater into the two ponds, however recreational activities on stormwater management facilities is generally not recommended due to potentially poor water quality in the summer, and thin ice conditions in the winter. As a result, the public engagement program led to the recommendation of only running stormwater through one of the ponds and allowing the north-easterly pond to source its water from groundwater and nearby surface water only. With this configuration, the north-easterly pond would be available for active



recreation uses such as swimming and paddle sports, pending testing and adequate results for water quality. Secondly, because this pond would be taken offline from the stormwater system, it would have the potential of accumulating more predictable and consistent thickness of ice in the winter, therefore having a high potential for skating activities once adequate ice forms.

Fishing is commonly an activity recommended for parks of this scale and nature and implementing a fish stocking program is a great way of encouraging more safe and convenient opportunities for fishing - opposed to having to fish alongside a river. As identified in Section 3.4 – Environmental Recommendations, stocking these ponds could be viable with sufficient depth of the constructed basins. However, this is not recommended due to the high potential for fish to become stranded in the conveyance channel toward the River or to migrate into the River.



6.0

6.0 Initial Concept Plans

The foundation of the initial site concept plans was based on the review of past plans and reports, as well as three (3) working sessions with internal City staff. Both summer- and winter-time scenarios were created to ensure the Park program accommodated year-round use of the park. The following describes the first two concept plans.

6.1 Concept One

Overall, the first concept includes minimal intervention on the site, and does not introduce any vehicular access to the site other than maintenance equipment. This design program includes mostly passive recreational activities and does not accommodate group sports for formal play areas. This concept provides a significant amount of ecological restoration whereby the constructed natural areas will help increase biodiversity and accommodate many of the target species described in Section 3.2 – Environmental Overview of this report. The storm pond design suited the Highway 15 Bridge





FIGURE 6 - VARIOUS PRECEDENT IMAGES OF COMPARABLE ACTIVITIES RECOMMENDED IN THESE CONCEPT PLANS

Project's needs for borrow material, and the intent would be to direct the two existing stormwater outfalls into these ponds as a source of water. Due to the uncertain water quality of stormwater, direct contact with water is not recommended and therefore no water-based activities were proposed. In the winter, thin ice can form on storm ponds therefore the wintertime program excluded any activities on the ponds' ice.

Figure 7 depicts summer time activities for the first concept plan. The plan includes the following elements:

1. New Gravel Trail Network – a granular trail, approximately 2.0m wide that provides durable pedestrian access throughout the site. This is a seasonal trail that is not maintained in the winter. The trail provides access from the existing paved multi-use trail along top of bank into the core park area;
2. Existing Trees – maintaining the existing stand of trees along the River, with no trees requiring removal;
3. Pollinator Garden – a naturalized planting area that contains a variety of plants that attract pollinator species;
4. Natural Plant Area – a collection of native plants that had significant cultural value to the region. Interpretation would demonstrate how these plants were significant to people, such as serving medicinal needs;
5. Demonstration Reclamation Area – an area of native plantings to showcase the variety of plant species of the local area. The implementation and maintenance of this area may benefit from a partnership with an academic institution, whereby research can be conducted on the site;
6. Proposed Trees & Shrubs – additional plantings of vegetation to increase biodiversity of the site, to improve the aesthetics of the site and to reclaim some areas of the site to its original condition from past generations prior to site clearing;
7. Staircase with Bike Ramps – a formal wooden or steel staircase leading from the upper terrace's developed lands down the steep bank to the lower plateau of Fort Centre Park. A bike gutter alongside the steps

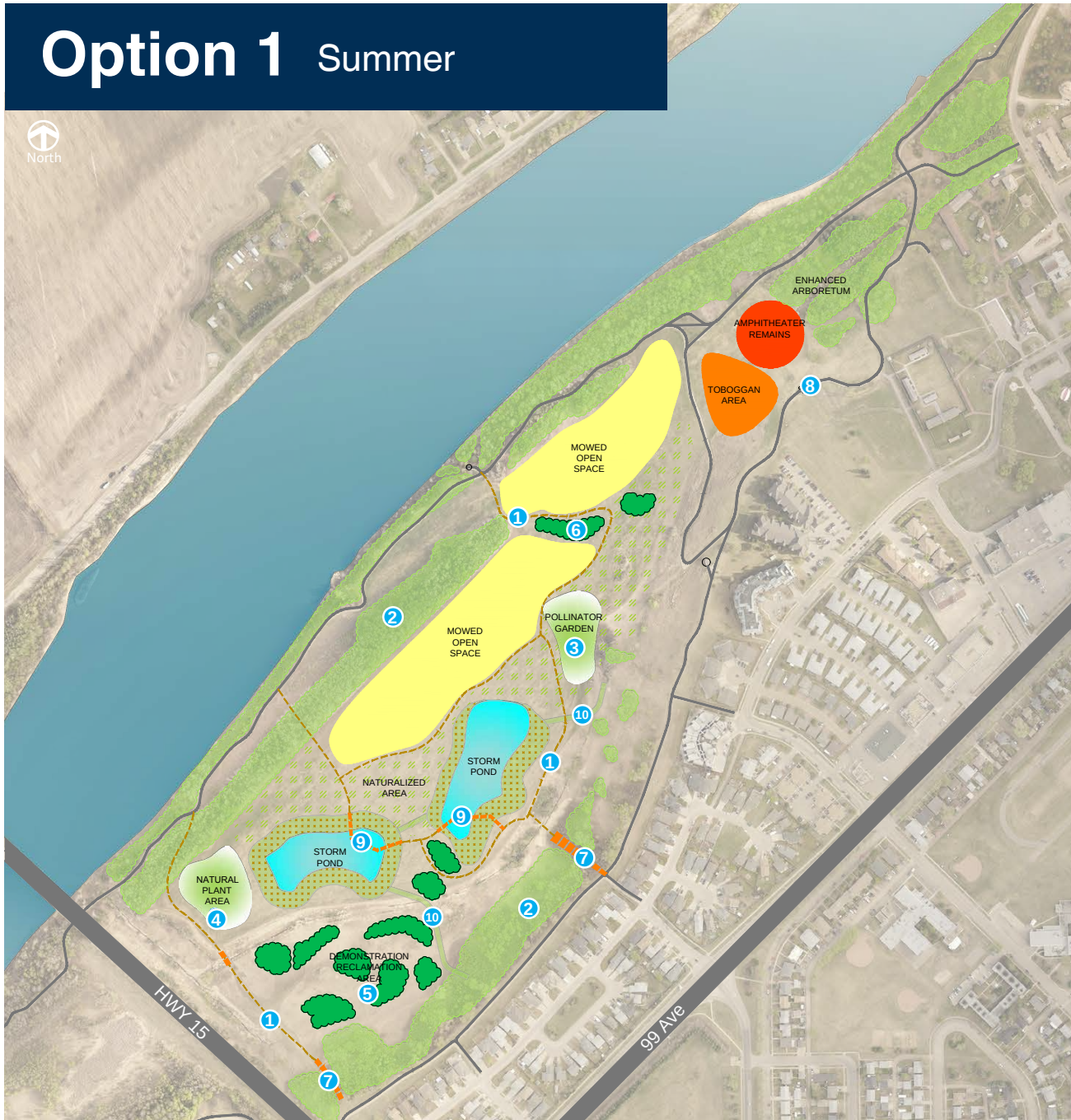
- would allow for cyclists to easily carry their bike up or down the stairs;
8. Existing Fort Entrance Monument – Maintaining the existing interpretive feature that marks the corner of the historic fort;
9. Wood Boardwalk – providing a boardwalk structure through wet areas of the site and overtop newly constructed ponds, providing excellent interpretive opportunities and wildlife viewing; and
10. Drainage Swales from Storm Outfall – maintaining the existing conveyance channel that leads from two existing stormwater outfalls down to the River.

Figure 8 depicts wintertime activities for the first concept plan. The plan includes the following elements:

1. Winter Light Up Festival – providing the provision of power on the site that allows for trees alongside trails to be lit up. and providing access to the proposed ice sculpture garden. Access to the light-up area is intended to be pedestrian only;
2. Top of Toboggan Bonfire – a large scale natural gas fueled fire pit to accommodate groups of people using the toboggan hill;
3. Skating Ribbon – a network of trails that are flooded in the wintertime to allow for skating along these trails;
4. Nature Snowshoe Trail – providing areas of trail designated specifically for snowshoeing; and
5. Ice Sculpture Garden – an area designated for artistic sculptures using snow and ice.

“A naturalized planting area that contains a variety of plants that attract pollinator species.”

Option 1 Summer



Site Features

- ① NEW GRAVEL TRAIL NETWORK
- ② EXISTING TREES
- ③ POLLINATOR GARDEN
- ④ NATURAL PLANT AREA
- ⑤ DEMONSTRATION RECLAMATION AREA
- ⑥ PROPOSED TREES/SHRUBS
- ⑦ STAIRCASE WITH BIKE RAMPS
- ⑧ EXISTING FORT ENTRANCE MONUMENT
- ⑨ WOOD BOARDWALK
- ⑩ DRAINAGE SWALES FROM STORM OUTFALL

FIGURE 7 - PROPOSED CONCEPTUAL PLAN OPTION 1 (SUMMER) PRESENTED TO PUBLIC FOR FEEDBACK

Option 1 Winter

Site Features

- ① WINTER LIGHT UP FESTIVAL
- ② TOP OF TOBOGGAN BONFIRE
- ③ SKATING RIBBON
- ④ NATURE SNOW SHOE TRAIL
- ⑤ ICE SCULPTURE GARDEN

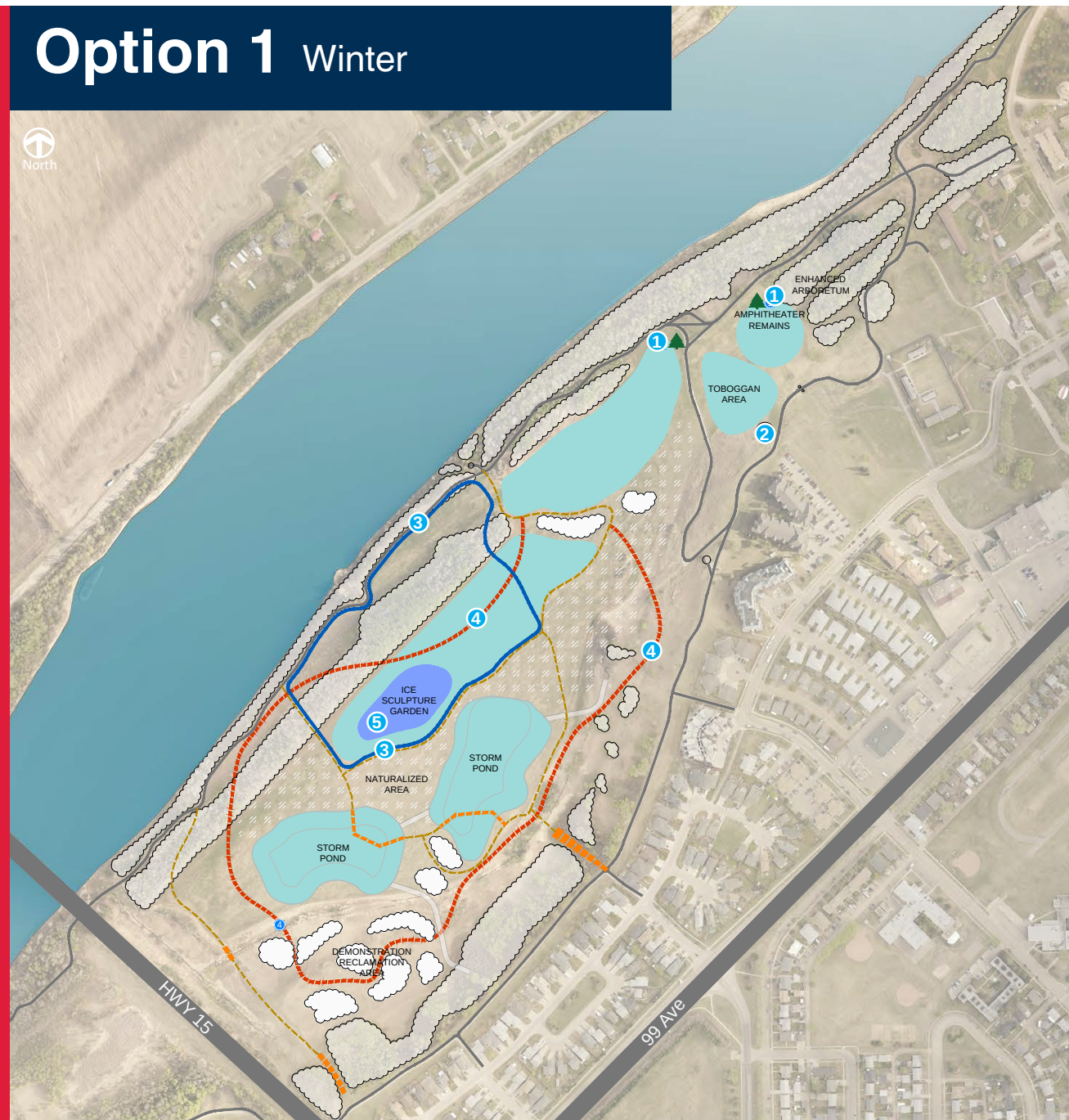


FIGURE 8 - PROPOSED CONCEPTUAL PLAN OPTION 1 (WINTER) PRESENTED TO PUBLIC FOR FEEDBACK

6.2 Concept Two

The second initial concept plan for Fort Centre Park introduces numerous active recreational activities, in addition to the program elements included in Option 1. Due to the types of activities proposed and the need for more parking and dropping off equipment, a vehicular roadway was introduced that penetrated approximately half-way into the Park. As with Option 1, no water-based activities or activities on the ponds' ice have been recommended due to unsafe conditions.

Figure 9 depicts summertime activities for the Option 2 concept plan. The plan includes the following elements:

1. Enhanced Victoria Trail and Gravel Trail Through Arboretum – with the development of a vehicular road over top the current paved trail, a network of new pedestrian trails is needed to link Fort Centre Park to the Fort Heritage Precinct. The alignment of the paved trail access is over top of the historic NWMP trail alignment, allowing for a great interpretive opportunity;
2. Existing Dirt Trails to be Enhanced for Amateur / Intermediate Biking – there is an existing network of informal trails along the shoreline of the River. Enhancing these trails with new surfacing, erosion control measures, signage and implementing various bike stunt features would make the site safer and more attractive for bikers;
3. One Way Loop Road – a paved surface approximately 4m wide that would allow for one-way access for vehicles. The road would have significant traffic calming measures to help limit speeds. The road segment leading to this one-way loop would be approximately 7m wide with the same attention to traffic calming;
4. Bus Parking and Drop Off – a designated parking area for larger vehicles such as school busses, or shuttle busses used during special events;
5. Roadside Parking – the plan does not include formal parking lots, rather a number of parking stalls along the road. Parking is placed nearby areas of the most intensive activities, such as sport courts. Parking is limited and would only accommodate day to day site use. Shuttles would be required for any special event held on site;
6. Day Use Sites – providing informal picnic sites in various areas of the Park, that include picnic tables, fire pits for small-scale barbecuing, benches and waste receptacles;
7. 24'x48' Bookable Picnic Shelter – a large overhead structure that can be used for booked events such as corporate gatherings, family reunions, tournament meals and other group activities. The shelter would be serviced with power for interior lighting and evening use and for temporary fridges and other equipment for programmed events;
8. 20'x20' Picnic Shelter – these shelters would allow for smaller scale group uses and include picnic tables and waste receptacles. These sites would likely not be serviced, and would be available only through booking;
9. Beach Volleyball Courts – an area to accommodate a set of sand volleyball courts, expandable for future activity usage;
10. Horseshoe Pits – a series of pits that can accommodate day to day use and in future years to have a sufficient number of pits to accommodate tournaments if there becomes the demand;
11. Staircase to Hand Launch Dock – a durable staircase leading from the lower plateau of the Park down to the water's edge. Due to flooding and ice scouring of the shoreline, the structure would need to be very durable and be strategically placed on the Riverbank. Regulatory approvals will be required to implement this structure;
12. Multi-Purpose Building – this building can serve a variety of purposes, including public washrooms, maintenance and storage for City use, a seasonal concession and storage of boats and other paddle-based equipment;
13. Nature Play – nature-based playgrounds developed with two suggested themes, including canoe building as well as beavers;
14. New Gravel Trail Network – a granular trail, approximately 2.0m wide that provides durable pedestrian access throughout the site. This is a seasonal trail that is not maintained in the winter. The trail provides access from the existing paved multi-use trail along top of bank into the core park area;
15. Existing Trees – maintaining the existing stand of trees along the River,

- with no trees requiring removal;
- 16. Paved Trail with Boardwalk Bridge – a paved trail surface that allows for year-round maintenance and use of the trail in the winter months. Segments of boardwalk would be required to provide access over top low-lying areas of the site that have poor drainage;
- 17. Pollinator Garden – a naturalized planting area that contains a variety of plants that attract pollinator species;
- 18. Proposed Trees & Shrubs – additional plantings of vegetation to increase biodiversity of the site, to improve the aesthetics of the site and to reclaim some areas of the site to its original condition from past generations prior to site clearing;
- 19. Staircase with Bike Ramps – a formal wooden or steel staircase leading from the upper terrace's developed lands down the steep bank to the lower plateau of Fort Centre Park. A bike gutter alongside the steps would allow for cyclists to easily carry their bike up or down the stairs;
- 20. Existing Fort Entrance Monument – Maintaining the existing interpretive feature that marks the corner of the historic fort;
- 21. Wildlife Viewing and Interpretive Tower – a vertical structure that provides strategic views over the site, and that can become a key destination of the site's ecological interpretive program;
- 22. Wood Boardwalk – segments of wood boardwalk passing over top of the constructed ponds. These boardwalks would be a great venue for interpretive opportunities and outdoor learning;
- 23. Drainage Swales from Storm Outfall – maintaining the existing conveyance channel that leads from two existing stormwater outfalls down to the River; and

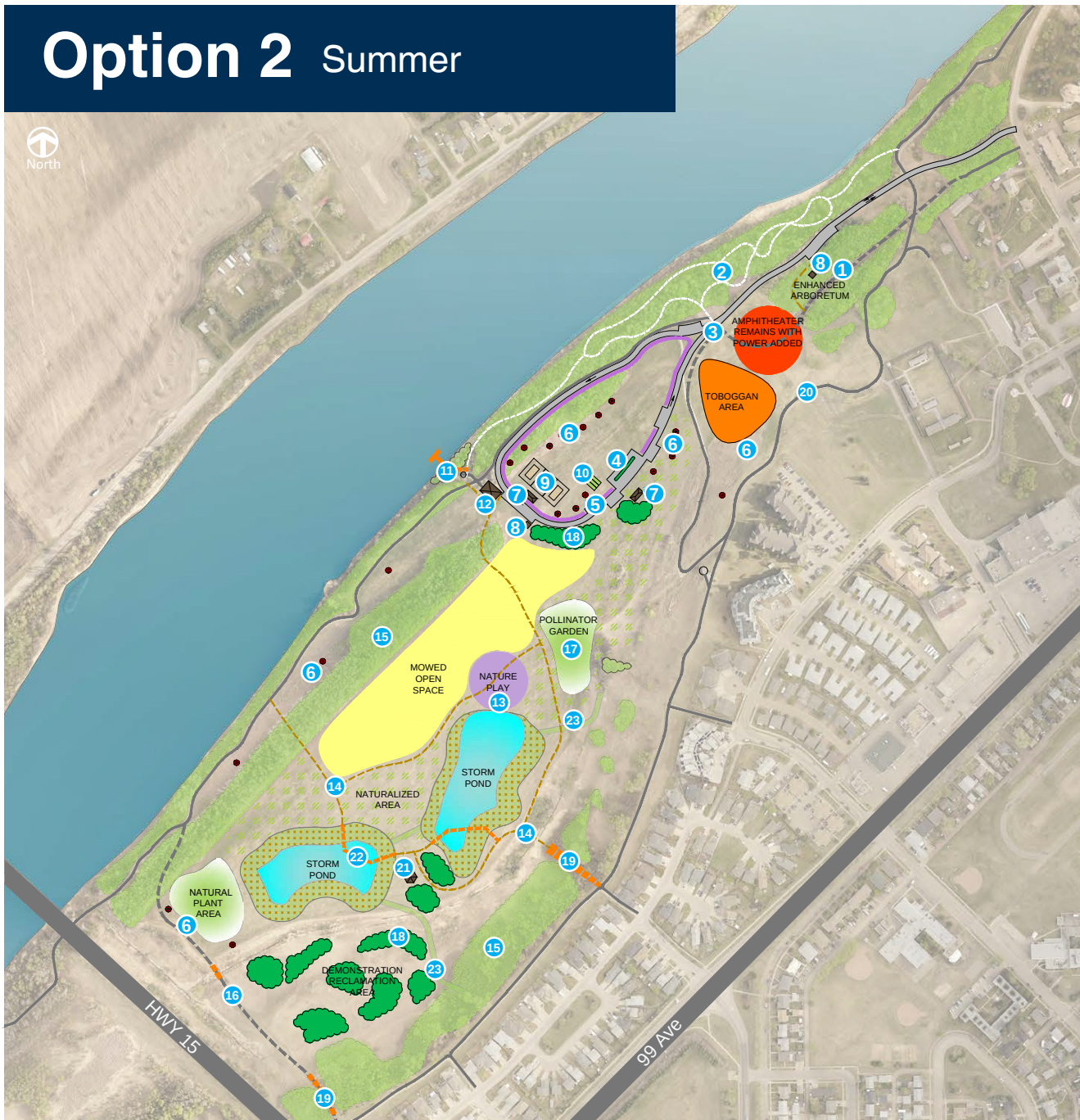
- 24. Natural Plant Area – a collection of native plants that had significant cultural value to the region. Interpretation would demonstrate how these plants were significant to people, such as serving medicinal needs.

Figure 10 demonstrates how Option 2 would function during winter months. The plan depicts the following elements:

- 1. One Way Loop Road – Drive Through Light Up Feature – a paved surface approximately 4m wide that would allow for one-way access for vehicles. The road would have significant traffic calming measures to help limit speeds. The road segment leading to this one-way loop would be approximately 7m wide with the same attention to traffic calming. During the winter a light display can be accessed by vehicle, rather than only by pedestrian traffic as included in the first option;
- 2. Winter Light Up Festival – providing the provision of power on the site that allows for trees alongside trails to be lit up. and providing access to the proposed ice sculpture garden;
- 3. Toboggan Hill Bonfire – a large scale natural gas fueled fire pit to accommodate groups of people using the toboggan hill;
- 4. Skating Ribbon – a network of trails that are flooded in the wintertime to allow for skating along these trails;
- 5. Nature Snowshoe Trail – providing areas of trail designated specifically for snowshoeing; and
- 6. Ice Sculpture Garden – an area designated for artistic sculptures using snow and ice.

“A collection of native plants that had a significant cultural value to the region. Interpretation would demonstrate how these plants were significant to people, such as serving medicinal needs.”

Option 2 Summer

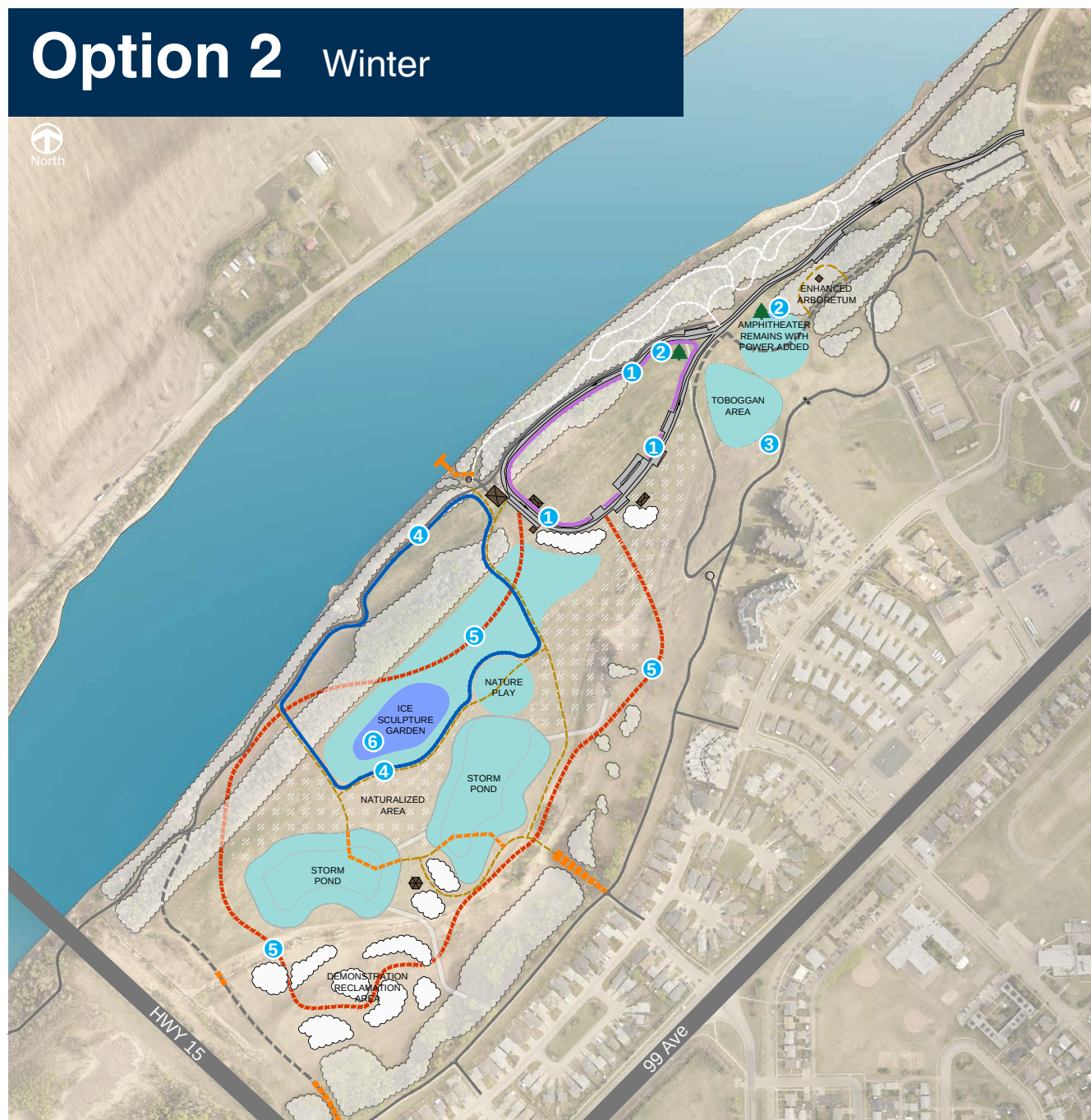


Site Features

- ① ENHANCED PAVED VICTORIA TRAIL AND GRAVEL TRAIL THROUGH ARBORETUM
- ② EXISTING DIRT TRAILS TO BE ENHANCED FOR AMATEUR/INTERMEDIATE BIKING
- ③ ONE WAY LOOP ROAD
- ④ BUS PARKING AND DROP OFF
- ⑤ ROADSIDE PARKING (60)
- ⑥ DAY USE SITES
- ⑦ 24X48' BOOKABLE PICNIC SHELTER
- ⑧ 20X20' PICNIC SHELTER
- ⑨ BEACH VOLLEYBALL COURTS
- ⑩ HORSESHOE PITS
- ⑪ STAIRCASE TO HAND LAUNCH DOCK
- ⑫ WASHROOM/CONCESSION/BIKE RENTALS/ BOAT STORAGE/MAINTENANCE BUILDING
- ⑬ NATURE PLAY AREA THEME - "HISTORICAL CANOE BUILDING" AND "BEAVER THAT BUILD"
- ⑭ NEW GRAVEL TRAIL NETWORK
- ⑮ EXISTING TREES
- ⑯ PAVED TRAIL WITH BOARDWALK BRIDGE OVER LOW AREA
- ⑰ POLLINATOR GARDEN
- ⑱ PROPOSED TREES/SHRUBS
- ⑲ STAIRCASE WITH BIKE RAMPS
- ⑳ EXISTING FORT ENTRANCE MONUMENT
- ㉑ WILDLIFE VIEWING AND INTERPRETIVE TOWER
- ㉒ WOOD BOARDWALK
- ㉓ DRAINAGE SWALES FROM STORM OUTFALL

FIGURE 9 - PROPOSED CONCEPTUAL PLAN OPTION 2 (SUMMER) PRESENTED TO PUBLIC FOR FEEDBACK

Option 2 Winter



Site Features

- ① ONE WAY LOOP ROAD - DRIVE THROUGH LIGHT UP FEATURE
- ② WINTER LIGHT UP FESTIVAL
- ③ TOBOGGAN HILL BONFIRE
- ④ SKATING RIBBON
- ⑤ NATURE SNOW SHOE TRAIL
- ⑥ ICE SCULPTURE GARDEN

FIGURE 10 - PROPOSED CONCEPTUAL PLAN OPTION 2 (WINTER) PRESENTED TO PUBLIC FOR FEEDBACK

6.3 Interpretive Opportunities

The site offers very rich history and natural ecosystems. Through the concept planning process a number of interpretive opportunities were identified, many of which are consistent with the previous 2008 master plan.

- The River – historic uses that celebrate the significance of the North Saskatchewan River for transportation and a source of food and water for past generations of people. An example of a significant historic use of the River in this area was the Indigenous use, fur trade and on-site presence of the NWC and HBC. An existing view deck along the river is strategically placed and currently provides informal access to the River edge, as seen in Image 4;
- Arboretum – the variety of native tree species of the region. At the time of completing this Plan, the local Rotary Club expressed interest in rehabilitating the current arboretum;
- Historic River Ferry – the original location of the Lamoureux Brothers ferry crossing is along the shores of Fort Centre Park, and apart from an interpretive opportunity there is the potential to build a new pedestrian ferry crossing;
- Constructed Wetland – with the development of new ponds on site, one of the two ponds are planned to have a naturalized riparian area that mimics a natural wetland. This provides added habitat and nature-based learning;
- Historic Gaol – while the prison did not have built infrastructure directly on the Fort Centre Park site, areas of the Park were once used for large scale gardens that provided food for prison inmates;
- Gaol Cemetery – an existing marked cemetery located at the upper terraces of the Park at the south-east corner (see Image 5);
- Indigenous Peoples – the presence of Indigenous communities, both nomadic use and semi-permanent inhabitation on the River's edge;
- Historic North West Mounted Police trail and Victoria Trail – a grassed alignment leads from the historic precinct down to the existing amphitheatre, marking the location of the historic trail that once allowed access from the upper terraces and old fort down to the lower plateau;

- Local Wildlife – animals such as the beaver are common to this site and there are prominent signs of active wildlife movement throughout the site (see Image 6); and
- Traditional Uses – over thousands of years, Indigenous Peoples maintained a strong connection to the natural environment and relied on nature for a means of survival. Traditional uses of local wildlife and plants, such as fur-bearing animals used for pelts, plants used as a source of food and medicine and animals that inspired spiritual connections can be interpreted on this site.

Recent wayfinding (see Figure 11) and interpretive (see Figure 12) signage has been installed nearby the existing multi-use trail in Fort Centre Park. The interpretive signs include themes such as Indigenous Peoples' and their history, water-based transportation and the Gaol Cemetery. It is recommended that this current signage program be extended to incorporate the other themes recommended by this Plan.



IMAGE 5 - EXISTING VIEW DECK LEADING FROM FORT CENTRE PARK OVER THE TOP OF BANK OF THE NORTH SASKATCHEWAN RIVER

FIGURE 11 - RECENTLY DESIGNED AND INSTALLED WAYFINDING SIGNAGE AT FORT CENTRE PARK



FIGURE 12 - RECENTLY DESIGNED AND INSTALLED INTERPRETIVE SIGNAGE AT FORT CENTRE PARK

IMAGE 6 - EXISTING GAOL CEMETERY LOCATED AT FAR SOUTH END OF FORT CENTRE PARK ON THE UPPER TERRACE



IMAGE 7 - WOODED AREA OF FORT CENTRE PARK WITH SIGNIFICANT DAMAGES FROM ACTIVE TREE HARVESTING BY BEAVER

7.0

7.0 Community Engagement

7.1 Student Engagement

As part of the engagement program for this Master Plan Update, a group of twenty-four (24) Grade 5 students from St. John Paul II Catholic School was selected to work with the consulting team. An in-classroom working session brought students the opportunity to learn about the design process for parks, and for students to create their own park designs with guidance of the consulting team. During this session, students were also asked a series of questions regarding their use of parks, which helped to understand youth perspectives regarding using river valley parks in Fort Saskatchewan.

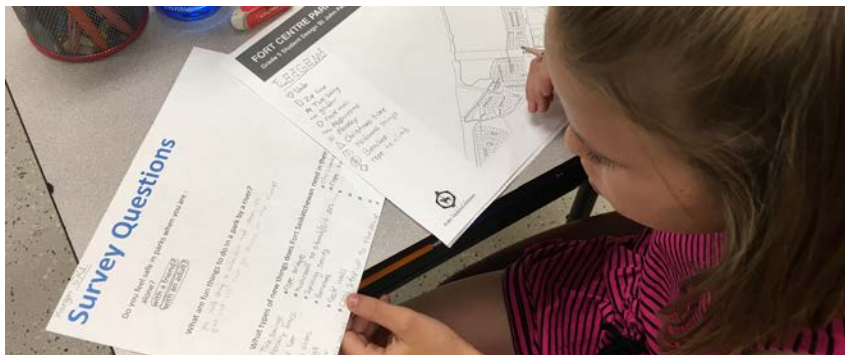


IMAGE 8 - STUDENT WORKING SESSION, DEVELOPING PARK DESIGNS FOR FORT CENTRE PARK

Some of the most common design elements included a zipline to take park users from the upper terrace down into the lower plateau of the Park, ponds with open water for recreation, slides and toboggan areas to bring people down the large hills, and playgrounds with a strong nature-based theme. Students also had a strong interest in getting down to the edge of the River for more activities. Supporting amenities such as washrooms was a common request, to make the park experience better. Overall, when asked how safe students feel when using riverfront parks in Fort Saskatchewan, the largest proportion of students indicated they generally feel safe, but only when with their parents or with a group of friends.

7.2 Public Open Houses

The two concept plans identified in Section 6.0 – Initial Concept Plans were brought forward to the public through three (3) open house sessions, as described in Section 7.0 – Community Engagement. Open houses were hosted at City Hall and at the Dow Centennial Centre. Open houses were facilitated by a combination of consultant representatives and City staff, to guide guests through open house panels, to answer any questions related to the project and to encourage guests to complete surveys.



FIGURE 13 - PROJECT TIMELINE AS PRESENTED AT PUBLIC OPEN HOUSES

7.3 Internal Staff Workshops

At various points of developing the various plans included in this report, internal staff was engaged to gather background information, learn about past planning initiatives, understand public preferences through engagements and surveys from other related projects and to refine design decision-making.

7.4 Survey Feedback

The following describes highlights of the public survey that was provided at open house sessions, available both in paper form and accessible online with a smartphone or personal computer. A total of 195 surveys were collected:

- Of the age categories provided, the largest proportion of respondents to the survey were aged 36-49;
- 97% of respondents indicated that they use Fort Saskatchewan's river valley parks for recreation, with over 65% of people visiting the river valley at least once a week;

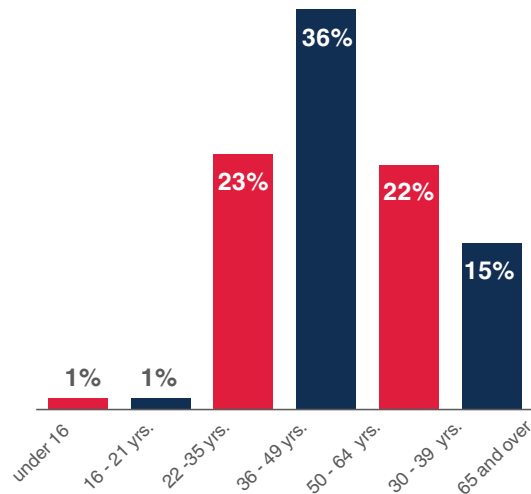


FIGURE 14 - AGE OF SURVEYED RESPONDENTS

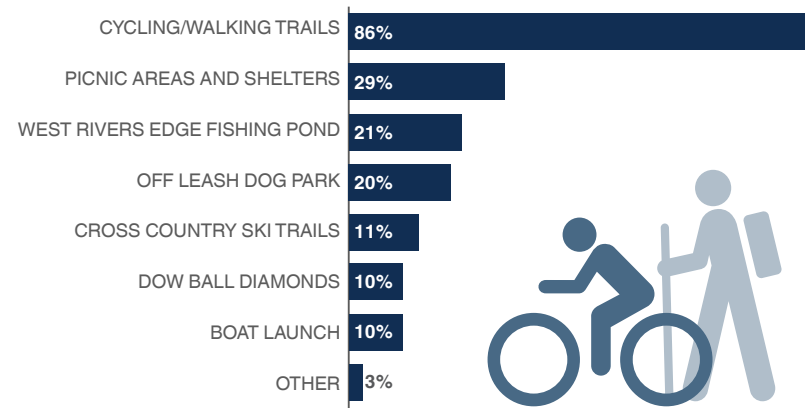


FIGURE 15 - WHAT AMENITIES/ACTIVITIES ARE USED THROUGHOUT FORT SASKATCHEWAN

- By far the most common use of the river valley is cycling and using walking trails. There is a strong affinity for trails in urban parks. A distant second to trails is the development of picnic areas and shelters;
- The most common impediments to people using the river valley parks in Fort Saskatchewan is limited parking, a lack of activities available, and overall challenges getting to the river valley parks;
- Nearly 85% of respondents feel safe in river valley parks when either alone or when alone during daylight hours;
- When asked which elements of Option 1 were the most preferred, the top activities included trails, retaining trees as much as possible, winter light-up areas and an enhanced toboggan hill;
- When asked which elements of Option 2 were the most preferred, the top activities included trails, washrooms, retaining trees as much as possible and bike trails in the treed area along the River;
- A large majority of people (nearly 73%) felt that there were no conflicting uses shown on each of the concept options; and
- Between the two plans proposed, a large majority of people (68%) preferred Option 2.



97%
of surveyed residents visit
river valley parks in Fort
Saskatchewan



57% visit **daily**

55% visit **weekly**

34% visit **monthly**

30% Visit only a few times **a year**

1% only for **programed events**

FIGURE 16 - HOW OFTEN SURVEY RESPONDENTS VISIT RIVER VALLEY PARKS IN FORT SASKATCHEWAN

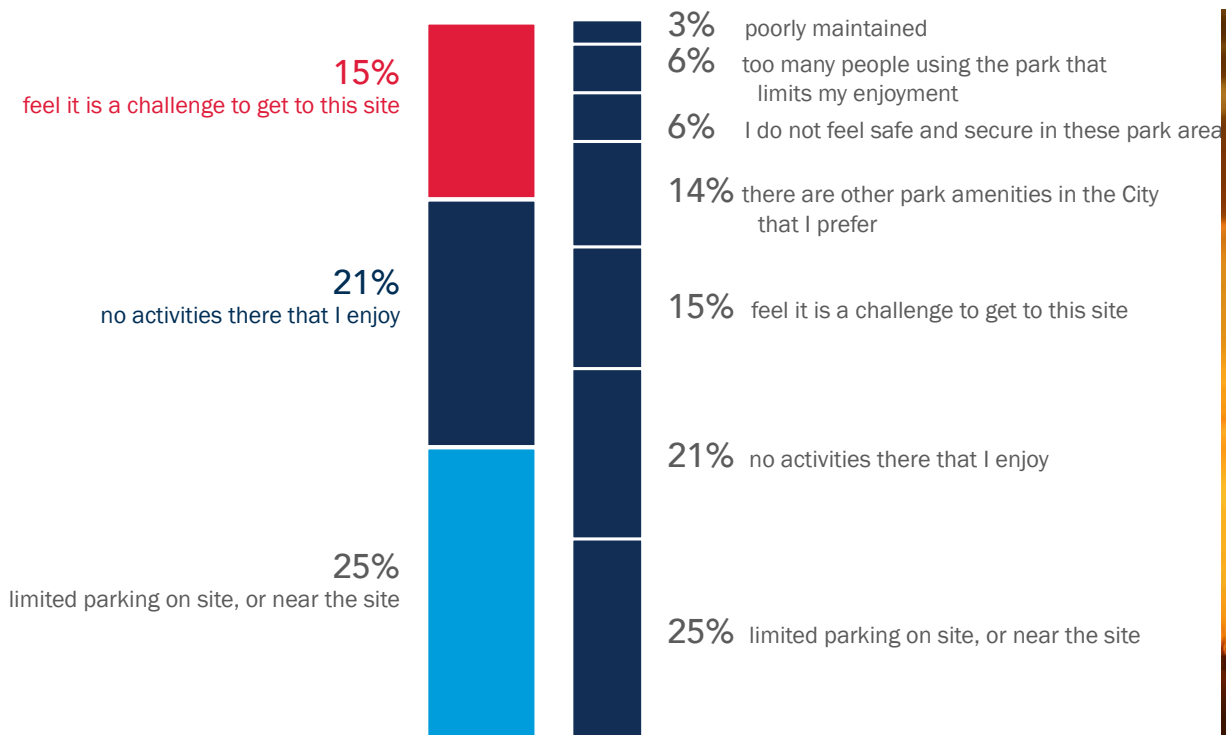


FIGURE 17 - WHAT PREVENTS SURVEY RESPONDENTS FROM USING THIS SITE?



FIGURE 18 - WHAT AMENITIES/ACTIVITIES ON OPTION 1 ADD SUPPORT FROM SURVEYED RESIDENTS

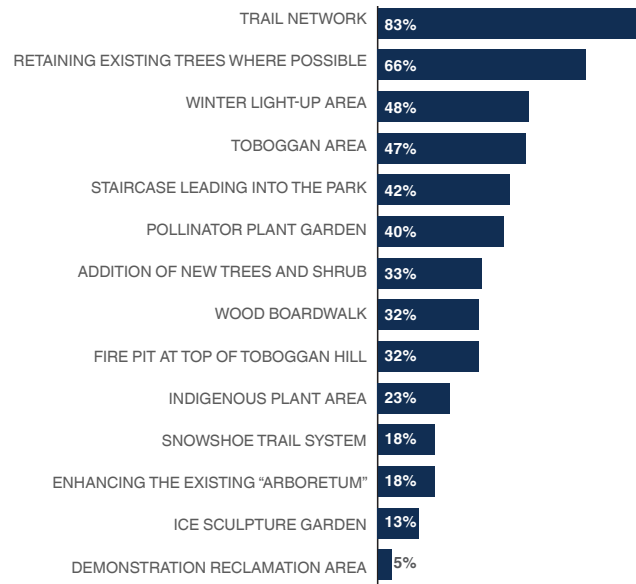
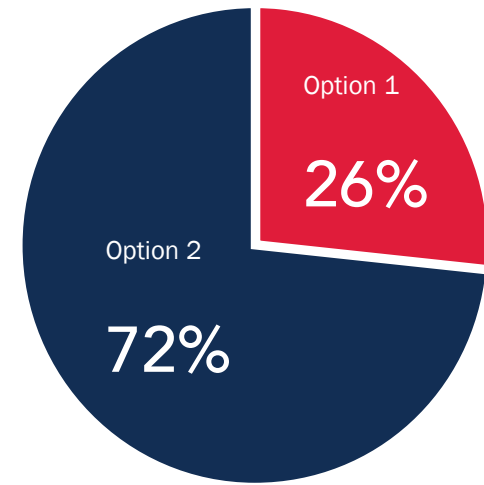


FIGURE 19 - SURVEYED RESIDENTS OPINION OF CONFLICTING USES WITH EITHER OPTION 1 OR 2?



72% see no conflict



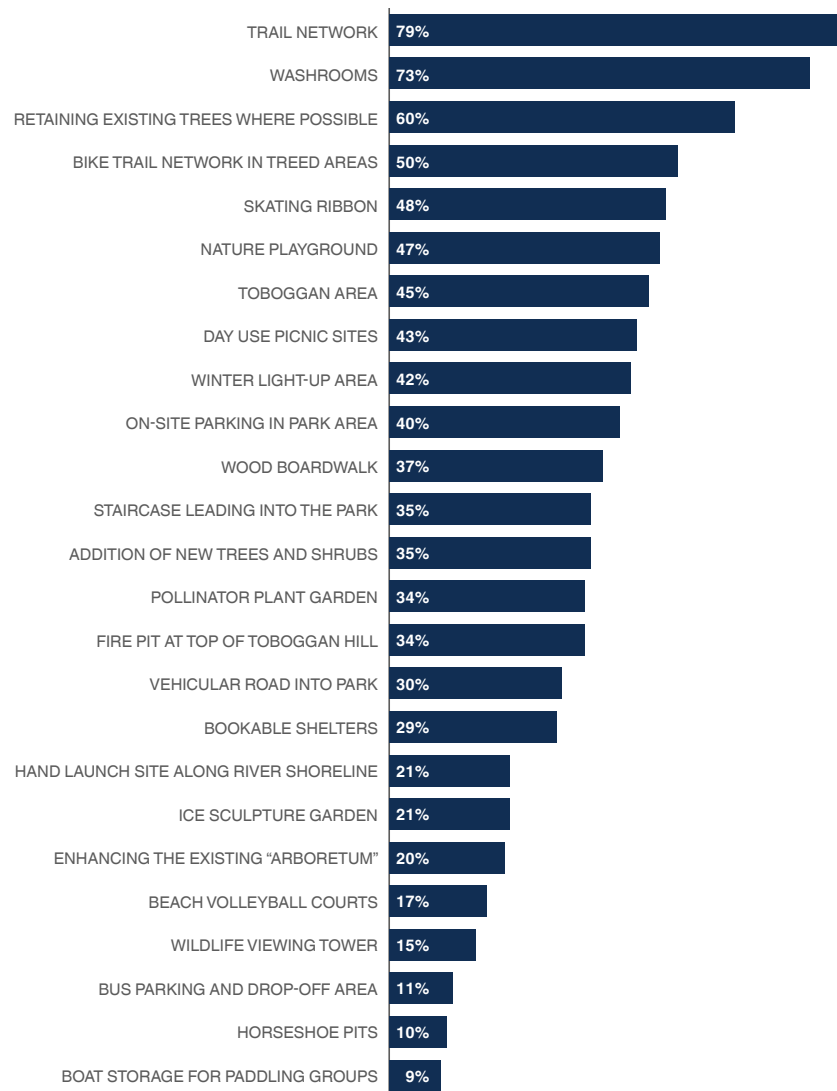
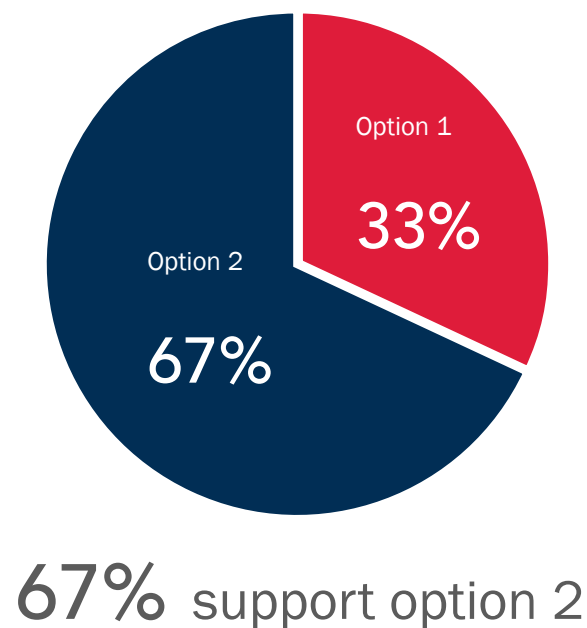
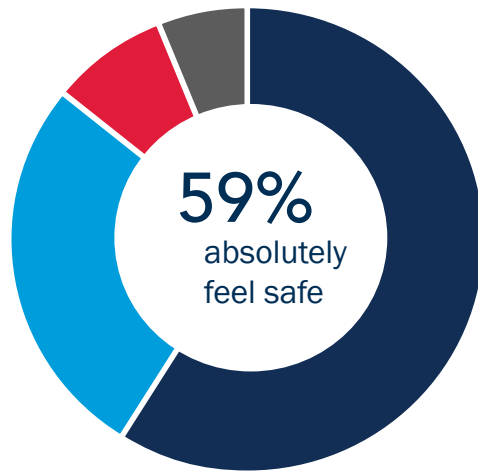


FIGURE 20 - WHAT AMENITIES/ACTIVITIES ON OPTION 2 ADD SUPPORT FROM SURVEYED RESIDENTS

FIGURE 21 -PREFERRED CONCEPT OPTION



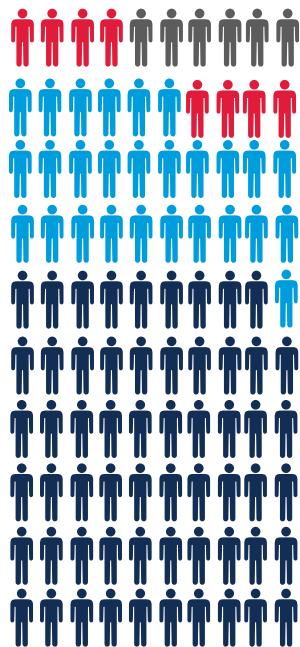


6% somewhat

8% yes, but only with other people

27% yes, but only certain times of the day

59% absolutely



SOMEWHAT

WITH OTHER PEOPLE

CERTAIN TIMES OF THE DAY

ABSOLUTELY



FIGURE 22 - FEELING OF SAFETY IN FORT CENTRE PARK

8.0

8.0 Recommended Plan, Phasing Strategy and Project Estimate

8.1 Plan Refinement

Through discussion at the open houses and based on feedback collected through surveys, the following primary comments were made that helped to influence the concept plan's refinement:

- Provide a vehicular road and some parking, but limit the extent of vehicular access into the site – vehicle access has benefits such as emergency services and bylaw control access, providing more convenient drop-off of sporting equipment and use of programmed areas and allowing people unable to walk or cycle long distances to still access the park. There is a strong affinity for the site to be largely naturalized and not a highly programmed park. Limiting road access to less than half of the park and ensuring the road has well-planned traffic calming measures is preferred;
- Don't duplicate access to the River – the proposed hand boat launch access on to the River was well received. Other boat launches upstream and downstream of this site accommodate motorized and non-motorized boat launching, and there was a clear message from residents that this site does not require motorized access to the water, only for paddle-based watercraft (hand boats);
- Safe inland boating and swimming would be a great amenity for the site and there was significant demand for one or both of the ponds on the site to be redesigned such that summer and winter uses on the ponds would be permitted. It is recommended that one of the ponds be offline from the stormwater system so that it can support this recreational demand;
- Multi-modal trails are in high demand – survey results demonstrated that by far the most popular activity in the river valley is trail use. Survey responses also provided a prominent interest in complimenting trail experiences with a strong connection to nature and maintaining a naturalistic appearance of the site as much as possible. Providing trails that accommodate a range of users is essential.



8.2 Recommended Concept Plan and Phasing Strategy

Phase One: Summer Time

Figure 23 depicts summertime activities for the first phase of developing amenities included in the final concept plan. The plan includes the following elements:

1. Existing Paved Trail Network – retaining existing paved trails in the initial phase for pedestrian circulation. In the second phase of development, some of these existing paved trails would be modified to suit vehicle traffic, and new paved trail links will be required;
2. New Gravel Trail Network – a granular trail, approximately 2.0m wide that provides durable pedestrian access throughout the site. This is a seasonal trail that is not maintained in the winter. The trail provides access from the existing paved multi-use trail along top of bank into the core park area;
3. Existing Trees – retaining all of the existing trees on site;
4. Proposed Trees / Shrubs - additional plantings of vegetation to increase biodiversity of the site, to improve the aesthetics of the site and to reclaim some areas of the site to its original condition from past generations prior to site clearing;
5. Pollinator Garden - a naturalized planting area that contains a variety of plants that attract pollinator species;
6. Native Plant Area - a collection of native plants that had significant cultural value the region. Interpretation would demonstrate how these plants were significant to people, such as serving medicinal needs;
7. Demonstration Reclamation Area - an area of native plantings to showcase the variety of plant species of the local area. The implementation and maintenance of this area may benefit from a partnership with an academic institution, whereby research can be conducted on the site;
8. Staircase with Bike Ramps – a formal wooden or steel staircase leading from the upper terrace's developed lands down the steep bank to the lower plateau of Fort Centre Park. A bike gutter alongside the steps would allow for cyclists to easily carry their bike up or down the stairs;
9. Day Use Sites – providing informal picnic sites in various areas of the Park, that include picnic tables, fire pits for small-scale barbecuing, benches and waste receptacles;
10. Wood Boardwalk – segments of wood boardwalk passing over top of the constructed ponds. These boardwalks would be a great venue for interpretive opportunities and outdoor learning;
11. Naturalized Area Around Pond – mimicking a native grassland, this area surrounding the ponds would be naturalized with a combination of perennial grasses, shrubs and trees. The intent is to provide wildlife habitat and re-creating an ecosystem that is consistent with a river valley plateau;
12. Drainage Swales From Storm Outfalls – maintaining the existing conveyance channel that leads from two existing stormwater outfalls down to the River; and
13. Amphitheatre Remains – leaving the existing amphitheatre in its current location.





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FIGURE 23 - PHASE 1 CONCEPTUAL PLAN SUMMER TIME



Site Features PHASE 1

- ① EXISTING PAVED TRAIL NETWORK
- ② NEW GRAVEL TRAIL NETWORK
- ③ EXISTING TREES
- ④ PROPOSED TREES/SHRUBS
- ⑤ POLLINATOR GARDEN
- ⑥ NATIVE PLANT AREA
- ⑦ DEMONSTRATION RECLAMATION AREA
- ⑧ STAIRCASE WITH BIKE RAMPS
- ⑨ DAY USE SITES
- ⑩ WOOD BOARDWALK
- ⑪ NATURALIZED AREA AROUND POND
- ⑫ DRAINAGE SWALES FROM STORM OUTFALL
- ⑬ AMPHITHEATER REMAINS



Phase One: Winter Time

Figure 24 depicts winter time activities for the first concept plan. The plan includes the following elements:

1. Winter Light Up Festival – providing the provision of power on the site that allows for trees alongside trails to be lit up, and providing access to the proposed ice sculpture garden;
2. Bonfire Area - a large scale natural gas fueled fire pit to accommodate groups of people using the toboggan hill;
3. Day Use Sites - providing informal picnic sites in various areas of the Park, that include picnic tables, fire pits for small-scale barbecuing, benches and waste receptacles;
4. Skating Ribbon - a network of trails that are flooded in the wintertime to allow for skating along these trails;
5. Nature Snowshoe Trail - providing areas of trail designated specifically for snowshoeing;
6. Ice Sculpture Garden - an area designated for artistic sculptures using snow and ice; and
7. Provision of a Cross Country Ski Trail – ensuring that there is adequate width beside the proposed stairway leading from the upper terrace down to Fort Centre Park so that cross country skiers can travel down this slope.





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FIGURE 24 - PHASE 1 CONCEPTUAL PLAN WINTER TIME



Site Features PHASE 1

- ① WINTER LIGHT UP FESTIVAL
- ② BONFIRE AREA
- ③ DAY USE SITES
- ④ SKATING RIBBON
- ⑤ NATURE SNOWSHOE TRAIL
- ⑥ ICE SCULPTURE GARDEN
- ⑦ ENSURE THAT WIDTH IS PROVIDED
ALONG SOUTH STAIRCASE TO SET
CROSS COUNTRY SKI TRACK
ALONGSIDE



Phase Two: Summer Time

Figure 25 depicts summertime activities for the second phase of developing amenities included in the final concept plan. The plan includes the following elements:

1. Enhanced Gravel Trail Through Arboretum – with the development of a vehicular road over top the current paved trail, a network of new pedestrian trails is needed to link Fort Centre Park to the Historic Precinct. The alignment of the trail access is over top of the historic NWMP trail alignment, allowing for a great interpretive opportunity;
2. Existing Dirt Trails to be Enhanced for Amateur / Intermediate Biking – there is an existing network of informal trails along the shoreline of the River. Enhancing these trails with new surfacing, erosion control measures, signage and implementing various bike stunt features would make the site safer and more attractive for bikers;
3. One-Way Loop Road – a paved surface approximately 4m wide that would allow for one-way access for vehicles. The road would have significant traffic calming measures to help limit speeds. The road segment leading to this one-way loop would be approximately 7m wide with the same attention to traffic calming;
4. Bus Parking and Drop-Off – a designated parking area for larger vehicles such as school busses, or shuttle busses used during special events;
5. Roadside Parking – the plan does not include formal parking lots, rather a number of parking stalls along the road. Parking is placed nearby areas of the most intensive activities, such as sport courts. Parking is limited and would only accommodate day to day site use. Shuttles would be required for any special event held on site. Approximately 50 parking stalls are represented on this plan;
6. Two-Way Drop Off Turn Around – a short segment of road that allows for two-way traffic, used only as a drop-off for boating equipment and providing more direct access for people with limited mobility;
7. 24x48' Bookable Picnic Shelter – a large overhead structure that can be used for booked events such as corporate gatherings, family reunions, tournament meals and other group activities. The shelter would be serviced with power for interior lighting and evening use and for temporary fridges and other equipment for programmed events;
8. 20x20' Picnic Shelter – these shelters would allow for smaller scale group uses and include picnic tables and waste receptacles. These sites would likely not be serviced, and would be available only through booking;
9. Court Sport Area – an area to accommodate a variety of court sports such as volleyball, basketball, tennis, pickleball, etc. that are expandable to meet the current demand for this activity;
10. Staircase to Hand Boat Launch Dock – a durable staircase leading from the lower plateau of the Park down to the water's edge. Due to flooding and ice scouring of the shoreline, the structure would need to be very durable and be strategically placed on the Riverbank. Regulatory approvals will be required to implement this structure;
11. Washroom / Concession / Bike Rentals / Boat Storage / Maintenance Building – this building can serve a variety of purposes, including public washrooms, maintenance and storage for City use, a seasonal concession and storage of boats and other paddle-based equipment;
12. Nature Play Area – two themes for these play areas could be historical canoe building and the work of a beaver;
13. Paved Trail with Boardwalk Bridge Over Low Area – a paved trail surface that allows for year-round maintenance and use of the trail in the winter months. Segments of boardwalk would be required to provide access over top low-lying areas of the site that have poor drainage;
14. Wildlife Viewing and Interpretive Tower – a vertical tower providing advantageous views over the site, to contain interpretive materials and to provide a bird blind for birdwatching; and
15. Paddle Sports Area with Removable Summer Time Dock – if the northern-most pond area can be developed to sustain good water quality and not receive stormwater from the upper terrace urban area, paddle sports can take place on this pond. For added safety and convenience, a removable dock system would enhance this use. Providing an accessible dock that accommodates wheelchair access would be an exceptional option.



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FIGURE 25 - PHASE 2 CONCEPTUAL PLAN SUMMER TIME



EDS

Phase Two: Winter Time

The only additional winter time improvement that would be made to the park in Phase 2 would be ice skating. While skating can be added at any time after the non-stormwater pond is constructed, support amenities such as the proposed road and drop-off point, a change facility / warmup shack and washrooms would enhance use of the skating area. Figure 26 depicts winter-time activities of the final plan after Phase 2 is implemented.





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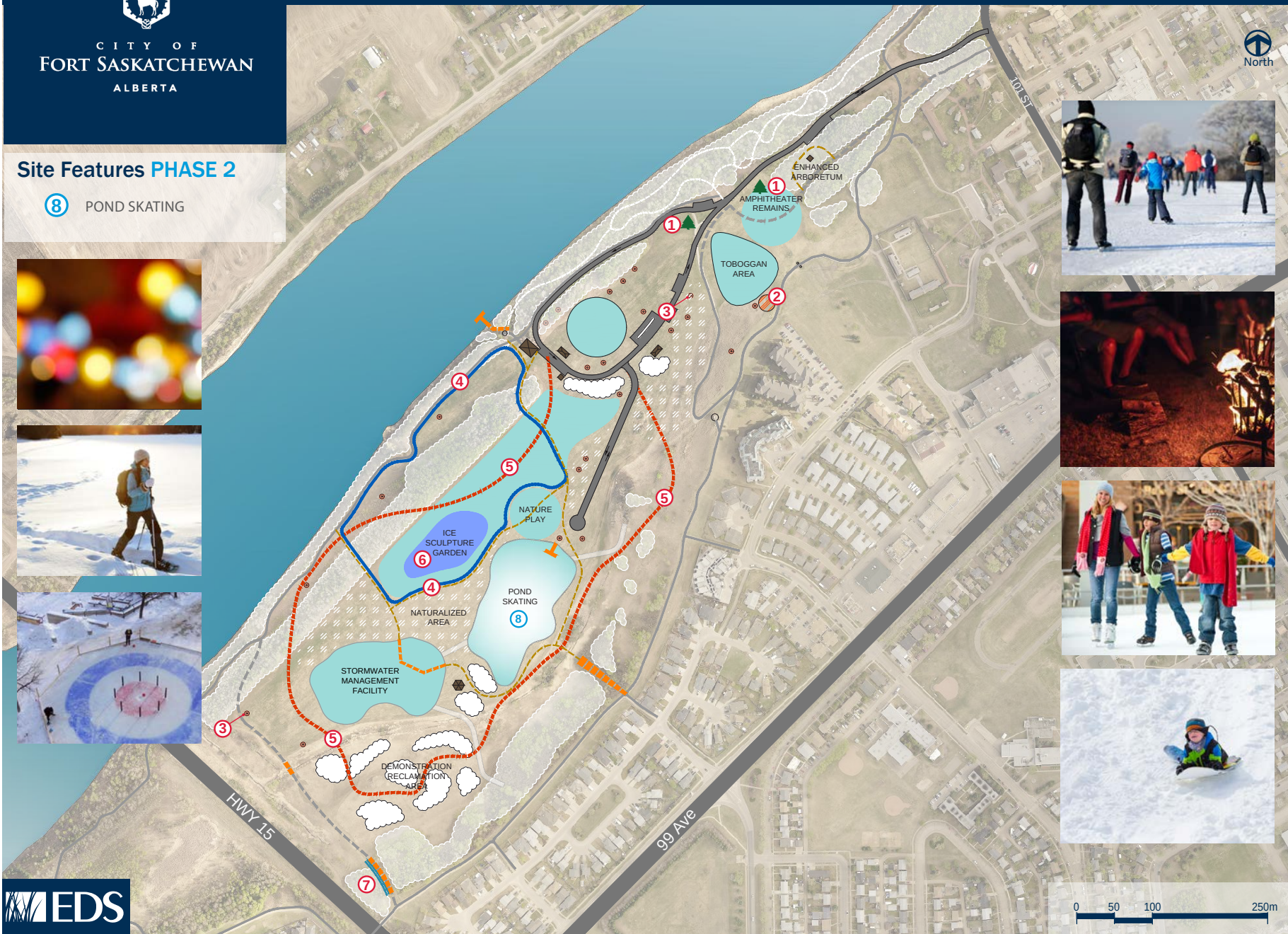
Site Features PHASE 2

⑧ POND SKATING



EDS

FIGURE 26 - PHASE 2 CONCEPTUAL PLAN WINTER TIME



8.3 Project Estimates

The following identifies the preliminary estimates that were prepared for the initial concept plans. These summaries include the item number, description of the general category, current estimated value, the escalation included to project the cost to the future year that we anticipate building, and total dollar amount. The price escalation assumes development in 3 to 10 years. Values have been rounded from the detailed cost estimates:



PHASE ONE				
Item	Description	Amount	Escalation	Total Value
1.0	Site Work	\$312,500.00	Add 10%	\$345,000.00
2.0	Hard Landscaping	\$710,000.00	Add 10%	\$781,000.00
3.0	Plant Material	\$125,000.00	Add 10%	\$137,500.00
4.0	Engineering & Testing (12%)	\$137,500.00	Add 10%	\$152,500.00
	<i>Subtotals</i>	\$1,285,000.00		\$1,415,000.00
5.0	Contingency (15%)	\$192,750.00		\$212,500.00
	Total Estimated Value (built over the next 5 years)	\$1,477,750.00		\$1,627,500.00

PHASE TWO				
Item	Description	Amount	Escalation	Total Value
1.0	Site Work	\$83,000.00	Add 25%	\$105,000.00
2.0	Hard Landscaping	\$3,177,500.00	Add 25%	\$3,972,500.00
3.0	Plant Material	\$57,500.00	Add 25%	\$72,500.00
4.0	Engineering & Testing (12%)	\$397,500.00	Add 25%	\$497,500.00
	<i>Subtotals</i>	\$3,715,000.00		\$4,650,000.00
5.0	Contingency (15%)	\$557,500.00		\$697,500.00
	Total Estimated Value (built over the next 10 years)	\$4,272,500.00		\$5,347,500.00

8.4 Plan Alignment with Project Objectives & Guiding Principles

Section 2.2 – Project Objectives & Guiding Principles outlines seven (7) objectives and principles that set the foundation of the initial concept plan. The following describes how the final plan addresses each:

- Delivering a project specific engagement strategy – initial concept plans were based on a previous planning process with strong engagement with local stakeholders. Three (3) open house sessions, a community-wide survey, student engagement and meetings with City staff ensured that final recommendations of this plan are aligned with local perspectives and recreational needs of the community;
- Celebrating the rich history of the site and the region – the suggested interpretive program is inspired by the rich history of this site and the region. While much of the community's history is captured within the Fort Historic Precinct, Fort Centre Park can complement the Precinct's program with site relevant and appropriate references to local and regional history;
- Reinforcing the mindset of a livable winter community – each concept plan included both summer and winter time programming to ensure adequate year-round use of the Park. The proposed winter activities align with recreational demands of the community and will entice users to make Fort Centre Park an important local destination, year-round;
- Developing a public realm is compassionate to people with limited mobility and physical impairments – with exception to staircases proposed on site, all elements can easily meet universal accessibility standards to assure access for all people, regardless of their abilities;
- Providing universal accessibility for all people, despite their age or ability - the recreational program of the final concept plan offers a range of activities for all ages and all abilities;
- Ensuring safety for people and pets as a primary concern – elements such as site lighting and a vehicular access route for

routine patrolling allows for increased perceived and actual safety on site. The public survey demonstrated that the majority of people generally feel safe when using Fort Saskatchewan's river valley parks. As the site is detailed design, careful attention needs to be paid to principles of CPTED and safe outdoor open spaces; and

- Minimizing ecological impacts from all proposed development and long-term use – the recommended plan more than doubles the area of naturalized open space in Fort Centre Park, and offers new amenities that will provide more ecological diversity with the addition of open water, constructed wetland areas, enhanced stormwater management conveyance channels, pollinator garden and additional native plantings on site.

