St. Albert Heritage Site – Functional Plan Update

City of St. Albert | FINAL REPORT

November 2024

ISL Engineering and Land Services Ltd. Is an award-winning full-service consulting firm dedicated to working with all levels of government and the private sector to deliver planning and design solutions for transportation, water, and land projects.

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1.0 Introduction

The focus of the St. Albert Heritage Site Functional Plan was to develop a comprehensive restoration, design, and interpretive programming strategies for an integrated heritage site developed around the Grain Elevators, Train Station, and River Lots 23 and 24. This project envisioned a creative and functional plan that built on the vision and recommendations of the Master Plan for the St. Albert Heritage Sites (2004).

Since the Functional Plan was completed in January, 2010, the City of St. Albert in partnership with the Arts & Heritage Foundation, have successfully completed several major phases of work on the site as per the approved Plan. This work has included the restoration of the Grain Elevators along with the Cunningham and Belcourt Houses, the relocation of Maison Chevigny and Brosseau Granary onto permanent foundations, the installation of some site services, and the preliminary grading and landscaping of portions of River Lots 23 and 24.

This 2024 Functional Plan Update will build on the work that has been completed since 2010, and provide an updated plan including phased progression of the remaining work. This Functional Plan Update strives to continue work on the site designed to achieve five fundamental goals:

- Restore and preserve important historical resources for the use and enjoyment of current and future generations.
- Use the site and its components as a framework for the public to engage in narratives relating to the history of the site and St. Albert.
- Create an active and accessible recreational space that connects with, and is a destination within, Red Willow Park West.
- Create a public space that provides for a variety of St. Albert cultural and social needs.
- Create a Heritage Site that integrates a number of historical resources while providing for the needs of visitors.

The following sections provide information about the St. Albert Heritage Site context and history, as well as providing information about the project process.

1.1 Purpose and Process

The St. Albert Heritage Site Functional Plan was the result of collaboration with staff from the City of St. Albert and the Arts and Heritage Foundation, supported by a consulting team led by ISL Engineering and Land Services. The process included background research, site reviews, community consultation (during prvious updates), design and interpretive storyline development, and the preparation, review and refinement of the plan report.

A key to the development of the 2010 and 2019 plan updates, was the guidance and support from the public and stakeholders groups including:

- Michif Cultural & Resource Institute
- Musée Héritage Museum
- Alberta Culture & Community Spirit
- Heritage Preservation Partnership Program
- Heritage Resources Management Branch
- St. Albert Historical Society
- Founders Walk Committee
- BLESS
- Métis Nation of Alberta
- St. Albert Catholic Parish
- OMI Lacombe Canada
- St. Albert Men's Slow Pitch Association
- Beaverbrook Group
- Genstar Developments
- City of St. Albert Fire Department
- City of St. Albert Safety Codes.

Since the 2019 plan was approved, a number of the phases of development have been implemented. In addition, the Riverside neighborhood to the west has developed significantly and there are plans in place to extend Meadowview Lane to create a new crossing of the CN Railway and therefore a new entrance to the Heritage Site. The 2024 Functional Plan Update has been prepared to address these changes and ensure that the proposed future development can be designed and implemented to meet the goals of the City and the Arts and Heritage Foundation.

To meet the requirements of the project, the following tasks have been completed during the preparation of this Plan update:

- Data Collection and Review – collection and analysis of all available data for the project resulting in a comprehensive inventory and mapping of the existing Heritage Site development
- Functional Plan Working Meetings – with the project team, thoroughly explore the options for the layout and development of the various site features.
- Draft Functional Plan Update – draft report was prepared that clearly illustrated the key features of the site including final locations of buildings, paths and roads and parking, and specifically addressed the key changes that may be required to facilitate development.
- Final Functional Plan Update – the final report includes the preferred concept plan that clearly defines the proposed future development, a phasing strategy and comprehensive cost estimates.

1.2 Site Context

The St. Albert Heritage Site is located on a portion of SW 4-54-24-4 and SE 5-54-25-4, north of the Sturgeon River and covers the southwest portion of the historical River Lot 23 and 24 properties (see Figure 1.1). The Heritage Site boundaries are defined by the CN railway tracks on the north, the Meadowview Baseball Diamonds on the east, the Sturgeon River and Red Willow Park on the south, and the Riverside neighbourhood on the west. Meadowview Drive crosses through the northern portion of the site and connects up to Mission Avenue. Meadowview Lane, a small residential access road runs along the western site boundary.

Historical structures on the site include two grain elevators, a replica of the original St. Albert Train Station, the Cunningham House, the Belcourt (Hogan) House, Maison Chevigny and the Brosseau Granary. The grain elevators and replica train station are located adjacent to the railway tracks on the northern portion of the site. These buildings are currently programmed as a key part of the Heritage Site attraction program and a community garden. A fenced portion of River Lots 23 and 24 holds the four historical buildings and several smaller historical resources, such as antique farm equipment. The City recently acquired a privately owned parcel located in the centre of the site and is now able to create a holistic plan and address any items related to the development of this parcel.

Figure 1.1: Site Context

1.3 Site History

The settlement of St. Albert is intrinsically linked to a number of key individuals, organizations and events that have shaped the land and which provide an insight to the development of the community that exists today. The historical timelines for each of the following groups are illustrated on Figure 1.2 to provide a picture of the major influences on the site. These influences include:

- The Métis
- The Hudson's Bay Company
- The Lac Ste. Anne and St. Albert Missions
- The River Lot System
- The Railway
- Francophone settlement

2.0 Background

The following is an overview of the Background Research that was completed for the 2010 Functional Plan. The first section is an overview of reports that were created prior to the initiation of the project. The historical analysis which follows was prepared by the project team through review and analysis of background reports, historical documents and interviews with stakeholders. The full background reports are bound under separate cover or available in PDF format. No additional historical background research was completed as part of the update.

2.1 Previous Studies and Reports

A number of previous studies and reports have provided a wealth of information and context for the preparation of the Functional Plan. The following lists the studies and reports that were reviewed for the key information:

- Hogan House and Cunningham House, Structural Assessment (Earth Tech 2005)
- Research Report on St. Albert River Lot 24 Métis Heritage Site (Buckingham 2000)
- Master Plan for St. Albert Heritage Sites (City of St. Albert & Arts and Heritage Foundation of St. Albert 2004)
- Red Willow Park Master Plan (Gibbs & Brown Landscape Architecture 2003)
- Historical Resource Impact Assessment of the Chevigny House (David Murray Architect 2007).
- St. Albert Grain Elevator Conservation Study (David Murray Architect, 2006).
- Grain Elevators Restoration Plan (HIP Architects, 2009)
- St. Albert Heritage Site Functional Plan (ISL, 2010)
- Thematic Historical Overview St. Albert Grain Elevators (Judy Lamour, 2012)
- St. Albert Heritage Site Phase 2. Cunningham and Hogan Houses – Condition Assessment and Conservation Plan (Group2 Architects, 2015)
- Site Grading and Servicing Plans (Urban Systems, 2017)
- La Maison Chevigny Design Development Plan (David Murray Architect, 2017)
- A Contextual Structural and Material History of the Hogan and Cunningham Houses, St. Albert, (Judy Lamour, 2017)

2.2 Historical Overview

The purpose of the historical analysis completed for the 2010 Functional Plan was to investigate available historical documentation to understand the historical significance of the site. This information was used to develop the initial site narratives and visitor interpretation strategies.

2.2.1 The Métis

Although river lots in St. Albert were not officially mapped until 1861, the Métis were living on land near the river prior to the arrival of the mission. Robert Bellerose recalled that his great-grandfathers (Beaudry and Bellerose) staked out land along the Sturgeon River as early as 1830, many years before Father Lacombe established a mission in St. Albert.

Up to the turn of the 20th century, the Métis comprised the majority of St. Albert's population. Many of the Metis families that settled here were former freemen who worked for the Fur Trade Companies. Métis served as freighters, fur traders and often acted as liaisons between First Nations and European populations.

River Lots were a component of the larger social and economic lives of the Métis and early settlers. River lots are long, narrow rectangular strips of land that border a river, which means that every family has access to the waterway. This access to the water was a particularly important aspect of this style of land division as the lot not only provided water and access to food for family and fields, but rivers were an important route for travel and communication. Métis families living in the Sturgeon River Valley grew some of the first crops on river lots, often planting gardens before they left for annual buffalo hunts.

1755-1830: Regional Exploration

1755: Hudson's Bay Company's Anthony Henday explores Edmonton area.

1795: First Fort Edmonton is built.

1830: New Fort Edmonton is built.

1840: Missionaries begin to arrive in Fort Edmonton.

1865-1875: Husdon's Bay Company

1860's: HBC constructs trading post on River Lot 23, which is run by John Cunningham.

1868: HBC's trading post is taken over by Louis Chastellain.

1868: Dominion Government Annexes HBC land and establishes rectangular survey.

1875: St. Albert HBC post closes and HBC leaves St. Albert.

1883-1910: The Railway

1883: Canadian Pacific Railway reaches Calgary.

1904: St. Albert receives town status.

1906: Alberta Grain Company constructs first grain elevator in St. Albert.

1907: Canadian Northern Railway reaches St. Albert.

1909: St. Albert train Station is built.

1755 1831 1840 1865 1875 1883 1910

1830-1840:

1831: The Beaudry and Bellon families land along the Sturgeon River.

1840-1865: The MIssions and Father Lacombe

1840: Missionaries begin to arrive in Fort Edmonton.

1844: The Mission of Lac Ste. Anne is established.

1853: Father Lacombe takes permanent residence in Lac Ste. Anne.

1861: Bishop Tache and Father Lacombe establish the mission of St. Albert.

1862: The first bridge west of the Great Lakes is built across the Sturgeon River at St. Albert.

1875-1883: The River Lot System

1878: Louis Chastellain opens his store on River Lot 24.

1878: William King, Dominion Land Surveyor, prepares field notes of the St. Albert Settlement.

1883: Father Leduc and Dan Maloney successfully campaign to retain St. Albert River Lots.

1883: Michael Dean completes St. Albert's lot surveys.

1910 - 1950

1913: River Lot 23 is subdivided into smaller parcels, which are aimed to centralized the community around the train station and elevators.

1921: The train station is extended.

1929: The Alberta Wheat Pool grain elevator, is constructed.

1947: A Plan is developed for the realignment of Meadowview Drive, which continues the Brosseau plan of 1913.

1960-1970

1962: The train station is closed.

1967: The reservoir is expanded.

1967: The Cunningham house is no longer occupied.

1980-1990

1989: St. Albert is closed as a railway point for grain export and the two elevators are no longer in use.

Three baseball diamonds are constructed on the reservoir site.

2000-2009

The baseball diamonds are upgraded and realigned.

2005: A replica of the original train station is constructed on the St. Albert Heritage Site.

2007: The Chevigny house is moved onto the site from its original homestead.

1910 1950 1960 1970 1980 1990 2000 2009 2024

1950-1960

1954: Construction of reservoir reduces the size of River Lot 24.

Portions of River Lots 23 and 24 are cleared for field crops.

1955:Hogan house is moved onto River Lot 24 from River Lot 31 in the early 1950's by Albert Belcourt.

1970-1980

1973: The train station is moved to the Alberta Railway museum.

1977: St. Albert officially is designated as a city.

The reservoir is removed.

1990-2000

A fourth baseball diamond is constructed on the reservoir site.

1993: The Hogan house is no longer occupied, following the death of Alfred Belcourt.

Brosseau granary is moved on the site in the late 1990's/ early 2000's.

2010-2024

2010-11: Heritage Site Functional Plan approved / Restoration of the Grain Elevators completed

2016: Brosseau Granary and Maison Chevigny moved onto permanent foundations

2019: Restoration of Cunningham House and Belcourt House is completed

2023: Meadowview Lane Extension Design approved / Phase 2 ESA and HBMA's completed

2024: Heritage Site Functional Plan Update Completed

For over a Century, River Lot 24 was lived on by several generations of the same Métis family, all of them descendant from Louis and Geneviève (nee Savoyard) Chastellain.

See City of St. Albert Founder's Walk: http://museeheritage.ca/heritage-sites/founders-walk/the-metis/

2.2.2 The Relationship of HBC to St. Albert

The Hudson's Bay Company (HBC) had a comfortable and prosperous routine established of waiting for the First Nations traders to make their annual trips to the bayside posts with canoes full of furs. However, by the late 1700's the North West Company (NWC) began setting up permanent forts. In order to remain in competition the HBC began to setup its own forts in close proximity. Two such rival forts, Fort Augustus and Edmonton House were established in the vicinity of the modern Edmonton area. When the transcontinental struggle between the two companies ended in HBC success, Fort Edmonton became the most important HBC location west of Fort Garry.

As the settlement of St. Albert grew, ties to the HBC fort at Edmonton continued to grow. The area was proving to be a bountiful source of furs and other items for trade and in 1862 a decision was made to construct the first bridge west of the Great Lakes on the Sturgeon to facilitate the movement of goods that was passing through St. Albert on its way to the Fort. As trade increased the HBC decided to build an outpost one mile west of the Mission in 1866 (on land that would subsequently become River Lots 23 and 24). In addition they established a 1,000 acre reserve to the north west of the Mission.

John Cunningham had taken land at Big Lake and had worked for the HBC in a number of roles. He took over the post at St. Albert in November 1866. In 1868 he died on a buffalo hunt and the post was taken over by Louis Chastellain. It is believed that by 1870 he had taken land adjacent to the post on what is presently River Lot 24. In 1875 the post was closed, Louis Chastellain continued to work at Fort Edmonton before opening his own store on River Lot 24 in 1878. The 1878 field notes by William King on the River Lots notes the relationship to a store run by Louis Chastellain although the land is noted as owned by John Roland (Figure 2.1), while a plan of the outpost indicates an established group of buildings (see Figure 2.2).

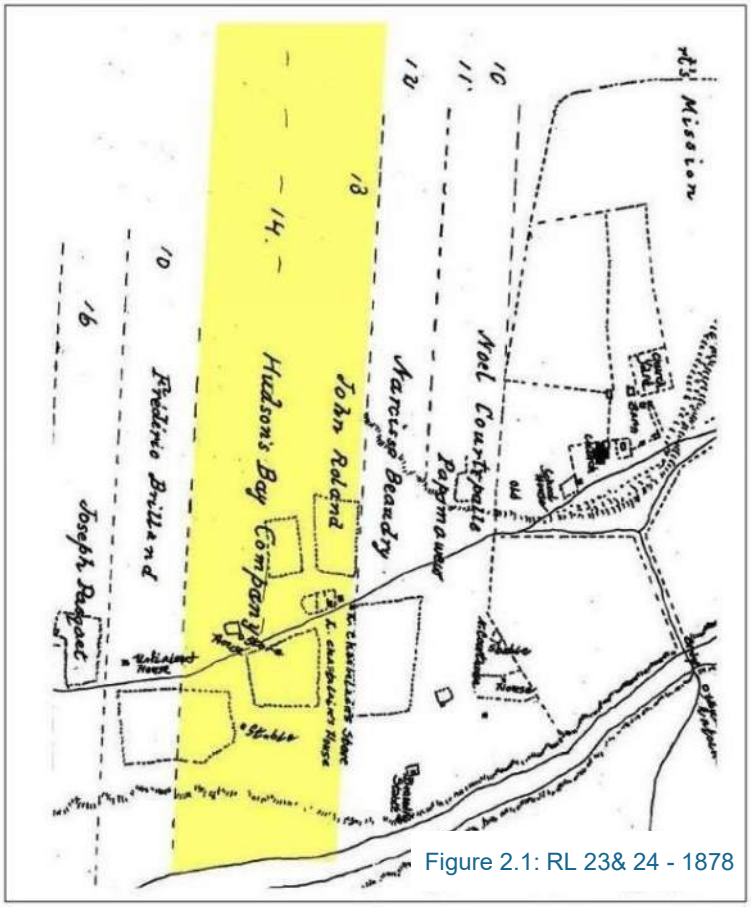


Figure 2.1: RL 23& 24 - 1878

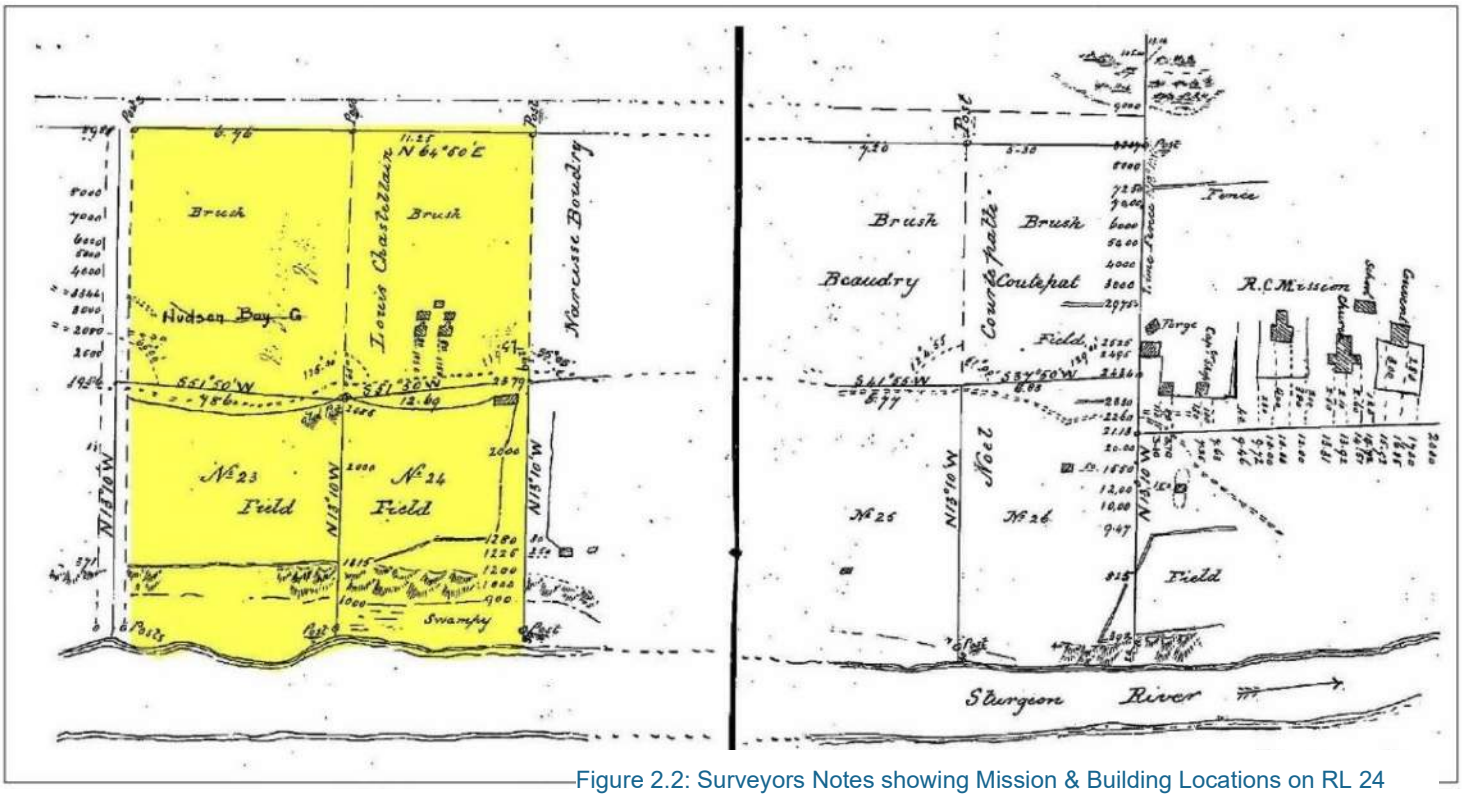


Figure 2.2: Surveyors Notes showing Mission & Building Locations on RL 24

2.2.3 Catholic Missionaries and Lac Ste. Anne

John Rowand, Chief Factor at Fort Edmonton attempted to encourage a catholic priest to come to the district. The next spring Bishop Provencher sent Father Jean-Baptiste Thibault, who spoke Cree, to assess the district. He decided to create a permanent mission for the Métis people. So began the Mission of Lac Ste. Anne. By 1852 Father Thibault's health had deteriorated and he was replaced by Father Lacombe who had previously been stationed in and around Fort Edmonton. Grey Nuns from Montreal, Sisters Emery, Lamay and Alphonse, were the third, fourth and fifth white women to travel to Alberta. The Catholic Church sent lay brothers and nuns to assist the Mission. With the arrival of all this help, the Mission progressed rapidly. The Mission grew until there were over two thousand people, there was a separate school, an orphanage retreat, a Northwest Mounted Police barracks, a dance hall and a post office. Several stores, saloons and hotels that moved into the area complementing the Church, Rectory and Convent. At one time this Mission was larger in population and commerce than Fort Edmonton. The St. Albert Mission was created in 1861 and was well set up by 1868 (see Figure 2.3). The Grey Nuns soon moved over to the new Mission. The trail between the Lac Ste. Anne and St Albert Missions became an important mode of transportation and communication.

Figure 2.3: St. Albert Mission

2.2.4 Father Lacombe and the Mission at St. Albert

Father Lacombe (see Figure 2.4) and other priests frequently visited Fort Edmonton travelling along the Lac Ste Anne trail that wound its way across the Sturgeon River to the Fort on the Saskatchewan. On New Year's Day 1861, Father Lacombe spent the day with Bishop Tache who had travelled from St. Boniface to the mission at Lac Ste Anne. Two weeks later they set out for Fort Edmonton. Upon arrival at the river terrace overlooking Big Lake and the Sturgeon, Father Lacombe extolled the virtues of the site. Bishop Tache cut a young sapling and planted it in the snow saying "Mon Pere, this site is magnificent, I chose it for a new mission and I want it to be called St. Albert in honour of your patron saint." In the spring Father Lacombe returned with 20 Métis families to build a chapel and start the St. Albert mission. Over the coming years it was destined to become the largest settlement west of St Boniface with a population of 700 people. Over time, the Métis farms spread out, and were joined by immigrants from Quebec. In 1866 Father Lacombe left St. Albert and was replaced by Father Leduc. In 1900, St. Albert was incorporated as a village followed by town status in 1904, the community officially became a city in 1977.

Figure 2.4: Father Lacombe

2.2.5 The River Lot System

Oral histories suggest the Métis staked out land along the Sturgeon River as early as 1830, 31 years before Father Lacombe established a Mission in St. Albert. The river lot system is derived from the Seigneurial system that originates from Normandy and was used extensively in New France from 1627 by Cardinal Richelieu. Under this system, the lands were arranged in long narrow strips, called seigneuries, along the banks of the Saint Lawrence River.
The river lot system had its advantages in that all farms had access to the river which was the only major source of transportation at the time and provided a source of water for the farms, animals and people. As the lots were thin and narrow, the houses were typically close together and connected by a dirt road which provided access to stores and the missions that these communities were built around.

When the Dominion Government acquired Hudson's Bay Company land under the Rupert's Land Act in 1868, they proposed the introduction of the rectangular survey as a measure for sub-dividing and encouraging settlement. The township system was implemented under the Dominion Lands Act of 1872 and the accompanying Dominion Land Survey, which carved the prairies into a grid system failing to account for people already living on the land. After resistance in Manitoba, the Government allowed for the inclusion of river lot surveys where communities were already in existence in areas such as Prince Albert and Edmonton, but a number of Métis communities including St. Albert were not automatically recognized.

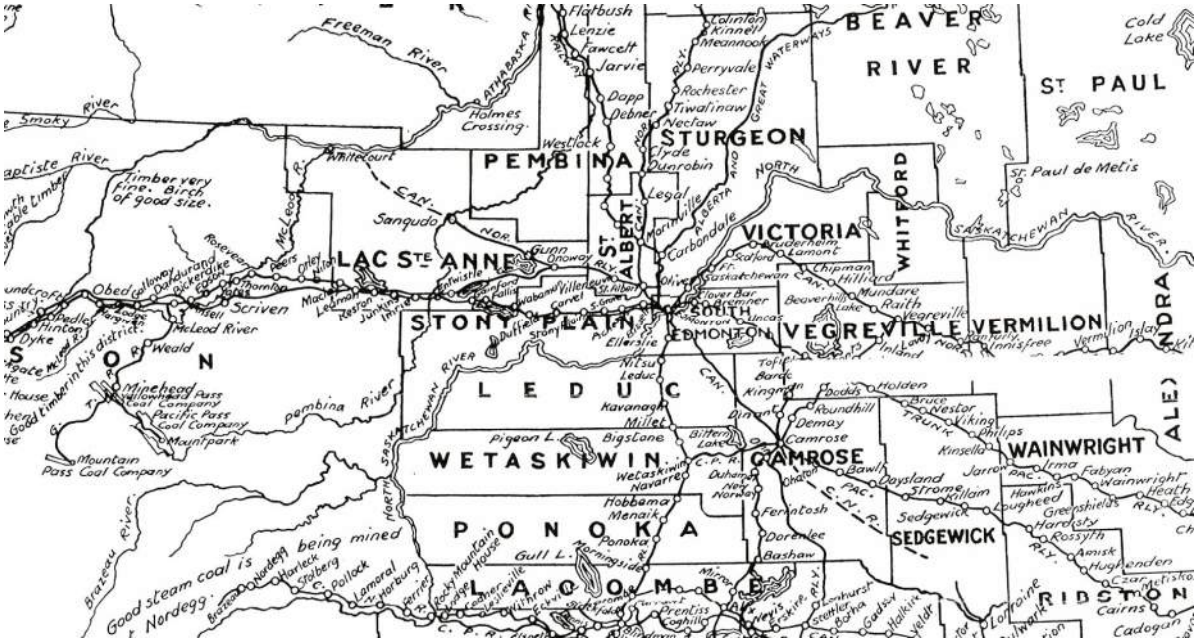
In St. Albert, William King, a Dominion Land Surveyor, was sent to establish the 5th meridian in 1878 and prepared field notes of the settlement noting the river lot system (Figure 2.5). When Michael Deane completed the river lot survey of Edmonton in 1882, he proceeded to St. Albert to continue his work. He soon received an order from Ottawa to cease the work as a preliminary township plan was in place. The St. Albert settlers were upset that they had been denied a river lot survey, and Father Leduc and Dan Maloney travelled to Ottawa to campaign for the rights of the Métis and others to the Minister of the Interior. They were successful, and in April 1883 Michael Deane was at work completing the river lot survey of St. Albert. Following the initial survey, the government agreed to increase the depth of the lots by two miles. The majority of the original river lots in St. Albert have been sub-divided to form an intact original boundary although the evidence of these original patterns of land settlement can be seen in the modern city plan.

2.2.6 The Railway

The Canadian Pacific Railway had reached Calgary by 1883 to follow a route through the Rockies at Rogers Pass. With the construction of the Calgary and Edmonton Railway Company line to Strathcona in 1891 Edmonton was finally connected to the rail network. This burgeoning rail network and the branch lines that were constructed supported the settlement of the west. The rail companies were afforded substantial amounts of land from the Dominion Government to construct the transcontinental and branch lines. They shaped the settlement of the Province as the pioneers looked to take up land within a day's travel of the rail network.

Imported goods to make farming possible and the export of farm products both depended on the railway. Without its expansion into western Canada the immigrants that came to take up land would not have survived. The development of crops suited to the growing season of the prairies established the iconic grain elevator that signified the importance of a community to its surroundings. This enabled an explosion in the population of Alberta and an increase in agricultural activity.

Figure 2.6: Map showing railway through St. Albert, 1915



The settlement of St. Albert was already established and it was only a matter of time before the railway passed through the town. In 1906 the railway came to St. Albert, and because of the fertile land that had originally drawn Father Lacombe to the area, Brackman-Ker constructed the first grain elevator in 1906. In 1909 the train station was completed in St. Albert (original site is to the north of the tracks on what was then River Lot 24A) and was further extended in 1921.

Built on the Canadian Northern mainline, this station became part of the Canadian National Railways (Figure 2.6). In 1913, River Lot 23 was subdivided in an effort to re-orientate development along the railway (Figure 2.7. However, the lots within the Heritage Site were never sold or developed. The St. Albert Railway Station thus became a branch-line station. The station closed in 1962 and was moved to the Alberta Railway Museum in 1973. A replica of the Station was constructed at the grain elevator site in St. Albert in 2005.

2.2.7 Francophone settlement

In the late 19th Century Francophone settlers arrived in St. Albert from Quebec, Europe, and through the United States. The first such settlers arrived in 1878 and included members of the Majeau, Juneau, Brosseau, Marcheal, Couture, Beaupre, Latulippe, Noyes, Paquette and Arcand families. The Oblates played a significant role in attracting French speaking Catholics to the west. It was also common for Francophone settlers to encourage other family members and friends to join them in St. Albert. Alfred Arcand, who lived on River Lot 39, was joined by his sisters Elise and Josephine along with their husbands, brothers David and Louis Chevigny.

Quebec settlers arrived with their own traditional skills and architectural references, such as gable roofs with dormer windows and dual brick chimneys. The house built by Louis and Josephine Chevigny, which is characteristic of early Quebec houses, now sits on River Lot 23 and is one of the oldest remaining French Canadian settlement houses in Alberta.

In the 1890s, 85% of the population of St. Albert was Métis. However, with the arrival of Francophone families and European settlers the demographics soon began to shift so that by 1901 the number of people who self-identified as Métis was less than those who reported as French. For many decades St. Albert remained predominately French speaking and Catholic.

See Judy Larmour, "St. Albert Context Paper, Revised 2019," (November 2019), as well as *The Black Robe's Vision: A history of St. Albert and District.* Volume 1 and 2, St. Albert Historical Society, 1985.

2.3 Historical Resources Impact Assessment

The purpose of the Historical Resources Impact Assessment was to ensure that the future development of St. Albert Heritage Site would not interfere with existing historical and archaeological resources present on the site. The following are the highlights of the Historical Resources Impact Assessment (HRIA) prepared by The Archaeology Group in 2009. A full version of the report is available under separate cover.

Research of historic and archival sources, maps, and aerial photographs was conducted to reconstruct a history of the occupation and use of the project area, and used to guide testing during fieldwork. In-field investigations consisted of foot surveys of the entire proposed development area, photography and mapping of historic buildings, and subsurface testing within select parts of the proposed development area. A total of 13 shovel tests, 40 backhoe tests and three backhoe trenches were excavated during the survey, and all artefacts recovered were collected and catalogued.

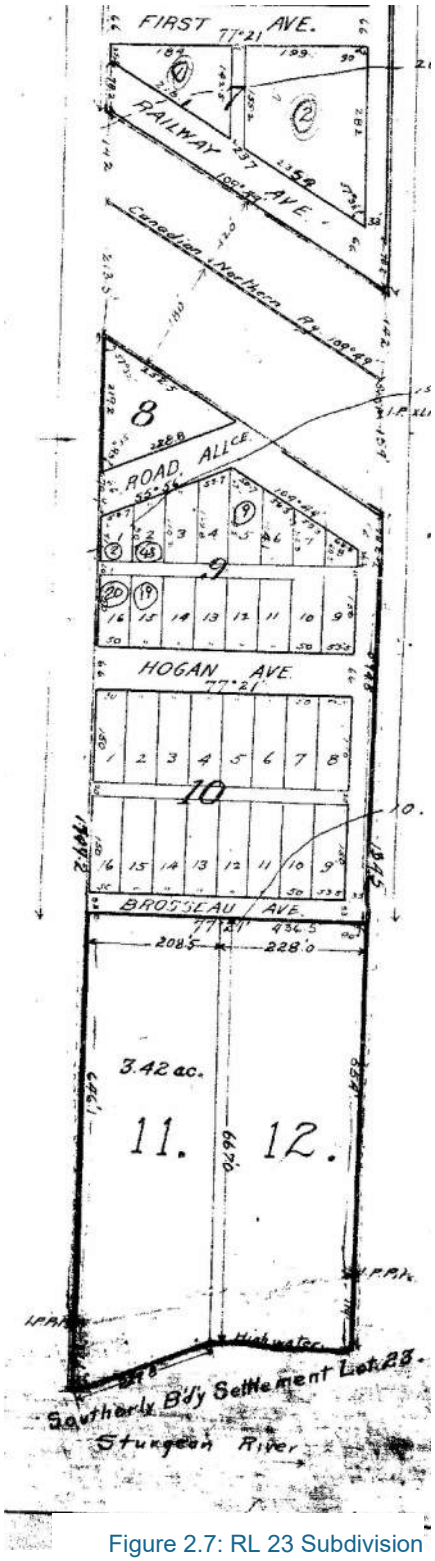


Figure 2.7: RL 23 Subdivision

A single archaeological site, buried cellar foundations, was discovered during backhoe testing (Figure 2.8). Based on archival, interview, and artifactual evidence, it is interpreted that the cellar dates between the early 20th century and the 1940s, and that it was used as a garbage dump through the 1930s and 1940s. A large number of historic artefacts remain buried within the unexcavated portions of the cellar foundations. It is recommended that the site (Historic Site FjPj-107) be avoided during project development. If avoidance is not possible, mitigation is recommended in the form of controlled, staged excavation.

Figure 2.8: Buried Cellar Site

No paleontological materials, stratified layers, or buried soils were found in the shovel tests, on the ground surface, or in existing exposures. The lack of cultural or paleontological materials, stratified layers, or buried soils in the remainder of the study area suggests that no further concern for historical resources is warranted for this project.

This study concludes that conditional to the avoidance of the cellar site, and preservation of the two historic Grain Elevators, the Heritage Site Functional Plan as proposed, does not threaten the interpretive value of the archaeological and historic period sites that are located within the project area. The report also highlights that no further Historical Resources Impact Assessment or mitigation work is recommended for this development area.

On July 30, 2009, following review of the Historical Resources Impact Assessment Report, Albert Culture issued a Historical Resources Act Clearance letter to the City. This clearance allowed the City to proceed with the development of the site as defined in the Functional Plan. The only requirements of the Clearance were that the City must (1) avoid the archaeological site (FjPj-107 - buried cellar) and (2) report the discovery of historic resources.

Since the regulatory environment, particularly as it relates to indigenous consultation concerns stemming from potential impacts to sites and areas of cultural concern, has changed since the initial HRA clearance application, the City should consider submitting a new historic resource application to the Heritage Resources Management Branch outlining updated revisions to the Functional Plan. In 2023, the Indigenous Prairie Institute of Archaeology (IPIA), conducted an archaeology field school on the River Lots. They unearthed artifacts used by the families on the River Lots and found evidence of First Nations in the area.

2.4 Environmental Overview

An Environmental Overview Report (EOR) was prepared as part of the 2010 Functional Plan to assist the project team in understanding the environmental conditions and any constraints that may limit the development of the Heritage Site program. This section provides an overview of some of the potential impacts of the final plan. Further investigation should be undertaken during detailed design phases to ensure all regulatory and City policies are being met.

2.4.1 Overview

The City of St. Albert is located within the Central Parkland Subregion of the Parkland Natural Region. The majority of this Subregion has been converted to agriculture over the past century, and estimates suggest that only 5% of the Subregion supports native vegetation (Natural Regions Committee, 2006). The vegetation communities found on the site can be classified as Grassland/Disturbed Areas, Poplar Stands, Willow Communities, and Riparian Gramminoid (Figure 2.9). A search of the Alberta Natural Heritage Information Centre did not reveal any records for special status plant species in the area.

There are no watercourses on the subject parcel; however, the Sturgeon River forms the southern boundary of the site. The riparian area of the river extends into the site, as evidenced by vegetation patterns in the area. The southern portion of the site supports wetland vegetation; however, that area is classified as riparian and not as wetland. No wetlands were observed during the site visit.

The Sturgeon River, which forms the southern boundary of the site, is known to support a variety of fish species, including northern pike, white sucker, brook stickleback, shorthead redhorse, lake chub and fathead minnows. The Sturgeon River is a Class C watercourse, meaning it has moderate sensitivity and contains broadly distributed habitats supporting local fish species populations.

Figure 2.9: Vegetation Communities

The study area contains a variety of habitats, including upland grasslands, poplar stands, willow shrub thickets and the riparian zone adjacent to the Sturgeon River. Based on the habitats available within the study area, the area has the ability to support a variety of species. Based on vegetation patterns and species distribution records, 138 species have the potential to occur in the study area: 109 birds, 26 mammals, two amphibians and one reptile species. According to federal and provincial records, a total of 22 special status species have the potential to occur in the project area. Of those 22 species, three are listed either At Risk or May Be at Risk at the provincial level, and/or Threatened at the federal level. The FWMIS database did not contain any records of special status species occurring in the project area (FWMIS, 2009). Wildlife species that were noted during the site visit include deer, moose, and red-winged blackbirds.

2.4.2 Impact and Mitigation Measures

Soils in the Sturgeon River area have the potential to erode and have sediment carried into the river if areas are cleared. If eroded materials are transported as sediment into the river, soil erosion would have adverse impact on water quality, as well as fish and fish habitat. Temporary erosion control measures should be used in disturbed areas until vegetation becomes re-established. Monitoring both the erosion control measures and progress of re-vegetation will further minimize impacts.

Given the past clearing of much of the project area, the proposed development plan will result in minimal loss of native vegetation. The poplar stand east of the farmstead along the western boundary of the parcel will be reduced in size, and proposed pedestrian trails throughout the site will result in some loss to the riparian vegetation. Mitigation measures would include clearly marking the clearing limits with snow-fence or highly-visible flagging prior to construction to help minimize the loss of native vegetation.

During site preparation, existing vegetation is removed and soils are left exposed prior to project completion. That creates the potential for weed establishment on exposed surfaces. Precautions such as cleaning equipment that was used in weedy areas before moving into new construction areas will help reduce the potential transfer of weeds between sites. Using weed control on soil stockpiles left for periods sufficiently long enough for mature weeds to develop and propagate, will prevent additional seed deposition in topsoils.

There will be a small loss of existing forested habitat in specific areas of the site to accommodate trail development in the area. While the reduction in size of specific tree stands will result in the loss of wildlife habitat, the proposed plan outlines areas to be re-vegetated with tree species. These areas will provide habitat for generalist species in the area and improve wildlife connectivity.

Both the federal Migratory Birds Convention Act (MBCA) and the Alberta Wildlife Act prohibit activities that will lead to the destruction or disturbance of nesting sites of migratory birds. Construction involving vegetation clearing during the breeding period, April 15 to August 15, has the potential to impact many species, particularly avian species. Clearing should be scheduled in the fall or winter months, prior to the spring breeding period. This clearing should involve not only tree removal, but also removal of all ground cover to prevent ground nesting birds from using the area.

The major wildlife movement corridor in the project area is the existing Sturgeon River corridor. The proposed plan for the area has little development in the floodplain area, and it is limited to trail, boardwalk and viewpoint construction along the river. Construction of the trails has the potential to disrupt wildlife movement through the area, however, this will be a short term effect restricted to the time of construction.

Since there will be minimal development in the riparian corridor and erosion concerns are limited to the construction period, there are no anticipated long term effects on the Sturgeon River habitat. Efforts should be taken to ensure the trails are placed above the high-water mark to reduce the potential to affect fish habitat. If any trails are to be located below the high-water mark of the Sturgeon River consultation with Department of Fisheries and Oceans (DFO) may be required.

2.5 Environmental Site Assessments

Phase 1 ESA 2010

A Phase 1 Environmental Site Assessment (ESA) was conducted by Thurber Environmental in January 2010 in accordance with the Canadian Standards Association (CSA). The following provides a summary of the investigation. A full version of the report can be found under separate cover. This assessment included a review of existing records for the site, including a review of aerial photographs to identify past land uses, a land titles search to identify past owners, and consultation with municipal and provincial government regarding records of compliance. As well, a thorough site reconnaissance was undertaken to identify the potential for any environmental contamination as a result of previous or current site activities.

In general, the assessment did not encounter historical evidence indicating that the site has been impacted by contaminants. Items of potential concern are past commercial/light industrial site use, possible fill material on site and the proximity of a long-term rail line and siding/spur along the site's northern boundary.

Phase 2 ESA 2015

A Phase 2 Environmental Site Assessment was completed by Urban Systems Ltd in August 2015. The assessment was focused around the private property in the centre of the Heritage Site where a light industrial shop/yard was operated by a commercial private entity upon a built-up pad. The Phase 2 ESA involved intrusive investigation for potential contaminants of concern from subsurface material collected from five boreholes. The Phase 2 ESA report can be found under separate cover.

As outlined in that report, the drilling and sampling program found no contaminants of concern in the study area above the selected guidelines. However, a major limitation of this program was the prohibitions to entering the privately-owned parcels to conduct intrusive sampling of the built-up pad materials whereupon the commercial business operated a shop and stored vehicles and machinery. Since this ESA was only able to assess land immediately surrounding the built-up pad and the materials are of unknown origin and quality, any ex-situ soils resulting from the eventual excavation and removal of the pad materials must be properly handled and deposited in appropriate locations. This would entail the design of a confirmatory soil sampling program to determine contaminants of concern, handling and stockpiling requirements, and landfill suitability criteria. Execution of the confirmatory soil sampling program should be completed during excavation (Urban Systems, 2015).

Phase 2 ESA 2023

With consideration of the results of the Phase 1 ESA prepared by Golder & Associates in 2022, a Phase 2 ESA was completed by WSP in October 2023 to investigate the soil and groundwater quality of the site with specific focus on the former private property site on River Lot 23 which was acquired by the City in 2023.The Phase 1 ESA report identified several areas of environmental concern including a buried septic tank, sump, above ground and underground storage tanks, as well as the nature of some of the historical commercial/light industrial uses of the site. The Phase 2 ESA report outlines the investigation process and the related findings and conclusions based on the development of the land for the proposed Heritage Site. Generally, there were no concentrations of substances that posed a concern to human health or would restrict development, and in addition groundwater depth was also not anticipated to be a concern for redevelopment activities. It was noted that depending on the scope and depth of development activities both a Soil Management Plan and/or Groundwater Management could be required.

Hazardous Building Materials Assessment 2024

In addition to the Phase 1 and 2 ESAs for the City, the City also retained PinchinLtd. to complete hazardous building materials assessments (HBMA) on all the non-historic buildings on the site which provide guidance to City on the requirements of the use and/or demolition and removal of these buildings in support of operations and future site development.

3.0 Functional Plan Update

The following section presents the St. Albert Heritage Functional Plan update. Each section describes a general narrative, the resources and development features, the interpretive and historical features and stories, and the visitor's experience as they move through the site. The narrative describes the overall storyline and key historical features of each area.

The Functional Plan update addresses the site in terms of four spatial areas;, the Grain Elevators, Central Interpretive, River Lot 23 and River Lot 24, and the Natural Area (Figure 3.1). Each of these areas explores a different part of the site's resources and narratives. These thematic areas function together, through their spatial arrangements and adjacencies, to create a holistic expression of the important hisory being told on this site. The result is an integrated Heritage Site.The resources and features of each area are summarized below, illustrated on Figure 3.2, and detailed in the sections that follow.

Area 1: Grain Elevators

- Grain Elevators
- Train Station
- Meadowview Lane & Drive
- Agricultural Pavilion
- Maintenance Yard
- Trails and Landscape

Area 2: Central Interpretive

- Access and Parking
- Welcome Plaza
- Musée Héritage Museum
- Event Grounds
- Lac Ste. Anne Trail
- Trails and Landscape

Area 3: River Lot 23 & River Lot 24

- River Lot Survey
- Chevigny House
- Brosseau Granary
- Cunningham House
- Hogan House
- Community and Demonstration Garden
- Trails and Landscape

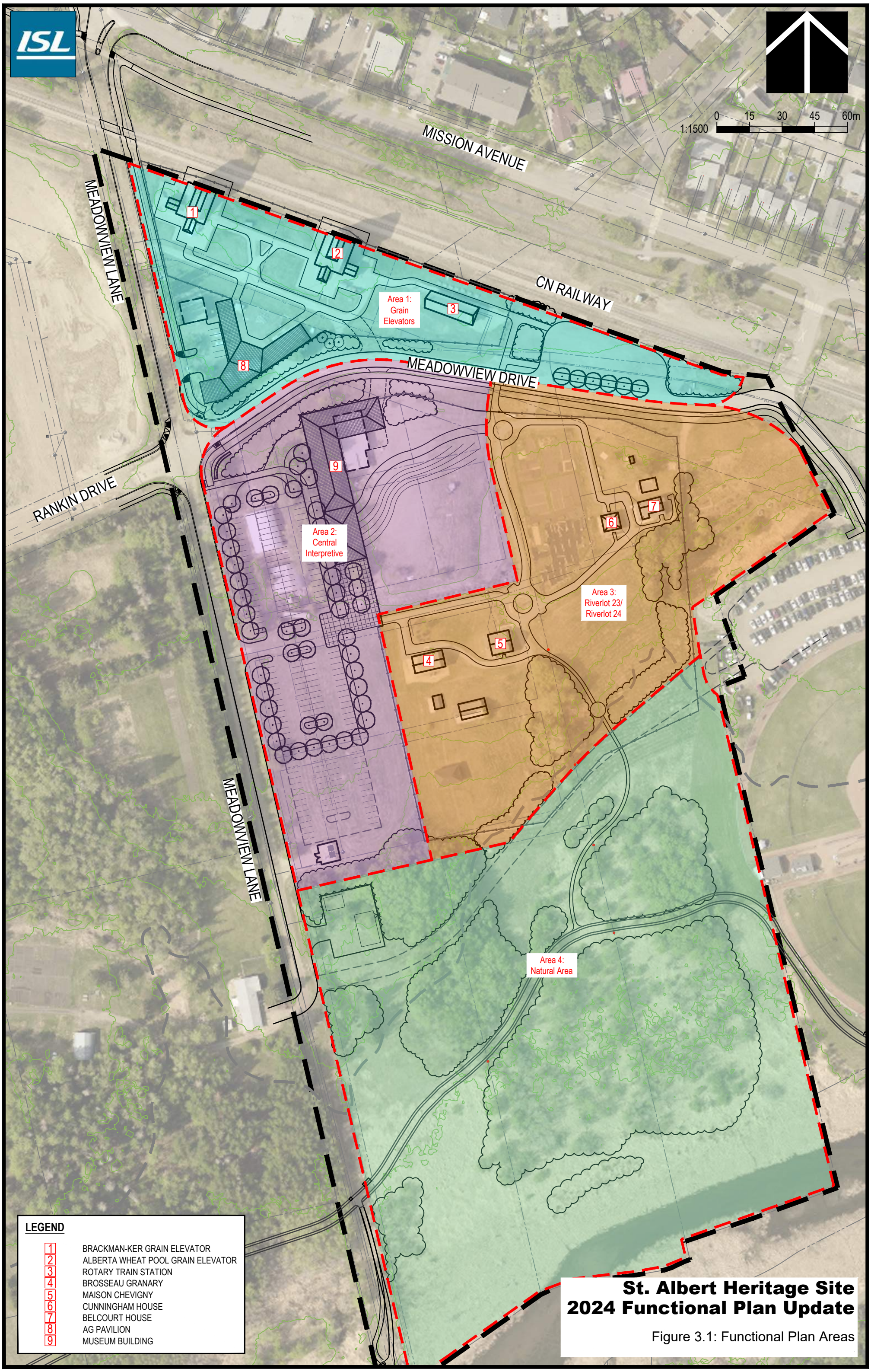
Area 4: Natural Area

- Nature Trail and Interpretive Node

With all of the integrated areas, resources and features, the St. Albert Heritage Site presents the opportunity to interpret a rich complexity of stories:

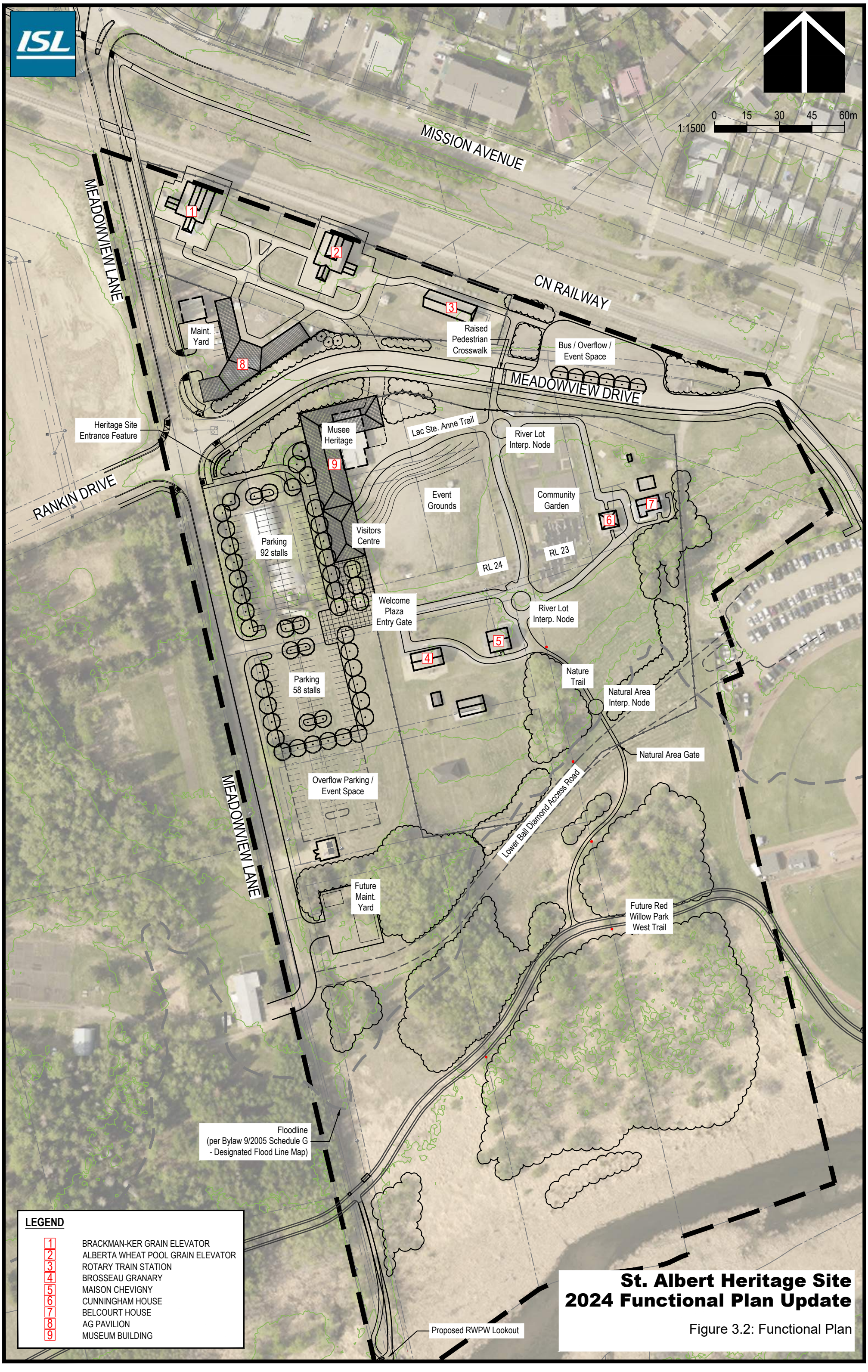
- Pre-contact – First Nations travelling through the land
- the history of the Hudson's Bay Company,
- the influence of the Roman Catholic Church
- the culture and history of the Métis,
- the River Lot System of land use,
- the arrival of French-Canadians,
- and the agricultural, social and economic development of the St. Albert area as represented by the railway and the grain elevators.

These broad stories interweave at the Heritage Site, and each holds a piece of the larger history of St. Albert and the stories of its communities. For both visitor experience and the safety and security of the buildings, visitors and staff, the site will depend on personal interpretation in the form of guided tours. There is always the opportunity of exploring options for current technology to introduce self-guided interpretation of the outdoor portions of the site.



St. Albert Heritage Site 2024 Functional Plan Update

Figure 3.1: Functional Plan Areas



St. Albert Heritage Site 2024 Functional Plan Update

Figure 3.2: Functional Plan

3.1 Area 1: Grain Elevators

The Grain Elevators are singular symbols of the Prairies, reflecting the region's deep economic and social connections to agricultural life. The elevators are an integral part of St. Albert's agricultural history. Coinciding with the extension of the CN Railway through St. Albert to Morinville, and caught up in the optimism about the area's prospects for development, Brackman-Ker built an elevator in St. Albert in 1906. The Alberta Wheat Pool Grain Elevator was constructed in 1929.

The grain elevators are associated with companies that played leading roles in the province's grain economy, including: the Alberta Grain Company, the Alberta Pacific Grain Company, the Federal Grain Company, the Brackman-Ker Milling Company and the Alberta Wheat Pool. The elevators remained in operation until 1989 when St. Albert was closed as a grain handling centre.

Together, the two elevators serve as an important landmark for the community of St. Albert. The Elevators were designated as Provincial Historic Resources in 2007. The Grain Elevators area of the Heritage Site includes the grain elevators, the train station and the current gravel parking. The following describes the development and enhancements of this area as recommended in this Functional Plan Update.

3.1.1 Grain Elevators

The grain elevators reopened to the public in 2011 after a two year-long restoration. The restoration project included repairs and stabilization of the foundations, roofs re-shingled, metal cladding secured and repainted, rotten timbers replaced and windows restored. Restoration also included residing and repainting the elevator with the Alberta Wheat Pool colour and logo. Throughout the project, the City of St. Albert and the Arts and Heritage Foundation worked closely with the Provincial Heritage Advisor to ensure all restoration work complied with the Standards and Guidelines for the Preservation of Historic Places in Canada.

Grain Elevators

Between 2006 when the Rotary Train Station and Visitor Centre opened and 2019, there have been 111,879 visitors. The average annual visitation to the sites prior to the restoration of the grain elevators (Phase 1) was 4,284 and the annual visitation, since the Functional Plan came into force, is 10,722 an increase of 150%.

Accompanied by an interpreter, visitors will be permitted to tour the inside of the grain elevators. The time period of the elevators is flexible because of the length of time they were in operation. There is the possibility of exploring options for current technology in the future to help tell some of the stories associated with the elevators. Interpretive signage could be used to share the history of and function of the elevators.

3.1.2 Train Station

In the short to medium term, the Train Station will provide for various visitor needs as they enter or exit the site, serving the administration needs of the site and be the hub for interpretive tours. As well, the station will continue to provide a gift shop, washrooms, and educational/activity spaces.

In the long term, this building is not big enough to serve all these important functions and they will be moved into the Visitors Centre. An overall program and operational plan is recommended to determine where all of these functions are best located and the relationships between them so that they are not duplicated. The train station will continue to serve as the hub for interpreting and telling the stories of the train and its importance to St. Albert as well as being a secondary space for operations, event use and washrooms. The Train Station will also continue to serve as the office and hub for the site facilities supervisor until the Ag Pavilion and/or the museum is built.

3.1.3 Meadowview Lane / Meadowview Drive

The City is working to deliver a new neighbourhood road connection (Meadowview Lane) from the community of Riverside to the community of Mission, which will include the closure of the existing CN rail crossing at Meadowview Drive to a new location on Meadowview Lane. With the closure of the Meadowview Drive CN crossing at Mission Avenue, Meadowview Lane will become the primary access road to the Heritage Site. At the time of the preparation of this draft report, the City is at the RFP stage for the design and construction management services for this project, with construction pending funding approval planned for 2025-26.

The following outlines how this proposed Meadowview Lane development[1] has been provided for within this Functional Plan Update:

- **Meadowview Lane from Mission Avenue** – this section of road would include a new at-grade crossing of CN rail, two travel lanes, a 3.0 metre wide asphalt shared use path parallel to the Heritage Site, and a planted boulevard. It also includes an access driveway into Area 1 of the Heritage Site (see Maintenance Yard below). Even though a planted boulevard is proposed, with the narrow right-of-way width (20.0m), it will be of benefit to provide visual screening integrated into the Heritage Site fence to reduce the visual impacts of this adjacent road on visitors.
- **Intersection of Meadowview Lane and Meadowview Drive/Rankin Drive** – this new intersection will accommodate neighborhood traffic (between Riverside and Mission), ball diamond traffic (primarily evenings and weekends during the ball season) and all Heritage Site traffic. Wayfinding will be important at this intersection and so it is proposed that a new Heritage Site entry feature and sign showing proposed future site development, be located on the south east corner of the intersection. A Meadowview Ball Diamonds Sign should also be located at this intersection, perhaps positioned on the north east corner. Pedestrian and bike traffic will need to be properly accommodated across the intersection.
- **Meadowview Drive – Ball Diamonds Access** – this road will remain and serve as the access road for the Meadowview Ball Diamonds. At the time of this report, the road structure (gravel/asphalt, rural cross section) is not proposed for upgrading. In the future, upgrading to a paved/urban standard would be beneficial to reduce noise and dust in the Heritage Site. It is also recommended that a shared use path be provided along Meadowview Drive to provide access to the ball diamonds for pedestrians and cyclists. Any future upgrading of Meadowview Drive as described is not included in the scope or costs of the Heritage Site Functional Plan. It is a City owned roadway so upgrading will be the responsibility of the City. See Section 3.1.6 which outlines a proposed pedestrian crossing of Meadowview Drive to address safety concerns for Heritage Site users crossing the road.
- **Meadowview Drive – Heritage Site Parking** - the existing gravel parking lot on Meadowview Drive will be maintained in useable condition over the short to mid-term for use as overflow parking and for users of the Community Garden. This lot can also be used for bus parking, drop-off and pick-up. As the site develops, this parking lot provides the site with a flexible space that could be reduced in size and upgraded to asphalt for exclusive use as bus parking or developed as turf (that is reinforced) for additional display or event space.
- **Meadowview Lane - Heritage Site Entrance and Parking** – from the intersection, it is recommended that Meadowview Lane be upgraded to the proposed new entrance and parking area for the Heritage

[1] Meadowview Lane Design, Preliminary Engineering Report (McElhanney, Dec. 2023)

Site. This will allow for all season access to the Heritage Site for all vehicles including buses, as well as for pedestrian and bike access. Refer to the descriptions in Section 3.2 for details on the proposed site entrance and parking.

- **Lower Ball Diamond Access Road** – in the 2020 Functional Plan Update it was proposed that a full closure of Meadowview Drive through the Heritage Site could be realized with the development of a new lower ball diamond access road between the River Lot 23 & 24 areas and the natural area. This lower road would be of benefit to the Heritage site as it would eliminate all ball diamond traffic travelling through the primary interpretive areas of the site. It was (and is) recognized that the design and construction of a road across the natural area would require a full environmental, cultural and geotechnical evaluation. There would be a number of potential challenges to design and construction approvals in terms of flood risk, soil conditions, fill requirements (within the designated flood zone), and environmental impacts and mitigation. Recognizing these challenges, this Functional Plan Update includes a design approach that mitigates having the Heritage Site divided by Meadowview Drive (See Trails and Landscape below). The lower ball diamond access road remains in this report as an alternative access option that could be considered and evaluated fully in the future.

3.1.4 Agricultural Pavilion

An Agricultural Pavilion is proposed near the Grain Elevators and would feature an enclosed space with large garage doors and two covered open wings. The enclosed space would include a workshop to repair and maintain equipment, a place to store valuable or fragile equipment, or an educational area to learn about farming. In the open winged sections of the building, antique farm equipment will be displayed (See image below).

Agricultural Pavilion Concept Rendering

Currently the agricultural artifacts that support and enhance the agricultural history of the area are displayed outside on a seasonal basis or remain in storage. To protect these artifacts from the elements and provide visitors and school groups with improved interpretation a pavilion that has a combination of enclosed and covered storage, and classroom space is required. The Agricultural Pavilion will allow the museum to properly care for its agricultural collections while providing public access and a more comprehensive experience for visitors. It will also extend the museum's ability to program year round. An open gravel area provides space for large farm equipment to be displayed. At particular times, visitors will see demonstrations that show how farm equipment works. This space may also be used to show machinery as it is being repaired or restored.

3.1.5 Maintenance Yard

Behind the Agricultural Pavilion, and with access off Meadowview Lane (when upgraded), will be the maintenance yard for the Heritage Site. This area would be fully fenced and gated, serviced including lighting, security and include a maintenance shop/garage. This building could be an extension of or in addition to the Agricultural Pavilion. The yard would include parking for operations staff and room for additional temporary storage structures (Quonset/C-Can) if needed. The existing building being used currently by Public Operations staff could be used by Heritage Site staff on an interim basis until any new maintenance building(s) are constructed. As illustrated on Figure 2.0, there is a location at the south end of the central Interpretive Area that has the potential to serve as an additional Maintenance Yard for the Heritage Site if requited. This location was proposed as part of the 2020 Plan Update. This location could also potentially serve as a City Parks Operations Yard to support maintenance and operations of Red Willow Park West.

3.1.6 Trails and Landscape

A granular trail (4.0m wide) will be extended from the end of the Train Station platform and across Meadowview Drive to provide a single crossing point for circulation for visitors throughout the Heritage Site. To ensure general visitor and school group safety, this should be a raised crosswalk with signage. Activated crossing lights could be added as part of Meadowview Drive upgrading in the future based on traffic analysis. Security Fencing will be used around the entire Heritage Site to provide site security with pedestrian access gates at key locations that can be locked on a nightly basis. This fencing would require all visitors to cross at this location to move between the Grain Elevators area of the site, and the River Lot 23/24 and Central Interpretive areas of the site.

To screen out the impacts of neighborhood traffic along Meadowview Lane and ball diamond traffic on Meadowview Drive (though the Heritage Site), a grove of native trees and shrubs would be planted inside and outside of the security fence where space is available. Visibility of the fence from a security perspective and with consideration of Crime Prevention through Environmental Design (CPTED) principles, will need to be considered as planting locations are determined. Between the road and the security fence, a 'historical style' post and rail wood fence could be added along the road as decorative/interpretive element. The remaining open spaces can be landscaped with native and low-mow grass species, groups of native trees and shrubs in planting beds to enhance the site and provide screening and separation between use areas.

Amenities in this area include benches and trash receptacles that are already in place. A welcome and orientation sign will direct visitors from the bus parking towards the train station or across the road to the Lac St. Anne trail and River Lot 23 interpretive node.

3.2 Area 2: Central Interpretive

With the Heritage Site entrance and parking, a Visitors Centre, and welcome gate and plaza, a key function of the Central Interpretive area of the site will be the arrival, entry, welcome, and orientation of visitors. This area will also support heritage interpretation and events with development of the future Musée Héritage Museum and event grounds. The following describes the development and enhancements of this area as recommended in this Functional Plan Update.

3.2.1 Entrance and Parking

As described previously, the primary entrance to the Heritage Site will be developed off of Meadowview Lane. At the new intersection of Meadowview Lane and Meadowview Drive/Rankin Drive, a new Heritage Site entrance feature would be developed. This feature and sign would welcome visitors and direct them south down Meadowview Lane to the site entrance and parking. Visitors arriving on foot or by bike, would be able to use the shared-use path along Meadowview Lane and then a sidewalk that would run behind the entrance feature to access the proposed Visitors Centre.

Parking lot development would include approximately 150 stalls (asphalt, concrete curbs/islands and lighting). The final parking count requirement would be dependent on the final museum size and program and would be approved by the Development Officer as per the City Land Use Bylaw. Parking could be developed in phases with the first phase being proposed in the current open, which would limit initial tree clearing and allow the existing Quonset facilities to be maintained for storage. Open space to the south of the proposed parking lot can be maintained for event use and/or overflow parking, and could be developed as formal parking (50-70 stalls) in the future based on demand.

3.2.2 Visitors Centre

A Visitors Centre and plaza will welcome visitors and orient them to the Heritage Site. The Visitors Centre building is envisioned as the first phase of the future Musee Heritage Museum, and would include a visitor's reception area, interpretive/display space, offices and public washrooms. The footprint of the building is shown as approximately 4000 sq. ft (or 8000 sq.ft on two floors), with the size being flexible based on future programming and design.

The building entrance would be accessible from the parking lot and entry plaza, which would be outside of the gate and security fence. In the entrance plaza visitors will be greeted by a welcome feature that could include a sculptural element that provides visual cues to the stories to be encountered on the site. This three-dimensional entrance piece could include flags (Métis, HBC, fleur-de-lis, logos of the grain companies), a piece of farm equipment, or a sculpture. This feature may be designed through a competition for artists to interpret the themes of the site. Interpretive signage could also be used to give a very short overview of the stories to be told on the site. Signage will also provide information about hours, admission prices and directional information.

3.2.3 Musée Héritage Museum

With the continued investment and expansion of the park, it is anticipated that this trend of increasing visitation will continue, and the Arts and Heritage Foundation are looking at ways to improve efficiency and the visitor experience. Currently the Museum (located in St. Albert Place) and Heritage Site staff are working at the museum, Heritage Site and Little White School. As the Heritage Site become busier, consolidating the Museum and Heritage Site would have the following benefits:

- Museum and heritage sites would benefit from staff efficiency
- Museum display and storage is currently beyond capacity
- Public would be able to discover the history of St Albert through built heritage as well as exhibitions – less duplication of storylines
- Increased school participation (more to offer)
- Increased staff presence on the site would provide better security for the heritage buildings
- Potential to have more buildings open off season

The future location of the Musée Héritage Museum at the Heritage Site would include exhibit galleries, educational/ classroom space to accommodate a wide variety of school and community programs, archival storage, artifact storage, and conservation and prep areas, as well as office and meeting space to support the operation of the facility.

As illustrated on Figure 2.0, the museum building is proposed at approximately 15,000 sq ft (30,000 sq.ft on two floors). As indicated previously, the Visitors Centre would be approximately 4000sq.ft (8000sq.ft on two floors) of this total. This would allow reception, washroom, office space, and elevator (if two floors) in the Visitors Centre portion of the building to service both spaces.

Moving the museum increases the potential for year round access to the Heritage Site and allows the museum to expand its exhibit and programming space, which is limited (approximately 5000 sq.ft) in its current location. Additionally, having the heritage resources and museum in closer proximity to one another will enrich the stories that the museum tells and in turn enhance visitor experience.

This size of building (up to 30,000 sq.ft. including the Visitors Centre) would provide space for permanent museum displays, secure and climate controlled artifact storage and work space, and significant space for large events/gatherings or displays. The museum could also provide café style food services for the Heritage Site. Café facilities will make the site more attractive to cultural tourists and allow visitors to spend more time on site. Cultural tourism is a growing trend within Alberta and the world. Visitors want to immerse themselves in a region’s essence and history, and experience local food, entertainment, and art.

A programming exercise would need to be completed as a next step by the City, with engagement with Arts and Heritage and other potential community users, to determine the exact program and space needs for the proposed museum. This Functional Plan Update demonstrates that the site has the potential to support a building of this size (or smaller), without compromising the use, character and historical resources that already exist on the site.

3.2.4 Event Grounds

As illustrated on Figure 2.0, the plan for the Event Grounds will be to create a flat upper area between the access road and the proposed Lac St. Anne Trail. From there the ground will gently slope below the trail and adjacent to the future museum that then creates a second flat event space that ties into the current grades along the garden and to the path in front of Maison Chevigny. The sloped portion of the event space would create an amphitheater setting in support of larger performance events, with up to 1000 people in attendance.

The event grounds can be enjoyed by visitors wanting to relax and picnic or experienced as a part of a scheduled event. The Heritage Site may use this space to create, and expand existing functions with large gatherings, such as a harvest festival, food truck events, weddings, family reunions, Canada Day celebrations, cultural events, or an outdoor performance. The event grounds would also have the potential to host city-organized festivals and events. This area will have access to servicing such as electricity, water, and washrooms through the future museum building.

It is important to note that the proposed Event Grounds are mostly situated on what was formerly a privately-owned parcel of land in the middle of the Heritage Site. Following acquisition of this property by the City, a Phase II Environmental Site Assessment was completed[2]. As defined in that report, significant regrading of this area to create the Event Grounds may require a Soil Management Plan to be prepared to guide potential segregation and appropriate disposal of soils if required.

3.2.5 Lac Ste. Anne Trail

The proposed Lac Ste. Anne Trail will serve a functional purpose for the Heritage Site by providing a strong connection from the Grain Elevator area across the event grounds to the future Musée Heritage Museum and Visitors Centre. Where the Lac Ste. Anne Trail intersects with the river lot line between River Lot 23 and River Lot 24, there will be an interpretive node developed to tell the story of the river lot system, as well as some of the stories associated with the historical Lac Ste. Anne Trail. This 4.0 metre wide asphalt trail will be constructed to accommodate year round use (ie. snow removal), maintenance vehicles as well as special event support vehicles (eg. equipment delivery or food trucks).

3.2.6 Amenities

Amenities within the Central Interpretive area would include benches (and other forms of seating) and trash receptacles at key locations in the entrance plaza and adjacent to the parking lots. Landscaping will include restoration of all disturbed areas with native and low-mow grass species, groups of native trees and shrubs in planting beds to enhance the site and provide screening and separation between use areas as needed. Tree planting will be used to enhance the parking lot.

3.3 Area 3: River Lot 23 and River Lot 24

3.3.1 River Lot 23

River Lot 23 is an example of a surviving form of land use that has its roots in the French seigneurial system of land division, and which is characteristic of Métis communities across the prairies. The River Lot system pre-dates the sale of Rupert's Land to the Dominion of Canada and the adoption of the standard rectangular township plan of our Province.

River Lot 23 was originally used by the Hudson's Bay Company in St. Albert from 1866 – 1875. A plan of sub-division was submitted back in 1913 by Edmond Brosseau that aimed to centre the burgeoning township of St. Albert on River Lot 23, in close proximity to the Train Station and Brackman-Ker Grain Elevator. This typified the agrarian settlements that sprung up alongside the railway branch lines and grain elevators of the Province.

[2] Heritage Sites Phase II ESA, WSP, Oct. 2023

The focus of River Lot 23 within the Heritage Site will be to tell the story of the River Lot system, as well as the history of French-Canadian settlement of the St. Albert area, through the historic Maison Chevigny and Brosseau Granary.

The proposed interpretive themes for the River Lot 23 area include:

- Theme 1: The first French-Canadians arrived with the fur trade and made an important impact on the development of the West.
- Theme 2: A French-Canadian community became established in the Sturgeon River valley with support from the Roman Catholic Church.
- Theme 3: The French-Canadians prospered along with their Métis neighbours.

3.3.2 Trails and Amenities

The existing main (central) granular trails (north/south and east/west) require upgrading to provide an all-weather useable asphalt structure to accommodate maintenance and event support vehicles, as well as make it fully accessible for all users throughout the four seasons. The recommended upgrading will involve removing the existing granular surface materials, widening to 4.0m, rebuilding the base structures and asphalt paving. The existing granular surface materials can be reused as the surface material for the nature trail (See 3.4.1). There is no additional trail development, amenities or signage require in the River Lot 23 or 24 area.

Amenities within River Lot 23 and 24 include benches, trash receptacles and bollard lights that have already been installed at key locations. No directional or additional interpretive signage is proposed. Landscaping has also already been installed and includes a range of native and ornamental trees, shrubs and perennials. Some native forest planting is proposed to provide some additional screening along the east side of the Belcourt house to hide the security fence.

3.3.3 River Lot Interpretive Nodes

The property line between River Lot 23 and River Lot 24 is a significant place to mark on the site and an interpretive node will be developed at the intersection of the River Lot 23 trail and the Lac St. Anne trail. A split rail fence and a trail leading down to the Natural Area will mark the line property line between the two field areas.

An interpretive sign would be used to explain the River Lot system while options of mobile technology could be explored to help tell some of the stories associated with this system of land division. At this location, a surveying activity could be used to allow visitors to sight the property line and measure a specific distance using a surveyor's chain. Visitors would also have a clear view to the Grain Elevators to the north, allowing an introduction to the stories being told in that part of the Heritage Site.

As visitors move south from the first interpretive node on the widened trails (See 3.3.2) they will come upon the second interpretive node, which is proposed to include an over-life-size replica of a Métis cart in the middle of the node. The cart is built into a grassy mound and visitors will be able to climb over the cart's bed. From the cart, visitors are able to look down both the northern and southern section of the River Lot property line. An interpretive panel could be used to help interpret this location and the history of the River Lots in this region.

3.3.4 Maison Chevigny

This house (circa 1890) is a rare resource in Alberta, formed from hand hewn solid logs by brothers Louis and David Chevigny. They married sisters Josephine and Elise Arcand and were inspired by the missionary priests and their brother-in-law, Alfred Arcand, a North West Mounted Policeman to travel from St. Stanislaus, Quebec.

They brought with them their traditions for construction and the design of this large house with its dual brick chimneys is derived from early Quebec houses.

In 2016, Maison Chevigny and Brosseau Granary were relocated to their permanent locations on River lot 23. Maison Chevigny was then stabilized, an exterior restoration completed and then an interior restoration was completed in 2020. As visitors approach Maison Chevigny, an interpretive panel will be used to share information about its construction and historical importance.

3.3.5 Brosseau Granary

This building (circa 1900) is a simple log framed structure with exterior ship-lap and interior tongue and grove boards. The frame is formed with traditional mortise and tenon joints held with wood pins and is a fine example of this early pioneer style construction. The Brosseau Granary has been stabilized and exterior and interior restoration was completed in 2020 to restore the buildings to a period from 1900 – 1950. An interpretive panel will be used to overview the historical importance of the Brousseau Granary, stories associated with the building and the Brousseau family. As part of the restoration, an exterior accessibility lift was added to provide full accessibility to the building.

3.3.6 River Lot 24

River Lot 24 is an example of the River Lot system that pre-dates the adoption of the standard rectangular township plan of our Province. The property is singularly unique for the continued occupation of the land by subsequent generations of the same Métis family. Louis Chastellain worked as the postmaster at the HBC outpost the land that would subsequently become River Lots 23 and 24 in 1868. Upon his retirement in 1878, he opened his own store on River Lot 24 (location to the north of the railway tracks). His grand-daughter Amelia Rowland married Alfred Cunningham and it is believed they completed their house sometime in the early 1910s. Another grand-daughter Louisa (Rowland) Belcourt moved to the site in 1937 occupying a building formally used by the Youville Convent as a wash house with her family. In the late 1950s her son Albert moved the Belcourt House to the site where he lived until the 1990s. Albert's brother Walter continued to live in the former convent wash house until 1996. The house was demolished in 1998.

The Cunningham and Belcourt Houses are two of the oldest surviving historic houses in St. Albert. The Cunningham house is unique in that it is situated in its original location on the surviving portion of River Lot 24.

Since 2010, both houses have been restored and provide an opportunity to present a traditional Métis settlement on a historic river lot. The following interpretive themes may be presented:

- Theme 1: The Sturgeon River valley was a crossroads for travel north of the North Saskatchewan River long before St. Albert was established.
- Theme 2: Métis people settled in the valley where they could be close to family, community and church.
- Theme 3: Métis settlers followed the River Lot System of land use to develop the community.
- Theme 4: Métis roots are still strong in St. Albert.
- Theme 5: River Lot 24 saw four generations of ownership with one family.

River Lot 24 will address the history of Métis settlement in the St. Albert area. Interpretive signage could be used at the entrance to River Lot 24, as well as outside of the Cunningham and Belcourt houses. There is also the possibility of exploring options for current technologies to enhance the interpretation of these houses, as well as the Community & Demonstration Garden. As visitors come across from the Train Station or along the Lac Ste. Anne Trail from the museum, they will come upon a welcome feature at the top of the River Lot 24 area. The welcome feature will also incorporate a Métis herb garden with an infinity symbol design to express the sites connection to Métis culture.

3.3.7 Cunningham House

This house (circa 1910) is a small 1½ storey home with dormer windows on the north and south facades. The heritage value of the Cunningham House lies in its status as a rare example of one of the community's early houses that is still located on an undeveloped river lot with access to the Sturgeon River. An exterior ramp has been provided to allow for accessibility into Cunningham House for all users.

3.3.8 Belcourt House

The exact date of construction of this house is unknown but is believed to be early 1900s with an addition in 1925. The original location of the house was on River Lot 32 at the junction of Mission Ave and St. Albert Road, which was owned by the Hogan family. It was then moved to the Gervais farm in 1937 before being relocated to River Lot 24 in the late 1950s. The Belcourt house with its twin sided veranda is a fine example of a turn of the century house and includes a number of features suggesting it was a fine farm house for its time.

3.3.9 Community & Demonstration Garden

The existing community garden is well used and accessible to individuals and groups within the community as a means to bring regular visitors onto the site. Rather than using field areas on River Lot 23 or 24 to grow heritage crops as per the original Functional Plan, small interpretive panels could be used to describe these crops, their yields, and markets. Volunteer groups could allow gardeners and retired farmers in the Demonstration Garden to share their knowledge, as well as gardening and farming experiences.

3.3.10 Landscape

The open space areas beyond the Granary and around the out-buildings will be maintained as pasture land with a low maintenance (1-2 cuts/years) native grass mix. For some Heritage Site events, animals could be brought in to reinforce and interpret the agricultural and pastoral history of the French Canadian settlers. The field area on River Lot 24 will be maintained as pasture land. Horses could be brought into the site periodically to graze. The animals can be used to express the importance of horses to rural transportation and work. As well, the animals will also reflect the fact that the Belcourt family grazed horses on the site until 2005.

There is a public food forest located on the slope adjacent to Meadowview Drive, which is also accessible through a gate on the East side of the heritage site. The Food Forest is located on land managed by the Arts & Heritage Foundation of St. Albert in collaboration with a community group called St. Albert Urban Agriculture. There are opportunities for joint community and educational programming featuring the food forest.

3.4 Area 5: Natural Area

The natural area is located adjacent to the Sturgeon River. These southern portions of the river lots are located within the 100-year flood plain. The riparian corridor is an important source of plant life and wildlife. The Sturgeon River provides a way for wildlife to move through the different natural areas within St. Albert and surrounding areas. This area has a history of settlement and cultivation. An early survey map and the accompanying field notes (M. Deane) from 1883 notes the lower portions of these River Lots as fields with a marsh area close to the river. Stumps from old fence posts have been found close to the river's edge. This area has been allowed to slowly re-vegetate over the last several decades.

The people who have lived on this land have altered its form to suit their personal needs. The Belcourts (post WWII) kept horses on the land, and up until 2005 horses grazed the mid-section of River Lot 24 and part of River Lot 23. Though this area may have been cleared as early as 1866, the land is naturalizing and vegetation is returning. Various plant communities are beginning to take hold. These include grassland areas, poplar stands, willow communities, and riparian gramminoid communities.

The proximity of the current Red Willow Trail system can easily be extended through the heritage site's natural area to allow for access and environmental protection. Sensitive natural features, such as those along the Sturgeon River Corridor can receive protection by being integrated into St. Albert's park system (The Red Willow Park Master Plan, 2003).

Because of the site's connection to the Sturgeon River, there are opportunities to view and interpret a wide range of wildlife and habitat. The Sturgeon River riparian corridor is an important natural area that allows animals to travel throughout the city and surrounding areas.

- Theme 1: The Sturgeon River valley was rich in plant and animal resources, providing food and medicine for Native and Métis people and European settlers.
- Theme 2: The floodplain at River Lots 23 and 24 stretches from cattail marsh through willow to mature poplar, each with a rich assemblage of plants and animals.
- Theme 3: The Sturgeon River is an important feature for recreational activities.
- Theme 4: The land has been shaped by human activities and the processes of natural succession.

3.4.1 Nature Trail

The southern portions of River Lots 23 and 24 are to be left as natural areas, extending all the way down to the Sturgeon River. A nature trail is proposed to extend from the Metis cart interpretive node winding through the natural area, crossing the future Red Willow Park trail and to the Sturgeon River. As the visitors continue along the trail, they would encounter a wildlife viewing platform. From this structure, visitors can view wildlife within the Sturgeon River corridor. Interpretive signage could be used to assist visitors in identifying birds and animals and in understanding the importance of the riparian corridor to St. Albert's ecosystem.

Along the trail, visitors will also encounter proposed native plant interpretive signage. Saskatoons, highbush cranberries and other native medicinal and fruit shrubs allow visitors to understand the importance of the land to both aboriginal people and settlers. Interpretive signage could be used near the plants for easy identifications and explains their traditional uses. Since the natural area could also be used by dog walkers, cross-country skiers and others not specifically visiting the site, any interpretive signage should be low key and off the trail.

4.0 Functional Plan Implementation

The following section addresses the implementation of the St. Albert Heritage Functional Plan update, including servicing, phasing, estimated capital costs, partnerships and approvals.

4.1 Site Servicing

A site servicing overview was prepared to provide an understanding of the servicing requirements for the proposed Functional Plan. These recommendations provide guidance for the implementation of the overall project.

The City (supported by Urban Systems) designed, tendered and installed the servicing for the entire site based on the recommendations of the servicing overview. The scope and extent of these upgraded services are described in the sections to follow. In addition, the services required to meet the proposed future development are also described as well as illustrated on Figure 4.1: Water Servicing, Figure 4.2: Sanitary Servicing, and Figure 4.3: Storm Drainage.

The following site servicing improvements are conceptual and will be subject to detailed design. All site servicing improvements will need to adhere to the St. Albert Municipal Engineering Standards, applicable building standards, and detailed design review and acceptance by the City. Any applicable utility right of ways are to be established during the detailed design phase.

4.1.1 Water System Servicing

A looped water network extends into the site fed from two connections to the existing 250mm watermain under Meadowview Lane. The network is comprised of 300mm and 200mm piping which addresses potable and fire flow requirements. A total of six fire hydrants are currently located throughout the site which provides fire protection coverage to the existing structures. A new hydrant is proposed southeast of the Meadowview / Rankin Intersection to provide fire coverage for the proposed Museum Building. The existing hydrant southwest of the Grain Elevator may need to be relocated to avoid conflict with the proposed trail included as part of the future Meadowview Lane extension.

Fire system sprinklers are currently installed in the Cunningham House, Belcourt/Hogan House, and Chevigny House. Sprinklers are not installed in the grain elevators, train station, or Brosseau Granary. It is anticipated that the proposed Ag Pavilion and Museum buildings may also be sprinklered which requires fire hydrants to be located within 45m of the fire department connection. Due to building sprinkler and fire protection requirements, all watermains in the heritage site are to remain operational throughout the year with no seasonal shutdowns.

The elevation of the Historical Site is lower than most of St. Albert which results in excessively high-water system pressures. Water pressure reduction is required for the site with pressure reducing valves (PRV's) installed to reduce pressures by 300kPa to 450kPa from the current levels of approximately 750 kPa. The City's preference is to incorporate individual building PRVs in lieu of creating a new pressure zone with a centralized PRV. It is recommended that water pressures and the use of individual PRVs should be reviewed as part of the water system detail design phase.

There are 50mm diameter potable water services extended to the various buildings within the site from the looped water network. The size of new water services to the Ag Pavilion and the Museum will need to be refined during detailed design to ensure that the needs of the builder are satisfied. Water servicing to future buildings may consist of:

- Agricultural Pavilion/Visitors Reception –service connection to the existing 300mm watermain located directly north of the building site.

- Heritage Museum – service connection to the existing 300mm watermain located directly south of the building site.
- Maintenance building – service connection to the existing 200mm watermain which runs within Meadowview Lane, west of the building site.
- Water meters are to be installed in all buildings that are serviced with water.

4.1.2 Sanitary Sewer Servicing

The existing sanitary sewer collection system within the Heritage Site consists of a combination of gravity and low-pressure sewers. The existing low-pressure sewer collects flows from train station building and ball field washroom building and discharges into the 450mm gravity/siphon system within Meadowview Lane, south of the railway. The sanitary flows from the remainder of the site are collected by gravity sewers which discharge to a seasonal lift station located at the south limit of Meadowview Lane. The lift station outlets via a 75mm sanitary forcemain to the 1200mm Mission Avenue sanitary trunk near the southwest corner of the Mission Avenue and Meadowview Lane Intersection. The Mission Avenue sanitary trunk was identified in the Utility Master Plan as having adequate capacity to accommodate future development flows from the Riverside neighbourhood and other growth areas to the west.

The upstream flows that entered the Meadowview Lane gravity sewer siphon have been redirected, so the City is planning to abandon the siphon in 2025. Additionally, a new gravity sewer will be extended under the railway from Mission Avenue following the Meadowview Lane alignment up to the Rankin Drive intersection. All sanitary servicing within the Heritage site, including the low-pressure sewer will be redirected to this new gravity sewer connection. Once this connection is made, the existing seasonal lift station and 75mm forcemain can be decommissioned. The status of the Meadowview Lane sanitary sewer is to be reviewed with the City prior to detailed design. All site servicing shall be aligned and functional with work being undertaken/planned by Utilities currently surrounding sanitary sewer collection.

Sanitary servicing for all existing and future buildings, other than the train station and ball field washroom, will be accomplished by service connections to the gravity sewer system.

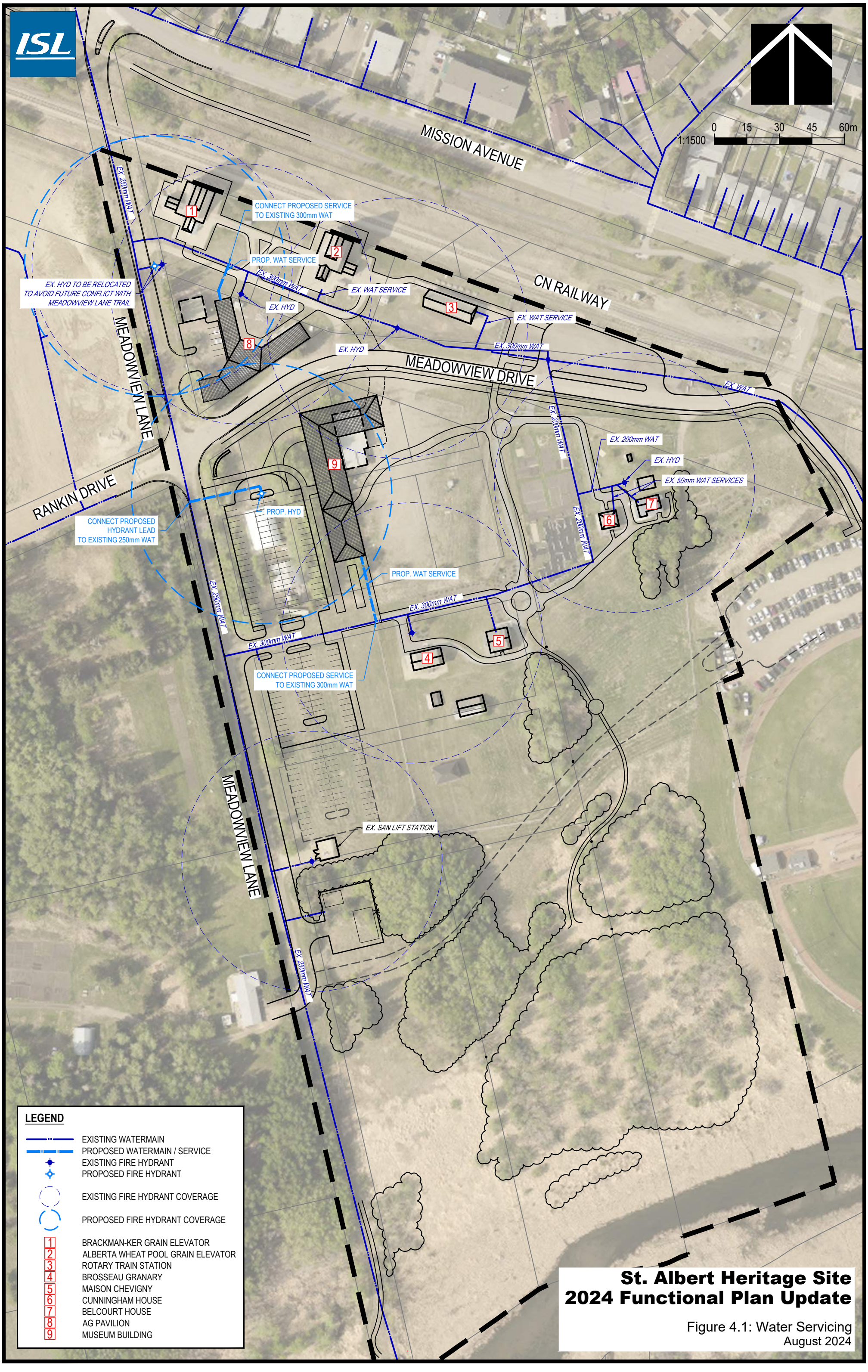
The alignment of the gravity extension south from Mission Avenue will need to consider existing utilities and the proposed Meadowview Lane upgrade to avoid possible conflicts. Adjustments to manhole rim elevations should be expected during the upgrade of Meadowview Lane.

4.1.3 Storm Drainage

The site runoff currently drains predominately south directly towards the Sturgeon River. The on-site surface drainage system is currently comprised of grassed swales and culverts which collect and convey runoff south to the river. Any expansions to the downstream portions of the drainage swale/ditch system should be well vegetated channels with check dams to provide water quality treatment through settling, filtering and vegetative uptake. New parking lots should include the of LID measures or an oil grit separator to improve runoff quality. This approach to water quality treatment is expected to meet the needs of Alberta Environment and Protected Areas.

The area of site redevelopment in proximity to the proposed pavilion and museum building will include paved parking lots roadway connections to Meadowview Lane. These areas of redevelopment are to include on-site stormwater management with a controlled discharge of 35 L/s/ha to the existing 900mm storm sewer.

The roadway design is anticipated to add a new neighbourhood connection at Meadowview Lane to Mission Avenue to the west. The anticipated relocation of the CN crossing from Meadowview Drive to Meadowview Lane and connection to Mission Avenue will require the addition of catchbasins, catchbasin manholes and manhole connections to the existing 900mm diameter storm sewer. The proposed Meadowview Lane crossing of the CN Railway will also require the installation of culverts corresponding to the north and south railway rural ditches.


ISL
MISSION AVENUE
CN RAILWAY
MEADOWVIEW DRIVE
MEADOWVIEW LANE
RANKIN DRIVE
1:1500
0 15 30 45 60m
CONNECT PROPOSED SERVICE TO EXISTING 300mm WAT
PROP. WAT SERVICE
EX. 300mm WAT
EX. WAT SERVICE
EX. HYD
EX. HYD TO BE RELOCATED TO AVOID FUTURE CONFLICT WITH MEADOWVIEW LANE TRAIL
EX. 250mm WAT
EX. 200mm WAT
EX. 50mm WAT SERVICES
CONNECT PROPOSED HYDRANT LEAD TO EXISTING 250mm WAT
PROP. HYD
CONNECT PROPOSED SERVICE TO EXISTING 300mm WAT
EX. SAN LIFT STATION
LEGEND
EXISTING WATERMAIN
PROPOSED WATERMAIN / SERVICE
EXISTING FIRE HYDRANT
PROPOSED FIRE HYDRANT
EXISTING FIRE HYDRANT COVERAGE
PROPOSED FIRE HYDRANT COVERAGE
1 BRACKMAN-KER GRAIN ELEVATOR
2 ALBERTA WHEAT POOL GRAIN ELEVATOR
3 ROTARY TRAIN STATION
4 BROSSEAU GRANARY
5 MAISON CHEVIGNY
6 CUNNINGHAM HOUSE
7 BELCOURT HOUSE
8 AG PAVILION
9 MUSEUM BUILDING
St. Albert Heritage Site
2024 Functional Plan Update
Figure 4.1: Water Servicing
August 2024

ABANDONED SAN. GRINDER STATION

EX. MH

PROP. MH

EX. ABANDONED 600mm & 450mm SAN SEWERS

EX. MH

DECOMMISSION / ABANDONMENT EXISTING 75mm FORCEMAIN

EX. 1200mm SAN TRUNK

MISSION AVENUE

MEADOWVIEW LANE

EX. 450mm SAN

EX. 75mm FORCEMAIN

EX. MH

EX. 450mm SAN AND SYPHON TO BE ABANDONED

EX. SAN SYPHON

PROP. GRAVITY SEWER EXTENSION (BY OTHERS)

EX. LOW PRESSURE FORCEMAIN

PROP. ABANDONMENT OF SECTION OF EX. LOW PRESSURE SEWER ONCE DIVERTED TO NEW GRAVITY EXTENSION

CN RAILWAY

PROP. SAN SERVICE

MEADOWVIEW DRIVE

EX. LOW PRESSURE FORCEMAIN

DIVERT EX. LOW PRESSURE FORCEMAIN TO NEW GRAVITY SEWER EXTENSION

EX. 75mm FORCEMAIN

PROP. 200mm SAN

PROP. MH

EX. LOW PRESSURE FORCEMAIN

RANKIN DRIVE

PROP. GRAVITY SEWER EXTENSION (BY OTHERS)

EX. MH

EX. 75mm FORCEMAIN

PROP. MH

EX. 200mm SAN

PROP. SAN SERVICE

EX. MH

PROP. 200mm SAN

EX. 200mm SAN

PROP. MH

EX. MH

DECOMMISSION / ABANDONMENT EXISTING 75mm FORCEMAIN & 200mm GRAVITY SEWER

EX. SAN SYPHON

EX. 75mm FORCEMAIN

EX. 200mm SAN

MEADOWVIEW LANE

EX. MH

EX. SAN LIFT STATION TO BE DECOMMISSIONED

EX. MH

EX. MH

EX. SAN SYPHON

EX. MH

1:1500 0 15 30 45 60m

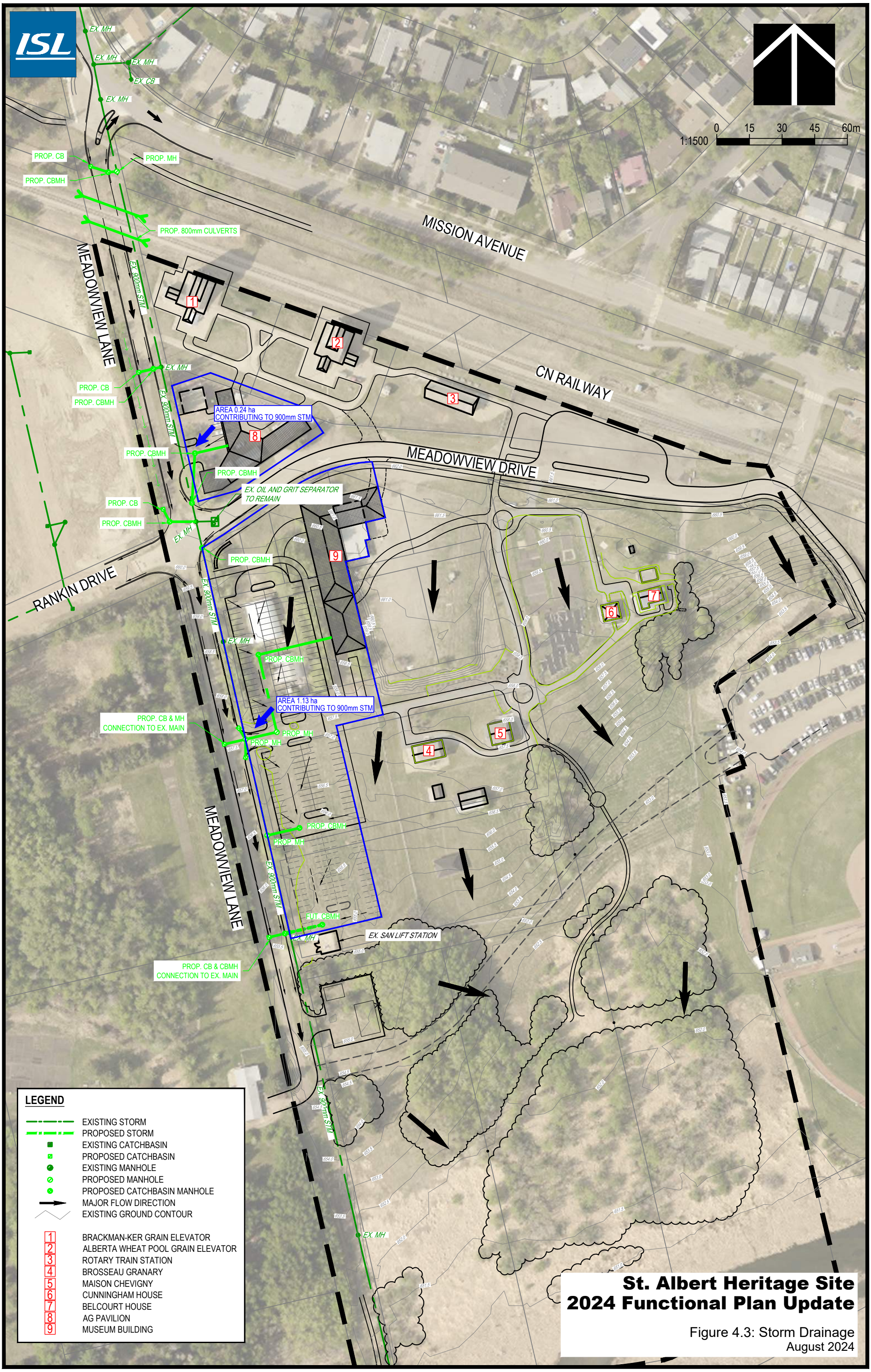
LEGEND

- EXISTING SANITARY
- PROPOSED SANITARY
- EXISTING MANHOLE
- PROPOSED MANHOLE
- EXISTING FORCEMAIN
- PROPOSED FORCEMAIN

1. BRACKMAN-KER GRAIN ELEVATOR
2. ALBERTA WHEAT POOL GRAIN ELEVATOR
3. ROTARY TRAIN STATION
4. BROSSEAU GRANARY
5. MAISON CHEVIGNY
6. CUNNINGHAM HOUSE
7. BELCOURT HOUSE
8. AG PAVILION
9. MUSEUM BUILDING

St. Albert Heritage Site 2024 Functional Plan Update

Figure 4.2: Sanitary Servicing
August 2024



St. Albert Heritage Site
2024 Functional Plan Update

Figure 4.3: Storm Drainage
August 2024

St. Albert Heritage Site 2024 Functional Plan Update

Figure 4.4: Phasing Plan

The runoff from the new parking lots south of Meadowview Drive will be collected in new underground storm sewers with discharge connections to the existing 900mm storm sewer.

A storm sewer service can also be extended to the Museum building if it is required to collect roof and weeping tile drainage. It is anticipated that no other buildings will require storm sewer service connections.

Adjustments to storm sewer manhole frame and covers will be required to better align with the future constructed profile and grades of the road. Adjustments may also be required to the manhole frame and covers of the oil and grit separator, and possibly the oil and grit separator itself.

4.1.4 Floodplain Impacts

The current policy of the City of St. Albert is to not allow any building developments within the newly defined floodplain area as outlined in the report: Big Lake Basin Task Force: Floodplain Delineation for the City of St. Albert – Sturgeon River, (Sameng Inc., May 2007). This work defines the floodplain area as:

- 1:100-year water level (future development) + 0.5 m factor of safety
- An additional 0.5m elevation is to be provided to the nearest building opening

As identified in the Big Lake report, the floodplain elevation for the Heritage Site is 654.18 m with almost half of the Heritage Site falling within the defined floodplain area and will be subject to the City policy of not allowing building structures in this area. All building structures on this site fall outside the floodplain area, and their locations should not be subject to the City's floodplain policy. The floodplain boundary borders the maintenance area located in the southern portion of the site, but elevations within the site are above the flood plain elevation.

4.2 Electrical Servicing Overview

An Electrical Servicing Overview and design concept has been developed for the St. Albert Heritage Site as part of the Functional Plan update. Lighting for walkways and parking areas will be required as well as provision for security and fire alarm monitoring for all buildings on site. The following is a summary of the recommendations from the report prepared by Relumen Engineering (June 2024). The proposed electrical servicing layout and report are included in Appendix A.

In support of the development of the Heritage Site, it is recommended that the distribution of both the power and telecommunication systems be investigated further to determine the best option for full build out in the early phases of the proposed development.

- Power Distribution - For the power distribution, adding individual utility-owned services at each upgrade has worked successfully to date and could still work at full build out. However, whether the electric utility has the capacity has not been determined. Preliminary load estimates were stated in this report, and these can be used as a starting point for further investigation.
- Telecomm, Security & Surveillance - The site telephone system should be upgraded to an underground fibre network as it will facilitate the adoption of video surveillance and other services. The overhead lines to the elevators should be replaced with underground lines.
- Parking Lots - As the parking lots will be paved prior to the construction of the building, the underground electrical should be distributed considering that the building will one day be feeding it. This would mean placing it farther from the pole, likely on the same side of the parking lot as the building and have larger and spare ducts underneath the paved surface.
- Event Ground & Pathway Lighting - The events ground power and extension of the pathway bollard lighting should occur simultaneously, as the cabling can share some of the trenching. It is assumed the existing electrical service for the houses and the pathways can serve the event space as well, however specific power needs for the space should be discussed further so this assumption can be addressed.

4.3 Phasing Plan and Estimated Capital Budget

The following phasing plan is being recommended based on consideration of the proposed scope of work, priorities for development, estimated capital budget and a staged development approach. Based on these considerations, three overall phases are being proposed, with the potential of two of these phase being separated into two subphases (e.g. Phase 1A & Phase 1B). The recommended phasing plan is illustrated on Figure 4.4.

The total estimated capital budget for the proposed Heritage Site development (in 2024 dollars) is $27.4 million, including contingency and fee allowance for engineering and approvals. Of this total, $12.7 million is estimated for the combined Visitors Centre (See 3.2.2.) and Museum (See 3.2.3) building at a size of 30,000 sq.ft. As described, a full programming exercise is needed to determine the potential need, function, space allocation and total size requirements for the building. This would be a recommended next step in the planning for the Heritage Site.

The following provides an overview of the three recommended phases and the total estimated capital budget for each phase. Note that all estimated costs indicated by phase below include all capital, 35% contingency and 15% for engineering and approvals. The detailed opinion of probable cost estimate is provided in Appendix B.

Phase 1: Event Grounds and Visitors Centre

- **Phase 1A** - this phase focuses on the development of the proposed Event Grounds, with construction efforts focused on environmental remediation, earthworks, fine grading, topsoil and seed and security fencing. This initial development phase would also include the construction of the proposed Lac Ste. Anne trail and an initial work on formalizing trails and a (temporary) painted crosswalk across Meadowview Drive to connect the event grounds, River Lots and the Grain Elevator areas of the Heritage Site. This phase would also include the new entrance feature and site sign proposed on the corner of Meadowview Lane and Meadowview Drive. The total estimated cost for this phase is $0.84 million and will allow the City and Arts and Heritage Foundation to better host events of all sizes.
- **Phase 1B –** this phase will create the new entrance for the Heritage Site with the construction of the proposed Visitors Centre building, welcome plaza, parking lot. In advance of all of the surface development, this phase will include all of the deep utility servicing for the proposed development, including the services required for the future museum building. Power, lighting, and security are also included in this phase. The total estimated cost for this phase is $5.9 million

Phase 1: Agricultural Pavilion / Maintenance Yard / River Lots

- **Phase 2A -** this phase focuses on the development of the Agricultural Pavilion building and maintenance yard. The proposed scope of work would include removal of existing buildings, earthworks, security fencing, deep utility servicing, power, lighting, security, walks and landscaping. It would also include construction of the proposed Agricultural Pavilion building and Maintenance Garage/Shop. The total estimated cost for this phase is $3.96 million.
- **Phase 2B** – this phase focuses on the upgrading of the existing gravel parking lot into a formalized asphalt space for bus / overflow parking, or as a secondary event space. This phase also includes upgrading to 4.0m wide asphalt the main trail between the River Lots and the main trail connecting to the new welcome plaza (Phase 1B). The phase also includes the development of the two River Lot interpretive nodes, lighting and security upgrades and the proposed nature trail to the Sturgeon River. The total estimated cost for this phase is $1.04 million

Phase 3: Musée Héritage Museum

- Phase 3 - this phase focuses on the development of the Musée Héritage Museum as a key visitor attraction on the Heritage Site. The total estimated cost for this phase is $15.6 million and includes the museum building, service access, additional parking, concrete sidewalk and landscaping.

4.4 Partnerships and Funding

As an interpretive heritage site, this project is able eligible for funding at the provincial and federal levels. Grants and partnerships will need to be actively pursued throughout all phases of the project. A strong partnership with the St. Albert Heritage Foundation will be integral to implementing the project. As a non-profit charitable organization, the St. Albert Arts & Heritage Foundation (AHF) is eligible to apply for grants that are unavailable to municipalities. The Provincial designation of eligible historical buildings will also improve funding possibilities.

The following provides information about significant grants that may fund portions of capital costs related to this project. Grants focusing on operational costs or those with maximum amounts less than $20,000 have not been addressed in this report. Smaller grants may be useful in funding individual items, such as interpretive technologies or equipment upgrades. These grants will need to be sought out on a case-by-case basis as the project progresses. Operational grants are recommended to be explored separate from capital cost funding.

4.4.1 Provincial Level Funding

Heritage Preservation Partnership Program through Alberta Culture, Multiculturalism and Status of Women

- This program provides matching grants and scholarship funds to support initiatives that preserve and interpret Alberta's rich heritage. It is administered by the Historic Resources Management Branch of Alberta Arts, Culture and Status of Women. These guidelines and the application form are available at: https://www.alberta.ca/historic-resource-conservation-grants.aspx
- The maximum grant for Provincial Historic Resource is $100,00 annually for each resource.
- The Grain Elevators are Provincial Historic Resources and eligible for this grant and the AHF have successfully accessed these grants for conservation.
- The maximum grant for Municipal Historic Resources, which must also be listed on the Alberta Register of Historic Places, is $50,000 annually for each resource. The historic houses on River Lot 24 are designated as Municipal Historic Resources and would need to be listed on the Alberta Registry of Historic Places in order to make full use of the grant; however, they may not qualify under the criteria.
- Local Historic Resources, that are unregistered, have a maximum one time grant of $5,000.
- The houses on River lot 23 are 'moved' buildings are not currently designated as Municipal Historic Resources this makes them ineligible for inclusion on the Alberta Registry but they could access the one time grant of $5,000.

Community Facility Enhancement Program (CFEP)

- The Community Facility Enhancement Program (CFEP) aims to foster healthy, vibrant communities across Alberta. The focus of the program is on local facility enhancement needs and working in partnership with eligible nonprofit organizations to assist communities with acquisition, construction, upgrading, or redevelopment of public-use community facilities. Program guidelines can be found here: Alberta CFEP Grant Guidelines
- Only one CFEP application can be submitted for a specific facility in each government fiscal year.
- The maximum level of funding for anyone facility in a fiscal year is $125,000 in the Small Funding Stream and up to $1million in the Large Funding Stream. This funding is provided on a matching basis, which the organization must contribute an amount equal to or exceeding the actual CFEP grant.
- The focus of this grant is to promote public accessibility and the improvement of cultural services. This grant will not cover the major cost of the project since it is intended for smaller capital projects. As a result, project components, such as building upgrades or accessibility improvements, may be best served by this type of grant.
- Municipalities are not eligible to apply for funding under CFEP.

Agricultural Initiatives Program (AIP)

- The funds of this grant are provided by the Alberta Lottery Fund to encourage improvements in agriculture, the quality of life in the agricultural community and to facilitate rural development. Funds will be granted to agricultural societies incorporated under the Agricultural Societies Act (Alberta), and to other registered not-for-profit organizations with objectives related to agriculture and rural development.
- Program Guidelines can be found here: Alberta Agriculture Initiatives Program
- The maximum AIP grant is $75,000. In the case of capital projects with more than one phase, grant funding to a maximum of $75,000 is possible for each distinct phase of a project. Multiple capital grants are possible to a maximum of $75,000 in consecutive fiscal years
- AIP funding is approved on a matching basis. This means organizations must contribute an amount equal to or exceeding the actual CIP grant.
- Since this grant has an agricultural focus, it provides an opportunity to fund the areas of the Heritage Site that are focused on local farming history. Examples of these project components may include the soil preparation for planting of heritage crops, the purchase of farming equipment for use or display and the landscaping of farm homesteads and gardens on site.

Cultural Industries Organization Project Grant through Alberta Foundation for the Arts

- This grant support projects undertaken by incorporated Alberta companies and not-for-profit organizations that create and produce new cultural work.
- The maximum grant is $20,000. Organizations can only receive one grant per fiscal year.
- This grant will not cover capital costs for the construction of this project; however, it may be used to fund an artist's commission for creation of proposed interpretive sculptures or interpretive recordings or other media.

4.4.2 Federal Level Funding

Canada Cultural Spaces Fund

- This grant is intended to cover capital costs, including those associated with renovation, expansion/construction, specialized equipment purchases or feasibility studies related to buildings for arts and heritage activities that are delivered in a professional manner. Canada Cultural Spaces Fund
- Generally, the program offers support of up to 50% of eligible project costs for expansion/construction or renovation, specialized equipment purchases or feasibility studies.
- There is no maximum amount of funding for the CCSF grant. Several projects, over past years, have been granted funding that has exceeded $1,000,000.

Investing in Canada Infrastructure Program – Community, Culture, and Recreation

- This grant is under the federal government's Investing in Canada Infrastructure Plan, which under the Community, Culture, and Recreation Infrastructure stream supports new, expanded or renewed cultural infrastructure and Indigenous Heritage Centres.
- Program details can be found here: InvestinginCanadaProgram
- Program runs from 2018-28 and will fund up to 40% of eligible municipal or non-profit projects (municipal projects funded through his program require a provincial cost-share of 33.3%).
- Program is administered in Alberta by Alberta Infrastructure.

4.5 Approvals

In order for the St. Albert Heritage Functional Plan to be implemented, various approvals will need to be obtained. These approvals include:

Planning Approvals

With the acquisition of the private property within the site, it is recommended that the City amalgamate all the parcels into one property. The Heritage Site property will need to be re-zoned to an appropriate land use that will meet the requirements of Heritage Site facilities and programming.

Capital Project Charter

A capital project charter is required at the start of the capital budget process to formally communicate the business need that is required and to outline an initial project scoping statement and budget for review. There are three capital project charters in place for the Heritage Site that were placed on hold pending the completion of this update. A new capital project charter should be prepared in support of the recommended Phase 1 development as outlined in Section 4.3.

Development and Building Permits

A Development Permit will need to be obtained for all of the development defined in this update. A standard application process will apply including submission of site servicing, parking and landscape plans. A Building Permit will need to be obtained for the Agricultural Pavilion, Visitors Reception, the Musée Héritage Museum, the maintenance garage and any further work in the historical houses.

Heritage Resources Management Branch

Most types of development activities are required to obtain formal approval under the Historical Resources Act prior to the onset of activities. Based on the recommended development plans within this update, there should be minimal physical disturbance of the Grain Elevators site. However, the development of the Agricultural Pavilion and associated walks and outdoor display area will interface with the edges of the site, and so plans will need to be submitted to Alberta's Historical Resources Management Branch (HRMB) for review and approval.

Fortis

Any work near the overhead powerline that crosses the Grain Elevators site will require Fortis review and approval.

5.0 Summary and Recommendations

The St. Albert Heritage Site presents the opportunity to interpret a rich complexity of stories: the culture and history of the Métis, the Hudson's Bay Company role in preparing the West for settlement, the influence of the Roman Catholic Church and its missionaries in settling nomadic people into agrarian settlements, the River Lot System of land use, the arrival of French-Canadians, and the agricultural, social and economic development of the St. Albert area as represented by the railway and the grain elevators.

These broad stories interweave at the Heritage Site, and each holds a piece of the larger settlement story. The City is fortunate to have parts of the original River Lots and original or representative buildings to use as the backdrop for these stories. These lands and buildings bring with them human stories of the people who lived and worked here and add a personal dimension to the settlement of St. Albert.

The development of this site into a heritage resource is greatly important to the identity of St. Albert and it's history within the region. The stories told on the St. Albert Heritage Site need to be presented to the public, engaging citizens in a piece of common heritage. The narrative of St. Albert's early roots needs to be preserved before it is washed away by a constantly changing social landscape.

Following approval of this report, the St. Albert Heritage Site project will transition into implementation. The following outlines recommendations in support of the implementation of this Functional Plan Update:

- The three recommended phases have the flexibility to be developed as smaller subphases in response to available capital funding and grants. There are some development components that are contingent on others proceeding in advance, for example, major servicing must precede parking lot development.
- Fundraising and grant applications will need to be a concerted effort. Grants are constantly evolving according to changes in government budgets and priorities and some grants may only be offered once. Operational grants and event rentals will also need consideration in order to make the Heritage Site viable.
- Implementation of the project may require additional assessments, site reconnaissance and research. As the Functional plan shifts into construction, there may be unforeseen circumstances that will require amendments to the Functional Plan. The Plan should be revisited on a consistent basis to bring the project to a higher level of resolution.
- The progression of the project is contingent on obtaining proper approvals and permits. Various applications, reports, and plans may need to be submitted to the appropriate governing bodies throughout implementation.
- Now that the final private property within the site has been acquired, it is recommended that the City amalgamate all the parcels into two properties (on either side of Meadowview Drive). The Heritage Site properties will need to be re-zoned to an appropriate land use that will meet the requirements of Heritage Site facilities and programming.
- The Art and Heritage Foundation should remain as an integrated member of the implementation and funding strategy for this project. As a non-profit cultural organization, the Foundation has a wealth of knowledge and experience in procuring grants for cultural projects. Furthermore, its status as a non-profit organization may provide this project with opportunities for government grants that are unavailable to municipalities.

APPENDIX A

Electrical Servicing and Security Overview

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St. Albert Heritage Site

Functional Plan Update

Electrical

Prepared for:

ISL Engineering and Land Services Ltd.

Prepared by:

ReLumen Engineering Inc.

June 8, 2024

1.0 Introduction

The purpose of this report is to provide a concept level electrical design for the St. Albert Heritage Site Functional Plan. The existing power, site lighting and security will be discussed in context of this plan, and potential options and risks will be presented with recommended next steps.

The 2024 St. Albert Heritage Site Functional Plan Update outlines the longer development of the site, which will require phased upgrades which have been separated as follows.

1. Parking lots
2. Agricultural Pavilion
3. Visitors Centre and Musée Heritage Museum
4. New bollard lighting along remainder of Pathways
5. Event grounds power servicing
6. Lower Ball Diamond Access

Considerations for later phases will need to be made when implementing the earlier ones. For example, the power service for the museum will need to be coordinated during the parking lot and event ground development.

2.1 Power Distribution - Existing

Currently, the site is powered by several separate 208-volt utility-owned (Fortis) electrical services, most being overhead lines. The services were added one-by-one as each building was reconstructed or relocated to site. In a previous study prepared by ReLumen in 2009, a concept for a single customer owned 600-volt distribution was recommended for a complete site build-out. However, the modifications to site over the last 10 years involved adding more small, individual services to the Fortis utility connection.

In 2018, the site was upgraded to accommodate the addition of the relocated houses, new pathway lighting and a lift station. Power was provided by adding two separate utility-owned 208-volt electrical services with underground lines and pad-mount transformers.

The remainder of this section outlines the existing power distribution in more detail. A site plan showing major equipment is attached at the end of the report.

Currently, there is a three-phase high voltage power overhead line running across the site, from the northwest corner of the site to the northeast corner. This line runs parallel to the railway tracks, and to the south of the grain elevators and train station (see site plan at the end of this report). From this line, several single-phase overhead lines branch off to serve the various buildings.

As the three-phase line runs across the existing Meadowview Drive, the proposed realignment of this road will be required to be routed in conjunction with the existing poles. While overhead lines are not ideal for the site, the cost of relocating the line would be considerable and is not recommended.

From the three-phase line, two single phase branches split off, one to the northwest to service the grain elevators, and a second to the southwest along Meadowview Lane, which then services the remainder of the site to the south of Meadowview Drive.

The northwest single-phase line has an overhead service feeding each of the grain elevators, and an underground service feeding the train station. The southwest single-phase line feeds the lift station, the four Historical Houses and the pathway bollard lighting.

The underground feed for the Historical Houses and pathway lighting was installed in 2018, a single-phase high voltage line was run underground from a pole on Meadowview Lane to a padmount transformer located by the roundabout between the Cunningham and Chevigny Houses. This transformer feeds an outdoor-rated single-phase 200-amp 120/240-volt power distribution centre (PDC A) which then distributes underground to the four houses, as well as some pathway bollard lighting in the area.

At approximately the same time, a pole-mount transformer was installed farther to the south of the Meadowview Lane line that feeds PDC-B, a 100-amp 120/240-volt power distribution centre that serves the lift station and will serve the future Maintenance Yard.

2.2 Power Distribution - Proposed

Our initial 2009 study investigated the available electrical capacity for a very preliminary full build-out of the site and recommended it be increased with a new customer-owned 600-volt power distribution network. However, to date the site has been able to develop within the available capacities without issue.

In our 2019 study, we re-investigated the electrical capacities against a more detailed build-out and provided estimates for available electrical demands with the intent of continuing to add small, individual Fortis connections for each building.

For the 2024 update, we noted:

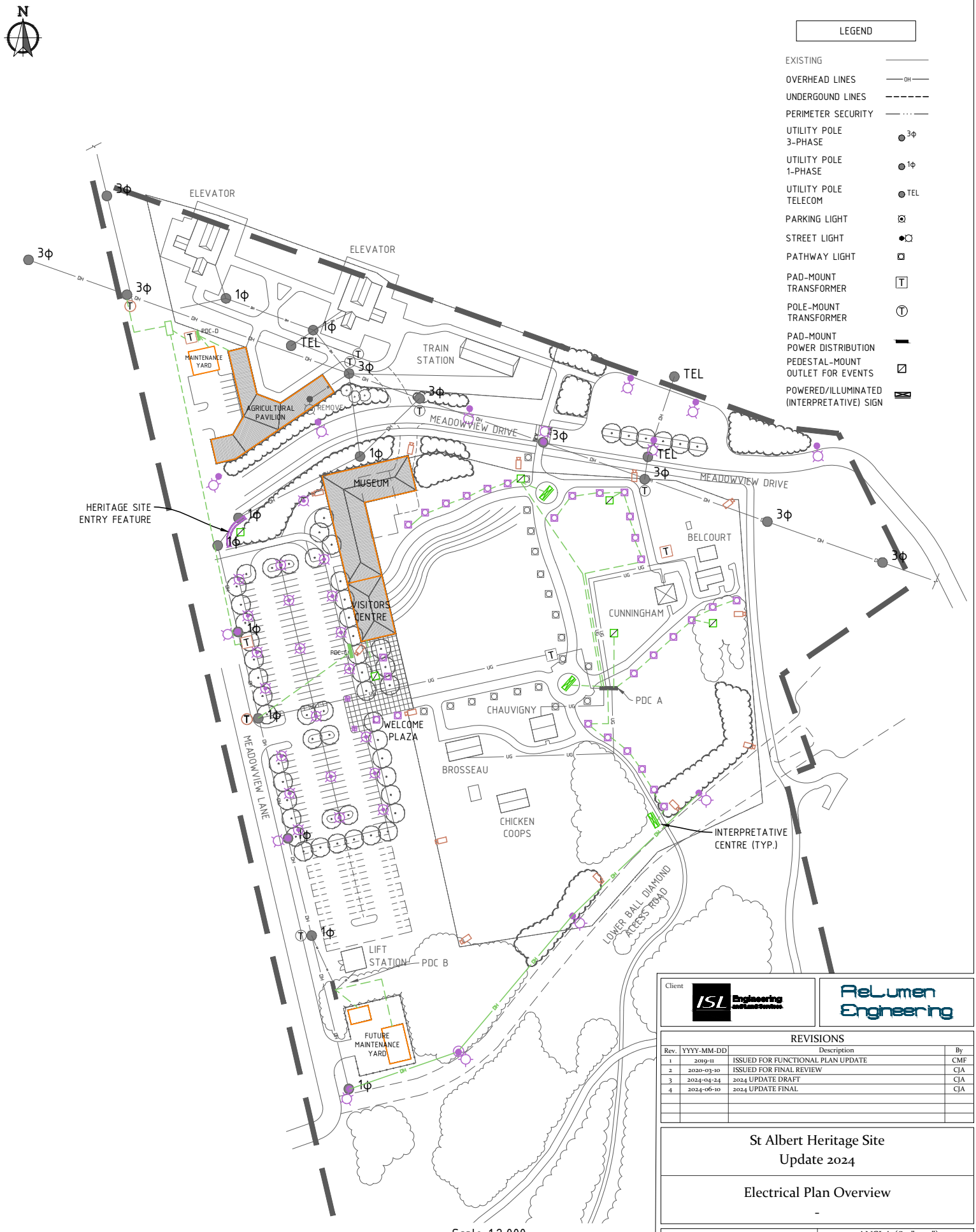
- Addition of loads such as yards, more parking lighting, illuminated signage, event power provisions.
- Code and Regulatory changes, particularly:
    - Energy Codes: LEED compliance, increased need for electric heating for fresh air recovery in winter.
    - Climate: increased need for electric cooling during summer, increases in maximum summer temperatures.
    - EV Charges required by municipalities for many new buildings
    - Full cut off lighting, Dark Sky compliant lighting. More, shorter light poles, rather than fewer tall poles.

<u>New Parking Lots</u>

The new parking lots for the Vistors Centre, Museum and Pavilion will require area lighting and provisions for future illuminated signage and façade uplighting for the new Main Entry Feature.

Initially, these could be serviced by installing pole-mount transformers on the nearest available single-phase poles and Power Distribution Centres (PDC-C & D). The size of these services are estimated at 100 amps 120/240V each. The underground conduits could be routed so they can maintain power until after the new building power in in place, and which point it would be refed from the new building.

Preliminary locations for the Fortis services are shown on the attached site plan ESK-1. Placing the enclosure closer to the future building, thus farther from the pole feeding it will offer greater flexibility and likely less cost in the long run if it is eventually fed from a new building.



1 ELECTRICAL PLAN OVERVIEW

Scale: SCALE BAR

Client: ISL Engineering and Land Services

ReLumen Engineering

REVISIONS

Rev.	YYYY-MM-DD	Description	By
1	2019-11	ISSUED FOR FUNCTIONAL PLAN UPDATE	CMF
2	2020-03-10	ISSUED FOR FINAL REVIEW	CJA
3	2024-04-24	2024 UPDATE DRAFT	CJA
4	2024-06-10	2024 UPDATE FINAL	CJA

St Albert Heritage Site
Update 2024

Electrical Plan Overview
-

Proj. Mgr	CJA	Sheet Size	ANSI A (8.5" x 11")
Designer	CJA	Drafted by	CMF
Checked	-	Drawing Number	SK-E1
REI Proj.	1213-R17		

Agricultural Pavilion

The proposed 5,000 square foot Agricultural Pavilion, parking lot and Maintenance Yard will likely be serviced with up to a three-phase 400-amp to 120/208V electrical service with a padmount transformer. This estimate assumes electric heating & cooling, provision for EV chargers in the parking lot, and mechanical equipment in both the Pavilion Maintenance Yard.

During the construction of the Pavilion, there will be an opportunity also remove up to 3 of the poles for the overhead power lines to the two Elevators. These lines could be replaced with underground lines fed from a Power Distribution Centre (PDC) near the transformer.

Vistors Centre and Musée Heritage Museum

The Museum is proposed to be constructed in phases. Initially, an 8,000 sq.ft Vistors Centre would be constructed, but eventually expanded into the full 30,000 sq.ft. 2-storey Museum, including an elevator, dehumidification and cooling.

Thus, the electrical system for the Visitors Centre will need to be sized for the full build-out, including the utility service connection with Fortis.

Our initial 2019 study estimated a 3-phase 208-volt 1200-amp service, however the increased need for Air Conditioning and Electrical Vehicle charging could increase the Museum service to as much as a 600-volt 800-amp service. This estimate assumes the building would have mostly electric heating, all electric cooling and climate control/dehumidification for exhibits and storage, and a basic power allowance of 50 watts / square meter.

The building(s) and parking lot would have to be fed from a Fortis 3-phase power line, which is currently on the opposite side of Meadowview Drive, which would require crossing the road underground.

Event Grounds Power Servicing

The Event Grounds would be provided with electrical connection points at selection corners of the area. At these locations, small exterior padmount panelboards would be provided with a variety of receptacles and connectors to accommodate the possible temporary loads which may be required for outdoor events.

It is recommended the event grounds power servicing be installed at the same time as the pathway lighting is extended, as there is a considerable cost saving if the locations of the power pedestal coincide with the pathway lighting and the underground trench shared. The attached site plan proposes such an approach.

3.1 Site Lighting - Existing

Currently there is little exterior lighting on the site. There is no roadway lighting for Meadowview Drive or Lane. There are a small number of pole mounted area lights between the elevators and train station.

Along with the recent power distribution upgrade for servicing the Houses, new bollard lights were installed along a section of the Lac. Ste. Anne Trail. These lights are Cooper-make, model “KOI K1” which have a natural wood finish washed by the light source mounted at the top of the bollard.

3.2 Site Lighting - Proposed

Three areas will require upgrading the site lighting with Dark Sky compliant, full cut-off distributions in order to reduce skyglow, light trespass and adverse ecological impacts.

Site lighting would be provided at all:

- All Parking lots and driveways.
- The remaining Pathway Bollard Lighting along the walkways.
- long Meadowview Lane and Lower Ball Diamond Access Road, including Pedestrian Crossing.

Overall, it is recommended that any new exterior lighting be designed in a cohesive manner, so that there is consistency between the various upgrades over the coming years.

We recommend the lighting be LED source, 3000K colour temperature (warm white) and have poles and luminaires resembling the vintage of the historical buildings and grain elevators.

All exterior site luminaires shall be Dark Sky compliant, full cut-off type, in order to reduce skyglow. Photocontrol will be provided to shut lighting off during the day. Motion control would be provided for security or darkness preservation reasons.

Parking Lots

The new Museum parking lot would have pole mounted full cut off lights. As it is proposed to have numerous trees planted along the perimeter of the parking lot, the pole lights and trees should be designed in conjunction to ensure shadowing does not become an issue as the trees mature and reduce the amount of pruning that would be required. This often results in a higher quantity of shorter poles, avoiding foliage and reducing sky glow.

As the Visitor Centre and Museum may not being constructed until after the associated parking lot, provisions should be made for any museum electrical loads which may need underground conduits buried under the parking lot. In particular, the feature lighting or illuminated signage at the main entrance, or any loads along Meadowview Lane.

Providing larger and spare ducts between the pole and enclosure across the lot is recommended, as it will allow for greater flexibility during the construction of the building or if the electrical utility distribution changes.

Remaining Pathway Bollard Lighting

The pathway lighting will be extended in the same approach as the existing pathways. The lighting can be fed from the power distribution enclosure (PDC-B) installed in 2008.

Any new illuminated interpretative signs would also have underground electrical connections from the nearest PDC.

This upgrade should be implemented at the same time as the event grounds power provisions, as the equipment could is the lines could be buried together as a cost savings.

Meadowview Lane and Lower Ball Diamond Access Road

The new street lighting could be provided through Fortis, and it is recommended the concept follow typical City of St. Albert street lighting standards for lower traffic roads. Since the Lower Ball Diamond Access Road will border the

undeveloped section to the south of the site, it is recommended that the roadway lighting be illuminated with, at most, the same considerations for a low traffic, city park road.

Additional lighting would also be required at the pedestrian crossings across Meadowview Drive, including future power provisions for activated crossing lights for Meadowview Drive.

It is proposed that the existing wood street poles along Meadowview Lane may be removed and replaced with new poles in separate locations. For the Lower Ball Diamond Access Road, new street lighting poles would be required.

4.1 Security & Surveillance - Existing

Currently, the site has multiple security systems installed for each individual building. These systems are monitored by a single monitoring company over the telephone lines. The remaining buildings all have telephone lines connecting back to the Train Station, which has an overhead telephone service from the 3-phase pole.

There is currently no video surveillance for the site.

4.2 Security & Surveillance – Proposed

Overall

The cost and options for the site's security and other electronic systems will be directly related to how it expands its telecommunications network. Due to the site's large size and low density, the current copper telephone network will likely be upgraded to fibre as the site develops.

The Train Station is currently the hub for the telephone network and there are benefits to maintaining this. The site staff currently have their office in the basement and all other buildings have telephone connections back to this building. The Houses are already fed with underground ducts allowing for pulling fibre. If the elevator overhead power lines are replaced with underground services, the overhead head telecom could also be replaced with underground ducts with fibre.

Data systems like security and surveillance are rapidly being combined into telecommunications and ultimately the physical infrastructure will be similar, if not the same. For example, Telus merged with ADT, a large security company, so that it could offer security and surveillance along with its internet and telephone services.

Security

The current approach to having multiple independent security systems can easily be maintained as the site develops its telecommunication network. However, developing surveillance across the site will likely require additional infrastructure.

If the Train Station remains the telecom hub for the site, the new museum and pavilion will likely not require any significant changes from previous telephone additions. The size and number of any underground telecom ducts for these buildings should always be generous.

Site surveillance could be provided by mounting cameras to the buildings themselves, but this would alter the aesthetic of the building and require interior construction. Also, many of these locations are not ideal from a surveillance perspective and would require interior modifications to the buildings.

A recommended option would be to install cameras along the perimeter fencing, since both ultimately serve the same function.

It is assumed that the site will not have 24/7 staff monitoring the surveillance system, real time viewing on multiple monitors and that high-resolution identification of individuals is not required. The purpose of the surveillance system would be to capture video at some time interval and store it for a limited time for possible review before it is deleted.

A video surveillance system with this capability could be a basic commercial grade camera system. Fixed (rather than pan-tilt-zoom) cameras would likely be acceptable, and multiple units at one location would be a marginal cost since pole and cables would already be in place. Video capture from the cameras would be stored locally at a video monitoring head end unit which would mount in the IT rack in the Train Station. Real time capture could be viewed from one or more monitors at the Train Station.

Most manufactures offer a wide selection of camera types; fixed or adjustable, day and/or night, lens type and resolution are the typical. It is recommended that any pole mounted cameras be mounted with a dedicated bracket so the device can be mounted from the top, allowing for better viewing options. Regardless, the cameras should be weather-rated, and the design, supply and installation should all be considered for operating in occasional extreme cold weather and as well as large fluctuations in temperature over a short period of time. Often it is the power supplies and telecom at the pole base which is the most exposed to these conditions.

Further investigation is required into developing the site's telecommunication network. Security and Surveillance are only two of the ever-growing elements which are now simply called Smart devices. Many poles with both fibre and power can easily become Smart Poles which are cable of connecting to numerous devices, cameras, lights, motion detectors, microphones, environment sensors, wireless repeaters, wireless access points, duress alarms, phone chargers, etc.

5.1 Cost Estimates

The following are proposed capital costs for the power distribution, lighting, security, and surveillance as described. The estimated costs include a 10% project overhead and an additional 25% contingency. A portion to all the upfront Fortis costs may be built into the monthly bill depending on the retail agreement between the City and Fortis.

1. Parking Lots - Power & Lighting - $115,000 ($40,000 could be built into Fortis retail plan)
2. Agricultural Pavilion Power - $200,000 (includes refeeding Elevators, $55,000 could be built into retail plan)
3. Visitors Centre / Museum Power - $250,000
4. Remaining Pathway Bollard Lighting - $65,000
5. Event Grounds Power - $45,000 (Can be combined with #4 and reduce by $12,000)
6. Meadowview Lane & Lower Ball Diamond Access Road - $90,000
7. Security Lighting & Surveillance $200,000

5.2 Recommendations

It is recommended that the distribution of both the power and telecommunication systems be investigated further to determine the best option for the full build out sooner in the development.

Power Distribution

Based on the updated functional plan, particularly the size of buildings, cooling and dehumidification requirements, amd parking lot lighting and EV charging, it is likely that the power distribution will need to be upgraded at both the utility (Fortis) level and customer (City of St Albert) level.

This increase could be as a single Fortis electrical service, and then City-owned distribution from that point on. Or several smaller Fortis electrical services and very little City-owned distribution. This would be determined once the utility has been engaged and can comment on their own capacities, and their own long-term plans for the neighborhood.

Revising the site power distribution could also allow for the removal several power poles and overlines, particularly around the Elevators. It is recommended that the overhead lines be removed where practicable. museum.

It is recommended the Pavilion and Visitor/Museum receive new 600-volt, 3-phase services, which may likely require running new (overhead) utiltiy lines and poles down Meadowview Lane.

Telecomm, Security & Surveillance

The site telephone system should be upgraded to an underground fibre network as it will facilitate the adoption of video surveillance and other services. The overhead lines to the elevators should be replaced with underground lines.

Parking Lots

As the parking lots may be paved prior to the construction of the building, the underground electrical should be distributed with this considering in mind. For the Pavilion and Visitor Centres, exterior Power Distribution Centres could be installed, which would then feed the future building, parking lot, maintenance yard, event space in a phased approach.

Event Ground & Pathway Lighting

The events ground power and extension of the pathway bollard lighting, interpretive signs could occur simultaneously, as much of the cabling share the same trench. It is assumed the existing electrical service for the Houses and the pathways can serve the event space as well, however specific power needs for the space should be discussed further so this assumption can be addressed.

Lower Ball Access Road Lighting

It is recommended that the addition of roadway lighting for Meadowview Lane and the Lower Ball Diamond Access utilize the existing poles on Meadowview Lane. The lighting on the access road should be suitable for low traffic undeveloped spaces and minimize its effects on the area to the south.

APPENDIX B
Capital Cost Estimates

Item	Name	Quantity	Unit		Price	Amount
Phase 1						
1A - Event Grounds						
1. Removals / Environmental Remediation / Earthworks						
a	Fence Removals	1	LS		$5,000.00	$5,000.00
c	Topsoil Stripping & Offsite Disposal	2550	m3		$45.00	$114,750.00
d	Earthworks Grading	1	LS		$50,000.00	$50,000.00
					Subtotal	$169,750.00
2. Event Grounds						
a	Fine Grading, Topsoil and Seed	4800	m2	$	15.00	$72,000.00
b	Native Planting Beds	675	m2	$	100.00	$67,500.00
c	10' Security Chain Link Fence & Gates	150	lin. m	$	125.00	$18,750.00
d	Power Service - for Site, Lighting, Events	1	LS	$	25,000.00	$25,000.00
					Subtotal	$183,250.00
3. Lac St. Anne Trail						
a	Trail - 4.0 m Wide Asphalt (incl grading, subgrade prep, gravel, asphalt)	280	m2		$125.00	$35,000.00
b	Bollard Lighting	1	LS		$20,000.00	$20,000.00
					Subtotal	$55,000.00
4. Heritage Site Entry Feature						
a	Concrete Entrance Feature /w lighting (incl grading, subgrade prep, gravel, reinforcing, concrete, sign)	1	LS	$	95,000.00	$95,000.00
b	Future Site Development Sign with Plan	1	LS	$	25,000.00	$25,000.00
					Subtotal	$120,000.00
5. Meadowview Drive Cross Walk (Phase 1)						
a	Painted Crosswalk and Signage	1	LS		$20,000.00	$20,000.00
b	Connecting Trail (3.0 m wide Asphalt) (incl grading, subgrade prep, gravel, asphalt)	120	m2		$95.00	$11,400.00
					Subtotal	$31,400.00

PHASE 1A SUBTOTAL:	**$559,400.00**
ENGINEERING & APPROVALS (15%)	$83,910.00
CONTINGENCY (35%)	$195,790.00
PHASE 1A TOTAL:	**$839,100.00**

Item	Name	Quantity	Unit		Price	Amount
Phase 1						
1B - Entry Feature, Visitors Centre, Welcome Plaza & Parking						
2. Deep Utility Servicing						
a	TVS Connection to Existing 300mm Water	1	ea		$15,000.00	$15,000.00
b	Water Service Extension to Building	35	m		$500.00	$17,500.00
c	Perch Sanitary Manhole on Existing Main	4	vt m		$3,500.00	$14,000.00
d	Sanitary Sewer Service	20	m		$500.00	$10,000.00
e	Connection to Existing Storm Manhole	1	ea		$5,000.00	$5,000.00
f	Perched Storm Manhole on Existing 900mm Main	6	vt m		$6,000.00	$36,000.00
g	Storm Manhole	3	vt m		$2,500.00	$7,500.00
h	Storm Catchbasin Manhole	9	vt m		$3,500.00	$31,500.00
i	Storm Catchbasin	3	ea		$8,000.00	$24,000.00
j	Catchbasin Lead	10	m		$350.00	$3,500.00
k	Storm Sewer	190	m		$600.00	$114,000.00
					Subtotal	$278,000.00
3. Visitors Centre Building						
a	Excavation & Grading	400	m2	$	25.00	$10,000.00
b	Building - 740 sq.m (8,000 sq. ft - on 2 floors)	740	m2	$	4,000.00	$2,960,000.00
c	Power Service (includes for future Museum)	1	LS	$	120,000.00	$120,000.00
					Subtotal	$3,080,000.00

Item	Name	Quantity	Unit		Price	Amount
Phase 1						
4. Welcome Plaza						
a	Excavation & Grading	875	m2	$	25.00	$21,875.00
b	Patterned Concrete or Paving Stone Plaza (incl grading, subgrade prep, gravel, reinforcing, concrete)	800	m2	$	250.00	$200,000.00
c	Furnishings	14	each	$	4,500.00	$63,000.00
d	Tree Planting (in and around plaza)	10	ea	$	750.00	$7,500.00
e	Art/Interpretive	1	LS	$	75,000.00	$75,000.00
f	Welcome / Information Signage	1	LS	$	25,000.00	$25,000.00
g	Lighting & Power Incl service outlets for temp lighting/events	1	LS	$	35,000.00	$35,000.00
					Subtotal	$205,500.00
4. Parking Lot (58 Stalls)						
a	Excavation & Grading	2700	m2	$	30.00	$81,000.00
b	Concrete Curb and Islands	185	lin. m	$	175.00	$32,375.00
c	Paving (incl grading, subgrade prep, gravel, asphalt)	1750	m2	$	80.00	$140,000.00
d	Pavement markings & signage	1	LS		$3,000.00	$3,000.00
e	Concrete Sidewalk (from Meadowview Lane)	1	lin. m		$2,000.00	$2,000.00
f	Tree Planting	12	ea	$	750.00	$9,000.00
g	Power + Lighting (Incl. power service for Ph 3 parking)	1	LS	$	85,000.00	$85,000.00
					Subtotal	$352,375.00
5. Security Lighting and Surveillance						
a	Security lighting and surveillance	1	LS	$	50,000.00	$50,000.00
					Subtotal	$50,000.00

PHASE 1B SUBTOTAL:	**$3,965,875.00**
ENGINEERING & APPROVALS (15%)	$594,881.25
CONTINGENCY (35%)	$1,388,056.25
PHASE 1B TOTAL:	**$5,948,812.50**

Item	Name	Quantity	Unit		Price	Amount
Phase 2						
2A - Ag Pavilion and Maintenance Yard						
1. Removals, Grading & Earthworks						
a	Tree Removals	1	LS		$3,000.00	$3,000.00
b	Remove Ex. Buildings and Storage	1	LS		$20,000.00	$20,000.00
c	Topsoil stripping & Offsite Disposal	1100	m3		$25.00	$27,500.00
d	Earthworks / Grading	1	LS		$15,000.00	$15,000.00
					Subtotal	$65,500.00
2. Maintenance Yard						
a	10' Chain Link Security Fence	140	lin. m		$125.00	$17,500.00
b	7m Gate	1	ea		$2,500.00	$2,500.00
c	Gravel Yard (incl SG prep, gravel)	800	m2		$80.00	$64,000.00
d	Tree Planting	8	ea	$	650.00	$5,200.00
					Subtotal	$89,200.00
4. Agricultural Pavilion						
a	Excavation & Grading	1	LS	$	30,000.00	$30,000.00
b	Building - 465 sqm	465	sq.m	$	3,500.00	$1,627,500.00
c	Power Service and Lighting	1	LS	$	195,000.00	$195,000.00
d	Water Service	20	m		$500.00	$10,000.00
e	TVS Connection to Existing 300mm	1	ea		$15,000.00	$15,000.00
f	Sanitary Sewer	95	m		$500.00	$47,500.00
g	Sanitary Forcemain Extension	75	m		$300.00	$22,500.00
h	Connect to Sanitary Manhole	1	ea		$5,000.00	$5,000.00
i	Storm Catchbasin Manhole	3	vt m		$3,000.00	$9,000.00
j	Storm Sewer	40	m		$600.00	$24,000.00
k	Connect to Storm Catchbasin Manhole	1	ea		$5,000.00	$5,000.00
l	Display Area Granular Paths	245	m2		$75.00	$18,375.00

Item	Name	Quantity	Unit	Price	Amount
Phase 2					
m	Display Area Grade, Level, Seed	310	m2	$15.00	$4,650.00
n	Native Planting Beds	460	m2	$100.00	$46,000.00
				Subtotal	$2,059,525.00
5. New Maintenance Garage/Shop (connected to Ag Pavilion)					
a	Maintenance Garage/Shop	150	m2	$2,500.00	$375,000.00
				Subtotal	$375,000.00
6. Security Lighting and Surveillance					
a	Security Lighting and Surveillance	1	LS	$ 50,000.00	$50,000.00
				Subtotal	$50,000.00
				PHASE 2A SUBTOTAL:	**$2,639,225.00**
				ENGINEERING & APPROVALS (15%)	$395,883.75
				CONTINGENCY (35%)	$923,728.75
				PHASE 2A TOTAL:	**$3,958,837.50**
2B - Bus Parking / River Lots / Natural Area					
1. Parking Lot - Bus / Overflow / Event Space					
a	Excavation & Grading	1500	m2	$30.00	$45,000.00
b	Paving (heavy duty pavement) (incl grading, subgrade prep, gravel, asphalt)	1100	m2	$100.00	$110,000.00
c	Pavement marking and signage	1	LS	$2,500.00	$2,500.00
d	Power & Lighting	1	LS	$15,000.00	$15,000.00
e	Landcape Island w/ Tree Planting	1	LS	$8,000.00	$8,000.00
				Subtotal	$180,500.00
2. Upgrade Main Trails to Asphalt					
b	Removals/Subgrade Prep (widening)	1	LS	$7,500.00	$7,500.00
a	Trail - 4.0 m wide Asphalt (incl grading, subgrade prep, gravel, asphalt)	640	m2	$100.00	$64,000.00
				Subtotal	$71,500.00

Item	Name	Quantity	Unit		Price	Amount
Phase 2						
3. Interpretive Nodes (2)						
a	Circular Trail Node - 4.0 m wide Asphalt (incl grading, subgrade prep, gravel, asphalt)	470	m2		$100.00	$47,000.00
b	Allowance for signage and sculpture	2	LS	$	85,000.00	$170,000.00
c	Furnishings	8	each	$	4,500.00	$36,000.00
d	Landscaping	1	LS	$	8,000.00	$8,000.00
					Subtotal	$261,000.00
4. Security Lighting and Surveillance						
a	Security and surveillance (RL 23&24)	1	LS	$	50,000.00	$50,000.00
					Subtotal	$50,000.00
5. Nature Trail						
a	Excavation & Grading	1	LS		$30.00	$30.00
b	2.0 m wide granular trail	300	m	$	75.00	$22,500.00
b	Interpretive Node w/ signage & furnishings	1	LS	$	75,000.00	$75,000.00
b	Restoration / Enhancement Planting	1	LS	$	30,000.00	$30,000.00
					Subtotal	$127,530.00

PHASE 2B SUBTOTAL:	**$690,530.00**
ENGINEERING & APPROVALS (15%)	$103,579.50
CONTINGENCY (35%)	$241,685.50
PHASE 2B TOTAL:	**$1,035,795.00**

Item	Name	Quantity	Unit		Price	Amount
Phase 3						
3A - Musée Héritage Museum						
1. Building Demolition						
a	Building Demolition	1	LS		$101,000.00	$101,000.00
					Subtotal	$101,000.00
2. Removals / Grading / Earthworks						
a	Tree Removals	1	LS		$20,000.00	$20,000.00
b	Fence Removals	1	LS		$1,500.00	$1,500.00
a	Topsoil Stripping & Offsite Disposal	1800	m3		$25.00	$45,000.00
b	Earthworks / Grading	1	LS		$50,000.00	$50,000.00
					Subtotal	$116,500.00
3. Musée Héritage Museum						
a	Building - 1960 sqm (on two floors)	1960	m2	$	4,800.00	$9,408,000.00
b	Power & Utility Service (incl. with Visitors Centre	1	L.S.	$	-	$0.00
c	Furnishings & Signage (exterior)	1	L.S.	$	95,000.00	$95,000.00
d	Landscaping	1	LS	$	85,000.00	$85,000.00
					Subtotal	$9,588,000.00
5. Security Lighting and Surveillance						
a	Security Lighting and Surveillance	1	LS	$	50,000.00	$50,000.00
					Subtotal	$50,000.00

Item	Name	Quantity	Unit		Price	Amount
Phase 3						
5. Parking Lot (92 Stalls)						
a	Excavation & Grading	1	LS	$	30,000.00	$30,000.00
b	Concrete Curb and Islands	250	lin. m	$	175.00	$43,750.00
c	Paving (parking and service access) (incl grading, subgrade prep, gravel, asphalt)	2600	m2	$	80.00	$208,000.00
d	Pavement Markings & Signage	1	LS		$3,500.00	$3,500.00
e	Concrete Sidewalk (from Meadowview Lane) (incl grading, subgrade prep, gravel, reinforcing, concrete)	350	lin. m		$200.00	$70,000.00
f	Tree Planting	12	ea	$	650.00	$7,800.00
g	Building Utility Service Connections	1	LS	$	25,000.00	$25,000.00
h	Miscellanous Parking Lot Storm Drainage	1	LS	$	50,000.00	$50,000.00
i	Hydrant and Lead	1	ea	$	30,000.00	$30,000.00
j	TVS Connection to Existing Water	1	ea	$	15,000.00	$15,000.00
k	Power + Lighting	1	LS	$	85,000.00	$85,000.00
					Subtotal	$568,050.00

4. Meadowview Lane Extension — Estimated price to be determined based on 2026 Tender Pricing for Meadowview Lane project

PHASE 3 SUBTOTAL:	**$10,423,550.00**
ENGINEERING & APPROVALS (15%)	$1,563,532.50
CONTINGENCY (35%)	$3,648,242.50
PHASE 3 TOTAL:	**$15,635,325.00**

Cost Summary

No.	Name	Amount
1	Phase 1A	$839,100.00
1	Phase 1B	$5,948,812.50
2	Phase 2A	$3,958,837.50
2	Phase 2B	$1,035,795.00
3	Phase 3	$15,635,325.00
	TOTAL:	**$27,417,870.00**