



# Lloydminster Cultural and Science Centre

## Infrastructure and Functional / Spatial Needs Study

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## Table of Contents

INTRODUCTION .....	2
Project Context .....	2
Project Approach .....	3
Key Terms .....	3
CURRENT STATE OF LCSC.....	4
Overview .....	4
Staffing.....	4
Spaces .....	5
Programming.....	7
Major Exhibits .....	9
Collections .....	14
Summary of Current Challenges.....	14
FUTURE STATE OF LCSC.....	16
Displays / Exhibits.....	16
Collections .....	17
Programming.....	18
Future Staffing.....	18
Future Spaces.....	19
GAP ANALYSIS .....	24
Space Comparison: Current to Future.....	24
Re-Using Existing Spaces.....	25
Re-Using Existing Spaces: Conclusion .....	26
OPTIONS ANALYSIS.....	29
Costing Assumptions .....	29
RECOMMENDATION.....	35
APPENDIX: .....	36

# INTRODUCTION

## Project Context

The City of Lloydminster's Cultural and Science Centre (LCSC) supports art, culture and history in the community. The current LCSC is housed in a series of buildings on a large site a few blocks from Lloydminster's City centre. The facilities are known to face deterioration both in condition and function; in response, the City has identified a need to redevelop the LCSC facility to better serve its mandate. The discussion of the LCSC's future already has quite a history:

- 2002** An initial Master Plan in 2002 focused on outdoor display and public engagement opportunities, recommending a site-wide revitalization with a village concept. Although approved in principle, the plan was hindered by costly operating projections and perceived grand scale.
- 2012** Lloydminster began exploring this issue again 10 years later, engaging Lord Cultural Resources to undertake an initial interpretive plan. The report's proposed expansion increased building space by +1,372 m<sup>2</sup> and included increases to public, collection and storage space, with an emphasis on public collections space.
- 2014** Following that study, the City engaged S2 Architecture and Keith Williams Architects to complete a redevelopment plan, expanding on the findings of the previous report. The outcome of the study was another increase of +2,456m<sup>2</sup> from the 2012 Lord report (total 7,250 m<sup>2</sup>).
- 2015** A design was subsequently prepared based on the 2014 findings, and was costed at \$43.8 million (total project cost). This stalled the project yet again, as this greatly exceeded the justification for council approval.
- 2019** In spring 2019, the City of Lloydminster contracted Cornerstone Planning Group to revisit the assumptions of the previous work, and prepare a display, building condition, and space needs assessment to determine high-level future requirements of LCSC. The goal of this project is to create a concept that represents a feasible and cost-effective way to renew the LCSC infrastructure and deliver its mandate to the community for the next 20 years and beyond.

A complete timeline of preceding events can be found in the Appendix. This project's report will be developed by returning to base principles, and understanding the required activities of stakeholders to determine the functional needs of the new facility. This will be combined with current state physical condition to determine infrastructure needs and possible concept options to support the LCSC over the next 20 years.

## Project Approach

To achieve the goals identified by the City of Lloydminster, an approach was developed that recognized the five integrated scopes of work making up the backbone of this project. As functional programming experts, Cornerstone has engaged the services several expert sub-consultants to provide the range of expertise required to fulfill the LCSC scope of work:

**Table 1: Project Task Overview**

Project Step	Responsible Party
Overall Delivery and Project Management	Cornerstone Planning Group (CPG)
1. Functional Facility Planning	Cornerstone Planning Group (CPG)
2. Display Assessment and Recommendations	AldrichPears Associates (APA)
3. Concept Design	Human Studio Architecture and Urban Design
4. Building Physical Assessment	Associated Engineering (AE)
5. Costing	SSA Quantity Surveyors (SSAQS)

The study was undertaken in the following steps:

1. Project Start-Up
2. Integrated Studies: Spatial Needs study, Infrastructure Needs study, Display study, and Gap Analysis working paper
3. Options Analysis and Costing
4. Final Report

## Key Terms

Several important terms are used throughout this document to describe the estimated areas. The definitions include the following:

- A **Component** is a group of spaces with common purpose.
- **Net Square Meters (NSM)** is all the usable space within the walls of the facility. This includes programmable spaces, and assigned support spaces such as washrooms and storage. It excludes major circulation routes that connect net spaces and components.
- **Component Gross Square Meters (CGSM)** describes the size of a component as a unit. It is calculate by applying a component grossing factor to all of the net spaces that make up the component, allowing for circulation space and internal walls within.
- **Circulation** refers to building circulation space outside of internal component circulation.
- **Building Gross Square Meters (BGSM)** is the total area of all levels of a building as measured to the outside face of exterior walls. It is calculated by applying a building grossing factor to the CGSM, and includes all spaces, building systems (mechanical, electrical, HVAC etc.) and circulation.

## CURRENT STATE OF LCSC

The galleries and exhibits of the LCSC reflect the breadth of human experience through art, culture, and science displays.  
(LCSC Facebook Page)

### Overview

The current state of LCSC's home facility is considered suboptimal at best. This is largely due to its out-dated exhibit areas, poor storage and display conditions, and non-unified exhibit themes. These challenges create a missed opportunity to inventively portray and share the unique history, stories, and characters of Lloydminster specifically. The promise of the facility rests mostly within passionate staff, an interesting collection, and strong community support from the Heritage Society.

The following functions are currently housed in the LCSC, and will continue in some form into the future:

- **Exhibits** (currently 3 permanent galleries and 1 temporary gallery)
- **Collections Storage** (including archives, art, vehicles and equipment, textiles, housewares, books, photographs, archaeological and ethnographic artifacts, and taxidermy specimens)
- **Collections Management** (cataloguing, photographing, documenting, minor repairs)
- **Programming** (public and education)
- **Administration**
- **Guest Services** (reception and gift shop)
- **Regional Archives** (run by a separate volunteer Board)
- **Restoration** (primarily run by volunteers with the Heritage Society)

### Staffing

Compared to other Canadian heritage-focused museums, LCSC is currently well staffed relative to the size of its exhibit areas, and its size overall. The layout of the facility however, presents many challenges for staff given the patchwork of building additions established over the facility's history – particularly from a security and visitor navigation point of view. Current staff members are listed in the table below. This list does not include the Regional Archives, which has 2 part-time staff.

Table 2: Current LCSC staff list (HC = Head Count)

Current Staff List		
Position	HC	Notes
Manager, LCSC (Term)	1	
Collections Coordinator	1	
Visitor Service Attendant (PT)	2	
Visitor Service Attendant (Casual)	1	
Recreation Programmer 2	1	
Municipal Worker 1 (PT)	1	

Current Staff List		
Position	HC	Notes
Admin Support 2	2	
Admin Support 2 (Term)	1	
Admin Support 2 (Term)	0	(1 position vacant)
<i>* also work as Museum Technicians</i>		
<b>TOTAL:</b>		<b>10</b>

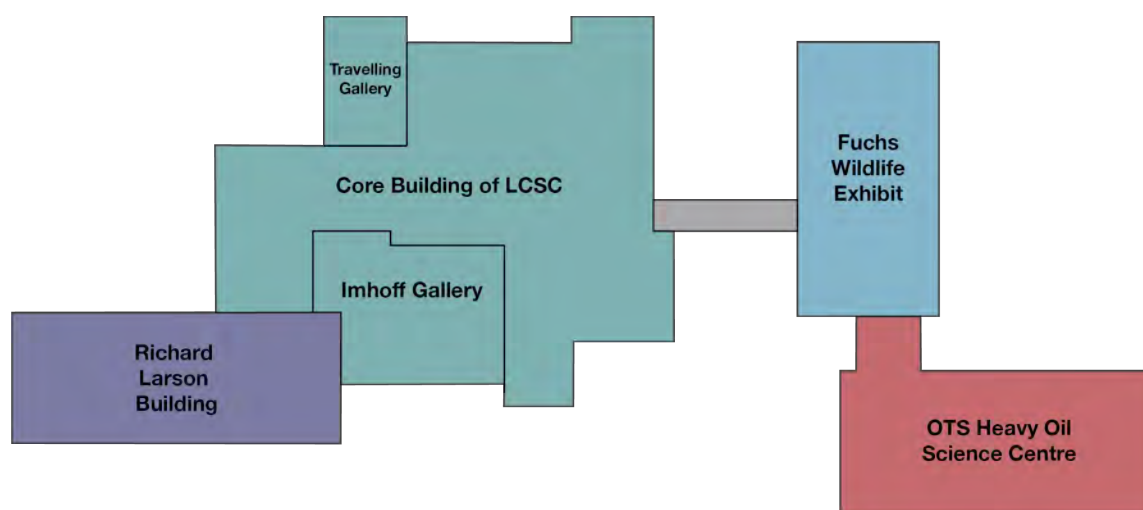
### Spaces

The main facility of the LCSC is made up of four attached structures, as shown in Figure 1 below. In summary:

- The Barr Colony Heritage Museum (shown in green) currently houses galleries including the Imhoff and Traveling galleries, programming (“Studio 1”), administration, and collections storage. This is the main entrance of the LCSC and also supports guest services and the Regional Archives.
- The Fuchs Building (blue) holds the Fuchs Wildlife Exhibit (taxidermy displays).
- The OTS Heavy Oil Centre (red) showcases the 1999-era of the oil industry, and:
- What remains of the Richard Larson Building (purple), currently used for collections storage and general storage. Most of this building was demolished in 2015 due to poor condition, and the collections housed in it were mostly moved to a new storage barn constructed elsewhere on the site.

These structures have been amassed (either moved or built onsite) and connected over time. Their condition as a package was assessed in 2010, and re-assessed as part of this project in 2019 (see Appendix for full reports). Note that at the end of the OTS Heavy Oil Exhibit, there is an office/apartment for the RV Campground caretaker. This space and function is not part of this study.

Figure 1: Overview of LCSC Main Facility





The LCSC site is large and includes a number of outbuildings in addition to this main facility. These outbuildings are important to the Museum, but due to the scope of this project, were not assessed at this time. These outbuildings are shown on the site illustration below and are:

- **Studio 2** (formerly the Saskatchewan Tourism Visitor Centre; used for programming and meetings)
- **Weaver House** (original to site; closed to public; used for general storage)
- **Log Cabin** (open to escorted public; used for education and events)
- **Church** (open to escorted public; used for education and events)
- **Rendell House** (furnished with heritage items; open to escorted public; used for education)
- **Rendell Barn** (storage of vehicles/equipment in the collection)
- **Barr Colony Heritage Society Implements Shed** (used for restoration of vehicles and equipment)
- **New Storage Barn** (recently constructed for safe collections storage)
- **Vehicle Storage Barn** (used for safe storage of vehicles/equipment in the collection)
- **Staff Office trailer** (not shown; located just behind LCSC Museum/OTS area)
- Various open storage on site, including for vehicles (e.g. train), parts (e.g. ploughs), and historical buildings (e.g. schoolhouse, church, service station)

Figure 2: Site map of LCSC and associated buildings



The space list on the following page captures the current spaces of the main LCSC. These have been grouped by space type, rather than building. This summary does not include any of the other spaces on the site.

**Table 3: LCSC Main Facility Space List by Space Type**

<b>LCSC Main Facility Space List</b>		
<b>Space Type</b>	<b>SM</b>	<b>SF</b>
Office and Open Office / Lunchroom	39.0	420
Exhibit Areas	1,004.8	10,816
Programming Areas	73.0	786
Gift Shop	66.0	710
Archives	100.2	1,079
Programming & Event Support / Storage	207.0	2,228
Collections Storage	139.0	1,496
<b>Total SM / SF:</b>	<b>1,629.0</b>	<b>17,535</b>
<i>Circulation + WCs</i>	<i>284.0</i>	<i>3,057</i>
<i>Building Systems</i>	<i>94.0</i>	<i>1,012</i>
<b>Total BGSM / BGSF:</b>	<b>2,007.0</b>	<b>21,603</b>

## Programming

The LCSC provides a rich level of programming to the Lloydminster community, with its primary programming audience being youth. Adult programming is supported as well, with most activities related to crafts and pottery.

Programming as a function is split between Public and Education. Public programming focuses more on activities of interest in the Lloydminster community, while Education is rooted in Saskatchewan curriculum. All programs are well-subscribed, particularly education programs given the mutually beneficial relationships established between local schools and the LCSC.

The following table provides a summary of current programming at the LCSC. Additional programs (e.g. Pre-K to Grade 3 programming) are run at Lloydminster schools using resources from LCSC.

**Table 4: LCSC Current Programming Offered**

<b>Program Type</b>	<b>Program Name</b>	<b>Location</b>
<b>Public Programming Youth</b>	Arts and Sensory Baby and Parent Class	Studio 2
	Arts and Science Preschool classes	Studio 1
	Art and Craft classes	Studios 1 or 2
	Summer Programming	Studios 1, 2, Log Cabin, Weaver Park, Exhibit Areas
	School Break Camps	Studios 1, 2, and Exhibit Areas
	Tech Camps	Studio 1
	Drawing Camp	Studio 1
<b>Public Programming Adult (Contracted and</b>	Bea Fisher Art and Craft Class	Studio 1
	Adult Beginner's Pottery *	Studio 1
	Acrylic 101	Studio 1
	Photography 101	Studio 1



Program Type	Program Name	Location
Staff Run)	Adult Arts and Crafts Class	Studio 1 or Studio 2
<b>Education</b> (Includes Youth and Adults)	Imhoff Art History Program	LCSC Imhoff Gallery
	LCSC Interpretive Tour	LCSC Permanent Exhibits
	Pioneers on the Prairies: Promised Land	Outdoors
	Mask Making	Studio 1
	Pottery: Hand-building *	Studio 1
	Snowshoeing	Outdoors, Weaver Park, Log Cabin

*\*Pottery classes are perhaps the most popular overall. These are programmed by LCSC staff; there is also a rental agreement with the Lloydminster Pottery Guild who use the space twice a week and support the program.*

There are a number of programming challenges that visitors and staff currently experience at LCSC:

- **Incompatible Activity Mix:** With respect to Public Programming, challenges mainly stem from the mix of activities occurring in the same space. For instance, silica dust and other materials are leftover from pottery activities in Studio 1, which makes for a suboptimal and unpleasant space for subsequent programs. The incompatibility has less to do with the cleaning effort / duties of the pottery programmers and more to do with the tenacious nature of silica dust and the inherent messiness of pottery. A dedicated space for Pottery may be required (particularly given its popularity and the demand for pottery classes). Moreover, kilns are easily contaminated and can result in dangerous outcomes if a contaminant were to be fired.
- **Made-For-Purpose Space:** Studio 2 experiences excessive sound reverberation in the space. This makes instruction difficult, and reduces the overall capacity of the space due to poor acoustics. Additionally, Studio 2 does not have adequate electronic connections (e.g. it does not have access to WiFi). Built originally as a tourist information centre, the Studio is being used for a different purpose and is not particularly well-suited to the task.
- **Outdoor Space:** Outdoor space is currently difficult to keep safe and engaging. The Lunch and “Playground” area (outdoor bench area on the foundation of the now demolished Richard Larson Museum) were noted to be unsatisfactory. This space does not keep children entertained, nor does it provide a suitable area to eat lunch (being uncovered).
- **Maze-Like Layout:** Although great for scavenger hunts, the sprawling and maze-like nature of the facility causes difficulties in re-set time for education program staff, as programs span across the complicated layout of the facility (from the OTS Heavy Oil Science Centre to the Rendell House / Log Cabin). Such inefficiency increases the workload for staff, and can damage the perceived quality of the program. It also makes security difficult to manage.
- **Many Focus Areas:** LCSC currently spans a variety of education areas (e.g. science, history, and culture), and education programmers can struggle with being content experts on too many topics.

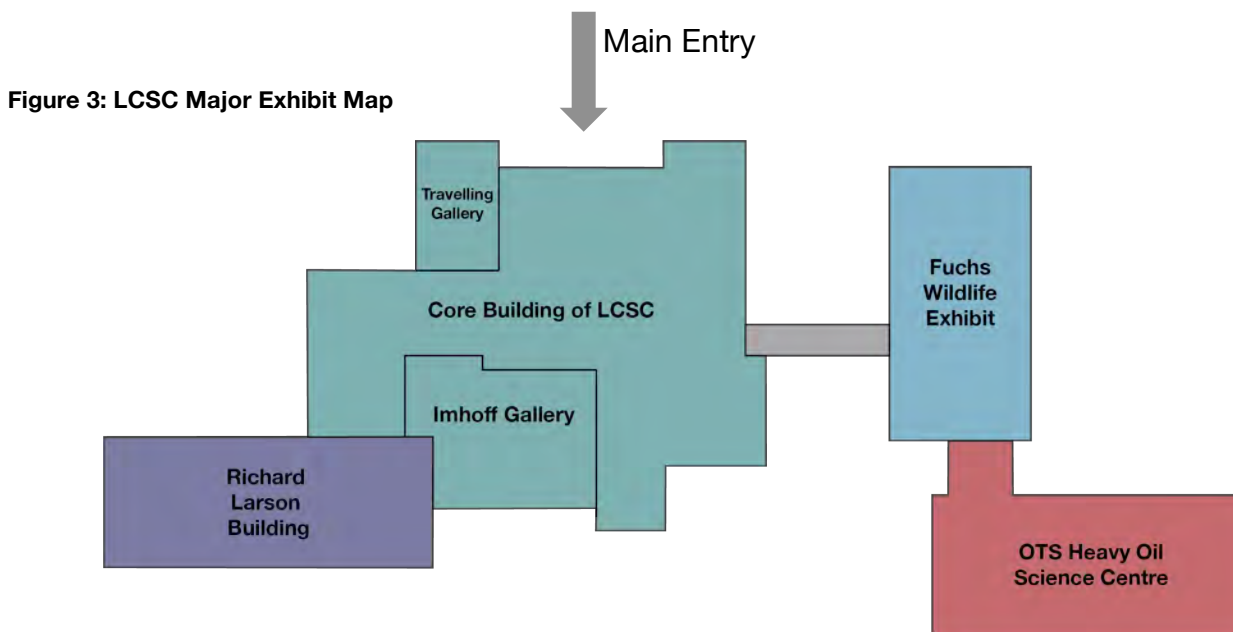
## Major Exhibits

LCSC is comprised of a varietal assembly of major exhibits. They are currently spread out in the facility and do not flow together navigationally, or thematically. For the most part, the exhibits have remained unchanged over many years and do not make much use of the interesting heritage artifacts and vehicles that make up the majority of the LCSC's collection.

LCSC's current major exhibits are shown in the figure below, and described in more detail in the sections that follow. A more thorough analysis of the current nature and future possibilities of the exhibits can be found in the Display Study by AldrichPears Associates in the Appendix.

Currently, the major exhibits are:

- The Imhoff Gallery
- Fuchs Wildlife Exhibit
- OTS Heavy Oil Science Centre
- Traveling Gallery (*temporary exhibits*)
- Galleries A & B (*temporary exhibits*)



## Imhoff Gallery

The Imhoff Gallery displays the vast majority of a large collection of paintings of Count Berthold von Imhoff, a German-born and prairie-living artist who was best known for his religious paintings. Today, the Imhoff Gallery takes up much of LCSC's exhibit space. This is a direct result of a collection agreement dated May 1, 1983 between the City of Lloydminster and the descendants of Count Berthold von Imhoff. The agreement stipulates a 99-year loan of the paintings to the City, and requires the display of all of them (~220) concurrently. As a result, the paintings are displayed overwhelmingly in a small exhibit space (relative to the number of paintings) and all are exposed to suboptimal changes in humidity and temperature characteristic of the space.

Beyond physical problems with the artworks, the Display Study (see Appendix) has found that the Imhoff collection does not yield a representative view of Lloydminster's unique history, and does not align with the vision of the LCSC.

Figure 4: Imhoff works on display





## Fuchs Wildlife Exhibit

The Fuchs Wildlife exhibit represents 70 years of taxidermy by the late Nichols Fuchs, a Lloydminster character and citizen. The collection is displayed in dioramas framed by painted backdrops, which may lead visitors to believe it to be an accurate depiction of natural history. However, the collection is not necessarily historically accurate nor interpreted scientifically; additionally, most specimens are deteriorated or deteriorating due to age, original quality, and the exhibit building's physical condition.

The Display Study indicated that the Fuchs collection does not have much value from a natural history point of view, but parts certainly do from a Lloydminster perspective. For example, a bizarre display of bunnies playing poker around a table with a monkey in the background is a quirky childhood memory for many local residents. In a sense, it has become a cherished inside joke that embraces the positive weirdness of Lloydminster.

Other than the unique bunny display, most of the collection is considered primed for deaccessioning given its current state (many have decayed beyond repair). Likely in the future, a few select displays could be kept as a historical reference point, and as a way to tell the tale of the many interesting characters of Lloydminster throughout its history.

Figure 5: Fuchs Wildlife Exhibit



### OTS Heavy Oil Science Centre

The Oilfield Technical Society (OTS) entered into an agreement with the City of Lloydminster in 1998 to construct and provide a static display depicting a petroleum industry theme in a gallery of the LCSC. At the time, the OTS Heavy Oil Science Centre was considered a world-class, state of the art interactive display given the use of display technology that highlighted the now out-dated innovations of the heavy oil industry.

As described in the Display Study: today, from a visitor experience point of view, the OTS Heavy Oil Science Centre is overwhelming as the space is filled with display cases leaving little room for visitors to properly learn from the displays and orient themselves in the space. It is also unfortunately misleading given the out-dated information and display technology, which has since moved on.

Figure 6: OTS Heavy Oil Science Centre





### Traveling Exhibits

The LCSC hosts a variety of traveling exhibits throughout the year in its Travelling Gallery, which provides open space and the required closed-door security. However, it does not meet museum standards for temperature and humidity control. It also does not have required adjacent storage space for crates and packing materials. These challenges have led to limitations in the type and quality of traveling exhibits that the LCSC can host. When not used for temporary exhibits, the Gallery is used for local art shows and education programs, which is a suitable purpose.

Figure 7: Travelling Gallery



### Galleries A & B

These Galleries are within the main museum, and since the additions of the Fuchs and Imhoff Galleries mostly serve as corridor space to travel within the building. Due to their size and prominent position, they can still be used for minimal exhibits such as podiums, posters and wall art.

Figure 8: Gallery A (B is similar, and behind)





## Collections

Currently, the collections at LCSC can be described as being in a “catch-up” or transition phase. The collections are known to be large and fairly representative of the region’s history, but the majority have yet to be properly catalogued, and the process is ongoing. The large number of uncatalogued collections is a result of not having a formal collections management policy in place for decades. Fortunately, the recent Collections Policy established in 2018 has given LCSC staff the process and power to organize, catalogue, and weed the collection to suit museum collections standards and accurately characterize the history and culture of Lloydminster.

The following table is a current breakdown of LCSC collections according to the Collections Coordinator, with the current storage location noted. The Vault is a small area within the Main Museum building housing art storage racks.

**Table 5: Current LCSC Collections Breakdown**

Type of Artifact	Estimated Number	Location
Textiles	2,000	Richard Larsen Museum
Houseware items	13,000	Storage Barn/Rendell House
Vehicles and Machinery	100	Storage Barn/Implement Shed/Yard/OPS Centre
Books	400 (+1,000 waiting to be deaccessioned)	Richard Larsen Museum/Weaver House
Artworks (Inc. Imhoff loan)	350	Imhoff areas/Vault
Archival Documents	4,000	Richard Larsen Museum
Photographs	3,000	Richard Larsen Museum /Vault
Archaeological artifacts	400	Storage Barn
Ethnographic artifacts	200	Richard Larsen Museum

## Summary of Current Challenges

Major challenges currently facing the LCSC, mostly relating to facility, are summarized in the list below.

- **Failing Envelope:** Visitors to the facility will undoubtedly notice problems related to the building envelope (roof and insulation). In some programming storage areas, roof leaks are common and buckets are the laid across the floor to catch dripping water. Infrared studies have shown failing insulation across the current facilities.
- **Insufficient Environmentally Controlled Spaces:** Much of LCSC’s collections are stored in suboptimal to poor conditions. The HVAC system is out-dated and therefore, storage and display areas experience dramatic variations in temperature and humidity. As a result, collections and exhibits have been damaged and continue to be at risk. The LCSC cannot accept some traveling exhibits due to storage and display conditions at the facility.
- **Awkward Building Layout:** The patchwork of buildings that make up the LCSC creates a maze-like and confusing experience for visitors, and creates a noticeably under-functional

building. Because the LCSC is made up of various additions from different decades, the components don't fit together as a functional unit. From a security standpoint, isolated spaces such as the Fuchs exhibit area (joined only by a small corridor) can be a challenge for staff to monitor. This requires staff to roam the facility and leave other spaces unattended, and exacerbates the amount of set-up time for programming. Circulation-wise, visitors can get "lost" and amongst many sharp corners and can feel quite unsupervised in the facility.

- **Suboptimal Collections Adjacencies:** The latest addition to the site is the new storage barn, which stores the majority of the collections and is located about a 10-minute walk from the museum. Although the barn is a good workspace with adequate environmental control and storage solutions, it is far away from the main facility. This isolates staff members and makes it difficult to transport collections to the main building (e.g. for an exhibit or program). In the winter, the building is even more isolated due to snow cover.
- **Limited and Suboptimal Programming Spaces:** The primary current programming spaces consist of Studio 1 (located in the main facility) and Studio 2 (former tourism building). Studio 1 suffers from doubling as a Pottery Studio and a multi-purpose room. Pottery has specific infrastructure and equipment requirements and generally is not a good activity to co-locate with others. Studio 2 is a reasonable space but has a cavernous configuration. Instruction can be very difficult with 10-15 students as there is a lot of sound reverberation in the space. Additionally, Studio 2 does not have WiFi.
- **Tired and Out-Dated Exhibits:** Perhaps the most common complaint is the LCSC's virtually unchanged exhibits. The Fuch's taxidermy exhibit has remained essentially the same since its introduction in 1965. Even the newest exhibit, the Oilfield Technical Society (OTS) Heavy Oil Science Centre which opened in 1999, has subsequently become out-dated and largely irrelevant to current oilfield technology. There is an opportunity to entice repeat visitation and showcase the Lloydminster collection, by renewing and continually refreshing the exhibits and providing a suitable space to do so.
- **Inconsistent Themes:** As touched upon above, the current exhibits at LCSC are a patchwork of interest areas. While it is attractive to have a diversity of exhibits that show the richness of a place, it is important that these exhibits retain some commonality or transition into each other in a meaningful way. Currently, it can be a jarring experience for visitors transitioning from an objectively odd taxidermy exhibit (Fuchs) to a technical Heavy Oil Science Centre. Such an abrupt transition likely leaves visitors feeling unsure of what LCSC's focus is as a museum.
- **Underutilized Collections:** Much of LCSC's strength lies in its collections. Particularly, the historic farm equipment, personal items of area residents, and machinery that unfortunately, are not currently on display. A renewal of exhibit focus and appropriate facilities to support this will allow staff to be most effective in their delivery of the LCSC mandate, entice visitors new and returning, and keep in trust the collective identity and memory of Lloydminster.

## FUTURE STATE OF LCSC

In the future, the same functions that LCSC currently houses will continue to be accommodated. The future of the LCSC is also dependent on the vision for the displays/exhibits (per the Display Study), and future directions for collections and programming. The table below summarizes the current functions and the expected changes. Following that, specific sections detail the envisioned future states of displays, collections, and programming more thoroughly. Finally, a summary of expected future staffing and spaces required to support these activities in their future state is provided.

Activity	Expected Change/Drivers
<b>Exhibits</b>	Per Display Study (summarized below, available in full in Appendix); provide adequate environmental (temperature and humidity) control and security
<b>Collections Storage</b>	Collection to shift to support mandate and Display Study; provide appropriate storage environment and allow for growth over 20 years
<b>Collections Management</b>	Provide appropriate space for staff to complete required activities
<b>Programming</b>	Similar volumes; create more appropriate environments activities
<b>Administration</b>	Similar number of staff; provide better spaces for required activities
<b>Guest Services</b>	Similar services; provide safer spaces for staff
<b>Regional Archives</b>	Similar services; provide space for safe collections storage and growth
<b>Restoration</b>	Provide workshop space for use by LCSC staff and Heritage Society

### Displays / Exhibits

The Display Study by APA has provided informed recommendations of a more focused philosophy with respect to the heritage interpretive experience, exhibit spaces, gathering spaces, and programming areas. Of particular importance is the recommendation to establish flexible permanent exhibit space that invites annual or bi-annual rotation of LCSC's collections in a calculated manner, providing new perspectives on known histories and stories that have yet to be shared amongst visitors.

Additional recommendations include:

- The displays could be organized into a series of “islands” that provide a backdrop, cases, one featured item and a permanent text panel introducing a theme.
- Some of the themes allow for a broader exploration of a topic, while others, such as a “Local Characters” theme would allow curators to explore a topic through a deep dive into the story of one important individual at the centre.
- Larger artifacts and environmental backdrops could serve as “connectors” between exhibit islands, giving the facility a much more fluid array of exhibits than experienced at present. These connectors would be more permanent in nature and would provide enticing visual and thematic impact, while supporting the stories told on the islands.

- Some of the proposed themes are:

Treaty Six Territory  
Building Community

This is Lloyd  
Local Characters

The Pioneer Experience  
A Landscape of Innovation

## Collections

The collections of the LCSC were explored with staff members by type, to determine their likely growth or decline over the next 20 years in pursuit of the organization’s mandate. The following sections discuss the working assumptions used to generate space estimates for the future, by collection area. The underlying analysis is provided in the Appendix.

### Archives (Lloydminster Regional Archives – LRA)

The Lloydminster Regional Archives (LRA) anticipates a 2% annual growth rate across all collection mediums over the next 20 years. This assumes a passive growth model of collecting, where growth is achieved primarily from citizens bringing in materials organically. In contrast, an active growth model involves the active solicitation of contributions to the Archives (with archivists approaching various communities for materials). While an active growth model paired with strong volunteerism is considered the ideal scenario for the Archives, it may be less realistic. Therefore, a passive growth model has been assumed for the Archives at the LCSC.

The growth scenario also assumes that the City of Lloydminster’s Corporate Collection (City Archives) will not be absorbed into the Regional Archives. However, there could be opportunities for a shared staffing arrangement (e.g. a trained archivist could be shared between the two entities, and / or the City could take over the day-to-day operations of the LRA while the LRA supplements City leadership with a team of LRA volunteers).

### LCSC Collections

Below is a list of all the collections at the LCSC, with their expected growth patterns and total storage footprint for a 20-year planning horizon (full explanations of future collections requirements are available in the Appendix).

**Table 6: LCSC Future Collections Summary (NSM = net square meters)**

Collection	Growth Summary	Est. 20-Year Collection Footprint (NSM)*	Storage requirements
Archives (LCSC)	~ 1,200 documents / year	7.5 NSM	Indoors, controlled
Art – Imhoff	Decrease to 5% of current; no growth	6.7 NSM	Art racks, indoors, controlled
Art – Holtby / Evans / Other	25 art works collected every 10 years	13.4 NSM (20.1 NSM Art subtotal)	Art racks, indoors, controlled
Vehicle and Equipment Storage	1 vehicle/equipment acquired every 5 years	1,642 NSM	Indoors

Collection	Growth Summary	Est. 20-Year Collection Footprint (NSM)*	Storage requirements
Textiles	15 pieces / year	21.4 NSM	Indoors, controlled
Houseware Items	100 items / year	218.3 NSM	Indoors, controlled
Books	25 books / year	7.0 NSM	Indoors, controlled
Photographs	1,200 photographs / year (~3 banker boxes / year)	8.5 NSM	Indoors, controlled
Archaeological Artifacts	No growth	3.3 NSM	Indoors, controlled
Ethnographic Artifacts	No growth	8.4 NSM	Indoors, controlled
Taxidermy / Natural History	Decrease to 5% of current; no growth	23.2 NSM	Indoors, controlled

\* assumes no shelving; shelving assumptions are listed in new space list

### Programming

While it is not expected that the programming at LCSC will be drastically expanded, the future state must provide more functional and comfortable spaces that enhance visitor and staff experience. A dedicated pottery studio will provide programming capacity for this popular activity, while circumventing issues with programming changeover (from pottery class to non-pottery activities). Made-for-purpose education spaces for the correct group size and acoustics, including necessary support space, are needed to support good education programs and create excellent space for additional events.

### Future Staffing

The future staffing for the LCSC need not vary much from current state. The only assumed change is the hire of an Admin Support 2 (Term) position to fill the currently vacant position. This is due to how well staffed the LCSC is at current. Current staff capacity is affected by the inefficiencies and poor conditions of the facility, and the transition phase of the collections which requires unusual amounts of work processing and back-cataloguing items.

Table 7: Future LCSC Staff List

Current Position	Future			
	HC	Future HC	Δ	Notes
Manager, LCSC (Term)	1	1	0	
Collections Coordinator	1	1	0	
Visitor Service Attendant (PT)	2	2	0	
Visitor Service Attendant (Casual)	1	1	0	
Recreation Programmer 2	1	1	0	
Municipal Worker 1 (PT)	1	1	0	
Admin Support 2	2	2	0	
Admin Support 2 (Term)	1	1	0	
Admin Support 2 (Term) (Vacant)	0	1	1	Assume vacant position filled
<b>TOTAL</b>	<b>10</b>	<b>11</b>	<b>1</b>	

The staff list for the Archives has been listed separately given that it will be run by a separate entity. The Archives staff list is as follows, and will be supported by an additional 2 volunteers.

**Table 8: Lloydminster Regional Archives Future Staff List**

Current		Future		
Position	HC	Future HC	Δ	Notes
Archives staff	2	2	0	2 part-time staff
<b>TOTAL</b>	<b>2</b>	<b>2</b>	<b>0</b>	

### Future Spaces

The future spaces of the LCSC have been developed in order to support the activities and staffing as discussed above. The spaces have been organized into 6 major components: entrance, office, programming, exhibit, archives, and collections. Each is described below, followed by a space list giving estimated rooms and areas. A relationship diagram shows the required adjacencies of the components at a high level. Note that the spaces are considered a reasonable representation of the facility needs, but must be refined in future as design continues. Circulation across all components is estimated at 25%.

#### Entrance

The Entrance component consists of a lobby area and gift shop, supporting visitor entry and wayfinding. The gift shop has space allocations for a workstation, coffee kiosk area, and a digital display podium.

#### Office

This space supports staff working at the LCSC. Within the Office component will be an open office space with 10 workstations for staff, complemented by an enclosed office for the LCSC Manager. Supporting these offices will be a Staff Lounge / Kitchen where staff can relax, connect, and eat lunch. Other supporting spaces include office storage, copy / storage area for standard office supplies, programming storage, and event storage.

#### Programming

Programming supports program delivery for children and adults. This component includes 2 identically sized, multi-purpose Programming Spaces, a separate Pottery Studio, and Pottery Support spaces. Programming should be in close proximity to the Office component.

#### Exhibit

The Exhibit area is the second largest component overall and consists of a Permanent Gallery that periodically rotates out exhibits (likely on an annual or 6-month basis), a Travelling Gallery with Category A status of the same size that will host travelling exhibits, and a Workshop space where visitors can see exhibit items (primarily vehicles) being repaired or restored.



### Archives

The Archives component will support the Lloydminster Regional Archives in a separate, lockable space. The component consists of the Archives Office and the Archives Collections. The Office will have 4 workstations allocated (2 for staff, and 2 for rotating volunteers). The Archives component will be in close proximity to the Entrance component to provide the public easy access to research materials and archivists.

### Collections

The Collections component is the largest part of the facility given the diverse and large materials it will house. Included in this component will be the storage of archives materials (non-LRA), art works, vehicles and equipment, textiles, houseware items, books, photographs, archaeological artifacts, ethnographic artifacts, and taxidermy / natural history items. Additionally, crate storage and the loading dock will be a part of this component - both of these spaces must be in close proximity (ideally adjacent) to the Travelling Gallery.

Table 9: LCSC Future Space List

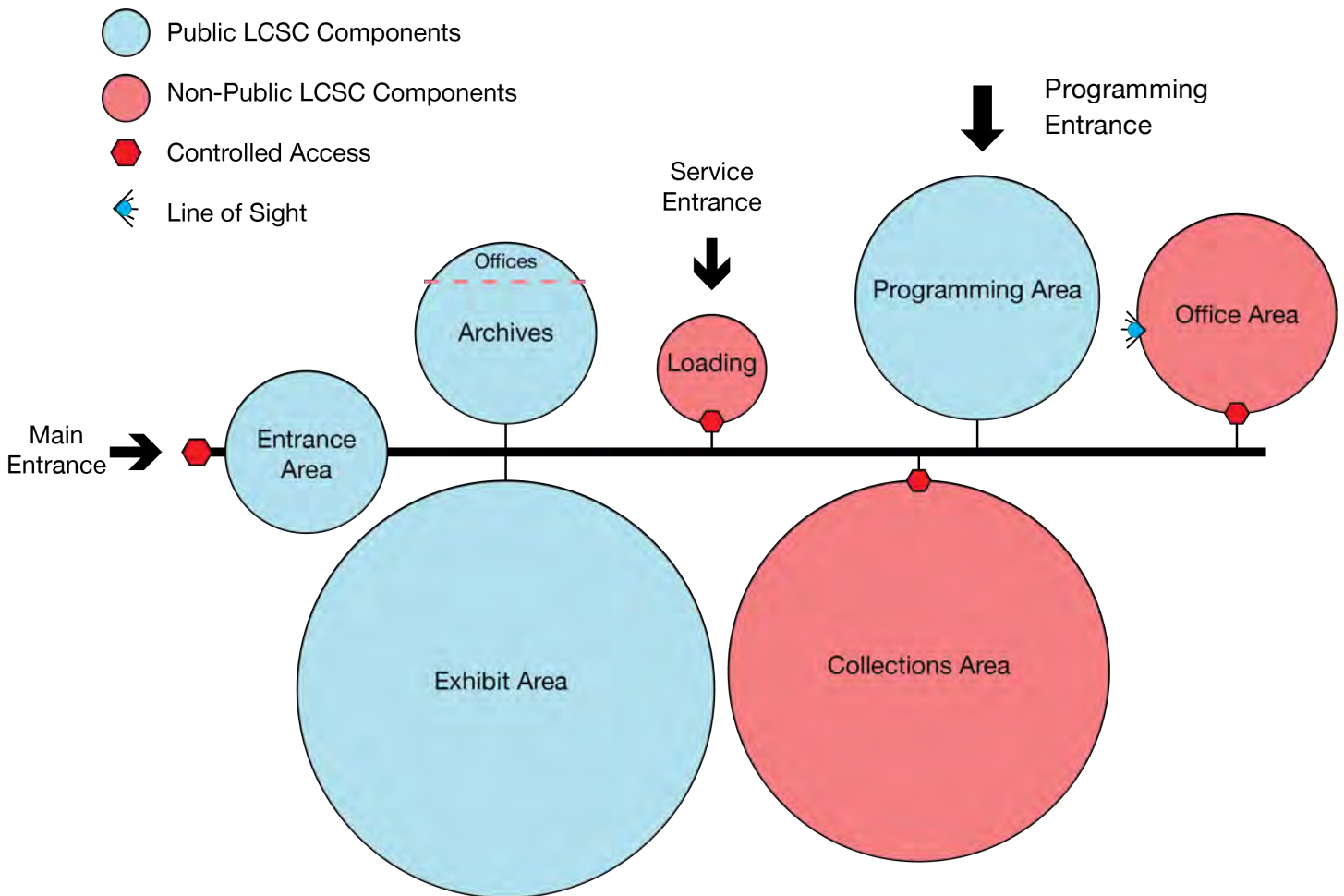
<b>LCSC Future Space List</b>						
<b>Component</b>	<b>Space</b>	<b>Unit SM</b>	<b>Qty</b>	<b>SM</b>	<b>SF</b>	<b>Notes</b>
Entrance	Lobby	40.0	1	40.0	440	
	Gift Shop	60.0	1	60.0	650	Gift shop area with 1 workstation, room for coffee kiosk and a digital display
	Net SM / SF:			100.0	1,080	
	Component Gross:			25.0	270	25%
	<b>Subtotal:</b>			<b>125.0</b>	<b>1,350</b>	
Office	LCSC Manager's Office	11.2	1	11.2	130	
	Open Office Area	4.5	10	45.0	490	10 workstations
	Staff Lounge / Kitchen	10.0	1	10.0	110	
	Office Storage	1.0	11	11.0	120	1 SM of office storage space per staff member (does not include Archives Office Storage)
	Copy / Storage	6.5	1	6.5	70	
	Programming Storage	15.0	1	15.0	170	Increased efficiency shelving
	Event Storage	15.0	1	15.0	170	
	Net SM / SF:			113.7	1,230	
	Component Gross:			28.4	310	25%
<b>Subtotal:</b>			<b>142.1</b>	<b>1,530</b>		
Programming	Programming Space 1	70.0	1	70.0	760	Includes Kitchenette
	Programming Space 2	70.0	1	70.0	760	Includes Kitchenette
	Pottery Studio / Multi-Purpose Space	60.0	1	60.0	650	Includes 2 kilns
	Pottery Support (Glaze Room, Damp Room)	25.0	1	25.0	270	Damp shelf area, space for humidors
	Coat Room / Cubby Area	15.0	1	15.0	170	
	Net SM / SF:			240.0	2,590	
Component Gross:			60.0	650	25%	
<b>Subtotal:</b>			<b>300.0</b>	<b>3,230</b>		
Exhibit Area	Permanent Gallery	200.0	1	200.0	2,160	
	Traveling Gallery	200.0	1	200.0	2,160	Cat A
	Workshop	75.0	1	75.0	810	
	Workshop Storage	20.0	1	20.0	220	Incl. tools, lounge
	Net SM / SF:			495.0	5,330	
Component Gross:			123.8	1,340	25%	
<b>Subtotal:</b>			<b>618.8</b>	<b>6,670</b>		

## LCSC Future Space List

Component	Space	Unit SM	Qty	SM	SF	Notes	
Archives	Archives - Office Area	18.0	1	18.0	200	4 workstations (2 for staff, 2 for rotating volunteers)	
	Archives - Office Storage	1.0	4	4.0	50		
	Archives - Collection Area	93.5	1	93.5	1,010		
	Net SM / SF:				115.5	1,250	
	Component Gross:				28.9	320	25%
<b>Subtotal:</b>				<b>144.3</b>	<b>1,560</b>		
Collections Area	Archives (LCSC)	1.2	1	1.2	10	Assumes shelving 6 rows high	
	Art Storage - Imhoff & Other	20.1	1	20.1	220	Assumes use of Art Rack Units	
	Vehicle & Equipment Storage	1,642.0	1	1,642.0	17,680	Can be split between storage areas	
	Textiles Storage	21.4	1	21.4	230		
	Houseware Items	54.6	1	54.6	590	Assumes shelving 4 rows high	
	Books	1.2	1	1.2	20	Assumes shelving 6 rows high	
	Photographs	1.0	1	1.0	10		
	Archaeological Artifacts	0.8	1	0.8	10	Assumes shelving 4 rows high	
	Ethnographic Artifacts	2.1	1	2.1	30	Assumes shelving 4 rows high	
	Taxidermy / Natural History	23.2	1	23.2	250		
	Collections Workroom	25.0	1	25.0	270		
	Crate Storage	30.0	1	30.0	330	Must be adjacent to Travelling Gallery	
	Loading Dock	40.0	1	40.0	440		
Net SM / SF:				1,862.6	20,050		
Component Gross:				465.7	5,020	25%	
<b>Subtotal:</b>				<b>2,328.3</b>	<b>25,070</b>		
<b>TOTAL:</b>				<b>3,658.4</b>	<b>39,380</b>		
Building Gross:				1,097.5	11,820		
<b>Total BGSM / BGSF:</b>				<b>4,756.0</b>	<b>51,200</b>		
Parking – Cars x70	20	70	1,428	15,380		Note: building grossing factor is: Public washrooms: 1.0% Major circulation: 15.0% Shared custodial / loading / staging / waste: 2.0% Mechanical / electrical: 10.0% Walls / structure: 2.0% TOTAL: 30.0%	
Required Landscape Islands	2	70	140	1,510			
Parking – Drop-Off x2	20	2	41	440			
Parking – Bus x2	84	2	167	1,800			
Bike Parking	0.5	10	5	50			
<b>Parking Subtotal</b>		<b>84</b>	<b>1,781</b>	<b>19,170</b>			
<b>Parking Gross (50%)</b>			<b>2,671</b>	<b>28,750</b>			

### Relationship Diagram

Each grouping has a number of spaces that are functionally related and generally benefit from some degree of proximity, with access points that are discernable from the lobby and major circulation. The following diagram illustrates the relative proximity of the components and their relationship to major circulation routes. The diagram is intended to provide an overview of the key functional relationships and an approximate indication of the relative floor areas associated with each set of spaces. It is a two-dimensional diagram rather than a floor plan representation and does not imply floor levels.



### Key Relationships:

- The Archives and the Exhibit Area components are in close proximity to the Main Entrance.
- The Travelling Gallery of the Exhibit component is adjacent to the Service Entrance, Loading Dock, and Crate Storage.
- The Office is adjacent to Programming and will have line of sight to those spaces.
- Collections is in close proximity to the Exhibit Area to allow for exhibit rotations throughout the year.
- Programming has a secondary entrance for after-hours programs.

## GAP ANALYSIS

This section outlines what current spaces exist at LCSC versus what is required in the future, analyzes the potential of particular current spaces for retention, and summarizes the key space changes made needed in pursuit of an acceptable project budget.

### Space Comparison: Current to Future

The following table breaks down the gap in museum space by showing the difference between existing and required spaces (by type). This analysis is based on the requirements as defined above, and does not yet account for changes to meet budget. Components requiring additional space appear as black (+), whereas those with currently superfluous space to spare show as red (-).

Table 10: LCSC Current vs. Future Gap Summary Table

LCSC Current vs. Future Gap							
Space Type	Current		Future		Δ (SM)	Δ (SF)	
	SM	SF	SM	SF			
Office & Entrance*	105	1,130	267	2,875	162	1,745	
Exhibit Areas	1,005	10,816	619	6,660	-386	-4,155	
Programming Areas	73	786	300	3,229	227	2,443	
Programming & Event Support / Storage**	207	2,228	-	-	-207	-2,228	
Archives	100	1,079	144	1,554	44	475	
Collections Storage	139	1,496	2,328	25,062	2,189	23,565	
<b>Total SM / SF:</b>	<b>1,629</b>	<b>17,535</b>	<b>3,658</b>	<b>39,379</b>	<b>2,029</b>	<b>21,845</b>	
CGSM / CGSF (25%)	284	3,057	915	9,845	631	6,788	
BGSM / BGSF (30%)	94	1,012	1,372	14,767	1,278	13,755	
<b>Total BGSM / BGSF:</b>	<b>2,007</b>	<b>21,603</b>	<b>4,756</b>	<b>51,193</b>	<b>2,749</b>	<b>29,590</b>	

\* Future Space includes 15 SM of Event Storage, 15 SM of Programming Storage

\*\*This current space type measurement greatly exaggerates amount of existing functional space. Future state of this space type is split across other space types.

The overall areas by space type generally increase in the future. This is largely due to growing collections, providing appropriate spaces for the activities (such as programming) and consolidating collections from disparate storage locations. The current space list also does not include any facilities not included in the “main museum”. This includes useful spaces such as the Storage Barn, Rendell Barn, Studio 2, and the Implements Shed. The re-use of these spaces is addressed in sections that follow.

Two areas where required space decreases from current state are Exhibit Areas, and Programming and Event Storage:

- With respect to Exhibit Areas, the reduction in space will lead to a more efficient and representative exhibit experience. The quality of current exhibit space is sub-optimal, with portions of it not being used properly or being confused with circulation space, thereby making the current exhibit area a misleadingly high number. Additionally, some of the collections storage in the future state will function as exhibit space (i.e. collections on display).
- The current Programming & Event Support / Storage number is functionally much smaller, as much of the current space is non-functional or unused. Future space of this type is provided, just under a different component where it makes more functional sense (“Office”).

### Re-Using Existing Spaces

This project included physical assessments of the main facility. Associated Engineering Ltd. (AE) conducted a visual review and condition assessment of the LCSC on May 8, 2019. This included civil, structural, mechanical, and electrical assessments, to determine whether revitalization and reuse was feasible or prudent. The architectural part of the assessment was completed by Human Studio. Full reports can be found in the Appendix; the summary cost estimates for addressing the objectives have been tabulated in the following table, broken down by building.

**Table 11: Estimated Costs Recommendation Summary Table by Building.**

Facility	Remaining Life <i>(with upgrades)</i>	Engineering*	Architectural	Total
<b>LCSC (Barr Colony Centre)</b>	30-40 years	\$3,878,000	\$1,540,000	<b>\$5,418,000</b>
<b>Fuchs Wildlife Building &amp; OTS Heavy Oil Building</b>	10-15 years	\$1,376,500	\$907,000	<b>\$2,283,500</b>
<b>Richard Larson Building – East Wing</b>	5-10 years	\$173,000	N/A - demolish	<b>\$173,000</b>

\* does not include estimated overall site costs (\$141,000) and parking lot costs (\$530,000).

### Fuchs Wildlife Building & OTS Heavy Oil Building (1963)

The structures’ current age of 56 years has served ~112% of its expected life. The remaining life of the buildings is estimated to be ~10-15 years. Although with damage from expected mold and conventional construction of the structure it is recommended that both buildings be demolished. In the opinion of engineering and architecture, there is not point in spending any further money on these buildings, except to protect the objects within until an overall strategy is in place that allows for demolition.



**Richard Larson Building – East Wing (1980)**

The structures’ current age of 39 years has served 78% of its expected life. The remaining life of the building is estimated to be ~5-10 years, however due to its current condition, low quality of conventional construction it is recommended by both engineering and architecture that the structure be demolished.

**LCSC or Barr Colony Heritage Centre (1988; includes 1995 Addition)**

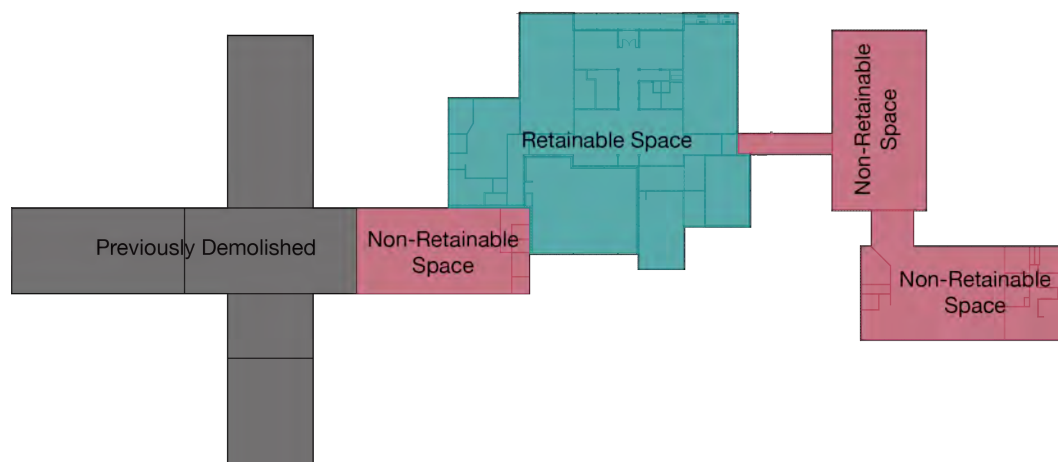
The LCSC (Barr Colony Centre) and its addition have current ages of 30 years and 24 years, respectfully. This accounts for only 48% and 60% of their expected lives. With the recommendations performed and regular maintenance continued it is expected that these areas have potential of achieving a service life of another 30-40 years.

However, architectural assessment found that this facility is experiencing substantial envelope deterioration (roof and walls). Remediation would inevitably be costly, while adding no experiential benefit for visitors. Flooding is a substantial risk as well, and this would be very challenging to mitigate. Lastly, upgrading this building to a Class A HVAC performance fitting of museums collections storage is not an effective use of funds.

**Re-Using Existing Spaces: Conclusion**

The engineering and architecture assessments indicate that the only recommended re-useable structure is the main LCSC building. The figure below shows the extent of the recommended retained space in the LCSC.

**Figure 9: Recommended Retained Space**



Some other spaces on the site may be re-useable, but were not formally assessed as part of this project. It would be inconsiderate not to include them in the site’s future, as they appear to be solid and functional structures that are owned City assets. These are: Studio 2, the Implements Shed, Rendell Barn, and the Storage Barn. The other site assets are not suitable to meet the functional requirements.

The total recommended retained space, and the future requirements that could fit into that space, have been analyzed in the table below.

**Table 12: Current Retainable Space vs. Future Spaces Able to be Accommodated Summary Table**

Retainable Spaces	SM	SF	Future spaces able to be accommodated in this space	Future spaces able to be accommodated in this space		% Of Retainable Space Used:
				SM	SF	
Core LCSC Building	1,072	11,539	Entrance Area Component, Office Area Component, Programming Area Component, Loading, Workshop, Workshop Storage	736	7,920	69%
Studio 2	115*	1,238	Gift Shop and Lobby	115	1,238	100%
Implements Shed	475*	5,113	~475 SM of Vehicle and Equipment Storage	475	5,113	100%
Storage Barn	500	5,382	500 SM of Vehicle and Equipment Storage	500	5,382	100%
Rendell Barn	450*	4,844	~450 SM of Vehicle and Equipment Storage	45.0	4,844	100%
<b>Total:</b>	<b>2,612</b>	<b>28,116</b>		<b>2,276</b>	<b>24,497</b>	<b>87%</b>

\* estimated

While the retention of Studio 2, Implements Shed, Storage Barn, and Rendell Barn is recommended, the usability of the core LCSC building is only at 69%. This is because collections space and exhibit space should not be accommodated in the building, even when renovated (as collections require a higher quality collections/display environment). Potentially, miscellaneous municipal offices or additional vehicle storage (a more robust collection type) could use the remaining 31% of the Core LCSC Building.

Studio 2, the Implements Shed, Storage Barn, and the Rendell Barn can be utilized entirely to meet future functional requirements. Studio 2 could be used as the Lobby (~50 SM) and future Gift Shop, (65 SM), or as the office, while the Implements Shed, Storage Barn, and Rendell Barn can house ~475 SM, 500 SM, and ~450 SM respectively of vehicle and equipment storage. It makes sense to re-use these four buildings and therefore all future options should reflect the retention of these structures.

### Additional Changes to Pursue Project Budget

The requirements presented in the Future State section are ideal space requirements for the future LCSC. However, during the costing phase of this project, some cost-reducing ideas were put forward in pursuit of a manageable project budget. These ideas are reflected in the options and the cost analysis that appear in the following section. The differences from ideal state are:

- All vehicle storage will be in retained buildings: Implements Shed, Storage Barn, and Rendell Barn. Most of the vehicles will be double-parked.
- A multi-purpose programming space was removed (113.8 SM), and replaced with vehicle storage that can be accessible to visitors (as the remainder of vehicle storage is now outside of the main building, per above).
- The size of lobby and gift shop together were decreased to 70 SM, rather than 100 SM.

## OPTIONS ANALYSIS

Development options have been identified to meet the future needs of the LCSC. All options assume the re-use of the Storage Barn, Implements Shed, Rendell Barn, and Studio 2, and the existing site. In summary, the options are (with estimated project cost, including all soft costs and *excluding exhibit design*):

- ❖ **Option 1: New Building (Quonset Huts).** This option uses an assembly of pre-fabricated buildings to provide primarily new accommodations for the LCSC, keeping costs down. Existing museum structures would be demolished. \$11.9M
  
- ❖ **Option 2: Reno / Addition and Screen.** This option assumes a renovation of the existing LCSC building to house appropriate functions, and provides a pre-fabricated addition to the West to accommodate collections and visitor galleries. Fuchs, OTS, and the remaining Larsen wing would be demolished. \$17.4M
  
- ❖ **Option 3: Big Box / Big Billboard / Big Window.** This option assumes demolition of current structures and a new purpose-built facility. \$13.7M

Each option is presented below along with drawings, pros/cons, and an associated probable cost. A final recommendation is identified in the last section. Larger drawings can be found in the Appendix.

### Costing Assumptions

Each option has undergone Class 'D' costing estimates (opinion of probable cost). The estimates have been prepared by SSA Quantity Surveyors Ltd. using information and guidelines provided by Cornerstone Planning Group and Human Studio. For more information on the costing analysis, please see the full report in the Appendix.

Class D estimates have a risk of approximately +/- 25%, 18 times out of 20. A number of assumptions have been used in the preparation of the analysis. These assumptions should be understood as they can affect the overall cost. These are:

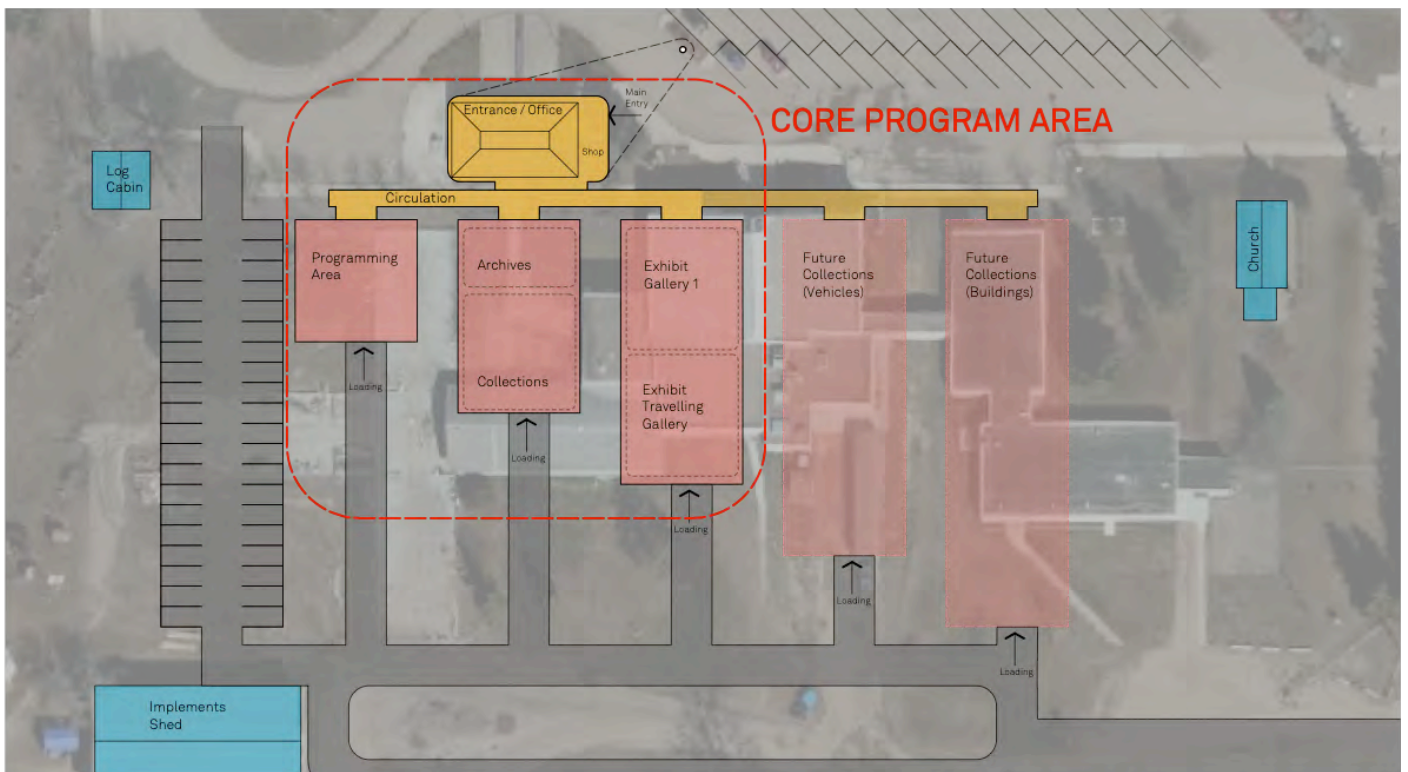
- Studio 2, Implements Shed, Storage Barn, and Rendell are to be retained in all options for vehicle and equipment storage.
- Pricing estimates have **included**:
  - *Design Contingency*: 14% for new construction, 18% for renovation. This allowance is a reserve of funds allocated to cover pricing adjustments resulting from incomplete design information and design detailing that is not currently available.
  - *Construction Contingency*: 5% overall. The construction contingency is a reserve of funds to cover change orders that are required during the course of construction, and is not intended to be a scope change contingency.
  - *General Project Contingency*: an allowance of 2.5% has been included.

- Due to the uncertainties present at this stage of planning, pricing estimates have **excluded:**
  - Land Purchase costs
  - Building Permit
  - Municipal Cost Charges
  - Legal costs
  - City Administrative costs
  - Allowances for Furniture, Furnishings and Equipment.
  - Forward Escalation: this allowance, when included is a reserve of funds to cover possible price increases from the time that the estimate is prepared to the time that the project is tendered.
  - Phasing Allowance: this allowance, when included, is for any work required to maintain the operation of the facility during construction.
  - GST
  - Adverse environmental conditions
  - Unknown adverse archaeological conditions
  - Adverse soil and/or subsoil conditions (note: flood management allowance is included)
  - Project Procurement costs
  - Project Financing costs
  - Significant Utility Upgrades
  - Exhibit Design estimated separately

### Option 1 – New Building (Quonset Huts)

**Building cost \$8.6M, total project cost \$11.9M + \$1.05M exhibits**

Option 1 consists of a new set of Quonset huts in which programming, archives, exhibits, loading, workshop, some minor vehicle collections, and all non-vehicle collections areas will be housed. The Quonset huts will be connected via a new corridor to the re-used and expanded Studio 2 building, which will feature the Main Entry, Office Areas, and the Gift Shop. Reflected (as in all options), is the retention and use of the Implements Shed, Storage Barn, and Rendell Barn for vehicle and equipment storage. Future possibilities for additional collections buildings are shown shaded, which alludes to possible expansions in the future (this option is not costed nor currently programmed).



**LCSC DESIGN STUDY**  
Human Studio, July 2019

1:500

- Existing Buildings
- Display / Admin
- Entry / Circulation

Opt. 1-New Building (Quonset Huts)  
Core Program Area

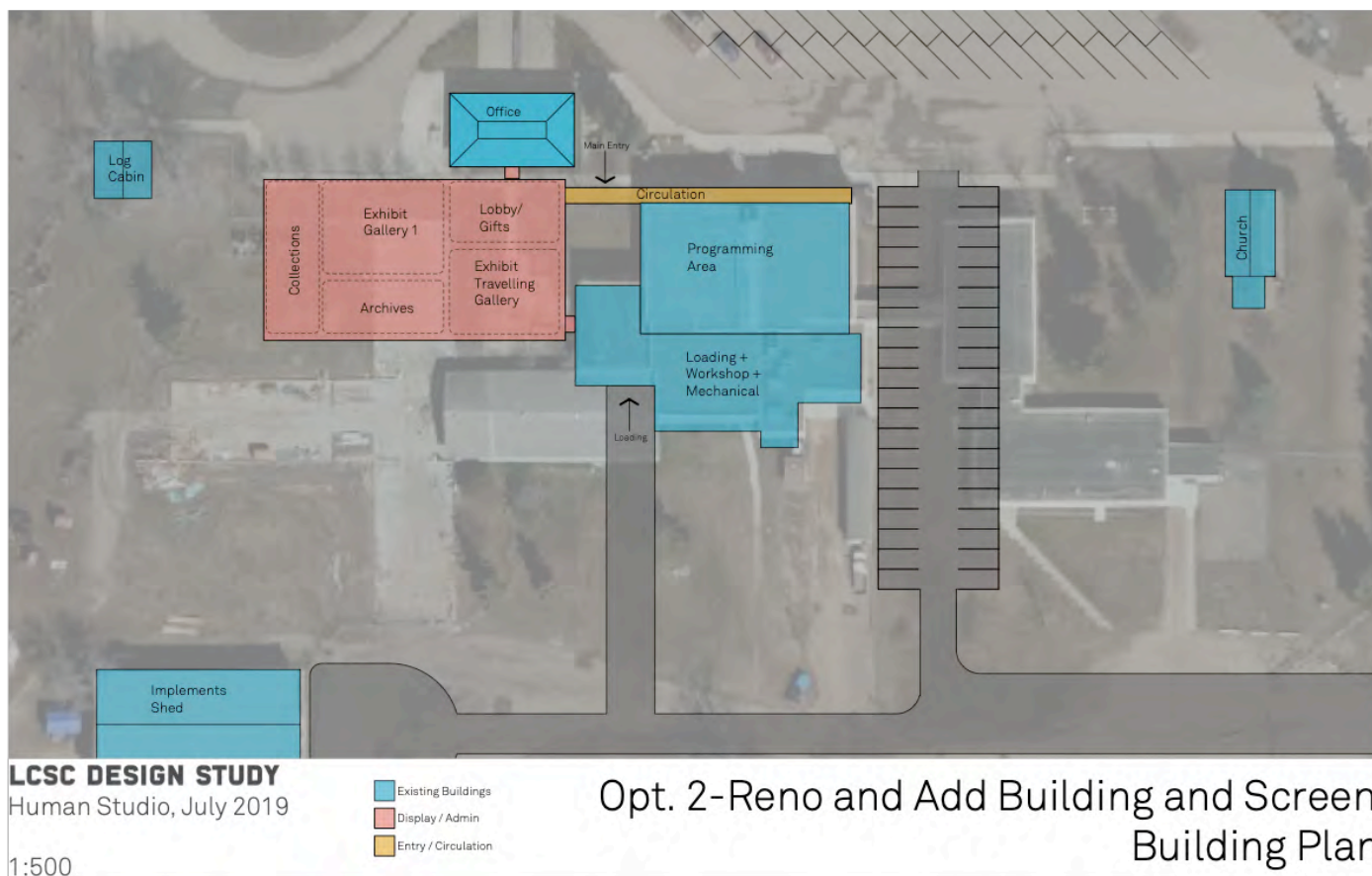
Pros:	Cons:
<ul style="list-style-type: none"> <li>- Least expensive option and architecturally distinct</li> <li>- A completely new facility (save for the expanded Studio 2 and retention of Implements Shed, Storage Barn, and Rendell Barn)</li> <li>- Allows for simple project phasing</li> <li>- Components well separated – will minimize conflicting adjacent uses</li> <li>- Can section off variety of areas as needed</li> <li>- Can easily dedicate an area for an event with little to no impact to other areas</li> <li>- Multiple loading areas</li> <li>- Future potential for additional Quonset huts</li> </ul>	<ul style="list-style-type: none"> <li>- Potentially polarizing design choice</li> <li>- This solution requires distributed mechanical systems, which may increase maintenance requirements.</li> <li>- Activities / Collections not clearly visible from the street</li> </ul>



### Option 2 – Reno / Addition and Screen

**Building cost \$14.3M, total project cost \$17.4M + \$1.05M exhibits**

Option 2 involves a renovation of the Core LCSC Building (shown in blue) as well as a substantial Quonset Hut addition to the West. Similar to the other options, Studio 2, the Implements Shed, Storage Barn, and Rendell Barn will be re-used. Studio 2 would accommodate future office space, while the Implements Shed, Storage Barn, and Rendell Barn would absorb Vehicle and Equipment Collection Storage (as in all options). Because the reused Core LCSC Building can only support a limited variety of uses (i.e. Programming, Office, Loading/Mechanical/Workshop) this may present challenges to effectively use the building.



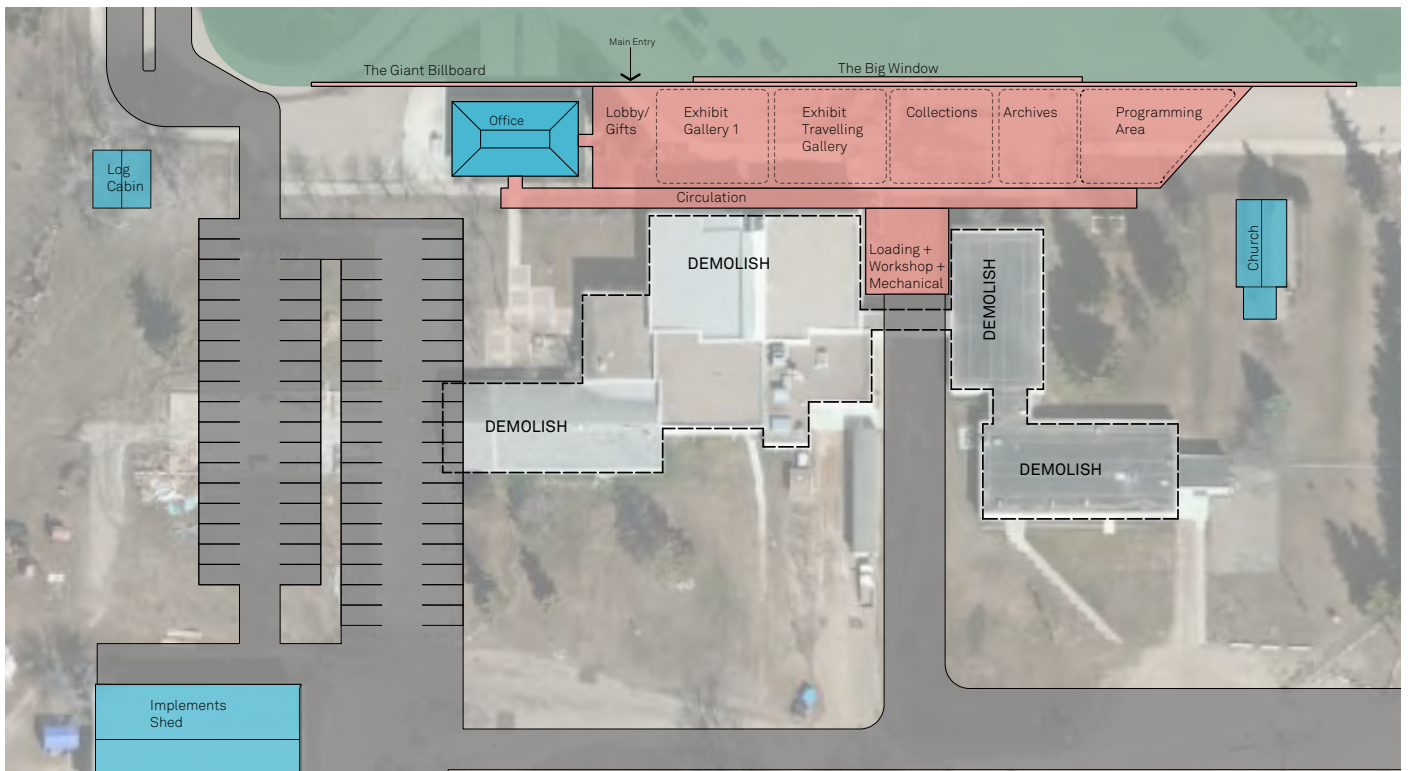
Pros:	Cons:
<ul style="list-style-type: none"> <li>- Simple and functional “box” design that is easy to navigate</li> <li>- Re-uses old facility, which may be nostalgic</li> <li>- Fewer distinct facilities than Option 1</li> </ul>	<ul style="list-style-type: none"> <li>- Most expensive option</li> <li>- Difficult to fully utilize LCSC Building</li> <li>- Harder to make eye-catching design as it must reuse the existing LCSC Building</li> <li>- Suboptimal adjacencies given the need to retain LCSC Building</li> <li>- Separate mechanical systems to support different era buildings</li> </ul>



### Option 3 – Big Box / Big Billboard / Big Window

**Building cost \$10.4M, total project cost \$13.7M + \$1.05M exhibits**

Similar to Option 1, Option 3 is a new build, but will not consist of Quonset huts or other pre-fabricated structures. Instead, it will feature a simple “big box” design fronted by an eye-catching, billboard-like front wall and big window into collections in an attempt to attract attention from the street. Similar to the other options, this option re-uses Studio 2 (as an office), and the Implements Shed, Storage Barn, and the Rendell Barn for most vehicle and equipment storage.



**LCSC DESIGN STUDY**  
Human Studio, July 2019

1:500

- Existing Buildings
- Display / Admin
- Entry / Circulation

Opt. 3-Big Box + Big Billboard + Big Window  
Phase 2 Building Plan

Pros:	Cons:
<ul style="list-style-type: none"> <li>- Collections (including some vehicle collections) will be visible from the street via the Big Window</li> <li>- The Big Billboard will stand out in the landscape, and moves the building closer to the road</li> <li>- Allows for simple project phasing; skirts the buildings to-be-demolished</li> <li>- Simple layout, all adjacencies met</li> <li>- Simplified parking lot layout</li> <li>- Full architectural freedom in complete new building with no prefabricated structures</li> </ul>	<ul style="list-style-type: none"> <li>- More expensive than Option 1</li> <li>- “Big Box” design has little exterior character</li> </ul>

## Sub-Option

Some sub-options are available, should the budget be further restrictive:

1. Any of these options could be modified with the removal of the Archives. Removing all archives spaces would decrease the construction cost by around \$150,000. Soft costs would decrease proportionally.
2. Parking could be phased, with approximately half completed now and the remainder once new visitation estimates have been established. The effect of this strategy has not been costed.

## RECOMMENDATION

Having completed the detailing of future LCSC space requirements, the review of civil, structural, mechanical, electrical, and architectural assessments, the analysis of gaps between current and future states, as well as an analysis of future options, it has become clear that the LCSC requires significant functional, spatial, and aesthetic upgrades. The options proposed showed various manifestations of these upgrades.

Due to the project's history and the fiscal goals of the City, value for money is a major driver for this project. The table below provides a summary cost comparison between the presented options. All listed costs are complete of soft costs. Gallery 1 Exhibit Design has been broken out as a separate column as its cost can be easily controlled. This is likely generous for exhibit design, but without a design completed it is conservative to estimate this way.

Table 13: Option Cost Summary Table

Options	Building	Exhibit Design*	On Site	Total
<b>Option 1 – New Building</b>	\$8,642,000	\$1,054,000	\$3,275,000	<b>\$12,971,000</b>
<b>Option 2 – Renovation and Addition</b>	\$14,345,000	\$1,054,000	\$3,053,000	<b>\$18,452,000</b>
<b>Option 3 – Big Box Building</b>	\$10,425,000	\$1,054,000	\$3,275,000	<b>\$14,754,000</b>

\*Exhibit Design was not costed in the SSA QS Costing Report and instead was estimated using APA's exhibit design cost per square foot amount of \$350 multiplied by net exhibit space of ~2150 SF (200SM) and multiplied by 1.4 for design and expenses. See APA Design Study in the Appendix.

While there are some unique advantages to each option, **Option 1** stands out as the best path forward for the LCSC, as supported by functional, cost, and architectural studies.

Primarily, it is the most cost effective. In fact, the estimated building construction cost (not including soft costs or markups) comes in at just less than \$7M, which is impressive given the scale of the facility. Option 1 also provides operational flexibility when completed, and during its development as multiple phases are easily accommodated (allowing for flexibility in scheduling and/or budgeting). From a design perspective, Option 1 provides an architecturally distinct set of buildings that aligns with the landscape and scale of Lloydminster industry. The structures, while originally selected to be financially reasonable, can provide a distinct visitor experience and exhibit possibilities through volume of space. The use of these structures does not inhibit function over a new purpose-designed building; in fact, interesting new opportunities for zoning and loading are created.

Option 1 provides a cost effective, functional path forward for the LCSC. The cost of inaction at this point may lead to the loss of the LCSC as a viable and relevant cultural resource. Therefore, it is the recommendation of this project team that Option 1 be pursued to support the organization and the community in shared memory and history.