
Fort Saskatchewan Cemetery Master Plan



City of Fort Saskatchewan
10005 102 Street
Fort Saskatchewan, Alberta
T8L 2C5

Hilton
LANDMARKS
A Division of GSP Group

TABLE of CONTENTS

- 1. EXECUTIVE SUMMARY2**
 - DEMOGRAPHICS AND TRENDS 3
 - SITE ANALYSIS 3
 - FORECAST DEVELOPMENT TIMETABLE..... 7
 - CEMETERY EXPANSION MASTER PLAN 7
- 2. CEMETERY PROFILE8**
 - 2.1. INTRODUCTION 8
 - 2.2. FORT SASKATCHEWAN CEMETERY BACKGROUND 8
 - 2.3. FORT SASKATCHEWAN REGIONAL MAP..... 10
- 3. DEMAND / LAND NEEDS ANALYSIS11**
 - 3.1. CITY of FORT SASKATCHEWAN DEMOGRAPHY 12
 - 3.2. DISPOSITION DEMAND FORECAST 12
 - 3.3. INTERMENT RIGHT SALES DEMAND FORECAST 13
 - 3.4. FORECAST LAND NEEDS 14
 - 3.5. CEMETERY INVENTORY FORECAST SALES LIFETIME..... 14
 - 3.6. REMAINING DEVELOPABLE LAND 15
- 4. CEMETERY EXPANSION MASTER PLAN17**
 - 4.1. DESIGN PROGRAM 17
 - INTERMENT 17
 - LEGION SECTION 17
 - RCMP SECTION..... 17
 - CREMATION GARDEN 17
 - ADDITIONAL TYPES OF INTERMENT..... 17
 - EXPANSION PHASING..... 18
 - PREFERRED CONCEPT – AREA 1 19
 - PREFERRED CONCEPT – AREA 2 22
 - PREFERRED CONCEPT – AREA 3 25
- 5. PRODUCTS AND MARKETING28**
 - 5.1. RECOMMENDATIONS..... 28
 - 5.2. INTERMENT AND MEMORIALIZATION OPTIONS..... 28
 - CURRENT INTERMENT OPTIONS 28
 - ADDITIONAL INTERMENT OPTIONS 29
 - OPTIMUM MIX OF INTERMENT AND MEMORIALIZATION OPTIONS..... 29
- 6. CONCLUSION30**

Appendices

- Appendix 1.0: Glossary of Cemetery Terms / Example Cemetery Products
- Appendix 2.0: Demand/Needs Analysis
- Appendix 3.0: Conceptual Cemetery Expansion Design Alternatives
- Appendix 4.0: Revenue by Interment Type

1. EXECUTIVE SUMMARY

The City of Fort Saskatchewan commissioned Hilton Landmarks Inc. (HLI) for the preparation of a Cemetery Expansion Master Plan for Fort Saskatchewan Cemetery. This plan provides direction for operations and future development at the cemetery. The objective of the plan is the long term fiscal, social and environmental sustainability of Fort Saskatchewan Cemetery so that it may continue to serve the citizens of Fort Saskatchewan over the next 25 plus years.

The City of Fort Saskatchewan operates one cemetery, Fort Saskatchewan Cemetery, encompassing 3.9 hectares, of which 3.0 hectares are currently developed and 0.2 hectares are undevelopable. There are about 0.7 hectares of remaining developable land (in 5 discrete areas) in the existing cemetery. As shown in figure 1.3, there are also about 2.3 hectares of potential expansion lands to the south of the existing cemetery (pending results of basin study).

The existing cemetery (Area 1) will provide sufficient interment options until about 2043. Development of the southern expansion areas (Areas 2 and 3) would be subject to review once an updated basin study is completed for these areas (study to be completed with the next 10 years). Based on the study outcome, several options for development of these areas may be presented; other lands may have to be allocated to expand the cemetery or the City may choose to not expand the cemetery beyond Area 1 (offering development opportunities for private enterprise).

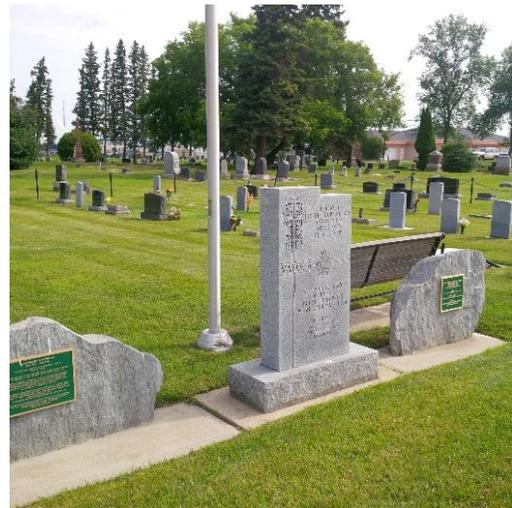


Fig. 1.1 Pictures of the existing cemetery

DEMOGRAPHICS AND TRENDS

The analysis of the demographics and trends for the City of Fort Saskatchewan form the basis for this master plan report and conceptual design for the existing cemetery and the proposed expansion land. By analyzing the past total number of actual deaths, historical population growth and market capture, we are able to provide forecasts for future death rates and market capture by the Fort Saskatchewan Cemetery. Based upon the forecast cumulative sales and an expected plot yield of 1,853 casket lots per hectare (cremation amenities are estimated at 6,178 per hectare) an estimate of projected cemetery land use may be calculated. These predictions are summarized below:

Annual Unit Sales	Actual 2015	Demand/Land Needs Forecast	
		2040	Total 2016-2040
Casket Plots	24	22	914
Cremation Plots	12	45	420
Columbarium Niches	18	19	502
Total Land Required to Service (2016 to 2040)			0.69 hectares

Table 1.1: Forecast Annual Unit Sales/Land Use to 2040 at Fort Saskatchewan Cemetery

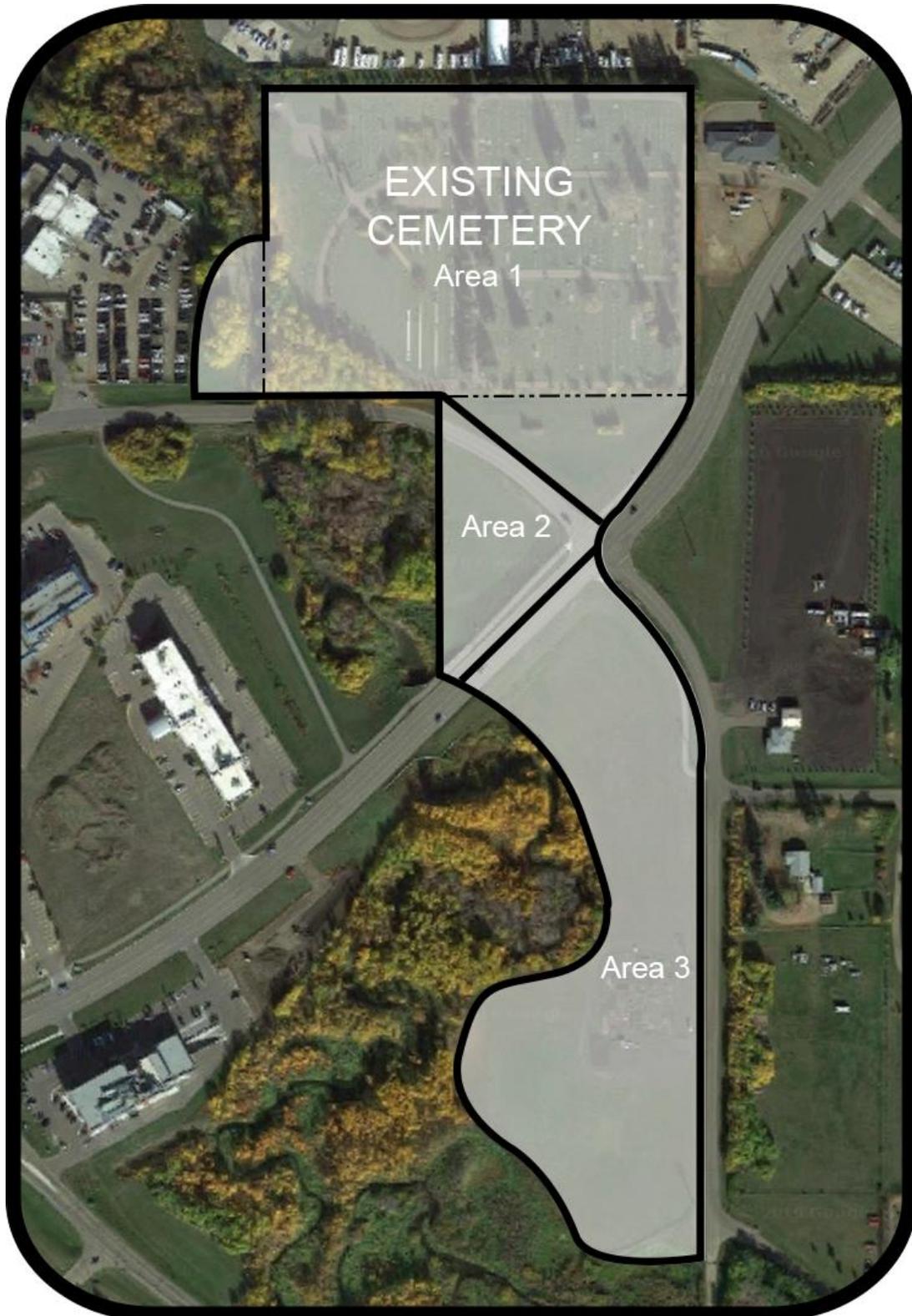
SITE ANALYSIS

Hilton Landmarks Inc. and members of the City’s Staff visited the Fort Saskatchewan Cemetery to conduct a thorough assessment of the existing cemetery conditions and expansion land site analysis in July of 2016. The purpose of this site visit was to identify opportunities and constraints for development and expansion of the cemetery.

From this site analysis a series of opportunities and constraints were determined. Those key elements are as follows:



Fig. 1.2 Pictures of the existing cemetery



[Figure 1.3 Contextual map of Fort Saskatchewan Cemetery and Proposed Expansion](#)

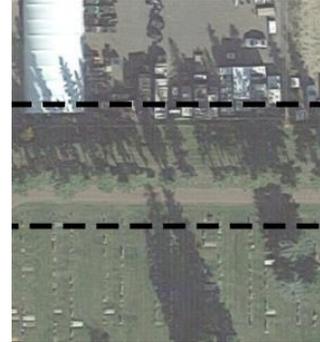
Opportunities

- Within the existing cemetery land, ample opportunity remains for cemetery development. As the cemetery lands have been previously developed for future cemetery use, there is excellent opportunity to continue with the existing plotting fabric throughout the proposed internal expansion areas.
- The existing water course and woodlot to the west also provide a significant opportunity for expansion, with an opportunity to develop a woodland cremation garden with walking path and seating opportunities. As well, with the closure of cemetery road in the future, there is added recreational opportunity by incorporating a multi-use trail with connections into the cemetery.
- The existing cemetery land (Area 1) will provide sufficient interment options until about 2043. The southern expansion lands (Areas 2 & 3) may extend the sales lifetime of the cemetery an additional 75 years into the future pending basin study.
- For the proposed expansion lands, the existing grades are relatively flat within the central portions of the lands which is excellent for cemetery development. Each property allows for expansive views and has connections to the existing woodlots adjacent to the lands.

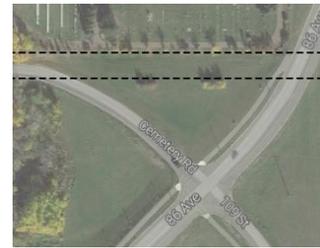


Constraints

- Within the existing cemetery land (Area 1), few constraints are present as land was previously developed for future cemetery use. The existing tree line along the north property line would however be one primary constraint for expansion within the existing cemetery. Due to the age of these trees, significant root structure exists which could have an impact on future in-ground burials. But as noted in the above opportunities section, this section is an excellent location for infill and future in-ground plots if deemed necessary by the Municipality.



- In the triangular section of Area 1 at the southeastern corner of the existing cemetery, there is currently a utility easement which prevents future development but will allow a vehicular or pedestrian connection to cross.



- Development of the southern expansion lands (Areas 2 & 3) will depend upon the results of a pending basin study and review of alternatives at the time of need.

- For the adjacent expansion lands of Area 2 to the south of Cemetery Road, the existing roadway embankments along 86th Avenue and Cemetery Road do exceed those slopes considered acceptable for interments and treatments to landscape or naturalize these edges should be considered. Consideration for site accessibility should also be considered when dealing with slopes that exceed 5%.



- The existing water course along the west side of the existing cemetery and expansion lands also provides a site constraint, as consideration needs to be made for setbacks due to flooding and a potential high water table.



FORECAST DEVELOPMENT TIMETABLE

Following is a table showing the forecast development timetable at Fort Saskatchewan Cemetery. It shows the year development will be needed, the area (per Figure 1.3 above), type of development and anticipated order of magnitude cost of development. The existing cemetery area (Area 1) is anticipated to serve community needs until 2043. Starting in 2040, development of the first expansion area (Area 2) will need to commence in order to allow for an orderly transition to the new expansion area. Area 2 will serve Fort Saskatchewan’s community needs until beyond 2050. Development of Area 3 will not need to commence until well beyond the 25 year time horizon of this forecast and need should be evaluated on an ongoing basis.

Year	Cemetery Area (per Fig. 1.1)	Development Type	Cost*
2017	Existing Cemetery – Area 1	72 columbarium niches	\$40,000*
2020 -2040	Existing Cemetery – Area 1	825 4x9 casket plots 869 4x4 cremation plots 466 columbarium niches	\$1,092,000*
2040+	Expansion Land – Area 2 (pending basin study)	328 4x9 casket plots 272 columbarium niches	\$394,000*
Future Potential	Expansion Land – Area 3 (pending basin study)	1,721 4x9 casket plots 1,145 4x4 cremation plots 464 columbarium niches	\$1,884,000*

* Class 5 Pricing Estimates: -30% to +50%.

Table 1.2: Forecast Development Timetable at Fort Saskatchewan Cemetery to 2040

CEMETERY EXPANSION MASTER PLAN

Through the course of an extensive analysis, staff interviews and research, a physical plan has been developed based on the following principles:

- Expansion of burial capacity at the cemetery;
- Additional columbaria for the Legion Section;
- Expansion of the RCMP Section;
- Implementation of a Memorial Garden for scattering;
- Enhancements to the existing columbarium area, and
- Cemetery infill within existing cemetery sections.

The City should begin the planning and development of each new phase of burial expansion at least two years before the inventory of available plots is depleted.

The Master Plan for the expansion of burial land in Area 1 alone would provide approximately 25 years in-ground burial and cremation capacity (to about 2043). Development of the southern expansion areas (Areas 2 and 3) might provide an additional 75 years of burial capacity but would be subject to review once an updated basin study is completed for these areas (study to be completed with the next 10 years). Based on the study outcome, several options for development of these areas may be presented; other lands may have to be allocated to expand the cemetery or the City may choose to not expand the cemetery beyond Area 1 (offering development opportunities for private enterprise).

2. CEMETERY PROFILE

2.1. INTRODUCTION

As the following chapters in this report will show, the Fort Saskatchewan Cemetery is rich with opportunities and constrained by only a few key elements. The intent of the master planning process is to capitalize on those opportunities in a manner that respond to the cemetery objectives of the City, as well as the community's interests.

2.2. FORT SASKATCHEWAN CEMETERY BACKGROUND

Fort Saskatchewan Cemetery was operated and maintained by the Women's Institute from 1929 until December 31st, 1999. The responsibility was then turned over to the City to operate and maintain the area. The following cemetery history is as provided by City staff and is credited to Dr. Peter T. Ream and used with permission (per City staff).

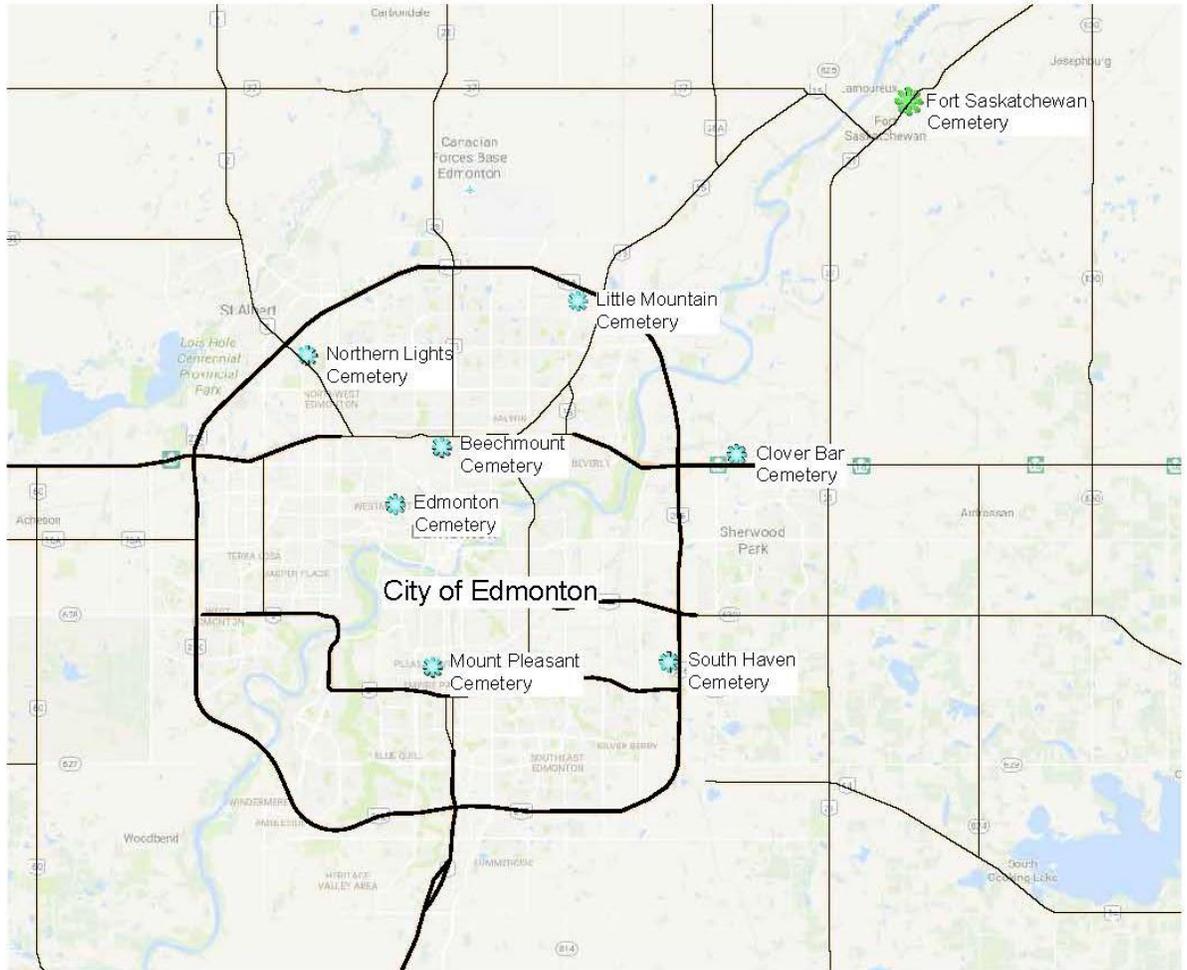
The Fort Saskatchewan Cemetery dates back some years before the turn of the century, according to a long letter from Re. Alexander Forbes to the Town Council concerning "the long neglected cemetery," quoted in Town Council minutes for March 26th, 1908. During the winter of 1894/1895, an application was made for some land to be used as a cemetery, located "just outside the town site on and near the old race track." However, the Government considered this to be too close to the town. There was a suitable site, though, across the creek, on the Chalmers' estate, and a formal agreement was drawn up for the exchange of the two properties. In his letter, Alexander Forbes said: "As far as I know the Government deeded this land to Mr. Chalmers, but the transfer of Chalmers portion was never made."

When this formal agreement was being discussed, a tentative move was made to form a cemetery company, consisting of T.W. Chalmers, F. Fraser Tims, Charles Bremner, Dr. Peter Alyen, and some others. This 'company' never had more than one meeting, and it was never formed into a corporation. T. W. Chalmers was a surveyor by profession, and he laid out the cemetery plots. Laurence Adamson managed the cemetery, with Basil d'Easum succeeding him. Single plots originally were \$3, while family plots cost \$12. Of the price of the single plots, \$2 went to the agent and \$1 was for upkeep. Alexander Forbes thought that \$3 of the price of the family plots went to the agent, \$2 towards upkeeps, and the balance to the "so called company".

T.W. Chalmers eventually went to South Africa and never returned, and the legal situation concerning the cemetery still had not been cleared up when Alexander Forbes wrote to the Town Council in 1908. J. Frank Chalmers attended a meeting of the Council on July 9th, 1908, and he agreed to have an agent appointed to find out about the cemetery title from Ottawa. On August 6th, 1908, the Council

decided to write to J. Frank Chalmers to see if he would turn the cemetery over to the town as a free gift. His reply was read to the Council on September 3rd, 1908. He suggested that it would be a fair deal, in view of his expenses and the school taxes paid on the property over the years, if the town would take over the property and pay the cemetery company the sum of \$500. The Council declined the proposition, and there matters remained for two years. On November 17th, 1910, Miss Grace Chalmers, representing the Chalmers' estate, offered to transfer the cemetery property to the town for a consideration of \$100, and this was accepted by Council at its meeting that day. In due course, the transfer was made, and the certificate of title for 3.64 acres, part of the south-east quarter of 32-54-22, is dated August 11th, 1911. More land was needed in time, and the Town Council purchased 1-7/33 acres on the north side of the cemetery. This certificate of title to this extra property, valued at \$152, is dated December 18th, 1929.

2.3. FORT SASKATCHEWAN REGIONAL MAP



LEGEND



FORT SASKATCHEWAN CEMETERY



CITY OF EDMONTON CEMETERY



3. DEMAND / LAND NEEDS ANALYSIS

In order to most effectively prepare a master plan for Fort Saskatchewan Cemetery we must first quantify its current after death-care demand and forecast future land needs at the cemetery. The cremation rate in the City of Fort Saskatchewan is a key trend to consider. Increasing consumer selection of cremation will both have a large impact on and offer manifold opportunities to the City's cemetery operations including influences of developing trends in disposition¹ approaches (in-ground interment, inurnment in columbarium niches, placement in scattering gardens or ossuaries facilities) and memorialization of cremated remains.

The demand forecast for cemetery services and amenities is dependent upon annual deaths tempered by cultural/religious practices and consumer preferences. When evaluating the demand for cemetery products and services we distinguish between dispositions (i.e. the physical act of placing human remains at the cemetery) and interment right sales (the sale of plots and niches).

The demand for disposition services (i.e. opening/closing of graves and niches) is closely related to the demographic trends influencing death. Demand at the cemeteries may be increased by gaining market share through an effective marketing program. Disposition demand represents pure operational costs and revenues and is important for forecasting budgets. As dispositions may occur into previously occupied interment rights (casket plots at Fort Saskatchewan Cemetery permit a first casket at 9 feet depth followed by a second casket at 6' depth and up to 5 subsequent cremation interments) they do not accurately reflect the remaining sales lifetime of the cemetery.

Interment right sales, while also representing operational costs and revenues, determines the remaining sales lifetime of the depleting resource of cemetery land. Demand for interment right sales may be particularly influenced by appropriate marketing. Sales demand may lead (though preneed sales) or lag (by multiple interments in one plot/niche or delayed disposition of cremation) dispositions as a direct result of the nature of available cemetery facilities and marketing. In Fort Saskatchewan cemetery, it appears that casket plot sales lead casket dispositions by a ratio of about 2:1 most likely due to consumer preference for the disposition and memorialization alternatives that they offer.

Consumer demand for cremation further reduces the overall demand for interment right sales as it allows the selection of many other alternatives to traditional cemetery disposition and memorialization including storage at home and scattering outside cemetery property as well as multiple dispositions into one interment right. None of these options is available in the case of casket interments. We therefore evaluate casket and cremation demand separately.

¹ A Glossary of cemetery terms is attached to this document in Appendix 1.1

3.1. CITY of FORT SASKATCHEWAN DEMOGRAPHY

With a population of 24,040 in the 2015 municipal census, Fort Saskatchewan grew at an average annual growth rate of 5.2%, between 2010 and 2015. The City is growing rapidly as a bedroom community adjacent to the expanding City of Edmonton. The City’s 2015 growth study² predicts a slowly declining population growth rate averaging 2.8% annually (Medium Case scenario) over the next 25 years to 2040. The Medium Case alternative population projection from that report was used as the basis for population growth used in this report.

Year	2014	2020	2025	2030	2035	2040
Medium Case Forecast Population	22,808	29,721	34,231	38,742	43,252	47,762

Table 3.1: Fort Saskatchewan Forecast Annual Population – 2015 Growth Study

Growth in annual deaths will generally surpass growth in the population as the population ages and the median age increases (primarily due to the effect of the aging Baby Boomers). From 2016 to 2040 the annual growth rate in deaths is anticipated to increase as the median age of the population increases.

Almost all of the growth in annual deaths will be absorbed by cremation as the cremation rate continues to rise. The cremation rate has been rising steadily for over 30 years and is anticipated to continue to do so although it is forecast to slow down and stabilize at 79% by 2033. It is expected that the number of annual casket burials will remain level while cremations (both interments and inurnments) will increase.

3.2. DISPOSITION DEMAND FORECAST

Not all deaths in Fort Saskatchewan will end up in the City’s cemetery. Many of the local community desiring casket burial will be buried at the cemetery due to its historical roots in the community. However, only a portion of cremations will go to the cemetery given the range and ease of disposition and memorialization alternatives available to that form of interment.

The following table (Table 3.2) shows the forecasted annual number of casket and cremation dispositions for various years from 2016 to 2040. This overview forecast does not consider the changes to demand that might occur in the future.

Annual Dispositions	2016	2020	2025	2030	2035	2040	Total 2016-2040
Casket Dispositions	20	16	17	18	20	22	461
Cremation Ground Dispositions*	25	32	35	39	42	45	929
Columbarium Niches Inurnments	11	14	15	17	18	19	398

* Cremation ground plot dispositions may be into either cremation plots or casket plots.

Table 3.2: Forecast Annual Dispositions at Fort Saskatchewan Cemetery to 2040

² “Where Do We Grow From Here? – Fort Saskatchewan Growth Study – Final Report” prepared by ISL Engineering & Land Services, Strategic Projections and the City of Fort Saskatchewan, November 2015, retrieved from the City website.

This information is paramount for pro-active management of Fort Saskatchewan Cemetery including allocating appropriate capital cost budgets to its development and implementing of facilities to satisfy consumer demands, enhance interment and memorialization alternatives and the cemetery’s bottom line fiscal sustainability.

3.3. INTERMENT RIGHT SALES DEMAND FORECAST

While annual dispositions relate to the operational revenue of the cemetery it is the interment right sales that determine the remaining operational lifetime of the facility. Interment rights are a depleting resource and every plot sold reduces the remaining supply of saleable inventory. Fort Saskatchewan Cemetery’s management is pro-actively evaluating opportunities to expand the area of the cemetery in order to prolong its ability to serve the community. The forecast for interment right sales prepared in this report allows cemetery management to plan for the appropriate amount and timing of cemetery expansion.

There is a year to year variance in demand and it must be understood that the sales forecast represents an average around which the actual annual values will vary. It is expected that the annual unit sales will tend to return toward the forecast average when averaged over several years. It is anticipated that annual sales of all three of the main interment right types available at the cemetery (casket plots, cremation plots and columbarium niches) will continue to rise slowly but steadily over the next twenty-five years.

The annual number of casket plot sales at Fort Saskatchewan Cemetery is anticipated to remain relatively level for the next eight years as the cremation rate rises. Cremation ground plot sales are anticipated to remain steady at about 10 plots annually and columbarium niche sales will rise slowly but steadily under this scenario. The following table shows the forecast annual unit sales of each of those three interment right types at five year intervals for the next 25 years.

Annual Sales	2016	2020	2025	2030	2035	2040	Total 2016-2040
Casket Plots	32	32	34	36	40	44	914
Cremation Plots	17	14	16	18	19	20	420
Columbarium Niches	14	18	19	21	23	24	502

Table 3.3: Forecast Annual Unit Sales at Fort Saskatchewan Cemetery

Sales demand for interment rights is less closely linked to mortality forecasts than dispositions. In addition to the influence of changing death and cremation rates there are changing religious and cultural practices which influence consumer demand for cemetery products. In response to these changing demographic trends Fort Saskatchewan Cemetery has two tools at its disposal to effect change in cemetery sales. These are:

- The quality and variety of disposition and memorialization alternatives offered at Fort Saskatchewan Cemetery.
- The marketing of those alternatives to the citizens of Fort Saskatchewan.

3.4. FORECAST LAND NEEDS

Based upon the previous demand forecast for cemetery amenities (plots and niches) at Fort Saskatchewan Cemetery, the following table shows the forecast cumulative land need for cremation and casket amenities from 2016 to each of the years noted. The forecast extends 25 years to 2040.

Notes:

- Land use is shown in hectares;
- Values are forecast cumulative land use (by type) from 2016 to the stated year; and
- After the first 4 year period (2016-2020), each succeeding 10 year period includes the land used in the previous period.
- These values represent the cumulative land needed to satisfy community sales demand starting from 2016 until each subsequent year noted.
- This land need will first be met by existing inventory and then by new development as needed.
- A review of remaining cemetery inventory follows in the next section.

Cumulative Land Use (ha) from 2016 to:	2020	2030	2040
Casket Plots	0.08 ha	0.28 ha	0.48 ha
Cremation Amenities	0.04 ha	0.12 ha	0.20 ha
Total Land Use	0.12 ha	0.40 ha	0.68 ha

Table 3.4: Forecast Cumulative Land Use (hectares) at Fort Saskatchewan Cemetery

3.5. CEMETERY INVENTORY FORECAST SALES LIFETIME

The following table shows the currently developed, saleable inventory of interment rights at Fort Saskatchewan Cemetery as of May 31st, 2016 as well as the anticipated average annual demand and the year by which development of new inventory is required.

Interment Right Type	Saleable Inventory (units)	Average Annual Demand	Development Required by (year)
4x4 Infant/Child Plot	5	<1	As needed
4x4 Cremation Plot	142	13	2020
4x9 Casket Plot	210	32	2020
Columbarium Niches	39	15	2017

Table 3.5: Forecast Interment Right Inventory Sales Lifetime at Fort Saskatchewan Cemetery

3.6. REMAINING DEVELOPABLE LAND

Please refer to Figure 2.0, 2.1 and 2.2 Fort Saskatchewan Cemetery Developable Land for identification of the developable areas (Areas 2 & 3 are pending results of basin study).

- Developed (plots and infrastructure): 3.0 ha
- Developable land (in Area 1): 0.7 ha
- Undevelopable land (in Area 1): 0.2 ha
- Potential developable land (in Area 2 and 3): 2.3 ha
- **Fort Saskatchewan Cemetery Total Land: 6.2 ha**

At current interment and sales rates, Fort Saskatchewan Cemetery has sufficient developable land in the existing cemetery (Area 1) to last more than 25 years (until approximately 2043) although cemetery expansion into Area 2 will likely be required by about 2040. Additional columbarium niche inventory currently proposed in Area 2 will be required by 2030. The following table (Table 3.2) shows current remaining developed sales inventory as well as the development potential of the remaining areas of the existing cemetery (Area 1) and the two expansion areas (areas 2 & 3). The total cost to develop each area will be phased in over the years shown.

Existing Inventory and Development Potential	4x9 Casket Plots	4x4 Cremation Plots	Columbarium Niches	Cost to Develop	Year
Inventory in Area 1	210	142	39	N/A	N/A
Potential of Area 1	825	920	258	\$1,092,000	2017-2043
Potential of Area 2	328	0	272	\$339,000	2040-2050+
Potential of Area 3	1,721	1,145	464	\$1,884,000	Beyond 2050
Total Inventory and Remaining Potential	3,084	2,207	1,033	\$3,205,000	

Table 3.6: Existing Inventory and Development Potential at Fort Saskatchewan Cemetery

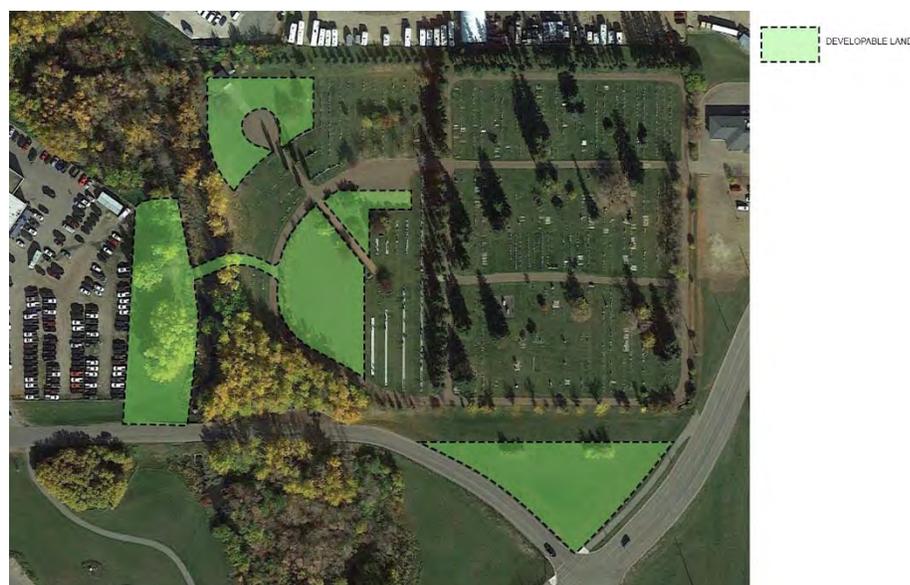


Fig. 3.1 – Area 1, Fort Saskatchewan Cemetery Developable Land



Fig. 3.2 – Area 2, Fort Saskatchewan Cemetery Developable Land



Fig. 3.3 – Area 3, Fort Saskatchewan Cemetery Developable Land

4. CEMETERY EXPANSION MASTER PLAN

4.1. DESIGN PROGRAM

INTERMENT

Based on past sales and interments, casket burial and in-ground cremation have a high demand in Fort Saskatchewan Cemetery. For this reason, and to capitalize on the well graded areas in the expansion zones, ample in-ground interments have been provided, without sacrificing space for cremation gardens and other means of interment and/or memorialization.

LEGION SECTION

The existing Legion Section is nearly out of inventory. To provide the respect deserved of those who have served us, a location for a new Legion Section has been identified with a gathering node, complete with seating and a flagpole for military services, central to the triangular section in the southwestern corner of Area 1.

RCMP SECTION

In connection with the Legion Section, the concept of providing a specific section for RCMP needs was discussed. As for now, the idea of providing a separate section for the RCMP Section is to be discussed further as the phases for development are implemented, dependent on the demand and requests from the community. A common gathering space to celebrate and honour those of the RCMP should also be considered as part of the design program for a specific RCMP Section.

CREMATION GARDEN

Hilton Landmarks' observation of current trends shows that people are showing preference toward cremation as opposed to traditional casket burials. 30+ years of columbaria niches have been provided in Areas 1 and 2, with areas for additional cremation gardens identified, should the need arise in the future. Cremation gardens provide an efficient use of land and a pleasing space to draw people in.

ADDITIONAL TYPES OF INTERMENT

City Staff have reported some interest in green burial within the community, but do not feel that it should be a defined section within the expansion land. It was also suggested that a place to scatter ashes such as a garden of remembrance or rose garden could be a popular type of interment with the community. The existing land along the west side of the cemetery, which is currently the low point on site and is typically a wet during the summer months would be a good section of land for a scattering garden or memorial park with the proper site design and drainage improvements. An additional option is to provide a small section of land within Phase 1 to test the demand of scattering of remains. This could be designed as an informal garden space with a small memorialization option surrounding one of the proposed plaza spaces.

Family plots or estate plots were also discussed. This alternative is currently provided as part of the future expansion.

EXPANSION PHASING



Phase 1 priority should focus on developing the remaining undeveloped cemetery land in Area 1 and infilling where ever possible. Development of the southern expansion areas (Areas 2 and 3) might provide an additional 75 years of burial capacity but would be subject to review once an updated basin study is completed for these areas (study to be completed with the next 10 years). Based on the study outcome, several options for development of these areas may be presented; other lands may have to be allocated to expand the cemetery or the City may choose to not expand the cemetery beyond Area 1 (offering development opportunities for private enterprise).

AREA 1



Fort Saskatchewan Cemetery - Preferred Concept (25 years - Cost: \$1,092,000)

Mar. 24, 2017

Not to Scale

POTENTIAL REVENUE– AREA 1

1.0 **Potential Revenue:**

- 1.1 Pricing is Based on Current 2015 Price List for interment values.
Refer to Revenues per Interment Type spreadsheet.
Quantities for interment types are based on the Preferred Master Plan
- 1.2 Concept
and the Order of Magnitude Cost Estimate.

2.0 **Interment Type:**

- 2.1 The potential ROI for this area is calculated as an either/or scenario.
2.2 The actual type and mix of interments will be determined during the detail design phase.

2.3 **Traditional Casket:**

4' x 9' plot + open/close and Monument inspection adult, single resident, weekday	825	ea	\$ 2,054.55	\$1,695,003.75
				\$1,695,003.75

2.4 **In-ground Cremation:**

4' x 4' plot + open/close and Monument inspection adult, single resident, weekday	869	ea	\$ 890.22	\$773,601.18
				\$773,601.18

2.5 **Columbarium Niches**

average 1.5 urns per niche adult, weekday	466	ea	\$ 1,647.87	\$767,907.42
				\$767,907.42

2.6 **Total revenue**

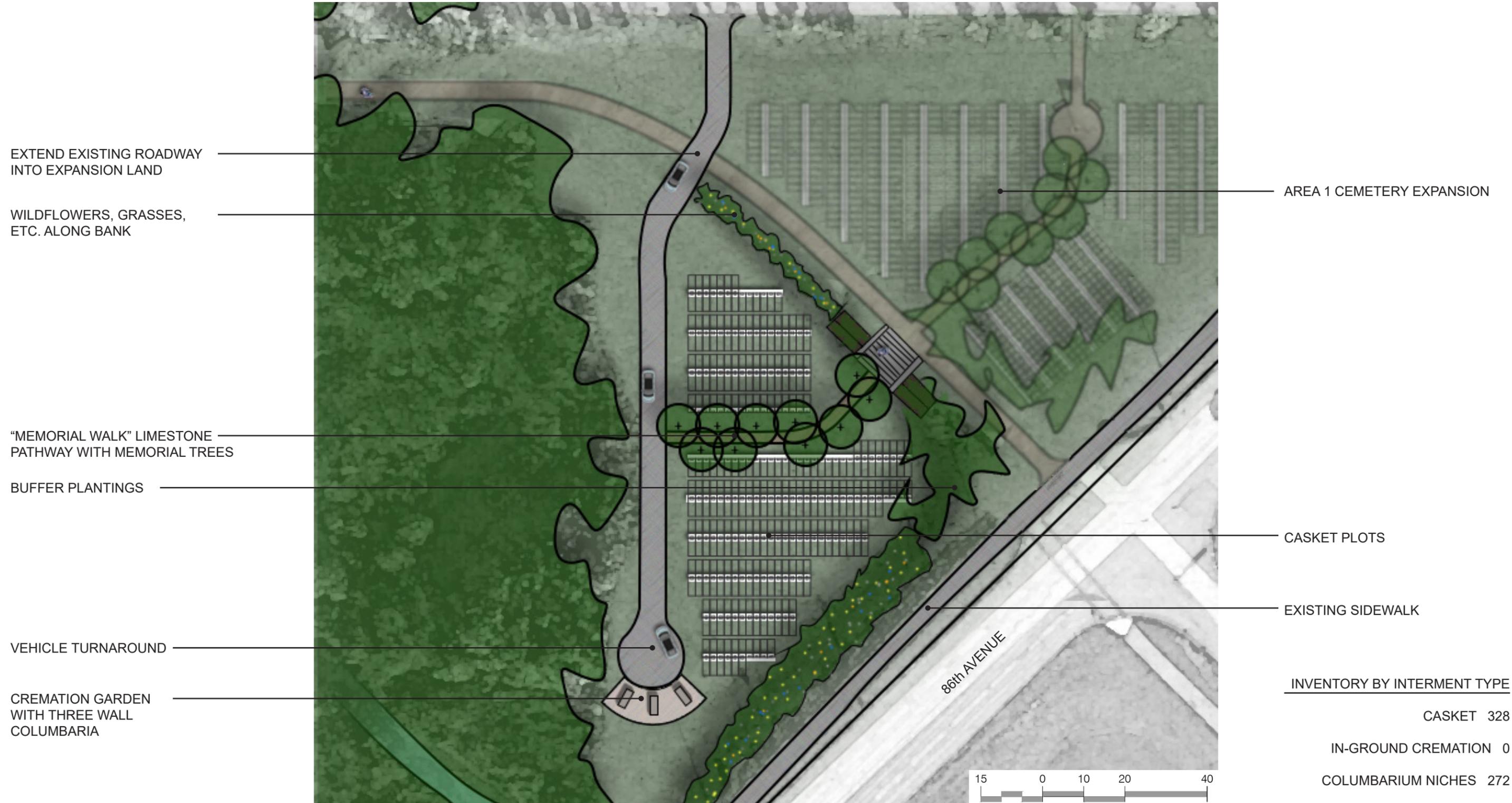
				\$3,236,512.35
--	--	--	--	-----------------------

ORDER OF MAGNITUDE COST ESTIMATE – AREA 1

Item	QTY	Units	Cost
1.0	<u>Start Up: /Mobilization/Layout for Construction</u>		
	Subtotal 1.0		\$15,000.00
2.0	<u>Removals</u>		
2.1		LS	\$2,480.00
2.2		LS	\$58,788.00
	Subtotal 2.0		\$61,268.00
3.0	<u>Earthworks</u>		
3.1		LS	\$15,000.00
	Subtotal 3.0		\$15,000.00
4.0	<u>Hardscapes</u>		
4.1		LS	\$18,240.00
4.2		LS	\$28,687.50
4.3		LS	\$2,080.00
4.4		LS	\$286,965.00
4.5		LS	\$11,600.00
	Subtotal 4.0		\$347,572.50
5.0	<u>Columbaria</u>		
5.1	7	ea.	\$94,500.00
5.2	4	ea.	\$20,800.00
5.3	4	ea.	\$12,800.00
5.4	2	ea.	\$72,000.00
5.3	5	ea.	\$60,000.00
	Subtotal 5.0		\$260,100.00
6.0	<u>Site Features</u>		
6.1	8	ea.	\$17,600.00
6.2	1	ea.	\$50,000.00
6.3	1	ea.	\$7,000.00
6.4	2	ea.	\$4,400.00
	Subtotal 6.0		\$79,000.00
7.0	<u>Plantings</u>		
7.1		LS	\$53,757.00
7.2		LS	\$36,900.00
7.3	60	Ea.	\$41,400.00
	Subtotal 7.0		\$132,057.00
		Sub-total	\$909,997.50
		Contingency 20%	\$181,999.50
		Grand Total	\$1,091,997.00
		Potential revenue	\$3,236,512.35
		Potential net	\$2,144,535.35

Notes: Contingency excludes taxes; detail design, tender and construction documentation consulting costs, as well as, structural engineering.

AREA 2



Fort Saskatchewan Cemetery - Preferred Concept (12 years - Cost: \$394,000)

Mar. 24, 2017

Not to Scale

POTENTIAL REVENUE– AREA 2

Potential Revenue:

1.1 Pricing is Based on Current 2015 Price List for interment values.

Refer to Revenues per Interment Type spreadsheet.

1.2 Quantities for interment types are based on the Preferred Master Plan Concept and the Order of Magnitude Cost Estimate.

2.0 **Interment Type:**

2.1 The potential ROI for this area is calculated as an either/or scenario.

2.2 The actual type and mix of interments will be determined during the detail design phase.

2.3 **Traditional Casket:**

4' x 9' plot + open/close and Monument inspection
adult, single resident, weekday

328	ea	\$ 2,054.55	<u>\$673,892.40</u>
			<u>\$673,892.40</u>

2.5 **Columbarium Niches**

average 1.5 urns per niche
adult, weekday

272	ea	\$ 1,647.87	<u>\$448,220.64</u>
			<u>\$448,220.64</u>

2.6 **Total potential revenue**

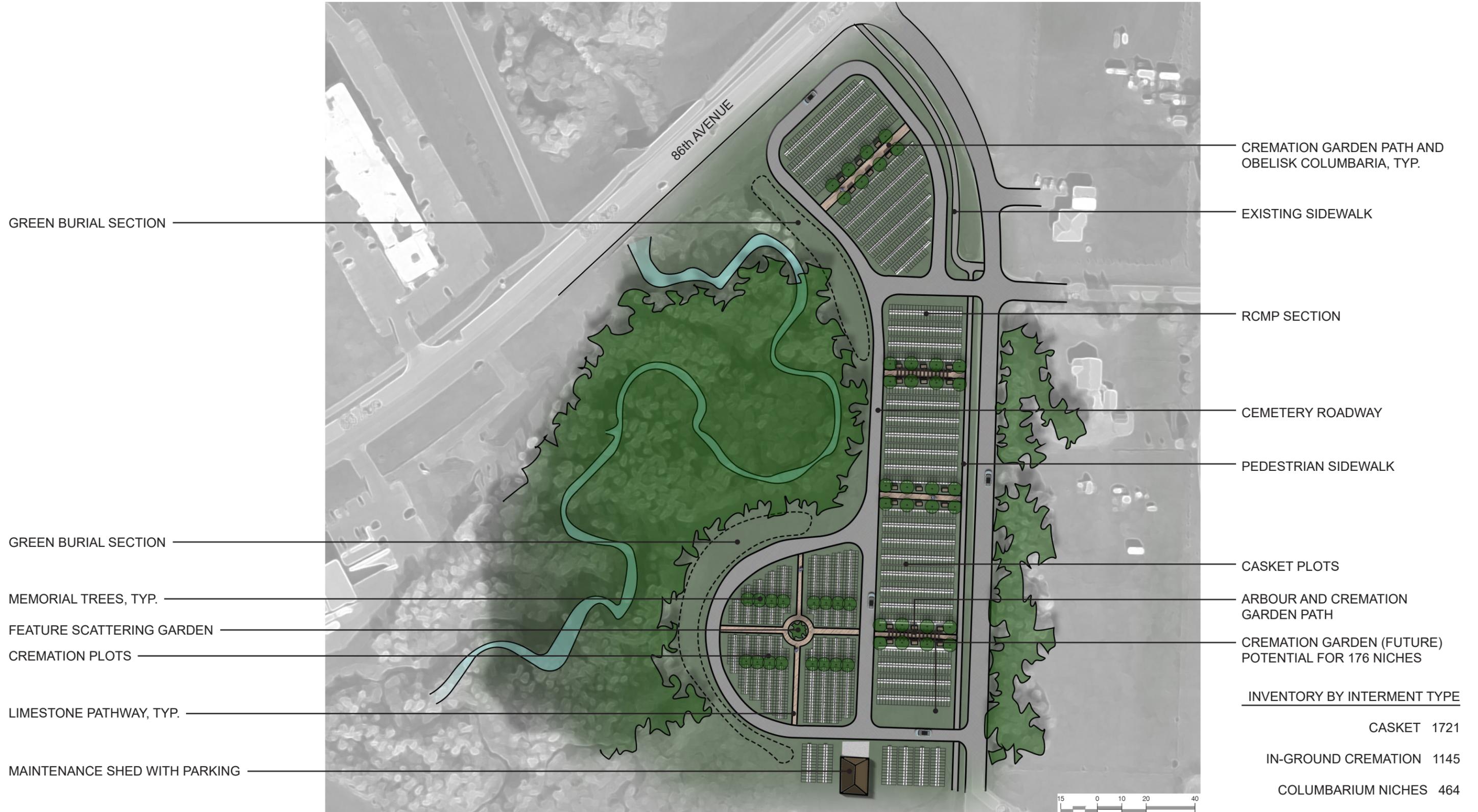
			<u>\$1,122,113.04</u>
--	--	--	------------------------------

ORDER OF MAGNITUDE COST ESTIMATE – AREA 2

Item	QTY	Units	Cost
1.0	<u>Start Up: /Mobilization/Layout for Construction</u>		
1.1		L.S.	\$15,000.00
	Subtotal 1.0		\$15,000.00
2.0	<u>Removals</u>		
2.1		LS	\$8,544.00
	Subtotal 2.0		\$8,544.00
3.0	<u>Earthworks</u>		
3.1		LS	\$15,000.00
	Subtotal 3.0		\$15,000.00
4.0	<u>Hardscapes</u>		
4.1		LS	\$7,812.50
4.2		LS	\$22,160.00
4.3		LS	\$1,580.00
4.4		LS	\$63,910.00
	Subtotal 4.0		\$95,462.50
5.0	<u>Columbaria</u>		
5.1	3	ea.	\$45,000.00
5.2	2	ea.	\$80,000.00
	Subtotal 5.0		\$125,000.00
6.0	<u>Site Features</u>		
6.1		LS	\$19,800.00
6.2		LS	\$19,800.00
	Subtotal 6.0		\$39,600.00
7.0	<u>Plantings</u>		
7.1		LS	\$11,511.00
7.2	10	ea.	\$6,000.00
7.3		LS	\$5,300.00
7.4		LS	\$6,410.00
	Subtotal 7.0		\$29,221.00
	Sub-total		\$327,827.50
	Contingency 20%		\$65,565.50
	Grand Total		\$393,393.00
	Potential Revenue		\$1,122,113.04
	Potential Net		\$728,720.04

Notes: Contingency excludes taxes; detail design, tender and construction documentation consulting costs, as well as, structural engineering.

AREA 3



Fort Saskatchewan Cemetery - Preferred Concept (18 years - Cost: \$1,884,000)

Mar. 24, 2017

Not to Scale

POTENTIAL REVENUE – AREA 3

1.0 **Potential Revenue:**

Pricing is Based on Current 2015 Price List for

1.1 interment values.

Refer to Revenues per Interment Type spreadsheet.

Quantities for interment types are based on the

1.2 Preferred Master Plan Concept

and the Order of Magnitude Cost Estimate.

2.0 **Interment Type:**

2.1 The potential ROI for this area is calculated as an either/or scenario.

2.2 The actual type and mix of interments will be determined during the detail design phase.

2.3 **Traditional Casket:**

4' x 9' plot + open/close and Monument inspection
adult, single resident, weekday

1721	ea	\$ 2,054.55	\$3,535,880.55
			\$3,535,880.55

2.4 **In-ground Cremation:**

4' x 4' plot + open/close and Monument inspection
adult, single resident, weekday

1145	ea	\$ 890.22	\$1,019,301.90
			\$1,019,301.90

2.5 **Columbarium Niches**

average 1.5 urns per niche
adult, weekday

464		\$ 1,647.87	\$764,611.68
			\$764,611.68

2.6 **Total potential revenue**

			\$5,319,794.13
--	--	--	-----------------------

ORDER OF MAGNITUDE COST ESTIMATE – AREA 3

Item	QTY	Units	Cost
1.0	<u>Start Up: /Mobilization/Layout for Construction</u>		
1.1		L.S.	\$15,000.00
	Subtotal 1.0		\$15,000.00
2.0	<u>Removals</u>		
2.1		L.S.	\$88,584.00
	Subtotal 3.0		\$88,584.00
3.0	<u>Earthworks</u>		
3.1		LS	\$20,000.00
	Subtotal 4.0		\$20,000.00
4.0	<u>Hardscapes</u>		
4.1		L.S.	\$14,460.00
4.2		L.S.	\$87,750.00
4.3		L.S.	\$152,240.00
4.4		L.S.	\$536,900.00
	Subtotal 5.0		\$791,350.00
5.0	<u>Columbaria</u>		
5.1	24		\$288,000.00
5.1	176		\$193,600.00
	Subtotal 5.0		\$481,600.00
6.0	<u>Site Features</u>		
6.1	2		\$70,000.00
	Subtotal 7.0		\$70,000.00
7.0	<u>Plantings</u>		
7.1		L.S.	\$64,152.00
7.3		L.S.	\$5,700.00
7.2	56		\$33,600.00
	Subtotal 8.0		\$103,452.00
		Sub-total	\$1,569,986.00
		Contingency 20%	\$313,997.20
		Grand Total	\$1,883,983.20
		Potential revenue	\$5,319,794.13
		Potential net	\$3,435,810.93

Notes: Contingency excludes taxes; detail design, tender and construction documentation consulting costs, as well as, structural engineering.

5. PRODUCTS AND MARKETING

Through the preparation of this Expansion Master Plan, it became clear that the City of Fort Saskatchewan could benefit from an examination of the cemetery's existing and future interment options and an evaluation of how the City can position itself to meet the diversifying needs of the Fort Saskatchewan area residents and families over the next 25 years. The Products and Marketing section is intended to be used as a framework for action by addressing the following needs:

- Increase revenue;
- Increase the awareness and public perception of Fort Saskatchewan Cemetery;
- Provide a strategic framework for new products and services, and
- Initiate improvements to the marketing strategy.

5.1. RECOMMENDATIONS

As part of the marketing and promotion of the cemeteries, the City should undertake the following in order to raise the community's awareness of the cemeteries historic and cultural significance:

- Improve the interpretative signage, and
- Consider facilitating public access to the history of those buried at the cemeteries by utilizing a cemetery records and mapping software.

Over the past few years, there has been a movement within North American cemeteries to expand their role from providing only interment services to hosting and providing a venue for non-interment related events. This reflects a new trend in diversifying cemetery programming. The motivation for this trend seems to be a growing desire to restore links between cemeteries and the communities they were established to serve. Cemeteries are achieving this objective by finding ways to increase the public's perception of cemeteries as relevant and attractive places. In an urban context, enhancing public awareness and understanding of the roles that cemeteries can play in the day-to-day life of a community can build support for broader public uses. This can include less traditional uses, such as providing space for recreational uses and cultural events. This in turn can enhance the perceived value of cemeteries in the public parks and open space system.

5.2. INTERMENT AND MEMORIALIZATION OPTIONS

CURRENT INTERMENT OPTIONS

At the present time, the range of interment types and memorialization options available at the Fort Saskatchewan Cemetery are as follows:

- Traditional, in-ground (full body) burial – upright, pillow and flat (missing pillow);
- In-ground cremation – upright and flat markers, and
- Interment in a columbarium niche.

ADDITIONAL INTERMENT OPTIONS

Based on the community's needs and changes in cemetery trends, there is a need to expand the range of interment and memorialization options offered at Fort Saskatchewan Cemetery. These are in direct response to the following challenges faced by Fort Saskatchewan's cemetery system:

- Disposition trends across Canada predict that the rate of traditional in-ground burial will continue to fall, while the rate of cremation will continue to increase;
- A universal business challenge facing all cemetery operators is how to encourage more families to bring cremated remains to cemeteries, rather than scattering at alternative locations, such as on family farms or in lakes, and
- Families are requesting more choice of interment memorialization options, and are becoming more selective regarding burial plot location, and the nature of cemetery surroundings. There is also a trend towards stronger and more meaningful memorialization options.

Municipal cemetery operators who have successfully increased the range of services they offer in response to similar challenges faced by Fort Saskatchewan include Lethbridge AB, the Regional Municipality of Wood Buffalo AB, and Rocky View County AB.

To this end, the following additional interment and memorialization options are proposed for inclusion as part of future expansion of burial areas at Fort Saskatchewan Cemetery:

- Green burial;
- Religion specific burial;
- Scattering gardens;
- Family vessels, and
- Cremation garden urns.

OPTIMUM MIX OF INTERMENT AND MEMORIALIZATION OPTIONS

The expansion of burial capacity at Fort Saskatchewan Cemetery is to occur in phases, providing families with optimum choice. Sales trends should be monitored closely to gauge the success of the types of interment and memorialization options offered to families, their appeal in terms of price, and to determine whether or not they should be included in future phases. In addition, Staff is to monitor the phasing to ensure that the site is being used to its capacity. The objective should be to achieve a reasonable level of sales of each of the options offered by the City through their promotion in a cemetery marketing strategy.

6. CONCLUSION

This report summarizes the results of a six month expansion master planning process for the City of Fort Saskatchewan – Fort Saskatchewan Cemetery. The Cemetery Expansion Master Plan produced by this process consists of:

1. A cemetery needs analysis;
2. A cemetery by-law review;
3. Cemetery design options, and
4. A physical site plan for expansion of Fort Saskatchewan Cemetery.

This Expansion Master Plan has been built on a rigorous review of demographic and industry trends and projections, and includes conceptual detailed design of key cemetery features and a phasing plan for five stages of cemetery expansion.

The Master Plan report provides schematic diagrams, precedent photos and data tables to guide the implementation of these recommendations. The Master Plan presents a suite of information that, in combination, fully equips the City to serve the community in a fiscally, environmentally and socially sustainable manner for the next 25 years, while providing a full range of cemetery services to the residents of Fort Saskatchewan and the surrounding Communities.

The existing cemetery (Area 1) will provide sufficient interment options until about 2043. Development of the southern expansion areas (Areas 2 and 3) might provide an additional 75 years of burial capacity but would be subject to review once an updated basin study is completed for these areas (study to be completed with the next 10 years). Based on the study outcome, several options for development of these areas may be presented; other lands may have to be allocated to expand the cemetery or the City may choose to not expand the cemetery beyond Area 1 (offering development opportunities for private enterprise).