

THE CITY OF CASTLEGAR

PARK MEMORIAL CEMETERY MASTER PLAN

Prepared for:

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December 2019

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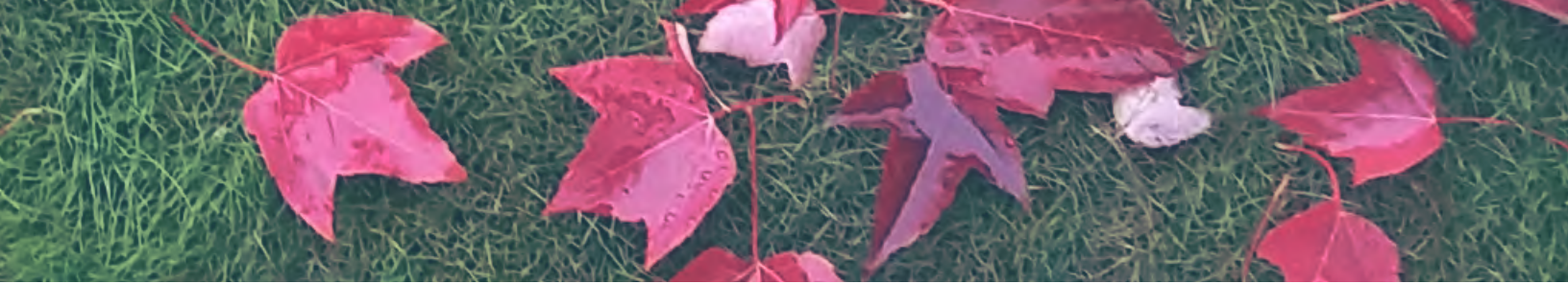
EXECUTIVE SUMMARY

The purpose of the Castlegar Cemetery Plan is to provide the City of Castlegar with long-term direction for the provision of cemetery services in Park Memorial Cemetery. This will ensure that future interment demands can be met for the Castlegar community.

An online survey, open to all community members, was used to collect input on Park Memorial's opportunities, challenges, and priorities for renewal and future development. Key priorities identified by respondents include:

- » Maintenance
- » Parking
- » Trees
- » Cremains interment options
- » Green burial options
- » Memorial grove
- » Veteran's memorial
- » Wayfinding improvements
- » Seating improvements
- » Fence improvements
- » Walkway improvements

The plan includes an interment forecast that identifies the projected demand for cemetery services with 2040 as the study horizon. Forecasts project a demand of nearly 980 cremated remains dispositions and 375 full burials at Park Memorial Cemetery between 2016 and 2041, an average of 38 and 14 per year respectively.



The plan also identifies the capacity of Park Memorial Cemetery in order to evaluate the need for additional property acquisition and future improvements. The remaining capacity in Park Memorial, adjusted for projected market uptake, is 1,086 cremains interments and 679 full burials. This capacity satisfies the 25-year projected demand. While the projected demand for full burials at Park Memorial is achievable in the 30-year horizon from the date the study was completed, the capacity to accommodate cremains burials falls short by approximately 50 interments in that timeframe.

The Park Memorial Cemetery Master Plan is a guide for future amenity renewal and site development. Key existing features identified for renewal include:

- » Cemetery work shed
- » Access roads within the cemetery and to the shed
- » Perimeter fencing
- » Regrading and topdressing of existing lawn areas where graves have sunken

The Master Plan also identifies improvement priorities for new features to build on the strengths of the site and expand the available options for interment and memorialization.

Key elements for improvements within the existing cemetery footprint include:

- » Additional columbaria and cremains burial plots to accommodate projected cremains interment demand
- » Shade trees delineating viewing axis and circulation
- » Additional seating areas with memorial benches
- » Wayfinding kiosk and improved signage
- » Memorial and contemplative forest walks

The Master Plan also proposes developing a portion of the City-owned parcels immediately south of the existing cemetery to allow Park Memorial to meet projected interment demand for approximately 60 years. The proposed features of the expanded area include:

- » Tree planting
- » Traditional full burial plots
- » Cremains burial and columbarium interment
- » Green burial
- » Memorial benches and quiet seating
- » Perimeter fencing and gateways

The implementation strategy provides a high-level capital cost estimate and a ten-year phasing plan for integrating the recommendations of the Park Memorial Master Plan into the City's capital plan.



Existing Cemetery



1 INTRODUCTION

The Park Memorial Cemetery, Castlegar’s only municipally-operated cemetery is located on an escarpment just a few hundred metres from the Crowsnest highway. The cemetery has been serving the Castlegar community for 67 years, with the first interments taking place in 1950. The current footprint of Park Memorial is just over 2 hectares of rolling lawn surrounded almost entirely by mature trees. All headstones are at-grade for ease of maintenance, and in many cases, are becoming hidden by encroaching turf. Interment services offered at Park Memorial include full burials, cremains burials, an ossuary, and a single 48-niche columbarium. The ossuary, which was constructed in 2005, has two vaults - one for veterans and another for civilians.



To ensure that future interment demands can be met, the City of Castlegar (City) initiated a cemetery master planning process in the fall of 2016. The process included an online survey open to all community members, an interment forecast, an assessment of the existing cemetery's remaining capacity, the preparation of a Master Plan to guide future site development, and an implementation plan for completing the improvements.



2 PUBLIC ENGAGEMENT SUMMARY

The City conducted an online survey to collect input from the community regarding the existing cemetery as well as priorities for future development. The City posted advertisements encouraging survey participation in the local paper as well as on social media. The survey was open between November 17th and 30th, 2016. The survey was also available in hard-copy format upon request. There were 12 surveys submitted.

Priorities identified for Castlegar's cemetery include:

- » Proper maintenance
- » Improved parking
- » Retention/addition of trees

Cemetery services that received the highest levels of interest (i.e. over 50% either interested or very interested) were:

- » More plots for cremated remains
- » More columbaria or niches
- » Green (natural) burial
- » Memorial grove
- » Veteran's memorial

Cemetery design elements that received the highest levels of interest (i.e. over 50% either interested or very interested) were:

- » Improved wayfinding/signage
- » More benches
- » More trees and plantings
- » Upgrades to fence
- » More or upgraded walkways

The survey questionnaire and responses can be found in **Appendix A**.

3 INTERMENT FORECASTING

3.1 Market Overview

The Park Memorial Cemetery is the only municipally-operated cemetery in Castlegar. There are no other non-denominational public cemeteries in the Castlegar Local Health Area (LHA 009). The nearest non-denominational cemeteries are located in Trail, Rossland, Grand Forks, Nelson, Slocan, Salmo and Ymir. All fall outside of LHA 009. The residents of LHA 009, and particularly residents of the City of Castlegar, account for the vast majority of interment demand at Park Memorial Cemetery.

There are multiple Doukhobor cemeteries located throughout LHA 009¹, see **Table 1**. The two nearest to Park Memorial are Brilliant Cemetery, located on the east bank of the Columbia River, and Ootischenia Cemetery, located just south of the West Kootenay Regional Airport. Both are owned by the Union of Spiritual Communities of Christ (USCC) Cemetery Association. Other Doukhobor cemeteries within the region immediately around Castlegar are Pass Creek Cemetery, Glad Cemetery, and Thrums Cemetery.

Table 1: Driving distances from each cemetery to Park Memorial

Cemetery Name	Location	Driving Distance from Park Memorial
Ootischenia Cemetery	Ootischenia, BC	5.5km
Brilliant Cemetery	Brilliant, BC	9.7km
Pass Creek Cemetery	Pass Creek, BC	18km
Glade (Plodorodnoe) Cemetery	Glade, BC	22km
Thrums Cemetery	Thrums, BC	13km

The Brilliant Cemetery has over 1,150 interments and a site area of approximately 5 acres. The Ootischenia Cemetery has approximately 900 interments (of which an estimated 600 have no marker), but has recently been mapped by students of Selkirk College.

Approximately 20% of LHA 009 residents claimed Russian ethnic heritage as of 2006.

¹ Doukhobors are a spiritual Christian religious group of Russian origin. Today an estimated 20,000 to 40,000 people of Doukhobor heritage live in Canada, with some 2,300 identifying their religious affiliation as “Doukhobor.” Within LHA 009, approximately 20% of the population claimed Russian ethnic heritage as of 2006.

3.2 Population, Death and Disposition Trends & Projections

The primary market area for the Park Memorial Cemetery is the Castlegar Local Health Area (LHA 009). To assess future cemetery needs, we collected and analysed data pertaining to both LHA 009 and broader regional population growth, death rates and interments. We also collected data on industry trends, provincial trends, and interment data for the Park Memorial Cemetery. Based on the above, combined with desktop research and telephone interviews with cemetery operators in the region, we prepared the following projections of future cemetery needs.



3.3 Population Growth

The population of LHA 009 grew by 423 residents over the past 20 years, or 0.2% per year (**Table 2**). Over the next 25 years to 2041, the population of LHA 009 is expected to grow at an average annual rate of 0.7%. By 2041, the population is expected to reach just under 16,800.

Table 2: Population Growth Trends & Projections - LHA 009

	Time Period	Population Growth	Total Population at end of period	Avg. Annual Growth
Historic, 5-Year periods	1996-2001	-252	13,296	-0.4%
	2001-2006	-619	12,677	-0.9%
	2006-2011	970	13,647	1.5%
	2011-2016	324	13,971	0.5%
Historic, 20-years	1996-2016	423		0.2%
Projected, 5-year periods to 2041	2016-2021	671	14,642	0.9%
	2021-2026	615	15,257	0.8%
	2026-2031	563	15,820	0.7%
	2031-2036	496	16,316	0.6%
	2036-2041	432	16,748	0.5%
Projected, 25 years	2016-2041	2,777		0.7%

Source: BC Stats PEOPLE 2015

3.4 Death Rates

Data on the number of deaths by geographic area is collected and made available by BC Vital Statistics at the provincial level on an annual basis back to 1986. At the LHA level, annual data is only available for the period from 2004 to 2011, inclusive. LHA-level data is also published back to 1986 on the basis of 5-year averages.

The death rate in LHA 009, presented as deaths per 1,000, was relatively stable during the 2004-2011 period, with a high of nearly 9.4 in 2006 and a low of 8.7 in 2011.

To forecast future death rates in LHA 009, we prepared an index of LHA-to-BC deaths-per-,1000 residents for the years where annual data was available (see **Table 3**). This index shows that, on average, between 2004 and 2011 the death rate in the LHA exceeded that of the Province by an average of 27% (value of 1.27). This differential is held constant for the projection period.

Death rates are expected to increase considerably as the population ages. From 2016 to 2026 the death rate in LHA 009 is expected to grow from 8.88 to 10.77. It is expected to increase further, to 12.42 by 2036 and 13.19 by 2041. These figures compare to provincial-level death rates of 7.12, 8.63 and 10.73 for those years, respectively².

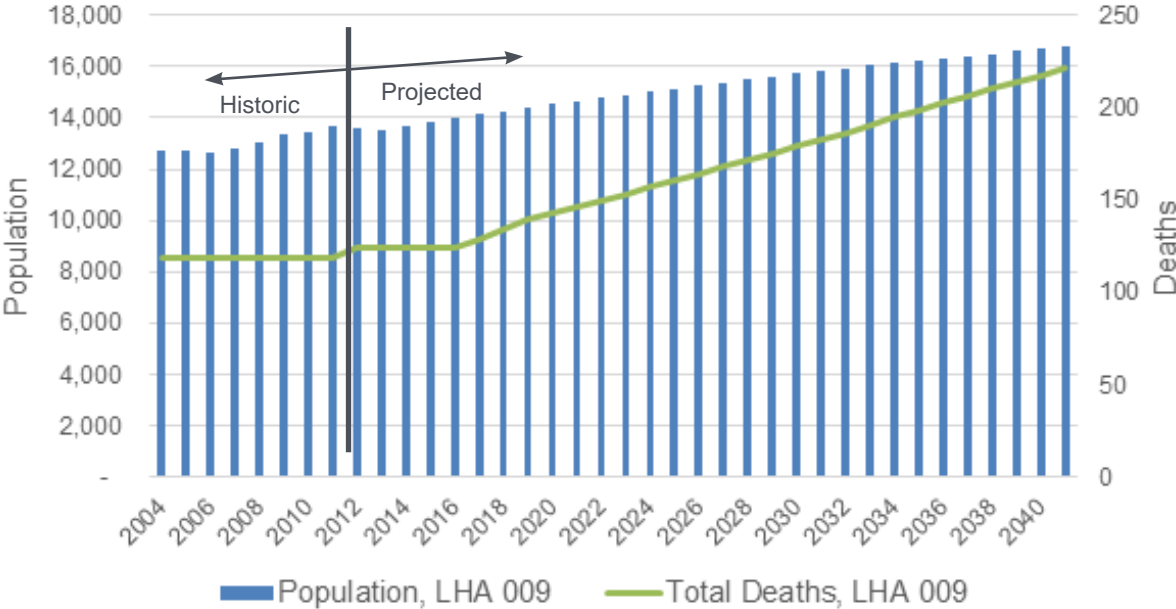
Table 3: Deaths per 1,000 in LHA 009 vs. BC, 2004-2011

Year	LHA 009 Deaths per-1,000	BC Deaths per-1,000	LHA-to-BC Deaths per-1000 index
2004	9.35	7.20	1.30
2005	9.37	7.22	1.30
2006	9.39	7.14	1.31
2007	9.29	7.22	1.29
2008	9.10	7.36	1.24
2009	8.90	7.12	1.25
2010	8.84	7.03	1.26
2011	8.72	7.05	1.24
2004-2011 Average	9.12	7.17	1.27

² Death rate projections are calculated on the basis of BC Stats provincial population forecast, BC Vital Statistics' provincial death forecast, and the assumption that the LHA 009 death rate will exceed that of the province by 27%.

The **Figure 1** compares LHA 009 historic and projected population growth to total historic and projected deaths on an annual basis to 2041.

Figure 1: Historic and Projected Burials and Cremations, LHA 009 Residents, 2004 to 2041



3.5 Dispositions

At the provincial level, cremation has continued to solidify its position as the preferred method of disposition (**Figure 2**). Between 1986 and 2011, cremation as a proportion of total dispositions in BC increased from 60% to 82%. Over the same period, full burials fell from 39% to 17%.

Figure 2: Methods of Disposition in British Columbia

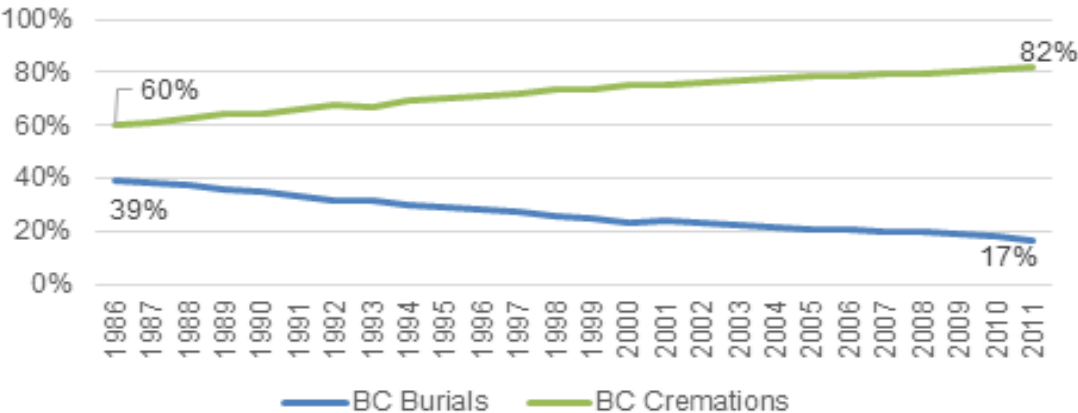
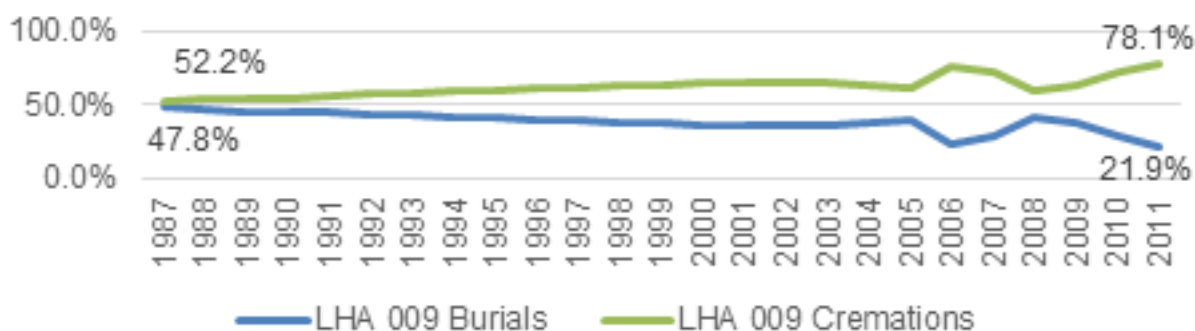


Figure 3 shows the disposition data at the LHA level is only available for the 2004 to 2011 period. In 2004, cremation disposition in LHA 009 accounted for nearly 63% of all dispositions (vs. 78% in the Province). By 2011, cremation disposition reached 78% (vs. 82% in the Province). On average, cremation has been approximately 18% less popular as a method of disposition in LHA 009 than at the provincial level.

Figure 3: Methods of Disposition, LHA 009 Residents



Note: Data from 1986 to 2004 has been derived using the average value of a 2004-2011 “LHA-to-BC’ Cremation Index.

With disposition data from 2011-2016 unavailable, we prepared a forecast of LHA 009 disposition proportions from 2011 onward using a linear trend function and an assumption that cremation will not exceed 90% of disposition at any point in the future due to limited or no demand among some faiths. By applying these methods and assumptions in conjunction with the population and death rate forecasts presented above, we prepared the forecast of LHA 009 resident burial and cremation demand in the **Table 4** below.

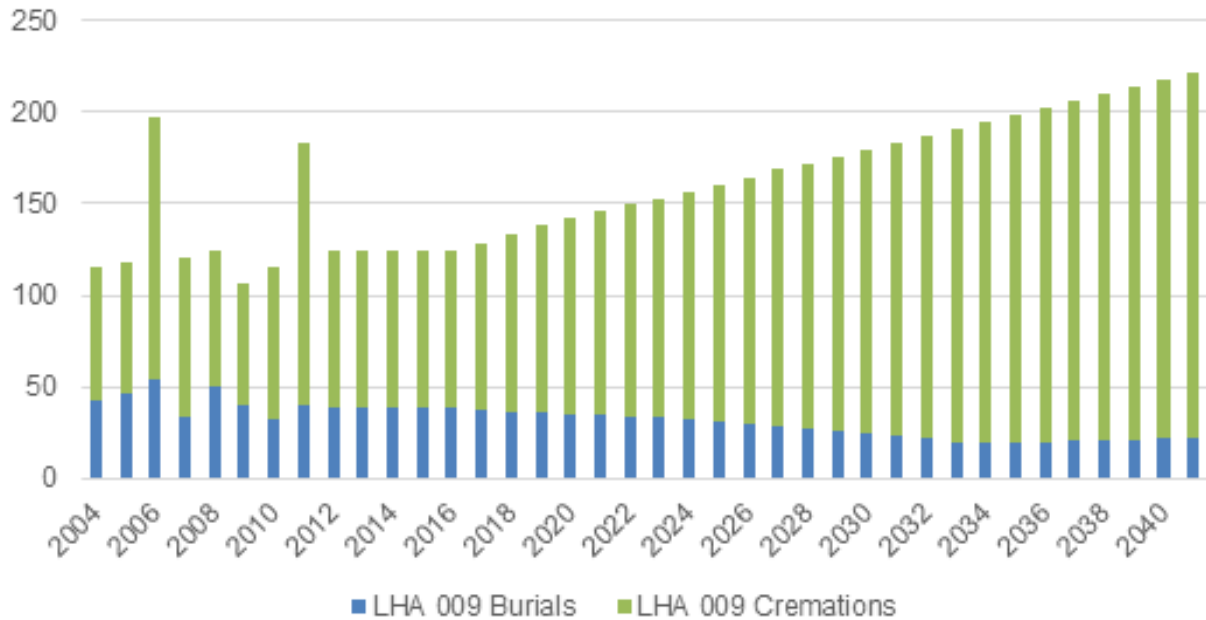
Table 4: Full Burials & Cremations - LHA 009 Residents

	Period	Avg. Annual Full Burials	Avg. Annual Cremations (1)	Cremation Rate (2)
Historic, 5-Year periods	1986-1990	37	42	54%
	1991-1996	39	55	58%
	1997-2001	39	66	63%
	2002-2006	45	88	66%
	2007-2011	39	91	69%
	2012-2016	39	85	69%
Projected, 5-year periods to 2041	2017-2021	36	102	74%
	2022-2026	32	125	79%
	2027-2031	26	150	85%
	2032-2036	20	174	90%
	2037-2041	21	192	90%

(1) Includes all disposition methods (i.e. at cemetery, scattered at another location, retained by family etc.)

(2) LHA 009 cremation rates pre-2004 derived using average value of a 2004-2011 LHA-to-BC Cremation Index. LHA-level cremation rates are assumed to level off at 90% in 2034.

Figure 4: Historic and Projected Burials and Cremations, LHA 009 Residents, 2004 to 2041



While cremation rates are held constant at 90% from 2034 onward for the purposes of this forecast, it is possible that cremation rates (and cremation interments) may begin to decrease at some point along with a rise in green burial, as environmentally conscious residents shift to the latter option. For instance, at Royal Oak in Victoria, 12% to 15% of all burials are now green burials. Whereas cremation interments had been rising at that cemetery, they have now levelled off as more people shift from cremation to green burial.



3.6 Park Memorial Cemetery Interment Demand Forecast

Forecasting Method

Our team prepared a demand projection for dispositions at Park Memorial Cemetery to 2041. Dispositions pertain to the act of interment (either cremated remains or full burial).

The forecasting method was as follows:

1. Compare historic interment data at the cemetery (provided by cemetery staff) to rates for full burial and cremation of LHA 009 residents.
2. Calculate two 'LHA-to-Park Memorial Cemetery' indices, one for full burial, the other for cremation
3. Calculate means for historic burial and cremation index values.
4. Multiply mean index rates for burials and cremation by projected LHA 009 resident burials and cremations. This results in a single scenario forecast of future interment demand at Park Memorial Cemetery.
5. Review and adjust the above projection based on information gathered through desktop research and telephone conversations with other cemetery operators in the region.

3.7 Competitive Supply

As noted in the Market Overview above, there are no other municipal cemeteries in the Park Memorial market area. However, there are multiple Doukhobor cemeteries in the area and a sizeable Doukhobour minority throughout the Slocan Valley. While some of Doukhobour heritage and/or affiliation will opt for interment at Park Memorial cemetery, there are many alternatives. Additionally, some residents of LHA 009 likely opt for burial at private or municipal cemeteries in other nearby communities such as Trail, Rossland, Nelson and Slocan.

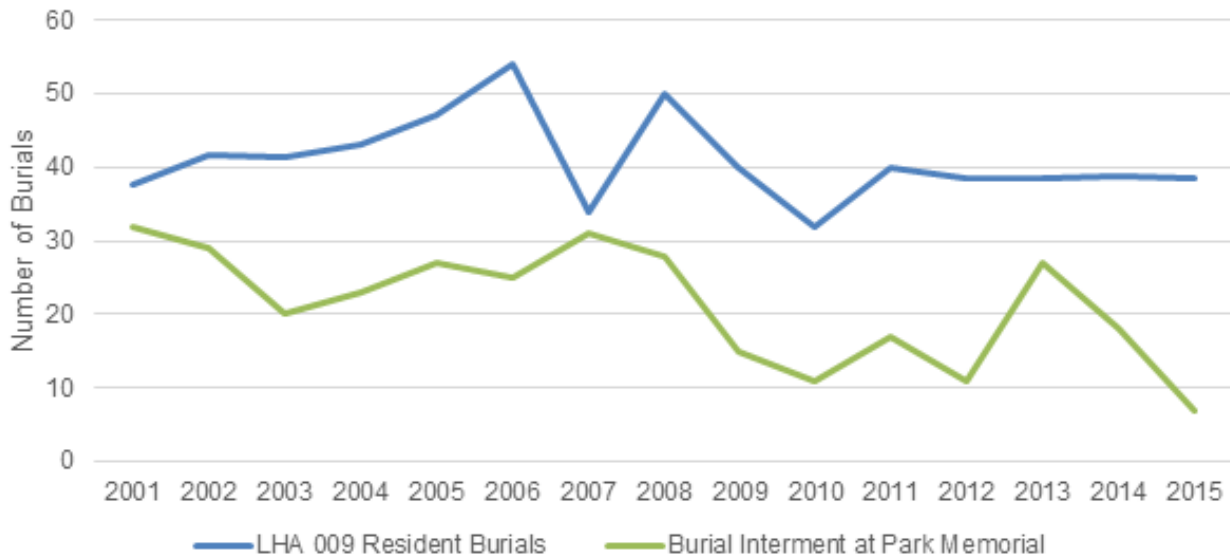
3.8 Disposition Trends & Projections

Full Burial Disposition

There was an average of 21 full burial interments per year at Park Memorial Cemetery between 2001 and 2015.

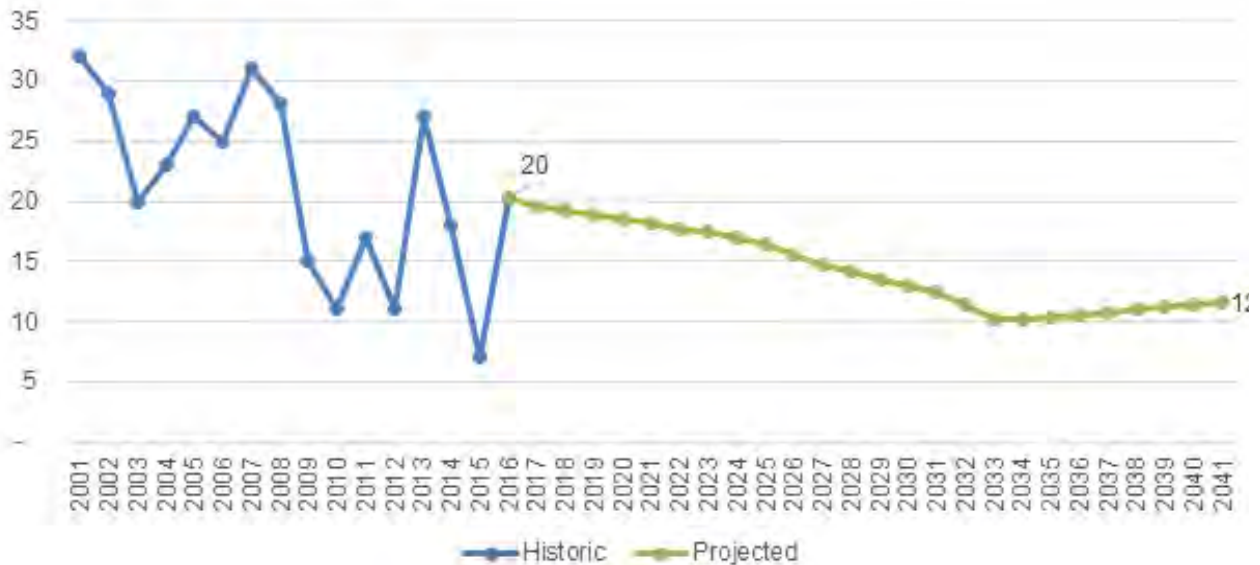
Figure 5 below compares full burials at Park Memorial (blue) to full burials of LHA 009 residents (red) between 2001 and 2015. While in some years the majority of LHA 009 resident burials appear to have occurred at Park Memorial (e.g., 2007, 2008), in other years the majority opted for burial elsewhere (e.g., 2003, 2010, 2012, 2015). On average, the ratio of full burial interments at Park Memorial to LHA 009 full burials between 2001 and 2015 was 0.52.

Figure 5: Burials at Park Memorial and Burials of LHA 009 Residents, 2001 to 2015



The forecast of full burial demand at Park Memorial, presented in the **Figure 6** below, holds the 0.52 ratio constant. An alternate scenario (not included in this report) may consider varying this ratio based on competitive cemeteries' capacity and other factors.

Figure 6: Park Memorial Cemetery Full Burial Disposition Forecast

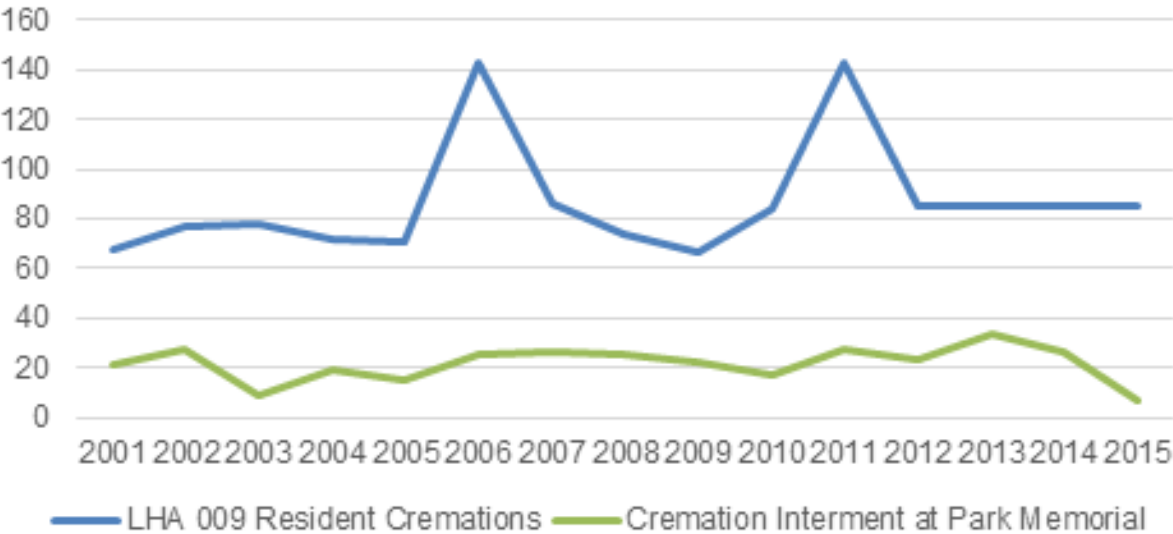


Cremation Disposition

Cremation dispositions at Park Memorial averaged 22 per year from 2001 to 2015. The years of greatest and least demand were 2013 (34) and 2015 (7) respectively.

Figure 7 below compares cremation dispositions at Park Memorial (blue) to the number of cremations of LHA 009 residents (red) between 2001 and 2015. Over this period the propensity for cremation (vs. burial) at Park Memorial trended upward, from an average of 40% in 2001-2005, to 53% in 2006-2010, to 59% in 2011-2015. The ratio of Park Memoria cremation interments to LHA 009 cremations averaged 0.26.

Figure 7: Cremations of LHA 009 Residents and Interment of Cremated Remains at Park Memorial

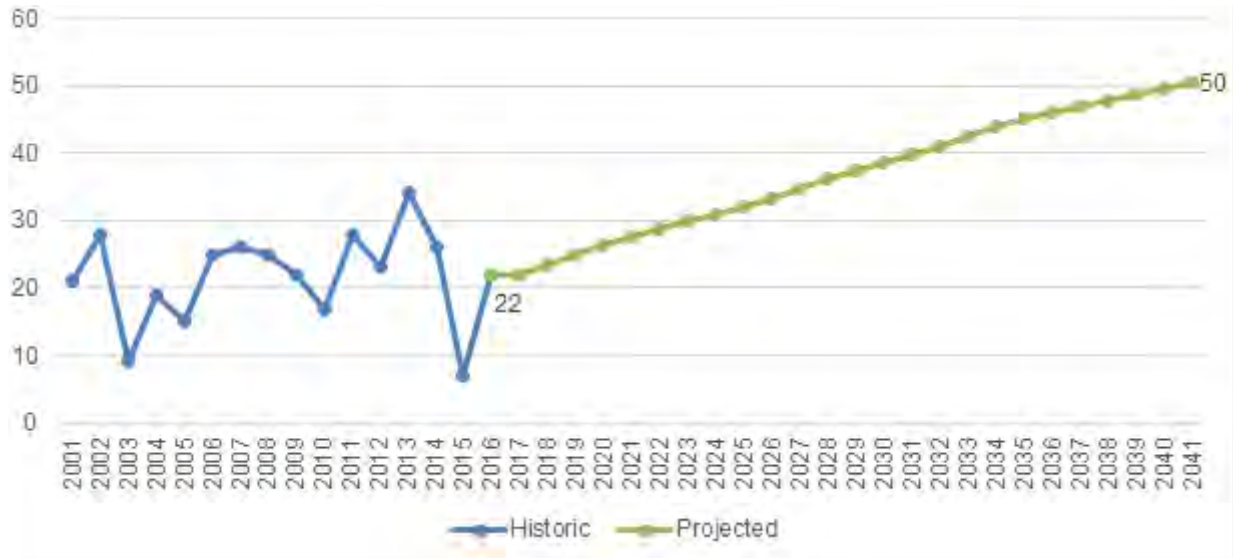


The combination of population growth and increased rates of death and cremation are expected to significantly increase the number of cremations per annum in LHA 009 over the next 25 years. The extent to which Park Memorial captures this market will be dependent on:

- » The trend in people’s desire to inter cremated remains in a cemetery
- » The competitive interment environment
- » The variety of cremation disposition and memorialization options at Park Memorial

The single projection scenario presented in **Figure 8** holds constant the average ratio of Park Memorial cremation interments to LHA 009 resident cremations between 2001 and 2015.

Figure 8: Park Memorial Cemetery Cremated Remains Interment Forecast



Disposition Forecast Summary

Between 2016 and 2041, **Table 5**, projects the following average annual and total dispositions at Park Memorial Cemetery.

Table 5: Dispositions, Park Memorial Cemetery

Period	Average Annual		Totals	
	Cremated Remains	Full Burial	Cremated Remains	Full Burial
2016 - 2020	25	19	125	96
2021 - 2025	31	17	155	87
2026 - 2030	37	14	161	84
2031 - 2035	44	11	193	68
2036 - 2041	49	11	272	64
2016 - 2041	38	14	978	375

Forecasts project nearly 980 cremated remains dispositions and 375 full burials at Park Memorial Cemetery between 2016 and 2041, an average of 38 and 14 per year respectively.

4

PARK MEMORIAL CEMETERY CAPACITY ANALYSIS

To determine the capacity of Park Memorial Cemetery, City of Castlegar interment records were cross-referenced with Bylaw 571 to calculate the allowable interments. Within the developed areas of the Cemetery (Blocks A-L, M, N, Q and R), the following numbers of interments are permissible per Bylaw 571:

- » 116 Full Burials
- » 3,215 Cremaains Burials

The estimated historic uptake of permissible interments in the full burials is 70% (i.e. 70% of developed areas have been allocated to this use). The estimated uptake for cremains is about 30% of the total available, reflecting an aggregated total of 50% uptake of niches in the columbarium, 15% uptake for full burial plot cremains capacity (cremaains above a full burial), and 150% for open cremation plots (i.e., all plots will receive at least one cremaains, and half will receive two).

To project capacity of undeveloped areas at Park Memorial, (Blocks P and U), samples of the burial records were analysed to predict trends in plot use (**Figure 9**).

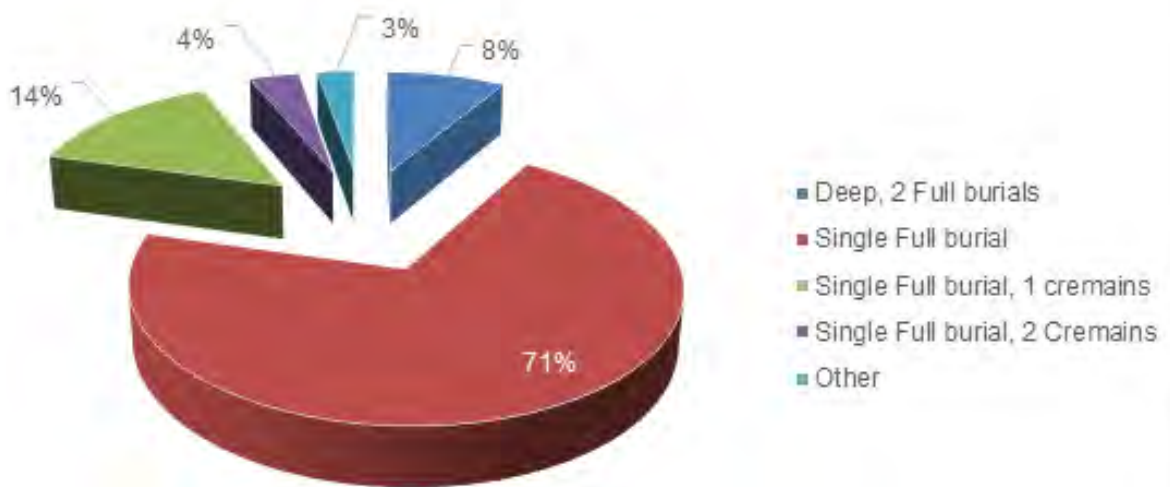


Figure 9: Park Memorial Cemetery Uptake Trend

Source: Analysis by Urban Systems of City of Castlegar data, sample size 222 full burial plots

When the percentages in **Figure 9** are applied to the 554 available full burial plots in the existing cemetery (Blocks P and U), the following breakdown of interment is projected:

- » 598 Full Burials
- » 121 Cremains Burials

The burial interments permitted in Bylaw 571 in Blocks P and U is approximately 1,108, which is almost double the projected allocation of space based on the 222 sample plot precedent. The cremains interments permitted in Bylaw 571 is approximately 1,200 for blocks P and U, far higher than projected allocation of space based on precedent.

The Park Memorial interment demand forecast presented in Section 3 shows demand for 375 full burials and 978 cremains interments over the next 25 years. The **Table 6** compares demand forecasts to available capacity adjusted for projected market uptake in Park Memorial Cemetery. **Table 6** is accompanied by the list of assumptions.

Table 6: Demand Forecasts and Available Capacity in Park Memorial Cemetery

Service Type	Full Burial Capacity (adjusted for projected market uptake)	25-year Full Burial Projected Demand	Cremains Capacity (adjusted for projected market uptake)	25-year Cremains Projected Demand
Full Burial	679		485	
Cremation Burial	--		595	
Columbaria				
Niches	--		6	
Current Total	679	375	1,086	978

Source: Analysis by Urban Systems of City of Castlegar data

Assumptions

70% uptake of full burial capacity in developed blocks

108% uptake of full burials in open full plots

150% uptake for open cremation plots

15% uptake for full burial plot cremains capacity

50% uptake of niche cremains capacity

At the time of the needs assessment, Park Memorial Cemetery had capacity to provide the City of Castlegar with the necessary burial and cremains supply for the next 25 years. In the 30-year horizon, demand for full burials is met; however, demand for cremains burials and columbaria will have exceeded the capacity of the present cemetery’s capacity by approximately 50 interments. The impact on this predicted deficit made by the ossuaries is unclear from the available data; however, it is expected that this deficit will be offset somewhat by ossuary interments. Based on this study, this report recommends that the City postpone the acquisition of a new cemetery property elsewhere in the City, and focus efforts on improvements to Park Memorial Cemetery and the available open space to the south of the existing cemetery. The projected cemetery capacity associated with the full build-out of the Master Plan is presented in the next section of this report.

5

PARK MEMORIAL CEMETERY MASTER PLAN

5.1 Planning Process

Building on the input received in the online survey and from City staff, the planning team prepared three sketch concepts that explored variations for the improvement and layout of the existing cemetery and expansion area. These three concepts were shared with the City and the pros and cons of each discussed among City staff as well as between staff and the planning team. Following discussion of the options, a preferred plan sketch was prepared and submitted to the City to confirm the design direction and ensure that the subsequent Master Plan would capture the City's needs and objectives. These sketch concepts can be viewed in **Appendix B**. The Park Memorial Cemetery Master Plan (Master Plan) emerged from the preferred plan sketch, and refined the ultimate layout for operational and spatial efficiency.

5.2 Cemetery Renewal

The Master Plan identifies renewal priorities that respond to challenges and aging infrastructure in the existing cemetery. These items for renewal are discussed below.

The existing chain link fence is aging and unattractive. In addition, the configuration of the existing fence includes portions that are unnecessary and will become increasingly so as the new part of the cemetery is developed. In the proposed plan, the frontage of the cemetery along 14th Avenue is to be fenced for the entire length of the cemetery, and the new fence will take design cues from the black wrought iron on the main cemetery gate, linking the new portion of the cemetery with the old as a single space with a unified aesthetic.



Park Memorial Cemetery gate



Decorative fence in Ft. St. John, BC

Over the horizon of this study, it is anticipated that the existing asphalt internal roadways will require renewal. This upgrade to the asphalt should consider winter pedestrian accessibility, reducing conflicts with burial plots and the ease of access for maintenance vehicles.

Another recommendation is to improve the existing gravel access road to the workshed to the same asphalt standard as the rest of the cemetery access roads. The existing alignment of the primary north-south roadway appears to overlap with surveyed full burial plots in blocks A-E to varying degrees. We assume that the plots where overlap occurs are not occupied, and will not be in the future. When the asphalt pathways are renewed, the City has the opportunity to realize efficiencies by completing improvements to parking along 14th Avenue as well.



Existing workshed



Existing roadway

We anticipate that the existing workshed will require renewal within the horizon of this plan. When the new structure is constructed, it should include additional bays for the storage and protection of maintenance equipment. At present, loose material is stored in the open gravel area to the south of the cemetery without any screening or containment. The Master Plan recommends that as this area becomes developed that the area for storing loose materials be defined with walls that will provide a degree of screening from the manicured burial areas.

Presently, the wayfinding signage in the cemetery provides no method for individuals to locate specific graves without having prior knowledge of the block in which they are buried. In addition, the material and appearance of the block signage is similar to a road sign, thus conveying no cue that the cemetery is a sacred place. The Master Plan recommends a digital wayfinding kiosk near the main entrance of Park Memorial that can be updated in real time with the most current interment information and locations. In addition, this plan recommends the existing block signage be replaced with a type of sign that is informed by the aesthetic style of the main entry gate and ossuary, i.e., brick and wrought iron, to link the thematic unity and strengthen the sense of the sacred through durable materials and timeless craftsmanship.

One of the most significant challenges identified in Park Memorial is the widespread occurrence of grave settling and encroachment on the headstones by grass. The recommendation of the planning team is that the City undertake an incremental effort to strip, regrade, and reset headstones in the established full burial blocks over the next decade to address this challenge. This effort would necessitate the use of survey or GIS equipment to catalogue the exact locations of each headstone to ensure accuracy during replacement.



Digital memorial kiosk at the Oregon World War II Memorial



Plot settlement and grass encroachment in Park Memorial

5.3 Cemetery Improvements

The Master Plan identifies improvement priorities for new features in the existing cemetery that build on the strengths of the site and expand the available options for interment and memorialization as well as improve visitor experience. These improvement priorities are discussed in the following pages.

LEGEND

	EXISTING TREE		PROPOSED MEDIUM DECIDUOUS TREE	①	VETERAN'S MEMORIAL PLAZA/MONUMENT	⑥	PROPOSED FULL BURIAL PLOTS	⑮	PAVED PULL-THROUGH PARKING
	EXISTING TREE		PROPOSED LARGE CONIFEROUS TREE	②	MEMORIAL PLAZA/SEATING NODE (TYP.)	⑦	PROPOSED GREEN BURIAL AREA	⑯	EXISTING WASTE RECEPTACLE
	EXISTING TREE		PROPOSED MEDIUM CONIFEROUS TREE	③	MEMORIAL WALL FOR GREENBURIAL	⑩	VEHICULAR GATE	⑰	BUS STOP
	EXISTING TREE		MEMORIAL BENCH (TYP.)	④	MEMORIAL FOREST WALK	⑪	PEDESTRIAN GATE		
	PROPOSED LARGE DECIDUOUS TREE		DOUBLE-SIDED COLUMBARIUM (48 NICHE)	⑤	IMPROVED WAYFINDING SIGNAGE	⑫	IRON FENCE ALONG ROAD		
			WAYFINDING KIOSK (1 DIGITAL)	⑥	CONTEMPLATIVE FOREST PATH	⑬	EXPANDED WORK SHED + BAYS		
			OBELISK COLUMBARIUM (16 NICHE)	⑦	PROPOSED CREMAINS PLOTS	⑭	LOOSE MATERIAL STORAGE BAYS		



Circulation

Several new pathways are proposed in the Master Plan including a pathway accessing the proposed memorial forest, and a smaller footpath that accesses the mature forested area in the northeast of the cemetery property. The pathway link to the primary roadways and provide opportunities for contemplative strolling as well as access to new memorialization areas.

Trees

The existing cemetery is largely surrounded by large coniferous trees, and has several healthy mature red maples in the northern portions. Additionally, there are a number of over-mature shrubs that present maintenance challenges that have been identified for removal. The Master Plan proposes new trees to line the primary access roads and paths as well as to define and shade burial and memorial areas throughout the cemetery. The proposed memorial forest introduces nearly one hundred new trees offering opportunities for memorialization that also create a quiet space for cremains interments and seating.



Mature trees in Park Memorial

Seating

Approximately 20 new benches are proposed by the Master Plan for the existing cemetery space. These benches are strategically located to support the various interment areas and offer a range of experiences from quiet and secluded, to open and prominent. In addition to the practical seating function of these benches, they offer opportunities for memorialization as well.



Existing bench in Park Memorial

Memorial Spaces

Four memorial plazas are proposed for the existing cemetery, including one at the restored west pedestrian entry, one near the infant burial block in the north-east portion of the cemetery, one as a destination in the forest walk in the forested portion of the cemetery, and the fourth at the intersection of the roadway and the path to the memorial forest. These spaces offer opportunities for gathering, memorial services and space for permanent memorials specific to an event or group as requests arise in the future.



Veteran’s Plaza Germantown, WI



Existing ossuary



16-niche obelisk style columbaria in Golden, BC



Gravel expansion area

Cremaains Interment

Presently, Park Memorial offers cremains burial plots, an ossuary with two vaults for comingled remains (one vault specifically for veterans), and a single 48-niche columbarium that is very close to capacity. The Master Plan proposes new options for cremains interment in response to the anticipated demand identified in the interment forecast. Three additional 48-niche columbaria that are modeled after the existing columbarium are proposed to occupy the open space between blocks I and J. There are ten 16-niche obelisk style columbaria proposed for the memorial forest along the eastern edge of the cemetery. In addition, the Master Plan proposes the addition of 115 cremains burial plots within the existing cemetery along the northern reaches of Block U.

5.4 Cemetery Expansion

The City owns a large open gravel area immediately to the south of the existing cemetery. Although there are steep slopes that restrict the use of the site, approximately 3,600 square metres of this property is suitable for development and expansion of the Park Memorial Cemetery. The Master Plan proposes that this space be developed to provide opportunities for full burials, cremains burials, columbaria interments, and green burial. The primary north-south axis is extended through this space along a short tree-lined promenade and is anchored on the south end by a proposed veterans' memorial plaza. A new pull-through parking space is proposed for this area that will also support a bus stop.

While many of the services offered in the expansion area are already available and well-understood by the Castlegar community, green burials will be a new service offering with new operational considerations as well as the need for education within the community. Green or natural burial is a trend that is gaining traction among western nations, including Canada. For example, there are now over 270 natural burial sites in the United Kingdom. BC currently has several cemeteries officially offering this option, the largest being Royal Oak in Victoria. Variations of natural burial are known to occur in other cemeteries, e.g., placement of unembalmed remains in a biodegradable casket within a traditional full burial plot (sometimes with an all-natural monument), or natural burials with individual rather than group markers. Smaller communities are also becoming interested, e.g., Denman Island has a new green burial ground, and

Whitehorse is planning to include natural burial spaces in the future expansion of their municipal cemetery.

Green burial involves returning a body as naturally as possible to the earth. The body being interred is not embalmed or cremated; it is placed in a simple biodegradable shroud or casket and buried in a protected green space. Vegetation is planted (often native trees, shrubs and/or meadow plants) and allowed to naturalize, and the names of those interred in an area are inscribed on a communal marker or plaque.

This method is a low-impact alternative to traditional full burials, which introduce toxic chemicals into the environment from the embalming process, and typically involve large quantities of metal, hardwood and/or concrete used for caskets and liners. Green burial also has less environmental impact than cremations, which use large amounts of energy and materials to cremate a body. Cremated remains contain metals such as lead, boron, cadmium, chromium, and cobalt that can be toxic to the environment.

Natural or green burials are usually a less expensive option than a full burial and can cost more or less than cremation. Green burial can bypass expenses such as embalming, vaults, and headstones; on the other hand, there are costs for the use of land.



Example of a green burial area

The capacity increase of the expansion area is shown in the **Table 7** below.

Table 7: Cemetery Expansion Area Capacity

Interment type	Quantity	Uptake assumptions	Adjusted capacity based on estimated market uptake
Full burial	140	108% uptake	150
Cremains burial	231	150% uptake	385
Columbarium niche	192	150% uptake	288
Green burial	50	100% uptake	50
Total	613		873



5.5 Projected Cemetery Capacity

The Park Memorial interment demand forecast presented in the interment forecast shows demand for 375 full burials and 978 cremains interments over the next 25 years. **Table 8** below compares demand forecasts to available capacity adjusted for projected market uptake in Park Memorial Cemetery with the full build-out of the Park Memorial Master Plan. This table is accompanied by the list of assumptions. Based on the trends identified in the interment forecast, of the average 14 full burials and 38 cremains burials annually, it is estimated that the build-out of the Master Plan will meet the demand for full burials for approximately 62 years, and cremains burials for approximately 64 years.

Table 8: Full Burial and Cremains Capacity

	Service Type	Full Burial Capacity (adjusted for projected market uptake)	Cremains Capacity (adjusted for projected market uptake)
Existing	Full Burial	668	485
	Cremation Burial	--	595
	Columbaria Niches	--	6
Proposed in Existing cemetery	Cremation Burial	--	211
	Columbaria Niches	--	456
Proposed in Expansion Area	Full Burial	150	20
	Cremation Burial	--	385
	Columbaria Niches	--	288
	Green Burial	50	--
	Proposed Total	868	2,446

Assumptions

70% uptake of full burial capacity in developed blocks

108% uptake of full burials in undeveloped full plots

108% uptake of full burials in expansion area full plots

150% uptake for open cremation plots

15% uptake for full burial plot cremains capacity

50% uptake of niche cremains capacity in existing columbarium

150% uptake of niche cremains capacity in proposed columbaria



5.6 Operations and Maintenance

The following are recommendations for operations and maintenance based on consultation with City staff:

- » Develop a set of standard operating procedures (SOPs) that address all aspects of cemetery operations including:
 - appropriate use of heavy equipment around existing burials
 - appropriate backfill material and procedures to reduce settling
 - reclamation of native materials to prepare appropriate backfill material
 - appropriate growing medium and procedures for top-dressing burials
 - headstone placement and maintenance
- » Procure a dedicated cemetery vehicle, e.g., a Toolcat, that is auger- and bucket-capable to enable Parks to care for the grounds more efficiently
- » Complete a cemetery business plan that reviews fees and charges to ensure a sustainable financial model with revenues covering operating costs

5.7 Implementation Plan

Phasing and Costs

A capital cost estimate of the recommended improvements identified in the Park Memorial Cemetery Master Plan is located in **Figure 10**.

Unit prices and quantities are presented for each item. A 40% contingency (20% for design and 20% for cost contingency) is added to the estimated capital costs. The phasing of the improvements is presented in **Figure 11**, outlining how the Master Plan could be achieved within three phases of construction.

Figure 10: Capital Cost Implementation Estimate for Park Memorial Cemetery

PARK MEMORIAL CEMETERY COST ESTIMATE					
This estimate is based on the Park Memorial Cemetery Master Plan					
ITEM	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	TOTAL PRICE
1	Removals				
	Remove and dispose of existing trees	ea.	30	\$1,500	\$45,000
	Remove chain link fencing	lm	450	\$20	\$9,000
	Remove and dispose of asphalt	m ²	1362	\$25	\$34,000
2	Roadways and pathways				
	Asphalt roadways-renewal	m ²	1935	\$60	\$116,000
	Pavers around monuments/memorials	m ²	115	\$180	\$21,000
	Granular path	m ²	828	\$40	\$33,000
	Asphalt parking	m ²	1203	\$60	\$72,000
3	Features				
	Frontage fencing	lm	375	\$150	\$56,000
	Vehicular gate	ea.	1	\$12,000	\$12,000
	Pedestrian gate	ea.	3	\$3,000	\$9,000
	Veteran's monument	Allowance	1	\$25,000	\$25,000
	Monument/memorial TBD	Allowance	4	\$10,000	\$40,000
	Columbarium-obelisk 16 niche	ea.	10	\$15,000	\$150,000
	Columbarium-standard 48 niche	ea.	7	\$20,000	\$140,000
	Entry trellis at pedestrian gate	ea.	1	\$10,000	\$10,000
	Benches	ea.	37	\$3,500	\$130,000
4	Signage and wayfinding				
	Wayfinding kiosk	ea.	1	\$12,000	\$12,000
	Digital wayfinding kiosk	ea.	1	\$30,000	\$30,000
	Burial block wayfinding signage	ea.	25	\$2,500	\$63,000
	Bus stop signage	ea.	1	\$150	\$150
5	Planting				
	Deciduous tree planting (large)	ea.	130	\$800	\$104,000
	Deciduous tree planting (medium)	ea.	45	\$500	\$23,000
	Coniferous tree planting (large)	ea.	40	\$1,000	\$40,000
	Coniferous tree planting (medium)	ea.	60	\$800	\$48,000
	Native grass including strip, fine grade, place 100mm growing medium, finish grade and hydroseed	m ²	485	\$10	\$5,000
6	New Full Burial and Cremain Plot Areas				
	Irrigation-includes controller	Allowance	1	\$42,750	\$43,000
	Grass including place 250mm growing medium, and sod	m ²	3275	\$25	\$82,000
	Subgrade preparation and fine grading	m ²	3275	\$50	\$164,000
7	Green Burial Area				
	Irrigation	Allowance	1	\$3,550	\$4,000
	Fine grading	m ²	355	\$30	\$11,000
	Native grass including strip, fine grade, place 100mm growing medium, finish grade and hydroseed	m ²	355	\$10	\$4,000
	Memorial wall	ea.	1	\$15,000	\$15,000
8	Existing Cemetery Renewal				
	Regrade sunken blocks in existing cemetery	m ²	3100	\$50	\$155,000
	Top dress and overseed grass in existing cemetery	m ²	5120	\$10	\$51,000
9	Maintenance Area				
	Shed replacement	Allowance	1	\$35,000	\$35,000
	Maintenance Equipment (toolcat and accessories)	Allowance	1	\$55,000	\$55,000
	Loose material storage bays	Allowance	1	\$5,000	\$5,000
	Sub-total (Rounded)				\$1,850,000
	Allocated Design and Contingency Amount (50/50)			40%	\$740,000
	TOTAL ESTIMATED COST				\$2,590,000

Figure 11: Phasing Plan for Park Memorial Cemetery

PARK MEMORIAL CEMETERY COST ESTIMATE								
This estimate is based on the Park Memorial Cemetery Master Plan (in 2017 dollars)								
ITEM	DESCRIPTION	Allocated Budget	Phase 1		Phase 2		Phase 3	
				(1-4 years)		(5-8 years)		(9+ years)
1	Removals							
	Remove and dispose of existing trees	\$45,000	0%	\$0	100%	\$45,000	0%	\$0
	Remove chain link fencing	\$9,000	80%	\$7,000	20%	\$2,000	0%	\$0
	Remove and dispose of asphalt	\$34,000	0%	\$0	0%	\$0	100%	\$34,000
2	Roadways and pathways							
	Asphalt roadways-renewal	\$116,000	0%	\$0	0%	\$0	100%	\$116,000
	Pavers around monuments/memorials	\$21,000	0%	\$0	0%	\$0	100%	\$21,000
	Granular path	\$33,000	100%	\$33,000	0%	\$0	0%	\$0
	Asphalt parking	\$72,000	0%	\$0	100%	\$72,000	0%	\$0
3	Features							
	Frontage fencing	\$56,000	80%	\$45,000	20%	\$11,000	0%	\$0
	Vehicular gate	\$12,000	0%	\$0	100%	\$12,000	0%	\$0
	Pedestrian gate	\$9,000	100%	\$9,000	0%	\$0	0%	\$0
	Veteran's monument	\$25,000	0%	\$0	0%	\$0	100%	\$25,000
	Monument/memorial TBD	\$40,000	50%	\$20,000	25%	\$10,000	25%	\$10,000
	Columbarium-obelisk 16 niche	\$150,000	0%	\$0	60%	\$90,000	40%	\$60,000
	Columbarium-standard 48 niche	\$140,000	45%	\$63,000	0%	\$0	55%	\$77,000
	Entry trellis at pedestrian gate	\$10,000	100%	\$10,000	0%	\$0	0%	\$0
	Benches	\$130,000	40%	\$52,000	30%	\$39,000	30%	\$39,000
4	Signage and wayfinding							
	Wayfinding kiosk	\$12,000	0%	\$0	0%	\$0	100%	\$12,000
	Digital wayfinding kiosk	\$30,000	100%	\$30,000	0%	\$0	0%	\$0
	Burial block wayfinding signage	\$63,000	85%	\$54,000	0%	\$0	15%	\$9,000
	Bus stop signage	\$150	0%	\$0	0%	\$0	100%	\$150
5	Planting							
	Deciduous tree planting (large)	\$104,000	54%	\$56,000	17%	\$18,000	29%	\$30,000
	Deciduous tree planting (medium)	\$23,000	0%	\$0	40%	\$9,000	60%	\$14,000
	Coniferous tree planting (large)	\$40,000	0%	\$0	60%	\$24,000	40%	\$16,000
	Coniferous tree planting (medium)	\$48,000	0%	\$0	65%	\$31,000	35%	\$17,000
	Native grass including strip, fine grade, place 100mm growing medium, finish grade and hydroseed	\$5,000	0%	\$0	100%	\$5,000	0%	\$0
6	New Full Burial and Cremain Plot Areas							
	Irrigation-includes controller	\$43,000	0%	\$0	100%	\$43,000	0%	\$0
	Grass including place 250mm growing medium, and sod	\$82,000	0%	\$0	100%	\$82,000	0%	\$0
	Subgrade preparation and fine grading	\$164,000	0%	\$0	100%	\$164,000	0%	\$0
7	Green Burial Area							
	Irrigation	\$4,000	0%	\$0	100%	\$4,000	0%	\$0
	Fine grading	\$11,000	0%	\$0	100%	\$11,000	0%	\$0
	Native grass including strip, fine grade, place 100mm growing medium, finish grade and hydroseed	\$4,000	0%	\$0	100%	\$4,000	0%	\$0
	Memorial wall	\$15,000	0%	\$0	100%	\$15,000	0%	\$0
8	Existing Cemetery Renewal							
	Regrade sunken blocks in existing cemetery	\$155,000	35%	\$54,000	35%	\$54,000	30%	\$47,000
	Top dress and overseed grass in existing cemetery	\$51,000	35%	\$18,000	35%	\$18,000	30%	\$15,000
9	Maintenance Area							
	Shed replacement	\$35,000	0%	\$0	0%	\$0	100%	\$35,000
	Maintenance Equipment (toolcat and accessories)	\$55,000	100%	\$55,000	0%	\$0	0%	\$0
	Loose material storage bays	\$5,000	100%	\$5,000	0%	\$0	0%	\$0
	Sub-total (Rounded)	\$1,850,000		\$511,000		\$763,000		\$577,200
	40% Design and Contingency (20% design / 20% Contingency)	40%		\$200,000		\$310,000		\$230,000
	TOTAL IMPLEMENTATION COSTS	\$2,590,000		\$711,000		\$1,073,000		\$807,000

Next Steps

The next steps in implementing the Park Memorial Cemetery Master Plan involve budgeting to implement the proposed improvements as follows:

- » Include short-term improvements in the City's 2018 capital plan
- » Initiate design development of short-term priority items as appropriate
- » Share the Master Plan with the community to build support and anticipation for the new service offerings

The Master Plan is based on multiple projections and assumptions, as it is impossible to predict the complex trends that affect cemetery planning. It is therefore critical that the progress of cemetery services and operations be monitored over time and adjusted as needed.

The Implementation Plan should be reviewed and updated annually along with a review of progress towards achieving objectives.





APPENDIX A

Public Engagement Data

Castlegar Cemetery Development Plan

Community Survey

Introduction

In order to meet needs for cemetery services, the City of Castlegar has initiated a project to plan for improvements within Park Memorial Cemetery, expansion to the south of Park Memorial, and the possible addition of another property.

The first step in the process involved an online survey to collect input from the community regarding the existing cemetery as well as priorities for future development. The City posted advertisements encouraging participation on the survey in the local paper as well as on social media. The survey was live to receive responses between November 17th and 30th. The survey was also available in hard-copy format upon request. In total, there were 12 surveys submitted with a completion rate of 100%.

Priorities identified for Castlegar's cemetery include:

- proper maintenance
- improved parking
- retention/addition of trees

Cemetery Services that received the highest levels of interest (i.e. over 50% either interested or very interested) were:

- More plots for cremated remains
- More columbaria or niches
- Green (natural) burial
- Memorial grove
- Veterans memorial

Cemetery Design elements that received the highest levels of interest (i.e. over 50% either interested or very interested) were:

- Improved wayfinding/ signage
- More benches
- More trees and plantings
- Upgrades to fence
- More or upgraded walkways

The following is a summary of the input received through the 2016 community survey.

Park Memorial Cemetery – Existing Conditions

What are the characteristics you like **best** about the Park Memorial Cemetery? These would be the features that should be protected or enhanced in the Development Plan.

The 8 response(s) to this question can be found in the table below:

#	Response
1.	That it be well maintained
2.	The grass, trees and peaceful surroundings.
3.	If you are expanding towards the south, why not leave as many trees as possible. A treed cemetery would be so pretty!
4.	I like that it is so well kept and with the flat headstones easier to maintain.
5.	Forest borders in a quiet neighborhood are nice.
6.	Peaceful setting away from traffic and noise.
7.	Generally, well kept.
8.	Quiet area. Easy parking for elderly drivers. Flat for easy walking. Everyone in one big cemetery.

What are the characteristics you like **least** about the Park Memorial Cemetery? These would be the features that should be improved in the Development Plan.

The 8 response(s) to this question can be found in the table below:

#	Response
1.	Poor maintenance
2.	I have seen a lot of cemeteries, ours is o.k.
3.	The lack of trees or shade. Too much grass to water and cut!
4.	I have no complaints
5.	Nothing
6.	Better parking lot would nice. Easier access for the elderly.
7.	Better control of "stuff" left at sites.
8.	Grass is creeping over many plaques.

Future Cemetery Services

What is your level of interest in the following cemetery services?

(1 = not at all interested | 5 = very interested)

	1 - not at all interested	2 - not interested	3 – indifferent / don't know	4 - interested	5 - very interested	Total Responses
More full burial plots	4 (33.3%)	0 (0.0%)	4 (33.3%)	2 (16.7%)	2 (16.7%)	12
More plots for cremated remains	1 (8.3%)	0 (0.0%)	3 (25.0%)	2 (16.7%)	6 (50.0%)	12
More columbaria or niches	3 (25.0%)	1 (8.3%)	0 (0.0%)	3 (25.0%)	5 (41.7%)	12
Scattering garden	5 (41.7%)	0 (0.0%)	4 (33.3%)	1 (8.3%)	2 (16.7%)	12
Green (natural) burial	2 (16.7%)	1 (8.3%)	2 (16.7%)	4 (33.3%)	3 (25.0%)	12
Memorial grove	0 (0.0%)	0 (0.0%)	2 (16.7%)	6 (50.0%)	4 (33.3%)	12
Upright grave marker section	5 (41.7%)	1 (8.3%)	1 (8.3%)	5 (41.7%)	0 (0.0%)	12
Veterans section	0 (0.0%)	2 (16.7%)	4 (33.3%)	3 (25.0%)	3 (25.0%)	12
Veterans memorial / cenotaph	1 (8.3%)	0 (0.0%)	3 (25.0%)	4 (33.3%)	4 (33.3%)	12
Memorial to specific group or event	3 (27.3%)	4 (36.4%)	3 (27.3%)	0 (0.0%)	1 (9.1%)	11
Pet memorial section	7 (58.3%)	2 (16.7%)	1 (8.3%)	1 (8.3%)	1 (8.3%)	12
Other (please explain below)	2 (50.0%)	0 (0.0%)	1 (25.0%)	0 (0.0%)	1 (25.0%)	4

Do you have any other suggestions for the design of the City's cemetery or new cemetery?

#	Response
1.	None
2.	More trees, less grass.
3.	How much is it going to cost? and how does the City plan to pay for it?
4.	Have been waiting for another Columbarium to be built for over two years. With cremation becoming more popular it is long overdue to create a section possibly somewhere along the back fence. It seems to be a good use of land and the maintenance should be cost effective.
5.	Cut grass out around plaques so that it does not cover writing.

Future Cemetery Design

What is your level of interest in having the following potential design features the existing or new cemetery?

(1 = not at all interested | 5 = very interested)

	1 - not at all interested	2 - not interested	3 – indifferent / don't know	4 - interested	5 - very interested	Total Responses
Improved wayfinding/signage	2 (16.7%)	0 (0.0%)	1 (8.3%)	7 (58.3%)	2 (16.7%)	12
More benches	0 (0.0%)	1 (8.3%)	2 (16.7%)	8 (66.7%)	1 (8.3%)	12
Open air chapel or gathering space	2 (18.2%)	1 (9.1%)	3 (27.3%)	4 (36.4%)	1 (9.1%)	11
More trees and plantings	1 (8.3%)	2 (16.7%)	3 (25.0%)	3 (25.0%)	3 (25.0%)	12
Contemplative water feature	3 (27.3%)	2 (18.2%)	4 (36.4%)	1 (9.1%)	1 (9.1%)	11
Pavilion or shelter	1 (8.3%)	3 (25.0%)	3 (25.0%)	4 (33.3%)	1 (8.3%)	12
Public art	5 (50.0%)	1 (10.0%)	2 (20.0%)	1 (10.0%)	1 (10.0%)	10
Lighting	3 (27.3%)	2 (18.2%)	2 (18.2%)	3 (27.3%)	1 (9.1%)	11
Upgrades to fence	1 (9.1%)	2 (18.2%)	2 (18.2%)	5 (45.5%)	1 (9.1%)	11
More or upgraded walkways	1 (8.3%)	0 (0.0%)	3 (25.0%)	6 (50.0%)	2 (16.7%)	12
Other (please explain below)	1 (50.0%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	0 (0.0%)	2

The 3 response(s) to this question can be found in the table below.

Response
No
Not at this time
Build more columbariums and save land, water, and maintenance costs.

Cultural Requirements

Response	Chart	Percentage	Count
Yes		9.1%	1
No		90.9%	10
Total Responses			11

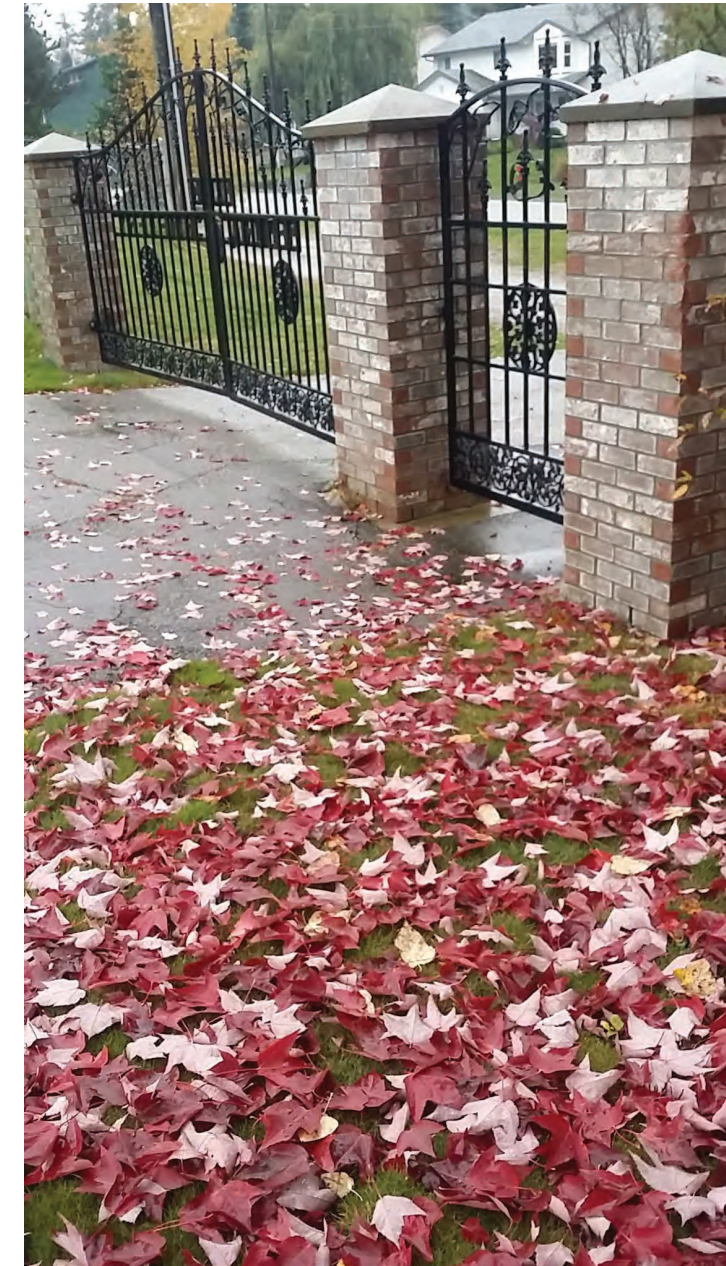
The single response to this question can be found below:

Italian section



APPENDIX B

Sketch Concepts



CITY OF CASTLEGAR • PARK MEMORIAL CEMETARY

Sketch Concepts
June 30, 2016

URBAN
systems



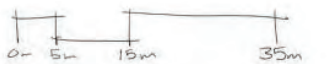
CITY OF CASTLEGAR • PARK MEMORIAL CEMETARY • EXISTING CONDITION



CITY OF CASTLEGAR • PARK MEMORIAL CEMETARY • EXISTING CONDITION



CITY OF CASTLEGAR • PARK MEMORIAL CEMETARY • EXISTING CONDITION





LEGEND

- ① FULL BURIAL PLOT TYPICAL
- ② CREMAINS BURIAL PLOT TYPICAL
- ③ COLOMBARIA
- ④ VETERAN'S MEMORIAL
- ⑤ MEMORIAL / SEATING NODE

- ⑥ GREEN BURIAL GROVE
- ⑦ SHADE OR MEMORIAL TREE
- ⑧ FENCE OR WALL
- ⑨ PULL-OUT / PARKING
- ⑩ MEMORIAL FOREST

CITY OF CASTLEGAR • PARK MEMORIAL CEMETARY EXPANSION CONCEPT 1





LEGEND

- ① FULL BURIAL PLOT TYPICAL
- ② CREMAINS BURIAL PLOT TYPICAL
- ③ COLOMBARIA
- ④ VETERAN'S MEMORIAL
- ⑤ MEMORIAL / SEATING NODE

- ⑥ GREEN BURIAL GROVE
- ⑦ SHADE OR MEMORIAL TREE
- ⑧ FENCE OR WALL
- ⑨ PULL-OUT / PARKING
- ⑩ MEMORIAL FOREST

CITY OF CASTLEGAR • PARK MEMORIAL CEMETERY EXPANSION CONCEPT 2





LEGEND

- 1 FULL BURIAL PLOT TYPICAL
- 2 CREMAINS BURIAL PLOT TYPICAL
- 3 COLOMBARIA
- 4 VETERAN'S MEMORIAL
- 5 MEMORIAL / SEATING NODE

- 6 GREEN BURIAL GROVE N/A
- 7 SHADE OR MEMORIAL TREE
- 8 FENCE OR WALL
- 9 PULL-OUT / PARKING
- 10 MEMORIAL FOREST

CITY OF CASTLEGAR • PARK MEMORIAL CEMETARY EXPANSION CONCEPT 3





- 1 EXTEND AXIS TO OBITUARY
- 2 VETERAN'S MEMORIAL PLAZA / MONUMENT
- 3 MEMORIAL PLAZA / SEATING NODE (TYP)
- 4 DOUBLE-SIDED COLUMBARIUM WALL (TYP)
- 5 OBELISK COLUMBARIUM (TYP)
- 6 MEMORIAL WALL FOR GREEN BURIAL
- 7 MEMORIAL FOREST WALK
- 8 STONE + METAL BLOCK WAYFINDING
- 9 WAYFINDING KIOSK
- 10 CONTEMPLATIVE FOREST PATH (CONSIDER SCATTERING)
- 11 PROPOSED CREMAINS PLOTS
- 12 PROPOSED FULL BURIAL PLOTS
- 13 PROPOSED GREEN BURIAL AREA
- 14 VEHICULAR GATE
- 15 PEDESTRIAN GATE
- 16 IRON FENCE ALONG ROAD

- 17 WORK SHED + BAYS
- 18 LOOSE MATERIAL STORAGE BAYS
- 19 PULL-THROUGH PARKING
- 20 WASTE RECEPTACLE
- 21 MEMORIAL BENCH (TYP)

PARK MEMORIAL CEMETERY MASTER PLAN



