



CEMETERY MASTER SITE DEVELOPMENT PLAN

MUSLIM CEMETERY OF CALGARY FELLOWSHIP

Muslim Cemetery of Calgary Fellowship (MCCF)
Cemetery Master Site Development Plan

For additional Information regarding this report
please contact:

Sue Paton
Senior Planner

ISL Engineering and Land Services
4015 7 Street SE
Calgary AB T2G 2Y9
T: 403.254.0544 F: 403.254.9186
spaton@islengineering.com

islengineering.com

27987



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

Proudly certified as a leader in quality management under Engineers and Geoscientists BC's OQM Program from 2014 to 2021.





Table of Contents

- 1.0 Introduction..... 1**
 - 1.1 Vision 1
 - 1.2 Purpose 1
- 2.0 Cemetery Site Context 4**
 - 2.1 Area Description 4
 - 2.2 Environmental Context 4
 - 2.3 Planning Context 5
- 3.0 Fiscal Impact 8**
 - 3.1 Business Case Analysis 8
 - 3.2 Financial Feasibility Analysis 9
- 4.0 Concept Plan..... 10**
 - 4.1 Concept Summary 10
 - 4.2 Building Placement and Setbacks 10
 - 4.3 Building Height and General Architectural Appearance 10
 - 4.4 Parking and Public Lighting 11
 - 4.5 Landscaping for Visual Appearance and/or Mitigating Measures 11
 - 4.6 Agriculture Boundary Design Guidelines 11
 - 4.7 Anticipated Phasing 11
 - 4.8 Key Concept Components 11
- 5.0 Technical Studies 14**
 - 5.1 Water Servicing Concept 14
 - 5.2 Sanitary Servicing Concept 14
 - 5.3 Stormwater Management Strategy 15
 - 5.4 Traffic Memo 16
 - 5.5 Cemetery Operations 17
- 6.0 Public Engagement 17**
 - 6.1 What We Heard 17
 - 6.2 Calgary Interfaith Council Support 18
- 7.0 Implementation..... 20**
 - 7.1 Proposed Land Use Redesignation 20
 - 7.2 Phasing 20

APPENDICES

- Appendix A AMCIA Burial Services Letter
- Appendix B Agricultural Boundary Design Guidelines Compliance
- Appendix C CIC Letter of Support

TABLES

- Table 1 – Neighbour Concerns and Clarification..... 17

FIGURES

- Figure 1 – Location Plan 2
- Figure 2 – Cemetery Site Aerial 5
- Figure 3 – Cemetery Concept Plan 10
- Figure 4 – Burial Area Phasing 19

MCCF is thankful to the members of our community who prepared the cemetery illustrations for this MSDP.

1.0 Introduction

1.1 Vision

The Muslim Cemetery of Calgary Fellowship (MCCF) intends to provide interment services to the growing community in the Calgary Region.

The proposed cemetery development is intended to become the most inclusive Cemetery in the region, providing comprehensive bereavement services for all members of the Muslim faith as well as inter-faith space for people of all backgrounds. Services will include facilities for storage, viewing, washing and all other rituals related to interment. The MCCF will not be offering cremation interment options.

By offering the complete cycle of services needed by community members, MCCF will remove the burden of administering the death of a family member and will support families to mourn and reflect.

1.2 Purpose

The purpose of this Master Site Development Plan (MSDP) is to establish a cemetery on ±28.4 hectares (70.18 acres) of land currently zoned Agriculture General (A-GEN), which is located approximately 8 km east of the Hamlet of Conrich in Rocky View County (referred to herein as the “cemetery site,” as shown in **Figure 1 – Cemetery Site Location**).

The cemetery site is intended to serve the growing Muslim community within in a 200 km radius of its location and is a full 50 km east of the existing Muslim cemetery adjacent to the Town of Cochrane.

The proposed cemetery will provide burial services in addition to an abundance of outdoor space for quiet reflection, including a

memorial forest with a peaceful park-like setting. It will include facilities for storage, viewing, washing and all other rituals related to interment. In addition, the new cemetery will be easily accessible from major roadways, in a convenient and central location within the area that it plans to serve. **The MCCF will not be offering cremation interment options.**

The cemetery site will be a welcoming inter-faith space. As a charitable organization, the intent is to provide free burial services for the families of the deceased who are unable to pay and in the future transition to providing all burials at no cost (see **Appendix A**).

This MSDP anticipates a future land use redesignation application and provides design guidance for the development of the cemetery site. Furthermore, this MSDP addresses building placement, general use areas, proposed lighting and landscaping areas and buffers, parking facilities and access in order to minimize potential land use conflicts and develop the lands in a manner that is sensitive to existing environmental conditions. All in order to Council and the public with a clear idea of the layout and operation of the cemetery site.

As part of the planning process, a number of studies were prepared to support the proposed applications.

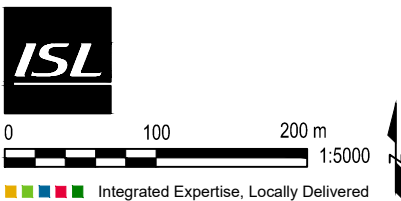
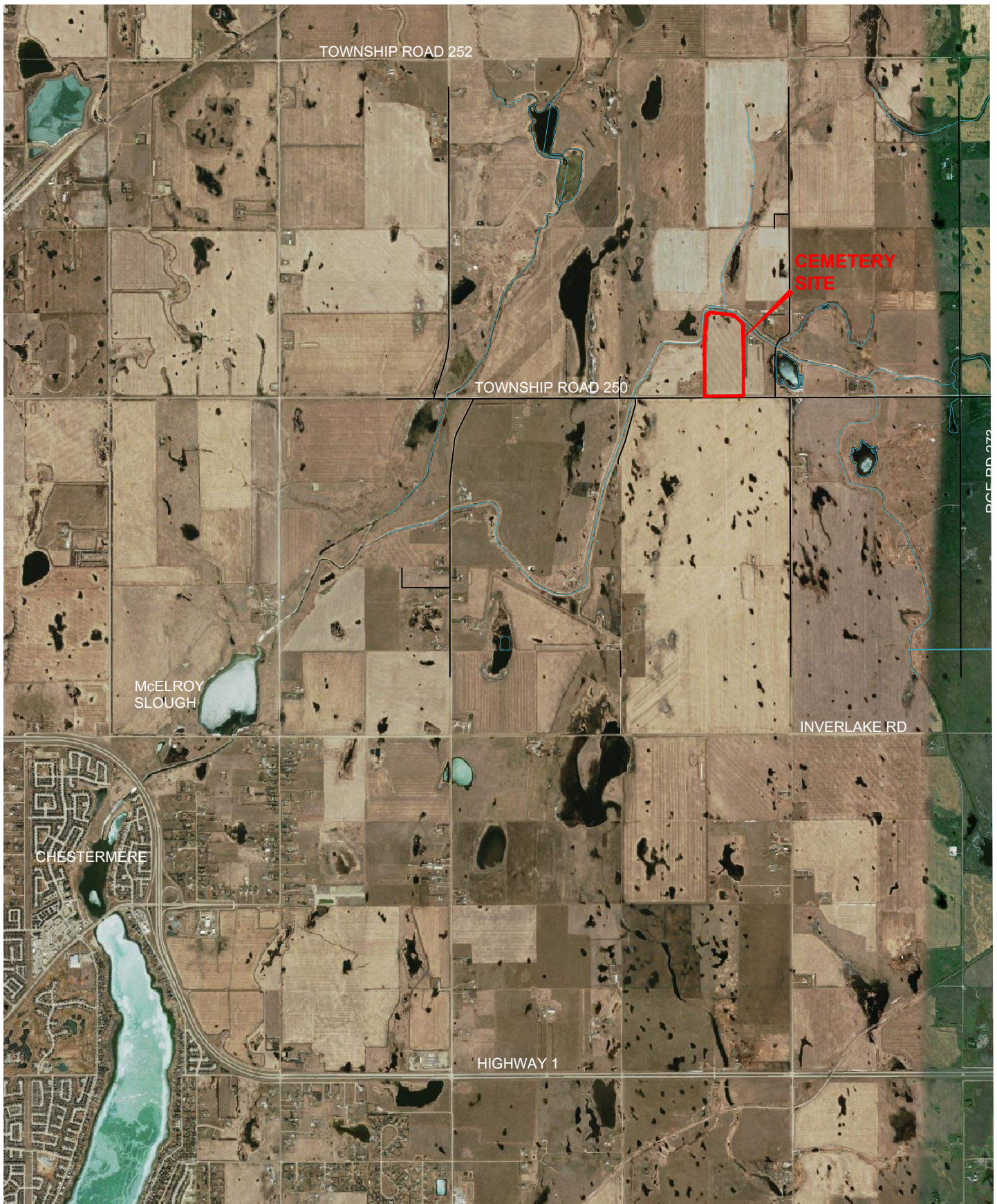
A standalone **Supporting Studies (SS)** document has been provided in support of this MSDP, it includes the following:

- **Geotechnical Investigation Report (Nov. 2021), prepared by Parkland GEO**
The geotechnical report summarized the results of field and laboratory testing and provides recommendations for general site preparation and access roadway during construction.



- **Wetland Desktop Review (June 2022), prepared by ISL**
A desktop analysis was conducted to provide an overview of potential wetlands in the project area.
- **Wetland Field Review (March 2023), prepared by ISL**
A Qualified Wetland Science Practitioner (QWSP) conducted field verification of wetland presence, field wetland delineation, classification and permanence typing for all wetlands.
- **Business Case Analysis (March 2022), prepared by LEES+Associates**
The business case includes a supply and demand market study, cemetery sales, interment and financial projections, a Perpetual Care Fund and Development Fund analysis. It concludes with a Statement of Market and Financial Viability.
- **Level IV Private Sewage Treatment System Assessment (PSTS) (June 2022), prepared by Groundwater Resources Information Technologies (GRIT) Ltd.**
The PSTS assessment was completed following the 2021 Alberta Private Sewage Systems Standard of Practice and the Model Process for Subdivision Approval.
- **Level I Desktop Groundwater Study (June 2022), prepared by ISL**
The Level 1 assessment included information regarding the suitability of the area for groundwater usage and potential impacts to surrounding groundwater users.
- **Cemetery Traffic Generation Memo (June 2022), prepared by ISL**
The development is clear of AT's development control zone, thus no TIA from AT should be required.
- **Public Engagement Summary (March 2023), prepared by ISL**
This document is a summary of the community engagement process conducted by ISL on behalf of the MCCF.

These studies are summarized in the following sections. Further details will be provided as part of the development process which includes a subsequent development permit application and the provisional approval of a cemetery application with the Province of Alberta.



Cemetery MSDP
MCCF
 Figure 1
 Location Plan
 March 2023



2.0 Cemetery Site Context

2.1 Area Description

The legal land description for the cemetery site is SE-05-25-27-W4, which is approximately 8 km east of the Hamlet of Conrich.

The cemetery site consists of an open field bounded by

- Township Road 250 to the south,
- An adjacent property and farmland to the east,
- A Western Irrigation District (WID) canal to the north, and
- An adjacent property and farmland to the west.

As shown in **Figure 2 – Cemetery Site Aerial**, there is a tree line running north-south along the east boundary of the cemetery site. The area east of the tree line is intended to remain agricultural and no redistricting of the land use in this portion of the parent parcel is proposed.

The topography is relatively flat, sloping downward towards the north and east. The maximum elevation change is 4.78 m between the southwest and northeast corners of the site.

The northern portion of the subject lands contains a significant wetland. Development will be completed in a sensitive manner in order to preserve this ecosystem and leave the wetland area untouched.

2.2 Environmental Context

The following studies provided environmental context for the preparation of the cemetery site concept plan:

Geotechnical Investigation

A geotechnical investigation was prepared in the fall of 2021 by Parkland GEO (see **SS #1**). Based on the results of the investigation it is expected that the parent parcel contains a minimum of 30 Acres (120,000 m²) of suitable cemetery area, where groundwater levels during the summer months would remain below 2.0 metres below grade.

For the purpose of preliminary planning and design it was recommended that the cemetery area be located within the southwest portion of the parent parcel within the area where the surface elevation is roughly 1015.0 m.

Desktop Wetland Study

A Desktop Wetland Study was conducted in spring 2022 for the entire property (see **SS #2**). The cemetery site falls within Relative Wetland Value Assessment Unit 16 with an in-lieu fee rate of \$18,500/ha. There were seven wetlands identified within the cemetery site through a desktop analysis, three of which are graminoid marshes and four of which are ephemeral waterbodies.

An eighth wetland is east of the cemetery site within the parent parcel.

There is no intent to disturb the wetlands or to utilize the wetlands for stormwater management.

Wetland Field Review

A Qualified Wetland Science Practitioner (QWSP) conducted field verification of wetland presence, field wetland delineation, classification and permanence typing for all wetlands on August 22, 2022. This fieldwork is valid for three years from this date. The Wetland Field Review report is included in **SS #3**.

The four wetlands in the subject area classified as graminoid marshes are subject to a total compensation fee of \$70,855 plus GST for wetland infilling. There are three ephemeral waterbodies located within the subject area, which are not subject to compensation fees for disturbance as they are not considered wetlands in Alberta. If any of the seven identifies wetlands or ephemeral waterbodies are planned to be disturbed such that an “activity” will occur, a Water Act application will be submitted.

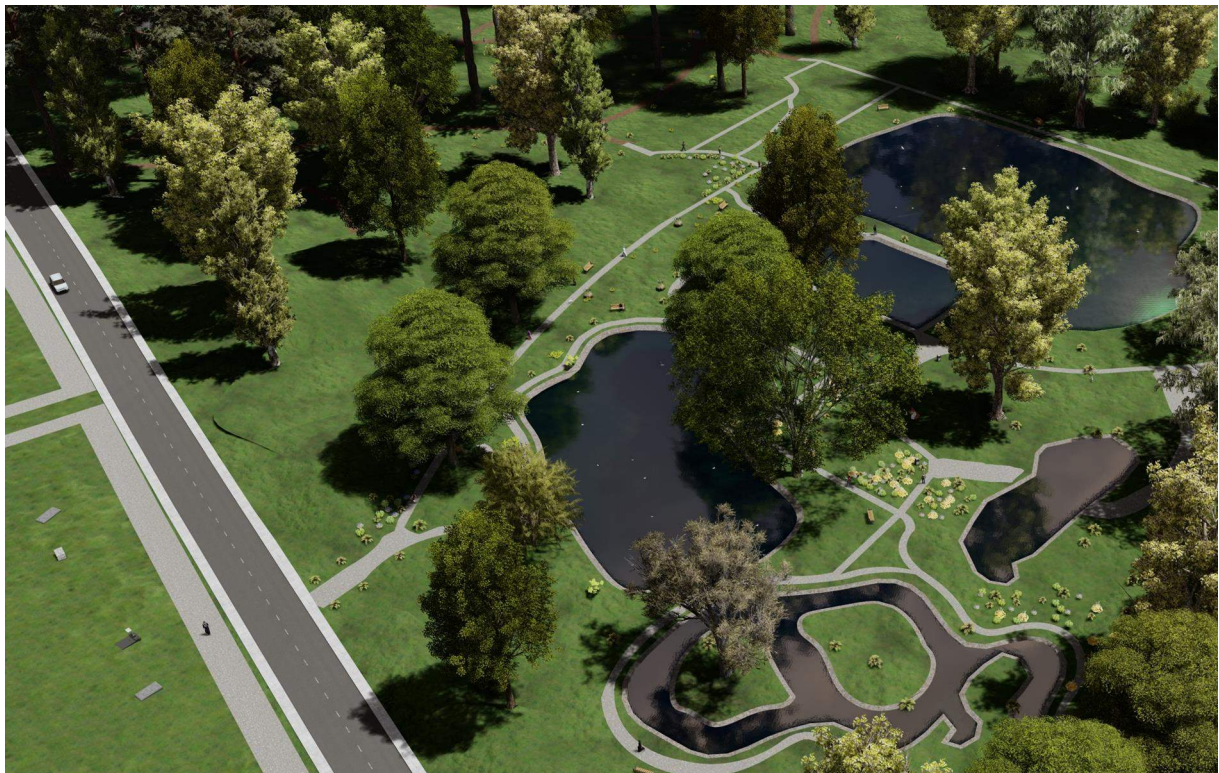
For retained wetlands, ISL recommends setbacks per Stepping Back from the Water (Province of Alberta 2012). Setbacks recommended range from 6m to 50m and depend on a variety of field factors including soils, slopes, and wetland permanence type. Recommendations on the size of setbacks are 10m for temporary wetlands and 20m from seasonal wetlands.

2.3 Planning Context

County Plan

The proposed cemetery development complies with the requirements outlined in Section 11.3 of the County Plan for institutional uses not located within a hamlet, country residential community or business centre, as it is located in an area that is easily accessed by County residents and population centres in Cochrane, Calgary and Chestermere yet does not utilize business centre or hamlet lands that would be better suited for commercial or industrial development.

Memorial Garden Illustration





The proposed development complies with Section 11.3 and other key goals of the County Plan including:

- Support for decisions that minimize the adverse impacts of development on the environment.
- The site has undergone a thorough environmental review to protect sensitive areas and the cemetery has been designed to incorporate setbacks and buffers to mitigate any negative affects for adjacent parcels.
- Support for the conservation and effective management of riparian areas and wetlands.
- The wetlands are intended to be undisturbed.
- Support for institutional and community land uses that benefit residents and contribute to the community by serving culture, education, health, religious, recreation, and social needs.
- Market studies conducted by Lees confirm the need for a cemetery facility in this area.
- Support for development proposals that focus on high quality boundary design between agriculture and other uses. The concept plan has been designed using tools from the

Agricultural Boundary Design Guidelines to minimize potential land use conflict.

- Provision of approximately 50% of the site as either forest/park or water. These areas are contemplated as public access for all County residents, thus recognizing the cultural value of the site to the community. The proximity of this area to the canal creates a further pleasant ambiance which is a unique feature of the site.

Land Use

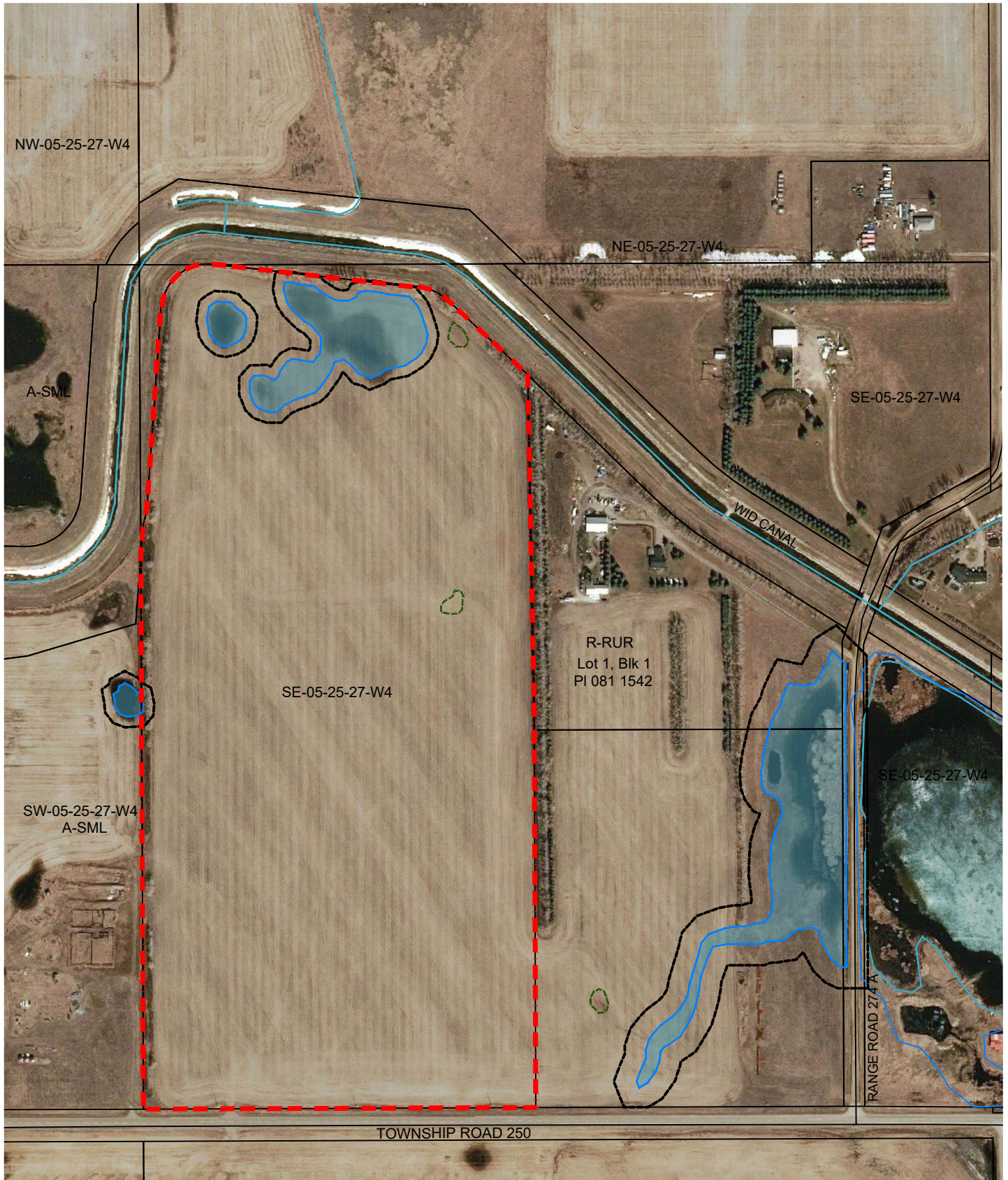
The cemetery site is currently designated as Agricultural, General District (A-Gen). A future land use amendment will be required as noted below.

The proposed future land use to accommodate the cemetery development is Special, Public Service District (S-PUB). As noted in the County's LUB, the purpose of S-PUB is "to provide for the development of Institutional, Educational and Recreational uses." Cemetery and Funeral Services are a Discretionary Use for this land use district.

The remainder of the parent parcel is anticipated to remain Agricultural, General District (A-Gen) and continue to be used for agricultural purposes.

Memorial Forest Illustration





- - - Burial AREA
 - 50m Offset from Wetland
 - Ephemeral Wetlands
 - Wetlands to Retain
- Note: Existing Wetland Delineation Prepared by ISL

**Cemetery MSDP
MCCF**

Figure 2
Cemetery Site Aerial

March 2023



3.0 Fiscal Impact

In 2021, the Al Madinah Calgary Islamic Assembly (AMCIA) commissioned LEES+Associates to prepare a Business Case Analysis the proposed cemetery site, which will be operated by MCCF.

The business case (see **SS #4**) includes a cemetery demand and supply analysis, cemetery sales, interment and financial projections, as well as a perpetual care fund and development fund analysis.

3.1 Business Case Analysis

LEES+Associates obtained detailed demographic and vital statistic population, death, and disposition data from the provincial government for the MCCF's Market Area in this business case analysis.

Market Profile + Demand

- The MCCF will primarily serve Muslim community members from Southern Alberta, in a 200 km radius around the cemetery site (the Market Area). The Market Area currently has 2.6 million residents, and includes approximately 130,000 Muslims (5% of residents),
- Over the past five years, from 2016 to 2021, the Market Area had approximately:
 - Increased its total population by 7%, from 2,399,553 to 2,572,973 residents,
 - Averaged 5.2 deaths per 1,000 residents per year,
 - 77,000 resident deaths, averaging 12,900 resident deaths per year,
 - 15,000 resident casket burials, averaging 2,500 resident casket burials per year, and

- 3,900 Muslim deaths and burials, averaging 650 Muslim deaths and burials per year.
- The Market Area population will grow 43% to 3.7 million residents, and the Muslim community will grow 43% to 185,000 members by 2047,
- Due to the passing of the Baby Boomer generation, it is anticipated that the Market Area's death rate will increase to 5.8 deaths per 1,000 residents by 2047,
- Over the next twenty-five years, from 2022 to 2047, the Market Area will have approximately:
 - 433,000 resident deaths, averaging 17,300 resident deaths per year,
 - 15,000 resident casket burials, averaging 2,500 resident casket burials per year, and
 - 21,600 Muslim deaths and burials, averaging 860 Muslim deaths and burials per year.

Cemetery Activity versus Available Supply

- AMCIA expects that 60% of community members needing cemetery services in the Market Area will use the new cemetery, and
- MCCF is expected to provide 13,000 burial services - averaging 520 burials per year, and to sell 15,600 burial lots, averaging 625 burial lot sales per year, from 2023 to 2047,
- MCCF is expected to develop 27.2 acres of its cemetery land into a burial area, which will provide the cemetery with 13,600 graves for sale and interments,
- MCCF is expected to begin using 10 acres of its cemetery land in Phase 1 of its

development plan which will provide the cemetery with 5,000 graves for sale and interment, and

- The inventory developed in Phase 1 is expected to be sold out in 8 years, and the total burial area planned will be sold out after 20 -25 years.

3.2 Financial Feasibility Analysis

- MCCF plans to initially offer the complete range of bereavement and cemetery services at approximately the same rates at Rocky View County's Garden of Peace Cemetery, to attract community members to the site,
- MCCF plans to maintain its cemetery rates and make no price changes for five years, to attract community members to the site. Then after five years of operations, MCCF will increase its rates 2% per year (to offset the effect of inflation on its operating costs),
- MCCF will spend \$280,000 per year in its first full year of cemetery operations. This is projected to increase to \$433,000 per year over the next five years,
- The AMCIA plans to fully invest in the resources it anticipates will be needed for the site's efficient operations, attractive offerings, and community promotion. It has sufficient assets and community resources to draw upon to support the cemetery's development and launch,
- MCCF expects a strong demand for its dedicated community services, and

anticipates that its revenue will exceed its annual operating costs within its first year of operations,

- MCCF will set up a Perpetual Care Fund (PCF) that will have \$100,000 added at the cemetery's start of operations. It will then place 30% of its sales value in this fund annually. MCCF can expect its cemetery care and maintenance fund to be fully funded within 20 years, and
- MCCF will set up a Development Fund (DF) and place 30% of its sales value in this fund annually. This fund will pay for the cemetery's ongoing land and infrastructure development.

AMCIA expects strong engagement from the community members in the Southern Alberta cemetery market for the new cemetery site, as it intends provide exceptional, all-inclusive funeral and interment services.

Projections of demand find that the new cemetery is expected to be viable in the regional cemetery market, financially successful and self-sustainable over the next 25 years.



4.0 Concept Plan

4.1 Concept Summary

Created together with LEES+Associates, a Canadian leader in cemetery and memorial design the cemetery site concept plan has been designed to reflect the findings within the background context research (**Supporting Studies 1-4**) and using the following tools from the County's Agricultural Boundary Design Guidelines to minimize potential land use conflict, including:

- **Buffering** – Landscaping and placement of buildings will offer screening and privacy to the burial sites.
- **Location of Stormwater Facilities** – Stormwater facilities have been located at appropriate locations to capture runoff and will become part of the comprehensive landscaping for the overall site. Standard setbacks from the WID canal have been maintained and stormwater facilities will be designed to capture 100% runoff so no runoff will be directed to the canal.
- **Topography** – The conceptual layout has been designed to preserve the existing wetland areas and enhance the natural features of the site. The eastern portion of the parcel will remain agricultural.
- **Buildings** – Buildings are set back from the south property line and screened from the public roadway.
- **Road Design** – A private roadway system has been designed to provide for operational requirements. Public access is limited to parking areas adjacent to the public roadway which will be appropriately screened. There will be a single access to and from the site.

- **Edge Treatments** – Edge buffering is provided through the location of private roads, tree belts and other landscaping initiatives.

Figure 3 – Concept Plan illustrates the general layout for the cemetery site. The proposed development will encompass approximately 28ha, leaving the entire east side of the parent parcel undeveloped. The preliminary concept provided in this document addresses the following:

Policy 4.1.1: Development of the Cemetery shall generally follow the concept outlined in **Figure 3 – Concept Plan** allowing for minor changes to respond to operational requirements.

The preliminary concept provided in this document addresses the following items outlined in **Appendix C.3** of the County Plan.

4.2 Building Placement and Setbacks

The buildings will be generally located as shown. Architectural details have not been determined at this time and exact dimensions and features will be developed subsequent to the approval of this MSDP.

Policy 4.2.1: Detailed architectural drawings shall be provided at the Development permit stage.

4.3 Building Height and General Architectural Appearance

Buildings will be limited to two stories and will be designed in a conservative manner appropriate to the natural environment and sensitive to cultural practices.

Policy 4.3.1: Building heights shall conform to the Land Use Bylaw.

Policy 4.3.2: Buildings shall be designed to fit in with the character and context of the area.

4.4 Parking and Public Lighting

Lighting will be provided for operational and safety concerns but will be designed to minimize light pollution.

Parking will be provided as indicated in **Figure 3 – Concept Plan** and will be designed to accommodate anticipated traffic volumes.

Policy 4.4.1: Parking will be provided in accordance with requirements of the Land Use Bylaw at the Development Permit stage.

Policy 4.4.2: Lighting requirements will be determined at the Development Permit stage and will conform to the County’s dark sky policies.

4.5 Landscaping for Visual Appearance and/or Mitigating Measures

Environmentally sensitive areas will be protected, and the wetland areas will be incorporated into the comprehensive landscaping for the site. Landscaping will be provided to provide aesthetic value to the area as well as functional screening and mitigation between uses.

Policy 4.5.1: Landscaping Plans will be required at the Development Permit stage and will conform to the County’s Land Use Bylaw.

Policy 4.5.2: Signage will be determined at the Development Permit stage in compliance with the Land Use Bylaw.

4.6 Agriculture Boundary Design Guidelines

The County’s Agriculture Boundary Design Guidelines have been reviewed and the appropriate worksheet has been included in **Appendix B** to illustrate compliance with current policy directives.

4.7 Anticipated Phasing

The MCCF expects to fully develop the support buildings in the first phase, using 10 acres for the

initial 5,000 graves which will be available for sale and interment as discussed in **Section 7.0 – Implementation**.

4.8 Key Concept Components

Burial Area

The heart of the cemetery is the burial area. The first phase of development will provide for approximately 5000 graves located north of the support buildings and parking area as shown on **Figure 3 – Concept Plan**. Burial sites will be connected through an integrated pathway system and protected with trees, hedges or fencing.

A **dedicated inter-faith burial area** has been identified in cell C which will be open to people of all backgrounds. This cell will be developed in the first phase to ensure the cemetery is welcoming to all right from the start.

Support Buildings

Development of the cemetery will include buildings for storage, viewing, washing and other rituals related to interment. The interment process will be accommodated within the three buildings adjacent to the parking area, which will be constructed during the first phase of development of the cemetery site and will provide conveniently located full care services to the community. The MCCF will not be offering cremation interment options.

Building #1 – Administration and Prayer

Building #2 – Ablution and Preparation

Building #3 – Operations, including the storage and maintenance of equipment.

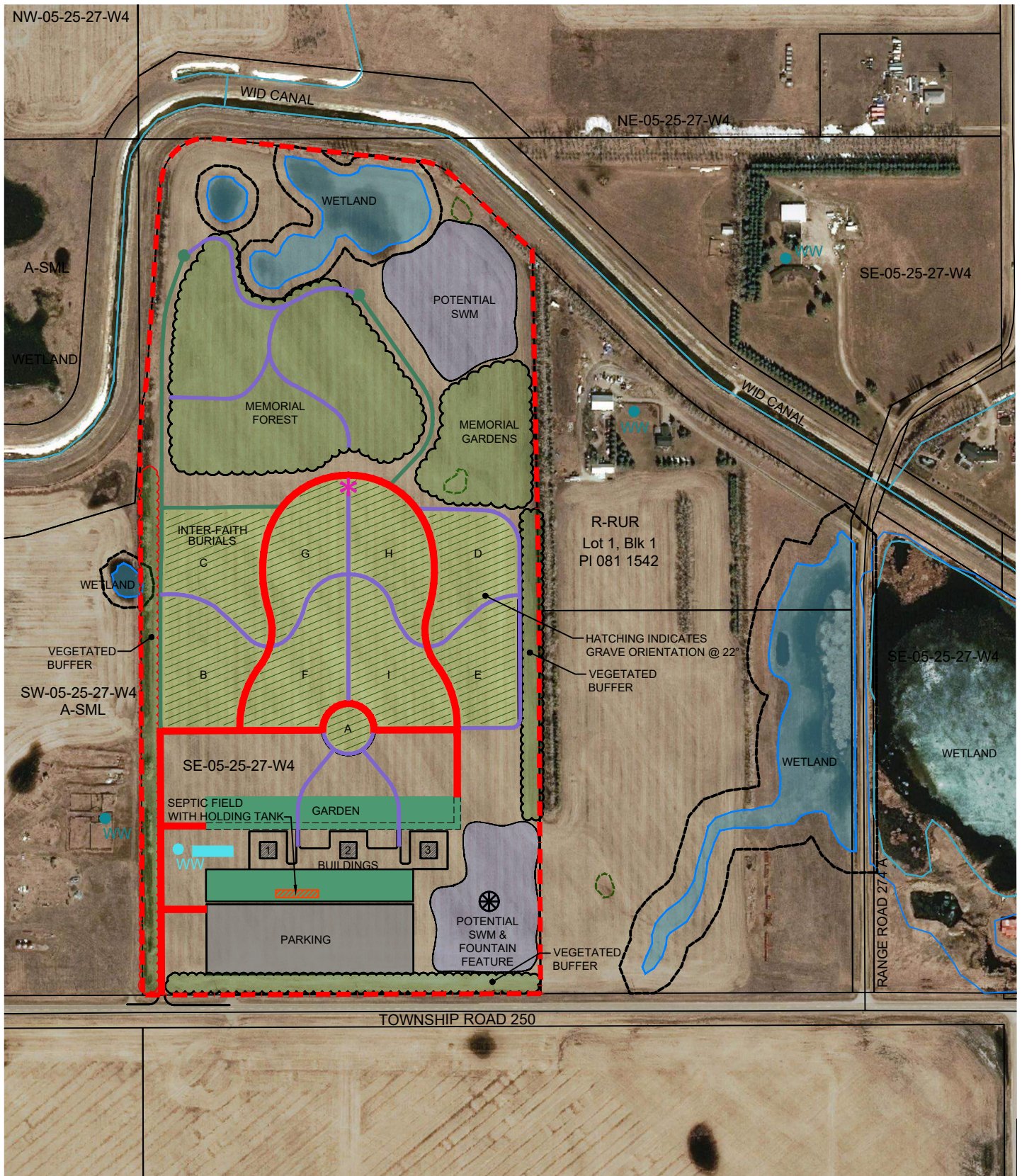
Additional information on the use of buildings is included in **Section 5.5 – Cemetery Operations**.



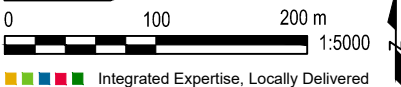
Memorial Forest and Gardens

A memorial forest and gardens will be developed north of the burial sites to provide a peaceful area for bereavement and reflection. The forest will be a living memorial that will grow and flourish over the years and become a tribute and source of comfort to those who have suffered loss. This area will be developed adjacent to the natural wetland areas which will enhance the peaceful environment and contribute to the healing atmosphere of the gardens.





The concept was prepared in collaboration with Lees and Associates.



- Cemetery Site
 - Existing Water Well
 - Proposed Water Well
 - Proposed Water Tank
 - Proposed Road/ Paths/Parking
 - A Dignitary Burial Area
 - B-I Burial Areas
 - 50m Offset from Wetland
 - Pedestrian Paths (3m)
 - * Terminus/Landmark
 - Vehicular Roads-Asphalt (6m)
 - Roads-Gravel (3m)
 - Buildings
 - Proposed Burial Areas
 - Proposed Memorial Forest & Gardens
 - Ephemeral Wetlands
 - Wetlands to Retain
 - Potential Storm Water Management (SWM)
- Note: Existing wetland delineation prepared by ISL

Cemetery MSDP
MCCF
 Figure 3
 Cemetery Concept Plan

March 2023



5.0 Technical Studies

5.1 Water Servicing Concept

Domestic water usage for the cemetery site is estimated to be 9,000 L/day, which is equivalent to an average of 80 daily users. Estimation is based on four (4) washrooms with toilets only per building and 1 (one) shower facility in one building to prepare a body. The estimated usage can be altered when additional information is provided, i.e., number of guests to each burial, hours of operation, etc.

For the purpose of this report fire flow requirements are based on RVC Standard - Table 600B and the buildings are assumed not be sprinklered. Under Commercial types, water flow is equal to 250 L/s plus maximum daily demand. Volume required is equal to 1,200 to 2,700 m³ plus maximum daily demand. From above, maximum daily demand is estimated to be 9 m³.

It is worth noting that the values in RVC Standard - Table 600B are conservative. During detailed design, the building(s) will need to be classified and confirm if the building(s) requires to be sprinklered under the Building Code. With this information, the appropriate volume required for firefighting can be determined using the Fire Underwriters Survey Water Supply for Fire Protection.

Water for domestic usage can be provided via water well(s) and/or underground cistern tank(s). A cistern will be buried 2.75m below finished ground with an access hatch and pump rated to meet usage. A 25mm service is anticipated for each building. Refer to Section 5.4 of this report for additional water well information.

Well(s) have limited capacity to provide water for firefighting. Cistern(s) or utilizing storm

ponds are usually used to provide the volume of water required for firefighting. The volume must be always available in case of fire.

A minimum 150mm lead from the source to the hydrant is anticipated. Depending on the fire truck the closest fire station uses, a pump may be required to draw water from the source to the fire truck. Refer to Section 5.3 of this report for additional information about storm pond.

Policy 5.1.1: Water for support buildings usage shall be provided via water well(s) and/or underground cistern tank(s).

Policy 5.1.2: On-site water storage shall be provided to meet fire suppression requirements in accordance with the County's Servicing Standards and Fire Hydrant Water Suppression Bylaw.

5.2 Sanitary Servicing Concept

The sanitary service for the development will be provided via a septic system complete with an underground holding tank and mounded septic field system. Based on the Level IV Private Sewage Treatment System Assessment for Submission prepared by Groundwater Resources dated June 2022 (see **SS #5**), the mounded septic field will need an area of 198m² with a toe-to-toe width of 6.4m and at least 0.9m above existing ground. These parameters are based on a loam soil type.

A 12,400L underground holding tank will provide the necessary sewer service to the development. The tank has been sized to a working capacity which is equal to the peak sewer volume (see Section 5.1, estimated water usage of 9000 L/day) plus sludge and scum accumulation based on a one (1) year maintenance period.

A 100mm service from each building is anticipated to connect to the underground holding tank. From there, the solids will accumulate to the bottom of the tank and the liquids will dissipate within the septic field. The underground holding tank will be buried 2.5-2.7m below ground and will have an access hatch and vent.

Policy 5.2.1: Wastewater shall be managed on site through the provision of septic systems.

5.3 Stormwater Management Strategy

The site is currently graded with a high point near the middle of the lot and drains to the north and southeast towards existing wetlands in the area. The site is within the Western Irrigation District (WID). All sites within the WID must retain all stormwater onsite without any offsite discharge. The stormwater management concept is assumed to limit /minimize grading within the parcel and match the current drainage pattern.

The concept proposes two stormwater ponds, one on the northeast and the other on the southeast. The ponds will collect stormwater at surface from the site. The vision for the NE pond is to incorporate it into a naturalized wetland to enhance the future park/memorial forest area. Piping maybe be required in flatter areas to ensure minimum slopes are maintained throughout. The ponds have been sized based on the following parameters:

- No offsite discharge, stormwater to remain onsite
- Limited to no infiltration, subsoil hydraulic conductivity set to $1 \times 10^{-8} \text{m/s}$
- Pond to be drawn by irrigation of landscape areas including memorial gardens and burial areas

- Irrigate all landscape areas based on City of Calgary standard irrigation weekly watering schedule:
 - 10mm depth of irrigation in May
 - 30mm depth of irrigation in June
 - 45mm depth of irrigation in July and August
 - 20mm depth of irrigation in September
- 150mm of topsoil depth

The development will require 12,800m² of pond area for the northeast pond and 11,500m² of pond area southeast pond to fully contain stormwater onsite. Rainwater from the buildings and parking lot will be directed to the SE pond. It is worth noting that during low rainfall years, the amount of water within the storm ponds may not be able to be irrigate the development. Another water source (refer to Section 5.1) may be required to irrigate the development.

The storm ponds can be utilized for firefighting, which can reduce the size of the water cistern as discussed in Section 5.1. Water within the pond considered to be used for firefighting must be a minimum 1.2m below the top of pond (frost free depth) and a minimum 0.6m above the bottom of pond. The storm pond footprint as discussed above may need to expand to accommodate the additional volume required for firefighting.

Policy 5.3.1: Stormwater management facilities shall be designed, constructed and maintained to ensure consistency between pre- and post-development drainage conditions in accordance with the County's Servicing Standards.

Policy 5.3.2: Detailed engineering design of the storm water drainage and management strategy shall be provided at the Development Permit stage.



WID and Water License Discussion

The parcel is titled 'irrigation acres' with the WID, allowing water to be drawn from the WID Canal for irrigation purposes only. This includes irrigation of grass areas and gardens but not uses that doesn't fall into agricultural uses. For example, toilets and showers.

A Water Rights Request Form will need to be filled out and submitted to the WID to start drawing water from the WID Canal. There is a maximum water limit that can be drawn from the WID Canal on a yearly basis and is dependent on the method of irrigation and what is being irrigated. The application process usually takes one (1) month.

However, if the parcel is changed from an Agricultural land use/zone to a non-Agricultural land use/zone, WID will consider the title 'irrigation acres' on the parcel voided. The Owner can choose to sell the title back to WID for \$880/acre or privately. The sale must be completed prior to land-use designation.

Water well licenses were searched for the parcel. There was only one license documented using Alberta Environment website - <https://avw.alberta.ca/ApprovalViewer.aspx>. The license is a Temporary Diversion License submitted by Pidherney, Inc. for dust control and construction expiring on August 31st, 2022.

From the Level 1 Desktop Groundwater Study (see **SS #6**), new well outputs were estimated from existing well data. A more detailed hydrological investigation involving drilling and aquifer testing program will be required to confirm outputs from new wells.

A multi-well system can likely be used to provide only the estimated domestic water usage (Refer to Section 5.1). Spacing between wells are recommended, a minimum 50 m between wells. A cistern can also be

utilized as part of a multi well system to add redundancy and limit disruption of service to the building(s). Treatment of water from a well will be required as per Alberta Environment regulations. Treatment may include filtration, disinfection via UV, etc.

5.4 Traffic Memo

As noted in the Traffic Memo (see **SS #7**), the development generates between 12 and 32 additional trips per hour in the AM and PM peaks, respectively and is clear of Alberta Transportation development control zone.

As discussed at the pre-application meeting with the County, a full Traffic Impact Assessment (TIA) was not requested as the amount of traffic generated is expected to be negligible and will have minimal impact on existing traffic operations.

5.5 Cemetery Operations

All buildings will be utilized on a need only basis. There will be no permanent staff present at the facilities on a daily basis. When used, buildings will be occupied during daylight hours, typically between 9:00am and sunset.

Building #1 – Administration and Prayer
Approximately 2,500 square feet. Maximum capacity 100-200 people (staff and public).
Planned parking: 25-30 stalls.

Building #2 – Ablution and Preparation
Approximately 1,000 square feet. Maximum capacity 10 people (staff and family) Planned parking: 4-5 stalls.

Building #3 – Operations
Approximately 1,000 square feet. Maximum capacity n/a. Parking: n/a

Approximately 3 acres have been allocated to potential parking areas which far exceeds the anticipated requirements.

6.0 Public Engagement

A public engagement process was conducted as part of the application process for the project, which included the following outreach components:

- Letters were distributed, through the County, in mid-December 2022, to the 2 directly adjacent landowners to inform them of the project and invite them to schedule one-on-one meetings with the consultant team and client. The meetings were offered as an opportunity for the project team to address any questions or concerns the immediately adjacent neighbours may have. However, neither property owner took the opportunity to meet with the consultant team.
- In early January 2023, another letter was distributed to residents, this time to all landowners within a 1-mile radius (37 residents in total) of the project property. The purpose of the letter was to inform local landowners about the proposed future land use redesignation and cemetery facility and invite them to attend an open house to learn about the proposed facility
- An open house was hosted at Lyalta Community Centre and Recreation Facility, on Wednesday, January 18, 2023, from 5:00 pm to 8:00 pm. The purpose of the open house was to provide landowners with an opportunity to learn more about the project and to ask any questions they had to the project team. Landowner feedback was captured through comment cards distributed to attendees at the event. Approximately 30 interested community members attended the open house.
- In addition, the project team received 7 e-mail feedback submissions and 4 phone calls from residents about the project.

6.1 What We Heard

The following section summarizes the key themes of that were heard from landowners on the comment cards and discussion at the public open house on January 18, 2023, and through e-mail and phone correspondence that was collected from January 18 to January 31, 2023. For a copy of the What We Heard Report see [SS #8](#).

Summary of Key Themes

Some landowners expressed support for the project for the following reasons:

- The cemetery would help to meet the growing needs of the Muslim community in southern Alberta
 - The cemetery would be interfaith
 - The cemetery would be charitable
- The concept plan looked appealing

Some landowners expressed opposition to the project for the reasons listed below in [Table 1](#).

Further clarification has been provided as a response to the feedback received.

6.2 Calgary Interfaith Council Support

Subsequent to the public engagement process, a letter of support for the cemetery development was provided by the Calgary Interfaith Council (CIC) (see [Appendix C](#)).

The CIC is an all-volunteer organization comprised of interested clergy, lay leaders, and representatives of various faith institutions and communities in Calgary and surrounding areas.



Table 1 – Neighbour Concerns and Clarification

Landowner Concerns	Applicant’s Response/Clarification
<p>Preserving the farming heritage of the area and property was important and that the Cemetery was not considered to be a compatible use.</p>	<p>One of the key objectives of the County Plan is support for institutional and community land uses that benefit residents and contribute to the community by serving culture, education, health, religious, recreation, and social needs. The cemetery proposal also provides high quality boundary design between agriculture and other uses.</p>
<p>Concerns that potential traffic on TWP Rd 250, to access the cemetery facility, might negatively impact the rural roadway infrastructure and impede the movement of large agricultural equipment.</p>	<p>A preliminary memo was provided based on a preliminary review of anticipated traffic. The amount of traffic generated was found to be negligible and will have minimal impact on existing traffic operations.</p>
<p>Concern there could be potential for water contamination between burial sites and the WID canal.</p>	<p>Discussion with the WID are part of the standard circulation process and stormwater management will be provided to protect the canal from contamination. The stormwater facilities proposed on the cemetery site are designed to manage stormwater on site with no run-off to the WID canal.</p>
<p>Concern that the proposed development may displace high-quality agricultural soil which should be preserved for farming purposes to support local food production and future sustainability of the region.</p>	<p>As noted above, the proposed cemetery application is compliant with key goals of the County Plan.</p>
<p>Assertion that the proposed cemetery wasn’t needed as there is an existing cemetery near Cochrane.</p>	<p>LEES+Associates conducted a comprehensive review of the area, including a supply and demand market study and a business case which supports the proposed location.</p> <p>The development also has the support of the Calgary Interfaith Council which promotes and models respect, understanding, and collaboration among the religious communities of Calgary and surrounding areas.</p>

7.0 Implementation

7.1 Proposed Land Use Redesignation

To accommodate the cemetery development, a Land Use Redesignation will be required for the cemetery site to S-PUB Special, Public Service District.

A separate redesignation application has been submitted, to be processed concurrently with the MSDP application.

Lands on the eastern portion of the parent parcel will remain agricultural and as such will remain A-GEN, Agricultural, General District. No subdivision is being proposed.

Subsequent Planning

Subsequent to the Land Use Redesignation, a Development Permit Application and a Provisional Approval of a Cemetery Application with the Province of Alberta will be completed.

Policy 7.1.1: A Provisional Approval of a Cemetery Application from the Province shall be required prior to the approval of a Development Permit.

7.2 Phasing

MCCF expects to fully develop the cemetery support buildings in the first phase, using 10 acres for the initial 5,000 graves which will be available for sale and interment.

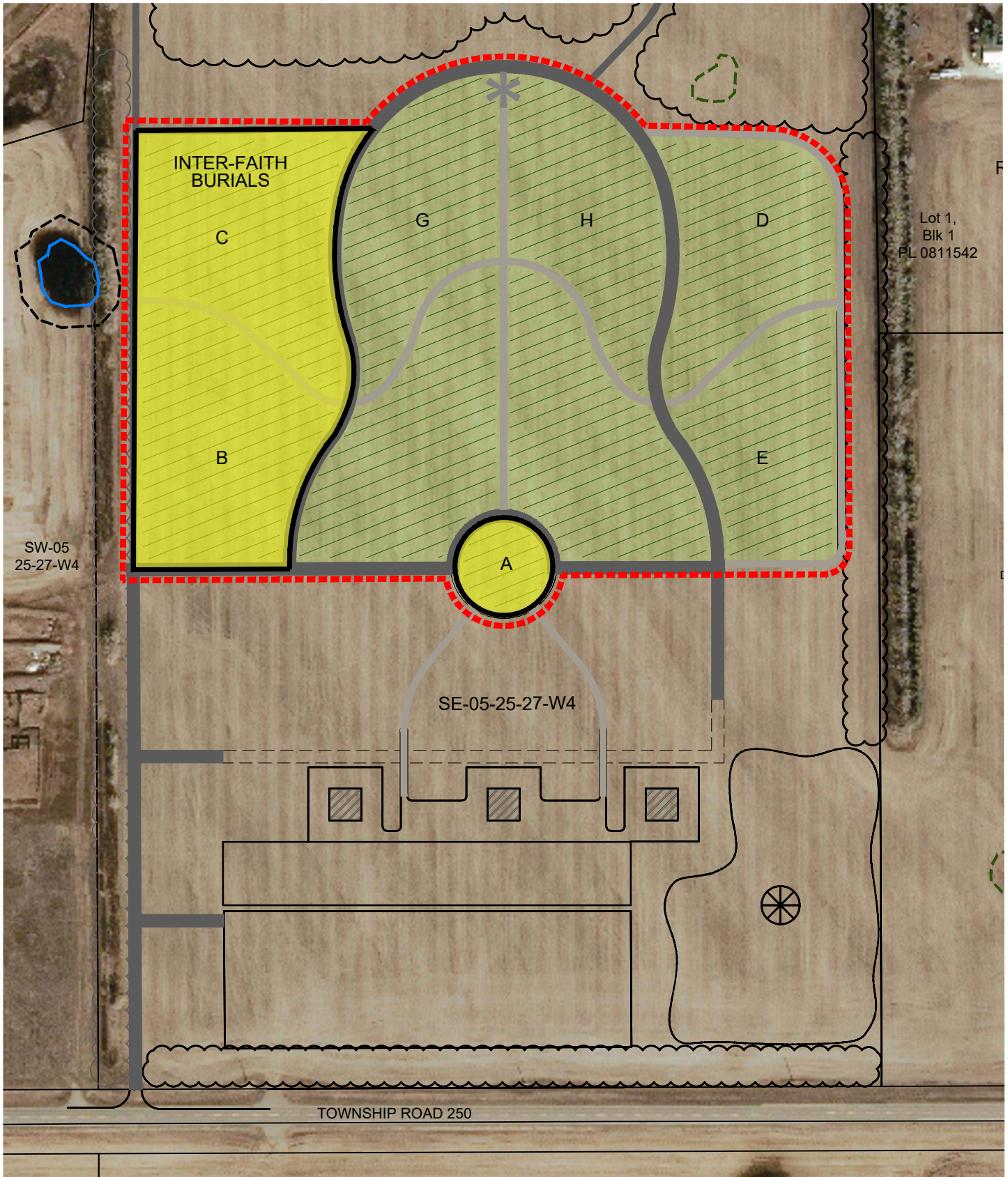
The first phase of development will include construction of the three support buildings required for storage, viewing, washing and other rituals related to interment, as well as parking facilities, landscaping, servicing infrastructure and development of the memorial forest and gardens.

Phasing of the burial sites will begin with cells A and B as well as cell C – the inter-faith burial area.

Subsequent phasing will generally proceed from south to north and west to east.

Development cells for the burial sites are shown on **Figure 4 – Burial Area Phasing**.

Policy 7.2.1: An Operational Plan, confirming and expanding on the Vision and Concept for the Cemetery, shall be submitted at the Development Permit stage.



The concept was prepared in collaboration with Lees and Associates.



- Burial Area
 - Phase 1 (A, B, C)
 - Remainder of Burial Sites to be Developed as Required
- Note: Operational, Facilities, Memorial Forest & Gardens to be Developed in Phase 1

Cemetery MSDP
MCCF
 Figure 4
 Burial Area Phasing
 March 2023



APPENDIX
AMCIA Burial Services Letter

A



4616 80 Ave NE, Calgary, AB

T3J 4B7

Phone : (403) 590-8200

E-Mail : office.manager@amcia.org

Web : www.amcia.org

DATED: 23rd JANUARY, 2023

TO WHOM IT MAY CONCERN

RE: BURIAL SERVICES AT RIYADHUL JANNAH CEMETERY

AL-MADINAH CALGARY ISLAMIC ASSEMBLY (AMCIA) is a registered charity serving the Muslim community in Calgary and surrounding areas.

The MUSLIM CEMETERY OF CALGARY FELLOWSHIP (MCCF) is a venture of the AMCIA to establish, handle and run the above captioned cemetery.

Please take this letter as confirmation that

- 1) At the outset the intention of the AMCIA to recompense the MCCF for any burials undertaken at the above captioned cemetery for which the family of the deceased is unable to pay the MCCF directly.
- 2) Subject to the rules and regulations set forth in the MCCF By-laws and Standard Operating Procedures, the MCCF intends to have enough General Funds available in due course so as to provide all burials at no cost.

For and On Behalf of Al-Madinah Calgary Islamic Assembly

Mohammad Tariq
Director



APPENDIX
Agricultural Boundary Design Guidelines
Compliance

B

Worksheet 2

LOCAL PLAN, REDESIGNATION, AND SUBDIVISION APPLICATIONS

Use this worksheet if applying for a local plan (conceptual scheme or master site development plan), redesignation, or subdivision. This worksheet will help determine the best layout for the proposed subdivision/site and help incorporate features that will maximize the enjoyment of the new development and minimize land use conflict with neighbouring agricultural activity. While completing this worksheet be sure to have a copy of the Agricultural Boundary Design Guidelines nearby for reference and further detail.

Site Analysis:

1. Does the subject land share a border with agricultural land? Check zoning – *Land Use Bylaw*, www.rockyview.ca. Be sure to check the zoning of all adjacent land uses. *If you are unsure if the guidelines apply, please contact Planning Services.*

Agricultural zonings include:

- RF: Ranch and Farm District
- RF-2: Ranch and Farm Two District
- RF-3: Ranch and Farm Three District
- AH: Agricultural Holdings District

2. If the adjacent lands are agricultural, what type of agricultural operation is occurring on the adjacent lands (e.g. ranching/pasture, cultivation/cropping, greenhouses, etc.)? cultivation/cropping

3. Is the subject land within an area structure plan (ASP)? For a list of ASPs, please visit the County's website.

A. If YES:

- i. Are the subject lands within, but on the edge, of the ASP? _____
- ii. If not on the boundary, what is the proposed future land use of adjacent lands? See the land use map of the ASP. _____

B. If NO:

- i. What is the predominant land use in the area (e.g. are most lands in the vicinity used for agriculture, business, residential use)? agricultural with associated residential use

4. What effects could the agricultural practices have on the proposed development?
noise and/or odour from cultivation

5. What effects could the proposed development have on adjacent agricultural development? _____
occasional increased traffic

6. Are there topographical or environmental features on the subject property?
If so, what are they?

Please select all that apply:

- Creeks, ravines, coulees, draws, and other overland drainage patterns
- Existing vegetation such as tree stands
- Depressions or changes in elevation
- Wetlands/sloughs

7. What are the prevailing winds and other significant weather patterns?
(e.g. If you had dust blowing, in what direction would it typically blow?)

N/A

8. What tools from *Section 4* of the Agricultural Design Guidelines will be implemented to minimize potential land use conflict?

Please select all that apply:

Buffering:

- Vegetative buffers
- Pathway and municipal reserve placement and design
- Placement of community gardens
- Location of public utility lots.

Location of stormwater facilities

Lot configuration:

- Compact development
- Location of larger lots
- Use of less productive agricultural lands
- Lots allow for increased setbacks adjacent to agricultural lands. Goal is 30 metres to principal building

Topography:

- Consideration of prevailing winds
- Environmental reserve placement and design

Buildings:

- Buildings are designed taking agricultural operations into account

Other: activity areas/buildings and parking are located away from adjacent parcels with convenient access to existing roadway

Road design:

- Avoid dead ends and cul-de-sacs next to agricultural land
- Minimize road access to agricultural lands
- Avoid creation of new roads along the boundary between Agricultural and non-agricultural lands
- Minimal driveway length

Edge treatments:

- Landscaping is incorporated
- Appropriate fencing is used

Single-lot subdivision:

- Located adjacent to other existing non-agricultural lots
- Located in the corner of an existing agricultural lot
- Located along an established roadway
- No longer than necessary but large enough that a sufficient setback from agricultural uses can be maintained
- Located on less productive agricultural lands

9. Please use a copy of the site plan you provided in support of the application to identify the agricultural boundary area and add any existing features or proposed tools from the Agricultural Boundary Design Guidelines that will be implemented to minimize potential land use conflict. Please attach the diagram to this worksheet or submit it as a digital file.

Site plan is included in MSDP



APPENDIX
CIC Letter of Support

C



TO WHOM IT MAY CONCERN

The Calgary Interfaith Council (CIC) is an all-volunteer organization comprised of interested clergy, lay leaders, and representatives of various faith institutions and communities. The primary mission of the CIC is promoting and modeling respect, understanding, and collaboration among the religious communities of Calgary and surrounding areas through education, dialogue, mutual worship experiences, and social justice. The Al-Madinah Calgary Islamic Assembly (AMCIA) is a well-regarded and prominent member of the CIC representing a broad spectrum of the Islamic faith followers from the southern subregion of Asia.

CIC is aware that the AMICA has proposed the development of the Riyadhul Jannah Cemetery in Rocky View County and the AMCIA has represented to the CIC that burials at the cemetery will be open to all people, regardless of religion, as long as per the by-laws of the proposed cemetery.

In light of the foregoing, this letter is to confirm that the CIC is in support of the development of the Riyadhul Jannah Cemetery as proposed by the AMCIA.

If you have any questions regarding this, feel free to contact the undersigned at daltonharding@gmail.com.

Regards,

A handwritten signature in black ink, appearing to read "Dalton J. Harding", with a long horizontal flourish extending to the right.

Dalton J. Harding
Secretary
Calgary Interfaith Council