

BRIDGES OF LANGDON

CONCEPTUAL SCHEME

Office Consolidation

This page contains the history of relevant bylaws affecting this office consolidation. A copy of the original Bylaw and all amending Bylaws can be obtained from Rocky View County.

Bylaw	Type	Description	Approval Date
C-7622-2016	Original Bylaw	Conceptual Scheme for E ½ 15-23-27-W04M	December 2, 2016
C-8271-2022	Amending Bylaw	Edited Section 1.1, 5.3, 5.3.1, 5.5.3, 5.6.2b, 6.1, and 6.4 Replaced Figure 1, 8, 11, Table 2, 3, 4 and 5. Removed policy 5.3.1d, Replaced location map section 5.4 and North Neighbourhood Centre Conceptual Illustration. Added environmental and biophysical considerations and policy 5.7.2d.	May 17, 2022



CONCEPTUAL SCHEME

December 2016

Amended
May 2022



b&a



ACKNOWLEDGEMENT PAGE

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ON BEHALF OF:

PollyCo Group of Companies

APPROVED BY COUNCIL ON:

December 13, 2016

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1.0 INTRODUCTION

1.1 Purpose of this Plan

This Conceptual Scheme has been prepared pursuant to the Rocky View County Plan (Bylaw C-7280-2013) and Langdon Area Structure Plan to provide supporting rationale for redesignation and subdivision of 127.2ha (315.3ac) comprising the E ½ of Sec. 15-23-27-W4M.

The Conceptual Scheme is a non-statutory plan intended to describe the developer's rationale and motivation to establish a new residential subdivision with associated land uses. The policies of this Plan have been prepared to provide direction regarding subsequent land use redesignation, subdivision, and development permit applications required to implement **The Bridges of Langdon** development.

1.2 Development Rationale

The subject lands are located within Rocky View County; located directly west of the Boulder Creek development, located within the recently expanded Hamlet of Langdon boundary. This portion of the County has been subject to significant pressure for development primarily due to existing hamlet development and services, proximity to Calgary and the identification of this area as Hamlet - Full Service within the Rocky View County Plan.

The subject lands are a contiguous extension of existing Hamlet development. The intent is for the Bridges of Langdon to integrate with adjacent land uses while providing opportunities for local commercial and recreational amenities to create a complete community.

Servicing efficiencies can be provided through development of the subject lands. As an adjoining development to the Hamlet, existing services located north of the site are easily extended to service the Plan Area. Extension of infrastructure to the Plan Area will maximize current investments.

In addition to servicing efficiencies, the subject site is free of any issues that may hinder its development. The site is undeveloped agricultural land, is relatively flat and well connected to the major transportation network.

1.3 Primary Development Considerations

The Bridges of Langdon is proposed as a contiguous residential development within the expanded Hamlet of Langdon boundaries as identified in the Langdon Area Structure Plan. The plan incorporates the following design considerations:

- **Diversity of Residential Uses** will be provided throughout the development. The predominant residential use will be single family in keeping with the existing development within the Hamlet of Langdon. Semi-detached residential and street oriented multi-family will also be integrated where they provide appropriate transitions from more intense land uses to single family uses;
- **A Walkable and Complete Community** will be created through the provision of residential, commercial, and open space within a 500 meter radius of all residential development;
- **Commercial Amenities** will be provided through the strategic location of a commercial site on the east boundary of the site adjacent to Centre Street/Range Road 272. This parcel will provide for local commercial amenities that complement and enhance the existing services in Langdon;
- **Expansion of the Future Joint Use Site** will be facilitated through the provision of a large amount of municipal reserve in the north east corner of the Plan Area;
- **An Extensive Open Space and Canal System** will be established throughout the development, reflecting the identity of Langdon and the importance of addressing appropriate stormwater management solutions. The north-south canal system connects the stormwater ponds and provides linear pathway connectivity. A series of pedestrian bridges and road culverts promote connectivity east-west across the canal. The open space system is in keeping with the recommendations of the Parks and Open Space Master Plan.
- **A Comprehensive Pathway Network** will be established to facilitate pedestrian and cycling activities within the Plan Area. The network is designed to connect residents to destinations within the Plan Area as well as provide enhanced connections to amenities within the Hamlet of Langdon;



- **Transportation** will be provided by internal subdivision roads constructed by the developer. Alignments that respect adjacent development connections across Centre Street/Range Road 272 have been considered when determining access points to The Bridges of Langdon development;
- **Water & Wastewater Services** will be provided by the existing utility services within the Hamlet of Langdon. Water will be provided by Langdon Water Works and sanitary will be piped to the Langdon Waste Treatment Facility.
- **Stormwater Management** will be accommodated through stormwater ponds located on site and then discharged to Weed Lake.

1.4 Conceptual Scheme Objectives

The intent of **The Bridges of Langdon** Conceptual Scheme is to:

- Provide a comprehensive summary of existing conditions within the Plan Area to identify development opportunities and significant constraints which require appropriate mitigation strategies;
- Establish a development concept with an integrated land use framework to facilitate implementation of a new residential development and related uses;
- Establish a strategy to implement appropriate transportation and utility service infrastructure improvements as required for residential development and related uses;
- Determine the general configuration of public open spaces within the Plan Area;
- Establish an overall phasing strategy for development within the Plan Area based on infrastructure availability and market demand;
- Rationalize the residential development in accordance with Rocky View County adopted statutory and non-statutory policy framework.



2.0 POLICY CONTEXT

Rocky View County has produced a series of high level policy documents which include the County Plan, the Agriculture Master Plan and the Parks and Open Space Master Plan. These documents establish a broad-based policy framework designed to facilitate development that respects rural character, promotes open space and recreational opportunities, respects the natural environment and implements cost-effective servicing infrastructure systems.

In addition to the County's high level documents, the County has recently released a Langdon Area Structure Plan and Centre Street Design Guidelines. This Conceptual Scheme is in alignment with these documents and provides the opportunity for implementation of the new vision for Langdon.

2.1 Rocky View County Plan

The Rocky View County Plan (Bylaw C-7280-2013) was approved in October 2013, in accordance with section 632 of the Municipal Government Act.

The County Plan is designed to provide policies that support the following principles:

1. **Growth and Fiscal Sustainability** - *direct new growth to designated development areas, and in doing so it will remain fiscally responsible.*
2. **The Environment** - *develop and operate in a manner that maintains or improves the quality of the environment.*
3. **Agriculture** - *respects, supports, and values agriculture as an important aspect of the County's culture and economy.*
4. **Rural Communities** - *support the development and retention of well-designed rural communities.*
5. **Rural Service** - *strive to provide an equitable level of rural service to its residents.*
6. **Partnerships** - *maintain a strong web of partnerships to help extend the range of services it provides to its residents.*

The County Plan promotes residential growth within rural towns and villages that support the local community. Specifically designated growth areas include a number of Hamlets identified as Hamlets- Full Service. There are a number of policies specific to Hamlet development, these include:

- providing a range of uses
- providing a variety of housing forms
- creating a distinct identity and high quality environment
- support local employment and small business opportunities
- encourage well designed public gathering spaces

The Bridges of Langdon is a plan that aligns with the County's Plan by concentrating development that in Hamlet that is designated as a Hamlet - Full Service. The Hamlet of Langdon is enhanced and strengthened as integral part of the County through the provision of residential, commercial and community amenities within the Plan area.

2.2 Hamlet of Langdon Area Structure Plan

As previously noted, **The Bridges of Langdon** represents contiguous growth with the Hamlet of Langdon. The plan area is within the Langdon Area Structure Plan (ASP). The Langdon ASP was adopted by Council on May 10, 2016. The Hamlet of Langdon ASP provides direction for growth and policies for land within the Hamlet boundaries. The intent of the **Bridges of Langdon** is to align with the overall principles and Land Use Scenario identified in the ASP thereby creating growth that is compatible with existing development.

3.0 GUIDING PRINCIPLES

Using the County's high level documents, the Langdon Area Structure Plan, and the Centre Street Design Guidelines as guiding policy, the Conceptual Scheme establishes a series of **Community Guiding Principles** intended to connect the County's strategic development objectives with the developer's motivation to establish **The Bridges of Langdon**.

These Guiding Principles are described as follows:

3.1 Encourage growth in existing communities

- a) The development of this site will promote the effective and efficient use of resources through the utilization of existing investments in infrastructure (such as roads, schools, and utilities).
- b) The Hamlet of Langdon is identified as a hamlet - Full Service within the Rocky View County Plan. The development of the Plan Area will concentrate growth within an already developed area and prevents the fragmentation of agricultural land by providing contiguous development.
- c) Through the provision of a concentrated population, additional commercial development and recreational amenities, the Plan Area will foster growth of Langdon as a complete community.
- d) More viable commercial opportunities are generated in areas that have an existing population base. The commercial proposed is strategically located to provide local commercial amenities to the Plan Area and the Hamlet of Langdon.

3.2 Create a community with a distinct identity

- a) The design of the Plan Area incorporates a linear canal that serves as a stormwater system between a north and south stormwater pond. The stormwater system serves as a functional utility as well as a landscape and open space feature for the Plan Area.
- b) The community is named the Bridges of Langdon based on the pedestrian bridges and enlarged road culverts/ bridges that traverse the canal system. Pedestrian bridges will be strategically located at focal points to create maximum connectivity.
- c) Pedestrian bridges and enlarged road culverts will be designed with a common theme to unify the community's identity.

3.3 Provide a mix of land uses

- a) The design of the site will provide a mixture of homes, retail, business, and recreational opportunities within walking distance of each other.
- b) Non-residential development opportunities will be provided resulting in employment opportunities and a diversified tax base.
- c) Local commercial opportunities will be integrated with residential uses and the open space system to create a node of activity along Centre Street and social gathering points for residents within the Plan Area.

3.4 Build well-designed residential neighbourhoods

- a) The site consists of two quarter sections. Individually, each of these quarters will be a complete neighbourhood where residents will be able to live, work, shop and play in close proximity.
- b) The Plan Area will be well connected to the Hamlet of Langdon providing enhanced opportunities for the residents of Langdon to benefit from the local commercial and recreational amenities provided within the Plan Area.

3.5 Provide recreation amenities and a system of connected pathways

- a) A comprehensive public pathway network will be established along the linear canal system. The pathway network will connect residents to the large amenity sites in both the north and south portions of the Plan Area.
- b) Municipal Reserve (MR) will be dedicated to provide the opportunity to implement recreational activities such as a soccer pitch, baseball diamonds and neighbourhood parks.
- a) A large portion of municipal reserve will be dedicated in the north portion of the Plan Area to provide the opportunity for expansion of the future Joint Use Site in coordination with the Bow North Recreation District.

3.6 Retain the rural character of the municipality and foster a sense of local community

- a) A sense of local community will be fostered through a design that connects the site to existing and future neighbourhoods within the Hamlet.
- b) The design supports a continuation of a Langdon's Central Business District on Centre Street as identified in the Hamlet of Langdon Area Structure Plan. A street oriented design that maintains a small town feel and promotes social interaction will be encouraged for commercial and multi-family development.
- c) A pedestrian friendly design will be promoted through the provision of sidewalks, pathways, and human scale design that is appropriate with the rural context.

3.7 Create diverse housing opportunities.

- a) The design of the Plan Area will provide an alternative to the single family detached home, ensuring that people in different family types, life stages and income levels will have housing options in Langdon available to them.

3.8 Facilitate an open and transparent stakeholder engagement process

- a) A two way dialogue – a stakeholder engagement process will be completed to inform interested stakeholders regarding the project details, solicit feedback about technical issues and achieve community support for the project.

3.9 Implement cost-effective infrastructure systems

- a) The Plan Area will tie into the existing water and sanitary utility services located in the Hamlet of Langdon. As these services have capacity to accommodate additional development, infrastructure costs for the Plan Area will remain relatively low and maximize the investments already in place.

Figure 1: Design Principles



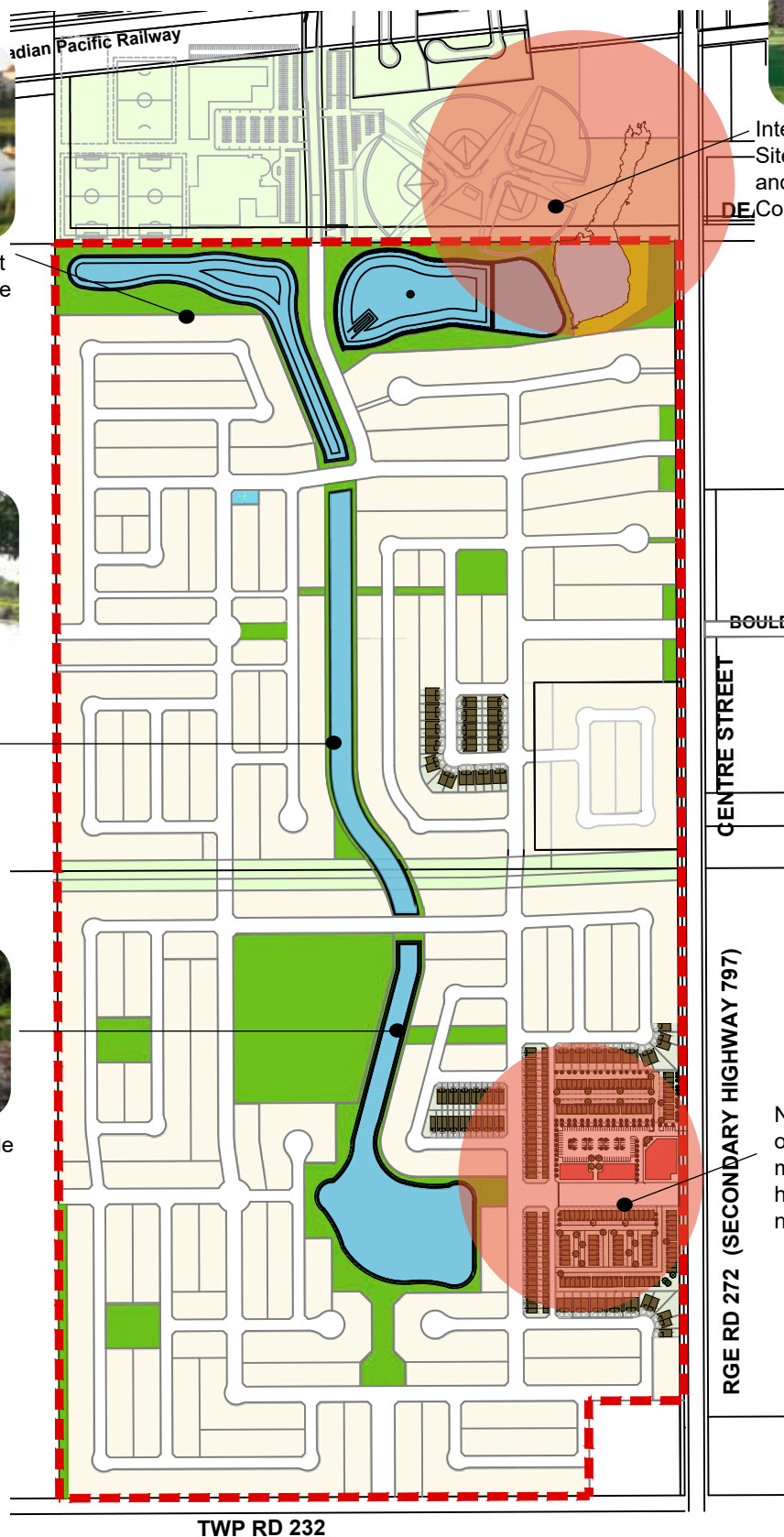
Single family development integrated with open space and stormwater system



Canal system and linear pathways provide recreational amenities



Pedestrian bridges provide for connected pedestrian network.



Integration with Joint Use Site, wetlands, open space and storm ponds to create Community Gathering Place



Neighbourhood Centre with opportunities for commercial, multi-family, seniors housing and connection to neighbourhood park



4.0 PLAN AREA DESCRIPTION

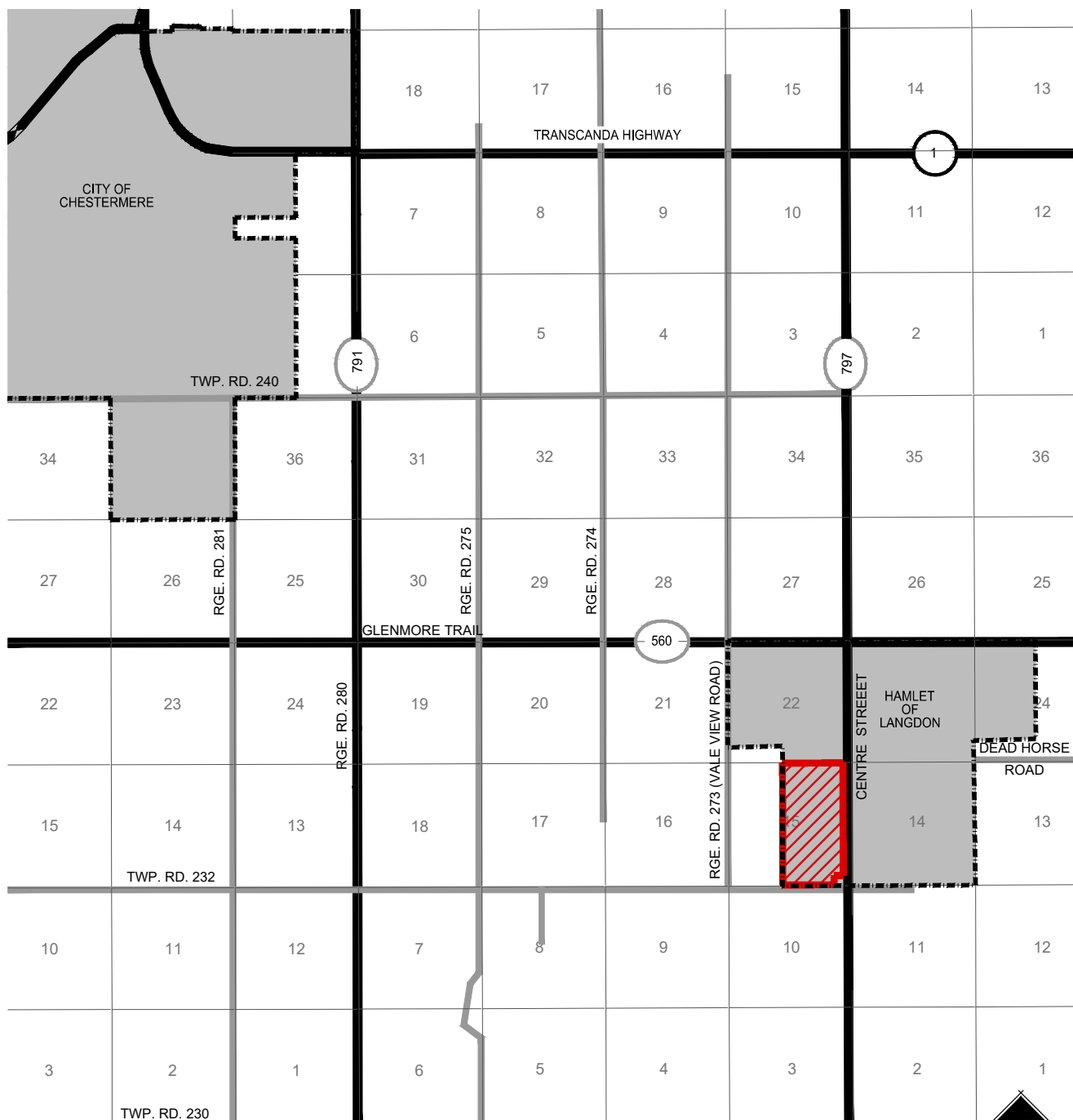
4.1 Location

As shown on **Figure 2: Regional Context**, the Concept Plan area is illustrated within the broader context of Rocky View County, Highway 560/Glenmore Trail, Highway 797/Centre Street, Highway 1, the Hamlet of Langdon, and the City of Chestermere. The Rocky View County Plan identifies the Hamlet of Langdon as Hamlet - Full Service. The Hamlet of Langdon's potential for growth combined with the convenient access to services in Calgary and the City of Chestermere make this Plan Area an ideal location for continued residential and associated development.


The Bridges of Langdon, consisting of +/-127.29 (314.54ac), are:

- located in the southwest portion of the expanded Hamlet of Langdon boundaries. The Hamlet contains residential, commercial and community services;
- contiguous to existing development within the Hamlet of Langdon boundaries;
- bounded:
 - to the north, by Dead Horse Road allowance and future Joint Use Site jointly owned by Rocky View School Division and the Bow North Recreation Board;
 - to the east, by Centre Street/Range Road 272 and the Boulder Creek Development (Boulder Creek Conceptual Scheme Bylaw C-578-2003. Centre Street/Range Road 272 is the main north-south road through the Hamlet of Langdon;
 - to the south, by Township Road 232 and agricultural development;
 - to the west, by agricultural development.

Figure 2: Regional Context



Legend:

 Subject Site

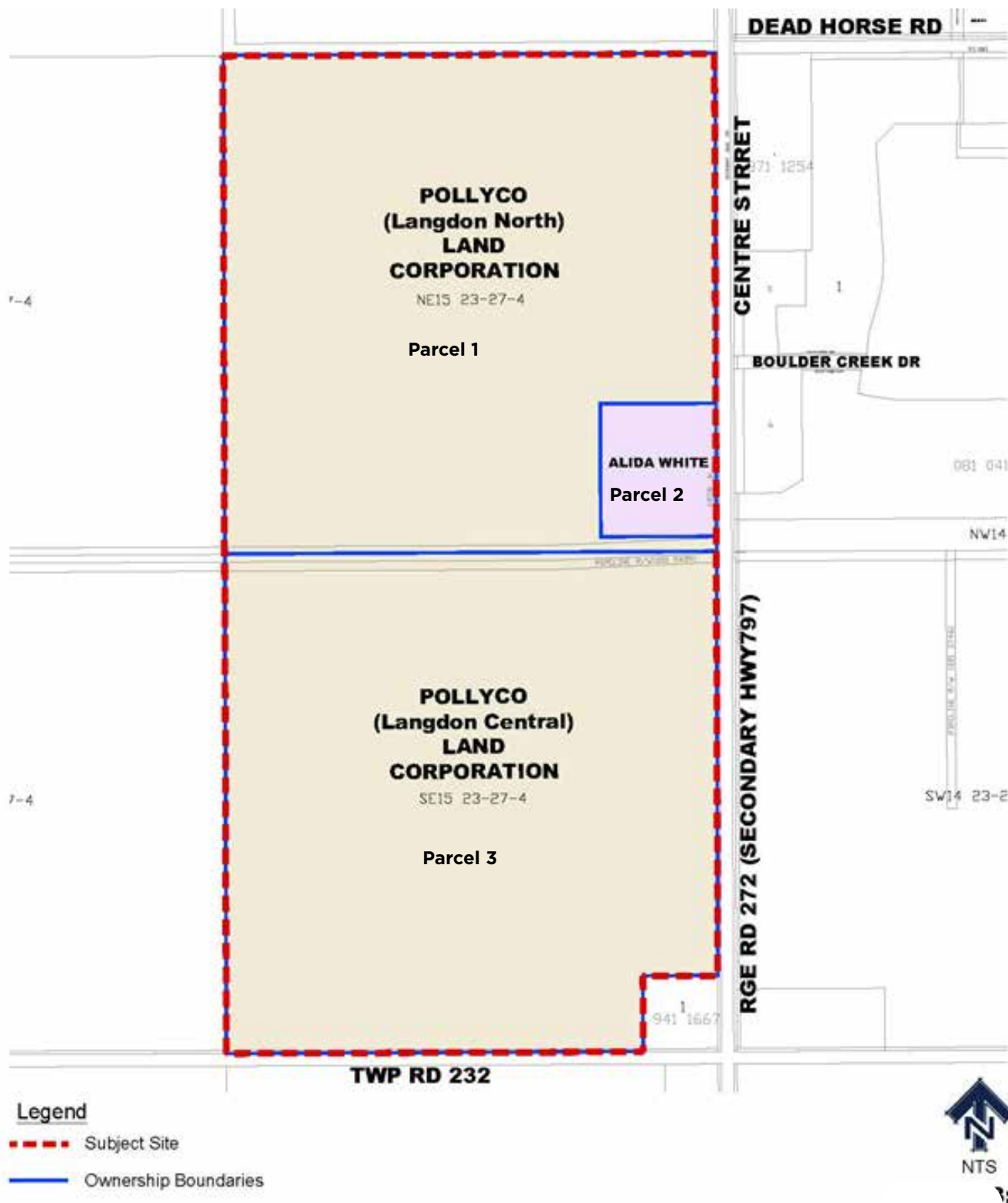
4.2 Legal Descriptions & Ownership

As shown in **Figure 3: Legal Descriptions**, the Plan area includes three individually-titled parcels legally-described in Table 1: Legal Descriptions.

Table 1: Legal Descriptions

Parcel Reference	Legal	Certificate of Title	Ownership	Hectares	Acres
Parcel 1	NE15 23-27-4	071 350 304	POLLYCO (LANGDON NORTH) LAND CORPORATION	60.32	149.19
Parcel 2	NE15 23-27-4	101 022 418	ALIDA WHITE	4.04	9.99
Parcel 3	SE15 23-27-4	071 396 935	POLLYCO (LANGDON CENTRAL) LAND CORPORATION	62.79	155.29
TOTAL				127.25	314.4

Figure 3: Legal Descriptions



4.3 Local Development Context

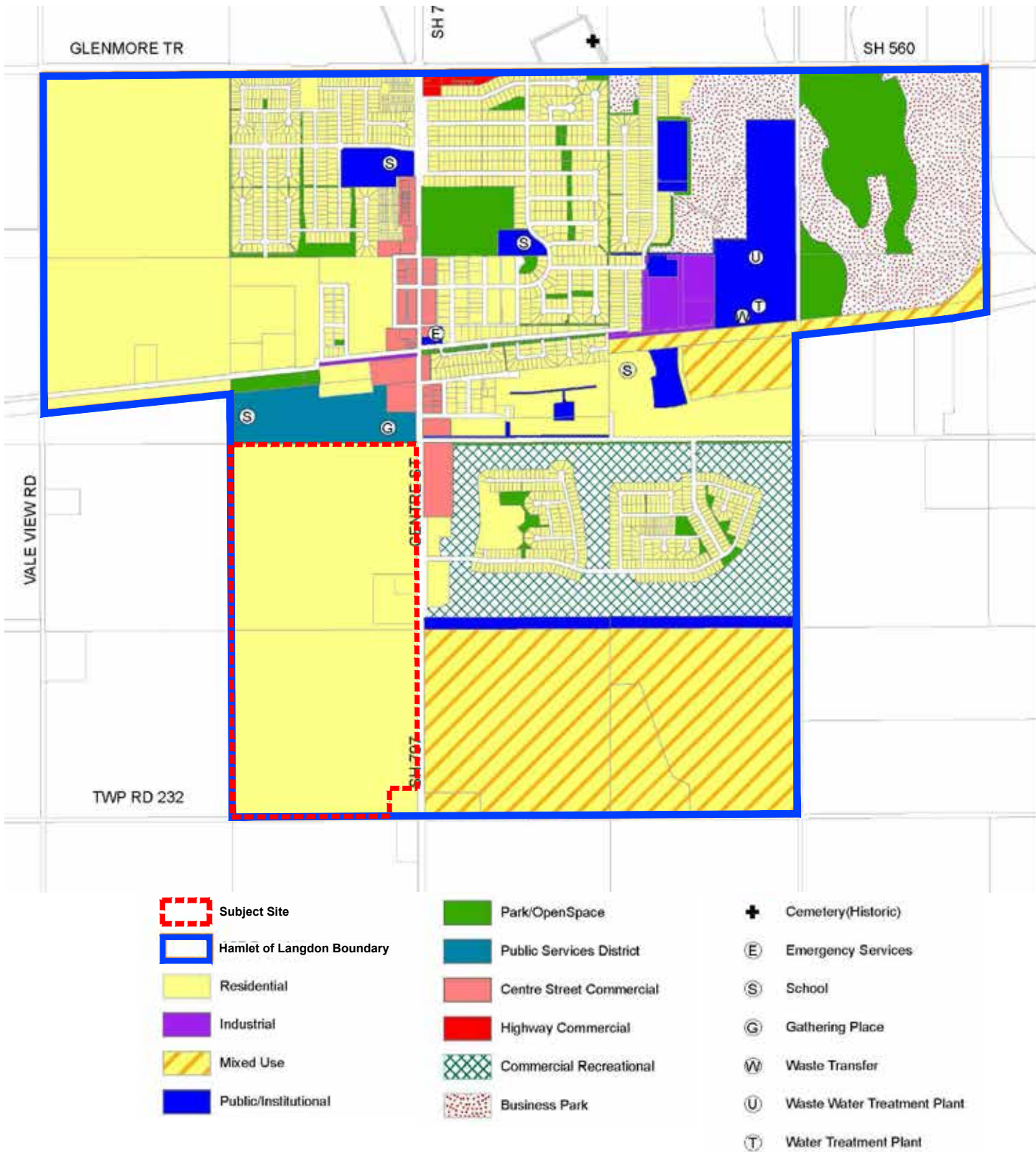
Community Context – Hamlet of Langdon

The Hamlet of Langdon has been identified in the Rocky View County Plan as a Hamlet - Full Service. Within the County Plan, Hamlet - Full Service provides a range of land uses, housing types, and rural services to their residents and local area.

The Bridges of Langdon is designed to align with the existing community context in Langdon. Through pedestrian connections, access and the location of commercial uses and recreational amenities, the Plan Area will integrate with existing development and enhance the community amenities available to the residents in Langdon. **Figure 4: Community Context** shows the Hamlet of Langdon ASP future land use strategy.

The Area Structure Plan identifies this area for residential development. Policies for this land use allow for predominantly single family development with a density of 4 units per acre. To the north a public serviced district is identified. This district will accommodate a school and recreational facility which, as identified in the Area Structure Plan, will be a gathering place for the Hamlet. The plan for the Bridges of Langdon is to further enhance the amenities on its north boundary through integration of appropriate adjacent development. This development will consist of single family residential dwellings, low height and density multi-family, local street oriented commercial development, stormwater ponds and integrated wetlands and open space amenities. The first phase of development will be on the north boundary of the plan to support the development of the adjacent community amenities in a timely manner.

Figure 4: Community Context - Land Use Strategy Langdon Area Structure Plan



4.4 Existing Transportation Infrastructure

The Plan Area is well positioned to connect to the existing infrastructure and has several opportunities for access. The existing transportation network adjacent to the site consists of Centre Street/Range Road 272, Township Road 232, Dead Horse Road and Boulder Creek Drive.

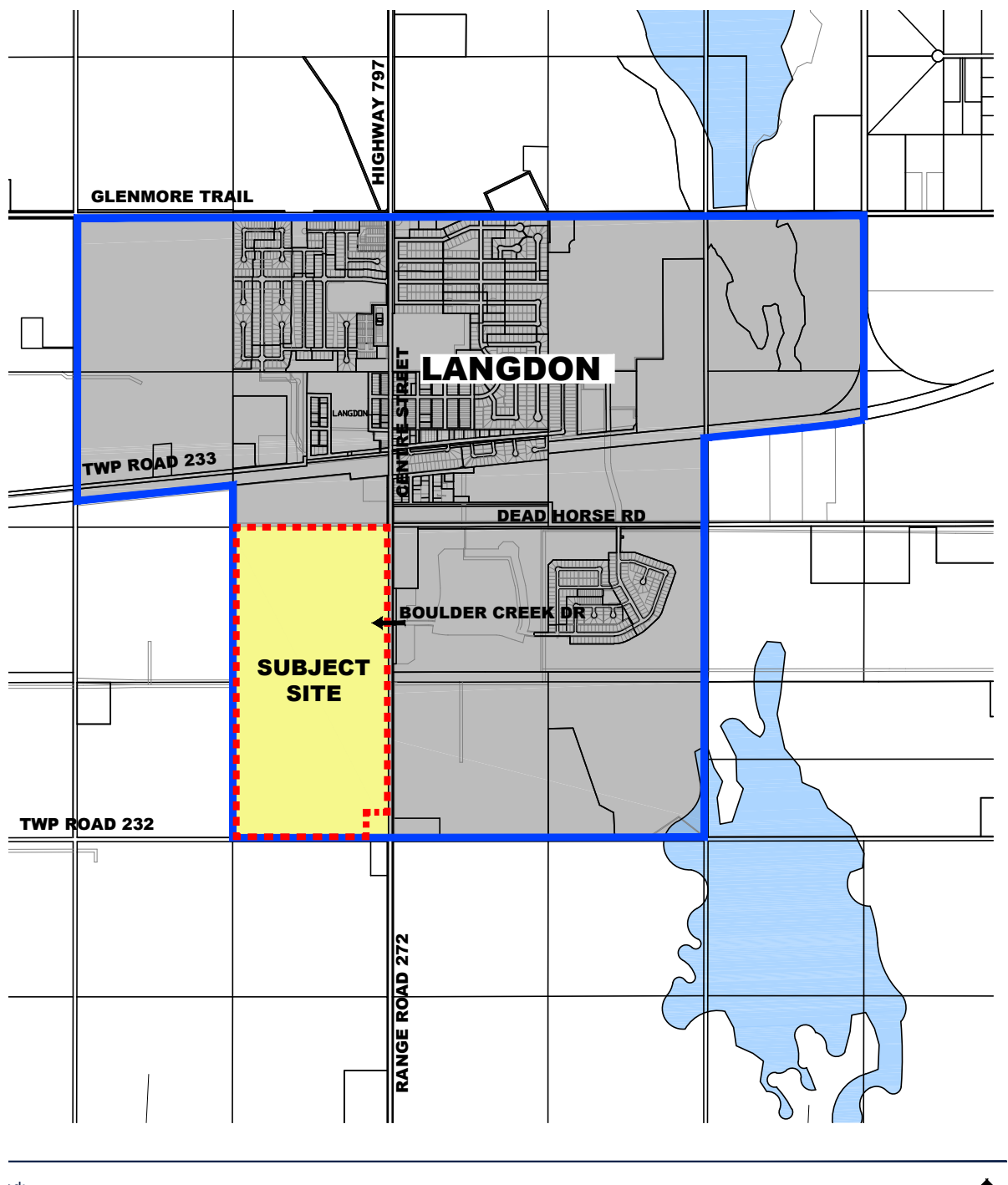
Centre Street/Range Road 272 is a two lane secondary highway that runs north-south through the Hamlet of Langdon. This road is the main thoroughfare through the Hamlet and connects to Glenmore Trail at the Hamlet's north boundary. Glenmore Trail is currently the main east/west route to the City of Calgary.

Township Road 232 is currently a two lane gravel road that runs east/west on the southern boundary of the Plan Area. Township Road 232 connects to the City of Calgary and will ultimately connect via an interchange at the south east ring road with Stoney Trail.

Dead Horse Road is located north of the site. It is currently developed as a two lane paved road east of Centre Street and exists a road right away west of Centre Street.

Boulder Creek Road is located east of Centre Street and is a two lane road accessing the Boulder Creek development. The Plan Area aligns with a major access point at Boulder Creek Drive.

Figure 5: Existing Transportation



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4.5 Existing Utility Services

Potable water is distributed via a piped system for The Hamlet of Landon. Langdon Water Works is the provider within the Hamlet for this utility. The Plan Area is within the Langdon Water Works franchise area and is located directly south of the existing 300mm water main at Railway Avenue and east of the existing 300mm water main at Boulder Creek Drive. Currently, Langdon Water Works has the capacity to service additional development; however, further upgrades will be required in order to service future development.

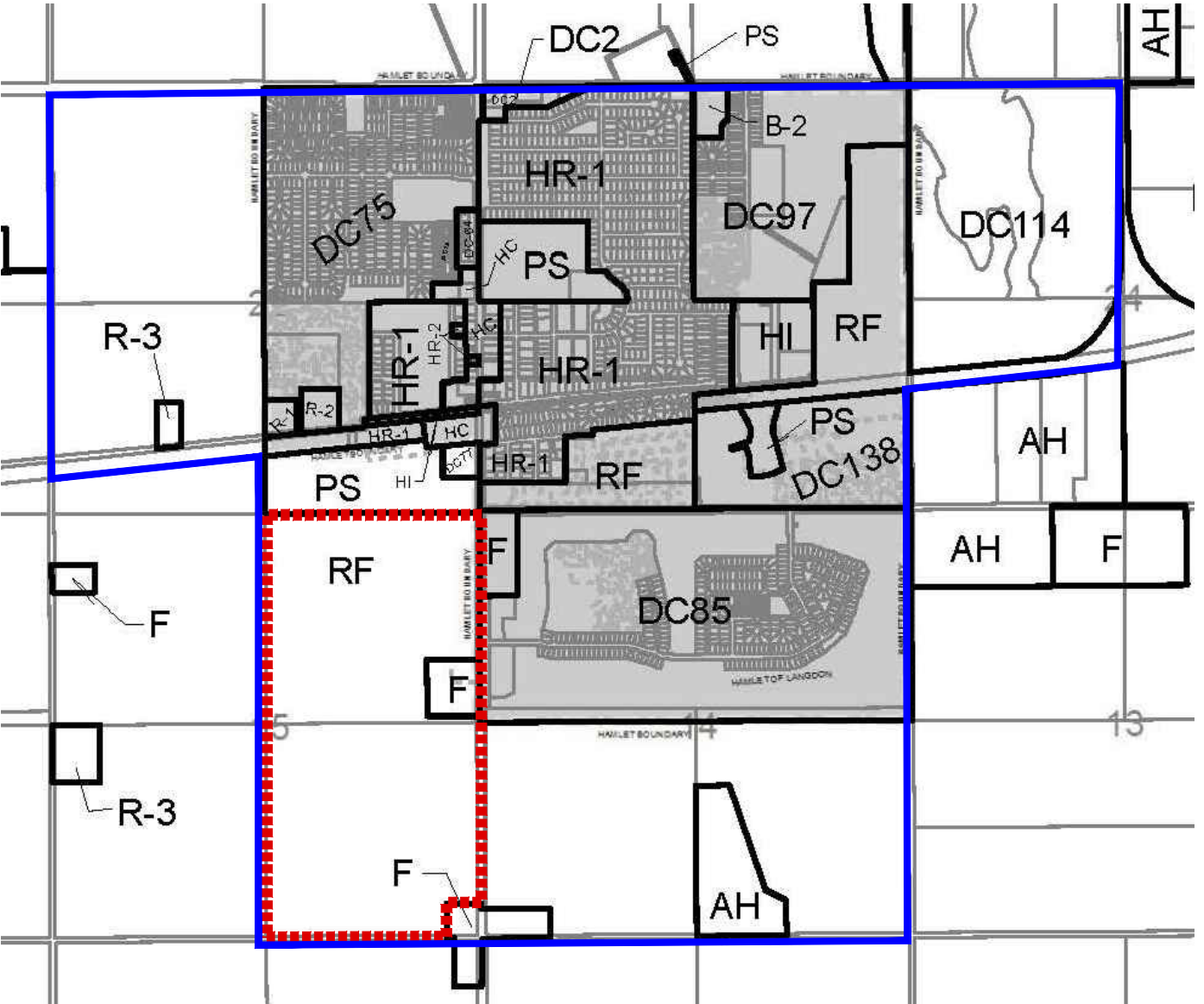
A sanitary treatment facility also exists within the Hamlet of Langdon and provides sanitary services to the Hamlet. Currently, this facility has capacity to service additional development. However, further upgrades to the facility will be required to be implemented to service the full build-out of the plan area.

4.6 Existing Land Use

As shown on **Figure 5: Existing Land Use**, the Conceptual Scheme Area is currently designated Ranch and Farm District (RF) in accordance with the Rocky View County Land Use Bylaw C-4841-97. The purpose of the RF District is to allow for a broad range of agricultural uses. Existing and recent historical agricultural use of the property has been crop production. A small +10 acre parcel designated as Farmstead District (F) is located within the Plan Area on the northeast quarter.

Adjacent residential development includes the development of Boulder Creek to the east, designated Direct Control land use (DC85). The purpose of this designation is to accommodate residential, golf course and commercial development. Directly north of the site is a parcel designated Public Service District (PS). This district allows for institutional, educational and recreational uses. The designation of this site allows for the development of the future Joint Use Site. Additional residential and commercial uses are located within the Hamlet boundaries north and east of the Plan area. Surrounding developments south and west of the Plan are predominantly agricultural uses designated Ranch and Farm.

Figure 6: Existing Land Use



Prepared by:



RANCH AND FARM DISTRICT	FM
FARMSTEAD DISTRICT	F
RESIDENTIAL ONE DISTRICT	R-1
RESIDENTIAL TWO DISTRICT	R-2
RESIDENTIAL THREE DISTRICTS	R-3
GENERAL BUSINESS DISTRICT	B-2
PUBLIC SERVICE DISTRICT	PS
DIRECT CONTROL DISTRICT	DC
HAMLET RESIDENTIAL SINGLE FAMILY DISTRICT	HR-1
HAMLET RESIDENTIAL (2) DISTRICT	HR-2
HAMLET COMMERCIAL DISTRICT	HC
HAMLET INDUSTRIAL DISTRICT	HI

4.7 Existing Site Conditions

As shown on **Figure 6: Existing Site Conditions**, the Plan Area is undeveloped land with relatively flat topography and biophysical/vegetation conditions as described in the following sections.

Existing Structures

The Plan area includes two building sites. One building site is located on the southeast portion of the northeast quarter. The second building site is located in the southwest portion of the southeast quarter. Each building site includes a single family residence and various accessory buildings previously associated with agricultural activities. Existing residences are proposed to be demolished concurrent with the Plan Area's proposed redevelopment.

One additional building site is located in the southeast corner of the southeast quarter section. This building site is located on a +/- 3.7 ac parcel not included within the Plan Area.

Pipelines and Transmission Lines

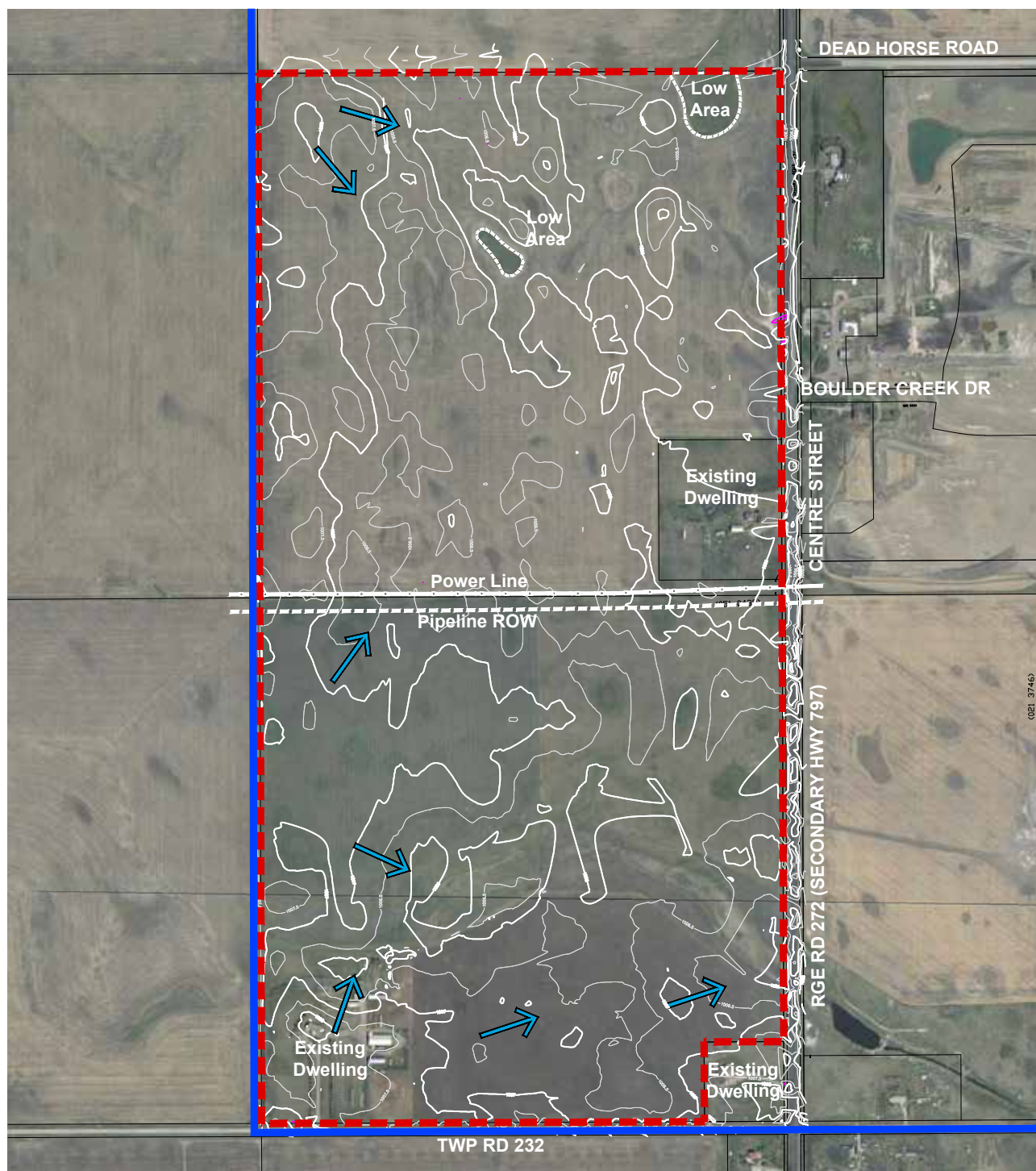
No wells are present within or in close proximity to the Plan area. A low pressure pipeline owned by Encana Corporation traverses east-west at the northern most portion of the southeast quarter section of the Plan area. An existing 40 meter right-of-way is identified with the pipeline and no additional development setback is anticipated for this right-of-way.

Along this same east-west alignment is a high power transmission line and associated right of way. This right of way is owned by Altalink, and is located on the quarter section line of the northeast and southeast quarters. Setback confirmation for this line has been requested on behalf of the owner, and any setbacks will be accommodated prior to subdivision.

Topography & Surface Drainage

The Plan Area has topography that is characteristic of the Langdon context. Generally, the Plan Area has a gently undulating topographically that is sloped towards the southeast. Overland drainage for the site occurs towards the southeast and is ultimately controlled by ditches pertaining to Centre Street/Range Road 272 and Township Road 232.

Figure 7: Existing Site Conditions



Legend

- Langdon NASP boundary
- Hamlet of Langdon Boundary

Natural Drainage

Note: contour lines @0.5m intervals



4.8 Supporting Information

Subsurface Conditions

GTech Earth Sciences Corp conducted a **Geotechnical Investigation** (2011) of the Plan Area to determine whether the subsurface soil conditions and groundwater levels were suitable for development. A total of twenty test holes were drilled throughout the Plan Area. Analysis of the test holes revealed that the subsurface soil has generally favourable soil and groundwater conditions for the proposed development. The geotechnical report is available under a separate cover.

Policy

- 4.8.1 Subdivision and development shall proceed in accordance with the recommendations of a geotechnical report prepared by a qualified professional engineer in support of a proposal for subdivision and/or development to the satisfaction and approval of Rocky View County.

Storm Drainage

LGN Consulting Engineering Ltd. developed a **Staged Master Drainage Plan** for the Plan Area. The SMDP outlines the drainage concept to accommodate the runoff generated by the sub-catchments within The Bridges of Langdon development and provides design information for the associated stormwater management facility. The report is available under separate cover.

Environmental Considerations

A **Phase 1 Environmental Site Assessment** (GTECH Earth Sciences Corp., June 2011) was completed for the Plan Area to assess presence of contamination and potential environmental hazards, past and present, in connection with a proposed residential development. One item of environmental interest/concern was identified, the Encana Corporation pipeline on the subject property. The pipeline right-of-way will be retained through the process of developing the plan area and will serve as a natural open space amenity. Historical documentation from the ERCB and Alberta Environment indicate that no environmental impacts have been reported on the subject property and the site visit indicated that vegetation above and around the pipeline was in healthy condition.

The report concluded that all potential environmental concerns have been mitigated and no further investigation (Phase 2 ESA) is warranted at this time.

Biophysical Considerations

A **Biophysical Impact Assessment** (Sweetgrass Consultants Ltd., January 2012) was completed for the Plan Area to assess the type & extent of existing habitat areas within the site. The majority of the Plan Area is non-native habitat or has been significantly altered through human use. There are numerous small wetlands and a few larger Class III and Class IV wetlands within the Plan Area. These wetlands have been largely degraded through cultivation and heavy grazing. Given the impacts of the existing agricultural use of the area on the natural habitat, the BIA identifies that the effects of development on regional habitat fragmentation and wildlife corridors would be low and negligible. Based on the habitat potential, the effect on regional biodiversity would be minor. With the exception of the wetland in the northeast corner of the site, the existing wetlands identified in the BIA are intended to be developed; the loss of wetlands will be addressed through compensation. The wetland in the northeast corner is intended to be incorporated with a stormwater management facility and the design for the Joint Use Site.

An update to the Sweetgrass BIA, dated June 01, 2017 covering the entire north quarter section, was provided for Bridges of Langdon Phase 1. As part of Phase 1, the wetland permanence report was reviewed by AEP and none of the wetlands were assessed as permanent and will not be claimed by the Crown through the Public Lands Act.

Policy

4.8.2 Wetland loss and mitigation/compensation shall be addressed with Alberta Environment at the subdivision stage of the approval process.

Archaeological & Historical Resources

The Plan Area is believed to contain no important archaeological or historical resources which would require mitigation or avoidance under the Historical Resources Act. Notwithstanding, where sites of archaeological or historical importance are identified during the subdivision approval stage, it is important that these sites are addressed prior to development of the Planning Area and clearance is obtained from Alberta Culture pursuant to the Historical Resources Act.

Policy

4.8.3 A “Historical Impact Assessment” may be required for the Bridges of Langdon Conceptual Scheme Area prior to its development which identifies the location of historical resources and the program for the removal, avoidance and/or conservation of these resources. If required, the “Historical Impact Assessment” shall be prepared by a qualified archaeologist and in accordance with requirements and guidelines, and clearance will be obtained from Alberta Culture prior to development of the land.

5.0 DEVELOPMENT CONCEPT

5.1 Development Concept

The design of The Bridges focuses on creating a complete community that provides a range of residential housing types, local commercial uses and recreational amenities. The design is focused on creating a linear open space network that runs north-south along the stormwater canal connecting two large amenity sites, as well as the stormwater ponds. The north recreational amenity site has been designed to provide for expansion of the future Joint Use Site. A school site is identified central to the plan area, integrated with the open space and pathway network to provide accessibility for residents.

East-west connections are provided by a series of pedestrian bridges and road culverts/bridges aligned to link residents to the linear open space, and community amenities. The bridges will be located to provide maximum connectivity throughout the Plan Area, with special attention given to pedestrian connectivity. Located along open space corridors and at terminating vistas to the neighbourhood centre, the bridges will also serve as focal points within the Plan Area.

The neighbourhood centre, identified in Figure 1 and detailed further in this section, will be an area of street-oriented residential development, multi-family and/or commercial uses. Attractive streetscapes, parking areas and public gathering spaces will be encouraged through the built form to create these areas as a focal point for the community and provide opportunities for social interaction. The neighbourhood centre is located adjacent to Centre Street/Range Road 272 to promote the extension of the Central Business District located north of the Plan area within the Hamlet of Langdon. The strategic location of higher intensity uses along Centre Street/Range Road 272 creates multiple nodes of activity. These nodes of activity not only provide amenities to the area but also enhance the main street feel of Centre Street and gateways to Langdon.

This Concept Plan's fundamental design goal is to create a development that complements the existing Hamlet of Langdon through pedestrian and vehicular connectivity, the form of residential development and the provision of commercial and recreational amenities. The intent is to foster opportunities to live, work and play within the development and to enhance these opportunities in the Hamlet of Langdon.

Figure 8: Land Use Concept



LEGEND

- | | |
|----------------------------|-------------------------------|
| Low Density Residential | MR (Open Space) |
| Medium Density Residential | PUL (Stormponds & Channel) |
| Local Commercial | PUL (Pipe and Power Line ROW) |
| Regional Pathway | ER (Wetlands and Setbacks) |
| Local Pathway / Trail | |

5.2 Land Use Concept

As shown in **Figure 8: Land Use Concept**, the various land uses proposed within the Plan Area include residential, commercial, recreational and public utilities. The Plan Area is predominantly residential and supporting commercial and public service uses, with residential land uses making up approximately 60% of the gross developable area.

Table 2: Land Use Statistics

	ha	ac	%
Total Area	127.29	314.54	
Environmental Reserve	1.19	2.93	
Pipeline Right of Way	2.79	6.90	
Gross Developable Area	123.31	304.71	100%
Net Developable Area (Less MR, PUL and Road Areas)	74.73	184.66	
Net Residential Area	73.51	181.64	59.6%
Low Density Residential (Single Detached)	62.53	154.50	50.7%
Medium Density Residential (Semi-detached/ Multi Residential)	10.98	27.14	8.9%
Commercial	1.22	3.02	1.0 %
Municipal Reserve	13.42	33.15	10.9%
Storm Ponds, Channel and Lift Station	9.69	23.95	7.9%
Road Areas	25.47	62.95	20.7%

Policy

- 5.2.1 Arrangement of the land-use areas shall be in general conformance with that illustrated in Figure 8 - Land Use Concept.
- 5.2.2 In order to achieve a complete community, a mix of land uses shall be implemented, approximately as illustrated in Table 2 - Land Use Statistics.

5.3 Residential Area

In keeping with the Langdon Area Structure Plan policies, residential is the predominant use proposed in the Bridges of Langdon and consists of a variety of housing types. The majority of the residential land use consists of Low Density development, with approximately 15% of net developable area comprised of Medium Density Residential. Multi-family development is proposed to be of a low height and low density to align with the rural Hamlet vision. The average lot widths for Low Density Residential are anticipated to be aligned with the lot widths of the adjacent Boulder Creek development at 18.3 m/ 60ft.

Table 3: Residential Statistics provides the proposed breakdown for the residential mix. The Bridges of Langdon will include an anticipated 1,307 residential units at a density of 4.29 units per acre. Using an average of 3.0 persons/ dwelling, this translated to an anticipated population of approximately 3,920 people.

Table 3 - Residential Statistics

Residential Type	Area (ha)	Anticipated Units	% of Gross Developable Area	% of Net Developable Area
Low Density Residential	62.53	935	59.6%	83.7%
Medium Density Residential	10.98	372	8.9%	14.7%
Semi-detached and Townhouse	8.18	288	6.6%	10.9%
Multi-family	2.80	84	2.3%	3.7%
TOTAL UNITS		1,307		
DENSITY		4.29 upa		

Table 4 – Anticipated Population

Total Dwellings	Persons/Dwelling	Anticipated Population
1,307	3.0 (as per Stats Canada Census)	3,920

5.3.1 Housing Typology

Low Density Residential

The predominant housing type within the Plan Area is Low Density Residential. Low Density Residential development will account for 65.94 ha/ 162.93 acres of the total plan area.

The Low Density Residential area provides for single detached residential products on a variety of lot sizes and configurations throughout the development. At the subdivision stage of the approval process the locations of the varying product will be refined and delineated within the appropriate land use designation available at the time.

The concept for the Bridges of Langdon envisions a range of lot sizes throughout the Plan Area, with smaller lots located closest to neighbourhood centres. The design provides opportunities for a majority of the single family lots to back onto green space, offering enhanced connections to the open space and pathway system. The form of housing will be similar to existing development in Langdon to match the rural character. Architectural Design Guidelines developed at the time of subdivision will provide further guidance on housing styles.

In select locations, single family lots will also back onto Centre Street. To create an attractive interface with Langdon's main north-south road, architectural controls for lots backing onto to Centre Street/Range Road 272 will be provided at the time of subdivision.

Medium Density

The Plan Area has 7.18 ha/ 17.75 acres of identified as Medium Density Residential. This housing form will consist of semi-detached housing units, rowhouses and multi-family residential.

Semi-detached homes and rowhouses are located within close proximity to the neighbourhood centre in the Plan Area. This housing type will have rear lanes to promote attractive pedestrian friendly streetscapes in close proximity to the neighbourhood centre and key access points. In select locations Medium Density Residential Development will also front onto public open space and will be accessible via a public lane.

Multi-family Residential Development will be located adjacent to Centre Street/Range Road 272. Multi-family Residential Development is envisioned as grade oriented townhomes or street oriented development that integrates with the scale of development within the Central Business District proposed north of the Plan area within the Hamlet of Langdon Area Structure Plan. The buildings will be oriented to frame Centre Street and the main entrance roads to the Plan Area to create an attractive interface between the building and the street. The exact form and density of Multi-family Residential Development will be determined at the time of subdivision.

Policy

- 5.3.1a Single family dwelling units shall be the dominant land use for residential development.
- 5.3.1b The exact distribution of residential units in each block of development shall be determined at the subdivision stage of the approval process.
- 5.3.1c Architectural controls that address the rear façade and landscaping of lots backing onto to Centre Street shall be provided at the subdivision stage of the approval process and shall meet the requirements of Policy 8.6 in the Langdon Area Structure Plan.
- 5.3.1d The density of the residential development shall be at least 4 units per acre, including multi-family development.
- 5.3.1e Medium Density Residential Development lots adjacent to the open space system should front onto green spaces rather than streets where feasible.
- 5.3.1g Multi-family developments shall be grade oriented, comprised of articulated façades that define individual units at street level. Entrances to individual

dwelling units shall be visually prominent from the front façade or from the inner façade fronting on a common open area.

5.3.1h Medium Density Residential development should be oriented to the public street with parking located in the rear or side yard, in accordance with Policy 8.10 of the Langdon Area Structure Plan.

5.3.1i All private residential lights should comply with Policy 8.12 of the Langdon Area Structure Plan and the County's 'dark sky' Land Use Bylaw requirements.

5.4 Commercial Area

Commercial development has been located to provide opportunities for the continuation of the Central Business District on Centre Street as indicated within the Langdon Area Structure Plan directly north of the site.

Development within the commercial area is envisioned to be a combination of uses at a local scale to serve the needs of the community, including a commercial component and potentially some office uses. The scale of the commercial component is intended to complement the existing services currently provided within the Hamlet. The commercial area will be street oriented, with parking and associated public spaces suitably landscaped. Through pedestrian scale buildings and building orientation towards the major streets, this commercial area will create a compatible interface with the adjacent residential land use and integrate with the open space system to create a pedestrian friendly neighbourhood centre. High standards of development and a cohesive identity created through architectural controls will promote the commercial area as a community focal point.

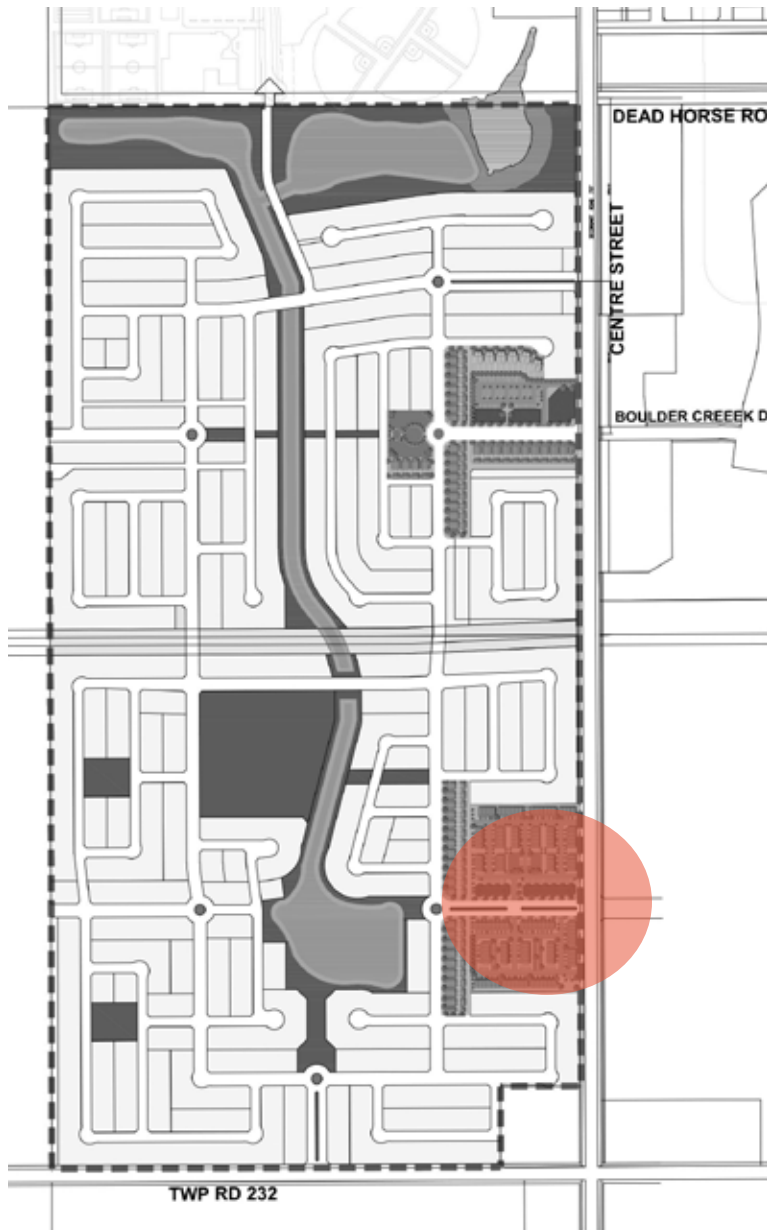
The commercial area will address Centre Street and the entrance roads to the Plan Area, framing the major non-residential streets. The location of the site, combined with the location and extension of the Joint Use Site, will generate nodes of activity along Centre Street. These nodes provide a variety of commercial, recreational amenities and a main street feel that is in keeping with the intent of the Central Business District north of the Plan Area. The illustrative concepts on the following pages provide an example of how these nodes of activity could be developed.

The specific site design and architectural controls for the commercial area will be determined at the subdivision stage. All commercial development in the **Bridges of Langdon** will be aligned with the Commercial, Office and Industrial Design Guidelines in Rocky View County and the Langdon Centre Street Design Guidelines

Policy

- 5.4.1 Commercial area lot sizes, configuration, parking and layout shall be delineated at the subdivision stage of the approval process.
- 5.4.2 Landscaping requirements and architectural controls to ensure visual quality of the commercial area shall be detailed in Architectural and Design Guidelines to be submitted at the subdivision stage of the development approval process.
- 5.4.3 The use, building form, height, materials and orientation of commercial and commercial development will be generally compatible with adjacent residential areas.
- 5.4.4 Identifiable and interconnected pedestrian routes from the commercial area to the surrounding residential development shall be identified at the subdivision stage.
- 5.4.5 Parking for commercial developments should be located in a manner that minimizes disruption to a pedestrian oriented street environment.
- 5.4.6 Development of the Commercial area shall conform to Commercial, Office and Industrial Guidelines for Rocky View County.
- 5.4.7 Development of the Commercial area shall conform to the Langdon Centre Street Corridor Design Guidelines in accordance with Policy 9.25 of the Langdon Area Structure Plan.
- 5.4.8 All private lights in the Commercial area should comply with Policy 8.12 of the Langdon Area Structure Plan and the County's 'dark sky' Land Use Bylaw requirements.

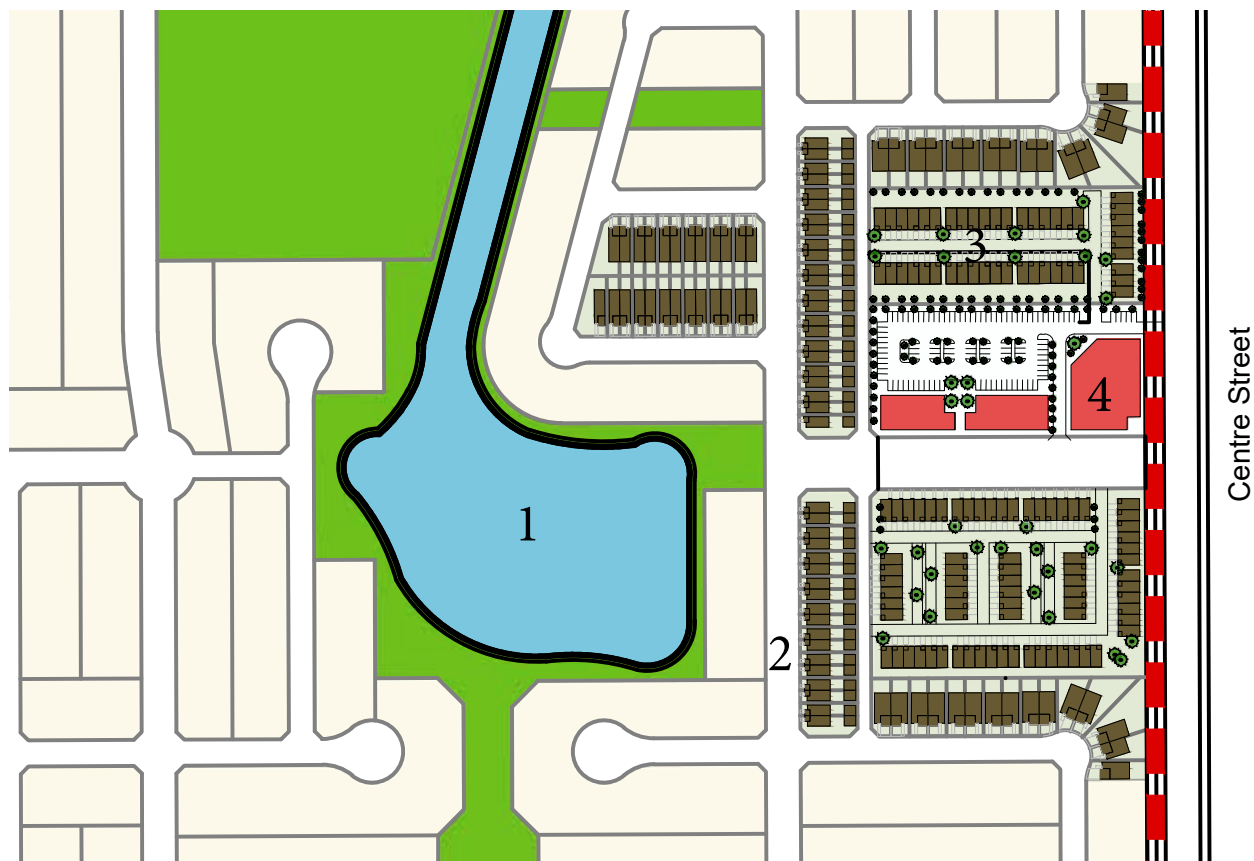
Location Map



Examples of Built Form



South Neighbourhood Centre Conceptual Illustration



Legend

1. Open Space and Pond
2. Semi-detached/townhouse
3. Multi-family
4. Local Commercial

5.5 Open Space Area

5.5.1 Open Space Concept

The open space system, illustrated in **Figure 9: Open Space Concept**, provides passive and active recreation opportunities for residents throughout the Plan Area. Open space is aligned with the Plan Area's stormwater facilities to create an extensive integrated network. The open space network provides the following recreational amenities:

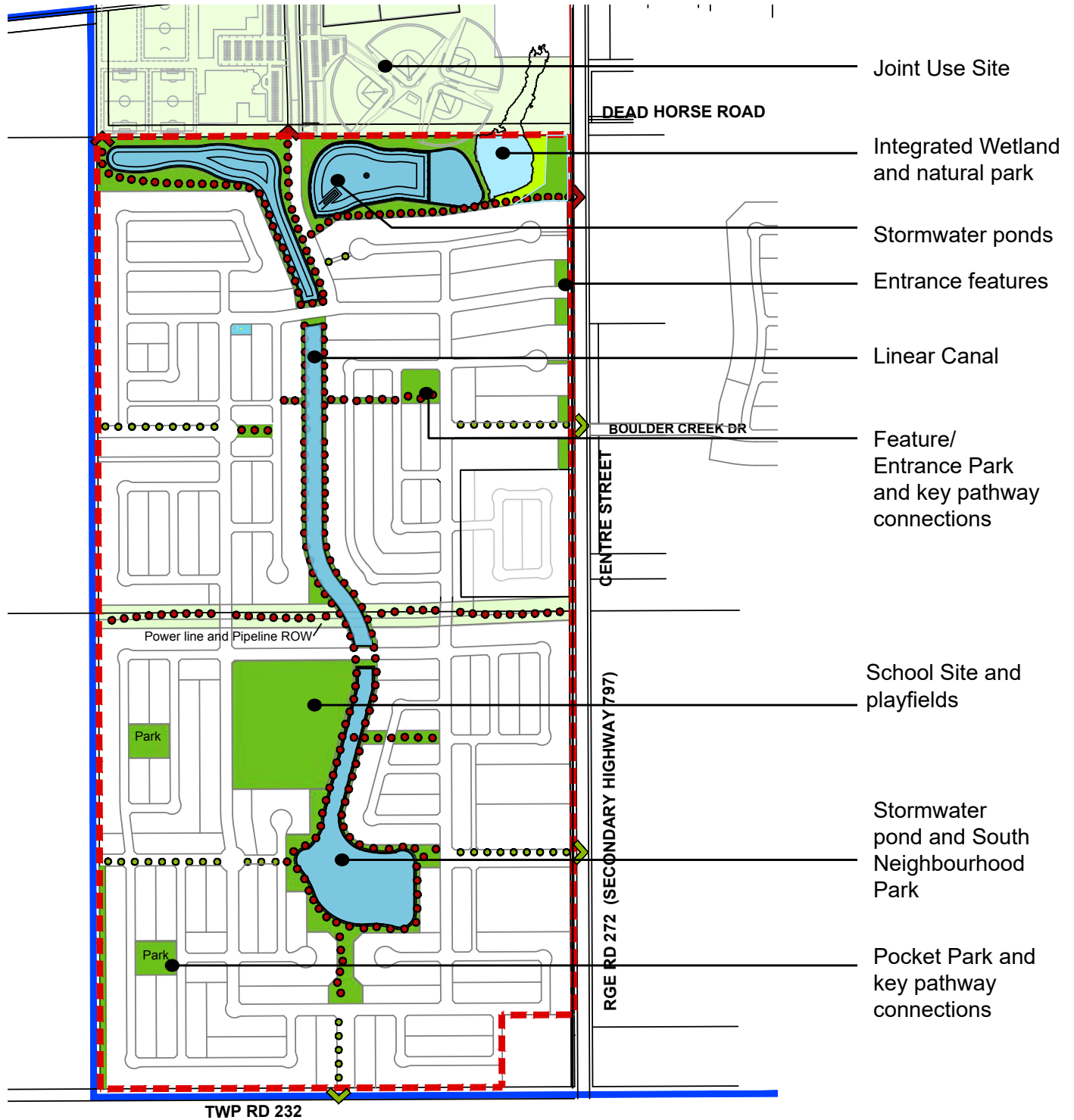
- Linear green corridors aligned with the stormwater canal for pathways and passive recreation;
- A 10 acre school site with playfields located centrally to the site;
- Open space, stormwater facility and integrated wetland, in coordination with the future Joint Use Site, located in the north portion of the Plan Area to create Community Gathering Place;
- Local and regional pathways, pedestrian bridges, seating nodes and green space;
- Integration and access to the future multi-use pathway proposed on Centre Street/ Range Road 272;
- Neighbourhood parks and pocket parks;
- Landscaped boulevards;

Open space and pathways are key elements of fulfilling the vision for the Plan Area. Open space is aligned along the stormwater canal that connects the north and south stormwater ponds in the Plan Area. Pathways will be located along the canal system to provide open space connectivity between the pocket parks located and school site in the south portion of the Plan area and the community scale park/Joint Use Site located in the north portion of the Plan Area.

A 10 acre school site is located centrally within the Conceptual Scheme, which will accommodate a school building and playfields. The school site is served by two collector roads and is integrated with the local pathway system for excellent connectivity throughout the neighbourhood.

The remainder of the open space system is designed as a series of small parks in visually prominent locations, linked through street connections. The comprehensive network of streets and parks extends east and west to provide opportunities for future development west of the Plan Area to connect to the neighbourhood centre located at the east side of the plan.

Figure 9: Open Space Concept



Legend

- Subject Site
- Path and Pathway Links
- Sidewalk Linkages



Policy

- 5.5.1a The location of Municipal Reserve shall be in general conformance with the Figure 9: Open Space Concept. An approximately 10 acre school site with playfields should be provided in the center of the plan area, and the size of the school site is subject to an assesement at subdivision stage.
- 5.5.1b Open space development, including pathway design, shall be in conformance with the Rocky View County Parks and Open Space Master Plan, Rocky View County Servicing Standards and the Parks and Pathways: Planning, Development and Operational Guidelines.
- 5.5.1c A detailed Open Space Plan, including landscaping and pedestrian bridge design shall be provided to the satisfaction of the County at the subdivision stage of the development approvals process.
- 5.5.1d Local pathways shall be established in the Plan Area as generally identified on Figure 9: Open Space Concept and as shown in the Langdon Area Structure Plan.
- 5.5.1e The pathway system should facilitate links to the regional pathway system proposed in the Centre Street Corridor Design Guidelines.
- 5.5.1f The design of the pathway system shall be included in the Open Space Plan provided at the subdivision stage of development.
- 5.5.1g Fencing shall be provided by the developer at the point of interface between the school site and the canal to ensure the safety of students. The design and construction details of the fencing shall be included in the Open Space Plan provided at the subdivision stage of development.
- 5.5.1h All open space development shall be designed and constructed in accordance to recognized Crime Prevention Through Environmental Design (CPTED) best practices, in accordance with Policy 18.9 of the Langdon Area Structure Plan.
- 5.5.1i Setbacks and Municipal Reserve dedication shall be provided around stormpond and canal Public Utility Lots within the plan area to accommodate servicing roads as well as secondary uses as pathway or trail alignments.



5.5.2 Recreational Amenities

Rocky View County's Parks and Open Space Master Plan identifies the Hamlet of Langdon as an area of focus for community development with recommendations for indoor and outdoor facilities and amenities, including an indoor arena. The Bow North Recreation District Master Plan identifies the Langdon Joint Use Site as a future planned amenity. This Joint Use Site will be located, in coordination with Rocky View Schools and Rocky View County, adjacent to the north boundary of the Plan Area. As shown in Figure 10, the current plan includes play fields, a recreation facility and baseball diamonds immediately adjacent to the Plan Area. The Bow North Recreation District has indicated the need for additional land to meet the outdoor facility needs for the site. The Plan Area includes a portion of the integrated wetland and natural park area, and some of the play fields extend slightly into the Plan Area. An extensive pathway system around the wetland and stormpond amenities provides residents access to natural open space and passive recreation in addition to the active recreation options to the north.

In addition, recreational amenities are provided throughout the neighbourhood within easy walking distance for all residents in the Plan Area. Active recreational programming for neighbourhood parks will be determined at the redesignation stage to respond to community needs. The canal will provide a new recreational amenity to Langdon including a linear pathway system and opportunity for passive recreation along the canals edges. There is also opportunity to make use of the Power and Pipeline utility right-of-way at the centre of the site for passive recreation activities such as walking trails or a dog park. Pathway/ trail has been indicated within this area to suggest the potential for these uses, subject to discussion with the utility operators and the County at the redesignation stage of development.



5.5.3 Municipal Reserve

Dedication of Municipal Reserve (MR) shall be provided by the developer within the Plan Area at the subdivision stage in accordance with the provisions of the Municipal Government Act. The Bridges of Langdon will provide approximately 10.9% of its gross developable area, or 13.42 hectares (33.15 acres) as Municipal Reserve. An approximate calculation of the proposed disposition of MR is as in identified in Table 5: Municipal Reserve.

In addition to the formal Municipal Reserve dedication, Bridges of Langdon also provides significant amenity space through stormwater management facilities and integration with the Joint Use Site to the north. As illustrated in Figure 10, a combination of stormwater facilities, integrated wetlands, open space, a high school site and a Joint Use Site will create the key Community Gathering Place as envisioned and supported in the Langdon Area Structure Plan.

To provide recreational amenities that benefit the entire community of Langdon, the storm ponds within the Bridges of Langdon have been oversized to accommodate the stormwater needs of the Joint Use Site and development north of the conceptual scheme. The intent is for this stormwater ponds, integrated wetland and adjoining open space to be integrated with the design of the Joint Use Site.

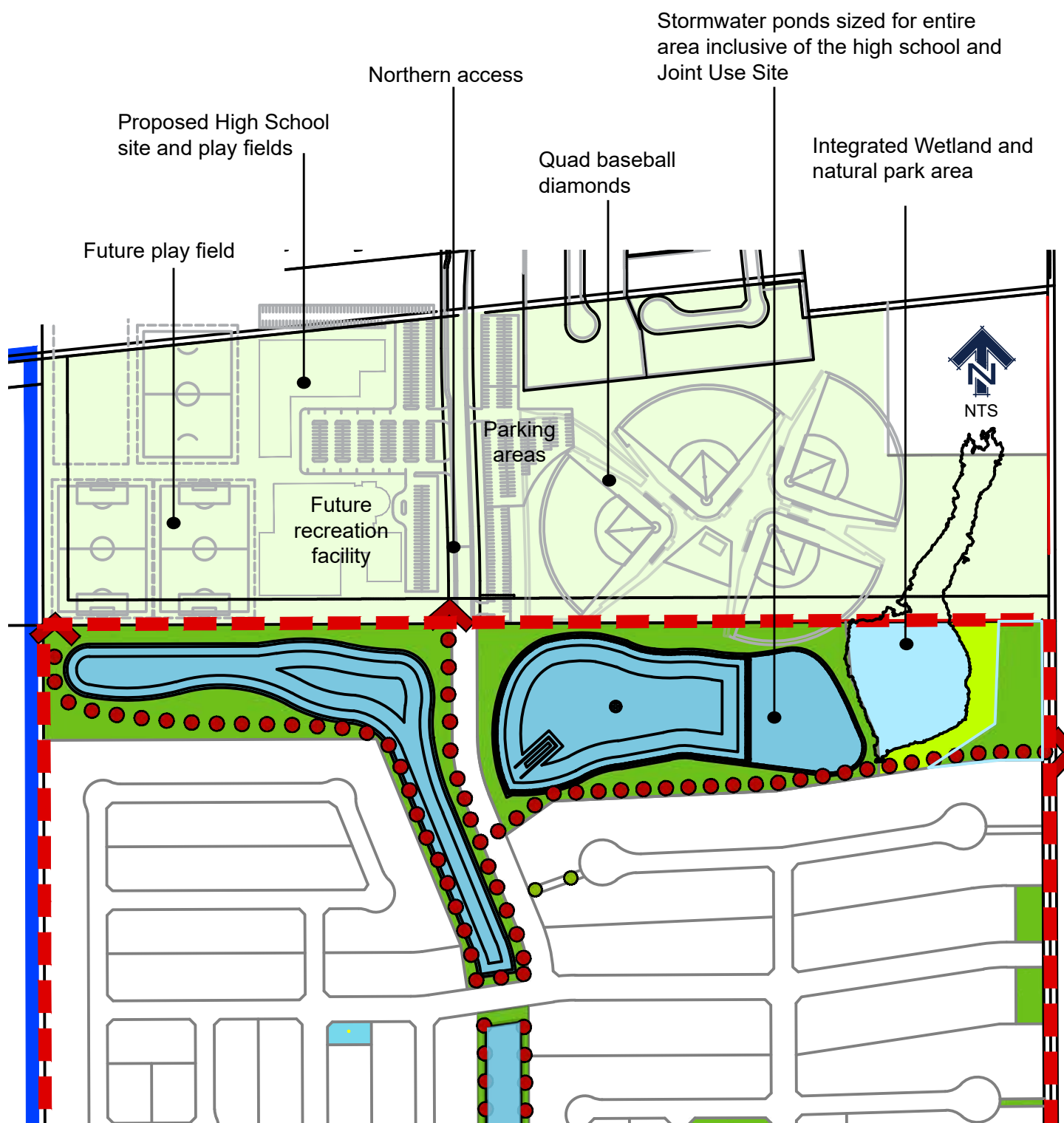
Policy

5.5.3a Municipal Reserve dedication shall be determined at the subdivision stage in accordance with the Municipal Government Act.

Table 5: Municipal Reserve Analysis

Municipal Reserve Calculation	Hectares	Acres	Percent
Total Area	127.29	314.54	
Environmental Reserve	1.19	2.93	
Pipeline Right of Way	2.79	6.90	
Gross Developable Area	123.31	304.71	100%
Municipal Reserve Required (10% GDA)	12.33	30.47	10%
Municipal Reserve Provided	13.42	33.15	10.9%

**Figure 10: Community Gathering Place Details -
Design Integrated with the Bridges Conceptual Scheme**



5.6 Transportation Considerations

5.6.1 Transportation Impact Assessment

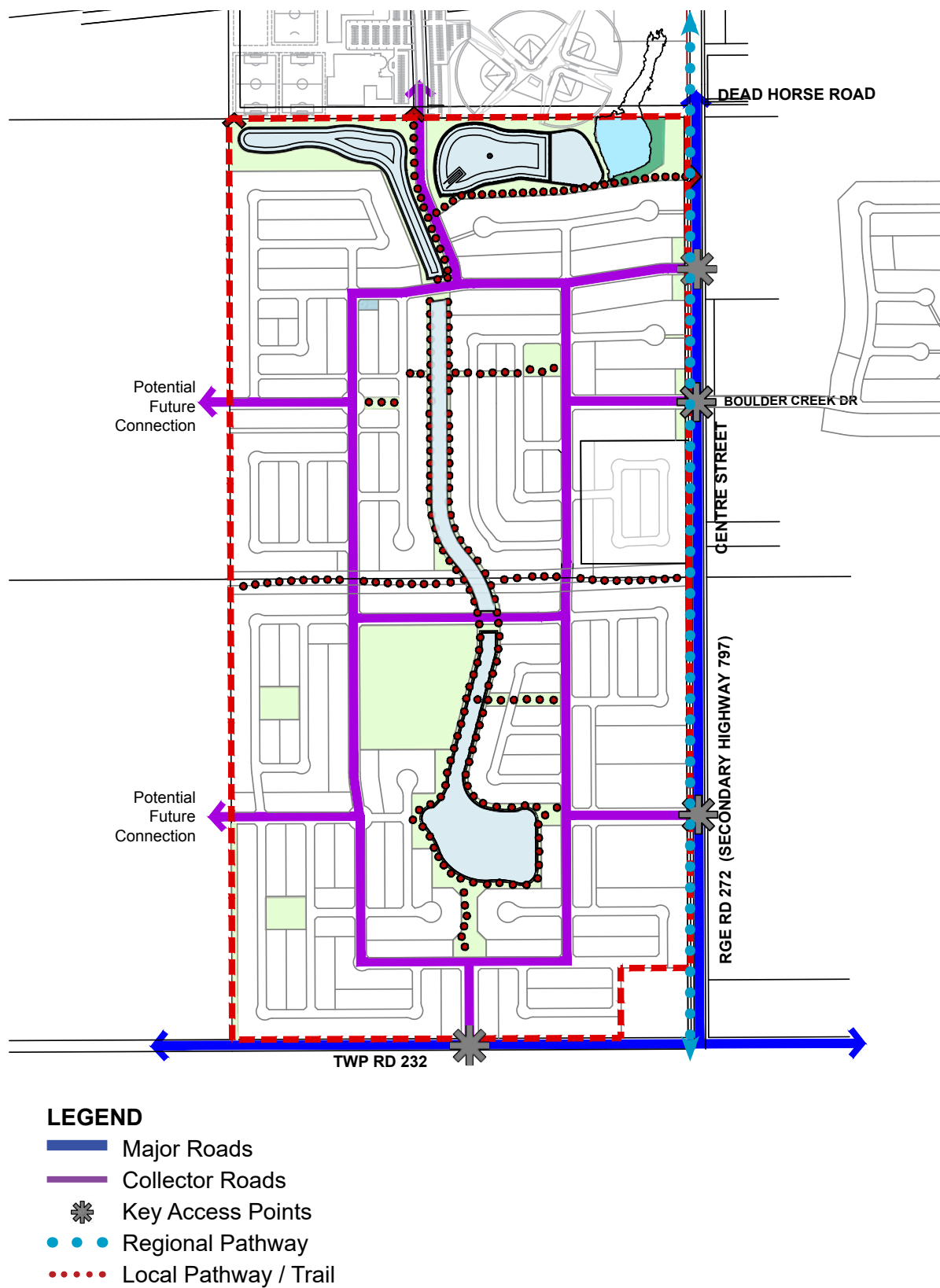
A **Transportation Impact Assessment** was completed by Bunt and Associates Engineering Ltd. (January 2012) to assess existing transportation movements at key intersections in the vicinity of the Plan Area, determine the impact of the proposed development on the operating conditions of the key intersections, and assess internal road links adjacent to and within the development to determine appropriate road sizing, surface treatment and road classification.

The County prepared a Transportation Network Analysis for the Hamlet of Langdon to determine the long term impacts of the transportation network from the development and growth of the Hamlet and new development areas. As part of this Conceptual Scheme submission, Bunt and Associates reviewed the updated Conceptual Scheme against the findings of the Transportation Network Analysis to determine if the recommendations of the 2012 TIA were still valid. This comparison indicated that the proposed Bridges of Langdon development will generate less traffic than was originally anticipated in the TIA and allowed for in the Langdon Network Analysis. This demonstrates that the improvements required to the road network within Langdon as listed in the Langdon Network Analysis are still valid.

Policy

- 5.6.1a The developer shall provide lands required for intersectional and/or road upgrades to the Plan Area identified at the subdivision stage.
- 5.6.1b A Transportation Impact Assessment may be required as part of the subdivision application for each phase if deemed necessary to indicate the off-site improvements required for the development of that phase.
- 5.6.1c All boundary roadway and future intersection upgrades shall be designed in conformance with Rocky View County and Alberta Transportation design guidelines.
- 5.6.1d All boundary roadways shall be designed in conformance with the recommendations contained within the Langdon Network Analysis.
- 5.6.1e All applicable transportation off-site levies shall be collected upon endorsement of each phase of subdivision.

Figure 11: Transportation Network



5.6.2 Road Network

The road network is illustrated in **Figure 11: Transportation Network**. The road network for the Plan Area will consist of a hierarchy of collector roads, residential roads and lanes. The plan area provides 3m of road widening along Centre Street, as well as 5m along Township Road 232, to accommodate future planned upgrades to those road cross-sections. Collector roads will be located at each of the access points to the Plan Area and create a collector loop throughout the Plan Area. Collector roads provide access to commercial area and terminating vistas are created through the location of open space.

Policy

- 5.6.2a The developer shall enter into a development agreement with Rocky View County for the construction of internal roadways and all related infrastructure.
- 5.6.2b Design of road sections shall meet Rocky View County Servicing Standards and shall include sidewalks to the satisfaction of Rocky View County, in accordance with the County Servicing Standards.
- 5.6.2c The proposed transportation network shall be designed to support an interconnected road and pedestrian system that promotes a range of routing options.
- 5.6.2d The proposed transportation network of roads, pathways, and trails shall connect adjacent neighbourhoods and accommodate a range of users, including alternate modes of transportation.
- 5.6.2e The road classification and layout may be refined through further transportation analysis at the time of subdivision application. Minor changes or modifications will not require an amendment to this Conceptual Scheme.
- 5.6.2f The developer shall construct a regional pathway along the west side of Centre Street fronting the plan area meeting the requirements of the Rocky View County Servicing Standards.

5.6.3 Pedestrian Network

The pedestrian network will consist of the linear local pathway system as discussed in the Open Space section and as illustrated in Figure 10 Transportation Network. A well connected street layout will also be provided to create multiple direct routing options for pedestrians. Pedestrian friendly streetscapes will be promoted within the neighbourhood centre and along Centre Street. These streetscapes will be created through the use of sidewalks and landscaping, in addition to street oriented development for commercial and multi-family areas that are adjacent to Centre Street.

The pathway network throughout the linear open space provides pedestrian and cycling connectivity for residents. The pathway network is aligned to connect with significant destinations such as the commercial areas. Pathway connections are also aligned to create key linkages to existing and future development, fostering opportunities for an integrated pathway network with the Hamlet of Langdon, particularly through connectivity to the future pathway along Centre Street/Range Road 272. The plan area will accommodate road widening for the expanded Centre Street cross-section with multi-use pathways.

Pathways will be located along the canal system to provide open space connectivity and access to key destinations within the plan area. Pedestrian bridges will be constructed to cross the canal providing physical connectivity east-west throughout the Plan area. Bridges will be located to align with the commercial areas, small parks and key linkages providing connectivity to these areas and creating focal points within the Plan Area. As focal points, the pedestrian bridges will be part of the community theme and will be further refined at the redesignation stage through landscape drawings.

To promote pedestrian connectivity between the Plan Area and the Hamlet of Langdon, as mentioned in Section 5.3.1, architectural and landscaping controls will be implemented at the redesignation stage for lots adjacent to Centre Street. The Centre Street Design Guidelines for Langdon indicate that the portion of Centre Street from Deadhorse Road to Boulder Creek Drive shall be upgraded to include a wide paved multi-use pathway separated from the street by a boulevard on both sides of the roadway, with pedestrian controlled signals.



5.7 Utility Services

Policy

5.7.0a All applicable stormwater and wastewater off-site levies shall be collected upon endorsement of each phase of subdivision.

5.7.0b Utility rights-of-way and easements shall be provided as required to accommodate County and potable water utilities and shallow utilities at the subdivision or development permit state, as deemed necessary.

5.7.1 Storm Water Management

The storm water management for this development is comprised of a wet pond in the canal. The system has been designed as a regional facility and takes storm water from the Joint Use site to the north, as well as the residential development land between the Joint Use Site and Railway Avenue. These development lands to the north require additional active storage volume in the north pond. The additional storage volume required by the developments to the north adds an additional 1.4 ha of pond area to the Bridges of Langdon development, taking away dedicated MR.

The site will generally drain towards the canals and ponds on both quarters and is to be first captured in the minor storm collection system by surface swales and ditches, roadway gutters, catch basins and storm pipes. This minor system collection will be directed to the major system consisting of the surface canals and storm pond facilities in the south, center, and north portions of the development (see Figure 12). Ultimately, the northeast storm pond is the discharge point and will discharge via a pumping station and forcemain which will outfall to the existing Railway Avenue ditch north of the Plan Area. The Railway Avenue ditch currently discharges into Weed Lake. As per the Langdon Comprehensive Storm Water Review, a discharge rate of 1.65 L/s/ha will be used in determining the storage volumes that will be required as well as the total peak discharge rate. This discharge rate has been determined through an analysis of the capacity required for future development in the Langdon area. The north pond has been designed to accommodate a 1:500 year storm event as there is not an emergency escape route available at the 1:100 year storm water level. The emergency escape route for the site in a flood condition over and above the 1:500 year storm is through the northeast corner to Centre Street and then north to the Railway Avenue ditch. Additionally, a 10 meter wide parcel will be provided along the west boundary of the southwest corner of the site which will include a ditch to convey existing overland drainage from the parcels to the west of this development to the existing roadside ditch along Township Road 232. The design and treatment of this ditch will be determined at the detailed design stage.

Stormwater facilities have been designed to become not only a functional utility but also

an aesthetic open space feature. The stormwater system provides a water feature that runs through the Plan Area providing visual interest, passive open space and pedestrian connectivity along its edges. All ponds will be designed in accordance to Alberta Environment and Rocky View County Standards. **Figure 12: Stormwater** indicated the locations of ponds, canals, ditches and proposed servicing. A Storm Drainage Plan has been completed by Lee Maher Engineering Associates Ltd. and is submitted under a separate cover.

The outfall location for the stormwater management system for the Plan Area shall be reviewed at the time of land use to assess the impact to the Regional Drainage Ditch along Railway Avenue.

Policy

- 5.7.1a Stormwater gravity lines, force-mains, lift stations and ponds will be designed in accordance with the requirements of Alberta Environment, the Langdon Comprehensive Stormwater Review, and Rocky View County Standards.
- 5.7.1b Landscaping of the canal and ponds will be addressed through detailed plans at the redesignation stage to integrate these utilities with the open space plan for the Plan Area.
- 5.7.1c Detailed stormwater management design should follow the recommendations of the Bridges of Langdon Staged Master Drainage Plan to the satisfaction of the County.
- 5.7.1d Stormwater management and infrastructure shall be designed and constructed in accordance with the approved Master Drainage Plan, County Servicing Standards, County Policy, Langdon Comprehensive Stormwater Review and Provincial regulations.
- 5.7.1e The high value wetland in the northeast portion of the plan area should be preserved and incorporated into the neighbourhood parks and open space design as indicated in Figure 9.
- 5.7.1f Community and stormwater design should provide wetland treatment systems that improve the stormwater quality.
- 5.7.1g Stormwater conveyance systems shall provide a right-of-way of sufficient width to accommodate upstream stormwater flow and be conveyed in a manner that protects downstream properties.
- 5.7.1h All stormwater management facilities shall be constructed on a Public Utility Lot.

5.7.2 Sanitary Sewer System

Sanitary treatment for the Plan Area will be provided by the existing waste water treatment facility within the Hamlet of Langdon. Currently, this facility has capacity to service additional development. However, further upgrades to the plant will be required to be implemented to service full build-out of the plan area. Sewer servicing will tie into this system via the existing East Rocky View Transmission Main located at the north boundary of the Plan Area.

The Plan Area will be serviced by gravity sewer lines which will collect and convey wastewater to the middle of both quarter sections, on the west boundary. From here a sanitary lift station will pump North East through the development area to tie into the existing East Rocky View Wastewater Transmission Main located at the northern boundary of the plan area. The sanitary lift station has been positioned in an area that could be easily accessible and allow the catchment area to include other lands to the west. All gravity lines, force-mains and lift stations will be designed in accordance with Alberta Environment and Rocky View County Servicing Standards. **Figure 13: Sanitary Services** identifies the locations of existing and proposed sanitary sewer mains, lift station and tie in point.

Policy

- 5.7.2a Sanitary sewer gravity lines, forcemains and lift stations will be designed in accordance with Alberta Environment and Rocky View County Servicing Standards.
- 5.7.2b As per the Langdon Area Structure Plan, a Wastewater Servicing Study will be submitted with subdivision application. The Wastewater Servicing Study shall be reviewed by the County to determine wastewater demand and infrastructure requirements to confirm that sufficient wastewater treatment capacity exists to service the proposed development.
- 5.7.2c Sanitary lift station facilities shall be constructed on a Public Utility Lot.
- 5.7.2d Any future lift stations or other wastewater systems shall be required to enter into an Interim Operating, Warranty and Cost Share Agreement, or similar agreement with the County.

5.7.3 Water Distribution System

The Plan Area is located within the Langdon Water Works Franchise Area. Water servicing will be provided by this existing utility through connection to the existing water mains directly north and east of the Plan Area.

Water will initially be provided from the intersection of Railway Avenue and Centre Street/Range Road 272 heading south to the development area. The Water distribution system will then be looped by running further south along Centre Street/Range Road 272 to tie into an existing main at Boulder Creek. This will provide adequate looping for the development to instill sufficient flow volumes and firefighting capabilities. **Figure 14: Water Servicing** identifies the location of tie in points, existing and proposed water mains.

All water main distribution pipes within the Plan Area will be designed in accordance with Alberta Environment and Rocky View County Servicing Standards. All design will take into account fire protection standards and best practices for water distribution.

Policy

- 5.7.3a Water mains and distribution pipes within the Plan Area will be designed in accordance with Alberta Environment and Rocky View County Servicing Standards.
- 5.7.3b The water distribution system will take into account all necessary fire protection standards and best practices for water distribution and firefighting requirements.
- 5.7.2b As per the Langdon Area Structure Plan a Water Use Assessment will be submitted with a subdivision application. The Water Use Assessment shall be reviewed by the County and water service provider to determine the water demand and infrastructure requirements to confirm that sufficient water capacity exists to service the proposed development.

5.7.4 Shallow Utilities

Telephone, power, cable and gas will be provided at subdivision as per utility owner's guidelines and availability.

- 5.7.4a Each phase of the development shall be fully serviced with private shallow utility systems such as electrical, natural gas, and telecommunications.
- 5.7.4b Locations for easements and line assignments for shallow utility extensions shall be determined at the subdivision endorsement stage.

5.7.5 Solid Waste and Recycling

The Hamlet of Langdon provides residential pickup of solid waste to residents within the Hamlet. It is anticipated that this service will be extended to the Plan Area. A local transfer site managed by Rocky View County is also available within Langdon for recycling and garbage. The developer will be responsible for solid waste and recycling during the phases of pre-construction, construction and post-construction, and will comply with the waste management policies of the Langdon ASP.

5.7.5a The developer shall be responsible for the management and disposal of solid waste generated through all stages of construction and encourage opportunities to divert the range of material from landfill sites.

5.7.5b The Langdon Waste Transfer Site shall be the local site to serve the Bridges of Langdon.

5.7.5c Residential development consisting of no more than two attached dwelling units shall coordinate lot layout with the County's Solid Waste and Recycling Services department to ensure that solid waste collection can be collected efficiently.

5.7.5d Condominium residential development shall make their own arrangements for the proper removal and disposal of garbage, recyclables, and other waste materials, as per Rocky View County's Solid Waste Bylaw.

5.8 Protective and Emergency Services

The Hamlet of Langdon is served by a volunteer fire department located within the Hamlet. This fire department will be the primary response for the Plan Area.

Police services are provided by the R.C.M.P. through a detachment in Strathmore. Rocky View County also provides protective services to the Plan Area. Rocky View County Peace Officers enforce selected government acts and municipal bylaws.

Emergency Response is dispatched through the local volunteer Fire Department in Langdon. These emergencies are directed to medical facilities in the City of Calgary.

5.8.0a Applications for subdivision and development should include design elements that facilitate fire prevention methods and accessibility by emergency response vehicles for the suppression of fire, and the enhancement of police protection including, but not limited to, adequate site access and property identification.

Figure 12: Stormwater

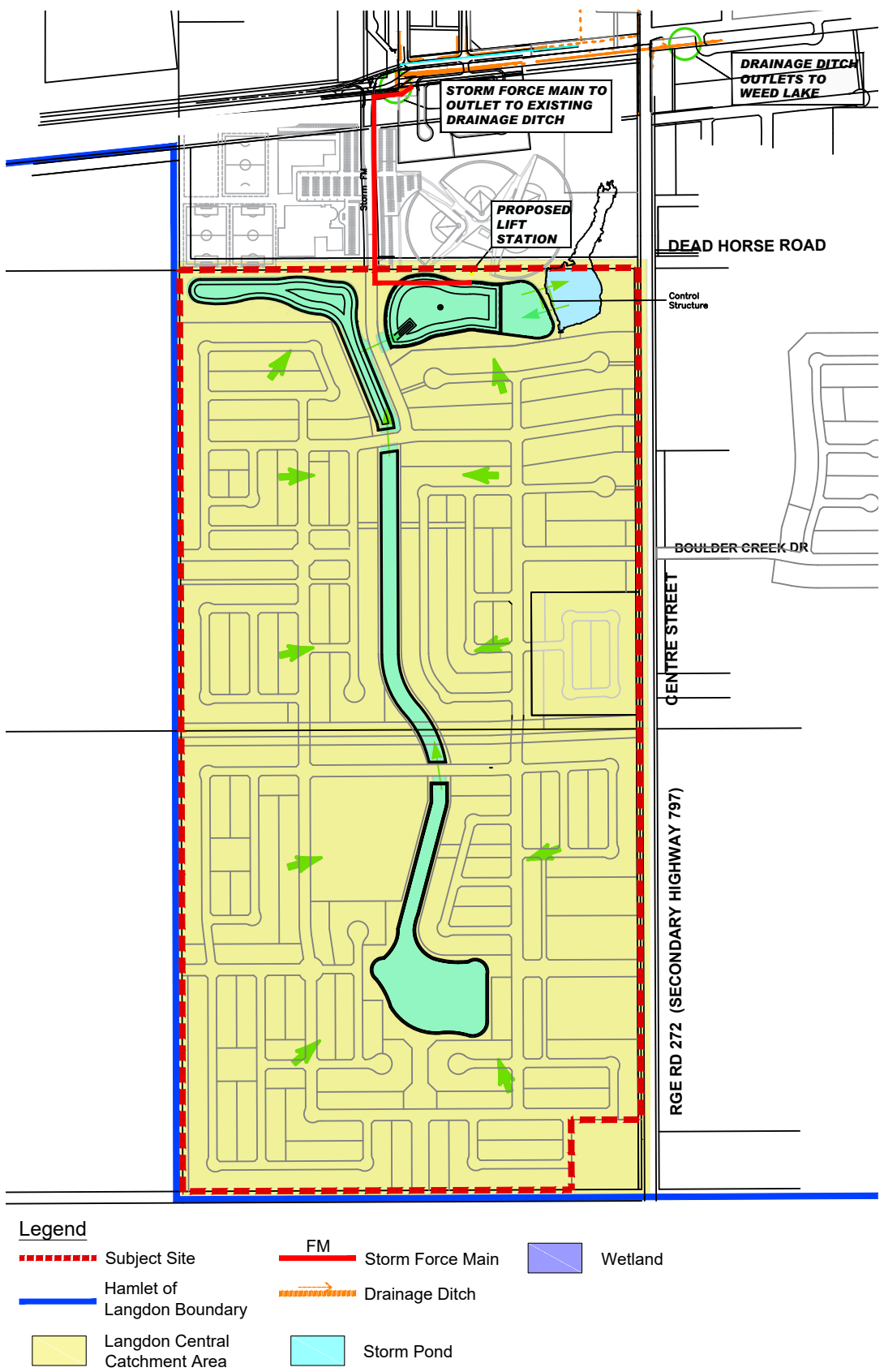


Figure 13: Sanitary Servicing

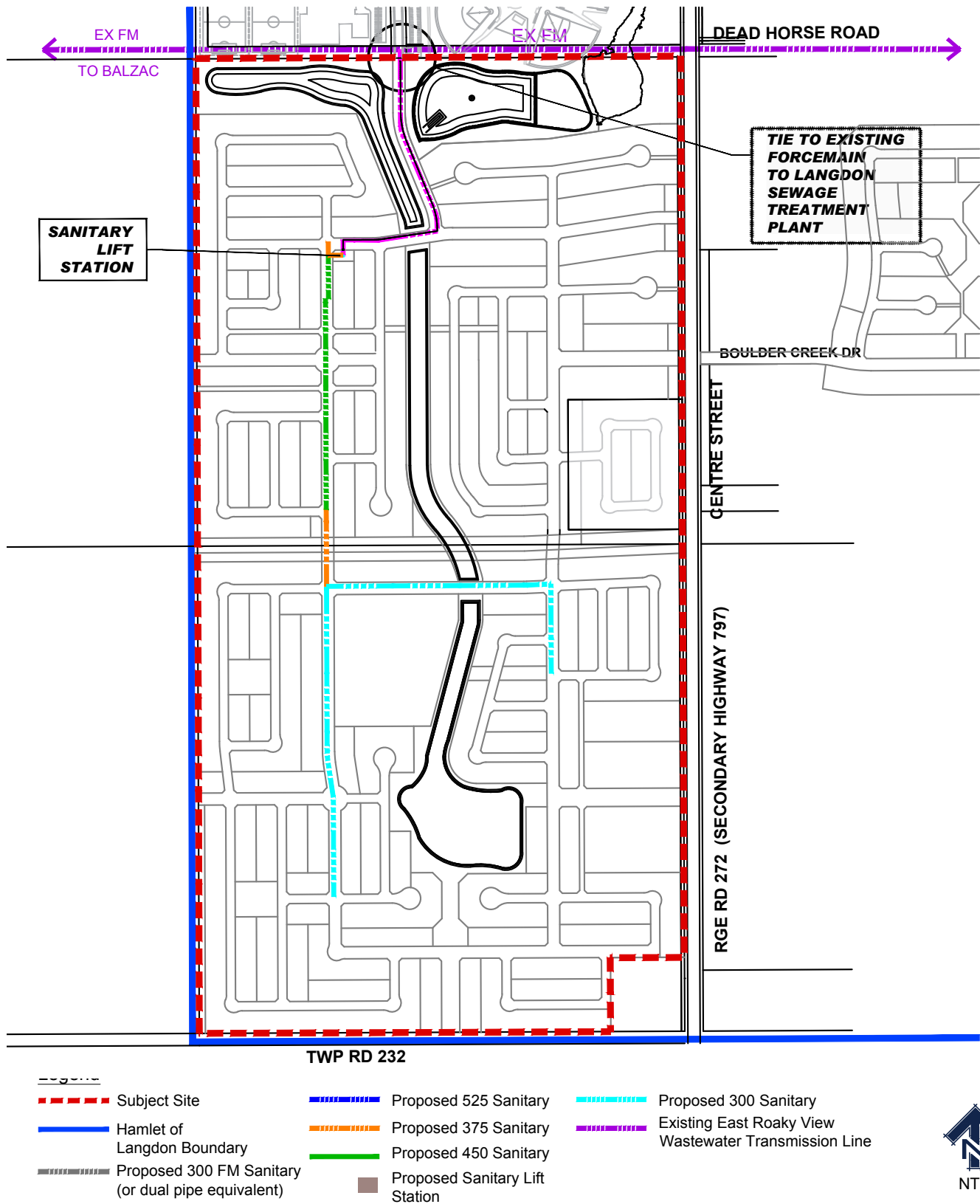
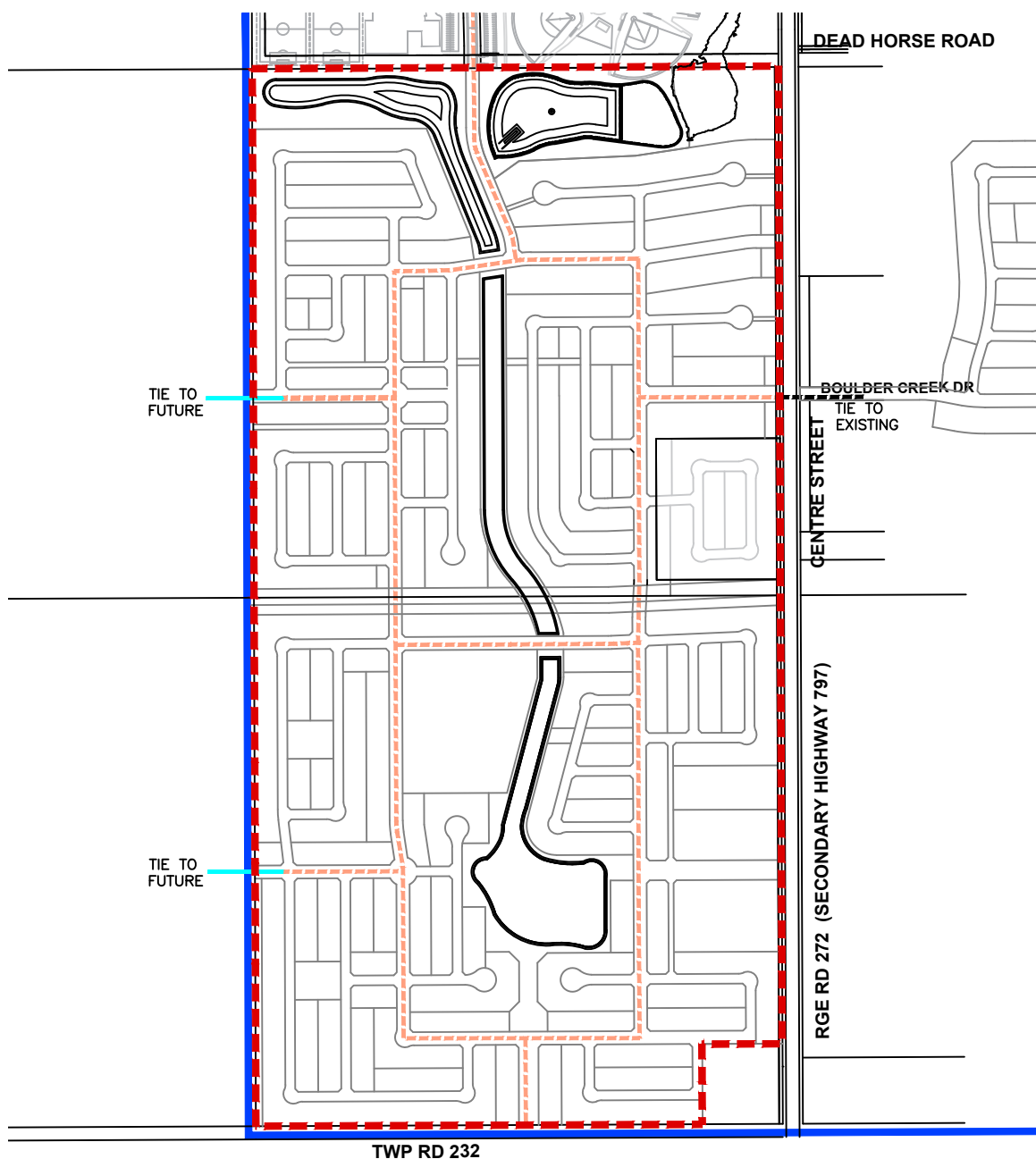


Figure 14: Water Servicing



Legend

- | | |
|--|---|
| - - - - - Subject Site | - - - - - WM Proposed 300m Water Main |
| — Hamlet of Langdon Boundary | — WM Future Water Main |

6.0 IMPLEMENTATION FRAMEWORK

6.1 The Conceptual Scheme Implementation Process

Adoption of this Conceptual Scheme will establish specific expectations that will guide the implementation of **The Bridges of Langdon**. The Conceptual Scheme provides a framework of land use policies that must be considered prior to subsequent consideration of land use amendment and/or subdivision approval for residential and commercial development with the Plan Area.

Subsequently, consideration of land use amendment, subdivision and development permit applications will follow in accordance with the policies of this Conceptual Scheme and other Rocky View County development requirements.

6.2 Land Use Redesignation

The Bridges of Langdon intends to work with the County to apply relevant land use districts for a land use redesignation application. A land use amendment is expected to be applied by Council in accordance with the Rocky View County Land Use Bylaw at the time of redesignation.

6.3 Subdivision Application

A subdivision application will follow land use redesignation of the Plan Area. Subdivision applications may include several phases and development blocks, with sizes and configurations deemed appropriate by the developer.

6.4 Architectural Design Considerations

The developer will establish and implement specific **Architectural and Design Guidelines** to ensure all residential and commercial development reflects a consistent style and coordinated theme.

Specific benchmarks for exterior building criteria will be established to consider design elements such as:

- Moderate front setbacks for residential uses
- Providing front porches and verandas for residential uses
- The use of high quality exterior finishes for side and rear elevations where development is exposed to a public road or open space.
- Orientation of commercial uses towards the major roads
- Landscaping requirements for multi-family residential development

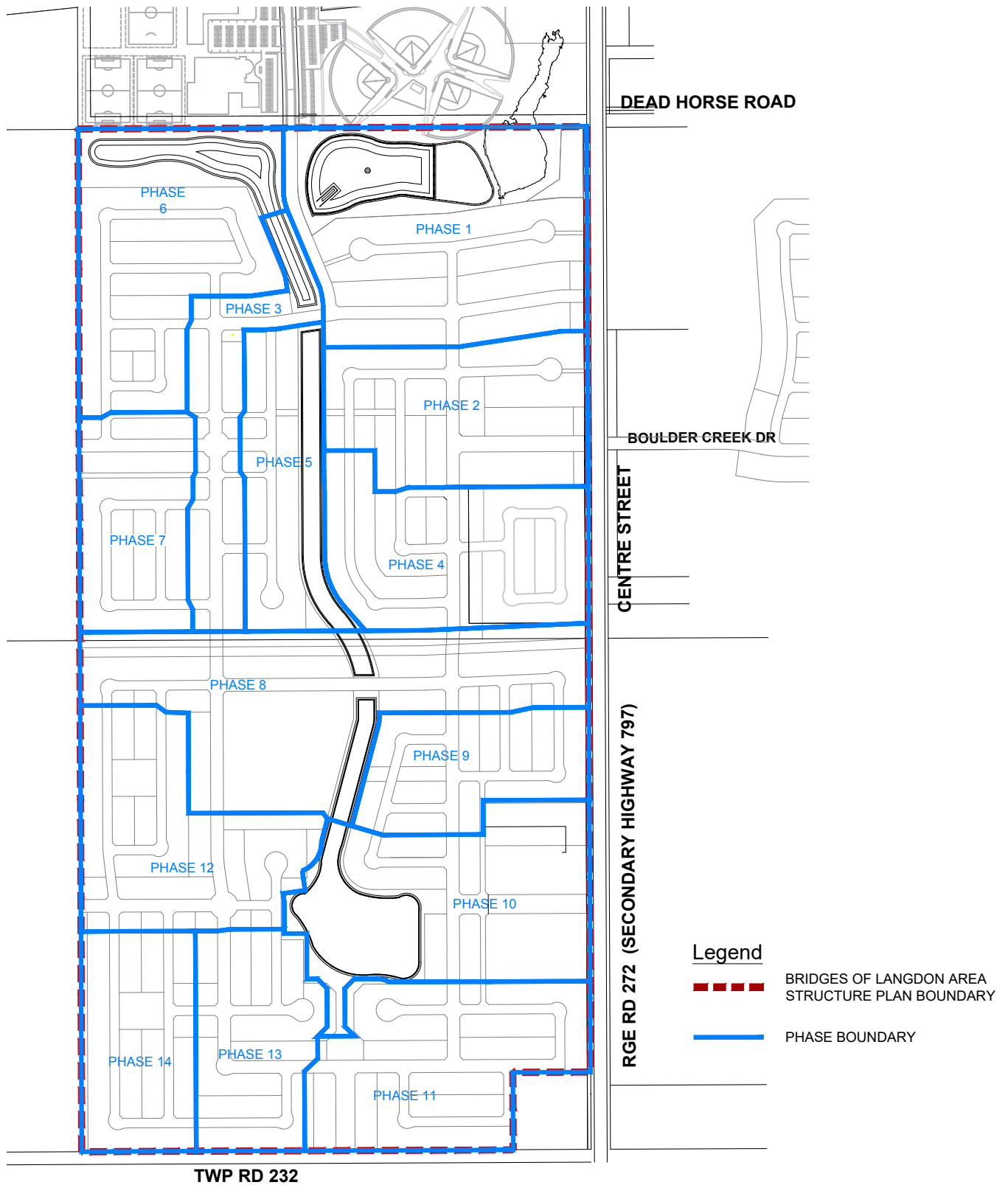
Policy

- 6.4.1 A document outlining Architecture and Design Guidelines for residential and commercial buildings will be submitted at the redesignation stage of the development approval process.
- 6.4.2 The Architecture and Design Guidelines will be registered against the title of all properties and shall be implemented by the developer.

7.0 PHASING

It is anticipated that one phase will be developed per year, starting with the first phase in the north of the Plan Area as indicated on **Figure 15: Phasing Plan**. The first phase will consist of approximately 100-150 lots and will be developed following the approval of the Conceptual Scheme. Subsequent development will occur in phases with approximately 50-100 lots. The developer will install transportation, utility servicing and recreational infrastructure for each development phase as required by the municipality in accordance with the terms of a Development Agreement.

Figure 15: Proposed Phasing Plan



The implementation of phasing as illustrated by Figure 15 may be adjusted to reduce or extend the number of phases subject to the granting of approval from Rocky View County Subdivision Approval Authority and the availability of any required infrastructure.

8.0 COMMUNITY CONSULTATION

In preparation of this Conceptual Scheme and the design concept the developer has worked with the Bow North Recreation District and adjacent developers. While PollyCo Land Corporation is the predominant owner of the majority of the land within the Plan Area, feedback from affected landowners and their consultants within and outside of the Plan Area has been solicited at the onset of the planning process.

In January 2013, PollyCo held an open house to present the Bridges of Langdon Conceptual Scheme to the community. Since this time, the Langdon Area Structure Plan was released. This Area Structure Plan has evolved as a result of numerous open houses and design workshops with the Langdon community. Through alignment of this Conceptual Scheme with the Area Structure Plan, the plan is also aligned with the feedback received regarding new development in the Hamlet.

An open house was held in October 2016 to present the revised Bridges of Langdon Conceptual scheme to the community and gain community feedback.

SUPPORTING TECHNICAL INFORMATION

1. Biophysical Impact Assessment (*Sweetgrass Consultants Ltd., January 2012, updated June 2017*)
2. Geotechnical Analysis (*GTech Earth Sciences Corp November 2011*)
3. Phase 1 Environmental Site Assessment (*GTech Earth Sciences, June 2011*)
4. Transportation Impact Analysis (*Bunt and Associates, January 2012*),
Updated September 2016
5. Storm Drainage Plan (*Lee Maher Engineering Associates Ltd., September 2015*)
6. Integration Strategies for a Natural Wetland (*Native Plant Solutions, December 2013*)

COMMUNITY CONSULTATION



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