

**COCHRANE LAKE
HAMLET PLAN
NEIGHBOURHOOD 'C'**



CONCEPTUAL SCHEME

MAY 2022

Report Prepared by:
B&A Planning Group

Report Prepared for:
**Canopy Lands &
Schickedanz West**

Visit our Project Website at:
CLHPNeighbourhoodC.ca



b&a



CONTENTS

1.0	Introduction	04		
1.1	Purpose of this Plan	04		
1.2	Project Rationale	04		
1.3	Conceptual Scheme Objectives	04		
2.0	Plan Area Description	06		
2.1	Location	06		
2.2	Legal Description and Ownership	08		
2.3	Site Conditions	10		
2.4	Existing Land Use	12		
3.0	Development Concept	14		
3.1	Neighbourhood C	14		
3.2	Land Use Statistics	16		
3.3	Transportation	18		
3.4	Utility Servicing	20		
3.5	Stormwater Management	24		
3.6	Open Space	26		
3.7	Eastern Interface Areas	29		
3.8	Community Support Services	29		
4.0	Implementation Framework	32		
4.1	Proposed Subdivision	32		
4.2	Development Phasing	32		
4.3	Homeowners Association	32		
4.4	Shadow Plan	32		
5.0	Municipal Policy Framework	33		
5.1	The County Plan	33		
5.2	Cochrane North Area Structure Plan	33		
5.3	Cochrane Lake Hamlet Plan	34		
5.4	Agricultural Boundary Design Guidelines	34		
6.0	Community Engagement	35		
	Supporting Technical Reports	36		



FIGURES

Figure 01	Regional Context	05
Figure 02	Local Context	07
Figure 03	Ownership	09
Figure 04	Existing Site Conditions	11
Figure 05	Existing Land Use	13
Figure 06	Development Pattern	15
Figure 07	Proposed Land Use Concept	17
Figure 08	Transportation	19
Figure 09	Potable Water Servicing	21
Figure 10	Wastewater Servicing	23
Figure 11	Stormwater Management	25
Figure 12	Open Space	27
Figure 13	Eastern Interface Areas	30
Figure 14	Proposed Phasing	31

Table 01	Ownership	08
Table 02	Development Pattern	14
Table 03	Land Use Statistics	16
Table 04	Municipal Reserve Disposition	26



1.0 INTRODUCTION

1.1 PURPOSE OF THE PLAN

This Conceptual Scheme contemplates the development of Neighbourhood C, a fully serviced hamlet residential neighbourhood in the Cochrane Lake Hamlet. The Cochrane Lake Hamlet Plan, approved May 2011, identified 'Neighbourhood C' as one of several "neighbourhood units". Each neighbourhood unit was generally shaped by the 5-minute walkshed, intended as the building blocks for a walkable community. This Conceptual Scheme intends to enhance the vision previously established for Neighbourhood C while maintaining the Hamlet's small-town rural character and implementing strategies for new development to complement the existing neighbourhoods.

This Plan describes a policy framework to guide the future subdivision and development of the subject lands. The proposed land use and subdivision concept has been informed by comprehensive technical assessment, the existing policy framework, and public engagement.

Preparation of this Conceptual Scheme was supported by a public consultation process designed to provide stakeholders an opportunity to receive information relative to the project and provide meaningful input into the plan's attendant policy framework.

1.2 PROJECT RATIONALE

Cochrane Lake Hamlet has witnessed numerous waves of development since the historic hamlet was established in 1985. The community benefits from proximity to the Town of Cochrane and City of Calgary while maintaining a unique rural character. Neighbourhood C aims to provide a residential offering unlike that which is found in Cochrane or Calgary, one that reflects rural values and the hamlet charm, while encouraging a residential population density that affords cost effective and efficient servicing, economically supporting the County in provision of water and sewer utilities.

This development provides an opportunity to the rest of the Hamlet by extending servicing infrastructure, providing a range of housing options, enhancing the existing transportation network, and providing open space designed to facilitate social gathering.

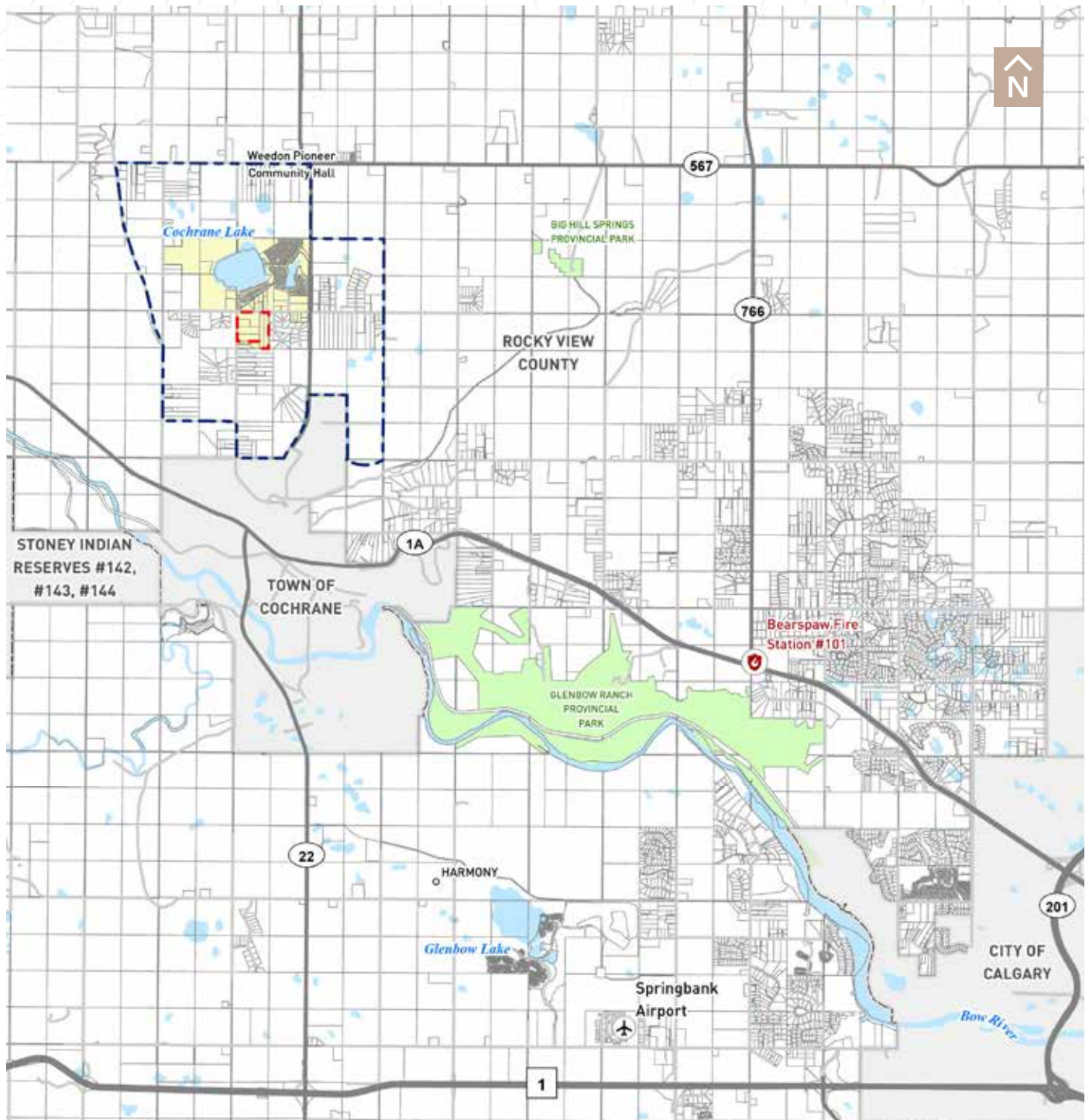
Advancement of the subject lands for residential development has been justified and supported within the County's existing statutory planning policy framework.

1.3 CONCEPTUAL SCHEME OBJECTIVES

The objectives of the Cochrane Lake Hamlet Neighbourhood C Conceptual Scheme are to:

- Highlight opportunities and constraints based on assessment of existing conditions within the plan area;
- Establish a future development concept with a land use framework that will facilitate a planned residential development in accordance with the Cochrane Lake Hamlet Plan and present market conditions;
- Establish a strategy to implement appropriate transportation, utility service and stormwater management infrastructure to support future subdivision and development and related uses in accordance with the County Servicing Standards;
- Establish a phasing strategy for development within the Plan area;
- Establish expectations for fire, emergency response, and community support services;
- Ensure thoughtful transitions are provided between new and existing development abutting the Plan area uses;
- Summarize the conclusions of a community consultation program implemented by the developer;
- Inform & educate affected landowners and interested stakeholders regarding the proposed development.

FIGURE 01 REGIONAL CONTEXT



- | | | |
|--------------|-----------------------------|--------------------|
| Airport | Subject Site | Municipal Boundary |
| Fire Station | Cochrane Lake Hamlet Plan | Park |
| | Cochrane North ASP Boundary | Parcel |

2.0 PLAN AREA DESCRIPTION

2.1 LOCATION

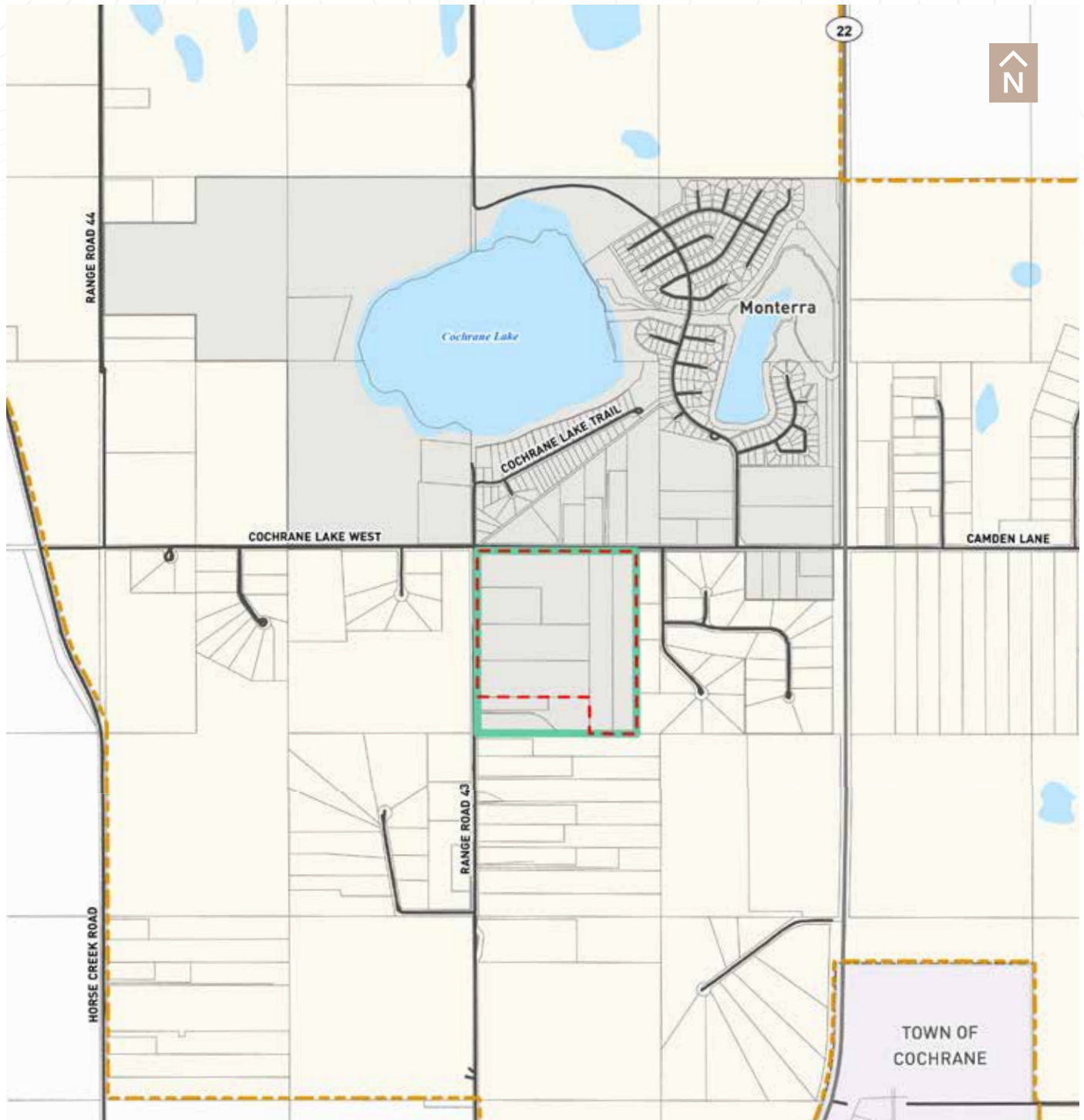
Cochrane Lake Hamlet is located in the northwest quadrant of Rocky View County, approximately one (1) mile north of the Town of Cochrane, nestled in rolling grasslands overlooking the foothills and Rocky Mountains **(See Figure 1: Regional Context)**. The Hamlet covers 512 hectares (1265 acres) and is anchored by two central lakes.

The Plan area boundary for Neighbourhood C is defined by Range Road 43 to the west and Cochrane Lake West to the north. A rural residential (R-RUR) development known as Diamond Ridge Estates borders the site to the east, with other R-RUR development to the south **(See Figure 2: Local Context)**.

The rural landscape, mountain views, proximity to regional transportation corridors and convenient access to services in the Town of Cochrane and northwest Calgary make the site an ideal location for development.



FIGURE 02 LOCAL CONTEXT



- Cochrane Lake Hamlet ASP
- Subject Site
- Neighborhood C Boundary
- Cochrane Lake Hamlet Plan Boundary
- Municipal Boundary
- Parcel

2.2 LEGAL DESCRIPTIONS

The Neighbourhood C Conceptual Scheme provides a future development scenario for nine (9) individually titled parcels totalling ~137 acres, as is identified within the Cochrane Lake Hamlet Plan as a neighbourhood unit. However, the participating ownership group has only retained six (6) individually titled parcels totalling ~118 acres **(See Figure 3: Ownership)**.

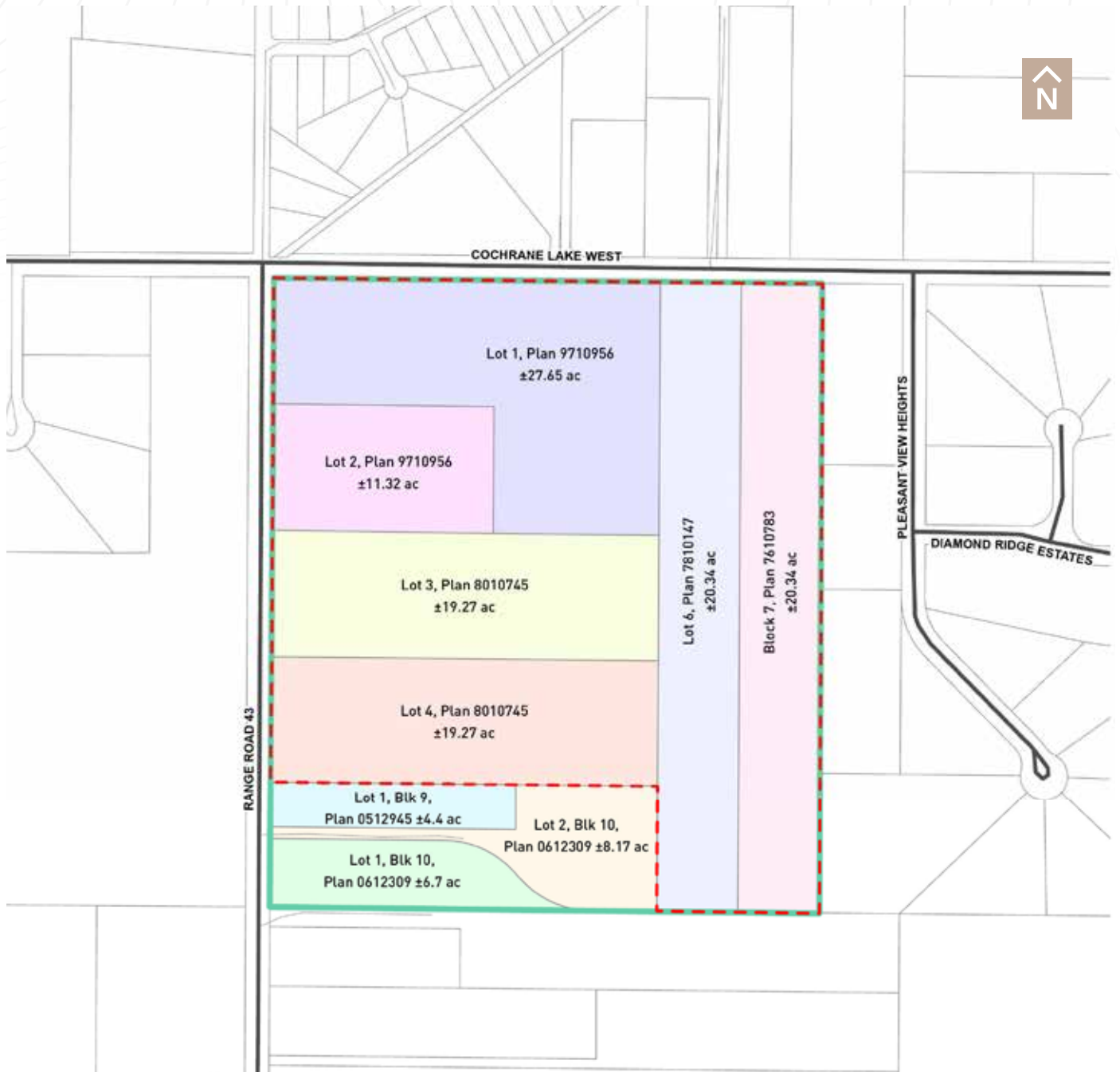
Detailed design is provided for the participating parcels, and over arching ‘shadow plan’ design is included in the Plan for the three (3) remaining parcels totalling 19.27 acres, to provide a comprehensive and cohesive vision for the neighbourhood, as required by Cochrane Lake Hamlet Plan Policy 4.3.1 B. Development of these parcels may proceed at a later date and in a different manor than contemplated within this Plan.

The parcels are legally described and owned as follows:

TABLE 01 OWNERSHIP

	LEGAL DESCRIPTION	Hectares	Acres	Owners
1	NW-22-26-04-W5M, Lot 1 Plan 9710956	11.19	27.65	Schickedanz North LTD.
2	NW-22-26-04-W5M, Lot 2 Plan 9710956	4.58	11.32	Schickedanz North LTD.
3	NW-22-26-04-W5M, Lot 3 Plan 8010745	7.80	19.27	Schickedanz North LTD.
4	NW-22-26-04-W5M, Lot 4 Plan 8010745	7.80	19.27	Schickedanz North LTD.
5	NW-22-26-04-W5M, Lot 6 Plan 7810147	8.18	20.22	Schickedanz North LTD.
6	NW-22-26-04-W5M, Lot 7 Plan 7610783	8.23	20.34	Schickedanz North LTD.
7	NW-22-26-04-W5M, Lot 1 Block 9 Plan 0512945	1.78	4.40	Non-participating
8	NW-22-26-04-W5M, Lot 2 Block 10, Plan 0612309	3.31	8.17	Non-participating
9	NW-22-26-04-W5M, Lot 1 Block 10, Plan 0612309	2.71	6.70	Non-participating
Total Plan Area:		55.58	137.34	

FIGURE 03 OWNERSHIP



-  Subject Site
-  Neighborhood C Boundary
-  Parcel

Legal

-  Block 7, Plan 7610783
-  Lot 1, Blk 10, Plan 0612309
-  Lot 1, Blk 9, Plan 0512945
-  Lot 1, Plan 9710956
-  Lot 2, Blk 10, Plan 0612309
-  Lot 2, Plan 9710956
-  Lot 3, Plan 8010745
-  Lot 4, Plan 8010745
-  Lot 6, Plan 7810147

2.3 SITE CONDITIONS

Each existing parcel of the subject lands includes a residential building and some have additional agriculture-supportive structures. The existing structures are currently serviced by individual groundwater wells and private sewage treatment systems. Much of the land has been previously cultivated with some existing treed areas likely used for screening. An existing raw water pipe and wastewater pipe run diagonally along the southern border of the historical Hamlet development to the corner of Cochrane Lake West and Range Road 43.

POLICY 2.4.1

Existing structures on the building site may be demolished at the subdivision stage.

POLICY 2.4.2

Developers shall decommission the existing water wells, septic tanks, and septic fields in accordance with acceptable acts, regulations, and guidelines, when no longer in use.

2.4.1 EXISTING SITE ACCESS AND SURROUNDING ROADWAYS

The Neighbourhood C Plan area is accessed via Range Road 43 to the west and Cochrane Lake West to the north. Both roads are paved in good condition. Cochrane Lake West links directly to Highway 22 approximately one kilometer east of the subject lands. This is the primary connection to the regional transportation network. A secondary regional connection currently exists at the intersection of Range Road 43 and Highway 22 approximately four kilometers south of the subject lands. Alberta Transportation announced the closure of this intersection as part of the design for the enhanced Highway 1A-22 intersection. Once this closure takes place, Range Road 43 will maintain a regional connection to Highway 1A via Township Road 262 and Horse Creek Road. The impact of this closure has been considered in the Traffic Impact Assessment done to inform this Conceptual Scheme.

2.4.2 TOPOGRAPHY AND SURFACE DRAINAGE

The topography shows there is a general slope from southeast to north west. Generally, from here runoff flows north to Cochrane Lake, a terminal water body. The eastern edge of the subject lands drain east, and the southern edge drains south. The subject lands contain no existing wetlands.

2.4.3 HYDROGEOLOGICAL

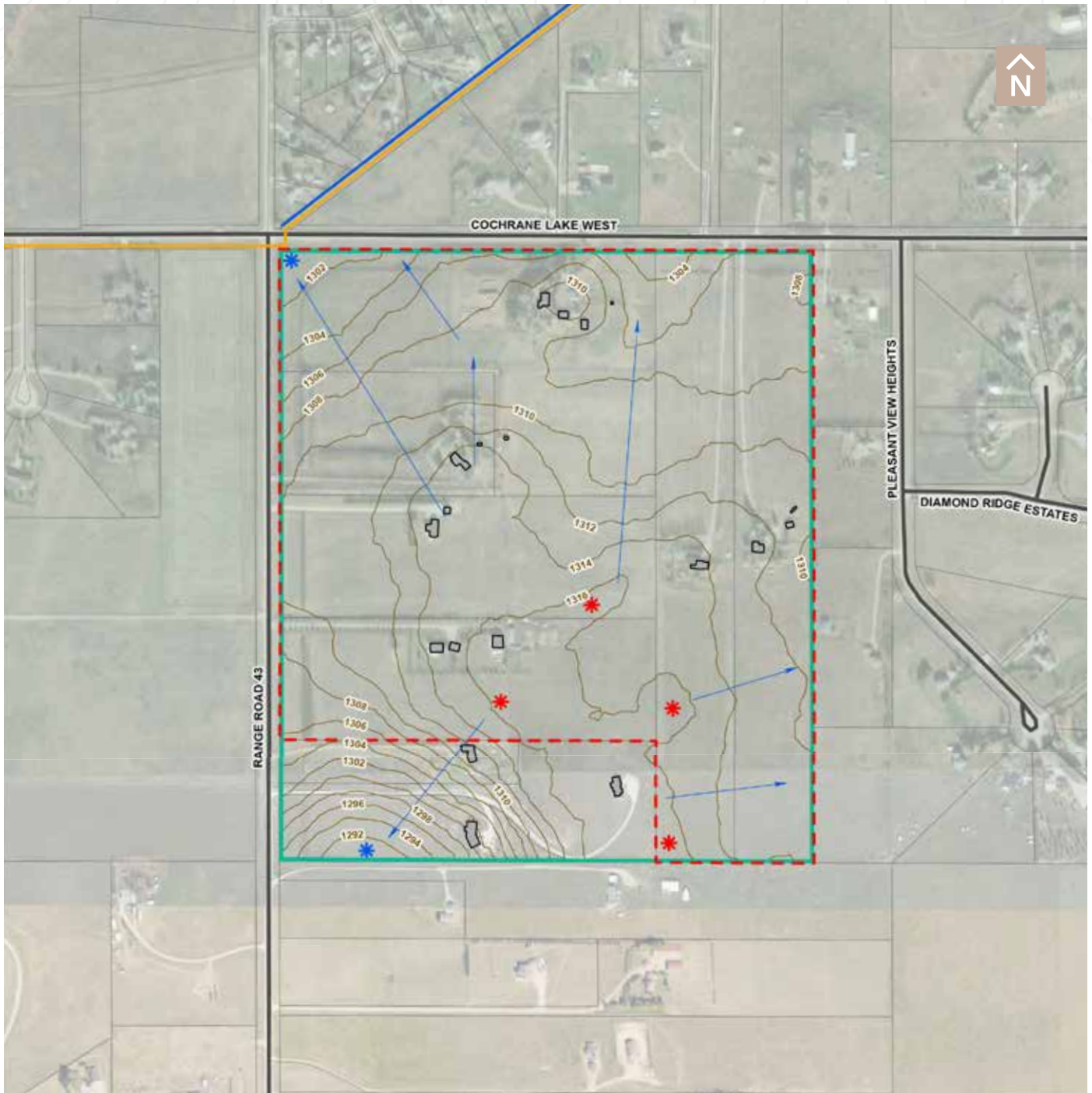
A Groundwater Risk Assessment was completed on April 13 2022, for the proposed Neighbourhood C residential development. The site will be serviced by a municipal water line, however many existing developments in the area rely on water supply wells. Based on the findings of this report, the Neighbourhood C development should not pose adverse risks to any groundwater users for the following reasons:

- Proposed construction activities do not include any deep excavations exceeding 10 metres in depth or pile installation
- The aquifers supplying these wells are protected by deep bedrock with overlying low permeable material
- Groundwater flow directions are from north to south and the natural groundwater flow directions should provide additional protection for residents north, east and west of the Neighbourhood C development.

2.4.4 OIL AND GAS INFRASTRUCTURE

The Plan area does not contain any pipelines, active gas well sites and/or abandoned gas well sites.

FIGURE 04 EXISTING CONDITIONS



- | | |
|--|--|
|  Cochrane Lake Hamlet ASP |  Cochrane Lake Hamlet Plan Boundary |
|  Subject Site |  Municipal Boundary |
|  Neighborhood C Boundary |  Parcel |

2.4.5 GEOTECHNICAL

A geotechnical investigation was completed by Watt Consulting in March 2022. This investigation involved the drilling of twenty-two (22) boreholes which found the subsurface ground conditions to generally consist of clayey silt overlying siltstone. Topsoil was encountered at each borehole at depths of approximately 0.1 to 0.3 metres below grade. Permeability testing indicated a consistent permeability range across the site. The indicated level of permeability fell within a threshold indicating this material is suitable for a clay liner. It is recommended that upon excavating the pond area, the competency of base soils should be confirmed. Sloughing occurred in most boreholes up to 1.1 metres in depth and all boreholes were observed to be dry at the time of drilling. Based on these findings it was determined that the subsurface conditions are generally considered to be suitable for the proposed development and shallow foundations are recommended due to the soil conditions and expected building loads.

2.5.6 BIOPHYSICAL

An Environmental Screening Report was completed by Envirolead Canada in November 2021. Results of the inquiries concluded that the subject lands are generally flat to slightly undulating, sloping gently from south to north and that native soil material consists of moderately well-drained Black Chernozem on medium textured till. Two ecological communities are present, non-native pasturelands and residential acreages. No Valued Ecosystem Components were identified during

the Environmental Screening that would require further study or trigger a Biophysical Impact Assessment (BIA) under RVC’s Servicing Standards. No further biophysical study is recommended or required under RVC policy.

2.5.7 ENVIRONMENTAL

Phase 1 Environmental Site Assessments were completed by Envirolead in July 2021 and October 2021. No actual or potential environmental concern was identified related to the site’s land use or neighbouring land uses and no further investigation is recommended for the Neighbourhood C lands, including the shadow planned area, at this time.

2.5.8 HISTORICAL RESOURCES

Based on a review of the overlay of Historical Resource Values by Bison Historical Resources Inc on November 4 2021, the Neighbourhood C lands do not trigger a Historical Resource Review at the Provincial level.

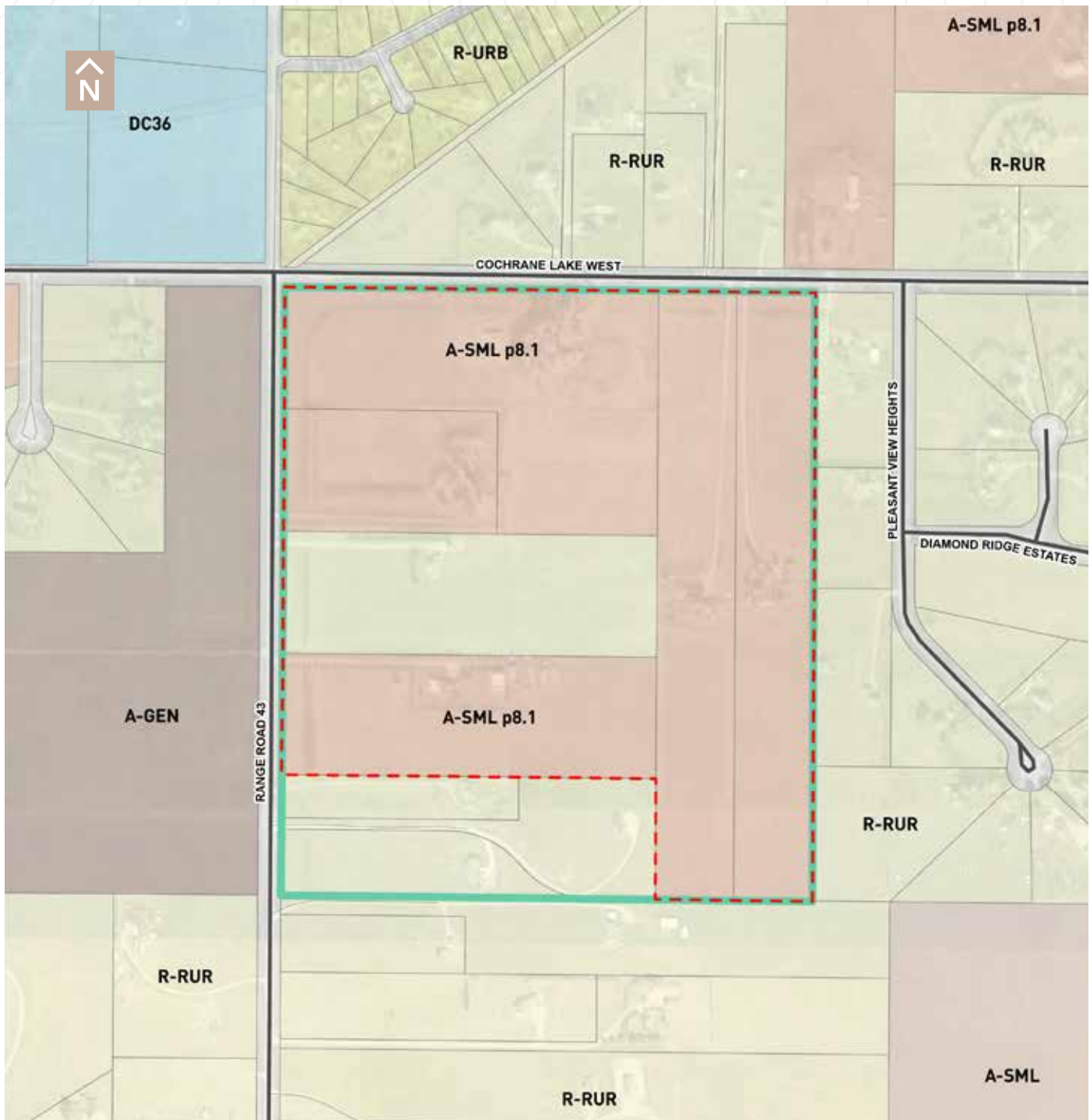
2.4 EXISTING LAND USE










The Neighbourhood C subject lands are designated Agricultural, Small Parcel District (A-SML) and Residential, Rural District (R-RUR) in accordance with the Rocky View County Land Use Bylaw C-8000-2020 **(see Figure 5: Existing Land Use).**

The existing uses were established to accommodate residential and small-scale agricultural uses on fragmented agricultural lands.



FIGURE 05 EXISTING LAND USE



- | | |
|--|---|
|  Subject Site |  A-SML - Agricultural, Small Parcel |
|  Neighborhood C Boundary |  A-SML p8.1 - Agricultural, Small Parcel |
|  Parcel |  DC36 - Direct Control |
| Land Use |  R-RUR - Residential, Rural |
|  A-GEN - Agricultural, General |  R-URB - Residential, Urban |

3.0 DEVELOPMENT CONCEPT

3.1 NEIGHBOURHOOD C

The Cochrane Lake Hamlet Neighbourhood C Conceptual Scheme outlines a framework for the future development of a residential neighbourhood capitalizing on recent investment in servicing infrastructure. Neighbourhood C is envisioned to be a pedestrian friendly community capturing the spirit of a close-knit residential neighbourhood in a vibrant rural hamlet.

3.1.1 OVERALL DEVELOPMENT PATTERN

The proposed development pattern is based on the three key land use districts of the Cochrane Lake Hamlet Plan, intended to concentrate density in the centre, feathering out towards the edge with the most low-density condition bordering existing adjacent country residential parcels. Functional open spaces shall act as destinations and provide green connections throughout the neighbourhood, promoting walkability and community interaction. The three key land use districts are described by the Hamlet Plan as follows:

- **1) Edge** - Most rural, lowest intensity, primarily single family detached homes. (10-30%)
- **2) Transition** - Mid-intensity includes single family, duplex, town houses, and small multi-unit buildings (35-60%)

- **3) Centre** - Highest intensity allows ground floor retail; town houses, multi-unit buildings, institutional, office; all with zero or minimum front setbacks. (5-10%)

Edge, Transition and Centre are not considered districts of the Rocky View County Land Use Bylaw, therefore to assess the Development Concept’s alignment with the intent of these districts, the proposed built forms and lot typologies have been grouped to represent the above districts.

The Edge district is represented by single-family detached housing on wider lots to provide an appropriate transition adjacent to existing residential development and open space. This use makes up 30% of the residential land use within this plan.

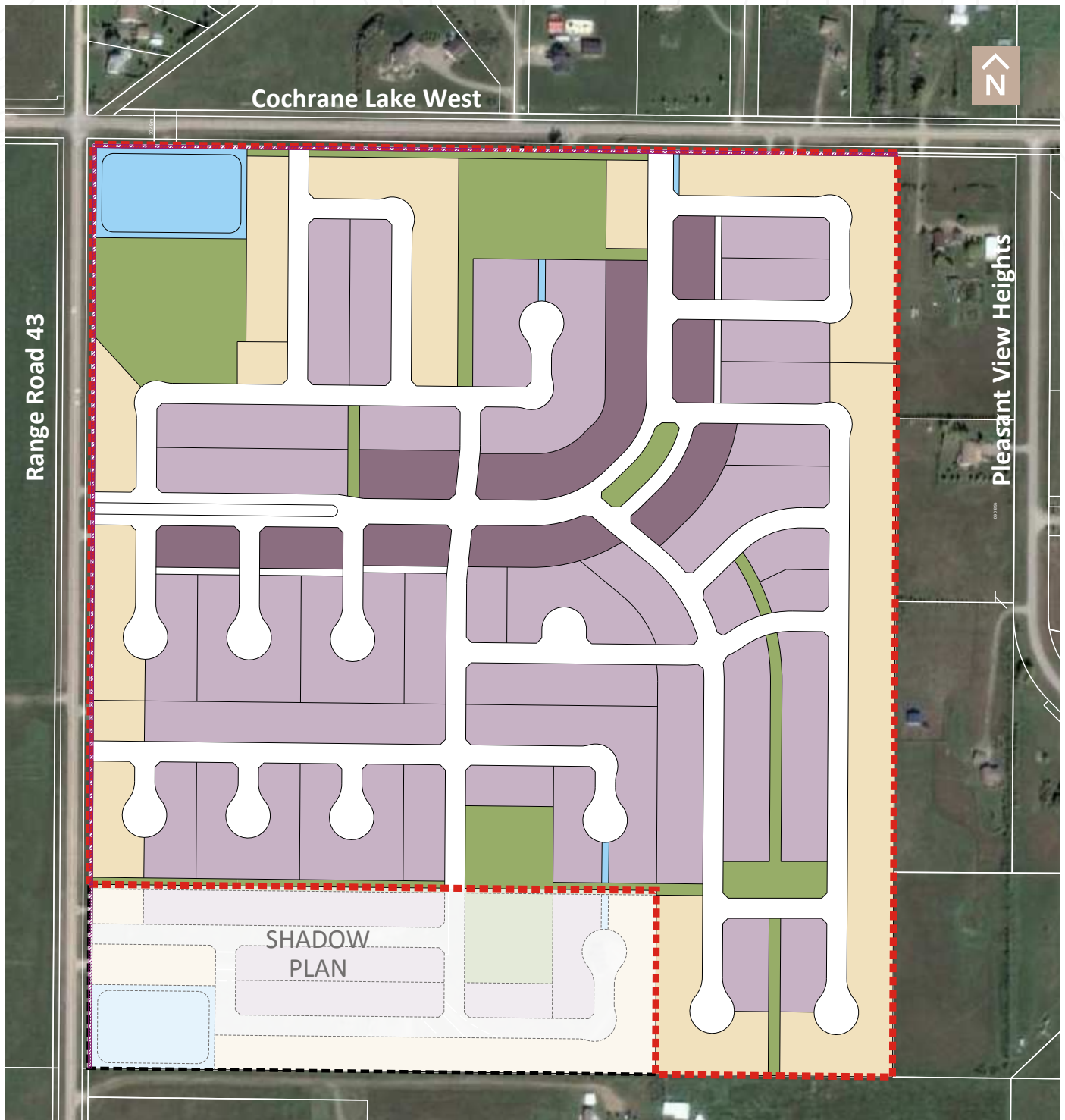
The Transition District is represented by primarily single-family development on typical hamlet residential lots with some mid-density development along major streets. These uses make up 60% of the residential area.

Lastly, the Centre district is represented by mid-density development, possibly in the form of townhomes or villas. This includes some lots with rear land access and is located in the site interior along major streets. This use makes up 10% of the residential area.

TABLE 02 DEVELOPMENT PATTERN

District	~Hectares	~Acres	~%
Edge	10.64	26.29	30
Transition	21.32	52.68	60
Centre	3.55	8.46	10

FIGURE 06 OVERALL DEVELOPMENT PATTERN



- Hamlet Edge
- Hamlet Transition
- Hamlet Centre

3.1.2 RESIDENTIAL DEVELOPMENT

Neighbourhood C will be a residential neighbourhood offering a diversity of integrated built form to support a variety of life stages and lifestyles. The predominant housing typology will be single detached homes with townhome or villa style development along main streets within the interior of the neighbourhood. Housing forms will reflect the small-town character and rural charm of Cochrane Lake Hamlet, maintaining a feeling of spaciousness. To provide a thoughtful transition to the existing residential developments, Neighbourhood C will concentrate medium density and smallest lot development on the community interior, with larger single-family lots along the edges. Overall, the subject site is expected to accommodate approximately 720 units (not including the shadow plan area).

POLICY 3.1.2.1

Medium density or attached residential development shall not be located adjacent to existing residential communities.

POLICY 3.1.2.2

Medium-density or attached residential development should be located adjacent to collector roads to increase activity and eyes on the street

3.1.3 PEDESTRIAN AMENITY

Residents of Neighbourhood C will benefit from access to multiple open space amenities connected by spacious tree lined sidewalks designed to promote healthy living and increased pedestrian mobility. Public Parks, range in size from .5 acres to 3.8 acres, will provide a range of program offerings for the community. The design of the

community will afford opportunity for all residents to live within a 5-minute walk to a neighbourhood park. Multiple linear green spaces and community pathway systems will connect residents between open spaces, forming a complete loop throughout the community. This linear green space also acts as a buffer along the southwest interface of the participating portion of the Plan area to accommodate the neighbouring parcels to the south, until such time they are redeveloped.

3.1.4 ARCHITECTURAL CONTROLS

Neighbourhood C is envisioned to be a high-quality residential neighbourhood with a built form that reflects the rural charm of Cochrane Lake Hamlet. Architectural controls will be established at the detailed subdivision stage and shall take into account important elements such as:

- Glazing
- Roof Design
- Landscaping
- Colour and Texture
- FireSmart Guidelines
- Dark Skies Lighting

Residences of Neighbourhood C may reflect styles such as Arts and Crafts, Contemporary or Prairie style architecture, utilizing natural colour palettes and street-oriented facades.

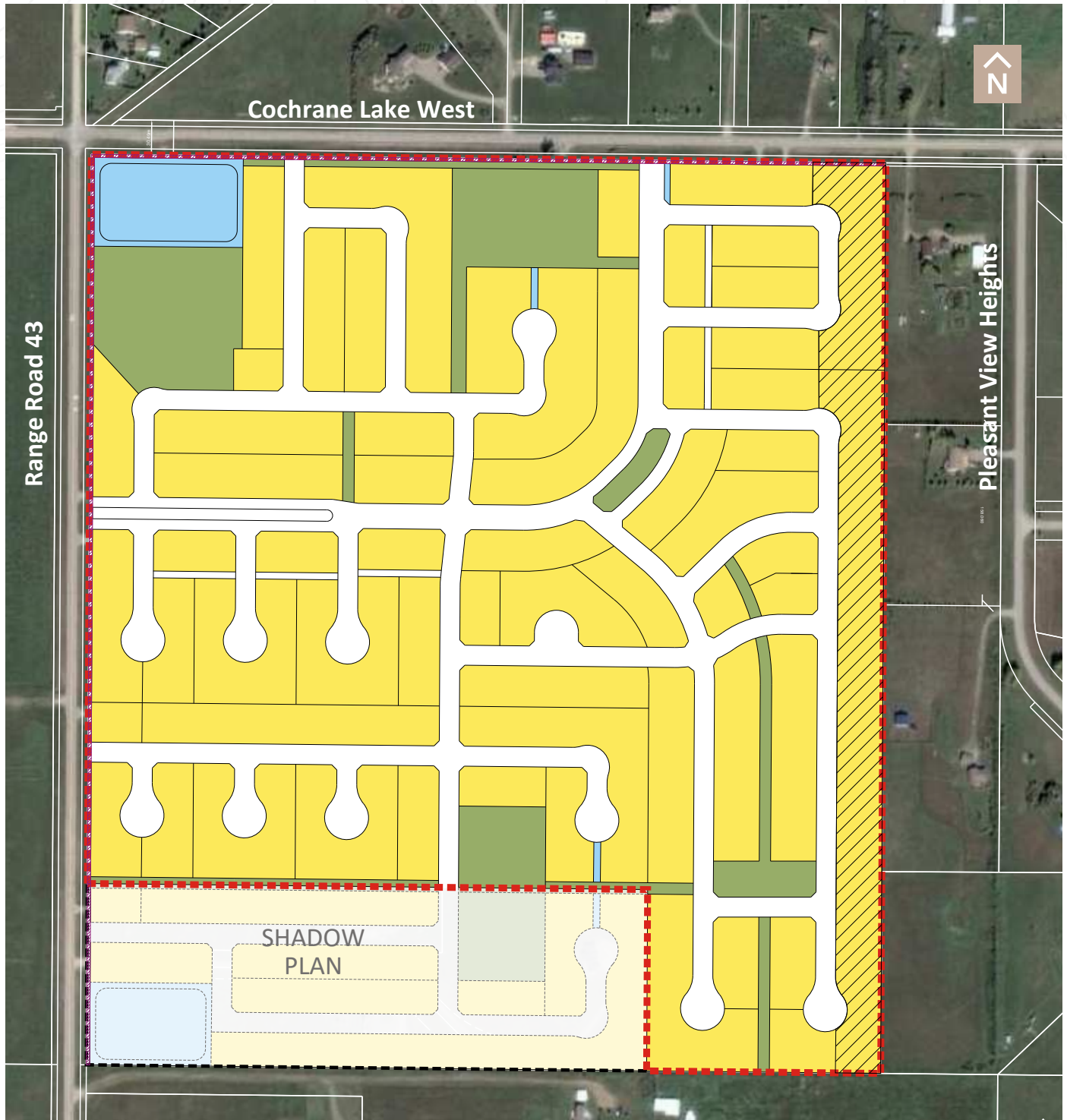
3.2 LAND USE STATISTICS

The Neighbourhood C Conceptual Scheme outlines a residential development consisting of a single residential land use district, Residential, Mid-Density Urban District (R-MID). The R-MID district will be distinguished via the County's Land Use Bylaw by implementing parcel modifiers that establish minimum lot widths and parcel sizes along the eastern interface of the Plan area. Interior lots shall be designated R-MID without parcel modifiers and will accommodate both single-detached and mid-density attached housing forms such as townhomes and villas. The R-MID district will make up 64% of the land use concept and 100% of the proposed residential land use.

TABLE 03 LAND USE STATISTICS

Land Use District	~Hectares	~Acres	~%
R-MID: Residential, Mid-Density Urban	35.51	87.75	64%
S-PRK: Special, Parks & Recreation District	5.53	13.67	10%
S-PUB: PUL	1.83	4.52	3%
Road ROW	12.23	30.21	22%
Road ROW Widening	0.42	1.03	1%
Total:	55.50	137.15	100%

FIGURE 07 PROPOSED LAND USE CONCEPT



- R-MID Residential Mid-Density Urban District
- S-PUB (PUL)
- S-PRK Special, Parks and Recreation District
- Eastern Interface Parcel Modifier

3.3 TRANSPORTATION

The Plan outlines five access points to the Neighbourhood C area, three from Range Road 43 to the west and two from Cochrane Lake West to the north. Cochrane Lake Road is the main east-west connector from which the historic hamlet and other recently developed neighbourhoods of Cochrane Lake are accessed. The western access from Range Road 43 should maintain the existing shelterbelt within the road ROW to create a boulevard entrance feature.

POLICY 3.3.1

Access will be provided to the plan area as generally illustrated on Figure 8: Transportation, in accordance with County Servicing Standards.

POLICY 3.3.2

If possible, the developer should preserve the existing shelterbelt within the road ROW at the western entrance.

eastbound right turning lane (60 m in length) to allow eastbound right turning vehicles to bypass the left / through queue at the highway 22 / Cochrane Lake Road intersection.

POLICY 3.3.1.1

Infrastructure improvements to the road network shall be provided by the developer at the subdivision stage in accordance with the recommendations of the Transportation Impact Assessment.

POLICY 3.3.1.2

The developer shall be required to provide applicable Transportation Off-Site Levies at the subdivision stage.

POLICY 3.3.1.3

Road right of ways shall be in accordance with the Cochrane North ASP, Hamlet Transportation Study, and the County Servicing Standards. Road Right of Ways will be dedicated at the time of subdivision.

3.3.1 TRANSPORTATION IMPACT ASSESSMENT

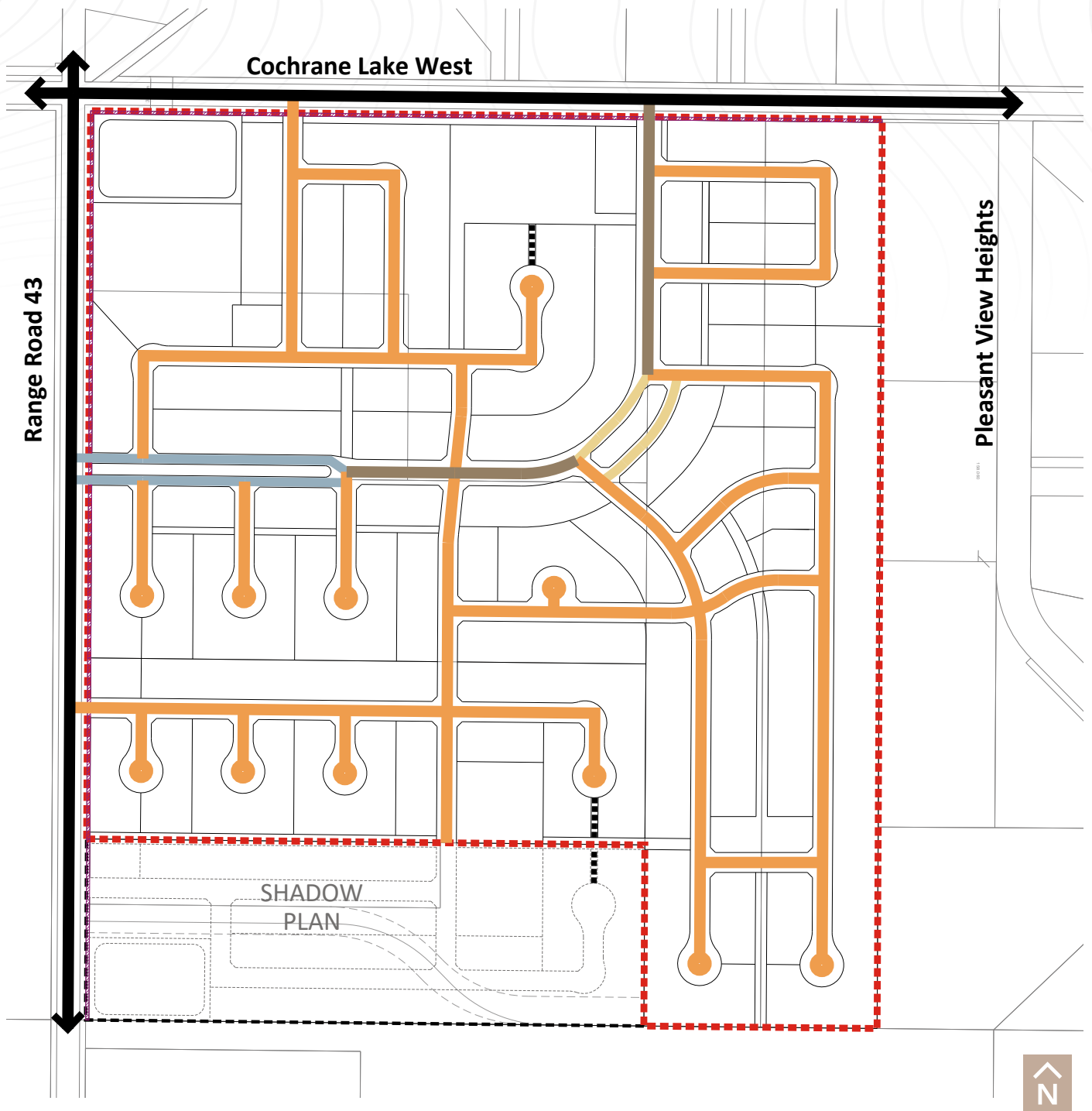
A Transportation Impact Assessment was completed by Watt Consulting on March 15, 2022. The report assessed the intersections of Cochrane Lake Road with Sheriff Road and Highway 22 as well as the intersection of Highway 22 with Highway 567. A single lane roundabout is recommended at the Highway 567 intersection, and was also proposed in the previously completed TIA for the Monterra development. It is also recommended that road surface widening be provided along Cochrane Lake West Road and Range Road 43 to facilitate eventual upgrade to Regional Arterial specifications. Signalization of Hwy 22 and Cochrane Lake Road is also recommended under 2033 background conditions as well as modification of the northbound and southbound left turn phases to protected / permitted at the Highway 22 / Cochrane Lake Road intersection. Looking forward at the 2043 horizon it is recommended to install a separate

3.3.2 INTERNAL SUBDIVISION ROADS

The general alignment and configuration of internal subdivision roads within the Plan area is illustrated on Figure 8: Transportation. The design and capacity for all proposed intersections will be confirmed at the detailed subdivision design stage in accordance with the County Servicing Standards. The interior road alignment is intended to maximize connectivity, provide line-of-sight to key neighbourhood destinations, foster a safe and enjoyable pedestrian environment, and move vehicles and people efficiently through the community. Decisions made regarding the road layout were largely informed by topographic constraints, and the desire to maximize safety.

Six metre wide Emergency Access roads are proposed at the terminus of two cul-de-sacs exceeding 90 m in length. These accesses are anticipated as gravel surface and all interior roads are anticipated to consist of paved road surfaces constructed in accordance with County Servicing Standards.

FIGURE 08 TRANSPORTATION



- Existing Secondary Highway
- 12.0 m - Residential, Local One-Way Road
- 17.5 m - Residential, Local Two-Way Road
- 22.0 m - Residential Collector Road
- 28.5 m - Residential Collector Road with Median
- Secondary Emergency Access

3.4 UTILITY SERVICING

3.4.1 POTABLE WATER SERVICE

The Plan area will be serviced with potable water by extending the existing Cochrane Lake water distribution system. This connection will be made at the intersection of Sheriff Road and Montenegro Bay. A pressure booster station will be required to meet the flow requirement of the County Servicing Standards as much of the Plan area lies above the existing service elevation. The booster station will be located on a small public utility lot (PUL) lot located just off Cochrane Lake Road in the NE area of the development. To meet to County's standards for fire flow, pressure and looping, a dual 250mm diameter connection to the existing distribution system is required for the suction side of the booster station. The booster station will discharge into the development with dual distribution pipes to ensure looping requirements are met.

The preferred alignment of the supply pipes will be a parallel run from the booster station, along Cochrane Lake Rd and Sheriff Road to the intersection of Sheriff Road and Montenegro Bay. If development to the west occurs in advance of this proposed development, and a connection is available on the west end of Cochrane Lake Trail, one of the dual supply pipes may connect there.

Where the alignment of the potable water service network is demonstrated to provide benefit to lands outside the participating are of this Plan, the County shall implement a Cost Recovery in accordance with the Infrastructure Cost Recovery Policy C-406.

POLICY 3.4.1.1

Potable water service shall be provided within the Plan area by the County's Horse Creek water system, as illustrated by Figure 9: Potable Water Servicing.

POLICY 3.4.1.2

The design of the potable water service shall be in accordance with the County Servicing Standards.

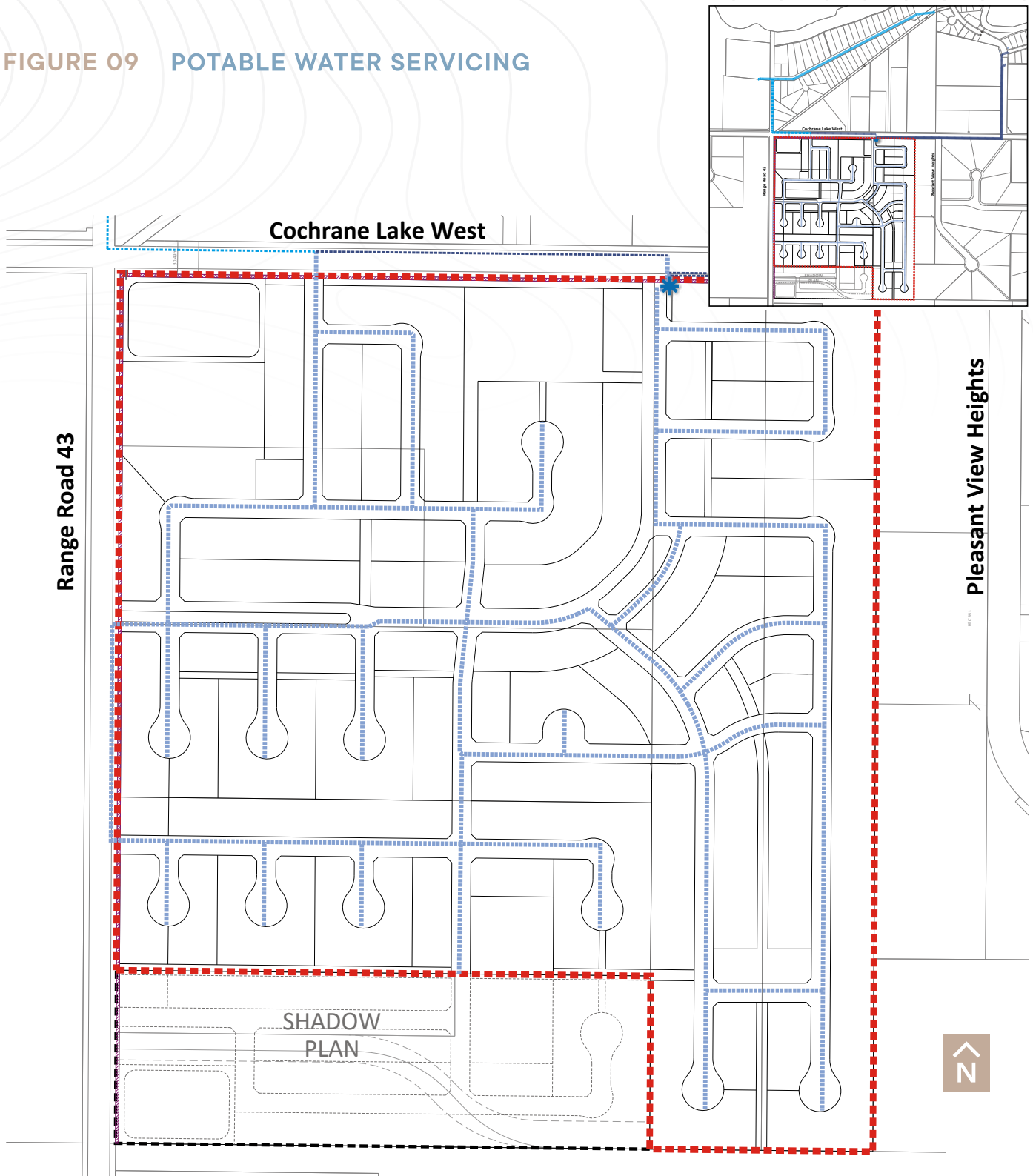
POLICY 3.4.1.3

All infrastructure costs shall be provided by the developer.

POLICY 3.4.1.4

Where the alignment of the potable water service network is demonstrated to provide benefit to lands outside the participating are of this Plan, the County shall implement a Cost Recovery in accordance with the Infrastructure Cost Recovery Policy C-406.

FIGURE 09 POTABLE WATER SERVICING



- Prop. W 250 Water Main
- Prop. Alternate W 250 Water Main Loop
- Prop. W 200 Water Main
- * Prop. Booster Pump Station

3.4.2 WASTEWATER SERVICE

The proposed development will be serviced with sanitary sewer by connecting to the existing Cochrane Lakes sanitary sewer system that ultimately discharges into the Town of Cochrane's system.

The conceptual gravity collection system will collect wastewater into a new lift station located on the NW corner of the proposed development and from there, it will discharge via forcemain into the existing 250 mm forcemain located on Cochrane Lake Road. The gravity collection sewer will be designed according to the Rocky View County Servicing Standards.

The lift station located at the NW corner of the proposed development will resemble the existing Monterra Lift station in that it will be a duplex configuration with similar sized pumps. The lift station will pump into the existing forcemain which discharges into the Town of Cochrane's sanitary sewer system.

The coordination and/or hydraulic impact on the existing lift station will be assessed during the design of the proposed lift station.

Where the alignment of the wastewater service network, including the lift station, is demonstrated to provide benefit to lands outside the participating are of this Plan, the County shall implement a Cost Recovery in accordance with the Infrastructure Cost Recovery Policy C-406.

POLICY 3.4.2.1

Potable water service shall be provided within the Plan area by the County's Horse Creek Wastewater System, as illustrated by Figure 10: Wastewater Servicing.

POLICY 3.4.2.2

The design of the potable water service shall be in accordance with the County Servicing Standards.

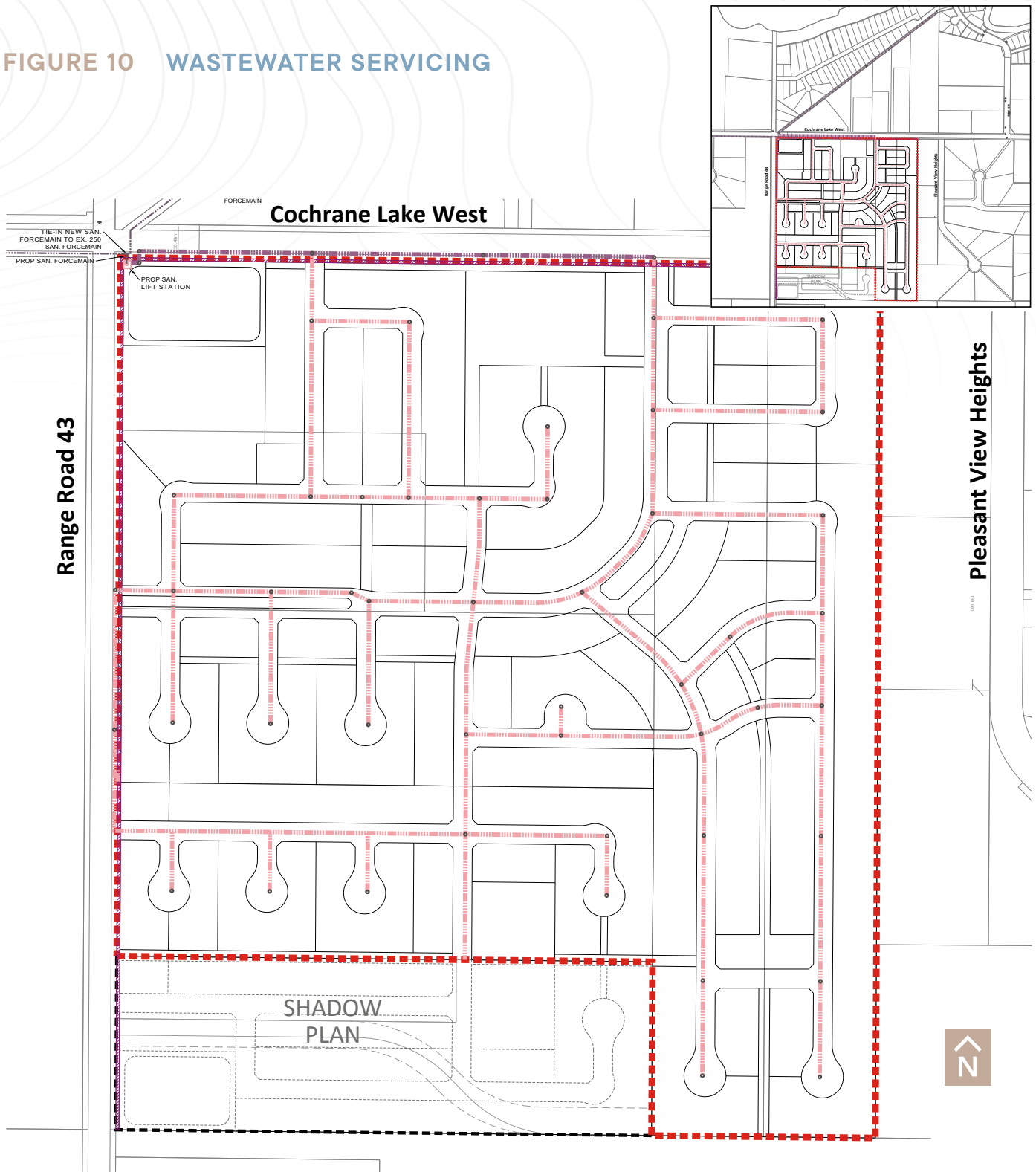
POLICY 3.4.2.3

All infrastructure costs shall be provided by the developer.

POLICY 3.4.2.4

Where the alignment of the potable water service network is demonstrated to provide benefit to lands outside the participating are of this Plan, the County shall implement a Cost Recovery in accordance with the Infrastructure Cost Recovery Policy C-406.

FIGURE 10 WASTEWATER SERVICING



- Prop. S 250 Sanitary Sewer
- Prop. S 200 Sanitary Sewer
- Prop. Sanitary Forcemain
- Prop. Sanitary Manhole
- Prop. Sanitary Lift Station

3.4.3 SHALLOW UTILITIES

Shallow utilities (i.e. electricity, telecommunication, natural gas, etc.) will be provided by the developer at the subdivision stage in consultation with all applicable shallow utility providers.

POLICY 3.4.3.1

Shallow utilities shall be installed and/or financed by the developer at the subdivision stage in consultation with all applicable utility providers.

POLICY 3.4.3.2

The alignment of utility installations shall be determined at the subdivision stage in accordance with the County Servicing Standards.

3.5 STORMWATER MANAGEMENT

A Conceptual Stormwater Management Plan was completed by Stormwater Solutions on March 16, 2022. The report explores a strategy of implementing the County's alternative road sections where possible.

A stormwater management facility is proposed in the northwest corner of the site to reduce peak discharge rates. To reduce run-off volumes, this plan proposes the implementation of roadside bioswales in areas of low-density housing to enhance infiltration, which is currently relatively low. Topsoil areas are proposed to be 300 mm thick and all roof leaders should be directed to grassed areas. Additional Low Impact Development measures such as absorbent landscaping are also recommended.

POLICY 3.5.1

Stormwater Management shall be provided within the Plan area as generally illustrated on Figure 11: Stormwater Management.

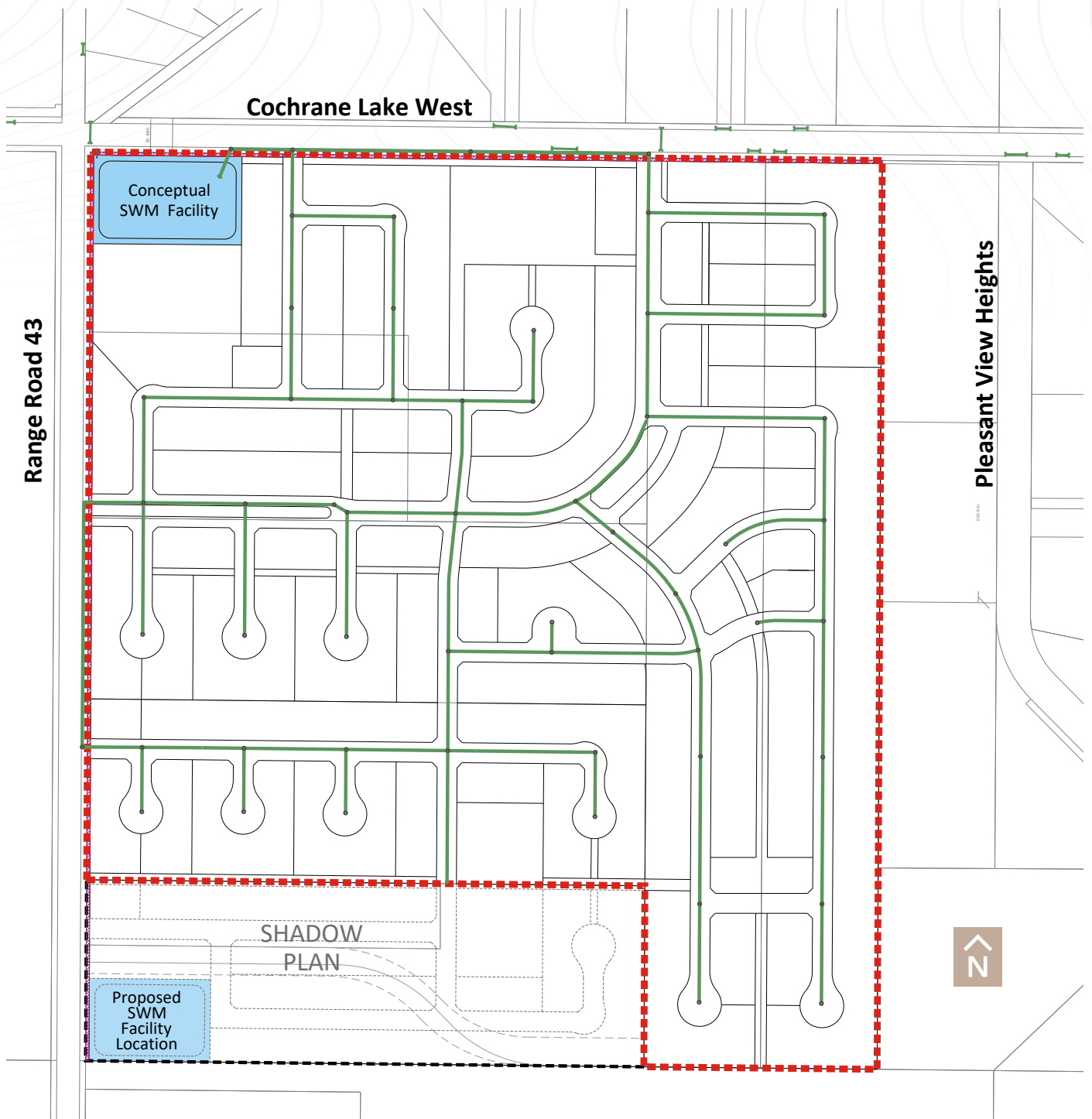
POLICY 3.5.2

The recommendations and conclusions of the Conceptual Stormwater Management Plan shall be implemented at the subdivision stage.

POLICY 3.5.3

Where the alignment of the stormwater network is demonstrated to provide benefit to lands outside the participating area of this Plan, the County shall implement a Cost Recovery in accordance with the Infrastructure Cost Recovery Policy C-406.

FIGURE 11 STORMWATER MANAGEMENT



- Prop. Minor Storm Sewer
- Prop. Storm Manhole
- Existing Culvert

3.6 OPEN SPACE

3.6.1 MUNICIPAL RESERVE (MR)

Open space within the plan area will be provided by dedication of Municipal Reserve (MR) at the subdivision stage as generally illustrated by Figure 12: Open Space.

Two of the participating parcels have previously dedicated approximately 1% Municipal Reserve via cash-in-lieu via previous subdivision plans as per Deferred Reserve Caveats 781 016 852 and 761 105 244. This has been considered during the allocation of MR lands in the Neighbourhood C area.

The amount of municipal reserve outstanding within the Plan area and anticipated disposition is summarized in Table 4: Proposed Municipal Reserve Disposition.

POLICY 3.6.1.1

Open space within the plan area shall be provided by the developer at the subdivision stage to include a combination of municipal reserve (MR) and public utility lot (PUL) as generally illustrated on Figure 12: Open Space.

POLICY 3.6.1.2

The developer shall prepare a Landscaping Plan at the subdivision stage, to be prepared by a qualified professional, to detail the proposed landscaping and configuration of recreation improvements, to be constructed in accordance with the County Servicing Standards.

POLICY 3.6.1.3

The County shall assume maintenance of the MR upon issuance of a Final Acceptance Certificate in accordance with the terms of a Development Agreement.

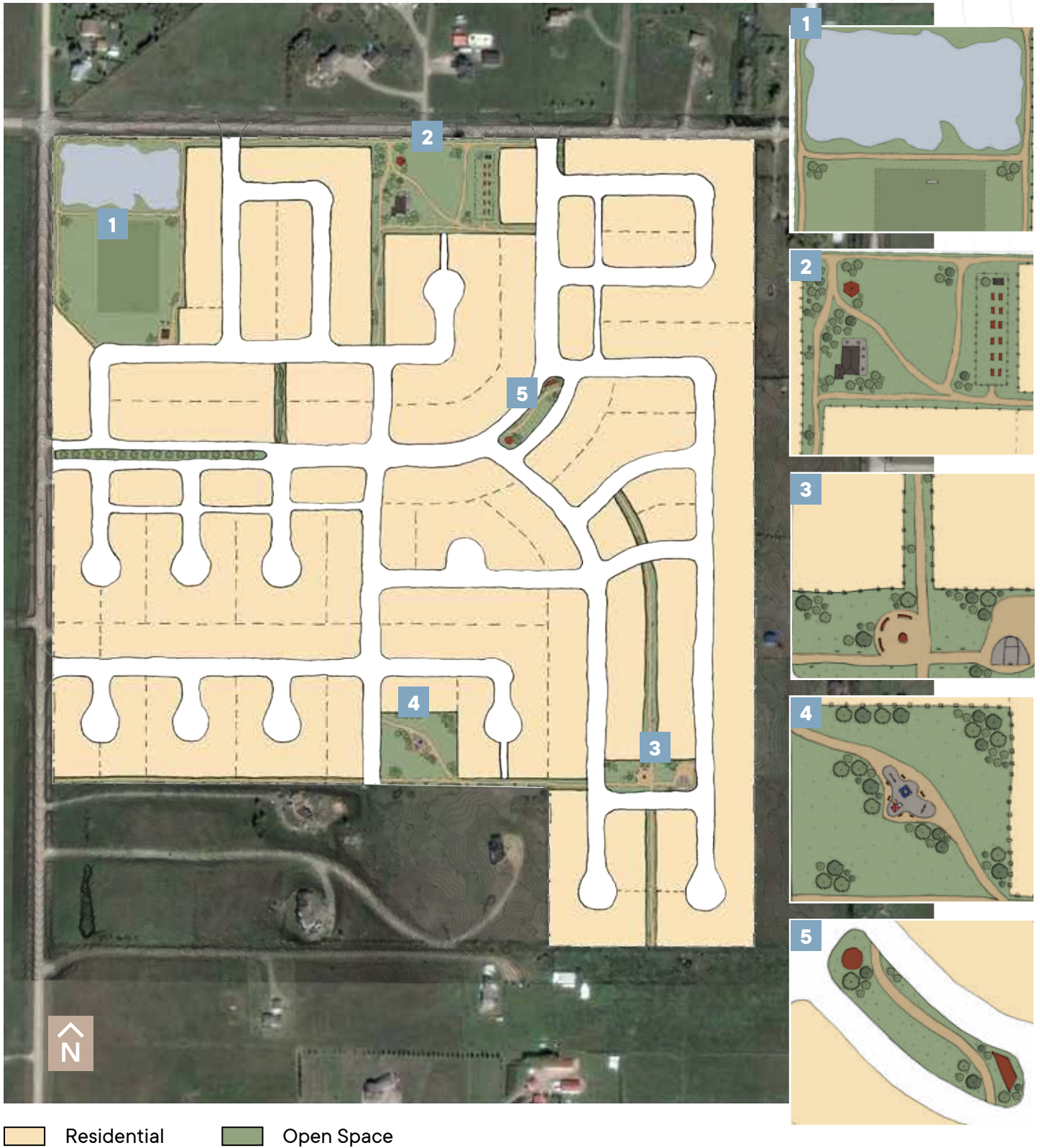
POLICY 3.6.1.4

Outstanding Municipal Reserve (MR) owing after the proposed land dedication shall be provided by the developer at the subdivision stage via cash-in-lieu payment pursuant to the provisions of the Municipal Government Act.

TABLE 04 PROPOSED MUNICIPAL RESERVE DISPOSITION

Dedication	Hectares	Acres	%
Conceptual Scheme Area	55.50	137.15	100%
Non-developable Area	0	0	-
Net Developable Area	55.50	137.15	100%
Amount of MR Outstanding (10% of Net Developable Area)	5.55	13.72	10%
MR Previously Disposed (1% of parcels 5 and 6)	~ 0.016	~ 0.04	~ .03%
Amount Outstanding (after previous dedication)	~ 5.54	~ 13.68	~ 9.97%
Proposed MR Dedication by Land	~ 5.54	~ 13.68	~ 9.97%

FIGURE 12 OPEN SPACE



3.6.2 PARKS & PATHWAYS

Neighbourhood C provides a range of functional open spaces and neighbourhood destinations for its future residents. Five (5) key open spaces are illustrated on Figure 12: Open Space, and described below. Final programming and design of these spaces will be determined at the detailed design stage, the following descriptions are intended to contemplate some possible outcomes based on existing policy, and anticipated community needs.

PARK 1 - A storm pond in the northeast corner serves both functional and aesthetic purposes, supporting efficient drainage for the neighbourhood. The pond connects to an adjacent green space which will serve a dual purpose, both as a destination for active and passive recreation and as an area to be irrigated in support of the Stormwater Management Plan. A pedestrian pathway surrounds the pond, connecting it to adjacent open spaces promoting passive recreation integrated with engineered stormwater solutions as proposed in the Cochrane Lake Hamlet Plan. The adjacent open space is envisioned to contain sports fields and light landscaping.

PARK 2 - Located adjacent to the northwest entrance of Neighbourhood C, this park contains an existing cabin structure which could be preserved as a community gathering space and destination for small-scale events. Preservation of this building would provide cultural value and integrate the new neighbourhood with existing hamlet development. This open space could include community gardens, a picnic area, gazebo, or a play structure. A secondary emergency access is proposed to connect between the terminus of a cul-de-sac to the public pathway running adjacent to the southern boundary of the park space.

PARK 3 - This park is well connected by multiple linear park spaces running north-south and east-west where public pathways promote movement throughout the community. Park 3 acts as a destination along these paths, envisioned to contain a playground structure, landscaping, and recreational space such as a basketball net.

PARK 4 - This open space is located adjacent to the Shadow Plan area, along a linear open space. Subsequent development of the Shadow Plan area is envisioned to compliment Park 4 by mirroring the park and linear open space to create a wider path and larger open space. This space may be a more naturalized open space, however there is also room to accommodate a play structure or recreational space. A proposed secondary emergency access connects a cul-de-sac east of Park 4 with one in the Shadow Plan area.

PARK 5 - The primary Neighbourhood C Public Open Space, as outlined by the Hamlet Plan, is located in the heart of the community and is envisioned to function as a community destination which will reflect the community character. This space will also signify arrival to the neighbourhood, located within the line-of-site upon entering the community along either of the main entrance roads. The Main Public Space will accommodate flexible and passive recreation opportunities, and may support opportunities for public art, or cultural / educational installations reflecting Cochrane Lake's rich history. Higher intensity development of the Centre District surrounds the space, creating increased activity, and eyes on the street providing a safer environment.

POLICY 3.6.2.1

Interconnectivity from the Hamlet to points beyond via a regional pathway network is encouraged. Opportunities to connect to the Hamlet Open Space system should be taken advantage of through MR dedication.

POLICY 3.6.2.2

Passive recreational space should be integrated into the engineered storm water system wherever possible and practical, particularly where Low Impact Development methods are employed in the site design. Desirable benefits include added intrinsic value and overall environmental awareness and education by users.

3.7 EASTERN INTERFACE AREAS

As per the Cochrane Lake Hamlet Plan, this conceptual scheme outlines policies to address the eastern interface area condition treatments in locations as generally illustrated on Figure 13: Eastern Interface Areas. Within the Eastern Interface zone the developer shall take measures to mitigate potential land use conflicts or negative off-site effects for the adjacent landowners. These measures may include the following:

- Landscaping along lot edges to buffer existing residences
- Wider or deeper lots to increase feelings of spaciousness and create a gradual increase in density from existing residential communities
- Berming to increase feelings of separation between lots
- Attractive fencing
- Possible landscaping within adjacent lots to minimize obstructive views specific to the existing adjacent lot.

POLICY 3.7.1

Eastern Interface areas shall be located as generally illustrated by Figure 13: Eastern Interface Areas.

POLICY 3.7.2

Eastern Interface areas may utilize more natural informal treatments in alignment with the Cochrane Lake Hamlet Plan.

POLICY 3.7.3

Eastern Interface areas should utilize strategic placement of landscaping, buffering, edge treatment, green space, or passive recreation areas to mitigate potential land use conflicts.

POLICY 3.7.4

In accordance with the Cochrane Lake Hamlet Plan, Eastern Interface areas shall consist of exclusively of single-detached homes.

3.8 COMMUNITY SUPPORT SERVICES

3.8.1 FIRE RESPONSE

The allocation of fire protective services in the Plan area shall occur in accordance with the CLHP. Fire services will be provided by two Cochrane fire stations as per the existing contract between the County and the Town. A pressurized hydrant system will support the neighbourhood.

3.8.2 POLICE RESPONSE

Police response is anticipated to be provided by the Cochrane RCMP with support of Rocky View County Peace Officers.

3.8.3 EMERGENCY RESPONSE

Emergency Response in Neighbourhood C shall be provided provincially, likely dispatching from the Town of Cochrane.

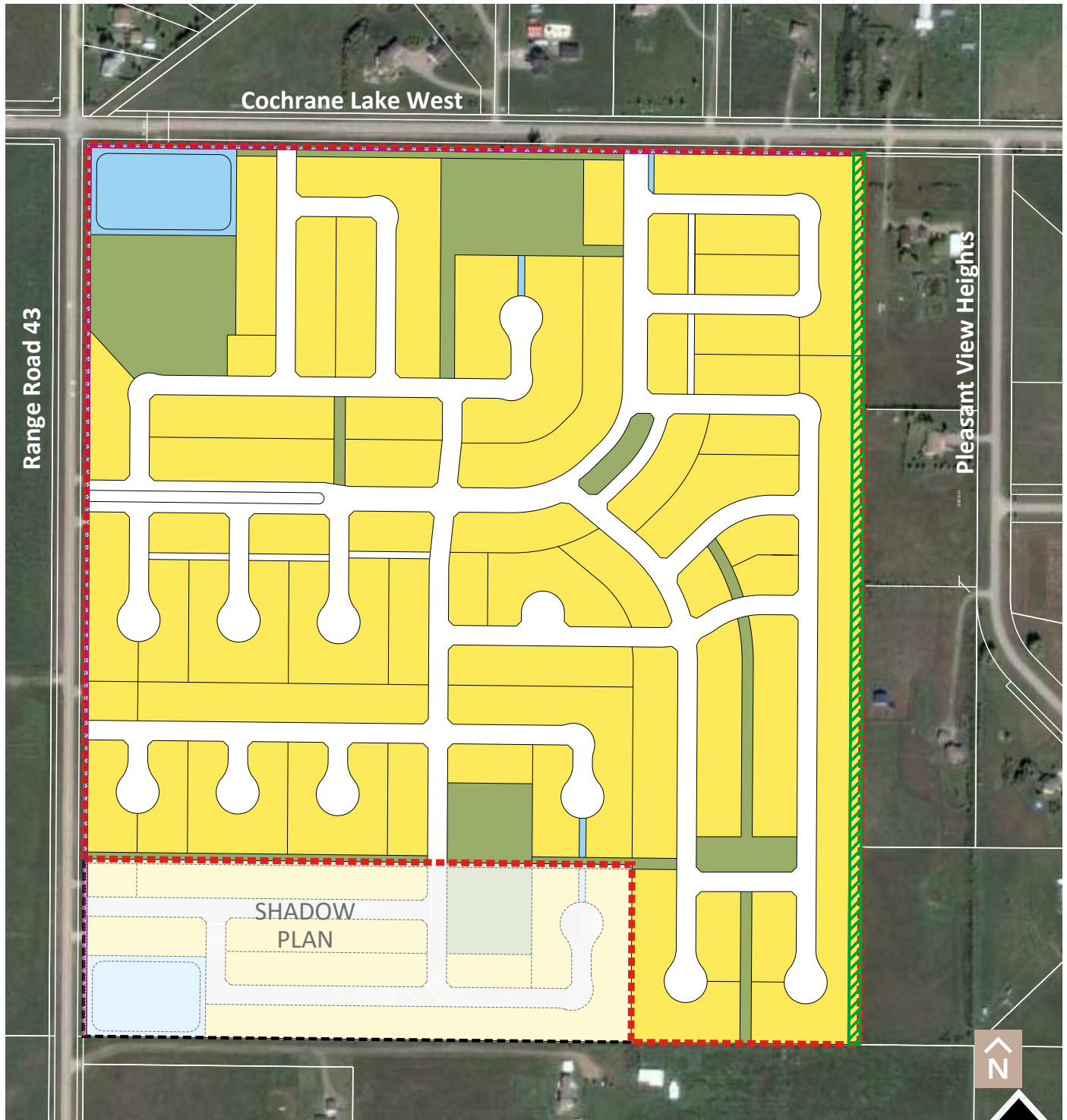
3.8.4 WASTE MANAGEMENT

Waste management within the Plan area will be provided by a qualified Waste Management Professional, to be managed by a Home Owners Association.

POLICY 3.8.1

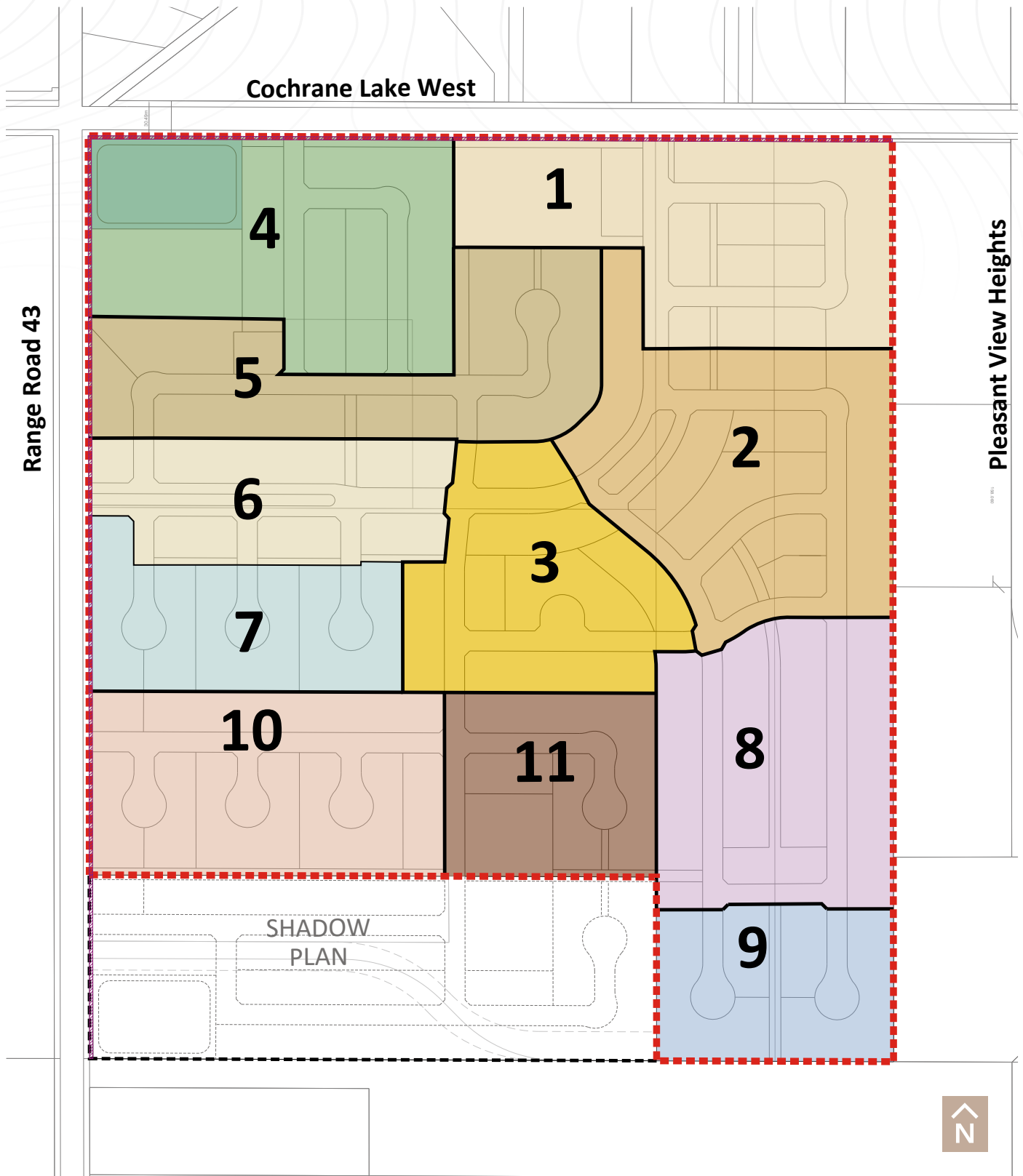
The developer shall prepare a Waste Management Plan at the subdivision stage, to the satisfaction of the County.

FIGURE 13 EASTERN INTERFACE AREAS



- R-MID Residential Mid-Density Urban District
 - S-PRK Special, Parks and Recreation District
- S-PUB (PUL)
 - Eastern Interface Area

FIGURE 14 PROPOSED PHASING



4.0 IMPLEMENTATION FRAMEWORK

4.1 PROPOSED SUBDIVISION

The plan area is anticipated to accommodate approximately seven hundred and twenty (720) residential lots. The remainder of the lands shall be allocated among five (5) parks, four (4) linear greenways, roads and a stormwater pond.

4.2 DEVELOPMENT PHASING

Development within the Neighbourhood C Conceptual Scheme area is expected to proceed in eleven (11) phases as illustrated in Figure 14: Proposed Phasing. Progression of these development phases will be dependent on alignment of transportation and infrastructure, subject to market demand.

POLICY 4.2.1

Amendment to the proposed phasing plan may occur without amendment to this Conceptual Scheme.

4.3 HOME OWNERS ASSOCIATION

A Home Owners Association (HOA) will be established primarily to facilitate waste management which is not provided by Rocky View County.

POLICY 4.3.1

The Neighbourhood C Home Owners Association will be responsible for waste management within the Plan area.

4.4 SHADOW PLAN

The Shadow planned area has been included to contemplate the full neighbourhood unit as a comprehensive and unified development. The timing and nature of this future development may proceed differently than is envisioned by this plan.

POLICY 4.4.1

At the time of development of the shadow planned area, the developer shall consider the vision of this Plan and the complete neighbourhood unit.

POLICY 4.4.2

Developers of the shadow planned area should consider alignment with existing Neighbourhood C development relating to connectivity, aesthetic, and built form to encourage a cohesive community identity.

POLICY 4.4.3

Developers of the shadow planned area should consider alignment with existing Neighbourhood C development relating to connectivity, aesthetic, and built form to encourage a cohesive community identity.

5.0

MUNICIPAL POLICY FRAMEWORK

5.1 THE COUNTY PLAN

Rocky View County adopted a Municipal Development Plan (MDP) titled the County Plan in October 2013. The policies of the MDP are established to guide fiscally responsible growth in the County while respecting delicate environmental conditions, agricultural lands, and the existing rural character.

To manage responsible growth, the County Plan identifies preferred residential growth areas, these are areas where existing plans have established development boundaries and forms. Cochrane Lake Hamlet is identified as a preferred residential growth area.

The County Plan's Hamlet Policies support the development of rural hamlets to establish and maintain a strong sense of community identity with attractive, high quality-built environments and distinct, safe residential neighbourhoods. Hamlet communities are encouraged to leverage their historical character and evolve over time.

Hamlets with a boundary coinciding with an area structure plan, such as Cochrane Lake, are identified as rural communities with basic services. Policy supports moderate development over the next 10 years (from 2013) in accordance with their area structure plan (ASP) or conceptual scheme.

Within the MDP a Hamlet is "characterized as having primarily residential development with a main street, crossroads, or central gathering area."

The Neighbourhood C Conceptual Scheme proposes to establish a hamlet residential neighbourhood supported by an adopted area structure plan that upholds the characteristics of Rocky View's Rural communities such as:

- Safety, family and neighbours;
- Larger residential lots with the opportunity for a mix of residential uses and lot sizes;
- Piped water and wastewater; and
- Sidewalks and pathways for recreation and local transportation.

5.2 THE COCHRANE NORTH AREA STRUCTURE PLAN (ASP)

The Cochrane North ASP was approved in 2007, it extends north from the northern boundary of the Town of Cochrane to Weedon Trail, encompassing the entire Cochrane Lake area. At the time of adoption this ASP did not address the lands of the Cochrane Lake Conceptual Scheme adopted in 1995, however that conceptual scheme did not include the subject lands and they are contemplated within this ASP. The ASP encourages an appropriate range of residential, and other uses by providing for long-term redevelopment and expansion opportunities. Agricultural pursuits are encouraged to continue until such time as servicing opportunities warrant residential development. The Neighbourhood C lands are identified as part of the Hamlet policy area intended to be a community focal point for the Cochrane Lake North area.

The Neighbourhood C Conceptual Scheme supports the ASP policy by establishing guidelines for the development of a pedestrian oriented community with sidewalks, pathways, and linked open spaces, creating a range of housing choices, and by taking advantage of opportunities for servicing efficiencies.

5.3 COCHRANE LAKE HAMLET PLAN

As recommended by the Cochrane North ASP, Rocky View County approved the Cochrane Lake Hamlet Plan (CLHP) in May 2011. The Hamlet Plan is rooted in strategic town planning and smart growth principles, aiming to build a community of neighbourhoods. Neighbourhood C is one of seven (7) neighbourhoods identified within the Cochrane Lake Hamlet, each encompassing a five-minute walk from the centre to the edge. The Hamlet Plan highlights the following principles:

- Promoting the lake as a central amenity
- Appropriate transitions to neighbouring agricultural uses and residential areas
- Providing a mix of housing options
- Focus on public spaces that enhance neighbourhood character

The Neighbourhood C Conceptual Scheme supports the goals of the Hamlet Plan by supporting a population level which results in cost effective and efficient servicing, promoting an attractive community offering a range of housing typologies, and fostering a walkable pleasant pedestrian atmosphere. The pedestrian network will support active mobility by providing a safe atmosphere where vehicles drive at reduced speeds and trees line the wide sidewalks. A central park space acts as the main open space where residents can gather and interact.

The Hamlet Plan includes detailed illustrations demonstrating one possible outcome of development aligning with the Plan policies. It is noted within the Plan that these illustrations are not an exact representation of exact development and that the final layout of development will be determined by future applications by the private sector. Design of the Neighbourhood C plan reflects the intention and policies of the Hamlet Plan, while accounting for factors such as drainage, land ownership, topography, pedestrian safety, and market conditions among other things.

While differing from the illustrative example of the Hamlet Plan, this Conceptual Scheme aligns with the policies and intent of the Plan by:

- Preserving elements of the natural environment where possible
- Promoting open space and recreational opportunities within a 5-minute walk of all residences, including incorporating passive recreation with stormwater management solutions
- Keeping open spaces to a community scale, providing a range of programming and natural areas
- Utilizing more urban road standards to highlight particular elements of the community
- Creating a safe and enjoyable pedestrian atmosphere
- Maintaining the rural charm and hamlet character of Cochrane Lake
- Creating a radial pattern of development as per the Edge, Transition and Centre Districts to appropriately transition from existing residential communities
- Addressing the Eastern Interface Area and establishing policy to ensure thoughtful transition

This plan includes specific policies to address the edge conditions bordering existing development in Section 3.7: Eastern Interface Area.

5.4 AGRICULTURAL BOUNDARY DESIGN GUIDELINES

As illustrated on Figure 7: Development Concept, the Neighbourhood C Plan Area is bordered on three (3) sides by rural residential development. Agricultural lands are located on the western side of Range Road 43, separated from the plan area by a X m ROW. For this reason it has been determined that alignment with the Agricultural Boundary Design Guidelines will not be required by policy, rather the existence of the guidelines is acknowledged, and it is recommended that developers of Neighbourhood C consider the intent of these guidelines.

6.0 COMMUNITY ENGAGEMENT

The Neighbourhood C Conceptual Scheme project team is committed to sharing information and engaging with adjacent landowners and key stakeholders from the Cochrane Lake Hamlet community to ensure that specific details relative to this proposed development are in alignment with the following principles:

- To ensure all key stakeholders are identified and informed of opportunities to be included in the process;
- To generate awareness about the Conceptual Scheme and provide opportunity for stakeholders to ask questions and provide input;
- To present preliminary plans for development;
- To document concerns and comments from stakeholders to be considered during the Conceptual Scheme review and refinement process;
- To ensure stakeholders are kept informed of the Plan's progress and provided opportunity to review additional information and discuss the project further if desired;
- To ensure the engagement process is monitored and measured, and results are shared with all stakeholders; and
- To conduct communications related to the proposed development in an open, transparent, honest and respectful manner.

The project team conducted pre-application engagement to introduce Canopy Lands to the community, and to share information about the planning history of the area, and the preliminary vision and intent for Neighbourhood C. Early engagement provided the opportunity to build relationships, answer questions and understand early concerns and opportunities.

The engagement approach included:

- Project Information Flyer / Open House Invitation to ~500 adjacent landowners and community residents
- Project Website: www.CLHPNeighbourhoodC.ca
- Dedicated project engagement specialist, phone number and email address
- Outreach to multiple community Facebook pages to share information
- Community Coffee Chats with 45 attendees
- Online Survey

- Stakeholder Database for Ongoing correspondence
- Engagement Summary Report posted on the website and distributed to email list

Canopy Lands and Schickedanz West hosted "community coffee chats" on Saturday, February 5th from 9 am to 4 pm at the Weedon Pioneer Community Hall to provide the community an opportunity to hear about the project and provide feedback.

The engagement tactics resulted in:

- 6 emails received and responded to
- 3 online surveys completed
- 45 attendees and 11 feedback forms collected

Throughout the engagement campaign, the project team heard from multiple stakeholders with comments and considerations for the following themes:

- Adjacent Property Owners
- Traffic and Roads
- Community Feel and Building Form
- Water and Servicing
- Construction
- Emergency Services
- Timing and Phasing
- Support
- Wildlife / Environment and Green Spaces

The full What We Heard Report was submitted under a separate cover.

As a result of this engagement, Canopy Lands retained a hydrogeologist to complete an assessment of impact to neighbouring wells and continues to engage individually with area residents to address comments and concerns where possible through the application process. The project team will continue to share updates throughout the project, respond to all comments and questions received, demonstrate how input is being considered through the refinement of plans, and meet with community members as needed.

SUPPORTING TECHNICAL REPORTS

The following Supporting Technical Reports are submitted under a separate cover.

1. Geotechnical Assessment, Watt Consulting, March 2022
2. Conceptual Servicing Study, CIMA+, March 2022
3. Conceptual Stormwater Management Plan, Stormwater Solutions, March 2022
4. Biophysical Environmental Screening Report, Envirolead, November 2021
5. Groundwater Risk Assessment, GRIT, April 2022
6. Phase 1 Environmental Site Assessment for Block 7 Plan 761 0783, Envirolead, October 2021
7. Phase 1 Environmental Site Assessment for Lot 1 Plan 971 0956, Envirolead, July 2021
8. Phase 1 Environmental Site Assessment for Lot 6 Plan 781 0147, Envirolead, July 2021
9. Phase 1 Environmental Site Assessment for Lot 3 Plan 801 0745, Envirolead, July 2021
10. Traffic Impact Assessment, Watt Consulting, March 2022
11. What We Heard Report, February 2022



The background of the entire page is a dark brown color with a subtle, light-colored topographic map pattern consisting of concentric, wavy lines that resemble contour lines on a map. The text is centered on this background.

**COCHRANE LAKE
HAMLET PLAN
NEIGHBOURHOOD 'C'**

CONCEPTUAL SCHEME

MAY 2022