



CONCEPTUAL SCHEME

NE-31-51-26-W4, NE-31-52-26-W4,
NW-32-52-26-W4, and SW-32-52-26-W4

Adopted by Parkland County
Council: March 12, 2024

Acheson Zone 5



ACKNOWLEDGEMENT PAGE

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Revised February 2024

Version 2.0

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1. INTRODUCTION

1.1 Purpose

The purpose of this Conceptual Scheme, hereinafter referred to as the Plan (see [Figure 1 – Location and Context Map](#)), is to describe and provide a rationale for the land use framework, development objectives, proposed land use, engineering, phasing, and vision for Sections NE-31-51-26-4, NE-31-52-26-4, NW-32-52-26-4, and SW-32-52-26-4 (see [Figure 2 – Land Ownership](#)). The Plan serves as a comprehensive policy framework to guide future redistricting, subdivision, and development proposals within the Plan area in a manner that maintains consistency with existing statutory planning documents.

1.2 Background

The Plan was produced to support the development by the landowner of Section NW-32-52-26-4 within the Plan area, resulting in Parkland County requiring a Conceptual Scheme covering the lands indicated in [Figure 2 – Land Ownership](#). While the lands to the west and south of the landowner’s parcel are included in the proposed Plan, the existing planning framework envisions no changes to their current use and designation.

To facilitate ease of reference, the parcels of land are described as ‘Development Cells’ or ‘Cells’ as seen in [Figure 6 – Development Concept](#). This Conceptual Scheme is intended to be a stand-alone document that can be used to describe planning for the entire Conceptual Scheme area. As planning is undertaken for the Development Cells, amendments to the Conceptual Scheme may be required.

The Plan is supported by the following technical reports and studies that cover Section NW-32-52-26-4 residing under separate documents:

Table 1 – List of Reports

REPORT	INCLUDES:
Geotechnical Site Investigation (ProtechGeo & Material Testing Ltd. - May 19, 2023)	<ul style="list-style-type: none"> • Preliminary Geotechnical Investigation
Historical Resources Act Approval (Stantec Consulting Ltd. - June 19, 2023)	<ul style="list-style-type: none"> • Historical Clearance Certificate
Traffic Analysis (Stantec Consulting Ltd. – May 4, 2023)	<ul style="list-style-type: none"> • Traffic Impact Assessment Brief • Off-site Roadway Improvements
Site Servicing & Stormwater Management Report (V3 Companies of Canada – January 12, 2024)	<ul style="list-style-type: none"> • Potable Water / Fire Hydrants • Watermain Extension along 99 Ave and 96 Ave • Water Demand Analysis • Sanitary Main Extension along 99 Ave and 96 Ave • Wastewater Demand Analysis • Sanitary Lift Station • Stormwater Management Facility • Stormwater Management Plan • Site Grading Plan (shown in Figure 9.0 of the report) • Environmental Construction Management (ECO) Plan incorporated into the Erosion and Sedimentation Control Measures

Groundwater Recharge Assessment
(Groundwater Resources Information
Technologies Ltd. – July 26, 2023)

- Hydrogeological Assessment

Biophysical Assessment (Stantec Consulting Ltd.
– August 9, 2023)

- Environmental Conditions
- Wildlife Species Assessment
- Vegetation Assessment

Wetland Assessment and Impact Report (Stantec
Consulting Ltd. – August 2023)

- Wetland Assessment and Compensation Plan

Phase I Environmental Site Assessment (WSP –
August 2022)

- Site Visit
- Records Review
- Interviews
- Identification of Area of Potential Environmental Concerns (APECs)

Phase II Environmental Site Assessment (WSP –
September 6, 2022)

- Soil Sampling and Analysis

In relation to the Traffic Analysis, the County's Traffic Impact Assessment (TIA), completed in 2018, has been used to inform the development of the Plan along with other technical reports for servicing the lands such as the Parkland County Transportation Master Plan. For the remaining lands within the Conceptual Scheme, future development has been guided by desk top assessments and information obtained from the existing Acheson Industrial Area Structure Plan and subsequent servicing plans.

1.3 Location and Plan Boundaries

As shown in [Figure 1 – Location & Context Map](#), this Conceptual Scheme encompasses all lands within the Sections NE-31-52-26-4; NE-31-51-26-4; NW-32-52-26-4; and SW-32-52-26-4 lying south of the intersection of Provincial Highway 16A and Spruce Valley Road. The Plan area encompasses three quarter sections of land and is located within the Acheson Industrial Area in Parkland County, Alberta.

The boundary was chosen in consultation with Parkland County to provide logical planning to guide future development, maintain consistency throughout the sections, and align with the requirements of the County's Municipal Development Plan (MDP). While Development Cells B and C (shown in [Figure 6 – Development Concept](#)) are within the scope and boundaries of this plan, the current uses will remain in place and no changes to these sections are being proposed at this time.

Policy 1.3.1	<i>Policies contained within the Conceptual Scheme shall apply to all lands within the Conceptual Scheme area.</i>
Policy 1.3.2	<i>This Conceptual Scheme shall enable redistricting of Parkland County's Land Use Bylaw in accordance with the designated land uses outlined in Figure 5 – General Land Use Concept.</i>
Policy 1.3.3	<i>Development of Cells B and C shall only proceed when developing the quarter section as a whole, unless agreed to by Parkland County on a reduced area, and upon completion of the required technical reports and approval of the County.</i>

1.4 Vision

The Plan area will be predominantly developed as a fully serviced business and industrial area that aligns with the intent of the Acheson Industrial Area Structure Plan and accommodates a broad range of employment and business activities.

When completed, the development will provide approximately 470 acres (190.3 ha) of industrial land uses, implemented through a logical sequence of subdivision and development phases. The Conceptual Scheme will result in a master-planned business and industrial development that accommodates a variety of strategic economic development opportunities, aligning with the Parkland County Technical Growth Study and the Acheson Industrial Area Structure Plan.

1.5 The Plan Objectives

The objectives of the Plan are:

- To identify constraints related to development of the lands and develop policy on how to mitigate, remedy, or avoid the constraints during development.
- To outline the engagement process carried out in the development of the Plan.
- To demonstrate the consistency of the Plan with other relevant Municipal and Regional statutory and non-statutory planning documents.
- To outline how the subject lands will be serviced by roads, sanitary, water, and stormwater.
- To outline how the development will be generally phased.
- To develop a policy framework that will enable development of the lands for Business Industrial purposes.

1.6 Public Engagement

Engagement Plan

In March 2023, a formal public engagement plan was submitted to Parkland County for review and approval. On May 11, 2023, the public engagement plan was approved.

Identified Stakeholders

The following parties were identified as key stakeholders in the drafting of the Plan:

- Surrounding property owners within 800 m;
- Property owners of lands within the Conceptual Scheme;
- The general public;
- Wagner Natural Area group;
- Parkland County administration;
- Parkland County Council; and
- Alberta Transportation.

Meetings were held with key stakeholders, including Parkland County administration, to inform the Conceptual Scheme. Alberta Transportation was consulted regarding the access points and road configuration from Highway 16A and Spruce Valley Road.

Open House Session

An Open House was held on July 25th, 2023 from 5:00PM to 8:00PM at the Elks Social Hall and was attended by representatives from V3 Companies of Canada, Groundwater Resources Information Technologies Ltd., Stantec Consulting Ltd., the developer, and Parkland County administration. The attendance record showed that there were 32 people in attendance (not including the project team).

Results of Open House Sessions

The purpose of the Open House was to inform the general public and landowners in the Conceptual Scheme area and surrounding areas of the overall development plan. The Open House was held so that participants would have the opportunity to ask questions and provide comments on the Conceptual Scheme. The Open House was held with a drop-in format (come and go over a period of 3 hours) which provided the opportunity for participants to view display boards, speak to representatives from the developer's consulting team, the developer, and the County.

Advertisements for this event were posted in the Spruce Grove Examiner for two weeks as well as by mail out packages that included an information pamphlet, formal letter, and an invitation to the Open House for landowners within the area and surrounding area.

The majority of people attending the Open House were interested in what was happening within the Conceptual Scheme and the future use of the area. No written comments were received in relation to the proposal at the Open House.

Summary of Engagement Outcomes

At the Open House the majority of people attending were supportive of the Conceptual Plan and future development, however, there was a landowner who did not support the development based on having to already relocate from his previous dwelling based on similar circumstances. There were representatives from the Wagner Watershed Association who also provided a formal written submission outlining concern regarding the Wagner water shed. While the Conceptual Plan is within the limits of the watershed the proposed measures to maintain infiltration into the system based on the studies carried out are considered to avoid the loss of water into the system. Policy is also provided to maintain this approach as development proceeds through the three-quarter sections.

2. POLICY FRAMEWORK

2.1 Edmonton Metropolitan Region Growth Plan

The Edmonton Metropolitan Region Growth Plan (EMRGP) (amended January 15th, 2020) contains an integrated policy framework that requires a holistic approach to planning. In context to the Plan, the proposed lands are located within the Metropolitan Area which is defined as the area surrounding the metropolitan core. [Figure 3 Schedule 3A](#) within the EMRGP– Major Employment Areas indicates that the Plan area is designated as a Major Employment Area. Consequently, the Plan area will be a contiguous extension of existing similar uses located nearby and therefore a compatible development which will support current and future employment.

The following policies identified in the EMRGP Plan are viewed as the most predominant that support Parkland County's Acheson Industrial Area Structure Plan and are considered applicable to the subject lands. The key policies relate to the subject lands being acknowledged as within a Major Employment Area.

"Objective 1.2: Promote job growth and the competitiveness of the Regions employment base.

Policies:

- 1.2.1 An adequate supply of lands shall be identified and protected by member municipalities to accommodate the employment projections in Schedule 1 and provide a variety of employment types and support economic diversification.
- 1.2.2 Employment growth will be accommodated in:
 - a. *major employment areas* and *centres* indicated on Schedule 3A.
- 1.2.3 Within *major employment areas*, growth will be accommodated by:
 - a. supporting employment intensive land uses with a range of employment types including commercial, industrial and institutional uses;
 - c. planning and coordinating infrastructure to support current and future employment and diversification opportunities.

*Objective 4.1: Establish a compact and contiguous development pattern to accommodate employment and population growth.

Policies:

- 4.1.1 Employment and population growth will be planned and phased in a responsible manner and a contiguous pattern to accommodate the projections in Schedule 1 and in accordance with the Edmonton Metropolitan Regional Structure depicted in Schedule 2.
- 4.1.2 Employment and population growth will be accommodated in a compact form and a contiguous pattern within existing urban communities.
- 4.1.3 Major employment areas will be planned to accommodate current and future employment in accordance with the policies in the Economic Competitiveness and Employment policy area.

The proposed development is located within a Major Employment Area and the proposed uses of industrial are consistent with this policy that supports employment. The Conceptual Scheme will continue the development that is occurring to the east of the Plan boundary. In relation to [Schedule 1](#) referred to in Policy 1.2.1 of projection employment in Parkland County is based on the projections that were included through the development of the adopted Acheson Industrial Area Structure Plan.

Policy 2.1.1 *The Conceptual Scheme and the land development it generates shall conform to both the Edmonton Metropolitan Region Growth Plan and the Municipal Government Act.*

2.2 Municipal Development Plan

The Parkland County Municipal Development Plan (MDP) is a high-level policy document which directs all development within the County until 2047 (from 2017 to 2047). Section 5.0 Economic Competitiveness and Employment of the MDP identifies the Acheson Industrial Area Structure plan as a Major Employment Area, therefore the proposed development is in compliance with the MDP. Section 5 of the MDP addresses industrial development and outlines how business and industrial development will proceed in the County. This Conceptual Scheme complies with the following MDP policies:

Table 2 – Municipal Development Plan Conformance

POLICY #	POLICY STATEMENT	DEMONSTRATED CONFORMANCE WITH POLICY
5.0.1.(a)	The County encourages economic and employment diversification throughout the County where businesses will be supported by adequate infrastructure and transportation networks.	This Plan proposes that ultimately full municipal water and wastewater will be installed. The Plan area is bounded by Provincial highways and local roads, which provide access.
5.0.1.(c)	The County will encourage a range of commercial and industrial lot sizes and servicing standards to be located where appropriate in the County.	The Plan is designed to allow for flexibility of lot sizing to respond to market demands. Access to municipal servicing provides opportunity for smaller industrial lots.
5.0.2.(a)	Major employment areas shall be located as shown on Figure 7: Development Concept .	The Plan area is located within the Major Employment area as stated in Section 5.0 Economic Competitiveness and Employment within the MDP.
5.0.2.(b)	Major Employment Areas will support a range of intensive land uses including commercial, industrial and institutional uses that require full municipal servicing.	The Plan includes policy regarding the development of adequate infrastructure and transportation networks.
5.0.2.(c)	Major Employment Areas must be planned and coordinated through an Area Structure Plan or other statutory plan.	This Plan follows the Acheson Industrial ASP.
5.0.2.(d)	The County will encourage the extension of municipal services to the Acheson Business Park and Fifth Meridian Business Park.	The servicing of the Plan relies on the extension of municipal services.
5.0.6.(a)	Development along highways and major roads shall be planned in a comprehensive manner and be concentrated at highway intersections, near interchanges and in consideration of service road locations.	The Plan is located at the highway intersection of Highway 16A and Spruce Valley Road and will be designed in a comprehensive manner.
5.0.6.(b)	Development that is highly visible from a major transportation corridor should enhance visual attractiveness through design features, such as landscaping, fencing, buffering and other design features, to the satisfaction of the County as regulated in the Land Use Bylaw.	The Plan identifies the need for additional design elements for parcels located along major transportation corridors. Landscaping plans will be submitted at the development permit stage in accordance with the Land Use Bylaw.

9.1.2.(b)	The Transportation Master Plan will identify and prioritize transportation and infrastructure upgrades, trade corridors and corridor routes for alignment.	The Transportation Master Plan identifies the ultimate roadway classification, and the Acheson Industrial Transportation Study provides greater detail of the future roadway alignment which the Plan is consistent with.
9.1.3.(b)	Developers will be responsible to front-end the costs of on-site and off-site infrastructure system. The County will, where applicable, endeavor to assist in the cost recovery of oversizing the extension of municipal improvements that accommodate future development.	The developer will carry out the capital works required to service the Plan area and beyond to Parkland County's standards where required. Intersection improvements between Hwy 16A and Spruce Valley Road falls within the County's off-site levy program.
9.2.2.(a)	Development that is highly visible from a major transportation corridor may be required to reduce the visual impact of the development through design features such as landscaping, fencing, buffering and other site design features.	The nature of the land uses being planned along the Highway are dependent on high visibility. It is expected the level of control on visibility will be regulated through the Land Use Bylaw for the district, the Industrial Frontage Overlay, as well as Alberta Transportation requirements.
9.2.4.(d)	The County will require roadways to be developed to the current Engineering Design Standards of the County.	The Plan currently shows a road layout based on the classification of the road and required Right-of-Way, including tangents on the curves of the roads. At the detailed design stage, all designs will need to meet Parkland County's Engineering Design Standards.
9.6.1 (e)	The County shall develop and maintain a Water and Wastewater Master Plan to guide future servicing strategies, decision-making and investment in the County.	The servicing of water and wastewater of the Plan area is based on the Acheson and Big Lake Area Water Servicing Study 2015 and the Acheson and Big Lake Area Wastewater Servicing Study Update 2016.
9.6.9.(a)	A storm water management plan, to be prepared by a qualified engineer, may be required to consider development impacts both on-site and within the larger surrounding drainage catchment area.	The Plan includes a stormwater management concept that is based on the Acheson/Big Lake Area Master Drainage Plan Amendment.
12.0.6.(c)	County planning projects, initiatives and processes shall conform to the County's Public Engagement Policy and requirements under the Municipal Government Act.	Public Engagement Plan was approved by the County and developed in accordance with Policy C-AD51. The outcomes of the engagement are covered in this report.

2.3 Area Structure Plan

Approved in 2015, the Acheson Industrial Area Structure Plan (ASP) is intended to guide the Acheson area for the next twenty (20) to thirty (30) years by setting out the general location of major land uses, roadways, and utility servicing. The Acheson Industrial Area is recognized as one of the region's major employment centres. The ASP area is located on the eastern edge of Parkland County and encompasses approximately 5,019 ha (12,402 acres) of land.

Acheson Industrial Lands are serviced by provincial Highways 16, 16A, 60, and 628. A series of local arterial and collector roads, coupled with a developing internal road network, provides good access for industrial and commercial users. Acheson is also located west of Canadian National Rail's (CNR) Edmonton Intermodal Yard. The CNR's main line transects Acheson with several spurs providing rail access to Acheson. Acheson is located 32 kilometers from Edmonton

International Airport. The Conceptual Scheme is within Zone 5 of the Acheson Industrial ASP.

Land Use

The land use identified for the Conceptual Scheme area is Commercial/Light Industrial as shown in [Figure 6 | Future Land Use Concept](#) in the Acheson Industrial ASP. As per the Acheson Industrial ASP, appropriate light industrial uses have nuisances contained inside the building envelope. Typical uses in Light Industrial Areas include manufacturing, research and testing facilities, processing facilities, and logistics and distribution centres.

Industrial Frontage Overlay

An Industrial Frontage Overlay is identified along Highway 16A (shown in [Figure 6 –Development Concept](#)) that indicates that development along the highways that have a high level of exposure should be Business Industrial uses and are characterized by having a higher quality building and site design standard, and higher landscaping standards. The policy contained within the Acheson Industrial ASP seeks to create Design Overlays through amending the Land Use Bylaw.

The Conceptual Scheme aligns with the Acheson Area Structure Plan through its consistency in providing lands for industrial purposes while providing supporting policy to mitigate the impact on the Wagner Aquifer through maintaining infiltration of water into the system. The plan also aligns with the proposed road network and infrastructure required to service the lands.

2.4 Land Use Bylaw

The Parkland County Land Use Bylaw 2017-18 (LUB), adopted in September 2017, establishes regulations for the use of land and buildings in Parkland County. It regulates the type, location, and intensity of land use and buildings, and outlines the process for redistricting land and applying for permits to develop properties. The Conceptual Scheme area is currently districted with three (3) different land use districts from the Parkland County LUB, as listed below and shown on the Land Use District Map of the Parkland County LUB.

- BI – Business Industrial District: The northeast portion (Development Cell A) of the Conceptual Scheme area is districted as BI District. The intent of this district is to accommodate a range of industrial and commercial uses which may have outdoor storage or work activities, in fully serviced business and industrial parks.
- AGG – Agricultural General District: The northwest portion (Development Cell B) of the Conceptual Scheme area is districted as AGG District. The intent of this district is to protect and enhance agricultural production while accommodating a range of supportive and compatible land uses.
- AGR – Agricultural Restricted District: The southeast portion (Development Cell C) of the Conceptual Scheme area is districted as AGR District. The intent of this district is to permit agricultural production and related farming activities, while providing limited opportunity on a discretionary basis for compatible non-farm related land uses, and to prevent premature or scattered subdivision.

Effectively the Land Use Bylaw recognizes the future land uses will be for commercial/light industrial and is held in a reserve status until the adoption of the Plan that would enable redistricting to move forward where required.

Policy 2.4.1

Prior to any land development activities occurring within the Conceptual Scheme area, amendments to the districting of Parkland County's Land Use Bylaw, if required, shall be completed to ensure the districting is consistent with the designated purposes outlined in [Figure 5 – General Land Use Concept](#) of this Conceptual Scheme.

3. SITE CONTEXT

3.1 Legal Description and Ownership

This Plan applies to the lands within Sections NE-31-51-26-4, NE-31-52-26-4, NW-32-52-26-4, and SW-32-52-26-4 lying south of the intersection of Provincial Highway 16A and Spruce Valley Road. The Plan area encompasses three-quarter sections of land, approximately 190.3 ha, located within the Acheson Industrial Area in Parkland County, Alberta. The following Table 3 and [Figure 2 – Land Ownership](#) shows the current legal description of land areas and ownership status:

Table 3 – Legal Description and Ownership

LEGAL DESCRIPTION	OWNER	AREA (HECTARES)	AREA (ACRES)
SW-32-52-26-4 (Plan 5377 MC, Lot A)	DALE WESLEY ALLEN & DIANNE M ALLEN	16.2	39.97
SW-32-52-26-4 (Plan 3389 NY, Lot 1)	IRENE GLADYS ROSMUS	16.2	39.97
NE-31-51-26-4 (Plan 2106 NY, Lot 6)	MURRAY HILL DEVELOPMENTS LLC.	26.1	64.42
NE-31-52-26-4 (Plan 2106 NY, Lot 7)	A-WEST HOLDING INC.	27.6	68.08
NE-31-52-26-4 (Plan 5388 HW, Lot A)	JAMES VINSON	0.8	2
SW-32-52-26-4 (Plan 5377 MC, Lot B)	CLEMENTS CONTRACTING LTD.	16.2	39.97
SW-32-52-26-4 (Plan 5377 MC, Lot C)	GERARD P HAARSMA	16.2	39.97
NE-31-52-26-4	ROB REGAN	7.9	19.6
NW-32-52-26-4	WESTLINK BUSINESS PARK GP INC.	63.1	156
TOTAL		190.3	470

3.2 Adjacent Land Uses

The subject lands are primarily surrounded by agricultural and industrial land uses. The lands to the north-west, west, and south of the Plan area are used for agriculture and agricultural related purposes which are mainly districted as AGG – Agricultural General District. The lands to the north-east and the east are districted as MI – Medium Industrial District and BI – Business Industrial District. The industrial uses currently adjacent to the Conceptual Scheme include surveying offices, manufacturing companies, and utility contractors, to name a few. The Conceptual Scheme quarter sections are currently districted as AGI, AGR, and BI which will overtime transition into commercial and light industrial.

The Plan area is in close proximity to notable areas such as: the Enoch Cree First Nation which is located approximately 12km south-east of the subject lands, the City of Edmonton which is located approximately 10km east of the subject lands, the City of Spruce Grove which is located approximately 8km west of the subject lands, and the Wagner Natural Area which is located 7km north of the subject lands. A small portion of the Wagner Natural Area Recharge Zone encompasses 3/4 of the Conceptual Scheme boundary indicated by [Map 5 – Environmental Features](#) of the Acheson Industrial ASP.

3.3 Site Conditions

The Plan area is currently (2023) being used for agricultural purposes with farmstead buildings on some properties. The land is generally flat with slight undulations to the east of the Conceptual Scheme boundary. Small wetlands are scattered throughout the subject lands with the majority residing in Development Cell A. A storm water management pond is intended to be developed to support the natural features of the area and will reside where the large wetland is located on the east portion of Development Cell A. The water currently drains to the north-east of the Conceptual Scheme boundary. To the east of the Conceptual Scheme boundary, industrial development has been built out which demonstrates that development of this Conceptual Scheme is the next logical piece to develop, aligning with the Acheson Industrial ASP.

Site constraints of the undeveloped land as it relates to the Plan area include:

- The abandoned wells are located between Cell A and Cell B in the north and in the south-east of Cell C (shown in Figure 4 – Oil & Gas Infrastructure).
- The Wagner Natural Area Recharge Zone is within a portion of the Conceptual Scheme boundary.

Policy 3.3.1 Policies regarding the Wagner Natural Area Recharge Zone apply to all lands that are included in the defined boundaries indicated by Map 5 – Environmental Features of the Acheson Industrial Area Structure Plan.

3.4 Historical Uses of the Subject Lands

In preparation for the development of Cell A, a Historical Resource Clearance Certificate was obtained. Alberta Historic Resources, issued clearance and approval for Cell A relative to the Historic Resources Act:

Table 4 – Historical Resource Clearance

APPROVAL	APPROVAL NO.	ISSUE DATE	LANDS COVERED	APPROVAL HOLDER
Historical Resources Act	4835-23-0046-001	June 19, 2023	NW-32-52-26-4	Panattoni Development Company

Policy 3.4.1 Future development of Cells B and C in Figure 6 – Development Concept within the Conceptual Scheme shall obtain a Historic Resource Clearance Certificate prior to future subdivision and development to the satisfaction of the Historic Resources Act.

Policy 3.4.2 Should any historical resources be encountered during construction, Parkland County and Alberta Environment and Parks shall be contacted immediately.

4. PHYSICAL SITE FEATURES

4.1 Technical Reports

As the Plan is developed in response to the landowner's desire to develop Cell A (Section NW-32-52-26-4), the following technical reports only apply to this parcel of land. As development proceeds in the other portions of the Conceptual Scheme, technical reports will need to accompany those future applications.

Policy 4.1.1 Future development of Cells B and C (Figure 6 – Development Concept) within the Conceptual Scheme must complete the following required technical reports prior to future subdivision and development:

- Geotechnical Report
- Hydrogeotechnical report;
- Traffic Impact assessment;
- Comprehensive Biophysical Assessment;
- Phase I Environmental Site Assessment; and
- Site Servicing and Stormwater Management report.

4.2 Topography

The topography of the Conceptual Scheme area is flat to moderately undulating with the topography ranging from 706 m to 718 m above sea level (2015 LIDAR). Currently major overland drainage pathways are absent and there are no storm services that have been provided directly to the Conceptual Scheme area.

4.3 Hydrology and Geotechnical

A Geotechnical Site Investigation was completed in May 2023 by ProtechGeo & Material Testing Ltd. ("ProtechGeo") to evaluate soil parameters for a part of Spruce Valley Road, proposed lift stations, and maintenance building within Development Cell A. In the report, ProtechGeo conducted four (4) geotechnical boreholes in the project area. The report provides recommendations for development including the building foundations, the design of road right-of-way, and guidelines for road subgrade preparation. The investigation was intended to provide preliminary geotechnical recommendation regarding the general suitability of Development Cell A for the proposed development.

The report speaks to the soil profile and groundwater table and recommends a foundation system such as shallow footings, cast in place concrete friction or screw piles which can be considered for the proposed lift station and maintenance building. However, as per near surface soil condition, piles are considered more suitable. It is recommended that the construction of shallow foundations be inspected by a qualified geotechnical engineer. Bearing capacity of native soil shall be confirmed prior to the construction of footings. Additional recommendations are made for when construction is carried out. Additional geotechnical investigations and environmental assessments may be required at the development of the subject lands.

In view of the geotechnical conditions encountered at the test hole locations, the proposed development is considered generally feasible.

Policy 4.3.1 Subdivision applications and development permits for Development Cell A (Figure 6 – Development Concept) shall be consistent with the recommendations outlined in the Geotechnical Site Investigation (ProtechGeo & Material Testing Ltd. - May 19, 2023), to the satisfaction of Parkland County.

Policy 4.3.2 Future development of Cells B and C in Figure 6 – Development Concept within the Conceptual Scheme shall complete a Geotechnical Assessment prior to future subdivision and development.

Policy 4.3.3 *For the development of individual lots, site-specific geotechnical investigation shall be provided at the Development Permit stage.*

4.4 Hydrogeological

A groundwater recharge assessment was undertaken for Cell A as the Plan area provides groundwater that discharges within the Wagner Natural Area Recharge Zone. The Conceptual Scheme area is located south of the Wagner Natural Area at an elevation approximately 30 metres above the Wagner Natural Area. The topographic variation across Cell A is in the order of 12 m. A portion of the Conceptual Scheme boundary is contained within the Wagner Natural Area Recharge Zone as shown in [Map 5 | Environmental Features](#) in the Acheson Industrial ASP.

Horizontal groundwater flow directions are northward towards the Wagner Natural Area and vertical flow directions are downwards which confirm that the subject lands are in an area of groundwater recharge with flows towards the Wagner Natural Area. Changes to groundwater recharge will occur due to changes in plant transpiration as the Plan area changes from cropland to mixed building, road, parking, and grass cover. A decrease in plant transpiration, estimated at greater than 20%, should result in an increase in groundwater recharge via the stormwater management facility. A slight increase in groundwater recharge would be expected.

Analysis of a shallow groundwater sample collected from one of the monitoring wells for routine dissolved salts show that the groundwater is relatively fresh, indicative of water that has recently entered the subsurface. Nitrate is present, likely due to fertilizer application to the former cropland. This nitrate concentrate would likely decrease with flow in the subsurface due to denitrification reactions. The level of nitrate meets drinking water criteria, and there are no indications of groundwater contamination present.

Policy 4.4.1 *Subdivision applications and development permits for Development Cell A (Figure 6 – Development Concept) shall be consistent with the contents outlined in the Groundwater Recharge Assessment (Groundwater Resources Information Technologies Ltd. – July 26, 2023), to the satisfaction of Parkland County.*

Policy 4.4.2 *Future development of Cells B and C in Figure 6 – Development Concept within the Conceptual Scheme shall complete a Hydrogeotechnical Assessment prior to future subdivision and development.*

Policy 4.4.3 *All future developments in the Conceptual Scheme area shall be required to mitigate the impacts on the aquifer at all development stages. Onsite containment systems, where applicable, may be required to be used by developments to minimize seepage of materials into groundwater systems.*

4.5 Vegetation

The Conceptual Scheme area is located within the Central Parkland natural sub region of Alberta, a region historically characterized by a mosaic of aspen forests and fescue grasslands. Most of the Central Parkland subregion has been intensively cultivated and developed with relatively few areas retaining native vegetation. The Conceptual Scheme area has a few stands of existing trees, primarily limited to windbreaks along the quarter section lines and surrounding the wetlands. There is a lack of vegetation since much of the land has been cleared for agriculture.

4.6 Environmental Considerations

A number of technical reports have been completed to inform environmental considerations for Cell A. These reports included a Wetland Assessment and Impact Report (WAIR) and a Biophysical Assessment (BA), completed by Stantec Consulting Ltd. (Stantec), and Phase 1 and Phase 2 Environmental Site Assessments which were completed by WSP. These technical reports cover the environmental considerations and are summarized below.

Wetland Assessment

A wetland and ephemeral waterbody assessment was completed from May 25 to 27, 2023, and a Wetland Assessment and Impact Report (WAIR) was prepared by Stantec in August 2023 to support compliance with the Alberta Water Act

and associated Implementation Directives. The WAIR was prepared following the Alberta Wetland Assessment and Impact Report Directive in accordance with the Alberta Wetland Policy to comply with the Alberta Water Act.

As shown in Table 5 - Upland, Wetland and Ephemeral Waterbody Classification and Affected Area, the assessment identified seven wetlands (two temporary graminoid marshes, three seasonal graminoid marshes, one seasonal shrubby swamp and one seasonal wooded deciduous swamp) and three ephemeral waterbodies. The area of wetlands and ephemeral waterbodies combined is 6.50 hectare.

The development of Cell A requires the disturbance of three ephemeral waterbodies, two temporary graminoid marshes, three seasonal graminoid marshes, one seasonal shrubby swamp and one seasonal wooded deciduous swamp in compliance with the Alberta Water Act. Although there will be disturbance and loss of wetland habitat, these wetlands have been historically disturbed by ongoing agricultural activities either within their boundaries and/or catchment areas.

There are no Environmentally Significant Areas (ESAs) identified in the Environmental Conservation Master Plan within Development Cell A. The closest ESA is referred to as the "Wagner Natural Area and Surrounding Forest ESA", which is located approximately 1.5 kilometers to the north of the Conceptual Scheme and is classified as "provincially significant". Land use within Cell A's Disturbance Footprint has also been established and approved under the Acheson Industrial ASP (Bylaw 2020-13) (Parkland County, 2020). The ASP shows Cell A as commercial or light industrial land use and does not identify wetlands for retention. Wetland avoidance was considered during the planning phase. However, the wetlands located in Cell A were not considered high priority for retention and no wetlands or waterbodies were recommended for retention.

Table 5 – Upland, Wetland and Ephemeral Waterbody Classification and Affected Area

Feature ID	Classification	Abwret A Value	Area (ha)
WL1	MGIII – Seasonal Graminoid Marsh	C	3.78
WL2	MGIII – Seasonal Graminoid Marsh	C	0.69
WL6	SSIII – Seasonal Shrubby Swamp	D	0.14
WL8	MGII – Temporary Graminoid Marsh	D	0.25
WL9	MGIII – Seasonal Graminoid Marsh	D	0.31
WL10	SWdIII – Seasonal Wooded Deciduous Swamp	D	0.31
WL11	MGII – Temporary Graminoid Marsh	D	0.09
Wetland Total			5.57
E3	Ephemeral Waterbody	-	0.35
E4	Ephemeral Waterbody	-	0.46
E5	Ephemeral Waterbody	-	0.12
Ephemeral Waterbody Total			0.93
UL1	Aspen Poplar Woodland Alliance	-	5.41
UL2	Aspen Poplar Woodland Alliance	-	1.31
UL3	Aspen Poplar Woodland Alliance	-	1.99
UL4	Aspen Poplar Woodland Alliance	-	3.17
Upland Total			11.88

Biophysical

The Biophysical Assessment (BA) was completed in accordance with Parkland County's Biophysical Assessment Policy and applied applicable guidance or best management practices outlined in Parkland County's Environmental Conservation Master Plan. The BA identifies natural features (i.e., wetlands and upland areas) and provides consideration for retention of features in the context of the Conceptual Scheme. The BA was supported by desktop analysis and field reconnaissance.

Cell A primarily consists of cultivated land with scattered pockets of upland forest and wetland. The overall suitability of Cell A as wildlife habitat is low due to the overall lack of natural vegetation and the potential exposure to pesticides and herbicides in the cultivated areas. The upland areas are dominated by aspen poplar and Manitoba maple with an understory of hemp nettle. The wetlands are largely cultivated with limited vegetation growth at the time of the assessment. Canada thistle was detected in low amounts (< 5 plants) at four wetlands (E4, WL9, WL10, WL11) and scentless chamomile was detected in low amounts (< 20 plants) at two wetlands (WL8, WL9) (shown in Table 5). Two occurrences of Scouler's allocarya (*Plagiobothrys scouleri*) were identified during the field assessment within wetlands WL2 and ephemeral waterbody E3; it is ranked S3 but is not included in the tracked or watch lists (ACIMS 2022b). Scouler's allocarya can be found in moist soils that dry out in the summer including meadows, mudflats and ephemeral or seasonal wetlands.

The BA concluded that no natural areas were recommended for retention. Given their small size (most are <1 hectare) and the expected challenges providing sufficient surface water post-development within an industrial development, long term sustainability of these features would be challenging. There are also conflicts between the two land uses (industrial and natural area) and retention could lead to physical damage or loss of trees, pollution from spills, and increased wildlife mortality. To mitigate this conflict, the BA recommends that the development in Cell A must follow the provincial wetland mitigation hierarchy of avoid, minimize, and replace.

Lastly, there is a high degree of anthropogenic disturbance including cultivation that would require restoration efforts and there is low connectivity to natural areas outside Cell A. Wetland WL1 was ranked as "attempt to retain for ecological function" due to its large size (4.17 hectare). The BA recommended that a stormwater management facility be used to replace the ecological functions including storage and treatment of surface water and the Alberta Guide to Wetland Construction in Stormwater Management Facilities (GOA, 2018) should be used to inform the design, construction, commissioning, and monitoring of the naturalized SWMF. Further recommendations can be identified in the Biophysical Assessment (Stantec – August 9, 2023).

Environmental Site Assessments

In August 2022, WSP conducted a Phase I Environmental Site Assessment (ESA) on the property identified as Cell A. Based on the review of the updated historical and regulatory records search, the site visit, and interview, further action was recommended within three Areas of Environmental Concern (APEC). These APECs described:

- APEC 1: Two AST tanks, one split tank approximately 1,135 litres (300 gallons) and the second tank approximately 2,082 litres (550 gallons) appeared to be in good condition. There was no evidence of any leaks or staining observed around the ASTs and no odours were detected. Confirmatory sampling beneath the ASTs was recommended to confirm or refute any subsurface contamination. The CoPCs included petroleum hydrocarbons (PHCs), metals, and salinity.
- APEC 2: Due to the historic use of herbicides, from approximately 1975 to 2017, as part of the Property's Raspberry U-Pick operation, confirmatory soil sampling was recommended in the areas of the historic raspberry canes to confirm the presence or absence of any residual herbicide accumulation.
- APEC 3: Due to the age of several property buildings (house, garage, Quonset, "chicken barn," old garage), there is potential for hazardous building materials (asbestos-containing materials, lead-containing material, polychlorinated biphenyls, and urea formaldehyde foam insulation). Before any renovations or demolition activities are considered, a hazardous building materials assessment, completed by a qualified professional, was recommended.

In September 2022, WSP conducted a Phase II Environmental Site Assessment to address the three APECs. Three boreholes were drilled in the APEC-1 area (ASTs) for assessment of PHC impacts, and nine near surface soil samples were collected within the APEC-2 areas (historical raspberry cane areas with historical herbicide applications) for

assessment of herbicide parameters. Laboratory analytical results indicated that both parameters in soil samples were below the laboratory's analytical method detection limits and the applied regulatory guidelines. Based on the results, no additional soil assessment work is recommended in the APEC-1 and APEC-2 areas of the Property. APEC-3 (hazardous building materials at several Property buildings) has been addressed.

<i>Policy 4.6.1</i>	<i>Future development of Cells B and C in Figure 6 – Development Concept within the Conceptual Scheme shall complete a Biophysical Impact Assessment, a Wetland Assessment and Impact Report, and a Phase I Environmental Site Assessment prior to future subdivision and development to the satisfaction of Parkland County and Alberta Environment and Parks.</i>
<i>Policy 4.6.2</i>	<i>Subdivision applications and development permits for Development Cell A (Figure 6 – Development Concept) shall be consistent with the recommendations outlined in the Biophysical Assessment (Stantec – August 9, 2023), to the satisfaction of Parkland County.</i>
<i>Policy 4.6.3</i>	<i>Subdivision applications and development permits for Development Cell A (Figure 6 – Development Concept) shall be consistent with the recommendations outlined in the Wetland Assessment and Impact Report (Stantec – August 2023), to the satisfaction of the Parkland County.</i>
<i>Policy 4.6.4</i>	<i>Wetland compensation plans shall be created by the developers where required and submitted to Parkland County and Alberta Environment and Parks for approval prior to subdivision endorsement.</i>
<i>Policy 4.6.5</i>	<i>Prior to subdivision and development application permits, the applicant shall carry out remediation work where environmental contamination has been identified within the Conceptual Scheme as it relates to the specific land.</i>
<i>Policy 4.6.6</i>	<i>As part of the subdivision approval process the developer shall provide documentation to Parkland County, where applicable, which confirms all on-site decommissioning or land reclamation required for non-operational infrastructure on a particular site has been completed and certificates of reclamation issued by Alberta Environment and Parks has been provided to Parkland County.</i>

4.7 Existing Transportation and Utility Considerations

Site Access and Roads

The main entrance to the property is currently located on the northern boundary line, through the existing residential property at 28971 Highway 16A. This access is paved from Highway 16A to the Conceptual Scheme boundary, where it transitions to a gravel access. A secondary gravel site access is located on the west side of Development Cell A, approximately 700 meters south of the intersection of HWY 16A and Spruce Valley Road (Range Road 265) and appears to only be used as a site access for agricultural equipment. These approaches will be eliminated or re-located during development of Cell A and upgrading of Spruce Valley Road.

The Plan area is bound by existing roadways on two sides:

- **Highway 16A** is a rural four-lane divided highway with a posted speed limit of 100 km/hr. An all-directional at grade intersection is currently constructed at Spruce Valley Road, and a right in/right out intersection is constructed at the 279 Street intersection.
- **Spruce Valley Road** is a north-south industrial collector roadway with a posted speed limit of 80 km/hr. It extends from approximately 1.75 km north of Highway 16A to south of Highway 628 and connects at Highway 16A with a two-way stop-controlled intersection.

A notable roadway for the Plan area also includes:

- **96th Avenue (Township Road 525A)** is an east-west two-lane undivided industrial collector roadway with a posted speed limit of 60 km/hr. This roadway provides access to the existing industrial development in Zone 5 with a signalized intersection connection to Highway 60. 96th Avenue currently terminates in a cul-de-sac at the east border of the Conceptual Scheme boundary, approximately 840 m east of Spruce Valley Road.

Water and Wastewater Servicing

The Plan area is currently not serviced by water, sanitary sewer, or storm sewer. However, two 300mm Diameter PVC C900 DR 18 Water Mains reside on the east side of the property within the 96th Avenue and 99th Avenue road right-of-ways. Additionally, two 250mm Diameter PVC DR 35 Sanitary Mains also reside on the east side of the property within the 96th Avenue and 99th Avenue road right-of-ways (ROWS). Although there is no storm servicing currently within the Plan area, a 200mm diameter HDPE Storm Force Main connection is available to service the subject area and is located on the south-west side of the existing 96th Avenue cul-de-sac.

4.8 Existing Oil and Gas Infrastructure

An existing ATCO Gas line is located on the north side of the 99th and 96th Avenue ROW and can be utilized to service Development Cell A. Per the information received by AbaData, there is a low-pressure gas line and an abandoned gas line located on the north and west side of Cell A.

Research was also carried out from the Alberta Energy Regulator database that covered the entire Conceptual Scheme to identify the oil and gas infrastructure on the subject lands. There is no existing oil infrastructure besides four abandoned wells located in and near the conceptual scheme boundary shown in [Figure 4 – Oil & Gas Infrastructure](#).

Table 5 – Oil Wellheads

LAND DESCRIPTION	WELL ID	REGISTRAR	STATUS
13-32-052-26W4	0002313R	Chevron Canada Limited	Abandoned, reclamation exempt
04-05-053-26W4	0002597T	Imperial Oil Resources Limited	Abandoned, reclamation exempt
03-32-052-26W4	0028756	177293 Canada Ltd.	Abandoned, reclamation certified
02-32-052-26W4	0027590C	Teck Corporation	Abandoned, reclamation exempt

Policy 4.8.1

Future development surrounding abandoned well sites shall adhere to the policies and requirements established by the Alberta Energy Regulator. For abandoned well sites, a Phase II Environmental Site Assessment, proof of abandonment, provision of access, and demonstration of how the abandoned well can be accommodated within the subdivision plan must be provided prior to approval to adhere to the policies and requirements of the Alberta Energy Regulator.

5. DEVELOPMENT CONCEPT

5.1 Land Use Concept

In accordance with the Acheson Industrial Area Structure Plan, the location of anticipated land uses within the Plan area is illustrated in [Figure 5 – General Land Use Concept](#).

- **Policy Area – Commercial/Light Industrial** will accommodate those uses under the Business Industrial District of the Land Use Bylaw.

Policy 5.1.1 Land uses within the Conceptual Scheme area shall include a full range of business uses involving commercial and industrial developments which are consistent with the policies of the Acheson Industrial Area Structure Plan.

Policy 5.1.2 Land uses within the Policy Area: Commercial/Light Industrial shown in [Figure 5 – General Land Use Concept](#) shall include a variety of lot sizes and parcel configurations that can accommodate a wide range of Business Industrial Uses.

5.2 Subdivision & Development Concept Design

Guided by the Acheson Industrial ASP and this Conceptual Scheme, redistricting and subdivisions must conform to the Parkland County Land Use Bylaw and all applicable statutory plans in addition to the informational requirements necessary for each application.

The anticipated subdivision configuration will implement the general land uses shown in [Figure 5 – General Land Use Concept](#). Given the large area included within the Conceptual Scheme boundary, the specific illustration of anticipated lot layouts has not been defined at this scale. Instead, detailed parcel configurations will be established through future subdivision applications.

Policy 5.2.1 Future lots sizes and configurations shall be determined at the time of subdivision and may include a mix of small, medium, and large lots for industrial and commercial development based on market demand at the time of development.

Policy 5.2.2 Proposed parcels may include Commercial, and Light Industrial development that shall be in accordance with the policies of the Acheson Industrial Area Structure Plan and minimum requirements of the applicable District as outlined in the Parkland County Land Use Bylaw.

Policy 5.2.3 Proposed parcels within the Industrial Frontage shall comply with the regulations outlined in Section 10.4 of the Parkland County Land Use Bylaw.

Policy 5.2.4 All developments in the Conceptual Scheme area shall be required to meet landscaping standards as per the Parkland County Land Use Bylaw, and where possible are encouraged to enhance site landscaping of individual lots where lots have high visibility.

5.3 Development Statistics

The following [Table 7 – Development Statistics](#) describes the total Gross Area and Net Developable Areas of the proposed conceptual scheme.

Table 7 – Development Statistics

LAND USE STATISTICS	AREA (HA)	% of GA	% of GDA
GROSS AREA (HA) – Undeveloped Lands	190.3	100%	
Existing Roadway (Spruce Valley Road)	1.67	0.88%	
GROSS DEVELOPABLE AREA	188.61	99.13%	100.00%

Development Cells

Cell A	49.44	25.98%	26.21%
Cell B	56.12	29.49%	29.75%
Cell C	56.40	29.63%	29.90%
PUL/SWMF	14.67	7.71%	7.78%
Public Roads			
Major Industrial Collector	9.53	5.01%	5.05%
Local Industrial	2.45	1.29%	1.30%

Note: All land areas in this table are based on cadastral information and may vary (+/-) from legal land titles.

5.4 Municipal Reserve and Open Spaces

In accordance with Parkland County Policy C-PD15 and the Municipal Government Act Section 666, 10% Municipal Reserve will be provided as money in the absence of land. During development situations may arise where the developer owns other lands within the County that are considered beneficial to the County's Municipal Reserve Policy and could be dedicated in exchange for money payment required.

Policy 5.4.1 *In accordance with Parkland County Policy PD15, developers of the Conceptual Scheme shall pay money-in-place of Municipal Reserve dedication in lieu of land dedication. Parkland County Council may consider accepting equivalent land of Municipal Reserve value beyond the subject lands.*

Policy 5.4.2 *At each phase of development, payments of Money-in-Place of Municipal Reserve contribution shall be determined prior to conditional approval of subdivision for the phase of development being carried out and shall be paid to Parkland County prior to subdivision endorsement.*

5.5 Environmental Reserve and Wetland Compensation

Wetland Compensation

As shown in Table 5 – Upland, Wetland and Ephemeral Waterbody Classification and Affected Area, the Wetland Assessment and Impact Report identified seven wetlands within Cell A. The assessment identified seven wetlands (two temporary graminoid marshes, three seasonal graminoid marshes, one seasonal shrubby swamp and one seasonal wooded deciduous swamp) and three ephemeral waterbodies.

The entirety of wetlands WL1, WL2, WL6, WL8, WL9, WL10, WL11 totaling 5.57 ha of wetland area will be replaced through in-lieu payment to Alberta Environment and Protected Areas (EPA). Anticipated wetland impacted areas and replacement values for each wetland are summarized in Table 7. A Water Act application will be submitted for the Project and wetland replacement fees will be paid following the guidance outline within the Alberta Wetland Replacement Options document. In-lieu fee payment is not required for ephemeral waterbodies.

None of the wetlands within Cell A appear to be reasonably permanent, and therefore do not meet the criteria for a Crown ownership claim under Section 3 of the Public Lands Act and the Guide for Assessing Permanence of Wetland Basins.

Table 7 – Wetland Replacement Value

Wetland ID	Wetland Classification	ABWRET-A Value	Replacement Ratio	Replacement Wetland Area (ha)	Replacement Rate (\$/ha)	Replacement Value (\$)
WL1	MGIII	C	2:1	3.78	19,100	144,396.00
WL2	MGIII	C	2:1	0.69	19,100	26,358.00

WL6	SSIII	D	2:1	0.14	19,100	2,674.00
WL8	MGII	D	2:1	0.25	19,100	4,775.00
WL9	MGIII	D	2:1	0.31	19,100	5,921.00
WL10	SWdIII	D	2:1	0.31	19,100	5,921.00
WL11	MGII	D	2:1	0.09	19,100	1,719.00
				Total	5.57	-
						GST
						9,588.20
						Wetland Replacement Fee + GST
						201,352.20

Policy 5.5.1 Landowners shall obtain the necessary Water Act approvals prior to construction and/or development permit where applicable to the subject lands and such approvals shall be provided to Parkland County.

Policy 5.5.2 Lost wetland areas shall be compensated in accordance with Provincial wetland policies and regulations.

Policy 5.5.3 Wetland compensation arrangements with the Province shall be established prior to subdivision application where applicable to the subject lands.

Policy 5.5.4 Any clearing of vegetation should occur between September 1 through to January 31 and clearing of vegetation beyond this timeframe shall require the employment of a qualified biologist to verify that no nesting migratory birds are harmed or disturbed.

6. TRANSPORTATION

6.1 Transportation Concept

The transportation concept has been largely guided by the proposed improvements to Spruce Valley Road (Range Road 265) and its alignment with Parkland County's Transportation Master Plan. The extensions of 99th Avenue and 96th Avenue have been aligned based on the existing roads for the development of the overall Plan area. In particular, the improvement to Spruce Valley Road and the extension of 96th Avenue adheres to the planned future collector road shown in [Map 8 | Transportation Network](#) in the Acheson Industrial ASP.

The generalized transportation network proposed for the Conceptual Scheme area is identified in [Figure 7 – Transportation Network](#), which shows the area being serviced by Spruce Valley Road and 96th Avenue. Internal roads have been conceptually identified in Cell A. Cells B and C will provide greater detailed design and road connections at the subdivision stage that aligns with [Figure 7 – Transportation Network](#).

6.2 Traffic Analysis

Stantec Consulting Ltd. completed a Traffic Analysis in May 2023 that references the Acheson and Big Lakes Traffic Impact Assessment completed in 2018. The report covered the Acheson and Big Lakes areas and took into account the potential traffic generation arising from the development of the Plan area. In particular, it focuses on three key roads and identified the work that would need to be carried out to address the near and long-term development. Separate from this application, the County has been working with Alberta Transportation in creating a full traffic light intersection at the Highway 16A and Spruce Valley Road intersection.

Policy 6.2.1	<i>The future roadway network and key intersections in the Conceptual Scheme area shall be designed and constructed to accommodate all roadway users at a safe and satisfactory level of transportation services.</i>
Policy 6.2.2	<i>As part of the subdivision approval process the developer shall provide documentation to Parkland County, where applicable, which confirms that the developer has obtained all Alberta Transportation approvals and roadside development permits and complies with applicable Alberta Transportation plans.</i>
Policy 6.2.3	<i>Subdivision applications and development permits for Development Cell A (Figure 6 – Development Concept) shall be consistent with the recommendations outlined in the Traffic Analysis (Stantec Consulting Ltd. – May 4, 2023), to the satisfaction of Parkland County.</i>
Policy 6.2.4	<i>Future development of Development Cells B and C in Figure 6 – Development Concept within the Conceptual Scheme shall complete a Traffic Impact Assessment in accordance with the Acheson and Big Lakes Traffic Impact Assessment prior to future subdivision and development.</i>

6.3 Vehicular Access to the Conceptual Scheme Area

Access into Development Cell A is currently located on the northern boundary line, through the existing residential property at 28971 Highway 16A. A secondary private gravel site access is located on the west side of Cell A approximately 700 meters south of the intersection of HWY 16A and Spruce Valley Road and appears to only be used as a site access for agricultural equipment. Other cells within the Conceptual Scheme can be accessed through the extension of 96th Avenue and 99th Avenue.

Highway 16A, previously protected as a future freeway, is being downgraded to an "Expressway" designation, allowing at-grade access to remain along the corridor. Along with the highway downgrade, Parkland County is planning upgrades to Spruce Valley Road and its intersection with Highway 16A separate from this Conceptual Scheme. This will include widening the roadway as it approaches Highway 16A and signalization of the intersection. Design is currently underway for these improvements.

- Policy 6.3.1* Prior to construction Alberta Transportation shall approve the detailed design for improvements to the Spruce Valley Road and Highway 16A intersection.
- Policy 6.3.2* Parkland County's Off-site Transportation Levy shall be calculated and applied at the time of subdivision and/or development permit.

6.4 Internal Vehicular Circulation and Access

Collector and Local Industrial Roadways

As part of this Conceptual Scheme, 96th Avenue will be extended from its current terminus at Range Road 525A to Spruce Valley Road, where it will connect as a T-intersection with stop control in the westbound direction. Ultimately, 96th Avenue will continue to extend west to Spruce Grove; however, this is beyond the horizon of the TIA analysis (20+ years).

It is not anticipated that direct access will be provided to Spruce Valley Road outside of the extensions of 96th Avenue and 99th Avenue. The extensions of these roads are the logical progression of the existing industrial development east of the Conceptual Scheme boundary. The transportation concept conforms with the Acheson Industrial ASP, as Spruce Valley Road and 96th Avenue are identified as future collector roads.

A local road has been conceptually identified within Development Cell A as an extension of 99th Avenue. Development Cells B and C will provide greater detailed design and road connections at the subdivision stage to align with [Figure 7 – Transportation Network](#).

- Policy 6.4.1* Internal road alignments shall be determined and finalized at the time of subdivision. Changes to the internal road layout identified in [Figure 7 – Transportation Network](#) shall not require amendments to this Conceptual Scheme.
- Policy 6.4.2* All internal roadways shall meet the specifications determined in Parkland County's Engineering Design Standards.
- Policy 6.4.3* All dead-end roads, whether temporary or permanent, shall include a cul-de-sac turnaround, with a minimum radius as required under Parkland County's Engineering Design Standards.

7. SERVICING SCENARIO

The servicing provided in the Plan is largely based on studies already completed for the Acheson area. These studies are referenced in the following.

Policy 7.0.1 *The developer, prior to subdivision endorsement, shall be required to enter into a Development Agreement with Parkland County regarding all off-site infrastructure and construction.*

7.1 Potable Water Supply and Fire Hydrants

Referencing the 2022 Acheson & Big Lake Area Water System Study, in combination with the “issued for construction” data provided by Parkland County, two existing water mains that terminate on the eastern boundary of the Conceptual Scheme area are available to service the proposed development as shown in [Figure 9 – Water Network](#). The first connection is from an existing 300mm diameter PVC main, reduced from 400mm, located within the 99th Avenue Road right-of-way (ROW) and extends approximately 6.0 meters into Cell A. The second connection location is from a 300mm diameter PVC main located within the 96th Avenue ROW and extends west into Cell A approximately 5.0 meters. The two connections will be utilized for the development of Cell A to loop the water main network as required by Parkland County standards. Hydrants are proposed to be placed along Spruce Valley Road and on the extensions of 96th Avenue and 99th Avenue.

The image below shows the Ultimate Water Distribution System as presented in the 2022 Acheson & Big Lake Water System Study, as well as, the color scheme noted below for the Near Future, Long Term and Ultimate Development staging scenarios. Three Development Staging Scenarios were modelled in the 2022 Acheson & Big Lake Area Water System Study. These scenarios are as follows:

- Near Future Development (5 - 10 years) – Identified as Green Shading
- Long Term Development (10 - 25 years) – Identified as Purple Shading
- Ultimate Development (26 years +) – Identified as Blue Shading

The Ultimate Development scenario was referenced to determine the ultimate water main sizing and alignment requirements within Development Cell A and to ensure provisions were provided for the future development of Cells B and C.

Modified from Figure 4.10 Acheson and Big Lake Area Water Servicing Study 2022.



<i>Policy 7.1.1</i>	<i>The Conceptual Scheme area shall be serviced with potable water by Parkland County's Acheson and Big Lake Area Water System.</i>
<i>Policy 7.1.2</i>	<i>Subdivision applications and development permits for Development Cell A (Figure 6 – Development Concept) shall be consistent with the recommendations outlined in the Site Servicing & Stormwater Management Report (V3 Companies of Canada – August 9, 2023), to the satisfaction of Parkland County.</i>
<i>Policy 7.1.3</i>	<i>At the time of subdivision, the Developer shall provide modelling data for water services. This data will be provided to the County's engineering consultant maintaining the servicing models for the Acheson area, and any required improvements identified in the updated model shall be required as a condition of subdivision approval.</i>
<i>Policy 7.1.4</i>	<i>Future development of Cells B and C in Figure 6 – Development Concept within the Conceptual Scheme shall complete a Site Servicing and Stormwater Management report prior to future subdivision and development.</i>
<i>Policy 7.1.5</i>	<i>All potable water infrastructure within the Conceptual Scheme area shall be constructed by the developer to the satisfaction of Alberta Environment and Parks and Parkland County in accordance with the most current Acheson and Big Lakes Area Water Servicing Study.</i>
<i>Policy 7.1.6</i>	<i>The potable water distribution system shall accommodate minimum design requirements necessary to provide appropriate fire suppression within the Conceptual Scheme area.</i>
<i>Policy 7.1.7</i>	<i>During the detailed design of the proposed subdivision, Parkland County's Hydraulic Network Analysis model shall be utilized to confirm pipe sizing. The general configuration of the water infrastructure system required to service the Conceptual Scheme area is illustrated in Figure 9 - Water Network.</i>
<i>Policy 7.1.8</i>	<i>Parkland County's Off-Site Water Levy shall be calculated and applied at the time of subdivision and /or development permit.</i>

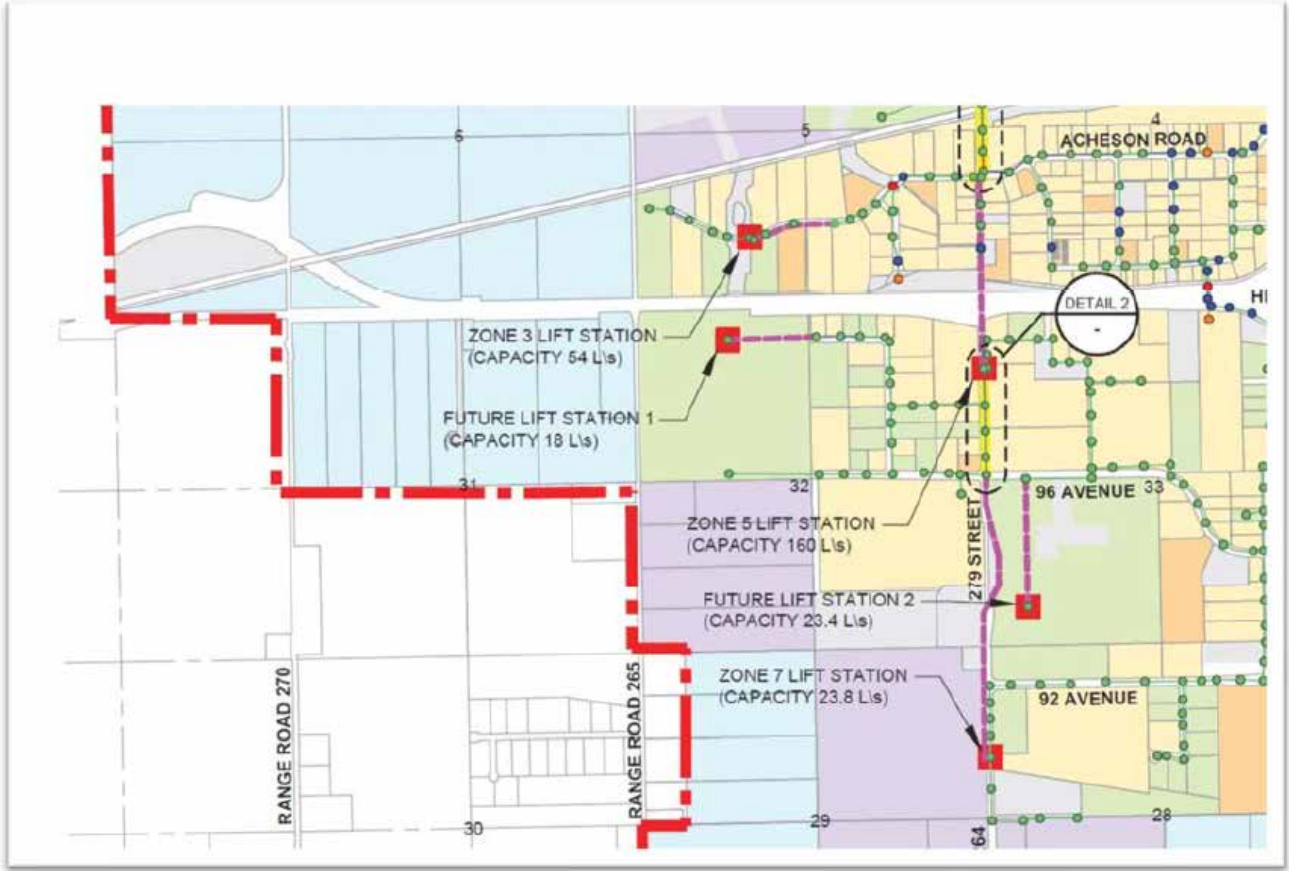
7.2 Wastewater Management

Referencing the 2022 Acheson & Big Lake Area Wastewater System Study, XP-SWMM modelling was used to develop detailed sanitary models of the existing, near future, long term, and ultimate development scenarios to conduct a wastewater demand analysis and examine the systems performance for various rainfall events. For the purpose of determining potential inflow and infiltration into the sanitary system, the "Chicago" distribution was adopted for the 4-hour rainfall event and the "Huff" distribution was adopted for the 24-hour event. Of the four events chosen (dry weather flow, 5-year 4-hour event, 25-year 24-hour event, 25-year 4-hour event), the 25-year 4-hour rainfall event was determined to be the governing rainfall event and was used to model the future development scenarios. The existing and proposed sanitary servicing for the Conceptual Scheme is shown in [Figure 10 – Sanitary Network](#).

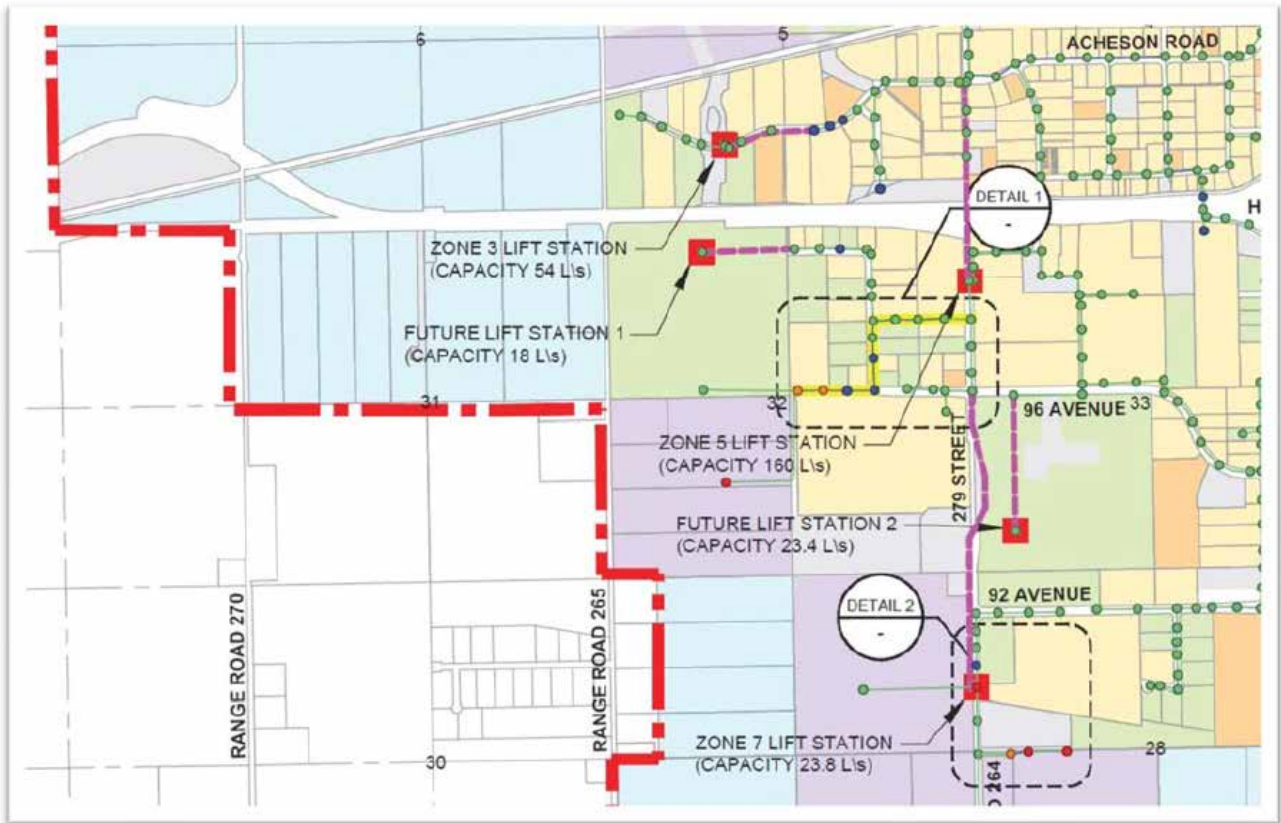
99th Avenue Servicing

The sanitary main located within the 99th Avenue Road ROW will be used to service the majority of Cell A, and ultimately Cell B of the Conceptual Scheme. As shown in the Near Future and Long Term Wastewater System Models presented in the 2022 Acheson & Big Lake Wastewater Study, a sanitary lift station will be required to be constructed to service Development Cell A. Upgrading of the downstream sanitary systems with the Near Future and Long Term developments will also be required. The recommended sanitary system upgrades impacted by the proposed Conceptual Scheme are identified in the two images below.

Modified from Figure 4.3 Acheson and Big Lake Area Water Servicing Study 2022.



Modified from Figure 4.5 Acheson and Big Lake Area Water Servicing Study 2022.



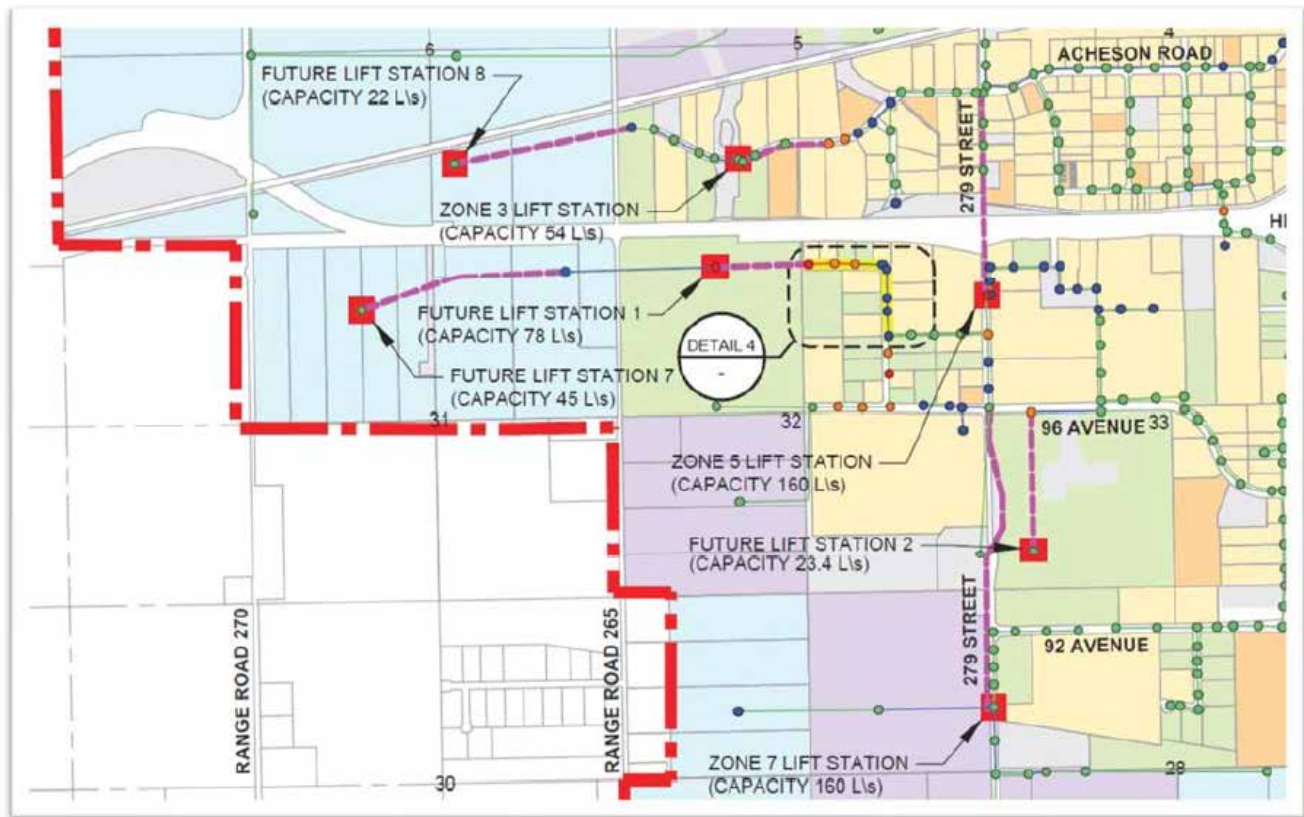
96th Avenue Servicing

The sanitary main located within the 96th Avenue Road ROW will be used to service a proposed 1.5 ha parcel of land in Development Cell A. Full development of this property is expected to produce approximately 0.75 L/s of wastewater. Referencing the *Beacon Industrial Park - Issued for Construction drawings*, the existing sanitary main has an additional available capacity of 15.63L/s (31.46L/s – 15.83L/s). As the generated sanitary sewer flow from this parcel of land is relatively small, it is anticipated that the additional contribution will have minimal impact on the downstream sanitary network.

Ultimate Design

As shown in the image below, the Ultimate Wastewater sewer servicing consists of a combination of gravity sewers, lift stations, and force mains. The sanitary sewer main from 99th Avenue will extend through Cell A, and into Cell B and an additional quarter section to the west of the Conceptual Scheme boundary. Due to the relatively flat topography in the area, Future Lift Station No.7 is to be incorporated into the Ultimate Wastewater System and Lift Station No.1 is to be constructed within Development Cell A to facilitate Near-Future and Long Term development. Development Cell C property will be serviced by the existing sanitary main located within 96th Avenue. The existing system will be upgraded as part of the Long Term development strategy.

Modified from Figure 4.7 Acheson and Big Lake Area Water Servicing Study 2022.



Policy 7.2.1 The Conceptual Scheme area shall be primarily serviced by the sanitary main located within the 99th Avenue Road ROW. The general configuration of the wastewater infrastructure system required to service the Conceptual Scheme area is illustrated in *Figure 10 – Sanitary Network*.

Policy 7.2.2 At the time of subdivision, the Developer shall provide modelling data for sanitary services. This data will be provided to the County's engineering consultant maintaining the servicing models for the Acheson area, and any required improvements identified in the updated model shall be required as a condition of subdivision approval.

Policy 7.2.3 All wastewater infrastructure within the Conceptual Scheme area shall be constructed by the developer to the satisfaction of Alberta Environment and Parks and Parkland County in accordance with the most current Acheson and Big Lake Area Sanitary Sewer Servicing Study.

Policy 7.2.4 Parkland County's Off-Site Sanitary Sewer Levy shall be calculated and applied at the time of subdivision and/or development permit.

7.3 Stormwater Management

Currently, no stormwater services have been provided directly to the Conceptual Scheme area. Surface runoff generated during minor and major storm events (1:5-year & 1:100-year) will be collected by drainage ditches adjacent to the internal Cell A road network, where it will be directed to and detained in the proposed Storm Water Management Facility (SWMF) located on the east side of Cell A. This location was selected for the proposed SWMF in Cell A as it is the natural low-lying area of the Conceptual Scheme area and is conducive to supporting the construction of this facility and the Wagner Natural Area Recharge Zone. In accordance with the Acheson Industrial Area Structure Plan, additional storm water management facilities will be required for Cells B and C.

All of the SWMFs will not be lined in order to sustain the permeability of the ground to help mitigate the decreased recharge from development to the Wagner Natural Area's Recharge Zone in accordance with the recommendations of the Hydrogeotechnical report for Cell A. Water will drain into the SWMF by gravity and will seep into the ground, unless a major storm event occurs that causes the water levels of the SWMF to exceed the normal water level. For the proposed SWMF in Cell A, the excess water will be diverted to Big Lakes Storm Sewer Trunk Main if the normal water levels are exceeded. When this occurs, the water will drain into the proposed onsite storm lift station, where it will be pumped through a 200mm diameter HDPE DR 11 force main at a controlled rate into an existing 200mm diameter HDPE DR 11 force main located near the south-east corner of Cell A. Through this process, the SWMF will retain water to aid in maintaining recharge of the Wagner Natural Area Recharge Zone.

According to the *Acheson Storm-Water Outfall Construction Record Drawings* provided by Parkland County in Cell A, an existing 500mm diameter force main parallels the existing 96th Avenue roadway through the adjacent development. From this existing force main, two 200mm diameter HDPE DR 11 force main stubs were constructed to facilitate future developments, and currently terminate south-west of the existing 96th Avenue cul-de-sac. One of these services is to accommodate Development Cell A, while the other is to service the development that will occur in Development Cell C.

This 500mm diameter force main, as described in the *Acheson/Big Lake Basin 1 Stormwater Summary Report*, is referred to as the Stage 1 Collector Trunk and was constructed in 2015-2016. It was designed to accept pumped flows from all SWMFs within Acheson Zone 5 at their maximum allowable discharge rate. Industrial Area Zones can be viewed in the image below for reference.

Modified from Figure 2.1 Acheson/Big Lake Basin 1 Stormwater Summary Report, March 2018.



- Policy 7.3.1** The proposed stormwater management collection system within the Conceptual Scheme area will be as generally illustrated in Figure 8 – Stormwater Management Plan. The final location and size of the stormwater ponds shall be determined at detailed design.
- Policy 7.3.2** Each stormwater management facility shall be constructed within a Public Utility Lot (PUL) to be dedicated to Parkland County at the subdivision stage.
- Policy 7.3.3** Stormwater management facilities completed within the Conceptual Scheme area shall be designed and constructed in accordance with Alberta Environment and Parks and Parkland County Standards.
- Policy 7.3.4** The stormwater management system shall be designed and constructed to meet or exceed Parkland County's Engineering Design Standards as well as Alberta Environment and Parks stormwater management and stormwater quality requirements for Acheson Big Lake Storm Basin.
- Policy 7.3.5** At the time of subdivision, the Developer shall provide modelling data for stormwater services. This data will be provided to the County's engineering consultant maintaining the servicing models for the Acheson area, and any required improvements identified in the updated model shall be required as a condition of subdivision approval.
- Policy 7.3.6** Future stormwater management facilities completed within the Conceptual Scheme area shall be designed to allow for natural filtration into the Wagner Natural Area Recharge Zone.
- Policy 7.3.7** Release rates for the proposed stormwater network shall conform to the rates per the most current Acheson/Big Lake Basin 1 Stormwater Summary Report (Section 4.3).
- Policy 7.3.8** Parkland County's Off-Site Stormwater Management Levy shall be calculated and applied at the time of subdivision and/or development permit.

7.4 Community Support Infrastructure

Fire Response:

The Conceptual Scheme area is located within a 10-minute response of the Acheson Fire Department located on Township Road 531A.

Police Response:

Police service will be provided by the nearest Royal Canadian Mounted Police (Detachments in Spruce Grove and Stony Plain) and supplemented by the County's Peace Officers.

Emergency Service Response:

Emergency services will be provided through 911 call and serviced from Stony Plain or City of Edmonton.

Solid Waste Management:

Solid Waste Management will be the responsibility of each property owner.

7.5 Shallow Utilities

Shallow utilities will be provided to the proposed development from the providers currently servicing Parkland County. Details of the servicing will be determined during the detailed design of the subdivision phases.

Policy 7.5.1 *Shallow utilities shall be provided within the Conceptual Scheme area at the sole expense of the developer within appropriate road right-of-way and within easements on private property established at the detailed subdivision design stage to the satisfaction of the utility providers for Parkland County.*

7.6 Site Grading

Proposed road grades and drainage courses will take into consideration the existing topography to minimize grading requirements over the Conceptual Scheme area. Final stripping and grading of roadways, stormwater management easements, PULs, and common stormwater facilities will occur at the subdivision stage. On-site grading within individual lots will be completed at the time of development permit approval.

Policy 7.6.1 *Prior to stripping and grading of Development Cell A, a grading plan and erosion and sediment control report shall be submitted to the satisfaction of Parkland County. This plan shall depict road and swale grades and include public utility lot areas, stormwater management plans and an erosion and sediment control plan and shall be approved by Parkland County.*

Policy 7.6.2 *Site grading is to take into consideration existing topography to minimize grading requirements over the Conceptual Scheme area.*

Policy 7.6.3 *A stripping and grading permit issued by Parkland County shall be in place prior to any soils being removed from the Conceptual Scheme Area.*

8. IMPLEMENTATION

8.1 Development Phasing

Figure 6 - Development Concept shows the different Development Cells and the overall phasing and direction of development within the three main quarter sections that make up the Conceptual Scheme area. It is anticipated that development will progress from Development Cell A and slowly progress through to Development Cell B and then either continue at the same or different stages over Development Cell C. Phasing of development within each cell will be determined during the detailed design stages. The overall timing of development is anticipated to be between 5 to 20 years dependent on market demand.

Considerations to Apply to All Development Cells:

CONSTRAINT	ISSUE	MITIGATION STRATEGY
Oil and Gas wellheads (Discontinued)	Where existing oil and gas pipelines are discontinued that may be retained within the ground. Development cannot occur with 5m of a decommissioned well head without the approval of the Alberta Energy Regulator.	Restrictive Covenant to be put in place through the subdivision process to protect requirements and guidelines of the Alberta Energy Regulator.
Wagner Natural Area's recharge area	Decrease in groundwater may decrease the water infiltration into the Wagner Natural Area.	The development of these lands will include policy that encourages natural filtration where possible within the design.
Multiple Land Owners (in Cells B and C)	Integrated development of services and lot layout.	Requirement for development to be enabled when planned infrastructure is implemented within the Conceptual Plan.

8.2 Development Cell A

Access

Access will be achieved through the intersection of Highway 16A and Spruce Valley Road and the extension of 99th Avenue, as well as 96th Avenue as shown on Figure 7 – Transportation Network. 99th Avenue and 96th Avenue will extend west through Development Cell A and connect to Spruce Valley Road. The existing intersection of Highway 16A and Spruce Valley Road are undergoing improvements in accordance with the MDP, the Acheson Industrial ASP, and the Transportation Master Plan. Spruce Valley Road will undergo additional improvements to accommodate for the extension of 99th Avenue and 96th Avenue.

Oil and Gas

As indicated on Figure 4 – Oil and Gas Infrastructure the existing wellheads are abandoned. There are two abandoned wellheads on ROWs in the north between Development Cells A and B.

Wagner Natural Area

A main constraint on this land is the Wagner Natural Area Recharge Zone and the impact arising from development. To resolve this challenge, there is policy within this Plan that encourages infrastructure to sustain natural infiltration for groundwater. The water from the Plan area will drain into the proposed stormwater management facility within Development Cell A. To encourage permeability into the groundwater, the SWMF will not be lined.

INFRASTRUCTURE	Cell A	Action
Abandoned Wellheads (Located within the existing ROW)	2	No change - leave them capped and maintain a 5 m setback.

8.3 Development Cell B

Access

Access to Cell B will be from the intersection of Highway 16A and Spruce Valley Road and through Development Cell A from 99th Avenue and 96th Avenue. Additional access to Development Cell B may occur in future stages of development.

Other Constraints

Within Cell B, there are constraints relating to the Wagner Natural Area Recharge Zone that will require a similar approach to Cell A. Additionally, Cell B is comprised of four (4) titles with different landowners and moving forward, to enable effective use of the land, requires looking at the entire quarter section. The Conceptual Scheme contains policies requiring subdivision and development to only occur to the entire quarter section, or an area at the discretion of the County, at the time of rezoning and/or subdivision of the lands. Prior to development of Cell B, additional analysis and technical studies of the area will have to be completed in accordance with policy contained within this Plan.

8.4 Development Cell C

Access

The main access to Cell C is via the extension of 96th Avenue. Additional access can be achieved through the intersection of Highway 16A and Spruce Valley Road and will be further determined during detailed design of Cell C.

Oil and Gas

INFRASTRUCTURE	Cell C	Action
Abandoned Wellheads	2	No change - leave them capped and maintain a 5 m setback.

Other Constraints

There are two abandoned wellheads where development cannot occur within 5 m of the wellhead. Additionally, Wagner Natural Area Recharge Zone and the impact arising from development will require a similar approach to Cell A. Development Cell C is also comprised of four (4) titles with different landowners which will require development and subdivision within the entire quarter section to be cohesive to enable effective use of the land. The Conceptual Scheme contains policies requiring subdivision and development to only occur to the entire quarter section, or an area at the discretion of the County, at the time of rezoning and/or subdivision of the lands. At this time, the development and design of the Cell C has not been pursued, therefore prior to development of Cell C, analysis and technical studies of the area will have to be completed.

Policy 8.4.1 All development shall, where required for the specific lands being developed within the Conceptual Scheme, obtain provincial and federal approvals prior to development and such approvals shall be provided to Parkland County.

9. SUMMARY OF POLICY STATEMENTS

<i>Policy 1.3.1</i>	<i>Policies contained within the Conceptual Scheme shall apply to all lands within the Conceptual Scheme area.</i>
<i>Policy 1.3.2</i>	<i>This Conceptual Scheme shall enable redistricting of Parkland County's Land Use Bylaw in accordance with the designated land uses outlined in Figure 5 – General Land Use Concept.</i>
<i>Policy 1.3.3</i>	<i>Development of Cells B and C shall only proceed when developing the quarter section as a whole, unless agreed to by Parkland County on a reduced area, and upon completion of the required technical reports and approval of the County.</i>
<i>Policy 2.1.1</i>	<i>The Conceptual Scheme and the land development it generates shall conform to both the Edmonton Metropolitan Region Growth Plan and the Municipal Government Act.</i>
<i>Policy 2.4.1</i>	<i>Prior to any land development activities occurring within the Conceptual Scheme area, amendments to the districting of Parkland County's Land Use Bylaw, if required, shall be completed to ensure the districting is consistent with the designated purposes outlined in Figure 5 – General Land Use Concept of this Conceptual Scheme.</i>
<i>Policy 3.3.1</i>	<i>Policies regarding the Wagner Natural Area Recharge Zone apply to all lands that are included in the defined boundaries indicated by Map 5 – Environmental Features of the Acheson Industrial Area Structure Plan.</i>
<i>Policy 3.4.1</i>	<i>Future development of Cells B and C in Figure 6 – Development Concept within the Conceptual Scheme shall obtain a Historic Resource Clearance Certificate prior to future subdivision and development to the satisfaction of the Historic Resources Act.</i>
<i>Policy 3.4.2</i>	<i>Should any historical resources be encountered during construction, Parkland County and Alberta Environment and Parks shall be contacted immediately.</i>
<i>Policy 4.1.1</i>	<p><i>Future development of Cells B and C (Figure 6 – Development Concept) within the Conceptual Scheme must complete the following required technical reports prior to future subdivision and development:</i></p> <ul style="list-style-type: none"> <i>• Geotechnical Report</i> <i>• Hydrogeotechnical report;</i> <i>• Traffic Impact assessment;</i> <i>• Comprehensive Biophysical Assessment;</i> <i>• Phase I Environmental Site Assessment; and</i> <i>• Site Servicing and Stormwater Management report.</i>
<i>Policy 4.3.1</i>	<i>Subdivision applications and development permits for Development Cell A (Figure 6 – Development Concept) shall be consistent with the recommendations outlined in the Geotechnical Site Investigation (ProtechGeo & Material Testing Ltd. - May 19, 2023), to the satisfaction of Parkland County.</i>
<i>Policy 4.3.2</i>	<i>Future development of Cells B and C in Figure 6 – Development Concept within the Conceptual Scheme shall complete a Geotechnical Assessment prior to future subdivision and development.</i>
<i>Policy 4.3.3</i>	<i>For the development of individual lots, site-specific geotechnical investigation shall be provided at the Development Permit stage.</i>
<i>Policy 4.4.1</i>	<i>Subdivision applications and development permits for Development Cell A (Figure 6 – Development Concept) shall be consistent with the contents outlined in the Groundwater Recharge Assessment (Groundwater Resources Information Technologies Ltd. – July 26, 2023), to the satisfaction of</i>

	<i>Parkland County.</i>
<i>Policy 4.4.2</i>	<i>Future development of Cells B and C in Figure 6 – Development Concept within the Conceptual Scheme shall complete a Hydrogeotechnical Assessment prior to future subdivision and development.</i>
<i>Policy 4.4.3</i>	<i>All future developments in the Conceptual Scheme area shall be required to mitigate the impacts on the aquifer at all development stages. Onsite containment systems, where applicable, may be required to be used by developments to minimize seepage of materials into groundwater systems.</i>
<i>Policy 4.6.1</i>	<i>Future development of Cells B and C in Figure 6 – Development Concept within the Conceptual Scheme shall complete a Biophysical Impact Assessment, a Wetland Assessment and Impact Report, and a Phase I Environmental Site Assessment prior to future subdivision and development to the satisfaction of Parkland County and Alberta Environment and Parks.</i>
<i>Policy 4.6.2</i>	<i>Subdivision applications and development permits for Development Cell A (Figure 6 – Development Concept) shall be consistent with the recommendations outlined in the Biophysical Assessment (Stantec – August 9, 2023), to the satisfaction of Parkland County.</i>
<i>Policy 4.6.3</i>	<i>Subdivision applications and development permits for Development Cell A (Figure 6 – Development Concept) shall be consistent with the recommendations outlined in the Wetland Assessment and Impact Report (Stantec – August 2023), to the satisfaction of the Parkland County.</i>
<i>Policy 4.6.4</i>	<i>Wetland compensation plans shall be created by the developers where required and submitted to Parkland County and Alberta Environment and Parks for approval prior to subdivision endorsement.</i>
<i>Policy 4.6.5</i>	<i>Prior to subdivision and development application permits, the applicant shall carry out remediation work where environmental contamination has been identified within the Conceptual Scheme as it relates to the specific land.</i>
<i>Policy 4.6.6</i>	<i>As part of the subdivision approval process the developer shall provide documentation to Parkland County, where applicable, which confirms all on-site decommissioning or land reclamation required for non-operational infrastructure on a particular site has been completed and certificates of reclamation issued by Alberta Environment and Parks has been provided to Parkland County.</i>
<i>Policy 4.8.1</i>	<i>Future development surrounding abandoned well sites shall adhere to the policies and requirements established by the Alberta Energy Regulator. For abandoned well sites, a Phase II Environmental Site Assessment, proof of abandonment, provision of access, and demonstration of how the abandoned well can be accommodated within the subdivision plan must be provided prior to approval to adhere to the policies and requirements of the Alberta Energy Regulator.</i>
<i>Policy 5.1.1</i>	<i>Land uses within the Conceptual Scheme area shall include a full range of business uses involving commercial and industrial developments which are consistent with the policies of the Acheson Industrial Area Structure Plan.</i>
<i>Policy 5.1.2</i>	<i>Land uses within the Policy Area: Commercial/Light Industrial shown in Figure 5 – General Land Use Concept shall include a variety of lot sizes and parcel configurations that can accommodate a wide range of Business Industrial Uses.</i>
<i>Policy 5.2.1</i>	<i>Future lots sizes and configurations shall be determined at the time of subdivision and may include a mix of small, medium, and large lots for industrial and commercial development based on market demand at the time of development.</i>
<i>Policy 5.2.2</i>	<i>Proposed parcels may include Commercial, and Light Industrial development that shall be in accordance with the policies of the Acheson Industrial Area Structure Plan and minimum</i>

	<i>requirements of the applicable District as outlined in the Parkland County Land Use Bylaw.</i>
<i>Policy 5.2.3</i>	<i>Proposed parcels within the Industrial Frontage shall comply with the regulations outlined in Section 10.4 of the Parkland County Land Use Bylaw.</i>
<i>Policy 5.2.4</i>	<i>All developments in the Conceptual Scheme area shall be required to meet landscaping standards as per the Parkland County Land Use Bylaw, and where possible are encouraged to enhance site landscaping of individual lots where lots have high visibility.</i>
<i>Policy 5.4.1</i>	<i>In accordance with Parkland County Policy PD15, developers of the Conceptual Scheme shall pay money-in-place of Municipal Reserve dedication in lieu of land dedication. Parkland County Council may consider accepting equivalent land of Municipal Reserve value beyond the subject lands.</i>
<i>Policy 5.4.2</i>	<i>At each phase of development, payments of Money-in-Place of Municipal Reserve contribution shall be determined prior to conditional approval of subdivision for the phase of development being carried out and shall be paid to Parkland County prior to subdivision endorsement.</i>
<i>Policy 5.5.1</i>	<i>Landowners shall obtain the necessary Water Act approvals prior to construction and/or development permit where applicable to the subject lands and such approvals shall be provided to Parkland County.</i>
<i>Policy 5.5.2</i>	<i>Lost wetland areas shall be compensated in accordance with Provincial wetland policies and regulations.</i>
<i>Policy 5.5.3</i>	<i>Wetland compensation arrangements with the Province shall be established prior to subdivision application where applicable to the subject lands.</i>
<i>Policy 5.5.4</i>	<i>Any clearing of vegetation should occur between September 1 through to January 31 and clearing of vegetation beyond this timeframe shall require the employment of a qualified biologist to verify that no nesting migratory birds are harmed or disturbed.</i>
<i>Policy 6.2.1</i>	<i>The future roadway network and key intersections in the Conceptual Scheme area shall be designed and constructed to accommodate all roadway users at a safe and satisfactory level of transportation services.</i>
<i>Policy 6.2.2</i>	<i>As part of the subdivision approval process the developer shall provide documentation to Parkland County, where applicable, which confirms that the developer has obtained all Alberta Transportation approvals and roadside development permits and complies with applicable Alberta Transportation plans.</i>
<i>Policy 6.2.3</i>	<i>Subdivision applications and development permits for Development Cell A (Figure 6 – Development Concept) shall be consistent with the recommendations outlined in the Traffic Analysis (Stantec Consulting Ltd. – May 4, 2023), to the satisfaction of Parkland County.</i>
<i>Policy 6.2.4</i>	<i>Future development of Development Cells B and C in Figure 6 – Development Concept within the Conceptual Scheme shall complete a Traffic Impact Assessment in accordance with the Acheson and Big Lakes Traffic Impact Assessment prior to future subdivision and development.</i>
<i>Policy 6.3.1</i>	<i>Prior to construction Alberta Transportation shall approve the detailed design for improvements to the Spruce Valley Road and Highway 16A intersection.</i>
<i>Policy 6.3.2</i>	<i>Parkland County's Off-Site Transportation Levy shall be calculated and applied at the time of subdivision and/or development permit.</i>
<i>Policy 6.4.1</i>	<i>Internal road alignments shall be determined and finalized at the time of subdivision. Changes to the internal road layout identified in Figure 7 – Transportation Network shall not require amendments to this Conceptual Scheme.</i>

<i>Policy 6.4.2</i>	<i>All internal roadways shall meet the specifications determined in Parkland County's Engineering Design Standards.</i>
<i>Policy 6.4.3</i>	<i>All dead-end roads, whether temporary or permanent, shall include a cul-de-sac turnaround, with a minimum radius as required under Parkland County's Engineering Design Standards.</i>
<i>Policy 7.0.1</i>	<i>The developer, prior to subdivision endorsement, shall be required to enter into a Development Agreement with Parkland County regarding all off-site infrastructure and construction.</i>
<i>Policy 7.1.1</i>	<i>The Conceptual Scheme area shall be serviced with potable water by Parkland County's Acheson and Big Lake Area Water System.</i>
<i>Policy 7.1.2</i>	<i>Subdivision applications and development permits for Development Cell A (Figure 6 – Development Concept) shall be consistent with the recommendations outlined in the Site Servicing & Stormwater Management Report (V3 Companies of Canada – August 9, 2023), to the satisfaction of Parkland County.</i>
<i>Policy 7.1.3</i>	<i>At the time of subdivision, the Developer shall provide modelling data for water services. This data will be provided to the County's engineering consultant maintaining the servicing models for the Acheson area, and any required improvements identified in the updated model shall be required as a condition of subdivision approval.</i>
<i>Policy 7.1.4</i>	<i>Future development of Cells B and C in Figure 6 – Development Concept within the Conceptual Scheme shall complete a Site Servicing and Stormwater Management report prior to future subdivision and development.</i>
<i>Policy 7.1.5</i>	<i>All potable water infrastructure within the Conceptual Scheme area shall be constructed by the developer to the satisfaction of Alberta Environment and Parks and Parkland County in accordance with the most current Acheson and Big Lakes Area Water Servicing Study.</i>
<i>Policy 7.1.6</i>	<i>The potable water distribution system shall accommodate minimum design requirements necessary to provide appropriate fire suppression within the Conceptual Scheme area.</i>
<i>Policy 7.1.7</i>	<i>During the detailed design of the proposed subdivision, Parkland County's Hydraulic Network Analysis model shall be utilized to confirm pipe sizing. The general configuration of the water infrastructure system required to service the Conceptual Scheme area is illustrated in Figure 9 - Water Network.</i>
<i>Policy 7.1.8</i>	<i>Parkland County's Off-Site Water Levy shall be calculated and applied at the time of subdivision and /or development permit.</i>
<i>Policy 7.2.1</i>	<i>The Conceptual Scheme area shall be primarily serviced by the sanitary main located within the 99th Avenue Road ROW. The general configuration of the wastewater infrastructure system required to service the Conceptual Scheme area is illustrated in Figure 10 – Sanitary Network.</i>
<i>Policy 7.2.2</i>	<i>At the time of subdivision, the Developer shall provide modelling data for sanitary services. This data will be provided to the County's engineering consultant maintaining the servicing models for the Acheson area, and any required improvements identified in the updated model shall be required as a condition of subdivision approval.</i>
<i>Policy 7.2.3</i>	<i>All wastewater infrastructure within the Conceptual Scheme area shall be constructed by the developer to the satisfaction of Alberta Environment and Parks and Parkland County in accordance with the most current Acheson and Big Lake Area Sanitary Sewer Servicing Study.</i>
<i>Policy 7.2.4</i>	<i>Parkland County's Off-Site Sanitary Sewer Levy shall be calculated and applied at the time of subdivision and/or development permit.</i>

<i>Policy 7.3.1</i>	<i>The proposed stormwater management collection system within the Conceptual Scheme area will be as generally illustrated in Figure 8 – Stormwater Management Plan. The final location and size of the stormwater ponds shall be determined at detailed design.</i>
<i>Policy 7.3.2</i>	<i>Each stormwater management facility shall be constructed within a Public Utility Lot (PUL) to be dedicated to Parkland County at the subdivision stage.</i>
<i>Policy 7.3.3</i>	<i>Stormwater management facilities completed within the Conceptual Scheme area shall be designed and constructed in accordance with Alberta Environment and Parks and Parkland County Standards.</i>
<i>Policy 7.3.4</i>	<i>The stormwater management system shall be designed and constructed to meet or exceed Parkland County's Engineering Design Standards as well as Alberta Environment and Parks stormwater management and stormwater quality requirements for Acheson Big Lake Storm Basin.</i>
<i>Policy 7.3.5</i>	<i>At the time of subdivision, the Developer shall provide modelling data for stormwater services. This data will be provided to the County's engineering consultant maintaining the servicing models for the Acheson area, and any required improvements identified in the updated model shall be required as a condition of subdivision approval.</i>
<i>Policy 7.3.6</i>	<i>Future stormwater management facilities completed within the Conceptual Scheme area shall be designed to allow for natural filtration into the Wagner Natural Area Recharge Zone.</i>
<i>Policy 7.3.7</i>	<i>Release rates for the proposed stormwater network shall conform to the rates per the most current Acheson/Big Lake Basin 1 Stormwater Summary Report (Section 4.3).</i>
<i>Policy 7.3.8</i>	<i>Parkland County's Off-Site Stormwater Management Levy shall be calculated and applied at the time of subdivision and/or development permit.</i>
<i>Policy 7.5.1</i>	<i>Shallow utilities shall be provided within the Conceptual Scheme area at the sole expense of the developer within appropriate road right-of-way and within easements on private property established at the detailed subdivision design stage to the satisfaction of the utility providers for Parkland County.</i>
<i>Policy 7.6.1</i>	<i>Prior to stripping and grading of Development Cell A, a grading plan and erosion and sediment control report shall be submitted to the satisfaction of Parkland County. This plan shall depict road and swale grades and include public utility lot areas, stormwater management plans and an erosion and sediment control plan and shall be approved by Parkland County.</i>
<i>Policy 7.6.2</i>	<i>Site grading is to take into consideration existing topography to minimize grading requirements over the Conceptual Scheme area.</i>
<i>Policy 7.6.3</i>	<i>A stripping and grading permit issued by Parkland County shall be in place prior to any soils being removed from the Conceptual Scheme Area.</i>
<i>Policy 8.4.1</i>	<i>All development shall, where required for the specific lands being developed within the Conceptual Scheme, obtain provincial and federal approvals prior to development and such approvals shall be provided to Parkland County.</i>

10. LIST OF FIGURES

- 1) Location and Context Map
- 2) Land Ownership Map
- 3) Environmental Features Map
- 4) Oil & Gas Infrastructure Map
- 5) General Land Use Concept
- 6) Development Concept Map (includes Development Cells)
- 7) Transportation Network
- 7A) Roadway Cross Sections
- 8) Stormwater Management Plan
- 9) Water Network
- 10) Sanitary Network

FIGURE 1 – LOCATION & CONTEXT MAP

CONCEPTUAL SCHEME

Planning & Development Services
Phone: 780-968-844 Fax: 780-968-8444

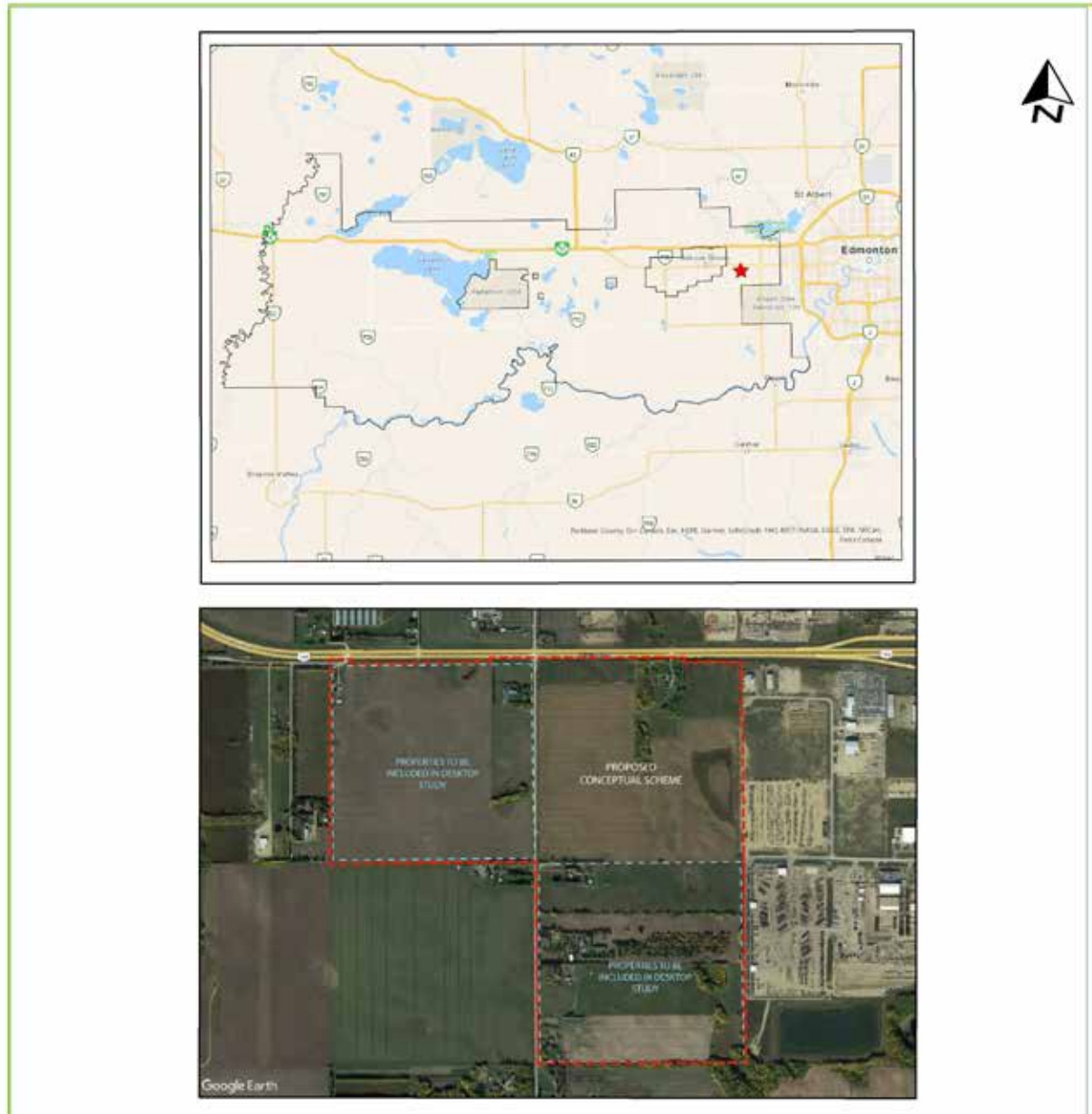


FIGURE 1: LOCATION & CONTEXT MAP



FILE: V:\JOB NUMBER\13\ CANADA PROJECTS\2023\23-5009 WESTLINK BUSINESS PARK\12 PLANNING\DRAWINGS\CAD\CONTEXT.DWG

FIGURE 2 – LAND OWNERSHIP

CONCEPTUAL SCHEME

Planning & Development Services
 Phone: 780-988-844 Fax: 780-988-8444

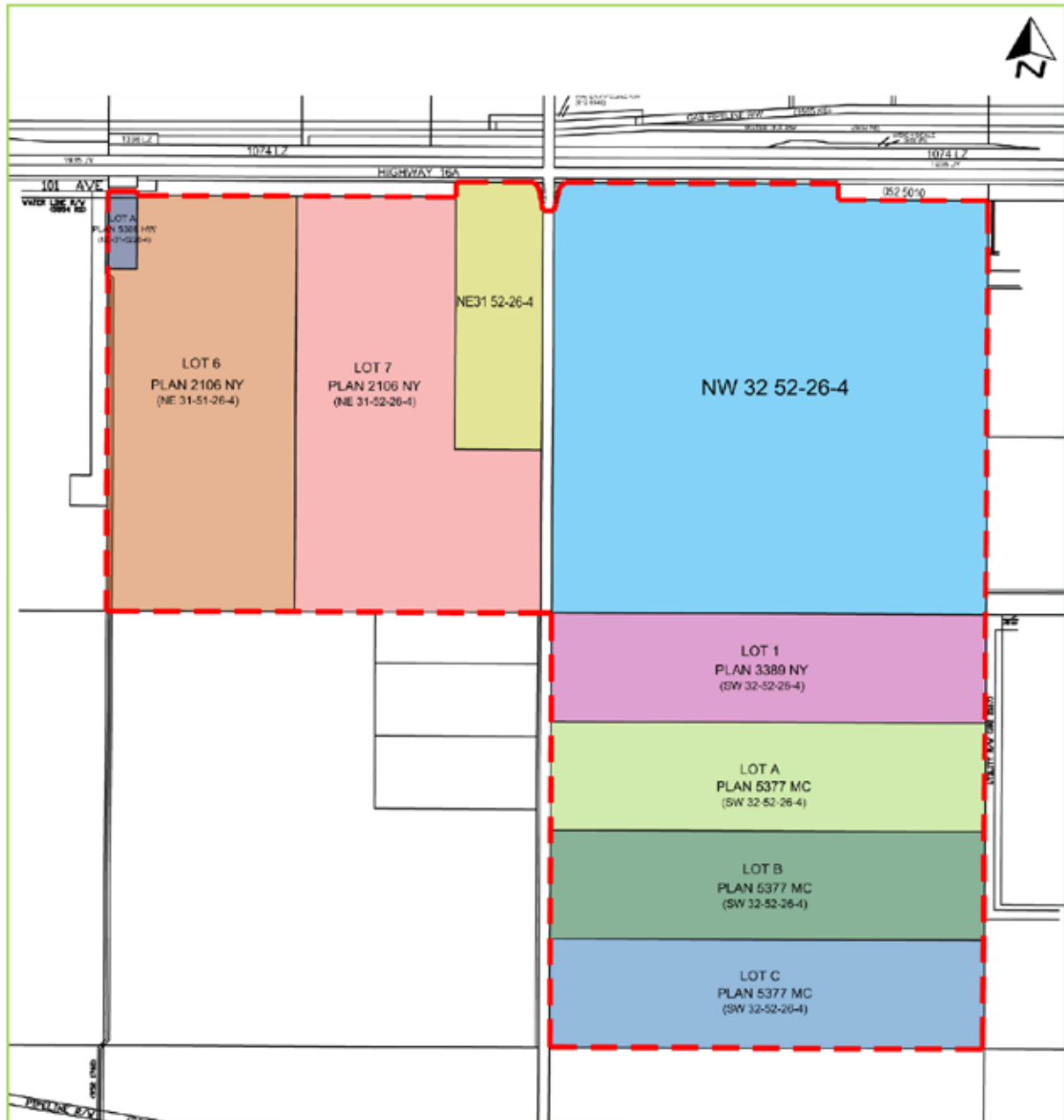


FIGURE 2: LAND OWNERSHIP

150 100 50 0 250 m
 1 : 10,000

	CONCEPTUAL SCHEME AREA		DALE WESLEY ALLEN & DIANNE M ALLEN
	WESTLINK BUSINESS PARK GP INC.		ROB REGAN NE 31-52-26-4
	MURRAY HILLS DEVELOPMENTS LLC		CLEMENT CONTRACTING LTD. PLAN 5377 MC Lot B)
	JAMES VINSON		A-WEST HOLDING INC (PLAN2106 NY Lot 7)
	IRENE GLADYS ROSMUS (PLAN3389NY Lot 1)		GERARD P HAARSMA (PLAN 5377 MC Lot C)



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FIGURE 3 – ENVIRONMENTAL FEATURES

CONCEPTUAL SCHEME

Planning & Development Services
Phone: 780-968-844 Fax: 780-968-8444

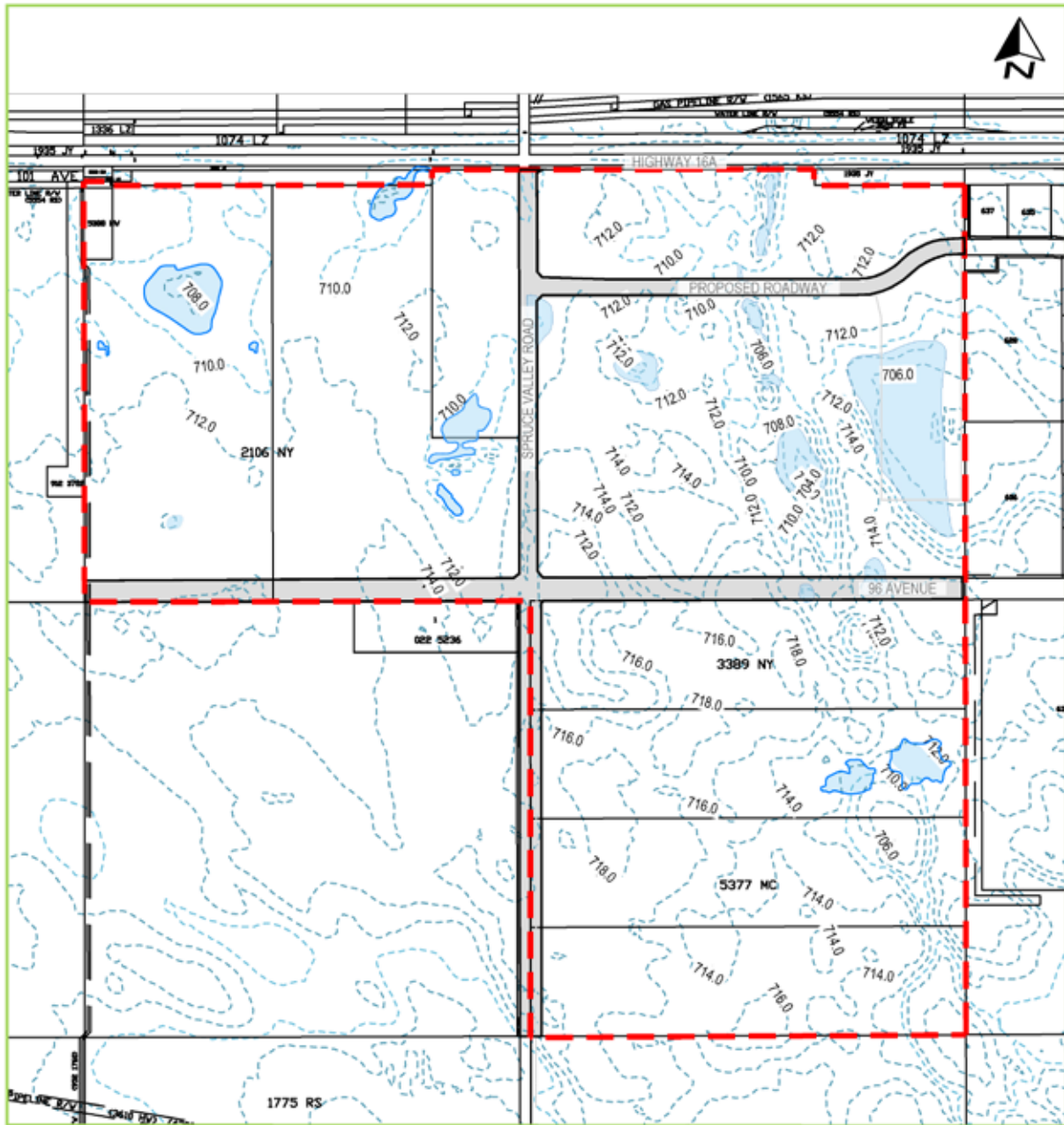


FIGURE 3: ENVIRONMENTAL FEATURES

	CONCEPTUAL SCHEME AREA		PROPOSED ROAD ROW
	DELINEATED WETLANDS		
	EXISTING CONTOURS		
	EXISTING PROPERTY LINE		



parkland
county

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FIGURE 4 – OIL & GAS INFRASTRUCTURE

CONCEPTUAL SCHEME

Planning & Development Services
Phone: 780-968-844 Fax: 780-968-8444

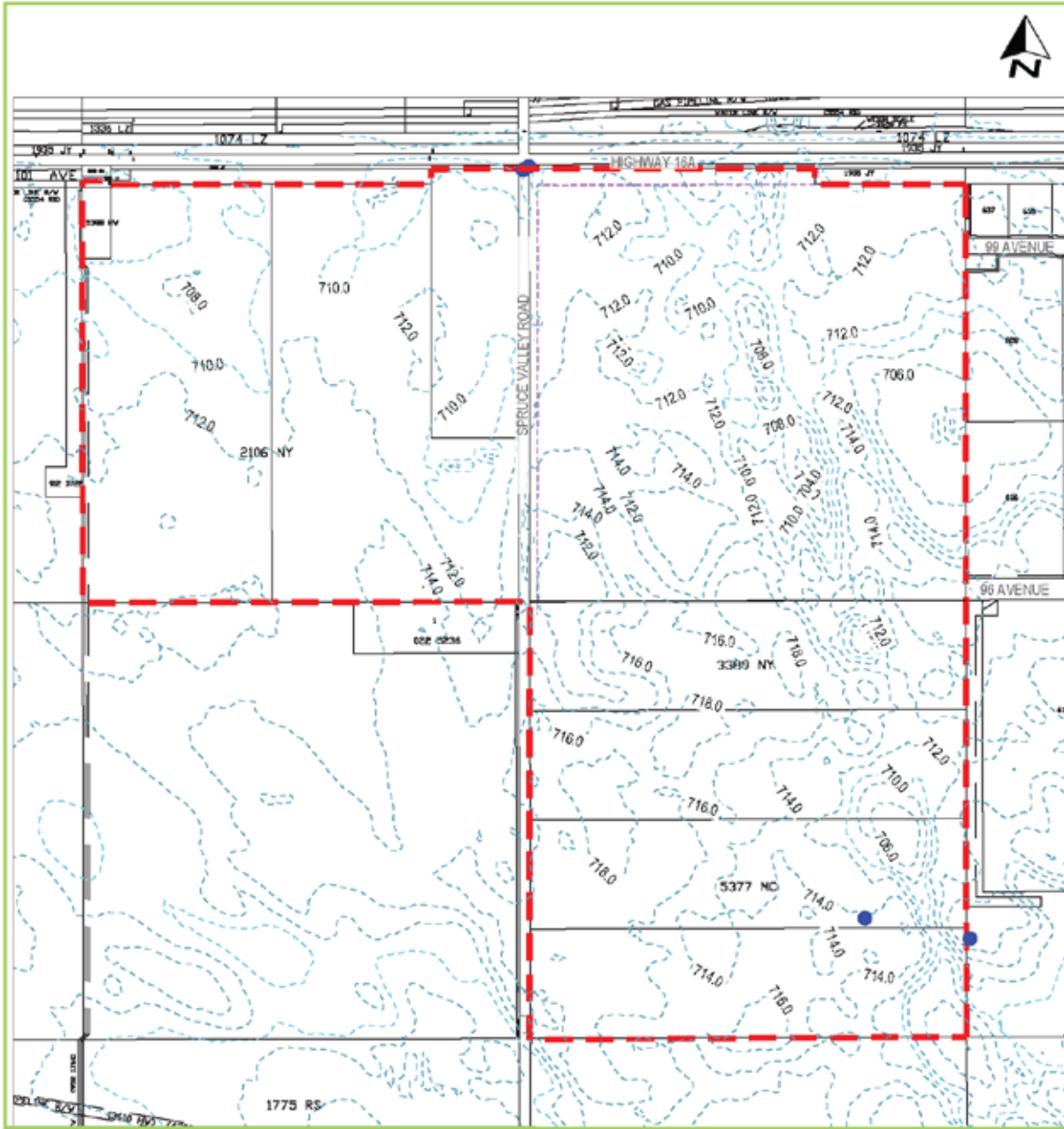







FIGURE 4: OIL & GAS INFRASTRUCTURE



-  CONCEPTUAL SCHEME AREA
-  ABANDONED WELLHEAD
-  EXISTING CONTOURS
-  EXISTING PROPERTY LINE
-  GAS PIPE



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FIGURE 5 – GENERAL LAND USE CONCEPT

CONCEPTUAL SCHEME

Planning & Development Services
 Phone: 780-968-844 Fax: 780-968-8444

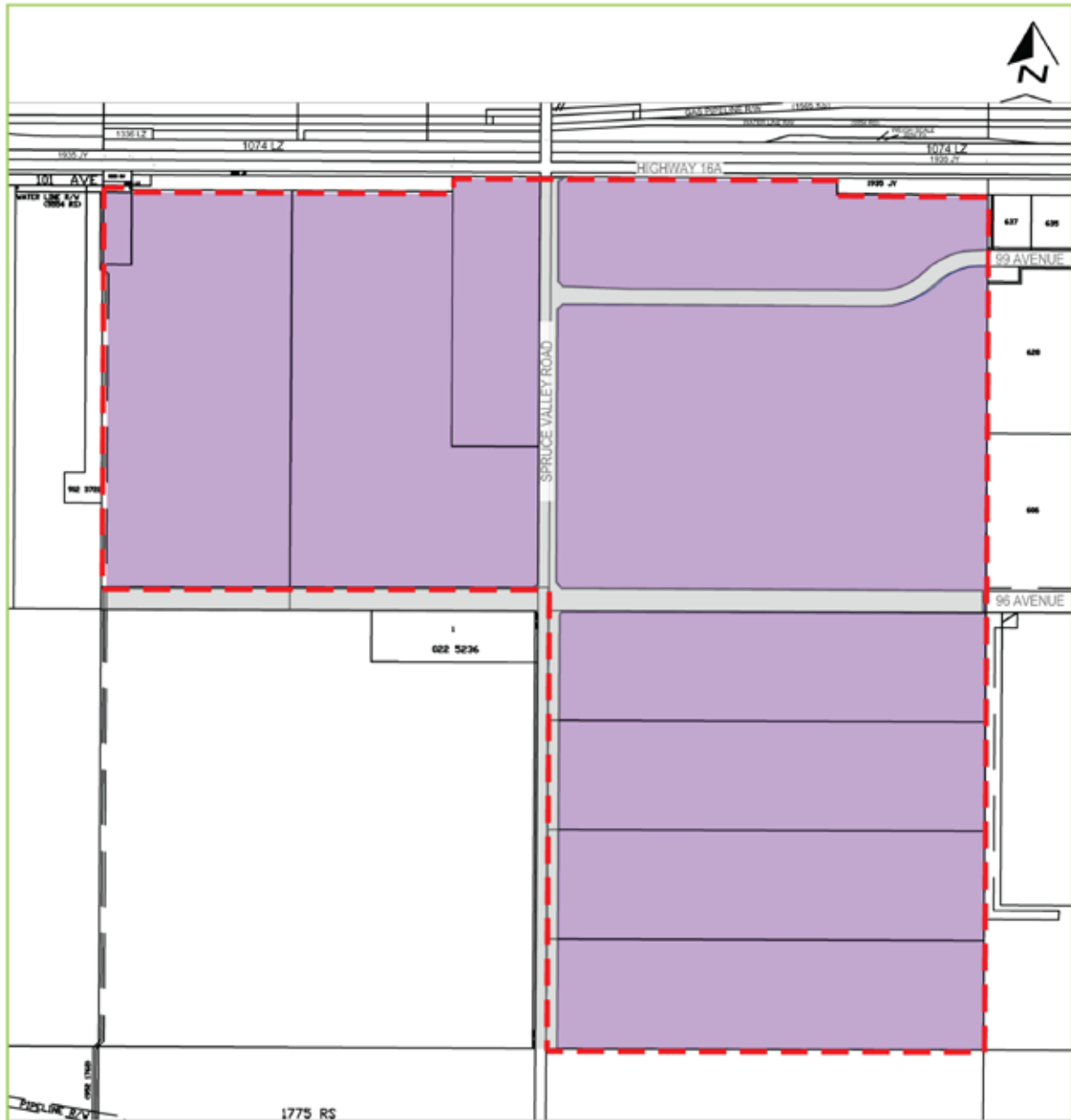
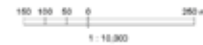


FIGURE 5: GENERAL LAND USE CONCEPT



- CONCEPTUAL SCHEME AREA
- PROPOSED ROADWAY
- POLICY AREA - COMMERCIAL/LIGHT INDUSTRIAL



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FIGURE 6 – DEVELOPMENT CONCEPT

CONCEPTUAL SCHEME

Planning & Development Services
 Phone: 780-968-844 Fax: 780-968-8444

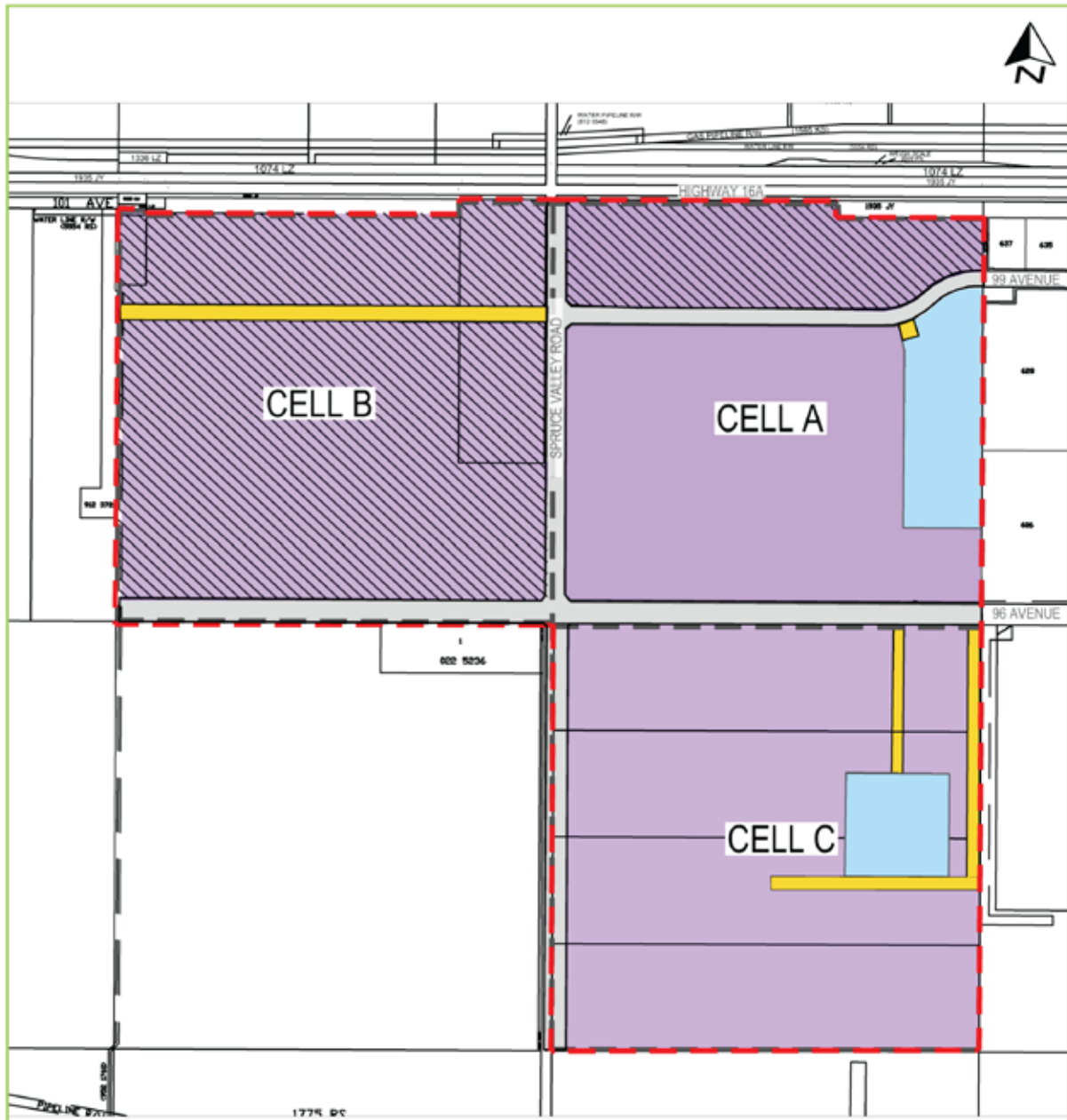



FIGURE 6: DEVELOPMENT CONCEPT



- | | |
|---|---|
|  CONCEPTUAL SCHEME AREA |  POLICY AREA - COMMERCIAL/LIGHT INDUSTRIAL |
|  DEVELOPMENT CELLS |  PUBLIC UTILITY LOT (PUL) |
|  PROPOSED ROADWAY |  STORMWATER MANAGEMENT POND |
|  INDUSTRIAL FRONTAGE OVERLAY | |



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FIGURE 7 – TRANSPORTATION NETWORK

CONCEPTUAL SCHEME

Planning & Development Services
Phone: 780-968-844 Fax: 780-968-8444

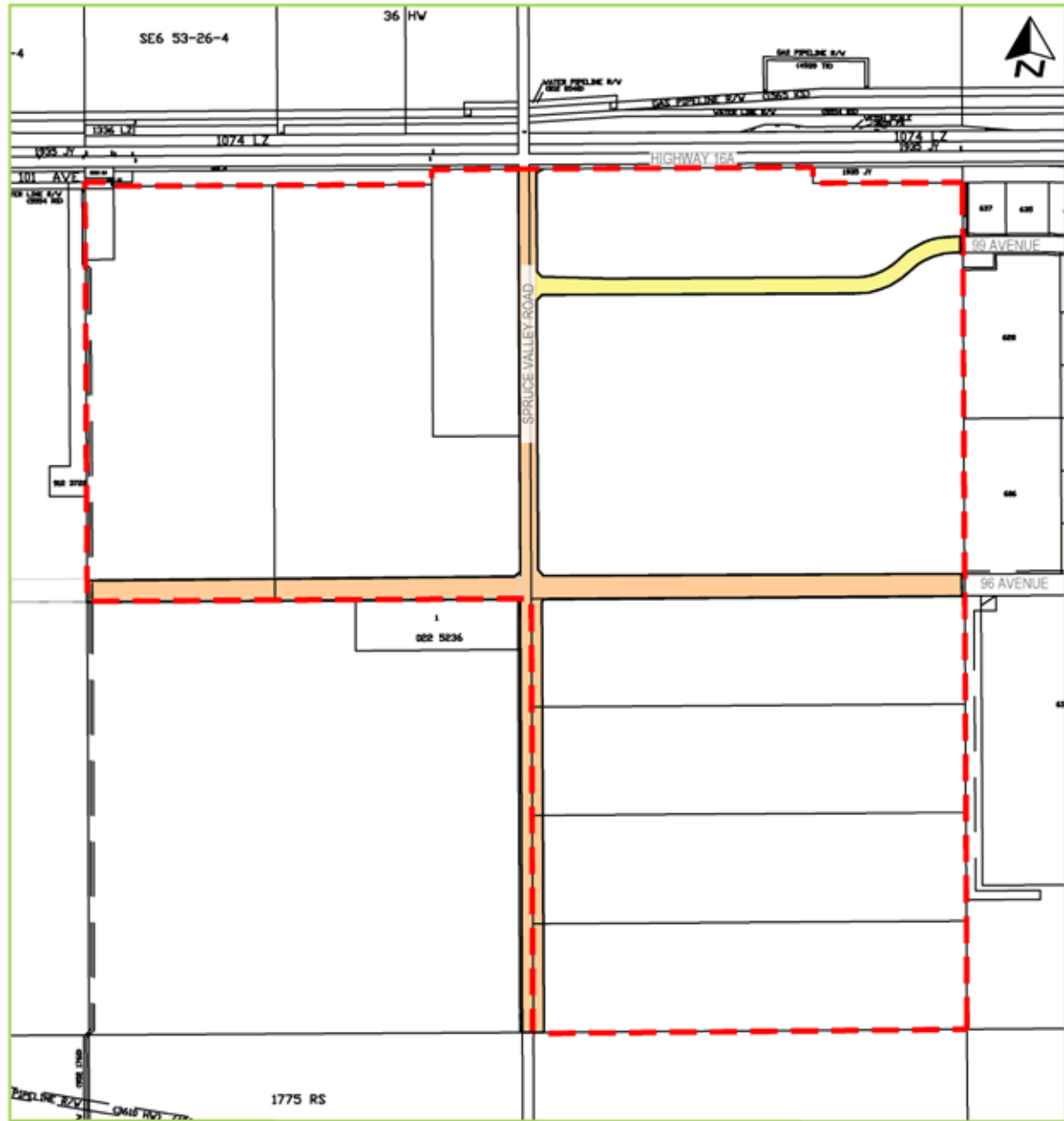
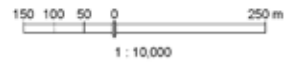


FIGURE 7: TRANSPORTATION NETWORK



- CONCEPTUAL SCHEME AREA
- INDUSTRIAL LOCAL ROAD
- COLLECTOR ROAD
- EXISTING PROPERTY LINE



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FIGURE 7A – ROADWAY CROSS SECTIONS

CONCEPTUAL SCHEME

Planning & Development Services
Phone: 780-968-844 Fax: 780-968-8444

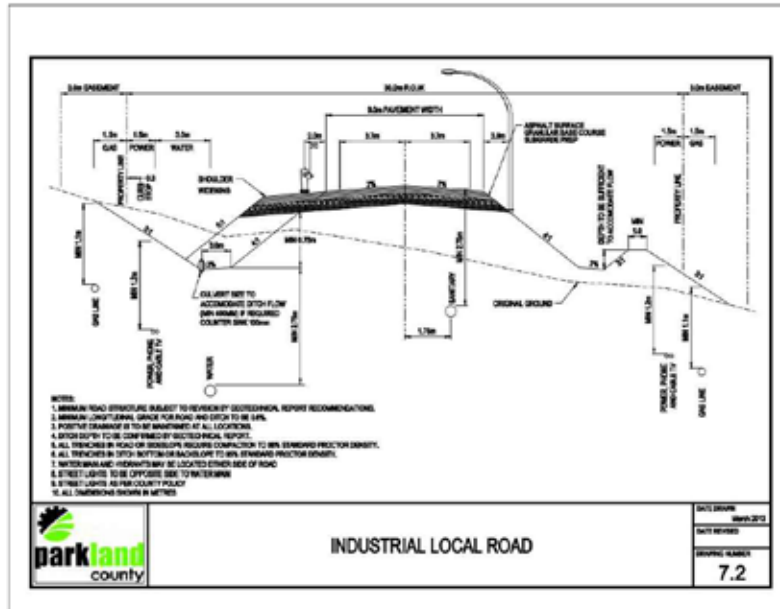
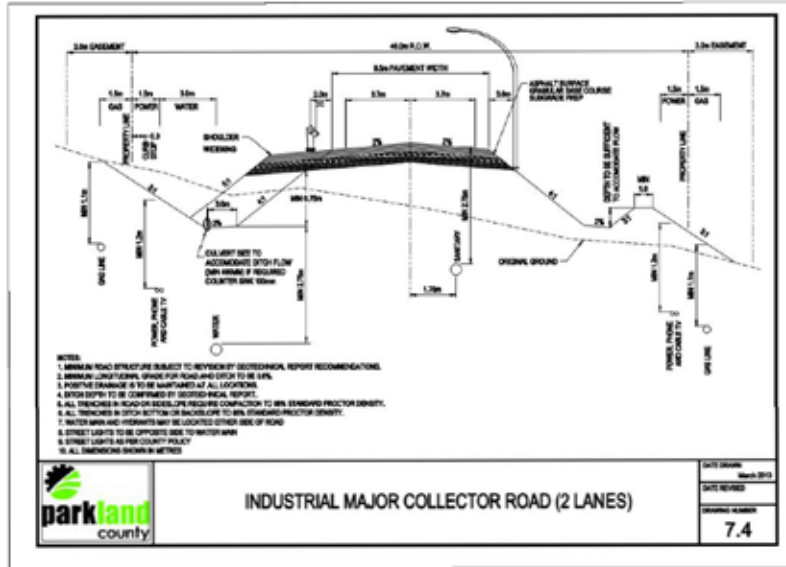


FIGURE 7A: ROADWAY CROSS-SECTIONS



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FIGURE 8 – STORMWATER MANAGEMENT PLAN

CONCEPTUAL SCHEME

Planning & Development Services
 Phone: 780-966-844 Fax: 780-966-8444

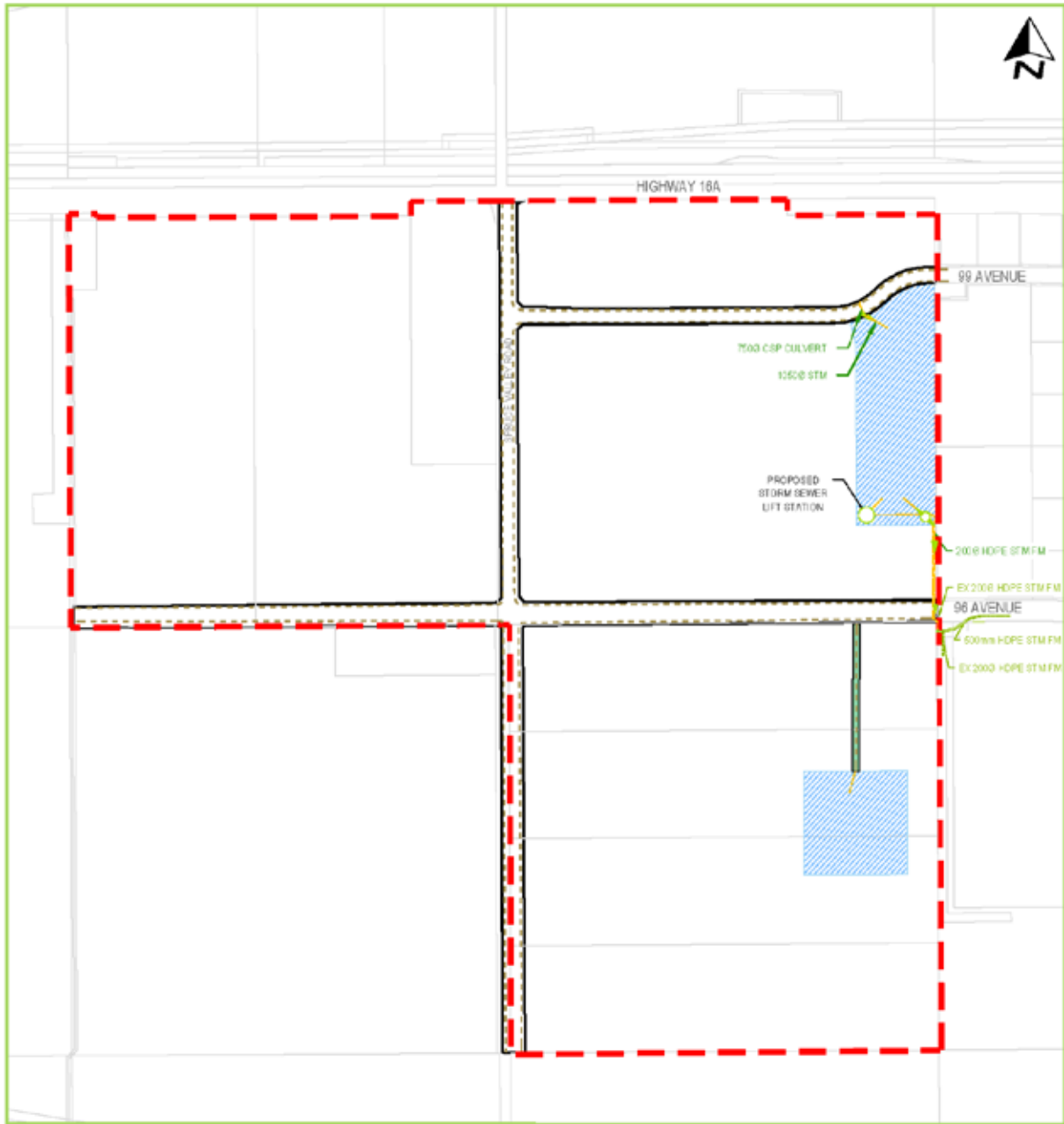
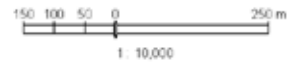


FIGURE 8: STORMWATER MANAGEMENT PLAN



	CONCEPTUAL SCHEME AREA		PROPOSED PUL
	EXISTING STORM SEWER LINE		STORMWATER MANAGEMENT POND
	PROPOSED STORM MAIN		DITCH
	EXISTING PROPERTY LINE		PROPOSED SEWER LINE



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FIGURE 9 – WATER NETWORK

CONCEPTUAL SCHEME

Planning & Development Services
 Phone: 780-966-844 Fax: 780-966-8444

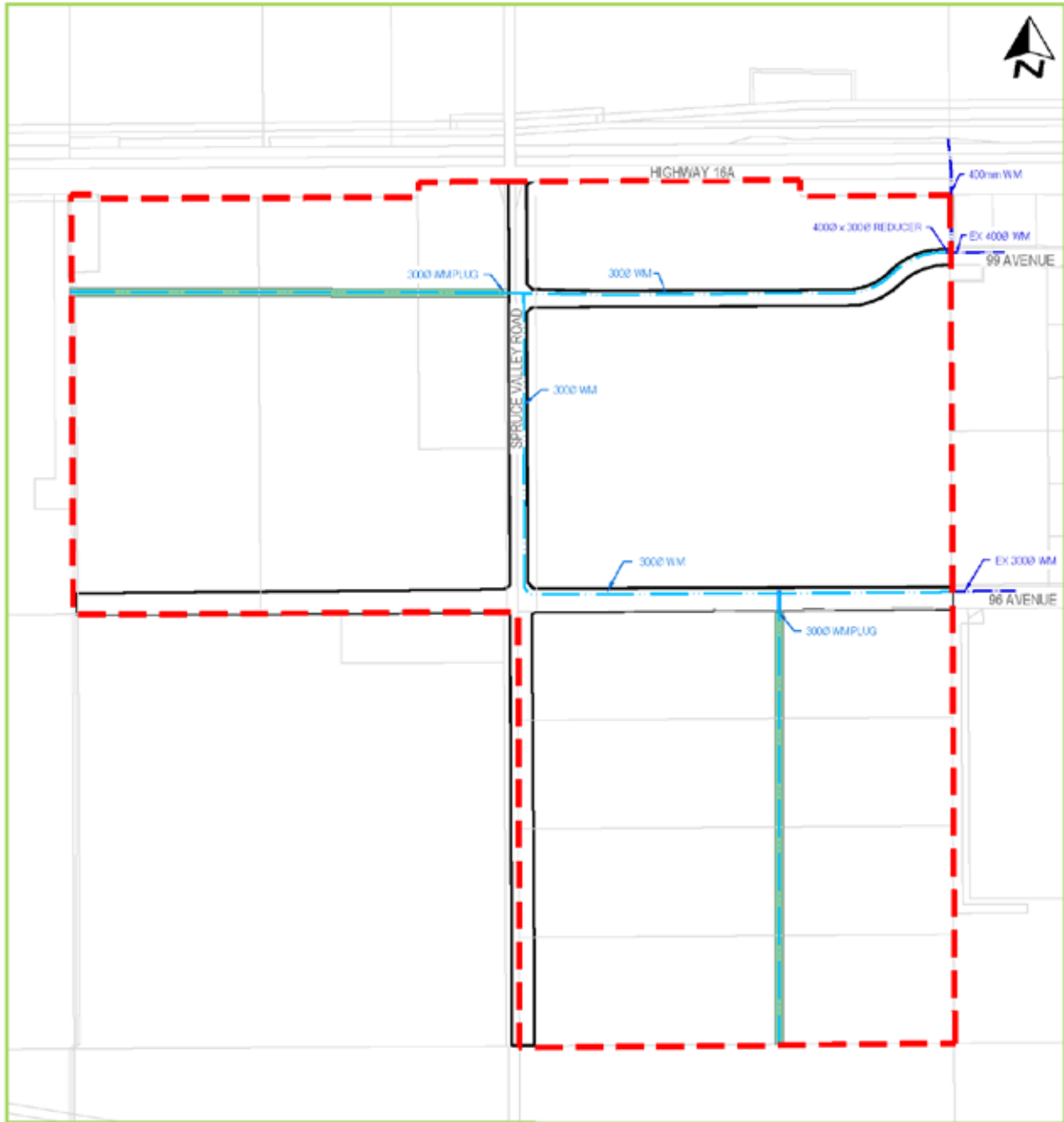
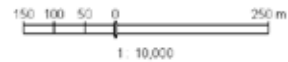


FIGURE 9: WATER NETWORK



- CONCEPTUAL SCHEME AREA
- PROPOSED WATER MAIN
- EXISTING WATER MAIN
- EXISTING PROPERTY LINE
- PROPOSED PUL



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FIGURE 10 – SANITARY NETWORK

CONCEPTUAL SCHEME

Planning & Development Services
 Phone: 780-966-844 Fax: 780-966-8444

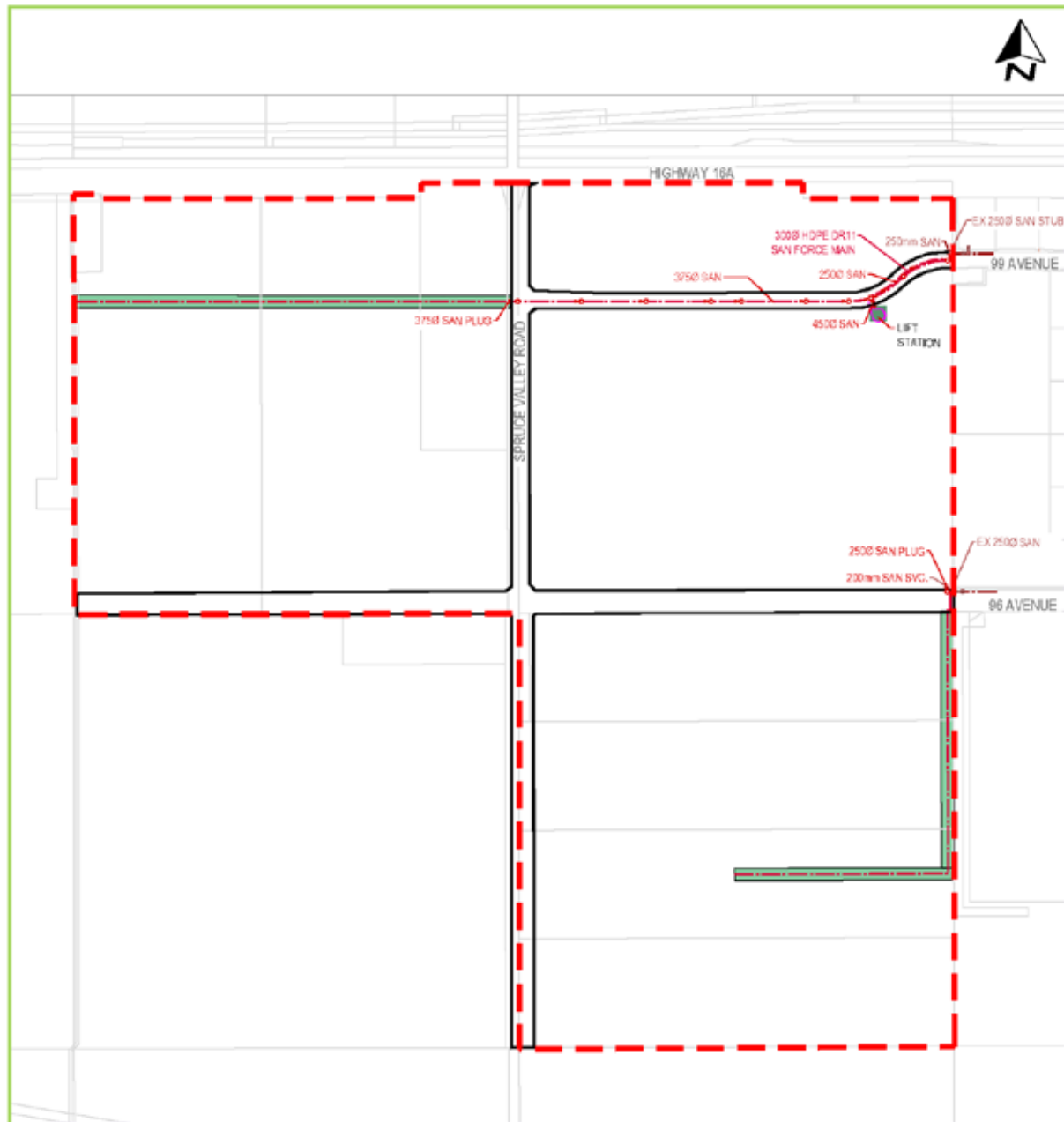


FIGURE 10: SANITARY NETWORK



- CONCEPTUAL SCHEME AREA
- EXISTING SANITARY SEWER LINE
- PROPOSED SANITARY SEWER LINE
- EXISTING MANHOLE & FLOW ARROW
- PROPOSED MANHOLE & FLOW ARROW



PROPOSED PUL



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