BYLAW 15-2021
NORTH OF YELLOWHEAD AREA CONCEPT PLAN

Section 633 of the *Municipal Government Act*, RSA 2000, c M-26, as amended, enables council to adopt by bylaw an area structure plan for the purpose of providing a framework for subsequent subdivision and development of an area of land; and

It is advisable to repeal the existing area structure plan and adopt a new area structure plan for the North of Yellowhead Area;

Council enacts:

Adoption	1	The document entitled "North of Yellowhead Area Concept Plan" attached to this bylaw as Schedule "A" is hereby adopted as an area structure plan pursuant to the *Municipal Government Act*, RSA 2000, c M-26, as amended.
Repeal	2	Bylaw 43-2013 is repealed.

FIRST READING:_____

SECOND READING:_____

THIRD READING:_____

SIGNED THIS ___ day of _____, 20___.

_____
MAYOR

_____
DIRECTOR, LEGISLATIVE AND LEGAL SERVICES

Bylaw 15-2021
Schedule "A"

NORTH OF YELLOWHEAD AREA CONCEPT PLAN
Strathcona County



Table of Contents

1.0 INTRODUCTION 5

1.1 Purpose 5

1.2 Location 5

1.3 Background 5
1.3.1 Strathcona County – City of Edmonton Joint Planning Study 5
1.3.2 Cambrian-Strathcona Joint Planning Initiative (CSJPI) 5
1.3.3 Alberta Transportation – Future Plans 6

1.4 Enabling Legislation 6

1.5 Interpretation 7

2.0 POLICY INFLUENCES 8

2.1 General 8

2.2 Federal 8
2.2.1 Edmonton Garrison Heliport Approach Zone 8

2.3 Provincial 8
2.3.1 Land Use Framework 8

2.4 Regional 9
2.4.1 Edmonton Metropolitan Region Growth Plan 9

2.5 Municipal 9
2.5.1 Strategic Plan 9
2.5.2 Municipal Development Plan (Bylaw 20-2017) 9
2.5.3 Turbo Industrial Estates Area Structure Plan Bylaw 40-82 (1982) 9
2.5.4 Strathcona County Land Use Bylaw 6-2015 10

3.0 CONTEXT 12

3.1 Regional Setting 12

3.2 Demographics 12

3.3 Plan Area 13
3.3.1 Plan Boundaries 13
3.3.2 Land Ownership 13
3.3.3 Existing Land Uses 13
3.3.4 Surrounding Land Uses 14

3.4 Consultation Process 14
3.4.1 General 14
3.4.2 First Consultation Process (2002) 15
3.4.3 Second Consultation Process (2009 - 10) 16
3.4.4 Third Consultation Process (2012 – 2013) 17

3.4.5 Fourth Consultation Process (2014 and 2021) 17

4.0 SITE CHARACTERISTICS 19

4.1 Natural Features 19
4.1.1 Topography and Drainage 19
4.1.2 Geology and Soils 20
4.1.3 Vegetation 21
4.1.4 Hydrology 21
4.1.5 Wetlands 22
4.1.6 Wildlife 22

4.2 Encumbrances 23
4.2.1 Oil and Gas 23
4.2.2 Railways 23
4.2.3 Utility Lines 23

4.3 Historical Resources 23

5.0 DEVELOPMENT CONCEPT 25

5.1 General 25

5.2 Vision 25

5.3 Land Uses 25
5.3.1 Agriculture 25
5.3.2 Residential 26
5.3.3 Commercial 27
5.3.4 Industrial 29
5.3.5 Institutional 31
5.3.6 Schools, Parks and Trails 32

5.4 Environmental Management 35
5.4.1 Overview 35
5.4.2 Goal 35
5.4.3 Objectives 35
5.4.4 Policies 35

5.5 Transportation 36
5.5.1 General Overview 36
5.5.4 Goal 38
5.5.5 Objectives 38
5.5.6 Policies 39

5.6 Servicing and Utilities 41
5.6.1 Overview 41
5.6.2 Goal 44
5.6.3 Objectives 44
5.6.4 Policies 44

5.7 Community Energy 45
5.7.1 Overview 45
5.7.2 Goal 45
5.7.3 Objectives 45
5.7.4 Policies 45

6.0 IMPLEMENTATION 46

6.1 Overview 46

6.2 Policy 46

List of Maps

Map 1 – Location Plan
Map 2 – Regional Context
Map 3 – Municipal Development Plan
Map 4 – Land Use Zoning Districts
Map 5 – Site Features
Map 6 – Development Concept
Map 7 – Transportation Plan
Map 8 – Water Servicing Concept
Map 9 – Sanitary Servicing Concept
Map 10 – Storm Water Servicing Concept

List of Figures

Figure 1 – Hierarchy of Planning Regulation

List of Tables

Table 1 – Policy Summary

List of Appendices

Appendix A – Development Statistics

Appendix B – ACP Figures

1.0 INTRODUCTION

1.1 Purpose

The purpose of the North of Yellowhead Area Concept Plan (ACP) is to provide a policy framework for the future planning and development of the lands within the Plan Area in accordance with higher orders of regulation.

1.2 Location

The North of Yellowhead ACP covers approximately 991 hectares (2,448 acres) of land located north of Highway 16 between the corporate boundaries of the City of Edmonton and Highway 21 (see **Map 1 – Location Plan**). The majority of the ACP is located within the Urban Service Area of Strathcona County. The Plan Area contains the Country Residential subdivisions of Oldman Creek Estates and Akenside as well as the Griffon Industrial Park at the south-west corner (see Map 2 – Regional Context).

1.3 Background

The North of Yellowhead Area Concept Plan was originally approved for lands predominantly identified for industrial use in 2003. These changes, coupled with the emergence of new economic and environmental realities, the creation of a regional planning authority, and advancements in planning best practices, have led to a need to conduct a comprehensive update of the ACP. The update process was initiated in the fall of 2009 with the intent of allowing future planning and development to align with this new information. A synopsis of the impetus for the Plan update is provided below.

The North of Yellowhead ACP has been amended several times to revise the mix of land uses within the ACP area in response to market changes in Strathcona County since the ACP was adopted.

1.3.1 Strathcona County – City of Edmonton Joint Planning Study

In 2007, Strathcona County partnered with the City of Edmonton to develop a strategic land use plan that identifies principles to manage land use, establish a long term working relationship and to develop a process for resolution of differences. Specifically, the Joint Planning Study was developed to ensure the appropriate management and mitigation of risk relating to industrial development for a defined area.

The partnership has resulted in the development of a Joint Planning Study to assess risk associated with heavy industrial activities and to amend development restrictions in accordance with levels of risk, rather than type of use.

1.3.2 Cambrian-Strathcona Joint Planning Initiative (CSJPI)

In 2008 Cambrian Developments initiated planning for lands within the North of Yellowhead ACP that are located east of Range Road 231. The initial land use direction for the lands was for a mix of light and medium industrial uses. Subsequent to the shift in

policy direction described above, Strathcona County initiated a Joint Planning Initiative (JPI) with Cambrian Developments to re-envision the future of these lands.

Integral to the CSJPI is the application of the SuN LIVING programme recently utilized for other planning processes in Strathcona County (Emerald Hills Urban Village, Salisbury Village). The SuN LIVING process translates sustainability goals into the built, social, economic and natural environments through the application of measurable outcomes early in the planning process.

Subsequent to several months of research and study, a planning and design charrette was held in January 2010 to develop a new land use vision for the CSJPI lands, aligned with goals, indicators, targets and strategies related to the SuN LIVING process. The development concept outlined in this document reflects this new planning direction.

1.3.3 Alberta Transportation – Future Plans

Two regional ring roads are either completed or being proposed by Alberta Transportation. The inner ring road (the Anthony Henday) is complete and an outer ring road (the Capital Region Ring Road) is anticipated further out from the Anthony Henday in the long term and may utilize Highway 21 as its eastern limits.

Township Road 534 has been identified as a future connector road to link the Anthony Henday to Highway 21 and will affect the northern portion of the ACP lands (see **Map 7 – Transportation Concept**).

The Anthony Henday North East Ring Road Functional Planning Study prepared by ISL Engineering in 2009 as well as the Highway 16 Functional Planning Study prepared by ISL in 2000 address future transportation planning in the vicinity of the ACP lands.

1.4 Enabling Legislation

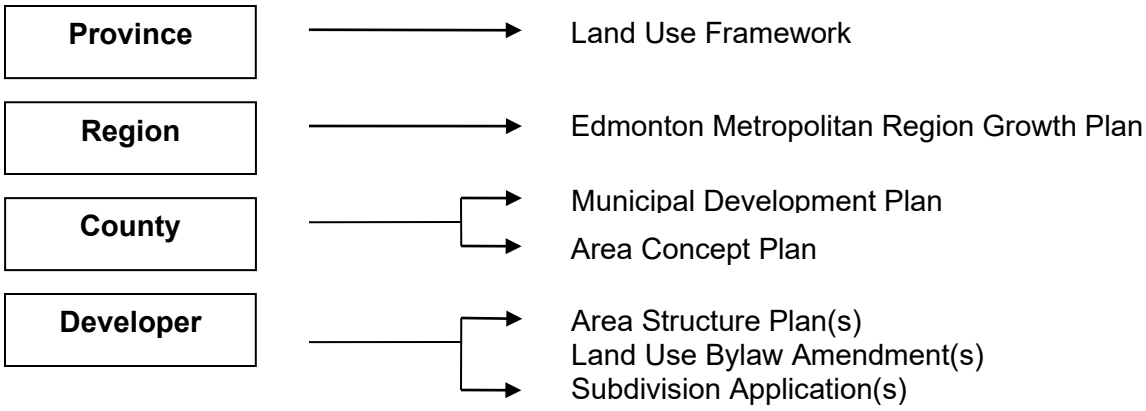
The North of Yellowhead ACP has been prepared in accordance with Section 633 of the Municipal Government Act which enables municipalities to adopt Area Structure Plans to provide a framework for future subdivision and development of an area of land. Specifically, Section 633 identifies that Area Structure Plans must, at a minimum, address the following:

- Land use
- Projected population
- Location of major transportation routes and public utilities
- Development staging

Strathcona County considers Area Concept Plans as higher order Area Structure Plans for larger tracts of land. Area Concept Plans must still meet the Section 633 requirements of the Municipal Government Act but generally provide less detailed information than an Area Structure Plan.

Figure 1, below, shows the hierarchy of planning regulation in effect on the North of Yellowhead ACP lands and the party responsible for each level of the process.

FIGURE 1 – HIERARCHY OF PLANNING REGULATION



1.5 Interpretation

Maps contained within this ACP provide a conceptual framework for future planning and development. It is expected that details surrounding land use, transportation and servicing will be determined as part of future stages of the planning process. Prior to consideration of amendments to the Land Use Bylaw (LUB) and multi-lot subdivisions, approved Area Structure Plans and accompanying Engineering Design Briefs will be required.

2.0 POLICY INFLUENCES

2.1 General

The development of the North of Yellowhead ACP is subject to regulation at the federal, provincial, regional and municipal levels, an overview of the process which is provided in the following sections.

2.2 Federal

2.2.1 Edmonton Garrison Heliport Approach Zone

In accordance with the Aeronautics Act, the Department of National Defence is responsible for regulating activities as they relate to defending national security from the air. Much of the western portion of the ACP area is affected by the Edmonton Garrison Heliport Approach Zone, as shown on **Map 2 – Regional Context**. In an effort to mitigate hazards, zoning regulations have been developed for the Edmonton Garrison Heliport Zone to regulate land use and buildings as they relate to open water, height and materials. The Department of National Defence requires notification of any plans for stormwater ponds in the affected area. Additionally, any buildings in excess of 15 metres in height need to receive prior approval by the Department of National Defence.

2.3 Provincial

2.3.1 Land Use Framework

The Land Use Framework was released by the Province of Alberta on December 3, 2008 and provides a framework for growth management that considers economic, social and environmental goals. The Land Use Framework has resulted in the creation of the Land Use Secretariat and seven Regional Advisory Councils that are responsible for the development and implementation of seven separate Regional Plans.

Strathcona County is located within the North Saskatchewan Region. The North Saskatchewan Regional Plan (NSRP) will provide a 50 year vision for the region and include desired outcomes, goals and objectives. The NSRP will also contain an implementation plan, including strategies and actions to achieve the vision as well as monitoring and reporting to review its performance. An important component of the Regional Plan will be to establish thresholds for managing the cumulative effects of regional development on airsheds, watersheds and landscapes. The specific requirements of regional plans are legislated in the Land Stewardship Act. The NSRP will provide a new level of planning legislation currently not in effect and Strathcona County will be required to bring statutory documents into alignment with the approved NSRP within a designated time frame.

2.4 Regional

2.4.1 Edmonton Metropolitan Region Growth Plan

In October 2017, the Alberta government approved the Edmonton Metropolitan Region Growth Plan (EMRB). The Growth Plan guides the daily work of the Edmonton Metropolitan Region Board, ensuring decisions and programs are integrated to support the long term economic prosperity and quality of life for all citizens of the Edmonton Metropolitan Region.

As discussed in Section 3.1.3, an important component of the provisions administered by the EMRB is the minimum greenfield density for all applicable statutory plans located within the Metropolitan Area.

The Regional Evaluation Framework outlines how member municipalities determine when new statutory plans and statutory plan amendments must be submitted to the Board for approval.

2.5 Municipal

2.5.1 Strategic Plan

Becoming Canada's Most Livable Community sets out eight strategic goals to achieve its vision and is the County's principal guiding document for governance, community development, infrastructure, and service delivery. The plan identifies – for the community and others – the County's long-term planning. It serves as the foundation on which Strathcona County's corporate business plan, department business plans, master plans and budgets are developed and approved.

2.5.2 Municipal Development Plan (Bylaw 20-2017)

Municipal Development Plans (MDPs) are regulatory tools used to guide long-term planning and development. Strathcona County's 2017 Municipal Development Plan sets out the guidelines for orderly growth and development in the County over the next 20 years and beyond. The Municipal Development Plan provides a comprehensive long term land use policy framework within which present and projected growth and development may take place. The document describes a vision and goals for the future of the County and includes objectives and policies for how the County will achieve that vision through land use decisions, development management and investment in infrastructure and programs.

2.5.3 Turbo Industrial Estates Area Structure Plan Bylaw 40-82 (1982)

A plan for the Turbo Industrial area, now termed the Griffon Industrial Park, was initially developed as the *Turbo Industrial Estates Stage I.* The development covers an area of approximately 75 hectares (185 acres) and is located northeast of the intersection of Highway 16 and Range Road 232.

Turbo Industrial Estates Stage II ASP, adopted in 1982, covers a 79 hectare (195 acre) area north of the Canadian National Rail (CN) line and the existing Griffon Industrial Park.

As can be surmised, both stages propose industrial uses within their boundaries. Overall, lots in Stage II are typically larger than those in Stage I. The ASP restricts access to Range Road 232, as no provision has been contemplated for an interconnecting road between Range Road 231 and Range Road 232.

2.5.4 Strathcona County Land Use Bylaw 6-2015

The Land Use Bylaw (LUB) is a tool used to regulate the use and development of land. Strathcona County is currently engaged in a review of the existing Land Use Bylaw. The review is intended to align the Land Use Bylaw more closely with the policies of the Municipal Development Plan. As the new Land Use Bylaw is not yet approved, this Area Concept Plan references the land use zoning districts of the current Land Use Bylaw. New land use districts will be prepared to guide the development.

Map 4 – Land Use Districts shows the LUB districts that are applicable to the ACP area. The majority of the ACP area is zoned AD – Agriculture: Future Development and IM – Medium Industrial. A brief overview of the zoning districts for the ACP lands is provided below.

AD – Agriculture: Future Development: The purpose of the AD district is to provide transitional agriculture uses that will not prejudice the future use of land for urban development. The majority of lands zoned AD are presently under cultivation.

AG – Agriculture General: The purpose of this district is to foster agriculture and conserve agricultural land outside of the Urban Service Area by providing for a compatible range of agricultural uses with regulations that maintain large parcel sizes. The minimum allowable parcel size is 32 hectares. A small portion of land located within the Rural Service Area east of Oldman Creek Estates is zoned AG.

IA – Agri-Business District: The purpose of this district is to provide for agriculture-related business. The minimum allowable parcel size is 32 hectares.

IM – Medium Industrial: The purpose of this district is to provide for a range of compatible commercial and industrial uses, some of which have outdoor storage or activities. Nuisance factors should not extend beyond the boundaries of the site. A large portion of the Plan Area is zoned IM and includes the Griffon Industrial Park as well as other developed and undeveloped land within the Plan boundaries.

C3 – Highway Commercial: The purpose of this district is to provide for a diversity of commercial, recreation, and tourist uses, largely intended for the public travelling along highways or in conjunction with tourist attractions.

C1 – Community Commercial: The purpose of this district is to provide for a broad range of services needed on a day to day basis by residents of urban neighbourhoods, hamlets, or rural areas. They are generally located at the intersection of major roads.

RA – Rural Residential/Agriculture: The purpose of this district is to foster agriculture and a rural lifestyle of properties larger than 8.0 hectares. This includes a range of more intensive agriculture and agriculture-related uses that would be compatible in the area in certain situations. The district also provides for residential related uses that are compatible with the residential character of the area. The RA-zoned land is occupied by Stocks Berry Farms Ltd.

RC – Country Residential: The purpose of this district is to foster a rural residential lifestyle on residential properties of 0.8 hectares or larger. The district also provides for complementary uses that are compatible with residential uses in a rural setting. The minimum parcel size is 0.8 hectares. RC lands include both the Akenside and Oldman Creek Estates residential subdivisions.

Direct Control District 15 (2001-4): This site-specific zone is located in the Northwest corner of the plan. The purpose of this site-specific zone is to provide for manufacturing, processing, assembly, distribution, service and repair uses which carry out a portion of their operation outdoors or require outdoor storage areas. In general, no significant nuisance associated with uses in this district should extend beyond the boundaries of the site.

3.0 CONTEXT

3.1 Regional Setting

Strathcona County is the third largest municipality in Alberta with a population of approximately 92,500 residents and a rural and urban land base of approximately 118,000 hectares. The County is located adjacent to the eastern boundary of the City of Edmonton (see **Map 1 – Location Plan**).

Map 2 – Regional Context illustrates a number of regional influences that will impact future growth and development in the North of Yellowhead ACP lands, as follows:

- The Plan Area has strong road and rail linkages to the Metropolitan Region.
- A significant population base resides immediately to the south and west in Sherwood Park and Edmonton.
- Lands to the east have been identified for future urban development (Urban Service Area – Bremner).
- A waste heat opportunity exists in association with Edmonton Waste Management Centre.
- Oldman Creek is the primary tributary of the Oldman Creek Watershed and ultimately feeds into the North Saskatchewan River.
- A Heliport Approach Zone covers a portion of the Plan Area and restricts the provision of open water storm water management facilities.

3.2 Demographics

As the North of Yellowhead ACP lands are located within the Urban Service Area of the County (Sherwood Park) the discussion contained here will exclude rural statistics and, instead, focus on urban demographics of the County.

The 2012 Municipal Census for Strathcona County identified a population of 65,465 residents in Sherwood Park, a growth of nearly 6.2 percent since 2009. Approximately 75 percent of the dwelling units in Sherwood Park are comprised of single detached dwellings and approximately 87 percent of all dwellings are owner occupied. These figures indicate that there is a need for diversity in both housing type and ownership. Approximately 45 percent of dwellings are occupied by 3 or more people and the median size of a household in Sherwood Park is 2 people. The median age of residents of Sherwood Park is 38 years, slightly older than the median age in 2009.

3.3 Plan Area

3.3.1 Plan Boundaries

The boundaries of the Plan Area are as follows:

North	Township Road 534;
East	Highway 21;
South	Highway 16; and
West	Range Road 232; corporate boundary of the City of Edmonton.

3.3.2 Land Ownership

The Plan Area is comprised of a total of over 100 individually titled parcels of land owned by more than 75 different entities.

3.3.3 Existing Land Uses

The majority of the area is undeveloped agricultural land, while industrial activities comprise the second largest use in terms of land area. Other land uses presently occurring within the ACP boundaries include intensive horticulture, commercial and country residential. An overview of existing land uses is provided below.

Agricultural
The majority of land in the ACP area is under agricultural production, particularly in the north and east portions of the Plan Area. Agricultural activity consists of both extensive and intensive operations. Extensive agricultural activities include grain production, while intensive agricultural activities include horticultural activities such as greenhouses, a berry farm, a tree farm and nurseries. No intensive livestock operations are present in the ACP area.

Farmsteads associated with agricultural operations are located throughout the ACP area. There are two farms that contain large farm accessory buildings such as barns and storage sheds. Both farms are located at the southern part of the ACP area near Range Road 231.

Intensive horticulture uses are scattered throughout the ACP area and include Greenland Nursery & Landscaping Ltd. and Wallish Greenhouses, both located west of Highway 21 and south of the CN railway. Oldman Nursery is a tree farm located south of the Akenside residential subdivision and east of Range Road Rd 231. Stocks Berry Farms Ltd. is a greenhouse located north of Oldman Creek and west of Highway 21.

Industrial
Medium industrial uses are currently the second most common form of land use in the Plan Area. Medium industrial activities occur south of Township Road 534 and west of Range Road 231.

The Medium Industrial area north of the CN railway consists of larger parcels due to outdoor storage space requirements. Businesses currently operating in this area include Lockerbie & Hole Contracting Ltd. and Canadian Forest Products Ltd.

South of the CN railway is the 58 hectare (144 acre) Griffon Industrial Park, which has medium industrial uses on smaller lots varying in size from 0.5 to 4.9 hectares (1.3 to 12.0 acres). Businesses currently operating in this area include Viterra Inc., Impact Industrial Sales & Services Ltd. and Diamond International Trucks Ltd.

Commercial
Commercial development is located south of the CN railway, north of Highway 16 and clustered around Range Road 231. Two commercial greenhouses are located west of Range Road 231 (Greenland Garden Centre and Wallish Greenhouses). Other commercial uses include Outback Country RV, located on Highway 16 east of Range Road 231.

Residential
Both the Akenside and Oldman Creek Estates country residential subdivisions are located east of Range Road 231 and south of Township Road 534. Akenside is comprised of 11 residential lots and was developed in the early 1970s. Oldman Creek Estates consists of eight country residential lots and was developed in the 1990s. Farmsteads are located throughout the ACP area.

3.3.4 Surrounding Land Uses

The North of Yellowhead ACP lands are surrounded by a range of uses, as follows:

North	Primarily agricultural lands
East	Primarily agricultural lands; Urban Reserve as identified in Strathcona County Municipal Development Plan 1-2007
South	Neighbourhoods of Emerald Hills, Aspen Trails and Lakeland Village; mix of residential, commercial, institutional and undeveloped agricultural lands
West	City of Edmonton land primarily designated for industrial use; includes Edmonton Integrated Waste Management Centre consisting of a processing and transfer facility, gasification and research facility.

3.4 Consultation Process

3.4.1 General

Consultation with stakeholders and the general public has been a component of the planning process. Consultation for the development of the North of Yellowhead ACP has involved residents, property and business owners and other affected agencies. Specifically, the consultation programme has consisted of two stages: the initial consultation conducted when the ACP was first approved and a second consultation as part of the update process.

3.4.2 First Consultation Process (2002)

The initial consultation process undertaken in 2002 as part of the original development of the ACP included a variety of consultation methods as follows:

- **Mail-out notification:** Notification to surrounding property owners consisted of a project backgrounder mail-out as well as invitation mail-outs for focus groups and the open house. Notification mail-outs were also provided to pipeline and utility operators, Alberta Community Development and the public and separate school board to provide comment. A formal invitation was provided to the City of Edmonton for their participation in the planning process.

- **Focus groups**: six focus groups were held in April 2002 with 62 stakeholders and members of the public. Key issues were identified by the participants, as follows:
  - Traffic (noise, safety, proper highway connections);
  - Land use compatibility;
  - Impacts on property values;
  - Loss of agricultural land;
  - Environment (air pollution, water contamination, preservation of natural areas);
  - Drainage and stormwater management; and
  - Aesthetics of industrial/commercial development.

- **Interviews**: Interviews were held with businesses located within the Plan Area.

- **Roundtable sessions**: two workshops were held with 57 property owners and stakeholders. Two development concepts were presented for the participants to provide feedback.

- **Open house**: A public open house was held in January 2003 with 43 community members in attendance. A total of 35 comment forms and letters were received in response to the open house and several follow-up meetings were held with interested parties. Key issues identified by the participants were as follows:

  - Residents
    - Truck and rail traffic (noise, safety, infrastructure inadequacy);
    - Land use compatibility (impacts of industry);
    - Impacts on property values;
    - Impacts on the environment; and
    - Impacts on quality of life.

  - Industry
    - Cost implications of road improvements;
    - Cost implications of protecting Oldman Creek;
    - Restrictive design guidelines;
    - Need for flexibility for future subdivision; and
    - Need for more detailed studies.

3.4.3 Second Consultation Process (2009 - 10)

A separate consultation process has been undertaken as part of the Cambrian Strathcona Joint Planning Initiative (CSJPI) for the lands east of Range Road 231. Consultation with stakeholders and the public has included the following:

- **Workshop – November 2-5, 2009**
  A workshop was held to bring together stakeholders and to comprehensively address the planning goals as well as to review the site characteristics and begin strategizing how the 12 themes of sustainability are to be addressed as part of the planning and design. Presentations were given from other agencies regarding fused-grid street design, community energy and green infrastructure. Discussion occurred on how to engage the public as part of the planning process. Lastly, a presentation was given to participants to summarize the results of the workshop.

- **Planning and Design Charrette – January 25-28, 2010**
  Led by MVH Urban Planning & Design, a four day session was held in partnership with Cambrian Developments, Focus Corporation and Strathcona County to explore land use and design issues and to work to create a viable conceptual plan for the CSJPI lands. The charrette process included integrating stakeholders through issue-specific meetings as well as involving the public through a workshop on the first evening open house session. The charrette culminated in an evening presentation to present a conceptual design to the public on day four.

- **Public Open House – May 5, 2010**
  A public open house was held to present the draft North of Yellowhead Area Concept Plan to the public. The open house was held concurrently with proposed Municipal Development Plan amendments and the Cambrian Crossing Area Structure Plan developed for the CSJPI lands.

  A total of 40 landowners attended the open house along with representatives from Strathcona County and the developer. Sixteen display boards were available for viewing and handout packages and comment sheets were provided to those who attended.

  As the open house was held in collaboration with the open house for the Cambrian Crossing Area Structure Plan, many comments received related to the specifics of that proposal. In relation to land use changes within the ACP, there were concerns expressed over the proposed land use change from industrial to residential for a portion of the Plan Area. These concerns related to the perceived loss of economic development opportunities by reducing the amount of developable industrial land, as well as to challenges associated with locating industrial and residential uses in close proximity to each other.

  The concerns raised at the public open house are important. Efforts were made to communicate the justification for the inclusion of residential uses (see **Section 1.3**) as well as to reassure the participants that measures will be taken to properly buffer residential development from industrial uses. Policies have been included within this ACP to ensure that appropriate measures are taken to transition uses as part of future Area Structure Plans and subsequent stages of planning and development.

- **Public Hearing – July 6, 2010**
  As part of the approval process, a Public Hearing was held in Council Chambers on July 6, 2010 to provide opportunity for members of the public to comment on the proposed Area Concept Plan. A total of six individuals registered to speak, of which four spoke in favour of the development and two were opposed. A total of four letters were received by Council, of which three were opposed and one had concerns.

3.4.4 Third Consultation Process (2012 – 2013)

A third consultation process was undertaken as part of the amendment to the Cambrian Crossing ASP for lands located between Range Road 231 and the Oldman Creek.

- **Workshop – December 11-12, 2012**
  A workshop was held to bring together stakeholders to review the existing Cambrian Crossing ASP and the proposed changes to the plan. A brief presentation was given, providing background information and the intent of the amendment. Stakeholders were then split into three groups where additional discussions and design work were completed. The workshop ended with a presentation on the conceptual design for submission to the County.

- **Public Meeting – April 18, 2013**
  A public meeting was held to present the amendment to the Cambrian Crossing ASP to the public. The open house was held concurrently with the proposed Municipal Development Plan and North of Yellowhead ACP amendments.
  Approximately 40 landowners attended the open house along with representatives from Strathcona County, the developer, and consultants. A presentation was provided by the consultant and developer which was followed by a question and answer period. Display boards with the proposed concept were also provided to those who attended.
  As the public meeting was held in conjunction with the amendment to the Cambrian Crossing ASP, comments received were in specific relation to that proposal. The majority of comments received were positive and in favour of the proposed changes.

3.4.5 Fourth Consultation Process (2014 and 2021)

A fourth consultation process was initiated as part of the amendment to the Cambrian Crossing ASP for a portion of the land located between Oldman Creek and Highway 21. As part of the amendment process, the following public engagement events were organized to seek input on the proposed plans from stakeholders in the area.

- **Public Information Meeting – February 5, 2014**
  The amendment plan proponent hosted a public information session in February 2014. The purpose of the meeting was to explain to residents and landowners the overall vision for the proposed community, provide an overview of the proposed amendment, and explain the next steps of the amendment process and how they can continue to be involved in the process. The Public Information Meeting included presentation boards to illustrate the proposed amendment, a presentation from Stantec and Mattamy, and a Q&A period about the proposed amendment.

- **Public Consultation – March 2021**

Due to COVID-19, a public meeting was not held to present the final version of the proposed amendments to members of the public. Rather, the following engagement with members of the public took place:

1. A project website was developed to provide information on the proposed amendments, the amendment process, and application timelines. Additionally, a link to an electronic survey was provided for on the website and asked members of the public to provide their respective feedback on the proposed amendments. The survey was open from March 15, 2021 to March 29, 2021.

2. A Notice of Public Consultation was sent to landowners within a 100m buffer of the proposed amendment area. This Notice of Public Consultation included background and contact information, as well as a link to the project website.

3. A Notice of Public Consultation was placed in the local newspaper on March 15, 2021 and March 23, 2021. This Notice of Public Consultation included background and contact information, as well as a link to the project website.

In total, 10 surveys were completed, and no other feedback was received. Of these surveys, all but one of the respondents indicated support of the proposed amendments citing positives such as the amenity rich neighbourhood and connection to natural features and open spaces. The respondent indicating non-support did not provide rationale for their non-support.

4.0 SITE CHARACTERISTICS

4.1 Natural Features

In 2002, Geowest Environmental Consultants Ltd. was retained to complete a baseline Biophysical Inventory of the ACP area. The project was conducted as a reconnaissance-level inventory to identify potentially significant and/or sensitive ecological features within the ACP area and to recommend potential management actions to conserve these features.

Research was conducted through literature reviews, aerial photo interpretation and an in-field assessment of the area. The literature review and field inventory were used to develop a biophysical map which classified the area into 17 different biophysical units based on ecological parameters such as vegetation community type, parent soil material, drainage and slope.

A Biophysical Assessment of the site was performed by Spencer Environmental Management Services Ltd. in December 2008 for the lands located east of Range Road 231. Stantec Consulting completed an addendum to the Spencer report in December 2012 in support of the amendment to the North of Yellowhead ACP. In 2014, Ecoventure Inc. submitted an additional supplementary Biophysical Assessment. The Biophysical Assessments identify a number of natural features including a Crown Claim Wetland, numerous unclaimed wetlands, Oldman Creek and an Aspen tree stand.

See **Map 5 – Site Features** for information on natural features of the Plan Area.

4.1.1 Topography and Drainage

The area is generally level to gently and moderately undulating and rolling. Elevations range from 620 to 685 metres above sea level, with a sloping trend toward the North Saskatchewan River Valley. A prominent Hill is located in the centre of the Plan Area adjacent to Range Road 231 and will be retained upon the development of the lands (see **Map 5 – Site Features**).

Oldman Creek is the main drainage feature in the plan area. It drains an area of approximately 100 square kilometres of agricultural land and acreage development, which extends to the south and east near Cooking Lake. The eastern half and northern portion of the area slopes toward the Oldman Creek and much of the western portion slopes northward and drains to the North Saskatchewan River via two stream courses. Two smaller tributaries join Oldman Creek within the ACP area.

Urban Systems completed a Flood Risk Mapping study in July 2014 to determine the anticipated 1:100 year water elevation for the 4.3 km of Oldman Creek that borders the west side of the Cambrian Crossing East ASP area. The analysis completed showed that the 1:100 year flow event would likely stay within the current top of bank limits as determined during the Top of Bank Walk, and that no additional setback would be required to accommodate the 1:100 year flow event.

4.1.2 Geology and Soils

The study area is underlain by the Upper Cretaceous sandstones, mudstones and shales of the Horseshoe Canyon Formation. This formation outcrops within the lower reaches of Oldman Creek. Shales, sandstones and ironstone of the Upper Cretaceous Bearpaw Formation underlie the Horseshoe Canyon formation. Surficial sediments consist mainly of fine-textured glaciolacustrine and moderately fine-textured morainal materials. Colluvial and fluvial materials are found throughout the Oldman Creek valley, while glaciofluvial and organic materials are scattered throughout the upland areas.

Due to the complexity of landforms within the North of Yellowhead ACP area, a variety of soil types are found. The area is dominated by Orthic Black Chernozemic soil but there are occurrences of Orthic Gray Luvisols, Gleyed Cumulic Regosols, Orthic Gleysols and Typic Humisols.

Further to the above, a Geotechnical Overview was conducted by J.R. Paine and Associates Ltd. for the lands east of Range Road 321 in 2007. The purpose of the Geotechnical Overview was to determine sub-soil data and to conduct a detailed slope assessment for Oldman Creek. A total of 29 testholes were drilled and confirmed that soils consist of surficial topsoil underlain by lacustrine clay and silt, then by glacial clay till and local bedrock. The Overview recommends that stormwater management facilities should not be placed within 75 metres of the top-of-bank of Oldman Creek in order to alleviate stability issues relating to the ravine slopes. In addition, a development set-back ranging between 7.5 and 32.5 metres and a trail set-back of 7.5 metres is recommended from the top-of-bank. Further geotechnical investigation is required with respect to building foundations.

The Biophysical Assessment recommended the reuse of soils from destroyed wetlands that support Gratiola Neglecta.

Hoggan Engineering and Testing Ltd. was retained in 2013 to complete additional geotechnical analysis to support of an amendment to the North of Yellowhead ACP. The study focused on the west side of the Cambrian Crossing plan area, specifically S.W. ¼ 24-53-23-W4M and N.W. ¼ 13-53-23-W4M.

In November 2014, J.R. Paine & Associates completed a geotechnical investigation to further the understanding of the soil conditions in the Cambrian Crossing East ASP area. J.R. Paine & Associates provided recommendations regarding grading, groundwater management, and construction methods.

In 2014, the Top of Bank line was established from input from Urban Systems, Ecoventure, J.R. Paine & Associates, and Strathcona County. This Top of Bank line has been used to determine appropriate Environmental Reserve setbacks. In 2015, these setbacks were updated with further input from J.R. Paine based on slope stability recommendations.

4.1.3 Vegetation

Much of the land within the ACP has been cleared for agricultural purposes. The remaining lands represent three main vegetation communities: young to mature upland forests; open, grassy riparian shrub lands; and small wetland patches.

In an effort to conserve existing vegetation, the 2008 Biophysical Assessment conducted for lands east of Range Road 231 recommended the following measures:

- Retention of the poplar/aspen stand;
- No vegetation clearing between May 1 and July 31 unless a bird survey is undertaken;
- No vegetation clearing between February 15 and March 31 unless an owl survey undertaken; and
- Implementation of tree retention measures.

Ecoventure Inc. prepared a Tree Stand Inventory in support of the 2014 North of Yellowhead ACP amendment. The Tree Stand Inventory concluded the partial removal of the tree stand would require best management practices, potential replantation, and compliance with County/Regional and Federal requirements in order to salvage as much of the tree stand as possible and retain ecosystem functioning.

4.1.4 Hydrology

The hydrology of the Plan Area is connected to the Oldman Aquifer, an aquifer that is comprised of porous and permeable parts of the Oldman Formation present below most of Strathcona County. There are seven wells within the upper bedrock aquifers and 4 within the surficial deposits that have been identified. A naturally-occurring spring is located within the ACP area. The Geotechnical Overview conducted for the lands east of Range Road 231 identified a groundwater table of 0.95 to 10.54 metres.

The Oldman Creek and related wetland areas have been designated as a locally-significant environmentally sensitive area in *Environmentally Sensitive Areas: County of Strathcona and Municipal District of Sturgeon,* EMRPC 1989. The baseline assessment also identified the creek valley as environmentally sensitive. Much of the Oldman Creek corridor has a Priority 1 ranking (high priority for conservation or restoration) in the 1997 *Priority Conservation Landscape Habitats in Strathcona County, Alberta*.

The 2008 Biophysical Assessment recommended the following measures to protect hydrological functions:

- Protection of Oldman Creek through the application of a 30 metre set-back from top-of-bank, restoration of disturbed areas and minimization of creek crossings, including use of the existing farm access;
- Retention of pre-development flows in Oldman Creek; and
- Locating industrial uses away from areas of high permeability or near surface groundwater.

Additional geotechnical and biophysical studies have provided more detailed information about the slope stability and ecological value of the Oldman Creek ravine bank since the plan was approved in 2011. With the recommendations from the geotechnical study and

the biophysical analysis, the top of bank setback may be revised in areas to a varied setback ranging from 36 m to approximately 10 m.

4.1.5 Wetlands

The Biophysical Inventory conducted in 2002 did not identify or assess wetlands within the Plan boundaries. The 2008 Biophysical Assessment identified wetlands within the ACP lands located east of Range Road 231. Associated recommendations are as follows:

- Retention of three particular wetlands and provision of a 6 metre buffer around them (see **Map 5 – Site Features** for details); and
- Undertaking of a wetland survey for legal description N1/2 13-53-23-W4 during the spring or summer.

In 2014, Ecoventure Inc. was retained to review the Biophysical Update (Addendum) to the Draft Spencer Environmental 2008 Biophysical Assessment in support of the 2014 North of Yellowhead ACP Amendment. In addition to the Biophysical Assessment, Ecoventure Inc. also prepared a Tree Stand Inventory (discussed in section 4.1.3) and Water Body Assessment in support of the 2014 Cambrian Crossing ASP Amendment.

The Water Body Assessment (2014) identified nine wetlands within NE-13-053-23 W4M and another nine wetlands within SE-24-053-23 (including one Crown Claimed wetland). Within the NE-13 there were two Class II, four Class III and three Class IV Wetlands (Wetland No. 4 (Spencer Wetland No. 27), No. 10 (Spencer Wetland No. 38) and No. 12). Within SE-24 there were five Class III and four Class IV Wetlands (Wetland No. 1, 3, 5, 7), one Class IV which was determined to be a Crown Claimed wetland (Figure 2). The upland regions of these wetlands were determined to be severely restricted as a result of the cultivating practice of plowing right to the edge of, or in some cases through, the wetland, and were significantly influenced through the presence of manmade drainage ditches. Retention of the heavily anthropogenically influenced wetlands would likely not be sustainable due to the impact of the urban development footprint. Based on this conclusion, Ecoventure did not recommend conservation of the wetlands within the proposed neighbourhood development other than the Crown-Claimed wetland.

4.1.6 Wildlife

No formal wildlife inventory was undertaken as part of the Biophysical Inventory conducted in 2002. The study observed typical and productive boreal / parkland bird communities in the coniferous and deciduous areas along the Creek. Bird species considered typical of interior forests were not recorded, likely due to existing levels of disturbance in the area. In the small wetland area, blackbirds, mallard ducks, Canada geese, and killdeer were observed. These species are characteristic of open, disturbed areas and are found throughout the province. Mammal species that were recorded in the area included: white-tailed deer, mule deer, red squirrel, beaver, coyote, muskrat, and snowshoe hare and black-tailed jack rabbit. Other birds and mammals observed and noted by area residents include: owls, hawks, pheasants, grouse, woodpeckers, herons, ducks, mud hens, moose, porcupines, badgers, red foxes, weasels and skunks.

The Biophysical Assessment conducted for the ACP lands east of Range Road 231 included a wildlife assessment. The Assessment recommended that breeding bird and amphibian surveys should be undertaken for two wetlands (27 and 38 as shown on Map 5 – Site Features).

4.2 Encumbrances

4.2.1 Oil and Gas

A number of pipelines intersect the Plan Area, as shown in **Map 5 – Site Features**. Two petrochemical pipeline corridors in the northern part of the Plan area have a 30 metre right-of-way, while the ATCO gas lines in the southern half each have a 15 metre right-of-way. As required by the Alberta Energy and Utilities Board, pipelines with a maximum operating pressure of 3447.5 kPa (500 lbs / in) or more require a 15 metre setback from the pipeline right-of-way to all principal residential, commercial and industrial buildings. This setback applies to all pipelines and gas lines in the Plan Area. Additionally, a well site is located in the southwest portion of the Plan Area, as shown on **Map 5**.

4.2.2 Railways

As shown on **Map 5 – Site Features**, CN and CP railway lines cross through the ACP area and are connected by a crossover east of Range Road 232. This is one of the few rail interconnects in the metropolitan region, providing a potential transportation advantage to business and industry.

4.2.3 Utility Lines

As outlined on **Maps 8 – Water Servicing Concept, 9 – Sanitary Servicing Concept and 10 – Storm Water Servicing Concept**, the Plan Area contains a number of existing utility lines that will need to be respected as part of future planning and development.

Three water mains are located in the Plan Area. One extends through the Griffon Industrial Park while a second, the Capital Region Northeast Water Commission Transmission Main (600 mm diameter), runs approximately along the alignment of the CP railway. The Trunk Water Main extends along the alignment of Range Road 232 within the boundaries of the ACP.

Sanitary mains include a main throughout Griffon Industrial Park as well as a sanitary trunk main running along the east side of Range Road 232 to the Capital Region Sewage Treatment Facility.

Storm mains are provided within the Griffon Industrial Park.

4.3 Historical Resources

During the preparation of the original ACP, the Heritage Resources Management Branch of Alberta Community Development (now Alberta Culture and Community Spirit) was consulted regarding compliance with the *Historical Resources Act* requirements and advised that an Historical Impact Assessment would be required prior to development proceeding.

In 2009, as part of the planning for the Cambrian Strathcona Joint Planning Initiative, an Historical Resources Overview was conducted for the area east of Range Road 231and an Historical Resources Act Clearance Letter was issued by Alberta Culture and Community Spirit thereby confirming that no further study is required.

5.0 DEVELOPMENT CONCEPT

5.1 General

The development concept for the North of Yellowhead ACP lands provides a framework for the future planning and development of land within the ACP boundaries. The development concept is outlined on **Map 6 – Development Concept** and development statistics are provided in **Appendix B**.

5.2 Vision

The North of Yellowhead ACP supports the efficient and effective use of land and resources with the intent of diversifying the industrial land base as well as facilitating the responsible urbanization of the remainder of the Urban Service Area of Sherwood Park.

5.3 Land Uses

5.3.1 Agriculture

5.3.1.1 Overview

A large portion of the lands identified within this ACP consist of undeveloped farmland and existing intensive horticulture uses. Although located within the Sherwood Park Urban Service Area, these lands are currently zoned for agricultural uses in the Land Use Bylaw. Over the long term, it is envisioned that the large undeveloped tracks of land within the Plan Area will convert to more intensive development. In the interim, however, these areas will be protected for agricultural production. Intensive horticulture land uses exist in the north-east area of the ACP and will provide a land use transition between the existing country residential developments and the proposed urban expansion to the south.

5.3.1.2 Goal

To avoid premature subdivision and fragmentation of agricultural land and to support agricultural practices that are conducive to the development of an urban environment in the long-term.

5.3.1.3 Objectives

- Avoid premature fragmentation of agricultural land.
- Maintain intensive horticultural operations in appropriate areas.
- Support urban agricultural activities.

5.3.1.4 Policies

A1: Existing agricultural uses shall be permitted to continue in accordance with existing land use regulations.

A2: The inclusion of urban agriculture practices as part of future residential development shall be addressed as part of an approved Area Structure Plan.

A3: Urban agriculture opportunities shall be provided on all public lands.

5.3.2 Residential

5.3.2.1 Overview

Country residential uses are proposed to continue within the existing subdivisions of Akenside and Oldman Creek Estates and represent approximately 30 hectares (74 acres) of the Plan Area. The continuation of individual farm homes is not anticipated as part of this ACP; however, existing farm homes will be retained until that time as development interest presents itself.

Urban residential development is anticipated for lands located east of Range Road 231 and is further articulated as part of the Cambrian Crossing Area Structure Plan. As part of this ACP, lands have been designated for low and medium density residential development, as indicated on **Map 6 – Development Concept**. The residential areas within Cambrian Crossing may include single dwelling, semi-detached dwellings, multiple townhouse dwelling styles, low-rise apartment dwellings, and vertical / horizontal mixed-use commercial/residential, some with commercial opportunities on the ground floor and residential dwelling units above. The land use concept has delineated a 'Residential' land use designation that allows for single, semi-detached, and townhouse dwellings, and a 'Medium Density Residential' land use designation that allows for multiple townhouse dwelling styles, low-rise apartment dwellings, and vertical / horizontal mixed-use developments.

5.3.2.2 Goal

To support residential development at urban densities that exemplifies quality in form and function, supports community cohesion and provides the ability for participation in the housing market by all sectors of the public.

5.3.2.3 Objectives

- Allow for the continuation of the form and character of the Akenside and Oldman Creek Estates residential subdivisions.
- Achieve urban densities for new residential development in accordance with the policies of the Edmonton Metropolitan Region Board.
- Address the proper transitioning and mixing of uses to minimize impacts from surrounding nuisances, including highway noise and light pollution from existing industrial activities.
- Provide for residential housing types that vary in type, scale, tenureship and affordability.
- Allow for employment and business opportunities in association with residential development.
- Ensure new residential development is high quality in terms of design, materials and energy efficiency.

5.3.2.4 Policies

R1: Residential uses within the Akenside and Oldman Creek Estates shall be permitted to continue in accordance with existing land use regulations.

R2: New residential development shall be developed in accordance with an approved Area Structure Plan.

R3: A minimum average density shall be achieved over the Plan Area in accordance with densities set by the Edmonton Metropolitan Region Growth Plan.

R4: Residential densities shall be allocated in a balanced manner based on total dwelling units and housing form. A severely increased density in one area to allow for significantly reduced densities in other areas shall be deemed unacceptable.

R5: All new residential development shall be connected to open space, schools and service amenities by way of vehicular and/or non-vehicular transportation linkages.

R6: A Noise Impact Study shall be completed by a qualified professional as part of an Area Structure Plan that proposes residential development.

R7: New residential development shall exercise methods to mitigate negative impacts of non-residential uses to the satisfaction of the Approving Officer as part of the Development Permit process.

R8: New residential development shall contemplate the inclusion of home businesses and live/work opportunities.

R9: New residential development shall contemplate the inclusion of secondary suites and garden suites.

R10: Affordable housing is encouraged as part of new residential development and shall be explored in accordance with an Area Structure Plan.

R11: Higher residential densities and a variety of housing forms can be developed at the intersections of the collector roadways east of Oldman Creek and Gateways, along with other locations as may be appropriate.

5.3.3 Commercial

5.3.3.1 Overview

Existing commercial uses located north-west of the Highway 16 and Range Road 231 intersection are proposed to continue. Greenland Nursery and Landscaping Ltd. as well as Wallish Greenhouses Ltd. are important contributors to the regional horticultural industry and continue to be identified as Highway Commercial under this Plan. Highway Commercial uses are considered to be large in scale and located along highways.

Commercial uses proposed to occur on lands located east of Range Road 231 consist of Community Commercial, Service Commercial, and Arterial Commercial land uses (see Map 6 – Development Concept). Community Commercial uses will consist of small to medium sized commercial and service-based uses that service the local community. Community Commercial should be street-oriented and located along roadways of higher visibility and accessibility. Commercial Arterial land uses will consist of larger format commercial uses to serve the local community and regional population.

Commercial uses within the Main Street Node must be developed in association with residential development. These commercial uses should provide day-to-day services for residents of the neighbourhood, be street-oriented and located at intersections of major roadways. The Main Street Node should provide the commercial function on the ground level of a multi-storey residential development, with possible commercial uses located on the upper floor.

5.3.3.2 Goal

To support a range of commercial uses that are appropriate to surrounding uses, supportive of a mixed economy and accessible to residents of the area.

5.3.3.3 Objectives

- Allow for the continuation of existing Highway Commercial uses.
- Promote a diversified economic base, particularly those businesses that are locally-owned and operated, employ residents of the Plan Area and/or demonstrate innovation in terms of environmental practices and technology.
- Give heed to the proper transitioning and mixing of uses to support the daily service needs of neighbourhood residents.
- Ensure Community Commercial development is street-oriented and accessible to pedestrians.
- Allow for employment and business opportunities in association with residential development.
- Ensure new commercial development is high quality in terms of design, materials and energy efficiency.

5.3.3.4 Policies

C1: Existing Highway Commercial uses north-west of the Highway 16 and Range Road 231 intersection shall be permitted to continue in accordance with current land use regulations.

C2: New commercial development shall be developed in accordance with an approved Area Structure Plan.

C3: All Community Commercial development shall be street-oriented and accessible to pedestrians and cyclists.

C4: Commercial development shall be located within 400 metres of any new residential development within the Plan Area.

C5: Opportunity for shared and/or reduced parking shall be explored at the Development Permit stage for all commercial development in the Plan Area located east of Range Road 231.

5.3.4 Industrial

5.3.4.1 Overview

Proper planning and development of the North of Yellowhead ACP is strategically important in helping achieve Strathcona County's goal of diversifying its economic base, creating more intensive value-added employment opportunities, and developing in a sustainable manner.

The ACP lands are well-suited for industrial development, and include large tracts of undeveloped land, existing highway and rail links and industrial land uses. The Plan Area is bordered by Highway 16 and 21 to the south and east, respectively, the City of Edmonton industrial lands to the west, agriculture lands to the north and is crossed by both CN and CP operated rail lines. This provides an ideal location for attracting a wide variety of industrial uses.

Given the ACP's strategic location and well-developed highway and rail links, it is a natural area for expanding and attracting additional business and industrial uses. A critical mass of existing Medium Industrial uses along the western boundary of the Plan provides opportunities for a logical expansion in an eastward direction. In the long term, industrial uses are intended to intensify in terms of the efficiency of land use requirements. In particular, industrial uses located on either side of Range Road 231 should develop into Light Industrial or Service Commercial uses that will allow for a greater diversity of enterprises with lower land requirements.

As illustrated on **Map 6 – Development Concept** an extension of Industrial uses is proposed eastward from existing Medium Industrial uses located along Range Road 232. This provides opportunity for industrial businesses to take advantage of the existing rail and roadway infrastructure. Ideally, medium industrial areas will transition into light industrial and service commercial areas and eventually into other non-industrial areas as one moves from west to east and south to north. A description of the types of industrial uses contemplated and encouraged within the Area Concept Plan area is as follows:

- **Medium Industrial** activities accommodate manufacturing, processing, assembly, distribution and repair services which carry out part of their operations outdoors and may require some outdoor storage of materials and equipment. Typically, Medium Industrial uses do not have significant nuisances (such as noise, odours or visual impacts) associated with them that extend beyond the boundaries of the site.

- **Light Industrial** activities accommodate small-scale manufacturing, processing, and assembly of goods, storage and warehousing, light repair and industrial servicing. Light industrial uses may also accommodate limited wholesale commercial retail and office administration related functions. Unlike medium industrial uses, light industrial activities and uses are primarily carried on within

an enclosed building with no significant nuisance factor apparent outside an enclosed building. Developments consist of buildings with a high standard of design on lots that are landscaped. It should be noted that light industrial areas are not intended to accommodate "big box" retail uses.

- **Business Industrial** activities accommodate industrial support and service based businesses, office and logistics centres for professional contractors and industrial consulting firms, industrial training and education centres, research and innovation centres that may include laboratories. Business industrial uses occur completely to entirely within an enclosed building and do not manufacture, process or store any goods, materials or equipment other than a small fleet of business-related vehicles. These uses are typically located between light and medium industrial uses and non-industrial uses near arterial and collector roadways. Buildings are street-oriented with parking at the rear of the parcel.

Industrial Ecology is the design of industries or groups of industries in a manner that mimics a natural ecosystem. Industrial ecology views the development of industries within a given area as a cyclical or, "closed-loop", system rather than separate individual linear process based businesses. Essentially, industrial ecology or "eco-industrial development" is the formation of a network of industrial companies working together to efficiently use resources and energy, and reduce waste and pollution, while increasing the viability of their own individual business. Industries are designed and built to form a network of interconnecting businesses, where the waste product of one business is utilized as a resource by another.

The North of Yellowhead ACP supports eco-industrial development and encourages new and existing businesses within the Plan Area to incorporate industrial ecology principles. Eco-industrial development could incorporate a number of different types of industries at different levels and scales and therefore further research and coordination regarding this concept is necessary. For example synergies may be formed between an industry located within the Plan Area and another industry outside of the Plan Area.

Eco-industrial developments such as a comprehensive eco-industrial park may occur with lands identified as medium industrial and light industrial, but may also accommodate business industrial developments on those lands.

Adequate environmental and noise buffering must be considered as part of the approval of any future industrial development. Environmental Reserve dedication adjacent to Oldman Creek will mitigate potential environmental impacts. Additionally, considerations for existing and future residents must be given when planning and developing future industrial development. An adequate buffer strip between future industrial development and the existing Akenside and Oldman Creek Estates subdivisions should be provided by a combination of vegetation, earthen berming and fencing.

5.3.4.2 Goal

To promote and support continued industrial development and diversification within areas designated for this purpose in the North of Yellowhead ACP.

5.3.4.3 Objectives

- Provide an adequate supply of industrial land that will be available to meet the diverse needs of prospective industries.
- Support the intensification of industrial uses through an increase in allowances for smaller lot industrial development.
- Facilitate a variety of industrial development through pro-active land use planning and implementation.
- Promote compatibility between industrial development and other land uses through design and location criteria.
- Promote the development of eco-industrial parks.
- Encourage the development of adequate infrastructure to meet current and future industrial needs.

5.3.4.4 Policies

IND1: Industrial development shall be directed to areas shown as Industrial on **Map 6 – Development Concept**.

IND2: New industrial development shall be developed in accordance with an approved Area Structure Plan.

IND3: As part of future development, smaller lot industrial development shall be supported adjacent to Range Road 231.

IND4: Eco-industrial synergy opportunities shall be considered in consultation with Strathcona County as part of any future application for an Area Structure Plan.

IND5: Impacts from industrial uses on existing and future residential development shall be considered as part of future planning for the Plan Area and may require vegetative buffers, earthen berms and/or fencing.

5.3.5 Institutional

5.3.5.1 Overview

There are no institutional uses currently existing within the boundaries of the North of Yellowhead ACP. Future institutional uses may include such uses as places of worship, community facilities, schools, fire halls and government offices. Institutional uses are important 'binding' agents of community as they allow for the development of facilities that promote social interaction and create places for formal and informal gathering.

No specific institutional use has been identified for the southeast site at this time, however; the site has been provided to support the potential for community services uses within the neighbourhood. The east central institutional site has been identified for potential community service uses which include but is not limited to additional

recreation opportunities. Should the east central institutional site not be required, it may revert to residential use without an amendment to this plan.

Three locations have been identified as part of this Plan for institutional uses. As potential future school sites are proposed to occur on Municipal Reserve lands (see **Map 6 – Development Concept**), school uses have been discussed under Section 5.4 – Schools, Parks and Trails.

5.3.5.2 Goal

To provide a suitable land area that will facilitate the future development of institutional uses that have the potential of contributing to social capital.

5.3.5.3 Objectives

- Identify locations for future institutional uses.
- Establish policy direction for future planning and development of institutional uses.
- Encourage institutional development that is architecturally inspiring and that contributes to defining neighbourhood character.
- Provide flexibility for the type of institutional sites.

5.3.5.4 Policies

INS1: Institutional development shall be developed in accordance with an approved Area Structure Plan.

INS2: Institutional development shall be accessible to pedestrians and cyclists.

INS3: Opportunity for shared and/or reduced parking shall be explored at the Development Permit stage for all institutional development in the Plan Area.

5.3.6 Schools, Parks and Trails

5.3.6.1 Overview

Presently there are no developed schools, parks or trails within the ACP boundaries.

The development concept identifies two school sites within the Cambrian Crossing ASP—one located on the west side of Oldman Creek and one located on the east side of Oldman Creek. The west school site will accommodate one school. The east school site will be a joint school site and may accommodate two schools. The future location of the two school sites has been generally shown on **Map 6 – Development Concept**.

Future parks will be developed in accordance with Municipal Reserve requirements as part of the subdivision process. Section 666 of the Municipal Government Act outlines that 10 percent of the gross developable area may be claimed by the County for Municipal Reserve as land or cash-in-lieu.

The trail system within the plan area shall adhere to the requirements of the County Trail Strategy and will connect areas within and outside of the ACP boundaries. The trail system will serve both a recreational and transportation function for residents and employees of the area and will be integrated with the parks and pedestrian network.

The Trail system within the plan area shall adhere to the requirements of the County's Trail Strategy.

5.3.6.2 Goal

To provide educational services and recreational amenities that will contribute to the quality of life for Strathcona County residents.

5.3.6.3 Objectives

- Identify preferred school locations.
- Determine the major multi-use trail corridor for the Plan Area with connections to surrounding trail linkages.
- Establish policy direction for future stages of park and trail development.
- Encourage the development of alternative recreation amenities, including consideration for community gardens.
- Require dedication of Municipal Reserves at time of subdivision.

5.3.6.4 Policies

P1: Future school sites shall be developed in consultation with Elk Island Public Schools and Elk Island Catholic Schools.

P2: Future school sites shall be developed on lands designated as Municipal Reserve.

P3: A multi-use trail network shall be provided throughout the Plan Area generally as indicated on **Map 7 – Transportation Concept.**

P4: Local trail systems shall be determined in accordance with an Area Structure Plan and shall consider linkages to the multi-use trail identified on **Map 7 – Transportation Concept**.

P5: Multi-use trails shall, at a minimum, provide connection to school sites and community recreation facilities.

P6: Park locations shall be determined in accordance with an Area Structure Plan, with details to be determined at time of subdivision.

P7: Future school sites shall have parks associated with them.

P8: Park design and programming shall explore alternative recreation opportunities in consultation with Strathcona County as part of the rezoning and subdivision process.

P9: In accordance with Section 666 of the Municipal Government Act, Municipal Reserve shall be dedicated as 10 percent of the gross developable area as land or cash-in-lieu at time of subdivision to the satisfaction of Strathcona County.

5.4 Environmental Management

5.4.1 Overview

The Plan Area contains a number of environmentally significant features that will require consideration as part of the planning and development of the ACP lands.

Oldman Creek is an environmentally significant area, as identified within the Biophysical Assessment referenced in Section 4.1, and provides important drainage and biological functions. As such, Oldman Creek must be protected through designation as Environmental Reserve, including a suitable set-back for development from the top-of-bank.

Multiple wetlands exist within the Plan Area, primarily on lands located east of Range Road 231. Wetlands should be conserved wherever possible to retain important drainage, habitat, water quality and aesthetic functions. Strathcona County as Wetland Conservation Directive (SER-009-036) to outline the County's 'no net loss' approach to wetland conservation. Mitigation and compensation of wetlands will need to occur in accordance with the Wetland Conservation Directive as well as in accordance with Provincial policies.

The majority of the Plan Area has been cleared of vegetation. A poplar and aspen tree stand has been identified within lands located east of Range Road 231 and should be retained as part of the planning and development of the Plan Area. Strathcona County's Tree Conservation During Development Policy (SER-009-034) outlines how trees are to be protected and maintained during the development process.

During the Biophysical Assessment, wildlife was observed in the Oldman Creek corridor as well as on adjacent wetlands. It is important that the Creek corridor is maintained to conserve habitat functions for wildlife.

Important environmental features that have been identified for protection are shown on **Map 5 – Site Features**.

5.4.2 Goal

To protect environmentally sensitive areas and promote environmentally responsible and sustainable development practices.

5.4.3 Objectives

- Ensure protection of environmentally significant areas.
- Retain or mimic natural hydrological functions to the greatest extent possible.
- Outline studies required for future stages of planning and development.
- Require dedication of Environmental Reserves at the time of subdivision.

5.4.4 Policies

E1: A Biophysical Assessment shall be required as part of any Area Structure Plan developed for lands within the Plan Area.

E2: A Phase 1 Environmental Site Assessment shall be required as part of any Area Structure Plan developed for lands within the Plan Area.

E3: If recommended as part of a Biophysical Assessment, a bird and/or amphibian survey shall be required at time of subdivision or at the time of development when no subdivision application is required.

E4: Approved Strathcona County policy relating to environmental management shall be observed as part of the planning and development process.

E5: Environmental Reserve lands shall be generally located as identified on **Map 5 – Site Features**, with details to be determined at time of subdivision.

E6: Environmental Reserve shall be dedicated as part of the subdivision process for lands defined as such in Section 664 of the Municipal Government Act.

E7: A development setback from the Top of Bank of the Oldman Creek shall be established through geotechnical and biophysical evaluation.

E8: Notwithstanding Policy E7, above, minimum 36 metre wide development setback shall be designated from the top-of-bank of all other water bodies in the absence of additional technical studies.

E9: Existing wetlands and drainage courses may be integrated into stormwater management concepts, where proven to be environmentally responsible.

E10: Development shall not be permitted on land prone to flooding, shoreline erosion or instability hazards unless proven otherwise by a qualified geotechnical engineer in a report submitted to the satisfaction of the Approving Officer as part of an Area Structure Plan.

E11: Efforts shall be made to minimize vehicular crossings of Oldman Creek.

5.5 Transportation

5.5.1 General Overview

The diverse mix of land uses proposed as part of this ACP requires an integrated transportation network in order to effectively manage future transportation activity. All planned roads, transit routes, trails and pedestrian linkages shall be constructed to Strathcona County standards to ensure the transportation network within the Plan area is functional, effective and safe.

There are two major multi-lane divided highways bordering the Plan Area: Highway 16 to the south and Highway 21 to the east. The ACP area is served by three arterial roads; Range Road 231, Range Road 232, and Township Road 534. Township Road 534 will be upgraded and re-aligned to accommodate a direct route from Highway 21 to the Transportation/Utility Corridor Ring Road (Anthony Henday) and provide a connection to the future growth area east of Highway 21. Additionally, there are two rail lines that bisect the ACP lands, a CN main line and a CP branch line. Future planning

needs to reflect the policies of Alberta Transportation and CN and CP Rail, as well as the land requirements for upgrading highways, interchanges and road/rail crossings.

Additional highway right-of-way recently registered in SE ¼ 13-53-23-W4M potentially affects the development opportunities in the southeast portion of the plan area. Further amendments to the collector network may be required based on Alberta Transportation's requirements if permission is not granted from the province to utilize this area for development.

This following sections discuss the transportation characteristics of the ACP land in detail (see **Map 7 – Transportation Concept**).

5.5.2 Roadways

Highways 16 and 21

Highway 16 establishes the eastern border of the ACP and is classified as a freeway facility (i.e. no at-grade intersections permitted). Highway 16 is a primary, divided road with four lanes and a grass median separating opposing traffic.

Highway21 established the eastern border of the ACP and is a four lane primary, divided road with a grassed ditch separating opposing traffic. Alberta Transportation has included Highway 21 as part of the study area for a future Regional Ring Road. Alberta Transportation limits access along these highways by requiring interchange locations to be spaced a minimum of two-miles apart.

Trucks with high/wide loads and/or overweight loads travelling on highways are termed "permitted trucks" and require special routing considerations. Improvements and/or new facilities associated with the development of the ACP lands should be considered as part of the review of regional routing considerations for permitted trucks.

Major Roads

Township Road Rd 534 is an unimproved two-lane arterial road. The road is currently designated and used as a 24-hour truck route in keeping with Strathcona County's Transportation Master Plan. Strathcona County designated Township Road 534 as a truck route in 1998. Area residents have expressed concern with noise and safety issues associated with industrial truck traffic. Currently, there are no other alternatives for moving high or long loads from the industrial area onto Highway 16 or Highway 21.

The Strathcona County Yellowhead North Arterial Road Functional Design Study addresses future connectivity between Anthony Henday Ring Road and Highway 21. Specifically, the study articulates plans to realign Township Road 534. The Township Road 534 re-alignment will extend eastward and loop south of Akenside and Oldman Creek Estate subdivisions as shown on **Map 7 – Transportation Concept**. The new alignment will provide a buffer between the existing subdivisions in the north and the industrial and mixed use developments to the south.

Range Road 232 is a paved arterial road that is currently under-going staged improvements to a divided urban arterial roadway standard. These improvements and widening will impact existing properties and developments on the east side. It is also proposed that a right-of-way for the continuation of the Trans-Canada Trail be incorporated into the Range Road 232 right-of-way.

Range Road 231 is a paved arterial road that has not yet been upgraded or improved to an urban arterial standard. Over time, Range Road 231 and 232 will both be developed to urban standards in accordance with Strathcona County engineering standards.

Local roads in the Griffon Industrial Park are all paved and fully serviced with curb and gutters to full municipal standards.

Railway Lines

Both the CN mainline and CP branch line run through the ACP area. A spur line connecting the two rail lines is located as shown in **Map 7 – Transportation Concept.**

The CN railway traverses the south portion of the ACP area, entering just north of the Griffon Industrial Park at Range Road 232 and exiting just west of Highway 21. The CN railway has two at-grade crossings at Range Road 232 and Range Road 231.

The CP railway passes east-west through the northern end of the ACP, entering at Range Road 232 and exiting at the north-east boundary of the Plan area, just west of Highway 21. The CP railway has three at-grade crossings located at Range Road 232, Range Road 231 and Township Road 534.

Both CN and CP Rail expect rail traffic to increase given continued industrial development in the Capital Region. Given the anticipated increase in rail traffic, consideration should be given to providing future grade separations at the rail/road crossings within the ACP Area. Strathcona County will work with CN and CP Rail to provide grade separated road/rail crossings in the future as the Plan Area develops.

5.5.3 Active Transportation

Sufficient regard needs to be given to non-vehicular forms of transportation such as walking, biking and transit use as part of future planning for the ACP area.

Residential neighbourhoods should be designed to provide pedestrian and bicycle links to commercial and recreational services, schools and employment centres. It is also important to consider that all new roadways should provide sidewalks on both sides with linkages to the trail network.

The ACP lands are presently not serviced by public transit. As development in the area proceeds, employment and population densities should be monitored and transit service provided in accordance with the County's Integrated Transportation Master Plan.

5.5.4 Goal

To provide a functional, effective and safe transportation network that supports the land uses and development within the ACP area.

5.5.5 Objectives

- Provide a safe, effective and functional transportation network.
- Work with Alberta Transportation and the Edmonton Metropolitan Region Board to implement the required regional transportation infrastructure.
- Ensure roadways are built to Strathcona County standards.

- Consider community impacts in design and development of transportation infrastructure.
- Provide for the opportunity to utilize non-vehicular modes of transportation.

5.5.6 Policies

T1: Transportation access and internal arterial and collector road circulation in the ACP area shall be consistent with the network of roadways as conceptually shown on **Map 7** – **Transportation Concept,** the provisions of the Strathcona County Transportation Master Plan and relevant functional planning studies.

T2: Arterial and collector roads within the Plan Area shall be identified as part of an approved Area Structure Plan.

T3: Where a subdivision is proposed along a highway or arterial roadway, the County and / or Alberta Transportation shall determine the following:

a. the location and number of access points;
b. if a service road is required;
c. the development setbacks; and
d. the amount of road widening and/or improvements.

T4: Township Road 534 shall be maintained as a 24-hour truck route for "permitted" trucks until alternatives are available. Due to height restrictions at the interchange of Highways 16 and 21, high loads shall continue to utilize Township Road 534.

T5: Appropriate structures for roadways crossing Oldman Creek shall be determined at time of subdivision.

T6: Prior to the upgrade and re-alignment of Township Road 534, and in order to mitigate the impact of truck traffic and associated safety and nuisance concerns along Township Road 534, the following shall be considered:

a. Placement of signs on Township Road 534 indicating that only two axle vehicles are permitted except with a permit;
b. Reduction of the speed limit to 60 kilometres per hour and enforcement;
c. Required improvements to Range Road 232 and existing culverts in order to re-route general truck traffic north on Range Road 232 using the existing Oldman Creek crossing and existing rural roadways to Township Road 540, as shown on **Map 7** – **Transportation Concept***;*
d. Reconstruction of the intersection between Township Road 534 and Range Road 231 with a buffer to more effectively re-route truck traffic south on Range Road 231, as shown conceptually on **Map 7** - **Transportation Concept**. Institute a system of road bans and signage to redirect general truck traffic.

T7: An operating plan for re-routing truck traffic during construction of any developments within the Plan Area, to ensure safety and minimize community impact, shall be required prior to the approval of any subdivision or development permits.

T8: The Plan Area portion of the Township Road 534 arterial corridor from the Anthony Henday to Highway 21 shall follow the alignment as shown conceptually on **Map 7 – Transportation Concept**. Road right-of-way specifications, the exact location of this road and timing will be determined through a Functional Transportation Study approved by Strathcona County.

T9: Following the re-alignment of Township Road 534, the remaining portions of Township Road 534 will continue to act as a local access road for Akenside and Oldman Creek Estates. Road connections from the existing Township Road 534 to the newly aligned Township Road 534 and timing will be determined through a Functional Transportation Study approved by Strathcona County.

T10: As part of the re-alignment of Township Road 534, Range Road 231 will be also re-aligned as shown conceptually on **Map 7 – Transportation Concept**. Road right-of-way specifications, exact location of this road and timing will be determined through a Functional Transportation Study approved by Strathcona County.

T11: An urban roadway standard with underground powerlines, sidewalks on both sides and curb and gutter shall be required for all roads within the Plan Area. Notwithstanding the forgoing, for local industrial roads that are within the industrial light/medium area of the Plan Area sidewalks may only be required on one side.

T12: Pedestrian/bicycle networks within neighbourhoods shall be determined as part of an approved Area Structure Plan and shall include the following design considerations:

a) Linkages to other neighbourhoods, including pedestrian and bicycle linkages from residential neighbourhoods to employment centres within the Plan Area and other areas in Sherwood Park;
b) A minimum 400 meter distance from all residences to commercial and recreational amenities and school sites; and
c) Linkages to the multi-use trail corridor along Oldman Creek.

T13: Transit service shall be provided within the Plan Area as part of an approved Area Structure Plan. The level of service will be determined based on the projected needs of the area and will be implemented once population and employment density requirements are met and operational budgets are approved.

T14: Opportunities for innovative modes of public transportation such as light rail transit, bus rapid transit and car sharing shall be investigated as part of subsequent stages of the planning process.

T15: Strathcona County will continue to work with CP and CN Rail to establish grade separation crossings at the junction of roads and rail lines within the Plan Area. The locations of possible rail/road grade separation crossings are shown on **Map 7 – Transportation Concept**.

T16: A Traffic Impact Assessment shall be required as part of an approved Area Structure Plan.

5.6 Servicing and Utilities

5.6.1 Overview

At present most of the North of Yellowhead ACP area, excluding the western edge, is serviced with private water and sewage disposal systems. It is proposed that a piped water distribution system and sewage collection system will be extended to all lands included within the Urban Service Area.

Water

As shown on **Map 8 - Water Servicing Concept**, a 400 mm diameter water trunk main has been constructed along the east side of Range Road 232, from Griffon Industrial Park to Township Road 534. This servicing main is part of the existing Clover Bar reservoir, Zone 1 water distribution system. The Griffon Industrial Park is serviced with a water distribution main. The Capital Region Northeast Water Services Commission also has a 400 mm diameter water transmission main that parallels the CP railway within the Plan Area. The Akenside and Oldman Creek Estate subdivisions are currently serviced with a piped water system.

The 2002 Strathcona County Water Servicing Study suggests a servicing concept to service the entire ACP area with a trunk main extended north of Highway 16 along Range Road 231. This trunk main is to be supplied from a new reservoir located west of Broadmoor Boulevard, north of Baseline Road. The existing Clover Bar reservoir would be phased out of Strathcona County's water distribution system over time.

The Plan Area is to be serviced by a system of water mains from the existing trunk mains located in the north-west of the Plan Area and in the south-east corner of the Griffon Industrial Area. A trunk main will be required along Range Road 231 and will ultimately connect to the future reservoir (west of Broadmoor Boulevard and north of Baseline Road) and loop to the existing Range Road 232 trunk water main. Other connecting water mains will provide service to the lands on the east and west sides of Oldman Creek. These water mains will generally follow the collector roads right-of ways for these areas.

Sanitary

The Alberta Capital Region Wastewater Commission Southeast Regional Trunk Sewer (SERTS) is located along the west side of Range Road 232, north of the CP railway. Sherwood Park's North Trunk Sanitary Sewer extends along Range Road 232, south from the SERTS main. As illustrated on **Map 9 - Sanitary Servicing Concept**, the Griffon Industrial Park is serviced by a gravity sanitary sewer tied into the Sherwood Park North Trunk. A 900 mm diameter sanitary sewer stub to the east has been provided off of the SERTS line at Township Road 534. This stub sewer is proposed to service the balance of the un-serviced lands, north of the CN railway, west of Range Road 231 up to Township Road 534. Servicing will be achieved by a trunk sewer north along Range Road 231 and west along Township Road 534 that connects to the stub sewer.

Sanitary servicing of the land east of Range Road 231 can be achieved by a trunk sanitary sewer connecting to the proposed trunk sewer along Range Road 231 which is proposed to discharge to SERTS at Range Road 231 Township Road 534. This trunk

sanitary sewer is proposed to parallel the south and west side of Oldman Creek. A lateral line from this trunk, across Oldman Creek and south of the CP railway, can service land east of Oldman Creek to Highway 21. This lateral line includes a lift station and forcemain, to facilitate the crossing of Oldman Creek.

As the sewage collection trunks are extended, there is a possibility of connecting the Akenside and Oldman Creek Estate subdivisions at the owners' cost.

The sanitary servicing concept is illustrated on **Map 9 - Sanitary Servicing Concept** and consists of a system of collector sewers and trunk sewers discharging on the west side of the development area into the existing ~~6~~900mm stub line and the existing Capital Region Southeast Regional Trunk. The existing Griffon sanitary sewer will be extended eastward to service the area south of the CNR and west of Range Road 231.

A new trunk sanitary sewer connecting to the Southeast Regional Trunk Sewer at Township Road 534 and Range Road 232 will be required to serve lands east of Range Road 231 as noted above, if warranted.

Storm

Oldman Creek is the principal drainage feature in the Plan Area and drains an area of approximately 100 square kilometres of agricultural land and acreage development that extends to the south and as far east as near Cooking Lake north of Township Road 520. The basin includes several lakes and large areas of hummocky moraine, which significantly reduce the flow rates from the upper watershed.

Oldman Creek is formed by two main tributaries with input from several smaller ones in the ACP area. The largest tributary drains an area of approximately 20 square kilometres of agricultural land on the east side and joins Oldman Creek in the northeast of the Plan Area. The smaller tributary enters the ACP area through the interchange at Highway 16 and Range Road 231. It drains a local area of approximately 6.5 square kilometres that extends southward into Sherwood Park. This area is being developed with a series of stormwater management ponds which are intended to maintain the runoff at pre-development rates; however, a small area along Oldman Creek will drain directly to the Creek (without stormwater management), including the interchange and Highway 16.

Generally the ACP area is moderately sloped and well drained. The eastern half and northern portion of the Plan Area slopes toward Oldman Creek, while the western portion, generally lying west of Range Road 231 and south of the CP railway, slopes northward and drains to the north-west through two small stream courses toward the North Saskatchewan River.

Drainage from the predominantly industrial ACP area needs to be managed for a number of reasons, as follows:

1. Peak flow discharges into Oldman Creek must be controlled to reduce flooding and erosion of the creek channel;

2. General water quality must be managed to ensure the Creek achieves acceptable provincial standards using recognized Best Management Practices;

3. Point source pollution must be controlled prior to reaching the receiving water bodies including the detection, containment and clean-up of spills; and

4. Any drainage system must be cost effective.

A 0.8 kilometre wide strip on the west side of the Plan Area has been mostly developed. Two stormwater management ponds control runoff from the Griffon Industrial Park and the medium industrial land north of Griffon, each covering an area of approximately 100 hectares (247.1 acres). Runoff from the Lockerbie and Hole site is to be controlled on-site and discharged at a controlled rate to Oldman Creek.

The standards of road and drainage servicing provided in the Plan Area have the ability to influence the water quality of Oldman Creek, which is an important consideration. For industrial lands, an open drainage system in public drainage corridors is recommended. This will provide more options for storage as well as barriers and easier management techniques to deal with accidental spills. Runoff from the industrial lands will be collected in treatment wetlands before being discharged into the Creek.

Portions of the project area lie inside the Edmonton Garrison Heliport Approach Zone. The Department of National Defence (DND) requires notification of any plans for stormwater ponds in the affected area which would tend to attract birds and increase the bird hazard. These restrictions may have the effect of prohibiting the construction of new wetlands in these areas but would likely not apply to existing wetlands. If wetlands are prohibited, the affected stormwater management facilities would need to be constructed as dry ponds. These issues will need to be clarified with DND at the time that a specific drainage proposal is made.

A stormwater drainage concept is illustrated on **Map 10 – Storm Water Servicing Concept** and consists of a system of stormwater management ponds to control flow to pre-development rates. Ideally, the ponds will be designed as wetlands or as wet ponds to provide for removal of suspended sediments and other contaminants in urban runoff. Stormwater management ponds located within the Edmonton Garrison Heliport Approach Zone may need to be designed as dry (detention) ponds (or an appropriate alternative design) so as to avoid attracting waterfowl. Stormwater management ponds will discharge to Oldman Creek in a controlled manner. On the west side of the project area the stormwater management ponds will be linked with a drainage channel that will discharge at a controlled rate to the natural drainage course on the west side of the project area.

Future development will require stormwater management to include water quality enhancement features and stormwater ponds. Where possible, these facilities should utilize existing wetlands in an environmentally sound manner and may include the application of Low Impact Development strategies to protect water quality.

Franchise Utilities

Existing franchise utilities within the Plan Area are currently provided by Fortis and AltaLink (power), ATCO Gas (gas), Telus Communications Inc. (telephone) and Shaw Cablesystems Ltd. (cable). Details for the provision of these services will be provided in subsequent Area Structure Plans and Engineering Design Briefs.

5.6.2 Goal

To facilitate the efficient development of municipal and private servicing in an environmentally sound manner that will meet the needs of the present and future development population.

5.6.3 Objectives

- Require the provision of municipal services to County standards.
- Require more detailed servicing information at the Area Structure Plan and design brief stages.
- Ensure an optimum level of police and fire protection and emergency services.

5.6.4 Policies

S1: Water servicing shall be provided in general accordance with **Map 8 - Water Servicing Concept**, with details to be determined as part of an Engineering Design Brief, to be submitted as part of an Area Structure Plan.

S2: Sanitary servicing shall be provided in general accordance with **Map 9 – Sanitary Servicing Concept**, with details to be determined as part of an Engineering Design Brief, to be submitted as part of an Area Structure Plan.

S3: Storm servicing shall be provided in general accordance with **Map 10 – Storm Water Servicing Concept**, with details to be determined as part of an Engineering Design Brief, to be submitted as part of an Area Structure Plan.

S4: A Master Drainage Plan that confirms the locations and sizes of stormwater management ponds, the capacity of Oldman Creek, the implications of the Edmonton Garrison Heliport Approach Zone and the conceptual design of the proposed stormwater management facilities shall be required as part of an approved Area Structure Plan.

S5: Any development shall proceed in strict compliance with the Environmental Protection and Enhancement Act, the Water Act, the Public Lands Act, Alberta Environment's Guidelines for Storm Drainage Systems and applicable Strathcona County Policy.

S6: Details on the servicing needs of franchise utilities (gas, power, telephone, cable) shall be provided by developers as part of an approved Area Structure Plan.

S7: Pipeline and utility corridors to accommodate oil, natural gas and product pipelines, as well as utilities such as electrical transmission lines and communications infrastructure shall be considered.

S8: Servicing mains located within CN Rail right-of-ways shall be developed in consultation with CN Rail and in accordance with their engineering standards.

S9: Provision for police, fire and other emergency services shall be addressed in consultation with service agencies as part of future stages of planning and development.

S10: Subdivision applications for lands adjacent to or serviced by the Capital Region Northeast Water Services Commission water distribution main shall involve consultation with the Commission to determine land requirements for right-of-way expansions.

5.7 Community Energy

5.7.1 Overview

In association with the City of Edmonton's Integrated Waste Management System, Strathcona County has been exploring ways in which waste heat can be utilized as an energy source for servicing existing and future development. As part of Edmonton's waste management planning, a gasification plant is being developed that will transform residential waste into biofuels. Syngas, or synthesis gas, is the by-product of the gasification process that consists primarily of hydrogen and carbon monoxide that can be used as a fuel source.

Strathcona County has entered into discussions with the City of Edmonton with the intent of capitalizing upon the waste heat generated during gasification. Heated water can be supplied through piping to existing and future developments to supplement energy needs. The County has identified a staged approach to the development and use of waste heat that includes the Plan Area as a potential receiving area.

5.7.2 Goal

To advance opportunities for the integration of community energy within the Plan Area, in association with the City of Edmonton Integrated Waste Management System.

5.7.3 Objectives

- Ensure opportunities for the integration of community energy are explored as part of future planning within the Plan Area.

5.7.4 Policies

DE1: As part of an Area Structure Plan, consultation shall occur between the developer, the City of Edmonton and Strathcona County to explore the opportunity for, and status of, the integration of community energy within the Plan Area.

6.0 IMPLEMENTATION

6.1 Overview

The North of Yellowhead ACP provides a policy framework for the future planning and development of land. Information provided in this ACP is binding and shall influence subsequent stages of the planning and development process.

The ACP has provided land use direction and policy regarding the form and character of future development. It is important that subsequent stages of planning are not diluted and provide a finer grain of analysis of the subject lands and more detail around the uses, form and character of future development.

6.2 Policy

IM1: Amendments to the ACP shall require a supporting technical report articulating the justification and impacts of the proposed changes.

IM2: A review and update of the ACP shall be undertaken, if required, at five (5) year intervals from the date of adoption.

IM3: Future development requires the preparation of an Area Structure Plan in areas where a proposed development will occur in two or more phases, where the proposed development area is approximately 16 hectares (40 acres) or more, and/or where there is a need to coordinate with development planning of adjoining lands.

IM4: Area Structure Plans shall be developed in accordance with Strathcona County Policy SER-008-007.

IM5: Phasing of development shall be determined by considering market demand as well as the logical and economical extension of roadways, municipal services and infrastructure. If proposed subdivision and development results in the need to construct roadways and other municipal infrastructure in advance of the logical phasing of subdivision, this should be allowed provided the developer finances the required front end costs.

IM6: Individual property owners shall be required to apply for land use district zoning prior to subdivision and/or development if required.

IM7: On-site and off-site costs associated with roadways, utilities and other infrastructure shall be borne by the developer through development charges and levies, as determined through development agreements with Strathcona County.

APPENDIX A - Development Statistics

North of Yellowhead Area Structure Plan

LAND USE & POPULATION STATISTICS

	Area (ha)	% of GA	% of GDA
Gross Area	1010.15	100%	
Railway Right of Way	18.86	1.9%	
Environmental Reserve	70.87	7.0%	
Road Right of Way	32.70	3.2%	
Gross Developable Area	**887.72**		100%
Municipal Reserve	93.04		10.5%
Public Utility Lot	47.74		5.4%
Circulation	178.72		20.1%
Agricultural	39.07		4.4%
Institutional	6.05		0.7%
Industrial	284.39		32.0%
Community Commercial	1.87		0.2%
Arterial Commercial	5.16		0.6%
Service Commercial	22.80		2.6%
Highway 16 Commercial	36.89		4.2%
Total Non-Residential Area	715.73		80.6%
Net Residential Area (NRA)	171.99		19.4%

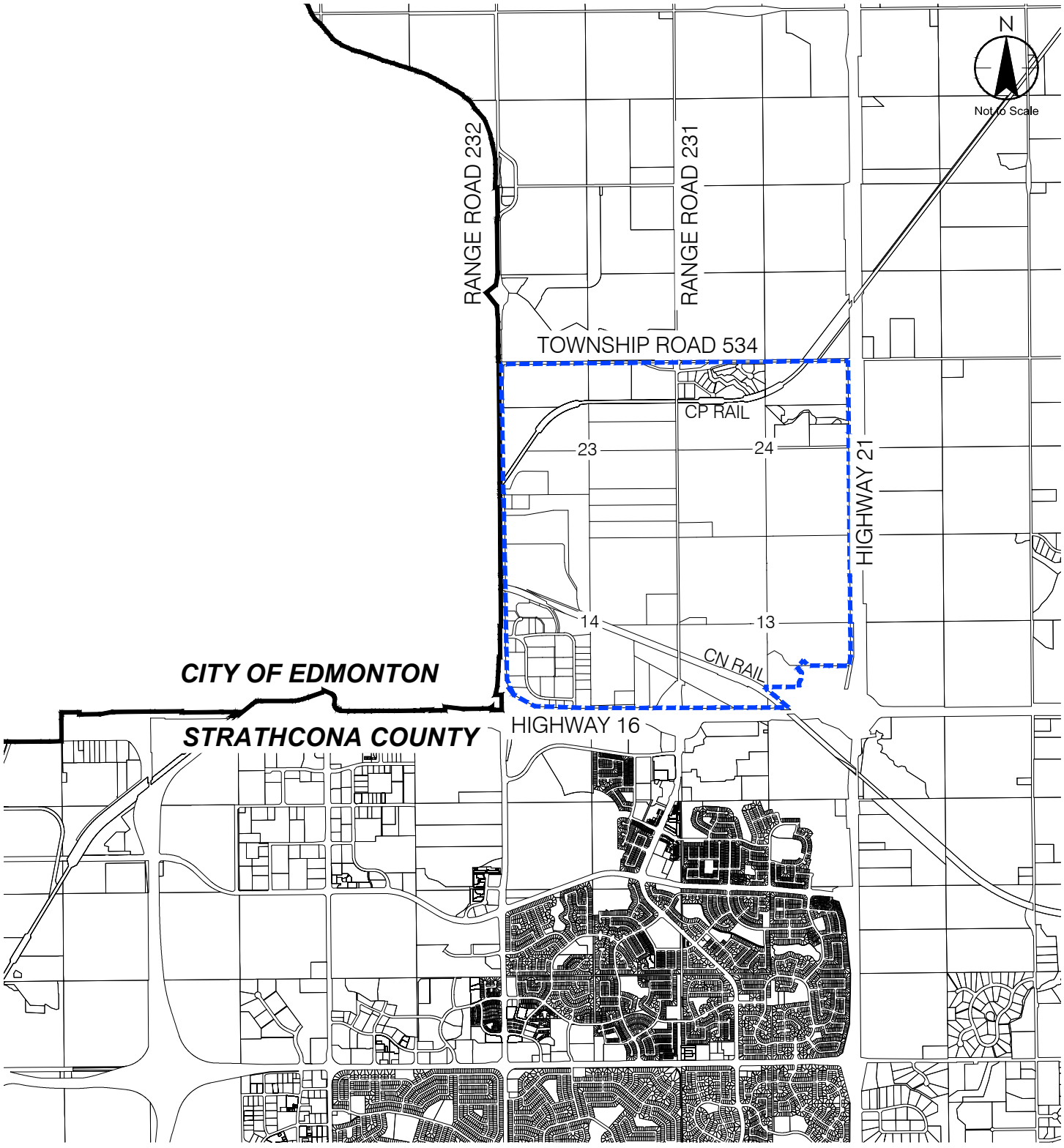
RESIDENTIAL LAND USE, DWELLING UNIT COUNT AND POPULATION

	Area (ha)	Units/ha	Units	% of NRA	People/Unit	Population
Country Residential	29.54	1	30		2.8	83
Low Density Residential	104.50	28	2926		2.8	8193
Medium Density Residential	38.00	56	2128		2	4256
Total	172.04		5084			12532

SUSTAINABILITY MEASURES

Population Per Net Hectare (p/nha)	14
Dwelling Units Per Net Residential Hectare (du/nrha)	29.5

APPENDIX B - ACP Figures



26 | JAN | 2021

Legend

- Municipal Boundary
- Plan Area (991 ha)

Client/Project
MATTAMY (SHERWOOD PARK) LTD.
NORTH OF YELLOWHEAD ACP
STRATHCONA COUNTY

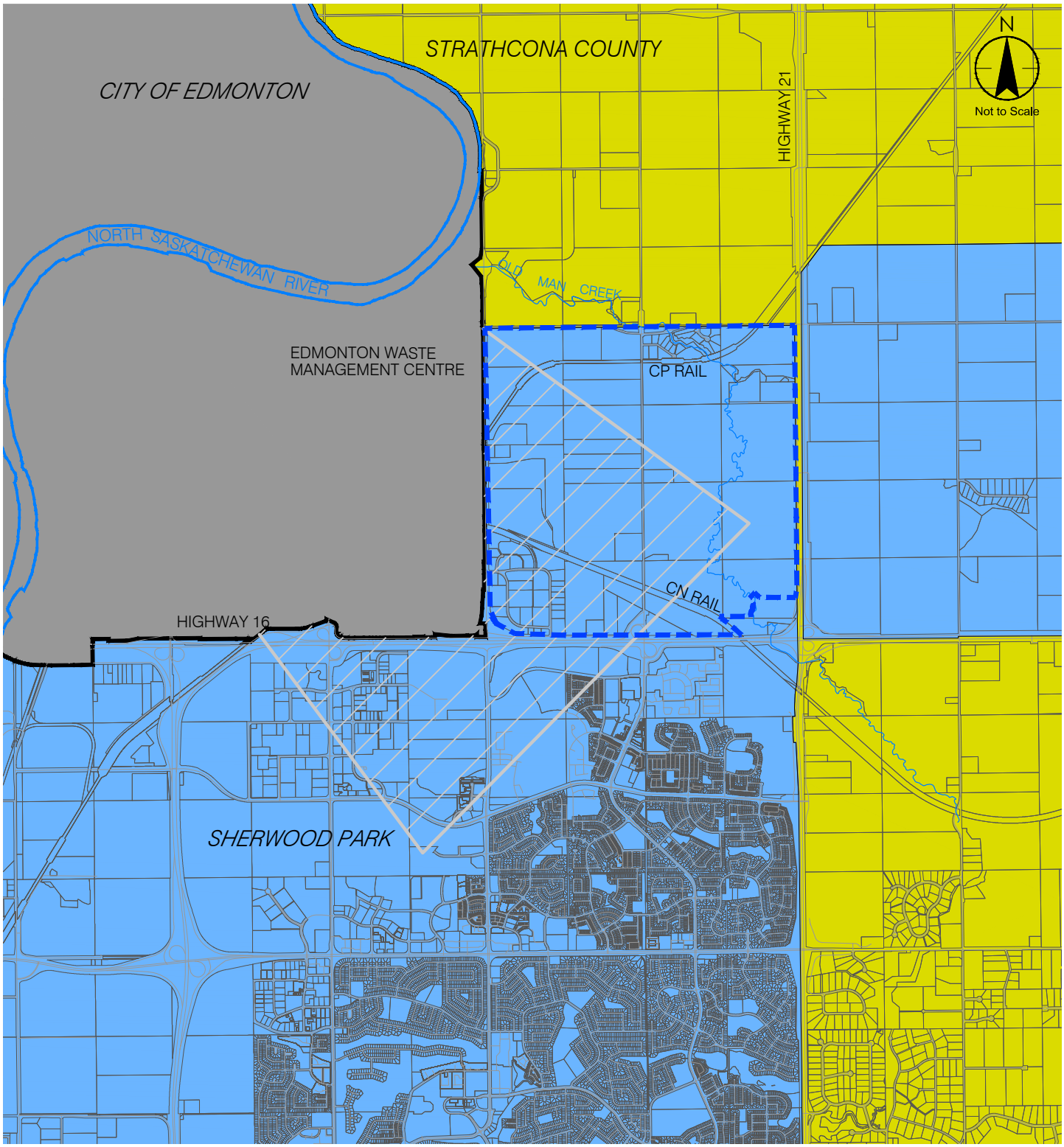
Figure No.
Map 1

Title
Location Plan

1161 108385

Stantec

V:\1161\active\1161108385\drawing\model_files\planning\acp_amend\NY_ACP_Amend_Map1_Location_26jan2021.dwg



26 | JAN | 2021

Legend

- Municipal Boundary
- Heliport Approach Zone
- Urban Service Area
- Strathcona County
- Plan Area (991 ha)

Client/Project

MATTAMY (SHERWOOD PARK) LTD.
NORTH OF YELLOWHEAD ACP
STRATHCONA COUNTY

Figure No.

Map 2

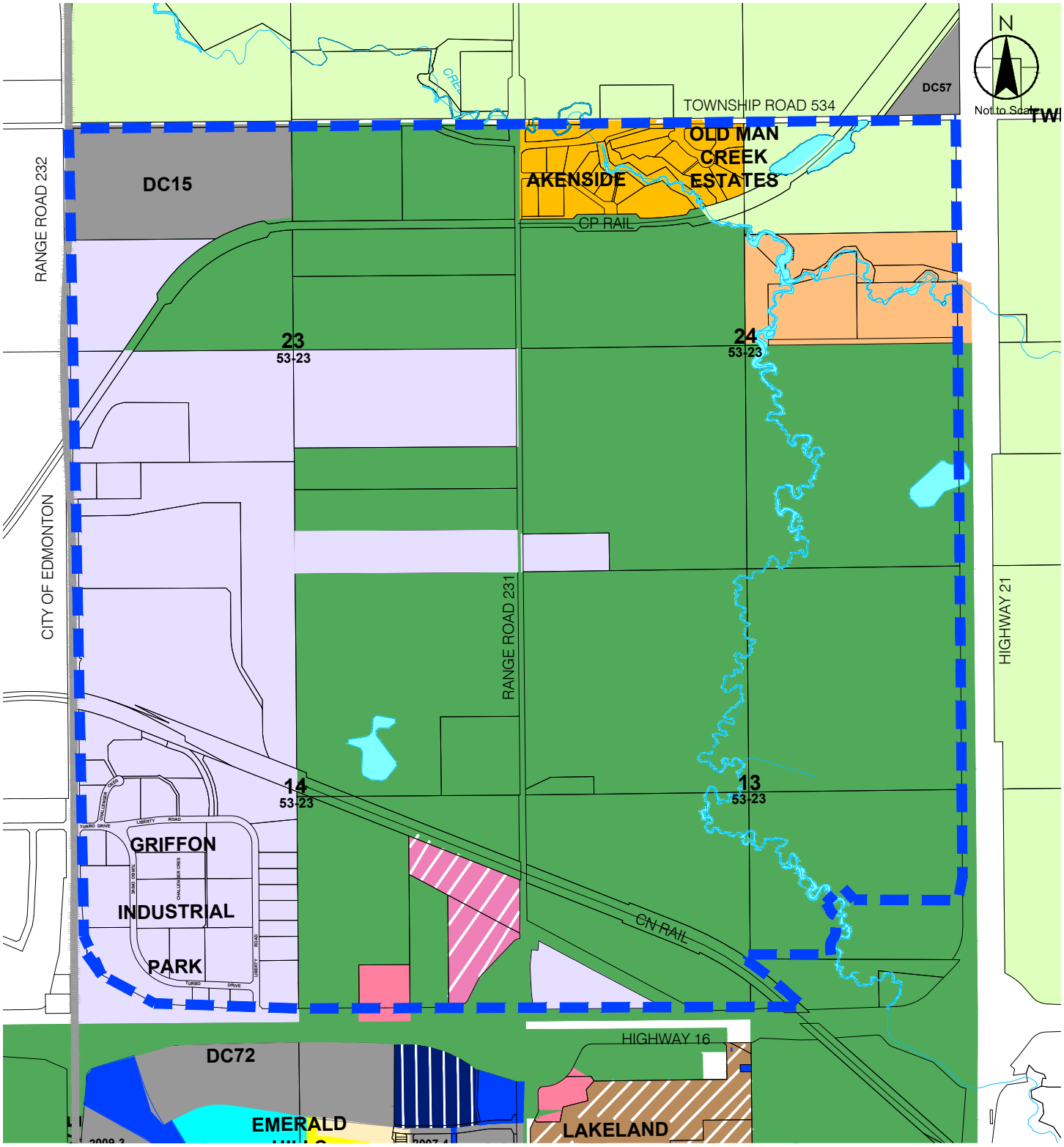
Title

Regional Context

1161 108385

Stantec

V:\1161\active\1161108385\drawing\model_files\planning\acp_amend\NY_ACP_Amend_Map2_Regional_Plan_26jan2021.dwg



26 | JAN | 2021

Land Use Districts

- AD Agriculture: Future Development
- AG Agriculture: General
- C1 Community Commercial
- C3 Highway Commercial
- DC Direct Control
- IA Agri-Buisness District
- IM Medium Industrial
- RA Rural Residential/Agriculture
- RC Country Residential
- Plan Area (991 ha)

Client/Project
MATTAMY (SHERWOOD PARK) LTD.
NORTH OF YELLOWHEAD ACP
STRATHCONA COUNTY

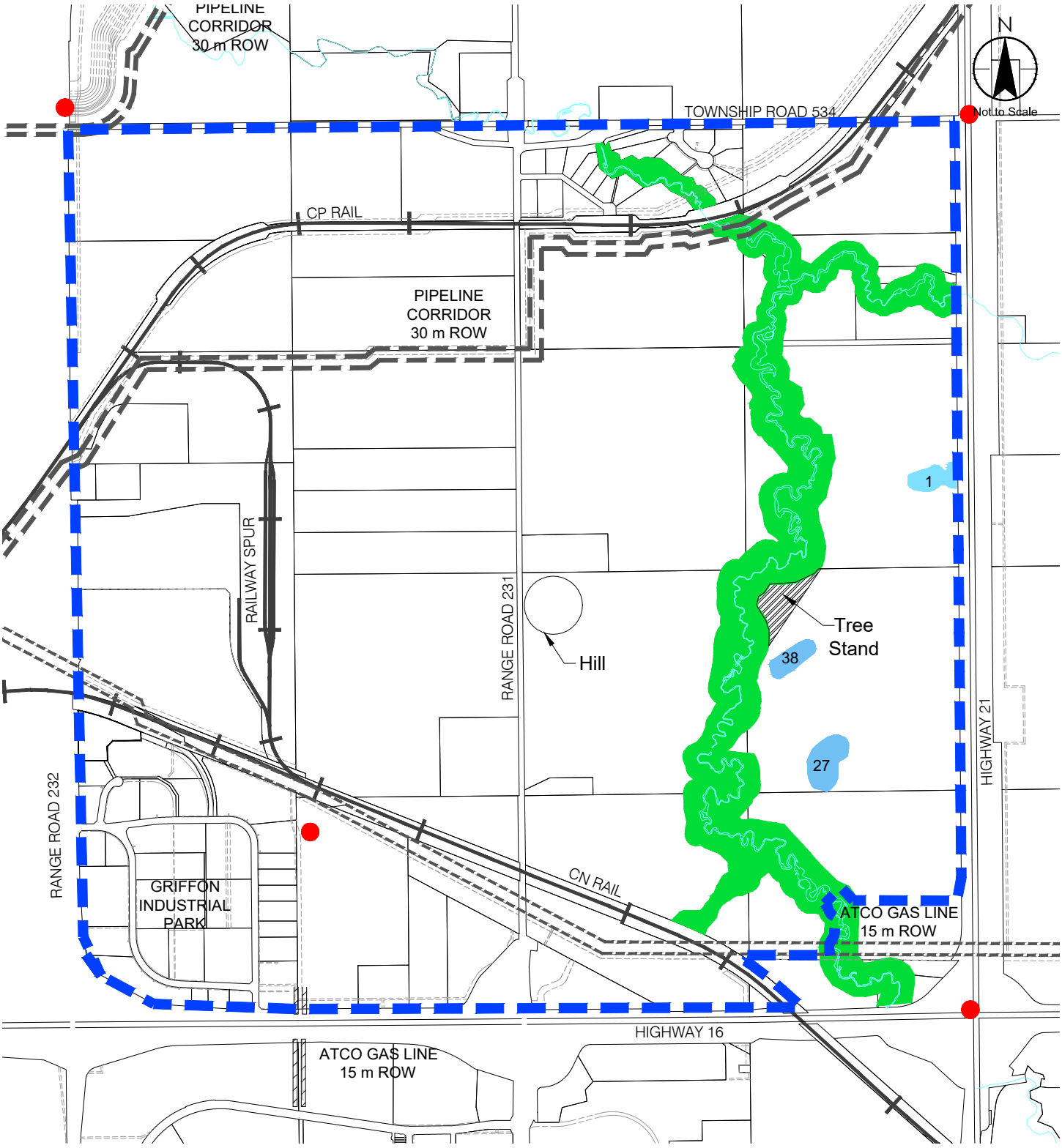
Figure No.
Map 4

Title
Land Use Districts

1161 108385

Stantec

V:\1161\active\1161108385\drawing\model_files\planning\acp_amend\NY_ACP_Amend_Map4_Districts_26jan2021.dwg



26 | JAN | 2021

Legend

- Environmental Reserve
- Atco Gas Line
- Pipeline Corridor
- Oldman Creek
- Plan Area (991 ha)
- Well Site
- Crown-Claimed Wetland
- Low Area

Client/Project

MATTAMY (SHERWOOD PARK) LTD.
NORTH OF YELLOWHEAD ACP
STRATHCONA COUNTY

Figure No.

Map 5

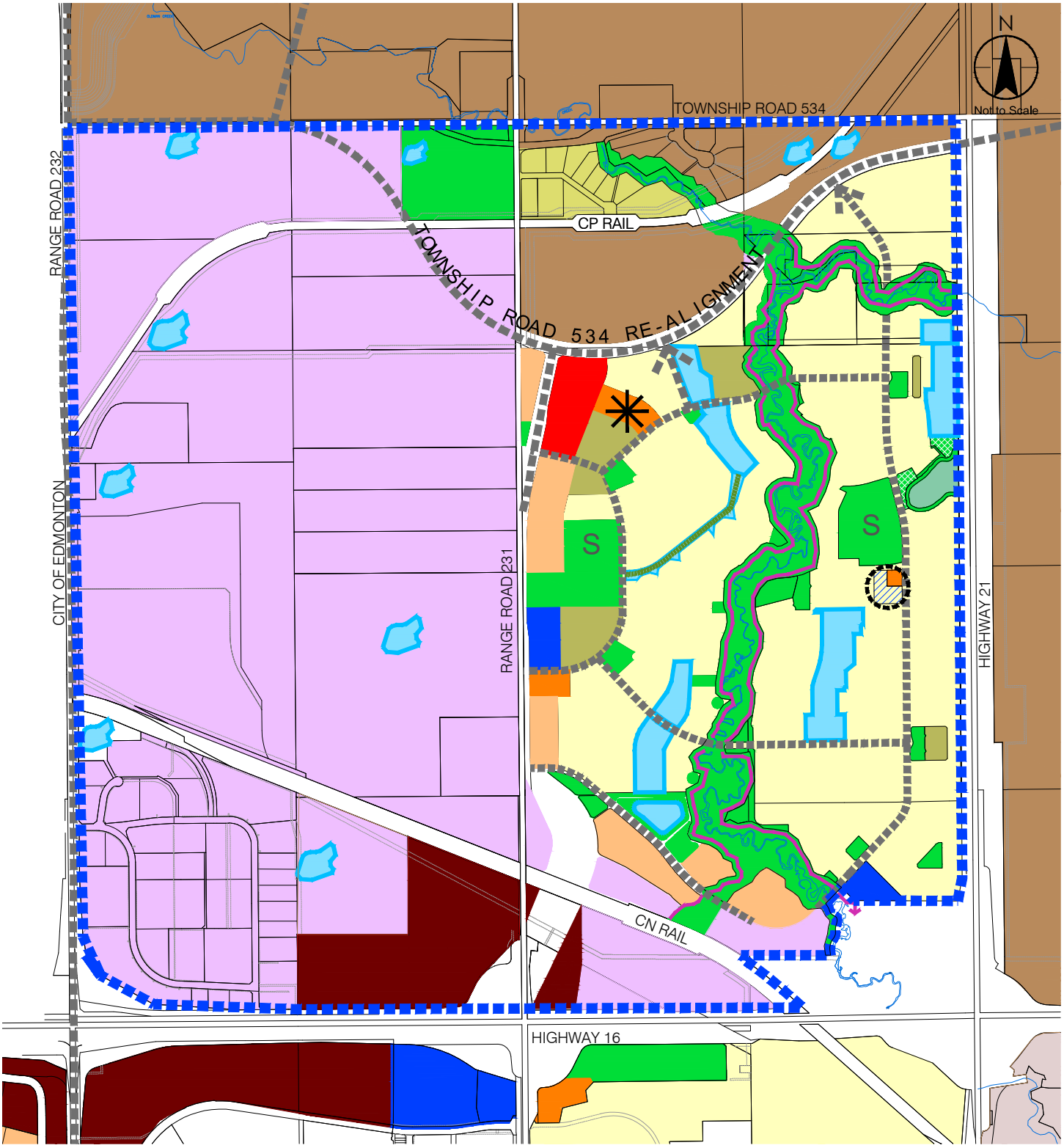
Title

Site Features

1161 108385

Stantec

V:\1161\active\1161108385\drawing\model_files\planning\acp_amend\NY_ACP_Amend_Map5_Site_Features_26jan2021.dwg



26 | JAN | 2021

- AG Large Holdings
- AG Small Holdings
- Arterial Commercial
- Community Commercial
- Service Commercial
- Commercial Highway 16
- Country Residential
- Industrial Light / Medium
- Institutional
- Proposed Institutional
- Residential
- Medium Density Residential
- Open Space
- Forebay
- S Future School Site
- Main Street Node
- Mixed Use Node
- Proposed Trail
- Bio Swale PUL
- Wetlands
- SWMF
- Proposed Road
- Plan Area (991 ha)

Client/Project

MATTAMY (SHERWOOD PARK) LTD.
NORTH OF YELLOWHEAD ACP
STRATHCONA COUNTY

Figure No.

Map 6

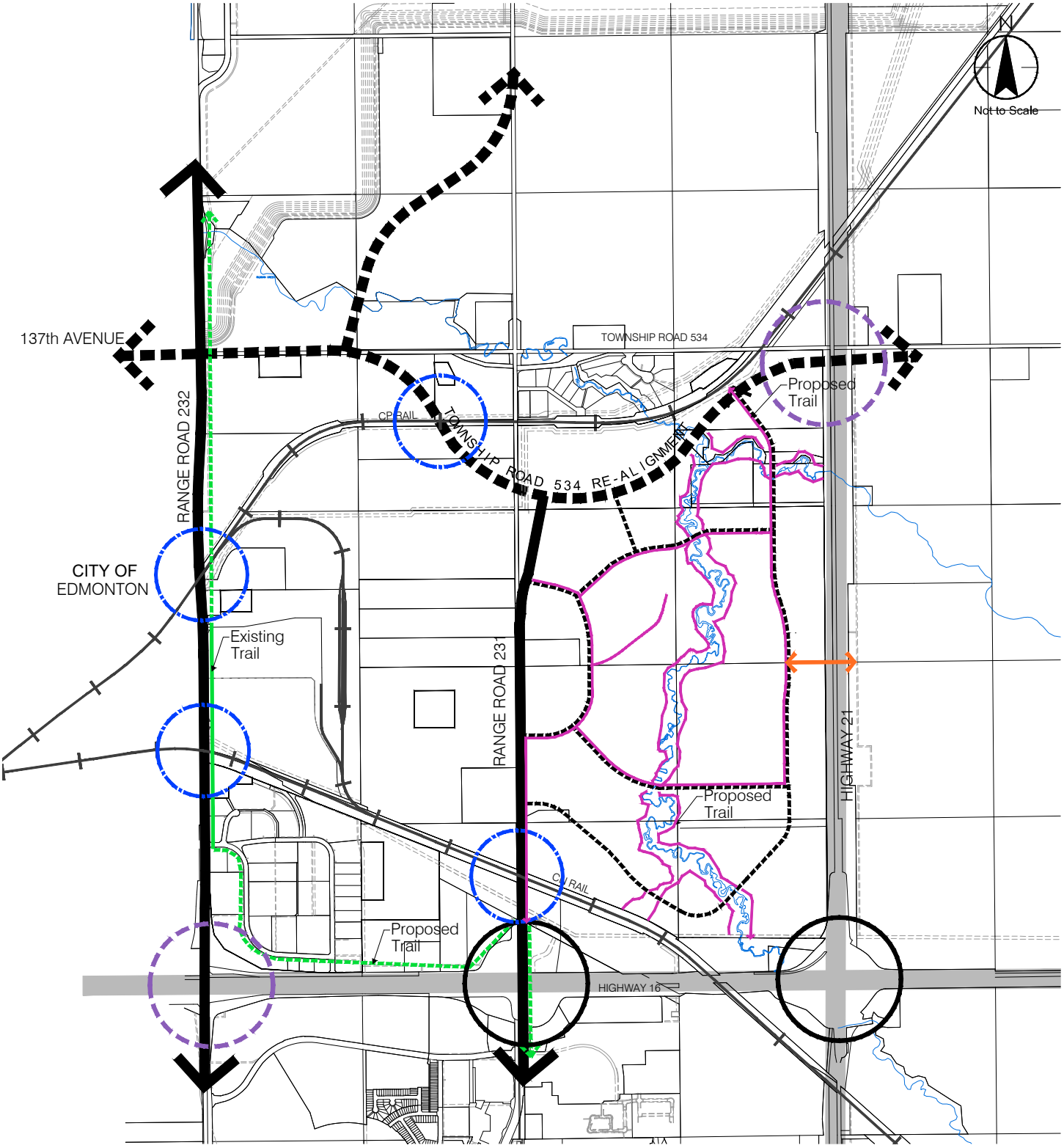
Title

Development Concept

1161 108385

Stantec

V:\1161\Active\1161108385\drawing\model_files\planning\acp_amend\NY_ACP_Amend_Map6_Concept_26jan2021.dwg



26 | JAN | 2021

Legend

- Highway
- Arterial Road
- Proposed Collector Road
- Proposed Arterial Road
- Railway
- Proposed Trail
- Proposed Trans Canada Trail
- Existing Trail
- Existing Interchange
- Future Interchange
- Potential Future Grade Separation
- Proposed Access Point
- Existing Access Point
- Possible Flyover
- Plan Area (991 ha)

Client/Project

MATTAMY (SHERWOOD PARK) LTD.
NORTH OF YELLOWHEAD ACP
STRATHCONA COUNTY

Figure No.

Map 7

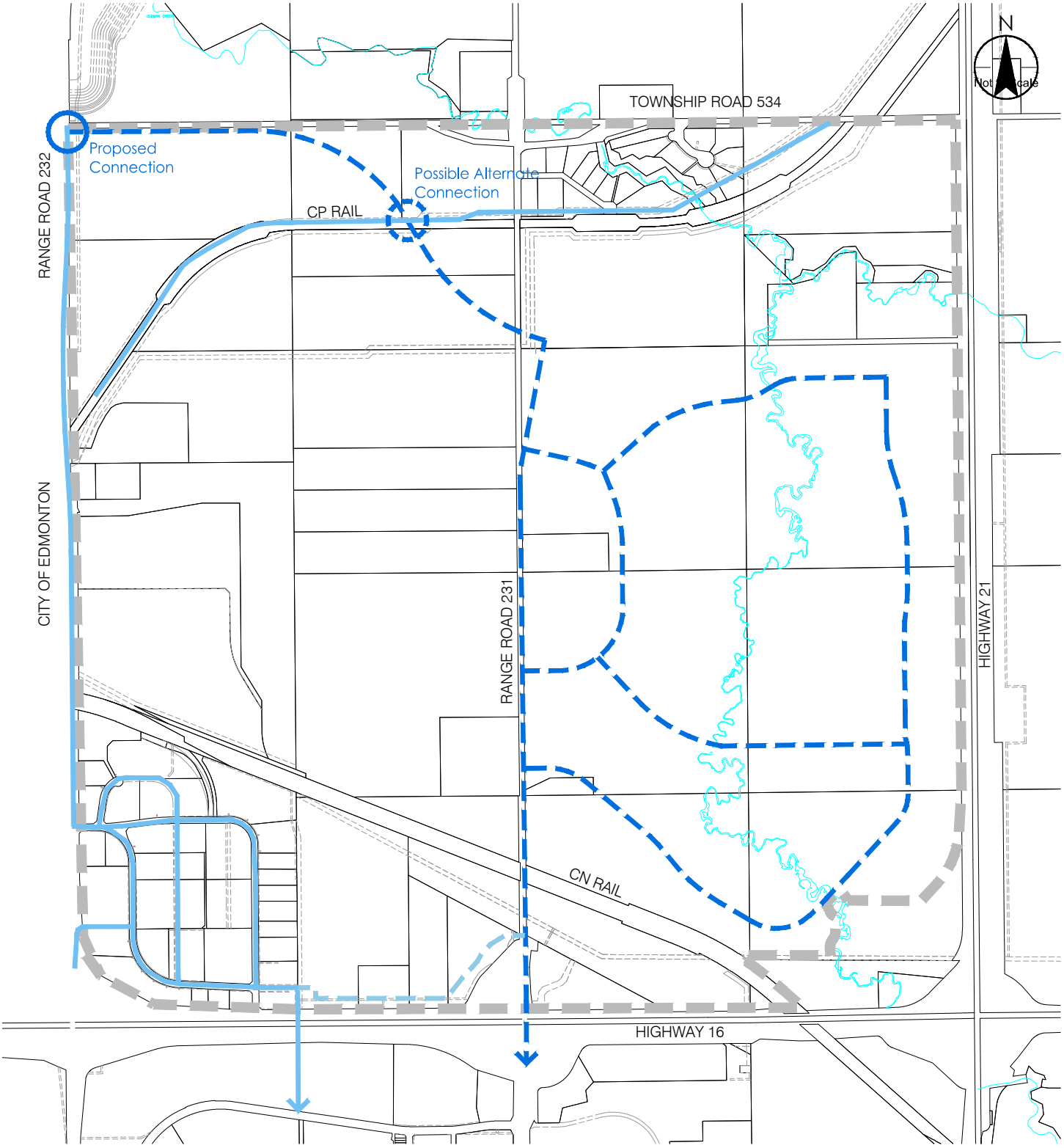
Title

Transportation Concept

1161 108385

Stantec

V:\1161\Active\1161108385\drawing\model_files\planning\acp_amend\NY_ACP_Amend_Map7_Transportation_26jan2021.dwg



26 | JAN | 2021

Legend

- Future Water Main / East
- Future Water Main / West
- Existing Water Main
- Oldman Creek
- Plan Area (991 ha)

Client/Project
MATTAMY (SHERWOOD PARK) LTD.
NORTH OF YELLOWHEAD ACP
STRATHCONA COUNTY

Figure No.
Map 8

Title
Overall Water Servicing Plan

1161 108385

Stantec

V:\1161\active\1161108385\drawing\model_files\planning\acp_amend\NY_ACP_Amend_Map8_Water_Servicing_26jan2021.dwg



26 | JAN | 2021

Legend

- Future Sanitary Main / East
- Future Sanitary Main / West
- Existing Sanitary Main
- Existing Sanitary Gravity Main
- Existing Ardrossan Force Main
- Plan Area (991 ha)

Client/Project

MATTAMY (SHERWOOD PARK) LTD.
NORTH OF YELLOWHEAD ACP
STRATHCONA COUNTY

Figure No.

Map 9

Title

Overall Sanitary Servicing Concept

1161 108385

Stantec

V:\1161\active\1161108385\drawing\model_files\planning\acp_amend\NY_ACP_Amend_Map9_Sanitary_26jan2021.dwg



26 | JAN | 2021

Legend

- Future Sanitary Main / East
- Existing Sanitary Main
- Existing Sanitary Gravity Main
- Existing Ardrossan Force Main
- Plan Area (991 ha)

Client/Project

MATTAMY (SHERWOOD PARK) LTD.
NORTH OF YELLOWHEAD ACP
STRATHCONA COUNTY

Figure No.

Map 9

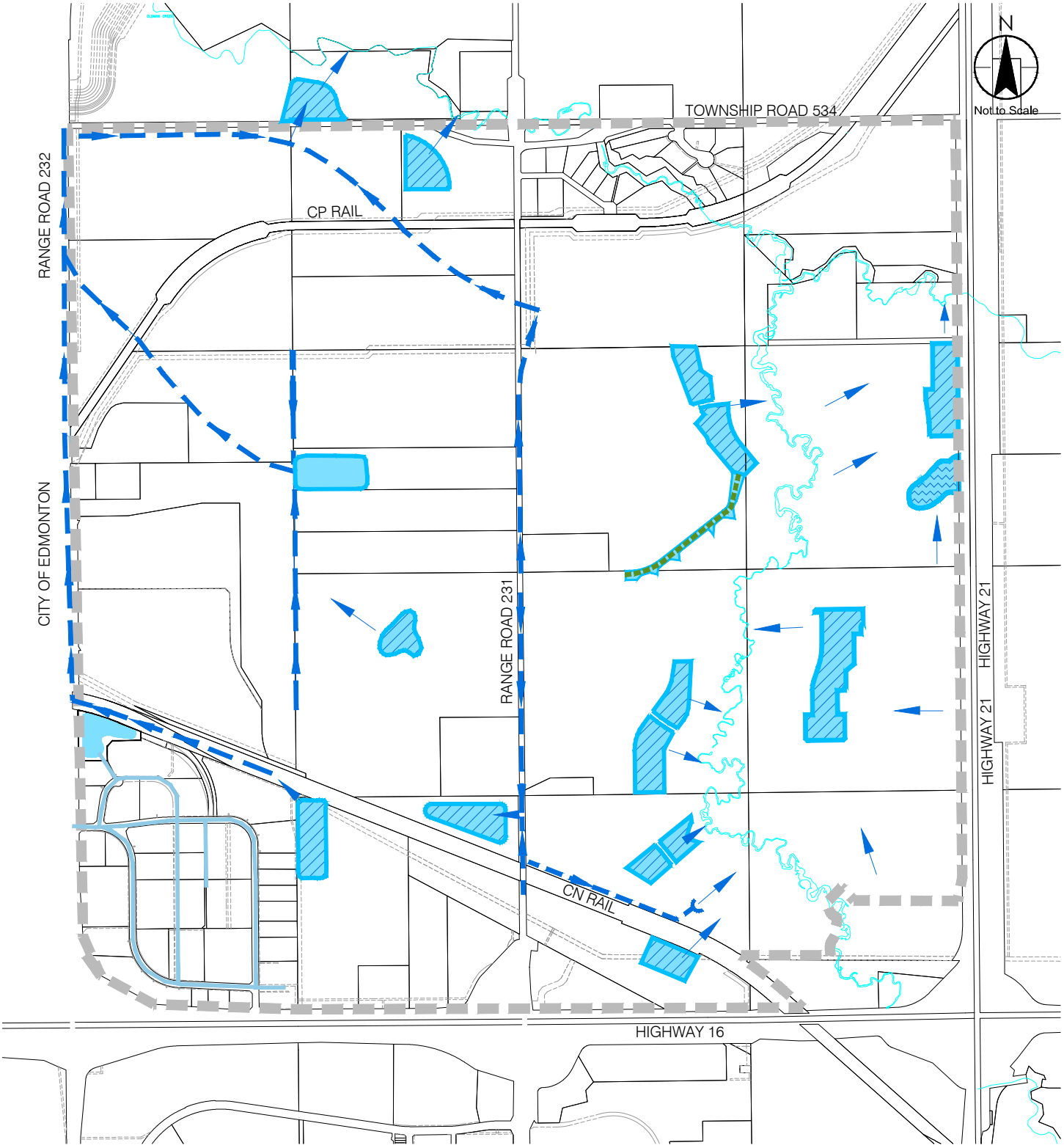
Title

Overall Sanitary Servicing Concept

1161 108385

Stantec

V:\1161\active\1161108385\drawing\model_files\planning\acp_amend\NY_ACP_Amend_Map9_Sanitary_26jan2021.dwg



26 | JAN | 2021

Legend

- Future Storm Main
- Existing Storm Main
- Oldman Creek
- Plan Area (991 ha)
- Future Bio Swale PUL
- Existing Storm Pond
- Future Storm Pond
- Retained Wetland

Client/Project
MATTAMY (SHERWOOD PARK) LTD.
NORTH OF YELLOWHEAD ACP
STRATHCONA COUNTY

Figure No.
Map 10

Title
Storm Water Servicing Concept

1161 108385

Stantec

V:\1161\active\1161108385\drawing\model_files\planning\acp_amend\NY_ACP_Amend_Map10_Storm_26jan2021.dwg