

BYLAW 28-2017

A BYLAW OF STRATHCONA COUNTY IN THE PROVINCE OF ALBERTA, FOR THE PURPOSE OF ADOPTING THE CENTENNIAL AREA STRUCTURE PLAN.

WHEREAS it is deemed advisable to adopt the Centennial Area Structure Plan;

NOW THEREFORE, the Council of Strathcona County, duly assembled, pursuant to the authority conferred upon it by the *Municipal Government Act, R.S.A. 2000 c.M-26* and amendments thereto, enacts as follows:

1. That Bylaw 28-2017 is to be cited as the "Centennial Area Structure Plan".
2. That Schedule "A" attached hereto is hereby adopted as part of this Bylaw.
3. This bylaw comes into effect after third reading and upon being signed.
4. Bylaw 4-2009 is repealed.

Read a first time this _____ day of _____, 2017.

Read a second time this _____ day of _____, 2017.

Read a third time and finally passed this _____ day of _____, 2017.

Mayor

Director,
Legislative and Legal Services

Date Signed: _____

Centennial

Area Structure Plan

2017

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1.0 INTRODUCTION

1.1 VISION

The Centennial Area Structure Plan (ASP) addresses the challenge in working under the multifaceted constraints of existing uses while balancing good planning, sound engineering, and appealing design that supports orderly growth and cohesive development within the Urban Service Area of Strathcona County (Sherwood Park).

The Plan enhances the unique existing natural features and park space, and promotes recreation through the integration, enhancement, and expansion of Centennial Park to meet the needs of the community. The plan also allows for complimentary adjacent uses, such as commercial, recreation and mixed uses, that integrate well with surrounding lands.

The Plan will address comprehensive services through a systems approach that considers baseline data and context, sustainability analysis (economic, social, cultural, environmental, and governance), local needs, synergistic opportunities, resident and stakeholder input, future vision, and most importantly, realistic implementation.

1.2 PURPOSE

The purpose of the Centennial ASP is to provide a statutory framework for land use planning of the subject lands and the provision of municipal infrastructure, staging of development, services, and amenities in conformance with established planning policies, regulations, objectives, and requirements of Strathcona County (the County), as well as the characteristics and opportunities of the site.

The Centennial ASP has been prepared in accordance with Section 633 of the Municipal Government Act (MGA). Planning for the ASP has been completed in conformance with the County's Municipal Development Plan and other relevant municipal planning and policy documents.

1.3 LOCATION

The Centennial ASP is located in north central Sherwood Park and encompasses approximately 58.5 ha of land and consists of five titled parcels. The ASP is defined by the following general boundaries (see Figure 1: Location Plan):

- Northern Boundary: north property line of Plan 6676KS, Lot A & Plan 2258NY, Lot A
- Eastern Boundary: Sherwood Drive
- Southern Boundary: southern boundary of Centennial Park, Plan 9521891, Lot 1 and Plan 0621882, Block 1, Lot 10MR
- Western Boundary: western property line of Plan 2258NY, Lot A, Plan 2258NY, Lot B and Plan 9521891, Lot 1

CENTENNIAL AREA STRUCTURE PLAN

1.4 LAND OWNERSHIP

As of 2017, the Plan area is comprised of five titled parcels of land owned by three landowners (see Figure 2: Land Ownership and Table 1: Land Ownership.)

Table 1 Land Ownership

Map Reference Number	Owner	Legal Description	Area (ha)
1	Strathcona County	Plan 0621882, Block 1, Lot 10MR	1.14
2	Strathcona County	Plan 9521891, Lot 1	21.22
3	Strathcona County	Plan 2258NY, Lot B	16.10
4	Private	Plan 2258NY, Lot A	16.10
5	Private	Plan 6676KS, Lot A	4.00

1.5 BACKGROUND

The Centennial ASP replaces a previous ASP (*Centennial Business Park ASP 2010*) with an updated land use and policy framework, as additional lands are now included within the ASP boundary.

The majority of the Plan area is currently (2017) used for recreation and agricultural purposes. Existing agricultural activities are located in the northern portion of the Plan area and Centennial Park is located in the south. Recreation space is expected to be enhanced and expanded north into a portion of former agricultural lands. The remaining agricultural lands to the east and north are expected to transition to mixed use and commercial development. Future development of any and all properties within the Plan area is at the discretion of the respective landowners.



Source: Stantec

1.6 PUBLIC CONSULTATION

In September of 2014, the Centennial ASP was initiated on behalf of Strathcona County. All landowners in the subject area were notified prior to Plan initiation and invited to participate in the process. Stantec prepared a Public Engagement Program (PEP) which set out the means by which key stakeholders and the public were to be engaged in the preparation of the ASP. This program included personalized contact with stakeholders, online media, and public engagement events. The PEP was approved by the County on November 5, 2014.

All affected landowners in the area have been notified in accordance with the County's policies and application requirements for new statutory plans.

The following public engagement events were held as part of the consultation process:

1.6.1 Public Information Meeting 1

An Open House was held on March 12, 2015 at County Hall, inviting the public to view and discuss feedback received thus far, confirm opportunities and challenges, refine the vision, and provide further input to guide the development of the ASP. The event was advertised in the Sherwood Park / Strathcona County News on Friday February 27, 2015 and March 6, 2015. A notice was also mailed out to the affected landowners, as well as landowners within 100m of the Plan area. Approximately 30 people attended the open house.

1.6.2 Public Information Meeting 2

An Open House was held on October 18, 2016 at Millennium Place, inviting the public to view and discuss the draft ASP. The event was advertised in the Sherwood Park / Strathcona County News on Friday October 7, 2016 and October 14, 2016. A notice was also mailed out to the affected landowners, as well as landowners within 100m of the Plan area. Approximately 40 people attended the open house.

1.6.3 Meetings with Landowners

Meetings were held with landowners within the ASP lands on December 11, 2014, March 20, 2015, and June 30, 2015. Discussions centered around site design, including uses, access, stormwater ponds, and the natural features of the Plan area. A workshop was also held on February 10, 2016 with the landowners to discuss the various siting options within the Plan area. These options were used to form the concept options for the Plan area.

1.7 RELATED DOCUMENTS

Several technical documents have been prepared and submitted to the County under separate cover to support the previous Centennial Business Park ASP as well as this ASP. Documents that pertain to the Centennial Business Park ASP lands include:

- A water network analysis prepared for Plan 6676KS, Lot A, Plan 2258NY, Lot A, and Plan 2258NY, Lot B in 2008
- A drainage plan prepared for Plan 6676KS, Lot A, Plan 2258NY, Lot A, and Plan 2258NY, Lot B in 2008
- A biophysical assessment prepared for Plan 6676KS, Lot A, Plan 2258NY, Lot A, and Plan 2258NY, Lot B in 2009
- A geotechnical evaluation prepared for Plan 2258NY, Lot B in 2006.
- A traffic impact assessment prepared for Plan 6676KS, Lot A, Plan 2258NY, Lot A, and Plan 2258NY, Lot B in 2009

For the updated ASP, additional supporting documents include:

- An update to the biophysical assessment prepared for Plan 6676KS, Lot A, Plan 2258NY, Lot A, and Plan 2258NY, Lot B in 2014 (Landowner consent only allowed for Plan 2258NY Lot B to be resurveyed)
- A design brief, including updated sanitary, stormwater, and water servicing concepts, prepared for Plan 0621882, Block 1, Lot 10MR; Plan 9521891, Lot 1; Plan 2258NY, Lot B; Plan 2258NY, Lot A; Plan 6676KS, Lot A in 2017
- A hydraulic network analysis prepared for Plan 0621882, Block 1, Lot 10MR; Plan 9521891, Lot 1; Plan 2258NY, Lot B; Plan 2258NY, Lot A; Plan 6676KS, Lot A in 2017
- A traffic impact assessment prepared for Plan 0621882, Block 1, Lot 10MR; Plan 9521891, Lot 1; Plan 2258NY, Lot B; Plan 2258NY, Lot A; Plan 6676KS, Lot A in 2016
- Historical Resources Assessment prepared for Lot B, Plan 2258NY in 2016

1.7.1 Biophysical Assessment

A biophysical assessment was completed in 2009 by Spencer Environmental Management Services Ltd. for the Centennial ASP area. This included literature and database review, historical aerial photograph analysis, and field surveys for limited areas. A review and

update was completed by Strathcona County in October 2014 in support of the Centennial ASP. Physical access to the private lands for resurveying (Plan 6676KS, Lot A; and Plan 2258NY Lot A) was not obtained, therefore detailed biophysical assessments will need to be prepared for these lands if and when the respective landowners wish to pursue rezoning and/or subdivision. The review confirmed that the details provided in the 2009 report were accurate and still relevant. Additional and updated information was added pertaining to the 2013 Alberta Wetland Policy, updated aerial photography, and conservation recommendations. Recommendations include conserving the remnant forest stand and adjacent shelterbelt along the western boundary of the Plan area, as well as the semi-permanent wetlands within and outside the forest stand. Opportunities for incorporation of semi-permanent wetlands into stormwater management facilities are noted.

The biophysical assessment and update were provided under separate cover.

1.7.2 Traffic Impact Assessment

A traffic impact assessment (TIA) was completed by Bunt & Associates in 2009 in support of the Centennial Business Park ASP. An update to the TIA was completed by the County in 2016 to support the entirety of the lands within the Centennial ASP boundary. The TIA identifies the off-site transportation improvements and appropriate internal roadway network required to adequately accommodate generated traffic activity.

Key TIA recommendations for the Centennial ASP lands include:

- Providing primary access to the Plan area via two planned all-directional accesses at Amberley Way and Abbey Road along Sherwood Drive;
- Providing additional access from an extension of Portage Close to the west, Provincial Avenue to the north, and two right-in/right-out accesses along Sherwood Drive;
- Construction of collector roadways to a collector standard with sidewalks on both sides;
- Construction of a roundabout at the north entrance to the expanded Centennial Park lands;
- Construction of parking spaces for the additional Centennial Park lands; and
- Relocating collector roadway access to Centennial Park further to the west.

The TIA was provided under separate cover.

1.7.3 Geotechnical Evaluation

A geotechnical evaluation was completed by Shelby Engineering Ltd. in 2006 for Plan 2258NY, Lot B. Soil samples were obtained through field drilling and sampling of 13 test holes to provide information on subsurface soil and groundwater conditions. Subsurface conditions included clay and clay till overlain with topsoil, with groundwater remaining higher in the east and west portions of the property. Recommendations from this investigation were provided for building foundations, grade supported concrete floor slabs, installation of site services and road allowances.

At time of rezoning and subdivision, a detailed geotechnical evaluation will be required for land within the Plan area that was not included in the 2006 geotechnical evaluation (Plan 6676KS, Lot A; Plan 2258NY, Lot A; and Plan 9521891, Lot 1)

The geotechnical evaluation was provided under separate cover.

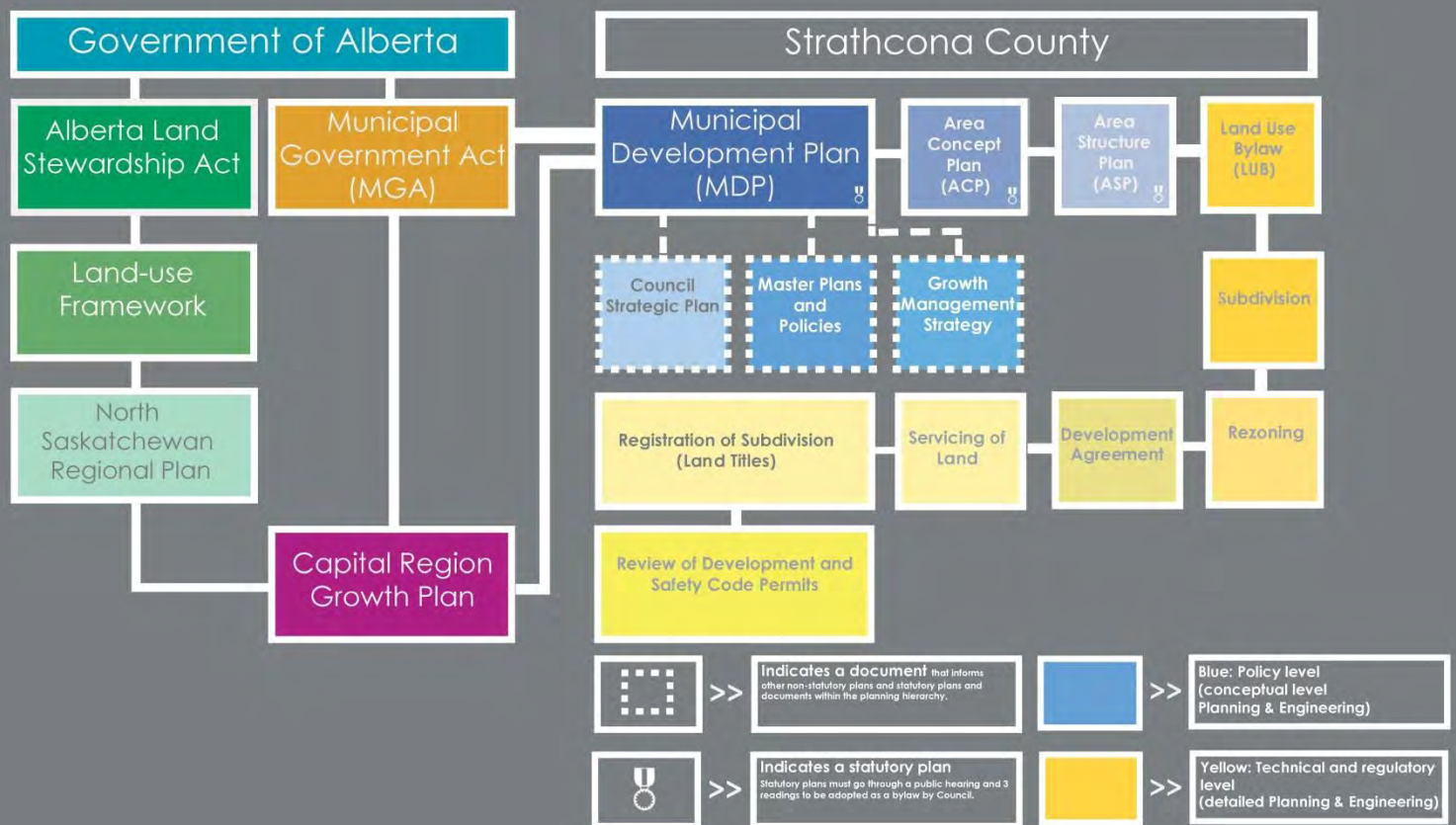
1.7.4 Servicing Studies

A water network analysis and drainage plan was completed in 2008 by Focus Engineering for Plan 6676KS, Lot A, Plan 2258NY, Lot A, and Plan 2258NY, Lot B. This included modeling peak daily water maximums and peak hour demands for the area, as well providing an overall drainage and sanitary framework to support orderly development. A hydraulic network analysis and design brief, including updated sanitary, stormwater, and water servicing concepts, were completed by Stantec Consulting Ltd. in 2017 in support of the entirety of the Centennial ASP boundary.

The design brief and hydraulic network analysis were provided under separate cover.

2.0 PLANNING CONTEXT

Planning hierarchy



3.0 LAND USE CONCEPT

3.1 OVERVIEW

The Centennial ASP land use concept consists largely of recreation, commercial, and mixed use lands. Other land designations include stormwater management facilities, Municipal Reserve, and Environmental Reserve. Land uses are illustrated conceptually in Figure 4: Land Use Concept. The exact location and alignment of land uses, facilities, roadways, and services will be determined at the time of zoning and/or subdivision stage.

The land use concept designates Commercial and a Mixed Use Overlay adjacent to Sherwood Drive and proposes additional Recreation lands for Centennial Park. The tree stand in the northwest of the Plan area will be designated as Municipal Reserve (MR), and the adjacent wetland will be designated as Environmental Reserve (ER). A portion of land is designated as Future Commercial / Potential Outdoor Recreational within the northwest of the Plan area. The Future Commercial / Potential Outdoor Recreation land designation is intended to provide flexibility for future development. The landowners may, at a future date, wish to either develop the lands for service commercial and/or for outdoor recreation uses.

The land use and population statistics can be found in section 3.6: Land Use and Population Statistics. These land uses are linked together by a comprehensive network including provisions for pedestrian and vehicular circulation. A set of design guidelines have been included in section 7.5: Design Guidelines to provide further direction on the desired form of development within the Plan area. While the Policies for each land use provide the primary direction, these guidelines can be used to provide additional clarity when assessing the suitability of proposed development.

3.2 GENERAL

The following objectives and policies apply to all components of the Plan.

3.2.1 Objectives

- a. Provide development that is compact along Sherwood Drive and contributes to the evolution of a complete community.
- b. Provide development that maintains or enhances the natural environment.
- c. Create attractive development with good accessibility and visibility along the adjacent collector and arterial roadways.
- d. Ensure development is safe and accessible for potential users.
- e. Ensure that risks are mitigated through the use of the Heavy Industrial Transition Overlay.

- f. Provide connectivity and accessibility within the Plan area and to adjacent areas for all modes of transportation.

3.2.2 Policies

- a. Land uses will adhere to the requirements under the Heavy Industrial Transition Overlay regulations in the Land Use Bylaw, which covers the western portion of the Plan. The Heavy Industrial Transition Overlay boundary shall demarcate the land areas where the requirements apply.
- b. Mixed use development is encouraged along Sherwood Drive, including residential, commercial, community and seniors housing, and local community service.
- c. The built environment shall be designed to be usable by all people, to the greatest extent possible. Design should be barrier free and accommodate a wide range of user abilities.
- d. All land use areas shall be designed using Crime Prevention Through Environmental Design (CPTED) principles, in adherence with section 7.5: Design Guidelines.
- e. Dedication of Municipal and Environmental Reserves are required at the time of subdivision, in accordance with County Policy.
- f. Corridors and trails shall link the open space network and maintain connectivity between neighbourhoods and other developments.
- g. Multiple points of pedestrian access shall be provided to open space and development to increase natural surveillance, and provide connectivity within the Plan area and to adjacent areas.
- h. Development shall aim to conserve natural habitat and minimize habitat disturbance.
- i. All development shall have a high standard of architecture and landscaping, in adherence with section 7.5: Design Guidelines.

3.3 COMMERCIAL

The Commercial designation is intended for a diversity of commercial business types, including larger or higher intensity developments, which are planned to provide a high standard of appearance and design with good access from nearby roadways. Given the Plan area's high visibility and access to Sherwood Drive, opportunity exists to accommodate mixed use development east of the Heavy Industrial Transition Overlay. The commercial uses within the ASP will be supported by users from residential development within, immediately east of Sherwood Drive, those using Centennial Park, as well as traffic along Sherwood Drive.

Commercial development within the plan area is intended to transition from higher intensity commercial uses that will allow for high visibility and access along Sherwood Drive, to lower intensity commercial uses to the west, accessible from the internal collector roadways within the Plan area. Lower intensity commercial uses will provide transition to the light and medium industrial uses to the west in Millennium Business Park. Multi-storey buildings must be developed in such a way as to reduce perceptions of massing, provide interest in the building facade, and provide adequate screening and pedestrian accessibility to parking areas and streets.

The Commercial designation allows for a diversity of possible uses that will serve the needs of the general public and those who reside within and in closer proximity to the lands, as well as providing employment opportunities within the community.

The Future Commercial designation allows for a mix of low intensity business support and service uses appropriate for the location along collector roadways.



Source: Stantec



3.3.1 Objectives

- a. Develop a variety of commercial uses and forms to serve the County and generate employment opportunities.
- b. Promote compact mixed use development within the Mixed Use Overlay to include a mixture of residential, community and seniors housing, commercial, and local community services.
- c. Create commercial development along Sherwood Drive as well as the adjacent collector roadways with a high level of accessibility and visibility to serve the entire community.
- d. Provide a transition of commercial uses from arterial type commercial uses near Sherwood Drive to service type commercial uses to the west.

- e. Provide a mix of low intensity business and service uses within the Future Commercial area to serve the entire community.
- f. Provide commercial development that is compatible with the adjacent recreational, commercial, and residential land uses, which maintains and enhances the environment.
- g. Promote multi-storey buildings with a high standard of architectural appearance and landscaping.

3.3.2 Policies

- a. Commercial development shall be located along major arterial or collector roadways.
- b. Ensure new mixed use and commercial development are multi-storey and include entrances and attractive facades oriented towards major roadways.
- c. Development shall provide a transition of commercial uses, from higher intensity arterial type uses to the east near Sherwood Drive to lower intensity service type uses to the west.
- d. The Future Commercial area shall provide for service commercial development, including a mix of low intensity business and service uses that transition between arterial commercial uses to the east and the adjacent light to medium industrial uses to the west.
- e. Storage facilities in commercial development shall be located within enclosed buildings.
- f. The majority of parking shall be located internal to or at the rear of commercial sites and where feasible, on-street, rather than between the street and buildings to support pedestrian access to and from the street.
- g. Ensure commercial developments provide buffering in the form of landscaping and screening to ensure compatibility with, and sensitivity to, adjacent land uses / areas.
- h. Commercial development shall follow the design guidelines outlined in this Plan, as shown in section 7.5: Design Guidelines to enhance the visual form and character of development, as well as promote the economic assets of these corridors.
- i. All commercial development shall incorporate pedestrian infrastructure connections that are safe and efficient throughout the site, Plan area, and to adjacent areas.

3.4 MIXED USE OVERLAY

Mixed use within this overlay combines compatible apartment style medium and high density residential, community and seniors housing, commercial, local community services and recreational land uses within a building, site, or in close proximity. This area is appropriate for mixed use as it is in close proximity to transit, open space and recreation, major public services, local community services and commercial development promoting walkability and social interaction. Section 3.3: Commercial policies shall also apply within the Mixed Use Overlay.



Source: Stantec

3.4.1 Objectives

- a. Provide a mixture of uses including apartment style medium and high density residential, community and seniors housing, commercial, and local community services.
- b. Develop efficient and compact sites to promote the ability for expansion and intensification in the future.
- c. Promote opportunities for a healthy and active lifestyle with access to high quality open spaces, recreations areas, everyday services, major public services and transportation services.



3.4.2 Policies

- a. Development within the overlay shall incorporate a combination of two or more of the following:
 - i) apartment style medium or high density residential;
 - ii) community housing;
 - iii) seniors housing;
 - iv) local community services; or
 - v) commercial

- b. The location of buildings shall be placed in close proximity to the street to take advantage of views and vistas along Sherwood Drive and Centennial Park.
- c. The majority of parking shall be located on site in the form of stacked or underground parking. Where stacked or underground parking is not feasible, onsite parking shall:
 - i) be located internal to or at the rear;
 - ii) incorporate pedestrian infrastructure that is safe and efficient;
 - iii) include direct access to the street, transit, and other active transportation infrastructure connections; and
 - iv) be designed in small clusters separated by landscaped areas.
- d. Encourage shared and reduced parking strategies to take advantage of parking between sites. At the discretion of the County, parking requirements can be reduced and/or shared between mixed use, commercial, and recreation sites.
- e. Ensure development of apartment style medium and high density residential, community and seniors housing provides amenity space that is accessible to on site residents and accommodates all abilities.
- f. Support the development of affordable seniors housing options for supportive and non-supportive living.

3.5 OUTDOOR RECREATION

The Outdoor Recreation (non-MR) designation within the ASP is intended to provide active and passive recreational opportunities, and allow for the conservation of natural areas. This designation allows for a range of parks and active (sports fields, courts, outdoor recreation facilities, spectator sports, etc.) and passive (trails/walkways, sitting areas, etc.) recreation uses. The Potential Outdoor Recreation area also allows for a range of parks and public/private active and passive recreation uses aimed at outdoor activities.

3.5.1 Objectives

- a. Provide a range of accessible outdoor recreation opportunities to contribute to the well-being of residents and visitors.

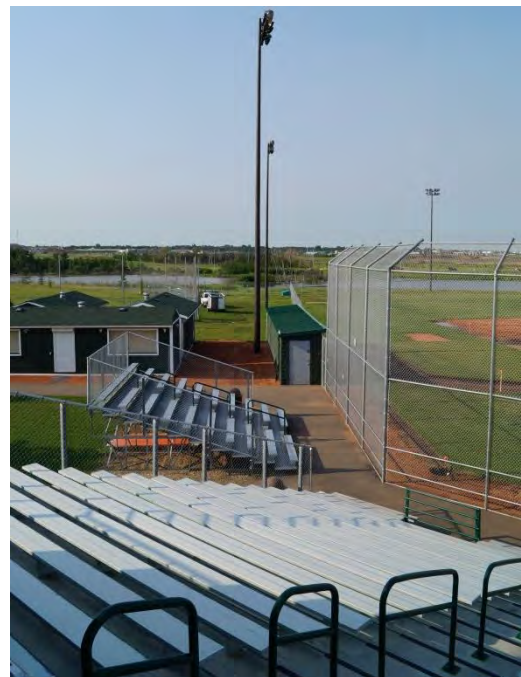
- b. Promote a healthy and active lifestyle by providing the public and residents with access to high quality open spaces, recreation areas, trails and pedestrian linkages that support active and passive use.
- c. Provide for additional outdoor recreational space and limited supporting indoor recreation uses that integrate with existing recreation lands and natural areas.

3.5.2 Policies

- a. Outdoor recreation areas such as parks and stormwater management facilities shall be designed to encourage and support passive and active recreational opportunities.
- b. Trails constructed within natural areas will consider wildlife habitat connectivity.
- c. Ensure outdoor recreation uses are developed within the Centennial Park area by requiring outdoor recreation to be the primary use.
- d. Additional outdoor recreation sites and uses, including those within the Potential Outdoor Recreation area, shall integrate and be compatible with existing recreation sites and uses.
- e. The County will consider indoor recreation uses that are limited in size and are complimentary to the outdoor recreation uses of Centennial Park.
- f. Safe pedestrian access to stormwater management facilities shall be provided. Examples include docks and lookout decks, providing controlled access points to the facility.



Source: Stantec



Source: Stantec



Source: Stantec

3.6 LAND USE AND POPULATION STATISTICS

Table 2 Land Use Statistics

Use	Area (ha)	% GDA
Gross Area	58.56	
<u>Required Open Space and Infrastructure</u>		
Environmental Reserve (ER)	0.22	
<i>Subtotal</i>	0.22	
Gross Developable Area (GDA)	58.34	100%
<u>Dedicated Open Space & Infrastructure</u>		
Parkland & Recreation		
Municipal Reserve (MR)	6.85	11.7%
Circulation (Collector Roadway)	3.21	5.5%
Stormwater Management	4.09	7.0%
<i>Subtotal - Other Uses</i>	14.15	24.3%
Net Developable Area	44.19	75.7%
<u>Land Uses</u>		
Commercial	1.97	3.4%
Commercial / Mixed Use Overlay	10.92	18.7%
Outdoor Recreation (Non-MR)	28.58	49.0%
Future Commercial/Potential Outdoor Recreation	2.72	4.7%

Net Developable Area does not include local roadways
MR dedication exceeds the maximum 10% requirement

Table 3 Population and Student Generation

Population Density	Units	Population
Mixed Use Overlay	820	1,476
Student Generation	Public	Separate
Elementary / Junior High	0.37	0.12
Senior High	0.13	0.02
Student Population	Public	Separate
Elementary / Junior High	303	98
Senior High	107	16

Residential Density is based on 75 units per hectare and 1.8 persons per unit
Student Generation is based on units

4.0 NATURAL AREAS

4.1 NATURAL AREAS OVERVIEW

The system of natural areas within the Plan contributes to the health of the natural environment and the well-being of residents in the area. To achieve this, lands within the Plan have been designated as Outdoor Recreation, Municipal Reserves (MR), Environmental Reserves (ER), and stormwater management facility. These lands will allow for wildlife habitat, corridors, and linkages within the Plan area and to adjacent areas, passive and active recreation space, and environmentally appropriate and attractive landscaping and design elements. The Plan intends to balance competing interests by promoting energy and water conservation, promoting park spaces and connections that serve the broader community, and promoting wildlife habitat through supporting, conserving, and/or enhancing the site's natural features. This holistic approach will benefit area businesses, employees, visitors, and wildlife.



Source: Spencer Environmental

4.1.1 Objectives

- a. Provide for preservation of environmentally sensitive lands to support conservation of natural areas, passive recreation, and education.
- b. Retain significant natural features that support ecosystem health and enhance the character of the Plan area.
- c. Create an aesthetically pleasing environment by providing views from trails, roads, and surrounding development toward the naturalized stormwater management facilities and the adjacent wetlands and meadows, where possible.

4.2 WETLANDS

The biophysical assessment conducted by Spencer Environmental and the update prepared by the County identified that, with the exception of the wetland within the northwest tree stand, the wetlands within the Plan area are in a degraded condition and are of low wildlife value. The degraded wetlands can be incorporated into naturalized stormwater management facilities. ER will be dedicated to conserve the northwest wetland.

4.2.1 Policies

- a. Wetland compensation shall be provided in accordance with Strathcona County and Government of Alberta wetland compensation policies and regulations. Mitigation activities of avoidance, minimization, and compensation shall be followed.
- b. ER dedication shall be utilized for the northwest wetland adjacent to the tree stand.
- c. Wetlands will be incorporated into stormwater management facilities, where possible, in accordance with the County Wetland Conservation Policy and Provincial legislation.

4.3 MUNICIPAL RESERVE

Municipal Reserve (MR) dedication will be allocated through a combination of land and cash-in-lieu in the Centennial ASP. Based on the information provided in the biophysical assessment, it was determined that MR would be dedicated to maintain the tree stand near the northwest boundary of the Plan and the associated north-south habitat connection.

4.3.1 Policies

- a. MR and ER dedication shall be provided in accordance with the MGA.
- b. MR dedication shall be used for the protection of the northwest tree stand and the western hedgerow.
- c. Cash-in-lieu may only be considered for the parcel legally known as Plan 6676KS, Lot A, in accordance with the MGA. This will facilitate the retention of the northwest tree stand designated on Plan 2258NY, Lot A and Plan 2258NY, Lot B for MR dedication.

4.4 WILDLIFE CORRIDORS

Wildlife corridors are important connections to and from natural areas; movement is made accessible for wildlife between these significant areas. This access helps to increase the functionality of these spaces and natural capital of the developed areas. Corridors will be provided in the Plan area through a combination of MR and site specific guidelines promoting their integration into landscaped areas. The most important corridor from a wildlife perspective is located north-south along the western boundary and dedicated as MR, as shown on Figure 5: Parks and Open Space. The wildlife corridor will be implemented through a combination of MR dedication and back-of-lot landscaping that will allow for a corridor between tree stands. As this connection links two significant natural areas and provides for a critical north-south wildlife connection, disturbances to movement of wildlife are intended to be minimized. Therefore, pedestrian pathways will need to be sensitive to wildlife movements in the area. Pedestrian pathways will also be included elsewhere throughout the site to provide connections to recreation spaces and nearby uses, such as

the soccer fields associated with Millennium Place. Existing hedgerows will be incorporated into development where feasible.

4.4.1 Policies

- a. Increased back-of-lot landscaping is encouraged for all development that abuts the treed MR sites in the northwest portion of the Plan area.
- b. Pedestrian pathways will be included throughout the site and will connect to adjacent areas outside the Plan boundary, while minimizing impacts on wildlife habitat.
- c. The development of trails and wildlife corridors shall comply with the design guidelines described in this Plan, as shown in section 7.5: Design Guidelines.

5.0 TRANSPORTATION

5.1 TRANSPORTATION OVERVIEW

A logical and efficient transportation system is imperative for the functionality and connectivity of development. The Centennial ASP includes a comprehensive transportation system to support anticipated traffic, and ensure appropriate access to this area for residential, business, local community services, and recreation functions. A Traffic Impact Assessment (TIA) has been prepared in support of the Centennial ASP.

5.1.0 Objectives

- a. To provide safe and efficient access to the Plan area and mobility within.
- b. To connect to the County's transportation network.
- c. To provide a transportation network that supports multiple modes, including automobiles, pedestrians, and cyclists.
- d. To ensure legal and physical access is provided for all parcels in the ASP.

5.1.1 Policies

- a. The transportation network shall be constructed in accordance with recommendations in the TIA as well as County standards.
- b. Transportation components will be generally located as conceptually shown in Figure 6: Transportation.

5.2 PEDESTRIAN AND BICYCLE LINKAGES

Pedestrian and bicycle linkages will be provided throughout the Plan area to prioritize non-vehicular movement. Sidewalks are to be provided along internal collector roadways a combination of multi-use trails and/or sidewalks throughout the site to provide connections to recreation spaces and nearby uses, such as the soccer fields associated with Millennium Place, and to facilitate circulation within the Plan area and to the nearby residential and commercial lands.



Source: Stantec

5.2.1 Policies

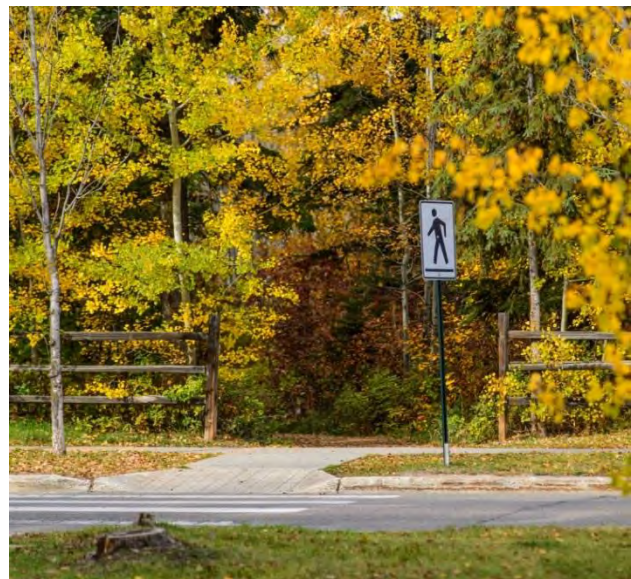
- a. Pedestrian crossings and traffic calming measures, such as bulb-outs, shall be provided to support the safe movement of pedestrians. Pedestrian routes shall have priority over vehicles within the Plan area.
- b. Development shall provide trail connections and pedestrian linkages within and to adjacent sites, connecting buildings and allowing easy access to bus stops. Wayfinding signage shall be provided along pedestrian routes.
- c. The ASP will provide continuous pedestrian and cyclist routes throughout and to adjacent areas.
- d. Mixed use development will ensure walkability and social interaction by requiring safe and efficient active transportation connections within and to public transportation infrastructure.

5.3 ROAD NETWORK

The Centennial ASP roadway system will consist of a collector roadway network connecting to Sherwood Drive on the east side of the subject lands, Portage Close on the west, and Provincial Avenue to the north, as shown in Figure 6: Transportation.

In addition to the two planned signalized all-directional intersections along Sherwood Drive at Abbey Road and Amberley Way, two right-in/right-out accesses along Sherwood Drive will also provide connections to the east side of the Plan. These proposed right-in/right-out accesses will require coordination with neighbouring developments and may require additional

review at the time of detailed design. Internal roadways will be built to a collector standard, and will include flanking sidewalks, traffic calming measures, and crossings where necessary to support pedestrians within the Plan area. The southern portion of collector roadway will be constructed with Phase 1 of development to service mixed use development and Centennial Park lands. Future collector roadway connections to Portage Close and Provincial Avenue in the northern portion of the Plan area will be constructed when Phase 2 of



Source: Stantec

development proceeds. A roundabout will be constructed at the north entrance to Centennial Park to better facilitate traffic movements and provide an aesthetically pleasing entrance to both Centennial Park and the commercial lands. Future local roadway connections have been indicated with arrows, although exact locations of local roadways will be determined at time of subdivision.

A future access point is contemplated in the southeast of the Plan area, which would connect the existing local roadway surrounding the baseball diamond to the Phase 1 Collector Road.



Source: Stantec

5.3.1 Policies

- e. Access shall be provided to all parcels within the ASP.
- f. Collector roadways shall be designed to County standards with sidewalks flanking both sides, in accordance with the TIA.
- g. A roundabout shall be constructed at the north entrance to Centennial Park to facilitate traffic movement and create an attractive entrance feature.
- h. Collector roadways shall be designed to support transit service to residential, commercial, local community services, and outdoor recreation areas.
- i. Structural upgrades to existing Portage Close shall be required upon extension of this roadway into the Plan area, per recommendation of the TIA.

5.4 TRANSIT

Collector roadway access proposed from Sherwood Drive as well as Portage Close will allow opportunities for transit connections.

5.4.1 Policies

- a. Transit stops will be provided as part of development, where required.
- b. Development will provide safe and connected pedestrian infrastructure to transit controlled locations.

6.0 UTILITIES

6.1 UTILITIES OVERVIEW

The servicing concept for the Centennial ASP includes full urban standard sanitary, water and stormwater servicing in accordance with the approved Design Brief and Hydraulic Network Analysis. Servicing options are provided to extend services within the Plan area and accommodate development that is expected to progress from the south (Phase 1) to the north (Phase 2). Two options are provided for water servicing in case potential servicing configurations and connections cannot be accommodated.

6.1.1 Objectives

- a. To provide full municipal sanitary, stormwater and water servicing that is consistent with the County's Design and Construction Standards.
- b. To create a logical, efficient, and cost effective servicing system that meets the needs of the Plan area and considers existing and adjacent development.
- c. To provide flexible servicing plans that accommodate changes in land use and development staging.
- d. To incorporate low impact development principles into the stormwater management system.
- e. To incorporate wetlands into stormwater management facilities, in accordance with the County Wetland Conservation Policy and Provincial legislation.

6.1.2 Policies

- a. Sanitary, water, and stormwater servicing for the Centennial ASP lands shall be provided in accordance with the Servicing Design Brief, Hydraulic Network Analysis, to the satisfaction of the County.

6.2 SANITARY SERVICING

Sanitary servicing in the Centennial ASP will utilize conventional gravity sewers, and maintain consistency with the overall sanitary concept of the Sherwood Park Area Master Plan. Sanitary servicing will be provided via Sherwood Drive, conceptually shown on Figure 7: Sanitary Servicing.

6.3 WATER SERVICING

Water service for the Centennial ASP lands will be provided via the water main located along Sherwood Drive, with water looping to the west and north of the Plan area. Two options for

water servicing are provided to accommodate the uncertain timing of development for adjacent ASP lands. Option 1 (preferred option) does not include a tie-in point at Portage Close. Option 2 includes water tie-in points along Sherwood Drive, Portage Close, and to the north. Both water servicing options are conceptually shown on Figure 8: Water Servicing.

6.4 STORMWATER MANAGEMENT

Two stormwater management facilities are anticipated for the Plan area. The stormwater facilities shown will be constructed as naturalized wetlands. This will provide additional biological function in the purification of the stormwater contained within them, provide habitat for wildlife, and respects the site's existing water regime that currently includes naturally occurring depressions collecting stormwater runoff. Opportunity exists to incorporate existing wetlands into stormwater management facilities.



Source: Stantec

The ponds themselves will also provide benefits to the broader community by providing a water amenity and additional open space for residents, visitors, and employees using this area. Details of the pond requirements in the northern portion of the plan area will be determined with future development in that area (at rezoning and/or subdivision). The following provides an overview of the overall stormwater concept for the Centennial ASP lands.

The stormwater management system will consist of two drainage basins, representing Phase 1 (south) and Phase 2 (north) of development. Storm basins have been sub-divided with respect to the natural drainage pattern, existing topography, and the proposed staging/ownership requirements. Each basin will contain a stormwater management facility and an associated storm sewer system, ultimately discharging north at the allowable rate through the Sherwood Business Park system. One stormwater facility will be located in the south eastern portion of the plan area, and a second stormwater facility will be required for the northern portion of the ASP. It is anticipated that the two stormwater facilities will function in a similar manner, with the southern facility ultimately discharging into the northern facility. However, until development to the north proceeds, it is anticipated that stormwater within the south basin will temporarily discharge to the existing system along Sherwood Drive as an interim measure. The storm servicing system is conceptually shown on Figure 9: Stormwater Management.

Stormwater management for the Centennial ASP lands will implement some of the principles of Low Impact Development (LID) stormwater management to replicate natural stormwater processes and to increase infiltration, storage, evaporation, and retention of stormwater runoff near its source. The stormwater facilities will be developed as natural treatment facilities with the intention of improving stormwater runoff water quality through biological processes. The stormwater management facilities will provide amenity spaces to surrounding businesses. Consideration should also be given to the integration of bio-swales into the roadway network to transport flows and further promote infiltration, rather than incorporating all stormwater into underground piping systems.



Source: Stantec

6.4.1 Policies

- a. The location of stormwater management facilities shall be in accordance with the engineering design brief prepared in support of this Plan, as illustrated on Figure 9: Stormwater Management. Based on topography and engineering design, a north and south stormwater management facility will be required to serve each drainage basin / development phase.
- b. Stormwater management facilities shall be located such that no landowner is dependent upon another for servicing of development.
- c. Stormwater management facilities shall be naturalized or re-created wetlands.
- d. The stormwater management concept shall incorporate low impact development strategies using Strathcona County's Best Management Practices for Stormwater Management Facilities.
- e. Where possible, salvaged live soils are encouraged to be used to aid in naturalization of stormwater management facilities.
- f. Wetlands will be incorporated into stormwater management facilities, where possible, in accordance with the County Wetland Conservation Policy and Provincial legislation.

7.0 IMPLEMENTATION

7.1 GENERAL DEVELOPMENT

- The developers of Lot A, Plan 6676KS and Lot A, Plan 2258NY shall be responsible for their proportionate share of the cost of the Centennial ASP and engineering preparation.
- Lot A, Plan 6676KS and Lot A, Plan 2258NY will require compliance with the Historical Resources Clearance Act.
- A biophysical assessment is required in support of an application for future development for Lot A, Plan 6676KS and Lot A, Plan 2258NY.
- The clubroot pathogen cannot be moved (under the Agriculture Pests Act); therefore all topsoil for construction in this area must remain onsite. Development of lots within the ASP area will require the preparation and approval of a clubroot management plan.
- Additional reports or studies may be required in support of future development within the Centennial ASP area.

7.2 AMENDMENT

Policies, text and mapping information contained within the Centennial ASP may be amended from time to time in order to remain current and up-to-date in response to broader or more specific issues affecting the Plan area.

Any change to policy, text or mapping information contained within the Centennial ASP shall be in accordance with the *Municipal Government Act*, the Municipal Development Plan, and County Policies.

7.3 LAND USE BYLAW AMENDMENT

Amendments to the Land Use Bylaw shall occur at the time of development. This will involve rezoning the current AD–Agriculture: Future Development zoned lands to zoning districts suitable within the respective recreation, mixed use, local community service, and commercial land use areas, as identified in the Centennial ASP and as per the County’s Land Use Bylaw zoning districts.

7.4 PHASING

The Centennial ASP provides a policy framework for future rezoning, subdivision and development. The Plan is proposed to occur in two or more phases, as shown conceptually

in Figure 10: Phasing. This phasing is provided for illustrative purposes only and is subject to change.

The first phase consists of the County owned land to the south, which is intended for recreation, commercial, and mixed uses. This phase will include a stormwater management facility and collector roadway. The second phase includes the privately owned land to the north that is designated for commercial, mixed uses, and future commercial/potential outdoor recreation uses. As lands within this phase are developed, the collector roadway is to be extended to provide access and connectivity, and the second stormwater management facility shall be constructed to support the associated development.

These phases can be developed independently of one another. Furthermore, the Plan permits each landowner within the Plan area to develop their lands independently of the other landowners. Phasing of development must consider emergency access. Emergency access details will be addressed at future subdivision stages.

7.5 DESIGN GUIDELINES

The purpose of the Design Guidelines is to ensure an attractive, cohesive, and distinct built environment for development within the Plan area. Design guidelines for the Plan will promote the area's ability to function well while accommodating residential, recreation, business, social, and ecological factors in a cohesive fashion. The Plan area has significant frontage along Sherwood Drive that requires mindful and attractive urban design for its role as a key gateway into Sherwood Park. The Sherwood Park gateway represents a community welcome that greets travelers with a sense of arrival through the use of attractive urban design.

These requirements will apply to applications for rezoning, subdivision, development permit, and building permit stages, depending on the nature of the guidelines.

7.5.1 Site Layout

1. Work with existing site topography and minimize disturbance where possible.
2. Retain, enhance and incorporate natural features such as wetlands, tree stands and drainage patterns as much as possible.
3. Locate development such as buildings, parking and other facilities in a manner that minimizes impact on adjacent natural areas.
4. Use through roads to connect sites and promote good street linkages where feasible.

7.5.2 Streetscape and Site Design Guidelines

1. Pedestrian and vehicular accesses shall be well defined and separated from one another, and connected within and to adjacent development and lots, including future and existing.
2. The majority of parking shall be located at the side or rear of the main building and parking lots shall use additional landscape screening along Sherwood Drive and roadways that front onto residential or recreational areas.
3. Sites shall be developed using accessible design approaches where feasible, such as the use of concrete/asphalt paths rather than granular trails.
4. Complimentary and consistent signage and wayfinding materials shall be incorporated into site design to ensure clear and identifiable pedestrian connections throughout the site and connecting sites.
5. Mixed use and multiple tenant buildings or multiple building developments shall be designed comprehensively to provide a consistent thematic appearance and character. For example; the use of canopies, thematic signage and building materials.
6. Mixed use and multiple tenant buildings or multiple building developments on a site shall provide sidewalks to connect buildings, create common open space for meeting or gathering, and create attractive sidewalks and landscaping along the front of the buildings to each entrance.
7. Situate buildings close to the front of the lot and orient to the street in order to create a pleasing streetscape and reduce the distance for infrastructure extensions from municipal roadways. For commercial buildings, use the minimum front yard distance allowable in the Land Use Bylaw.
8. Building site design should allow for activity to be extended onto the sidewalk and other outdoor spaces without obstructing pedestrian circulation. These spaces may include restaurant patios, display areas for retail stores, or sales/display areas for produce and flowers.
9. Individual commercial development exceeding 100,000 square feet shall provide an amenity area that includes seating and landscaping complimentary to the development area. The amenity area shall be located in a manner that is easily accessible from the entrance of the

building connected by a walkway, and shall be a minimum of 1,000 square feet in area.

10. Landscape areas designed for passive use or gathering areas will be provided on all multiple building development sites exceeding 5 acres. These areas could be located in the forecourt of a building, within the parking area, at the side or rear yards, or along pedestrian walkways, particularly those adjacent to transit stops. Design should incorporate hard and soft elements including shade trees or devices such as awnings, trellis, canopies, seating, planting beds and sodded areas.
11. Outdoor storage shall be minimized and located in a manner that does not obstruct pedestrian walkways. Outdoor storage adjacent to roadways or residential areas shall use additional landscape screening or architectural elements to reduce its visibility. Outdoor storage shall not be adjacent or visible to Sherwood Drive.
12. Extension or redevelopment of outdoor recreation areas shall follow the recommendations of a County approved Parks Master Plan.
13. Sites and buildings are encouraged to incorporate winter design elements (including pedestrian lighting, colorful and warm materials and lighting, and landscaping and design features that maximize solar exposure and provide breaks from wind and extreme temperatures) to facilitate all season use.

7.5.3 Building Design

1. Buildings shall be oriented to abut Sherwood Drive, public streets and roadways to create interest and definition using the minimum front yard distance allowable in the Land Use Bylaw.
2. Building scale and height shall be sensitive to adjacent development, and consider mass, overshadowing, and privacy of abutting uses.
3. Upper stories beyond the first storey are required to be stepped back to reduce massing of commercial and/or mixed use development
4. All visible sides of buildings within the plan area should have a high level of quality, architectural presence and pedestrian scale that is attractive both from within the site and from Sherwood Drive and external roadways.
5. Building entrances shall be designed as identifiable focal points that are oriented towards public sidewalks or other pedestrian access points,

prioritizing the pedestrian first. This allows safer and easier pedestrian access. This includes the use of distinctive architectural treatments and articulation around entrance ways, and pedestrian walkways that meet or include marked crossing areas to entrances.

6. Massing of building walls greater than 12 metres in length shall be reduced through the use of architectural elements such as columns, ribs, pilasters or piers, changes in plane (e.g., recesses and projections), changes in building finishes, materials and textures, or other features that create an identifiable pattern and sense of human scale. Massing elements such as major entries, windows, shifts in wall planes, trellises, roof elements, cupolas, gazebos, terracing, arcades or other similar elements should be incorporated to add visual interest to the basic massing.
7. Mechanical equipment shall be screened from view in a manner compatible with the site character.
8. Alternative energy is encouraged to be used onsite to either subsidize grid energy needs or provide all or a portion of the site's overall energy requirements. This could be done using methods such as vertical or horizontal geothermal systems, photovoltaic cells, a local co-generation facility, wind power, or other alternative conserving methods or energy sources.
9. Alternative roofing materials that improve environmental or building performance shall be encouraged; examples include green or reflective roofs. These roofing options, and other available technologies, must reduce heating and cooling costs, decrease site runoff, and extend the life of the roof itself to save maintenance costs.
10. Re-use of grey water or use captured rainwater for landscaping uses to achieve water savings and reduce the amount of water waste being generated on the site is encourage. This can be done by installing grey water capture systems and the use of freestanding or integrated cisterns.
11. Efficiency of building envelopes, interiors, and loading bays that will reduce overall building heat loss is encouraged. The benefits to building envelope improvements are: lower heating and cooling costs, increased occupant comfort, controlled condensation and moisture, improved indoor air quality, and reduced emissions output. These solutions can be implemented through the addition of air barriers, increased insulation and high efficiency windows. Control of heat loss around loading bays can be accomplished through separation and internal door envelopes.

7.5.4 Circulation and Parking

1. For single tenant, multiple building and mixed use developments, a well-designed and defined pedestrian walkway from each street frontage to the principle entries and/or major building shall be provided.
2. Pedestrian and vehicular crossings shall be minimized in all instances.
3. In on-site parking areas, landscaped pedestrian walkways at regular intervals shall be provided from the parking area to the main entry to minimize pedestrian and vehicle conflict.
4. Where feasible, shared and reduced parking strategies to take advantage of parking between sites shall be utilized. At the discretion of the County, parking requirements can be reduced and/or shared between mixed use, commercial, and recreation users. Also, consideration of off-hours use of parking in nearby facilities for recreational users or neighbouring businesses is encouraged.
5. Loading, garbage and other ancillary services shall be located at the rear or side of the development and shall be screened as to not detract from public view or interrupt pedestrian movement.
6. Enhance the relationship of commercial areas to adjacent residential, mixed use, recreation, stormwater management facility, Municipal Reserve, and Environmental Reserve areas by preserving key view corridors at points of public/private access, and by providing convenient pedestrian access at these points.
7. Secure bicycle parking facilities shall be provided in convenient locations for residents, patrons and employees in the mixed use, commercial and recreation areas.

7.5.5 Outdoor Display Areas and Lighting

1. Display areas shall be visually contained and located to minimize pedestrian and vehicular conflict, they shall not obstruct pedestrian walkways. Colonnade structures or roof overhangs designed as an integral element or continuation of the building façade provide the best design solution, as well as shelter for the products and shoppers, an opportunity to maximize frontage exposure for signage and a mounting base for product display lighting.

2. Lighting design should complement the design of the development and provide for a safe, attractive environment for pedestrian and vehicular circulation.
3. Exterior lighting shall be energy efficient, reduce off-site lighting, and limit night sky pollution.

7.5.6 Outdoor Space

1. All proposed outdoor areas shall be designed using Crime Prevention Through Environmental Design (CPTED) principles to pro-actively deter criminal behavior through alterations to the urban environment. General guidelines include:
 - a) Natural surveillance
 - Orient paths towards building entrances and windows
 - Increase visual permeability of vulnerable areas such as building entrances, stairwells, and playgrounds through the use of strategic window placement, building materials and landscaping
 - Use of pedestrian lighting
 - Encouraging seating and patios that generate activity and surveillance
 - b) Natural access control
 - Provide clear borders to define spaces
 - Limit uncontrolled/unobserved accesses to properties, buildings, and private spaces
 - Use landscaping to discourage unwanted entry
 - Use separation space to provide natural barriers and minimize conflict between activities
 - c) Territorial reinforcement
 - Clearly define public to private transitions through methods such as paving materials, signs, markers or other visual cues
 - Provide amenities in public spaces that encourage activity and use
 - Clearly define the purpose of space, so that no space is left without an assigned use
 - Conduct regular and timely maintenance
2. Use natural features and notable locations to create focal points.
3. Existing windrows and hedgerow trees should be retained and integrated into sites where feasible and appropriate.

4. Stormwater facilities shall be naturalized treatment facilities. The naturalization of stormwater treatment will decrease the amount of pollutants that are returned to water bodies from stormwater run-off, which in turn will decrease the cost of water treatment overall. In addition, naturalization decreases maintenance costs of stormwater treatment in the long-run.

7.5.7 Landscaping

1. The landscape concept shall be developed by a landscape architect to provide consistency and a sense of place throughout the development.
2. Lots that back onto MR or open space, as identified in Figure 4: Land Use Concept, will be encouraged to increase planting within their required side or rear yard setbacks.
3. Additional landscaping in parking areas to enhance their appearance, reduce solar gain, and reduce runoff is encouraged. Landscaping in parking areas should provide a strong visual element by the use of native and drought resistant plant material.
4. Low maintenance, commercially-available, and zone-appropriate / native species will be given priority over non- native grasses in site landscaping, stormwater management facility landscaping, and public utility lots.
5. Use of drought-resistant vegetation in order to reduce irrigation needs and landscape maintenance, using xeriscaping techniques in onsite landscaping is encouraged. Limit turf grass to the fronts of building developments.
6. Management of some stormwater runoff onsite as a part of landscaping through methods such as developing rain gardens, small bio-ponds, dry-wells, or other naturalized or low impact development measures that replicate predevelopment stormwater processes is encouraged.
7. The use of bio-swales (drainage courses that incorporate natural vegetation) in place of pipes to move stormwater is encouraged. Bio-swales are encouraged to be integrated with the landscaped setback of the site or within parking areas to provide an amenity as well as a stormwater function.

8.0 FIGURES

Figure 1 Location Plan

Figure 2 Land Ownership

Figure 3 Existing Conditions

Figure 4 Land Use Concept

Figure 5 Parks and Open Space

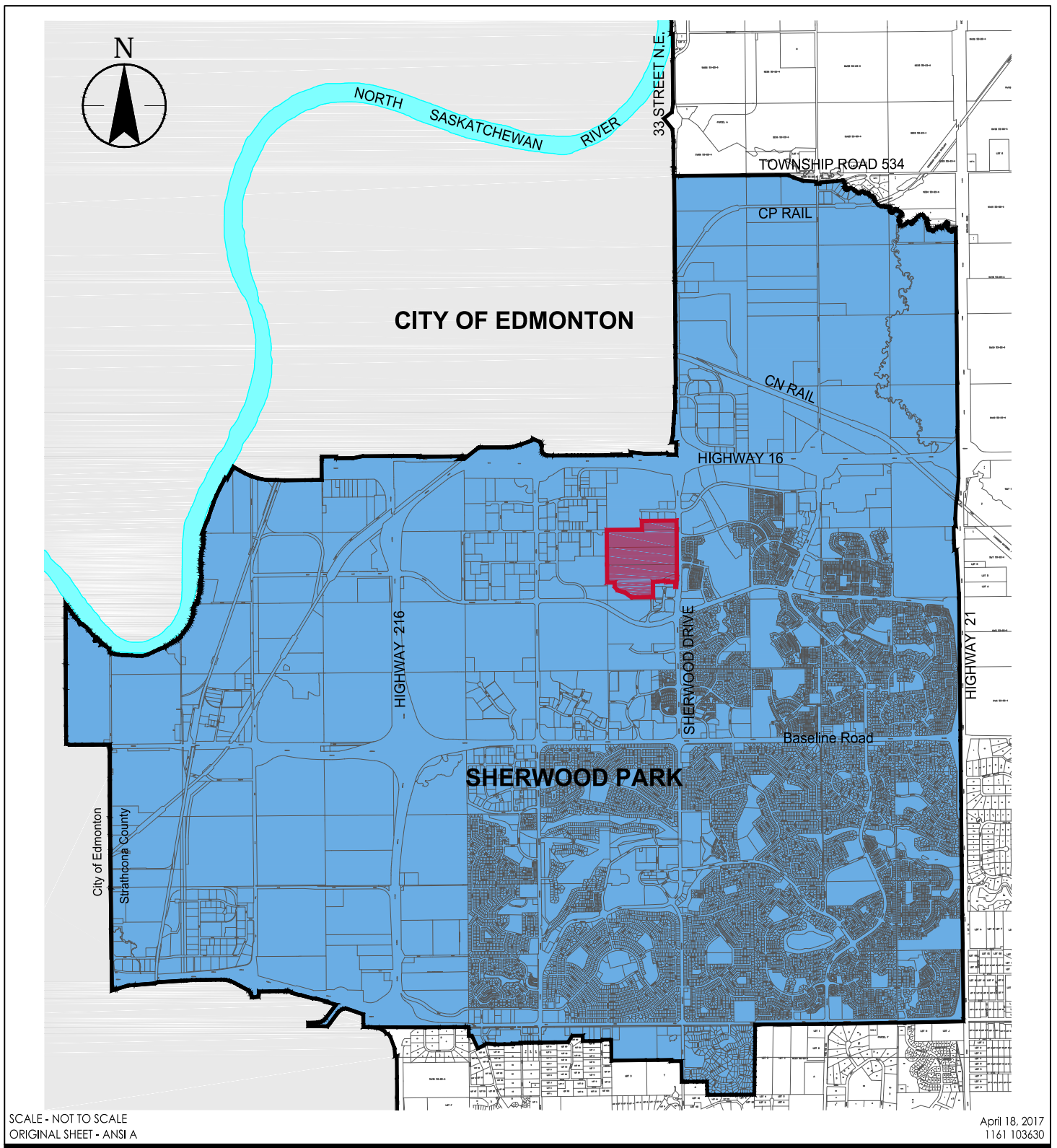
Figure 6 Transportation

Figure 7 Sanitary Servicing

Figure 8 Water Servicing

Figure 9 Stormwater Management

Figure 10 Phasing



LEGEND

- CENTENNIAL AREA STRUCTURE PLAN LOCATION
- URBAN SERVICE AREA - SHERWOOD PARK

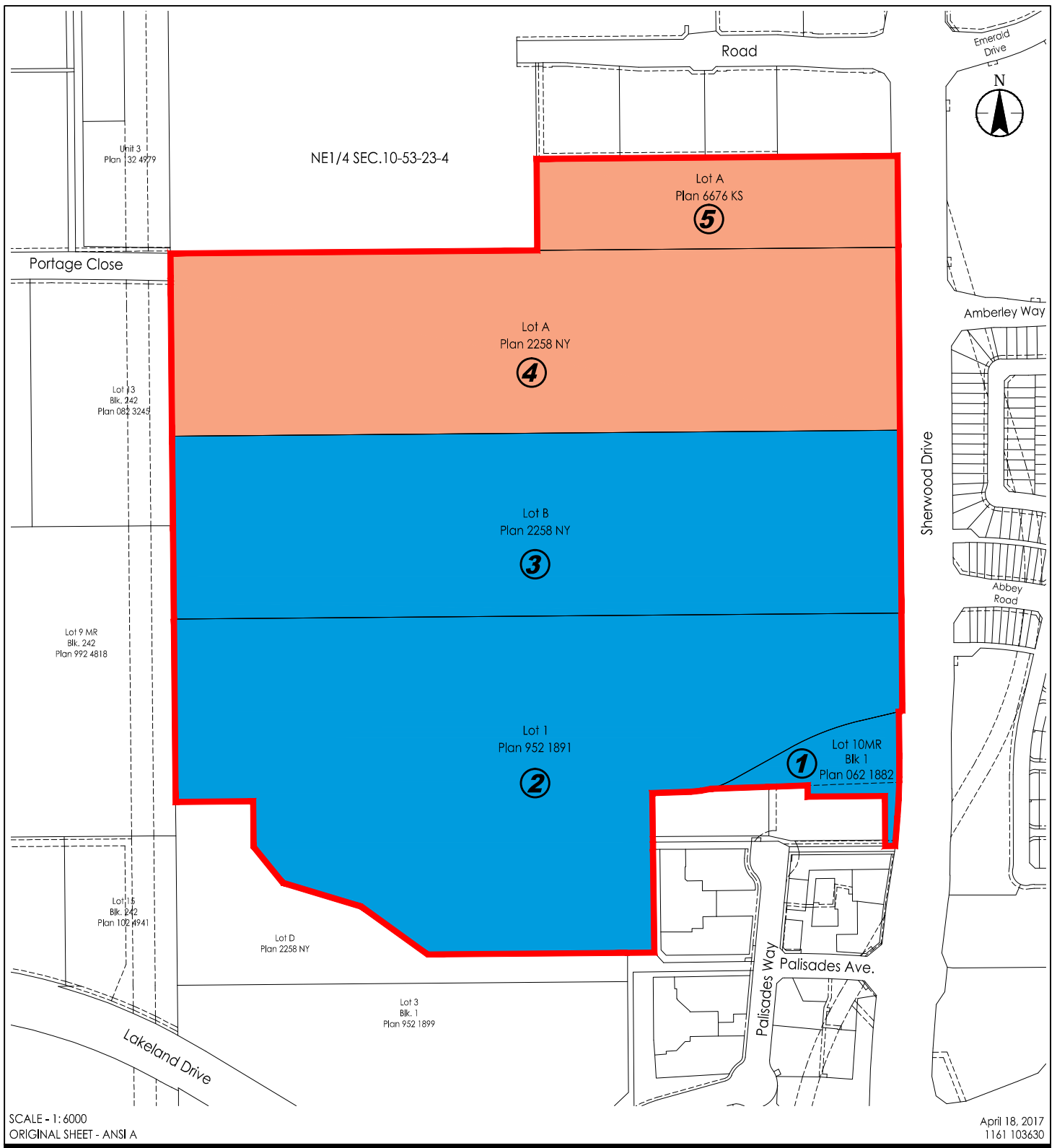
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STRATHCONA COUNTY
CENTENNIAL
AREA STRUCTURE PLAN

Figure No.

1.0

Title

LOCATION PLAN



LEGEND

- PUBLIC
- PRIVATE
- 4 MAP REFERENCE NUMBER
- AREA STRUCTURE PLAN BOUNDARY

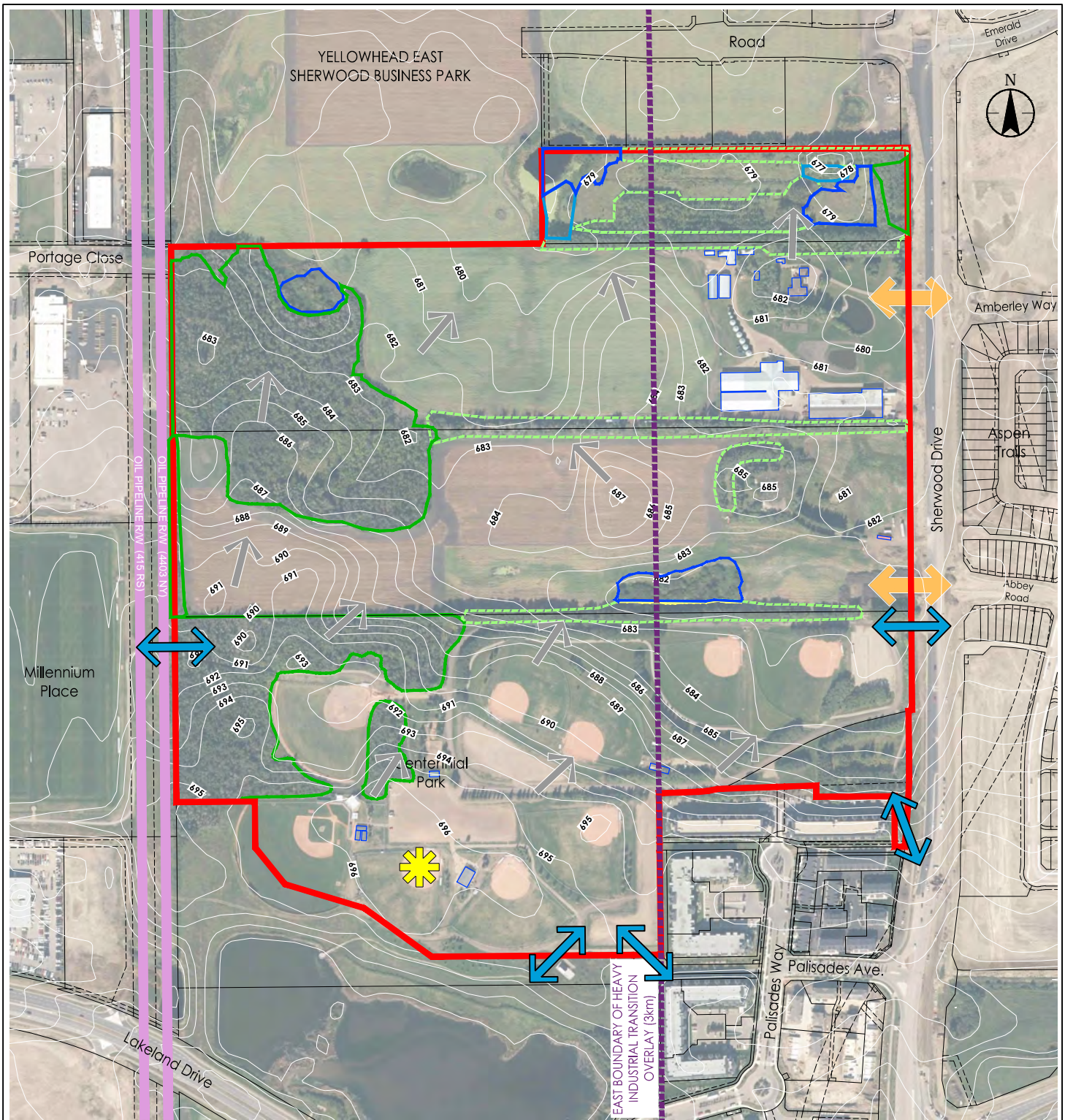
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STRATHCONA COUNTY
CENTENNIAL
AREA STRUCTURE PLAN

Figure No.

2.0

Title

LAND
OWNERSHIP



SCALE - 1:6000
ORIGINAL SHEET - ANSI A

April 18, 2017
1161 103630

LEGEND

	EXISTING BUILDING		NON-NATIVE UPLAND		HEAVY INDUSTRIAL TRANSITION OVERLAY
	EXISTING ACCESS		NATIVE UPLAND		PIPELINES/RIGHTS-OF-WAY
	DIRECTION OF DRAINAGE		NATURAL WETLANDS		TRAIL CONNECTIONS
	HIGH POINT		DUGOUTS		AREA STRUCTURE PLAN BOUNDARY

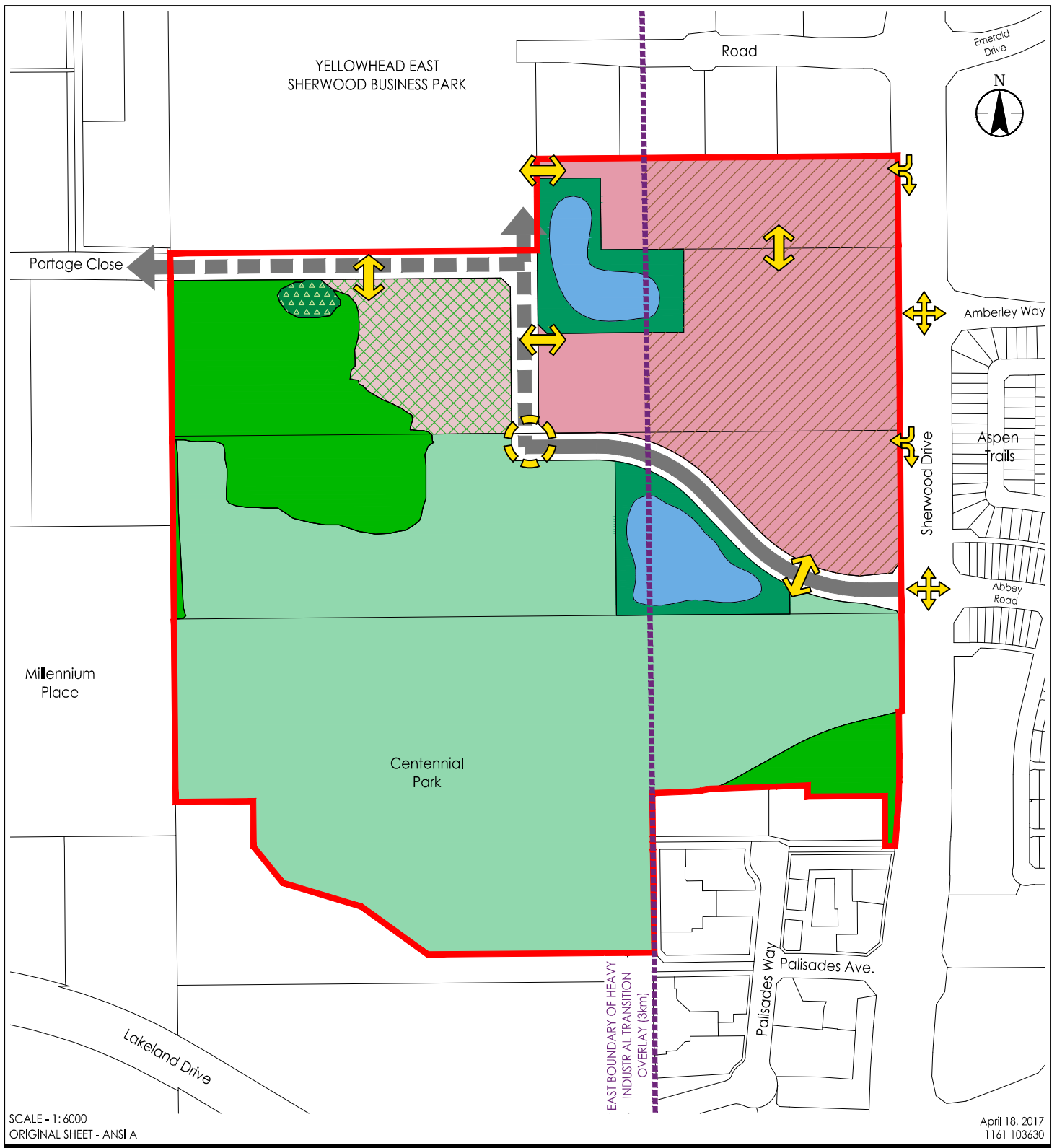
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STRATHCONA COUNTY
CENTENNIAL
AREA STRUCTURE PLAN

Figure No.

3.0

Title

Existing Conditions



LEGEND

- COMMERCIAL
- FUTURE COMMERCIAL/POTENTIAL
OUTDOOR RECREATION
- OUTDOOR RECREATION
- ENVIRONMENTAL RESERVE
- MUNICIPAL RESERVE
- MIXED USE OVERLAY

- STORMWATER MANAGEMENT FACILITY
- COLLECTOR ROAD - PHASE 1
- COLLECTOR ROAD - PHASE 2
- POTENTIAL ACCESS
- ALL-DIRECTIONAL ACCESS
- RIGHT-IN/RIGHT-OUT ACCESS
- ROUNDABOUT
- AREA STRUCTURE PLAN BOUNDARY

Client/Project

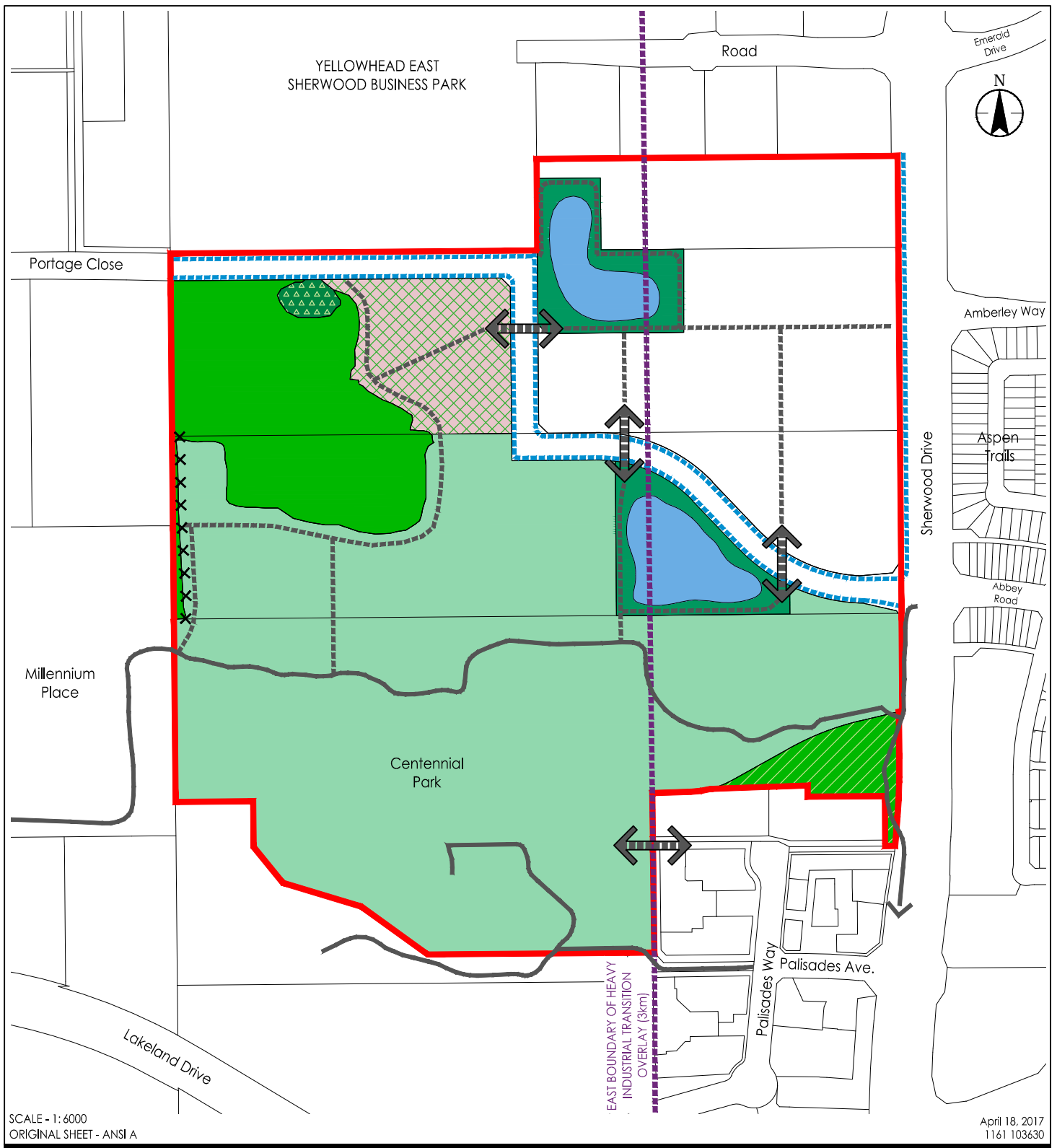
STRATHCONA COUNTY
CENTENNIAL
AREA STRUCTURE PLAN

Figure No.

4.0

Title

LAND USE CONCEPT



LEGEND

- FUTURE COMMERCIAL/POTENTIAL OUTDOOR RECREATION
- OUTDOOR RECREATION
- ENVIRONMENTAL RESERVE
- MUNICIPAL RESERVE - EXISTING
- MUNICIPAL RESERVE - FUTURE

- STORMWATER MANAGEMENT FACILITY
- EXISTING TRAILS
- POTENTIAL TRAILS
- SIDEWALK
- POTENTIAL TRAIL CONNECTIONS
- WILDLIFE CORRIDOR
- AREA STRUCTURE PLAN BOUNDARY

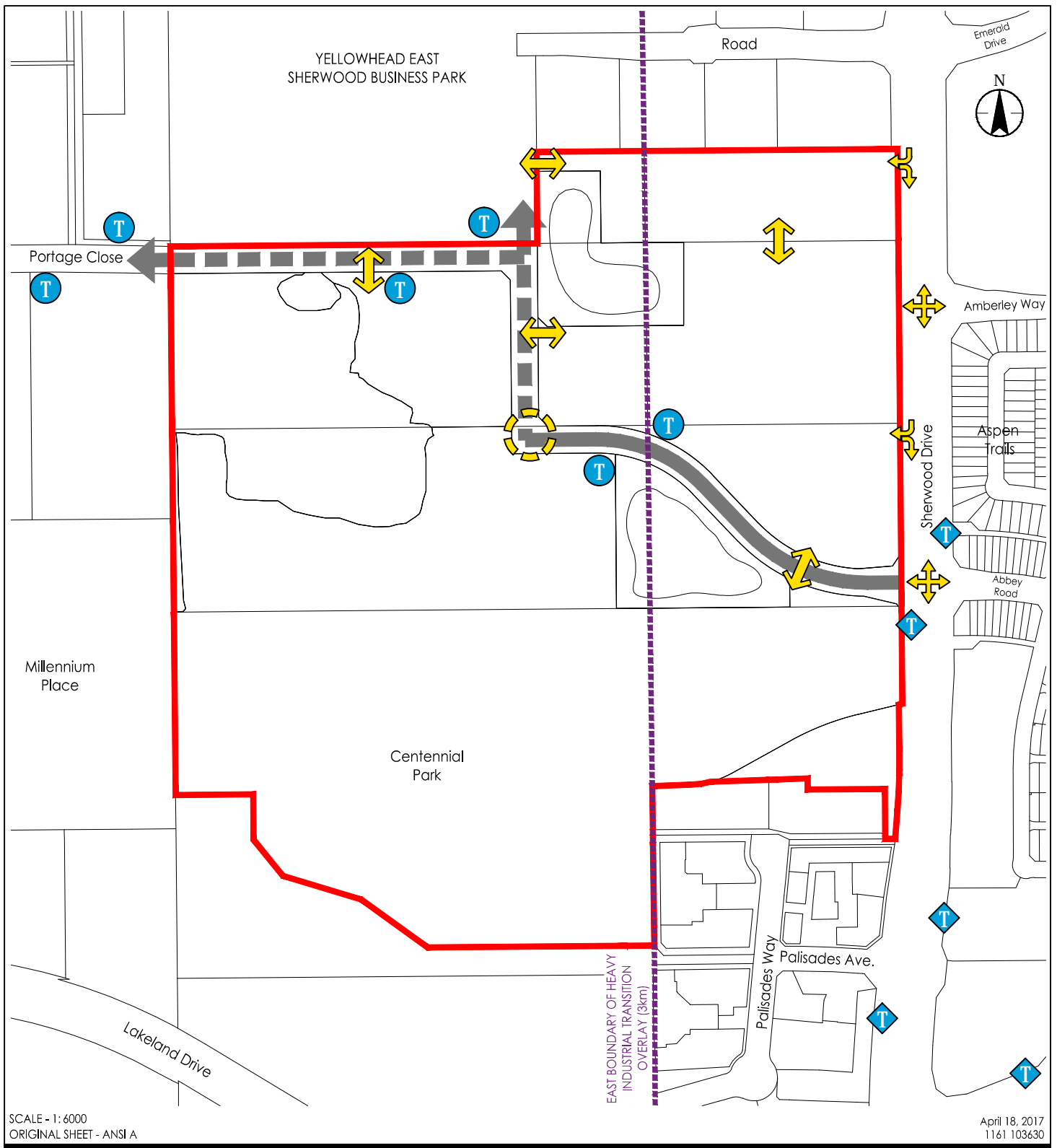
Client/Project
STRATHCONA COUNTY
CENTENNIAL
AREA STRUCTURE PLAN

Figure No.

5.0

Title

PARKS AND
OPEN SPACE



LEGEND

- COLLECTOR ROAD - PHASE 1
- COLLECTOR ROAD - PHASE 2
- POTENTIAL ACCESS
- ALL-DIRECTIONAL ACCESS

- RIGHT-IN/RIGHT-OUT ACCESS
- ROUNDABOUT
- TRANSIT STOP LOCATION
- POTENTIAL TRANSIT STOP LOCATION
- AREA STRUCTURE PLAN BOUNDARY

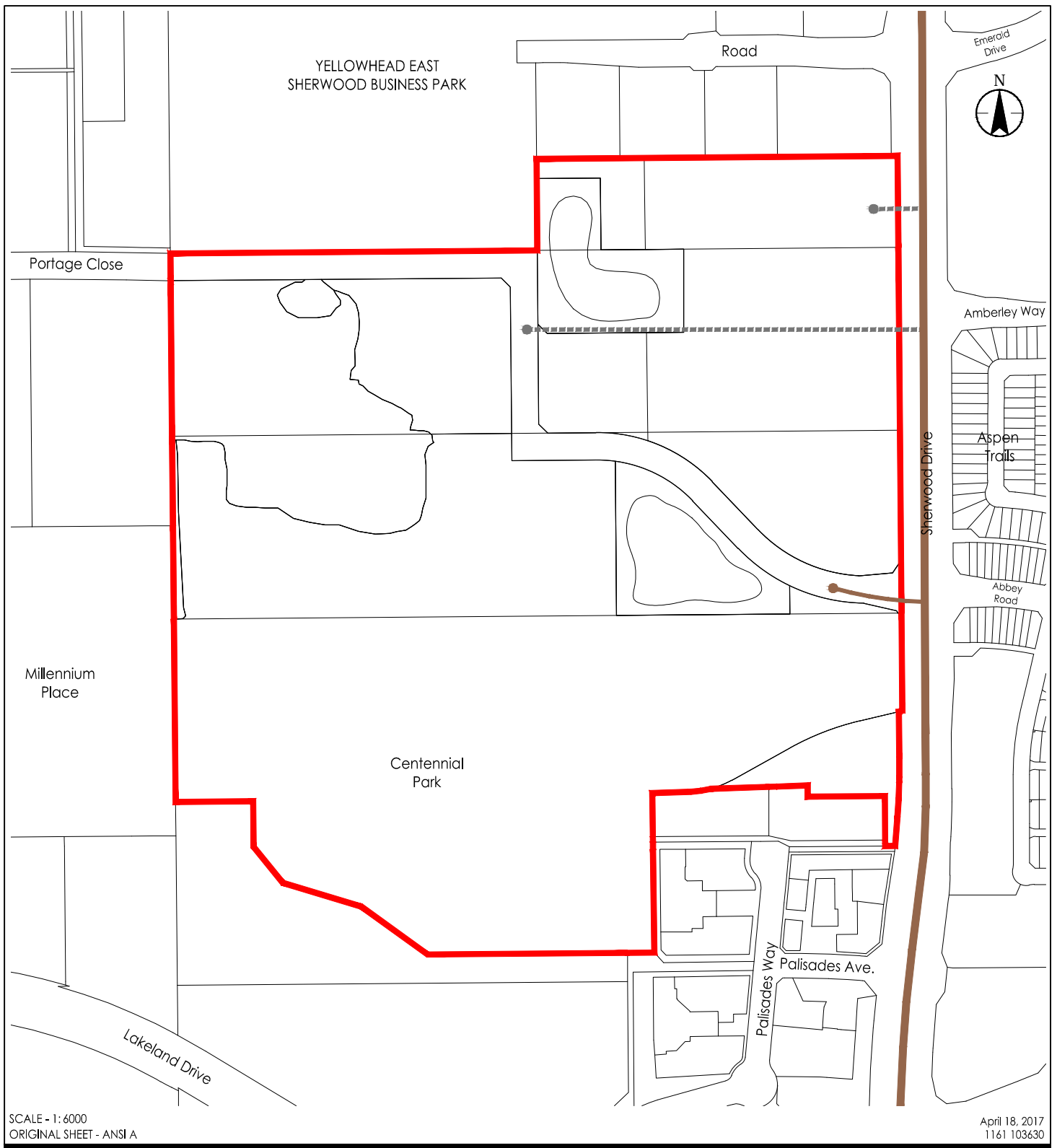
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STRATHCONA COUNTY
CENTENNIAL
AREA STRUCTURE PLAN

Figure No.

6.0

Title

TRANSPORTATION



LEGEND

- Existing 600mm Sanitary Line
- 250mm Sanitary Line (Phase 1)
- 250mm Sanitary Line (Phase 2)
- Area Structure Plan Boundary

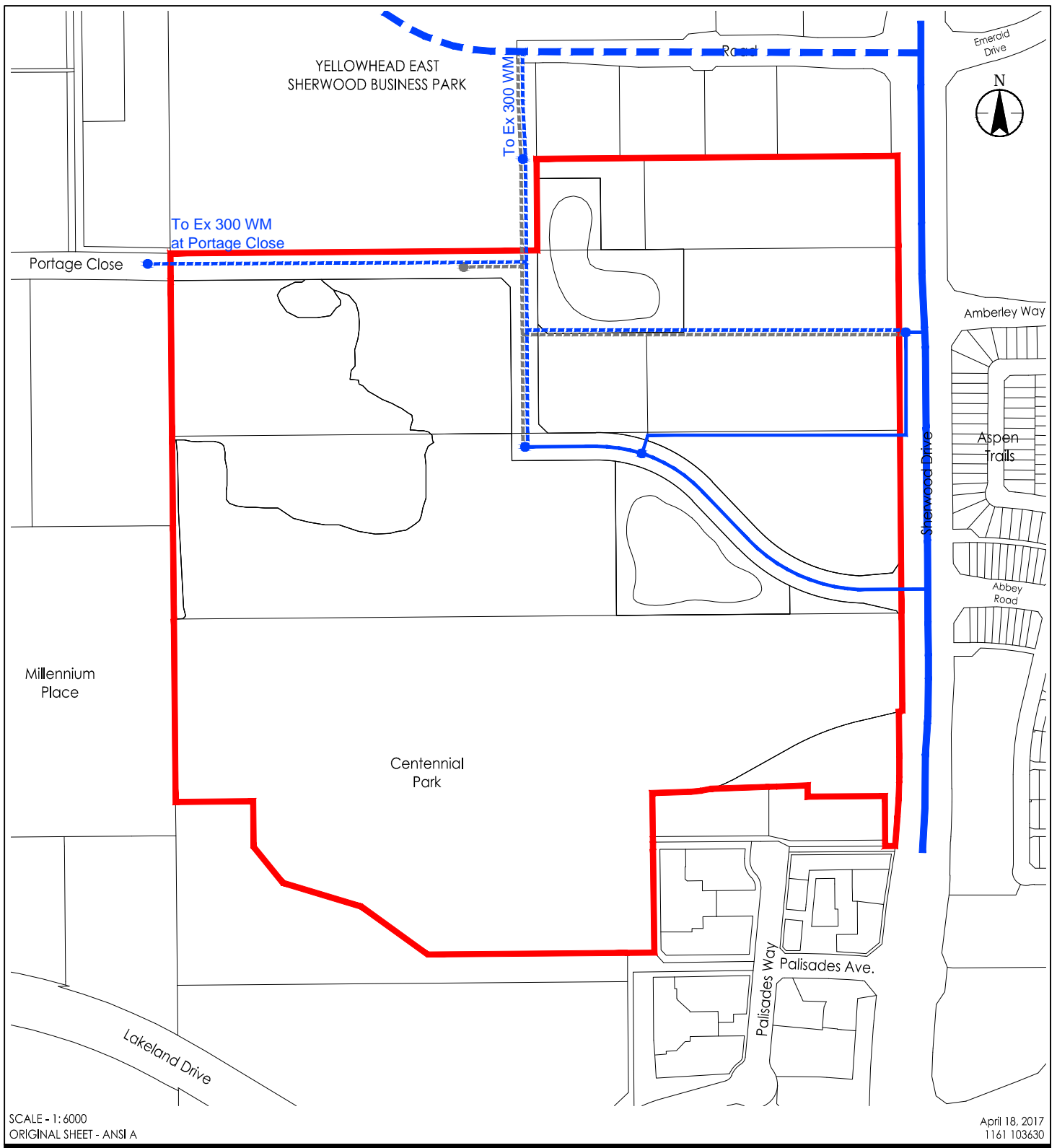
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STRATHCONA COUNTY
CENTENNIAL
AREA STRUCTURE PLAN

Figure No.

7.0

Title

SANITARY
SERVICING



LEGEND

- | | |
|---------------------------|--------------------------------------|
| Existing 450mm Watermain | 300mm Watermain (Phase 2) - Option 1 |
| Existing 300mm Watermain | 300mm Watermain (Phase 2) - Option 2 |
| 300mm Watermain (Phase 1) | AREA STRUCTURE PLAN BOUNDARY |

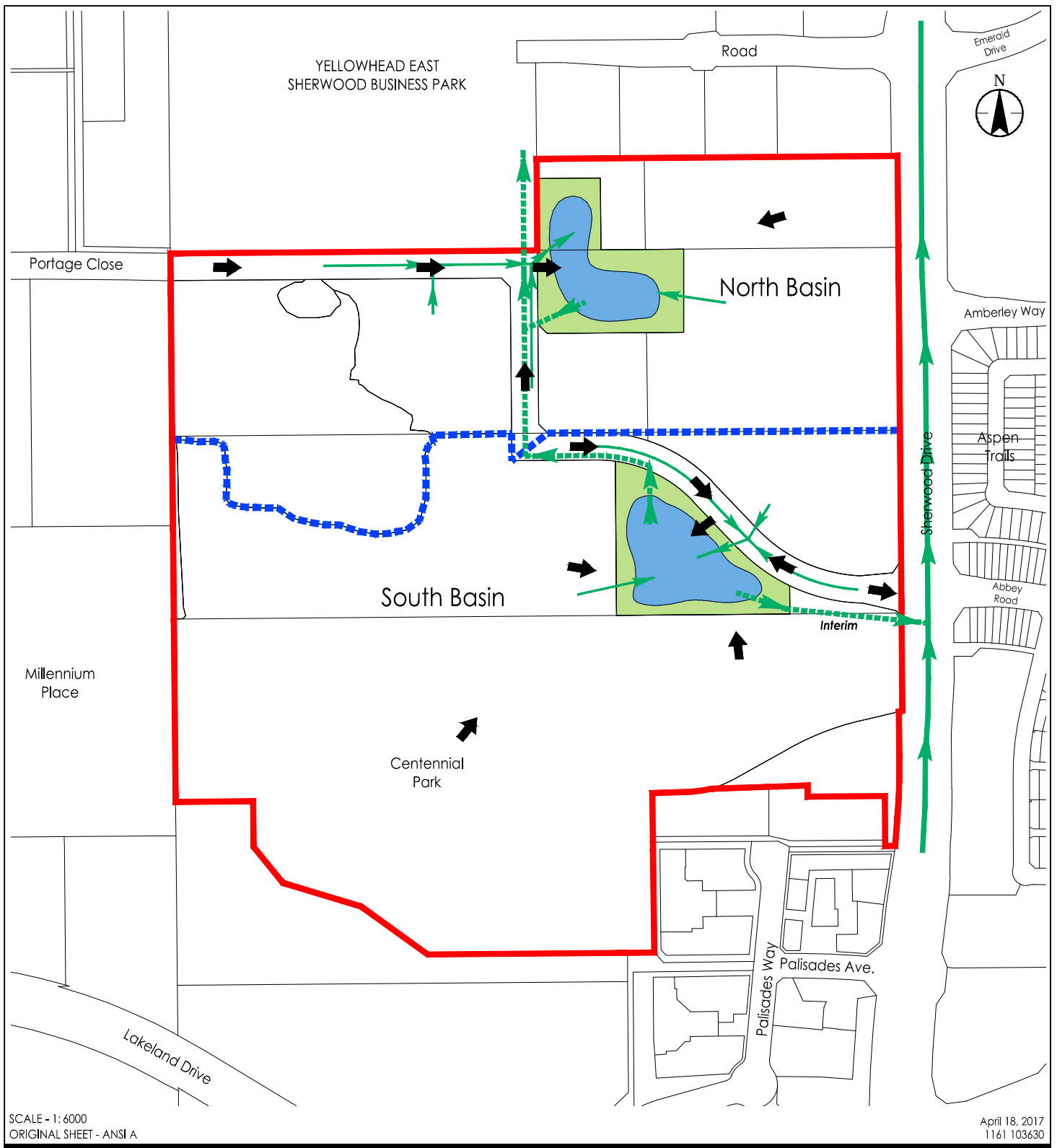
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STRATHCONA COUNTY
CENTENNIAL
AREA STRUCTURE PLAN

Figure No.

8.0

Title

WATER
SERVICING



LEGEND

- | | | | |
|--|--------------------------------|--|-----------------------------|
| | STORMWATER MANAGEMENT FACILITY | | STORM PIPES |
| | STORM BASIN BOUNDARY | | STORM INTERCONNECTING PIPES |
| | DIRECTION OF MAJOR FLOW | | EXISTING STORM SEWER |
| | AREA STRUCTURE PLAN BOUNDARY | | |

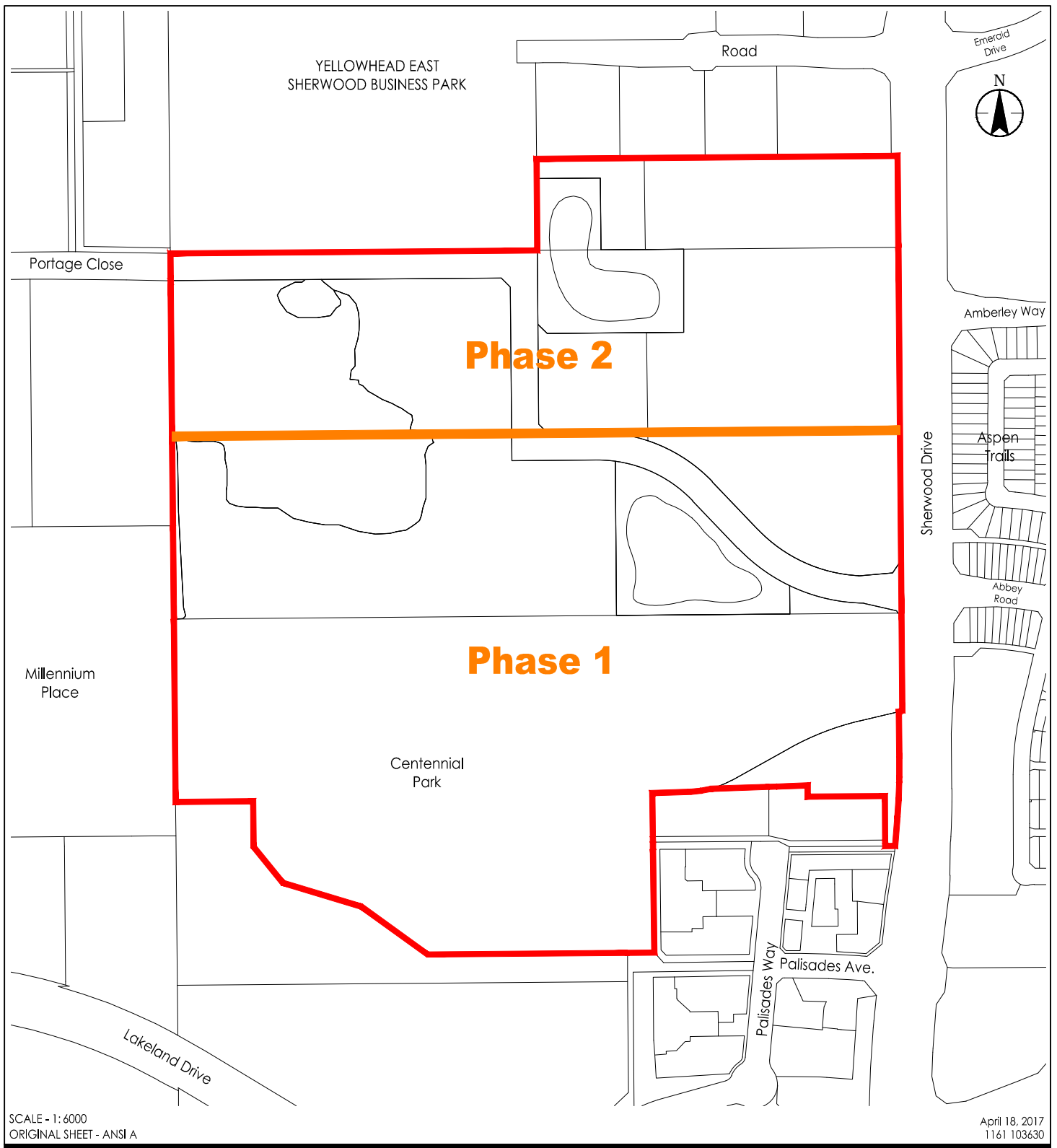
Client/Project
STRATHCONA COUNTY
CENTENNIAL
AREA STRUCTURE PLAN

Figure No.

9.0

Title

STORM WATER
MANAGEMENT



Client/Project
STRATHCONA COUNTY
CENTENNIAL
AREA STRUCTURE PLAN

Figure No.

10.0

Title

PHASING PLAN

APPENDIX - SITE ANALYSIS

EXISTING CONDITIONS

Existing Land Uses

Existing land uses within the Plan area include:

- Centennial Park – County-owned recreation space in the southern portion of the plan area consisting of nine ball diamonds, trails, existing tree stands, surface parking, and minor facilities;
- County-owned agricultural lands located immediately north of the existing Centennial Park; and
- Private agricultural operations and residence in the northern portion of the plan area.

Adjacent Land Uses

Existing land uses adjacent to the Plan area include:

- Millennium Business Park, which includes Millennium Place recreation facilities to the west;
- Undeveloped lands to the north within the Yellowhead East Sherwood Business Park;
- Aspen Trails and Emerald Hills neighbourhoods under development to the east of Sherwood Drive; and
- Multi-family residential development along Palisades Way to the south.

Topography

The subject area consists of gently rolling terrain with hummocky moraine landforms. Elevations of the plan area range from 696 m in the southwest portion to 677 m along the northern boundary. The majority of surface drainage generally follows the topography and is towards the north and northeast.

Geology and Soils

The surficial geology of the area consists of intermediate-textured hummocky and ground moraines to fine-textured glaciolacustrine deposits and outwash (Spencer Environmental Management Services Ltd., 2009). Bedrock geology is part of the Horseshoe Canyon Formation. A geotechnical evaluation report completed by Shelby Engineering Ltd. (2006)

outlines the subsurface conditions of the subject area. Much of the subject site is cultivated agricultural land that is surfaced with topsoil, beneath which clay and clay till are found.

The area contains a mixture of soil types, which generally include Orthic Black Chernozems on open upland sites, Orthic Dark Gray Chernozemic and Dark Gray Luvisolic soils in forested areas, and Humic and Orthic Gleysols associated with wetlands.

Hydrology

The subject site contains naturally occurring surface water within a few identified wetlands. Due to the elevation changes noted within the Plan area, surficial water is expected to drain from southwest to north and northeast.

Boreholes drilled by Shelby Engineering Ltd. (2006) identified that the groundwater table was highest at the east and west ends of the site and generally lower in the central portion.

Existing Vegetation and Water Features

The subject site is located within the Central Parkland Subregion of the Parkland Natural Region. Vegetation in this Subregion includes stands of aspen and balsam poplar interspersed with rough fescue grasslands. Understory is generally dominated by a diverse, well-developed shrub layer that includes snowberry, Saskatoon serviceberry, chokecherry, prickly rose, red-osier dogwood and willow.

The Plan area contains seven distinct vegetation types, which are described below. Natural features are identified in Figure 3: Existing Conditions.

- Cultivated fields - Much of the northern portion of the Plan area has been cleared and consists of cultivated agricultural fields.

Native-Upland

- Deciduous woodland - The large woodland in the northwest corner is composed of deciduous woodland, shrubland, and wetland. Along the western boundary of the Plan area and within Centennial Park is another large woodland that has been partially disturbed for a trail and ball diamond. The northeast corner of the subject site also contains a



Source: Spencer Environmental

small area of young, partially disturbed deciduous woodland.

- Shrubland - Much of the large woodlands contain intermixed shrubland sites.

Non-Native Upland

- Hedgerows - the plan area contains four distinct hedgerows, totaling 2 km in length. Only the north-south hedgerow along the western boundary is a remnant of a native woodland. The other three hedgerows, located east-west across the site were planted with non-native species. Smaller planted hedgerows are also present within the existing Centennial Park site and around farmsteads.



Source: Spencer Environmental

- Meadow/plantation - A small open meadow of introduced species is located near the northern boundary of the Plan area. Adjacent to this is a former tree plantation, containing some exotic/hybrid tree species.

Natural Wetlands

- Wetland - The Plan area contains two Class III (seasonal) wetlands and two (Semi-permanent) Class IV wetlands. These wetlands are relatively small and range from 0.26 ha to 0.50 ha in area. With the exception of the western wetland within the large woodland, the identified wetlands on the site are in degraded condition and are of low wildlife value. The Class IV wetlands support some plant communities, including dense



Source: Spencer Environmental

stands of cattail, several shallow grasses and sedge, wet meadow species, and a band of tall willows. The southern Class IV wetland is surrounded by cultivated fields and a narrow hedgerow, which limit its functional upland zone quality. While the northern Class IV wetland is partially surrounded by cultivated field, adjacent hedgerow and meadow increase filtration capacity and habitat. The eastern Class III wetland is a weedy site that supports shallow marsh species and wet meadow species. Wetland function of the site varies greatly due to the mosaic of surrounding vegetation quality. The western Class III wetland, contiguous with the large woodlot, supports shallow marsh species and a broad band of tall willows. A thick understory of moisture-loving plants is also present. This wetland is bordered by a weedy field and cultivated crops.

Dugouts

- Dugouts - Two non-natural waterbodies are located near the northern boundary of the site on Plan 6676 KS, Lot A.

While the natural features within the site have been fragmented by agricultural activities, the remnant natural habitat, including the large woodland and smaller natural features, still support a range of species. The northwest woodland presents the largest and most viable habitat on the site, which supports the greatest diversity of species. Wildlife movement is restricted by several significant barriers, including Highway 16 to the north, Sherwood Drive to the east, and Lakeland Drive to the south.

Of the natural features identified within the Plan area, the large woodland in the northwest corner is identified as a first priority for conservation (as Municipal Reserve) and the adjacent hedgerow that extends south to the existing Centennial Park woodland is considered the second priority. This high conservation value relative to the other natural features on the site is based on species diversity, size, functional wildlife connectivity, and low anthropogenic disturbance. The semi-permanent wetlands are also recommended for conservation (as Environmental Reserve) or incorporation into stormwater management facility design.

Existing Infrastructure and Servicing

Existing infrastructure near the Centennial ASP lands includes a number of features that can be utilized for future planning in the area. These features include:

- Sanitary servicing – An existing 600 mm sanitary sewer trunk located in Sherwood Drive is available for tie-in to the Centennial ASP lands (see Figure 7: Sanitary Servicing).
- Water servicing – An existing 450 mm water main located in Sherwood Drive is available for tie-in, with potential water looping provided through the 300 mm water

main in Portage Close (located to the west of the Plan area) (see Figure 8: Water Servicing).

- Storm servicing – An existing 600 mm storm sewer line located within Sherwood Drive is available for tie-in. The stormwater pond located north of Lakeland Drive is currently utilized by the Centennial Park lands (see Figure 9: Stormwater Management).
- An oil pipeline right-of-way runs north-south abutting the west boundary of the Plan area.
- Transportation network - Sherwood Drive is a north-south four-lane divided arterial roadway, located along the eastern boundary of the Plan area. It provides a direct connection to Highway 16 (Yellowhead Highway) to the north and Lakeland Drive to the south. Portage Close dead-ends adjacent to the western boundary of the site. Current site access is provided from Sherwood Drive to Centennial Park and to the parcels to the north. Internal site circulation consists of a one-way loop road through Centennial Park. Two planned all-directional intersections along Sherwood Drive will allow for access to the site at Centennial Park and Abbey Road, and north at Amberley Way in place of existing accesses. Transportation network details are provided within the Traffic Impact Assessment that has been completed in support of the Centennial ASP.