

ASPEN RIDGE



NEIGHBOURHOOD CONCEPT PLAN
JUNE 2014

ASPEN RIDGE NEIGHBOURHOOD CONCEPT PLAN

Prepared by

Saskatoon Land

in conjunction with

Victory Majors Investments Corporation

and

Cindercrete Products



June 2014

TABLE OF CONTENTS

Executive Summary	v
The Purpose of the Concept Plan	vi
Introduction	1
LEGISLATION	2
Official Community Plan No. 8769	2
Zoning	2
University Heights Sector Plan	2
Meewasin Valley Authority	2
Strategic Plan & Growing Forward! Shaping Saskatoon	3
BACKGROUND	4
Location	4
Land Ownership	4
Existing Land Uses	4
Adjacent Land Uses	4
The Northeast Swale	5
The Greenway	6
Site Physical Characteristics	7
Phase I Environmental Analysis	8
Phase I & II Hydro-Geotechnical Analysis	8
Historical Resources	8
THE NEIGHBOURHOOD CONCEPT – THE URBAN VILLAGE	9
The Village Centre	9
The Village Square	10
The Village Centre Neighbourhood Convenience Commercial	11
The District Village	12
Urban Holding	13

McOrmond Drive Multi-Way Boulevard	14
New Mixed-Use Commercial Residential Zoning District	17
New Medium-Density Mixed-Use District	17
New Low-Density Mixed-Use District	18
The Residential Character	19
Rear Lane and Detached Garages	21
Residential Care Homes – Type II, Pre-Schools, and Child Care Centres	21
Land Pre-designation Programs for Affordable and Entry Level Housing	21
Architectural Controls	22
The Park System	22
Municipal Reserve Dedication	23
Landscaped Drainage Parcels	23
Integrated Elementary Schools and Community Centre	24
SUSTAINABLE NEIGHBOURHOOD DESIGN ELEMENTS	26
The Neighbourhood Layout	26
The Built Environment	27
Solar Analysis	27
Neighbourhood Safety Considerations	27
INFRASTRUCTURE	29
Transportation	29
Roundabouts	30
Public Transit	30
Pedestrian and Cyclist Movement	31
Mid-Block Crossings and Enhanced Pedestrian Crossings	31
Pedestrian Walkways	32
Buffers and Sound Attenuation Earth Berms	32
Sanitary Sewer	32
Water Supply	32
Water Reservoir	33

Storm Water Drainage and Sediment Control	33
Shallow Utilities	33
Solid Waste & Recycling	34
Fire and Protective Services	34
Snow Storage	34

PLAN IMPLEMENTATION 35

Neighbourhood Phasing Strategy	35
The Approval Process	35

IMAGES

1 - Location Map	1
2 - Ownership	4
3 - Cross Section of Greenway	6
4 - Greenway Ecological Buffer Zone	7
5 - Village Square Layout Concept	11
6 - Multi-Way Blvd Segment Overview	14
7 - 50.0m Right-of-Way	15
8 - Conceptual Rendering of Multi-Way Blvd Segment 1	15
9 - 44.0m Right-of-Way	16
10 - 32.0m Right-of-Way	16
11 - Typical Linear Park & Landscaped Drainage Parcel Cross Section	23
12 - Possible School Site & Community Centre Parcel Configuration	24
13 - Possible Roadway Extension	29

TABLES

1	Land Use Calculations	20
2	Municipal Reserve Calculations	23

FIGURES

- 1 Location Plan
- 2 Existing Uses and Ownership Plan
- 3 Land Use Concept Plan
- 4 Active Transportation Plan
- 5 Transportation Plan
- 6 Transportation Dimension Plan
- 7 Transit Plan
- 8 Storm Water Drainage Plan
- 9 Sanitary Sewer Collection Plan
- 10 Water Distribution Plan
- 11 Proposed Phasing

SUPPORTING DOCUMENTATION

Appendix - available for download: <http://bit.ly/AspenRidgeNCP>

- A University Heights Sector Plan
- B Vegetation and Wildlife Survey of the Northeast Swale Near Saskatoon
- C Northeast Swale Development Guidelines (2012)
- D Natural Area Screening
- E Phase I Environmental Site Assessment
- F Phase II Hydro-Geotechnical
- G Heritage Conservation Branch Confirmation
- H Aspen Ridge Roundabout and Multi-Way Boulevard
Concept Evaluation
- I Traffic Impact Assessment
- J Pedestrian Walking Distances

EXECUTIVE SUMMARY

The Aspen Ridge Neighbourhood Concept Plan is the first step in the process of building the next neighbourhood within the University Heights Suburban Development Area. The Concept Plan has been developed by Saskatoon Land on behalf of the Ownership Group.

The neighbourhood has been designed in the “Urban Village” model in order to achieve the development of a neighbourhood that:

1. Represents the City’s design philosophy as outlined in the City of Saskatoon’s Official Community Plan Bylaw No. 8769;
2. Encompasses the goals identified within the City of Saskatoon’s Strategic Plan (2013-2023) and Growing Forward! Shaping Saskatoon: A Bridging Document For...the Growth Plan to Half a Million;
3. Represents leadership in the realm of environmentally sustainable development;
4. Recognises and incorporates the benefits of Crime Prevention Through Environmental Design Strategies;
5. Contains a variety of positive lifestyle amenities;
6. Contains the framework to satisfy a variety of lifestyle choices and economic means; and
7. Enhances quality of life through creating a strong sense of place where people will choose to live their lives and contribute to their community.

NEIGHBOURHOOD QUICK FACTS

GROSS LAND AREA: **638.71 acre (258.49 ha)**

PROJECTED POPULATION (MAXIMUM BUILD-OUT): **12,544 persons**

PROJECTED ELEMENTARY SCHOOL POPULATION (MAXIMUM BUILD-OUT): **1,715 students**

NEIGHBOURHOOD GROSS DENSITY: **8.93 units per acre / 48.53 persons per hectare**

NEIGHBOURHOOD NET DENSITY (DENSITY OF SALEABLE LAND): **14.30 units per acre / 77.74 persons per hectare**

ESTIMATED TOTAL NUMBER OF DWELLING UNITS: **5,702 units**

2,177 SINGLE-UNIT DWELLINGS

3,525 MULTI-UNIT DWELLINGS

TOTAL NEIGHBOURHOOD RESIDENTIAL UNIT SPLIT: **38.18% single-unit** and **61.82% multi-unit**

NEIGHBOURHOOD PARK: **38.96 acre (15.77 ha)**

17 ACRES OF CORE PARK (6.88 HA)

18.59 ACRES OF LINEAR PARK (7.52 HA)

2.42 ACRES DIVIDED BETWEEN 3 POCKET PARKS (0.98 HA)

0.95 ACRES OF VILLAGE SQUARE (0.38 HA)

THE PERCENTAGE OF NEIGHBOURHOOD PARK DEDICATION INSIDE OF THIS NEIGHBOURHOOD IS **6.1%**.

TOTAL DEVELOPABLE NEIGHBOURHOOD FRONTAGE: **33,250.52 metres**



The Purpose of the Concept Plan

The Aspen Ridge Neighbourhood Concept Plan (NCP), and its supporting documentation, establishes a conceptual framework for the proposed development. The NCP identifies the pattern of land uses, how the neighbourhood integrates with surrounding natural areas, and the configuration of services such as roads, water distribution, the sanitary sewer system, the storm water management system, and the park system.

This Neighbourhood Concept Plan will:

1. Provide City Council, Civic Administration, utility agencies, school boards, and other stakeholders with the neighbourhood layout to enable for the timely planning and provision of services;
2. Establish land use patterns and development density for the neighbourhood;
3. Establish a transportation system that will provide for convenient and safe vehicular, transit, pedestrian and cyclist movement in the neighbourhood; and
4. Establish an open space framework that connects to the adjacent developed areas.

INTRODUCTION

This report will introduce Aspen Ridge, the next neighbourhood in the University Heights Suburban Development Area. The neighbourhood area is located on 638.71 acres (258.49 hectares) of land in Saskatoon's northeast.

The neighbourhood lands were annexed into Saskatoon in different years. On May 30, 2000 the City annexed a portion of the University Heights Suburban Development Area to allow for future residential growth including Evergreen and the western tip of Aspen Ridge, west of Range Road 3045. The remainder of the neighbourhood was annexed on August 1, 2010, with the most recent expansion of the City Limits.

The University Heights Sector Plan was originally adopted by Saskatoon City Council on May 25, 1987, with the most recent amendments to the plan approved by City Council on October 7, 2013. The revised document provides the new boundaries and planning framework for the future development of two new neighbourhoods, as well as an employment and industrial park, in northeast Saskatoon. Aspen Ridge will be the first of two neighbourhoods to be developed within the new boundaries. Given the strong demand for housing and the rapid build-out of the Evergreen neighbourhood, the timely completion of planning, engineering and design of Aspen Ridge is essential to meet future housing demand in this area.

Approval of the Aspen Ridge Concept Plan will enable the Ownership Group to proceed with detailed engineering, design, servicing, and sale of lands in this neighbourhood.

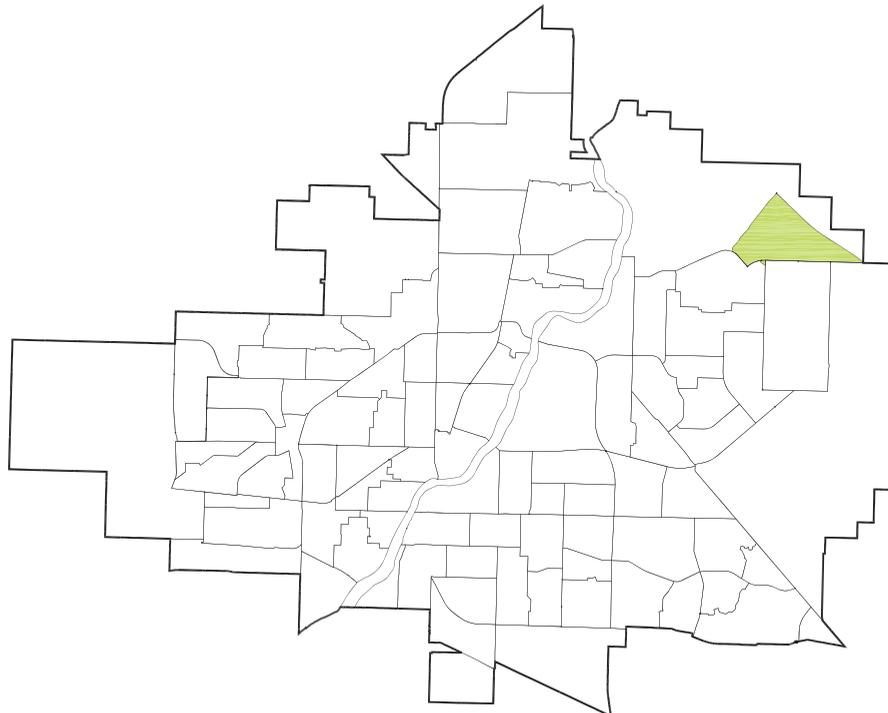


Image 1: Location Map

LEGISLATION

OFFICIAL COMMUNITY PLAN BYLAW NO. 8769

The City of Saskatoon's Official Community Plan Bylaw No. 8769 (OCP) is a broad range of planning statements that provide the policy framework to define, direct, and evaluate development in the City of Saskatoon, ensuring that development takes place in an orderly and rational manner.

A portion of the area that comprises this neighbourhood is currently in the OCP "Phasing Map" as Phase II. Phase II indicates areas suitable for development beyond the next five years but within the scope of the OCP. An application will be made for an OCP Phasing Map amendment to include these areas within Phase I. Including these lands within Phase I of the OCP Phasing Map will bring the land within this neighbourhood into the immediate development stream.

ZONING

The neighbourhood is currently divided between two separate zoning districts, Future Urban Development (FUD) as part of the City of Saskatoon Zoning Bylaw No. 8770, and Future Growth Sector Overlay District (FG) as part of the Corman Park-Saskatoon Planning District Zoning Bylaw No. 23/10. Prior to legal subdivision, appropriate Zoning Bylaw amendments will be required.

UNIVERSITY HEIGHTS SECTOR PLAN

Prepared by the Future Growth Section of Planning and Development, the University Heights Sector Plan (see Appendix A) represents the long range planning goals and identifies key land uses, transportation and servicing components that will need to be addressed in detail during the concept plan process for the University Heights Suburban Development Area. The University Heights Sector Plan was approved by City Council on October 7, 2013.

MEEWASIN VALLEY AUTHORITY CONSERVATION ZONE

A portion of the neighbourhood is within Meewasin Valley Authority (MVA) jurisdiction. The MVA jurisdiction boundary is shown on Figure 1. The jurisdiction boundary was determined in 1979 by incorporating the University of Saskatchewan Lands and other City and Provincially owned lands at that time. The MVA has recently endorsed The Northeast Swale Resource Management Plan (2013) to assist with the integration of the Swale into an urban area and to encourage responsible stewardship of the Northeast Swale. This plan was reviewed and considered in the development of the Aspen Ridge Neighbourhood Concept Plan. As per an amendment to the MVA's Development Review Bylaw in November 2013, the Aspen Ridge neighbourhood is exempt from the MVA's Development Review process.

STRATEGIC PLAN (2013-2023) & GROWING FORWARD! SHAPING SASKATOON

The recently adopted City of Saskatoon Strategic Plan (2013 – 2023) and the current initiative Growing Forward! Shaping Saskatoon: A Bridging Document...For the Growth Plan to Half a Million identifies the goals for Saskatoon as it grows towards a population of 500,000. These goals are used to evaluate decisions to ensure actions align with the priorities contained within these guiding documents.

This report will demonstrate how the priorities and goals, identified within the Strategic Plan (2013 – 2023) and the Growth Plan to Half a Million are being met in the proposed Aspen Ridge NCP. Highlights include:

- incorporation of a “main street”-style mixed-use,
- transit friendly arterial street design,
- increased internal and external connectivity, and
- the inclusion of medium-density, mixed-use development

“Planning integrated communities is a new route for Saskatoon, and will require a period of adjustment for not only the City’s Administration, but also for the community, and the development industry. This period is an opportunity to bring forward ideas, solutions and innovations that will help guide the City towards a new model of growth.”

Growing Forward! Shaping Saskatoon: A Bridging Document...For the Growth Plan to Half a Million

BACKGROUND

LOCATION

Aspen Ridge is located within the University Heights Suburban Development Area. The neighbourhood is bound on the southwest by the Evergreen neighbourhood, on the northwest by the Northeast Swale, on the south by the University of Saskatchewan's Kernen Crop Research Farm and management lands, and on the northeast by the proposed Provincial Perimeter Highway (Perimeter Highway) (see Figure 1).

The neighbourhood is approximately 638.71 acres (258.49 hectares) in area, predominantly in Sections 17-37-4-W3M and SE 18-37-4-W3M.

LAND OWNERSHIP

Figure 2 illustrates the existing land ownership within the neighbourhood boundary. Saskatoon Land owns 68.47% of the land within the neighbourhood. Two private interests own the remaining 27.96%. These percentages do not include the existing roadways which currently comprise 3.57% of the land within the existing neighbourhood boundary. With the roadways allocated out according to ownership percentage, Saskatoon Land owns approximately 71% of the total land within the neighbourhood, with the remaining 29% being privately owned. Image 2 provides a brief overview of the ownership areas.

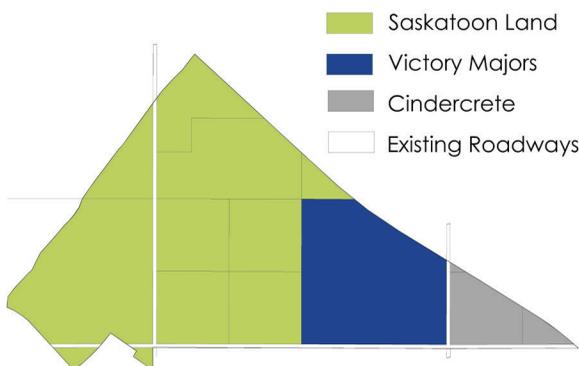


Image 2: Ownership

EXISTING LAND USES

The current land use is primarily agricultural, composed of cultivated cropland and three rural residences. Within the neighbourhood boundary there is some uncultivated land in the form of an aspen bluff in Section SE 17-37-4-W3M and a mostly dry drainage channel which flows to the Northeast Swale in a south to north direction. The drainage channel will be incorporated into the neighbourhood as a linear park. A portion of it will be dedicated as landscaped drainage parcels.

ADJACENT LAND USES

To the south of the neighbourhood, across Township Road 372, are the University of Saskatchewan agricultural research and management lands. These University lands are the Kernen Crop Research Farm land and the Kernen Prairie. The Kernen Prairie consists of 320 acres of uncultivated natural prairie grassland. Adjacent to these lands is the SuperDARN (Dual Auroral Radar Network) which is an international radar network for studying the upper atmosphere and ionosphere to research and track weather patterns in space. There is no plan for the University of Saskatchewan to discontinue their research operations in these locations.

To the southwest, the neighbourhood boundary is delineated by Fedoruk Drive. Beyond Fedoruk Drive is the neighbourhood of Evergreen. The east portion of Evergreen bordering Fedoruk Drive is single family development zoned R1A. The District Village is located in the area surrounding the intersection of Fedoruk Drive and McOrmond Drive. The District Village will be zoned to allow for commercial and mixed-use commercial/residential development that will serve the retail needs of Evergreen, Aspen Ridge and the surrounding neighbourhoods.

Adjacent Land Uses continued...

The neighbourhood is bound to the northeast by the location of the Perimeter Highway. The Perimeter Highway is a project of the Saskatchewan Ministry of Highways and Infrastructure and, at present, they have not indicated a time line for the development of the Perimeter Highway. Just beyond the proposed Highway is Cindercrete Products.

The northwest edge of the neighbourhood is delineated by the Northeast Swale, hereafter referred to as the “Swale”. The Swale contains remnants of native prairie that are of unique ecological, hydrological, and hydro-geological significance. Several studies have been conducted on the Swale, including the Northeast Swale Development Guidelines (2012) conducted by Stantec Consulting Ltd. Their findings are provided in the next section.

THE NORTHEAST SWALE

Historically, the Northeast Swale has been described as a channel scar with sloughs remnant from glacial times. Today, the Swale is considered a valuable ecological, hydrological, and hydro-geological amenity. As development continues in the city’s northeast, the impact of development on the Swale and vice versa is an important factor in urban development. The Swale provides unique opportunities and constraints to development in this area. While its boundaries limit growth in the area, it also may serve as a potential amenity for any adjacent developments. Desire to retain the natural integrity of the Swale was identified by a number of local organizations and City of Saskatoon departments, including the Ownership Group and the Meewasin Valley Authority (MVA). As such, this valued amenity is being retained and integrated into the Aspen Ridge neighbourhood design.

Many studies have been conducted that examine the ecological, hydrological and historical characteristics of the Swale. In 2001, Delaney completed the study “Vegetation and Wildlife Survey of the Northeast Swale

Near Saskatoon” (see Appendix B). This study and a further study by Stantec Consulting Ltd. in 2002 (Development Guidelines and the Northeast Swale (2002), provided insight into the significance of the Swale and identified guidelines for development around the Swale. Since 2002, growth in the University Heights development area has increased rapidly and, as a result, the City of Saskatoon and the Meewasin Valley Authority determined a need to update the guidelines set out in the 2002 document. . In October 2012, Stantec Consulting Ltd. provided the City with a draft set of revised guidelines for development within and surrounding the Swale that replaces the 2002 guidelines. These guidelines, the “Northeast Swale Development Guidelines (2012)” were approved by City Council on October 7, 2013 (see Appendix C). The overall goal of the guidelines is “to provide direction for the minimization of disturbance of the Swale, while meeting transportation, utility, storm water management, and other community needs”*. The “North East Swale Development Guidelines (2012)” have been followed in development of the Aspen Ridge neighbourhood design.

A significant finding in the study of the Swale is that it lies directly above the Forestry Farm Aquifer. As such, parts of the Swale have been identified as unserviceable due to the depth of less than six metres of cover over the aquifer. Much of this unserviceable area is also identified as Class 4 (semi-permanent) wetlands. The depth of the cover over the aquifer and the classification of the wetlands within the Swale were important elements in determining the boundaries of the Swale. Additional considerations in determining the guidelines for development surrounding the Swale included historical land uses, how to separate inappropriate land uses from the Swale, where to locate appropriate connections to the Swale, and how to best manage storm water runoff to avoid adversely impacting the Swale.

*Northeast Swale Development Guidelines (2012), Stantec Consulting Ltd.

THE GREENWAY

Through the North East Swale Development Guidelines (2012), the concept of The Greenway was developed. The Greenway is a transitional zone between the development bordering the Swale and the Swale, meant to help ensure neighbouring development is compatible with the desire to preserve the Swale. The main purpose of the Greenway is to protect the Swale and accommodate drainage. In addition it provides the opportunity for trail linking future neighbourhoods and providing access to trails and interpretive areas that could potentially be built within the Swale. The Greenway includes the following zones: Transition Zone, Trail Zone, and Ecological Buffer Zone.

The Ecological Buffer Zone and the Transition Zone of the Greenway will both be seeded with plants native to the Swale. In order to limit runoff into the Swale, an engineered Storm Water Management Zone will be incorporated into the Greenway. The Storm Water Management Zone will include a portion of the Ecological Buffer Zone, as well as all of the Trail Zone and Transition Zone (see Image 3). The Storm Water Management Zone is designed to catch all overland flow from the development backing the Swale and direct it to the forebay located northeast of McOrmond Drive (see Page 32). During either a storm event or a major storm event, the Storm Water Management Zone will take approximately three hours for the majority of the flow to drain from the Greenway. This will result in this area functioning like a linear park, with residents being able to walk through the engineered drainage swale to access the Trail Zone. If needed, at major access points,

small pedestrian bridges or boardwalks will be considered to aid in crossing the Transition Zone of the Storm Water Management Zone.

The Trail Zone will contain a multi-purpose trail that, once complete, will run the length of the northwest edge of Aspen Ridge. The Trail Zone is four metres wide, which will allow for the development of a multi-use path, providing the potential for wider lanes for cyclists and pedestrians. The final layout and location of the trail, including how it will terminate at the Perimeter Highway and Fedoruk Drive, will be dependent the location and construction time line of trails with the Swale. Once the MVA has determined their plans for trails and interpretive sites within the Swale, discussions regarding development of the Greenway trail will begin between the Aspen Ridge Ownership Group, the MVA, and the City of Saskatoon. As there is a signalized intersection just south of the Greenway at McOrmond Drive, it is likely that this intersection will be used as a crossing point for the Greenway trail (instead of providing a separate pedestrian cross at the edge of the Swale).

The 15 metre Ecological Buffer Zone is a natural transition between developed area and the Swale. This area will be widened to 20 metres in areas where the slope towards the Swale is greater than five percent. These buffer widths were determined to be the appropriate widths needed to mitigate any negative impacts that development could have on the area. Upon subdivision, the Greenway will be dedicated as Municipal Reserve, a Municipal Utility Parcel, Buffer, and/or Environmental Reserve depending on its characteristics and further discussions with the City of Saskatoon.

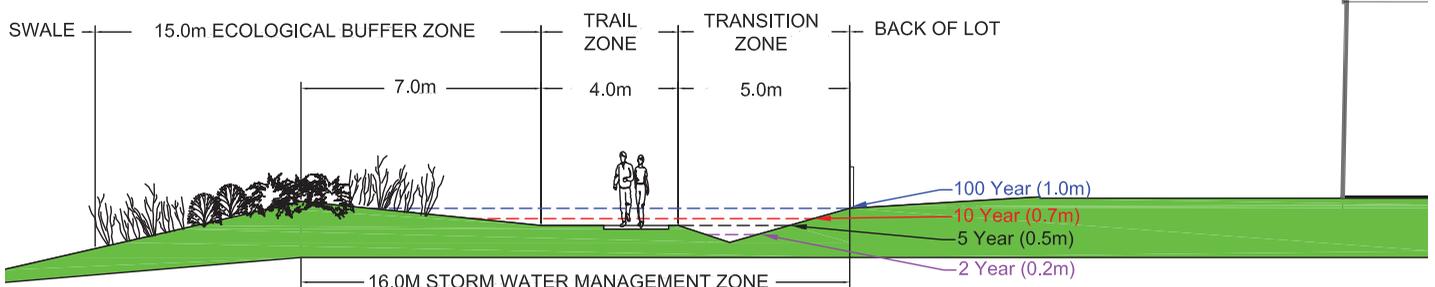


Image 3: Cross Section of Greenway

The Greenway continued...

In Aspen Ridge the slope towards the Swale is less than five percent for all areas adjacent to the Swale that are southwest of McOrmond Drive. This section of the Ecological Buffer Zone is 15 metres wide. Northeast of McOrmond Drive, the majority of the Greenway has a slope greater than five percent. This entire section of the Ecological Buffer Zone is 20 metres wide (see Image 4).

Vehicle access has not been provided from local or collector streets to the Swale. One vehicle crossing has been identified within the neighbourhood (McOrmond Drive), and another identified to the west of the neighbourhood (Lowe Road / Range Road 3050). The Swale can be accessed by several pedestrian and cycling linkages from the neighbourhood to the Greenway (see Figure 4) promoting pedestrian and cycling activities and enhancing connectivity to the Swale. In the future, there is also the opportunity for a multi-purpose trail that could connect to surrounding neighbourhoods, and eventually the MVA trail system. In addition to access from linear parks to the Greenway, lots backing onto the Greenway will have access to the Greenway via gates in their back fences. A “see through” metal fence will be constructed in all rear or side yards that interface with any park or other open space system including the Greenway and drainage areas.

Information about the Greenway, the Swale, and the native plants existing in both, will be provided to all those who purchase a lot backing onto the Swale. This will include information on the value of the Swale, the function of the Greenway, and how it relates to adjacent development. It will also identify the differences between a naturalized area like the Greenway and standard, irrigated linear and pocket parks that will exist throughout Aspen Ridge.

The Swale is a valued amenity and a significant marketing feature for this neighbourhood and will provide opportunities for interesting pedestrian linkages to the Meewasin Valley river trail system. The Greenway provides an ideal access point to the Swale, while also providing a needed buffer between residential development and the Swale.

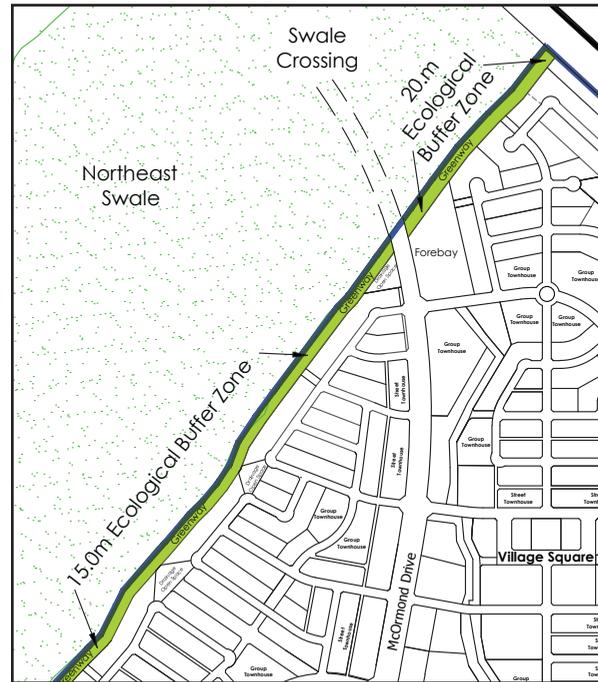


Image 4: Greenway Ecological Buffer Zones

SITE PHYSICAL CHARACTERISTICS

Aspen Ridge is located within the Elstow Plain and Saskatoon Plain of the Moist Mixed Grassland Ecoregion. Topography of the region can be described as gently rolling, with higher elevations near the southeast corner of the neighbourhood that gently decrease toward the northwest boundary bordered by the Swale (see Figure 2).

The majority of the land has been used for agriculture and has been cultivated. Uncultivated lands occur within isolated pockets located just east of the centre of the neighbourhood, as well as in wet, natural drainage areas directly adjacent to the Swale. These uncultivated lands are characterized by slightly higher moisture content. Vegetation in these areas commonly consists of sedges and trembling aspen; those areas with higher salinity are characterized by salt-tolerant grasses. Soils within the region can be described as loamy, containing a mixture of sand, silt and clay.

A review of the Saskatchewan Conservation Data Centre (SKCDC) database revealed no rare

Site Physical Characteristics continued...

or endangered plant or animal species in the neighbourhood area. However, three rare plants and many signs of wildlife were identified within the Swale. Evidence of several bird species as well as mule deer and white-tailed deer were present within the neighbourhood and the Swale boundaries. The Natural Areas Screening conducted by Stantec Consulting Ltd. in 2012 (see Appendix D), concluded by stating that emphasis should be placed on the protection of the lands within the Swale and that the protection of the isolated natural areas within the neighbourhood would add little benefit to the Swale.

PHASE I ENVIRONMENTAL ANALYSIS

A Phase I Environmental Site Assessment (ESA) was completed for the neighbourhood site (see Appendix E). The environmental assessment was undertaken by Stantec Consulting Ltd. The assessment identified few concerns and concluded that the site is of low overall environmental concern.

Concerns identified in the ESA included a number of aboveground storage tanks, some with evidence of petroleum hydrocarbon (PHC) staining, as well as minor PHC staining on some surficial soils. In addition, various storage containers (such as oil, gas, paint, and herbicides) alongside solid wastes were observed in dumping areas on the rural residences contained within the neighbourhood area. Ozone depleting substances were also identified at two of the rural residences. Based on the age of the buildings, it is possible that lead paint, asbestos, and polychlorinated biphenyls exist on some of the buildings on the land. The Ecolog Environmental Risk Information Services database identified a 100 litre pesticide spill and an 113,550 litre anhydrous ammonia tank, which was formerly located in the area.

To address the concerns raised, solid waste identified on site will be disposed of or recycled at an appropriate facility. Oil containers will be

disposed of at a registered facility. Prior to existing buildings being demolished, a hazardous materials assessment will be conducted. Soil sampling will be done to characterize and delineate the areas where PHC staining has been observed, where the pesticide spill was reported, where the former anhydrous ammonia tank was located and where hazardous wastes were observed in the dumping areas. Appropriate action will be undertaken after soil sampling is completed and prior to development occurring on these sites.

PHASE I & II HYDRO-GEOTECHNICAL ANALYSIS

Based on extensive studies completed in this area in the study of the Northeast Swale, consultants were able to complete a Phase I Hydro-Geotechnical “desktop analysis” of the neighbourhood site. From the Phase I analysis, it was determined that additional groundwater and soil condition testing is required. A Phase II Hydro-Geotechnical Analysis was conducted by Clifton Associates Ltd. (see Appendix F). Based on the information provided from the consultants it is concluded that the majority of Aspen Ridge does not have any water table issues that could impact land use. A small area at the northwest corner of the Aspen Ridge may have some groundwater table issues. These issues will be resolved by either raising the grades or installing sub-drainage pipes. This appropriate measure will be determined at the detailed design stage.

HISTORICAL RESOURCES

Confirmation was received from the Heritage Conservation Branch of the Government of Saskatchewan that no known historical sites are located within the boundaries of the proposed neighbourhood (see Appendix G). Given that much of the development area has been cultivated, the existence of any historical sites is highly unlikely.



THE NEIGHBOURHOOD CONCEPT

The Urban Village

The design of the neighbourhood is modelled as a sustainable urban village neighbourhood that will appeal to a variety of people by offering to fulfill a variety of lifestyle choices.

Care has been taken to interface the mixed format of housing choices, open spaces, neighbourhood commercial, the McOrmond Drive multi-way boulevard, and the District Village commercial, in a sensitive and harmonious manner.

THE VILLAGE CENTRE

Functioning like the downtown of a neighbourhood, the Village Centre contains a Village Square, neighbourhood conveniences, and a relative concentration of medium-density housing. The Village Centre helps to define a neighbourhood by strongly contributing to a sense of place and helps to promote a sense of community; it offers neighbourhood residents a neighbourhood destination point. It is located at the relative centre of the neighbourhood near the core park.

THE VILLAGE SQUARE

Located in the Village Centre, the Village Square is slightly smaller than one acre in size. In comparison to parks, the Village Square is a more urban landscaped space with at least 25% of the landscaping being “hard landscape” such as paving stones, concrete, and fixed planters. The hard landscaping will be similar to recently developed Village Squares in Willowgrove and Hampton Village. A place maker such as a gazebo, fountain, sculpture, small amphitheatre or other monument will be constructed in the Village Square. It will serve as an informal meeting place and pedestrian destination point surrounded by neighbourhood convenience commercial and medium-density residential. The Village Square will be used for a variety of informal or formal neighbourhood events including, but not limited to, public meetings; children, adult, or family activities; or simply as a place to sit and have a cup of coffee on a nice day. The Village Square will be designated as part of the Municipal Reserve park dedication.

“New neighbourhoods will be designed to accommodate all aspects of our daily lives, including offering more sources of employment. Throughout the community, people will have better transportation choices, including rapid transit.”

Growing Forward! Shaping Saskatoon: A Bridging Document...For the Growth Plan to Half a Million

THE VILLAGE CENTRE NEIGHBOURHOOD COMMERCIAL

Located in the Village Centre, adjacent to the Village Square, two mixed-use commercial sites are envisioned as small scale neighbourhood convenience type services such as a coffee shop, convenience stores, small scale retail, and small scale professional services. The buildings are envisioned to have up to two floors of residential above the commercial. This will enhance the uniqueness and the viability of the residential neighbourhood and its commercial services.

These buildings will have no minimum setback requirement and will front onto both a wide sidewalk and the Village Square (see Image 5). Parking to serve the businesses will be both angle parking on the wide 30 metre one-way street that surrounds the Village Square on three sides, and off-street surface or underground parking. For illustration purposes, though at a much smaller scale, the neighbourhood convenience commercial development will be more reminiscent of an area like the Broadway Commercial District than of a more vehicle oriented commercial district like the 8th Street commercial corridor.

A unique feature of the Village Square design in Aspen Ridge is the location of the mixed-use commercial sites. In similar developments in Saskatoon, village squares have been surrounded on all four sides with streets, with the mixed-use sites located across the street from the square. In Aspen Ridge the mixed-use sites are attached to the Village Square, providing the opportunity for development contained on those sites to directly interface with the Square. An example of a similar development is the Saskatoon Farmers' Market at River Landing (i.e. the Market building is directly attached to the Market Square, instead of being separated by a roadway). This design provides unique opportunities for development on the sites and reduces the interaction between the Square the surrounding streets, creating a more

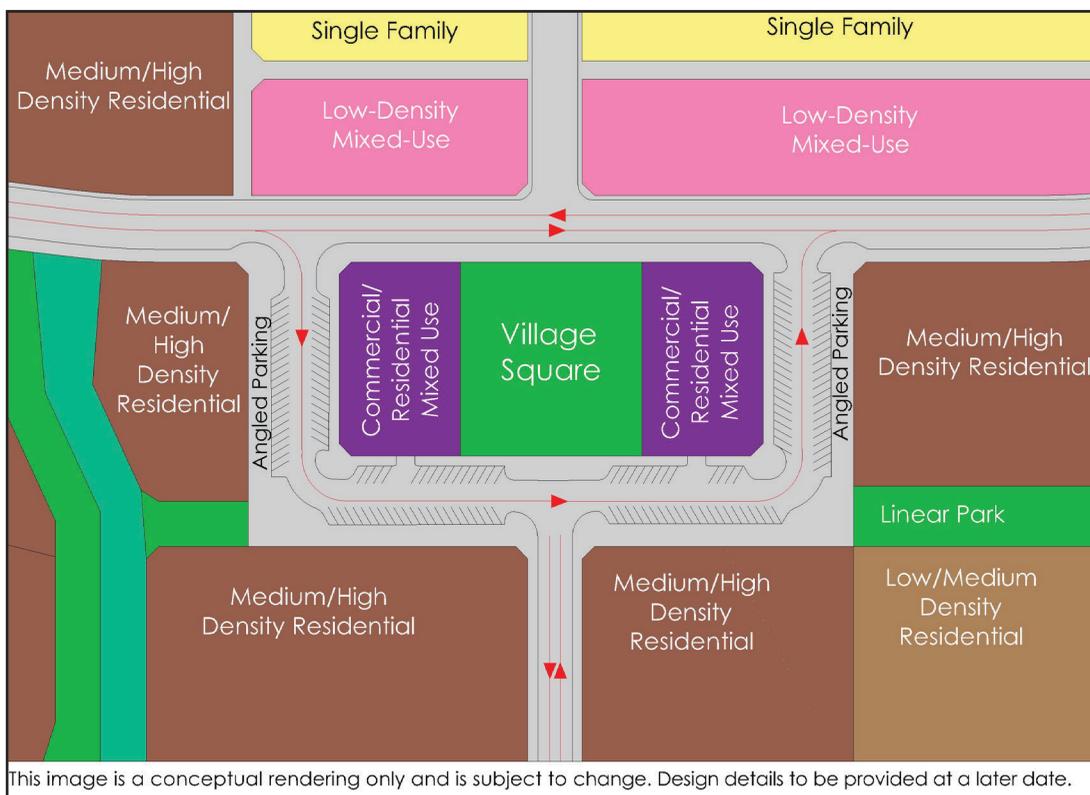


Image 5: Village Square Layout Concept

The Village Centre Neighbourhood Commercial continued...

pedestrian focused plaza. The design will require builders to be creative with how loading bays and parking amenities are designed and how deliveries are made to the buildings.

These sites will be sold through a Request for Proposal process, allowing the Ownership Group to ensure development on the sites is of a high quality and aligns with the vision for the area. In addition, developments will be required to meet architectural controls laid out by Saskatoon Land (see Architectural Controls section).

THE DISTRICT VILLAGE

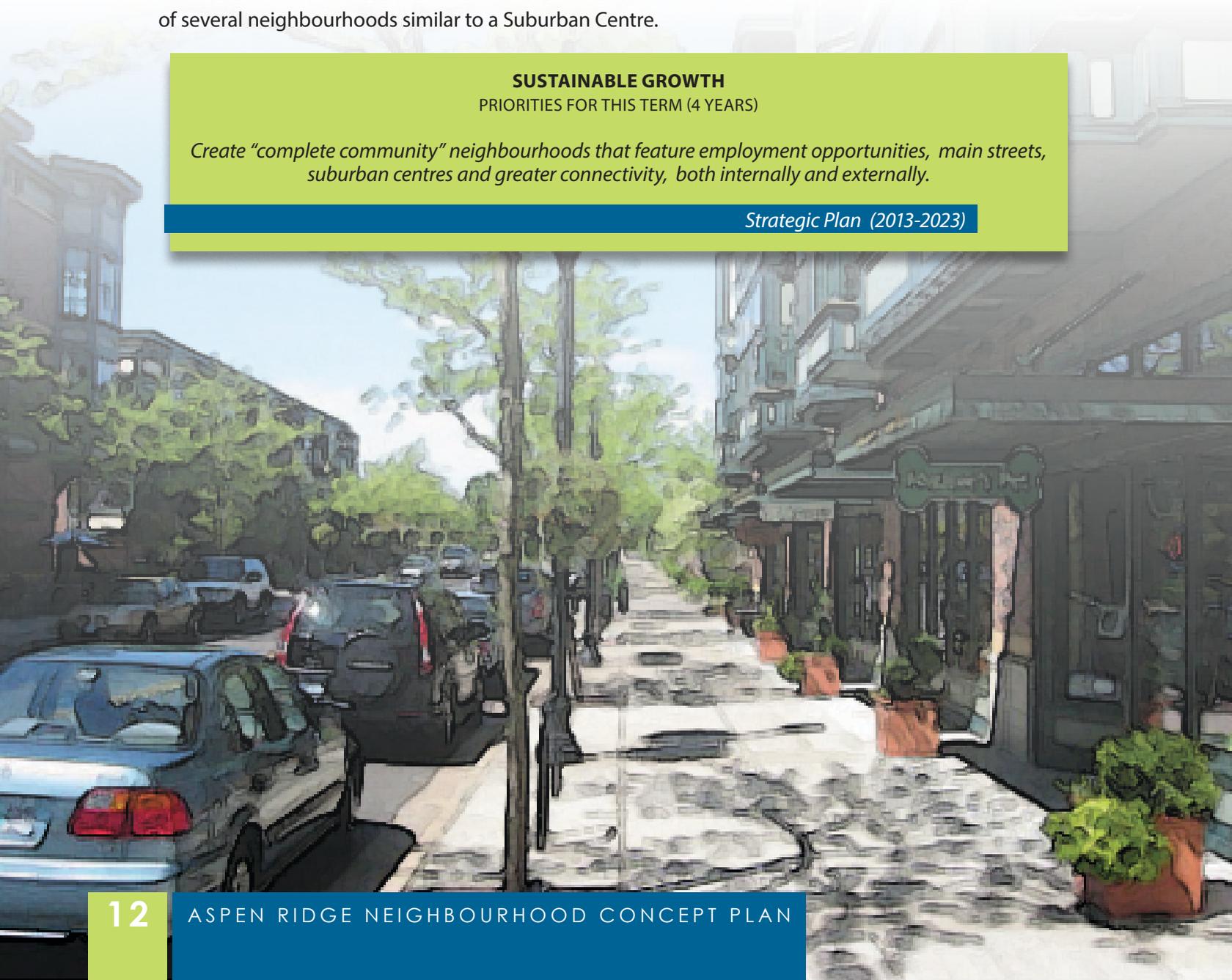
Aspen Ridge is unique in that the District Village extends into the neighbourhood from the Evergreen neighbourhood. A District Village was identified in the University Heights Sector Plan as a commercial, institutional and high-density housing area that would serve adjacent neighbourhoods within the University Heights Suburban Development Area, as well as users of the McOrmond Drive arterial roadway. The District Village was shown to be located in the southwest corner of Aspen Ridge at the intersection of two arterial roads – Fedoruk Drive and McOrmond Drive. It is intended to serve the needs of several neighbourhoods similar to a Suburban Centre.

SUSTAINABLE GROWTH

PRIORITIES FOR THIS TERM (4 YEARS)

Create “complete community” neighbourhoods that feature employment opportunities, main streets, suburban centres and greater connectivity, both internally and externally.

Strategic Plan (2013-2023)



The District Village continued...

The Ownership Group envisions the District Village as a mixed-use area with a mix of large format commercial and “main street” style mixed-use commercial. However, including this District Village in the neighbourhood requires special treatment in order to properly interface the larger commercial sites with the residential character of the neighbourhood and an arterial roadway.

The Ownership Group’s solution is to propose a new mixed-use zoning district and new roadway cross sections. The proposed zoning district will allow a greater mix of land uses and promote a pedestrian friendly environment while serving as a transitional interface between higher intensity uses in the District Village along McOrmond Drive, and the surrounding residential land uses. Examples of land uses that could be provided in the District Village are: retail shops, restaurants, lounges and pubs, spas, hair salons, veterinary clinics, medical clinics, grocery stores, gas bars, and public service centres such as a municipal library or a fire hall. The District Village area has the highest density in the neighbourhood. The new zoning district is discussed in more detail in the New Mixed-Use Zoning Districts section.

The new roadway cross section is a multi-way boulevard consisting of four standard driving lanes, two bike lanes, two service lanes, two parking lanes, and two sidewalks, all separated by five strategically placed medians. The multi-way boulevard creates a pedestrian, business, and neighbourhood friendly space along the service lanes, while allowing the arterial roadway geometrics to move traffic through the area unencumbered. The multi-way boulevard is discussed in the McOrmond Drive Multi-Way Boulevard section.

URBAN HOLDING

An opportunity for commercial development has been included in the southeast corner of Aspen Ridge, directly adjacent to the Perimeter Highway. The area will be designated Urban Holding until the exact location of the Perimeter Highway is determined. If the Perimeter Highway is built in its currently proposed location, this site could be appropriate for commercial. If so, development of this site could serve residents of the University Heights Sector and portions of the Holmwood Sector, as well as those using the Perimeter Highway. A recent retail forecast undertaken by Colliers International indicated that based on moderate growth rates, an additional 2,000,000 square feet of retail space is required by 2017. The addition of this commercial area could assist in meeting future retail demand and would be complementary to the construction of the Perimeter Highway and the future access to Aspen Ridge from Blackley Road. Further study and appropriate amendments to the Sector Plan and Concept Plan will be required prior to any development decisions being made for this area.

McORMOND DRIVE MULTI-WAY BOULEVARD

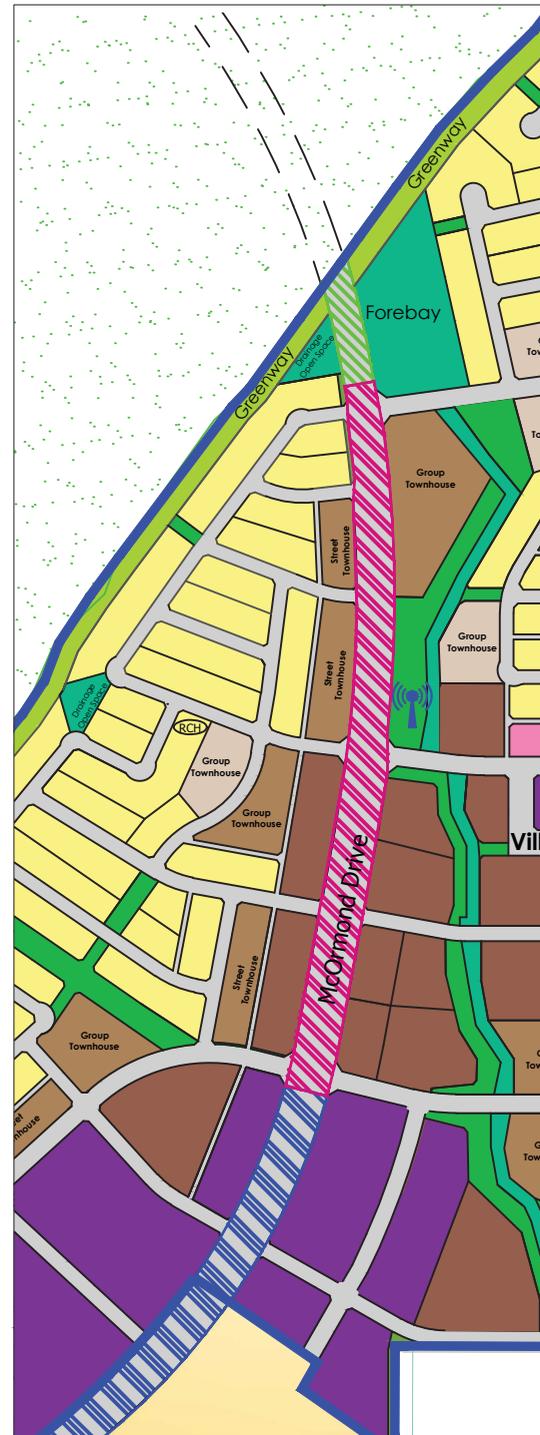
McOrmond Drive is proposed to extend through Aspen Ridge and connect with the proposed North Commuter Parkway. To appropriately interface this roadway with the surrounding residential neighbourhood, new roadway cross sections have been proposed for McOrmond Drive. Within the boundaries of Aspen Ridge, portions of McOrmond Drive will function as a multi-way boulevard, incorporating “main street” style high-density mixed-use and transit supportive development, while maintaining its functionality as an arterial roadway. A multi-way boulevard is a roadway that separates high volumes of traffic from the pedestrian environment through the use of access lanes and landscaped boulevards. As shown in Images 6 to 10, this type of street design accommodates many transportation options, making it a “complete street” and aligning with the goals of the Growth Plan to Half a Million and the Strategic Plan.

As this type of roadway cross section is a new concept for Saskatoon, the Ownership Group has hired Stantec Consulting Ltd. to develop a detailed proof of concept for how the multi-way boulevard will function throughout the neighbourhood. This includes information on the typical roadway cross sections, access lane entrances and exits, and transit bays*. This report is attached as an Appendix I.

MOVING AROUND
Improved streetscapes, interconnected streets and well-planned neighbourhoods encourage walking and cycling.

Strategic Plan (2013-2023)

* The report also contains information on the viability of two lane roundabouts on McOrmond Drive, but it has been determined that they are not appropriate and have not been included as part of the neighbourhood design.



- Legend:
-  Segment 1
 -  Segment 2
 -  Segment 3

Image 6: Multi-Way Blvd Segment Overview

Multi-Way Boulevard: Segment 1

Throughout Aspen Ridge, the cross section for McOrmond Drive will change, depending on the surrounding land uses. The roadway will have three distinct cross sections, all of which will maintain space for a central thoroughfare featuring two lanes of traffic in each direction. The first section of McOrmond Drive, from Fedoruk Drive to the first intersection (see Figure 5) is a fifty metre cross section that accommodates four lanes of unencumbered traffic, two bike lanes, two access lanes, two parking lanes, and a sidewalk on either side of the road (see Images 7 and 8). Separating the various modes of transportation are five strategically placed landscaped boulevards.

One of the unique aspects of this road cross section is the inclusion of one-way access lanes, separated from the central thoroughfare by landscaped medians. These access lanes provide for local traffic, parking and a pedestrian-oriented street. The medians separating the central thoroughfare from the access lane will each include a grade separated bike lane, as well as having space for snow storage. The exact widths of the boulevards, sidewalks, bike lanes in the access lanes will be determined at the detailed design stage to ensure there is appropriate space for each use. Access to these lanes will be via entrances/exits off McOrmond Drive or via local or collector roadways intersecting from the east or west (see Image 8). McOrmond Drive access points will be located immediately prior to and past each intersection.

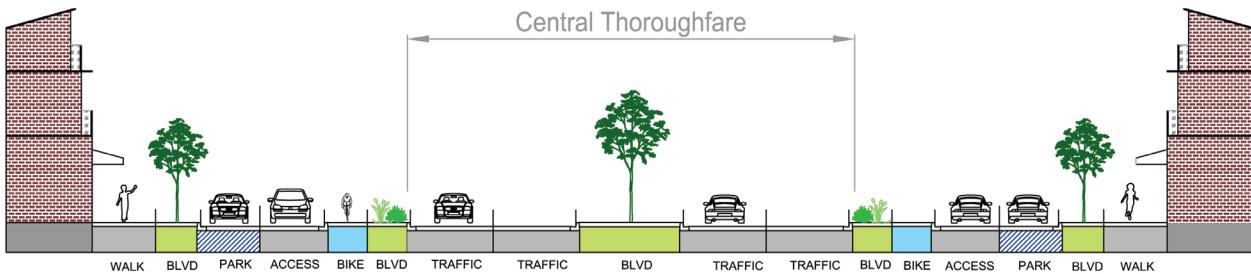
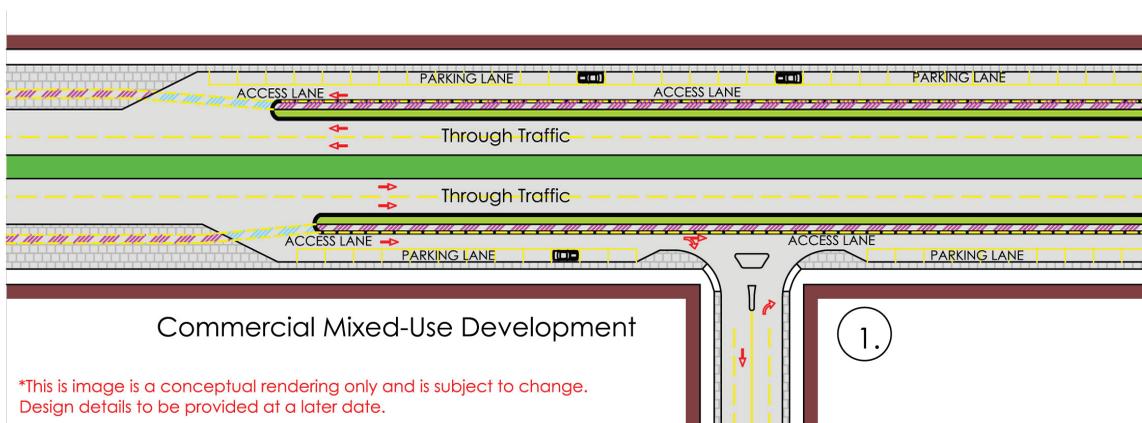


Image 7: Segment 1: 50.0m Right-of-Way



Legend:

-  At Grade Bike Lane
-  5.0m Boulevard
-  Grade Separated Bike Lane
-  2.0m Boulevard
-  Conceptual rendering of typical Local/Collector Road and Access Lane intersection

Image 8: Conceptual Rendering of Multi-Way Blvd Segment 1

McOrmond Drive Multi-Way Boulevard continued...

The parcels adjacent to this section of McOrmond Drive are proposed to be Medium-Density Mixed-Use. In this section, buildings will be permitted to front onto the service lanes. In some cases, site access via curb cuts could be allowed here, but builders may be encouraged to provide vehicle access via lane ways or adjacent local or collector streets. This allows site design to be oriented primarily toward pedestrians with buildings being street-oriented and parking located in rear or side yard.

Multi-Way Boulevard: Segment 2

From the second intersection to the third intersection, the roadway cross section will be reduced to 44 metres (see Image 9). The reduction in width is due to the removal of the access lanes. In the place of the access lanes, parallel parking will be provided on the central thoroughfare and wider boulevards with separated bike and pedestrian paths will be provided adjacent to it.

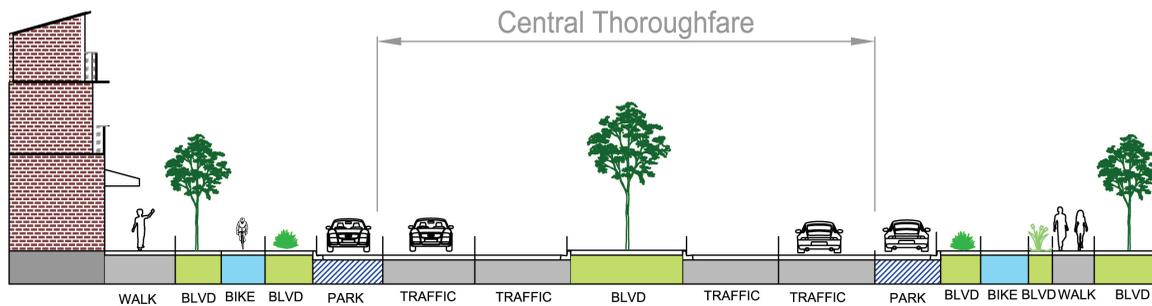


Image 9: Segment 2: 44.0m Right-of-Way

Multi-Way Boulevard: Segment 3

The final section of McOrmond Drive within Aspen Ridge, from the third intersection to the Swale will transition into a 32 metre wide Arterial Parkway-style road, beginning a transition to the roadway cross section outlined in the North Commuter Parkway Project Functional Planning Study (2012) and the North East Swale Development Guidelines (2012). This cross section will consist of two lanes of traffic each direction flanked by boulevards on either side, each including separate bike and pedestrian lanes (see Image 10).

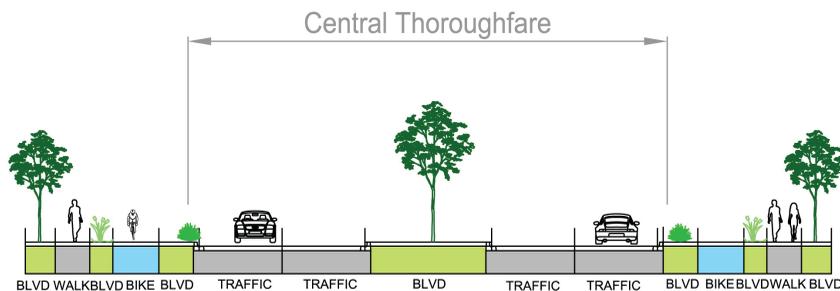


Image 10: Segment 3: 32.0m Right-of-way

NEW MIXED-USE ZONING DISTRICTS

In order to accommodate the McOrmond Drive extension and to achieve a style of development that fits with the vision outlined in the City of Saskatoon's Strategic Plan and the Growth Plan to Half a Million, two new zoning districts have been proposed by Saskatoon Land. The first district is intended to be used along the McOrmond Drive arterial roadway and within the District Village area of Aspen Ridge and Evergreen. The second district is intended to be used in the Village Centre, as a transition between the mixed-use and medium-density land uses and the surrounding low density residential developments.

"Higher density residential uses and mixed-use area should be concentrated along routes to support frequent transit service. The model of Transit-Oriented Development (TOD) will prove valuable to define this development type in Saskatoon"

Growing Forward! Shaping Saskatoon: A Bridging Document...For the Growth Plan to Half a Million

NEW MEDIUM-DENSITY MIXED-USE DISTRICT

The intent of the Medium-Density Mixed-Use District is to accommodate a broad range of uses including medium- to high-density residential, commercial, and institutional uses in a manner that promotes retail and service based uses at grade level. This district also promotes a compact, pedestrian oriented built form that encourages densification along transit corridors, alternative modes of transportation, and better integration between neighbourhoods at the Suburban Development Area (SDA) level. The ideal application of the district would be along arterial roadways that link neighbourhoods together and in District Village and Suburban Centre areas.

The uses permitted in the district provide a variety of different land use opportunities that assist in making communities more sustainable. Greater opportunities would exist for employment within the SDA and the range of services allowed could meet the daily and weekly convenience needs of its residents. Concentrating densities along these corridors and linkages also increases the population, providing the opportunity for public transit to reach more people.

The development standards contained in these districts support the "complete streets" main street concept by incorporating the following:

- Building placements are restricted via a maximum front yard setback provision in order to create a pedestrian oriented streetscape;
- Front yard off-street parking is prohibited to better facilitate a pedestrian scale environment, contributing to more cycle friendly and walk-able developments;
- Incentives for including mixed-use residential development by offering off-street parking reductions;
- A higher degree of landscaping required to further enhance street appeal. Flexibility is also provided for in terms of allowances for soft and hard landscaping; and
- The maximum allowable building height for residential uses, offices and mixed-use developments is 22 metres. This would allow for up to seven building storeys which would assist in creating more efficient opportunities for transit, while still maintaining a pedestrian oriented streetscape.

New Medium-Density Mixed-Use District continued...

The intent of these development standards is to expand upon what is currently allowed in District Village-type areas in Saskatoon, while also ensuring that the form of the development fits with the vision being discussed as part of the City of Saskatoon Strategic Plan and the Growth Plan to Half a Million.

The characteristics outlined in this district parallel the concepts of Transit-Oriented Development. In this respect, the uses and standards contained in this district would facilitate linkages between neighbourhoods and would better facilitate the integration of neighbourhoods within an SDA. In doing so, access to transit is maximized through the allowance of a broad range of high-density and intensive uses in close proximity to major transit routes.

NEW LOW-DENSITY MIXED-USE DISTRICT

The second new zoning district proposed, a Low-Density Mixed-Use District, is intended to integrate a predominance of lower-density housing with complementary and supporting land uses. The proposed district encourages a range of lower-density residential, institutional and service based uses, with limited opportunity for commercial uses in a manner sensitive to the streetscape and surrounding residential uses.

In addition to multi-unit dwellings and live-work units, permitted uses include low-density housing forms, such as single family dwellings, two-unit dwellings and semi-detached dwellings. Community and institutional uses including medical clinics, offices, residential care homes and personal service trades are also permitted at a smaller scale. Conventional development standards are relaxed in order to facilitate development in a highly urban form, complementary to the streetscape.

This district provides an alternative to the conventional street townhouse housing form through allowances for mixed-use developments and reduced setbacks which contributes toward creating a pedestrian friendly streetscape. Typically, the low-density mixed-use district will be clustered around neighbourhood Village Centre areas or District Commercial areas located along the periphery of a neighbourhood. The Low-Density Mixed-Use district will help transition between non-residential and residential areas and will facilitate pedestrian travel between non-residential and residential uses.

Saskatoon Land applied to Planning and Development to have the new districts reviewed and approved by City Council. A public hearing at City Council for the Medium-Density Mixed-Use district is anticipated in the first half of 2014. The Low-Density Mixed-Use district will be brought forward at a later date.

If these new zoning districts are not approved by the City of Saskatoon, appropriate existing zoning districts will be chosen for each parcel that is currently listed as Mixed Use. Medium Density Mixed Use parcels will be zoned as either a Commercial or an Institutional district and Low Density Mixed Use parcels will be zoned as RMTN.

THE RESIDENTIAL CHARACTER

This neighbourhood will contain a range of housing forms. The design of this neighbourhood facilitates the following housing forms: single-unit detached with no lanes, single-unit detached with lanes (detached garage), residential care homes – type II, street townhouses, dwelling group townhouses, medium-density apartments, and housing above neighbourhood and District Village commercial. The variety of housing forms in this neighbourhood will fulfill the demand for a wide range of lifestyle choices and offer the opportunity for different levels of housing affordability including entry-level market housing.

This neighbourhood is approximately 62% multi-unit dwellings and roughly 38% single-unit dwellings resulting in a neighbourhood density of 8.93 dwelling units per acre. In comparison with currently built neighbourhoods, City Park has a density of 8.5 units per acre, and Nutana has a density of 7.5 units per acre. The neighbourhood is also estimated to contain approximately 1,359 jobs*. This density of residents and jobs supports the City's goal, as expressed in the OCP, of achieving a compact urban form "...to build a fiscally, socially, and environmentally sustainable community...".

The District Village being located within the boundaries of this neighbourhood helps to achieve this level of density, while also providing amenities needed to meet residents' day to day needs. In all cases, different forms of housing have been sensitively interfaced so as to mitigate conflicts between the different housing forms and to maximize the market potential of the different forms of housing. Table 1 provides a detailed breakdown of the housing mix and the expected population in the neighbourhood.

* This estimate is based on the methodology used by the City of Saskatoon in the University Heights Sector Plan. The methodology assumes an average of 5 jobs per hectare in primarily residential areas, 16.25 jobs per hectare in District Village areas, and 45 jobs per hectare in employment areas (i.e. District Commercial).

Land Use	Ac	Ha	%	Frontages (m)	Units per acre (upa)	Units	People per Unit	Population	Elementary Student Population 0.48 SU and 0.19 MU	Residents & Jobs per hectare**
RESIDENTIAL										
Single-Unit Detached Dwellings	159.33	64.48	24.95%	16,700.23	8	1,275	2.8	3,569	612	322
Single-Unit Detached Dwellings with Lanes	82.02	33.19	12.84%	8,140.68	11	902	2.8	2,526	433	166
Low-Density Street Townhousing	11.57	4.68	1.81%	1,182.44	20	231	2.2	509	44	23
Low-Density Group Townhousing	41.16	16.66	6.44%	2,172.50	20	823	2.8	2,305	156	83
Medium-Density Multi-Unit Dwellings	35.24	14.26	5.52%	2,139.32	40	1,410	1.6	2,255	268	71
MIXED-USE*										
Medium-Density Mixed-Use Commercial/Residential	34.04	13.77	5.33%	2,144.66	30	1,021	1.3	1,327	194	224
Low-Density Mixed-Use Commercial/Residential	2.66	1.08	0.42%	284.65	15	40	1.3	52	8	5
DISTRICT COMMERCIAL (URBAN HOLDING)	24.66	9.98	3.86%	189.04						449
ELEMENTARY SCHOOLS / COMMUNITY CENTRE	8.01	3.24	1.25%	297.00						16
Totals	398.69	161.35	62.42%	33,250.52		5,702		12,544	1,715	1359
PARK										
Neighbourhood Core Parks	17.00	6.88	2.66%							
Linear Parks	18.59	7.52	2.91%							
Pocket Parks	2.42	0.98	0.38%							
Village Square	0.95	0.38	0.15%							
District Park	0.00	0.00	0.00%							
Total Park	38.96	15.77	6.10%							
OPEN SPACE										
Drainage Parcels	11.53	4.67	1.80%							
Buffer and Berms	17.40	7.04	2.72%							
The Greenway	10.79	4.37	1.69%							
Total Open Space	39.72	16.07	6.22%							
ROADS										
Arterial Roads	17.19	6.96	2.69%							
Collector Roads	24.37	9.86	3.82%							
Local Roads	91.18	36.90	14.28%							
Lanes	8.77	3.55	1.37%							
Perimeter Highway Interchange	19.83	8.03	3.10%							
Total Roads	161.34	65.29	25.26%							
Grand Total	638.71	258.49	100%	33,250.52						

Neighbourhood Density (units per gross acre)	8.93	
(persons per gross hectare)	48.53	
Population	12,544	
Neighbourhood Residential Unit Split	Single Unit 38.18%	Multi-Unit 61.82%
Employment	1,359	

*UPA values used for Mixed Use Commercial/Residential are estimates for the entire area and may vary from site to site depending on market demand.
** Employment was calculated using estimates used by the City of Saskatoon in the University Heights Sector Plan. See Page 19 (The Residential Character) for more information

Table 1: Land Use Calculations

QUALITY OF LIFE
Our neighbourhoods are “complete communities” that offer a range of housing options, employment opportunities, art, culture and recreational facilities and other amenities.

Strategic Plan (2013-2023)

REAR LANES AND DETACHED GARAGES

As with other new neighbourhoods in Saskatoon, this neighbourhood contains a proportion of housing with paved lanes. Both single-unit and street townhouses will have rear lane access. 41.43% of the single-unit houses in this neighbourhood will have rear lane access. Almost all street townhousing in this neighbourhood will have rear lane access. Single-unit and street townhousing with rear lanes offers a lifestyle choice that includes a streetscape with no front attached garages. Off-street parking and garages are accessed from rear lanes.

RESIDENTIAL CARE HOMES – TYPE II PRE-SCHOOLS, AND CHILD CARE CENTRES

Sites within the Aspen Ridge neighbourhood have been pre-designated for development as Residential Care Homes - Type II, Pre-Schools, and Child Care Centres (RCH). A Residential Care Home – Type II is a care home in which the number of residents under care is more than five, and no more than fifteen. A Child Care Centre is a child care facility having more than eight resident and non-resident children. A Pre-School is a facility which provides a part-time program for pre-school aged children. The locations of sites for these uses have been spread throughout the neighbourhood (see RCH sites on Figure 3) and among various phases of development. In general, these locations are adjacent to collector streets on corner lots in order to provide access to transit service, and to mitigate any potential parking conflicts. Pre-designated lots will be offered for sale separately by tender as potential Residential Care Homes – Type II, Pre-Schools, and Child Care Centres. If not purchased for these uses, the subject lots will be returned to inventory and sold as typical single-unit lots.

LAND PRE-DESIGNATION PROGRAMS FOR ATTAINABLE AND ENTRY LEVEL HOUSING

To meet the objectives of the City's Housing Business Plan, multi-unit parcels within the neighbourhood may be selected and pre-designated for affordable, purpose built rental and entry level housing.

Affordable housing is attainable to households that are below the Maximum Income Limits as set in the Housing Business Plan. Currently these limits are \$74,000 for households with dependents and \$66,500 for households without dependents. Affordable housing can be either rental or ownership.

Purpose built rental housing must remain in the rental market for at least fifteen years. It is not targeted at any particular income group and is rented for full market rates. Entry-level housing is attainable by households with incomes just above the limits for affordable housing. Households with annual incomes of up to \$80,000 are typically in the entry-level market. Entry level housing is sold at price points that are attainable to this income group.

Pre-designated parcels are sold through a Request for Proposals (RFP) process to the builder whose proposal best meets the City's objective for the site (affordable, purpose built rental or entry level housing). The sale price of pre-designated parcels is fixed by City Council at fair market value and the

Land Pre-Designation Programs for Affordable and Entry Level Housing continued...

parcel is removed from the open tender process. If after an adequate period of time, the City fails to receive suitable proposals, the sites are returned to Saskatoon Land's inventory and sold through the standard tender process.

ARCHITECTURAL CONTROLS

As in other recent neighbourhoods that have been developed by Saskatoon Land, all multi-unit dwellings in Aspen Ridge on land sold by Saskatoon Land will be subject to the Architectural Controls for Multiple-Unit Dwelling Districts (2010). These architectural controls are currently being reviewed and expanded to also apply to mixed-use sites. Architectural controls help to strengthen the visual integrity of the neighbourhood, establish a sense of harmony between different housing forms, reinforce thematic elements for certain areas, and increase customer confidence. The intent is not to dictate architectural styles but rather to incorporate minimal mandatory design elements to ensure aesthetically pleasing neighbourhood streetscapes.

THE PARK SYSTEM

The allocation of parks in this neighbourhood is as follows: a 17 acre main core park and a combination of nearly 22 acres of linear park, Pocket Parks and the Village Square.

The design of park space is consistent with the City of Saskatoon Park Development Guidelines and will accommodate both passive and active programmed uses. The City of Saskatoon is currently advocating the development of naturalized parks and associated management plans. The provision of environmentally sustainable green spaces can serve as venues to increase our citizens' appreciation, understanding and enjoyment of nature. Through biodiversity preservation they also provide an important contribution toward our city's natural heritage values. The Ownership Group is open to the idea of the inclusion of naturalized parks within Aspen Ridge if the City of Saskatoon proposes them.

The entire park system in this neighbourhood has been carefully configured to facilitate the connectivity of a system of neighbourhood pedestrian and cyclist trails thus maximizing the neighbourhood pedestrian and cyclist experience. All of the pedestrian trails eventually lead to the Village Square, District Village, core park, and the designated possible elementary school/community centre locations. The trails also connect to the Greenway and the Northeast Swale, which has the potential to include a trail system connecting to an extension of the trails adjacent to the South Saskatchewan River, as well as to other neighbourhoods adjacent to the Swale.

Additional open space in the neighbourhood has been provided in the form of an overland drainage system described under the heading "Landscaped Drainage Parcels".

MUNICIPAL RESERVE DEDICATION

As per the Planning and Development Act, 2007, 10% of the gross land area of this neighbourhood is dedicated to Municipal Reserve (MR). As per City of Saskatoon Administration Policy A10-017 *Park Development Guidelines*, 6.1% of this dedication is remaining within the neighbourhood in the form of Neighbourhood Core, Linear, Pocket and Village Square Parks.

The remaining 3.9% of the dedication is accounted for in the University Heights Sector Plan. Some has already been distributed within the University Heights Suburban Centre. More is to be distributed as District Park and Multi-District Park throughout the areas within the Sector that have yet to be developed. No location for District or Multi-District Park is being made available in Aspen Ridge. The Ownership Group will work with City of Saskatoon administration to determine the appropriate means to ensure this land dedication occurs.

TOTAL NEIGHBOURHOOD AREA	638.71 ACRES
Municipal Reserve Dedication Required (10%)	63.87 acres
Dedication Within the Neighbourhood (6.1%)	38.96 acres
Dedication Outside the Neighbourhood (3.9%)	Sector Plan Designation
Total Municipal Reserve Provided	38.96 acres

Table 2: Municipal Reserve Calculations

LANDSCAPED DRAINAGE PARCELS

The areas shown on Figure 3 as Landscaped Drainage Open Space are adjacent to linear parks and are considered part of the pedestrian connectivity system but will be legally subdivided as parcels rather than Municipal Reserve. The entire linear park system facilitates overland storm event drainage. These “drainage park” parcels will receive similar landscaping treatment as the linear park dedicated (MR) areas. The Ownership Group will provide the funds to landscape the drainage parcels from a fine-grade-and-seed standard to a linear park standard in order that the entire system appears seamless and is landscaped to a common linear park standard. Image 11 provides an example of a typical cross section of a linear park that also includes a Landscaped Drainage Parcel.

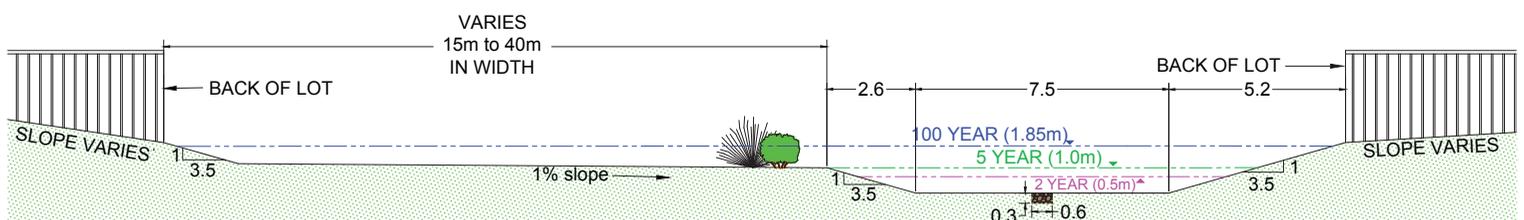


Image 11: Typical Linear Park & Landscaped Drainage Parcel Cross Section

Landscaped Drainage Parcels continued...

The entire system promotes the efficient and sustainable use of land:

- Often in neighbourhood development, a land “bowl” – dry pond – is set aside to accommodate excess storm water from major storm events. Often such land is seeded to grass and remains relatively unused until major storm events. In this case, land that is not needed to accommodate storm water in normal precipitation conditions, can be used for recreation and alternative transportation connectivity – pedestrian and cyclist movement. It becomes a neighbourhood amenity as well as a necessary utility.
- The landscaped drainage parcels and the dedicated linear park system act as a drainage bioswale. In normal precipitation conditions some of the water from lots is drained into this system and is absorbed by the ground cover. Any excess water that is not absorbed is conveyed to catch basins and removed via an underground storm drainage system (described on Page 26). If required additional drainage structures (french drains) will be built.

The total area in this neighbourhood dedicated to drainage parcels is 11.53 acres (1.8% of the total neighbourhood area).

INTEGRATED ELEMENTARY SCHOOLS AND COMMUNITY CENTRE SITE

The integrated elementary schools and community centre sites are located in the centre of the neighbourhood adjacent to the core park. The eight acre site is designed to accommodate two elementary schools and a community centre (see Image 12). The community centre will either stand alone, be integrated with one elementary school, or be integrated with both elementary schools. The Ministry of Education and local school boards, in cooperation with the City of Saskatoon and developers, will decide whether schools are built and, if so, on the eventual configuration of the site. If schools are to be built, the school boards must perform Traffic Impact Studies for the school sites and the community centre. The studies must address mitigation of site-specific safety, operational and design issues.

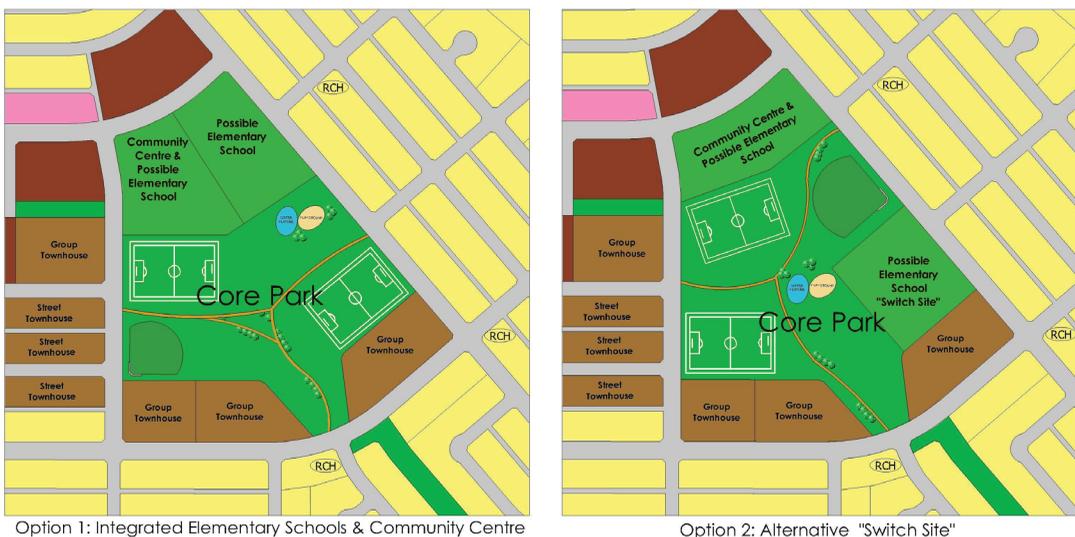


Image 12: Possible School Site & Community Centre Parcel Configurations

Park designs are conceptual only and will be finalized at the detailed design stage.

Integrated Elementary Schools and Community Centre Site continued...

If it is decided to not have an integrated site, an alternative four acre “switch site” is designated on the east side of the core park, south of the integrated elementary schools and community centre site (see Figure 3). If this occurs, each school, including the school with the community centre, will occupy four acres. As shown in Image 12, use of the “switch site” would also result in a different configuration of the school site located on the north edge of the core park. This configuration is required to ensure the core park design meets the requirements laid out in the City of Saskatoon Park Development Guidelines.

If the decision is made to not build schools in Aspen Ridge, a community centre may be built in this location. In this case, a portion of the eight acres allocated for school sites will be developed as a community centre, and the remaining as medium-density residential. In the event that a community centre is not built, the eight acres allocated for school sites will be developed as medium-density residential. In either of these scenarios, the portion of the eight acres that is developed as medium-density residential would be divided proportionally amongst the Ownership Group based on overall ownership percentage. Any changes that occur will be subject to appropriate community consultation.

SUSTAINABLE NEIGHBOURHOOD DESIGN ELEMENTS

A sustainable neighbourhood can be achieved by addressing two levels of development: the neighbourhood layout and the built environment. The Concept Planning stage primarily addresses the neighbourhood layout.

THE NEIGHBOURHOOD LAYOUT

The Neighbourhood Concept Plan includes a number of elements and design features intended to enhance the sustainability of the neighbourhood while maximizing lifestyle opportunities.

The Village Centre design is intended to enhance pedestrian accessibility and reduce motor vehicle dependence by providing nearby opportunities for residents to engage in some of their commercial, social, and recreational activities within the neighbourhood, rather than requiring a vehicle to pursue these activities outside the neighbourhood.

The range of housing forms within the neighbourhood is intended to facilitate a sustainable neighbourhood life cycle that can meet the basic housing requirements of individuals and families at different stages in their lives, including varying income levels and household size.

The District Village mixed-use area, with its range of housing choices with relatively higher densities along McOrmond Drive, results in a neighbourhood with a high population density similar to Saskatoon's core neighbourhoods. This relatively higher-density aligns with the City-wide strategy to encourage more sustainable and compact development.

Neighbourhood-wide amenities (i.e. core park, schools, and commercial sites) have been located in centralized and higher-density areas in order to provide convenient access to the majority of the neighbourhood via the linear park system, sidewalks along local streets, and the neighbourhood collector streets. The neighbourhood has also been designed to promote pedestrian and cyclist access to the proposed Northeast Swale trail along the northwestern edge of the neighbourhood, potentially linking neighbourhood trails to the city-wide Meewasin Valley Authority trail system.

The linear park system offers the following sustainable advantages:

- The pedestrian trail network and links to external trail systems offer attractive alternatives to vehicular use;
- Dark-sky compliant, LED street lighting will be provided along all streets and in all parks in order to enhance visibility;
- It allows for some lot drainage to be absorbed into the ground and plantings during normal precipitation, rather than conveying it out of the neighbourhood; and,
- Areas of potential pedestrian and vehicle conflicts have been avoided, thus encouraging pedestrian movement.

The design and orientation of streets within the neighbourhood has taken into account access to passive and active solar energy solutions (see "Solar Analysis" on page 27).

ENVIRONMENTAL LEADERSHIP STRATEGIES FOR THE LONG TERM (10 YEARS)

Improve the quality and reduce the quantity of storm water run-off that is going into the river.

Strategic Plan (2013-2023)

THE BUILT ENVIRONMENT

The Ownership Group will explore methods to promote the construction of environmentally sustainable buildings. There are two main ways this goal may be achieved.

Firstly, the Ownership Group may benefit from registered programs that are already in place whereby existing agencies manage and certify buildings based on tangible sustainable building practices. Saskatoon Land will explore the feasibility of offering incentives to lot purchasers to adopt registered programs in their building process and share this information with the Ownership Group.

Some examples of existing registered programs are:

- Energy Star qualified homes;
- R-2000 certified homes;
- LEED rating for multi-unit, institutional, commercial, and mixed-use buildings – this system of certification currently exists; and
- LEED rating for single family homes – “LEED for Homes in Canada” is a rating system that has recently been developed.

Secondly, there are non-registered sustainable building practices that lot purchasers may adopt. Saskatoon Land will explore opportunities to promote sustainable building practices outside of registered programs and share this information with the Ownership Group. Some examples include:

- Building systems that take advantage of passive and active solar gain;
- Alternative energy systems, i.e. district heating and co-generation;
- Permeable paving materials for driveways, walkways, and patios;
- Sustainable landscaping for public open spaces and private yards;
- Water use reduction strategies;
- Waste reduction strategies; and
- Rainwater-capture systems.

A report outlining these opportunities in greater detail will be submitted to City Council with potential recommendations for implementation.

SOLAR ANALYSIS

The design and street orientation of the neighbourhood has taken access to solar radiation into account. Where feasible, blocks have been designed in either an east-west or north-south orientation to provide future homeowners with the opportunity to use solar radiation for heating, lighting, and electricity generation. Overall, 41% of single family lots in the neighbourhood will be oriented east-west or north-south. In addition to the orientation of single family lots, builders also have the potential to orient units in group townhouse sites to capture solar radiation.

NEIGHBOURHOOD SAFETY CONSIDERATIONS

Neighbourhood safety has been a major consideration throughout the evolution of this neighbourhood design. Crime Prevention Through Environmental Design (CPTED) principles were applied where relevant to this stage of development – the Concept Plan. Some of the safety considerations that are incorporated into the design of this neighbourhood are, but not limited to, the following:

- The modified grid street layout provides for shorter street blocks, open sight lines, easier way finding, and a street layout that is less confining.
- The multi-unit residential sites located in the Village Centre will ensure a large population living in the vicinity of the Village Square and commercial businesses resulting in a considerable number of “eyes on the street” during evening hours.
- Mixed-use zoning, rather than commercial zoning, will allow developers to build residential units above businesses to

Neighbourhood Safety Considerations continued...

further encourage natural surveillance and territoriality as the residents develop a sense of ownership and responsibility for the area.

- Straight sightlines were provided in back lanes in order to enhance visibility. In the three situations where a “T” lane intersection is required, 4 metre (13 foot) corner-cuts were incorporated which increases the intersection visibility by a minimum of 145 square feet and provides unobstructed sightlines in any direction of between 13 and 28 metres (43 and 92 feet). With the corner cuts, the lane at the intersections expands from 6 metres (20 feet) to over 14 metres (46 feet). In the three situations where the lanes are curved, the sightlines in the curved parts of these lanes are: 50 metres (164 feet), 66 metres (217 feet), and 68 metres (223 feet). Please see Figure 6 for sightline distances.
- Street lighting will be provided along all streets and in all parks in order to enhance visibility.
- As necessitated by the Park Development Guidelines, the core park and pocket parks are designed to contain 100% visibility of the site interior from the surrounding streets.
- Corner cuts were provided to fencing adjacent to park entry points to enhance visibility.
- All pocket parks are surrounded by single-unit homes or townhouses in order to enhance natural surveillance and cohesion.
- In most cases, higher-density development is located adjacent to the core parks to provide more opportunities for natural surveillance.
- In all cases except for school sites, residential land uses are adjacent to all parks in order to strengthen neighbourhood cohesion.
- School sites are visible from surrounding residential development, the streets that they front on to and the streets interfacing with the park.
- A “see through” metal fence will be constructed in all rear or side yards that interface with any park or other open space system like drainage areas, buffer areas or berm areas.
- Roadways and trail networks were designed with pedestrian connectivity in mind to the extent that the need for traditional pedestrian walkways was eliminated. No traditional pedestrian walkways are included in this neighbourhood. Pedestrian connectivity is provided through a system of linear park connections, drainage allocation connections, and critical roadway (sidewalk) design.
- All street corners with sidewalks will have wheelchair accessible ramps, and all multi-use trails will be graded to ensure cohesion.
- At full build-out, the neighbourhood will have a relatively high-density in comparison to existing Saskatoon neighbourhoods which should increase local community capacity to support schools, businesses, and organized activities.
- Areas of potential pedestrian and vehicle conflicts were limited. The areas where unavoidable pedestrian and vehicle interface will exist have been identified and traffic calming measures will be implemented during the roadwork design and construction phases.
- Street lighting will be positioned adjacent to planned permanent transit stops.
- As the neighbourhood is developed, neighbourhood safety will be continuously reviewed. Some of the elements that will be assessed during later stages in the neighbourhood’s development are, but not limited to: park development, Village Square development, entry treatments, signage, and providing safety suggestions to homeowners through Saskatoon Land’s lot information packages.

INFRASTRUCTURE

TRANSPORTATION

The neighbourhood road layout is designed to connect with the City's existing road network and the proposed road layout in the University Heights Sector Plan. As shown on Figure 5, the three arterial roads that will access the neighbourhood will be the extension to McOrmond Drive from the southwest, Fedoruk Drive from the west, and the upgrade of Blackley Road in the southeast.

The extension of McOrmond Drive through the neighbourhood is designed with a 50 metre right-of-way that will provide room for four lanes of traffic, a five metre centre median, two service lanes, two parking lanes, two bicycle lanes and a sidewalk on either side. The right-of-way will transition down to a 44 metre right-of-way, and finally a 32 metre right-of-way as it progresses through the neighbourhood (see Page 14 for more information on the multi-way boulevard). McOrmond Drive enters the neighbourhood from the southwest corner and gently curves through the neighbourhood, crossing the Northeast Swale at the north periphery of the neighbourhood. Beyond the Northeast Swale, McOrmond Drive will connect through future neighbourhoods to the North Commuter Parkway, linking the neighbourhood to the Marquis Industrial area.

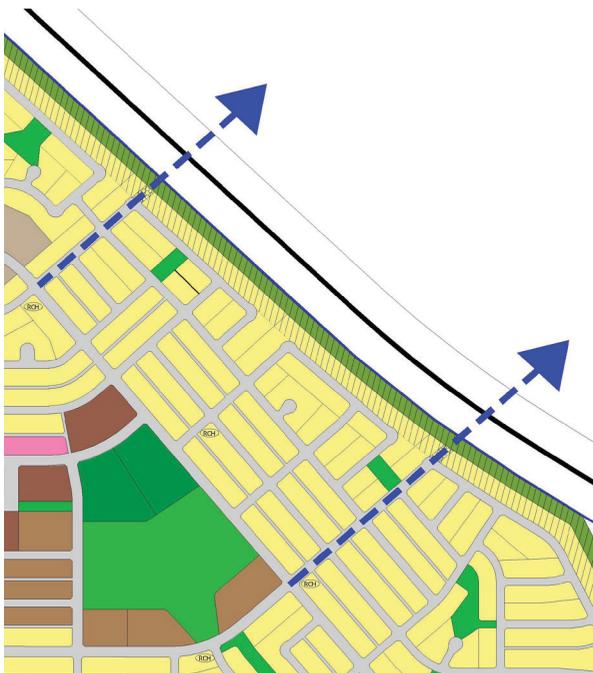


Image 13: Possible Roadway Extensions

"The current Infrastructure Services Design and Development Standards Manual provides a one-size-fits-all solution for street design – every arterial street looks the same and provides limited access. New street standards will be explored so that the street design matches the traffic demand and the land use context. Where appropriate, buildings may front onto arterial streets and will be designed to provide a human-scaled environment."

Growing Forward! Shaping Saskatoon: A Bridging Document...For the Growth Plan to Half a Million

Fedoruk Drive will provide access from the west – from Silverspring and Central Avenue.

At some point in the future, the upgrade of Blackley Road from the Holmwood Sector will provide access to the neighbourhood from the south.

Two additional potential access points to the neighbourhood have been included on the northeast side of the neighbourhood (see Image 13). Discussions are currently under way with regard to the location of the Perimeter Highway. There is the potential the highway location could move further to the northeast. To accommodate this potential relocation, Aspen Ridge was designed to allow for the neighbourhood to be expanded. Two roadways on the east side of the neighbourhood have been designed as collector width roadways to allow for the neighbourhood

Transportation continued...

to be expanded. If these two additional roadways are not needed as collectors, they will be built as either 16 metre or 18 metre local streets, depending on what is needed. The residual right-of-way will be added to the adjacent lots. Due to this potential of the Perimeter Highway moving, the final configuration of all lots directly backing onto the Perimeter Highway will not be determined until the Perimeter Highway alignment is confirmed (see Figure 3).

For an illustration of all roadway systems see Figure 5. The collector roadway system is evenly distributed throughout the neighbourhood as it loops to collect and distribute local street traffic volumes and buses. The collector roadway system has a right-of-way of 22 metres and generally has a paved surface of 12.2 metres. Major local streets have a right-of-way of 18 metres with a 10 metre paved surface. Minor local streets have a right-of-way of 16 metres with a 10 metre paved surface. Culs-de-sac, which are, in every case, less than 150 metres in length, have a right-of-way of 15 metres and a 9 metre paved surface. All streets will have an urban curb-and-gutter cross section with storm water drainage provisions. All local streets will have an attached curb and sidewalk. All collector streets will have a separate sidewalk and curb which provides boulevard space between the curb and sidewalk for pedestrian and traffic separation.

The pattern of local streets in the neighbourhood varies and includes traditional grid patterns, modified grid patterns, and typical suburban curvilinear patterns. This varied street pattern facilitates a mixed housing style development which will satisfy a multitude of lifestyle choices and contribute greatly to the provision of a sustainable neighbourhood.

A Traffic Impact Assessment (TIA) of Aspen Ridge was conducted by Stantec Consulting Ltd. The study showed the roadway network to be capable of handling the volumes of traffic generated by Aspen Ridge at full build-out with a forecast scenario of 400,000 population. The TIA has been included as Appendix I.

“Arterial roadways no longer exclusively form the edges of neighbourhoods. Some arterials are the “main streets” of neighbourhoods, providing efficient movement of traffic and a mix of land uses, opportunities and experiences.”

Growing Forward! Shaping Saskatoon: A Bridging Document...For the Growth Plan to Half a Million

ROUNDABOUTS

The proposed neighbourhood design contains one modern roundabout. This single lane roundabout is proposed on the northernmost collector in the neighbourhood and is surrounded by four group townhouse sites (see Figure 5). Single lane roundabouts have been used effectively in recent neighbourhood developments.

As well as helping move cars through the neighbourhood efficiently, the roundabout will be designed to accommodate cyclists, pedestrians, and transit. Particular attention will be paid to ensure the roundabout provides pedestrians and cyclists with safe crossing points.

PUBLIC TRANSIT

The neighbourhood layout will facilitate the provision of efficient public transit. The McOrmond Drive multi-way boulevard is designed to facilitate rapid transit. Higher-density residential and mixed-use commercial sites are focused along McOrmond Drive, which helps to provide the necessary population density to support rapid transit. Additionally, as illustrated in Figure 7, collector roadways in the neighbourhood provide options for a looping transit route that may circulate through the neighbourhood. In order to establish long term ridership in the neighbourhood, it is suggested that transit routes be extended into the early phases of neighbourhood development.

PEDESTRIAN AND CYCLIST MOVEMENT

As shown in Figure 4, the proposed design for Aspen Ridge has an extensive internal pedestrian and bicycle movement network. The street and sidewalk layout has been designed to promote connectivity while minimizing automobile traffic on local streets and incorporating a grid pattern into parts of the neighbourhood. The neighbourhood also features linked linear parks, pocket parks, the Village Centre, and the core park which are situated to provide pedestrian links. The connectivity created by the block layout, and the linear, pocket, and core parks is intended to increase the number of biking and walking routes available and shorten walking distances and times throughout the neighbourhood. Appendix J illustrates estimated walking times between proposed possible school sites, the Village Square, and the District Village, and the rest of the neighbourhood.

The neighbourhood also contains two major pedestrian and cyclist links to adjacent areas, the McOrmond Drive multi-way boulevard and the Greenway. The McOrmond Drive multi-way boulevard includes dedicated bike lanes and wide sidewalks that link the District Village, the Village Centre, the linear park network, and the Greenway. The Greenway runs the complete length of the northwest edge of the neighbourhood and is designed to be able to eventually link into the MVA trail network, as well as existing and future adjacent neighbourhoods trail networks. Pedestrian and cyclist access from east-west across McOrmond Drive will be accommodated at the major intersections.

MID-BLOCK CROSSINGS AND ENHANCED PEDESTRIAN CROSSINGS

There are four mid-block crossings within the neighbourhood, the locations of which are shown on Figure 4. Three of the mid-block crossings are on local roads, with two crossings linking linear parks and the third linking a linear park to the neighbourhood school sites and core park. The fourth crossing is on a collector roadway at an entrance to the school sites and core park. Traffic calming measures may include bulbing, amber flashing beacons, textured crosswalks, pedestrian actuated signals, or plantings to help direct movement and enhance pedestrian safety. Exact configuration will be determined during the detailed design phase.

Six additional locations could include enhanced pedestrian crossings. Though each of these is located at an intersection, each has been identified as a location where additional pedestrian amenities could be appropriate to ensure safe, connected pedestrian network exists. As shown on Figure 4, three of the enhanced pedestrian crossings are located where the linear park network crosses collector roadways and three are located by the Village Square. These crossings may include corner bulbing, centre pedestrian islands, textured crosswalks, amber flashing beacons, or pedestrian actuated signals. Exact configuration will be determined during the detailed design phase.

MOVING AROUND

Our transportation network includes an accessible and efficient transit system and a comprehensive network of bike routes. People still use cars, and also rely on options such as public transit, walking and cycling.

Strategic Plan (2013-2023)

PEDESTRIAN WALKWAYS

Recently, walkways have created problems for nearby and adjacent homeowners which has prompted the City to entertain a number of walkway closures. In this neighbourhood, roadways and trail networks were designed with pedestrian connectivity in mind to the extent that the need for traditional pedestrian walkways was eliminated. Pedestrian connectivity is provided through a system of linear park connections, pocket parks, drainage allocation connections, and roadway (sidewalk) design.

The linear park system is an average of 30 metres wide with no entry point narrower than 15 metres. The drainage allocation connections are necessary to accommodate overland storm event drainage. These drainage allocation connections will be landscaped to a linear park standard and used to enhance pedestrian connectivity. There are two of these locations in this neighbourhood and are marked as "PL" on Figure 4. These drainage connections are also 15 metres or greater in width.

BUFFERS AND SOUND ATTENUATION EARTH BERMS

The neighbourhood will be buffered along the Provincial Perimeter Highway by a 30 metre buffer strip. The buffer strips will be developed with a berm, fine grade and seed and shelter belt plantings. A small buffer will be included along a section of Fedoruk Drive south of the proposed single-unit detached residential sites.

On the south side of Aspen Ridge, the neighbourhood is bordered by University of Saskatchewan – East Management Area, which includes the Kernen Prairie and agricultural research lands. The Ownership Group worked with the University of Saskatchewan to develop an appropriate interface with these lands. The portion of the neighbourhood adjacent to the

agricultural lands will be buffered by an 18 metre wide roadway. The section adjacent to the Kernen Prairie will be developed as extra deep residential lots. These lots will have a minimum depth of 45 metres, 8 metres deeper than comparable lots in the neighbourhood. This added depth will help ensure development is sufficiently separate from the Prairie and will limit direct access to the Prairie, helping preserve it as a natural area. It will also provide adequate space for the construction of a concrete swale for drainage, if it is required.

The Northeast Swale will be buffered from the neighbourhood by the Greenway.

SANITARY SEWER

The Aspen Ridge sanitary system consists of gravity local mains and trunks which convey the sewage flow to a lift station that will be constructed northwest of the neighbourhood. The general sanitary drainage pattern is from the southeast to the northwest. The lift station is planned to service 13,000 people with the flexibility of being expanded to service about 10,000 more people if additional areas are developed to the north of the neighbourhood or if population densities are increased. The lift station would pump sewage flow via a force main along the west edge of the neighbourhood and Fedoruk Drive, as shown in Figure 9, to the city sanitary system at the intersection of Central Avenue and Somers Road.

WATER SUPPLY

Potable water will be supplied to the neighbourhood from 1050 mm and 600 mm primary water mains along McOrmond Drive and Fedoruk Drive, as shown in Figure 10. The 1050 mm will be extended up McOrmond Drive and then be directed northeast via a collector roadway for water supply in future neighbourhoods. A 600 mm main will be extended into the rest of the length of McOrmond Drive and eventually will be connected to the 600 mm main in Central

Water Supply continued...

Avenue to complete the looping requirements for the entire University Heights Sector. A 300 mm major local main, connected to the primary water mains at few locations, will follow the collector network, as shown in Figure 10. The internal water network will consist of 150 mm to 250 mm local mains under the internal road design that meets City of Saskatoon's servicing guidelines for appropriate fire flow and water pressure requirements.

WATER RESERVOIR

A future 7.54 acre (3 hectare) water reservoir site has been designated along the south edge of the Evergreen neighbourhood adjacent to, and on the east side of, McOrmond Drive. This water reservoir will be required to supply the eventual increased demand for potable water by both the University Heights Sector, including Aspen Ridge, and the Northeast Sector.

STORM WATER DRAINAGE AND SEDIMENT CONTROL

This neighbourhood has a storm water management system that consists of on street drainage, back of lot drainage, linear park drainage, culverts, and swales including the Greenway at the west edge of the neighbourhood. The whole system is connected by an underground storm drainage system. During normal precipitation conditions, rainwater that doesn't get absorbed by open spaces is channelled overland to catch basins, to an underground storm drainage system of pipes and eventually to a forebay that will be located northwest of the neighbourhood.

Sediment basins will be included at the outlets of all pipes that discharge into the storm water ponds. The sediment basins will allow sediment in storm water to settle while it is stored in the ponds prior to being released into the Swale drainage system. The main purpose of the forebay is to provide physical and biological treatment to enhance the quality of the storm flow before it drains into the Northeast Swale and eventually the river. The forebay also attenuates the peak flow for the purpose of providing a slower drainage rate into the Northeast Swale.

SHALLOW UTILITIES

Shallow utilities include electricity, natural gas, street lighting, telephone, and cable television. The respective service providers, SaskPower, SaskEnergy, Saskatoon Light and Power, SaskTel, and Shaw Cable, will extend these services into this neighbourhood. Suitable easements will be granted prior to titles being transferred from the existing owner.

The neighbourhood is within the SaskPower electrical franchise area. As with all new neighbourhoods, Saskatoon Light and Power will be responsible for all of the street and park lighting in this neighbourhood. Any relocation of existing utilities will be discussed with the appropriate agency prior to the subdivision stage.

Existing overhead power lines along the Range Road 3045 and Agra Road allowances will require relocation to accommodate planned development. Further discussions with SaskPower are required to facilitate the relocation of these lines. This will occur prior to the subdivision stage.

"All developments should strive to use green infrastructure for storm water management to the greatest extent possible"

Growing Forward! Shaping Saskatoon: A Bridging Document... For the Growth Plan to Half a Million

Shallow Utilities continued...

SaskTel has tentatively proposed two locations for cell phone towers within the neighbourhood, one in the Urban Holding area in southeast corner of the neighbourhood, and the other in the linear park located directly adjacent to McOrmond Drive (see Figure 3). Both of these locations are acceptable to the Ownership Group, though they are both tentative, proposed locations. SaskTel will begin the process of attempting to secure these locations over the coming months.

SOLID WASTE & RECYCLING

The garbage and recycling collection for all residential single-unit lots will be from the front street including those lots with rear lanes. All multi-unit sites, other than the street townhousing sites, will be required to have their own waste disposal collection bins on site.

FIRE & PROTECTIVE SERVICES

It has been determined by Fire and Protective Services that the planned neighbourhoods in the University Heights Sector will be out of the 4-minute response benchmark for services from Station No. 9 (Attridge Drive). The existing Station

No. 9 and Stations No. 5 (Sutherland), No. 6 (Taylor Street and Acadia Drive), and proposed No. 10 (Lakewood Suburban Centre) could provide the required 8-minute response for full first alarm assignment for structural fires in this area under optimum conditions.

Saskatoon Land is currently working with Fire and Protective Services to select an appropriate site for a future fire station to service the University Heights Sector's future needs. The site for the future fire station is currently planned to be in University Heights – Neighbourhood 3. This fire station will provide fire protection to Aspen Ridge. It was previously planned for a fire station to be located in the area of the intersection of Fedoruk Drive and McOrmond Drive. This would have had an overlap of the 4-minute response time with Station No. 9. As such University Heights – Neighbourhood 3 is a more appropriate location.

SNOW STORAGE

Adequate snow storage space will be provided on each side of the road within the right-of-way for stacking snow from the road surface. Central and service road medians will also be used for storage along the Multi-Way boulevard and at entry ways.

PLAN IMPLEMENTATION

NEIGHBOURHOOD PHASING STRATEGY

Development in this neighbourhood is planned to begin in the southwest part of the neighbourhood, and proceed northeast as development occurs and infrastructure servicing is extended. Initial infrastructure development will include a lift station and a portion of a forebay directly adjacent to where McOrmond Drive enters the Northeast Swale. This will allow for the area of the neighbourhood on the west side of the McOrmond Drive extension to begin being developed.

During the build-out of the neighbourhood, evolving market and servicing considerations may necessitate changes to the phasing strategy and plan. See Figure 11 for a tentative phasing strategy for Aspen Ridge.

As discussions are currently under way with regard to the location of the Perimeter Highway, all lots directly adjacent to the proposed highway location will be in the final phase of development for Aspen Ridge. As noted on Figure 3, the final configuration of these lots will not be determined until the Perimeter Highway alignment is confirmed.

THE APPROVAL PROCESS

The Aspen Ridge Neighbourhood Concept Plan was prepared in order to obtain City Administration's and City Council's support for the Ownership Group to develop the next neighbourhood in the University Heights Suburban Development Area.

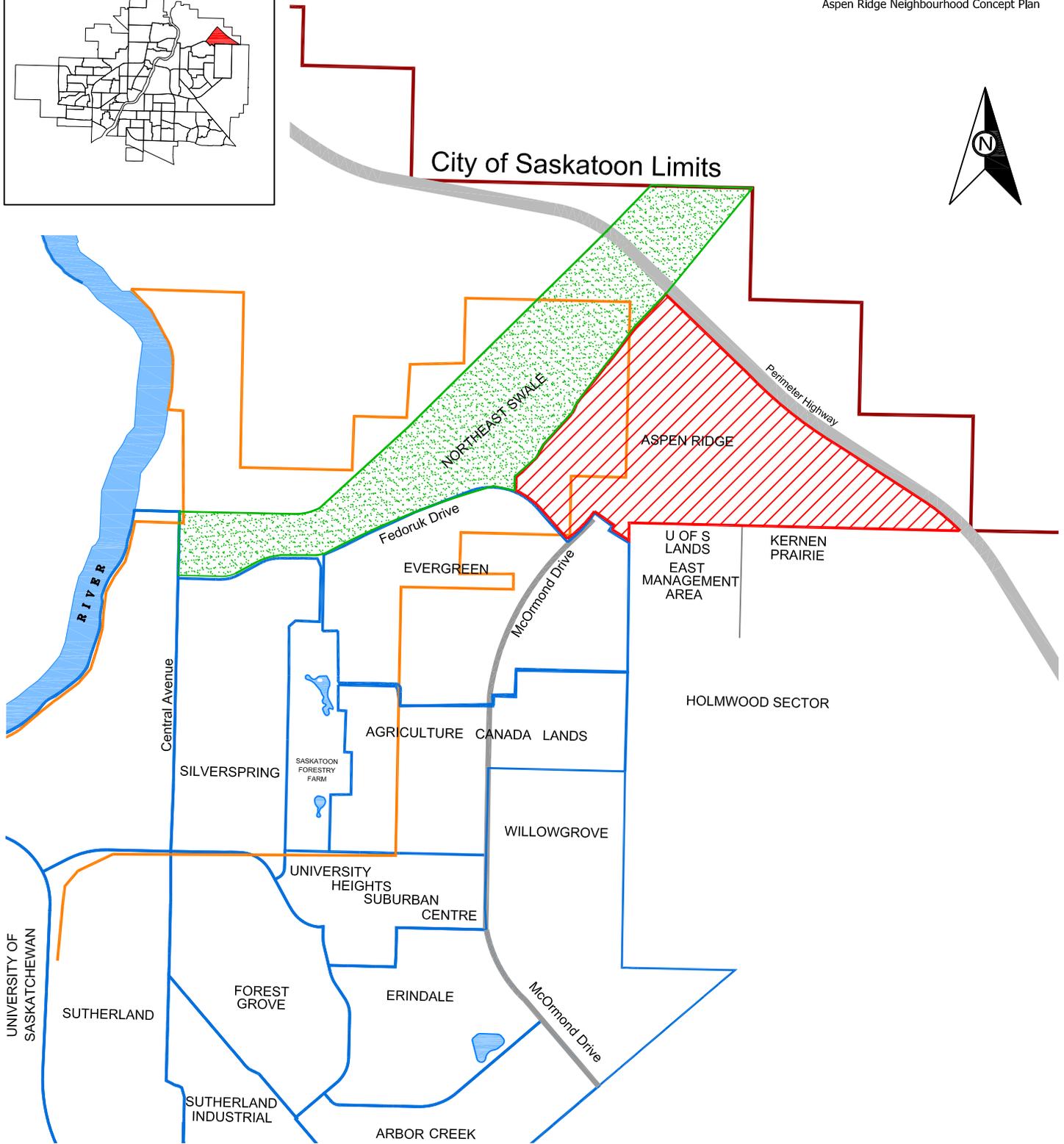
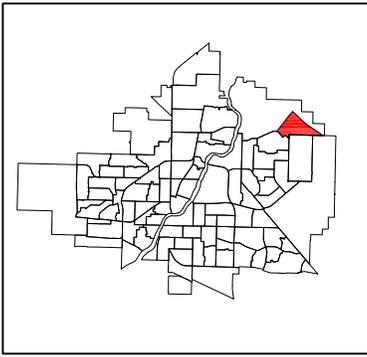
The process of approval for the Neighbourhood Concept Plan begins with submission to Planning and Development. Planning and Development will undertake the following:

- Circulation to Stakeholders for comment;
- Report to the Municipal Planning Commission;
- Report to the Planning and Operations Committee; and
- Public Hearing of City Council.

Two open houses were held for Aspen Ridge, one in conjunction with the University Heights Sector Plan on March 6, 2013, and one specific to Aspen Ridge, presented by Planning and Development, on March 18, 2014.

Location Plan - Figure 1

Aspen Ridge Neighbourhood Concept Plan



Scale: N.T.S.

Legend

- Neighbourhood Boundary Meewasin Valley Authority Jurisdiction City Limits



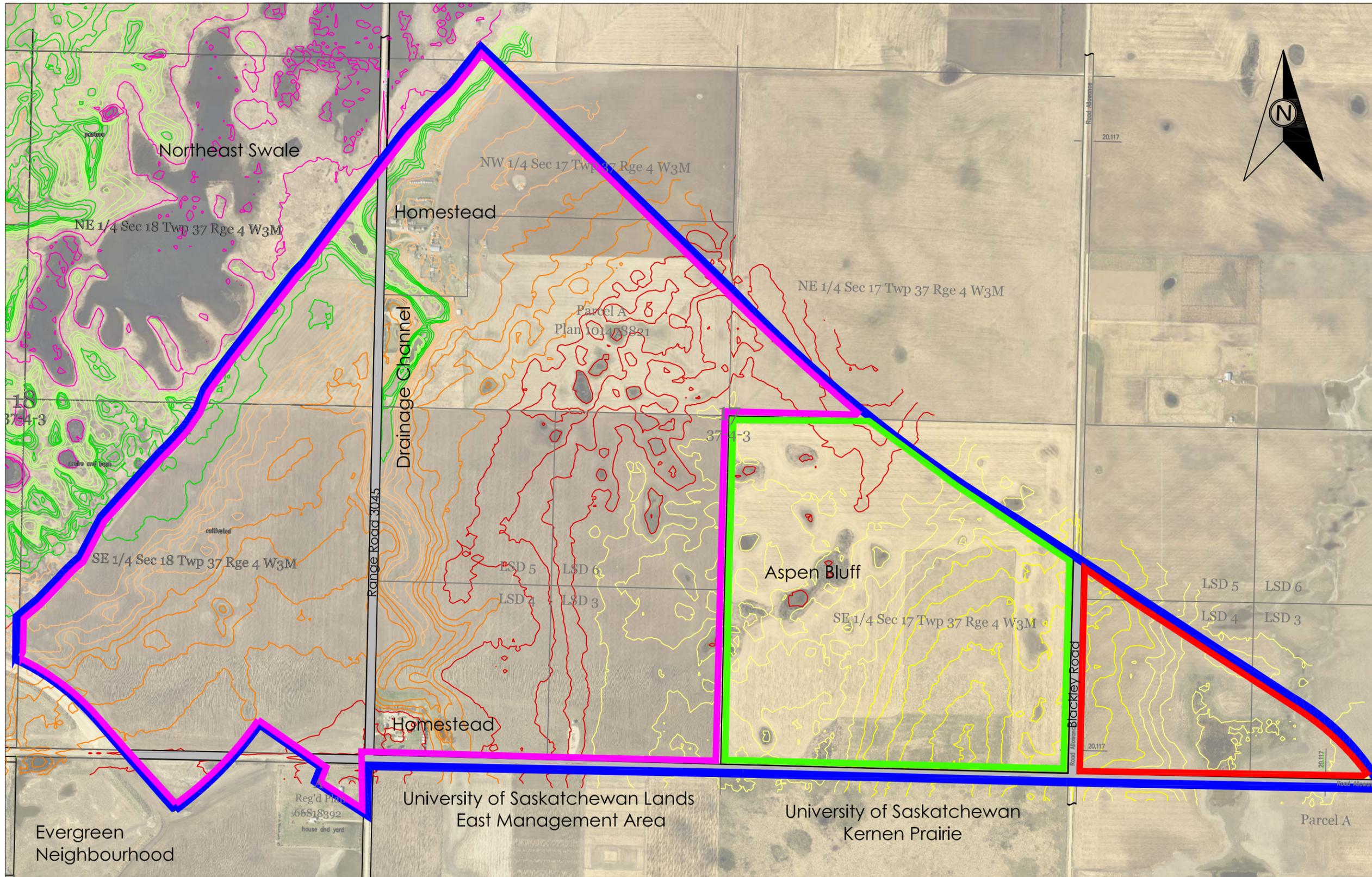
Existing Use & Ownership Plan

Figure - 2
Aspen Ridge Neighbourhood Concept Plan

Legend

-  Neighbourhood Boundary
-  COS Ownership
-  Victory Majors
-  Cindercrete
-  Existing Right of Way

- LIDAR Elevations
-  510.0 - 512.75
 -  508.0 - 509.75
 -  506.0 - 507.75
 -  504.0 - 505.75
 -  502.0 - 503.75
 -  500.0 - 501.75
 -  498.0 - 499.75
 -  496.0 - 497.75
 -  494.0 - 495.75
 -  492.0 - 493.75
 -  490.0 - 491.75
 -  488.0 - 489.75
 -  469.0 - 487.75



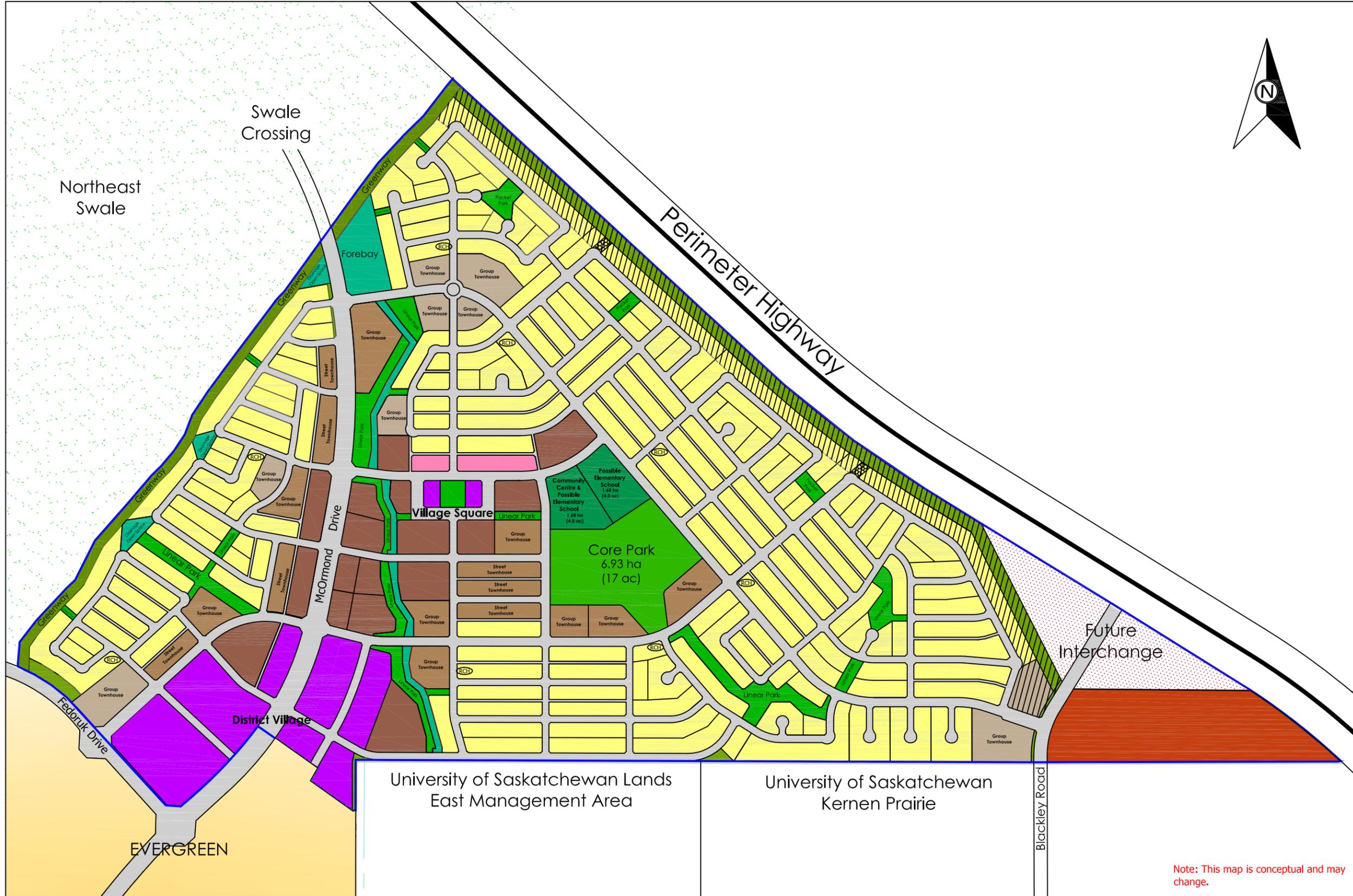
Land Use Concept Plan

Figure - 3

Aspen Ridge Neighbourhood Concept Plan

Legend

-  Single-Unit Detached
-  Low-Density Multi Unit
-  Low/Med Density Multi Unit
-  Medium-Density Multi Unit
-  Medium-Density Mixed-Use
-  Low-Density Mixed-Use
-  Park
-  Landscaped Drainage Open Space
-  Greenway
-  Buffer
-  Elementary Schools/Community Centre
-  Urban Holding Area
-  Northeast Swale Preserved Land
-  Possible Roadway Extension
-  Neighbourhood Boundary
-  Possible Residential Care Home Site
-  Possible Cell Tower Location
-  Final configuration to be determined once the Perimeter Highway alignment is confirmed



University of Saskatchewan Lands
East Management Area

University of Saskatchewan
Kernen Prairie

Note: This map is conceptual and may change.

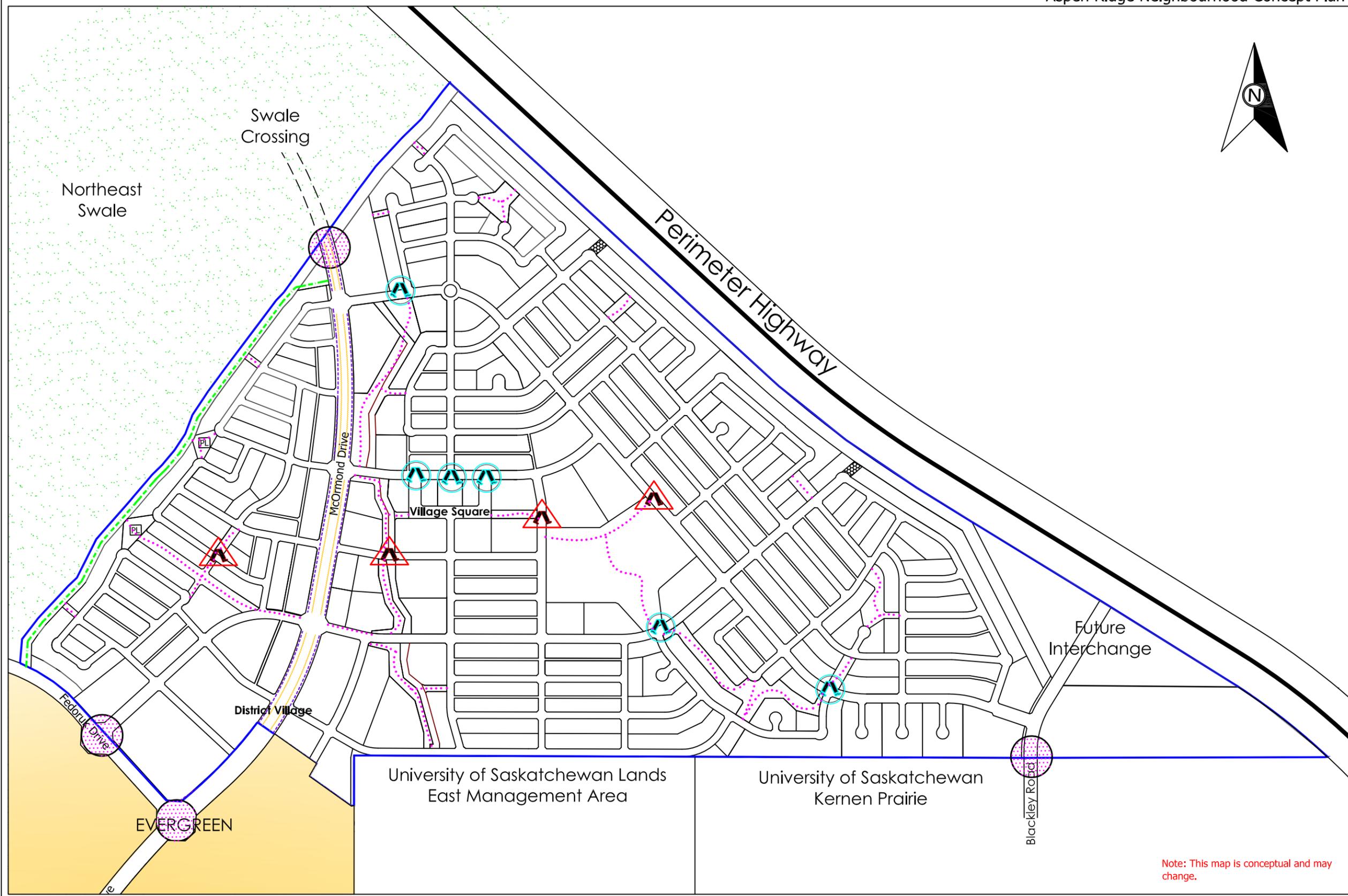


Active Transportation Plan

Figure - 4
Aspen Ridge Neighbourhood Concept Plan

Legend

-  Neighbourhood Boundary
-  Mid Block Crossing
-  Enhanced Pedestrian Crossing
-  Entry Points
-  Pedestrian Link
-  Neighbourhood Path
-  Multi Use Trails
-  Dedicated Bike Lane
-  Multi-Way Sidewalk
-  Possible Roadway Extension



Note: This map is conceptual and may change.



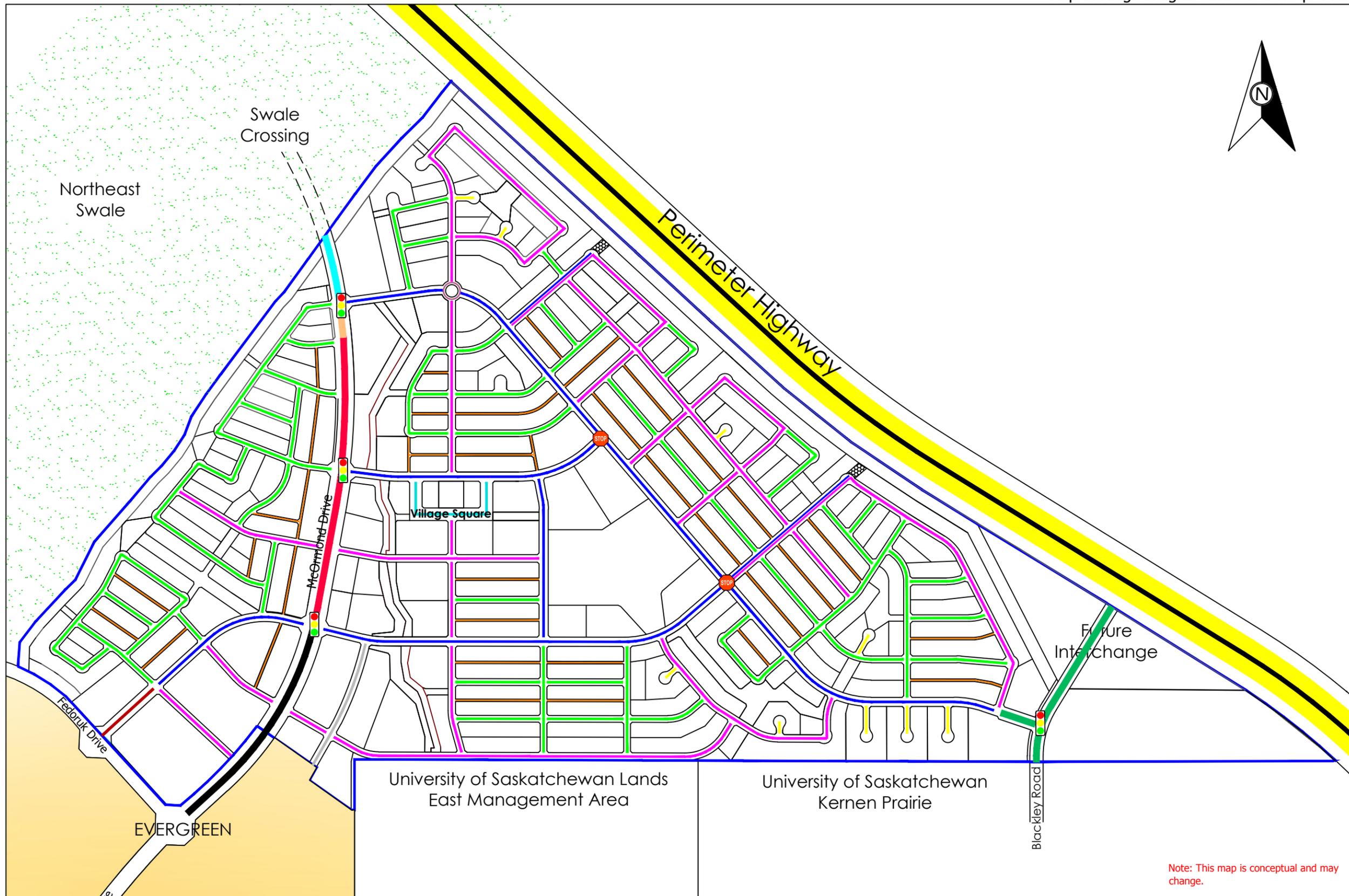
Transportation Plan

Figure - 5

Aspen Ridge Neighbourhood Concept Plan

Legend

-  Arterial "B" 35m Right of Way
-  Arterial "B" 40m Right of Way
-  Arterial "B" 44m Right of Way
-  Arterial "B" 50m Right of Way
-  Arterial "C" 32m Right of Way
-  Collector "A" 30m Right of Way
-  Collector "A" 22m Right of Way
-  Local "A" 20m Right of Way
-  Local "A" 18m Right of Way
-  Local "B" 16m Right of Way
-  Local "C" 15m Right of Way
-  Lane
-  Local 22m Right of Way/
Possible Future Access
-  Village Square (One Way Street)
-  Single Lane Roundabout
-  Signalized Intersection
-  All Way Stop
-  Possible Roadway Extension
-  Neighbourhood Boundary
-  Perimeter Highway



Note: This map is conceptual and may change.

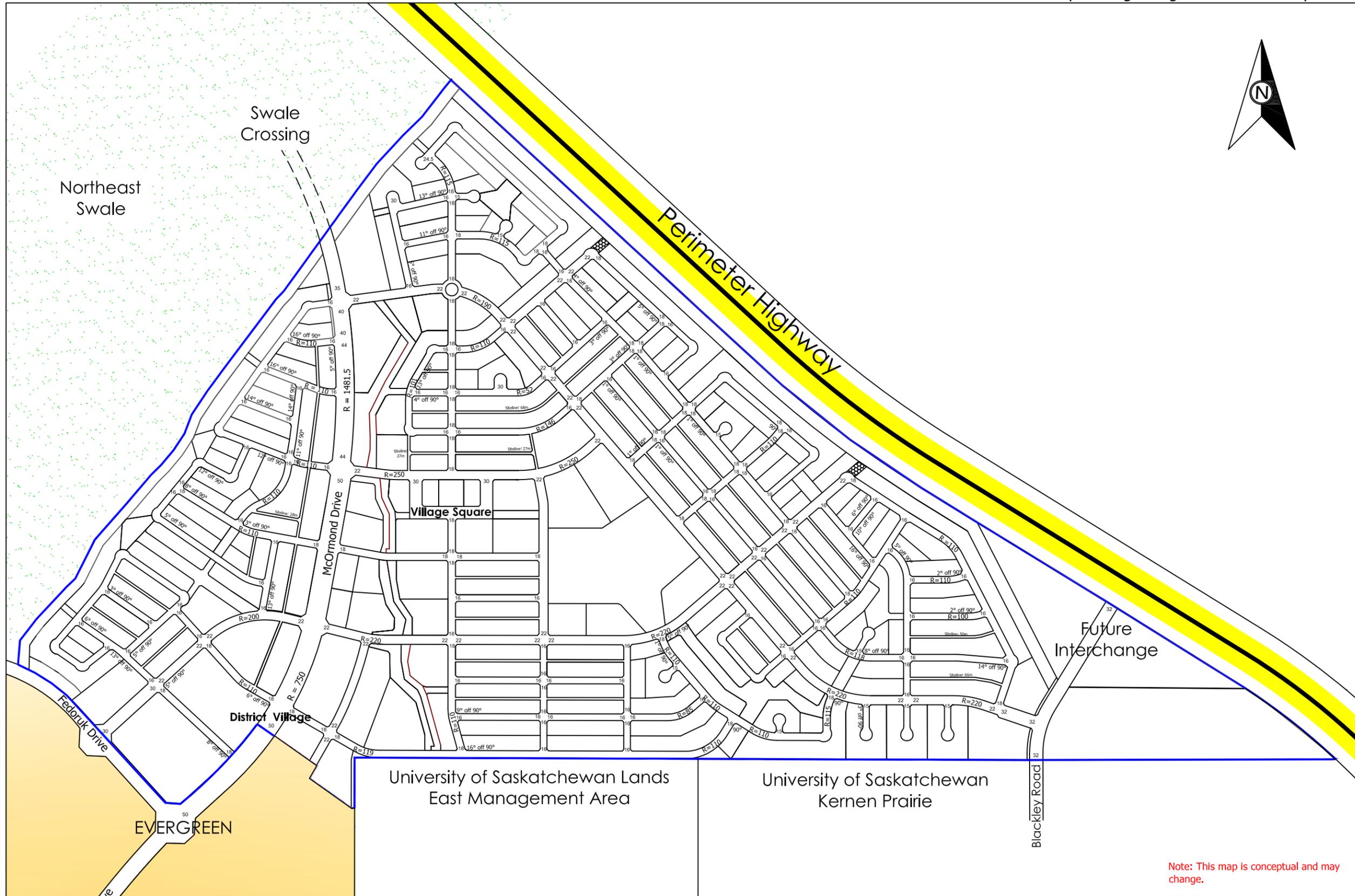


Transportation Dimension Plan

Figure - 6
Aspen Ridge Neighbourhood Concept Plan

Legend

-  Neighbourhood Boundary
-  Perimeter Highway
-  Possible Roadway Extension



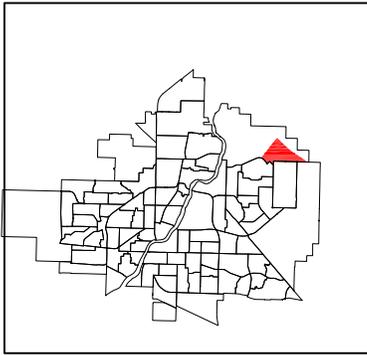
In all instances distances between intersections meet City of Saskatoon separation standards.

Note: This map is conceptual and may change.



Transit Plan - Figure 7

Aspen Ridge Neighbourhood Concept Plan



City of Saskatoon Limits



Legend

- Transit Route #? 
- Transit Route #70 

Park 

Scale: N.T.S.



Note: This map is conceptual and may change.

Storm Water Drainage Plan

Figure - 8
Aspen Ridge Neighbourhood Concept Plan

Legend

-  Neighbourhood Boundary
-  Storm Sewer
-  Stormwater Forebay
-  Greenway
-  Drainage Parcel
-  Over Land Flow Route
-  Possible Future Roadway Extension



Note: This map is conceptual and may change.

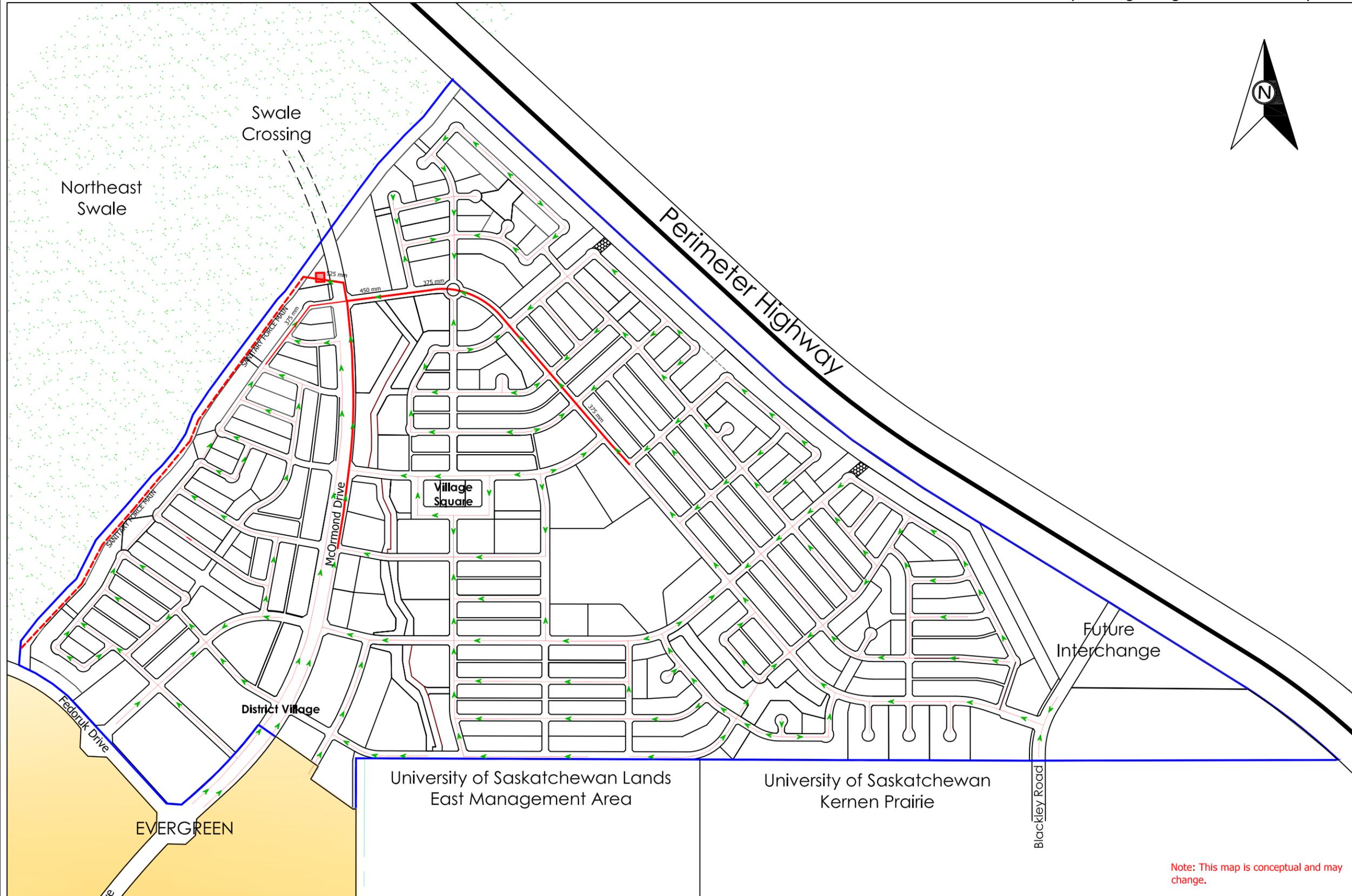


Sanitary Sewer Collection Plan

Figure - 9
Aspen Ridge Neighbourhood Concept Plan

Legend

-  Neighbourhood Boundary
-  Sanitary Sewer Trunk
-  Sanitary Sewer Local
-  Force Main
-  Lift Station
-  Flow Direction
-  Possible Future Roadway Extension



Note: This map is conceptual and may change.

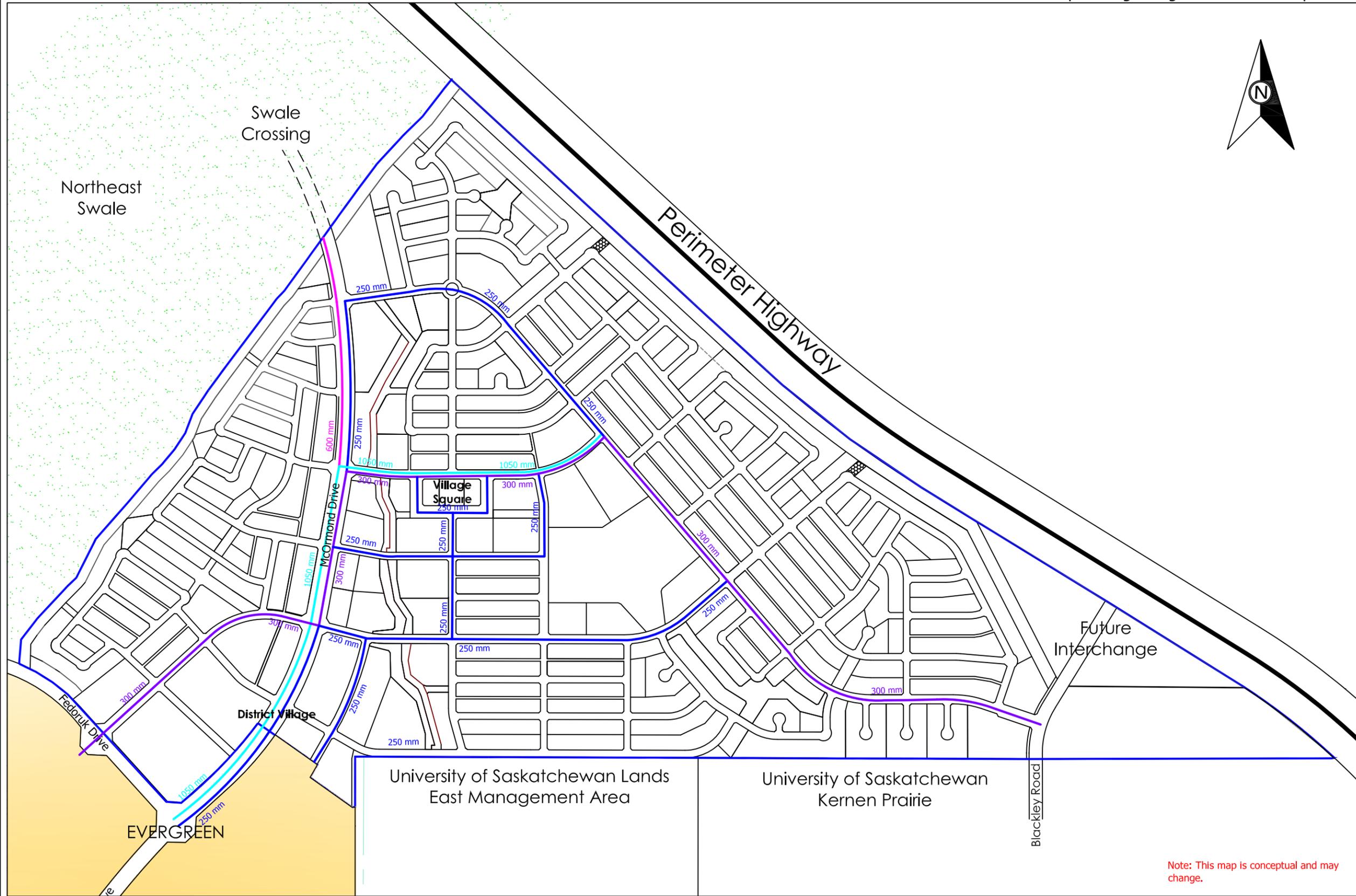


Water Distribution Plan

Figure - 10
Aspen Ridge Neighbourhood Concept Plan

Legend

- Neighbourhood Boundary
- 1050 mm Pipe
- 600 mm Pipe
- 300 mm Pipe
- 250 mm Pipe
- Possible Future Roadway Extension



Proposed Phasing

Figure - 11

Aspen Ridge Neighbourhood Concept Plan

Legend

-  Neighbourhood Boundary
-  Possible Future Roadway Extension



Note: Phasing will be determined by market demand and completion of servicing. As such, the phases indicated on this map are subject to change.

