Blairmore Sector Plan

Approved by City of Saskatoon City Council on XXXX

Prepared by:

Long Range Planning

Planning and Development Department

City of Saskatoon

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Amendments

- West Sector Plan Approved by City Council on November 29, 2004
- Blairmore Sector Plan Approved by City Council on March 7, 2011

This document supersedes any approved Sector Plans regarding this Sector prior to the approval date.

How to Use this Plan

The Blairmore Sector Plan (The Sector Plan) is intended to be used by everyone who is interested in the growth and development of this sector within the City of Saskatoon (City). The Sector Plan has been organized to allow the user to easily find the information by sequential order.

Residents are to use this plan to understand the long-term vision for the Blairmore Sector Plan, and to gain an understanding of how the Blairmore Sector will change over the coming years.

City Council are to use this plan to guide decision-making for the Blairmore Sector.

Concept Plan Proponents are to use this plan to understand the allowable uses, building form and densities in order to understand where and what type and scale of development may occur within the Blairmore Sector. The Sector Plan also provides an understanding of the future requirements for Concept Plans within respective areas of the Blairmore Sector, and the overarching guidelines regarding the installation of infrastructure.

City Staff are to use this plan with a lens to each department or division's responsibilities:

Planning and Development is to use the Sector Plan to guide form and density through land use, public space integration; and guidelines and requirements for subsequent Concept Plans.

Transportation and Construction, and Utilities and Environment are to use the Sector Plan to guide utility servicing, major infrastructure, street dedication, and related street infrastructure upgrades.

Community Services is to use the Sector Plan to guide park, trail, and amenity space creation and Municipal and Environmental Reserve dedication amounts and required upgrades to the public realm.

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Related Documents: The following files are available on the City of Saskatoon website

Kensington Neighbourhood Concept Plan, February 2012 Blairmore Sector Plan Report, March 2011

1. INTRODUCTION AND BACKGROUND

1.1 **Purpose and Scope**

The City of Saskatoon is a commercial, cultural, and educational centre located on Treaty Six Territory and the Traditional Homeland of the Métis in the province of Saskatchewan. Indigenous people have been living in the Saskatoon area for thousands of years and European settlement began in the 1880s. The city consists of approximately 23,300 hectares (57,600 acres) of land. The Blairmore Sector is located on the western edge of the city. As the city continues to grow, new residential neighbourhoods and commercial, retail, and industrial areas are needed. City Council has set strategic goals for how and where new growth should occur in order to achieve balanced growth geographically, a mix of infill and greenfield development, and to ensure that the Downtown remains a vibrant hub for culture, commerce, and civic life.

The intent of the Sector Plan is to provide sufficient direction on high-level land use, environmental conservation, transportation, servicing, and development phasing, such that the lands are ready for Concept Plans led by landowner(s), which will provide more detailed guidance for specific areas.

This plan supersedes all previous Sector Plans for the Blairmore Sector.

- 1.2 Planning Framework and Policy Framework
- (1) The Planning and Development Act, 2007

Sector Plans are legislated by *The Planning and Development Act, 2007*, where Clause 44(1) states: "If a municipality has an approved official community plan, a council may, as an amendment to its official community plan, adopt a concept plan by bylaw in accordance with section 39 for the purpose of providing a framework for subsequent subdivision and development of an area of land." A Sector Plan is considered a Concept Plan under this legislation.

(2) Saskatoon North Partnership for Growth (P4G) District Planning

The Saskatoon North Partnership for Growth (P4G) is a regional collaboration which includes political and administrative representation from the City of Saskatoon, Rural Municipality (RM) of Corman Park, City of Martensville, City of Warman, and Town of Osler.

The P4G District Official Community Plan, P4G Planning District Agreement and P4G District Zoning Bylaw received ministerial approval to establish the P4G Planning District effective January 1, 2022. The P4G Planning District is managed jointly by the partnering municipalities where a collaborative approach to development review and more detailed planning are critical in achieving the overall agreed upon balance of growth throughout the District.

(3) Saskatoon's Plan for Growth

Saskatoon City Council approved The Growth Plan to Half a Million (Plan for Growth) in 2016. The Plan for Growth lays out a framework for growth that seeks to balance greenfield development with infill

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development through new growth, continued neighbourhood level infill, strategic infill, and a new opportunity for growth along major corridors throughout the city.

A truly sustainable sector takes a holistic approach that benefits the residents, the natural environment and the city. The Plan for Growth advances the City's goals for sustainable growth and mobility by guiding future development to create a city that is vibrant and attractive to future generations. The following key strategies for new neighbourhoods are important to ensure that the Blairmore Sector neighbourhood development aligns with the Plan for Growth:

- (a) Development along "main streets" and corridors that support transit-oriented development;
- (b) Provision of employment opportunities in the context of new development;
- (c) The establishment of urban centres as the "focal point" of the sector; and
- (d) Ensuring residential neighbourhoods are easy to get around and are well connected to the rest of the city.

Arterials and other major streets should be areas of focus, rather than being considered the boundaries between areas. Arterials streets should enhance connectivity between and within neighbourhoods. Arterial streets should be tree-lined, incorporate public spaces, and be lined by dense residential, commercial, and mixed use development. Fronting development should be human-scale and incorporate pedestrian-oriented and transit-oriented design and development principles, particularly at key nodes such as Bus Rapid Transit (BRT) stations and significant intersections.

The Plan for Growth has informed the Official Community Plan and the Planned Growth Map, shown as Figure 1 in this Sector Plan.

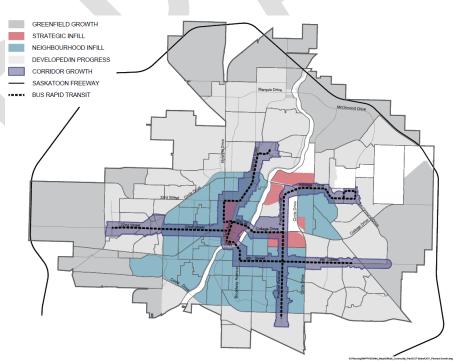


Figure 1: Official Community Plan Planned Growth Map

(4) Official Community Plan Bylaw, 2020, Bylaw No. 9700

The City's Official Community Plan Bylaw, 2020, Bylaw No. 9700 (Official Community Plan) provides the policy framework to define, direct and evaluate development in Saskatoon to a population of 500,000. The Official Community Plan provides guidance for development to take place in an orderly and rational manner, balancing environmental, social, and economic needs of the community. It provides both inspiration and direction, ensuring that the community's vision for Saskatoon is integrated into all aspects of planning and development.

(5) Sector Plans

Sector Plans are required by the Official Community Plan. Section F Urban Form and Structure (2)(a)(v) states: "Long range planning for neighbourhoods and related community facilities shall be organized within the context of a Sector. A Sector typically contains six to ten neighbourhoods and the housing and community facilities necessary to accommodate 50,000 to 80,000 people as well as significant employment. This includes a transportation network that connects the Sector to the city-wide transportation network."

The Blairmore Sector contains a significant industrial employment area, in addition to the urban centre and numerous residential neighbourhoods. Related to this, Official Community Plan Section F Urban Form and Structure (2)(f)(i) states: "Industrial Employment Areas and related infrastructure will be organized within the context of Sector Plans and subsequent Concept Plans. The overall objective in Industrial Employment Area planning is to facilitate economic development opportunities in a rational and efficient manner, connecting these areas to the city-wide transportation network, while maintaining a high quality built and natural environment over the long term. Industrial Employment Areas typically require larger parcels of land, access to rail and highway infrastructure, and adequate separation distances from particular uses to reduce conflicts."

The Blairmore Sector Plan forms part of the City's Official Community Plan. As part of the Official Community Plan, the Blairmore Sector Plan must be consistent with the overall policy framework and demonstrate how it conforms to the Official Community Plan and supports the urban structure and overall growth objectives. However, where the Blairmore Sector Plan provides greater detail than the Official Community Plan, the Blairmore Sector Plan will prevail. In the case where the Blairmore Sector Plan does not contain guidance or direction, the Official Community Plan continues to apply.

The Sector Plan is a large-scale plan which provides a framework for urban development over several decades. Given its scale and long-range timeframe, the Sector Plan is anticipated to undergo periodic amendments to address matters that may have been unforeseen at the time the plan was created and to accommodate changing development patterns. For this reason, the Blairmore Sector Plan should be considered a "living document."

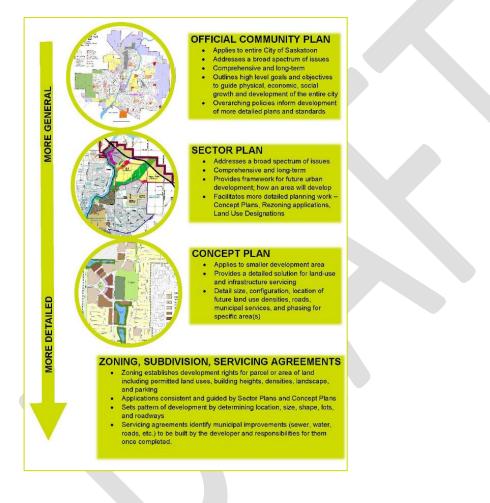
(6) Concept Plans

In accordance with the Official Community Plan Section F Urban Form and Structure (2)(a)(vi), "Concept Plans prescribe the development vision and servicing framework for a defined area, in alignment with the [Official Community Plan] and applicable Sector Plan. Concept Plans are required for large scale

development, such as residential neighbourhoods or Industrial Employment Areas, and smaller scale development, such as Urban Centres or significant infill development."

Concept Plans outline the land use, densities, transportation and servicing networks, the open space network, and any community facilities within the area. The location and general configuration of a Concept Plan's area within the Blairmore Sector, is established by the Blairmore Sector Plan.

Figure 2: Plan Hierarchy



in parts of the sector. Groundwater monitoring completed in some parts of the sector indicate high groundwater levels in the area. Policies related to ground and ground water can be found in subsection 5.2 (4).

3.4 Historical Resources

Most of the lands in the Blairmore Sector have been cultivated for many years; therefore, any historical findings may be few. A Heritage Resource Impact Assessment (HRIA) covering most of the area south of 22nd Street West, Kensington, and the future Elk Point neighbourhood areas was carried out in 1983 for the Saskatoon Perimeter Archaeological Resource Assessment. Conducted by Dr. Ernest Walker under Archaeological Investigation Permit No. 83-017, no heritage resources were identified as a result of this assessment.

The <u>Natural Area Screening</u> for the Blairmore Sector noted NE 13 36-6-W3M, NW 13-36-6-W3M, and SE 13-36-6-W3M, the future City of Saskatoon Recovery Park, to have moderate to high potential for discovery of intact archaeological sites. Policies related to historical resources can be found in subsection 5.3 (1). Figure 9 shows sites of historical interest in the Blairmore Sector.

(4) Neighbourhoods West of the Swale

Three future neighbourhoods are proposed west of the West Swale and Range Road 3063. These lands are shown as Urban Holding Areas. The classification of these lands is due to mining interests in this general area. As discussed in Subsection 3.2 (1) of this Sector Plan, Nutrien has sub-surface mineral leases in this area. Since the Blairmore Sector Plan phasing builds out from east to west, neighbourhood development will not reach areas west of the swale for many years. To avoid potential conflicts between urban development and mining operations, the City has agreed to focus on developing the lands east of the swale, while Nutrien has agreed to focus mining operations west of the swale. Since the Blairmore Sector Plan phasing builds out from east to west, neighbourhood development will not reach areas west of the swale for many years. City Administration will continue to work with Nutrien to monitor the lands west of the swale and determine when those lands could be developed.

(5) Neighbourhood Structure Policies

- (a) All neighbourhoods, Urban Centres, the Corridor Growth Area, and employment areas in the Blairmore Sector will require a Concept Plan, which must be approved by City Council prior to any permanent development.
- (b) Concept Plans incorporating other sizes or combinations of neighbourhoods, Urban Centres, the Corridor Growth Area, and employment areas from those shown on Figure 12 may be considered based on servicing, transportation, or land use considerations.
- (c) Any Concept Plan that includes streets that will be part of the City's Bus Rapid Transit network must consider development on both sides of the street in alignment with corridor planning policies in the Official Community Plan and the Corridor Transformation Plan.
- (d) Any Concept Plan that includes residential development should reference and incorporate policies, in alignment with the City's housing goals, policies and strategies.
- (e) Concept Plan proponents in the Blairmore Sector should identify during the Concept Plan phase, sites to be used for the purpose of Residential Care Homes. These sites should be distributed geographically throughout residential areas.
- (f) The planning and development of lands within the Blairmore Sector should be highly integrated with adjacent lands, except where otherwise noted in the Sector Plan.
- (g) Prior to development, areas west of the West Swale and Range Road 3063 require consultation with Nutrien and may require additional hydrogeological and geotechnical studies.
- 4.3 Neighbourhood Statistics

Table 2 shows the population, density, and employment projections for the Blairmore Sector at expected build-out. The table is divided into distinct land use designations. Based on the type of land use, the total estimated number of dwelling units, population, and employment for each land use were calculated.

At full build-out of the Blairmore Sector, the total estimated number of dwelling units is 34,201, the total estimated population is 77,586 and the total estimated employment is 21,289.

More recently approved and developed residential neighbourhoods have ranged from 15 to 20 units per hectare (7 to 9 units per acre), which equates to a population density of approximately 50 residents per

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Figure 19: Proposed Transportation

(1) Access

During the early stages of development, primary access to the Blairmore Sector will be provided by 33rd Street West, 22nd Street West, and 11th Street West.

Potential access points into future phases of development have been identified through the transportation analysis for this plan. The access points identified followed the existing street network and rural road network. Based on the access points identified, the proposed street network can accommodate the proposed full build-out population of each phase of development. Additional access points beyond those identified may be useful and may be supported. Typically, additional access points result in less capacity needed on main arterial streets, providing for a more resilient and flexible street network. The access scheme is to be developed in detail during the Concept Plan stage.

(2) Arterial Streets

The internal street network for the Blairmore Sector will be determined as part of the Concept Plan process; however, the arterial street network should employ grid elements and accommodate the safe and efficient movement of all modes of transportation including long combination semi-trailers.

Figure 19 reflects the intended final form of the street network for the Blairmore Sector. In Subsection 6.4 (9), Policies (n) and (o) identify instances where highways may be converted into expressways as an interim step, prior to their eventual conversions into arterial streets closer to the time of adjacent development. As shown on Figure 19, there are eight arterial streets that lead into and shape the Blairmore Sector:

- (a) 33rd Street West runs between, and provides access to, Kensington and Elk Point and terminates at Neault Road.
- (b) 22nd Street West will be classified as an arterial street between Circle Drive and the West Swale. Between Neault Road and the swale, the form of 22nd Street West will be an urban arterial street with a multi-modal corridor and Bus Rapid Transit infrastructure. The transformation to an urban arterial street will occur prior to development adjacent to 22nd Street West. In the future, 22nd Street west of the swale may be converted into an urban arterial street, as described in subsection 6.4 (9)(o).
- (c) The alignment of McClocklin Road is proposed to be extended west as a minor collector connecting Elk Point to Hampton Village and terminating at Claypool Drive.
- (d) Diefenbaker Drive extends west converting from an arterial to a minor collector connecting Kensington to the existing neighbourhoods to the east.
- (e) Claypool Drive will be an arterial street which extends across the north boundary of Hampton Village and Elk Point to Neault Road and continues to connect to the Saskatoon Freeway outside city limits.
- (f) 11th Street West is the main access point into the southwest portion of the sector. It is classified as a major arterial between Dundonald Avenue and Fairlight Drive. From Fairlight Drive to Highway 7, it is classified as a minor arterial. It runs east-west between Circle Drive south and Highway 7 providing important access to the proposed industrial area and to the adjacent Montgomery Place neighbourhood. In 2011, the 11th Street West Bypass was built to divert traffic away from the northeastern portion of Montgomery Place residences along the original 11th Street West.
- (g) Fairlight Drive provides access to the southwest portion of the sector from the north and is classified as a minor arterial.

In addition to the arterial street network, Circle Drive South provides access to the southern portion of the sector via 11th Street West and Valley Road. Neault Road will serve as an interim truck route until the west portion of the Saskatoon Freeway is built linking Highways 7 and 14 to Highway 16.

Existing arterial streets may require modifications or enhancements within the Blairmore Sector to accommodate increased trip generation. Any modifications or enhancements should ensure that the existing street network will be able to maintain an acceptable service level.

Identifying where enhancements may be needed should be an area of focus for proponents and the transportation engineer responsible for producing the TIA as part of the Concept Plan submission. The identification of enhancements at this stage also allows for the landowner(s) to incorporate these

measures within the design of future development, as enhancements may have implications for adjacent properties or require changes to existing street configurations, or relocation of existing utility infrastructure.

Priority streets have been identified that may require enhancements in the future. These streets and their future function are important arterial streets in the city and should strive to provide an appropriate service level. In each case, consideration must be given to the City's long-term mode share targets. Any assessment or proposal should consider impacts on transit and active transportation facilities, as well as projected mode share based on enhancements to these facilities.

The impacts to the following streets should be assessed as part of the TIA:

- (a) 11th Street West from Circle Drive to Highway 7, including the intersection at 11th Street West and Highway 7;
- (b) Chappell Drive within the industrial area, including its proposed future location when it is relocated westward away from the Montgomery Place neighbourhood;
- (c) Highway 7 north of the CN main line; and
- Further engineering is required to convert the rural cross section of 22nd Street West (west of Neault Road) to an urban cross section.

Possible enhancements to the Blairmore Sector's street network will be incremental as development occurs over time. This Sector Plan is a long-term plan, therefore new information and data at the time of development may frame different considerations of street network enhancements. Planned investments in the City's transit and active transportation networks, as well as changes in technology and mobility habits could have significant impacts on transportation infrastructure needs. These scenarios and the impacts of any existing or planned upgrades, should be confirmed through a TIA at the Concept Plan stage.

(3) Highways

There are four highways within the Blairmore Sector. The southern portion of Highway 684 is known as Neault Road within city limits and the northern portion in the RM of Corman Park is known as Dalmeny Road. Highway 7 begins at the intersection of Neault Road and 22nd Street West, leading southwest beyond city limits. Highway 7 is an important trade and travel route linking Saskatoon to Calgary, Alberta, and acts as a primary route for commutes to the Nutrien Vanscoy Potash Mine. 22nd Street West continues westward beyond city limits as Highway 14, a rural highway. Highway 762, also known as Valley Road, originates at an interchange with Circle Drive and leads west, then south, as a rural highway.

(4) Saskatoon Freeway Alignment

The alignment of the proposed Saskatoon Freeway surrounding Saskatoon was a cooperative project of the City of Saskatoon, Saskatchewan Ministry of Highways and the RM of Corman Park in 2000. The Saskatoon Freeway will be a high-speed corridor to move provincial highway traffic around Saskatoon.

On December 15, 2008, City Council approved the alignment of the West Saskatoon Freeway. The approved alignment has been represented on Figure 19. Initially, the West Saskatoon Freeway alignment

severed the northwest corner of the Blairmore Sector. The approved Saskatoon Freeway now follows the city boundary, providing more developable land in the Blairmore Sector.

In October 2021, the Saskatchewan Ministry of Highways announced that the West Saskatoon Freeway alignment portion of the project had been deferred. As of April 2023, the Ministry of Highways has indicated that functional planning of the West Saskatoon Freeway will resume in the coming years. However, it will still be many years before this portion of the Saskatoon Freeway is constructed, so in the interim, Neault Road will serve as a truck route between 22nd Street West and Highway 16 northbound.

(5) Grade Separations

A grade separation interchange at the intersection of Highway 7 and Highway 14 is under consideration. It is possible that a grade separation at this location may not be necessary, given that the future Saskatoon Freeway will direct much of the heavy traffic on the west side of the city away from this intersection. If it is determined that a grade separation is not needed at this location, the intersection would remain at-grade. However, the Sector Plan has been written to leave open the possibility that the intersection could be upgraded to a grade separation interchange in the future.

A grade separation interchange is under consideration at the intersection of Highway 7 and Hart Road. This grade separation would allow for the flow of north-south traffic along Highway 7 and east-west traffic along Hart Road, linking the existing Blairmore Urban Centre and the Phase II neighbourhood to the west. Access between Highway 7 and Hart Road would likely be limited, due to the proximity of the intersection with Highway 14. It should be noted that a grade separation at this location will likely be challenging to design and construct.

The CP rail line crossing across Highway 7 is also proposed for consideration as a grade separated crossing. This grade separation would allow traffic on Highway 7, including emergency vehicles, to avoid disruptions caused by train crossings.

Future grade separations, including those related to the Saskatoon Freeway, will be considered at a later time.

(6) Industrial Employment Area

The proposed industrial employment area in the southwest portion of the Blairmore Sector will require changes to the existing transportation network in the area. The Montgomery Place Local Area Plan includes a recommendation to relocate Chappell Drive further to the west, away from residences. Township Road 364, which passes through the West Swale and has been closed in recent years, will remain closed. George Genereux Urban Regional Park currently lacks formal access; this will need to be remedied if the area is to be properly utilized. Each of these matters are addressed through policies in 6.4 (9).

(7) Truck Routes

Highway 684, known as Neault Road within city limits, is classified as a Secondary Truck Route for trucks under 46,500 kilograms which are entering the city from Highway 7 and want to bypass the city,

connecting to Highway 11, 12, or 16 going north. As residential development nears Highway 684, consideration should be made to re-route the Highway 7 Secondary Truck Route. The relocation of the Secondary Truck Route would allow for better cross connectivity between the residential neighbourhoods on either side of Highway 684 and would allow it to maintain an arterial street standard with urban speed limits. The ideal re-routing of the truck route would be along the Saskatoon Freeway.

The main truck route in the southwest portion of the sector is currently 11th Street West. The Collector streets within the proposed industrial area should be designed to accommodate trucks and long combination semi-trailers.

(8) Dangerous Goods

The City's <u>Transportation of Dangerous Goods Bylaw No. 8153</u> prescribes routes for the transportation of dangerous goods in Saskatoon. All trucks transporting dangerous goods must use Highway 7, Highway 14 or Circle Drive for access and egress to the Blairmore Sector.

- (9) Street Network Policies
- (a) Street crossings of the West Swale will follow existing crossings, cross at locations where disturbance has already occurred, and/or in areas that minimize adverse environmental effects.
- (b) If utilities are required to cross the West Swale, they should be co-located with street crossings in order to reduce construction disturbance.
- (c) All Concept Plan submissions will require a Traffic Impact Assessment from a qualified transportation engineer. Traffic Impact Assessment requirements and recommendations will be subject to the approval of the City's Transportation Department.
- (d) Concept Plan proponents will be responsible for any land acquisition that may result from enhancements identified as part of a Traffic Impact Assessment.
- (e) All internal streets within future phases of development should be designed with grid elements, wherever possible.
- (f) Connections to arterial and collector streets between phases of development should be maximized.
- (g) If existing roads are removed or relocated, consideration must be given to how adjacent properties, including those in the RM, will be accessed.
- (h) Any intersections with arterial streets shall have traffic signals.
- (i) Within neighbourhoods, on-street parking may be incorporated into streetscape design particularly on main streets with retail at street-level.
- (j) Rear lane design should be open and have clear site lines in accordance with CPTED principles. Specific design principles should be considered at the Concept Plan design stage.
- (k) Grade separation should be considered, at the following locations:
 - i) At the intersection of Highway 7 and Highway 14.
 - ii) At the intersection of Highway 7 and Hart Road.
 - iii) At the crossing of Highway 7 and the CP rail line.
- (I) Alterations to the transportation network for the industrial employment area are proposed during the development of a Concept Plan and/or as part of any relevant City-led infrastructure projects, as follows:

- (i) Chappell Drive shall be relocated west of its current alignment, providing greater distance from the Montgomery Place neighbourhood. Any plans to realign Chappell Drive must also identify how appropriate access to the CN Yards will be retained.
- (ii) Formal access to the George Genereux Urban Regional Park shall be provided.
- (iii) Township Road 364 through the West Swale shall be permanently closed and either removed or converted into an active transportation route. It should be replaced by a new collector street further to the west, intersecting with Highway 7 west of the swale, as development progresses.
- (m) The portion of Highway 684 within city limits should be reclassified to an arterial street standard prior to lands within Phase III being developed. Highway 684 north of city limits may remain as a rural highway.
- (n) Between 11th Street West and 22nd Street West, Highway 7 is proposed to be changed to an expressway. Upon further traffic analysis in this area, this expressway could be reclassified as an arterial street.
- (o) Between Neault Road and the West Swale, Highway 14 should be reclassified as an arterial street standard prior to the adjacent lands within Phase II being developed. In the future, Highway 14 between the West Swale and the Saskatoon Freeway should be reclassified as an expressway. The portion of Highway 14 west of the swale should then be reclassified to an arterial street standard prior to the lands within Phase IV being developed.
- 6.5 Sound Attenuation

Sound attenuation measures related to traffic noise have already been taken around much of the perimeter of Kensington. As development progresses, additional sound attenuation measures may be needed. Specific measures and locations would be proposed during the Concept Plan phase.

Noise resulting from industrial operations is site specific and varies with the type of industrial activity taking place. Noise resulting from rail operations is a key issue with regards to liveability of residential developments in proximity to railways. Since rail noise is site-specific in nature, the level and impact of noise on a given site should be accurately assessed by a qualified acoustic consultant through the preparation of a noise impact study.

The need for further sound attenuation measures will be determined as development progresses in the sector.

- (1) Sound Attenuation Policies
- (a) Sounds attenuation measures must align with the City's Traffic Noise Sound Attenuation Policy C07-028 and the principles of CPTED, as prescribed by the <u>Crime Prevention Through Environmental Design Policy</u> <u>A09-034</u> and Official Community Plan Section D Quality of Life, 1.2 (2).
- (b) Sound attenuation will be required for the development of one-unit residential lots adjacent to the Saskatoon Freeway. The need for these measures should be identified at the Concept Plan phase.

7. UTILITY INFRASTRUCTURE

Utility infrastructure plays a crucial role in the development of a sector. Without well-planned utility servicing plans and the infrastructure that supports them, new neighbourhoods cannot be constructed. This section discusses water, sanitary, stormwater, electric, energy, and communications utilities, as well as the rail lines that a provide transportation service to business entities in the city and region.

7.1 Water, Sanitary, and Stormwater Utilities

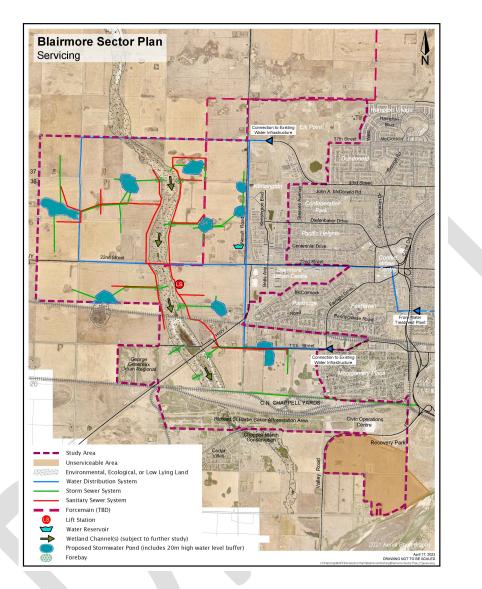
This section outlines the water, sanitary, and stormwater systems to service the growth and development planned within the Blairmore Sector. The servicing scheme is based on the land use analysis and population projections. This information was used to inform modelling exercises for the various infrastructure systems. To ensure that the servicing scheme within the Sector Plan can be implemented and allow for the proposed land use and density to be achieved, policies have been included to guide development. For ease of reference, these are located at the end of the section.

(1) Water Distribution

Water servicing requirements for the Blairmore Sector have been assessed through high-level modelling of the impacts of increased demand on system capacity due to population growth projected in the Blairmore Sector. The water distribution system was examined to evaluate areas that may need upgrades and expansions to the water distribution system to service the growth within the Blairmore Sector. Modelling used assumptions known at the time.

As shown in Figure 20, the Blairmore Sector will be serviced by primary water and fill mains extending from the Water Treatment Plant, along 22nd Street West to the Blairmore Sector, as well as connections and extension to existing water infrastructure at 11th Street West and 33rd Street West. A new reservoir will be required near Neault Road, north of 22nd Street West. A large looped primary water main system will follow 22nd Street West, Range Road 3064, 33rd Street West, and Neault Road. Another primary water main will connect to the south along Neault Road/Highway 7 and along 11th Street West to connect to the existing Montgomery water system.

Figure 20: Servicing



(2) Sanitary Collection

The sanitary assessment was completed for this Sector Plan, building on the Saskatoon city-wide sanitary model. Existing system efficiency was measured to ensure what capacity was available with existing infrastructure. Recommendations were developed to uphold levels of service to accommodate growth and comply with the City's current design criteria for sizing new sanitary mains.

A complete analysis of the detailed sanitary system was not completed as part of the Sector Plan. This detailed work typically occurs at the Concept Plan stage. Alternate proposals for servicing may be incorporated and examined at the Concept Plan stage, as well.

As shown in Figure 20, the Blairmore Sector will be serviced by a new lift station and force main to the Wastewater Treatment Plant, which is at least 14 km away depending on routing. The proposed location for the lift station is east of the West Swale south of 22nd Street West. This places it inside the Phase II neighbourhood and allows sanitary servicing to progress from this point. A small portion of Phase II can be serviced by the existing system, but the remainder relies on the lift station being built in advance of further development.

Sanitary sewer trunks generally run alongside the swale to the north and south, and then reach east and west to service the full sector.

(3) Stormwater Management

An assessment of stormwater capacity to accommodate the planned land use must be completed in detail at the Concept Plan stage. An overall stormwater management strategy must also be done by the proponent(s) when completing a required water and sewer servicing strategy closer to the time of development. The use of a natural systems approach to stormwater management may allow for more innovative solutions and potentially lower costs.

Stormwater assessments should maximize on-site source controls to capture, store, and allow for infiltration or the reuse of water. Low impact measures or source controls include features that promote infiltration of water, including rain gardens, grass swales, pervious paving, and absorbent soils for landscaping features.

In addition to on-site detention and infiltration features, water quality treatment is recommended for both infiltrated water to protect longevity of infiltration systems and the detention pond water quality, and water going into storm sewers to protect the water quality in receiving water bodies.

Best practices in stormwater management include incorporating the use of natural wetlands, and stormwater ponds, to manage stormwater runoff. As part of the design and development of a Concept Plan, proponents are encouraged to have a qualified environmental specialist work with a stormwater engineer to develop a stormwater model identifying the natural boundary of the West Swale, the significance of the wetlands in the West Swale, and the best location for the pre-treatment stormwater sediment forebays. The <u>Natural Area Screening</u> identified that construction of stormwater structures within the West Swale and other wetland complexes should be minimized.

The storm sewer and drainage plan is shown in Figure 20. Since the Blairmore Sector has very little elevation change and areas west of Neault Road naturally drain toward the West Swale, the drainage plan will likely involve some stormwater being directed to the swale. However, it should be noted that any inclusion of the West Swale in a stormwater plan will be dependent on the findings of future hydrogeological and ecological studies.

The West Swale was effectively dammed by development in the 1960s, largely blocking the natural drainage though Chappell Marsh and eventually to the river. The swale water level fluctuates from nearly flooding Highway 7 in 2013 after a series of wet years, to completely dry in 2022 after a series of dry years. Water currently leaves the swale primarily by evaporation or infiltration, with minor percolation through the CN Rail Yards.

If the West Swale is included in a stormwater plan, it will need to be reconnected to the river to provide an outlet for overflow water and reduce flooding risk. This would be accomplished by a 4 km long 1350 mm outlet pipe that connects from the south end of the West Swale to the Dundonald Storm Trunk near Dundonald Avenue and Burma Road, on the east side of Circle Drive, which in turn, connects to the river via an existing stormwater outfall. Due to deep design depths and site constraints through the south edge of Montgomery Place, trenchless construction would be anticipated for much of this installation.

Several stormwater ponds are planned throughout the sector in naturally wet areas. Local areas drain to these ponds, which will then be connected to downstream stormwater facilities. Forebays located at each storm pond and at any locations where stormwater is discharged into the West Swale, will allow for sedimentation of direct runoff before it is released into the water bodies.

The neighbourhood ponds and the swale waterbodies are encouraged to be set up as naturalized engineered wetlands rather than artificial storm ponds. The required function of stormwater runoff storage and delayed release can be accomplished in either style of waterbody. The City of Saskatoon is transitioning to building or retaining more wetlands, and this sector may provide an opportunity to keep more natural spaces and improve the swale from the currently altered state into a rehabilitated habitat for many species and an attractive natural space for residents.

A naturalized engineered wetland will have larger shallow zones near the shoreline to encourage more diverse plant species to grow, while still having deep zones to maintain open water and discourage issues with algae and odour that would potentially impact nearby development.

- (4) Water, Sanitary, and Stormwater Utilities Policies
- (a) Every Concept Plan submission requires a detailed water and sewer servicing strategy report from a qualified engineer. The requirements for this report and its approval will be overseen by Saskatoon Water.
- (b) Design and function of stormwater ponds and wetlands in the sector will require consultation with Saskatoon Water and the City's Sustainability Division.
- (c) Alternative locations and strategies for new infrastructure must be considered at the Concept Plan stage.
- (d) Alterations to the West Swale must be minimized and will only be permitted to the extent necessary to make the stormwater system functional.
- (e) Hydrogeological and ecological field studies for the entirety of the West Swale within city limits must occur before or during the Concept Plan stage for any development that intends to utilize the swale for drainage. The City will lead or direct these studies.
- (f) The broad design concept for stormwater plans in the neighbourhoods west of Neault Road is to occur no later than the time of the first Concept Plan that abuts or includes the West Swale. The construction of stormwater facilities may occur in stages, as development progresses.
- (g) Any field Natural Area Screening that includes the West Swale should investigate the potential for rehabilitating disturbed areas of the wetland complex.
- (h) Existing wetlands are to be conserved or naturalized, wherever possible. Consideration for minimizing wetland alterations must be made at time of Concept Plan.
- (i) Any newly created stormwater ponds or wetlands should be naturalized.

- (j) Naturalized wetlands should serve as part of the natural environment, stormwater management system, and be aesthetically pleasing.
- (k) Where grading is limited near wetlands, considerations must be given to avoid design incompatibilities between development and wetlands.
- (I) Forebays will be required where stormwater enters existing wetlands. Forebays for any stormwater facilities entering the West Swale should be located outside the swale itself.
- (m) To the extent possible, schools and large programmed recreational sites should be located separate from stormwater ponds.
- (n) All open water facilities within the Saskatoon Airport Zoning Regulations 4,000 metre buffer, that have the potential to cause aircraft and bird hazard conflicts, will be required to seek approval by Transport Canada, Saskatoon Airport Authority, Nav Canada, and other such agencies as may be appropriate, prior to a development permit being issued for the area.
- (o) All applications for open water facilities within the Saskatoon Airport Zoning Regulations 4,000 metre buffer must file a location plan with the Saskatoon Airport Authority and be approved by City Council. If open water facilities are needed within the buffer (e.g., for conservation of natural wetlands), measures must be implemented into the plan to detract large birds and flocks of birds from using the area.
- 7.2 Electric, Energy, and Communication Utilities
- (1) SaskPower

SaskPower provides electrical distribution and servicing to the Blairmore Sector. Concept Plan proponents will work with SaskPower to determine how the electrical servicing will be achieved within Concept Plans. Details of this servicing may include incorporating existing distribution facilities throughout future phases of development, utility agencies requesting suitable easements for the installation and maintenance of distribution facilities, and provision of suitable space in street rights-of-way for the installation and maintenance of distribution facilities.

Existing overhead and future overhead electrical lines have been identified within the Blairmore Sector. Electrical lines are expensive and disruptive to relocate. The existing and planned electrical lines within the sector should be incorporated within the design of future development. If the Concept Plan proponent(s) require a relocation of any line or portion thereof, they must provide a justification on how the utility line cannot be incorporated within the design of future development. The proponent(s) will be fully responsible for the financial costs of line relocation, unless otherwise agreed upon by the proponent(s) and the utility provider.

Landscaping and design considerations will be critical to ensuring the easement areas within the electrical line right-of-way are incorporated and function efficiently within any future phases of development. Specific design parameters for each electrical line easement should be clarified with SaskPower before any Concept Plan is designed. Concept Plan proponents are not permitted to build within any utility easement without prior written consent, as per the terms set out in the easement agreement.

(2) SaskEnergy and TransGas

As part of the Concept Plan process, sufficient right-of-way will be required for existing natural gas pipelines or negotiations between the proponent(s) and service provider regarding the relocation of these pipelines will need to occur. If these pipelines remain, provisions should be made to incorporate these utilities into street rights-of-way or green space connections.

Pipeline rights-of-way are a significant matter in new development. As the development of future neighbourhoods can be dynamic in the servicing period, issues with lot, block, and street ROW's can have a major impact on pipeline routing. Installing gas mains in the street can be very constricting and costly. The provision of a 2.5 metre-wide green space within boulevards or allowing parallel installation under proposed sidewalks should create sufficient space to install and maintain most gas distribution facilities, alongside other required infrastructure and amenities. However, requirements from the service provider will need to be determined at time of development.

SaskEnergy may require future district regulator stations within the Blairmore Sector. Suitable sites will be determined as development progresses based on immediate and future needs.

As development progresses the Concept Plan proponent(s) are required to work with SaskEnergy to establish appropriate locations for future regulator stations, pipeline routing, and system isolation zones.

(3) Telecommunications Utilities

Negotiations between the proponent(s) and the service providers will be required prior to development commencing, ideally beginning at the Concept Plan stage. Consideration should be given to incorporating facilities onto a proposed building rooftop to be more discreet. Alternatively, if facilities cannot be placed on rooftops, facility sites should be landscaped and screened at the proponent's expense to visually blend into the surrounding neighbourhood from grade level.

Future cellular tower facilities will be required throughout the Blairmore Sector. Locations must follow the Design & Siting Guidelines within the City's <u>Antenna Systems Policy C09-037</u>. As part of the Concept Plan process, land should be secured to integrate these facilities with the surrounding land uses.

- (4) Electric, Energy, and Communication Policies
- (a) Utility alignments may be refined at the Concept Plan stage without an amendment to this Sector Plan.
- (b) Prior to the approval of a Concept Plan, the proponent shall submit information determined necessary to identify the location and alignment requirements for utilities within the development.
- (c) The location of existing utilities should be incorporated within the design of future phases of development.
- (d) As part of the Concept Plan stage for each neighbourhood, sufficient rights-of-way will be required for overhead lines or negotiations between the Concept Plan proponent and service provider regarding the relocation of these lines will need to occur.
- (e) The Concept Plan proponent bears the full cost of any relocation of utility lines proposed as part of the Concept Plan, unless otherwise agreed upon by the proponent and the utility provider.

- (f) Easements should be designed and landscaped to encourage an active pedestrian realm or a green linkage to incorporate ecological functions within the built environment.
- (g) Concept Plans should identify anticipated cell tower locations.
- (h) Telecommunication utility facilities should be placed on rooftops, if possible. If not possible, landscaping and screening features should be incorporated to integrate these facilities with the surrounding land uses.
- A 2.5-metre-wide green space within boulevards, where needed, should be considered in future Concept Plans to create sufficient space for gas distribution utilities, alongside space for other required infrastructure and amenities.
- (j) Through the Concept Plan process, a strategy must be developed to address existing gas lines, how they could be integrated into future developments, or be relocated prior to development commencing west of Neault Road.
- (k) Where utilities are to be installed along arterial and collector streets, sufficient space that adheres to planting setback requirements as detailed in the <u>Standard Construction Specifications: Parks</u> must be allocated to include street trees in the boulevard space.

7.3 Rail Lines

The two rail lines in the Blairmore Sector have experienced an increase in the number and length of trains that pass through.

The lands between the two rail lines are proposed to be light industrial and/or business park and may not need the accessibility of a spur line. The need or desire to have a spur line in this area should be determined as part of the Concept Plan process and the proponent should apply for approval from the appropriate rail company.

(1) Rail Line Setbacks

The Federation of Canadian Municipalities Guidelines for New Development in Proximity to Railway Operations (FCM-RAC Guidelines) state that the standard recommended setback for new residential development is 30 metres from railway operations and 300 metres from freight rail yards.

The FCM-RAC Guidelines do not include setback requirements for the development of industrial or commercial parcels adjacent to rail yards or rail lines. However, the adjacent property owner must install and maintain a chain link fence that is a minimum of 1.83 metre high along the mutual property line.

In addition to building setbacks, safety barriers are also recommended to reduce the risks associated with railway incidents. The FCM – RAC Guidelines offer a variety of safety barriers for railway lines, including berms and crash walls.

(2) Rail Crossings

As growth in the sector progresses, future railway crossings will be determined and confirmed as part of a Concept Plan. Pedestrian railway crossings are an important consideration for connectivity and safety. Multi-use pathways are proposed to cross railways at two locations: across the CN line between

Dundonald Avenue and Valley Road, and across the CP line between the Phase II neighbourhood and the proposed industrial area to its' south (see Figure 17).

- (3) Rail Lines Policies
- (a) Development in proximity to rail yards or rail lines should be consistent with the Guidelines for New Development in Proximity to Railway Operations prepared for the Federation of Canadian Municipalities and the Railway Association of Canada.
- (b) Any proposed residential development will require a minimum 30 metre setback distance from the Canadian Pacific Railway line.
- (c) Proposed pedestrian crossings will require detailed engineering and rail safety assessments to be completed prior to Concept Plan submission.
- (d) A noise impact and vibration study will be required with the submission for any Concept Plan adjacent to the railway lines.

8. PHASING

8.1 Development Phasing

In the Blairmore Sector, each phase of development will be determined by planned infrastructure improvements. Development must proceed in compliance with the individual Concept Plan(s) for each area and supported by planned infrastructure servicing until each area is substantially complete. This phasing strategy allows some flexibility in terms of which area is developed first, but once infrastructure investments have been confirmed, future phasing of development will be set based on this investment.

Residential development in the Blairmore Sector is now occurring within the Kensington Neighbourhood. The next phase will comprise the Elk Point neighbourhood west of the Hampton Village and Dundonald neighbourhoods. The remainder of the residential development in the sector will commence with the southernmost neighbourhood between the West Swale and Neault Road and progress northward to 33rd Street West; the lands between the West Swale and the future Saskatoon Freeway will be the last residential areas to be developed (see Figure 12).

Light industrial development is proposed within the southwest portion of the sector, as shown in Figure 11. The industrial area is identified as a "To Be Determined" (TBD) phase in accordance with Figure 12. This area is scheduled to be one of the last locations in the sector to be serviced. Due to this servicing schedule, development of this area out of the prescribed phasing would be cost prohibitive and likely not possible until servicing reaches the southwest portion of the sector. Therefore, the earliest that industrial development can proceed in the sector will be during or after the time that Phase II is serviced.

- (1) Development Phasing Policies
- (a) Development phasing will be determined based on available or planned servicing.
- (b) Once infrastructure investments have been confirmed, future phasing must align with these investments. In the event a proponent wishes to proceed with alternative phasing, their proposal must align with Official Community Plan Section G Sustainable Growth, 2.2 (2)(f) and (g).
- (c) In accordance with the Official Community Plan's Section J Implementation, 3 (6), residential development of a new phase shall not proceed until the preceding residential phase is substantially complete. This will be determined by City growth policies and the City's Planning and Development Department.
- (d) Individual phases of development can contain multiple Concept Plan areas, depending on the unique nature or each site and existing or proposed servicing availability.
- (e) Residential, Urban Centre, and industrial area development may proceed concurrently, if servicing is in place and has been deemed to be financially feasible.

9. FUNDING

The role of this Sector Plan is to provide a framework within which development of the sector can take place, and plan for development to reflect the Official Community Plan and principles in the Plan for Growth. Sector Plans enable the City to begin more detailed infrastructure analysis, and to address this infrastructure in operating budgets, capital budgets, and capital plans. It is important to acknowledge that the costs for development of new growth sectors are funded in a fiscally sustainable manner, ensuring that growth is paid for by those who benefit most from it.

It is possible to provide very general estimates of upfront costs. The sector requires significant upfront investment in infrastructure to continue development beyond Phase I. While much of this infrastructure has a funding source (prepaid service rates for direct and off-site services), some costs are funded from other sources. When infrastructure is partially funded or unfunded, the City works to identify and secure funding sources. Funding sources typically include changes to prepaid service rates, special assessments, developer contributions, public-private partnerships, and senior government funding. In principle, infrastructure that has a direct benefit to a sector rather than a more general city-wide benefit, is to be paid for by the growth of the sector.