

Mattson Neighbourhood Structure Plan

Office Consolidation October 2019

Prepared by: Development Services Branch

Urban Form and Corporate Strategic Development

City of Edmonton

Charter Bylaw 19043 (as amended) was adopted by Council on October 12, 2019. In October 2019, this document was consolidated by virtue of the incorporation of the following Bylaw:

Charter Bylaw 19043 Approved October 21, 2019 (to adopt the Mattson Neighbourhood Structure Plan)

Editor's Note:

This is an office consolidation edition of the Mattson Neighbourhood Structure Plan, Charter Bylaw 19043 as approved by City Council on October 21, 2019. This edition contains all amendments and additions to Charter Bylaw 19043.

For the sake of clarity, new maps and a standardized format were utilized in this Plan. All names of City departments have been standardized to reflect their present titles. Private owners' names have been removed in accordance with the Freedom of Information and Protection of Privacy Act. Furthermore, all reasonable attempts were made to accurately reflect the original Bylaws. All text changes are noted in the right margin and are italicized where applicable.

This office consolidation is intended for convenience only. In case of uncertainty, the reader is advised to consult the original Bylaws, available at the office of the City Clerk.

City of Edmonton

Urban Form and Corporate Strategic Development

MATTSON

NEIGHBOURHOOD STRUCTURE PLAN

Prepared for:

Melcor Developments Ltd.

Prepared by:

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TABLE OF CONTENTS

1.0	Introduction.....	1
1.1.	Purpose	1
1.2.	Naming	1
1.3.	Authority.....	2
1.4.	Timeframe.....	2
1.5.	Interpretation.....	2
2.0	Plan Context.....	5
2.1.	Location	5
2.2.	Background.....	5
2.3.	Land Ownership.....	7
2.4.	Site Context	9
2.4.1.	Technical Studies	9
2.4.2.	Existing Land Use	9
2.4.3.	Topography	9
2.4.4.	Geotechnical.....	10
2.4.5.	Ecological Network Report.....	13
2.4.6.	Environmental Assessment.....	13
2.4.7.	Historical Resources	14
2.4.8.	Energy and Natural Resources	14
2.5.	Stakeholder and Public Involvement	14
3.0	Land Use, Transportation, and Servicing.....	17
3.1.	Land Use Concept and Population Statistics	17
3.2.	Vision	18
3.3.	Policy	21
3.3.1.	Green Development	21
3.3.2.	Urban Design.....	23
3.3.3.	Ecology.....	26
3.3.4.	Environment	30
3.3.5.	Historical Resources	30
3.3.6.	Residential.....	31
3.3.7.	Commercial	34
3.3.8.	Parkland, Recreation Facilities and Schools.....	35
3.3.9.	Transportation	44
3.3.10.	Infrastructure, Servicing and Staging	52

Figures:

Figure 1: Location Plan 3
Figure 2: Context Plan 6
Figure 3: Land Ownership..... 8
Figure 4: Site Topography..... 11
Figure 5: Existing Site Features 12
Figure 6: Land Use Concept 19
Figure 7: Ecological Features 29
Figure 8: Open Space & Pedestrian Linkages..... 41
Figure 9: Transportation Network 48
Figure 10: Stormwater Management Plan 55
Figure 11: Off-Site Servicing Plan..... 56
Figure 12: Sanitary Servicing System 1
Figure 13: Water Servicing System 2
Figure 14: Development Staging Plan 3

Tables:

Table 1: Land Ownership 7
Table 2: Land Use and Population Statistics 20

1.0 INTRODUCTION

1.1. PURPOSE

The purpose of this Neighbourhood Structure Plan (NSP) is to establish a general land use framework for the development and servicing of the lands identified within the boundaries of the Mattson Neighbourhood. These lands are presently identified in the Southeast ASP as Neighbourhood 3 (see Figure 1). The Mattson NSP specifies the following:

- The location, configuration and area of various land uses including, residential, commercial, parks and open spaces, and public utility land uses;
- The anticipated density of residential development;
- The pattern and alignment of the arterial and collector roadway and Active Modes Transportation walkway systems;
- The required utility infrastructure concept; and
- The implementation and phasing of development.

1.2. NAMING

In keeping with the theme of naming new neighbourhoods in the Southeast ASP area in honour of Alberta Land Surveyors (ALS), this neighbourhood is named after Norman R. Mattson, A.L.S.

Norm Mattson was born March 25, 1941 at Eckville, Alberta. He attended the Southern Alberta Institute of Technology, where he received his Diploma in Survey Technology in 1963. Norm was registered as an ALS in 1968.

Norm was the senior partner and principal of Coordinate Surveys Ltd. and subsequently managed the operations of Stanley Geomatics Ltd. prior to his role as Vice President of Focus Intec. As a specialist in land surveying for subdivision development, he was responsible for ensuring the successful completion of hundreds of cadastral (legal), control, engineering and construction survey projects throughout Alberta. His professional experience extended beyond subdivision development to encompass an impressive array of projects requiring surveying expertise. This vast professional breadth and depth of experience earned him an enviable reputation within the industry.

Beside his professional practice, he demonstrated a keen interest and dedication to the profession of surveying throughout his long career, as evidenced by his extensive and frequent contribution of reports, commentary, speeches, lectures and motions made to the ALS Association.

Norm served the ALS Association in the capacity of regional chairman, councillor, vice-president, president (1979-1980), and past president. Norm also wrote the initial terms of reference and standards for the preparation of Real Property Reports (RPR's). This was ultimately adopted by the ALS Association and the name and similar document are now commonly used in Canada. Finally, Norm travelled across Canada in 1979 – 80 as Alberta's representative at other provincial land survey association meetings. His

willingness to undertake any task requested of by the Association was recognized through his being awarded the ALSA Professional Recognition Award in 1996.

Beyond his contributions to the ALS Association, Norm was affiliated with the Canadian Institute of Geomatics, the Urban Development Institute, the Urban and Regional Information Systems Association and the Rotary Club of Edmonton. He was also appointed by the Government of Alberta to serve as one of the Public Members on APEGGA's discipline committee.

1.3. AUTHORITY

The Mattson NSP was adopted by Edmonton City Council on October 21, 2019 as Bylaw 19043 in accordance with Section 633 of the Municipal Government Act (MGA). The Mattson NSP complies with all higher order documents including the Southeast ASP.

The Mattson NSP conforms to the 2017 Edmonton Metropolitan Region Growth Plan: Re-imagine Plan Build (EMRGP). The proposed residential densities for the new neighbourhood are grandfathered to conform with the previous Capital Region Land Use Plan, as they fall within the 30-40 units per net residential hectare range approved when the ASP was adopted in 2005.

The NSP has been prepared in accordance with The Way We Grow, Edmonton's Municipal Development Plan (MDP) and the objectives of the Southeast Area Structure Plan (ASP) and adds additional details to plan components as a result of technical studies and analysis completed with NSP preparation.

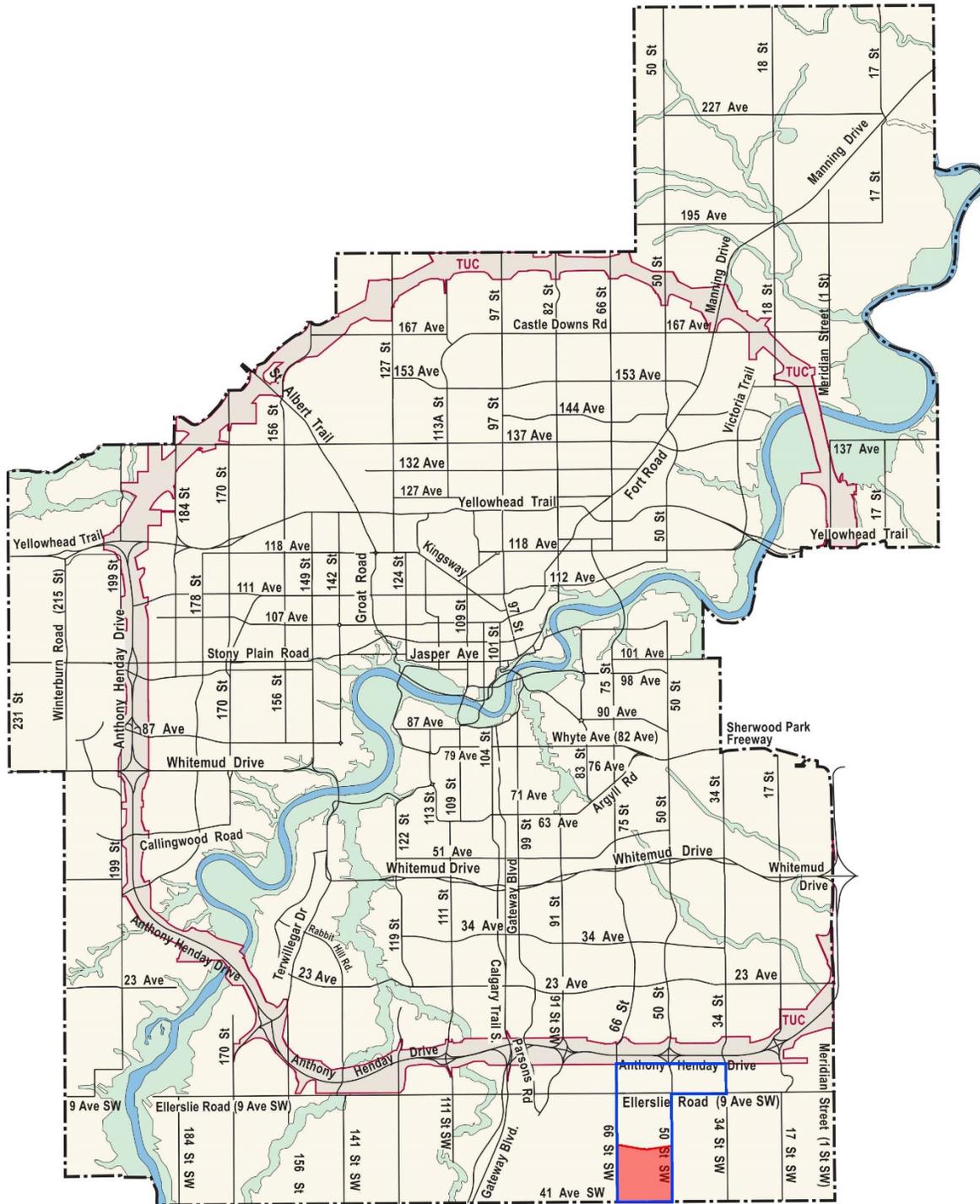
1.4. TIMEFRAME

While no specific timeline is forecast for subdivision and development within the Mattson NSP (the "Plan") area, it is anticipated that development within the Plan area should commence within two to five years and the neighbourhood should be completely built out within 15 years from the start of construction. The timing of future subdivision and development of the Plan will be dependent on future economic conditions and market demands as well as the orderly and economic extension of roadways and municipal services to the area.

1.5. INTERPRETATION

All map symbols, locations and boundaries contained within the Plan should be interpreted as approximate unless otherwise specified within the Plan or coinciding with clearly recognizable physical features or fixed (i.e. legal) boundaries.

Policy statements containing "shall" are mandatory and must be implemented. Where a policy proves impractical or impossible, an applicant may apply to amend the Plan. Policy statements containing "should" are advisory statements and indicate the preferred objective, policy and/or implementation strategy. If the "should" statement is not followed because it is impractical or impossible, the intent of the policy may be met through other agreed-upon means.



LEGEND

- Mattson NSP Area
- Southeast ASP Boundary

**FIGURE 1
LOCATION PLAN**

Mattson
Neighbourhood Structure Plan



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2.0 PLAN CONTEXT

2.1. LOCATION

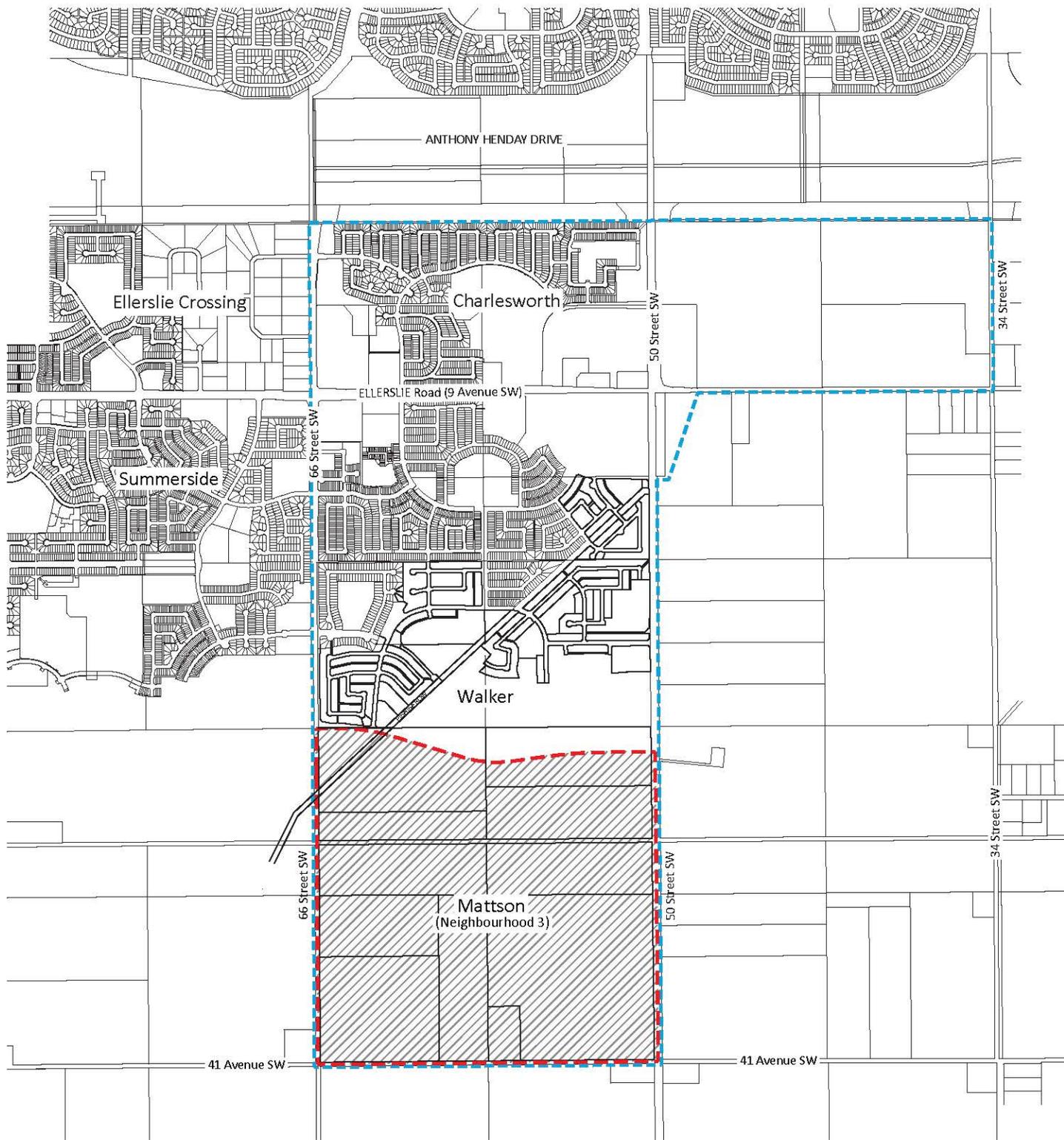
The Mattson NSP is the third of three neighbourhoods described in the Southeast ASP, located in southeast Edmonton (See Figure 2). The NSP is located south of Anthony Henday Drive, east of Gateway Boulevard. The Plan area is bound on the: north by the future 25 Avenue SW; east by 50 Street SW; west by 66 Street SW; and south by 41 Avenue SW.

This area represents a logical planning unit with respect to identifiable plan boundaries and servicing considerations and is in conformance with the boundaries identified for Mattson in the Southeast ASP.

The Plan area is comprised of several parcels located within Section 14-51-24 W4M.

2.2. BACKGROUND

The Plan has been prepared in anticipation of meeting future residential market demand in southeast Edmonton. Construction is presently on-going in Walker to the north as well as Summerside and the Orchards at Ellerslie to the west. Development is generally proceeding south and southeast toward the Plan area.



LEGEND

- - - Mattson NSP Boundary
- - - Southeast ASP Boundary

**FIGURE 2
CONTEXT PLAN**

Mattson
Neighbourhood Structure Plan



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2.3. LAND OWNERSHIP

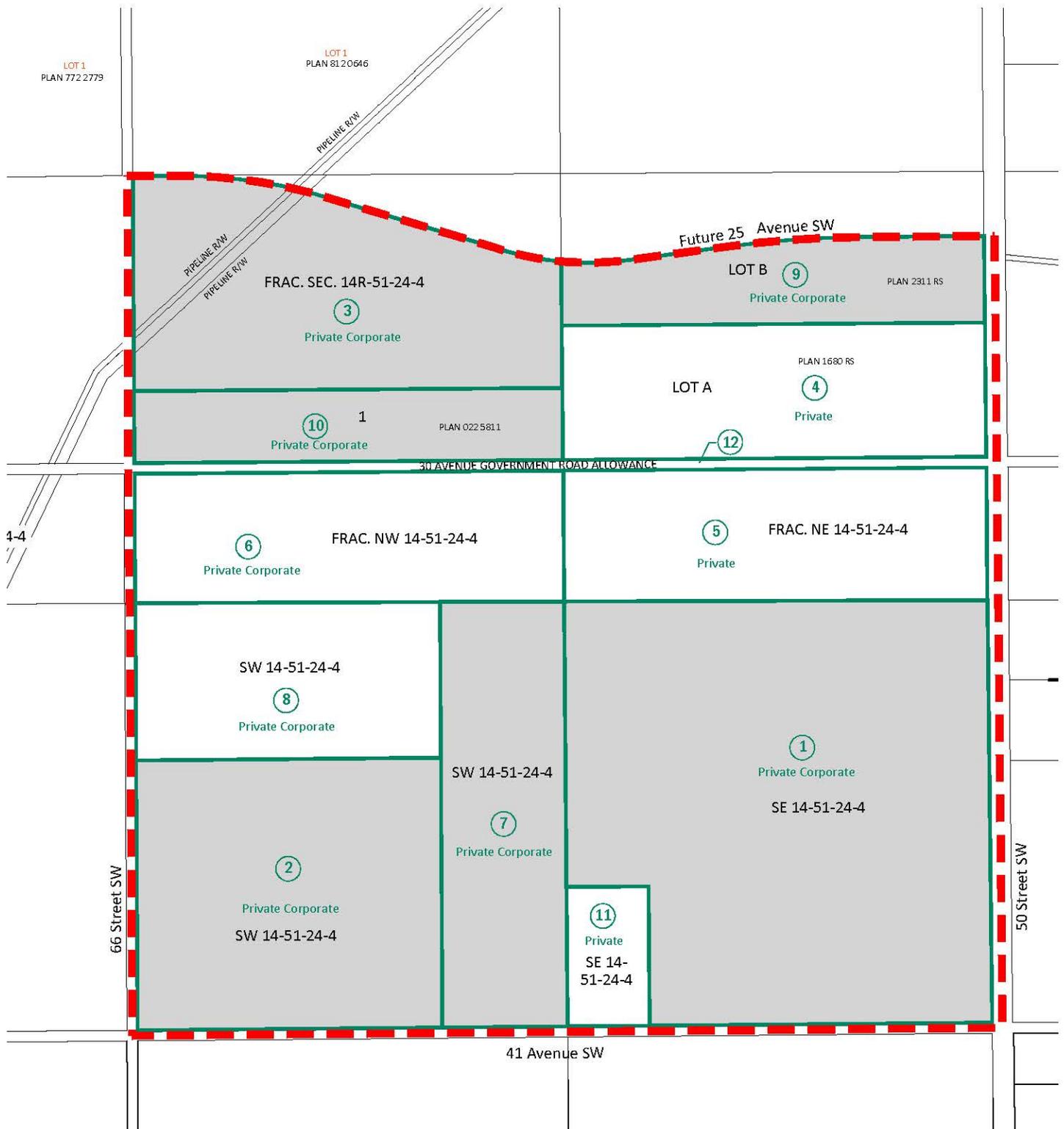
Lands within the Plan are held by nine owners, under 14 Certificates of Title. In addition, the Plan contains portions of the City of Edmonton 30 Avenue SW road allowance. While this NSP has been prepared on behalf of private landowners, as the “Proponent”, who own approximately 150ha of land within the Plan area, all landowners within the plan area have been involved in, and informed of, the plan preparation process and provided numerous opportunities to provide input into the plan preparation. For additional details of consultation with landowners within the plan, refer to Section 2.5 – Stakeholder and Public Involvement. Land ownership is illustrated on Figure 3 – Land Ownership and a listing of the legal parcels is described in Table 1, below.

Table 1: Land Ownership

Map Reference	Legal Description	Titled Owner	Titled Area (ha)	Portion of Titled Area Within NSP (ha)
1	SE ¼ 14-51-24-W4M	Private Corporate*	59.59	59.59
2	SW ¼ 14-51-24-W4M	Private Corporate *	29.13	29.13
3	NW ¼ 14-51-24-W4M	Private Corporate *	32.59	27.41
4	Lot A, Plan 1680 RS	Private	20.12	20.12
5	NE ¼ 14-51-24-W4M	Private	19.76	19.76
6	NW ¼ 14-51-24-W4M	Private Corporate	19.77	19.77
7	SW ¼ 14-51-24-W4M	Private Corporate *	18.78	18.78
8	SW ¼ 14-51-24-W4M	Private Corporate	16.91	16.91
9	Lot B, Plan 2311 RS	Private Corporate *	22.74	11.75
10	Lot C, Block 1, Plan 022 5811	Private Corporate *	10.93	10.93
11	SE ¼ 14-51-24-W4M	Private	4.05	4.05
12	Government Road Allowance	City of Edmonton	9.52	9.52
TOTAL			263.89	247.72

Source: Certificate of Title Search - 2019

* indicates Titled Owner is a Proponent for the preparation of the NSP



LEGEND

-  NSP Boundary
-  Map Reference Number
-  Land Ownership Boundary
-  Proponent

FIGURE 3
LAND OWNERSHIP
 Mattson
 Neighbourhood Structure Plan



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2.4. SITE CONTEXT

2.4.1. TECHNICAL STUDIES

In support of the NSP, technical reports have been submitted to the City of Edmonton for the entire plan area. Technical studies submitted include:

- Community Knowledge Campus Needs Assessment (CKCNA)
- Ecological Network Report (ENR), Level I and II
- Environmental Overview
- Geotechnical Investigation
- Hydraulic Network Analysis (HNA)
- Neighbourhood Design Report (NDR)
- Parkland Impact Assessment (PIA)
- Transportation Impact Assessment (TIA)

2.4.2. EXISTING LAND USE

The lands within the Plan area are predominantly cultivated for agricultural purposes. Five farmsteads and associated outbuildings are located within the Plan area. Remnants of a small former tree farm are still evident in the southern Plan area. A dugout also exists in that vicinity. Small scattered tree stands exist in the Plan area and a more substantial stand of trees, associated with a low-lying wet area, exists in the northeast portion of the Plan. The 30 Avenue SW Government Road Allowance is registered east-west through the north central Plan area, but no road has been constructed within the right of way (See Figure 5).

2.4.3. TOPOGRAPHY

The topography of the Plan area is gently rolling with a ridge feature located diagonally across the northeast quadrant. Existing surface drainage generally flows from the north to southwest eventually entering Cawes Lake south of 41 Avenue SW. An isolated remnant of Cawes Lake is still evident north of 41 Avenue SW and interconnected low-lying wet areas provide a significant natural feature in the northeast Plan area. Elevations vary across the site with the highest elevations, of approximately 730m, found in the northeast and the lowest elevations, of approximately 705m, found in the southwest (See Figure 4).

2.4.4. GEOTECHNICAL

A geotechnical investigation to support the Plan was completed by J.R. Paine & Associates Ltd. on May 3, 2011. This investigation incorporated the findings of previous Geotechnical Evaluations completed by CT & Associates Ltd. in 2006 for a portion of lands within the SW ¼ Section 14-51-24 W4M. Soils in the Plan area generally consist of surficial topsoil or fill soils underlain by a lacustrine silty clay material which is, in turn, underlain by clay till materials and, lastly, by bedrock. Fill soils are isolated to areas within the NE ¼ Section 14-51-24 W4M and SW ¼ Section-14-51-24 W4M.

The geotechnical investigations indicated low to high groundwater tables within the Plan area. The soil and groundwater conditions are considered suitable for development, although the presence of a high groundwater table and occasional moister portions of the clay material may need to be addressed through site grading and construction.

It is recommended that specific geotechnical investigations be completed for the commercial sites at the detailed engineering stage to provide exact soil conditions and soil strength parameters.

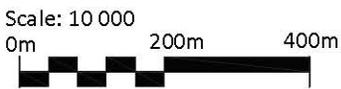


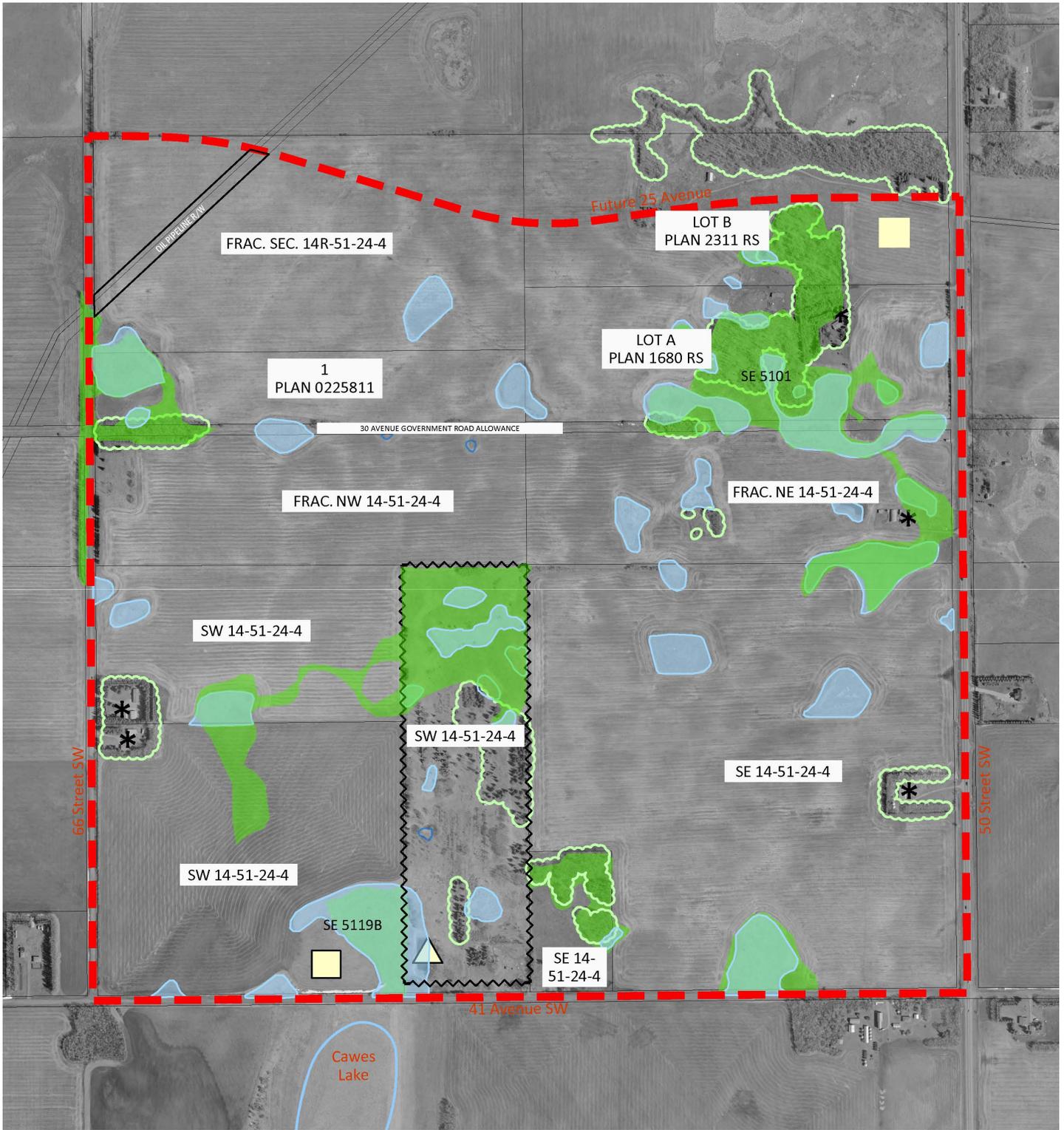
LEGEND

-  NSP Boundary
-  Ridge
-  720m Contour
-  Cawes Lake Remnant
-  Surveyed Contours
-  High Point
-  Low Point
-  Direction of Drainage

**FIGURE 4
SITE TOPOGRAPHY**

Mattson
Neighbourhood Structure Plan





LEGEND

- - - NSP Boundary
- Natural Areas
- Tree Farm
- Wetlands
- * Farmstead (5)
- Fill Area
- Tree Stand
- Dugout

**FIGURE 5
EXISTING SITE FEATURES**

Mattson
Neighbourhood Structure Plan



2.4.5. ECOLOGICAL NETWORK REPORT

An Ecological Network Report has been prepared by Spencer Environmental Management Services Ltd. (Spencer) to support this NSP and was submitted to the City separately. This report provided adequate wetland classification and Natural Area and conservation recommendations.

The report identified numerous wetlands dispersed throughout the Plan area. Twenty-six (26) of these wetlands are located within seven recognized City of Edmonton Natural Areas. These Natural Areas were previously inventoried and mapped by Golder Associates, in 2008. Several of these recognized Natural Areas also contained small existing tree stands within their boundaries. Twenty (20) other wetlands were identified within the Plan, outside of the recognized Natural Areas. (See Figure 5)

The Ecological Network Report states that “not only does the subject parcel comprise sufficient natural features to support a functioning, logical ecological network but those network elements also form part of larger regional ecological network situated within south Edmonton and Leduc County to the south.” Cawes Lake, located immediately south of the Plan, was recognized by Leduc County as a regionally significant Environmentally Sensitive Area. The County had proposed the Lake for a “district level conservation park” in the North Major ASP. Historically, the northern limit of Cawes Lake extended into the southern edge of the Plan. One of Edmonton’s identified Biodiversity Core Areas exists to the northeast of the Plan area. This area is one of two tableland Biodiversity Core Areas inventoried in the City and consists of numerous woodlands and wetlands. The Ecological Network Report provided Conservation Recommendations which have been incorporated into the planning of the Mattson NSP, as described in Section 3.4.3 – Ecology and illustrated on Figure 7.

Alberta Sustainable Resource Development (ASRD) has been consulted and has verified no bed and shore of any wetland within the plan area will be claimed by the Provincial government under the Public Lands Act.

Alberta Environment administers the Water Act and has been contacted regarding any wetlands that are to be disturbed. Alberta Environment has a policy of no net loss regarding wetlands in Alberta, and as such, requires compensation to be made if a wetland is to be disturbed. Within Mattson, some wetlands identified in the Ecological Network Report are to be disturbed as development proceeds and may require compensation under the Water Act.

2.4.6. ENVIRONMENTAL ASSESSMENT

Phase 1 Environmental Site Assessments (ESAs) and / or Phase 1 ESA Update reports were completed and submitted for all parcels within the Plan area. Edmonton’s Sustainable Development Department requires that individual landowners provide ESAs or disclosure statements prior to the rezoning stage. The Phase 1 ESA is meant to evaluate the types and location of surface and / or subsurface impacts that may be present on the subject site and adjacent areas.

2.4.7. HISTORICAL RESOURCES

A Historical Resource Overview (HRO) was completed for all lands within the Plan area by Western Heritage in the fall of 2010. This HRO was submitted to Alberta Culture and Community Spirit (ACCS) in support of the Mattson NSP. No historic sites were recorded in the area and no recorded archaeological sites will be directly impacted by the proposed development.

Following their review of the HRO, ACCS provided Historical Resources Act clearance for all lands within the Plan area. Alberta Culture and Community Spirit also indicated no Historical Resources Impact Assessment (HRIA) is required.

Pursuant to the Historical Resources Act (HRA), development proponents and/or their representative(s) are required to report the discovery of any archaeological, historic period or paleontological resources, which may be encountered during construction. Preservation, conservation and integration of cultural, historical, and/or archaeological resources within the Mattson NSP is important to retaining local history and character that may also be of regional or provincial significance.

2.4.8. ENERGY AND NATURAL RESOURCES

Two oil pipeline rights-of-way lie adjacent to one another and cross diagonally through the northwest corner of the Plan. These rights-of-way are designated as public utility in the Plan and may provide an opportunity to incorporate an active modes connection. The exact type and location of these trails within the right-of-way will need to be approved by the City of Edmonton and the operator of the facility prior to construction. Urban development will not be restricted by the location of these rights-of-way. A Risk Assessment was completed, confirming no risk associated with the uses proposed in the NSP within and adjacent to the pipeline rights-of-way.

From a review of Land Development Packages obtained from the Energy and Resources Conservation Board no oil or gas wells or coal mining operations have been located within the Plan.

2.5. STAKEHOLDER AND PUBLIC INVOLVEMENT

Letters of notification were sent, and contact was made with all landowners in 2010. Landowners were provided an overview of what an NSP is, the NSP process and the purpose of preparing the bylaw and authorization to proceed was obtained. All landowners within the Plan were consulted regarding findings of background research and preliminary findings of technical reports and a preliminary land use concept in 2011. Comments and questions provided by the landowners were addressed through revisions to the preliminary land use concept. The draft NSP was presented to all landowners in the Plan area through a series of meetings in the fall of 2011.

Beginning in spring 2011, a series of meetings were held with City administrative departments to provide information and obtain direction in the Plan preparation process. Relevant City departments and the School Boards were further consulted during the preparation of the Community Knowledge Campus Needs Assessment report in support of the NSP.

Following the official first submission of the NSP in 2011, circulation comments were received and addressed through numerous meetings with City departments and revisions to the NSP.

Details of changes to the NSP were presented to all landowners in the Plan area in 2012.

Advance notification of the open house information session was completed by through mail outs on December 17, 2012 and August 8, 2019. The open house information session was held by the City on September 17, 2019, to share information and to address questions and concerns regarding the preparation of the Plan.

A Council Public Hearing was held October 21, 2019.

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3.0 LAND USE, TRANSPORTATION, AND SERVICING

3.1. LAND USE CONCEPT AND POPULATION STATISTICS

The concept for the Plan area is based on the Land Use Concept in the approved Southeast ASP. However, the locations and configurations of land uses and the transportation network have been modified to respect topography and retain some natural features in the Plan area and to respond to the findings of detailed technical studies as well as the input from the City and stakeholders obtained through the process of preparing the NSP (see Figure 6).

The largest and most significant portions of the interconnected system of wetlands, concentrated in the northeast Plan area, and the remnant of Cawes Lake, in the southwest, are protected as Environmental Reserve (ER) and as an “engineered wetland” Stormwater Management Facility (SWMF), respectively. These features and their buffer areas, along with some existing woodlands retained in the Plan, are further enhanced and interconnected by the strategic placement of a series of naturalized SWMFs and Municipal Reserve (MR) dedication.

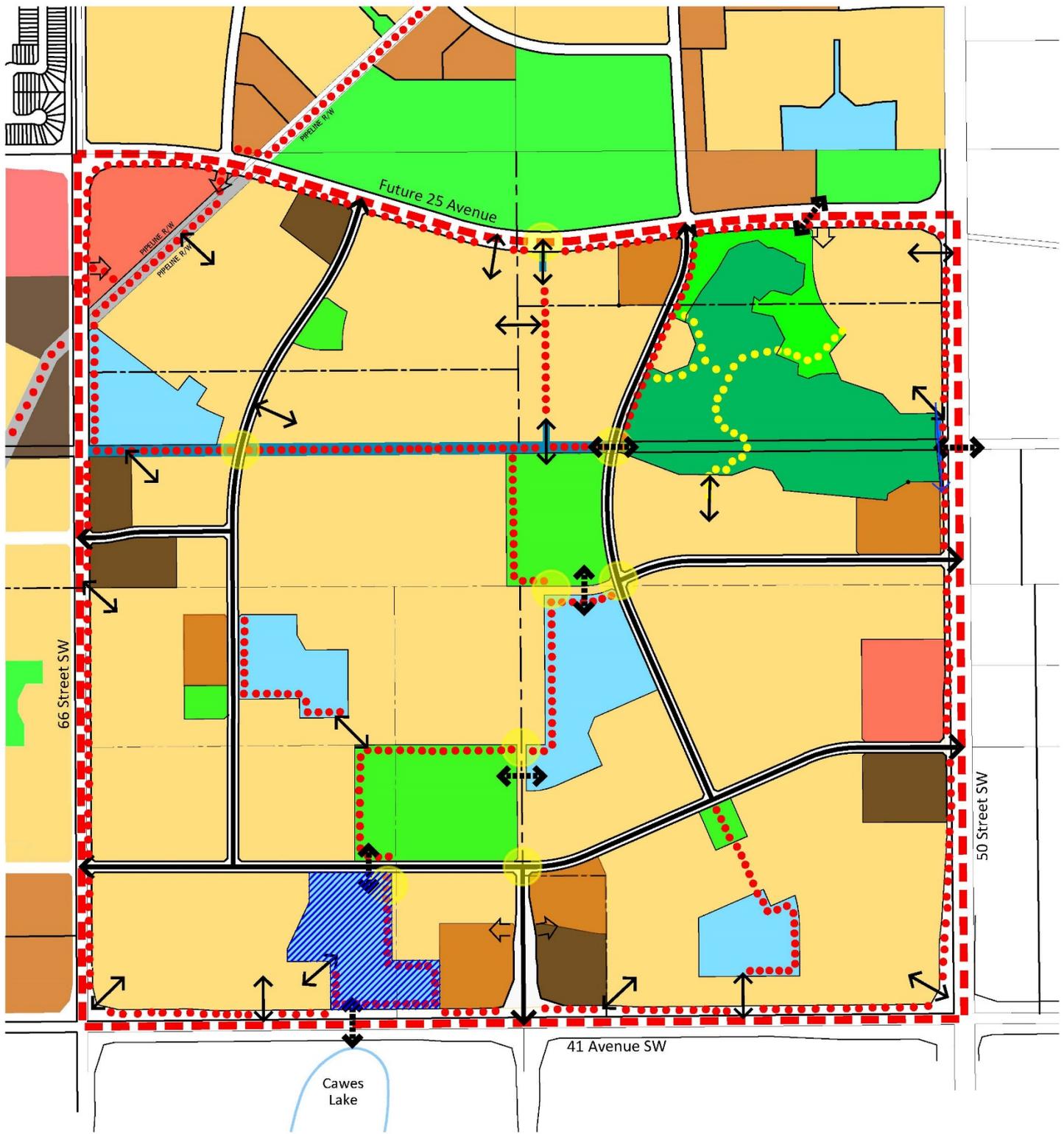
Two K-9 school sites, one combined with a Community Park site, provide active recreation spaces in the central Plan area. The undeveloped 30 Avenue SW road allowance provides a major east-west Greenway through the community. Another north-south Greenway links the Separate School Park site, via a complete street designed local roadway, to 25 Avenue SW and the District Park Campus located in Walker, north of 25 Avenue SW. Pocket Parks are provided close to residential development.

Two commercial sites will provide goods and services at the neighbourhood level. Their peripheral locations at the intersection of 66 Street SW and 25 Avenue SW and at the southernmost entrance to Mattson from 50 Street SW provide proximity to services for the largest number of future residents and visitors. These sites offer local employment opportunities and good access to transit and roadway connections, minimizing traffic flow through the neighbourhood.

The balance of the Plan consists of low and medium density residential land uses. Sites proposed for medium density residential have been located along collector and arterial roadways. A mix of lane and front-drive access medium and low density residential is proposed. The inclusion of lane accessed, street-oriented residential development is intended to minimize conflicts between driveways and sidewalks. This creates a more interesting and walkable streetscape. Land use and population statistics are provided in Table 2.

3.2. VISION

Mattson is an integrated, sustainable and livable community in southeast Edmonton. It is a vibrant neighbourhood where people choose to live, shop, learn, work and play. It is a community where businesses choose to locate and operate. A major ecological corridor preserved through the neighbourhood maintains wildlife movement and further supports walkability, providing interesting and attractive routes for Active Modes Transportation, within and beyond the community boundaries. A key feature of the community is the retained natural area which is integrated into the interconnected open space system. This area preserves an important stepping stone in an ecological corridor from Cawes Lake to the south of the Plan area to the recognized Biodiversity Core area to the northeast of the Plan area. Unique residential nodes have been established in the community, primarily defined by the network of natural areas, parks and open spaces.



LEGEND

- NSP Boundary
- Low Density Residential
- Row Housing / Medium Density Residential
- Low Rise / Medium Density Residential
- School / Park (Municipal Reserve) / PUL
- Environmental Reserve
- Naturalized / Engineered Wetland Stormwater Management Facility
- Commercial
- Greenway (Road R/W)
- Public Utility Lot (PUL)
- Pipeline R/W
- Collector Roadway
- Priority Pedestrian Crossings
- Access / Emergency Access
- Active Modes Connection
- Potential Trail
- Walkways
- Potential Wildlife Crossing Location

**FIGURE 6
LAND USE CONCEPT**

Mattson
Neighbourhood Structure Plan

Scale: 10 000

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Note: This plan is conceptual only and the exact location and alignment of uses, facilities, roadways, lot lines and services will be determined at the zoning and subdivision stage.

Table 2: Land Use and Population Statistics

	Area (ha)	% of GA				
GROSS AREA	247.42	100.0%				
Natural Area (Environmental Reserve)	14.24	5.4%				
Pipeline & Utility Right-of-Way	1.19	0.5%				
Arterial Road Right-of-Way	15.69	6.0%				
GROSS DEVELOPABLE AREA	216.31	% of GDA				
Commercial	6.55	3.0%				
Parkland, Recreation, School (Municipal Reserve)						
Schools / Community Park	11.03	5.1%				
Natural Area (MR)	3.08	1.4%				
Pocket Parks	1.62	0.8%				
Transportation						
Circulation	45.09	20.9%				
Greenway	1.93	0.9%				
Infrastructure / Servicing						
Stormwater Management Facilities	19.31	8.9%				
TOTAL Non-Residential Area	88.62	41.0%				
Net Residential Area (NRA)	127.70	59.0%				
RESIDENTIAL LAND USE AREA, UNIT & POPULATION COUNT						
Land Use	Area (ha)	Units/ha	Units	People/Unit	Pop.	% of NRA
Low Density Residential	73.38	25	1,834	2.80	5,135	57.5%
Street-Oriented Residential	39.30	30	1,179	2.80	3,301	30.8%
Medium Density Residential	15.01	90	1,351	1.80	2,431	11.8%
Total Residential	127.70		4,364		10,867	100.0%
SUSTAINABILITY MEASURES						
Population Per Net Residential Hectare (ppnrha)						85
Units Per Net Residential Hectare (upnrha)						34
Low Density Residential; Street-Oriented Residential / Medium Density Residential Unit Ratio						69 / 31
Population (%) within 500m of Parkland						100.0%
Population (%) within 400m of Transit service						100.0%
Population (%) within 600m of Commercial service						80.0%
Presence/Loss of Natural Area features						31.24
Protected as Environmental Reserve (ha)						14.24
Conserved as naturalized Municipal Reserve (ha)						3.08
Protected through other means (SWMF) (ha)						4.62
Lost to Development (ha)						9.30
STUDENT GENERATION COUNT						
		Public School Board	Separate School Board			
Elementary School		433	216			
Junior High School		216	108			
Senior High School		216	108			
Total Student Population					1,299	

3.3. POLICY

The Mattson NSP was prepared in accordance with the policies of the relevant higher-level planning documents.

The objectives for the NSP reflect those of the approved Southeast ASP, modified to address the findings and recommendations of the Ecological Network Report (ENR), other technical reports and discussions with City of Edmonton Departments. These objectives guide Policy which will be implemented, as described below, to see the development of the neighbourhood occur as described in this NSP.

3.3.1. GREEN DEVELOPMENT

Having regard for the vision for the Plan as well as market conditions, the NSP proposes to explore sustainable development trends, progressive land use concepts, urban design principles and evolving technology in the area.

An ecological network currently exists that connects Cawes Lake, south of the Plan area, to a Recognized Biodiversity Core Area, north east of the Plan area. This ecological network is respected in the Plan through the designation of ER and MR as well as the strategic location and configuration of naturalized and Engineered Wetland SWMFs. A more detailed summary of the ecological features to be retained within the plan is provided in Section 3.3.3 – Ecology. Design of the SWMFs will consider the existing topography and drainage of the area but will also consider Edmonton's Drainage Design and Construction Standards, as further described in Section 3.3.10 – Infrastructure, Servicing and Staging.

Retention of this ecological network not only supports the sustainability of an ecologically important complex in southeast Edmonton, but also supports a “sense of place” for the Plan area.

Objective	NSP Policy	Implementation
3.3.1 (a) Locate land uses to support transit and non-motorized transportation.	3.3.1 (a) (i) Medium Density Residential (MDR) land uses shall be located abutting collector roadways and transit routes and in proximity to commercial sites. Transit stops shall be located within 400m of all MDR sites.	3.3.1 (a) (i) MDR land uses within the Plan area will be subdivided and developed, on a staged basis, in conformance with Figure 6 – Land Use Concept.
	3.3.1 (a) (ii) Commercial land uses shall be located abutting collector roadways and transit routes. Transit stops shall be located within 400m of all Commercial sites.	3.3.1 (a) (ii) Commercial land uses within the Plan area will be subdivided and developed, on a staged basis, in conformance with Figure 6 – Land Use Concept.
	3.3.1 (a) (iii) The School Parks and Community Park, which provide space for a Community League, shall be located central to the Plan area, abutting collector roadways and transit routes. Transit stops shall be located within 400m of the School Parks and Community Park site. Sidewalks, walkway and Shared-Use Pathways (SUPs) in the Plan area shall be designed to provide safe, attractive and convenient routes for Active Modes Transportation access to the School and Community Park site.	3.3.1 (a) (iii) The School and Community Park sites within the Plan area will be located and configured in conformance with Figure 6 – Land Use Concept.
	3.3.1 (a) (iv) Pocket Park sites shall be located central to residential areas, with adequate roadway frontage. Sidewalks, walkway and SUPs in the Plan shall be designed to provide safe, attractive and convenient routes for Active Modes Transportation access to the park sites.	3.3.1 (a) (iv) Pocket Park sites within the Plan will be subdivided and developed, on a staged basis, in conformance with Figure 6 – Land Use Concept.

Rationale

Transportation is one of the most significant sources of greenhouse gas emissions in urban areas. Providing a range of land uses in new neighbourhoods has the potential to reduce the length and number of vehicle trips required for residents to meet their daily needs. By carefully locating land uses to promote transit and non-motorized transportation options, production of emissions can be minimized.

Objective	NSP Policy	Implementation
3.3.1 (b) Respect the existing topography and drainage patterns of the Plan area during development of the site.	3.3.1 (b) SWMFs shall be located and configured, to the greatest extent possible, to respect the existing topography and drainage of the lands.	3.3.1 (b) SWMFs within the Plan area will be subdivided and developed, on a staged basis, in conformance with Figure 6 – Land Use Concept.

Rationale

Respecting the existing topography and drainage patterns within the NSP area will reduce site disturbance during development by minimizing grading requirements. In addition, minimizing grading supports replication and / or retention pre-existing hydrological patterns.

Objective	NSP Policy	Implementation
3.3.1 (c) Create naturalized and Engineered Wetland SWMFs to support Best Management Practices (BMPs) in Low Impact Development (LID).	3.3.1 (c) SWMFs shall be designed as naturalized or Engineered Wetland facilities utilizing the City of Edmonton's Drainage Design and Construction Standards in consensus with the City of Edmonton. Drainage for the site shall be designed to maintain a water regime within the ER and "Natural Area" MR areas to support their sustainability within the developed context.	3.3.1 (c) Naturalized and Engineered Wetland SWMFs will be designed in accordance with City of Edmonton standards, as set out in the Neighbourhood Design Report (NDR). The NDR will also be designed to obtain approval under the Provincial Water Act.

Rationale

Naturalized and Engineered Wetland SWMFs, designed utilizing the City of Edmonton's Drainage Design and Construction Standards will reduce the erosion and sedimentation effects associated with conventional SWM design. Increased evaporation and infiltration of stormwater are provided as well as natural filtration of sediments and nutrients. In addition, naturalized and Engineered Wetland SWMFs provide enhanced ecological services compared with conventional SWM ponds.

Technical Summary

No specific technical requirements were further identified.

3.3.2. URBAN DESIGN

The elements listed below can all contribute to the urban design of the Plan area and make it a community that is attractive to future residents while supporting environmental sustainability. Acknowledging Edmonton's Winter City context, urban design in Mattson shall plan for weather and all seasonal conditions through street, building and open space design.

3.3.2.1. Landscaping

- i. Proposed public and private open spaces shall be designed to complement and enhance the existing natural features of the Plan area, where feasible, and feature landscape architecture to create spaces that are comfortable and enjoyable.
- ii. Native landscaping shall be utilized in public and private open spaces, where feasible, to enhance and complement the character of development within the Plan.
- iii. Landscaping plants and materials for public and private open spaces shall be selected with the intention of attracting and retaining birds and insect species in the Plan area.

- iv. Use native, water loving species within the naturalized and Engineered Wetland SWMFs.

3.3.2.2. Built Form

- i. Development should provide a transition in building height, massing, form, orientation, and landscaping in relation to the surrounding neighbourhoods and between adjacent sites.
- ii. Perceived height and massing should be minimized by utilizing variations in building setbacks and step backs at the upper levels, building orientation, roof treatments, and the choice of exterior materials and colours.
- iii. Building façades should use compatible exterior finishing materials and building colours should provide visual interest.
- iv. Building facades should incorporate treatments that ensure attractive frontages from all public spaces, to the greatest extent possible.
- v. Developments should be sited and oriented to the greatest extent possible to minimize negative microclimatic impacts and provide access to daylight, sunlight, ventilation, quietude, visual privacy, and views.

3.3.2.3. Circulation

- i. Safe, convenient and attractive Active Modes Transportation linkages shall be provided within the Plan area and to surrounding areas.
- ii. Parking, loading, and passenger drop-off areas shall be easily accessible and designed to minimize Active Modes Transportation-vehicle conflicts.
- iii. Parking and loading areas shall be designed and located to minimize visual impact.

3.3.2.4. Amenity Space

- i. Provide amenity space that is aggregated to function as useable space.
- ii. Crime Prevention through Environmental Design (CPTED) shall be considered in the design of amenity spaces.
- iii. Amenity spaces shall be distinct and separate from parking areas.

Objective	NSP Policy	Implementation
3.3.2 (a) Create entrances into the Plan area that identify a sense of arrival and place.	3.3.2 (a) Entrances shall include signage and design features that distinguish entry into the Plan area.	3.3.2 (a) Entrance features and signage shall be developed in accordance with the Zoning Bylaw and applicable policies.
<p>Rationale</p> <p>Signage plays an important role in wayfinding and creating an identity within a neighbourhood. Ensuring signage is complementary to the theme of the Plan area will complement the overall</p>		

design of the neighbourhood while aiding residents in wayfinding. Appropriately designed and located signage improves the navigability of the neighbourhood and avoids visual clutter.

Objective	NSP Policy	Implementation
3.3.2 (b) Provide a transition between residential uses of significantly different densities.	3.3.2 (b) Variations in height and density will be incorporated appropriately to minimize transitions between MDR and LDR.	3.3.2 (b) Figure 6 – Land Use Concept illustrates land use transitions.

Rationale

Ensuring proper transitions in building height and massing and protecting views, vistas and access to daylight to buildings supports a higher quality of life for residents of the Plan area.

Objective	NSP Policy	Implementation
3.3.2 (c) Develop naturalized and Engineered Wetland SWMFs that are visually appealing and physically accessible to all residents.	3.3.2 (c) The naturalized and Engineered Wetland SWMFs shall be designed to be attractive and safe to the public.	3.3.2 (c) The location of the SWMFs are established prior to Plan adoption but the exact shape and size may be refined upon completion of more detailed engineering prior to rezoning. Design of the SWMFs shall consider the safety of residents, passive recreation and development of Active Modes Transportation routes. This is to be outlined in the NSP and confirmed at the subdivision stage of development in consultation with City administration.

Rationale

The location, configuration and design of the naturalized and Engineered Wetland SWMFs, the integration of these spaces into the overall open space network and the provision of vistas into these spaces from abutting roadways will heighten resident awareness of these facilities. This promotes them as walking destinations and enhances natural surveillance to prevent crime. These SWMFs will serve as destinations within the open space network, providing passive recreation.

Objective	NSP Policy	Implementation
3.3.2 (d) Site buildings to optimize and/or enhance views and vistas.	3.3.2 (d) Site planning and design shall take into consideration maximizing views and vistas.	3.3.2 (d) The Development Officer shall have regard for the placement of buildings relative to maintaining views and vistas.

Rationale

The orientation of buildings toward public areas such as streets, parks and SWMFs shall be designed to enable public access and view potential thereby increasing visibility and surveillance.

Technical Summary

No specific technical requirements were further identified.

3.3.3. ECOLOGY

3.3.3.1. Ecological Network Report Conservation Recommendations

The Ecological Network Report (ENR) provides Conservation Recommendations for future development of the Plan compliant with the goals of the City's bylaws, policies and plans. These recommendations recognize that some natural features currently present within the Plan area are of lesser value and would be less sustainable in the future, developed, context. Generally, the recommended conservation strategy consists of:

- Retention, integration and restoration of portions of the Natural Area associated with the remnant of Cawes Lake;
- Retention, integration and restoration of most of the large Natural Area wetland / woodland complex located in the northeast portion of the Plan area;
- Provision of a system of open spaces (including SWMFs) that function as “stepping stones”, connecting the two Natural Areas; and
- The integration of the preserved wetlands with the stormwater management system to improve wetland sustainability.

The ENR states that these strategies will result in the preservation of a functional ecological network within the Plan area and, importantly, will also integrate into a larger, more regional ecological network connecting Cawes Lake to the Biodiversity Core Area to the north east of the Plan area.

The ENR suggests that the two Natural Areas recommended for conservation (SE 5101 and SE 5119B) be either partially or wholly designated as Environmental Reserve (ER) (see Figure 5).

The boundary of the northern Natural Area, SE 5101, as defined in the ENR includes a mix of scattered, shallow wetlands, deciduous woodland and a coniferous tree stand. This area is the largest and most diverse Natural Area within the Plan area. The boundary of this proposed ER and its buffer have been established through consensus with City of Edmonton departments and with respect for the landowners' rights. A substantial portion of the woodland and coniferous tree stand north of the ER has been retained through natural area Municipal Reserve (MR) dedication in Mattson and Walker (see Figure 6).

The second Natural Area identified in the ENR for conservation as ER is the remnant area of Cawes Lake north of 41 Avenue SW. SE5119B is described as a natural deep marsh wetland with good habitat, but it has experienced some disturbance in the past and will be subject to further disturbance in the future. These disturbances include:

- A dugout has been excavated within its boundaries;
- A large portion of the original wetland has been filled in;
- Weeds now occur in abundance;
- Construction of the future 41 Avenue SW arterial will further reduce the viability of the Cawes Lake remnant in the Plan area; and
- A reduction of the catchment area of Cawes Lake may adversely affect the Cawes Lake hydrology.

Despite these negative impacts, the ENR recommends retention, integration and restoration of the SE5119B remnant as ER. Because of technical constraints, retention of SE5119B in its natural state as ER is, however, impractical within the context of the future development. Instead, creating an engineered wetland (naturalized SWMF) in this location supports the Ecological Network Report’s recommendation to integrate a habitat patch that will have some connection to Cawes Lake as part of the ecological network. Refer to Section 3.3.10 – Infrastructure, Servicing and Staging for a detailed description of the planned system of SWMFs proposed for the neighbourhood.

Natural Area Management Plans (NAMPs) will need to be prepared to address long term management and set guidelines to minimize the effect of development on any retained Natural Area in the Plan area. NAMP(s) will be prepared and submitted at the time of the first rezoning application within 200m of a natural area that is to be retained.

Objective	NSP Policy	Implementation
3.3.3 (a) Retain the ecological network connecting Cawes Lake to the City of Edmonton Biodiversity Core Area, located in the Rural Southeast area.	3.3.3 (a) ER is designated in the Plan area in accordance with the City of Edmonton Guidelines, and in consensus with the Urban Growth and Open Space Strategy. “Natural Area” MR dedication and naturalized and Engineered Wetland SWMFs are located to complement ER dedication and retain a sustainable ecological network in the developed context.	3.3.3 (a) ER, MR and SWMFs within the Plan area will be subdivided and developed, on a staged basis, in conformance with Figure 6 – Land Use Concept. Dedication of ER will be confirmed by legal subdivision at the time of dedication/registration. A Natural Area Management Plan (NAMP) will be submitted to address long-term management of the ER area as well as to set guidelines to minimize the effects of construction on these sites. An NAMP will be submitted with development applications submitted for lands within 200m of the ER area.
3.3.3 (b) Provide for continued passage of wildlife throughout the ecological network in the developed context of the neighbourhood.	3.3.3 (b) Wildlife crossings shall be provided in the general locations of the “Potential Wildlife Crossing Locations” identified in the NSP Figures.	3.3.3 (b) Exact locations and details for potential wildlife crossings are to be confirmed at the subdivision application and development stages. Wildlife crossings will conform to the City of Edmonton’s Wildlife Passage Engineering Design Guidelines.

Rationale

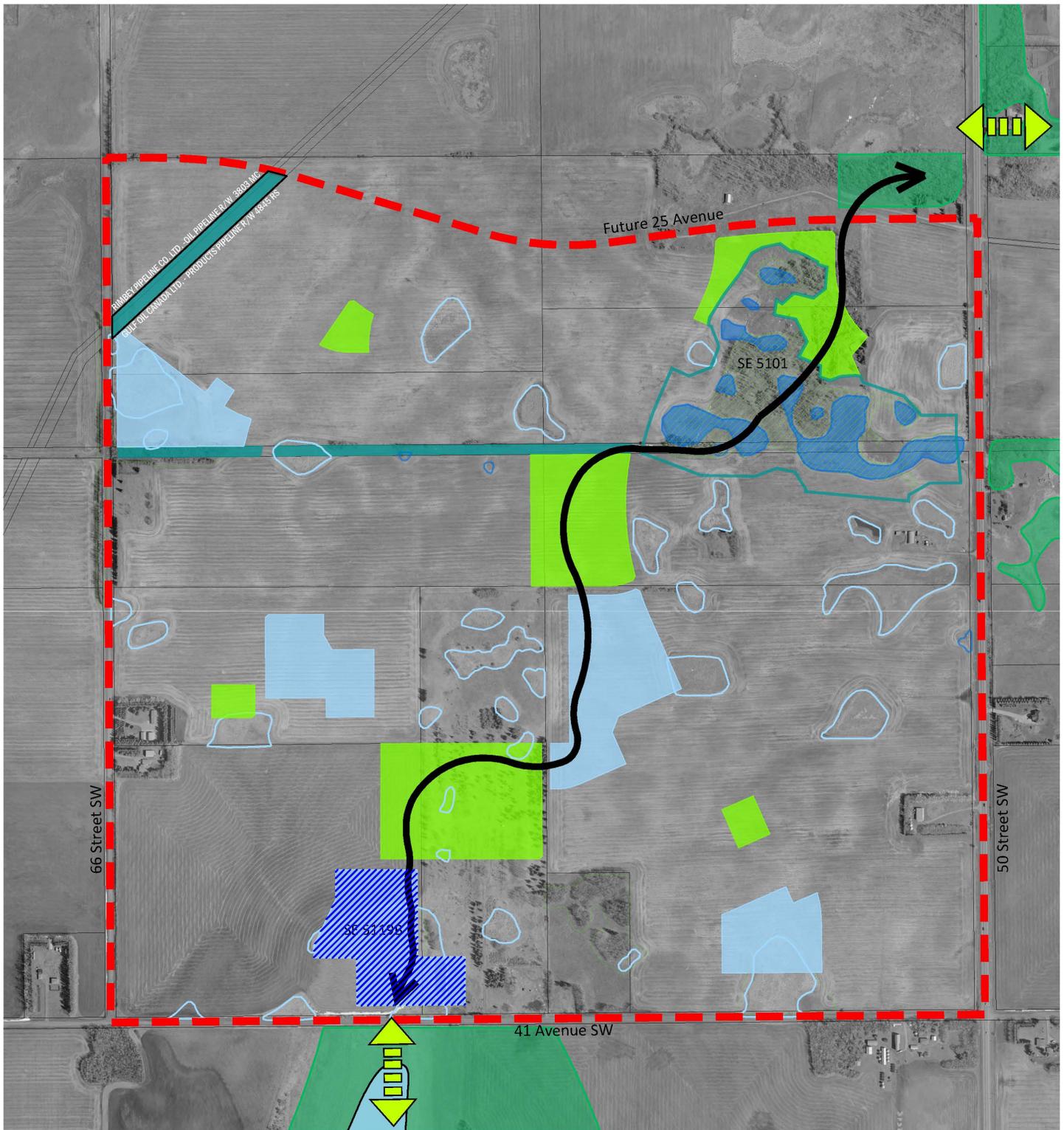
The City of Edmonton Biodiversity Core Area to the north east of the Plan area is one of only two recognized areas situated on Edmonton’s tablelands. It comprises a string of woodlands and wetlands extending east and north east across the landscape for approximately 1.8 km. The City of Edmonton defines Biodiversity Core Areas as “natural areas large enough to support entire populations of different species”. Biodiversity Core Areas function as the backbone of Edmonton’s ecological network and, in doing so; “contribute to sustainable populations at the landscape scale.” Cawes Lake is larger than any single wetland located within the City of Edmonton and, except for Big Lake; it is one of the largest wetlands in the immediate Edmonton area.

Connecting these two environmentally and ecologically sensitive areas, through the preservation and interconnection of the most ecologically sensitive lands within the Plan area, will preserve an ecological network which could be otherwise fragmented by development. In addition,

preservation of the ecological network will also provide a “sense of place” for residents and visitors.

Technical Summary

An ENR has been prepared by Spencer Environmental Management Services Ltd. (Spencer) to support this NSP and was submitted to the City separately. This report provided adequate wetland classification and Natural Area and conservation recommendations to enable the Urban Growth and Open Space Strategy to make decisions related to Natural Area retention and dedication of ER for planning purposes.

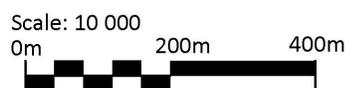


LEGEND

- NSP Boundary
- Proposed Linkage
- Greenway
- Parks
- Naturalized / Engineered Wetland Stormwater Management Facility
- Environmental Reserve
- Retained Habitat Patches
- Off-Site Network Elements
- Regional Ecological Connection

**FIGURE 7
ECOLOGICAL FEATURES**

Mattson
Neighbourhood Structure Plan



3.3.4. ENVIRONMENT

No significant environmental concerns within the Plan area have been identified through the Phase 1 ESA and Phase 1 ESA Update reports and no subsequent ESAs are recommended at the NSP stage.

A soil sampling and analysis program is recommended for two locations within the Plan area. One in the north east which contains an above ground fuel storage tank and another in the southeast which contains a stockpile of creosote treated timbers. The sampling shall be completed following the removal of the fuel storage tank and timber stockpile. Any potential environmental impacts related to the fuel storage tank and timber stockpile would be limited to the immediate vicinity of the two locations and should not affect the balance of the subject site.

In addition, visual inspections and soil sampling and analysis, as appropriate, are recommended for current and former farmsteads once existing buildings, debris and other items have been removed.

Objective	NSP Policy	Implementation
3.3.4 (a) Ensure that the environmental status of the lands within the Southeast boundary is suitable for development.	3.3.4 (a) (i) Determine the likelihood, types and location of environmental concerns that may be present on the lands prior to rezoning.	3.3.4 (a) (i) ESAs and any follow up will receive sign-off from the City administration prior to the rezoning stage of development.
	3.3.4 (a) (ii) ESA Phase 1 reports older than 1 year from the date of rezoning application shall be updated and any Phase 1 report older than 5 years from the date of rezoning shall be redone.	3.3.4 (a) (ii) Up-to-date ESAs will be submitted prior to zoning.

Rationale

Lands within the Plan will be suitable for development. Any lands identified as contaminated must undergo remediation according to Federal, Provincial and Municipal standards.

Technical Summary

Phase 1 ESA and / or Phase 1 ESA Update reports were completed and submitted for all parcels within the NSP area.

3.3.5. HISTORICAL RESOURCES

Pursuant to Section 31 of the Historical Resources Act (HRA), development proponents and/or their representative(s) are required to report the discovery of any archaeological, historic period or paleontological resources, which may be encountered during construction.

Objective	NSP Policy	Implementation
3.3.5 (a) Identify and	3.3.5 (a) A review of past	3.3.5 (a) A Historical Resources

protect items and sites with historical significance, such as buildings and areas of cultural significance, in the Plan area.	and current activities within the Plan area will be completed prior to rezoning to identify sites or items of historical significance.	Overview (HRO) for the Plan was conducted submitted and reviewed prior to Plan adoption. Alberta Culture and Community Spirit (ACCS) has provided a clearance letter authorizing the project to proceed.
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Rationale

Based on ACCS’s review for the HRO, no HRIA is required for any lands within the Plan area.

Technical Summary

The HRO has been approved by ACCS for all parcels within the Plan area. No HRIA is required.

3.3.6. RESIDENTIAL

The boundaries of residential enclaves in the Plan area are primarily defined by the network of park and open space features which comprise the open space corridor. These make for unique sites for residential development. Residential enclaves are also defined by the alignment of the collector road system, the location of the School Parks and Community Park site and the locations of commercial and other open spaces, including the greenways and SWMFs. Most of the Plan area is designated for residential land uses which will provide for a variety of low and medium density housing forms, responsive to the market demand in Edmonton. A portion of all housing in the Plan area may be provided for affordable housing as per the city of Edmonton’s Affordable Housing Strategy. Specific land areas of Low Density Residential (LDR) and Medium Density Residential (MDR) land uses are provided in Table 2 – Land Use and Population Statistics.



Objective	NSP Policy	Implementation
3.3.6 (a) Provide for higher density housing at accessible locations, near transit routes.	3.3.6 (a) MDR parcels shall be in proximity to major roadways and along future transit routes to facilitate enhanced access, to promote public transit use and to reduce congestion within the neighbourhood.	3.3.6 (a) Figure 6 - Land Use Concept will guide the MDR development to be located at the edges of the Plan area, at entrances, close to neighbourhood focal points, and along collector and arterial roadways.

Rationale

Location of higher density housing along transit routes and within walking distance of commercial uses creates a more compact, walkable and liveable neighbourhood.



Objective	NSP Policy	Implementation
3.3.6 (b) Establish affordable housing in the Plan area.	3.3.6 (b) (i) The City's policy for affordable housing shall apply to this Plan area.	3.3.6 (b) (i) The City's affordable housing policy will be applied to Southeast development prior to rezoning.
	3.3.6 (b) (ii) The NSP proposes a wide variety of housing types to make it a more inclusive neighbourhood.	3.3.6 (b) (ii) Figure 6 - Land Use Concept will guide the different types of residential land use designations.
	3.3.6 (b) (iii) Expanded secondary suites development in LDR structures shall be pursued through the Edmonton Zoning Bylaw for the Plan area.	3.3.6 (b) (iii) The Zoning Bylaw regulates the provision of secondary suites in the Plan area.

Rationale

Providing a variety of housing types creates affordable housing options for a variety of households. Secondary suites can further provide an important potential source of affordable housing for singles and other small households and create "mortgage helpers" for the owner of the principle dwelling.



Objective	NSP Policy	Implementation
3.3.6 (c) Establish increased residential densities in support of Neighbourhood intensification.	3.3.6 (c) Residential Densities within the Plan area shall meet the density for "Neighbourhood 3" of the approved SEASP.	3.3.6 (c) Figure 6 - Land Use Concept will guide the locations and densities of residential development within the Plan area.

Rationale

Establishing higher residential densities results in better use of municipal infrastructure and facilities. It also supports transit use, innovative design and helps meet the demand for housing in the City’s growing suburban neighbourhoods.

Mattson is in alignment with the approved SEASP which sets a density target for “Neighbourhood 3”.



Objective

3.3.6 (d) Provide a range of housing densities, types and choices in a variety of physical forms to meet the needs of different age and income groups.

NSP Policy

3.3.6 (d) A variety of housing choices will be supported to provide a more compact and comprehensive neighbourhood. A mix of LDR and MDR uses are provided, allowing consumer choice, and a range of affordability options.

Implementation

3.3.6 (d) Figure 6 - Land Use Concept illustrates the various land use designations.

Rationale

Providing a variety of housing types, choices and densities encourages the creation of a well-balanced neighbourhood, accommodating an array of income groups and market segments, as well as various types and sizes of families.

Low Density Residential is the primary land use in the Plan area and can include single detached, semi-detached and duplex residences with limited amounts of rowhousing. A mix of lane and lane-less, as well as zero lot-line, units are proposed within the Plan area. Street Oriented Residential is lane accessed single family and semi-detached residential development that comprises more compact lots and will be developed in dispersed locations throughout the Low Density Residential areas illustrated on Figure 6: Land use Concept.

LDR areas may be zoned: (RPL) Planned Lot Residential Zone; (RSL) Residential Small Lot Zone; (RF1) Single Detached Residential Zone; (RF4) Semi-Detached Zone; (RMD) Residential Mixed Dwelling Zone; and (RLD) Residential Low Density. For LDR densities and numbers of units, refer to Table 2 – Land Use and Population Statistics.

Medium Density Residential sites are primarily located along the boundaries of the Plan area and in proximity to the commercial sites. This is to take advantage of safe and convenient access from the proposed collector roadway connections to the collector and arterial roadways bounding the Plan area. Providing superior access to transit and avoiding short-cutting and traffic congestion within the Plan



area are additional benefits of this location strategy. MDR in the Plan area may include a mix of rowhouse, stacked rowhouse, and low-rise apartment style developments and may be zoned (RF5) Row Housing Zone, (UCRH) Urban Character Rowhousing Zone, (RA7) Low Rise Apartment Zone or (RA8) Medium Rise Apartment Zone.

Technical Summary

No specific technical requirements were further identified.

3.3.7. COMMERCIAL

Two commercial sites are identified within the Plan area to provide goods and services at the neighbourhood and community level. One site is situated at the intersection of 25 Avenue SW and 66 Street SW and another west of 50 Street SW on the north side of the southernmost roadway access to the Plan area. Both are of sufficient size to accommodate a variety of retail and service-oriented uses and will be accessible by transit due to their locations on major roadways.

Objective	NSP Policy	Implementation
3.3.7 (a) Minimize the impact of commercial development on adjacent land uses.	3.3.7 (a) (i) Activity areas associated with commercial development shall be oriented towards the abutting arterial or collector roadway(s) and away from the residential land uses.	3.3.7 (a) (i) The Development Officer will have regard for building placement and activity areas in reviewing development applications for commercial development within the Plan area.
	3.3.7 (a) (ii) The separation distance between residential development and abutting commercial development shall be maximized through site orientation.	3.3.7 (a) (ii) City Planning - Subdivision & Development Coordination will have regard for orienting adjacent dwellings such that residential lots are designed to back onto commercial development.

Rationale

Impacts associated with commercial development to adjacent residences shall be minimized. Attention to site design at the detailed design stage will provide adequate separation and screening of incompatible use activities to minimize potential impacts while ensuring accessibility and walkability are maximized.



Objective	NSP Policy	Implementation
3.3.7 (b) Create a walkable community.	3.3.7 (b) Safe and attractive Active Modes Transportation linkages shall be provided between various uses within commercial sites, into the	3.3.7 (b) Figure 6 - Land Use Concept guides the location and densities of residential and commercial land uses to promote

neighbourhood and to nearby transit routing. Active Modes Transportation.

Rationale

Commercial and service uses in proximity to higher density residential development promotes Active Modes Transportation and reduce reliance on the private automobile. A safe and attractive Active Modes Transportation system and linkages fosters connectivity from various parts of the site and surrounding area.



Technical Summary

No specific technical requirements were further identified.

3.3.8. PARKLAND, RECREATION FACILITIES AND SCHOOLS

The Plan recognizes the Parkland Classification System identified in the Urban Parks Management Plan (UPMP) adopted by the City of Edmonton in August 2006 (see Figures 6 & 8). MR dedication areas within the Plan area have been identified as per the Parkland Classification System which validates their location, size and design relative to policies in the UPMP. Parks types within the Plan area include:

- a Separate School Park site and a Neighbourhood Public School and Community Park site;
- Pocket Parks;
- Natural Areas; and
- Greenways.

Objective	NSP Policy	Implementation
3.3.8 (a) Provide a variety of parks and open spaces to support passive and active recreation and to promote wellness.	3.3.8 (a) MR shall be dedicated in agreement with the City and the Edmonton Public and Catholic School Boards.	3.3.8 (a) The parks and open spaces identified in Figure 6 - Land Use Concept will be dedicated to the City of Edmonton as MR at the time of subdivision. MR may be provided as land, money-in-place of land, or a combination thereof and dedication of MR will be confirmed by legal subdivision at the time of dedication/registration.
3.3.8 (b) Provide safe, visually and physically accessible, functional parks and open spaces.	3.3.8 (b) The Developer will provide park utility servicing for the parks, as per UPMP.	3.3.8 (b) Only utilities that exclusively serve the park will be accepted on parkland. Design of parks and open spaces shall be with CPTED in mind. Lighting provided for safety.

The Developer will provide parkland to the City in suitable condition for development, as determined by Urban Growth and Open Space Strategy. It is noted within the geotechnical studies (attached to the NDR) that there is a high water table in the area, and the soil conditions are less than ideal for building foundations.

Rationale

The Plan provides for a hierarchy of parks, SWMFs and other open spaces accessible to residents, to meet their passive and active recreation needs. An approach to allocating available Municipal Reserve dedication across the Southeast ASP area, in alignment with the intentions of the UPMP and the Breathe Strategy, has been applied to Mattson to balance recreation, connectivity (for people and animals), and ecological preservation.

As further described, below, park spaces within the plan include: two School Park sites; a Community League park (integrated with the Public School Park site); Pocket Parks; and a Natural Area. This hierarchy of parks is interconnected with other open spaces within the Plan including: SWMFs (PULs); walkways (PULs and road R/Ws); and Greenways (road R/Ws). Parks and open spaces within the Plan have been strategically located to provide connectivity within Mattson and to parkland within adjacent neighbourhoods (e.g. the District Park in Walker).

Schools / Park

A 4.5ha Edmonton Catholic School District (ECSD) elementary / junior high school (K-9) site is designated central to the Plan area on the west side of the eastern collector roadway. Additional roadway frontage is provided by a local roadway along the southern boundary of the site. To accommodate requirements for parking and drop-off, approximately 50% of the perimeter of the site has roadway frontage. Both the east-west and north-south Greenways connect to this Separate School Park site's northern boundary. LDR lots will back on to the north and west boundaries of the Separate School Park site. To the east, LDR lots across the collector roadway are accessed by a lane to ensure active residential frontages facing the site. The majority of the south frontage of the Separate School Park site is across a local roadway from a naturalized SWMF. A small number of lots across the local roadway, fronting the southwest area of the Separate School Park site, are envisioned to have front drive access.

A 6.5ha Edmonton Public School Board (EPSB) K-9 school and Community League site is designated central to the plan area on the north side of the southern collector roadway. Additional roadway frontage is provided by a local roadway along the eastern boundary of the site. To accommodate requirements for parking and drop-off, approximately 50% of the perimeter of the site has roadway frontage. LDR lots will back on to the north and west boundaries of this Public School and Community Park site. To the east, across the local roadway, side yards of LDR lots and a portion of a naturalized SWMF front the Public School and Community Park site. To the south, across the collector roadway, LDR lots that front the Public School and Community Park site are accessed by a lane to ensure active residential frontages facing the site. A small number of lots across the collector roadway are envisioned to have side yards facing the Public School and Community Park site and the southwest area of the Public School and Community Park site is across



the collector roadway from the Engineered Wetland SWMF.

The SUP and Greenway network for Mattson interconnects the Schools and Community League Park with the network of parks and open spaces. Connectivity to existing and planned parks and open spaces in adjacent neighbourhoods has been carefully considered for people and wildlife as directed in the Breathe strategy.

Local roadways adjacent to school sites will be designed as “Enhanced Local Roads”, with two travel lanes and two parking lanes.

Pocket Parks

Three Pocket Park sites are distributed in the southeast, west central and northwest quadrants of the Plan area to provide local level opportunities for active and/or passive recreation. These parks have been generally placed to meet the needs for nearby residents or those passing through the neighbourhood. They are connected to the Active Modes Transportation network (SUP, Greenway and/or sidewalk) to ensure they are accessible and intermixed with the surrounding uses.



Natural Area

A Natural Area is designated in the northeast Plan area to preserve the larger existing wooded areas north of the ER designated wetland complex and to serve as a “stepping stone” supporting the preservation of the Emerald Crescent ecological network. A Natural Area Management Plan will be required with the first rezoning application within 200 m of the Natural Area. The Natural Area will be operated in accordance with City of Edmonton maintenance practices and designed and dedicated in accordance with the City’s Subdivision and Development regulations and requirements.

The Natural Area forms part of the overall park and open space network in Mattson, with public road frontage on the west, north, northeast and east sides. Future potential trail alignment(s) will be determined with the submission of the Natural Area Management Plan. This integrated Natural Area / ER complex in Mattson has been located to provide open space continuity with the District Park and Pocket Park in Walker, north of 25 Avenue, and with the “Wetland (ER)” identified in Decoteau, east of 50 Street.

Potential for incorporating a shared-use pathway (SUP) within the preserved ecological corridor – integrated with other parks and open spaces and connected to all areas of the Plan, could provide opportunities for residents and visitors to connect with and learn about the ecology of the area. With the NAMP for the Natural Area, the potential to incorporate a SUP will be confirmed.

Greenways (Linear Parks)

The 20m wide, undeveloped, 30 Avenue SW road allowance, west of the ER designated wetland complex, is retained in the Plan area as an east-west Greenway extending to 66 Street SW. This Greenway is a key element of the SUP network in the Plan area and provides excellent connectivity to the Separate School Park site (and overall park and open space network) for residents in the east and west areas of Mattson. The Plan assumes the Greenway will be entirely designated within the existing R/W (this area has not been included as MR in the development statistics).

Another Greenway extends north from the Separate School Park site, connecting via a complete street local roadway, to 25 Avenue and the District Park site in Walker. The Greenway connections from the Separate School Park site to the complete street and from the complete street to 25 Avenue are assumed to be 10m wide road R/W dedications. These Greenways provide excellent connectivity for the interconnected open space network for the Plan area and focal points across neighbourhoods in the Southeast ASP area.

Priority Active Modes Transportation Crossings are located in areas where the active modes network crosses a collector or arterial roadway, or at collector-collector intersections in residential areas.

Traffic calming measures will be included at Key Active Modes Transportation Crossings to provide a safe Active Modes Transportation space and promote active transportation across the Plan area.

Objective	NSP Policy	Implementation
3.3.8 (c) Establish dispersed park spaces within the neighbourhood to provide nearby opportunities for recreation and other open space opportunities for residents.	3.3.8 (c) (i) Ensure a balanced spatial distribution of neighbourhood parks and open spaces.	3.3.8 (c) (i) Figure 6 - Land Use Concept and trail network will guide future application of neighbourhood parks and open spaces.
	3.3.8 (c) (ii) Consider the potential to introduce local food production in park spaces at the subdivision and development stage.	3.3.8 (c) (ii) Consult with the City (and the utility providers if within the pipeline corridor) to identify appropriate locations for community gardens.

Rationale

The Separate School Park site and the Public School and Community Park sites located centrally to the NSP area provides accessible active and passive recreation and community gathering opportunities.

These spaces are complemented by: Natural Area (MR) and preserved wetland (ER) spaces to the northeast; a naturalized SWMF; and the Engineered Wetland SWMF to the south, to establish an interconnected open space corridor from 25 Avenue SW to 41 Avenue SW implementing the vision for the Emerald Crescent. Native vegetation shall be utilized within the future landscape design to provide/facilitate a wildlife movement corridor between school sites and SWMF's.

Three Pocket Parks have been identified to provide easily accessible recreation spaces for residents throughout the Plan area. The east-west and north-south Greenways provide further connectivity between the parks and open space areas and additional passive recreation in the northern portion of the NSP area.

Municipal reserve lands provide numerous opportunities for the City of Edmonton, through the Food and Urban Agriculture Strategy, to designate locations for community gardens.



Objective	NSP Policy	Implementation
3.3.8 (d) Provide open space connectivity within and beyond the Plan area.	3.3.8 (d) The NSP provides for Greenway linkages to an interconnected network of park and open space in the Southeast Edmonton ASP area.	3.3.8 (d) Figure 6 - Land Use Concept and SUP network will guide future locations and configurations of neighbourhood parks and open spaces. The specific location and configuration of these areas will be determined during the subdivision and rezoning stages.

Rationale

An east-west Greenway has been provided, utilizing the unimproved 30 Avenue SW road right-of-way to provide enhanced connectivity from the northwest portion of the Plan area to the overall open space network. This Greenway also provides a direct connection from 66 Street SW and the north west SWMF to the Separate School Park site as well as the natural (ER and MR) open space network in the eastern portion of the Plan area.



A north-south Greenway has been incorporated to provide an additional, direct (via a complete street local roadway), connection between 25 Avenue SW and the District Park space in the Walker neighbourhood to the Separate School Park site (and open spaces further south in Mattson, via the SUP network).

Objective	NSP Policy	Implementation
3.3.8 (e) Design park spaces to meet the needs of all users.	3.3.8 (e) Park space shall be designed to accommodate active and passive recreation activities for various age groups and ability levels.	3.3.8 (e) (i) Design and development of future parks and open spaces shall consider programming needs of the community and be implemented based on requirements of City Planning - Planning Coordination and the Urban Growth and Open Space Strategy. 3.3.8 (e) (ii) Programming for the Separate School Park site and the Public School and Community Park site will be directed by the City of Edmonton and School Boards.

Rationale

Ensuring the facilities provided within the various parks and open spaces are designed to provide universal accessibility will further support accessibility to recreation for users of all ages and ability levels.

Objective	NSP Policy	Implementation
3.3.8 (f) Accommodate school and community needs.	3.3.8 (f) Provide centrally located school sites within the Plan to support educational options in this area and in the City, accessible by a variety of transportation modes. Include space for a Community League in the south-central NSP area to provide services and amenity for future residents.	3.3.8 (f) Figure 6 - Land Use Concept identifies the size and location of the Public School and Community Park site and the Separate School Park site.

Rationale

Through the preparation of the Community Knowledge Campus Needs Assessment (CKCNA) and consultation with the School Boards and Urban Growth and Open Space Strategy, a 4.5ha ECSD elementary / junior high school (K-9) site as well as a 6.5ha EPBS K-9 school and Community League site is provided centrally within the Plan area to meet education and recreation needs associated with development in this area.



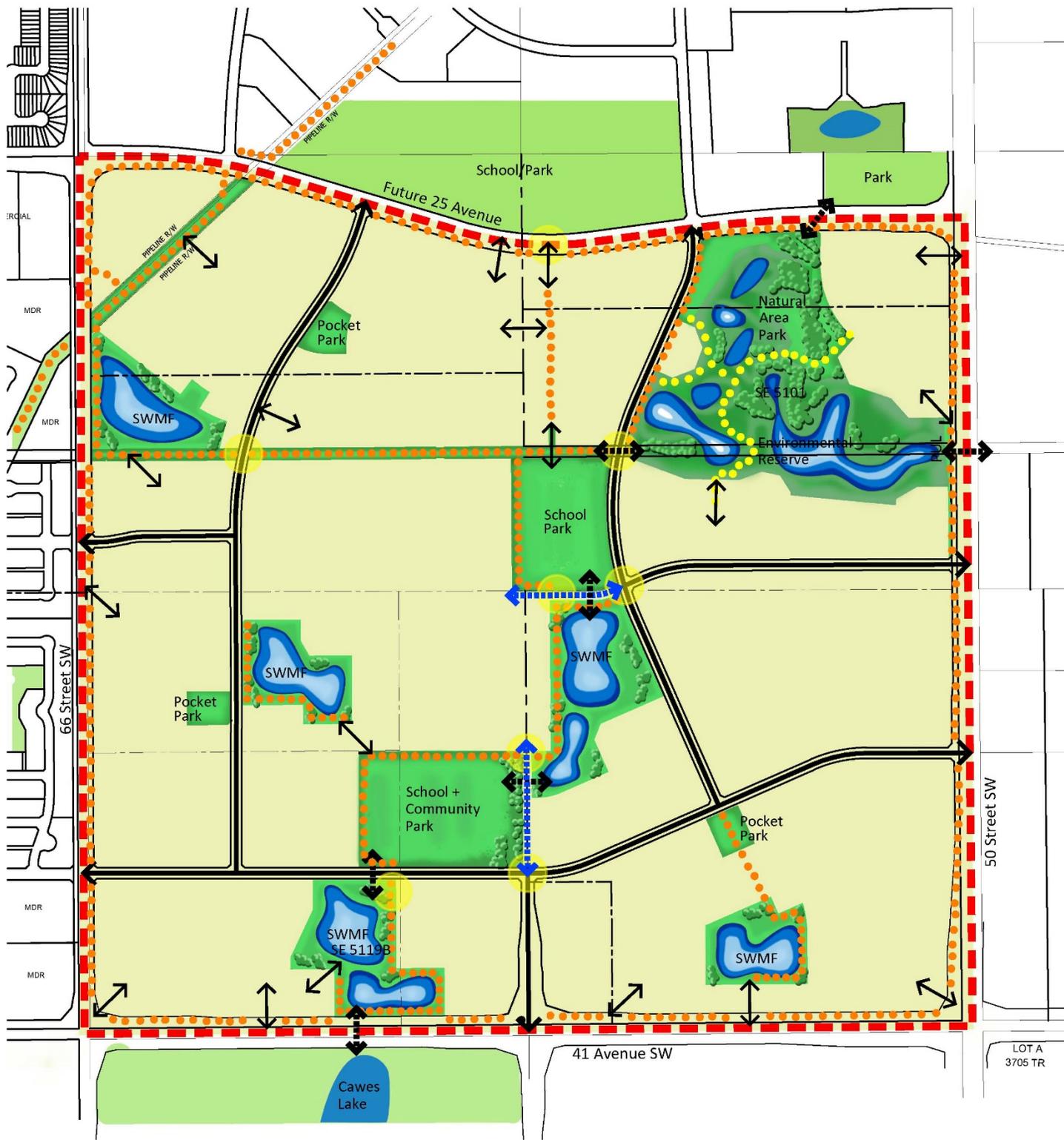


FIGURE 8
OPEN SPACE & PEDESTRIAN LINKAGES

Mattson
Neighbourhood Structure Plan

LEGEND

-  NSP Boundary
-  Priority Pedestrian Crossing
-  Walkway Linkages
-  Active Modes Connection
-  Potential Trail
-  Enhanced Local Roadway
-  Potential Wildlife Crossing Location

Scale: 10 000



G M A C

Greg MacKenzie + Associates Consulting Ltd.

Objective	NSP Policy	Implementation
3.3.8 (g) Design safe park spaces, in accordance with the Design Guide for a Safer City and UPMP.	3.3.8 (g) Park space shall have frontage along public roadways to ensure sightlines, natural surveillance, and adequate lighting. Landscaping and design of park spaces shall take into consideration CPTED principles and design principles included in the Design Guide for Safer City and UPMP.	3.3.8 (g) Design and development of future parks and open spaces shall consider safety needs of the community and be implemented based on the requirements of City Planning - Planning Coordination and the Urban Growth and Open Space Strategy.

Rationale

Well-designed park spaces can contribute to the sense of safety and security of its users.

Objective	NSP Policy	Implementation
3.3.8 (h) Provide parks and open spaces that can be enjoyed in all seasons.	3.3.8 (h) Design and programming to support implementation of the City's Winter City Guidelines will be considered at the subdivision and development stages. Examples of design considerations for a winter city include but aren't limited to: lighting to support use in the darker months; and servicing that could support community league amenities (such as an outdoor rink).	3.3.8 (h) Design and development of future parks and open spaces shall consider all season use and be implemented based on the requirements of City Planning - Planning Coordination and the Urban Growth and Open Space Strategy.

Rationale

Mattson provides an internal Active Modes Transportation network that is highly connected, direct and convenient via linkages between sidewalks, walkways, Greenways and SUPs. All parks and open spaces are connected to the Active Modes Transportation network within Mattson to ensure that they are accessible to the residential land uses in the plan area and the surrounding developing neighbourhoods. The park locations are linked with linear Greenway corridors, enabling additional recreation options and increasing active transportation (i.e. walking, bicycling, in-line skating) possibilities within the Plan area.

Objective	NSP Policy	Implementation
3.3.8 (i) Design a connected and integrated open space system that encourages Active Modes Transportation options.	3.3.8 (i) The Plan shall incorporate Active Modes Transportation linkages using sidewalks, walkways, greenways and shared use paths (SUPs) that link all park spaces and SWMFs and provide connectivity to major open space network components in adjacent neighbourhoods.	3.3.8 (i) Figure 6 - Land Use Concept and trail network will guide future application of neighbourhood parks, open spaces and Active Modes Transportation connections.

Rationale

Mattson provides an internal Active Modes Transportation network that is highly connected, direct and convenient via linkages between sidewalks, walkways, Greenways and SUPs. All parks and open spaces are connected to the Active Modes Transportation network within Mattson to ensure that they are accessible to the residential land uses in the plan area and the surrounding

developing neighbourhoods. The park locations are linked with linear Greenway corridors, enabling additional recreation options and increasing active transportation (i.e. walking, bicycling, in-line skating) possibilities within the Plan area.

Objective	NSP Policy	Implementation
3.3.8 (j) Design greenways and walkway connections to complement on-street sidewalk routes and connections.	3.3.8 (j) The design of the trail network within the Plan area shall avoid duplication of sidewalk connections yet maintain some off-street connections for major linkages through the neighbourhood.	3.3.8 (j) Figure 6 - Land Use Concept and trail network will guide future application of neighbourhood parks, open spaces and Active Modes Transportation connections.

Rationale

Providing a system of SUPs and walkways to complement the on-street sidewalk routes provides a variety of active transportation options within the neighbourhood. Designing this network to minimize unnecessary duplication of routes avoids unnecessary costs related to construction and maintenance of these facilities.

Technical Summary

A Community Knowledge Campus Needs Assessment (CKCNA) was completed to determine the best location, size configuration and orientation for a future potential CKC site and to facilitate communication and consultation in the planning and development of future school sites.

A Parkland Impact Assessment (PIA) was completed to ensure a reasonable amount of parkland related data was compiled enabling parks planners and developers to plan for and assess parkland requirements at the NSP stage of development.

Breathe, Edmonton's Green Network Strategy, provides a comprehensive approach for all aspects of securing, managing, programming, and promoting the sustainable and efficient use of parks and open spaces in the City. The Strategy considers how open spaces contribute to the City's ecology, provide opportunities for celebration and promote wellness, and guides the provision of efficient and functional open spaces. Breathe calls for a well-connected set of multifunctional open spaces, providing a wide range of amenities and activities for residents and visitors. Policy actions for planning and design; management and operations; engagement and partnerships; analysis and monitoring are included to accomplish vision and strategic direction of the Strategy. The provision of open spaces in Mattson (parks, schools, SWMFs, natural areas, greenways) has been guided by the direction provided by Breathe. Specific Strategic Directions of the Strategy that influence the allocation of neighbourhood open space in Mattson include "Safe + Inclusive; Vibrant Spaces; Distribution + Supply; Public Access + Connectivity; and Ecological Integrity; Collaborative Planning". Other Strategic Directions of Breathe, including: "Community Engagement; Education + Awareness; Adaptive Management + Flexible Spaces; and Sustainable Funding" are more applicable at the subdivision and development stages, when open space areas are being designed and programmed.

Design, programming, and maintenance and operations of these open spaces will be implemented through the Urban Parks Master Plan (UPMP).

3.3.9. TRANSPORTATION

The overall transportation network within the Plan area is based on the provision of efficient vehicular, transit and Active Modes Transportation circulation. This is conceptually illustrated in Figure 9, which identifies the roadway network and alternative circulation system that accommodates the movement of automobiles, transit, and Active Modes Transportation within the Plan area and the connections to adjacent communities.

Objective	NSP Policy	Implementation
3.3.9 (a) Implement the City of Edmonton road hierarchy system of an integrated arterial, collector and local roadway network.	3.3.9 (a) A well-integrated system of arterial, collector and local roadways shall be established for vehicular and Active Modes circulation within the Plan area and to adjacent neighbourhoods.	3.3.9 (a) Road right-of-way and arterial road widening shall be dedicated to the City of Edmonton in accordance with the NSP at the subdivision stage of development.

Rationale

The transportation network has been designed to meet both the internal and external traffic flow requirements generated by the neighbourhood in accordance with City of Edmonton’s guidelines and standards. A hierarchy of roads are intended to facilitate the efficient movement of vehicular traffic. Vehicular access to the surrounding arterial roadways will be provided via ten neighbourhood entrances / exits. Two of these neighbourhood entrances serve the northwest commercial site which is constrained by the pipeline and will align with accesses in Walker and Orchards and another will serve the northeast residential site which is constrained by the natural area. These three neighbourhood entrances have been planned and confirmed through the Mattson TIA.

Regional Network Accessibility

50 Street SW and 41 Avenue SW are major links in the Edmonton’s regional transportation network connecting the Plan area to major transportation routes including the QEII, Anthony Henday Drive and Whitemud Drive. Access to the Edmonton International Airport as well as major employment areas in southeast Edmonton and in Nisku are provided from the Plan area via these routes. The Town of Beaumont is located south of the Plan area on Range Road 241, which turns into 50 Street SW within the City limits.

Arterial Roadways

All directional access to the Plan area is provided at multiple intersections off the 50 Street SW, 66 Street SW, 25 Avenue SW and 41 Avenue SW arterial roadways.

A future 25 Avenue SW four lane arterial will form the north boundary of the Plan area. The eastern portion of 25 Avenue SW has been realigned south to better respect the Biodiversity Core Area to the northeast of the future 50 Street SW / 25 Avenue SW intersection. The locations of access points along 25 Avenue SW meet the City’s minimum intersection spacing requirements and generally align with access locations approved in the Walker neighbourhood to the north.

Two collector roadway accesses are proposed from 66 Street SW. These access locations respect minimum intersection spacing requirements while providing adequate access to facilitate efficient staging of development in the Plan area.

One access point is identified to the Plan area from 41 Avenue SW, which will ultimately be a six-lane arterial roadway. This access point has been located consistent with the City’s concept plan for 41 Avenue SW.

Lands within the Plan area will be subject to an Arterial Road Assessment (ARA) to cost share the construction of arterial roadway facilities needed to service the area. In general terms, the ARA outlines the developer's responsibility for roadway construction within a catchment area and is based on the estimated costs of constructing arterial roads required for access to a catchment area.

Timing of arterial roadway construction shall be discussed with City Planning - Subdivision & Development Coordination early in the development of the neighborhood to identify a strategy that strikes a balance between level of service and the financial viability of the development of Mattson area.

The collector and commercial accesses to Mattson along 66 Street are aligned with the approved 66 Street Concept Plans.

Updated concept plans are not currently available for 66 Street south of 25 Avenue SW; however, the location of the all-directional commercial site access was discussed as part of two previous amendments to The Orchards NSP. The proposed access shown in the NSP for the northwest commercial site aligns with the direction of these discussions as of the time of writing.

Coordination of arterial access locations will be in conjunction with planning for adjacent neighbourhoods and the concept planning for arterial roadways, fully coordinated at the subdivision and development stages in coordination with the City.

Internal Roadway Circulation

The internal transportation system is comprised of a series of collector roadways that create a U-shaped network within the community south of 25 Avenue SW, with extensions to 50 Street, 66 Street, and 41 Avenue SW complemented by a series of local roadways that offer safe and convenient access throughout the neighbourhood. Collector and local roadways will be designed in accordance with the City of Edmonton's Complete Streets Design and Construction Standards (CSDCS). While most of the collector network is anticipated to include a minimum of one travel lane in each direction, additional lanes may be provided on the approaches to the arterial network based on recommendations from the TIA.

Boulevard and / or median landscape treatment at the main entry points will create and enhance a sense of entry to Mattson as a distinct, identifiable neighbourhood.

The roadway network has been designed to provide efficient and convenient access to residential areas. Traffic calming elements from the City of Edmonton's Complete Streets Design and Construction Standards (CSDCS) should be employed to reinforce a local 'sense of place' among residential sub-areas to reduce traffic volumes and speeds, minimize short cutting, increase pedestrian safety and to support an Active Modes Transportation-oriented streetscape and promote walkability (See Figure 9). Details of traffic calming measures shall be confirmed with Subdivision and Development Coordination at subdivision and/or development permit stage.

Parking

Parking for vehicles will generally be provided off-street in conjunction with residential development applications and in accordance with the Zoning Bylaw.

Truck Routes

50 Street SW and 41 Avenue SW are 24-hour truck routes.

Objective	NSP Policy	Implementation
3.3.9 (b) Mitigate the impact of vehicle traffic associated with MDR and commercial development on the roadway network	3.3.9 (b) Locate commercial and MDR sites to facilitate access from collector roadways to the greatest extent possible.	3.3.9 (b) Ensure MDR and commercial development is accessed via abutting collector roadways to the greatest extent possible and minimize access via local roadways at the

for the Plan area.

subdivision stage.

Rationale

Commercial and MDR residential developments are located adjacent to collector and / or arterial roadways. Locating nodes of higher intensity and increased vehicular traffic adjacent to roadways with higher vehicular capacity reduces potential conflicts between local residential traffic and traffic generated by these higher intensity uses.

At the site development stage, opportunities for Transportation Demand Management (TDM) initiatives will be considered to further mitigate vehicle traffic impacts associated with higher density residential and commercial uses.

Objective	NSP Policy	Implementation
3.3.9 (c) Avoid the development of long cul-de-sacs wherever possible.	3.3.9 (c) Ensure the maximum length of cul-de-sacs in residential settings does not compromise City emergency response plans, operations and maintenance.	3.3.9 (c) Maximum cul-de-sac lengths in residential settings will be determined and adhered to at the subdivision stage. An emergency access will be developed within the 50 Street right-of-way through the east edge of the natural area, connecting to the medium density residential site south of the natural area. The provision of emergency access will need to meet the requirements of a swept path analysis for a City of Edmonton fire truck and will be subject to review and approval by the City's Fire Rescue Service (FRS) and Subdivision and Development Coordination.

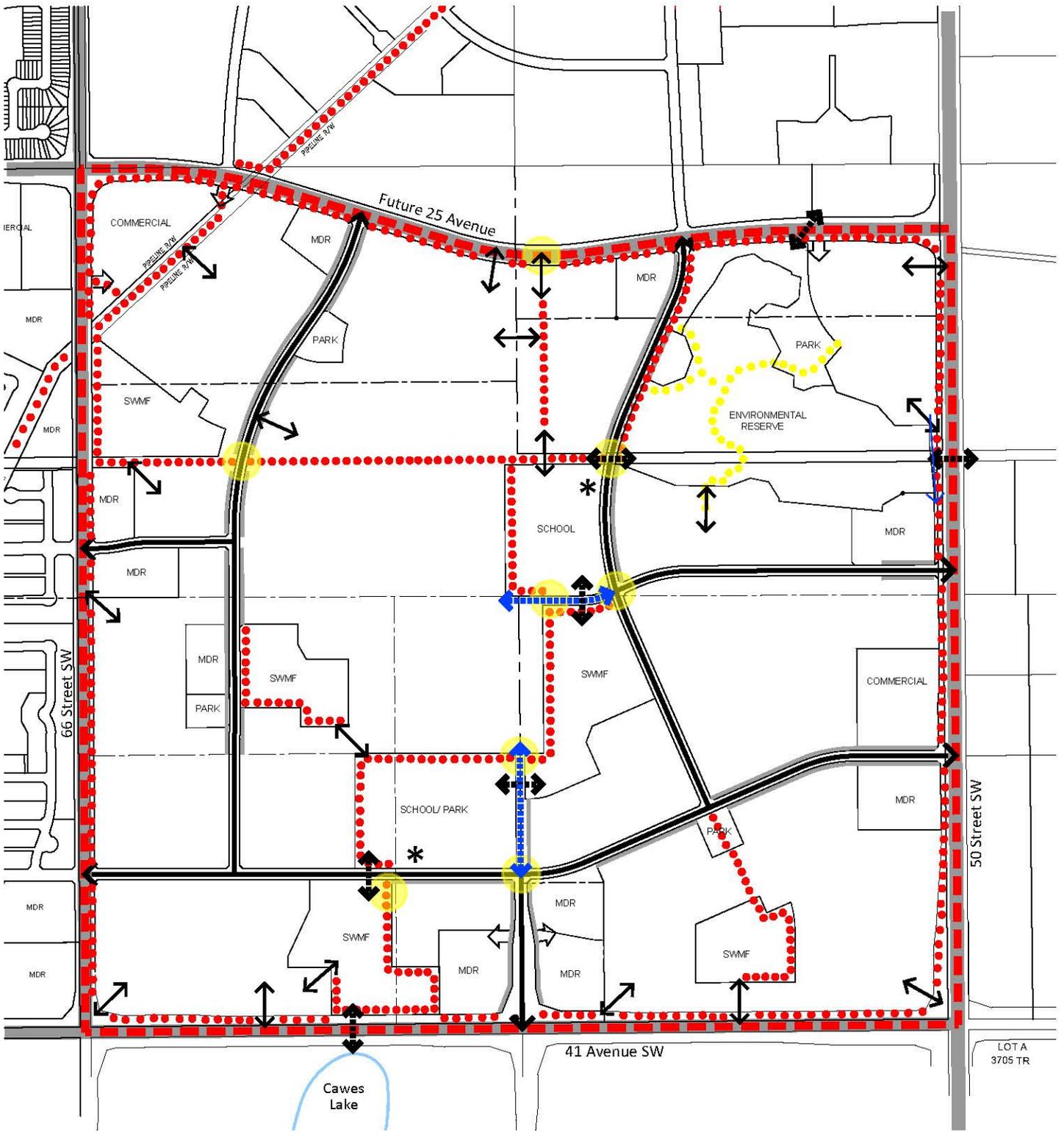
Rationale

Subdivision design shall ensure that cul-de-sac lengths comply with City regulations to reduce impacts to City operations (e.g. emergency access, waste collection and snow clearing). Where the length of cul-de-sac requires it, the provision of an emergency access to an adjacent cell of development will be required.

Objective	NSP Policy	Implementation
3.3.9 (d) Establish internal roadway connectivity and discourage the development of "exclusive" residential enclaves.	3.3.9 (d) Ensure internal roadways have ample vehicular and Active Modes Transportation connections and form accessible residential developments where practical.	3.3.9 (d) Subdivision design in residential settings will be determined prior to subdivision approval.

Rationale

Local roadway connections to the collector roadway network will be provided to ensure that adequate access by a variety of transportation modes is provided throughout the plan area with the support of the Transportation Impact Assessment (TIA).

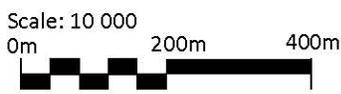


LEGEND

- ▬ NSP Boundary
- ▬ Arterial Roadway
- ▬ Collector Roadway
- ↔ Access / Emergency Access
- Priority Pedestrian Crossing
- ⋯ Active Modes Connection
- ⋯ Potential Trail
- ▬ Restricted Front Drive Access
- ↔ Walkways
- * School Drop Off Zone
- ↔ Potential Wildlife Crossing Location
- ⋯ Enhanced Local Roadway

**FIGURE 9
TRANSPORTATION NETWORK**

Mattson
Neighbourhood Structure Plan



Objective	NSP Policy	Implementation
3.3.9 (e) Promote connectivity and Active Modes Transportation access to amenity areas such as parks, open spaces, commercial areas and transit facilities by providing an alternative circulation system.	3.3.9 (e) A network of sidewalks, greenways, walkways and Active Modes links shall be provided to promote walkability and access to open spaces, stormwater management facilities, amenities and transit facilities.	3.3.9 (e) Figure 8 – Open Space & Pedestrian Linkages illustrates the conceptual greenway, walkway and Active Modes network. City Planning - Subdivision & Development Coordination shall have regard for the dedication of walkways to promote walkability and appropriate access to transit facilities and neighbourhood amenities. All local and collector roadways in Mattson shall be developed with sidewalks.

Rationale

Neighbourhood connectivity contributes to the development of a compact, integrated community with a balanced transportation network. Neighbourhoods that have a high degree of connectivity encourage residents to walk, reduce the number of trips made by vehicles and promote health and neighbourly interaction. Connectivity is characterized by a logical network of movement that links destinations, provides access and is integrated with its environment.

Active Modes Transportation Network

A network of pathways, walkways and sidewalks will create interesting and diverse recreation experiences within the Plan area. All Active Modes Transportation linkages will be developed in consensus with the City and will be developed to the City of Edmonton's Complete Streets Design and Construction Standards (CSDCS) at the time of subdivision.

An efficient and continuous walkway network located within the open spaces, greenways and roadways will connect activity nodes within the Plan area and provide Active Modes Transportation circulation throughout the neighbourhood.

All local and collector roadways will be developed with sidewalks in accordance with City standards, providing Active Modes Transportation access throughout the Plan area.

This sidewalk network will be complemented by active modes connections within the greenways, MR areas, stormwater management facilities, and the existing pipeline right-of-way in the north-west portion of the Plan area. This Active Modes Transportation network will connect with those planned for adjacent neighbourhoods. Future potential trail alignments will be determined with the submission of the Natural Area Management Plan.

Priority Active Modes Transportation crossing locations have been identified near schools and at locations where the off-street active modes network intersects the road-based network at midblock locations. These priority Active Modes Transportation crossings shall include design elements, such as curb bulbs or raised crosswalks from the CSDCS, to enhance Active Modes Transportation visibility, reduce crossing distances, and/or reduce traffic speeds.

Greenways

As described previously, in Section 3.3.8, the active modes network within the Plan area will be enhanced through the provisions of active modes connections within the Greenways. These Greenways may also include park furniture (e.g. benches, garbage receptacles) and directional and interpretive signage. The level of development allowed will be established with the City of Edmonton at the detailed design stage.

Bicycle Circulation

Bicycle circulation within the Plan is primarily an on-road system which will follow collector and local roadways within the neighbourhood. Bicycle routes will be integrated within SUP corridors and walkways connecting internal and adjacent residential areas and amenities. Routes will be clearly marked using appropriate signage and markings to minimize potential conflicts between vehicles and Active Modes Transportation users in the Plan area.

Roadways identified as accommodating an active modes connection can be considered cycling priority areas, where bicycle facilities shall be accommodated within the street cross-section or adjacent municipal right-of-way (e.g. parks, storm water management facilities). Most of the network links are anticipated to be developed as SUPs; however, alternate bicycle facility designs may be considered within the context of the roadway and adjacent land uses at the engineering design stage.

Determination of bicycle facilities (i.e. shared on-street, separated, on-street separated) will occur at the subdivision and development stage.

Objective	NSP Policy	Implementation
3.3.9 (f) Provide noise attenuation where residential uses back onto major transportation corridors, which have been designated or will be designated as truck routes.	3.3.9 (f) Where required, appropriate noise attenuation shall be provided for residential uses adjacent to major transportation corridors which are, or will be, truck routes.	3.3.9 (f) Planning Coordination shall determine if a noise attenuation assessment is required for residential development at the subdivision approval stage, in accordance with the City policy.

Rationale

Along major roadways which are, or will be, truck routes, noise attenuation will support for the safety and enjoyment nearby residents.

Objective	NSP Policy	Implementation
3.3.9 (g) Integrate land use and circulation patterns considering safety of Active Modes Transportation.	3.3.9 (g) (i) Ensure Active Modes Transportation crossings are safe, convenient and developed at visible locations.	3.3.9 (g) (i) Active Modes Transportation crossings shall be identified at the subdivision approval and/or development permit stages.
	3.3.9 (g) (ii) The number of lots having direct access onto a collector roadway shall be determined at the subdivision stage and shall not exceed 30%. Front driveways are not permitted across from school and park sites	3.3.9 (g) (ii) Locations of restricted front drive access from collector roadways are shown generally on Figure 9 – Transportation Network and will be confirmed at the subdivision approval and/or development permit stages.

Rationale

Along collector roadways with high traffic volumes, front drive access will be restricted to promote a safe and Active Modes Transportation-friendly streetscape and to reduce vehicular conflicts. Front drive access from collector roadways will not be provided across from the School sites and on approached to arterial intersections. The number of lots having direct access onto a collector roadway shall be determined at the subdivision stage and shall not exceed 30%. The provision of

front drive access within the Plan area will be consistent with applicable City of Edmonton policies and will be determined prior to rezoning and subdivision approval.

Objective	NSP Policy	Implementation
3.3.9 (h) Provide accessible transit to residents and schools.	3.3.9 (h) (i) Ensure sufficient active modes links are provided to the collector and arterial roadways to minimize walking distances to transit corridors.	3.3.9 (h) (i) Walkway connections are identified from the neighbourhood to the adjacent arterials to provide more direct access to transit routes along arterials.
	3.3.9 (h) (ii) Adequate school transit service shall be provided to the School and Community Park sites.	3.3.9 (h) (ii) The location of the School and Community Park sites provides roadway frontage along the abutting collector roadway.

Rationale

Public Transit

With the extension of LRT service to Millwoods, in conjunction with bus transit routes, the Plan area will be provided with excellent access to rapid transit to major employment and activity areas in Downtown Edmonton and the University of Alberta as well as NAIT, West Edmonton Mall and beyond the City of Edmonton to the City of St. Albert.

Mattson provides a collector roadway network through the neighbourhood to provide efficient connections to major transportation corridors while ensuring residents are located within walking distance of roads where transit service could be provided. Transit service is expected to be extended into the neighbourhood in a staged manner as development progresses. The active modes network provides active transportation connections to the future transit centre located in Walker at Ellerslie and 50th Street SW. 50th Street SW will serve as a priority corridor between the future transit centre and Mill Woods Town Centre.

The City of Edmonton recently approved a new Transit Strategy to ensure the long-term success of transit in Edmonton. The strategy sets a guiding vision that will influence the delivery of transit service and investments in the transit system over the next decade and will inform the implementation of a new bus network by 2020.

Edmonton Transit System will determine the routing for public transit along the arterial and collector roadways which have been identified as future transit routes. To provide transit services earlier in the development of the neighbourhood, participating landowners can investigate opportunities to develop transit options as a precursor to transit either with the City or privately.

Shared use paths along utility corridors in addition to sidewalk and walkway connections along collector and local roadways will provide access to the transit facilities.

Technical Summary

The transportation network for the Plan area will be provided in accordance with the requirements of the City of Edmonton's Transportation Services. A Transportation Impact Assessment (TIA) has been submitted separately for review and approval by Transportation Services.

3.3.10. INFRASTRUCTURE, SERVICING AND STAGING

Development in the Plan area will be fully serviced. designed and constructed in accordance with City servicing standards.

Objective	NSP Policy	Implementation
3.3.10 (a) Ensure that development is serviced to a full urban standard and servicing is provided in an efficient and logical manner.	3.3.10 (a) Sanitary and stormwater servicing will be provided in accordance with the approved Neighbourhood Design Report (NDR).	3.3.10 (a) Approval of engineering drawings and servicing agreements will be required for installation of sanitary and stormwater servicing.
	Water Servicing to the Plan area will be provided in accordance with the approved Hydraulic Network Analysis (HNA).	Approval of engineering drawings and servicing agreements will be required for installation of water servicing.
	3.5.10 (b) Shallow utilities will be extended into the Plan area as required. Roadways will be developed to an urban standard unless deemed otherwise through the approval process and / or incorporating LID principles.	3.3.10 (b) Installation of shallow utilities will be executed through servicing agreements.

Rationale

Stormwater Management Facilities

A system of four (4) naturalized SWMFs and one (1) Engineered Wetland SWMF are proposed for the Plan area. The stormwater is conveyed using a system of interconnected pipes directing stormwater to the future storm outfall along 41 Avenue SW which ultimately discharges into Blackmud Creek west of Gateway Boulevard. More specific design considerations are addressed in the NDR in conjunction with the ENR and future NAMP.



Naturalized SWMF (Aurora)

The stormwater management system within the Plan area will meet Alberta Environment and the City of Edmonton’s Standards required for their design and operation.

Engineering design criteria related to the development of the Plan area and its SWMFs will have to gain the approval of municipal, provincial and federal authorities.

The Stormwater Management Plan for the Plan area reflects the latest amendment of the Area Master Plan (AMP), September 2012.

If development proceeds with the initial stages beginning in the NW quadrant of the Plan area, there will be a need for interim servicing for the storm water discharge from Lake #1. The proposed solution is to use the existing 66 Street SW east ditch to convey this stormwater to Cawes Lake until additional development occurs downstream of Lake #1. A downstream landowners’ agreement may

also provide an alternative storm discharge route as it follows the natural overland drainage pattern. Once development occurs downstream of Lake #1, the permanent interconnecting pipe can be constructed into Lake #2 and then eventually into Lake #5. The timing of the permanent storm trunk sewer along 41 Avenue SW will be addressed in the NDR.

The on-site SWMFs will be designed to release at a 3.0 l/s/ha controlled rate. Each facility will have the mechanical means to further over control if needed.

The proposed Mattson neighbourhood will incorporate principals from the City of Edmonton's Low Impact Development Practices Design Guide – Edition 1.1 (December 2014) for stormwater management purposes. Some key features that could be applied for neighbourhood design include:

- Matching existing topography as much as possible to minimize land disturbance.
- Establishing an Environmental Reserve to minimize vegetation disturbance.
- Stormwater Management Facilities constructed in existing low lying areas.
- Bioretention swales and/or a naturalized drainage path could reduce storm runoff during small storm events and provide treatment for stormwater close to the source.

An Engineered Wetland is proposed as Lake #5, replacing the wetland remnant of Cawes Lake (isolated from the balance of Cawes Lake by 41 Avenue SW and reduced by subsequent agricultural practises) within the Plan area. The Engineered Wetland system will feature many key elements that are not conventionally found in SWMFs for new neighborhoods. Both uplands and wetlands will be rebuilt from the soils up to create a diverse, stable and resilient ecosystem. This will ensure that the SWMF benefits are much more advanced than those of a conventional SWMF, that are focused on water collection and drainage. Ecological and environmental benefits include:

- Engineered and “re-built” soils mimicking those found in natural uplands and wetlands throughout Central Alberta ecosystems. These soil rebuilding methods throughout the entire SWMF will permit the Mattson wetlands to ecologically function more like natural wetlands than conventional stormwater management facilities; and
- Native vegetation including trees, shrubs, forbs and grasses which will be integrated into the landscape design to promote plant biodiversity and wildlife.

Key features of the Engineered Wetland will include:

- Softscape:
 - Integrate wetland and upland soil design, engineering, and rebuilding with vegetation communities to maximize all ecosystem function.
 - Replicate appropriate aspen-parkland vegetation communities (e.g. woodlands, grasslands and wetlands) to promote biodiversity, connectivity, and ecosystem function.
 - Engineer soils to be ‘rebuilt’ based on local models that integrate natural uplands and wetlands, the available soils to be conserved on the site, and construction requirements to maximize soil quality and its contribution to ecosystem function.
 - Interconnect wetland and upland vegetation communities with a high diversity of trees, shrubs, forbs and graminoids.
 - Maximize habitat diversity to ensure SWMF ecological resilience.
 - Utilize hardy, drought resistant native trees and shrubs to maximize survival, growth and spreading, supporting reduced maintenance costs and ecological function (e.g., bird habitat).
 - Maximize native vegetation genetic and biological diversity for all species in uplands and wetlands by local propagule collection as a driver of ecosystem function.
- Hardscape:
 - Permeable surface plazas, promoting water infiltration while supporting the informal “natural” approach to the design and function of the engineered wetland.

- Active modes connections to support controlled access for residents and visitors as well as interactive education and interpretation.
- Boardwalks to promote educational connections between Edmontonians and the rebuilt natural system, their understanding and appreciation of nature and ecological function, while minimizing negative impacts.
- Amenities:
 - Viewing platform(s) that further enhance the interactive education and interpretation.
 - Interpretive signage (may be interactive) to provide specific details.
- Educational and Interpretive Opportunities:
 - Opportunities exist for the installation of interpretive signage located next to the main walkway and special interest areas; interpretive signage could include descriptions of:
 - Geo-morphology of the surrounding area.
 - Functions and processes of wetlands and their translated ecosystem service benefits including the advantages of a re-constructed Engineered Wetland compared to a standard SWMF.
 - Various changes and transformation of the wetlands occurring during the seasonal cycles and over time.
 - Wetlands fauna and flora.
 - How diverse wetland success is integrated with the surrounding SWMF aspen-parkland uplands.



In addition to the opportunities described above, the City of Edmonton is encouraged to feature the Mattson Engineered Wetland as a showcase / demonstration project for the benefit of future private land development within Edmonton and other municipalities. Showcasing the unique approaches, features and benefits reflects the city's policy on biodiversity, ecological and environmental approaches as well as LID approaches to managing stormwater in urban areas. Elements of the approach to managing stormwater in Mattson are already being applied in the City of Edmonton for other environmentally sound SWMFs (such as Larch Park and Walker). The Mattson Engineered Wetland represents the next step in the evolution of this approach to managing stormwater in an ecologically sensitive manner.

A natural area is proposed within the northeast quadrant of the Plan area. Special consideration is required to maintain an adequate amount of stormwater runoff into this natural area to ensure its sustainability. LID will play an important role to allow proper treatment and controls prior to discharging into Cawes Lake. It is anticipated that a certain amount of stormwater will be diverted into Cawes Lake to help sustain its natural state. The existing wetland complex within the ER area will be supplemented with water from lands east of 50 Street SW through an existing culvert.

Sanitary Servicing

Off-site sanitary service to the Plan area will be by gravity with the extension of a sanitary sewer trunk along 88 Street SW to 41 Avenue SW (in the Orchards neighbourhood) and along 41 Avenue SW to west of 50 Street SW (in Mattson) as shown on Figure 11. Two (2) service points will be required for the Plan area. The Sanitary Sewer Strategy Fund (SSSF) has completed the extension of the 1200 mm diameter trunk from 91 Street SW to 88 Street SW, along 30 Avenue SW, in 2011. The remaining trunk sewer size is less than 1200 mm diameter; therefore, further extension of this trunk sewer will be the responsibility of the development industry.

On-site sanitary servicing will be developed as shown on Figure 12.

The proposed horizontal alignment is in accordance with the current AMP (and its amendments) and the Sanitary System Bylaw 14979, September 10, 2008.

Two options will be considered for the timing of the off-site sanitary trunk sewer and interim servicing. The extension of the gravity trunk sewer will be an expensive burden on any one developer. The preferred option would see a developer group front ending the gravity sewer extension.

If that option is not workable, an interim solution would see the installation of an interim lift station to service the Plan area. The discharge would see a combination forcemain and gravity sewer installed along the similar alignment of the ultimate trunk sewer.

Water Servicing

The tertiary zone will be serviced by the extension of four (4) water feeds. See Figure 11 for off-site servicing and Figure 13 for the on-site water main alignments.

The quaternary zone (> than 720 m geodetic) will be serviced by the extension of a 600 mm watermain from the Walker Neighbourhood. The final recommended alignment of that main is currently under review by EPCOR.

Overall water servicing shall be designed and constructed using conventional methods for providing peak hour flows and fire flows for low and medium density residential, schools, urban development and commercial uses. EPCOR Water supports the Mattson Hydraulic Network Analysis (HNA) report as per their April 9, 2013, letter.

Ongoing development continues to extend tertiary water main feeders through the Walker Neighbourhood. This neighbourhood can extend a 300mm water main down 66 Street SW to the northwest corner of the Plan area. A secondary tertiary loop can be provided by extending the 300mm feeder through the Walker Neighbourhood.

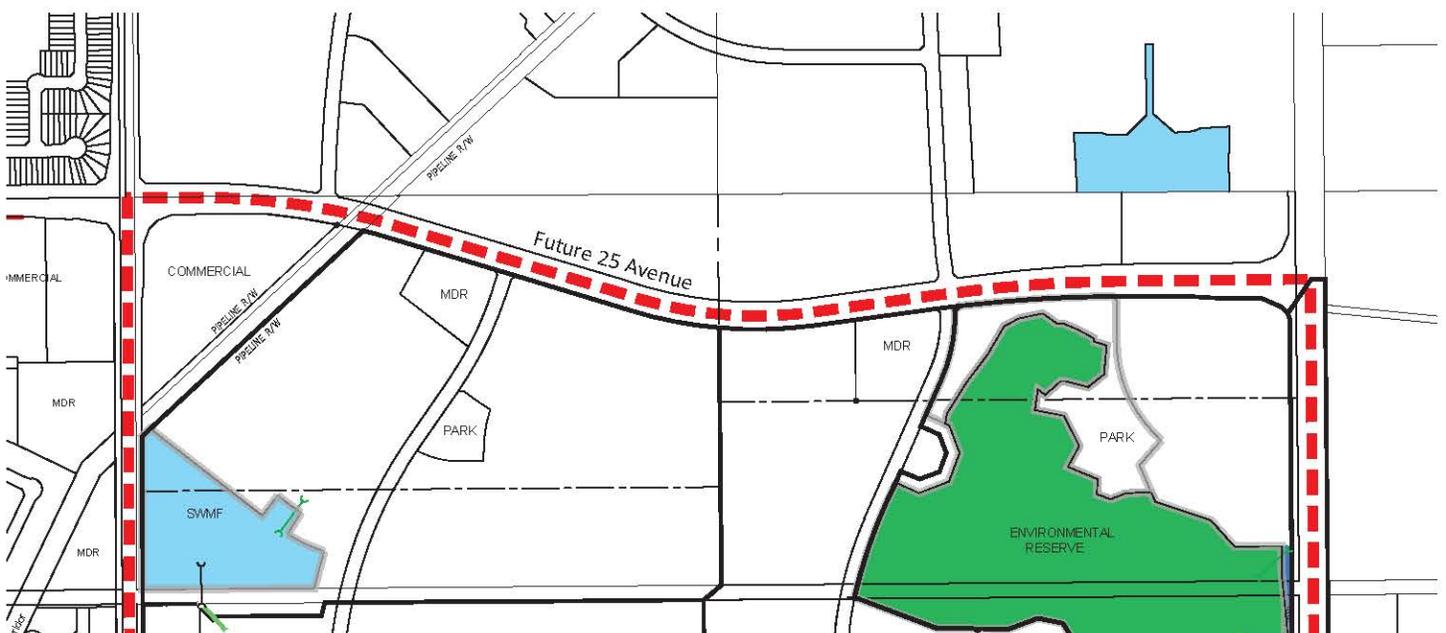
Shallow Utilities

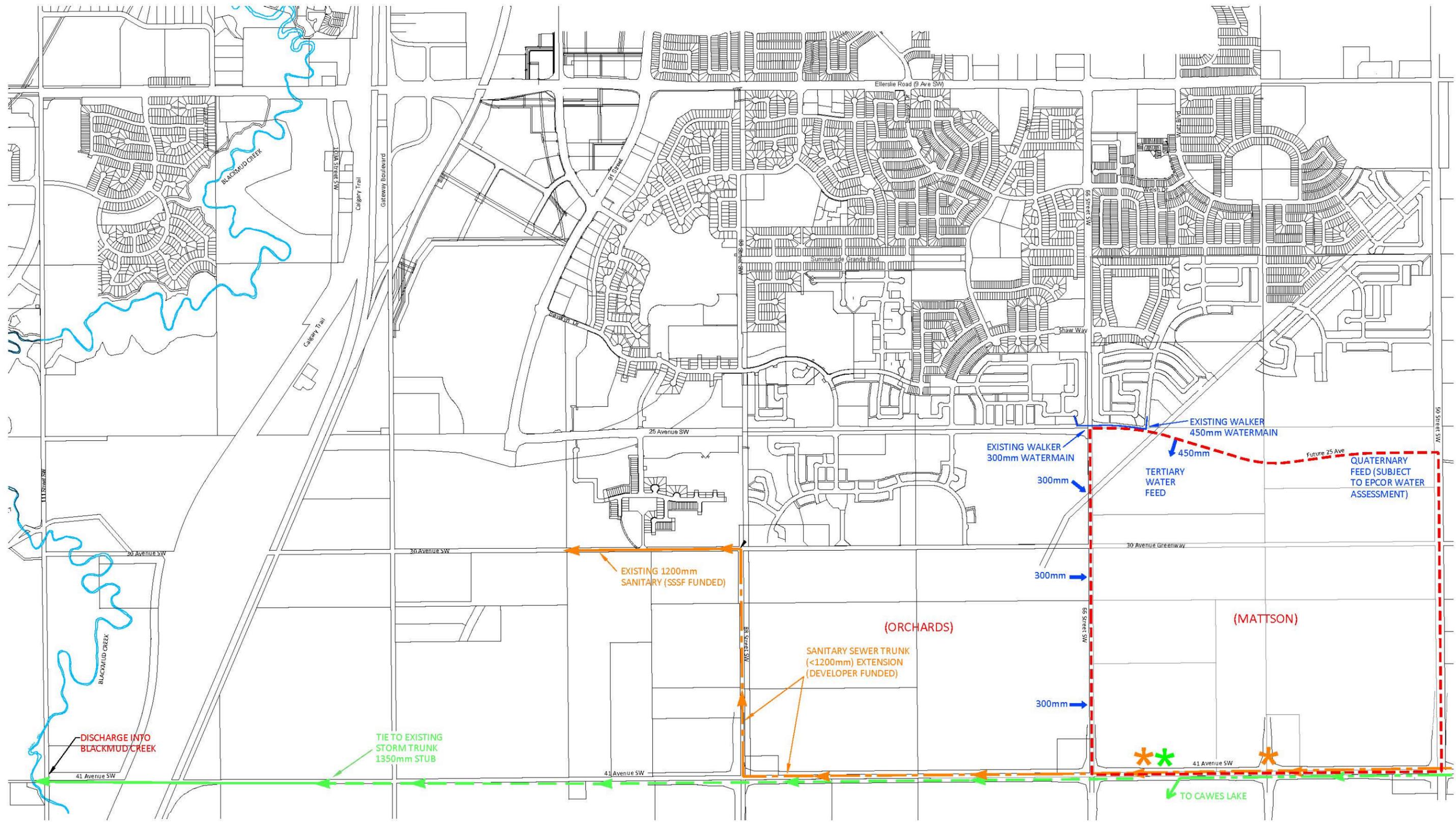
Power, gas and telecommunication services are all located within proximity to the Plan area, within the Walker Neighbourhood, and will be extended as required.

Staging

Development is anticipated to proceed initially from the northwest corner of the Plan area toward the southeast. Individual stages will ultimately be defined based on future economic conditions and market demands as well as the orderly and economic extension of roadways and municipal services to the Plan area (See Figure 14). It is anticipated that development of the Plan area will be complete within 15 years of building being initiated. Zoning and subdivision applications will be required for the successive stages of development.

Technical Summary

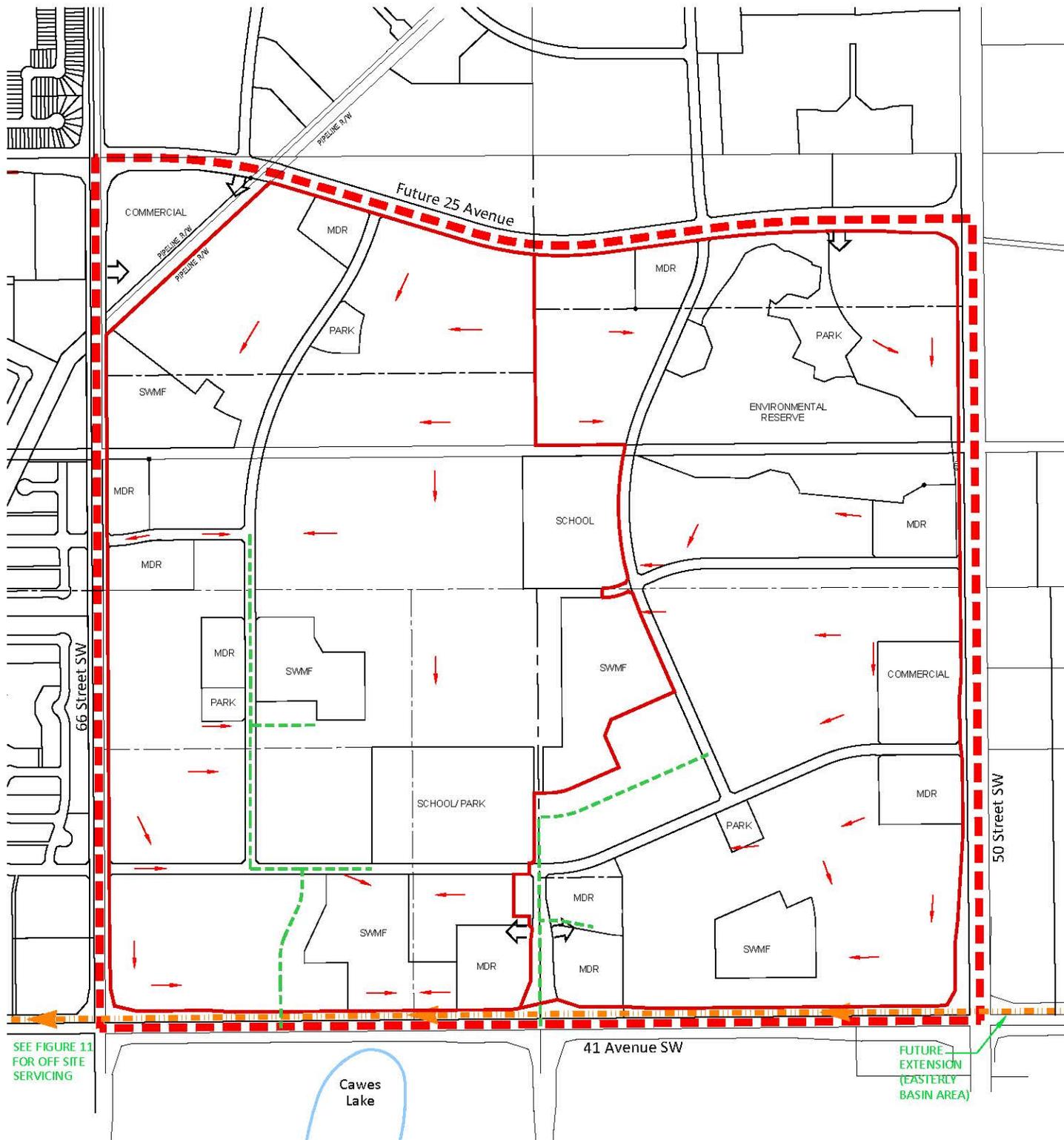




LEGEND

NSP Boundary	Existing Sanitary Trunk	Existing Storm Trunk (1350mm)
Existing Water Line	Proposed Sanitary Sewer (<1200mm)	Proposed Storm Trunk - Blackmud Creek
Proposed Water Service Point	Mattson Sanitary Connection Point	Proposed Storm Trunk - Cawes Lake
	Mattson Storm Connection Point	

FIGURE 11
OFF-SITE SERVICING PLAN
 Mattson
 Neighbourhood Structure Plan

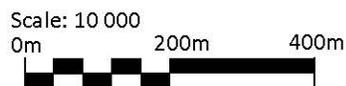


LEGEND

- - - NSP Boundary
- Direction of Flow
- Sanitary Basin Boundary
- - - Proposed Sanitary Main (On Site)
- - - Proposed Sanitary Trunk (Developer Funded)

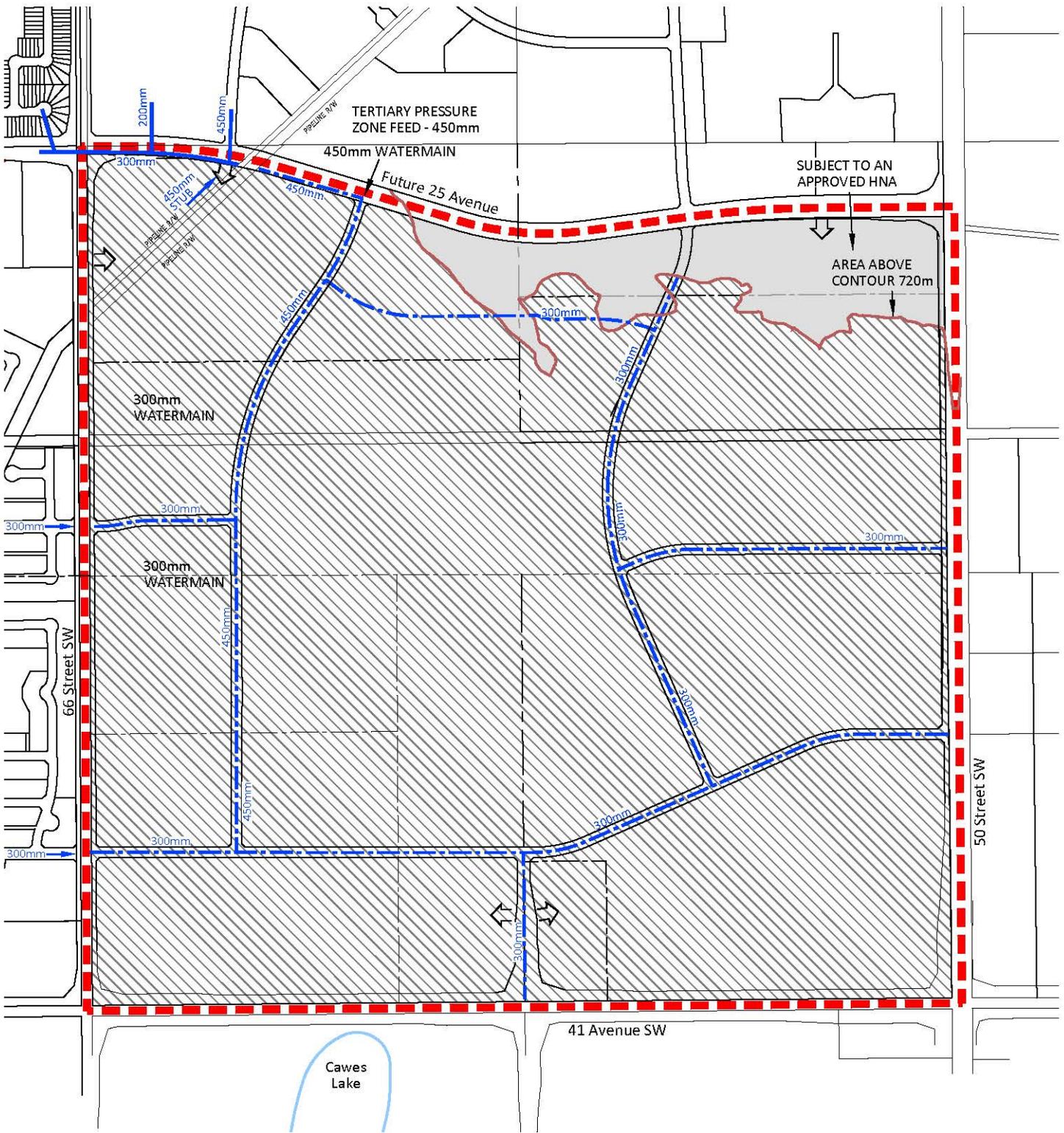
**FIGURE 12
SANITARY SERVICING SYSTEM**

Mattson
Neighbourhood Structure Plan



G M A C

Greg MacKenzie + Associates Consulting Ltd.

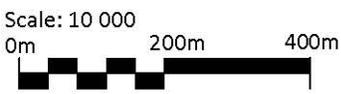


LEGEND

- NSP Boundary
- Off Site Watermain Feeds
- Proposed Watermain
- Existing Watermain
- 720m Contour
- Quaternary Pressure Zone
- Tertiary Pressure Zone

**FIGURE 13
WATER SERVICING SYSTEM**

Mattson
Neighbourhood Structure Plan



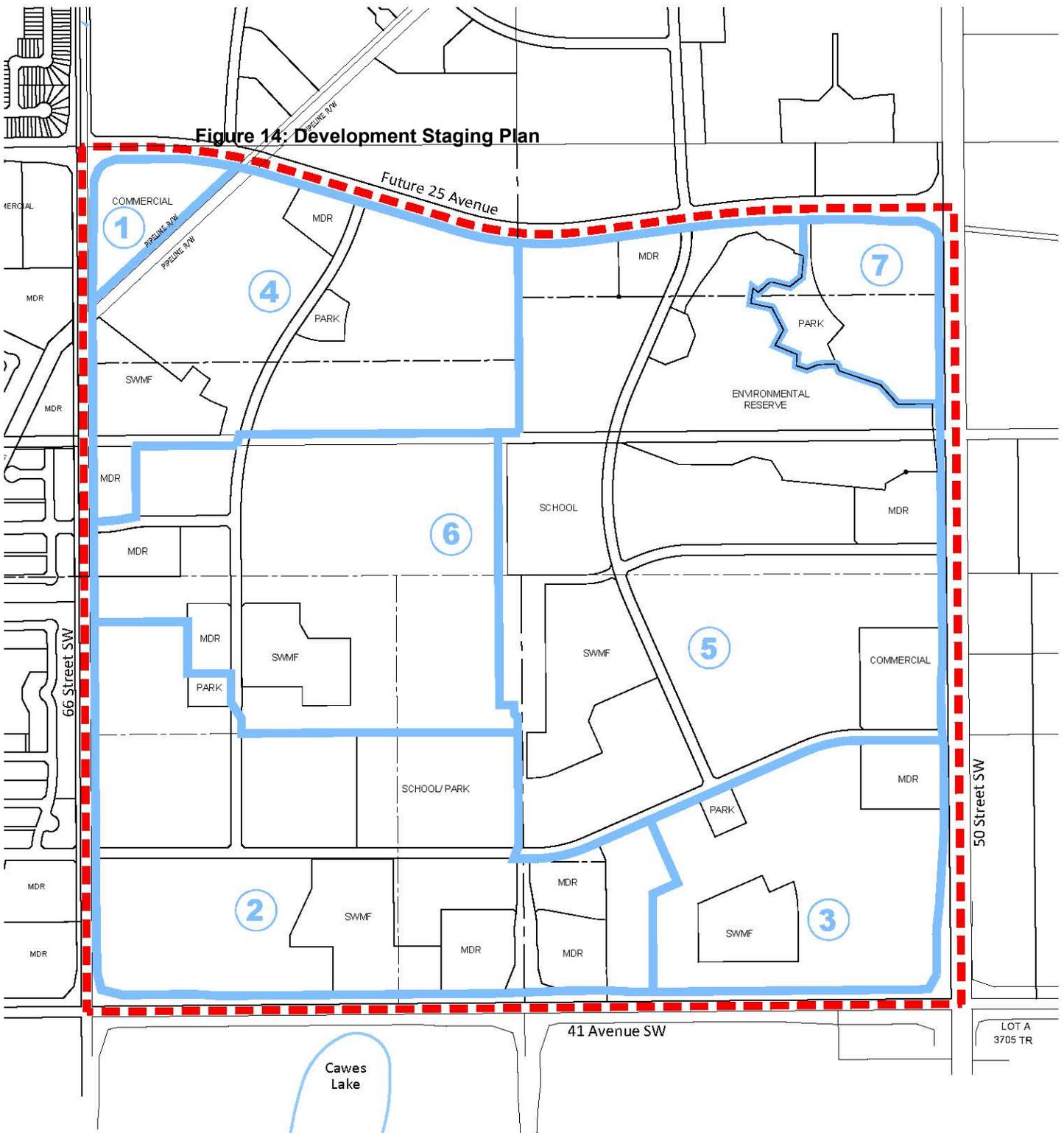


Figure 14: Development Staging Plan

LEGEND

-  NSP Boundary
-  Staging Boundary
-  Staging Sequence

**FIGURE 14
DEVELOPMENT STAGING PLAN**

Mattson
Neighbourhood Structure Plan

