



# EMERSON

## Neighbourhood Area Structure Plan

Meier Ventures Ltd.

City of Red Deer

Bylaw 3217/B-2016  
Adopted June 20, 2016

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# introduction

## 1.1 OVERVIEW

### 1.1.1 Purpose

The purpose of the Emerson Neighbourhood Area Structure Plan (NASP) is to describe the land uses and development objectives for a portion of SW 26-38-27-W4M, located in the northeast portion of The City of Red Deer. This location is shown on **Figure 1 - Location Plan**.

The Emerson Plan Area is described as the SW ¼ of Section 26, Township 38, Range 27, West of the 4th Meridian; excepting thereout Lot 1 Plan 002 1154 and Lot 1 Block 1 Plan 142 0727; which encompasses approximately 40.32 hectares (99.63 acres), as shown on **Figure 2 - Legal Boundary**.

### 1.1.2 Background on Plan Process

The following NASP, prepared on behalf of Meier Ventures Ltd, was created through collaboration with Meier Ventures Ltd, Stantec Consulting Ltd, and the City of Red Deer. This NASP is intended to guide development by delineating land uses, parks and open space, stormwater management, and development phasing for the Emerson neighbourhood.

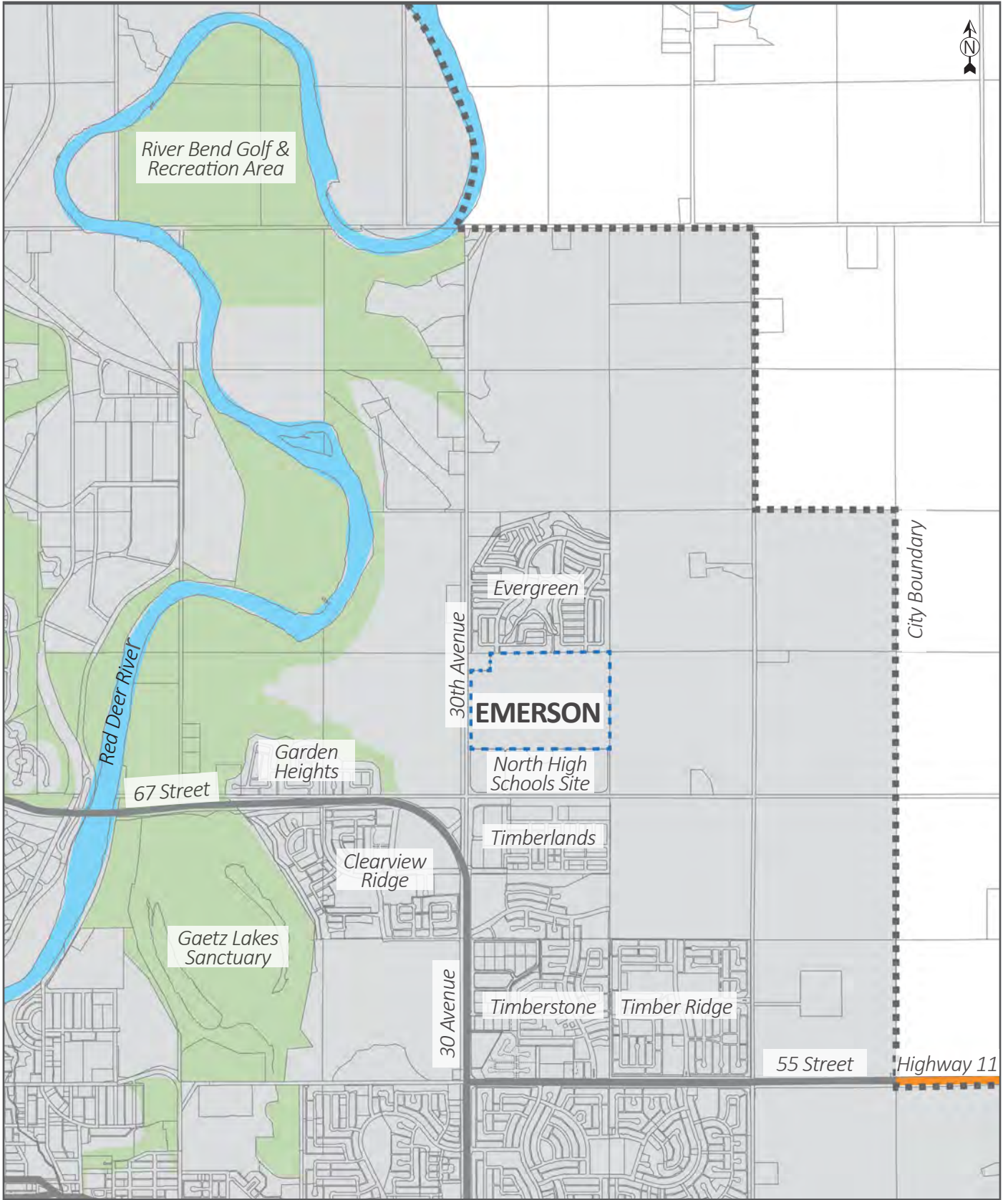
### 1.1.3 History of the Plan Area

The history of the Plan Area is solely agricultural in nature. Although most of the land’s history is unknown, its early settlement began in 1885 when the quarter section was surveyed under the Dominion Lands Act and subsequently reserved for the Hudson’s Bay Company. Since that time, ownership has changed several times, most recently the Plan Area was owned by the Meier family who used it for crop production purposes.

The *Alberta Listing of Historic Resources* (April 2015) did not identify the Plan Area as having any historical resources; regardless, a Historic Resource Act Clearance was obtained from the Alberta Government for the development of this area.

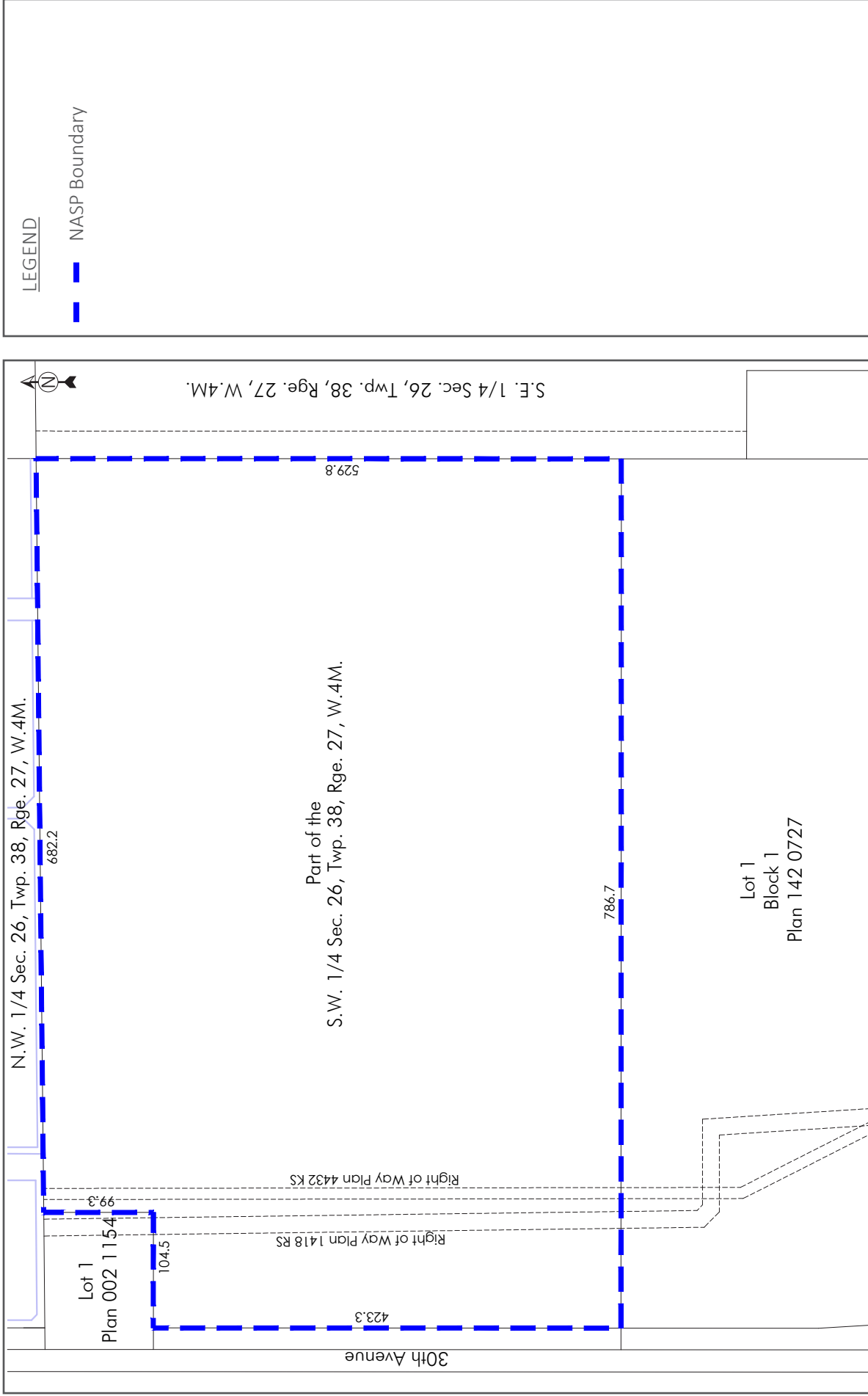
### *Current Land Ownership*

The Emerson Plan Area is currently by Meier Ventures Ltd.



**Figure 1 - Location Plan**





**Figure 2 - Legal Boundary**

## 1.2 PLANNING CONTEXT

As shown on **Figure 3 - Plan Hierarchy**, the Emerson NASP has been created to respect and function with existing planning documents.

### 1.2.1 Relevant Planning Documents

The following relevant documents have been reviewed and referenced in preparation of this NASP:

- *Province of Alberta - Municipal Government Act (2000)*
- *Stantec Consulting Ltd - Northland Drive/20 Avenue Functional Planning Study (2008)*
- *The City of Red Deer - 2015/2018 Strategic Direction (2014)*
- *The City of Red Deer - Commercial Opportunities Study (2010)*
- *The City of Red Deer - East Hill Major Area Structure Plan (2013)*
- *The City of Red Deer - Environmental Master Plan (2011)*
- *The City of Red Deer - Intermunicipal Development Plan (2007)*
- *The City of Red Deer - Land Use Bylaw (2006)*
- *The City of Red Deer - Mobility Playbook (2013)*
- *The City of Red Deer - Municipal Development Plan (2008)*
- *The City of Red Deer - Neighbourhood Planning and Design Standards (2013)*
- *The City of Red Deer - Northeast High Schools and Play Fields Area Structure Plan (2014)*
- *The City of Red Deer - River Valley and Tributaries Park Concept Plan (2010)*
- *The City of Red Deer - Section 26 Multi-Neighbourhood Plan (2014)*
- *The City of Red Deer - Trails Master Plan (2005)*

#### **Municipal Government Act (2000)**

*The Municipal Government Act (MGA) of Alberta* outlines the purpose and powers of Municipalities. One of these powers is to require an Area Structure Plan for the purpose of providing a framework for subsequent subdivision and development of an area of land. As stated in s633(2), an Area Structure Plan must describe:

- *the sequence of development proposed for the area*
- *the land uses proposed for the area, either generally or with respect to specific parts of the area*
- *the density of population proposed for the area either generally or with respect to specific parts of the area*
- *the general location of major transportation routes and public utilities*
- *and may contain any other matters the council considers necessary*

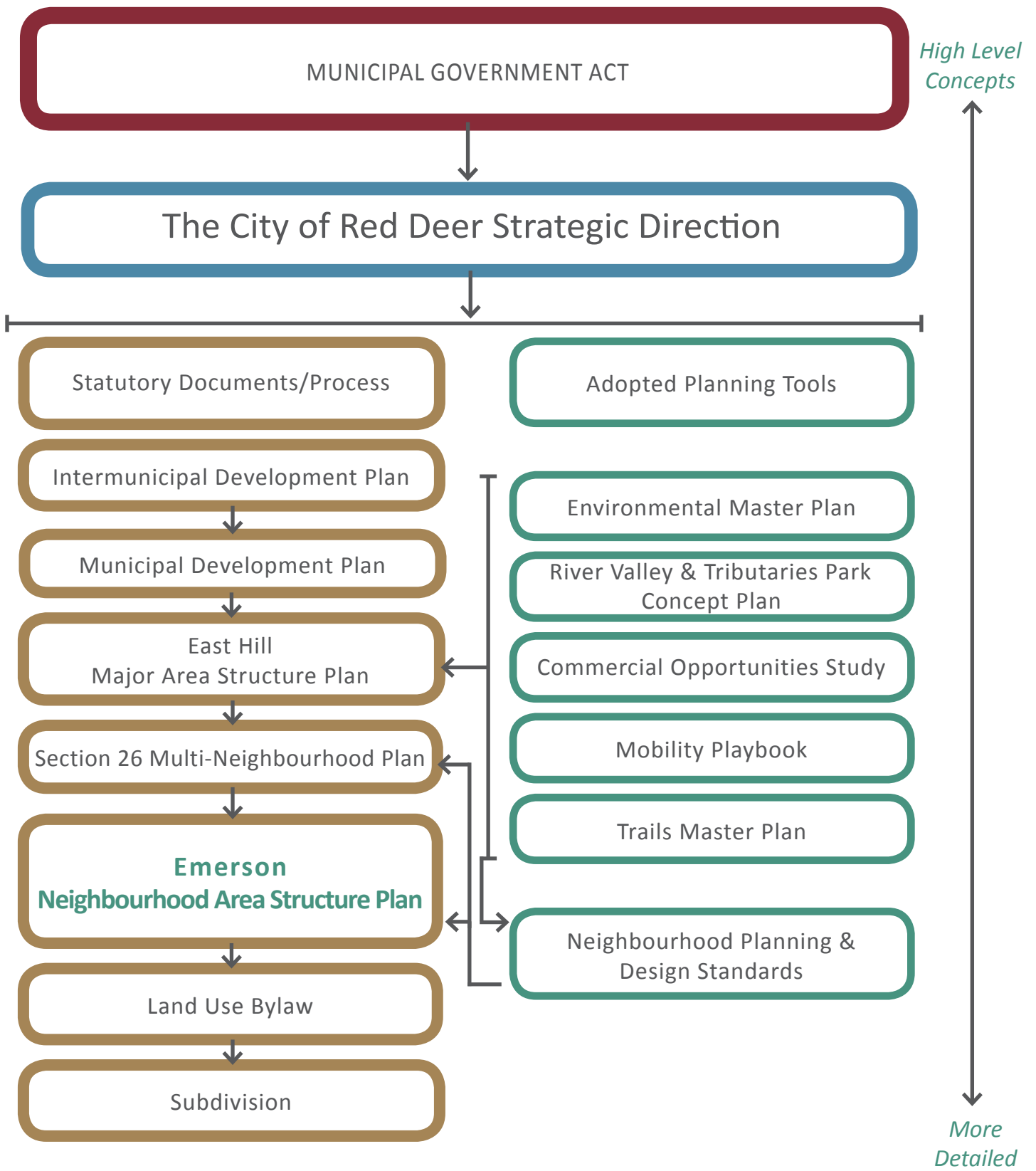
The Emerson NASP has been created to describe these items as required by the MGA.

#### **2015-2018 Strategic Direction (2014)**

*The City of Red Deer's Strategic Direction* guides the City along a path and provides focus and purpose. It is the City's most important plan as it shapes the organization, the municipal programs, and services they provide. In 2014, the strategic direction for 2015-2018 was released which centers around three themes: dialogue, community amenities, and financial leadership. These three themes are priorities for The City of Red Deer for the next four years and are complemented by work still being completed on the five themes from the previous strategic plan, including the Design Charter. The Design Charter focuses on designing and planning our community to reflect our character and values. The development of Emerson will specifically focus on the theme of community amenities.

**Community Amenities:** *Planning great spaces and places for community living.*

- *Action: Creating great amenities that provide opportunities for Red Deerians to be active, learn, connect, and grow.*



**Figure 3 - Plan Hierarchy**

- *Commitment: By building exceptional community amenities we will create vibrant communities and neighbourhood where Red Deerians can enjoy their city and connect with each other.*
- *Outcome: If we have vibrant places for community life we have:*
  - » *a balance of places and spaces that reflect the diversity of the community and our geography*
  - » *citizens who have pride in our facilities and features because they anchor our region and reflect community's authenticity, priorities, and interests*
  - » *been recognized provincially and nationally for our world class community features*

Emerson has been planned as a great community that provides connections to areas where residents can be active, learn, grow, and connect with their neighbours. This neighbourhood will complement those existing in the City to make Red Deer an exceptional place to live.

### ***Municipal Development Plan (2008)***

*The City of Red Deer Municipal Development Plan (MDP) outlines broad policies for guiding growth and changes in the City for the next twenty-five years. The policies outlined in the MDP are further detailed in the East Hill Major Area Structure Plan and Neighbourhood Planning and Design Standards which have been applied to this NASP.*

### ***Environmental Master Plan (2011)***

*The City of Red Deer Environmental Master Plan sets out a 25 year vision for the City and provides a suite of environmental initiatives and indicators to achieve the vision. The overall 25 year vision for Red Deer, as set out in the Environmental Master Plan, is as follows:*

*Red Deer actively enhances its rich natural environment and minimizes its ecological footprint through City leadership, community collaboration and active stewardship. Red Deer is a leading example of a resilient and sustainable community in which urban and natural systems are effectively integrated to the benefit of both.*

Among many initiatives, the following were identified for the City to meet this vision. These items have been reviewed for their potential impact on the development of Emerson:

- *Increase the amount of land used for green space in the City*
  - » *Grow the Waskasoo and neighbourhood parks system by creating green links between existing and new park spaces, and enhancing habitat for valuable and endangered species*
- *Promote more compact development patterns*
  - » *Increase residential density from 14.8 du/ha*
- *Prioritize active and public transportation*
  - » *Encourage alternative modes of transportation such as cycling, walking, or public transit to promote healthy lifestyles, reduce greenhouse gas emissions, mitigate negative impacts on water, and preserve land area and money for other uses besides road infrastructure*
  - » *Increase the length of trails each year*
  - » *Increase walkability of neighbourhoods*
  - » *Locate homes within 400.0m of recreation, basic amenities, and transit access*
- *Increase opportunities for local food production*
  - » *Introduce a new community garden each year for 10 years*

As part of Emerson's approximately 2.0km of off-street trail system, west-ward trail linkages have been provided to connect with the Waskasoo Trail Network. Emerson provides over seven different housing types with a housing density of 19.0 du/ha. Community gardens are acceptable uses within public parks and may be constructed as a joint initiative between a community group and the City's Parks Department.



### ***River Valley & Tributaries Park Concept Plan (2010)***

*The River Valley and Tributaries Park Concept Plan* identifies lands that are best suited for potential trails and parks within the City of Red Deer's Growth Area. The Emerson Plan Area was not specifically identified; however, it was intended to include trails linking to adjacent quarters.

### ***Red Deer Mobility Playbook (2013)***

*The Red Deer Mobility Playbook* identifies strategies and actions to provide Red Deerians with more mobility choices. The following action items were identified in the Playbook which have been considered in the creation of Emerson:

- *Put pedestrians first by using human scaled streets*
- *Create walkable hubs*
- *Build quality footpaths and maintain them*
- *Place transit stops where other things are happening*
- *Ensure access for pedestrians, motorists, cyclists*
- *Improve the transit waiting experience*
- *Tie urban networks into recreation*
- *Plan with the entire street cross-section in mind*
- *Create a Red Deer model for cycling*
- *Establish new housing standards*
- *Require transit-oriented development*
- *Enforce and provide incentives for minimum density targets*
- *Define a set of street typologies based on the desired end users*
- *Balance the network with all users in mind*
- *Ensure drivers have a place without infringing on quality for other modes*

### ***Trails Master Plan (2005)***

*The City of Red Deer Trails Master Plan* does not identify future trails near the Emerson Plan Area; however, a proposed extension of Waskasoo Trail is shown along the east bank of the Red Deer River. This extension would span 3,860m from McKenzie Trails Recreation Area to River Bend Golf Course and consist of a 3.0m asphalt trail with furnishings and wayfinding signage. Westward trail connections in Emerson will be provided to facilitate future connectivity to this trail.

### ***Northland Drive/20th Avenue Functional Planning Study (2008)***

The City of Red Deer prepared a Functional Planning Study for the Northland Drive/20th Avenue corridors from Highway QE2 north to Highway QE2 south. In preparation of the Emerson Concept Plan, the *Northland Drive/20 Avenue Functional Planning Study* was reviewed for its potential road alignment and to ensure an adequate right-of-way in the Plan Area. The roadway improvements and various intersection options for 30th Avenue/Northland Drive have been incorporated into the Concept Plan.

Subsequent design of the 30th Avenue has identified a continuous north/south 3.0m wide multi-use trail located within the roadway cross-section, along the west side of the roadway.

### ***Northeast High Schools and Play Fields Area Structure Plan (2014)***

*The Northeast High Schools and Play Fields Area Structure Plan* (NHSPF ASP) identifies uses for the site immediately south of the Emerson Plan Area. This area is intended for the development of three high schools, developed in a campus style with multiple shared buildings, and large scale sport fields. The land use concept shown in the NHSPF ASP has been referenced during the creation of the Emerson community to ensure connectivity and proper transition between the two sites.

## *East Hill Major Area Structure Plan (2013)*

The City of Red Deer East Hill Major Area Structure Plan (MASP) sets out the broader transportation and land use objectives for multiple quarter sections in east Red Deer. As shown on **Figure 4 - East Hill MASP**, the following elements were shown within the MASP which may affect the planning of the Emerson Plan Area.

### **30th Avenue**

30th Avenue runs along the west boundary of the Plan Area; this roadway is currently constructed to a paved rural standard, utilized primarily to access rural homes and the River Bend Golf and Recreation Area. The East Hill MASP identifies 30th Avenue as a major north-south arterial roadway; upgrading to meet this standard is currently being undertaken.

The additional land right-of-way required for the 30th Avenue road widened has already been removed from the Emerson Plan Area; no additional land will be required.

Associated with this roadway upgrade is the construction of a continuous north/south 3.0m wide multi-use trail along the east side of the road. Westward connections will be provided in Emerson to facilitate pedestrian connectivity to this trail.

### **School Site**

A school and major recreation site has been identified for location immediately south of the Emerson Plan Area. As identified in the NHSPF ASP, the site will contain regional sports fields and high school sites for the Catholic, Francophone, and Public School authorities. Although located outside of the Plan Area, providing connections to this area is important for the neighbourhood to facilitate access by pedestrians and other alternative modes of transportation.

### **Regional Park**

A proposed regional park has been identified within the Plan Area. In consultation with the City of Red Deer, this park has been relocated south of the Plan Area to complement the proposed school sites.

### **Transmission Corridor**

A transmission corridor runs along the east boundary of the Plan Area which accommodates an above-ground power line utilized by the City of Red Deer's Electrical Light and Power department. This corridor will remain undeveloped; however, this corridor could be grassed and include a trail.

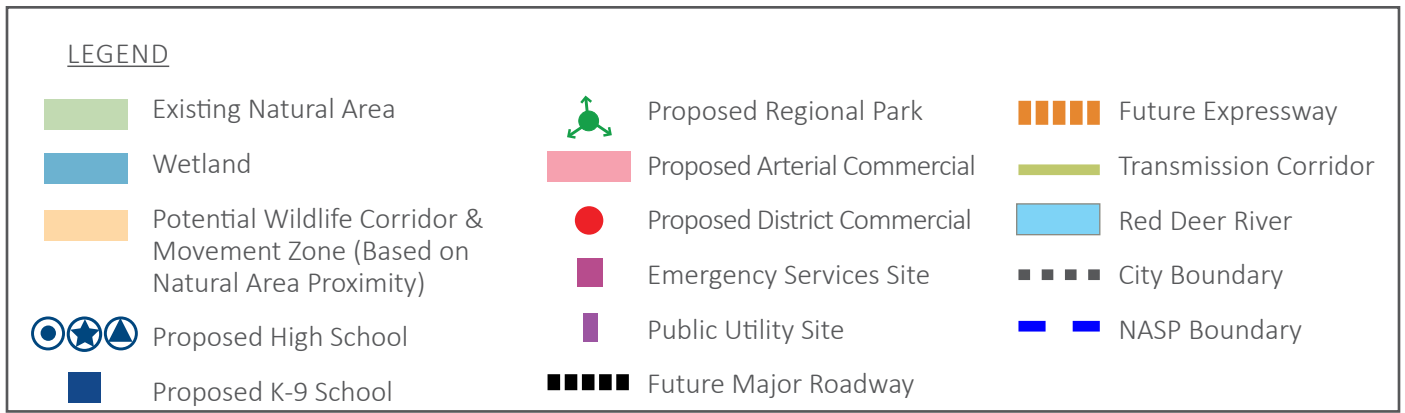
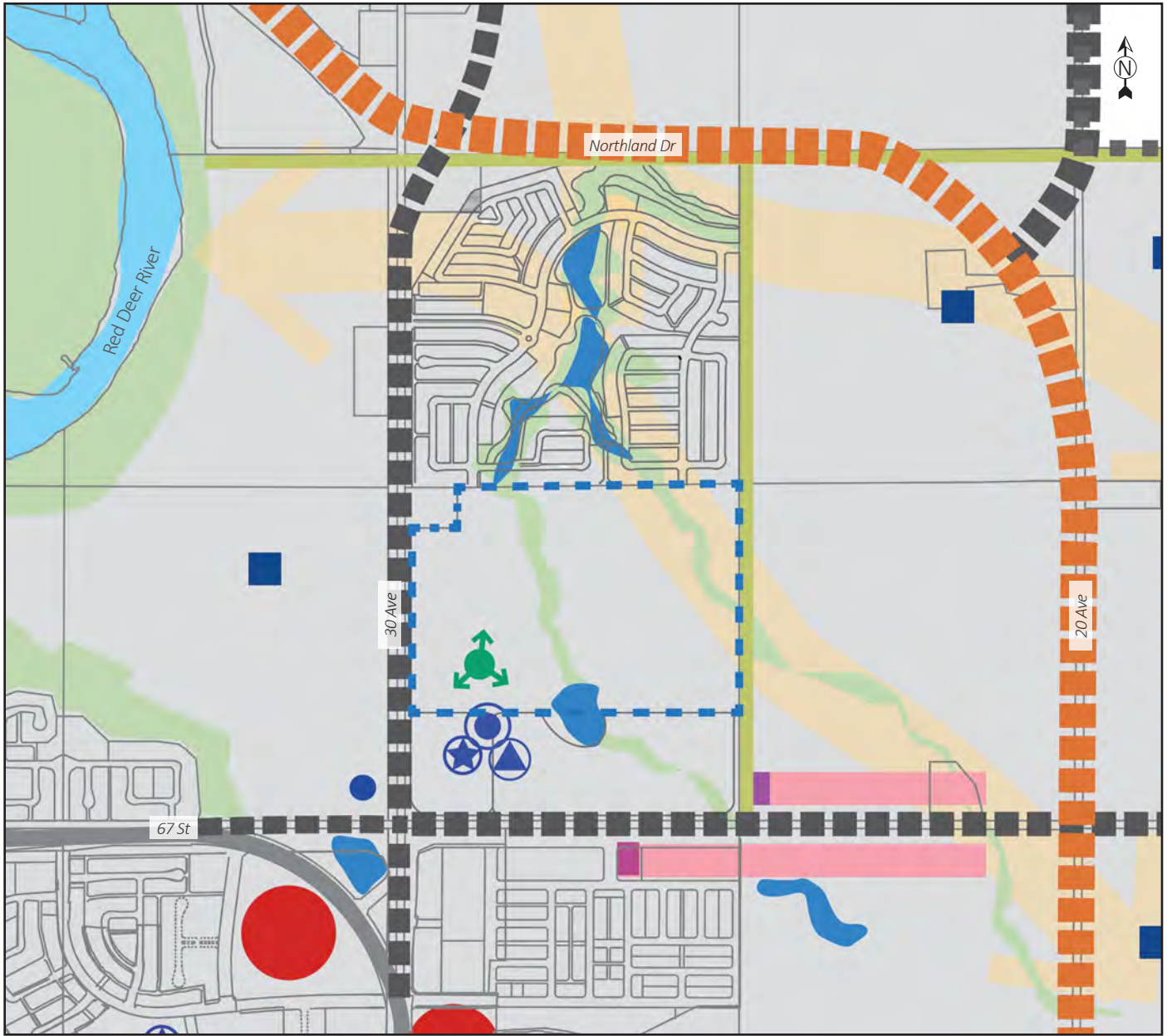
### **Commercial Areas**

Several commercial areas have been identified south and east of the Plan Area. Pedestrian connections to these areas will be provided to facilitate walkability for shoppers.

### **Natural Spaces**

Two drainage corridors are identified as running through the Plan Area, one including a wetland. In addition, a potential wildlife corridor is shown going through the Plan Area. These areas are conceptual in nature and were included in the East Hill MASP based on existing vegetation and aerial photos, though were not confirmed by any environmental studies or assessments.

The existing natural conditions of the Plan Area are discussed in **Section 1.3 - Plan Area Conditions**.



**Figure 4 - East Hill MASP**



## Section 26 Multi-Neighbourhood Plan (2014)

In 2014 the City of Red Deer undertook a planning exercise to examine the Section 26 area. The purpose of a Multi-Neighbourhood Plan was to establish a high level conceptual plan that achieved the nine Neighbourhood Planning Principles, as identified in the *Neighbourhood Planning and Design Standards*. It also identified synergies, features, and connections to create a distinct neighbourhood character among multiple developments.

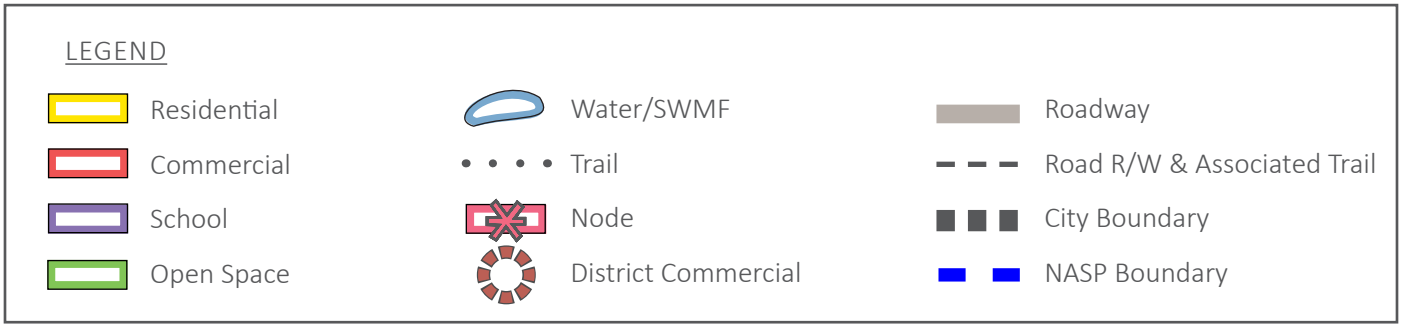
As shown on **Figure 5 - Section 26 Concept Plan**, the *Section 26 Multi-Neighbourhood Plan* outlines broad land uses, including environmental reserve and open space, as well as arterial and collector road patterns. Although Neighbourhood Area Structure Plans may vary in design and layout from the *Section 26 Multi-Neighbourhood Plan*, the intent is to be consistent with the overall multi-neighbourhood plan.

The following are a few of the key directions identified for guiding the development of the Section. Emerson has been designed to be consistent with this Plan.

### Key Directions

- **Natural Areas**
  - » Protect, connect, and integrate the key natural features of the site
  - » Create ecological connections via a looped trail
- **Mixed Land Uses**
  - » Create three neighbourhood nodes, featuring housing with easy access to daily services, and schools. Apply a family of public design elements
  - » Neighbourhood nodes will provide medium and high density housing alongside neighbourhood commercial uses
- **Multi-modal Choice**
  - » Create a connected network of off-street trails for pedestrians and cyclists, connecting the regional trail system to the Commercial District
  - » Strive for a grid-like network of streets and trails, while avoiding large, unattractive parking lots
  - » Strong connections between proposed high schools and adjacent properties will make schools an integral part of the neighbourhood
- **Compact Urban Form and Density**
  - » Create small, tight blocks to improve connectivity
  - » Transition from higher density to lower density development focused around the nodes
- **Integrated Parks and Open Spaces**
  - » Create a variety of park types, and linkages to open spaces
  - » Emphasize high quality park design and diversity rather than amount of park space
- **Housing Opportunity and Choice**
  - » Incorporate a diverse housing mix: single family, duplexes, townhouses, apartments
  - » Mitigate visual impacts of the Electric Light and Power sub-station
- **Resilient, Low Impact Neighbourhoods**
  - » Manage stormwater on the surface and use features to create resilient, low impact neighbourhoods





**Figure 5 - Section 26 Concept Plan**



- **Safe and Secure Neighbourhoods**
  - » Use environmental design principles that naturally reduce speeds, create safe on-street pedestrian trails, and utilize effective crime prevention
- **Unique Neighbourhoods**
  - » Allow Developers to create and apply their own styles, building materials, and architecture

### Concept Plan Elements

The following elements were identified in the Section 26 Concept Plan for location within the Emerson Plan Area.

- **Open Space**
  - » Section 26 has been designed with strong open space connections throughout. As part of this open space network, a stormwater management facility and linear park connection are shown in the Emerson Plan Area. These open spaces will be developed with trails to provide pedestrian short cutting to community nodes and destinations.
- **Surrounding Amenities**
  - » Several amenities surround the Emerson Plan Area such as the joint high school sites, sport fields, and a neighbourhood node located east of the Plan Area. It is intended that this node be developed with small-scale commercial services as well as community gathering areas. To support this node, Emerson has been designed to include higher-density housing along its southeast boundary.

### *Neighbourhood Planning and Design Standards (2013)*

*The City of Red Deer's Neighbourhood Planning and Design Standards (NPDS)* identifies the following nine guiding principles for all neighbourhoods. These principles are as listed below and are discussed throughout the remainder of this NASP.

1. *Natural areas and ecosystem enhancement*
2. *Mixed land uses*
3. *Multi-modal choice and connectivity*
4. *Compact urban form and density*
5. *Integrated parks and community spaces*
6. *Housing opportunity and choice*
7. *Resilient and low impact neighbourhoods*
8. *Safe and secure neighbourhood*
9. *Unique neighbourhood identity*

### *Land Use Bylaw (2013)*

*The City of Red Deer Land Use Bylaw (LUB)* describes all available land use districts to be utilized throughout the City and identifies any potential land use constraints available at the time of its creation. The Emerson Plan Area is identified in the Land Use Bylaw for future urban development and as an area that requires a grading permit prior to development. This Plan has been developed to conform to the bylaw and all its land use regulations.

Subsequent to NASP approval, Land Use Bylaw Redesignation Applications consistent with the information in the Emerson NASP, will be submitted to ensure consistency.

### 1.2.2 Environmental Regulations

The Emerson NASP will conform to all applicable provincial and federal legislation including, but not limited to, the *Canadian Environmental Protection and Enhancement Act (1999)* and the *Alberta Water Act (2000)*.

## 1.3 PLAN AREA CONDITIONS

As shown on **Figure 6 - Existing Conditions**, the Emerson Plan Area is currently being used for agricultural farming purposes.

### 1.3.1 Topography, Soils, and Vegetation

All of the existing vegetation found within the Plan Area is agricultural in nature with the exception of that surrounding the seasonal water body in the southern low area and seasonal drainage course. Vegetation in these areas includes cat tails and mature shrubs.

### 1.3.2 Low Areas

As previously noted, there is a low area along the south boundary of the Plan Area that contains a seasonal wetland. In addition, there are two seasonal water courses that run through the Plan Area from southeast to northwest.

The majority of the wetland area, located on the adjacent site, south of the Plan Area, was altered in 2015 during the development of the North High Schools site by the Developer, the City of Red Deer. In addition, land surrounding the Plan Area has been developed for various uses; as a result, the seasonal overland drainage that once fed this water body ceases to flow.

As most of the wetland has been altered, and natural flows no longer exist, the remainder of the wetland will be removed so that high quality and healthy open spaces can be created, including a constructed wetland in the neighbourhood park. Although the wetland will be removed, the Developer has worked with the City of Red Deer to create pedestrian and visual connections to the North High Schools site's constructed stormwater management facility, located in the same area as the removed wetland.

### 1.3.3 Environmental Site Assessment

In June 2011, a Phase 1 Environmental Site Assessment (ESA) was completed by Parkland GEO for the entire southwest quarter section, excluding the acreage site. Since the ESA's completion in 2011, the quarter section was subdivided: the south 50 acres of the quarter section was subdivided to the development of the Northeast High Schools and Play Fields site, and the remaining portion represents the Emerson Plan Area.

The 2011 ESA identified one area of potential concern, located south of the Emerson Plan Area on the Northeast High Schools and Play Fields site. This concern is further detailed below.

To provide an update to the ESA's recommendations, following the quarter section's subdivision, Parkland GEO completed a Phase 1 ESA Review and Update in March 2016. These recommendations are also detailed below.

#### *COGI Well Site*

The 2011 ESA identified a crude oil and freshwater injection well site and battery located south of the Emerson Plan Area on the Northeast High Schools and Play Fields sites. This well was owned by Conserve Oil & Gas No II Corporation and is hereafter referred to as the COGI site.

Environmental investigations were conducted in 2007 and 2008 which identified hydrocarbon impacts in the former flare pit area, and produced water impacts were present in the shallow soil and deep groundwater which extended into the Emerson Plan Area. The ESA reported that on-going groundwater monitoring was being conducted and addition Phase 2 ESA work was planned.





- LEGEND**
- 833 - Topographic Contours
  - - - Utility Right-of-Way
  - Legal Subdivision
  - ▬ NASP Boundary

**Figure 6 - Existing Conditions**



## Remediation and Risk Management Plan

The hydrocarbon contamination at the COGI site was remediated in 2014; however, groundwater monitoring events indicated that several salinity and metals parameters exceeded the guidelines. It was proposed to develop a Risk Management Plan (RMP) for the production flare pit excavation area to address the salinity and boron concentrations.

At the time of this NASP, the RMP was not available for review; however, Parkland GEO reviewed its results that indicated the salinity extended off-lease into the Emerson Plan Area. The contaminated impacts from the COGI site, which may have migrated into the Emerson Plan Area groundwater table, were noted as dissolved salts and water soluble sulphate. It was also noted as highly possible that the sulphates were naturally occurring, since they are commonly found in many areas of Red Deer.

It is the Developer's understanding that the RMP will include ongoing groundwater monitoring to be conducted by COGI and results will be reviewed to document any trends of the groundwater plume. It is understood that any recommendations in the RMP will be implemented to the City's satisfaction prior to development or a Development Agreement being signed.

## Impacts and Recommendation

In the 2016 ESA Review and Update, Parkland GEO identified that due to the remediation of petroleum hydrocarbon impacts and the on-going groundwater monitoring which is part of COGI's RMP, the environmental risk to the Developer and future Emerson residents, stemming from the previously identified contamination, is considered to be low. The removal of the original contamination and residual impacts minimizes the potential of serious future impacts from hydrocarbons and metals. The only impacts expected to migrate from the Northeast High Schools sites to Emerson will be salts and sulphates in the local groundwater.

The impacts of salinity contamination in soil are noted as potentially impacting the health of deep rooted trees and can cause degradation of concrete exposed to soil with higher concentrations. As previously noted, this type of contamination is a common situation in east Red Deer and has been addressed by the development of sulphate resisting cement for use in subsurface concrete such as basement foundations.

Although the level of salinity that was identified does not present significant challenges to development, it also cannot be removed from the soil; therefore, foundations in the southwest portion of the Emerson Plan Area will be constructed with High Sulphate (Type HS) Portland cement which is salt-resistant. In addition to this recommendation, it was also recommended the Developer review the most recent COGI groundwater data to determine if mitigating measuring is required for the utility installations in any affected areas.

### 1.3.4 Existing Utilities

#### *Utility Rights-of-Way*

As shown on **Figure 7 - Natural Resources**, there are several natural resource right-of-way running along the west boundary of the Plan Area. Based on past discussions with the City of Red Deer, it is understood that all pipelines inside the Plan Area should be removed prior to development of the affected phase.

Although originally intended to be removed by the end of 2013, the City of Red Deer and Meier Ventures recognize that not all pipelines located in the Plan Area have been removed. As described below, there are several utility right-of-way registered to Conserve Oil Gas Incorporated (COGI); however, during the creation of this NASP, the Developer became aware that a change of ownership was taking place for all the oil and gas facilities located within the Plan Area which were previously owned by COGI. This change was understood to be due to COGI filing for bankruptcy and the company

entering receivership. To date, there is uncertainty regarding whether ownership will transfer or if another operator will assume responsibility for the facilities; regardless, the Developer will continue to work with the operator or receiver during the transition to accommodate and facilitate the removal for all pipelines.

The Developer will provide written confirmation, outside of the NASP process, that the utility rights-of-way have been discharged from the title, and pipelines have been removed from the Plan Area. If pipelines are not removed, phasing of development will need to be revised to reflect this; the City may withhold Development Approval until it has been satisfied that the right-of-way has been discharged and remediation has been appropriately completed.

The location of these rights-of-way in the context of the overall Emerson Concept Plan is shown on **Figure B1 - Concept Plan with Existing ROW** located in **Appendix B**.

#### **Instrument No 1698RJ**

Instrument No 1698RJ, registered to Canadian Oil & Gas International Inc. is a caveat registered and pursuant to an easement in favour of Canadian Oil & Gas International Inc. Once the Canadian Oil & Gas International Inc. facilities have been physically removed, the Developer will request the caveat to be discharged from the title. If phases of development occur prior to the pipeline being removed, the developer will request the grantee to partially discharge their interest from each phase as they occur.

#### **R/W 4432 KS - Multiple Pipelines**

This right-of-way is registered to Canadian Oil & Gas International Inc. and contains two pipelines:

- Discontinued fresh water pipeline- 7154-21
- Abandoned oil well effluent- 14603-48

These pipelines have been abandoned and once physically removed, the grantee will discharge their interest from the title. If phases of development occur prior to the pipeline being removed, the grantee will partially discharge their interest from each phase as they occur.

#### ***Transmission Corridor***

A transmission corridor right-of-way is located along the east boundary of the Plan Area. This right-of-way is located outside of the Plan Area and is intended to be utilized by the City of Red Deer's Electrical Light and Power department.

#### ***Well Sites***

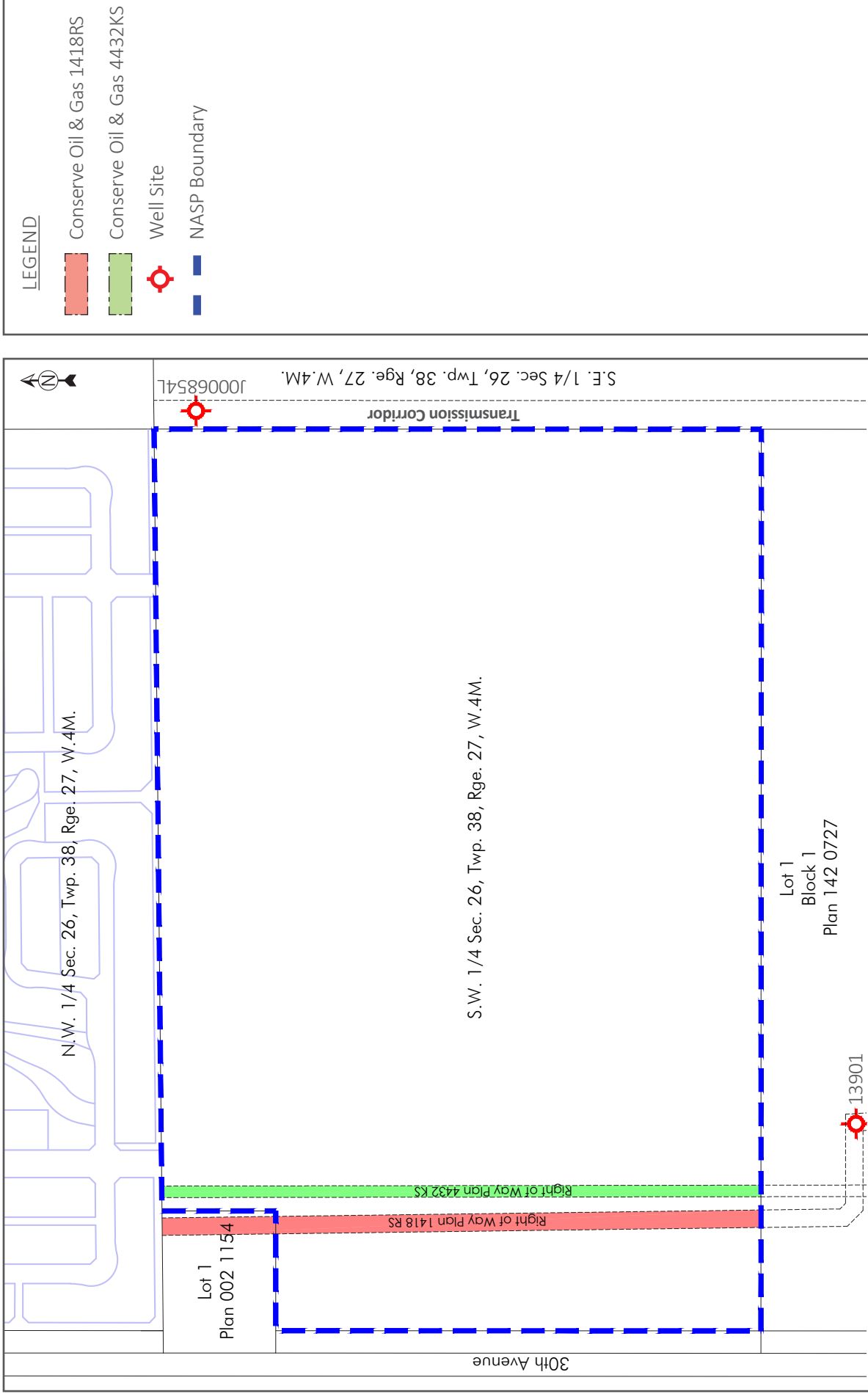
Two well sites are located outside of Plan Area:

##### **Abandoned Well Site (License No. J0006954L)**

Located along the east boundary of the Plan Area, this well was registered by Chevron Canada Limited. This well site was abandoned in 1953 and was reported to be reclamation certificate exempt.

##### **Abandoned Well Site (Licence No, 13901)**

Located south of the Plan Area, this water well was registered by Canadian Oil & Gas International Inc.



**Figure 7 - Natural Resources**

### 1.3.5 Existing Acreage

The parcel of land known as Lot 1 Plan 002 1154, which can be described as the existing acreage parcel located along 30th Avenue, is not owned by Meier Ventures Ltd and has not been included in the Emerson Plan Area. Although development of this area is not anticipated, its eventual inclusion has been taken into consideration by reserving access to the property so that it can be developed in the future.

The owners of the acreage have been engaged by the Developer throughout the creation of the NASP to discuss the process and timing of Emerson.

### 1.3.6 Surrounding Development

#### *Approved*

Undeveloped agricultural land is located in all directions surrounding the Emerson Plan Area; however, as shown on **Figure 8 - Surrounding Development**, the following planning has been approved for future development:

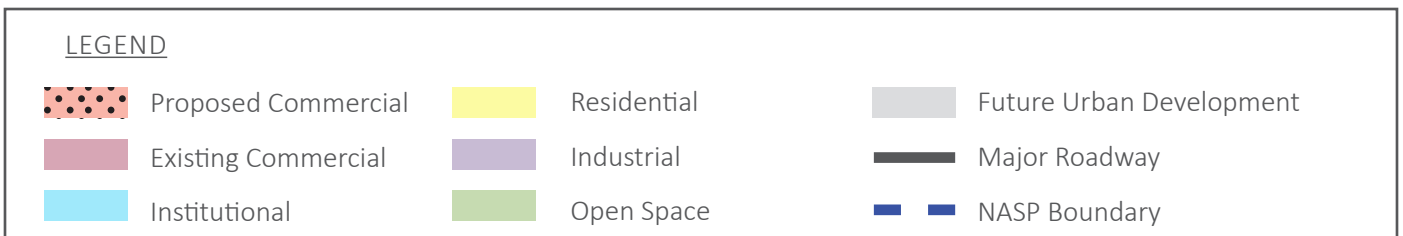
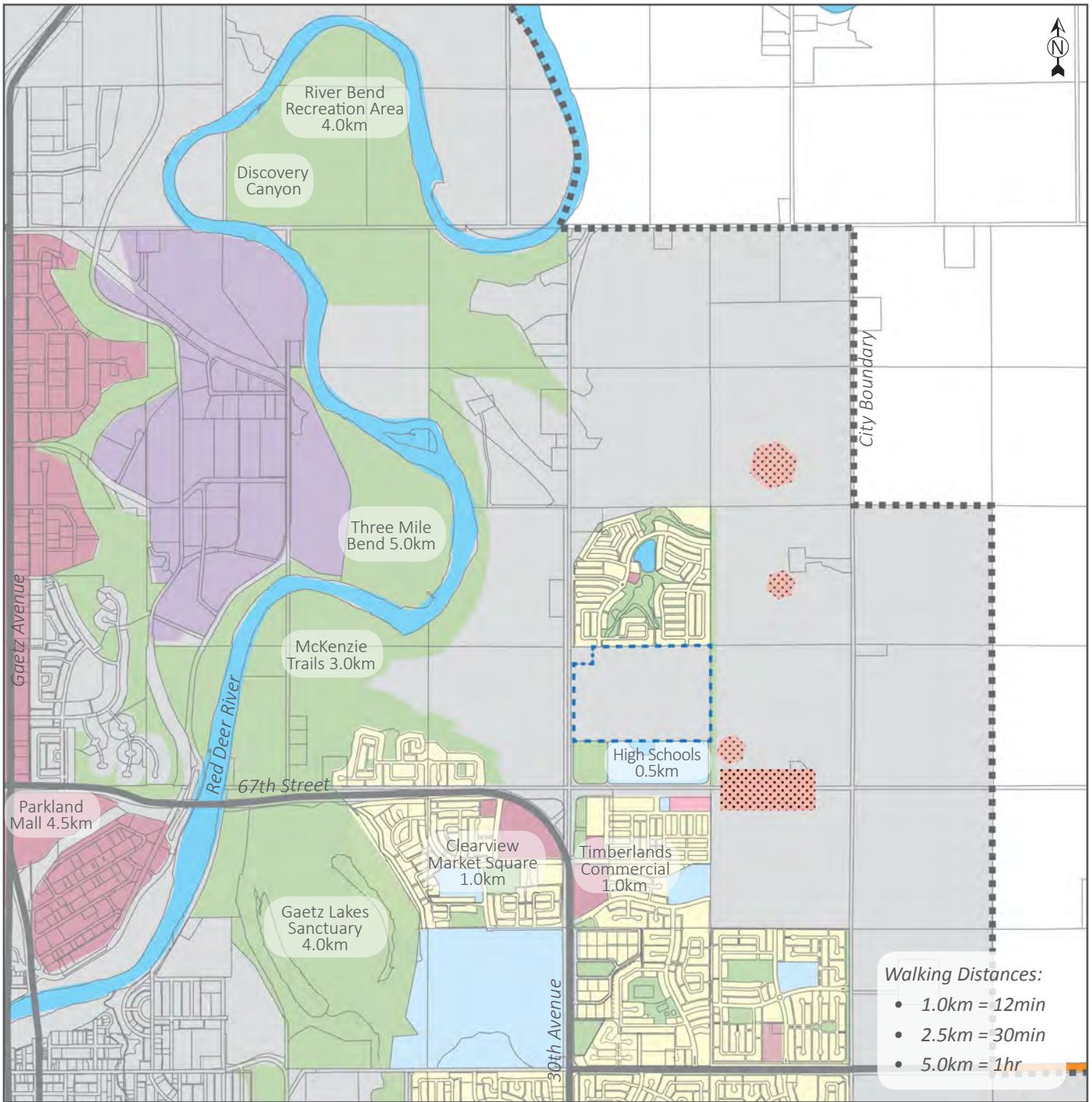
- The remainder of the quarter section south of the Emerson Plan Area has been approved as a joint high school site. This area will initially include two high schools, public and Catholic, designed in a campus model. The remainder of the site will be used for shared sports fields, parking, a stormwater management facility, etc. In the future the site may also accommodate a Francophone high school.
  - » As described in **Section 1.3.2 - Low Areas**, it is understood that this area will include a stormwater management pond to replace the existing wetland.
- The quarter north of the Plan Area has been approved as the Evergreen neighbourhood and is currently under construction. This residential neighbourhood is centered around a large open space with a neighbourhood commercial site located in the west central portion of the quarter section. Trails in Evergreen are provided along primary roadways and throughout the open space network with connections into the Emerson neighbourhood.

Further southwest of Emerson is Clearview Market which consists of approximately 14ac of commercial development including a grocery store, several banks, restaurants, gas stations, retail stores, and personal services such as: doctors office, spa, and gym. This area is approximately 1km from Emerson, a 12min walk.

#### *Proposed*

Two proposed commercial areas are shown to the south and east of the Emerson Plan Area. These spaces were identified in the *East Hill Major Area Structure Plan* and the *Section 26 Multi-Neighbourhood Plan*. No additional planning has been completed for these areas.





**Figure 8 - Surrounding Development**



## 1.4 OPPORTUNITIES AND CONSTRAINTS

After reviewing the existing conditions and past planning done for the Emerson Plan Area, the following items have been identified as potential development opportunities and constraints. These items are shown on **Figure 9 - Opportunities and Constraints**.

### 1.4.1 Transmission Corridor

This north-south corridor along the east boundary of the Plan Area accommodates overhead power lines and can provide a continuous open space and trail connection for pedestrians.

### 1.4.2 Nearby Destinations

Efforts should be made to provide north-south and east-west open space connections to facilitate access to destinations as identified in **Section 1.3.6 Surrounding Development** and **Figure 8 - Surrounding Development**.

### 1.4.3 Proposed Future Roadway

Access for the Emerson neighbourhood is defined by the intersection spacing requirements for 30th Avenue, the approved developments to the north and south, and the *Section 26 Multi-Neighbourhood Plan*.

### 1.4.4 Seasonal Wetland

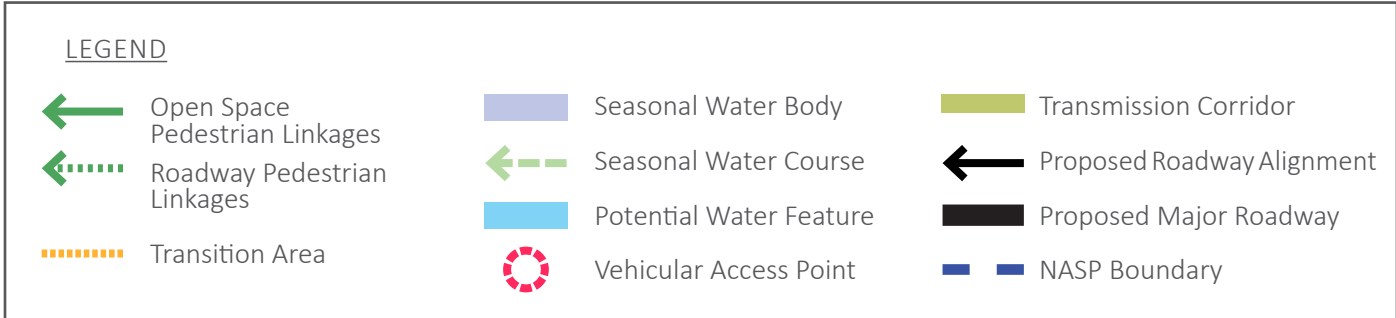
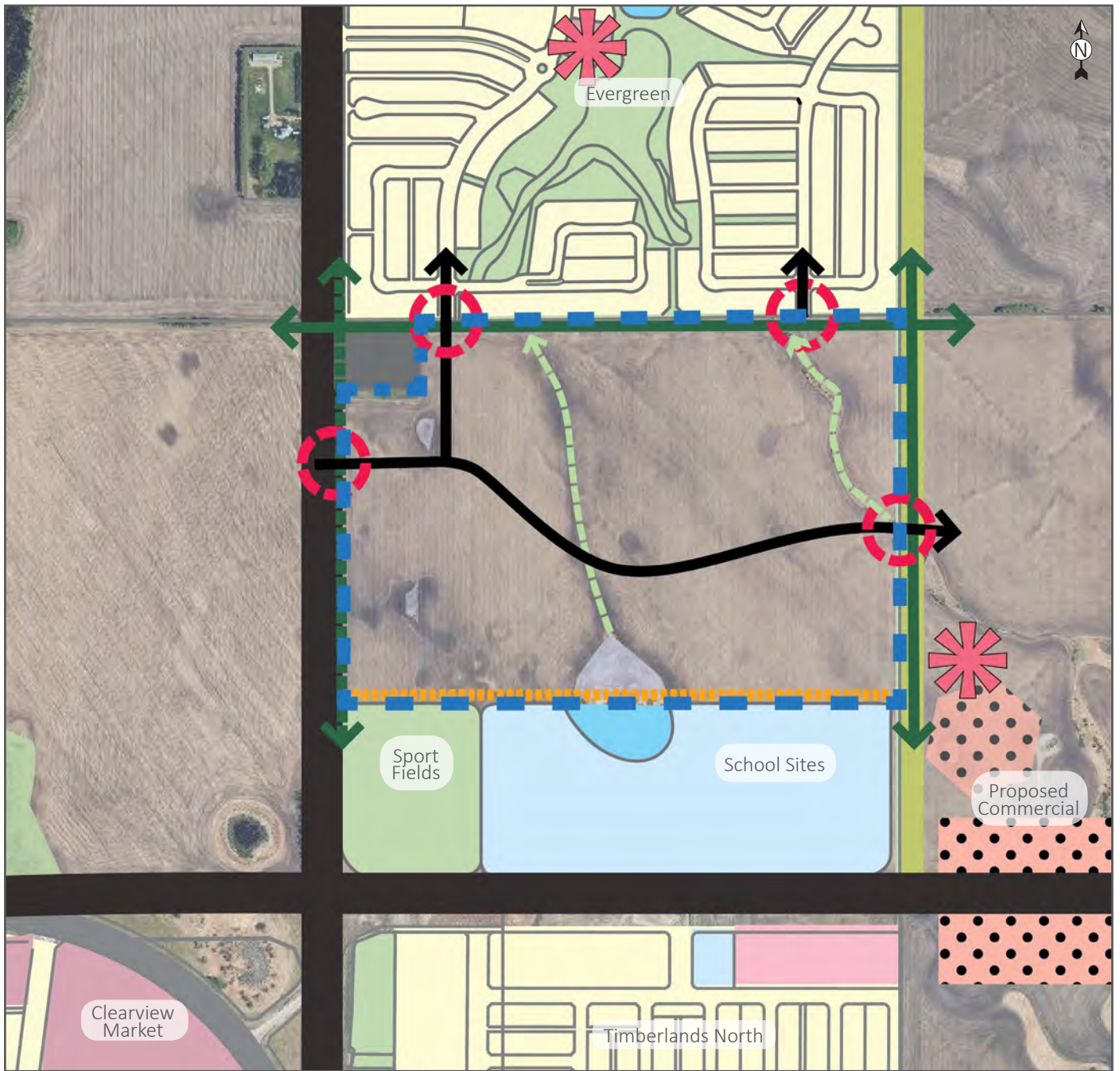
The seasonal water body along the south boundary of the Plan Area presents a constraint to the development of Emerson as the drainage into it is neither continuous nor sustainable. As described in **Section 1.3.2 Low Area**, this wetland will be removed. This area is further described in **Section 4.2.1 Neighbourhood Park** and **Section 7.2 Stormwater**.

### 1.4.5 High Schools Site

The school site south of the Plan Area acts as an opportunity and constraint to the development of Emerson. Several items must be considered regarding the school site include the following:

- Facilitating pedestrian connections without vehicular connections
- Ensuring privacy for residents along the school site
- Encouraging passive surveillance into the park
- Discouraging school or event parking in the neighbourhood
- Encouraging a visual interaction with the school site through high quality architectural design at the rear of homes along this area

These considerations have been reviewed during the creation of the Emerson Concept Plan.



**Figure 9 - Opportunities & Constraints**







# plan vision

Emerson Illustrated Neighbourhood Concept Plan, Stantec Consulting Ltd.

## 2.1 OVERVIEW

Emerson will be a high quality residential area that showcases Alberta's history through the use of American craftsman architecture. Home to approximately 1,839 persons; Emerson will offer a range of price points and home ownership styles to accommodate residents of all ages, incomes, lifestyles, and preferences. Residents will be provided with choices for using alternative modes of transportation including integrated trails and transit routes to explore the neighbourhood and surrounding amenities. These transportation routes will facilitate residents' access to the nearby Waskasoo Trail Network, neighbouring commercial sites, play fields, and schools.

### 2.1.1 Key Highlights

- Includes seven different housing types using six residential land use districts
- 18.3% of the total housing stock as multi-family housing
- Utilize stormwater detention to improve water quality prior to eventual discharge into the Red Deer River
- Pedestrian connections to nearby amenities
- Overall housing density of 19.0 du/ha
- Provide visual, pedestrian, and open space connections to the adjacent school site
- Seamless and consistent transition with adjacent school site and Evergreen neighbourhood

## 2.2 ILLUSTRATED NEIGHBOURHOOD CONCEPT PLAN

The Emerson neighbourhood design was created as a portion of the overall Section 26 concept; it provides areas for residential use that take advantage of proximity to natural open spaces, educational areas, and commercial uses. An illustrated neighbourhood concept plan is shown at the top of this page.



## 2.3 SUSTAINABILITY & NEIGHBOURHOOD PLANNING PRINCIPLES

The following principles are identified in the *City of Red Deer's Neighbourhood Planning and Design Standards* and are intended to guide the development of new neighbourhoods. Each principle listed has been further discussed for its impact and relation to the Emerson neighbourhood.



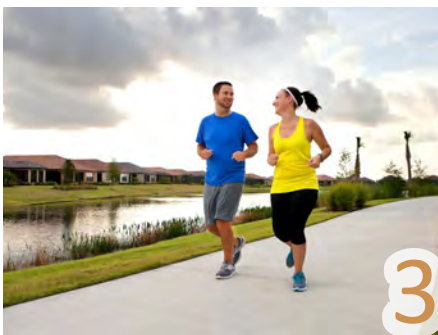
### Principle 1 - Natural Areas

Although no natural areas have been incorporated into Emerson, connections to adjacent natural areas have been provided.



### Principle 2 - Mixed Land Uses

Emerson has been planned to be consistent with the Section 26 Concept Plan which incorporates a variety of land uses such as residential, commercial, educational, and recreational. To support this vision, Emerson has identified areas of multi-family development that will complement the commercial areas proposed outside of the Plan Area. In addition, pedestrian connections to the educational area south of the Plan Area have been provided to facilitate resident and student movement throughout the neighbourhood.



### Principle 3 - Multi-Modal Choice & Connectivity

Emerson has been designed to promote multi-modal movement. A west-east collector roadway provides vehicular and transit connections for residents while a series of pedestrian pathways and trails supplement the roadway network to allow short cutting and recreational connectivity.

Consideration has been given to determine routes for pedestrians that will be accessible year-round for a variety of users: walking with strollers, jogging with pets, rollerblading, bicycling, etc.

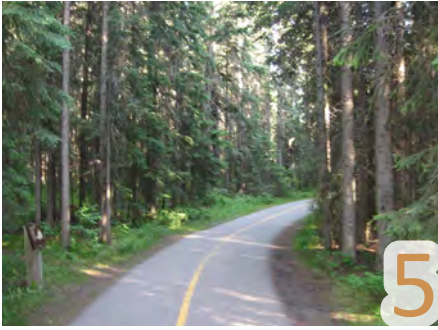


### Principle 4 - Compact Urban Form & Density

The Emerson neighbourhood has been designed using a more compact residential design by allocating a portion of its required Municipal Reserve to the south portion of the quarter section. In addition, the more compact design of Emerson results in a 19.0 du/ha residential density; higher than the City's recommended standard of 17.0 du/ha. This density may result in a population of approximately 1,839 residents<sup>1</sup>.

Higher residential density land uses have been located surrounding the adjacent commercial area to create a neighbourhood node that will be supportive of transit use.

<sup>1</sup> Values are taken from the tables in **Section 3.6 - Housing Mix**.



### Principle 5 - Integrated Parks & Connectivity

As further discussed in **Section 4.2 - Green Space Types and Amenities**, Emerson has been designed with a variety of open spaces integrated throughout the community to promote resident access and use.

Connections to open spaces located outside of the neighbourhood have also been provided. Anticipated destinations for residents include: the Waskasoo Trail network to the west, Clearview Market and school site to the south, future commercial area to the east and south, Evergreen trail network and River Bend Recreation Area to the north.



### Principle 6 - Housing Opportunity & Choice

Six residential land use districts accommodate seven types of single and multi-family homes to provide a variety of housing options to residents, well above the City's recommendation for inclusion of four different housing types. In addition, a range of different housing styles are permitted within each land use. This variety will encourage a mixture of residents in the community and an opportunity for aging in place.



### Principle 7 - Resilient & Low Impact Neighbourhoods

Emerson has been designed to reduce its impact by incorporating the following design elements:

- By increasing the developable area in Emerson, infrastructure is being utilized more efficiently by an increased number of dwellings and residents.
- A range of housing types provides residents the opportunity to age in place, staying within the Emerson community as their lifestyle and preferences change.
- Active and alternative modes of transportation have been encouraged by providing an integrated pedestrian network.
- Naturalized landscaping will be encouraged in public spaces to the level acceptable by the City of Red Deer to reduce the amount of water and maintenance required for its upkeep.
- Use of primarily west-east roadways allows for passive solar gains through south-facing glazing. This solar exposure supports a reduction in energy demands during the winter months.
- LED lighting, designed to promote dark skies, will be utilized in all roadway lighting to minimize energy consumption and light pollution.



### Principle 8 - Safe Neighbourhood

Safety is paramount to the success of any neighbourhood. The overall design of Emerson has been completed using principles of Crime Prevention Through Environmental Design: maintaining informal surveillance on public spaces, providing legitimate uses for open spaces, utilizing appropriate lighting to illuminate areas without creating shadowed areas, and minimizing potential graffiti and vandalism through material choices in the public realm.



## Principle 9 - Unique Neighbourhood Identity

The Emerson neighbourhood will feature the American Craftsman architectural style. This style was popular at the decline of the Victorian era, around the turn of the century, when builders placed emphasis on the value of handwork and local materials over industrialized mass-production. Common features of craftsman homes include gabled roof lines, front porches, tapered or square columns supporting roofs, stone or woodwork, a mixture of materials throughout the structure, exposed rafters, and overhanging eaves. This time frame also coincides with the early days of the City of Red Deer. Architectural

features of craftsman homes will be reflected in the community through the entry feature sign.

Additional theming and architectural review of the community will be completed subsequent to the approval of the Emerson NASP. The theming and character determined at that time may include a neighbourhood logo, specific colour palette, approved building materials, suggested architectural details, etc. The theming details selected for the Emerson neighbourhood will influence all elements of the public realm including landscaping materials, appearance of the entry features, and specific street furniture used.





# land use and housing

## 3.1 OVERVIEW

Land uses in Emerson are primarily residential in nature supported by community uses and public open spaces as shown on **Figure 10 - Land Use Concept Plan** and **Figure 11 - Concept Plan with Aerial**. Emerson integrates a variety of housing options for potential residents while being mindful of transitions, view points, elevation changes, parking requirements, etc. For example, higher density residential areas have been located adjacent to commercial areas, located outside of the Plan Area, to create neighbourhood nodes and promote the use of transit.

## 3.2 LAND USE PLAN

The Emerson neighbourhood has been influenced by the Section 26 area which is envisioned to be a mix of land uses and densities to provide residents the opportunity to live, learn, work, and play.



### 3.2.1 Residential Uses

A variety of residential uses are located throughout the Plan Area to accommodate different life stages and lifestyle choices at a range of price points. Multi-family homes have been located along primary roadways and near public open spaces to promote the use of outdoor public spaces by those with limited or no access to private open space. This location also minimizes higher volumes of traffic through local roads and promotes the use of transit by residents.



### 3.2.2 Community Amenity Site

One community amenity site has been located within the Emerson neighbourhood to accommodate the possible development of community uses such as: temporary care, assisted living, adult or regular day care, place of worship, or other uses proposed and approved by the City. This site has been located in close proximity to walking trails and transit stops to encourage alternative modes of transportation by visitors.

The community amenity site will be advertised for sale through local media and the City of Red Deer website for one year; if it is not purchased for its intended use within this time frame, the site may be developed for R3 Multi-Family uses.



Regardless of its use; all parking, pick-up, and drop-off zones for the community amenity will be located on-site as per the *City of Red Deer's Land Use Bylaw* regulations. In addition, screening between the community amenity or R3 site and the Out Parcel will be required as the phase is developed.



### 3.2.3 Recreational Uses

Open spaces have been located throughout Emerson to provide recreational spaces for residents and off-street pedestrian connections to neighbouring destinations.

### 3.2.4 Connections to Other Uses

#### *Commercial Uses*

No commercial areas are proposed inside the Emerson neighbourhood; however, connections to the adjacent commercial areas south, north, and east of Emerson have been provided.

#### *Educational Uses*

A joint high school site has been located immediately south of the Emerson Plan Area. Connections to this area will be provided to facilitate access for residents. As identified in the *NE High School Area Structure Plan*, it is anticipated that the Catholic high school will be constructed 2017, with the public school to follow around 2020, and the Francophone high school to open as required, which may not be for 20 years or more.



## 3.3 NEIGHBOURHOOD NODE

Emerson has been designed to support the creation of a neighbourhood node in the southeast portion of the Plan Area. This multi-use node will be shared among the neighbouring quarter sections and consist of a variety of uses including commercial businesses, higher density residential, and an educational site. The location of this node was chosen based on the future uses identified in the *Section 26 Multi-Neighbourhood Plan*.

Consideration has also been given to providing pedestrian connection to the neighbourhood node located in Evergreen.

Walking distances to both of these nodes are shown on **Figure 12 - Neighbourhood Nodes**.

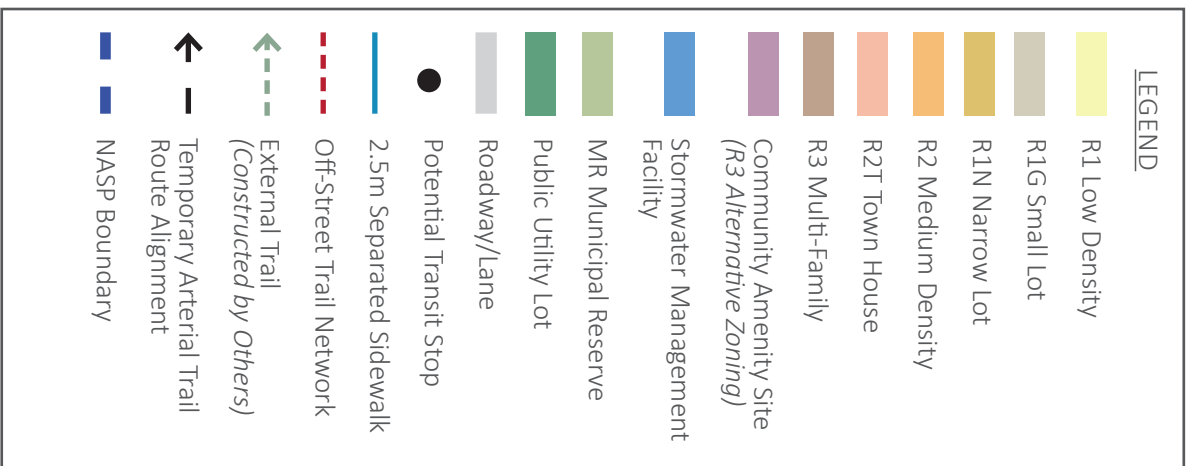
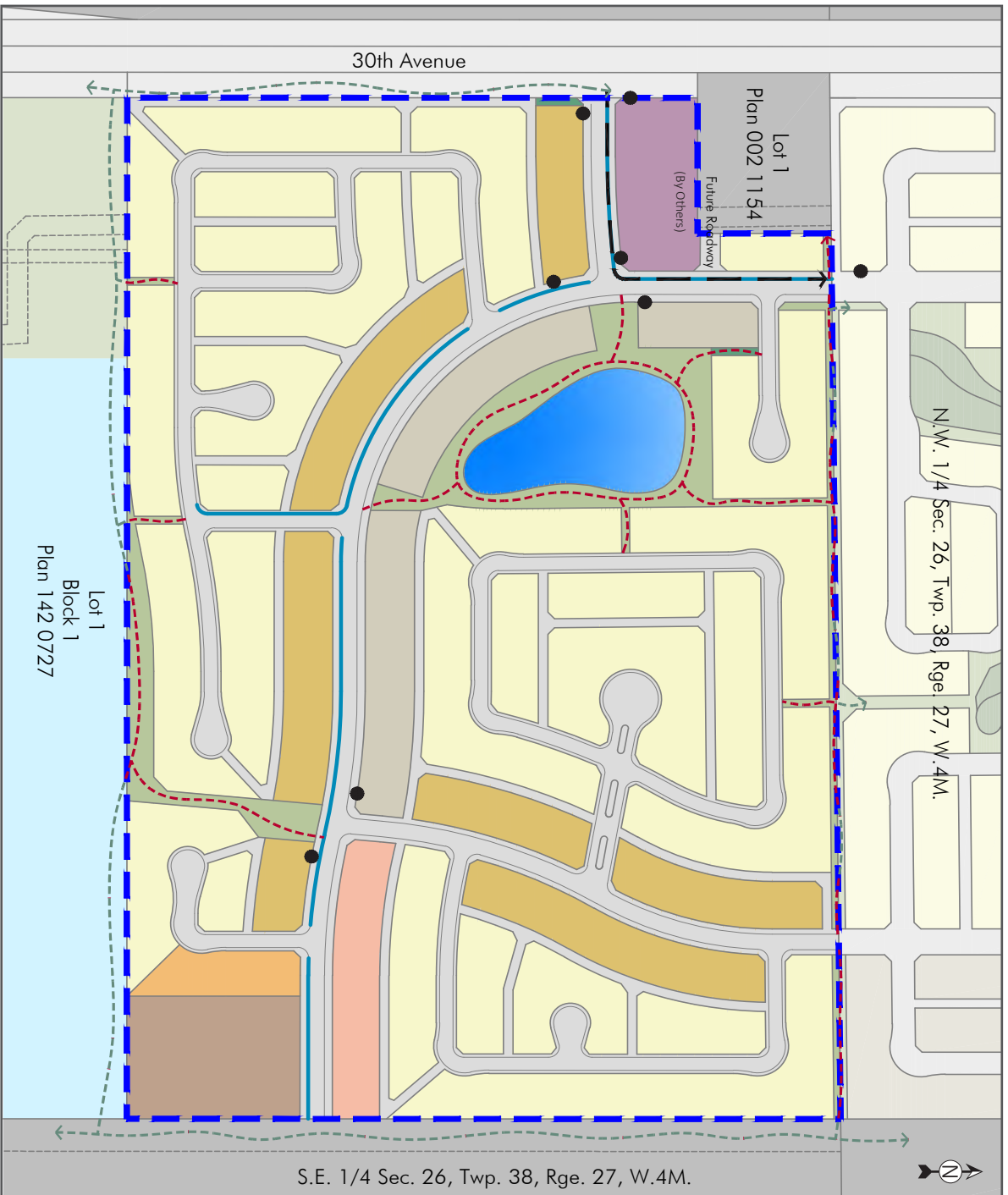
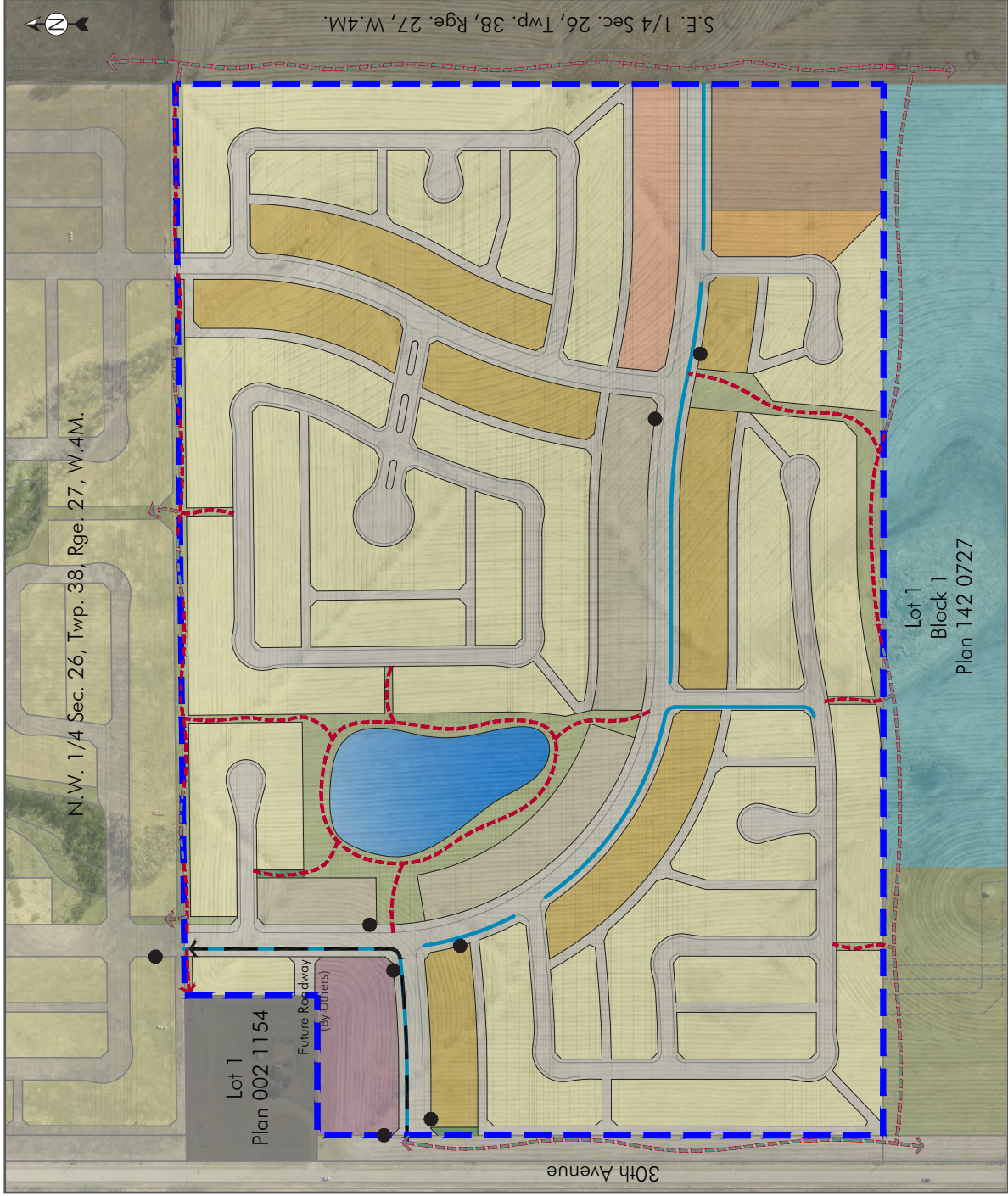


Figure 10 - Land Use Concept



**LEGEND**

	R1 Low Density
	R1G Small Lot
	R1N Narrow Lot
	R2 Medium Density
	R2T Town House
	R3 Multi-Family
	Community Amenity Site (R3 Alternative Zoning)
	Stormwater Management Facility
	MR Municipal Reserve
	Public Utility Lot
	Roadway/Lane
	Potential Transit Stop
	2.5m Separated Sidewalk
	Off-Street Trail Network
	External Trail (Constructed by Others)
	Temporary Arterial Trail Route Alignment
	NASP Boundary

**Figure 11 - Concept Plan with Aerial**





**LEGEND**

- School Site
- Open Space
- Neighbourhood Node
- NASP Boundary

**Walking Distances\*:**

- ~400m = 5 min walk, sidewalks only
- ~800m = 10 min walk, sidewalks only
- ~800m = 10 min walk, using trail connections
- ~800m = 10 min walk, sidewalks and trails  
*(Measured to Evergreen node)*

**Figure 12 - Neighbourhood Node**



### 3.4 LAND USE AREA CALCULATIONS

Table 1 - Land Use Calculations<sup>2</sup>.

Land Use Category	Hectares	Acres	% of Developable Area	# of Dwelling Units
Gross Plan Area	40.32	99.63		
Environmental Reserve	0.00	0.00		
Developable Plan Area	40.32	99.63	100.00%	
Residential	25.75	63.62	63.9%	767
R1 Residential (Low Density) District	17.35	42.87	43.0%	398
R1 Secondary Suites <sup>3</sup>	--	--	--	81
R1N Residential (Narrow Lot) District	4.15	10.26	10.3%	100
R1G Residential (Small Lot) District	1.89	4.67	4.7%	48
R2 Medium Density District	0.39	0.96	1.0%	11
R2T Residential (Town House) District	0.75	1.86	1.9%	26
R3 Residential (Multiple Family) District	1.21	3.00	3.0%	103
Other	14.57	36.01	36.1%	
Community Amenity Sites	0.80	1.98	2.0%	
Community Amenity Site (R3)	0.80	1.98	2.0%	68
Open Space	3.45	8.53	8.6%	
Municipal Reserve (MR) <sup>4</sup>	2.27	5.62	5.6% <sup>5</sup>	
Public Utility Lot (PUL) Excluding SWMF	0.04	0.10	0.1%	
Stormwater Management Facility (PUL)	1.14	2.81	2.8%	
Transportation	10.32	25.50	25.6%	
Collector Roadways	2.51	6.21	6.2%	
Local Roadways	5.54	13.69	13.7%	
Lanes	2.27	5.60	5.6%	
Other Uses	--	--	--	
Emergency Services Site	--	--	--	
Institutional Service Facility	--	--	--	

<sup>2</sup> Calculations may change as the Community Amenity site has the potential to be developed for a residential use.

<sup>3</sup> Secondary suites are calculated in Table 2 - Estimated Secondary Suite Units in Comparison to Total Housing Stock.

<sup>4</sup> Note that 5ac of the required 10% Municipal Reserve dedication for Emerson has been transferred to the southern portion of the quarter section. This has been done in coordination with the City of Red Deer to facilitate the development of major sport fields and a joint high school site.

<sup>5</sup> Municipal Reserve Percentage is calculated using the Gross Plan Area less Environmental Reserve.  
 $MR \% = \text{Municipal Reserve} / (\text{Gross Plan Area} - \text{Environmental Reserve})$



## 3.5 HOUSING TYPES & DENSITY

The residential land use regulations outlined in the following sections are based on the *City of Red Deer's Land Use Bylaw* effective at the time of NASP adoption. To ensure consistency with current regulations, readers may need to reference the present-day Land Use Bylaw.



Standard bi-level house.



Two-storey home with double garage.



Bi-level house with double garage.



Example of a walk-out basement.

### 3.5.1 R1 Low Density Residential

The R1 Residential (Low Density) land use district has been used throughout the Plan Area to provide a variety of low density lot sizes and housing styles. Housing styles in this district will be determined by the home builder in association with the Developer at the time of lot sales.

#### Appropriate Housing Styles

The following housing styles would be appropriate for location in the R1 District:

- Standard: bungalow, bi-level, and two-storey
- Walk-out basement
  - » As per existing City regulations, no walk-out basements will be permitted backing on to 30th Avenue.
- Secondary suite

#### Density

It is estimated that density will be approximately 23.0 du/ha. This assumption is based on an assumed average lot size of 435.2m<sup>2</sup>.

#### Height

Houses in the R1 District will be permitted up to 2 storeys.

#### Parking and Access

The majority of parking in the R1 district will be via front attached garage and driveway. Access to R1 homes will be via the front street. A majority of R1 lots will also be accessible via the rear lane due to municipal servicing; this will also allow for additional rear parking or storage of recreation vehicles.

#### Secondary Suites

Secondary suites will be accommodated in this district.

### 3.5.2 R1G Small Lot Residential



High level of garage detail in typical R1G home.



Typical R1G home.



High level of garage detail in typical R1G home.



Typical R1G home.

Small Lot housing with attached front garages offer a more affordable attached-garage housing option to residents due to the decreased lot width. Attention will be given to providing a diversified streetscape in areas of R1G homes: houses with identical floor plans or similar front elevations will be separated by a minimum of one lot unless the building design, character, finishing materials, or and treatments are noted as substantially different.

#### Appropriate Housing Types

The following housing styles would be appropriate for location in the R1G District:

- Modified bi-level
- Two-storey

#### Density

It is estimated that density will be approximately 25.4 du/ha. This assumption is based on an assumed average lot size of 393.8m<sup>2</sup>.

#### Height

Houses in the R1G District will be permitted up to 2 storeys

#### Parking and Access

Parking in the R1G District will be via front attached garage and front driveway.

The majority of R1G homes in Emerson will not be accessible via rear lane.

#### Snow Clearing

The R1G land use has been located along the transit route to take advantage of snow removal and advantage of snow storage in the roadway boulevards.

#### Secondary Suites

Secondary suites are not anticipated in this land use area as they are not identified as permitted or discretionary uses in the City's LUB.

### 3.5.3 R1N Narrow Lot Residential



Two storey house with small porch area.



Two-storey house without front porch.



Bi-level house without front porch.



Bi-level house without front porch.

The Narrow Lot District is intended to provide a more affordable housing type to residents by reducing lot sizes. This District does not permit a front garage and as such is suitable for location along main collector roadways to provide a consistent streetscape and allow for the inclusion of street trees. In addition, the exclusion of driveways provides a continuous sidewalk connection for pedestrians and cyclists.

To present a pleasant front streetscape, all R1N homes will have one front tree or shrub planting and a common architectural theme will be used including such features as front porches and decks. In addition, identical houses with similar front elevations must be separated by a minimum of one lot unless finishing treatments are substantially different. A gradual transition between different house styles will be used including varied roof lines, architectural projections, and bi-level or split level designs between bungalow and two-storey designs.

R1N homes will not be located backing onto park spaces or the multi-use trail as they require rear parking access.

#### Appropriate Housing Types

The following housing styles would be appropriate for location in the R1N District:

- Bungalow
- Bi-level
- Two-storey

#### Density

It is estimated that density will be approximately 24.3 du/ha. This assumption is based on an assumed average lot size of 411.8m<sup>2</sup>.

#### Height

Houses in the R1N District will be permitted up to 2 storeys

#### Parking and Access

Two off-street parking spaces will be provided per home. These spaces will be located at the rear of the lot either via a two-car parking pad or rear garage. Additional temporary parking may be available on the front street.

#### Secondary Suites

Secondary suites are not anticipated in this land use area as they are not identified as permitted or discretionary uses in the City's LUB.



### 3.5.4 R2 Medium Density Residential



Two-storey townhouse with garage.



Two-storey semi-detached house with garage.



Two-storey detached house with garage.

The Medium Density Residential District is intended to accommodate a mixture of medium density housing types as described below. This district has been located in the southeast portion of the Plan Area to act as a transitional use between the higher and lower density housing.

#### *Appropriate Housing Types*

The following housing styles would be appropriate for location in the R2 District:

- Townhousing
- Semi-detached housing
- Two storey detached housing

#### *Density*

It is anticipated that the density will be approximately 29.1 du/ha. This is an estimation using the average densities of the three housing types listed above.

#### *Height*

Houses in the R2 District will be permitted up to 2 storeys.

#### *Parking and Access*

Parking in the R2 district will be provided via front attached garages. The amount of parking spaces provided per dwelling will be determined by the City's LUB regulations based on what type of housing is constructed.

R2 homes in Emerson will be accessible via the front street only.

#### *Secondary Suites*

Secondary suites may be accommodated in this land use area in single detached housing only.

### 3.5.5 R2T Town House Residential



Two-storey townhouse style homes with front attached garage.



Two and a half storey townhouses without front garages.



Two-storey townhouses without front garages.

The R2T Town House District is intended to accommodate multi-family town housing. This district has been located in the southeast portion of the Plan Area along the main collector road. This location was chosen to create and support the adjacent neighbourhood node.

#### *Appropriate Housing Types*

The following housing styles would be appropriate for location in the R2T District:

- Two-storey townhouse
- Two and half storey townhouse
- With front or rear garages

#### *Density*

It is anticipated that the density will be approximately 35.0 du/ha.

#### *Height*

The minimum height for homes in this district is two-storeys, with a maximum height of two and half storeys or a 12m height measured from the average lot grade.

#### *Parking and Access*

Parking in the R2T district will be provided either by front attached garage or along the rear property line and accessed via the laneway. The amount of parking spaces per unit will be as per the City's LUB.

R2T homes will be accessible via the rear and front street with a high level of architectural detail included to encourage pedestrian interaction at street level.

#### *Secondary Suites*

Secondary suites are not anticipated in this land use area as they are not identified as permitted or discretionary uses in the City's LUB.



### 3.5.6 R3 Multiple Family



Four-storey apartment style housing.



Two-storey multiplex style building without garage.



Two-storey townhouses with front garages.



Townhouses with grouped garages.

R3 Multiple Family areas can take a variety of forms as further described below. This type of housing provides a more affordable residential option that appeals to a variety of residents including but not limited to renters, first time home buyers, and retirees.

One R3 area has been located in the southeast portion of the Plan Area. This location is along a collector roadway which provides residents convenient access to transit stops, and minimizes the amount of vehicular traffic travelling through local roadways. In addition, this location is near public open space which provides the opportunity to increase the amount of outdoor amenity space multi-family building residents have access to. This land use also supports the creation of a neighbourhood node and provides a buffer between the adjacent proposed commercial site to the east and low density residential development to the west.

A possible second R3 site has been located along 30th Avenue north of the entry roadway as a shadow plan for the community amenity use. As described in **Section 3.2.2 - Community Amenity Site**, should an amenity site not be developed, the site will be constructed for R3 housing.

#### Appropriate Housing Types

It is anticipated that the R3 site in Emerson will be developed as apartment style buildings; however, housing forms will be constructed based on market conditions at the time of development and could include the following. All building types listed below could take the form of rental or condo facilities.

- Apartment Style  
Apartment style buildings have shared entries, hallways, and often building amenities such as fitness centres or hot tubs.
- Multiplex Building  
Multiplex buildings commonly range from 4 to 18 units and share no common spaces: all units have separate entries and utilities.
- Townhouses

#### Density

The anticipated density in this district will be approximately 85.0 du/ha for apartments or multi-unit buildings and 35.0 du/ha for townhouses.

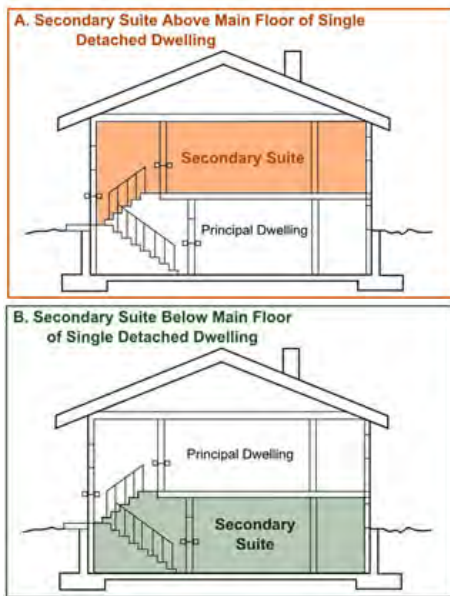
#### Height

Should the R3 site be developed as one or more apartment buildings, the maximum height would be 4 storeys; however, if the site is developed for townhouses, the maximum height would be 2 storeys.

#### Parking and Access

All parking will be determined by what type of units are constructed; however, all will be located on-site as per the *City of Red Deer Land Use Bylaw*. The R3 site will be accessed via an internal roadway network.

### 3.5.7 Secondary Suites



As defined by the *City of Red Deer Land Use Bylaw*, secondary suites are self-contained dwelling units located in a primary dwelling unit, where both dwelling units are registered under the same land title. Each dwelling unit is self-contained and usually includes cooking, eating, living, sleeping, and sanitary facilities. No more than one secondary suite is permitted per unit.

#### Importance of Secondary Suites

Secondary suites are an increasingly popular form of housing for a variety of reasons: they are affordable rental properties for tenants, they provide a source of income making mortgages more manageable for home owners, and as our population ages they can also be used as mother-in-law suites.

#### Types of Secondary Suites

By definition, secondary suites in Red Deer must be located within the primary dwelling unit; therefore, their styles are generally limited to the varieties shown in Image A and B to the left.

#### Parking

All parking requirements for Secondary Suites are identified in Section 3 of the *City of Red Deer Land Use Bylaw* and are based on the number of bedrooms in the suite. All parking stalls are required to be located within the confines of the residential lot. Typically this additional parking stall will be located at the rear of the lot and accessed via the rear lane.

#### Location

Secondary suites are a permitted use in single detached dwellings within the following land use districts: R1 Residential (Low Density) District and R2 Medium Density District.

It is anticipated that the Emerson neighbourhood could accommodate 81 secondary suites. The estimated number of secondary suites is calculated assuming that secondary suites will be located in the R1 district only, as shown in **Table 2 - Estimated Secondary Suites Units in Comparison to Total Housing Stock**. In addition, the total stock of secondary suites must not exceed 15% of the total detached housing stock.

#### Estimated Quantity of Secondary Suites

Table 2 - Estimated Secondary Suite Units in Comparison to Total Housing Stock.

	Primary Detached Dwellings	Anticipated Secondary Suites	Secondary Suites as % of Detached Housing Stock
<b>Single Detached Residential Land Uses</b>	<b>546</b>	<b>81</b>	<b>15%</b>
R1 Residential (Low Density)	398	81	
R1N Residential (Narrow Lot) District	100	Not Anticipated	
R1G Residential (Small Lot) District	48	Not Anticipated	

### 3.6 HOUSING MIX

The anticipated housing density of Emerson is 19.0 du/ha, with a total housing stock of 767 units, and a population of 1,839 residents.

Table 3 - Housing Mix.

Housing Mix	Hectares	Acres	# of Dwelling Units	% of Housing Stock
<b>Total Housing Stock</b>	<b>25.75</b>	<b>63.62</b>	<b>767</b>	<b>100.0%</b>
R1 Residential (Low Density) District	17.35	42.87	398	51.9%
Secondary Suites <sup>6</sup>	--	--	81	10.6%
R1N Residential (Narrow Lot) District	4.15	10.26	100	13.0%
R1G Residential (Small Lot) District	1.89	4.67	48	6.3%
R2 Medium Density District	0.39	0.96	11	1.4%
R2T Residential (Town House) District	0.75	1.86	26	3.4%
R3 Residential (Multiple Family) District	1.21	3.00	103	13.4%

Densities calculations are based on the assumptions as outlined following assumed averages, exact density and unit counts may differ at the time of subdivision:

- R1 Average lot size: 435.2m<sup>2</sup>
- R1N Average lot size: 411.8m<sup>2</sup>
- R1G Average lot size: 393.8m<sup>2</sup>
- R2 29.1 du/ha
- R2T 35.0 du/ha
- R3 85.0 du/ha - estimated density for a four storey building with underground parking

Table 4 - Population Projection.

Population Projection	# of Dwelling Units	Avg. Household Size <sup>7</sup>	Est. Population
<b>Single Detached Residential</b>	<b>627</b>	--	<b>1,504</b>
R1 Residential (Low Density) District	398	2.4	955
Secondary Suites <sup>6</sup>	81	2.4	194
R1N Residential (Narrow Lot) District	100	2.4	240
R1G Residential (Small Lot) District	48	2.4	115
<b>Semi-Detached and Multi-Family Residential</b>	<b>140</b>	--	<b>335</b>
R2 Medium Density District	11	2.4	26
R2T Residential (Town House) District	26	2.4	62
R3 Residential (Multiple Family) District	103	2.4	247
<b>Total</b>	<b>767</b>	--	<b>1,839</b>
<b>Density: 19.0 du/ha</b> (767 dwelling units / 40.32 developable hectares)			

<sup>6</sup> Secondary suites are calculated in Table 2 -Estimated Secondary Suite Units in Comparison to Total Housing Stock.

<sup>7</sup> Based on 2015 City of Red Deer Census and 2011 Federal Census information.

# green network and community facilities

## 4.1 OVERVIEW

The Emerson neighbourhood offers high quality public spaces, with a mixture of leisure and active recreational opportunities. Open spaces are well connected, accessible, and suitable to a range of ages and abilities. Three different types of open spaces make up the overall public open space network as indicated in **Table 5 - Green Space Amenities**.

The Developer will take steps to protect designated open spaces prior to home construction as per existing regulations in the *City of Red Deer's Engineering Design Guidelines*.

## 4.2 GREEN SPACE TYPES AND AMENITIES

As shown on **Figure 13 - Open Space Network** and **Figure 14 - Types of Open Spaces**, a mix of park and gathering spaces have been used throughout the community to provide residents with places to recreate and socialize. Each of these open space types is further described in this section.

Table 5 - Green Space Amenities.

Green Space		Total No. of Parcels	Area (ha)	Area (ac)
Open Spaces	<i>Neighbourhood Park (excluding SWMF)</i>	1	1.02	2.53
	<i>Parkettes</i>	2	0.26	0.64
Natural Areas		0	0.00	0.00
Linear Parks & Pedestrian Links		9	1.04	2.56
Total		<b>12</b>	<b>2.32</b>	<b>5.72</b>

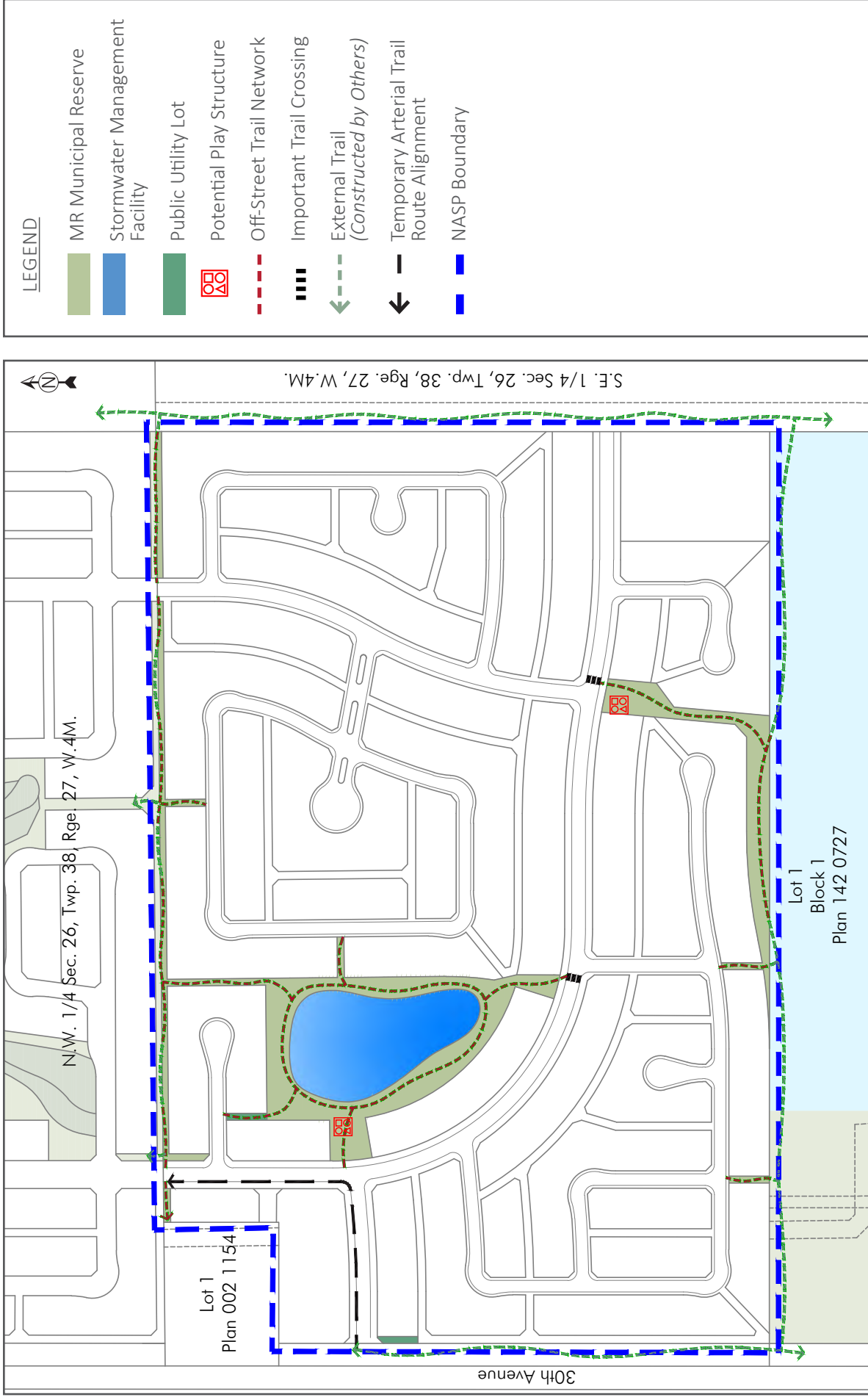
Table 6 - Municipal Reserve Calculation.

Municipal Reserve Dedication	Hectares	Acres	% of MR Developable Area
<b>Gross Plan Area</b>	<b>40.32</b>	<b>99.63</b>	
Environmental Reserve	0.00	0.00	
<b>MR Developable Area</b>	<b>40.32</b>	<b>99.63</b>	<b>100.0%</b>
Required MR Dedication <sup>8</sup>	2.02	4.98	5.0%
<b>Actual MR Dedication</b>	<b>2.27</b>	<b>5.62</b>	<b>5.6%</b>
<i>MR Dedication Overage<sup>9</sup></i>	<i>0.26</i>	<i>0.64</i>	--

<sup>8</sup> Note that 5ac of the required 10% Municipal Reserve dedication for Emerson has been transferred to the southern portion of the quarter section. This has been done in coordination with the City of Red Deer to facilitate the development of major sport fields and a joint high school site.

<sup>9</sup> It is recognized that Emerson has dedicated an excess of its required MR dedication; however, the City of Red Deer will not be required to purchase this excess from the Developer.

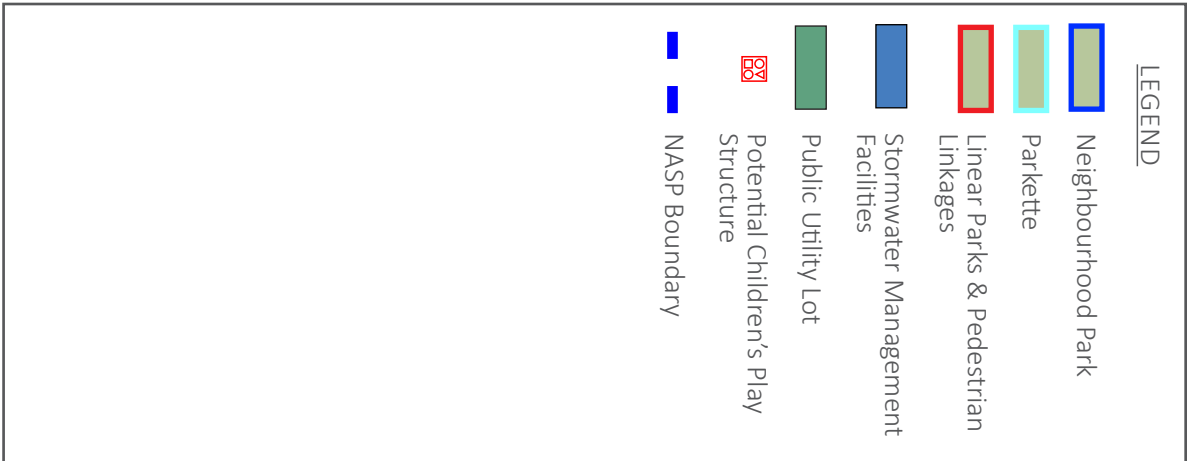
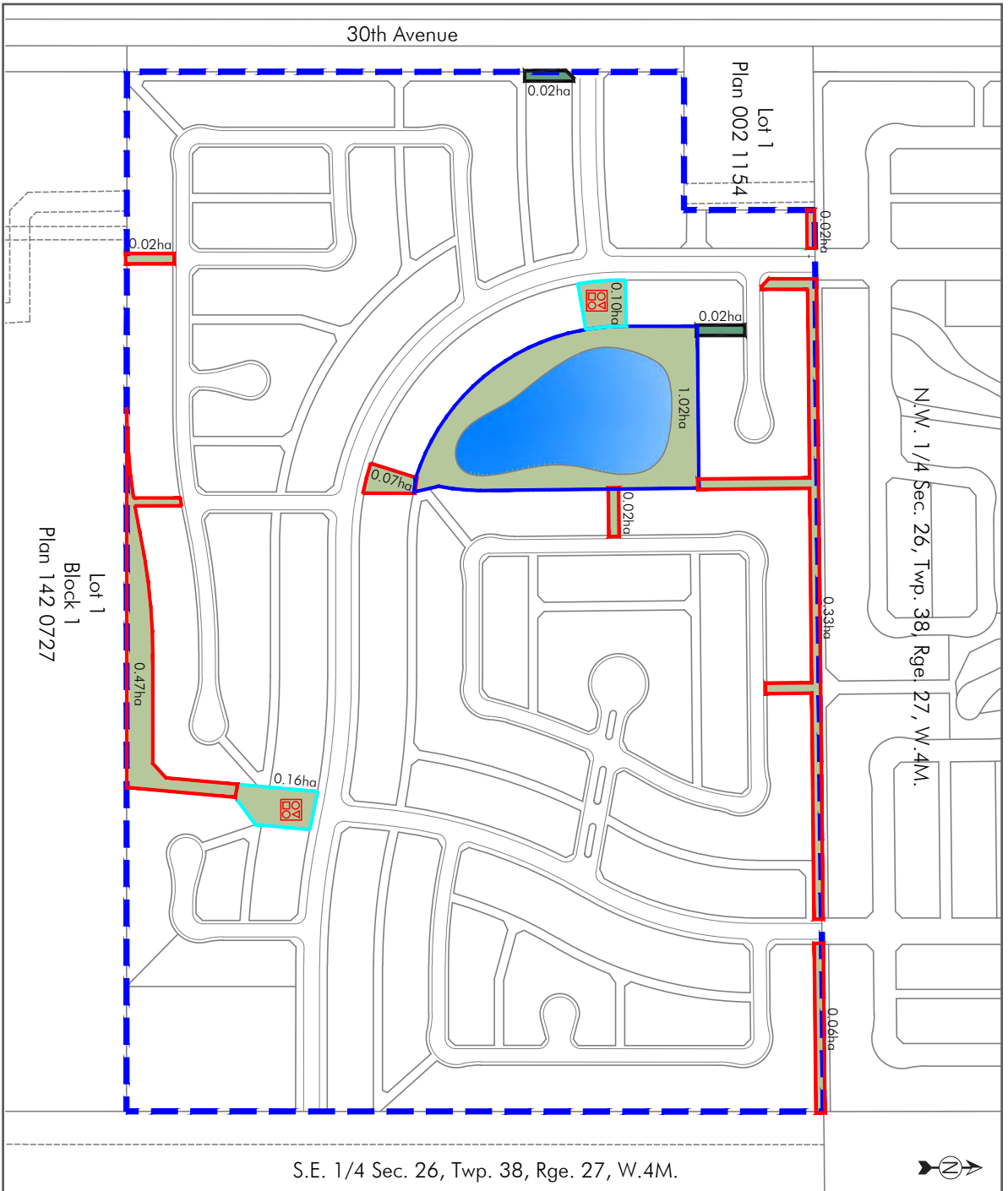




**Figure 13 - Open Space Network**

Emerson NASP | June 2016





# Figure 14 - Types of Open Spaces



Children's play equipment.



Stormwater management facility.



Passive recreation.



Children's play equipment.

#### 4.2.1 Neighbourhood Park

The intent of the neighbourhood park is to provide a centrally-located recreation space for the neighbourhood. This space is envisioned primarily for passive recreation; however, one children's playground will be provided. This park will act as a destination for walking trails or children's play in the neighbourhood.

##### Location

The Emerson neighbourhood park is located in the west-central portion of the Plan Area to be easily accessible to residents throughout the neighbourhood. The houses surrounding the neighbourhood park will provide passive surveillance thereby increasing user safety; they will also provide a wind-block for users.

##### Size

Emerson's neighbourhood park is sized at 1.02ha, not including the stormwater management facility or linear connections into the park.

##### Proposed Amenities

Anticipated amenities located within the neighbourhood park site include a looping walking trail, a children's play structure, a seating node, and a stormwater management facility.

#### 4.2.2 Parkettes

The intent of parkette sites is to provide smaller open spaces in closer proximity to residents for passive and unprogrammed recreation activities such as: playing frisbee, tag, building snowmen, etc. These areas are more local in nature than the neighbourhood park.

##### Location

One parkette is located in the southeast portion of Emerson. This location was chosen to provide convenient access to the community and particularly to residents of the adjacent multi-family sites.

A second parkette is located at the west entry to the neighbourhood park. It is understood that this parkette will include encumbrances associated with underground utility lines. The west parkette will be designed to accommodate utilities along the north boundary of the parkette so a playground can be accommodate without encumbrance. An example of this potential layout is shown on **Figure D1 - West Parkette Diagram**. Although the northern portion of this parkette will include utilities, it will remain usable passive open space. Any additional Municipal Reserve required to facilitate the park's design will not require compensation.



Children's play structure.



Off-street trail network.



Seating area along trail.



Linear trail connection behind houses.

## Size

Emerson's southeast parkette is approximately 0.16ha in size; the west parkette is 0.10ha in size.

## Proposed Amenities

Constructed elements within the parkette may include a small-scale children's play structure, a trail connection, a seating area, and refuse containers.

### 4.2.3 Linear Parks & Pedestrian Connections

Linear parks have been used to provide continuous off-street connectivity throughout the neighbourhood and to connect residents to destinations in adjacent communities.

#### Location

Though linear parks have been located in various areas to provide short pedestrian connections, there are three main connections: one that runs north/south and two that run east/west.

The northern east/west linear park runs along the north boundary of the Plan Area to provide a continuous connection through the community, from the east transmission corridor trail west toward the main collector roadway. This linear park is 5m in width which complement the 5m wide linear park located along Evergreen's south boundary. These two open spaces form a 10m wide regional trail corridor. The completion of this trail's connection to 30th Avenue is anticipated to continue through the eventual development of the Out Parcel.

A second east/west linear park has been planned along the south boundary of the Plan Area. This linear park is intended to supplement the southern school site and accommodate a meandering trail. By varying the width of this park a more subtle boundary between the school and the residential neighbourhood is created which allows a more seamless interface of the two areas.

The north-south linear park runs through the central portion of the Plan Area connecting residents to the Evergreen park in the north, and the high school site and sport fields in the south. A second north/south trail connection with similar function will be located outside of the Plan Area within the transmission right-of-way along the east boundary.

Pedestrian safety and comfort has been considered through the design of linear parks: linear parks have been located with houses surrounding which will provide passive surveillance increasing user safety and provide a wind-block for users.





Walk-out basements with trail behind.

### Size

Linear parks vary in length and are a minimum of 6m in width.

### Proposed Amenities

Amenities in linear parks will be limited to trails, landscaping, and occasional seating areas with refuse containers. These areas are not intended for prolonged visits; to minimize redundancy and prevent loitering, they will not contain gathering type amenities.

Post and cable fencing may be installed along linear parks to prevent vehicular access.

## 4.2.4 Neighbouring Natural Spaces

Although Emerson has not been designed with any natural spaces, connections to those surrounding have been provided to facilitate residents' access.



Potential Evergreen natural space.

### Natural Open Spaces

#### Northern Natural Space

The two quarter sections north of Emerson, including the neighbourhood of Evergreen, have significant amounts of natural open space. It is understood that these areas will be designed to include pedestrian connections and pathways surrounding, or throughout, their natural areas. To facilitate access by Emerson residents, the Emerson neighbourhood has been designed with pedestrian connections to the north.

#### Waskasoo Park System

The Waskasoo Park system includes over 100km of trails that run through green spaces, playgrounds, and natural areas spanning the entire City of Red Deer. MacKenzie Trails is the closest portion of the Waskasoo Park system to Emerson which is approximately 1.5km directly west of the Plan Area. Due to private property limitations, the closest access to this area would be via the Garden Heights neighbourhood, approximately 2.5km southwest of the Plan Area.



Waskasoo Park map.



*River Bend Recreation Area - Discovery Canyon.*



*Example of sport field anticipated in adjacent playfields site.*

## *Programmed Open Spaces*

### **River Bend**

The River Bend Golf and Recreation Area is located approximately 4.0km northwest of the Emerson Plan Area. This area is a recreational destination in Red Deer and includes River Bend Golf Course, Discovery Canyon-a naturalized water tube park, cross-country ski trails, a biathlon range, wooded hiking trails, canoeing and fishing area, a boat launch, and extensive outdoor passive recreation space.

Resident access to the River Bend area is anticipated via the 30th Avenue regional trail.

### **Joint School Site**

The high school and play fields site located directly south of the Emerson Plan Area will be programmed with a variety of sport fields for use by students and community members. Pedestrian connections will be provided to this area for residents' access and use.



# mobility and connectivity

## 5.1 OVERVIEW

The Emerson neighbourhood has been designed as a community that encourages active and multi-modal transportation in addition to providing a safe and efficient vehicular roadway network. To facilitate multi-modal movement, a system of off-street trails and sidewalk connections wind throughout the neighbourhood and provide access to the amenities and destinations surrounding Emerson.

Specific destinations considered for pedestrian connections include the neighbouring natural space trail network, joint high school site, existing and future commercial sites, and regional trails along 30th Avenue and the east transmission corridor. It is understood that the trail along the east side of 30th Avenue will be constructed from the south boundary of Emerson north to the collector entrance road and continue east into Emerson. The portion of the 30th Avenue trail travelling north of the collector entrance road likely will not be constructed until such a time that the acreage site is redeveloped.

Table 7 - Multi-Modal Movement.

Mobility	Location	User Experience	Accessibility & Integration	Safety
Pedestrian	Sidewalks, trail connections	Local destinations or those in adjacent neighbourhoods	Fully integrated into neighbourhood, paved off-street trails to promote accessibility	Sidewalks, separated sidewalks, off-street trail connections, crosswalks
Bicycle	Sidewalks, off-street trail connections, roadways	Recreation: local destinations or those in adjacent neighbourhoods Commuter: Destinations outside of the neighbourhood (heading west to 30th Avenue)	Recreational users integrated into neighbourhood with sidewalks and paved off-street trails Commuter users to cycle on the roadway	Separated sidewalks along collector roadways provide wider riding areas, off-street trail connections
Transit Rider	Sidewalks, off-street trail connections, buses along collector roadways	Destinations outside of the neighbourhood	Routes along collector roadways only, pedestrian connections throughout neighbourhood	To be determined by City of Red Deer
Vehicle	Collector and local roadways, lanes	Destinations outside of the neighbourhood	Local roadways linking to collectors, minimize unnecessary through traffic	Curvilinear street pattern, speed limitations, on street parking

## 5.2 MULTI-MODAL MOVEMENT

As shown on **Figure 15 - Multi-Modal Network**, a series of transportation methods have been considered to promote multi-modal movement in Emerson.

### 5.2.1 Pedestrian Connections



*Collector roadway separated sidewalk.*



*Recreational bicycling.*

All off-street trails within Emerson will be constructed as 2.5m wide paved multi-use trails to accommodate walking, running, roller blading, skateboarding, strollers, wheelchairs, and cyclists. These trails are intended to be used year-round and may facilitate winter activities such as cross-country skiing or pulling a child in a sled. All off-street trails will be part of the overall municipal open space network; as such, they may not be cleared of snow during the winter months.

As shown on **Figure 16 - Sidewalk Types**, a variety of sidewalks types have been used throughout the neighbourhood including those of a 2.5m width and separated sidewalks to provide strong north/south and east/west pedestrian connections.

Connections from the internal pedestrian network to external trails will be provided at the periphery of the neighbourhood. Note that trails located outside of the Plan Area will be constructed by others.

### 5.2.2 Cycling Routes

To accommodate both recreational and commuter cyclists, widened separated sidewalks have been located along the collector and modified local roadways. These routes are envisioned as being the primary cycling routes to access destinations inside and outside of the Plan Area. An off-street paved trail network and monolithic sidewalks will supplement these routes.

Cycling routes through Emerson may be particularly popular for students and children accessing the school and play fields sites south of the neighbourhood. Although cycling is anticipated along all sidewalks, to strengthen this north-south route, a 2.5m separated sidewalk has been included along the collector roadway, and a southern connection has been provided between the neighbourhood park and adjacent school site. These enhanced routes will support the off-street trail network and provide a range of comfortable cycling areas for users.

It is intended that commuter cyclists will travel on the roadways or use the off-street network to be transported through the neighbourhood.





Red Deer transit bus.

### 5.2.3 Public Transit

Potential transit stops have been identified along Emerson’s collector roadway based on existing regulations held by the City of Red Deer’s Transit Department. Each transit stop has been located 500.0m apart and is placed based on convenience, safety, and to encourage ridership. Locations are intended to have all residents within a 400.0m walking distance of a transit stop which represents a 5min walk. It is considered acceptable that a small area of the Plan Area will fall outside of a 500.0m radius as these areas are still within a 10min walking distance of a transit stop.

All transit routes and stops are shown conceptually on **Figure 17 - Transit Network** and are subject to change over time based on passenger demand, funding, and neighbourhood build out.



On street parking.

### 5.2.4 Driving

According to the *City of Red Deer’s Mobility Playbook*, 90% of all trips in Red Deer are made by cars. To accommodate this traffic, while still encouraging alternative modes of transportation, a roadway hierarchy has been used with major roadways designed for higher traffic volumes and more local roadways designed for lower volumes. The primary vehicular route envisioned for this neighbourhood travels west and connects to 30th Avenue which corresponds with Emerson’s collector roadways, designed to accommodate higher traffic volumes. More information regarding Emerson’s roadways is discussed in **Section 5.4 - Street Types and Sections**.



Example of bump-out traffic calming.

## 5.3 TRAFFIC CALMING POLICY

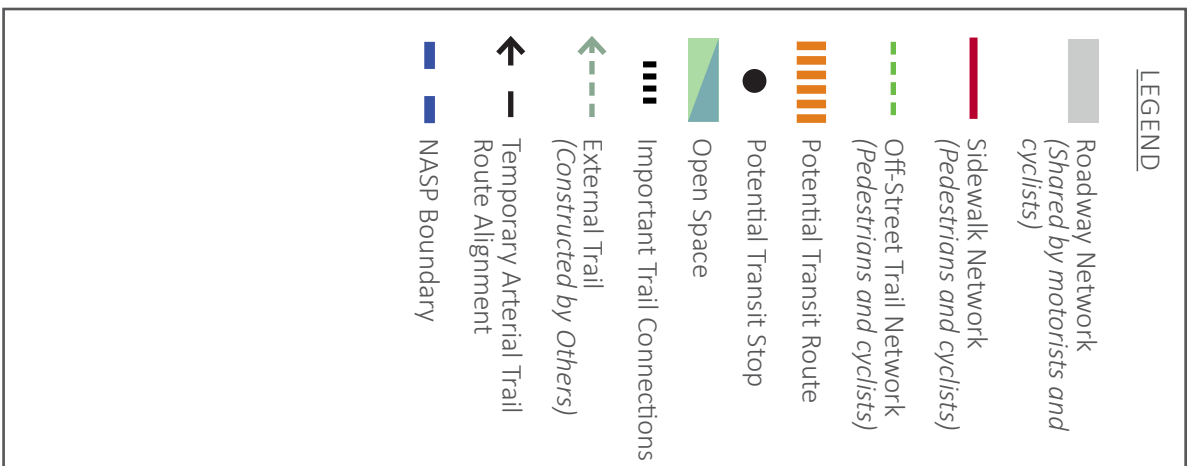
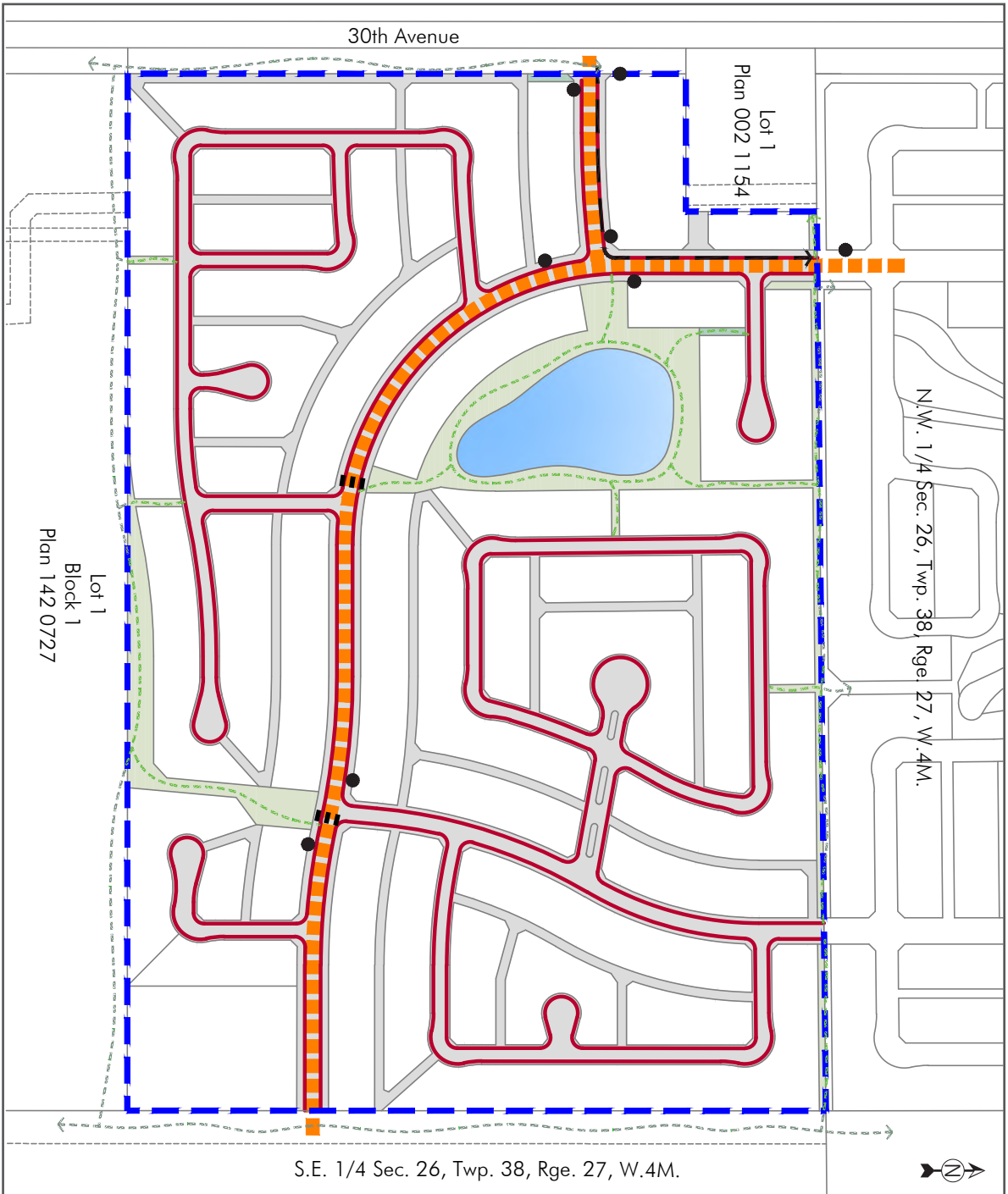
Emerson has been designed to minimize overall traffic speeds by funnelling through traffic onto the collector roadway, utilizing a curvilinear street pattern for through traffic, including short-spaced intersections where drivers are required to slow their speeds, and respecting speed limitations.

### 5.3.1 Parking

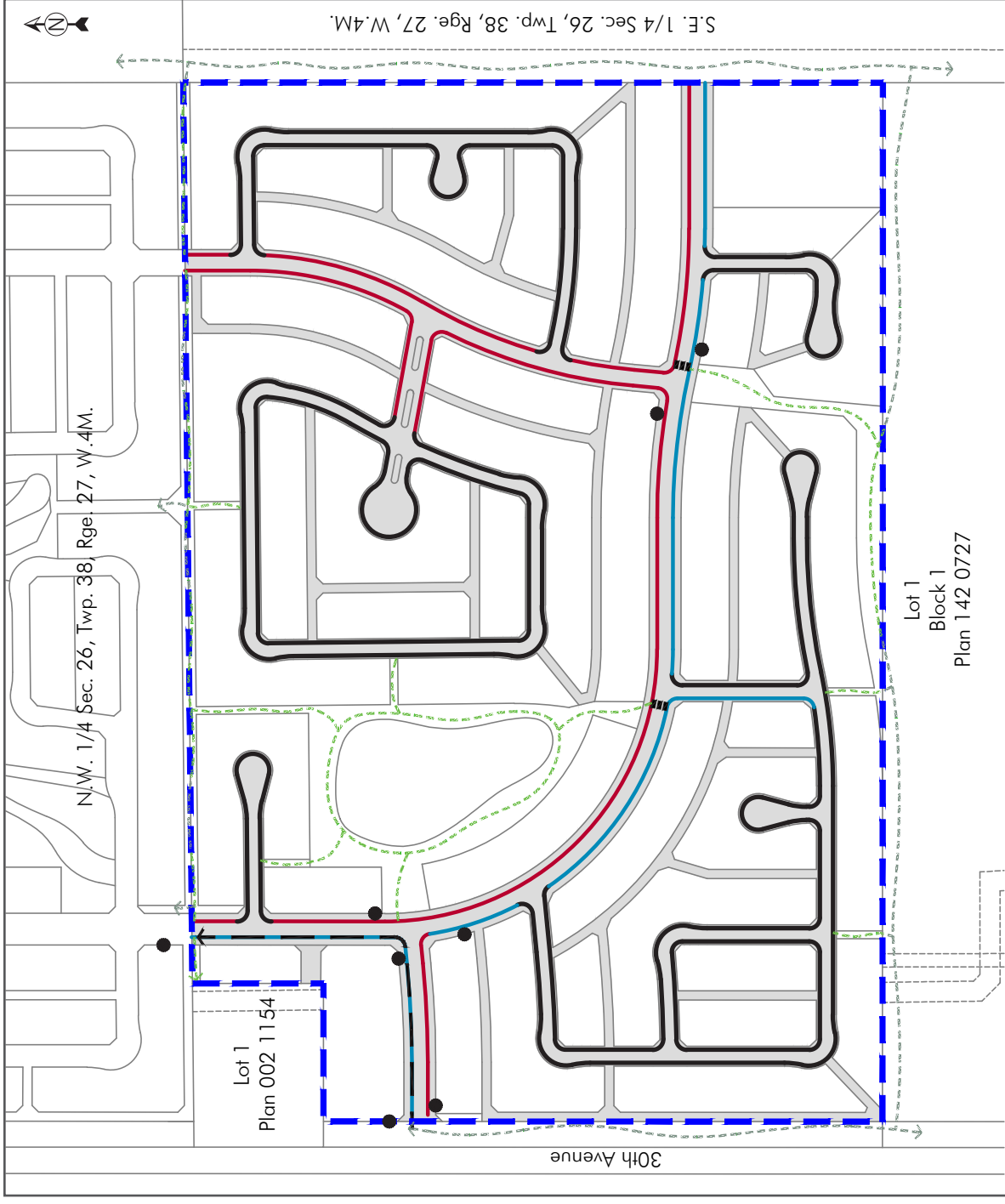
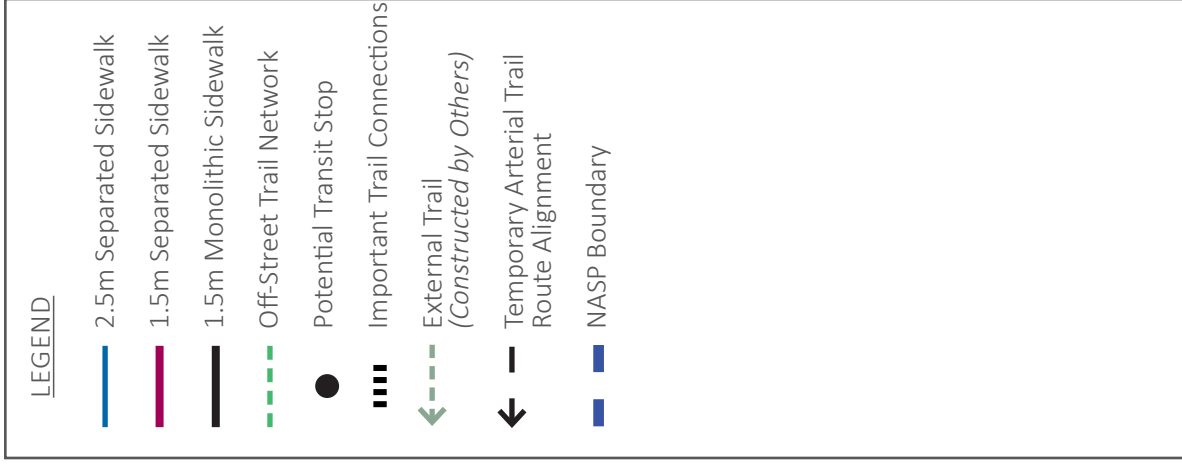
On-street parking will be permitted on all roadways within Emerson except surrounding major intersections. These parking restrictions will be determined during the detailed design process of the roadways. The provision of on-street parking acts as a safety feature to pedestrians by creating a buffer between sidewalks and motorists. It also narrows the roadway and adds uncertainty into drivers’ paths of travel which has been shown to slow traffic and make drivers more aware of their surroundings.

### 5.3.2 Important Trail Connections

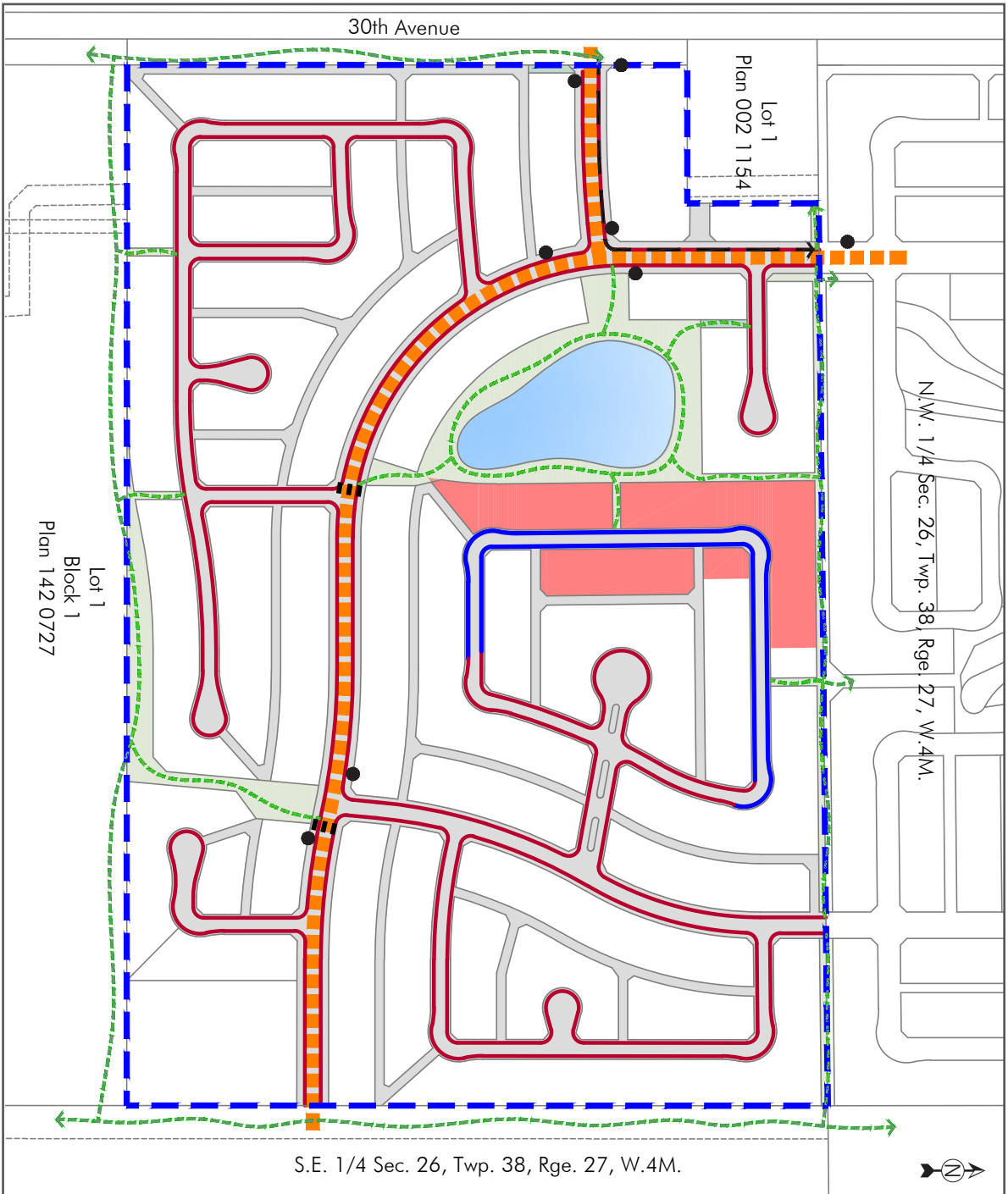
Two important trail connections are located across Emerson’s collector roadway. These connections will require further consideration to ensure pedestrians are visible and safe as they cross the roadway. Potential safety features utilized may include bump-out traffic calming as shown above; all features selected should be based on pedestrian safety and user needs as well as operational requirements of the City of Red Deer.



**Figure 15 - Multi-Modal Network**



**Figure 16 - Sidewalk Types**



**LEGEND**

- Potential Transit Route
- Potential Transit Stop (500m apart)
- Area Located over 500m from Potential Transit Route
- Off-Street Trail Network
- Open Space
- Important Trail Connections
- External Trail (Constructed by Others)
- Temporary Arterial Trail Route Alignment
- NASP Boundary

**Walking Distances:**

- ~400m = 5min walk
- ~800m = 10min walk

*\*Walking distances to transit stops are measured using sidewalks only.*

**Figure 17 - Transit Network**



## 5.4 STREET TYPES AND SECTIONS

As shown on **Figure 18 - Roadway Hierarchy**, the Emerson neighbourhood will be serviced via a 24.0m collector roadway connecting the neighbourhood to 30th Avenue, another 24.0m collector roadway running northwest to southeast, a 20.0m modified local roadway running north to south, 15.0m local roadways providing access to residential pods, and lanes providing rear access to homes. This network will provide efficient access for residents while minimizing short-cutting opportunities for those passing through the neighbourhood. Primary routes have been designed with separated sidewalks to enhance the pedestrian experience in these areas.

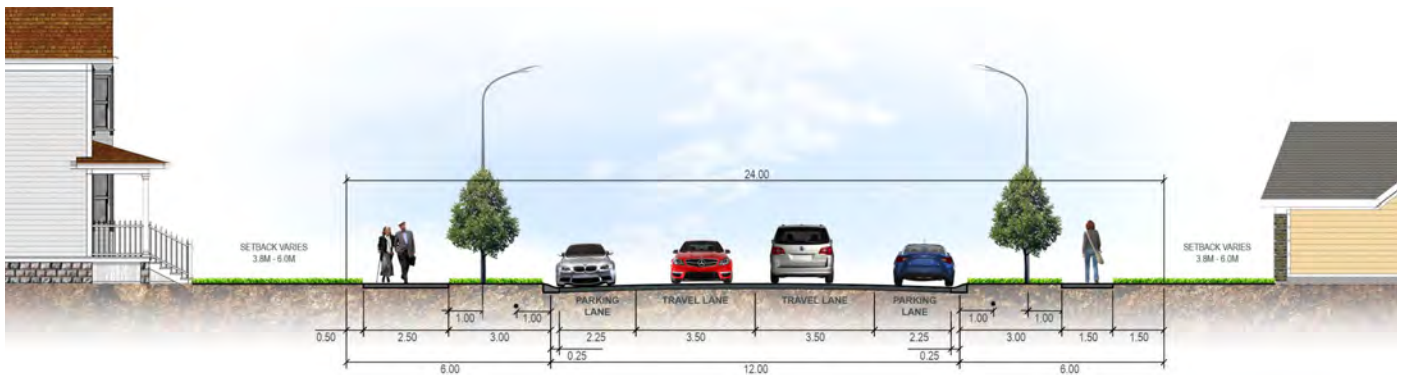
### 5.4.1 External Arterial Roadway *30th Avenue Widening*

Located outside of the Emerson Plan Area, 30th Avenue runs along the western boundary of the Plan Area. This roadway is the primary route residents will take to access the rest of Red Deer. To facilitate increased traffic volumes and connect to the future Northland Drive expressway, 30th Avenue has been identified by the City of Red Deer to be upgraded to an arterial roadway. As previously mentioned, widening to accommodate this upgrade will not be required from the Emerson Plan Area.

#### **Berm**

A berm will be built along 30th Avenue to minimize visual and acoustic impact of traffic on adjacent developments, included landscaping will be consistent to that found elsewhere along main arterials. This berm will be located outside of the Plan Area; however, it will be constructed and landscaped by the Developer.

### 5.4.2 Collector Roadway *24.0m Collector Roadway (Existing City of Red Deer Standard)*

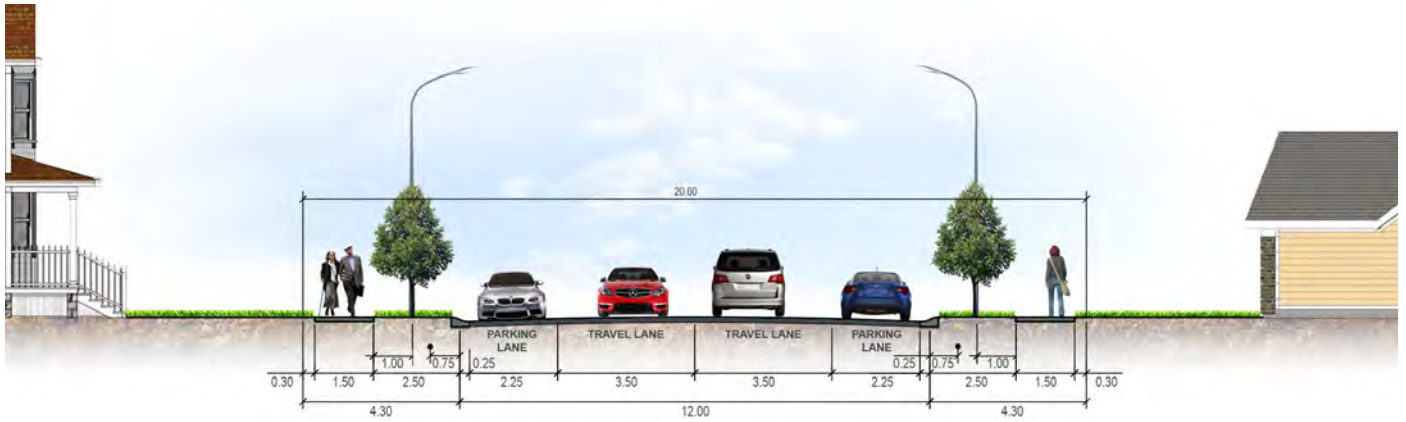


The Emerson collector roadway is intended to provide a first impression of Emerson to visitors by including a high level of landscape design. This roadway will serve as the primary access into and throughout the community and accommodate the largest amount of traffic. To service this demand, the roadway will have a 24.0m wide right of way, 12.0m wide carriage way, boulevard trees, and a 2.5m and 1.5m separated sidewalks on either side of the roadway.

### 5.4.3 Local Roadways

The system of local roads, as shown on **Figure 18 - Roadway Hierarchy**, has been planned to provide access to individual development clusters while discouraging outside traffic from short-cutting.

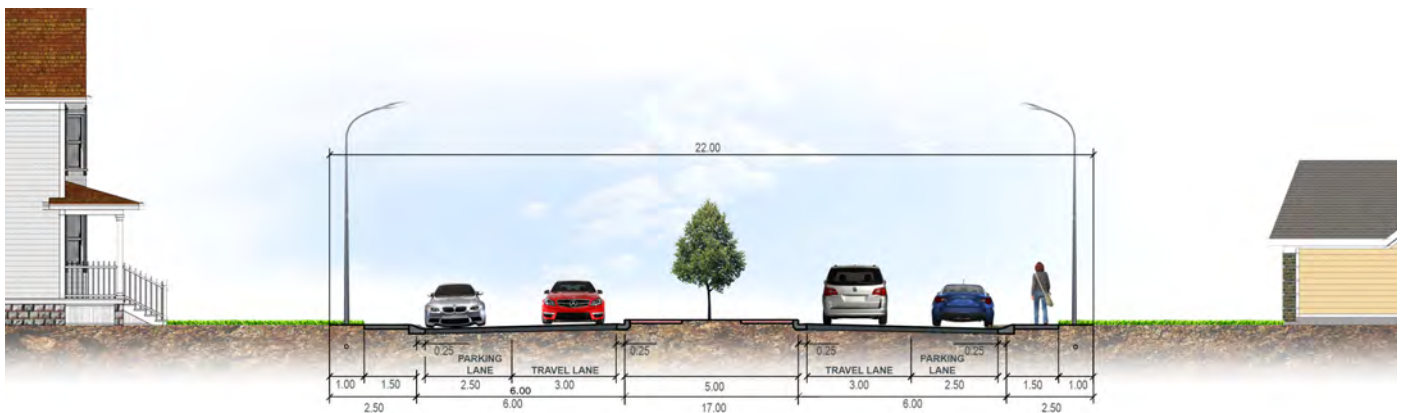
#### 20.6m Modified Local Roadway (Proposed Cross-Section)



The 20.6m Modified Local Roadway has been utilized to facilitate higher volumes of north-south traffic along the east boundary of the Plan Area. This roadway will be an extension of that utilized in Evergreen and as such will be designed with the same cross-section. The roadway is intended to be of a width that will facilitate a potential transit route if one is deemed appropriate in the future. To accommodate pedestrian movement, this roadway also has 1.5m wide sidewalks separated from traffic by a landscaped boulevard.

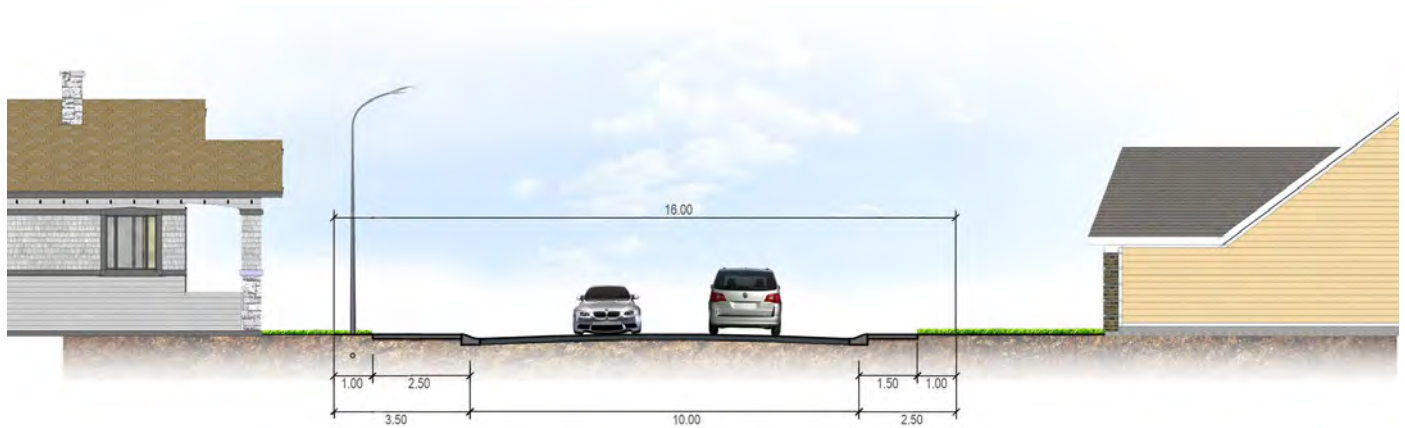
This cross-section is not standard in the City of Red Deer; however, it has been approved for use in the Evergreen neighbourhood.

#### 22.0m Divided Local Roadway (Existing City of Red Deer Standard)



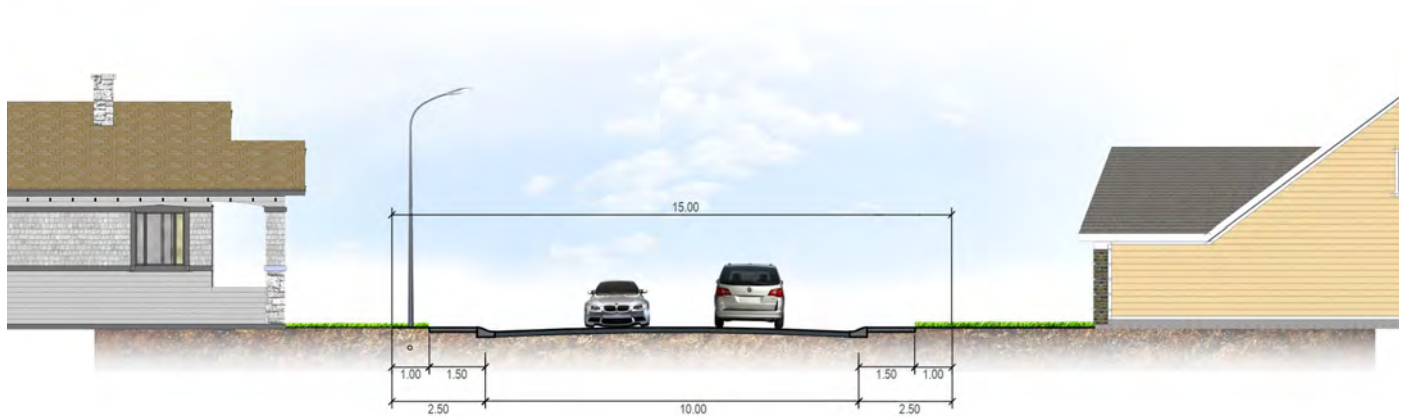
A 22.0m wide divided roadway will be utilized as the entry to a 15.0m Standard Local in the northeast portion of the Plan Area. As per the City of Red Deer's standards, this roadway will have a 22.0m wide right-of-way, a 5.0m landscaped median, a 6.0m wide carriage way in either direction, and 1.5m monolithic sidewalks on both sides of the roadway.

### 16.0m Undivided Local Roadway (Proposed Cross-Section)



A 16.0m wide undivided roadway will be utilized to enhance trail connectivity throughout Emerson from north to south. The inclusion of a widened sidewalk in this area has been provided at the request of the City of Red Deer. As this cross-section is not standard in the City of Red Deer, it will be subject to review by the City prior to implementation.

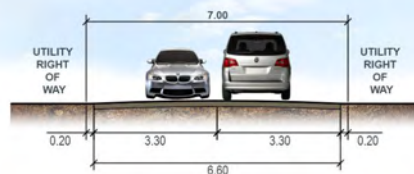
### 15.0m Undivided Local (Existing City of Red Deer Standard)



As per the City of Red Deer's standards, local roads will have a 15.0m wide right-of-way with a 10.0m wide carriage way and 1.5m monolithic sidewalks on both sides of the roadway.

### 5.4.4 Lanes

#### 7.0m Lane (Existing City of Red Deer Standard)



The Emerson neighbourhood has been designed with rear laneways; however, lanes have not been provided for lots backing onto the stormwater management facilities, Municipal Reserves, or the east transmission corridor. In areas where lanes are located adjacent to open spaces or public utility lots, bollards may be installed to prevent access and short-cutting. All laneways will be designed to The City of Red Deer standards

## 5.5 OTHER

### 5.5.1 Turn-Arounds

Until such a time that development occurs surrounding Emerson, roadways intended to connect into adjacent neighbourhoods will be constructed with temporary turn-arounds at their terminus.

### 5.5.2 Parking

All roadways in Emerson will allow on-street parking for temporary use by visitors. This type of parking will be regulated by City of Red Deer bylaws including those regarding extended stays and restricted parking surrounding intersections.

### 5.5.3 Driveways

Driveways will be designed to meet the roadway at 90 degrees and are not permitted to 'flare out'. This will preserve boulevard space, accommodate trees, and improve on-street parking.

### 5.5.4 Intersections

All intersections will be designed as per the *City of Red Deer's Engineering Design Guidelines*.

### 5.5.5 High-Low Density Screening

Screening between low density and high density residential development, particularly in the northwest and southeast, will be via fencing and landscaping as located within the multi-family housing parcels. The design of this screening will be determined at the time of Development Permit for each multi-family site.

To facilitate privacy and provide screening between the Emerson neighbourhood and the acreage site, the Developer has committed to constructing a vinyl fence along the south and east shared boundaries of the acreage site.

### 5.5.6 Acreage Site Access

As described in **Section 1.3.5 - Existing Acreage**, access to the acreage site is currently available off of 30th Avenue; however, it is understood that this access will eventually be removed as the construction of 30th Avenue proceeds.

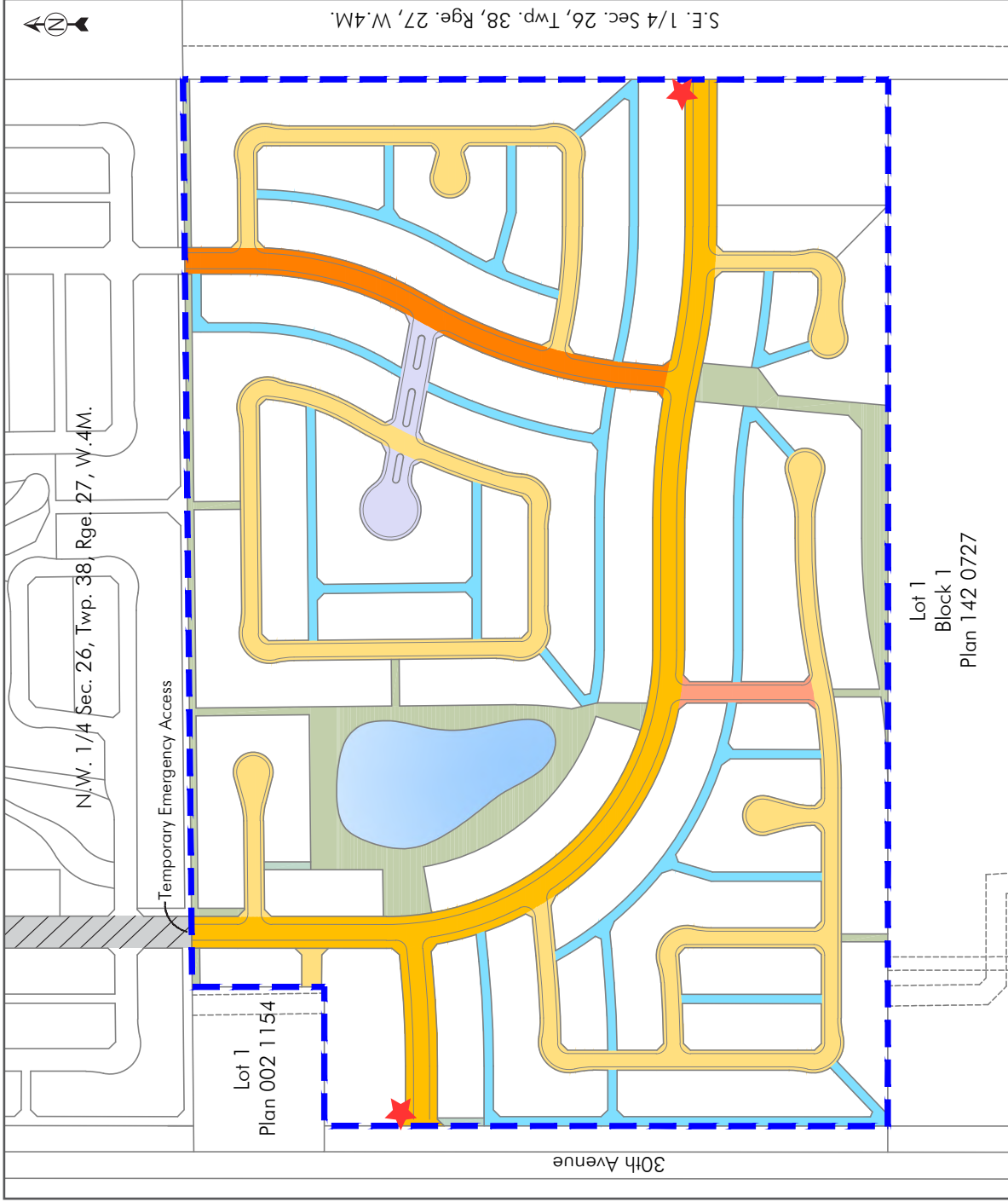
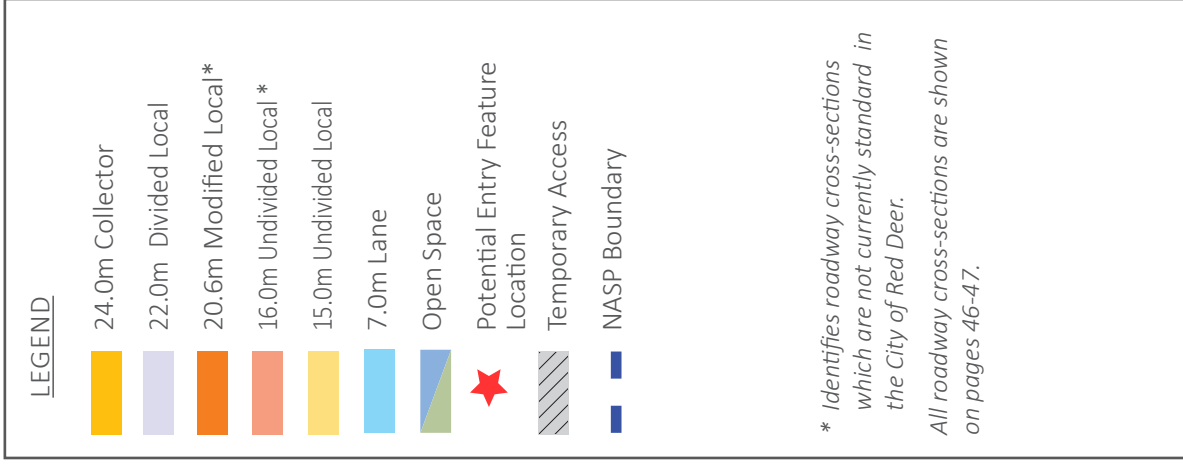
To provide continued access to the acreage site, an alternative access has been identified off of Emerson's collector roadway. This connection has been sized to accommodate a future 15.0m Undivided Local Roadway; it has been provided by the Developer to ensure responsible development. It must be noted that the closure of the homeowner's access off of 30th Avenue is in no way tied to the development of Emerson; therefore, constructing an alternative access is not the responsibility of the Developer.

As it is unknown when this roadway will be constructed, the acreage site access will be landscaped to a typical Public Utility Lot standard.

### 5.5.7 Emergency Access

Emergency Services requires two accesses into the neighbourhood. Based on the phasing of Emerson, a permanent secondary access will not be available until the development of additional phases which connect to adjacent developments. Until such a time that a permanent secondary access is constructed into the neighbourhood, a temporary secondary access will be constructed. This access will be shown in the Emerson Servicing Study.





**Figure 18 - Roadway Heirarchy**

# neighbourhood design and character

## 6.1 OVERVIEW

Housing in Emerson will be low-density in nature with a focus on high quality architectural design and visual interaction between the homes and pedestrians at street level. Architectural forms in the neighbourhood will feature the American Craftsman style. Particular style elements will not be finalized until the latter stages of development in order to best reflect market trends, consumer preferences, etc. Character lighting and entry features will also be used throughout the neighbourhood to add to the unique character of the community.



## 6.2 BUILT FORM AND PUBLIC REALM

### 6.2.1 Architectural Controls

A set of architectural controls will be utilized by home builders in Emerson to maintain consistency throughout the neighbourhood. These regulations will be used to guide development toward the outlined theme and ensure high-quality construction and appearance. Items addressed in these controls may include, but will not be limited to, the following topics:

- house size, massing, and style repetition
- colours and building materials
- garage details, driveway materials

### *Massing*

Massing provides a strong visual presence throughout the community by providing focal buildings or consistent corridors. Emerson has been designed to include focal massing at the termini of the collector roadway, and consistent corridor massing along the north/south modified local roadway, by incorporating land uses that allow for taller buildings. It is intended that building heights in these areas will be higher than elsewhere in the community and provide a visual draw to residents and guests.

### 6.2.2 Gateway

The main gateway into Emerson will be the collector road off of 30th Avenue, running east. As the primary access road into the neighbourhood, it provides a first impression to visitors and welcomes residents home. As part of this gateway, a community amenity building or buildings may be located along the north side of the roadway. The building(s) on this site are intended to provide

a visual anchor for the community's entry through massing, height, and visual consistency. Should this amenity not be sold and developed for its intended use, multi-family housing will be constructed to provide a similar visual impact.

A secondary gateway will be along the collector roadway entrance from the east. This roadway will connect Emerson to the adjacent commercial area and be frequented by residents as they do their shopping. A multi-family element has also been included along this roadway to anchor the gateway.

### *Entry Features*

Both gateways may include an entry feature identifying the community name with featured landscaping and a neighbourhood map. In accordance with City's regulations, entry features will be located within the road right-of-way and will not be encumbered by any underground utilities which are not required for the feature, such as lighting. Potential locations for these entry features are shown on **Figure 18 - Roadway Hierarchy**.

### 6.2.3 Destinations

Key destinations as identified for Emerson include the following:

#### *Neighbourhood Park*

The neighbourhood park will be a local destination for residents to enjoy. This space will act as the heart of the neighbourhood and include walking trails and seating nodes. This park would be a good location for a public art piece should that be desired in the future. Connections to the park site will be provided via Emerson's trail system.

#### *External Destinations*

##### **Commercial Site (East)**

The commercial site proposed east of Emerson is envisioned as a destination for residents both by motorists and pedestrians. As shown on **Figure 12 - Community Node**, connections to this area will be provided via the collector roadway network and through off-street trails.

##### **School Site (South)**

The school site will be a destination for high school aged children as well as those using the sport fields after hours. To facilitate access to this destination, trail connections have been provided. The transition between the adjacent school site and Emerson will be considered during the detailed design of the neighbourhood to best determine how to provide screening and privacy to residents while encouraging passive surveillance of the play fields.

##### **Neighbouring Natural Open Spaces (North)**

Evergreen's park space north of Emerson is envisioned as an external destinations for residents due to its extensive trail network. Connections to this destination have been provided via Emerson's trail system as well as the collector and modified local roadways.

##### **30th Avenue (West)**

30th Avenue, and its associated regional trail connection, will provide residents a connection from Emerson to the rest of Red Deer. As this is the access point most residents will use, strong vehicular and pedestrian connections will be made to this destination via the collector roadway network and off-street trail system.



# infrastructure and servicing

## 7.1 OVERVIEW

The servicing for Emerson will be extended from the south via 30th Avenue and from connections through Evergreen to the north. Servicing connections will also be provided through Emerson to facilitate future development to the east. There are no significant servicing challenges present with this development.

## 7.2 STORMWATER

One stormwater management facility has been proposed for the Emerson development. This facility will manage stormwater from both the minor storm system as well as the major system for the entire Plan Area. This facility is intended to be developed as a constructed wetland, which will be sized to accommodate stormwater detention for a 1:100 year event.

Underground storm pipe infrastructure will be routed throughout the community, as shown in **Figure 19 - Storm Water System**. The stormwater from these pipes will be directed through the constructed wetland, which will provide stormwater quality enhancement, before the water is directed into the 30th Avenue storm sewer trunk. This trunk will collect stormwater from both the Emerson quarter section as well as the quarter section to the east, and convey it to Northland Drive where it will ultimately discharge into the Red Deer River.

All stormwater facilities and storm sewers will be designed in accordance with the *City of Red Deer Design Guidelines* and become the responsibility of The City of Red Deer to maintain after a predetermined maintenance period as identified in the Emerson Development Agreement.

## 7.3 SANITARY SEWER SERVICING

Emerson will be serviced from a sanitary trunk to be constructed along 30th Avenue. This trunk currently extends from the intersection of 30th Avenue and Northland Drive to the Evergreen collector intersection at 30th Avenue. In 2015, the City completed the extension of the trunk south to the intersection of 67th Street. The extension alignment is located in the proposed Emerson lane that bounds 30th Avenue.

All the homes in Emerson will be serviced off a gravity sewer system that will be connected to this 30th Avenue sanitary trunk as illustrated on **Figure 20 - Sanitary System**. A sanitary stub will be provided to the quarter section to the east in order to facilitate future development of these lands.

All sanitary sewer facilities will be designed in accordance with the *City of Red Deer Design Guidelines* and will become the responsibility of the City of Red Deer to maintain after a predetermined maintenance period as identified in the Emerson Development Agreement.



## 7.4 WATER

In order to service Emerson with water, a water line was recently extended from the intersection of Carrington Avenue and 30th Avenue. This line is situated in the Emerson lane that parallels 30th Avenue. From this location water lines will be extended throughout the neighbourhood in order to provide for both fire protection and domestic water for homes. The proposed alignment of the water lines in Emerson is shown on **Figure 21 - Water System**. As shown, there are also water stubs provided to the adjacent high school site located south of the Plan Area in order to maintain the standard grid system. At this stage the connection point has not been determined. Additionally, a water stub has been provided for the future development to the east.

All water mains in this development will be designed in accordance with the *City of Red Deer Design Guidelines* and will become the responsibility of The City of Red Deer to maintain after a predetermined maintenance period as identified in the Emerson Development Agreement.

## 7.5 UTILITIES (SHALLOW UTILITIES, POWER DISTRIBUTION, ETC.)

Shallow utility services may be provided by the following companies:

- *ATCO Gas (Natural Gas)*
- *The City of Red Deer E.L. & P. Department (Electricity and Streetlights)*
- *Telus Communications (Telephone)*
- *Shaw Cable (Cable Television)*

These utility providers are intended to extend their infrastructure from 30th Avenue in order to service the Plan Area. The shallow utility alignments will be established during preparation of the Servicing Study of the Emerson Plan Area.

## 7.6 OTHER

### 7.6.1 Pipeline Removal

As previously identified, the Developer will work with the pipeline owner or receiver to remove all pipelines located within the Plan Area during the initial site preparation process, completed on a phased basis. Following physical removal of the pipelines, the developer will request the right-of-way be discharged from the title.

### 7.6.2 Off-Site Roadway Improvements

The City is currently upgrading 30th Avenue to a two-lane urban cross-section. This upgrade will provide access to the Emerson development. Ultimately, once traffic volumes warrant it, 30th Avenue will be upgraded to four lanes. These upgrades are not directly tied to the Emerson development and will be undertaken by the City of Red Deer.

### 7.6.3 Noise Attenuation

It is understood that traffic noise can be expected to generate from 30th Avenue. Included in the design of 30th Avenue is a berm on either side of the roadway intended to minimize this noise. This berm will be constructed by the Developer, only along the active boundary of Emerson; this does not include along the Out Parcel.

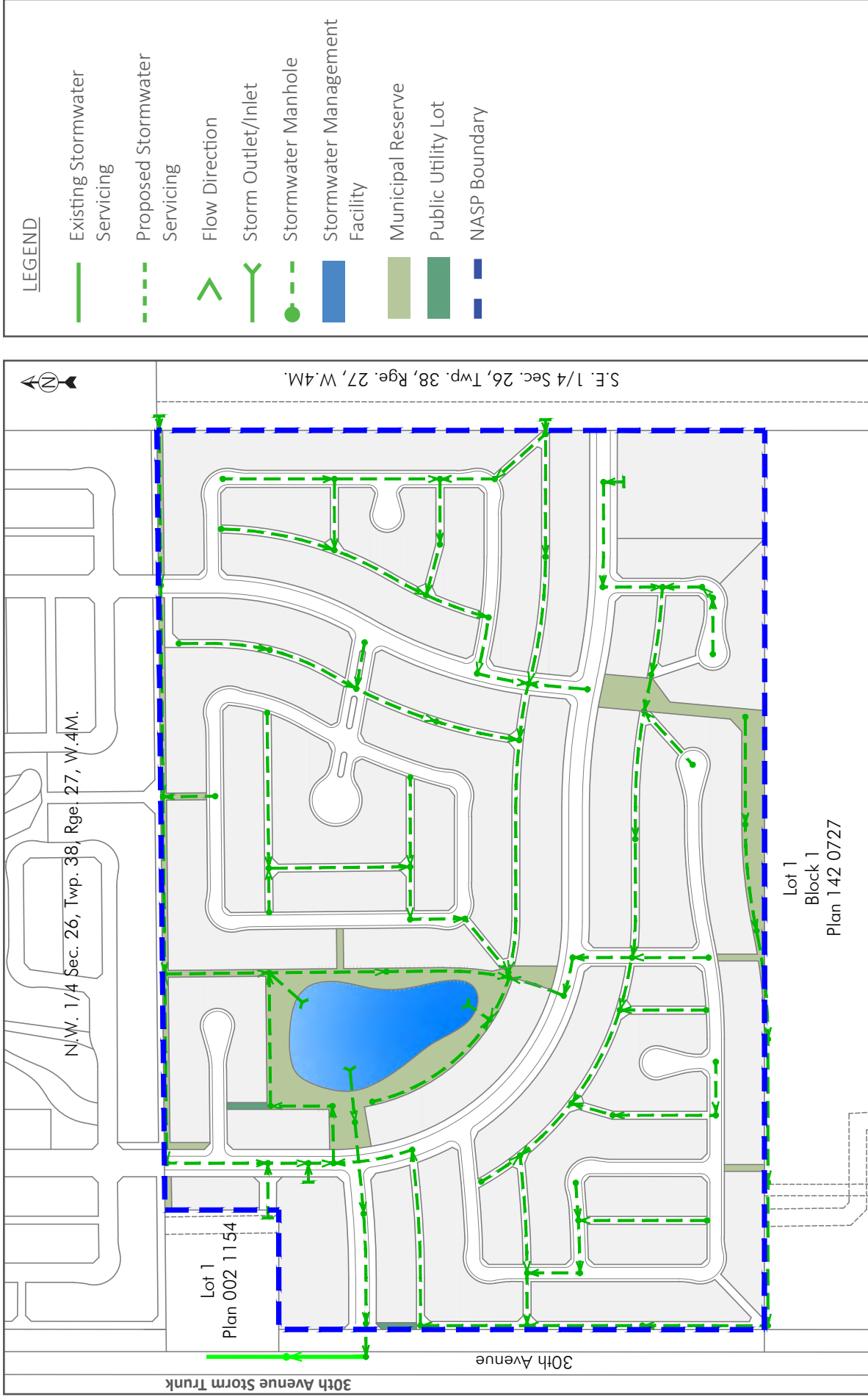
It is understood that homes in the southwest corner of the neighbourhood may require further sound attenuation due to their location beside an open playing field. To address this situation, the Developer may extend the 30th Avenue berm south of the Plan Area. Should this level of noise attenuation be required, it will be detailed in the Emerson Servicing Study.

### 7.6.4 Garbage, Recycling, and Snow Removal

Garbage and recycling collection, and snow clearing, will be the responsibility of the City of Red Deer for all areas in Emerson except for multi-family sites with internal roadway networks. These sites will have their removal arranged by the condo or apartment management.

### 7.6.5 Transmission Line

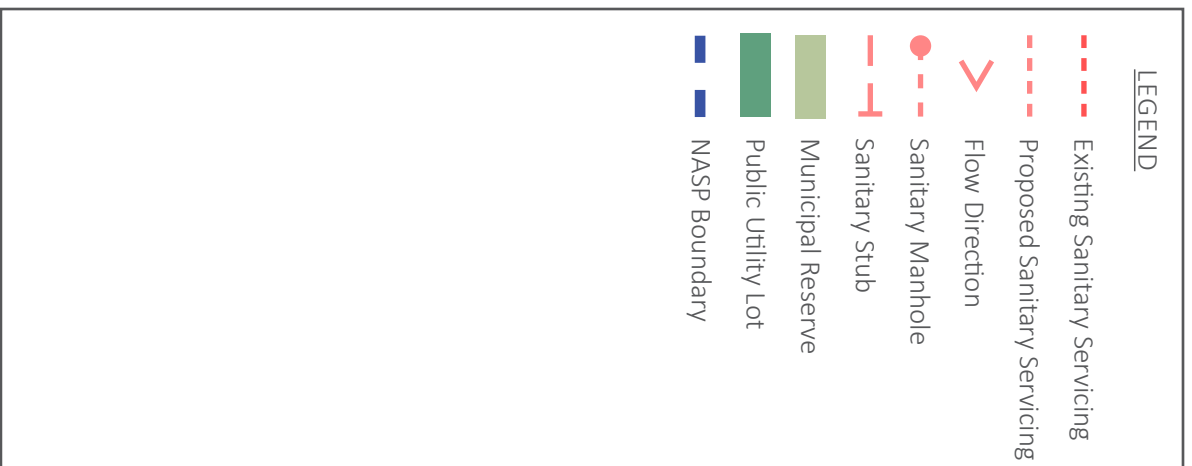
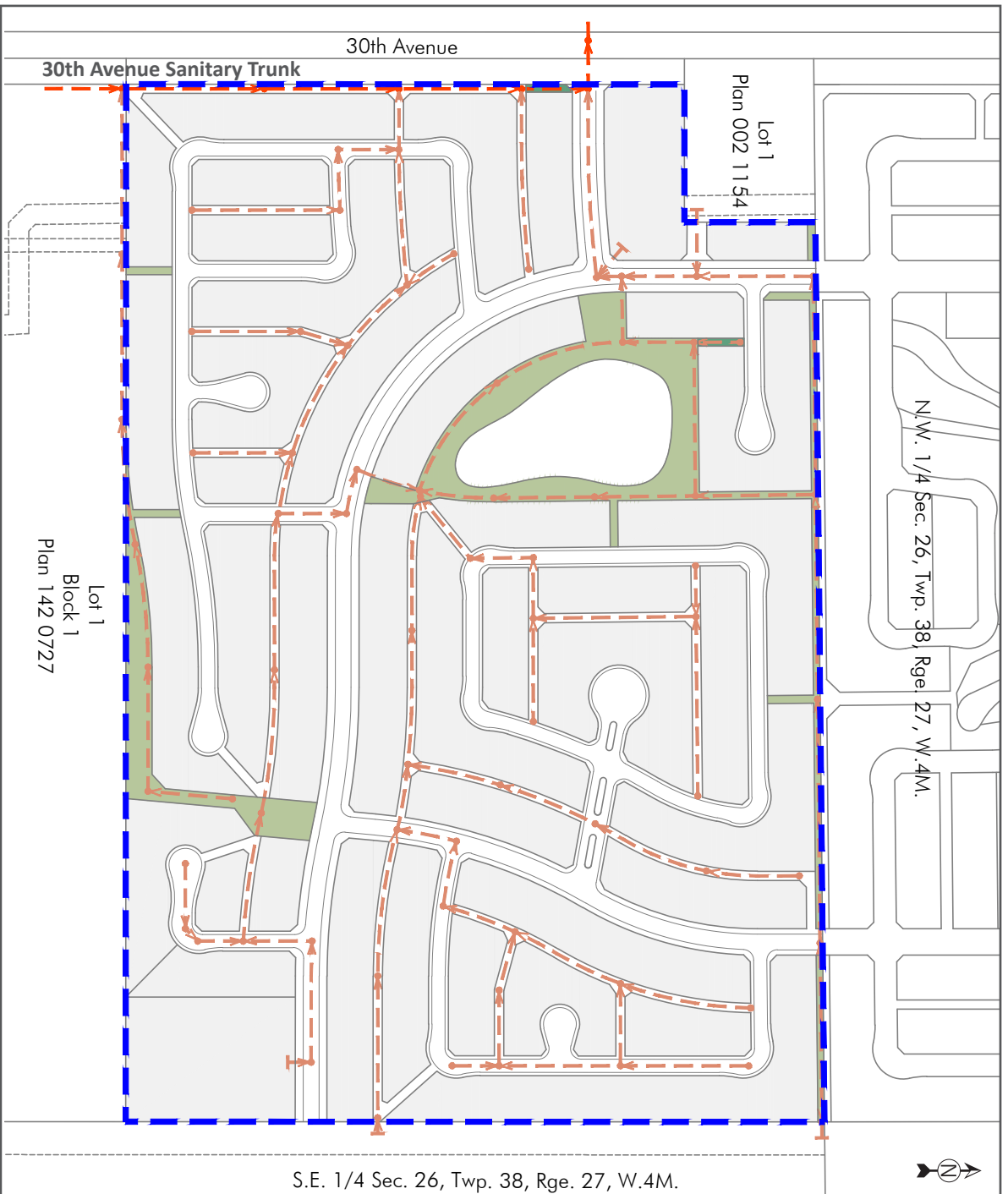
During the building and site design process for the southeast R3 Multiple Family site, consideration for the adjacent transmission line must be considered. Due to the height of the buildings anticipated, building placement may need to be guided to ensure there is a safe distance between the buildings and the overhead powerlines.



**Figure 19 - Stormwater Plan**

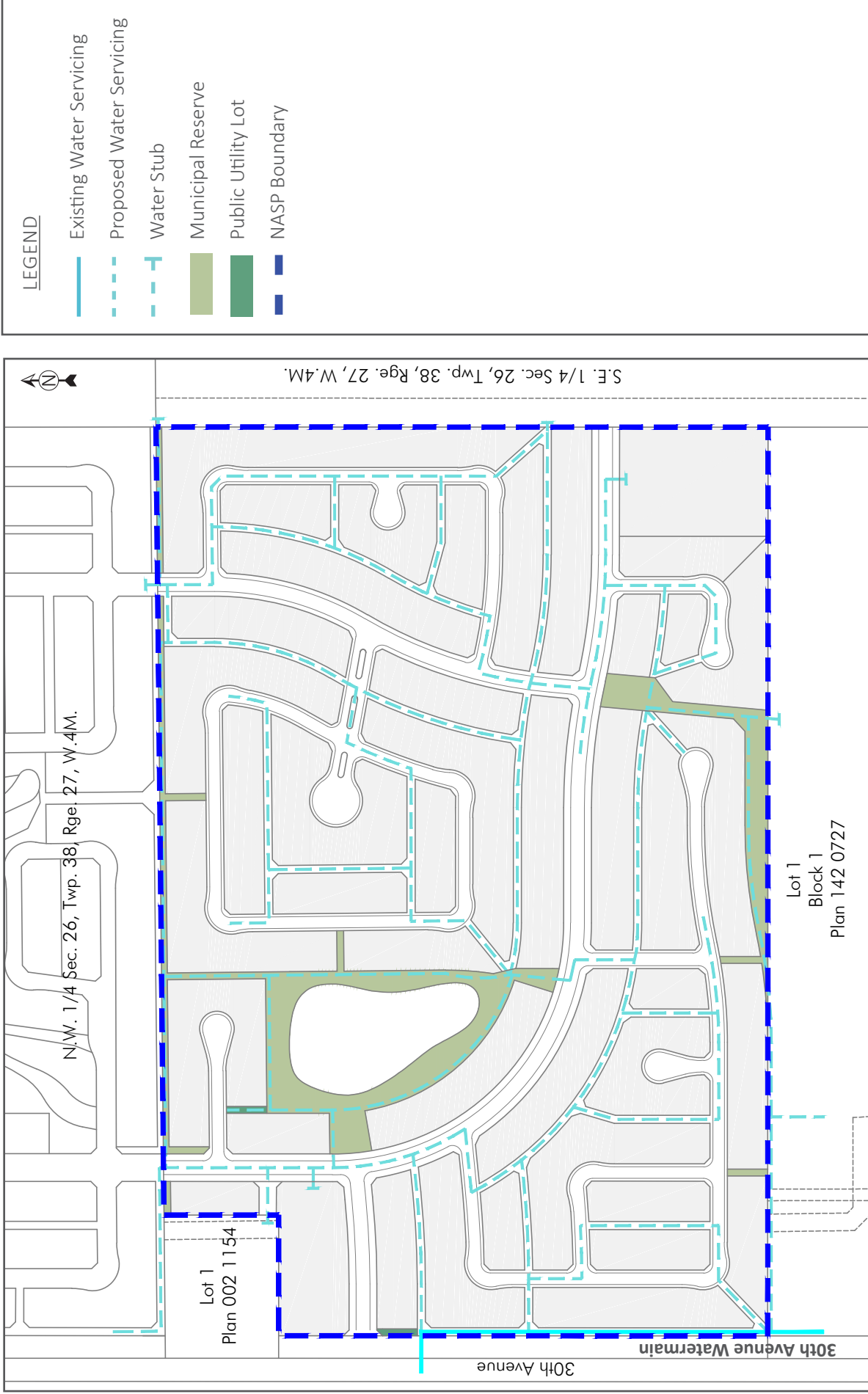
Emerson NASP | June 2016





**Figure 20 - Sanitary Servicing Plan**





**Figure 21 - Water Servicing Plan**



# development and phasing

## 8.1 OVERVIEW

The development of Emerson has been divided into five phases. As shown on **Figure 22 – Phasing Plan**, the general phasing of Emerson begins at the 30th Avenue access and continues southeast. The phasing boundaries shown are conceptual in nature and may vary when redesignation and subdivision applications are made. As well, portions of separate phases may be developed concurrently if there is sufficient demand and/or if municipal servicing is made more efficient as a result. The complete construction of the stormwater management facility may be undertaken over two phases; however, the pond will be constructed to a functional level during phase one to support the development as it is constructed.

Infrastructure to service the first phase of Emerson will be extended from the south and north. Each successive stage will be developed with the logical and economical extension of municipal services with the intent of meeting the needs of the regional and local housing market.

## 8.2 REDESIGNATION AND SUBDIVISION

Redistricting and subdivision applications, to conform to the land use designations described in this NASP, will be undertaken as necessary. Guided by the *City of Red Deer Municipal Development Plan*, the *City of Red Deer East Hill Major Area Structure Plan*, the *Section 26 Multi-Neighbourhood Plan*, and the *Emerson Neighbourhood Area Structure Plan*; redesignation and subdivisions must conform to *The City of Red Deer Land Use Bylaw* and the intent of all applicable statutory plans in addition to the informational requirements necessary for each application.

## 8.3 PLAN INTERPRETATION

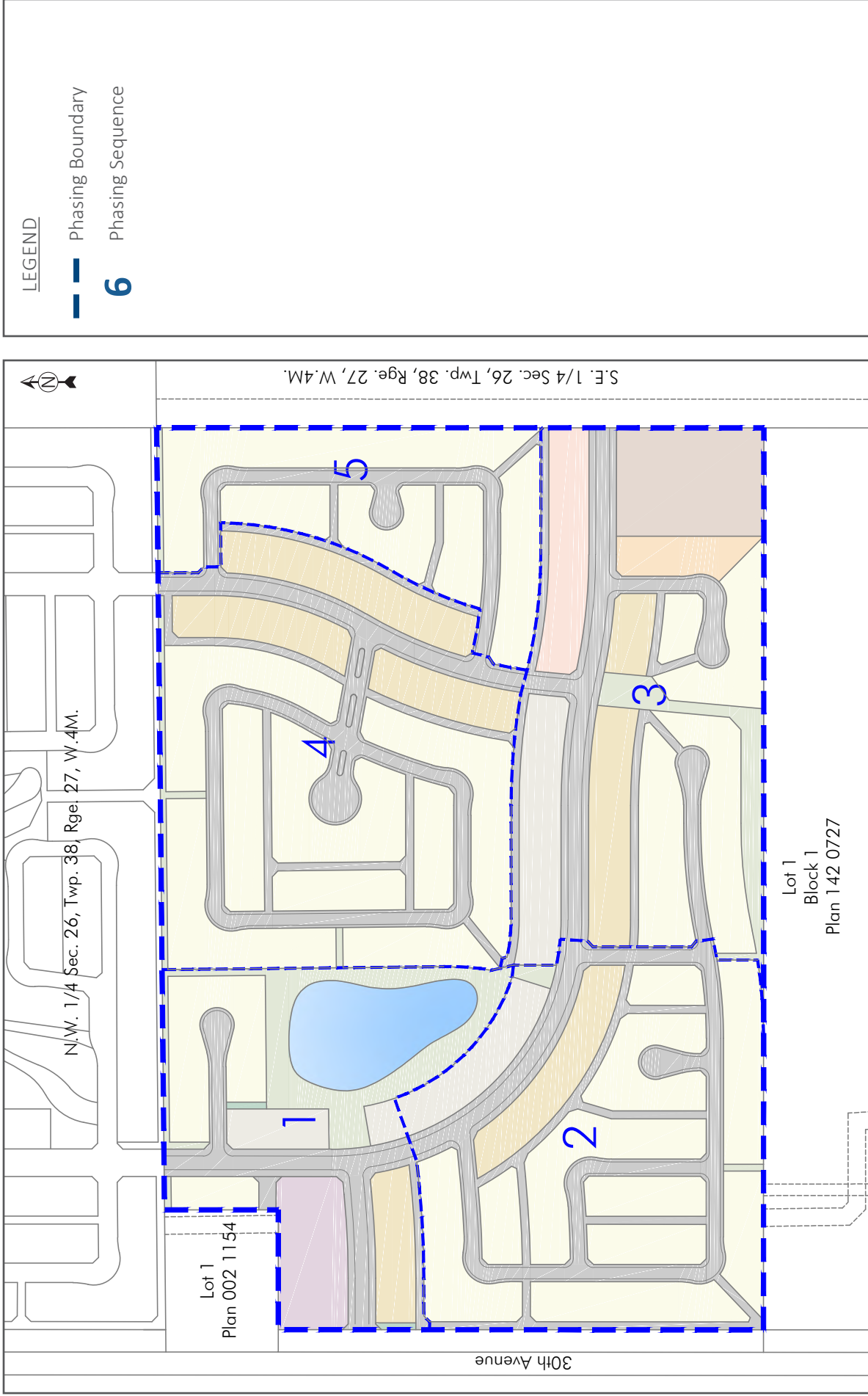
The Emerson NASP is intended to guide development within the Plan Area; all images as shown in this NASP have been included for visioning purposes only and should not be used to identify exact locations.

### 8.3.1 Amendments

Should this document require amendment, a formal amendment process will be required including consultation with the City of Red Deer and approval via municipal Council. This will be required if major changes are made to roadway alignments or land uses (residential to non-residential). No amendments will be necessary due to servicing revisions, minor land use boundary changes, or minor adjustments to road cross-sections.

### 8.3.2 Financial Implications

Following a predetermined maintenance period, as identified in the Emerson Development Agreement, all infrastructure and public spaces will become the responsibility of the City of Red Deer.



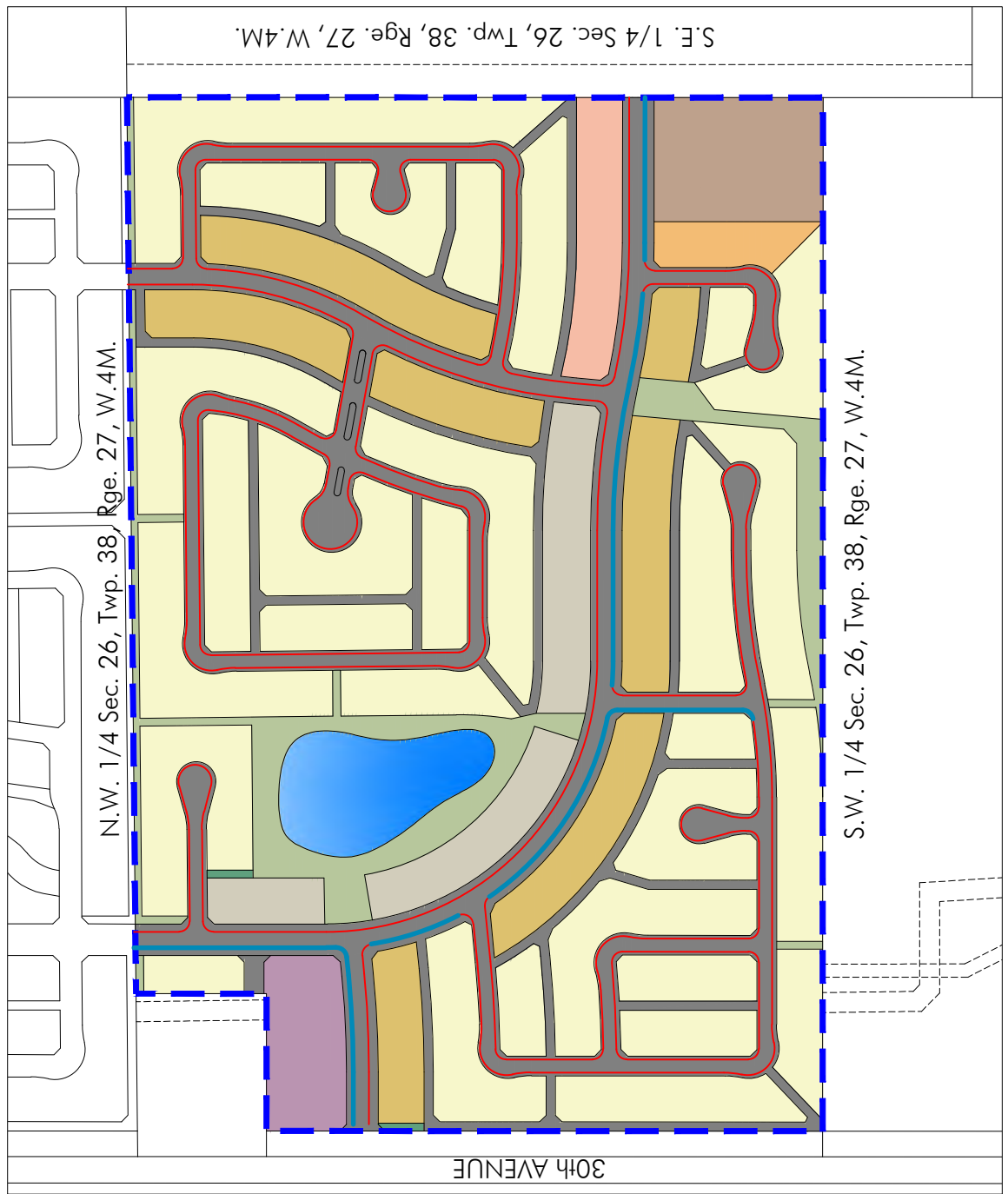
**Figure 22 - Phasing Plan**





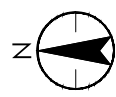
# appendix a: scaled concept plan





**Legend**

- R1 Low Density
- R1G Small Lot
- R1N Narrow Lot
- R2 Multi Family
- R2T Town House
- R3 Multi Family
- Community Amenity Site
- Stormwater Management Facility
- MR Municipal Reserve
- Public Utility Lot
- Roadway/Lane
- Separated Sidewalk
- Monolithic Sidewalk
- Outline Plan Boundary



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Prepared for:  
**Laebon**  
 Red Deer, Alberta

DRAWN BY: SAS  
 CHECKED BY: ANH  
 SCALE: 1:5,000  
 PROJECT #: 112849480

June, 2016

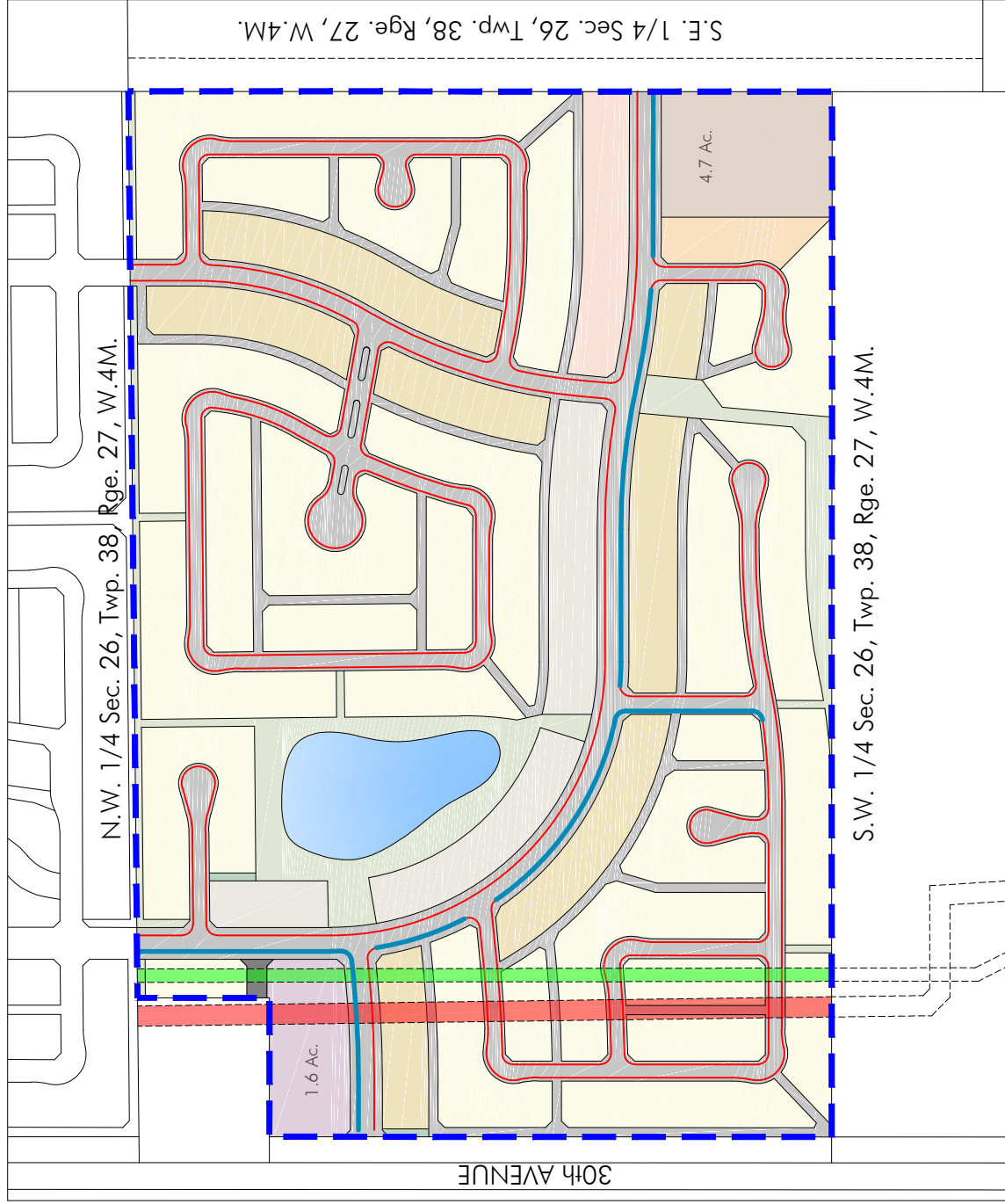
**Emerson**  
**Concept Plan**  
**City of Red Deer**





## appendix b: concept with existing r/w





**Legend**

- R1 Low Density
- R1G Small Lot
- R1N Narrow Lot
- R2 Multi Family
- R2T Town House
- R3 Multi Family
- Community Amenity Site
- Stormwater Management Facility
- MR Municipal Reserve
- Public Utility Lot
- Roadway/Lane
- Right of Way Plan 1418 RS
- Right of Way Plan 4432 KS
- Separated Sidewalk
- Monolithic Sidewalk
- Outline Plan Boundary



Prepared for:  
**Laebon**  
 Red Deer, Alberta

DRAWN BY: SAS  
 CHECKED BY: ANH  
 SCALE: 1:5,000  
 PROJECT #: 112849480

June, 2016

**Emerson**  
**Concept Plan with Existing ROW**  
**City of Red Deer**





## appendix c: development checklist



# development checklist

## GENERAL PURPOSE

The purpose of the Development Checklist is to highlight conditions associated with the future stages of development. The checklist is an internal administrative tool created to assist City staff when reviewing the various applications within the Plan Area. The notes are also intended to identify some items which were determined to be beyond the scope of the NASP and may need to be discussed as the neighbourhood continues towards construction.

The checklist does not form part of the bylaw for the approved Neighbourhood Area Structure Plan.

## SERVICING STUDY

### **Pg. 43            Section 4.2.2 Parkettes**

- The west parkette will be designed to accommodate utilities along the north boundary of the parkette so a playground can be accommodated without encumbrance. Any additional Municipal Reserve required to facilitate the park's design will not require compensation.
  - » Although the northern portion of this parkette will include utilities, it will remain usable passive open space and will be dedicated as Municipal Reserve. The Developer will not seek compensation for the over dedication of Municipal Reserve in this neighbourhood.
  - » An example of this potential layout is shown on Figure D1- West Parkette Diagram.
- The Developer will work with the City of Red Deer's Recreation, Parks & Culture Department to ensure there is enough room to safely accommodate playgrounds and trails in Emerson's park spaces.

### **Pg. 49            Section 5.3.2 Important Trail Connections**

- Two important trail connections are located across Emerson's collector roadway. These connections will require further consideration to ensure pedestrians are visible and safe as they cross the roadway.

### **Pg. 56            Section 5.5.6 Acreage Site Access**

- To provide continued access to the acreage site, an alternative access has been identified off of Emerson's collector roadway. This proposed connection has been sized to accommodate a future 15.0m Undivided Local Roadway; however, it will not be constructed by the Developer of Emerson.
- As it is unknown when this roadway will be constructed, the proposed acreage site access will be landscaped by the Developer to a typical Public Utility Lot standard.

### **Pg. 56            Section 5.5.7 Emergency Access**

- Until such a time that a permanent secondary access is constructed into the neighbourhood, a temporary secondary access will be constructed. This access will be shown in the Emerson Servicing Study.

### **Pg. 59            Section 6.2.2 Gateways - Entry Features**

- Both gateways may include an entry feature. Entry features will be located within the road right-of-way and will not be encumbered by any underground utilities which are not required for the feature.

### **Pg. 62            Section 7.6.3 Noise Attenuation**

- It is understood that homes in the southwest corner of the neighbourhood may require further sound attenuation from sound generated by 30th Avenue due to their location beside an open playing field. To address this situation, the Developer may extend the 30th Avenue berm south of the Plan Area. Should this level of noise attenuation be required, it will be detailed in the Emerson Servicing Study.

**Pg. 66**                    **Section 8.0 Development and Phasing**

- The complete construction of the stormwater management facility may be undertaken over two phases; however, the pond will be constructed to a functional level during phase one to support the development as it is constructed.
- All roadway cross-sections shown in this NASP, which are not standard to the City of Red Deer, will be reviewed and confirmed during the Emerson Servicing Study stage.
- The 20m Modified Local Roadway shown in this NASP is intended to be the same cross-section as that approved by the City of Red Deer for use in Evergreen.
- The Developer will provide written confirmation, outside of the NASP process, that the utility rights-of-way have been discharged from the title.
- The Developer will provide written confirmation, outside of the NASP process, that the pipelines have been removed from the Plan Area.
- The Developer of the North High Schools site, the City of Red Deer, has provided compensation for the complete removal of the seasonal wetland located along the south boundary of the Plan Area. As a result, an Endeavour to Assist agreement has been put in place with Meier Ventures for the Emerson portion of the wetland. An agreement regarding this compensation level will be included in the Development Agreement.
  - » The Developer of the Emerson NASP is required to obtain permission from Alberta Environment and Parks prior to altering the portion of the wetland within the Emerson NASP area.

## STRIPPING AND GRADING

**Pg. 15**                    **Section 1.3.4 Existing Utilities**

- All pipelines inside the Plan Area should be removed prior to site development.

**Pg. 16**                    **Section 1.3.4 Existing Utilities**

- The Developer will provide written confirmation, outside of the NASP process, that the utility rights-of-way have been discharged from the title, and pipelines have been removed from the Plan Area. If pipelines are not removed, phasing of the development will need to be revised to reflect this; development may not occur until the rights-of-way have been discharged and any remediation required has been completed. A memo describing the intended process has previously been provided to the City of Red Deer for their information and reference.

**Pg. 40**                    **Section 4.1 Overview**

- The Developer will take steps to protect designated open spaces prior to home construction as per existing regulations in the City of Red Deer's Engineering Design Guidelines.

## REDISTRICTING

**Pg. 26**                    **Section 3.2.2 Community Amenity Site**

- The community amenity site will be advertised for sale through local media and the City of Red Deer website for one year; if it is not purchased for its intended use within this time frame, the site will be developed for R3 Multi-Family uses.

## SUBDIVISION

**Pg. 16**                    **Section 1.3.4 Existing Utilities**

- Instrument No 1698RJ- Once the Canadian Oil & Gas International Inc. facilities have been physically removed, the Developer will request the caveat to be discharged from the title. If phases of development occur prior to the pipeline being removed, the Developer will request the grantee to partially discharge their interest from each phase as they occur.

**Pg. 16**                    **Section 1.3.4 Existing Utilities**

- R/W 4432 KS - Once the facilities have been physically removed, the Developer will request the grantee to discharge their interest from title. If phases of development occur prior to the pipeline being removed, the Developer will request the grantee to partially discharge their interest from each phase as they occur.

**Pg. 56**                    **Section 5.5.6 Acreage Site Access**

- To provide continued access to the acreage site, an alternative access has been identified off of Emerson's collector roadway. This proposed connection has been sized to accommodate a future 15.0m Undivided Local Roadway; however, it will not be constructed by the Developer of Emerson.
- As it is unknown when this roadway will be constructed, the proposed acreage site access will be landscaped by the Developer to a typical Public Utility Lot standard.

## DEVELOPMENT

**Pg. 15**                    **Section 1.3.3 Environmental Site Assessment**

- Foundations in the southwest portion of the Emerson Plan Area will be constructed with High Sulphate (Type HS) Portland cement which is salt-resistant.

**Pg. 27**                    **Section 3.2.2 Community Amenity Site**

- Screening between the community amenity or R3 site and the Out Parcel will be required as the site is developed.

**Pg. 34**                    **Section 3.6.3 R1N Narrow Lot Residential**

- All R1N homes will have one front tree or shrub planting and a common architectural theme will be used that will include such features as front porches and decks.

**Pg. 56**                    **Section 5.5.3 Driveways**

- Driveways will be designed to meet the roadway at 90 degrees and are not permitted to 'flare out'.

**Pg. 56**                    **Section 5.5.5 High-Low Density Screening**

- Screening between low density and high density residential development, particularly in the northwest and southeast, will be via fencing and landscaping as located within the multi-family housing parcels. The design of this screening will be determined at the time of Development Permit for each multi-family site.
- To facilitate privacy and provide screening between the Emerson neighbourhood and the acreage site the Developer has committed to constructing a vinyl fence along the south and east shared boundaries of the acreage site.

**Pg. 62**                    **Section 7.6.5 Transmission Line**

- During the building and site design process for the southeast R3 Multiple Family site, consideration for the adjacent transmission line must be considered.
  - » The development of the southeast multi-family site may need to be reviewed to ensure a safe distance between the buildings and the overhead power line running along the east boundary is preserved. This distance provides a clearance between the building(s) and the power line; it is determined by the Alberta Electrical Utility Code.
  - » It is not anticipated that any additional setbacks will be required for the southeast multi-family site beyond those which are standard in the City of Red Deer's Land Use Bylaw.

## Wetland

- The developer of the North High Schools site, the City of Red Deer, has provided compensation for the complete removal of the seasonal wetland located along the south boundary of the Plan Area. As a result, an Endeavour to Assist agreement has been put in place with Meier Ventures for the Emerson portion of the wetland. An agreement regarding this compensation level will be included in the Development Agreement.



- » The Developer of the Emerson NASP is required to obtain permission from Alberta Environment and Park prior to altering the portion of the wetland within the Emerson NASP area.

### Stormwater Management Facility

- The City will reimburse the Developer for the stormwater management facility once half of the stormwater pond has been completed; the remainder will be reimbursed at the completion of the pond's construction. A Construction Completion Certificate (CCC) will not be issued until the stormwater management facility is fully constructed.

## ACREAGE SITE CONSIDERATIONS

### Access

- The proposed acreage site access provided is intended to accommodate a future roadway, which may be constructed as a standard local with 15.0m wide right-of-way. This roadway is not intended to be constructed by the Developer of Emerson.
- The proposed acreage site access will be landscaped by the Developer to a typical Public Utility Lot standard.
- The acreage site will continue to have access off of 30 Avenue until such time that it is no longer deemed safe by the City of Red Deer's Engineering department.
- Should the land owner prefer, the City or Red Deer will also consider allowing access to the northwest corner of the acreage site via a proposed Evergreen lane.

### Buffer

#### **Pg. 56                      Section 5.5.5 High-Low Density Screening**

- Screening between low density and high density residential development, particularly in the northwest and southeast, will be via fencing and landscaping as located within the multi-family housing parcels. The design of this screening will be determined at the time of Development Permit for each multi-family site.
- To facilitate privacy and provide screening between the Emerson neighbourhood and the acreage site the Developer has committed to constructing a vinyl fence along the south and east shared boundaries of the acreage site.
  - » The design specifications of the fence will be finalized at the Development Agreement stage.
- A fence on the north side of the out parcel property may be a condition of the Development Agreement for the adjacent development phase in the Evergreen NASP area. This area is being developed by a different developer than the Emerson NASP.

### Zoning

- The acreage site is not part of the Emerson NASP and has not been proposed for rezoning; it will remain zoned as A1- Future Urban Development District.
- If the acreage site is to be developed in the future, or used for a purpose other than those approved under the A1 District, the area will need to be formally rezoned. The future land use chosen will need to consider adjacent land uses, site access, parcel size, potential servicing limitations, the continuation of trails, etc.

### NASP Amendment

- To facilitate the development of the acreage site, an Emerson NASP amendment may be required to illustrate land use and how it will be included into the overall development of Emerson.
- The rezoning and NASP amendment process will be undertaken and paid for by the Developer of the acreage site.

## Open Space and Trails Design

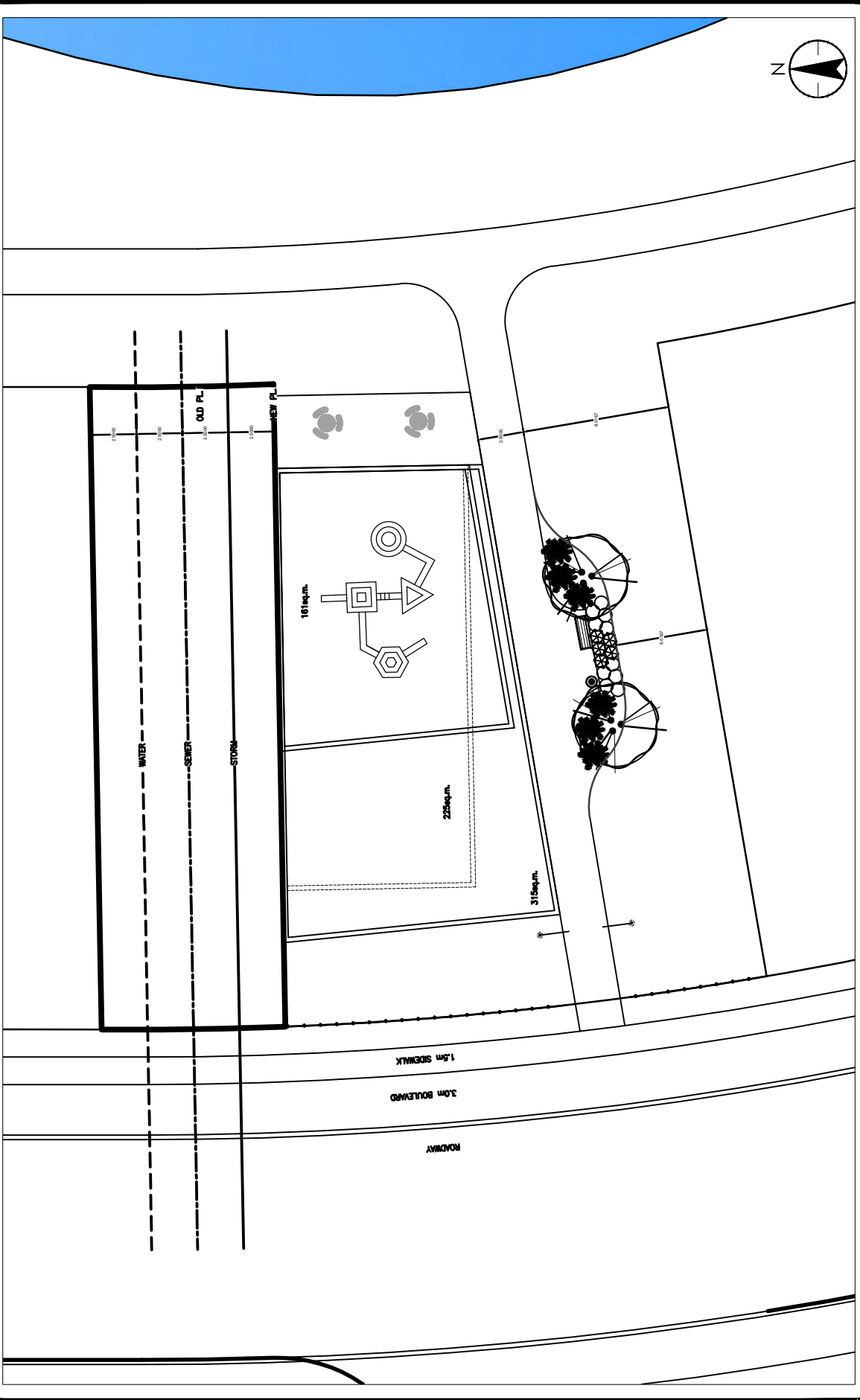
- At the time of acreage site's development, the trail identified along the north boundary of Emerson should be continued west through the acreage site to the 30th Avenue regional trail through the provision of a Municipal Reserve dedication along the north boundary of the acreage site.
- At the time of acreage site development, land will need to be acquired to complete the 30 Avenue arterial roadway and trail.



## appendix d: west parkette diagram







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Red Deer, Alberta

DRAWN BY: SAS  
CHECKED BY: ANH  
SCALE: 1:5,000  
PROJECT #: 112849480

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Figure D1  
Sample West Parkette Diagram  
Emerson NASP

