HAZLETT LAKE
Neighbourhood Area Structure Plan

Hazlett Land Development

City of Red Deer
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Bylaw 3217/F-2018

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1. INTRODUCTION

OVERVIEW
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1.1 OVERVIEW

As described in Section 2. Plan Vision, the Hazlett Lake neighbourhood is envisioned as a primarily-residential neighbourhood with strong connections to the adjacent water body of the same name. This neighbourhood, hereafter referred to as “Hazlett Lake”, will be the first development in the North of Highway 11A Major Area Structure Plan (MASP) area; as such, it will set the tone for all future developments in northwest Red Deer.

As the first development in the newest growth area in Red Deer, the Hazlett Lake development represents an important next step for Red Deer in providing balance to the historic growth seen in the southeast corner of Red Deer.

1.1.1 PURPOSE AND BACKGROUND

In accordance with the Municipal Government Act, the purpose of the Hazlett Lake Neighbourhood Area Structure Plan (NASP) is to provide a framework for subsequent subdivision and development of land. This NASP describes the land uses and development objectives for an area of land located in the northwest corner of Red Deer, north of Highway 11A and east of Highway 2, known hereafter as the “Plan Area”, as shown on Figure 1 - Plan Area.

The Hazlett Lake NASP has been prepared using The City of Red Deer Neighbourhood Planning and Design Standards and its associated nine Neighbourhood Planning Principles. Each principle has been carefully considered to create a neighbourhood which provides a range of housing types and strong open space connections that can be enjoyed by all residents and visitors.

Stantec Consulting Ltd. (Stantec) has prepared the Hazlett Lake NASP on behalf of the Developer, North American Development Group (NADG), and the land owner, Hazlett Lake Ventures Ltd. Stantec, the Developer, and the land owner collectively form the Hazlett Lake “Development Team”. For several years, the Development Team collaborated with The City of Red Deer to refine a vision for Hazlett Lake and in turn develop in a way a development that achieves both the Development Team and City of Red Deer’s overall objectives.
1.1.2 HISTORY OF THE PLAN AREA

The Hazlett Lake neighbourhood is named after the Hazlett family who farmed and lived on the land since the early 1900s.

James “Paddy” Hazlett was born in the region that is now known as Northern Ireland in 1844. In 1895, following the death of his wife Elizabeth (nee Keys), Paddy came to Canada with his nine children; at the suggestion of his cousin who worked for the Canadian Pacific Railway’s immigration service, to settle in the Red Deer area. Upon their arrival, the family constructed a log home, complete with sod roof, just east of the Hazlett Lake Plan Area which was later home to the Crossroads School.

William “Bill” Hazlett, the third son of Paddy and Elizabeth, was eight when the Hazlett family arrived in Canada. Bill attended the Crossroads School in 1901 and later served overseas for four years as a gunner and Sergeant Major during the First World War. On Bill’s return from the war, he purchased the Hazlett Lake Plan Area with the assistance of the Soldier Settlement Board loans program.

Bill was married to a local woman named Sybil Alford in 1926. Sybil and Bill had four children: Lois, Dorothy, Geoffrey, and Sally. Geoff grew up on the family farm, located in the south portion of the Plan Area, and attended the Crossroads School with his siblings. After graduating from high school, Geoff completed a B.Sc. in Agriculture and taught at Olds College for a brief time. Geoff eventually took over the family farm in 1965 and proudly farmed the land practicing direct seeding (no-till) until 2010. Geoff and his wife Delaine also raised three sons on the family farm: Greg, Jason, and Tim.

The Hazlett family has always enjoyed the natural beauty of their land. In developing the Hazlett Lake neighbourhood, the family is happy to be sharing the land’s beauty with all future Red Deerians and to leave a family legacy which can be enjoyed for years to come.

HAZLETT LAKE

The water body located along the east of the Plan Area was first surveyed in 1885 and has been a long-standing landmark for the region. In addition to its regional significance, the Hazlett family and surrounding residents spent many years enjoying the lake. The family also enjoyed skating parties with students from the nearby Crossroads School (1899-1963) over the years.

The Hazlett family undertook a formal process with the assistance of Michael Dawe, Red Deer’s local historian, to legally name the water body Hazlett Lake. The current conditions of the Hazlett Lake water body, and its impact on the Plan Area, are further described in Section 1.3.1 Hazlett Lake.
INDIGENOUS HISTORY
The Hazlett Lake Plan Area is located within the Traditional Territory for Metis, Blackfoot, and Tsuu T’ina peoples. This area is covered under Treaty 6, signed in Saskatchewan in 1876.

HISTORICAL RESOURCES
The Alberta Listing of Historic Resources (April 2017) does not identify any lands within the Plan Area as having any potential historical resources. A Historical Resource Impact Assessment was completed in July 2010, which recommended Historical Resources clearance for the Plan Area. Historical Resources Act approval was obtained in June 2017.
Note: Proposed NASP Boundary based on Hazlett Lake water body, as shown in Hazlett Lake Management Recommendations (Westhoff, 2016). Proposed NASP Boundary to be determined by an Alberta Land Surveyor (ALS) in consultation with Alberta Environment and Parks (AEP).
1.1.3 PLAN AREA BOUNDARY

The Hazlett Lake NASP Plan Area is comprised of approximately 100.72 hectares (248.87 acres) located in Section 05-39-27-W4M, east of Highway 2, west of Hazlett Lake. The Plan Area is shown on Figure 2 - Legal Boundary.

Notes

Hazlett Lake Legal Boundary

In accordance with the Public Lands Act of Alberta, the legal boundary of the Hazlett Lake water body forms the east boundary of the NASP Plan Area.

Landfill Setback

The remainder of the NW 1/4 of Section 05-39-27-W4M has been excluded from the Hazlett Lake NASP Plan Area to facilitate the timely development of the Plan Area. This boundary has been chosen to exclude the existing 450m development setback which exists surrounding the landfill in this area, as shown on Figure 4 - Hazlett Lake Multi-Neighbourhood Plan. The remainder of the quarter section will be included in a subsequent NASP.

LAND OWNERSHIP

Lands within the Plan Area are owned by Hazlett Farms Ltd and Hazlett Lake Ventures, both represented by Geoff Hazlett.
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1.2 PLANNING CONTEXT

As a statutory plan, the Hazlett Lake NASP must be consistent with all currently approved and adopted planning documents of the Province of Alberta and City of Red Deer. This NASP has been created to function with and respect existing planning documents.

1.2.1 RELEVANT PLANNING DOCUMENTS

The following relevant documents have been reviewed and referenced in preparation of the Hazlett Lake NASP. Notwithstanding other plans as identified below, the NASP will conform to applicable provincial legislation including but not limited to the Environmental Protection and Enhancement Act and the Water Act.

1.2.1.1 STATUTORY PLANS AND REGULATORY FRAMEWORK


The Municipal Government Act (MGA) of Alberta outlines the purpose and powers of municipalities. One of these powers is to adopt 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.

-Municipal Government Act

The Hazlett Lake NASP describes these items as required by the MGA and provides clear direction to guide development of the Plan Area.


The City of Red Deer Strategic Plan Report 2015-2018 is The City of Red Deer’s most important plan as it shapes the organization, the municipal programs, and services they provide. The strategic direction for 2015-2018 centers around three themes: dialogue, community amenities, and financial leadership. These three themes have been identified as priorities for The City of Red Deer from 2015-2018. The development of Hazlett Lake will specifically focus on the theme community amenities,

“Planning great spaces and places for community living.”


Reflective of this theme, Hazlett Lake has been planned as a great community that highlights an urban lake and provides connections to areas where residents can be active, learn, grow, and connect with their neighbours. Hazlett Lake neighbourhood will balance the historic residential growth in southeast Red Deer and set the tone for future developments in the northwest. The high quality of Hazlett Lake’s amenities will complement those existing, making 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 Red Deer for the next twenty-five years. The policies outlined in the MDP are further detailed in The City of Red Deer Neighbourhood Planning and Design Standards, which have been further described in this NASP.

Land Use Bylaw 3357/2006

The City of Red Deer Land Use Bylaw (LUB) establishes land use districts to be used throughout Red Deer, and identifies potential land use constraints.

The west and south boundaries of the Plan Area are identified in the LUB as “Major Entry Areas” of Red Deer due to their visibility from Highway 2 and Highway 11A. Regulations for these areas are described in Section 3.12 Major Entry Areas Development Standards of the LUB, which are intended to ensure development along major entries to Red Deer is visually attractive. Considerations
made in response to the Major Entry Areas Development Standards will be described in the community’s architectural guidelines and reflected through the design of the highway berms and buffers.

LUB Redesignation and Subdivision Applications, consistent with the information in the Hazlett Lake NASP, will be submitted to The City of Red Deer on a phased basis subsequent to NASP approval.

**North of 11A Major Area Structure Plan (2016)**
The City of Red Deer North of 11A Major Area Structure Plan (MASP) sets out the vision, broader transportation network, and land use objectives for multiple quarter sections annexed into the north portion of Red Deer in 2009. Elements identified in the MASP for inclusion in the Plan Area are shown on Figure 3 - North of 11A Major Area Structure Plan.

**School**
It should be noted that a K-9 school was identified in the MASP for location in the northwest portion of the Plan Area; however, the location of this school was later moved east of the Plan Area, as shown in the Hazlett Lake Multi-Neighbourhood Plan. This location was chosen as it is more centralized, providing convenient access to a larger area of students, and more conveniently accesses via the proposed transportation network.

The Hazlett Lake concept plan, as shown in this NASP, is consistent with the information presented in the MASP. The school site will be addressed in a subsequent NASP completed for the remainder of the quarter section.
Figure 5: Generalized Land Use Concept North of 11A MASP

Source: City of Red Deer

Cartography: Engineering Graphics

Date: January 18, 2016

Version: 7

Regional

Community

Facility

 HazardtttLake	Neighbourhood	Area	Structure	Plan
FIGURE 3 - NORTH OF 11A MAJOR AREA STRUCTURE PLAN
November 2018

Hazlett Lake Multi-Neighbourhood Plan (2017)

The purpose of a Multi-Neighbourhood Plan (MNP) is to establish a high level conceptual plan that achieves the nine Neighbourhood Planning Principles, as identified in The City of Red Deer NPDS. It also identifies synergies, features, and connections to create a cohesive neighbourhood across multiple quarter sections. MNPs are adopted as a minor amendment to the applicable MASP, concurrently with the first NASP for the area.

In 2016 The City of Red Deer completed a MNP for the area surrounding the Hazlett Lake water body. The associated MNP design workshop, hosted by The City of Red Deer brought together all interested land owners within the MNP boundary to jointly identify opportunities, discuss potential development constraints, describe areas of potential preservation, and share development ideas. As a result of the workshop, and follow-up review opportunities by participants, the Hazlett Lake MNP reflects a shared vision held by The City of Red Deer and land owners for this area.

The Hazlett Lake NASP concept as shown on Figure 7 - Proposed Land Use Concept Plan and Figure 8 - Proposed Concept Plan with Aerial incorporates key features, connections, and other elements as presented in the MNP to ensure the proposed develop is able to function as one piece of the larger Multi-Neighbourhood concept. As complementary neighbourhoods, future development surrounding Hazlett Lake will provide a variety of amenities for residents such as schools, a community facility, regional trails, and commercial areas.
ADOPTED PLANNING TOOLS

Neighbourhood Planning and Design Standards (2013)
The City of Red Deer Neighbourhood Planning and Design Standards (NPDS) identifies nine guiding principles for all neighbourhoods; these principles are discussed individually in Section 2.4 Sustainability & Neighbourhood Planning Principles.

Engineering Services Design Guidelines (2016)
The City of Red Deer Engineering Services Design Guidelines (ESDG) provides the technical information required to construct the Hazlett Lake neighbourhood. The ESDG is based on the principles contained in The City of Red Deer NPDS, the Red Deer Mobility Playbook, transportation studies, The City of Red Deer Environmental Master Plan, and other guiding documents.

As described throughout this NASP, Hazlett Lake will be designed in accordance to the ESDG unless otherwise specified.

Environmental Master Plan (2011)
The City of Red Deer Environmental Master Plan (EMP) serves as Red Deer's environmental sustainability pillar. It sets out a 25 year vision for Red Deer and through benchmarking, metrics, and recommended actions it serves a guide to improve environmentally sustainability in the City.

The EMP identifies seven focus areas:
- water
- ecology
- transportation
- built environment
- air
- energy
- waste

Among many initiatives, the following goals impacted the design of Hazlett Lake:

Water
Goal: To improve the quality of our water resources and increase water conservation.

- City of Red Deer Environmental Master Plan

Hazlett Lake may be designed to:
- decrease water consumption by utilizing on-site rain water collection for irrigation of public areas and utilizing elements of naturescaping in public areas
- protect or enhance water quality of receiving water bodies by preserving Hazlett Lake's surrounding wetland with a 20m wide buffer and filtering stormwater prior to its entry into the Lake

Ecology
Goal: To protect and enhance the terrestrial and aquatic health of the natural heritage system.

- City of Red Deer Environmental Master Plan

Hazlett Lake may be designed to:
- protect natural areas through the dedication of Environmental and Municipal Reserves
- increase and naturalize man-made green areas
- decrease the use of toxic pest control products throughout the use of native plant species and naturalized landscaping, to be designed during the landscape design stage
- increase the amount of urban forest canopy through the preservation of existing treed areas and inclusion of street trees in boulevards
- reduce impact on nocturnal wildlife by utilizing dark sky lighting fixtures in public areas as identified during the detailed design stage

Transportation
Goal: To prioritize active and public transportation

- City of Red Deer Environmental Master Plan

Hazlett Lake may be designed to:
- enhance the use of alternative modes of transportation through the inclusion of multi-use trails connecting residents to neighbourhood destinations and locating all homes within 400m from transit stops
- contribute to the City of Red Deer's overall bicycle and pedestrian network through the continuation of regional trails
**Built Environment**

Goal: To create vital, well-integrated, compact communities that minimize negative environmental impacts.

-City of Red Deer Environmental Master Plan

Hazlett Lake may be designed to:

- increase development density through the inclusion of higher density housing areas and preservation of open spaces
- increase the amount of space available for potential community gardens by designing parkettes which may be suitable to accommodate a 15mx15m garden and be highly visible; one such location may be considered north of the commercial site

**Air**

Goal: To improve the air quality and reduce emissions.

-City of Red Deer Environmental Master Plan

Hazlett Lake may be designed to:

- improve air quality by preserving natural vegetation and wetland areas
- reduce emissions by encouraging the use of alternative modes of transportation
- reduce the distance vehicles travel per day by introducing additional residential options to one of the City’s major industrial employment regions

**Energy**

Goal: To reduce energy use and move towards using renewable energy sources.

-City of Red Deer Environmental Master Plan

Hazlett Lake may be designed to:

- reduce overall energy consumption through the use of LED lighting in public areas
- orient the majority of homes on an east/west axis to facilitate the potential inclusion of south-facing rooftop solar panels
- orient a portion of the homes on an north/south axis to facilitate the potential inclusion of large south-facing windows

**Waste**

Goal: To decrease the amount of waste going to landfill and increase waste diversion opportunities.

-City of Red Deer Environmental Master Plan

Hazlett Lake has not been specifically designed to reduce landfill waste.

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

The *River Valley & Tributaries Park Concept Plan* identifies lands that are best suited for potential trails and parks within The City of Red Deer Growth Area. In this Plan, the Hazlett Lake Plan Area was identified for the creation of a major park node to be included in the Waskasoo Park system. The park node was also discussed for its potential inclusion of the TransCanada Trail, identified along C&E Trail.

As described in Section 4.3 Hazlett Lake Major Park, elements identified in the *River Valley & Tributaries Park Concept Plan* have been incorporated into the Hazlett Lake development through the inclusion of multi-use trail connections to the TransCanada Trail and Hazlett Lake major park.

**Commercial Opportunities Study (2010)**

The *Commercial Opportunities Study* forecasts prospects for retail/service and office development in Red Deer. The Hazlett Lake Plan Area is identified in the Study for a potential regional commercial centre due to its proximity to Highway 2 and Highway 11A, and location in the north - a balance to the Southpointe commercial area in south Red Deer. The study goes on to suggest that if the area is not utilized for regional commercial uses, it should be developed for residential development with the inclusion of a District Centre.

The recommendations of this study are intended to be reflected in the *North of 11A MASP*, which identifies the area for residential development with generalized commercial use focusing around Highway 11A and C&E Trail. The *Hazlett Lake NASP* concept reflects the commercial uses recommended in the *North of 11A MASP* as it is a newer and more detailed document.
Mobility Playbook (2013)
The Red Deer Mobility Playbook is a user-friendly tool to identify the strategies and actions needed to provide Red Deernians with more mobility choices. Six ‘plays’ (priorities) were identified in the playbook and have been incorporated into the design of Hazlett Lake’s transportation and open space networks:

- **Play 1: Put pedestrians first**
  - Multi-use trails form the base of the community’s mobility network.
- **Play 2: Create a balanced network**
  - A multi-modal network for motorists, pedestrians, cyclists, and transit users has been incorporated into the overall design of Hazlett Lake.
- **Play 3: Tie land-use and mobility together**
  - Potential transit stops have been located at neighbourhood destinations.
- **Play 4: Make transit part of the journey**
  - A potential future transit route has been proposed along the neighbourhood’s collector roadway to facilitate convenient access by all residents. In addition, potential transit stops have been proposed at anticipated destinations such as the commercial site and the R3 Multi-Family site.
- **Play 5: Connect the trails**
  - Continuous multi-use trail and sidewalk connections allow pedestrians to travel throughout the community with minimal disruption.
- **Play 6: Nurture a culture of change**
  - High quality off-street connections will encourage residents to use non-vehicular modes of travel.

The Multi-Modal Transportation Plan was created to further the vision outlined in the Red Deer Mobility Playbook by stating desired outcomes for each mobility type: motor vehicles, transit, and active transportation modes including walking and cycling.

The plan evaluates each mobility type by considering its safety, connectivity, quality, and comfort. In accordance with the Multi-Modal Transportation Plan, these design criteria have been used to design each mobility type in Hazlett Lake.

**Safety**
Hazlett Lake’s active transportation network will be designed in accordance to the ESDG and separate users from traffic through the inclusion of sidewalks and multi-use trails.

Transit stops will be designed in consultation with The City of Red Deer, following confirmation of their location, and detailed in the Hazlett Lake Servicing Study.

The Hazlett Lake roadway network will be designed in accordance to the ESDG.

**Connection**
Hazlett Lake’s active transportation network has been designed with continuous connections by routing multi-use trails to roadway intersections or proposing pedestrian crossings.

While transit routes will be determined by The City of Red Deer, potential transit stops have been located along main collector roadways to reduce walking distances for users.

The Hazlett Lake roadway network has been designed in the most convenient and direct way possible considering the constraints presented by the lake and adjacent highways.

**Quality**
Hazlett Lake’s multi-modal networks will be designed in accordance to the ESDG. Variation from these guidelines, by the way of non-standard roadway cross-sections, have been proposed to enhance the user experience.
Comfort
Hazlett Lake’s active transportation network has been designed to promote user comfort by including separated sidewalks and off-street trail throughout the neighbourhood. Continuous routes and connections to neighbourhood destinations will promote active transportation by residents. Landscaping and amenities located throughout the active transportation network will enhance the user experience.

Street trees have been included along the neighbourhood’s collector roadway to enhance visual interest throughout Hazlett Lake.
### 1.2.1.3 SUPPORTIVE STUDIES

The following studies have been reviewed and provide valuable information that has shaped the Hazlett Lake development concept.

#### Northland Drive/20th Avenue Functional Planning Study

The City of Red Deer prepared a Functional Planning Study for the Northland Drive project which aims to provide a bypass route from Highway 2 around the east side of Red Deer linking Highway 11, Highway 11A, and Highway 595; provide an additional Red Deer River crossing; and increase roadway efficiency by alleviating congestion along other major roadways within the City. This project also includes upgrades to existing roads such as Highway 11A which runs along the south boundary of the Plan Area.

The design of Highway 11A, as it bounds the Hazlett Lake Plan Area, is shown in the Northland Drive Functional Planning Study as a 6-lane expressway with an 80.0m right-of-way. The Study described the road as including a 3.0m multi-use trail on one side, and berms on either side. In addition, the North Highway Connector Highway 11A Twinning Preliminary Design Report (Stantec, March 2018), updates and expands upon information from the Northland Drive Functional Planning Study. Included in the report was an additional right-of-way requirement for Hwy 11A widening and the inclusion of a regional water line alignment along the south boundary of the Plan Area.

To accommodate the construction of these projects, a highway widening will be dedicated along the south boundary of the Plan Area.


Hazlett Lake Management Recommendations: Final Report was prepared by Westoff Engineering Resources Inc. to provide recommendations intended to assist The City of Red Deer in all aspects of the management of the Hazlett Lake water body. The information presented defines the NASP Boundary, in addition, the report requires a 20.0m development setback from the Lake’s wetland extent, preserved as Environmental Reserve, to prevent pollution of the water body. Consistent with the recommendations of the report, it is anticipated that a regional trail circling the Lake may be constructed within the setback.

Information presented in the Hazlett Lake Management Recommendations report informed the North of 11A MASP and Hazlett Lake NASP.

#### Hazlett Lake Environmental Site Assessment (2010)

A Phase 1 Environmental Site Assessment was completed by Parkland Geotechnical Consulting Ltd in July 2010 as part of the Plan Area’s annexation into Red Deer. The ESA was to identify environmental issues associated with the Plan Area and surrounding property held by the same owner. As identified in the ESA, there were no environmental issues found which may impact the Hazlett Lake Plan Area and no additional site investigations were recommended.

The Phase 1 ESA has been submitted to The City of Red Deer under separate cover for reference.

#### Hazlett Lake Geotechnical Investigation (2010)

Parkland Geotechnical Ltd completed a Geotechnical Investigation of the Plan Area in 2010 which concluded that the subsurface conditions of the site were suitable for future residential and commercial development, with construction considerations similar to those found elsewhere in Red Deer. Specific construction recommendations are described in the study, submitted to The City of Red Deer under separate cover for reference.


A desktop biophysical review was completed by Stantec Consulting for the Hazlett Lake NASP. The scope of the review was to map natural features, review available government databases and literature for relevant biophysical information about the Plan Area, and provide a summary of recommendations for potential conservation or enhancement of natural features. No field work was proposed for the review; as such, detailed field studies to support Federal and Provincial regulatory requirements will be required prior to development.
Overview
As identified in the review, the Plan Area contains various classifications of wetlands, two constructed drainage channels one of which may be considered a Class D watercourse, extensive crop, grassland, and woodland stands. Based on the review, natural features that may have suitability for retention and/or enhancement include the following.

Vegetation

Wetlands
• The primary wetland within the Plan Area is that surrounding the Hazlett Lake water body. This wetland was identified as a Seasonal Graminoid Marsh.
• In addition, the portion of this wetland located south of the existing driveway, classified as a Temporary Graminoid Marsh, has also been preserved.
• A field-delineated wetland assessment will be completed prior to construction to outline compensation required for the removal of smaller wetlands and support Water Act applications.

Seasonal Water Course
• As described in the review, there is one seasonal water course in the southwest portion of the Plan Area. This water course, categorized as a Shrubby Seasonal Swamp, historically conveyed stormwater from the Highway 2/Highway 11A interchange into Hazlett Lake; however, this drainage has recently been modified following the interchange reconstruction.
• Although the hydrological function of this area has changed, the northern portion of this feature is relatively undisturbed and provides connectivity between Hazlett Lake and the Aspen woodland areas; as such, it has been preserved using Municipal Reserve dedication.

Woodlands
• The biophysical review has identified the treed areas surrounding the Hazlett Lake wetland as Aspen Woodland Alliance. The Developer has worked with the City of Red Deer to determine suitable areas of this woodland for preservation using Municipal Reserve.

Wildlife
Mammals observed during the completion of past on-site studies include: coyote, deer mouse, jumping mouse, meadow vole, moose, mule deer, white-tailed deer, muskrat, and northern pocket gopher. In addition, one species of management concern was observed: the long-tailed weasel.
The Plan Area also falls within the habitat range for the bald eagle and sharp-tailed grouse, both species of management concern. Although observations of eagles have been recorded within the Plan Area, the review noted it to be unlikely for eagles to live surrounding Hazlett Lake. A wildlife survey will be required to confirm the presence of habitat and/or protected features.
As described, the Hazlett Lake water body and seasonal water course is unlikely to support fish.

Further Studies and Other Recommendations
As the Biophysical Review did not include a field investigation, various studies have been identified prior to any construction. These studies will be required based upon the season, City requirements and Federal and Provincial Regulatory Approvals. A number of general recommendations including buffers, vegetation, drainage, construction and best practice have been included to guide the next steps of Hazlett Lake.
In designing the Hazlett Lake neighbourhood, the Developer worked with the City of Red Deer to preserve connected areas of habitat to facilitate wildlife movement and minimize fragmentation.
1.2.2 PLANNING PROCESS

Hazlett Lake Ventures began formally working on the development of this area prior to its annexation into Red Deer. In 2011, representatives from the Hazlett family and Stantec met with The City of Red Deer’s administration and Mayor to discuss the potential development opportunities. At that time, it was determined that the completion of a Major Area Structure Plan may be the most suitable way to begin the development process.

Over the next several years, the Development Team continued to collaborate with The City of Red Deer’s administration including participating in the North of 11A MASP (2012-2015) and the Hazlett Lake MNP (2016) planning processes.

NASP APPROVAL PROCESS

Following the completion of the Hazlett Lake MNP, the Development Team began the Neighbourhood Area Structure Plan process with their consultant Stantec Consulting and The City of Red Deer NASP Review Team.

Appendix B of The City of Red Deer NPDS outlines the approval process required by The City of Red Deer for NASP approvals. The Hazlett Lake NASP has been prepared in accordance with this outlined process.

Phase One: Pre-NASP Submission

The Development Team met with The City of Red Deer NASP Review Team for a Pre-NASP Submission meeting in August 2016 to discuss the proposed development as well as The City of Red Deer’s process, policies, and requirements for NASP approval. During this meeting, the Hazlett Lake water body development setback was discussed and the NASP boundary was confirmed.

Phase Two: Preliminary Concept

In April 2017, the Development Team again met with The City of Red Deer NASP Review Team to review two preliminary concept plans. During this time, the concepts were presented and discussed for their adherence to the nine sustainability principles, as described in Section 2.4 Sustainability & Neighbourhood Planning Principles. During this meeting, the NASP Review Team gave general support for the concept presenting small recommendations for revision.

Phase Three: NASP Submission

The Development Team worked with The City of Red Deer NASP Review Team to finalize a preferred land use concept and NASP through rounds of internal and external review and revision. This process spanned from June 2017 to November 2018.

Phase Four: Public Consultation

Following the NASP Submission Phase, the generalized land use concept for Hazlett Lake was presented for review and feedback during the MASP and MNP processes. To gather feedback from surrounding land owners and Red Deerians at large on the more detailed concept presented in the Hazlett Lake NASP, a public consultation event was held on June 14, 2018.

Phase Five: Formal Approval by Council

Subsequent to the public consultation process, the Hazlett Lake NASP will be presented to the Municipal Planning Commission (MPC) for consideration and recommendation to Council.

Following MPC’s recommendation, the Hazlett Lake NASP was brought before Council to adopt by bylaw. Pursuant to the MGA, the bylaw went through three readings and a public hearing before adoption on November 26, 2018.
1.3 PLAN AREA CONDITIONS

1.3.1 HAZLETT LAKE
As shown on Figure 5 - Existing Conditions, along the east boundary of the Plan Area is the Hazlett Lake water body. This is a major feature in northwest Red Deer and is considered to be a valuable habitat area for birds and other wildlife. As described in Section 1.1.3 Plan Area Boundary, Hazlett Lake is considered a Crown water body and has been protected through the dedication of a 20.0m Environment Reserve development setback.

1.3.2 TOPOGRAPHY
The Plan Area’s topography is gently rolling with elevations varying between 878m and 892m. Run-off follows the natural contours of the land flowing towards the Hazlett Lake water body.

One low lying area was identified in the ESA along the west boundary of the Plan Area with a historic borrow pit located in the southwest corner of the Plan Area. These areas reflect the contours and aerial photography; they are shown on Figure 5 - Existing Conditions.

1.3.3 SOILS
As noted in the 2010 Geotechnical Investigation, the local groundwater table in the Plan Area is 2-5m below grade, mirroring the local ground contours.

1.3.4 VEGETATION
The majority of existing vegetation found on the site is agricultural in nature, with the exception of a stand of mature trees in the southwest portion of the Plan Area and a thin strip of trees surrounding the water body.

As described in Section 4. Open Space Network, a development buffer surrounding the Hazlett Lake water body’s bed and shore has been preserved using a 20.0m wide Environmental Reserve dedication. Natural areas in other areas of the Plan Area have been conserved where possible using Municipal Reserve dedication.

1.3.5 EXISTING STRUCTURES
There are several existing structures within the Plan Area that are associated with residential or agricultural uses. Multiple grain bins and historic farming sheds are located along the south portion of the Plan Area where the original homestead was located, an existing home and yard is located further north closer to the lake. All structures located in the Plan Area will be removed prior to development, on a per-phase basis. As described in Section 1.1.2 History of the Plan Area, Historical Resource Act Clearance has been obtained for the development.

1.3.6 EXISTING UTILITIES
There are no registered utility rights-of-way located in the Hazlett Lake Plan Area. One drainage easement exists within the Legal Boundary of Hazlett Lake, outside of the Plan Area, as shown on Figure 2 - Legal Boundary.
1.4 SURROUNDING DEVELOPMENT

As shown on Figure 6 - Surrounding Development & Opportunities, the Hazlett Lake Plan Area is located in northwest Red Deer. These lands were annexed into Red Deer in 2009 and are separated from the Johnstone Parkway and Kentwood residential neighbourhoods by the CP Railway, the Edgar Industrial Park, and Highway 11A.

As shown on Figure 6 - Surrounding Development & Opportunities, there are a variety of uses located within 5.0km (60 min walking time, 19 min cycling time) of the Plan Area.

1.5 OPPORTUNITIES AND CONSTRAINTS

Opportunities and constraints for the Hazlett Lake Plan Area are shown on Figure 6 - Surrounding Development & Opportunities and include the following:

- **Natural Areas**
  The Hazlett Lake Plan Area includes a variety of natural areas including direct proximity to Hazlett Lake, areas of topographic variation, an existing drainage course, and stands of mature trees.

- **Lake Views**
  Due to the topography of the Plan Area, there are a variety of locations surrounding the Lake which may provide scenic views of Hazlett Lake.

- **TransCanada Trail Connections**
  The TransCanada Trail currently runs along Taylor Drive and is proposed for continuation running north along C&E Trail.

- **Commercial Node**
  The location of the proposed commercial development node, as proposed in the North of 11A MASP, is located approximately 1.0km (13 min walking time, 4 min cycling time) from the centre of the Plan Area.

- **K-9 School**
  The location of the proposed K-9 school, as proposed in the North of 11A MASP, is located approximately 1.0km (12 min walking time, 4 min cycling time) from the centre of the Plan Area.

- **Community Facility**
  The location of the proposed community facility, as proposed in the North of 11A MASP, is located approximately 1.5km (19 min walking time, 6 min cycling time) from the centre of the Plan Area.

- **Surrounding Industrial Uses**
  The surrounding industrial uses located directly south of the Plan Area provide opportunities for convenient workplace access for residents.

- **Highways**
  The location of Highway 11A and Highway 2 present constraints to the development of Hazlett Lake. Buffers are described in Section 5.8.1 Berms and Buffers.
Figure 6.0
Existing Conditions
Hazlett Lake - Calgary Alberta

DRAWN BY: SAS
SCALE: NTS
PROJECT #: 112849442
CHECKED BY: GCL

#1100, 4900-50th Street, Red Deer, AB T4N1X7
Ph:(403) 341-3320 Fx:(403) 342-0969

July, 2018

Contour Lines
Legend
Low Area/Drainage Channel
Building Neighbourhood Area Structure Plan Boundary
Treed Area
Highway QEII
Hazlett Lake

N.E.1/4 SEC.5-39-27-4

Highway 11A

Note: Wetland boundary as shown in Hazlett Lake Biophysical Assessment (2018).

Hazlett Lake Neighbourhood Area Structure Plan
November 2018

LEGEND

Marsh Graminoid Transitional
Marsh Graminoid Seasonal
Shrubby Swamp Seasonal Watercourse
Woodland Stand
Grassland
Existing Building
Driveway
Existing Highway 11A Access

drainage Easement
NASP Boundary
Topographic Contour Lines

Note: Wetland boundary as shown in Hazlett Lake Biophysical Assessment (2018).
2. PLAN VISION

OVERVIEW

SUSTAINABILITY & NEIGHBOURHOOD PLANNING PRINCIPLES
2.1 OVERVIEW

2.1.1 VISION STATEMENT
The Hazlett Lake neighbourhood is envisioned as a lakeside residential community focused on preserving the Hazlett Lake water body and wetland while providing strong connections to the Hazlett Lake major park node.

Direct connections between the built and natural environment are envisioned to encourage residents to participate in outdoor activities such as going for walks or bike rides, or having picnics in the park. These connections include trail linkages to the Hazlett Lake major park and spectacular views of the lake through the inclusion of an extensive park system.

Home to approximately 2,948 residents, the Hazlett Lake neighbourhood will include a variety of housing options for northeast Red Deer, including detached, semi-detached, and multi-family units. This neighbourhood is envisioned to appeal to a range of residents, particularly those employed in the nearby industrial areas, surrounding communities, or those relying on Highway 2 access for their commute to work.

Architectural standards and landscaping will define the visual aesthetic of Hazlett Lake and foster a strong sense of community showcasing the neighbourhood’s vision of outdoor and active living. These standards will be illustrated in the Hazlett Lake Architectural Guidelines.

2.1.2 KEY HIGHLIGHTS
- First development in North 11A MASP area
- Lake-front interface with regional trail connections
- 6 residential land use districts
- 1 District Shopping Centre
- 37.4% of the Gross Plan Area dedicated as open space
- Visual and pedestrian connections to open spaces and the Hazlett Lake major park
• Overall housing density of 17.1 du/ha
• 47.6% of the total house stock as semi-detached or multi-family options
• Convenient location for employees of the surrounding Industrial and Business Parks and commuter residents through strong connections to both Highway 2 and Highway 11A

2.2 NEIGHBOURHOOD CHARACTER & FEATURES

Hazlett Lake’s primary characteristic is its proximity to the Hazlett Lake water body, wetland, and major park. To protect the environmental integrity of the water body, the Hazlett Lake neighbourhood has been designed with the full wetland extent and a 20m wide development setback surrounding the water body. Strong visual and multi-use trail connections to the Hazlett Lake major park have been incorporated into the neighbourhood’s design to facilitate access to the park and encourage active lifestyles.

2.3 BUILT FORM AND PUBLIC REALM

Building styles in Hazlett Lake will be defined through architectural guidelines created by the Developer intended to promote high-quality aesthetics and consistency throughout the neighbourhood. These guidelines will identify preferred architecture and house styles, building materials, colours, and all items related to built form.

To highlight the architectural character, multiple entry features will be placed at the entry of the community. These entry features will visually adhere to the style of the community’s streetscape and playground design elements to form a cohesive aesthetic. The entry feature located along the temporary access roadway is proposed to be designed to move following the roadway’s closure. It is anticipated that this feature would be moved to the south east entrance of the community, along the east boundary of the Plan Area, to reflect the location of the long-term access into the neighbourhood.
Land uses with taller building heights have been grouped along the neighbourhood’s collector roadway. These forms will include the community amenity building(s), two-storey townhouses, and semi-detached units. Together these structures will form a continuous streetscape throughout the neighbourhood. Architectural features and materials of these buildings will set the tone and style for the rest of the community.

Hazlett Lake’s public realm has been designed to introduce this natural amenity to Red Deerians by protecting its ecological integrity while providing linear connection to the lake. Additional vegetation will be introduced into the public realm through the streetscape by way of street trees, planting along the berms, and landscaping in parks. If possible, tree species chosen will reflect those currently existing in the Plan Area.

2.4 SUSTAINABILITY & NEIGHBOURHOOD PLANNING PRINCIPLES

Identified in *The City of Red Deer NPDS*, the following nine principles are intended to guide the development of new neighbourhoods. Each principle listed below has been further discussed regarding its relation to the neighbourhood.

**PRINCIPLE 1 - NATURAL AREAS**

Hazlett Lake is a significant natural feature in Red Deer which borders the east boundary of the Plan Area. Public access to the lake is currently very limited as it is surrounded by private lands with no public access route; however, following the development of this neighbourhood, all Red Deerians will be able to enjoy the lake and the natural recreational amenity it provides.

To protect the lake from pollution, promote its health, and support its continued use by wildlife; the full extent of Hazlett Lake’s surrounding wetland, plus a 20.0m wide development setback has been dedicated as Environmental Reserve. Existing trees and a wildlife corridor have also been conserved in the southwest corner of the Plan Area using Municipal Reserve dedication to enhance wildlife connectivity to the water body.

**PRINCIPLE 2 - MIXED LAND USES**

The Hazlett Lake neighbourhood includes residential, recreational, and commercial land uses which will allow residents an opportunity to live, work, and play within close proximity to their homes. The uses proposed for the Hazlett Lake neighbourhood are based on the *Hazlett Lake MNP* and will support the creation of a complete community at a multi-neighbourhood scale including schools, a community recreation facility, and additional commercial areas.
Hazlett Lake’s roadway network is based on the Hazlett Lake MNP which identified the location of an arterial/collector roadway, looping around Hazlett Lake. This main roadway is anticipated to accommodate a future transit route and will include a 2.5m wide multi-use trail along one side of the roadway to facilitate active modes of transportation with a 1.5m wide separated sidewalk on the other.

To support the multi-use trail system, 3.0m wide regional trail connections will be provided from the Hazlett Lake major park and Highway 11A, south of the Plan Area, and the TransCanada Trail along C&E Trail, east of the Plan Area.

All local roadways will include sidewalks to enhance pedestrian comfort and safety; in addition, off-street multi-use trails will provide short-cutting options for residents.

The Hazlett Lake neighbourhood has been designed to conserve existing areas of vegetation and achieve a residential density of 17.1 du/ha which is slightly above the City of Red Deer’s recommended standard. This density has been achieved through a variety of design efficiencies: roadways, layout of housing areas, and consideration for lot depths. The inclusion of a range of housing forms, including the use of smaller lot detached housing and multi-family options, has also contributed to the higher residential density.

To facilitate convenient vehicular access, higher residential density land uses have been located along the collector roadway and grouped at neighbourhood node locations. The mixture of land uses in these areas will support the use of transit.

Designed around connectivity and access to the Hazlett Lake, the neighbourhood’s open space network has been designed to conserve natural areas and provide convenient off-street connections to the TransCanada and Waskasoo Trail network. Linear parks have been used to provide safe and convenient connections from all residential areas with short-cutting facilitated through the inclusion of highlighted pedestrian crossings at pre-identified locations. Multi-use trails will provide opportunities for pedestrian movement separated from roadways.
PRINCIPLE 6 - HOUSING OPPORTUNITY & CHOICE

Six different residential land use districts have been included in the Hazlett Lake neighbourhood to provide a range of housing options that will appeal to a variety of future residents. In addition to these uses, a range of housing types are anticipated in each district such as bungalows, bi-levels, two-storeys, or units with secondary suites.

PRINCIPLE 7 - RESILIENT & LOW IMPACT NEIGHBOURHOODS

The Hazlett Lake neighbourhood has been designed to be resilient to changing environmental and economic conditions by incorporating the following design features.

- The neighbourhood’s proximity to major employment areas in Red Deer enhances opportunities for residents to reasonably walk, cycle, or take transit to work.
- Should employees of these industrial and business areas drive to work, the close proximity will still reduce the overall driving distance and thereby reduce the overall automobile use for Red Deerians.
- Areas of existing vegetation have been conserved to preserve habitat and facilitate its use as a wildlife corridor.
- Approximately 30% of homes in Hazlett Lake have been designed without rear lanes. This reduction in built infrastructure will reduce the amount of runoff experienced during storm events and require lower on-going maintenance costs than a neighbourhood designed with full lane access.
- Wetlands and surface water will be protected to retain wildlife habitat, regulate the lake’s water temperature, maintain water quality, protect hydrology, and reduce human disturbance.
- Potentially negative impacts of stormwater runoff on the lake will be mitigated by utilizing stormwater management facilities to filter stormwater prior to it entering Hazlett Lake.
- Naturalized and native landscaping materials will be utilized throughout the neighbourhood’s public areas, where reasonable, to minimize the potential for pesticides and fertilizers to enter the lake. Naturalized landscaping will also reduce the need for irrigation, minimizing overall water use. As recommended in the Hazlett Lake desktop biophysical review, manicured grasses surrounding Hazlett Lake may be limited to deter the nesting of Canada geese. Proposed landscape materials will be determined at the time of landscape design and selected to consider the area’s intended function and regulations identified in Section 14 Landscaping Design of the ESDG.
- LED and “dark sky” roadway lighting will be installed to prevent light pollution. This type of lighting is intended to minimize wasted energy and reduce disturbance on residents and nocturnal animals.
- A variety of housing types at a range of price points will accommodate residents of mixed demographics. Each phase of the development will include a variety of housing styles to maintain a balance as the neighbourhood builds out.
Hazlett Lake has been designed utilizing the principles of Crime Prevention Through Environmental Design (CPTED) such as assigning purpose to public spaces, increasing visibility to parks through inclusion of residential uses surrounding thereby enhancing the level of “eyes on the street”, and reducing high intensity lighting thereby decreasing shadowed areas. During the detailed design process of the Hazlett Lake neighbourhood, the Developer will work with The City of Red Deer to further design public areas using CPTED principles which may include selecting street furniture and materials that reduce the potential for graffiti.

As described in Section 5.7.2 Traffic Calming, the neighbourhood’s collector roadway will be designed to include traffic calming. Traffic calming methods selected will reduce vehicular speeds, notify drivers of pedestrians crossing the street, and provide pedestrians with enhanced sight lines to increase their safety.

The Hazlett Lake neighbourhood is named after the Hazlett family who lived on the land since the early 1900s. The adjacent water body also shares the family’s name and has hosted not only the family’s memories and activities over the past century, but was also enjoyed by many students of the Crossroads School who would hold skating parties there during the winter.

To showcase the lake, this neighbourhood will provide many different opportunities for residents to enjoy outdoor recreation, strong physical and visual connections to the water body, and an interconnected multi-use trail system. These multi-use trails will make the lake accessible to the public and the inclusion of natural areas in the neighbourhood will give Hazlett Lake a unique feature that can be enjoyed by all residents.

To further define a strong sense of place, the Developer will create a set of architectural guidelines that illustrate the visual aesthetic of the community. Homes may also be required to have a certain amount of trees planted in their yards to facilitate the continued growth of Red Deer’s urban tree canopy.
3. LAND USES AND HOUSING

OVERVIEW
LAND USE PLAN
NEIGHBOURHOOD NODES
LAND USE CALCULATIONS
HOUSING TYPES & DENSITY
HOUSING MIX
3.1 OVERVIEW

Hazlett Lake has been designed with a mix of residential, commercial, and recreational land uses. A variety of different housing types and lot sizes provide various residential options that reflect the home building industry’s preferences, support residents’ desire to change housing styles as their needs and lifestyles shift, and offer more affordable options to residents at a range of price points.

3.2 LAND USE PLAN

As described in Section 1.2 Planning Context, the Hazlett Lake neighbourhood is part of a larger MNP which includes residential, commercial, educational, recreational, and community uses which provide residents the opportunity to live, work, learn, and play in their community. As shown on Figure 7 - Proposed Land Use Concept Plan and Figure 8 - Proposed Concept Plan with Aerial, the Hazlett Lake neighbourhood focuses more intensive land uses such as multi-family residential and commercial uses near the proposed transit stops while recreational spaces have been integrated into the residential areas.

Natural areas; such as the land surrounding the Hazlett Lake water body, the existing vegetation and natural drainage course in the southwest, have been used to form the base of the neighbourhood’s open space network. Residential areas have been designed around these areas which will enhance their accessibility by all residents.
3.2.1 RESIDENTIAL USES

A variety of residential options have been included in the Hazlett Lake neighbourhood using six different land use districts to provide housing that appeal to a wide range of residents.

Hazlett Lake has been designed with a large number of residential lots backing on to public open space. These areas are typically considered premium due to their scarcity on a neighbourhood and City-wide level; however, by increasing the amount of lots backing on to open spaces available, a wider range of residents are able to enjoy this premium amenity.

Higher density housing, such as townhouses and apartments, have been located along the main collector roadway to break up the collector roadway, minimize through traffic in the neighbourhood, and provide convenient access to the proposed transit system for residents. Specific housing types are further described in Section 3.4 Housing Types & Density.
3.2.2 COMMERCIAL USE

One C2B Commercial (District Shopping Centre) area has been proposed in the southeast corner of the neighbourhood to support other commercial uses that have been proposed east of the Plan Area. This commercial area is intended to service the neighbourhood and surrounding residents and contain a variety of potential uses including restaurants, medical services, retail sales, or civic commercial recreation facility. Vehicular access to the commercial site will be via the neighbourhood’s internal roadway network as no additional accesses will be permitted off of Highway 11A.

The development of this commercial use will be based on market demand. Should a suitable purchaser for the commercial site not be found; the site may be developed for a R3 Residential (Multiple Family) District use.

3.2.3 RECREATIONAL USES

The Hazlett Lake open space network has been designed as a safe and functional system that seamlessly connects all areas of neighbourhood together with the Hazlett Lake major park. Open spaces will be designed using a mixture of Environmental Reserves, Municipal Reserves, and Public Utility Lots that provide a variety of recreational areas for residents and visitors to enjoy. Hazlett Lake’s recreational spaces are further described in Section 4. Open Space Network.

3.2.4 NEIGHBOURHOOD NODES

The Hazlett Lake neighbourhood has been designed to support the creation of two neighbourhood nodes: one in the west portion of the Plan Area where different multi-family uses interact with the open space network, and one in the south at the community amenity site. These neighbourhood nodes are areas where higher density residential uses interact at street level, with connections to transit and multi-use trails.
One community amenity site has been located within the Hazlett Lake neighbourhood to accommodate the possible development of a community use such as a temporary care facility, assisted living housing, adult or regular day care, a place of worship, or other uses proposed and approved by The City of Red Deer. This site was chosen to facilitate the development of a larger use such as a place of worship or other use that has higher traffic volumes or a notable impact on surrounding uses and as such may be best suited for location at the exterior of the community. As shown on Figure 7 - Proposed Land Use Concept Plan, a potential transit stop has been located at the community amenity site to facilitate its access by public transit.

The development of the community amenity site will be completed in accordance with The City of Red Deer NPDS regulations which includes advertisement for sale through local media and The City of Red Deer website for one year. Should a suitable purchaser for the site not be found within the one-year timeline; the site may be developed for a R3 Residential (Multiple Family) District use.
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Figure 8.0
Concept Plan
Hazlett Lake - Calgary Alberta

DRAWN BY: SAS
SCALE: NTS
PROJECT #: 112849442
CHECKED BY: GCL

#1100, 4900-50th Street, Red Deer, AB T4N1X7
Ph: (403) 341-3320 Fx: (403) 342-0969
August, 2018

R1G Residential (Small Lot) District Environmental Reserve
R2T Residential (Town House) District
R1 Residential (Low Density) District
R1N Residential (Narrow Lot) District
R1A Residential (Semi-Detached Dwelling) District
R3 Residential (Multiple Family) District
C2B Commercial (District Shopping Centre)

Legend

R1 Residential (Low Density) District
R1G Residential (Small Lot) District
R1N Residential (Narrow Lot) District
R1A Residential (Semi-Detached Dwelling) District
R3 Residential (Multiple Family) District
C2B Commercial (District Shopping Centre)

Note: Pedestrian crossings, transit stops, and entry feature locations are shown for illustration purposes only and will be designed in accordance with ESDG.

Future Connection to C&E Trail
Temporary Access
Entry Feature
Temporary Locations
Drainage Easement Wetland Extent
Future Connection to C&E Trail
Regional Wastewater Line Easement
### Table 1 - Land Use Allocation

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<th>Area (ac)</th>
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<th># of Dwelling Units</th>
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<tr>
<td>C2B Commercial (District Shopping Centre) R3 Alternate Use</td>
<td>2.25</td>
<td>5.55</td>
<td>2.8%</td>
<td>(264)(^2)</td>
</tr>
<tr>
<td>Community Amenity Site</td>
<td>0.43</td>
<td>1.06</td>
<td>0.5%</td>
<td></td>
</tr>
<tr>
<td>Community Amenity Site R3 Alternate Use</td>
<td>0.43</td>
<td>1.06</td>
<td>0.5%</td>
<td>(50)(^2)</td>
</tr>
<tr>
<td>Open Space</td>
<td>17.14</td>
<td>42.35</td>
<td>21.7%</td>
<td></td>
</tr>
<tr>
<td>MR Municipal Reserve</td>
<td>8.92</td>
<td>22.04</td>
<td>11.3%(^3)</td>
<td></td>
</tr>
<tr>
<td>PUL Public Utility Lot</td>
<td>5.85</td>
<td>14.45</td>
<td>7.4%</td>
<td></td>
</tr>
<tr>
<td>SWMF Public Utility Lot</td>
<td>2.37</td>
<td>5.86</td>
<td>3.0%</td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>19.08</td>
<td>47.14</td>
<td>24.1%</td>
<td></td>
</tr>
<tr>
<td>Arterial Roadways</td>
<td>1.96</td>
<td>4.85</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td>Collector Roadways</td>
<td>3.93</td>
<td>9.72</td>
<td>5.0%</td>
<td></td>
</tr>
<tr>
<td>Local Roadways</td>
<td>8.18</td>
<td>20.21</td>
<td>10.3%</td>
<td></td>
</tr>
<tr>
<td>Lanes</td>
<td>5.00</td>
<td>12.36</td>
<td>6.3%</td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>0.02</td>
<td>0.05</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>PUL Public Utility Lot- Sanitary Lift Station</td>
<td>0.02</td>
<td>0.05</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>79.15</td>
<td>195.58</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Estimated number of secondary suites is based on Part 4: Residential Districts and Regulations, Policy 4.7.9 Secondary Suites Use Provisions and Development Regulations of the LUB and described in Section 3.4.7 Secondary Suites.

\(^2\) Estimated number of units associated with the alternate residential zoning of the Community Amenity Site and Commercial Site represent a median between the low and high-end dwelling unit estimations for the R3 Residential (Multiple Family) District. These estimations are subject to change at the time of redistricting and construction based on the regulations of the City of Red Deer Land Use Bylaw.

\(^3\) As identified in Table 1 - Land Use Allocation, it is recognized that the Hazlett Lake neighbourhood has dedicated 11.3% of its Developable Area as MR, an excess of the required 10% dedication. This over-dedication is a commitment by the Developer to conserve natural areas and provide high quality open spaces for residents to enjoy; as such, The City of Red Deer will not be required to compensate the Developer for the average of MR.
<table>
<thead>
<tr>
<th>Roads and Utilities</th>
<th>Hectares</th>
<th>Acres</th>
<th>% of Net Plan Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gross Plan Area</strong></td>
<td>100.72</td>
<td>248.87</td>
<td></td>
</tr>
<tr>
<td>Highway Widening</td>
<td>1.03</td>
<td>2.54</td>
<td></td>
</tr>
<tr>
<td>Environmental Reserve - Hazlett Lake Wetland Extent</td>
<td>17.21</td>
<td>42.52</td>
<td></td>
</tr>
<tr>
<td>Environmental Reserve - Hazlett Lake Setback (20m)</td>
<td>3.33</td>
<td>8.24</td>
<td></td>
</tr>
<tr>
<td><strong>Remaining Plan Area</strong></td>
<td>79.15</td>
<td>195.58</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Allowable Area for Roads &amp; Utilities</strong></td>
<td>23.75</td>
<td>58.67</td>
<td>30.0%</td>
</tr>
<tr>
<td><strong>Actual Area of Roads &amp; Utilities</strong></td>
<td>24.70</td>
<td>61.04</td>
<td>31.2%</td>
</tr>
<tr>
<td>Municipal Improvements</td>
<td>1.74</td>
<td>4.30</td>
<td>2.2%</td>
</tr>
<tr>
<td>Arterial Roadway less the Temporary Access Roadway</td>
<td>1.72</td>
<td>4.24</td>
<td>2.2%</td>
</tr>
<tr>
<td>PUL Public Utility Lot- Sanitary Lift Station</td>
<td>0.02</td>
<td>0.05</td>
<td>0.0%</td>
</tr>
<tr>
<td>Hazlett Lake Roadways and Utilities</td>
<td>22.96</td>
<td>56.74</td>
<td>29.0%</td>
</tr>
<tr>
<td>Collector Roadways</td>
<td>3.93</td>
<td>9.72</td>
<td>5.0%</td>
</tr>
<tr>
<td>Local Roadways</td>
<td>8.18</td>
<td>20.21</td>
<td>10.3%</td>
</tr>
<tr>
<td>Lanes</td>
<td>5.00</td>
<td>12.36</td>
<td>6.3%</td>
</tr>
<tr>
<td>PUL Public Utility Lots Excluding SWMF</td>
<td>5.85</td>
<td>14.45</td>
<td>7.4%</td>
</tr>
<tr>
<td><strong>Over Dedication</strong></td>
<td>0.96</td>
<td>2.36</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

As identified in **Table 2 - Roads and Utilities Percentage**, it is recognized that the Hazlett Lake neighbourhood has dedicated an excess of the allowable 30% roadway and public utilities dedication.
3.4 HOUSING TYPES & DENSITY

3.4.1 R1 LOW DENSITY RESIDENTIAL

The R1 Residential (Low Density) land use district is intended to provide single family housing, of a variety of styles and building footprints, on the largest lots within the Hazlett Lake neighbourhood. R1 lots have been primarily located around public open spaces as they permit front parking and thus do not require a rear lane.

APPROPRIATE HOUSING STYLES

Based on The City of Red Deer LUB, the following housing styles would be appropriate in the R1 District:

- Bungalow, bi-level, 2-storey
- Walk-out basements where grading permits
- Secondary suites, as per LUB regulations

Housing styles in this district will be determined by the home builder in association with the Developer at the time of lot sale; however, homes are anticipated to include front attached garages. As these lots do not require lane access, the R1 district is a suitable residential use for locations backing on to open spaces.

DENSITY

It is estimated that density for R1 areas will be approximately 20.0 du/ha. This assumption is based on an assumed average lot size of 500.0 m².

HEIGHT

Building height is regulated by The City of Red Deer LUB which permits houses in the R1 District to be up to 2 storeys.

PARKING AND ACCESS

As per The City of Red Deer LUB, at least two parking spaces will be provided on site per home. Parking in the R1 district will be via front attached garage and driveway or two-car rear parking pad.

Although the majority of homes in the R1 areas will be via the front street, some R1 lots will also be accessible via the rear lane. The provision of a lane will allow for additional access to the property.
3.4.2 R1N NARROW LOT RESIDENTIAL

The R1N Residential (Narrow Lot) land use district is intended to accommodate single family detached dwellings on narrow lots, with rear parking and optional garage. R1N lots offer a more affordable residential option for residents due to the decreased lot width. The placement of rear parking also is intended to provide a stronger interaction between the home frontage and the pedestrian streetscape through the inclusion of windows or porches.

R1N lots require rear lane access; as such, they have not been used in areas backing on to open spaces.

**APPROPRIATE HOUSING TYPES**

Based on *The City of Red Deer LUB*, the following housing styles would be appropriate in the R1N District:

- Bungalow, bi-level, 2-storey

Housing styles in this district will be determined by the home builder in association with the Developer at the time of lot sale.

**DENSITY**

It is estimated that density for R1N areas will be approximately 26.4 du/ha. This assumption is based on an assumed average lot size of 385.0m².

**HEIGHT**

Building height is regulated by *The City of Red Deer LUB* which permits houses in the R1N District to be up to 2 storeys.

**PARKING AND ACCESS**

As per *The City of Red Deer LUB*, two 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 parking is available on-street.

Primary access to R1N homes will be via the rear lane.
3.4.3 R1G SMALL LOT RESIDENTIAL

The R1G Residential (Small Lot) land use district is intended to accommodate single family detached dwellings on narrow lots, with front attached garages. R1G lots offer a more affordable housing option than similar homes on larger lots (R1 Low Density Residential) simply due to the decreased lot width and side yards.

APPROPRIATE HOUSING TYPES

Based on The City of Red Deer LUB, the following housing styles would be appropriate in the R1G District:

- Modified bi-level, two-storey
- Walk-out basements where grading permits

Housing styles in this district will be determined by the home builder in association with the Developer at the time of lot sale.

DENSITY

It is estimated that density for R1G areas will be approximately 27.2 du/ha. This assumption is based on an assumed average lot size of 367.5m².

HEIGHT

Building height is regulated by The City of Red Deer LUB which permits houses in the R1G District to be up to 2 storeys.

PARKING AND ACCESS

As per The City of Red Deer LUB, two parking spaces will be provided per home. Parking in the R1G district will be via front attached garage and driveway. Additional, temporary, parking may be available on-street.
3.4.4 R1A SEMI-DETACHED RESIDENTIAL

The R1A Residential (Semi-Detached) land use district is intended to provide semi-detached dwellings. Semi-detached housing is constructed as two independent dwelling units attached side-by-side with a common wall extending from the foundation to the roof. Semi-detached housing is a popular option for those looking for a more affordable solution than a detached dwelling that still offers a private yard and, in many cases, an attached garage. The R1A district has been used as a transitional use between single detached housing and multi-family dwellings.

APPROPRIATE HOUSING TYPES

Housing styles in the R1A District will be determined based on home builder preferences; however, based on The City of Red Deer LUB, the following housing styles would be appropriate for inclusion in the R1A district:

- Bi-level, modified bi-level, two-storey
- Walk-out basements where grading permits

DENSITY

R1A areas are anticipated to be developed for semi-detached dwellings. The maximum density allowable in this district is 43 du/ha; however, it is anticipated that the density will be approximately 35.6 du/ha. This assumption is based on the development of only semi-detached dwellings with an assumed average lot size of 280.0m².

HEIGHT

Building height is regulated by The City of Red Deer LUB which permits houses in the R1A District to be up to 2 storeys.

PARKING AND ACCESS

As per The City of Red Deer LUB, two parking spaces will be provided per home. Parking in the R1A district will be via front attached garage and driveway or two-car rear parking pad.

Primary access to R1A homes with front attached garage will be via the front street. R1A units along the collector roadway will not be encouraged to have front garages or driveways to enhance landscaping connectivity and reduce accesses onto the collector.
3.4.5 R2T TOWN HOUSE RESIDENTIAL

The R2T Residential (Town House) land use district is intended to accommodate townhouses which are three or more dwellings joined side-by-side that do not have dwellings either above or below. Townhouses include common walls extending from the foundation to the roof. The R2T district also permits stacked rowhomes which are similar to townhouses but include units that overlap vertically.

Townhouses and stacked rowhomes provide an alternative and more affordable housing form suitable to a range of residents. These units are appealing due to their increased square footage and enhanced privacy, when compared to apartment style developments. In the case of townhouses, residents also have access to a private yard which is especially popular for those with children and pets. Townhouses may also include attached or detached private garages.

The R2T district has been located along the collector roadway to minimize through traffic in the community, provide a continuous visual massing that will contribute to the overall aesthetics of the neighbourhood, and encourage use of lanes by limiting front driveway access.

APPROPRIATE HOUSING TYPES

Based on The City of Red Deer LUB, the following housing styles would be appropriate in the R2T District:

- Bi-level, two-storey, two and half story
- Stacked rowhome

These units will be developed in a tradition row fashion along a public roadway. Housing styles in this district will be determined by the home builder in association with the Developer at the time of lot sale.

DENSITY

The maximum density allowable in this district is 54.0 du/ha; however, it is anticipated that the density will be approximately 41.6 du/ha.

HEIGHT

Building height is regulated by The City of Red Deer LUB which permits buildings in the R2T District to be between 2 to 2.5 storeys or a maximum of 12m height measured from the average lot grade.

PARKING AND ACCESS

As per The City of Red Deer LUB, 2 parking spaces will be provided per home. R2T units along the collector roadway will not be encouraged to have front garages or driveways to enhance landscaping connectivity and reduce accesses onto the collector.
### 3.4.6 R3 MULTIPLE FAMILY RESIDENTIAL

Two R3 Residential (Multiple Family) areas have been proposed in the Hazlett Lake neighbourhood to support the provision of affordable housing opportunities. Multi-family style housing appeals to a variety of potential residents including, but not limited to: singles, small families, retirees, snowbirds, those that often work away, and first time property buyers. Areas zoned for R3 Multiple Family uses can take a variety of forms as further described below which can be developed either as rental or condo facilities. Regardless of building form, these areas are intended to be designed as focal features of the community with a high level of architectural detail and visual interaction at street-level.

#### APPROPRIATE HOUSING TYPES

The R3 areas will be constructed based on market conditions at the time of development and could include the following housing forms.

- **Apartment-style** buildings: have shared entries, hallways, and often building amenities such as fitness centres or hot tubs.

- **Townhouses**: consist of three or more attached units which do not overlap one another and have shared common walls from foundation to roofs.

- **Stacked row homes**: commonly range from 3 to 18 units stacked both horizontally and vertically. Typically these units share no internal common spaces.

#### DENSITY

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

#### HEIGHT

Building height is regulated by The City of Red Deer LUB. Should the R3 site be developed as one or more multi-family buildings, the maximum height is 4 storeys; however, if the R3 site is developed for townhouses, the maximum height is 2 storeys or a 10m from the average lot grade.

#### PARKING AND ACCESS

Parking will be determined by what type of units are constructed; however, all required parking will be located on-site as per The City of Red Deer LUB. Parking will be encouraged to locate away from the public streetscape.
The R3 sites will be accessed by vehicles using an internal roadway network; however, it will be accessible by pedestrians from the external roadway network via sidewalks or multi-use trail connections.

### 3.4.7 SECONDARY SUITES

As defined by *The City of Red Deer LUB*, 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. The location and construction of secondary suites is regulated through *The City of Red Deer LUB* with no more than one secondary suite permitted per unit.

### 3.4.8 PARK FRONTING HOMES

As shown on *Figure 7 - Proposed Land Use Concept Plan*, two areas in the central portion of the neighbourhood have been proposed for the construction of townhouses fronting onto a linear park, with vehicle access via only a rear lane rather than a local roadway. The intent of this housing type is to provide residents with a unique housing type that provides direct park access. A high level of architectural standard creates a visually pleasing streetscape along this public park which entices residents to utilize this area for their outdoor activities and engage with their neighbours.

The lanes providing access to these homes are described in *Section 5.5.4 Lanes* and will be designed to facilitate its use as a primary access by a variety of vehicle types. The Developer will work with The City of Red Deer during the time of detailed design to ensure homes are properly numbered and illuminated, enhancing their visibility to delivery personnel and emergency services. A sidewalk will be provided along the park interface to facilitate convenient access.
3.5 HOUSING MIX

The anticipated housing density of Hazlett Lake is 17.1 du/ha, with a total housing stock of 1,240 units, and a population of 2,948 residents.

Table 3 - Development Mix and Density

<table>
<thead>
<tr>
<th>Residential Land Uses</th>
<th>Estimated Units</th>
<th>% of Housing Stock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Housing Stock</td>
<td>1,240</td>
<td>100.0%</td>
</tr>
<tr>
<td>R1 Residential (Low Density) District</td>
<td>188</td>
<td>15.2%</td>
</tr>
<tr>
<td>Potential Secondary Suites</td>
<td>7</td>
<td>0.6%</td>
</tr>
<tr>
<td>R1N Residential (Narrow Lot) District</td>
<td>181</td>
<td>14.6%</td>
</tr>
<tr>
<td>R1G Residential (Small Lot) District</td>
<td>274</td>
<td>22.1%</td>
</tr>
<tr>
<td>R1A Residential (Semi-Detached) District</td>
<td>240</td>
<td>19.4%</td>
</tr>
<tr>
<td>Potential Secondary Suites</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>R2T Residential (Town House) District</td>
<td>142</td>
<td>11.5%</td>
</tr>
<tr>
<td>R3 Residential (Multiple Family) District</td>
<td>208</td>
<td>16.8%</td>
</tr>
</tbody>
</table>

Density: **17.1 du/ha**  (1,240 dwelling units / 72.57 net developable hectares)\(^5\)

Densities calculations are estimates based on a pro-forma completed for the Developer using the proposed concept and their preferred lot depth and width. These assumptions produce the following averages; however, exact density and unit counts may differ at the time of subdivision:

- **R1**  Average lot size: 500m\(^2\)
- **R1N** Average lot size: 385m\(^2\)
- **R1G** Average lot size: 420m\(^2\)
- **R1A** Average lot size: 280m\(^2\)
- **R2T** Average lot size: 240m\(^2\)

Table 4 - Population Projection

<table>
<thead>
<tr>
<th>Population Projection</th>
<th>Est. # of Dwelling Units</th>
<th>Avg. Household Size(^6)</th>
<th>Est. Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Detached Residential</td>
<td>650</td>
<td>2.38</td>
<td>1,545</td>
</tr>
<tr>
<td>R1 Residential (Low Density) District</td>
<td>188</td>
<td>2.38</td>
<td>447</td>
</tr>
<tr>
<td>Potential Secondary Suites (^4)</td>
<td>7</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>R1N Residential (Narrow Lot) District</td>
<td>181</td>
<td>2.38</td>
<td>430</td>
</tr>
<tr>
<td>R1G Residential (Small Lot) District</td>
<td>274</td>
<td>2.38</td>
<td>652</td>
</tr>
<tr>
<td>Semi-Detached and Multi-Family Residential</td>
<td>590</td>
<td>2.38</td>
<td>1,403</td>
</tr>
<tr>
<td>R1A Residential (Semi-Detached) District</td>
<td>240</td>
<td>2.38</td>
<td>571</td>
</tr>
<tr>
<td>Potential Secondary Suites (^4)</td>
<td>0</td>
<td>--</td>
<td>0</td>
</tr>
<tr>
<td>R2T Residential (Town House) District</td>
<td>142</td>
<td>2.38</td>
<td>337</td>
</tr>
<tr>
<td>R3 Residential (Multiple Family) District</td>
<td>208</td>
<td>2.38</td>
<td>495</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,240</strong></td>
<td></td>
<td><strong>2,948</strong></td>
</tr>
</tbody>
</table>

\(^4\) Estimated number of secondary suites is based on Part 4: Residential Districts and Regulations, Policy 4.7.9 Secondary Suites Use Provisions and Development Regulations of the LUB and described in Section 3.4.7 Secondary Suites.

\(^5\) Density is a calculation using estimated units divided by the Plan Area’s net developable area, in hectares. Net Developable Area = Gross Plan Area - Environmental Reserve - Major Roadways (Highway Widening and Arterial) - Commercial - Stormwater Management Facilities.

\(^6\) Average Household Size is based on The City of Red Deer 2016 Census which listed the average household size as 2.38 residents per dwelling unit.

Hazlett Lake Neighbourhood Area Structure Plan NOVEMBER 2018
4. OPEN SPACE NETWORK

OVERVIEW

MOBILITY AND CONNECTIVITY
4. Open Space Network

4.1 OVERVIEW

The Hazlett Lake water body provides a prominent public destination that connects all areas within the Hazlett Lake MNP together. As shown on Figure 9 - Proposed Open Space Network, this water body is the heart of the Hazlett Lake neighbourhood’s open space network and has been designed to form one piece of a larger park system. While the Lake is central to the neighbourhood’s open space network, each park in the neighbourhood has been carefully designed to offer looping multi-use trails and allow residents to enjoy outdoor recreation prior to the development of the Lake’s looping regional trail. All linear parks have been designed to lead residents toward the Lake.

4.2 PARK TYPES AND AMENITIES

A mixture of park types have been provided in the Hazlett Lake neighbourhood to provide residents with places to enjoy nature, be active, safely connect with surrounding amenities, and socialize. These spaces will be dedicated as either Municipal Reserve (MR), Environmental Reserve (ER), or Public Utility Lot (PUL) as appropriate and guided by the Municipal Government Act.

As shown in Table 5 - Open Space Amenities, the neighbourhood’s open space network is comprised of five different open space types making up 37.68 ha (93.10 ac), 37.4% of the Gross Plan Area. These parks are shown on Figure 10 - Proposed Park Types. Each of these types are further described below.

Table 5 - Open Space Amenities

<table>
<thead>
<tr>
<th>Open Space Types</th>
<th>Total No. of Parcels</th>
<th>Area (ha)</th>
<th>Area (ac)</th>
<th>% of Gross Plan Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Areas</td>
<td>9</td>
<td>26.46</td>
<td>65.39</td>
<td>26.3%</td>
</tr>
<tr>
<td>Hazlett Lake Wetland Extent</td>
<td>2</td>
<td>17.21</td>
<td>42.52</td>
<td>17.1%</td>
</tr>
<tr>
<td>Hazlett Lake Setback (20m)</td>
<td>3</td>
<td>3.33</td>
<td>8.24</td>
<td>3.3%</td>
</tr>
<tr>
<td>Conserved Vegetation &amp; Drainage Corridor</td>
<td>4</td>
<td>5.93</td>
<td>14.64</td>
<td>5.9%</td>
</tr>
<tr>
<td>Parkettes</td>
<td>2</td>
<td>0.29</td>
<td>0.71</td>
<td>0.3%</td>
</tr>
<tr>
<td>Linear Parks &amp; Pedestrian Links</td>
<td>11</td>
<td>1.14</td>
<td>2.82</td>
<td>1.1%</td>
</tr>
<tr>
<td>Neighbourhood Parks (including SWMFs)</td>
<td>2</td>
<td>4.06</td>
<td>10.04</td>
<td>4.0%</td>
</tr>
<tr>
<td>Berm</td>
<td>1</td>
<td>5.73</td>
<td>14.15</td>
<td>5.7%</td>
</tr>
<tr>
<td><strong>Total Open Spaces</strong></td>
<td><strong>25</strong></td>
<td><strong>37.68</strong></td>
<td><strong>93.10</strong></td>
<td><strong>37.4%</strong></td>
</tr>
</tbody>
</table>
Table 6 - Municipal Reserve Calculation

<table>
<thead>
<tr>
<th>Municipal Reserve Dedication</th>
<th>Area (ha)</th>
<th>Area (ac)</th>
<th>% of MR Developable Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Plan Area</td>
<td>100.72</td>
<td>248.87</td>
<td></td>
</tr>
<tr>
<td>Highway Widening</td>
<td>1.03</td>
<td>2.54</td>
<td></td>
</tr>
<tr>
<td>Environmental Reserve - Hazlett Lake Wetland Extent</td>
<td>17.21</td>
<td>42.52</td>
<td></td>
</tr>
<tr>
<td>Environmental Reserve - Hazlett Lake Setback (20m)</td>
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<tr>
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</table>

As identified in **Table 6 - Municipal Reserve Calculation**, the Hazlett Lake NASP proposes 11.3% of its Developable Area as MR, an excess of the required 10% dedication. This over-dedication is a commitment by the Developer to conserve natural areas and provide high quality open spaces for residents to enjoy; as such, The City of Red Deer will not be required to compensate the Developer for the overage of MR.
4.2.1 NATURAL AREAS

Natural areas form the base of the overall open space network of Hazlett Lake. These areas have been conserved to enhance their value as habitat corridors as well as provide passive recreation opportunities and visual amenities to residents. Conserved natural open spaces include the wetland area surrounding Hazlett Lake, a buffer surrounding Hazlett Lake’s riparian area, and existing tree stands. Natural areas in Hazlett Lake have been preserved using a combination of Municipal and Environmental Reserve dedication.

LOCATION

In accordance with the North of Highway 11A MASP, a large Environmental Reserve has been proposed surrounding Hazlett Lake; this ER area extends from the legal lake boundary and includes the full wetland extent as identified the Hazlett Lake Biophysical Report and an additional 20.0m wide buffer. As described in the North of Highway 11A MASP, this vegetated buffer is intended to act as a filter between development and riparian areas to prevent pollution of the wetland and Lake water body.

To further buffer the water body, Municipal Reserve dedication has been used adjacent to the Environmental Reserve surrounding the Lake. Municipal Reserve has also been used to conserve as much of the existing vegetation as possible, located in the southwest corner of the Plan Area. It should be noted that due to the topographic limitations of the site, not all of the vegetation can be preserved; to achieve proper site grading and safely construct the looping collector roadway, some areas of existing vegetation will need to be removed.

SIZE

As identified in Table 5 - Open Space Amenities, a total of 26.46 ha (65.39 ac) of natural space has been preserved in the Plan Area.

PROPOSED AMENITIES

All natural areas will be maintained in their existing state to enhance their ecological functionality; however, limited recreational amenities may be included to enhance their recreational function. Amenities in natural spaces will be limited to multi-use trails, occasional seating nodes with refuse containers; and the potential inclusion of wayfinding signage. The regional trail surrounding Hazlett Lake will be designed as a portion of the Hazlett Lake major park and City’s Waskasoo/TransCanada Trail network and is estimated at a total distance of 4.0km circling the entire water body. Multi-use trails constructed in conserved tree areas will be field-fitted where required to minimize impact and tree removal.
4.2.2 PARKETTES

Parkettes have been used to provide small, local park spaces that can be conveniently accessed by nearby residents. These parks can be programmed with passive and/or active recreation elements such as seating areas, multi-use trails, and play or exercise equipment. In parkettes without play equipment, residents can enjoy both active and passive recreation. These areas can be used to play catch, frisbee, tag, build a snowman, play fetch with pets, etc.

Parkettes may also provide a location for the development of a community garden. In accordance with the City’s community gardening procedures, neighbourhood community gardens are organized by an established local community group with support from the City’s Parks department.

LOCATION

Formal parkettes have been proposed in the southeast corner of the Hazlett Lake neighbourhood: one along the south boundary of the Plan Area and two in the north. Each parkette has been located within 800.0 m, 10 minutes walking time, of the neighbourhood’s center with a focus on providing connectivity from higher density areas.

The south parkette, located adjacent to the proposed community amenity site, will provide opportunities for users of the amenity site to expand their activities outdoors and provide visual recreation for residents that may be restricted to life indoors.

SIZE

Parkettes in Hazlett Lake are between 0.07 ha (0.18 ac) and 0.21 ha (0.53 ac) in size.

PROPOSED AMENITIES

Constructed elements within parkettes may include children’s play or outdoor workout equipment, small seating areas, refuse containers, multi-use trails, and public art.
Hazlett Lake has been designed with strong connections to the Lake which are intended to encourage off-street pedestrian movement and support use of the Hazlett Lake major park. Multi-use trails are designed to facilitate pedestrian short-cutting, enhance users’ comfort, and improve connectivity between residences and local destinations.

**LOCATION**
Linear parks and pedestrian links provide off-street connections between the exterior portion of the neighbourhood and the Hazlett Lake major park. These connections also provide short-cutting options for pedestrians.

**SIZE**
Linear parks vary in length and are a minimum of 7m in width. This width allows for the comfortable inclusion of a multi-use trail and planting along the lot fencing which makes the linkages feel inviting, open, and safe for users.

**PROPOSED AMENITIES**
Amenities in linear parks will be limited to multi-use trails, landscaping, and occasional seating areas with refuse containers.
4.2.4 NEIGHBOURHOOD PARKS

Additional Municipal Reserve has been dedicated along the Hazlett Lake Environmental Reserve interface to facilitate the creation of a large regional park: the Hazlett Lake major park, as described in Section 4.3 Hazlett Lake Major Park. Individually, these areas will function as neighbourhood parks for the Hazlett Lake neighbourhood; they will also provide stopping points for users of the regional trail that will surround the Hazlett Lake water body.

Each neighbourhood park is based around a storm pond. These areas will provide local parks for residents to enjoy the visual amenity of the storm pond where they may be able to watch birds or waterfowl.

LOCATION

Two neighbourhood parks have been proposed in the Hazlett Lake neighbourhood, both along the east boundary of the Plan Area, each surrounding a storm pond.

SIZE

Including the storm ponds, the north neighbourhood park is sized at 3.07 ha (7.59 ac); the south neighbourhood park is sized at 0.99 ha (2.44 ac).

PROPOSED AMENITIES

Amenities located in neighbourhood parks include storm pond, multi-use trails, seating areas, and play equipment. The location and design of play areas will be determined in consultation with the City of Red Deer during the time of landscape design to ensure sufficient setbacks are maintained from stormwater ponds and any nearby slopes.

4.2.5 BERMS

Berms in Hazlett Lake are intended to provide a visual and sound attenuation buffer between the proposed development and adjacent highways. The design of these berms is described in Section 5.8.1 Berms and Buffers and will include consistent landscaping to provide an aesthetically pleasing visual for residents and entrance into Red Deer for those driving along Highway 2 or Highway 11A.

Land dedicated to Hazlett Lake’s berms and buffers, as described in Section 5.8.1 Berms and Buffers, totals 5.73 ha (14.15 ac). These areas have been dedicated as Public Utility Lots.
4.3 HAZLETT LAKE MAJOR PARK

The Hazlett Lake major park is envisioned as a major recreation destination for Red Deer. As described in the *North of 11A MASP*, the park will surround the Hazlett Lake water body and is intended to provide year-round recreation space, protect the Lake, and include interpretive information for its natural features.

It is understood that the Hazlett Lake major park may contain ecological and historic programming similar to those provided by the Waskasoo Environmental Education Society elsewhere in Red Deer. In addition to the inclusion of interpretive information, visitors will also be able to access passive outdoor recreation spaces such as multi-use trails, picnic areas, and wildlife viewing areas.

Multi-use trails constructed surrounding Hazlett Lake, located in the neighbourhood’s Environmental Reserve, will be part of the overall trail network of Hazlett Lake major park, Waskasoo Park, and the TransCanada Trail network. Multi-use trails will be designed in consultation with The City of Red Deer.

The overall design, programming, and connectivity of Hazlett Lake needs to be comprehensively reviewed by The City of Red Deer. The Hazlett Lake neighbourhood is only one portion of the land adjacent to the Lake. A clear, concise, vision and aesthetic is important to the vitality of the Lake.

4.4 OPEN SPACE FENCING

To protect public areas and prevent encroachment, the Developer will construct consistent, permanent, visually permeable fencing along Environmental Reserves, Municipal Reserves, and Public Utility Lots on a phased basis. This fencing will be located on private property and be the responsibility of the home owner to maintain in the long-term.
Hazlett Lake Neighbourhood Area Structure Plan

Figure 9 - Proposed Open Space Network

November 2018

Legend

- ER Environmental Reserve
- Wetland Extent / ZON Setback Boundary
- MR Municipal Reserve
- PUL Public Utility Lot / Stormwater Management Facility
- Area Containing Preserved Trees
- Potential Play Structure
- Pedestrian Crossing / Traffic Calming
- 2.5m Separated Sidewalk
- Multi-Use Trail / Regional Trail
- Out Parcel - Highway Widening
- Easements: Drainage or Regional Wastewater Line
- NASP Boundary

Note: Pedestrian crossings and play structures are shown for illustration purposes only and will be designed in accordance with ESDG.
Figure 10 - Proposed Park Types

Figure 11 - Park Types

Legend
- Natural Park
- Neighborhood Park
- Neighborhood Area Structure Plan Boundary
- Community Amenity
- Linear Park / Pedestrian Linkage
- Parkette
- Berm
- Area Containing Preserved Trees
- Pedestrian Crossing / Traffic Calming
- Out Parcel: Highway Widening
- Easements: Drainage or Regional Wastewater Line
- NASP Boundary

Note: Pedestrian crossings and play structures are shown for illustration purposes only and will be designed in accordance with ESDG.

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5. MOBILITY AND CONNECTIVITY

OVERVIEW
ACCESS
ACTIVE TRANSPORTATION
STREET TYPES
ROADWAY DESIGN DETAILS
PARKING, LOADING, AND TRAFFIC CALMING
5.1 OVERVIEW

The Hazlett Lake’s mobility network has been designed in accordance with Red Deer’s Multimodal Transportation Plan and the Mobility Playbook, which recommends putting pedestrians first, building quality off-street pedestrian connections, locating transit stops within convenient walking distance of residents, and providing space for motorists to not infringe on alternative transportation methods.

The design of Hazlett Lake’s roadway network allows motorists to travel through the neighbourhood while minimizing impact on natural areas; whereas, the design of Hazlett Lake’s multi-use trail network encourages pedestrians to utilize direct routes and open spaces to travel through the community.

5.2 ACCESS

The ultimate, long-term access to the Hazlett Lake area will be via the multi-neighbourhood arterial roadway connection at C&E Trail as shown on Figure 4-16 of the North of Highway 11A Servicing Study. This roadway is shown as an arterial roadway which extends west from C&E Trail; looping north around the Hazlett Lake water body, through the NASP Plan Area, as a collector roadway; and connecting to Township Road 391.

5.2.1 TEMPORARY ACCESS

As the C&E Trail access is located outside of the NASP Boundary, a temporary access has been approved along Highway 11A to facilitate access to the neighbourhood prior to the development of adjacent parcels. This access has been approved through a Continued Temporary Access Agreement, held by the Developer and City of Red Deer.

DESIGN

The Hazlett Lake entrance roadway has been designed in the same manner as any other new roadway; as such, a 30.0m wide undivided arterial roadway cross-section has been used to appropriately handle anticipated traffic volumes.

CLOSURE

Pursuant to the Temporary Access Agreement, the temporary access will be closed following:

- completion of the Taylor Drive Permanent Access, or
- after a 2 year period following The City of Red Deer providing the Developer notification of closure.

To facilitate the closure of this access, the Developer will decommission the roadway and restore the area to a reasonable standard. Following the satisfactory completion of this work, the City will de-register the
Road Plan covering the temporary access and convey the resulting area to the Developer for a nominal consideration. At this time, the Developer may choose to consolidate the land with an adjacent property: either the commercial site or the natural space. Should the land be consolidated with the adjacent commercial site, it would be zoned in accordance with the stipulations identified in **Section 3.2.2 Commercial Use** as either C2B Commercial (District Shopping Centre) or R3 Residential (Multiple Family) District. Should the land be consolidated with the adjacent natural space, the land would be zoned P1 Parks and Recreation District.

**ALTERNATIVE ACCESS**

Should the Taylor Drive permanent access not be completed at the time of Hazlett Lake access closure, and is not expected to be completed within a reasonable time, the Developer will be required to construct an alternative access into the Plan Area. Pursuant to the Temporary Access Agreement, the alternative access will extend from Township Road 391 and be constructed using a 2 lane rural cross-section.

**5.2.2 INTERIM SECONDARY ACCESS**

Being that the short-term access into Hazlett Lake is via a single access point, an interim secondary access may be required for the neighbourhood prior to external roadway connections being constructed. In accordance to the ESDG, an interim secondary access will be provided to facilitate the continued development of the neighbourhood extending beyond 85 dwelling units, or as required by the Engineering or Emergency Services Department.
### Table 7 - Multi-Modal Movement

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<th>Mobility</th>
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<td>Pedestrians</td>
<td>Sidewalks</td>
<td>Local destinations</td>
<td>Sidewalks and trails are fully integrated into the neighbourhood</td>
<td>Removal from traffic via separated sidewalks on collector and arterial routes and multi-use trails</td>
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<td>Natural trails</td>
<td>Natural areas</td>
<td>Paid multi-use trails promote universal accessibility and provide short-cutting options</td>
<td>Highlighted mid-block crossings at key trail connections</td>
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<tr>
<td></td>
<td>Multi-use trails</td>
<td>Hazlett Lake major park</td>
<td></td>
<td>Monolithic sidewalks on local roadways</td>
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<tr>
<td></td>
<td>Linear parks</td>
<td>Destinations in adjacent neighbourhoods</td>
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<td></td>
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<tr>
<td>Cyclists</td>
<td>Sidewalks</td>
<td>Local destinations</td>
<td>Sidewalks and multi-use trails are fully integrated into the neighbourhood</td>
<td>Separation from traffic via separated sidewalks on collector and arterial routes and multi-use trails</td>
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<tr>
<td></td>
<td>Multi-use trails</td>
<td>Hazlett Lake major park</td>
<td>Separated sidewalk width and paved multi-use trails promote universal accessibility, multiple users, and provide short-cutting options</td>
<td>Highlighted mid-block crossings at key trail connections</td>
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<td></td>
<td>On-roads as part of regular traffic</td>
<td>Destinations inside and outside of neighbourhood</td>
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<tr>
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<td>Design of transit stops to be determined outside of NASP process</td>
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<td>Lanes</td>
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<td>Pedestrian-focused traffic calming along collector</td>
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</tbody>
</table>

### 5.3 ACTIVE TRANSPORTATION

As described in Table 7 - Multi-Modal Movement, the Hazlett Lake neighbourhood has been designed to encourage active modes of transportation which include; but are not limited to: jogging, walking, pushing a stroller, wheelchair users, cycling, skateboarding, riding a scooter, and rollerblading.

An inter-connected network of sidewalks and multi-use trails are intended to provide convenient active transportation routes throughout the neighbourhood. This network, as shown on Figure 11 - Proposed Active Transportation Network, separate motorists and pedestrians. Year-round maintenance of multi-use trails will be at the discretion of The City of Red Deer; however, it is anticipated they may be used in the winter either when cleared or while covered in snow for pulling sleds, etc.

Sidewalk widths are further described in Section 5.5 Street Types.

### 5.4 PUBLIC TRANSIT

To support multi-modal movement, a potential transit route is anticipated along the neighbourhood’s collector roadway. Potential transit stops have been proposed based on user convenience, safety, distance to residences, and in areas that encourage ridership. In accordance with the goals of The City of Red Deer Mobility Playbook and Multi-Modal Transportation Plan, proposed transit stops have been proposed at destinations including the commercial site and at the R3 Multi-Family site.

Due to the centralized location of the collector roadway, all residents will be located within 400.0m of the potential transit stops as shown on Figure 11 - Proposed Active Transportation Network; this distance represents a 5min walking distance. All proposed transit stops are conceptual only and are subject to review by The City of Red Deer; these stops will be dependent on passenger demand, funding, and neighbourhood build out.
LEGEND

- 1.5m Monolithic Sidewalk
- 1.5m Separated Sidewalk
- 2.5m Separated Sidewalk
- Multi-Use Trail / Regional Trail
- Pedestrian Crossing / Traffic Calming
- Commercial Area Walking Node
- Potential Transit Stop Location
- Out Parcel: Highway Widening

Note: Pedestrian crossings and potential transit stops are shown for illustration purposes only and will be designed in accordance with ESDG.
5.5 STREET TYPES
Roadways in Hazlett Lake have been designed to facilitate direct and convenient access to smaller development pods. As shown on Figure 12 - Proposed Transportation Network, a hierarchy of roadways has been used to accommodate the various traffic volumes anticipated throughout the community. Each roadway type is further described and shown below.

5.5.1 ARTERIAL ROADWAYS
One arterial roadway cross-section has been proposed for use in the Hazlett Lake neighbourhood to transport high volumes of traffic, transit vehicles, pedestrians, and cyclists.

30.0m Undivided Arterial Roadway
Designed in accordance to the ESDG, Hazlett Lake's entrance roadways, including the temporary access, have been proposed as a 30.0m wide undivided arterials to facilitate higher volumes of vehicular movement. As illustrated in the ESDG with a 15.8m wide carriage way, 2.5m separated sidewalks on either side of the roadway, and trees located behind the sidewalks. As requested by the City of Red Deer, a 3.0m wide multi-use trail will be constructed along one side of the roadway in place of the 2.5m wide sidewalk to facilitate multi-modal movement throughout the Hazlett Lake major park.

Due to the roadways' location adjacent to a commercial roadway and open space, no berm will be constructed along its shoulder.

5.5.2 COLLECTOR ROADWAY
The alignment of the neighbourhood’s collector roadway has been determined using the North of 11A MASP and Hazlett Lake MNP as a guide.

24.0m Residential Undivided Collector Roadway
Designed in accordance to the ESDG, the Hazlett Lake collector 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. This roadway standard was chosen to minimize the area required for infrastructure, incorporate street trees, and provide a wider separated sidewalk along one side of the road.

Based on the findings of the Hazlett Lake TIA, it is understood that the southeast-most portion of the collector roadway may experience traffic volumes which are slightly higher than those anticipated for typical collector roadways elsewhere in Red Deer. The elevated traffic volume level anticipated has been determined acceptable given the unique constraints of the Hazlett Lake Plan Area including the development constraint presented by the lake and access limitations created by Highway 2 and Highway 11A.

Key trail connections have been proposed along the collector roadway for the construction of pedestrian-focused traffic calming. These connections are further described in Section 5.7.2 Traffic Calming.

5.5.3 LOCAL ROADWAYS
15.0m Residential Undivided Local Roadway
The system of local roads has been planned to provide access to individual development clusters while discouraging outside traffic from short-cutting. These roadways 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.

5.5.4 LANES
The Hazlett Lake NASP has been designed with rear lanes where required; however, lanes have not been provided for lots backing onto the stormwater management facilities, Municipal Reserves, Environmental Reserves, or public utility lots. Any lanes adjacent to Municipal Reserves or public utility lots may have bollards installed to prevent short-cutting.
8.3m Primary Access Laneway
In areas with park-fronting homes, dwellings’ primary accesses will be via a paved rear lane. As illustrated in the ESDG, this lane will be 8.3m wide with two 3.75m wide travel lanes.

7.0m Laneway
All other lanes will be designed using a 7.0m wide right-of-way as per the ESDG.

5.6 ROADWAY DESIGN DETAILS
Hazlett Lake’s roadway network has been designed to utilize land in the most efficient ways possible and reduce the amount of infrastructure required thereby minimizing long-term maintenance costs and impervious surfaces. All roadways, intersections, and lane angles will be designed as per the ESDG and detailed in the Hazlett Lake Servicing Study, which will be completed following the approval of this NASP.

In an effort to design a pedestrian-first community, there are some areas of the neighbourhood where lanes have been divided by linear park spaces. In these areas, bollards will be installed to prevent vehicle access into park spaces.

All non-standard roadway cross-sections will be considered by The City of Red Deer during the time of Servicing Study.

5.6.1 DRIVEWAYS
Driveways will be designed in accordance to the ESDG to preserve boulevard space, accommodate trees, and improve on-street parking.

5.6.2 TURN-AROUNDS
Until such a time that development occurs surrounding the Hazlett Lake neighbourhood, roadways intended to connect into adjacent neighbourhoods will be constructed with temporary turn-arounds at their terminus.

All lane turn-arounds will be designed in accordance to the ESDG.

5.7 PARKING, LOADING, AND TRAFFIC CALMING

5.7.1 PARKING
On-site parking spaces will be provided for all residences in accordance to The City of Red Deer LUB. Residents will be encouraged to utilize rear parking where a lane is available.

On-street parking may be available in some areas, in accordance to the ESDG and Traffic Bylaw. The provision of on-street parking can function as a safety feature to pedestrians by acting as a buffer between sidewalks and motorists. It also narrows the roadway and adds uncertainty into drivers’ path of travel which has been shown to slow traffic and make drivers more aware of their surroundings.

5.7.2 TRAFFIC CALMING
Traffic calming measures will be utilized at pre-identified areas throughout the neighbourhood, as shown on Figure 12 - Proposed Transportation Network, to enhance both vehicular and pedestrian safety. These areas have been proposed at major trail crossings, aside from roadway intersections. The intent of utilizing traffic calming in these areas is to ensure motorists are aware that pedestrians may be entering the roadway, and make pedestrians more cautious by using formal crossings.

Traffic calming in Hazlett Lake will be designed in accordance to the ESDG and may include mid-block crossings and ‘rectangular rapid flashing beacons’ which temporarily signal pedestrians crossing the roadway. These traffic calming measures also provide physical and visual breaks along the collector roadway to introduce additional interest into the streetscape. Traffic calming measures are subject to approval by the Engineering Services department.
Figure 12.0
Transportation Network

Hazlett Lake - Calgary, Alberta

DRAWN BY: SAS
SCALE: NTS
PROJECT #: 112849442
CHECKED BY: GCL

#1100, 4900-50th Street, Red Deer, AB T4N1X7
Ph: (403) 341-3320 Fx: (403) 342-0969
July, 2018

7.0m Laneway
8.3m Primary Access Laneway
Future Roadway Extension
Temporary Access Road: 8.3m Undivided Arterial Roadway
30.0m Undivided Arterial Roadway
24.0m Residential Undivided Collector Roadway
15.0m Residential Undivided Local Roadway
7.0m Laneway
8.3m Primary Access Laneway
Future Roadway Extension
Temporary Access Road: 8.3m Undivided Arterial Roadway
30.0m Undivided Arterial Roadway
24.0m Residential Undivided Collector Roadway
15.0m Residential Undivided Local Roadway
7.0m Laneway

Legend

- Future Connection to C&E Trail
- Drainage Easement Wetland Extent
- Out Parcel: Highway Widening

Note: Pedestrian crossings and potential transit stops are shown for illustration purposes only and will be designed in accordance with ESDG.
30.0m Undivided Arterial Roadway Cross-Section.
24.0m Residential Undivided Collector Roadway Cross-Section

24.0m Residential Undivided Collector Roadway Cross-Section - Traffic Calming Area
5.8 OTHER

5.8.1 BERMS AND BUFFERS

Due to its location along two major highways, the Hazlett Lake neighbourhood is mindful of the potential noise and visual impacts of both Highway 2 and Highway 11A. To mitigate this noise, and also minimize resident views of the highway, buffers will be used along the west and south boundaries of the neighbourhood. These buffers will be detailed in the Hazlett Lake Servicing Study to ensure compliance with the ESDG and regulations identified in the LUB’s Major Entry Areas Development Standards. Preliminary design features of the berms are discussed below.

HIGHWAY 2

A continuous berm will be constructed within the development buffer along the west boundary of the Plan Area to provide sound and visual attenuation between Highway 2 and the development.

Although the detailed design of the berm will be determined during the creation of the Hazlett Lake Servicing Study, it is anticipated that the berm will be supplemented by a continuous sound attenuation fence built on top of the berm. The height of the berm and fence is anticipated to be approximately 3.0m-4.0m; variations may differ based on existing grades. Landscaping will be chosen in accordance with the ESDG and regulations identified in the LUB’s Major Entry Areas Development Standards.

The Highway 2 berm design is intended to be similar to similar projects in Red Deer along Highway 2. A 30.0m wide parcel of land has been provided to accommodate this berm, fence, and landscaping.

Above illustration is intended for conceptual visualization only.
HIGHWAY 11A

A continuous berm will be constructed within the development buffer along the south boundary of the Plan Area to provide sound and visual attenuation between Highway 11A and proposed residential development areas. This berm will be constructed only in areas where there is a residential development proposed alongside Highway 11A, not in areas where commercial uses or open spaces are proposed.

Although the detailed design of the berm will be determined during the creation of the Hazlett Lake Servicing Study, it is anticipated that the berm may be supplemented by a continuous privacy fence along the top of the berm to provide a visual buffer between the residential areas and the adjacent industrial development. Unlike Highway 2, a sound attenuation fence is not proposed along Highway 11A; this is because the majority of Highway 11A is not single family residential in nature. In addition, sound fences are not used elsewhere in Red Deer along similar roadways. Landscaping will be chosen in accordance with the ESDG and regulations identified in the LUB’s Major Entry Areas Development Standards.

A 20.0m wide parcel of land has been provided to accommodate this berm, fence, and landscaping.
6. INFRASTRUCTURE AND SERVICING

OVERVIEW
WATER SERVICING
SANITARY SEWER SERVICING
STORMWATER SERVICING
GARBAGE, RECYCLING, AND SNOW CLEARING
UTILITIES (SHALLOW UTILITIES, POWER DISTRIBUTION, ETC.)
6. Infrastructure and Servicing

6.1 OVERVIEW
Servicing for Hazlett Lake will consist of connecting into trunk water and sanitary sewer infrastructure proposed to be constructed along the Highway 11A corridor.

6.2 WATER SERVICING
The Hazlett Lake Plan Area will be serviced from existing water distribution system in north Red Deer. During times of high water demand, Hazlett Lake will be serviced from the future North Water Reservoir which will be constructed near the intersection of Gaetz Avenue and Highway 11A. A trunk water system, stretching through future development areas to the east, will feed water to the Hazlett Lake Plan Area.

In the interim, prior to the construction of the North Water Reservoir along with the Highway 11A trunk water line, Hazlett Lake will be serviced from the Queens Water Reservoir. As illustrated in The City of Red Deer North of Highway 11A Servicing Study, a trunk water line will be constructed from the Queens Water Reservoir, across Highway 2, and into the Hazlett Lake development. Depending on the rate of industrial growth in the Queens Industrial Park, and residential growth around Hazlett Lake, the Queens Reservoir has capacity to service this development for several years.

From the Queens Industrial Park trunk watermain feed, watermains will be constructed throughout the Hazlett Lake development to meet both the domestic and fire protection needs of the neighborhood.

The alignment of these proposed mains is shown on Figure 16 - Proposed Water Servicing. As shown, most of the water servicing will be via the rear laneway; however, in some instances servicing will be from the front street. Water stub connections have been provided along both the north and east boundaries of the Plan Area to facilitate connections into future development areas.

All water mains in this development will be designed in accordance with the ESDG in the Hazlett Lake Servicing Study.

6.3 SANITARY SEWER SERVICING
The wastewater generated by the Hazlett Lake neighbourhood will be conveyed by a gravity sewer collection system to a proposed lift station, to be constructed at the entrance to the neighbourhood along Highway 11A. This lift station will be located adjacent to the proposed temporary access roadway in a Public Utility Lot and is proposed to pump the wastewater into the proposed Sylvan Lake Regional Wastewater Line (SLRWL).
The SLRWL is scheduled to begin construction in 2018, along the Highway 11A corridor, and will transport wastewater generated from the Town of Sylvan Lake to the City of Red Deer’s Wastewater Treatment Plant.

To facilitate pumping into this line, formal approval is required from the Regional Wastewater Commission. Although approval has not yet been obtained; provision have been made in the design of the line to service the Hazlett Lake development through the installation of a service tee, located adjacent to the proposed Hazlett Lake lift station.

In the event that a formal agreement cannot be reached between the Developer and the Regional Wastewater Commission, the proposed Hazlett Lake lift station will connect to a future City of Red Deer force main, to be constructed along Highway 11A, extending from the intersection of Highway 11A and Gaetz Avenue.

Access to the lift station is proposed through the commercial site's internal roadway network, facilitated through an access agreement. No access to the lift station is intended from the proposed temporary access. Specific design elements of the lift station access will be detailed in the site's Development Permit.

As illustrated on Figure 17 - Proposed Sanitary Servicing, it is anticipated that the majority of the servicing will be from the rear laneway except in locations where natural features are proposed for preservation, including tree stands. In these locations the lot servicing will be from the mains located in the street.

All sanitary sewer facilities will be designed in accordance with the ESDG in the Hazlett Lake Servicing Study.

6.4 STORMWATER SERVICING

As shown on Figure 18 - Proposed Stormwater Servicing, underground storm pipe infrastructure will be routed throughout the community to collect stormwater during rain events and direct it to the stormwater management facilities, designed as storm ponds.

The Hazlett Lake Concept Plan is proposed to retain a majority of the south west drainage course. Culverts will be located at the roadway crossing as well as under the noise berm along the Highway. The small volume of water that enters the east leg of the drainage course will be diverted east to the existing Highway 2 on-ramp ditch. This ditch outlets to Hazlett Lake at location near the proposed temporary access roadway. Prior to construction proceeding, a Wetland Assessment will be completed and the Developer will make a Water Act application to Alberta Environment and Parks for any wetland habitat that maybe impacted in this area.

Based on preliminary stormwater management calculations, two storm ponds have been proposed for
the Hazlett Lake development. These storm ponds will intercept stormwater and provide treatment and sediment removal prior to its controlled discharge into the Hazlett Lake water body. Settling ponds (forebays) will be utilized to remove sediments that come off the developed surface. The Developer will be required to meet or exceed Alberta Environment and Parks (AEP) requirements for sediment removal. Based on the post development flows, the ponds will be sized to allow sediments to settle out prior to discharging into Hazlett Lake; the water level in the ponds will slow the flows down and provide time for settlement of the particles to take place. In this way, the storm ponds will act as a tool used to protect the ecological integrity of the lake. In accordance with the ESDG, storm ponds will be located in Public Utility Lots, sized to accommodate the high water level plus the freeboard.

An outlet is located at the northeast corner of the lake which releases water into an existing drainage course, only during very extreme rainfall events. This drainage course connects to the Red Deer River. The City of Red Deer is currently proposing enhancements to this outlet.

As illustrated, there are servicing stubs which will provide connections to future development areas north of the Plan Area. All stormwater infrastructure will be designed in accordance with the ESDG in the Hazlett Lake Servicing Study.

6.5 GARBAGE, RECYCLING, AND SNOW CLEARING

All roadways in Hazlett Lake will be designed in consultation with the City of Red Deer and in accordance with the ESDG to facilitate the collection of garbage, recycling, and snow removal.

6.6 UTILITIES (SHALLOW UTILITIES, POWER DISTRIBUTION, ETC.)

Shallow utility services will 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 Northland Drive in order to service the Plan Area. The shallow utility alignments will be established during preparation of the Hazlett Lake Servicing Study.
Figure 17 - Proposed Sanitary Servicing

Prepared for:

V:\1128\ACTIVE\112849442\05B_DWGS_PRELIM\PLA\49442C_MF.DWG Updated 18/07/19, 8:45 AM; By: LGRANIGAN

Legend:
- Sanitary Servicing
- Sanitary Flow Direction
- Neighbourhood Area Structure Plan Boundary
- Sanitary Manhole
- Connection to Regional Sewer Line
- Sanitary Stub
- Lift Station
- Drainage or Regional Wastewater Line
- Easements: Drainage or Regional Wastewater Line
- NASP Boundary
- Future Connection to C&E Trail
- Drainage Easement
- Wetland Extent

Hazlett Lake Neighbourhood Area Structure Plan

Figure 16.0
Sanitary Management
Hazlett Lake - Calgary Alberta
DRAWN BY: SAS
SCALE: NTS
PROJECT #: 112849442
CHECKED BY: GCL
#1100, 4900-50th Street, Red Deer, AB T4N1X7
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July, 2018
7. DEVELOPMENT AND PHASING

OVERVIEW
REDESIGNATION AND SUBDIVISION PLAN INTERPRETATION
7.1 OVERVIEW

The development of Hazlett Lake has been divided into several phases beginning in the southeast and extending northwest. Infrastructure to service the first phase of Hazlett Lake will be extended from the south with each successive stage developed with the logical and economical extension of municipal services, intended to meet the needs of the regional and local housing market.

The phasing boundaries shown on Figure 19 - Proposed Phasing Plan are conceptual in nature and may vary when redesignation and subdivision applications are made. 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.

7.2 REDESIGNATION AND SUBDIVISION

Proposed redistricting and subdivision applications, align with the land use designations described in this NASP, will be undertaken as necessary. Guided by the MDP, North of Highway 11A MASP, and Hazlett Lake NASP, redesignation and subdivisions must conform to the LUB and not conflict with statutory plans.

7.3 PLAN INTERPRETATION

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

All area calculations presented in this NASP have been determined using AutoCAD measurements, recorded in m². Calculations are completed in the unit of m² and then converted into hectares and acres, rounded to the nearest hundredth. Due to the conversion and subsequent rounding shown in this NASP, it is recognized that not all numbers or calculations appear correct, specifically for small areas such as linear parks.

7.3.1 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. Amendments will be required if changes are made to roadway alignments or land uses. Changes may include adding or removing a public road, adding or removing a public utility lot, or re-designating a parcel of land from one land use to another. An amendment will not be necessary if the intent of the NASP does not change such as minor servicing revisions, minor land use boundary changes, or minor alignments to roadway or land cross-sections.
7.3.2 FINANCIAL IMPLICATIONS
Following a predetermined maintenance period, as identified in the Hazlett Lake Development Agreement, all infrastructure and public spaces will become the responsibility of The City of Red Deer.

7.3.3 ENVIRONMENTAL PRESERVATION
As described below, protective measures will be put in place to minimize the potentially negative impact on existing vegetation, Hazlett Lake, any wildlife, and prevent erosion during the construction of the community.

- Clearing and grading will be undertaken on a phased basis to minimize sediment load and erosion potential.
- In accordance with the ESDG, a fence will be constructed surrounding the Environmental Reserve area prior to development prevent encroachment, clearing, or grading.
- Protective silt fencing will be installed surrounding the Hazlett Lake water body and natural drainage course until the surrounding construction and landscaping has been completed.
- Vegetation clearing and existing building disturbance will be completed outside of the breeding bird restricted activity period (April 15 - July 30).
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Legend:

- **Phase Number**
- **Proposed Phasing Boundary**
- **Pedestrian Crossing / Traffic Calming**
- **Out Parcel / Highway Widening**
- **Basements: Drainage or Regional Wastewater Line**
- **NASP Boundary**

Note: Pedestrian crossings and potential transit stops are shown for illustration purposes only and will be designed in accordance with ESGD.
Appendix A.  Scaled Concept Plan
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A. Scaled Concept Plan
Figure A1
Concept Plan

Legend:
- R1 Residential (Low Density) District
- R1N Residential (Narrow Lot) District
- R1A Residential (Semi-Detached Dwelling) District
- R2T Residential (Town House) District
- R3 Residential (Multiple Family) District
- R1G Residential (Small Lot) District
- C2B Commercial (District Shopping Centre) District
- R3F Residential (Town House) District
- Neighborhood Node
- Potential Bus Stop Location
- Potential Entry Feature Location
- Public Utility of Stormwater Management Facility
- Neighbourhood Area Structure Plan Boundary
- Park Fronting Homes
- Asphalt Trail
- Municipal Reserve
- Environmental Reserve
- Stormwater Management Facility
- Community Amenity Site
- Neighborhood Node

Hazlett Lake - Calgary Alberta

DRAWN BY: SAS
SCALE: NTS
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November 2018
Appendix B. Development Checklist
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B. Development Checklist

B.1 GENERAL PURPOSE

The purpose of the Development Checklist is to highlight conditions associated with 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 checklist does not form part of bylaw for the approved area structure plan.

The development conditions listed below may be incorporated into The City of Red Deer GIS (Web Map) system.

B.2 SERVICING STUDY AND DETAILED DESIGN

B.2.1 LANDSCAPING AND THE PUBLIC REALM

- Decrease the use of toxic pest control products throughout with the use of native plant species and naturalized landscaping, to be designed during the landscape design stage.
  » Reference: Environmental Master Plan (2011) on page 14
- Reduce impact on nocturnal wildlife by utilizing dark sky lighting fixtures in public areas as identified during the detailed design stage.
  » Reference: Environmental Master Plan (2011) on page 14
- Reduce overall energy consumption through the use of LED lighting in public areas.
  » Reference: Environmental Master Plan (2011) on page 14
- The entry features located along the temporary access roadway will be designed to be moved following the roadway’s closure. It is anticipated that the features would be moved to the south east entrance of the community, along the east boundary of the Plan Area, to reflect the location of the long-term access into the neighbourhood.
  » Reference: Section 2.3 Built Form and Public Realm on page 27

- Naturalized and native landscaping materials will be utilized throughout the neighbourhood’s public areas, where reasonable, to minimize the potential for pesticides and fertilizers to enter the lake.
  » Reference: Principle 7 - Resilient & Low Impact Neighbourhoods on page 30
- As recommended in the Hazlett Lake desktop biophysical review, manicured grasses surrounding Hazlett Lake may be limited to deter the nesting of Canada geese.
  » Reference: Principle 7 - Resilient & Low Impact Neighbourhoods on page 30
- The Developer will work with The City of Red Deer to further design public areas using CPTED principles which may include selecting street furniture and materials that reduce the potential for graffiti.
  » Reference: Principle 8 - Safe Neighbourhood on page 31
- The Developer will work with The City of Red Deer during the time of detailed design to ensure park fronting homes are properly numbered and illuminated, enhancing their visibility to delivery personnel and emergency services. A sidewalk will be provided along the park interface to facilitate convenient access.
  » Reference: Section 3.4.8 Park Fronting Homes on page 49
- Amenities in natural spaces will be limited to multi-use trails, occasional seating nodes with refuse containers; and the potential inclusion of wayfinding signage. The regional trail surrounding Hazlett Lake will be designed as a portion of the Hazlett Lake major park and City’s Waskasoo/TransCanada Trail network and is estimated at a total distance of 4.0km circling the entire water body. Multi-use trails constructed in conserved tree areas will be field-fitted where required to minimize impact and tree removal and designed to a minimum of 2.5m wide.
The location and design of play areas will be determined in consultation with the City of Red Deer during the time of landscape design to ensure sufficient setbacks are maintained from stormwater ponds and any nearby slopes.

B.2.2 TRANSPORTATION NETWORK

ROADWAY CROSS-SECTIONS
- All roadways cross-sections shown in this NASP, which are not standard to The City of Red Deer, will be reviewed and confirmed during the Hazlett Lake Servicing Study stage.
- Due to the undivided arterial roadway location adjacent to a commercial roadway and open space, no berm will be constructed along its shoulder.

ACCESS
- The ultimate, long-term access to the Hazlett Lake area will be via the multi-neighbourhood arterial roadway connection at C&E Trail as shown on Figure 4-16 of the North of Highway 11A Servicing Study.

TEMPORARY ACCESS
- A temporary access has been approved along Highway 11A to facilitate access to the neighbourhood prior to the development of adjacent parcels. This access has been approved through a Continued Temporary Access Agreement, held by the Developer and City of Red Deer.
- The temporary access must follow the regulations identified in the existing Continued Temporary Access Agreement between the City of Red Deer and Hazlett Lake Development Group.
- In addition to the construction and closure regulations identified in the Agreement, generally described within the NASP, the Developer must all complete sufficient advertising of the temporary nature of the access by undertaking the following:
  - Prominently include the temporary nature of the access in all sales and advertising materials.
  - Register a Caveat against each lot title to describe the temporary nature of the access.
- Pursuant to the Temporary Access Agreement, the temporary access will be closed following: completion of the Taylor Drive Permanent Access or after a 2 year period following The City of Red Deer providing the Developer notification of closure.

DETAILED DESIGN
- All roadways, intersections, and lane angles will be designed as per the ESDG and detailed in the Hazlett Lake Servicing Study, which will be completed following the approval of this NASP.
- Mid-block crossings will be detailed in the Hazlett Lake Servicing Study and utilize traffic calming methods to maximize pedestrian safety.

LANES
- In areas where lanes have been divided by linear park spaces, bollards will be installed to prevent vehicle access into park spaces; however, the Developer will work with The City of Red Deer to determine if access can be provided in an alternative way to allow through access by emergency or garbage collection vehicles.

BERMS
- The berm design for Highway 2 will be determined during the creation of the Hazlett Lake Servicing Study. It is anticipated that the berm will be supplemented by a continuous sound attenuation fence built on top of the berm.
The detailed design of the berm along Highway 11A will be determined during the creation of the Hazlett Lake Servicing Study. It is anticipated that the berm may be supplemented by a continuous privacy fence along the top of the berm to provide a visual buffer between the residential areas and the adjacent industrial development. A sound attenuation fence is not proposed along Highway 11A.

B.2.3 SERVICING
- To facilitate sanitary sewer pumping into the SLRWL, formal approval is required from the Regional Wastewater Commission.

B.3 TOP SOIL STRIPPING AND GRADING
- Detailed field studies (biophysical review) to support Federal and Provincial regulatory requirements will be required prior to development.
- A field-delineated wetland assessment will be completed prior to construction to outline compensation required for the removal of smaller wetlands and support Water Act applications.
- A wildlife survey will be required to confirm the presence of habitat and/or protected features.
- Prior to construction proceeding, a Wetland Assessment will be completed and the Developer will make a Water Act application to Alberta Environment and Parks for any wetland habitat that may be impacted in this area.

B.4 REDISTRICTING
- The west and south boundaries of the Plan Area are identified in the LUB as “Major Entry Areas”.
- Alberta Environment and Parks will be responsible for determining the compensation required for the removal of the wetland within Hazlett Lake based on the Alberta Water Policy.
- Information regarding this process will be provided to The City of Red Deer by the Developer outside of the NASP process.
- Clearing and grading will be undertaken on a phased basis to minimize sediment load and erosion potential.
- A fence will be constructed surrounding the Environmental Reserve area prior to development to prevent encroachment, clearing, or grading.
- Protective silt fencing will be installed surrounding the Hazlett Lake water body and natural drainage course until the surrounding construction and landscaping has been completed.
- Vegetation clearing and existing building disturbance will be completed outside of the breeding bird restricted activity period (April 15 - July 30).
- As recommended in the Desktop Biophysical Review, a Rare Plant Survey and Weed Survey should be completed as part of the Wetland Assessment.

• Should a suitable purchaser for the commercial site not be found; the site may be developed for a R3
Residential (Multiple Family) District use.

» Reference: Section 3.2.2 Commercial Use on page 36

• Should a suitable purchaser for the community amenity site not be found within the one-year timeline; the site may be developed for a R3 Residential (Multiple Family) District use.

» Reference: Section 3.2.5 Community Amenity Site on page 37

• The City will de-register the Road Plan covering the temporary access and convey the resulting area to the Developer for a nominal consideration. At this time, the Developer may choose to consolidate the land with an adjacent property.

» Reference: Section 5.2.1 Temporary Access on page 62

B.5  SUBDIVISION

• A development buffer surrounding the Hazlett Lake water body’s bed and shore has been preserved using a 20.0m wide Environmental Reserve dedication.

» Reference: Section 1.3.4 Vegetation on page 21

• The Hazlett Lake neighbourhood has dedicated 11.3% of its Developable Area as MR, an excess of the required 10% dedication. This over-dedication is a commitment by the Developer to conserve natural areas and provide high quality open spaces for residents to enjoy; as such, The City of Red Deer will not be required to compensate the Developer for the overage of MR.

» Reference: Table 1 Land Use Allocation on page 41

B.6  DEVELOPMENT

• The west and south boundaries of the Plan Area are identified in the LUB as “Major Entry Areas”.

» Reference: Land Use Bylaw 3357/2006 on page 9

• A Historical Resource Act Clearance has been obtained for the development.

» Reference: Historical Resources on page 4

• R1A units along the collector roadway will not be encouraged to have front garages or driveways to enhance landscaping connectivity and reduce accesses onto the collector.

» Reference: Section 3.4.4 R1A Semi-Detached Residential on page 46

• R2T units along the collector roadway will not be encouraged to have front garages or driveways to enhance landscaping connectivity and reduce accesses onto the collector.

» Reference: Section 3.4.5 R2T Town House Residential on page 47

• To protect public areas and prevent encroachment, the Developer will construct consistent, permanent, visually permeable fencing along Environmental Reserves, Municipal Reserves, and Public Utility Lots on a phased basis. This fencing will be located on private property and be the responsibility of the home owner to maintain in the long-term.

» Reference: Section 4.4 Open Space Fencing on page 58

• An interim secondary access will be provided to facilitate the continued development of the neighbourhood extending beyond 85 dwelling units, or as required by the Engineering or Emergency Services Department.

» Reference: Section 5.2.2 Interim Secondary Access on page 63

• A shared access agreement will be required to access the sanitary lift station through the commercial property.

» Reference: Section 6.3 Sanitary Sewer Servicing on page 76

B.7  PLAN AMENDMENTS

• Amendments will be required if changes are made to roadway alignments or land uses. Changes may include adding or removing a public road, adding or removing a public utility lot, or re-designating a parcel of land from one land use to another. An amendment will not be necessary if the intent of the NASP does not change such as minor servicing revisions, minor land use boundary changes, or minor alignments to roadway or land cross-sections.

» Reference: Section 7.3.1 Amendments on page 84