



Oxford LANDING

Where life takes flight.

OUTLINE PLAN

Melcor Developments Ltd.
Town of Penhold

Approved June 11, 2012
Amended 2019



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PREFACE

The Town of Penhold offers attractive neighbourhoods surrounded by economic, recreational, and social amenities. Due to these characteristics, its location within the Highway 2A Corridor, and proximity to surrounding communities; the Town provides an excellent opportunity for new residential and commercial development.

The purpose of the Oxford Landing Outline Plan is to describe the land use framework and development objectives for the parcel of land generally described as the SE $\frac{1}{4}$ of Section 01-37-28-W4M. This Outline Plan describes the overall vision for the development by identifying recreational amenities, the variety of housing options, land uses, servicing, and staging for Oxford Landing.

Oxford Landing is located in the northern portion of the Town of Penhold on the east side of Highway 2A. The development encompasses an area of approximately 51.3 hectares (126.7 acres).

Stantec Consulting Ltd. has developed this Outline Plan on behalf of Melcor Developments Ltd, hereafter referred to as the Developer. As described in the remainder of this Plan, Oxford Landing will become a neighbourhood with complementary residential, commercial, and business land uses integrated with recreational opportunities such as interconnected parks, trails, and open spaces. As a result of its high-quality design, Oxford Landing will be a very desirable neighbourhood within the Town of Penhold.

1.0 PLAN AREA

As shown in **Figure 1 - Location Plan**, Oxford Landing is located in the north portion of the Town of Penhold. The Plan Area encompasses 51.3 hectares (126.7 acres) with Highway 2A along its west boundary, Highway 42 along its south boundary, and the Penhold Regional Multiplex to the southeast. The following boundaries define the Plan Area:

North Boundary:	Undeveloped agricultural farm land
West Boundary:	Highway 2A
South Boundary:	Highway 42, HawkrIDGE Estates
East Boundary:	Waskasoo Avenue (Range Rd 280)

The Oxford Landing Outline Plan constitutes a logical planning unit with respect to identifiable Plan boundaries and servicing considerations.

1.1 POLICIES & RELEVANT PLANNING DOCUMENTS

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

- The Town of Penhold Municipal Development Plan (MDP) (2010)
- The Town of Penhold Land Use Bylaw (LUB) (No. 661/11)
- Town of Penhold Streetscape Design Guidelines (2008)
- Parkland Geotechnical Ltd. – Phase One Environmental Site Assessment (2007)
- Parkland Geotechnical Ltd. – Phase Two Environmental Site Assessment (2007)

An Outline Plan facilitates the orderly development of an area in terms of proposed land uses, density of development, and location of the transportation network by describing the land use pattern and development objectives for the Plan Area by identifying the following:

- the size and location of various land uses,
- the alignment of roadways and lanes,
- the open space system,
- the proposed development density,
- servicing concepts for deep utility servicing, and
- the development staging sequence.

It is the intention of the Oxford Landing Outline Plan to be consistent with the guidelines and intentions of all existing Town of Penhold planning documents. The Outline Plan is envisioned to be a complementary document to be used in association with existing Town of Penhold planning documents. While the Plan has not been prepared as a statutory document, it follows the guidelines and policies set forth by the Town of Penhold for the development of new areas such as the Town of Penhold Municipal Development Plan.

Penhold's MDP outlines broad policies for guiding growth and changes within the Town. Among many other things, the MDP sets out the following policies regarding neighbourhood design:

- Residential density in new neighbourhoods should average between 10.0 to 12.5 dwelling units per gross developable hectare.
- The Town shall continue to require a mix of housing types and forms in all residential neighbourhoods.
- Buffers shall be provided between varying land uses (ie: highways and residential or commercial developments).

- The Town shall strive to achieve a 40:60 ratio of non-residential to residential assessment by encouraging appropriate economic development.

1.2 PROCESS

The Developer worked with the Town of Penhold during the initial design process of Oxford Landing (2012) to ensure the needs of the Town were met. The Oxford Landing Outline Plan was submitted to the Town of Penhold for review by the Developer to gain feedback. After the review, the Town provided comments and suggestions regarding the design, layout, and Outline Plan document. Subsequent to revisions, the Plan was resubmitted for final review and circulation by the Town to stakeholders such as the local school divisions and health district.

An Open House was held on February 9, 2012 to present the Oxford Landing development to the community at the request of the Town of Penhold. During this time, residents of the Town were given the opportunity to view the concept plan and illustrations of the neighbourhood to gain a greater understanding of the development.

The Plan was then presented to Council by administration with the Developer present to field questions from Council and the public. Following the presentation, Council endorsed the Outline Plan on June 11, 2012.

1.2.1 AMENDMENT - 2019

Since the Outline Plan's approval in 2012, the market demands in Central Alberta have changed; with housing preferences shifting towards higher density housing options. To reflect current housing preferences, Oxford Landing concept created additional multi-family housing options which increases the overall affordability of the neighbourhood.

The Amendment also includes a continuous Municipal Reserve dedication along the east and south boundaries of the Plan Area and a rezoning of the southeast commercial site from C1 General Commercial use to C2 Highway Commercial.

1.2.2 Existing Construction

At the time of the 2019 Amendment, Phase One of the Oxford Landing neighbourhood has been constructed which consists of servicing for 60 residential lots. Areas of existing construction have been shown on **Figure 2 - Existing Conditions**.

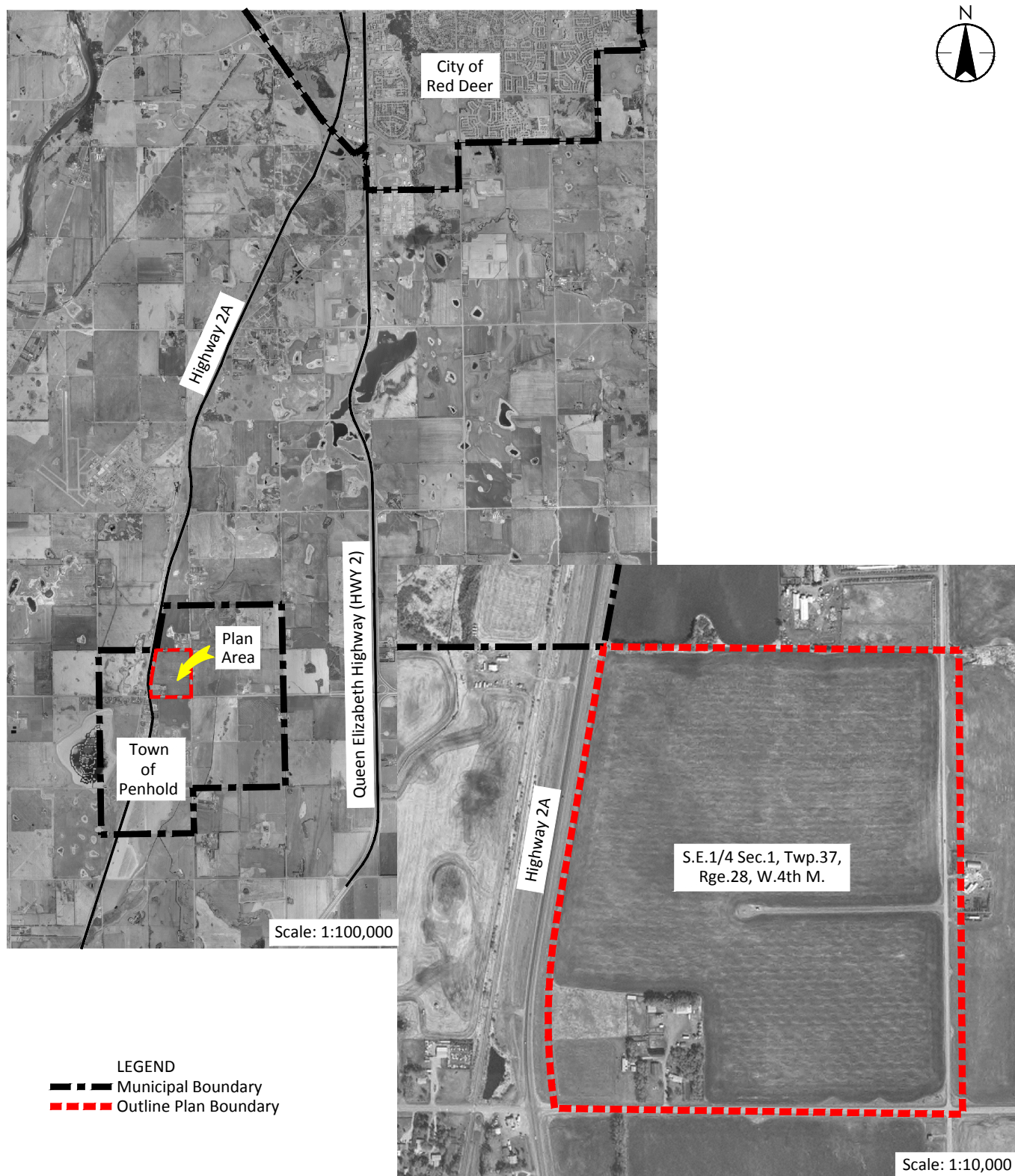


Figure 1.0
Location Plan
Oxford Landing Outline Plan

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May 2019

2.0 SITE CONTEXT AND DEVELOPMENT CONSIDERATIONS

2.1 EXISTING & NATURAL FEATURES

The majority of the land located within the Oxford Landing Plan Area is undeveloped agricultural farm land with the exception of a farmhouse settlement and an active oil well site.

A small grouping of mature trees, utilized as a windbreak, is present on the residential property while the remaining vegetation in the Plan Area consists of agricultural crops. All natural and manmade features are shown on **Figure 2 - Existing Conditions**.

2.2 TOPOGRAPHY & SOILS

The topography of the Plan Area is relatively flat with the east portion of the property sloping towards the Waskasoo Creek, located approximately 500.0m east. The highest point on the site is located in the southwest along Highway

2A at approximately 902.0m; the lowest point is located in the northeast at approximately 896.0m for a total relief of 6.0m.

Based on the Phase 1 & 2 Environmental Site Assessment conducted by Parkland Geotechnical Ltd. in 2007, the Plan Area's soil profile consists of fill materials overlying deposits of silty clay followed by sand at approximately 4.0m deep. The groundwater flow direction in this area is east toward the Waskasoo Creek.

2.3 ADJACENT LANDS & SURROUNDING DEVELOPMENT

Lands west, north, and east of Oxford Landing are undeveloped agricultural farm land. The residential neighbourhood HawkrIDGE Estates is located south of Oxford Landing, across Highway 42. HawkrIDGE Estates has commercial



development along Highway 2A which includes a variety of commercial uses.

The Penhold Regional Multiplex is located kitty-corner to the southeast of the Plan Area across the Highway 42/Waskasoo Avenue intersection. This facility provides the Town and surrounding communities with an arena, gymnasiums, dance studios, fitness centre, meeting rooms, and a library. The Penhold Multiplex site also accommodates Penhold Crossing Secondary School, a public grade 7 to 12 school.

2.4 CURRENT LAND OWNERSHIP

Most of Oxford Landing is owned by Melcor Developments Ltd; areas that have been developed are owned by builders or personal homeowners.

2.5 ENVIRONMENTAL SITE ASSESSMENT

Parkland Geotechnical Ltd. completed an Phase 1 and 2 Environmental Site Assessment (ESA) for the Plan Area in March of 2007. The report showed that the Plan Area contained three water wells, three above ground storage tanks, and formerly had two underground storage tanks. The underground storage tanks were used for fuel and waste oil.

The following concerns were identified during the Phase 1 ESA as posing potential environmental risk to the Plan Area. A Phase 2 ESA was completed to assess the soil and ground water quality in the areas of the removed tanks.

In the area of the former underground fuel tank, a soil sample was taken with results showing that the soil was over the Alberta Tier 1 Assessment Criteria for petroleum hydrocarbon vapors. The ESA recommended removing the impacted soil from the subject property. The contamination in the area of the underground fuel tank appeared to be stable as the groundwater table below the

affected soil had not been significantly impacted above criteria.

In the area of the above ground oil storage tank, the soil sample taken was also over the criteria for petroleum hydrocarbon vapors. The ESA recommended removing the impacted soil from the subject property for landfill disposal.

The Phase 1 and 2 ESAs rated the subject property low for the potential of environmental risk, provided development setbacks near pipelines and facilities are met. All recommendations for the localized petroleum hydrocarbon vapors contamination issues were addressed and remediated.

Prior to the Development Agreement stage, written confirmation will be provided that the findings of the ESAs are still relevant and whether the potable groundwater table has been impacted by the soil conditions as noted above. Written confirmation will be provided by a geotechnical engineer or other qualified professional. In the event that the findings and recommendations of the ESA are no longer relevant, the written documentation will identify any changes and recommend mitigation measures that will be reflected in the Development Agreement.

2.6 EXISTING UTILITIES

There are two gas line rights-of-way, both running from north to south, and an active well located in the Plan Area, as shown on **Figure 2 - Existing Conditions**.

2.6.1 Gas Lines

The western-most gas line runs through the northern portion of the Plan Area and stops near the center of the Plan Area at a well head. This pipeline is owned by TAQA North Ltd.

The eastern-most gas line runs parallel alongside the TAQA line from the quarter section to the north of the Plan Area, through the site, and into

the quarter section to the south. This pipeline is owned by Canadian Western Natural Gas Company Ltd.

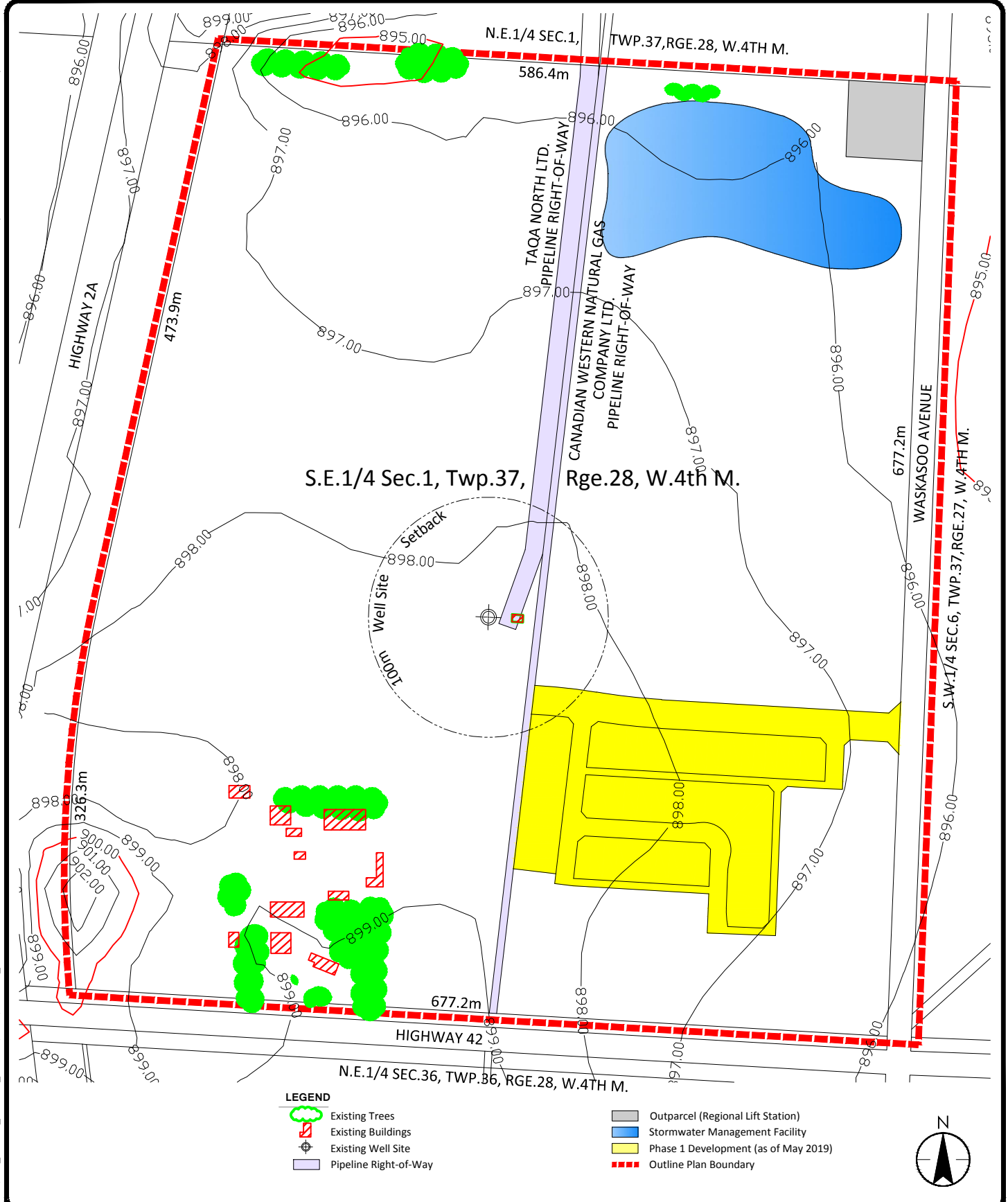


Figure 2.0
Existing Conditions
Oxford Landing Outline Plan

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3.0 PLANNING OBJECTIVES

3.1 OVERVIEW

The Oxford Landing Outline Plan has been prepared for a comprehensively planned neighbourhood which takes advantage of its location along Highway 2A and proximity to surrounding areas and amenities.

The main objectives of this Outline Plan are:

- Develop a Plan consistent with the general intent and purpose of The Town of Penhold Municipal Development Plan (MDP).
- Provide a framework to deliver a high-quality, comprehensively planned neighbourhood by defining the general pattern and composition of land uses, transportation and pedestrian linkages, servicing, and development staging.
- Provide the Town of Penhold with a clear and accurate vision of the Plan Area once developed.

- Protect and enhance Penhold's gateway to the Multiplex and the overall impression of the Town to visitors by requiring a high level of design standards.
- Identify how to implement the Plan in an orderly, phased manner.

3.2 RESIDENTIAL POLICIES

- Encourage a variety of single and multi-family housing types by recognizing consumer preferences while still conforming to standards and policies set forth by The Town of Penhold.
- Design pedestrian-friendly streetscapes.
- Provide direct and safe pedestrian linkages to the community nodes and adjacent areas.
- Locate residential development to take advantage of open space features such as parks, trails, and the stormwater management facility.





- Orientate larger parcels of medium or high density residential development adjacent to the collector roadways to ensure accessibility and, where appropriate, to provide a transitional land use between adjacent single family development and commercial developments or major roadways.
- Average 10.0 to 12.5 dwelling units per gross developable hectare (4-5 du/acre).
- Ensure single detached dwellings do not exceed 70% of the total housing stock.

3.3 PARKS & OPEN SPACE POLICIES

- Through the dedication of Municipal Reserves, locate and provide open space to service the passive and active recreation needs of Oxford Landing and adjacent neighbourhoods' residents.
- Where possible, economically viable, and sustainable; utilize ROW, stormwater management facilities, and public utility lots to provide pedestrian linkages and open space recreational opportunities.

- Locate open spaces based on anticipated function and need of the surrounding area.

3.4 TRANSPORTATION POLICIES

- Provide a safe and efficient transportation system within the Plan Area to address the vehicular and non-vehicular transportation needs of residents moving to, from, and within Oxford Landing.
- Provide non-vehicular circulation options throughout Oxford Landing with special attention to linkages to the commercial sites, multi-family housing, and open spaces.
- Minimize walking distances by creating an interconnected network of trails and sidewalks.
- Develop streetscapes that minimize vehicular dependence and engage pedestrians.
- Design the transportation network to limit direct access into the neighbourhood from Highway 2A.
- Connect the primary collector roadway to Highway 42 to facilitate access to the Penhold Regional Multiplex, the high school, and the rest of the Town of Penhold.

- Provide alternative transportation options by way of pedestrian amenities such as linked open space and trails.

3.5 ECOLOGICAL STEWARDSHIP POLICIES

- Develop land in an efficient manner and encouraging urban development through a variety of housing options.
- Encourage naturalized landscaping on public and private lands to a level acceptable to the Town of Penhold in order to minimize environmental and economic costs associated with their maintenance.
- Promote the development of interconnected open spaces and walkway linkages between adjacent neighbourhoods and Oxford Landing for pedestrians, bicycles, and other non-vehicular modes of travel.
- Encourage energy efficient construction and other innovative building and infrastructure techniques.
- Highlight the small-town character of Penhold, and rural Alberta, through the use of open space within the development.

3.6 COMMERCIAL POLICIES

- Provide a location for commercial development which is a walkable destination for residents.
- Locate the commercial sites along Highway 2A to provide convenient access to and from the site for the travelling public.
- Ensure commercial area are located to minimize any potential negative impacts to the residential areas of Oxford Landing and surrounding neighbourhoods.
- Provide a mix of commercial and business tenants to provide service/ shopping/ employment opportunities for local residents and surrounding neighbourhoods.
- Encourage the development of commercial-office/ business park by identifying appropriate locations.
- Locate and provide opportunities for commercial development that will be supportive of, and mutually-beneficial with the Multiplex.

4.0 PLANNING CONCEPT

4.1 OVERALL CONCEPT

Oxford Landing respects a logical extension of growth within the Town of Penhold. Recreational opportunities within the neighbourhood will be realized through open spaces, trails, and parks. The proximity of the Plan Area to the Penhold Regional Multiplex will also increase the recreational opportunities available to residents.

The future density of Oxford Landing is estimated at 13.4 units per developable hectare. With a total area for residential development at 26.6 hectares; Oxford Landing is envisioned to include approximately 570 dwelling units.

4.2 RESIDENTIAL

As shown on **Figure 3 - Concept Plan**, the Oxford Landing neighbourhood is envisioned as a combination of residential and commercial or office properties, integrated with a system of open spaces and trails. A mix of low and medium density residential dwelling units is prescribed based upon the Town of Penhold Land Use Bylaw, and will be implemented based on market conditions and consumer preferences at the time of development.

Land use statistics, number of residential units, and density are represented in **Table 1 Land Use Summary** and **Table 2 Density Summary**.



Table 1 Land Use Summary

	Hectares	Acres	% of NDA
Gross Area	51.3	126.7	
Residential	26.6	65.8	51.9%
R1A Low Density Small Lot Residential	9.4	23.2	18.3%
R1B Low Density Narrow Lot Residential	1.6	4.0	3.1%
R1C Low Density Narrow Lot with Garage Residential	2.9	7.2	5.7%
R2 General Residential	1.0	2.5	1.9%
R3 Multiple Unit Residential	1.8	4.4	3.5%
R5 Manufactured Home Residential	9.9	24.5	19.3%
Commercial	6.4	15.8	12.5%
C2 Highway Commercial	0.8	2.0	1.6%
IB Industrial/Business Service	5.6	13.8	10.9%
Open Space	9.5	23.4	18.5%
Municipal Reserve	5.4	13.3	10.5%
Public Utility Lot	1.7	4.2	3.3%
Public Utility Lot - Stormwater Management Facility	2.4	5.9	4.7%
Transportation Network	8.7	21.6	17.0%
Roadway and Lanes	8.7	21.6	17.0%
Total	51.3	126.7	100.0%

Table 2 Density Summary

Residential Land Use	Hectares	Units	Persons/Unit*	Population
R1A Low Density Small Lot Residential	9.4	204	2.8	571
R1B Low Density Narrow Lot Residential	1.6	46	2.8	129
R1C Low Density Narrow Lot with Garage Residential	2.9	82	2.8	230
R2 General Residential	1.0	30	2.0	60
R3 Multiple Unit Residential	1.8	59	2.0	118
R5 Manufactured Home Residential	9.9	149	2.0	298
Total	26.6	570		1,406

4.2.1 Low Density Small Lot Residential (R1A)

The Low Density Small Lot Residential District provides land to be used for single-family detached housing with front attached garages. As identified in the Town of Penhold LUB, the minimum area for these lots is 460.0m², with a minimum width of 12.2m. The R1A District provides the largest lots within Oxford Landing.

A variety of lot configurations and home sizes will be present within Low Density Small Lot District to provide various housing options. The R1A District will make up 35.8% of the total housing stock within the Oxford Landing.

4.2.2 Low Density Narrow Lot (R1B)

Low Density Narrow Lot District provides additional single-family detached housing options. As identified in the Town of Penhold LUB, R1B lots have a minimum of area of 350.0m² with a minimum width of 9.2m. Front access to R1B lots is not permitted as per the Penhold Land Use Bylaw; therefore, two parking stalls shall be provided at the rear of the lots accessible via a rear lane.

R1B lots have been located along the collector roadways and in areas fronting side lots or open spaces. These areas were chosen to create a consistent streetscape and provide opportunities for additional on-street parking. The R1B District will make up 8.1% of the total housing stock within the Oxford Landing.



Low Density Narrow Lot with Garage (R1C) House Examples



4.2.3 Low Density Narrow Lot with Garage (R1C)

The purpose of the R1C district is to provide low density narrow residential lots while allowing for a front driveway/garage. As identified in the Town of Penhold LUB, R1C lots have a minimum of area of 350.0m² with a minimum width of 10.4m.

All dwellings within this district will be required to have a front garage and be either two-storeys or modified bi-levels.

The R1C Low Density Narrow Garage Lot district is considered a transitional use between R1A Low Density Small Lot Residential and R1B Low Density Narrow Lot Residential uses. The R1C District will make up 14.4% of the total housing stock within the Oxford Landing.



4.2.4 General Residential (R2)

The General Residential District has been incorporated into Oxford Landing to provide for semi-detached dwelling types. The minimum area for these lots is 325.0m² per unit. Semi-detached dwellings are an increasingly popular housing type as they provide all the conveniences of a detached home: large square footage, private outdoor amenity space, and often an attached garage.

The R2 district has been distributed throughout the neighbourhood making up 5.3% of the total housing stock within the Oxford Landing.

4.2.5 Multiple Unit Residential (R3)

In order to accommodate the continued need and demand for multi-family housing options, several areas within the Oxford Landing neighbourhood have been identified for R3 uses.

Manufactured Home Examples



In accordance to the Town of Penhold's LUB, the following housing styles may be permitted in these areas: fourplexes, rowhousing, or apartment buildings. As shown on **Figure 3 - Concept Plan**, a portion of R3 areas in Oxford Landing have been identified for the construction of townhouses with the north R3 site to be constructed based on market demand at the time of its development.

Similar to semi-detached housing, townhousing is an increasingly popular housing style due to the range of amenities provided: enhanced privacy in comparison to apartment style buildings, private outdoor amenity space, relatively large square footage, and often an attached or detached garage.

The Multiple Unit Residential District makes up 10.4% of the total housing stock within the Oxford Landing.

4.2.6 Manufactured Home Residential (R5)

A portion of Oxford Landing has been identified as a manufactured home park due to demand for this product type within the area and region. This area will be master planned, creating a district that can be incorporated into the surrounding community seamlessly. The R5 district is envisioned to be orientated toward families allowing for private fenced yards and will be subject to strict Land Use Regulations as prescribed by the Town of Penhold MDP and LUB.

Layout/Design

The overall design and intent of the site is to develop a safe and attractive area within the Oxford Landing. The site may accommodate a total of approximately 149 units for a maximum density of 15.0 du/ha.

The Manufactured Home District is envisioned to be a family-orientated community with operational rules and bylaws to guide the visual style of the area. A number of amenities and features will be part of this site including parks and green spaces; paved roads complete with sidewalk, curbs, and gutters; and a group storage area. All open space areas will be landscaped to include a variety of planting, paved walkways, and play equipment.

The Town of Penhold LUB has very prescriptive regulations regarding the development of manufactured home parks with regards to age of units, style of units, interior roads, recreational space, and a surrounding privacy fence among other things. In addition to the LUB regulations, the MDP dictates that the creation of a manufactured home area requires controls to define the style of homes, building materials, lot conditions, landscaping, etc. These controls will be submitted to the Town at the time of subdivision.

The site-specific rules and bylaws ensures that the area functions well, matches the character of the surrounding residential development, and is aesthetically pleasing. All guidelines will address items such as building materials, dwelling style, dwelling age, and landscaping.

Operation

The Oxford Landing R5 District is envisioned to be operated and maintained as a whole by the Developer, with individual lots maintained by individual dwelling units' occupants. This style of development will allow for tenants to personalize their space and have more privacy.

4.3 COMMERCIAL

As shown on **Figure 3 - Concept Plan** and **Figure 4 - Concept Plan with Aerial Photo**, two commercial districts have been identified within the Plan Area. The northwest commercial area is identified for Industrial/Business Service use and is located to take advantage of the Highway 2A

corridor. A second commercial area is identified in the southeast corner of the Plan Area and is identified for neighbourhood scale commercial use.

4.3.1 Industrial/Business Service (IB)

The intent of the Industrial/Business Service district is to provide for a range of light business industrial support services and compatible uses that require limited outdoor storage. This area is envisioned to combine commercial goods and service type businesses with offices to create a business park. The Industrial/Business District will provide local commercial services to the neighbourhood and increase opportunities for local employment.

This parcel will be accessible via the main north-south collector within Oxford Landing. A shadow plan has been created for this area to be implemented in the event that the district is not sold for its intended purpose. As shown, the shadow plan identifies a potential residential layout.

4.3.2 Highway Commercial (C2)

The Highway Commercial District is intended to provide a range of commercial uses accessible by vehicular traffic and pedestrians that are complementary to the Multiplex. This area, located at the corner of Highway 42 and Waskasoo Avenue, will allow the area to take advantage of traffic visiting the Multiplex, as well as residents of the Oxford Landing neighbourhood and of the Town. Some uses that may be found within this district include: retail stores, service facilities, restaurant, and convenience stores.

To limit use of the lanes bordering the commercial site to residential access only, a post and cable style fence may be required by the Town as part of the Development Agreement process. As the commercial site is developed, additional screening may be required based on site design.

The Oxford Landing Highway Commercial parcel will be accessible via Waskasoo Avenue. As shown in **Figure 3 - Concept Plan**, the access will run through a 10.0m wide Municipal Reserve. This Municipal Reserve is required to accommodate the Waskasoo Ave multi-use trail; however, to accommodate a commercial access in this location, an access agreement will be registered along the entire Municipal Reserve. At the time of commercial site design, the access agreement will be discharged, and an access right-of-way will be registered to identify the exact location of the access.

The commercial site access has been circulated to Alberta Transportation who confirmed a full TIA would not be required for their approval; however, a technical memo will need to be submitted at the time of commercial site subdivision to confirm the access does not impact Highway 42.



4.4 PARKS AND OPEN SPACE

Oxford Landing will be developed with a mixture of active and passive recreational elements that will appeal to residents of all ages. As described in detail below, by connecting various open spaces throughout the development, a better connected pedestrian network will be created to aid in shortcutting for non-vehicular modes of transportation.

In order to prevent vehicle traffic from accessing these parks, as well as any of the public utility lots, bollards will be installed.

4.4.1 Active Recreation Park Site

Two active park sites have been proposed within the neighbourhood; one along the main collector road, and one within the southwest portion of the Plan Area. Both of these locations are conveniently within a short walk from the low and higher density residential areas. Higher density districts are located within close proximity to these parks to encourage use while supporting higher density land use within the Town.

4.4.2 Passive Recreation Park Sites

Green spaces have been placed throughout to serve as passive recreation park sites. Passive recreation is unstructured and does not require formal park equipment such as goal posts or playground structures. Examples of passive recreation include playing catch, having a picnic, jogging, etc.

4.4.3 Pedestrian Network

By linking Municipal Reserve sites, public utility lots, and any other open spaces within the Plan Area, a linear park system will be created throughout the development. This park system will act as a pedestrian network to connects all of the areas of Oxford Landing together while creating shortcuts for non-vehicular modes of transportation. The linear park system will lead pedestrians to community nodes such as the active recreation park site, SWMF, and commercial district, as well as to the surrounding neighbourhoods and Penhold's larger trail system.

Additional trails will be developed in the south and west portions of the Plan Area. A 10m wide open space will be located along the west boundary to create a pedestrian network from Oxford Landing and future communities to the Multiplex. A

proposed trail connection has been identified along the south boundary of the Plan Area to provide an east-west pedestrian connection, per the Town of Penhold's Master Trail System.

The pedestrian network is shown in **Figure 4 - Open Space and Trails**.

4.4.4 Streetscapes

The Town requested that the development of the neighbourhood incorporate innovative and pedestrian-friendly streetscapes to encourage pedestrianism and enhance the pedestrian experience.

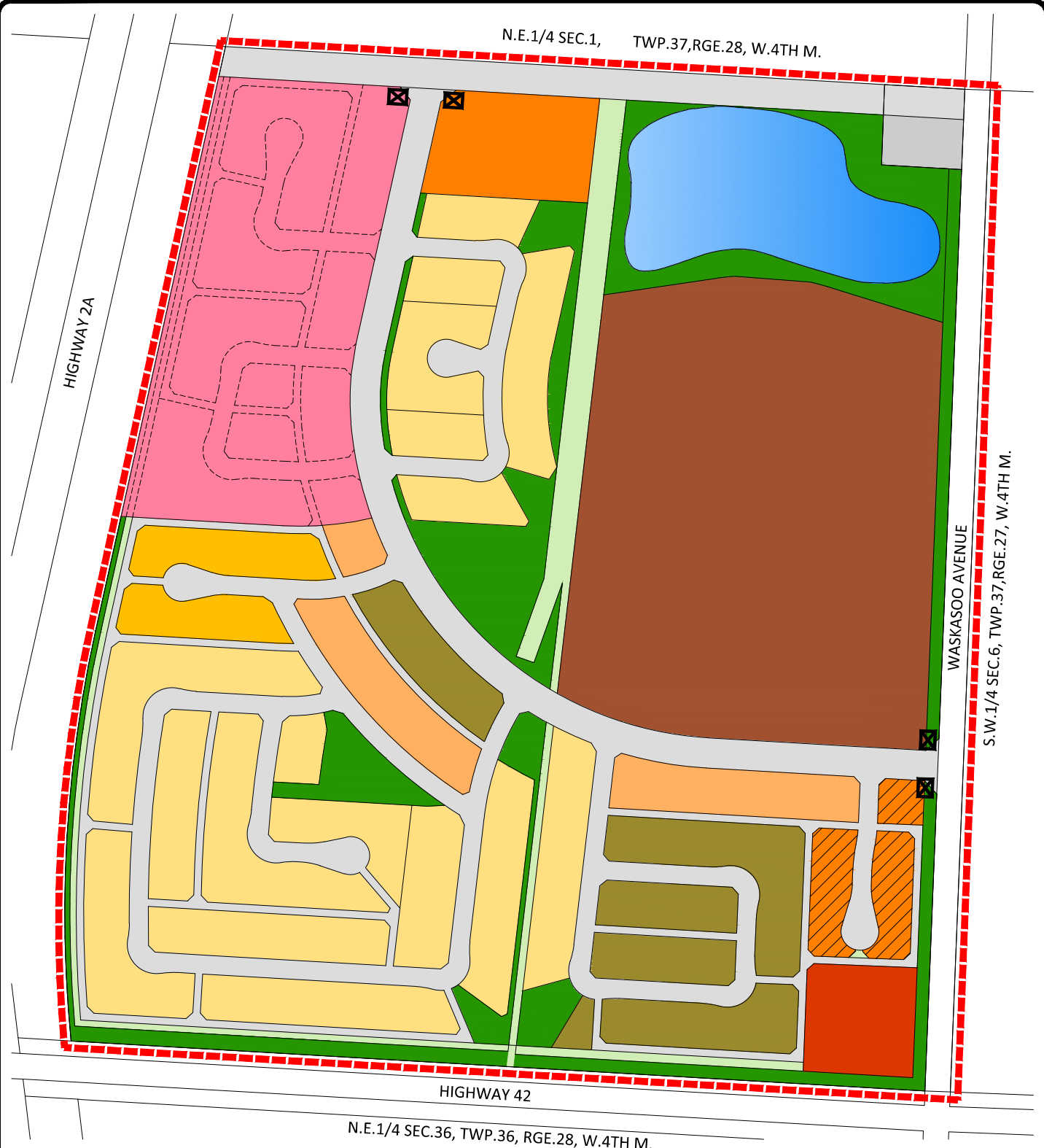
Streetscapes within the neighbourhood have been developed to reflect the Town of Penhold's Streetscape Design Guidelines and accommodate pedestrians by including wider sidewalks on one side of the roadway, particular attention to linkages with popular pedestrian nodes such as park sites and the Multiplex, and accented materials within the sidewalks and roadways.

While the Plan is developed with the current standards, the Developer will continue to work with the Town to create and identify the locations for modified streetscapes. Through initial discussions, some of the ideas include wider sidewalks, separated local roadways, single sided sidewalks, meandering sidewalks, etc.

4.5 STORMWATER MANAGEMENT FACILITY (SWMF)

One stormwater management facility has been proposed for the development to control major stormwater events. The facility will be constructed as a wet pond that will conform to the requirements set out by Alberta Environment and Water. This pond will be located in the northeast corner of the Plan Area and be dedicated as a Public Utility Lot up to the high-water line.

Stormwater management facilities are functional but also add to the aesthetics and recreational opportunities of a neighbourhood development. Wet ponds, like the one proposed in Oxford Landing, provide an additional area for passive recreation within the neighbourhood by creating a scenic area for open space and trails.



LEGEND

- | | | |
|--|---|-----------------------------------|
| Low Density Small Lot Residential District - R1-A | Manufactured Home Residential District - R5 | Public Utility Lot |
| Low Density Narrow Lot Residential District - R1-B | Highway Commercial District - C2 | Entry Feature |
| Low Density Narrow Lot with Garage District - R1-C | Industrial/Business Service District - IB | Potential Residential Development |
| General Residential District - R2 Duplex | Municipal Reserve | Outline Plan Boundary |
| Multiple Unit Residential District - R3 | Outparcel (Regional Lift Station) | |
| Multiple Unit Residential District - R3 Townhomes | Roadway/Lane | |



Figure 3.0
Concept Plan
Oxford Landing Outline Plan

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Figure 4.0
Open Space and Trails
Oxford Landing Outline Plan

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5.0 TRANSPORTATION

The proposed system of roads for Oxford Landing is shown in **Figure 5 - Transportation Network**. This layout will provide residents, and the surrounding traveling public, with safe access to the area and to the rest of Penhold.

5.1 EXISTING TRANSPORTATION NETWORK

Oxford Landing is bound on three sides by existing roadways: Highway 2A, Highway 42, and Waskasoo Avenue. The northern boundary of Oxford Landing does not include a roadway.

A traffic Impact Assessment has been prepared for Oxford Landing. All improvements are outlined within the TIA and will be implemented through the course of built-out. The TIA will be submitted at the time Detail Design.

5.2 HIGHWAY 2A

Highway 2A functions as the primary highway connection in and out of the Town of Penhold. Within the Town, much of the light industrial and commercial development has been located along this highway. The Town of Penhold's Municipal Development Plan expresses the importance of continuing to have future commercial and industrial development concentrated around Highway 2A; this objective has been reflected within this Plan.

A land dedication has been identified along the west boundary of the Plan Area to accommodate a buffer from Highway 2A. As shown, this buffer does not extend along the Industrial/Business Service District; however, if the area is developed for residential purposes, a buffer will be constructed. This buffer will take the form of a berm and landscaping.

5.3 HIGHWAY 42

Highway 42 is the primary connection between Penhold's access roadway of Highway 2A and the Penhold Regional Multiplex. This roadway also provide a direct connection to Highway 2; as such, Highway 42 represents a primary gateway within the Town highlighting the community to visitors.

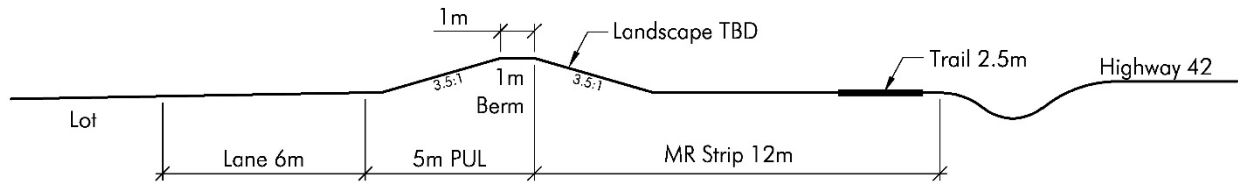
To ensure this roadway is aesthetically pleasing, a berm and pedestrian trail will be constructed within the Plan Area along the Highway 42 as shown on the following page. As shown within the Concept Plan, an open space parcel will be reserved along the south boundary to accommodate a trail, berm, and landscape features.

5.4 WASKASOO AVENUE EXTENSION

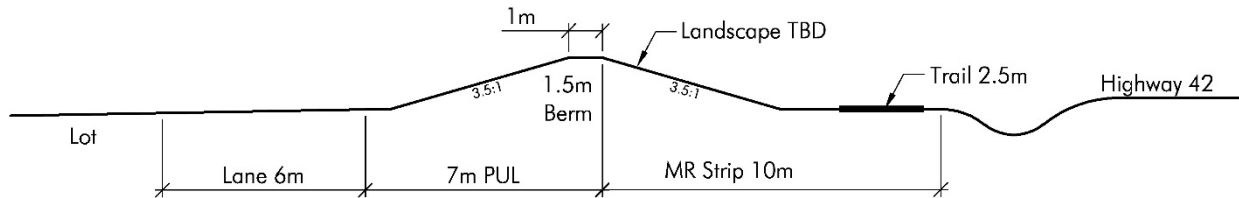
Waskasoo Avenue forms the east boundary of the Plan Area; this area is owned by the Town of Penhold. The Town of Penhold had identified Waskasoo Avenue as a collector roadway to provide better access to the Penhold Regional Multiplex and Oxford Landing.

The Waskasoo Avenue extension has been designed in accordance with the Waskasoo Avenue Design Guidelines which includes a 2.5m wide meandering paved trail on the west side of the roadway, located in a Municipal Reserve.

Highway 42 Berm Cross-Section



Typical Cross-Section Highway Same Elevation



Typical Cross-Section Highway 1m Higher

5.5 COLLECTOR ROADWAYS

This Plan identifies collector roadways that link the local roads to the rest of the Town. The collector roadways in Oxford Landing will be designed to provide connectivity from north to south, as well as west to east in the most efficient manner.

Collector roadway standards in the neighbourhood are shown in **Figure 6 - Transportation Details**. All roadways within Oxford Landing will be constructed to the standards set forth by the Town of Penhold.

5.6 LOCAL ROADWAYS

The system of local roads within the neighbourhood will be developed in a modified grid pattern to provide convenient vehicular and pedestrian access throughout the neighbourhood while discouraging outside traffic from shortcutting along local roadways.

Local roadways within the Oxford Landing neighbourhood are shown in more detail in **Figure 6 - Transportation Details**. All roadways will be

constructed to the standards set forth by the Town of Penhold.

5.7 LANEWAYS

A portion of the R1A and all of the R1C lots will be provided with laneways. Lanes have been located throughout Oxford Landing to provide access to lots that front onto collector roadways with the exception of those lots backing onto green space. By providing rear lanes, traffic and parking will be minimized along the busier streets.

The proposed location of these lanes is shown on **Figure 5 - Transportation Network**. All laneways will be designed to the Town of Penhold standards. Any lanes adjacent to Municipal Reserves or public utility lots will have bollards installed to prevent shortcutting.

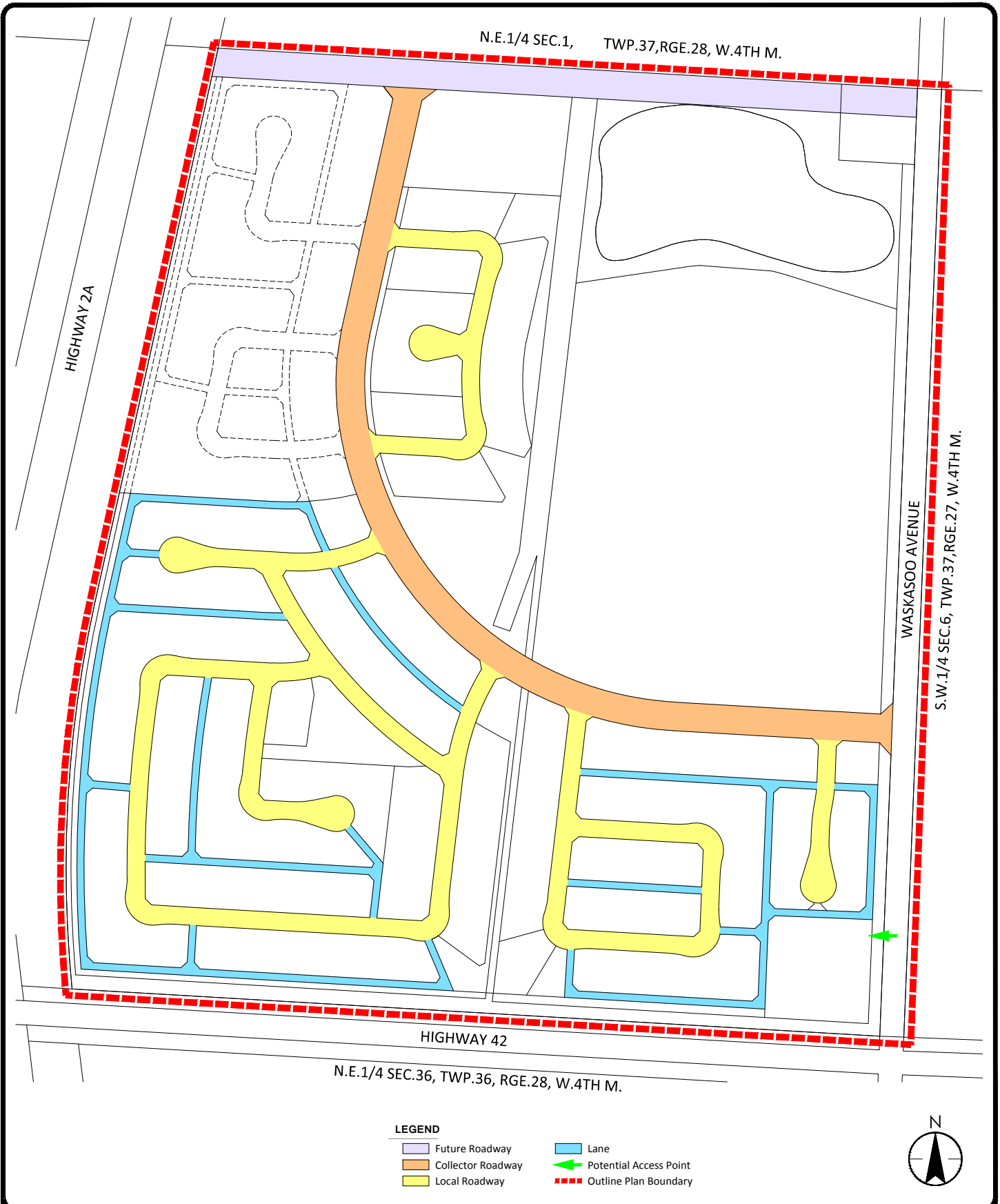


Figure 5.0
Transportation Network
Oxford Landing Outline Plan

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24.0m Collector Roadway



15.0m Local Roadway



6.0m Lane

Figure 6.0
Transportation Details
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6.0 SERVICING AND UTILITIES

To further detail the topics discussed within this section, a Servicing Study has been submitted to the Town under separate cover.

6.1 SANITARY SEWER SYSTEM

Oxford Landing will be serviced via the regional wastewater sewer line constructed in the Waskasoo Avenue right-of-way. All sewage from the development will be routed by gravity mains to a lift station to be constructed in the northeast corner of the development and then pumped into the new regional line.

The overall conceptual sanitary sewer system for the Penhold Plan Area is shown on **Figure 7 - Sanitary Network**.

The majority of the sanitary pipes will be 200.0mm in diameter. All sanitary sewer facilities will be designed in accordance with the Town of Penhold guidelines and will be turned over the Town after a two-year maintenance period.

6.2 STORM SEWER SYSTEM

One stormwater management facility (SWMF) is proposed for the Plan Area in order to properly manage and control major storm events. This facility will be dedicated as a Public Utility Lot (PUL) up to the water line and located in the northeast corner and will provide stormwater storage for the entire Plan Area. This SWMF has been designed to accommodate 1:100 year stormwater flows and restrict flows to predevelopment rates from this site.

An underground storm pipe system has been designed to convey up to 1 in 5 year minor storm events from the Plan Area. This system will then discharge into the SWMF. A new storm outfall will need to be constructed from the SWMF to

Waskasoo Creek. This outfall may be in the form of a pipe or a ditch.

The storm system is shown on **Figure 8 - Stormwater Network**. A Stormwater Management Plan will also be submitted to the Town during the time of detailed design.

6.3 WATER DISTRIBUTION SYSTEM

The Plan Area will be serviced through water connections from the residential development located to the south. The water connection will be near the center of the quarter section across Highway 42, from Hawkridge Estates. In order to provide a looped system, one or two secondary connections will be extended across Highway 42; one from the multiplex site and the second option is another connection to Hawkridge Estates to the west.

All other water main facilities will be designed in accordance with the Town of Penhold guidelines and will be turned over to the Town after a two-year maintenance period.

The overall water distribution system is shown on **Figure 9 - Water Network**.

6.4 SHALLOW UTILITIES

There are no major servicing concerns regarding shallow utilities (gas, power, telephone, fiber optics and cable). All shallow utilities will be extensions of those already in place in adjacent developments to the south and follow typical Town of Penhold standards.

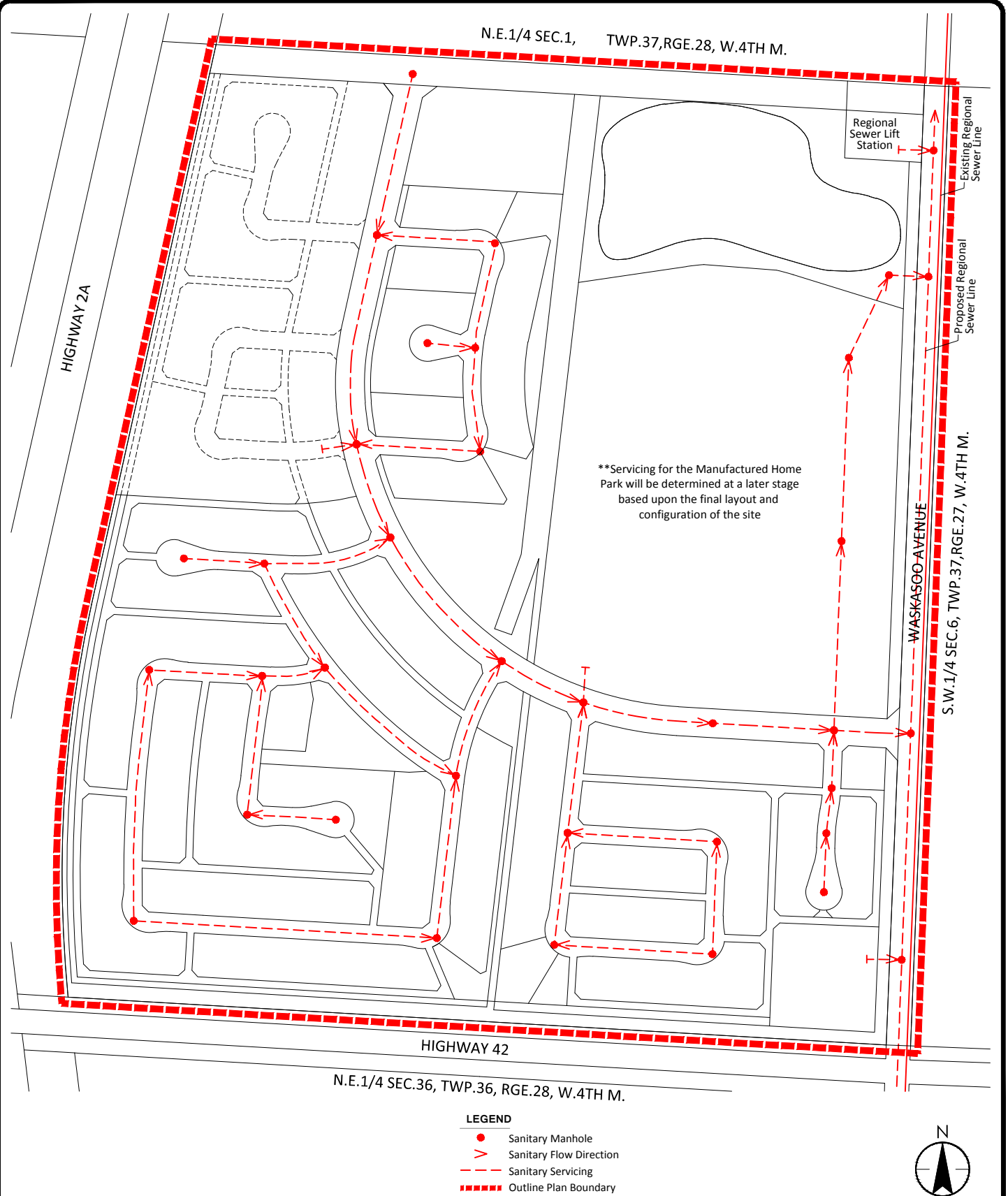


Figure 7.0
Sanitary Network
Oxford Landing Outline Plan

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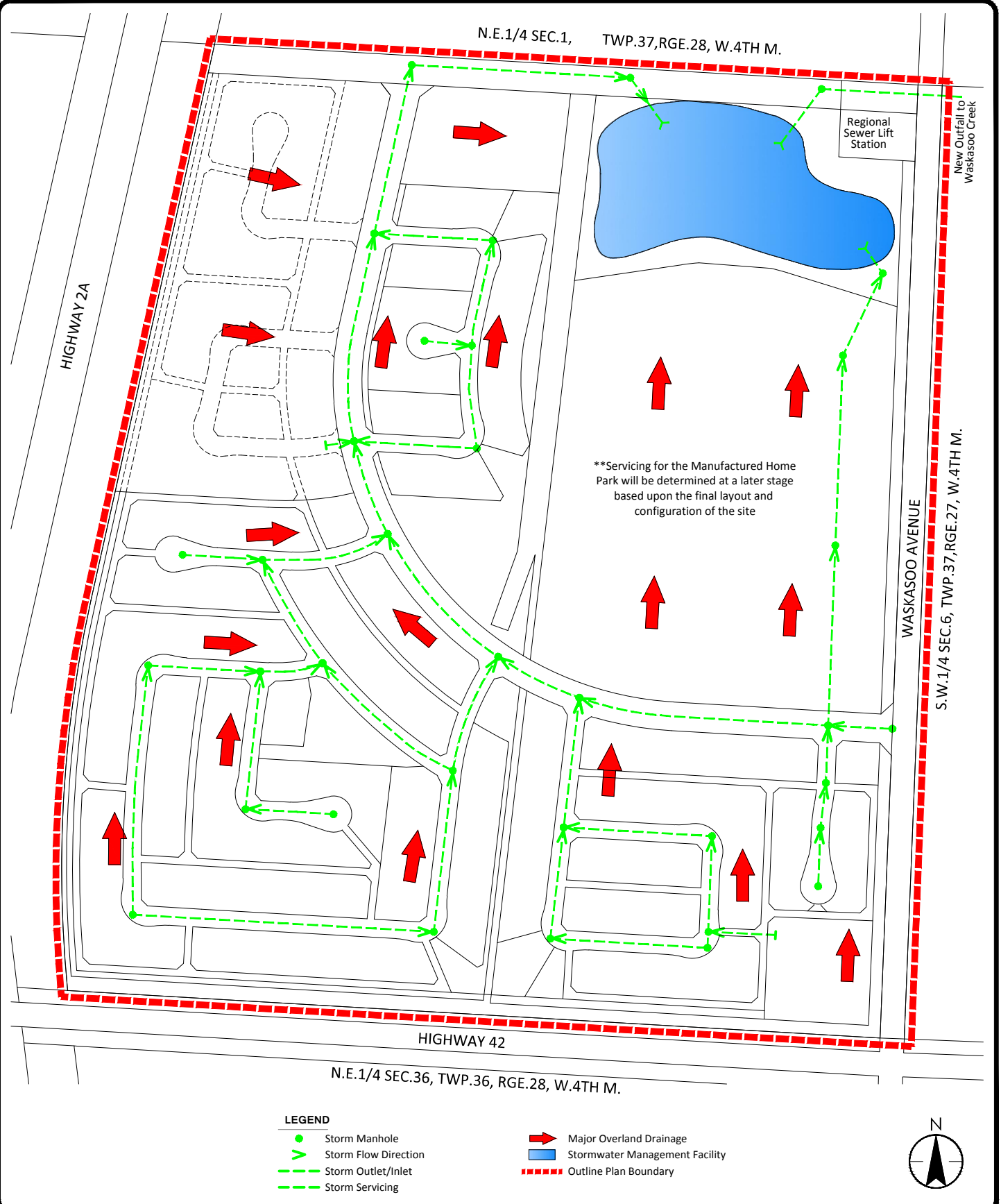


Figure 8.0
Stormwater Network
Oxford Landing Outline Plan

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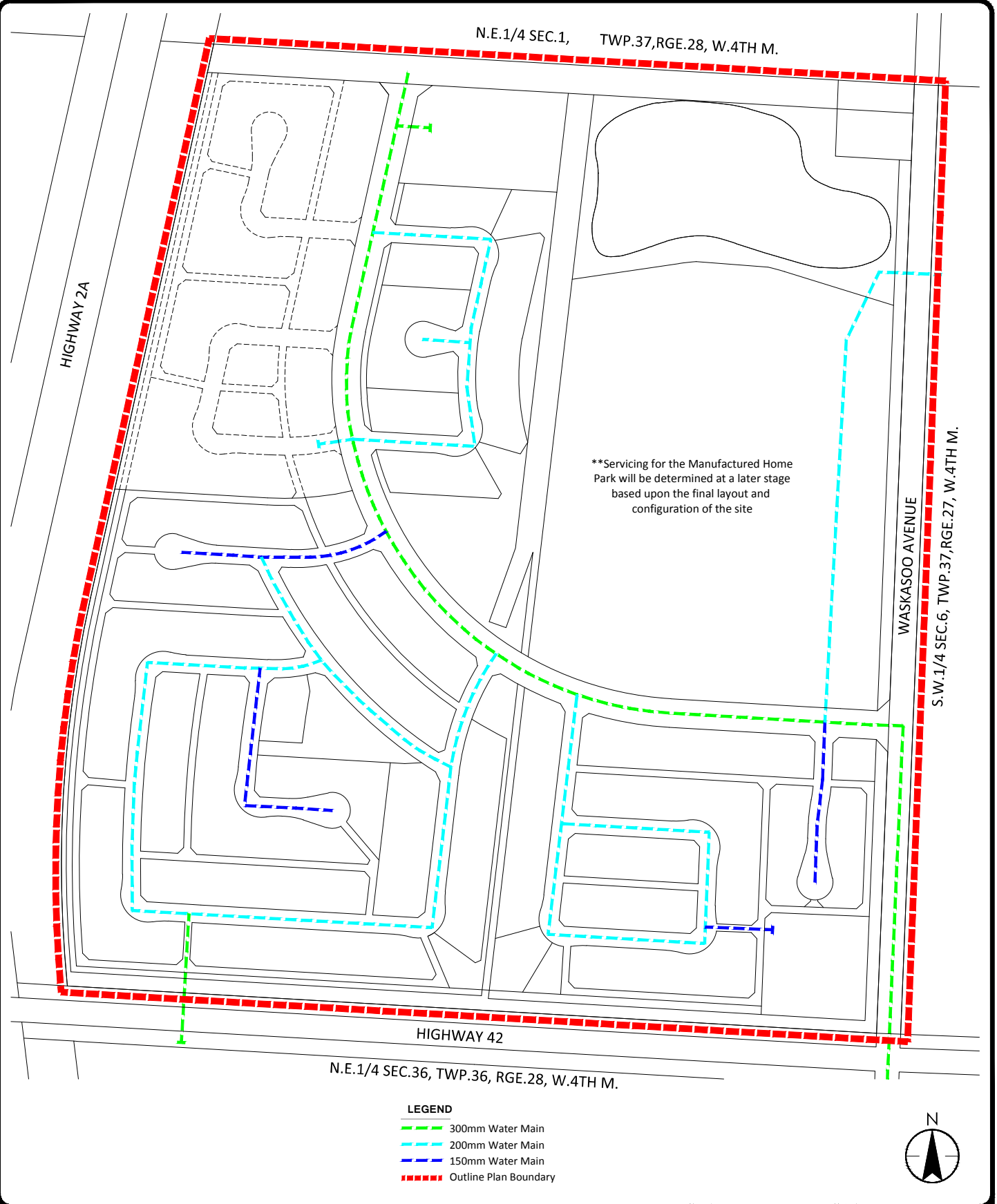


Figure 9.0
Water Network
Oxford Landing Outline Plan

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7.0 PHASING DEVELOPMENT

Infrastructure to service Oxford Landing will be extended from the quarter section to the south. As shown on **Figure 10 - Phasing**, development of Oxford Landing will begin in the southeast corner of the Plan Area with each successive phase developed with the logical and economical extension of municipal services. To provide stormwater management services to the development, the storm pond will be constructed as part of Phase 1.

The phasing boundaries are shown conceptually and may vary from those shown when redistricting and subdivision applications are made with the intent of meeting the needs of the regional and local housing market. As well, portions of separate phases may be developed concurrently if there is sufficient demand and/or if the municipal servicing is made more efficient as a result.

7.1 REDISTRICTING AND SUBDIVISION

In order to conform to the land use designations described within this Outline Plan, redistricting and subdivision applications will be undertaken as necessary. Redistricting and subdivisions will include the informational requirements necessary for each application, and will adhere to the Town of Penhold Land Use Bylaw.

7.2 ENERGY UTILITIES BOARD CONSIDERATIONS

As mentioned in **Section 2.6.2 – Existing Well Site**, there is an active well present in the center of the Plan Area. As previously described, no permanent structures will be constructed within 100m of the operating well; however, a relaxation



will be applied for to reduce the setback. When the well is abandoned, proper techniques will be undertaken to ensure that it is safely remediated and reclaimed; after which, the setback will be reduced to a 5m radius.

Following decommissioning, the last stage of development may occur in accordance with ERCB criteria.

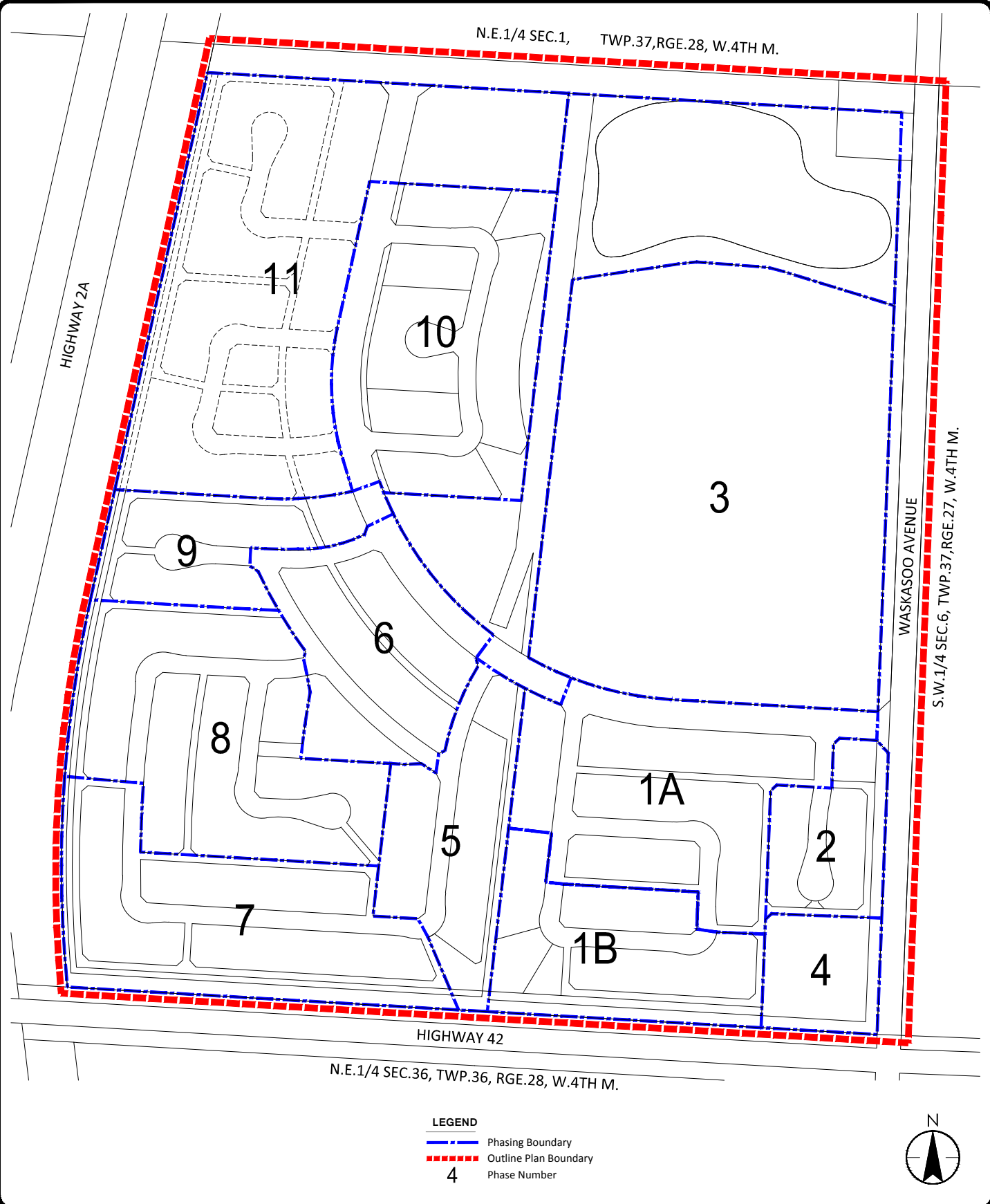


Figure 10.0
Phasing Plan
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