

TOWN OF EDSON

BYLAW NO. 2078

A BYLAW OF THE TOWN OF EDSON IN THE PROVINCE OF ALBERTA, PURSUANT TO THE PROVISIONS OF THE MUNICIPAL GOVERNMENT ACT, BEING CHAPTER M26 OF THE STATUTES OF ALBERTA 2000 AND AMENDMENTS THERETO, TO ADOPT THE PARKS IN EDSON AREA STRUCTURE PLAN.

WHEREAS Section 633 of the Municipal Government Act authorizes a Council to adopt an area structure plan to provide a framework for the subdivision and development of land within the municipality;

AND WHEREAS the Council of the Town of Edson requires that such a plan be prepared pursuant to Section 4.1.4 of the Town of Edson Municipal Development Plan Bylaw no. 1864;

AND WHEREAS the Council of the Town of Edson has properly notified all parties in accordance with Section 636 of the Municipal Government Act;

AND WHEREAS, the Council of the Town of Edson has held a public hearing pursuant to Section 692 of the Municipal Government Act after giving notice of it in accordance with 606 of the Municipal Government Act;

NOW THEREFORE the Municipal Council of the Town of Edson duly assembled, hereby enacts as follows:

PART I - PURPOSE

PURPOSE

1. That this Bylaw shall be known as the "The Parks in Edson Area Structure Plan Bylaw" (NW 23-53-17-W5 an Part of SW23-53-17-W5) as shown in attached Schedule "A") which is a part of this document.
2. That the Parks in Edson Area Structure Plan Bylaw shall provide the framework for future subdivision and development of the lands described herein.

PART II - GENERAL

EFFECTIVE DATE

3. That this Bylaw shall have force and take effect from the final reading thereof.


READ a first time this 16 day of June A.D. 2009.

READ a second time this 14 day of July A.D. 2009.

READ a third time and finally passed this 14 day of July A.D. 2009.



Mayor



Director of Finance and Administration

Schedule "A"
Bylaw 2078
**The Parks in Edson
Area Structure Plan**

NW ¼ Sec. 23, Twp. 53, Rge. 17, W.5M.

&

Part of SW ¼ Sec. 23, Twp. 53, Rge. 17, W.5M.

Edson, Alberta

TABLE OF CONTENTS

- 1.0 EXECUTIVE SUMMARY
- 2.0 INTRODUCTION
 - 2.1 Purpose and Background
 - 2.2 Policy Framework
 - 2.3 Plan Scope
- 3.0 POLICY FRAMEWORK
 - 3.1 Conformity to the Municipal Development Plan
 - 3.2 Conformity to the Land Use Bylaw
- 4.0 EXISTING SITE CHARACTERISTICS
 - 4.1 Legal Description and Ownership
 - 4.2 Land Use
 - 4.3 Land Form and Vegetation
 - 4.4 Transportation and Access
 - 4.5 Geotechnical Considerations
 - 4.6 Servicing and Infrastructure
- 5.0 PROPOSED DEVELOPMENT
 - 5.1 Development Concept & Constraints
 - 5.2 Land Use and Density
 - 5.3 Green Space
 - 5.4 Population
- 6.0 SUSTAINABILITY
- 7.0 TRANSPORTATION
- 8.0 SERVICING & UTILITIES
 - 8.1 Stormwater Management
 - 8.2 Sanitary Services
 - 8.3 Water Supply & Distribution
 - 8.4 Franchise Utilities
- 9.0 PHASING AND DEVELOPMENT CHARGES
- 10.0 CLOSE

APPENDICES

- **Appendix A: Certificate of Title**
- **Appendix B: Environmental Assessment**
- **Appendix C: Geotechnical Reports**

LIST OF TABLES

- Table 1: Land Ownership
- Table 2: Subsurface Stratum
- Table 3: Land Use and Density
- Table 4: Estimated Population by Land Use
- Table 5: Estimated Sewage Contribution by Land Use
- Table 6: Estimated Water Demand by Land Use

LIST OF FIGURES

- Figure 1: Location Plan
- Figure 2: Topography
- Figure 3: Development Constraints
- Figure 4: Land Use Plan
- Figure 5: Transportation Plan
- Figure 6: Stormwater Management Plan
- Figure 7: Estimated Sewage Contribution by Land Use
- Figure 8: Sanitary Servicing Plan
- Figure 9: Estimated Water Demand by Land Use
- Figure 10: Water Distribution Network Plan

1.0 EXECUTIVE SUMMARY

The subject area is legally described as the **NW ¼ 23-53-17-5** and part of **SW ¼ 23-53-17-5**, and contains approximately 99.89 ha.

The proposed name for the development, "The Parks in Edson," calls attention to the ample allowance of parkland, including attractive pond areas, a property owned by Weyerhaeuser, and an interconnecting trail network that will allow for pedestrian travel within the development, and to adjacent neighbourhoods and communities. The Parks is really a planned community. It is a place for residents to live, to play, to learn, and to work.

The plan includes recommendations from the Town's administration, Alberta Transportation, and the school board. Existing pipeline rights-of-way have been retained as open spaces that may be used as part of the Town's trail system. A variety of land uses have been accommodated by the proposed plan, including Low, Medium and High Density Residential, Commercial, and Public Reserve. This provides a diverse assortment of opportunities for future residents and businesses.

As part of this Area Structure Plan, local servicing was examined. Preliminary research indicates that there is adequate servicing in the area for both deep utilities (storm and sanitary sewers), and franchise utilities (power, gas, telephone, etc) for the development. Stormwater management can be accomplished by building water amenities in the form of residential ponds. The southern stormwater management pond may be designed to accommodate Poplar Creek.

This Area Structure Plan is being submitted by Development Solutions (1127570 Alberta Ltd.) on behalf of the Owner of the south half of NW ¼ 23-53-17-5 (excepting the utility right-of-way [Plan 822 2742] and Lot "1"), 1348374 Alberta Ltd. of Edmonton. The Plan is submitted to facilitate development of the lands belonging to 1348374 Alberta Ltd. The inclusion of the adjacent lands is intended to be conceptual only, in order to provide a context in which to view the development of the above mentioned land and municipal infrastructure in the area.

The subject area falls under the jurisdiction of the Town of Edson. The proposed development of the subject area will follow the direction provided by this jurisdiction. The Area Structure Plan conforms to the Land Use Bylaw, the requirements of the Municipal Development Plan, and also takes into account a number of constraints.

2.0 INTRODUCTION

2.1 Purpose and Background

The purpose of the Northeast Area Structure Plan is to provide policy direction regarding development in the northeast area of Edson for the Plan's stakeholders:

the Town of Edson, Alberta Transportation, land-owners in the Plan region, community members, and area businesses.

The Municipal Development Plan for the Town of Edson was approved in 2006, and identifies this area as a reserve for future development. The extents and location of The Parks are identified in **Figure 1**.

2.2 Policy Framework

The subject area falls under the jurisdiction of the Town of Edson. This Plan conforms to the Land Use Bylaw (LUB), No. 2070, and the Municipal Development Plan (MDP), Bylaw No. 1864.

2.3 Plan Scope

The scope of the Plan include all the lands bounded by Highway 748 in the north, 40 Street in the west, the quarter-section boundaries in the east, and a Canadian National Railway to the south.

Thus, the Plan encompasses the NW $\frac{1}{4}$ and part of the SW $\frac{1}{4}$ of Section 23, Township 53, Range 17, West of the 5th Meridian, and contains approximately 101 hectares.

3.0 POLICY FRAMEWORK

3.1 Conformity to the Municipal Development Plan (MDP)

The Town of Edson Municipal Development Plan, Bylaw 1864, strives to enhance the quality of life for residents, sustain economic viability of the community, and minimize the undesirable effects of change. The MDP creates a balance between providing for growth and maintaining the community atmosphere that attracts people to the Town.

Additionally, this submission conforms to the MDP by providing a variety of lots, open spaces (including parkland and trails), and preservation and enhancement of natural features, to enhance the Town's community-centric atmosphere. The Town's planning and engineering staff were consulted regularly during the planning process.

3.2 Conformity to the Land Use Bylaw (LUB)

The Town of Edson Land Use Bylaw, No. 2070, provides the general framework for this urban development plan, and the planning of this development must conform to it. The LUB is specific and binding in nature, and must be considered in the detailed level of planning that occurs in Outline Plans and Plans of Subdivision.

DEVELOPMENT SOLUTIONS
(1127570 ALBERTA L.T.D.)

18327 67 AVE
EDMONTON, AB
T6T 2H9

**FIGURE 1:
LOCATION PLAN
THE PARKS IN EDSON**
BY
1346374 ALBERTA L.T.D.
NW 23-53-17-5 AND
PART OF SW 23-53-17-5
TOWN OF EDSON

NORTH SCALE 1:10000

0m 500m 1000m

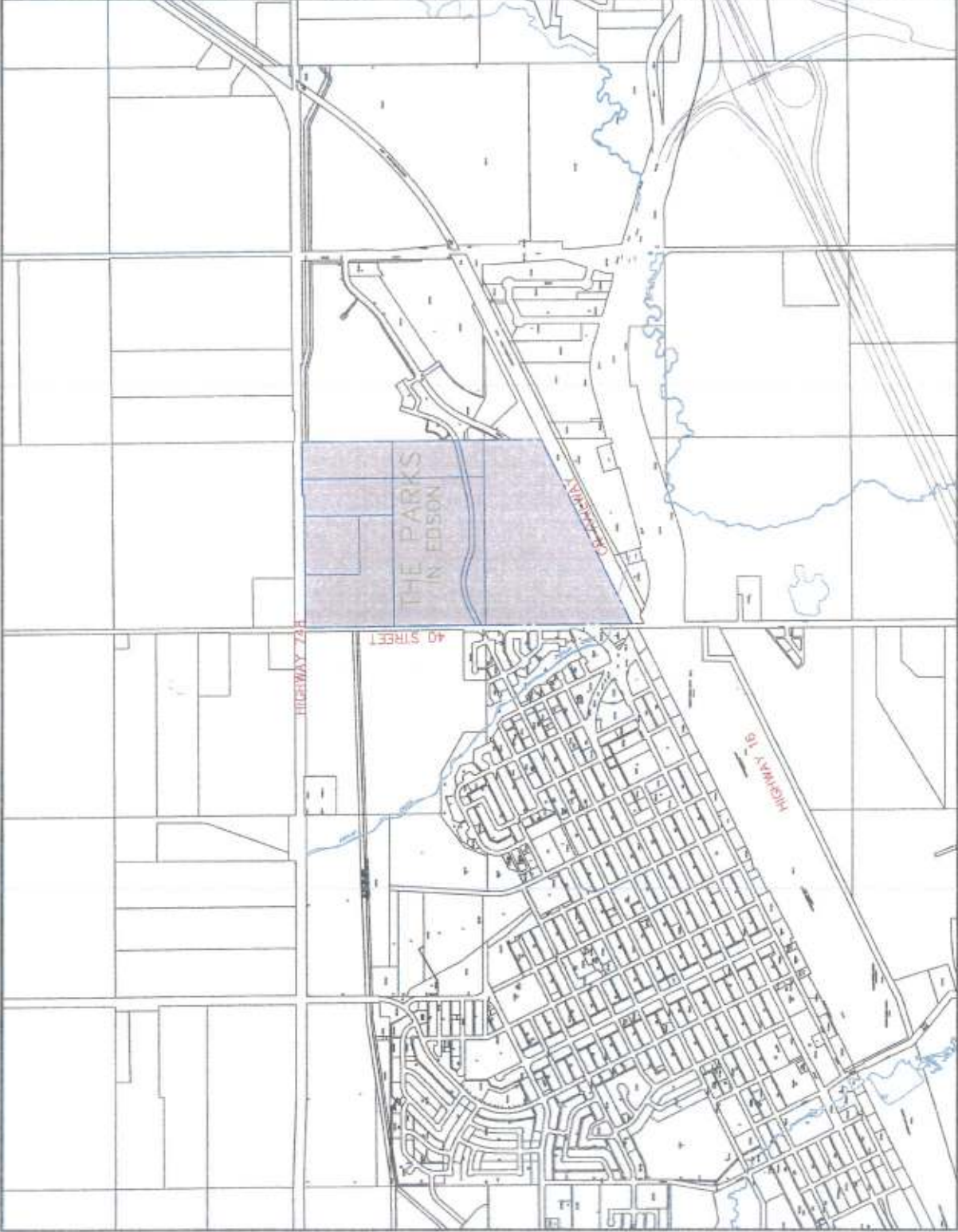
1. 2009-02-14 RELEASED FOR REVIEW
2. 2009-07-08 RELEASED FOR REVIEW

DRAWN BY: J. L. REVIEWED BY: AK

LEGEND:

BOUNDARY: 99.89ha

THE PARKS



The proposed land uses conform to the LUB, and specify the creation of Low, Medium and High Density Residential, Commercial and Industrial Areas. Land has also been set aside for Public Reserve (PR) and a school site.

4.0 EXISTING SITE CHARACTERISTICS

4.1 Legal Description and Ownership

The lands included in The Parks are owned by seven different landholders. The distribution of the lands is described in Table 1.

Table 1: Land Ownership

| Parcel | Ownership | Legal Description | Area (ha.) |
|--------|-------------------------------------|--|------------|
| 1 | Weyerhaeuser Company Ltd. | Lot 1, Plan 952 4041 | 6.15 |
| 2 | Daneil and Anne Maureen Lubarsky | Lot D, Plan 5453NY | 6.47 |
| 3 | 1348374 Alberta Ltd. | Part of the south half of NW 23-53-17-5 | 24.52 |
| 4 | Pauline Lubarsky | Lot B, Plan 5453NY | 6.14 |
| 5 | Deca Developments Inc. | Lot A, Plan 5453NY | 12.61 |
| 6 | Marilyn Dianne and James Rukavina | Part of SW 23-53-17-5, north of the railroad | 35.5 |
| 7 | Thelma Anne and Adrian Victor Maris | Lot C, Plan 5453NY | 6.32 |

There are several utility rights-of-way through the area to accommodate municipal water sanitary sewer lines and major oil and gas pipelines.

The Certificates of Title for the various parcels are provided in **Appendix A**.

4.2 Land Use

At the present time, the land is undeveloped and was previously used for agricultural purposes. An abandoned farmstead with no remaining buildings is located near the intersection of 40th Street and 6th Avenue.

The adjacent parcels and quarter sections fall within the jurisdiction of the Town of Edson. This municipality is located in close proximity to a number of natural resources, and values the sensitive nature of land, and principles of responsible development.

The subject property is bounded on the north by agricultural land, on the west by residential developments, on the south by railway tracks and industrial lands, and on the east by industrial development, including a Weyerhaeuser mill.

4.3 Land Form and Vegetation

The topography of the site is provided in **Figure 2**.

The land generally slopes from the north to the south, with a drop of about 40 m. This parcel is also part of the watershed for Poplar Creek, which crosses The Parks in the southwest corner of the development.

There is a significant amount of vegetation on the site. Large treed areas are grouped in the north and south sections of the proposed development. Remaining site vegetation is comprised mainly of native grasses.

Good planning practices and judicious dedication of Municipal Reserve will preserve existing wooded areas where feasible.

4.4 Transportation and Access

The Parks is located adjacent to Highway 748 and 40th Street in Edson. It is undesirable to have multiple highway accesses in close proximity. Thus, access from 40th Street is preferable. There is also a proposed access along Aspen Drive, east of The Parks.

There are three existing intersections along 40th Street, adjacent to this parcel, at 4th Avenue, 6th Avenue, and 18th Avenue. Roads servicing The Parks should meet 40th Street at existing intersections. This will provide the optimum circumstances for traffic movement and signalization.

4.5 Geotechnical Considerations

A Preliminary Geotechnical Assessment (PGA) was performed for the parcel owned by 1348374 Alberta Ltd. by EBA Engineering Consulting Ltd., and can be found in **Appendix C**. The sub-surface soil stratum is summarized in the table below. The depths are relative to the ground surface.

Table 2: Subsurface Stratum

| Soil Type | Minimum Depth (m) | Maximum Depth (m) |
|-------------|-------------------|-------------------|
| Topsoil | 0.0 | 0.4 |
| Clay | 4.6 | 7.9 |
| Silt | 4.6 | 8.8 |
| Clay Till | 4.9 | 8.8 |
| Groundwater | 1.1 | 3.9 |

As can be seen in Table 2, there is a significant amount of variation in the soil stratigraphy. Notably, the water table fluctuates between 1m and 4m below the soil surface. This may present some issues during construction, and possible solutions to construction issues are discussed in the PGA.

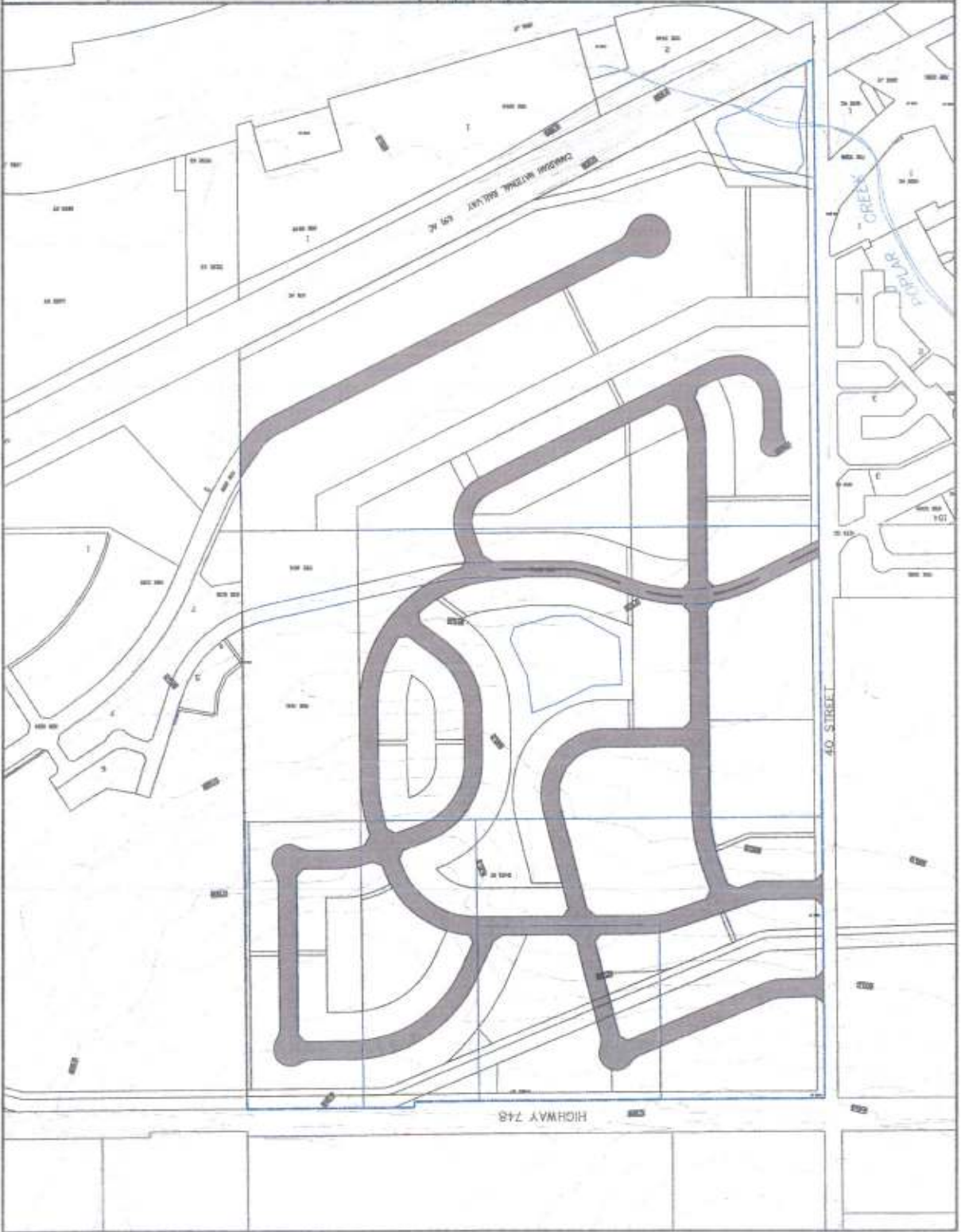
DEVELOPMENT SOLUTIONS
(1127670 ALBERTA LTD.)
18327 67 AVE
EDMONTON, AB
T8T 2H9

**FIGURE 2:
TOPOGRAPHY**
THE PARKS IN EDSON
BY
1348374 ALBERTA LTD.
NW 23-53-17-5 AND
PART OF SW 23-53-17-5
TOWN OF EDSON

NORTH SCALE 1:5000
0m 100m 200m

1 2009-02-14 RELEASED FOR REVIEW
2 2009-07-02 RELEASED FOR REVIEW

DRAWN BY: J.L. REVIEWED BY: AK
LEGEND:
BOUNDARY: 99.89ha
CONTOUR:
ROAD:



4.6 Servicing & Infrastructure

Sanitary

There is a 525mm diameter sanitary sewer main in a right-of-way along the south boundary of The Parks. There is also a 200mm sanitary sewer main east of Aspen Drive. Additionally, there is an existing 1050mm diameter sanitary sewer trunk main south of The Parks, across the Canadian National Railway tracks. Finally, there is also an existing 375mm diameter sanitary sewer main in the 40th Street right-of-way.

Water

There is an existing 300mm water main in the utility right-of-way (Plan 822 2742) bisecting the development. There is also an existing 300mm water main stub at the intersection of 40th Street and 18th Avenue.

Stormwater Management

There is no existing stormwater management on the parcels. However, Highway 748 does have ditches. The site is part of the watershed for Poplar Creek.

Franchise Utilities

There are two existing Telus trenches bisecting The Parks; one is near 6th Avenue, and the other is approximately near 10th Avenue, although it changes direction frequently.

There is an existing ATCO service line near 6th Avenue.

5 PROPOSED DEVELOPMENT

Based on the Town of Edson's LUB and MDP, market considerations and the characteristics of the site, an Outline Plan has been prepared for this site. As well, input regarding the planning concept has been received from the Town's Administration. The following are the development concepts as well as servicing concepts, including the storm water management, for the proposed development.

5.1 Development Concept and Constraints

Planning and allocation of land in The Parks has been undertaken with the following considerations:

- Highway 748 may require future widening, and a minimum 10m wide allowance has been provided

- 40th Street may require future widening, and a minimum 10m wide allowance has been provided
- There are two adjacent utility right-of-ways crossing the northern section of The Parks for oil and natural gas pipelines (Plans 3782HW, 4012HW and 1648KS)
- There is a sanitary sewer right-of-way (3563 MC)
- There is a utility right-of-way (Plan 822 2742) bisecting The Parks
- Industrial and heavy commercial lands were suggested for the south of the development by the Town's administration
- A significant parkland buffer is necessary between residential areas and industrial parcels
- A target population density of 40 persons per hectare was proposed by the MDP
- A minimum of 4 ha of land is required by the school district for a future school site
- Additional land for community areas has been set aside within the future school site
- Significant area will be required for stormwater management
- A variety of land use types is desirable for the Town and the developers
- Weyerhaeuser's owns a parcel of parkland that is to remain as such
- There should be no access to The Parks from Secondary Highway 748
- Industrial traffic should not travel through residential areas.

These considerations are summarized in **Figure 3**.

5.2 Land Use and Density

The respective uses are illustrated in the following table:

Table 3: Land Use and Area

| Land Use | Area (ha) | Area (%) |
|---------------------------------------|--------------|-------------|
| Developable Lands | | |
| LD RES | 21.43 | 21.4% |
| MD RES | 9.14 | 9.1% |
| HD RES | 7.56 | 7.6% |
| COM | 2.5 | 2.5% |
| IND | 15.81 | 15.8% |
| Subtotal | 56.44 | 56.5% |
| Undevelopable and Public Lands | | |
| CS –COMM. SERV. | 4.16 | 4.1% |
| PR-PUB. RESERVE | 8.17 | 8.2% |
| Weyerhaeuser Parcel | 6.46 | 6.5% |
| PUL | 6.85 | 6.9% |
| Road | 15.21 | 15.2% |
| Road Widening | 2.35 | 2.4% |
| Subtotal | 43.45 | 43.5% |
| Total | 99.89 | 100% |

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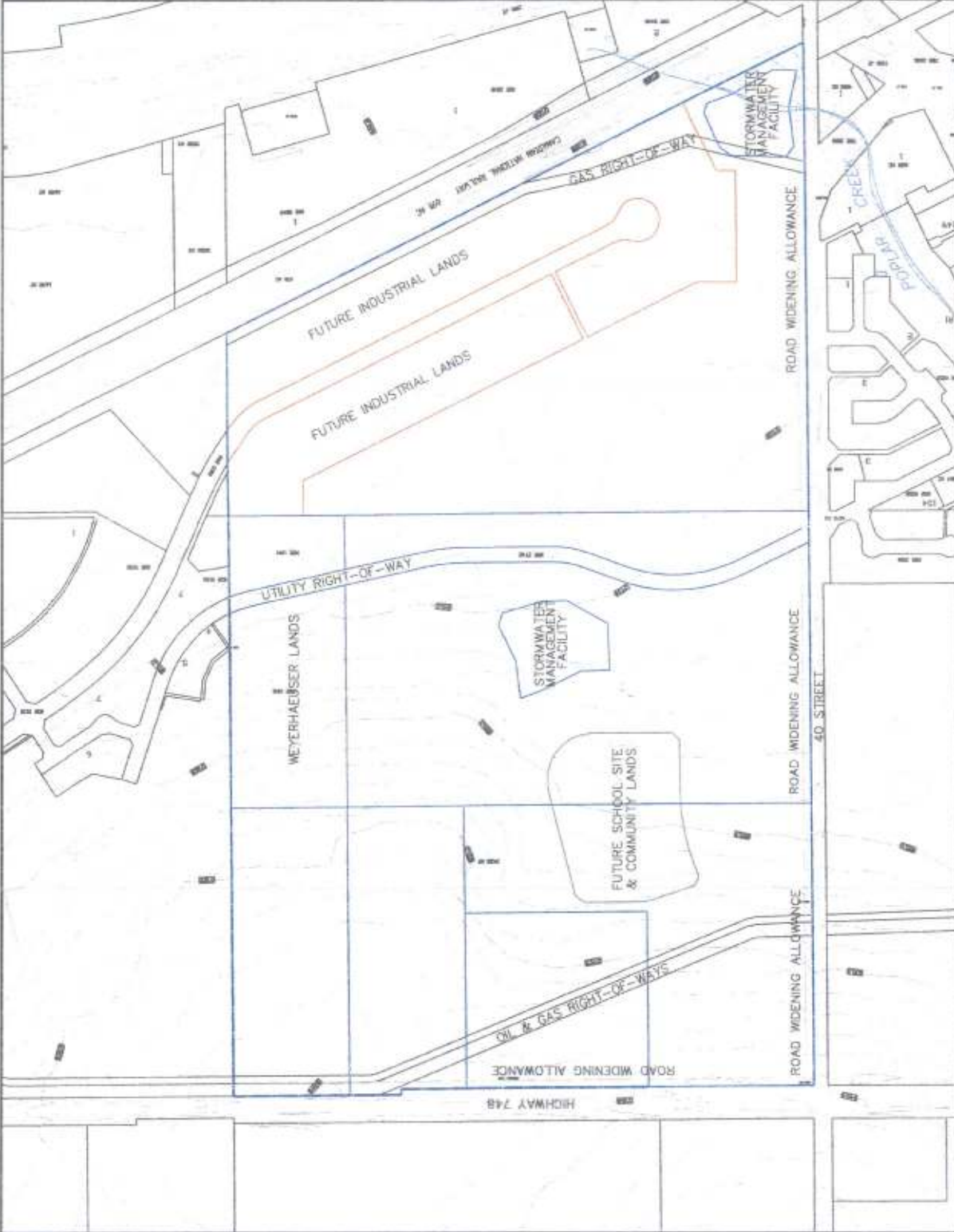
**FIGURE 3:
DEVELOPMENT
CONSTRAINTS**
THE PARKS IN EDSON
BY
1348374 ALBERTA LTD.
NW 23-53-17-5 AND
PART OF SW 23-53-17-5
TOWN OF EDSON

NORTH SCALE 1:5000
0m 100m 200m

1 | 2009-05-14 | RELEASED FOR REVIEW
2 | 2009-07-02 | RELEASED FOR REVIEW

DRAWN BY: J.L. | REVIEWED BY: AK

LEGEND:
BOUNDARY: 99.89%g
CONTOUR



A Land Use Plan (Figure 4) has been prepared for The Parks. It summarizes the proposed planning, including roads, parkland, residential areas, commercial zones, and an industrial park.

5.3 Green Space

The open space provided conforms to the LUB and utilizes the constraints of the site to its advantage, including existing treed areas, low spots for stormwater management, and the existing buffer area owned by Weyerhaeuser. Large areas are set aside for Public Reserve and Community Services. Public Utility Lots are also preserved as green spaces. A trail system will connect parks to each other forming an extensive recreation network.

5.4 Population

The Town of Edson currently has a population of 8,365. The proposed development will have an estimated population of 3,425 people once it is completed. That number includes nearly 1,069 additional school children. The population density is 84 persons per hectare for residential areas, 61 persons per hectare for all developable areas, and 35 persons per hectare for the entire parcel, which accommodates the requirement of the MDP for there to be 40 persons per hectare. A maximum density of 130 persons/ha has been assumed for the Commercial land use, based on two storeys of residential units above commercial development at maximum site coverage. Table 4 contains the breakdown of population by land use.

Table 4: Estimated Population by Land Use

| Land Use | Area (ha) | Persons/ha | Population | Children |
|--------------|--------------|------------|-------------|-------------|
| LD RES | 21.43 | 40 | 857 | 268 |
| MD RES | 9.14 | 80 | 731 | 228 |
| HD RES | 7.56 | 200 | 1512 | 472 |
| COM | 2.5 | 130 | 325 | 101 |
| Total | 40.63 | 84 | 3425 | 1069 |

6 SUSTAINABILITY

The United Nations Bruntland Commission on the Environment and Development defines sustainability as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." There is no doubt that humans have a large impact on the environment they live in, and the use of resources is unavoidable. However, planners and engineers have a responsibility to identify and mitigate some of the negative consequences of development. Of course, it must be understood that urban development can have positive benefits both for the community and the environment.

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**FIGURE 4: LAND
 USE PLAN**
 THE PARKS IN EDSSON
 BY
 1346374 ALBERTA LTD.
 NW 23-53-17-5 AND
 PART OF SW 23-53-17-5
 TOWN OF EDSSON

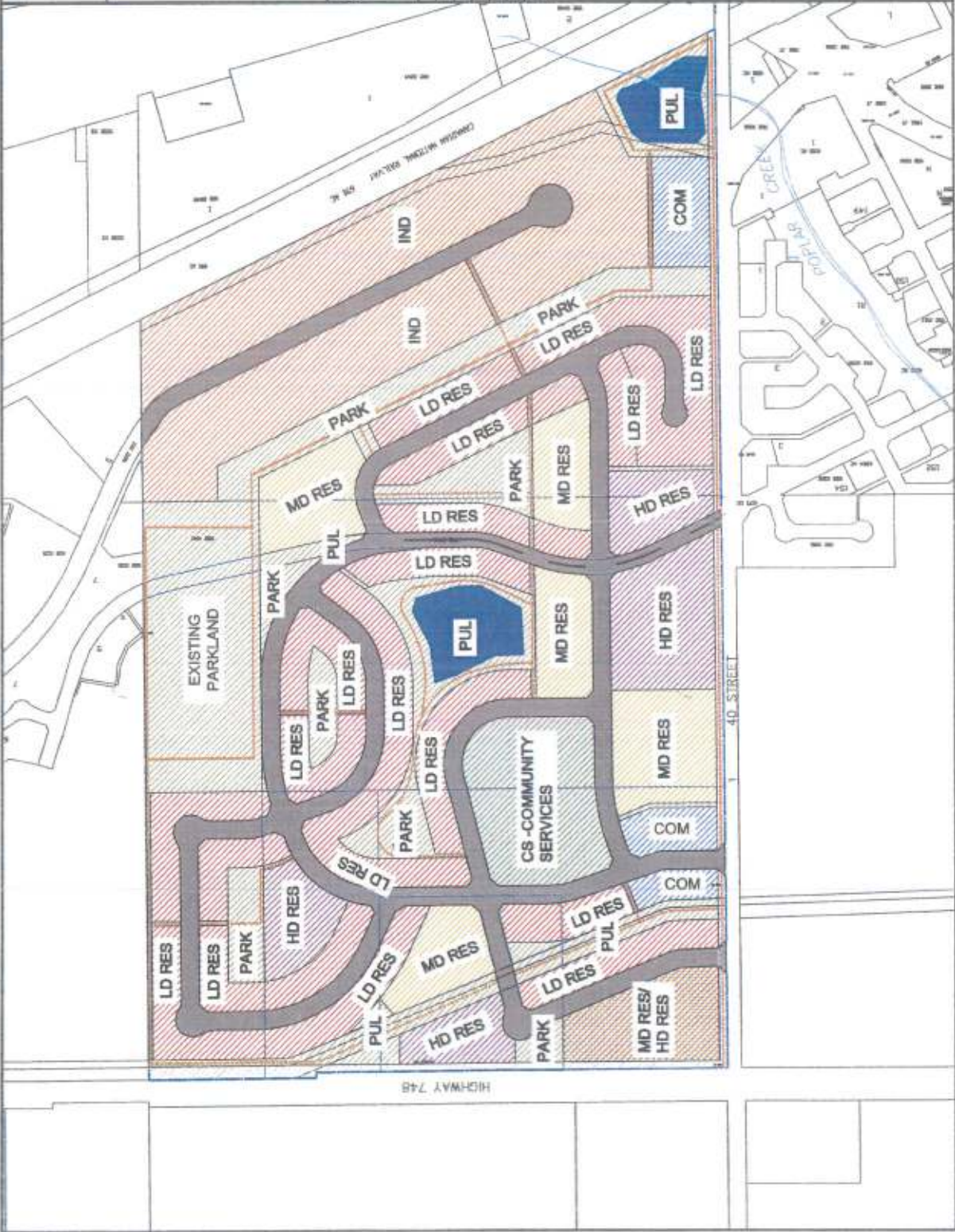


| | | |
|---|------------|---------------------|
| 1 | 2009-02-14 | RELEASED FOR REVIEW |
| 2 | 2009-07-02 | RELEASED FOR REVIEW |

DRAWN BY: J.L. REVIEWED BY: AK

LEGEND:

| | |
|--------------|-------------|
| BOUNDARY: | 99.89ha |
| ZONING: | |
| LD RES: | 21.62ha 22% |
| MD RES: | 9.23ha 9% |
| HD RES: | 7.55ha 8% |
| COM: | 2.50ha 3% |
| IND: | 15.81ha 16% |
| GREEN SPACE: | |
| PARK: | 8.82ha 9% |
| PUL: | 6.85ha 7% |
| EX. PRKI: | 6.46ha 6% |
| CS: | 3.98ha 4% |
| LAKE: | 2.47ha N/A |
| ROAD: | 14.72ha 15% |
| WIDENING: | 2.35ha 2% |
| TRAIL: | N/A |



The driving force behind all development is economic decision-making. In a smaller municipality, such as the Town of Edson, residential development helps to increase both the tax base and the workforce, and as population increases, commercial services also develop to meet the needs of the new citizens. This cycle continues and grows over time, producing larger, more economically sustainable communities.

A variety of housing types will accommodate and attract a diverse community of neighbours. Single people, families, and retirees will all be able to find a home in The Parks. Community Service land is available for a local school, and may even accommodate a community center, providing a hub for neighbourhood activities in the heart of The Parks.

Ideally, people want to work near where they live. The proposed development sets aside significant industrial areas, and a variety of commercial lands; it is also conceivable that some may run small businesses from their homes. Additionally, the development may be an attractive place to build a home for employees working at many of the near-proximity industries, such as the Weyerhaeuser mill. New commercial and industrial buildings should be designed according to recognized sustainable design standards, such as the LEED® - New Construction guidelines. This will provide for a healthier working environment for employees, and more durable buildings.

Aside from work, recreation also forms a necessary part of life. The Parks has been specifically designed as an active community. Multi-purpose trails connect people and business within the development, and also provide connections to the Town's existing trail network. Large areas of Community Service and Public Reserve land, including the large parcel owned by Weyerhaeuser, and Public Utility Lots with residential ponds will provide accessible recreation, and endless opportunities to enjoy the natural environment in an urban setting. The residential ponds could also provide a skating surface during the winter, once the ice was sufficiently thick enough.

Protecting the natural environment – and improving it where possible – is also enshrined in the idea of sustainable development. One of the most important environmental features to protect is water. Human development tends to increase stormwater runoff by creating hard surfaces such as roofs and pavement. The following methods are to be implemented to mitigate the effect of development on the water table:

- Large sensitive areas are to be set aside for Public Reserve, Public Utility Lots, and Community Services to reduce hard surfaced areas
- Stormwater management facilities are to provide detention for 1:100 year storms, releasing water to Poplar creek at a pre-development flow rate, and preserving the existing water shed
- Further, developers and builders should be encouraged to include modern water efficient technologies in new buildings and permeable paving where appropriate

The Parks is really a planned community. It is a place for families to live, to play, to learn, and to work. Building the neighbourhood around Community Service land, large parks, and a residential pond will provide ample opportunities for activity and recreation within The

Parks. Industry and businesses will be located within walking and biking distance for residents, reducing vehicle dependency, and encouraging physical activity.

7 TRANSPORTATION

Access to The Parks will be from three entrances along 40th Street, two of which meet existing intersections at 6th Avenue and 18th Avenue. The road that runs between these entrances, and services the proposed lots will have a right-of-way width of 25.5m with a typical urban cross-section – with the exception of 6th Avenue, which has a proposed right-of-way width of 21m, as per the Town's Standards.

Access to the industrial area will only be from Aspen Drive. This is to ensure that industrial traffic does not access residential areas. A 2.5m multiway has been provided for as an emergency access to the industrial area.

The commercial area will have direct access to 40th Street.

The road cross-sections and pavement structure will be as per the Town's Standards, and as recommended by the Geotechnical Consultant. The roads will have typical urban cross-sections with curb and gutter. The roads are shown in **Figure 5**.

Detailed Traffic Impact Assessments will have to be conducted for The Parks at the time of subdivision.

Ensured access (emergency route) for fire and ambulance trucks has been taken into account.

8 UTILITY SERVICES

8.1 Stormwater Management

Storm water management is based around the concepts of quantity and quality control. Water quantity specifically refers to flood control, and water quality involves pollution prevention.

As shown in **Figure 6**, it is proposed that two large storm water management facilities (conventionally referred to as wet-ponds) be created to allow for effective qualitative and quantitative treatment of stormwater runoff, as required by Alberta Environment and the Town of Edson. As the topography of the land involves a general slope from the north to the south, the storm water ponds will handle the areas roughly north and immediately surrounding them.

These ponds will be designed to manage post-development runoff rates so that they are equivalent to pre-development rates. Specific design information regarding the

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FIGURE 5: TRANSPORTATION PLAN

THE PARKS IN EDSON
BY
1348374 ALBERTA LTD.
NW 23-53-17-5 AND
PART OF SW 23-53-17-5
TOWN OF EDSON

NORTH SCALE 1:5000

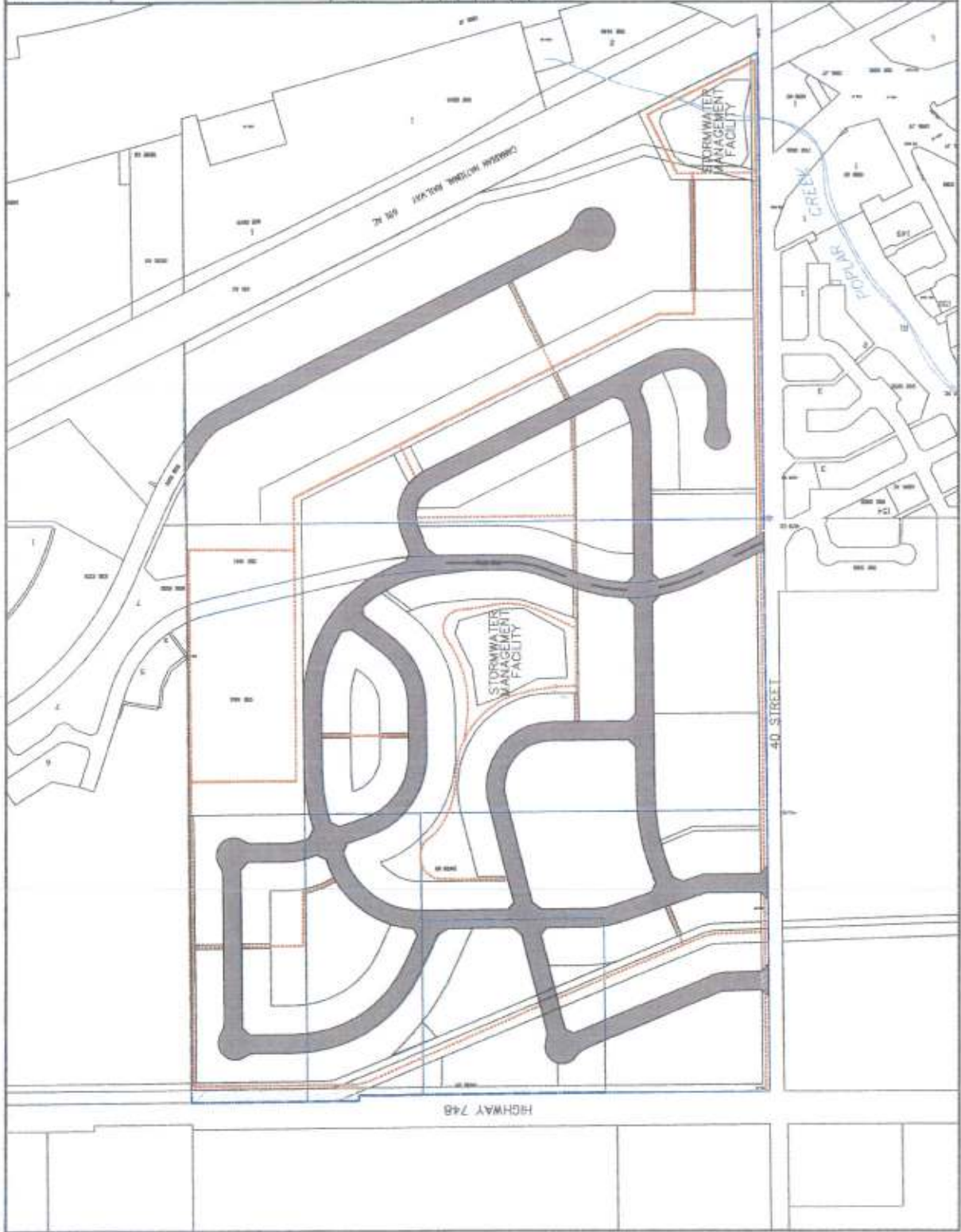


- 1. 2009-02-14 RELEASED FOR REVIEW
- 2. 2009-07-02 RELEASED FOR REVIEW

DRAWN BY: J.L. REVIEWED BY: AK

LEGEND:

- BOUNDARY: 99.89ha
- ROAD:
- WIDENING:
- 2.4m MULTI-PURPOSE TRAIL



DEVELOPMENT SOLUTIONS
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 EDMONTON, AB
 T5T 2T9

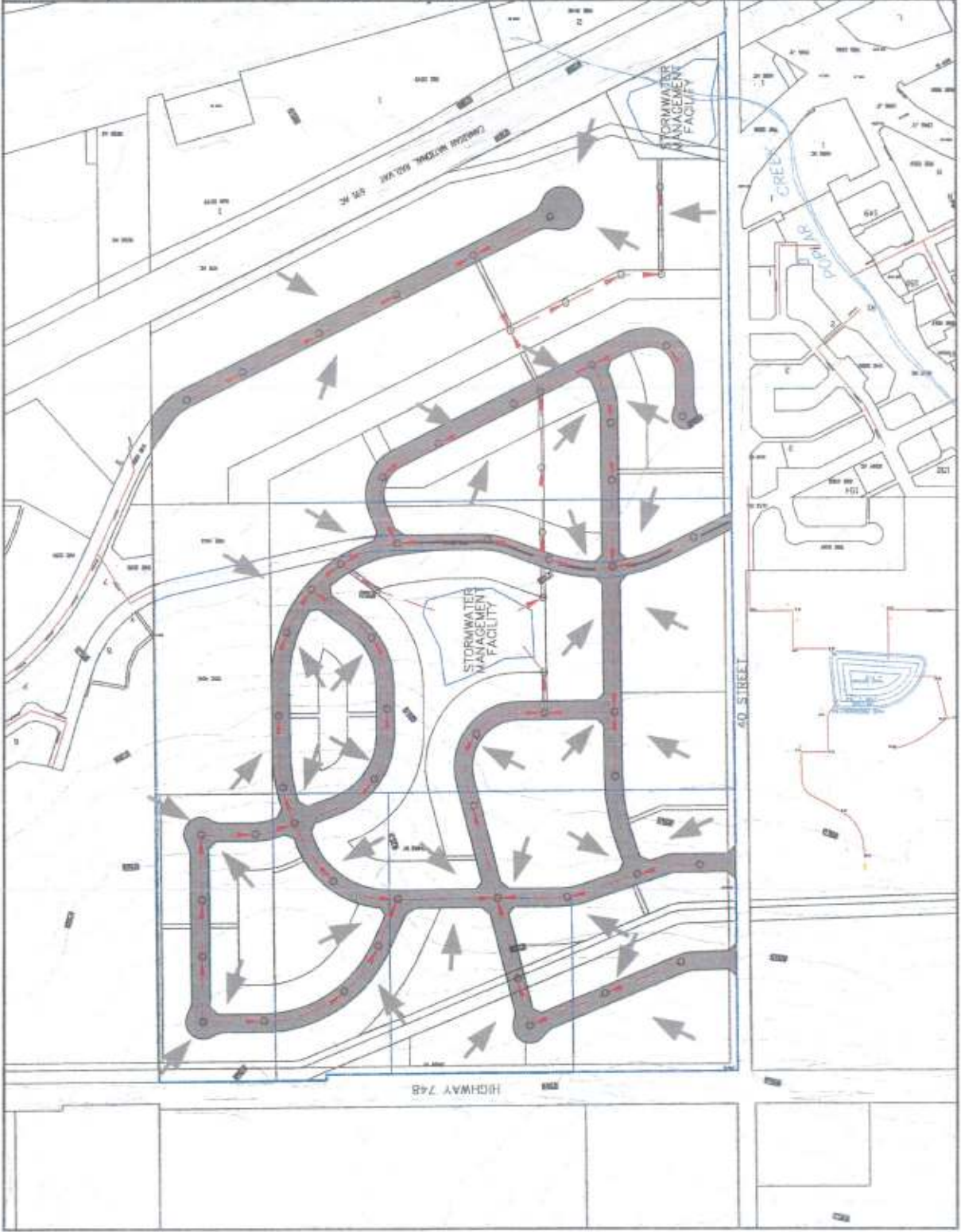
**FIGURE 6:
 STORMWATER
 MANAGEMENT**
 THE PARKS IN EDSON
 BY
 1348374 ALBERTA LTD.
 NW 23-53-17-5 AND
 PART OF SW 23-53-17-5
 TOWN OF EDSON

⊕ NORTH SCALE 1:5000
 0m 100m 200m

1 2009-02-14 RELEASED FOR REVIEW
 2 2009-07-08 RELEASED FOR REVIEW

DRAWN BY: J.L. REVIEWED BY: AK

LEGEND:
 BOUNDARY: 99.89ha
 CONTOUR:
 DIRECTION OF FLOW:
 MANHOLE:
 PROP. SEWER MAIN:
 EX. SEWER MAIN:
 PROP. ROAD:



stormwater ponds will be determined during detailed engineering design, and are beyond the scope of this document.

Schematic layout of one possible storm sewer main configuration has been shown in Figure 6. Detailed engineering for construction drawings will determine the ultimate storm sewer main and servicing layout.

The stormwater management design ensures that the downstream receiving bodies will not be affected by the increase in the runoff after development. However, a detailed Stormwater Management Plan will be required prior to subdivision to determine pre-development and post-development flow rates, as well as pond sizing.

8.2 Sanitary Services

There is an existing sanitary sewer trunk main south of The Parks. It has been indicated by the Town's administration that this trunk has adequate capacity to handle proposed sanitary flows from the development, based on the desired population density recommended in the MDP. Table 5 and Figure 7 describe the estimated sewage contribution for The Parks, based on a per capita daily water demand of 450 L, and a peaking factor of 3.00. Contributions from the proposed industrial area have been accommodated by using an inflated demand value of 450 L/person/day for residential areas. A maximum density of 130 persons/ha has been assumed for the C-4 land use, based on two storeys of residential units above commercial development at maximum site coverage.

Table 5: Estimated Sewage Contribution by Land Use

| Land Use | Pop. | Per Capita Demand (L/person/d) | Sanitary Peaking Factor | Avg Sewage Contribution (L/s) | Peak Sewage Contribution (L/s) |
|--------------|-------------|--------------------------------|-------------------------|-------------------------------|--------------------------------|
| LD RES | 857 | 450 | 3.00 | 4.46 | 13.38 |
| MD RES | 731 | 450 | 3.00 | 3.80 | 11.4 |
| HD RES | 1512 | 450 | 3.00 | 7.87 | 23.61 |
| COM | 325 | 450 | 3.00 | 1.69 | 5.07 |
| Total | 3425 | 450 | 3.00 | 17.82 | 53.46 |

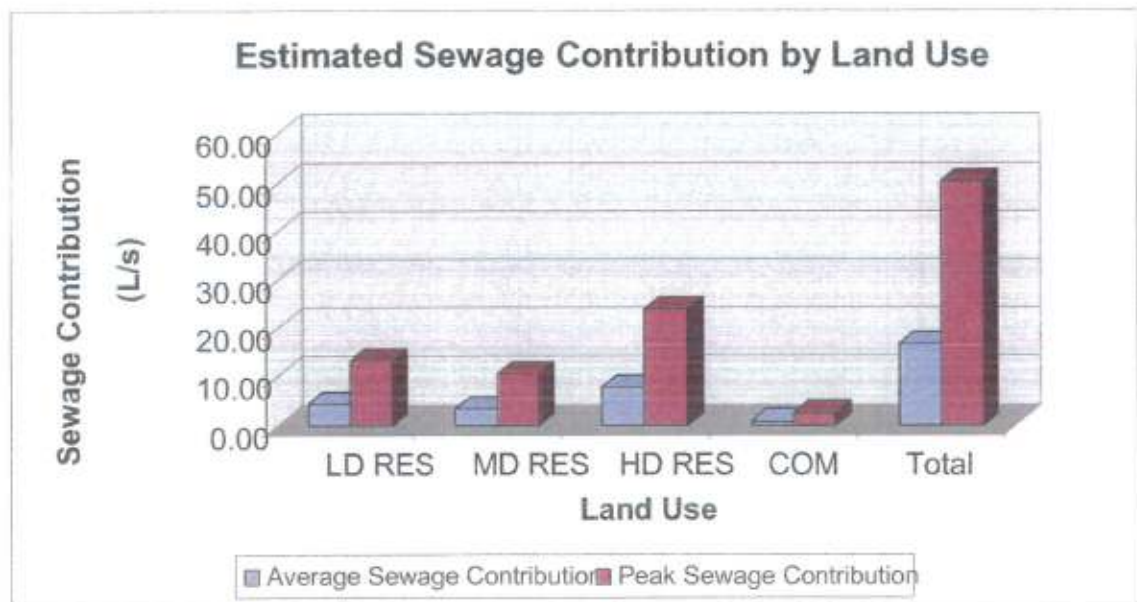


Figure 7: Estimated Sewage Contribution by Land Use

Schematic layout of one possible sanitary sewer main configuration has been shown in Figure 8. Detailed engineering for construction drawings will determine the ultimate sanitary sewer main and servicing layout.

8.3 Water Supply & Distribution

There is an existing water distribution main in the Right-of-Way along 6th Avenue, bisecting The Parks. It has been indicated by the Town's administration that this main has adequate pressure and capacity to provide fire flows for the development and accommodate estimated water demand, based on the desired population density recommended in the MDP. Table 6 and Figure 9 describe the estimated water demand for The Parks, based on a per capita daily water demand of 450 L, a peak hour factor of 2.3 and a peak day factor of 1.5. Water demand for the proposed industrial area has been accommodated by using an inflated per capita demand value of 450 L/person/day for residential areas. A maximum density of 130 persons/ha has been assumed for the Commercial land use, based on two storeys of residential units above commercial development at maximum site coverage.

Table 6: Estimated Water Demand by Land Use

| Land Use | Pop. | Per Capita Demand (L/person/d) | Water Peak Hour Factor | Water Peak Day Factor | Avg Water Demand (L/s) | Peak Hour Water Demand (L/s) | Peak Day Water Demand (L/s) |
|----------|------|--------------------------------|------------------------|-----------------------|------------------------|------------------------------|-----------------------------|
| LD RES | 857 | 450 | 2.3 | 1.5 | 4.46 | 10.26 | 6.69 |
| MD RES | 731 | 450 | 2.3 | 1.5 | 3.81 | 8.76 | 5.71 |
| HD RES | 1512 | 450 | 2.3 | 1.5 | 7.87 | 18.11 | 11.8 |

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18327 87 AVE
EDMONTON, AB
T8T 2H9

**FIGURE 8:
SANITARY
SERVICING PLAN**
THE PARKS IN EDSON

BY
1348374 ALBERTA LTD.
NW 23-53-17-5 AND
PART OF SW 23-53-17-5
TOWN OF EDSON

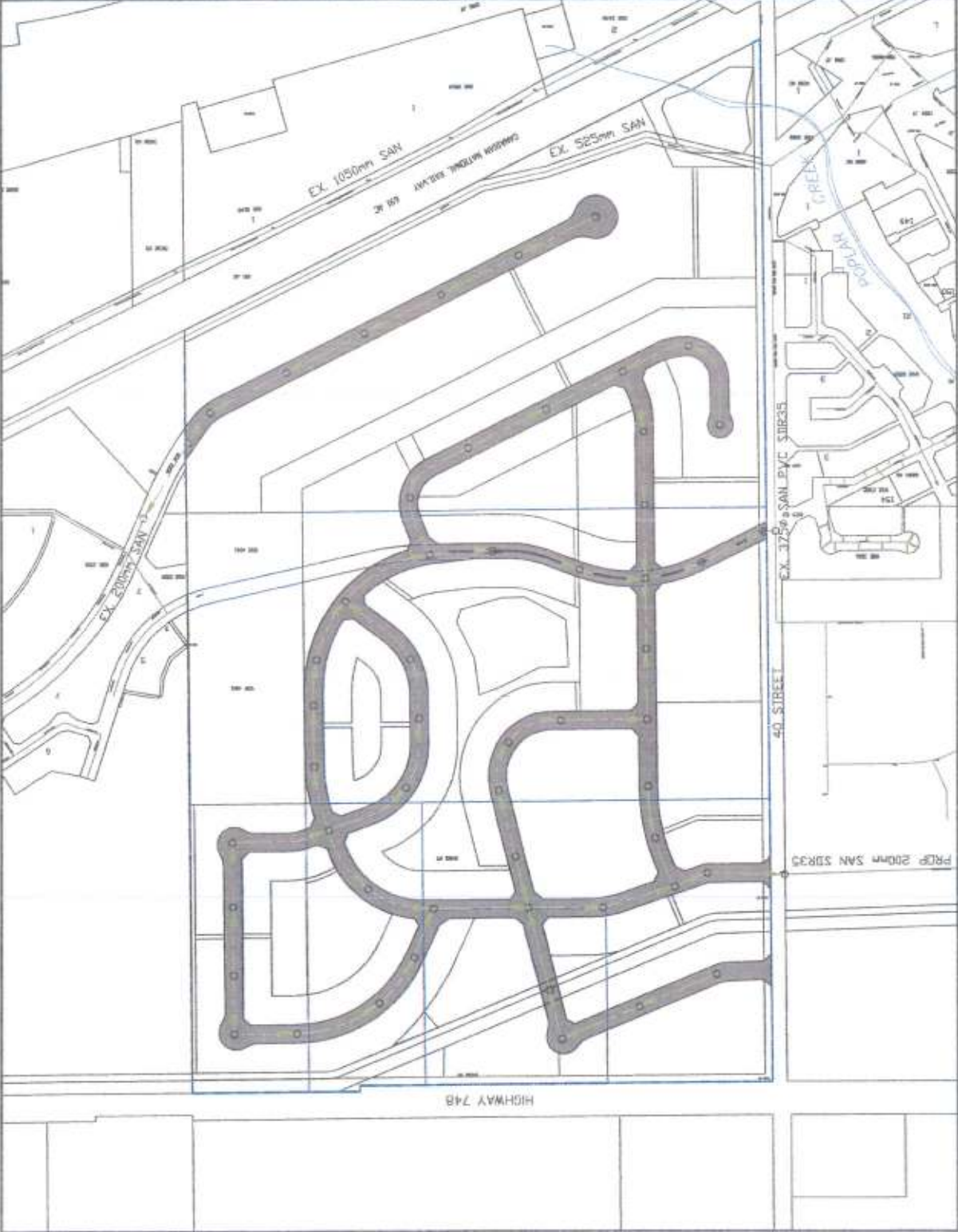
NORTH SCALE 1:5000
0m 100m 200m

| | | |
|---|------------|---------------------|
| 1 | 2009-08-14 | RELEASED FOR REVIEW |
| 2 | 2009-07-02 | RELEASED FOR REVIEW |

DRAWN BY: J.E. REVIEWED BY: AK

LEGEND:

- BOUNDARY: 99.89ha
- MANHOLE: ○
- PROP. SEWER MAIN: —
- EX. SEWER MAIN: - - -
- PROP. ROAD: ■



| | | | | | | | |
|-------|------|-----|-----|-----|-------|-------|-------|
| COM | 325 | 450 | 2.3 | 1.5 | 1.69 | 3.89 | 2.53 |
| Total | 3223 | 450 | 2.3 | 1.5 | 17.83 | 41.02 | 26.73 |

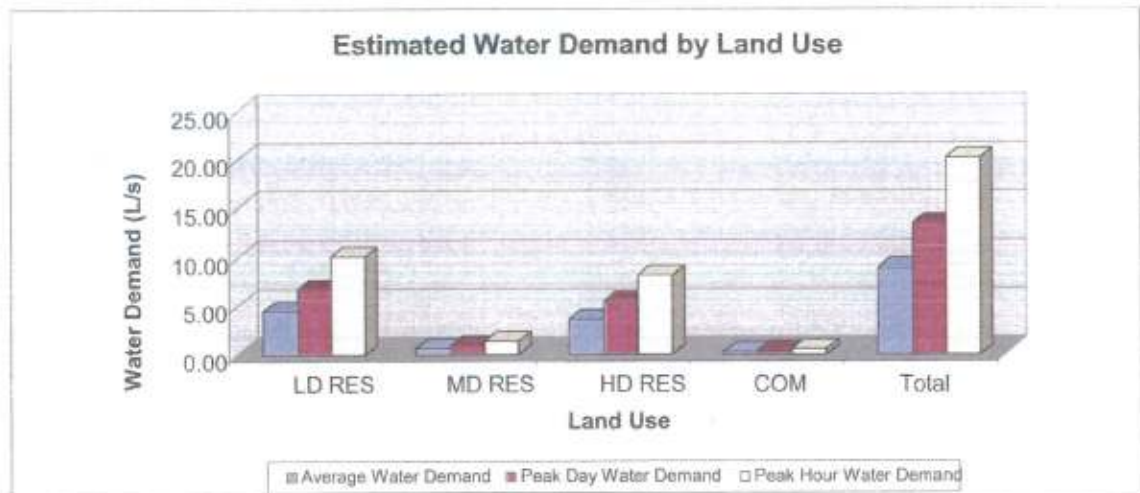


Figure 9: Estimated Water Demand by Land Use

Schematic layout of one possible water main configuration has been shown in **Figure 10**. This layout includes looping to the stub at 40th Street and 18th Avenue. Detailed engineering for construction drawings will determine the ultimate water main and servicing layout. The 200mm diameter water main along Aspen Drive, east of The Parks may require upgrading to service the industrial area.

8.4 Franchise Utilities

Gas, power, telephone and cable are provided by franchise utilities, and are readily available. Easements required by these utilities will be established and provided at the detailed design stage. Planning and engineering design information relevant to the franchise utilities are beyond the scope of this document and will be shown on the construction drawings for approval by the Town.

9 PHASING AND DEVELOPMENT CHARGES

It is probable that The Parks will be constructed in several phases, depending in part on servicing requirements, market considerations, and the circumstances of the individual land owners. The Industrial areas have the ability to be developed independently of the residential areas, and may be considered a separate phase of the project.

Stormwater management on the site is a prime consideration. Although the ponds will ultimately be linked together, they can be designed so that they will function independently of each other for a certain period of time to allow separate phasing of the two areas. Additionally, the northern sections of the project will most likely be developed after the central area has been constructed, including both stormwater management ponds.

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T5T 2J9

**FIGURE 10: WATER
DISTRIBUTION
PLAN**

THE PARKS IN EDSON

BY
1348374 ALBERTA LTD.

NW 23-53-17-5 AND
PART OF SW 23-53-17-5
TOWN OF EDSON

⊕ NORTH SCALE 1:5000

0m 100m 200m

1 2009-08-14 RELEASED FOR REVIEW
2 2009-07-02 RELEASED FOR REVIEW

DRAWN BY: J.L. REVIEWED BY: A.K.

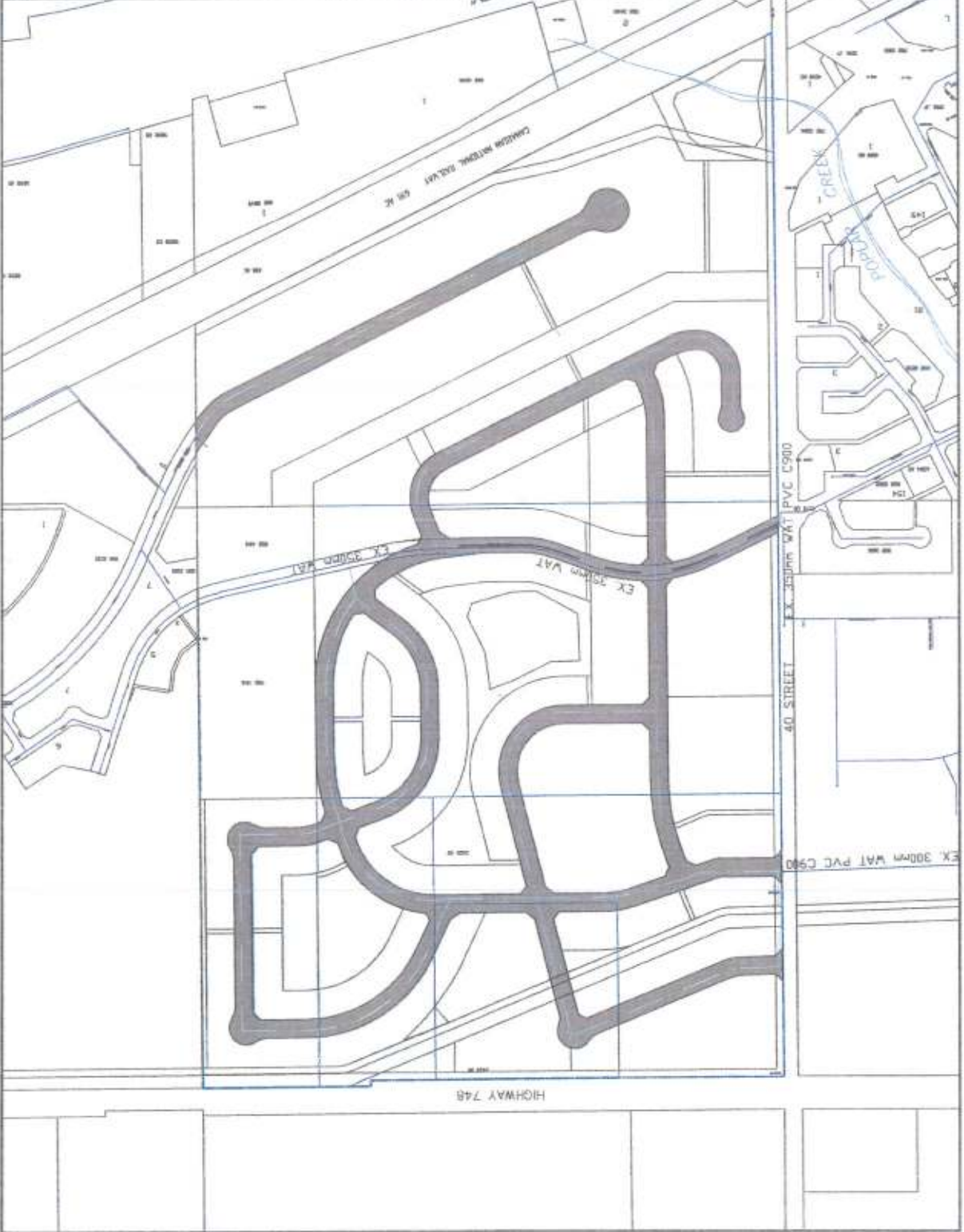
LEGEND:

BOUNDARY: 99.89ha

PROP. WATER MAIN

EX. WATER MAIN

PROP. ROAD



All off-site costs directly associated with development of the plan area will be recovered by the Town through development levies in a manner to be specified in development agreements required as a condition of subdivision or development approvals.

At the time of development or subdivision, the owners of the land being developed or subdivided will be required to pay their share costs or receive fair compensation for their required contribution towards the public lands and infrastructure in the area. Where an existing lot contributes less than the 10% of the land required for municipal reserves, the balance will be required as a cash payment into the Town's municipal reserve fund; and where a lot contributes more than the required 10% of land for municipal reserve, the owner will be compensated with a payment from the municipal reserve fund.

10 CLOSE

The proposed plan has taken into account and addressed all the constraints imposed on it by the existing circumstances.

The concept drawings do not show the specific dimensions of required engineered structures and systems. These are subject to the detailed design as well as the minimum sizes stipulated by the Town of Edson. The Town's Engineering Standards are to be followed in the detailed design for the development.

Development Solutions

AURORA SDC

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APPENDIX

- **Appendix A: Certificate of Title**
- **Appendix B: Environmental Assessment**
- **Appendix C: Geotechnical Reports**

Appendix A

Certificates of Title

Appendix B

Preliminary Geotechnical Assessment
(EBA Engineering Consultants Ltd.)