

Allan's Landscaping/Allan's Disposal Services Ltd.

777 60<sup>th</sup> Street West  
Comprehensive Development Review 2024

Report – 17 January 2025

Prepared By:

PINTER & Associates Ltd.  
710A 48<sup>th</sup> Street East  
Saskatoon, SK  
S7K 3Y8  
Project #: 3084- 6

Wallace Insights Inc.  
130 LeMay Crescent  
Saskatoon, SK  
S7S 1K9  
Wallace Project #: W24-011

## Statement of Qualifications and Limitations

The attached Report (the "Report") has been prepared by PINTER & Associates and Wallace Insights Inc. ("Consultant") for the benefit of the Client ("Client") in accordance with the Agreement between the Consultant and Client, including the scope of work detailed therein (the "Agreement").

The information, data, recommendations, and conclusions contained in the Report (collectively, the "Information"):

- Is subject to the scope and other constraints and limitations in the Agreement and the qualifications contained in the Report (the "Limitations").
- Represents Consultant's professional judgement in light of the Limitations and industry standards for the preparation of similar reports.
- May be based on information provided to the Consultant which has not been independently verified.
- Has not been updated since the date of issuance of the Report and its accuracy is limited to the time period and circumstances in which it was collected, processed, made or issued.
- Must be read as a whole and sections thereof should not be read out of such context.
- Was prepared for the specific purposes described in the Report and the Agreement

The Consultant shall be entitled to rely upon the accuracy and completeness of information that was provided to it and has no obligation to update such information. Consultant accepts no responsibility for any events or circumstances that may have occurred since the date on which the Report was prepared.

Consultant agrees that the Report represents its professional judgement as described above and that the information has been prepared for the specific purpose and use described in the Report and the Agreement, but Consultant makes no other representations, or any guarantees or warranties whatsoever, whether express or implied, with respect to the Report, the information or any part thereof.

This Report contains confidential and proprietary information that shall not be reproduced, disclosed, or discussed in any manner with other parties except:

- As agreed in writing by the Consultant and Client
- As required by law
- For use by governmental or municipal reviewing agencies

The Consultant accepts no responsibility and denies any liability whatsoever to parties other than the Client who may obtain access to the Report or the information for any injury, loss, or damage suffered by such parties arising from their use of, reliance upon, or decisions or actions based on the Report or any of the information ("Improper use of the Report"), except to the extent those parties have obtained the prior written consent of the Consultant to use and rely upon the Report and the Information.

This Statement of Qualifications and Limitations is attached to, and forms part of the Report, and any use of the Report is subject to the terms hereof.

## Distribution List

Format	Copies	Recipient
.docx	1	Wallace Insights ltd
PDF	1	Allan's Landscaping Ltd.
PDF	1	Pinter & Associates ltd
PDF	1	RM of Corman
Hardcopy	2	RM of Corman Park

## Revision Log

Revision #	Revised By	Date	Issue / Revision Description
1	Wallace	10 October 2024	Preliminary Draft Report
2	PINTER	05 December 2024	Draft Report
3	PINTER	17 January 2025	Removed Draft and Finalization of the Report

## Consultant Signatures

Report Prepared By:



Enkhnyamaa Jalbuu, P.Eng.  
Project Manager  
PINTER & Associates Ltd



Report Prepared By:



Alan Wallace, RPP, MCIP  
Project Planner  
Wallace Insights Ltd.



## **Executive Summary**

This Comprehensive Development Review addresses the proposed rezoning of the site from DAG2 – Agricultural District 2 to DM1 – Light Industrial District. The site covers 10.578 hectares (26.139 acres) and is located along the municipal boundary of the City of Saskatoon, between Highway 16 and the Saskatoon Airport.

The registered owner of the property is Allan's Landscaping Ltd., and the current land use is classified as a "Landscaping Service." The existing landscaping business is considered a legal, non-conforming use under the current agricultural zoning, meaning any expansion of the business is restricted.

The applicant is seeking to rezone the property to bring the existing land use into compliance with the P4G planning bylaws. Rezoning the property will enable future development in accordance with the requirements outlined in the P4G District Official Community Plan and the P4G North Concept Plan. The site and uses intended can be seamlessly integrated into an urban environment in the future as identified in the P4G Land Use Map.

This proposed rezoning aligns with the existing land use on the site and the surrounding area. The future land use for this area, as indicated in the P4G, is Light Industrial. Additionally, the neighboring BizHub Industrial Park is already zoned as DM1 – Light Industrial.

# Table of Contents

## Statement of Qualifications and Limitations

## Distribution List

## Executive Summary

	page
<b>1</b>	<b>introduction ..... 1</b>
	1.1 Introduction and Background ..... 1
<b>2</b>	<b>Purpose ..... 1</b>
	2.1 Policy Context ..... 3
	2.2 Existing Use and Conditions ..... 3
	2.3 Adjacent Development ..... 4
	2.4 Project Team ..... 5
<b>3</b>	<b>Site Development Overview ..... 6</b>
	3.0 Proposed Development ..... 6
	3.1 Zoning Bylaw Map Change ..... 6
	3.2 Land use Compatibility ..... 7
	3.3 Natural and Heritage Resources ..... 7
	3.4 Environmental Concerns ..... 8
<b>4</b>	<b>Servicing ..... 9</b>
	4.1 Roadways and Access/Egress ..... 9
	4.2 Water Distribution ..... 9
	4.3 Stormwater and Drainage ..... 9
	4.4 Solid and Liquid Waste ..... 10
	4.5 Shallow Utilities ..... 10
<b>5</b>	<b>Policy and Regulatory Compliance ..... 11</b>
	5.1 P4G District Official Community Plan ..... 11
	5.2 P4G North Concept Plan ..... 14
	5.3 P4G District Zoning Bylaw ..... 15
<b>6</b>	<b>Consultation and Referrals ..... 16</b>
	6.1 Referrals and Screening ..... 16

**Tables**

Table 1: Project Team.....	5
----------------------------	---

**Figures**

Figure 1: Site Location.....	2
Figure 2: Parcel Pictures .....	3
Figure 3: Aerial Site view .....	4
Figure 4: Surrounding Land use .....	5
Figure 5: Rezoning Map .....	7
Figure 6:Site Access .....	9
Figure 7:Excerpt from Schedule B .....	12
Figure 8: Excerpt from Schedule C .....	13
Figure 9: Excerpt from Figure 3 - Planning Cell 1 .....	14

## Appendices

- Appendix A Context Figures
- Appendix B ISC Parcel Boundary
- Appendix C Topographic Survey
- Appendix D RMCP Zoning Confirmation
- Appendix E Site plan
- Appendix F Heritage Resources Inquiry
- Appendix G Rare Plant and Wildlife Inventory
- Appendix H Phase I Environmental Site Assessment
- Appendix I Geotechnical Report
- Appendix J Drainage Plan
- Appendix K Drainage Report
- Appendix L Shallow Utilities Maps
- Appendix M Public Consultation Mailout Package

# 1 INTRODUCTION

## 1.1 Introduction and Background

The Report and supporting appendices are submitted along with the application to rezone parcels located on the northwest boundary of the City of Saskatoon along Highway 16 west in township 37 located within the NE ¼ 17-37-05-W3M in the Rural Municipality of Corman Park ("RM"). The combined total area of both parcels is 10.578 hectares (26.139 acres).

- Legal Description: Surface Parcel Number: 120821981, 7.7 ha (19.03 ac), LSD: 10- 17-37-05-3 Ext 9
- Legal Description: Surface Parcel Number: 120822005, 2.88 ha (7.12 ac), LSD:15- 17-37-05-3 Ext 10

The P4G District Official Community Plan states that a Comprehensive Development Review is required prior to consideration of an application to rezone land for industrial or commercial developments. As stated in Corman Park's CDR Information Package.

*"Comprehensive Development Review (CDR) reports are required by municipal bylaw to be prepared and submitted in support of any application to rezone or subdivide land for multi-parcel country residential, commercial, industrial, or intensive recreational purposes and also where residential development in excess of three building sites on a ¼ section is proposed on severed parcels within agricultural districts.*

*CDRs are intended to provide RM Council and Administration with a complete overview of how the proposed development successfully integrates itself physically, socially, and financially with existing properties, owners, and development in the immediate vicinity. In addition to addressing matters of land use integration, a CDR is intended to assess the capacity of the supportive municipal and provincial infrastructure as it relates the demand created by the proposed development."*

This Comprehensive Development Report provides the supporting information required for a rezoning located in the RM of Corman Park. Please refer to Appendix A for contextual figures regarding the subject lot.

# 2 PURPOSE

The purpose of this CDR report is to provide technical information to address a range of development requirements in support of an application for rezoning. The proposal includes rezoning the subject land from **DAG2 – Agricultural District 2** to **DM1 – Light Industrial District**. This proposed rezoning would then align with the P4G District's future land use classification outlined in the District's Official Community Plan and Zoning bylaws. Rezoning to

an industrial district allows for compatible development of the property in the future. The proposed development of a garage on the existing lot will expand the current business; however, no new subdivision of the property is proposed at this time.

Rezoning will remove the restrictions to the business' expansion and allow for further development of structures on the lot. The owner is considering leasing these structures to Light Industrial tenants but not subdividing or selling any portion of the existing lot.



**Figure 1: Site Location**

The property consists of two legal parcels (surface parcel no. 120821981 & 120822005) which have been parcel tied to function as a single property. The combined area of the property is 10.578 hectares (26.139 acres).

ISC Parcel Boundary drawings can be found in Appendix B detailing the parcel dimensions. A topographic Survey was conducted by Midwest surveys to capture the existing topography of the site and is delivered in the form of a drawing in Appendix C.





**Figure 3: Aerial Site view**

The existing landscaping business is considered a legal, non-conforming use under the current agricultural zoning, meaning expansion of the current business is restricted. Section 88 of *The Planning and Development Act, 2007* (Act) states:

*"Subject to the other provisions of this Act, the enactment of a zoning bylaw or any amendment to a zoning bylaw does not affect any non-conforming building, non-conforming use or non-conforming site."*

The Act provides protections for non-conforming land uses, allowing them to remain in their current state (scale and use) in perpetuity. The use of the property as a landscaping service may continue unaffected by the current zoning, however, any changes to the business require a zoning amendment.

### **2.3 Adjacent Development**

The subject property is situated in the northeast corner of the Quarter Section 17-37-05-W3M, directly north of the corporate limits of City of Saskatoon. To the north of the property is bordered by an existing service road running parallel to Highway 16. To the east, it is adjacent to a commercial property, Highways 11 & 16, and the city boundary. To the west lies an abandoned homestead and agricultural land. To the south is the Saskatoon John G. Diefenbaker International

Airport. Figure 4 represent the site location.



**Figure 4: Surrounding Land use**

## 2.4 Project Team

The project team is composed of various consulting engineers and professional planners, as detailed in Table 1 below.

**Table 1: Project Team**

Titles	Staff
Developer/Applicant	Allan's Landscaping/Allan's Disposal Services Ltd.
Project Manager: PINTER & Associates Ltd.	Nyamaa Jalbuu, P. Eng
Alternative Project Manager: PINTER & Associates Ltd.	Colin Prang, M.Sc., P. Eng
Project Support: PINTER & Associates Ltd.	Jarrod Quintin, B.Sc.E., EIT.
Project Planner: Wallace Insights	Alan Wallace, RPP, MCIP

## 3 SITE DEVELOPMENT OVERVIEW

### 3.0 Proposed Development

The applicant is seeking to rezone the subject property in order to bring the existing land use into conformance with the P4G Official Community Plan Land Use Map. Rezoning will facilitate future development in alignment with the guidance provided in the P4G District Official Community Plan and P4G North Concept Plan.

As part of the CDR and rezoning application process, a preliminary geotechnical investigation was conducted to provide recommendations for site development and foundations design for potential future construction on the site. The full geotechnical investigation report is included in Appendix I.

Proposed future developments for the property, as informed by Client, include a new commercial garage to expand the current business operations. Additionally, the southernmost 10 acres of the lot are planned for future leasing to other businesses. It is important to note that the proposed southern 10 acres is intended for the expansion of the current owner's revenue streams, and the goal is to lease this area to other business' that comply with the zoning requirements.

At the time of the rezoning application, there are no plans to subdivide the existing lot; however, development applications for a shop or garage on this southern portion, may be submitted in the future. A summary of the current zoning, as confirmed by the RM of Corman Park's zoning maps, is provided in Appendix D. The proposed site plan for the development is located in Appendix E.

### 3.1 Zoning Bylaw Map Change

Figure 5 is an illustration of the requested zoning amendment. The applicant seeks to change a zoning designation from DAG2 – Agricultural District 2 to DM1 – Light Industrial District 1.

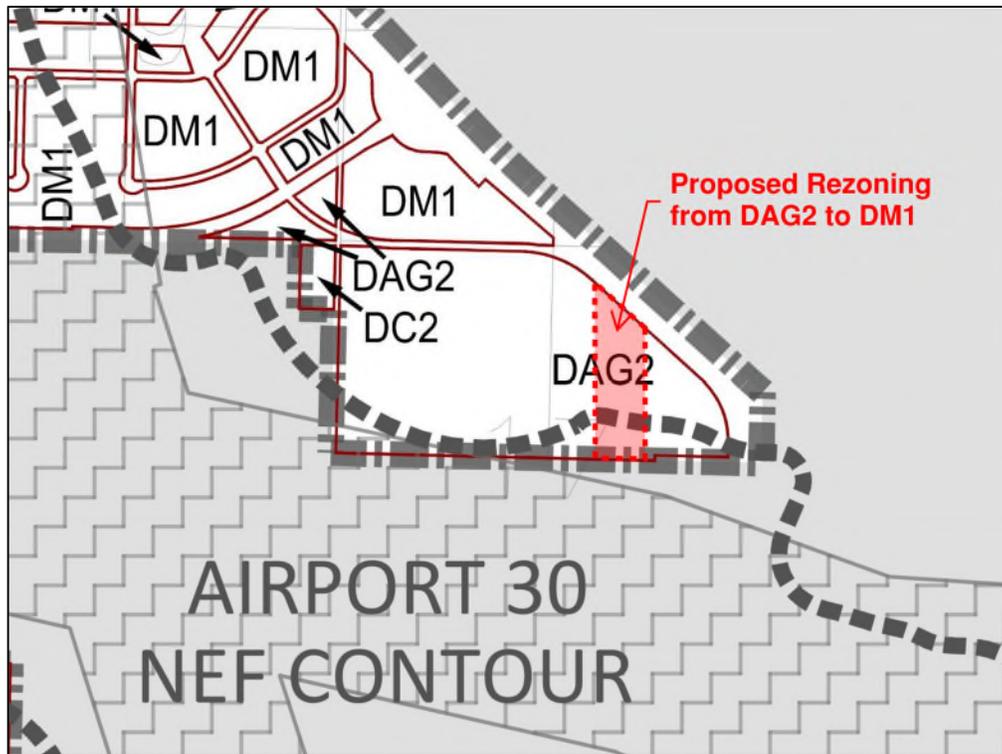


Figure 5: Rezoning Map

### 3.2 Land use Compatibility

The existing landscaping business has been operating at this location since 2003, with minimal land use conflicts due to the industrial nature of the surrounding development. The Yellowhead Industrial Park, located northwest of the property, consists of similar light industrial land uses. The P4G District Zoning Bylaw does not impose separation distances between landscaping services and other land uses.

The property is only marginally impacted by its proximity to the Saskatoon International Airport. A small southern portion of the property falls within the airport overlay zone (Airport 30 NEF), which requires that any future development in this area undergo a noise impact analysis.

### 3.3 Natural and Heritage Resources

The subject property was screened for heritage sensitivity by the Provincial Heritage Conservation Branch on 1 March 2023. This location was classified as not having high heritage sensitivity. As part of the heritage assessment screening, a disclaimer was noted to private landowners, providing a checklist of exempt development activities that do not require a heritage assessment. The proposed garage construction is categorized as one of these exempt activities. Consequently, the checklist will serve as supporting documentation for future regulatory approvals or permits when

heritage concerns may need to be addressed. Refer to the Heritage Sensitivity Screening in Appendix F.

A rare plant survey and wildlife habitat inventory was also conducted in 2023. The site was considered to have limited potential for wildlife, given its current development, and there was no evidence of endangered, threatened, or species-at-risk wildlife on the subject site.

The site contains minimal vegetation diversity and is unlikely to support rare or native vegetation. Moreover, there are no natural waterbodies on the site. As a result, no further environmental work was recommended to the site at the time of investigation. However, the report included two recommendations regarding bird species; if barn swallow, or common nighthawk nests are identified on site in the future, they must not to be disturbed. For the full report, please refer to the Rare Plant and Wildlife Habitat Inventory in Appendix G.

### **3.4 Environmental Concerns**

A Phase I Environmental Site Assessment (ESA) was conducted for the property in 2023. The ESA examined current and historical land uses, as well as possible contamination sources from neighbouring properties.

The ESA report did not identify any evidence of actual or potential contamination on the subject property that could impact its development for light industrial uses. Additionally, there was also no indication of contamination from adjacent properties that could migrate to the subject property. The only identified potential hazards are associated with the existing building, which could release certain materials if it is renovated or demolished.

The report's conclusion highlights the following special attention items that may be present in the building and would require proper management and disposal during renovation or demolition:

- Mercury, which may be present in fluorescent lighting; and
- Ozone-depleting substances, which may be present in fire extinguishers, refrigeration units, and the air-conditioning unit.

For further details, please refer the Phase 1 ESA report in Appendix H.

## 4 SERVICING

### 4.1 Roadways and Access/Egress

The site is currently accessed through 60<sup>th</sup> Street West, an existing service road within the RM of Corman Park. The 60<sup>th</sup> Street West roadway is connected to Highway 16 within the city limits. For a site map detailing the access point in relation to the city boundaries, please refer to Appendix L.



**Figure 6:Site Access**

### 4.2 Water Distribution

The property is serviced by an established rural water main sourced from the Yellowhead Industrial Park. The current water lines on the property were installed and serviced by the Client. At the present, there are no proposed changes or modifications to the existing water main supply lines. The current water supply system is fully operational and sufficient to meet the needs of property as it stands.

### 4.3 Stormwater and Drainage

Drainage on the property is currently managed through an existing stormwater pond and natural overland terrain. To support future development, a comprehensive Stormwater Management Plan (SWMP) has been completed for the site. This plan evaluated potential drainage improvements required to accommodate the increased runoff associated with the proposed developments. The primary goal of the SWMP is to ensure that both pre-development and post-development runoff levels are effectively managed within the site, and while accommodating a 1:100-design flood

event.

As part of the proposed improvements, the development plan recommends the construction of a new stormwater pond at the northeast corner of the property to manage the increased runoff from anticipated additional development. Additionally, two drainage swales, graded at 0.3% to 0.4%, will be constructed along the eastern and western boundaries of the site. These swales will direct runoff northward and connect the existing and proposed stormwater storage ponds.

For the future development of the southern 10 acres of the property, proposed drainage routes will be directed to channel runoff toward the new drainage swales. A detailed grading plan will ensure that runoff is directed to the appropriate storage areas, facilitating slow release into the stormwater management system.

For further details, please refer to Appendix J, which provides the drainage plan illustrating the necessary grading of the site and proposed development, proposed stormwater storage pond, and the proposed drainage swales. Additionally, Appendix K contains the drainage report, outlining the design recommendations and technical specifications for the proposed drainage system.

#### **4.4 Solid and Liquid Waste**

The property is equipped with an existing septic tank and a mound sewage treatment and disposal system. Onsite domestic sewage from the business operation is collected and stored in the septic tank. The settled solid waste is periodically pumped out and properly disposed of at an approved facility. The liquids are directed to the mound system. Which is located within the property limits. In addition, well-rotted cow manure is utilized as a composting material for the business operations. At the time of this report, no changes to the site's servicing infrastructure are proposed.

#### **4.5 Shallow Utilities**

The property is currently serviced by existing natural gas, electrical, and telephone lines. The 3 Phase power is available in the area and could potentially be extended to service the subject property to support future development. At present, no changes or service upgrade to site utility services are proposed. For detailed information, please refer to Appendix L, which includes maps from SaskEnergy, SaskPower, and SaskTel, outlining the locations of their shallow utility infrastructure on the subject property.

It is understood by the applicant that the services for this site are viewed as temporary until such time as the City of Saskatoon provides full urban services. At which time, the owner agrees to connect to the City services and comply with the transition requirements as outlined in the P4G OCP.

## 5 POLICY AND REGULATORY COMPLIANCE

Development of the subject property is regulated by the policies and land use regulations set forth in the P4G District Official Community Plan, P4G North Concept Plan, and District Zoning Bylaw. This section outlines how the proposed use of the property aligns with and adheres to the guidelines and requirements established in these planning documents.

### 5.1 P4G District Official Community Plan

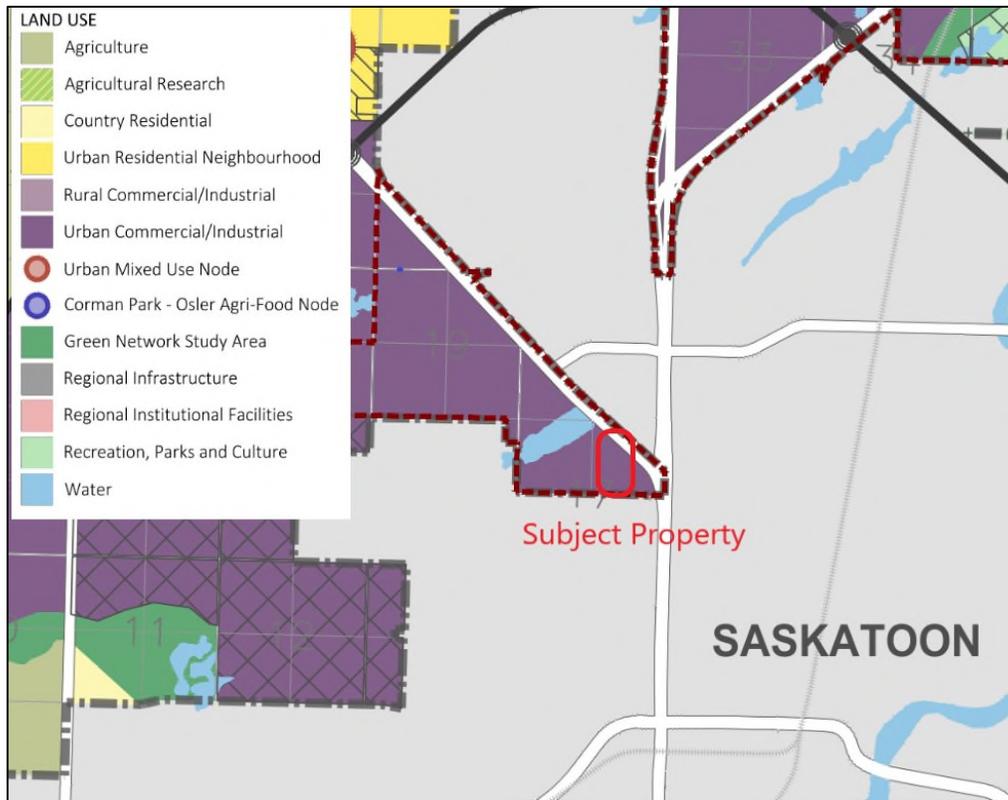
#### Policy Reference:

##### *10.3.4 Intent of the Land Use Designations*

*(e) Urban Commercial/Industrial accommodates future general commercial and industrial uses, including office, retail, and industrial areas that are connected to urban servicing. These areas shall be further designated as Urban Commercial and Urban Industrial areas through more detailed planning.*

#### Policy Compliance:

The property is designated as Urban Commercial/Industrial on Schedule B of the P4G District Official Community Plan. The property is also located within the area covered by the P4G North Concept Plan, which is attached as Schedule D to the P4G Official Community Plan. The proposed rezoning of the property to DM1 – Light Industrial 1 District is consistent with the land use designation outlined in Schedule B, ensuring alignment with the broader planning framework.



**Figure 7: Excerpt from Schedule B**

Policy Reference:

*14.3.5 Industrial Development Adjacent to Urban Areas*

*Industrial development may not be located adjacent to the boundary of an urban municipality unless the proposal:*

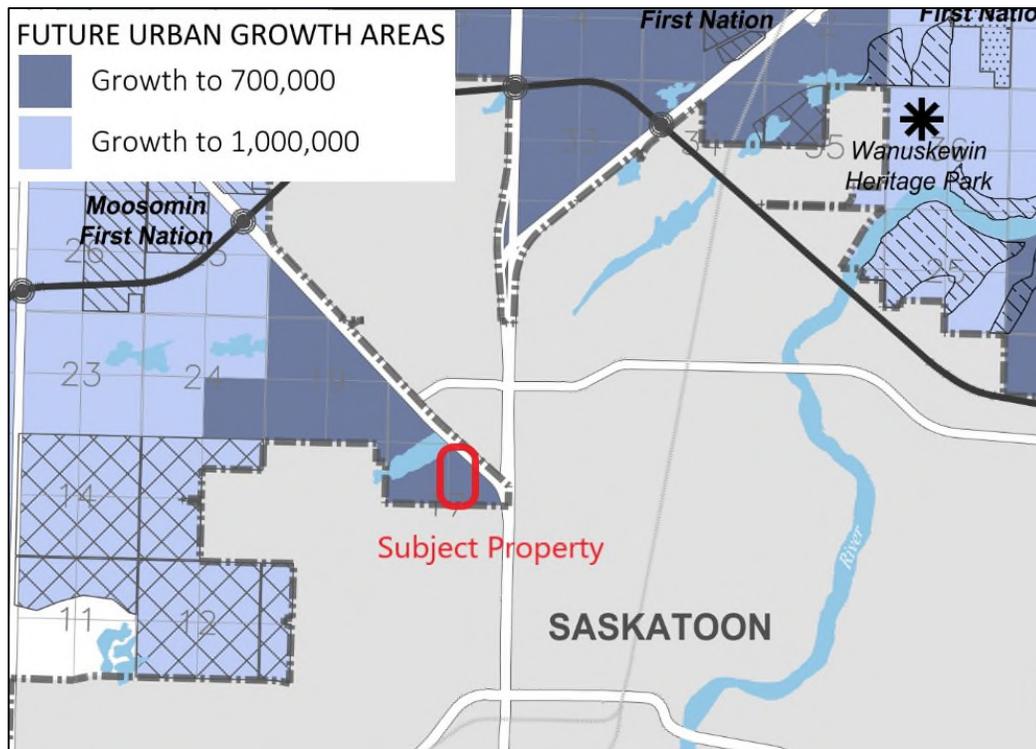
- a) Is compatible with current and planned urban land uses within the adjacent urban municipality;*
- b) Will not place pressure on the adjacent urban municipality to develop, expand or upgrade services and infrastructure without an agreement for servicing and infrastructure costs between municipality and Corman Park; and*
- c) Is referred to the adjacent urban municipality for review.*

Project Compliance:

The existing landscaping business has been operating in this location since 2003. The business operation is not currently connected to city services, and no changes or upgrades to the site's existing services are proposed at this time.

Policy Reference:

The property is located within the Future Urban Growth Area, which is part of a region with population of 700,000, as shown on Schedule C. The proposed rezoning to Light Industrial is consistent with the land use designation in Schedule B and, as such, aligns with the permissible land uses in the Future Urban Growth Area.



**Figure 8: Excerpt from Schedule C**

Policy Reference:

*27.3.4 Minimize New Roadway Construction*

*To make the most efficient use of existing roadway facilities, residential, commercial, and industrial subdivisions and developments will be encouraged to locate adjacent to existing roads that have been designed and constructed to accommodate them.*

*27.3.5 Access Requirements for Developments*

*Residential, commercial, industrial, recreational, and regional infrastructure and institutional developments shall have year-round, legal, all weather physical access to a municipally maintained roadway.*

Project Compliance:

The site is accessed via an existing, all weather service road on 60<sup>th</sup> St W. The proposed rezoning will not impact the current access, nor will it require roadway upgrades.

## 5.2 P4G North Concept Plan

### 4.1 Future Land Use Designations

#### Urban Light Industrial

*This accommodates industrial uses with full urban servicing that have minimal to no impacts on adjacent landowners in terms of operational nuisance. Light industrial developments and activities are primarily carried out within an enclosed building and no significant nuisance is apparent to adjacent developments. Appropriate uses may include manufacturing, processing, warehousing, storage, and distribution of goods or materials that do not create conditions that have a significant adverse impact or create a nuisance beyond the boundaries of the site by way of noise, odours, airborne emissions, lighting, or vibration.*

#### Project Compliance:

The subject property is designated as Urban Light Industrial in Figure 3 – Planning Cell 1 of the P4G North Concept Plan. The proposed rezoning to DM1 – Light Industrial 1 District is consistent with this designation, ensuring alignment with the planning framework outlined in the Concept Plan.

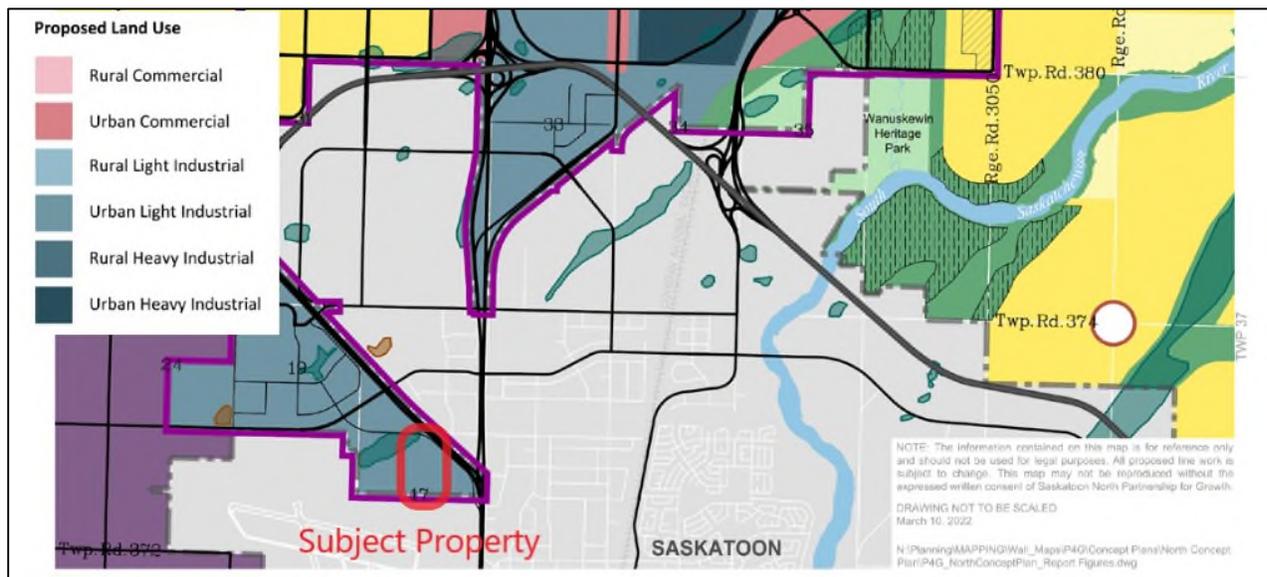


Figure 9: Excerpt from Figure 3 - Planning Cell 1

### 5.3 P4G District Zoning Bylaw

#### Policy Reference:

##### *Section 9 – Definitions*

*'landscaping service' – means establishments primarily engaged in providing landscape care, installation and maintenance services and may include the retail sale of soft and hard landscaping materials as an accessory use.*

##### *6.13 D – Light Industrial 1 District (DM1)*

###### *6.13.1 Purpose*

*The purpose of the DM1 District is to accommodate a range of industrial uses and activities which typically include manufacturing, processing, assembly, repair and end user production and distribution involving limited storage of raw inputs.*

###### *6.13.3 Discretionary Uses*

- *Animal Kennel*
- *Auction Facility*
- *Bulk Fertilizer Storage and Sales (Bylaw 27/22, approved 5 January, 2023)*
- *Bulk Fuel Storage and Distribution*
- *Cannabis Retail Store*
- *Construction Yard*
- *Filling, Levelling and Grading Type II*
- *Industrial Complex, Multiple Buildings*
- ***Landscaping Service***
- *Mineral Resource Extraction Operation*
- *Recycling Depot*
- *Retail Store*
- *Small Wind Energy System*
- *Solar Farm*
- *Surveillance and Security Suite*
- *Used Building Materials Retail Outlet*
- *Work Camp*

#### Project Compliance:

The existing operation meets the definition of a "landscaping service" under Section 9 of the

zoning bylaw. The proposed rezoning to DM1- Light Industrial 1 District would classify the land use as an approved discretionary use. Should new development or an expansion of the operations be proposed in the future, approval for a discretionary use will be required.

## 6 CONSULTATION AND REFERRALS

### 6.1 Referrals and Screening

#### Referrals to Adjacent Landowners

In accordance with RM of Corman Park requirements, a notice was distributed to all property owners within a 1.6 km radius of the proposed rezoning, including the Prairie Spirit School Division.

On 1 October, 2024, a total of 22 notices were sent to registered owners of property within 1.6 km radius, and a separate notice was sent to the Prairie Spirit School Division. The notice included an online survey code, enabling recipients to submit comments through and survey, which remained open until 22 October 2024. Additionally, contact information was provided on the notice, allowing recipients to submit comments or questions via email as an alternative to the online survey.

The notice is attached as Appendix M.

#### Engagement Results

No responses were received through the online survey, nor were any other comments submitted in response to the notice. However, on 9 October 2024, the Prairie Spirit School Division confirmed via email that they have no concerns regarding the proposed rezoning.

**APPENDIX A**  
**Context Figures**





**Figure 3: Aerial Site view**



**Figure 4: Surrounding Land use**



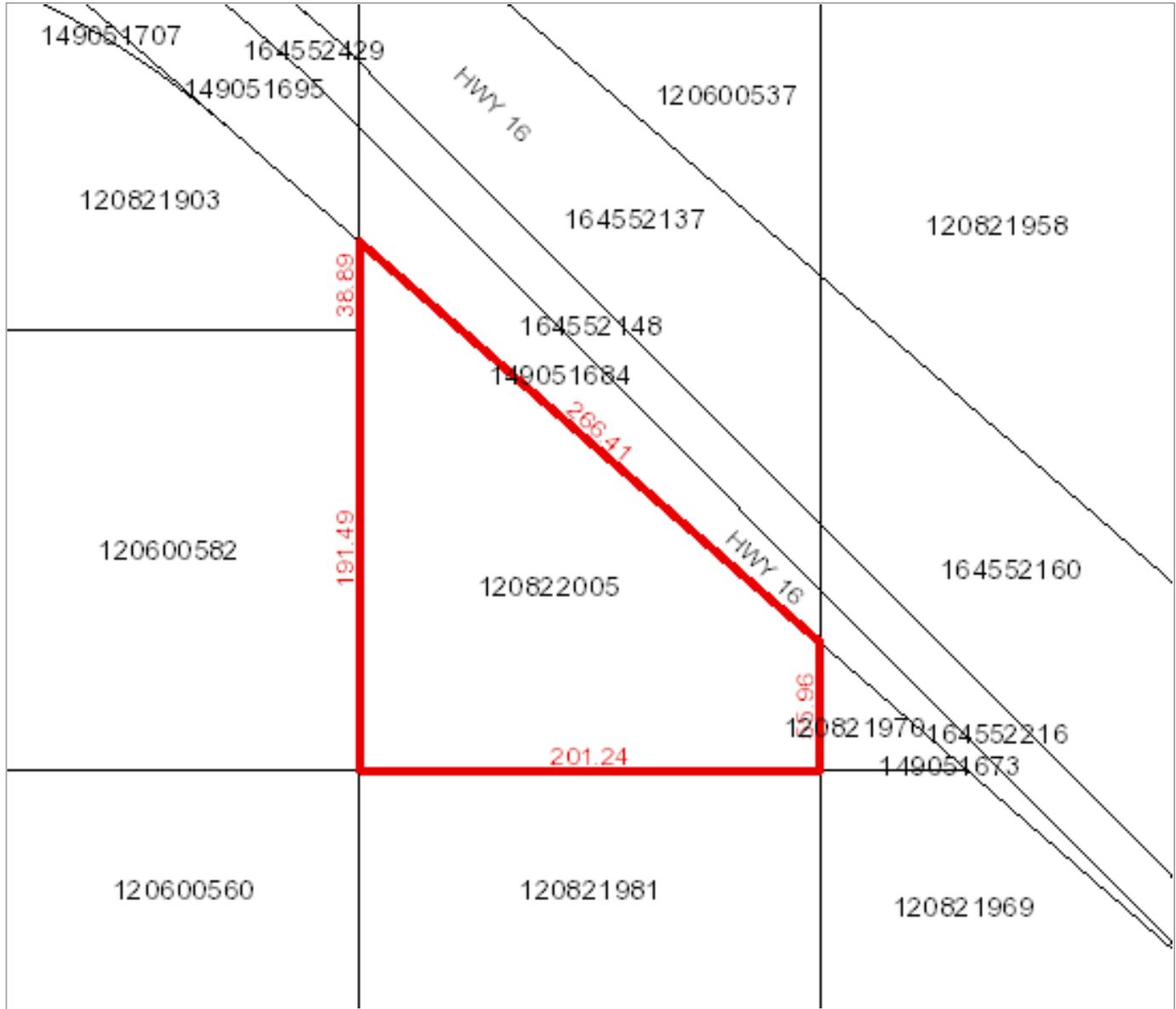
**Figure 5: Site Access**

**APPENDIX B**  
**ISC Parcel Boundary**



# Surface Parcel Number: 120822005

REQUEST DATE: Tue Nov 5 14:25:28 GMT-06:00 2024



**Owner Name(s) :** Allan's Landscaping Ltd.

**Municipality :** RM OF CORMAN PARK NO. 344

**Title Number(s) :** 108265743

**Parcel Class :** Parcel (Generic)

**Land Description :** LSD 15- 17-37-05-3 Ext 10

**Source Quarter Section :** NE-17-37-05-3

**Commodity/Unit :** Not Applicable

**Area :** 2.881 hectares (7.12 acres)

**Converted Title Number :** 01SA32524(1)

**Ownership Share :** 1:1



**APPENDIX C**  
**Topographic Survey**



P  
PLAN No 101354699

PLAN No 101693923

NW LSD 15, Sec 17-37-5 W 3 Mer Ext 47

SW LSD 15, Sec 17-37-5 W 3 Mer Ext 15

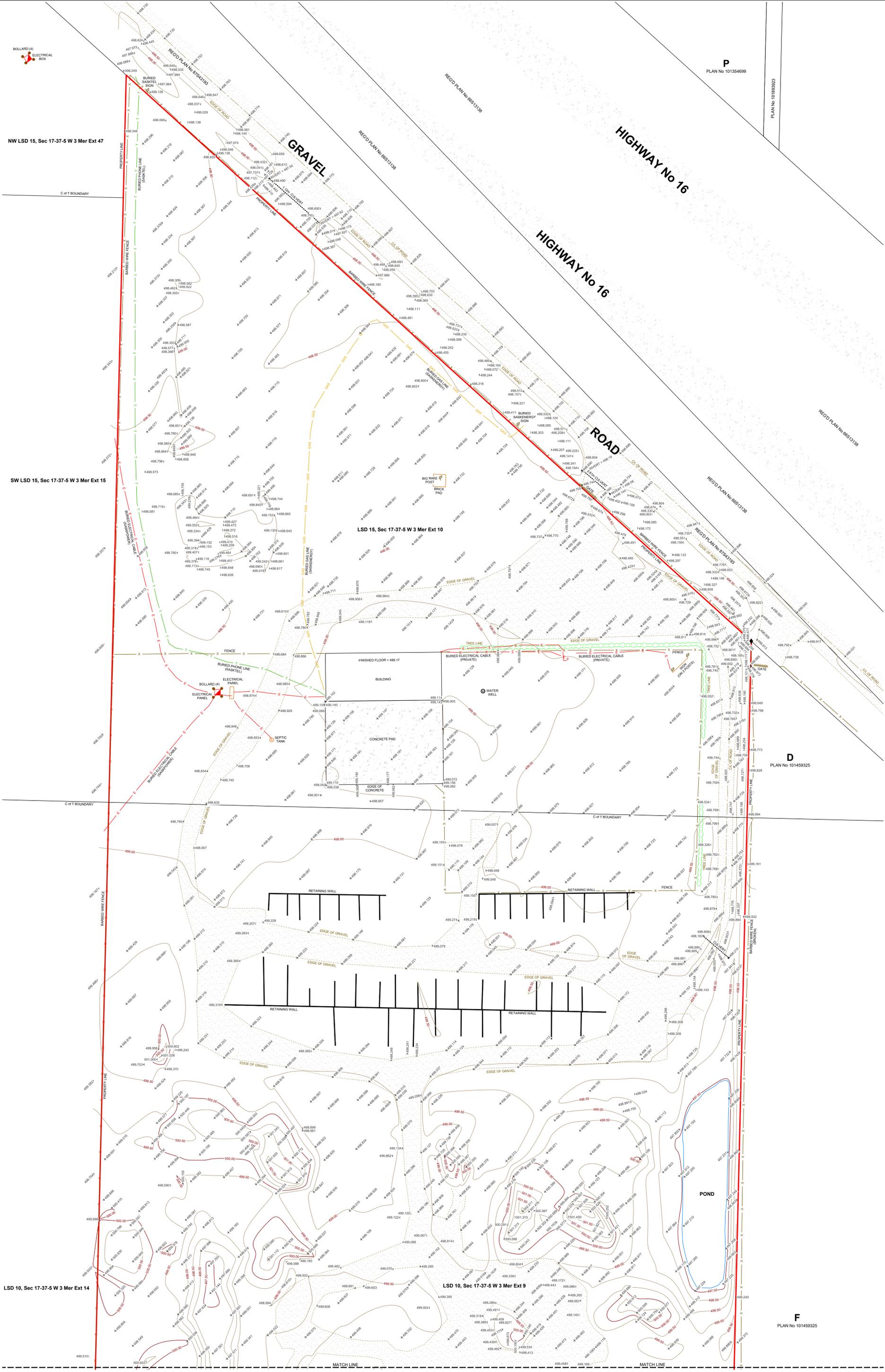
LSD 15, Sec 17-37-5 W 3 Mer Ext 10

LSD 10, Sec 17-37-5 W 3 Mer Ext 14

LSD 10, Sec 17-37-5 W 3 Mer Ext 9

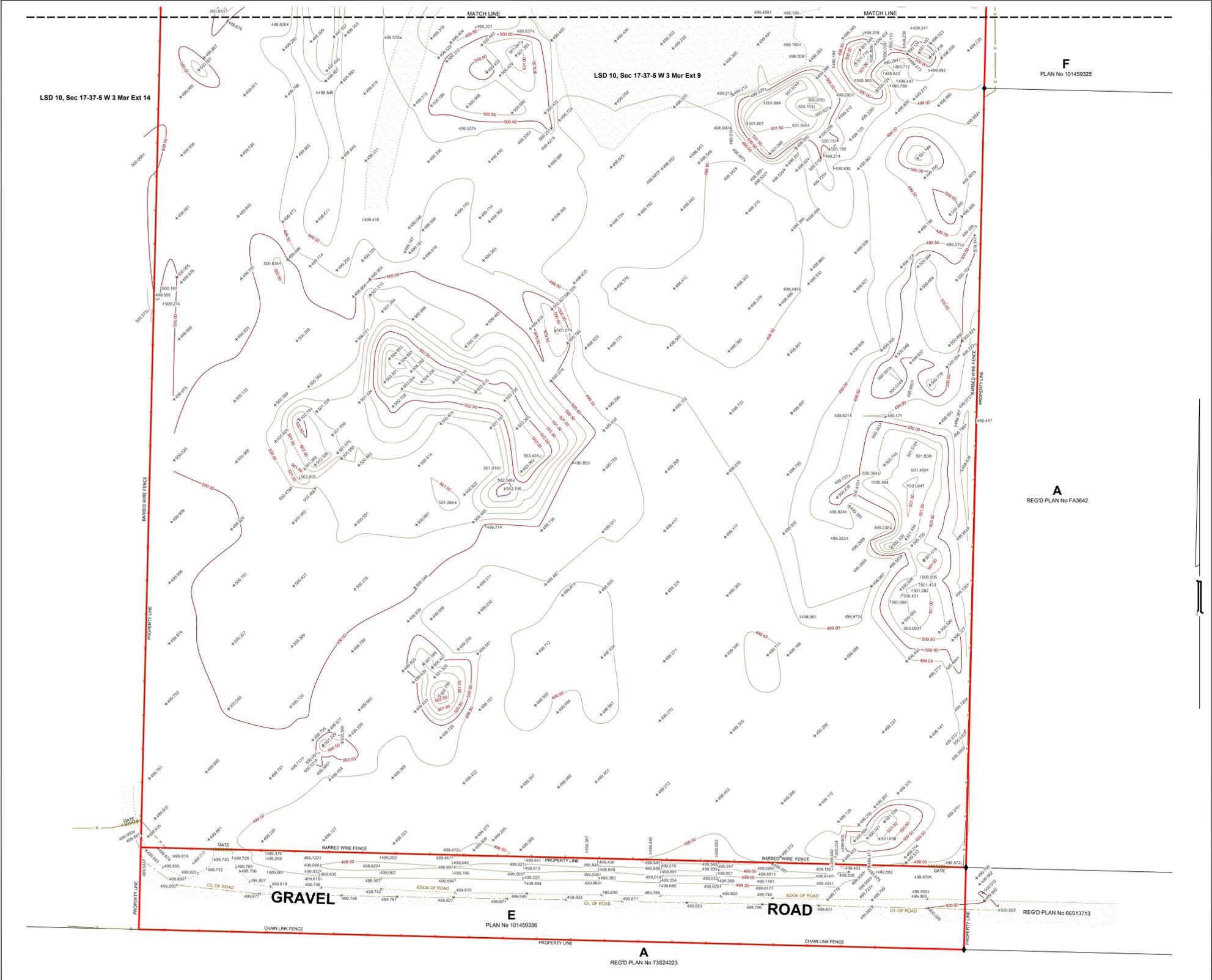
D  
PLAN No 101459325

F  
PLAN No 101459325



**MIDWEST SURVEYS INC.**  
405 MAXWELL CRESCENT  
REGINA, SK  
S4N 5X9  
TEL: 306-525-8706

No.	DATE	REVISION / ISSUED	JOB No.	PAGE 2 OF 2
0	MAY 23, 2023	Plan Issued	SC-0074-23	0
SURVEYED BY: JZKV		CALCD BY: ??	DRAWN BY: GLTS	REVISION



**PLAN SHOWING**  
**TOPOGRAPHICAL SURVEY**  
**OF**  
**LSD 10 & LSD 15, SEC 17, TWP 37, RGE 5, W3 Mer**  
**AND PARCEL E, PLAN No 101459336**  
**RM OF CORMAN PARK No 344**  
**SASKATCHEWAN**  
**SCALE 1:500**

**LEGEND**

Standard Iron Posts found shown thus	◆	X-778.87
Spot Elevations shown thus	•	
Manholes shown thus	○	
Catch basins shown thus	○	
Valves shown thus	X	
Power Poles shown thus	⊕	
Light Poles shown thus	⊕	
Trees shown thus	■	
Hydrants shown thus	⊕	
Electrical box shown thus	⊕	
Communication box shown thus	⊕	
Overhead power lines shown thus	— P —	P
Buried gas lines shown thus	— GAS —	GAS
Buried electrical cables shown thus	— E —	E
Buried communication cables shown thus	— T —	T
Water supply lines shown thus	— W —	W
Storm sewer lines shown thus	— STORM —	STORM
Sanitary sewer lines shown thus	— SEWER —	SEWER
Fences shown thus	— X —	X
Minor contour lines shown thus	—	
Major contour lines shown thus	—	

**NOTES**

- Dates of survey: May 10th - May 12th, 2023
- Measurements are in metres and decimals thereof.
- Elevations based on Static GNSS Observations post processed by Natural Resources Canada (NRCAN) in relation to the Canadian Spatial Reference System (CSRS - CGVD28 (HTV2.0))
- Underground utilities have not been identified on this plan of survey. All underground installations should be marked by the respective authorities prior to excavation or construction. Sask. 1st Call: 1-866-928-4888
- Measured invert elevations are subject to site conditions on date(s) of survey. (For example flow, pipe condition, sediment, etc.)
- All underground pipe invert elevations should be confirmed prior to excavation or construction.

**PARCEL INFORMATION**

<b>LSD 10, Sec 17-37-5 W 3 Mer Ext 9</b> Title#: 105265721 Surface Parcel #: 120821981 Registered Owner: Allan's Landscaping Ltd. Date of Title search: May 5, 2023	<b>LSD 15, Sec 17-37-5 W 3 Mer Ext 10</b> Title#: 107739175 Surface Parcel #: 120822005 Registered Owner: Allan's Landscaping Ltd. Date of Title search: May 5, 2023	<b>Parcel E, Plan No 101459336 Ext 13</b> Title#: 107739175 Surface Parcel #: 120600559 Registered Owner: Rural Municipality Of Corman Park No. 344 Date of Title search: May 5, 2023
---	--	---

**SURVEYORS CERTIFICATION**

Saskatchewan Land Surveyor



**MIDWEST SURVEYS INC.**  
 405 MAXWELL CRESCENT  
 REGINA, SK  
 S4N 5X9  
 TEL: 306-525-8706

No.	DATE	REVISION / ISSUED	JOB No.	PAGE 1 OF 2
0	MAY 23, 2023	Plan Issued	SC-0074-23	0
SURVEYED BY: JZKV CALCD BY: ?? DRAWN BY: GLTS				REVISION
				SC-0074-23-11-TP0

**APPENDIX D**  
**RMCP Zoning Confirmation**

## Land Parcels



Roll	000817101.01
Rural Legal	PTN OF NE-17-37-5-W3
Parcel Area	
Zoning Code	<a href="#">DAG2</a>
Zoning Description	D-Agricultural District 2
Electoral Area	Division 4

### Legal Details

Legal Details

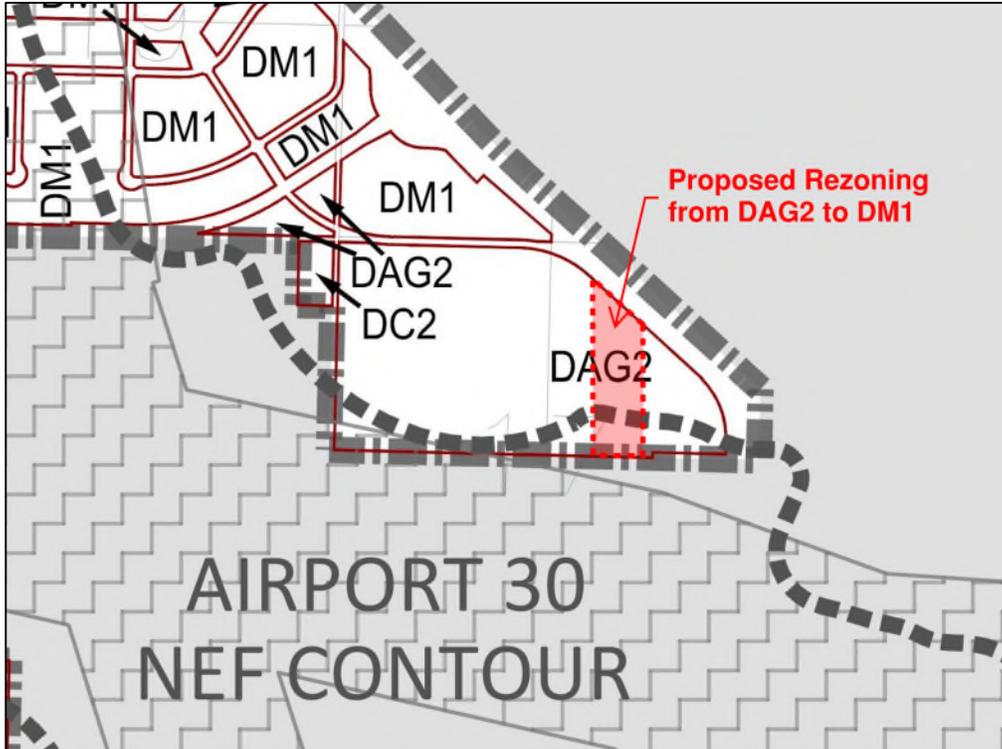


Figure 1: Rezoning Map

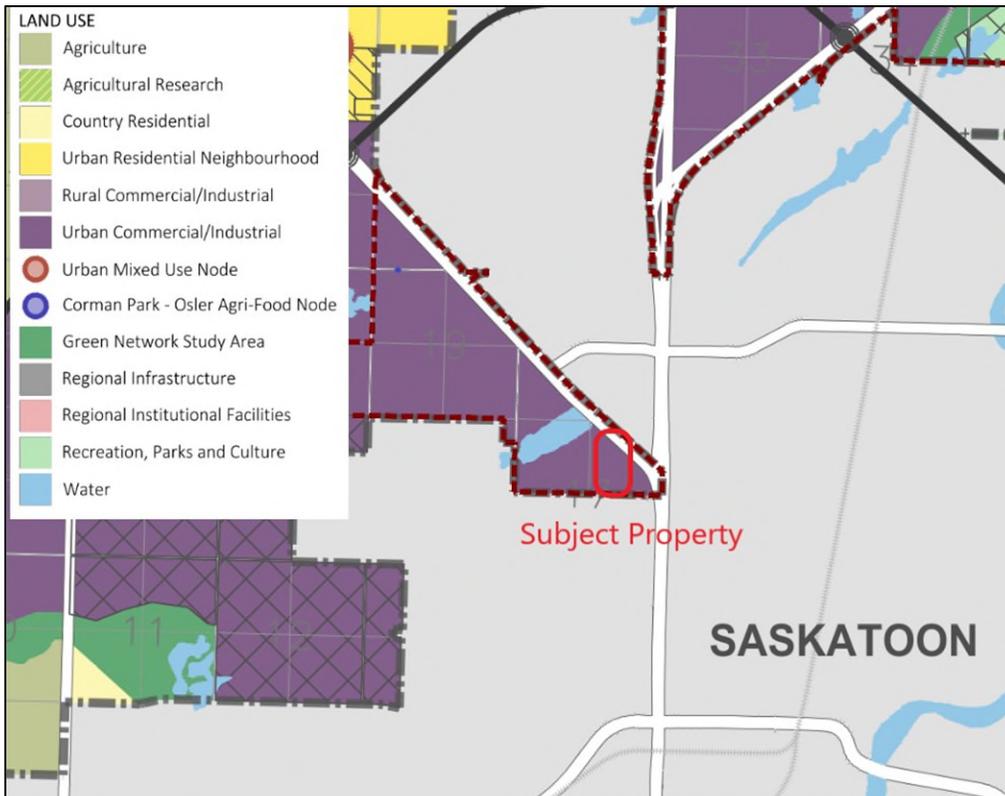


Figure 2: Excerpt from Schedule B

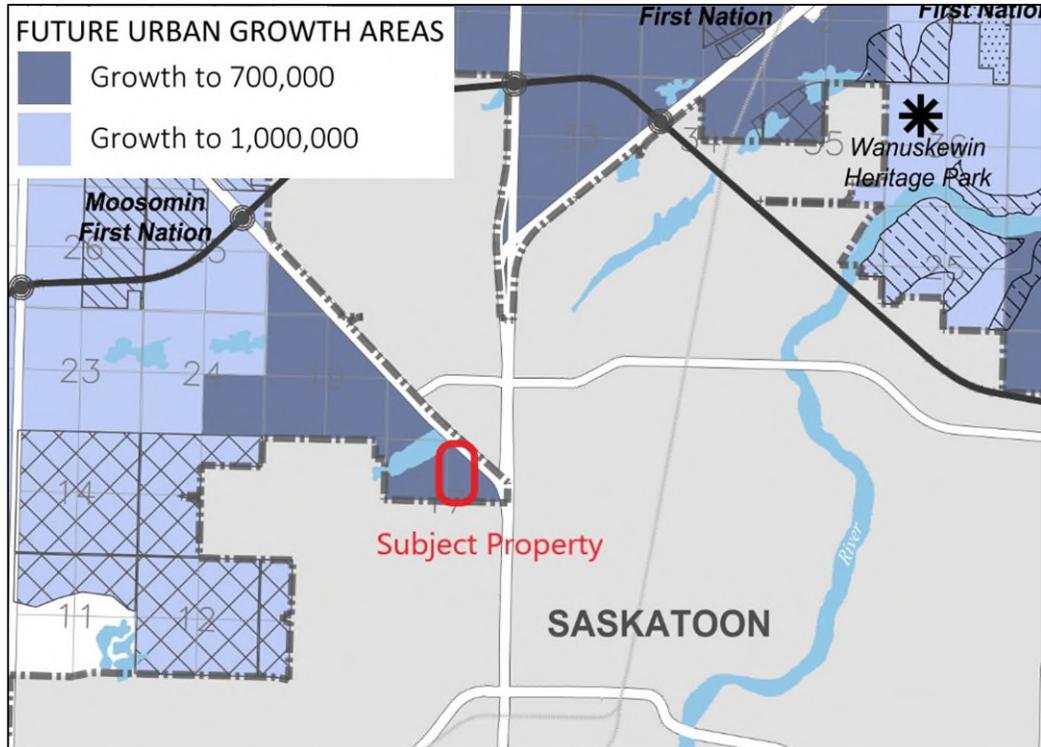


Figure 3: Excerpt from Schedule C

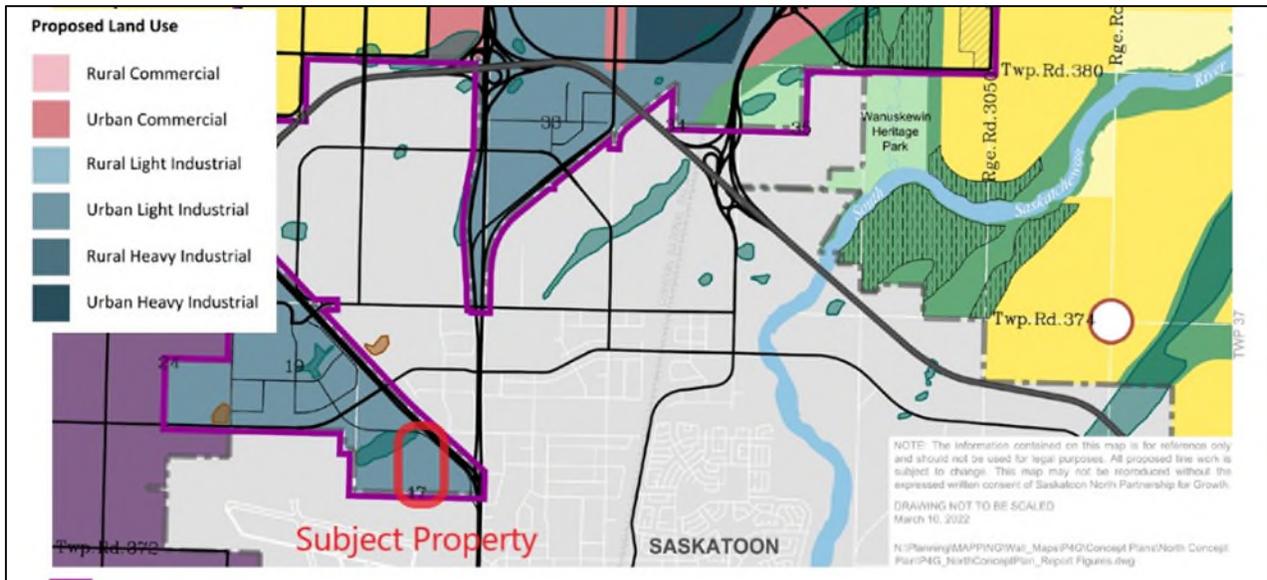
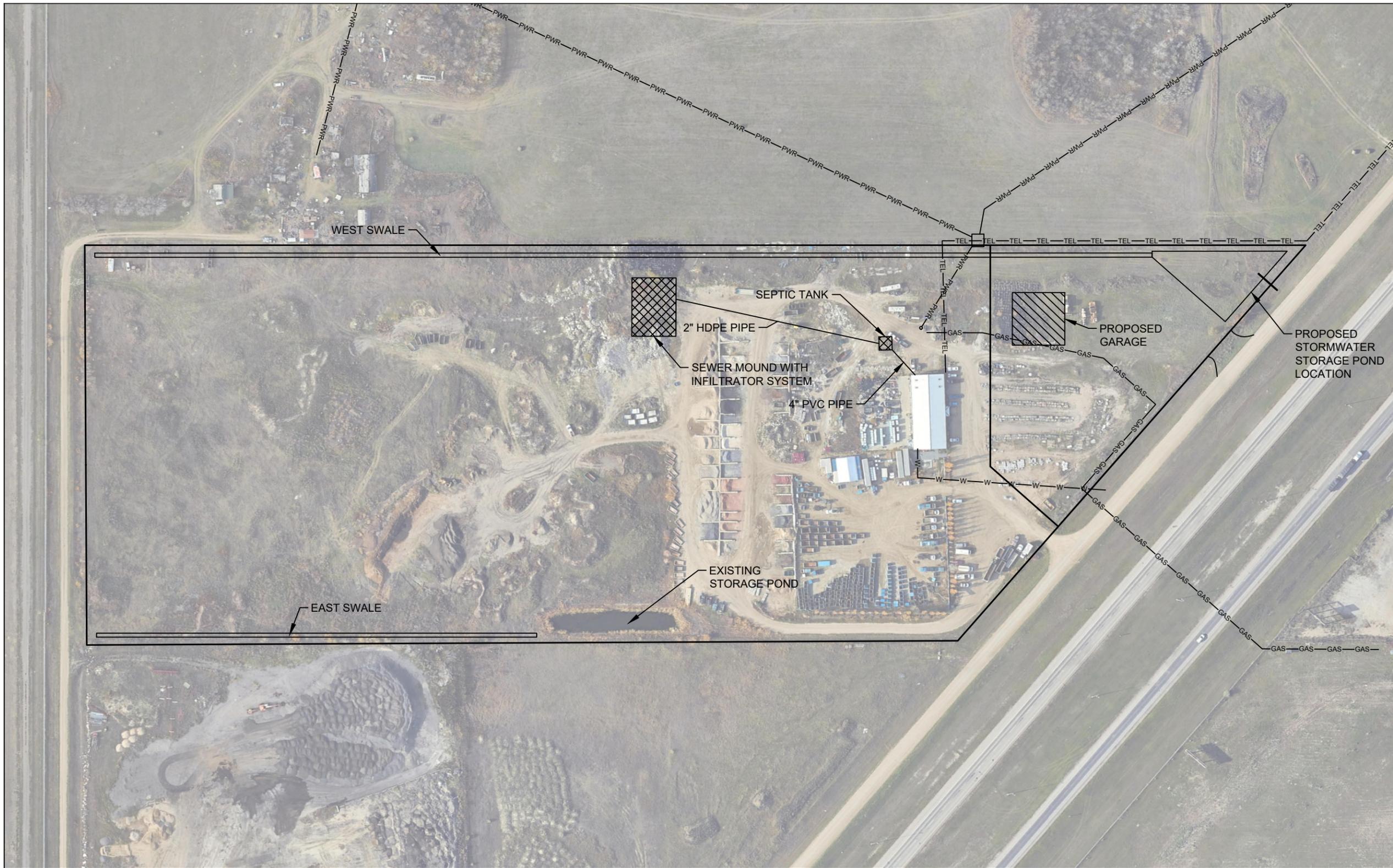


Figure 4: Excerpt from Figure 3 - Planning Cell 1

**APPENDIX E**

**Site Plan**



**NOTE:**

- EXISTING UTILITIES AS SHOWN HEREIN ARE BASED ON BEST AVAILABLE INFORMATION OBTAINED FROM THE UTILITY OPERATOR WHICH MAY NOT BE ACCURATE. THE DESIGN ENGINEER DOES NOT GUARANTEE ANY ELEVATIONS OR LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS

IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO VERIFY THE PRESENCE AND LOCATION OF ANY AND ALL EXISTING OVERHEAD AND/OR UNDERGROUND UTILITIES THAT MAY INTERFERE WITH THE CONSTRUCTION, WHETHER OR NOT SAID UTILITIES ARE SHOWN ON THE CONSTRUCTION PLANS FOR THIS PROJECT.

**LEGEND:**

- PWR— POWER LINE
- W— WATER LINE
- GAS— GAS LINE
- TEL— TELEPHONE LINE
- PROPOSED GARAGE

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 11" X 17" PRINTED DRAWINGS



710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

REV	DD-MMM-YY	DESCRIPTION	DRFT	APR
4				
3	25-NOV-24	ISSUED FOR REVIEW	BC	NJ
2	16-JUL-24	ISSUED FOR REVIEW	BC	NJ
1	24-JUN-24	ISSUED FOR REVIEW	BC	NJ
0	18-APR-24	ISSUED FOR REVIEW	BC	NJ

PROJECT NUMBER: 3084-5
DRAWN BY: BC
APPROVED BY: NJ
SCALE: 1:2000

SHEET TITLE: <b>SITE PLAN</b>
PROJECT NAME: ENGINEERED DRAINAGE PLAN FOR LAND DEVELOPMENT
CLIENT NAME: ALLEN'S LANDSCAPING AND DISPOSAL SERVICES LTD.

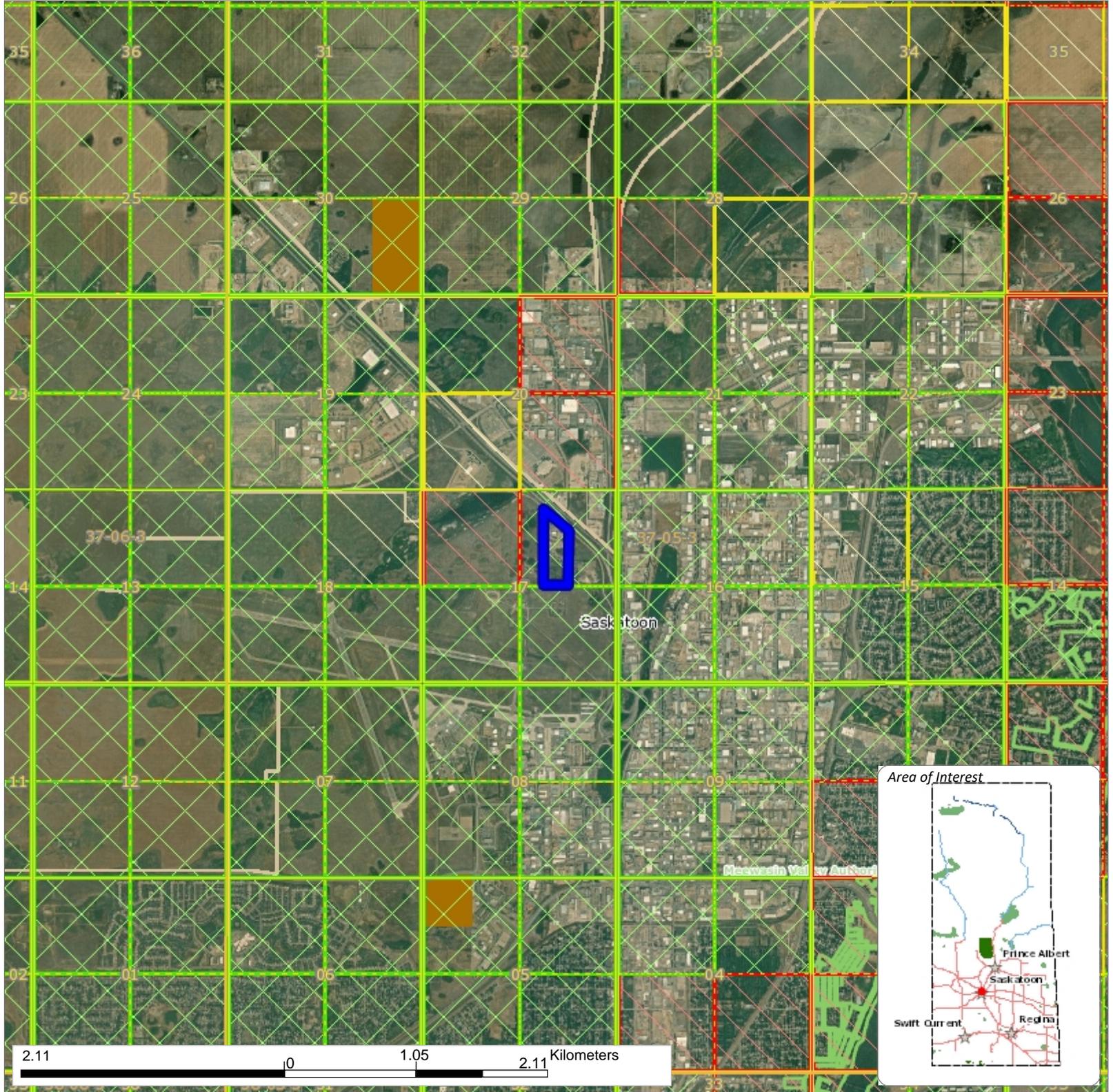
REVISION NO: 3
ISSUE DATE: 25-NOV-24
DRAWING NUMBER: C-01
SHEET NUMBER: 01 OF 01

**APPENDIX F**  
**Heritage Resources Inquiry**

**Sensitivity:** This selection is **Not Heritage Sensitive**.

This development has heritage clearance to proceed. Do not submit this project to the Heritage Conservation Branch. Keep this report for your records.

Report Generated  
Mar/1/2023 11:56 AM



# Heritage Sensitivity Screening Report

Parcel Description	Sensitivity	Parcel Description	Sensitivity
NE-17-37-05-3	N		

**Sensitivity Legend:**

Y = Heritage Sensitive, C = Conditionally Heritage Sensitive, N = Not Heritage Sensitive, Blank = Heritage Sensitive.

When the parcel description and sensitivity listing is blank, the project is outside of the quarter sections screened for sensitivity. All projects within these areas are automatically heritage sensitive and require review.

**Disclaimer:**

Attention landowners: The majority of small scale activities that involve improvements to, or maintenance of, private property usually have little or no impact on archaeological heritage resources. Access the Exempt Activities Checklist for Private Landowners to determine if your proposed activity is exempt from archaeological heritage screening using the Developers' Online Screening Tool. If the activity is exempt, please retain a copy (paper or electronic) of the completed Exempt Activities Checklist for Private Landowners for your records. Include the completed checklist with any applications for regulatory approvals or permits that may be required for the proposed activity to confirm that heritage concerns have been addressed.

Exempt Activities Checklist: <https://applications.saskatchewan.ca/eachecklist>

**Contact us:**

For more information, please contact the Heritage Conservation Branch:

Email: [arms@gov.sk.ca](mailto:arms@gov.sk.ca)

Tel 306-787-2817.

**APPENDIX G**  
**Rare Plant and Wildlife Inventory**

**Rare Plant Survey and Wildlife Habitat Inventory  
of  
ALLAN'S LANDSCAPING & DISPOSAL SERVICES LTD.  
RURAL MUNICIPALITY OF CORMAN PARK NO. 344  
SASKATCHEWAN**



**Prepared for:**

**Allan's Landscaping & Disposal Services Ltd  
% PINTER & ASSOCIATES  
710A - 48th Street East  
SASKATOON, Saskatchewan  
S7K 5B4**

**By:**

**POLSON ENVIRONMENTAL  
Saskatoon, Saskatchewan**

**JUNE 26, 2023**

TABLE OF CONTENTS

	PAGE
1.0 EXECUTIVE SUMMARY.....	1
2.0 INTRODUCTION.....	3
3.0 SITE DESCRIPTION.....	4
4.0 SITE HISTORY AND RECORDS REVIEW.....	6
5.0 SITE INSPECTION.....	8
6.0 SPECIES ANALYSIS.....	9
6.1 Wildlife.....	9
6.1.1 General Wildlife.....	9
6.1.2 Endangered, Threatened, Species of Special Concern.....	9
6.1.2.1 Birds.....	10
6.1.2.2 Mammals.....	11
6.1.2.3 Reptiles & Amphibians.....	11
7.0 GENERAL OBSERVATIONS.....	12
7.1 Wildlife Summary.....	12
7.2 Rare & Endangered Species.....	13
8.0 CONCLUSIONS.....	13
9.0 RECOMMENDATIONS.....	13
10.0 QUALIFICATIONS & REPORT LIMITATIONS.....	14
10.1 Qualifications.....	14
10.2 Limitations of the Report.....	14
11.0 REFERENCES & SUPPORT DOCUMENTS.....	14

LIST OF TABLES

Table 1: Visual History of the Site 1927 - 2021.....	5
Table 2: Avian Species COSEWIC.....	10
Table 3: Avian Species SARA.....	11

APPENDICES

APPENDIX A - MAPS & FIGURES

APPENDIX B - SITE PHOTOS

APPENDIX C - QUALIFICATIONS & PROOF OF INSURANCE

# Rare Plant Survey & Wildlife Habitat Inventory of

ALLAN'S LANDSCAPING & DISPOSAL  
SERVICES LTD.

RURAL MUNICIPALITY OF CORMAN PARK

NO. 344, SASKATCHEWAN

FOR:

Allan's Landscaping & Disposal Services Ltd

% PINTER & ASSOCIATES

710A - 48th Street East

SASKATOON, Saskatchewan

S7K 5B4

By: Polson Environmental

Saskatoon Saskatchewan

June 26, 2023

POEN - 023 - 024

---

## 1.1 EXECUTIVE SUMMARY

---

*Polson Environmental* conducted a **Rare Plant Survey & Wildlife Habitat Inventory** for Allan's Landscaping located just off a service road that runs parallel to Hwy. #16 north of the Saskatoon International Airport. The property is within the boundary of the Rural Municipality of Corman Park No. 344. The property consists of 7.697 hectares or 19.02 acres. The north end of the Site is developed with a building, parking lot and landscape materials storage. Much of the southern portion of the Site is currently unused and is vegetated with grasses sparse shrub cover and few trees. There are no natural waterbodies on the Site.

The Report was produced for **Allan's Landscaping and Disposal Services Ltd.**

The wildlife potential of the Site is very limited. No evidence was found to indicate that endangered, threatened or species-at-risk wildlife exists on the Site. The Property is very unlikely to support rare or native vegetation.

### CONCLUSIONS

A wildlife habitat and rare plant audit of Allan's Landscaping was conducted for the Subject Property located in the R.M. of Corman Park immediately to the north of the Saskatoon airport. The Site is owned and operated by Alan's Landscaping and Disposal Services Ltd. The front (north) portion of the Property is developed with a commercial building with offices and a retail outlet. Bunkers of landscaping materials are stored immediately to the south of this area. There is a gravel-surfaced parking lot in the front area of the Property. The remainder of the block of land is largely undeveloped although the majority of the area has been disturbed in the past. Some dumping of materials appears to still be going on.

- The potential for rare native plants is negligible.

- The wildlife potential in the area is very low. The Site lacks vegetation diversity. The northern portion is developed for the landscaping business and the southern 2/3 resulting from revegetation with non-native grass cover after much of the area has had top soil removed and fill dumped over much of the area over the years.
- No tree nests of raptors nor Corvidae species (crows, magpies & ravens) were noted on the Site and very limited bird and mammal populations were identified during two field visits.
- No evidence or sightings of upland bird species were noted.
- No defined game trails were identified on the Site.
- There was very little evidence of ungulates (white-tailed or mule deer).
- According to personnel at the Site an active coyote den is located on the Property.
- The only potential rare, threatened or at-risk species that could potentially occur in the area would be Barn Swallows nesting on buildings or Common Nighthawks nesting on piles of stored landscaping materials.

## RECOMMENDATIONS

There are no recommendations for further environmental work on this Site at this time. The one current recommendation deals with two bird species. Should nests of barn swallows or common nighthawks be identified in the future, they should not be disturbed. In the event that this is not possible, a reputable wildlife rehab group should be contacted to deal with them.

---

## 2.0 INTRODUCTION

---

A Rare Plant Survey & Wildlife Habitat Inventory was conducted for Allan's Landscaping located in the R.M. of Corman Park No. 344 just outside the City of Saskatoon, Saskatchewan. The objective of the study was to look at the potential for rare plant species and endangered, threatened or species at risk, birds, animals and amphibians and reptiles.

The Audit was carried out by *Polson Environmental*. The principal biologist was John Polson with assistance from Eileen Barlow. *Polson Environmental* has examined the Property, conducted interviews and reviewed relevant file searches as well as visited the Site.

---

### 3.0 SITE DESCRIPTION

---

The Subject Property is located just outside the boundary of the City of Saskatoon within the Rural Municipality of Corman Park No. 344. The northern boundary fence for the Saskatoon International Airport is located on the south side of a gravel/ dirt boundary road that runs between the north airport boundary and the south end of the Subject Property. The 10 ft. (3.05m) chain-link fence constructed around the airport would prevent any movement of mammals between the airport grounds and the Subject Property. Access to the north end of the Site is via a service road that runs parallel to Hwy. #16 which is located just to the north of the Subject Property.

The northern portion of the Subject Property is developed with a retail and office building, parking lot and storage bunkers for landscaping materials.

The northern portions of the south area of the Site can be reached from the front by limited access trails to some of the southern area. Access on foot was via the south end of the Site from the boundary road. The boundary road terminates in an abandoned farmstead located just west of the Subject Property.

The southern 2/3 of the Site is currently undeveloped and has limited vegetation diversity largely dominated by non-native grasses with very little shrub or tree cover. The grasses are the result of years of revegetating spill piles and areas where topsoil had been removed (see Figure 3 & 4, Appendix A).

Most of this land has been disturbed in the past with topsoil removed and subsoil and some construction fill including concrete deposited. One location to the south of the front developed area has a block of land that currently is used to store a large number of City garbage bins.

Land to the west is pasture with little shrub or tree cover and an abandoned farmstead.

The adjacent property to the east currently is an active fill and old pavement dumping site.

There are no natural permanent or temporary wetlands on the Subject Property.

The area to the north and east includes part of the industrial/ commercial development of Saskatoon (Figure 2, Appendix A).

## 4.0 SITE HISTORY

### 4.1 INTERVIEWS

Personnel were interviewed. They did note that there was an active coyote den on the Property.

### 4.2 HISTORIC DEVELOPMENT ON THE SUBJECT PROPERTY.

Figures 3 & 4 in Appendix A provide snapshot views of the Subject Property from 1927 to 2021 using available historic aerial photographs and high-resolution satellite imagery. Table 1 summarizes our findings.

**Table 1: Visual History of - Allan's Landscaping & Disposal, R.M. of Corman Park Using Historic Aerial Photographs & High Resolution Satellite Imagery.**

YEAR	COMMENTS
1927	The Site in undisturbed. The area is dominated by pasture land with several small tall shrubby areas. The area appears to have been actively hayed or used by grazing animals.
1958	Virtually no change has occurred on the Site from 1927.
1989	Two shrub areas in the southern portion of the Site have greatly expanded. The top one third of the area appears to have been broken for cultivation. This appears to have been a wet year with extensive growth of both the grass and shrub component of the Site.
1995	The area appears to be back to a similar state as 1958 with reduced grass and shrub growth on the Site.
2002	There is surface disturbance of the north 1/3 of the Property. Several trails lead to the rear (south end ) of the Subject Property. Some material has been dumped in a small localized area at the SW edge of the Site.
2004	The Northern 1/2 of the property has been cleared of topsoil and likely gravel added and a building is now present. There appears to be a localized area of top soil deposited about at the SW side of the front development area. The southern 1/2 of the Property remains unchanged.
2005	Little change from 2004. There are three small areas of standing water on the Site.

YEAR	COMMENTS
2009	There is additional development on the northern portion of the Site. Fill and possible concrete construction materials have been dumped on two locations. Much of the southern 1/2 of the property appears to have top soil removed and the area is experiencing vegetation regrowth. The two large patches of tall shrubs are gone.
2011	There are three small areas of standing water on the Property.
2012	There is fresh fill on much of the southern 1/2 of the Site.
2013	The majority of the southern 2/3 of the Site are now revegetated.
2015	Several trails lead to the back (south end of the Property). The year is likely a wet year with good growth on the southern 2/3 of the Site.
2017	Vegetation growth on the southern 2/3 is not as luxurious as 2015 and a new disturbance area was noted extending from the northern portion into the southern area of the Property.
2020	Vegetation on the southern 2/3 of the Site is in poor condition likely due to drought conditions in the area.
2021	Little change from 2020

=

---

## 5.0 SITE INSPECTION

---

Two visits to the Property were made. One in early summer and the second in the mid-summer to observe both the vegetation and wildlife capability of the Site. The undeveloped areas of the Property were searched on foot. Prior to the initial Site Visit, historic and recent aerial photography and high-resolution satellite imagery were reviewed.

### Pertinent Observations:

#### The Site

##### North Section

- This is the area developed for the landscaping business including a building, parking lot and storage bunkers for landscape materials.

##### Southern, undeveloped area

- This area is where vegetation is dominated by domestic grasses. There are few shrubs and/or trees on the Site. The majority of the area has been modified in the past (See Table 1). There are no natural wetlands on the Site.

Photographs were taken during the Site Visit and a selection of photographs is included in Appendix H.

---

## 6.0 SPECIES ANALYSIS

---

### 6.1 Wildlife

#### 6.1.1 General Wildlife

Two visits to the Site were made as well as an interpretation of recent high-resolution satellite imagery to determine the current suitability of the area for various wildlife groups. Due to the lack of vegetation diversity, with little shrub or tree cover, the area was expected to have limited attractiveness to various wildlife groups. This was confirmed during both of our visits to the area.

- No tree nests were identified on the Property.
- Little evidence of small mammals such as hares and ground squirrels was noted.
- Evidence of white-tailed deer or mule deer on the Site was not noted.
- No defined game trails were found.
- There were no sightings of upland game birds.
- Song bird populations were very low with little diversity.
- There was no suitable habitat for wetland bird species or amphibians.

#### 6.1.2 Endangered, Species at Risk, Threatened and Special Concern.

Two databases were consulted. These include the Federal list of rare, endangered and threatened species, “The Committee on the Status of Endangered Wildlife in Canada” (COSEWIC) and the Provincial component of SARA. A completed list of potential species that could occur in the Study Area is provided in Table 1 for each data set. An assessment of the likelihood of each species occurring is listed in the comments section.

The review of both data sets was followed up by two field trips to the area.

### 6.1.2.1 Birds

#### COSEWIC

COSEWIC lists species for all Provinces including Saskatchewan. Bird listings for the Province were extracted and are summarized in Table 1. Water birds are considered as there are no suitable waterbodies on the Site.

**Table 2: List of Avian Species considered as Candidates by COSEWIC**

Species	COSEWIC Status	Likelihood of Occurring in the Study Area	Comments
Horned Lark ( <i>Eremophila alpestris</i> )	Group 1	Very limited likelihood	Very limited suitable habitat. None observed.
Horned Lark ( <i>Eremophila alpestris</i> )	Group 1*	No suitable habitat	Not observed on the Site
Brewer's Blackbird ( <i>Euphagus cyanocephalus</i> )	Group 2**	Limited as transient	Not observed on the Site.
Upland Sandpiper ( <i>Bartramia longicauda</i> )	Group 3***	Would not Occur	Within it's range but no suitable habitat

\* Group 1 - Contains wildlife species of highest priority for assessment by COSEWIC

\*\* Group 2 - and 3 contain wildlife species that are of intermediate and lower priority for COSEWIC assessment.

#### **SARA - Saskatchewan Species At Risk Public Registry**

The SARA list of bird species is administered by the Provincial "Species At Risk Act". A list of bird species by categories is provided in Table 2 with an assessment of their potential occurrence on the Site and additional comments shown in Table 2. No water birds were considered as there are no natural waterbodies on the Site.

**Table 3: List of Avian Species Considered By SARA**

Species	SARA Status	Likelihood of Occurring in the Study Area	Comments
Whooping Crane ( <i>Grus canadensis</i> )	Endangered Species	Nil	The whooping crane migrates through the Province both in the spring and the fall from and to its nesting grounds in Wood Buffalo National Park.
Burrowing Owl ( <i>Athene cunicularia</i> )	Endangered Species	Nil	The Burrowing Owl nests in native pastures.
Bobolink ( <i>Dolichonyx oryzivorus</i> )	Threatened	Nil	Nests in grasslands and agricultural areas, No suitable habitat on the Site.
Barn Swallow ( <i>Hirundo rustic</i> )	Threatened	Possible	Could nest on buildings on the Site.
Short-eared Owl ( <i>Asio flames</i> )	Special Concern	Unlikely	This owl appears to be very rare in the area. It is a ground nester but no evidence was found of this bird during two visits to the Site.
Common Nighthawk ( <i>Chorodeiles minor</i> )	Special Concern	Limited possibility	This bird nests on the ground and could possibly occur in bare areas on the Site or piles of landscaping materials. This species, however, now appears to be very uncommon. No evidence of this bird was noted during both visits to the Site.

### 6.1.2.2 Mammals

No species of mammals whose range overlaps the Subject Property were listed in either COSEWIC or SARA.

### 6.1.2.3 Reptiles and Amphibians.

#### COSEWIC

One species is identified by COSEWIC as being in Group 1. This is the Canada Toad

(*Anaxyrus hemiophrys*). There is a very limited possibility of this species occurring as a transient on the Site.

There are no reptiles listed in the COSWIC registry whose range would overlap the Site.

### **SARA**

The Northern Leopard Frog (*Lithobates pipkins*) is listed under SARA as endangered.

There is no suitable habitat for this species on the Site.

There are no reptiles listed in the SARA registry whose range would overlap the Site.

## **7.0 GENERAL OBSERVATIONS**

- There are no suitable waterbodies for any wetland wildlife species on the Subject Property. The closest waterbody suitable for nesting waterfowl is located 425m to the NW.
- There are no trees suitable for nesting raptors, crows, magpies or ravens. There was an active magpie nest in the adjacent farmstead to the west.
- There is little shrub habitat suitable for nesting Northern Harriers or Short-eared Owls, both of which nest on the ground.
- Small portions of the Site would be suitable for nesting Sharp-tailed Grouse which need long grass to successfully nest. No evidence of Sharp-tailed grouse, however, was noted during either visit to the Site.
- There was no evidence of small mammals including ground squirrels or hares.
- There was little evidence that deer or other ungulates utilize the Site. No defined game trails were identified.

### **7.1 Wildlife Summary**

The Subject Property has over the years been modified and vegetation now occurring on the Site is largely non-native grass species. The area provides little attraction to

wildlife. There are no potential nesting sites for tree-nesting birds. Ground nesting species such as Northern Harriers and Short-eared Owls prefer a mixture of grass and shrubs. This habitat is not present on the Property.

The only two species that would have the potential to inhabit the area during the summer months would be the Barn Swallow and the Common Nighthawk. The Barn Swallow is considered “threatened” by SARA and the Common Nighthawk is a species of “Special Concern”.

## **7.2 Rare and Endangered Plant Species.**

There are no natural wetlands on the Site. The general area has been significantly modified over time and it is very unlikely that any native rare, endangered or threatened plant species would occur on the Site.

## **8.0 CONCLUSIONS**

- The Site has limited capacity to support local wildlife species.
- The likelihood of any rare or endangered plant species colonizing the Site are negligible.

## **9.0 RECOMMENDATIONS**

A single recommendation deals with the two potential bird species. Should nests of Barn Swallows or Common Nighthawks be identified in the future, they should not be disturbed. In the event that this is not possible, a reputable wildlife rehab group should be contacted to handle them appropriately.

---

## 10.0 QUALIFICATIONS & REPORT LIMITATIONS

---

### 10.1 Qualifications

The Principal Assessor for *Polson Environmental* was John Polson (MSc.). Mr. Polson has been involved in Wildlife Biology since the early 1970's and has worked extensively in Saskatchewan.

Eileen Barlow of *Polson Environmental* has assisted with Additional research and interpretation. Ms. Barlow is currently working towards a degree in environmental science. Since joining *Polson Environmental* she has assisted in numerous projects.

Additional information on *Polson Environmental*, including Proof of Insurance, is provided in Appendix I.

### 10.2 Limitations of the Report

The study is an overview of the Site and fieldwork was limited to two Site visits, interpretation of historic aerial photography and high-resolution satellite imagery, consultation with suitable literature and has relied upon Mr. Polson's extensive knowledge of wildlife in the Province.

---

## 11.0 REFERENCES AND SUPPORTING DOCUMENTATION

---

**COSEWIC** - The Committee on the Status of Endangered Wildlife in Canada. 2022 Report

**SARA** - Provincial Species At Risk for Saskatchewan. Most recent Assessment.

Birds of Saskatchewan. 2019. Editors Alan R. Smith, C. Stuart Houston & J. Frank Roy.

# APPENDIX A

## MAPS, FIGURES, AERIAL PHOTOGRAPHS

Figure 1: Site & General Vicinity

Figure 2: Site & Near Vicinity

Figure 3: Historical Progression of the Site

Figure 4: Historical Progression of the Site (continued)



**LEGEND:**

**LOCATION OF THE SUBJECT PROPERTY**

**PE POLSON ENVIRONMENTAL**

2001 St. Henry Avenue  
Saskatoon, SK  
S7M 0P4 Canada

306-221-4569  
Polsonenvironmental.com

**DRAWING TITLE:** FIGURE 1: SITE & GENERAL VICINITY

**PROJECT:** RARE PLANT & WILDLIFE HABITAT SURVEY, ALLAN'S LANDSCAPING & DISPOSAL SERVICES SITE, R.M. OF CORMAN PARK NO. 344, SASKATCHEWAN

**DRAWN BY:** JP

**PROJECT NO:**

**DATE:**  
JUNE 7, 2023

**SCALE:**  
NOT TO SCALE

POEN-023-024



**LEGEND:**

**LOCATION OF THE SUBJECT PROPERTY**



2001 St. Henry Avenue  
Saskatoon, SK  
S7M 0P4 Canada

306-221-4569  
Polsonenvironmental.com

**DRAWING TITLE:** FIGURE 2: SITE & NEAR VICINITY

**PROJECT:** RARE PLANT & WILDLIFE HABITAT SURVEY, ALLAN'S LANDSCAPING & DISPOSAL SERVICES SITE, R.M. OF CORMAN PARK NO. 344, SASKATCHEWAN

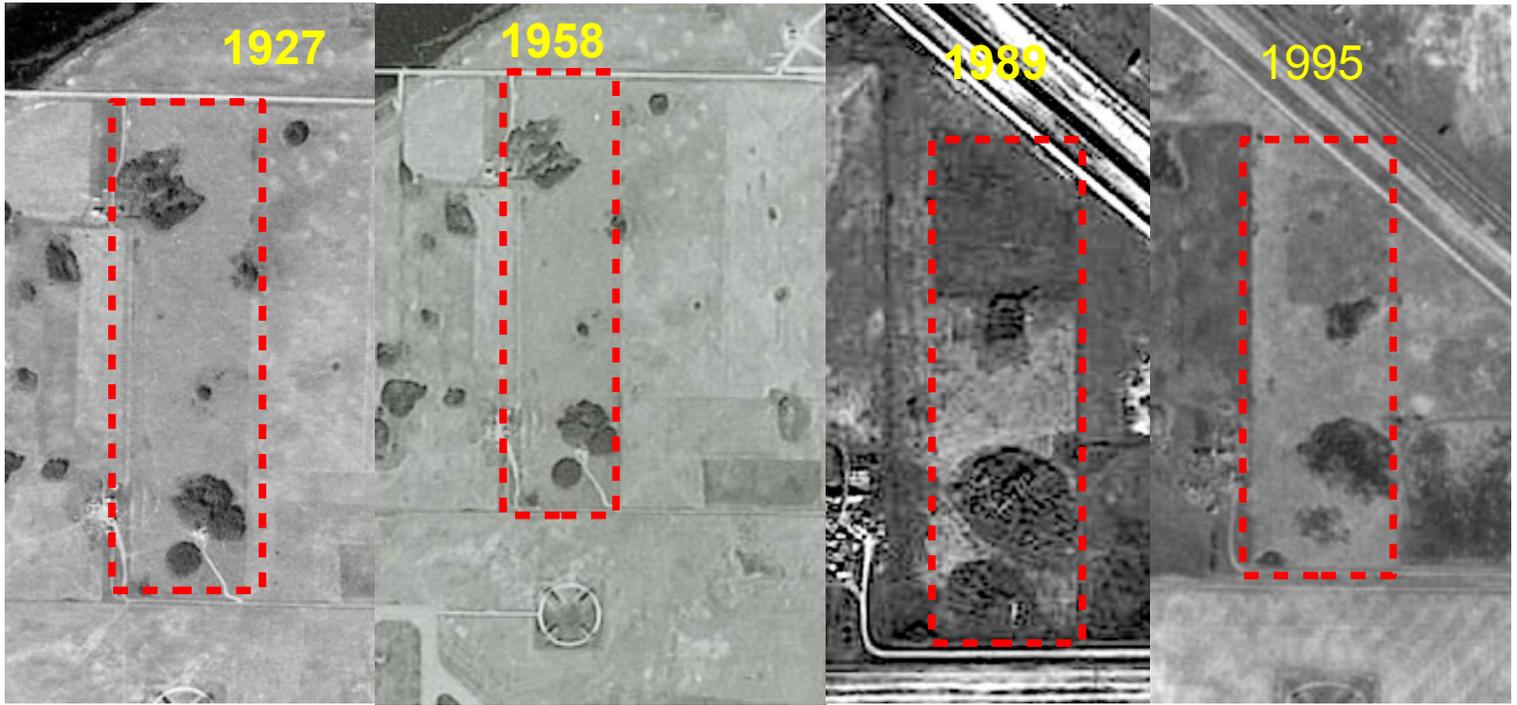
**DRAWN BY:** JP

**PROJECT NO:**

**DATE:**  
JUNE 7, 2023

**SCALE:**  
NOT TO SCALE

POEN-023-024



POLSON ENVIRONMENTAL

2001 St. Henry Avenue  
Saskatoon, SK  
S7M 0P4 Canada

306-221-4569  
[Polsonenvironmental.com](http://Polsonenvironmental.com)

FIGURE 3: PROGRESSIVE LOOK AT THE SUBJECT PROPERTY 1927 - 2009



 **POLSON ENVIRONMENTAL**

2001 St. Henry Avenue  
Saskatoon, SK  
S7M 0P4 Canada

306-221-4569  
[Polsonenvironmental.com](http://Polsonenvironmental.com)

**FIGURE 4: PROGRESSIVE LOOK AT THE SUBJECT PROPERTY 2011 - 2021**

# APPENDIX B

## PHOTO PAGES



*Photo 1: View of the front area of Alan's.*



*Photo 2: An east/west gravel road provided access to the south area of the Property. The 10 ft. chain-link fence has been installed all around the airport property.*



*Photo 3: The barbed wire fence marks the southern boundary of Alan's.*



*Photo 4: Photograph taken at the time of the first visit. There were few trees and shrubs to attract wildlife.*



*Photo 5: The majority of the southern area of the Site has had fill and construction materials deposited on it at one time.*



*Photo 6: Concrete slab material. Note the storage of City garbage bins in the background. The adjacent pasture land can be seen in the left hand side of the photograph.*



*Photo 7: Photograph taken from the western edge of the Site. The adjacent farmstead is just visible.*

*Photo 8: View of pasture land to the west.*



*Photo 9: Coyote Tracks in the mud.*



*Photo 10: A view fill and asphalt being deposited on the property to the east.*



*Photo 11: Vegetated piles of fill deposited on the Site years earlier. (See Figures 3 & 4 in Appendix A).*



*Photo 12: The gravel road bordering the south end of Alan's ends up in this abandon farmstead. The farmstead contained the only suitable trees in the area for tree nesting corvids and raptors.*

# APPENDIX C

## QUALIFICATIONS PROOF OF INSURANCE



Victor Canada  
500-1400 Blair Towers Place  
Ottawa, Ontario K1J 9B8  
Telephone 613-786-2000  
Facsimile 613-786-2001  
Toll Free 800-267-6684  
www.victorinsurance.ca

# Policy

## Errors and Omissions Insurance for Environmental Consultants

---

POLICY NUMBER:	SRD606871	REPLACING POLICY:	New
CLIENT NUMBER:	127808	BROKER:	HUB INTERNATIONAL INS BROKERS

### DECLARATIONS

---

1. Named INSURED: POLSON ENVIRONMENTAL
2. INSURED'S Address: 2001 ST HENRY AVE  
SASKATOON SK S7M 0P4
3. Policy Period: from 01 December 2022 to 01 December 2023  
at 00:01 local time at the INSURED'S  
address shown above without tacit renewal
4. Limits of Liability: \$ 2,000,000 per LOSS  
\$ 2,000,000 per policy period
5. Deductible: \$ 0 per LOSS
6. Premium: \$ 3,500  
Policy Fee: \$ 150 payable immediately (fully earned)  
  
*\* All amounts shown in CDN dollars*
7. Retroactive Date: 15 September 2012
8. These Declarations provide the INSURED with coverage under the policy wording ( EC35E-SRD-16-CAN/QUE ) which is attached hereto.
9. Endorsements forming part of this policy at issuance: 1 to 4
10. INSURERS:

Aviva Insurance Company of Canada	25.00%
Temple Insurance Company	20.00%
Everest Insurance Company of Canada	20.00%
Arch Insurance Canada Ltd.	17.50%
XL Reinsurance America Inc.	17.50%

It is agreed that the above INSURERS are binding themselves, severally and not jointly, each in its layer of coverage only, and each only for that amount determined by multiplying its percentage proportion of coverage by the amount of the LOSS.

For purposes of the Insurance Companies Act (Canada), this document was issued in the course of the subscribing INSURERS' insurance business in Canada.

INSURANCE MANAGER: Victor Insurance Managers Inc.  
500-1400 Blair Towers Place  
Ottawa, Ontario K1J 9B8

The INSURERS have duly authorized Victor Insurance Managers Inc. to execute and sign this policy of insurance.

Dated: 25 November 2022



---

David G. Cook, President  
Authorized Representative



Victor Canada  
500-1400 Blair Towers Place  
Ottawa, Ontario K1J 9B8  
Telephone 613-786-2000  
Facsimile 613-786-2001  
Toll Free 800-267-6684  
www.victorinsurance.ca

# Policy

## Errors and Omissions Insurance for Environmental Consultants

---

This is a claims-made and reported policy. Please read the entire policy carefully.

Terms in capital letters have special meaning. Please refer to the definitions section of this policy (Part I).

---

### Part I – Definitions

As used in this policy, the following words or expressions shall mean:

1. **Bodily Injury**

Bodily injury, physical injury, sickness, disease, mental anguish, mental suffering or shock, including death resulting from any of these at any time.

2. **Claim**

Any written or oral allegations received by the INSURED resulting from an error, omission or negligent act in the rendering of INSURED SERVICES.

3. **Damages**

Compensatory DAMAGES, including all pre-judgment and post-judgment interest.

4. **Fissionable Substance**

Any prescribed substance that is, or from which can be obtained, a substance capable of releasing atomic energy by nuclear fission.

5. **Insurance Manager**

The insurance administrator under this policy, who is duly authorized to issue this policy as well as to issue and receive notices under this policy for and on behalf of the INSURERS, and whose name and address appear in the Declarations. The INSURANCE MANAGER is not a party to this contract of insurance.

6. **Insured**

The Named INSURED mentioned in the Declarations, as well as persons described hereafter, but solely for CLAIMS resulting from an error, omission, or negligent act in the rendering of INSURED SERVICES, while acting within the scope of their duties for the Named INSURED:

- (a) any present or former partner, director, officer or employee of the Named INSURED;
- (b) any independent contractor retained by the Named INSURED;
- (c) employees of others on loan to and while working for and under the guidance of the Named INSURED.

7. **Insured Services**

Those services rendered by the INSURED, while acting within the scope of the INSURED'S duties as an environmental consultant and customary to the practice of environmental consulting.

## 8. **Insurers**

The insurance companies whose names appear in the Declarations. It is agreed that such INSURERS are binding themselves severally and not jointly, each in its own layer of coverage only, and each only for that amount determined by multiplying its percentage proportion of coverage by the amount of the LOSS.

## 9. **Loss**

One or more CLAIMS resulting from the same or related error, omission or negligent act in the rendering of INSURED SERVICES, regardless of the number of suits, claimants or INSUREDS. Such CLAIMS will be considered first reported within the policy period in which the earliest CLAIM was reported and subject to that single limit of liability.

## 10. **Nuclear Energy Hazard**

The radioactive, toxic, explosive or other hazardous properties of RADIOACTIVE MATERIAL.

## 11. **Nuclear Facility**

- (a) Any apparatus designed or used to sustain nuclear fission in a self-supporting chain reaction or to contain a critical mass of plutonium, thorium, uranium, or any one or more of them;
- (b) any equipment or device designed or used for:
  - (i) separating the isotopes of plutonium, thorium, uranium, or any one or more of them;
  - (ii) processing or utilizing spent fuel; or
  - (iii) handling, processing or packaging waste;
- (c) any equipment or device used for the processing, fabricating or alloying of plutonium, thorium or uranium enriched in the isotope uranium 233 or in the isotope uranium 235, or any one or more of them, if at any time the total amount of such material in the custody of the INSURED at the premises where such equipment or device is located consists of or contains more than 25 grams of plutonium or uranium 233 or any combination thereof, or more than 250 grams of uranium 235;
- (d) any structure, basin, excavation, premises or place prepared or used for the storage or disposal of waste RADIOACTIVE MATERIAL.

The above includes the site on which any of the foregoing is located, together with all operations conducted thereon and all premises used for such operations.

## 12. **Pollution**

Emission, release, discharge, dispersal, escape or disposal of smoke, gases, vapours, soot, fumes, acids, alkalis, toxic substances, waste materials, irritants, contaminants or pollutants into or upon land or any water of any description no matter where located or how contained, or into any drainage or sewage system, or into the atmosphere.

## 13. **Radioactive Material**

Uranium, thorium, plutonium, neptunium, their respective derivatives and other compounds, radioactive isotopes of other elements and any other substances that the Canadian Nuclear Safety Commission may, by regulation, designate as being prescribed substances capable of releasing atomic energy, or as being requisite for the production, use or application of atomic energy.

## **Part II – Insuring Agreements**

### 1. **General Agreements**

In consideration of the premium indicated in the Declarations, and in reliance upon the attachments to and the statements made in the application form, and subject to the terms, conditions and limitations contained in this policy, the INSURERS agree to pay on behalf of the INSURED all sums which the INSURED shall become legally obligated to pay as DAMAGES because of a CLAIM first made and reported to the INSURANCE MANAGER during the policy period resulting from an error, omission or negligent act in the rendering of INSURED SERVICES by the INSURED:

- (a) during the policy period; or

- (b) before the effective date of the initial policy issued and renewed without interruption by the INSURANCE MANAGER, but after the retroactive date (if one is shown in the Declarations), provided that on the effective date of this policy the INSURED did not know of the CLAIM or of the circumstance that could reasonably have given rise to the CLAIM.

This policy of insurance, subject to its terms, conditions and limitations, applies to CLAIMS first made against the INSURED and reported to the INSURANCE MANAGER during the policy period.

## 2. Defence and Other Payments

With respect to the insurance afforded by the General Agreements of Part II of this policy, the INSURERS further agree:

- (a) that they shall have the right and duty to defend the INSURED in any suit first brought against the INSURED before a court of civil jurisdiction in Canada or the United States of America;
- (b) to pay any premium payable under guarantee bonds required to release attachments and any premium payable on appeal bonds but without any obligation to apply for or furnish any such bonds;
- (c) to pay the reasonable and necessary legal, adjusting, investigating or expert expenses incurred for the defence of CLAIMS for which coverage is provided by this policy;
- (d) to pay costs taxed against the INSURED following a judgment by a court of civil jurisdiction;
- (e) to reimburse INSURED for the reasonable expenses incurred by the INSURED to assist in the investigation and defence of the CLAIM at the request of the INSURANCE MANAGER. Such expenses shall include the amount paid in salaries up to a total of three hundred dollars (\$300) per day per INSURED, subject to a maximum of ten thousand dollars (\$10,000) for all INSURED who, in lieu of work, attend at discoveries, mediation, trial, coroner's inquest or human rights tribunal as part of the defence of a CLAIM;
- (f) the INSURERS shall have no duty to defend a CLAIM which arises from demands or proceedings first brought against the INSURED outside Canada or the United States of America.

Where it is the duty of the INSURED to defend, the INSURED shall not select defence counsel without the INSURANCE MANAGER'S written consent, which shall not be unreasonably withheld. The INSURERS shall have the right and shall be given the opportunity to effectively associate with the INSURED in the investigation, defence and settlement of any CLAIM for which coverage is provided under this policy. The payment of sums provided for in Item 2 of Part II shall be on a current basis.

3. The payment of the sums provided for in Item 2 of Part II is to be considered an integral part of the applicable limit of liability of the INSURERS as it erodes the limit of liability.
4. The INSURERS' obligation to defend any CLAIM ends once the available limit of liability is exhausted.
5. **Territory**

This policy applies to CLAIMS which give rise to demands or proceedings against the INSURED anywhere in the world.

## Part III – Exclusions

The coverage afforded under this policy does not apply to:

### 1. Asbestos Liability Bodily Injury

CLAIMS for DAMAGES for BODILY INJURY which is actually or allegedly, in whole or in part, directly or indirectly, caused by, based upon or in any way involving asbestos or any material derived therefrom in whatever form or quantity.

This exclusion applies to such CLAIMS regardless of any other cause or event (whether insured or not) contributing concurrently or in any sequence to the occasioning of the BODILY INJURY.

### 2. Bankruptcy/Insolvency

CLAIMS resulting from the bankruptcy or insolvency of the INSURED.

### 3. Care, Custody and Control

CLAIMS resulting from damage caused to property in the care, custody or control of the INSURED or property over which the INSURED is for any purpose exercising control.

4. **Deliberate, Dishonest or Fraudulent Acts**

CLAIMS resulting from deliberate, dishonest, criminal or fraudulent acts committed by the INSURED, unless it was done in order to protect persons or property, but this exclusion does not apply to any INSURED who is neither the author of nor an accomplice to the act.

5. **Design-build**

CLAIMS resulting from services rendered by the INSURED where:

- (a) actual construction, erection, fabrication, installation, assembly, manufacture thereof, or;
- (b) decommissioning, remediation, clean-up, removal, containment, detoxification or neutralization of any property, pollutants or contaminants;

is also performed by or on behalf of the INSURED or by or on behalf of an associated business enterprise in which the INSURED either directly or indirectly has an interest, or that directly or indirectly has an interest in the INSURED.

6. **Economic Return**

CLAIMS resulting from representations, forecasts or estimates of profit, return on capital or economic return.

7. **Fines, Penalties**

CLAIMS resulting from any fines, penalties, punitive or exemplary damages.

8. **Insured vs. Insured**

CLAIMS initiated by one or more INSUREDS against any other INSURED.

9. **Joint Venture**

CLAIMS resulting from the Named INSURED'S participation in a joint venture, partnership, associateship or any other entity which has not been endorsed on this policy as an additional Named INSURED unless this policy was specifically issued for this purpose.

10. **Liability of Others**

CLAIMS resulting from the liability of others assumed by the INSURED under a contract; however, this exclusion shall not apply to the INSURED'S legal liability for subconsultants contractually bound to the INSURED or for the INSURED'S liability for errors, omissions or negligent acts of the INSURED'S own employees.

11. **Libel and Slander**

CLAIMS resulting from DAMAGES resulting from:

- (a) oral or written publication of material, declaration or interview by the media that slanders or libels a person or organization or disparages a person's or organization's goods, products or services; or
- (b) oral or written publication of material that violates a person's right of privacy.

12. **Nuclear Energy**

CLAIMS:

- (a) resulting from any liability imposed by or arising under the Nuclear Liability Act; or
- (b) with respect to which an INSURED under this policy is also insured under a contract of nuclear energy liability insurance (whether the INSURED is named in such contract or not and whether or not it is legally enforceable by the INSURED) issued by the Nuclear Insurance Association of Canada or any other group or pool of insurers, or would be an INSURED under any such policy but for its termination upon exhaustion of its limit of liability; or
- (c) resulting directly or indirectly from the NUCLEAR ENERGY HAZARD arising from:
  - (i) the ownership, maintenance, operation or use of a NUCLEAR FACILITY by or on behalf of an INSURED;

- (ii) the furnishing by an INSURED of services, materials, parts or equipment in connection with the planning, construction, maintenance, operation or use of any NUCLEAR FACILITY; and
- (iii) the possession, consumption, use handling, disposal or transportation of FISSIONABLE SUBSTANCES, or of other RADIOACTIVE MATERIAL;

but this exclusion shall not be construed to apply in any commercial or medical radioactive isotopes.

**13. Other Activities**

CLAIMS resulting from the legal liability of the INSURED arising from the operation of any business enterprise, other than INSURED SERVICES.

**14. Other Insurance**

CLAIMS covered under another valid and collectible insurance policy. Any coverage provided by this policy shall be specifically excess of and shall not act in contribution with such other insurance policy.

**15. Pollution**

CLAIMS arising out of or attributable to POLLUTION.

**16. Prior Knowledge**

CLAIMS or circumstances, reported or not in the application, known to the INSURED before the effective date of the initial policy issued and renewed without interruption by the INSURANCE MANAGER to the INSURED.

**17. Related Entities**

CLAIMS made against the INSURED, when such CLAIMS are made by another business:

- (a) owned totally or partially by an INSURED;
- (b) controlled or managed totally or partially by an INSURED;
- (c) which is directly or indirectly involved in any way in the ownership or management of an INSURED'S business; or
- (d) of which an INSURED is a partner, director, officer or employee.

This exclusion shall not apply where the interest held by such an entity in the INSURED, or interest held by the INSURED in such an entity, whether held as equity, ownership or voting rights, is less than or equal to ten per cent (10%).

**18. War Risk**

CLAIMS resulting from DAMAGES caused directly or indirectly by war, invasion, acts of foreign enemies, hostilities (whether war be declared or not), civil war, rebellion, revolution, insurrection.

**Part IV – Computation of Amounts Payable by the Insurers**

**Limit of Liability of the Insurers**

Subject, when applicable, to the deductible as stated in the Declarations, the liability of the INSURERS under Part II – Insuring Agreements of this policy is limited, for each LOSS and per policy period, to the amounts as stated in the Declarations. It is agreed that the INSURERS and the INSURED shall contribute equally towards DAMAGES until the INSURED has paid the deductible referred to in the Declarations.

**Part V – Conditions**

**1. Action Against the Insurers**

No action or legal proceedings may be initiated against the INSURERS unless the INSURED has fully complied with the requirements of this policy.

## 2. **Amendments**

The terms of this policy may only be waived or changed by the INSURANCE MANAGER and then, only by written endorsement signed by the INSURANCE MANAGER. Such endorsement shall form a part of this policy.

## 3. **Assignment**

Assignment of interest under this policy shall not bind the INSURERS until their consent is endorsed hereon; if, however, the Named INSURED should be adjudged bankrupt, insolvent or incompetent or die within the policy period, this policy shall cover the Named INSURED'S legal representative as Named INSURED. The INSURED agrees that any notice of any kind the INSURANCE MANAGER mails to the Named INSURED at the address shown in the Declarations shall constitute notice to the INSURED'S legal representatives.

## 4. **Cancellation of Policy**

- (a) The Named INSURED may cancel this policy by giving written notice to the INSURANCE MANAGER to this effect, indicating when thereafter the cancellation shall be effective. The INSURANCE MANAGER will reimburse the excess of premium paid by the INSURED over and above the premium earned for the time on risk, the calculation being made in accordance with the customary short rate table and procedure.
- (b) The INSURANCE MANAGER may cancel this policy by giving to the Named INSURED written notice to this effect, either by registered mail or by delivering it by hand and the termination takes effect thirty (30) days after the date of the notice; in the event of non-payment of premium, the termination takes effect fifteen (15) days after the date of the notice. The INSURANCE MANAGER shall reimburse this excess premium paid by the INSURED over the earned premium for the time on risk, such calculation to be made on a pro rata basis.

## 5. **Conformity to Statute**

The terms of this policy that are in conflict with the terms of any applicable laws construing this policy, including the Quebec Civil Code, are hereby amended to conform to such laws.

## 6. **Continuity**

In the event this policy replaces, without interruption, a prior policy issued by the INSURANCE MANAGER, any CLAIMS or circumstances that could reasonably give rise to a CLAIM of which the INSURED is aware and which the INSURED reports to the INSURANCE MANAGER shall be deemed to have been reported on the date the INSURED first became aware of such CLAIM or circumstances and will be insured subject to the terms, conditions and limits of liability of the policy in force on such date.

## 7. **Co-operation of the Insured**

The INSURED must co-operate with the INSURANCE MANAGER and, at the request of the INSURANCE MANAGER, assist to effect settlement, forward proceedings, attend hearings and trials, assist in securing and giving evidence and in obtaining the attendance of witnesses.

The INSURED shall not, without the INSURANCE MANAGER'S approval and except at the INSURED'S own cost, voluntarily make any payment, assume any obligation or incur any expense.

## 8. **Named Insured Represents All Insureds**

The Named INSURED, INSURED, INSURERS and INSURANCE MANAGER agree that the Named INSURED represents all INSUREDS under this policy.

## 9. **Notice of Claim**

This is a claims-made and reported policy. The INSURED shall, as soon as practicable after being made aware of a CLAIM for which coverage would be afforded by this policy, provide written notice with the full particulars thereof to the INSURANCE MANAGER, Victor Insurance Managers Inc., at the address indicated in the Declarations.

If during the policy period the INSURED becomes aware of a circumstance which could reasonably give rise to a CLAIM, the INSURED shall give written notice thereof to the INSURANCE MANAGER as soon as practicable and prior to the date of the termination of the policy. Any such CLAIM received by the INSURED resulting from such circumstances shall be treated as a CLAIM made during the policy period in which such notice was given.

If the effective date of termination of the policy is a Saturday, Sunday or Statutory Holiday, any CLAIM presented to the INSURANCE MANAGER on the business day immediately following the termination date will be deemed to have been reported within the policy period.

Notwithstanding the aforementioned, any late notice or absence of notice is cause of forfeiture of the rights of the INSURED, if the INSURERS sustain injury therefrom.

**10. Right to Audit**

The INSURANCE MANAGER may, at any time, inspect the premises of the INSURED. In relation to the object of this policy, the INSURANCE MANAGER may also examine the financial records and files of the INSURED during the policy period and during the two (2) years which follow its expiry or cancellation provided that prior notice of forty-eight (48) hours is given to the INSURED.

**11. Settlement and Contestation of Claims**

In the event of a CLAIM, the INSURANCE MANAGER will not settle the LOSS without first obtaining the written consent of the INSURED.

However, if a settlement is rendered impossible by the sole refusal of the INSURED, the latter must continue the defence at the Named INSURED'S own expense and the liability of the INSURERS will then be limited to the amount for which the CLAIM could have been so settled together with expenses incurred under the present policy at the date of such refusal.

**12. Severability of Interests**

In the event that a CLAIM is made against more than one INSURED, it is agreed that the obligation of the INSURERS under this policy is the same as if separate policies had been issued to each. Notwithstanding the number of INSUREDS involved, the total amount payable hereunder on behalf of all INSUREDS shall not exceed the INSURERS' limit of liability stated in the Declarations.

**13. Subrogation**

In the event of any payment under this policy, the INSURERS shall be subrogated to all the INSURED'S rights of recovery therefore against any person or organization and the INSURED shall execute and deliver instruments and papers and do whatever else is necessary to secure such rights. The INSURED shall do nothing to prejudice such rights.

**14. Suspension of Permit or Provisional Administration**

If the Named INSURED has its permit or licence to practice suspended by virtue of the laws governing its practice, or if a provisional administration is imposed by governmental authority, notice must be given to the INSURANCE MANAGER within a period of not more than thirty (30) days from such suspension or provisional administration.



Victor Canada  
500-1400 Blair Towers Place  
Ottawa, Ontario K1J 9B8  
Telephone 613-786-2000  
Facsimile 613-786-2001  
Toll Free 800-267-6684  
www.victorinsurance.ca

# Endorsement

---

Endorsement No.: 0001  
Standard Form: M-3EO  
Attached to and forming part  
of Policy Number: SRD606871

## Fungi Exclusion

It is agreed that this policy is amended as follows:

1. Part I - Definitions is amended to include the following:

14. Fungi

Any form of fungus, including but not limited to yeast, mould, mildew, rust, smut or mushroom.

2. Part III - Exclusions is amended to include the following:

19. CLAIMS based upon or arising out of, in whole or in part,:

(a) the actual, alleged or threatened inhalation of, ingestion of, contact with, exposure to, existence of, growth or presence of;

(b) any costs or expense incurred to prevent, respond to, test for, monitor, abate, mitigate, remove, cleanup, contain, remediate, treat, detoxify, neutralize, assess or otherwise deal with or dispose of;

(c) the actual or alleged failure to detect, report, test for, monitor, cleanup, remove, contain, dispose of, treat, detoxify, neutralize, or in any way respond to, assess the effects of or advise of the existence of or the conditions for the potential growth of;

any FUNGI or any spores, mycotoxins, odours, or any other substances, products or by-products produced by, released by, or arising out of the current or past presence of FUNGI.

Such CLAIMS are excluded regardless of any cause or event contributing concurrently or in any other sequence to the LOSS.

Except as otherwise provided by this endorsement, all terms, provisions and conditions of this policy shall have full force and effect.



Victor Canada  
500-1400 Blair Towers Place  
Ottawa, Ontario K1J 9B8  
Telephone 613-786-2000  
Facsimile 613-786-2001  
Toll Free 800-267-6684  
[www.victorinsurance.ca](http://www.victorinsurance.ca)

# Endorsement

---

Endorsement No.: 0002  
Standard Form: P-4EO  
Attached to and forming part  
of Policy Number: SRD606871

Pollution Coverage

It is agreed that Item 15 of Part III - Exclusions of this policy is deleted in its entirety.

Except as otherwise provided by this endorsement, all terms, provisions and conditions of this policy shall have full force and effect.



Victor Canada  
500-1400 Blair Towers Place  
Ottawa, Ontario K1J 9B8  
Telephone 613-786-2000  
Facsimile 613-786-2001  
Toll Free 800-267-6684  
[www.victorinsurance.ca](http://www.victorinsurance.ca)

# Endorsement

---

Endorsement No.: 0003  
Standard Form: T-6EO  
Attached to and forming part  
of Policy Number: SRD606871

## Terrorism Exclusion

It is agreed that this policy does not apply to CLAIMS directly or indirectly, in whole or in part, attributable to or arising out of TERRORISM.

TERRORISM means an ideologically motivated unlawful act or acts, including but not limited to the use of violence or force or threat of violence or force, committed by or on behalf of any group(s), organization(s) or government(s) for the purpose of influencing any government and/or instilling fear in the public or a section of the public.

Except as otherwise provided by this endorsement, all terms, provisions and conditions of this policy shall have full force and effect.



Victor Canada  
500-1400 Blair Towers Place  
Ottawa, Ontario K1J 9B8  
Telephone 613-786-2000  
Facsimile 613-786-2001  
Toll Free 800-267-6684  
[www.victorinsurance.ca](http://www.victorinsurance.ca)

# Endorsement

---

Endorsement No.: 0004  
Standard Form: W-1EO  
Attached to and forming part  
of Policy Number: SRD606871

## Warranties/Guarantees Exclusion

It is agreed that the following is added to Part III - Exclusions of this policy:

### 20. Warranties/Guarantees

CLAIMS resulting from the express warranties, guarantees or penalty clauses the INSURED has given for the benefit of others unless the INSURED's liability would have already existed at law in the absence thereof.

Except as otherwise provided by this endorsement, all terms, provisions and conditions of this policy shall have full force and effect.



December 21, 2022

John Polson  
Polson Environmental  
2001 St Henry Ave  
Saskatoon, SK S7M 0P4

**RE: Errors & Omissions/Professional Liability & Commercial General Liability & Excess Liability**  
**Insurer:** Victor Insurance Managers Inc. / Beazley  
**Policy #:** SRD606871 / SGL606871 / 18601665  
**Policy Period:** December 1, 2022 to December 1, 2023

Dear John,

We are pleased to enclose your new insurance policies providing coverages as discussed for the period **December 1, 2022 to December 1, 2023**. Thank you for your payment.

The enclosed documentation outlines the coverages provided and a copy of the policies wordings is included for your reference.

***Please review the policies and wordings carefully to become familiar with the policies conditions, limitations and exclusions.*** It is important that you read all of the policies exclusions and conditions, however, we would like to draw your attention to a few in particular:

- **Warranties/Guarantees Exclusion** on page 13 of your Errors & Omissions/Professional Liability Policy
- **Separately Insured Wrap-Up and Joint Venture Liability Exclusion** on page 46 on your Commercial General Liability Policy
- **Warranty of Subcontractors to Carry Liability Insurance** on page 47 your Commercial General Liability Policy
- **Amended Retroactive Date Endorsement** on page 4 of your Excess Liability Policy

We would like to remind you that Professional Liability or Errors and Omissions Policies are written on a claims made basis. In order for the policy to respond, coverage must be in effect when an allegation of professional error or omission is first made, regardless of when the alleged error or omission may have taken place, subject to the Retroactive Date shown on the policy. Should you be aware of any claim or potential claim we recommend that you report it to our office immediately

HUB International Insurance Brokers are committed to controlling the use and disclosure of personal information about their clients. For information with respect to our privacy policy please refer to our web site at [www.hubtos.com](http://www.hubtos.com).



Thank you for giving us the opportunity of arranging this insurance for you. We welcome your business and trust you will find our service entirely to your satisfaction.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Fellner".

Jordan Fellner, CIP, CRM, CAIB  
Account Executive

**Direct: 604.269.1888**

**Toll Free: 1.800.606.9969**

**Email: [Jordan.Fellner@hubinternational.com](mailto:Jordan.Fellner@hubinternational.com)**



December 21, 2022

Named Insured: John Polson o/a Polson Environmental

### DISCLOSURE NOTICE

The Financial Institutions Act requires that the information contained in this Disclosure Notice be provided at the time of providing a service or product to a customer.

Hub International Insurance Brokers is licensed as a general insurance agent by the Insurance Council of British Columbia.

This transaction is between you and Aviva Insurance Company of Canada Policy No. SRD606871. We have no interest in the above stated Insurance Company and the Insurance company also has no interest in our company.

The Financial Institutions Act prohibits the Insurance Company or our company from requiring you to transact additional or other business with the Insurance Company or any other person or corporation as a condition of this transaction.

Upon completion of this transaction, Hub International Insurance Brokers will be remunerated by way of commission and/or fee, which will be paid by the insurer named above or by you, the customer.

We may work together with other appropriately licensed third parties in marketing of insurance products; we may share commissions and/or pay or receive fees as a result of a joint venture.

To view our Privacy Statement, How We Get Paid including contingent commissions we may receive, CISRO Principles for Conduct and RIBO "About Your Insurance Broker" Fact Sheet (RIBO Fact Sheet – for Ontario Clients Only) go to: [www.hubinternational.com/en-CA/about-us/canada-disclosures/](http://www.hubinternational.com/en-CA/about-us/canada-disclosures/)

We are pleased to provide insurance services to you.

Thank you for insuring with Hub International Insurance Brokers.



**EXCESS LIABILITY INSURANCE**

Effected with Certain Underwriters at Lloyd's (hereinafter called the "Insurer") through Lloyd's Approved Coverholder ("the Coverholder")

**BEAZLEY CANADA LIMITED**

**100 King Street West, Suite 4530, Toronto, ON M5X 1E1**

**THIS IS A CLAIMS MADE POLICY. PLEASE READ IT CAREFULLY.**

The Insured is requested to read this policy, and if incorect, return it immediately for alteration. In the event of an occurrence likely to result in a claim under this Insurance, immediate notice should be given to the office designated above.

**THIS POLICY CONTAINS A CLAUSE WHICH MAY LIMIT THE AMOUNT PAYABLE.**

**POLICY DECLARATIONS**

POLICY NUMBER: 18601665

1.	Named Insured: Address:	John Polson - Polson Environmental 2001 St Henry Ave Saskatoon SK Canada S7M 0P4
2.	Policy Period:	From: 01 Dec 2022 To: 01 Dec 2023 (both days at 12:01am local standard time at the Address of the Insured)
3.	Limit of Liability:	\$ 1,000,000 Per Claim In the aggregate for the policy period
4.	Insurer: Broker:	As per attached list of subscribing companies Hub International Canada West ULC
5.	Retroactive Date:	15 Sep 2012
6.	Premium:	\$ 1,500
7.	Followed Policy:	\$ 2,000,000 Victor Policy # SRD606871
8.	Schedule of Underlying Insurance:	A) Primary \$ 2,000,000 Victor Policy # SRD606871 B) Other Underlying Insurance N/A
9.	The insurance contract consists of this Declarations page as well as coverage wording 300513 and endorsements 1 through 2.	

**IDENTIFICATION OF INSURER/ACTION AGAINST INSURER**

**FOR THE PURPOSES OF THE INSURANCE COMPANIES ACT (CANADA), THIS DOCUMENT WAS ISSUED IN THE COURSE OF LLOYD'S UNDERWRITERS' INSURANCE BUSINESS IN CANADA.**

This insurance has been effected in accordance with the authorization granted to the Coverholder by the Underwriting Members of the Syndicate Agreement No. B6012BEAZCAN22 (hereinafter referred to as « the Underwriters »).

In any action to enforce the obligations of the Underwriters they can be designated or named as "Certain Underwriters at Lloyd's" and such designation shall be binding on the Underwriters as if they had each been individually named as defendant. Service of such proceedings may validly be made upon the Attorney In Fact in Canada for Certain Underwriters at Lloyd's , whose address for such service is 200 Bay Street, Suite 2930, P.O. Box 51, Toronto, ON M5J 2J2

**NOTICE**

Any notice to the Underwriters may be validly given to the Coverholder.

In witness whereof this policy has been signed, as authorized by the Underwriters, by Beazley Canada Limited

Per: 

**Issue date: 29/11/2022**

# EXCESS LIABILITY INSURANCE POLICY

IN CONSIDERATION OF THE PAYMENT OF THE PREMIUM, AND IN RELIANCE UPON THE STATEMENTS MADE TO THE INSURER OR ANY UNDERLYING INSURER, INCLUDING STATEMENTS MADE BY APPLICATION AND ANY AND ALL SUPPLEMENTARY INFORMATION PROVIDED THEREWITH, WHICH SHALL BE DEEMED TO BE INCORPORATED HEREIN, AND SUBJECT TO ALL THE TERMS AND CONDITIONS OF THIS POLICY, THE INSURER AGREES AS FOLLOWS:

## SECTION I - INSURING AGREEMENT

The **Insurer** shall provide coverage to the **Insureds** in excess of the **Underlying Limits of Liability**, subject to and in accordance with the applicable insuring agreements, definitions, terms, conditions, exclusions and other provisions of the **Followed Policy**, except as otherwise provided herein.

The **Insurer** shall not be obligated to pay any further claim(s), nor shall it have any other obligation whatsoever under this Policy, upon exhaustion of the Limit of Liability as shown under Item 3 of the Declarations.

## SECTION II - CONFORMANCE WITH FOLLOWED POLICY

This Policy is subject to the same insuring agreements, definitions, terms, conditions, exclusions and other provisions, as set forth in the **Followed Policy**, except as regards:

- 1) the premium;
- 2) the obligation to investigate and defend;
- 3) the amount and limits of liability;
- 4) the Policy Period;
- 5) any renewal agreement;
- 6) the subject matter of Sections III, IV, V, and VII and any endorsements attached hereto; and
- 7) any terms or conditions that may otherwise be provided herein.

The Policy also applies in conformance and subject to any other limitations, restrictions or exclusions in any **Underlying insurance**. In no event shall this Policy grant broader coverage than would be provided by the most restrictive **Underlying Insurance**.

## SECTION III - DEFINITIONS

The following terms whenever used in this Policy shall have the meanings indicated.

- A) **Insured** means the individuals and organizations for whom coverage is afforded under the **Primary Policy**.
- B) **Insurer** means the Insurer identified in Item 4 of the Declarations.
- C) **Followed Policy** means the policy as described in the materials submitted to the **Insurer** in connection with the Application for this Policy and identified in Item 7 of the Declarations.
- D) **Primary Policy** means the policy identified in Item 8(A) of the Declarations.
- E) **Sublimit** means any limit of liability of any **Underlying Insurance** which:
  - (i) applies only to a particular type of coverage under such **Underlying Insurance**; and
  - (ii) is part of, and not in addition to, the applicable aggregate or other limits of liability of such **Underlying Insurance**.
- F) **Underlying Insurance** or **Underlying Insurer** means, respectively, all policies and insurers outlined in Item 8 of the Declarations, including the **Followed Policy**.
- G) **Underlying Limits of Liability** means the combined limits of liability of the **Underlying Insurance** as set forth in Item 8 of the Declarations, plus any applicable retention or deductible under the **Primary Policy**.

## SECTION IV - MAINTENANCE OF UNDERLYING INSURANCE

This Policy provides excess coverage only. It is a condition precedent to the coverage afforded under this Policy that those insured hereunder maintain the **Underlying Insurance** as set forth in Item 8 of the Declarations in full force and effect and without alteration of any limit of liability, retention amount, insuring agreement, warranty, definition, term, condition, exclusion or any other provision (subject to reduction or exhaustion as a result of loss payments).

## EXCESS LIABILITY INSURANCE POLICY

---

This Policy does not provide coverage for any claim or loss not covered by the **Underlying Insurance** except and to the extent that loss is not paid under the **Underlying Insurance** solely by reason of the reduction or exhaustion of the **Underlying Limits of Liability** through payments of covered loss thereunder as provided under Section V. C) of this Policy.

### SECTION V - LIMIT OF LIABILITY

- A) The **Insurer** shall only be liable to pay covered loss under this Policy which is in excess of the **Underlying Limits of Liability** after:
- (i) the **Underlying Insurers** have paid or have been held liable to pay; or
  - (ii) the **Insureds** have paid: (a) pursuant to an agreement with the **Underlying Insurers**; or (b) because of the financial impairment or insolvency of the **Underlying Insurers**,
- the total amount of all **Underlying Limits of Liability** as covered loss thereunder. Any payments by the **Insureds** shall be subject to the same terms and conditions for any such payment of the **Underlying Insurers**. Any such payments by the **Insureds** in any claim shall not be recognized as reducing or exhausting the **Underlying Limits of Liability** for any other claim.
- B) Any claim, loss or coverage that is subject to any **Sublimit** shall not be considered covered loss under this Policy, but shall, for purposes of this Policy, reduce or exhaust the **Underlying Limits of Liability** to the extent such payment reduces or exhausts the aggregate limit(s) of liability of such **Underlying Insurance**.
- C) In the event of the reduction or exhaustion of the **Underlying Limits of Liability** by reason of payment of covered loss, this Policy shall:
- 1) in the event of reduction, pay covered loss excess of the reduced limits; and
  - 2) in the event of exhaustion, continue in force as primary insurance; provided, however that in the case of exhaustion, this Policy shall only pay covered loss excess of the retention or deductible applicable under the **Primary Policy**, which shall be applied to any loss in the same manner as specified in the **Primary Policy**.
- D) Notwithstanding any of the terms of this Policy which might be construed otherwise, this Policy shall drop down only in the event of reduction or exhaustion of the **Underlying Insurance** as described in Section V.C), and for no other reason, including uncollectability or non-payment, in whole or in part, of any **Underlying Limits of Liability**. The risk of uncollectability of the **Underlying Limits of Liability**, in whole or in part, whether because of financial impairment or insolvency of any **Underlying Insurer** or for any other reason, is expressly retained by the **Insured** and is not in any way, or under any circumstances, insured or assumed by the **Insurer**.

**The amount shown in Item 3 of the Declarations shall be the maximum aggregate Limit of Liability of the Insurer for all covered loss resulting from all claims made against any insured during the Policy Period, or any discovery period or extended reporting period properly elected under this Policy, if applicable.**

### SECTION VI – CLAIM PARTICIPATION

The **Insurer** shall have the right and be given the opportunity to associate with the **Insured** and any **Underlying Insurer** in the control and defence of any claim even if the **Underlying Insurance** has not been exhausted.

### SECTION VII - NOTIFICATION

- A) Where notice is permitted or required by the **Underlying Insurance**, the **Insureds** have the same rights and obligations to notify the **Insurer** under this Policy, except that such notice shall be given to the **Insurer** at the address set forth in paragraph B) below. Notice to any other insurer shall not constitute notice to the **Insurer** unless also given to the **Insurer** as provided above.

Notice given to any **Underlying Insurer** shall not constitute notice under this Policy.

- B) Notice to the **Insurer** provided for in this Section VII. shall be given to:

Beazley Canada Limited  
First Canadian Place  
100 King Street West, Suite 4530, P.O. Box 328  
Toronto, Ontario M5X 1E1  
Facsimile: + 1 416-861-1617



---

Authorized Insurer's Representative  
Beazley Canada Limited

Attached to and forming part of Policy No. 18601665

**Endorsement # 1**

**Sanctions and Limitation Exclusion (AEM1056)**

Named Insured: **John Polson - Polson Environmental**

Effective Date: 01 Dec 2022

No (re)insurer shall be deemed to provide cover and no (re)insurer shall be liable to pay any **Claim** or provide any benefit hereunder to the extent that the provision of such cover, payment of such **Claim** or provision of such benefit would expose that (re)insurer to any sanction, prohibition or restriction under United Nations resolutions or the trade or economic sanctions, laws or regulations of Canada, the European Union, United Kingdom or United States of America.

**All other terms and conditions remain unchanged.**



---

Authorized Insurer's Representative  
Beazley Canada Limited

01 Dec 2022

---

Date

**Attached to and forming part of Policy No. 18601665**

**Endorsement # 2**

**Amended Retroactive Date Endorsement (BZEX1091)**

Named Insured: **John Polson - Polson Environmental**

Effective Date: 01 Dec 2022

This endorsement modifies insurance provided under the following:

**EXCESS INSURANCE POLICY**

In consideration of the premium charged for the Policy, it is hereby understood and agreed that the following clause is added to the Policy:

**RETROACTIVE DATE**

With respect to any "retroactive date", "continuity date" or similar term contained in the **Followed Policy** the following date shall apply for this Policy: 15 Sep 2012

**All other terms and conditions remain unchanged.**



---

Authorized Insurer's Representative  
Beazley Canada Limited

---

01 Dec 2022  
Date



**POLSON ENVIRONMENTAL**

2001 St. Henry Avenue, Saskatoon, Saskatchewan, S7M0P4  
(306) 652-7708, Fax (306) 653-0223, Cell: (306) 221-4569  
Email: [johnpolson@shaw.ca](mailto:johnpolson@shaw.ca)

**APPENDIX H**

**Phase I Environmental Site Assessment**



PROJECT: **Phase I Environmental Site Assessment  
777 60<sup>th</sup> Street West  
RM of Corman Park, Saskatchewan**

PREPARED FOR: **Allan's Disposal Services Ltd.**





30 May 2023

File: 23-3084-2

Allan's Disposal Services Ltd.  
Site 413, P.O Box 608, RR4  
Saskatoon, SK S7K 3J7

Attention: James Polley and Jane Polley

**Subject: Phase I Environmental Site Assessment**  
**777 60<sup>th</sup> Street West**  
**RM of Corman Park, Saskatchewan**

---

Please find attached one (1) copy of our Phase I Environmental Site Assessment (ESA) report for the above-referenced property located in the Rural Municipality (RM) of Corman Park, Saskatchewan.

If you have any questions, concerns, or require further information, please call the undersigned at (306) 912-9434.

Yours Sincerely,  
**PINTER & Associates Ltd.**  
Jessica Cutter, M.Sc.  
Project Manager

A handwritten signature in black ink, appearing to be "JCutter", written in a cursive style.

h:\2) projects\3084 allan's landscape cdr land dev\3084-2 phs i esa\12) report\final\3084-2 777 60th st w, corman park phs i esa 30may23 final.docx

**Phase I Environmental Site Assessment  
777 60<sup>th</sup> Street West  
RM of Corman Park, Saskatchewan**

**Prepared For:  
ALLAN'S DISPOSAL SERVICES LTD.**

**Prepared By:  
PINTER & Associates Ltd.**

**30 May 2023  
File: 23-3084-2**





## Glossary of Terms and Abbreviations

Asbestos	Thin fibrous silicate minerals used historically in building materials such as pipe insulation, spray-on fireproofing, ceiling tiles, and flooring underlay.
Asl	Above Sea Level
ACM	Asbestos-containing materials
AST	Aboveground fuel storage tank
Ballast	Provides starting voltage and regulates the current to a lamp in a fluorescent lighting system.
Contaminants	Identified or suspected materials, compounds, chemicals, metals, and other products (usually man-made) that may be present in concentrations that exceed the applicable regulatory criteria or guidelines.
ESA	Environmental Site Assessment
Fire Insurance Maps	Historical city plans that were used to evaluate fire risks and to determine insurance premiums. The maps may include items such as building materials, USTs, ASTs, and land use at the time of publication.
Hantavirus	Virus found within deer mouse droppings, urine, and saliva. The virus can be transmitted to humans through airborne particles causing flu-like symptoms that may progress to a fatal condition if left untreated.
Henderson/Polk Directories	The Directories list civic addresses and the occupant(s) on a yearly basis. Directories were prepared from 1908 to 2000.
Km	kilometres
m	metres
m <sup>2</sup>	Square metres
m bgs	metres below ground surface
MOE	Saskatchewan Ministry of Environment
PAHs	Polycyclic aromatic hydrocarbons. Compounds created through the incomplete burning of coal, oil, and gas.
PCBs	Polychlorinated biphenyls. Compounds used historically as coolants and insulating fluids in transformers and capacitors.
Petroleum Hydrocarbons	PHC (see below)
ODS	Ozone-depleting substances. Substances that deplete the ozone layer such as halons and chlorofluorocarbons (CFCs).
Phase I ESA	Phase I Environmental Site Assessment. The purpose of a Phase I ESA is to review current and historical information to identify potential environmental concerns. No sampling or analysis of samples is carried out during a Phase I ESA.
Phase II ESA	Phase II Environmental Site Assessment. The purpose of a Phase II ESA is to evaluate the environmental concerns identified in a Phase I ESA through the collection of field and laboratory data.



Phase III ESR	Phase III Environmental Site Remediation. The purpose/objective of a Phase III ESR is to obtain an environmental release from either the Authority-Having-Jurisdiction and/or the Consultant. There are many options that can be used to attain this objective.
PHC	Petroleum hydrocarbons. Compounds that result from the refining of crude oil. Typically, these compounds include gasoline, diesel fuel, fuel oil, jet fuels, kerosene, non-synthetic motor and hydraulic oils.
Shelterbelt	A line of trees or shrubs planted to protect an area, especially a farm field, from strong winds and the erosion they cause.
Site or Subject Property	Refers to the land, buildings, and appurtenances within the boundary of the property being assessed.
SOPC	Substance of Potential Concern
SWSA	Saskatchewan Water Security Agency
UFFI	Urea Formaldehyde Foam Insulation. Used as an insulation product from the mid-1970s to 1980.
UST	Underground fuel storage tank



---

## Executive Summary

---

PINTER & Associates Ltd. (PINTER) carried out a Phase I Environmental Site Assessment on the property located at 777 60<sup>th</sup> Street West (the Subject Property), in the Rural Municipality (RM) of Corman Park, Saskatchewan (SK). The Subject Property consists of an office building and an enclosed storage yard. Adjacent land use to the Subject Property includes roadways, agricultural land, residential properties, an airport, and commercial properties.

Our assessment did not identify evidence of actual or potential on-site contamination that could affect the overall condition of the Subject Property. There is no evidence of actual off-site contamination or potential off-site impacts that could travel to the Subject Property.

We note that the following special attention items may be present in the Subject Property building and will require proper management and disposal if renovation or demolition occurs, affecting these materials: mercury may be present in potential fluorescent lighting; and ozone-depleting substances may be present in fire extinguishers, refrigeration units, and air-conditioning units.




---

## Table of Contents

---

	<b>Page</b>
<b>GLOSSARY OF TERMS AND ABBREVIATIONS</b>	<b>I</b>
<b>EXECUTIVE SUMMARY</b>	<b>III</b>
<b>TABLE OF CONTENTS</b>	<b>IV</b>
<b>1.0 INTRODUCTION</b>	<b>1</b>
1.1. Scope Of Work	1
<b>2.0 SITE DESCRIPTION</b>	<b>2</b>
2.1. General Description	2
2.2. Zoning	2
<b>3.0 RECORDS REVIEW</b>	<b>3</b>
3.1. Aerial Photographs	3
3.1.1. 1950 Photograph	3
3.1.2. 1974 Photograph	3
3.1.3. 1985 Photograph	4
3.1.4. 1994 Photograph	4
3.1.5. 2005 Photograph	4
3.1.6. 2015 Photograph	4
3.1.7. 2021 Photograph	5
3.2. Property Use Records	5
3.2.1. Fire Insurance Plans	5
3.2.2. Henderson Directories	5
3.3. Land Titles	5
3.4. Company Records	5
3.5. Prior Environmental Reports	6
3.6. Building Permits and Plans	6
3.7. Geological and Geotechnical Reports	7
3.8. Regulatory Information	7
3.8.1. Hazardous Materials Storage and Registered Spills Database	7
3.8.2. Saskatchewan Ministry of Environment Impacted Sites Map	9
3.9. Geological and Soil Maps	9
3.9.1. Hydrogeology and Groundwater	10
3.10. Topographic Maps	10
3.11. The City of Saskatoon Fire Department	10



<b>4.0</b>	<b>SITE VISIT</b>	<b>11</b>
4.1.	Access Limitations	11
4.2.	Property Use	11
4.3.	Hazardous Materials	11
4.4.	Unidentified Substances	11
4.5.	Storage Tanks	11
4.6.	Storage Containers	12
4.7.	Odours	12
4.8.	Potable Water Supply	12
4.9.	Building Details	13
4.9.1.	Interior Observations	13
4.9.2.	Heating and Cooling Systems	13
4.9.3.	Stains	13
4.9.4.	Drains and Sumps	13
4.9.5.	Mechanical Equipment	13
4.10.	Exterior Observations	14
4.10.1.	General	14
4.10.2.	Adjoining and Neighbouring Properties	14
4.10.3.	Topographic, Geologic, and Hydrogeological Conditions	14
4.10.4.	Wells	15
4.10.5.	Sewage Disposal	15
4.10.6.	Pits and Lagoons	15
4.10.7.	Stained and Spilled Materials	15
4.10.8.	Stressed Vegetation	15
4.10.9.	Fill	15
4.10.10.	Wastewater	15
4.10.11.	Watercourses, Ditches, or Standing Water	15
4.10.12.	Roads, Parking Facilities, and Rights of Way	15
4.11.	Special Attention Items	16
4.11.1.	Asbestos	16
4.11.2.	Polychlorinated Biphenyls (PCBs)	16
4.11.3.	Lead	16
4.11.4.	Mercury	16
4.11.5.	Ozone-Depleting Substances (ODS)	16
4.11.6.	Urea Foam Formaldehyde Insulation (UFFI)	16
4.11.7.	Mould and Moisture	16
4.11.8.	Radon	16
4.11.9.	Electric and Magnetic Fields	16
4.11.10.	Vibration	16
4.11.11.	Cemeteries	16



<b>5.0</b>	<b>INTERVIEWS</b>	<b>17</b>
<b>6.0</b>	<b>EVALUATION</b>	<b>19</b>
6.1.	Actual On-Site Contamination	19
6.1.1.	Exterior Staining	19
6.2.	Potential On-Site Contamination	19
6.2.1.	Allan's Landscaping Ltd. Storage Site, HWY#16 (2 miles North of Saskatoon), Saskatoon	19
6.2.2.	Hazardous Materials	20
6.2.3.	Storage Containers and Tanks	20
6.2.4.	Previous Phase I ESA	20
6.2.5.	Septic Field	21
6.3.	Potential Environmental Management Issues	21
6.3.1.	Mercury	21
6.3.2.	Ozone-Depleting Substances (ODS)	21
6.4.	Actual Off-Site Contamination	21
6.5.	Actual and Potential Off-Site Contamination	22
6.5.1.	Saskatoon Airport Authority Storage Site, Saskatoon Airport, Saskatoon	22
6.6.	Potential Off-Site Contamination	22
<b>7.0</b>	<b>CONCLUSIONS</b>	<b>23</b>
<b>8.0</b>	<b>ASSESSOR QUALIFICATIONS</b>	<b>24</b>
<b>9.0</b>	<b>REFERENCES</b>	<b>25</b>
<b>10.0</b>	<b>LIMITATIONS</b>	<b>26</b>



## **EMBEDDED TABLES**

A	Summary of Adjoining and Neighbouring Land Uses	2
B	Building Detail Summary	13

## **APPENDICES**

A	Figures	
B	Zoning	
C	Historical Aerial Photographs	
D	Tables	
E	Land Titles	
F	RM of Corman Park Zoning Compliance Report	
G	Saskatchewan Ministry of Environment Hazardous Storage and Spills Database Search Results	
H	Saskatchewan Water Security Agency Driller Water Well Records	
I	City of Saskatoon Fire Department	
J	Select Subject Property Photographs	
K	Statement of Qualifications	



---

## 1.0 INTRODUCTION

---

Allan's Disposal Services Ltd. (the CLIENT) retained PINTER & Associates Ltd. (PINTER) to carry out a Phase I Environmental Site Assessment (ESA) on the property located at 777 60<sup>th</sup> Street West (the Subject Property), in the Rural Municipality (RM) of Corman Park, Saskatchewan (SK). The location of the Subject Property is shown in Figure 1 in Appendix A.

Authorization to complete the Phase I ESA and acquire records and documents related to the property was provided in writing by the CLIENT on 28 March 2023.

The purpose of the Phase I ESA was to identify actual and potential site contamination resulting from historical and current land use on the Subject Property, and on adjoining and neighbouring properties that could affect the Subject Property.

### 1.1. SCOPE OF WORK

The Phase I ESA was performed in accordance with the principles and practices established by the Canadian Standards Association (CSA) in the document titled "Z768-01 (R2022); Phase I Environmental Site Assessment" (CSA, 2022). The Phase I ESA is based on a records review, a visual survey of the Subject Property, interviews, evaluation of information, and reporting. The historical information review was restricted to information available to PINTER during the term of this assessment.

The scope of work included the following tasks:

- Review historical land titles (for a minimum of 60 years), historical aerial photographs, publicly-available city and RM documents, fire insurance maps, Henderson/Polk Directories, and provincial regulatory databases.
- Review of information at the City of Saskatoon and RM of Corman Park.
- Review of previous environmental reports, if made available.
- Interview people with information pertaining to current and historical activities on the Subject Property.
- Perform a Subject Property reconnaissance and inspection.
- Evaluate the data and prepare a report summarizing the assessment and findings.




---

## 2.0

## SITE DESCRIPTION

---

### 2.1. GENERAL DESCRIPTION

The Subject Property is located at 777 60<sup>th</sup> Street West, in the RM of Corman Park, Saskatchewan. The Subject Property consists of office spaces, meeting rooms, a showroom, and an enclosed storage yard. Adjacent land use to the Subject Property includes roadways, agricultural land, residential properties, an airport, and commercial properties. Figure 2, Appendix A presents the adjacent land use.

### 2.2. ZONING

The Subject Property is zoned D-Agricultural District 2 (DAG2) (Rural Municipality of Corman Park Zoning Bylaw No.344/22). A list of the permitted and discretionary uses included in the zoning bylaws is presented in Appendix B. Figure 3, Appendix A presents a portion of the RM of Corman Park Zoning Map. Table A presents a summary of adjoining and neighbouring land uses.

**TABLE A – Summary of Adjoining and Neighbouring Land Uses**

Direction from Subject Property	Present Land Use
North	60 <sup>th</sup> Street West, Highway 16(SK 16)
East	Commercial Property, 60 <sup>th</sup> Street West, Highway 16(SK 16)
South	Unmarked Gravel Road, Saskatoon John G. Diefenbaker International Airport
West	Abandoned Homestead, Agricultural Land



---

## 3.0

## RECORDS REVIEW

---

### 3.1. AERIAL PHOTOGRAPHS

Seven aerial photographs dating from 1950 to 2021 were used for evaluating historical and current land usage of the Subject Property and surrounding area.

Copies of the aerial photographs are presented in Appendix C.

#### 3.1.1. 1950 Photograph

The Subject Property and the neighbouring properties located directly north and east are occupied by agricultural land.

A roadway is visible running directly south of the Subject Property, from east to west. Further south, agricultural land is present.

What appears to be a homestead and agricultural land are visible directly west of the Subject Property. The homestead is visible west of the southern region of the Subject Property.

What appears to be an airplane runway is visible in the distance, south of the Subject Property.

#### 3.1.2. 1974 Photograph

The Subject Property and the neighbouring property located directly south appear similar to the 1950 photograph.

A roadway, currently 60<sup>th</sup> Street West, is visible directly north of the Subject Property. Further north, Highway 16 is visible.

What appears to be a property under development is visible east of the Subject Property.

Multiple buildings are visible on the homestead located west of the southern region of the Subject Property. What appears to be an additional homestead is visible directly west of the northern region of the Subject Property.

The airplane runway in the distant area south of the Subject Property appears to have a different configuration and bunkers are visible.



### **3.1.3. 1985 Photograph**

The Subject Property and the neighbouring properties located directly north, east, and south of the Subject Property appear similar to the 1974 photograph.

The homestead located west of the northern region of the Subject Property is no longer visible.

### **3.1.4. 1994 Photograph**

The Subject Property and the neighbouring properties located directly north, south, and west of the Subject Property appear similar to the 1985 photograph.

The property located east of the Subject Property no longer appears to be under development. The property is vacant.

### **3.1.5. 2005 Photograph**

The Subject Property is occupied by a building with a similar configuration to the current structure. What appears to be a concrete pad is visible directly south of the Subject Property building. Regions of the Subject Property appear to be unvegetated. Sloughs are visible along the east and west property lines.

The neighbouring properties located directly north and south of the Subject Property appear similar to the 1994 photograph.

What appears to be an unvegetated region is visible directly east of the southern region of the Subject Property.

The homestead located directly west of the southern region of the Subject Property appears to have fewer outbuildings.

Increased development is visible in the distance, north of the Subject Property.

### **3.1.6. 2015 Photograph**

Various materials are visible stored north, east, and south of the building and concrete pad located on the Subject Property.

The neighbouring properties located directly north, south, and west appear similar to the 2005 photograph.



What appears to be aggregate and soil storage piles are visible on the property directly east of the southern region of the Subject Property.

### **3.1.7. 2021 Photograph**

The Subject Property and the neighbouring properties located directly north, south, and west appear to be similar to the 2015 photograph.

What appears to be trailers are visible on the property directly east of the Subject Property.

## **3.2. PROPERTY USE RECORDS**

### **3.2.1. Fire Insurance Plans**

Historical fire insurance plans are maps of urban areas that may provide information such as the location of aboveground fuel storage tanks (ASTs) and underground fuel storage tanks (USTs), and building/occupancy information. Fire insurance maps are generally available for major cities.

Fire Insurance Plans (FIPs) were not published for the RM of Corman Park. The Subject Property is beyond the City of Saskatoon city limits and did not include the Subject Property.

### **3.2.2. Henderson Directories**

Henderson/Polk Directories provide information on the historical tenants in many cities and some town properties. Directories are available from 1905 through 2000.

Henderson/Polk Directories were not published for the RM of Corman Park and were not included in the City of Saskatoon Henderson/Polk Directories.

## **3.3. LAND TITLES**

Allan's Landscaping Ltd. has been listed as the owner of the Subject Property since 16 October 2001. Previous owners include Kenna Holdings Ltd., William Robert Dishaw, and Marion I. Gibson.

Table 1, Appendix D presents a summary of the land titles. Appendix E presents copies of the land titles from the past 73 years for the Subject Property.

## **3.4. COMPANY RECORDS**

The CLIENT did not provide company records to PINTER.



### **3.5. PRIOR ENVIRONMENTAL REPORTS**

PINTER completed a Phase I ESA on the Subject Property for the Client in 2018.

The Phase I ESA identified a used oil spill on the ground adjacent to the concrete pad on the Subject Property. The spill was reported to be minor, approximately less than 1 litre (L) in volume. It was recommended to clean up the spill and that improved fluid management and spill response practices be implemented for the Subject Property. The report stated that a Phase II ESA is not recommended or any additional environmental work for the Subject Property.

### **3.6. BUILDING PERMITS AND PLANS**

A file search for building permits and plans (current and archived) for the Subject Property was requested through the RM of Corman Park on 10 April 2023.

The following building permits were provided within a Zoning Compliance Certificate from the RM of Corman Park:

- Permit #178/2008: Issued on 15 September 2008 – Storage Garage. Construction ceased for a period greater than one year, therefore the permit expired. Permit was closed on 13 April 2011.
- Permit #122/2005: Issued on 24 August 2005 – Extension of Permit #22/2004. Permit was closed on 25 January 2012, noting no deficiencies.
- Permit #22/2004: Issued on 02 June 2004 – Second Floor Revisions for the Greenhouse/Garden Centre, noting no deficiencies and the permit was closed on 25 January 2012.
- Permit #45/2004: Issued on 02 June 2004 – Extension of Permit #61/2003. Permit was closed on 25 January 2012, noting no deficiencies.
- Permit #61/2003: Issued on 20 June 2003 – Greenhouse/Garden Centre, noting no deficiencies and the permit was closed on 25 January 2012.

An order was issued on the property on 21 January 2010, which to date has not been remedied and contained the following contraventions to the Corman Park-Saskatoon Planning District Zoning Bylaw:

- The operation of the waste disposal business.



- The storage of waste disposal bins.
- The storage of manure.
- The stripping of on-site topsoil.
- The mixing of topsoil with manure.
- The operation and storage of industrial earthmoving equipment (graders & scrapers).
- The storage of semi trailer units.
- The storage of mobile home units.
- The piling of organic matter (trees and brush).
- The dumping and storage of concrete and asphalt rubble.

In addition, a Real Property Report, completed by a certified Saskatchewan Land Surveyor, was not submitted to the RM of Corman Park for review, therefore the RM does not guarantee that the buildings meet the required setback distances, as per the P4G Planning District Zoning Bylaw and amendments thereto.

No environmental concerns were noted for the building plans.

A copy of the Zoning Compliance Report is presented in Appendix F.

### **3.7. GEOLOGICAL AND GEOTECHNICAL REPORTS**

Geological or geotechnical reports pertaining to the nature of soils and/or groundwater at the Subject Property were not available.

### **3.8. REGULATORY INFORMATION**

#### **3.8.1. Hazardous Materials Storage and Registered Spills Database**

A search of the Saskatchewan Ministry of Environment (MOE) Hazardous Materials Storage and Spills Database, using land location and key words, found no records of hazardous materials spills on the Subject Property. One record registered with the MOE identified a storage facility with the same Operation Name as the Subject Property occupants and provided the following information:

- Allan's Landscaping Ltd. Storage Site, HWY 16 (2 miles North of Saskatoon), Saskatoon, located at SE-12-38-06-W3M, listed as 'Operating'. Note: the legal land description, and latitude and longitude provided do not match the Subject Property.



One hazardous storage facility registered with the MOE was identified within a 150 m radius of the Subject Property.

- Saskatoon Airport Authority Storage Site, Operation ID#7712, located at John G. Diefenbaker Airport, Saskatoon, listed as ‘Under Construction’. The closest portion of the Saskatoon Airport Management area is located 20 m south of the Subject Property and the main airport hub and hangars are located over 1.0 kilometre (km) south and southwest of the Subject Property.

Four hazardous spills registered with the MOE were identified to potentially be within a 150 m radius of the Subject Property. All spills were identified to be associated with the Saskatoon Airport, which has a property boundary located 20 m south of the Subject Property. The closest buildings associated with the Saskatoon John G. Diefenbaker International Airport and other hangars are located over 1 km south and southwest of the Subject Property. The four spill records did not include a longitude or latitude to identify if they occurred within 150m of the Subject Property.

- An unknown amount of de-icing was spilled on 16 June 2013, Spill ID#130332, the address reported was Airport Authority, Saskatoon.
- 100 metres cubed (m<sup>3</sup>) of Ethylene Glycol was spilled on 08 April 2013, Spill ID#130164, the address reported was Saskatoon Airport Authority, Saskatoon.
- 300 L of Glycol was spilled on 15 December 2012, Spill ID#120678, the address reported was Saskatoon Airport, Saskatoon.
- 50 L of ‘Other-waste water from aircraft’ was spilled on 10 May 2012, Spill ID#120251, the address reported was Saskatoon Airport, Saskatoon.

The following keywords were used in the MOE Hazardous Materials Storage Facilities databases: 60<sup>th</sup> Street West, and no search results were found.

Table 2, and Table 3, Appendix D present summaries of the hazardous storage facilities and hazardous materials spills results, respectively. Appendix F presents the results of the MOE database search.



### **3.8.2. Saskatchewan Ministry of Environment Impacted Sites Map**

The MOE Impacted Sites Map displays environmentally impacted sites in Saskatchewan with location, confirmed substance and current status. No further information is provided on the map and if needed, additional information can be requested via a Freedom of Information and Protection of Privacy (FOI) request submitted to the Government of Saskatchewan.

The search of the MOE Impacted Sites Map identified one impacted site within a 150 m radius of the Subject Property.

- CASE ID#2016-02-28T12:30:00, Discharge Type; Historical, Status; Assessment, Confirmed Substances: Petroleum Hydrocarbons. The Site corresponds to 2625 Airport Drive, Saskatoon, located approximately 20 m south of the Subject Property.

Table 4, Appendix D presents the results of the MOE database search.

### **3.9. GEOLOGICAL AND SOIL MAPS**

The Subject Property is located in the Elstow Soil Association. The Elstow Association comprises a group of Chernozemic Dark Brown soils formed under a grassland vegetation (Acton, et al., 1978). These soils have formed in a medium to moderately fine-textured, moderately calcareous, silty glacio-lacustrine deposit and occur primarily on undulating landscapes (Acton, et al., 1978). The parent materials of the Elstow soils are generally uniform, grayish brown color, when dry, although bands or varves of darker material or bluish gray flecks may be present in some localities (Acton, et al., 1978). Loam, silty clay loam and clay loam textures are most common by silt loam and silty clay textures may be encountered locally (Acton, et al., 1978).

Surface textures of the Elstow Association are predominantly loam but extensive areas of silt loam, silty clay loam, clay loam, and mixtures of these textures may occur (Acton, et al., 1978).

The landscapes of the Elstow Association are generally gently to roughly undulating with a knoll and depression pattern although areas of smoother, unpatterned landscapes as well as rougher, knoll and depression forms may also occur (Acton, et al., 1978).



### **3.9.1. Hydrogeology and Groundwater**

A water well search was conducted on 10 April 2023 by reviewing the Saskatchewan Water Security Agency (SWSA) online water well database (SWSA, 2023). The search includes all registered groundwater wells and test holes potentially located within 1,000 m of the Subject Property; however, all well records may not be included in the database. The current status of the registered wells was not field-verified under the scope of this investigation.

A total of three withdrawal water well records were identified within the search area. Two water wells were listed as domestic use and one water well was listed as industrial use. The listed dates of completion were 1968 and 1976. The water well completion depths ranged from 10.3 m bgs to 90.2 m bgs, and the reported static water level depths were 6.7 m bgs and 23.7 m bgs. Additionally, five of the records identified within 1,000 m were listed as research test holes. Wells are not installed at test hole locations.

Appendix H presents copies of the water well driller reports.

### **3.10. TOPOGRAPHIC MAPS**

A review of a topographic map of the area (topographic-map.com) indicates that the Subject Property is at an approximate elevation of 502 m asl. The area surrounding the Subject Property has a slight downwards slope east and south away from the Subject Property.

### **3.11. THE CITY OF SASKATOON FIRE DEPARTMENT**

The City of Saskatoon Fire Department completes fire inspections for properties located within the RM of Corman Park. A file search was submitted to the City of Saskatoon Fire Department on 10 April 2023.

The response from the City of Saskatoon Fire Department, dated 20 April 2023, indicated that there were no records of any spills, leaks, underground storage tanks, storage of dangerous goods or fire orders on the Subject Property. The response also indicated that the last fire inspection was completed in April 2023, and that the building does not meet the minimum requirement for fire and life safety.

A copy of the City of Saskatoon Fire Department response is provided in Appendix I.



---

## 4.0

## SITE VISIT

---

The site visit was completed by Annette Bellinger of PINTER on 27 April 2023. Site access was provided by Jane and James Polley of Allan's Landscaping. Observations of adjoining and neighbouring properties were made from the Subject Property and publicly-accessible locations. The observations herein are applicable for the date of the site visit only and should not be relied upon to represent conditions at other times. Select photographs taken during the site visit are included in Appendix J.

### 4.1. ACCESS LIMITATIONS

All areas of the Subject Property were accessible, with the exception of the roof of the building.

### 4.2. PROPERTY USE

The Subject Property consists of a single-storey office building with a mezzanine and a storage yard. The storage yard consists of landscaping materials, aggregate piles, solid waste disposal bins, portable toilets, and miscellaneous storage.

The Subject Property is occupied by Allan's Landscaping.

### 4.3. HAZARDOUS MATERIALS

Numerous containers of industrial cleaners, cans of paint, aerosols, and automotive fluids were observed in a cleaning room of the Subject Property building (Photo 1). The containers ranged in size from approximately 3.0 L to 16.0 L. The items were stored on a wooden shelving unit. The stored items appeared to be contained in their original packaging and no evidence of leaks or spills was observed associated with the stored items.

### 4.4. UNIDENTIFIED SUBSTANCES

Unidentified substances were not observed on the Subject Property.

### 4.5. STORAGE TANKS

A red slip tank, approximately 450 L in volume, was observed near the west property line (Photo 2). The tank was situated on a wooden pallet. Rusting and chipped paint was observed on the tank. An information placard was not observed on the tank. Staining was observed on the wooden pallet below the tank.



Multiple 1,500 L plastic storage totes (Photo 3) were observed within the Subject Property storage yard. The totes were situated on metal platforms above the gravel and concrete surfaces. Staining was observed on the totes situated on the gravel surface near the east region of the property.

A propane bullet tank was observed in the north region of the Subject Property (Photo 4). The propane bullet tank appeared to be situated on a metal stand above the gravel surface. Evidence of rusting and chipped paint was observed on the bullet tank. Punctures were not observed on the bullet tank.

A portable propane tank was observed on the concrete pad near the south exterior wall of the building. Chipped paint and rusting were observed on the tank, however, no punctures or evidence of leaks were observed.

#### **4.6. STORAGE CONTAINERS**

Multiple oil pails, approximately 20 L in volume, were observed in a metal cage (Photo 5), on the gravel surface of the storage yard, plastic surface of the metal cage, and concrete surface. Additional pails, containing paints and adhesives, were observed within a cleaning room stacked on top of one another. Evidence of leaks and spills was not observed associated with the pails.

Jerry cans, ranging from 20 L to 30 L in volume, were observed near the southeast region of the Subject Property building situated on the gravel surface (Photo 6). Evidence of leaks and spills was not observed associated with the jerry cans.

A water tank was observed near the south exterior wall of the Subject Property building. The tank was situated on a metal platform (Photo 7).

A 208 L steel barrel was observed on the concrete pad near the south exterior wall of the building (Photo 8). Evidence of leaks or spills was not observed associated with the barrel.

#### **4.7. ODOURS**

Noxious odours were not observed on the Subject Property.

#### **4.8. POTABLE WATER SUPPLY**

The Subject Property is provided with potable water by the City of Saskatoon.



## 4.9. BUILDING DETAILS

The building consisted of a single-storey structure with a mezzanine constructed over a slab-on-grade concrete foundation.

### 4.9.1. Interior Observations

The interior of the Subject Property building consisted of a showroom, office spaces, meeting rooms and a staff room. The north region of the building is occupied by a showroom, retail space and meeting rooms. Multiple office spaces, a utility room, and a mechanical room occupied the main floor. Additional storage rooms, office spaces and a staff room occupied the mezzanine.

**TABLE B –Building Detail Summary**

Type:	Single-storey building with a mezzanine
Year of Construction:	2005
Total Footprint area:	560 m <sup>2</sup>
Foundation:	Slab-on-grade concrete
Exterior Walls:	Metal cladding
Interior Walls:	Drywall
Insulation:	Unknown
Roof:	Metal cladding
Flooring:	Concrete, vinyl, carpet
Ceiling:	Drywall

### 4.9.2. Heating and Cooling Systems

The Subject Property is equipped with a natural gas forced-air furnace and radiant heaters within the showroom. An air-conditioning unit provides cooled air to the building.

### 4.9.3. Stains

Evidence of staining was not observed within the Subject Property building.

### 4.9.4. Drains and Sumps

A floor drain was observed within the mechanical room of the Subject Property building.

### 4.9.5. Mechanical Equipment

Mechanical equipment (elevators and escalators) were not observed on the Subject Property.



## **4.10. EXTERIOR OBSERVATIONS**

### **4.10.1. General**

The Subject Property consisted of a metal clad building, an unpaved parking area, and a gravel storage yard. The entrance of the building faced north, towards 60<sup>th</sup> Street West. An unpaved parking region occupied the northern region of the Subject Property. The storage yard occupied the north, east, south and west regions of the Subject Property and was enclosed with a fence. Landscape supplies, a propane bullet tank and various large machinery were observed in the north region of the property. The empty waste disposal bins were situated on the east region of the property. A coverall building attached to multiple storage sea cans was observed near the southeast exterior wall of the building. A concrete pad containing the storage of landscaping supplies was observed near the south exterior wall of the Subject Property building. Multiple bays containing retail landscaping supplies including mulch, and gravel was observed near the south exterior wall of the building. Mounds of gravel and topsoil were observed in the southern region of the property. A trailer, slip tank, storage tote, and various stored items were observed near the west region of the property.

### **4.10.2. Adjoining and Neighbouring Properties**

60<sup>th</sup> Street West is located directly north of the Subject Property. Further north, Highway 16 is present.

Agricultural land is located east of the Subject Property. A commercial property is present southeast of the Subject Property.

An unmarked gravel road is located directly south of the Subject Property. Further south, the Saskatoon Airport Management Area, which includes the John. G Diefenbaker International Airport, is present. The Saskatoon Airport historical fire training area is located approximately 420 m southwest of the Subject Property

Agricultural land and a homestead are located directly west of the Subject Property.

### **4.10.3. Topographic, Geologic, and Hydrogeological Conditions**

Overall, the grade on the Subject Property is relatively flat. The area surrounding the Subject Property is relatively flat with a gradual slope towards the north, away from the Subject Property building. A slough is present in the east region of the Subject Property.



**4.10.4. Wells**

Wells were not observed on the Subject Property.

**4.10.5. Sewage Disposal**

Sewage generated at the Subject Property flows into a septic field system located in the northwest region of the Subject Property.

**4.10.6. Pits and Lagoons**

Pits or lagoons were not identified on the Subject Property.

**4.10.7. Stained and Spilled Materials**

Staining, approximately 1.0 metres squared (m<sup>2</sup>) in area, was observed on the gravel surface associated with the used oil storage tote (Photo 3). Spilled material was observed on the exterior walls of the tote.

Additional staining, <0.5 m<sup>2</sup>, was observed in various areas of the storage lot on the gravel surface (Photo 9 and Photo 10) and associated with the red slip tank on a wooden pallet.

**4.10.8. Stressed Vegetation**

Stained vegetation was observed adjacent to the used oil storage tote.

**4.10.9. Fill**

Landscaping and fill materials were observed throughout the Subject Property storage yard.

**4.10.10. Wastewater**

Wastewater is not generated on the Subject Property.

**4.10.11. Watercourses, Ditches, or Standing Water**

Areas of standing water were observed throughout the Subject Property (Photo 11). In addition, a slough is located along the east region of the Subject Property (Photo 12).

**4.10.12. Roads, Parking Facilities, and Rights of Way**

A dedicated parking region for the Subject Property is located directly north of the building. Further north, 60<sup>th</sup> Street West is present. An unmarked gravel road is located directly south of the Subject Property.



#### **4.11. SPECIAL ATTENTION ITEMS**

##### **4.11.1. Asbestos**

Asbestos-containing materials were not observed on the Subject Property.

##### **4.11.2. Polychlorinated Biphenyls (PCBs)**

Materials containing polychlorinated biphenyls were not observed on the Subject Property.

##### **4.11.3. Lead**

Materials containing lead were not observed on the Subject Property.

##### **4.11.4. Mercury**

Potential fluorescent lighting was observed in the Subject Property building. These items may contain mercury.

##### **4.11.5. Ozone-Depleting Substances (ODS)**

Fire extinguishers, a refrigeration unit, and an air-conditioning unit were observed on the Subject Property. These items may contain ozone-depleting substances (ODS).

##### **4.11.6. Urea Foam Formaldehyde Insulation (UFFI)**

Evidence of retrofit insulation, potentially consisting of urea foam formaldehyde, was not observed on the Subject Property.

##### **4.11.7. Mould and Moisture**

Evidence of mould and moisture was not observed on the Subject Property.

##### **4.11.8. Radon**

Background conditions for radon in the area were not measured.

##### **4.11.9. Electric and Magnetic Fields**

Sources of electric and magnetic fields were not observed.

##### **4.11.10. Vibration**

Major sources of vibration were not identified.

##### **4.11.11. Cemeteries**

Cemeteries were not observed in the vicinity of the Subject Property.



---

## 5.0 INTERVIEWS

---

The interviews were conducted in person on 27 April 2023 and on 05 May 2023 via email. A follow-up interview was conducted via email on 29 May 2023.

### **James Polley, Subject Property Owner**

James indicated that:

- The Subject Property building was constructed in 2005.
- The land was previously occupied by pastureland.
- There are no water wells located on the Subject Property.
- There are no hazardous materials stored on the Subject Property.
- He is unsure as to why the Subject Property is a registered hazardous materials storage facility with the MOE.
- The Subject Property is supplied water by the City of Saskatoon.
- Sewage generated from the Subject Property flows into a septic field system. No additional sewage from porta-potties goes into the septic field system. All other sewage is pumped out by the City of Saskatoon.
- The Subject Property is supplied heat by a natural gas forced-air furnace and radiant overhead heat. An air-conditioning unit supplies the Subject Property with cooled air.
- The property located east of the Subject Property has been abandoned for approximately 10 years.
- There have been no issues with the airport.
- The slip tank on the Subject Property has been empty for approximately 12 years.
- To his knowledge, there have been no USTs stored on the Subject Property.
- To his knowledge, there have been no leaks or spills on the Subject Property.
- To his knowledge, there have been no leaks or spills on any of the neighbouring properties.
- He has no environmental concerns with the Subject Property or any of the neighbouring properties.

### **Jane Polley, Subject Property Administrative Store Manager**

Jane indicated that:

- The septic field systems has 3 infiltrators which are 100 feet (ft) long each that run parallel to each other as per Saskatoon Health and Safety Code.
- The empty red slip tank has not been in use on the Subject Property in decades.



- The storage tote contains recycled reusable vegetable oil used for the elevator scraper's chain and slides.
- The septic field system flows into the northwest region of the Subject Property.
- The septic field system is approximately 3.0 ft below ground and is covered by 8 ft of soil and the ground surface. The 3.0 ft pipes are surrounded by 2.0 to 3.0 inches of crushed rock.
- The solids from the septic field system is pumped out every April and October.
- To her knowledge, there have been no USTs located on the Subject Property.
- To her knowledge, there have been no leaks or spills on the Subject Property.
- To her knowledge, there have been no leaks or spills on any of the neighbouring properties.
- She has no environmental concerns with the Subject Property or any of the neighbouring properties.



---

## 6.0 EVALUATION

---

There are generally two types of contamination that are considered in assessing a property. The first would be actual or potential on-site contamination caused by spills, releases or practices that have directly impacted the Subject Property. The second type is actual or potential off-site contamination which may be caused by spills, releases, or practices on neighbouring properties that could migrate through the soil and groundwater to the Subject Property. The two types of contamination, as well as a number of environmental management considerations, are discussed in the following sections.

### 6.1. ACTUAL ON-SITE CONTAMINATION

#### 6.1.1. Exterior Staining

Staining, ranging from 0.5 m<sup>2</sup> to 1.0m<sup>2</sup> in area, was observed on the gravel surface of the storage lot associated with a red slip tank and the oil storage tote. Additional stains were observed throughout the storage lot on the gravel surface.

Stressed vegetation was observed near the oil storage tote. Due to the limited area of the staining and the stressed vegetation, it is unlikely to have impacted the overall environmental condition of the Subject Property, however improved fluid management practices should be implemented to mitigate spills.

### 6.2. POTENTIAL ON-SITE CONTAMINATION

#### 6.2.1. Allan's Landscaping Ltd. Storage Site, HWY#16 (2 miles North of Saskatoon), Saskatoon

The Subject Property was identified as a hazardous materials storage facility with the MOE. The hazardous materials storage facility was listed under the operation name Allan's Landscaping Ltd. Storage Site, Operation ID#8770, and was listed as 'Operating'. The Subject Property was not listed as an Impacted Site with the MOE, nor were any hazardous spills registered with the MOE identified. A slip tank, approximately 450 L in volume, and various storage totes were observed on the Subject Property. Interview evidence indicated that the slip tank has not been in use for approximately 12 years and has been empty for the same amount of time. Interview evidence also indicated that the storage tote contains recycled reusable vegetable oil for hydraulic machinery. Due to the on-site observations, and the limited amount of



stored hazardous materials, and staining on the Subject Property, it is unlikely that the Subject Property has been affected by the on-site storage site.

### **6.2.2. Hazardous Materials**

Containers of industrial cleaners, cans of paint, aerosols, and automotive fluids were observed in a cleaning room of the Subject Property building. The items were stored on a wooden shelving unit. The stored items appeared to be contained in their original packaging and no evidence of leaks or spills was observed associated with the stored items. Due to the on-site observations, and the proper storage of these items, it is unlikely that storage of these items has impacted the overall condition of the Subject Property.

### **6.2.3. Storage Containers and Tanks**

Pails containing oil, paints and adhesives were observed on the Subject Property situated on gravel, concrete and plastic surfaces. In addition, jerry cans and a steel barrel were observed on the Subject Property stored on the gravel surface. Tanks, including a propane bullet tank, a portable propane tank, and a red slip tank were observed on the Subject Property. The propane bullet tank and portable propane tank were observed on gravel, and concrete surfaces. The slip tank was observed on a wooden pallet. Chipped paint and rusting were observed on the propane bullet tank, portable propane tank, and slip tank. No punctures were observed on the propane bullet tank. Evidence of leaks or spills associated with the pails, jerry cans, steel barrel, propane bullet tank, and water tank was not observed during this assessment. Staining was observed below the slip tank on the wooden pallet, as discussed in Section 6.1.1., above. Interview information indicated that there have not been significant spills on the Subject Property. Due to the on-site observations and information reviewed, it is unlikely that storage of these items has impacted the overall condition of the Subject Property.

### **6.2.4. Previous Phase I ESA**

The Phase I ESA completed on the Subject Property in 2018 identified a small amount of used oil spilled on the property. The report recommended that the stained material be cleaned up. During the current assessment, staining was observed on the Subject Property, as discussed in Section 6.1.1., however there was no evidence that the old spill remained on the Subject Property. The overall condition of the Subject Property is unlikely to be affected by the minor historical spill.



### **6.2.5. Septic Field**

A septic field is located in the northwest region of the Subject Property. Sewage effluent poses potential human health hazards as humans can come into contact with waterborne diseases. Additionally, sewage effluent can be an environmental concern due to contaminated water potentially flowing into nearby waterways or groundwater. When a septic field is properly constructed and maintained, it poses little risk to the environment or human health. Interview evidence indicated that the Subject Property septic field is constructed per Saskatoon Health and Safety Code and that the solids are pumped out every April and October. It is unlikely that the presence of the septic field has affected the overall condition of the Subject Property.

## **6.3. POTENTIAL ENVIRONMENTAL MANAGEMENT ISSUES**

The presence or potential presence of special attention items is not necessarily an indication of actual or potential contamination. However, if not properly managed, special attention items could lead to contamination.

### **6.3.1. Mercury**

Mercury is a naturally occurring element that can exist in multiple forms. It is used in many products due to its liquid and metallic properties. It is commonly found in gravity switches (automobile parts), electrical switches (analogue thermostats), fluorescent light bulbs, and in some metal halide light bulbs. Potential fluorescent light bulbs were observed in the Subject Property building. These items may contain mercury. Mercury-containing materials should be disposed of at a facility designed to accept this type of waste.

### **6.3.2. Ozone-Depleting Substances (ODS)**

Ozone-depleting substances (ODS) may be present in fire extinguishers, refrigeration units, and air-conditioning units. Proper management and disposal procedures are required to ensure that ODS materials are handled appropriately during maintenance and renovation activities. Environmental Acts and Regulations require that equipment be kept in good repair and that a certified contractor be retained to undertake repair, maintenance, or decommissioning.

## **6.4. ACTUAL OFF-SITE CONTAMINATION**

Evidence of actual off-site contamination was not identified during this assessment.



## **6.5. ACTUAL AND POTENTIAL OFF-SITE CONTAMINATION**

### **6.5.1. Saskatoon Airport Authority Storage Site, Saskatoon Airport, Saskatoon**

The Saskatoon Airport Authority Storage Site located at the John G. Diefenbaker International Airport (2625 Airport Drive), was identified as a hazardous storage facility and an impacted site through the MOE, due to PHCs. The Saskatoon Airport Management Area has a property boundary located 20 m south of the Subject Property. The closest buildings associated with the Saskatoon John G. Diefenbaker International Airport and other hangars are located over 1 km south and southwest of the Subject Property.

In addition, four spills were identified on the property. The exact locations of the spills on the airport are unknown. The contaminants included ‘Other-waste water from aircraft’, Glycol, Ethylene Glycol, and ‘De-icing’.

Aviation activities release toxic VOC emissions into the air, which impacts air quality. De-icing fluids used at the airport can impact water quality if not handled correctly. Degradation of glycol in water is an oxygen depleting process and this process creates problems for aquatic life if large quantities of oxygen depleting substances, such as glycol and hydrocarbons, enter a natural water body. Watercourses can become oxygen deficient and unsuitable for aquatic life. Per- and Polyfluoroalkyl Substances (PFAS) can be an environmental concern at airports. PFAS are contained in products commonly used to suppress fires, including fires caused from aviation fuel (Airports Council International, 2019). PFAS are a concern in firefighting training areas and if a fire has occurred on a property. The Saskatoon Airport historical fire training area is located approximately 420 m southwest of the Subject Property.

Due to the intervening distance and roadway between the Subject Property and the main John G. Diefenbaker International Airport hub and other hangars, it is unlikely that the overall condition of the Subject Property has been affected by the aviation activities.

## **6.6. POTENTIAL OFF-SITE CONTAMINATION**

Evidence of potential off-site contamination was not observed during this assessment.



---

## 7.0

## CONCLUSIONS

---

Our assessment did not identify evidence of actual or potential on-site contamination that could affect the overall condition of the Subject Property. There is no evidence of actual off-site contamination or potential off-site impacts that could travel to the Subject Property.

We note that the following special attention items may be present in the Subject Property building and will require proper management and disposal if renovation or demolition occurs, affecting these materials: mercury may be present in fluorescent lighting; and ozone-depleting substances may be present in fire extinguishers, refrigeration units, and the air-conditioning unit.



---

## **8.0 ASSESSOR QUALIFICATIONS**

---

This report was prepared by Annette Bellinger, Cassidy Salik, and Jessica Cutter of PINTER & Associates Ltd. Annette Bellinger is an Articling Agrologist working towards her professional designation with over one year of experience completing Phase I ESAs. Cassidy is an Engineer-in-Training and has over three years of experience completing Phase I ESAs and impacted site assessment work. Jessica is an Environmental Toxicologist with over 9 years of experience in completing and reviewing environmental site assessments, managing contaminated sites, and working on remediation projects. Jessica has been designated as a Qualified Person by the Saskatchewan Ministry of Environment.



---

## 9.0

## REFERENCES

---

- Acton, D.F., Ellis, J.G. 1978. The Soil of the Saskatoon Map Area 73B Saskatchewan. Saskatchewan Institute of Pedology Publication S4. Available online at: [https://sis.agr.gc.ca/cansis/publications/surveys/sk/sks4/sks4\\_report.pdf](https://sis.agr.gc.ca/cansis/publications/surveys/sk/sks4/sks4_report.pdf) [accessed: April 2023].
- Airports Council International. September 2019. Understanding PFAS in the Airport Industry. Available at: <https://canadasairports.ca/wp-content/uploads/2019/09/2019PFASonepager-canada-FINAL.pdf>
- Canadian Standards Association. 2023. Phase I Environmental Site Assessment. 2023. Z768-01 (reaffirmed 2023).
- RM of Corman Park. 2022. Zoning Bylaw No.344/22. Available online at: <https://rmcormanpark.ca/DocumentCenter/View/3810/RM-Zoning-Bylaw-No-0994-PDF> [accessed: April 2023].
- Saskatchewan Ministry of Environment. Environmentally Impacted Sites GeoHub ArcGIS Database (2020 present). Available at: <https://environment-saskatchewan.hub.arcgis.com/datasets/saskatchewan::environmentally-impacted-sites/explore?location=52.786151%2C-108.251138%2C11.93> [accessed: April 2023].
- Saskatchewan Ministry of Environment. Hazardous Materials Storage Database (1980- present) and Spills Database (1998- present). Available at: <https://environment-saskatchewan.hub.arcgis.com/datasets/0fe7a654daae4f9c863576bc86d29e28/about> [accessed: April 2023].
- Saskatchewan Ministry of Environment. Hazardous Materials Spills GeoHub ArcGIS Database (2020- present). Available at: <https://environment-saskatchewan.hub.arcgis.com/datasets/33ce913595284320a352886444fb3f46/about> [accessed: April 2023].
- Saskatchewan Water Security Agency, 2023. Water Well Information Database. Available at: <https://gis.wsask.ca/> [accessed: April 2023].
- Saskatoon Topographic Map. 2023. Available at <https://en-ca.topographic-map.com/maps/f5t5/Saskatoon/> [accessed: April 2023].



---

## 10.0 LIMITATIONS

---

In conducting this investigation on the Subject Property, and in rendering our findings and conclusions on the presence and/or level of actual and potential contamination, PINTER gives the benefit of its best judgment based on its experience and in accordance with generally accepted professional standards for this type of assessment. Our conclusions are limited by the following considerations:

- The scope of work requested to be undertaken.
- The scope of work for the Phase I ESA was non-intrusive. No samples of soil, groundwater or building materials were collected for laboratory analysis.

PINTER has relied in good faith on information provided by the interviewees. We accept no responsibility for any deficiencies or inaccuracies contained in this report resulting from omissions, misinterpretations or fraudulent acts of the persons interviewed. Our conclusions are drawn from the information provided to PINTER, in whole or in part, during the course of this environmental site investigation and have been included in this report.

No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of a standardized environmental site assessment is intended to reduce, but not wholly eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with the property, given reasonable limits of time and cost.

PINTER will not be responsible or held liable for any existing contamination or adverse impacts on the study area that have not been caused by its activities. Actions at the Site without PINTER's knowledge may influence the environmental status of the property. No warranty, expressed or implied, is given concerning the current environmental condition of the Site following the submission of this revised report dated 30 May 2023.

No warranty, expressed or implied, is given concerning contamination at the Subject Property. This report has been prepared for the exclusive use of Allan's Disposal Services Ltd. Any use that a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties.



PINTER & Associates Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

PINTER & Associates Ltd.

---

Annette Bellinger, B.Sc. Ag., AAg.  
Environmental Scientist

---

Cassidy Salik, B.Sc. E., E.I.T.  
Engineer-in-Training

---

Jessica Cutter, M.Sc.  
Project Manager

---

Date: 30 May 2023

h:\2) projects\3084 allan's landscape cdr land dev\3084-2 phs i esa\12) report\final\3084-2 777 60th st w, corman park phs i esa 30may23 final.docx

# **Appendix A**

## **Figures**

**ALLAN'S DISPOSAL SERVICES LTD.**  
**777 60TH STREET WEST CORMAN PARK, SK**  
**PHS I ESA**



710 48th ST E  
SASKATOON SK S7K 5B4

306.244-1710  
pintermain@pinter.ca

SHEET LIST	
DRAWING NO.	SHEET TITLE
FIGURE 1	SITE LOCATION
FIGURE 2	SITE LAYOUT
FIGURE 3	ZONING MAP



**PINTER & ASSOCIATES LTD**  
 710 48th ST E  
 SASKATOON SK S7K 5B4  
 306.244-1710  
 pintermain@pinter.ca

4					
3					
2					
1					
0	01-MAY-23	ISSUED FOR SUBMITTAL	TM	JC	
REV	DD-MM-YY	DESCRIPTION	DRFT	APR	

PROJECT NUMBER:	3084-2
DRAWN BY:	TM
APPROVED BY:	JC
SCALE:	NTS

SHEET TITLE:	<b>SITE LOCATION</b>
PROJECT NAME:	777 60TH ST. W. CORMAN PARK, SK, PHS I ESA
CLIENT NAME:	ALLANS DISPOSAL SERVICES LTD.

REVISION NO:	0
ISSUE DATE:	05-MAY-23
DRAWING NUMBER:	FIG. 1
SHEET NUMBER:	1 OF 03

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 11" X 17" PRINTED DRAWINGS



**LEGEND:**  
 APPROXIMATE SITE LOCATION - - - - -

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 11" X 17" PRINTED DRAWINGS

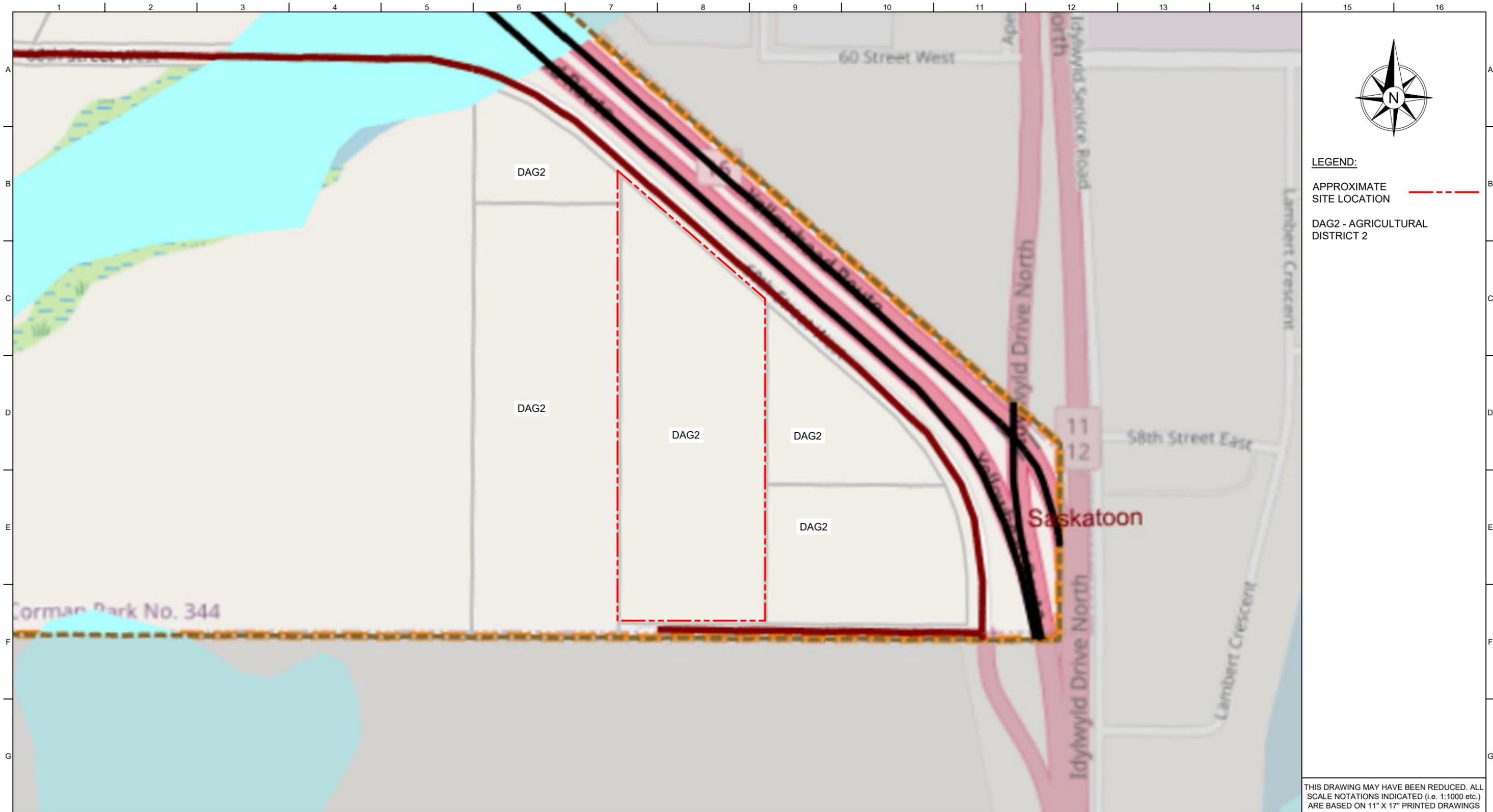
**PINTER & ASSOCIATES LTD**  
 710 48th ST E  
 SASKATOON SK S7K 5B4  
 306.244-1710  
 pintermain@pinter.ca

4					
3					
2					
1					
0	01-MAY-23	ISSUED FOR SUBMITTAL	TM	JC	
REV	DD-MM-YY	DESCRIPTION	DRFT	APR	

PROJECT NUMBER:  
3084-2  
 DRAWN BY:  
TM  
 APPROVED BY:  
JC  
 SCALE:  
1:5000

SHEET TITLE:  
**ADJACENT LAND USE**  
 PROJECT NAME:  
777 60TH ST. W. CORMAN PARK, SK, PHS I ESA  
 CLIENT NAME:  
ALLANS DISPOSAL SERVICES LTD.

REVISION NO:  
0  
 ISSUE DATE:  
05-MAY-23  
 DRAWING NUMBER:  
FIG. 2  
 SHEET NUMBER:  
2 OF 03



710 48th ST E  
 SASKATOON SK S7K 5B4  
 306.244-1710  
 pintermain@pinter.ca

4					
3					
2					
1					
0	01-MAY-23	ISSUED FOR SUBMITTAL	TM	JC	
REV	DD-MM-YY	DESCRIPTION	DRFT	APR	

PROJECT NUMBER:	3084-2
DRAWN BY:	TM
APPROVED BY:	JC
SCALE:	1:5000

SHEET TITLE:	<b>ZONING MAP</b>	REVISION NO:	0
PROJECT NAME:		ISSUE DATE:	05-MAY-23
CLIENT NAME:	777 60TH ST. W. CORMAN PARK, SK, PHS I ESA	DRAWING NUMBER:	FIG. 3
	ALLANS DISPOSAL SERVICES LTD.	SHEET NUMBER:	3 OF 03

REVISION NO:	0
ISSUE DATE:	05-MAY-23
DRAWING NUMBER:	FIG. 3
SHEET NUMBER:	3 OF 03



**PINTER**  
& ASSOCIATES LTD

**Appendix B**  
**Zoning Bylaws**

## **6.4. D - Agricultural District 2 (DAG2)**

### 6.4.1 Purpose

The purpose of the DAG2 District is to accommodate extensive and intensive agricultural activities in areas designated for future urban growth. The zoning district provides for a range of complementary uses that are compatible with agricultural and non-agricultural land uses in close proximity to the P4G Urban Municipalities while supporting the diversification of agriculture.

### 6.4.2 Permitted Uses

- Adult Day Care Type I
- Agricultural Operation
- Agricultural Product Stand
- Family Child Care Home
- Farmhand Dwelling, Up To 2 on a Site
- Filling, Levelling and Grading Type I
- Group Family Child Care Home
- Home Based Business Type I
- Home Based Business Type II
- Mineral Resource Extraction Operation
- Residential Care Home Type I
- Secondary Suite
- Single Detached Dwelling consisting of a site built, mobile home, manufactured, modular, or ready to move dwelling

### 6.4.3 Discretionary Uses

- Adult Day Care Type II
- Aggregate Resource Extraction Operation
- Aggregate Resource Storage and Processing Operation
- Agricultural Product Processing
- Agricultural Research Station
- Agricultural Support Service
- Agricultural Tourism Use
- Aerodrome
- Animal Kennel
- Bed and Breakfast Home
- Cannabis Micro Production Facility
- Cemetery
- Clean Fill Storage Operation
- Equestrian Facility Type I
- Equestrian Facility Type II
- Farmhand Dwelling, More Than 2 On A Site
- Filling, Levelling and Grading Type II
- Garage Suite

Garden Suite  
Home Based Business Type III  
Intensive Horticulture Operation  
Intensive Livestock Operation – expansion only  
Municipal Works Yard  
Parks and Playgrounds  
Residential Care Home Type II  
Small Wind Energy System  
Tourist Home  
Veterinary Clinic  
Work Camp

#### 6.4.4 Specific Use Development Standards

- a) In considering all discretionary uses, uses that would be prejudicial to the future economical subdivision, servicing, and development of the site for urban development shall not be approved.
- b) Agricultural support services and agricultural product processing must demonstrate that the use has specific location requirements necessary to support the local agricultural industry.
- c) Aggregate resource storage and processing, agricultural research station, agricultural product processing, agricultural support service, and cannabis micro production facility uses shall be considered interim uses and may be approved for up to 20 years. Approval time limits shall be determined by the Municipality and the affected urban municipality based on:
  - i. the location, type and timing of future urban development and boundary alteration;
  - ii. the compatibility of current and future land uses;
  - iii. the compatibility with Concept Plans and more detailed planning for the area; and
  - iv. relevant infrastructure and servicing planning.

All approvals may be renewed or extended depending on the context of the urban growth in proximity to the site at the end of the approval period. Upon expiration a new application shall be required to renew or extend the use on the site and any further approval period shall be determined by the Municipality and the affected urban municipality in accordance with the above.

- d) For the purposes of this zoning district, discretionary use approval for an intensive livestock operation is limited to the expansion of existing operations in accordance with the District OCP.

#### 6.4.5 Site Development Regulations

- a) Site Area for agricultural holdings and single detached dwellings - The minimum site area shall be 32.4 ha (80 ac) or equivalent.

- b) Site Area for all other uses - The minimum site area shall be 1 ha (2.47 ac). For subdivisions less than 32.4 ha (80 ac), the maximum site area shall be 4.05 ha (10 ac).
  - i) Notwithstanding clause b), a cumulative maximum area of 8.09 ha (20 acres) may be subdivided from any quarter section for agricultural residential purposes. Where a quarter section has been divided into two agricultural holdings, a cumulative maximum area of 4.05 ha (10 acres) may be subdivided from each agricultural holding for agricultural residential purposes. **(Bylaw 27/22, approved January 5, 2023)**
- c) Notwithstanding clauses a) and b), in the case of a site physically severed as a result of road right-of-way or railway plans, drainage ditch, pipeline or transmission line development or similar barrier, or natural features such as water courses or water bodies, there shall be no maximum site area. Existing residential sites may be enlarged to include adjoining land physically severed as a result of the above noted barriers. The residual portion of a quarter section resulting from a commercial or industrial subdivision shall not be considered a physically severed site for the purposes of this Section.
- d) Density – The density of a quarter section shall not exceed the number of discretionary uses and agricultural residential building sites allowed by the subdivision policies of the District OCP except the following discretionary uses shall not be counted towards the density where the use is located on a building site that includes a single detached dwelling:
  - Adult Day Care Type II
  - Agricultural Tourism Use
  - Animal Kennel
  - Bed and Breakfast Home
  - Cannabis Micro Production Facility
  - Equestrian Facility Type I
  - Equestrian Facility Type II
  - Farmhand Dwelling, More Than 2 On A Site
  - Garage Suite
  - Garden Suite
  - Home Based Business Type III
  - Intensive Horticulture Operation
  - Intensive Livestock Operation
  - Residential Care Home Type II
  - Small Wind Energy Systems
  - Tourist Home
  - Veterinary Clinic
- e) Site Frontage - The minimum site frontage shall be 30 m (98.4 ft).
- f) Yard Setbacks - All buildings shall be set back a minimum of 15 m (49.2 ft) from a property line, except it shall be 45 m (147.6 ft) from the centerline of

P4G Planning District Zoning Bylaw

a municipal road allowance or provincial highway or as required by the Saskatchewan Ministry of Highways.

- g) Building Height - The maximum building height shall be 10 m (32.8 ft) except for agricultural buildings and structures.
- h) Site Coverage – The maximum site coverage shall be 60%.

6.4.6 Landscaping Development Standards

- a) Separation or buffering between non-agricultural land uses and adjacent land uses may be required and landscaped to the satisfaction of the Municipality.



**PINTER**  
& ASSOCIATES LTD

**Appendix C**  
**Aerial Photographs**




**PINTER**  
& ASSOCIATES LTD

710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

LEGEND:  
SUBJECT PROPERTY - APPROXIMATE LOCATION:

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 8.5" X 11" PRINTED DRAWINGS

PROJECT NO:  
3084-2

DRAWN BY:  
TM

APPROVED BY:  
JC

SCALE:  
1:10,000

PROJECT:  
**777 60TH ST. W. CORMAN PARK, SK  
PHS I ESA**

TITLE:  
AERIAL PHOTOGRAPH 1950

CLIENT NAME:  
ALLAN'S DISPOSAL SERVICES LTD.

REVISION NO:  
0

ISSUE DATE:  
05-MAY-23

DRAWING NO:  
D1001

PAGE NO:  
1 OF 7




**PINTER**  
& ASSOCIATES LTD

710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

LEGEND:  
 SUBJECT PROPERTY - APPROXIMATE LOCATION:

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 8.5" X 11" PRINTED DRAWINGS

PROJECT NO:  
3084-2

DRAWN BY:  
TM

APPROVED BY:  
JC

SCALE:  
1:10,000

PROJECT:  
**777 60TH ST. W. CORMAN PARK, SK  
PHS I ESA**

TITLE:  
AERIAL PHOTOGRAPH 1974

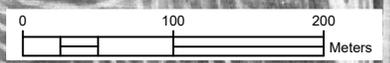
CLIENT NAME:  
ALLAN'S DISPOSAL SERVICES LTD.

REVISION NO:  
0

ISSUE DATE:  
05-MAY-23

DRAWING NO:  
D1002

PAGE NO:  
2 OF 7



**PINTER**  
& ASSOCIATES LTD

710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

LEGEND:  
SUBJECT PROPERTY - APPROXIMATE LOCATION:

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 8.5" X 11" PRINTED DRAWINGS

PROJECT NO:  
3084-2

DRAWN BY:  
TM

APPROVED BY:  
JC

SCALE:  
1:10,000

PROJECT:  
**777 60TH ST. W. CORMAN PARK, SK  
PHS I ESA**

TITLE:  
AERIAL PHOTOGRAPH 1985

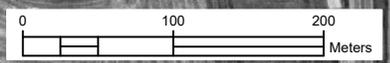
CLIENT NAME:  
ALLAN'S DISPOSAL SERVICES LTD.

REVISION NO:  
0

ISSUE DATE:  
05-MAY-23

DRAWING NO:  
D1003

PAGE NO:  
3 OF 7



710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

LEGEND:  
SUBJECT PROPERTY - APPROXIMATE LOCATION:

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 8.5" X 11" PRINTED DRAWINGS

PROJECT NO:  
3084-2

DRAWN BY:  
TM

APPROVED BY:  
JC

SCALE:  
1:10,000

PROJECT:  
**777 60TH ST. W. CORMAN PARK, SK  
PHS I ESA**

TITLE:  
AERIAL PHOTOGRAPH 1994

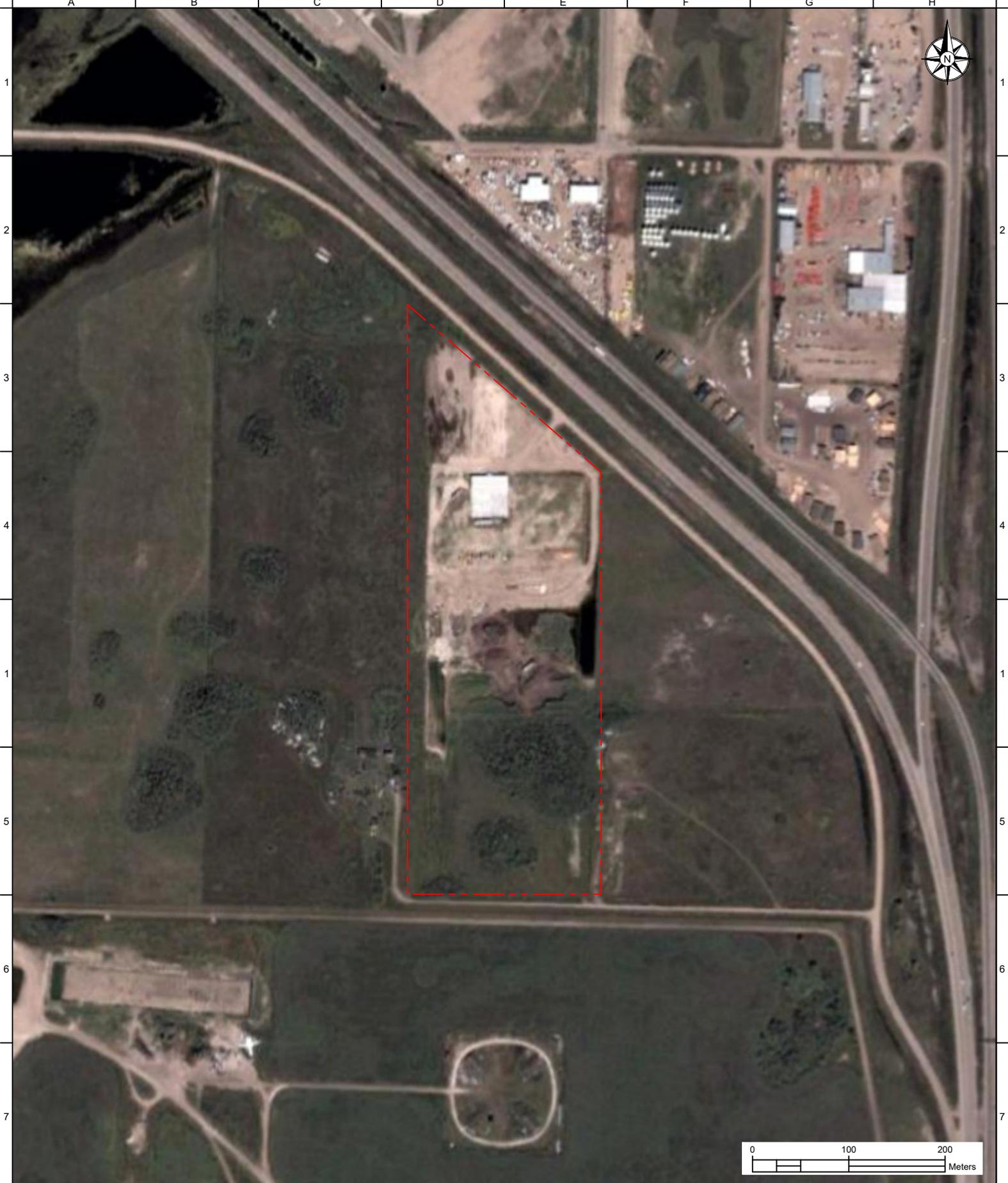
CLIENT NAME:  
ALLAN'S DISPOSAL SERVICES LTD.

REVISION NO:  
0

ISSUE DATE:  
05-MAY-23

DRAWING NO:  
D1004

PAGE NO:  
4 OF 7




**PINTER**  
& ASSOCIATES LTD

710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

LEGEND:  
SUBJECT PROPERTY - APPROXIMATE LOCATION:

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 8.5" X 11" PRINTED DRAWINGS

PROJECT NO:  
3084-2

DRAWN BY:  
TM

APPROVED BY:  
JC

SCALE:  
1:10,000

PROJECT:  
**777 60TH ST. W. CORMAN PARK, SK  
PHS I ESA**

TITLE:  
AERIAL PHOTOGRAPH 2005

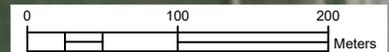
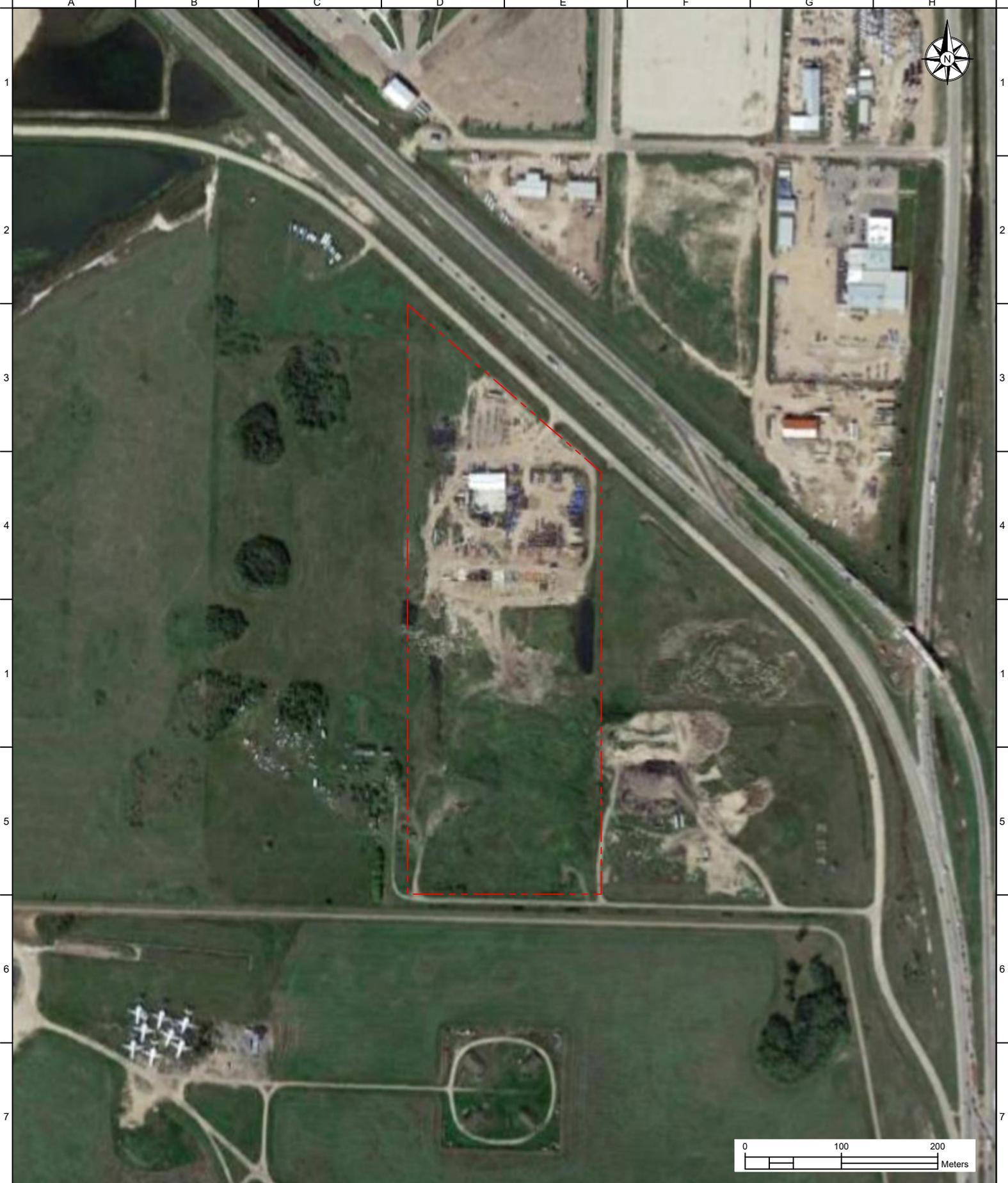
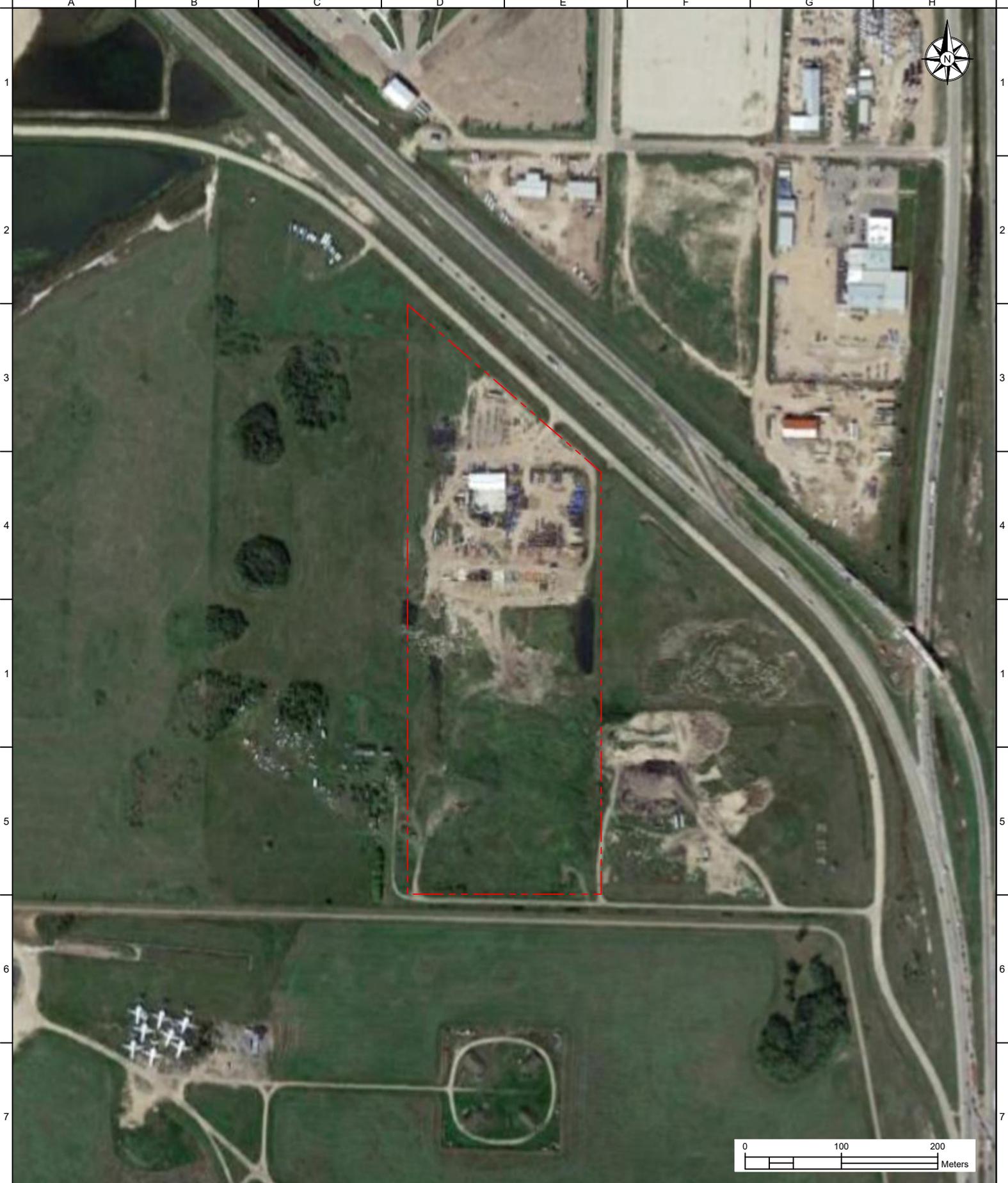
CLIENT NAME:  
ALLAN'S DISPOSAL SERVICES LTD.

REVISION NO:  
0

ISSUE DATE:  
05-MAY-23

DRAWING NO:  
D1005

PAGE NO:  
5 OF 7



710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

LEGEND:  
SUBJECT PROPERTY - APPROXIMATE LOCATION:

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 8.5" X 11" PRINTED DRAWINGS

PROJECT NO:  
3084-2

DRAWN BY:  
TM

APPROVED BY:  
JC

SCALE:  
1:10,000

PROJECT:  
**777 60TH ST. W. CORMAN PARK, SK  
PHS I ESA**

TITLE:  
AERIAL PHOTOGRAPH 2015

CLIENT NAME:  
ALLAN'S DISPOSAL SERVICES LTD.

REVISION NO:  
0

ISSUE DATE:  
05-MAY-23

DRAWING NO:  
D1006

PAGE NO:  
6 OF 7



A B C D E F G H

1

2

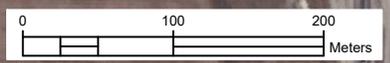
3

4

5

6

7



710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

LEGEND:  
SUBJECT PROPERTY - APPROXIMATE LOCATION:

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 8.5" X 11" PRINTED DRAWINGS

PROJECT NO:  
3084-2

DRAWN BY:  
TM

APPROVED BY:  
JC

SCALE:  
1:10,000

PROJECT:  
**777 60TH ST. W. CORMAN PARK, SK  
PHS I ESA**

TITLE:  
AERIAL PHOTOGRAPH 2021

CLIENT NAME:  
ALLAN'S DISPOSAL SERVICES LTD.

REVISION NO:  
0

ISSUE DATE:  
05-MAY-23

DRAWING NO:  
D1007

PAGE NO:  
7 OF 7



**PINTER**  
& ASSOCIATES LTD

# **Appendix D**

## **Tables**

**TABLE 1: Summary of Land Titles**

<b>Owner (s) of Record</b>	<b>Date</b>	<b>Lot</b>	<b>Block</b>	<b>Plan</b>	<b>Title #</b>
Allan's Landscaping Ltd.	07 May 2002	East Half of LSD10-17-37-05-W3M		-	108265721
Allan's Landscaping Ltd.	07 May 2002	East Half of LSD15-17-37-05-W3M		-	108265743
Allan's Landscaping Ltd.	12 December 2001	East Half of LSD 10 & 15,-17-37-05-W3M		66S13138	01SA32524-1
Allan's Landscaping Ltd.	16 October 2001	East Half of LSD 10 & 15,-17-37-05-W3M		66S13138	01'MW15108
Kenna Holdings Ltd.	08 September 1994	East Half of LSD 10 & 15,-17-37-05-W3M		66S13138	94S33937
William Robert Dishaw	19 November 1982	East Half of LSD 10 & 15,-17-37-05-W3M		66S13138	82S40013-1
William Robert Dishaw	02 December 1965	East Half of LSD 10 & 15,-17-37-05-W3M		-	65S25318
Marion I. Gibson	06 September 1950	13	2	G4296	42T63

**TABLE 2: MOE Hazardous Materials Storage Site Database Search Results**

<b>Operation ID</b>	<b>Operation Name</b>	<b>Address</b>	<b>Operation Status</b>	<b>Approximate Distance from Site</b>
8770	Allan's Landscaping Ltd. Storage Site	HWY #16 (2 miles North of Saskatoon), Saskatoon	Operating	0m (SP)

**TABLE 3: MOE Hazardous Materials Spills Site Database Search Results**

<b>Spill ID</b>	<b>Spill Date</b>	<b>Address</b>	<b>Quantity</b>	<b>Contaminant</b>	<b>Approximate Distance from Site</b>
130332	16 June 2013	Airport Authority, Saskatoon	Unknown	De-icing	Unknown
130164	08 April 2013	Saskatoon Airport Authority, Saskatoon	100m <sup>3</sup>	Ethylene Glycol	Unknown
120678	15 December 2012	Saskatoon Airport, Saskatoon	300L	Glycol	Unknown
120251	10 May 2012	Saskatoon Airport, Saskatoon	50L	Other-waste water from air craft	Unknown

**TABLE 4: MOE Impacted Sites Database Search Results**

<b>Case ID</b>	<b>Discharge Type</b>	<b>Address</b>	<b>Confirmed Substance</b>	<b>Status</b>	<b>Approximate Distance from Site</b>
2016-02-28T12:30:00	Historical	2625 Airport Dr, Saskatoon	Petroleum Hydrocarbons (PHCs)	Assessment	20 m S



**PINTER**  
& ASSOCIATES LTD

## **Appendix E**

### **Land Titles**

# Province of Saskatchewan Land Titles Registry Title

**Title #:** 108265721  
**Title Status:** Active  
**Parcel Type:** Surface  
**Parcel Value:** N/A  
**Title Value:** N/A  
**Converted Title:** 01SA32524(1)  
**Previous Title and/or Abstract #:** 01SA32524(1)

**As of:** 10 Apr 2023 08:48:05  
**Last Amendment Date:** 14 Mar 2018 08:17:24.556  
**Issued:** 07 May 2002 20:39:44.856

**Municipality:** RM OF CORMAN PARK NO. 344

Allan's Landscaping Ltd. is the registered owner of Surface Parcel #120821981

Reference Land Description: LSD 10 Sec 17 Twp 37 Rge 05 W 3 Extension 9  
As described on Certificate of Title 01SA32524(1), description 9.

This title is subject to any registered interests set out below and the exceptions, reservations and interests mentioned in section 14 of *The Land Titles Act, 2000*.

## Registered Interests:

**Interest #:**  
**107736183**

CNV Planning and  
Development Act Caveat  
**Value:** N/A  
**Reg'd:** 12 Dec 2001 00:54:12  
**Interest Register Amendment Date:** N/A  
**Interest Assignment Date:** N/A  
**Interest Scheduled Expiry Date:** N/A  
**Expiry Date:** N/A

**Holder:**  
RURAL MUNICIPALITY OF CORMAN PARK NO. 344  
111 PineHouse Drive  
Saskatoon, Saskatchewan, Canada S7K 5W1  
**Client #:** 101591580

**Int. Register #:** 102927359  
**Converted Instrument #:** 01SA32525

**Interest #:**  
**180680946**

Mortgage  
**Value:** \$2,000,000.00 CAD  
**Reg'd:** 29 Nov 2017 13:45:58  
**Interest Register Amendment Date:** N/A  
**Interest Assignment Date:** N/A  
**Interest Scheduled Expiry Date:** N/A  
**Expiry Date:** N/A

**Holder:**  
Business Development Bank of Canada  
Suite 200, One Bentall Centre PO Box 6, 505 Burrard Street  
Vancouver, British Columbia, Canada V7X 1M3  
**Client #:** 104272769

**Int. Register #:** 122628708

## Addresses for Service:

Name	Address
<b>Owner:</b> Allan's Landscaping Ltd.	Site 413 P.O. Box 608 RR#4 Saskatoon, Saskatchewan, Canada S7K 3J7
Client #: 105373076	

**Notes:**

Under The Planning and Development Act, 2007, the title for this parcel and parcels 120822005 may not be transferred or, in certain circumstances, mortgaged or leased separately without the approval of the appropriate planning authority. If you believe this restriction does not apply to this parcel, please contact 1-866 ASK-ISC1 to have the restriction reviewed.

Parcel Class Code: [Parcel \(Generic\)](#)



**Back to top**

# Province of Saskatchewan Land Titles Registry Title

**Title #:** 108265743  
**Title Status:** Active  
**Parcel Type:** Surface  
**Parcel Value:** N/A  
**Title Value:** N/A  
**Converted Title:** 01SA32524(1)  
**Previous Title and/or Abstract #:** 01SA32524(1)

**As of:** 10 Apr 2023 08:49:51  
**Last Amendment Date:** 14 Mar 2018 08:17:24.590  
**Issued:** 07 May 2002 20:39:57.576

**Municipality:** RM OF CORMAN PARK NO. 344

Allan's Landscaping Ltd. is the registered owner of Surface Parcel #120822005

Reference Land Description: LSD 15 Sec 17 Twp 37 Rge 05 W 3 Extension 10  
As described on Certificate of Title 01SA32524(1), description 10.

This title is subject to any registered interests set out below and the exceptions, reservations and interests mentioned in section 14 of *The Land Titles Act, 2000*.

## Registered Interests:

**Interest #:**  
**107736228**

CNV Planning and  
Development Act Caveat  
**Value:** N/A  
**Reg'd:** 12 Dec 2001 00:54:12  
**Interest Register Amendment Date:** N/A  
**Interest Assignment Date:** N/A  
**Interest Scheduled Expiry Date:** N/A  
**Expiry Date:** N/A

**Holder:**  
RURAL MUNICIPALITY OF CORMAN PARK NO. 344  
111 PineHouse Drive  
Saskatoon, Saskatchewan, Canada S7K 5W1  
**Client #:** 101591580

**Int. Register #:** 102927359  
**Converted Instrument #:** 01SA32525

**Interest #:**  
**180680957**

Mortgage  
**Value:** \$2,000,000.00 CAD  
**Reg'd:** 29 Nov 2017 13:45:58  
**Interest Register Amendment Date:** N/A  
**Interest Assignment Date:** N/A  
**Interest Scheduled Expiry Date:** N/A  
**Expiry Date:** N/A

**Holder:**  
Business Development Bank of Canada  
Suite 200, One Bentall Centre PO Box 6, 505 Burrard Street  
Vancouver, British Columbia, Canada V7X 1M3  
**Client #:** 104272769

**Int. Register #:** 122628708

## Addresses for Service:

Name	Address
<b>Owner:</b> Allan's Landscaping Ltd.	Site 413 P.O. Box 608 RR#4 Saskatoon, Saskatchewan, Canada S7K 3J7
Client #: 105373076	

**Notes:**

Under The Planning and Development Act, 2007, the title for this parcel and parcels 120821981 may not be transferred or, in certain circumstances, mortgaged or leased separately without the approval of the appropriate planning authority. If you believe this restriction does not apply to this parcel, please contact 1-866 ASK-ISC1 to have the restriction reviewed.

Parcel Class Code: [Parcel \(Generic\)](#)



**Back to top**



# CERTIFICATE OF TITLE

RENEWAL

M.C.

No. 01SA32524-1

Value \$

Grant No.

Ref. 01MW15108

THIS IS TO CERTIFY that **ALLAN'S LANDSCAPING LTD.**

is now the owner of an estate in fee simple

of and in

**The East Half of Legal Subdivision 10 and all that portion of the East Half of Legal Subdivision 15 lying South and West of the North East limit of Parcels C and N as shown on Plan 66S13138 in Section 17**

Township 37

Range 5

West of the Third Meridian, Saskatchewan

**EXCEPT:**

**Firstly:** The most Southerly 66 feet throughout of the East Half of Legal Subdivision 10, and

**Secondly:** 4.73 acres, shown as Parcel C and 0.01 of an acre, shown as Parcel N

and 1.41 acres, shown as Parcel D, all out of the East Half of Legal Subdivision 15, all taken for Roadway Plan 66S13138, and

**Thirdly:** 0.733 hectares, shown as Parcel U for Roadway Plan 87S43193

MINERALS INCLUDED



Conversion Cancelled Title

Plan Ex

M & B

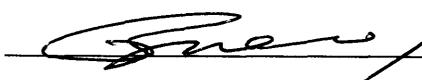
*1 pd*  
E 1/2 LSD 10  
Description 9  
*1 pd*  
E 1/2 LSD 15  
Description 10

**SUBJECT TO THE ENCUMBRANCES, LIENS, AND INTERESTS NOTIFIED BY MEMORANDUM NOW OR HEREAFTER UNDERWRITTEN OR ENDORSED HEREON, OR WHICH ATTACH BY IMPLICATION PURSUANT TO THE LAND TITLES ACT. ANY REFERENCE TO AREA IS "MORE OR LESS".**

IN WITNESS WHEREOF I have hereunto subscribed my name and affixed my official seal this 12 day of December, 2001

Post Office Address  
1302 17<sup>TH</sup> Street West  
SASKATOON SK S7M 5V6

**NOTICE: The Land Titles Act requires that "every owner or mortgagee shall notify the Registrar of any change in his Post office Address."**

 Registrar  
Saskatoon Midwest Land Registration District

# CERTIFICATE OF TITLE

**ABBREVIATIONS**

AM - Affidavit of Marriage  
 BL - Builders' Lien  
 C - Caveat  
 CA - Commencement of Action  
 CCE - Certificate of Chief Engineer  
 CON - Consolidation  
 E - Enlargement EA - Easement  
 F - Forfeiture  
 JO - Judge's Order

L - Lease  
 LP - Lis Pendens/ Certificate of Pending Litigation  
 LDT - Lost Duplicate Certificate of Title  
 M - Mortgage  
 MBO - Mediation Board Order  
 MC - Mineral Certificate  
 MEA - Mortgage of Easement  
 ML - Mechanics' Lien

**CHARGES, LIENS AND INTERESTS**

CERTIFICATE OF TITLE NO. 01SA32524-1

NAME **Allan's Landscaping Ltd.**

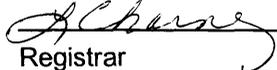
LAND Ptn E 1/2 LSD 15 & E 1/2 LSD 10, 17-37-5-W3rd

**ABBREVIATIONS**

MO - Maintenance Order  
 MTO - Master of Titles Order  
 N - Notice  
 PA - Power of Attorney  
 PLN - Plan  
 PP - Postponement  
 PPS - Personal Property Security Act Notice  
 PWA - Party Wall Agreement

R - Renewal  
 REP - Replot  
 REQ - Request  
 SJT - Application by Surviving Joint Tenant  
 T - Transfer  
 TI - Transfer of Instrument  
 TL - Tax Lien  
 TR - Transmission  
 WE - Writ of Execution

Nature of Instrument	Registration Number	Date of Registration	Amount	Particulars	Discharges and Withdrawals	
					Registration Number	Date of Registration
WE	94S09195	18 Mar 94	\$10,263.54	Debtor: Allan's Landscaping Ltd. Creditor: Instan-Turf Growers Ltd. c/o J.H. Morrison Law Office 1 - 3012 Louise St. Saskatoon SK S7J 3L8	INACTIVE SASKATCHEWAN WRIT-REGISTRY	25 JAN. 02 10:52 A.M.
M	01MW15109	16 Oct 01	\$100,000.00	To: Farm Credit Canada 1200 - 10250 101st Street EDMONTON AB T5J 3P4		
C	01SA32525	12 Dec 01		Pursuant to Section 215 of the Planning and Development Act By: The Rural Municipality of Corman Park #344 111 Pinehouse Drive, Saskatoon SK S7K 5W1		

  
 Registrar



# CERTIFICATE OF TITLE

M.C.

No. 01MW15108

Value \$ 95,000.00

Grant No.

Ref. 94S33937

THIS IS TO CERTIFY that **ALLAN'S LANDSCAPING LTD.**

is now the owner of an estate in fee simple

of and in

**The East Half of Legal Subdivision 10 and all that portion of the East Half of Legal**

**Subdivision 15 lying South and West of the North East limit of Parcels C and N as shown on**

**Plan 66S13138 in Section 17**

Township 37

Range 5

West of the **Third Meridian**, Saskatchewan

**EXCEPT:**

**Firstly:** The most Southerly 66 feet throughout of the East Half of Legal Subdivision 10, and

**Secondly:** 4.73 acres, shown as Parcel C and 0.01 of an acre, shown as Parcel N

and 1.41 acres, shown as Parcel D, all out of the East Half of Legal Subdivision 15, all taken  
for Roadway Plan 66S13138, and

**Thirdly:** 0.733 hectares, shown as Parcel U for Roadway Plan 87S43193

MINERALS INCLUDED

# CANCELLED

**SUBJECT TO THE ENCUMBRANCES, LIENS, AND INTERESTS NOTIFIED BY MEMORANDUM NOW OR  
HEREAFTER UNDERWRITTEN OR ENDORSED HEREON, OR WHICH ATTACH BY IMPLICATION  
PURSUANT TO THE LAND TITLES ACT. ANY REFERENCE TO AREA IS "MORE OR LESS".**

IN WITNESS WHEREOF I have hereunto subscribed my name and affixed my official seal this  
16 day of October, 2001

Post Office Address

1302 17<sup>TH</sup> Street West  
SASKATOON SK S7M 5V6

**NOTICE: The Land Titles Act requires that "every  
owner or mortgagee shall notify the Registrar of any  
change in his Post office Address."**

 Registrar  
Saskatoon Midwest Land Registration District

**CERTIFICATE OF TITLE**

**ABBREVIATIONS**

AM - Affidavit of Marriage  
 BL - Builders' Lien  
 C - Cayeat  
 CA - Commencement of Action  
 CCE - Certificate of Chief Engineer  
 CON - Consolidation  
 E - Enlargement EA - Easement  
 F - Forfeiture  
 JO - Judge's Order

L - Lease  
 LP - Lis Pendens/ Certificate of Pending Litigation  
 LDT - Lost Duplicate Certificate of Title  
 M - Mortgage  
 MBO - Mediation Board Order  
 MC - Mineral Certificate  
 MEA - Mortgage of Easement  
 ML - Mechanics' Lien

**CHARGES, LIENS AND INTERESTS**

CERTIFICATE OF TITLE NO. 01MW15108

NAME **Allan's Landscaping Ltd.**

LAND Ptn E 1/2 LSD 15 & E 1/2 LSD 10, 17-37-5-W3rd

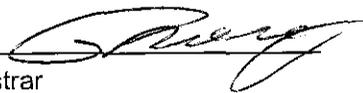
**ABBREVIATIONS**

MO - Maintenance Order  
 MTO - Master of Titles Order  
 N - Notice  
 PA - Power of Attorney  
 PLN - Plan  
 PP - Postponement  
 PPS - Personal Property Security Act Notice  
 PWA - Party Wall Agreement

R - Renewal  
 REP - Replot  
 REQ - Request  
 SJT - Application by Surviving Joint Tenant  
 T - Transfer  
 TI - Transfer of Instrument  
 TL - Tax Lien  
 TR - Transmission  
 WE - Writ of Execution

Nature of Instrument	Registration Number	Date of Registration	Amount	Particulars	Discharges and Withdrawals	
					Registration Number	Date of Registration
WE	94S09195	18 Mar 94	\$10,263.54	Debtor: Allan's Landscaping Ltd. Creditor: Instan-Turf Growers Ltd. c/o J.H. Morrison Law Office 1 - 3012 Louise St. Saskatoon SK S7J 3L8		
M	01MW15109	16 Oct 01	\$100,000.00	To: Farm Credit Canada 1200 - 10250 101st Street EDMONTON AB T5J 3P4		
R	01SA32524-1	12 Dec 01		Title: 01SA32524-1		

**CANCELLED**

  
 Registrar



M.C. ....

No. 94S33937.....

Value \$ 157,000.00.

Grant No. ....

Ref. 82S40013-1....

THIS IS TO CERTIFY that **KENNA HOLDINGS LTD.**

is now the owner of an estate in fee simple

of and in

The East Half of Legal Subdivision 10 and all that portion of the East Half of Legal Subdivision 15 lying South and west of the North East limit of Parcels "C" and "N" as shown on a Plan of Record in the Land Titles Office for the Saskatoon Land Registration District as No. 66S13138 in Section 17 Township 37

Range 5

West of the Third Meridian, Saskatchewan

**EXCEPT**

**Firstly:** The most Southerly 66 feet throughout of the East Half of Legal Subdivision 10, and

**Secondly:** 4.73 acres, shown as Parcel "C" and 0.01 of an acre, shown as Parcel "N" and 1.41 acres, shown as Parcel "D", all out of the East Half of Legal Subdivision 15, <sup>all taken for roadway - Oct 5/01 LaE</sup> as shown on said Plan No. 66S13138, and

**Thirdly:** 0.733 hectares, shown as Parcel "U" <sup>for roadway - Oct 5/01 LaE</sup> on Plan No. 87S43193.

MINERALS INCLUDED

**CANCELLED**

**SUBJECT TO** THE ENCUMBRANCES, LIENS AND INTERESTS NOTIFIED BY MEMORANDUM NOW OR HEREAFTER UNDERWRITTEN OR ENDORSED HEREON, OR WHICH ATTACH BY IMPLICATION UNDER THE LAND TITLES ACT. ANY REFERENCE TO AREA IS "MORE OR LESS".

IN WITNESS WHEREOF I have hereunto subscribed my name and affixed my official seal this

... 8 ... day of ... September ... , A.D. 19 ..94

Post Office Address ... 968 Edgemont Road N.W. ...

... Calgary, Alberta ...

... T3A 2J4 ...

Registrar

... Saskatoon ... Land Registration District

Province of Saskatchewan

dgd

NOTICE: The Land Titles Act provides that "every owner or mortgagee shall notify the Registrar of any change in his Post Office Address."





Government of Saskatchewan

# CERTIFICATE OF TITLE

Value \$8,333.33.....

No. ...82-S-40013-1....

Grant No. ....

Ref. 65-S-25318.....

THIS IS TO CERTIFY that WILLIAM ROBERT DISHAW  
of Saskatoon, in the Province of Saskatchewan,  
is now the owner of an estate in fee simple  
of and in The East Half of Legal Subdivision Ten (10) and all that portion of the East Half  
of Legal Subdivision Fifteen (15) lying South and west of the North East limit of Parcels  
"C" and "N" as shown on a Plan of Record in the Land Titles Office for the Saskatoon Land  
Registration District as No. 66-S-13138, all in Section Seventeen (17),  
in Township Thirty-seven (37),  
in Range Five (5),  
West of the Third Meridian,  
in the Province of Saskatchewan, in the Dominion of Canada, EXCEPT: Firstly: The most  
Southerly Sixty-six (66) feet throughout of the East Half of Legal Subdivision Ten (10),  
and Secondly: Four and Seventy-three Hundredths (4.73) acres, more or less, shown as  
Parcel "C" and One Hundredth (0.01) of an acre, more or less, shown as Parcel "N" and  
One and Forty-one Hundredths (1.41) acres, more or less, shown as Parcel "D", all out of  
the East Half of Legal Subdivision Fifteen (15), as shown on said Plan No. 66-S-13138.

MINERALS INCLUDED.

# CANCELLED

**SUBJECT TO THE ENCUMBRANCES, LIENS AND INTERESTS NOTIFIED BY MEMORANDUM NOW OR  
HEREAFTER UNDERWRITTEN OR ENDORSED HEREON, OR WHICH ATTACH BY IMPLICATION UNDER  
THE LAND TITLES ACT.**

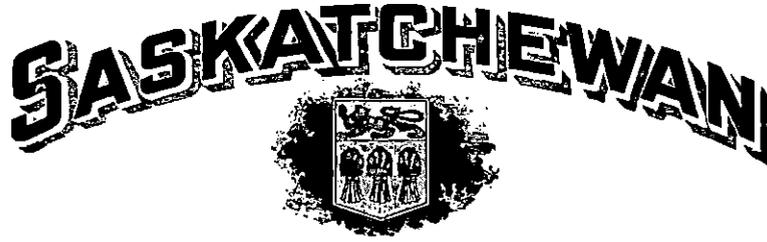
IN WITNESS WHEREOF I have hereunto subscribed my name and affixed my official seal this .....19th.....  
day of ..... November....., A.D. 19..82..  
Post Office Address ....Saskatoon, Sask.....

.....  
..... Registrar  
..... Saskatoon ..... Land Registration District  
..... Province of Saskatchewan

**NOTICE: The Land Titles Act provides that "every owner or mortgagee shall notify the Registrar of any change in his Post Office Address."**



Value \$ 10,000.00



No. 65-S-25312

Grant No.

Ref. 48 T 63

CERTIFICATE OF TITLE

THIS IS TO CERTIFY that WILLIAM ROBERT DISHAW

of Saskatoon, in the Province of Saskatchewan,

is now the owner of an estate in fee simple

of and in the East Half of Legal Subdivisions Ten (10) and Fifteen (15)

of Section Seventeen (17)

in Township Thirty-seven (37)

in Range Five (5)

West of the Third Meridian,

in the Province of Saskatchewan, in the Dominion of Canada, containing Forty (40) acres,

more or less, EXCEPTING THEREOUT FIRSTLY: The most Southerly Sixty-six (66) feet

throughout, and SECONDLY: The most Northerly Sixty-six (66) feet throughout.

Minerals Included.

CANCELLED

SUBJECT TO THE ENCUMBRANCES, LIENS AND INTERESTS NOTIFIED BY MEMORANDUM NOW OR HEREAFTER UNDERWRITTEN OR ENDORSED HEREON, OR WHICH ATTACH BY IMPLICATION UNDER THE LAND TITLES ACT.

IN WITNESS WHEREOF I have hereunto subscribed my name and affixed my official seal this ...Second.....

day of ...December....., A.D. 19...65.

Post Office Address ...Saskatoon.....

.....Saskatchewan.....

js

Registrar

Saskatoon Land Registration District

**ABBREVIATIONS**

- T—Transfer
- Tr—Transmission
- M—Mortgage
- C—Caveat
- ML—Mechanic's Lien
- TL—Tax Lien
- E—Execution
- N—Notice

**CERTIFICATE OF TITLE**

Show Other Abbreviations Here

AZR - Airport Zoning Regulations  
Enl. - Enlargement

Name *William Robert Dishaw*

Land *E<sup>1</sup>/<sub>2</sub> LSD 10 & 15 of Sec. 17-37-5-W3rd.*

**CHARGES, LIENS AND INTERESTS**

Nature of Instrument	Registration Number	Date of Registration	Date of Instrument	Amount	Particulars	Signature of Registrar	Discharges and Withdrawals		
							Registration Number	Date of Registration	Signature of Registrar
AZR	FF 6052	Jan. 10/55			Re: Aeronautics Act, Chapter 2, R.S. of C. 1952. Address for Service: Department of Transport, Ottawa, Ontario.	<i>[Signature]</i>			
M	65-S-25320	Dec. 2/65	Nov. 30/65	\$10,000.00 @ 6%	Made by: William Robert Dishaw. In Favour of: Alfred C. Perrin. Address of Mtgee: Saskatoon, Sask.	<i>[Signature]</i>	68-S-10125	May 13/68	<i>[Signature]</i>
Plan	66-S-13138	July 5/66			Roadway Plan as to 4.73 acres, shown as Pcl. "C" and 1.41 acres, shown as Pcl. "D". To Her Majesty the Queen (Sask.) New C. of T. No. 66-S-13138	<i>[Signature]</i>			
C	67-S-30077	22/Dec/67	12/Dec/67		Made by: Ralph E. Asher and Vivian K. Asher (as to ptn lying S & W of Address for Service: 1216 Victoria Avenue, (Roadway) 66-S-13138. Saskatoon, Saskatchewan.	<i>[Signature]</i>	LAPSED	12 Feb/76	<i>[Signature]</i>
Enl.	68-S-17345	Aug. 16/68			To: William Robert Dishaw. New C. of T. No. 68-S-17345. As to that portion of the E <sup>1</sup> / <sub>2</sub> of LSD 15 bounded as follows: on the N by the S limit of Pcl. "R" on a surveyed road, as shown on Plan 66-S-13138, bounded on the SW by the NE limit of Pcl "C" shown on Plan 66-S-13138 and bounded on the E by the E limit of LSD 15.	<i>[Signature]</i>			
C	75-S-28529	23/Oct/75	23/Oct/75		By: Kenna Holdings Ltd., Address for Service: 905 - 201-21st St., East. Saskatoon, Sask.	<i>[Signature]</i>			
N to L	75-S-34737	Dec 30/75	Dec 16/75		Re: Caveat No. 67-S-30077 To Lapse: 30 days unless continued by Judge's order Notice mailed: 9 Jan 1976 #5	<i>[Signature]</i>	LAPSED	12 Feb/76	<i>[Signature]</i>
Order in Council	79-S-39753	Oct. 1/79			The land herein described is subject to The Meewasin Valley Authority Act as set out in Schedule "A" of the said Act as to LSD 15 and Schedule "B" of the said Act as to LSD 10.	<i>[Signature]</i>			Repealed <i>[Signature]</i>
C	81-S-16749	May 15/81	May 13/81		Made by: Deca Holdings Ltd. Add. for Service: 905-201-21st St. E. Saskatoon, Sask., S7K 0B8	<i>[Signature]</i>	82-S-40013 82-S-24148	Nov. 19/82 July 14/82	<i>[Signature]</i>
	<del>82-S-24149</del>	<del>July 14/82</del>	<del>Oct. 25/81</del>		<del>Made by: Kenna Holdings Ltd. Address for Service: 905 201 21st Street E., Saskatoon, Sask. S7K 0B8</del>				
Renewal	82-S-40013-1	Nov. 19/82	Nov. 19/82		To: Within Owner, New C. of T. No. 82-S-40013-1	<i>[Signature]</i>			

CANADA  
PROVINCE OF SASKATCHEWAN



# Saskatchewan Certificate of Title

VALUE, \$ 7000.00

GRANT No. \_\_\_\_\_

SEE R. No. J 86 FOLIO 33

No. 42 T 63

DAY BOOK No. ET 445

**This is to Certify that** MARION I. GIBSON,  
of Saskatoon, in the Province of Saskatchewan,

"Married Woman"

is *now the owner of an estate in fee simple* \_\_\_\_\_

*of and in* Lot Thirteen (13),

EXCEPTING THEREOUT the most Westerly Twenty-five (25)

feet throughout thereof, in Block Two (2), in the City of Saskatoon, in the Province of Saskatchewan,  
in the Dominion of Canada, according to a Plan of Record in the Land Titles Office for the Saskatoon  
Land Registration District as Number (F.K.) G 4296.

## CANCELLED.

*subject to the incumbrances, liens and interests notified by memorandum indorsed hereon,  
or which may hereafter be made in the register, or which attach by implication under The  
Land Titles Act.*

**In Witness Whereof** *I have hereunto subscribed my name and affixed my official  
seal at* SASKATOON *this* SIXTH *day of* SEPTEMBER *A.D. 19* 50

*Post Office Address* SASKATOON  
SASKATCHEWAN

C. E. Winton Registrar  
SASKATOON  
Land Registration District  
Saskatchewan

COMPARED  
SEP 12 1950

1 and Walter B. Gibson & Co. Solicitors  
The Title of the above named owner is subject to a MORTGAGE made by her  
to - Thomas D. Kinahan  
to secure repayment of: sum of 4000.00 at the rate of 6%  
per annum Principal and interest. Mortgage  
dated 28 day of August 1950 and registered at 5:58 o'clock  
P.M. on the 6 day of September 1950 as No. ET 446  
Saskatoon, Sask. R.E. Wilson REGISTRAR

2 The within Land is subject to SASKATOON AIRPORT ZONING  
REGULATIONS by the deposit of a Plan, Description and Regulations  
under authority of the Aeronautics Act, Chap. 2. R.S. of C. 1952, as  
Amended, and deposited by the Department of Transport, Ottawa, Ont.,  
at 10:03 A. M. on the 10th day of January, 1955, as No. F.F. 6052  
REGISTRAR

3 The Mgr set out in Memorandum No. 1  
as D.B. No. ET 446 has been DISCHARGED by Discharge  
dated the 20 day of June 1955 and registered the 20 day  
of June 1955 at 11:18 o'clock P.M. as No. FJ 2263  
REGISTRAR

4 This Certificate is CANCELLED by 182  
and a new Certificate of Title No. 1170-97 issued to  
J. Arden Dixon et al.  
dated 31st Jan 1957 and registered at 10:49  
4th day of Feb. 1957 as No. F.M. 1715  
REGISTRAR

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20



**PINTER**  
& ASSOCIATES LTD

**Appendix F**  
**RM of Corman Park**  
**Zoning Compliance Report**



May 9th, 2023

**Our File: 08-17-101**

Annette Bellinger  
Pinter & Associates  
306-912-9356

**Re: Zoning Compliance Certificate  
Ptn NE 17-37-5-W3; Allan's Landscaping Ltd.**

---

The parcel noted above is zoned D-Agricultural District 2 (DAG2) under the P4G Planning District Zoning Bylaw and comprised of 26.14 acres.

The intent of the DAG2 Zoning District is to accommodate extensive and intensive agricultural activities in areas designated for future urban growth. The Zoning district provides for a range of complementary uses that are compatible with agricultural and non-agricultural land uses in close proximity to the P4G Urban Municipalities while supporting the diversification of agriculture.

For a full listing of all permitted and discretionary uses within the DAG2 Zoning District, please visit the R.M. website at <http://www.rm-cormanpark.ca/205/Planning-Zoning-Documents>, and select the P4G Planning District Zoning Bylaw.

According to our records, the following permits have been issued for the abovementioned property:

- Permit 61/2003 was issued on June 20, 2003 for a Greenhouse/Garden Centre. Four (4) inspections were completed on the structure, with the last dated January 20, 2012. Permit 61/2003 was officially closed on January 25, 2012, noting no outstanding deficiencies.
- Permit 22/2004 was issued on June 2, 2004 for revisions to the second-floor plans for the Greenhouse/Garden Centre. Two (2) inspections were completed, with the last dated January 20, 2012. Permit 22/2004 was officially closed on January 25, 2012, noting no outstanding deficiencies.
- Permit 45/2004 was issued on June 2, 2004, as an extension for Permit 61/2003. Construction ceased for an extended period of time, as such Permit 21/2003 expired. Permit 45/2004 was officially closed on January 25, 2012, noting no outstanding deficiencies.
- Permit 122/2005 was issued on August 24, 2005 as an extension for Permit 22/2004. Permit 122/2005 was officially closed on January 25, 2012, noting no outstanding deficiencies.
- Permit 178/2008 was issued on September 15, 2008 for a storage garage. Construction ceased for a period of greater than one (1) year, as such the permit expired. Permit 178/2008 was officially closed on April 13, 2011.

It is the landowners' responsibility to ensure the proper permits are obtained for major renovation/construction projects, as well as contacting the proper utility companies.

The minimum setback distances for the DAG2 Zoning District are:

- 45 metres from the centre of the road allowance for the front yard and flanking setback;
- 15 metres from the side and rear property lines for the side and rear yard setbacks; and

- where a front or flanking yard abuts a provincial highway, a great setback may be required from the Ministry of Highways & Infrastructure.

Records indicate a Development Permit was issued on December 19, 2001 for discretionary use approval of an Intensive Agricultural Operation – Commercial Greenhouse. The Development Agreement for the Discretionary Use is registered on the property titles.

The R.M. notes that there was an Order issued on the property on January 21, 2010, which to date has not been remedied and contained the following contraventions to the Corman Park-Saskatoon Planning District Zoning Bylaw:

- 1) the operation of the waste disposal business;
- 2) the storage of waste disposal bins;
- 3) the storage of manure;
- 4) the stripping of onsite topsoil;
- 5) the mixing of topsoil with manure;
- 6) the operation and storage of industrial earthmoving equipment (graders & scrapers);
- 7) the storage of semi trailer units;
- 8) the storage of mobile home units;
- 9) the piling of organic matter (trees and brush); and
- 10) the dumping and storage of concrete and asphalt rubble.

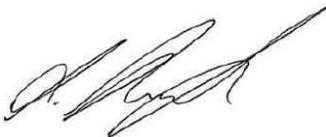
The Order was upheld through a decision made by the Development Appeals Board in 2010 and subsequently by the Saskatchewan Municipal Board Planning Appeals Committee in 2011. There are concerns that operations on site continue to occur, in contravention of the District Zoning Bylaw; the landowner is encouraged to contact the R.M. Planning Department to discuss how to bring the subject property into compliance.

A Real Property Report, completed by a certified Saskatchewan Land Surveyor, was not submitted to the R.M. of Corman Park for review, therefore the R.M. does not guarantee that the buildings meet the required setback distances, as per the P4G Planning District Zoning Bylaw and amendments thereto.

The R.M. recommends that the offices of the Saskatchewan Health Authority, Saskatoon Fire Department, Ministry of Environment and any utility companies located on site be contacted, in regards to any records within their jurisdiction on the abovementioned property.

Please contact me should you have any questions regarding the information provided.

Regards,



**Shayden Brandt, BA Hons.**

Planner 1

111 Pinehouse Drive, Saskatoon, SK. S7K 5W1

 (306)978-6421

[sbrandt@rmcormanpark.ca](mailto:sbrandt@rmcormanpark.ca)

## **Appendix G**

**Saskatchewan Ministry of Environment**

**Hazardous Materials Storage and Spills**

Operation ID	Operation Name	Address	Legal Land Description	Operation Status	Community	Latitude	Longitude
7,712	Saskatoon Airport Authority Storage Site	John G. Diefenbaker Airport, Saskatoon		Under Construction	Saskatoon		

Operation ID	Operation Name	Address	Legal Land Description	Operation Status	Community	Latitude	Longitude
8,770	Allan's Landscaping Ltd. Storage Site	Hwy.#16 (2 Miles North Of Saskatoon), Sa...	SE-12-38-6-W3	Operating	Saskatoon	52.247	-106.723

Spill / Incident Number	Spill Date	Contaminant	Quantity	Address	Lat/Long	Legal Land Description
1998-0006	1/9/1998, 12:00 AM	Gasoline - AV GAS	1500 Litres	SASKATOON AIRPORT, SASKATOON	52°10'15"N, 106°41'19"W	
1998-0092	4/5/1998, 12:00 AM	OTHER - JET A1 PETRO	100 Litres	DIEFENBAKER AIRPORT, SASKATOON	52°10'15"N, 106°41'18"W	
120251	5/10/2012, 12:00 AM	OTHER - waste water from the air cra...	50 L	saskatoon airport, Saskatoon		
120678	12/15/2012, 12:00 AM	GLYCOL - Contained the glycol using t...	300 L	Saskatoon Airport, Saskatoon		
130164	4/8/2013, 12:00 AM	GLYCOL - Ethylene Glycol	100 m3	Saskatoon Airport Authority, Saskatoon		
130332	6/16/2013, 12:00 AM	De-icing		AIRPORT AUTHORITY, Saskatoon		

Spill / Incident Number	Spill Date	Contaminant	Quantity	Address	Lat/Long	Legal Land Description
70191	5/2/2007, 12:00 AM	OTHER - 30-40 GALLONS PAINT / SOLVENT...	180 L	3455 IDYLWYLD DRIVE, Saskatoon		
70204	5/4/2007, 12:00 AM	OTHER PET PRODU - PAINT	400 L	3455 IDYLWYLD DR. N . SASKATOON, Saska...		
120314	5/7/2012, 12:00 AM	AMMONIA - unknown amount	100 L	810 60th Street, Saskatoon		

## **Appendix H**

**Saskatchewan Water Security Agency**

**Driller Water Well Records**

Well Name: **Lesko**

 WWDR #: **32010**
**Well Location**

Land Location	<b>SE-20-37-05-3</b>	Location of Well (in Quarter)	
LSD		<b>600</b> ft from N/S Boundary	<b>N</b>
Reserve		<b>100</b> ft from E/W Boundary	<b>E</b>
RM:	<b>344</b>		
NTS Map:	<b>73B02</b>	Major Basin:	
Elevation (ft)	<b>1625</b>	SubBasin:	<b>30</b>
Aquifer	<b>10</b>		

**Well Information**

Driller	<b>Pederson Drilling</b>	Length (ft)	Well Casings			
Completion Date	<b>1968.05.16</b>	<b>0</b>	Btm (ft)	<b>39</b>	Dia (in)	<b>4</b>
Hole #					Material	<b>Steel</b>
Install Method	<b>Drilled</b>					
Borehole Depth (ft)	<b>44</b>				Well Screens	
Bit Dia (in)	<b>4</b>	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Water Level	<b>22</b>	<b>5</b>	<b>44</b>	<b>4</b>	<b>18</b>	<b>Everdur</b>
Flowing Head	<b>0</b>					
Water Use	<b>Domestic</b>				Pump Test	
Well Use	<b>Withdrawal</b>		Draw Down		<b>13</b>	ft
Completion Method	<b>Well Screen</b>		Duration		<b>15</b>	hrs
E-Log	<b>None</b>		Pumping Rate		<b>5</b>	igpm
			Temperature		<b>40</b>	deg. F
			Rec. Pumping Rate		<b>3</b>	igpm

**Lithology List**

Depth (ft):	Material	Colour	Description
15	Clay	Brown	Unknown
37	Clay	Grey	Unknown
44	Silt	Brown	Fine
47	Clay	Grey	Unknown





130	Sand & Gravel	Unknown	Clayey
210	Clay	Unknown	Unknown
213	Silt	Grey	Sand-gravel Streaks
260	Clay	Grey	Sandy
290	Shale	Grey	Soft
296	Sandstone	Grey	Soft
305	Sandstone	Grey	Shale Streaks

Well Name: **Saskatchewan Research Council**

 WWDR #: **32006**
**Well Location**

Land Location	<b>NE-17-37-05-3</b>	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:	<b>344</b>	
NTS Map:	<b>73B02</b>	Major Basin:
Elevation (ft)	<b>1620</b>	SubBasin: <b>30</b>
Aquifer		

**Well Information**

Driller	<b>Elk Point Drilling Corp.</b>	Length (ft)	Well Casings	Btm (ft)	Dia (in)	Material
Completion Date						
Hole #						
Install Method	<b>Drilled</b>					
Borehole Depth (ft)	<b>292</b>		Well Screens			
Bit Dia (in)	<b>0</b>	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Water Level	<b>0</b>					
Flowing Head	<b>0</b>					
Water Use	<b>Research</b>		Pump Test			
Well Use	<b>Water Test Hole</b>	Draw Down		<b>0</b>	ft	
Completion Method		Duration		<b>0</b>	hrs	
E-Log	<b>Colctd</b>	Pumping Rate		<b>0</b>	igpm	
		Temperature		<b>0</b>	deg. F	
		Rec. Pumping Rate		<b>0</b>	igpm	

**Lithology List**

Depth (ft):	Material	Colour	Description
108	Till	Grey	Unknown
114	Silt	Grey	Unknown
158	Sand	Grey	Silty
223	Till	Grey	Unknown
241	Sand	Grey	Unknown
250	Silt	Grey	Unknown
292	Silty Clay	Grey	Unknown





160	Sand	Grey	Medium
180	Sand	Grey	Fine-medium
222	Till	Grey	Calcareous
226	Clay	Unknown	Silt
236	Till	Grey	Calcareous
258	Till	Grey	Calcareous
260	Boulders	Unknown	Unknown
276	Silty Clay	Grey	Noncalcareous
278	Bentonite	Grey	Noncalcareous
290	Silty Clay	Grey	Noncalcareous
304	Silt	Grey	Clayey
316	Silt	Grey	Clayey
325	Silty Clay	Grey	Noncalcareous
336	Silt	Grey	Clayey
344	Silt	Grey	Sandy
358	Silty Clay	Grey	Noncalcareous
367	Sand	Grey	Fine
369	Silt	Grey	Clayey
377	Sand	Unknown	Silt
385	Silt	Grey	Sandy
404	Sand	Grey	Silt
408	Silt	Grey	Clayey
422	Sand	Grey	Silt
430	Silt	Grey	Sandy
435	Silt	Grey	Clayey
440	Silt	Grey	Sandy

Well Name: **Power Farm Sales Ltd.**

 WWDR #: **45915**
**Well Location**

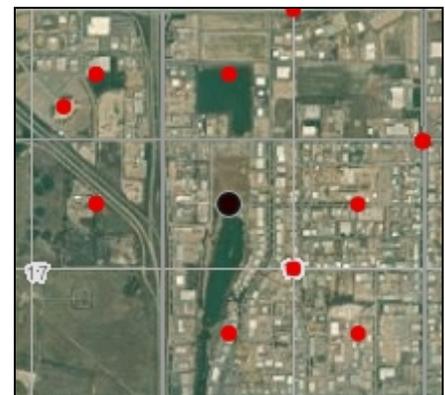
Land Location	<b>NW-16-37-05-3</b>	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:	<b>344</b>	
NTS Map:	<b>73B02</b>	Major Basin:
Elevation (ft)	<b>1625</b>	SubBasin: <b>30</b>
Aquifer		

**Well Information**

Driller	<b>Prairie Water Ltd.</b>	Length (ft)	Well Casings	Btm (ft)	Dia (in)	Material
Completion Date	<b>1976.05.04</b>	<b>0</b>		<b>0</b>	<b>36</b>	<b>Porous Concrete</b>
Hole #						
Install Method	<b>Bored</b>					
Borehole Depth (ft)	<b>34</b>		Well Screens			
Bit Dia (in)	<b>36</b>	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Water Level	<b>0</b>					
Flowing Head	<b>0</b>					
Water Use	<b>Domestic</b>			Pump Test		
Well Use	<b>Withdrawal</b>	Draw Down				<b>0</b> ft
Completion Method	<b>Curbed</b>	Duration				<b>0</b> hrs
E-Log	<b>None</b>	Pumping Rate				<b>0</b> igpm
		Temperature				<b>0</b> deg. F
		Rec. Pumping Rate				<b>0</b> igpm

**Lithology List**

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
3	Clay	Brown	Unknown
5	Gravel	Unknown	Unknown
14	Clay	Brown	Unknown
16	Sand	Unknown	Unknown
30	Clay	Grey	Unknown
31	Sand	Unknown	Unknown
32	Clay	Unknown	Unknown
34	Sand	Unknown	Unknown



Well Name: **Saskatchewan Research Council**

 WWDR #: **220086**
**Well Location**

Land Location	<b>SW-16-37-05-3</b>	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:	<b>344</b>	
NTS Map:	<b>73B02</b>	Major Basin:
Elevation (ft)	<b>1610</b>	SubBasin: <b>30</b>
Aquifer		

**Well Information**

Driller	<b>Unknown Client 031</b>	Length (ft)	Well Casings		
Completion Date	<b>1967.10.31</b>	Btm (ft)	Dia (in)	Material	
Hole #					
Install Method	<b>Augered</b>		Well Screens		
Borehole Depth (ft)	<b>5</b>	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)
Bit Dia (in)	<b>0</b>				Material
Water Level	<b>0</b>				
Flowing Head	<b>0</b>				
Water Use	<b>Research</b>		Pump Test		
Well Use	<b>Soil Test Hole</b>	Draw Down		<b>0</b> ft	
Completion Method		Duration		<b>0</b> hrs	
E-Log	<b>None</b>	Pumping Rate		<b>0</b> igpm	
		Temperature		<b>0</b> deg. F	
		Rec. Pumping Rate		<b>0</b> igpm	

**Lithology List**

Depth (ft):	Material	Colour	Description
-------------	----------	--------	-------------



Well Name: **Saskatchewan Research Council**

 WWDR #: **220087**
**Well Location**

Land Location	<b>NE-17-37-05-3</b>	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:	<b>344</b>	
NTS Map:	<b>73B02</b>	Major Basin:
Elevation (ft)	<b>1627</b>	SubBasin: <b>30</b>
Aquifer		

**Well Information**

Driller	<b>Unknown Client 031</b>	Length (ft)	Well Casings		
Completion Date	<b>1967.05.10</b>	Btm (ft)	Dia (in)	Material	
Hole #					
Install Method	<b>Augered</b>		Well Screens		
Borehole Depth (ft)	<b>30</b>	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)
Bit Dia (in)	<b>0</b>				Material
Water Level	<b>0</b>				
Flowing Head	<b>0</b>				
Water Use	<b>Research</b>		Pump Test		
Well Use	<b>Soil Test Hole</b>	Draw Down		<b>0</b> ft	
Completion Method		Duration		<b>0</b> hrs	
E-Log	<b>None</b>	Pumping Rate		<b>0</b> igpm	
		Temperature		<b>0</b> deg. F	
		Rec. Pumping Rate		<b>0</b> igpm	

**Lithology List**

Depth (ft):	Material	Colour	Description
-------------	----------	--------	-------------



Well Name: **Saskatchewan Research Council**

 WWDR #: **220089**
**Well Location**

Land Location	<b>SE-20-37-05-3</b>	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:	<b>344</b>	
NTS Map:	<b>73B02</b>	Major Basin:
Elevation (ft)	<b>1627</b>	SubBasin: <b>30</b>
Aquifer		

**Well Information**

Driller	<b>Unknown Client 031</b>	Length (ft)	Well Casings		
Completion Date	<b>1967.11.04</b>	Btm (ft)	Dia (in)	Material	
Hole #					
Install Method	<b>Augered</b>		Well Screens		
Borehole Depth (ft)	<b>20</b>	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)
Bit Dia (in)	<b>0</b>				Material
Water Level	<b>0</b>				
Flowing Head	<b>0</b>				
Water Use	<b>Research</b>		Pump Test		
Well Use	<b>Soil Test Hole</b>	Draw Down		<b>0</b> ft	
Completion Method		Duration		<b>0</b> hrs	
E-Log	<b>None</b>	Pumping Rate		<b>0</b> igpm	
		Temperature		<b>0</b> deg. F	
		Rec. Pumping Rate		<b>0</b> igpm	

**Lithology List**

Depth (ft):	Material	Colour	Description
-------------	----------	--------	-------------





**PINTER**  
& ASSOCIATES LTD

**Appendix I**  
**City of Saskatoon**



**Fire Prevention Inspection**

Event # **23 - 01932**

Property Address: **- 777 60TH ST W Corman Park SK**

Inspected By: **1193**

Inspected Date **April 19, 2023**

This inspection conducted by Saskatoon Fire Department is part of a strategy to improve the quality of life in Saskatoon by reducing the risk to safety and health, and ensuring the fire protection and maintenance of buildings, facilities and grounds.

Re-Inspection for compliance will occur on or after **April 26, 2023**

A fire inspection was conducted at Allan's Landscaping. Please address the following fire code violations by the date stated in this report.

- Toe kick on a fire separation door.
- Service penetrations not sealed with fire rated caulking.

-----  
 The items below were identified and require your attention.  
 -----

Violation

Fire separation door at the top of the stairs is obstructed with a toe kick holding it open.

Requirement

Doors in fire separations shall not be obstructed, blocked, wedged open, or altered in any way that would prevent the intended operation of the closure. Remove the toe kick from the fire separation door.

Deficiency

The integrity of the fire separation has been compromised or damaged. Service penetrations going through the fire separation wall without fire rated caulking.

Remedy

Repair the fire separation so as to maintain its integrity. Seal around all service penetrations with fire rated caulking.

Code Reference

Where fire separations are damaged so as to affect their integrity, they shall be repaired so that the integrity of the fire separation is maintained.

National Fire Code of Canada, Division B, Sentence 2.2.1.2.(1)

We would like to remind you that unless otherwise specified, the owner or the owner's authorized agent shall be responsible for carrying out the provisions of the National Fire Code of Canada (2015), Division C, Sentence 2.2.1.1.(1), the Fire Safety Act. (2015), Section 29, and the Cities Act. (2002), Section 8, and applicable City Bylaws.

For inquiries please contact:

#1193 / (306) 975-2578

Fire Inspector

125 Idylwyld Drive South, Saskatoon, SK S7M 1L4

fireinspections@saskatoon.ca

www.saskatoon.ca

---

We would like to remind you that unless otherwise specified, the owner or the owner's authorized agent shall be responsible for carrying out the provisions of the National Fire Code of Canada (2015), Division C, Sentence 2.2.1.1.(1), the Fire Safety Act. (2015), Section 29, and the Cities Act. (2002), Section 8, and applicable City Bylaws.

April 20, 2023

Pinter And Associates  
710A-48<sup>th</sup> St E  
Saskatoon, SK S7K 5B4

Attention: Annette Bellinger

**Re: File Search – 777 60th Street West**

A file search was conducted on the above-mentioned address on April 20, 2023.

Our files do not indicate any records of any spills, leaks, underground storage tanks, storage of dangerous goods or fire orders on this property. The last fire inspection was performed in April 2023, with the following deficiencies present:

- \* See attached inspection report(s).
- \* This building does not meet minimum requirements for fire and life safety.

Attached is a S.A.R. invoice for the cost of the file search conducted. Unless otherwise arranged, interest will be charged at Bank Prime Rate plus 2% if full payment is not received within 30 days of invoice date.

This letter does not certify or imply that the building/facility complies with The City of Saskatoon Fire Prevention Bylaw, the City of Saskatoon Property Maintenance and Nuisance Abatement Bylaw, The Fire Safety Act or the Regulations passed pursuant to The Fire Safety Act including the National Fire Code. The information provided hereon is provided on the express condition and understanding that The City of Saskatoon and its agents and employees shall not be liable for any damage or expense should, for any reason including negligence on the part of The City of Saskatoon, its agents or employees, the information be inaccurate, incomplete, or misleading.

Yours truly,



Victoria Boehm  
Risk Reduction Coordinator  
Saskatoon Fire



**PINTER**  
& ASSOCIATES LTD

## **Appendix J**

**Select Subject Property Photographs**



Photo 1: Various cleaners, aerosols and paints were observed on a wooden shelving unit within a storage room.



Photo 2: A slip tank was observed near the west region of the Subject Property building.



Photo 3: A storage tote was observed in the west region of the property, note staining and stressed vegetation, facing northwest.



Photo 4: A propane bullet tank was observed in the north region of the Subject Property, facing northwest



Photo 5: Empty oil pails were observed in a metal cage within the storage yard.



Photo 6: Jerry cans were observed near the southeast exterior wall of the Subject Property building



Photo 7: A water tank was observed near the south exterior wall of the Subject Property building, facing northeast.



Photo 8: A steel barrel was observed on a concrete pad within the storage yard.



Photo 9: Discoloured gravel was observed throughout the storage yard.



Photo 10: Discoloured gravel was observed throughout the storage yard.



Photo 11: Standing water was observed throughout the Subject Property storage yard, facing east.



Photo 12: A slough was observed along the east region of the Subject Property, facing southeast.



**PINTER**  
& ASSOCIATES LTD

**Appendix K**  
**Statement of Qualifications**



## **Statement of Qualifications**

### **Environmental Site Assessment**

This statement of qualifications is specific to the background of PINTER & Associates Ltd. (PINTER) and PINTER personnel.

PINTER has completed hundreds of environmental site assessments (ESAs). These studies include Phase I ESAs, follow-up Phase II ESAs, Phase III ESAs, Remediation, and Risk Management projects. PINTER has over twenty-five years of cumulative experience in conducting ESAs on a variety of properties and for both provincially and federally regulated sites. Our client list includes private individuals, commercial enterprises, Indigenous communities, government agencies, and industrial clients.

PINTER provides fully insured environmental site assessment services. Our team has experience with a broad range of contaminant sources, and has worked on sites affected by petroleum hydrocarbons, heavy metals, PCBs, dioxins and furans, landfill leachate, salts, polycyclic aromatic hydrocarbons (PAHs), agricultural chemicals, moulds and fungi, and asbestos. Our team has assessed a variety of commercial, industrial, residential, and agricultural operations including landfills, chemical plants, dry cleaning establishments, pulp mills, sawmills, farming operations, gas bars, bulk fuel storage facilities, scrap and salvage yards, commercial malls, schools, and residential high rises.

The skills and knowledge basis of the individual members of our team range from environmental, geotechnical, and civil engineering, toxicology, biology, geology, hydrology, analytical chemistry, soil sciences, and soil reclamation.

A handwritten signature in blue ink, appearing to read "JCutter", is positioned above the name and title of the signatory.

**Jessica Cutter, M.Sc.**  
**Manager of Environmental Services**

**APPENDIX I**  
**Geotechnical Report**



PROJECT: **PRELIMINARY GEOTECHNICAL INVESTIGATION  
FOR COMPREHENSIVE DEVELOPMENT REVIEW**

PREPARED FOR: **Allan's Landscaping Ltd.**





September 29, 2023

File: 3084-4

Allan's Landscaping Ltd.  
Site 413, Box 608 RR4  
Saskatoon, SK S7K 3J7

**Subject: Preliminary Geotechnical Investigation for Comprehensive  
Development Review – R.M. of Corman Park, SK**

---

Attached is a copy of our Preliminary Geotechnical Investigation report including foundation design and construction recommendations. This report was prepared in support of the Comprehensive Development Review performed by PINTER on the site located at 777 60<sup>th</sup> Street West in the R.M. of Corman Park, SK.

If you have any questions or concerns regarding our findings, please do not hesitate to contact the undersigned at: (306) 352-3565.

Yours Sincerely,  
**PINTER & Associates Ltd.**

A handwritten signature in blue ink, appearing to read "Darrell Mihial".

Darrell Mihial, M.Sc., P.Eng.  
Senior Geotechnical Engineer

H:\2) Projects\3084 Allan's Landscape CDR Land Dev\3084-4 Geotechnical Investigation\3084-4 Report\Drafts\3084-4 Geotechnical Report for Allan's Landscaping Final.docx

**PRELIMINARY GEOTECHNICAL INVESTIGATION  
FOR COMPREHENSIVE DEVELOPMENT REVIEW**

**Prepared For:  
Allan's Landscaping Ltd.**

**Prepared By:  
PINTER & ASSOCIATES LTD.**

**September 29, 2023  
File: 3084-4**

**ALLAN'S LANDSCAPING LTD.:  
PINTER & ASSOCIATES LTD.:**

**Distribution:  
ELECTRONIC  
ELECTRONIC**





---

<b>8.0</b>	<b>PAVEMENT DESIGN RECOMMENDATIONS</b>	<b>23</b>
8.1.	Design Considerations	23
8.2.	Recommended Pavement Structure	23

---

<b>9.0</b>	<b>REVIEW OF DESIGN &amp; CONSTRUCTION</b>	<b>24</b>
<b>10.0</b>	<b>LIMITATIONS</b>	<b>25</b>

---

## List of Tables

---

TABLE 4.1: 2010 National Building Code of Canada Seismic Hazard Values.....	7
TABLE 5.1: Structural Fill Gradations.....	12
TABLE 6.1: Soil Shearing Resistance for Cylindrical Model.....	14
TABLE 6.2: Cast in Place Piles Design Parameters.....	14
TABLE 6.3: Helical Piles Design Parameters .....	16
TABLE 6.4: Soil Shearing Resistance for Cylindrical Model for Helical Piles.....	17
TABLE 6.5: Estimated Coefficients of Horizontal Subgrade Reaction for Piles.....	18
TABLE 6.6: Horizontal Subgrade Reaction of Pile Groups.....	19
TABLE 8.1: Recommended Pavement Structures.....	23

## **Appendices**

---

**APPENDIX A**

**DRAWINGS**

**APPENDIX B**

**GLOSSARY OF TERMS & ABBREVIATIONS**

**APPENDIX C**

**BOREHOLE LOGS**

---

## 1.0 INTRODUCTION

---

PINTER & Associates Ltd. (PINTER) was retained by Allan’s Landscaping Ltd. (Allan’s Landscaping, the Client) to conduct a preliminary Geotechnical Investigation for a property located at 777 60<sup>th</sup> Street West (the Site) in the R.M. of Corman Park, SK. The location of the Site is presented in Figure 1.1, Appendix A.

The objective of the investigation was to provide geotechnical recommendations for site development and foundations for potential future development on the Site.

Appendix B presents a Glossary of Terms and Abbreviations to aid in the reading of this report.

### 1.1. PROJECT DESCRIPTION

PINTER is currently completing a Comprehensive Development Review (CDR) on the Site as part of a rezoning application for the property. One objective of the CDR/rezoning application was the completion of a preliminary Geotechnical Investigation to assess the geotechnical aspects of the Site.

The Site is located in the R.M. of Corman Park, west of Saskatoon, SK and directly north of the Saskatoon John G. Diefenbaker Airport. The Site is approximately 26 acres and is occupied by buildings, materials, and equipment for Allan’s Landscaping and Disposal Services Ltd.

A commercial garage is proposed to be built on the Site following the CDR and rezoning of the property. It is PINTER’s understanding that a location has not been chosen for the building, and construction details were not provided. Potential locations for the garage were discussed and generally included the northwest corner of the Site as well as an existing concrete pad located immediately south of the main building. These locations were considered when choosing the test hole locations. However, this report is only intended to provide general geotechnical recommendations for the entire Site. A separate, building-specific geotechnical investigation is recommended before construction begins on the proposed garage building.

---

## **2.0 FIELD INVESTIGATION**

---

### **2.1. UTILITY LOCATES**

Prior to drilling, underground utilities within the Site were located using Sask 1st Call. A third party locate sweep was also completed in the immediate vicinity of the proposed test hole locations.

### **2.2. DRILLING AND SAMPLING**

The drilling program was carried out on 29 and 30 May 2023 and consisted of eight test holes (BH1 to BH8) drilled to a depth of 10.7 m. The test hole locations were primarily chosen to achieve an even distribution across the Site. The locations of BH1 and BH2 were partially chosen to be near the possible location of the proposed future garage, and BH3 was drilled as close as possible to the existing concrete pad to assess the properties of the soils likely to be underneath the pad. The test hole locations are shown on Figure 1.2 in Appendix A.

A truck-mounted drill rig equipped with 150 mm diameter solid stem augers was contracted from Mobile Augers (the drilling subcontractor) for the drilling program.

Disturbed samples were obtained from auger cuttings at all test hole locations. In addition, Standard Penetration Tests (SPTs) were performed at selected depths in the test holes. Soil samples were sealed in labelled plastic bags and transported to the soil laboratory for further examination, testing, and assessment. All samples were visually classified in the field and the individual soil strata, and interfaces between them, were noted. Pocket penetrometer tests were conducted in the field to aid in soil classification.

The fieldwork was supervised by PINTER field personnel who were responsible for logging the test holes, carefully noting and describing the changes in soil strata, and noting the occurrence of water-bearing zones.

All test holes were backfilled with back spun drill cuttings and sealed at the surface with bentonite. Groundwater monitoring wells were installed at BH1, BH5, and BH8. The groundwater levels in the wells were measured on 6 June 2023, approximately two weeks following installation.

A GPS and base were used to obtain UTM coordinates of the test hole locations. These coordinates were tied in to the topographic survey previously conducted by Midwest Surveys for another section of the CDR.

The completed borehole logs are included in Appendix C, along with an explanation of the terms and symbols used on the borehole logs.

---

## **3.0      LABORATORY TESTING**

---

Water content analyses were performed on 76 samples collected during drilling. Atterberg limit and grain size analyses (percent of particles finer than 0.071 mm) tests were also performed on representative cohesive soil samples from Test Holes BH 1, BH 3, and BH 7, at depths of 0.9 m, 1.5 m, and 3.0 m, respectively. Laboratory results are included on the test hole logs in Appendix C.

---

## **4.0 SUBSURFACE CONDITIONS**

---

### **4.1. GENERAL**

It should be noted that geological conditions are innately variable. At the time of preparation of this report, information on subsurface stratigraphy was available only at discrete test hole locations. To develop recommendations from this information, it is necessary to make some assumptions concerning conditions other than at the test hole locations. Adequate field reviews should be provided during construction to check that these assumptions are reasonable.

### **4.2. SOIL PROFILE AND PROPERTIES**

The site surface was partially covered with vegetation at the time of the investigation. 50 to 150 mm of topsoil was encountered at the surface of all of the test holes.

The naturally deposited soil profile encountered below the topsoil consisted primarily of glacial clay till that extended the full depth investigated in seven of the test holes (BH1 to BH7). At BH1 and BH5 there was 0.5 m and 2.0 m, respectively, of clay overlying the glacial till. At BH7 there was 1.3 m of sand overlying the glacial till. Intertill sand/gravel layers were encountered at 2.4 m depth in BH1, 4.6 m depth in BH2, and 3.4 m depth in BH7. A sandy clay layer was encountered at 8.5 m depth in BH8 and extended the full depth investigated.

The clay till was described as moist, stiff, and medium plastic. It was oxidized (brown and/or a mixture of brown and grey) near the surface and transitioned to unoxidized (grey) at a depth of 4.6 m to 6.1 m. It was generally in a moist and very stiff to hard condition below this transition. The moisture content of the clay till varied between 8.9 percent and 19.3 percent. This is within or slightly below the plastic range of the clay till, with the plastic limit determined to be 13 percent.

The near-surface clay in BH1 was described as medium plastic and in a moist and stiff condition. It was dark brown with trace organics and a moisture content of 18.3 percent. The clay at the surface of BH5 was described as highly plastic and in a moist and firm condition. It was light brown and its moisture content varied between 20.2 percent and 30.8 percent.

The intertill sand in BH1 and BH2 was described as coarse-grained and well-graded with clay pockets. The sand was moist and loose in BH1 and wet and dense when it was encountered at a greater depth in BH2. The near-surface sand in BH7 was described as fine-grained and poorly-graded. It contained similar clay pockets and was damp and loose near the surface. The sand at a depth of 3.4 m in BH7 was similar to that found in BH1 and BH2. It was coarse-grained, wet, and compact.

The sandy clay encountered at BH8 was described as coarse-grained and well-graded. It was in a moist and dense condition and was unoxidized. The moisture content of the sandy clay was 21.5 percent.

Boulders/cobbles were encountered at various depths in test holes BH1, BH4, BH7 and BH8. It should be noted that boulders/cobbles can occur randomly throughout glacial till deposits in Saskatchewan. Rocky soil was also encountered at 9.8 m depth in BH8 that impeded drilling past this depth.

More detailed descriptions of the soil and groundwater conditions along with results of laboratory testing are provided on the borehole logs in Appendix C.

#### **4.3. GROUNDWATER SEEPAGE AND SLOUGHING**

Groundwater seepage and/or sloughing conditions were noted during drilling in all of the test holes. Generally, the test holes sloughed in to depths of between 9.1 m and 10.5 m. Groundwater was observed at depths of 5.5 m to 10.2 m below ground surface immediately after completion of drilling. Approximately two weeks after drilling, groundwater was measured at a depth of 3.9 m in BH1, 2.0 m in BH5, and 4.6 m in BH8. Depths to slough material and groundwater are noted on the test hole logs in Appendix C.

#### **4.4. SEISMIC DESIGN**

Peak Ground Acceleration (PGA) and spectral acceleration [Sa(T)] values corresponding to the site location were obtained from the Natural Resources Canada website (<http://www.earthquakescanada.nrcan.gc.ca>) for the 10% in 50-year (1 in 475) and 2% in 50-year (1 in 2,500) probabilities of exceedance and are summarized in Table 4.1, below.

**TABLE 4.1: 2010 National Building Code of Canada Seismic Hazard Values**

Seismic Event	Peak Ground Acceleration(g)	Sa(0.2)(g)	Sa(0.5)(g)	Sa(1.0)(g)	Sa (2.0)(g)
1 in 475 (10%)	0.011	0.021	0.015	0.008	0.003
1 in 2,500 (2%)	0.033	0.057	0.037	0.021	0.009

Based on the expected average soil conditions to a depth of 30 m, the site is classified as Site Class D, in accordance with the 2015 National Building Code of Canada (NBCC). Based on the site classification, values  $F_a = 1.3$  and  $F_v = 1.4$  are considered appropriate for design.

#### 4.5. FROST ACTION

To calculate the seasonal depth of frost penetration, data from Environment Canada was used in conjunction with the methods outlined in Section 13 of the Canadian Foundation Engineering Manual (CFEM, 2006). The results from this calculation were also weighed against typical frost depths used in design for the area. Based on this methodology, a frost penetration depth of 2.2 m is estimated for this site.

---

## **5.0 GENERAL SITE WORK & GRADING**

---

### **5.1. SITE PREPARATION**

The following subsections outline guidelines and recommendations for site preparation, grading, fill selection and placement, and utility trench construction for this site.

#### **5.1.1 Initial Site Grading and Drainage Considerations**

The soil at the surface is expected to consist of low to medium plasticity glacial clay till in a moist and stiff condition. A minimum stripping depth of 150 mm is recommended. If deleterious soils/materials are encountered within the stripping depth, stripping depths may need to be increased on an as-required basis during construction.

Excess water should be drained from the work areas as quickly as possible both during and after construction. Initial grading operations should be focused on providing surface drainage, such that precipitation and surface runoff is directed away from work areas.

Following stripping and excavation to design subgrade elevation, the exposed subgrade should be inspected by qualified personnel to verify the removal of unsuitable materials and to provide additional recommendations, as appropriate. Unsuitable materials include topsoil, asphalt, concrete, oversized material, and other deleterious materials. The lateral extent of all excavations and removals should be at least 1.5 m beyond the edge of all structures. Topsoil that is encountered may be stockpiled and re-used for non-structural areas only, such as landscaping.

Exposed subgrade soil within the proposed construction or development areas should be scarified to a minimum depth of 150 mm, moisture-conditioned (wetted or dried) to within  $\pm 1\%$  of optimum moisture content (OMC), and compacted to at least 98% of Standard Proctor Maximum Dry Density (SPMDD) tested in accordance with ASTM Method D 698. If weak soil conditions are encountered and scarification/compaction is not practical, subgrade stabilization techniques will be required (as discussed in the following section).

### **5.1.2 Proof-Rolling**

Upon completion of initial site preparation activities (as discussed above), proof-rolling of the subgrade should be conducted to verify that competent and uniform soil subgrade support conditions have been achieved. Proof-rolling should not be conducted during or shortly following precipitation events, and heavy equipment shall not be allowed to travel on wet/soft subgrade soils until adequate drying has occurred. Proof-rolling should be performed by two passes of a dual-wheel truck (or comparable equipment) with a minimum of 80 kN single-axle load. Soils which display rutting or appreciable deflections upon proof-rolling should be over-excavated to expose more competent soil and replaced with suitable engineered fill. Alternately, the use of geosynthetics (woven geotextile, geogrid in conjunction with non-woven geotextile, or combination geotextile/geogrid products), possibly in conjunction with some over-excavation, may be an alternative. If geosynthetics are utilized, it is recommended that granular fill materials be placed directly over the geosynthetics. The geosynthetics should be placed in accordance with the manufacturer’s recommendations. Construction techniques should be designed to minimize the potential for damage to the geosynthetics and underlying subgrade soils (i.e., end-dump and spread methods, use of long reach and/or low contact pressure equipment, etc.). PINTER should be retained to provide guidance with respect to subgrade improvement measures.

Following efforts to stabilize the soil, proof-rolling should be repeated. All proof-rolling and compaction efforts should include documentation detailing the findings, including photographs where possible. All finished subgrades should be protected from construction traffic and erosion as soon as possible.

### **5.1.3 Backfill Material and Compaction**

All proposed structural fill material should comply with the recommendations provided in this report and should be approved by the geotechnical/materials engineer prior to use. All fill soils should be free of appreciable amounts of deleterious and/or organic materials, large particle sizes and contaminants. Fill soils should not be placed in a frozen state or placed on a frozen subgrade. All lumps of materials should be broken down during placement.

Prior to placement of fill material, representative bulk samples (about 25 kg) should be taken of the proposed fill soils and laboratory tests should be conducted to determine Atterberg limits, natural moisture content, grain size distribution, and

standard Proctor moisture density relationships. These test results will be necessary for the proper control of construction for the engineered fill.

Prior to placing any fill, the exposed subgrade surface should be prepared in accordance with the preceding sections. It is important that fill materials are placed and compacted as uniformly as possible to minimize the potential for differential movement of the soils. All fill will undergo a certain amount of settlement over time under self-weight and any imposed loading, regardless of the compactive effort. However, settlements can be minimized with proper moisture-conditioning, compactive effort, and uniformity of placement. Assuming adherence to strict compaction and placement guidelines outlined herein, estimated fill settlements for non-cohesive soils would be in the range of 1% to 2% of the fill thickness and for cohesive soils would be in the range of 2% to 4% of the fill thickness. If the specifications and recommendations presented herein are not adhered to, fill settlements will exceed these estimates.

## **5.2. SUBGRADE FILL**

The existing near surface site soils are comprised predominantly of clay till, which should be adequate for use as both landscape fill and engineered fill material. Any soil containing deleterious materials should be removed from site or stockpiled for use as landscaping material. The final decision on approved backfill material should be made by the engineer during construction.

The moisture content of the on-site soil materials is expected to be variable with respect to the OMC. It is anticipated therefore, that moisture-conditioning (either drying or wetting) will be required at the site for proper backfill placement.

Subgrade fill should be placed (including backfilling excavations) in such a way as to minimize the potential of differential settlement and frost heave movements.

Subgrade fill should be placed in loose lifts (150 mm thickness, maximum), moisture-conditioned (wetted or dried) to within  $\pm 1\%$  of optimum moisture content and compacted to at least 98% of SPMDD, tested in accordance with ASTM Method D 698. Subgrade fill should consist of soil free of unsuitable materials (asphalt, topsoil, organic matter, vegetation, oversized material, and other deleterious materials).

The ultimate performance of the backfill is directly related to the uniformity of the backfill compaction. In order to achieve this uniformity, the lift thickness and

compaction criteria must be strictly enforced. Full-time monitoring and compaction testing should be provided during fill placement to ensure that suitable subgrade conditions are prepared and that the fill is properly moisture-conditioned and compacted. Qualified geotechnical personnel should complete this monitoring.

#### **5.1.4 Structural Fill**

Well-graded granular material is preferred as structural fill at this site due to the relative ease of compaction and more uniform/rapid settlement response (as compared to poorly-graded granular soils or fine-grained soils). If the use of well-graded granular fill is cost prohibitive, then the use of approved imported fill or locally available soil may be permissible. It should be noted that the settlement response of non-granular materials will be less uniform and will take longer to develop as compared to well-graded granular materials. Additional time and effort will also be required to moisture-condition and place these materials.

In Saskatchewan, the Ministry of Highways and Infrastructure Surfacing Manual is generally referred to for gradation of granular materials. Table 5.1, below, presents the most common base course and sub-base gradations specified for use as structural backfill. Other material gradations may be acceptable and should be approved by the geotechnical consultant prior to use.

All structural fill should be placed in thin lifts (150 mm thickness, maximum), moisture-conditioned (wetted or dried) to within  $\pm 1\%$  of optimum moisture content, and uniformly compacted to at least 98% of SPMDD, tested in accordance with ASTM Method D 698. Where not contained by grade beams or suitable curbs, the structural fill should extend laterally 1 m or equal to the full depth of fill (whichever is the greater) beyond the footprint of grade-supported structures (asphalt surfacing, concrete slabs, etc.).

**TABLE 5.1: Structural Fill Gradations**

Sieve Size	Percent Passing by Weight		
	Base Course	Sub-base	
	Type 33	Type 6	Type 8
50 mm		100	100
18 mm	100.00		
12.5 mm	75-100		
5 mm	50-75		
2 mm	32-52	0-80	0-90
900 µm	20-35		
400 µm	15-25	0-45	0-60
160 µm	8-15	0-20	0-25
71 µm	6-11	0-6	0-15
Plasticity Index	0-6	0-6	0-6
Fractured Face %	Min. 50		
Lightweight Pieces %	Max. 5		

Note: Adopted from SMHI Surfacing Manual.

### 5.1.5 Utility Trench Backfill

Utility trench bedding material will vary depending on the type of utility being installed and should conform to any specifications (material gradation, thickness, compaction, etc.) that the utility manufacturer and/or installer has provided. Care must be taken to ensure damage does not occur to the utilities because of placement/compaction of the bedding material and overlying fill material.

Locally excavated clay till soil should be adequate for trench backfill above the bedding material where some settlement of the fill is permissible. For areas that are more sensitive to fill settlement, such as beneath buildings/structures and below concrete slabs, trench backfill above the bedding material should consist of well-graded granular fill, as this material will settle less and more uniformly.

For utility trenches in areas where there is no hard-surface cover such as concrete or asphalt, the trench should be capped with low hydraulic conductivity material to limit the infiltration of water into the trench backfill. The ground surface adjacent to utility trenches should provide for positive drainage away from the trench.

---

## **6.0 FOUNDATION DESIGN RECOMMENDATIONS**

---

### **6.1. DESIGN CONSIDERATIONS**

The soil stratigraphy encountered at this site consisted of medium plastic clay till with some surficial clay and intertill sand layers. The soil and groundwater conditions at the site are suitable for several foundation support options.

Shallow footings could be constructed at this site; however, it should be recognized that the soils encountered consist of low or medium plastic clay and/or clay till, which is susceptible to moderate swelling/shrinkage as a result of changes in the moisture content of the soil. The swelling/shrinkage of the soil will cause corresponding movement in the building. Long-term building movements could be as much as 50 mm and much of this could be differential. Additionally, footings are generally not economical unless a basement will be constructed, as they must be installed below the frost penetration depth stated above or be insulated from freezing. If footings will be considered for this development, PINTER can provide recommendations for footings upon request.

Piles are the preferred foundation type and are recommended at this Site. For a relatively lightly loaded structure, drilled cast-in-place (CIP) concrete piles or helical screw piles would likely be the most economical. It should be noted that the glacial clay till soils present at the site can contain cobbles and/or boulders which can hamper the installation of helical piles. From a constructability perspective drilled CIP concrete piles would be best.

Geotechnical recommendations for the design and construction of drilled CIP concrete and helical screw piles are provided below. If recommendations for other foundation systems are required, PINTER can provide them upon request.

### **6.2. GEOTECHNICAL RESISTANCE FACTORS**

The design parameters provided in the following sections may be used to calculate the ultimate foundation capacity in each case. For the Limit States Design (LSD) methodology, to calculate the factored load capacity, the appropriate Soil Resistance Factors must be applied to each loading condition as follows:

$$\text{Factored Capacity} = \text{Ultimate Capacity} \times \text{Soil Resistance Factors}$$

In general, the following soil resistance factors (Table 6.1) must be incorporated into the foundation design. These factors are considered to be in accordance with the CFEM (2006) as well as the NBCC.

<b>Item</b>	<b>Soil Resistance Factor</b>
<b>Shallow Foundations</b>	
Bearing resistance	0.5
Passive resistance	0.5
Horizontal resistance (sliding)	0.8
<b>Deep Foundations</b>	
Axial load - From semi-empirical analysis	0.4
Axial load - From static loading test results	0.6
Axial load - From dynamic monitoring results [i.e., pile driving analyzer (PDA) testing]	0.5
Uplift - From semi-empirical analysis	0.3
Uplift - From loading test results	0.4
Horizontal passive resistance	0.5

### 6.3. CAST-IN-PLACE CONCRETE PILES

Drilled CIP concrete piles may be designed to resist axial compressive loads on the basis of skin friction only or end-bearing only in accordance with the resistance values provided in Table 6.2. For piles constructed in accordance with the recommendations made in this report, the following ultimate values of the shaft and end-bearing resistance may be used, factored as recommended in Table 6.2.

<b>Depth Below Ground Surface (m)</b>	<b>ULS Skin Friction Resistance (kPa)</b>		<b>ULS End-Bearing Resistance (kPa)</b>
	<b>Compression</b>	<b>Tension</b>	<b>Compression</b>
0 to 2.0	0	0	0
2.0 to 10.7	115	80	1,500

A resistance factor of 0.4 must be applied to the compressive values and 0.3 to the tension values to determine the factored geotechnical capacity.

The following recommendations should be considered in the design and construction of drilled CIP concrete piles:

1. To minimize frost heave potential, CIP piles should be extended to a minimum depth of 5.0 m below finished ground surface for a heated structure and 6.1 m

for an unheated structure. If piles are installed during freezing conditions, they should be designed using the minimum depth for an unheated structure even though they may eventually be located within a heated structure.

2. Pile reinforcement must be adequate to withstand all vertical, lateral, and tensile forces within the pile.
3. A minimum pile diameter of 400 mm is recommended to better facilitate the removal of cobbles, if encountered.
4. A minimum centre to centre pile spacing of three pile diameters is recommended.
5. Casing may be required and should be readily available in the event that seepage and/or sloughing soils are encountered.
6. Pile holes should be filled with concrete as soon as possible after drilling to reduce the risk of groundwater seepage and/or sloughing soil. Excess water should not be allowed to collect within the drilled hole. If excess water collects in the drilled hole, it will be necessary to remove the water (by pumping or bailing) prior to placing reinforcing steel and concrete. Vibration of the concrete in the upper 3 m of the pile shaft is required to produce uniform strength concrete.
7. Concrete shall be fed to the bottom of the drilled shaft by pumping, and filled from bottom up, or using the free fall method, or another method approved by the structural engineer. If the free fall method is used, the concrete must be poured through a centering chute, making it fall down at the centre of the hole, and minimizing the fresh concrete hitting the reinforcing steel or the side of the shaft.

## 6.4. HELICAL PILES

Helical screw piles are installed by rotating a steel pipe, equipped with one or more helical flights, into the ground. For single-helix screw piles, capacity is derived from shaft resistance above the helix as well as end-bearing resistance of the helix.

For multi-helix screw piles, pile capacity may be estimated using cylindrical shear theory or individual plate bearing theory. Cylindrical shear theory assumes that pile capacity is derived from the shaft resistance of the pile shaft above the helixes, soil shearing resistance along the projected cylindrical soil surface between the helixes, and end-bearing resistance of the lowest helix (compressive loading) or uppermost helix (tensile loading). Individual plate bearing theory assumes that pile capacity is derived from shaft resistance of the pile shaft above the helixes and the sum of the end-bearing resistances of each helix (compressive or tensile loading).

The actual capacity of multi-helix screw piles and the most appropriate design method (cylindrical shear or individual plate bearing) depends on many factors, primarily helix spacing and surrounding soil conditions. For multi-helix screw piles, pile capacity should be determined using both methods and the lower capacity should be used for design (limiting case).

For multi-helix screw piles installed entirely in granular soils, research has shown that individual plate bearing theory is more appropriate than cylindrical shear theory when the inter-helix spacing is  $3D$  or greater (where  $D$  = average helix diameter).

The shaft resistance and soil shearing resistance values of the subgrade soils (for cylindrical shear model) are presented in Table 6.3 and Table 6.4, respectively.

Depth Below Ground Surface (m)	ULS Skin Friction Resistance (kPa)		ULS End-Bearing Resistance (kPa)
	Compression	Tension	Compression
0 to 2.0	0	0	0
2.0 to 10.7	77	54	1,500

A resistance factor of 0.4 must be applied to the compressive values and 0.3 to the tension values to determine the factored geotechnical capacity.

**TABLE 6.4: Soil Shearing Resistance for Cylindrical Model for Helical Piles**

Depth Below Ground Surface (m)	ULS Soil Shearing Resistance (kPa)	
	Compression	Tension
0 to 2.0	0	0
2.0 to 10.7	170	120

The following recommendations should be considered in the design of helical screw piles:

1. Screw piles should be installed to a minimum embedment depth of 5.0 m (minimum embedment depth of top helix).
2. For determination of the shaft resistance component of the pile capacity, the effective shaft length may be taken as the embedded shaft length (to the top of the uppermost helix), minus one upper helix diameter (the bottom most portion of the pile shaft is neglected to account for interaction with the helix). Shaft resistance below the uppermost helix may not be included in the capacity determination.
3. For determination of inter-helix soil shearing capacity (cylindrical shear model), the shear capacity of the cylindrical soil surface between the helixes can be calculated on the basis of the projected surface area of the soil column between the helixes and the soil shearing resistance values presented in Table 6.4.
4. End-bearing capacity may be calculated utilizing the effective soil contact area of the helix (overall cross-sectional area for the lowest helix, helix area minus shaft area for upper helixes).
5. Helical plates shall be normal to the central shaft (within 3 degrees) over their entire length. Multiple helixes (if applicable) should be spaced at increments of the helix pitch to ensure that all helixes travel the same path during installation.
6. If screw pile groups are utilized, the clear space between the helixes should not be less than half of the helix diameter or a minimum of 0.6 m.
7. Helical pile ultimate load capacity may be estimated by monitoring the torque required to install the pile. Recording of installation torque should always be done when installing screw piles as a quality control step to ensure that piles have reached their expected capacity. Whether the required torque to ensure the

expected capacity has been reached is dependent on soil conditions, and screw pile design including plate and shaft diameter. Once a screw pile design has been selected, PINTER should be contacted to review the design and specify a required torque during construction.

8. The shaft resistance should be ignored if square shaft piles are used or if they have coupling sleeves with a diameter larger than the shaft. The shaft resistance can be used for these cases if the annulus around the shaft is grouted after pile installation.
9. The tension (uplift) resistance presented in Table 6.3 is highly dependent on the depth of the top helix. A minimum burial depth to the top helix of five helix diameters or 5.0 m (whichever is greater) is recommended. It should also be noted that the resistance factor for uplift without load testing is 0.3, as shown in Table 6.1.
10. A minimum horizontal pile spacing of 1.5 times the diameter of the largest helix should be maintained to minimize overlapping of stresses between piles.

## 6.5. LATERAL RESISTANCE OF PILES

The lateral resistance of piles will be dependent on the fixity conditions at the top of the pile, the structural rigidity of the pile section, and the coefficient of horizontal subgrade reaction for the soil. The estimated coefficients of horizontal subgrade reaction are provided in Table 6.5 are for relatively small lateral loads only. Large lateral load should be resisted by battered piles.

**TABLE 6.5: Estimated Coefficients of Horizontal Subgrade Reaction for Piles**

Pile Embedment Length (m)	Estimated Coefficient of Horizontal Subgrade Reaction (kN/m <sup>3</sup> )
0 to 2.0	0
2.0 to 10.7	22,000/B

Notes:

1. B is the pile shaft diameter in metres.
2. The values presented in Table 6.5 should be considered as estimates only. To limit lateral earth pressures to within the allowable elastic stress range of the soil,

the deflection at the pile top should be less than 8 mm. Large lateral load should be resisted by battered piles.

3. If lateral deflections are critical, lateral pile modelling or a more detailed field investigation, including pressure meter testing, is recommended.
4. A resistance factor of 0.5 must be applied to these values to determine the factored coefficients.

The lateral resistance of pile groups may be affected by pile spacing, as described in the CFEM. Table 6.6 summarizes reduction factors that should be applied to the coefficient of subgrade reaction presented in Table 6.5, based on the pile spacing.

<b>Spacing/B</b>	<b><math>K_{Group} / K_{Pile}</math></b>
8	1.00
6	0.70
4	0.40
3	0.25

Notes:

1. B is the pile shaft diameter in metres.
2. The reduction factors presented in Table 6.6 are for pile spacing in the direction of loading. Pile spacing normal to the direction of loading has no influence, provided it is greater than 2.5 x B.

## **6.6. FOUNDATION CONCRETE**

The use of Type HS (or equivalent), exposure Class S-2 Portland Cement at a maximum water/cement (W/C) ratio of 0.45 and a minimum 28-day compressive strength of 30 MPa is recommended for foundation concrete and all concrete exposed to soil/groundwater. If available, a proven fly ash may be used as a supplemental cementing material. Higher strengths or lower W/C ratios may be required due to structural considerations or for exposure to de-icing chemicals.

Air entrainment of 4% to 7% by volume is recommended for all concrete exposed to freezing temperatures, native soils, and/or groundwater. This should be increased from 5% to 8% for exterior flatwork.

---

## **7.0 CONCRETE SLABS-ON-GRADE**

---

Concrete slabs-on-grade should not be designed as a foundation. Heavy loads should be structurally supported by a pile foundation as described above. It is assumed that the concrete slabs for this project will be tolerant of some movements and should be separated from bearing members to allow for some differential movement.

Heave in excess of 50 mm is considered possible if the subgrade soil is not properly constructed and/or if it becomes wet in the future, such as could occur as a result of flooding, a broken water main or sewer line, leaking water lines, inadequate extensions of roof downspouts, poor surface drainage, etc. It is advised that concrete slab heaving can be largely differential, especially within and near areas where water entry occurs. Over-excavation and replacement of a portion of the active clay soils with engineered fill during subgrade preparation will reduce the magnitude of differential movements. The potential for differential movements associated with frost action can be minimized by placing sub-horizontal rigid polystyrene insulation below the slabs. If insulation is to be utilized, the insulation should have a minimum thickness of 100 mm and should extend below the slab and sub-horizontally away from the outer edges of the slab a minimum distance of 2.4 m. The insulation should be covered with a minimum of 300 mm of soil cover to provide protection against damage and should be positively sloped away from the slab. The installation should conform, at a minimum, to the manufacturer’s requirements and specifications.

### **7.1. DESIGN AND CONSTRUCTION RECOMMENDATIONS**

Subject to the above, the following recommendations should be used in the design and construction of concrete slabs at this site:

1. Strip the surface of all deleterious materials that may be encountered. These materials should be disposed of or used for landscaping purposes.
2. Excavate the subgrade to the required design elevations.
3. Unconsolidated, soft, or weak soils, and/or deleterious materials may be exposed below the initial excavation depth. These areas should be assessed by the geotechnical engineer and dealt with on an as-required basis. It may be necessary to undertake further excavation and replacement as described above.

4. The final excavation surface should be examined by PINTER. After approval, the subgrade should be scarified to a minimum depth of 150 mm and then the subgrade should be uniformly compacted such that the average of all density tests is not less than 98% of SPMDD, and locations where individual test densities are less than 95% of SPMDD should not be accepted. The soil should be compacted at a moisture content that is within 1% of the OMC.
5. Subgrade areas that deflect or deform unacceptably during compaction should be assessed and dealt with by the geotechnical engineer on an as-required basis. The contractor should be prepared to apply a geotextile filter cloth and granular material above unstable subgrade areas identified by the geotechnical engineer or their representative.
6. Replacement fills used to raise the subgrade elevation should consist of granular soil. The finished subgrade elevation below concrete slabs should be a minimum of 0.2 m above the surrounding grades so that water does not collect below these structures. The finished surface of the subgrade should be crowned near the centre of the slab area and sloped to promote subdrainage away from the structure. A minimum cross slope gradient of 2% to 3% is recommended.
7. All fills should be placed and uniformly compacted in thin lifts (150 mm maximum).
8. Fill soils should be compacted within 1% of the OMC and to the following density specifications:
  - a. For bottom lifts, the soil should be compacted such that the average of all density tests is not less than 98% of SPMDD and locations where individual test densities are less than 95% of SPMDD should not be accepted.
  - b. The upper two lifts (total of 0.3 m) should be compacted to a minimum of 100% of SPMDD.
  - c. Notwithstanding the above, the upper 150 mm (minimum) of soil immediately underlying all concrete slabs should conform to a SMHI Type 32 or Type 33 gravel base course. The gravel base course should be compacted to a minimum of 100% of SPMDD.
9. Protect the finished subgrade and gravel against disturbance and excessive drying. It is imperative that the schedule for casting of concrete slabs allows for concrete placement shortly after the base has been constructed and approved.

10. The slab should be designed with adequate thickness and with adequate reinforcement to accommodate the loads applied and to assist in uniform distribution of displacements either from loading or from subgrade movement.
11. Separate the slab from the granular material using a robust polyethylene vapour barrier.
12. Provide control joints at regular intervals to control random cracking.
13. Use isolation joints to separate grade-supported concrete slabs from other elements of the structure(s). It is preferred that concrete slabs-on-grade be allowed to float independently of other elements and that dowelling of grade-supported slabs into grade beams, for example, not be allowed.
14. Provide allowances for movement of grade-supported concrete slabs.
15. Provide positive drainage away from grade-supported concrete slabs. Downspout extensions should be installed to ensure that the discharge water does not back up against the building or collect in depressed areas near the building.

## **8.0 PAVEMENT DESIGN RECOMMENDATIONS**

### **8.1. DESIGN CONSIDERATIONS**

PINTER anticipates that an asphalt parking lot and driveway areas may be considered during future development. Recommended pavement structure thicknesses have been provided for light- and heavy-duty traffic areas with wheel loads not exceeding 18 kN and 80 kN, respectively. Subgrade preparation should conform to Sections 5.1 and 5.2 of this report. It should be noted that a risk of pavement settlements would apply wherever fills or softer soils are present, as described above in this report.

### **8.2. RECOMMENDED PAVEMENT STRUCTURE**

The recommended pavement structures are based on the above design assumptions and an assumed soaked subgrade CBR value of 5.0. The recommended pavement structures are presented in Table 8.1. The material requirements in the notes following Table 8.1 should be considered minimum.

**TABLE 8.1: Recommended Pavement Structures**

<b>Component</b>	<b>Light Duty</b>	<b>Heavy Duty</b>
Asphalt	65	80
Base Course	150	200
Subbase Course	150	250
Total	365	530

Notes:

1. Asphaltic concrete should be composed of a dense graded granular mix with a minimum 50 blow Marshall Stability of 9000 Newtons and 3 to 5 percent air voids.
2. Granular base refers to 18 mm maximum, Saskatchewan Ministry of Highways and Infrastructure (SMHI) Type 33 or 32, crushed gravel with a minimum CBR of 60 and compacted to 100 percent of SPMDD.
3. Granular subbase refers to 50 mm maximum, SMHI Type 8, 10, or 12, gravel with a minimum CBR of 20 and compacted to not less than 100 percent of SPMDD.
4. Elevations at the finished pavement surface should be adjusted to allow good surface drainage. A minimum cross slope gradient of two percent (2%) is recommended.

---

## **9.0 REVIEW OF DESIGN & CONSTRUCTION**

---

All foundation design recommendations presented in this report are based on the assumption that an adequate level of field review will be provided during construction and that all construction will be carried out by a suitably qualified contractor, experienced in foundation and earthworks construction.

An adequate level of field review is considered to be:

1. For deep foundations, design review and full-time observation during construction.
2. For earthworks, compaction testing as required.

All such, field reviews should be carried out by suitably qualified persons, independent of the contractor. It should be noted that failure to provide an adequate level of foundation review may be in contravention of the 2015 NBCC requirements. One of the purposes of providing an adequate level of field review is to check that recommendations, based on data obtained at discrete test hole locations, are relevant to other areas of the site.

---

## 10.0 LIMITATIONS

---

This report has been prepared for the exclusive use of *Allan’s Landscaping Ltd.* Any use of this report by a third party, or any reliance on or decisions to be made based on it, is the responsibility of such third parties. PINTER & Associates Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

The findings and recommendations provided in this report were prepared in accordance with generally accepted professional engineering principles and practices. No other warranty, expressed or implied, is made.

The results, findings, and recommendations of this report are based on the results of field observations and laboratory analysis. Interpolation of soil and groundwater conditions has been made between test hole locations. Actual conditions may vary between test holes or at depths not attained from those interpreted by PINTER. If conditions are encountered that differ from those detailed by the test holes drilled on-site and described in this report, or if the assumptions stated in this report are not in keeping with the design, PINTER should be notified to review and adjust the recommendations, if necessary.

Where construction is undertaken based upon the recommendations of this report, PINTER should be notified and provided the opportunity to review designs or on-site inspection. Where PINTER is not afforded the opportunity for revision and/or inspection, PINTER makes no warranty regarding the interpretation of this report and the recommendations contained herein.

PINTER & Associates Ltd.

Per:  
Erika Erlandson, EIT  
Junior Geotechnical Engineer  
[erika.erlandson@pinter.ca](mailto:erika.erlandson@pinter.ca)

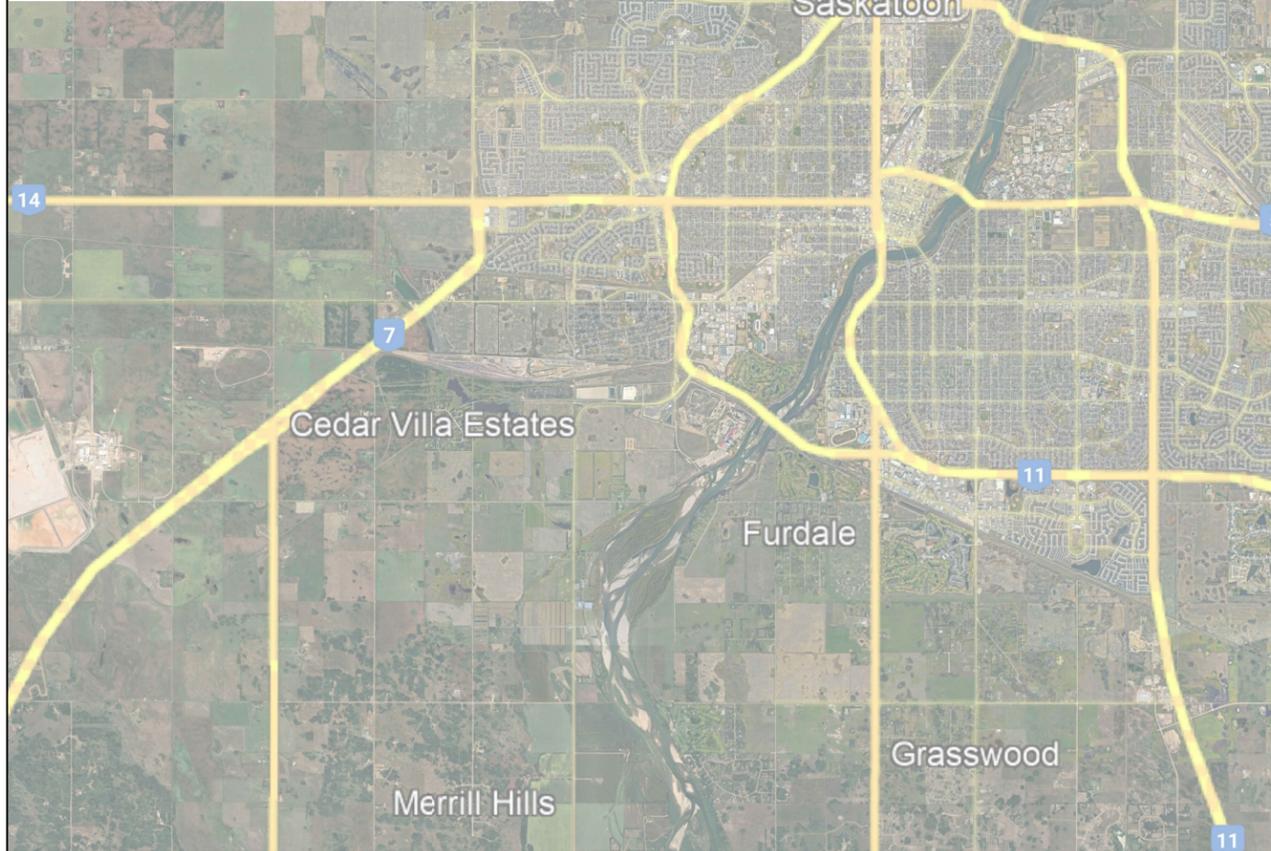
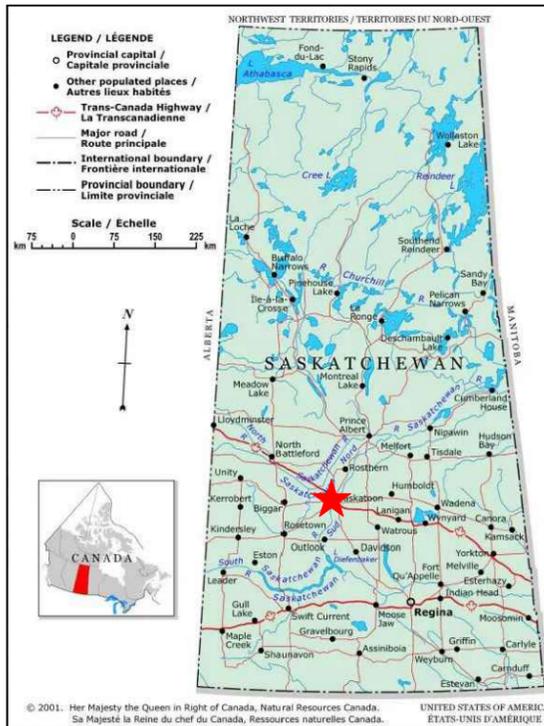


Darrell Mihial, M.A.Sc., P.Eng.  
Senior Geotechnical Engineer  
[darrell.mihial@pinter.ca](mailto:darrell.mihial@pinter.ca)

Reviewed by:  
Bennet Awume, M.Sc., P.Eng.  
Chief Operating Officer  
[bennet.awume@pinter.ca](mailto:bennet.awume@pinter.ca)

Association of Professional Engineers & Geoscientists of Saskatchewan		
CERTIFICATE OF AUTHORIZATION PINTER & Associates Ltd.		
Number C1232		
Permission to Consult held by:		
Discipline	Sk. Reg. No.	Signature
<u>Geotechnical</u>	<u>6924</u>	<u><i>Darrell Mihial</i></u>
_____	_____	_____

**APPENDIX J**  
**Drainage Plan**



**NOTE:**

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
2. ELEVATIONS ARE ABOVE SEA LEVEL (ASL)

**LEGEND:**

- ★ SITE LOCATION
- ▭ SITE BOUNDRY

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 11" X 17" PRINTED DRAWINGS



710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

4					PROJECT NUMBER: 3084-5	SHEET TITLE: <b>SITE LOCATION</b>	REVISION NO: 3
3	12-NOV-24	ISSUED FOR REVIEW	BC	NJ	DRAWN BY: BC		ISSUE DATE: 12-NOV-24
2	16-JUL-24	ISSUED FOR REVIEW	BC	NJ	APPROVED BY: NJ	PROJECT NAME: ENGINEERED DRAINAGE PLAN FOR LAND DEVELOPMENT	DRAWING NUMBER: C-01
1	24-JUN-24	ISSUED FOR REVIEW	BC	NJ	SCALE: NTS	CLIENT NAME: ALLEN'S LANDSCAPING AND DISPOSAL SERVICES LTD.	SHEET NUMBER: 01 OF 06
0	18-APR-24	ISSUED FOR REVIEW	BC	NJ			
REV	DD-MMM-YY	DESCRIPTION	DRFT	APR			



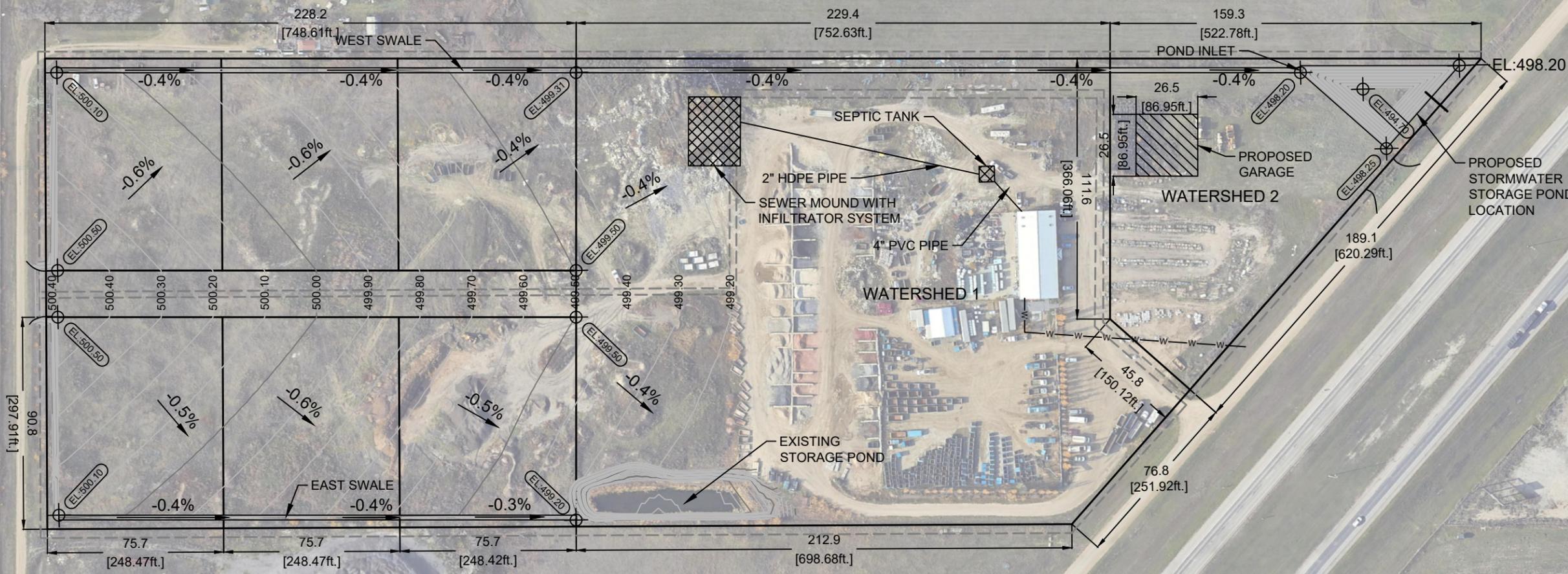
**NOTE:**

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
2. ELEVATIONS ARE ABOVE SEA LEVEL (ASL)
3. CONCEPTUAL DRAWING BASED ON CLIENT'S PROPOSED SUBDIVISION PLAN
4. LEGAL SURVEY WILL BE REQUIRED FOR CONSTRUCTION

**LEGEND:**

- DRAINAGE DIRECTION
- WATER SHED LIMITS
- DESIGN ELEVATIONS
- PROPOSED GARAGE

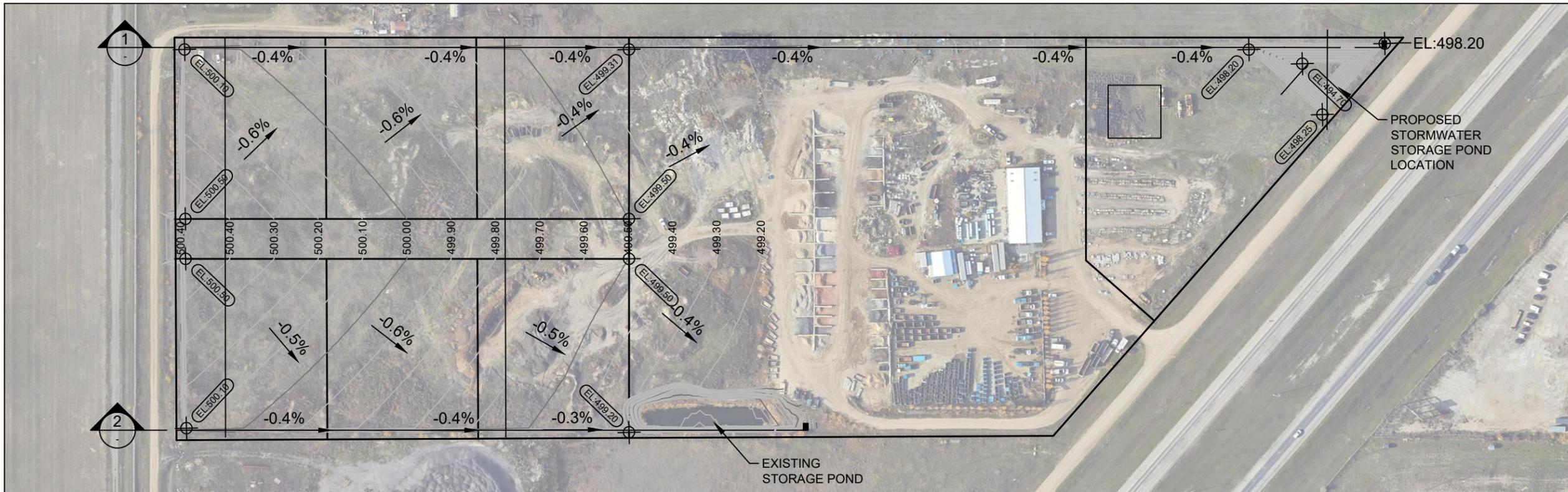
THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 11" X 17" PRINTED DRAWINGS



**PINTER & ASSOCIATES LTD**  
 710 48th ST E  
 SASKATOON SK S7K 5B4  
 306.244-1710  
 pintermain@pinter.ca

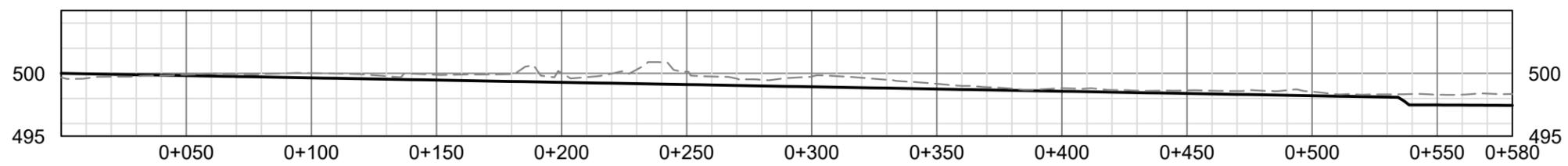
4					
3	12-NOV-24	ISSUED FOR REVIEW	BC	NJ	
2	16-JUL-24	ISSUED FOR REVIEW	BC	NJ	
1	24-JUN-24	ISSUED FOR REVIEW	BC	NJ	
0	18-APR-24	ISSUED FOR REVIEW	BC	NJ	
REV	DD-MMM-YY	DESCRIPTION	DRFT	APR	

PROJECT NUMBER: 3084-5	SHEET TITLE: <b>DESIGN STORAGE POND SIZE &amp; LOCATION</b>	REVISION NO: 3
DRAWN BY: BC		ISSUE DATE: 12-NOV-24
APPROVED BY: NJ	PROJECT NAME: ENGINEERED DRAINAGE PLAN FOR LAND DEVELOPMENT	DRAWING NUMBER: C-01
SCALE: 1:2000	CLIENT NAME: ALLEN'S LANDSCAPING AND DISPOSAL SERVICES LTD.	SHEET NUMBER: 01 OF 06

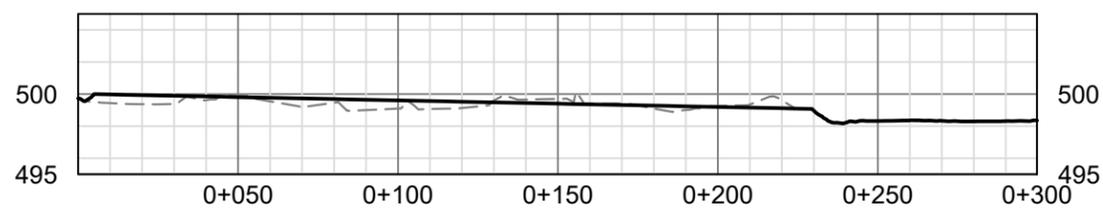


NOTE:

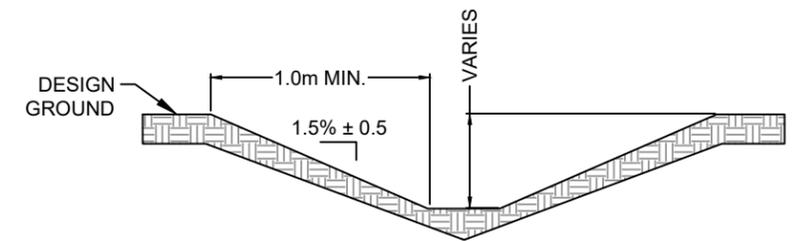
1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
2. ELEVATIONS ARE ABOVE SEA LEVEL (ASL)



1 PROFILE  
- EAST SWALE 1:2250



2 PROFILE  
- WEST SWALE 1:2250



3 SECTION  
- TYPICAL SWALE NTS

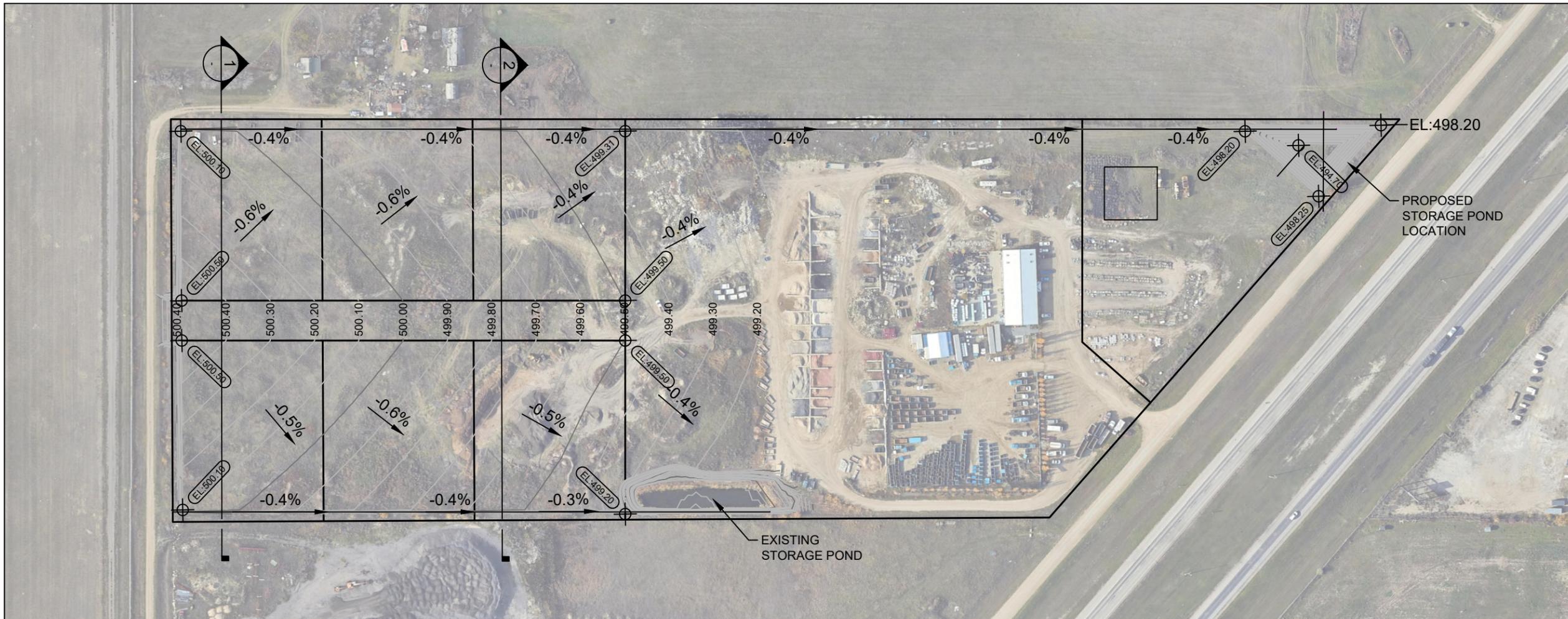
LEGEND:

- DRAINAGE DIRECTION
- ⊕ DESIGN ELEVATIONS
- ▨ PROPOSED GARAGE
- - - EXISTING GROUND
- DESIGN GROUND

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 11" X 17" PRINTED DRAWINGS

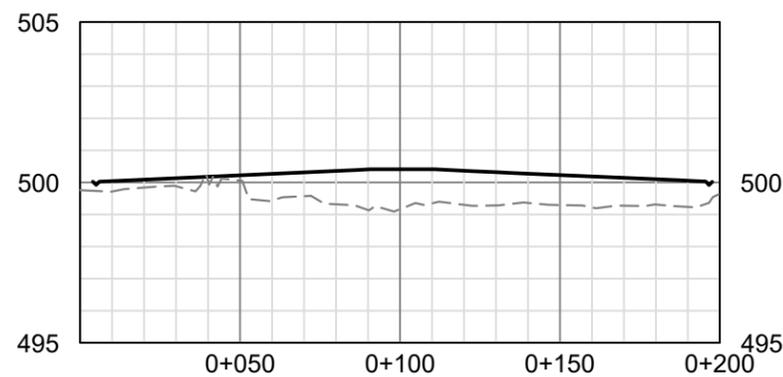
**PINTER & ASSOCIATES LTD**  
710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

4						PROJECT NUMBER: 3084-5	SHEET TITLE: <b>EAST &amp; WEST SWALE PLAN &amp; PROFILE</b>	REVISION NO: 3
3	12-NOV-24	ISSUED FOR REVIEW	BC	NJ		DRAWN BY: BC		ISSUE DATE: 12-NOV-24
2	16-JUL-24	ISSUED FOR REVIEW	BC	NJ				DRAWING NUMBER: C-03
1	24-JUN-24	ISSUED FOR REVIEW	BC	NJ		APPROVED BY: NJ	PROJECT NAME: ENGINEERED DRAINAGE PLAN FOR LAND DEVELOPMENT	SHEET NUMBER: 03 OF 06
0	18-APR-24	ISSUED FOR REVIEW	BC	NJ		SCALE: 1:2250	CLIENT NAME: ALLEN'S LANDSCAPING AND DISPOSAL SERVICES LTD.	
REV	DD-MMM-YY	DESCRIPTION	DRFT	APR				

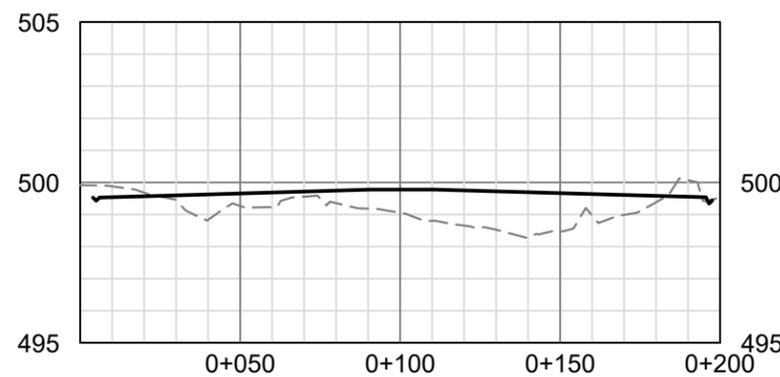


NOTE:

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
2. ELEVATIONS ARE ABOVE SEA LEVEL (ASL)



1 PROFILE SOUTH LOTS 1:2250



2 PROFILE NORTH LOTS 1:2250

NOTE: TOPOGRAPHIC SURVEY COMPLETED BY OTHERS DOES NOT ACCURATELY REPRESENT THE OUTER PROPERTY BOUNDARY. OUTSIDE EDGES OF THE DRAINAGE SWALES TO BE GRADED TO EXISTING GROUND

LEGEND:

- DRAINAGE DIRECTION
- DESIGN ELEVATIONS
- PROPOSED GARAGE
- EXISTING GROUND
- DESIGN GROUND

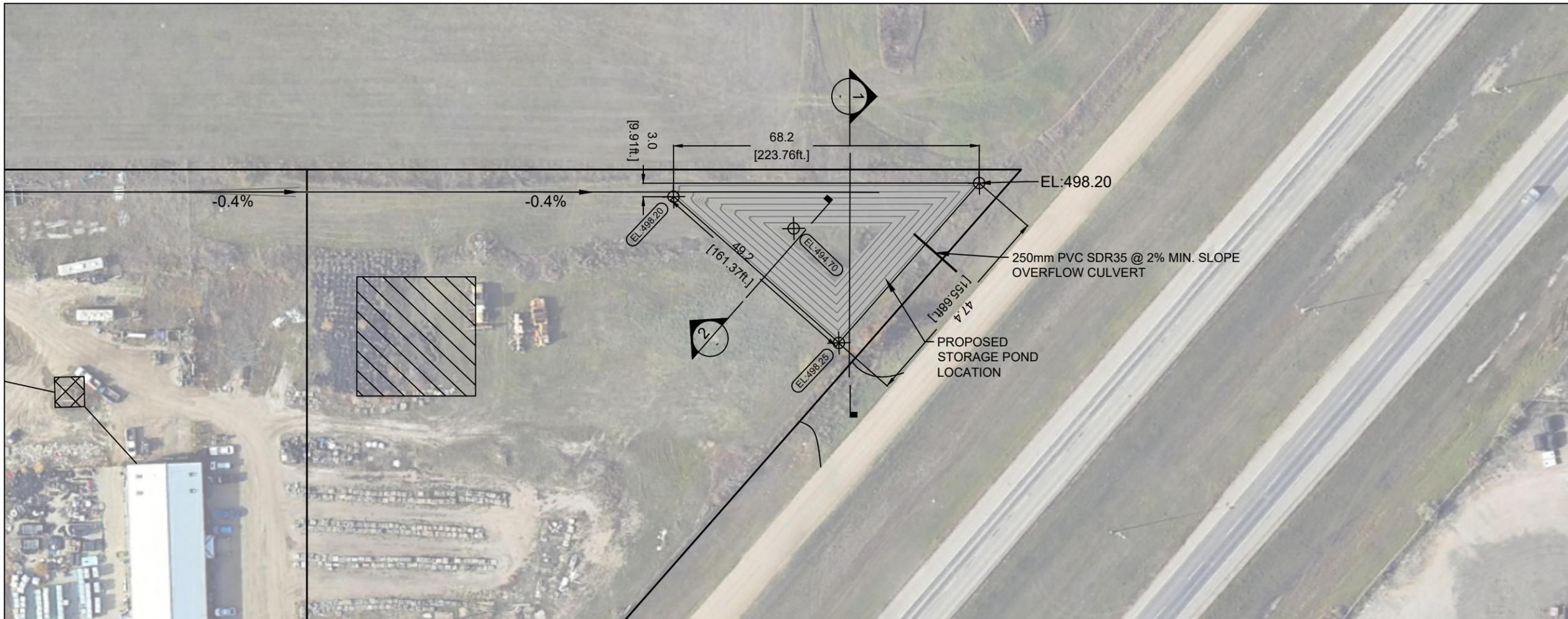
THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 11" X 17" PRINTED DRAWINGS



710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

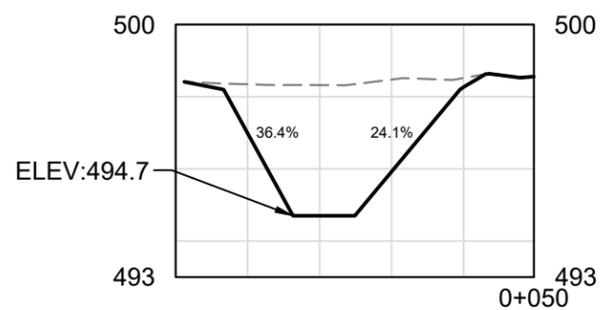
4					
3	12-NOV-24	ISSUED FOR REVIEW	BC	NJ	
2	16-JUL-24	ISSUED FOR REVIEW	BC	NJ	
1	24-JUN-24	ISSUED FOR REVIEW	BC	NJ	
0	18-APR-24	ISSUED FOR REVIEW	BC	NJ	
REV	DD-MMM-YY	DESCRIPTION	DRFT	APR	

PROJECT NUMBER: 3084-5	SHEET TITLE: <b>LOT PLAN &amp; PROFILE</b>	REVISION NO: 3
DRAWN BY: BC		ISSUE DATE: 12-NOV-24
APPROVED BY: NJ	PROJECT NAME: ENGINEERED DRAINAGE PLAN FOR LAND DEVELOPMENT	DRAWING NUMBER: C-04
SCALE: 1:2250	CLIENT NAME: ALLEN'S LANDSCAPING AND DISPOSAL SERVICES LTD.	SHEET NUMBER: 04 OF 06

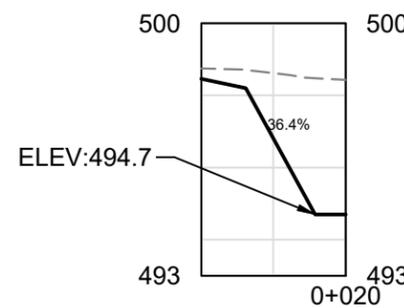


NOTE:

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
2. ELEVATIONS ARE ABOVE SEA LEVEL (ASL)
3. TOPOGRAPHIC SURVEY COMPLETED BY OTHERS DOES NOT EXTEND TO THE RM SERVICE ROAD DRAINAGE DITCH. PROPOSED CULVERT WILL BE FIELD FITTED WITH 2% MIN SLOPE TOWARDS RM DITCH BOTTOM.



1 PROFILE 1:2250  
POND WEST TO EAST



2 PROFILE 1:2250  
POND SOUTH TO NORTH

LEGEND:

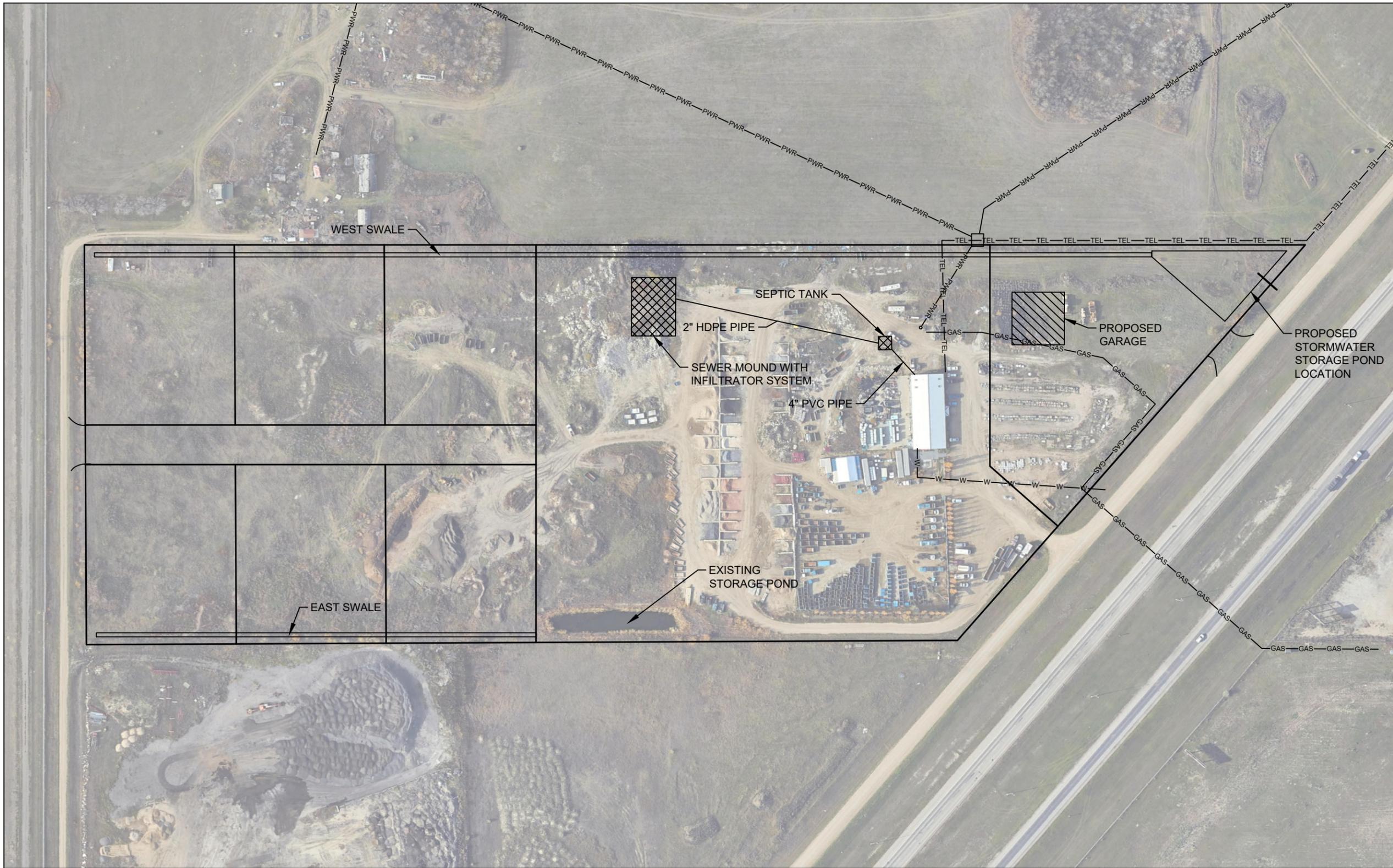
- DRAINAGE DIRECTION
- DESIGN ELEVATIONS
- PROPOSED GARAGE
- EXISTING GROUND
- DESIGN GROUND

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 11" X 17" PRINTED DRAWINGS

**PINTER & ASSOCIATES LTD**  
710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

REV	DD-MMM-YY	DESCRIPTION	DRFT	APR
4				
3	12-NOV-24	ISSUED FOR REVIEW	BC	NJ
2	16-JUL-24	ISSUED FOR REVIEW	BC	NJ
1	24-JUN-24	ISSUED FOR REVIEW	BC	NJ
0	18-APR-24	ISSUED FOR REVIEW	BC	NJ

PROJECT NUMBER: 3084-5	SHEET TITLE: <b>STORAGE POND PLAN &amp; PROFILE</b>	REVISION NO: 3
DRAWN BY: BC		ISSUE DATE: 12-NOV-24
APPROVED BY: NJ	PROJECT NAME: ENGINEERED DRAINAGE PLAN FOR LAND DEVELOPMENT	DRAWING NUMBER: C-05
SCALE: 1:1000	CLIENT NAME: ALLEN'S LANDSCAPING AND DISPOSAL SERVICES LTD.	SHEET NUMBER: 05 OF 06



**NOTE:**

1. EXISTING UTILITIES AS SHOWN HEREIN ARE BASED ON BEST AVAILABLE INFORMATION OBTAINED FROM THE UTILITY OPERATOR WHICH MAY NOT BE ACCURATE. THE DESIGN ENGINEER DOES NOT GUARANTEE ANY ELEVATIONS OR LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS

IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO VERIFY THE PRESENCE AND LOCATION OF ANY AND ALL EXISTING OVERHEAD AND/OR UNDERGROUND UTILITIES THAT MAY INTERFERE WITH THE CONSTRUCTION, WHETHER OR NOT SAID UTILITIES ARE SHOWN ON THE CONSTRUCTION PLANS FOR THIS PROJECT.

**LEGEND:**

- PWR— POWER LINE
- W— WATER LINE
- GAS— GAS LINE
- TEL— TELEPHONE LINE
- PROPOSED GARAGE

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 11" X 17" PRINTED DRAWINGS



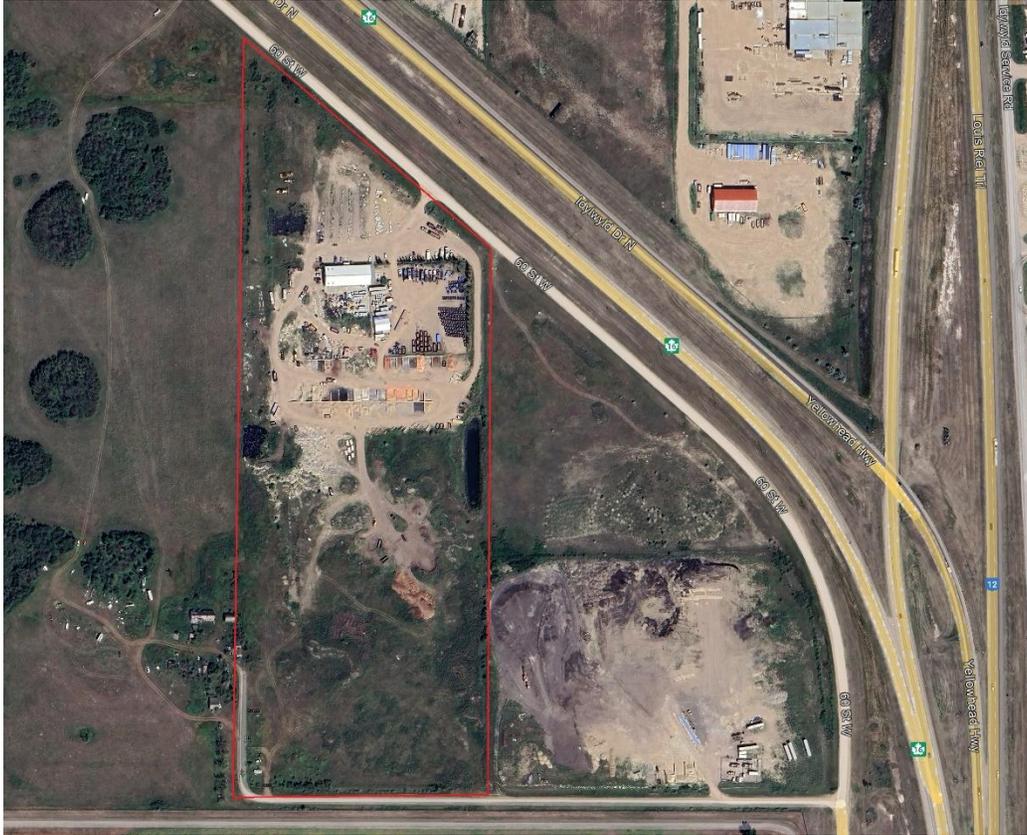
710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

4					
3	12-NOV-24	ISSUED FOR REVIEW	BC	NJ	
2	16-JUL-24	ISSUED FOR REVIEW	BC	NJ	
1	24-JUN-24	ISSUED FOR REVIEW	BC	NJ	
0	18-APR-24	ISSUED FOR REVIEW	BC	NJ	
REV	DD-MMM-YY	DESCRIPTION	DRFT	APR	

PROJECT NUMBER:	3084-5
DRAWN BY:	BC
APPROVED BY:	NJ
SCALE:	1:2000

SHEET TITLE:	<b>APPROXIMATE UTILITY LAYOUT</b>	REVISION NO:	3
PROJECT NAME:		ISSUE DATE:	12-NOV-24
CLIENT NAME:	ENGINEERED DRAINAGE PLAN FOR LAND DEVELOPMENT	DRAWING NUMBER:	C-06
	ALLEN'S LANDSCAPING AND DISPOSAL SERVICES LTD.	SHEET NUMBER:	06 OF 06

**APPENDIX K**  
**Drainage Report**



**PROJECT: DRAINAGE DESIGN FOR LAND DEVELOPMENT AT  
NE 17-37-05 W3M  
RM OF CORMAN PARK NO. 344, SK**

**PREPARED FOR: Allan's Landscaping and Disposal Services Ltd.**



**PINTER  
& ASSOCIATES LTD**



15 July 2024

File: 3084-5

Allan's Landscaping and Disposal Services Ltd.  
777 60<sup>th</sup> Steet West #2  
Saskatoon, SK S7K 3J7

**Subject: Drainage Design for Land Development at NE 17-37-05 W3M – Corman Park, SK.**

---

Please find attached one copy of our Drainage Design report for the proposed development site located at NE 17-37-05 W3M at the R.M. of Corman, SK. (the RM), Saskatchewan.

The report was based on a topographical site survey as provided by Webb Surveys and a concept development plan from the Client. The purpose of the drainage design is to satisfy the RMs requirements for site specific drainage design for the approval of subdivision reclassification.

If you have any questions or concerns regarding our findings, please do not hesitate to contact the undersigned at (306) 244-1710.

Yours Sincerely,  
**PINTER & Associates Ltd.**

A handwritten signature in blue ink, appearing to read "M. Jalbuu", is written over a light blue horizontal line.

Nyamaa Jalbuu, P.Eng.  
Project Manager

H:\2) Projects\3084 Allan's Landscape CDR Land Dev\3084-5 Drainage Plan\Technical Memo\Final\Rev.1\3084-5 - Allan's Landscaping Drainage Design - Final Report.docx

**DRAINAGE DESIGN FOR LAND DEVELOPMENT AT NE 17-37-05W3M  
RM OF CORMAN PARK NO. 344, S.K.**

**Prepared For:  
ALLAN'S LANDSCAPING AND DISPOSAL SERVICES LTD.**

**Prepared By:  
PINTER & Associates Ltd.**

**15 July 2024  
File: 3084-5**

**Distribution:  
ALLAN'S LANDSCAPING AND DISPOSAL SERVICES LTD.:  
PINTER & ASSOCIATES LD.:  
ELECTRONIC  
ELECTRONIC**



---

**Table of Contents**

---

	<b>Page</b>
<b>TABLE OF CONTENTS</b>	<b>I</b>
<b>APPENDICES</b>	<b>I</b>
<b>LIST OF TABLES</b>	<b>II</b>
<b>1.0 INTRODUCTION</b>	<b>3</b>
1.1. Scope of Work	3
<b>2.0 METHODOLOGY</b>	<b>5</b>
2.1. Topographical Survey	5
2.2. Historical study.	5
2.3. Existing Pond Evaluation	6
2.4. Hydrologic Calculations	7
<b>3.0 RESULTS</b>	<b>9</b>
3.1. Runoff Accumulation	9
3.1.1. Pre-Development for Watershed 1	9
3.1.2. Post-Development for Watershed 1	9
3.1.3. Pre-Development for Watershed 2	10
3.1.4. Post-Development for Watershed 2	11
<b>4.0 RECOMMENDATIONS</b>	<b>13</b>
<b>5.0 LIMITATIONS</b>	<b>15</b>



## List of Tables

---

Table 3.1: Summary of Hydrological Characteristics for Watershed 1 .....	9
Table 3.2: Watershed 1 Peak Runoff Rates .....	10
Table 3.3: Watershed 1 Runoff Volumes .....	10
Table 3.4: Summary of Hydrological Characteristics for Watershed 2.....	10
Table 3.5: Watershed 2 Peak Runoff Rates .....	11
Table 3.6: Watershed 2 Runoff Volumes .....	11

---

## 1.0 INTRODUCTION

---

Allan Landscaping and Disposal Services Ltd. (the Client) retained PINTER & Associates Ltd. (PINTER) to carry out an onsite drainage design for a land development located at NE 17-37-05 W3M at Corman Park, SK (the Site). The location of the Site and the proposed development area are presented in Figure A-01 (**Appendix A**).

The Client intends to construct a new building (a garage) within the property's bounds on the north portion of the parcel, and the RM has required the Client to classify their operations into the proper category as the property is currently zoned as an agricultural district. However, according to the City of Saskatoon zoning bylaws, a part of their operations does not fall into this classification. Therefore, the Site needs to be re-classified. The RM requires an updated engineered drainage plan as part of the servicing required to approve the subdivision reclassification. In response, PINTER developed this drainage plan to assess both the pre-development and post-development of the Site. PINTER prepared the drawing package for the drainage plan as part of a Comprehensive Development Review (CDR) and provided it to the RM on behalf of the Client. The goal of the project is to:

- Evaluate the current site drainage situation and the existing pond;
- Design and implement a site-specific drainage for the Site with a proposed storage pond that is able to accommodate the resulting runoff from a 1:100-year rain event.

### 1.1. SCOPE OF WORK

The scope of work included the following:

- Conduct hydrology modeling to determine the hydrology for the Site with respect to the guideline provided by the RM based on a 1:100-year storm event.
- Complete a detailed design for drainage of the Site, which will include appropriate swales and runoff collection pond.

The topographic survey of the Site was completed by Webb Surveys (a division of Midwest Surveys Inc.) and provided to PINTER. The conceptual design drawings will show plan and profile views of any required swales/ditching, runoff collection pond as well as applicable cross sections and details for the drainage facilities and structures (**Appendix A**).

---

## 2.0 METHODOLOGY

---

### 2.1. TOPOGRAPHICAL SURVEY

Webb Surveyors (Webb) carried out a detailed topographic survey of the Site on 10 June 2023. The following hydrological calculations are based on the survey results.

### 2.2. HISTORICAL STUDY.

PINTER assessed and reviewed available satellite/aerial imagery for the Site. An examination of Google Earth Pro's (Ver. 7.3.6.9345) found that the Site's early available historical satellite image was taken in 1974 (as shown in **Figure 2.1**). The photo shows the Site was covered by vegetation and plants at the time which represents the pre-development stage.



**Figure 2.1 Previous Site Conditions in 1974**

Then the photo dated 2015 at **Figure 2.2** showed the changes in land development from the land's natural topography to the development of the existing facility on the Site. The photo also showed the landscape after the facility's construction, with a large waterbody located in the southeast corners of the developed area.



**Figure 2.2 Current Site Conditions**

The photos and satellite imagery taken prior to the existing development of the facility showed that the land's natural topography contains minimal storage capacity for runoff. The pre-development conditions of the Site contained a low capacity to retain runoff due to the lack of significant wetlands onsite. Therefore, by extension, it is estimated that the pre-development storage volume lost due to infilling the Client's existing facility was negligible. The surface flows generated by the impervious (e.g., concrete) and pervious (e.g., gravel) development material appear to be primarily captured within the pond constructed on the Site after the development of the facility in 2003. No increase in ponding in the adjacent parcels was observed from a review of the satellite historical data following the construction of the Client's facility.

### **2.3. EXISTING POND EVALUATION**

The existing storage pond is located along the southeast boundary of the Client's facility and the property line of the adjacent parcel to the east. This pond is located in a low-lying area with a surface area of 1,225 m<sup>2</sup>. It was assumed that it has a depth of 1.25 m. Therefore, the existing pond would have an estimated storage volume of 1,531 m<sup>3</sup>.

## 2.4. HYDROLOGIC CALCULATIONS

Topographical survey data was used to carry out hydrological calculations to estimate the pre- and post-development runoff rates and volumes.

PINTER used two general runoff computation methods for runoff rates and volumes. These are the USDA Natural Resources Conservation Service (NRCS) methodology for runoff volumes and the Rational Method<sup>1</sup>. PINTER selected the largest (conservative) estimate of either method as the design value for the Site. Short-duration rainfall Intensity-Duration-Frequency (IDF) data for the Saskatoon Diefenbaker International Airport meteorological station (Station # 4057120) was used to obtain storm characteristics for the Site.

PINTER used two calculation approaches to determine the corresponding runoff volumes of the proposed development area: (1) weighted average NRCS Curve Number (C.N.), and (2) weighted average volume. All calculations, IDF curves, and data are presented in **Appendix B** for the Site pre-development and in **Appendix C** post-development.

To estimate the post-development runoff volumes, PINTER uses the following land cover classifications:

- Developed areas:
  - Impervious land cover (buildings, asphalt pavement, sidewalks, etc.) and
  - Semi-impervious land cover (gravel covered area).
- Undeveloped areas i.e., green land cover, trees, bushes.

PINTER used a conservative drainage design approach to account for the future potential development, particularly in the parcel's southern half. The design accommodates extreme changes to the existing land cover layout based on the RM requirements up to the following:

- Developed areas extend up to 50% of the total lot area (25% of impervious land cover and 25% of semi-impervious land cover).
- Undeveloped areas do not exceed 50% of the total lot area.

---

<sup>1</sup> *United State Department of Agriculture (USDA) (2004) Estimation of Direct Runoff from Storm Rainfall – Chapter 10, Part 630 Hydrology-National Engineering Handbook, 210-VI-NEH.*

The calculations were used to develop different flood mitigation measures to address the 1-in-100-year flood line within the proposed development area. The measures focus on providing the Client with guidance for pond construction and surface drainage design. The pre-development condition was based on historical data available, and the previous aerial photo showed that this Site was covered primarily by short prairie grass before.

The parcel was divided into two watersheds (Watershed 1 and Watershed 2) based on the topographical survey data captured and processed by Webb Surveys. Watershed 1 has an area of approximately 61,000 m<sup>2</sup>. The proposed development in this area, combined with the existing development, will have an estimated impervious land cover of approximately 8,940 m<sup>2</sup>, a semi-impervious land cover of approximately 37,060 m<sup>2</sup>, and an undeveloped area of roughly 15,000 m<sup>2</sup>. Watershed 2 has an area of 48,000 m<sup>2</sup>. The proposed development in this area, combined with the existing development, will have an estimated impervious land cover of 8,200 m<sup>2</sup>, a semi-impervious land cover of 20,800 m<sup>2</sup>, and an undeveloped area of 19,000 m<sup>2</sup>.

The north portion of Watershed 1 naturally discharges into the existing pond. The south portion of Watershed 1 is to be graded so that the flow will discharge into the existing pond as well. The grading will be designed to have a minimum slope of 0.4% to 0.6% towards the pond. Watershed 2 will be graded so that the flow will discharge to the new pond on the NW corner of the Site. Note that this could present challenges for grading the proposed northern portion during construction since the surrounding area has already been developed.

---

## 3.0

---

## RESULTS

---

### 3.1. RUNOFF ACCUMULATION

#### 3.1.1. Pre-Development for Watershed 1

PINTER used the Rational Method to determine the pre-development Peak Runoff Rate of  $0.077 \text{ m}^3/\text{s}$  within Watershed 1 area for a 1-in-100-year rainfall intensity, which was determined to be 45.00 mm/hr. The runoff volume was estimated to be approximately  $1,567 \text{ m}^3$ . **Table 3.1** summarizes the hydrological characteristics used in the calculation.

**Table 3.1: Summary of Hydrological Characteristics for Watershed 1**

	Average Roughness Coefficient	Average Flow Length (m)	Travel Time (min)	Average Runoff Coefficient
Pre- development	0.150	150	84.3	0.10
Post- development	0.045	240	47.0	0.47

#### 3.1.2. Post-Development for Watershed 1

The Post-development Peak Runoff Rate of  $0.551 \text{ m}^3/\text{s}$  within the Watershed 1 area for a 1-in-100-year rainfall intensity was determined to be 69.00 mm/hr. The runoff volume was estimated to be approximately  $3,064 \text{ m}^3$ , approximately  $1,497 \text{ m}^3$  above pre-development value. The existing pond has an assumed size of approximately  $1,531 \text{ m}^3$ . Therefore, the existing pond is able to hold the total volume of the post-development runoff, which is estimated to be  $1,497 \text{ m}^3$ .

**Table 3.2** and **Table 3.3** summarize the peak runoff rates for pre-development and post-development, and runoff volumes for pre-development and post-development. They were compared with the results using the City of Saskatoon Formula (City of Saskatoon hydrological design standards from Section 6 - Storm Water Drainage

System). PINTER selected this as another methodology compared to the rational method to ensure the city stormwater system is not overwhelmed because the Site is located within the city limits.

**Table 3.2: Watershed 1 Peak Runoff Rates (m<sup>3</sup>/s)**

	Rational Method	City of Saskatoon Formula	Design Value
Pre	0.077	0.070	0.077
Post	0.551	0.325	0.551
<b>Design Peak Runoff Rate (Post-development) for the Site</b>			<b>0.551</b>

**Table 3.3: Watershed 1 Runoff Volumes (m<sup>3</sup>)**

	NRCS Method	City of Saskatoon Formula	Design Value
Pre	1,566	550	1,566
Post	3,064	2,256	3,064
<b>Total Runoff Volume (Post-development) from the Site</b>			<b>3,064</b>

### 3.1.3. Pre-Development for Watershed 2

PINTER used the Rational Method to determine the pre-development Peak Runoff Rate of 0.060 m<sup>3</sup>/s within Watershed 2 area for a 1-in-100-year rainfall intensity, which was determined to be 45.00 mm/hr. The runoff volume was estimated to be approximately 1,233 m<sup>3</sup>. **Table 3.4** summarizes the hydrological characteristics used in the calculation.

**Table 3.4: Summary of Hydrological Characteristics for Watershed 2**

	Average Roughness Coefficient	Average Flow Length (m)	Travel Time (min)	Average Runoff Coefficient
Pre-development	0.150	240	86.2	0.10

**Table 3.4: Summary of Hydrological Characteristics for Watershed 2**

	Average Roughness Coefficient	Average Flow Length (m)	Travel Time (min)	Average Runoff Coefficient
Post-development	0.066	550	111.4	0.42

**3.1.4. Post-Development for Watershed 2**

The Post-development Peak Runoff Rate of 0.231 m<sup>3</sup>/s within the Watershed 2 area for a 1-in-100-year rainfall intensity was determined to be 41.00 mm/hr. The runoff volume was estimated to be approximately 2,242 m<sup>3</sup>, approximately 1,009 m<sup>3</sup> above pre-development value. Therefore, the pond must be designed to be able to hold the extra runoff volume after the Site is developed, which is 1,009 m<sup>3</sup>.

**Table 3.5** and **Table 3.6** summarize the peak runoff rates for pre-development and post-development, and runoff volumes for pre-development and post-development. They were also compared with the results using the City of Saskatoon Formula as previous section.

**Table 3.5: Watershed 2 Peak Runoff Rates (m<sup>3</sup>/s)**

	Rational Method	City of Saskatoon Formula	Design Value
<b>Pre</b>	0.067	0.055	0.067
<b>Post</b>	0.231	0.229	0.231
<b>Design Peak Runoff Rate (Post-development) for the Site</b>			<b>0.231</b>

**Table 3.6: Watershed 2 Runoff Volumes (m<sup>3</sup>)**

	<b>NRCS Method</b>	<b>City of Saskatoon Formula</b>	<b>Design Value</b>
<b>Pre</b>	1,233	433	1,233
<b>Post</b>	2,242	1,777	2,242
<b>Total Runoff Volume (Post-development) from the Site</b>			<b>2,242</b>

---

## 4.0

## RECOMMENDATIONS

---

The goal of the drainage plan is to retain surface runoff that falls onto the Site during a 1:100-year flood event and manage the surface runoff to facilitate a slow release to the designated point of adequate outlet in the downstream area. The cost-effective setup for post-development runoff water is an onsite storage pond with a corresponding grading plan.

The pond should be located on the northwest portion of the Site, close to the corner of the property line. The pond side slope is designed to be graded at 36.4% on all sides to reduce potential erosion and make it safe to maintain the pond. It has the capacity to detain post-development runoff resulting from a 1:100-year event (approximately 1,100 m<sup>3</sup>). **Figure A-01 (Appendix A)** shows the proposed location of the retention pond, while **Figure A-05 (Appendix A)** shows the proposed elevations, side lengths, and slopes of the proposed retention pond. Final orientations may be subject to change based on the Client's preference. The following are the recommended minimum design specifications for the pond:

- The proposed pond is in a triangle shape to utilize the corner of the lot and maximize land use.
- The top of the pond's dimensions is proposed to be 68.2 m x 47.4 m x 49.2 m.
- The proposed pond's depth is designed to be 3 m with a full-service depth of 2 m, allowing 1 m of freeboard. With the recommended slopes, the pond's bottom should have an elevation of 494.7 m asl.

Two drainage swales are recommended to be constructed along both the west side and the east side of the parcel. The proposed west swale will connect the high point on the south side and drain towards the proposed pond on the northwest side of the parcel. The proposed east swale will connect the high point on the south side and drain towards the existing pond along the east side of the parcel. Both swales are to be sloped to 0.3% to 0.4% to promote positive drainage on the Site, as shown in **Figure A-02 (Appendix A)**.

We recommend that the final ground level be graded in the slope (minimum of 0.4% to 0.6%) to promote drainage away from the development area, as shown in **Figure A-03 (Appendix A)**.

An overflow culvert (250mm Dia. PVC SDR35) should be installed at the north side of the proposed pond (as shown in **Figure A-05, Appendix A**) to prevent excessive pooling of water in case of extreme events to drain towards the RM drainage ditch on 60<sup>th</sup> Street West's service road. Since there was no available survey data for the elevation of the existing RM drainage ditch, the inlet elevation and outlet elevation for the proposed overflow culvert requires to be field fitted by the Contractor. A detailed design for the overflow culvert inlets can be provided after a survey is done for the RM drainage ditch prior to construction. The culvert should be designed to handle the Pre-development Peak Runoff Rate of 0.231 m<sup>3</sup>/s for a 1-in-100-year rainfall intensity of 41.00 mm/hr.

The existing pond is located in a low-lying area with no drainage options to facilitate flows to the north or west. This is a significant problem for the drainage design because flows cannot be directed to the point of adequate outlet. Therefore, a contingency method will need to be in place to pump flash flood volumes exceeding the capacity of the pond (storm events exceeding 1:100-year design flood) to the location of adequate outlets along the north side of the parcel.

The drainage plan and associated drawing package will be submitted to the City of Saskatoon and the RM for review and approval. PINTER will work with the RM, the City of Saskatoon, and the Client to ensure an effective and approved drainage plan is implemented for the Site.

---

## 5.0 LIMITATIONS

---

This report has been prepared for the exclusive use of *Allan Landscaping and Disposal Services Ltd.* Any use of this report by a third party, or any reliance on or decisions to be made based on it, is the responsibility of such third parties. PINTER & Associates Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

The findings and recommendations provided in this report were prepared in accordance with generally accepted professional engineering principles and practices. No other warranty, expressed or implied, is made.

The results, findings, and recommendations of this report are based on the results of the field topographical survey and client drawings. Interpolation of apparent soil and surface water conditions has been made based on the limited data. Actual conditions may vary from those interpreted by PINTER. If conditions are encountered that differ from those observed during the construction period on-Site and described in this report, or if the assumptions stated in this report are not in keeping with the design, PINTER should be notified in order to review and adjust the recommendations, if necessary.

Where construction is undertaken based upon the recommendations of this report, PINTER should be notified and provided the opportunity to review designs or onsite inspection. Where PINTER is not afforded the opportunity for revision and/or inspection, PINTER makes no warranty regarding the interpretation of this report and the recommendations contained herein.

PINTER & Associates Ltd.

Per:



Kai He, EIT  
Junior Geotechnical Engineer  
[kai.he@pinter.ca](mailto:kai.he@pinter.ca)

Reviewed by:

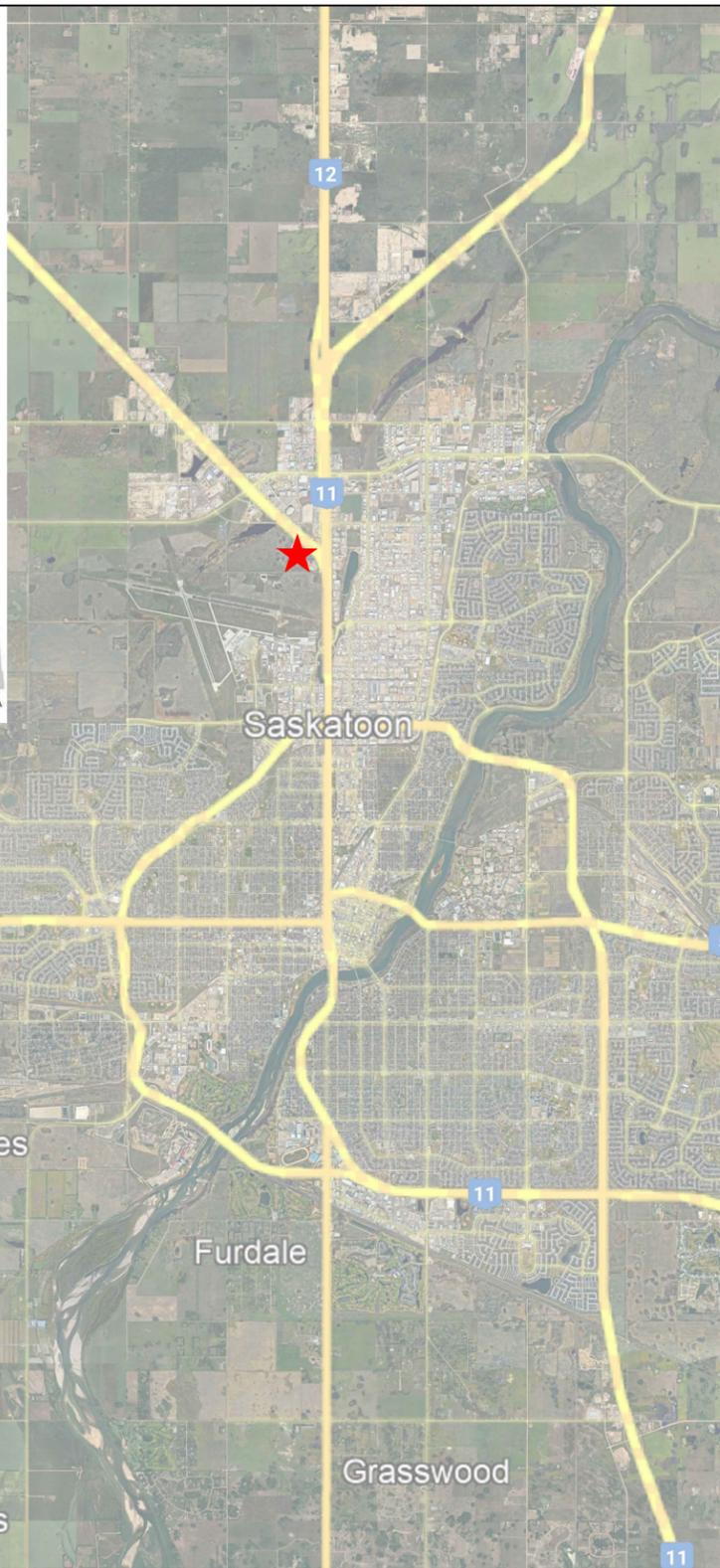
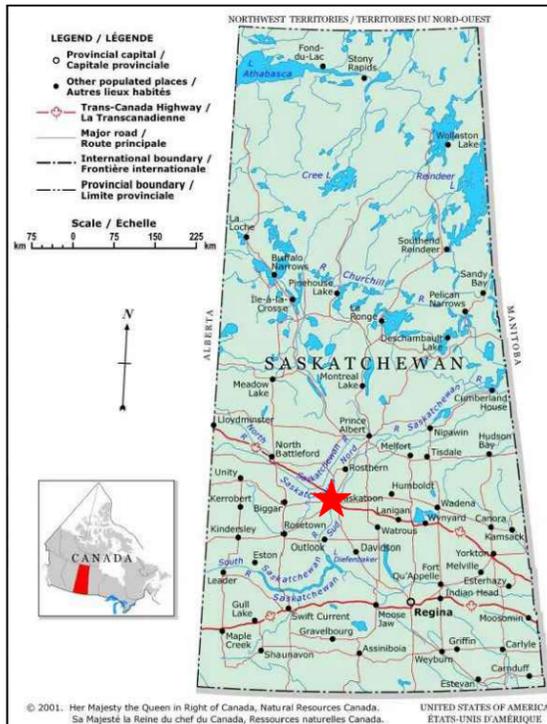


Enkhnyamaa Jalbuu, P.Eng.  
Project Manager  
[nyamaa.jalbuu@pinter.ca](mailto:nyamaa.jalbuu@pinter.ca)



**PINTER**  
& ASSOCIATES LTD

**Appendix A**  
**Drainage Drawing Package**



NOTE:

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
2. ELEVATIONS ARE ABOVE SEA LEVEL (ASL)

LEGEND:

- SITE LOCATION
- SITE BOUNDARY

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 11" X 17" PRINTED DRAWINGS



710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

4					PROJECT NUMBER: 3084-5	SHEET TITLE: <b>SITE LOCATION</b>	REVISION NO: 1
3					DRAWN BY: BC		ISSUE DATE: 13-JUN-24
2					APPROVED BY: NJ	PROJECT NAME: ENGINEERED DRAINAGE PLAN FOR LAND DEVELOPMENT	DRAWING NUMBER: C-01
1	13-JUN-24	ISSUED FOR REVIEW	BC	NJ	SCALE: NTS	CLIENT NAME: ALLEN'S LANDSCAPING AND DISPOSAL SERVICES LTD.	SHEET NUMBER: 01 OF 05
0	18-APR-24	ISSUED FOR REVIEW	BC	NJ			
REV	DD-MMM-YY	DESCRIPTION	DRFT	APR			



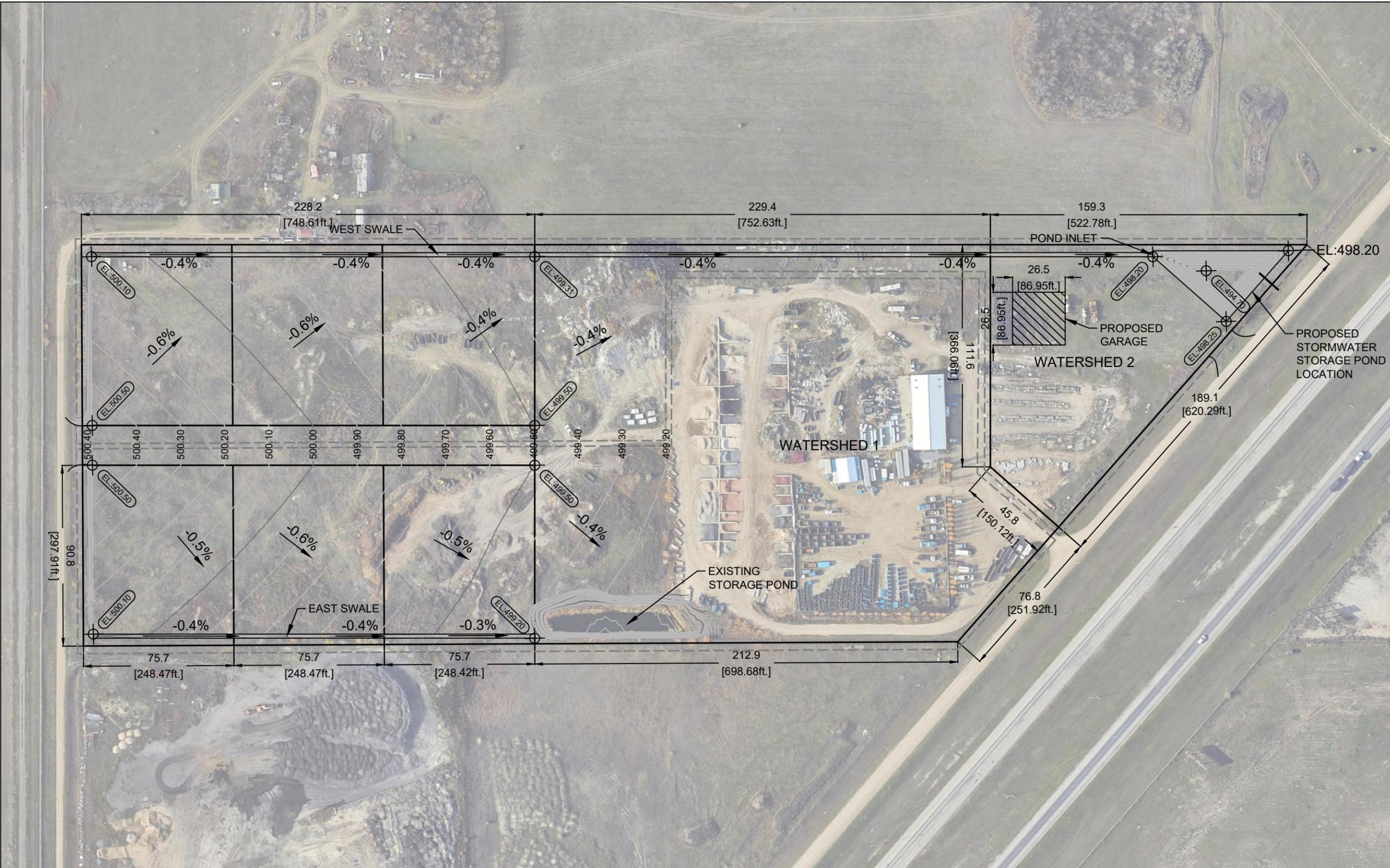
NOTE:

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
2. ELEVATIONS ARE ABOVE SEA LEVEL (ASL)
3. CONCEPTUAL DRAWING BASED ON CLIENT'S PROPOSED SUBDIVISION PLAN
4. LEGAL SURVEY WILL BE REQUIRED FOR CONSTRUCTION

LEGEND:

- DRAINAGE DIRECTION
- WATER SHED LIMITS
- DESIGN ELEVATIONS
- PROPOSED GARAGE

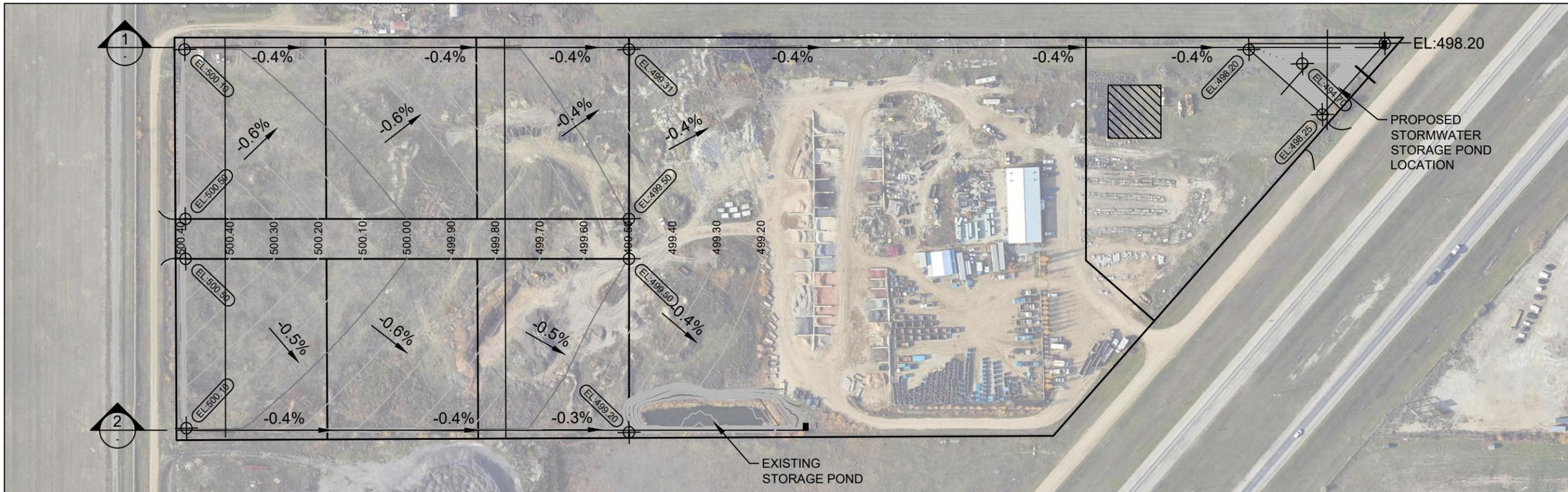
THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 11" X 17" PRINTED DRAWINGS



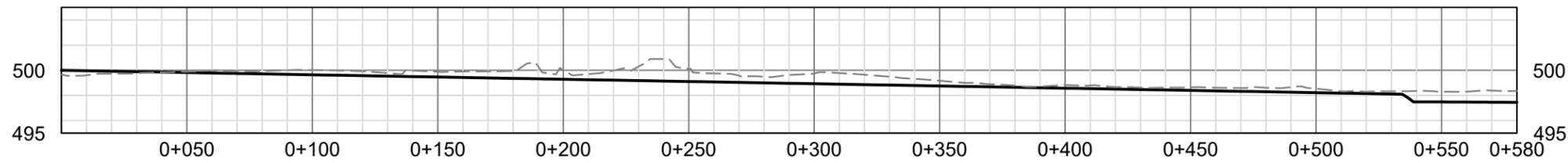
**PINTER & ASSOCIATES LTD**  
 710 48th ST E  
 SASKATOON SK S7K 5B4  
 306.244-1710  
 pintermain@pinter.ca

4					
3					
2					
1	13-JUN-24	ISSUED FOR REVIEW	BC	NJ	
0	18-APR-24	ISSUED FOR REVIEW	BC	NJ	
REV	DD-MMM-YY	DESCRIPTION	DRFT	APR	

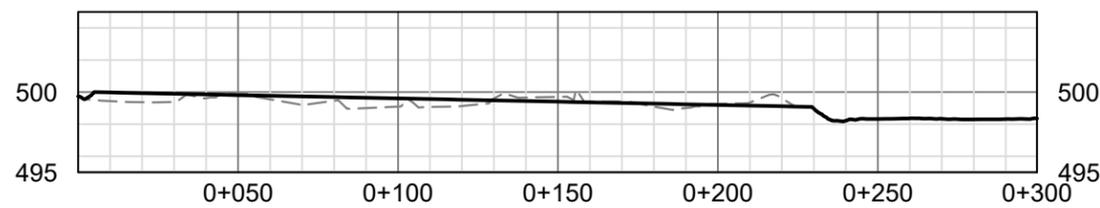
PROJECT NUMBER: 3084-5	SHEET TITLE: <b>DESIGN STORAGE POND SIZE &amp; LOCATION</b>	REVISION NO: 1
DRAWN BY: BC		ISSUE DATE: 13-JUN-24
APPROVED BY: NJ	PROJECT NAME: ENGINEERED DRAINAGE PLAN FOR LAND DEVELOPMENT	DRAWING NUMBER: A-02
SCALE: 1:2000	CLIENT NAME: ALLEN'S LANDSCAPING AND DISPOSAL SERVICES LTD.	SHEET NUMBER: 02 OF 05



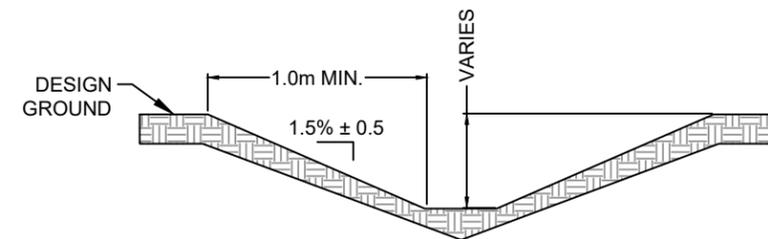
- NOTE:
1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
  2. ELEVATIONS ARE ABOVE SEA LEVEL (ASL)



1 PROFILE  
- EAST SWALE 1:2250



2 PROFILE  
- WEST SWALE 1:2250



3 SECTION  
- TYPICAL SWALE NTS

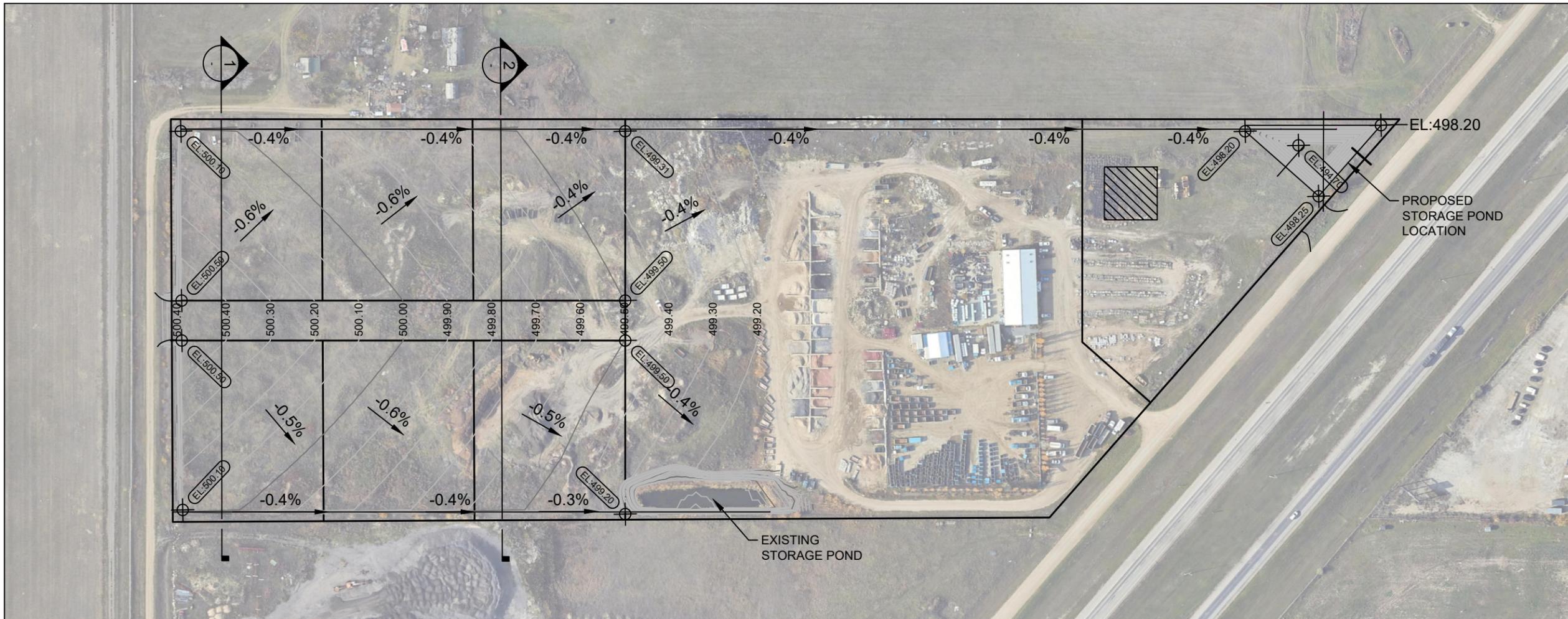
- LEGEND:
- DRAINAGE DIRECTION
  - ⊕ DESIGN ELEVATIONS
  - ▨ PROPOSED GARAGE
  - - - EXISTING GROUND
  - DESIGN GROUND

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 11" X 17" PRINTED DRAWINGS

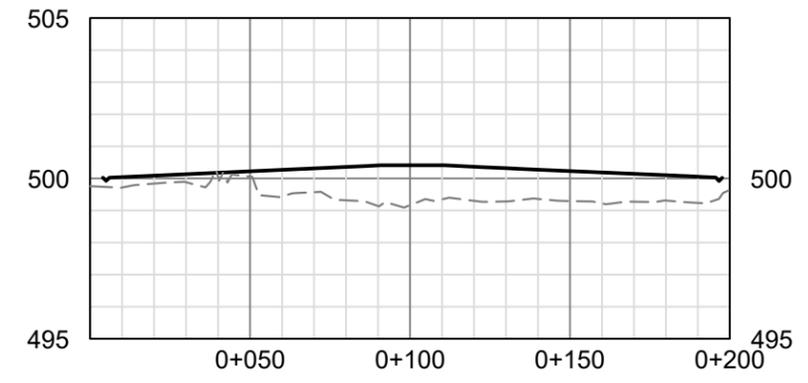


710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

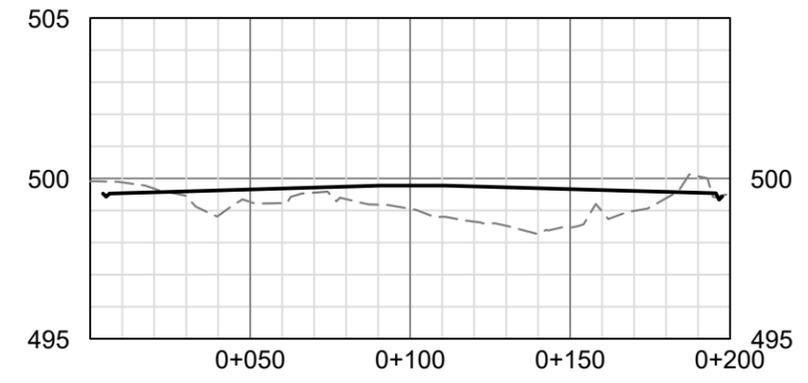
4					PROJECT NUMBER: 3084-5	SHEET TITLE: <b>EAST &amp; WEST SWALE PLAN &amp; PROFILE</b>	REVISION NO: 1
3					DRAWN BY: BC		ISSUE DATE: 13-JUN-24
2					APPROVED BY: NJ	PROJECT NAME: ENGINEERED DRAINAGE PLAN FOR LAND DEVELOPMENT	DRAWING NUMBER: A-03
1	13-JUN-24	ISSUED FOR REVIEW	BC	NJ	SCALE: 1:2250	CLIENT NAME: ALLEN'S LANDSCAPING AND DISPOSAL SERVICES LTD.	SHEET NUMBER: 03 OF 05
0	18-APR-24	ISSUED FOR REVIEW	BC	NJ			
REV	DD-MMM-YY	DESCRIPTION	DRFT	APR			



- NOTE:
1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
  2. ELEVATIONS ARE ABOVE SEA LEVEL (ASL)



1 PROFILE SOUTH LOTS 1:2250



2 PROFILE NORTH LOTS 1:2250

NOTE: TOPOGRAPHIC SURVEY COMPLETED BY OTHERS DOES NOT ACCURATELY REPRESENT THE OUTER PROPERTY BOUNDARY. OUTSIDE EDGES OF THE DRAINAGE SWALES TO BE GRADED TO EXISTING GROUND

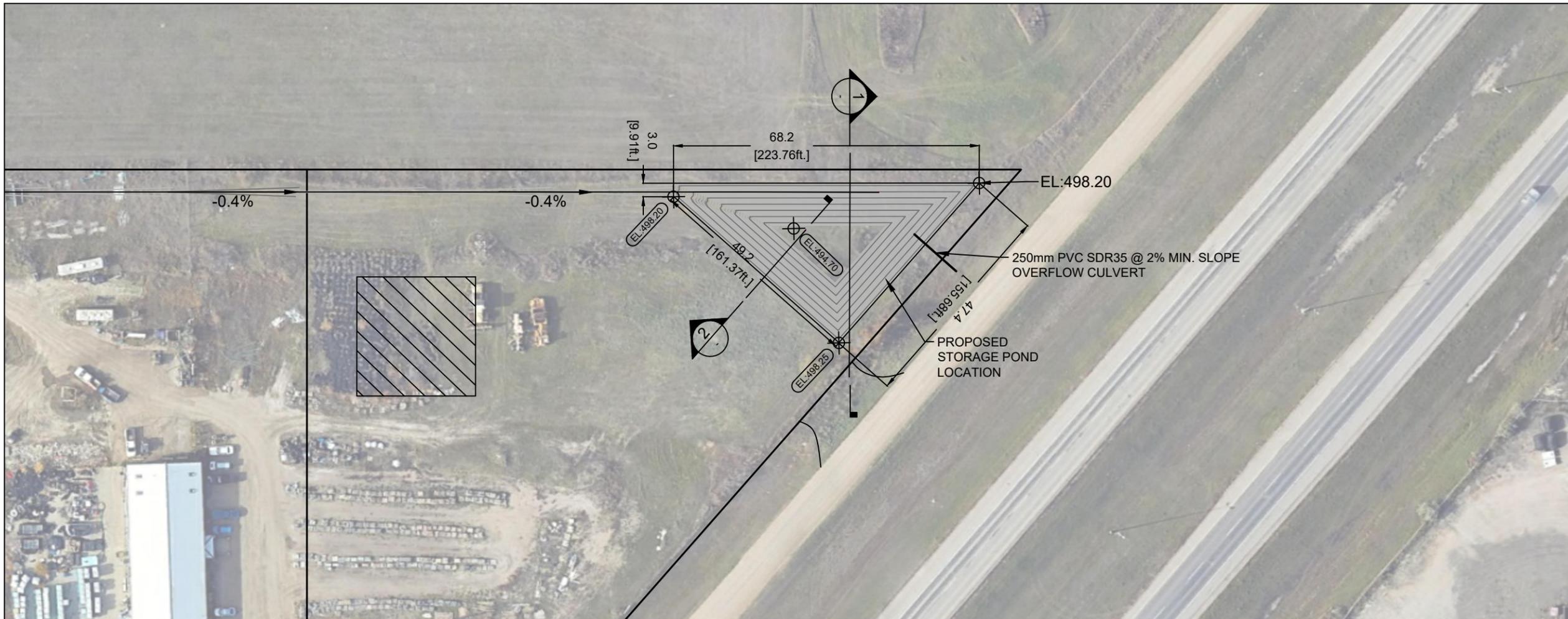
- LEGEND:
- DRAINAGE DIRECTION
  - ⊕ DESIGN ELEVATIONS
  - ▨ PROPOSED GARAGE
  - - - EXISTING GROUND
  - DESIGN GROUND

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 11" X 17" PRINTED DRAWINGS

**PINTER & ASSOCIATES LTD**  
 710 48th ST E  
 SASKATOON SK S7K 5B4  
 306.244-1710  
 pintermain@pinter.ca

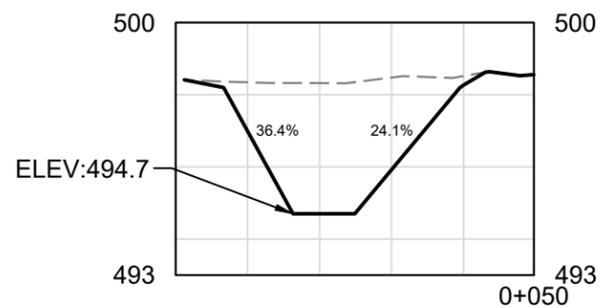
4					
3					
2					
1	13-JUN-24	ISSUED FOR REVIEW	BC	NJ	
0	18-APR-24	ISSUED FOR REVIEW	BC	NJ	
REV	DD-MMM-YY	DESCRIPTION	DRFT	APR	

PROJECT NUMBER: 3084-5	SHEET TITLE: <b>LOT PLAN &amp; PROFILE</b>	REVISION NO: 1
DRAWN BY: BC		ISSUE DATE: 13-JUN-24
APPROVED BY: NJ	PROJECT NAME: ENGINEERED DRAINAGE PLAN FOR LAND DEVELOPMENT	DRAWING NUMBER: A-04
SCALE: 1:2250	CLIENT NAME: ALLEN'S LANDSCAPING AND DISPOSAL SERVICES LTD.	SHEET NUMBER: 04 OF 05

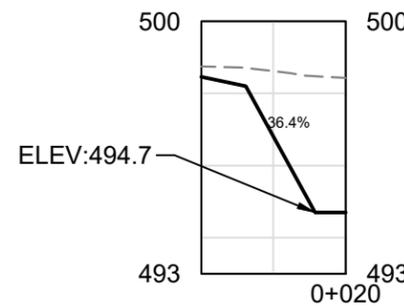


NOTE:

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
2. ELEVATIONS ARE ABOVE SEA LEVEL (ASL)
3. TOPOGRAPHIC SURVEY COMPLETED BY OTHERS DOES NOT EXTEND TO THE RM SERVICE ROAD DRAINAGE DITCH. PROPOSED CULVERT WILL BE FIELD FITTED WITH 2% MIN SLOPE TOWARDS RM DITCH BOTTOM.



1 PROFILE 1:2250  
POND WEST TO EAST



2 PROFILE 1:2250  
POND SOUTH TO NORTH

LEGEND:

- DRAINAGE DIRECTION
- DESIGN ELEVATIONS
- PROPOSED GARAGE
- EXISTING GROUND
- DESIGN GROUND

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 11" X 17" PRINTED DRAWINGS



710 48th ST E  
SASKATOON SK S7K 5B4  
306.244-1710  
pintermain@pinter.ca

4					
3					
2					
1	13-JUN-24	ISSUED FOR REVIEW	BC	NJ	
0	18-APR-24	ISSUED FOR REVIEW	BC	NJ	
REV	DD-MMM-YY	DESCRIPTION	DRFT	APR	

PROJECT NUMBER:	3084-5
DRAWN BY:	BC
APPROVED BY:	NJ
SCALE:	1:1000

SHEET TITLE:	STORAGE POND PLAN & PROFILE
PROJECT NAME:	ENGINEERED DRAINAGE PLAN FOR LAND DEVELOPMENT
CLIENT NAME:	ALLEN'S LANDSCAPING AND DISPOSAL SERVICES LTD.

REVISION NO:	1
ISSUE DATE:	13-JUN-24
DRAWING NUMBER:	A-05
SHEET NUMBER:	05 OF 05



**PINTER**  
& ASSOCIATES LTD

## **Appendix B**

### **Pre-Development Hydrological Calculations**

3084 Storage Design							
Lots		North Side					
Rational Method							
Step 1: Time of Concentration		$T_c = \frac{0.007 (nL)^{0.8}}{[(P_2)^{0.5} S^{0.4}]}$					
Developed		Area (m <sup>2</sup> )	Area Ratio to Total	Roughness Coeff	Weighted Average Roughness Coeff	Flow Length (l)	Design Storm P. 100 Year - 24hr
Building/Shaded Area Impervious Land Cover		-	0.000	0.011	0.150	(ft)	(inches)
Gravel Area Pervious Land Cover		-	0.000	0.011		492.126	3.594
Undeveloped Area Pervious Land Cover		61,000	1.000	0.150		(m)	(mm)
Total Area (m <sup>2</sup> )		61,000	1.000			150,000	91,300
Total Area (Acres)		15.073	1.000				
Step 2: Peak Runoff Rate		Q = 0.0028 CiA (S.I. units)					
Developed		Area (m <sup>2</sup> )	Area (ha)	Area Ratio to Total	Runoff Coeff	Weighted Average Runoff Coeff	1:100 Year Rainfall Intensity (mm/hr)
Building/Shaded Area Impervious Land Cover		-	-	0.000	0.95	0.10	45.00
Gravel Area Pervious Land Cover		-	-	0.000	0.50		
Undeveloped Area Pervious Land Cover		61,000	6.100	1.000	0.10		
Total Area (m <sup>2</sup> )		61,000	6.100	1.000			
Total Area (Acres)		15.073	1.000				

**Table 15-1** Roughness coefficients for sheet flow (flow depth generally ≤ 0.1 feet)

Surface description	n <sup>1</sup>
Smooth surface (concrete, asphalt, gravel, or bare soil).....	0.011
Fallow (no residue).....	0.05
Cultivated soils:	
Residue cover ≤ 20%.....	0.06
Residue cover > 20%.....	0.17
Grass:	
Short grass prairie.....	0.15
Dense grasses <sup>2</sup> .....	0.24
Bermudagrass.....	0.41
Range (natural).....	0.13
Woods: <sup>3</sup>	
Light underbrush.....	0.40
Dense underbrush.....	0.80

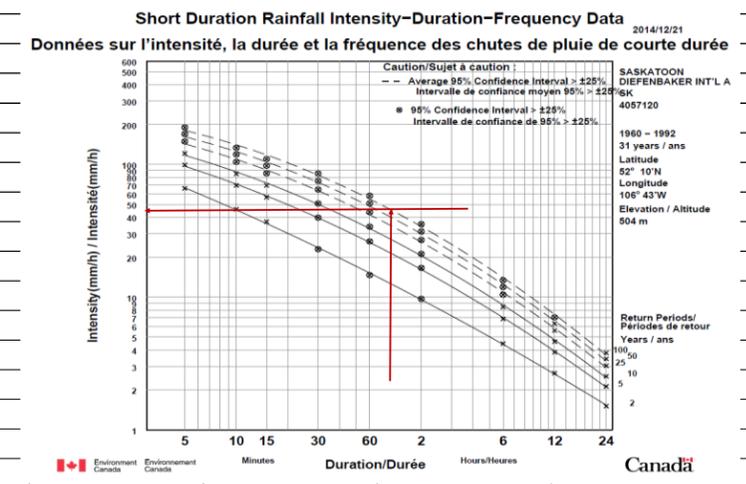
1 The n values are a composite of information compiled by Engman (1986)  
 2 Includes species such as weeping lovegrass, bluegrass, buffalograss, blue gramma grass, and native grass mixtures  
 3 When selecting n, consider cover to a height of about 0.1 ft. This is the only part of the plant cover that will obstruct sheet flow.

Summary Table

Average Roughness Coefficient	Average Flow Length	Travel Time (min)	Average Runoff Coefficient
0.150	150,000	84.3	0.10

Summary Table (Peak Rates)

1:100 Year Rainfall Intensity (mm/hr)	Design Peak Runoff Rate (m <sup>3</sup> /s)	Rational Method	City of Saskatoon
45.00	0.077	1566.511	550.220



**Table B-2**  
 Runoff Coefficients for Urban Areas

Land Use	C (2 year)
Single family residential <sup>1</sup>	0.30
Multi-unit residential, industrial and commercial <sup>2</sup>	0.60
Parks, cemeteries, playgrounds, landscaped areas (lawns, gravel, etc.)	0.10
Unimproved & undeveloped	0.05
Streets, sidewalks, parking lots	Asphalt, concrete, brick, etc. 0.95 Gravel (compacted) 0.50
Roofs	0.95

Volume (m<sup>3</sup>/ha) = C<sub>a</sub> × (C<sub>p</sub> - C<sub>d</sub>) + C<sub>b</sub> × (C<sub>p</sub> - C<sub>d</sub>)<sup>2</sup>  
 C<sub>a</sub> = 869 - (200 × C<sub>d</sub>), C<sub>b</sub> = 33 - (1055 × C<sub>d</sub>)

Flow (l/ha)	11.4	Flow (m/s)	0.070
ΔC	0.1		
A	869		
B	33		
Volume (m <sup>3</sup> /ha)	90.20	Volume (m <sup>3</sup> )	550.22
Cd	0		
Cp	0.34	80% developed 20% undeveloped	





3084

Lots North Area

1. Weighted Average Curve Number Technique

Developed	Area (m <sup>2</sup> )	Area Ratio to Total	Soil Group	Curve N	Weighted Average Curve N	Area (m <sup>2</sup> )	Area Initial Abstraction I <sub>a</sub> (mm)	Area Initial Abstraction I <sub>a</sub> (inches)	Design Storm P (100 Year - 24hr)	Runoff Volume (Y) (100 Year - 24hr)
Building/Shaded Area Impervious Land Cover	-	0.000	B	98	69	(inches)	(inches)	(inches)	(inches)	m <sup>3</sup>
Gravel Area Pervious Land Cover	-	0.000		85		4.493	0.899	3.594	3.594	1232.664
Undeveloped Area Pervious Land Cover	48,000	1.000		69		(mm)	(mm)	(mm)	(mm)	
Total Area (m <sup>2</sup> )	48,000	1.000				114.116	22.823	91.293	91.300	
Total Area (Acres)	11.861	1.000								

2. Weighted Average Volume Technique

Developed	Area (m <sup>2</sup> )	Area Ratio to Total	Soil Group	Curve N	Imperv. Pct Curve N	Impervious Area S	Impervious Initial Abstraction 0.2S	Impervious Initial Abstraction 0.8S	Design Storm P (100 Year - 24hr)	Imperv. Runoff Volume (Y) (100 Year - 24hr)	Imperv. Runoff Volume (Y) (100 Year - 24hr)
Building/Shaded Area Impervious Land Cover	-	0.000	B	98	98	(inches)	(inches)	(inches)	(inches)	m <sup>3</sup>	m <sup>3</sup>
Gravel Area Pervious Land Cover	-	0.000		85	69	0.204	0.041	0.163	3.594	0.000	1232.664
Undeveloped Area Pervious Land Cover	48,000	1.000		69	(mm)	(mm)	(mm)	(mm)			
Total Area (m <sup>2</sup> )	48,000	1.000				5.184	1.037	4.147	91.300		
Total Area (Acres)	11.861	1.000									

Table 2-2a Runoff curve numbers for urban areas 1/

Cover description	Average percent impervious area 2/	Curve numbers for hydrologic soil group			
		A	B	C	D
<b>Fully developed urban areas (vegetation established)</b>					
Open space (lawns, parks, golf courses, cemeteries, etc.) 3/:					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)					
Streets and roads:		98	98	98	98
Paved; curbs and storm sewers (excluding right-of-way)					
Paved; open ditches (including right-of-way)		98	98	98	98
Gravel (including right-of-way)		83	89	92	93
Dirt (including right-of-way)		76	85	89	91
Western desert urban areas:					
Natural desert landscaping (pervious areas only) 4/					
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		63	77	85	88
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82

Table 2a : Return Period Rainfall Amounts (mm)  
Quantité de pluie (mm) par période de retour

Duration/Durée	2 yr/ans	5 yr/ans	10 yr/ans	25 yr/ans	50 yr/ans	100 yr/ans	#Years/Années
5 min	5.5	8.3	10.1	12.4	14.1	15.8	31
10 min	7.7	11.6	14.2	17.4	19.8	22.3	31
15 min	9.3	14.1	17.3	21.4	24.4	27.4	31
30 min	11.5	19.9	25.4	32.4	37.6	42.7	31
1 h	14.7	26.3	34.0	43.7	50.9	58.1	31
2 h	19.4	33.2	42.4	53.9	62.5	71.0	32
6 h	26.8	41.1	50.6	62.6	71.5	80.4	32
12 h	32.1	46.2	55.5	67.2	75.9	84.6	32
24 h	36.2	51.0	60.7	73.1	82.2	91.3	32

Developing urban areas

Newly graded areas (pervious areas only, no vegetation) 5/

Idle lands (CN's are determined using cover types similar to those in table 2-2c).

1 Average runoff condition, and I<sub>a</sub> = 0.2S.  
 2 The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.  
 3 CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.  
 4 Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.  
 5 Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.



**PINTER**  
& ASSOCIATES LTD

## **Appendix C**

### **Post-Development Hydrological Calculations**

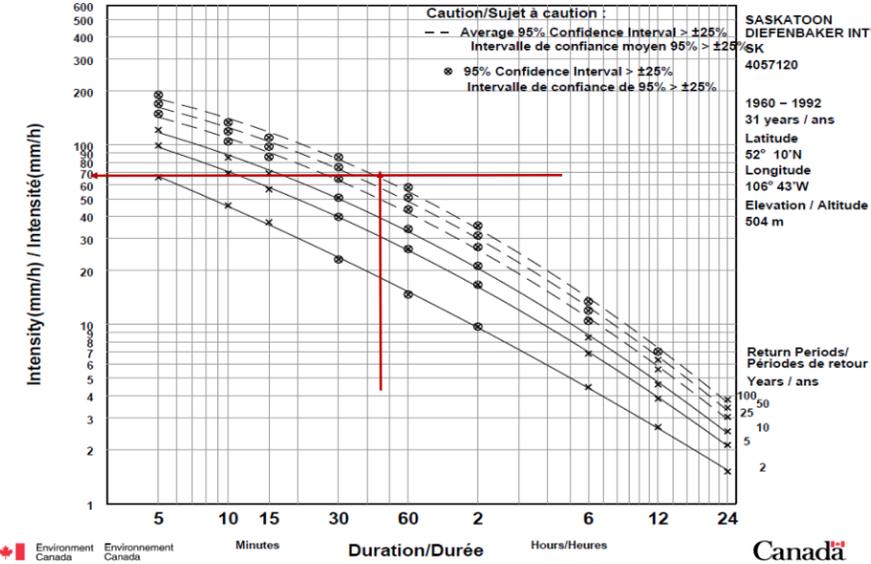
3084 Storage Design								
Lots		North Side						
Rational Method								
Step 1: Time of Concentration		$T_t = \frac{0.007 (nL)^{0.8}}{[(P_2)^{0.5} S^{0.4}]}$						
Developed	Area (m <sup>2</sup> )	Area Ratio to Total	Roughness Coeff	Weighted Average Roughness Coeff	Flow Length (l)	Design Storm P 100 Year - 24hr	Slope of hydraulic grade line (S) (ft/ft) or (m/m)	Travel time (Tt) (hr)
Building/Shaded Area Impervious Land Cover	8,940	0.147	0.011	0.045	(ft)	(inches)	0.001928783	(hr)
Gravel Area Pervious Land Cover	37,060	0.608	0.011		787.402	3.594		0.7836
Undeveloped Area Pervious Land Cover	15,000	0.246	0.150		(m)	(mm)		(min)
Total Area (m <sup>2</sup> )	61,000	1.000			240.000	91.300		47.0
Total Area (Acres)	15.073	1.000						
Step 2: Peak Runoff Rate		<b>Q = 0.0028 CiA (S.I. units)</b>						
Developed	Area (m <sup>2</sup> )	Area (ha)	Area Ratio to Total	Runoff Coeff	Weighted Average Runoff Coeff	1:100 Year Rainfall Intensity (mm/hr)	Peak Runoff (Q) (m <sup>3</sup> /s)	
Building/Shaded Area Impervious Land Cover	8,940	0.894	0.147	0.95	0.47	69.00	0.551	
Gravel Area Pervious Land Cover	37,060	3.706	0.608	0.50				
Undeveloped Area Pervious Land Cover	15,000	1.500	0.246	0.10				
Total Area (m <sup>2</sup> )	61,000	6.100	1.000					
Total Area (Acres)	15.073		1.000					

**Table 15-1** Roughness coefficients for sheet flow (flow depth generally ≤ 0.1 feet)

Surface description	n <sup>1</sup>
Smooth surface (concrete, asphalt, gravel, or bare soil).....	0.011
Fallow (no residue).....	0.05
Cultivated soils:	
Residue cover ≤ 20%.....	0.06
Residue cover > 20%.....	0.17
Grass:	
Short grass prairie.....	0.15
Dense grasses <sup>2</sup> .....	0.24
Bermudagrass.....	0.41
Range (natural).....	0.13
Woods: <sup>3</sup>	
Light underbrush.....	0.40
Dense underbrush.....	0.80

- The n values are a composite of information compiled by Engman (1986)
- Includes species such as weeping lovegrass, bluegrass, buffalograss, blue gramma grass, and native grass mixtures
- When selecting n, consider cover to a height of about 0.1 ft. This is the only part of the plant cover that will obstruct sheet flow.

**Short Duration Rainfall Intensity-Duration-Frequency Data**  
Données sur l'intensité, la durée et la fréquence des chutes de pluie de courte durée



**Table B-2**  
Runoff Coefficients for Urban Areas

Land Use	C (2 year)
Single family residential <sup>1</sup>	0.30
Multi-unit residential, industrial and commercial <sup>2</sup>	0.60
Parks, cemeteries, playgrounds, landscaped areas (lawns, gravel, etc.)	0.10
Unimproved & undeveloped	0.05
Streets, sidewalks, parking lots	Asphalt, concrete, brick, etc. Gravel (compacted)
Roofs	0.95

Flow (l/s/ha)	53.30527869	Flow (m/s)	0.325
ΔC	0.41		
A	869		
B	33		
Volume (m <sup>3</sup> /ha)	369.82	Volume (m <sup>3</sup> )	2,255.90

3084											
Lots		North Area									
1. Weighted Average Curve Number Technique											
Developed	Area (m <sup>2</sup> )	Area Ratio to Total	Soil Group	Curve N	Weighted Average Curve N	Area (m <sup>2</sup> )	Area Initial Abstraction, I <sub>a</sub> (inches)	Area Initial Abstraction, I <sub>a</sub> (mm)	Design Storm P (100 Year - 24hr)	Runoff Volume (Y) (100 Year - 24hr)	
Building/Shaded Area Impervious Land Cover	8,940	0.147	B	98	83	(inches)	(inches)	(inches)	(inches)	m <sup>3</sup>	
Gravel Area Pervious Land Cover	37,060	0.608		85		2.652	0.410	1.642	3.594	2999.679	
Undeveloped Area Pervious Land Cover	15,000	0.246		69		(mm)	(mm)	(mm)	(mm)		
Total Area (m <sup>2</sup> )	61,000	1.000				52.132	10.426	41.705	91.300		
Total Area (Acres)	15.073	1.000									
2. Weighted Average Volume Technique											
Developed	Area (m <sup>2</sup> )	Area Ratio to Total	Soil Group	Curve N	Imperv./Perv. Curve N	Impervious Area S	Impervious Initial Abstraction 0.2S	Impervious Initial Abstraction 0.8S	Design Storm P (100 Year - 24hr)	Imperv. Runoff Volume (Y) (100 Year - 24hr)	Imperv. Runoff Volume (Y) (100 Year - 24hr)
Building/Shaded Area Impervious Land Cover	8,940	0.147	B	98	98	(inches)	(inches)	(inches)	(inches)	m <sup>3</sup>	m <sup>3</sup>
Gravel Area Pervious Land Cover	37,060	0.608		85	80	0.204	0.041	0.163	3.594	763.128	3064.221
Undeveloped Area Pervious Land Cover	15,000	0.246		69	(mm)	(mm)	(mm)	(mm)			
Total Area (m <sup>2</sup> )	61,000	1.000				5.184	1.037	4.147	91.300		
Total Area (Acres)	15.073	1.000				Pervious Area S	Pervious Initial Abstraction 0.2S	Pervious Initial Abstraction 0.8S	Design Storm P (100 Year - 24hr)	Imperv. Runoff Volume (Y) (100 Year - 24hr)	
						(inches)	(inches)	(inches)	(inches)	m <sup>3</sup>	
						2.439	0.488	1.951	3.594	2301.093	
						(mm)	(mm)	(mm)	(mm)		
						61.960	12.392	49.568	91.300		

**Table 2-2a** Runoff curve numbers for urban areas <sup>1/</sup>

Cover description	Average percent impervious area <sup>2/</sup>	Curve numbers for hydrologic soil group			
		A	B	C	D
<b>Fully developed urban areas (vegetation established)</b>					
Open space (lawns, parks, golf courses, cemeteries, etc.) <sup>3/</sup> :					
Poor condition (grass cover < 50%) .....		68	79	86	89
Fair condition (grass cover 50% to 75%) .....		49	69	79	84
Good condition (grass cover > 75%) .....		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way) .....		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way) .....		98	98	98	98
Paved; open ditches (including right-of-way) .....		83	89	92	93
Gravel (including right-of-way) .....		76	85	89	91
Dirt (including right-of-way) .....		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) <sup>4/</sup> .....		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders) .....		96	96	96	96
Urban districts:					
Commercial and business .....	85	89	92	94	95
Industrial .....	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses) .....	65	77	85	90	92
1/4 acre .....	38	61	75	83	87
1/3 acre .....	30	57	72	81	86
1/2 acre .....	25	54	70	80	85
1 acre .....	20	51	68	79	84
2 acres .....	12	46	65	77	82

**Table 2a : Return Period Rainfall Amounts (mm)**  
Quantité de pluie (mm) par période de retour

Duration/Durée	2 yr/ans	5 yr/ans	10 yr/ans	25 yr/ans	50 yr/ans	100 yr/ans	#Years/Années
5 min	5.5	8.3	10.1	12.4	14.1	15.8	31
10 min	7.7	11.6	14.2	17.4	19.8	22.3	31
15 min	9.3	14.1	17.3	21.4	24.4	27.4	31
30 min	11.5	19.9	25.4	32.4	37.6	42.7	31
1 h	14.7	26.3	34.0	43.7	50.9	58.1	31
2 h	19.4	33.2	42.4	53.9	62.5	71.0	32
6 h	26.8	41.1	50.6	62.6	71.5	80.4	32
12 h	32.1	46.2	55.5	67.2	75.9	84.6	32
24 h	36.2	51.0	60.7	73.1	82.2	91.3	32

**Developing urban areas**

Newly graded areas (pervious areas only, no vegetation) <sup>5/</sup> ..... 77 86 91 94

Idle lands (CN's are determined using cover types similar to those in table 2-2c).

<sup>1/</sup> Average runoff condition, and I<sub>a</sub> = 0.2S.  
<sup>2/</sup> The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.  
<sup>3/</sup> CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.  
<sup>4/</sup> Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.  
<sup>5/</sup> Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

3084 Storage Design

Lots North Side

Rational Method

$$T_t = \frac{0.007 (nl)^{0.8}}{[(P_2)^{0.5} S^{0.4}]}$$

Step 1: Time of Concentration

Developed	Area (m <sup>2</sup> )	Area Ratio to Total	Roughness Coeff	Weighted Average Roughness Coeff	Flow Length (l)	Design Storm P 100 Year - 24hr	Slope of hydraulic grade line (S) (ft/ft) or (m/m)	Travel time (Tt) (hr)
Building/Shaded Area Impervious Land Cover	8,200	0.171	0.011	0.066	(ft)	(inches)	0.0025	(hr)
Gravel Area Pervious Land Cover	20,800	0.433	0.011		1804.462	3.594		1.8575
Undeveloped Area Pervious Land Cover	19,000	0.396	0.150		(m)	(mm)		(min)
Total Area (m <sup>2</sup> )	48,000	1.000			550.000	91.300		111.4
Total Area (Acres)	11.861	1.000						

Step 2: Peak Runoff Rate

**Q = 0.0028 CiA (S.I. units)**

Developed	Area (m <sup>2</sup> )	Area (ha)	Area Ratio to Total	Runoff Coeff	Weighted Average Runoff Coeff	1-100 Year Rainfall Intensity (mm/hr)	Peak Runoff (Q) (m <sup>3</sup> /s)
Building/Shaded Area Impervious Land Cover	8,200	0.820	0.171	0.95	0.42	41.00	0.231
Gravel Area Pervious Land Cover	20,800	2.080	0.433	0.50			
Undeveloped Area Pervious Land Cover	19,000	1.900	0.396	0.10			
Total Area (m <sup>2</sup> )	48,000	4.800	1.000				
Total Area (Acres)	11.861		1.000				

Volume (m<sup>3</sup>/ha) = C<sub>a</sub> × (C<sub>p</sub> - C<sub>d</sub>) + C<sub>b</sub> × (C<sub>p</sub> - C<sub>d</sub>)<sup>2</sup>  
 C<sub>a</sub> = 869 - (200 × C<sub>d</sub>), C<sub>b</sub> = 33 - (1055 × C<sub>d</sub>)

Flow (l/s/ha)	47.71375	Flow (m/s)	0.229
ΔC	0.41		
A	869		
B	34		
Volume (m <sup>3</sup> /ha)	370.23	Volume (m <sup>3</sup> )	1,777.10

Cd  
Cp 0.6 80% developed 20% undeveloped

Table 15-1 Roughness coefficients for sheet flow (flow depth generally ≤ 0.1 feet)

Surface description	n <sup>1</sup>
Smooth surface (concrete, asphalt, gravel, or bare soil) .....	0.011
Fallow (no residue) .....	0.05
Cultivated soils:	
Residue cover ≤ 20% .....	0.06
Residue cover > 20% .....	0.17
Grass:	
Short grass prairie .....	0.15
Dense grasses <sup>2</sup> .....	0.24
Bermudagrass .....	0.41
Range (natural) .....	0.13
Woods: <sup>3</sup>	
Light underbrush .....	0.40
Dense underbrush .....	0.80

- The n values are a composite of information compiled by Engman (1986)
- Includes species such as weeping lovegrass, bluegrass, buffalograss, blue gramma grass, and native grass mixtures
- When selecting n, consider cover to a height of about 0.1 ft. This is the only part of the plant cover that will obstruct sheet flow.

Short Duration Rainfall Intensity-Duration-Frequency Data  
 Données sur l'intensité, la durée et la fréquence des chutes de pluie de courte durée

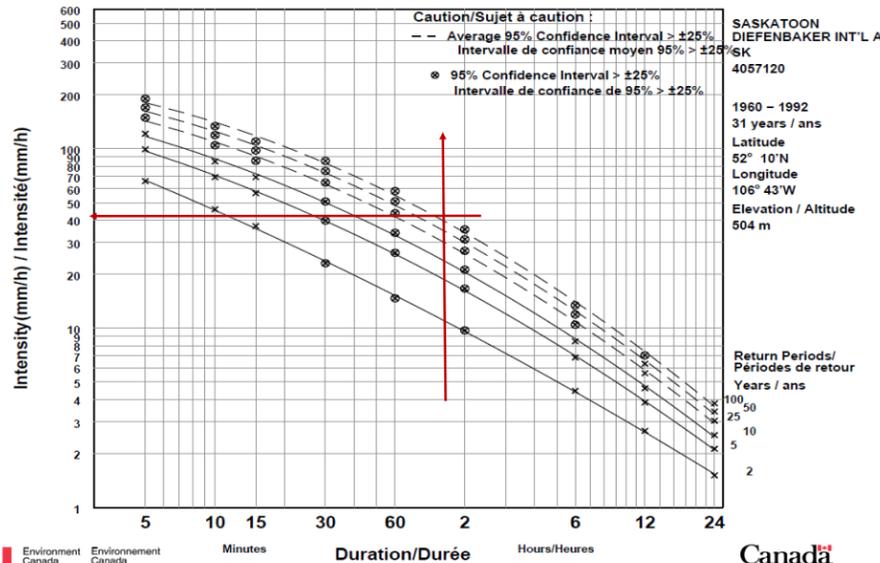


Table B-2 Runoff Coefficients for Urban Areas

Land Use	C (2 year)	
Single family residential <sup>1</sup>	0.30	
Multi-unit residential, industrial and commercial <sup>2</sup>	0.60	
Parks, cemeteries, playgrounds, landscaped areas (lawns, gravel, etc.)	0.10	
Unimproved & undeveloped	0.05	
Streets, sidewalks, parking lots	Asphalt, concrete, brick, etc.	0.95
	Gravel (compacted)	0.50
Roofs	0.95	



**APPENDIX L**  
**Shallow Utilities Maps**





**ATTENTION:**

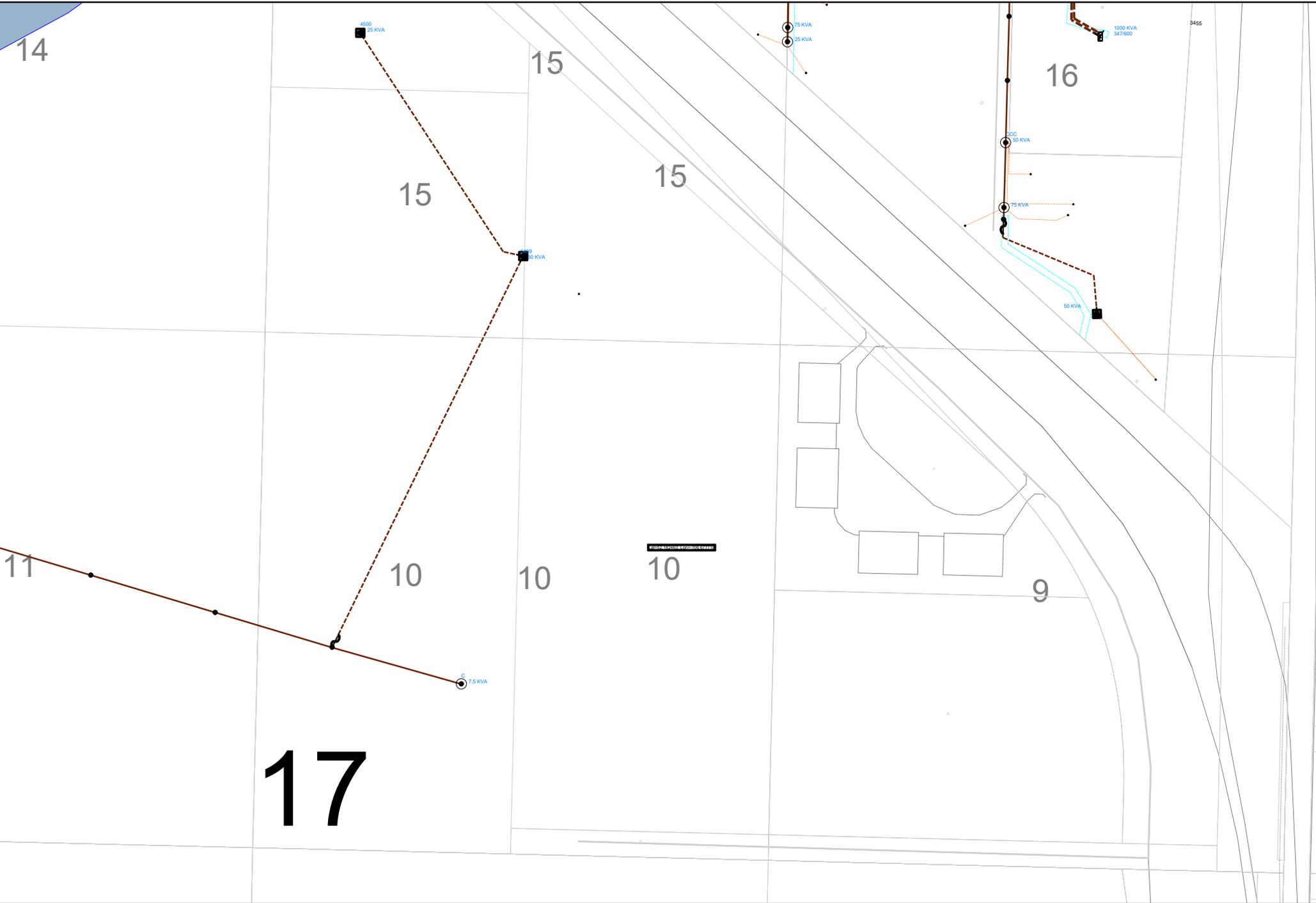
This file identifies SaskPower, SaskTel, SaskEnergy (TransGas & MIPL) facilities only. *Service lines* for all Utilities are either not shown or not shown accurately on the maps provided. Please keep in mind that service lines may also be affected by the project being planned.

This confidential data is owned by SaskEnergy, SaskPower and SaskTel, their affiliates or third parties and is provided to you on the following terms:

- a. Data shall not be disclosed to third parties or used for any other purpose than for advising client with respect to the proposed development project, and you must ensure that data remains subject to these terms;
- b. Data, including other third party facilities shown for reference purposes only, is provided 'as is' without warranty or representation of accuracy, timeliness or completeness and is current to date indicated; and
- c. locations of facilities are approximate, please contact Sask 1st Call, toll free at 1-866-828-4888 or through [www.sask1stcall.com](http://www.sask1stcall.com) for locates if you plan to excavate; seismic activity is considered ground disturbance and requires line locates.

You agree to indemnify SaskEnergy, SaskPower, SaskTel and Map Distributor Contractor for any claim for damages that arises out of your improper use or disclosure of the data.

**SASKPOWER**



**SASKENERGY**



NW 17

37-05-3

NE 17

SW 17

SE 17

A

E

F

D

B

R

HWY 16

HWY 16

HWY 16

HWY 11, 12

HWY 11, 12

HWY 16

IDYLWYLD DR

60.3 Ste

Q

P

**SASKTEL**



**APPENDIX M**  
**Public Consultation Mailout Package**

To Owner

**Re: Proposed Rezoning – NE ¼ 17-37-05-W3M**

This letter is intended to provide notice of a proposed rezoning of land located at NE ¼ 17-37-05-W3M adjacent to the city of Saskatoon boundary. Please refer to the map below for location.



The land area totals 10.578 hectares (26.139 acres). The land is currently designated as Urban Commercial Industrial on the P4G Land Use Map, and zoned DAG2 District.

Description of Proposal

The applicant is seeking to rezone the property to a DM1 (light industrial) zoning district to bring the existing land use into conformance with the P4G District Zoning Bylaw. While no new development is proposed at this time, rezoning the property allows for future development of the property in accordance with the direction set out in the P4G District Official Community Plan and P4G North Concept Plan.

Your Feedback

In accordance with the R.M. of Corman Park policy, notice must be provided to all owners of land within 1.6 kilometers of the proposed development site. Your property is located within this notice area.



We have created a short online survey to gather comments towards the proposal. It should take you no more than 5 minutes to respond. Please visit the link below or scan the QR code to access the survey. The survey will remain open until **October 20, 2024**.



Access the survey here <https://www.surveymonkey.com/r/60Street>

The results of the survey will be summarized and provided to the R.M. of Corman Park as part of our rezoning submission. The results of the survey will become public once the report from the R.M. goes to Council.

In the meantime, if you have any questions, comments, or concerns, please send a message to [planning@wallaceinsights.com](mailto:planning@wallaceinsights.com). We will respond to every enquiry.

Thank-you for your feedback.

Sincerely,

**Wallace Insights**

Alan Wallace, RPP, MCIP  
Planning Director