

August 18, 2016

File: 20164747.00.A.01.00

RECEIVED AUG 24 2016

Adam Tittlemore, Administrator  
Rebecca Row, Director of Planning & Development

Regional Municipality of Corman Park  
111 Pinehouse Drive  
Saskatoon, SK S7K 5W1

**Re: RM OF CORMAN PARK  
APPLICATION FOR TYPE 1 CLEAN FILL/RECYCLING OPERATION**

Dear Rebecca:

Please find enclosed an application for the operation of a Type I Clean Fill Operation, **Appendix A**, on the land located at Lot B, SE1/4 08-38-05 W3M. A clean fill operation is defined as the dumping or placement of clean fill from outside sources for the purpose of; re-grading or leveling a property to reclaim previously excavated properties, correct drainage on a site, or make a site more suitable for construction. **The purpose of this application is to seek the approval of a discretionary use permit thereby authorizing the proposed clean fill operation in order to reclaim the site from its historic use as a gravel extraction site, and to prepare the site for future development of a small business park with 2.0 acre lots.**

The long term intentions for the site and the immediate surrounding area as outlined in the *Saskatoon North Partnership for Growth Draft Regional Land Use Plan*, dated February 2016, and describe the site area as a future mixed employment that is intended to be used for related commercial, and industrial activities.

Existing site conditions that are a result of previous gravel extraction represent a constraint which hinders any potential future development of the site. This site is required to be remediated in order to meet the objectives set out in the Draft Regional Land Use Plan. Remediation of this site is possible through the approval of the Type I Clean Fill Operation Application attached to this submission.

This submission includes considerations towards site access; impacts on air quality, water & soil resources; natural and heritage resources; sustainability, and provides details of the anticipated site operations plan. These considerations are intended to identify the types of materials to be collected; the hours of operation for collection and hauling activities, strategies for the management and protection of surface and ground water resources including the location and design of storm water runoff collection facilities; and strategies for minimizing odour and dust generated by the activity.



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## **SITE ACCESS**

The clean fill site is intended to be accessed via the intersection of Highway No. 12 and Township Road No. 381. Southbound traffic on Highway No. 12 may access the site by way of a right turn while northbound traffic may access the site via an existing left turn lane. It is not anticipated that the trucks accessing the site would make use of RM roads rather by the use of existing highway routes.

Estimated traffic volumes are estimated to average ten (10), 5 and 6 axle tractor and semi-trailers per day. These trucks are expected to haul primary weights.

The estimated traffic volumes do not represent a significant increase to peak traffic volumes on Highway No. 12. A recent traffic count completed on July 27, 2016 at the intersection of Township Road No. 381 indicates that the peak hour AM traffic is approximately 1086 vehicles in the southbound direction, and 1181 vehicles in the northbound peak hour PM traffic.

At this stage of development, given there is no subdivision of land and no new approaches anticipated to support the clean fill operation there is no requirement to engage the Ministry of Highways. It is expected that a Traffic Impact Study will be required by the Ministry to support a subsequent subdivision application.

## **AIR QUALITY & NOISE IMPACTS**

Impacts on air quality due to the proposed activity are expected to be limited to dust from hauling, dumping, and grading activities. The nearest residence to the site access point is approximately 300 m in distance. Dust from the access road will be minimal as the service road material is asphalt pavement.

The site would be available for disposal of clean fill seven (7) days a week and operate between the hours of 7 AM and 7 PM. To mitigate noise impacts, trucks will be instructed to avoid heavy tail gate slams by establishing truck cleanout staging areas, and access to the site would be restricted to the hours posted.

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## **WATER RESOURCES**

In support of this application we have included a proposed drainage concept plan, **Appendix B**, including considerations towards stormwater management. Associated Engineering (AE) will complete a detailed design for the drainage from the site prior to construction. Please refer to Appendix B for further details.

## **SOIL RESOURCE IMPACTS**

A topographic map estimating the required fill volumes to address the gravel extraction pits are included in **Appendix C**.

Soil resources would only be impacted where the site was intended to receive fill material that could be potentially contaminated or contained substances considered to be hazardous. The site will operation under the direction of one of the owners of the site - Peters Excavating Ltd.

The operational plan for the site seeks to ensure that the contents of fill received are acceptable by the following methods:

- Access to the site will be limited to Peters Excavating Ltd.
- Access to the site to the public will be prevented by a locked gate.
- Monthly summaries of the amount of material, location material hauled from will be available.
- The proposed use will not generate any waste materials.

At this time due to the preliminary nature of the development a detailed geotechnical investigation will included as part of the Comprehensive Development Review aspect of the subdivision application following the completion of the clean fill operation.

## **NATURAL & HERITAGE IMPACTS**

A review of the *Developers' Online Screening Tool* indicates that the site is not heritage sensitive



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## **SUSTAINABILITY IMPACTS**

The placement of clean fill material is necessary to prepare the site for eventual development which is intended to facilitate the diversification of land uses in the RM and to assist in expanding the RM's overall financial resources by increasing the assessed value of the property without a corresponding increase in their expenditures due to the strategic and beneficial location of the site along Highway No. 12.

Yours truly,

A handwritten signature in black ink that reads "Doug Ramage".

Doug Ramage  
Project Engineer-in-Training

DR/ib



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## Appendix A – Type I Clean Fill Discretionary Use Application





**Application Form**

1) Applicant: Overpass Farms and The Technocrat Holding Company Ltd.  
Address: 818 - 43rd Street East  
Saskatoon, SK S7K 3V1  
Phone: \_\_\_\_\_ Cell: 306.221.1230 Fax: \_\_\_\_\_  
Email: rbews@wrtequipment.com

NOTE: If the applicant is not the registered owner of the subject property, the owner of the property must also sign the application form or provide a letter of consent for the application to be processed.

2) **Legal description of land proposed for development**

All/Part of the SE 1/4, Section 8, Township 38, Range 5  
LSD(s) \_\_\_\_\_ Lot(s) B Block(s) \_\_\_\_\_  
Registered Plan No. 62S03803  
Certificate of Title No. 147537502

3) **Existing use of land intended for development:**

The site is currently being used for pasture land. There are  
no building or structures located on the site.  
\_\_\_\_\_  
\_\_\_\_\_

4) **Proposed use of land and buildings:**

The site is being prepared for future development.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## Site Plan

In order to process the discretionary use application, all submissions must include a completed site plan map of the proposed project; submission of an incomplete site plan map will be considered as an incomplete application and returned to the applicant:

See attachments following the application



## Discretionary Use Application – Appendix C Clean Fill Operation

1) **Proposed Development Involves:**

Type I Clean Fill (non-commercial)       Type II Clean Fill (commercial)

2) **Purpose of the Clean Fill Operation, intended use of the property upon completion, and description of the types of materials being deposited on the site:**

The purpose of the transport and disposition of clean fill to the site is to enable the proper reclamation of the site resulting from previous gravel excavations in the past, to improve site drainage, and to prepare the land for future industrial development. Based on an engineering fill plan, it is expected that approximately 62,000 m3 of uncontaminated topsoil and clay will be transported to the site. The type of fill material will be limited to clay and topsoil only.

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3) **Does the operation involve any processing activities? (circle answer)**

Yes

**No**

If yes, please describe the process: \_\_\_\_\_

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4) **Proposed hours and days of operation: (circle applicable days of week)**

Collection: **M T W Th F S** S      Hours of operation from 7am to 7pm

Processing: M T W Th F S S      Hours of operation from \_\_\_\_\_ to \_\_\_\_\_

Hauling: **M T W Th F S** S      Hours of operation from 7am to 7pm

5) **Municipal roads to be used in hauling material:** (Please include Map)

Access to the site is provided via an existing access  
from Highway No. 12

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Access to the subject property is provided by:

- a) Existing approach to (municipal roadway) Yes - Highway No. 12
- b) Proposed Approach to (municipal roadway) \_\_\_\_\_

6) **Level of Usage of Haul Roads** (trucks per day):

Haul months:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Average daily number round trips: 10

Maximum daily haul (# round trips): 20 (dependant on offsite construction activity)

Annual frequency of maximum daily hauls: Estimated at 20%

Trailer capacity (metric tonne/trailer): 17 m3

Trucks will be using engine retarder braking systems:  Yes  No

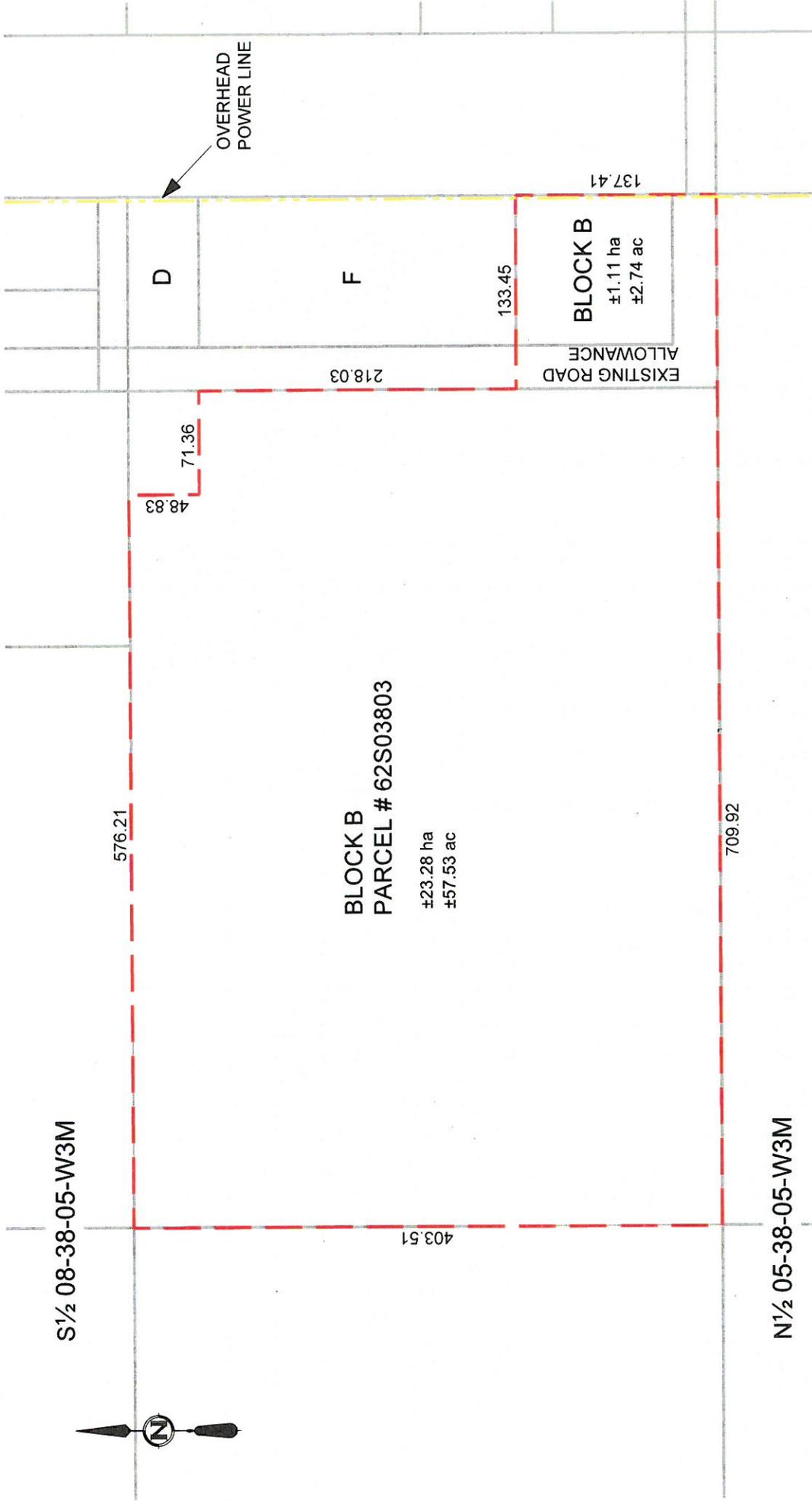
7) **Operational details:**

a. Onsite lighting provided: Yes  No   
Type and location: \_\_\_\_\_

b. Chemical/fuel storage proposed onsite: Yes  No   
Type and location: \_\_\_\_\_

c. Estimated amount fill required: 62,000 m3 metres<sup>3</sup>

S 1/2 08-38-05-W3M



N 1/2 05-38-05-W3M

# WESTERN BUSINESS PARK

SITE BOUNDARY

FOR PART OF THE

SE 1/4 08-38-05-W3M

IN THE

RM OF CORMAN PARK No. 344

SASKATCHEWAN

SCALE N.T.S.

Dimensions are shown in metres and decimals thereof.  
Area contained within the concept plan is outlined with a red dashed line and contains ±25.12 hectares (±60.07 acres) including ±0.73 hectares (±1.80 acres) for the existing road allowance Plan # 98SA03631.

Distances are approximate and may vary by ±5.00 metres.

Date: March 31, 2016

**DRAFT**



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## Appendix B – Drainage Concept Plan



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Rebecca Row  
Director of Planning & Development  
RM of Corman Park  
111 Pinehouse Drive  
Saskatoon, SK S7K 5W1

**Re: WESTERN BUSINESS INDUSTRIAL PARK  
PROPOSED DRAINAGE CONCEPT PLAN**

Dear Rebecca Row:

Associated Engineering Ltd. (AE) was engaged by a business group to assist them in the planning and design of a new rural light industrial business park that includes Parcel B of the SE ¼ Section 08-38-05-W3M (Parcel B) as noted in **Figure 4-1**. The proposed development site is strategically located along a key transportation corridor between Saskatoon and Martensville and represents an area identified for future mixed employment purposes as part of the Saskatoon North Partnership for Growth Draft Regional Land Use Plan.

The following report is to provide a proposed drainage concept plan in support of Type 1 Clean Fill Operation Discretionary Use Application to the RM of Corman Park (RM). Initial comments received by the WSA in regards to this development indicate that the Clean Fill operation would be considered drainage under the Water Security Agency Act requiring WSA's approval, and that the development of a drainage plan will be required to determine if an approval from WSA is achievable. Discussions with the WSA are ongoing.

It is our understanding that the lands west of Highway No. 12, on a general basis, lack a suitable outlet and that these site conditions are not isolated to individual land parcels rather it is part of a larger regional issue associated with the anticipated growth and development along Highway No. 12. More specifically, it is our understanding that the lands located on NE & SE 05-38-05-W3M often experience flooding conditions related to poor access to the outlets available on these lands.

Please find below our approach to managing stormwater for Parcel B. This letter is further intended to form the basis for submission to WSA for approval on stormwater management for the interim Clean Fill Operation.

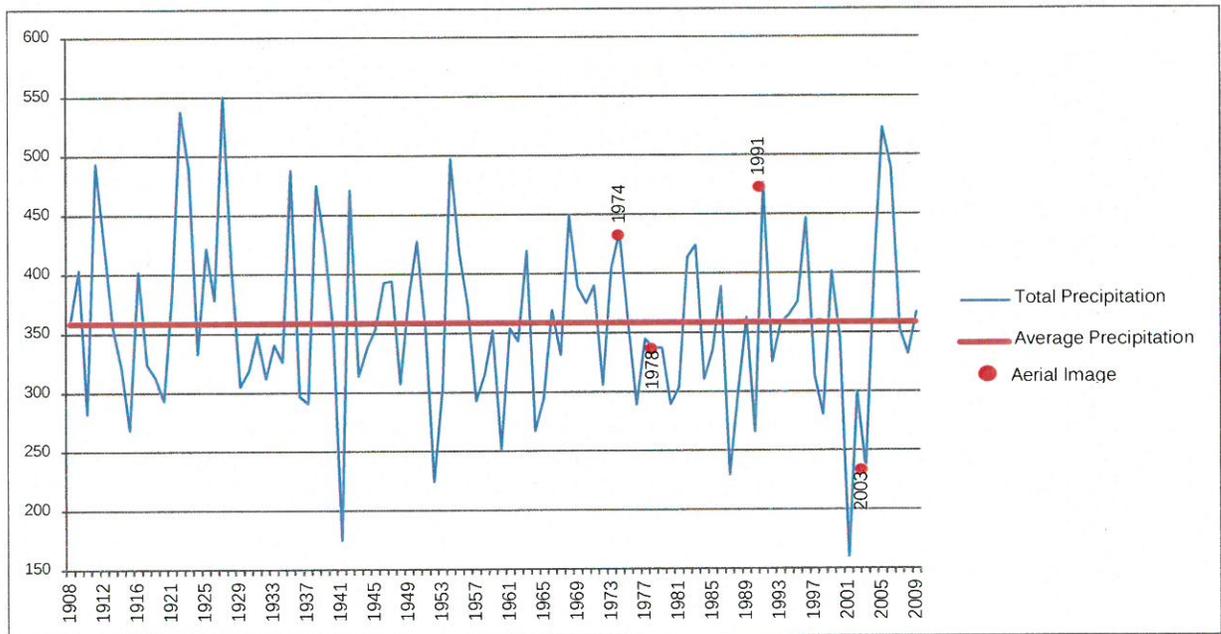


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## 1 BACKGROUND

This site has been historically used as a gravel extraction pit which has resulted in man-made modifications to the natural drainage and on-site storage conditions. These existing conditions represent a constraint to future development. As a result the proposed clean fill operation is required to prepare the site for future land uses identified in the draft regional land use plan.

Based on aerial images it is difficult to establish the natural site conditions prior to the gravel extraction, and the impact of those operations on the current run-off storage. **Figure 1-1** depicts the annual precipitation from 1908 to 2009 while aerial imagery of the property is illustrated in **Figures 1-2** through **1-7** show the property through the years.



**Figure 1-1**  
**Annual Precipitation**



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**Figure 1-2**  
**1974 Aerial Image**

Aerial imagery dating back to 1974 indicates that water storage in the area is focused on the southern border of the property site. Of note, 1974 was a year that experienced higher than average precipitation.



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**Figure 1-3**  
**1978 Aerial Image**

The year 1978 experienced lower than average precipitation with 32.2 mm of total precipitation up until the beginning of May. While the aerial image represents a drier than normal condition, it illustrates that the on-site conditions have not been significantly modified by gravel extraction.





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**Figure 1-4**  
**1991 Aerial Image**

The year 1991 experienced higher than average precipitation with 69.2 mm of total precipitation up until the beginning of May. This aerial imagery illustrates modifications have been made to the site as there is a reduction in the surface area of ponding despite more than twice the total precipitation in the year.



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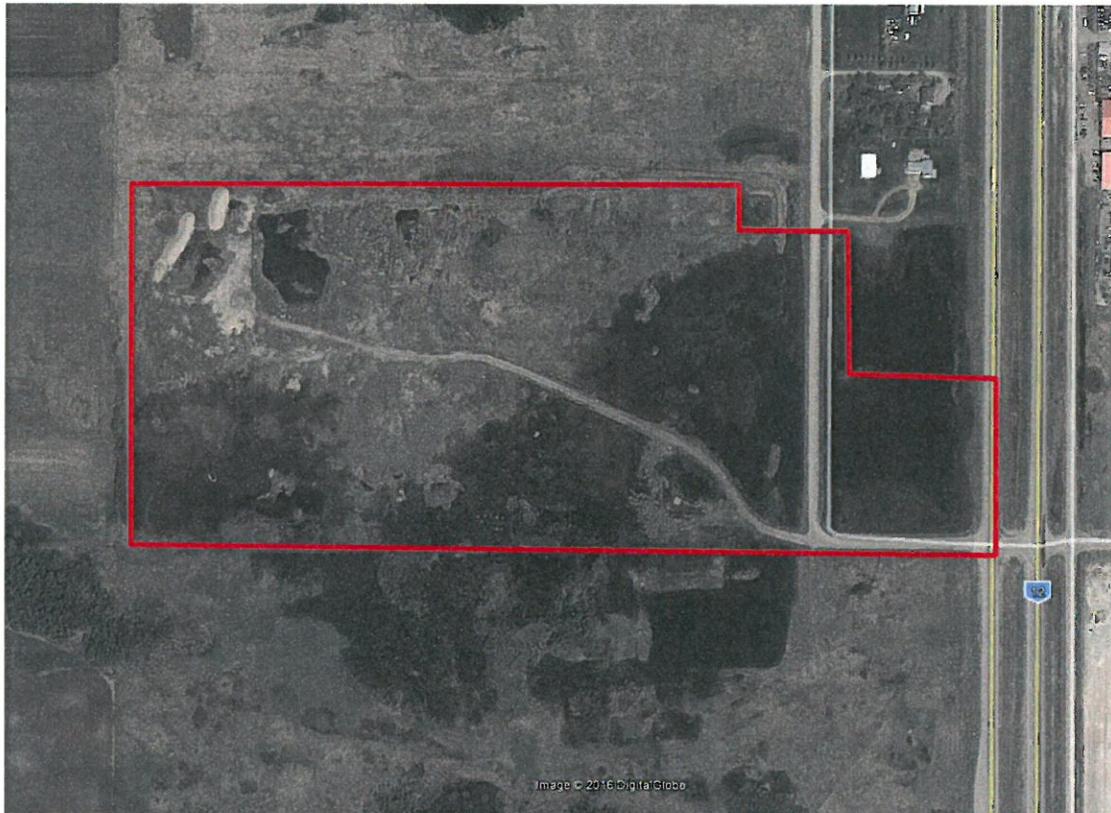
**Figure 1-5**  
**2003 Aerial Image**

The 2003 aerial imagery illustrates modifications of on-site storage and drainage patterns due to the gravel extraction operation.





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**Figure 1-6**  
**2011 Aerial Image (Google Earth)**

The 2011 aerial imagery illustrates the impact of gravel extraction operation on the drainage patterns and on-site storage conditions. From 2003 to the 2011, the gravel extraction operation is evident in the modification of on-site storage in the north-west and south-east section of the site.

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**Figure 1-7**  
**2014 Aerial Image (Google Earth)**

From 2011 to 2014 no significant modifications to the topography appear evident and on-site storage depressions are more reflective of the current site conditions of Parcel B.

## **2 ANALYSIS**

The proposed development site is relatively flat and existing topography indicates that the land generally drains to the southeast corner of the proposed development site. A wet summer and fall followed by excessive snowfall led to spring flooding in 2011 illustrated in **Figure 1-6**.

AE collected survey data and created a ground model of the existing stormwater drainage conditions on the proposed development site. As a result of the previous gravel extraction operation, overland runoff collects in various ponding locations within the development site -these isolated ponding locations are illustrated in **Figure 2-1**.

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**Figure 2-1**  
**Existing Contours & Surface Ponding Locations**

The existing on-site storage was determined from the AutoCAD Civil 3D surface created from topographical survey points collected in February 2016. The current on-site storage is calculated as the volume of water stored in all of the depressions on site.

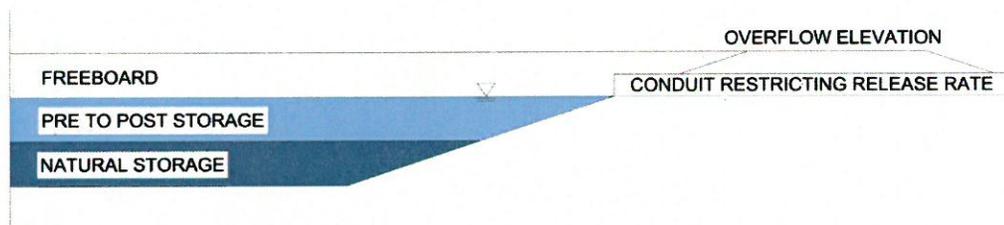
As we are not able to quantify the pre-extraction on-site storage volume the existing on-site storage is based on the 2014 aerial image. Furthermore, the on-site conditions have not changed since 2011, the 2014 aerial is considered representative of the ponding conditions illustrated in 2011. Using this imagery a surface ponding area of 1.29 ha, or the equivalent of approximately 5.5%, of the 23.28 ha development site area can be determined. The calculated volume of the on-site storage-site based on the 2016 survey data is approximately 11,200 m<sup>3</sup>.

### **3 WSA STORAGE REQUIREMENTS**

During previous conversations with WSA, it was outlined to AE that a developer needs to provide comparable storage to that of the natural conditions (pre-extraction) and that this storage shall be provided on a permanent basis.

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It was also confirmed that the 1:100 year pre to post development runoff needs to be stored in a permanent fashion. The following typical cross section portrays our understanding of the new storage requirements.



**Figure 3-1**  
**WSA Storage Requirements**

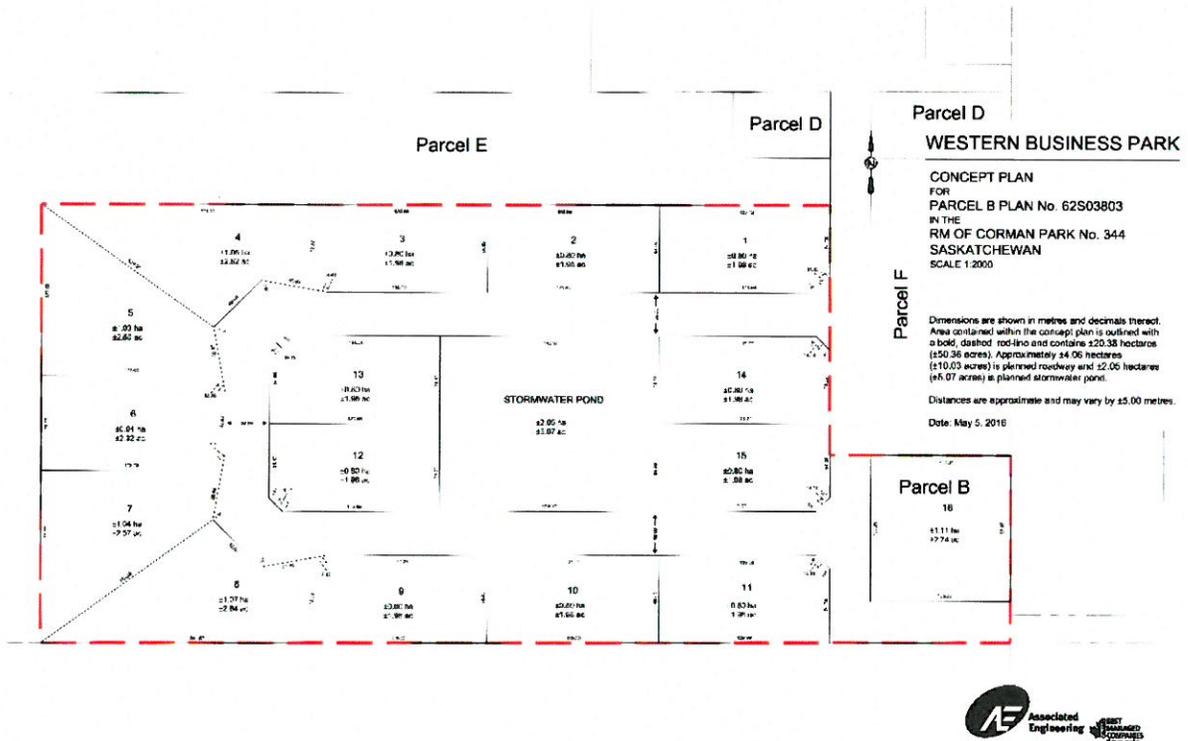
Permanent storage is defined as the combined volume of the natural and pre vs post development runoff storage. As the proposed development site has been altered through the gravel extraction operation it is not possible to determine what the natural storage requirement would have been for this site, nor is it feasible to consider the existing on-site storage as being in a natural state.

#### **4 CONCEPTUAL DEVELOPMENT SITE LAYOUT**

The Regional Land Use Map presented by the Saskatoon North Partnership for Growth designates the proposed development site located on Parcel B and the immediate surrounding area as part of a Mixed Employment corridor adjacent to Highway No. 12. These lands adjacent to Highway No. 12 are strategically located along a key transportation corridor between Saskatoon and Martensville and represent an area experiencing an increase in rural industrial growth.

The application for the Clean Fill operation is the first step as part of a larger development plan for the Western Business Park (WBP). The conceptual site layout for tWBP is illustrated in **Figure 4-1**.

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**Figure 4-1**  
**Parcel B Conceptual Site Layout (May 2016)**

This conceptual site layout provides a 2.05 ha stormwater management pond allowing for an approximate storage of 19,800 m<sup>3</sup> representing more than 1.5x the existing on-site storage volume of 11,200 m<sup>3</sup>. Based on the conceptual site layout, the current on-site storage is expected to be maintained throughout the Clean Fill operation. Maintaining the current on-site storage is intended to mitigate any downstream impacts to adjacent land owners.

The general location of the stormwater pond is expected to be maintained in the general location as shown during the Clean Fill operation; however, as the development continues to move forward the location and the size of the stormwater management pond will be refined to more accurately address the storage requirements of the overall development.



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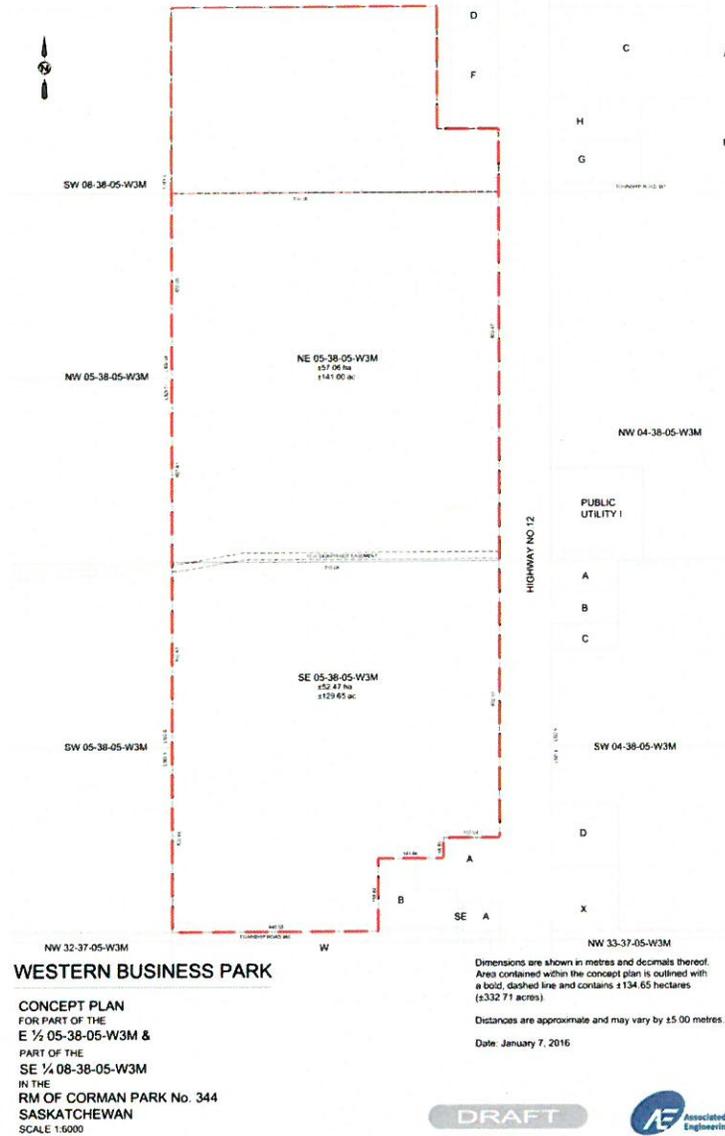


Figure 4-2  
WBP Site Layout (January 2016) – Land Area Considerations





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## 5 FUTURE WBP DEVELOPMENT CONSIDERATIONS

As part of the overall development, on-going discussions are being held with the surrounding landowners to include a larger site development area as part of the WBP future considerations as illustrated in **Figure 4-2**. It is our understanding that the lands west of Highway No. 12, on a general basis, lack a suitable outlet and that these site conditions are not isolated to individual land parcels rather it is part of a larger regional issue associated with the anticipated growth and development along Highway No. 12.

## 6 CONCLUSION

For the purposes of the Clean Fill Discretionary Use Application, AE is proposing that the current on-site storage volume of 11,200 m<sup>3</sup> be maintained through this initial phase of development, and that a conceptual drainage plan be initiated during the preliminary design stage after which time discussions with the surrounding landowners can be completed.

This process will allow for the Clean Fill operation to move forward in the interim providing additional time for the property owners in the surrounding area to continue on-going discussions towards a combined strategy involving a larger site area for the WBP.

We believe we have addressed an initial approach to addressing stormwater management storage requirements to allow the Clean Fill operation to move forward while recognizing the value and efficiencies in a collaborative approach to managing a regional stormwater management issue based on a larger potential development area.

Yours truly,

Doug Ramage  
Project Engineer-in-Training

DGR/np

Reviewed by,

Darrell Rinas, P.Eng

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20-10-19



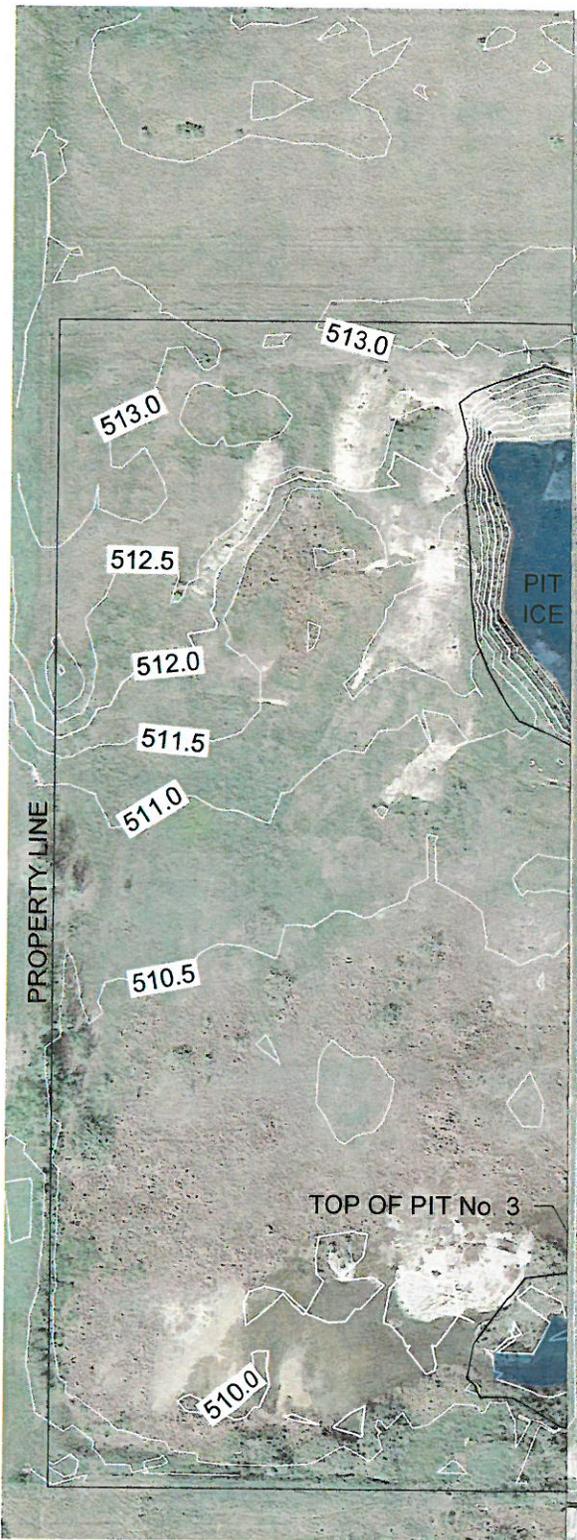
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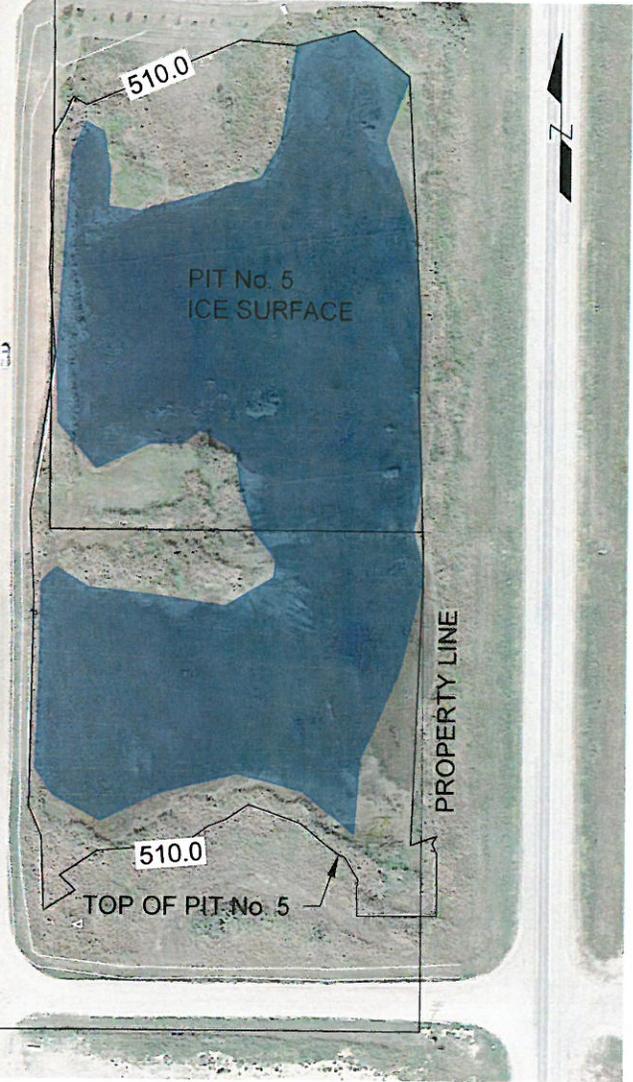
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## Appendix C – Topographic Map





VOLUME ESTIMATES	
PIT	VOLUME (Cu. M)
1	22,700
2	500
3	1,500
4	3,000
5	30,100
6	4,200



NOTE: VOLUMES CALCULATED USING WINT

P:\2016\4747\00\_w\_business\_park\Working\_Dwg\150\_Survey\AE Raw\_Survey Data\PRELIM SURFACE\4747-100.dwg  
DATE: 2016-03-04, Evan Lajos



2016-4747  
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DISCUSSION

FIGURE No. 1  
WESTERN BUSINESS PARK  
CIVIL  
0.5 METER CONTOURED TOPOGRAPHIC MAP

DWG No. AE\_4747\_100

