

October 9, 2025

Project No. 2401284

GSS Engineering Consultants Ltd.
945 3rd Avenue East, Suite 230
Owen Sound, ON
N4K 2K8

Attention: W. Brad Benson

**Re: Peer Review Comment Response
Maximum Predicted Water Table and Hydrogeological Assessment Report
Proposed Class 'A' Pit Above Water (JT Pit), JT Excavating Ltd,
Municipality of West Grey, Grey County**

Dear Brad:

GEI Consultants Canada Inc (GEI) has been retained by JT Excavating Ltd (the Client) to provide a response to the Peer Review Comments issued to the Municipality of West Grey by GSS Consultants Ltd, dated September 25, 2025. The response below is based on our review of the comments provided, desktop review and analysis of available data as well as the meetings that were held on July 21 and August 25, 2025, and October 3, 2025.

Past comments and responses have been included as an enclosure to this letter for information purposes (Appendix B). Based on the meetings held and the previous responses it is GEI's understanding that there remains one comment that will be addressed by this letter.

In previous letters, the following items were addressed and resolved:

Updates to Site Plan Drawings

1. In response to the comments received on both June 13, 2025, and July 23, 2025, the wording of the note to be added to the site plan with respect to surface water monitoring is as follows:

A shallow piezometer will be installed (within one year of issuance of the pit license) in the on-site surface water feature to measure surface water and groundwater levels, coincident with groundwater levels in the existing monitoring wells. Water levels will be monitored on at least three occasions, at least 2 weeks apart during the period of seasonal high-water levels. The data will be reviewed by a qualified consultant for consistency with the conclusions presented in the hydrogeological report.

GEI confirms that as the above item was acknowledged and will be implemented as recommended by GSS, the timing of the installation will be consistent with GSS's recommendation. The data will

be reviewed by a qualified consultant for consistency with the conclusions presented in the hydrogeological report.

2. In response to the comment that the locations and invert elevations of the three culverts beneath Concession 4 NDR that were identified in the most recent response from GEI at locations immediately south and southwest of the pit property, as well as the identified watercourse on the adjacent property south of the pit property, should be shown on the site plans for the area within 120 m of the license boundary, GEI confirms that an update to the site plan will include this information.

As confirmed in an email on October 3, 2025, the revised site plan drawings were not required to be included in this submission.

Infiltration

A technical memo has been prepared (enclosed as Appendix A) outlining the impact to infiltration from the pit property.

If you have any questions, please feel free to contact me via email at kpickett@geiconsultants.com.

Sincerely,

GEI Consultants Canada Ltd.



Professional Engineers
Ontario
Licensed Engineering Technologist
Name: K. L. PICKETT
Number: 1001501338
Limitations: Environmental investigations of soil, groundwater,
all soil and sediment products including Phase 1 Site Conditions,
and management plans and completion of Phase 1 and Phase 2
Environmental Site Assessments, including design, construction
and verification of site remediation
Association of Professional Engineers of Ontario

Kim Pickett, M. Ed, C.E.T, LET, QP_{ESA}
Project Geoscientist



Chaodong Sheng, M.Sc., P.Eng.
Senior Engineer and Project Manager

Enclosure:

Appendix A: Technical Memo

Appendix B: Previous GSS Peer Review Comments and GEI Responses

Appendix A Technical Memo

Technical Memo



To: Brad Benson, P.Eng. Senior Hydrogeologist
GSS Engineering Consultants Ltd

From: Chaodong Sheng, M.Sc., P.Eng.
Senior Engineer and Project Manager, GEI Consultants Ltd.

Date: October 9th, 2025

Re: Hydrogeology Assessment of the Proposed Class 'A' Pits (Pits) Above Water
Municipality of West Grey, Grey County
GEI Project No. 2401284

1.0 – Background

Based on the Peer Review letter provided by GSS Engineering Consultants Ltd. (GSS) dated **September 25, 2025**, we understand that a water balance assessment is required to determine the potential for impacts to surface water features, including the central ravine and wetland feature, the Saugeen River to the west, and the watercourse located south of Concession 4 NDR opposite the subject property for the proposed Category 3, Class “A” Pit above water in the Municipality of West Grey.

To address the above requirement, this Technical Memorandum (Tech Memo) has been prepared to outline the **Terms of Reference** for completing this required water balance assessment. This Memo summarizes the overall water balance assessment approach, including methodology and parameters.

2.0 – Water Balance Assessment Approach

The Thornthwaite and Mather (1957) method defined in the Ministry of the Environment Ontario (MOE) “Stormwater Management Planning and Design Manual” (Manual 2003) was applied for this analysis. Given that this study focuses on comparing pre-development and post-development conditions—specifically the runoff volume changes resulting from the installation of the two pits—generic parameters were used instead of site-specific data. These include annual average precipitation, evapotranspiration, runoff, and infiltration depths for different land uses, land covers, and soil types, as recommended in Table 3.1 of the 2003 Manual. Table 3.1 provides not only annual rainfall depth but also the corresponding evapotranspiration and surplus depths for various combinations of soil types, land uses, and land covers, based on a comprehensive scientific investigation. As site-specific data could not feasibly be generated within the limited timeframe of this project, these generic parameters are considered appropriate for pre and post comparison purpose.

With this approach, the annual average surface runoff volume for the environmental features, including the water courses and a wetland, and the average infiltration volume for the proposed Pits, under both pre-development and post-development conditions, were calculated and compared.

With the proposed drainage alteration for installing these Pits, the overall drainage areas draining to the water course and the wetland will be reduced. Conceptually, the average runoff volume for these features may be decreased. However, the average infiltration volume for the proposed Pits will be increased and some of the infiltration volume will seep out into the water features as base-flow.

As the Pits are functioned to retain the runoff onsite and promote infiltration, we understand some of the infiltration volume will be released into the adjacent water features, including the nearby water courses and the wetland as the base-flow. The percentage of volume feeding the target water course and the wetland will be determined based on dividing the increased infiltration volume by the number of features fronting the pits.

As the ecology data is not available for the water course and the wetland at this moment, therefore, it is not feasible to determine the sensitivity of these features. However, based on the TRCA approach, 10% alteration is the threshold for the wetland features categorized as “sensitive” ones, meaning if the overall alteration is less than 10%, the ecological functions for these water features, even the most sensitive ones, can be maintained. Therefore, the 10% alteration rate has been set for our target features as a conservative approach.

3.0 – Summary of the Calculation Results

As mentioned previously, the average annual precipitation, evapotranspiration, runoff and infiltration depth for different land uses and covers and soil types are based on Table 3.1 in the Manual 2003. The results shown in **Table 3.1** were computed using average annual monthly values per the Thornthwaite and Mather (1957) method.

The contributing drainage area to each water feature was delineated for pre-and post- conditions. The water balance assessment was conducted for each drainage area to determine the difference between pre- and post-runoff and infiltration levels for each feature. Land use and land cover was determined from the Site survey data and Google Earth. The majority of the drainage areas consist of agriculture and woodland land use, with a small existing farmhouse classified as low-density residential. The Slope of the existing land was determined from existing survey data of the site and from Ontario GeoHub Contour open data. The soil of the site and surrounding areas was referenced from Ontario Soil Survey and was determined to be well-draining Sargent Loam, which is classified as a hydrologic soil type ‘A’.

In the post-development condition, the proposed pit areas were assumed to act as infiltration pits which will infiltrate all surplus precipitation without any runoff to the nearby features. The existing farmhouse area is replaced with ‘lawn’ land use. All other parameters remained consistent in the post-development condition. Please see the documents attached to the back of this memo for the pre-development and post-development figures and detailed calculations.

With this approach, the annual average surface runoff volume for the environmental features, including the two (2) water courses and a wetland, and the average annual infiltration volume for the proposed Pits, under both pre-development and post-development conditions, were calculated and compared. The results of the annual increase of post- and pre- basin infiltration volumes are shown in **Table 1** below.

Table 1 Pre- and Post- annual infiltration of pit areas

Proposed Pit	Pre-Development Annual Infiltration (m ³ /yr)	Post-Development Annual Infiltration (m ³ /yr)	Annual Increase in Infiltration (m ³ /yr)
North Basin Area	24,298	35,682	11,384
South Basin Area	36,435	53,710	17,275

The annual average surface runoff volume and increased infiltration volume seepage for each water feature is shown in **Table 2**.

Table 2 Pre- and Post- results of water balance analysis of water features

Catchment	Pre-Development Annual Runoff (m ³ /yr)	Post-Development Annual Runoff (m ³ /yr)	Infiltration Seepage from North Basin (m ³ /yr)	Infiltration Seepage from South Basin (m ³ /yr)	Total Post-Development Volume (m ³ /yr)	% Difference
Saugeen River	86,734	65,954	5,692	5,701	77,347	-10.8%
Wetland and Ravine	34,395	21,816	5,692	5,701	33,209	-3.4%
Southern Watercourse	12,817	6,716	0	5,701	12,417	-3.1%

As shown in **Table 2**, there is less than a 10% decrease in annual volume to the wetland feature and to the watercourse located south of Concession 4. It can be concluded that the ecological functions for these two water features can be maintained. For the Saugeen River, there is a marginal exceedance corresponding to a 10.8% decrease in annual runoff volume for the river stretch. However, this 10.8% reduction is only associated with the site area contributing to that specific stretch, which represents a small portion of the overall Habermehl Creek watershed. Therefore, the impact of this localized 10.8% volume reduction on the broader river system can be considered insignificant when compared to the total volume generated by the entire watershed.

4.0 – Conclusions and Recommendations

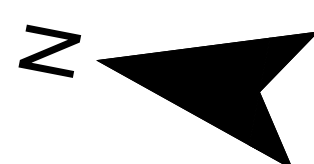
Per the calculations summarized above, it is concluded that:

- The proposed Pits functions to promote infiltration, so the overall annual average infiltration capacity has been increased.
- The annual average runoff volume for the target water courses and the wetland has decreased by 24% - 47% due to the overall drainage area reduction.
- As the increased infiltration volume within proposed Pits will increase the base-flow feeding the water features, the increased annual base flow to the features were found to be 11,393 m³ to the Saugeen River, 11,393 m³ to the central wetland, and 5,701 m³ to the watercourse south of Concession Rd 4. Therefore, the total reduction in volume to each feature was found to be 10.8%, 3.4%, and 3.1% to the Saugeen River, the wetland, and to the south watercourse, respectively.
- As the conclusion, the proposed Class ‘A’ Pits will not post a significant adverse impact on the site ecology function, including infiltration and runoff.

Attachment

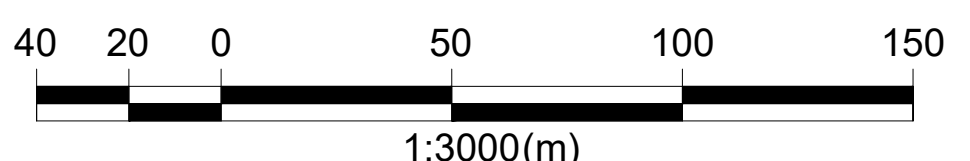
FILE: B:\Working\CANDUE HOMES\2401284 - 220135 ARA Pit Application - 382063 Conc. 4\Reports\MP\WT & Hydro Study\Peer Review Comments\Analysis\Wetland Sensitivity\2401284 Wetland DAPs 1.dwg LAYOUT: PRE - DP
LAST SAVED BY: Gecgon3896, 10/7/2025 4:51:57 PM PLOTTED BY: Gonzales, Gecelle 10/7/2025 4:52:57 PM

PROPOSED AGGREGATE PIT
MUNICIPALITY OF WEST GREY



LEGEND

- SITE BOUNDARY
- - - CATCHMENT BOUNDARY
- 100
3.35 CATCHMENT NUMBER
CATCHMENT AREA (ha)
- OVERLAND FLOW DIRECTION
- SAUGEEN RIVER DRAINAGE AREA
- CENTRAL WETLAND DRAINAGE AREA
- SOUTH WATERCOURSE DRAINAGE AREA



PRE - DEVELOPMENT
DRAINAGE PLAN

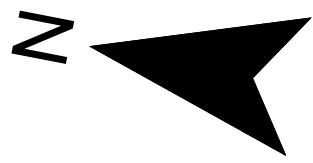
Figure No. 1



220135
SEPTEMBER 2025
Scale: 1:3000

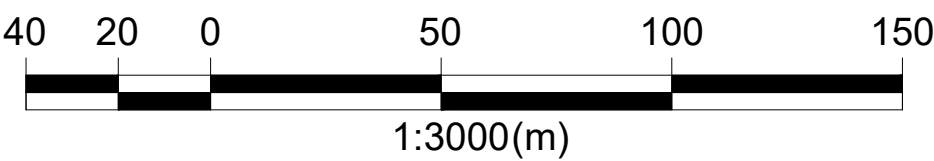
FILE: B:\Working\CANDUE HOMES\2401284 - 220135 ARA Pit Application - 382063 Conc. 4\Reports\MP\WT & Hydro Study\Peer Review Comments\Analysis\Wetland Sensitivity\Wetland DAPs 1.dwg LAYOUT: POST - DP
LAST SAVED BY: Gecgon3896, 10/7/2025 4:51:57 PM PLOTTED BY: Gonzales, Gecelle 10/7/2025 4:52:31 PM

PROPOSED AGGREGATE PIT
MUNICIPALITY OF WEST GREY



LEGEND

- SITE BOUNDARY
- - - CATCHMENT BOUNDARY
- (100 / 3.35) CATCHMENT NUMBER
CATCHMENT AREA (ha)
- OVERLAND FLOW DIRECTION
- DIRECTION OF GROUNDWATER FLOW
- SAUGEEN RIVER DRAINAGE AREA
- CENTRAL WETLAND DRAINAGE AREA
- SOUTH WATERCOURSE DRAINAGE AREA
- PROPOSED PIT DRAINAGE AREA



POST - DEVELOPMENT
DRAINAGE PLAN

Figure No. 2



220135
SEPTEMBER 2025
Scale: 1:3000

Pre-Development Water Balance

PRE-DEVELOPMENT WATER BALANCE															
		Total Land Area (m ²)	Impervious Factor	Pervious Area (m ²)	Impervious Area (m2)	Infiltration Factor	Precipitation* (mm)	Hydrologic Soil Group	Evapo-Transpiration* (mm)	Surplus (mm)	Infiltration of Pervious Area (mm)	Runoff From Pervious Area (mm/annum)	Runoff from Impervious Area (mm/annum)	Total Infiltration (m ³ /annum)	Total Runoff (m3/annum)
Existing Land Use Saugeen River (Catchments 100, 102)	Lawn	334402.0	0%	334402.00	0.00	0.60	940	A	525	415	249.0	166.0	0.0	83266.1	55510.7
	Woodland/Forest	258676.0	0%	258676.00	0.00	0.70	940	A	546	394	275.8	118.2	0.0	71342.8	30575.5
	Farm house	1990.3	64%	716.52	1273.82	0.65	940	A	515	425	276.3	148.8	425.0	197.9	648.0
	TOTAL	595,068	0%	593,795	1,274	0.64	940	A	534	406	261	145	1.4	154,807	86,734
Existing Land Use Wetland Ravine (Catchment 101)	Agriculture	155461.0	0%	155461.00	0.00	0.60	940	A	525	415	249.0	166.0	0.0	38709.8	25806.5
	Woodland/Forest	70066.0	0%	70066.00	0.00	0.70	940	A	546	394	275.8	118.2	0.0	19324.2	8281.8
	Wetland	5000.0	0%	5000.00	0.00	0.85	940	A	531	409	347.7	61.4	0.0	1738.3	306.8
	TOTAL	230,527	0%	230,527	0	0.64	940	A	532	408	259	149	0.0	59,772	34,395
Existing Land Use Southern Watercourse (Catchment 102)	Agriculture	76856.0	0%	76856.00	0.00	0.60	940	A	525	415	249.0	166.0	0.0	19137.1	12758.1
	Woodland/Forest	500.0	0%	500.00	0.00	0.70	940	A	546	394	275.8	118.2	0.0	137.9	59.1
	TOTAL	77,356	0%	77,356	0	0.60	940	A	525	415	249	166	0.0	19,275	12,817
Basin Area Pre-development Conditions															
North Basin Catchment Area (200)	Agriculture	75273.0	0%	75273.00	0.00	0.60	940	A	525	415	249.0	166.0	0.0	18743.0	12495.3
	Woodland/Forest	20140.0	0%	20140.00	0.00	0.70	940	A	546	394	275.8	118.2	0.0	5554.6	2380.5
	TOTAL	95,413	0%	95,413	0	0.62	940	A	529	411	255	156	0.0	24,298	14,876
South Basin Catchment Area (204)	Agriculture	143264.0	0%	143264.00	0.00	0.60	940	A	525	415	249.0	166.0	0.0	35672.7	23781.8
	Woodland/Forest	2100.0	0%	2100.00	0.00	0.70	940	A	546	394	275.8	118.2	0.0	579.2	248.2
	Farm house	1990.3	64%	716.52	1273.82	0.65	940	A	547	393	255.5	137.6	393.0	183.0	599.2
	TOTAL	147,354	1%	146,081	1,274	0.60	940	A	526	414	249	165	5.3	36,435	24,030

*Based on MOE Table 3.1

Pre-Development Water Balance

POST-DEVELOPMENT WATER BALANCE															
		Total Land Area (m ²)	Impervious Factor	Pervious Area (m ²)	Impervious Area (m2)	Infiltration Factor	Precipitation* (mm)	Hydrologic Soil Group	Evapo- Transpiration* (mm)	Surplus (mm)	Infiltration of Pervious Area (mm)	Runoff From Pervious Area (mm/annum)	Runoff from Impervious Area (mm/annum)	Total Infiltration (m ³ /annum)	Total Runoff (m3/annum)
Post Land Use Saugeen River (Catchments 205, 202)	Lawn	214,619	0%	214619	0	0.60	940	A	525	415	249.0	166.0	0.0	53440.1	35626.8
	Woodland/Forest	256,576	0%	256576	0	0.70	940	A	546	394	275.8	118.2	0.0	70763.7	30327.3
	TOTAL	471,195	0%	471195	0	0.65	940	A	536	404	264	140	0.0	124,204	65,954
Post Land Use Wetland Ravine (Catchment 201)	Lawn	95,149	0%	95149	0	0.60	940	A	525	415	249.0	166.0	0.0	23692.1	15794.7
	Woodland/Forest	48,350	0%	48350	0	0.70	940	A	546	394	275.8	118.2	0.0	13334.9	5715.0
	Wetland	5,000	0%	5000	0	0.85	940	A	531	409	347.7	61.4	0.0	1738.3	306.8
	TOTAL	148,499	0%	148499	0	0.64	940	A	532	408	261	147	0.0	38,765	21,816
Post Land Use Southern Watercourse (Catchment 203)	Agriculture	40387.0	0%	40387	0	0.60	940	A	525	415	249.0	166.0	0.0	10056.4	6704.2
	Woodland/Forest	100.0	0%	100	0	0.70	940	A	546	394	275.8	118.2	0.0	27.6	11.8
	TOTAL	40,487	0%	40487	0	0.60	940	A	525	415	249	166	0.0	10,084	6,716
North Basin Catchment (200)	Basin (Lawn)	68579.0	0%	68579	0	1.00	940	A	525	415	415.0	0.0	0.0	28460.3	0.0
	Lawn	6694.0	0%	6694	0	0.60	940	A	525	415	249.0	166.0	0.0	1666.8	1111.2
	Woodland/Forest	20140.0	0%	20140	0	0.70	940	A	546	394	275.8	118.2	0.0	5554.6	2380.5
	TOTAL	95,413	0%	95413	0	0.91	940	A	529	411	374	37	0.0	35,682	3,492
South Basin Catchment (204)	Basin (Lawn)	105170.0	0%	105170	0	1.00	940	A	525	415	415.0	0.0	0.0	43645.6	0.0
	Lawn	38094.0	0%	38094	0	0.60	940	A	525	415	249.0	166.0	0.0	9485.4	6323.6
	Woodland/Forest	2100.0	0%	2100	0	0.70	940	A	546	394	275.8	118.2	0.0	579.2	248.2
	TOTAL	145,364	0%	145364	0	0.89	940	A	525	415	369	45	0.0	53,710	6,572

*Based on MOE Table 3.1

Infiltration Seepage to Nearby Water Features

North Basin					
Catchment	North Basin Pre-Dev Infiltration (m3)	North Basin Post-Dev Infiltration (m3)	Increase in Infiltration (m3)	% of Groundwater Seepage to Water Feature Catchment (m3)	Volume of Groundwater Flowing to Catchment (m3)
Saugeen River	24,298	35,682	11,384	50%	5692.1
Wetland	24,298	35,682	11,384	50%	5692.1
Southern Watercourse	24,298	35,682	11,384	0	0.0
South Basin					
Catchment	South Basin Pre-Dev Infiltration (m3)	South Basin Post-Dev Infiltration (m3)	Increase in Infiltration (m3)	% of Groundwater Seepage to Water Feature Catchment (m3)	Volume of Groundwater Flowing to Catchment (m3)
Saugeen River	36,435	53,710	17,275	33%	5700.8
Wetland	36,435	53,710	17,275	33%	5700.8
Southern Watercourse	36,435	53,710	17,275	33%	5700.8

Post-to-Pre Summary

	Pre-Development Runoff (m3)	Post-Development Runoff (m3)	Groundwater Volume Flow from North Basin (m3)	Groundwater Volume Flow from South Basin (m3)	Total Post-Development Volume (m3)	% Difference
Saugeen River	86,734	65,954	5,692	5,701	77,347	-10.8%
Wetland	34,395	21,816	5,692	5,701	33,209	-3.4%
Southern Watercourse	12,817	6,716	0	5,701	12,417	-3.1%

Appendix B Previous GSS Comments and GEI Responses



25-029

September 25, 2025

Municipality of West Grey
402813 Grey Road 4
Durham, Ontario
N0G 1R0

Attention: David Smith
Manager of Planning

Re: **GEI Consultants September 11, 2025 Response to Peer Review Comments on Maximum Predicted Water Table and Hydrogeological Assessment Report Proposed Class 'A' Pit Above Water (JT Pit), JT Excavating Ltd. Municipality of West Grey, Grey County**

Dear Sir,

This letter provides our comments on the September 11, 2025 response from GEI Consultants Canada Ltd. (GEI) to peer review comments made by GSS Engineering Consultants Ltd. (GSS) in a July 23, 2025 letter to the Municipality of West Grey. GSS was originally retained by the Municipality to provide peer review comments on the November 2023 (revised) maximum predicted water table and hydrogeological assessment report prepared by GM BluePlan Engineering Limited for JT Excavating Ltd. for a proposed above the water table pit to be located at 382063 Concession 4 NDR in the Municipality of West Grey. Our initial peer review comments were provided in a May 20, 2025 letter to the Municipality. Follow-up peer review comments to response letters from GEI on June 6 and June 16 were provided in letters from GSS to the Municipality dated June 12 and July 23, respectively.

COMMENTS

The May 20, 2025 letter from GSS provided five comments, numbered 1 to 5. The June 12 letter from GSS indicated that no further response to comments 1, 2, and 5 was necessary, although it was understood that Comment 5 would be addressed in conjunction with the response to Comment 4. Provided below for context is an abbreviated version of the June 12 comment from GSS with respect to comments 3 and 4, the June 16 response from GEI (in bold), the July 23 comment from GSS, the September 11 response from GEI (in bold), and current comments from GSS. A summary of our current comments is provided at the end of this letter.

3. GSS June 12 Abbreviated Comment: In this instance, it was not apparent that the absence of water level monitoring in the on-site wetland materially diminished the findings of the hydrogeological study. Nevertheless, a suitable recommendation should be added to the site plans for a shallow piezometer to be installed in the on-site surface water feature within one year of issuance of the licence for measurement of surface water and groundwater levels, coincident with groundwater levels in the existing monitoring wells. Water levels should be measured on at least three occasions at least 2 weeks apart during the period of seasonal high water levels. The data should be reviewed by a qualified consultant for consistency with the conclusions presented in the report.

GEI June 16 Response: A note will be added to the site plans as noted above.

GSS July 23 Comment: The substance of the note should be provided.

GEI September 11 Response: In response to the comments received on both June 13, 2025, and July 23, 2025, the wording of the note to be added to the site plan with respect to surface water monitoring is as follows:

A shallow piezometer will be installed in the on-site surface water feature to measure surface water and groundwater levels, coincident with groundwater levels in the existing monitoring wells. Water levels will be monitored on at least three occasions, at least 2 weeks apart during the period of seasonal high-water levels.

GSS Current Comment: Consistent with our previous comment, the note should indicate the timing for installing the piezometer and measuring water levels and what will be done with the water level data.

4. GSS June 12 Abbreviated Comment: Consistent with our original comment, we cannot agree with the conclusion that the water budget for the site will not be changed by the proposed development, and we recommend that the potential changes to the water budget on the site be identified and evaluated for potential effects on nearby surface water features. This is not to suggest that the implications will necessarily be negative. Increased infiltration and reduced runoff on the site could potentially be considered favourable with respect to local surface water features.

GEI June 16 Response: The June 16, 2025 GEI letter provided a summary of a water balance prepared for the site that equated precipitation on the subject property to evapotranspiration/evaporation (ET), surface water runoff (R), and infiltration (I). A pre- and post-development water balance was prepared for the 41.2 ha subject property. The pre-development assessment identified an estimated 90,193 m³ of runoff from the property on an annual basis and 119,520 m³ of infiltration on the property. The post-development assessment identified a reduction in the estimated runoff of 886 m³ (i.e., a 1% reduction) and an increase in infiltration of 356 m³ (a 0.3% increase). The change was shown to be associated with a 1,990 m² area that contained an existing farmhouse and was estimated to be 64% impermeable. The site

plans indicated that the area of the building was located within the proposed pit. The comment concluded that based on the water balance calculations, the impact to the surface water features is that surface runoff to the surface water bodies will not increase.

GSS July 23 Comment: The GEI response did not address the substance of the GSS comment, which was that the site plans identified the development of two separate pits on the property with a combined area of 17.38 ha from which there will be no post-development runoff. As indicated in our previous comments, Note 8. on the Operations Plan and Note 12. on the Progressive Rehabilitation Plan stated that surface water drainage from the pits will be by percolation and evaporation. No drainage outlets from the completed pits were identified. Our interpretation was that there will be no surface runoff from the completed pits unless the runoff temporarily ponds to a sufficient height to overtop the rehabilitated pit walls on the down-slope side, which we estimated from the site plans to be a depth greater than 1 m. We considered the conversion of existing runoff to post-development infiltration over an area of approximately 17.4 ha to represent a substantial change to the water balance for the property. The potential implications of that change to the local ecosystem should be identified and assessed, particularly with respect to the potential for impacts to surface water features both on and near the property. That would include the on-site central ravine and wetland feature, possibly the Saugeen River to the west, and the unnamed watercourse located on the south side of Concession 4 NDR opposite the subject property, as described below.

The presence of the watercourse on the south side of the road was not indicated in the hydrogeological assessment report or on the site plans but was shown on Ministry of Natural Resources topographic and natural heritage mapping. The watercourse was shown to flow through an unevaluated wetland on an adjacent property located south of the gravel pit site. A drainage area for the watercourse generated by GSS using the MNR Ontario Watershed Information Tool (OWIT) indicated that runoff from most of the area of the proposed pit in the south half of the site currently flows to that watercourse and represents a substantial portion of the drainage area. That suggested to us that a culvert beneath Concession 4 NDR could be located in that area, although none was shown on the site plans.

The following additional specific comments are provided with respect to the GEI response:

- The total annual precipitation and estimated evapotranspiration used in the water balance should be identified.
- The method (e.g., Thornthwaite) that was used to estimate the evapotranspiration should be identified.
- The component values for soil type, topography, and surface cover used to estimate the infiltration factors should be identified.
- The response indicated that the direction of surface water runoff shown on the Operations and Progressive Rehabilitation plans was south-southeast. Those plans showed the direction of surface flow within the pits to be west-southwest.

- Note 25a Hydrogeological Study Notes on the Operations Plan specified that sloping of the restored grades to maintain similar catchment areas (pre- and post-development) shall be conducted to maintain surface water flows to the same low-lying locations. Consistent with our previous comments, it is not apparent how that recommendation will be implemented considering that the site plans indicated that there will be no runoff from the rehabilitated pit.

GEI September 11 Response: The GEI response to the GSS comment was provided under five separate headings. Our comments are provided separately under each of those headings after first repeating the GEI response (shown in bold).

Groundwater Fed Surface Water Feature

It is the opinion of GEI that the surface water feature at 382048 Concession 4 is groundwater fed rather than the result of surface water runoff. Monitoring well MW3 on the JT Pit property indicates that the groundwater table ranges from 287.18 masl at the driest times of the year to 288.01 masl at the wettest time of the year. Based on the water levels obtained on the JT Pit at MW3 and a review of the publicly available information such as Grey and Bruce County Groundwater Study and aerial photographs, a portion of the surface water feature at 382048 Concession 4 is groundwater fed especially during times of seasonally high groundwater elevations.

The response initially indicated that the surface water feature is groundwater fed rather than the result of surface water runoff, but went on to note that a portion of the surface water feature is groundwater fed especially during times of seasonally high groundwater elevations. We interpreted that to mean that GEI's position is that a portion of the flow in the watercourse is derived from groundwater discharge. We have no disagreement with that position. If GEI was suggesting that all of the flow in the watercourse is derived from groundwater discharge, then that should be supported with additional information.

Direction of Surface Water Runoff Catchment Area

Based on discussions on June 21, 2025 and August 25, 2025, it is GEI's understanding that there is a concern that the property to the south of the pit property (382048 Concession 4 NDR) will no longer receive surface water run off discharging from the pit property. Surface water run off from the pit property currently travels southwest across the site to the perimeter ditching between the roadway and the property and ultimately to the Saugeen River. Storm water drainage patterns pre and post development are illustrated in enclosed Figures 1 and 2. A 600 mm culvert at a elevation of 288.0 masl is present on the JT Pit Property to discharge surface water runoff under circumstances where pooling occurs, such as during large storm events. The current surface water runoff in the catchment area is west to southwest towards the perimeter ditching and the Saugeen River. These figures demonstrate that surface water drainage from the pit property is not currently proportionally contributing to the surface water feature on

382048 Concession 4 and therefore the development and rehabilitation of the pit property will not negatively impact this property, or the surface water run off that it receives.

The previous comment from GSS was related to the potential impacts to the watercourse on the adjacent property south of the pit property as a result of existing runoff flowing to that watercourse being retained within the proposed pit. Our concern was not that there will be reduced runoff to the adjacent property as a whole.

In their response, GEI indicated the presence of a 600-mm diameter culvert beneath Concession 4 NDR at a location south of the proposed pit property and opposite the mapped watercourse that flows in a southerly direction on the adjacent property to the south. As noted in our previous comment, no culvert or watercourse in that area were identified on the site plans or in the hydrogeological assessment report. Further, Figures 1 and 2 of the September 11 GEI letter also showed the presence of twin 1,000-mm diameter culverts beneath Concession 4 NDR at a location approximately 20 m west of the southwest corner of the proposed licence area. The locations and invert elevations of the culverts and the location of the watercourse should be shown on the site plans.

With respect to the last sentence in the above response, it was not clear to us what was meant by "proportionally", but the drainage arrows shown in catchment 103 on Figure 1 indicated that under existing conditions overland runoff from that catchment area would flow to the 600-mm diameter culvert beneath Concession 4 NDR, where it would presumably discharge to the watercourse. The post-development drainage conditions shown on Figure 2 indicated that the area of catchment 103 would be reduced by the presence of the pit, which would presumably reduce the volume of runoff that would flow to the watercourse.

Site Visit and Site Observations of Surface Water Runoff

A site visit was conducted on August 25, 2025, to determine predevelopment conditions, photos have been included as Appendix A. The site visit occurred following a period of rain events that took place on August 24 and August 25, 2025. It is noted that a culvert was observed on site at the time of the site visit. Photos of the site visit demonstrate that the field appeared to be damp, however, the culvert was dry, and no pooling water was observed. It is noted that the soil at the site has a high hydraulic conductivity which would result in limited surface runoff. Based on field observations, the culvert is present on site to allow drainage of surface water run off during large storm events (100-year storms).

Available precipitation data for the Environment Canada Mount Forest (Aut) station, the closest identified station to the site with current precipitation data, indicated that there was 3.5 mm of rainfall on August 24 and 1.1 mm on August 25. In our opinion, the conditions observed at the site in August, which is generally a period of the year when groundwater and surface water levels are near seasonal lows, would not necessarily provide a reliable indication of typical year-round flow conditions for the culvert. We agree that the relatively high permeability soils identified at the site would tend to promote infiltration and thereby reduce runoff, provided that

the ground surface is not frozen and/or the water table is not near the ground surface. The inferred groundwater contours from April 2023 water level measurements shown on Figure 3 of the hydrogeological assessment report indicated that the water table in the southwest portion of the property was near ground surface at that time and implied that there would be more than 0.5 m of standing water in the low area adjacent to the culvert if the culvert was not there. If it is being suggested that the culvert would only flow during a 100-year storm event, then additional information should be provided to support that.

Surface Water Runoff Onto 382048 Concession 4 NDR

It is acknowledged that there are proportional contributions of surface water runoff based on limited water flow in the above noted culvert; however larger contributions originate from the properties adjacent to the east. The local topography of the properties adjacent to the east of 382048 Concession 4 NDR suggest that the surface run off in the immediate area of 382048 Concession 4 would travel west to the river. The properties immediately adjacent to 382048 Concession Road 4 are approximately 292 masl compared to the approximate elevation of 382048 Concession Road 4 in the wet area of 288 masl. 382048 Concession 4 is also mapped in a floodplain area of the Saugeen River. During times of high-water levels of the Saugeen River, the river is also a likely source of surface water on 382048 Concession 4.

The response acknowledged that there would be a contribution from surface water runoff on the site to the watercourse on the adjacent property to the south via flow through the culvert beneath Concession 4 NDR. We agree that topographical mapping indicates that there is likely to be a contribution to that watercourse via surface runoff from the higher ground to the east. From the information provided in the response, it was not apparent what the magnitude of that contribution would be relative to the contribution from the pit property. The comment related to flood flows in the Saugeen River may have been intended to relate to the property in general, but it was not apparent to us that the river would contribute to flow in the watercourse.

Catchment Area Runoff and Infiltration

While the direction of surface run off will continue to be in a southwesterly direction, it is acknowledged that there will be some change to the overall runoff associated with the pit property. The post rehabilitation grading will maintain the overall direction of runoff; however, some amount of runoff will not discharge off site and will infiltrate on the property due to a “basin” effect from the final contours. There is a volume of water that will be captured in this small “basin” that will not run off the site. This volume of water was calculated to be 376,850 m³ per year based on the area of the excavation areas multiplied by annual precipitation and accounting for a portion of the water to evaporate. While this volume will no longer run off the site, it will infiltrate into the soil on the JT Pit property. The local groundwater flows towards the Saugeen River, the infiltrated water will travel as groundwater to the Saugeen River. It is our opinion that the water balance

of the overall catchment area will not be impacted as the surface water in this area also ultimately travels to the Saugeen River.

The GEI response acknowledged that there will be a reduction in runoff from the site and a corresponding increase in infiltration as a result of water leaving the site as runoff under existing conditions being contained within the completed pits where it will infiltrate. The area of the catchments from which there would be no post-development runoff was identified on Figure 2 as 9.54 ha for the north pit (catchment 200) and 14.54 ha for the south pit (catchment 204). The estimated volume of water that would be captured by the pits was 376,850 m³ per year, based on the area of the excavation areas multiplied by annual precipitation and accounting for a portion of the water to evaporate. That would be a considerable volume of water, equivalent to an average of 1,032 m³/day. Based on the total identified catchment area of 24.08 ha (240,800 m²) that was associated with the pits, the estimated infiltration volume of 376,850 m³ would equate to 1,565 mm of infiltration per year. That does not seem reasonable. For comparison, the 30-year normal (1981-2010) precipitation data for the Environment Canada Durham station was identified as 1,119 mm per year. GEI should review the analysis to confirm that it is appropriate, and the total annual precipitation and estimated evapotranspiration values should be identified, as requested in our previous comments. In addition, we inferred that the estimate provided was for total post-development infiltration associated with the pits. In our view, the increase in post-development infiltration relative to existing conditions would be more relevant for an assessment of the related implications. That would require an estimate of the pre-development infiltration in the affected area, with supporting information.

The response indicated that local groundwater flows to the Saugeen River, and that water that infiltrates in the pits will travel as groundwater to the Saugeen River. Under the heading of Groundwater Fed Surface Water Feature, GEI indicated that the watercourse on the adjacent property to the south was fed by groundwater. We inferred that a portion of that groundwater would originate on the property to be licensed. We also inferred that shallow groundwater on the site would seasonally discharge to the central ravine and wetland feature located between the proposed pits and evaluated in the NETR. Consistent with our previous comments, the potential implications of decreased runoff and increased infiltration on the site should be identified and assessed with respect to the potential for impacts to surface water features on and near the property, including the central ravine and wetland feature, the Saugeen River to the west, and the watercourse located south of Concession 4 NDR opposite the subject property.

SUMMARY OF COMMENTS

The following is a summary of the additional response considered necessary to adequately address our comments.

- The note to be added to the site plans to address our previous Comment 3 should indicate the timing for installing the piezometer and measuring water levels and what will be done with the water level data, consistent with our previous comment.

-
- The locations and invert elevations of the three culverts beneath Concession 4 NDR that were identified in the most recent response from GEI at locations immediately south and southwest of the pit property, as well as the identified watercourse on the adjacent property south of the pit property, should be shown on the site plans for the area within 120 m of the licence boundary.
 - The estimate of the post-development infiltration in the area of the proposed pits should be reviewed to confirm that it is appropriate and relevant input parameters should be provided.
 - Based on GEI's evaluation, specific comments on the potential for impacts to the on-site central ravine and wetland feature and the watercourse on the adjacent property to the south of the site as a result of the identified decreased runoff and increased infiltration in the area of the proposed pits should be provided, together with reasoning that is consistent with the comments provided in this letter.

We trust that these comments are sufficient for the Municipality's current requirements.

Yours truly,

GSS Engineering Consultants Ltd.



W. Brad Benson, P.Eng.
Senior Hydrogeologist

September 11, 2025

Project No. 2401284

GSS Engineering Consultants Ltd.
945 3rd Avenue East, Suite 230
Owen Sound, ON
N4K 2K8

Attention: W. Brad Benson

**Re: Peer Review Comment Response
Maximum Predicted Water Table and Hydrogeological Assessment Report
Proposed Class 'A' Pit Above Water (JT Pit), JT Excavating Ltd,
Municipality of West Grey, Grey County**

Dear Brad:

GEI Consultants Canada Inc (GEI) has been retained by JT Excavating Ltd (the Client) to provide a response to the Peer Review Comments issued to the Municipality of West Grey by GSS Consultants Ltd, dated July 23, 2025. The response below is based on our review of the comments provided, desktop review and analysis of available data as well as the meetings that were held on July 21 and August 25, 2025.

Surface Water Monitoring

In response to the comments received on both June 13, 2025, and July 23, 2025, the wording of the note to be added to the site plan with respect to surface water monitoring is as follows:

A shallow piezometer will be installed in the on-site surface water feature to measure surface water and groundwater levels, coincident with groundwater levels in the existing monitoring wells. Water levels will be monitored on at least three occasions, at least 2 weeks apart during the period of seasonal high-water levels.

Groundwater Fed Surface Water Feature

It is the opinion of GEI that the surface water feature at 382048 Concession 4 is groundwater fed rather than the result of surface water runoff. Monitoring well MW3 on the JT Pit property indicates that the groundwater table ranges from 287.18 masl at the driest times of the year to 288.01 masl at the wettest time of the year. Based on the water levels obtained on the JT Pit at MW3 and a review of the publicly available information such as Grey and Bruce County Groundwater Study and aerial photographs, a portion of the surface water feature at 382048 Concession 4 is groundwater fed especially during times of seasonally high groundwater elevations.

Direction of Surface Water Runoff Catchment Area

Based on discussions on June 21, 2025 and August 25, 2025, it is GEI's understanding that there is a concern that the property to the south of the pit property (382048 Concession 4 NDR) will no longer receive surface water run off discharging from the pit property. Surface water run off from the pit property currently travels southwest across the site to the perimeter ditching between the roadway and the property and ultimately to the Saugeen River. Storm water drainage patterns pre and post development are illustrated in enclosed Figures 1 and 2. A 600 mm culvert at a elevation of 288.0 masl is present on the JT Pit Property to discharge surface water runoff under circumstances where pooling occurs, such as during large storm events. The current surface water runoff in the catchment area is west to southwest towards the perimeter ditching and the Saugeen River. These figures demonstrate that surface water drainage from the pit property is not currently proportionally contributing to the surface water feature on 382048 Concession 4 and therefore the development and rehabilitation of the pit property will not negatively impact this property, or the surface water run off that it receives.

Site Visit and Site Observation of Surface water Runoff

A site visit was conducted on August 25, 2025, to determine predevelopment conditions, photos have been included as Appendix A. The site visit occurred following a period of rain events that took place on August 24 and August 25, 2025. It is noted that a culvert was observed on site at the time of the site visit. Photos of the site visit demonstrate that the field appeared to be damp, however, the culvert was dry, and no pooling water was observed. It is noted that the soil at the site has a high hydraulic conductivity which would result in limited surface runoff. Based on field observations, the culvert is present on site to allow drainage of surface water run off during large storm events (100-year storms).

Surface Water Runoff Onto 382048 Concession 4 NDR

It is acknowledged that there are proportional contributions of surface water runoff based on limited water flow in the above noted culvert; however larger contributions originate from the properties adjacent to the east. The local topography of the properties adjacent to the east of 382048 Concession 4 NDR suggest that the surface run off in the immediate area of 382048 Concession 4 would travel west to the river. The properties immediately adjacent to 382048 Concession Road 4 are approximately 292 masl compared to the approximate elevation of 382048 Concession Road 4 in the wet area of 288 masl. 382048 Concession 4 is also mapped in a floodplain area of the Saugeen River. During times of high-water levels of the Saugeen River, the river is also a likely source of surface water on 382048 Concession 4.

Catchment Area Run off and Infiltration

While the direction of surface run off will continue to be in a southwesterly direction, it is acknowledged that there will be some change to the overall runoff associated with the pit property. The post rehabilitation grading will maintain the overall direction of runoff; however, some amount of runoff will not discharge off site and will infiltrate on the property due to a "basin" effect from the final contours. There is a volume of water that will be captured in this small "basin" that will not run off the site. This

volume of water was calculated to be 376,850 m³ per year based on the area of the excavation areas multiplied by annual precipitation and accounting for a portion of the water to evaporate. While this volume will no longer run off the site, it will infiltrate into the soil on the JT Pit property. The local groundwater flows towards the Saugeen River, the infiltrated water will travel as groundwater to the Saugeen River. It is our opinion that the water balance of the overall catchment area will not be impacted as the surface water in this area also ultimately travels to the Saugeen River.

If you have any questions, please feel free to contact me via email at kpickett@geiconsultants.com.

Sincerely,

GEI Consultants Canada Ltd.



Kim Pickett, M. Ed, C.E.T, LET, QP_{ESA}
Project Geoscientist



Matthew Nelson, P. Eng., P. Geo
Vice President, Senior Project Manager,
Environmental Practice Lead

Enclosure:

Appendix A Site Photos

Appendix B Stormwater Drainage Figures

Appendix A Site Photos



**Photograph 1
(GEI 2025)**

Description:
Dry culvert
following rain
event



**Photograph 2
(GEI 2025)**

Description:
Inside of culvert –
viewing south to
property 382048
Concession 4
NDR, following a
rain event



**Photograph 3
(GEI 2025)**

Description:
Entrance to the
culvert originating
on pit property,
following rain
event



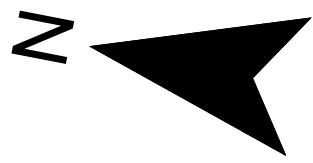
**Photograph 4
(GEI 2025)**

Description:
Existing culvert
originating on JT
Pit property,
following a rain
event

Appendix B Figures

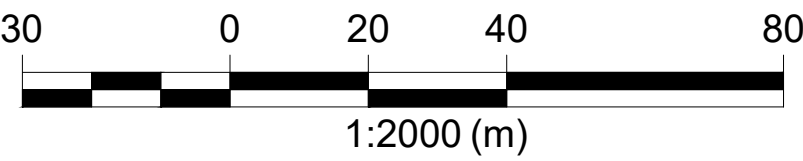
FILE: B:\Working\CANDUE HOMES\2401284 - 220135 ARA Pit Application - 382063 Conc. 4\Drawings\2401284 JT Pit.dwg LAYOUT: PRE - DP
LAST SAVED BY: Dipha4270, 9/11/2025 11:36:31 AM PLOTTED BY: Thapa, Dipesh 9/11/2025 12:36:32 PM

PROPOSED AGGREGATE PIT
MUNICIPALITY OF WEST GREY



LEGEND

- SITE BOUNDARY
- - - CATCHMENT BOUNDARY
- 100
3.35 CATCHMENT NUMBER
CATCHMENT AREA (ha)
- OVERLAND FLOW DIRECTION

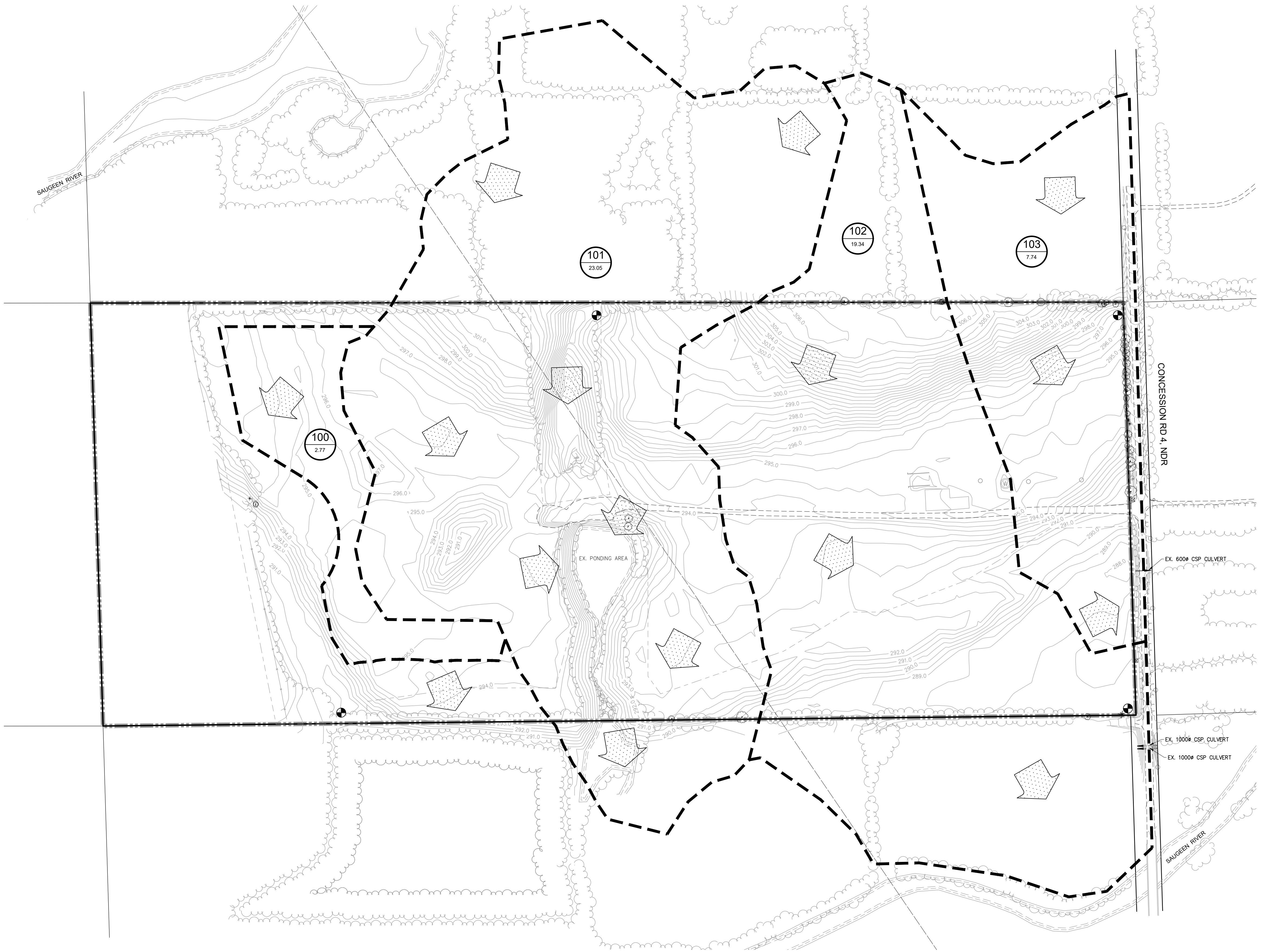


PRE - DEVELOPMENT
DRAINAGE PLAN

Figure No. 1

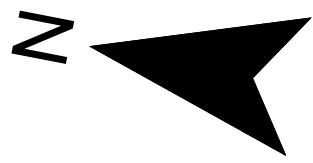


220135
SEPTEMBER 2025
Scale: 1:2000



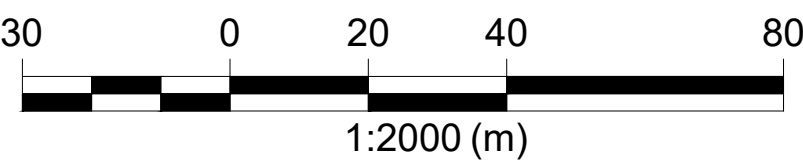
FILE: B:\Working\CANDUE HOMES\2401284 - 220135 ARA Pit Application - 382063 Conc. 4\Drawings\2401284 JT Pit.dwg LAYOUT: POST - DP
LAST SAVED BY: Diphah4270, 9/11/2025 11:36:31 AM PLOTTED BY: Thapa, Dipesh 9/11/2025 12:35:41 PM

PROPOSED AGGREGATE PIT
MUNICIPALITY OF WEST GREY



LEGEND

- SITE BOUNDARY
- - - CATCHMENT BOUNDARY
- 100
3.35 CATCHMENT NUMBER
CATCHMENT AREA (ha)
- ← OVERLAND FLOW DIRECTION



POST - DEVELOPMENT
DRAINAGE PLAN

Figure No. 2



220135
SEPTEMBER 2025
Scale: 1:2000





25-029

July 23, 2025

Municipality of West Grey
402813 Grey Road 4
Durham, Ontario
N0G 1R0

Attention: David Smith
Manager of Planning

Re: **GEI Consultants June 16, 2025 Response to Peer Review Comments on
Maximum Predicted Water Table and Hydrogeological Assessment Report
Proposed Class 'A' Pit Above Water (JT Pit), JT Excavating Ltd.
Municipality of West Grey, Grey County**

Dear Sir,

This letter provides our comments on the June 16, 2025 response from GEI Consultants Canada Ltd. (GEI) to peer review comments made by GSS Engineering Consultants Ltd. (GSS) in a June 12, 2025 letter to the Municipality of West Grey. A copy of the June 16 GEI letter was received by GSS on July 11. GSS was originally retained by the Municipality to provide peer review comments on the November 2023 (revised) maximum predicted water table and hydrogeological assessment report prepared by GM BluePlan Engineering Limited (GMBP) for JT Excavating Ltd. for a proposed above the water table pit to be located at 382063 Concession 4 NDR in the Municipality of West Grey. Our initial peer review comments were provided in a May 20, 2025 letter to the Municipality and a response to those comments was provided in a June 6 letter from GEI.

Comments

The May 20, 2025 letter from GSS provided five comments, numbered 1 to 5. The June 12 letter from GSS indicated that no further response to comments 1, 2, and 5 was necessary, although it was understood that Comment 5 would be addressed in conjunction with the response to Comment 4. Provided below is the previous correspondence related to Comments 2 and 3 and our current comments on the June 16 GEI response. The undersigned discussed our concerns with the response to Comment 4 with Kim Pickett of GEI on July 21.

-
3. The report noted that based on field observations and groundwater elevation data collected, the occurrence of surface water on the site (i.e., in the central saturated area) was expected to be consistent with the occurrence of the groundwater elevation. Surface water level monitoring data collected for the central ravine and wetland feature should be provided.

GEI Response: Surface water field observations made during site visits to conduct groundwater level monitoring noted that the surface water appears to be present in this area during relatively high groundwater conditions or during surface run-off flooding events. Further, evidence of the surface water feature was not present during dry seasons.

The proposed on site pit operations are required to have a setback from the areas of the property designated as Hazard Lands as part of the Grey County Official Plan. It is our understanding that development within the area designated as an SVCA screening area is not prohibited as long as suitable consultation with the SVCA has been conducted. SVCA has provided their sign off on the proposed pit.

As noted during the field observations made during site visits, the surface water appears to be seasonal in nature and does not need specific monitoring.

GSS Comment: The GEI response indicated that surface water level measurements were not carried out in the on-site surface water feature. In our opinion, water level monitoring in that wetland should have been carried out for the purpose of identifying the high water table elevation on the site and to provide base-line data for the wetland. The report indicated that the seasonal ponding areas in the central portion of the Site were inferred to be associated with the shallow water table elevation. That could have been readily confirmed with installation and monitoring of a shallow piezometer. We disagree with the suggestion that surface water monitoring was not needed because the occurrence of surface water was seasonal. The intent of the study was to identify the seasonal high water table on the site, which would coincide with the period when water was present in the wetland.

In this instance, it was not apparent that the absence of water level monitoring in the on-site wetland materially diminished the findings of the hydrogeological study. Nevertheless, a suitable recommendation should be added to the site plans for a shallow piezometer to be installed in the on-site surface water feature within one year of issuance of the licence for measurement of surface water and groundwater levels, coincident with groundwater levels in the existing monitoring wells. Water levels should be measured on at least three occasions at least 2 weeks apart during the period of seasonal high water levels. The data should be reviewed by a qualified consultant for consistency with the conclusions presented in the report.

GEI Response: A note will be added to the site plans as noted above.

GSS Comment: The substance of the note should be provided.

-
4. The report noted that since there are no proposed interactions with the water table or surface water features, the overall water budget, pre- to post-development, is expected to remain unchanged, and stated that equal infiltration to the subsurface will continue post-development. A water budget for the site was not presented. The main components of a water budget are precipitation, losses from evapotranspiration, runoff, and infiltration. The proposed limits of extraction were not shown on the cross-sections in the report, and we did not see the site plans. However, the information provided in the report suggested to us that there would be no surface runoff from the pit created in the north half of the site and reduced or no runoff from the pit created in the south half of the site. A reduction in the existing runoff would change the water budget and result in a corresponding increase in infiltration. GMBP should provide additional information to support the conclusion that the water budget for the site will not be changed by the proposed development. If there is a potential for a change in the water budget, then the associated implications should be evaluated.

GEI Response: The existing infiltration rates at the site are not expected to change due to the proposed aggregate extraction. The proposal is for an above water gravel pit which requires the bottom elevation to be 1.5 m above the maximum predicted groundwater table. Given the high permeability of the soil, which will remain after extraction, surface water will continue to infiltrate at a similar rate to pre-development.

Water budgets are designed for land development that includes changes to land use, especially the creation of impermeable surfaces. In our experience, water budgets are not typically applied to greenfield type works that result in temporary land use and localized changes to grading. Our comments regarding water budget relate to the large-scale and long-term considerations which includes the maintenance of open fields and vegetated lands that will continue to slope towards the same features.

As noted on Drawing No. 3 Progressive Rehabilitation Plan, the surface flow direction (indicated by surface flow direction arrows on the drawing) will continue to be northeast pre and post development.

GSS Comment: The rate of post-development infiltration may be similar to the pre-development rate based on the consistency of soil type, but the volume of infiltration on an annual basis will change. The site plans indicated that two enclosed pits will be created in the north and south halves of the site. Notes on both the Operations Plan and the Progressive Rehabilitation Plan indicated that surface water drainage from those pits will be by percolation or evaporation, meaning there will be no runoff from those areas. The existing ground profiles shown on Sections B-B, C-C, and D-D on Drawing No. 4 indicated that there would be surface runoff to the west at the section locations under existing conditions. The proposed rehabilitation ground profiles shown on the same sections indicated that there would be no runoff beyond the western limit of the completed pits. Presumably, most of the volume of the current run-off from the 17.4-ha extraction area will become infiltration, with some potential for increased evapotranspiration. It is not conceivable to us that equal infiltration to the subsurface will continue post-development. We would consider the creation

of a gravel pit on the site to be a change in land use and the alterations to the drainage conditions on the site to be permanent.

We assumed that the GEI comment that the surface flow direction indicated by the arrows on Drawing No. 3 Progressive Rehabilitation Plan will continue to be northeast was intended to mean west-southwest. The direction of surface water runoff within the completed pit may be consistent with the pre-development direction, but the site plans indicated that there will be no runoff at the western limit of the pits, as there is under existing conditions, unless the runoff ponds to a sufficient depth in the pit to flow over the top of the completed slopes.

Consistent with our original comment, we cannot agree with the conclusion that the water budget for the site will not be changed by the proposed development, and we recommend that the potential changes to the water budget on the site be identified and evaluated for potential effects on nearby surface water features. This is not to suggest that the implications will necessarily be negative. Increased infiltration and reduced runoff on the site could potentially be considered favourable with respect to local surface water features.

GEI Response: The June 16, 2025 letter provided a summary of a water balance prepared for the site that equated precipitation on the subject property to evapotranspiration/evaporation (ET), surface water runoff (R), and infiltration (I). A pre- and post-development water balance was prepared for the 41.2 ha subject property. The pre-development assessment identified an estimated 90,193 m³ of runoff from the property on an annual basis and 119,520 m³ of infiltration on the property. The post-development assessment identified a reduction in the estimated runoff of 886 m³ (i.e., a 1% reduction) and an increase in infiltration of 356 m³ (a 0.3% increase). The change was shown to be associated with a 1,990 m² area that contained an existing farmhouse and was estimated to be 64% impermeable. The site plans indicated that the area of the building was located within the proposed pit. The comment concluded that based on the water balance calculations, the impact to the surface water features is that surface runoff to the surface water bodies will not increase.

GSS Comment: The GEI response did not address the substance of the GSS comment, which was that the site plans identified the development of two separate pits on the property with a combined area of 17.38 ha from which there will be no post-development runoff. As indicated in our previous comments, Note 8. on the Operations Plan and Note 12. on the Progressive Rehabilitation Plan stated that surface water drainage from the pits will be by percolation and evaporation. No drainage outlets from the completed pits were identified. Our interpretation was that there will be no surface runoff from the completed pits unless the runoff temporarily ponds to a sufficient height to overtop the rehabilitated pit walls on the down-slope side, which we estimated from the site plans to be a depth greater than 1 m. We considered the conversion of existing runoff to post-development infiltration over an area of approximately 17.4 ha to represent a substantial change to the water balance for the property. The potential implications of that change to the local ecosystem should be identified and assessed, particularly with respect to the potential for impacts to surface water

features both on and near the property. That would include the on-site central ravine and wetland feature, possibly the Saugeen River to the west, and the unnamed watercourse located on the south side of Concession 4 NDR opposite the subject property, as described below.

The presence of the watercourse on the south side of the road was not indicated in the hydrogeological assessment report or on the site plans but was shown on Ministry of Natural Resources topographic and natural heritage mapping. The watercourse was shown to flow through an unevaluated wetland on an adjacent property located south of the gravel pit site. A drainage area for the watercourse generated by GSS using the MNR Ontario Watershed Information Tool (OWIT) indicated that runoff from most of the area of the proposed pit in the south half of the site currently flows to that watercourse and represents a substantial portion of the drainage area. That suggested to us that a culvert beneath Concession 4 NDR could be located in that area, although none was shown on the site plans.

The following additional specific comments are provided with respect to the GEI response:

- The total annual precipitation and estimated evapotranspiration used in the water balance should be identified.
- The method (e.g., Thornthwaite) that was used to estimate the evapotranspiration should be identified.
- The component values for soil type, topography, and surface cover used to estimate the infiltration factors should be identified.
- The response indicated that the direction of surface water runoff shown on the Operations and Progressive Rehabilitation plans was south-southeast. Those plans showed the direction of surface flow within the pits to be west-southwest.
- Note 25a Hydrogeological Study Notes on the Operations Plan specified that sloping of the restored grades to maintain similar catchment areas (pre- and post-development) shall be conducted to maintain surface water flows to the same low-lying locations. Consistent with our previous comments, it is not apparent how that recommendation will be implemented considering that the site plans indicated that there will be no runoff from the rehabilitated pit.

We trust that these comments are sufficient for the Municipality's current requirements.

Yours truly,

GSS Engineering Consultants Ltd.



W. Brad Benson, P.Eng.
Senior Hydrogeologist

June 16, 2025

Project No. 2401284

GSS Engineering Consultants Ltd.
945 3rd Avenue East, Suite 230
Owen Sound, ON
N4K 2K8

Attention: W. Brad Benson

**Re: Peer Review Comment Response
Maximum Predicted Water Table and Hydrogeological Assessment Report
Proposed Class 'A' Pit Above Water (JT Pit), JT Excavating Ltd,
Municipality of West Grey, Grey County**

Dear Brad:

GEI Consultants Canada Inc (GEI) has been retained by JT Excavating Ltd (the Client) to provide a response to the Peer Review Comment response issued to the Municipality of West Grey by GSS Consultants Ltd, dated June 13, 2025.

The following responses are provided to your comments on the Maximum Predicted Water Table and Hydrogeological Assessment Report:

GSS Consultants Limited Comment

1. No further response is necessary.

GSS Consultants Limited Comment

2. No further response is necessary.

GSS Consultants Limited Comment

3. The report noted that based on field observations and groundwater elevation data collected, the occurrence of surface water on the site (ie. in the central saturated area) was expected to be consistent with the occurrence of the groundwater elevation. Surface water level monitoring data collected for the central ravine and wetland feature should be provided.

GEI Response

Surface water field observations made during site visits to conduct groundwater level monitoring noted that the surface water appears to be present in this area during relatively high groundwater conditions or

during surface run-off flooding events. Further, evidence of the surface water feature was not present during dry seasons.

The proposed on site pit operations are required to have a setback from the areas of the property designated as Hazard Lands as part of the Grey County Official Plan. It is our understanding that development within the area designated as an SVCA screening area is not prohibited as long as suitable consultation with the SVCA has been conducted. SVCA has provided their sign off on the proposed pit.

As noted during the field observations made during site visits, the surface water appears to be seasonal in nature and does not need specific monitoring.

GSS Consultants Limited Comment

The GEI response indicated that the surface water level measurements were not carried out in the on-site surface water feature. In our opinion, water level monitoring in that wetland should have been carried out for the purpose of identifying the high water table elevation on the site and to provide base-line data for the wetland. The report indicated that the seasonal ponding areas in the central portion of the Site were inferred to be associated with the shallow water table elevation. That could have been readily confirmed with installation and monitoring of a shallow piezometer. We disagree with the suggestion that surface water monitoring was not needed because the occurrence of surface water was seasonal. The intent of the study was to identify the seasonal high-water table on the site, which would coincide with the period when water was present in the wetland.

In this instance, it was not apparent that the absence of water level monitoring in the on site wetland materially diminished the findings of the hydrogeological study. Nevertheless, a suitable recommendation should be added to the site plans for a shallow piezometer to be installed in the on-site surface water feature within one year of issuance of the license for measurement of surface water and groundwater levels, coincident with groundwater levels in the existing monitoring wells. Water levels should be measured on at least three occasions, at least 2 weeks apart during the period of seasonal high water levels. The data should be reviewed by a qualified consultant for consistency with the conclusions presented in the report.

GEI Response

A note will be added to the site plans as noted above.

GSS Consultants Limited Comment

4. The report noted that since there are no proposed interactions with the water table or surface water features, the overall water budget, pre- to post-development, is expected to remain unchanged, and stated that equal infiltration to the subsurface will continue post-development. A water budget for the site was not presented. The main components of a water budget are precipitation, losses from evapotranspiration, run off and infiltration. The proposed limits of extraction were not shown on the cross sections in the report and we did not see the site plans. However, the information provided in the report suggested to us that there would be no surface

runoff from the pit created in the north half of the site and reduced or no runoff from the pit created in the south half of the site. A reduction in the existing run off would change the water budget and result in a corresponding increase in infiltration. GMBP should provide additional information to support the conclusion that the water budget for the site will not be changed by the proposed development. If there is a potential for a change in the water budget, then the associated implications should be evaluated.

GEI Response

The existing infiltration rates at the site are not expected to change due to the proposed aggregate extraction. The proposal is for an above water gravel pit which requires the bottom elevation to be 1.5 m above the maximum predicted groundwater table. Given the high permeability of the soil, which will remain after extraction, surface water will continue to infiltrate at a similar rate to pre-development.

Water budgets are designed for land development that includes changes to land use, especially the creation of impermeable surfaces. In our experience, water budgets are not typically applied to green field type works that result in temporary land use and localized changes to grading. Our comments regarding the water budget relate to the large-scale and long-term considerations which includes the maintenance of open fields and vegetated lands that will continue to slope towards the same features.

As noted on Drawing No. 3 Progressive Rehabilitation Plan, the surface flow direction (indicated by surface flow direction arrows on the drawing) will continue to be northeast pre and post development.

GSS Consultants Limited Comment

The rate of post-development infiltration may be similar to the pre-development rate based on the consistency of soil type, but the volume of infiltration on an annual basis will change. The site plans indicated that two enclosed pits will be created in the north and south halves of the site. Notes on both the Operations Plan and the Progressive Rehabilitation Plan indicated that surface water drainage from those pits will be by percolation or evaporation, meaning there will be no runoff from those areas. The existing ground profiles shown on Section B-B, C-C, D-D on Drawing No. 4 indicated there would be no surface runoff to the west at the section locations under existing conditions. The proposed rehabilitation ground profiles shown on the same sections indicated that there would be surface runoff to the west at the section locations under existing conditions. The proposed rehabilitation ground profiles shown on the same sections indicated that there would be no runoff beyond the western limit of the completed pits. Presumably, most of the volume of the current runoff from the 17.4 ha extraction area will become infiltration, with some potential for increased evapotranspiration. It is not conceivable to us that equal infiltration to the subsurface will continue post-development. We would consider the creation of a gravel pit on the site to be a change in land use and the alterations to the drainage conditions on the site to be permanent.

We assumed that the GEI comment that the surface flow direction indicated by the arrows on Drawing No. 3 Progressive Rehabilitation Plan will continue to be northeast was intended to mean west southwest. The direction of surface water runoff within the completed pit may be consistent with the pre-

development direction, but the site plans indicated that there will be no runoff at the western limit of the pits, as there is under existing conditions, unless the runoff ponds to a sufficient depth in the pit to flow over the top of the completed slopes.

Consistent with our original comment, we cannot agree with the conclusion that the water budget for the site will not be changed by the proposed development, and we recommend that the potential changes to the water budget on the site be identified and evaluated for potential effects on nearby surface water features. This is not to suggest that the implications will necessarily be negative. Increased infiltration and reduced runoff on the site could potentially be considered favourable with respect to local surface water features.

GEI Response

The direction of surface water run off as indicated on Drawing No. 3 Progressive Rehabilitation Plan is south southeast, which is consistent with the direction of surface water run off indicated on Drawing No. 2.

A water balance is an accounting of the water resources within a given area. The water balance equates the precipitation (P) over a given area to the summation of the change in groundwater storage (S), evapotranspiration/evaporation (ET), surface water runoff (R) and infiltration (I) using the following equation:

$$P = S + I + ET + R$$

The components of the water balance vary in space and time and depend on climatic conditions as well as the soil and land cover conditions (i.e., rainfall intensity, land slope, soil hydraulic conductivity and vegetation). For example, runoff occurs at a higher percentage during periods of snowmelt when the ground is frozen or during intense rainfall events.

Precise measurement of the water balance components is difficult, and as such, approximations and simplifications are made to characterize the water balance of a property. Field observations of the drainage conditions, land cover and soil types, groundwater levels and local climatic records are important inputs to the water balance calculations.

- Precipitation (P): For the purposes of approximating the annual precipitation at this site, the monthly rainfall between 1981 and 2010 was used based on Environment Canada historical weather data for the “Hanover” weather station.
- Storage (S): Although there are groundwater storage gains and losses on a short-term basis, the net change in groundwater storage on a long-term basis is assumed to be zero.
- Evapotranspiration/Evaporation (PET): The evapotranspiration and evaporation components vary based on the characteristics of the land surface cover (i.e., type of vegetation, soil moisture conditions, perviousness of surfaces, etc.). Potential evapotranspiration refers to the water loss from a vegetated surface to the atmosphere under conditions of an unlimited water supply. Evaporation occurs from a hard surface (such as flat rooftops, asphalt, gravel parking areas, etc.).

- Water Surplus (R + I): The difference between the mean precipitation and evapotranspiration is referred to as the water surplus. The water surplus is divided into two parts: as surface or overland runoff (R) and the infiltration into the surficial soil (I). The infiltration is comprised of two end member components: one component that moves vertically downward to underlying aquifers (referred to as percolation, deep infiltration or net recharge) and a second component that moves laterally through the near surface soil profile or shallow soils as interflow that re-emerges locally to surface (i.e., as runoff) at some short distance and time following precipitation.

The analytical approach to calculate the water balance involves monthly soil-moisture balance calculations to determine the pre-development infiltration volumes. The detailed water balance calculation is provided as an enclosure, which is summarized in this and subsequent sections of the report. The following assumptions were used as part of the soil-moisture balance calculations:

- A soil moisture balance approach assumes that soils do not release water as potential recharge while a soil moisture deficit exists.
- During wetter periods, any excess of precipitation over evapotranspiration first goes to restore soil moisture. Considering the nature of the current near surface soils, a soil moisture storage capacity of 75 mm was assumed for pre-development scenarios.
- Once the soil moisture deficit is overcome, any further excess water can then pass through the soil as infiltration and either become interflow (indirect runoff) or recharge (deep infiltration).

Monthly potential evapotranspiration calculations accounting for latitude, climate and the actual evapotranspiration and water surplus components of the water balance based on the monthly precipitation and soil moisture conditions were calculated. The MECP SWM Planning and Design Manual (2003) methodology for calculating total infiltration based on topography, soil type and land cover was used, and a corresponding infiltration factor was calculated for pre- and post-development conditions. The water surplus was multiplied by the infiltration factor to determine both the pre-existing and post-condition annual volumes for run-off and infiltration for the property.

The pre-development scenario was estimated from the site drawings and aerial images. As the site is predominantly covered by agricultural fields and tree cover, with a building and small driveway, the condition of the site pre-development is considered to be 99.7% permeable and 0.3% impermeable. The post-development water balance scenario was estimated based on Drawing No. 3 Progressive Rehabilitation Plan. The post-development scenario assumes 100% of the site remains permeable land.

It is noted that the infiltration and runoff values presented in the enclosure are estimates only. Single values are used for the water balance calculations, but it is important to understand that infiltration rates are dependent upon the hydraulic conductivity of the surficial soils which may vary over several orders of magnitude. As such, the margins of error for the calculated infiltration and runoff component values are potentially quite large. These margins of error are recognized, but for the purposes of this assessment, the numbers used in the water balance calculations are considered reasonable estimates based on the site-specific conditions and useful for comparison of pre- to post-development conditions.

Detailed water balance calculations are included in the enclosure. The pre-development calculations summarized in this section are preliminary only and must be updated once site plans are finalized.

The table below summarizes the pre-construction water balance as per the proposed site development plans.

	SUMMARY			
	Infiltration		Runoff	
	m ³ /year	%	m ³ /year	%
Pre-to-Post Change Without Mitigation	356	0	-886	0
Required to Meet Pre-Development Conditions	0	-	886	-

These calculations suggest that there is a slight decrease in runoff and increase in infiltration. Based on the water balance calculations, the impact to the surface water features is that surface run off to the surface water bodies will not increase.

GSS Consultants Limited Comment

5. No further response is necessary.

If you have any questions, please feel free to contact me via email at kpickett@geiconsultants.com.

Sincerely,

GEI Consultants Canada Ltd.

Kim Pickett, M. Ed, C.E.T, LET, QP_{ESA}
Project Geoscientist

Matthew Nelson, P. Eng., P. Geo
Senior Project Manager, ENV Practice Lead

Enclosure: Water Balance Calculation

Pre-to-Post Development Water Balance

PRE- AND POST-DEVELOPMENT WATER BALANCE (WITH MITIGATION)									
		Total Land Area (m ²)	Impervious Factor	Pervious Area (m ²)	Impervious Area (m ²)	Infiltration Factor	Runoff Factor	Infiltration (m ³ /year)	Runoff (m ³ /year)
Existing Land Use (Pre-Development)	Agriculture fields	312483	0.00%	312483	0	0.55	0.45	87260	71395
	Naturalized treed and vegetated areas	92551	0.00%	92551	0	0.65	0.35	30544	16447
	Farm house	1990	64.00%	717	1274	0.55	0.45	200	1341
	Low-lying vegetated area with seasonal saturation/ponding	4976	0.00%	4976	0	0.60	0.40	1516	1011
	TOTAL	412,000	0.31%	410,726	1,274	0.57	0.43	119,520	90,193
Proposed Land Use (Post-Development No Mitigation)	Lawn	314473	0.00%	314473	0	0.55	0.45	87816	71850
	Naturalized treed and vegetated areas	92551	0.00%	92551	0	0.65	0.35	30544	16447
	Low-lying vegetated area with seasonal saturation/ponding	4976	0.00%	4976	0	0.60	0.40	1516	1011
	TOTAL	412,000	0.00%	412,000	0	0.57	0.43	119,876	89,307

SUMMARY			
Infiltration		Runoff	
m ³ /year	%	m ³ /year	%
Pre-to-Post Change Without Mitigation		356	0
Required to Meet Pre-Development Conditions		0	-

Notes

- 1. Both potential infiltration and surface water runoff are independent of temperature
- 2. Assumption is in January maximum soil moisture storage value is present (75mm)
- 3. Water Holding Capacity & Infiltration Factors taken from Table 3.1 of MOE SWMPDM, 2003
- 4. Average Temp. and Precip. taken from Environment Canada station Hanover (6113329)
- 5. Adjusting Factor for U based on Lorente, 1961



25-029

June 12, 2025

Municipality of West Grey
402813 Grey Road 4
Durham, Ontario
N0G 1R0

Attention: David Smith
Manager of Planning

Re: **GEI Consultants Response to Peer Review Comments on
Maximum Predicted Water Table and Hydrogeological Assessment Report
Proposed Class 'A' Pit Above Water (JT Pit), JT Excavating Ltd.
Municipality of West Grey, Grey County**

Dear Sir,

As requested, this letter provides our comments on the June 6, 2025 response from GEI Consultants Canada Ltd. (GEI) to peer review comments made by GSS Engineering Consultants Ltd. (GSS) on the November 2023 (revised) maximum predicted water table and hydrogeological assessment report prepared by GM BluePlan Engineering Limited (GMBP) for JT Excavating Ltd. for a proposed above the water table pit to be located at 382063 Concession 4 NDR in the Municipality of West Grey. The peer review comments were provided in a May 20, 2025 letter from GSS to the Municipality of West Grey.

Comments

Provided below are the original comments from GSS, the June 6, 2025 response from GEI, and an additional comment from GSS on the GEI response.

1. Original Comment: Groundwater levels at the site were reportedly measured on seven occasions in the period from February 23, 2021 to June 25, 2023, including measurements on April 7, 2021, March 24, 2022, and April 10, 2023. The report indicated that the high groundwater table elevation was expected to be consistent with the water levels measured on April 10, 2023, which were made following a period of significant snow melt and precipitation. The report recommended that the monitoring wells continue to be monitored during the pit application process so that direct measurement of the high water level could

be confirmed and the pit floor elevation updated accordingly. We considered it likely that single-day measurements in late March/early April over three consecutive years were adequate to indicate the typical high water level at the site. However, a comparison between available precipitation data for the period of monitoring and typical precipitation levels for the area of the site should be provided to support the finding that the identified seasonal high water table was reasonably representative of typical conditions. The MNRF August 2020 Aggregate Resources of Ontario (ARO) standards for a maximum predicted water table report (updated in August 2023) defined the maximum predicted water table as the maximum groundwater elevation predicted by a qualified person who has considered conditions at the site and mean annual precipitation levels.

GEI Response: GEI has compared the climate normal at a nearby weather station which is available through the Environment Canada website to the precipitation data for March and April 2021, 2022, and 2023. The Environment Canada Climate Normals for Hanover (1981–2010), and the precipitation records for the monitoring years (2021, 2022, and 2023) indicate that total precipitation during March and April in those years was broadly consistent with, or in some cases slightly above, the 1981–2010 normals. This is demonstrated in the table below:

Date	30-year Climate Normal (mm)	Recorded Precipitation Value (mm)
March 2021	72mm	54.6 mm
April 2021	73.1 mm	50.9 mm
March 2022	72mm	81.5 mm
April 2022	73.1 mm	69.0 mm
March 2023	72mm	85.2 mm
April 2023	73.1 mm	106.2 mm

Specifically, the period preceding the April 10, 2023, measurement was characterized by both above average snowfall accumulation and subsequent melt, which is consistent with the expected seasonal high groundwater recharge pattern. In order to further demonstrate that the cumulative effect of melting snow and precipitation in the form of rainfall would result in the seasonal high groundwater level being in April, the graph below of the climate normal for each month of the year indicates that the highest snow melt and rainfall combined is typical in March and April (i.e., the spring freshet).

In conclusion, through many decades of experience and documentation, it is known that the spring condition yields the “high” groundwater elevation. Based on the higher-than-normal precipitation in April 2023 combined with the spring freshet, it is reasonable to expect that this will provide a representative value for the “high” groundwater elevation.

GSS Comment: Our interpretation was that the objective of the MNRF requirement to consider conditions at the site and mean annual precipitation levels when identifying the maximum predicted water table was to confirm that the monitoring was not conducted during a prolonged dry period when measured water levels would not be indicative of typical seasonal high water levels for the site. The comment was not intended to suggest that seasonal high water levels do not typically occur in the spring. We were not convinced that objective was achieved by reviewing recorded precipitation values for a 1-month period prior to the date of the water level measurement.

We inferred that the recorded precipitation values included in the response were for the Environment Canada Mount Forest station, as daily precipitation data for the Hanover station are not available for the period after 2008. Our comparison of recorded monthly and annual precipitation data for the Mount Forest station and the closer Markdale station to the monthly normals and average annual precipitation of 1087 mm for the Hanover station indicated to us that the April 10, 2023 water levels measurements were not conducted during a prolonged period of lower than normal precipitation. No further response is necessary.

2. The approximate boundary of proposed extraction was shown on Figure 3 in the report, together with inferred contours for the surface of the estimated high water table. Two separate, irregularly shaped extraction areas were shown north and south of the central divide. The limits of extraction and the property boundaries were not shown on the cross-sections on Figures 4A and 4B; the only references were two monitoring wells. In the last paragraph in Section 5. and a similar section in the Section 7. summary, approximate high water elevations were identified for the northeastern and southwestern portions of the property, whereas the corresponding minimum pit elevations, based on a 1.5 m separation from the high water table, were identified for the northeast portion of the area of extraction and the expected southwestern-most portion of the proposed extraction area. The water table surface defined by the contours shown on Figure 3 indicated a high water elevation of 292.4 m at the northeast corner of the proposed extraction area in the north half of the site, and a high water elevation of 289.3 m or higher along the western limit of the proposed extraction area in the south half of the site. Based on the minimum 1.5 m separation from the high water table identified in the report, the corresponding minimum pit floor elevations would be 0.4 and 0.3 m higher, respectively, than the minimum elevations indicated in the report. GMBP should explain that variance and confirm that the minimum separation distance identified in the ARO standards for an above water pit will be maintained for the water table surface defined by the contours shown on Figure 3 and depicted on the sections on Figures 4A and 4B over the entire extraction area as shown on the site plans.

GEI Response: The April water levels – as referenced in Figures 3 and 4 were utilized to maintain a 1.5 m separation. The waterlevels utilized are shown on the Pit Drawings enclosed. To maintain the 1.5 m separation, based on the proposed limits of onsite extraction, the maximum depth of the pit would be approximately 293.5 masl in the northeast portion of the extraction area and sloping to approximately 290.5 masl in the expected southwestern-most portion of the proposed extraction area.

We have reviewed the information and confirm that a 1.5 m separation is provided from the WT surface.

GSS Comment: The GEI response indicated that the minimum pit floor elevation would be approximately 293.5 m in the northeast portion of the extraction area and 290.5 m in the expected southwestern-most portion of the proposed extraction area. That was consistent with information provided in the November 2023 hydrogeological assessment report and the February 2025 summary statement. The November 2023 (revised February 2025) site plans included with the response indicated that the maximum pit floor elevation along the southwestern-most margin of the extraction area was higher than 290.5 m, ranging from 290.70 to 290.80 m. That would potentially account for the variance noted in the GSS comment with respect to the southwest portion of the proposed extraction area.

GEI confirmed in their response that the site plans were reviewed for consistency with the high water table surface identified in the hydrogeological assessment report and that the minimum separation distance identified in the ARO standards was maintained. No further response is necessary.

3. The report noted that based on field observations and groundwater elevation data collected, the occurrence of surface water on the site (i.e., in the central saturated area) was expected to be consistent with the occurrence of the groundwater elevation. Surface water level monitoring data collected for the central ravine and wetland feature should be provided.

GEI Response: Surface water field observations made during site visits to conduct groundwater level monitoring noted that the surface water appears to be present in this area during relatively high groundwater conditions or during surface run-off flooding events. Further, evidence of the surface water feature was not present during dry seasons.

The proposed on site pit operations are required to have a setback from the areas of the property designated as Hazard Lands as part of the Grey County Official Plan. It is our understanding that development within the area designated as an SVCA screening area is not prohibited as long as suitable consultation with the SVCA has been conducted. SVCA has provided their sign off on the proposed pit.

As noted during the field observations made during site visits, the surface water appears to be seasonal in nature and does not need specific monitoring.

GSS Comment: The GEI response indicated that surface water level measurements were not carried out in the on-site surface water feature. In our opinion, water level monitoring in that wetland should have been carried out for the purpose of identifying the high water table elevation on the site and to provide base-line data for the wetland. The report indicated that the seasonal ponding areas in the central portion of the Site were inferred to be associated with the shallow water table elevation. That could have been readily confirmed with installation and monitoring of a shallow piezometer. We disagree with the suggestion that surface water monitoring was not needed because the occurrence of surface water was

seasonal. The intent of the study was to identify the seasonal high water table on the site, which would coincide with the period when water was present in the wetland.

In this instance, it was not apparent that the absence of water level monitoring in the on-site wetland materially diminished the findings of the hydrogeological study. Nevertheless, a suitable recommendation should be added to the site plans for a shallow piezometer to be installed in the on-site surface water feature within one year of issuance of the licence for measurement of surface water and groundwater levels, coincident with groundwater levels in the existing monitoring wells. Water levels should be measured on at least three occasions at least 2 weeks apart during the period of seasonal high water levels. The data should be reviewed by a qualified consultant for consistency with the conclusions presented in the report.

4. The report noted that since there are no proposed interactions with the water table or surface water features, the overall water budget, pre- to post-development, is expected to remain unchanged, and stated that equal infiltration to the subsurface will continue post-development. A water budget for the site was not presented. The main components of a water budget are precipitation, losses from evapotranspiration, runoff, and infiltration. The proposed limits of extraction were not shown on the cross-sections in the report, and we did not see the site plans. However, the information provided in the report suggested to us that there would be no surface runoff from the pit created in the north half of the site and reduced or no runoff from the pit created in the south half of the site. A reduction in the existing runoff would change the water budget and result in a corresponding increase in infiltration. GMBP should provide additional information to support the conclusion that the water budget for the site will not be changed by the proposed development. If there is a potential for a change in the water budget, then the associated implications should be evaluated.

GEI Response: The existing infiltration rates at the site are not expected to change due to the proposed aggregate extraction. The proposal is for an above water gravel pit which requires the bottom elevation to be 1.5 m above the maximum predicted groundwater table. Given the high permeability of the soil, which will remain after extraction, surface water will continue to infiltrate at a similar rate to pre-development.

Water budgets are designed for land development that includes changes to land use, especially the creation of impermeable surfaces. In our experience, water budgets are not typically applied to greenfield type works that result in temporary land use and localized changes to grading. Our comments regarding water budget relate to the large-scale and long-term considerations which includes the maintenance of open fields and vegetated lands that will continue to slope towards the same features.

As noted on Drawing No. 3 Progressive Rehabilitation Plan, the surface flow direction (indicated by surface flow direction arrows on the drawing) will continue to be northeast pre and post development.

GSS Comment: The rate of post-development infiltration may be similar to the pre-development rate based on the consistency of soil type, but the volume of infiltration on an

annual basis will change. The site plans indicated that two enclosed pits will be created in the north and south halves of the site. Notes on both the Operations Plan and the Progressive Rehabilitation Plan indicated that surface water drainage from those pits will be by percolation or evaporation, meaning there will be no runoff from those areas. The existing ground profiles shown on Sections B-B, C-C, and D-D on Drawing No. 4 indicated that there would be surface runoff to the west at the section locations under existing conditions. The proposed rehabilitation ground profiles shown on the same sections indicated that there would be no runoff beyond the western limit of the completed pits. Presumably, most of the volume of the current run-off from the 17.4-ha extraction area will become infiltration, with some potential for increased evapotranspiration. It is not conceivable to us that equal infiltration to the subsurface will continue post-development. We would consider the creation of a gravel pit on the site to be a change in land use and the alterations to the drainage conditions on the site to be permanent.

We assumed that the GEI comment that the surface flow direction indicated by the arrows on Drawing No. 3 Progressive Rehabilitation Plan will continue to be northeast was intended to mean west-southwest. The direction of surface water runoff within the completed pit may be consistent with the pre-development direction, but the site plans indicated that there will be no runoff at the western limit of the pits, as there is under existing conditions, unless the runoff ponds to a sufficient depth in the pit to flow over the top of the completed slopes.

Consistent with our original comment, we cannot agree with the conclusion that the water budget for the site will not be changed by the proposed development, and we recommend that the potential changes to the water budget on the site be identified and evaluated for potential effects on nearby surface water features. This is not to suggest that the implications will necessarily be negative. Increased infiltration and reduced runoff on the site could potentially be considered favourable with respect to local surface water features.

5. The report indicated that to maintain surface water flows to the same low-lying locations, the restored grades shall be sloped to maintain similar pre- and post-development catchment areas. The pre-development catchment areas were not identified, and it was not apparent how similar post-development catchment areas would be maintained for the proposed area of extraction. Additional information should be provided to indicate how that recommendation would be implemented.

GEI Response: The catchment area of the pit and surrounding lands is the watershed of the Saugeen River. The catchment area can be seen in Appendix D and Appendix E. The restored grading of the property following completion of the extraction area will be sloped to maintain the pre-development catchment areas as provided in Drawing 3 and 4. The existing drainage patterns will be restored following completion of the extraction activities and infiltration the subsurface will be promoted.

GSS Comment: The GEI response indicated that the catchment area referred to in the recommended mitigative measure in Section 6.3.4 Surface Water – Quantity of the hydrogeological assessment report and included on the site plan was the Saugeen River watershed. The site is located within a loop of the Saugeen River. We agree that the

proposed alteration to the site will not change the watershed area for the Saugeen River. However, the recommendation and the GEI response also indicated that the existing drainage patterns will be restored following completion of the extraction activities. As noted in Comment 4 above, the site plans indicated that there would be no surface runoff from the completed pit; therefore, it appeared to us that the recommendation to restore existing drainage patterns cannot reasonably be implemented. We anticipate that the implications of potential changes in surface runoff from creation of the pit will be evaluated in conjunction with the response to Comment 4. No additional response to Comment 5 is necessary.

We trust that these comments adequately respond to the Municipality's request.

Yours truly,

GSS Engineering Consultants Ltd.



W. Brad Benson, P.Eng.
Senior Hydrogeologist

WBB/bb

June 6, 2025

Project No. 2401284

GSS Engineering Consultants Ltd.
945 3rd Avenue East, Suite 230
Owen Sound, ON
N4K 2K8

Attention: W. Brad Benson

**Re: Peer Review Comments
Maximum Predicted Water Table and Hydrogeological Assessment Report
Proposed Class 'A' Pit Above Water (JT Pit), JT Excavating Ltd,
Municipality of West Grey, Grey County**

Dear Brad:

GEI Consultants Canada Inc (GEI) has been retained by JT Excavating Ltd (the Client) to provide a response to the Peer Review comments issued to the Municipality of West Grey by GSS Consultants Ltd, dated May 20, 2025.

The following responses are provided to your comments on the Maximum Predicted Water Table and Hydrogeological Assessment Report:

GSS Consultants Limited Comment

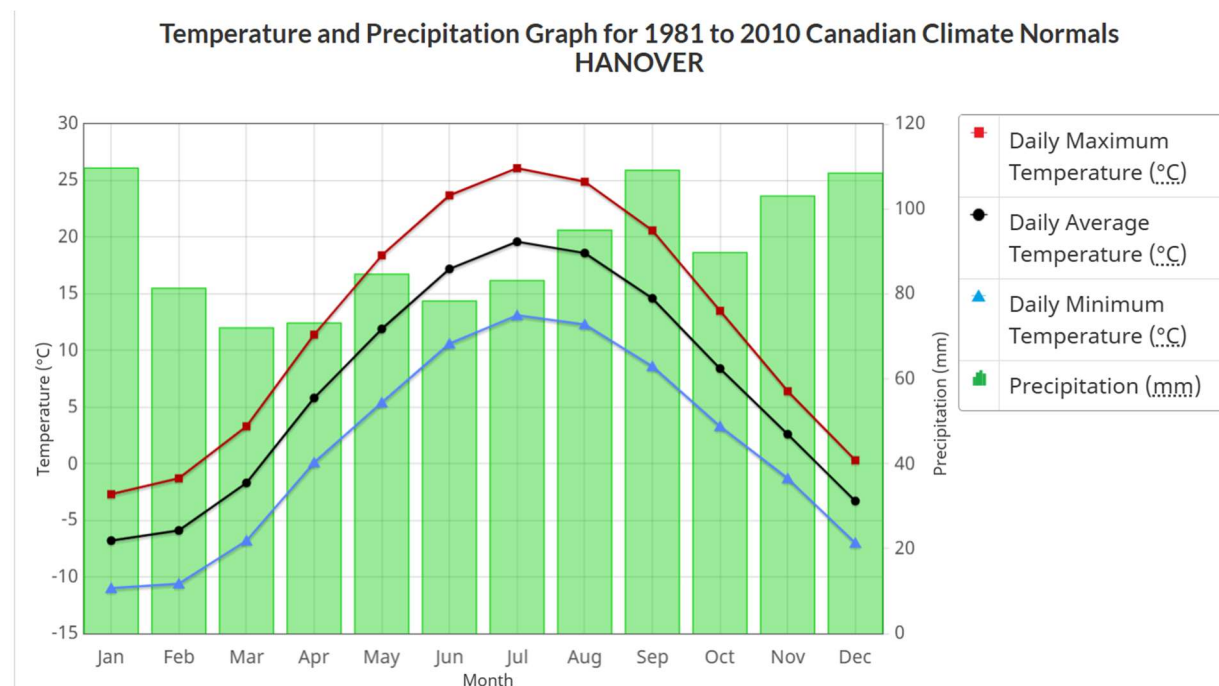
1. Groundwater levels at the site were reportedly measured on seven occasions in the period from February 23, 2021, to June 25, 2023, including measurements on April 7, 2021, March 24, 2022, and April 10, 2023. The report indicated that the high groundwater table elevation was expected to be consistent with the water levels measured on April 10, 2023, which were made following a period of significant snow melt and precipitation. The report recommended that the monitoring wells continue to be monitored during the pit application process so that direct measurement of the high water level could be confirmed and the pit floor elevation updated accordingly. We considered it likely that the single day measurements in late March/early April over three consecutive years were adequate to indicate the typical high water level at the site. However, a comparison between available precipitation data for the period of monitoring and typical precipitation levels for the area of the site should be provided to support the finding that the identified seasonal high water table was reasonably representative of typical conditions. The MNRF August 2020 Aggregate Resources of Ontario (ARO) standards for a maximum predicted water table as the maximum predicted by a qualified person who has considered conditions at the site and mean precipitation levels.

GEI Response

GEI has compared the climate normal at a nearby weather station which is available through the Environment Canada website to the precipitation data for March and April 2021, 2022, and 2023.

The Environment Canada Climate Normals for Hanover (1981–2010), and the precipitation records for the monitoring years (2021, 2022, and 2023) indicate that total precipitation during March and April in those years was broadly consistent with, or in some cases slightly above, the 1981–2010 normals. This is demonstrated in the table below:

Date	30-year Climate Normal (mm)	Recorded Precipitation Value (mm)
March 2021	72mm	54.6 mm
April 2021	73.1 mm	50.9 mm
March 2022	72mm	81.5 mm
April 2022	73.1 mm	69.0 mm
March 2023	72mm	85.2 mm
April 2023	73.1 mm	106.2 mm



Specifically, the period preceding the April 10, 2023, measurement was characterized by both above-average snowfall accumulation and subsequent melt, which is consistent with the expected seasonal high groundwater recharge pattern.

In order to further demonstrate that the cumulative effect of melting snow and precipitation in the form of rainfall would result in the seasonal high groundwater level being in April, the graph below of the climate normal for each month of the year indicates that the highest snow melt and rainfall combined is typical in March and April (i.e., the spring freshet).

In conclusion, through many decades of experience and documentation, it is known that the spring condition yields the “high” groundwater elevation. Based on the higher-than-normal precipitation in April 2023 combined with the spring freshet, it is reasonable to expect that this will provide a representative value for the “high” groundwater elevation.

GSS Consultants Limited Comment

2. The approximate boundary of the proposed extraction was shown of Figure 3 of in the report, together with inferred contours for the surface of the estimated high water table. Two separate, irregularly shaped extraction areas were shown north and south of the central divide. The limits of extraction and the property boundaries were not shown on the cross sections Figures 4A and 4B; the only references were two monitoring wells. In the last paragraph in Section 5 and a similar section in the Section 7 summary, approximate high water elevations were identified for the northeastern and southwestern portions of the property, whereas the corresponding minimum pit elevations, based on a 1.5 m separation from the high water table, were identified for the northeast portion of the area of extraction and the expected southwestern-most portion of the proposed extraction area. The water table surface defined by the contours shown on Figure 3 indicated a high water elevation of 289.3 m or higher along the western limit of the proposed extraction area in the south half of the site. Based on the minimum 1.5 m separation from the high water table identified in the report, the corresponding minimum elevations indicated in the report. GMBP should explain the variance and confirm the minimum separation distance identified in the ARO standards for an above water pit will be maintained for the water table surface defined by the contours shown on Figure 3 and depicted on the sections on Figures 4A and 4B over the entire extraction area as shown on the site plans.

GEI Response:

The April water levels – as referenced in Figures 3 and 4 were utilized to maintain a 1.5 m separation. The waterlevels utilized are shown on the Pit Drawings enclosed. To maintain the 1.5 m separation, based on the proposed limits of onsite extraction, the maximum depth of the pit would be approximately 293.5 masl in the northeast portion of the extraction area and sloping to approximately 290.5 masl in the expected southwestern-most portion of the proposed extraction area.

We have reviewed the information and confirm that a 1.5 m separation is provided from the WT surface.

GSS Consultants Limited Comment

3. The report noted that based on field observations and groundwater elevation data collected, the occurrence of surface water on the site (ie. in the central saturated area) was expected to be

consistent with the occurrence of the groundwater elevation. Surface water level monitoring data collected for the central ravine and wetland feature should be provided.

GEI Response

Surface water field observations made during site visits to conduct groundwater level monitoring noted that the surface water appears to be present in this area during relatively high groundwater conditions or during surface run-off flooding events. Further, evidence of the surface water feature was not present during dry seasons.

The proposed on site pit operations are required to have a setback from the areas of the property designated as Hazard Lands as part of the Grey County Official Plan. It is our understanding that development within the area designated as an SVCA screening area is not prohibited as long as suitable consultation with the SVCA has been conducted. SVCA has provided their sign off on the proposed pit.

As noted during the field observations made during site visits, the surface water appears to be seasonal in nature and does not need specific monitoring.

GSS Consultants Limited Comment

4. The report noted that since there are no proposed interactions with the water table or surface water features, the overall water budget, pre- to post-development, is expected to remain unchanged, and stated that equal infiltration to the subsurface will continue post-development. A water budget for the site was not presented. The main components of a water budget are precipitation, losses from evapotranspiration, run off and infiltration. The proposed limits of extraction were not shown on the cross sections in the report and we did not see the site plans. However, the information provided in the report suggested to us that there would be no surface runoff from the pit created in the north half of the site and reduced or no runoff from the pit created in the south half of the site. A reduction in the existing run off would change the water budget and result in a corresponding increase in infiltration. GMBP should provide additional information to support the conclusion that the water budget for the site will not be changed by the proposed development. If there is a potential for a change in the water budget, then the associated implications should be evaluated.

GEI Response

The existing infiltration rates at the site are not expected to change due to the proposed aggregate extraction. The proposal is for an above water gravel pit which requires the bottom elevation to be 1.5 m above the maximum predicted groundwater table. Given the high permeability of the soil, which will remain after extraction, surface water will continue to infiltrate at a similar rate to pre-development.

Water budgets are designed for land development that includes changes to land use, especially the creation of impermeable surfaces. In our experience, water budgets are not typically applied to green field type works that result in temporary land use and localized changes to grading. Our comments

regarding water budget relate to the large-scale and long-term considerations which includes the maintenance of open fields and vegetated lands that will continue to slope towards the same features.

As noted on Drawing No. 3 Progressive Rehabilitation Plan, the surface flow direction (indicated by surface flow direction arrows on the drawing) will continue to be northeast pre and post development.

GSS Consultants Limited Comment

5. The report indicated that to maintain surface water flows to the same low-lying locations, the restored grades shall be sloped to maintain similar pre- and post-development catchment areas. The pre-development catchment areas were not identified, and it was not apparent how similar post-development catchment areas would be maintained for the proposed area of extraction. Additional information should be provided to indicate how the recommendation would be implemented.

GEI Response

The catchment area of the pit and surrounding lands is the watershed of the Saugeen River. The catchment area can be seen in Appendix D and Appendix E. The restored grading of the property following completion of the extraction area will be sloped to maintain the pre-development catchment areas as provided in Drawing 3 and 4. The existing drainage patterns will be restored following completion of the extraction activities and infiltration the subsurface will be promoted.

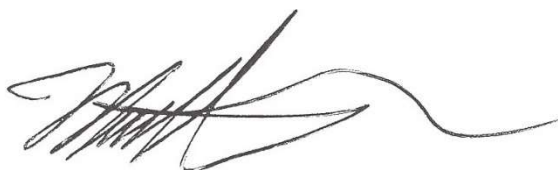
If you have any questions, please feel free to contact me via email at kpickett@geiconsultants.com.

Sincerely,

GEI Consultants Canada Ltd.



Kim Pickett, C.E.T, LET, QP_{ESA}
Project Geoscientist



Matthew Nelson, P. Eng., P. Geo
Senior Project Manager, ENV Practice Lead

Enclosure: Drawing Set for Proposed Aggregate Pit



BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR ANY DAMAGE TO THEM.

1	25/02/25	REVISED PER PLANNING COMMENTS	MDN
NO.	DATE	REVISION DESCRIPTION	CHKD



GUELPH | OWEN SOUND | LISTOWEL | KITCHENER | LONDON | HAMILTON | GTA
1260 - 2ND AVENUE EAST, UNIT 1, OWEN SOUND, ON N4K 2J3
TEL. 519-376-1805 www.gmbblueplan.ca

JT EXCAVATING LTD

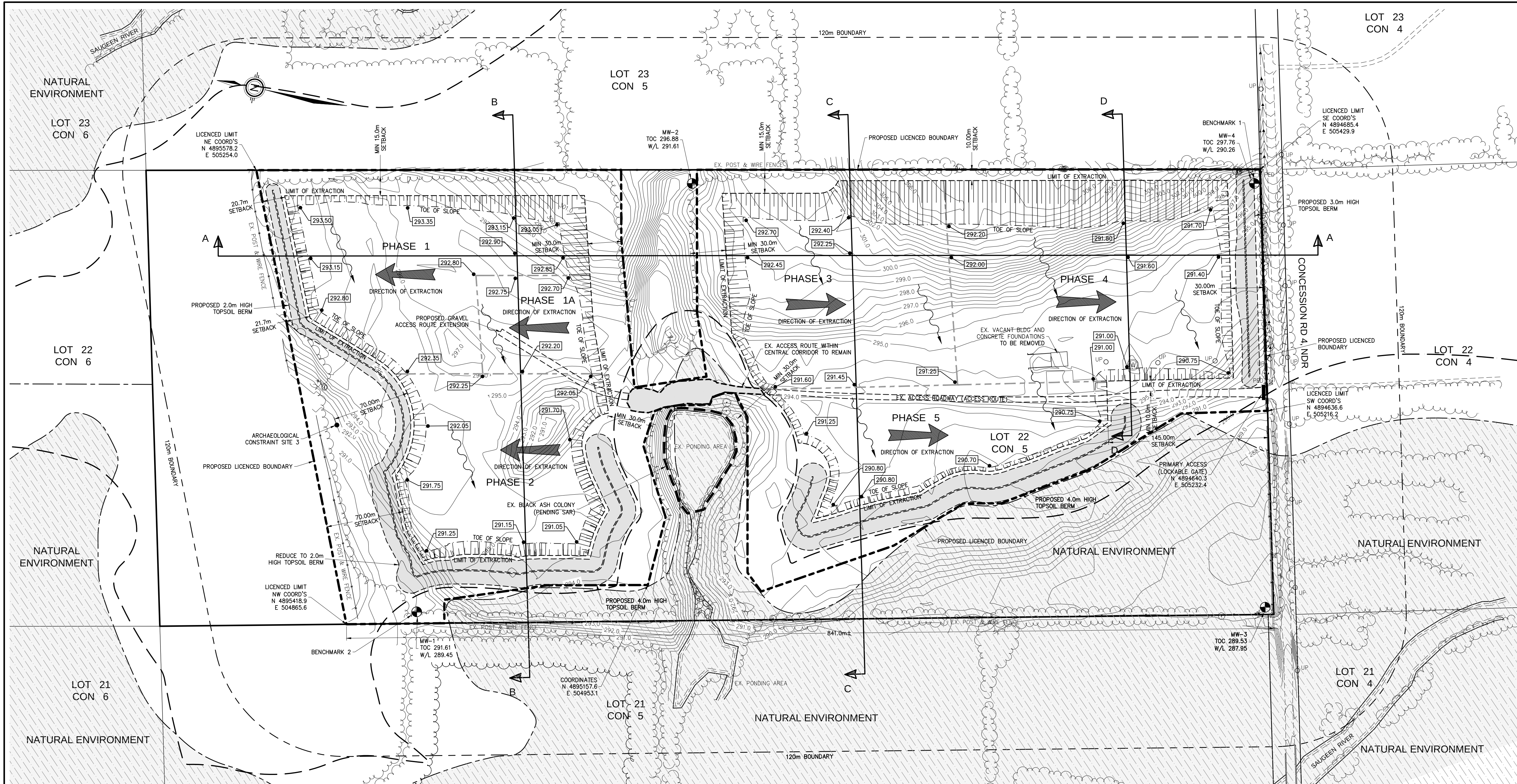
PROPOSED AGGREGATE PIT

GEOGRAPHIC TOWNSHIP OF BENTINCK

MUNICIPALITY OF WEST GREY

COUNTY OF GREY

DRAWN BY : E.J.T.	APPROVED BY : C.S.	PROJECT NO. : 220135	DRAWING NO. : 1
DESIGNED BY : E.J.T.	DATE : NOV 29, 2023	SCALE : 1:2,000	



NOTES :

APPLICANT:
JT EXCAVATING LTD.
BOX 665
615 ASPEN STREET
DURHAM, ON
N0G 1R0

APPLICANT'S SIGNATURE

DATE

BENCHMARK 1 ELEV. - 297.76m

TOP OF CASING FOR MONITORING WELL MW-4, LOCATED AT THE SOUTH EAST CORNER OF THE SITE.

BENCHMARK 2 ELEV. - 291.61m

TOP OF CASING FOR MONITORING WELL MW-1, LOCATED AT THE NORTH WEST CORNER OF THE SITE.

THE POSITION OF POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED.

BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR ANY DAMAGE TO THEM.

1	25/02/25	REVISED PER PLANNING COMMENTS	MDN
NO.	DATE	REVISION DESCRIPTION	CHKD



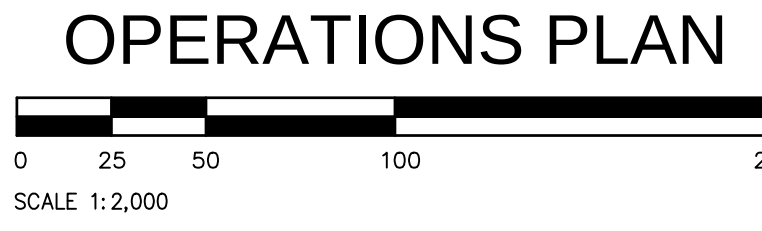
JT EXCAVATING LTD.			
PROPOSED AGGREGATE PIT			
LOT 22, CONCESSION 5			
GEOGRAPHIC TOWNSHIP OF BENTINCK			
MUNICIPALITY OF WEST GREY			
COUNTY OF GREY			
DRAWN BY: E.J.T.	APPROVED BY: C.S.	PROJECT NO.: 220135	DRAWING NO.: 2
DESIGNED BY: E.J.T.	DATE: NOV 29, 2023	SCALE: 1:2,000	

NOTES:

- THIS SITE PLAN IS PREPARED UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS 'A', CATEGORY 3 LICENCE.
- TOPOGRAPHIC SURVEY CONDUCTED BY GM BLUEPLAN ENGINEERING LIMITED ON MARCH 22, 2021.
- PROPERTY BOUNDARIES ARE APPROXIMATE, AND ARE DERIVED FROM GREY COUNTY GIS MAPPING.
- AREA TO BE LICENCED: 26.97 ha
- AREA OF EXTRACTION: 17.38 ha
- THE "HIGH" GROUNDWATER ELEVATION DESCENDS FROM 292.0 m IN THE NORTH EASTERLY PORTION TO 289.0 m IN THE SOUTH WESTERLY PORTION OF THE PROPOSED EXTRACTION AREA, AS RECORDED APRIL, 2023.
- NO WATER DIVERSION OR EXTRACTION BELOW THE WATER TABLE IS PROPOSED. THE MAXIMUM DEPTH OF EXTRACTION IS TO BE FROM 290.50 m TO 293.50 m (MINIMUM 1.5 m ABOVE THE "HIGH" GROUNDWATER ELEVATION).
- SURFACE WATER DRAINAGE WILL BE BY PERCOLATION OR EVAPORATION.
- POTENTIAL EQUIPMENT TO BE USED ON-SITE FOR DAILY OPERATIONS MAY INCLUDE: HYDRAULIC EXCAVATORS, HYDRAULIC HAMMER, DOZERS, LOADERS, SKID STEERS, GRADERS, CRUSHERS, SCREENERS, GENERATORS, AIR COMPRESSORS, AND TRUCKS. ALL EQUIPMENT USED ON-SITE WILL BE PORTABLE.
- NO ON-SITE FUEL STORAGE IS EXPECTED TO BE PRESENT DURING OPERATIONS.
- NO SCRAP MATERIALS OR REFUSE SHALL BE STORED ON-SITE.
- NO ADDITIONAL TREE SCREENING IS PROPOSED.
- POST & WIRE FENCE, AT LEAST 1.2 m IN HEIGHT, COMPLETE WITH SIGNAGE SHALL BE ERECTED AROUND THE PERIMETER OF THE LICENCED AREA/PROPERTY PRIOR TO THE COMMENCEMENT OF EXTRACTION.
- PIT OPERATIONS SHALL BE LIMITED TO THE HOURS OF 7:00 AM TO 7:00 PM, MONDAY TO FRIDAY AND 9:00 AM TO 2:00 PM, SATURDAY WITH NO SUNDAY OPERATIONS.
- ANY WOOD OF VALUE TAKEN DURING CLEARING OPERATIONS SHALL BE USED AS FIRE WOOD. OTHER WOOD AND STUMPS SHALL BE CHIPPED AND USED IN THE REHABILITATION OF THE SITE OR DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE MECP GUIDELINES.
- TOPSOIL AND OVERBURDEN:
 - TOPSOIL MUST BE STRIPPED SEQUENTIALLY PRIOR TO PIT EXTRACTION.
 - ALL TREES WITHIN 5 METRES OF THE LIMITS OF EXTRACTION MUST BE REMOVED.
 - ALL TOPSOIL OR OVERBURDEN STRIPPED DURING OPERATIONS SHALL BE USED TO CREATE BERMS AS SHOWN ON THE PLAN. ANY REMAINING MATERIAL SHALL BE PLACED IN STOCKPILES ON-SITE WITH STABLE VEGETATED SIDE SLOPES FOR FUTURE SITE REHABILITATION.
 - TOPSOIL BERMS TO BE VEGETATED MANUALLY WITH PRAIRIE GRASS NATIVE SEED MIXTURE #6130 OR SIMILAR MIX. THE BERM SHOULD BE SEEDED AS THE BERM IS CONSTRUCTED IN ORDER TO PREVENT EROSION AND RUNOFF.
- PHASING:
 - PHASE 1 / 1A
 - STRIPPING OF TOPSOIL / OVERBURDEN MATERIALS FROM PHASE 1 ARE TO BE USED IN THE CONSTRUCTION OF THE BERMS AT THE NORTH SIDE OF PHASES 1 AND 2 AND THE WEST SIDE OF PHASE 2, AS NOTED IN THE OPERATIONS PLAN. THESE BERMS ARE TO BE CONSTRUCTED PRIOR TO EXTRACTION OPERATIONS IN PHASES 1 AND 2.
 - INTERIM STORAGE OF THE EXTRACTED AGGREGATE WOULD OCCUR UNTIL THE EXTRACTION TO THE PIT FLOOR IS ESTABLISHED IN PHASE 1. ONCE SUFFICIENT STORAGE AREA IN THE FLOOR OF PHASE 1 IS ESTABLISHED, FUTURE STOCKPILING OF THE PRODUCT WOULD REMAIN IN PHASE 1 AND THE FLOOR OF THE PIT IN THE ACTIVE AREA THE AREA OF PHASE 1A WILL BE MAINTAINED AS A PROCESSING AND EQUIPMENT STORAGE AREA. EXTRACTED MATERIAL WOULD BE PROCESSED AND EQUIPMENT WOULD BE STORED IN THE PHASE 1A AREA TO MAXIMIZE THE DISTANCE FROM RESIDENTIAL DWELLINGS IN THE AREA AND CONCESSION 4.
 - EXCESS STOCKPILED SOIL NOT USED IN BERM CONSTRUCTION (IF ANY) WOULD BE UTILIZED FOR PROGRESSIVE REHABILITATION AS OPERATIONS PROCEED FROM PHASE 1 TO PHASE 2.
 - PHASE 2
 - STRIPPING OF TOPSOIL AND EXTRACTION OF THE OVERBURDEN DOWN TO THE TOP OF THE AGGREGATE WOULD BE COMPLETED IN THE PHASE 2

- AREA, THE TOPSOIL / OVERBURDEN MATERIALS FROM PHASE 2 ARE TO BE USED IN THE CONSTRUCTION OF THE BERMS AT THE SOUTHWESTERN AND SOUTHERN PROPERTY BOUNDARY, AS REQUIRED, AND / OR FOR THE REHABILITATION OF PHASE 1, AS NEEDED, WITH EXCESS SOIL PLACED AT THE SOUTH OF PHASE 1.
- PHASE 1 REHABILITATION IS TO OCCUR.
 - INITIAL STOCKPILING OF TOPSOIL / OVERBURDEN AND MATERIALS WOULD OCCUR IN THE LAST STAGES OF THE PHASE 1 AREA. ONCE SUFFICIENT STORAGE AREA IN THE FLOOR OF PHASE 2 IS ESTABLISHED, FUTURE STOCKPILING OF THE PRODUCT WOULD REMAIN IN PHASE 2 AND THE FLOOR OF THE PIT IN THE ACTIVE AREA, WITH THE FINAL PORTION OF PHASE 1 SUBSEQUENTLY REHABILITATED.
 - PHASE 1A SHALL BE MAINTAINED AS AN EQUIPMENT STORAGE, PROCESSING, AND / OR AGGREGATE STOCKPILING ARE FOR THE DURATION OF ON-SITE OPERATIONS. THE NORTHERLY AND NORTHWESTERLY BERMS ARE TO REMAIN IN PLACE DURING OPERATIONS.
 - STOCKPILED SOILS WOULD BE UTILIZED FOR PROGRESSIVE REHABILITATION, THEN FOR BERM CONSTRUCTION ON THE SOUTHERN PORTION OF THE SITE AS OPERATIONS PROCEED FROM PHASE 2 TO PHASE 3.
- PHASE 3
 - STRIPPING OF TOPSOIL AND EXTRACTION OF THE OVERBURDEN DOWN TO THE TOP OF THE AGGREGATE WOULD BE COMPLETED IN THE PHASE 3 AREA. THE TOPSOIL / OVERBURDEN MATERIALS FROM PHASE 3 ARE TO BE USED IN THE CONSTRUCTION OF THE BERMS WEST OF PHASES 3 TO 5 AND EAST OF PHASE 4, ADJACENT TO CONCESSION ROAD 4. THESE BERMS ARE REQUIRED TO BE IN PLACE PRIOR TO THE EXTRACTION OF AGGREGATE IN PHASES 3 TO 5.
 - EXCESS SOIL SHALL BE PLACED AT THE NORTH END OF PHASE 3 AND USED FOR THE REHABILITATION OF PHASE 1 OR PHASE 2 AREAS, AS NEEDED.
 - THE STOCKPILING OF TOPSOIL / OVERBURDEN AND AGGREGATE MATERIALS WOULD OCCUR IN THE NORTHERN PORTION OF THE PHASE 3 AREA, PROXIMAL TO THE WORKING FACE, OR IN THE PHASE 1A AREA.
 - ONCE SUFFICIENT STORAGE AREA IN THE FLOOR OF PHASE 3 IS ESTABLISHED, FUTURE STOCKPILING OF THE PRODUCT WOULD REMAIN IN PHASE 3 AND THE FLOOR OF THE PIT IN THE ACTIVE AREA, WITH THE FINAL PORTION OF PHASE 2 SUBSEQUENTLY REHABILITATED.
- PHASE 4
 - STRIPPING OF TOPSOIL AND EXTRACTION OF THE OVERBURDEN DOWN TO THE TOP OF THE AGGREGATE WOULD BE COMPLETED IN THE PHASE 4 AREA. THE TOPSOIL / OVERBURDEN MATERIALS FROM PHASE 4 ARE TO BE PLACED AT THE NORTH END OF PHASE 4 AND USED FOR THE REHABILITATION OF PHASE 2 OR PHASE 3 AREAS, AS NEEDED.
 - THE STOCKPILING OF TOPSOIL / OVERBURDEN AND AGGREGATE MATERIALS WOULD OCCUR IN THE NORTHERN AND / OR EASTERN PORTIONS OF THE PHASE 4 AREA, PROXIMAL TO THE WORKING FACE, OR IN THE PHASE 1A AREA.
 - ONCE SUFFICIENT STORAGE AREA IN THE FLOOR OF PHASE 4 IS ESTABLISHED, FUTURE STOCKPILING OF THE PRODUCT WOULD REMAIN IN PHASE 4 AND THE FLOOR OF THE PIT IN THE ACTIVE AREA, WITH THE FINAL PORTION OF PHASE 3 SUBSEQUENTLY REHABILITATED.
- PHASE 5
 - STRIPPING OF TOPSOIL AND EXTRACTION OF THE OVERBURDEN DOWN TO THE TOP OF THE AGGREGATE WOULD BE COMPLETED IN THE PHASE 5 AREA. THE TOPSOIL / OVERBURDEN MATERIALS FROM PHASE 5 ARE TO BE PLACED AT THE NORTH END OF PHASE 5 AND USED FOR THE REHABILITATION OF PHASE 3 OR PHASE 4 AREAS, AS NEEDED.
 - THE STOCKPILING OF TOPSOIL / OVERBURDEN AND AGGREGATE MATERIALS WOULD OCCUR IN THE NORTHERN PORTION OF THE PHASE 5 AREA, PROXIMAL TO THE WORKING FACE, OR IN THE PHASE 1A AREA.
 - ONCE SUFFICIENT STORAGE AREA IN THE FLOOR OF PHASE 5 IS ESTABLISHED, FUTURE STOCKPILING OF THE PRODUCT WOULD REMAIN IN PHASE 5 AND THE FLOOR OF THE PIT IN THE ACTIVE AREA, WITH THE FINAL PORTION OF PHASE 4 SUBSEQUENTLY REHABILITATED.
 - UPON COMPLETION OF PHASE 5, FINAL REHABILITATION OF PHASE 5 AND THE OVERALL SITE IS TO COMMENCE, WITH THE REHABILITATION OF PHASE 1A COMPLETED WHEN IT IS NO LONGER REQUIRED. SOILS USED IN THE CONSTRUCTION OF THE BERMS SHALL BE USED FOR THE FINAL REHABILITATION OF THE SITE. THE EXTENSION OF THE EXISTING ACCESS ROADWAY TO IS TO BE REHABILITATED AND THE UNDERLYING SOIL RETURNED TO A NON-COMPACTED CONDITION TO FACILITATE FUTURE AGRICULTURAL USE.
- STOCKPILES WILL BE LOCATED IN THE ACTIVE PHASE PROXIMAL TO THE WORKING FACE, OR IN PHASE 1A (PROCESSING AREA) GREATER THAN 30 m FROM THE LICENCED BOUNDARY.
- REGARDLESS OF THE PHASING SEQUENCE, MULTIPLE PHASES MAY BE OPEN AT ONE TIME IN ORDER TO ACHIEVE EXTRACTION OF DIFFERING MATERIALS THAT MEET BLENDING REQUIREMENTS, SO LONG AS THE REQUIRED BERMS ARE IN PLACE PRIOR TO EXTRACTION IN THE ASSOCIATED AREAS. NO MORE THAN 5 ha SHALL REMAIN OPEN AT ANY PHASE, EXCLUDING THE PHASE 1A AREA.
- THE INTERNAL HAUL ROUTE SHALL CONSIST OF THE EXISTING ACCESS ROADWAY WITH AN EXTENSION INTO THE PHASE 1A AREA.
- THE MAXIMUM TONNAGE TO BE EXTRACTION IN ANY YEAR IS 300,000 TONNES.
- PRIOR TO EXTRACTION WITHIN EACH PHASE, THE LIMIT OF EXTRACTION IS TO BE CLEARLY STAKED/DEMARKATED. SETBACKS ARE TO BE CLEARLY STAKED AND VISIBLE AT ALL TIMES.

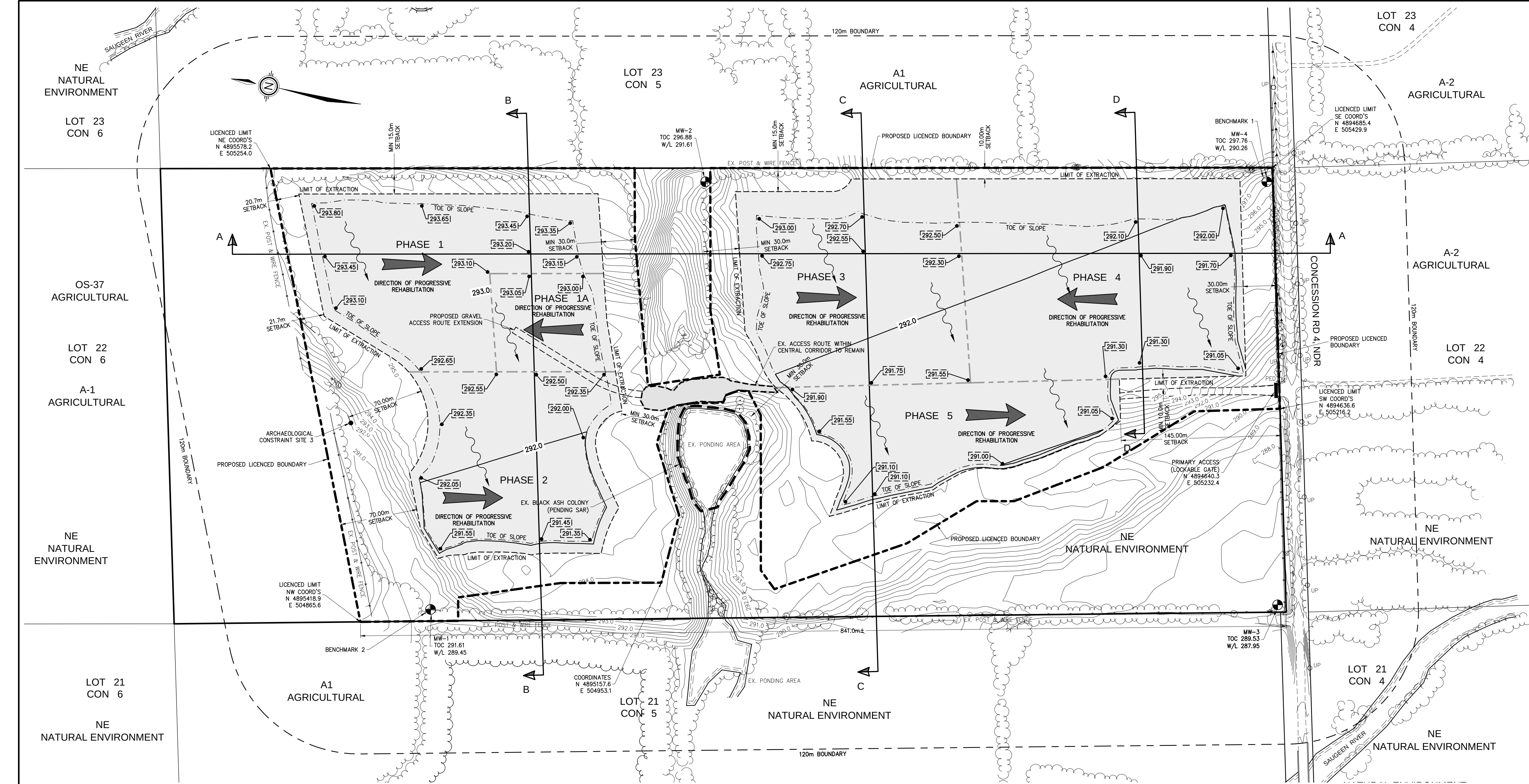
- DUST IS TO BE MITIGATED ON-SITE WHEN REQUIRED USING WATER OR A PROVINCIALY APPROVED DUST SUPPRESSANT.
- ON-SITE VACANT BUILDINGS ARE PROPOSED TO BE REMOVED PRIOR TO THE COMMENCEMENT OF EXTRACTION IN PHASE 4.
- SPILLS RESPONSE PLAN:
 - ALL EMPLOYEES AND CONTRACTORS HANDLING FUEL AND/OR OTHER POTENTIAL CONTAMINANTS WILL BE INSTRUCTED AS TO THE PROPER USE AND SAFE HANDLING OF THESE SUBSTANCES.
 - ALL SPILLS OR RELEASES OF CONTAMINANTS ARE TO BE REPORTED IMMEDIATELY TO THE MECP SPILLS ACTION CENTRE: 1-800-268-6060.
 - ALL SPILLS OR CONTAMINANT RELEASES ARE TO BE REMEDIATED TO MEET THE REQUIREMENTS OF THE ENVIRONMENTAL PROTECTION ACT AND ASSOCIATED REGULATIONS.
 - IN CASE OF SPILL THE FOLLOWING ACTIONS ARE TO BE TAKEN:
 - CHECK FOR HAZARDOUS CONDITIONS - CALL 911 WHERE HAZARDOUS CONDITIONS EXIST.
 - CALL THE SUPERVISOR/OWNER AND REPORT THE SPILL.
 - WHERE SAFE TO DO SO, STOP THE SOURCE OF THE SPILL (THIS MAY INCLUDE UP-RIGHTING CONTAINERS, TURNING OFF PUMPS, CLOSING VALVES OR PLUGGING (LEAKS), CONTAIN THE RELEASE (USE AVAILABLE MATERIALS TO PREVENT THE SPREAD OF THE CONTAMINANTS AND PLACE CONTAMINATED MEDIA IN STORAGE CONTAINERS).
 - THE SUPERVISOR/OWNER AND QUALIFIED PERSONNEL SHALL DEVELOP AND IMPLEMENT A REMEDIAL PLAN AND REQUIREMENTS OF THE MECP (AS APPLICABLE).
 - THE SPILLS RESPONSE PLAN IS TO BE POSTED ON-SITE AT ALL TIMES.
 - A SOIL CONTAMINANT AND CLEAN-UP KIT IS TO BE KEPT ON-SITE.
- HYDROGEOLOGICAL STUDY NOTES:
 - TO MAINTAIN SURFACE WATER FLOWS TO THE SAME LOW-LYING LOCATIONS, SLOPING OF THE RESTORED GRADES TO MAINTAIN SIMILAR CATCHMENT AREAS (PRE AND POST DEVELOPMENT) SHALL BE CONDUCTED.
- EXTRACTION IS TO BE COMPLETED IN ONE LIFT, EXCEPT WHERE EXCAVATION DEPTHS EXCEED 5.0 METRES. THESE AREAS ARE TO BE COMPLETED IN TWO LIFTS, ENSURING THE OPEN FACE IS ADEQUATELY SLOPED FOR SAFE OPERATIONS. FACE HEIGHTS ARE TO MEET MINISTRY OF LABOUR REGULATIONS.
- NO NEW BUILDINGS OR OTHER STRUCTURES ARE PROPOSED ON THE SITE AS PART OF AGGREGATE OPERATIONS. THE EXISTING VACANT AGRICULTURAL BUILDINGS SHALL BE REMOVED PRIOR TO COMMENCEMENT OF EXTRACTIONS.
- ONLY ONE ENTRANCE / EXIT SHALL BE PRESENT TO THE SITE, ON THE SOUTHERN SITE BOUNDARY ON CONCESSION ROAD 4. A GATE SHALL BE ERECTED AND MAINTAINED AT THE ENTRANCE / EXIT TO THE SITE. THE GATE IS TO BE KEPT CLOSED WHEN THE SITE IS NOT IN OPERATION.
- NO AGGREGATE RECYCLING WILL BE CONDUCTED ON THE SITE.
- NATURAL ENVIRONMENT TECHNICAL REPORT NOTES:
 - THE LIMIT OF EXTRACTION SHALL MAINTAIN A MINIMUM SEPARATION WIDTH TO IDENTIFIED NATURAL ENVIRONMENT FEATURES AS OUTLINED ON FIGURE 9 OF THE NER, WITH NO DISTURBANCES WITHIN THE NATURAL ENVIRONMENT SETBACKS OTHER THAN THAT FOR THE INTERNAL HAUL ROUTE CROSSING THE CENTRAL RAINE FEATURE.
 - 15m FROM THE WOOLAND EDGE OF THE CENTRAL RAINE AND WETLAND FEATURE BEING VEGETATION COMMUNITY NUMBERS 2, 3, 4, 5 AND 6.
 - 15m FROM THE SIGNIFICANT WOOLAND ALONG THE NORTH BOUNDARY AND NORTHEAST PROPERTY CORNER, BEING VEGETATION COMMUNITY NUMBERS 1 AND 2.
 - ANY ACCESS ROUTE UPGRADES OR WIDTH EXPANSIONS THAT MAY BE REQUIRED SHALL BE FOCUSED AWAY FROM THE WEST SIDE OF THE ROUTE, ADJACENT TO THE BLACK ASH COLONY AND WETLAND ENVIRONMENT.
 - THE DEPTH OF EXTRACTION SHALL DEMONSTRATE NO NEGATIVE HYDROGEOLOGICAL OR DRAW-DOWN INFLUENCES THAT COULD NEGATIVELY IMPACT THE WETLAND FEATURE OR ITS IDENTIFIED ECOLOGICAL FUNCTIONS OR THE HEADWATER AREA OF THE WATERCOURSE FEATURE.
- THIS SITE IS SITUATED IN THE SAUGEEN VALLEY SOURCE PROTECTION AREA. HOWEVER, THIS SITE IS NOT SITUATED IN A DESIGNATED DRINKING WATER SOURCE PROTECTION AREA. THEREFORE, SOURCE WATER PROTECTION PROVIDES DO NOT APPLY TO THIS SITE.



LEGEND

- EXISTING DITCH / WATERCOURSE
- EXISTING FENCELINE
- EXISTING GROUND CONTOUR
- EXISTING TREELINE
- 120m BOUNDARY LIMIT
- BOUNDARY OF AREA TO BE LICENCED
- PROPOSED PHASING LIMIT
- PROPOSED FENCED AREA OF LICENSE LIMIT
- PROPOSED SILT FENCE
- LIMIT OF SIGNIFICANT WILDLIFE CONSTRAINT ZONE
- PROPOSED EXCAVATION ELEVATION
- DIRECTION OF SURFACE FLOW
- TESTHOLE LOCATION
- MONITORING WELL / PIEZOMETER LOCATION
- CURRENT ZONING
- CURRENT LAND USE
- PRIVATE SUPPLY WELL (APPROXIMATE LOCATION)
- SAUGEEN VALLEY CONSERVATION AUTHORITY REGULATED AREA (O.REG. 169/06 SCREENING AREA)
- PRIMARY ENTRANCE / EXIT FROM THE SITE
- INTERNAL ACCESS ROUTE

VARIATIONS TO OPERATIONAL STANDARDS
NONE AT THIS TIME.



NOTES :

APPLICANT:
JT EXCAVATING LTD.
BOX 665
615 ASPEN STREET
DURHAM, ON
N0G 1R0

APPLICANT'S SIGNATURE

DATE

BENCHMARK 1 ELEV. - 297.76m
TOP OF CASING FOR MONITORING WELL MW-4, LOCATED AT THE SOUTH EAST CORNER OF THE SITE.

BENCHMARK 2 ELEV. - 291.61m
TOP OF CASING FOR MONITORING WELL MW-1, LOCATED AT THE NORTH WEST CORNER OF THE SITE.

THE POSITION OF POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED.
BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR ANY DAMAGE TO THEM.

1	25/02/25	REVISED PER PLANNING COMMENTS	MDN
NO.	DATE	REVISION DESCRIPTION	CHKD



BLUE PLAN ENGINEERING
GUELPH | OWEN SOUND | LISTOWEL | KITCHENER | LONDON | HAMILTON | GTA
1260 - 2ND AVENUE EAST, UNIT 1, OWEN SOUND, ON N4K 2J3
TEL: 519-776-3895
www.gripblueplan.ca

JT EXCAVATING LTD.

PROPOSED AGGREGATE PIT

LOT 22, CONCESSION 5

GEOGRAPHIC TOWNSHIP OF BENTINCK

MUNICIPALITY OF WEST GREY

COUNTY OF GREY

DRAWN BY : E.J.T.	APPROVED BY : C.S.	PROJECT NO. : 220135	DRAWING NO. : 3
DESIGNED BY : E.J.T.	DATE : NOV 29, 2023	SCALE : 1:2,000	

- NOTES:
- PROGRESSIVE REHABILITATION SHALL COMMENCE AS PHASE 1 NEARS COMPLETION.
 - TOPSOIL FROM PHASE 1 IS TO BE USED FOR THE CONSTRUCTION OF THE REQUIRED BERMS.
 - REHABILITATION OPERATIONS SHALL PROCEED AS SHOWN ON THE PLAN.
 - SLOPE REHABILITATION SHALL FOLLOW THE EXTRACTION OPERATIONS.
 - PHASE 1A AREA WILL BE USED FOR PROCESSING AND EQUIPMENT STORAGE.
 - FOLLOWING THE COMPLETION OF EACH PHASE OF AGGREGATE EXTRACTION, THE TOPSOIL FROM THE SUBSEQUENT PHASE IS TO BE USED TO REHABILITATE THE COMPLETED PHASE TO AGRICULTURAL USE WITH A MINIMUM TOPSOIL THICKNESS OF 0.3m.
 - DURING PROGRESSIVE REHABILITATION, THE REHABILITATED AREAS SHALL BE MANUALLY SEEDED AGRICULTURAL CROPS SUCH AS BEANS, WHEAT OR NATIVE GRASS MIX UNTIL FULL GROUND COVER HAS BEEN ACCOMPLISHED. NO INVASIVE SPECIES SHALL BE USED DURING SITE REHABILITATION.
 - NO MORE THAN 50% OF THE PREVIOUS PHASE SHALL REMAIN OPEN WHILE EXTRACTION PROCEEDS TO SUBSEQUENT PHASES.
 - ALL TOPSOIL AND OVERBURDEN PLACED IN BERMS AND STOCKPILES ON-SITE SHALL BE USED IN THE REHABILITATION OF THE FINAL PHASE (5) OF THE SITE.
 - EXCESS/UNUSED NATIVE SOILS AND/OR APPROVED IMPORTED FILL SHALL BE USED TO FILL AND GRADE SLOPES IN THE REHABILITATION OF THE SITE.
 - IMPORTATION OF OFF-SITE SOIL IS TO OCCUR ONLY AFTER AVAILABLE ON-SITE EXCESS SOIL HAS BEEN UTILIZED.
 - THE LICENSEE SHALL ENSURE THAT ALL MATERIAL IMPORTED TO THE SITE IS APPROPRIATELY TESTED AT THE SOURCE BY AN ACCREDITED LABORATORY BEFORE IT IS DEPOSITED ON-SITE TO ENSURE IT MEETS THE MCP CRITERIA LISTED UNDER TABLE 1 OF THE "SOIL, GROUNDWATER, AND SEDIMENT STANDARDS FOR USE UNDER PART XV.1 OF THE ENVIRONMENTAL PROTECTION ACT".
 - NOT WITHSTANDING NOTE 5, WHERE THE IMPORTED MATERIAL IS NOT BEING PLACED WITHIN 1.5m OF THE SURFACE, THE CRITERIA UNDER TABLE 1 FOR SODIUM ABSORPTION RATIO AND ELECTRICAL CONDUCTIVITY DO NOT HAVE TO BE MET.
 - EXCESS SOIL, AS DEFINED IN ONTARIO REGULATION 244/97 MAY BE IMPORTED TO THIS SITE TO FACILITATE THE FOLLOWING REHABILITATION:
 - CREATION OF 3:1 SLOPES (OR SLOPING RATIO OTHERWISE DESCRIBED ON THE FINAL REHABILITATION PAGE)
 - TOP DRESSING TO ESTABLISH VEGETATION
 - CONSTRUCTION OF BERMS
 - LIQUID SOIL, AS DESCRIBED IN ONTARIO REGULATION 406/19 UNDER THE ENVIRONMENTAL PROTECTION ACT, IS NOT AUTHORIZED FOR IMPORTATION TO THIS SITE.
 - THE QUALITY OF EXCESS SOIL IMPORTED TO THE SITE FOR FINAL PLACEMENT MUST BE EQUIVALENT TO OR MORE STRINGENT THAN THE APPLICABLE EXCESS SOIL QUALITY STANDARDS AS DETERMINED IN ACCORDANCE WITH ONTARIO REGULATION 244/97 AS AMENDED FROM TIME TO TIME AND MUST BE CONSISTENT WITH THE SITE CONDITIONS AND THE END USE IDENTIFIED IN THE APPROVED REHABILITATION PLAN.
 - WHERE A QUALIFIED PERSON IS RETAINED OR REQUIRED TO BE RETAINED IN ACCORDANCE WITH ONTARIO REGULATION 244/97, THE QUALITY, STORAGE, AND FINAL PLACEMENT OF EXCESS SOILS SHALL BE DONE ACCORDING TO THE ADVICE OF THE QUALIFIED PERSON.
 - EXCESS SOIL IMPORTED TO FACILITATE REHABILITATION AS DESCRIBED ON THIS SITE PLAN SHALL BE UNDERTAKEN IN ACCORDANCE WITH ONTARIO REGULATION 244/97 UNDER THE AGGREGATE RESOURCES ACT, AS AMENDED FROM TIME TO TIME.
 - THE CUMULATIVE TOTAL AMOUNT OF EXCESS SOIL THAT MAY BE IMPORTED TO THIS SITE FOR REHABILITATION PURPOSES IS 350,000 m³.
 - THE LICENSEE SHALL ENSURE THAT THE ACCEPTANCE AND REUSE OF EXCESS SOIL IMPORTED FOR REHABILITATION PURPOSES IS COMPLIANT WITH PART IV, RULES FOR SOIL MANAGEMENT OF THE RULES FOR SOIL MANAGEMENT AND EXCESS SOIL QUALITY STANDARDS PUBLISHED BY THE MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS, AS AMENDED FROM TIME TO TIME.
 - TRACKING AND RECORD KEEPING OF IMPORTED SOIL SHOULD BE CONDUCTED AS PER THE REQUIREMENTS OF ONTARIO REGULATION 406/19.
 - THE INITIAL PRE-DEVELOPMENT DEPTH OF TOPSOIL ACROSS THE LICENSED AREA WAS OBSERVED TO BE BETWEEN APPROXIMATELY 0.2m AND 0.5m. TOPSOIL STRIPPED DURING PIT OPERATIONS SHALL BE REPLACED ON THE PIT FLOOR AND SIDE SLOPES TO A MINIMUM OF 0.3m, AND VEGETATED WITH AGRICULTURAL CROPS SUCH AS WHEAT OR BEANS. ADDITIONAL SEEDING IS TO OCCUR ON A REGULAR BASIS UNTIL SUFFICIENT VEGETATIVE COVER IS ACHIEVED (I.E. FULL GROUND COVER TO REDUCE THE POTENTIAL FOR EROSION OR SEDIMENTATION).
 - THE SIDE SLOPES MAY BE FURTHER BLENDED OR GRADED TO FACILITATE AGRICULTURAL ACTIVITIES AS REQUIRED.
 - SURFACE WATER DRAINAGE WILL BE BY PERCOLATION OR EVAPORATION.
 - THE SITE SHALL BE RESTORED TO AGRICULTURAL LAND USE WITH THE EQUIVALENT SOIL QUALITY AS PRE-EXTRACTION (I.E. CLASS 3 SOIL) WITH THE CAPABILITY TO GROW CROPS.
 - ANY NON-ACTIVE AREAS OF THE PIT (EITHER PRE OR POST-EXTRACTION) SHALL CONTINUE TO BE OPERATED AS AGRICULTURAL CROP FIELDS. THE ENTIRETY OF THE EXTRACTION AREA OF THE SITE SHALL ULTIMATELY BE RETURNED TO AGRICULTURAL USE FOLLOWING REHABILITATION.
 - INTERNAL HAUL ROADS AND PROCESSING AND EQUIPMENT STORAGE AREAS ARE TO BE REHABILITATED TO NON-COMPACTED SUBSOILS UNDERLYING TOPSOIL WITH THE EXCEPTION OF THE SOUTHERN PORTION OF THE INTERNAL HAUL ROUTE, WHICH HAS HISTORICALLY BEEN USED AS AN EXISTING INTERNAL ACCESS ROADWAY FOR AGRICULTURAL OPERATIONS.
 - NO BUILDINGS / STRUCTURES SHALL REMAIN ON-SITE.

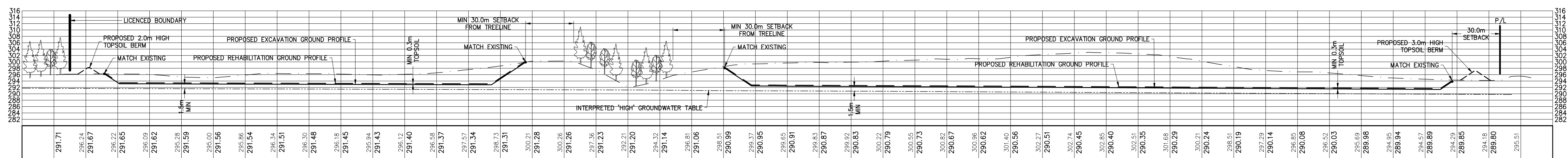
LEGEND

	EXISTING DITCH / WATERCOURSE
	EXISTING FENCELINE
	EXISTING GROUND CONTOUR
	PROPOSED REHABILITATION CONTOUR
	EXISTING TREELINE
	120m BOUNDARY LIMIT
	BOUNDARY OF AREA TO BE LICENSED
	PROPOSED PHASING LIMIT
	PROPOSED FENCED AREA OF LICENSE LIMIT
	ZONING BOUNDARY
	PROPOSED LIMIT OF EXTRACTION
	PROPOSED BOTTOM OF SLOPE
	PROPOSED SILT FENCE
	PROPOSED REHABILITATION ELEVATION
	DIRECTION OF SURFACE FLOW
	TESTHOLE LOCATION
	MONITORING WELL / PIEZOMETER LOCATION
	CURRENT ZONING
	CURRENT LAND USE
	PRIMARY ENTRANCE / EXIT FROM THE SITE

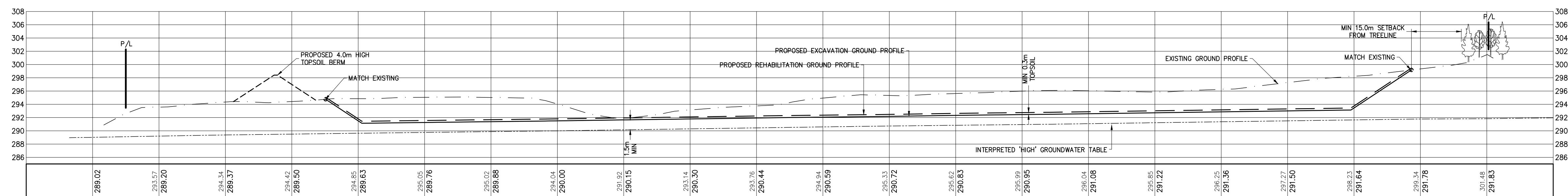
PROGRESSIVE REHABILITATION PLAN

0 25 50 100 200
SCALE 1:2,000

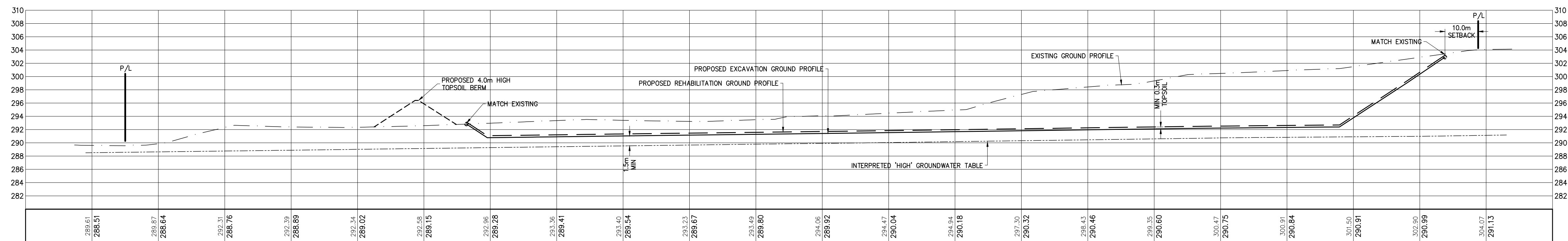
FILE C:\CALC\2025\220135\220135_Plan_01.dwg, 14/10/2023, 11:56:06 AM
LAST SAVED BY KERRIN@BPA, 22/02/2025 11:56:46 AM, PLOTTED BY EMM, Ken, 22/02/2025 11:56:06 AM



SECTION A-A
SCALE 1:1,500 HOR
1:750 VERT

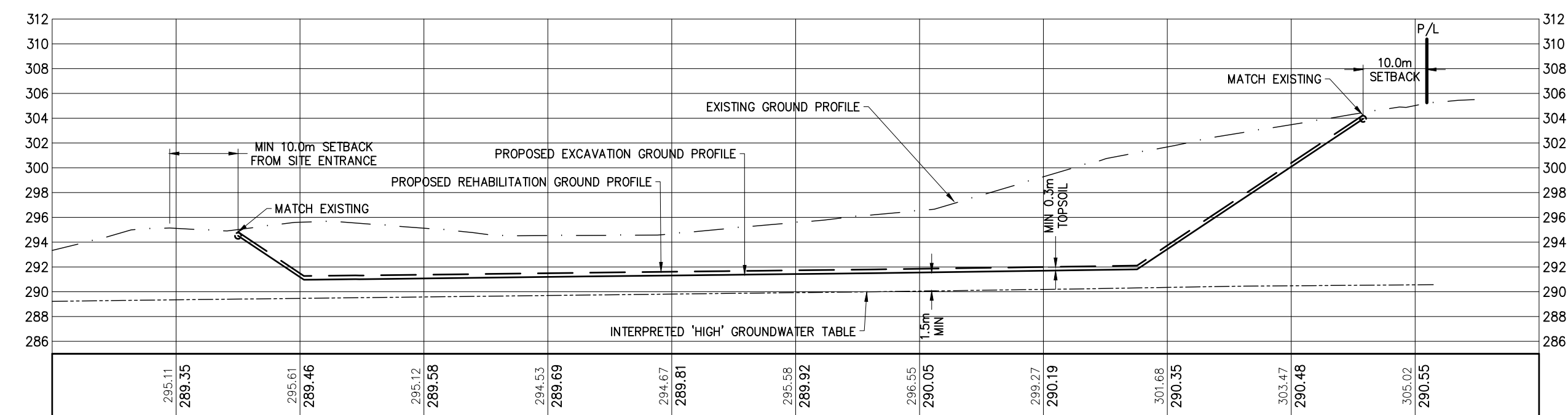


SECTION B-B
SCALE 1:750 HOR
1:375 VERT



SECTION C-C

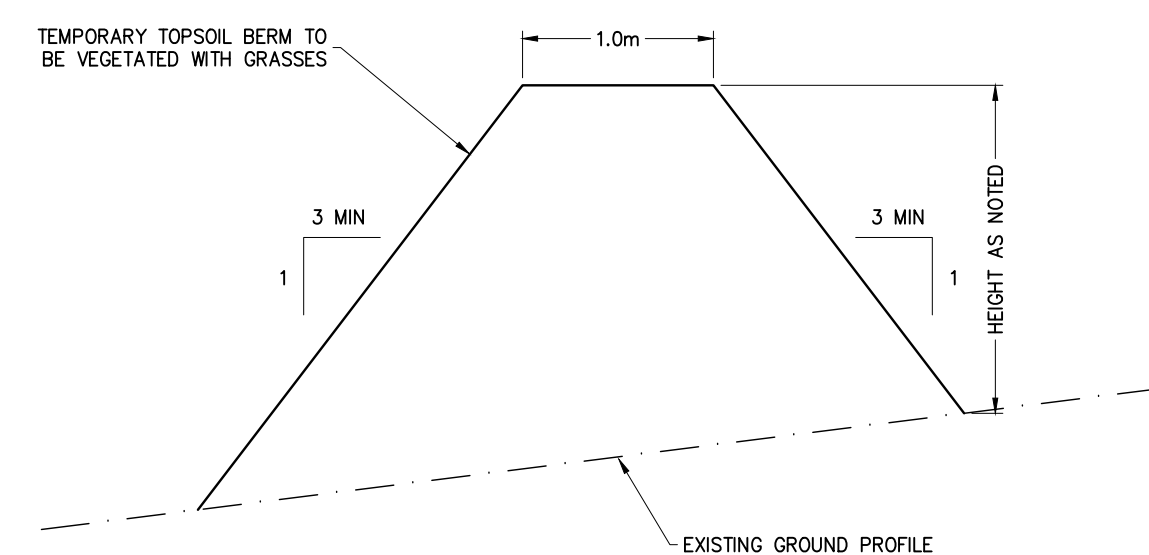
SCALE 1:750 HOR
1:375 VERT



SECTION D-D
SCALE 1:750 HOR
1:375 VERT

NOTES:

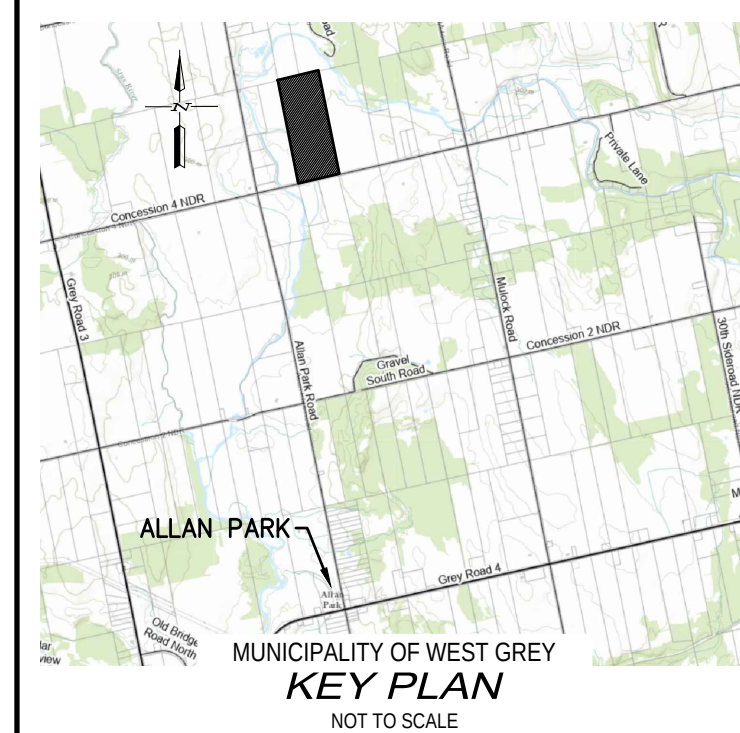
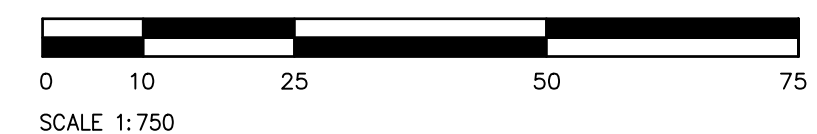
1. MAXIMUM FINISHED SIDESLOPE GRADIENT SHALL BE 3:1



TYPICAL BERM SECTION
NOT TO SCALE

LEGEND

EXISTING GROUND ELEVATION
INTERPRETED 'HIGH' GROUNDWATER ELEVATION



NOTES :

APPLICANT:
JT EXCAVATING LTD.
BOX 665
615 ASPEN STREET
DURHAM, ON
N0G 1R0

APPLICANT'S SIGNATURE

DATE _____

BENCHMARK 1 ELEV. - 297.76m

TOP OF CASING FOR MONITORING WELL MW-4, LOCATED AT THE SOUTH EAST CORNER OF THE SITE.

BENCHMARK 2 ELEV. - 291.61m

TOP OF CASING FOR MONITORING WELL MW-1, LOCATED AT THE NORTH WEST CORNER OF THE SITE.

THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED.

BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR ANY DAMAGE TO THEM.

1	25/02/25	REVISED PER PLANNING COMMENTS	MDN
NO.	DATE	REVISION DESCRIPTION	CHKD



GUELPH | OWEN SOUND | LISTOWEL | KITCHENER | LONDON | HAMILTON | GTA
1260 - 2ND AVENUE EAST, UNIT 1, OWEN SOUND, ON N4K 2J3
TEL: 519-376-1805 www.ambbluecjan.ca

JT EXCAVATING LTD.

PROPOSED AGGREGATE R

LOT 22, CONCESSION 5

GRAPHIC TOWNSHIP OF BENTINCK

MUNICIPALITY OF WEST GREY

COUNTY OF GREY			
DRAWN BY : E.J.T.	APPROVED BY : C.S.	PROJECT NO. : 220135	DRAWING NO. : 4
DESIGNED BY : E.J.T.	DATE : NOV 23, 2023	SCALE : AS NOTED	