3027 Cedar Creek Road, Ayr, ON

Geotechnical Investigation Report

Project Location:
3027 Cedar Creek Road, Ayr, ON

Prepared for:
Royal Truck and Trailer Sales Ltd.
73 Stafford Drive
Brampton, ON L6W 1L3

Prepared by:
MTE Consultants Inc.
520 Bingemans Centre Drive
Kitchener, ON N2B 3X9

August 27, 2024

MTE File No.: 55566-100

Engineers, Scientists, Surveyors.

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Appendices

1.0 INTRODUCTION

MTE Consultants Inc. (MTE) was retained by Royal Truck and Trailer Sales Ltd. to carry out a geotechnical investigation for the proposed industrial warehouse which is to be located at 3027 Cedar Creek Road in Ayr, Ontario as shown on **Figure 1 in Appendix A**.

The site currently consists of a laneway entering the site to a residential dwelling and garage, which is located south of the residential dwelling. It is understood that the project consists of a proposed industrial warehouse located in the vicinity of Boreholes BH101-24 to BH108-24. It is understood that a storm water management pond is to be located in the vicinity of Boreholes BH109-24 and MW110-24. It is also understood that parking areas and drive aisles are located south of the proposed building, within the vicinity of Boreholes BH111-24 to MW115-24. It is understood that the industrial warehouse will be privately serviced by an onsite well and septic system.

The ground surface in the area of the proposed warehouse generally slopes down from west to east with elevations from 319.0 to 316.1 m between the borehole locations (Boreholes BH101-24 to BH108-24). The ground surface in the area of the stormwater management pond, parking areas, and drive aisles generally slopes down from north to south with elevations from 317.7 to 309.6 m between borehole locations (Boreholes BH109-24 and MW115-24).

The purpose of the geotechnical investigation is to assess the subsurface soil and groundwater conditions at the site and to provide preliminary geotechnical engineering recommendations for the design of the project.

2.0 FIELD AND LABORATORY PROGRAM

The fieldwork for the investigation was carried out between July 22 to 25, 2024, and consisted of fifteen (15) boreholes drilled to depths of 4.1 to 14.2 meters below ground surface (mbgs) which are identified as Boreholes BH101-24 to MW115-24. The approximate locations of the boreholes are shown on the Site Plan, **Figure 2** in **Appendix A**.

Public and private utility companies were contacted prior to drilling activities to identify potential conflicts with underground utilities near the boring locations.

The boreholes were drilled with a Diedrich D50 track mounted drill rig equipped with continuous flight hollow stem augers supplied and operated by London Soil Test Ltd.

Representative soil samples were recovered throughout the depths explored. Standard penetration testing (SPT) and sampling was carried out at regular depth intervals during drilling operations using conventional split spoon sampling equipment. The SPT N-values recorded are shown on the borehole logs in **Appendix B.**

Upon completion of drilling, four monitoring wells were installed in Boreholes MW103-24, MW110-24, MW113-24, and MW115-24. The installation comprised a 1.5 m filtered screen and bentonite seal above the screen. Details of the installation and groundwater observations and measurements are provided in the appended borehole logs.

The monitoring wells were installed in accordance with Ontario Regulation 468/10. The construction, maintenance, and abandonment of the well are regulated under the provinces Water Resources Act. The monitoring well network located on site must be maintained or decommission in accordance with regulatory requirements.

The remaining boreholes were backfilled in accordance with Ontario Regulation 468/10 (formerly O. Reg. 903) under the province's Water Resources Act.

The fieldwork was monitored throughout by a member of our geotechnical engineering staff who directed the drilling operations, documented the SPT tests, documented the soil stratigraphies encountered, observed the groundwater conditions, and transported the soil samples obtained to our office for further classification.

The geodetic ground surface elevations at the borehole locations were surveyed by MTE.

All the soil samples obtained were tested for moisture content and selected samples were tested for grain size analysis. The results of the laboratory tests are provided in **Appendix C**. The soil samples will be stored for a period of 1 month and will be discarded at that time unless prior request from the client to extend storage time has been received.

3.0 SOIL CONDITIONS

Reference is made to the appended borehole logs for soil stratigraphy details, SPT N-values, and groundwater observations. The soil conditions encountered in the boreholes generally consisted of topsoil fill overlying native deposits of sand, silt, and glacial till.

3.1 Fill

Topsoil fill was encountered in all boreholes extending to depths of 0.1 to 0.4 m. The composition of the topsoil was dark brown sandy silt and was moist at the time of the fieldwork.

Fill was encountered beneath the topsoil fill in Boreholes BH105-24, BH106-24, and BH112-24 extending to depths of 0.9 to 2.3 m. The composition of the fill was brown silty sand, trace gravel, with topsoil and was moist at the time of fieldwork.

3.2 Sand

Native sand deposits were encountered beneath the fill extending to the termination depth of each borehole. The native sand deposits were brown in colour and typically ranged in composition from sand to silt and sand. Peat was noted within the silt and sand deposit in MW113-24 at depths of 0.8 m extending to depths of 3.0 m.

The results of sieve analyses conducted on samples of the native soils are provided in **Appendix C** and summarized in the following table:

Table 1 – Results of Grain Size Analyses

Borehole ID	Depth (m)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
MW103-24	12.2 – 12.6	0	90	9	1
BH109-24	3.0 – 3.5	<1	91	8	1
MW110-24	1.5 – 2.0	0	81	17	2
MW110-24	9.1 – 9.6	1	94	4	1
MW113-24	6.1 – 6.6	5	86	7	2
MW115-24	12.2 – 12.6	0	81	18	1

SPT N-values measured in the sand deposits ranged from 1 to 57 blows per 300 mm penetration of the split spoon indicating very loose to very dense conditions.

Insitu moisture contents in the sand ranged from 2 to greater than 40% indicating damp to saturated conditions.

3.3 Glacial Till

Native glacial deposits were encountered interlayered with the native sand deposits in MW110-24 and MW115-24 at depths of 4.6 to 9.1 m extending to depths of 6.1 and 12.2 m, respectively. The glacial till deposits were brown to grey in colour and typically ranged in composition from sandy silt to silt and clay.

An SPT N-value measured in the non-cohesive portion of the till was 25 blows per 300 mm penetration of the split spoon indicating compact conditions. Approximate shear strengths measured in the cohesive portion of the till with a pocket penetrometer were 110 to 125 kPa indicating very stiff conditions.

Insitu moisture content in the non-cohesive portion of the till was measured at 12% indicating moist conditions. Insitu moisture contents in the cohesive portion of the till ranged from 19 to 29% indicating about the plastic limit conditions.

4.0 GROUNDWATER CONDITIONS

Groundwater observations were carried out in the open boreholes during drilling between July 22 to 25, 2024, and are summarized on the borehole logs. No free groundwater or seepage was observed in the boreholes during drilling.

Table 2 – Saturated Soil Conditions During Drilling

Borehole Number	Depth of Saturated Soil (mbgs)	Elevation of Saturated Soil (masl)	Saturated Soil Type
MW103-24	10.7	307.1	Sand
MW110-24	7.6	307.1	Sand
MW113-24	1.8	307.8	Silt and Sand
MW115-24	12.2	300.7	Sand

Groundwater was measured in Boreholes MW103-24, MW110-24, MW113-24, and MW115-24 on July 31, 2024, and are summarized in the following table:

Table 3 – Groundwater Measurements

Borehole Number	Depth of Saturated Soil (mbgs)	Elevation of Saturated Soil (masl)
MW103-24	10.4	307.4
MW110-24	7.6	307.1
MW113-24	6.1	303.4
MW115-24	8.8	304.1

The soil colour change from brown to grey in Boreholes MW110-24, MW113-24, and MW115-24 was at about 3.0 to 9.1 m or between about Elevation 303.8 to 307.1 m which provides a reasonable estimate of the long-term groundwater level.

It should be noted that the groundwater levels noted above are not necessarily representative of long-term, stabilized groundwater levels. Groundwater and seepage levels should be expected vary and are subject to seasonal fluctuations and significant precipitation events.

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 General

The project consists of an industrial warehouse located in the vicinity of Boreholes BH101-24 to BH108-24. It is understood that a storm water management pond is to be located in the vicinity of Boreholes BH109-24 and MW110-24. It is also understood that parking areas and drive aisles are located south of the proposed building, within the vicinity of Boreholes BH111-24 to MW115-24.

It is understood that the industrial warehouse will be privately serviced by an onsite well and septic system.

The soil conditions encountered in the boreholes generally consisted of topsoil fill overlying native deposits of sand and glacial till.

The following subsections of this report contain geotechnical recommendations pertaining to development of the site including site preparation, site servicing, foundations, basements, pavement design, curbs and gutters, and stormwater infiltration.

5.2 Site Preparation and Engineered Fill

The first construction activity that will be required for the proposed development will be the removal of the existing structures. All topsoil, fill materials, organic and/or deleterious materials should be removed from the proposed building and parking areas. The average topsoil thickness measured in the boreholes was about 270 mm. It is recommended that topsoil be separated from other deleterious materials and stockpiled.

Prior to constructing engineered fill (also referred to as “structural fill”), the subgrade should be proof rolled under the direction of the geotechnical engineer and any loose, soft, or poorly performing areas addressed. The engineered fill materials should be at an appropriate moisture content for compaction purposes and placed in maximum 300 mm thick lifts. Engineered fill should be uniformly compacted to 100% of Standard Proctor Maximum Dry Density (SPMDD). To the extent feasible, the engineered fill should be crowned to promote runoff and reduce the potential for ponding of water. Full time geotechnical inspections and in situ density testing, together with the related laboratory testing, is required during any engineered fill construction.

Fills required to raise grades should be constructed as engineered fill which can consist of approved inorganic site borrow. It is recommended that the materials proposed for use be pre-sampled by MTE to confirm their suitability prior to their use as engineered fill. The engineered fill should extend a minimum of 1.0 m plus the thickness of fill beyond the edge of any footings and can be estimated by projecting a line downwards and outwards to the subgrade level at an angle of 45 degrees to the horizontal starting 1 m beyond any edge of footing.

The subgrade soils are susceptible to disturbance, and it is recommended that construction traffic be minimized on the unprotected subgrade. Depending on the time of year of construction and the prevailing weather conditions, it may be necessary to place a starter lift of 500 mm of OPSS.MUNI 1010 Granular B Type II or recycled concrete to enhance trafficability.

5.3 Foundations

It is understood that the proposed industrial warehouse is to be constructed using conventional strip and/or of pad footings and a slab-on-grade floor. It is understood that the proposed warehouse will be constructed in the vicinity of Boreholes BH101-24 to BH108-24.

In general, the undisturbed compact native sand and silt soils are considered suitable to support the proposed warehouse foundations. The existing fill and upper loose native soils are not considered suitable to support the proposed warehouse and should be removed.

The following table provides the minimum recommended depth and elevation for footing and/or structural fill placement on suitable native sand and silt soil:

Table 4 – Recommended Footing Elevation for 150 kPa at SLS

Borehole Number	Borehole Ground Surface Elevation (masl)	Depth Below Existing Ground Surface to Suitable Native Soil (mbgs)	Elevation of Suitable Native Soil (masl)
BH101-24	316.7	0.8	315.9
BH102-24	316.1	0.8	315.3
BH103-24	317.8	3.0	314.8
BH104-24	319.0	1.5	317.5
BH105-24	317.3	3.0	314.3
BH106-24	319.0	1.5	317.5
BH107-24	318.6	2.3	316.3
BH108-24	317.9	0.8	317.1

Conventional spread footings founded on the compact undisturbed native soils or approved structural fill may be designed for a factored geotechnical resistance at Ultimate Limit States (ULS) of 225 kPa and geotechnical resistance at Serviceability Limit States (SLS) of 150 kPa. The SLS value corresponds to 25 mm of total settlement.

Where spread footings are constructed at different elevations, the difference in elevation in the individual footing should not be greater than one half of the clear distance between the footings. The lower footing should be constructed first so that if it is necessary to construct the lower footings at a greater depth than anticipated, the elevation of the upper footings can be adjusted accordingly. Stepped strip footings should be constructed in accordance with OBC Section 9.15.3.9.

All exterior floor slabs and footings in unheated areas must be provided with a minimum 1.2 m of earth cover after final grading to minimize the potential of damage due to frost action. The frost depth is determined based on Ontario Provincial Standard Drawing (OPSD) 3090.101.

The founding materials are susceptible to disturbance by construction activity, especially during wet weather and care should be taken to preserve the integrity of the founding soils.

All founding soils must be inspected by the geotechnical engineer prior to pouring concrete to confirm that the soil conditions encountered during construction are consistent with the conditions anticipated and that they are suitable to support the geotechnical resistances noted above. Any loose, disturbed, organic, and deleterious material identified during the inspection should be removed from the formwork and replaced with structural fill or concrete. If construction is completed during cold weather, the subgrade soil and concrete should be protected from freezing.

Site Class ‘D’ should be used to account for earthquake load and effects in accordance with Table 4.1.8.4.-B of the 2024 Ontario Building Code.

5.4 Floor Slabs

It is understood that the floor slab for the proposed industrial warehouse is to be constructed using conventional concrete slab-on-grade techniques, following the removal of any unsuitable fill, topsoil, and organic soils, and inspection of subgrade soils.

Floor slabs should be supported by at least 150 mm of OPSS.MUNI 1010 Granular ‘A’ compacted to 100% SPMDD. If a moisture-sensitive floor finish is to be applied to the slab, a 15 mil polyethylene moisture vapour barrier should be installed directly beneath the slab as per Article 9.13.2.6 of the Ontario Building Code. The purpose of the vapour barrier is to reduce moisture transfer by diffusion (Article 5.5.1.2 of the Ontario Building Code). Joints in the vapour barrier should be lapped not less than 100 mm.

The water to cement ratio and slump of the concrete should be strictly controlled to minimize shrinkage of the slab. Control joints should be sawed into the slabs at regular intervals within 12 hours of initial concrete placement prelocate shrinkage cracks. Floor slabs should be kept structurally separate from foundation walls and columns.

5.5 Excavations and Dewatering

Excavations must comply with the Ontario Occupational Health and Safety Act and Regulations for Construction Projects. The excavations are expected to encounter sand with varying amounts of gravel. The predominate soils encountered in the boreholes would be classified as Type 3 soils (O. Reg. 213/91, s. 226 (4)). Temporary side slopes must be cut at an inclination of 1.0 horizontal to 1.0 vertical or less from the base of the excavation, exclusive of groundwater effects. Where wet or saturated conditions are encountered, excavation side slopes should be expected to slough to flatter inclinations, potentially 3.0 horizontal or flatter.

It is not expected that excavations will extend into the stabilized groundwater table at the site. Any nuisance of perched water seepage should be feasible with conventional sump pump methods.

5.6 Site Servicing

5.6.1 Pipe Bedding

Bedding for the site services should consist of Class 'B' pipe bedding comprised of a minimum 150 mm thick layer of OPSS.MUNI 1010 Granular 'A' aggregate below the pipe invert. Granular 'A' aggregate should be provided around the pipe to at least 300 mm above the crown. The bedding should be uniformly compacted to 100% SPMDD.

In the event conditions are such that the Granular ‘A’ cannot be compacted, well-graded clear stone such as HL4 coarse aggregate (OPSS.MUNI 1003) could be used as bedding below the spring line of the pipe. Regardless of the presence of water, all clear stone aggregate used as bedding should be fully encapsulated within a non-woven geotextile to prevent migration of fine soil particles into the bedding which could result in loss of support for the pipe and related settlements.

5.6.2 Trench Backfilling

In general, the excavated inorganic materials are suitable for reuse as trench backfill provided that some post construction settlements can be tolerated. The magnitude of the settlement(s) will be dependent on material type, placement water content, and construction practices. Some settlement will occur regardless of the type of backfill, but settlements can be reduced if granular backfill is used.

The backfill above the bedding should consist of imported or inorganic onsite soils placed in 300 mm thick lifts and uniformly compacted to 95% SPMDD. Any shortfall in backfill should be addressed with imported granular material such as OPSS.MUNI 1010 Granular B Type I.

Backfilling operations should follow closely after excavation such that only a minimal length of open trench is exposed. Care should be taken to protect side slopes of excavations by diverting surface run-off away from the excavations. If construction extends into the winter, additional steps should be taken to prevent freezing. Frozen material should not be permitted in the backfill.

5.7 Stormwater Infiltration

It is understood that at-source infiltration of stormwater runoff is proposed. Percolation Times (T-Times) were assessed based on hydraulic conductivity and the soil types determined from the particle size distribution results. Six (6) particle size distribution analyses were completed on the native soils encountered in Boreholes MW103-24, BH109-24, MW110-24, MW113-24, and MW115-24. The results are plotted on **Table 101 and Table 102 in Appendix C**. The estimated vertical hydraulic conductivity (k) is derived from empirical formulae by Hazen and Beyer.

The hydraulic conductivity and preliminary T-Times are summarized on the following table:

Table 5 – Preliminary Infiltration Rates and T-Time for Native Sand Soils

Borehole Number	Sample Depth (mbgs)	Borehole Elevation (masl)	Soil Type	Estimated K-Value (m/sec)	Infiltration Rate (mm/hr)	Estimated T-time (mins/cm)
MW103-24	12.2	305.6	Sand	5.6E-05	>200	10
BH109-24	3.0	314.7	Sand	6.1E-05	>200	10
MW110-24	1.5	313.2	Sand	2.2E-05	75	10
MW110-24	9.1	305.6	Sand	3.0E-04	>200	6
MW113-24	6.1	303.5	Sand	6.5E-05	>200	10
MW115-24	12.2	300.7	Sand	2.7E-05	95	10

The infiltration rates provided above are estimates based on field observations and laboratory test data. No factor of safety has been applied to the infiltration rates provided and it is the responsibility of the designer to select the appropriate factor of safety. The actual site-specific infiltration rate(s) should be determined based on in situ percolation testing, Guelph permeameter testing or other such in situ methods.

5.8 Geotechnical Input and Inspection

MTE recommends that input continue throughout the design of the project. It would be beneficial for MTE to review and provide input to the contract documents prior to bidding.

Full time geotechnical inspections and testing are required during construction of any engineered fill. Regular geotechnical inspections and materials testing should be carried out during construction to confirm that the project and material specifications are consistently being met. MTE offers geotechnical inspection, soil, aggregate and asphalt compaction testing, testing of plastic and hardened concrete, and asphalt laboratory testing services through our Kitchener office.

6.0 LIMITATIONS OF REPORT

Services performed by MTE Consultants Inc. (MTE) were conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the Geotechnical Engineering & Consulting profession practicing under similar conditions in the same geographic area where the services are provided. No other warranty or representation expressed or implied as to the accuracy of the information, conclusions or recommendations is included or intended in this report.

This report was completed for the sole use of the Client. This report is not intended to be exhaustive in scope or to imply a risk-free site. As such, this report may not deal with all issues potentially applicable to the site and may omit aspects which are or may be of interest to the reader.

In addition, it should be recognized that a soil sample result represents one distinct portion of a site at the time it is collected, and that the findings of this report are based on conditions as they existed during the time period of the investigation. The material in the report reflects our best judgment using the information available at the time the report was written. The soil and groundwater conditions between and beyond the test holes may differ from those encountered in the test holes. Should subsurface conditions arise that are different from those in the test holes MTE should be notified to determine whether or not changes should be made as a result of these conditions.

It should be recognized that the passage of time may affect the views, conclusions, and recommendations (if any) provided in this report because groundwater conditions of a property can change, along with regulatory requirements. All design details were not known at the time of submission of this report, and it is recommended MTE should be retained to review the final design documents prior to construction to confirm they are consistent with our report recommendations. Should additional or new information become available, MTE recommends that it be brought to our attention in order that we may determine whether it affects the contents of this report.

Any use which another party makes of this report, or any reliance on, or decisions to be made based upon it, are the responsibility of such parties. MTE accepts no responsibility for liabilities incurred by or damages, if any, suffered by another party as a result of decisions made or actions taken, based upon this report. Others with interest in the site should undertake their own investigations and studies to determine how or if the condition affects them or their plans. The contractors bidding on this project or undertaking the construction should make their own interpretation of the factual information and draw their own conclusions as to how subsurface conditions may affect their work.

The benchmark and elevations provided in this report are primarily established to identify differences between the test hole locations and should not be used for other purposes such as, planning, development, grading, and excavation.

6.1 Signatures

All of which is respectfully submitted,

MTE Consultants Inc.

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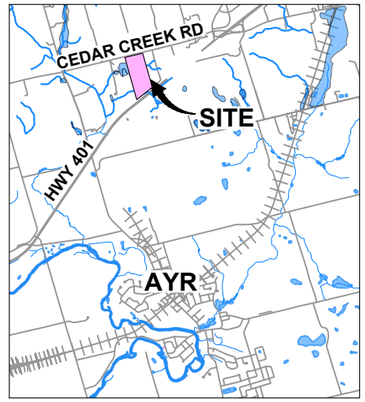
Appendix A

Figures



KEY PLAN (nts)

LEGEND

- SITE
- BOREHOLE
- BOREHOLE/MONITORING WELL

(317.8m) ELEVATION (m AMSL)

REFERENCES

BING IMAGERY AS OF AUGUST 16 - 2024;
MHBC, CONCEPT PLAN, FILE No. 2467A, APRIL 2024; AND
LAND INFORMATION ONTARIO, ROAD AND WATER NETWORK, WETLANDS, © KING'S PRINTER FOR ONTARIO, 2024 (key plan).

NOTES

THIS FIGURE IS SCHEMATIC ONLY AND TO BE READ IN CONJUNCTION WITH ACCOMPANYING TEXT.

ALL LOCATIONS ARE APPROXIMATE.

0 30 60 90 120 150m

MTE
Engineers, Scientists, Surveyors

PROJECT
GEOTECHNICAL INVESTIGATION
3027 CEDAR CREEK ROAD
AYR, ONTARIO

TITLE
SITE PLAN

Drawn	Scale	Figure
DCH	1:3,000	1
Checked	Project No. 55566-100	
Date 2024-08-19	Rev No. 0	

CAD: P:\P\55566\100\55566-100-GE01.1.DWG

Plot Date: August 19, 2024 - 9:26 AM

Appendix B

Borehole Logs

ID No.: BH101-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

Date Completed: 7/23/2024

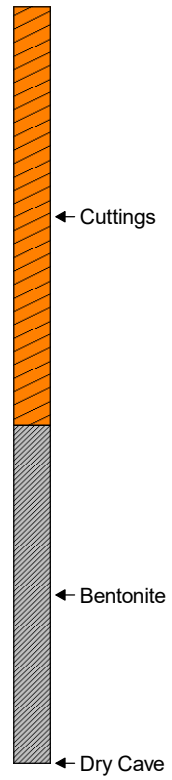
Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: N/A

Depth (ft / m)	Soil Description	Elevation (masl) / Depth (m)	Sample Number	Sample Type	Standard Penetration (Dynamic Cone)	Shear Strength (PP) kPa / Shear Strength (FV) kPa	Water Content %
0 / 0	Ground Surface	316.7					
	FILL (TOPSOIL) dark brown sandy silt, moist (230mm)	0.0	1	SS	5		6
2 /	**SAND** loose brown sand, trace to some silt, trace gravel, moist	315.9 / 0.8	2	SS	11		5
4 /	compact				12		21
6 / 2	wet silty sand seam	314.9 / 1.8	3	SS	26		3
8 /	**GRAVELLY SAND** compact gravelly sand, some silt, with cobbles, damp to moist	314.4 / 2.3	4	SS	25		8
10 /			5	SS	28		6
12 / 4	**SAND** compact to dense brown sand, trace to some gravel, trace silt, damp to moist	312.9 / 3.8	6	SS	25		18
14 /			7	SS	30		6
16 /							
18 /			8	SS			5
20 / 6		310.1					
22 /	Drilling Terminated	6.6					
24 /							
26 / 8							



Groundwater Observations and Standpipe Details

Borehole dry upon drilling completion

Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

Sheet: 1 of 1

ID No.: BH102-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

Date Completed: 7/23/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: N/A

Depth (ft / m)	Symbol	Soil Description	Elevation (masl) / Depth (m)	Sample Number	Sample Type	Dynamic Cone – Standard Penetration	Shear Strength (PP) kPa / Shear Strength (FV) kPa	Water Content %	Groundwater Observations and Standpipe Details
0 / 0		Ground Surface	316.1						
		FILL (TOPSOIL) dark brown sandy silt, moist (130mm)	0.0	1	SS	6		10	
2 /		**SAND** loose brown sand, trace silt and gravel, moist	315.3						
		SILT AND SAND compact to dense brown silt and sand, some gravel, with cobbles, moist	0.8	2	SS	21		11	
4 /				3	SS	30		13	
6 / 2			313.8						
		SILTY SAND compact brown silty sand, trace gravel, moist	2.3	4	SS	21		11	
8 /			313.1						
		SAND compact to dense brown sand, trace to some gravel, trace silt, damp	3.0	5	SS	26		4	
10 /				6	SS	24		4	
12 / 4				7	SS	21		3	
14 /				8	SS	41			
16 /			309.5						
		Drilling Terminated	6.6						
18 /									
20 / 6									
22 /									
24 /									
26 / 8									

Cuttings

Bentonite

Dry Cave

Borehole dry upon drilling completion

Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

MTE

Sheet: 1 of 1

ID No.: MW103-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

Date Completed: 7/23/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: Monument Casing

Depth (ft / m)	Soil Description	Elevation (masl) / Depth (m)	Sample Number	Sample Type	Dynamic Cone / Standard Penetration (20 40 60 80)	Shear Strength (PP) kPa / Shear Strength (FV) kPa (50 100 150 200)	Water Content % (10 20 30)	Groundwater Observations and Standpipe Details
0 ft / 0 m	Ground Surface	317.8						
	FILL (TOPSOIL) dark brown sandy silt, moist (330mm)	0.0 / 317.5	1	SS	7			
	SAND loose brown sand, some silt, trace gravel, damp to moist	0.3	2	SS	7		8	
			3	SS	8		5	
8 ft / 2 m		315.2	4	SS	8		19	
	SILT AND SAND loose brown silt and sand, trace gravel, very moist	2.6 / 314.8						
	SAND compact brown sand, trace silt and gravel, damp	3.0	5	SS	11		6	
12 ft / 4 m			6	SS	16		6	
	SILT AND SAND compact brown silt and sand, trace gravel, wet	313.2 / 4.6	7	SS	10		11	
20 ft / 6 m			8	SS	21		11	
	SAND dense brown sand, trace silt and gravel, moist	310.2 / 7.6	9	SS	30		4	

Concrete

Bentonite

51mm PVC Riser

Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

MTE

Notes:
Water encountered at 10.7mbgs (Elevation 307.1masl) during drilling.
Water measured at 10.4mbgs (Elevation 307.4masl) on July 31, 2024.

ID No.: MW103-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

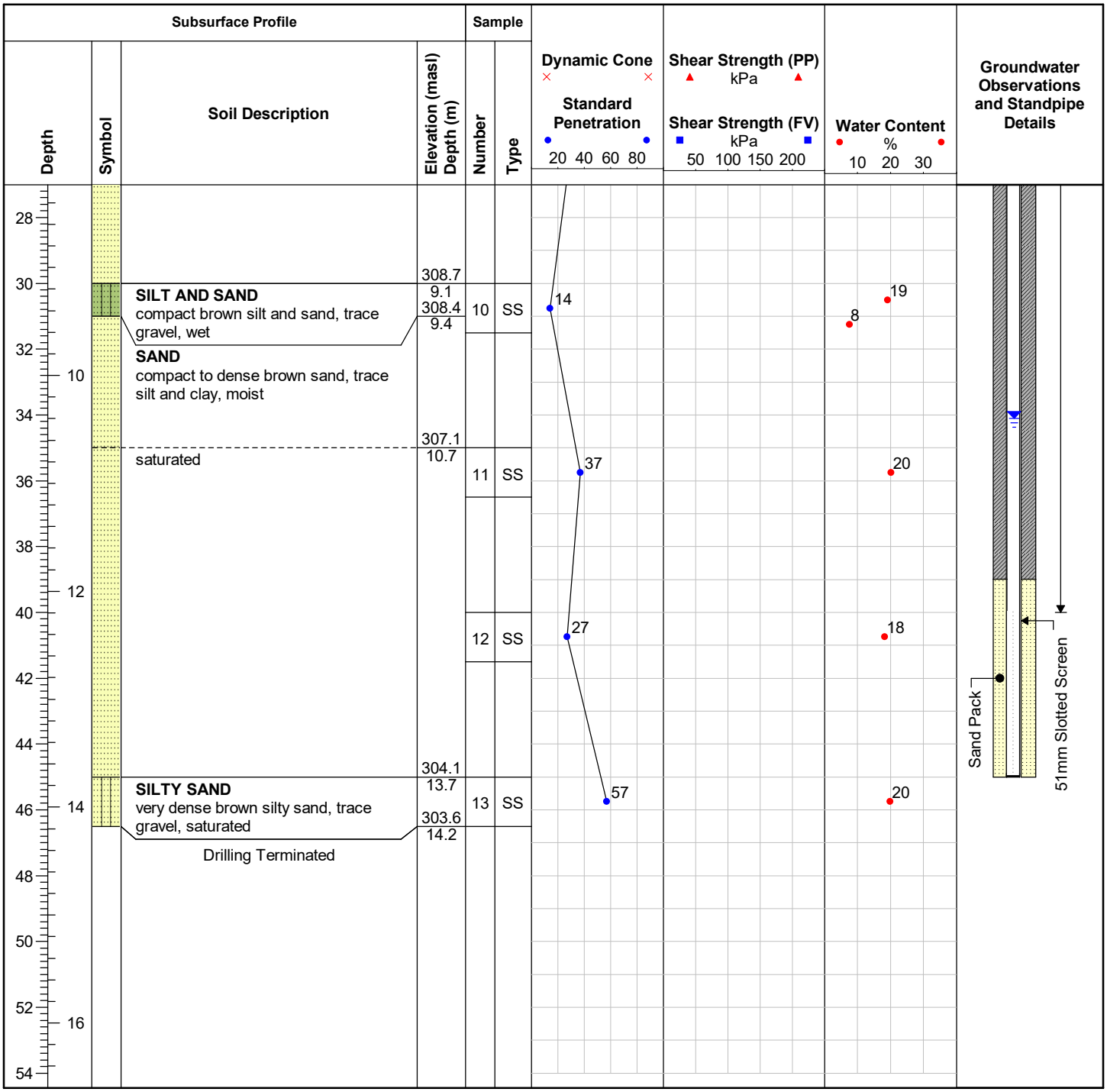
Date Completed: 7/23/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: Monument Casing



Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

Sheet: 2 of 2

Notes:
Water encountered at 10.7mbgs (Elevation 307.1masl) during drilling.
Water measured at 10.4mbgs (Elevation 307.4masl) on July 31, 2024.

ID No.: BH104-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

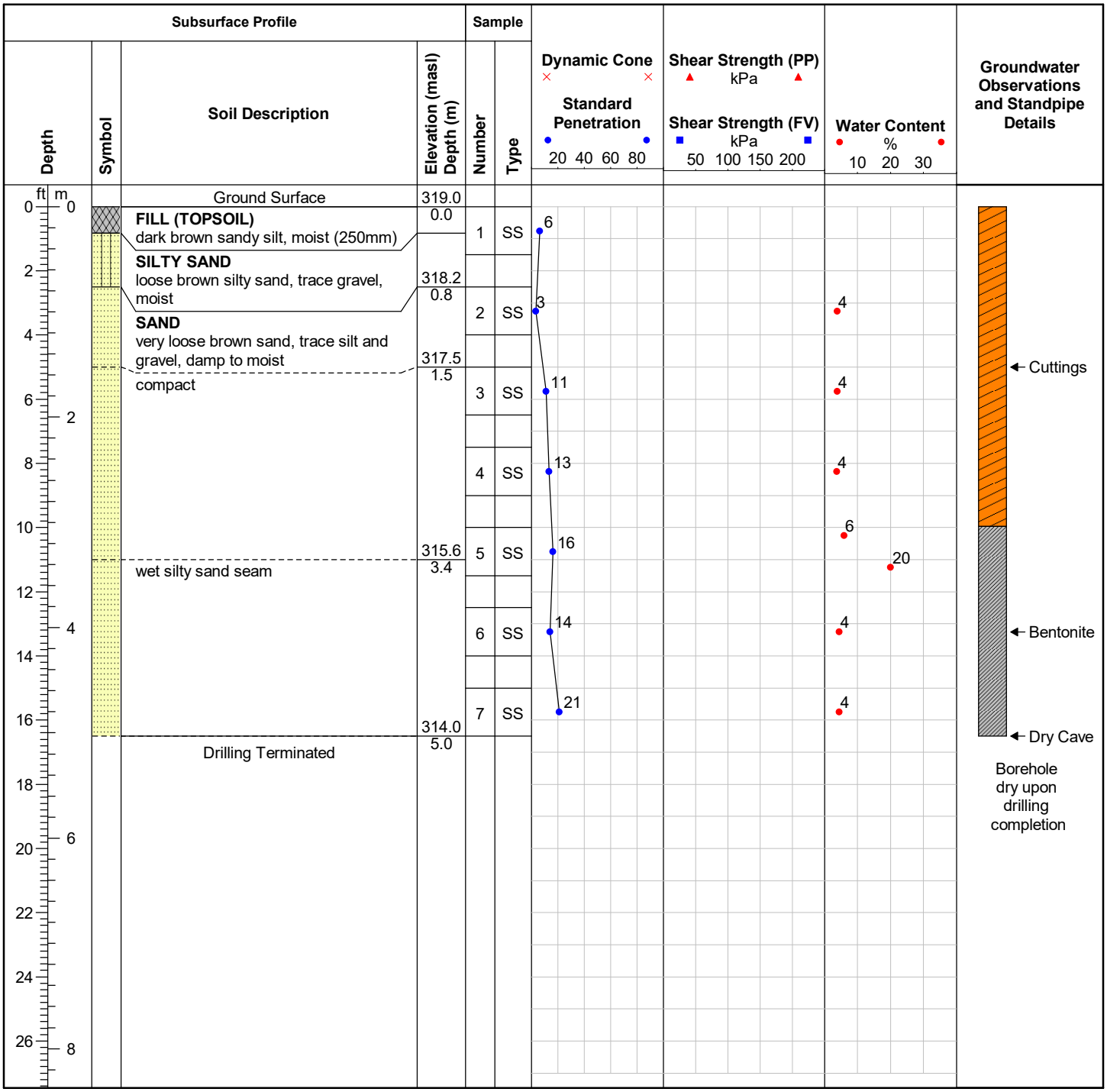
Date Completed: 7/23/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: N/A



Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

MTE

Sheet: 1 of 1

ID No.: BH105-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

Date Completed: 7/22/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: N/A

Depth (ft / m)	Soil Description	Elevation (masl) / Depth (m)	Sample Number	Sample Type	Standard Penetration (Dynamic Cone)	Shear Strength (PP) kPa / Shear Strength (FV) kPa	Water Content %
0 / 0	Ground Surface	317.3					
	FILL (TOPSOIL) dark brown sandy silt, moist (360mm)	0.0 / 316.9	1	SS	5		13
	FILL loose brown silty sand, trace gravel, moist	0.4 / 316.4	2	SS	4		8
	SAND loose brown sand, trace silt and gravel, moist	0.9 / 315.8	3	SS	5		21
	SILTY SAND loose brown silty sand, trace gravel, very moist	1.5 / 315.5					8
	SAND loose brown sand, trace to some silt and gravel, moist to wet	1.8 / 314.3	4	SS	9		6
	compact to dense	3.0	5	SS	13		5
			6	SS	26		12
			7	SS	34		7
	Drilling Terminated	312.3 / 5.0					11

Groundwater Observations and Standpipe Details: Cuttings; Bentonite; Dry Cave

Borehole dry upon drilling completion

Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

MTE

Sheet: 1 of 1

ID No.: BH106-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

Date Completed: 7/25/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: N/A

Depth (ft / m)	Soil Description	Elevation (masl) / Depth (m)	Sample Number	Sample Type	Standard Penetration (Dynamic Cone)	Shear Strength (PP) kPa / Shear Strength (FV) kPa	Water Content %	Groundwater Observations and Standpipe Details
0 / 0	Ground Surface	319.0						
	TOPSOIL (FILL) dark brown sandy silt, moist (250mm)	0.0	1	SS	5			
	FILL loose to very loose brown silty sand, trace gravel, with topsoil, moist		2	SS	2		12	
		317.5						
	SAND compact brown sand, trace silt and gravel, moist	1.5	3	SS	13		5	
			4	SS	11		6	
			5	SS	16		4	
		315.0						
	wet sand and silt seam	4.0	6	SS	16		8	
		314.4					17	
	SILTY SAND compact brown silty sand, trace gravel, wet	4.6	7	SS	19		19	
		314.0					2	
	SAND compact brown sand, trace silt and gravel, damp	5.0						
	Drilling Terminated							

Cuttings

Bentonite

Dry Cave

Borehole dry upon drilling completion

Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

MTE

ID No.: BH107-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

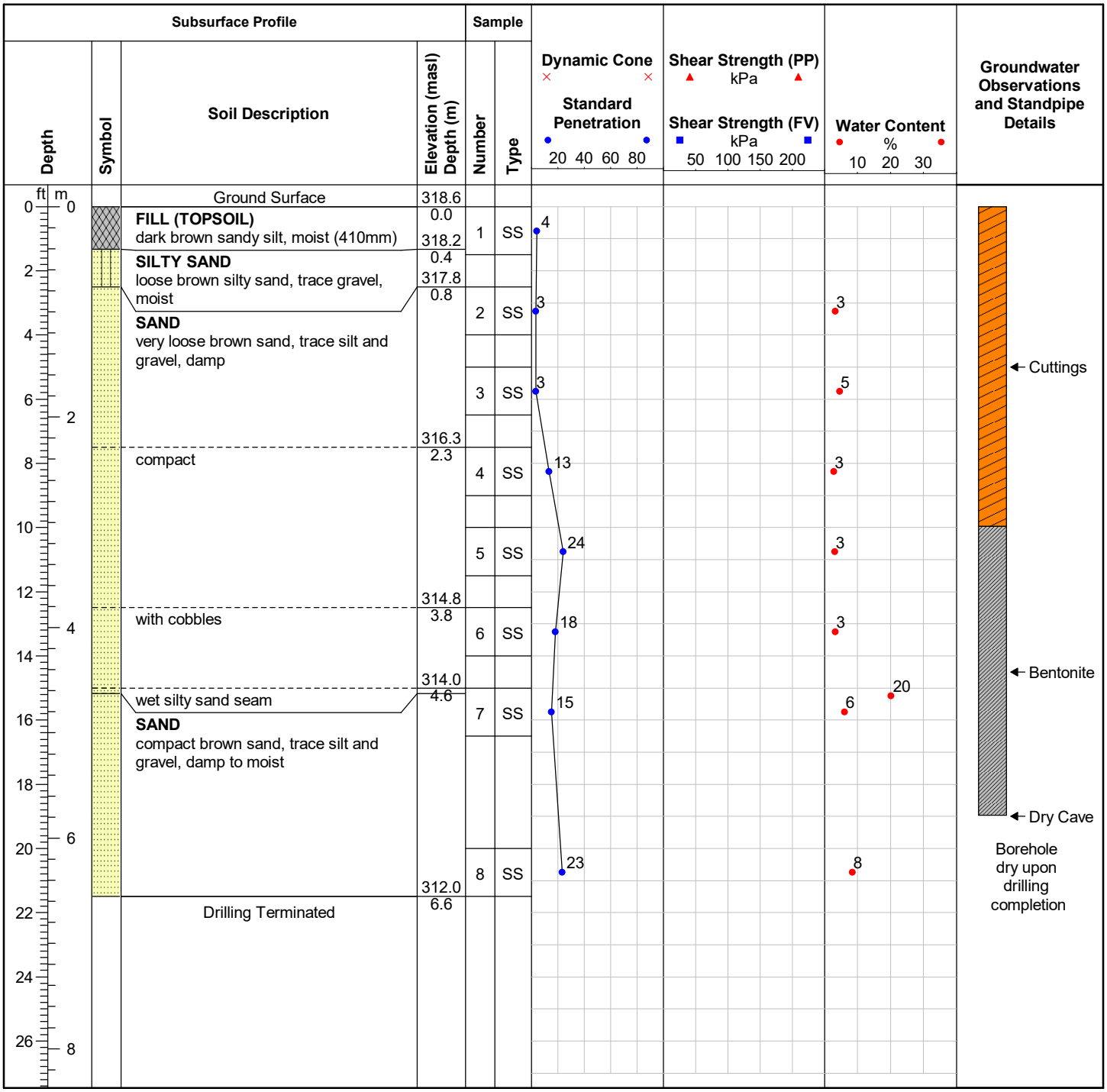
Date Completed: 7/24/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: N/A



Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

Sheet: 1 of 1

ID No.: BH108-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

Date Completed: 7/24/2024

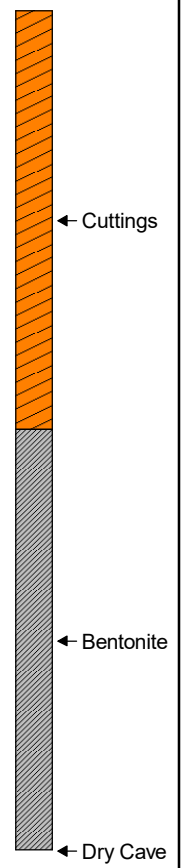
Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: N/A

Depth (ft / m)	Symbol	Soil Description	Elevation (masl) / Depth (m)	Sample Number	Sample Type	Dynamic Cone / Standard Penetration (20 40 60 80)	Shear Strength (PP) kPa / Shear Strength (FV) kPa (50 100 150 200)	Water Content % (10 20 30)	Groundwater Observations and Standpipe Details
0 / 0		Ground Surface	317.9						
0 / 0		**FILL (TOPSOIL)** dark brown sandy silt, moist (250mm)	0.0	1	SS	5		9	
2 / 0.8		**SAND** loose brown sand, trace to some silt, trace gravel, moist; compact	317.1	2	SS	10		3	
6 / 2				3	SS	15		6	
8 / 2				4	SS	13		5	
10 / 3				5	SS	16		4	
12 / 4				6	SS	19		11	
14 / 4		**SILT AND SAND** compact brown silt and sand, some gravel, with cobbles, moist to wet	313.8 / 4.1	7	SS	17		11 / 8	
16 / 5		**SAND** compact brown sand, trace to some silt and gravel, moist	313.2 / 4.7	8	SS	39		6	
20 / 6									
22 / 7		Drilling Terminated	311.3 / 6.6						
24 / 7									
26 / 8									



Borehole dry upon drilling completion

Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

MTE

Sheet: 1 of 1

ID No.: BH109-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

Date Completed: 7/25/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: N/A

Depth (ft / m)	Symbol	Soil Description	Elevation (masl) / Depth (m)	Sample Number	Sample Type	Dynamic Cone / Standard Penetration (20 40 60 80)	Shear Strength (PP) kPa / Shear Strength (FV) kPa (50 100 150 200)	Water Content % (10 20 30)	Groundwater Observations and Standpipe Details
0 / 0		Ground Surface	317.7						
		FILL (TOPSOIL) dark brown sandy silt, moist (150mm)	0.0	1	SS	6			
		SAND loose brown sand, trace silt and clay, damp to moist	316.9 0.8	2	SS	11		4	
		compact		3	SS	11		4	
6 / 2			315.4						
		loose	2.3	4	SS	6		5	
			314.7						
		compact	3.0	5	SS	17		6	
								7	
12 / 4			313.6	6	SS	14		5	
		SAND AND SILT compact brown sand and silt, trace gravel, with cobbles, moist to very moist	4.1	7	SS	18		11	
18 / 6			311.6						
		SAND compact brown sand, trace to some graveel, trace silt, damp	6.1 311.1	8	SS	29		2	
			6.6						
22 / 7		Drilling Terminated							
26 / 8									

Groundwater Observations and Standpipe Details: Cuttings; Bentonite; Dry Cave

Borehole dry upon drilling completion

Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

MTE

Sheet: 1 of 1

ID No.: MW110-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

Date Completed: 7/24/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: Monument Casing

Depth (ft / m)	Soil Description	Elevation (masl) / Depth (m)	Sample Number	Sample Type	Dynamic Cone / Standard Penetration	Shear Strength (PP) kPa / Shear Strength (FV) kPa	Water Content %
	Ground Surface	314.7					
0 / 0	**FILL (TOPSOIL)** dark brown sandy silt, moist (280mm)	0.0	1	SS	6		
2 / 0.8	**SAND** loose brown sand, some silt, trace clay, moist	313.9	2	SS	10		4
4	compact		3	SS	12		7
6 / 2			4	SS	11		10
8			5	SS	11		16
10							
12 / 3.8	with cobbles	310.9	6	SS	26		7
14 / 4		310.1					
16 / 4.6	**SANDY SILT TILL** compact brown sandy silt, trace clay and gravel, moist		7	SS	25		12
18							
20 / 6		308.6					
20 / 6.1	**SAND** compact brown sand, trace silt, clay, and gravel, damp		8	SS	22		5
22							
24		307.1					
26 / 7.6	grey/brown, saturated		9	SS	11		14
26 / 8							

Groundwater Observations and Standpipe Details: Concrete; Bentonite; 51mm PVC Riser

Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

Sheet: 1 of 2

Notes:
Water encountered at 7.6mbgs (Elevation 307.1masl) during drilling.
Water measured at 7.6mbgs (Elevation 307.1masl) on July 31, 2024.

ID No.: MW110-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

Date Completed: 7/24/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: Monument Casing

Depth	Symbol	Soil Description	Elevation (masl) / Depth (m)	Sample Number	Sample Type	Dynamic Cone / Standard Penetration (20 40 60 80)	Shear Strength (PP) kPa / Shear Strength (FV) kPa (50 100 150 200)	Water Content % (10 20 30)	Groundwater Observations and Standpipe Details
10				10	SS	10		18	Sand Pack; 51mm Slotted Screen
12				11	SS	10		22	
14		Drilling Terminated	303.6 / 11.1						
16									

Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

MTE

Notes:
Water encountered at 7.6mbgs (Elevation 307.1masl) during drilling.
Water measured at 7.6mbgs (Elevation 307.1masl) on July 31, 2024.

ID No.: BH111-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

Date Completed: 7/24/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: N/A

Depth (ft / m)	Soil Description	Elevation (masl) / Depth (m)	Sample Number	Sample Type	Dynamic Cone / Standard Penetration (20 40 60 80)	Shear Strength (PP) kPa / Shear Strength (FV) kPa (50 100 150 200)	Water Content % (10 20 30)	Groundwater Observations and Standpipe Details
0 / 0	Ground Surface	317.1						
	FILL (TOPSOIL) dark brown sandy silt, moist (280mm)	0.0	1	SS	6			
2 /	**SAND** loose brown sand, some silt, trace gravel, moist	316.3 / 0.8	2	SS	11		15	
4 /	**SILTY SAND** very loose brown silty sand, trace gravel, moist	315.6 / 1.5	3	SS	11		8	
6 / 2	**GRAVELLY SAND** compact brown gravelly sand, some silt, with cobbles, moist	314.8 / 2.3	4	SS	6		4	
8 /	loose							
10 /	**SAND** compact brown sand, trace to some silt, trace gravel, moist	313.9 / 3.2	5	SS	17		4 5	← Bentonite ← Dry Cave
12 / 4							12	Borehole dry upon drilling completion
14 /	**SILTY SAND** compact brown silty sand, trace gravel, wet	313.0 / 4.1	6	SS	14		15	
16 /	Drilling Terminated							
18 /								
20 / 6								
22 /								
24 /								
26 / 8								

Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

MTE

ID No.: BH112-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

Date Completed: 7/22/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: N/A

Depth (ft / m)	Symbol	Soil Description	Elevation (masl) / Depth (m)	Sample Number	Sample Type	Dynamic Cone / Standard Penetration (20 40 60 80)	Shear Strength (PP) kPa / Shear Strength (FV) kPa (50 100 150 200)	Water Content % (10 20 30)	Groundwater Observations and Standpipe Details
0 / 0		Ground Surface	314.7						
		FILL (TOPSOIL) dark brown sandy silt, moist (360mm)	0.0 / 314.3	1	SS	6		9	
		FILL loose to very loose brown silty sand, trace gravel, with topsoil, moist	0.4	2	SS	1			
2 / 2				3	SS	3		6	
			312.4						
		SAND compact brown sand, some silt, trace gravel, moist	2.3	4	SS	23		4	
10				5	SS	19		3	
12 / 4				6	SS	19		4	
			310.4						
14		Drilling Terminated	4.3						
16									
18									
20 / 6									
22									
24									
26 / 8									

Groundwater Observations and Standpipe Details: Cuttings; Bentonite; Dry Cave

Borehole dry upon drilling completion

Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

MTE

ID No.: MW113-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

Date Completed: 7/24/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: Monument Casing

Depth (ft / m)	Soil Description	Elevation (masl) / Depth (m)	Sample Number	Sample Type	Dynamic Cone / Standard Penetration	Shear Strength (PP) kPa / Shear Strength (FV) kPa	Water Content %
0 / 0	Ground Surface	309.6					
	FILL (TOPSOIL) dark brown sandy silt, some gravel, moist (150mm)	0.0	1	SS	18		15
2 /	**SILT AND SAND** compact brown silt and sand, some gravel, moist to wet	308.8 / 0.8	2	SS	4		20, 21
4 /	loose to very loose, brown/grey, with peat		3	SS	1		35, >40
6 / 2			4	SS	8		
8 /		306.6					
10 /	**SILTY SAND** compact grey silty sand, trace to some gravel, wet	3.0	5	SS	10		18
12 /		305.5	6	SS	7		11, 17
14 / 4	**SAND** loose grey sand, trace silt and gravel, wet	4.1 / 305.0					
16 /	**SILTY SAND** compact brown/grey silty sand, some gravel, with cobbles, wet	4.6	7	SS	14		12
18 /							
20 / 6		303.5					
	SAND compact brown sand, trace silt, gravel, and clay, saturated	6.1	8	SS	10		21
22 /							
24 /							
26 / 8		301.5	9	SS	18		19
	Drilling Terminated	8.1					

Groundwater Observations and Standpipe Details: Concrete; Bentonite; 51mm PVC Riser; Sand Pack; 51mm Slotted Screen

Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

Sheet: 1 of 1

Notes:
Water encountered at 6.1mbgs (Elevation 303.5masl) during drilling.
Water measured at 6.1mbgs (Elevation 303.5masl) on July 31, 2024.

ID No.: BH114-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

Date Completed: 7/22/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: N/A

Depth (ft / m)	Symbol	Soil Description	Elevation (masl) / Depth (m)	Sample Number	Sample Type	Dynamic Cone / Standard Penetration (20 40 60 80)	Shear Strength (PP) kPa / Shear Strength (FV) kPa (50 100 150 200)	Water Content % (10 20 30)	Groundwater Observations and Standpipe Details
0 / 0		Ground Surface	314.3						
0 / 0		**FILL (TOPSOIL)** dark brown sandy silt, moist (300mm)	0.0	1	SS	9		3	
2 / 0		**SILTY SAND** loose brown silty sand, some gravel, with cobbles, moist	313.5						
2 / 0		**GRAVELLY SAND** compact to dense brown gravelly sand, some silt, with cobbles, damp	0.8	2	SS	27		3	
6 / 2				3	SS	31			
8 / 2		**SILT AND SAND** loose brown silt and sand, trace gravel, wet	312.0 2.3	4	SS	8		18	
10 / 3		**SAND** compact brown sand, some silt, trace gravel, wet	311.3 3.0	5	SS	18		19	
14 / 4			310.0	6	SS	15		18	
14 / 4		Drilling Terminated	4.3						

Groundwater Observations and Standpipe Details: Cuttings; Bentonite; Wet Cave; Borehole dry upon drilling completion

Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

MTE

ID No.: MW115-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

Date Completed: 7/22/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: Monument Casing

Depth (ft / m)	Soil Description	Elevation (masl) / Depth (m)	Sample Number	Sample Type	Standard Penetration (Dynamic Cone)	Shear Strength (PP) kPa / Shear Strength (FV) kPa	Water Content %
0 / 0	Ground Surface	312.9					
0 / 0	**FILL (TOPSOIL)** dark brown sandy silt, moist (250mm)	0.0	1	SS	4		14
2 / 0.5	**SILTY SAND** loose to very loose brown/red silty sand, trace to some gravel, very moist to wet		2	SS	2		16
4 / 1		311.4					
6 / 2	compact to dense	1.5	3	SS	11		18
8 / 2			4	SS	12		17
10 / 3			5	SS	18		20
12 / 4			6	SS	18		19
14 / 4			7	SS	34		19
16 / 5			8	SS	22		19
18 / 6			9	SS	20		
20 / 6							
22 / 7							
24 / 7							
26 / 8							

Standard Penetration: 20 40 60 80

Shear Strength kPa: 50 100 150 200

Water Content %: 10 20 30

Groundwater Observations and Standpipe Details: Concrete; Bentonite; 51mm PVC Riser

Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

Sheet: 1 of 2

Notes:
Water encountered at 12.2mbgs (Elevation 300.7masl) during drilling.
Water measured at 8.8mbgs (Elevation 304.1masl) on July 31, 2024.

ID No.: MW115-24

Project Name: 3027 Cedar Creek Road Civil Works

MTE File No.: 55566-100

Client: Royal Truck and Trailer Sales Ltd.

Site Location: Ayr, ON

Date Completed: 7/22/2024

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track Mounted

Drill Method: Hollow Stem Augers

Protective Cover: Monument Casing

Depth	Symbol	Soil Description	Elevation (masl) / Depth (m)	Sample Number	Sample Type	Dynamic Cone / Standard Penetration (20 40 60 80)	Shear Strength (PP) kPa / Shear Strength (FV) kPa (50 100 150 200)	Water Content % (10 20 30)	Groundwater Observations and Standpipe Details
28			303.8						
30		**SANDY SILT TILL** very stiff grey sandy silt, some clay, trace gravel, APL	9.1	10	SS	9	125	19	
32	10								
34			302.2						
36		**SILT AND CLAY TILL** very stiff grey silt and clay, some sand, trace gravel, APL	10.7	11	SS	9	110	29	
38									
40	12		300.7						
42		**SAND** compact grey sand, some silt, trace clay, saturated	12.2	12	SS	13		19	
44			299.2						
46	14	loose	13.7 298.7	13	SS	6		19	
48		Drilling Terminated	14.2						
50									
52	16								
54									

Sand Pack

51mm Slotted Screen

Field Technician: S. Landon

Drafted by: M. Bourque

Reviewed by: D. Gonser

MTE

Sheet: 2 of 2

Notes:
Water encountered at 12.2mbgs (Elevation 300.7masl) during drilling.
Water measured at 8.8mbgs (Elevation 304.1masl) on July 31, 2024.

Appendix C

Laboratory Test Results

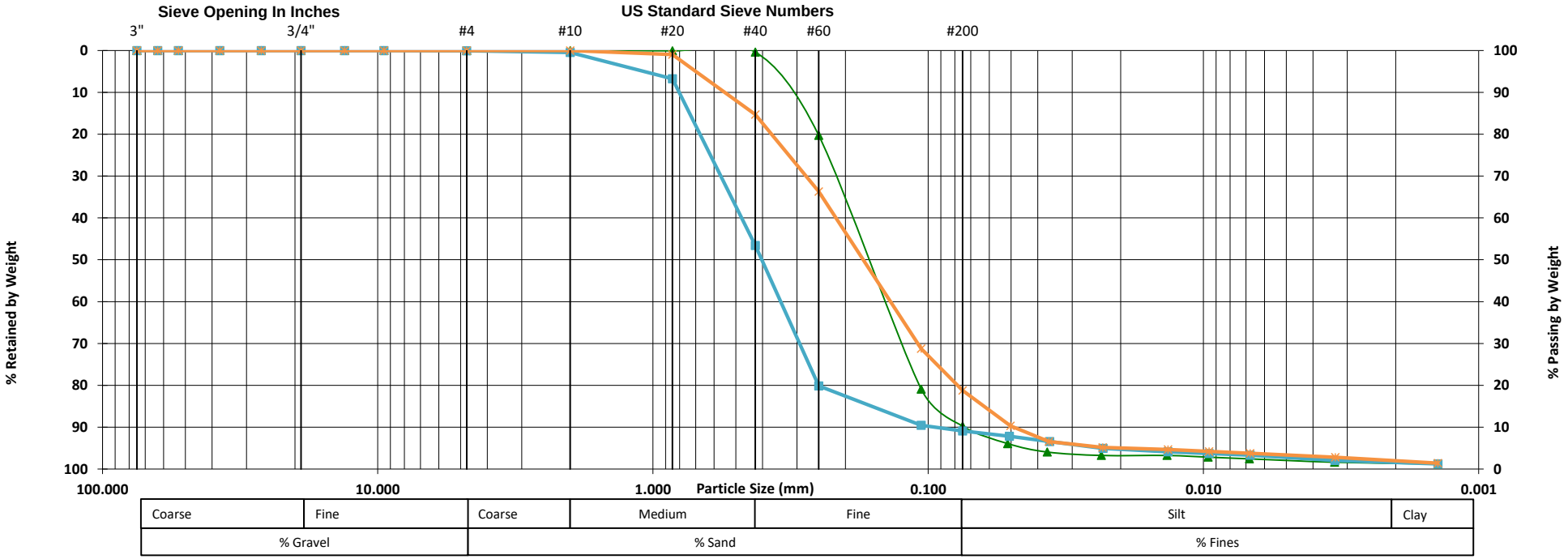
Particle Size Distribution Analysis Test Results

Project Name: Geotechnical Investigation
Client: Royal Truck and Trailer Sales Ltd.
Project Location: 3027 Cedar Creek Road, Ayr, ON

Date Sampled: July 22-25, 2024
Date Tested: Aug. 7-9, 2024

MTE File No.: 55566-100
Table No: 101

Unified Soil Classification



Symbol	Borehole ID	Sample #	Sample Depth	Description
▲	MW103-24	SS-11	12.2-12.6 mbgs	SAND, trace Silt and Clay
■	BH109-24	SS-4	3.0-3.5 mbgs	SAND, trace Silt and Clay
✳	MW110-24	SS-2	1.5-2.0 mbgs	SAND, some Silt, trace Clay

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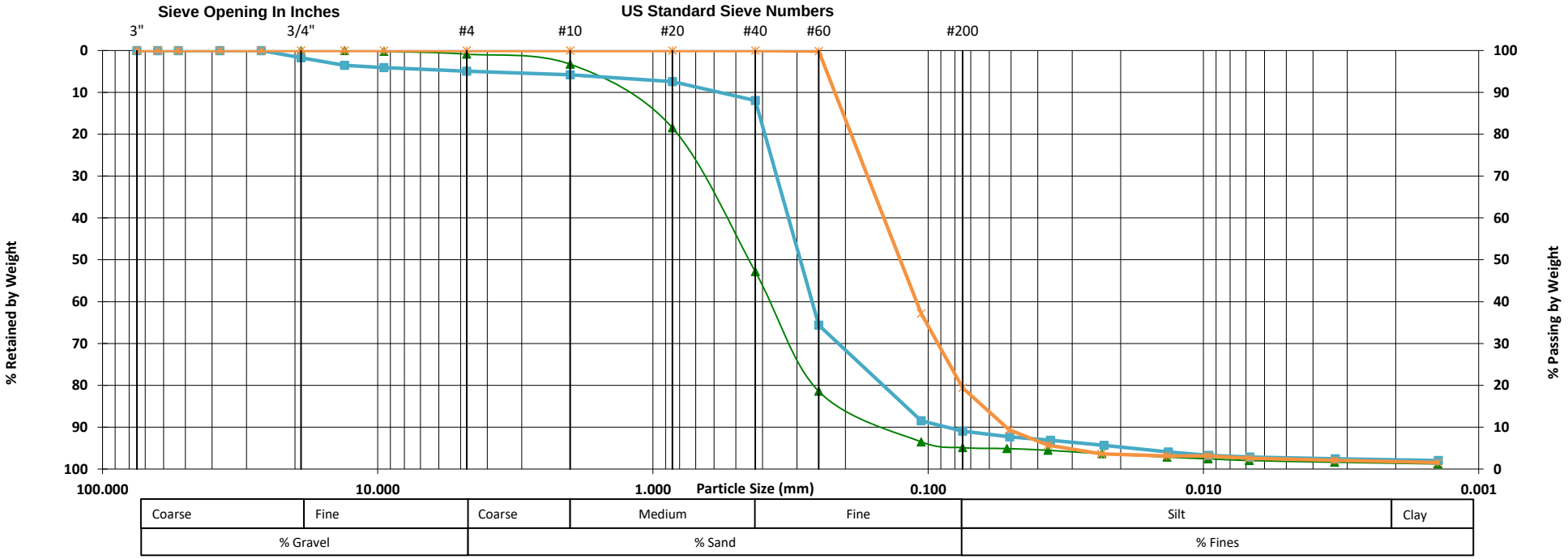
Canadian Council of Independent Laboratories
For specific tests as listed on www.ccil.com

NOTES:

Particle Size Distribution Analysis Test Results

Project Name:	**Geotechnical Investigation**	**Date Sampled:**	**July 22-25, 2024**	**MTE File No.:**	**55566-100**
Client:	**Royal Truck and Trailer Sales Ltd.**	**Date Tested:**	**Aug. 7-9, 2024**	**Table No:**	**102**
Project Location:	**3027 Cedar Creek Road, Ayr, ON**				

Unified Soil Classification



Symbol	Borehole ID	Sample #	Sample Depth	Description
▲	MW110-24	SS-9	9.1-9.6 mbgs	SAND, trace Silt, Clay, and Gravel
■	MW113-24	SS-7	6.1-6.6 mbgs	SAND, trace Silt, Gravel, and Clay
✳	MW115-24	SS-11	12.2-12.6 mbgs	SAND, some Silt, trace Clay

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NOTES: