

November 17, 2025

File No.: 81115

M'akola Housing Society
104-550 Goldstream Avenue
Victoria, BC
V9B 2W7

Attention: Kevin Albers,

**2805 CARLOW ROAD, LANGFORD, BC
GEOTECHNICAL REPORT**

Dear Kevin,

At the request of the M'akola Housing Society (MHS), Thurber Engineering Ltd. (Thurber) is providing geotechnical engineering services to support the 2805 Carlow Road development in accordance with our proposal dated September 8, 2025.

The geotechnical scope of work carried out consisted of a preliminary screening-level geophysical assessment, followed by drilling two test holes to assess subsurface soil conditions. Additionally, test pits were excavated to allow for hydraulic conductivity measurements carried out using a Guelph permeameter and downhole seismic testing was completed. This report presents the results of our investigation and recommendations for the proposed development.

It is a condition of this report that the performance of Thurber's professional services is subject to the attached Statement for Use and Interpretation of Report.

1. BACKGROUND

1.1 Project Understanding

We understand that MHS, in partnership with the City of Langford, is planning to redevelop the northern portion of 2805 Carlow Road in Langford, BC. The proposed development will consist of a six-storey building with a single level of underground parking and include up to 40 residential units on Levels 2 to 6 and a licensed childcare facility on the ground level.

1.2 Site Description

The lot at civic address 2805 Carlow Road is approximately L-shaped and is currently developed with a single-storey building, an at-grade parking lot, a splash pad and playground, two tennis courts and a baseball diamond. We understand that the proposed development area (the Site) is limited to the northern portion of the overall lot, as shown below in Figure 1.2.

The Site is zoned as City Centre 1 (CC1) according to the City of Langford Parcel Information Map. The northeastern corner of the Site appears to be an abandoned septic field. The eastern border of the Site consists of a utility corridor containing several buried utilities running parallel in a NE to SW direction.

The Site is irregular in shape and is bordered by Goldstream Avenue to the north, Carlow Road to the West, residential buildings to the east, and a splash park/playground to the south. Langford Lake is approximately 0.8 km to the west, Florence Lake is approximately 0.7km north, and Glen Lake is approximately 1.2 km southwest of the Site.

The Site is generally level, gently sloping from the northwest toward the southeast. Overall, the grade varies by approximately 2 m across the Site. Two minor fill embankments, each with about a 1 m elevation grade change, are present near the northeastern corner and along the southeastern boundary of the lot.

The Site currently supports a single-storey building called the Centennial Centre, which is used as an art studio and an accompanying at-grade asphalt parking lot.



Figure 1.2: Image of the redevelopment Site outlined in red in reference to the remainder of the lot at civic address 2805 Carlow Road, outlined in black (image courtesy of Google Earth).

1.3 Geophysical Assessment Methodology

To help estimate the depth of inferred bedrock across the site, Thurber carried out a preliminary screening-level geophysical assessment on September 24, 2025. This assessment consisted of ambient vibration testing (AVT) and multichannel analysis of surface waves (MASW) simulation with one receiver (MSOR) testing.

AVT involves measurement of low-amplitude vibrations (“microtremors”) of the ground due to natural and anthropogenic noise using a single 3-component seismometer (Tromino). The horizontal-to-spectral ratio (HVSr) of recorded ground vibrations is calculated to capture amplification of the horizontal components relative to the vertical component, exhibited by a peak at the fundamental frequency (f_0) of the cover layer.

MSOR involves using the Tromino as a receiver to measure surface-wave travel times from seismic sources generated at varying distances. A dispersion curve is then generated from the resulting surface wave data and used to estimate the surficial soil velocity, V_{soil} . Thickness and shear-wave velocity of the surficial sediment are related to f_0 such that for a given V_s , an estimate of the characteristic shear-wave velocity profile of the site may be calculated.

Thirteen AVT recordings (AVT25-01 to -13) were completed to evaluate the HVSr peak frequency at each test location. The AVTs had an average duration of eight minutes and were conducted around the perimeter of the existing building and site. Two MSOR tests (MSOR25-01 and -02) were completed in opposite directions across the same 60 m line between the eastern edge of the building and the site perimeter. The locations of each test were surveyed using a Trimble Catalyst GNSS receiver.

The results of the AVT and MSOR, as provided in Appendix B, were used together to provide an approximate contour for bedrock. This data was used to plan out drilling locations for the subsurface investigation work.

1.4 Geotechnical Investigation Methodology

Based on the results of the background review and geophysical assessment, it was determined that test holes should be drilled using a sonic drill with a washed casing method for SPT testing. This method allows for an accurate assessment of the liquefaction potential of the soils at depth. The investigation consisted of drilling two test holes (TH25-01 and TH25-02), the installation of one groundwater monitoring well and one downhole seismic casing for measurement of a shear wave velocity profile. Details of this investigation are provided in the following section of the report.

2. FIELD PROGRAM

2.1 Drilling Investigation

A sonic drilling investigation was carried out by Blue Max Drilling Inc. of Courtenay, BC, on October 8 to 10, 2025, using a Boart LS250 sonic drill rig. Two test holes (TH25-01 and TH25-02) were advanced to depths ranging from 22 m to 25 m. The test holes were logged in the field by a Thurber representative and were located using a Trimble survey device. The test hole locations are provided in Appendix A.

In accordance with Thurber's ground disturbance procedures, we initiated a BC One Call ticket request to obtain records of buried underground utilities at the Site. Kelly's 1st Call locating was contracted to scan for the presence of buried utilities at each proposed test hole and test pit location on October 6, 2025.

Standard penetration tests (SPTs) were carried out at each test hole location. SPTs involve driving a split spoon sampler into the ground using a 63.5 g weight dropped from an approximate height of 760 mm. The number of blows required to advance the split spoon is recorded and provides an indication of the density and consistency of the subsurface soil. Practical refusal is typically determined when there is a high number of blow counts with little to no advancement. The SPT results are included on the test hole logs, provided as Appendix C of this report.

A groundwater monitoring well was installed within TH25-01, with the well screen installed at a depth of approximately 20 m. The test holes were backfilled with a combination of filter sand and soil cuttings and capped with bentonite-cement grout mixture. Flush-mount well covers were installed for both TH25-01 and TH25-02.

Selected soil samples were collected from the split spoon sampler and from the sonic drill cuttings and were returned to our Victoria laboratory for routine visual identification (ASTM D2488) and moisture content determination (ASTM D4959). The results from the drilling investigation and laboratory testing were used to compile the test hole logs, and the lab results are provided in Appendix D of this report.

2.2 Downhole Seismic Testing

A downhole seismic casing was installed in TH25-02 at the time of the investigation to a depth of 24 m. The downhole seismic casing consists of a 50 mm diameter PVC pipe grouted in place using a bentonite-cement grout intended to have a stiffness comparable to the in-situ soil stiffness. Thurber personnel completed the downhole seismic testing (DST) on October 22, 2025, after the grout was allowed to cure. Shear wave velocity testing was conducted in

accordance with ASTM D7400/D7400M-19 in 1.0 m intervals within the casing from ground surface to a maximum depth of 24 m.

2.3 Infiltration Testing

To carry out infiltration testing, three test pits (TP25-01 to TP25-03) were excavated by Don Mann Excavating Ltd. of Langford, BC, on October 7, 2025, using a John Deere 120C excavator. These were advanced to depths ranging from 0.8 to 2.0 m. The test pits were advanced to allow for infiltration testing to be carried out at depths corresponding to the proposed in-ground infiltration systems for the proposed structures.

The test pits were logged in the field by a Thurber representative and were located using a Trimble survey device. The test pit locations are provided in Appendix A. Selected soil samples were collected from the test pit sidewalls and were returned to our Victoria laboratory for routine visual identification (ASTM D2488) and moisture content determination (ASTM D4959). The results from the test pit investigation and laboratory testing were used to compile the test pit logs and are provided in Appendix C of this report

Infiltration testing was completed at the base of TP25-01 and TP25-02 using a Guelph permeameter on October 7, 2025. TP25-03 was terminated prematurely due to encountering potential unmarked utilities. Infiltration tests were carried out at depths ranging from 0.6 m to 2.0 m.

3. INTERPRETATION OF SUBSURFACE CONDITIONS

A generalized description of soil and groundwater conditions encountered within the test holes and test pits during this investigation is provided below. The detailed test pit and test hole logs are provided in Appendix C for reference and must be used in preference to this generalized description. Please note that the subsurface conditions are likely to vary across the site and in areas not specifically investigated during this investigation.

3.1 Subsurface Soil Profile

The subsurface conditions generally comprised the following sequence, in order of depth:

- Asphalt
- Topsoil
- Fill
- Sand and Gravel
- Till
- Bedrock

Asphalt was encountered at the surface grade of both test hole locations and was observed to be approximately 80 mm thick in both test holes.

Topsoil was encountered at the surface of all three of the test pits and was observed to vary in thickness between 0.3 and 0.5 m. The topsoil contained varying amounts of rootlets and organic material and was in a relatively compact state.

Historical fill was encountered in each test pit and test hole location during the investigation. The fill typically comprised compact sandy gravel with trace fines and varying amounts of organics. The depth of the encountered fill ranged from 0.08 m to 1.5 m. A 0.5 m thick layer of concrete was encountered in TH25-01 during the drilling investigation at a depth of 1.5 m. TP25-03 was advanced within an area of the site with a historical septic field and encountered bedding sand and a variety of unknown, poor-quality fill and organic material to the extent of the test pit up to a depth of 0.8 m.

Varying thicknesses of naturally deposited sand and gravel were encountered in each test pit and test hole. This naturally deposited sand and gravel is consistent with the naturally deposited interbedded sand and gravel deposits up to depths of 30 m thick, outlined in the local surficial geology mapping, identified as the Colwood Delta and outwash plain. The naturally deposited sand and gravel material was encountered at a depth of about 1.5 m and was observed to depths of up to 21 m. The consistency of the naturally deposited sand and gravel varied from dense to compact based on our interpretation of the SPT blow count data.

Inferred glacial till-like soil was encountered in TH25-02 at a depth of approximately 23 m. The till-like soil was observed to be approximately 1.5 m thick. The inferred till-like soil consisted of stiff, grey, silty clay with some sand and gravel. The presence of the till-like soil is consistent with the local surficial geology mapping, and depths to till may vary across the Site.

Bedrock was encountered in both TH25-01 and TH25-02 at the time of the investigation. The depth to bedrock was encountered at depths between 21.0 and 24.4 m in TH25-01 and TH25-02, respectively. TH25-01 was advanced to a depth of 22.5 m, and TH25-02 was advanced to a depth of 25 m; both test holes terminated in the bedrock.

3.2 Groundwater

Groundwater measurements were collected in the monitoring well (MW25-01) three weeks following the completion of the drilling investigation. A summary of encountered groundwater table depths is provided in Table 3.2 below.

Table 3.2: Summary of Groundwater Table Measurements

Monitoring Well	Depth to GWT (m)	Date
MW25-01	6.7	October 30, 2025
MW25-01	7.1	October 31, 2025

No groundwater seepage was encountered in the test pit sidewalls at the time of the test pit investigation. The groundwater table is expected to fluctuate seasonally and with cycles of precipitation.

The average field-saturated hydraulic conductivity (K_{fs}) was measured to be 1.0×10^{-3} cm/s. Based on our previous experience in neighbouring sites, we consider this value to be representative of the area, but recommend that an appropriate factor of safety be applied for design purposes.

3.3 Shear Wave Velocity Profile

The measured V_{S24} value obtained from the DST measurements was 345 m/s. Knowing the depth to bedrock at this test hole location, a shear wave velocity of 1000 m/s can be assumed for the remaining 6 m of the V_{S30} profile, which gives a measured V_{S30} value of 395 m/s for this Site. The results of the downhole seismic testing are provided in Appendix E for reference.

3.4 Geophysical Interpretation of Bedrock Profiles

The AVT locations and depths to inferred bedrock or hard surface are provided in Appendix A. Contoured profiles indicating the inferred depth to a hard surface at different sections of the site are provided in Appendix B.

Maximum HVSRs obtained from AVTs were observed at vibration frequencies ranging from 3.1 Hz to 4.6 Hz at the test locations. The dispersion curve resulting from MSOR testing provided in Appendix B is indicative of a surficial V_{soil} of the order of 325 m/s. This information indicates that the depth to a hard surface (i.e., till or bedrock) was in the range of 19 to 28 meters across the site. These inferred bedrock surface depths are consistent with the surficial geology and groundwater well log information in the area. Bedrock is estimated to be deepest along the north and east areas of the site, although depths are known to be variable over short distances and may vary significantly between test locations.

3.5 Desktop Review of Subsurface Conditions

A review of the Quaternary Geological Map of Greater Victoria (2000-2) indicates that the anticipated subsurface conditions at the Site consist of naturally deposited interbedded sand

and gravel deposits up to depths of 30 m thick. These deposits are identified as the Colwood Delta and outwash plain, which typically overlay till and bedrock at depth. This is consistent with two existing provincial water well records (WTN 89152 and WTN 95157), which identified coarse-grained sand and gravel with cobbles overlying glacial till and bedrock.

The results of our geotechnical and geophysical investigations are consistent with the surficial geology mapping.

4. LIQUEFACTION CONSIDERATIONS

The high seismicity of the Victoria area can result in liquefaction concerns when loose to compact granular soil conditions exist below the groundwater table. Our experience within this area of the City of Langford has shown that liquefiable soil conditions exist to the north (towards Florence Lake) and to the south (towards Glenn Lake) of the Site. To assess this risk, the geotechnical investigation was carried out using a washed casing approach, which results in minimal soil disturbance to allow for reliable SPT testing to be carried out.

4.1 Liquefaction Triggering Assessment

To assess liquefaction potential, a liquefaction triggering assessment was completed based on the measured SPT blow count data collected in TH25-01 and TH25-02 in accordance with Boulanger and Idriss 2014. Based on the results of the geotechnical investigation, the granular soils encountered are generally not susceptible to liquefaction. While localized discrete pockets of potentially liquefiable soils were identified in each test hole, these pockets were discrete and discontinuous across the site. As a result, we do not expect the potential liquefaction of these pockets to be able to influence seismic design hazard, and we consider the use of the code-based seismic hazard to remain appropriate here.

Additionally, these discrete pockets were no more than 1 m in thickness and at least 4 m below the proposed building foundation elevation. As a result, based on Ishihara 1985, we expect that sufficient soil crust is present above any liquefiable pockets to prevent seismic bearing failure from occurring. This crust is also considered sufficient to prevent post-seismic differential settlements from reaching levels that would prevent safe egress from the proposed structure during the design earthquake event.

5. GEOTECHNICAL DESIGN RECOMMENDATIONS

5.1 Foundation Design Parameters

We consider conventional strip and pad footings to be suitable for the proposed structure. Bearing resistances for foundation design are a function of footing size and embedment depth into the soil below. For preliminary design purposes, Table 5.1 below provides anticipated

resistances for typical footing dimensions placed on approved native subgrade or engineered fill.

The SLS bearing resistances were calculated using the stiffness moduli derived from the shear wave velocity (V_s) profile and modulus reductions based on Poulos (2021). These estimates all resulted in less than 25 mm of settlement at the ULS bearing resistance. ULS bearing resistances are determined based on the ultimate bearing resistances calculated in accordance with the Meyerhoff method and using a geotechnical reduction factor of 0.5 as outlined in the 2023 Canadian Foundations Engineering Manual. As a result, SLS resistances can be taken as the same as the ULS resistances for design purposes.

The final foundation configuration and design loading should be provided for confirmation of employed resistances once design loading has been determined. For preliminary purposes, we have assumed that the base of footing elements will be located at least 0.60 m below the slab elevation. The overstrength factors for seismic design, as outlined in the NBCC and BC Building Code, can be used to increase resistance during seismic loading, if required. Footings should have at least 450 mm of soil cover for frost protection. Strip or pad footings should have minimum widths of 450 mm and 600 mm, respectively.

Table 5.1: Summary of Design Bearing Resistances

Footing Width (m)	Square Pad ULS Capacity (kPa)	Strip Footing ULS (kPa)
0.45	n/a	315
0.6	460	345
1.0	475	400
1.2	490	430
2.0	560	n/a
3.0	650	n/a

5.1.1 Floor Slab

Slab-on-grade construction is considered feasible for the proposed building following site preparation in accordance with Section 6.1 below. Following site preparation, at least 150 mm of free-draining, well-graded, 25 mm minus crushed gravel (with less than 5% passing the 0.075 mm sieve) should be placed directly beneath the slab to provide uniform support and adequate

drainage. A polyethylene moisture barrier of at least 10 mm thick should be incorporated below the slab on grade. Design of the moisture barrier should be confirmed with the building envelope engineer.

5.2 Seismic Considerations

We understand that the project is classified as “in-stream” and will therefore be designed using the seismic hazard from the 2018 British Columbia Building Code (BCBC) based on the National Building Code of Canada (NBCC) 2015 seismic hazard calculation provided in Appendix F. The 2018 BCBC and the 2015 NBCC specify a design level earthquake with a 2% probability of exceedance in 50 years, which corresponds to an average return period of 2,475 years. Based on the V_{s30} value obtained from the DST work carried out on this site, we consider a site class of C to be appropriate for this site. In the event that the NBCC 2020 hazard values need to be employed, a V_{s30} of 395 m/s can be employed for the determination of seismic hazard values.

5.3 Lateral Earth Pressures

The non-seismic static lateral earth pressures for the proposed underground parkade can be calculated as an equivalent hydrostatic pressure using an equivalent fluid density of 7.3 kN/m³ for yielding walls (active soil pressures) and 11 kN/m³ for non-yielding walls (at-rest soil pressures). Non-yielding walls should have a minimum lateral pressure of 12 kPa to account for soil compaction near the wall. Compaction-induced lateral pressures are those due to surcharge loading and are not additive. These values assume a 22 kN/m³ soil unit weight, an active earth pressure coefficient (K_a) of 0.33 and an at-rest earth pressure (K_o) of 0.5 and a passive earth pressure (K_p) of 3. The static and seismic lateral active soil pressure coefficients have been summarized in Table 5.3 below.

Table 5.3: Summary of Static and Dynamic Soil Pressures

NBCC Seismic Hazard	NBCC Site Designation	PGA (g)	K_a ¹	ΔK_{ae} ²
2015	Site Class C	0.59	0.33	0.44

Notes:

1. Based on the Rankine passive and active earth pressure theory.
2. Based on the Seed and Whitman 1970 seismic earth pressure theory.

An inverted triangular distribution can be assumed for dynamic loading, as shown in Figure 5.3 below. If considered advantageous, a tip-over analysis using the drift limits for the building can be applied to determine an effective reaction spring from the soil at the drift limits. This spring can then be used to determine how much overturning resistance is provided by the soils when designing the structures.

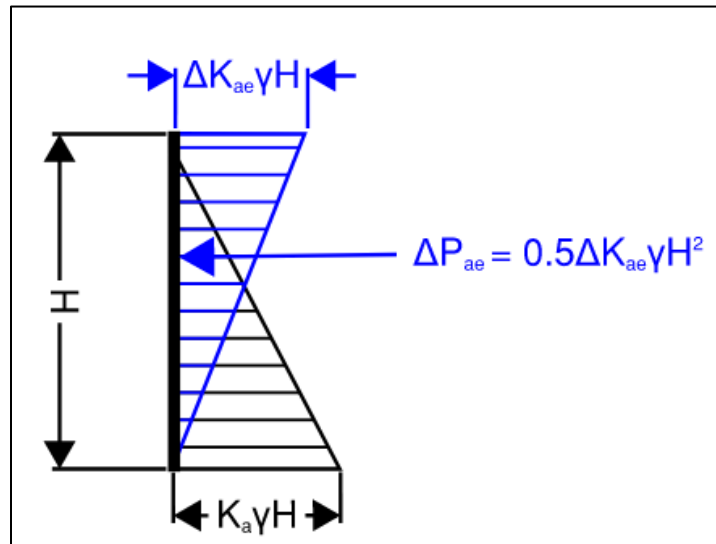


Figure 5.3: Inverted triangle distribution for dynamic loading

5.4 Pavement Design

In preparation for pavement structure, the subgrade should be prepared in accordance with Section 6.1 of this report. In areas of light traffic loading, the pavement structure shall consist of 50 mm of asphaltic concrete over 150 mm of base course over 200 mm of sub-base, with base and sub-base conforming to MMCD and City of Langford specifications. In areas of heavy traffic loading, we recommend that the asphalt thickness be increased to 80 mm and placed and compacted in two equal lifts.

5.5 Perimeter Drainage

Foundation perimeter drains should be designed as per the current BC Plumbing Code. These drains should be located at least 450 mm below grade (frost depth) or 300 mm below the lowest part of the slab, whichever is deeper. The foundation drainage system should be separated from the surface water collection systems, including roof drains. The final ground surface should be sloped to divert surface water away from the building foundation.

Based on the encountered subsurface conditions, it may be possible to omit perimeter drains in the building design. If there is a desire to remove perimeter drains from the building design once it is finalized, please contact Thurber directly to provide additional recommendations.

Rock pits and/or infiltration basins should be designed and constructed to minimize the potential for siltation, which could clog the drainage media and result in long-term reductions in drainage capacity. Additionally, care should be taken when constructing rock pits and other drainage features to confirm that low-permeability zones are not located directly below the proposed base of the rock pit.

6. CONSTRUCTION CONSIDERATIONS

6.1 Subgrade Preparation

It is expected that with one level of underground parking, the building foundation will bear directly on the dense, grey-brown, naturally deposited gravel encountered at depths of 1 m or approved imported engineered fill. This dense, granular, naturally deposited soil is considered suitable for the proposed six-storey mixed-use building with one level of underground parking.

Subgrade should be reviewed by a qualified geotechnical engineer prior to placing engineered fill or foundation elements. Subgrade should not be allowed to freeze, and footings should not be placed on subgrade with frozen or wet soil, organic material, rootlets, wood debris, or compressible or disturbed soil. In areas where footings intersect utility trenches, it is recommended to incorporate additional steel to enhance the structural integrity of the footings or variability of the subgrade soil below the building foundation.

6.1.1 Backfill and Compaction

Engineered fill used to bring the site grade up to footing elevation should consist of approved, well-graded, free-draining granular fill with less than 5% fines passing the 0.075 mm sieve. The engineered fill should be placed in maximum 300 mm thick lifts and compacted to at least 95 % of the modified Proctor maximum dry density (MPMDD).

6.2 Temporary Excavations

As required by Part 20 of the WorkSafe BC Occupational Health and Safety Regulations of British Columbia, a geotechnical professional must assess all excavations greater than 6 m in depth or greater than 1.2 m deep if not following the excavation configurations outlined in the regulations. Shoring for underground parking will depend on the depth of the excavation and the desired setback from the property line. If sufficient setbacks are available, open-cut excavations may be feasible.

Temporary excavations for the proposed development are expected to be up to 3.5 m deep based on one proposed level of underground parking. Based on the depth of groundwater encountered on this site, if an additional level of underground parking beyond the one level is desired, long-term groundwater measurements and monitoring would be recommended to confirm seasonal groundwater fluctuations. Given that the encountered subsurface conditions consist of relatively consistent granular soil, we recommend that temporary cut slopes of up to 3.5 m be no steeper than 1H:1V. Flatter slopes may be required if seepage is encountered; however, based on the measured groundwater table, we do not anticipate that the groundwater table will influence temporary excavation sidewall stability on this Site.

Temporary sumps and pumps should be adequate to control the anticipated groundwater inflow during construction. The contractor is responsible for all groundwater control measures required to facilitate the building construction to proceed in accordance with project requirements.

6.3 Soil Re-Use

The anticipated material that will be excavated for the construction of the proposed development will consist of poor-quality topsoil and fill, and naturally deposited gravelly sand, which was encountered consistently in each test pit and test hole at the time of the investigation. This topsoil and fill is considered unsuitable for re-use due to the presence of organics and unknown construction debris. The poor-quality fill and topsoil may be used as surficial landscaping material only, but it is not suitable to support any load-bearing structures. The naturally deposited sand and gravel encountered below a depth of 0.6 m in several test holes and test pits can be considered suitable for re-use as engineered fill pending approval from the Geotechnical Engineer of Record prior to placement.

7. FURTHER WORK

Future geotechnical work for this project includes providing geotechnical input to the project design team during the design finalization stage of the project. For the building permitting stage of the project, BC Building Code geotechnical Letters of Assurance are required to be submitted by the Engineers of Record. In accordance with the BCBC Letters of Assurance, geotechnical field reviews will be required during the construction phase of the project to ensure that our design recommendations have been adequately incorporated. Please contact Thurber directly to provide future geotechnical services related to this next phase of the project.

8. CLOSURE

We trust this information meets your present needs. If you have any questions, please contact the undersigned at your convenience.

Yours truly,
Thurber Engineering Ltd.
Steven Coulter, M.Sc., P.Eng.
Review Engineer

Antoine Letendre, M.Eng., P.Eng.
Senior Geotechnical Engineer

Breanne McLean, P.Eng.
Geotechnical Engineer

Attachments:

- Statement for Use and Interpretation of Report

Appendices:

- Appendix A: Figure 1- Site Plan
- Appendix B: Figures 2 to 5 - AVT Lines 1-4
- Appendix C: Test Hole and Test Pit Logs
- Appendix D: Geotechnical Laboratory Analysis Results
- Appendix E: Downhole Seismic Test Results
- Appendix F: NBCC 2015 Seismic Hazard Calculation

Thurber Engineering Ltd.
Permit to Practice #1001319



STATEMENT FOR USE AND INTERPRETATION OF REPORT

1. STANDARD OF CARE

This Report has been prepared in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances at the same time and in the same or similar locality and in compliance with all applicable laws.

2. COMPLETE REPORT

All documents, records, data and files, whether electronic or otherwise, generated as part of this assignment, including this Statement For Use and Interpretation of Report, are a part of the Report, which is of a summary nature and is not intended to stand alone without reference to the instructions given to Thurber by the Client, communications between Thurber and the Client, and any other reports, proposals or documents prepared by Thurber for the Client relative to the specific site described herein, all of which together constitute the Report.

IN ORDER TO PROPERLY UNDERSTAND THE SUGGESTIONS, RECOMMENDATIONS AND OPINIONS EXPRESSED HEREIN, REFERENCE MUST BE MADE TO THE WHOLE OF THE REPORT, AS DESCRIBED ABOVE. THURBER IS NOT RESPONSIBLE FOR USE BY ANY PARTY OF PORTIONS OF THE REPORT WITHOUT REFERENCE TO THE WHOLE OF THE REPORT.

3. BASIS OF REPORT

The Report has been prepared for the specific site, development, design objectives, and purposes that were described to Thurber by the Client. The applicability and reliability of any of the findings, recommendations, suggestions, or opinions expressed in the Report, subject to the limitations provided herein, are only valid to the extent that the Report expressly addresses proposed development, design objectives and purposes, and then only to the extent that there has been no material alteration to or variation from any of the said descriptions provided to Thurber, unless Thurber is specifically requested by the Client to review and revise the Report in light of such alteration or variation.

4. USE OF THE REPORT

The information and opinions expressed in the Report, or any document forming part of the Report, are for the sole benefit of the Client for the development, design objectives, and/or purposes described to Thurber by the Client. **NO OTHER PARTY MAY USE OR RELY ON THE REPORT OR ANY PORTION THEREOF FOR OTHER THAN THE CLIENT'S BENEFIT IN CONNECTION WITH THE PURPOSES DESCRIBED IN THE REPORT.** Any use which a third party makes of the Report is the sole responsibility of such third party and is always subject to this Statement for Use and Interpretation of Report. Thurber accepts no liability or responsibility for damages suffered by any third party resulting from use of the Report for purposes outside the reasonable contemplation of Thurber at the time it was prepared or in any manner unintended by Thurber.

5. INTERPRETATION OF THE REPORT

- a) **Nature and Exactness of Soil and Contaminant Description:** Classification and identification of soils, rocks, geological units, contaminant materials and quantities have been based on investigations performed in accordance with the standards set out in Paragraph 1. Classification and identification of these factors is inherently judgement-based. Comprehensive sampling and testing programs implemented with the appropriate equipment by experienced personnel may fail to locate some conditions. All investigations utilizing the standards of Paragraph 1 will involve an inherent risk that some conditions will not be detected and all documents or records summarizing such investigations will be based on assumptions of what exists between the actual points sampled. Actual conditions may vary significantly between the points investigated and the Client and all other parties making use of such documents or records with or without our express written consent need to be aware of this risk and the Report is delivered subject to the express condition that such risk is accepted by the Client and such other parties. Some conditions are subject to change over time and those making use of the Report need to be aware of this possibility and understand that the Report only presents the interpreted conditions at the sampled points at the time of sampling. If special concerns exist, or the Client has special considerations or requirements, the Client must disclose them so that additional or special investigations may be undertaken which would not otherwise be within the scope of investigations made for the purposes of the Report.
- b) **Reliance on Provided Information:** The evaluation and conclusions contained in the Report have been prepared based on conditions in evidence at the time of site inspections and based on information provided to Thurber. Thurber has relied in good faith upon representations, information and instructions provided by the Client and others concerning the site. Accordingly, Thurber does not accept responsibility for any deficiency, misstatement or inaccuracy contained in the Report resulting from misstatements, omissions, misrepresentations, or fraudulent acts of the Client or other parties providing information relied on by Thurber. Thurber is entitled to rely on such representations, information and instructions and is not required to carry out investigations to determine the truth or accuracy of such representations, information and instructions.
- c) **Design Services:** The Report may form part of design and construction documents for information purposes even though it may have been issued prior to final design being completed. Thurber is recommended to be retained to review final design, project plans and related documents prior to construction to confirm that they are consistent with the intent of the Report. Any differences that may exist between the Report's recommendations and the final design need to be reported to Thurber immediately so that Thurber can address potential conflicts.
- d) **Construction Services:** During construction Thurber should be retained to provide field reviews. Field reviews consist of performing sufficient and timely observations of encountered conditions to confirm and document that the site conditions do not materially differ from those conditions considered in the preparation of the report. Adequate field reviews are necessary for Thurber to provide letters of assurance, in accordance with the requirements of many regulatory authorities.

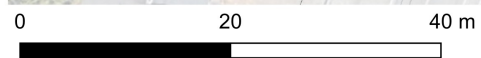
6. INDEPENDENT JUDGEMENTS OF CLIENT

The information, interpretations and conclusions in the Report are based on Thurber's interpretation of conditions revealed through limited investigation conducted within a defined scope of services. Thurber does not accept responsibility for independent conclusions, interpretations, interpolations and/or decisions of the Client, or other parties who may come into possession of the Report, or any part thereof, which may be based on information contained in the Report. This restriction of liability includes, but is not limited to, decisions made to develop, purchase, or sell land, unless such decisions expressly form part of the stated purpose of the Report as described in Paragraph 3.





APPENDIX A

Figure 1- 2805 Carlow Road Site Plan



Client: M'akola Housing Society
 File No: 81115
 E-File: ta_QGIS Site Plan_81115

LEGEND

-  Test Hole Locations
-  Test Pit Locations
-  AVT Locations and Inferred Rock Depths
-  MSOR Test Locations

-  AVT Line 1
-  AVT Line 2
-  AVT Line 3
-  AVT Line 4

NOTE:
 1. INFERRED ROCK DEPTHS
 ARE APPROXIMATE

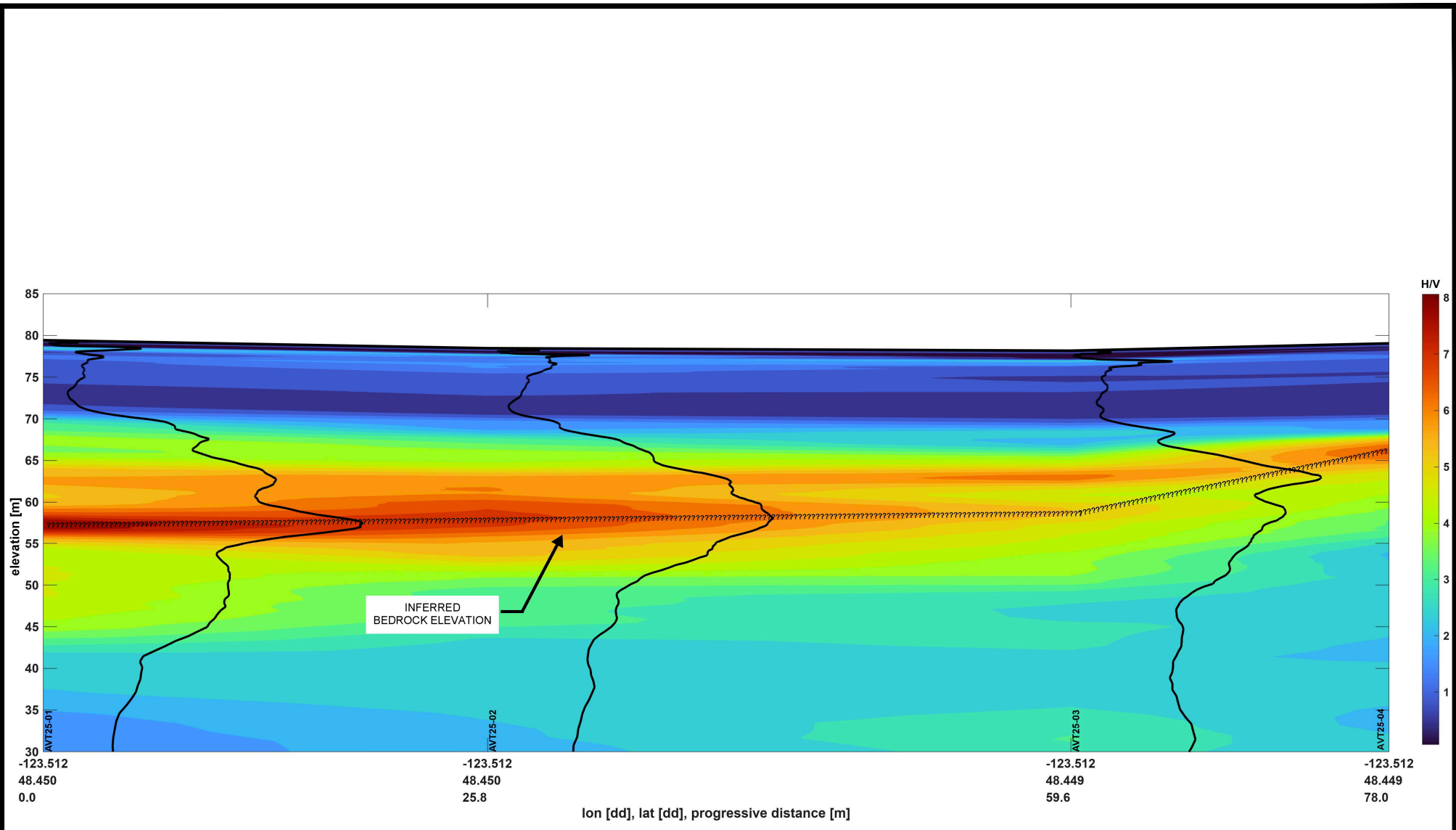
FIGURE 1


Date: October 22, 2025

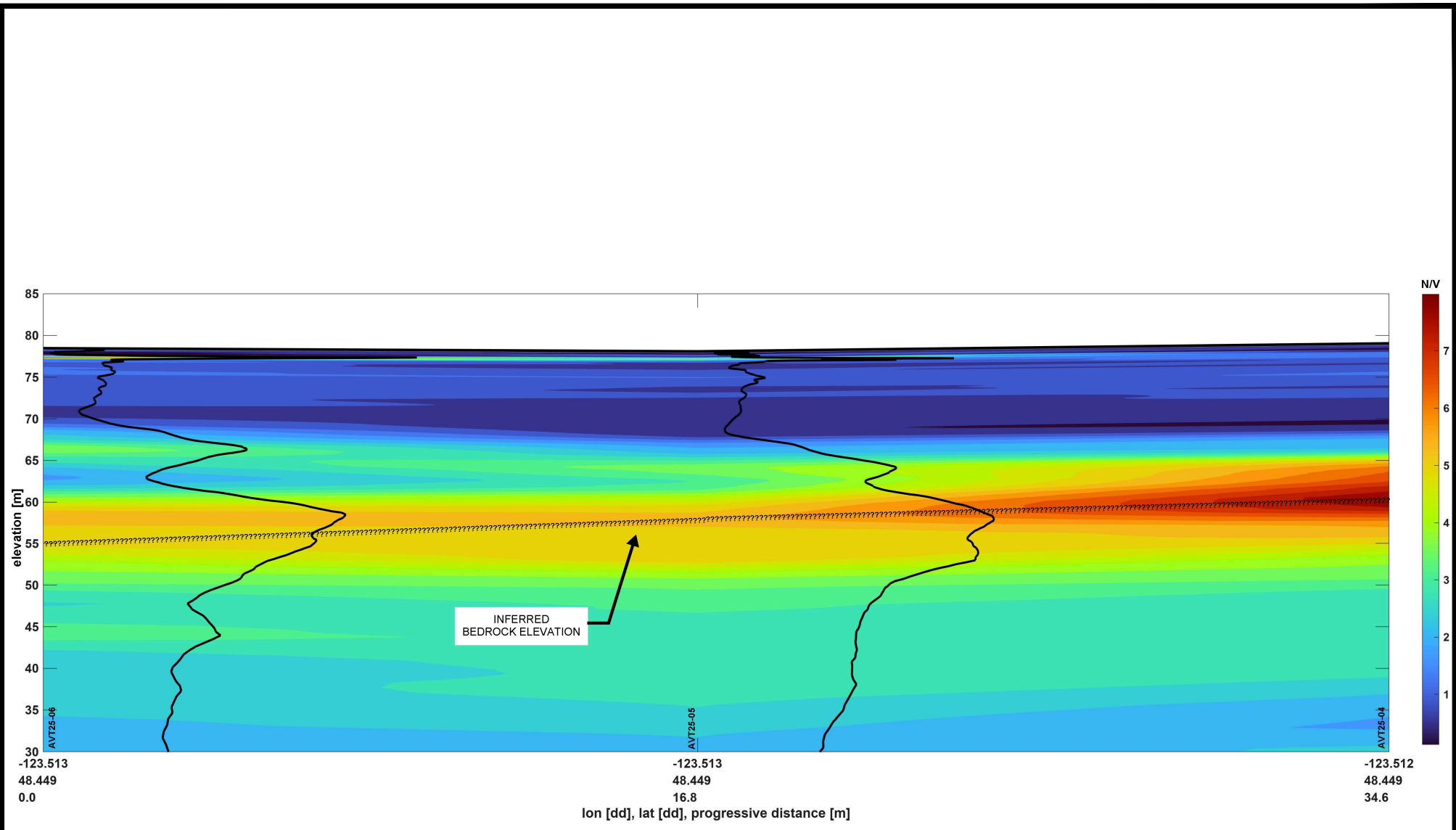



APPENDIX B

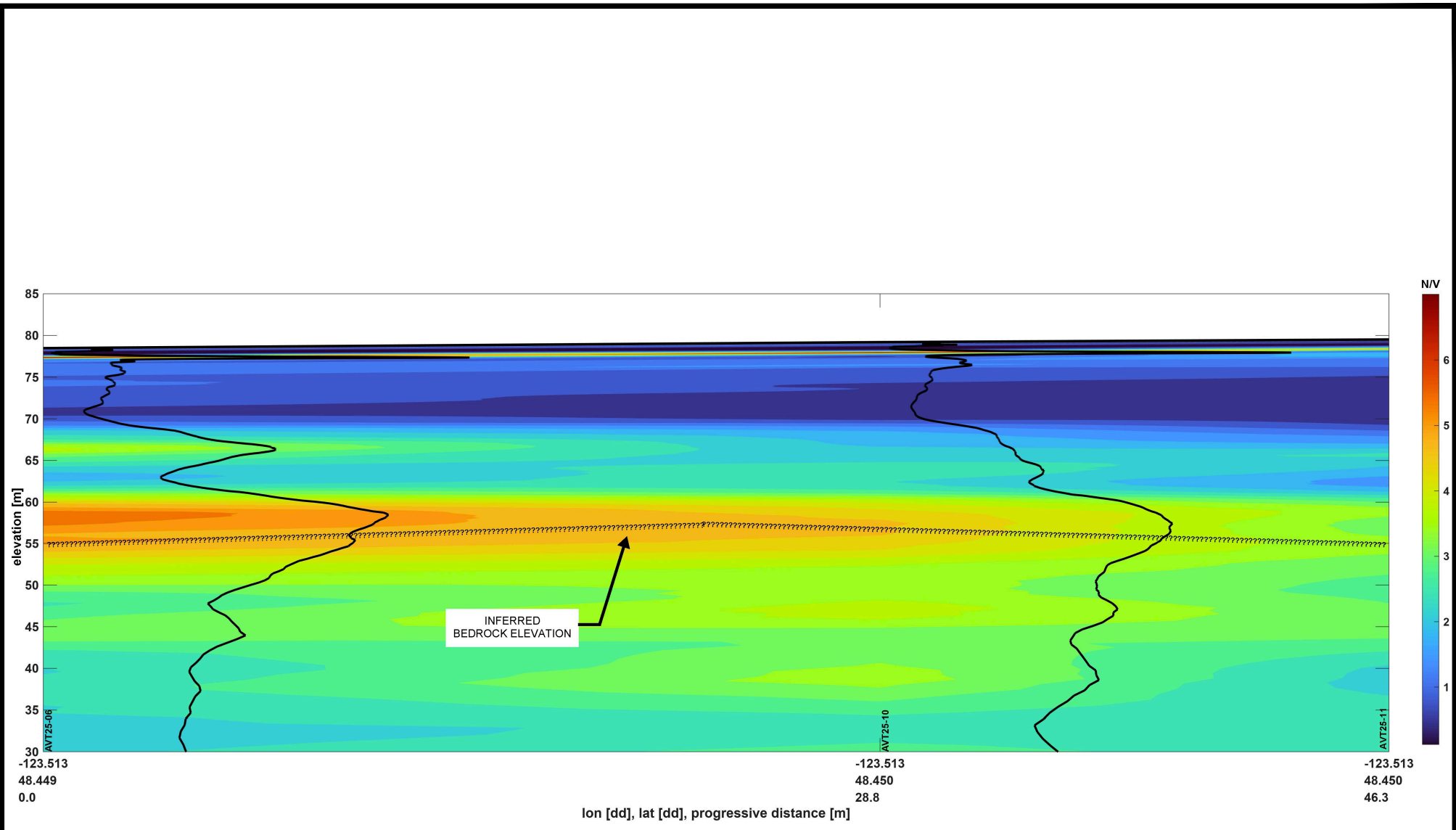
Figures 2 to 5- AVT Lines 1-4




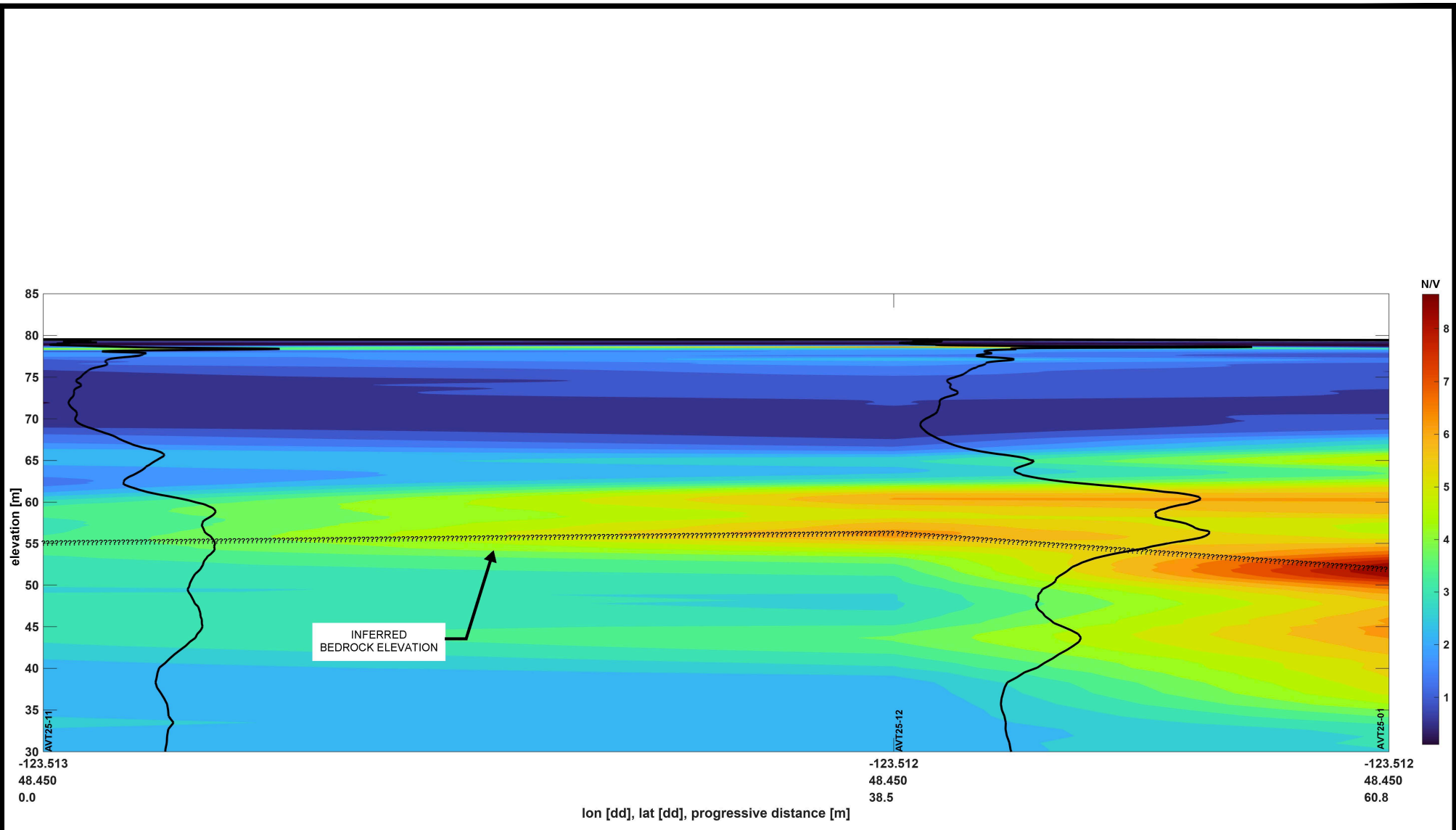
	M'AKOLA HOUSING SOCIETY							
	AVT LINE 1							
	2805 CARLOW RD							
MIXED USE DEVELOPMENT								
DESIGNED TAL	DRAWN TAL	APPROVED BMM	DATE OCT. 27, 2025	SCALE	PROJECT No. 81115	FIGURE NO. FIGURE 2	REV.	




	M'AKOLA HOUSING SOCIETY							
	AVT LINE 2							
	MIXED USE DEVELOPMENT							
	2805 CARLOW RD							
DESIGNED TAL	DRAWN TAL	APPROVED BMM	DATE OCT. 27, 2025	SCALE	PROJECT No. 81115	FIGURE NO. FIGURE 3	REV.	



	M'AKOLA HOUSING SOCIETY							
	AVT LINE 3							
	2805 CARLOW RD							
MIXED USE DEVELOPMENT								
DESIGNED TAL	DRAWN TAL	APPROVED BMM	DATE OCT. 27, 2025	SCALE	PROJECT No. 81115	FIGURE NO. FIGURE 4	REV.	



	M'AKOLA HOUSING SOCIETY							
	AVT LINE 4							
	2805 CARLOW RD							
MIXED USE DEVELOPMENT								
DESIGNED TAL	DRAWN TAL	APPROVED BMM	DATE OCT. 27, 2025	SCALE	PROJECT No. 81115	FIGURE NO. FIGURE 5	REV.	



APPENDIX C

Test Hole and Test Pit Logs

LOG OF TEST HOLE

TEST HOLE NO.
TH25-01

LOCATION: 2805 Carlow Road, Langford, BC
N 5366385, E 462081 (Est.)



CLIENT: M'akola Housing Society
PROJECT: 2805 Carlow Road
Geotechnical Investigation

TOP OF HOLE ELEV: 79.0 m (Est.)

METHOD: Sonic Drilling

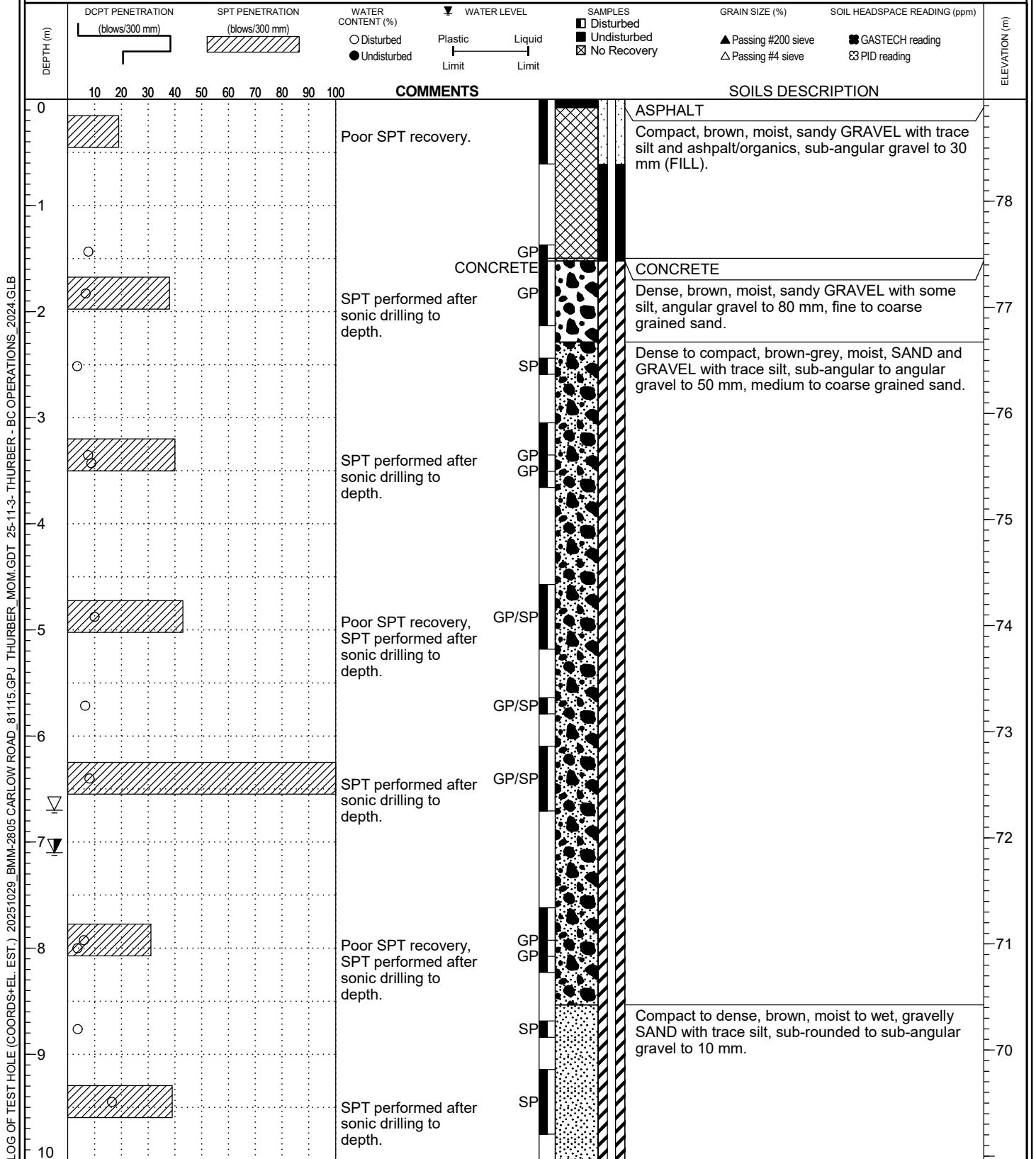
DATE: 10/8/2025

DRILLING CO.: Blue Max Drilling Inc.

FILE NO.: 81115

INSPECTOR: BTS

REVIEWED BY: BMM



LOG OF TEST HOLE

TEST HOLE NO.
TH25-01

LOCATION: 2805 Carlow Road, Langford, BC
N 5366385, E 462081 (Est.)



CLIENT: M'akola Housing Society
PROJECT: 2805 Carlow Road
Geotechnical Investigation

TOP OF HOLE ELEV: 79.0 m (Est.)

METHOD: Sonic Drilling

DATE: 10/8/2025

DRILLING CO.: Blue Max Drilling Inc.

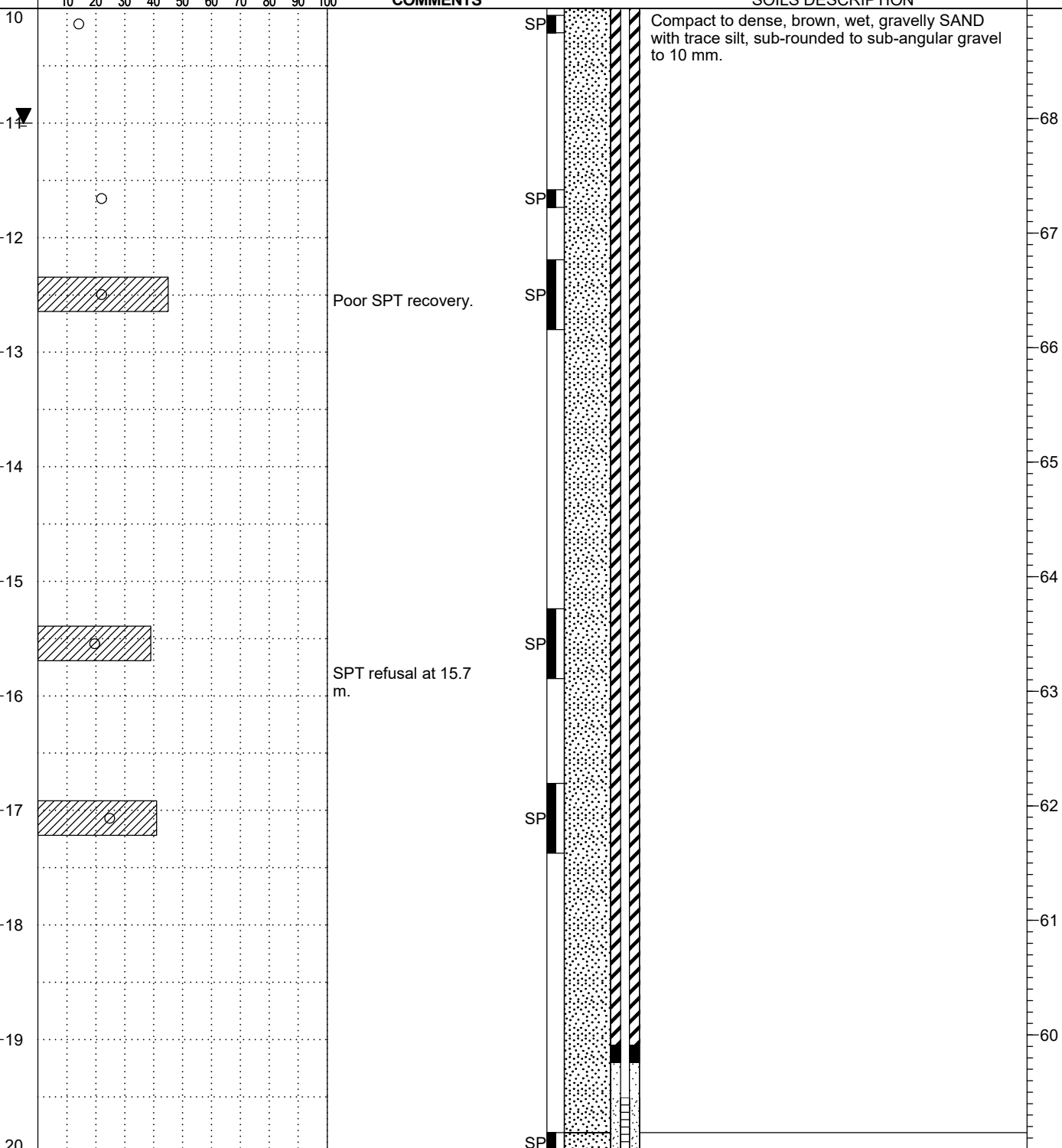
FILE NO.: 81115

INSPECTOR: BTS

REVIEWED BY: BMM

DEPTH (m)	DCPT PENETRATION (blows/300 mm)	SPT PENETRATION (blows/300 mm)	WATER CONTENT (%) ○ Disturbed ● Undisturbed	WATER LEVEL ▼ Plastic Limit Liquid Limit	SAMPLES ■ Disturbed ■ Undisturbed ⊠ No Recovery	GRAIN SIZE (%) ▲ Passing #200 sieve △ Passing #4 sieve	SOIL HEADSPACE READING (ppm) ■ GASTECH reading ⊞ PID reading	ELEVATION (m)
	COMMENTS		SOILS DESCRIPTION					

LOG OF TEST HOLE (COORDS+EL. EST.) 20251029_BMM-2805 CARLOW ROAD_81115.GPJ_THURBER_MOM.GDT_25-11-3_THURBER - BC OPERATIONS_2024.GLB



LOG OF TEST HOLE

TEST HOLE NO.
TH25-01

LOCATION: 2805 Carlow Road, Langford, BC
N 5366385, E 462081 (Est.)



CLIENT: M'akola Housing Society
PROJECT: 2805 Carlow Road
Geotechnical Investigation

TOP OF HOLE ELEV: 79.0 m (Est.)

METHOD: Sonic Drilling

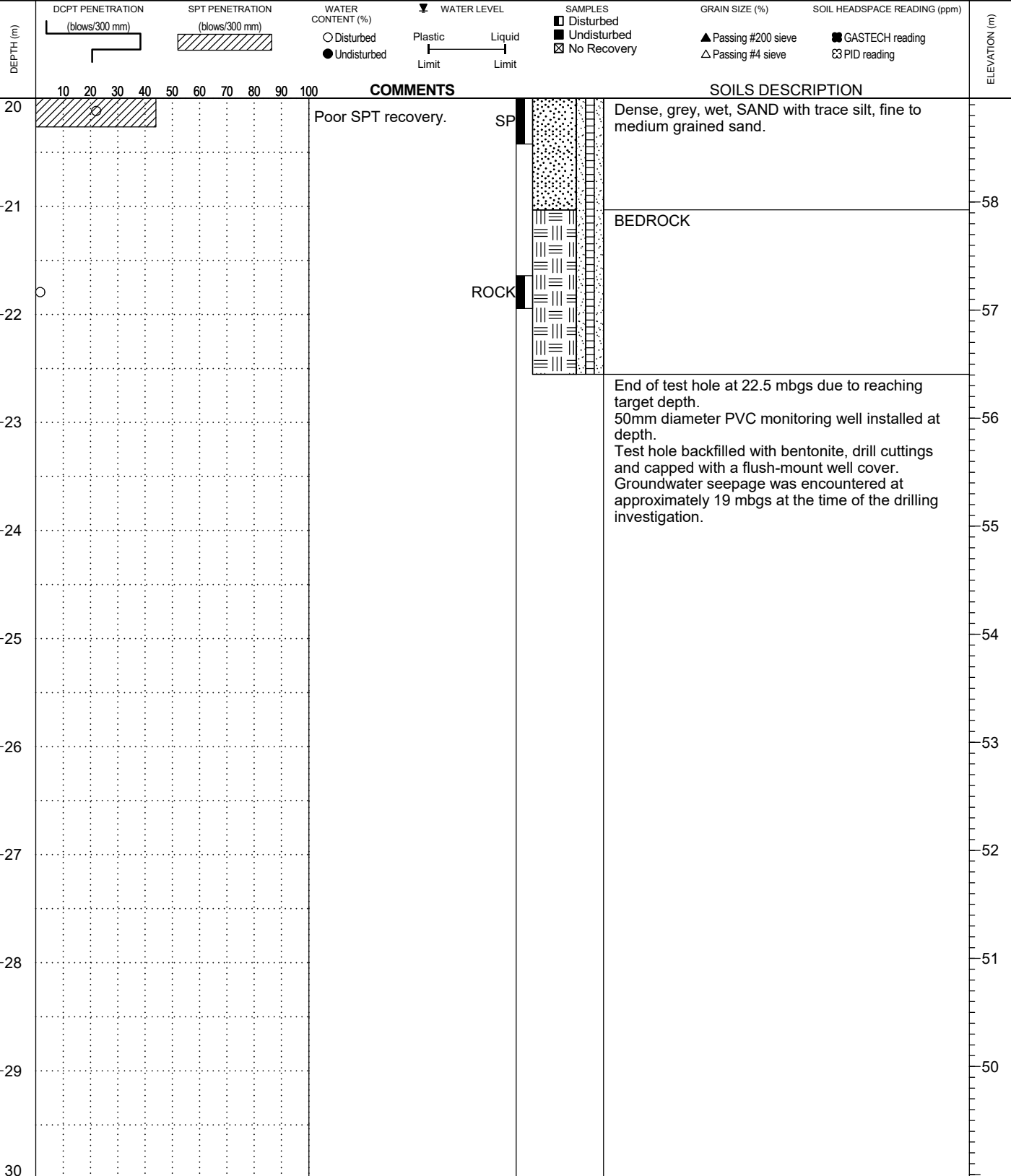
DATE: 10/8/2025

DRILLING CO.: Blue Max Drilling Inc.

FILE NO.: 81115

INSPECTOR: BTS

REVIEWED BY: BMM



LOG OF TEST HOLE (COORDS+EL. EST.) 20251029_BMM-2805 CARLOW ROAD_81115.GPJ THURBER_MOM.GDT 25-11-3 THURBER - BC OPERATIONS_2024.GLB

LOG OF TEST HOLE

TEST HOLE NO.
TH25-02

LOCATION: 2805 Carlow Road, Langford, BC
N 5366405, E 462094 (Est.)



CLIENT: M'akola Housing Society
PROJECT: 2805 Carlow Road
Geotechnical Investigation

TOP OF HOLE ELEV: 78.9 m (Est.)

METHOD: Sonic Drilling

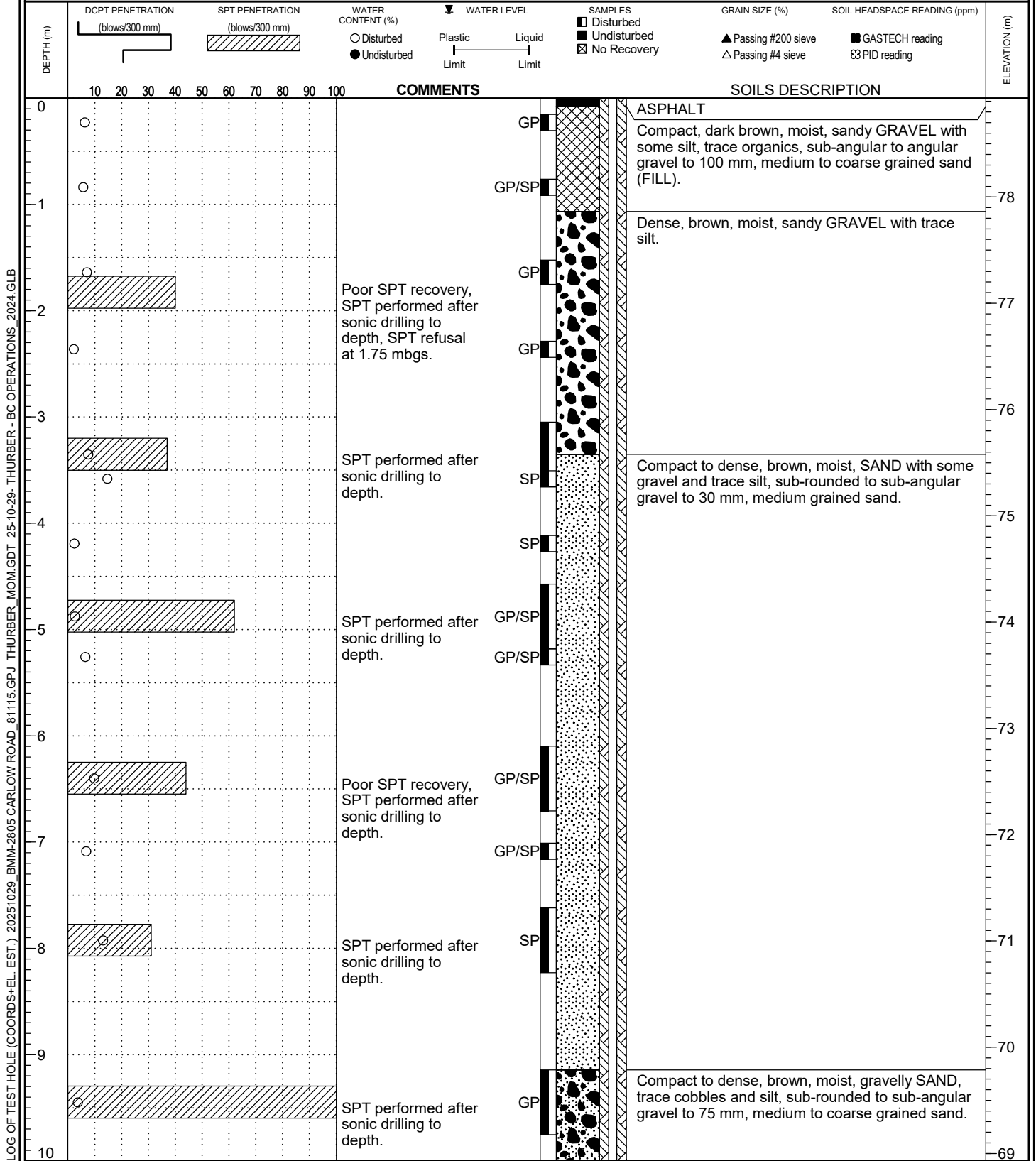
DATE: 10/9/2025

DRILLING CO.: Blue Max Drilling Inc.

FILE NO.: 81115

INSPECTOR: BTS

REVIEWED BY: BMM



LOG OF TEST HOLE (COORDS+EL. EST.): 20251029_BMM-2805 CARLOW ROAD_81115.GPJ_THURBER_MOM.GDT_25-10-29_THURBER - BC OPERATIONS_2024.GLB

LOG OF TEST HOLE

TEST HOLE NO.
TH25-02

LOCATION: 2805 Carlow Road, Langford, BC
N 5366405, E 462094 (Est.)



CLIENT: M'akola Housing Society
PROJECT: 2805 Carlow Road
Geotechnical Investigation

TOP OF HOLE ELEV: 78.9 m (Est.)

METHOD: Sonic Drilling

DATE: 10/9/2025

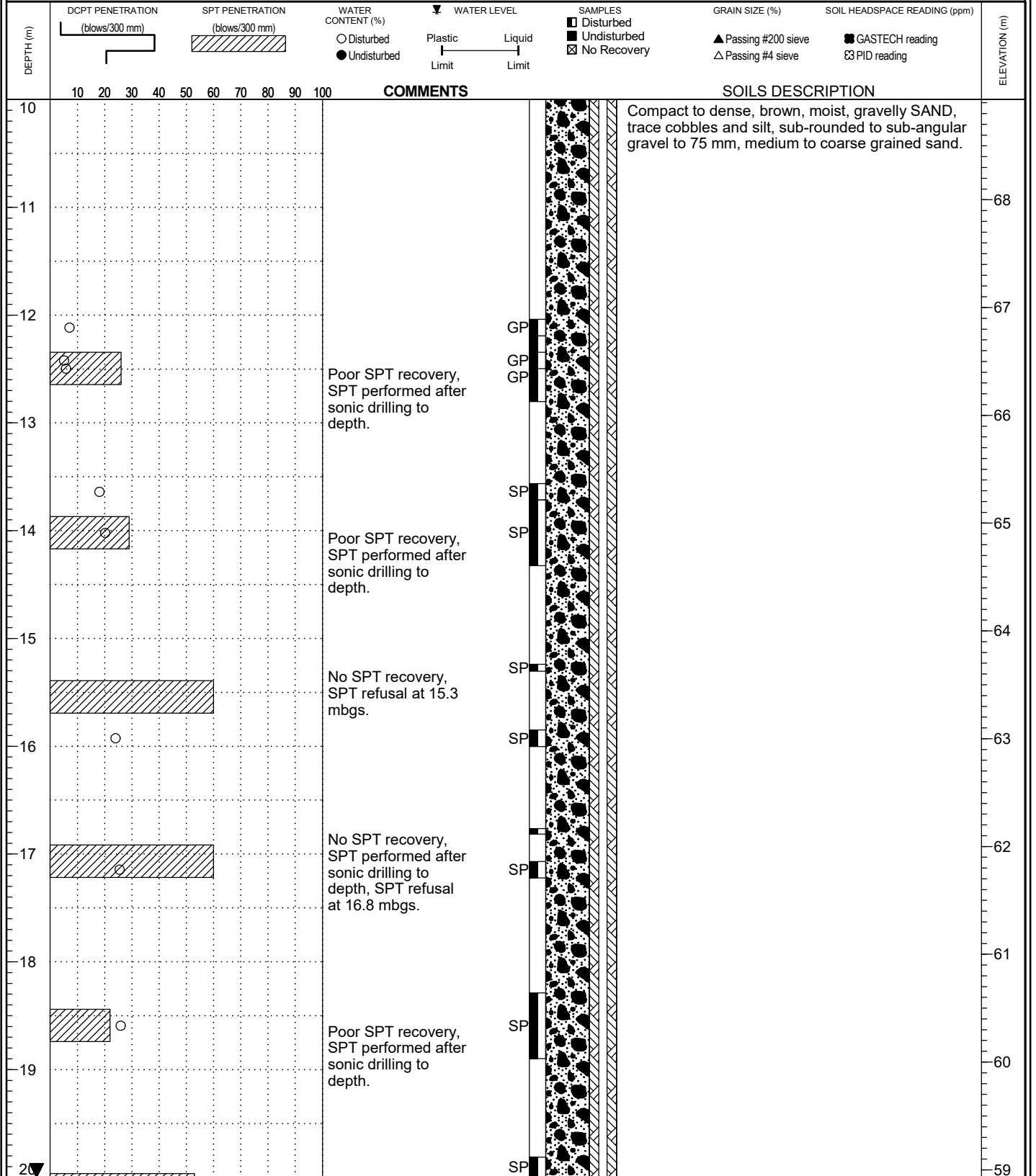
DRILLING CO.: Blue Max Drilling Inc.

FILE NO.: 81115

INSPECTOR: BTS

REVIEWED BY: BMM

LOG OF TEST HOLE (COORDS+EL. EST.) 20251029_BMM-2805 CARLOW ROAD_81115.GPJ THURBER_MOM.GDT 25-10-29- THURBER - BC OPERATIONS 2024.GLB



Compact to dense, brown, moist, gravelly SAND, trace cobbles and silt, sub-rounded to sub-angular gravel to 75 mm, medium to coarse grained sand.

Poor SPT recovery, SPT performed after sonic drilling to depth.

Poor SPT recovery, SPT performed after sonic drilling to depth.

No SPT recovery, SPT refusal at 15.3 mbgs.

No SPT recovery, SPT performed after sonic drilling to depth, SPT refusal at 16.8 mbgs.

Poor SPT recovery, SPT performed after sonic drilling to depth.

GP
GP
GP
SP
SP
SP
SP
SP
SP
SP

LOG OF TEST HOLE

TEST HOLE NO.
TH25-02

LOCATION: 2805 Carlow Road, Langford, BC
N 5366405, E 462094 (Est.)



CLIENT: M'akola Housing Society
PROJECT: 2805 Carlow Road
Geotechnical Investigation

TOP OF HOLE ELEV: 78.9 m (Est.)

METHOD: Sonic Drilling

DATE: 10/9/2025

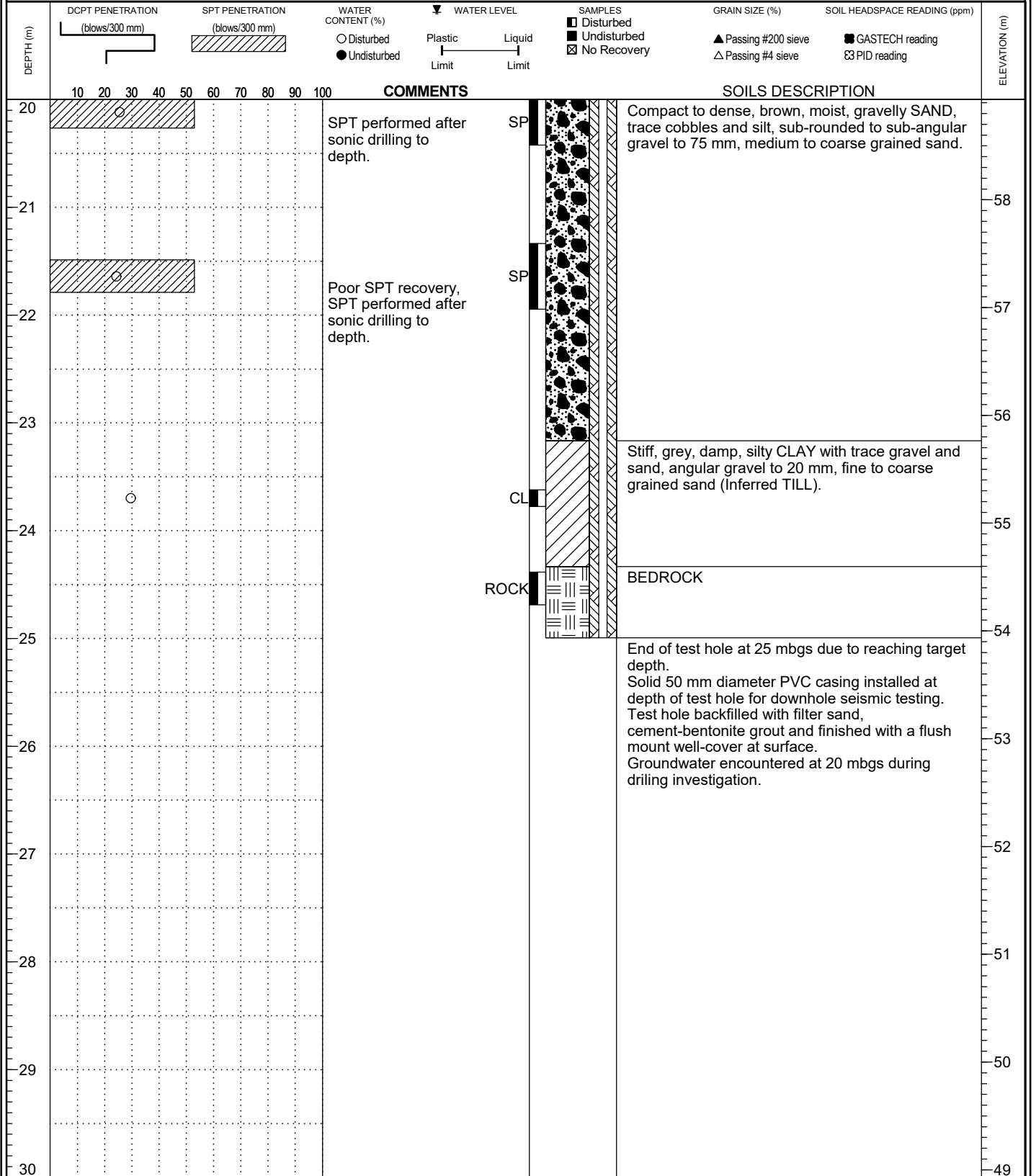
DRILLING CO.: Blue Max Drilling Inc.

FILE NO.: 81115

INSPECTOR: BTS

REVIEWED BY: BMM

LOG OF TEST HOLE (COORDS+EL. EST.) 20251029_BMM-2805 CARLOW ROAD_81115.GPJ THURBER_MOM.GDT 25-10-29- THURBER - BC OPERATIONS 2024.GLB



LOG OF TEST PIT

TEST PIT NO.
TP25-01

LOCATION: 2805 Carlow Road, Langford, BC
N 5366420, E 462096 (Est.)



CLIENT: M'akola Housing Society

TOP OF HOLE ELEV: 79 m (Est.)

PROJECT: 2805 Carlow Road
Geotechnical Investigation

METHOD: Test Pit

DATE: 10/7/2025

EXCAVATING CO.: Don Mann Excavating Ltd.

FILE NO.: 81115

INSPECTOR: BTS

REVIEWED BY: BMM

DEPTH (m)	PENETRATION (blows/300 mm)	WATER CONTENT (%) ○ Disturbed ● Undisturbed	WATER LEVEL ▼ Plastic Limit Liquid Limit	SAMPLES ■ Disturbed ■ Undisturbed ☒ No Recovery	UNDRAINED SHEAR STRENGTH (kPa) ◆ Peak ◇ Residual ◇ Remolded	GRAIN SIZE (%) ▲ Passing #200 sieve △ Passing #4 sieve	SOIL HEADSPACE READING (ppm) ■ GASTECH reading ⊞ PID reading	ELEVATION (m)	COMMENTS	SOILS DESCRIPTION
0								79		Compact, brown, moist, silty SAND with some gravel, trace silt, rootlet and organic inclusion, sub-rounded gravel to 30 mm (TOPSOIL).
								79		Dense, brown, moist, sandy GRAVEL with some cobbles, trace silt and rootlets/ organic inclusions, sub-rounded gravel.
1								78		Dense, grey, moist, sandy GRAVEL with cobbles, trace boulders and silt.
2								77		End of test pit at 1.6 mbgs due to reaching target depth. Test pit backfilled with cuttings and tamped with the excavator bucket upon completion. No groundwater seepage was encountered at the time of the test pit investigation.
3								76		
4								75		
5										

LOG OF TEST PIT (COORD. + EL. EST.)_20251029_BMM-2805 CARLOW ROAD_81115.GPJ_THURBER_MOM.GDT_25-10-29-THURBER-BC OPERATIONS_2024.GLB

LOG OF TEST PIT

TEST PIT NO.
TP25-02

LOCATION: 2805 Carlow Road, Langford, BC
N 5366420, E 462105 (Est.)



CLIENT: M'akola Housing Society

TOP OF HOLE ELEV: 80 m (Est.)

PROJECT: 2805 Carlow Road
Geotechnical Investigation

METHOD: Test Pit

DATE: 10/7/2025

EXCAVATING CO.: Don Mann Excavating Ltd.

FILE NO.: 81115

INSPECTOR: BTS

REVIEWED BY: BMM

DEPTH (m)	PENETRATION (blows/300 mm)	WATER CONTENT (%) ○ Disturbed ● Undisturbed	WATER LEVEL ▼ Plastic Limit Liquid Limit	SAMPLES ■ Disturbed ■ Undisturbed ☒ No Recovery	UNDRAINED SHEAR STRENGTH (kPa) ◆ Peak ◇ Residual ◇ Remolded	GRAIN SIZE (%) ▲ Passing #200 sieve △ Passing #4 sieve	SOIL HEADSPACE READING (ppm) ■ GASTECH reading ∞ PID reading	ELEVATION (m)	COMMENTS	SOILS DESCRIPTION
0								80		Compact, dark brown, moist, silty SAND with trace gravel with organic and rootlet inclusions.
0.5	15	○						79		Compact to dense, brown, moist, silty SAND and GRAVEL with trace cobbles and rootlets/organic inclusions.
1.0	25	○						78		Dense, brown, moist, SAND and GRAVEL with trace cobbles and silt, sub-rounded gravel, medium grained sand.
1.5	35	○						77		End of test pit at 2.0 mbgs due to reaching target depth. Test pit backfilled with cuttings and tamped with excavator bucket upon completion. No groundwater seepage was encountered at the time of the test pit investigation.
2.0	45	○						76		
2.5	55	○						75		
3.0	65	○								
3.5	75	○								
4.0	85	○								
4.5	95	○								
5.0	105	○								

LOG OF TEST PIT (COORD. + EL. EST.)_20251029_BMM-2805 CARLOW ROAD_81115.GPJ_THURBER_MOM.GDT_25-10-29-THURBER-BC OPERATIONS_2024.GLB

LOG OF TEST PIT

TEST PIT NO.
TP25-03

LOCATION: 2805 Carlow Road, Langford, BC
N 5366370, E 462089 (Est.)



CLIENT: M'akola Housing Society

TOP OF HOLE ELEV: 78 m (Est.)

PROJECT: 2805 Carlow Road
Geotechnical Investigation

METHOD: Test Pit

DATE: 10/7/2025

EXCAVATING CO.: Don Mann Excavating Ltd.

FILE NO.: 81115

INSPECTOR: BTS

REVIEWED BY: BMM

DEPTH (m)	PENETRATION (blows/300 mm)	WATER CONTENT (%) ○ Disturbed ● Undisturbed	WATER LEVEL Plastic Limit Liquid Limit	SAMPLES ■ Disturbed ■ Undisturbed ☒ No Recovery	UNDRAINED SHEAR STRENGTH (kPa) ◆ Peak ◇ Residual ◇ Remolded	GRAIN SIZE (%) ▲ Passing #200 sieve △ Passing #4 sieve	SOIL HEADSPACE READING (ppm) ■ GASTECH reading ∑ PID reading	ELEVATION (m)	COMMENTS	SOILS DESCRIPTION
0								78		Compact, brown, dry, silty SAND with trace gravel and rootlet/ organic inclusions.
										Dense, brown, dry, sandy GRAVEL with trace cobbles, silt and sub-rounded cobbles with organic and rootlet inclusions.
										Dense, brown, moist, silty SAND.
										CONCRETE
1								77		End of test pit at 0.8 mbgs due to encountering unexpected fill material. Test pit backfilled with soil cuttings and tamped with the excavator bucket. No groundwater seepage encountered at the time of the test pit investigation.
2								76		
3								75		
4								74		
5										

LOG OF TEST PIT (COORD. + EL. EST.)_20251029_BMM-2805 CARLOW ROAD_81115.GPJ_THURBER_MOM.GDT_25-10-29-THURBER-BC OPERATIONS_2024.GLB



APPENDIX D

Geotechnical Laboratory Analysis Results

Suite 2302, 4476 Markham Road, Victoria, BC V8Z 7X8 Phone (250) 727-2201

Client: M'akola Housing Society

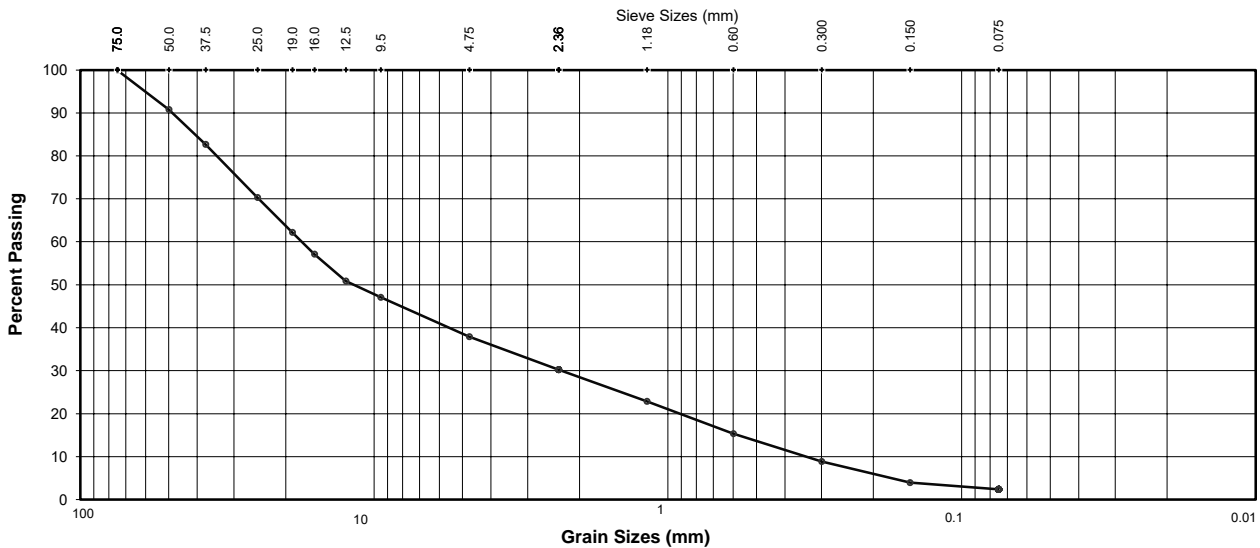
Project Number: 81115

Project: 2805 Carlow Road

Date: October 30, 2025

Sample Source: TP25-01, Sa. 2, 0.5m
Material Type: Grab
Specification:
Sample Description: brown, GRAVEL and SAND with a trace of fines
Water Content As Received: 2.8%

Date Tested: 30-Oct-25
Sampled by: ACK
Date Sampled: 07-Oct-25
Test Method: ASTM
Series No.:



GRAVEL (FROM SIEVE)				
Sieve No.	Opening (mm)	Percent Passing	Gradation Limits	
			Max	min
	75	100.0		
	50	90.8		
	37.5	82.6		
	25	70.3		
	19	62.2		
	16	57.1		
	12.5	50.9		
	9.5	47.1		
	4.75	37.9		

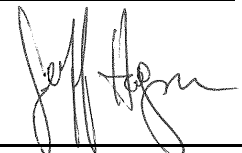
SAND & FINES (FROM SIEVE & WASH)				
Sieve No.	Opening (mm)	Percent Passing	Gradation Limits	
			Max	min
	2.36	30.3		
	1.18	22.9		
	0.6	15.4		
	0.3	8.9		
	0.15	4.0		
	0.075	2.4		

SILT AND CLAY (FROM HYDROMETER)				
Silt				
Clay		-		
Total Fines:		2.4%		

Gravel: 62.1% Percent Crush: N/A
 Sand: 35.5% Faces Counted: 0
 Fines: 2.4%

Comments:

Checked By:



Reporting of these test results constitutes a testing service only. Engineering interpretation or evaluation of the test results is provided only on written request.

Suite 2302, 4476 Markham Road, Victoria, BC V8Z 7X8 Phone (250) 727-2201

Client: M'akola Housing Society

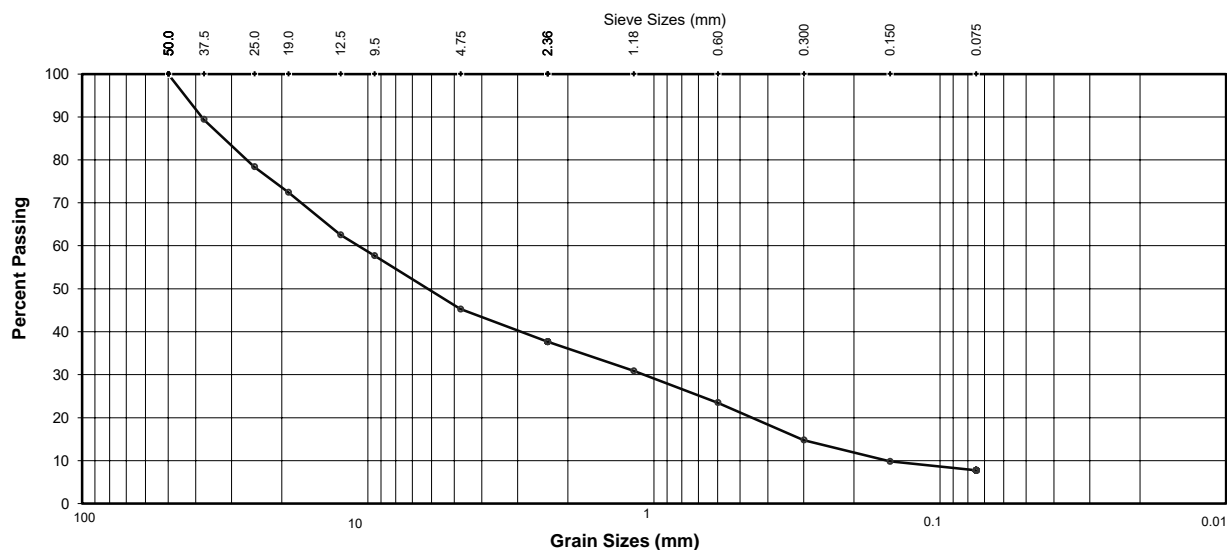
Project Number: 81115

Project: 2805 Carlow Road

Date: October 30, 2025

Sample Source: TP25-02, Sa. 1, 0.3m-0.45m
Material Type: Grab
Specification:
Sample Description: brown, GRAVEL and SAND with a trace of fines
Water Content As Received: 8.0%

Date Tested: 19-Oct-25
Sampled by: ACK
Date Sampled: 7-Oct-25
Test Method: ASTM
Series No.:



GRAVEL (FROM SIEVE)				
Sieve No.	Opening (mm)	Percent Passing	Gradation Limits	
			Max	min
	100			
	75			
	50	100.0		
	37.5	89.4		
	25	78.4		
	19	72.5		
	12.5	62.6		
	9.5	57.7		
	4.75	45.3		

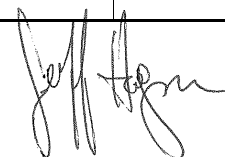
SAND & FINES (FROM SIEVE & WASH)				
Sieve No.	Opening (mm)	Percent Passing	Gradation Limits	
			Max	min
	2.36	37.7		
	1.18	30.9		
	0.6	23.5		
	0.3	14.8		
	0.15	9.8		
	0.075	7.7		
				0

SILT AND CLAY (FROM HYDROMETER)				
Silt				
Clay		-		
Total Fines:		7.7%		

Gravel: 54.7% Percent Crush: N/A
 Sand: 37.6% Faces Counted: 0
 Fines: 7.7%

Comments:

Checked By:



Reporting of these test results constitutes a testing service only. Engineering interpretation or evaluation of the test results is provided only on written request.



APPENDIX E

Downhole Seismic Test Results



DOWNHOLE SEISMIC TEST DATA

Client: M'akola
Test Hole ID TH25-02
Site: 2805 Carlow

Job Number: 81115
Date: 22-Oct-25
Source Offset: 1.3 m
Source: Wood Beam

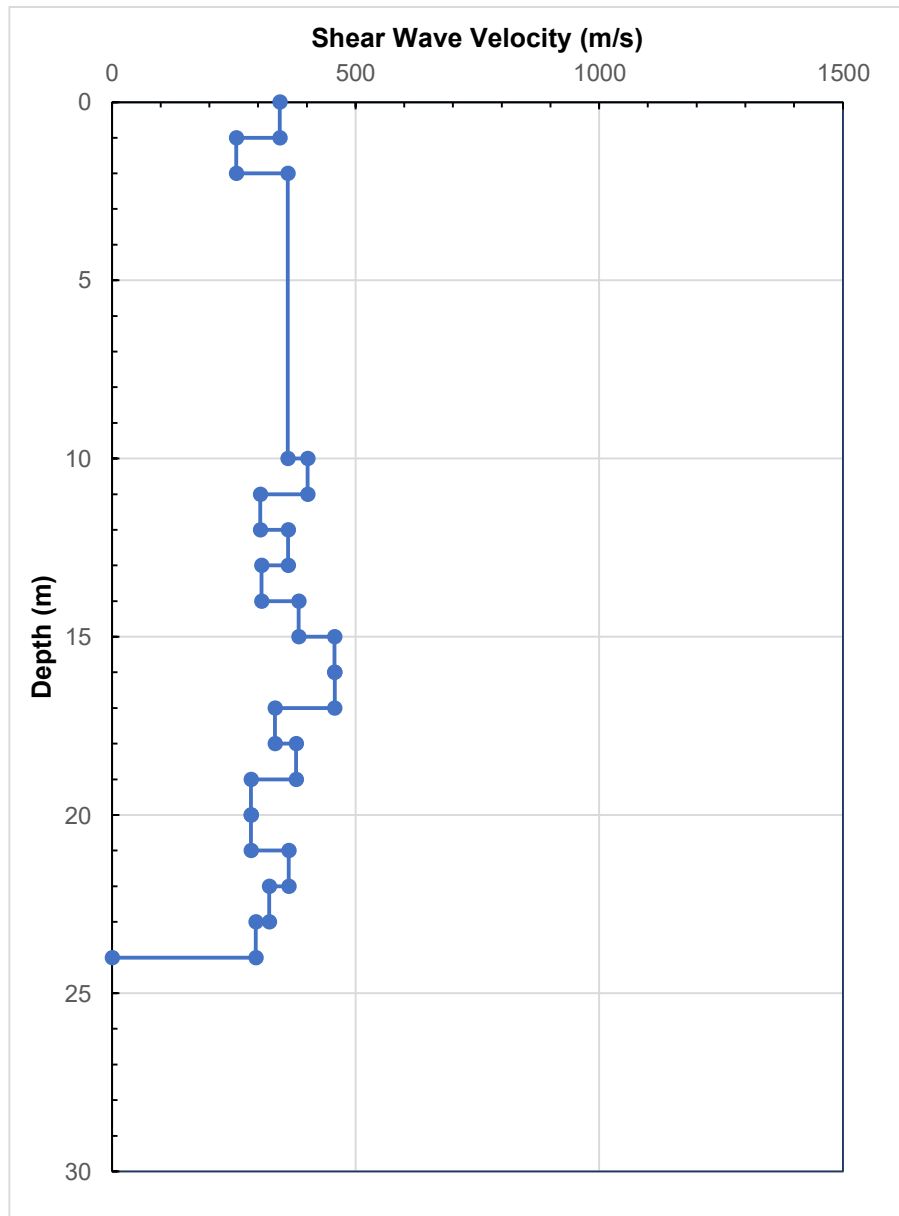
Geophone Depth (m)	Incremental Shear Wave Velocity (m/s)
1.0	344.7
2.0	254.8
10.0	360.9
11.0	401.6
12.0	304.5
13.0	361.2
14.0	306.7
15.0	382.9
16.0	456.4
17.0	456.7
18.0	334.6
19.0	378.1
20.0	285.5
21.0	285.6
22.0	362.7
23.0	322.5
24.0	295.3



VELOCITY PROFILE

Client: M'akola
Test ID: TH25-02
Site: 2805 Carlow

Job Number: 81115
Date: 22-Oct-25
Source Offset: 1.3 m
Source: Wood Beam



Shear wave velocity measurements by Thurber Engineering Ltd.



APPENDIX F

NBCC 2015 Seismic Hazard Calculation

2015 National Building Code Seismic Hazard Calculation

INFORMATION: Eastern Canada English (613) 995-5548 français (613) 995-0600 Facsimile (613) 992-8836
Western Canada English (250) 363-6500 Facsimile (250) 363-6565

Site: 48.450N 123.513W

2025-10-23 21:37 UT

Probability of exceedance per annum	0.000404	0.001	0.0021	0.01
Probability of exceedance in 50 years	2 %	5 %	10 %	40 %
Sa (0.05)	0.717	0.510	0.371	0.161
Sa (0.1)	1.100	0.791	0.573	0.247
Sa (0.2)	1.319	0.948	0.693	0.302
Sa (0.3)	1.328	0.952	0.692	0.297
Sa (0.5)	1.181	0.835	0.598	0.244
Sa (1.0)	0.700	0.464	0.313	0.116
Sa (2.0)	0.415	0.266	0.172	0.060
Sa (5.0)	0.130	0.074	0.038	0.012
Sa (10.0)	0.045	0.025	0.013	0.004
PGA (g)	0.592	0.425	0.308	0.130
PGV (m/s)	0.848	0.576	0.395	0.146

Notes: Spectral ($S_a(T)$, where T is the period in seconds) and peak ground acceleration (PGA) values are given in units of g (9.81 m/s^2). Peak ground velocity is given in m/s . Values are for "firm ground" (NBCC2015 Site Class C, average shear wave velocity 450 m/s). NBCC2015 and CSAS6-14 values are highlighted in yellow. Three additional periods are provided - their use is discussed in the NBCC2015 Commentary. Only 2 significant figures are to be used. **These values have been interpolated from a 10-km-spaced grid of points. Depending on the gradient of the nearby points, values at this location calculated directly from the hazard program may vary. More than 95 percent of interpolated values are within 2 percent of the directly calculated values.**

References

National Building Code of Canada 2015 NRCC no. 56190; Appendix C: Table C-3, Seismic Design Data for Selected Locations in Canada

Structural Commentaries (User's Guide - NBC 2015: Part 4 of Division B)
Commentary J: Design for Seismic Effects

Geological Survey of Canada Open File 7893 Fifth Generation Seismic Hazard Model for Canada: Grid values of mean hazard to be used with the 2015 National Building Code of Canada

See the websites www.EarthquakesCanada.ca and www.nationalcodes.ca for more information