

GEOTECHNICAL INVESTIGATION REPORT
PROPOSED 6-STOREY 55-UNIT COMMERCIAL HOTEL DEVELOPMENT
4791 HIGHWAY 28, TOWNSHIP OF NORTH KAWARTHA, ONTARIO
REDSTONE PROJECT NO. 25R122

Prepared for:

Burleigh Falls Group Corporation
c/o EcoVue Consulting Services Inc.
416 Chambers Street
Peterborough, Ontario K9H 3V1

December 22, 2025

<u>TABLE OF CONTENTS</u>		<u>Page</u>
1.0	INTRODUCTION	1
2.0	PURPOSE & SCOPE	2
3.0	FIELD & LABORATORY PROCEDURES	3
4.0	SITE LOCATION & SURFACE CONDITIONS	3
5.0	SUBSURFACE CONDITIONS	4
5.1	GENERAL	4
5.2	TOPSOIL	5
5.3	FILL	5
5.4	BURIED ORGANICS	5
5.5	BEDROCK	6
5.6	GROUNDWATER & CAVE-IN	6
6.0	DISCUSSION & RECOMMENDATIONS	7
6.1	GENERAL	7
6.2	SITE PREPARATION, EXCAVATION, & BACKFILL	7
6.3	GROUNDWATER CONTROL DURING CONSTRUCTION	9
6.4	FOUNDATIONS	10
6.5	SLAB ON GRADE	12
6.6	SERVICE INSTALLATION (BEDDING & COVER)	13
6.7	PAVEMENT	13
6.8	GENERAL RECOMMENDATIONS	15
6.8.1	Subgrade Sensitivity	15
6.8.2	Test Pitting During Tendering	15
6.8.3	Winter Construction	16
6.8.4	Wells	16
6.8.5	Detailed Design & Review / Construction Inspections	16
7.0	CLOSURE & STATEMENT OF LIMITATIONS	17

TABLES

TABLE 1:	BEDROCK DEPTHS WITHIN TEST PITS	6
TABLE 2:	BEARING CAPACITY PRESSURE / GEOTECHNICAL RESISTANCE FOR FOOTINGS	11
TABLE 3:	PAVEMENT STRUCTURE	14

FIGURES

FIGURE 1	TEST PIT LOCATION PLAN
FIGURE 2	TEST PIT LOCATION PLAN – WITH OVERLAY OF PROPOSED DEVELOPMENT

APPENDICES

APPENDIX A	TEST PIT LOGS
APPENDIX B	LABORATORY DATA

GEOTECHNICAL INVESTIGATION REPORT
PROPOSED 6-STOREY 55-UNIT COMMERCIAL HOTEL DEVELOPMENT
4791 HIGHWAY 28, TOWNSHIP OF NORTH KAWARTHA, ONTARIO
REDSTONE PROJECT NO. 25R122

1.0 INTRODUCTION

This report presents the results of a geotechnical investigation performed in support of the design and construction of a proposed commercial hotel development to be located on property identified with civic address 4791 Highway 28 in the Township of North Kawartha, County of Peterborough, Ontario. Redstone Engineering Inc. (Redstone) was retained by Burleigh Falls Group Corporation (BFGC, the Client) represented by Mr. Pieter Bezemer, to conduct this geotechnical investigation. This work was carried out in accordance with Redstone's proposal #P1443 dated November 18, 2023 as authorized by Mr. Bezemer's November 21, 2025 execution of Redstone's proposal.

Project information and input was received from the following firms:

- Ecovue Consulting Services Inc (Ecovue, project's Planner);
- Tatham Engineering (Tatham, project's Civil Engineer); and
- Stamp & Hammer Inc (S&H, project's Architect).

Redstone received the following project information in support of this study:

- November 11, 2025 email from Ecovue:
 - o a drawing by Ecovue titled "Concept Plan CP1 - Burleigh Falls Inn, Pieter Bezemer – Part of Lot 04 Concession 01, Geog. Twp. Of Burleigh, Now in the Township of North Kawartha, County of Peterborough", under their Proj. No. 17-1681, dated June 4 225 (herein referred to as the Concept Plan); and
 - o a Peterborough County Planning Department document titled "Record of Pre-Consultation" dated April 22/25 (herein referred to as the Pre-Consult Memo);
- November 12, 2025 emails from Tatham:
 - o confirmed the geotechnical study's scope and land area coverage needed in support of geotechnical recommendations for Tatham's civil design;
- November 13, 2025 email from S&H:
 - o confirmed the geotechnical study scope and land area coverage needed in support of preliminary geotechnical recommendations for the building and site plan application (SPA);
- November 18, 2025 email from Ecovue:
 - o provided a link to download files including photographs of the site, a cad drawing of the site and proposed development, and a legal survey of the property.

Based on the information provided, it is Redstone's understanding that the proposed commercial hotel development will consist of a 6 storey 55-unit building with associated servicing and asphalt-paved parking and access areas, as illustrated on the Concept Plan. The Client and their design team requested preliminary geotechnical information and recommendations in support of the development's conceptual and SPA phases, with the understanding that further geotechnical work may be required during more detailed design stages.

During a November 14, 2025 phone call, S&H confirmed that the proposed development's final grading will attempt to match the site's existing grades as closely as possible, and the proposed building will be slab on grade with an elevator shaft area but no other subsurface/basement areas. No other information regarding the proposed final grades was available to Redstone as of writing this report.

2.0 PURPOSE & SCOPE

The purpose of this geotechnical investigation is to obtain subsurface information regarding the site's existing soil, bedrock, and groundwater conditions at a limited number of test pits, and based on these findings, provide geotechnical engineering opinions and recommendations relevant to design (including commentary regarding construction only as it may impact the design) for earthworks and ground preparations, construction dewatering, open-trench installation of utilities (bedding and backfill), pavement structure, building foundations (including bearing capacity for footings) and slab-on-grade.

This scope does not include any testing or reporting for slope stability, hydrogeological, EASR or PTTW, excess soil disposal or reuse, chemical, or environmental assessment purposes. This report provides preliminary geotechnical information and recommendations in support of the development's conceptual and SPA phases, with the understanding that further geotechnical work may be required during more detailed design stages.

The following scope of work was performed as part of this geotechnical investigation.

1. Test pits were marked onsite in the locations shown on the Test Pit Location Plans (Figures 1 and 2 attached).
2. Underground services were cleared prior to advancing the test pits. While this investigation cleared underground utilities from the area of each test pit, it did not confirm the presence or location of all utilities at all locations or for the purpose of the project's design or construction.
3. The subsurface soil and groundwater conditions were explored by advancing, sampling and logging a total of seven (7) test pits to practical refusal on bedrock, occurring at depths of 0.00 to 1.32m below existing grade (mbeg).
4. The test pit conditions observed were recorded, and representative samples of the soils were obtained. Groundwater observations were obtained from the open test pits during their advancement.

5. The ground at the test pits was reinstated as close as possible to its original condition upon completion of the fieldwork.
6. Laboratory analyses of representative soil samples was performed, consisting of moisture content testing on all recovered soil samples, and grain size distribution testing of one (1) soil sample.
7. Geotechnical engineering analysis of acquired field and laboratory data, and preparation of this report summarizing Redstone's geotechnical findings and recommendations.

3.0 FIELD & LABORATORY PROCEDURES

A field investigation was conducted under the supervision of Redstone staff on December 4 2025. The work consisted of subsurface exploration by means of advancing sampling and logging seven (7) test pits to practical refusal on bedrock (0.00 to 1.32mbeg). Detailed logs of the test pits were maintained, and representative samples of the materials encountered were obtained. The location of each test pit is illustrated on the attached Test Pit Location Plans (Figures 1 and 2).

The test pits were excavated using a tracked John Deere 135G hydraulic excavator with a toothed bucket.

Redstone's senior geotechnical engineer witnessed each test pit advancement, with accompanying logging of the conditions and sampling of the soils encountered. Soil samples were recovered, retained in labeled air-tight containers, and secured for subsequent review and laboratory testing. Test pit logs are provided in Appendix A.

The depth to any groundwater and/or test pit "cave-in" was measured in the open test pits immediately following their excavation. The test pits were backfilled immediately after completion with the excavated soil, which was nominally compacted and levelled with the surrounding ground surface.

Physical laboratory testing of soil samples consisted of moisture content testing of all recovered samples, and grain size distribution analyses of one (1) soil sample. The results of the moisture content and grain size distribution testing are incorporated into the test pit logs (Appendix A), while the grain size distribution lab chart is attached in Appendix B.

4.0 SITE LOCATION & SURFACE CONDITIONS

The proposed hotel building will be located somewhat centrally within the triangular land parcel illustrated on the Concept Plan, with surrounding access and parking areas.

As of Redstone's fieldwork for this study, this project area contained a laneway along the site's northerly boundary (identified on publicly-available online mapping as Fire Rte 2, and leading from Hwy 28 easterly to a house situated to the northeast of the project site), with existing cabin/cottage structures (that appear to be vacant or perhaps only seasonally used) situated within or very near the proposed new building's footprint. To the south of these cabins is a yard

area whose grade appears to be raised above the surrounding grade, suggesting the possible presence of a raised septic bed. The Client's representative informed Redstone of the presence of buried sewer and water supply lines that are located within the project area, running from the existing cabins northerly (out of the project area). Note that the presence, extent, and condition of the foundations for any of the existing structures (cabins and cottages), the reported sewer and water lines, and the suspected septic bed, were not confirmed or assessed By Redstone as part of this study.

The project site's ground surfaces included topsoil, some brush and trees, and areas where granitic bedrock is exposed at surface.

The project site's topography drops in elevation from the north to the south, towards Burleigh Falls which are located immediately south of the project site. Highway 28 (with a bridge over the Burleigh Falls) runs northwest/southeasterly to the west side of the project site. To the north of the project site is an operating commercial property identified as the Burleigh Falls Inn.

5.0 SUBSURFACE CONDITIONS

5.1 GENERAL

The subject property is in the Dummer Moraines (south of a boundary with the nearby Georgian Bay Fringe) physiographic region of southern Ontario (Chapman and Putnam 1973), within an area described as Till Moraines, just south of a boundary with nearby Bare Rock Ridges and Shallow Till (Ontario Geological Survey). Details of the subsurface conditions encountered at the site during this investigation are presented graphically on the logs (Appendix A). It should be noted that the boundaries between the strata have been inferred from test pit observations and non-continuous samples. They generally represent a transition from one soil type to another and should not be inferred to represent an exact plane of geological change. Further, conditions may vary between and beyond the test pits. Following is a summarized account of the subsurface conditions encountered in these test pits.

The subsurface conditions generally consist of a surficial layer of topsoil over fill over buried organic material underlain by bedrock. All the test pits remained open to their full depth; one open test pit revealed groundwater seepage just above the bedrock surface, while the other test pits remained free of any groundwater.

The following sections describe the major subsurface strata and groundwater conditions encountered during this investigation in more detail.

5.2 TOPSOIL

A surficial layer of topsoil was encountered in five of the seven test pits; in the test pits that encountered it, the topsoil extended to depths ranging from about 0.05mbeg (TP-4) to 0.15mbeg (TP-2 and TP-7). The topsoil was generally brown to black and consisted of silty sand with organics, in a generally moist and loose in-situ state. This soil is considered devoid of any structural properties. No testing was performed on this soil to confirm its organic/nutrient or fertility-related properties.

5.3 FILL

A layer of fill material was encountered immediately beneath the surficial topsoil in five of the seven test pits; in the test pits that encountered it, the fill extended to depths ranging from about 0.46mbeg (TP 1) to 0.97mbeg (TP 2). The fill is a heterogeneous material, described as ranging from reddish brown sand and gravel with cobbles and boulders present and trace to some organics, in a moist loose to compact in-situ state, to intermixed layers/pockets of brown sand with gravel / grey limestone screenings / and clearstone gravel mixed with cobbles and organics, with debris appearing in some test pits (wire, metal pipe fragments). The fill was moist to wet, and ranged from loose to compact in-situ relative compactness.

Moisture content tests performed on samples of the fill yielded values ranging from 4.5% to 7.5% moisture by dry weight. A grain size distribution analysis performed on a sample of the fill consisting of well graded sand with some gravel in test pit TP-2 suggests the following composition: 19% gravel, 75% sand, and 6% silt and clay-sized particles.

Due to the heterogeneous random nature of such fill material, it is possible that the site's existing fill may contain other content not detected or observed in the test pits - possibly including but not necessarily limited to further organics, cobbles and/or boulders, or other buried debris.

5.4 BURIED ORGANICS

A buried layer of organic material was observed immediately beneath the fill in four of the test pits; within the test pits that encountered it, the buried organic layer was first observed at depths of 0.46mbeg (TP-1) to 0.97mbeg (TP-2), and extended to depths of 0.81mbeg (TP-4) to 1.32mbeg (TP-2). The buried organics are described as dark brown to black organics with roots, some gravel in a moist, loose in-situ state.

Test pit TP-1 encountered a large (approximately 0.4 to 0.5m diameter) boulder/slab within the organics above the bedrock).

5.5 BEDROCK

The test pits confirmed bedrock by encountering practical refusal to further excavation at depths shown in the following table.

Table 1: Bedrock Depths Within Test Pits

TEST PIT	BEDROCK DEPTH (mbeg)
TP-1	0.91
TP-2	1.32
TP-3	0.66
TP-4	0.81
TP-5	0.00
TP-6	0.00
TP-7	1.02

The depth at which practical refusal to further test pit excavation was encountered was interpreted as being the depth of “competent” bedrock for the purpose of logging the test pits. It is noted that bedrock can typically exhibit a higher degree of weathering and fracturing in its upper zones. Note that Test pit TP-1 encountered a large (approximately 0.4 to 0.5m diameter) boulder/slab within the organics above the bedrock, this may represent a slab of weathered/fractured bedrock that was able to be removed by the excavator.

5.6 GROUNDWATER & CAVE-IN

Upon completion of advancing each test pit, a record was made of the depth to any evident groundwater seepage and/or accumulation within the open test pits, and any cave-in (sloughing) of the test pit walls.

During the test pitting, groundwater was not observed in any of the test pits to their full depth except for test pit TP-2, where seepage was observed at about 1.30mbeg (ie, immediately above the bedrock surface).

During the test pitting, no caving (sloughing) of the test pit walls was observed.

It must be noted that the groundwater levels (and any related cave-in) are subject to seasonal fluctuations and in response to weather events, and at any point in time may differ from those presented herein. Also, the tendency for soils to cave-in (or slough or otherwise collapse) is a function of factors including its gradation, its density or consistency, presence and any movement of groundwater, as well as the slope and area of the exposed soil face.

6.0 DISCUSSION & RECOMMENDATIONS

6.1 GENERAL

Supporting data upon which these recommendations are based have been presented in the foregoing sections of this report. The following recommendations are governed by the physical properties of the subsurface materials that were encountered at the site and assume that they are representative of the overall site conditions. It should be noted that these conclusions and recommendations are intended for use by the designers only. Contractors bidding on or undertaking any work at the site should examine the factual results of the assessment, satisfy themselves as to the adequacy of the information for construction, and make their own interpretation of this factual data as it affects their proposed construction techniques, equipment capabilities, costs, sequencing, and the like. Comments, techniques, or recommendations pertaining to construction must not be construed as instructions to the contractor.

Due to the heterogeneous random nature of the site's fill material, it is possible that the existing fill may contain other content not detected or observed in the test holes, possibly including but not necessarily limited to further organics, cobbles and/or boulders, or other buried debris.

These recommendations are based on the project expectations and/or assumptions outlined in the Introduction (Section 1) of this report. Should these expectations and/or assumptions not be the case, Redstone must be allowed to review the final design and provide updated recommendations if warranted. Due to the preliminary nature of design details available at this stage of the project, these recommendations should be considered preliminary, and should be confirmed or updated once the project advances into its detailed design stage.

Details regarding the geotechnical conclusions and recommendations are outlined in the following sections.

6.2 SITE PREPARATION, EXCAVATION, & BACKFILL

Prior to commencing earthwork construction, all topsoil, vegetation, fill, disturbed earth, organics and organic bearing materials (including any soils containing roots/rootlets) and any existing structures (including but not limited to piers, footings, slabs, and any underground utility services) must be stripped and/or otherwise removed from all proposed new structural areas including the building (foundation and floor slab) areas and from beneath any new utility pipes, chambers, tanks, and all proposed new parking and access areas. In all cases the subexcavated surfaces must be inspected and approved by a qualified geotechnical engineer's representative familiar with the site's ground conditions, prior to placement of any fill, formwork, or foundations.

Based on the test pit results, it is expected this will result in the removal of all materials down to a subgrade typically consisting of granitic bedrock (whose upper zone may exhibit weathering that could necessitate removal of such weathered rock present at the bedrock's surface, likely in

the form of boulders and/or slabs). If any subgrade areas are comprised of native inorganic soil (instead of bedrock), such soil subgrade areas will be susceptible to strength loss resulting from disturbances caused by its exposure, and the Contractor must protect such subgrade areas at the base of excavations from disturbances as may be caused by construction equipment, exposure to weather, and/or groundwater upwelling. Tracking of equipment across subgrade should be minimized or avoided. Due to the potential undulations/irregularities in the bedrock surface once fully exposed, it is recommended that the construction tender require a provisional per-unit line-item price for lean concrete to be applied if/where needed to help level the bedrock's subgrade surface for foundation purposes.

Excavations should be carried out to conform to the manner specified in Ontario Regulation 213/91 and the Occupational Health and Safety Act and Regulations for Construction Projects (OHSA). All excavations above the water table not exceeding 1.2 m in depth may be constructed with unsupported slopes. The soils are generally classed by OHSA as Type 3, requiring unsupported excavations be sloped at 1H:1V or flatter to the excavation base. Any pockets of trapped groundwater located within the soils above the groundwater table may cause them to collapse and temporarily behave similar to a Type 4 soil upon being opened by excavations, in which case suitable localized excavation/shoring or other treatments will be necessary to stabilize.

If excavations will extend into bedrock, bedrock faces may be excavated nearly vertical except where weathering, foliations, fracturing, or other bedrock discontinuities warrant a flatter excavation face. In all cases bedrock excavation faces must be suitably cut and cleaned of any loose / disturbed / dislodged bedrock pieces by the Contractor with no overhangs or unstable irregularities remaining in the exposed faces. Upon being excavated and exposed, the bedrock's face may ravel or weather, necessitating periodic removal of any bedrock loosened as a result. Worker protection within excavations must be provided at all times.

Due to the shallow and variable depth of the bedrock, it is recommended that the construction tender require a provisional per-unit line-item price for excavation and removal of bedrock.

Where space is restricted such that side slopes of excavations cannot be safely cut back in accordance with OHSA, and/or sloughing (cave in) is encountered in the excavations, and/or where the excavations are in proximity to existing structures, temporary shoring must be provided. To avoid overstressing of any shoring, the excavated materials must be placed away from the excavation perimeter a minimum distance equalling 2 times the excavation's depth. Materials must not be stockpiled close to open excavations, and construction traffic must avoid being in proximity to open excavations. To protect against the adverse effects of erosion during construction, all ground surface drainage runoff should be directed away from the excavation area(s). Appropriate design and installation of any shoring is the responsibility of the Contractor.

Prior to any excavated soils being taken offsite for reuse and/or disposal during construction, the proponent should consult with an environmental specialist regarding any works required by O.Reg. 406/19 regarding excess soils.

Solely from a geotechnical perspective; it is possible that portions of the excavated fill material could be reused onsite as some form of backfill for pavement subgrade and/or trench backfill, pending approval at the time of construction. This would require separation of the higher-quality fill materials (sand and gravel with no organics, debris, or other deleterious materials) from the lesser-quality materials – note that operations to separate such materials may not be practical or feasible, given the potentially localized/isolated and random nature of the fill. Excavated soils are not considered suitable for reuse as backfill beneath any structural areas. The reuse of any excavated material onsite is conditional on it being workable, at a suitable moisture content, containing no organic matter, debris or other unsuitable / deleterious materials, and receiving final review and approval for such reuse at the time of construction. Soils that are otherwise acceptable but overly wet, will require prior processing (such as aeration) to lower their moisture content before being considered for approval as backfill material.

6.3 GROUNDWATER CONTROL DURING CONSTRUCTION

See Section 5.6 of this report for details regarding depth to groundwater encountered in the test pits. As noted, groundwater levels are subject to seasonal fluctuations and in response to weather events, and at any point in time may differ from those presented herein. Where groundwater is encountered, it is cautioned that any cohesionless (predominantly sandy or silty) soils can be easily disturbed, loosened, and may exhibit sloughing and flowing characteristics unless properly managed including lowering of the groundwater to at least 1m below the base of all excavations, and protection of the exposed final excavation subgrades from weather, construction traffic, and other potential sources of disturbances including groundwater upwelling.

Excavations remaining above the groundwater table are not expected to encounter significant groundwater infiltration, and in such excavations, any groundwater is expected to be controlled by pumping from collection sumps to an acceptable outlet.

The test pits did not extend into bedrock – should any construction excavations extend into the bedrock, it is possible that groundwater will be encountered within the bedrock via fractures and/or other discontinuities.

If any excavations will extend into the groundwater table, it is recommended the Contractor retain an experienced and qualified groundwater control specialist for this project should any excavations extend below the groundwater.

If short-term (construction) pumping of groundwater at volumes greater than 50,000 L/day is required during the construction stage, an Environmental Activity Sector Registry (EASR) is required per Ministry of Environment Conservation and Parks (MECP) regulations. In addition to the MECP requirements, pumping discharges must also conform to any requirements from the local municipalities, conservation agencies and any other jurisdictional agencies.

The preceding comments are intended for general reference and information only. The volume of any water taking will be dependent on the final design as well as the contractor's sequencing, equipment, techniques and overall methods. The Contractor is solely responsible for the design and implementation of any required unwatering and/or dewatering, including requirements for withdrawal, handling, treatment, and discharge.

6.4 FOUNDATIONS

The recommendations provided herein are based on the information obtained during Redstone's field and laboratory work. Updates to the geotechnical commentary and recommendations can be on-going as new information of the underground conditions becomes available. For example, more specific subsurface information becomes available once excavations and foundation construction is underway. In all cases, prior to placement of any lean concrete, fill, formwork, or foundations, all excavations must be inspected and approved by a qualified geotechnical engineer's representative to ensure that the foundation bearing material has been prepared properly at the foundation subgrade level and that the founding subgrade materials exposed are similar to those encountered during this investigation. Under no circumstances should the foundations be placed directly on organic materials, loose or frozen subgrade, construction debris, or within ponded water.

It is Redstone's understanding the proposed building will consist of a 6-storey, 55-unit, slab-on-grade (no basement), commercial hotel building. Based on information provided to Redstone, it is expected that the building's (and surrounding exterior) grades will closely match the existing grades (i.e., no significant cut or fill areas).

Structural loading for the new building may be supported on reinforced strip and spread concrete footings constructed either directly on sound competent bedrock or on engineered fill placed directly on the sound competent bedrock.

Due to the irregular / sloped / non-flat nature of the bedrock's surface, footings placed on the bedrock should either be suitably pinned into the bedrock and/or the footing's bedrock surface should be stepped per the OBC. To minimize or eliminate the increased differential settlements that could result from theoretical placement of building foundations on both such materials (noting that bedrock is highly rigid while engineered fill is non-rigid), it is recommended that all building foundations be placed consistently on either one or the other founding material throughout, as in; either directly on bedrock throughout, or on engineered fill (minimum 300mm thickness) throughout. Considering the irregular / variable bedrock surface, it is recommended that the construction tender require per-unit provisional line-item costs for concrete as well as Granular B Type II, to be applied when either material is used to effectively level the bedrock founding subgrade.

For design purposes, it is recommended that such footing foundations be proportioned using the parameters outlined in the following table (next page):

Table 2: Bearing Capacity Pressure / Geotechnical Resistance for Footings

PARAMETER (kPa)	SOUND COMPETENT BEDROCK	ENGINEERED FILL
		Gran B Type II
Bearing Capacity Pressure (SLS)	See ULS value (below) - the ULS value exclusively governs for foundations directly on sound bedrock	150
Geotechnical Resistance (ULS), resistance factor $\Phi = 0.5$ applied	500	225

The following is recommended for the construction of any engineered fill:

1. Prepare the subgrade in accordance with preceding sections of this report. This includes removing all existing vegetation, topsoil, fill, disturbed earth, any structures or infrastructure, construction debris, organics and organic-bearing soils to the competent and intact bedrock surface from within the area of the proposed engineered fill.
2. The area of the engineered fill should extend horizontally 1m beyond the outside edge of proposed foundations, then extend downward at a 1:1 slope to the competent bedrock.
3. The base of the engineered fill area must be approved by a qualified geotechnical engineer's representative prior to placement of any fill, to ensure that all unsuitable materials have been removed, that the materials encountered are similar to those observed during this investigation, and that the subgrade is suitable for the engineered fill.
4. To protect the approved bedrock subgrade from being compromised by subsequent construction traffic, bedrock slaking, and/or other degradations caused by exposure to weathering, place a minimum 75mm thick lean concrete mud directly on the approved subgrade.
5. Engineered fill materials should consist of Granular B Type II, placed up to underside (u/s) of the foundations. If lower zones of the excavation are overly wet, the use of a clear rock-based fill (eg: 100mm clear crushed stone) may be required to bring the fill level up out of any such wetter areas, encapsulated with filter fabric to minimize migration of fine-grained particles from surrounding soils into the rock-fill voids.
6. Prior to its use, all engineered fill material is to be approved by a qualified geotechnical engineer's representative at the time of construction.
7. Place approved engineered fill in maximum 200mm loose lifts, compacted to 100% SPMDD.
8. Full time testing and inspection of the engineered fill will be required, to ensure compliance with material and compaction specifications.

Engineered fill upon which the footings are placed must be a minimum thickness of 300mm, and the quality of any material considered for engineered fill must be approved prior to its use. Rock-based fill must be completely encapsulated with suitable filter fabric (to minimize any migration of fines from surrounding soils into the rock fill voids). Footings and foundation walls placed on engineered fill must be suitably reinforced; as a minimum, and unless specified otherwise on the

structural drawings, such reinforcement should consist of 2 continuous runs of 15M rebar throughout the footings, and 2 continuous runs of 15M rebar throughout the top and bottom of the foundation walls.

Self-weight settlement of engineered fill soil compacted to 98% to 100% of its SPMDD will depend on soil texture but should be anticipated to be in the range of 0.5% to 0.75% of the fill height. The rate of the settlement will also be a function of soil texture. For engineered fill consisting of Granular B material, a major portion (80% or higher) of the settlement due to the self-weight is expected to be completed during the construction stage before the placement of overlying features.

For frost protection purposes, the footings must be covered by at least 1.5m of earth (or equivalently insulated) in all directions. Backfill to foundations should be accomplished using non frost susceptible granular material.

For design purposes it is anticipated that the proposed elevator pit will extend into the bedrock, potentially below the groundwater table. In this case, drainage systems at the base level of the elevator pits are not recommended; instead, such elevator pits must be designed as water-tight structures and hydrostatic pressure on the pit walls and slab should be considered.

For design purposes and based on the confirmed presence of shallow bedrock, a seismic Site Class C is recommended. An upgraded Site Class may be achievable; however this would require further analysis such as site-specific shear wave velocity testing to confirm.

To assist in managing surficial drainage water and any infiltration of groundwater towards the building, an appropriately-outletted perimeter foundation drainage system around the building's perimeter foundations is recommended. Water collected from the perimeter drainage pipes must be directed away from the building to an appropriate frost free outlet. Additionally, site grading must promote drainage away from the building.

6.5 SLAB ON GRADE

It is Redstone's understanding that new building will be slab-on-grade with no basement or crawlspace or otherwise subgrade areas. The floor slab may be constructed as a normal slab-on-grade, on suitable fill over native, undisturbed inorganic subgrade soil or bedrock, prepared in accordance with Sections 6.2 and 6.3 of this report. The slab should be formed over suitable fill consisting of at least 150mm thickness of Granular A per OPSS 1010 (compacted to 100% SPMDD) or 19mm diameter crushed clearstone material (appropriately compacted into place to optimize its density and surrounded by filter fabric to minimize any migration of fine-grained particles into the clearstone). All grade increases or infilling below the Granular A or clearstone should be constructed in accordance with the engineered fill steps provided in Section 6.4 of this report. All fill placed as engineered fill must be inspected, approved and compaction verified by a qualified geotechnical engineer's representative.

6.6 SERVICE INSTALLATION (BEDDING & COVER)

This report assumes that service inverts will be no greater than 2 to 3mbeg. Based on the results of this investigation, proposed new service pipes for the development are expected to be founded in bedrock.

No pipe support issues are anticipated where the piping will be founded in bedrock provided all the recommendations contained in this report are adhered to. It is recommended that further inspections be carried out at the time of construction to verify that the subgrade exposed at the trench base are consistent with the findings in this report. The generally-expected bedding subgrade (bedrock) will provide adequate support for the proposed utility pipes, and will allow the use of normal Class B type bedding. Clearstone as bedding material should be used only if it is completely wrapped in a non-woven geotextile filter fabric and only with prior consent of the Municipality and geotechnical engineer.

The minimum bedding thickness is 150mm but this should be increased as dictated by the pipe diameter and subgrade materials encountered during construction. The compacted granular base and cover material for all pipes should consist of OPS Granular A type material per OPPSS 1010. All granular materials should be placed in maximum 150mm lift thicknesses, and compacted to minimum 98% SPMDD. Care should be exercised when compacting the cover material on top of the pipes to avoid damaging them. The use of light, hand operated compaction equipment is recommended in those situations.

6.7 PAVEMENT

The following recommendations are provided for the design and construction of new asphalt-paved parking and access areas for the site's proposed development.

1. Per Section 6.2, remove materials including all existing topsoil, fill, organics and organic bearing materials, and any other deleterious materials to their full depth, as well as frozen earth and boulders larger than 150mm in diameter encountered at subgrade elevation for the full width of construction. It is expected that this will remove all/any existing materials down to expose the bedrock surface.
2. Ensure the final surface grade of pavement areas will as a minimum accommodate the recommended pavement structure (see Table 3 below). Where necessary to buildup the subgrade below the recommended minimum pavement structure, use Granular B Type II per OPSS 1010.

3. In all cases, it is important that there be no pavement areas where groundwater is allowed to become trapped within pavement subgrade by the underlying bedrock surface. To minimize or avoid this:
 - a. wherever bedrock is present at less than 0.6m below final grade, shatter the bedrock to a minimum depth of 0.3m below the bedrock surface in accordance with OPSS procedures.
 - b. form positive slopes within the pavement subgrade's bedrock surfaces to allow drainage and avoid groundwater accumulation. Contour the subgrade surface to prevent ponding of water during the construction and to promote rapid drainage of the granular materials. If necessary, this may entail bedrock removal and/or installation of subdrains.
 - c. any subdrains should consist of minimum 100mm diameter perforated pipe encased in filter fabric and surrounded by clear stone aggregate, and outlet by gravity to appropriate drainage outlets (ie, ditches or stormwater drainage sewers).
 - d. ditching adjacent to the pavement (and/or a stormwater sewer drainage system) should be at sufficient depth throughout to allow full drainage of pavement granulars.
4. To minimize the effects of frost on differing subgrade materials, construct transitions between varying depths of granular base materials at a rate of 10H:1V or flatter.
5. Granular materials should consist of Granular A and B (Type II) conforming to the requirements of OPSS Form 1010 or equivalent. All granular materials should have an in-situ moisture content within 2% of their respective optimal moisture content, to assist in achieving appropriate compaction. The granular courses should be placed in uniform lifts not exceeding 200mm loose thickness and compacted to a minimum 100% of their respective SPMDDs.
6. All asphaltic concrete layers should be placed, spread, and compacted confirming to OPSS Form 310 or equivalent. All asphaltic concrete should be compacted to a minimum 92.0% of their respective laboratory Maximum Relative Densities (MRDs).
7. Inspection by a qualified geotechnical engineer's representative should be carried out during the construction process to verify the competence of the subgrade material and to verify the compaction densities of the pavement granular materials.

The recommended pavement structure for the proposed development is provided below:

Table 3: Pavement Structure

Profile	Material	Minimum Thickness (mm)	Per OPSS
Asphalt Surface	H.L. 3	40	1150
Asphalt Base	H.L. 8	50	
Granular Base	Granular A	300	1010

The recommended pavement structure is for the end use of the project. During construction of the project, the recommended granular depths may not be sufficient to support loadings encountered including construction traffic and equipment.

The foregoing design considers that construction is carried out during dry periods, at the appropriate above freezing temperatures, and that the subgrade is stable under construction equipment loadings. If construction is carried out during wet weather and heaving or rolling of the subgrade is experienced from the proof-rolling program, additional thickness of granular materials, geo-grids reinforcement or a combination of the two may be required.

The requirement for additional granular materials and / or utilization of geo-grids is best determined during construction under the direction of the geotechnical engineer. However, in view of the above, we recommend contingency items be included into the contract for subgrade stabilization using either technique so that such methods are contractually available, if needed during construction.

6.8 GENERAL RECOMMENDATIONS

6.8.1 Subgrade Sensitivity

The subgrade (soil and/or bedrock) is susceptible to strength loss, deformation, slaking, or other forms of being compromised if exposed to sufficient disturbances from construction traffic, saturation, and/or exposure to elements. Once the subgrade has been approved, care must be taken to protect the exposed subgrade from slaking/weathering (bedrock), excess moisture, and from construction traffic. If there is site work carried out during periods of wet weather and/or elevated groundwater levels, then it can be expected that the subgrade will be disturbed unless a suitable working surface is provided to protect the integrity of the subgrade from construction traffic. Subgrade preparation work cannot be adequately accomplished during overly wet weather, and the project must be scheduled accordingly.

6.8.2 Test Pitting During Tendering

It is strongly recommended that the proponent consider performing test pitting at representative location(s) of this site during the construction tendering phase, with mandatory attendance of bidding Contractors. This will allow them to make their own assessments of the soil, bedrock and groundwater conditions, and how these will affect their proposed construction methods, techniques and schedules.

6.8.3 Winter Construction

Soils encountered at the site can be frost-susceptible and freezing conditions could cause problems to preparations for foundation, sidewalks and/or pavement subgrades. As preventive measures, the following is recommended:

1. Exposed surfaces intended to support foundations must be protected against freezing by means of loose straw and tarpaulins, heating, etc.
2. Care must be exercised so that any sidewalks and/or asphalt pavements or other forms of hard surfacing features do not interfere with the opening of doors during the winter when the soils are subject to frost heave. This problem may be minimized by any one of several means including (but not necessarily limited to) keeping the doors well above outside grade, installing structural slabs at the doors, and/or by using well graded (non-frost susceptible) backfill and positive drainage.
3. Because of the potential for soils to experience frost heave during winter, it is recommended that exterior service trenches be excavated with shallow transition slopes to minimize the abrupt change in density and frost-susceptibility between the granular backfill (relatively non-frost susceptible) and native soils (generally more frost-susceptible).

6.8.4 Wells

Any wells that exist on site are the property and responsibility of the site owner. Any site wells that are not otherwise being utilized could be maintained, for the time being, to facilitate groundwater monitoring leading up to construction, and/or in support of any EASR or PTTW applications. Should such monitoring become unnecessary and any such wells become inactive and/or unmaintained, and in any case prior to or during initial stages of site construction, any such site wells must be decommissioned by an appropriately licensed well contractor in compliance with O.Reg.903.

6.8.5 Detailed Design & Review / Construction Inspections

Due to the preliminary nature of the design details at the time of this report, these recommendations should be considered preliminary, and should be confirmed or updated once the project advances into its detailed design stage. Redstone must be allowed to review the design and proposed grading plans during detailed design and prior to their finalization, and provide updated recommendations if necessary at that time. In addition, it is strongly recommended that Redstone be retained to review the related earthworks specifications when they are available.

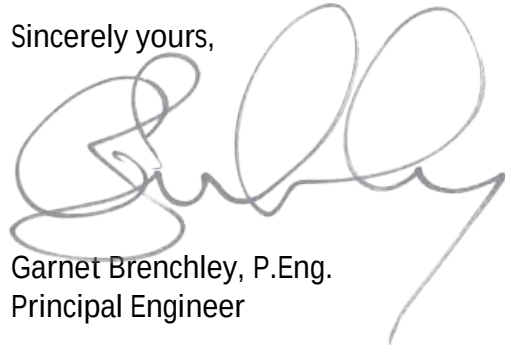
During construction, experienced geotechnical staff must observe construction activities and ensure geotechnical recommendations are carried out.

7.0 CLOSURE & STATEMENT OF LIMITATIONS

The recommendations made in this report are in accordance with Redstone's present understanding of the project. The subsurface investigation was performed in accordance with current, generally accepted guidelines. However, should any conditions at the site be encountered which differ from those at the test pit locations, it is requested that Redstone be notified immediately in order to permit a reassessment of our recommendations in light of the changed conditions and exact project details. Redstone requests that they be permitted to review the recommendations of this report after the drawings and specifications are complete, or if the final project details should differ from that mentioned in this report.

The attached Statement of Limitations is an integral part of this report. Should questions arise regarding any aspect of this report, please contact our office.

Sincerely yours,



Garnet Brenchley, P.Eng.
Principal Engineer



STATEMENT OF LIMITATIONS

This report is intended solely for Burleigh Falls Group Corporation and other parties explicitly identified in the report and is prohibited for use by others without Redstone's prior written consent. This report is considered Redstone's professional work product and shall remain the sole property of Redstone. Any unauthorized reuse, redistribution of or reliance on the report shall be at the Client and recipient's sole risk, without liability to Redstone. Client shall defend, indemnify and hold Redstone harmless from any liability arising from or related to Client's unauthorized distribution of the report. No portion of this report may be used as a separate entity; it is to be read in its entirety and shall include all supporting drawings and appendices.

The recommendations made in this report are in accordance with our present understanding of the project, the current site use, ground surface elevations and conditions, and are based on the work scope approved by the Client and described in the report. The services were performed in a manner consistent with that level of care and skill ordinarily exercised by members of geotechnical engineering professions currently practicing under similar conditions in the same locality. No other representations, and no warranties or representations of any kind, either expressed or implied, are made. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties.

All details of design and construction are rarely known at the time of completion of a geotechnical study. The recommendations and comments made in the study report are based on our subsurface investigation and resulting understanding of the project, as defined at the time of the study. We should be retained to review our recommendations when the drawings and specifications are complete. Without this review, Redstone will not be liable for any misunderstanding of our recommendations or their application and adaptation into the final design.

By issuing this report, Redstone is the geotechnical engineer of record. It is recommended that Redstone be retained during construction of any and all foundations, and during earthwork operations to confirm the conditions of the subsoil are actually similar to those observed during our study. The intent of this requirement is to verify that conditions encountered during construction are consistent with the findings in the report and that inherent knowledge developed as part of our study is correctly carried forward to the construction phases.

It is important to emphasize that a soil investigation is, in fact, a random sampling of a site and the comments included in this report are based on the results obtained at the seven (7) test pit locations only. The subsurface conditions confirmed at these seven (7) locations may vary at other locations. The subsurface conditions can also be significantly modified by construction activities on site (ex. excavation, dewatering and drainage, blasting, pile driving, etc.). These conditions can also be modified by exposure of soils or bedrock to humidity, dry periods or frost. Soil and groundwater conditions between and beyond the test locations may differ both horizontally and vertically from those encountered at the test locations and conditions may become apparent during construction which could not be detected or anticipated at the time of our investigation. Should any conditions at the site be encountered which differ from those found at the test locations, we request that we be notified immediately in order to permit a reassessment of our recommendations. If changed conditions are identified during construction, no matter how minor, the recommendations in this report shall be considered invalid until sufficient review and written assessment of said conditions by Redstone is completed.

FIGURES





APPENDIX A

TEST PIT LOGS

PROJECT NUMBER 25R122	EXCAVATING COMPANY Drain Bros Excavating	COORDINATES n/d
PROJECT NAME 6-Storey 55-Unit Hotel	LICENCE # n/a	COORDINATE SYSTEM n/d
CLIENT Burleigh Falls Group Corporation	EXCAVATOR Provided by Drain Bros	GROUND SURFACE ELEV (m) n/d
ADDRESS 4791 Highway 28	EXCAVATOR EQUIPMENT Tracked John Deere	TOP OF WELL CASING ELEV (m) n/a
..... Township of North Kawartha	 135G	TOTAL DEPTH (m) 0.91
..... Ontario	DATE EXCAVATED December 4, 2025	LOGGED BY G.Brenchley, P.Eng.
WELL COMPLETION n/a	CASING n/a	SCREEN n/a
COMMENTS Ground surface covered with snow, approx. -8degC, sunny		

Depth (m)	Sample (Interval and Type)	Moisture Cont (%)	Groundwater	Stratigraphy	Stratigraphic Description	Depth (m)	Additional Observations & Remarks	Depth (m)
0.1				TOPSOIL		0.10		0.1
0.2					EARTH FILL - reddish brown Sand and Gravel with Cobbles and Boulders present, trace to some Organics, moist, loose to compact			0.2
0.3	GS-1	4.5						0.3
0.4						0.46		0.4
0.5					ORGANICS - dark brown to black Organics with roots, some Gravel, moist, loose			0.5
0.6								0.6
0.7								0.7
0.8							Boulder/slab present above bedrock	0.8
0.9						0.91	Test pit remained open and free of groundwater accumulation	0.9
1					Test Pit terminated at refusal on Bedrock			1
1.1								1.1
1.2								1.2
1.3								1.3

PROJECT NUMBER 25R122	EXCAVATING COMPANY Drain Bros Excavating	COORDINATES n/d
PROJECT NAME 6-Storey 55-Unit Hotel	LICENCE # n/a	COORDINATE SYSTEM n/d
CLIENT Burleigh Falls Group Corporation	EXCAVATOR Provided by Drain Bros	GROUND SURFACE ELEV (m) n/d
ADDRESS 4791 Highway 28	EXCAVATOR EQUIPMENT Tracked John Deere	TOP OF WELL CASING ELEV (m) n/a
..... Township of North Kawartha	 135G	TOTAL DEPTH (m) 1.32
..... Ontario	DATE EXCAVATED December 4, 2025	LOGGED BY G.Brenchley, P.Eng.
WELL COMPLETION n/a	CASING n/a	SCREEN n/a
COMMENTS Ground surface covered with snow, approx. -8degC, sunny		

Depth (m)	Sample (Interval and Type)	Moisture Cont (%)	Groundwater	Stratigraphy	Stratigraphic Description	Depth (m)	Additional Observations & Remarks	Depth (m)
0.1				TOPSOIL		0.15		0.1
0.2					EARTH FILL - reddish brown well graded Sand with some Gravel, Cobbles and Boulders present (up to approx 0.6m diam), moist, loose to compact. Occasional rootlets and pockets of Organics			0.2
0.3	GS-1	6.2					GS-1: 19% Gravel, 75% Sand, 6% Silt and Clay	0.3
0.4								0.4
0.5								0.5
0.6								0.6
0.7								0.7
0.8								0.8
0.9						0.97		0.9
1				ORGANICS - dark brown to black Organics with roots, some Gravel, moist, loose				1
1.1								1.1
1.2								1.2
1.3			▽			1.32	Test pit remained open, groundwater seepage observed along top of bedrock	1.3
					Test Pit terminated at refusal on Bedrock			

PROJECT NUMBER 25R122 PROJECT NAME 6-Storey 55-Unit Hotel CLIENT Burleigh Falls Group Corporation ADDRESS 4791 Highway 28 Township of North Kawartha Ontario					EXCAVATING COMPANY Drain Bros Excavating LICENCE # n/a EXCAVATOR Provided by Drain Bros EXCAVATOR EQUIPMENT Tracked John Deere 135G DATE EXCAVATED December 4, 2025					COORDINATES n/d COORDINATE SYSTEM n/d GROUND SURFACE ELEV (m) n/d TOP OF WELL CASING ELEV (m) n/a TOTAL DEPTH (m) 0.66 LOGGED BY G.Brenchley, P.Eng.				
WELL COMPLETION n/a					CASING n/a					SCREEN n/a				
COMMENTS Ground surface covered with snow, approx. -8degC, sunny														
Depth (m)	Sample (Interval and Type)	Moisture Cont (%)	Groundwater	Stratigraphy	Stratigraphic Description	Depth (m)	Additional Observations & Remarks	Depth (m)						
0.1				TOPSOIL		0.13		0.1						
0.2				EARTH FILL - reddish brown Sand and Gravel, Cobbles, Organics, debris (metal pipe fragment), moist, loose				0.2						
0.3								0.3						
0.4								0.4						
0.5								0.5						
0.6						0.66	Test pit remained open and free of groundwater accumulation	0.6						
0.7					Test Pit terminated at refusal on Bedrock			0.7						
0.8								0.8						
0.9								0.9						
1								1						
1.1								1.1						
1.2								1.2						
1.3								1.3						

PROJECT NUMBER 25R122 PROJECT NAME 6-Storey 55-Unit Hotel CLIENT Burleigh Falls Group Corporation ADDRESS 4791 Highway 28 Township of North Kawartha Ontario				EXCAVATING COMPANY Drain Bros Excavating LICENCE # n/a EXCAVATOR Provided by Drain Bros EXCAVATOR EQUIPMENT Tracked John Deere 135G DATE EXCAVATED December 4, 2025				COORDINATES n/d COORDINATE SYSTEM n/d GROUND SURFACE ELEV (m) n/d TOP OF WELL CASING ELEV (m) n/a TOTAL DEPTH (m) 0.81 LOGGED BY G.Brenchley, P.Eng.			
WELL COMPLETION n/a				CASING n/a				SCREEN n/a			
COMMENTS Ground surface covered with snow, approx. -8degC, sunny											
Depth (m)	Sample (Interval and Type)	Moisture Cont (%)	Groundwater	Stratigraphy	Stratigraphic Description	Depth (m)	Additional Observations & Remarks	Depth (m)			
0.1				TOPSOIL		0.05		0.1			
0.2				EARTH FILL - intermixed pockets and layers of brown Sand with some Gravel, grey limestone screenings, gravel clearstone, Cobbles, Organics, debris (wire), moist, loose				0.2			
0.3	GS-1	5.6						0.3			
0.4								0.4			
0.5								0.5			
0.6								0.6			
0.7						0.71		0.7			
0.8				ORGANICS - dark brown to black Organics with roots, some Gravel, moist, loose				0.8			
						0.81	Test pit remained open and free of groundwater accumulation				
0.9					Test Pit terminated at refusal on Bedrock			0.9			
1								1			
1.1								1.1			
1.2								1.2			
1.3								1.3			

PROJECT NUMBER 25R122 PROJECT NAME 6-Storey 55-Unit Hotel CLIENT Burleigh Falls Group Corporation ADDRESS 4791 Highway 28 Township of North Kawartha Ontario	EXCAVATING COMPANY Drain Bros Excavating LICENCE # n/a EXCAVATOR Provided by Drain Bros EXCAVATOR EQUIPMENT Tracked John Deere 135G DATE EXCAVATED December 4, 2025	COORDINATES n/d COORDINATE SYSTEM n/d GROUND SURFACE ELEV (m) n/d TOP OF WELL CASING ELEV (m) n/a TOTAL DEPTH (m) 0.00 LOGGED BY G.Brenchley, P.Eng.
WELL COMPLETION n/a CASING n/a SCREEN n/a		
COMMENTS Ground surface covered with snow, approx. -8degC, sunny		

Depth (m)	Sample (Interval and Type)	Moisture Cont (%)	Groundwater	Stratigraphy	Stratigraphic Description	Depth (m)	Additional Observations & Remarks	Depth (m)
0.1					Test Pit terminated at refusal on Bedrock (exposed at ground surface)	0.00		0.1
0.2								0.2
0.3								0.3
0.4								0.4
0.5								0.5
0.6								0.6
0.7								0.7
0.8								0.8
0.9								0.9
1								1
1.1								1.1
1.2								1.2
1.3								1.3

PROJECT NUMBER 25R122 PROJECT NAME 6-Storey 55-Unit Hotel CLIENT Burleigh Falls Group Corporation ADDRESS 4791 Highway 28 Township of North Kawartha Ontario	EXCAVATING COMPANY Drain Bros Excavating LICENCE # n/a EXCAVATOR Provided by Drain Bros EXCAVATOR EQUIPMENT Tracked John Deere 135G DATE EXCAVATED December 4, 2025	COORDINATES n/d COORDINATE SYSTEM n/d GROUND SURFACE ELEV (m) n/d TOP OF WELL CASING ELEV (m) n/a TOTAL DEPTH (m) 0.00 LOGGED BY G.Brenchley, P.Eng.
WELL COMPLETION n/a CASING n/a SCREEN n/a		
COMMENTS Ground surface covered with snow, approx. -8degC, sunny		

Depth (m)	Sample (Interval and Type)	Moisture Cont (%)	Groundwater	Stratigraphy	Stratigraphic Description	Depth (m)	Additional Observations & Remarks	Depth (m)
0.1					Test Pit terminated at refusal on Bedrock (exposed at ground surface)	0.00		0.1
0.2								0.2
0.3								0.3
0.4								0.4
0.5								0.5
0.6								0.6
0.7								0.7
0.8								0.8
0.9								0.9
1								1
1.1								1.1
1.2								1.2
1.3								1.3

PROJECT NUMBER 25R122	EXCAVATING COMPANY Drain Bros Excavating	COORDINATES n/d
PROJECT NAME 6-Storey 55-Unit Hotel	LICENCE # n/a	COORDINATE SYSTEM n/d
CLIENT Burleigh Falls Group Corporation	EXCAVATOR Provided by Drain Bros	GROUND SURFACE ELEV (m) n/d
ADDRESS 4791 Highway 28	EXCAVATOR EQUIPMENT Tracked John Deere	TOP OF WELL CASING ELEV (m) n/a
..... Township of North Kawartha	 135G	TOTAL DEPTH (m) 1.02
..... Ontario	DATE EXCAVATED December 4, 2025	LOGGED BY G.Brenchley, P.Eng.
WELL COMPLETION n/a		
CASING n/a		
SCREEN n/a		
COMMENTS Ground surface covered with snow, approx. -8degC, sunny		

Depth (m)	Sample (Interval and Type)	Moisture Cont (%)	Groundwater	Stratigraphy	Stratigraphic Description	Depth (m)	Additional Observations & Remarks	Depth (m)
0.1				TOPSOIL		0.15		0.1
0.2				EARTH FILL - reddish brown Sand with some Gravel, Cobbles present, moist, loose to compact				0.2
0.3	GS-1	7.5						0.3
0.4								0.4
0.5								0.5
0.6								0.6
0.7								0.7
0.8				ORGANICS - dark brown to black Organics with roots, moist, loose		0.76		0.8
0.9								0.9
1						1.02	Test pit remained open and free of groundwater accumulation	1
1.1				Test Pit terminated at refusal on Bedrock				1.1
1.2								1.2
1.3								1.3

APPENDIX B

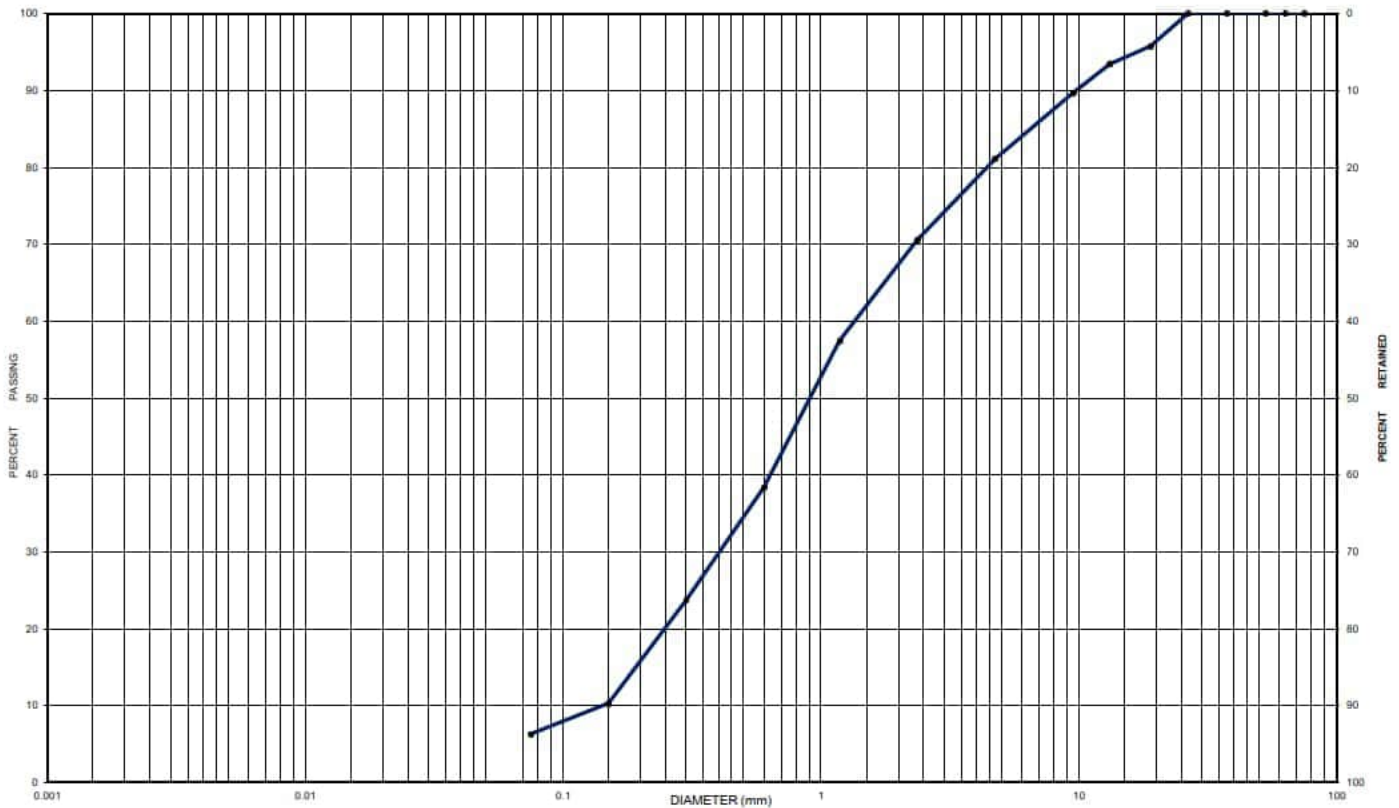
LABORATORY DATA

GRAIN SIZE DISTRIBUTION CHART

Client: *Redstone Engineering*
 Project: *Hotel Development*
 Sample By: *Garnet Branchley*
 Sample No.: *TP-2 GS-1*

Project No.: *25R122*
 Location: *Burleigh Falls, Ontario*
 Date: *December 4, 2025*
 Depth: *1.0 - 2.0'*

UNIFIED SOIL CLASSIFICATION SYSTEM					
CLAY & SILT (<0.075mm)	SAND (<4.75 to 0.075mm)			GRAVEL (>4.75mm)	
	FINE	MEDIUM	COARSE	FINE	COARSE



CLAY	SILT	VERY FINE	FINE	MEDIUM	COARSE	FINE GRAVEL	GRAVEL
		SAND					

U.S. BUREAU OF SOILS CLASSIFICATION

Sample No.	Depth	Description	Moisture Content	Gravel	Sand	Silt & Clay	Class.
<i>TP-2 GS-1</i>	<i>1.0 - 2.0'</i>	<i>SAND, well graded some gravel</i>	<i>6.2</i>	<i>19</i>	<i>75</i>	<i>6</i>	<i>SM</i>