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Construction Materials Testing

SUBSURFACE INVESTIGATION AND GEOTECHNICAL EVALUATION

PROPOSED ACADIA GATEWAY CENTER

TRENTON, MAINE

Conducted for
Allied Engineering, Inc.
Portland, Maine
February 2008

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Allied Engineering, Inc. February 17, 2008
Attn: Mr. William P. Faucher, P.E.
160 Veranda Street
Portland, Maine 04103

Subject: Subsurface Investigation and Geotechnical Evaluation
Proposed Acadia Gateway Center
Trenton, Maine

1. INTRODUCTION

1.1 General

In accordance with our Agreement, we have conducted a subsurface investigation for the Proposed Acadia Gateway Center in Trenton, Maine. The purpose of the investigation was to explore the subsurface conditions and offer geotechnical recommendations related to foundation design and earthworks associated with the proposed constructions. Details of our findings, geotechnical evaluation, and recommendations are provided in this report and should be carefully reviewed.

This report is subject to the limitations outlined in Appendix A. In the same appendix important information is included about the report.

1.2 Site Description

As shown on Fig. 1 of Appendix B, the proposed Acadia Gateway Center in Trenton is located off Route 3, approximately 7 miles from Ellsworth, Maine. About half of the area of the project is currently vegetated with mature and immature mixed tree growth whereas the rest is open field.

Ground elevations range between about +70 (east end-intersection with Route 3) to about +120 (west end of project). Ground surface elevations at the Visitor's/Welcome Center area range almost between +75 and +80 while at the Bus Transportation Maintenance area elevations range from about +107 and +112.

The proposed access road crosses Crippens Brook located between Station 30+00 and 31+00.

1.3 Proposed Construction

Based on information provided by Allied Engineers, Inc., it is our understanding that the proposed project includes:

(1) An access road over 3000 feet long.

(2) An Intermodal/Welcome Facility Center that comprises one-story buildings including a theater. It is our understanding that the buildings' finished floor elevation is +82 to +83.

(3) Parking Facilities along the access road.

(4) Bus Transportation Maintenance and Operations Building with Parking Facility. It is our understanding that the buildings' finished floor elevation is +112.5 to +113.5.

Fig. 2 to Fig. 4 in Appendix provided by the Maine DOT show the arrangement of the different structures of the project.

2. EXPLORATIONS AND TESTING

2.1 General

Field explorations were made at the site to determine the subsurface conditions and provided samples for laboratory testing.

The boring locations along the access road were selected in the field by FGS/CMT, inc. personnel based on the roadway centerline stakes placed by Maine DOT survey personnel. MDOT also laid out the boring locations surrounding the approximate location of the Welcome Center buildings. Additional borings were requested by FGS/CMT, inc. within the actual building locations to better assess the soft soil conditions found at the site.

Boring locations for the Bus Transportation Maintenance and Operations Building area were staked by Maine DOT personnel. Boring locations for investigating the subsurface conditions in the Parking Facilities along the access road were selected by FGS/CMT, inc. personnel using cloth-taped measurements from the roadway centerline stakes.

The exploration locations as surveyed by the Maine DOT personnel are shown in Figs. 2-4 included in of Appendix B.

2.2 Exploration and Testing

The exploration program included the drilling of:

- 17 seventeen borings (B1-B17) along the Access Road
- 16 sixteen borings (F1-F16) for the Intermodal/Welcome Facility Center
- 10 ten borings (P1-P10) in the various Parking Facilities
- 4 four borings (M1-M4) for the Bus Transportation Maintenance and Operations Building

Borings were drilled by Maine Test Borings, Inc. of Brewer, Maine. Borings B1-B5 and F1-F11 were drilled in the period 12/19/07-12/20/07. The boring program was halted since the

remaining boring locations had not been laid out. The remaining borings were drilled from 01/17/08 to 01/23/08.

Boring depths ranged from 3.0 ft (P-1) to 23.3 ft (F-12). Drilling or probing in various borings encountered refusal depths ranging between 3.0 ft (P1) and 23.3 (F12). Refusal was caused by encountering cobbles, boulders, weathered bedrock or bedrock. The cause of refusal was not determined since rock core sampling was not part of the scoped exploration program.

The borings were drilled using 2 ½" hollow stem augers (HSA). Soil samples were obtained by driving a standard split-spoon sampler two feet into the soil with a 140 lb weight that was dropped 30 inches. The blow counts per six inches were recorded and the six-inch to eighteen-inch interval was used to determine the standard penetration resistance of the soil. In two borings, namely F12 and F13 undisturbed Shelby tube samples were obtained to assess the soft soil conditions.

Logs of the test borings, based on field notes and our observations and testing of soil samples are attached in Appendix C. The surface elevations at the test boring locations in the Welcome Center, as provided by the Maine DOT, are noted on the test boring logs.

2.3 Laboratory Testing

The recovered soil samples were visually examined and classified. Laboratory testing performed on selected samples included: the determination of moisture content, Atterberg Limits, grain size analyses, unconfined compression tests and consolidation tests. The results of laboratory tests are given in Appendix D.

3. SUBSURFACE CONDITIONS

This section summarizes the subsurface soil and groundwater conditions at the site.

3.1 Soil conditions at boring locations

Based on our site observations the native soils in the project area generally consisted of glacial-marine clays over glacial till over bedrock east of Crippens Brook and glacial till over bedrock west of Crippens Brook.

Explorations west of Crippens Brook area (B11-B17, M1-M4, P1-P5)
Test boring results showed that in the investigated locations the subsurface materials below a topsoil cover consisted generally of glacial till covered in places by a layer of sandy silt and at places silty sand. The latter layer was encountered B14, B15, P4, P5 and M4. Based on SPT values (varied between N= 20 and N= 52) materials of this layer may be characterized as a medium dense to dense.

The encountered till was very dense with SPT N-values mainly between N=55 and refusal. SPT spoon sampler refusal was common in the till. Glacial till can be described as an unsorted, non-stratified, heterogeneous mixture of clay, silt, sand-gravel and boulders, mixed and inter-bedded of varying proportions. The moisture content 'w' of till material varied mainly between w=8.5% and w=14.5%.

With the exception of borings P2, B14, B15, refusal was generally encountered, most likely bedrock, within 3.0 to 6.5 feet below ground surface (bgs). In boring M4 broken rock pieces were encountered at 11.5 ft bgs. A few boulders over 5 feet diameter were observed on the surface.

Explorations east of Crippens Brook area (B1-B10, F1-F16, P6-P10)
Test borings encountered glacial marine deposits of the Presumpscot Formation overlying till and eventually bedrock. Surficial layers of topsoil and some sandy silt (assumed to be disturbed by plowing) were found over the silty clay/clayey silt of the Presumpscot.

The topsoil (brown sandy silt/silty sand with some organics), at the exploration locations, was mostly 0.5 to1.5 feet thick.

The Presumpscot Formation generally consisted of brown, desiccated silty clay and at places clayey silt, grading to brown, brown-gray clay over gray clay and gray clay with sand seams. The SPT values varied mainly between N=15 -43 in the upper parts and N=3-6 in the lower parts of the formation.

The SPT values, N, in the brown silt/clay layer varied widely between N=10 and N=70, with the majority of the values concentrated between N=15 and N=48. Large N values ranging between N= 37 and N= 70 were encountered mainly at the upper parts of the brown silt/clay layer at borings F12, F13, F15, F16, B6, B10 and P6-P10. Low SPT values ranging between N= 9 and N=15 were encountered at the lower parts of the brown clay layer in borings F3, F7, F8, F9, F10, F11, and F16. Based on SPT values the brown, brown-gray clay is stiff to hard in the upper parts and stiff to the lower parts of the layer.

Pocket penetrometer testing and unconfined compression tests on spoon samples indicated unconfined uniaxial strength that ranged from more than 4.0 tsf in the upper parts of the layer to about 1.0 tsf in the lower parts of the brown clay. The brown silty clay had moisture contents ranging mostly from 23% to 30%. At places the brown clay exhibited strong inherent layering while in other places contained silty-sandy seams or sand.

Gray clay was drilled at depths starting from 6 to 13 feet bgs in the borings of the Intermodal/Welcome Facility Center area; this clay was encountered in all but borings F1, F2, F4, and F5. N values of the gray clay varied mainly between N=6 and N=10. Gray clay with fine sand seams was encountered under the gray clay in most of the borings of the Intermodal/Welcome Facility Center area. The sand seams lowered the consistency of the clay resulting in STP values that ranged between N=3 and N=6. Based on SPT values the consistency of the gray clay/ gray clay with sandy seams is soft /medium stiff to stiff.
Pocket penetrometer testing and unconfined compression tests on spoon samples indicated unconfined uniaxial strength ranging mainly between 0.50 tsf and 1.5 tsf. Pocket vane shear tests indicated vane shear strength values ranging between 0.36 tsf to 0.95 tsf. Six field shear vane tests in borings F12 and F13 resulted in vane shear strength values ranging between 0.74 tsf and 2.0 tsf for peak strength and between 0.21 tsf and 1.16 tsf for residual strength.
The moisture content of the gray clay and gray clay with sand seams varied between 25% and 33%. The values of liquid limit and plasticity index for the brown and gray ranged as follows: LL= 26-40 and PI= 9-20.

In general, the strength of the clay deposit decreased with the depth.

Hard till was encountered in most of the Intermodal/Welcome Facility Center area borings below the gray clay; till was not encountered in borings F7 or F11. STP values ranged from N=37 to N= refusal; sampler refusal was common in the till. Rod probes conducted in borings F12 and F14 suggest the till is present at these locations at about 21 to 23 feet. Till in borings F10 and F16 was encountered at about 24 feet and 16.5 feet bgs while in boring F5 at 4.8 feet bgs. Till was also encountered in borings B8, B9, B10 and P6 at depths ranging between 3.0 ft and 6.5 ft bgs.

Shallow bedrock was presumably encountered at B3 (1.9 feet bgs) and at F4 (4.1 feet bgs), indicating that a small bedrock ridge probably exists at the easterly end of the project site that extends a short way into the proposed Welcome Facility Center area. In the latter area, refusal (probable bedrock), was also encountered in borings F1 (14.7 feet bgs), F2 (10.5 feet bgs), F3 (14.5 feet bgs), F5 (9.2 feet bgs), F6 (21 feet bgs), and F8 (20.5 feet bgs).

The subsurface conditions described above, are of a generalized nature to highlight the major subsurface stratification features and material characteristics. The boring logs attached should be reviewed for specific information at individual boring locations.

3.2 Groundwater Conditions

Water was observed, in most of the borings, at depths ranging from just below the ground surface to 7.0 ft bgs with the exception in the area of borings F1-F16 where water was observed at depths lower than 10 ft bgs. Nevertheless the brown clay encountered at the upper parts of the ground was found mottled and strongly desiccated at places an indication of seasonal water movement in these parts. Silty sand in B16 had rust streaks just above the bedrock, indicating that groundwater likely fluctuates seasonally.

Water measurements were made at the end of the drilling. The water level observations refer only to the time and location of borings mentioned above. Water levels fluctuate seasonally and may differ at the time of construction. It is anticipated that the ground water might be closer to the ground surface during seasonal wet periods. In addition, because of spatial variations in the type and lateral extend of the materials underlying the site, localized variations in groundwater elevation should be anticipated.

4. EVALUATION AND RECOMMENDATIONS

The following geotechnical recommendations have been developed on the basis of the previously described project characteristics and subsurface conditions encountered.
If there are any further information or changes in these project criteria referring to structures location, foundation and design plans, column loads and grading, a review should be made by FGS/CMT, inc. to determine if modifications to the recommendations are warranted.

Based on the topography of the site, the finished floor elevations of the structures (see section 1.3 of the report) and the subsurface conditions, it is anticipated that engineered fill will be placed at the Intermodal/Welcome Facility Center area (up to 5-6 ft thick) and the Bus Transportation Maintenance and Operations Building area (almost up to 5 ft thick). It is therefore anticipated that foundations for the Intermodal/Welcome Facility Center will rest on brown silt/clay or structural fill while the foundations for the Bus Transportation Maintenance and Operations Building on till, fill or rock.

Site soils are frost susceptible and have poor drainage characteristics. These conditions need to be considered in the design of this project.

4.1 Site Preparation

Based on the topography of the site, initial site preparation should include removing vegetation, topsoil, organics, and other undesirable matter. Leveling the site will require varying amounts of cut and fill. Excavation and fill recommendations are provided in the following sections.

4.2 Excavation

Excavation work will encounter materials susceptible to loss of strength when subjected to construction traffic and excavation activities, particularly during periods of precipitation. Therefore, care must be exercised during construction to minimize the disturbance of the bearing soils. Should the subgrade become yielding or difficult to work, the soft subgrade material should be removed and replaced with compacted structural fill or crushed stone (see section 4.3).

In general the bedrock surface is erratic. We recommend that documentation shall contain a contingency for bedrock removal by blasting. It seems that excavation of rock for foundation or utility construction works is likely required in The Bus Transportation Maintenance and in portions of the Operations Building and Intermodal/Welcome Center Facility areas. Rock excavation might be required along some parts of the access road. In addition, excavation of large boulders for the various structures of the project should not be disregarded.

The contractor should anticipate the need for dewatering in excavations. Ditching with gravity drainage and use of sumps and pumping appear to be adequate.

Once the required depth of excavation is reached, it is recommended that a representative of FGS/CMT, Inc., should be called to visually inspect the cleared surface, particularly within the building footprint. This inspection should occur prior to the placement of any fill or the construction of any footing.

Other subgrade recommendations that apply to the proposed construction include the following:

- subgrade soils are susceptible to disturbance and strength loss due to construction traffic. Equipment and personnel should not be permitted to travel across exposed foundation bearing surfaces.
- subgrades should be protected against freezing
- final excavation to bearing grade should be performed with great care using appropriate equipment. Disturbed bearing areas should be re-compacted or excavated and replaced with compacted structural fill or crushed stone

4.3 Engineered Fill

Fill used beneath the foundation footprint or for bringing the subgrade to the required elevation for placing foundations or subbase materials for pavement or road construction, shall meet the gradation requirements of structural fill. Fill materials should be free from organic matter, contaminants, frozen material, and other deleterious substances. Maximum particle sizes should not exceed two thirds of the proposed loose lift thickness.

In open areas, structural fill beneath roads, slabs and foundations should be placed in loose layers not exceeding 8 inches and compacted by self-propelled compaction equipment. The fill should be placed or conditioned to its optimum moisture content and compacted to at least 95% of its maximum density after ASTM D-1557. In confined areas, maximum particle size and loose layer thickness should be reduced to 3 inches and 6 inches respectively, and the compaction performed by hand-guide equipment.

Structural fill should be clean granular material meeting the following gradation:

STRUCTURAL FILL

Sieve Size	Percent Finer by Weight
4 inch	100
3 inch	60-100
¼ inch	25-90
#40	0-60
#200	0-7.0

Fill soils placed adjacent to the foundations and walls and within 6 inches of floor slab as well as in exterior foundations such as light pole bases should be sound clean granular material meeting the following gradation:

Select Backfill	
Sieve Size	Percent Finer by Weight
4 inch	100
3 inch	90-100
¼ inch	25-90
#40	0-30
#200	0-5.0

Lift thickness should be such that desired density is achieved throughout the lift thickness with 3 to 5 passes of the compaction equipment.

Crushed stone shall be used as a cushion layer for pipe bedding for perimeter and underslab foundation drains. It can also be used as drainage material behind walls.

The crushed stone material should comply with the following gradation requirements:

Crushed Stone	
Sieve Size	Percent Finer by Weight
1 inch	100
3/4 inch	60 –100
1/2 inch	10 – 50
3/8 inch	0 – 20
# 4	0 - 5.0

The stone pieces should be free from organic matter, contaminants, frozen material, and other deleterious substances. They will consist of angular, sound, not weathered or altered and not elongated rock pieces. Pieces from schistose rock are not acceptable.

Crushed stone, whenever used for structurally bearing purposes (beneath footings, slabs, pavements) should be compacted to at least 100% of its dry rodded unit weight as determined by ASTM C-29. Care should be taken to avoid 'pumping' effect (bringing water to the surface) on the fine-grained soils

Before the backfilling of any excavated area the exposed subgrade should be observed by a representative of FGS/CMT, inc. or the geotechnical engineer to ensure that it is ready for fill placement.

Filling operations should be continuously observed and documented with field density tests. Samples of fill materials should be submitted to FGS/CMT laboratory for examination and testing prior to placement.

4.4 Foundation Recommendations

Details of the foundation preparation are provided in the following subsections. In addition to the recommendations provided herein, foundation design and construction should be done in accordance with applicable codes and regulatory agency requirements.

Foundation Depth – Native soils at the site are frost susceptible. The depth of frost penetration is estimated to be about 5 ft. Exterior footings of heated buildings or footings of unheated buildings, constructed on engineered fill or native soils, should be placed at least 5 feet below the lowest adjacent ground surface exposed to freezing. Interior footings for heated buildings should be founded a minimum of 3.0 feet below the ground floor slab. Any decrease in these minimum dimensions without proper measures may have an adverse effect on the behavior of the foundation.

Bearing Capacity –

Intermodal/Welcome Facility Center: Based on SPT blow counts, site observations and laboratory test results, the native glaciomarine silty clay is stiff to hard in higher elevations and soft to medium stiff in lower.

For footing design we recommend using a maximum allowable contact pressure of 2,000 psf (pound per square foot) for footings constructed on the brown glaciomarine silty clay or compacted structural fill over it. This bearing pressure is based on the imported fill beneath the footings being compacted to at least 95% of its maximum dry density determined after ASTM D1557.

It is essential that care be taken to limit the introduction of water to the glaciomarine silty clay soils during construction and to limit disturbance of the foundation interface. Should this surface become soft or disturbed and difficult to work, the softened material should be excavated and replaced with compacted structural fill or ¾ inch crushed stone. Otherwise, a reduction in bearing capacity may occur, resulting in an increase in the amount of differential movement of the foundation.

Extreme care should be given not to excavate down to the gray glaciomarine silty clay as the higher water content makes it typically more susceptible to remolding and strength loss. Disturbed gray clay should be removed and the disturbed area should be brought back to grade by placing a sand blanket over the undisturbed material, having

the first layer of structural fill slightly compacted over it, and increasing the compaction effort with each successive layer of structural fill. Alternatively a geofabric sheet might replace the sand blanket without restricting the required compaction energy over the structural fill.

While the loads from the buildings are not known at this time, it is expected that the post-construction settlements due to the loads of one-story buildings and fill will be up to 1.75 inches.

Bus Transportation Maintenance and Operations Building- For footing design we recommend using a maximum allowable contact pressure not exceeding 4,000 psf (pound per square foot) for footings constructed on the till, fill, or rock.

While the loads from the building are not known at this time, post –construction settlements are expected be less than 0.75 inch.

Minimum footing dimension should be 24 inches in width, regardless of the bearing pressure.

In an attempt to minimize potential differential settlements due to variations in the foundation soils and bedrock elevations, the recommendations put forth in the previous and subsequent sections of this report must be followed.

Seismic Considerations - Based on the subsurface conditions encountered in the test borings, the results of in situ and laboratory tests and Table 1615.1 of the International Building Code 2003 (IBC), the site is classified as site class C for seismic-design considerations.

4.5 Other Foundation Considerations

The soils encountered at the site are frost susceptible and have poor drainage characteristics. These conditions need to be considered in the design of this project. Recommendations for these conditions and other foundation details are included in this section.

Foundation Drainage – It is generally good practice to install underdrains along the perimeter of buildings to account for unanticipated changes in climatic conditions and the regional and site hydrogeology and to minimize moisture problems. Therefore, we recommend that exterior and interior underdrains be provided near footing grade along perimeter walls of the buildings. Underdrains should have perforations of 1/4 to 5/8-inch. We recommend that at least 6 inches of crushed stone bedding be provided around the underdrains and that the stone be wrapped with geotextile filter fabric such as Mirafi 140N or of equivalent performance characteristics. The underdrains must have positive gravity outlets or sump pumps should be provided to remove the collected water. Outlets or sump pumps shafts should be inspected on a periodic basis to assure that the drains are functioning as designed.

In addition, particular attention should be given to the development of surface as well as subgrade drainage. Paved areas should be graded to promote surface drainage to away from structures and entrance areas. Subgrade will be sloped to facilitate and enhance water drainage. Although these precautions will reduce frost and moisture

related problems, frost will penetrate into the subgrade and some frost heaving and distress of pavement should be anticipated.

In areas that are not to be paved or occupied by entrance slabs the exterior foundation backfill should be sealed with a surface layer of clayey or loamy soil, at least 12 inches thick, in order minimize the amount of surface water infiltration adjacent to the foundation.

Control Joints - To minimize the impacts of potential differential settlements, it is recommended that control joints be provided in the foundation walls, floor slabs, and masonry building walls to accommodate post-construction deformations and shrinkage in the concrete, as it cures.

Control joints in the floor slabs should be used at intervals of 12 to 15 ft, unless other provisions are made for controlling random cracking. The structural engineer should review the control joint spacing.

For foundation walls control joints should be used in areas where the foundation steps up or down in elevation or where it crosses materials with a contrasting difference in their stiffness characteristics (e.g. soil and rock).

Slab-on- Grade - Slab on-grade for the building should be supported on a 6 inches layer of crushed stone resting on structural fill that is at least 6 inches thick and compacted to at least 95% of its maximum dry density as determined by ASTM D-1557. The crushed stone shall be compacted to at least 100% of its dry rodded unit weight per ASTM C-29. Any existing fill or natural fill underlain the slab shall be proofed rolled prior to placing any structural or crushed stone fill. Proof rolling shall consist of a minimum of three passes in a north-south direction and then three passes in an east-west direction using a large vibratory roller.

The crushed stone layer will act as a capillary break, preventing moisture from being drawn up next to the slab. It will also enhance drainage to the exterior footing drains and under-slab drains and it will provide a firm, dry working surface during construction. We recommend that a vapor retarder be placed directly below the floor slabs to reduce water vapor transmission. In such case a layer of non-woven geotextile fabric placed over the crushed stone will reduce the potential for punctures within the vapor retarder.
The vapor retarder should be placed according to manufacturer's recommendations, including taping all joints and wall connections. Floor suppliers should be consulted for acceptable retarder systems that can be used along with their products. Nevertheless, factors such as cost and special construction considerations suggest that the architect-engineer and owner should be responsible for decision-making on the use of vapor retarding membranes-systems.

Exterior slabs should be isolated from the building. These slabs should be constructed to function as independent units. Movement of these slabs should not be transmitted to the building foundation or superstructure.

Sidewalks and Entrances - The site soils are susceptible to frost heaving. Entrances and sidewalks will be affected by frost action. We recommend these areas to be excavated at least 5.0 feet below finished grade and backfilled with compacted clean

granular fill meeting the select fill or crushed stone gradation specifications. The select fill should extend from the building 8 feet outward or more, at entrances and 4 feet or more, at sidewalk locations.

To reduce the potential for abrupt differential movement due to frost action, transition of select or crushed stone fill thickness should be gradual (3 horizontal to 1 vertical) and be provided from the 5-foot depth to the fill base thickness at the sidewalk and paved areas away from the building. This fill should be placed in 8 in. lifts and compacted to at least 95% of its maximum dry density (ref.: ASTM D-1557). . If this fill is to extend below the seasonal water table, under-drains should be provided at the base of this fill and linked to the building's foundation drain system.

Vehicle Parking Areas - We expect that there will be parking areas subjected primarily to passenger car traffic while some other to bus and/or service truck traffic. Therefore we present for your consideration the following preliminary pavement recommendations:

Section (I)- mainly passenger car traffic
1.5 in. of 9.5 mm MDOT Superpave Mix
2.0 in. of 19 mm MDOT Superpave Mix
6.0 in. MDOT Crushed Aggregate Base, Type A.
15.0 in. MDOT Aggregate Subbase, Type D

Section (II)- areas with truck/bus traffic
1.5 in. of 9.5 mm MDOT Superpave Mix
2.5 in. of 19 mm MDOT Superpave Mix
6.0 in. MDOT Crushed Aggregate Base, Type A.
18.0 in. MDOT Aggregate Subbase, Type D

The asphalt pavement should be compacted to at least 94% of the Theoretical Maximum Density - TMD (ref.: AASHTO T-209). Verification of field-testing should be achieved by use of at least three cores cut per lift of pavement placed.

The Designer based on traffic loads, volume, and the owner's design life requirements and specifications should engineer/select the actual pavement section component thickness. The above sections may be considered as representative of typical local construction practices, and as such, the owner and designer should anticipate the need for periodic maintenance.

All fill placed below the base materials as well as base materials should be compacted to at least 95% of their maximum dry densities as determined by ASTM D-1557.

Particular attention should be given to slope subgrade, subbase and finished pavement surfaces in order to facilitate drainage. Nevertheless, due to frost action it is anticipated that frost penetration into site fills and some pavement distress will take place.

Road Pavement-- Though no data related to traffic and road performance requirements are available we present for your consideration the following preliminary road pavement section:

1.5 in. of 9.5 mm MDOT Superpave Mix
2.5 in. of 19 mm MDOT Superpave Mix
6.0 in. MDOT Crushed Aggregate Base, Type A (2" minus)
18.0 in. MDOT Aggregate Subbase, Type D (6" minus)

The Designer based on traffic loads, volume, and the owner's design life requirements and specifications should engineer/select the actual pavement section component thickness.

Construction During Winter - In case that the foundation construction takes place during winter, foundations and basement slabs must be protected during freezing conditions. No concrete should be placed on frozen ground and once placed the soil beneath the structure has to be protected from freezing.

Site soils are moisture sensitive and subgrades are susceptible to disturbance during wet conditions. Site work and construction activities should take appropriate measures to protect exposed subgades.

Quality Control - It is recommended that the excavation and foundation phases of the work be observed by FGS/CMT inc. to assure consistency with design concepts, specifications and design recommendations of this report. In the event that the subsurface conditions are found to differ from those anticipated at the start of construction FGS/CMT, inc. should be contacted to make any necessary changes to the recommendations found in this report.

5. CLOSING

We request that FGS/CMT, Inc. be provided with the opportunity to view the final design and specifications to determine that our earthwork and foundation recommendations have been properly interpreted and implemented.

It has been a pleasure to assist you in this phase of the project. If you have any questions, please call us

Sincerely
FGS/CMT, inc.

Miltiades Zacas, PhD, P.E.
Senior Geotechnical Engineer

STATE OF MAINE
ZACAS
MILTIADES
No. 8391
LICENSED
PROFESSIONAL ENGINEER

APPENDICES

Appendix A : Limitations – Important information about your Geotechnical Engineering Report

Appendix B : Figures

Appendix C : Test Boring Logs

Appendix D : Laboratory Test Results

Appendix A: Limitations – Important information about your Geotechnical Engineering Report

Limitations

This report has been prepared for the exclusive use of Allied Engineering, Inc. for the specific application to the Proposed Acadia Gateway Center in Trenton, Maine. Copies of the report may be given to contractor(s), with the contract documents, to disclose information relative to the project. Nevertheless, the report has not been prepared to serve as the plans and specifications for actual construction without the appropriate interpretation by the project architect, structural engineer, and/or civil engineer. Reproduction and distribution of this report must be authorized by the client and FGS/CMT, inc.

This work was done in accordance with generally accepted geotechnical principles and practices, with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions for the period in which this work was accomplished. No other warranty, expressed or implied, is made.

The analyses and recommendations contained in this report are preliminary and are based in part upon the data obtained from the referenced subsurface explorations and information provided by others. It is recommended that the architect, civil engineer and structural engineer along with any other design professionals involved in the project carefully review the conditions and characteristics of the proposed construction assumed in this report to ensure they are consistent with the actual planned development. When discrepancies exist, they should be brought to our attention to ensure they do not affect the conclusions and recommendations provided herein have been correctly interpreted.

The results of the investigation indicate subsurface conditions only at the specific locations and times, and only at the depths observed. They do not reflect the actual environmental or stratigraphic variations that may exist between such locations. The validity of the recommendations is based in part on assumptions about the stratigraphy made by FGS/CMT, Inc. If subsurface conditions different from those described are observed during construction, it will be necessary to reevaluate the findings and recommendations of this report.

It must be noted that the findings presented do not represent scientific certainties and are based on professional judgment. The conclusions regarding the condition of the site do not represent a warranty that all areas within the site and beneath structures are of the same quality as those observed, or that the site contains no hazardous substances or latent conditions beyond those detected or observed during the investigation.

FGS/CMT, Inc. is not responsible for any claims, damages, or liability associated with interpretation of subsurface data or the reuse of the subsurface data for engineering analysis by others.

No attempt has been made to verify the findings and recommendations of others, or to verify the compliance of the past or present owners and/or occupants of the property with local, state, or federal laws and regulations.

Important Information About Your

Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. *No one except you* should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one—not even you*—should apply the report for any purpose or project except the one originally contemplated.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, *do not rely on a geotechnical engineering report* that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions *only* at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an *opinion* about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final,* because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject To Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce such risks, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations", many of these provisions indicate where geotechnical engineers responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Rely on Your Geotechnical Engineer for Additional Assistance

Membership in ASFE exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.

ASFE PROFESSIONAL FIRMS PRACTICING IN THE GEOSCIENCES

8811 Colesville Road Suite G106 Silver Spring, MD 20910
Telephone: 301-565-2733 Facsimile: 301-589-2017
email: info@asfe.org www.asfe.org

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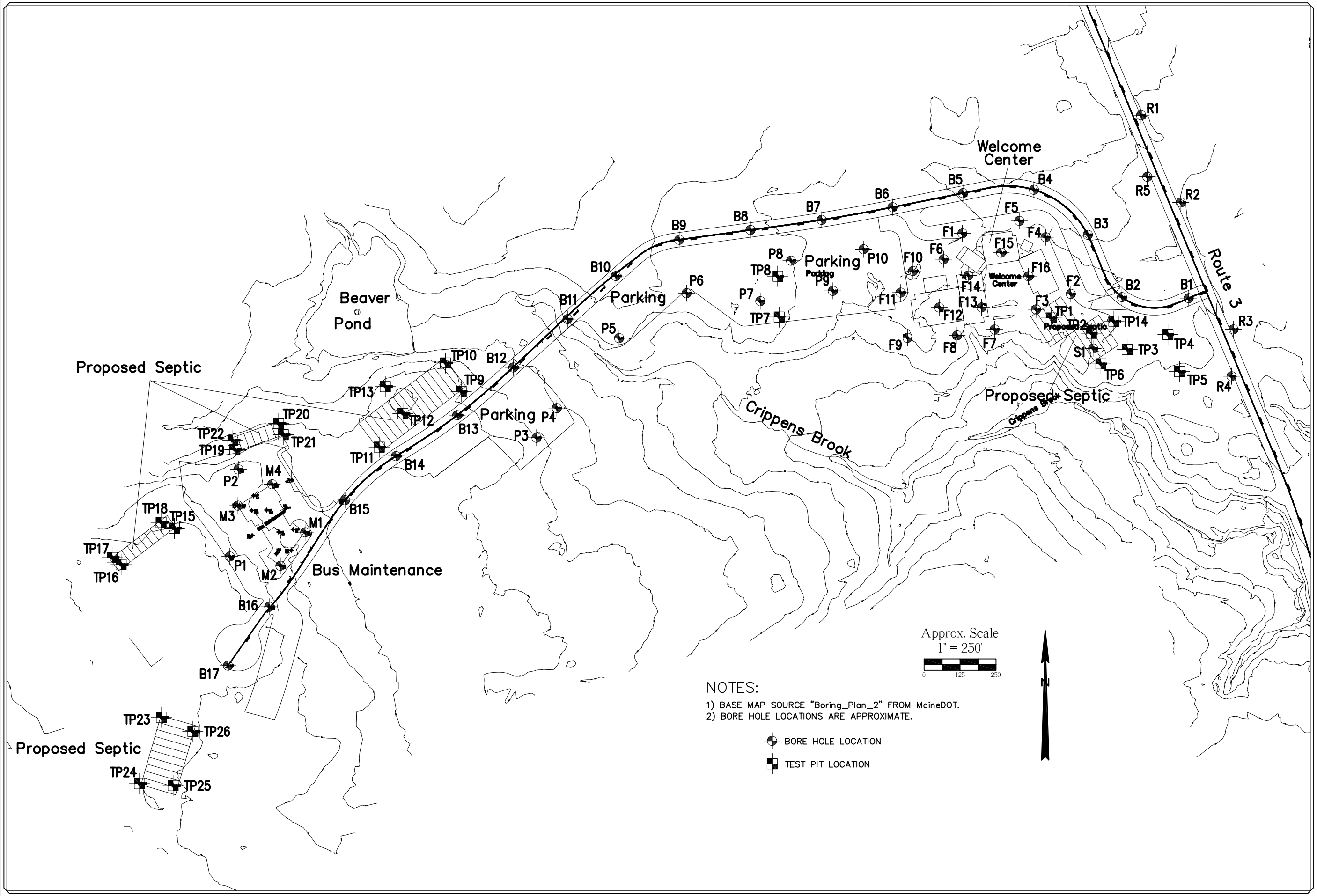
Appendix B : Figures



NOTES:

1) BASE MAP SOURCE "Boring_Plan_2" FROM MaineDOT.
2) BORE HOLE LOCATIONS ARE APPROXIMATE.

BORE HOLE LOCATION

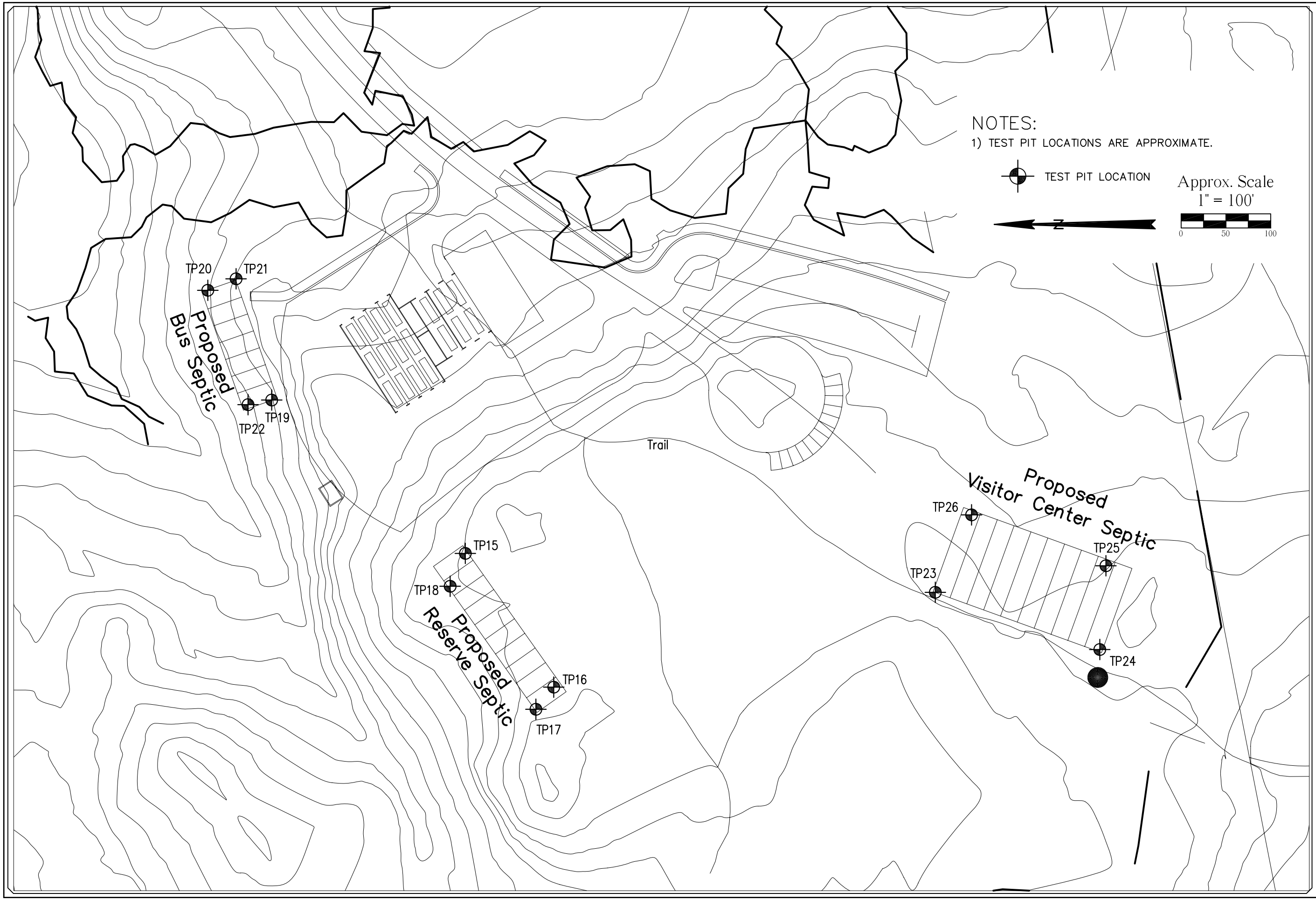
TEST PIT LOCATION

FGS/CMT
Fessenden Geo-Environmental Services
Construction Materials Testing
PO Box 2097, 136 Maine Avenue
Bangor, Maine 04401
tel. (207) 947-3184 1-877-CMT-TEST
fax. (207) 990 - 1194

Acadia Gateway Center
Trenton, Maine

Site Layout and
Boring and Test Pit Locations

Date: 06/06/08 Drawn By: JAH
File: Acadia Checked By: AAF
Sheet Number:
1



FGS/CMT
Fessenden Geo-Environmental Services
Construction Materials Testing
PO Box 2097, 136 Maine Avenue
Bangor, Maine 04401
tel. (207) 947-3184 1-877-CMT-TEST
fax. (207) 990 - 1194

Acadia Gateway Center
Trenton, Maine

Test Pit Locations
Septic Areas by Bus Maintenance

Date: 06/06/08 Drawn By: JAH
File:Septic:AtBusChecked By:AAF

Sheet Number:
2

NOTES:

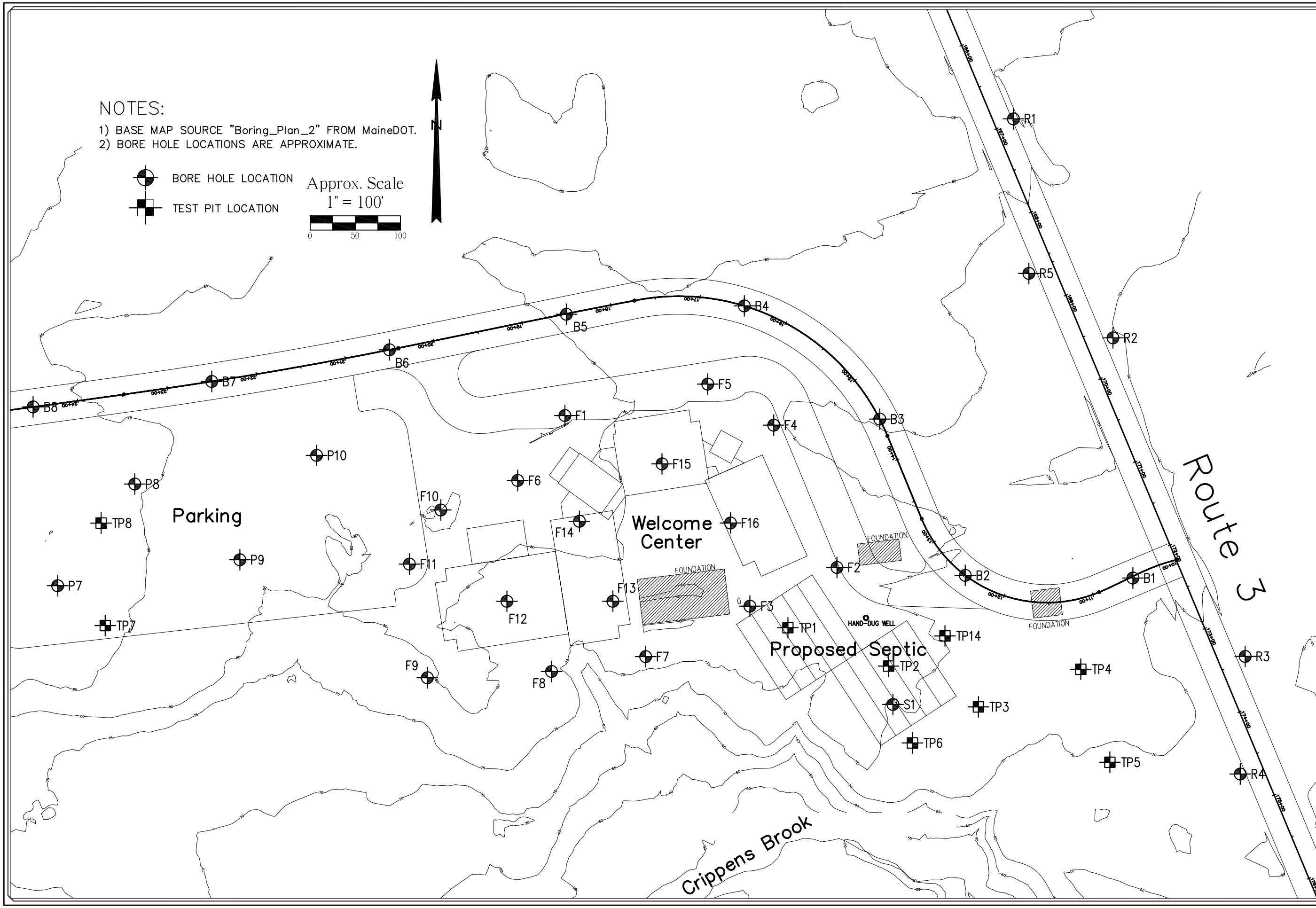
1) BASE MAP SOURCE "Boring_Plan_2" FROM MaineDOT.
2) BORE HOLE LOCATIONS ARE APPROXIMATE.

BORE HOLE LOCATION

TEST PIT LOCATION

Approx. Scale
1" = 100'
0 50 100

N

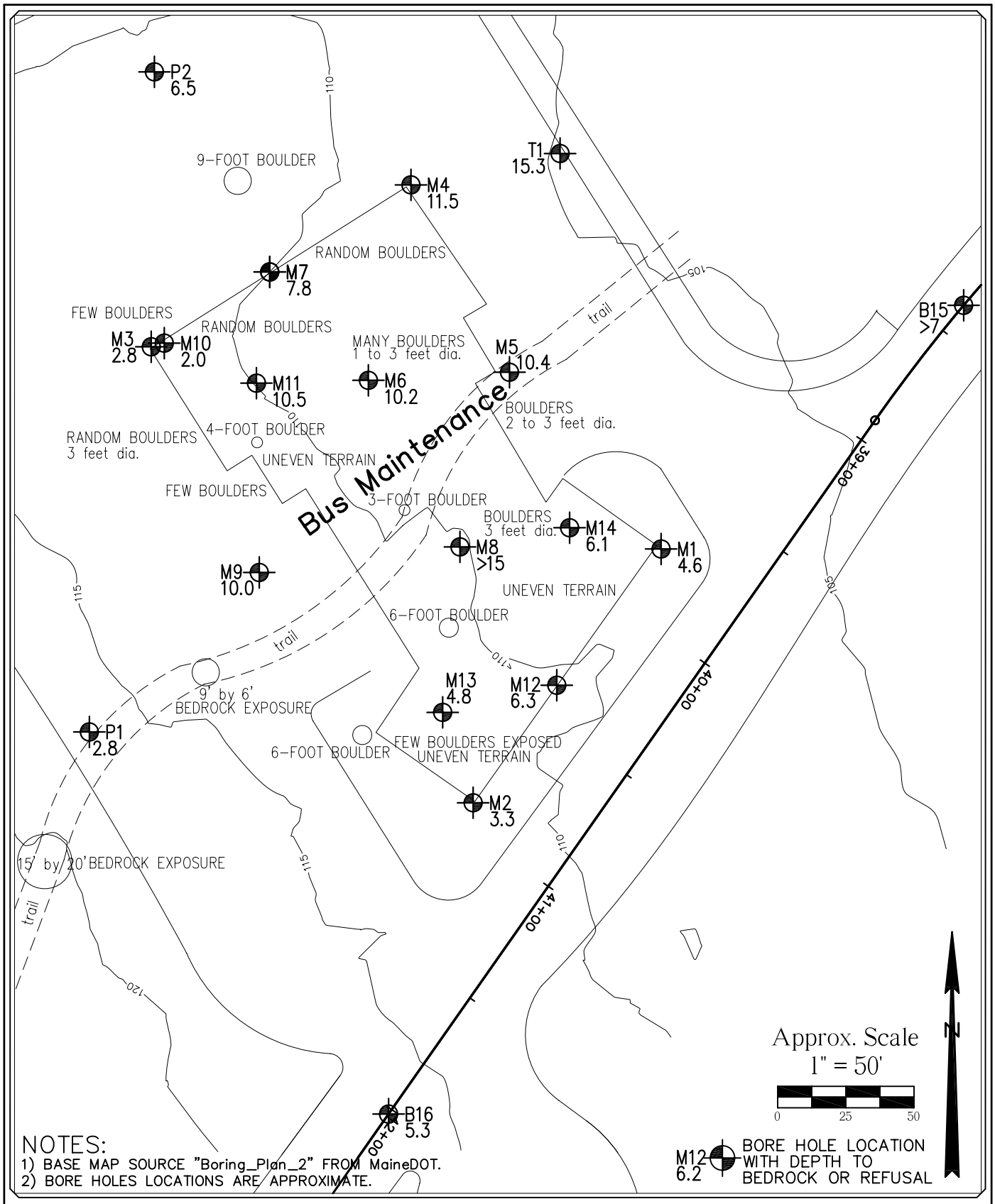


FGS/CMT inc.
Fessenden Geo-Environmental Services
Construction Materials Testing
PO Box 2097, 136 Maine Avenue
Bangor, Maine 04401
tel. (207) 947-3184 1-877-CMT-TEST
fax. (207) 990 - 1194

Acadia Gateway Center
Trenton, Maine

Boring and Test Pit Locations
Welcome Facility Center and Route 3

Date: 06/06/08 Drawn By: JAH
File: Acadia Checked By: AAF
Sheet Number:
3



NOTES:
1) BASE MAP SOURCE "Boring_Plan_2" FROM MaineDOT.
2) BORE HOLES LOCATIONS ARE APPROXIMATE.

Date: 06/06/08 Drawn By: JAH
File: Acadia Checked By: AAF
Sheet Number:
4

Acadia Gateway Center
Trenton, Maine

Boring Locations
Bus Maintenance Area

Fessenden Geo-Environmental Services
Construction Materials Testing
PO Box 2097, 136 Maine Avenue
Bangor, Maine 04401
tel. (207) 947-3184 1-877-CMT-TEST
fax. (207) 990 - 1194
FGS/CMT inc.

Appendix C : Test Boring Logs

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-1
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		12/19/2007	12/19/2007
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
												Brown Fine Sandy Silt
											1.0	w/Some Organics
											2.1	Brown Fine Sandy Silt
	1D	2"	24"		4.0	8	12	19	24			
												Brown Mottled Silty Clay
	2D	2"	24"		7.0	12	14	14	17		7.0	
												Bottom of Boring @ 7.0'
												Dry

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. B-1

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-2
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		12/19/2007	12/19/2007
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Brown Fine Sandy Silt w/Some Organics, w/Trace of Gravel
	1D	2"	24"		4.0	3	6	11	25		2.2	Brown Fine Sandy Silt w/Trace of Gravel
											6.0	Brown Mottled Silty Clay
											7.0	Brown Silty Clay w/Fine Sand Layers
	2D	2"	24"		7.0	12	11	10	10			Bottom of Boring @ 7.0' Dry

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. B-2

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-3
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA			12/19/2007	12/19/2007
	SIZE I.D.	2-1/2"				
	HAMMER WT.				SURFACE ELEV:	
	HAMMER FALL					

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
												Brown Fine Sandy Silt
											0.8	w/Some Organics
												Brown Silty Fine Sand
											1.9	w/Some Coarse Sand, w/Trace of Gravel
											3.5	Weathered Rock
												Refusal @ 3.5'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. B-3

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-4
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		12/19/2007	12/19/2007
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Brown Fine Sandy Silt w/Some Organics
												Brown Fine Sandy Silt w/Trace of Clay
	1D	2"	24"		4.0	6	10	10	16		4.0	
											6.0	Brown Silty Clay w/Trace of Fine Sand
											6.5	Brown Silty Fine Sand
	2D	2"	24"		7.0	6	6	11	30		7.0	Brown Silty F/C Sand w/Some Gravel
												Bottom of Boring @ 7.0' Caved @ 6.9' Water @ 6.5'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. B-4

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-5
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		12/19/2007	12/19/2007
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.5	Brown Organic Silt
											2.5	Brown Fine Sandy Silt
	1D	2"	24"		4.0	4	9	12	13			
											6.0	Brown Mottled Silty Clay
	2D	2"	24"		7.0	5	7	5	7		7.0	Brown Silty Fine Sand
												Bottom of Boring @ 7.0' Caved @ 6.8' Water @ 5.8'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. B-5

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-6
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/21/2008	1/21/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Brown Organics w/Sandy Silt
	1D	2"	24"		4.0	10	22	28	44		5.0	Brown Mottled Clay
	2D	2"	24"		7.0	10	13	17	15		7.0	Brown Mottled Clay w/Silt Layers
												Bottom of Boring @ 7.0' Caved & Damp @ 5.0'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. B-6

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-7
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/21/2008	1/21/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Brown Organics w/Sandy Silt
	1D	2"	24"		4.0	7	11	12	14		5.0	Brown Mottled Silty Sandy Clay
											6.5	Brown Sandy Silt w/Clay Layers
	2D	2"	24"		7.0	5	5	5	36		7.0	Brown Coarse Sand w/Trace of Gravel

Bottom of Boring @ 7.0'
Water @ 6.2'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. B-7

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-8
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/21/2008	1/21/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											0.5	Brown Organics w/Sandy Silt
											3.0	Brown Mottled Silty Clay
	1D	2"	18"		3.5	11	11	65				Brown Silty Gravelly Sand
	2D	2"	24"		7.0	10	14	7	6		7.0	

Bottom of Boring @ 7.0'
Caved @ 5.6' Water @ 5.0'

SAMPLES
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:
XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. B-8

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-9
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/21/2008	1/21/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											0.5	Brown Sandy Silt w/Organics
	1D	2"	24"		4.0	9	12	14	15			Brown Mottled Silty Clay
											5.5	w/Silt Layers
	2D	2"	19"		6.6	6	12	24	50		6.6	Brown Silty Gravelly Sand

Refusal @ 6.6'
Caved @ 4.8' Water @ 1.2'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. B-9

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-10
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/21/2008	1/21/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Brown Sandy Silt w/Organics
	1D	2"	24"		4.0	20	20	23	32			Brown Mottled Sandy Silt
											6.0	
	2D	2"	24"		7.0	12	30	40	75		7.0	Brown Silty Gravelly Sand
												Bottom of Boring @ 7.0' Caved @ 3.7' Water @ 2.9'

SAMPLES

D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:

XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. B-10

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-11
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/21/2008	1/21/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											0.5	Brown Silty Gravelly Sand w/Organics
	1D	2"	8"		2.7	29	65				2.7	Brown Silty Gravelly Sand
											3.5	Rock
												Refusal @ 3.5'
												Dry

SAMPLES

D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:

XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. B-11

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-12
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/21/2008	1/21/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Brown Silty Gravelly Sand, w/ Rock & Organics
	1D	2"	24"		4.0	19	20	28	65		4.0	Brown Silty Gravelly Sand
	D	2"	0"	0"	5.0	50					5.0	Decomposed Rock

Refusal @ 5.0'
Water @ 4.2'

SAMPLES

D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:

XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. B-12

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-13
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/22/2008	1/22/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Brown Silty Sandy Gravel w/Organics
	1D	2"	24"		4.0	22	38	54	65		4.5	Brown Silty Gravelly Sand, w/Trace of Cobbles
	D	2"	0"	0"	5.0	50					5.0	Decomposed Rock
												Refusal @ 5.0' Open Hole: Water @ 1.0'

SAMPLES

D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:

XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. B-13

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-14
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/23/2008	1/23/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											0.5	Brown Sandy Silt w/Organics
	1D	2"	24"		4.0	11	14	15	21		5.5	Brown Mottled Sandy Silt
	2D	2"	24"		7.0	45	42	33	55		7.0	Brown Silty Gravelly Sand, w/Trace of Cobbles
												Bottom of Boring @ 7.0' Caved & Wet @ 4.6'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. B-14

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-15
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/23/2008	1/23/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											0.5	Brown Sandy Silt w/Organics
	1D	2"	24"		4.0	22	25	27	32			Brown Mottled Sandy Silt
	2D	2"	24"		7.0	7	10	10	15		7.0	

Bottom of Boring @ 7.0'
Caved @ 6.2' Water @ 5.3'

SAMPLES
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:
XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. B-15

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-16
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/22/2008	1/22/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											0.5	Brown Silty Gravelly Sand w/Organics
	1D	2"	20"		3.7	32	50	66	70		5.3	Brown Silty Gravelly Sand
	2D	2"	5"		5.4	125					5.4	Rock

Refusal @ 5.4'
Caved & Dry @ 5.1'

SAMPLES
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:
XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. B-16

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. B-17
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/22/2008	1/22/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											0.5	Brown Gravelly Silty Sand w/Organics
	1D	2"	6"		2.5	92						Brown Gravelly Silty Sand
											6.5	
	2D	2"	23"		6.9	25	32	23	100		6.9	Decomposed Rock

Refusal @ 6.9'
Caved @ 5.8' Water @ 3.9'

SAMPLES
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:
XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. B-17

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. F-1
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		12/19/2007	12/19/2007
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Brown Fine Sandy Silt, w/Some Organics
	1D	2"	24"		4.0	4	6	11	31		2.5	Brown Mottled Clayey Silt, w/Some Fine Sand
	2D	2"	24"		7.0	17	18	16	17		6.5	Brown Mottled Silty Clay, w/Some Fine Sand
											11.0	Brown Silty Fine Sand, w/Trace of Clay & Gravel
	3D	2"	24"		12.0	2	2	4	5		11.5	Gray Mottled Silty Clay
											12.5	Gray Silty Fine Sand, w/Silty Clay Layers
											14.7	Gray Silty Fine-Coarse Sandy Gravel
	4D	2"	4"		15.2	50					15.2	Weathered Rock
												Refusal @ 15.2' Dry in Augers Caved @ 12.7' Water @ 7.9'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. F-1

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. F-2
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		12/19/2007	12/19/2007
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											0.5	Brown Fine Sandy Silt, w/Some Organics
	1D	2"	24"		4.0	13	16	19	32		1.0	Brown Silty Fine-Medium Sand, w/Trace of Organics
											4.5	Brown Mottled Silty Clay
	2D	2"	24"		7.0	6	7	8	9		9.0	Brown Silty Fine Sand w/Some Clay, w/Some Silty Fine Sand Layers
											10.5	Brown Fine to Coarse Sandy Gravel
	3D	2"	7"		10.6	20	50				10.8	Weathered Rock

Refusal @ 10.8'
Dry in Augers
Caved @ 10.1' Water @ 9.7'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. F-2

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. F-3
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		12/19/2007	12/19/2007
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
												Brown Fine Sandy Silt
											0.5	w/Some Organics
												Brown Fine to Medium Sandy Silt,
	1D	2"	24"		4.0	9	9	14	22		1.5	w/Some Gravel
	2D	2"	24"		7.0	9	11	16	18			Brown Mottled Silty Clay,
											8.0	w/Fine Sand
												Brown Silty Clay,
	3D	2"	24"		12.0	3	6	8	10		11.5	w/Trace of Fine Sand
											13.2	Brown Silty Fine Sand w/Trace of Clay
											14.5	Brown Silty Fine-Coarse Sandy Gravel
	D	2"	0"	0"	15.0	50					15.0	Weathered Rock
												Refusal @ 15.0'
												Dry in Augers
												Caved & Dry @ 9.3'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. F-3

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. F- 4
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		12/20/2007	12/20/2007
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.5	Brown Fine Sandy Silt, w/Some Organics
	1D	2"	24"		4.0	12	11	9	24		4.1	Brown Mottled Silty Fine Sandy Clay
											4.9	Weathered Rock

Refusal @ 4.9'
Caved & Dry @ 4.2'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. F- 4

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. F- 5
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		12/19/2007	12/19/2007
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.5	Brown Fine Sandy Silt, w/Some Organics
	1D	2"	24"		4.0	7	9	10	15		4.8	Brown Mottled Silty Fine Sandy Clay
	2D	2"	24"		7.0	19	16	21	20		9.2	Brown Silty Fine to Coarse Sandy Gravel

Refusal @ 9.2'
Dry in Augers
Caved @ 9.0' Water @ 8.0'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. F- 5

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. F- 6
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		12/19/2007	12/19/2007
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.		BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Brown Fine Sandy Silt, w/Some Organics
	1D	2"	24"		4.0	6	8	9	13		4.0	Brown Mottled Silty Clay, w/Some Fine Sand
	2D	2"	24"		7.0	8	10	15	19			
	3D	2"	24"		12.0	5	7	7	10		13.0	Brown Mottled Silty Clay
											14.0	Gray Silty Clay
	4D	2"	24"		15.0	1	2	2	2			
	5D	2"	24"		17.0	1	2	1	1		17.5	Gray Silty Clay w/Fine Sand Layers
	6D	2"	12"		21.0	4	59				21.0	Gray Silty Fine-Coarse Sandy Gravel

Refusal @ 21.0'
Dry in Augers
Caved & Dry @ 14.0'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. F- 6

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. F-7
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		12/20/2007	12/20/2007
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.5	Brown Silty Fine-Medium Sand, w/Some Organics
	1D	2"	24"		4.0	3	4	6	9		4.5	Brown Mottled Fine Sandy Silt, w/Some Clay
	2D	2"	24"		7.0	12	17	19	22			Brown Mottled Silty Clay
	3D	2"	24"		12.0	4	7	9	9		13.0	
	4D	2"	18"		17.0	3	4	6			19.0	Gray Silty Clay
	5D	2"	24"		22.0	1	3	2	4		22.0	Gray Silty Clay w/Fine Sand Layers
												Bottom of Boring @ 22.0' Dry in Augers Caved & Dry @ 19.5'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. F-7

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. F-8
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		12/20/2007	12/20/2007
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Brown Fine Sandy Silt, w/Some Organics
	1D	2"	24"		4.0	10	12	16	27			
	2D	2"	24"		7.0	6	7	8	8		8.0	Brown Mottled Silty Clay w/Some Fine Sand
	3D	2"	24"		12.0	4	4	7	8		13.0	Brown Silty Clay
	4D	2"	24"		17.0	2	2	2	2		19.0	Gray Silty Clay
											20.5	Gray Silty Fine-Coarse Sandy Gravel
	5D	2"	8"		20.7	23	50				20.7	Weathered Rock

Refusal @ 20.7'
Water in Augers @ 19.0'
Caved @ 19.4' Water @ 18.4'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. F-8

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. F-9
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		12/20/2007	12/20/2007
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Brown Fine Sandy Silt, w/Some Organics
	1D	2"	24"		4.0	8	8	16	24		4.5	Brown Mottled Silty Clay, w/Some Fine Sand
	2D	2"	24"		7.0	9	15	21	29		11.0	Brown Mottled Silty Clay
	3D	2"	24"		12.0	4	5	5	6		13.5	Brown Silty Clay, w/Some Fine Sand Layers
											16.4	Gray Silty Clay w/Fine Sand Layers
	4D	2"	24"		17.0	2	2	4	23		17.0	Gray Fine-Coarse Sandy Gravel

Bottom of Boring @ 17.0'
Water in Augers @ 13.9'
Caved @ 14.0' Water @ 11.9'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. F-9

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. F-10
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		12/20/2007	12/20/2007
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.5	Brown Organic Silt
	1D	2"	24"		4.0	6	6	6	7		4.0	Brown Silty Mottled Clay, w/Some Fine Sand Layers
											6.0	Brown Silty Clay
	2D	2"	24"		7.0	2	2	3	5			
	3D	2"	24"		12.0	1	2	4	4			Gray Silty Clay
											15.5	
	4D	2"	24"		17.0	1	2	4	3			
	5D	2"	24"		22.0	1	2	3	2			Gray Silty Clay, w/Some Fine Sand Layers
											23.0	
	6D	2"	24"		24.0	2	2	17	34		24.0	Gray Silty Fine-Coarse Sandy Gravel

Bottom of Boring @ 24.0'
Water in Augers @ 14.2'
Caved @ 19.9' Water @ 13.5'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. F-10

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. F-11
DRILLER Jerry Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		12/20/2007	12/20/2007
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Brown Fine Sandy Silt w/Some Organics
	1D	2"	24"		4.0	4	7	10	15			
	2D	2"	24"		7.0	6	8	10	12		8.5	Brown Mottled Fine Sandy Silty Clay
	3D	2"	24		12.0	4	5	7	8		15.5	Brown Silty Clay
	4D	2"	24"		17.0	2	2	4	4		17.0	Gray Silty Clay, w/Some Fine Sand Layers
												Bottom of Boring @ 17.0' Dry in Augers Caved & Dry @ 14.0'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. F-11

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. M-1
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/22/2008	1/22/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
	1D	2"	12"		3.0	50	76					Brown Silty Gravelly Sand, w/Cobbles
											4.6	
												Refusal @ 4.6'
												Caved @ 3.4' Water @ 0.8'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. M-1

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. M-2
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/22/2008	1/22/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
												Brown Silty Gravelly Sand
	1D	2"	16"		3.3	30	70	75			3.3	
											4.3	Decomposed Rock
												Refusal @ 4.3'

SAMPLES

D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:

XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. M-2

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. M-3
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/22/2008	1/22/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Rusty Silty Gravelly Sand w/Organics
	1D	2"	7"		2.6	57	50				2.8	Brown Silty Gravelly Sand w/Cobbles
											4.1	Decomposed Rock
												Refusal @ 4.1'
												Caved & Dry @ 4.0'

SAMPLES

D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:

XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. M-3

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. M-4
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/22/2008	1/22/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											0.5	Brown Silt
											2.0	Brown Silty Fine Sand, w/Trace of Gravel
	1D	2"	18"		3.5	20	58	100				
	2D	2"	24"		7.0	52	52	30	30			Brown Silty Gravelly Sand, w/Cobbles
											11.5	
	3D	2"	24"		12.0	30	60	66	125		12.0	Broken Rock
												Bottom of Boring @ 12.0' Caved @ 5.9' Water @ 5.0'

SAMPLES

D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:

XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. M-4

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. P-1
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/22/2008	1/22/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Brown Rusty Silty Sand, w/Organics & Gravel
	1D	2"	10"		2.8	19	90				2.8	Brown Silty Gravelly Sand
											3.0	Rock
												Refusal @ 3.0'
												Caved @ 2.1' Water @ 1.3'

SAMPLES

D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:

XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. P-1

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. P-2
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/22/2008	1/22/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
	1D	2"	6"		2.5	75						Brown Silty Gravelly Sand
	2D	2"	18"		6.5	49	56	125			6.5	
												Bottom of Boring @ 6.5' Caved @ 6.1' Water @ 6.0'

SAMPLES

D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:

XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. P-2

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. P-3
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/22/2008	1/22/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											0.5	
	1D	2"	12"		3.0	30	100				3.0	Brown Silty Gravelly Sand
											3.6	Broken Rock
												Refusal @ 3.6'
												Dry

SAMPLES

D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:

XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. P-3

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. P-4
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/22/2008	1/22/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											0.5	Brown Sandy Silt w/Organics
	1D	2"	24"		4.0	11	18	25	25		4.5	Brown Sandy Silt
	2D	2"	17"		6.4	25	50	100			6.4	Brown Silty Gravelly Sand

Refusal @ 6.4'
Caved @ 6.3' Water @ 6.2'

SAMPLES
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:
XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. P-4

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. P-5
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/22/2008	1/22/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											0.5	Brown Sandy Silt w/Organics
												Brown Sandy Silt
	1D	2"	24"		4.0	12	18	21	27		3.5	
											4.5	Brown Sandy Clayey Silt
	D	2"	1"	0"	5.1	50						
	2D	2"	6"		6.2	60					6.2	Brown Silty Gravelly Sand w/Cobbles

Refusal @ 6.2'
Caved & Dry @ 5.7'

SAMPLES		SOIL CLASSIFIED BY:		REMARKS:
D = SPLIT SPOON	R = ROCK CORE	XX	DRILLER-VISUALLY	
C = 2" SHELBY TUBE	V = VANE TEST		SOIL TECHNICIAN-VISUALLY	
S = 3" SHELBY TUBE			LABORATORY TESTS	
U = 3 1/2" SHELBY TUBE				HOLE NO. P-5

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. P-6
DRILLER Jon Rudnicki	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/23/2008	1/23/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Topsoil
	1D	2"	24"		4.0	12	32	34	34		5.0	Brown Mottled Clayey Silt, w/Silt Layers
	2D	2"	24"		7.0	11	12	16	42		7.0	Brown Silty Sand
												Bottom of Boring @ 7.0' Caved @ 6.2' Water @ 4.6'

SAMPLES

D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:

XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. P-6

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. P-7
DRILLER Andy Durant	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/23/2008	1/23/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Topsoil
	1D	2"	24"		4.0	11	30	40	46			Brown Mottled Silty Clay
	2D	2"	24"		7.0	13	19	26	23			
											7.5	Bottom of Boring @ 7.5' Damp

SAMPLES

D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:

XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. P-7

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. P-8
DRILLER Andy Durant	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/23/2008	1/23/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											0.5	Topsoil
	1D	2"	24"		4.0	12	24	40	51			Brown Mottled Silty Clay
	2D	2"	24"		7.0	7	15	18	20		7.0	

Bottom of Boring @ 7.0'
Caved & Dry @ 5.1'

SAMPLES
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:
XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. P-8

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. P-9
DRILLER Andy Durant	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/23/2008	1/23/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											1.0	Topsoil
	1D	2"	24"		4.0	4	10	16	20			Brown Mottled Silty Clay
	2D	2"	24"		7.0	11	19	27	40		7.0	

Bottom of Boring @ 7.0'
Water @ 6.9'

SAMPLES
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:
XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. P-9

MAINE TEST BORINGS, INC. BREWER, ME 04412	CLIENT Fessenden GeoEnvironmental Services	SHEET 1 OF 1 HOLE NO. P-10
DRILLER Andy Durant	PROJECT NAME Acadia Visitors' Center	LINE & STATION
MTB JOB NUMBER 07-263	LOCATION Trenton, ME	OFFSET

GROUNDWATER OBSERVATONS		CASING	SAMPLER	CORE BARREL	Start Date	Finish Date
	TYPE	HSA	SS		1/23/2008	1/23/2008
	SIZE I.D.	2-1/2"	1-3/8"			
	HAMMER WT.		140 lb.		SURFACE ELEV:	
	HAMMER FALL		30"			

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	Vane Reading	DEPTH	STRATUM DESCRIPTION
											0.5	Topsoil
												Brown Mottled Silty Clay
	1D	2"	24"		4.0	4	10	29	40		4.0	
												Brown Mottled Sandy Silt
	2D	2"	24"		7.0	4	15	15	23		7.0	
												Bottom of Boring @ 7.0' Caved @ 5.5' Water @ 4.5'

SAMPLES

D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3 1/2" SHELBY TUBE
R = ROCK CORE
V = VANE TEST

SOIL CLASSIFIED BY:

XX DRILLER-VISUALLY
SOIL TECHNICIAN-VISUALLY
LABORATORY TESTS

REMARKS:

HOLE NO. P-10

Appendix D : Laboratory Test Results

LABORATORY TEST DATA
AVAILABLE UPON REQUEST