Portland, Maine | Yes. Life's good here.

Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
08/01/2018

Permitting and Inspections Department
Michael A. Russell, MS, Director

New Commercial Structure and Addition Checklist

(Including accessory structure, ramp, stair)

All applications shall be submitted online via the Citizen Self Service portal. Refer to the attached documents for complete instructions. The following items shall be submitted for all applications (please check and submit all items):

- ☑ **New Commercial Structures and Additions Checklist** (this form)
- ☑ **Plot plan/site plan** showing lot lines, shape and location of existing and proposed structures
- ☑ **Stamped boundary survey and copy of final approved site plan** (for new commercial structures that were subject to Site Plan approval only)
- ☑ **Proof of Ownership** (e.g. deed, purchase and sale agreement) if purchased within the last six months
- ☐ **Administrative Authorization Application** from the Planning Department (required for new structures 500 square feet or less): http://me-portland.civicplus.com/DocumentCenter/View/2809

Please ***note:*** *All plans shall be drawn to a measurable scale (e.g., 1/4 inch = 1 foot) and include dimensions. Construction documents prepared and stamped by a licensed architect or engineer shall be required for certain projects in accordance with the stated Policy on Requirements for Stamped or Sealed Drawings.*

Applications for detached accessory structures 120 square feet or less (for storage only) shall also include: One of the following which includes the length, width and height of the structure:

- ☐ A copy of the brochure from the manufacturer; or
- ☐ A picture or sketch/plan of the proposed shed/structure

Applications for new structures and additions shall also include the following *(As each project has varying degrees of complexity and scope of work, some information may not be applicable. Please check and submit only those items that are applicable to the proposed project.)*

- ☑ **Complete Code Reviews** per 2009 IBC and 2009 NFPA 101 with project applicable details
- ☑ **Geotechnical report**
- ☑ **Structural load design criteria** per 2009 IBC
- ☐ **Statement of Special Inspections**
- ☐ **Certificate of Accessible Building Compliance**
- ☐ **ComCheck** https://www.energycodes.gov/comcheck/ or **ResCheck** https://www.energycodes.gov/rescheck/ with certificates of compliance for thermal envelope and MEP systems
- ☑ ***One complete set of construction drawings with the following:***
  - ☑ Life safety plan showing egress capacity, any egress windows, occupancy load, travel distances, common path distance, dead end corridor length, separation of exits, illumination and marking of exits, portables fire extinguishers, fire separations and any fire alarm or fire sprinklers systems.
  - ☑ Foundation, floor and wall structural framing plans for each story and roof
  - ☑ Stair details with dimensions, direction of travel, handrails and guardrails
  - ☑ Wall/floor/ceiling partition types including listed fire rated assemblies and continuity
  - ☑ Sections and details showing all construction materials, floor to ceiling heights and stair headroom
  - ☑ Building Elevations, existing and proposed for each side of the building
  - ☑ Door and window schedules
  - ☑ Insulation R-factors of foundation/slab, walls, ceilings, floors, roof and window U-factors
  - ☑ Accessibility features and design details
  - ☐ Complete electrical, plumbing and mechanical plans
  - ☑ Project specifications manual
  - ☑ A copy of the State Fire Marshal construction and barrier free permits. For these requirements visit: http://www.maine.gov/dps/fmo/plans/about_permits.html

Separate permits are required for internal and external plumbing, electrical installations, heating, ventilating and air conditioning (HVAC) systems, appliances and commercial kitchen hoods.

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Permitting and Inspections Department
Approved with Conditions
08/01/2018

STATE OF MAINE - DEPARTMENT OF PUBLIC SAFETY
OFFICE OF STATE FIRE MARSHAL
45 COMMERCE DR STE 1
AUGUSTA, ME 04333-0001

Barrier Free Permit

No. 25614

In accordance with the provisions of M.S.R.A. Title 25, Section 2448-A and Title 5, Section 4594-F, the project listed below has been review for compliance with MHRA and ADA. This plan has NOT been reviewed by the State Fire Marshal's office for compliance with M.R.S.A. Title 25, Section 2452. No departure from application form/pans shall be made without prior approval in writing. Nothing herein shall excuse the holder of this permit for failure to comply with local ordinances, zoning laws, or other pertinent legal restrictions.

Each permit issued shall be displayed at the site of construction.

Building: CASCO BAY ELECTRIC OFFICE
Location: 316 PRESUMPSCOT ST, PORTLAND, ME 04103-5235
Owner: 302 P STREET LLC
Owner Address: 75 HAVERTYS WAY, PORTLAND, ME 04103-2192

Occupancy Type: Business
Secondary Use: Storage
Use Layout: Mixed Use
No Sprinkler System
No Fire Alarm System
Reviewed for Barrier Free Compliance Only
Construction Mode: New Building
Unprotected Wood Frame: Type V (000)
Final Number of Stories: 2

Permit Date: 06/15/2018 **Expiration Date:** 12/14/2018

John E Morris

COMMISSIONER OF PUBLIC SAFETY

Copy 1 - Owner

STATE OF MAINE - DEPARTMENT OF PUBLIC SAFETY
OFFICE OF STATE FIRE MARSHAL
45 COMMERCE DR STE 1
AUGUSTA, ME 04333-0001

Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
08/01/2018

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John E Morris

COMMISSIONER OF PUBLIC SAFETY

Copy 2 - Architect

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Reviewed for Code Compliance
Permitting and Inspections Depart
Approved with Conditions
08/01/2018

Permitting and Inspections Department
Michael A. Russell, MS, Director

Certificate of Accessible Building Compliance

All facilities for the use of a public entity shall be readily accessible by individuals with disabilities.

Project Name: CASCO BAY ELECTRIC OFFICE Project Address: 316 PRESUMPSCOT ST., PORTLAND

Classification: ○ Title II (State/Local Government) ☒ Title III (Public Accommodation/Commercial Facility)

☒ **New Building**
- ☒ Americans with Disabilities Act (ADA)
- ☒ Maine Human Rights Act (MHRA)
  - ☐ Barrier Free Certification ($75,000+ scope of work)
  - ☒ State Fire Marshal Plan Review Approval

○ **Alteration/Addition**
- ☐ Existing Building Completion date:
  - ☐ Original Building: _____
  - ☐ Addition(s)/Alteration(s): _____
- ☐ Americans with Disabilities Act (ADA)
  Path of Travel ○ Yes ○ No
- ☐ Maine Human Rights Act (MHRA)
  - ☐ Exceeds 75% of existing building replacement cost
  - ☐ Barrier Free Certification ($75,000+ scope of work)
  - ☐ State Fire Marshal Plan Review Approval

○ **Occupancy Change/Existing Facility**
- ☐ New Ownership – Readily Achievable Barrier Removal: _____

○ **Residential**
- ☐ Americans with Disabilities Act (ADA)
- ☐ Fair Housing Act (4+ units, first occupancy)
- ☐ Maine Human Rights Act (MHRA)
  - ☐ Covered Multifamily Dwelling (4+ units)
  - ☐ Public Housing (20+ units)
- ☐ Uniform Federal Accessibility Standards (UFAS)
- ☐ None, explain: _____

Contact Information:

Design Professional:

Signature
(This is a legal document and your electronic signature is considered a legal signature per Maine state law.)

Name: STEPHANIE J. LULL
Address: 93 PITT ST
PORTLAND ME 04103
Phone: 207-947-5976
Maine Registration #: 2710

Owner:

Signature
(This is a legal document and your electronic signature is considered a legal signature per Maine state law.)

Name: MATTHEW J FOSHAUNT
Address: 75 Haventy's WAY
PORTLAND, ME
Phone: 207-415-2957

Portland Home Builders

700 Washington Ave., #2
Portland, ME 04103
207-653-9424
portland-homebuilders.com

SPECIFICATIONS FOR CASCO BAY ELECTRIC'S NEW OFFICE BUILDING
316 PRESUMPSCOT STREET, PORTLAND, MAINE 04103
PORTLAND HOME BUILDERS ~ GENERAL CONTRACTING ~ DESIGN SERVICES
AS OF 5/15/2018

THE FOLLOWING ARE THE SPECIFICATIONS TO THE PRECEDING ATTACHED CONTRACT. PROJECT TO BE BUILT ACCORDING TO THE ARCHITECTURAL PLANS DRAWN BY BRADFORD POST, DATED 5/1/18, AND THE ENGINEERED STRUCTURAL DRAWINGS BY JOE LEISURE, DATED 3/15/18, AND THESE SPECIFICATIONS.

CONTRACT NO. 295
APPROXIMATE STARTING DATE: 7/9/18

GENERAL NOTES

- The Laws and codes of the location of the building will govern the construction of this project.
- The Subcontractors will obtain all required permits, licenses, and inspections necessary for their respective trades.
- The building permit for this structure will be obtained by the Contractor and paid for by the Owner.
- This contract is for the building structure itself and not for the site work, foundation or slab work. Excavation, foundation work and slab work are being contracted out to others by the Owner.
- The General Contractor will be responsible for all construction scheduling for the office structure and shall be responsible to see that the work is done in a timely manner. A time line schedule will be submitted to the Owner within 10 days of start of work and will be updated regularly to reflect progress and projected completion dates.
- A dumpster will be onsite for a majority of the job.
- A tool trailer will be parked on the worksite for the entirety of the job.
- A portapoty will also be onsite for the use of all subcontractors on the project.
- This contract assumes that the Owners will provide a foundation and slab ready to build on to the specifications of the structural foundation drawings attached. The Owner will assume responsibility for all City inspections and approval of the site plan and foundation and slab inspections. The Contractor has no liability or responsibility in regards to the concrete, excavator, or slab contractor's adherence to said structural drawings and specifications but will coordinate with said contractors.
- This contract also assumes that the Owner's excavator will provide an accessible job site that is backfilled and suitable for staging, trucks and working on and around.
- The Owner will supply temporary power to the building site prior to construction.

SUMMARY OF WORK

- The scope of this project includes the construction of a 40' x 40' two story office building as further described below and in the contract drawings.

CASH ALLOWANCES

- The net amounts stated below shall be included as a part of the Contractor's base price. The amount stated shall be considered as a net amount including costs for purchases of specified materials and

any applicable sales tax. The contractor shall purchase or award subcontracts on items covered by cash allowances for such sums as listed below:

After items covered by cash allowances have been purchased or awarded or negotiated with the Contractor, the Contract sum shall be adjusted to reflect actual net cost paid by the Contractor for such items: if actual cost of items is less than the cash allowance, The Contract sum shall be reduced by the difference between actual cost and Contract: if actual cost is more than allowance, The Contract Sum shall be likewise increased. The Contractor shall include in his base bid all costs for the installation of materials which are purchased under the cash allowance.

If the Owner reduces the scope of work or purchases items himself that may reduce the allowance amount for a particular item, the original General Contractor's fee remains unchanged.

1. Carpet allowance. $ 3,800.00
2. Tile allowance. $ 2,000.00

INTENT OF DRAWINGS

- The drawings and specifications are intended as guidelines. Any omissions in the description of workmanship does not relieve the Contractor or the Owner in his respective responsibilities from delivering a completed project, as generally described in these specifications and in a workmanlike manner, in accordance with generally accepted practice.

DRAWING AND SPECIFICATION CONFLICTS

- If a conflict occurs between the detail drawings and the specifications, the latter will take precedence.

SITE WORK

- Site work and excavation is not included in this contract and will be provided and paid for by the Owner.

CONCRETE

- All concrete work, foundation work and slab work is not included in this contract and will be provided and paid for by the Owners. The concrete foundation, piers and slab work will be constructed in accordance with the Engineered drawings by Joe Liesure that are attached and dated 3/15/18.

FRAMING AND GENERAL EXTERIOR

- Framing: All framing lumber including: girders, joists, trusses, studs, plates, shoes, headers, rafters, collar ties, and ceiling joists will consist of construction-grade K.D. spruce or equivalent. (Note: Laminated plywood framing members may be used in specific situations if the spans needed render conventional spruce lumber impractical.) Interior and exterior framing will be as shown on the contract drawings.
- A W14 x 34 steel beam will be used in the garage second floor deck. 14" BCI engineered floor joists 16" o.c. will be used for the second floor deck system.
- Sills will be 2x6 pressure treated with foam sill sealer under all wood sills in contact with concrete.
- All sub flooring will be Advantec Brand ¾", o.s.b., glued and nailed.
- Exterior walls will be sheathed in 7/16" cdx fir plywood.
- Air infiltration barrier: Exterior walls will have Typar House wrap over sheathing.

ROOFING

- Roof shingles are to be CertainTeed 40 year architectural or equivalent. Color by Owners
- Hip roof trusses will be installed per the contract drawings.
- The roof sheathing will be 5/8" Zip System plywood.
- Flashing: Aluminum flashing, white drip edge, and white drip cap will be used where applicable.
- Attic Ventilation: Continuous soffit vents will be installed along new eaves.
- Gutters and downspouts are included in this contract.
- Ice and Water Shield: The lower 4' of the eaves will have Grace Ice and Water Shield applied to them.
- A fabric style roof shingle underlayment will be installed per manufacturer's recommendations.

INSULATION

- The exterior walls are to be insulated with "Roxul" brand mineral wool insulation batts to R-23. The roof cap will be blown in with Cellulose insulation to R-49. The first-floor deck will be insulated with fiberglass batts to R-38. All R-values are to current code or exceed currents codes.

SIDING

- Hardi-Plank factory painted fiber cement clapboard siding will be installed where indicated on the contract drawings. This is a cement-fiberglass based product that would be installed rough side out and with 7" exposed to the weather. A stock color will be selected by the Owners.

EXTERIOR MAN DOORS

- 6 commercial grade steel exterior doors with lever handles and self-closers will be installed on the exterior of the building and in the stair wells – top and bottom. 4 of these doors will have half glass and the two stair doors will have no glass. All hardware will be brushed chrome.

COMMERCIAL GARAGE DOORS

- The Overhead Door Company will install (2) – 10' wide x 12' tall heavy duty commercial grade overhead doors. Model 592 Thermacore by Overhead Door Company with R-17.5 insulation. No windows or photo eyes are included in this pricing.

WINDOWS

- All windows will be Paradigm Brand double hung vinyl units as drawn in the contract drawings.

EXERIOR TRIM

- Exterior window and door trim will consist of 1 x 4 PVC flat casing. The windows will have a traditional sills attached to each one. The soffit and fascia roof trim will also consist of PVC trim in patterns and configurations as drawn on the contract drawings. The corner boards will consist of one 1 x 5 and one 1 x 6 combined and installed on all four corners.
- Vinyl window shutters with a louvered style will be installed on all windows. Color by Owner.
- The window on the first floor behind the staircase will be a false window and have the glass painted black on the inside. It will not be operable and will have framing behind it with insulation and sheetrock on the inside. It will be trimmed out on the outside to appear to be a double mulled window like the other windows on the south side of the house.

EXERIOR SECOND FLOOR DECK

- The second floor deck and attached guard railing will be constructed entirely of pressure treated lumber and hot dipped galvanized or stainless steel fasteners will be used.
- The deck will not be stained for a one year period to allow for the drying of the wood. It is recommended that a solid body deck stain like Cabot's Oil Stain would be used and re-applied every 3-4 years to maintain and protect the wood.

DRYWALL

- Interior walls and ceilings will be sheet rocked with ½" gypsum wallboard finish taped, sanded, and ready for paint.
- First floor garage ceiling will be rocked with 5/8" fire rated sheetrock.

VENTILATION

- Ceiling fan/light combo units are not included in this contract but will be installed in the first and second floor bathrooms and vented to the outside. The fixtures, wiring and installation will be provided and paid for by the Owner.

INTERIOR TRIM

- 2 ½" Colonial casing will be used on all windows and doors. ¾" flat pine will be used where needed for extension jambs, skirt boards, risers, etc...
- 4" Vinyl cove baseboard will be installed at the bottom of all sheet rock wall to finish floor transitions.

INTERIOR DOORS

- 7 interior residential grade, solid core, paint grade, flat slab doors with residential series, brushed chrome, lever handles will be installed on interior office, closet and bathroom doors. The conference room door may want to have a glass window and can be added to the contract.

BATHROOM CLOSET

An upstairs bathroom closet will have plywood shelving 16" o.c. and will be painted white.

HARDWOOD STAIRS

- The stairs to the second floor will consist of ¾" pine treads, risers and skirt boards. A simple graspable 1 ½" x 1 11/16" round fir handrailing will be installed to code. The treads and landing will be painted with an industrial epoxy paint for durability. After painting the treads, a brown rubber tread covering will be installed on each tread for slip resistance.

KITCHENETT CABINETS AND COUNTERTOP

- The builder will install basic stock white laminate cabinets and a stock Formica countertop from Home Depot - per the contract drawings.

PAINTING

- All interior painting subcontracting will be the Contractors responsibility. There is no exterior painting in this contract.
- Interior painting to consist of a latex primer on new sheetrock and wood with 2 coats of finish latex enamel paint on all new surfaces. Up to (3) wall colors in acrylic latex, and one trim color in acrylic latex enamel. Walls will receive two coats of satin or eggshell finish, while the trim will receive two coats of latex semi- gloss enamel. The ceilings will receive 2 coats of white ceiling paint.
- Painting or sealing of the garage floor is not included in this contract. It is recommended that the Owners contract with the concrete slab contractor to apply 2 coats of a high quality low gloss poly sealer on the cement floor right after curing for ease of future cleaning. The floor needs to be clean to do this and the sooner it goes down the more likely it is that the cement will be clean.

FLOOR COVERINGS

- Carpeting: The Owner will select a commercial carpet and pad from Home Depot or Loews from within the carpeting allowance. The Contractor will schedule and coordinate with the installer.
- VCT Tile: The Owner will select a commercial VCT tile for the bathroom floors and kitchenette from the selection at Home Depot or Lowes from within the tile allowance. The price will include installation of the underlayment needed for the installation. The Contractor will schedule and coordinate.

ELECTRICAL

- No Electrical work is included in this contract. All electrical work will be designed, specified, installed and paid for directly by the Owners.
- All Fire Safety lighting and fixtures will be the Owner's responsibility, or can be added to this contract.
- The Owners will purchase, supply and install all electrical fixtures directly.

PLUMBING

- The licensed plumbing subcontractor will provide the following work complete to current codes.
- Pex piping and PVC drains and vents will be used throughout to re-plumb the kitchen and bathroom.
- Plumber will supply and install all of the Owner's new bathroom & kitchenette fixtures, including all ADA fixtures.
- Plumber to install a small electric hot water heater, 40 gallon, in the utility room.
- Provide 1 frost proof exterior sill cock where the water line enters the building on the ground level.
- Provide 1 water service hookup with meter horn.
- Owner may want to consider putting a slop sink in the first floor bathroom or shop area for convenience. This can be added to the contract.
- It is assumed that no sprinklers will be needed in this project.

HEATING SYSTEM

- Gelinas HVAC Services will install (1) Trane mini-ductless wall heat pump system as follows:
- One (1) Trane m/n 4MXW3818AI0NUA 18K btu. Unit to be located in the upper floor living space on outside wall.
- One (1) Trane m/n 4TXK3818Al0NUA 18K Btu outdoor heat pump with R410A earth friendly refrigerant. *to be located outdoors alongside of building.
- One (1) Outdoor 24" support.
- Two (2) Concrete 2x2 pads.

- One (1) Refrigeration line set. *to be routed inside walls where possible.
- One (1) Wireless temperature control.
- All electrical communication wiring needed.
- All condensate drain line needed. (to terminate outdoors)
- Start, test and adjust newly installed system.
- Proper clean-up of work areas.

- Gelinas HVAC Services will also install (1) Modine low profile suspended direct vent gas garage heating unit. (45MBH) as follows:
- One (1) Modine m/n MHD45A50111, 45K Btu. Unit to be located towards rear of garage near outside wall.
- One (1) Vent termination kit.
- All venting, fittings and hanger material needed.
- All gas piping needed.
- One (1) heating thermostat.
- All electrical communication wiring needed.
- Start, test and adjust newly installed heater.
- Proper clean-up of work areas.

PROJECT CLOSEOUT

- Complete a walk thru with the Owners and a final punch list of any work remaining.
- Submit final change order and final progress payment request to Owners.
- Obtain final inspection from the City of Portland code enforcement office and request Occupancy Permit to be mailed to Owners when completed.
- Complete the final clean-up of the premises, vacuum floor and removal of all debris.

Doc#: 24298 Bk:34874 Pg: 94

DLN:1001840028471

QUITCLAIM DEED
WITH COVENANT

KNOW ALL PERSONS BY THESE PRESENTS

THAT, **JAKE'S DEVELOPMENT, INC.,** a corporation duly organized and existing in accordance with the laws of the State of Maine, with a mailing address of 30 Ledgewood Drive, Falmouth, Maine 04015,

for consideration paid,

grants to **320 P STREET LLC** with a mailing address of 75 Haverty's Way, Portland, Maine;

with **QUITCLAIM COVENANTS,** all that certain premises and proportionate interest in the P. Street Condominium, a commercial condominium situated at 320 Presumpscot Street, in the City of Portland, County of Cumberland and State of Maine, more particularly described as follows:

Unit B (hereinafter referred to as the "Unit") of the P. Street Condominium (hereinafter referred to as the "Condominium") situated at 320 Presumpscot Street in the City of Portland, County of Cumberland and State of Maine, together with an undivided interest in the Common Elements of the Condominium, all as more particularly established and described in the Declaration of P. Street Condominium, dated as of May 30, 2018, recorded in the Cumberland County Registry of Deeds in Book 34871, Page 236 (hereinafter referred to as the "Declaration"), and in the Plats and Plans incorporated into the Declaration and recorded in the Cumberland County Registry of Deeds in Plan Book 218, Pages(s) 236 (hereinafter referred to as the "Plats and Plans") by virtue of the recording of which Declaration, Plats and Plans, the Declarant created the Condominium pursuant to the Maine Condominium Act, 33 M.R.S.A. § 1601-101 et seq., as amended (hereinafter referred to as the "Act");

Together with and subject to the rights, obligations and matters set forth in the Declaration and Plats and Plans, as amended and recorded in the Cumberland County Registry of Deeds at or near even date.

Meaning and intending to convey and hereby conveying a portion of the land conveyed by Quit Claim Deed of Hyrisk Realty, Inc. to Jake's Development, Inc. dated March 4, 1994, recorded in the Cumberland County Registry of Deeds, Book 11318, Page 39 and also deed of Timothy P. O'Donovan to Jake's Development, Inc., dated January 3,2002 and recorded in the said Registry of Deeds in Book 17164, Page 62.

Unit B is conveyed with the benefit of and subject to:

1. Provisions of the (a) Maine Condominium Act, as that statute may be amended from time to time; (b) the above-described Declaration, Plat, and Plans including a sixty-six (66) percent ownership of the common elements as set forth in said Declaration, as the same may be amended from time to time by instrument recorded in the Cumberland County Registry of Deeds; (c) the Bylaws of the P Street Condominium Association (the "Bylaws") as the same may be amended from time to time;

2. Existing rights, obligations, easements, restrictions, licenses, covenants and conditions reserved, contained or referenced in the Declaration, Plat, Plans or the Bylaws;

3. Such taxes and assessments allocable to the Unit for the current fiscal (tax) year as are not due and payable on the date of delivery of this Deed;

4. The terms and conditions of a certain Stormwater Drainage System Maintenance Agreement dated March 27, 2018 and recorded in the Cumberland County Registry of Deeds in Book 34736, Page 246.

IN WITNESS WHEREOF, the said **JAKE'S DEVELOPMENT, INC.** has caused this instrument to be signed by its authorized officer this 30th day of May, 2018.

Witness

AE Caulfield

JAKE'S DEVELOPMENT, INC.

By: Timothy O'Donovan
Its: Authorized Officer

STATE OF MAINE
Cumberland, ss.

May 30, 2018

Then personally appeared the above-named Timothy O'Donovan authorized officer of JAKE'S DEVELOPMENT, INC. signor of the foregoing instrument, and acknowledged the same to be his free act and deed in his/her said capacity, and the free act and deed of said JAKE'S DEVELOPMENT, INC.

Before me, AE Caulfield
~~Notary Public~~ - Attorney-at-Law
Print Name: Alexandra E. Caulfield
Attorney at Law
My Commission Expires: _____

C:\Users\rvanpelt\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\STAOB9BO\Jakes Development. QC Deed W Covenant.docx

Received
Recorded Register of Deeds
May 31,2018 10:00:31A
Cumberland County
Nancy A. Lane

ASSIGNMENT OF PERMITS, LICENSES, APPROVALS AND PROJECT DOCUMENTS

Tim O'Donovan and Jake's Development, Inc. a Maine corporation with a mailing address of 30 Ledgewood Drive, Falmouth, Me. 04105, for consideration paid, hereby assigns all of its right, title and interest in and to all permits, licenses, approvals and rights granted by any municipal, state or federal entity or governing body for the property situated on or about 314-316 Presumpscot Street (also known as 320 Presumpscot Street) in the City of Portland, Maine as described in greater detail in a letter from the City of Portland planning department dated March 14, 2018, and all maps, plans, specifications, drawings, designs, and all other project documents associated therewith, to **320 P Street LLC**, a Maine limited liability company with a mailing address of 75 Haverty's Way, Portland, ME 04103.

The undersigned, 320 P Street LLC, accepts said assignment and agrees to be bound by the terms of all such permits, licenses, approvals and rights.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their duly authorized officers this __ day of June, 2018.

WITNESS

Jake's Development, Inc.

By: Tim O'Donovan
Its: President

320 P Street LLC

By: Matthew J. Flaherty
Its: Manager

The key to success starts with a solid foundation.
ENGINEERING | EXPLORATION | EXPERIENCE

Geotechnical Report

Industrial Development
314 Presumpscot Street, Portland, Maine

Client

Attn: Peter Biegel
Land Design Solutions
PO Box 316
Cumberland, Maine 04021

Project #: 16239
Date: 11/11/16

SUMMIT
GEOENGINEERING SERVICES

145 Lisbon Street (PO Box 7216) Lewiston, Maine 04243 | (207) 576-3313
173 Pleasant Street Rockland, Maine 04841 | (207) 318-7761
www.summitgeoeng.com

November 11, 2016
Summit #16239

Attn: Peter Biegel
Land Design Solutions
PO Box 316
Cumberland, Maine 04021

Reference: Geotechnical Engineering Services
Industrial Development – 314 Presumpscot Street, Portland, Maine

Dear Mr. Biegel;

We have completed our geotechnical investigation for the proposed industrial development on Presumpscot Street in Portland, Maine. Our scope of services included performing three borings at the site and preparing this report summarizing our findings and geotechnical recommendations for the design of the new buildings.

The geotechnical considerations identified for development at this site include:

- Presence of assorted fill within the upper building footprint
- Presence of glacial marine clay and its susceptibility to softening, especially when wet
- Presence of glacial marine clay and its potential for settlement
- Presence of an existing 2H:1V slope and proposed 1.5H:1V slope along the northern and eastern sides of the upper site, respectively
- Presence of shallow groundwater within the eastern portion of the site

Discussion and recommendations for the identified geotechnical considerations are included in this report along with geotechnical recommendations for the building foundations. Our geotechnical evaluation is based on existing site conditions. We recommend Summit Geoengineering Services (SGS) be notified if plans or elevations for the development change significantly.

We appreciate the opportunity to serve you during this phase of your project. If there are any questions or additional information is required, please do not hesitate to call.

Sincerely yours,
Summit Geoengineering Services

Erika Stewart

Erika Stewart, E.I
Geotechnical Engineer

STATE OF MAINE
CRAIG W. COOLIDGE
NO# 11569
LICENSED
PROFESSIONAL ENGINEER

Craig W. Coolidge, P.E.
Vice President
Principal Engineer

145 Lisbon Street (PO Box 7216) Lewiston, Maine 04243 | (207) 576-3313
173 Pleasant Street Rockland, Maine 04841 | (207) 318-7761
www.summitgeoeng.com

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145 Lisbon Street (PO Box 7216) Lewiston, Maine 04243 | (207) 576-3313
173 Pleasant Street Rockland, Maine 04841 | (207) 318-7761
www.summitgeoeng.com

1.0 Project and Site Description

Summit Geoengineering Services (SGS) was asked by Land Design Solutions to conduct a geotechnical investigation for an industrial development being proposed at 314 Presumpscot Street in Portland. We understand the project consists of constructing 2 new industrial buildings for Jakes Development, Inc. The buildings will consist of single-story structures with footprints of approximately 8,250 square feet (upper building) and 1,600 square feet (lower building). We understand the upper building has a proposed finish floor elevation of 62.5 feet and the lower building has a proposed finish floor elevation of 48 feet.

The site currently includes mixed development of buildings, trailers, pavement, and landscape. Based on Site Plan C-301 provided by Land Design Solutions, existing grades at the site range from elevation 62 to 43 feet. The upper building is located above and adjacent to an existing 2H to 1V slope. A constructed slope of 1.5H to 1V with a height of approximately 14 feet will separate the upper building and lower buildings. Existing grades within the upper building footprint range from elevation 57 to 62 feet, requiring cuts of 0.5 feet and up to 5.5 feet of fill. Existing grades within the lower building footprint range from elevation 44 to 49 feet, requiring cuts of 1 foot and up to 4 feet of fill.

2.0 Explorations

Summit Geoengineering Services (SGS) observed the subsurface conditions at the site by the drilling of three borings on November 3, 2016 using a rubber track mounted Power Probe 9500 VTR. Borings were advanced using 2 ¼-inch hollow stem augers to a depth of refusal, encountered at 13.5 to 18.1 feet. Soils were visually classified (ASTM D2488) using SPT split spoon sampling (ASTM D1586).

Borings were approximately located in the field by Summit relative to existing site features. The locations of the borings are shown on the Test Boring Location Plan in Appendix A. Boring logs and a photograph log are provided in Appendix B.

3.0 Subsurface Conditions

The subsurface conditions generally consist of ***assorted fill*** overlying ***glacial marine deposit*** overlying ***glacial till*** overlying ***bedrock***, encountered at a depth of 13.5 to 18.1 feet. A thin ***topsoil*** layer is present at the ground surface in boring B-3. ***Granular fill*** was encountered at the surface of borings B-1 and B-2. ***Groundwater*** was observed at depths of 5 to 17 feet below the ground surface, elevation 39 to 44 feet. The subsurface conditions are further described as follows:

3.1 Soil Layers

Topsoil is present at boring B-3 and is six inches in thickness. The topsoil consists of dark brown silt with rootlets and is visually classified as ML in accordance with the Unified Soil Classification System (USCS). The topsoil is considered very soft and moist.

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Granular Fill is present at the surface of borings B-1 and B-2 and is six inches in thickness. The granular fill consists of brown sand with some gravel to gravelly sand with little silt and is visually classified as SP-SM in accordance with the USCS. The fill is considered compact and damp.

Assorted Fill is present beneath the granular fill in borings B-1 and B-2 to depths of 10.5 feet and 4 feet, respectively. The assorted fill consists of brown silty sand interlayered with gray silty clay (reworked glacial marine) and trace brick and concrete. The silty sand contains little gravel, trace brick and concrete, and is visually classified as SM in accordance with the USCS. The silty clay contains little sand and gravel and is visually classified as CL in accordance with USCS. The assorted fill is considered loose/firm to compact and damp. Based on observed blow counts during split spoon sampling, the assorted fill is considered to contain occasional localized voids.

Glacial marine deposit is present beneath the assorted fill in boring B-1 and B-2, and beneath the topsoil in boring B-3. The glacial marine deposit consists of olive brown to gray and slightly mottled fine sand with silt, silty clay, and clayey silt and is visually classified as SM, CL, and ML in accordance with the USCS. The glacial marine deposit is considered soft to firm/loose and damp to moist. Pocket penetrometer tests performed in the field on the silty clay in boring B-2 indicate an unconfined compressive strength ranging from 500 to 2,000 psf, and averaging 1,200 psf.

Glacial till is present beneath the glacial marine deposit. The glacial till generally consists of olive brown and mottled sand with some to little silt, gravel, and cobbles and is visually classified as SM in accordance with the USCS. The glacial till is considered compact to dense and wet.

3.2 Bedrock

Refusal on bedrock was encountered in the borings at a depth range of 13.5 to 18.1 feet, approximate elevations 30.5 to 43 feet. Bedrock outcrops were visible to the south of the existing driveway. Visual inspection of the rock and mapping by the Maine Geological Survey indicate bedrock at the site is Devonian granite and granite gneiss, consisting of fine to medium-grained biotite-muscovite granite with minor garnet.

3.3 Groundwater

Groundwater was encountered at an approximate elevation of 43 feet at the site. Based on observed conditions, we anticipate groundwater is flowing west to east across the site with a gradient from approximately 46.5 to 42 feet. Groundwater is generally present at the surface of the glacial till. Mottled coloring indicates seasonal perched water and/or groundwater may fluctuate in the glacial till during wet periods.

4.0 Geotechnical Evaluation

The geotechnical considerations for development of the site include the presence of an existing 2H:1V slope along the northern edge of the site and a proposed 1.5H:1V slope between the upper and lower sites. The geotechnical considerations for development of the upper site include the presence of assorted fill within the proposed building footprint with the potential for localized voids and debris (brick & concrete), as well as the presence of glacial marine clay with susceptibility to settlement and/or softening. The geotechnical considerations for development of the lower site include the presence of shallow groundwater and glacial marine silt with the potential for disturbance, especially when wet. With proper site preparation, the new buildings can be supported using conventional spread footings with slab-on-grade foundations.

5.0 Geotechnical Design Recommendations

5.1 Bearing Capacity & Settlement

Based on the layout of the proposed buildings and finish floor elevations referenced in this report, we recommend that the building foundations be designed using an allowable bearing pressure of 4,000 psf. Total settlement associated with the above bearing pressure is estimated to be ½ inch or less. The bearing pressure and associated settlements are based on the following conditions:

- All existing topsoil is removed prior to placing fill or constructing footings.
- Finish floor elevation of 62.5 feet for the upper building and finish floor elevation of 48 feet for the lower building with maximum fill heights of 4.5 feet within the building footprints. Fill placed within the building footprint should consist of compacted Structural Backfill, as described in Section 5.4.
- Dry, granular subgrade is proof-rolled prior to placing Structural Backfill or constructing footings. Proof rolling should consist of a minimum of five passes in a north-south direction and then five passes in an east-west direction using a vibratory roller or plate compactor. Proof rolling of wet or cohesive subgrade is not recommended.
- Subgrade soils that become softened or disturbed in the base of excavations are over excavated and stabilized using 6 to 12 inches of crushed stone overlying geotextile fabric, such as Mirafi 500x or equivalent, for separation.
- If voids or pockets of construction debris (brick, concrete, etc.) are encountered during footing excavations in the assorted fill, we recommend the geotechnical engineer be notified to evaluate the suitability of materials for foundation subgrade. Material removal and replacement with Structural Backfill or crushed stone may be necessary, as deemed appropriate by the geotechnical engineer.

5.2 Foundation Design Parameters

We recommend the following geotechnical design parameters be used for foundation design:

PARAMETER	STRUCTURAL FILL	ASSORTED FILL	GLACIAL MARINE
Total Natural (moist) Unit Weight (γ_t)	130 pcf	125 pcf	120 pcf
Saturated (buoyant) Unit Weight (γ_s)	68 pcf	58 pcf	58 pcf
Friction Coefficient (f)	0.55	0.50	0.35
Passive Earth Pressure Coefficient (K_p)	3.54	3.25	--
At Rest Earth Pressure Coefficient (K_o)	0.44	0.47	0.50
Active Earth Pressure Coefficient (K_a)	0.28	0.31	--
Effective Friction Angle (ϕ')	34^0	32^0	0^0
Undrained Shear Strength (S_u)	0	0	600 psf

5.3 Frost Protection

Exterior footings should be constructed at a minimum depth of 4 feet below finished grade for frost protection. This frost protection depth is based on a design air-freezing index of 1,190-degree days for the Portland area. We recommend exterior and interior portions of foundation elements are backfilled with Foundation Backfill.

Foundation Backfill should have a maximum particle size limited to 6 inches and the portion passing a 3-inch sieve should meet the following gradation specification:

FOUNDATION BACKFILL	
Sieve Size	**Percent finer**
¼ inch	25 to 100
No. 40	0 to 50
No. 200	0 to 7

Reference: MDOT Specification 703.06, Type E (2014)

Foundation Backfill should be placed in 6 to 12 inch lifts and compacted to 95 percent of its maximum dry density determined in accordance with ASTM D1557.

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5.4 Building Slabs

We recommend building slabs be constructed on a minimum 12-inch thick layer of Structural Backfill. Structural Backfill should have a maximum particle size limited to 6 inches and the portion passing a 3-inch sieve should meet the following gradation specification:

STRUCTURAL BACKFILL	
Sieve Size	**Percent finer**
¼ inch	0 to 70
No. 200	0 to 10

Reference: MDOT Specification 703.20, Gravel Borrow (2014)

Structural Backfill should be placed in 6 to 12 inch lifts and compacted to 95 percent of its maximum dry density determined in accordance with ASTM D1557. Additional fill required beneath the slab and fill required to meet finished grades within the building footprint should consist of compacted Structural Backfill.

The coefficient of subgrade reaction, k (per 12-inch plate) applies to the design of reinforced concrete foundations over soil. For the conditions described above, the slab can be designed using a coefficient of subgrade reaction 200 tons/ft^3.

We recommend granular subgrade be proof-rolled prior to placement of Structural Backfill. Proof rolling should consist of a minimum of five passes in a north-south direction and then five passes in an east-west direction using a vibratory roller or plate compactor, where access is permitted. Proof rolling of wet or cohesive subgrade is not recommended.

5.5 Groundwater Control

Due to presence of shallow groundwater in the lower portion of the site and the gradient in the existing slope between the upper and lower sites, groundwater may be present in hillside cuts for the lower building. Based on this, we anticipate groundwater may be present along exterior foundations of the lower building during wet periods or from runoff and snowmelt. At a minimum, we recommend perimeter underdrains be installed along the exterior foundation walls of the lower building. Perimeter underdrains are not strictly necessary for the upper building. Further, we recommend exterior grades be sloped away from both building footprints to reduce runoff water from infiltrating the foundation backfill soils.

Perimeter underdrains, where used, should consist of 4 inch rigid perforated PVC placed adjacent to the exterior footings and surrounded by a minimum of 6 inches of crushed stone wrapped in filter fabric to prevent clogging from the migration of the fine soil particles in the foundation backfill soils. The underdrain pipe should be outlet to a location where it will be free flowing.

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Where exposed at the ground surface, the ends of pipes should be screened or otherwise protected from entry and nesting of wildlife, which could cause clogging.

5.6 Seismic Design

The soils at the site are categorized as Site Class D in accordance with ASCE 7-10, as referenced by the International Building Code. The following seismic site coefficients should be used:

SUBGRADE SITE SEISMIC DESIGN COEFFICIENTS – ASCE 7-10	
Seismic Coefficient	**Site Class D**
Short period spectral response (S_S)	0.241
1 second spectral response (S_1)	0.078
Maximum short period spectral response (S_{MS})	0.386
Maximum 1 second spectral response (S_{M1})	0.188
Design short period spectral response (S_{DS})	0.257
Design 1 second spectral response (S_{D1})	0.125

5.7 Global Stability

Global stability analysis was performed for two cross sections at the site using Slide 6.0 stability software. Cross section A-A was modeled west to east through borings B-2 and B-3 for a proposed slope of 1.5 horizontal to 1 vertical located on the east side of the upper building. Cross section B-B was modeled south to north through boring B-1 for the existing slope of 2 horizontal to 1 vertical located on the north side of the upper building. Results of the stability analysis are included in Appendix C. The following conditions were used for our global stability analysis:

Stability Analysis

- Stability analysis was performed for circular (rotational) analysis using Bishop Simplified.
- Sensitivity analysis using peak ground acceleration 0.16g for earthquake seismic loading.
- Sensitivity analysis for groundwater fluctuations of 2.5 feet from observed levels.
- Factors of safety based on a surcharge load of 250 pounds per square foot.

Loading Conditions

- Uniform Surcharge Load: 250 psf
- Peak Ground Acceleration (80% of PGA_M per ASCE 7-10, Site Class D): 0.16g

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Results of the global stability analysis are summarized on the following table below:

GLOBAL STABILITY ANALYSIS SUMMARY TABLE		
Condition	**FS Static Conditions**	**FS Seismic PGA_M = 0.16***
Cross section A-A	1.7	1.2
Cross section B-B	1.6	1.2

*Factor of Safety Range based on Sensitivity Analysis

6.0 Earthwork Considerations

The site should be stripped and grubbed of all topsoil and organic matter prior to placing fill. Foundation Backfill and Structural Backfill should be placed in 6 to 12 inch lifts and be compacted to a minimum of 95 percent of their maximum dry density, determined in accordance with ASTM D1557, Modified Proctor Density.

The glacial marine deposit may be susceptible to disturbance when wet. If subgrade softening occurs during construction, we recommend the base of the subgrade be over-excavated and replaced with 6 to 12 inches of crushed stone overlying geotextile fabric such as Mirafi 500x or equivalent. Crushed stone should be should be tamped to lock the stone structure together.

Trace pieces of brick and concrete encountered during sampling at the upper building site along with occasional loose pockets indicate the assorted fill may contain some construction debris and/or voids. The extent of debris and/or voids is unknown. If voids or sizable pockets of construction debris (brick, concrete, etc.) are encountered during footing excavations, we recommend the geotechnical engineer be notified to evaluate the suitability of materials for foundation subgrade. Material removal and replacement with Structural Backfill or crushed stone may be necessary, as deemed appropriate by the geotechnical engineer.

Based on the proposed finish floor elevations and assumed footing depths, we expect groundwater to be below footing depths in both buildings. Depending on the depth and timing of excavations at the base of the existing slope, groundwater, seasonal water, and/or runoff may be present and dewatering may be required. We believe that shallow sumps and conventional submersible pumps will be sufficient to control it during construction. Diversion and control of surface water should be performed to prevent water flow from adjacent wet areas or from rain or snowmelt from entering the excavations. The contractor should furnish, install, operate, maintain, and remove temporary dewatering systems to control groundwater to permit construction in-the-dry.

General excavations and utility trenching below 4 feet should be sloped no greater than 1H to 1V (OSHA type B) for native glacial marine silt-clay and no greater than 1.5H to 1V (OSHA type C) for

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granular soils (existing and imported fill, glacial till) and/or below groundwater. These slopes are based on the current OSHA Excavation Guidelines.

We recommend that a qualified geotechnical consultant be retained to monitor and test soil materials used during construction and confirm that soil conditions and construction methods are consistent with this report.

7.0 Closure

Our recommendations are based on professional judgment and generally accepted principles of geotechnical engineering and project information provided by others. Some changes in subsurface conditions from those presented in this report may occur. Should these conditions differ materially from those described in this report, SGS should be notified so that we can re-evaluate our recommendations.

It is recommended that this report be made available in its entirety to contractors for informational purposes and be incorporated in the construction Contract Documents. We recommend that SGS be retained to review final construction documents relevant to the recommendations in this report.

We appreciate the opportunity to serve you during this phase of your project. If there are any questions or additional information is required, please do not hesitate to call.

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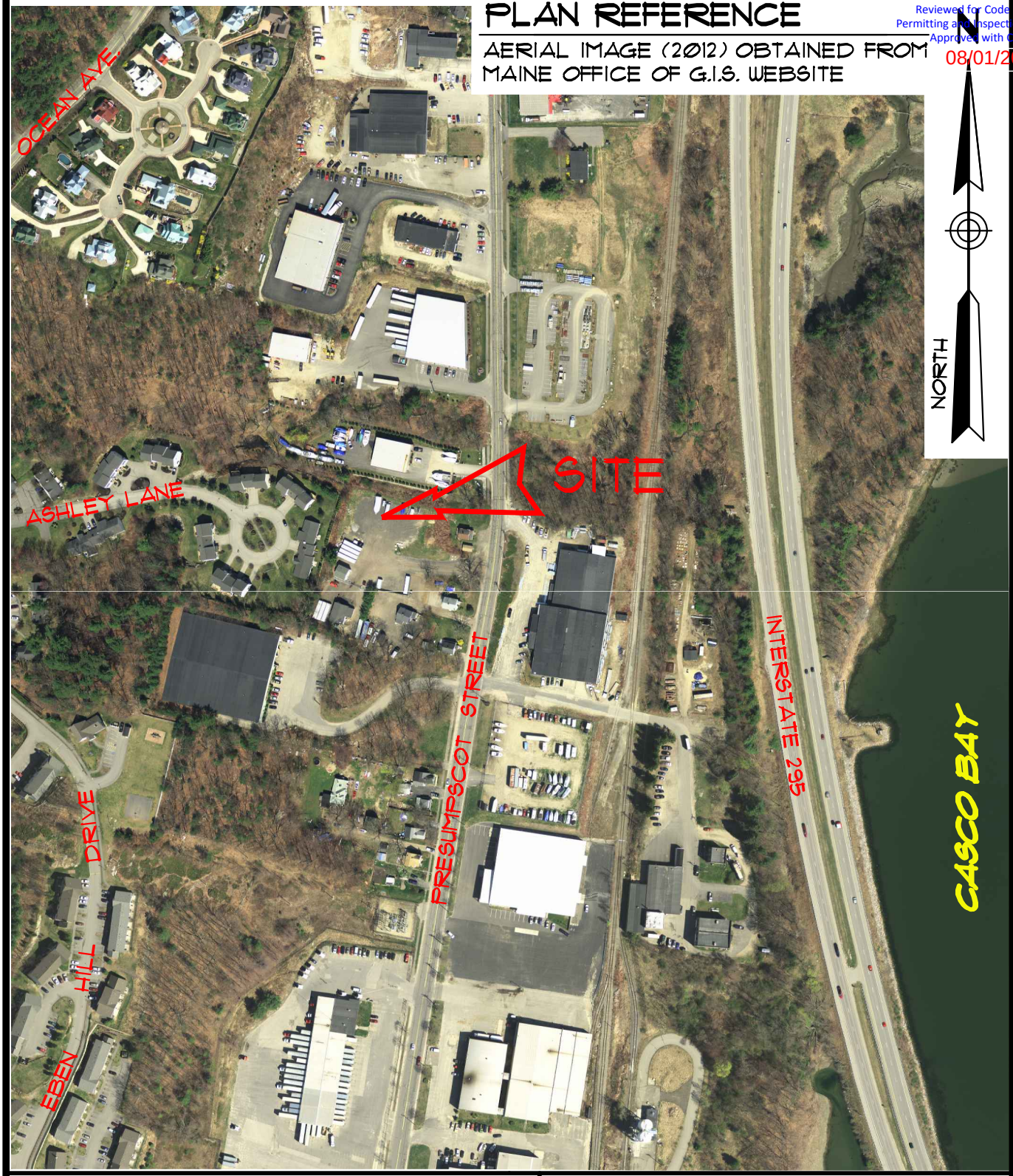
APPENDIX A

SITE LOCATION MAP
TEST BORING LOCATION PLAN
GEOLOGICAL MAPPING

PLAN REFERENCE

AERIAL IMAGE (2012) OBTAINED FROM MAINE OFFICE OF G.I.S. WEBSITE



LOCATION MAP
INDUSTRIAL DEVELOPMENT

314 PRESUMPSCOT STREET - PORTLAND, MAINE

PREPARED FOR

LAND DESIGN SOLUTIONS

DATE: 11-8-2016	DRAWN BY: KRF	CHECKED BY: CWC
JOB: 16239	SCALE: 1" = 300'	FILE: 16239 MAPS

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Tel.: (207) 576-3313

173 PLEASANT STREET
ROCKLAND, ME 04841
Tel.: (207) 318-7761

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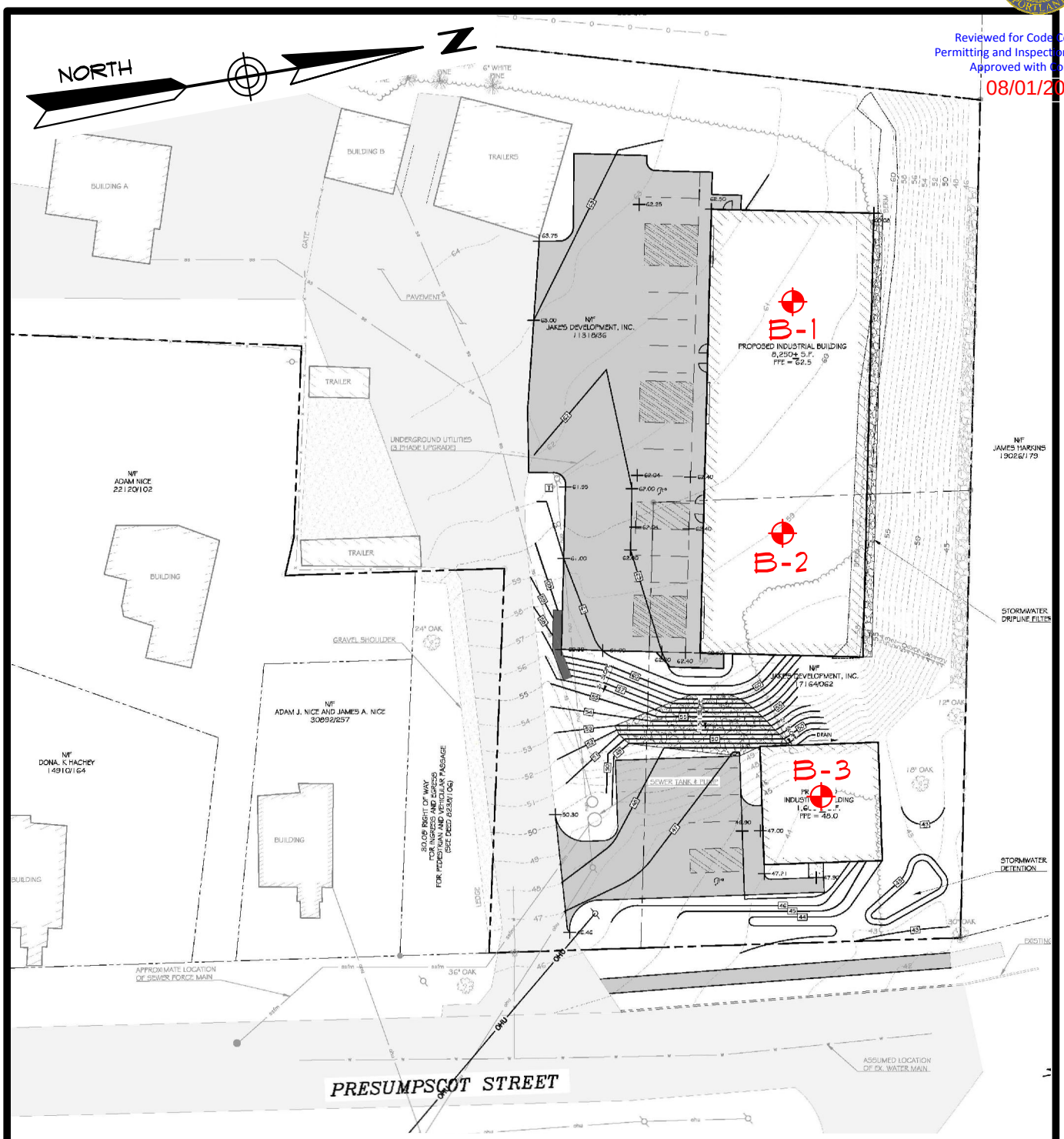

PLAN REFERENCE

"PROPOSED COMMERCIAL DEVELOPMENT, GRADING AND DRAINAGE PLAN", DATED SEPTEMBER 2016, PREPARED BY LAND DESIGN SOLUTIONS.

LEGEND

B-1 — SUMMIT TEST BORING (NOVEMBER 3, 2016)

TEST BORING LOCATION PLAN
INDUSTRIAL DEVELOPMENT

314 PRESUMPSCOT STREET - PORTLAND, MAINE

PREPARED FOR

LAND DESIGN SOLUTIONS

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JOB: 16239	SCALE: 1" = 50'	FILE: 16239 MAPS

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Tel.: (207) 318-7761

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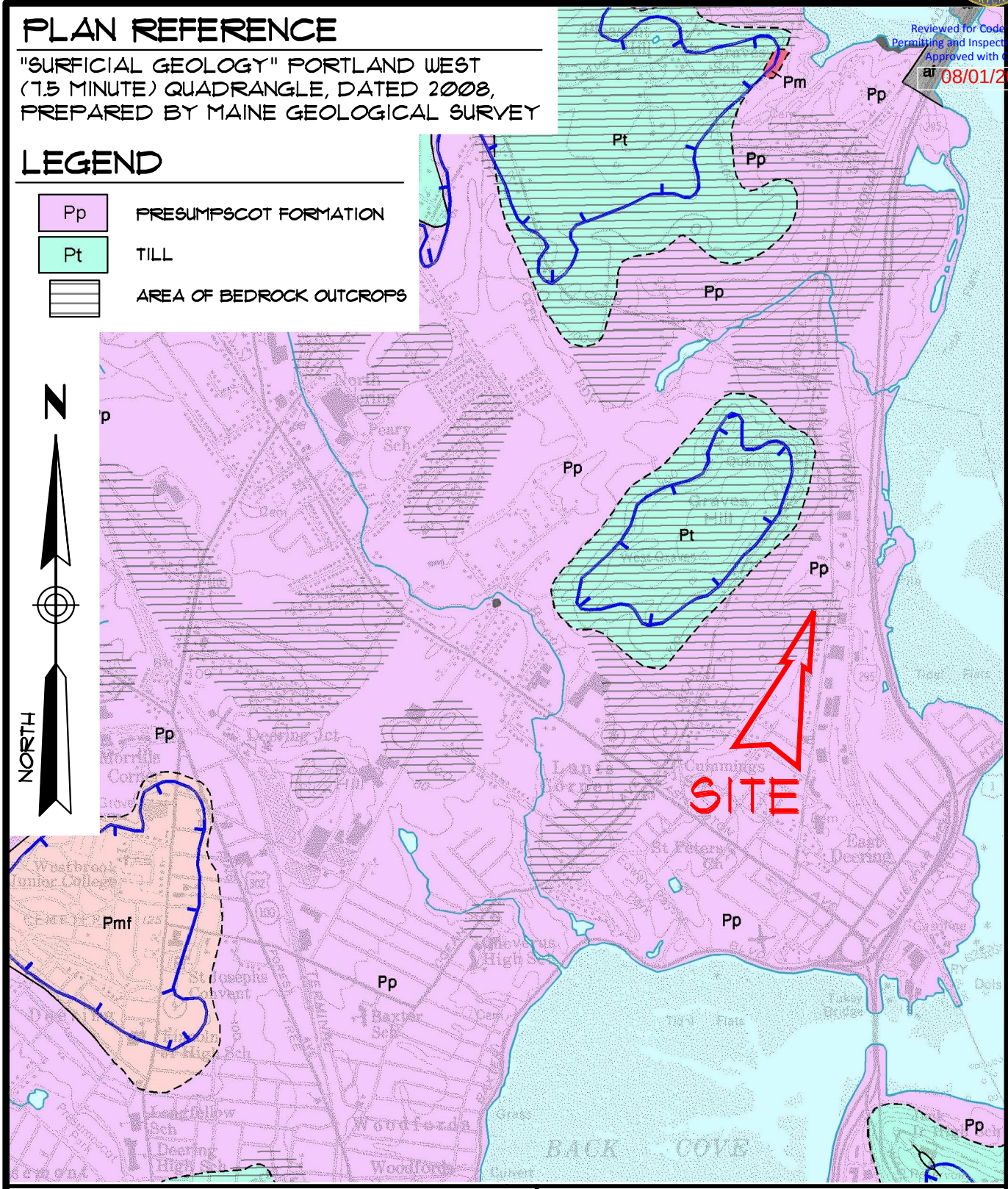
PLAN REFERENCE

"SURFICIAL GEOLOGY" PORTLAND WEST (7.5 MINUTE) QUADRANGLE, DATED 2008, PREPARED BY MAINE GEOLOGICAL SURVEY

LEGEND

Pp	PRESUMPSCOT FORMATION
Pt	TILL
	AREA OF BEDROCK OUTCROPS



SURFICIAL GEOLOGY MAP
INDUSTRIAL DEVELOPMENT

314 PRESUMPSCOT STREET - PORTLAND, MAINE

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DATE: 11-8-2016	DRAWN BY: KRF	CHECKED BY: CWC
JOB: 16239	SCALE: 1" =2000'	FILE: 16239 MAPS

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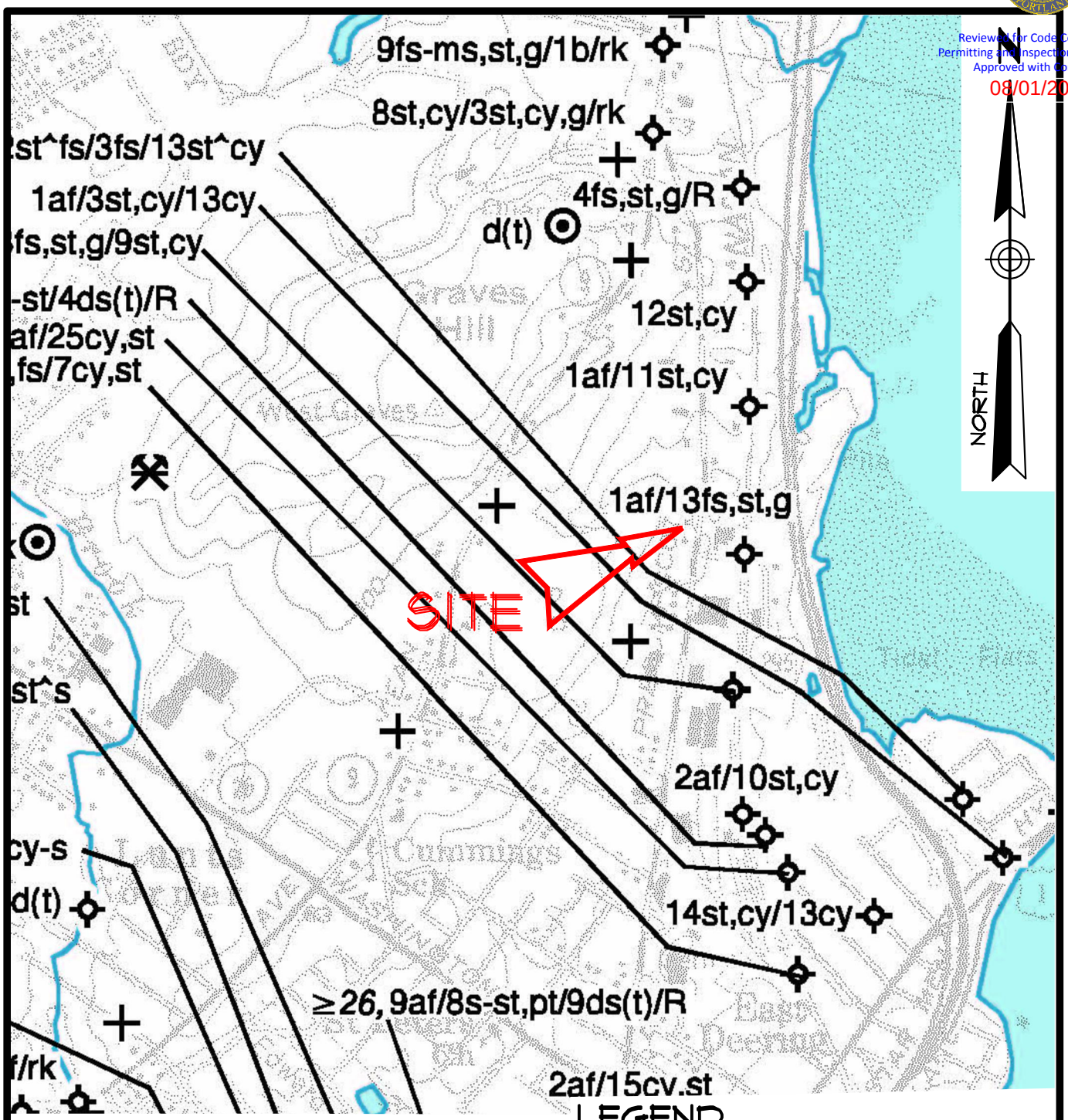

PLAN REFERENCE

"SURFICIAL MATERIALS" PORTLAND WEST (7.5 MINUTE) QUADRANGLE, DATED 1999, PREPARED BY MAINE GEOLOGICAL SURVEY.

LEGEND

- BEDROCK OUTCROP
- TEST BORING WITH MATERIAL DATA
- MATERIALS DATA FROM SHOVEL HOLE

SURFICIAL MATERIALS MAP
INDUSTRIAL DEVELOPMENT

314 PRESUMPSCOT STREET - PORTLAND, MAINE

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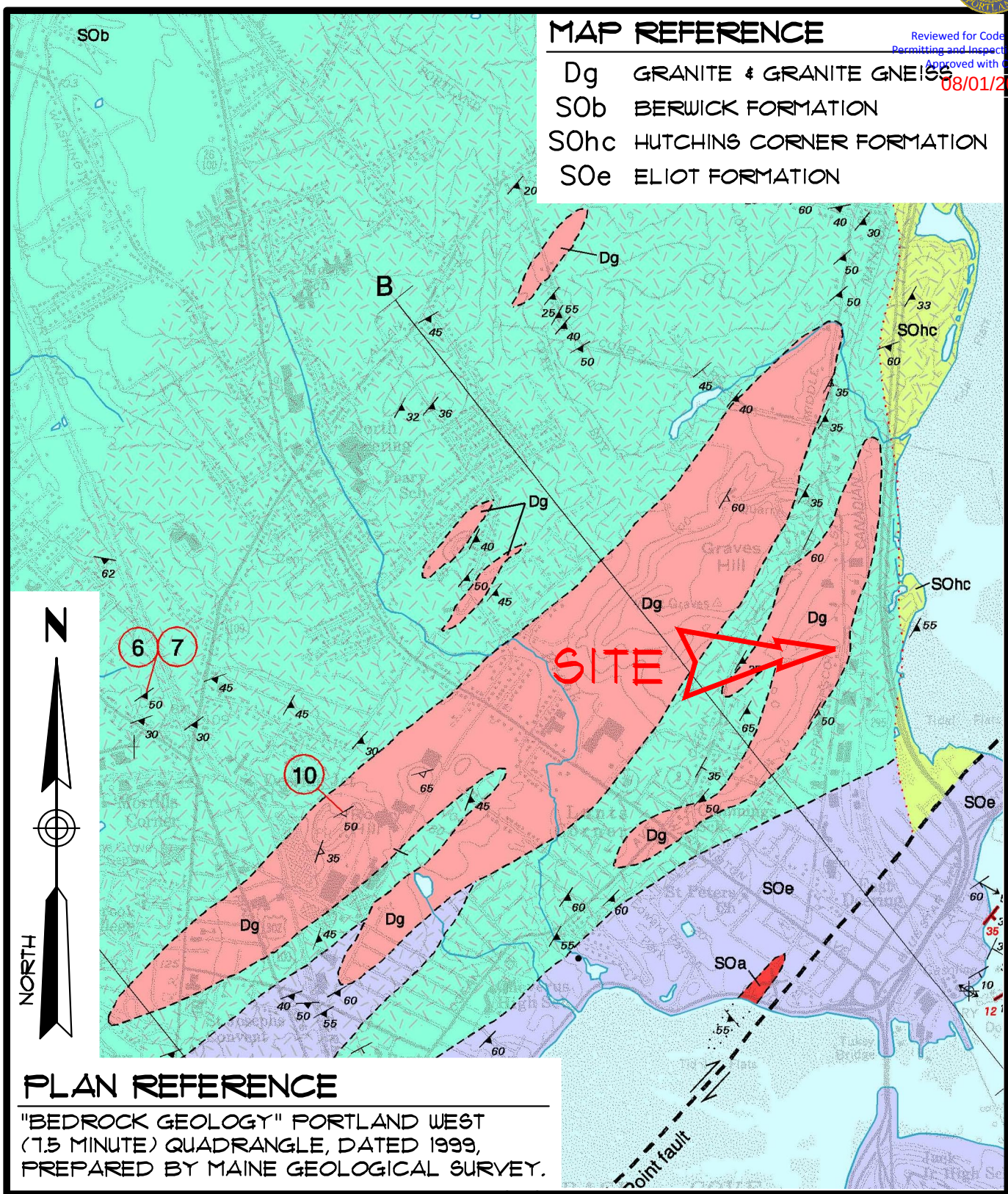

PLAN REFERENCE

"BEDROCK GEOLOGY" PORTLAND WEST (7.5 MINUTE) QUADRANGLE, DATED 1999, PREPARED BY MAINE GEOLOGICAL SURVEY.

BEDROCK GEOLOGY MAP
INDUSTRIAL DEVELOPMENT

314 PRESUMPSCOT STREET - PORTLAND, MAINE

PREPARED FOR

LAND DESIGN SOLUTIONS

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APPENDIX B

BORING LOGS

PHOTOGRAPH LOGS

SOIL BORING LOG

SUMMIT GEOENGINEERING SERVICES

Project:	Industrial Development	Boring #:	B-1
Location:	314 Presumpscot Street	Project #:	16239
City, State:	Portland, Maine	Sheet:	1 of 1
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services	Boring Elevation:	61 feet +/-
Driller:	Craig Coolidge, P.E.	Reference:	Grading & Drainage Plan provided by Land Design Solutions
Summit Staff:	Erika Stewart, E.I., Brett Deyling, P.E.	Date started: 11/3/2016	Date Completed: 11/3/2016

DRILLING METHOD		SAMPLER	
Vehicle:	AMS	Length:	24" SS
Model:	9500 VTR	Diameter:	2"OD/1.5"ID
Method:	2-¼" HSA	Hammer:	140 lb
Hammer Style:	Auto Drop	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
11/3/2016	17 ft	44 ft	Measured in augers

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	18/12	0 - 1.5	4		Brown SAND, some Gravel, little Silt, compact, damp,		GRANULAR FILL
1				12		SP-SM		
				19		Dark brown Silty SAND, little Gravel, compact, damp,		0.5'
2				50/1"		SM		ASSORTED FILL
						(Spoon refusal on cobble at 1.5')		
3								
						Olive gray Silty CLAY, little Sand and Gravel, firm,		3'+/-
4						moist, CL		
5								4.5'+/-
	S-2	24/2	5 - 7	5		Dark brown Silty SAND, little Gravel, trace brick,		
6				5		loose, SM		
				4				
7				3				
8						Cobble at 7.5'		
9								
10								9.5'+/-
	S-3	24/12	10 - 12	2		Light brown medium-fine SAND, trace Silt and		
11				4		Gravel, loose, damp, SP		
				3	50.5	Olive gray to brown fine SAND, some Silt, little		10.5'
12				4		Gravel, loose, damp, SM		GLACIAL MARINE DEPOSIT
13								
14								
15								
	S-4	22/22	15 - 16.8	1		Gray and slightly mottled fine SAND, some Silt, trace		
16				3		Clay and organics, loose/firm, damp, SM		
				13				
17				50/4"	44.5	Spoon refusal on cobble at 16.8'		16.5'+/-
						Mottled brown Silty SAND, some to little Gravel,	Water at 17'	GLACIAL TILL
18						compact to dense, wet, SM		
					42.9	End of Exploration at 18.1', Auger Refusal on		18.1'
19						Bedrock		BEDROCK
20								
21								
22								

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, NE = None Encountered, N/A = Not Applicable, SSA = Solid Stem Auger, HSA = Hollow stem auger

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SOIL BORING LOG

SUMMIT GEOENGINEERING SERVICES

Project:	Industrial Development	Boring #:	B-2
Location:	314 Presumpscot Street	Project #:	16239
City, State:	Portland, Maine	Sheet:	1 of 1
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services	Boring Elevation:	59 feet +/-
Driller:	Craig Coolidge, P.E.	Reference:	Grading & Drainage Plan provided by Land Design Solutions
Summit Staff:	Erika Stewart, E.I., Brett Deyling, P.E.	Date started: 11/3/2016	Date Completed: 11/3/2016

DRILLING METHOD		SAMPLER	
Vehicle:	AMS	Length:	24" SS
Model:	9500 VTR	Diameter:	2"OD/1.5"ID
Method:	2-¼" HSA	Hammer:	140 lb
Hammer Style:	Auto Drop	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
11/3/2016	Caved at 12.5', moist		Measured in augers

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/18	0 - 2	5		Gravelly SAND, little Silt, compact, damp, SP-SM		GRANULAR FILL
1				6		Dark brown Silty SAND, little Gravel, compact, damp, SM		0.5' ASSORTED FILL
				30				
2				12		Concrete and brick pieces		1'
3						Dark brown Silty SAND, little Gravel, compact, damp, SM		2'
4								
					55			4'+/- GLACIAL MARINE DEPOSIT
5								
	S-2	24/12	5 - 7	1		Gray Silty CLAY, some to little Sand, soft to firm, moist, CL	PP = 500 to 1,000 psf	
6				2				
				2				
7				1				
8								
9								
10								
	S-3	24/24	10 - 12	1		Gray Silty CLAY, little Sand, trace organics, soft to firm, moist, CL	PP = 1,000 to 2,000 psf	
11				2				
				3				
12				4				
13					46.5	Denser drilling at 12.5'		12.5' GLACIAL TILL
14								
15						Mottled brown Silty SAND, some to little Gravel, compact to dense, wet, SM		
	S-4	3/3	15 - 15.2	50/3"				
16					43.8	End of Exploration at 18.1', Spoon and Auger Refusal on Bedrock		15.2' BEDROCK
17								
18								
19								
20								
21								
22								

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, NE = None Encountered, N/A = Not Applicable, SSA = Solid Stem Auger, HSA = Hollow stem auger

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SOIL BORING LOG

SUMMIT GEOENGINEERING SERVICES

Project:	Industrial Development	Boring #:	B-3
Location:	314 Presumpscot Street	Project #:	16239
City, State:	Portland, Maine	Sheet:	1 of 1
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services	Boring Elevation:	44 feet +/-
Driller:	Craig Coolidge, P.E.	Reference:	Grading & Drainage Plan provided by Land Design Solutions
Summit Staff:	Erika Stewart, E.I., Brett Deyling, P.E.	Date started: 11/3/2016	Date Completed: 11/3/2016

DRILLING METHOD		SAMPLER	
Vehicle:	AMS	Length:	24" SS
Model:	9500 VTR	Diameter:	2"OD/1.5"ID
Method:	2-¼" HSA	Hammer:	140 lb
Hammer Style:	Auto Drop	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
11/3/2016	5 ft +/-		Observed moisture content
11/3/2016	2 ft		Measured open hole (Caved and pushed groundwater up)

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/12	0 - 2	WOH		Dark brown SILT, rootlets, very soft, moist, ML		TOPSOIL
1				1		Olive brown and slightly mottled Clayey SILT, trace organics, soft to firm, damp, ML		0.5' GLACIAL MARINE DEPOSIT
				1				
2				3				
3								
4								
					40			4'+/- GLACIAL TILL
5								
	S-2	24/18	5 - 7	7		Olive brown and mottled SAND, some to little Gravel, little Silt, dense, wet, SM		
6				12				
				20				
7				18				
8								
9								
10						Same as above, dense, wet, SM		
	S-3	2/2	10 - 10.1	50/2"		Granite rock fragments in spoon tip (Spoon refusal on cobble at 10.1')		
11								
12								
13								
14					30.5	End of Exploration at 13.5', Auger Refusal on Bedrock		13.5' BEDROCK
15								
16								
17								
18								
19								
20								
21								
22								

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
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>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

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Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT
GEOENGINEERING SERVICES

PHOTOGRAPHIC LOG

Client Name:	**Project No.**
Land Design Solutions	16239

Photo No. 1

Date: 11-3-2016

Site Location:

314 Presumpscot Street
Portland, Maine

Description:

Photograph of split spoon sampling at boring B-1.

Photo No. 2

Date: 11-3-2016

Site Location:

314 Presumpscot Street
Portland, Maine

Description:

Photograph of boring B-2 location, facing north.

SUMMIT
GEOENGINEERING SERVICES

PHOTOGRAPHIC LOG

Client Name:	**Project No.**
Land Design Solutions	16239

Photo No. 3

Date: 11-3-2016

Site Location:

314 Presumpscot Street
Portland, Maine

Description:

Photograph of boring B-3 location next to existing slope. Slope is currently 2H:1V with proposed grading of 1.5H:1V.

Photo No. 4

Date: 11-3-2016

Site Location:

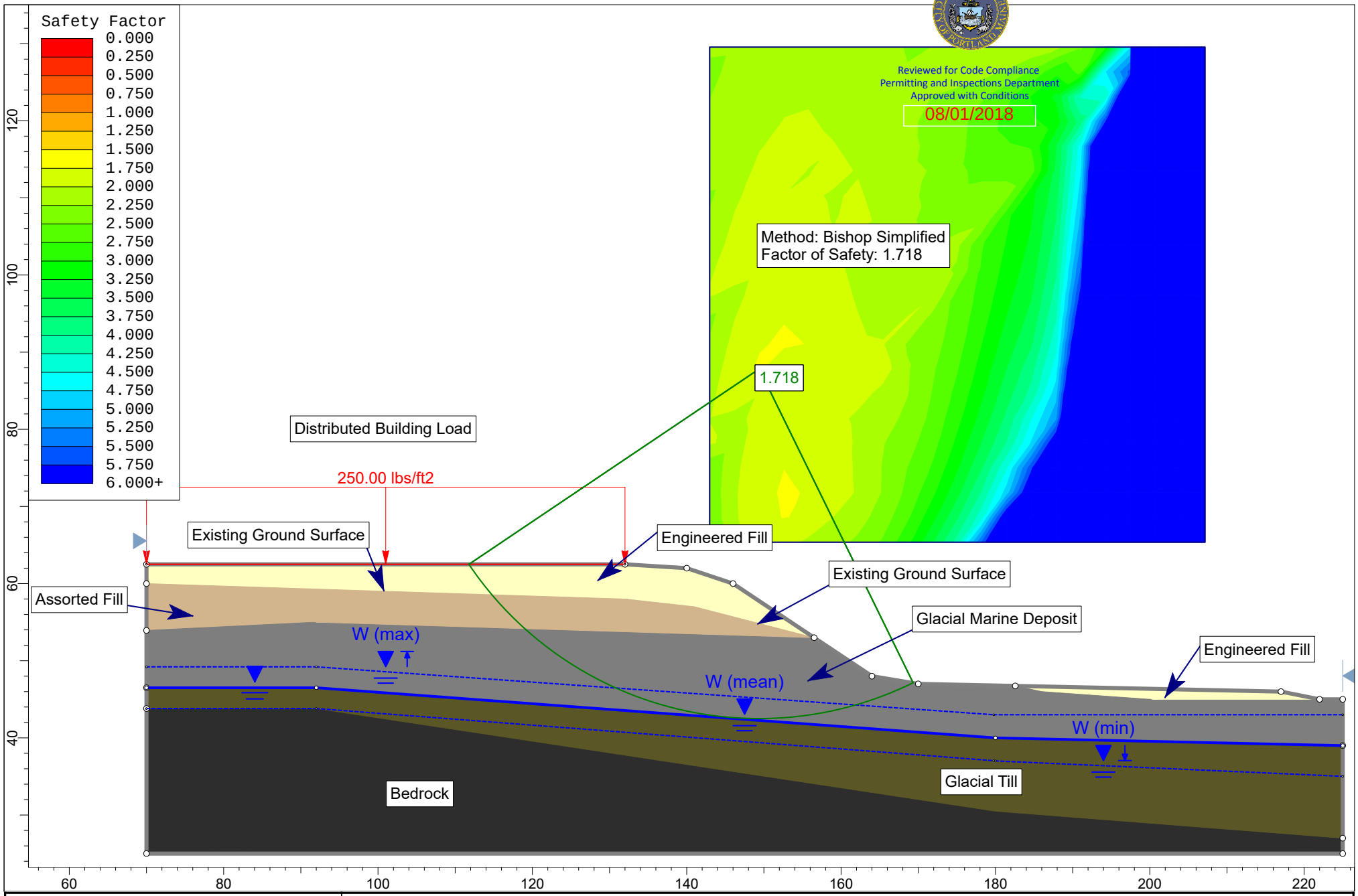
314 Presumpscot Street
Portland, Maine

Description:

Photograph of bedrock outcrops adjacent to driveway. Bedrock consists of gray granite and granite gneiss.

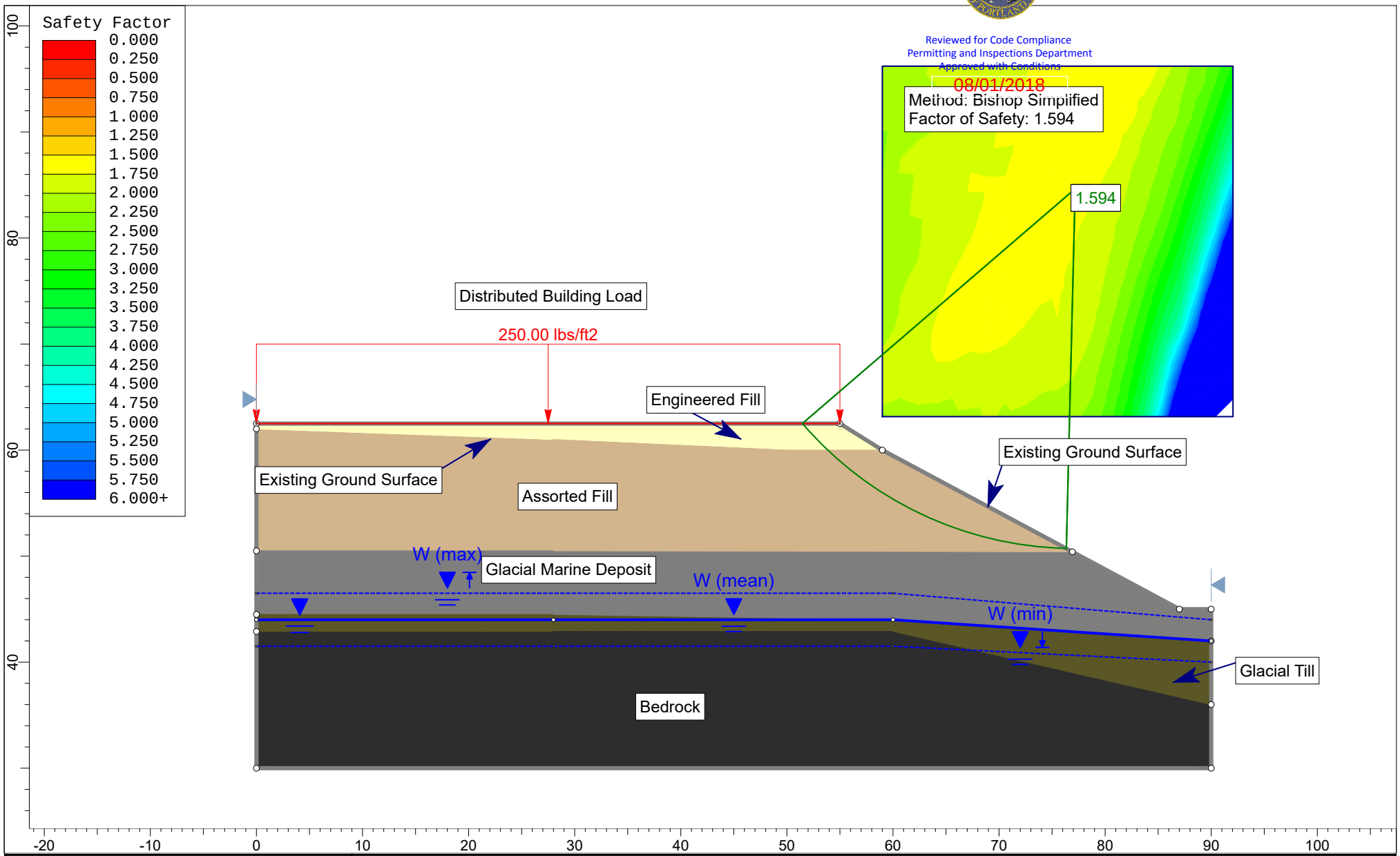
APPENDIX C

SLOPE STABILITY ANALYSIS



Project	Industrial Development - 314 Presumpscot Street, Portland, Maine		
Analysis Description	Cross Section A-A - Proposed 1.5H:1V Slope (West to East through boring B-2 & B-3)		
Drawn By Erika Stewart, E.I.	*Scale* 1:200	*Company* Summit Geoengineering Services	
Date 11/9/2016, 4:59:59 PM		*File Name* 16239 Slope Stability - Section A-A.slim	

SLIDEINTERPRET 6.037



Project	Industrial Development - 314 Presumpscot Street, Portland, Maine		
Analysis Description	Cross Section B-B - Existing 2H:1V Slope (South to North through Boring B-1)		
Drawn By: Erika Stewart, E.I.	Scale: 1:150	Company: Summit Geoengineering Services	
Date: 11/10/2016, 11:52:16 AM		File Name: 16239 Slope Stability - Section B-B.slim	

SLIDEINTERPRET 6.037

From: Veilleux, Marc [mailto:Marc.Veilleux@maine.gov]
Sent: Friday, June 15, 2018 11:15 AM
To: Stephanie Lull
Subject: RE: Casco Bay Electric Office plans and sections

Stephanie,

Thank you for your quick response. I am satisfied with the project, please find your Barrier Free Permit attached.

Have a great day!

Marc

Marc A. Veilleux
Public Safety Inspector II, CFI-I, CFPE
Plans Review
Maine State Fire Marshals Office
45 Commerce Drive
Augusta, Maine 04333-0165
Office # 207-626-3880
Cell # 207-592-0757
Fax #207 287-6251
Marc.Veilleux@maine.gov
http://www.maine.gov/dps/fmo/index.htm