

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND

BUILDING PERMIT

This is to certify that KELTON REAL ESTATE HOLDINGS
LLC – MAINE PARTS & MACHINE

Located At 68 WALDRON WAY

Job ID: 2012-03-3490-ALTCOMM

CBL: 306- B-018-001

has permission to Build 4,500 sf Single story commercial addition for accessory offices and parking lot expansion provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

Fire Prevention Officer

[Signature] 5/10/12

Code Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Job No: 2012-03-3490-ALTCOMM	Date Applied: 3/12/2012	CBL: 306- B-018-001	
Location of Construction: 68 WALDRON WAY	Owner Name: KELTON REAL ESTATE HOLDINGS LLC- Bill Kelton	Owner Address: 68 WALDRON WAY PORTLAND, ME 04103	Phone: 797-0024
Business Name: Maine Parts and Machine	Contractor Name: Dick Butterfield @ RGB Construction	Contractor Address: 550 FOREST AVE, PORTLAND MAINE 04103	Phone: (207) 329-4143
Lessee/Buyer's Name:	Phone:	Permit Type: BLDG ADDITION	Zone: I-M
Past Use: Industrial Manufacturing with accessory offices	Proposed Use: Same: Industrial Manufacturing with accessory offices - 4,500 sq ft building addition with parking lot expansion	Cost of Work: \$310,000.00	CEO District:
		Fire Dept: <input checked="" type="checkbox"/> Approved w/conditions <input type="checkbox"/> Denied <input type="checkbox"/> N/A	Inspection: Use Group: F-2/B Type: 3B FBL-2009 AMB 5/10/12
Proposed Project Description: Single story addition to commercial building		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Brad		Zoning Approval	

<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building Permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work.</p>	<p>Special Zone or Reviews</p> <p><input type="checkbox"/> Shoreland <i>NA</i></p> <p><input type="checkbox"/> Wetlands</p> <p><input type="checkbox"/> Flood Zone <i>Panel 1 Zone C</i></p> <p><input type="checkbox"/> Subdivision</p> <p><input checked="" type="checkbox"/> Site Plan</p> <p><i># 2011-257 level II</i></p> <p><input type="checkbox"/> Maj <input type="checkbox"/> Min <input type="checkbox"/> MM</p> <p>Date: <i>OK with conditions</i> <i>3/12/12</i></p>	<p>Zoning Appeal</p> <p><input type="checkbox"/> Variance</p> <p><input type="checkbox"/> Miscellaneous</p> <p><input type="checkbox"/> Conditional Use</p> <p><input type="checkbox"/> Interpretation</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Denied</p> <p>Date:</p>	<p>Historic Preservation</p> <p><input checked="" type="checkbox"/> Not in Dist or Landmark</p> <p><input type="checkbox"/> Does not Require Review</p> <p><input type="checkbox"/> Requires Review</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Approved w/Conditions</p> <p><input type="checkbox"/> Denied</p> <p>Date: <i>S</i></p>
	CERTIFICATION		

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

Footings/Setbacks prior to pouring concrete

Close In Elec/Plmb/Frame prior to insulate or gyp

Final Inspection

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.



PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life • www.portlandmaine.gov

Acting Director of Planning and Urban Development
Gregory Mitchell

Job ID: 2012-03-3490-ALTCOMM

Located At: 68 WALDRON WAY

CBL: 306- B-018-001

Conditions of Approval:

Zoning

1. This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.
2. Separate permits shall be required for any new signage.
3. As discussed during the review process, the property must be clearly identified prior to pouring concrete and compliance with the required setbacks must be established. Due to the proximity of the setbacks of the proposed addition, it may be required to be located by a surveyor.
4. This property shall remain industrial manufacturing with accessory offices. Any change of use shall require a separate permit application for review and approval.
5. This I-M zone has maximum noise allowances. The City of Portland strictly enforces the level of sound generated on the property. Any verified noise violations shall require the owner to take mitigating measures to bring the property and the noise it generates into compliance. This office will need separate permits for any new HVAC units. Information showing dBAs shall be included with your application

Fire

1. All construction shall comply with City Code Chapter 10.
2. Emergency lights and exit signs are required. Emergency lights and exit signs are required to be labeled in relation to the panel and circuit and on the same circuit as the lighting for the area they serve.
3. Fire extinguishers are required. Installation per NFPA 10.
4. The Fire alarm and Sprinkler systems shall be reviewed by a licensed contractor[s] for code compliance. Compliance letters are required.
5. A separate Fire Alarm Permit is required for new systems; or for work effecting more than 5 fire alarm devices; or replacement of a fire alarm panel with a different model.
6. A separate Suppression System Permit is required for all new suppression systems or sprinkler work effecting more than 20 heads.
7. Sprinkler protection shall be maintained. Where the system is to be shut down for maintenance or repair, the system shall be checked at the end of each day to insure the system has been placed back in service.
8. Non-combustible construction of this structure requires all construction to be Non-combustible.
9. Any cutting and welding done will require a Hot Work Permit from Fire Department.

Building

1. Application approval based upon information provided by applicant. Any deviation from approved plans requires separate review and approval prior to work.
2. At the completion of the work, prior to the final inspection and occupancy, the final special inspections report stating substantial compliance shall be submitted to this office.
3. Any new or modifications to building systems (HVAC, electrical, plumbing) shall meet IECC or ASHRAE 90.1 requirements for energy code compliance.
4. Separate permits are required for any electrical, plumbing, sprinkler, fire alarm, HVAC systems, heating appliances, including pellet/wood stoves, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.
5. Ventilation of this space is required per ASHRAE 62.1, 2007 edition.
6. Per Section 1705.3.3, seismic design category C requires additional supports for HVAC and piping systems containing hazardous materials or flammable, combustible or highly toxic materials and for emergency or stand by power equipment.



General Building Permit Application

Entered 3/2/12 (18)

2012-03-3490 - Alt Comm

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>68 WALDRON WAY</u>		
Total Square Footage of Proposed Structure/Area <u>4,498 ADD'N + 14,862 EXIST.</u>	Square Footage of Lot <u>2.46 AC.</u>	
Tax Assessor's Chart, Block & Lot Chart# <u>306</u> Block# <u>0018</u> Lot# <u>MAP 311, LOT A-14, &</u> <u>MAP 306 - LOT B-18</u>	Applicant * <u>must</u> be owner, Lessee or Buyer* Name <u>BILL KELTON</u> Address <u>68 WALDRON WAY</u> City, State & Zip <u>PTLD, ME 04104</u>	Telephone: <u>MAINE PARTS &</u> <u>MACHINE</u> <u>797.0024</u>
Lessee/DBA (If Applicable) <u>NA</u>	Owner (if different from Applicant) Name <u>Kelton Real Estate Holdings LLC</u> Address <u>SEE ABOVE</u> City, State & Zip <u>SEE ABOVE</u>	Cost Of Work: \$ <u>310,000</u> C of O Fee: \$ _____ Total Fee: \$ <u>3,120</u>
Current legal use (i.e. single family) <u>INDUSTRIAL - FACTORY</u> If vacant, what was the previous use? <u>NA</u> Proposed Specific use: <u>INDUSTRIAL - FACTORY</u> Is property part of a subdivision? <u>YES</u> If yes, please name <u>WALDRON WAY - OFF RIVERVIEW</u> Project description: <u>SINGLE STORY SLAB ON GRADE STRUCTURE W/ CMU STRUCTURAL WALLS & STEEL TRUSS ROOF. PRODUCTION FLOOR SPACE ONLY W/ LOADING DOORS - ADDITION TO EXISTING STRUCT.</u>		
Contractor's name: <u>DICK BUTTERFIELD</u> Address: <u>RGB CONSTRUCTION 550 FOREST AVE SUITE 105 P.O. BOX 10</u> City, State & Zip: <u>PORTLAND ME 04103</u> Telephone: <u>329.4143</u> Who should we contact when the permit is ready: <u>RGB CONSTR.</u> Telephone: _____ Mailing address: <u>SEE ABOVE</u>		

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature: [Signature] Date: 3/8/12

This is not a permit; you may not commence ANY work until the permit is issue

775-2696

X101

RECEIVED
MAR 12 2012
INSPECTIONS DIVISION

Jeanie Bourke - Maine Parts and Machine, 68 Waldron Way - Building Permit Issuance

From: Philip DiPierro
To: Code Enforcement & Inspections
Date: 5/10/2012 2:37 PM
Subject: Maine Parts and Machine, 68 Waldron Way - Building Permit Issuance

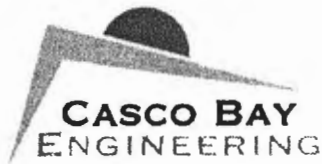
Hi all, this project, site plan #2011-257, the Maine Parts and Machine project at 68 Waldron Way, meets minimum DRC site plan requirements for the issuance of the building permit. The PG has been posted, site inspection fee and infrastructure contribution have been paid, and the preconstruction meeting held.

Please contact me with any questions. Thanks.

Phil

RECEIVED

APR 30 2012



Dept. of Building Inspections
City of Portland Maine CIVIL & STRUCTURAL ENGINEERING
www.cascobayengineering.com

424 Fore St., Portland, ME 04101 Phone 207.842.2800 Fax 207.842.2828

April 3, 2012

Mr. Bill Kelton
Maine Parts and Machine
68 Waldron Way
Portland, ME 04104

Re: CONTRACT FOR SPECIAL INSPECTION COORDINATION/SITE OBSERVATIONS
Maine Parts and Machine Addition

Project Number: 9080-B

Dear Mr. Kelton:

Thank you for the opportunity to provide you with Special Inspection Coordination/Site Observation Services for the Maine Parts and Machine Addition in Portland, Maine.

Description of Project

The project involves approximately 4,500 sf of additional manufacturing space for a one-story structural steel building on top of a first floor exterior footing foundation system and concrete slab.

Scope of Services

The Services to be provided by Casco Bay Engineering are described in Exhibit A, titled *Statement of Special Inspections*, and Exhibit B, titled *Terms and Conditions*.

Services Provided by Others

Separate contracts shall be negotiated between the Owner and other Inspection or Testing Agencies indicated on Exhibit A or as required for the project as the project progresses.

Engineering Charges

Compensation for our services will be calculated on an hourly rate basis per our standard rate schedule. Additional Services will be charged at our then current standard hourly rates.

Our current standard hourly rate schedule is:

Principal	\$100.00/hour
Project Engineer	\$85.00/hour
Designer/Drafter	\$65.00/hour

Reimbursable Expenses

Reimbursable expenses shall be billed with a multiplier of 1.00 times the cost incurred. These costs include mileage, reproduction, postage, and long distance communication costs.


Additional Provisions

If Basic Services covered by this Agreement have not been completed within 18 months of the date hereof, through no fault of the Structural Engineer, the amounts of compensation set forth in this Agreement shall be equitably adjusted.


This Letter of Agreement, along with Exhibits A and B hereto, constitute the entire agreement between the parties. Please examine these documents and if acceptable, sign the original letter and return it to us while retaining a copy for your records. We will begin services upon receipt of a signed contract.

We look forward to continuing our work with you.

Sincerely,


Eric Dube, P.E.
Principal
Casco Bay Engineering

ACCEPTED BY


Mr. Bill Kelton

4/9/12
Date

CASE Document 4-1996

An Agreement Between Owner and Structural Engineer for Special Inspection Coordination/Site Observations EXHIBIT B — Terms and Conditions

This is an exhibit attached to and made part of the agreement dated 4/3/12, between Casco Bay Engineering and Maine Parts and Machine Addition in Portland, ME.

Section 1 - General

1.1 This Agreement

- 1.1.1 These Terms and Conditions, along with the Letter Agreement, and Exhibit A — Statement of Special Inspections, form the Agreement as if they were part of one and the same document. Unless otherwise specified, this Agreement shall be governed by the laws of the principal place of business of the Special Inspector.
- 1.1.2 The Letter Agreement and Exhibit A may limit or negate the applicability of portions of these Terms and Conditions. Such limitation shall take precedence over provisions of this Exhibit.

1.2 General obligations of the Special Inspector Coordinator/Site Observer and the Owner:

- 1.2.1 Eric Dube, P.E., of Casco Bay Engineering, hereinafter referred to as the Special Inspector Coordinator/Site Observer, shall provide Special Inspection Coordination/Site Observations related to the project as summarized in the Statement of Special Inspections, Exhibit A, and as further detailed in these Terms and Conditions.
- 1.2.2 The Owner shall provide to the Special Inspector Coordinator/Site Observer and additional Inspection and/or Testing Agencies a complete set of Contract Documents, sealed by the Design Professional and approved by the Building Official.
- 1.2.3 The Owner shall direct the Contractor to notify the Special Inspection Coordinator/Site Observer and additional Special Inspection and Testing Agencies (noted in Exhibit A) of the Contractor's progress so the Special Inspection Coordinator/Site Observer and additional Special Inspection and Testing Agencies (noted in Exhibit A) will have at least 24 hours notice prior to performance of work that will require inspection or testing.
- 1.2.4 The Owner shall designate a person to act with authority on his or her behalf in all aspects of the project.
- 1.2.5 The Special Inspection Coordinator/Site Observer shall designate a person or persons to act with authority on his or her behalf with respect to all aspects of the project,
- 1.2.6 The Special Inspection Coordinator/Site Observer or his or her designee shall notify the Contractor of his or her presence and responsibilities at the job site.
- 1.2.7 The Special Inspection Coordinator/Site Observer shall submit interim reports as may be required by the Building Official.
- 1.2.8 The Special Inspection Coordinator/Site Observer shall submit to the Building Official the final report of Special Inspections before issuance of the Certificate of Occupancy.

1.3 Definitions

- 1.3.1 **Special Inspection Program** is the mandatory quality assurance requirements for structural elements.
- 1.3.2 **Special Inspector Coordinator/Site Observer** is the Owner's agent that implements the Special Inspection Program for the project (normally the SER).
- 1.3.3 **Statement of Special Inspections** is the document filed with and approved by the Building Official that lists the materials and work requiring special inspection as stated in Exhibit A. This document shall include the inspections/observations to be performed, and the individuals, agencies and/or firms to be retained for conducting such inspections.
- 1.3.4 **Testing Laboratory** is an agency or firm qualified to inspect/observe structural elements and perform field and laboratory test to determine the characteristics and quality of building materials and workmanship.
- 1.3.5 **Contract Documents** are the Engineering and Architectural Drawings and Specifications issued for construction purposes, plus the Clarification Drawings, Addenda and Change Orders issued and acknowledged, including Contractors designed elements.
- 1.3.6 **Inspect and Inspection** are visual observation of materials, equipment, or construction work, on an intermittent basis, and as defined in Exhibit A, to determine that the work is in substantial conformance with the requirements of the Contract Documents.

Section 2 - Services

- 2.1.1 Services include implementation of the Special Inspection Program as designated in the Statement of Special Inspections for the Project and further detailed below. Some inspection and testing duties are to be performed by Testing Laboratories retained by either the Owner or the Special Inspection Coordinator/Site Observer, as agreed.
- 2.1.2 Unless otherwise stated in the Agreement, the Special Inspection Coordinator/Site Observer will provide only the following Services, as applicable to the Project.
- 2.1.3 Administrative Services:
 - The Special Inspection Coordinator/Site Observer shall keep records of all inspections related to the Statement of Special Inspections, Exhibit A.
 - The Special Inspection Coordinator/Site Observer shall review inspection and materials testing reports and will bring discrepancies to the attention of the Contractor.
 - The Special Inspection Coordinator/Site Observer shall distribute reports to the Building Official, the Architect, SER, Contractor, and the Owner. Reports will be submitted monthly unless more frequent submissions are requested by the Building Official.
- 2.1.4 In-Plant Review:
 - A Special Inspector shall review the Fabricator's facility to verify that the Fabricator maintains detailed fabrication and quality control procedures which provide a basis for inspection control of workmanship and the Fabricator's ability to conform to approved drawings, project specifications and referenced standards. A Special Inspector shall review the procedures for completeness and adequacy relative to the Building Code requirement for the Fabricator's scope of work. Or, a fabricator may be exempt from shop inspections when approved by the Building Official and is certified by the American Institute of Steel Construction (AISC).
 - The Special Inspection Coordinator/Site Observer shall not be responsible for the means, methods, techniques, sequences, or procedures selected by the Fabricator or safety precautions and program incident to the work of the Fabricator. The Special Inspection Coordinator/Site Observer's efforts will be directed toward providing a greater degree of confidence for the Owner and the Building Official that the completed work of the Fabricator will conform to the Contract Documents. The Special Inspection Coordinator/Site Observer shall not be responsible for the failure of the Fabricator to perform the work in accordance with the Contract Documents.

2.1.5 Certificate of Compliance Review:

- Certificates of Compliance shall be reviewed for conformance with the standards specified in the Contract Documents. Discrepancies will be brought to the attention of the Contractor.

2.1.6 Field Review:

- The Special Inspection Coordinator/Site Observer shall make site visits to inspect work designated to be reviewed by the Special Inspection Coordinator/Site Observer in the Statement of Special Inspections for the Project.
- The Special Inspection Coordinator/Site Observer shall not be responsible for the means, methods, techniques, sequences, or procedures of construction selected by the Contractor or safety precautions and programs incident to the work of the Contractor. The Special Inspection Coordinator/Site Observer's efforts will be directed toward providing a greater degree of confidence for the Owner and the Building Official that the completed work of the Contractor will conform to the Contract Documents. The Special Inspection Coordinator/Site Observer shall not be responsible for the failure of the Contractor to perform the construction work in accordance with the Contract Documents.

2.1.7 Material Testing and Inspection:

- The Special Inspection Coordinator/Site Observer shall review reports from Testing Laboratories to determine if the testing laboratory has verified conformance of the reported item of work with the Contract Documents.
- The Special Inspection Coordinator/Site Observer shall initiate appropriate action in response to those reports, if required.

Section 3 - Fees and Payments

3.1 Fees and Other Compensation

3.1.1 Fees and Compensation for Reimbursable Expenses are set forth in the letter Agreement.

3.2 Payments on Account

3.2.1 Invoices for the Special Inspection Coordinator/Site Observer's services shall be submitted, at the Special Inspection Coordinator/Site Observer's option, either upon completion of any phase of service or on a monthly basis. Invoices shall be payable when rendered and shall be considered PAST DUE if not paid within 30 days after the invoice date.

3.2.2 Retainers, if applicable, shall be credited to the final invoice(s).

3.2.3 Any inquiry or questions concerning the substance or content of an invoice shall be made to the Special Inspection Coordinator/Site Observer in writing within 10 days of receipt of the invoice. A failure to notify the Special Inspection Coordinator/Site Observer within this period shall constitute an acknowledgement that the service has been provided and that the invoice is correct.

3.3 Late Payments

3.3.1 A service charge will be charged at the rate of 1.5% (18% true annual rate) per month or the maximum allowable by law on the then outstanding balance of PAST DUE accounts. In the event any portion of an account remains unpaid 90 days after billing, the Owner shall pay all costs of collection, including reasonable attorney's fees.

3.3.2 In the event that any portion of an account remains unpaid 30 days after billing, the Special Inspection Coordinator/Site Observer may, without waiving any claim or right against the Owner, and without liability whatsoever to the Owner, suspend or terminate the performance of all services.

Section 4 - Insurance, Indemnifications and Risk Allocation

4.1 Insurance

- 4.1.1 The Special Inspection Coordinator/Site Observer shall secure and endeavor to maintain professional liability insurance, and commercial general liability insurance to protect the Special Inspection Coordinator/Site Observer from claims for negligence, bodily injury, death, or property damage which may arise out of the performance of the Special Inspection Coordinator/Site Observer's services under this Agreement, and from claims under the Workers' Compensation acts. The Special Inspection Coordinator/Site Observer shall, if requested in writing, issue a certificate confirming such insurance to the Owner.
- 4.1.2 The Owner shall verify that the Contractor maintains insurance that will adequately protect the Contractor from claims.

4.2 Indemnifications

- 4.2.1 The Owner shall indemnify and hold harmless the Special Inspection Coordinator/Site Observer and all of its personnel, from and against any and all claims, damages, losses and expenses (including reasonable attorney's fees) arising out of or resulting from the performance of the services, provided that any such claims, damage, loss or expense are caused in whole or in part by the negligent act or omission and/or strict liability of the Owner, anyone directly or indirectly employed by the Owner (except the Special Inspection Coordinator/Site Observer) or anyone for whose acts any of them may be liable.
- 4.2.2 The Owner shall indemnify and hold harmless the Special Inspection Coordinator/Site Observer and all of its personnel, from and against any and all claims, damages, losses and expenses (including reasonable attorney's fees) arising from the presence, discharge, release or escape of asbestos, hazardous waste, or other contaminants at the site.

4.3 Risk Allocation

- 4.3.1 In recognition of the relative risks, rewards and benefits of the Project to both the Owner and the Special Inspection Coordinator/Site Observer, the risks have been allocated such that the Owner agrees that, to the fullest extent permitted by law, the Special Inspection Coordinator/Site Observer's total liability to the Owner for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of this Agreement, from any cause Or causes, shall not exceed the amount of Special Inspection Coordinator/Site Observer's fee. Such causes include, but are not limited to, the Special Inspection Coordinator/Site Observer's negligence, errors, omissions, strict liability, breach of contract or breach of warranty.

Section 5 - Miscellaneous Provisions

5.1 Termination, Successors and Assigns

- 5.1.1 This agreement may be terminated upon 10 days written notice by either party should the other fail to perform its obligations hereunder. In the event of termination, the Owner shall pay the Special Inspection Coordinator/Site Observer for all services rendered to the date of termination, all reimbursable expenses, and reasonable termination expenses.
- 5.1.2 The Owner and the Special Inspection Coordinator/Site Observer each binds himself or herself, partners, successors, executors, administrators, assigns and legal representative to the other party of this Agreement and to the partners, successors, executors, administrators, assigns, and legal representative of such other party in respect to all covenants, agreements, and obligations of this Agreement.

- 5.1.3 Neither the Owner nor the Special Inspection Coordinator/Site Observer shall assign, sublet or transfer any rights under or interest in (including but without limitations, monies that may be due or monies that are due) this Agreement, without the written consent of the other, except as stated in the paragraph above, and except to the extent that the effect of this limitation may be restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assigner from any duty or responsibility under this Agreement. Nothing contained in this paragraph shall prevent the Special Inspection Coordinator/Site Observer from employing such independent consultants, associates and subcontractors as he or she may deem appropriate to assist in the performance of services hereunder.
- 5.1.4 The Special Inspection Coordinator/Site Observer and Owner agree that the services performed by the Special Inspection Coordinator/Site Observer pursuant to this Agreement are solely for the benefit of the Owner and are not intended by either the Special Inspection Coordinator/Site Observer or the Owner to benefit any other person or entity. To the extent that any other person or entity, including but not limited to the Contractor and/or any of its Subcontractors and other Design Professionals, is benefitted by the services performed by the Special Inspection Coordinator/Site Observer pursuant to this Agreement, such benefit is purely incidental and such other person or entity shall not be deemed a third party beneficiary to this contract.

5.2 Disputes Resolution

- 5.2.1 All claims, counterclaims, disputes and other matters in question between the parties hereto arising out of or relating to this Agreement or the breach thereof will be presented to non-binding mediation, subject to the parties agreeing to a mediator).

Section 6 - Supplemental Conditions

[Insert descriptions of any modifications to the Terms and Conditions included in this Agreement.]

1. Changed Special Inspector (or SI) to Special Inspector Coordinator/Site Observer. Changed Special Inspections to Special Inspection Coordination/Site Observations.
2. Exhibit A is the actual Statement of Special Inspections as proposed to be submitted to the Building Official rather than the CASE Document 4-1996 Schedule of Special Inspection Services which summarizes these services.
3. In-Plant Review (Section 2.1.4) added the clause "Or, a fabricator may be exempt from shop inspections when approved by the Building Official and is certified by the American Institute of Steel Construction (AISC).



*The Strength Behind
The Beauty*

CASE Council of American Structural Engineers
1015 Fifteenth Street, N.W., Suite 802, Washington, D.C. 20005 202-347-7474

Statement of Special Inspections

Project: *Maine Parts and Machine Addition*

Location: *68 Waldron Way, Portland, Maine 04104*

Owner: *Mr. Bill Kelton*

Design Professional in Responsible Charge: *Eric Dube, P.E., Casco Bay Engineering, Inc.*

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Special Inspection Coordinator and the identity of other approved agencies to be retained for conducting these inspections and tests. This *Statement of Special Inspections* encompass the following disciplines:

- Structural Mechanical/Electrical/Plumbing
 Architectural Other: _____

The Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

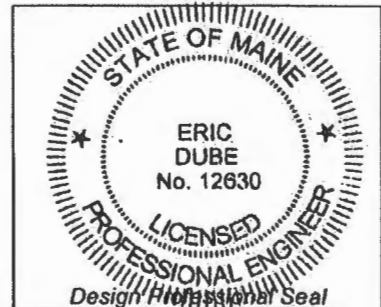
Interim Report Frequency: *Weekly*

or per attached schedule.

Prepared by:

Eric Dube
(type or print name)

[Signature] *4.3.12*
Signature Date



Owner's Authorization:

Building Official's Acceptance:

William W. Kelton *4/9/12*
Signature Date Signature Date



PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life - www.portlandmaine.gov

Director of Planning and Urban Development
Penny St. Louis

August 17, 2011

William Kelton
68 Waldron Way
Portland, ME 04103

Thomas S. Greer, P.E.
Pinkham and Greer
380 US Route One
Falmouth, ME 04105

Project Name: Maine Parts and Machine **Project ID:** 2011-257
Address: 68 Waldron Way **CBL:** 306-B-18
Applicant: William Kelton
Planner: Eric Giles

APR - 9 2012

Dear Mr. Kelton:

The Planning Authority approved your Level II site plan application for the Maine Parts and Machine expansion at 68 Waldron Way on August 17, 2011. This application was submitted on May 18, 2011 by Tom Greer of Pinkham and Greer and has been reviewed for compliance with the Site Plan Ordinance. This application has been approved with the following waivers and conditions:

Waivers:

1. The Planning Authority has granted the following waiver to Sec. 14-526 (a) Transportation Standards (c) Sidewalks due to the fact that this property is Lot 3 of the Sawyer Industrial Park Subdivision, which was approved in 1989 with a waiver to the sidewalk construction requirement.
2. The Planning Authority has granted the following waiver to Sec. 14-526 (b) Environmental Quality Standards (3) Water Quality, Stormwater Management and Erosion Control due to the incremental increase (7%) to the existing lot coverage and the financial cost to construct a water quality treatment system.

Conditions:

1. The applicant shall provide a financial infrastructure contribution of \$4,971 in lieu of on-site stormwater quality mitigation.

The approval is based on the submitted site plan. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

approved site plan, you must submit a revised site plan for staff review and approval.

STANDARD CONDITIONS OF APPROVAL

Please note the following standard conditions of approval and requirements for all approved site plans:

1. **Develop Site According to Plan** The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Modification of any approved site plan or alteration of a parcel which was the subject of site plan approval after May 20, 1974, shall require the prior approval of a revised site plan by the Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.
2. **Separate Building Permits Are Required** This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Inspection Division.
3. **Site Plan Expiration** The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.
4. **Performance Guarantee and Inspection Fees** A performance guarantee covering the site improvements, inspection fee payment of 2.0% of the guarantee amount and seven (7) final sets of plans must be submitted to and approved by the Planning Division and Public Services Department prior to the release of a building permit, street opening permit or certificate of occupancy for site plans. If you need to make any modifications to the approved plans, you must submit a revised site plan application for staff review and approval.
5. **Defect Guarantee** A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
6. **Preconstruction Meeting** Prior to the release of a building permit or site construction, a pre-construction meeting shall be held at the project site. This meeting will be held with the contractor, Development Review Coordinator, Public Service's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan. The site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.
7. **Department of Public Services Permits** If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

8. **As-Built Final Plans** Final sets of plans shall be submitted digitally to the Planning Division, on a CD or DVD, in AutoCAD format (*.dwg), release AutoCAD 2005 or greater.

The Development Review Coordinator must be notified five (5) working days prior to the date required for final site inspection. The Development Review Coordinator can be reached at the Planning Division at 874-8632. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Eric Giles at (207) 874-8723

Sincerely,



Alexander Jaegerman
Planning Division Director

Attachments:

1. Performance Guarantee Packet

Electronic Distribution:

Penny St. Louis Littell, Director of Planning and Urban Development Department
Alexander Jaegerman, Division Director, Planning
Barbara Barhydt, Development Review Services Manager, Planning
Eric Giles, Planner
Philip DiPierro, Development Review Coordinator, Planning
Marge Schmuckal, Zoning Administrator, Inspections Division
Tammy Munson, Plan Reviewer, Inspections Division
Lannie Dobson, Administration, Inspections Division
Michael Bobinsky, Director, Public Services
Katherine Earley, Engineering Services Manager, Public Services
Bill Clark, Project Engineer, Public Services
David Margolis-Pineo, Deputy City Engineer, Public Services
Jane Ward, Administration, Public Services
Capt. Keith Gautreau, Fire Department
Jeff Tarling, City Arborist, Public Services
Tom Errico, P.E., T.Y. Lin Associates
Dave Senus, P.E., Woodard & Curran
Assessor's Office
Approval Letter File



WHIPPLE-CALLENDER ARCHITECTS

TRANSMITTAL

DATE: April 2, 2012

TO: The City of Portland
c/o Jeanie B.
386 Congress St.
Portland Maine 04101

RE: Maine Parts and Machine Addition

WE ARE SENDING YOU THE FOLLOWING ITEMS:

X	PRINTS	SHOP DRAWINGS	AS REQUESTED
	LETTER	SAMPLE	FOR YOUR RECORDS
	SPECIFICATIONS	ON LOAN	FOR REVIEW/COMMENT
	ORIGINALS	FOR SUBMISSION	APPROVED AS NOTED
	OTHERS	FOR BIDS USE	CONTRACT

NO. COPIES	DATE	DESCRIPTION
1	4.2.12	ROOF INSUL. R-VALUE INFO
1	4.2.12	FOUNDATION R- VALUE INFO
1	4.2.12	SK-1 REVISED INT. WALL SK
1	4.2.12	EXIST. WALL DETAIL SCAN

REMARKS/MESSAGE:

Hi Jeanie-

Attached is the permit application for MPM. The civil reflects where Planning approval was gained for the site. Please call with any questions.

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APR 02 2012
 Dept. of Building Inspections
 City of Portland Maine

COPIES TO: owner,file

FROM: Joe Delaney

SK-1

MPM ADDITION

4.2.12

WATERPROOF COLLUM

MATCH EXISTING T.O.W.
BLOCKING DETAIL & CURB
FLASH DETAIL

PITCHED ROOF SURFACE
BACK TO ROOF DRAINS

FINISH SHEETROCK TO
UNDERSIDE OF DECK

FILL TRUSS BEARING
POCKET WITH CMU
MATERIAL

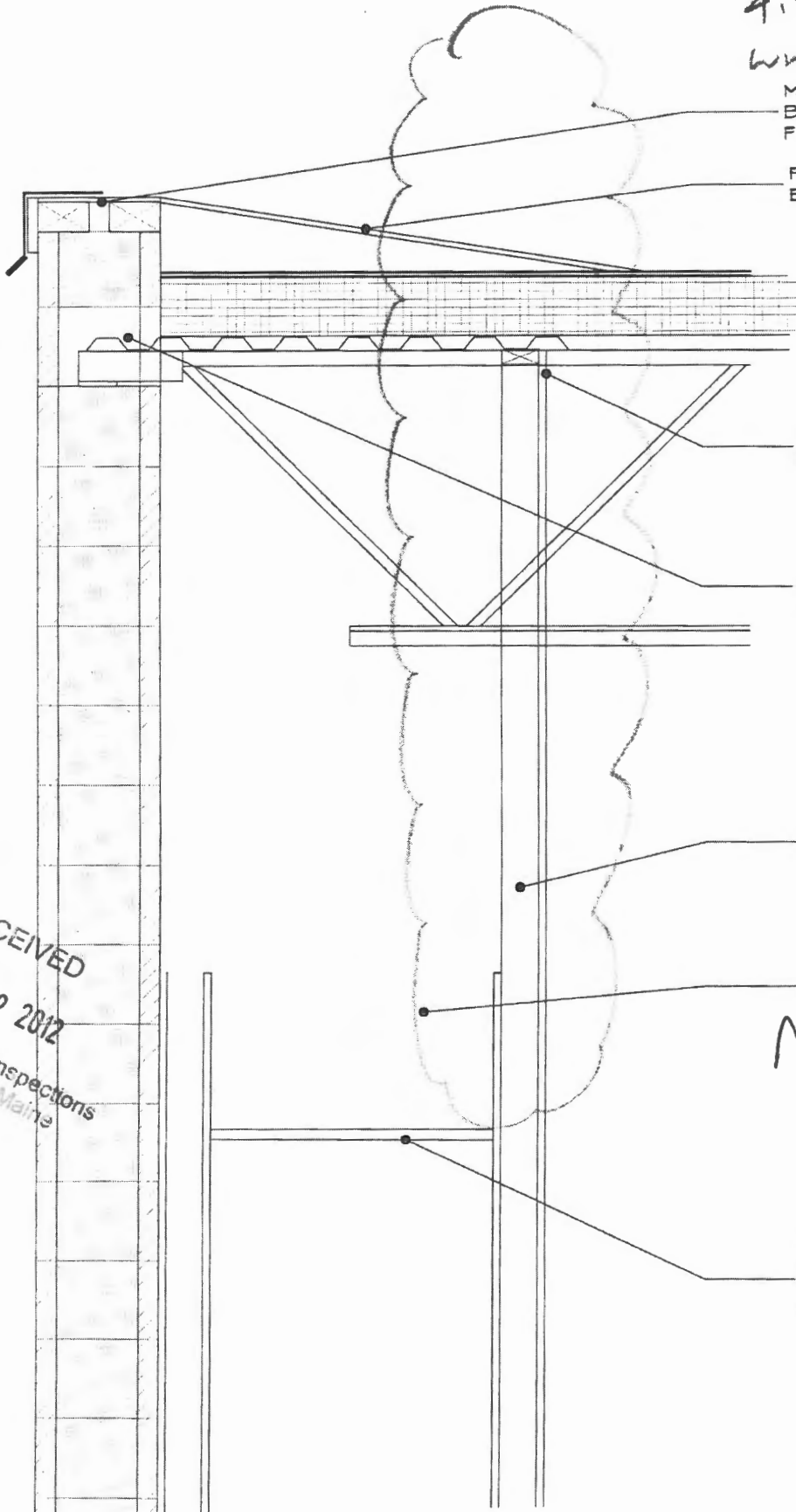
STEEL STUD FRAMED WALL

UN-OCCUPIED SPACE

**No Mezzanine
Approved**

SUSPENDED CEILING
SYSTEM WITH LAY IN LIGHT
FIXTURES- 10'7" AT Q.C.
ROOMS

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City of Portland Maine





ISO 95+™ GL Flat and Tapered

DESCRIPTION:

Firestone ISO 95+ GL flat and tapered roof insulation consists of a closed-cell polyiso foam core laminated to a black glass reinforced mat facer on both major surfaces. Flat and tapered ISO 95+ GL provide outstanding thermal performance on commercial roofing applications, while providing positive roof top drainage to help eliminate ponding water when tapered ISO 95+ GL is used.

All Firestone polyiso insulations use EPA accepted blowing agents and qualify under the Federal Procurement Regulation for Recycled Material. Flat and tapered ISO 95+ GL with IsoGard™ Foam Technology incorporates a HCFC-free blowing agent that does not contribute to the depletion of the ozone (ODP-free).

METHOD OF APPLICATION:

Insulation shall be neatly fitted to all roof penetrations, projections and nailers. No more insulation shall be installed than can be covered with membrane and completed before the end of each day's work or before the onset of inclement weather.

ISO 95+ GL FLAT AND TAPERED MUST BE INSTALLED

USING: Fasteners and plates, hot asphalt or Firestone approved insulation adhesives.

For ballasted systems, the top layer of Firestone insulation may not be mechanically attached.

ISO 95+ GL Flute Span Over Metal Decks				
Thickness	1.0"	1.25"	1.5"-3.8"	4.0"
Span	2.625"	3.675"	4.375"	4.5"

SPECIFICATION COMPLIANCE:

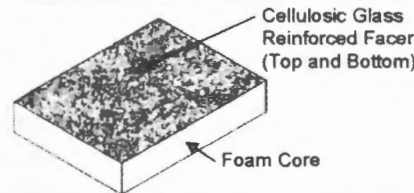
ASTM C1289, Type II, Class 1
UL Classified
FM Class 1 Approved
Manufactured in an ISO 9002 Registered Facility
CAN/ULC-S704, Type 1, Class 3



CCMC 13274-L



This sheet is meant to highlight Firestone's products and specifications and is subject to change without notice. Firestone takes responsibility for furnishing quality materials, which meet Firestone's published product specifications. Neither Firestone nor its representatives practice architecture. Firestone offers no opinion on and expressly disclaims any responsibility for the soundness of any structure. Firestone accepts no liability for structural failure or resultant damages. Consult a competent structural engineer prior to installation if the structural soundness or structural ability to properly support a planned installation is in question. No Firestone representative is authorized to vary this disclaimer.



PRODUCT DATA

Typical Thickness		LTTR* R-Value	
(inches)	(mm)		
1.00	25.4	6.0	
1.25	31.7	7.5	
1.50	38.1	9.0	
* 1.75	44.5	10.5	
2.00	50.8	12.1	TWO LAYERS
2.30	58.4	14.0	R = 24.2
2.50	63.5	15.3	Roof
2.80	71.1	17.2	
3.00	76.2	18.5	
3.25	82.6	20.1	
3.50	88.9	21.7	
3.75	95.3	23.4	
4.00	101.6	25.0	

*Long Term Thermal Resistance (LTTR) values provide a 15-year time-weighted average in accordance with CAN/ULC-S770.

POLYISO TYPICAL PROPERTIES

Physical Property	ASTM Test	English Values	Metric Values
Compressive Strength*	D 1621	20 psi, typical	138 kPa, typical
Density	D 1622	2 pcf	32 kg/m ³
Dimensional Stability	D 2126	<2%	<2%
Moisture Vapor Transmission	E 96	<1.0 Perm	<57.5 ng/(Pa·s·m ²)
Water Absorption	C 209	<1% by Volume	<1% by Volume
Service Temperature		-100° to 250° F	-73° to 121° C

*25 psi (172 kPa) available upon request.

AVAILABLE SIZES:

Flat Boards: 4' x 4' (1.22 m x 1.22 m)
4' x 8' (1.22 m x 2.44 m)
Thickness ranging 1.0" (25.4 mm) to 4.0" (101.6 mm)

Tapered Boards: 4' x 4' (1.22 m x 1.22 m)
4' x 8' (1.22 m X 2.44 m) (special order)

Thickness ranging 0.5" (12.7 mm) to 4.0" (101.6 mm)
Slopes ranging 1/16" per foot (.5%) to 1/2" per foot (4%)
See chart on page 2.

STORAGE AND PRECAUTIONS:

- Keep insulation dry at all times.
- Elevate insulation above the deck or ground.
- Cover insulation with waterproof tarps.
- Combustible. Refer to MSDS for more information.
- Do not install over wet, damp or uneven substrates.

MANUFACTURING LOCATIONS:

Florence, KY Corsicana, TX
Bristol, CT Jacksonville, FL Salt Lake, UT
DeForest, WI Youngwood, PA

Firestone Building Products Company
250 W 06th Street, Indianapolis, IN 46260
Sales (800) 428-4442 • Technical (800) 428-4511
www.firestonebpc.com

S723-RFS-066

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City of Portland Maine



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Dept. of Building Inspections
City of Portland

**STYROFOAM™ BRAND CAVITYMATE™
EXTRUDED POLYSTYRENE FOAM INSULATION**

1. PRODUCT NAME

STYROFOAM™ Brand
CAVITYMATE™ Extruded
Polystyrene Foam Insulation

2. MANUFACTURER

The Dow Chemical Company
Dow Building Solutions
200 Larkin
Midland, MI 48674
1-866-583-BLUE (2583)
Fax 1-989-832-1465

Dow Chemical Canada ULC
Dow Building Solutions
450 – 1st St. SW, Suite 2100
Calgary, AB T2P 5H1
1-866-583-BLUE (2583) (English)
1-800-363-6210 (French)
www.dowbuildingsolutions.com

3. PRODUCT DESCRIPTION

BASIC USE

STYROFOAM™ Brand CAVITYMATE™ Extruded Polystyrene Foam Insulation is a moisture-resistant, durable and lightweight foam board designed specifically for use in wet cavity wall environments. Sized to fit snugly between wall ties, STYROFOAM™ Brand CAVITYMATE™ Insulation saves time and money on the job site. Its closed-cell structure provides exceptional long-term thermal performance and moisture control.

4. TECHNICAL DATA

APPLICABLE STANDARDS

STYROFOAM™ Brand CAVITYMATE™ Insulation meets ASTM C578 – Standard Specification for Rigid Cellular Polystyrene Thermal Insulation, which includes:

- C518 – Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
- D1621 – Standard Test Method for Compressive Properties of Rigid Cellular Plastics
- E96 – Standard Test Methods for Water Vapor Transmission of Materials

- D696 – Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30°C and 30°C with a Vitreous Silica Dilatometer
- C203 – Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation
- D2126 – Standard Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging
- D2842 – Standard Test Method for Water Absorption of Rigid Cellular Plastics
- CAN/ULC S701 Type 3

CODE COMPLIANCE

STYROFOAM™ Brand CAVITYMATE™ Insulation complies with the following codes:

- International Residential Code (IRC) and International Building Code (IBC); see ICC-ES ESR 2142, BOCA-ES RR 21-02
- Underwriters Laboratories, Inc. (UL) Classified, see Classification Certificate D369
- CCMC Evaluation Listing 12084-L

Contact your Dow sales representative or local authorities for state/provincial and local building code requirements and related acceptances.

PHYSICAL PROPERTIES

STYROFOAM™ Brand CAVITYMATE™ Insulation exhibits the properties and characteristics indicated in Tables 3 and 4 when tested as represented.

ENVIRONMENTAL DATA

STYROFOAM™ Brand CAVITYMATE™ Insulation is hydrochlorofluorocarbon (HCFC) free with zero ozone-depletion potential. STYROFOAM™ Brand CAVITYMATE™ Insulation is reusable in many applications.

FIRE INFORMATION

STYROFOAM™ Brand CAVITYMATE™ Insulation is combustible; protect from high heat sources. Local building codes may require a protective or thermal barrier. For more information, consult MSDS, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector.

TABLE 1: U.S. SIZES, R-VALUES AND EDGE TREATMENTS FOR STYROFOAM™ BRAND CAVITYMATE™ EXTRUDED POLYSTYRENE FOAM INSULATION

NOMINAL BOARD THICKNESS ⁽¹⁾ , IN.	R-VALUE ⁽²⁾	BOARD SIZE, IN	EDGE TREATMENT
1.0	5.0	16 x 96	Butt Edge
1.5	7.5	16 x 96	Butt Edge
2.0	10.0	16 x 96	Butt Edge
3.0	15.0	16 x 96	Butt Edge

(1) Not all product sizes are available in all regions.

(2) Aged R-value at 1" of cured foam @ 75°F mean temperature. R-value expressed in ft²•h•°F/Btu. R-value determined by ASTM C518 using the aging process in ASTM C1289 (90 days @ 140°F).

TABLE 2: CANADIAN SIZES, R-VALUES AND EDGE TREATMENTS FOR STYROFOAM™ BRAND CAVITYMATE™ EXTRUDED POLYSTYRENE FOAM INSULATION

NOMINAL BOARD THICKNESS ⁽¹⁾ , MM	R-VALUE	BOARD SIZE, MM	EDGE TREATMENT
40	7.9	400 x 2400, 600 x 2400	Butt Edge
50	10.0	400 x 2400, 600 x 2400	Butt Edge
61	12.0	400 x 2400, 600 x 2400	Butt Edge
75	15.0	400 x 2400, 600 x 2400	Butt Edge
50	10.0	400 x 2400, 600 x 2400	Shiplap
75	15.0	400 x 2400, 600 x 2400	Shiplap

(1) Not all product sizes are available in all regions.

5. INSTALLATION

Boards of STYROFOAM™ Brand CAVITYMATE™ Insulation are easy to handle, cut and install. Contact a local Dow representative or access the literature library at www.dowbuildingsolutions.com for more specific instructions.

6. AVAILABILITY

STYROFOAM™ Brand CAVITYMATE™ Insulation is distributed through an extensive network. For product availability or for the name of your local Dow sales representative, call: 1-800-232-2436 (English) 1-800-565-1255 (French)

7. WARRANTY

In the United States, a 50-year thermal limited warranty is available on STYROFOAM™ Insulation products 1.5 inches and greater. For thickness less than 1.5 inches, other warranties may apply. Warranties are available as described at <http://building.dow.com/na/en/tools/warranty.htm>

8. MAINTENANCE

Not applicable.

9. TECHNICAL SERVICES

Dow can provide technical information to help address questions about using STYROFOAM™ Brand CAVITYMATE™ Insulation. Technical personnel are available to assist with any insulation project. For technical assistance, call: 1-866-583-BLUE (2583) (English) 1-800-363-6210 (French)

TABLE 3: PHYSICAL PROPERTIES (U.S.) OF STYROFOAM™ BRAND CAVITYMATE™ EXTRUDED POLYSTYRENE FOAM INSULATION

PROPERTY AND TEST METHOD	VALUE
Thermal Resistance ⁽¹⁾ per in., ASTM C518 @ 75°F mean temp., ft ² •h•°F/Btu, R-value	5.0 <i>x 2"</i>
Compressive Strength ⁽²⁾ , ASTM D1621, psi, min.	15
Water Absorption, ASTM C272, % by volume, max.	0.3
Water Vapor Permeance ⁽³⁾ , ASTM E96, perm, max.	1.5
Maximum Use Temperature, °F	165
Coefficient of Linear Thermal Expansion, ASTM D696, in/in•°F	3.5 x 10 ⁻⁵
Flexural Strength, ASTM C203, psi, min.	40

(1) Values are consistent with the criteria of ASTM C578 and the requirements of the FTC R-value rule (16 CFR Part 460). R means resistance to heat flow. The higher the R-value, the greater the insulating power. Ask your seller for the fact sheet on R-value.
 (2) Vertical compressive strength is measured at 10 percent deformation or at yield, whichever occurs first. Since STYROFOAM™ Brand Extruded Polystyrene Foam Insulations are visco-elastic materials, adequate design safety factors should be used to prevent long-term creep and fatigue deformation. For static loads, 3:1 is suggested. For dynamic loads, 10:1 is suggested.
 (3) Based on 1" thickness.

TABLE 4: PHYSICAL PROPERTIES (CANADIAN) OF STYROFOAM™ BRAND CAVITYMATE™ EXTRUDED POLYSTYRENE FOAM INSULATION

PROPERTY AND TEST METHOD	VALUE
Thermal Resistance ⁽¹⁾ per in. (25 mm), ASTM C518, 24°C mean temp., ft ² •h•°F/Btu (m ² •°C/W), R-value (RSI), min.	5.0 (.87)
Compressive Strength ⁽²⁾ , ASTM D1621, psi (kPa), min.	25 (170)
Water Absorption, ASTM D2842, % by volume, max.	<0.7
Water Vapour Permeance ⁽³⁾ , ASTM E96, perm (ng/Pa•s•m ²), max.	1.5 (90)
Maximum Use Temperature, °F (°C)	165 (74)
Coefficient of Linear Thermal Expansion, ASTM D696, in/in•°F (mm/mm•°C)	3.5 x 10 ⁻⁵ (6.3 x 10 ⁻²)
Flexural Strength, ASTM C203, psi (kPa) min.	43 (300)

(1) Values are consistent with criteria of ASTM C578.
 (2) Vertical compressive strength is measured at 10 percent deformation or at yield, whichever comes first. Since STYROFOAM™ Brand Extruded Polystyrene Foam Insulations are visco-elastic materials, adequate design safety factors should be used to prevent long-term creep and fatigue deformation. For static loads, 3:1 is suggested. For dynamic loads, 10:1 is suggested.
 (3) Based on 1" (25 mm) thickness.

10. FILING SYSTEMS

- www.dowbuildingsolutions.com
- www.sweets.com

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 Dept. of Building Inspections
 City of Portland Maine

www.dowbuildingsolutions.com

Technical Information
 1-866-583-BLUE (2583) (English)
 1-800-363-6210 (French)

Sales Information
 1-800-232-2436 (English)
 1-800-565-1255 (French)

IN THE U.S.
 THE DOW CHEMICAL COMPANY
 200 Larkin
 Midland, MI 48674

IN CANADA
 DOW CHEMICAL CANADA ULC
 450 - 1st St. SW . Suite 2100
 Calgary, AB T2P 5H1

NOTICE: No freedom from any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where Dow is represented. The claims made may not have been approved for use in all countries or regions. Dow assumes no obligation or liability for the information in this document. References to "Dow" or the "Company" mean the Dow legal entity selling the products to Customer unless otherwise expressly noted. NO EXPRESS WARRANTIES ARE GIVEN EXCEPT FOR ANY APPLICABLE WRITTEN WARRANTIES SPECIFICALLY PROVIDED BY DOW. ALL IMPLIED WARRANTIES INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

This product is combustible. Protect from high heat sources. A protective barrier or thermal barrier may be required as specified in the appropriate building code. For more information, consult MSDS, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada.

WARNING: Rigid foam insulation does not constitute a working walkable surface or qualify as a fall protection product.

Building and/or construction practices unrelated to building materials could greatly affect moisture and the potential for mold formation. No material supplier including Dow can give assurance that mold will not develop in any specific system.



Comments Submitted 5/25/11
 Approved with conditions
 Revised comments 7/26/11

**City of Portland
 Development Review Application
 Planning Division Transmittal form**

Application Number: 2011-257 **Application Date:** 5/18/2011 12:00:00
CBL: 306-B-18 AM
Project Name: Maine Parts and Machine
Address: 68 Waldron Way

Project Description: 4,500 sq. ft. building expansion
Zoning: IM
Other Reviews Required:
Review Type: Level II

Distribution List:

<input type="checkbox"/> Planner	Erick Giles	<input type="checkbox"/> Parking	John Peverada
<input type="checkbox"/> Zoning Administrator	Marge Schmuckal	<input type="checkbox"/> Design Review	Alex Jaegerman
<input type="checkbox"/> Traffic	Tom Errico	<input type="checkbox"/> Corporation Counsel	Danielle West-Chuhta
<input type="checkbox"/> Stormwater	Dan Goyette	<input type="checkbox"/> Sanitary Sewer	John Emerson
<input type="checkbox"/> Fire Department	Keith Gautreau	<input type="checkbox"/> Inspections	Tammy Munson
<input type="checkbox"/> City Arborist	Jeff Tarling	<input type="checkbox"/> Historic Preservation	Deb Andrews
<input type="checkbox"/> Engineering	David Margolis-Pineo	<input type="checkbox"/> Outside Agency	
		<input type="checkbox"/> DRC Coordinator	Phil DiPierro

Preliminary Comments needed by: May 25, 2011

68 Waldron Way – 306-B-018 - I-M Zone

#2011-257 Level II

5/25/11

This property is located in an I-M Industrial Zone and consists of an existing building approximately 15,000 square foot in size. The proposal is for a 4,500 one-story building expansion. The use of the building will be for manufacturing and minimal accessory offices. The applicant stated that currently there are 29 employees for 2 separate shifts.

The proposed addition is meeting the I-M Zone dimensional setbacks including meeting the minimum 35 foot rear setback to the rear property line and residential zone and use. The 10' minimum pavement setback is being met also. The building height is approximately 18' which more than meets the maximum building height of 75 feet. Based upon the impervious surface information provided, the lot will more than meet the maximum 75% impervious requirements. The calculations show that the impervious surface ratio post construction will be 32%.

The applicant will be meeting the parking requirements for both the manufacturing area and the limited office space.

There was no information given concerning the noise levels for any noises generated on site. Any new HVAC systems or internal equipment that generates noise shall meet the I-M Zone maximum allowances. This office will need to see dBA generations for any HVAC system (under separate permits) that are installed.

Separate permits shall also be required for any new signage.

68 Waldron Way – revised plans review

#2011-257 - 7/26/11

I have reviewed the most current plans that have recently been submitted. The building and pavement setbacks are both being met.

I would like confirmation on any changes to the impervious surface with the revised parking area.

My other conditions regarding noise generations and new signage are still in force.

Marge Schmuckal
Zoning Administrator

Applicant: Maine Parts & Machine Date: 5/19/11 / 7/25/11

Address: 68 Waldron Way C-B-L: - 306-B-18

CHECK-LIST AGAINST ZONING ORDINANCE

Date - Existing Bldg

Zone Location - I-M

Interior or corner lot -

Proposed Use/Work - New 4,500 sq ft Addition to existing Bldg *manufacturing expand partly new*

Sewage Disposal - Private to City?

Lot Street Frontage - 60' req - 411.48' given

Front Yard - 1' for each 1' of height or 16 min - 95' to New Bldg

Rear Yard - 1' for each 1' of height 35' if abuts residential 41' scaled 40.85' *yes abuts res.*

Side Yard - 1' for each 1' of height - 16' min - 179' scaled 38' to closer side of

Projections -

Width of Lot

Height - 18' *on plans sheet Cl. 1* given for height per applicant

Lot Area - 107,266 sq ft *per application*

Lot Coverage/Impervious Surface - 33,853 *max req* \rightarrow per project data
 $33,853 \div 107,226 = 32\%$ impervious

Area per Family - N/A

Off-street Parking - 23+3 *currently 29 employees* for future of 26 pkgs spec given - shown

Loading Bays - EXISTING 2 overhead doors on New Addition Cl. 2

Site Plan - 2011-257 level II - ERICK

Shoreland Zoning/Stream Protection - N/A

Flood Plains - Panel 1 Zone C

Noise HVAC units min placement: 10' req - still ok

N/P
PORTLAND HOUSING
AUTHORITY
MAP 327, LOT B-12

EX. 240 LF.± OF
10" ADS N12 PIPE
W/ MDOT TYPE C
PERFORATIONS
S=0.0025 '1'

EX. CB # TO REMAIN
RIM 6825
INV. IN 6435
INV. OUT 6425

89°0'33"42"E
633.85'

EX 30' PRESERVATION

LOT AREA
107,226 SF.
2.46 ACRES

65 LF.± OF EX.
FOUNDATION DRAIN
TO BE REMOVED

2011 ADDITION
4,500 SF.±
FIN. FLR EL. 10.89

EX. MACHINE SHOP
14,780 SF.±
FIN. FLR EL. 10.89

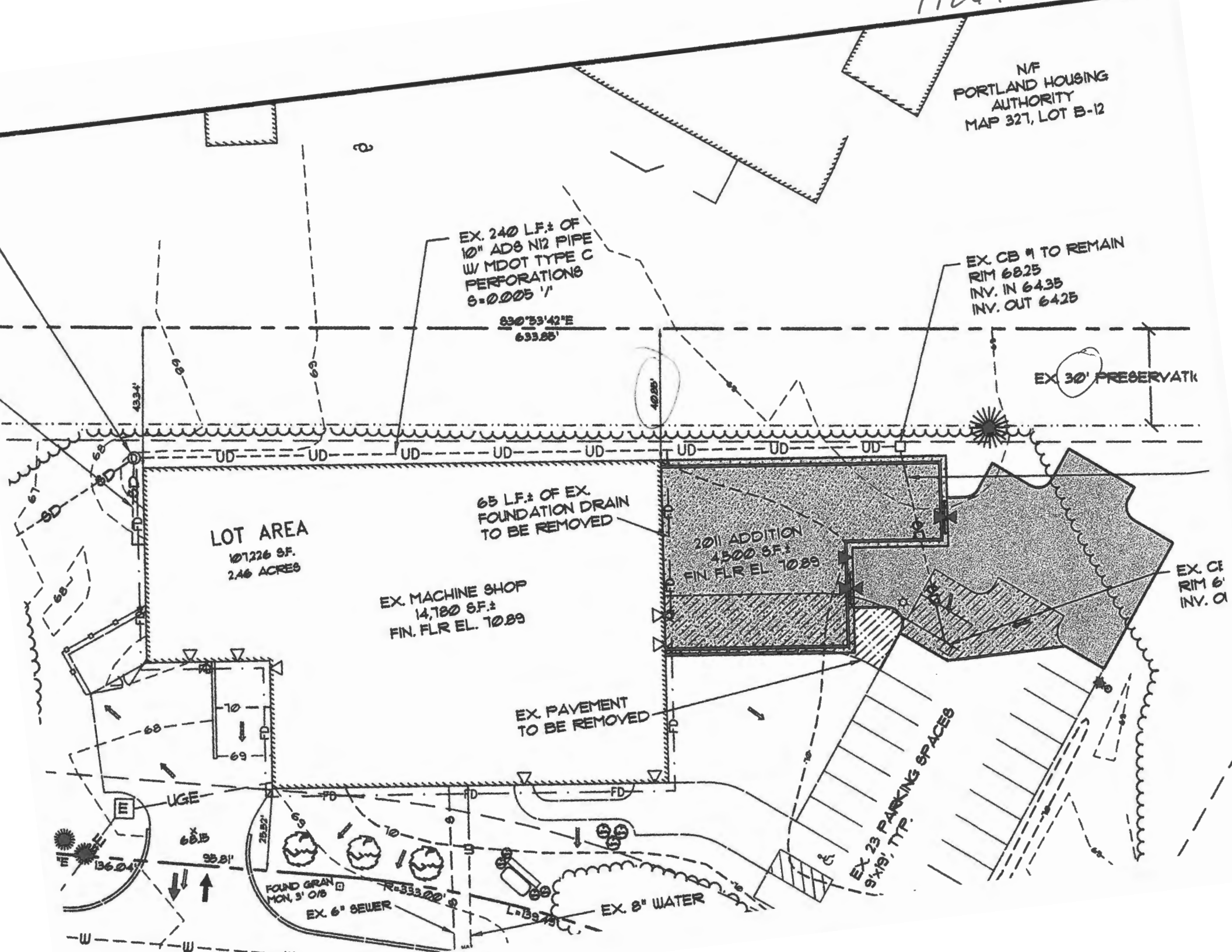
EX. CE
RIM 6'
INV. 0'

EX. PAVEMENT
TO BE REMOVED

EX 23 PARKING SPACES
(9'x19', TYP.)

FOUND GRAN
MON. 3' O/S
EX. 6" SEWER

EX. 8" WATER



7/26/14

EX. CB #1, RIM 68.25
EX. INV. IN 64.35 (CONNECT
NEW FOUNDATION DRAIN TO
EX. INVERT)
NEW INV. IN 64.35
EX. INV. OUT 64.25
CORE HOLE FOR 10" PIPE,
INV. 64.87. INSTALL PIPE W/
FLEXIBLE WATERTIGHT BOOT.

25 LF. of 10" ADS N12,
S=0.005'/'

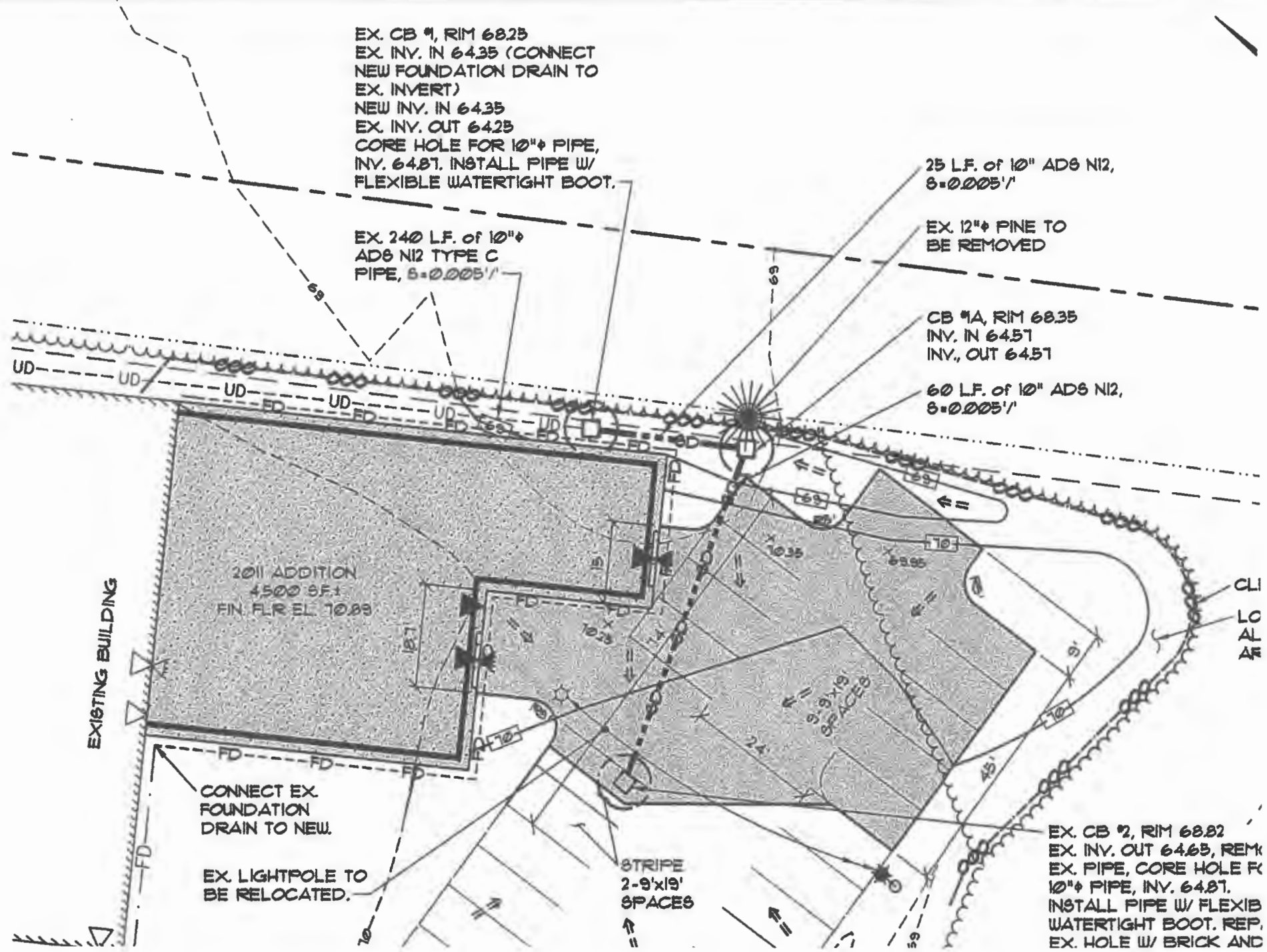
EX. 240 LF. of 10" φ
ADS N12 TYPE C
PIPE, S=0.005'/'

EX. 12" φ PINE TO
BE REMOVED

CB #1A, RIM 68.35
INV. IN 64.57
INV., OUT 64.57

60 LF. of 10" ADS N12,
S=0.005'/'

SECTION
YBALES
71



CONNECT EX.
FOUNDATION
DRAIN TO NEW.

EX. LIGHTPOLE TO
BE RELOCATED.

STRIP
2-9'x19'
SPACES

EX. CB #2, RIM 68.82
EX. INV. OUT 64.65, REM
EX. PIPE, CORE HOLE FK
10" φ PIPE, INV. 64.87.
INSTALL PIPE W/ FLEXIB
WATERTIGHT BOOT. REP.
EX. HOLE W/ BRICK AND

CLI
LOCAL
AREA



380 US Route One
Falmouth, Maine 04105
Tel. 207.781.5242
Fax. 207.781.4245

May 9, 2011
File: 09135

Ms. Barbara Barhydt
Planning Department
City of Portland
389 Congress Street, 4th Floor
Portland, ME 04101

RE: 68 WALDRON WAY, MAINE PARTS AND MACHINE

Dear Barbara,

On behalf of Maine Parts and Machine we are pleased to submit the enclosed plans for 68 Waldron Way. This site was originally approved in 2001. Notes from those plans, including waivers, are shown on sheet C1.0 of this plan set.

The waivers previously granted apply to this addition as well. They include:

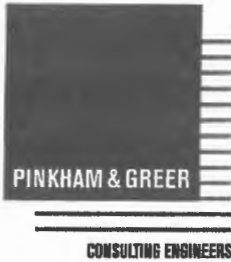
1. No underground utilities;
2. No sidewalk on Waldron Way; and
3. No on-site detention of stormwater. *Bldg height 16' high*

Utilities for this addition will be extended from the existing building. We do not plan for a sidewalk on Waldron Way and the original subdivision design included stormwater management for each lot.

This expansion of 4,500 sq. ft will provide a climate controlled inspection room. A Carl Zeiss Coordinate Measuring Machine will be located in this area with 2 offices and a laser. The Swiss Type Sliding Head Stock Lathes will be moved to this area as well. This will provide additional space in the shop for two new CMC machines.

The sites trash is hauled by McCormick & Sons Trucking. Their water soluble coolant is trucked off site as non hazardous waste by United Industrial Services. No industrial wastewater is discharged to the sewer. We do not anticipate any increase in wastewater flows.

The operation is currently completed by 29 employees, in two shifts. Work schedules are adjusted to avoid parking issues on site.



Ms. Barbara Barhydt
May 9, 2011
File: 09135
Page 2 of 2

Attached are water records for the site. It averages less than 300 gallons per day. This is less than the 400 gallons per estimated as part of the 2001 approval.

Attached are the architectural plans of the building for your review.

We anticipate very little change in traffic. There may be a few more deliveries per week and one or two more employees.

We anticipate relocating one of the parking lot lights to the other side of the parking lot. This will make little change in the photometrics.

We anticipate no change in the landscaping. We are maintaining the buffer in the rear of the site. One 12" pine will be removed as it would pose a significant danger if left. Attached are photographs of the site showing the existing conditions.

Hopefully this addresses the items necessary for site plan approval.

Sincerely,
PINKHAM & GREER

A handwritten signature in black ink, appearing to read "Thomas S. Greer". The signature is stylized and overlaps the printed name below it.

Thomas S. Greer, P.E.

Enclosures

Cc: William Kelton

tsg/rjs

Showing Post Impervious 32%

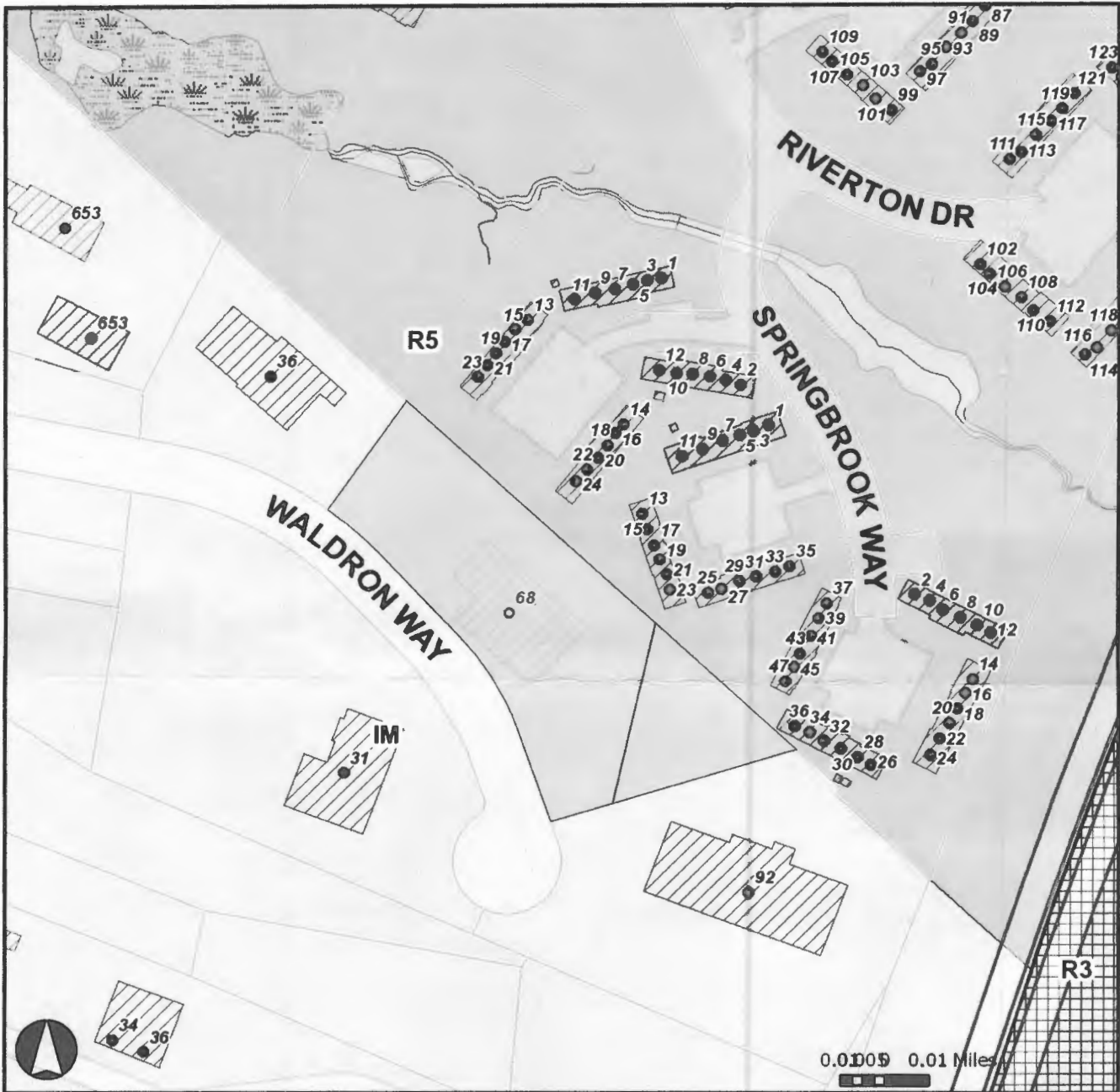
PROJECT DATA

The following information is required where applicable, in order complete the application

Total Site Area	107,226 sq. ft.
Proposed Total Disturbed Area of the Site	11,460 sq. ft.
(If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland)	
IMPERVIOUS SURFACE AREA	
• Proposed Total Paved Area	14,547 sq. ft.
• Existing Total Impervious Area	28,542 sq. ft.
• Proposed Total Impervious Area	33,853 sq. ft.
• Proposed Total Impervious Area	33,853 sq. ft.
• Proposed Impervious Net Change	15.6%
BUILDING AREA	
• Proposed Building Footprint	4,500 sq. ft.
• Proposed Building Footprint Net change	24%
• Existing Total Building Floor Area	14,780 sq. ft.
• Proposed Total Building Floor Area	19,280 sq. ft.
• Proposed Building Floor Area Net Change	24%
• New Building	NO (yes or no)
ZONING	
• Existing	I-M INDUSTRIAL
• Proposed, if applicable	N/A
LAND USE	
• Existing	
• Proposed	
RESIDENTIAL, IF APPLICABLE	
• Proposed Number of Affordable Housing Units	
• Proposed Number of Residential Units to be Demolished	
• Existing Number of Residential Units	
• Proposed Number of Residential Units	
• Subdivision, Proposed Number of Lots	
PARKING SPACES	
• Existing Number of Parking Spaces	23
• Proposed Number of Parking Spaces	23
• Number of Handicapped Parking Spaces	1
• Proposed Total Parking Spaces	23 + 3 FOR FUTURE
BICYCLE PARKING SPACES	
• Existing Number of Bicycle Parking Spaces	
• Existing Number of Bicycle Parking Spaces	
• Proposed Number of Bicycle Parking Spaces	
• Total Bicycle Parking Spaces	
ESTIMATED COST OF PROJECT	

Map
Staff
Map

Bill Kelton - Tom Greer - Eric - Barbara - Marge
Punkhara & Greer 311-A-14



Parcels	Shoreland Overlay Zone	Zoning (continued)	Zoning (continued)
		<input type="checkbox"/> OP Office Park	<input type="checkbox"/> C23
<input type="checkbox"/> Parcels	<input type="checkbox"/> Stream Overlay Zone	<input type="checkbox"/> R1 Residential	<input type="checkbox"/> C24
<input type="checkbox"/> Interstate	Stream_protection	<input type="checkbox"/> R2 Residential	<input type="checkbox"/> C25
<input type="checkbox"/> Streets	<input type="checkbox"/> Island Zoning	<input type="checkbox"/> R3 Residential	<input type="checkbox"/> C26
<input type="checkbox"/> Buildings	<input type="checkbox"/> C43	<input type="checkbox"/> R4 Residential	<input type="checkbox"/> C27
	<input type="checkbox"/> I-B	<input type="checkbox"/> R5 Residential	<input type="checkbox"/> C28
	<input type="checkbox"/> I-TS	<input type="checkbox"/> R6 Residential	<input type="checkbox"/> C29

Staff review

No more signage anticipated

Marge Schmuckal - Fwd: FW: 09135-Waldron Way Expansion - MPM

From: Barbara Barhydt
To: Schmuckal, Marge
Date: 5/12/2011 8:49 AM
Subject: Fwd: FW: 09135-Waldron Way Expansion - MPM
Attachments: 06-PRELIM.PDF; 01-09135,tsg,ltr,City,050911.pdf; 02-Application.pdf; 03-dEEDS-90543_11_27_2001.pdf; 04-photos.pdf; 05-Invoice for usage,050911.pdf

Hi Marge:

This is for our 9 a.m. meeting on Friday.

Thanks.

Barbara

>>> "Tom Greer" <TGreer@pinkhamandgreer.com> Wednesday, May 11, 2011 2:07 PM >>>

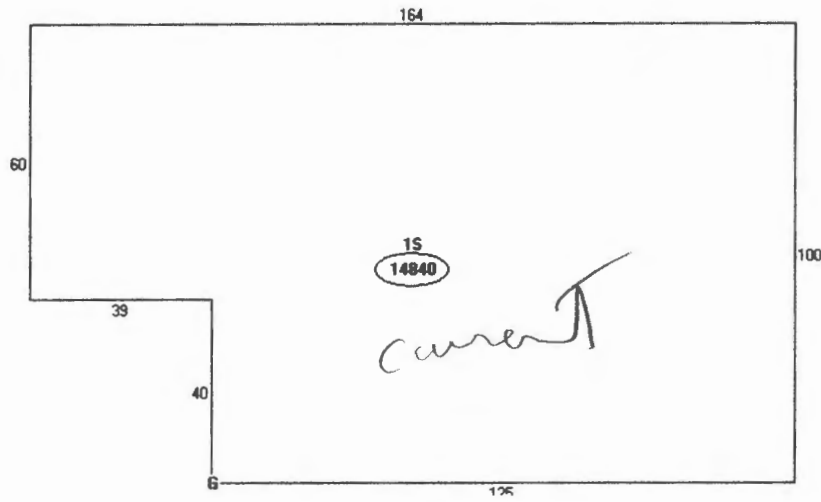
Hi Barbra,

I may have forwarded you the wrong email. Here is the draft application.

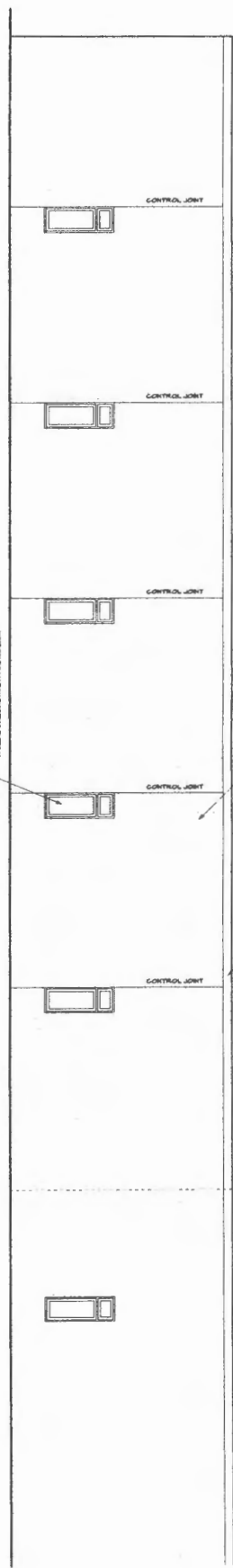
Tom Greer

Pinkham and Greer, Consulting Engineers
380 U.S. Route One, Falmouth, ME 04105
207-781-5242 voice, 207-781-4245 fax
tgreer@pinkhamandgreer.com

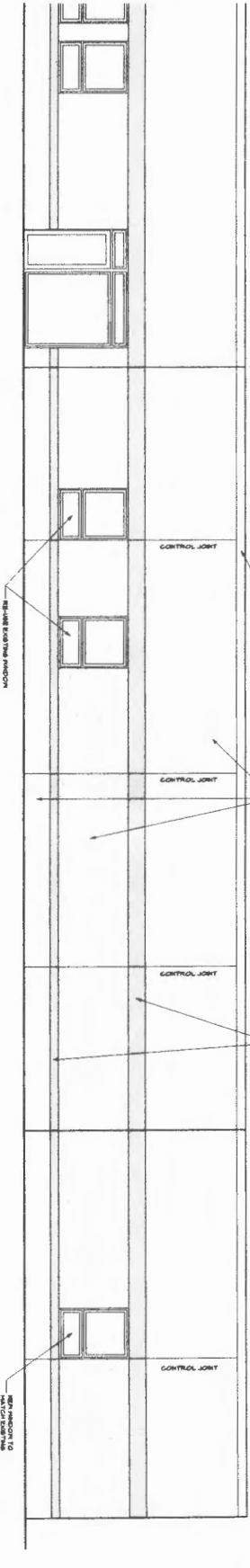
From: Rita Sawyer
Sent: Wednesday, May 11, 2011 2:00 PM
To: Tom Greer
Subject: 09135-Waldron Way Expansion - MPM



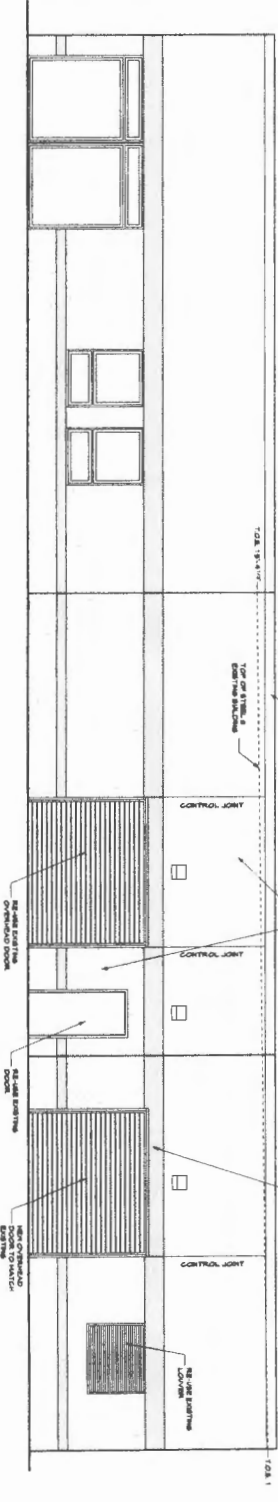
Descriptor/Area	
A: 045	12000 sqft
B: 082	2840 sqft
C: OVERHEAD DR-WOOD/MTL	64 sqft
D: OVERHEAD DR-WOOD/MTL	120 sqft
E: OVERHEAD DR-WOOD/MTL	140 sqft
F: 1S	14840 sqft
G: PA1	7500 sqft



(1) NORTH ELEVATION
SCALE 1/4" = 1'-0"



(2) SOUTH ELEVATION
SCALE 1/4" = 1'-0"



(3) EAST ELEVATION
SCALE 1/4" = 1'-0"

~ 16' high

5/11

1.3.1 Elevation drawings should be 1/4" = 1'-0" and 1/8" = 1'-0" for all elevation drawings and 1/2" = 1'-0" for all section drawings.

This drawing is an abstract of the design and shall not be used for construction without the consent of the architect.

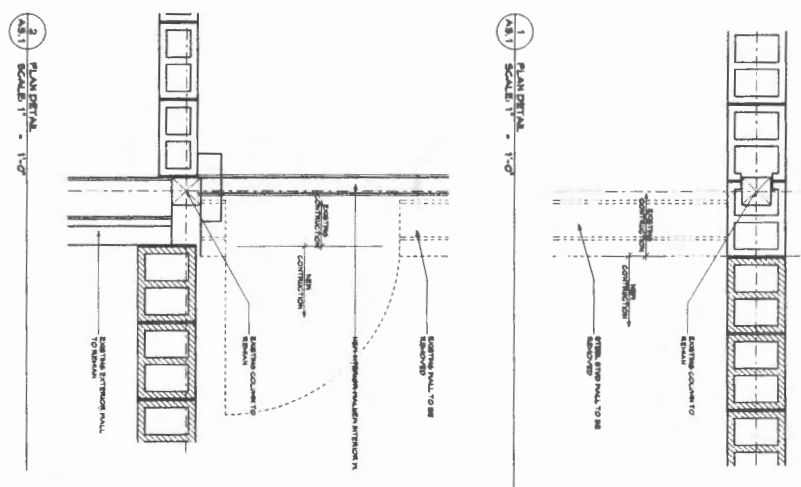
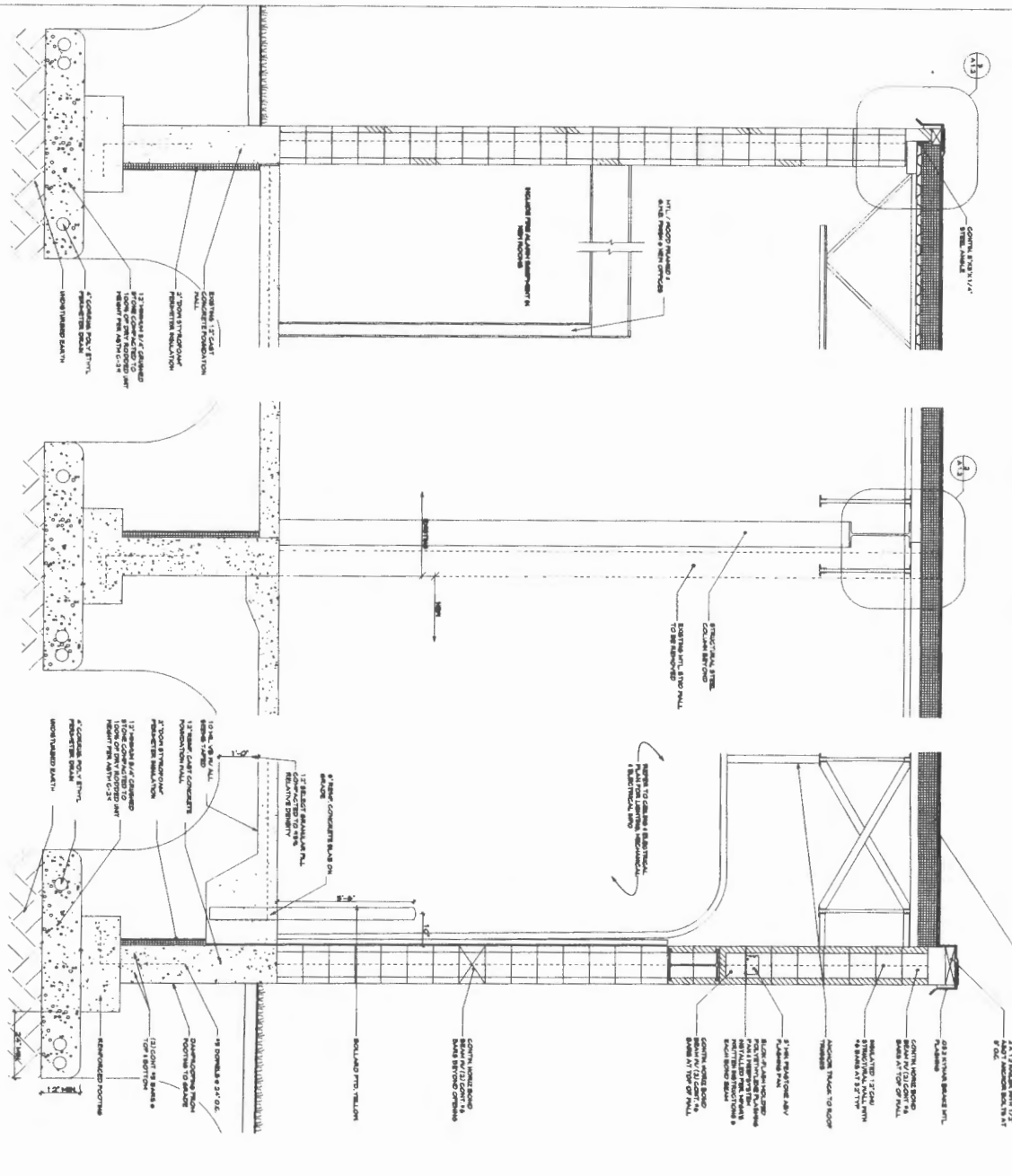
A2.1

NO.	DATE	DESCRIPTION


WHITPLE CALLENDER ARCHITECTS
11 Commercial St
Portland, ME 04101
Tel: 207.778-2848

MAINE PARTS & MACHINE
68 WALDRON WAY PORTLAND, MAINE

5/11



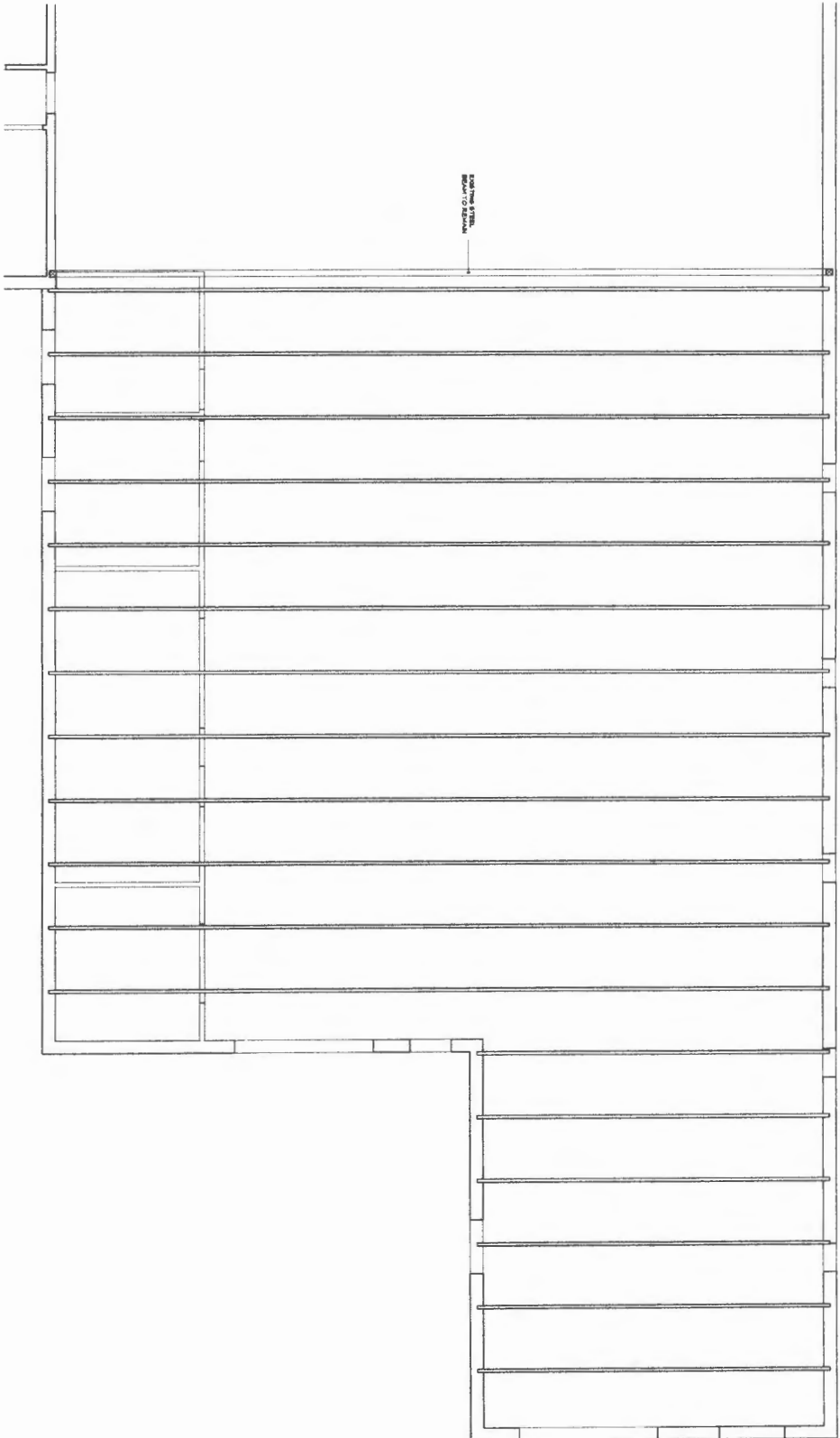
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL BE LOANED TO THE CLIENT FOR THE PROJECT ONLY. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT. THE ARCHITECT'S LIABILITY IS LIMITED TO THE PROFESSIONAL SERVICES PROVIDED AND SHALL NOT BE EXTENDED TO ANY OTHER MATTER. THE CLIENT SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE ARCHITECT'S LIABILITY IS LIMITED TO THE PROFESSIONAL SERVICES PROVIDED AND SHALL NOT BE EXTENDED TO ANY OTHER MATTER.

MAINE PARTS & MACHINE 65 HALDRON WAY PORTLAND, MAINE	MINIPILE CALLENDER ARCHITECTS		19 Commercial St Portland, ME 04101 207-773-2844 www.minipilecalender.com	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p> DRAWN: JAC CHECKED: JAC DATE: 11/11/11 PROJECT: A3.1 </p>	NO.	DATE	DESCRIPTION																																				
NO.	DATE	DESCRIPTION																																									

A3.1

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF MAIN PARTS & MACHINE ARCHITECTS. IT SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF MAIN PARTS & MACHINE ARCHITECTS.

1 FLOOR PLAN
 SCALE 1/4" = 1'-0"

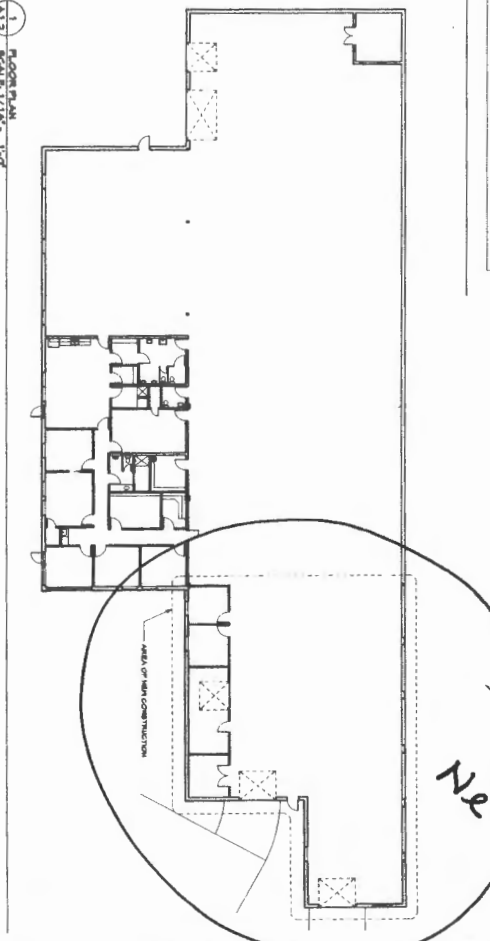
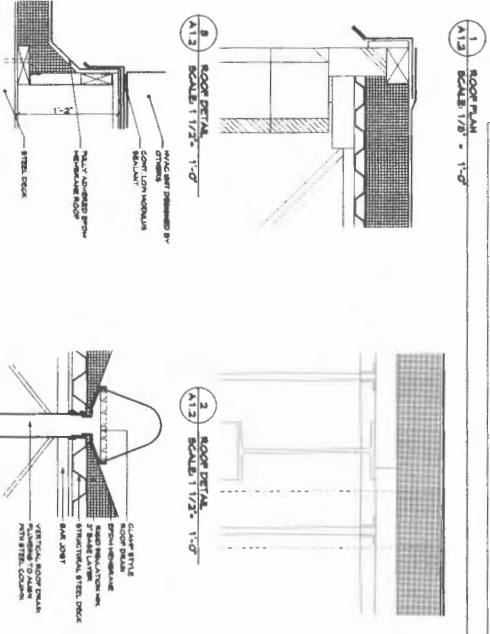
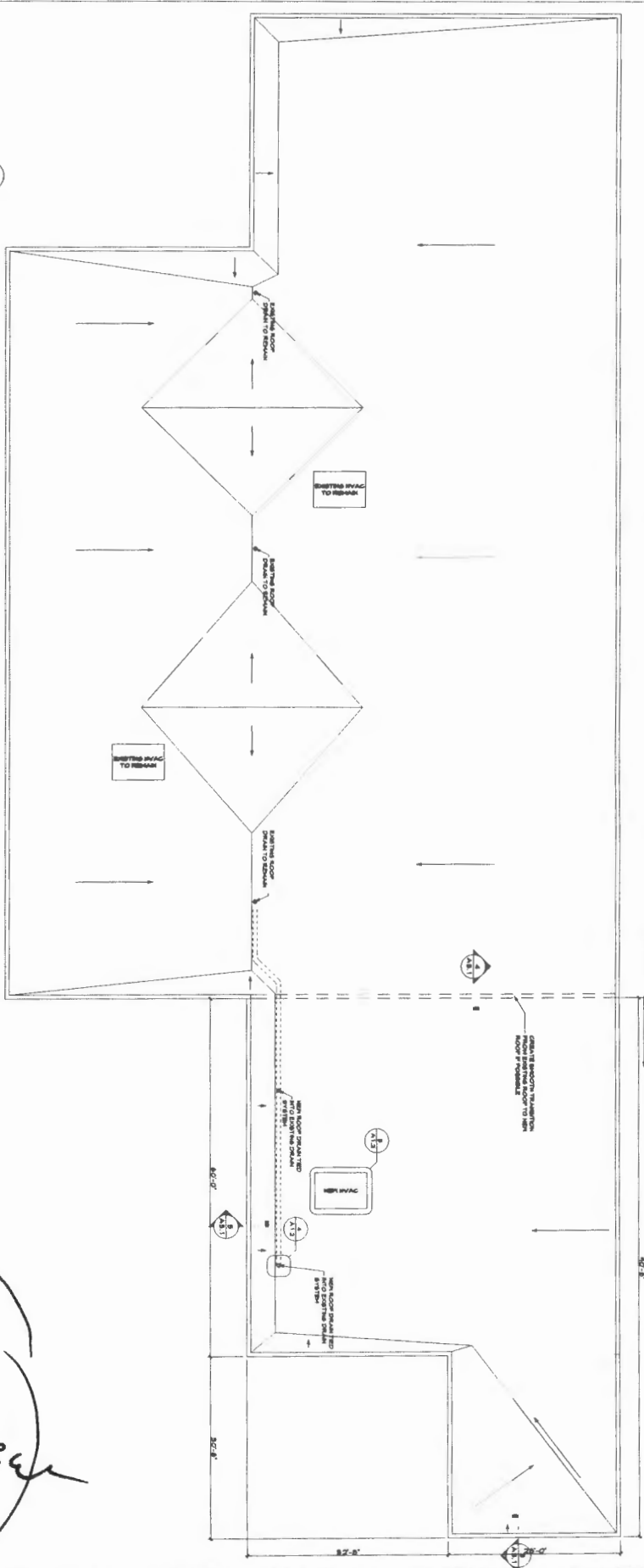


5/11

<p>MAIN PARTS & MACHINE 65 WALDRON WAY PORTLAND, MAINE</p>	<p>MURPHY CALLENDER ARCHITECTS</p>		<p>14 Commercial St. Portland, ME 407-775-2444</p>	<p>DATE: 5/11/11</p>	<p>DESCRIPTION:</p>
			<p>SCALE:</p>	<p>PROJECT:</p>	<p>DESIGNER:</p>

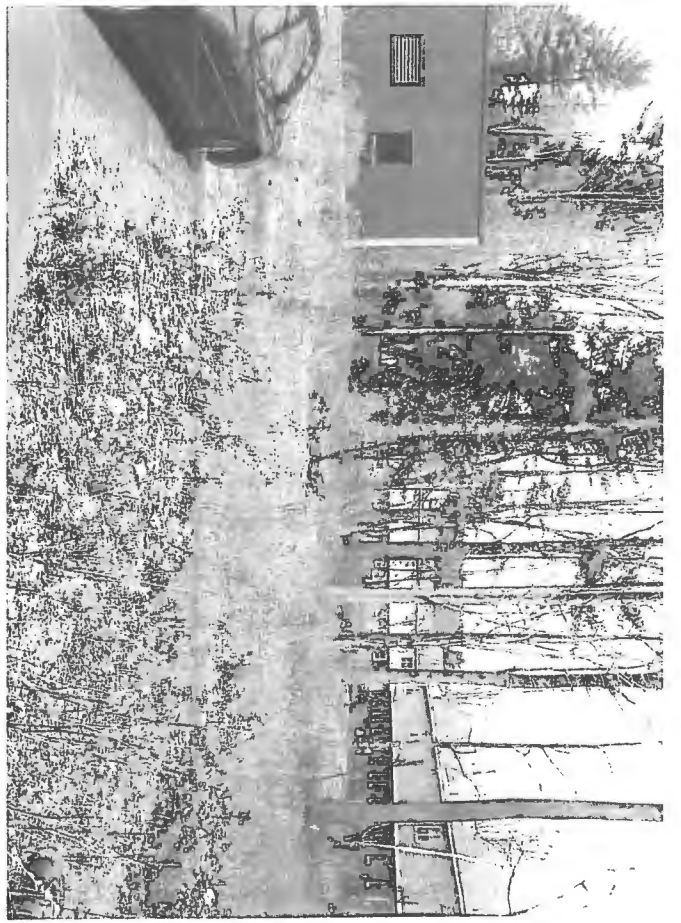
A1.3

5/11



THE DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF MERRILL & CALLENDER ARCHITECTS, P.C. ALL RIGHTS RESERVED. NO PART OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF MERRILL & CALLENDER ARCHITECTS, P.C.

A1.2	DATE: 10/2/2014	PROJECT: MAINE PARTS & MACHINE	MERRILL & CALLENDER ARCHITECTS 1 Commercial Building Portland, ME 04101 Tel: 603-778-2848 Fax: 603-778-2849	MAINE PARTS & MACHINE 65 WALDRON WAY PORTLAND, MAINE
	DESIGNER: J.L.H.	ARCHITECT: J.L.H.		





PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life - www.portlandmaine.gov

Director of Planning and Urban Development
Penny St. Louis

August 17, 2011

William Kelton
68 Waldron Way
Portland, ME 04103

Thomas S. Greer, P.E.
Pinkham and Greer
380 US Route One
Falmouth, ME 04105

Project Name: Maine Parts and Machine **Project ID:** 2011-257
Address: 68 Waldron Way **CBL:** 306-B-18
Applicant: William Kelton
Planner: Eric Giles

MAR 13 2012

Dear Mr. Kelton:

The Planning Authority approved your Level II site plan application for the Maine Parts and Machine expansion at 68 Waldron Way on August 17, 2011. This application was submitted on May 18, 2011 by Tom Greer of Pinkham and Greer and has been reviewed for compliance with the Site Plan Ordinance. This application has been approved with the following waivers and conditions:

Waivers:

1. The Planning Authority has granted the following waiver to Sec. 14-526 (a) Transportation Standards (c) Sidewalks due to the fact that this property is Lot 3 of the Sawyer Industrial Park Subdivision, which was approved in 1989 with a waiver to the sidewalk construction requirement.
2. The Planning Authority has granted the following waiver to Sec. 14-526 (b) Environmental Quality Standards (3) Water Quality, Stormwater Management and Erosion Control due to the incremental increase (7%) to the existing lot coverage and the financial cost to construct a water quality treatment system.

Conditions:

1. The applicant shall provide a financial infrastructure contribution of \$4,971 in lieu of on-site stormwater quality mitigation.

The approval is based on the submitted site plan. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

approved site plan, you must submit a revised site plan for staff review and approval.

STANDARD CONDITIONS OF APPROVAL

Please note the following standard conditions of approval and requirements for all approved site plans:

1. **Develop Site According to Plan** The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Modification of any approved site plan or alteration of a parcel which was the subject of site plan approval after May 20, 1974, shall require the prior approval of a revised site plan by the Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.
2. **Separate Building Permits Are Required** This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Inspection Division.
3. **Site Plan Expiration** The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.
4. **Performance Guarantee and Inspection Fees** A performance guarantee covering the site improvements, inspection fee payment of 2.0% of the guarantee amount and seven (7) final sets of plans must be submitted to and approved by the Planning Division and Public Services Department prior to the release of a building permit, street opening permit or certificate of occupancy for site plans. If you need to make any modifications to the approved plans, you must submit a revised site plan application for staff review and approval.
5. **Defect Guarantee** A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
6. **Preconstruction Meeting** Prior to the release of a building permit or site construction, a pre-construction meeting shall be held at the project site. This meeting will be held with the contractor, Development Review Coordinator, Public Service's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan. The site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.
7. **Department of Public Services Permits** If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

8. **As-Built Final Plans** Final sets of plans shall be submitted digitally to the Planning Division, on a CD or DVD, in AutoCAD format (*.dwg), release AutoCAD 2005 or greater.

The Development Review Coordinator must be notified five (5) working days prior to the date required for final site inspection. The Development Review Coordinator can be reached at the Planning Division at 874-8632. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Eric Giles at (207) 874-8723

Sincerely,



Alexander Jaegerman
Planning Division Director

Attachments:

1. Performance Guarantee Packet

Electronic Distribution:

Penny St. Louis Littell, Director of Planning and Urban Development Department
Alexander Jaegerman, Division Director, Planning
Barbara Barhydt, Development Review Services Manager, Planning
Eric Giles, Planner
Philip DiPierro, Development Review Coordinator, Planning
Marge Schmuckal, Zoning Administrator, Inspections Division
Tammy Munson, Plan Reviewer, Inspections Division
Lannie Dobson, Administration, Inspections Division
Michael Bobinsky, Director, Public Services
Katherine Earley, Engineering Services Manager, Public Services
Bill Clark, Project Engineer, Public Services
David Margolis-Pineo, Deputy City Engineer, Public Services
Jane Ward, Administration, Public Services
Capt. Keith Gautreau, Fire Department
Jeff Tarling, City Arborist, Public Services
Tom Errico, P.E., T.Y. Lin Associates
Dave Senus, P.E., Woodard & Curran
Assessor's Office
Approval Letter File



PORTLAND MAINE

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Receipts Details:

Tender Information: Check , Check Number: 143

Tender Amount: 3120.00

Receipt Header:

Cashier Id: bsaucier

Receipt Date: 3/12/2012

Receipt Number: 41668

Receipt Details:

Referance ID:	5565	Fee Type:	BP-Constr
Receipt Number:	0	Payment Date:	
Transaction Amount:	3120.00	Charge Amount:	3120.00
Job ID: Job ID: 2012-03-3490-ALTCOMM - Single story addition to commercial building			
Additional Comments: 68 Waldron			

Thank You for your Payment!



WHIPPLE-CALLENDER ARCHITECTS

TRANSMITTAL

DATE: March 12, 2012

TO: The City of Portland
c/o Jeanie B.
386 Congress St.
Portland Maine 04101

RE: Maine Parts and Machine Addition

WE ARE SENDING YOU THE FOLLOWING ITEMS:

X	PRINTS	SHOP DRAWINGS	AS REQUESTED
	LETTER	SAMPLE	FOR YOUR RECORDS
	SPECIFICATIONS	ON LOAN	FOR REVIEW/COMMENT
	ORIGINALS	FOR SUBMISSION	APPROVED AS NOTED
	OTHERS	FOR BIDS USE	CONTRACT

NO. COPIES	DATE	DESCRIPTION
1	3.12.12	Permit set incl. civil, architectural, structural
1	3.8.12	Permit application incl. accessibility and cert. of design
1	3.8.12	Personal check #0143 from MPM for permit application fee
1	3.15.02	Geotechnical report
1	3.12.12	Disc w/ project info

REMARKS/MESSAGE:

Hi Jeanie-

Attached is the permit application for MPM. The civil reflects where Planning approval was gained for the site. Please call with any questions.

COPIES TO: owner,file

FROM: Joe Delaney



WHIPPLE-CALLENDER ARCHITECTS

March 8, 2012

City of Portland Inspections Office
c/o Jeanie B.
389 Congress Street
Portland, Maine 04101

RE: Maine Parts and Machine at 68 Waldron Way, Portland Me.

Dear Jeanie-

Outlined below is the info for the General Code and Fire Department requirements:

Fire Department checklist- please refer to plan for travel distance, F.E. locations, emergency lighting, exit signs.

1. Owner- **Bill Kelton, Maine Parts and Machine, 68 Waldron Way, Portland, Maine 04104 (776-0640)**
2. Architect- **Whipple Callender Architects, PO Box 1276 Portland, Maine 04101 (775-2696)**
3. Proposed use- **F-2 (Low Hazard Industrial- metal machining and fabrication) per IBC and NFPA. Building type 3B.**
4. Square footage of structure- **4,498 s.f. addition to an existing 14,862 existing building**
5. Elevation of all structures- **single story slab @ 70.89'**
6. Proposed fire protection of all structures- **NA**
7. Hydrant Locations- **Waldron Way near loading dock**
8. Water main sizes and locations- **12" at Waldron Way**
9. Access to any Fire Department Connections-**Will be provided**
10. Access to all structures (2 sides Min.)- **Resulting access to 3 sides of building**
11. A code summary shall be included referencing NFPA and all fire department technical standards-

The structure is an unsprinkled building of type 3B (non combustible exterior walls). As a Low Hazard use (F-2 metal machining and manufacturing) our max s.f. is 18,000. With our building frontage factor we add approximately 9.5% of 18,000 or enough area to make the allowable s.f. approximately 19,710 with the total proposed project size at 19,360 (14,862 existing and 4,498 proposed). The existing building is not part of the construction project.

The single story addition is part of the production floor space and complies with Chapter 40 Industrial Occupancies of NFPA 101. Three means of egress will exit from the fabrication space limiting the common path of travel to less than 100'. The building is not required to have a fire alarm system according to 40.3.4.1 because the occupancy is less than 100 people with access to grade.

12. Elevators shall be sized to fit an 81" x 23" stretcher and 2 personnel – **NA**
13. Some structures may require Fire Flows using Annex H of NFPA 1- **NA**



Accessibility Building Code Certificate

Designer: JOSEPH A. DEWANEY

Address of Project: 68 WALDRON WAY

Nature of Project: MAINE PARTS & MACHINE ADDITION

The technical submissions covering the proposed construction work as described above have been designed in compliance with applicable referenced standards found in the Maine Human Rights Law and Federal Americans with Disability Act. Residential Buildings with 4 units or more must conform to the Federal Fair Housing Accessibility Standards. Please provide proof of compliance if applicable.

(SEAL)

Signature: Joseph A. Dewaney

Title: ARCHITECT

Firm: WHIPPLE LAUNDNER ARCH.

Address: P.O. BOX 1276

PORTLAND ME 04104

Phone: 207. 775. 2696 x106

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov



Certificate of Design Application

From Designer:

JOSEPH A. DELANEY

Date:

3/8/12

Job Name:

MAINE PAPER & MACHINE

Address of Construction:

68 WALTON WAY PORTLAND MAINE 04104

2009

2003 International Building Code

Construction project was designed to the building code criteria listed below:

Building Code & Year 2009 IRC Use Group Classification (s) F-2

Type of Construction 3B

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC No

Is the Structure mixed use? No If yes, separated or non separated or non separated (section 302.3) NA

Supervisory alarm System? YES Geotechnical/Soils report required? (See Section 1802.2) See attached

Structural Design Calculations

Submitted for all structural members (106.1 - 106.11)

Design Loads on Construction Documents (1605)

Uniformly distributed floor live loads (7603.11, 1807)

Floor Area Use	Loads Shown
Light Manufacturing	125 psf
Light Storage	125 psf

Wind loads (1603.1.4, 1609)

ASCE 7	Design option utilized (1609.1.1, 1609.6)
100 mph	Basic wind speed (1809.3)
lw = 1.0	Building category and wind importance Factor, I_w (table 1604.5, 1609.5)
B	Wind exposure category (1609.4)
0.18	Internal pressure coefficient (ASCE 7)
Wall 15.5 psf	Component and cladding pressures (1609.1.1, 1609.6.2.2)
13 psf	Main force wind pressures (1603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

ASCE 7	Design option utilized (1614.1)
I	Seismic use group ("Category")
SDs .324, SD1 .123	Spectral response coefficients, SD & SD1 (1615)
Soil Site Class D	Soil class (1615.1.5)

NA	Live load reduction
20 psf	Roof live loads (1603.1.2, 1607.11)
46.2 psf	Roof snow loads (1603.7.3, 1608)
50 psf	Ground snow load, P_g (1608.2)
46.2 psf	If $P_g > 10$ psf, flat roof snow load P_f
1.0	If $P_g > 10$ psf, snow exposure factor, C_e
1.0	If $P_g > 10$ psf, snow load importance factor, I_s
1.1	Roof thermal factor, C_t (1608.4)
46.2 psf	Sloped roof snowload, P_s (1608.1)
B	Seismic design category (1616.3)
Ordinary Reinf. Masonry SW	Basic seismic force resisting system (1617.6.2)
R = 2, Cd = 1.75	Response modification coefficient, R and deflection amplification factor, C_d (1617.6.2)
ASCE 7	Analysis procedure (1616.6, 1617.5)
38.1k	Design base shear (1617.4, 1617.5.5)

Flood loads (1803.1.6, 1612)

	Flood Hazard area (1612.3)
	Elevation of structure

Other loads

	Component loads (1607.4)
	Pullout loads (1607.5)
	Moist loads (1607.6, 1607.7, 1607.8, 1607.9, 1607.10, 1607.11, 1607.12)



Certificate of Design

Date: 3/8/12

From: JOSEPH DEWANEY

These plans and / or specifications covering construction work on:

MAINE PARTS & MACHINE ADDITION
68 WILKINSON WAY

Have been designed and drawn up by the undersigned, a Maine registered Architect / Engineer according to the *2003 International Building Code* and local amendments.

(SEAL)

Signature: Joseph Dewaney

Title: ARCHITECT

Firm: WHIPPLE CALLENDER ARCH.'T

Address: P.O. BOX 1276
PORTLAND ME 04104

Phone: 207.775.2696 x101

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov

Table of R-values by density (1# steps)

12 inch Block					R-block w/	U-value w/	Effect of
K-conc	R-value	Density	R-corr	U-corr	Mortar Joint	Mortar Jt	Mortar Joint
2.48	13.55	80	14.56	0.069	14.563	0.069	0.000
2.53	13.39	81	14.45	0.069	14.457	0.069	0.000
2.58	13.22	82	14.34	0.070	14.352	0.070	-0.001
2.63	13.06	83	14.24	0.070	14.247	0.070	-0.001
2.68	12.90	84	14.13	0.071	14.141	0.071	-0.001
2.74	12.74	85	14.02	0.071	14.036	0.071	-0.001
2.79	12.59	86	13.91	0.072	13.931	0.072	-0.001
2.85	12.43	87	13.81	0.072	13.826	0.072	-0.001
2.91	12.28	88	13.70	0.073	13.721	0.073	-0.002
2.96	12.13	89	13.59	0.074	13.617	0.073	-0.002
3.02	11.98	90	13.49	0.074	13.512	0.074	-0.002
3.09	11.83	91	13.38	0.075	13.408	0.075	-0.002
3.15	11.68	92	13.27	0.075	13.303	0.075	-0.002
3.21	11.54	93	13.17	0.076	13.199	0.076	-0.002
3.28	11.39	94	13.06	0.077	13.095	0.076	-0.003
3.34	11.25	95	12.96	0.077	12.992	0.077	-0.003
3.41	11.11	96	12.85	0.078	12.888	0.078	-0.003
3.48	10.97	97	12.75	0.078	12.785	0.078	-0.003
3.55	10.83	98	12.64	0.079	12.682	0.079	-0.003
3.62	10.70	99	12.54	0.080	12.579	0.079	-0.003
3.69	10.56	100	12.43	0.080	12.477	0.080	-0.004
3.77	10.43	101	12.33	0.081	12.375	0.081	-0.004
3.85	10.30	102	12.23	0.082	12.273	0.081	-0.004
3.92	10.17	103	12.12	0.082	12.172	0.082	-0.004
4.00	10.04	104	12.02	0.083	12.070	0.083	-0.004
4.08	9.91	105	11.92	0.084	11.969	0.084	-0.004
4.17	9.78	106	11.81	0.085	11.869	0.084	-0.005
4.25	9.66	107	11.71	0.085	11.769	0.085	-0.005
4.34	9.53	108	11.61	0.086	11.669	0.086	-0.005
4.42	9.41	109	11.51	0.087	11.569	0.086	-0.005
4.51	9.29	110	11.41	0.088	11.470	0.087	-0.005
4.60	9.17	111	11.31	0.088	11.371	0.088	-0.005
4.70	9.05	112	11.21	0.089	11.273	0.089	-0.006
4.79	8.94	113	11.11	0.090	11.175	0.089	-0.006
4.89	8.82	114	11.01	0.091	11.077	0.090	-0.006
4.99	8.71	115	10.91	0.092	10.980	0.091	-0.006
5.09	8.59	116	10.82	0.092	10.883	0.092	-0.006
5.19	8.48	117	10.72	0.093	10.787	0.093	-0.006
5.30	8.37	118	10.62	0.094	10.691	0.094	-0.006
5.40	8.26	119	10.53	0.095	10.596	0.094	-0.007
5.51	8.15	120	10.43	0.096	10.501	0.095	-0.007
5.62	8.05	121	10.33	0.097	10.407	0.096	-0.007
5.74	7.94	122	10.24	0.098	10.312	0.097	-0.007
5.85	7.84	123	10.15	0.099	10.219	0.098	-0.007
5.97	7.73	124	10.05	0.099	10.126	0.099	-0.007
6.09	7.63	125	9.96	0.100	10.033	0.100	-0.008
6.21	7.53	126	9.87	0.101	9.941	0.101	-0.008
6.34	7.43	127	9.77	0.102	9.850	0.102	-0.008
6.47	7.33	128	9.68	0.103	9.759	0.102	-0.008
6.60	7.24	129	9.59	0.104	9.668	0.103	-0.008
6.73	7.14	130	9.50	0.105	9.578	0.104	-0.008

LF. wet

red

120

1900

3000 T.P.

*ASTM
C-90
CONFIL*

(R-4)

Using Quality Machine tools including...

Matsuura | Mori Seiki | Okuma & Howa | Nakamura-Tome | Mazak

Maine Parts & Machine is a Precision Production Machine Shop that specializes in complete unattended machining of bar stock to completed parts. We have a total of 34 CNC pieces of machinery, 13 of which have both turning and milling capabilities. We can hold as many as 36 milling tools on a single lathe with 10 programmable axes.



**68 Waldron Way, Portland, Maine 04103
phone: 207-797-0024 fax: 207-797-0021**

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Equipment
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Contact Us

From orig permit # 02-0116



CITY OF PORTLAND MAINE

389 Congress St., Rm 315

Portland, ME 04101

Tel. - 207-874-8704

Fax - 207-874-8716

TO: Inspector of Buildings City of Portland, Maine
Planning & Urban Development
Division of Housing & Community Services

FROM DESIGNER: DAVID D. LEASURE - ARCHITECTURAL ASSOC. INC.
1344 WASHINGTON AVENUE
PORTLAND, ME. 04103

DATE: FEBRUARY 15, 2002

Job Name: MAINE PARTS & MACHINE INDUSTRIAL FACILITY

Address of Construction: 68 WALDEN WAY PORTLAND, ME.

THE BOCA NATIONAL BUILDING CODE/1999 Fourteenth EDITION

Construction project was designed according to the building code criteria listed below:

Building Code and Year BOCA 1999 Use Group Classification(s) F1 & B

Type of Construction 3B Bldg. Height 17 FT ± Bldg. Sq. Footage 14,862 GSF.

Seismic Zone A_r = 0.10 Group Class S, H, E, G = I

Roof Snow Load Per Sq. Ft. 54/S.F. Dead Load Per Sq. Ft. 16/S.F.

Basic Wind Speed (mph) 90 mph Effective Velocity Pressure Per Sq. Ft. 25 psf

Floor Live Load Per Sq. Ft. 100 psf

Structure has full sprinkler system? Yes No Alarm System? Yes No

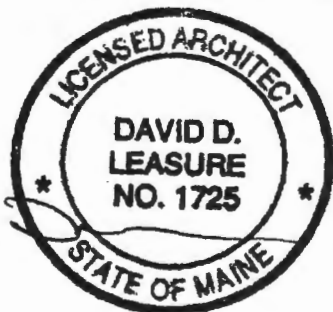
Sprinkler & Alarm systems must be installed according to BOCA and NFPA Standards with approval from the Portland Fire Department.

Is structure being considered unlimited area building: Yes No

If mixed use, what subsection of 313 is being considered 313.1.2 (SEPARATED USE GROUPS)

List Occupant loading for each room or space, designed into this Project.

PSH 6/07/2K



(Designers Stamp & Signature)

NOTES: N.R. — Not required
N.A. — Not applicable

ADMINISTRATION (Chapter 1)

Complete construction documents
(107.5, 107.6, 107.7)

Signed/sealed construction documents
(107.7, 114.1)

BUILDING PLANNING (Chapters 3, 4, 5, 6)

USE OR OCCUPANCY CLASSIFICATION (302.0-313.0)

Single Use Group

Specific occupancy areas (302.1.1)

Mixed Use Groups F1/O

Accessory areas (302.1.2)

GENERAL BUILDING LIMITATIONS (Chapters 5 & 6)

Apply Case 1 to determine the allowable height and area and permitted types of construction for a building containing a single use group or nonseparated mixed use groups. Apply Case 2 to determine the allowable height and area and permitted types of construction for a building containing separated mixed use groups.

AREA MODIFICATIONS TO TABLE 503

% of Allowable tabular area (Table 503)	<u>100%</u>
% Reduction for height (Table 506.4)	<u>- 0%</u>
% Increase for open perimeter (506.2)	<u>+ 12%</u>
% Increase for automatic sprinklers (506.3)	<u>+ 0%</u>
Total percentage factor	<u>= 112%</u>
Conversion factor	<u>1.12 x 9600 = 10752</u> (Total percentage factor/100%)

Open perimeter (506.2)	<u>0</u> North	<u>75</u> East	<u>165</u> South	<u>100</u> West
Open perim.	<u>340</u> ft.		Perimeter <u>530</u> ft.	
% Open perimeter =	<u>64%</u> (Open perim./perim.) x 100%			
% Tab. area increase = (506.2)	<u>2 x 39% = 78%</u> 2 x (% Open perim. - 25%)			

CASE 1 — SINGLE USE OR NONSEPARATED MIXED USE GROUPS (313.1.1, 503.0)

Using Table 503, identify the allowable height and area of the single use group or the most restrictive of the nonseparated mixed use groups. Construction types that provide an allowable tabular area equal to or greater than the adjusted floor area and allowable heights (as modified by Section 504.0) equal to or greater than the actual building height are permitted.

Actual floor area	<u>B/2504 F1/11,950</u> ft. ²	Actual building height	<u>16'8"</u> feet	<u>1</u> stories
Adjusted floor area*	<u>F1 - Allowance 17088</u> ft. ²	Allowable building height	<u>F1 - 30</u> feet	<u>2</u> stories
*Adjusted floor area = actual floor area/conversion factor			<u>B - 40</u>	<u>3</u>

Permitted types of construction 1, 2, 3

Type of construction assumed for review (602.3) 3B

NOTES: N.R. — Not required
N.A. — Not applicable

ADMINISTRATION (Chapter 1)

Complete construction documents
(106.1, 106.2)

Signed/sealed construction documents
(106.1, State laws vary)

BUILDING PLANNING (Chapters 3, 4, 5, 6)

OCCUPANCY CLASSIFICATION (302.0-312.0)

Single Occupancy (302.1)

Incidental use areas (302.1.1)

Mixed Occupancy (302.3)

Accessory use areas (302.2)

F-2/B

machine tool shop Fabrication (metal)

GENERAL BUILDING LIMITATIONS (Chapters 5 & 6)

Apply Case 1 to determine the allowable height and area and permitted types of construction for a building containing a single occupancy or nonseparated mixed occupancies. Apply Case 2 to determine the allowable height and area and permitted types of construction for a building containing separated mixed occupancies.

AREA MODIFICATIONS TO TABLE 503

% of Allowable tabular area, A_t (Table 503) 100%
 % Increase for frontage, I_f (506.2) + 75%
 % Increase for automatic sprinklers, I_s (506.3) 0%
 Total percentage factor = 175%
 Conversion factor 1.75
Total percentage factor + 100%

Frontage (506.2)	<u>250'</u>	<u>101'</u>	<u>255'</u>	<u>100'</u>
	<small>North</small>	<small>East</small>	<small>South</small>	<small>West</small>
Total Frontage (F)	<u>706'</u> ft.		Perimeter (P) <u>706'</u> ft.	
Width of open space (W)	<u>30'</u>			
% Frontage increase (I_f) (506.2)	<u>75.00</u>			
	$I_f = 100 \left[\frac{F}{P} - 0.25 \right] \frac{W}{30}$			

CASE 1 — SINGLE OCCUPANCY OR NONSEPARATED USES (302.3.1)

Using Table 503, identify the allowable height and area of the single occupancy or the most restrictive of the nonseparated mixed occupancies. Construction types that provide an allowable tabular area equal to or greater than the adjusted building area and allowable heights (as modified by Section 504) equal to or greater than the actual building height are permitted.

DETERMINE CONSTRUCTION TYPE

Actual building area 19,360 $B=2,840$ $F-2=16,520$ ft²
 Adjusted building area 11,063 ft²
actual building area + conversion factor
 Actual building height 16'8" feet 1 stories
 Allowable building height 55' feet 3 stories
 $B=55'$ $F-2=55'$ $B=3$ $F-2=3$
 Permitted types of construction 1, 2, 3, 4
 Type of construction assumed for review (602.1.1) 3B

CHECK ALLOWABLE AREA (506.4)

Allowable area per floor (A_a) 1.75 × 18,000 = 31,500 ft²
conversion factor tabular area (Table 503)
 Total floor area (all stories) 19,360 ft²
 Allowable floor area (all stories) 31,500 × 2 = 63,000 ft²
Allowable area per floor (A_a) number of stories (maximum 3)
 Compliance verified (Single Occ. or Nonsep.) mixed

**GEOTECHNICAL ENGINEERING SERVICES
PROPOSED MAINE PARTS & MACHINE FACILITY
68 WALDRON WAY – SAWYER INDUSTRIAL PARK
PORTLAND, MAINE**

01-0995 S MARCH 15, 2002

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Appendix A – May 2000 Exploration Logs

Appendix B – May 2000 Laboratory Testing

01-0995 S

March 15, 2002

Maine Parts & Machine
Attention: Bill Kelton
P. O. Box 407
Westbrook, ME 04092

Subject: Geotechnical Engineering Services
Proposed Form Systems Building
Waldron Way – Sawyer Industrial Park
Portland, Maine

Dear Mr. Kelton:

In accordance with our Service Contract dated October 31, 2001 and our Contract Addendum dated February 22, 2002, we have made a geotechnical investigation for the proposed Maine Parts & Machine Facility at 68 Waldron Way in the Sawyer Industrial Park in Portland, Maine. This report summarizes our findings and recommendations and its contents are subject to the limitations set forth in Attachment A.

1.0 INTRODUCTION

1.1 Scope of Work

The purpose of the work was to review subsurface information made previously at the site and provide additional explorations to evaluate subsurface conditions at the site relative to foundation design and earthwork associated with the proposed new construction. The investigation has included the making of two additional test borings, review of four previous test borings, laboratory testing and a geotechnical evaluation of the findings as they relate to the proposed new construction.

1.2 Proposed Construction

Based on a site plan provided to us and telephone conversations with Pinkham & Greer (project civil engineer), we understand that development calls for construction of an approximate 16,000 square foot building to be utilized for manufacturing, storage and office space. The proposed building will be a single-story, high-bay structure with

masonry load bearing walls. We understand shallow spread footings and an on-grade floor slab are proposed for the building. A finish floor elevation of 103.0 feet (project datum) is proposed at this time, which is an average of 3 feet above existing grade. Based on structural loading information provided by L&L Engineering, we understand exterior and interior column loadings will be on the order of 80 kips. The northerly, southerly and easterly exterior walls will include loading on the order of 2.8 kips/foot. The westerly exterior wall will include loading on the order of 2.1 kips/foot. We understand that the easterly portion of the building will be manufacturing space while the westerly portion will be utilized for office and staging space. Further, floor loading will be as much as 200 psf.

2.0 EXPLORATION AND TESTING

2.1 Exploration

Two test borings (designated B-101 and B-102) were made at the site on February 27, 2002, by Northern Test Boring, Inc of Casco, Maine. The exploration locations were selected and established in the field by S. W. COLE ENGINEERING, INC. using taped measurements from existing site features and an available site plan. Additionally, four test borings (B-1 through B-4) were made in May 2000 for previous proposed construction on the site. The approximate locations of the explorations are shown on the "Exploration Location Plan" attached as Sheet 1. Sheet 1 is a copy of a portion of a plan provided by RGB Construction. Logs of Borings B-101 and B-102, based on our observations and testing of samples, are attached as Sheets 2 and 3. A key to the notes and symbols used on the logs is attached as Sheet 4. Logs of Borings B-1 through B-4 are provided in Appendix A.

2.2 Laboratory Testing

Laboratory testing was performed on selected samples recovered from the explorations. The results of one grain size analysis and two consolidation tests from the May 2000 evaluation are attached in Appendix B. The results of two recent laboratory consolidation tests are shown on Sheets 5 and 6. Moisture content, Atterberg limits and strength test results are noted on the exploration logs.

3.0 SITE AND SUBSURFACE CONDITIONS

3.1 Site Location and Surficial Conditions

The site of the proposed building was once wooded land but has been cut and stripped of the organic ground surface. Surface relief across the lot slopes gently downward from the southeast at about elevation 101 feet to a low swale area on the northwesterly side to about elevation 88 feet. The building has a proposed finished floor elevation of 103.0 feet (project datum). The ground surface within the proposed building footprint slopes downward to the north from about elevation 101 to 99 feet.

3.2 Subsurface Conditions

The explorations encountered a loose to medium dense brown silty sand to as deep as about 3 feet. A very stiff to medium brown silty clay was encountered at each exploration to depths varying from about 9 to 12 feet. Below the brown silty clay exists gray silty clay of medium consistency. A rod probe was used at borings B-101, B-1, B-2, and B-3 to help assess the thickness of gray silty clay. A more firm soil (probable granular soil) was encountered at depths of about 38, 45, 36, and 45 feet below the existing ground surface at these borings, respectively. These borings were terminated in the underlying granular soils at depths of 38, 60, 39, and 49.5 feet, respectively. Borings B-102 and B-4 were terminated in the gray silty clay zone at depths of 32.0 and 12.0 feet, respectively. Please refer to the boring logs for a more detailed description.

3.3 Groundwater

Groundwater was observed at depths ranging from about 6 inches to 12 feet (and rising) below the ground surface during drilling. It should be noted that groundwater may be perched upon the stiff brown clayey soils and that the groundwater levels will vary seasonally and in response to precipitation patterns. Long-term groundwater information was not available. However, based on the findings at borings B-1 and B-2, it is likely that groundwater is within 1 to 2 feet throughout much of the year.

4.0 EVALUATION AND RECOMMENDATIONS

4.1 Site Suitability and Subgrade Preparation

Based on the findings at the exploration locations, it is our opinion that the site is suitable for the proposed construction from a geotechnical standpoint. The principal geotechnical concerns relative to the design, construction and long-term performance of the proposed construction are the presence of near surface soils which are moisture sensitive and frost susceptible, as well as the presence of compressible clay soils beneath the proposed building. Further, excavation work will likely encounter saturated soils and groundwater seepage which will degrade subgrades for footings and destabilize excavations. Design and construction will need to consider a site which is situated in a relatively flat area that is underlain by saturated silty sand and relatively impermeable and moisture sensitive silty clays. Design should consider some settlement during and after construction due to the upper sands and underlying gray silty clays. We estimate the total settlement to be approximately 1 inch or less beneath a typical interior column in the more heavily loaded portion of the structure in the general vicinity of the loading dock. Further, the site is likely to be wet during construction and long-term during periods of heavy precipitation.

An erosion control system should be instituted prior to any construction activity at the site to help protect adjacent drainageways. We understand that much of the topsoil removal has previously occurred. Additional site preparation should include the removal of any remaining existing topsoil, roots and surficial soils containing organics from beneath the proposed building area. As much vegetation as possible should remain over inactive construction areas to help lessen the potential for erosion.

We recommend that all building foundation subgrades as well as any exterior foundations be over-excavated by eight inches and replaced with eight inches of crushed stone. A geotextile fabric should be placed on the subgrade prior to placing the crushed stone. This will help provide a more stable base from which to work and a drainage media to sump and pump from.

4.2 Settlement Analysis

We have made an evaluation of potential settlements in the northwesterly portion of the of the proposed building (near the loading dock) based on the following data and assumptions:

1. Finish Floor Elevation of 103.0 feet (project datum)
2. Column Loading – 26 kip Dead Load and 55 kip Live Load
3. North, South and East Exterior Wall Loading – 2.8 kips/foot
4. West Exterior Wall Loading – 2.1 kips/foot
5. Floor Loadings – 200 psf (storage loading)
6. Foundation Type – Shallow Spread Footings
7. Maximum new fill thickness of 4 feet
8. Allowable bearing capacity of 3.0 ksf
9. Building Sited as Shown on Sheet 1
10. Consolidation test results obtained from samples from Borings B-101, B-102 and B-1

Settlement analysis for a conventional spread footing, slab-on-grade foundation design using design loads furnished by L & L Engineering indicate total settlements on the order of 1 inch and differential settlements on the order of ½ inch. This magnitude of settlement is within generally accepted levels for the type of proposed construction.

4.3 Foundation Design

The design freezing index for the Portland, Maine area is approximately 1250 Fahrenheit degree-days, which corresponds to a frost penetration on the order of 4.5 feet. Considering all foundations will be underlain by at least eight inches of non-frost susceptible crushed stone, we recommend that all perimeter foundations for the proposed structure, as well as other foundations exposed to freezing temperatures, be placed at least 4.0 feet below exterior finished grade to provide frost protection.

Footings should be placed upon the compacted crushed stone and geotextile fabric and should be at least 18 inches in width. We recommend the following geotechnical parameters for design of shallow spread footings:

- Design Frost Depth = 4.5 feet (footings placed at 4 feet below exterior finish grade)
- Base Friction Factor ($\tan \delta$) = 0.35 (mass concrete on crushed stone)
- Net Allowable Bearing Pressure = 3.0 ksf or less
- Passive Lateral Earth Pressure (K_p) = 3.0 (native soils)
- Total unit weight of backfill (γ_t) = 130 pcf (compacted granular fill)
- Internal Friction Angle = 30 degrees (compacted granular fill)

Relative to seismic evaluation, we recommend that design consider soil profile type S_3 (site coefficient = 1.5) according to BOCA 1999 and a site class E according to IBC 2000.

4.4 Slab-on-Grade Floors

Slab-on-grade floors in the building area may be designed using a subgrade reaction modulus of 300 pci (pounds per cubic inch) provided the slab is underlain by at least 12 inches of compacted Select Fill. Additionally, we recommend that control joints be installed within floor slabs to accommodate shrinkage in the concrete as it cures. Contraction joints are typically installed at 10 to 15 foot spacing, but should be determined by the structural engineer with consideration to slab thickness.

A vapor retarder to limit the upward migration of moisture vapors should underlie floor slabs covered with moisture sensitive flooring. The vapor retarder should have a permeance that is less than the floor covering being applied on the slab. Vapor retarders should be installed according to the manufacturer's requirements. We recommend consulting flooring suppliers relative to acceptable vapor retarder systems for use with their products.

Floor slabs should be wet-cured for a period of least 7 days after casting as a measure to reduce the potential for curling of the concrete and excessive drying/shrinkage. We recommend that consideration be given to using curing paper installed over the cast-in-place concrete and that the curing paper remain in place as long as possible to improve the quality of the completed floor. In lieu of curing paper, a quality-curing compound

should be utilized; however, care must be taken to prevent scuffing of the compound during the curing period.

4.5 Foundation Drainage

We recommend that an exterior perimeter foundation drainage system be provided within the crushed stone layer to be placed below the edge of footings. Rigid, 4-inch diameter, perforated foundation drain pipe with perforations of $\frac{1}{4}$ to $\frac{1}{2}$ inch should be utilized. The foundation drain pipe should be enveloped with at least 6 inches of crushed stone bedding and the entire crushed stone layer should be wrapped in a non-woven geotextile filter fabric having an apparent opening size of at least 70. The foundation drains should have a positive gravity outlet. Details of the recommended foundation drainage system are presented on the attached Sheet 7.

Exterior foundation backfill should be sealed with a surficial layer of clayey or loamy soil in areas that are not to be paved or occupied by entrance slabs. This is to reduce direct surface water infiltration into the backfill. Ideally, surface grades should be sloped away from the building for positive surface water drainage.

4.6 Excavation Work

Excavation work will likely encounter silty sand and silty clay soils. Groundwater and wet to saturated soil conditions will likely be encountered in the foundation excavations. These soils are sensitive to loss of strength when disturbed. We recommend that excavations be made using a smooth-edged bucket, in order to reduce disturbance to soil subgrades. Ditching with sump and pump dewatering techniques should be adequate to control groundwater in excavations. Water will make the native soils difficult to work; thus, the subgrades should not be exposed any longer than necessary.

Should the subgrade become loose, soft or difficult to work, we recommend that the unsuitable soils be removed and replaced with crushed stone placed over a non-woven geotextile fabric. Excavations below foundations to remove unsuitable soils should continue laterally, from the footing edges, a distance equal to the depth of excavation below the bottom of the footing (1H:1V).

Excavations must be properly shored and/or sloped to prevent sloughing and caving of the sidewalls during construction. We recommend that temporary unsupported excavations be cut to a 1½H to 1V slope or flatter. In any case, excavations should be consistent with OSHA trenching regulations.

4.7 Backfill and Compaction Requirements

Structural Fill will be needed to achieve subgrade within the proposed building footprint. Structural fill below building and parking areas should consist of a mixture of sand, silt and gravel that is free of organic matter, frozen material and other deleterious substances meeting the requirements of Maine Department of Transportation 703.19 Granular Borrow, as given below. The native soils are frost susceptible and not suitable for foundation backfill. We recommend that backfill placed against foundation walls (both inside and out) meet the gradation for Select Fill. Crushed stone placed around footing drains and below footings should meet the gradation requirements for Crushed Stone material given below. Subbase materials beneath on-grade floor slabs should meet the gradation requirements for Select Fill.

Sieve Size	Percent Finer By Weight		
	Select Fill	703.19 Granular Borrow	Crushed Stone
6 inch	----	100	----
4 inch	100	----	----
3 inch	90-100	----	----
1 inch	----	----	100
¾ inch	----	----	90-100
¼ inch	25-90	----	----
3/8 inch	----	----	0-75
# 4	----	----	0-25
# 10	----	----	0-5
# 40	0-30	0-70	----
# 200	0-5	0-20	----

Granular borrow (Structural Fill) placed below foundations should be compacted to at least 95 percent of its maximum dry density as determined by ASTM D-1557. Foundation

backfill should be compacted to at least 95 percent beneath paved areas, entrance slabs, and adjacent sidewalk areas. Crushed stone beneath foundations should be compacted to 100 percent of its dry rodded unit weight as determined by ASTM C-29. Backfill beneath on-grade slabs and adjacent sidewalks should be compacted to 95 percent.

4.8 Entrances, Sidewalks, and Exterior Slabs

Entrance approaches, sidewalks and exterior slabs should be designed to reduce the effects of differential frost action between doorways and entrances. The existing site soils are susceptible to frost heaving. We recommend that excavation beneath the entire width of entrances, sidewalks, and exterior slabs continue to at least 4.5 feet below finish grade. These areas should be backfilled with compacted non-frost susceptible granular fill meeting the Select Fill gradation to limit abrupt heave or differential movement. The zone of non-frost susceptible material adjacent to exterior foundations and below entrance slabs and sidewalks should transition up to any adjacent pavement subbase at a 3H to 1V slope or flatter. Adjacent paved and grassed areas should be sloped to promote drainage away from the building periphery. Detail regarding entrances and sidewalks are shown on Sheet 7.

4.9 Weather Considerations

The native clayey soils are sensitive to moisture and frost. As such, the native site soils lose strength and become disturbed during wet and freezing conditions. Construction activity should be limited during wet and cold weather and the site soils may require drying and thawing before activities may continue. The contractor should anticipate the need for moisture condition fills to facilitate compaction during dry weather.

If foundation construction takes place during cold/freezing weather conditions, subgrades, foundations and floor slabs must be protected from freezing conditions. Concrete must not be placed on frozen soil and once placed, the concrete and soil beneath the structure must be protected from freezing.

In all cases, sitework and construction activities should take appropriate measures to protect exposed subgrades. This may require the use of temporary haul roads and staging areas to preclude subgrade damage due to construction traffic. Geotextile

fabric may also be needed below temporary haul roads and/or proposed paved areas to help stabilize subgrades for temporary construction traffic.

4.10 Design Review and Construction Testing

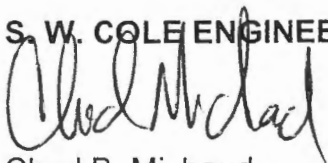
We request that S. W. COLE ENGINEERING, INC. be retained to review the final design and specifications to determine that our earthwork and foundation recommendations have been properly interpreted and implemented. During construction, an S. W. COLE ENGINEERING, INC. representative should be on-site to observe subgrade soils prior to fill or concrete placement. A soils, concrete, and asphalt testing program should be implemented to observe compliance with the design concept, specifications, and recommendations and to allow design changes in the event that subsurface conditions are found to differ from those anticipated prior to the start of construction. We would be pleased to provide a scope of services and budget for foundation design review and field and laboratory materials testing services.

5.0 CLOSURE

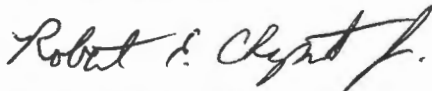
It has been a pleasure to be of assistance to you with this phase of your project. If you have any questions or if we may be of further assistance, please do not hesitate to contact us.

Very truly yours,

S. W. COLE ENGINEERING, INC.

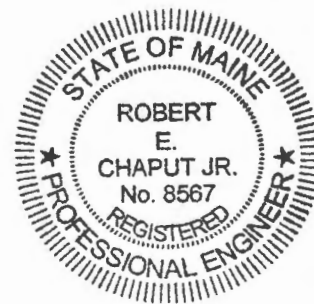


Chad B. Michaud
Geotechnical Engineer



Robert E. Chaput, Jr., P.E.
Senior Geotechnical Engineer

C: Dick Butterfield – RGB Construction



Attachment A
Limitations

This report has been prepared for the exclusive use of Maine Parts & Machine for specific application to the proposed facility at 68 Waldron Way – Sawyer Industrial Park in Portland, Maine. S. W. COLE ENGINEERING, INC. has endeavored to conduct the work in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made.

The soil profiles described in the report are intended to convey general trends in subsurface conditions. The boundaries between strata are approximate and are based upon interpretation of exploration data and samples.

The analyses performed during this investigation and recommendations presented in this report are based in part upon the data obtained from subsurface explorations made at the site. Variations in subsurface conditions may occur between explorations and may not become evident until construction. If variations in subsurface conditions become evident after submission of this report, it will be necessary to evaluate their nature and to review the recommendations of this report.

Observations have been made during exploration work to assess site groundwater levels. Fluctuations in water levels will occur due to variations in rainfall, temperature, and other factors.

Recommendations contained in this report are based substantially upon information provided by others regarding the proposed project. In the event that any changes are made in the design, nature, or location of the proposed project, S. W. COLE ENGINEERING, INC. should review such changes as they relate to analyses associated with this report. Recommendations contained in this report shall not be considered valid unless the changes are reviewed by S. W. COLE ENGINEERING, INC.

INV. IN = 95.00
INV. OUT = 94.50

FUTURE OIL-GRIT SEPARATOR

30' PRESERVATION

90 LF.± OF
ADS N12 PIPE
(SOLID PIPE)
S=0.0018 1'

PIPE INV.
OUT= 94.5

DRAINAGE EASEMENT

PUMP STATION
EASEMENT

EX. PUMP
STATION

EX. 36" X 22"
CMP PIPE ARCH

DUMPSTER
ENCLOSURE

PLUNGE
POOL

ELECTRIC
TRANSFORMER

EX. 3" FM

EX. 12" W

EX. 18" SD

EX. 36" X 22"
CMP PIPE ARCH

NET BOLT ON HYDRANT
"F" SCRATCHED IN PAINT
ELEVATION - 100.00

B-4

B-1

101

102

1018

1019

101

102

101

Note:

Base plan is a portion of a plan titled "Grading and Utility Plan" prepared by Pinkham & Greer and provided by RGB Construction



Approximate Test Boring Location



S.W. COLE
ENGINEERING, INC.

EXPLORATION LOCATION PLAN

Maine Parts & Machine
Proposed Building
68 Waldron Way
Portland, Maine

PROJECT NO. 01-0995 S
DATE: 3/12/02

SCALE: 1" = 30' +/-
SHEET: 1



BORING LOG

BORING NO.: **B-101**
 SHEET: **1 OF 1**
 PROJECT NO.: **01-0995 S**
 DATE START: **02/27/2002**
 DATE FINISH: **02/27/2002**
 ELEVATION:

PROJECT / CLIENT: **PROPOSED MANUFACTURING BUILDING / MAINE PARTS & MACHINE**
 LOCATION: **68 WALDRON WAY / PORTLAND, MAINE**
 DRILLING FIRM: **NORTHERN TEST BORING, INC.** DRILLER: **MIKE NADEAU**

SWC REP.: **RPB**

CASING: TYPE HW SIZE I.D. 4" HAMMER WT. 300 LB HAMMER FALL 30"
 SAMPLER: SS 1 3/8" 140 LB 30"
 CORE BARREL: N/A

WATER LEVEL INFORMATION
 SOILS APPEARED SATURATED BELOW 10 FEET

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER FOOT				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24		
	1D	24"	18"	2.0'	1	2	4	3	1.0'	BROWN SILTY SAND - LOOSE - Olive brown silty clay ~ VERY STIFF ~
	2D	24"	22"	7.0'	3	8	12	14		qp = 5.0 TO 6.0 KSF qp = 7.0 TO 8.0 KSF
	3D	24"	24"	12.0'	2	2	1	2		qp = 1.5 TO 2.0 KSF GRAY SILTY CLAY
				3.5" X 7" VANE	15.7'					Sv = 0.81 / 0.08 KSF
				3.5" X 7" VANE	16.4'					Sv = 0.76 / 0.05 KSF
	1U	24"	24"	22.0'						W = 44.9 % qu = 1.3 KSF
				3.5" X 7" VANE	22.7'					Sv = 0.65 / 0.16 KSF
				3.5" X 7" VANE	23.4'					Sv = 0.60 / 0.16 KSF
				3.5" X 7" VANE	26.7'					Sv = 0.65 / 0.16 KSF
				3.5" X 7" VANE	27.4'					Sv = 0.81 / 0.27 KSF
				3.5" X 7" VANE	31.7'					Sv = 0.81 / 0.18 KSF
				3.5" X 7" VANE	32.4'					Sv = 0.81 / 0.16 KSF
	4D	24"	24"	34.0'	WOR	WOR	WOH	WOH		qp = 0.5 TO 0.75 KSF
									38.0'	REFUSAL @ 38.0'

SAMPLES: D = SPLIT SPOON
 C = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY: DRILLER - VISUALLY
 SOIL TECH. - VISUALLY
 LABORATORY TEST

REMARKS: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

(2)

BORING NO.: **B-101**



BORING LOG

BORING NO.: **B-102**
 SHEET: **1 OF 1**
 PROJECT NO.: **01-0995 S**
 DATE START: **02/27/2002**
 DATE FINISH: **02/27/2002**
 ELEVATION: _____
 SWC REP.: **RPB**

PROJECT / CLIENT: **PROPOSED MANUFACTURING BUILDING / MAINE PARTS & MACHINE**
 LOCATION: **68 WALDRON WAY / PORTLAND, MAINE**
 DRILLING FIRM: **NORTHERN TEST BORING, INC.** DRILLER: **MIKE NADEAU**

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HW	4"	300 LB	30"
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:	N/A			

WATER LEVEL INFORMATION
 SOILS APPEARED SATURATED BELOW 10 FEET

CASING Blows	SAMPLE				SAMPLER BLOWS PER FT				DEPTH	STRATA & TEST DATA	
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24			
	1D	24"	14"	2.0'	1 FOR 12"	4	7		2.5'	RED-BROWN SILTY SAND ~ LOOSE ~	
	2D	24"	22"	7.0'	4	8	9	12	10.0'	BROWN-GRAY SILTY CLAY ~ STIFF TO VERY STIFF ~ qp = 4.0 KSF	
	3D	24"	24"	12.0'	2	2	2	2		GRAY SILTY CLAY qp = 0.5 KSF	
	3.5" X 7" VANE			15.7'							Sv = 0.60 / 0.05 KSF
	3.5" X 7" VANE			16.4'							Sv = 0.60 / 0.08 KSF
	3.5" X 7" VANE			20.7'							Sv = 0.60 / 0.08 KSF
	3.5" X 7" VANE			21.4'							Sv = 0.65 / 0.08 KSF
	3.5" X 7" VANE			25.7'							Sv = 0.56 / 0.11 KSF
	3.5" X 7" VANE			26.4'							Sv = 0.60 / 0.05 KSF
	2U	24"	24"	32.0'	HYD PUSH					32.0'	W = 43.5 % qu = 1.7 KSF
BOTTOM OF EXPLORATION @ 32.0'											

SAMPLES: D = SPLIT SPOON C = 3" SHELBY TUBE U = 3.5" SHELBY TUBE	SOIL CLASSIFIED BY: <input type="checkbox"/> DRILLER - VISUALLY <input checked="" type="checkbox"/> SOIL TECH. - VISUALLY <input checked="" type="checkbox"/> LABORATORY TEST	REMARKS: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.	3
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BORING NO.: **B-102**

KEY TO THE NOTES & SYMBOLS

Test Boring and Test Pit Explorations

All stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

w	-	water content, percent (dry weight basis)
q _u	-	unconfined compressive strength, kips/sq. ft. - based on laboratory unconfined compressive test
S _v	-	field vane shear strength, kips/sq. ft.
L _v	-	lab vane shear strength, kips/sq. ft.
q _p	-	unconfined compressive strength, kips/sq. ft. based on pocket penetrometer test
O	-	organic content, percent (dry weight basis)
W _L	-	liquid limit - Atterberg test
W _P	-	plastic limit - Atterberg test
WOH	-	advance by weight of hammer
WOM	-	advance by weight of man
WOR	-	advance by weight of rods
HYD	-	advance by force of hydraulic piston on drill
RQD	-	Rock Quality Designator - an index of the quality of a rock mass. RQD is computed from recovered core samples.
γ _T	-	total soil weight
γ _B	-	buoyant soil weight

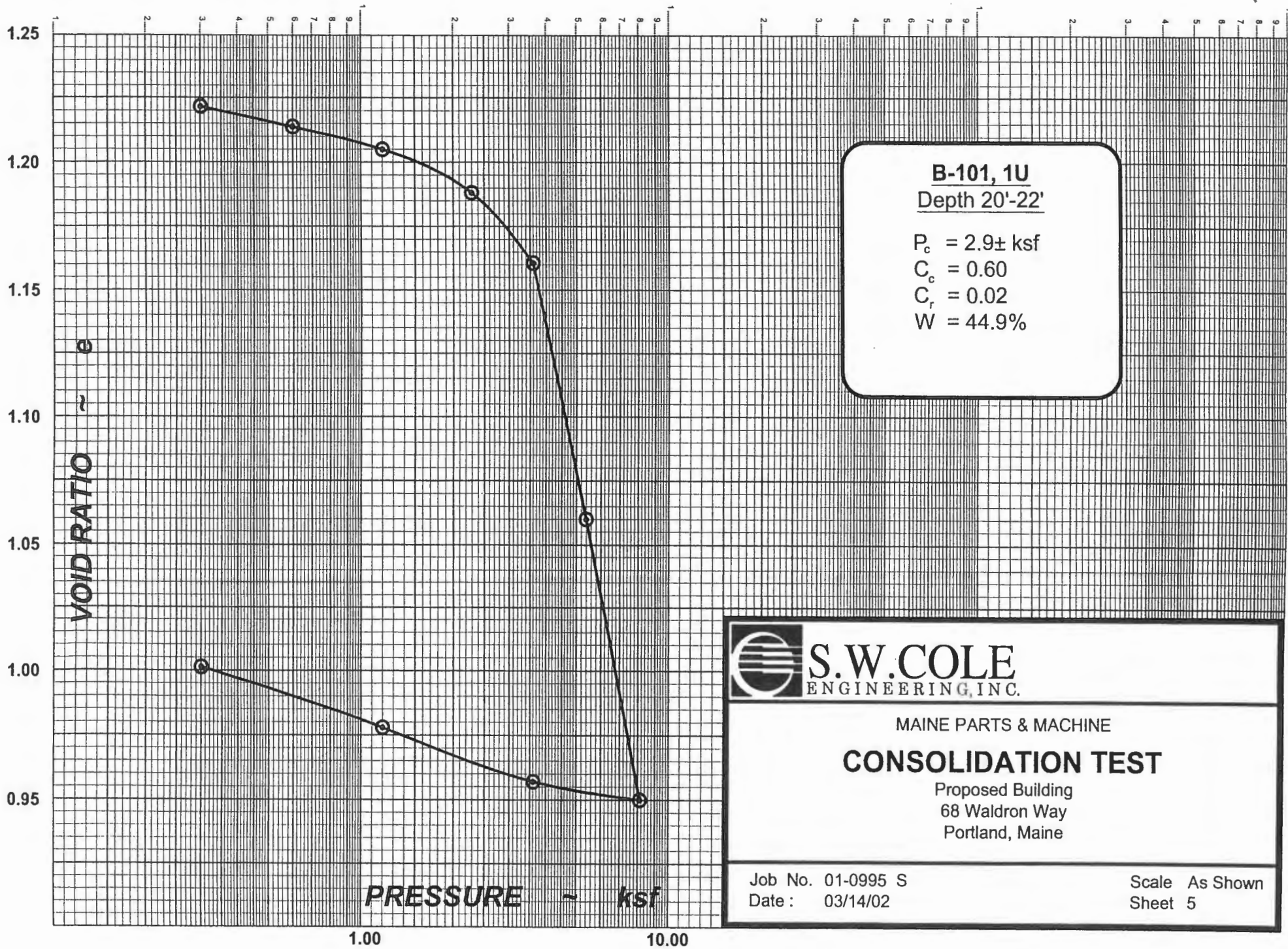
Description of Proportions:


0 to 5% TRACE
5 to 12% SOME
12 to 35% "Y"
35+% AND

REFUSAL: Test Boring Explorations - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

REFUSAL: Test Pit Explorations - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.





S.W. COLE
ENGINEERING, INC.

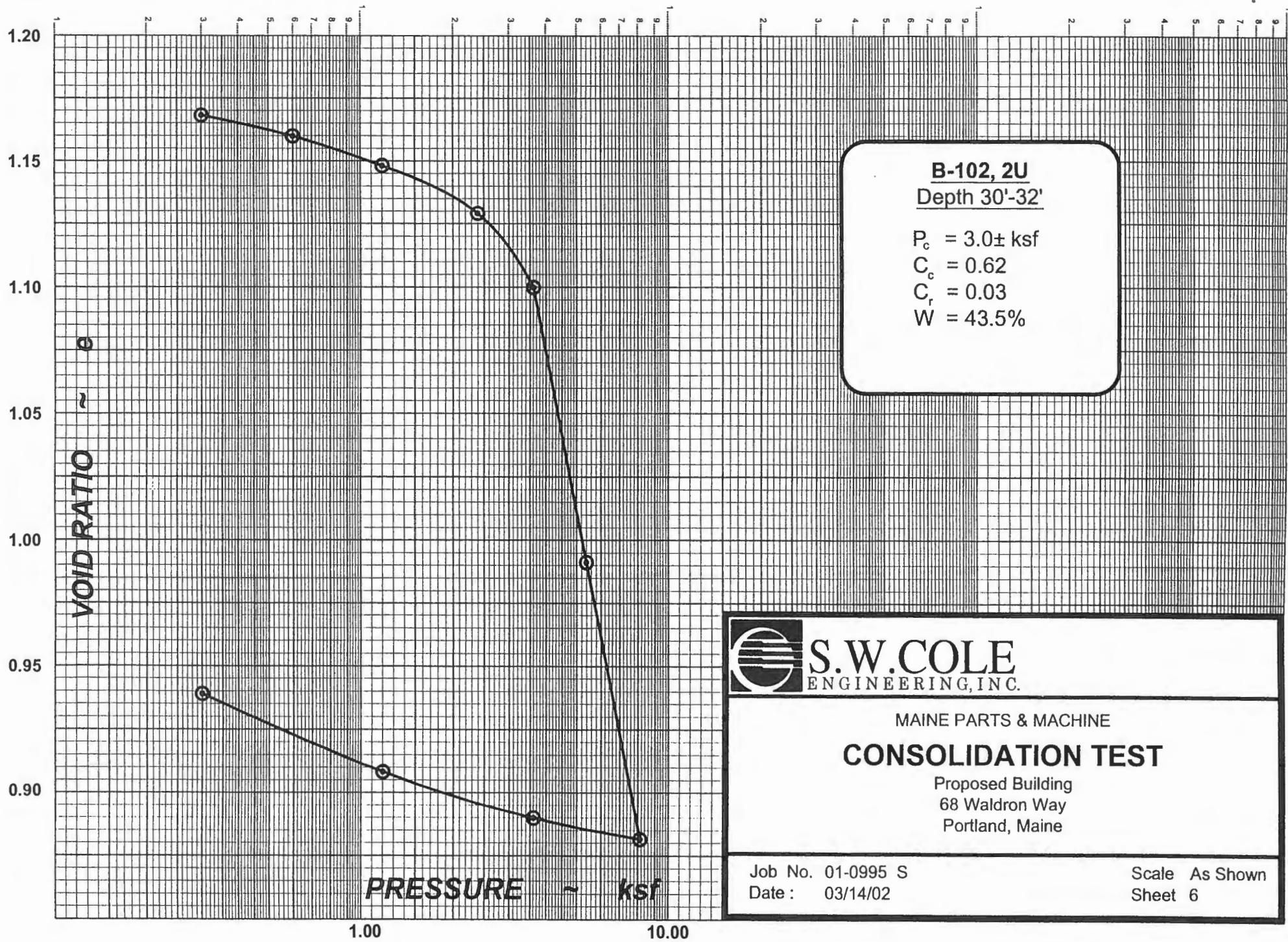
MAINE PARTS & MACHINE

CONSOLIDATION TEST

Proposed Building
68 Waldron Way
Portland, Maine

Job No. 01-0995 S
Date: 03/14/02

Scale As Shown
Sheet 5



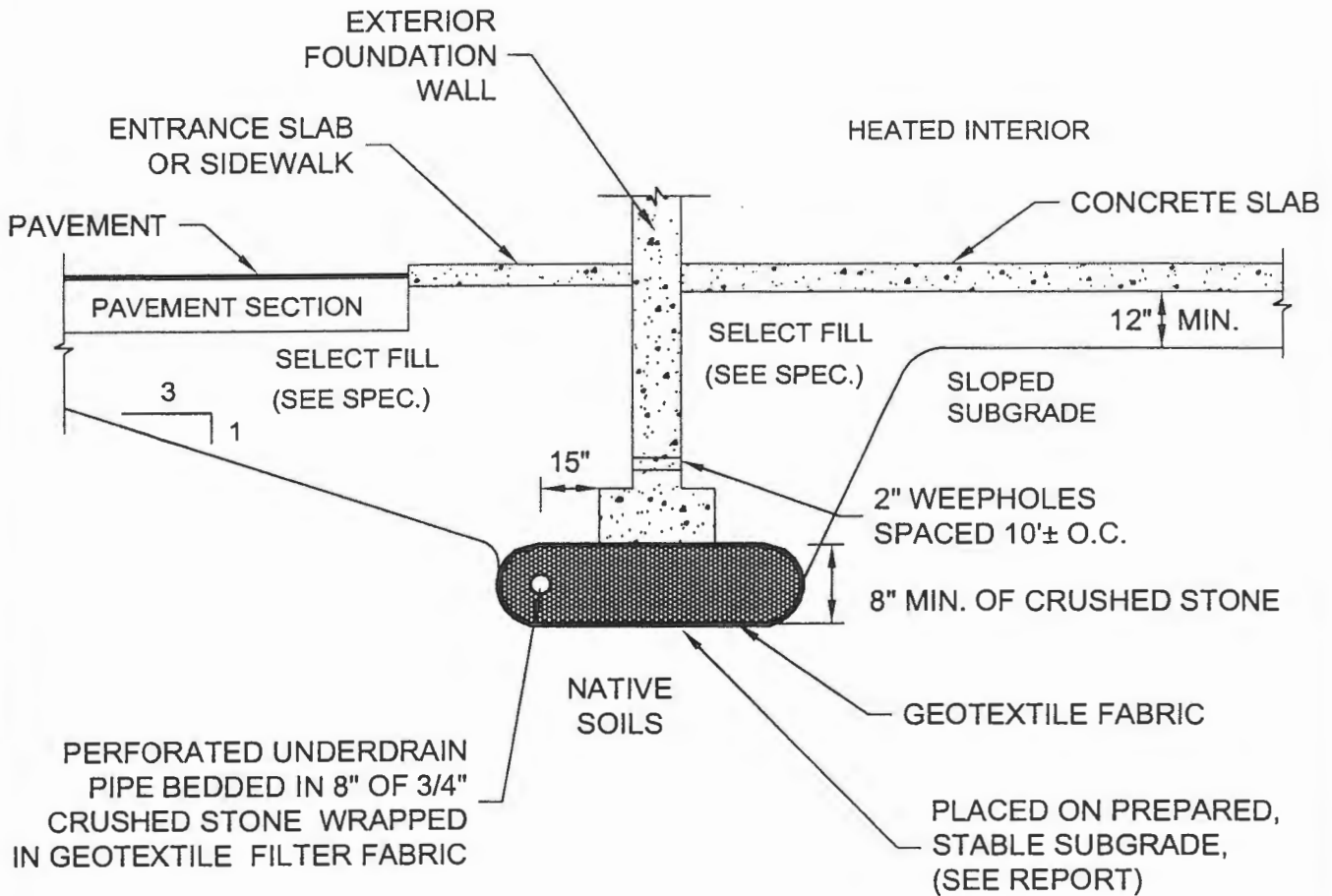
B-102, 2U
Depth 30'-32'
 $P_c = 3.0 \pm$ ksf
 $C_c = 0.62$
 $C_r = 0.03$
 $W = 43.5\%$



MAINE PARTS & MACHINE
CONSOLIDATION TEST
 Proposed Building
 68 Waldron Way
 Portland, Maine

Job No. 01-0995 S
 Date: 03/14/02
 Scale As Shown
 Sheet 6

F:\PROJECTS\2001\01-0995 cbm\01-0995 UD.dwg, Model, 03/14/2002 03:05:52 PM, DAR, S. W. Cole Engineering, Inc., 1:1



S.W. COLE
ENGINEERING, INC.

NOTES :

1. UNDERDRAIN INSTALLATION REQUIREMENTS AND SELECT FILL SPECIFICATIONS ARE CONTAINED WITHIN THIS REPORT.

MAINE PARTS & MACHINE

UNDERDRAIN DETAIL

Proposed Building
68 Waldron Way
Portland, Maine

Job No. 01-0995 S
Date : 03/13/02

Scale Not to Scale
Sheet 7

APPENDIX A
MAY 2000 EXPLORATIONS

BORING NO.: B-1
 SHEET: 1 OF 2
 PROJECT NO.: 00-0243
 DATE START: 05/04/2000
 DATE FINISH: 05/04/2000
 ELEVATION: 69±

PROJECT / CLIENT: PROPOSED BUILDING / FORM SYSTEMS
 LOCATION: SAWYER INDUSTRIAL PARK / PORTLAND, MAINE
 DRILLING FIRM: GREAT WORKS TEST BORINGS, INC. DRILLER: JEFF LEE

CASING: TYPE H.S.A. SIZE I.D. 4 1/4" HAMMER WT. 140 LB HAMMER FALL 30"
 SAMPLER: TYPE S.S. SIZE I.D. 1 3/8" HAMMER WT. 140 LB HAMMER FALL 30"
 CORE BARREL: _____

SWC REP.: MTF
 WATER LEVEL INFORMATION
APPROX 3.5' AT TIME OF DRILLING
6" AT END OF DAY

CASING BLOWS PER FOOT	SAMPLE			DEPTH @ BOT	SAMPLER BLOWS PER FOOT				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.		0-6	6-12	12-18	18-24		
	1D	24"	18"	2.0'	1	2	3	6	1.0'	DARK ORGANIC TOPSOIL
									3.0'	-MEDIUM DENSE- BROWN SILTY SAND w=19.6% -VERY STIFF-
	2D	24"	24"	7.0'	3	5	9	11	9.0'	OLIVE BROWN SILTY CLAY q _p =7.5-8.5 ksf W=33.1%
	3D	24"	24"	12.0'	WOH	WOH	WOH	WOH		-MEDIUM ~ W=40.4% q _p =.5-1.5 ksf GRAY SILTY CLAY
	1U	24"	24"	17.0'	WOM					w=48.3% w _L =42.0 w _p =22.0
	3.5" x 7" VANE									q _u =.81 ksf Sv = .75/.11 ksf
	3.5" x 7" VANE									Sv = .81/.15 ksf q _p =.6 ksf
	4D	24"	24"	22.0'	WOH	WOH	WOH	WOH	22.0'	
	HYDRO ROD PROBE PUSH									ROD PROBE-NO SAMPLING PROBABLE GRAY SILTY CLAY

SAMPLES: D= SPLIT SPOON
 C= 3" SHELBY TUBE
 U= 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

<input type="checkbox"/>	DRILLER - VISUALLY
<input checked="" type="checkbox"/>	SOIL TECH.-VISUALLY
<input checked="" type="checkbox"/>	LABORATORY TEST

REMARKS: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

(2)

BORING NO.: **B-1**

S.W. COLE

ENGINEERING, INC.
GEOTECHNICAL CONSULTANTS

BORING LOG

BORING NO.: B-1

SHEET: 2 OF 2

PROJECT NO.: 00-0243

DATE START: 05/04/2000

DATE FINISH: 05/04/2000

ELEVATION: 69±

SWC REP.: MTT

PROJECT / CLIENT: PROPOSED BUILDING / FORM SYSTEMS
 LOCATION: SAWYER INDUSTRIAL PARK / PORTLAND, MAINE
 DRILLING FIRM: GREAT WORKS TEST BORINGS, INC. DRILLER: JEFF LEE

WATER LEVEL INFORMATION
APPROX 3.5' AT TIME OF DRILLING
6" AT END OF DAY

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	H.S.A.	4 1/4"		
SAMPLER:	S.S.	1 3/8"	140 LB	30"
CORE BARREL:				

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24		
10	ROD PROBE									
11										
11										
12										
11									45±	
13										PROBABLE GRANULAR SOILS
14										
13										
26										
35										
27										
42										
41										
34										
34										
33										
32										
32										
37										
52									60.0'	
										BOTTOM OF EXPLORATION @ 60.0'

SAMPLES: D=SPLIT SPOON C=3" SHELBY TUBE U=3.5" SHELBY TUBE	SOIL CLASSIFIED BY: <input type="checkbox"/> DRILLER - VISUALLY <input checked="" type="checkbox"/> SOIL TECH.-VISUALLY <input checked="" type="checkbox"/> LABORATORY TEST	REMARKS: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.	3
			BORING NO.: <u>B-1</u>

PROJECT / CLIENT: PROPOSED BUILDING / FORM SYSTEMS

LOCATION: SAWYER INDUSTRIAL PARK / PORTLAND, MAINE

DRILLING FIRM: GREAT WORKS TEST BORINGS, INC. DRILLER: JEFF LEE

WATER LEVEL INFORMATION

APPROX 3.5' AND RISING

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	H.S.A.	4 1/4"		
SAMPLER:	S.S.	1 3/8"	140 LB	30"
CORE BARREL:				

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER FOOT				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24		
	1D	24"	6"	2.0'	WOH	WOH	1	4	4"	DARK ORGANIC TOPSOIL -LOOSE-
									3.0'	BROWN SILTY SAND -VERY STIFF BECOMING...
	2D	24"	24"	7.0'	3	5	8	10	11.5'	OLIVE BROWN SILTY CLAY W=30.1% ...STIFF- q _p =7.5-8.5 ksf q _p =3 ksf
	3D	24"	24"	12.0'	1	2	2	2	12.0'	-MEDIUM- GRAY SILTY CLAY q _p ≤5 ksf
	WOH	ROD PROBE @ 12.0'								ROD PROBE-NO SAMPLING
	WOH									PROBABLE GRAY SILTY CLAY
	WOH									
	WOH									
	2									
	4									
	4									
	3									
	4									
	3									
	4									
	4									
	4									
	4									
	4									
	5									
	5									
	5									
	5									
	6									
	7									
	8								36+	
	12									
	10									
	10								39.0'	PROBABLE GRANULAR SOILS
										BOTTOM OF EXPLORATION @ 39.0'

SAMPLES:	SOIL CLASSIFIED BY:	REMARKS:
D=SPLIT SPOON	<input type="checkbox"/> DRILLER - VISUALLY	STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
C=3" SHELBY TUBE	<input checked="" type="checkbox"/> SOIL TECH.-VISUALLY	
U=3.5" SHELBY TUBE	<input checked="" type="checkbox"/> LABORATORY TEST	
		BORING NO.: B-2

S.W.COLE

ENGINEERING, INC.
GEOTECHNICAL CONSULTANTS

BORING LOG

BORING NO.: **B-3**

SHEET: 1 OF 2

PROJECT NO.: 00-0243

DATE START: 05/04/2000

DATE FINISH: 05/04/2000

ELEVATION: 70±

SWC REP.: MTT

PROJECT / CLIENT: PROPOSED BUILDING / FORM SYSTEMS

LOCATION: SAWYER INDUSTRIAL PARK / PORTLAND, MAINE

DRILLING FIRM: GREAT WORKS TEST BORINGS, INC. DRILLER: JEFF LEE

CASING: TYPE H.S.A. SIZE I.D. 4 1/4" HAMMER WT. 140 LB HAMMER FALL 30"

SAMPLER: S.S. 1 3/8"

CORE BARREL:

WATER LEVEL INFORMATION
APPROX 6.0' AT TIME OF DRILLING
WATER AT 2.25' AT END OF DAY

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA	
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24			
	1D	24"	16"	2.0'	1	1	2	5	10"	DARK ORGANIC TOPSOIL	
									3.0'	-LOOSE- BROWN SILTY SAND -VERY STIFF BECOMING....	
	2D	24"	24"	7.0'	4	11	10	12		OLIVE BROWN SILTY CLAY W=34.4% $q_p = 4.5$ to 8 ksf	
									11.0'	...MEDIUM- $q_p = 1.5$ ksf	
	3D	24"	24"	12.0'	3	2	2	2		W=38.3% $q_p = < .5$ ksf	
										GRAY SILTY CLAY -MEDIUM-	
	1U	24"	24"	22.0'	HYDRO PUSH						w=42.7% w _L =39.0 w _p =22.0 $q_p = < .5$ ksf
	3.5" x 7" VANE										S _v = .77/.17 ksf
	3.5" x 7" VANE										S _v = .84/.17 ksf
	ROD PROBE @ 24.5'								24.5		
WOH											
WOH											
WOH											
WOH											
WOH											
WOH											
WOH											
4											
5											
5											
5											
5											
8											
7											

SOIL CLASSIFIED BY:

DRILLER - VISUALLY

SOIL TECH.-VISUALLY

LABORATORY TEST

U=3.5" SHELBY TUBE

REMARKS:

STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

5

BORING NO.: **B-3**

BORING NO.: B-3
 SHEET: 2 OF 2
 PROJECT NO.: 00-0243
 DATE START: 05/04/2000
 DATE FINISH: 05/04/2000
 ELEVATION: 70±

PROJECT / CLIENT: PROPOSED BUILDING / FORM SYSTEMS
 LOCATION: SAWYER INDUSTRIAL PARK / PORTLAND, MAINE
 DRILLING FIRM: GREAT WORKS TEST BORINGS, INC. DRILLER: JEFF LEE

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	H.S.A.	4 1/4"		
SAMPLER:	S.S.	1 3/8"	140 LB	30"
CORE BARREL:				

SWC REP.: MTT
 WATER LEVEL INFORMATION
 APPROX 6.0' AT TIME OF DRILLING
 WATER AT 2.25' AT END OF DAY

CASING BLOWS PER FOOT	SAMPLE			SAMPLER BLOWS PER FOOT				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18		
6									
6									
7									
8									
8								45±	
10									
9									
10									
13									
30								49.5'	PROBABLE GRANULAR SOILS
									BOTTOM OF EXPLORATION @ 49.5'

SOIL CLASSIFIED BY:

<input type="checkbox"/>	DRILLER - VISUALLY
<input checked="" type="checkbox"/>	SOIL TECH.-VISUALLY
<input checked="" type="checkbox"/>	LABORATORY TEST

U=3.5" SHELBY TUBE

REMARKS:

STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

6

BORING NO.: **B-3**

S.W.COLE

ENGINEERING, INC.
GEOTECHNICAL CONSULTANTS

BORING LOG

BORING NO.: B-4

SHEET: 1 OF 1

PROJECT NO.: 00-0243

DATE START: 05/04/2000

DATE FINISH: 05/04/2000

ELEVATION: 69±

SWC REP.: MTT

PROJECT / CLIENT: PROPOSED BUILDING / FORM SYSTEMS

LOCATION: SAWYER INDUSTRIAL PARK / PORTLAND, MAINE

DRILLING FIRM: GREAT WORKS TEST BORINGS, INC. DRILLER: JEFF LEE

WATER LEVEL INFORMATION

APPROX. 8.0' AND RISING

CASING: TYPE H.S.A. SIZE I.D. 4 1/4" HAMMER WT. HAMMER FALL

SAMPLER: S.S. 1 3/8" 140 LB 30"

CORE BARREL:

CASING BLOWS PER FOOT	SAMPLE			SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18		
								0.5'	DARK ORGANIC TOPSOIL
	1D	24"	14"	2.0'	1	1	2	4	-LOOSE-
								3.0'	BROWN SILTYSAND
									-VERY STIFF BECOMING ...
	2D	24"	22"	7.0'	2	6	7	11	OLIVE BROWN SILTY CLAY
									q _p =6 to 7.5 ksf
								11.8'	...STIFF-
	3D	24"	24"	12.0'	2	2	2	2	q _p = 3 ksf
								12.0'	GRAY SILTY CLAY
									q _p = .5 ksf
									BOTTOM OF EXPLORATION AT 12.0'

SAMPLES:

SOIL CLASSIFIED BY:

REMARKS:

D=SPLIT SPOON
C=3" SHELBY TUBE
U=3.5" SHELBY TUBE

<input type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

DRILLER - VISUALLY
SOIL TECH.-VISUALLY
LABORATORY TEST

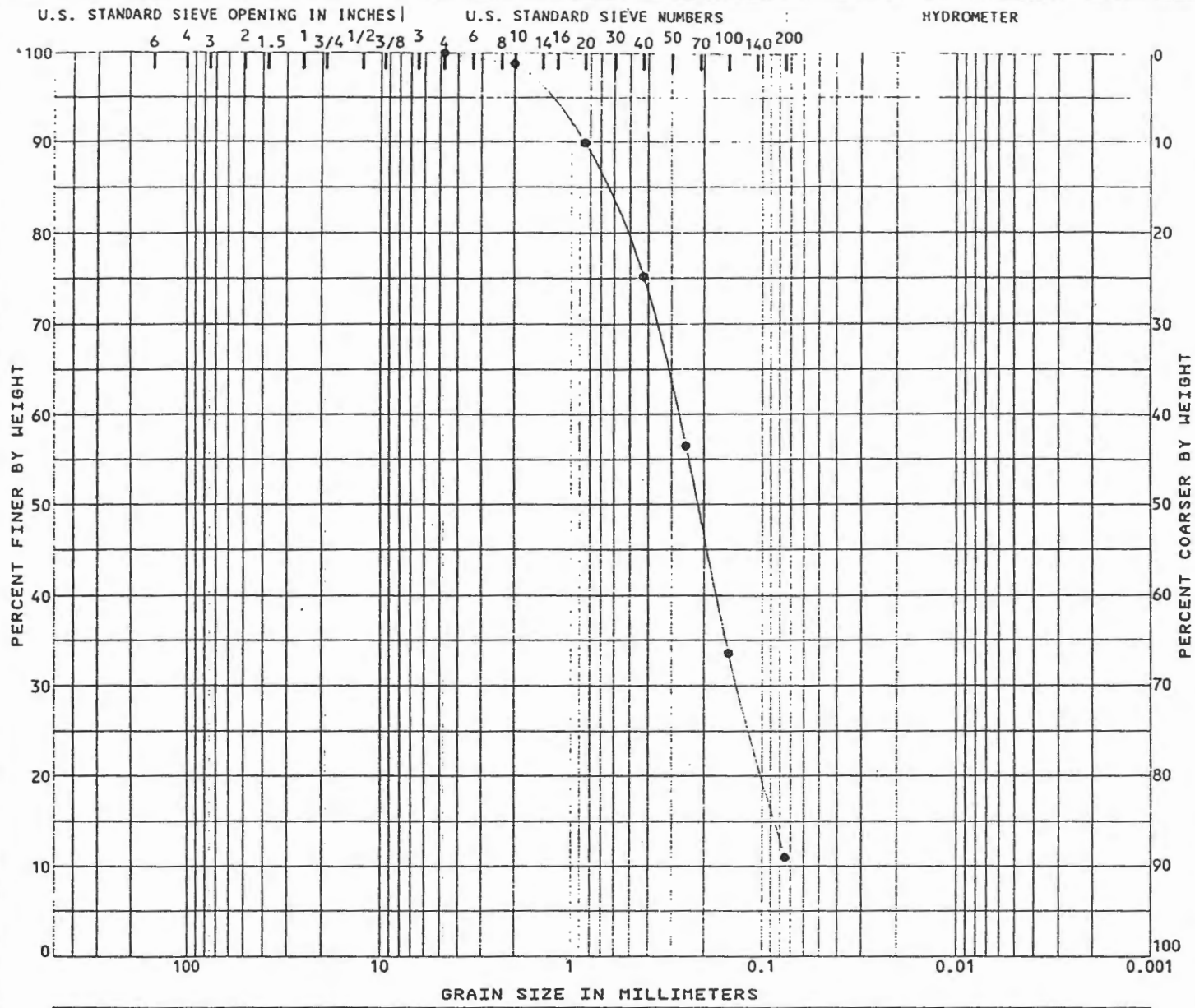
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

7

BORING NO.: B-4

APPENDIX B

MAY 2000 LABORATORY TESTS



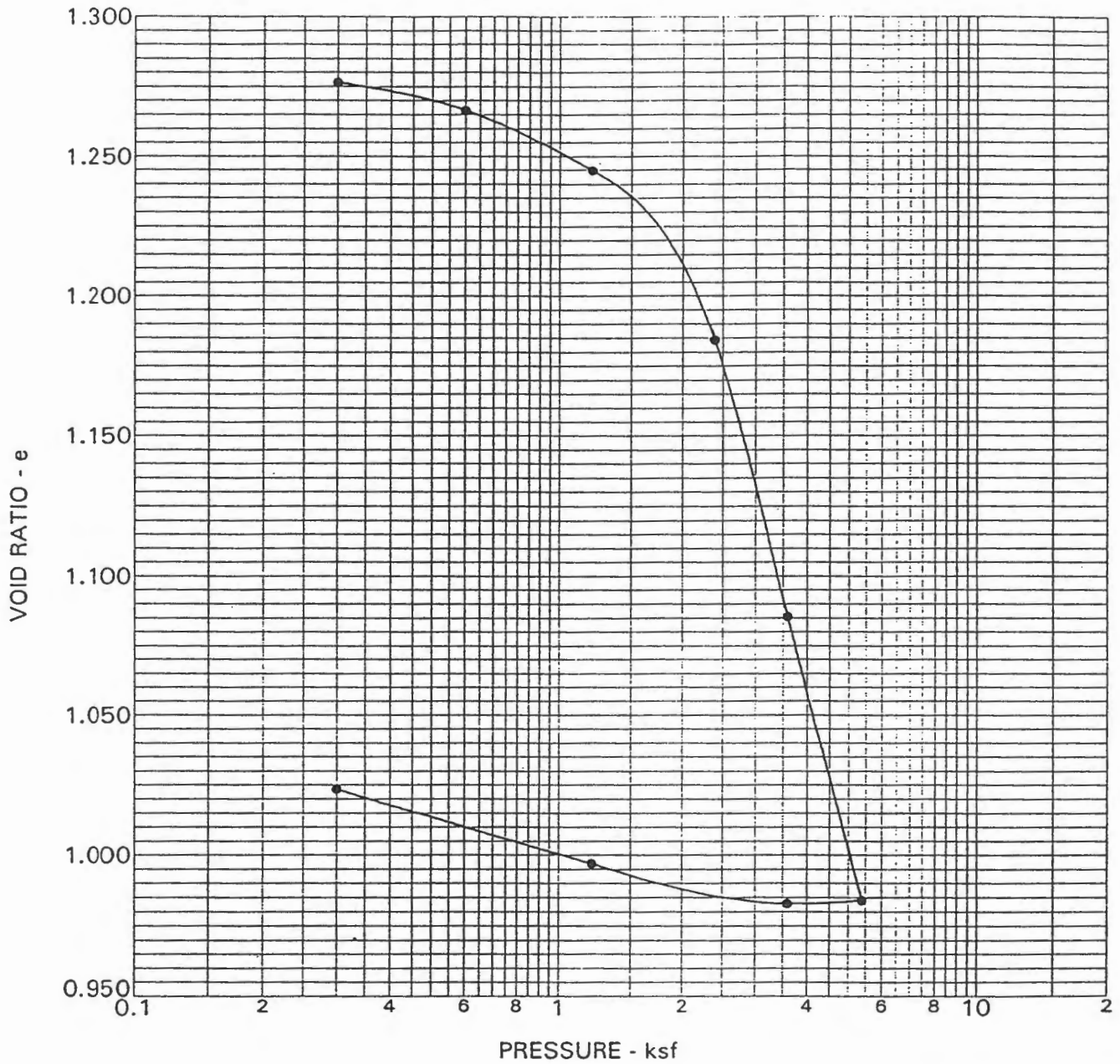
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	WC%	LL	PL	PI	C _c	C _u
B-1 S-1 0-2'	silty SAND	19.6				0.93	3.9

Specimen Identification	D100	D60	D30	D10	% Gravel	% Sand	% Silt	% Clay
B-1 S-1 0-2'	4.75	0.28	0.134		0.0	89.0	11.0	

S.W. COLE ENGINEERING, INC.	Project Form Systems / Prop. Building	Location Portland, Maine
	SWC Job No. 00-0243	Sheet No. 9
	Date May 25, 2000	GRADATION CURVES

Consolidation Test



B-1 1U 15-17'

Pc = 2.0 +/- ksf

Cc = 0.57

Cr = 0.03

w = 48.3%

WI = 42.0

Wp = 22.0

S.W. Cole Engineering, Inc.

Project Name:

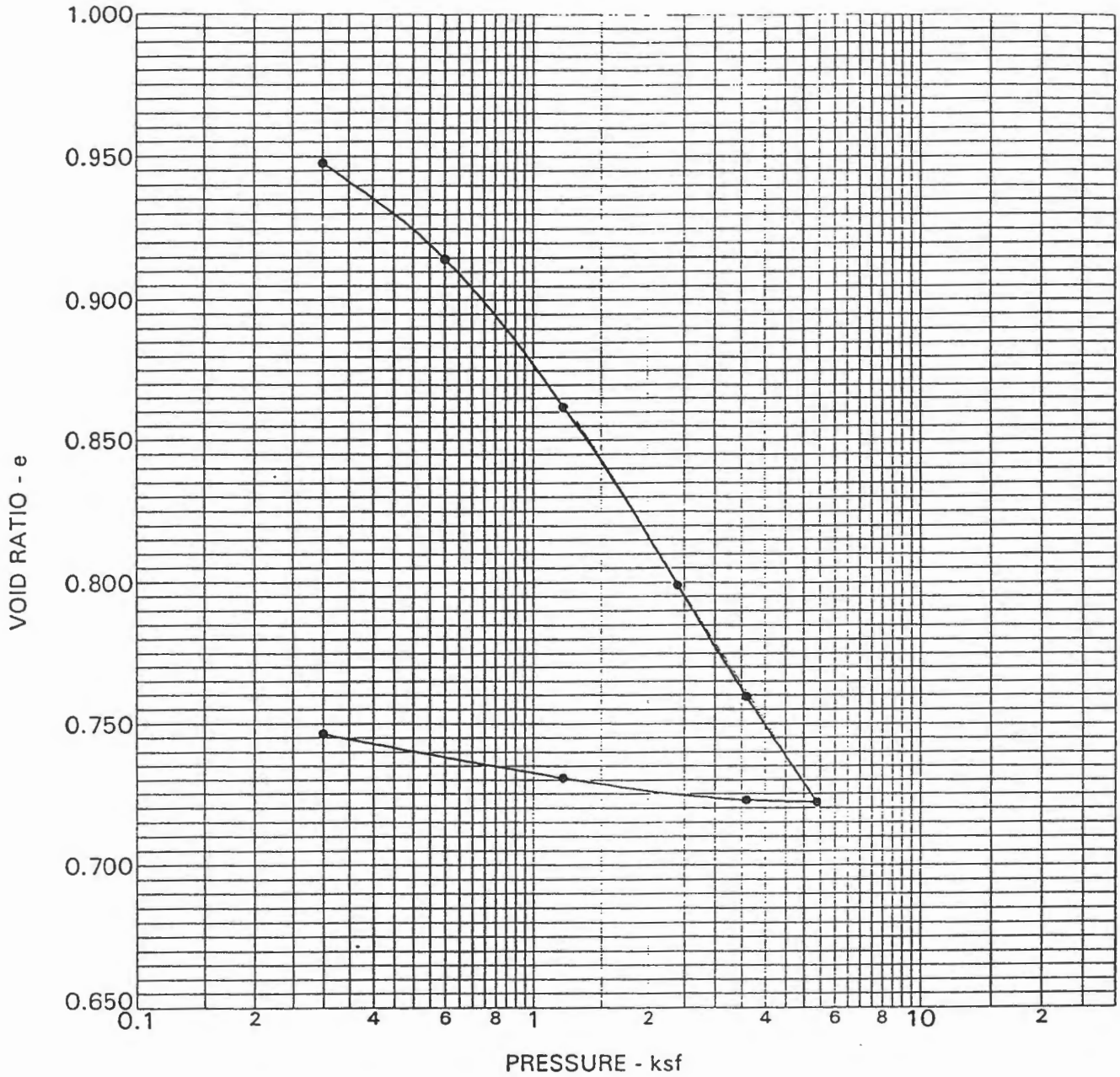
Form Systems / Prop. Building

Job No. : 00-0243

Boring : B-1

Sheet : 10

Consolidation Test



B-3 1U 20-22'

 $P_c = 1.2 \pm \text{ksf}$
 $C_c = 0.22$
 $C_r = 0.02$
 $w = 42.7\%$
 $W_I = 39.0$
 $W_p = 22.0$

S.W. Cole Engineering, Inc.
 Project Name:
Form Systems / Prop. Building
 Job No. : 00-0243
 Boring : B- 3
 Sheet : 11

Schedule of Inspection and Testing Agencies

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Soils and Foundations | <input type="checkbox"/> Spray Fire Resistant Material |
| <input checked="" type="checkbox"/> Cast-in-Place Concrete | <input type="checkbox"/> Wood Construction |
| <input type="checkbox"/> Precast Concrete | <input type="checkbox"/> Exterior Insulation and Finish System |
| <input checked="" type="checkbox"/> Masonry | <input type="checkbox"/> Mechanical & Electrical Systems |
| <input checked="" type="checkbox"/> Structural Steel | <input type="checkbox"/> Architectural Systems |
| <input checked="" type="checkbox"/> Cold-Formed Steel Framing | <input type="checkbox"/> Special Cases |

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Special Inspection Coordinator	<i>Casco Bay Engineering, Inc. Eric Dube, P.E.</i>	<i>424 Fore Street Portland, ME 04101 (207) 842-2800 ericd@cascobayengineering.com</i>
2. Inspector	<i>Applus-RTD Mike Drew</i>	<i>Applus-RTD 80 Pleasant Avenue South Portland, ME 04106 (207) 799-8911</i>
3. Inspector	<i>S.W. Cole Engineering, Inc. Roger Domingo</i>	<i>S.W. Cole Engineering, Inc. 286 Portland Road Gray, ME 04039</i>
4. Testing Agency	<i>S.W. Cole Engineering, Inc. Roger Domingo</i>	<i>S.W. Cole Engineering, Inc. 286 Portland Road Gray, ME 04039</i>
5. Testing Agency		
6. Other		

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

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Quality Assurance Plan

Quality Assurance for Seismic Resistance

Seismic Design Category *C*
Quality Assurance Plan Required (Y/N) *N*

Description of seismic force resisting system and designated seismic systems:

Seismic force resisting system is masonry shear walls.

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) *100 mph*
Wind Exposure Category *B*
Quality Assurance Plan Required (Y/N) *N*

Description of wind force resisting system and designated wind resisting components:

Wind force resisting system is masonry shear walls.

Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated above must submit a Statement of Responsibility.

Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

PE/SE	Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE	Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT	Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

American Concrete Institute (ACI) Certification

ACI-CFTT	Concrete Field Testing Technician – Grade 1
ACI-CCI	Concrete Construction Inspector
ACI-LTT	Laboratory Testing Technician – Grade 1&2
ACI-STT	Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI	Certified Welding Inspector
AWS/AISC-SSI	Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT	Non-Destructive Testing Technician – Level II or III.
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International Code Council (ICC) Certification

ICC-SMSI	Structural Masonry Special Inspector
ICC-SWSI	Structural Steel and Welding Special Inspector
ICC-SFSI	Spray-Applied Fireproofing Special Inspector
ICC-PCSI	Prestressed Concrete Special Inspector
ICC-RCSI	Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CT	Concrete Technician – Levels I, II, III & IV
NICET-ST	Soils Technician - Levels I, II, III & IV
NICET-GET	Geotechnical Engineering Technician - Levels I, II, III & IV

Exterior Design Institute (EDI) Certification

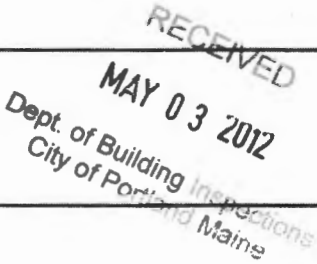
EDI-EIFS	EIFS Third Party Inspector
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Other

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Item	Agency # (Qualif.)	Scope
1. Shallow Foundations	1,3	<p><i>Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report.</i></p> <p><i>Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill</i></p>
2. Controlled Structural Fill	4	<p><i>Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) of each source of fill material.</i></p> <p><i>Inspect placement, lift thickness and compaction of controlled fill.</i></p> <p><i>Test density of each lift of fill by nuclear methods (ASTM D2922)</i></p> <p><i>Verify extent and slope of fill placement.</i></p>
3. Deep Foundations	NA	<p><i>Inspect and log pile driving operations. Record pile driving resistance and verify compliance with driving criteria.</i></p> <p><i>Inspect piles for damage from driving and plumbness.</i></p> <p><i>Verify pile size, length and accessories.</i></p> <p><i>Inspect installation of drilled pier foundations. Verify pier diameter, bell diameter, lengths, embedment into bedrock and suitability of end bearing strata.</i></p>
4. Load Testing	NA	
4. Other:		

Cast-in-Place Concrete

Item	Agency # (Qualif.)	Scope
1. Mix Design	4	<i>Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.</i>
2. Material Certification	NA	
3. Reinforcement Installation	1,3	<i>Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters</i>
4. Post-Tensioning Operations	NA	<i>Inspect placement, stressing, grouting and protection of post-tensioning tendons. Verify that tendons are correctly positioned, supported, tied and wrapped. Record tendon elongations.</i>
5. Welding of Reinforcing	1,3	<i>Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required.</i>
6. Anchor Rods	1,3	<i>Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.</i>
7. Concrete Placement	3	<i>Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.</i>
8. Sampling and Testing of Concrete	4	<i>Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).</i>
9. Curing and Protection	4	<i>Inspect curing, cold weather protection and hot weather protection procedures.</i>
10. Other:		<p style="text-align: right;">  </p>

Masonry

Required Inspection Level: 1 2

Item	Agency # (Qualif.)	Scope
1. Material Certification	4	
2. Mixing of Mortar and Grout	4	<i>Inspect proportioning, mixing and retempering of mortar and grout.</i>
3. Installation of Masonry	4	<i>Inspect size, layout, bonding and placement of masonry units.</i>
4. Mortar Joints	4	<i>Inspect construction of mortar joints including tooling and filling of head joints.</i>
5. Reinforcement Installation	1,3	<i>Inspect placement, positioning and lapping of reinforcing steel. Inspect welding of reinforcing steel.</i>
6. Prestressed Masonry	NA	<i>Inspect placement, anchorage and stressing of prestressing bars.</i>
7. Grouting Operations	4	<i>Inspect placement and consolidation of grout. Inspect masonry clean-outs for high-lift grouting.</i>
7. Weather Protection	4	<i>Inspect cold weather protection and hot weather protection procedures. Verify that wall cavities are protected against precipitation.</i>
9. Evaluation of Masonry Strength	4	<i>Test compressive strength of mortar and grout cube samples (ASTM C780). Test compressive strength of masonry prisms (ASTM C1314).</i>
10. Anchors and Ties	1,3	<i>Inspect size, location, spacing and embedment of dowels, anchors and ties.</i>
11. Other:		

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures <input type="checkbox"/> Fabricator Exempt	2	<i>Review shop fabrication and quality control procedures.</i>
2. Material Certification	2	<i>Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes</i>
3. Open Web Steel Joists	2	<i>Inspect installation, field welding and bridging of joists.</i>
4. Bolting	2	<i>Inspect installation and tightening of high-strength bolts. Verify that splines have separated from tension control bolts. Verify proper tightening sequence. Continuous inspection of bolts in slip-critical connections.</i>
5. Welding	2	<i>Visually inspect all welds. Inspect pre-heat, post-heat and surface preparation between passes. Verify size and length of fillet welds. Ultrasonic testing of all full-penetration welds.</i>
6. Shear Connectors	2	<i>Inspect size, number, positioning and welding of shear connectors. Inspect studs for full 360 degree flash. Ring test all shear connectors with a 3 lb hammer. Bend test all questionable studs to 15 degrees.</i>
7. Structural Details	1,2	<i>Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details.</i>
8. Metal Deck	1,2	<i>Inspect welding and side-lap fastening of metal roof and floor deck.</i>
9. Other:		

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Cold-Formed Steel Framing

Item	Agency # (Qualif.)	Scope
1. Member Sizes	2	<i>Inspect steel member sizes for compliance with Structural drawings, including bracing, member configuration and connection details.</i>
2. Material Thickness	2	<i>Inspect steel member sizes for compliance with Structural drawings.</i>
3. Material Properties	2	<i>Inspect steel member sizes for compliance with Structural drawings.</i>
4. Mechanical Connections	2	<i>Inspect steel members for proper mechanical connections for compliance with Structural drawings.</i>
5. Welding	NA	
6. Framing Details	2	<i>Inspect steel members for proper framing details for compliance with Structural drawings.</i>
7. Trusses	NA	
8. Permanent Truss Bracing	NA	
9. Other:		