City of Portland, Maine - Building or Use Permit Application

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

Permit No:	Issue Date:	CBL:
06-0706	05/12/2006	027 C010001

Location of Construction:	Owner Name:	Owner Address:	Phone:
21 CHESTNUT ST	CHESTNUT STREET LOFTS LLC	ONE INDIA ST	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Allied/Cook Construction	PO Box 1396 Portland	2077722888
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	**Zone:**
		Foundation Only/Residential	

PERMIT ISSUED
MAY 12 2006
CITY OF PORTLAND

Past Use:	Proposed Use:	Permit Fee:	Cost of Work:	CEO District:
Parking lot	8 story/37 Unit Condo Project--- Chestnut Street Lofts		$0.00	

FIRE DEPT: ☐ Approved ☐ Denied

Signature:

INSPECTION:
Use Group: Type:
FOUNDATION ONLY 5/12/06

Signature:

Proposed Project Description:
Foundation Only

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)

Action: ☐ Approved ☐ Approved w/Conditions ☐ Denied

Signature: Date:

Permit Taken By:	Date Applied For:
mjn	05/12/2006

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building permits do not include plumbing, septic or electrical work.
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..

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
☐ Shoreland	☐ Variance	☐ Not in District or Landmark
☐ Wetland	☐ Miscellaneous	☐ Does Not Require Review
☐ Flood Zone	☐ Conditional Use	☐ Requires Review
☐ Subdivision	☐ Interpretation	☐ Approved
☐ Site Plan	☐ Approved	☐ Approved w/Conditions
Maj ☐ Minor ☐ MM ☐	☐ Denied	☐ Denied
Date:	Date:	Date:

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

Form # P 04

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING INSPECTION

PERMIT

Please Read Application And Notes, If Any, Attached

Permit Number: 060706

This is to certify that CHESTNUT STREET LOFTS LLC /Allied/Cook Construct

has permission to Foundation Only

AT 21 CHESTNUT ST 027 C010001

PERMIT ISSUED

MAY 12 2006

CITY OF PORTLAND

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and written permission procured before this building or part thereof is lathed or otherwise closed-in. 24 HOUR NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

Fire Dept. _____

Health Dept. _____

Appeal Board _____

Other _____
Department Name

5/12/06
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit

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06-0706	05/12/2006	027 C010001

Location of Construction:	Owner Name:	Owner Address:	Phone:
21 CHESTNUT ST	CHESTNUT STREET LOFTS LLC	ONE INDIA ST	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Allied/Cook Construction	PO Box 1396 Portland	(207) 772-2888
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	
		Foundation Only/Residential	

Proposed Use:	Proposed Project Description:
8 story/37 Unit Condo Project---Chestnut Street Lofts	Foundation Only

Dept: Building **Status:** Approved with Conditions **Reviewer:** Mike Nugent **Approval Date:** 05/12/1006

Note:

Ok to Issue: ☑

Dept: Fire **Status:** Approved with Conditions **Reviewer:** Cptn Greg Cass **Approval Date:** 09/28/2005

Note:

Ok to Issue: ☐

1) Water main to be 8 inch.
2) Life safety plan needed for proposed construction
3) Maintain egress from Merrill during demolition and construction.

Dept: Planning **Status:** Approved with Conditions **Reviewer:** Barbara Barhydt **Approval Date:** 01/24/2006

Note:

Ok to Issue: ☐

1) All proposed easements shall be finalized before the release of the recording plat and recorded with the plat.
2) The conditions contained in the review by Jim Seymour, Development Review Coordinator, Sebago Technics, Inc. Dated January 20, 2006 shall be met prior to the issuance of a building permit.
3) The final recording plat meeting the requirements of Portland's Subidivision Ordinance and listing conditions imposed by the Planning Board will be submitted for the Planning Board's signature.
4) The drvieway apron shall be brick unless the City's sidewalk Policy is revised prior to installation.
5) The applicant shall submit evidence that two off-site parking spaces are available for the Chestnut Street Church prior to the reuse of this structure or as part of a change of use review. The applicant shall submit evidence that six parking spaces have been secured to comply with the City's zoning ordinance for the first floor commercial uses prior to the issuance of a certificate of occupancy.
6) 1. The applicant shall coordinate with the City regarding the relocation of the CMP pole and the timing of any distruption to the City's communication system. 2. The applicant will continue to explore options to consolidate the overhead utilities onto one pole on Chestnut Street.
7) The conditions contained in the review by Jim Seymour, Development Review Coordinator, Sebago Technics, Inc. Dated January 20, 2006 shall be met prior to the issuance of a building permit.
8) The applicant shall submit evidence that seven parking spaces have been secured to comply with the City's zoning ordinance for the first floor commercial uses prior to the issuance of a certificate of occupancy.
9) The Planning Board voted unanimously to grant the following waivers:
   1. The proposed Granvill lighting fixtures will be compatible with the existing architectural context of the historic Chestnut Street Church and will not produce unacceptable levels of glare and/or light trespass.
   2. The proposed increased setback from the build-to-line (from five feet to eleven feet for roughly 73 feet along Cumberland Avenu and twelve feet on Chestnut Street) does meet the Stie Plan Standards of Section 14-526 (a) (16) and by reference the zoning standards of 14-220 (c);
   3. Upon the recommendation of the City's Traffic Engineer and the extended duration times expected for the residential uses, the Planning Board waives the City's Technical Standards for parking lots to allow the proposed parking aisle of 22 feet and twelve compact parking spaces of 8.5 by 19 feet.

Location of Construction:	Owner Name:	Owner Address:	Phone:
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Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Allied/Cook Construction	PO Box 1396 Portland	(207) 772-2888
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	
		Foundation Only/Residential	

10 The applicant will conduct a post occupancy traffic signal warrant study of the intersection of Chestnut Street and Cumberland Avenue, which shall be coordinated with the Department of Public Works.

11 All required licenses for the foundation footings shall be obtained piror to the issuance of a building permit.

12 The construction mobilization plan shall be revised to maintain egress from Merrill Auditorium during demolition and construction prior to the issuance of a buildng permit.

13 □If the applicant proceeds with the roof-top deck, then the final roof-top deck elevations shall be submitted to the City for review prior to the issuance of a building permit. Carrie Marsh, Urban Designer, has reviewed the rooftop deck and approves the elevation as submitted on Sheet A2.0 Elevations, Revision #2.

Comments:

5/12/2006-mjn: Zoning and Fire previously approved , see permit #060492

Approved by Planning per Jay Reynolds 5/12/06

PERMIT ISSUED

MAY 1 2 2006

CITY OF PORTLAND

From: Penny Littell
To: Eric Labelle; Jay Reynolds; MICHAEL NUGENT
Date: 5/11/2006 3:38:46 PM
Subject: Fwd: Chestnut Street Lofts LLC

we are all set

>>> "Cito Selinger" <mselinger@curtisthaxter.com> 5/11/2006 3:32:47 PM >>>
At the request of Richard Berman, I'm sending you both a copy of the recorded License Agreement.

Maurice A. Selinger, III
Member of the firm

Curtis Thaxter Stevens Broder & Micoleau LLC
One Canal Plaza
Portland, Maine 04101
(207) 774-9000
(207) 775-0612 (fax)
mas@curtisthaxter.com
www.curtisthaxter.com <http://www.curtisthaxter.com/>

Doc#: 20121 Bk:23826 Pg: 117

LICENSE AGREEMENT

FOR VALUABLE CONSIDERATION, the receipt and sufficiency of which is hereby acknowledged, the CITY OF PORTLAND, a Maine body corporate and politic, with a mailing address of City Hall, 389 Congress Street, Portland, Maine 04101 (the "City"), hereby GRANTS to CHESTNUT STREET LOFTS LLC, a Maine limited liability company with a place of business in Portland, Maine and mailing address c/o Berman Associates, One India Street, Portland, Maine 04101 ("Grantee") a revocable license to occupy the following land owned by the City: (i) the northwesterly side of Cumberland Avenue, (ii) the southwesterly side of Chestnut Street and (iii) a parcel of land described in a deed to the City recorded in the Cumberland County Registry of Deeds in Book 2850, Page 79, all in Portland, Maine (collectively "City's Land"). City's Land abuts certain land of Grantee's located at Cumberland Avenue and Chestnut Street in Portland, Maine, described in Exhibit A attached hereto and made a part hereof, which were conveyed to Grantee by deed of Chestnut Street United Methodist Church dated January 17, 2006 and recorded in said Registry of Deeds in Book 23595, Page 242 (collectively "Grantee's Land"), solely for the purposes described herein, and subject to the following conditions.

1. The license granted herein is given for the following purposes and is located as described below:

A. A license, revocable as provided below, for the encroachment of improvements onto City's Land, extending as follows:

Sixty inches (60") at approximately six feet (6') below grade, from Grantee's Land onto City's Land (i) running southeasterly from the northeast corner of Chestnut Street and Cumberland Avenue a distance of sixty feet (60'), more or less, along the northerly sideline of Chestnut Street; (ii) running northeasterly from the northeast corner of Chestnut Street and Cumberland Avenue a distance of one hundred fourteen feet (114'), more or less, along the northeasterly sideline of Cumberland Avenue, and (iii) running southeasterly from the northernmost corner of Grantee's Land along the boundary of Grantee's Land and that portion of City's Land described in the deed recorded in Book 2850, Page 79 a distance of approximately sixty (60) feet, for the purpose of permitting

March 31, 2006

seph E. Gray, City Manager of the City
instrument to be his free act and deed
f Portland.

Sonia T. Bean
y Public/~~Attorney at Law~~
name:
ommission expires:

Sonia T. Bean
Notary Public, Maine

STATE OF MAINE
CUMBERLAND, SS

PERSONALLY APPEARED the above named Jo
of Portland as aforesaid, and acknowledged the foregoing
in his said capacity and the free act and deed of the City o

Before me,

Notar
Print
My c

Doc#: 20121 Bk:23826 Pg: 113

3. Licensees shall procure and maintain commercial general liability insurance in an amount of not less than Four Hundred Thousand Dollars ($400,000) combined single limit, covering claims for bodily injury, death and property damage and shall either name the City of Portland as an additional insured with respect to such coverage or shall obtain a contractual liability endorsement covering the obligations of Licensees under the terms of this license.

4. This license is assignable to any subsequent owners of the buildings located on Grantee's Land.

5. This license may be revoked upon six (6) months written notice by the City in the event that: 1) the buildings shown on the attached plans (Exhibit B) fail to be constructed substantially in accordance with such plans or any amendments thereto; 2) the buildings as shown on such plans or any amendments thereto are destroyed, removed or otherwise thereafter cease to exist on the site at Chestnut Street and Cumberland Avenue for a period of one year or more. City acknowledges that Grantee may amend this Agreement unilaterally for the purpose of correcting the site plans attached hereto as Exhibit B more accurately to show the encroachments described above that are being licensed under this agreement, provide the planning board or planning authority, as applicable, has approved any amended site plan.

6. This License Agreement supersedes and replaces all prior similar agreements between the parties.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed this 31 day of March, 2006.

CITY OF PORTLAND

By: _____
Joseph E. Gray
Its City Manager

CHESTNUT STREET LOFTS LLC

By: _____
Richard Berman, its sole Member

Doc#: 20121 Bk:23826 Ps: 119

STATE OF MAINE
CUMBERLAND, SS

March 31, 2006

PERSONALLY APPEARED the above named Joseph E. Gray, City Manager of the City of Portland as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of the City of Portland.

Before me,

Sonia T. Bean

Notary Public~~/Attorney at Law~~
Print name:
My commission expires:

Sonia T. Bean
Notary Public, Maine
My Commission Expires January 10, 2010

O:\MAS\05180 Berman\Chestnut Street\Title\City License Agreement 3_1_06.doc

Doc#: 20121 Bk:23826 Pg: 120

EXHIBIT A

A certain lot or parcel of land, with any structures and improvements thereon, located on the northeasterly side of Chestnut Street and the southeasterly side of Cumberland Avenue, in the City of Portland, County of Cumberland, State of Maine, bounded and described as follows:

Beginning at a point and the intersection of the northeasterly sideline of Chestnut Street and the southeasterly sideline of Cumberland Avenue. Thence:

1) N 50°24'16" E by said Cumberland Avenue a distance of one hundred thirteen and 43/100 (113.43) feet to a point and the westerly corner of land now or formerly of the City of Portland as described in a deed recorded in the Cumberland County Registry of Deeds in Book 2850, Page 79.

2) S 46°16'58" E by said land of the City of Portland and other land now or formerly of the City of Portland as described in a deed recorded in said Registry in Book 845, Page 93 a distance of one hundred fifty-Three and 19/100 (153.19) feet to a point and other land now or formerly of the City of Portland as described in a deed recorded in said Registry in Book 1596, Page 10.

3) S 43°27'58" E by said land of the City of Portland a distance of twenty-six and 52/100 (26.52) feet to a point and the northerly corner of Parcel A as delineated on a plan entitled "Recording Plat Chestnut Street Lofts" to be recorded in said Registry.

4) S 45°34'31" W by said Parcel A a distance of seventy-nine 69/100 (79.69) feet to a point and the easterly corner of Parcel B as delineated on said plan.

5) N 45°00'58" W by said Parcel B a distance of forty and 40/100 (40.40) feet to a point.

6) S 45°12'24" W by said Parcel B a distance of thirty-six and 48/100 (36.48) feet to a point on the northeasterly sideline of said Chestnut Street.

7) N 44°47'39" W by said Chestnut Street a distance of one hundred forty-nine and 02/100 (149.02) feet to the point of beginning.

Bearings are referenced to grid north, Maine State Plane Coordinate System, West Zone.

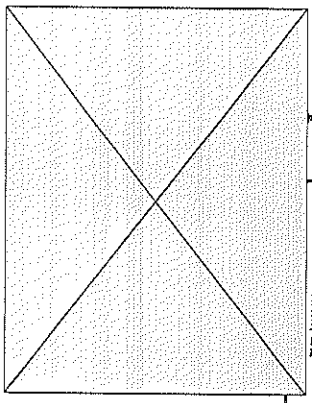

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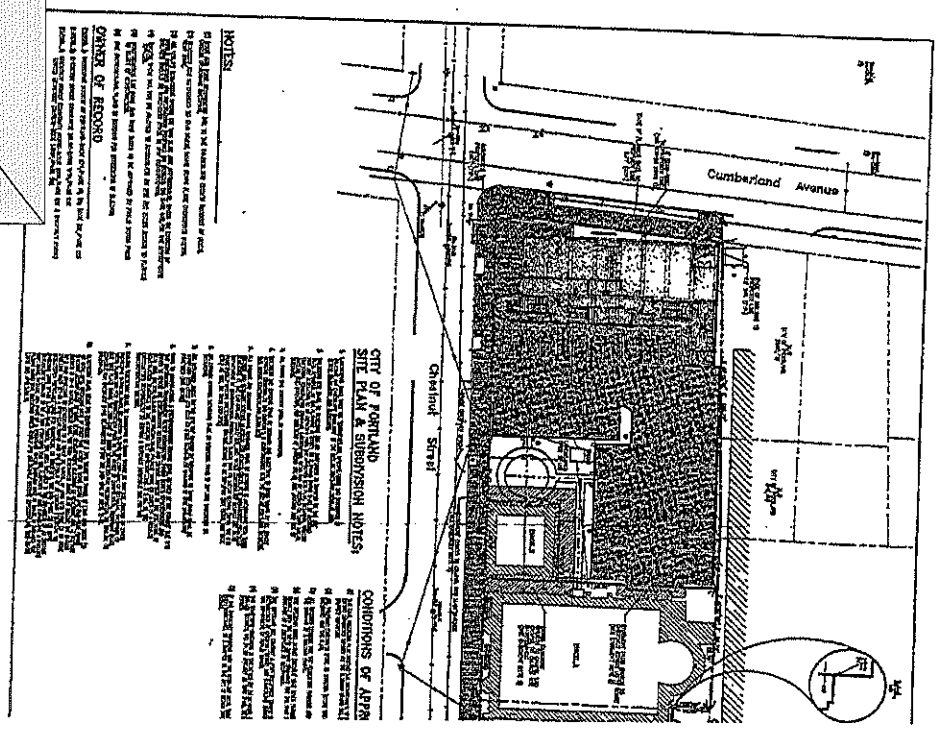
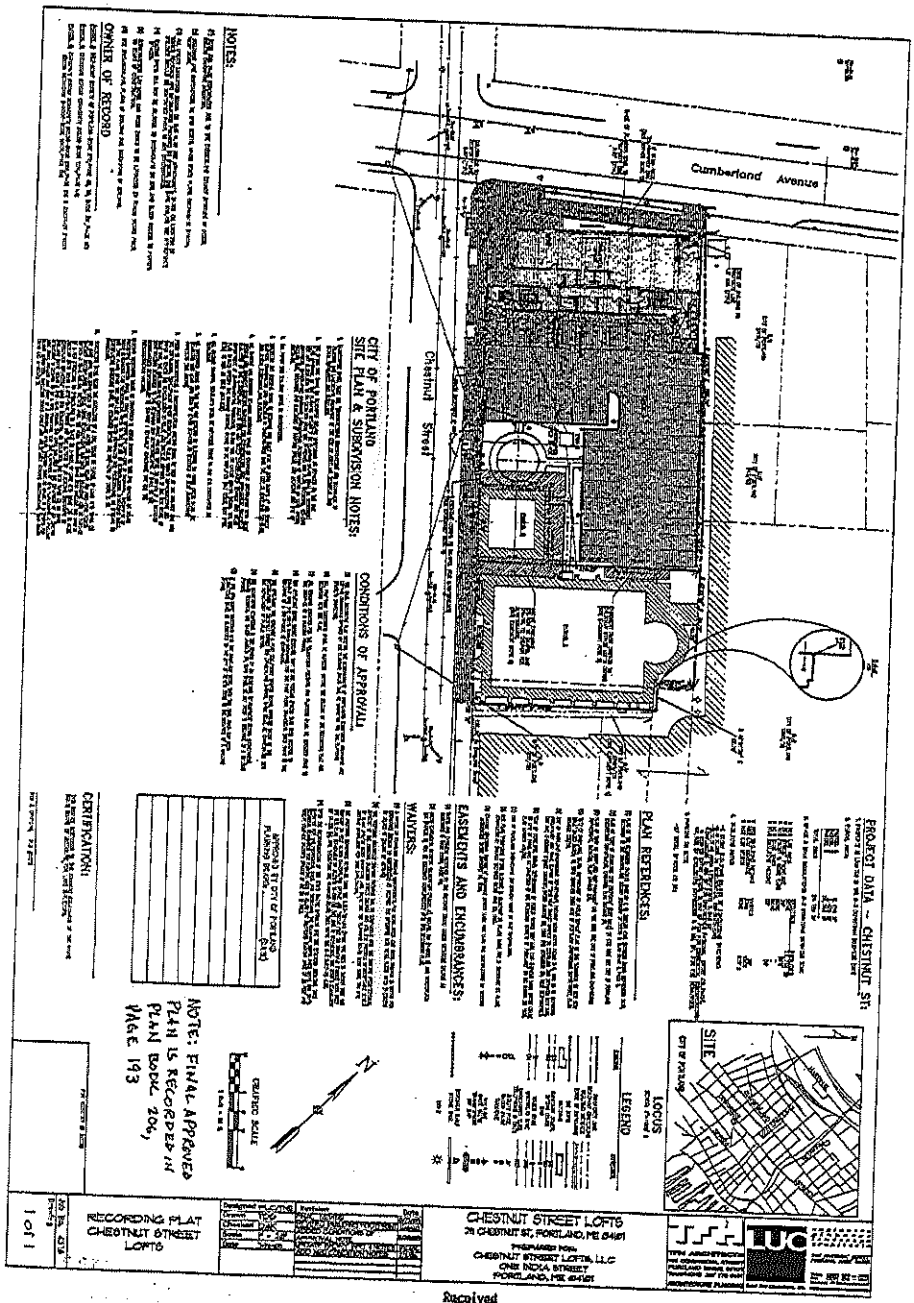
EXHIBIT B



Doc#: 20121 Bk:23826 Pg: 122

EXHIBIT B



Received
Recorded Register of Deeds
Apr 05,2006 11:32:30A
Cumberland County
John B O'Brien

Statement of Special Inspections

Project: *Chestnut Street Lofts*

Location: *29 Chestnut Street, Portland, ME*

Owner: *Chestnut Street LLC, One India Street, Portland, ME 04101*

Design Professional in Responsible Charge: *David J. Tetreault, P.E.*

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.

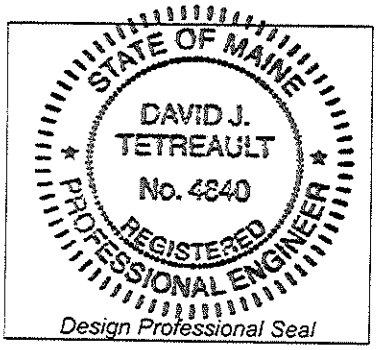
Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Interim Report Frequency: *monthly* or ☐ per attached schedule.

Prepared by:

David J. Tetreault, P.E.
(type or print name)

Signature 4/10/06 Date



Design Professional Seal

Owner's Authorization:

Signature 04/11/06 Date

Building Official's Acceptance:

Signature Date

Schedule of Inspection and Testing Agencies

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

- ☒ Soils and Foundations
- ☒ Cast-in-Place Concrete
- ☐ Precast Concrete
- ☒ Masonry
- ☒ Structural Steel
- ☐ Cold-Formed Steel Framing
- ☐ Spray Fire Resistant Material
- ☐ Wood Construction
- ☐ Exterior Insulation and Finish System
- ☐ Mechanical & Electrical Systems
- ☐ Architectural Systems
- ☐ Special Cases

Special Inspection Agencies	Firm	Address, Telephone
1. **Special Inspection Coordinator**	*Structural Design Consulting, Inc.*	*22 Oakmont Drive* *Old Orchard Beach, ME 04064* *207-934-8038*
2. Inspector	*Sebago Technics*	*One Chabot Street* *P.O. Box 1339* *Westbrook, ME 04098-1339* *207 856-0277*
3. Inspector	*S.W Cole Engineering, Inc*	*286 Portland Road* *Gray, ME 04039* *(207) 657-2866*
4. Testing Agency		
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.

Quality Assurance Plan

Quality Assurance for Seismic Resistance

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

Description of seismic force resisting system and designated seismic systems:

The seismic force resisting system consists of eccentrically braced fames (non-moment connections) as shown on Sheet S2.0.

Quality Assurance for Wind Requirements

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

The building is in wind exposure Category C with a 3-sec gust basic wind speed less than 110 mph therefore a quality assurance plan for wind is not required (IBC/2003 Section 1706.1.1.2).

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.

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

Other

_____ _____

Soils and Foundations

Item	Req'd Y/N	Agency # (Qualif.)	Scope
1. Shallow Foundations	*Y*	*2*	*Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report.* *Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill*
2. Controlled Structural Fill	*N*		
3. Deep Foundations	*N*		
4. Load Testing	*N*		
4. Other	*N*		

Cast-in-Place Concrete

Item	Req'd Y/N	Agency # (Qualif.)	Scope
1. Mix Design	*Y*	*ACI-CCI ICC-RCSI*	*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.*
2. Material Certification	*Y*	*I*	*Review certified mill test reports on reinforcing steel*
3. Reinforcement Installation	*Y*	*ACI-CCI ICC-RCSI*	*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*
4. Post-Tensioning Operations	*N*		
5. Welding of Reinforcing	*N*		
6. Anchor Rods	*Y*	*ACI-CCI ICC-RCSI*	*Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.*
7. Concrete Placement	*Y*	*ACI-CCI ICC-RCSI*	*Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.*
8. Sampling and Testing of Concrete	*Y*	*ACI-CFTT ACI-STT*	*Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).*
9. Curing and Protection	*Y*	*ACI-CCI ICC-RCSI*	*Inspect curing, cold weather protection and hot weather protection procedures.*
10. Other:			

Masonry

Required Inspection Level: ☐ 1 ☐ 2

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

Structural Steel

Item	Req'd Y/N	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures ☐ Fabricator Exempt	*Y*	*AWS/AISC-SSI ICC-SWSI*	*Review shop fabrication and quality control procedures.*
2. Material Certification	*Y*	*AWS/AISC-SSI ICC-SWSI*	*Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes*
3. Open Web Steel Joists	*N*		
4. Bolting	*Y*	*AWS/AISC-SSI ICC-SWSI*	*Inspect installation and tightening of high-strength bolts. Verify that splines have separated from tension control bolts. Verify proper tightening sequence.*
5. Welding	*Y*	*AWS-CWI* *ASNT*	*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.*
6. Shear Connectors	*Y*	*AWS/AISC-SSI ICC-SWSI*	*Inspect size, number, positioning and welding of shear connectors. Inspect suds for full 360 degree flash. Ring test all shear connectors with a 3 lb hammer. Bend test all questionable studs to 15 degrees.*
7. Structural Details	*Y*	*PE/SE*	*Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details.*
8. Metal Deck	*Y*	*AWS-CWI*	*Inspect welding and side-lap fastening of metal roof and floor deck.*
9. Other:	*N*		

SebagoTechnics
Engineering Expertise You Can Build On

Report on Final Design Subsurface and Foundation Investigation

Proposed Residential Building
Chestnut Street
Portland, Maine

for

Berman Associates
One India Street
Portland, ME 04101

December 6, 2005

One Chabot Street, P.O. Box 1339, Westbrook, Maine 04098-1339 ▪ Ph. 207-856-0277 ▪ Fax 856-2206

Sebago Technics
Engineering Expertise You Can Build On

sebagotechnics.com
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Fax 856-2206

December 6, 2005
05096

Mr. Richard Berman
Berman Associates
One India Street
Portland, ME 04101

Report on Final Design Subsurface and Foundation Investigation
Proposed Residential Building, Chestnut Street, Portland, Maine

Dear Richard:

This report presents the results of our final design subsurface and foundation investigation for the proposed residential building on Chestnut Street in Portland, Maine. These services were performed in accordance with our proposal dated September 22, 2005.

In summary, we recommend that the building be supported on spread footings bearing on the undisturbed, naturally deposited soils or on compacted structural fill placed after removal of unsuitable soils. In addition, a slab-on-grade may be used for the lowest floor. Specific recommendations for foundation design and construction considerations are presented below.

Introduction

The proposed site is located at the southeast corner of the intersection of Cumberland Avenue and Chestnut Street in Portland, Maine, the so-called Chestnut Street Church site. The area of the proposed building is presently a bituminous paved parking lot. The remainder of the site is occupied by parking and existing buildings, including the church. We understand that the proposed building will have a rectangular shape with a plan area of approximately 3,250 square feet. It will be eight stories in height with a full basement. Site development will include paved parking and green space.

Subsurface Explorations

Previous Borings

On April 26, 2005, Maine Test Borings, Inc. (MTB) drilled two borings, B1 and B2, at locations shown on Sheet 1, Subsurface Exploration Plan. MTB drilled the borings to depths below ground surface varying from 14.4 feet to 17.0 feet. Sebago Technics monitored the borings and prepared the logs included in Appendix A. Table I summarizes the results of borings. MTB backfilled the borings with the drilled material.

Borings were drilled using 2.5-inch inside diameter hollow stem augers. Samples were generally recovered at 5-foot intervals in each boring. Standard Penetration Resistance (N) was measured at each sample interval in accordance with ASTM Test D1586.

Sebago Technics determined the locations of borings by pacing from existing site features. We determined the ground surface elevations at borings by linear interpolation between ground surface contours at the plotted locations.

Present Borings

On October 10, 2005, MTB drilled two additional borings, B101 and B102, at locations shown on Sheet 1. MTB drilled the borings to depths below ground surface of 17.0 feet and 15.5 feet, respectively. Sebago Technics monitored the borings and prepared the logs included in Appendix B. Table I summarizes the results of borings. MTB backfilled the borings with the drilled material.

Borings were drilled using 2.5-inch inside diameter hollow stem augers. Samples were generally recovered at 5-foot intervals in each boring. Standard Penetration Resistance (N) was measured at each sample interval in accordance with ASTM Test D1586.

Sebago Technics determined the locations of borings by pacing from existing site features. We determined the ground surface elevations at borings by linear interpolation between ground surface contours at the plotted locations.

The boring logs and related information depict the subsurface conditions and water levels encountered at the locations and during the times indicated on the logs. Subsurface conditions at other locations may differ from those encountered in the test borings. The passage of time may result in a change in groundwater conditions at the exploration location.

Subsurface Conditions

The borings encountered four principal soil units at the site below the bituminous pavement: fill, marine sand, marine clay and glacial till. Encountered thickness and generalized descriptions of the strata encountered are presented below in order of increasing depth below ground surface. Due to the complexity of the deposition process, strata thickness will vary and may be absent at specific locations.

Fill – Fill consists of loose, gray brown to brown, silty SAND with gravel (SM) with brick fragments; to stiff, gray lean CLAY (CL). Encountered thickness varied from 2.0 feet to 7.7 feet.

Marine Sand – Marine sand encountered in B102 consists of loose, brown to gray silty SAND (SM) with occasional clay seams. A petroleum odor was noted in the sand layer. Encountered thickness was 6.0 feet.

Marine Clay – Marine clay consists of stiff to very stiff, gray brown to gray, lean CLAY (CL) with frequent fine sand seams. A petroleum odor was noted in the clay in B1. Encountered thickness varied from 7.5 feet to 8.5 feet.

Glacial Till – Glacial till consists of dense to very dense, brown to gray silty SAND with gravel. Borings penetrated up to 5.4 feet into the glacial till.

Borings B2 and B102 encountered refusal, interpreted to be bedrock, at depths below ground surface of 14.4 feet and 15.5 feet, respectively.

Water was observed in borings at depths below ground surface varying from 2.7 feet to 4.5 feet. Observations of water were made over a relatively short period of time and may not reflect the stabilized groundwater level. In addition, water levels at the site will vary with season, precipitation, temperature, and construction activity in the area. Therefore, water levels during and following construction will vary from those observed in the borings.

Strength and Compressibility Characteristics of Clay Stratum

The undrained strength of the clay was estimated from the N values, which ranged from 5 to 26, to be approximately 1,500 pounds per square feet (psf) to 3,000 psf. The stress history of the deposit was estimated by comparing the shear strength with correlations for strength and stress history from other projects with similar conditions.

The stress-strain or compressibility characteristics (settlement) of clays are highly dependent upon their stress history. If clay is stressed within the limits of the maximum previous stress, σ_{vm}, the strain (settlement) will be a function of the recompression ratio (RR) of the clay. If the applied stress exceeds the maximum previous stress, the strain will be proportional to the virgin compression ratio (CR). The compression ratio is typically 10 to 15 times the recompression ratio.

The stress history and appropriate compression ratios were estimated for the clay deposit as discussed above. The correlations indicate that the deposit is heavily overconsolidated, that is, the existing overburden stress is significantly less than the maximum previous stress. The deposit likely became overconsolidated due to desiccation (drying) resulting from a lowering of the groundwater level at some time in the geologic past which also increased the effective overburden stress throughout the stratum.

Recommendations for Foundation Design

Recommended Foundation Type and Design Criteria

The fill is not considered suitable for support of the building. In our opinion, the building may be supported on spread footings bearing on undisturbed, naturally-deposited sand and clay or on compacted structural fill placed after removal of unsuitable soil.

Footings may be proportioned for an allowable bearing stress in pounds per square foot (psf) equal to 1,000 multiplied by the least lateral dimension of the footing in feet, up to 3,000 psf. All footings should be a minimum of 1.5 feet wide.

Exterior footings should be founded at least 4.5 feet below the lowest adjacent ground surface exposed to freezing. Interior individual footings should be founded a minimum of 1.5 feet below the ground floor slab. Interior bearing walls may be founded on thickened portions of the lowest floor slab.

Compacted structural fill supporting footings should extend laterally from the footings to at least the limits defined by 1 horizontal to 1 vertical lines sloped outward and downward from points located at least 2 feet horizontally beyond the bottom edges of the footings.

At the recommended bearing stress, we anticipate that foundation settlement will be 1.0 inch or less and differential settlement between columns will be 0.5 inch within approximately 30 feet. We anticipate that settlement of this magnitude is acceptable. However, the structural engineer should determine final acceptability of settlement.

Ground Floor Slab

We recommend that the lowest level floor slab be designed as earth-supported slab-on-grade bearing on a minimum 6-inch thickness of crushed stone. Groundwater was observed above the proposed lowest floor level. We recommend that a perimeter foundation drain and underslab drain system be constructed in the basement to prevent hydrostatic pressure from developing on the slab and walls.

Drains should consist of 4-inch diameter perforated pipe surrounded by 3/4-inch crushed stone and non-woven geotextile filter fabric. The basement slab should be underlain by a 6-inch layer of 3/4–inch crushed stone and non-woven geotextile filter fabric. The invert of the foundation drains should be below the basement floor levels and the underslab drain should include a loop around the perimeter of the slab and a cross-lateral to provide multiple paths for water flow. Gravity discharge and normal dampproofing and vapor barriers should be provided. If gravity discharge is used, provisions should be made to prevent reversal of flow and backup of discharge in case of a severe storm or other event.

If gravity discharge is not available, discharge from the system may be accomplished by pumping. In order to provide for backup discharge, the system should be designed to pump from at least two sumps, one at opposite ends of the basement, with standby pumps at each sump. The pumps should have emergency electric power available in the event of a power failure. We recommend that the discharge from each sump be designed for a flow of 25 gallons per minute. Normal damp-proofing measures and vapor barriers should be provided for basement walls and slab.

Seismic Design Considerations

The building should be designed in accordance with the latest edition of the International Building Code, the site classification is Class D; the site response coefficient F_a is 1.5 for a short period spectral response acceleration S_s of 0.37g; the site response coefficient F_v is 2.4 for the 1-second period spectral response acceleration S_1 of 0.10g. The subgrade soils are not considered liquefaction susceptible.

Lateral Foundation Loads

We recommend that lateral loads be resisted by bottom friction on footings and that a coefficient of friction equal to 0.35 be used for footings. If this does not provide sufficient lateral resistance, we will consider the problem in more detail to take into account other factors.

Lateral Soil Pressure

We recommend that the basement walls which are restrained at the top and backfilled be designed to resist a lateral earth pressure calculated on the basis of an equivalent fluid unit weight of 55 pounds per cubic feet. This fluid unit weight assumes an at rest earth pressure coefficient of 0.45, a free-draining granular backfill, and an effective drainage system.

Backfill Materials

Structural fill used below foundations and floor slabs and for backfill adjacent to basement walls should consist of sandy gravel to gravelly sand. It should be free of organic material, loam, trash, snow, ice, frozen soil and other objectionable material, and should conform to the following gradation:

Sieve Size	Percent Finer by Weight
3 inches	100
No. 4	30 to 90
No. 40	10 to 50
No. 200	0 to 8

Compacted structural fill should be placed in layers not exceeding six inches in loose measure and compacted by self-propelled vibratory equipment at the approximate optimum moisture content to a dry density of at least 95 percent of the maximum dry density, as determined in accordance with ASTM Test Designation D1557.

Compacted structural fill on the outside of the basement walls should extend laterally a minimum of 2 feet from the wall. Backfill beyond this limit may consist of common fill. The top 12 inches of fill on the exterior of the building should consist of low permeability material or bituminous concrete pavement to minimize water infiltration next to the building. Grading should provide for runoff away from the building.

Common fill may consist of inorganic mineral soil that can be placed in layers and compacted. Common fill should be placed and spread in layers not exceeding 12 inches in thickness and compacted with a minimum of two systematic passes of the equipment placing the fill.

Pavement Section

We recommend the following pavement section for parking areas:

Automobile Parking Areas
3 in. bituminous concrete, placed in two layers
3 in. base course
12 in. sand or gravel subbase course

Base and subbase course materials should conform to the following gradations:

Base Course

Screened or Crushed Gravel (Maine DOT Standard Specification, Highways and Bridges; Section 703.06a, Type A)

Sieve Size	Percent Finer by Weight
2 inches	100
½ inch	40-70
¼ inch	30-55
No. 40	0-20
No. 200	0-5

Subbase Course

Sand or Gravel (Maine DOT Standard Specification, Highways and Bridges; Section 703.06b, Type D)

Sieve Size	Percent Finer by Weight
6 inches	100
¼ inch	25-70
No. 40	0-30
No. 200	0-7

(Note: Compacted structural fill may be substituted for gravel subbase course.)

Fill required below the pavement section should consist of compacted structural fill. Structural fill should be placed in layers not exceeding 8 inches in thickness and compacted to a dry density of at least 95 percent of maximum dry density, as determined in accordance with ASTM Test Designation D1557. In our opinion, based on results of the test borings, the existing granular fill, if excavated, is not suitable for structural fill.

Subbase course material should be placed in maximum 8-inch thick loose lifts and compacted at approximately optimum moisture content to a dry density of at least 95 percent of maximum dry density, as determined in accordance with ASTM Test Designation D1557. Base course material should be placed in one lift and compacted with a minimum of two coverages with self-propelled vibratory compaction equipment.

Construction Considerations

General

The primary purpose of this section of the report is to comment on items related to excavation, earthwork, and related geotechnical aspects of proposed construction. It is written primarily for the engineer having responsibility for preparation of plans and specifications. Since it identifies potential construction problems related to foundations and earthwork, it will also aid personnel who monitor the construction activity. Prospective contractors for this project must evaluate the construction problems on the basis of their own knowledge and experience in the Portland, Maine area, and on the basis of similar projects in other localities, taking into account their proposed construction methods, procedures, equipment and personnel.

Excavations up to 10 feet or more below existing grade will be required for foundation construction along Cumberland Avenue and Chestnut Street. We anticipate that foundation excavation can be accomplished with sloped open excavation through the overburden soils provided safe side slopes can be maintained. However, depending on the limits of the basement area, it may be necessary to provided temporary lateral support for the sidewalks and streets.

Temporary excavations should be made in accordance with all OSHA and other applicable regulatory agency requirements. We recommend that the contractor's proposed method for excavation support, if required, be designed by a registered professional engineer and submitted to the owner or owner's representative for review and comment.

Groundwater will likely be encountered at proposed subgrade level of the building. We anticipate that dewatering may be accomplished with sumps and open pumping. In general, the contractor should control groundwater and water from runoff and other sources by methods which prevent disturbance of bearing surfaces or adjacent soils and allow construction in-the-dry.

Explorations encountered petroleum odors in the subgrade soils. We recommend that Maineland Consultants, who conducted the environmental site assessments, be consulted regarding disposal of potentially petroleum contaminated soil and groundwater.

Subgrade Preparation

The subgrade soil is susceptible to disturbance from construction traffic. Equipment and personnel should not be permitted to travel across exposed footing bearing surfaces or exposed slab subgrades. Any subgrade areas that are disturbed should be recompacted or excavated and replaced with compacted structural fill prior to placing concrete. Subgrades should be protected against freezing temperatures if exposed during construction. Final excavation to subgrade should be performed using equipment with smooth-edge buckets.

Construction Monitoring

The foundation recommendations contained herein are based on the known and predictable behavior of a properly engineered and constructed foundation. Monitoring of the foundation construction is required to enable the geotechnical engineer to keep in contact with procedures and techniques used in construction. Therefore, we recommend that a person qualified by training and experience be present to provide monitoring at the site during excavation, preparation of foundation bearing surfaces, and placement of compacted structural fill.

Limitations of Recommendations

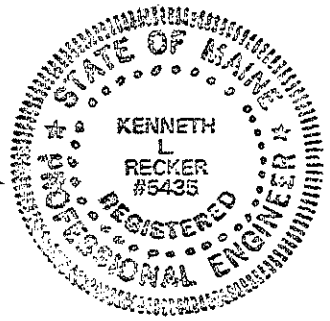
This report has been prepared for specific application to the subject project in accordance with generally accepted geotechnical engineering practices. In the event that any changes in the nature, design or location of the building are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and the conclusions of this report modified or verified in writing.

The recommendations presented herein are based in part on the data obtained from the referenced test borings. The nature and extent of variations between the explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.

We request that we be provided the opportunity for a general review of final design and specifications in order to determine that our earthwork and foundation recommendations have been interpreted and implemented in the design and specifications as they were intended.

It has been a pleasure to work with you on this project. Please do not hesitate to contact us if you have any questions or need additional information.

Sincerely,
SEBAGO TECHNICS, INC.



Kenneth L. Recker, P.E.
Geotechnical Engineering Manager

KLR:klr/jc
Enclosures:

Table I	- Summary of Borings
Sheet 1	- Subsurface Exploration Plan
Appendix A	- Logs of Previous Borings
Appendix B	- Logs of Present Borings

05096

TABLE I
SUMMARY OF BORINGS
PROPOSED RESIDENTIAL BUILDING
CHESTNUT STREET
PORTLAND, MAINE

Boring Number	Depth (Ft)	Approx. Grnd. Surface El. (Ft)	Depth to Water (Ft)	Strata Thickness (Ft)			
				Fill	Sand	Clay	Glacial Till
B1	17.0	53.6	2.7	5.0	--	7.5	4.5*
B2	14.4	58.1	NE	2.5	--	8.5	3.4*
B101	17.0	56.7	4.5	4.0	--	7.6	5.4*
B102	15.5	56.0	NE	8.0	6.0	--	1.5*

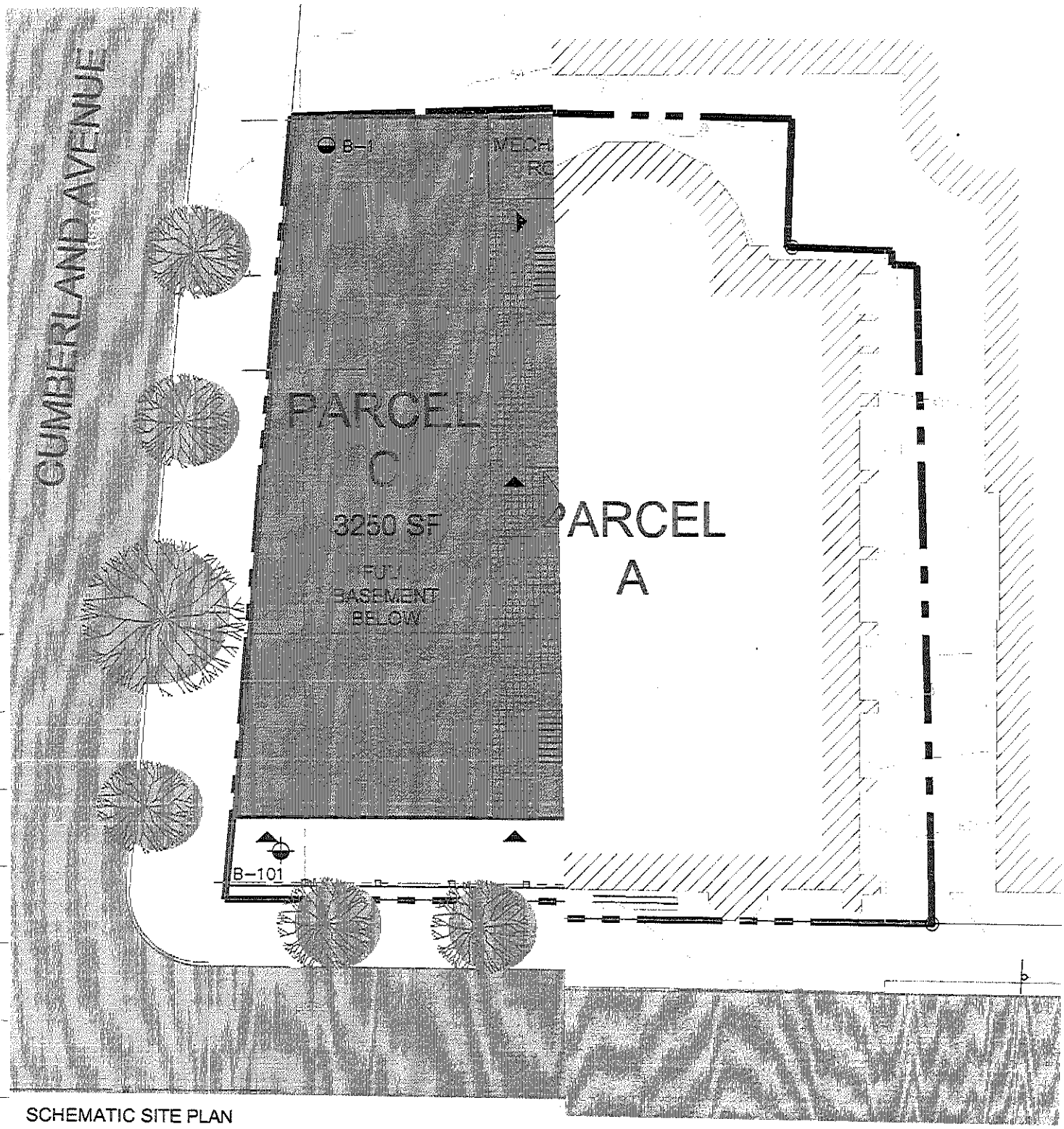
NOTES:

1. NE INDICATES GROUNDWATER NOT ENCOUNTERED WITHIN DEPTH OF BORING.
2. -- INDICATES STRATUM NOT ENCOUNTERED WITHIN DEPTH OF BORING.
3. * INDICATES DEPTH OF PENETRATION INTO STRATUM.

CHESTNUT STREET L(

HOUSING, RETAIL, AND SURFACE PARKING, CHAPEL REM/
MAY 2, 2005

12/5/05, 01:50 P



SCHEMATIC SITE PLAN
SCALE: 1" = 20'-0"

TFH ARCHITECTS
ARCHITECTURE PLANNING

Sebago
Engineering Exper
One Cha
Westbrook,
Tel (207

STNUT STREET CHURCH PROPERTY
BAN REVITALIZATION PROJECT
CHESTNUT STREET LLC.
STNUT STREET PORTLAND, MAINE
SHEET 1 OF 1

Appendix A

Logs of Previous Borings

SEBAGO TECHNICS, INC.

TEST BORING REPORT

BORING NO. **B1**

Page 1 of 1

PROJECT	PROPOSED BUILDING	STI JOB NO.	05096
LOCATION	CHESTNUT STREET AND CUMBERLAND AVENUE, PORTLAND, MAINE	PROJECT MGR.	K. RECKER
CLIENT	BERMAN ASSOCIATES	FIELD REP.	K. STEPHENSON
CONTRACTOR	MAINE TEST BORINGS, INC.	DATE STARTED	4/26/2005
DRILLER	R. IDANO	DATE FINISHED	4/26/2005

Elevation 53.6 ft. Datum NGVD 1929 Boring Location See Plan

Item	Casing	Sampler	Core Barrel
Type	HSA	SS	
Inside Diameter (in.)	2.5	1.375	
Hammer Weight (lb.)		140	
Hammer Fall (in.)		30	

Rig Make & Model: Mobile B53

☐ Truck ☐ Tripod ☐ Cat-Head
☐ ATV ☐ Geoprobe ☑ Winch
☐ Track ☐ Air Track ☐ Roller Bit
☐ Skid ☑ Trailer ☑ Cutting Head

Hammer Type: ☐ Safety ☑ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance: Type Method Depth — HSA/Spin/17.0 ft.

Drilling Notes:

Depth (ft.)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0					0.3		-BITUMINOUS CONCRETE-										
	16	S1	0.5			SM	Loose, brown silty SAND with gravel (SM), mps = 1.25 in., wet	5	10	40	15	15	15				
	6						at 2.3 ft.										
	4																
	2	10	2.5														
							-FILL-										
5					5.0												
	11	S2	5.0			CL	Very stiff, gray lean CLAY (CL), frequent sand partings, damp,					10	90	N	M	M	
	11						petroleum odor										
	15																
	19	24	7.0														
							-MARINE DEPOSITS-										
10																	
	5	S3	10.0			CL	Stiff, gray lean CLAY (CL), damp, petroleum odor						100	N	M	M	
	6																
	6						-MARINE DEPOSITS-										
	7	24	12.0														
					12.5												
15																	
	8	S4	15.0				Very dense, gray silty SAND with gravel, mps = 0.25 in., wet	15	30	15	25	15					
	22																
	36						-GLACIAL TILL DEPOSITS-										
	40	24	17.0														
							Bottom of Exploration at 17.0 ft. below ground surface										
							No refusal										
20																	
25																	
30																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water
4/26/2005	1000		15.0	16.0	14.5
4/26/2005	1008		–	4.5	2.7

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (Linear ft.)	17.0
Rock Cored (Linear ft.)	–
Number of Samples	4S

BORING NO. B1

Field Tests

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Sebago Technics, Inc.

SEBAGO TECHNICS, INC.

TEST BORING REPORT

BORING NO. **B2**

Page 1 of 1

PROJECT	PROPOSED BUILDING	STI JOB NO.	05096
LOCATION	CHESTNUT STREET AND CUMBERLAND AVENUE, PORTLAND, MAINE	PROJECT MGR.	K. RECKER
CLIENT	BERMAN ASSOCIATES	FIELD REP.	K. STEPHENSON
CONTRACTOR	MAINE TEST BORINGS, INC.	DATE STARTED	4/26/2005
DRILLER	R. IDANO	DATE FINISHED	4/26/2005

Elevation 58.1 ft. Datum NGVD 1929 Boring Location See Plan

Item	Casing	Sampler	Core Barrel
Type	HSA	SS	
Inside Diameter (in.)	2.5	1.375	
Hammer Weight (lb.)		140	
Hammer Fall (in.)		30	

Rig Make & Model: Mobile B53

☐ Truck ☐ Tripod ☐ Cat-Head
☐ ATV ☐ Geoprobe ☑ Winch
☐ Track ☐ Air Track ☐ Roller Bit
☐ Skid ☑ Trailer ☑ Cutting Head

Hammer Type: ☐ Safety ☑ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance: Type Method Depth — HSA/Spin/14.4 ft.

Drilling Notes:

Depth (ft.)	Sample Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0					0.5		-BITUMINOUS CONCRETE-										
	18	S1	0.5			SM	Loose, gray-brown silty SAND with gravel (SM), mps = 1.0 in., brick fragments, dry	5	10	10	20	40	15				
	6																
	4						-FILL-										
	2	10	2.5		2.5												
5																	
	11	S2	5.0			CL	Very stiff, gray-brown mottled lean CLAY (CL), frequent sand seams, damp					15	85	N	M	M	
	11																
	15																
	19	24	7.0														
							-MARINE DEPOSITS-										
10																	
	5	S3	10.0			CL	Stiff, brown mottled lean CLAY (CL), frequent sand seams, wet					15	85	N	M	M	
	6				11.0		-MARINE DEPOSITS-										
	6					SM	Dense, brown silty SAND with gravel (SM), frequent silt seams, mps = 0.75 in., wet	5	10	30	15	20	20				
	7	24	12.0														
							-GLACIAL TILL DEPOSITS-										
					14.4												
15							HSA refusal at 14.4 ft.										
							Probable top of bedrock at 14.4 ft.										
							Bottom of Exploration at 14.4 ft. below ground surface										
20																	
25																	
30																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in foot to: Bottom of Casing	Bottom of Hole	Water
4/26/2005	0830		10.0	10.0	9.8
4/26/2005	0847		14.4	14.4	14.1
4/26/2005	0900		–	12.5	Dry

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (Linear ft.)	14.4
Rock Cored (Linear ft.)	–
Number of Samples	3S

BORING NO. B2

Field Tests

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Sebago Technics, Inc.

Appendix B

Logs of Present Borings

SEBAGO TECHNICS, INC.

TEST BORING REPORT

BORING NO. **B101**

Page 1 of 1

PROJECT	PROPOSED BUILDING	STI JOB NO.	05096
LOCATION	CHESTNUT STREET AND CUMBERLAND AVENUE, PORTLAND, MAINE	PROJECT MGR.	K. RECKER
CLIENT	BERMAN ASSOCIATES	FIELD REP.	K. B. STEPHENSON
CONTRACTOR	MAINE TEST BORINGS, INC.	DATE STARTED	10/10/2005
DRILLER	B. ENOS	DATE FINISHED	10/10/2005

Elevation 56.7 ft. Datum NGVD 1929 Boring Location See Plan

Item	Casing	Sampler	Core Barrel
Type	HSA	SS	
Inside Diameter (in.)	2.5	1.375	
Hammer Weight (lb.)		140	
Hammer Fall (in.)		30	

Rig Make & Model: Mobile B53

☐ Truck ☐ Tripod ☐ Cat-Head
☐ ATV ☐ Geoprobe ☑ Winch
☐ Track ☐ Air Track ☐ Roller Bit
☐ Skid ☑ Trailer ☑ Cutting Head

Hammer Type: ☐ Safety ☑ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance: Type Method Depth — HSA/Spin/15.0

Drilling Notes:

Depth (ft.)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0					0.3		-BITUMINOUS CONCRETE-										
	4	S1	0.3			SM	Loose, dark brown silty SAND with gravel (SM), mps = 1.0 in., dry	5	10	35	20	15	15				
	7																
	3																
	1	4	2.3				-FILL-										
					4.0												
5																	
	5	S2	5.0			CL	Stiff, gray to gray-brown lean CLAY (CL), frequent sand seams, mps = 0.02 in., damp					40	60	N	M	M	
	5																
	10																
	13	24	7.0				-MARINE DEPOSITS-										
10																	
	3	S3	10.0			CL	Medium stiff, gray to gray-brown lean CLAY (CL), frequent sand layers, one 1.25 in. dropstone, damp					45	55	N	M	M	
	2																
	3				11.6												
	4	24	12.0			SM	Loose, gray silty sand (SM), mps = 1.0 in., damp	5	5	25	20	25	20				
							-GLACIAL TILL DEPOSITS-										
							Note: petroleum odor in wet cuttings at 13.0 ft.										
15																	
	3	S4	15.0			SM	Loose, gray silty sand (SM) with gravel , mps = 1.0 in., damp	5	10	30	20	20	15				
	4																
	5																
	6	24	17.0														
							Bottom of exploration at 17.0 ft. below ground surface										
							No refusal										
20																	
25																	
30																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water
10/10/2005	1130		–	7.0	4.5

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (Linear ft.)	17.0
Rock Cored (Linear ft.)	–
Number of Samples	4S

BORING NO. B101

Field Tests

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Sebago Technics, Inc.

SEBAGO TECHNICS, INC.

TEST BORING REPORT

BORING NO. **B102**

Page 1 of 1

PROJECT	PROPOSED BUILDING	STI JOB NO.	05096
LOCATION	CHESTNUT STREET AND CUMBERLAND AVENUE, PORTLAND, MAINE	PROJECT MGR.	K. RECKER
CLIENT	BERMAN ASSOCIATES	FIELD REP.	K. B. STEPHENSON
CONTRACTOR	MAINE TEST BORINGS, INC.	DATE STARTED	10/10/2005
DRILLER	B.ENOS	DATE FINISHED	10/10/2005

Elevation 56.0 ft. Datum NGVD 1929 Boring Location See Plan

Item	Casing	Sampler	Core Barrel
Type	HSA	SS	
Inside Diameter (in.)	2.5	1.375	
Hammer Weight (lb.)		140	
Hammer Fall (in.)		30	

Rig Make & Model: Mobile B53

☐ Truck ☐ Tripod ☐ Cat-Head
☐ ATV ☐ Geoprobe ☑ Winch
☐ Track ☐ Air Track ☐ Roller Bit
☐ Skid ☑ Trailer ☑ Cutting Head

Hammer Type: ☐ Safety ☑ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance: Type Method Depth — HSA/Spln/15.0

Drilling Notes:

Depth (ft.)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0					0.3		-BITUMINOUS CONCRETE-										
	5	S1	0.3			SW	Loose, brown well-graded SAND (SW), traces bituminous concrete, mps = 1.0 in., damp	5	5	40	40	10					
	5																
	3																
	3	5	2.3				-FILL-										
					3.0												
5																	
	3	S2	5.0		5.5	CL	Stiff, gray lean CLAY (CL), frequent sand seams, mps = 0.02 in., dry -FILL-					40	60	N	M	M	
	6																
	7					SM	Medium dense, gray-brown silty SAND with gravel (SM), mps = 1.2 in., damp	5	10	30	15	25	15				
	5	18	7.0														
					8.0		-FILL-										
10																	
	3	S3	10.0			SM	Loose, brown silty SAND (SM), frequent clay seams, mps = 0.02 in., wet					60	40				
	3				10.8		-MARINE DEPOSITS-										
	5				11.5	SM	Loose, gray silty SAND (SM), frequent clay seams, mps = 0.02 in., petroleum odor and sheen, wet					60	40				
	6	24	12.0			SM	Loose, brown silty SAND (SM), occasional clay seams, mps = 0.02 in., wet					75	25				
					14.0		-MARINE DEPOSITS-										
15																	
	42	S4	15.0				-GLACIAL TILL DEPOSITS-										
	50/0	4	15.5		15.3	SM	Very dense, brown silty SAND (SM), mps = 0.25 in., wet	5	35	20	25	15					
					15.5		Very dense, gray bedrock fragments - BEDROCK-										
							Split spoon refusal at 15.5 ft.										
							Bottom of exploration at 15.5 ft. below ground surface										
20																	
25																	
30																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water
10/10/2005	1230		--	4.5	Dry

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (Linear ft.)	15.3
Rock Cored (Linear ft.)	--
Number of Samples	4S

BORING NO. B102

Field Tests

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Sebago Technics, Inc.

ALLIED/COOK
CONSTRUCTION
Planners • Managers • Design/Builders
Building Excellence Since 1958

May 29, 2007

Mr. Timothy Markley
City of Portland Code Enforcement
389 Congress St
Portland, ME 04101

Mr. Phillip DiPerra
City of Portland Planning Department
389 Congress St
Portland, ME 04101

Mr. Michael Bobinsky
City of Portland Department of Public Works
55 Portland St.
Portland, ME 04101

Captain Greg Cass
City of Portland Fire Department
380 Congress St.
Portland, ME 04101

RE: Chestnut St Lofts, 21 Chestnut St., Permit No. 060492

Gentlemen;

We are hereby requesting a temporary certificate of occupancy inspection on Friday, June 15, 2007. The building interior will be complete with all life safety in place. Exterior lighting will be installed. Courtyard paving, on-site improvements and public improvements on Chestnut Street will be complete. We anticipate the following work to be completed after June 15, 2007:

1. Siding – Miscellaneous trim and detail work
2. Landscaping (on-site) – Planter along Cumberland Ave.
3. Public improvements – Esplanade and sidewalk in front of the planter on Cumberland Ave.

We are requesting this temporary certificate of occupancy inspection to allow the developer, Mr. Richard Berman, to schedule closings while we complete the last bit of remaining work. Damage caused by the severe spring storms prevented us from completing exterior work and significantly delayed project completion.

We appreciate your help in making this a successful project for all.

Sincerely,

Paul Laliberte, PE
VP Project Management
Cell Phone 207-415-6352

Cc: Mr. Richard Berman, Chestnut St. Lofts, LLC
Mr. Tom Perry, Allied/Cook Construction

ALLIED/COOK
CONSTRUCTION
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Paul Laliberte, PE
VP Project Management
Cell Phone 207-415-6352

Cc: Mr. Richard Berman, Chestnut St. Lofts, LLC
Mr. Tom Perry, Allied/Cook Construction

OFFICE: P.O. BOX 1396 • PORTLAND, ME 04104
207-772-2888 • FAX 207-885-5135

CMCS LLC.
Construction Management Consulting Services
Corp Office: P.O. Box 294 – Bath, Maine 04530 *PH: (207)522-0688 Fax: (207) 443-3665*
Freeport Office: 37 Pine Street, Freeport, ME 04032 *PH: (207)522-0688 Fax:865-1699*

Transmittal

To:	City of Portland – Inspections		
From:	Alan Nichols – Chestnut Street Lofts	**Date:**	06/05/07
Re:	Final Special Inspections Report	**Pages:**	
CC:			

☐ **Urgent** ☐ For Review ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

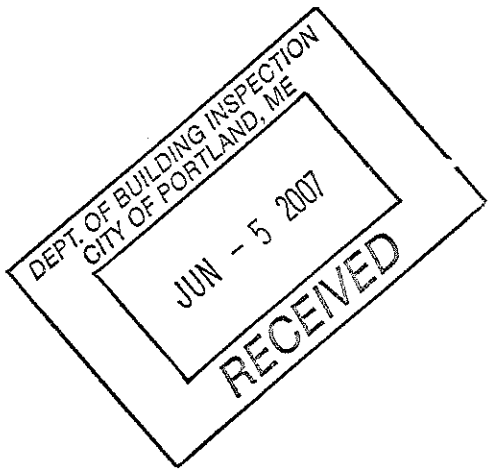
Please find attached the final special inspections report for the Chestnut Street Lofts Project located at 21 Chestnut Street, Portland, Maine.

If there are any questions or if additional information is required please give me a call at 522-0688 or send me an email at ANCMCS@aol.com.

Thank You!

Alan Nichols
CMCS/CSL Owner's Rep
C: 522-0688

Received By:



Final Report of Special Inspections

Project: *Chestnut Street Lofts*

Location: *29 Chestnut Street, Portland, ME*

Owner: *Chestnut Street, LLC*

Owner's Address: *One India Street*
Portland, ME 04101

Architect of Record: *TFH Architects.*

Structural Engineer of Record: *Structural Design Consulting, Inc.*
22 Oakmont Drive, Old Orchard Beach, ME 04064

To the best of my information, knowledge and belief, the Special Inspections required for this project, and itemized in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved other than the following:

Comments: *No outstanding issues*

(Attach continuation sheets if required to complete the description of corrections.)

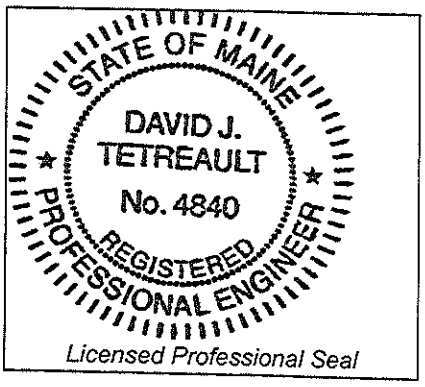
Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted,
Special Inspector

David J. Tetreault, P.E.
(Type or print name)

Signature

05/21/07
Date



Licensed Professional Seal

Statement of Special Inspections

Project: *Chestnut Street Lofts*

Location: *29 Chestnut Street, Portland, ME*

Owner: *Chestnut Street LLC, One India Street, Portland, ME 04101*

Design Professional in Responsible Charge: *David J. Tetreault, P.E.*

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.

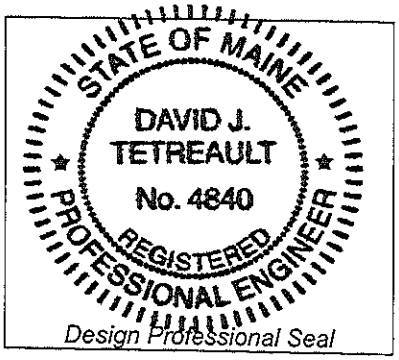
Interim Report Frequency: *monthly* or ☐ per attached schedule.

Prepared by:

David J. Tetreault, P.E.
(type or print name)

David J. Tetreault
Signature

5/31/06
Date



Design Professional Seal

Owner's Authorization:

Signature Date

Building Official's Acceptance:

Signature Date

Schedule of Inspection and Testing Agencies

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

- ☒ Soils and Foundations
- ☒ Cast-in-Place Concrete
- ☐ Precast Concrete
- ☒ Masonry
- ☒ Structural Steel
- ☐ Cold-Formed Steel Framing
- ☐ Spray Fire Resistant Material
- ☐ Wood Construction
- ☐ Exterior Insulation and Finish System
- ☐ Mechanical & Electrical Systems
- ☐ Architectural Systems
- ☐ Special Cases

Special Inspection Agencies	Firm	Address, Telephone
1. **Special Inspection Coordinator**	*Structural Design Consulting, Inc.*	*22 Oakmont Drive* *Old Orchard Beach, ME 04064* *207-934-8038*
2. Inspector	*S.W Cole Engineering, Inc*	*286 Portland Road* *Gray, ME 04039* *(207) 657-2866*
3. Inspector		
4. Testing Agency		
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.

Quality Assurance Plan

Quality Assurance for Seismic Resistance

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

Description of seismic force resisting system and designated seismic systems:

The seismic force resisting system consists of eccentrically braced fames (non-moment connections) as shown on Sheet S2.0. IBC/2003 Table 1617.6.2 Type 2B.

1705.1.1 Q/A plan is required for the seismic force resisting system. Q/A plan consists of Special Inspections for Structural Steel.

1705.1.2 refers to SDC D, E and F therefore Q/A plan not required
1705.1.3 refers to hazardous materials in ducts and piping and to emergency standby power. None present therefore Q/A plan not required.
1705.1.4 refers to SDC D therefore Q/A plan not required.
1705.1.5 refers to SDC E and F therefore Q/A plan not required

Quality Assurance for Wind Requirements

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

The building is in wind exposure Category C with a 3-sec gust basic wind speed less than 110 mph therefore a quality assurance plan for wind is not required (IBC/2003 Section 1706.1.1.2).

Statement of Responsibility

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

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.

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

Other

_____ _____

Soils and Foundations

Item	Req'd Y/N	Agency # (Qualif.)	Scope
1. Shallow Foundations	*Y*	*2*	*Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report.* *Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill*
2. Controlled Structural Fill	*N*		
3. Deep Foundations	*N*		
4. Load Testing	*N*		
4. Other	*N*		

Cast-in-Place Concrete

Item	Req'd Y/N	Agency # (Qualif.)	Scope
1. Mix Design	*Y*	*2*	*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.*
2. Material Certification	*Y*	*1*	*Review certified mill test reports on reinforcing steel*
3. Reinforcement Installation	*Y*	*2*	*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*
4. Post-Tensioning Operations	*N*		
5. Welding of Reinforcing	*N*		
6. Anchor Rods	*Y*	*2*	*Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.*
7. Concrete Placement	*Y*	*2*	*Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.*
8. Sampling and Testing of Concrete	*Y*	*2*	*Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).*
9. Curing and Protection	*Y*	*2*	*Inspect curing, cold weather protection and hot weather protection procedures.*
10. Other:			

Masonry

Required Inspection Level: ☒ 1 ☐ 2

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

Structural Steel

Item	Req'd Y/N	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures ☐ Fabricator Exempt	*Y*	*1*	*Review shop fabrication and quality control procedures.*
2. Material Certification	*Y*	*1 and 2*	*Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes*
3. Open Web Steel Joists	*N*		
4. Bolting	*Y*	*2*	*Inspect installation and tightening of high-strength bolts. Verify that splines have separated from tension control bolts. Verify proper tightening sequence.*
5. Welding	*Y*	*2*	*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.*
6. Shear Connectors	*Y*	*2*	*Inspect size, number, positioning and welding of shear connectors. Inspect suds for full 360 degree flash. Ring test all shear connectors with a 3 lb hammer. Bend test all questionable studs to 15 degrees.*
7. Structural Details	*Y*	*1*	*Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details.*
8. Metal Deck	*Y*	*2*	*Inspect welding and side-lap fastening of metal roof and floor deck.*
9. Other:	*N*		

Contractor's Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated in the Quality Assurance Plan must submit a Statement of Responsibility.

Project: Chestnut Lofts
29 Chestnut Street, Portland, ME

Contractor's Name:

Address:

License No.:

Description of designated building systems and components included in the Statement of Responsibility:

Structural Steel Braced Frames and associated connections
Floor and roof diaphragms

Contractor's Acknowledgment of Special Requirements

I hereby acknowledge that I have received, read, and understand the Quality Assurance Plan and Special Inspection program.

I hereby acknowledge that control will be exercised to obtain conformance with the construction documents approved by the Building Official.

Signature _____ Date _____

Contractor's Provisions for Quality Control

Procedures for exercising control within the contractor's organization, the method and frequency of reporting and the distribution of reports is attached to this Statement.

Identification and qualifications of the person(s) exercising such control and their position(s) in the organization are attached to this Statement.

Field Report

Sebago Technics
Engineering & Planning for the Future

Project No.: 05096 Date: 4/25/06
Project Name: Chestnut Street Lofts
Location: Chestnut Street at Cumberland Avenue, Portland, Maine
Weather Conditions: Sunny, 50s
Meeting With: Jack Goulet, Allied/Cook Construction; Brad Baker, Colex

STI Present: Ken Recker

I visited the site to observe subgrade conditions at the bottom of the excavation. The earthwork contractor, Colex LLC had excavated the northern portion of the basement area to approximately 2 to 3 feet below design subgrade level to remove petroleum contaminated soil. The exposed subgrade consisted of gray lean CLAY (CL); to gray brown silty SAND with gravel (SM). The subgrade was moist but firm and I judged the subgrade suitable for support and placement of compacted structural fill.

Requested that the contractor contact me when the southern portion of the basement excavation is to subgrade so that I can observe conditions.

DISTRIBUTION
Alan Nichols, CMCS, LLC
Walter Arsenault, TFH Architects
Jack Goulet, Allied/Cook Construction
Brad Baker, Colex LLC

Copies To: _____ **Signed:** Kenneth D. Baker, P.E.

Field Report

Sebago Technics
Engineering & Planning Tomorrow's Future

Project No.: 05096 Date: 5/08/06
Project Name: Chestnut Street Lofts
Location: Chestnut Street at Cumberland Avenue, Portland, Maine
Weather Conditions: Sunny, 50s
Meeting With: Jack Goulet, Allied/Cook Construction

STI Present: Ken Recker

I visited the site to observe subgrade conditions at the bottom of the excavation. The earthwork contractor, Colex LLC had excavated the southern portion of the basement area to approximately 2 to 3 feet below design subgrade level to remove petroleum contaminated soil. The exposed subgrade was covered with water but appeared to consist of gray lean CLAY (CL); to gray brown silty SAND with gravel (SM). The subgrade appeared firm and I judged the subgrade suitable for support and placement of compacted structural fill following removal of standing water and drying of the subgrade.

I requested that the contractor contact me if the subgrade appeared disturbed or yielding following removal of standing water. The earthwork contractor, Colex, had stockpiled structural fill soil consisting of brown well-graded SAND with gravel (SW) in the northern portion of the basement excavation.

DISTRIBUTION
Alan Nichols, CMCS, LLC
Walter Arsenault, TFH Architects
Jack Goulet, Allied/Cook Construction
Brad Baker, Colex LLC

Copies To: _____ **Signed:** Kenneth Recker, P.E.