

Form # P 04

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

Please Read Application And Notes, If Any, Attached

BUILDING INSPECTION PERMIT

PERMIT ISSUED
Permit Number: 060957
AUG 23 2006
CITY OF PORTLAND

This is to certify that 1039 RIVERSIDE LLC /Haw Pond Construction
has permission to build a new 13,750 sq ft building
AT 1039 RIVERSIDE ST L 331 A001001

provided that the person or persons who apply for and accept this permit shall comply with all of the provisions of the Statutes of the State 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 when permission is procured before this building or part thereof is occupied or 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 _____

[Signature]
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 06-0957	ISSUE DATE: PERMIT ISSUED	CDL: 33 A001001
-----------------------	-------------------------------------	--------------------

Location of Construction: 1039 RIVERSIDE ST <i>Bldg# 17</i>	Owner Name: 1039 RIVERSIDE LLC	Owner Address: 340 FORE ST	Phone: AUG 23 2006
Business Name:	Contractor Name: HardyPond Construction	Contractor Address: 1039 Riverside St	Phone: CITY OF PORTLAND 2007 76066
Lessee/Buyer's Name	Phone:	Permit Type: Commercial	Zone: T-M

Past Use: Vacant Land	Proposed Use: Commercial/ build a new 13,750 sq ft building <i>Delta roofing</i>	Permit Fee: \$6,801.00	Cost of Work: \$745,000.00	CEO District: 5
Proposed Project Description: build a new 13,750 sq ft building		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: <i>8/5/1</i> Type: <i>2B</i> <i>8/21/06</i>	
		Signature: <i>Lucas Cross</i>		Signature: <i>[Signature]</i>
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)				
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied				
Signature: _____ Date: _____				

Permit Taken By: Idobson	Date Applied For: 06/27/2006	Zoning Approval		
-----------------------------	---------------------------------	------------------------	--	--

<ol style="list-style-type: none"> This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. Building permits do not include plumbing, septic or electrical work. 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.. 	Special Zone or Reviews <input type="checkbox"/> Shoreland <i>N/A</i> <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <i>Panel B zone C</i> <input type="checkbox"/> Subdivision <input checked="" type="checkbox"/> Site Plan Amendment <i>#2006-0127</i> <i>Approved see letter</i> Maj <input type="checkbox"/> Minor <input checked="" type="checkbox"/> MM <input type="checkbox"/> <i>ok with conditions</i> Date: <i>8/21/06</i>	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date: _____	Historic Preservation <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: <i>[Signature]</i>
---	--	---	---

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

City of Portland, Maine - Building or Use Permit

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

Permit No: 06-0957	Date Applied For: 06/27/2006	CBL: 331 A001001
------------------------------	--	----------------------------

Location of Construction: 1039 RIVERSIDE ST #14	Owner Name: 1039 RIVERSIDE LLC	Owner Address: 340 FORE ST	Phone:
Business Name:	Contractor Name: HardyPond Construction	Contractor Address: 1039 Riverside St Suite 11 Portland	Phone (207) 797-6066
Lessee/Buyer's Name	Phone:	Permit Type: Commercial	

Proposed Use: Commercial/ build a new 13,750 sq ft building - Bldg #14 - Delta Roofing	Proposed Project Description: build a new 13,750 sq ft building - Bldg #14 - Delta Roofing
--	--

Dept: Zoning **Status:** Approved with Conditions **Reviewer:** Marge Schmuckal **Approval Date:** 08/21/2006**Note:** permit was distributed out of order
8/21/06 gave back to Mike N.**Ok to Issue:**

- 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.

Dept: Building **Status:** Approved with Conditions **Reviewer:** Mike Nugent **Approval Date:** 08/21/2006**Note:****Ok to Issue:**

- 1) Steel source must be verified and an approved quality assurance program established prior to erection of structural Steel.
- 2) Separate permits are required for any electrical, plumbing, or HVAC systems. Separate plans may need to be submitted for approval as a part of this process.
- 3) The design of intended storage racks must be reviewed and approved prior to installation, and included in the special inspection program.

Dept: Fire **Status:** Approved with Conditions **Reviewer:** Cptn Greg Cass **Approval Date:** 07/07/2006**Note:****Ok to Issue:**

- 1) Installation of sprinkler system may be required due to commodity class of material stored.

Dept: Fire **Status:** Approved with Conditions **Reviewer:** Cptn Greg Cass **Approval Date:** 06/28/2006**Note:****Ok to Issue:**

- 1) The hazard classification of the commodities to be stored may require the installation of a sprinkler system.

Dept: Planning **Status:** Approved **Reviewer:** Sarah Hopkins **Approval Date:** 07/19/2006**Note:** PG received for overall project.**Ok to Issue:** **Comments:**

6/28/2006-ldobson: Per Mike routing MJN to Fire then Marge waiting for Site Plan Approval Lannie

6/30/2006-mjn: Did prelim reveiw, sent question to design team turned over to Fire on 6/30/06

Location of Construction: 1039 RIVERSIDE ST #14	Owner Name: 1039 RIVERSIDE LLC	Owner Address: 340 FORE ST	Phone:
Business Name:	Contractor Name: HardyPond Construction	Contractor Address: 1039 Riverside St Suite 11 Portland	Phone (207) 797-6066
Lessee/Buyer's Name	Phone:	Permit Type: Commercial	

7/25/2006-mjn:) The Statement of Special inspections lacks a Seismic Quality Assurance Plan and a Contractor's Statement of Responsibility. Also the Shear connectors have been intentionally omitted from the special inspections program, please explain.

- 2) The F1 use is not Separated from the S1 use as required by Table 302.3.2 of the IBC.
- 3) Plumbing, electrical and HVAC plans must be provided. (unable to determine compliance with appropriate codes)
- 4) Fire alarm and sprinkler information must be provided.
- 5) Door 201.1 is only 28 inches and must be 32 inches.
- 6) Compliance with the 2003 International Energy Conservation Code must be established.
- 7) I could not find where the minimum allowable concrete strength is not spelled out in the plans or in the Spec book.
- 8) Please provide information regarding the source of the steel and their most recent AISC certification or other approved quality assurance program.
- 9) The exterior wall/ column/bracing plans appear to be incomplete.
- 10) Are there storage racks intended for this space?

8/11/2006-ldobson: Hardy Pond dropped additional information of to our office pulled file put together and Re-routed to MJN

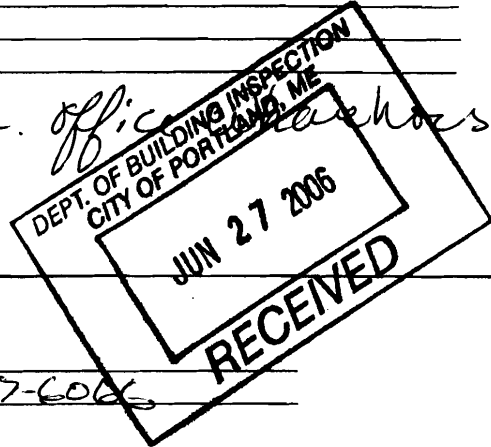
8/16/2006-mjn: Sent to Zoning, my review is essentially complete, with minor exceptions.



General Building Permit Application

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>1039 RIVERSIDE ST LOT 14</u>		
Total Square Footage of Proposed Structure <u>11,000*</u>	Square Footage of Lot <u>11,000±</u>	
Tax Assessor's Chart, Block & Lot Chart# Block# Lot# <u>331 A 1</u>	Owner:	Telephone:
Lessee/Buyer's Name (If Applicable) <u>DOC REALTY</u> <u>1039 RIVERSIDE ST SUITE 1</u> <u>PORTLAND, ME 04103</u>	Applicant name, address & telephone: <u>HARDY POND CONST.</u> <u>1039 RIVERSIDE ST SUITE 11</u> <u>PORTLAND, ME 04103</u>	Cost Of Work: \$ <u>745,000.00</u> Fee: \$ _____ C of O Fee: \$ _____
Current Specific use: <u>OFFICE VACANT</u> If vacant, what was the previous use? <u>BAR LAND</u> Proposed Specific use: <u>OFFICE / WAREHOUSE</u>		
Project description: <u>13,750 sq ft. off. & warehouse</u>		
Contractor's name, address & telephone: <u>Hard Pond</u>		
Who should we contact when the permit is ready: <u>Bob</u>		
Mailing address: _____ Phone: <u>797-6006</u>		



Please submit all of the information outlined in the Commercial Application 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 visit us on-line at www.portlandmaine.gov, stop by the Building Inspections 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 of applicant: <u>[Signature]</u>	Date: <u>6/27/06</u>
--	----------------------

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

"Second Tee Business Park"

Bob Gaudreau

Applicant: 1039 Riverside St, LLC

Date: 8/21/06

Address: 1039 Riverside St

C-B-L: 331-A-001

Bldg # 14 - Delta Reef
CHECK-LIST AGAINST ZONING ORDINANCE

Date - Existing Dev. - multi Bldg # 06-0957

Zone Location - I-M

Interior or corner lot -

2nd floor Mezzanine

Proposed Use/Work - to construct ~13,750 sq ft Bldg 79' x 149' with canopy

Sevage Disposal - City

Lot Street Frontage - 60' min - ~701' shown

Front Yard - 1' for each 1' of height - 28' min - 28'

Rear Yard - 1' for each 1' of height up to 25' - 368' scaled

Side Yard - 1' for each 1' of height up to 25' - 26' & 59' scaled

Projections - Canopy

Width of Lot - N/A

Height - 75' MAX - 28' scaled - 92' scaled (bought)

Lot Area - NO min - 10.68 acres with additional City land

Lot Coverage/ Impervious Surface -

~~Area per Family~~ 75% MAX - 59% given previously

Off-street Parking - 202 PKG SPACES Required for Industrial uses on total site
347 PKG SPACES shown

Loading Bays - 2 shown

Site Plan - # 2006-0112

Shoreland Zoning/ Stream Protection - N/A

Flood Plains - Panel B - Zone C

10' min pavement setback to property lines - 10' scaled

INSTALL TIP DOWN GRANITE CURB

BARRIER FREE BITUMINOUS SIDEWALK RAMPS ADA COMPLIANT, TYP. OF 2

TIP DOWN GRANITE CURB, TYP. OF 2

INSTALL VERTICAL GRANITE CURB, TYP. 2 LOCATIONS

EXISTING GRANITE CURB TO BE REMOVED

CURB TRANSITION

SIDEWALK LIMIT OF WORK, TYP.

EXISTING 20' WIDE GRAVEL ACCESS (ABANDONED)

EXISTING ABANDONED 20' WIDE GRAVEL DRIVE. REMOVE AND INSTALL VERTICAL GRANITE CURB & BITUMINOUS SIDEWALK TO MATCH EXISTING

INSTALL BITUMINOUS ASPHALT CONCRETE CURB (ONLY ALONG FRONT)

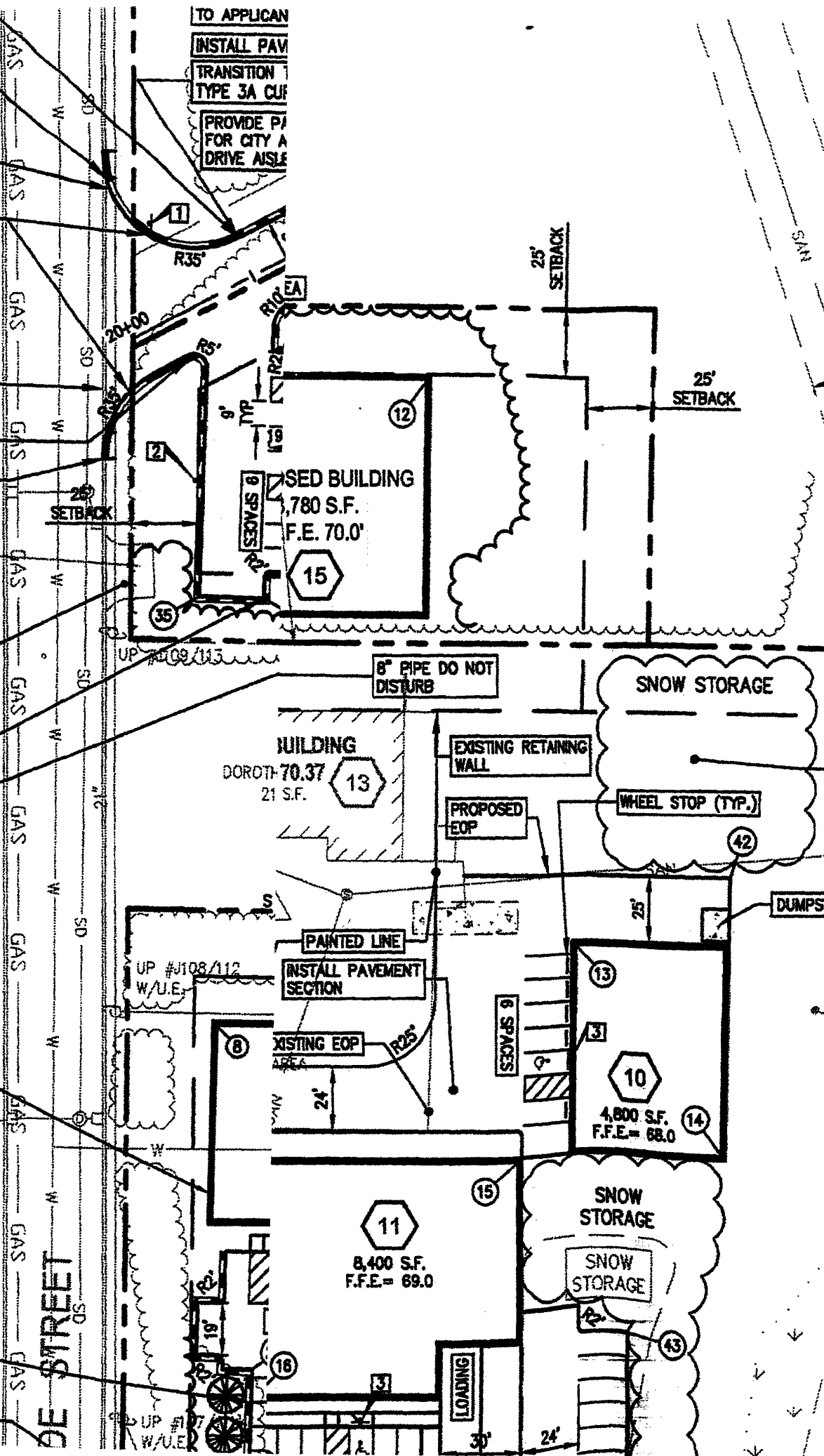
5' WIDE BITUMINOUS SIDEWALK, TYP.

PROPOSED STRUCTURE 7,500 S.F. (75' x 100') (TYP. OF 3 PLACES)

INSTALL BITUMINOUS CONCRETE CURB

BARRIER FREE

TO APPLICAN
INSTALL PAV
TRANSITION
TYPE 3A CUF
PROVIDE PA
FOR CITY A
DRIVE AISLE



5
Ps



PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life

www.portlandmaine.gov

Planning and Development Department
Lee D. Urban, Director

Planning Division
Alexander Jaegerman, Director

July 20, 2006

Bob Gaudreau
1039Riverside, LLC
45 Bridgton Road
Westbrook, ME 04092

Stephen Bushey
DeLuca-Hoffman Associates
778 Main Street
Suite 8
South Portland, ME 04106

RE: 1039 Riverside Street Amended Site Plan

CBL: 331-A-001

2006-0112

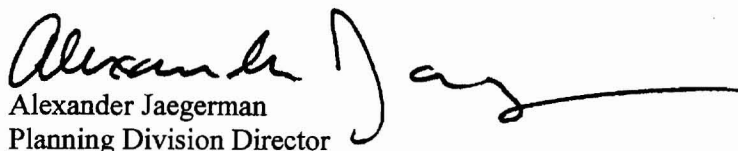
Dear Mr. Gaudreau:

On July 19, 2006, the Portland Planning Authority approved the revision to the approved site plan for 1039 Riverside LLC and the Second Tee Business Park Association. The amendments include a reduction in building size and an increase in paved areas for Unit 14 (Delta Roofing).

The revised plan has been reviewed and approved by the Planning and Public Works Departments.

If you have any questions regarding the revision please contact Sarah Hopkins at 874-8720.

Sincerely,


Alexander Jaegerman
Planning Division Director

Mike Nugent - FW: Delta Roofing Permit # 060957 - PROJECT UPDATE

From: "Marilyn Leivian" <leivian@pdtarchs.com>
To: "Mike Nugent" <MJN@portlandmaine.gov>
Date: 8/2/2006 4:07 PM
Subject: FW: Delta Roofing Permit # 060957 - PROJECT UPDATE
CC: "Brian Curley" <curley@pdtarchs.com>

Mike,
Bill Faucher forwarded comments in addition to ours. Please find his responses attached to ours below.

Marilyn E. Leivian, NCARB
Architect

From: William Faucher [mailto:wfaucher@allied-eng.com]
Sent: Wednesday, August 02, 2006 3:15 PM
To: Marilyn Leivian
Subject: RE: Delta Roofing Permit # 060957 - PROJECT UPDATE

See supplemental response information provided below for your information.

William P. Faucher, P.E., Principal, LEEDTM AP
Allied Engineering, Inc.
160 Veranda Street
Portland, ME 04103
T 207.221.2260 x107
F 207.221.2266
C 207-831-1970
www.allied-eng.com

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

From: Marilyn Leivian [mailto:leivian@pdtarchs.com]
Sent: Wednesday, August 02, 2006 2:18 PM
To: Mike Nugent
Cc: Brian Curley; David Webster; William Faucher
Subject: RE: Delta Roofing Permit # 060957 - PROJECT UPDATE

Mike,

Thank you for your comments. Following are responses (in blue, following each comment). Since we made application in July, Delta Roofing received initial pricing from their general contractor. Due to budget overruns, we have made changes to the design. The two significant changes are:

1. Removing the second floor in it's entirety
2. Substituting steel framing at the Business/Warehouse occupancy separation wall (in lieu of CMU)

Revised drawings are in process, and will be ready by mid week next week (August 9, 2006).

In addition to the comments below, we have clarified the "separated mixed uses"/"non-separated mixed uses" question. The Owner's have verified that the metal shop will accommodate an acetylene welding torch with associated activities, along with metalbreak equipment. This clarification, along with the understanding that roofing adhesives and other flammable products will be stored in the warehouse area, has led Steve Dodge to confirm that the "business" occupancy and the "factory" (metal shop) occupancy need to be separated from the "warehouse" (storage) occupancy with a 1-hour rated wall. NFPA 101 requires a 2-hour separation, with 1-hour reduction for automatic fire suppression system. IBC requires a 3-hour separation, with 1-hour reduction for automatic fire suppression system. Our drawings will indicate a 2-hour separation for these fire separation partitions.

We have received a Construction Permit (#15959) for the State of Maine, Department of Public Safety. We will be revised revised documents to his office as well.

Please see other comments below.

Sincerely,
Marilyn E. Leivian, NCARB
Architect

-----Original Message-----

From: Brian Curley
Sent: Monday, July 31, 2006 8:00 AM
To: Marilyn Leivian
Subject: FW: Delta Roofing Permit # 060957

-----Original Message-----

From: David Webster
Sent: Tuesday, July 25, 2006 12:53 PM
To: Brian Curley; Marilyn Leivian
Subject: FW: Delta Roofing Permit # 060957

PDT Architects
David C. Webster, AIA, LEED AP
Principal

-----Original Message-----

From: Mike Nugent [mailto:MJN@portlandmaine.gov]
Sent: Tuesday, July 25, 2006 12:43 PM
To: David Webster
Subject: Delta Roofing Permit # 060957

I have completed my review of the construction documents and have the following questions/comments or require additional information:

1) The Statement of Special inspections lacks a Seismic Quality Assurance Plan and a Contractor's Statement of Responsibility. Also the Shear connectors have been intentionally omitted from the special inspections program, please explain.

(response): Structural engineer did not feel the SQAP was necessary with CMU stair/occupancy separation partition were CMU. This is changing in the revised design, and Allied Engineering understands the SQAP and CSR will be

required. The original design did not have any shear connectors, explaining why this was omitted. **[William Faucher]** We have no composite floors in this project, therefore shear studs not used on project. The revised Statement of Special Inspections will include a seismic quality assurance plan and a contractor's statement of responsibility form(s).

2) The F1 us is not Separated from the S1 use as required by Table 302.3.2 of the IBC.

(response): See notes above regarding State Fire Marshal's comments. In the revised design, B1 will be separated from F1 and S1 with a 2-hour steel stud partition. F1 will be separated from S1 with 2-hour steel stud partitions.)

3) Plumbing, electrical and HVAC plans must be provided. (unable to determine compliance with appropriate codes)

(response): These portions of the project are design-build. Performance specifications will be made available with submission of the redesign.

4) Fire alarm and sprinkler information must be provided.

(response): This portion of the project is design-build. Performance specifications will be made available with submission of the redesign.

5) Door 201.1 is only 28 inches and must be 32 inches.

(response): Second Floor eliminated ... no Door 201.1.

6) Compliance with the 2003 International Energy Conservation Code must be established.

(response): Forthcoming with, and/or before redesign submission.

7) I could not find where the minimum allowable concrete strength is not spelled out in the plans or in the Spec book.

(response): See Specifications: Division 03300, pages 03300-10, 03300-11. Also, all precast concrete has been eliminated from the project.

8) Please provide information regarding the source of the steel and their most recent AISC certification or other approved quality assurance program.

(response): Allied Engineering will address this request. We understand that another approved quality assurance program had been agreed upon between you and Allied Engineering. **[William Faucher]** Letter of Special Inspection and supporting checklist for steel allows for this review during the shop submittal process. We have specified a requirement for AISC certification in the specification.

9) The exterior wall/ column/bracing plans appear to be incomplete.

(response): Please, more clarification. Are you looking for greater detail on current documents, or can you tell us what you are specifically looking for. The braced frames are indicated on SF-100 and SF101, with additional braced-frame elevations/framing sizes on S-000. Are you looking for connection details, or ...?? We will be coordinating with the structural engineer of record: Allied Engineering. **[William Faucher]** A Frame bracing connection schedule will be issued with the construction package. It did not make it onto the permit set. Additional frames will be reflected on the schedule as well based on the latest plan revisions.

10) Are there storage racks intended for this space?

(response): 5' deep x 12' wide, along the perimeter walls of the warehouse area. Flammable items will be stored in an isolated area indicated on the drawings.

Location of Construction: 1039 RIVERSIDE ST #14	Owner Name: 1039 RIVERSIDE LLC	Owner Address: 340 FORE ST	Phone:
Business Name:	Contractor Name: HardyPond Construction	Contractor Address: 1039 Riverside St Suite 11 Portland	Phone (207) 797-6066
Lessee/Buyer's Name	Phone:	Permit Type: Commercial	

7/25/2006-mjn:) The Statement of Special inspections lacks a Seismic Quality Assurance Plan and a Contractor's Statement of Responsibility. Also the Shear connectors have been intentionally omitted from the special inspections program, please explain.

- 2) The F1 us is not Separated from the S1 use as required by Table 302.3.2 of the IBC.
- 3) Plumbing, electrical and HVAC plans must be provided. (unable to determine compliance with appropriate codes)
- 4) Fire alarm and sprinkler information must be provided.
- 5) Door 201.1 is only 28 inches and must be 32 inches.
- 6) Compliance with the 2003 International Energy Conservation Code must be established.
- 7) I could not find where the minimum allowable concrete strength is not spelled out in the plans or in the Spec book.
- 8) Please provide information regarding the source of the steel and their most recent AISC certification or other approved quality assurance program.
- 9) The exterior wall/ column/bracing plans appear to be incomplete.
- 10) Are there storage racks intended for this space?



CITY OF PORTLAND
BUILDING CODE CERTIFICATE
389 Congress St., Room 315
Portland, Maine 04101

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

FROM: David C. Webster

RE: Certificate of Design

DATE: June 16, 2006

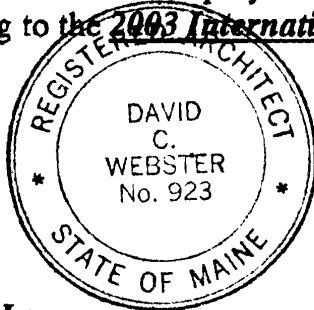
These plans and / or specifications covering construction work on:

Office/Warehouse for Delta Roofing to be located at 1039 Riverside Street,

Lot #14 - New Building (13,750 s.f.)

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: 

Title: Principal

Firm: PDT Architects

Address: 49 Dartmouth Street
Portland, ME 04101

As per Maine State Law:

\$50,000.00 or more in new construction, repair expansion, addition, or modification for Building or Structures, shall be prepared by a registered design Professional.



CITY OF PORTLAND
BUILDING CODE CERTIFICATE
389 Congress St., Room 315
Portland, Maine 04101

ACCESSIBILITY CERTIFICATE

Designer: David C. Webster, PDT Architects

Address of Project: 1039 Riverside Street, Lot #14, Portland, ME 04103

Nature of Project: Office/Warehouse for Delta Roofing

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.

Signature: 

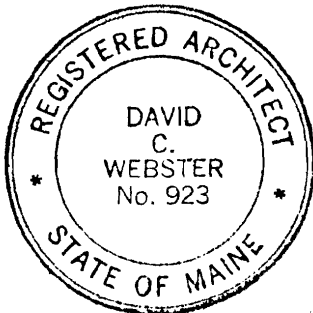
Title: Principal

Firm: PDT Architects

Address: 49 Dartmouth Street
Portland, ME 04101

Phone: 775-1059 x337 02 221

(SEAL)



FROM DESIGNER: ALLIED ENGINEERING INC.
 DATE: 6.14.06
 Job Name: DELTA ROOFING BUILDING
 Address of Construction: RIVERSIDE

2003 International Building Code

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

Building Code and Year IBC 2003 Use Group Classification(s) _____

Type of Construction _____

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC _____

Is the Structure mixed use? _____ if yes, separated or non separated (see Section 302.3) _____

Supervisory alarm system? _____ Geotechnical/Soils report required? (See Section 1802.2) _____

STRUCTURAL DESIGN CALCULATIONS		<u>N/A</u>	Live load reduction (1803.1.1, 1807.9, 1807.10)
<u>NONE</u> Submitted for all structural members		<u>20 PSF</u>	Roof live loads (1803.1.2, 1807.11)
<u>SUBMITTED</u> (1009.1, 1009.1.1)			Roof snow loads (1803.1.3, 1808)
DESIGN LOADS ON CONSTRUCTION DOCUMENTS (1803)		<u>60 PSF</u>	Ground snow load, P_g (1808.2)
Uniformly distributed floor live loads (1803.1.1, 1807)		<u>46 PSF</u>	If $P_g > 10$ psf, flat-roof snow load, P_f (1808.3)
Floor Area Use	Loads Shown	<u>1.0</u>	If $P_g > 10$ psf, snow exposure factor, C_e (Table 1808.3.1)
<u>WAREHOUSE CLASS ON GRADE</u>	<u>200 PSF</u>	<u>1.0</u>	If $P_g > 10$ psf, snow load importance factor, I_s (Table 1804.5)
<u>OFFICE LOAD 2ND</u>	<u>50 PSF</u>	<u>1.0</u>	Roof thermal factor, C_t (Table 1808.3.2)
<u>OFFICE LOAD 6TH</u>	<u>50 PSF</u>	<u>1.1</u>	Sloped roof snowload, P_s (1808.4)
<u>STORAGE</u>	<u>125 PSF</u>	<u>N/A</u>	Seismic design category (1816.3)
		<u>C</u>	Basic seismic-force-resisting system (Table 1817.6.2)
Wind loads (1803.1.4, 1809)			Response modification coefficient, R , and deflection amplification factor, C_d (Table 1817.6.2)
	Design option utilized (1809.1.1, 1809.4)	<u>RES</u>	Analysis procedure (1818.6, 1817.5)
<u>90 MPH</u>	Basic wind speed (1809.3)	<u>Cd = 2</u>	Design base shear (1817.4, 1817.5.1)
<u>1.0</u>	Building category and wind importance factor, I_w (Table 1804.6, 1809.5)	<u>SIMPLIFIED</u>	
<u>C</u>	Wind exposure category (1809.4)	<u>0.074 W</u>	
<u>+/- 0.18</u>	Internal pressure coefficient (ABCE 7)		Flood loads (1803.1.6, 1812)
<u>5/-16 PSF</u>	Component and cladding pressures (1809.1.1, 1809.6.2.2)	<u>N/A</u>	Flood hazard area (1812.3)
<u>13/16 PSF</u>	Main force wind pressures (1809.1.1, 1809.6.2.1)	<u>25' 4"</u>	Elevation of structure
Earthquake design data (1803.1.5, 1814 - 1823)			Other loads
	Design option utilized (1814.1)	<u>20 psf</u>	Concentrated loads (1807.4)
<u>I</u>	Seismic use group ("Category") (Table 1804.5, 1816.2)		Partition loads (1807.6)
<u>0.370</u>	Spectral response coefficients, S_{ps} & S_{D1} (1818.1)		Impact loads (1807.8)
<u>0.157</u>			Misc. loads (Table 1807.8, 1807.8.1, 1807.7, 1807.12, 1807.13, 1810, 1811, 2404)
<u>D</u>	Site class (1815.1.5)		



• *Geotechnical Engineering* • *Field & Lab Testing* • *Scientific & Environmental Consulting*

04-0238

April 1, 2004

Hardy Pond Construction
Attention: Bob Goudreau
1039 Riverside Street, Suite 11
Portland, Maine 04103

Subject: Preliminary Geotechnical Engineering Services
Limited Investigation
Bearing Capacity Assessment
Proposed Second Tee Business Park
1039 Riverside Street
Portland, Maine

Dear Mr. Goudreau:

As requested, S. W. COLE ENGINEERING, INC. has observed a subsurface investigation for the proposed Second Tee Business Park located at 1039 Riverside Street in Portland, Maine. The purpose of our work was to observe the subsurface conditions at the site and provide a preliminary assessment of allowable soil bearing capacity. The contents of this report are subject to the limitations set forth in Attachment A.

PROPOSED CONSTRUCTION

We understand that a new business park is proposed on a 16-acre parcel of land at 1039 Riverside Street in Portland, Maine. The parcel will be developed for 10 structures measuring from 6,000 to 25,000 square feet. The structures will be one story metal buildings with finish floor grades within 1 to 2 feet of existing grade and light floor loading.

EXPLORATION AND TESTING

As requested, we observed four test pits made at the site on March 26, 2004. The explorations were selected and located in the field by Hardy Pond Construction. The approximate locations of the explorations are shown on the "Exploration Location Sketch" attached as Sheet 1.



04-0238
April 1, 2004

Logs of the explorations, based on our observations and laboratory testing are attached as Sheets 2 and 3. A key to the notes and symbols used on the logs is attached as Sheet 4.

Laboratory testing was performed on selected samples recovered from the explorations. One grain size analysis was performed and the results are presented on Sheets 5 and 6.

SUBSURFACE CONDITIONS

Test Pits TP-1 through TP-4 generally encountered 0.5 to 1.0 feet of dark brown sandy silt with organics overlying 4 to 6 feet of brown silty fine to medium sand. The silty sand overlies gray silty sand with silt and clay layers. Test Pits TP-1 through TP-3 were terminated in the gray silty sand at a depth of 8.5, 8.0 and 6.0 feet, respectively. Test Pit TP-4 encountered gray silty clay at a depth of 7 feet and was terminated at 8.0 feet.

Groundwater was observed in the explorations at depths of about 4 to 4.5 feet at the time of the fieldwork. The soils were generally wet below the ground surface. Long-term groundwater information is not available.

EVALUATIONS AND RECOMMENDATIONS

Based on our observations and shallow groundwater conditions encountered, we recommend that the footings be placed on 8 inches of crushed stone over a geotextile fabric placed on the undisturbed native silt sand. We further recommend that a smooth edged bucket be utilized to excavate to subgrade in order to reduce disturbance of the bearing soils. Footings should be placed at a depth of at least 4.5 feet below exterior finish grade to provide frost protection. Based on the findings at the widely spaced test pits, we recommend that preliminary foundation design consider a net allowable bearing contact pressure not exceeding 2.5 ksf. All footings should be at least 24 inches in width.

Groundwater will be encountered during excavation work. Sumping and pumping dewatering techniques should be adequate to control groundwater below footing subgrade elevation. Controlling the water levels to a at least one foot below subgrade elevations will help stabilize the subgrade and provide a more suitable working surface during construction.

Our services have been limited by the client to widely spaced test pits and providing a preliminary assessment of allowable soil bearing capacity at those locations. Other services were specifically not requested by the client. We recommend that additional explorations



04-0238
April 1, 2004

including test pits and/or test borings be made specific to each structure proposed at the site. This is to determine if soil conditions are consistent with those found at these explorations.

S. W. COLE ENGINEERING, INC. should be on-site to observe subgrades prior to fill or concrete placement in the event that subsurface conditions are found to differ from those anticipated. S. W. COLE ENGINEERING, INC. is available to provide field and laboratory testing of soils, concrete, asphalt, masonry, spray-applied fire-proofing and structural steel.

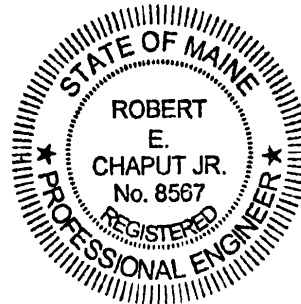
CLOSING

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.

Sincerely,

S. W. COLE ENGINEERING, INC.

Robert E. Chaput, Jr., P.E.
Vice President



REC:kml

P:\Swc-2004\04-0238\04-0238 Report.doc

ATTACHMENT A

Limitations

This report has been prepared for the exclusive use of Hardy Pond Construction for specific application to the Proposed Second Tee Business Park at 1039 Riverside Street in Portland, Maine as described herein. Our services were limited by Hardy Pond Construction to an assessment of soil bearing capacity only and a deeper soils investigation to evaluate settlement and other geotechnical considerations was specifically excluded by Hardy Pond Construction. Hardy Pond Construction has agreed to protect and hold harmless S.W.COLE ENGINEERING, INC. from any and all claims, including third-party claims, for damages or consequential damages due to underlying soil conditions including but not limited to post-construction settlement. 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. 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.

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.

S.W.COLE ENGINEERING, INC.'s scope of work has not included the investigation, detection, or prevention of any Biological Pollutants at the project site or in any existing or proposed structure at the site. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and the byproducts of any such biological organisms.

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.

HARDY POND CONSTRUCTION
EXPLORATION LOCATION SKETCH
PROPOSED SECOND TEE BUSINESS PARK
1039 RIVERSIDE STREET, PORTLAND, MAINE

Job No. 04-0238
Date: 04/01/04

Sheet 1

SCHEDULE OF AREAS

STATION AND OFFSET

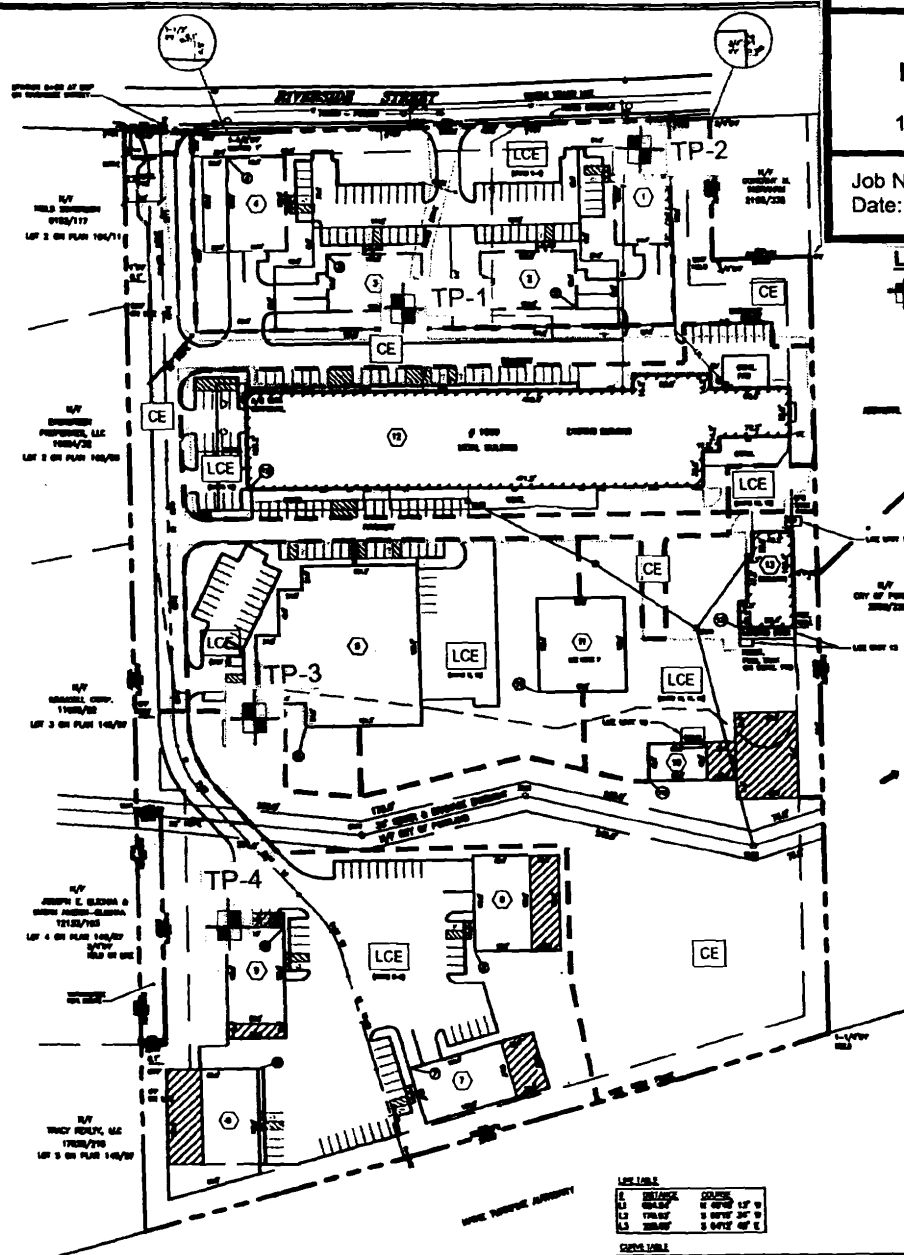
NO.	DESCRIPTION	STATION	OFFSET
1	CONCRETE	1+00.00	0.00
2	ASPHALT	1+00.00	0.00
3	GRAVEL	1+00.00	0.00
4	PAVEMENT	1+00.00	0.00
5	CONCRETE	1+00.00	0.00
6	ASPHALT	1+00.00	0.00
7	GRAVEL	1+00.00	0.00
8	PAVEMENT	1+00.00	0.00
9	CONCRETE	1+00.00	0.00
10	ASPHALT	1+00.00	0.00
11	GRAVEL	1+00.00	0.00
12	PAVEMENT	1+00.00	0.00
13	CONCRETE	1+00.00	0.00
14	ASPHALT	1+00.00	0.00
15	GRAVEL	1+00.00	0.00
16	PAVEMENT	1+00.00	0.00
17	CONCRETE	1+00.00	0.00
18	ASPHALT	1+00.00	0.00
19	GRAVEL	1+00.00	0.00
20	PAVEMENT	1+00.00	0.00

NOTES

1. THIS SKETCH IS FOR INFORMATION ONLY AND IS NOT TO BE USED FOR CONSTRUCTION.
2. THE EXISTING UTILITIES SHOWN ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY.
3. THE PROPOSED UTILITIES SHOWN ARE BASED ON THE DESIGNER'S BEST KNOWLEDGE AND BELIEF.
4. THE DESIGNER ASSUMES NO LIABILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON.
5. THE DESIGNER ASSUMES NO LIABILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON.
6. THE DESIGNER ASSUMES NO LIABILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON.
7. THE DESIGNER ASSUMES NO LIABILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON.
8. THE DESIGNER ASSUMES NO LIABILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON.
9. THE DESIGNER ASSUMES NO LIABILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON.
10. THE DESIGNER ASSUMES NO LIABILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON.

PLAN REFERENCES

1. RECORD DRAWINGS OF PORTLAND, MAINE WATER SUPPLY COMMISSION, PLAN NO. 1-18, 1977 R.L. & C.C. 1988-1989.
2. RECORD DRAWINGS OF PORTLAND, MAINE WATER SUPPLY COMMISSION, PLAN NO. 1-18, 1977 R.L. & C.C. 1988-1989.
3. RECORD DRAWINGS OF PORTLAND, MAINE WATER SUPPLY COMMISSION, PLAN NO. 1-18, 1977 R.L. & C.C. 1988-1989.
4. RECORD DRAWINGS OF PORTLAND, MAINE WATER SUPPLY COMMISSION, PLAN NO. 1-18, 1977 R.L. & C.C. 1988-1989.
5. RECORD DRAWINGS OF PORTLAND, MAINE WATER SUPPLY COMMISSION, PLAN NO. 1-18, 1977 R.L. & C.C. 1988-1989.
6. RECORD DRAWINGS OF PORTLAND, MAINE WATER SUPPLY COMMISSION, PLAN NO. 1-18, 1977 R.L. & C.C. 1988-1989.
7. RECORD DRAWINGS OF PORTLAND, MAINE WATER SUPPLY COMMISSION, PLAN NO. 1-18, 1977 R.L. & C.C. 1988-1989.
8. RECORD DRAWINGS OF PORTLAND, MAINE WATER SUPPLY COMMISSION, PLAN NO. 1-18, 1977 R.L. & C.C. 1988-1989.
9. RECORD DRAWINGS OF PORTLAND, MAINE WATER SUPPLY COMMISSION, PLAN NO. 1-18, 1977 R.L. & C.C. 1988-1989.
10. RECORD DRAWINGS OF PORTLAND, MAINE WATER SUPPLY COMMISSION, PLAN NO. 1-18, 1977 R.L. & C.C. 1988-1989.



LEGEND

- TEST PIT LOCATION
- FOR PIPE OR RISE POINT
- PIPE WALK
- WIRELESS
- UTILITY POLE
- HYDRANT
- MANHOLE
- WIRELESS
- TRANSFORMER
- TRUCK
- UNDERGROUND ELECTRIC
- UNDER LINE
- UNDER DRAIN
- CONCRETE WALL
- IMPROVED SURF AREA
- LCE (LATERAL CONNECTION ELEVATION (APPLICABLE ONLY))
- CE (COMMON ELEVATION)
- UT NUMBER
- UNDER LINE BETWEEN ELEVATIONS
- POSSIBLE EXISTING CONCRETE SURF (HATCHED)

**APPROVAL - CITY OF PORTLAND
PLANNING AUTHORITY**

DATE _____
 CHAIRPERSON _____

STATE OF MAINE

COUNTY SS REGISTRY OF DEEDS
 RECEIVED _____, 20____
 AT _____ h _____ m _____ AND RECORDED IN
 PLAN BOOK _____ PAGE _____
 ATTEST _____ REGISTER

LIST TABLE

NO.	DESCRIPTION	QUANTITY	UNIT
1	GRAVEL	10,000	CY
2	ASPHALT	10,000	CY
3	CONCRETE	10,000	CY
4	PAVEMENT	10,000	CY

CONCRETE

ITEM	QUANTITY	UNIT	PRICE	TOTAL
1	10,000	CY	12.00	120,000
2	10,000	CY	12.00	120,000
3	10,000	CY	12.00	120,000
4	10,000	CY	12.00	120,000

JOHN C. SCHMIDT, P.E. (1234)
 555-555-5555

CONDOMINIUM PLAN
 SECOND TEE BUSINESS PARK CONDOMINIUM
 1039 RIVERSIDE STREET, PORTLAND, MAINE
 1039 RIVERSIDE LLC
 1039 RIVERSIDE STREET, PORTLAND, ME 04102
OWEN HASKELL, INC.
 1000 BROAD STREET, PORTLAND, ME 04102
 (207) 771-1111

DATE	NO.	REV.	BY	APP.
04/01/04	001		JCH	
04/01/04	002		JCH	
04/01/04	003		JCH	
04/01/04	004		JCH	



G:\231\dwg



S.W. COLE ENGINEERING, INC.

TEST PIT LOGS

PROJECT/CLIENT: PROPOSED SECOND TEE BUSINESS PARK / HARDY POND CONSTRUCTION
 LOCATION: 1039 RIVERSIDE STREET, PORTLAND, MAINE
 BACKHOE FIRM: HARDY POND CONSTRUCTION OPERATOR: BOB GOUDREAU

PROJECT NO.: 04-0238
 SWC REP.: TJG

TEST PIT TP-1			
DATE: <u>3/26/2004</u>		SURFACE ELEVATION: <u>NOT AVAIL.</u>	LOCATION: <u>SEE SHEET 1</u>
SAMPLE NO.	DEPTH	STRATUM DESCRIPTION	TEST RESULTS
	1.0'	DARK BROWN SANDY SILT, TRACE GRAVEL WITH ORGANICS	
	6.0'	LIGHT BROWN SILTY FINE TO MEDIUM SAND	
S-1	7'	GRAY SILTY FINE SAND WITH SILT AND CLAY LAYERS	
	8.5'	BOTTOM OF EXPLORATIN AT 8.5'	
COMPLETION DEPTH: <u>8.5'</u> DEPTH TO WATER: <u>4'</u>			

TEST PIT TP-2			
DATE: <u>3/26/2004</u>		SURFACE ELEVATION: <u>NOT AVAIL.</u>	LOCATION: <u>SEE SHEET 1</u>
SAMPLE NO.	DEPTH	STRATUM DESCRIPTION	TEST RESULTS
	1.0'	DARK BROWN SANDY SILT WITH ORGANICS	
	5.0'	LIGHT BROWN SILTY FINE TO MEDIUM SAND	
S-2	4'	GRAY SILTY FINE SAND WITH SILT AND CLAY LAYERS	
	8.0'	BOTTOM OF EXPLORATOIN AT 8'	
COMPLETION DEPTH: <u>8'</u> DEPTH TO WATER: <u>4.5'</u>			



S.W. COLE

ENGINEERING, INC.

TEST PIT LOGS

PROJECT/CLIENT: PROPOSED SECOND TEE BUSINESS PARK / HARDY POND CONSTRUCTION
 LOCATION: 1039 RIVERSIDE STREET, PORTLAND, MAINE
 BACKHOE FIRM: HARDY POND CONSTRUCTION OPERATOR: BOB GOUDREAU

PROJECT NO.: 04-0238
 SWC REP.: TJG

TEST PIT TP-3			
DATE: <u>3/26/2004</u>		SURFACE ELEVATION: <u>NOT AVAIL.</u>	
		LOCATION: <u>SEE SHEET 1</u>	
SAMPLE NO.	DEPTH	STRATUM DESCRIPTION	TEST RESULTS
	0.5'	BROWN SAND AND GRAVEL, TRACE COBBLES	
		ORANGE/BROWN SILTY FINE TO MEDIUM SAND	
	4.5'		
S-3	5.5'	GRAY FINE SAND WITH SILT AND CLAY LAYERS	
	6.0'	BOTTOM OF EXPLORATION AT 6'	
COMPLETION DEPTH: <u>6'</u>		DEPTH TO WATER: <u>4'</u>	

TEST PIT TP-4			
DATE: <u>3/26/2004</u>		SURFACE ELEVATION: <u>NOT AVAIL.</u>	
		LOCATION: <u>SEE SHEET 1</u>	
SAMPLE NO.	DEPTH	STRATUM DESCRIPTION	TEST RESULTS
	8"	DARK BROWN SANDY SILT WITH ORGANICS	
		LIGHT BROWN FINE SANDY SILT	
	3.5'		
		BROWN SILTY SAND	
	6.5'		
	7.0'	GRAY SILTY FINE SAND WITH SILT AND CLAY LAYERS	
S-4	7.5'		
	8.0'	GRAY SILTY CLAY	
		BOTTOM OF EXPLORATION AT 8'	
COMPLETION DEPTH: <u>8'</u>		DEPTH TO WATER: <u>NO FREE WATER OBSERVED</u>	



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.

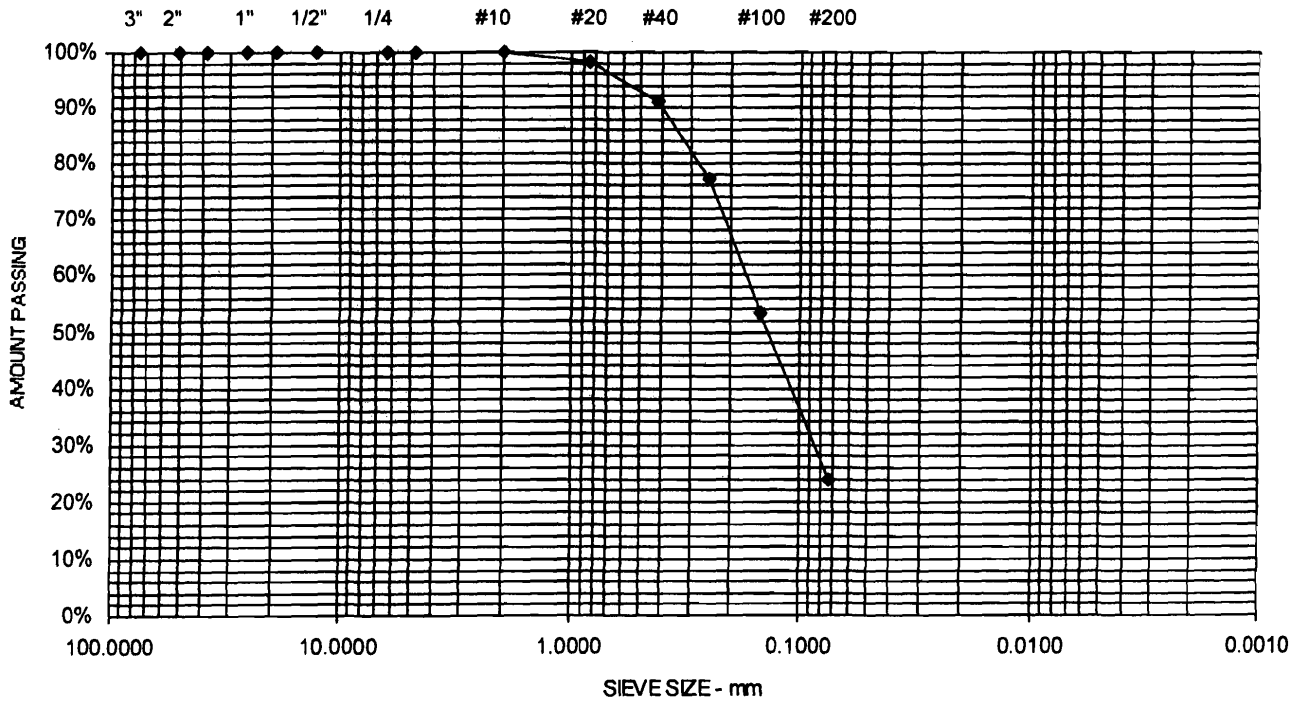
REFUSAL: Test Pit Explorations - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

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.

Project Name **HARDYPOND PORTLAND RIVERSIDE COMMERCIAL SUBDIVISION**
 SSI
 Client **HARDYPOND CONSTRUCTION INC**
 Exploration **TP-2,S-2,4.0'**
 Material Source

Project Number **04-0238**
 Lab ID **984A**
 Date Received **3/26/2004**
 Date Completed **3/29/2004**
 Tested By **RYAN BRAGG**

SIEVE OPENING (mm)	SIEVE SIZE	AMOUNT PASSING (%)	
152.4	6"	100	
127	5"	100	
101.6	4"	100	
76.1	3"	100	
50.8	2"	100	
38.1	1-1/2"	100	
25.7	1"	100	
19	3/4"	100	
12.7	1/2"	100	
6.35	1/4"	100	
4.76	No. 4	100	0% Gravel
2	No. 10	100	
0.841	No. 20	98	
0.42	No. 40	91	76.3% Sand
0.25	No. 60	77	
0.149	No. 100	53	
0.074	No. 200	23.7	23.7% Fines

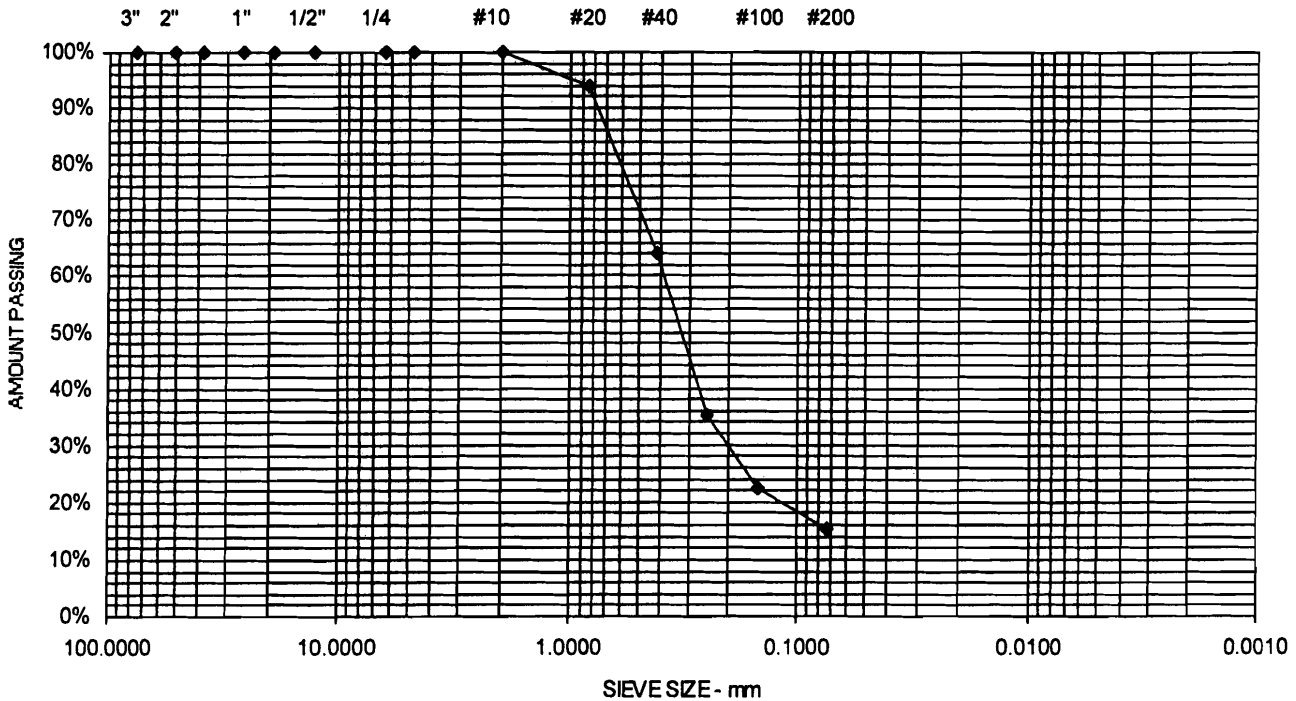


Comments

Project Name **HARDYPOND PORTLAND RIVERSIDE COMMERCIAL SUBDIVISION SSI**
 Client **HARDYPOND CONSTRUCTION INC**
 Exploration **TP-3,S-3,5.5'**
 Material Source

Project Number **04-0238**
 Lab ID **985A**
 Date Received **3/26/2004**
 Date Completed **3/29/2004**
 Tested By **RYAN BRAGG**

<u>SIEVE OPENING (mm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
152.4	6"	100	
127	5"	100	
101.6	4"	100	
76.1	3"	100	
50.8	2"	100	
38.1	1-1/2"	100	
25.7	1"	100	
19	3/4"	100	
12.7	1/2"	100	
6.35	1/4"	100	
4.76	No. 4	100	0% Gravel
2	No. 10	100	
0.841	No. 20	94	
0.42	No. 40	64	84.5% Sand
0.25	No. 60	35	
0.149	No. 100	23	
0.074	No. 200	15.5	15.5% Fines



ARCHITECTURE
INTERIOR DESIGN
PLANNING

PORTLAND



A R C H I T E C T S

FAX

MEMO

NOTES

TELCON

TRANSMITTAL

DATE: August 11, 2006
Mike Nugent
City of Portland
TO/COMPANY: Inspections Division
389 Congress St., Room 315
Portland, ME 04101
PROJECT: Delta Roofing Offices/Warehouse (05-136)
FROM: Eric Rasmussen
PAGES: plans and specifications
RE: For Construction Set dated: August 9, 2006

Mr. Nugent:

Enclosed are stamped and signed drawings and specifications, as follows:

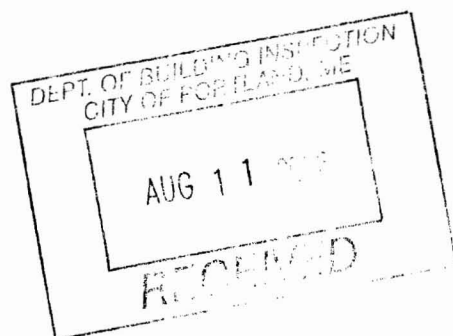
- (2) full size sets and specifications
- (2) 11x17 sets, drawings only
- IBC Summary Sheet
- (1) Statement of Special Inspections
- (1) Envelope Compliance Certificate
- (1) Lighting Compliance Certificate
- (1) Mechanical Compliance Certificate

Thank you,

Eric Rasmussen
PDT Architects

cc: Brian Curley

060957



49 DARTMOUTH STREET
PORTLAND, MAINE 04101
207-775-1059
FAX 207-775-2694



F A X

A D D R E S S

N O T E S

F I L E N U M B E R

T R A N S M I T T A L

DATE: August 9, 2006
TO/COMPANY: Michael Nugent, City of Portland – Inspection Services Program
PROJECT: Delta Roofing - #05-136
FROM: Eric Rasmussen
PAGES:
RE:

Please find enclosed a copy Allied Engineering's IBC Summary Sheet and Statement of Special Inspections Report for the above-referenced project.

FROM DESIGNER: ALLIED ENGINEERING INC.
 DATE: 6-14-06
 Job Name: DELTA ROOFING BUILDING
 Address of Construction: RIVERSIDE

2003 International Building Code

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

Building Code and Year IBC 2003 Use Group Classification(s) _____

Type of Construction _____

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC _____

Is the Structure mixed use? _____ if yes, separated or non separated (see Section 302.3) _____

Supervisory alarm system? _____ Geotechnical/Soils report required?(See Section 1802.2) _____

STRUCTURAL DESIGN CALCULATIONS

NAME Submitted for all structural members
SUBMITTED (108.1, 108.1.1)

DESIGN LOADS ON CONSTRUCTION DOCUMENTS
 (1603)

Uniformly distributed floor live loads (1603.1.1, 1607)

Floor Area Use	Loads Shown
<u>WAREHOUSE/STORAGE ON GRADE</u>	<u>200 PSF</u>
<u>OFFICE LOAD 2ND</u>	<u>50 PSF</u>
<u>OFFICE LOAD 3RD</u>	<u>50 PSF</u>
<u>STORAGE</u>	<u>125 PSF</u>

N/A Live load reduction (1603.1.1, 1607.9, 1607.10)
20 PSF Roof live loads (1603.1.2, 1607.11)
60 PSF Roof snow loads (1603.1.3, 1606)
46 PSF Ground snow load, P_g (1606.2)
1.0 If $P_g > 10$ psf, flat-roof snow load, P_f (1606.3)
1.0 If $P_g > 10$ psf, snow exposure factor, C_e (Table 1606.3.1)
1.0 If $P_g > 10$ psf, snow load importance factor, I_s (Table 1606.5)
1.1 Roof thermal factor, C_r (Table 1606.3.2)
NA Sloped roof snowload, P_s (1606.4)
C Seismic design category (1612.9)

Wind loads (1603.1.4, 1609)

90 MPH Design option utilized (1609.1.1, 1609.4)
1.0 Basic wind speed (1609.3)
C Building category and wind importance factor, I_w (Table 1604.6, 1609.5)
C Wind exposure category (1609.4)
+/- 0.18 Internal pressure coefficient (ASCE 7)
5/-16 PSF Component and cladding pressures (1609.1.1, 1609.6.2.2)
13/16 PSF Main force wind pressures (1609.1.1, 1609.6.2.1)

C Basic seismic-force-resisting system (Table 1617.6.2)
RES Response modification coefficient, R , and deflection amplification factor, C_d (Table 1617.6.2)
SIMPLIFIED Analysis procedure (1616.6, 1617.5)
0.074 W Design base shear (1617.4, 1617.5.1)

Flood loads (1603.1.8, 1612)

N/A Flood hazard area (1612.3)
25' 4" Elevation of structure

Other loads

Earthquake design data (1603.1.5, 1614 - 1623)

I Design option utilized (1614.1)
I Seismic use group ("Category") (Table 1604.5, 1618.2)
0.370 Spectral response coefficients, S_{ps} & S_{p1} (1618.1)
D Site class (1615.1.5)

20 PSF Concentrated loads (1607.4)
20 PSF Partition loads (1607.5)
20 PSF Impact loads (1607.8)
20 PSF Misc. loads (Table 1607.8, 1607.8.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404)

Statement of Special Inspections

Project: *Delta Roofing of Maine – Office/Warehouse Facility*

Location: *1039 Riverside Avenue, Portland, ME*

Owner: *Delta Roofing of Maine*

Design Professional in Responsible Charge: *William P. Faucher, 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.

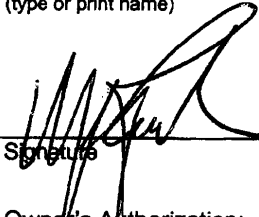
Interim Report Frequency: *Monthly*

or per attached schedule.

Prepared by:

William P. Faucher, P.E.

(type or print name)

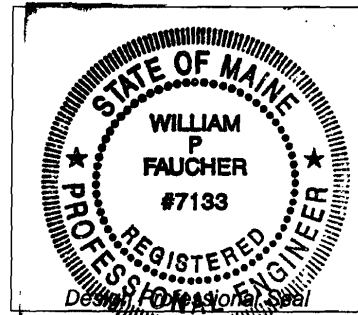


Signature

June 23, 2006

Revised 8-8-06

Date



Owner's Authorization:

Building Official's Acceptance:

Signature

Date

Signature

Date

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 type="checkbox"/> Masonry | <input type="checkbox"/> Mechanical & Electrical Systems |
| <input checked="" type="checkbox"/> Structural Steel | <input type="checkbox"/> Architectural Systems |
| <input type="checkbox"/> Cold-Formed Steel Framing | <input type="checkbox"/> Special Cases |

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Special Inspection Coordinator	<i>William P. Faucher, P.E. LEED™ AP</i>	Allied Engineering, Inc. 160 Veranda Street Portland, ME 04103 207.221.2260 X107 207.221.2266 bfaucher@allied-eng.com
2. Inspector	<i>Brian Curley AIA LEED™ AP</i>	PDT Architects 49 Dartmouth Street Portland, Maine 04101 207 775 1059 x 337 (fax) 207 775 2694 curley@pdtarchs.com
3. Inspector	<i>James Hodsdon</i>	Allied Engineering, Inc. 160 Veranda Street Portland, ME 04103 207.221.2260 X109 207.221.2266 jhodsdon@allied-eng.com
4. Testing Agency	TBD	
5. Testing Agency	<i>Elite Inspection Services</i>	220 Industrial Way Portland, ME 04103 207.797.2284
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) *Yes, See Below*

QUALITY ASSURANCE PLAN

- ✓ Description of seismic force resisting system and designated seismic systems:
Steel Eccentrically braced frames, moment-resisting, connections at columns away from links
- ✓ Special Inspection and Testing Requirements, Type and Frequency of Testing, Type and Frequency of Special Inspections:
See Attached Sheet 7 of 7 attached..
- ✓ Required Frequency and distribution of testing and special inspection reports:
Periodic Testing as site conditions dictate, with daily summaries of testing results issued to SER for evaluation.
- ✓ Structural Observations Frequency and distribution of structural observation reports:
None Required. SER to review Special Inspection/Testing summaries. (Section 1709)

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) *90 MPH*
 Wind Exposure Category *B*
 Quality Assurance Plan Required (Y/N) *No*

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

Item	Agency # (Qualif.)	Scope
1. Shallow Foundations	PE/GE	<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	PE/GE	<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>

Cast-in-Place Concrete

Item	Agency # (Qualif.)	Scope
1. Mix Design	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	SE	Shop Submittals
3. Reinforcement Installation	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	ICC-PCSI	Inspect placement, stressing, grouting and protection of post-tensioning tendons. Verify that tendons are correctly positioned, supported, tied and wrapped. Record tendon elongations.
5. Welding of Reinforcing	AWS-CWI	Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required.
6. Anchor Rods	SE	Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.
7. Concrete Placement	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	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	ACI-CCI ICC-RCSI	Inspect curing, cold weather protection and hot weather protection procedures.

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures <input type="checkbox"/> Fabricator Exempt	SE AWS/AISC- SSI ICC-SWSI	Review shop fabrication and quality control procedures.
2. Material Certification	SE 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	SE AWS/AISC- SSI ICC-SWSI	Inspect installation, field welding and bridging of joists. <u>Frequency:</u> Periodic
4. Bolting	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. <u>Frequency:</u> ✓ Continuous inspection of bolts in slip-critical connections.
5. Welding	AWS-CWI ASNT	Visually inspect all welds. Inspect pre-heat, post-heat and surface preparation between passes. Verify size and length of fillet welds. <u>Frequency:</u> ✓ Complete and Partial Pen. Groove welds: Continuous ✓ Multi-pass Fillet Welds: Continuous ✓ Single-pass fillet welds > 5/16" – Continuous ✓ Single-pass fillet welds < 5/16" - Periodic
7. Structural Details	PE/SE	Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details. <u>Frequency:</u> ✓ Chevron Frame Connections – Continuous ✓ Ultrasonic testing of 25% of all full-penetration welds
8. Metal Deck	AWS-CWI	Inspect welding and side-lap fastening of metal roof deck. <u>Frequency:</u> ✓ Roof Deck Welds – Periodic

Fabricator's Certificate of Compliance

Each approved fabricator that is exempt from Special Inspection of shop fabrication and implementation procedures per section 1704.2 of the International Building Code must submit a *Fabricator's Certificate of Compliance* at the completion of fabrication.

Project: *Delta Roofing of Maine – Office/Warehouse Facility*

Fabricator's Name:

Address:

Certification or Approval Agency:

Certification Number:

Date of Last Audit or Approval:

Description of structural members and assemblies that have been fabricated:

I hereby certify that items described above were fabricated in strict accordance with the approved construction documents.

Signature

Date

Title

Attach copies of fabricator's certification or building code evaluation service report and fabricator's quality control manual

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: *Delta Roofing of Maine – Office/Warehouse Facility*

Contractor's Name:

Address:

License No.:

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

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.

060957

FROM DESIGNER: ALLET ENGINEERING INC.

DATE: 6.14.06

Job Name: DELTA ROOFING BUILDING

Address of Construction: RIVERSIDE

2003 International Building Code

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

Building Code and Year IBC 2003 Use Group Classification(s) _____

Type of Construction _____

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC _____

Is the Structure mixed use? _____ if yes, separated or non separated (see Section 302.3) _____

Supervisory alarm system? _____ Geotechnical/Soils report required? (See Section 1802.2) _____

STRUCTURAL DESIGN CALCULATIONS

NAME Submitted for all structural members
SUBMITTED (100.1, 106.1.1)

DESIGN LOADS ON CONSTRUCTION DOCUMENTS (1603)

Uniformly distributed floor live loads (1603.1.1, 1607)

Floor Area Use	Loads Shown
<u>WAREHOUSE SLABS ON GRADE</u>	<u>200 PSF</u>
<u>OFFICE LOAD 2ND</u>	<u>50 PSF</u>
<u>OFFICE LOAD GRADE</u>	<u>50 PSF</u>
<u>STORAGE</u>	<u>125 PSF</u>

<u>N/A</u>	Live load reduction (1603.1.1, 1607.2, 1607.10)
<u>20 PSF</u>	Roof live loads (1603.1.2, 1607.11)
<u>60 PSF</u>	Roof snow loads (1603.1.3, 1608)
<u>46 PSF</u>	Ground snow load, P_g (1608.2)
<u>1.0</u>	If $P_g > 10$ psf, flat-roof snow load, P_f (1608.3)
<u>1.0</u>	If $P_g > 10$ psf, snow exposure factor, C_e (Table 1608.3.1)
<u>1.0</u>	If $P_g > 10$ psf, snow load importance factor, I_s (Table 1604.5)
<u>1.1</u>	Roof thermal factor, C_t (Table 1608.3.2)
<u>NA</u>	Sloped roof snowload, P_s (1608.4)

Wind loads (1603.1.4, 1609)

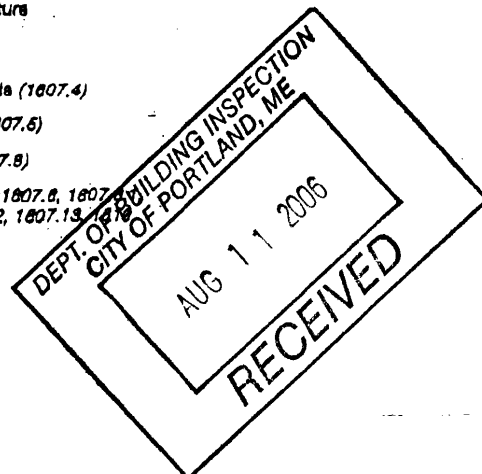
<u>DESIGN OPTION UTILIZED</u> (1609.1.1, 1609.6)	<u>RES</u>
<u>90 MPH</u> Basic wind speed (1609.3)	<u>C_d = 2</u>
<u>1.0</u> Building category and wind importance factor, I_w (Table 1604.5, 1609.5)	<u>SIMPLIFIED</u>
<u>C</u> Wind exposure category (1609.4)	<u>0.074 W</u>
<u>+/- 0.18</u> Internal pressure coefficient (ASCE 7)	
<u>5/16 PSF</u> Component and cladding pressures (1609.1.1, 1609.6.2.2)	
<u>13/16 PSF</u> Main force wind pressures (1608.1.1, 1608.6.2.1)	

<u>C</u>	Seismic design category (1616.3)
<u>Basic seismic-force-resisting system</u> (Table 1617.6.2)	
<u>Response modification coefficient, R, and deflection amplification factor, C_d</u> (Table 1617.6.2)	
<u>ANALYSIS PROCEDURE</u> (1616.5, 1617.5)	
<u>DESIGN BASE SHEAR</u> (1617.4, 1617.5.1)	

Earthquake design data (1603.1.5, 1614 - 1623)

<u>DESIGN OPTION UTILIZED</u> (1614.1)	<u>200 PSF</u>
<u>I</u> Seismic use group ("Category") (Table 1604.5, 1616.2)	
<u>0.370 & 0.157</u> Spectral response coefficients, S_{DS} & S_{D1} (1616.1)	
<u>D</u> Site class (1616.1.3)	

<u>FLOOD LOADS</u> (1603.1.6, 1612)	
<u>N/A</u> Flood hazard area (1612.3)	
<u>25' +/-</u> Elevation of structure	
<u>Other loads</u>	
<u>CONCENTRATED LOADS</u> (1607.4)	
<u>PARTITION LOADS</u> (1607.5)	
<u>IMPACT LOADS</u> (1607.8)	
<u>MISC. LOADS</u> (Table 1607.6, 1607.7, 1607.12, 1607.13, 1611, 2404)	



Statement of Special Inspections

Project: *Delta Roofing of Maine – Office/Warehouse Facility*

Location: *1039 Riverside Avenue, Portland, ME*

Owner: *Delta Roofing of Maine*

Design Professional in Responsible Charge: *William P. Faucher, 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.

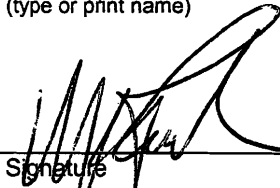
Interim Report Frequency: *Monthly*

or per attached schedule.

Prepared by:

William P. Faucher, P.E.

(type or print name)

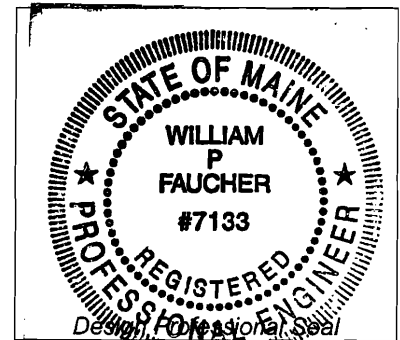


Signature

June 23, 2006

Revised 8-8-06

Date



Owner's Authorization:

Building Official's Acceptance:

Signature

Date

Signature

Date

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 type="checkbox"/> Masonry | <input type="checkbox"/> Mechanical & Electrical Systems |
| <input checked="" type="checkbox"/> Structural Steel | <input type="checkbox"/> Architectural Systems |
| <input type="checkbox"/> Cold-Formed Steel Framing | <input type="checkbox"/> Special Cases |

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Special Inspection Coordinator	<i>William P. Faucher, P.E.</i> <i>LEED™ AP</i>	Allied Engineering, Inc. <i>160 Veranda Street</i> <i>Portland, ME 04103</i> <i>207.221.2260 X107</i> <i>207.221.2266</i> <i>bfaucher@allied-eng.com</i>
2. Inspector	<i>Brian Curley AIA</i> <i>LEED™ AP</i>	<i>PDT Architects</i> <i>49 Dartmouth Street</i> <i>Portland, Maine 04101</i> <i>207 775 1059 x 337</i> <i>(fax) 207 775 2694</i> <i>curley@pdtarchs.com</i>
3. Inspector	<i>James Hodsdon</i>	Allied Engineering, Inc. <i>160 Veranda Street</i> <i>Portland, ME 04103</i> <i>207.221.2260 X109</i> <i>207.221.2266</i> <i>jhodsdon@allied-eng.com</i>
4. Testing Agency	TBD	
5. Testing Agency	<i>Elite Inspection Services</i>	<i>220 Industrial Way</i> <i>Portland, ME 04103</i> <i>207.797.2284</i>
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) *Yes, See Below*

QUALITY ASSURANCE PLAN

- ✓ Description of seismic force resisting system and designated seismic systems:
Steel Eccentrically braced frames, moment-resisting, connections at columns away from links
- ✓ Special Inspection and Testing Requirements, Type and Frequency of Testing, Type and Frequency of Special Inspections:
See Attached Sheet 7 of 7 attached..
- ✓ Required Frequency and distribution of testing and special inspection reports:
Periodic Testing as site conditions dictate, with daily summaries of testing results issued to SER for evaluation.
- ✓ Structural Observations Frequency and distribution of structural observation reports:
None Required. SER to review Special Inspection/Testing summaries. (Section 1709)

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) *90 MPH*
 Wind Exposure Category *B*
 Quality Assurance Plan Required (Y/N) *No*

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

Item	Agency # (Qualif.)	Scope
1. Shallow Foundations	PE/GE	<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	PE/GE	<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>

Item	Agency # (Qualif.)	Scope
1. Mix Design	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	SE	Shop Submittals
3. Reinforcement Installation	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	ICC-PCSI	Inspect placement, stressing, grouting and protection of post-tensioning tendons. Verify that tendons are correctly positioned, supported, tied and wrapped. Record tendon elongations.
5. Welding of Reinforcing	AWS-CWI	Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required.
6. Anchor Rods	SE	Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.
7. Concrete Placement	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	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	ACI-CCI ICC-RCSI	Inspect curing, cold weather protection and hot weather protection procedures.

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures <input type="checkbox"/> Fabricator Exempt	SE AWS/AISC- SSI ICC-SWSI	Review shop fabrication and quality control procedures.
2. Material Certification	SE 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	SE AWS/AISC- SSI ICC-SWSI	Inspect installation, field welding and bridging of joists. <u>Frequency:</u> Periodic
4. Bolting	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. <u>Frequency:</u> ✓ Continuous inspection of bolts in slip-critical connections.
5. Welding	AWS-CWI ASNT	Visually inspect all welds. Inspect pre-heat, post-heat and surface preparation between passes. Verify size and length of fillet welds. <u>Frequency:</u> ✓ Complete and Partial Pen. Groove welds: Continuous ✓ Multi-pass Fillet Welds: Continuous ✓ Single-pass fillet welds > 5/16" – Continuous ✓ Single-pass fillet welds < 5/16" - Periodic
7. Structural Details	PE/SE	Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details. <u>Frequency:</u> ✓ Chevron Frame Connections – Continuous ✓ Ultrasonic testing of 25% of all full-penetration welds
8. Metal Deck	AWS-CWI	Inspect welding and side-lap fastening of metal roof deck. <u>Frequency:</u> ✓ Roof Deck Welds – Periodic

Fabricator's Certificate of Compliance

Each approved fabricator that is exempt from Special Inspection of shop fabrication and implementation procedures per section 1704.2 of the International Building Code must submit a *Fabricator's Certificate of Compliance* at the completion of fabrication.

Project: *Delta Roofing of Maine – Office/Warehouse Facility*

Fabricator's Name:

Address:

Certification or Approval Agency:

Certification Number:

Date of Last Audit or Approval:

Description of structural members and assemblies that have been fabricated:

I hereby certify that items described above were fabricated in strict accordance with the approved construction documents.

Signature

Date

Title

Attach copies of fabricator's certification or building code evaluation service report and fabricator's quality control manual

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: *Delta Roofing of Maine – Office/Warehouse Facility*

Contractor's Name:

Address:

License No.:

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

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.



COMcheck Software Version 3.2.1

Envelope Compliance Certificate

2001 IECC

Report Date: 08/03/06

Data filename: C:\Documents and Settings\veivian\My Documents\COMchk\DeltaRoofing.04aug06.cck

Section 1: Project Information

Project Title: DELTA ROOFING OFFICE/WAREHOUSE

Construction Site:
1039 Riverside Street
Portland, ME 04103
Permit No. 06097

Owner/Agent:
Scott Leeman
Delta Roofing
1039 Riverside Street
Portland, ME 04103
207.878.1732
sleeman@deltarroofing.com

Designer/Contractor:
Brian Curley
PDT Architects
49 Dartmouth Street
Portland, ME 04103
207.775.1059
curley@pdtarchs.com

Section 2: General Information

Building Location (for weather data): **Portland, Maine**
Climate Zone: **15**
Heating Degree Days (base 65 degrees F): **7378**
Cooling Degree Days (base 65 degrees F): **268**
Project Type: **New Construction**
Vertical Glazing / Wall Area Pct.: **2%**

Activity Type(s)	Floor Area
Office	3270
Storage, Industrial and Commercial	6432
Industrial Work, >= 20 ft Ceiling Height	1800

Section 3: Requirements Checklist

Envelope PASSES: Design 32% better than code.

Climate-Specific Requirements:

Component Name/Description	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor
Orientation: NORTH					
Exterior Wall 1: Metal Frame, 16" o.c.	2807	0.0	12.5	0.068	0.075
Window 1: Metal Frame with Thermal Break:Double Pane with Low-E, Clear, SHGC 0.52	108	---	---	0.330	0.526
Door 1: Solid	84	---	---	0.240	0.122
Door 2: Overhead	336	---	---	0.067	0.122
Exterior Wall 2: Solid Concrete or Masonry <= 8", Furring: Wood	412	12.5	0.0	0.102	0.075
Orientation: EAST					
Exterior Wall 5: Metal Frame, 16" o.c.	1680	0.0	12.5	0.068	0.075
Exterior Wall 6: Solid Concrete or Masonry <= 8", Furring: Wood	320	12.5	0.0	0.102	0.075
Orientation: SOUTH					
Exterior Wall 3: Metal Frame, 16" o.c.	2807	0.0	12.5	0.068	0.075

DELTA ROOFING OFFICE/WAREHOUSE

Page 1 of 9



COMcheck Software Version 3.2.1

Lighting Compliance Certificate

2001 IECC

Report Date: 08/03/06

Data filename: C:\Documents and Settings\veivian\My Documents\COMchk\DeltaRoofing.04aug06.cck

Section 1: Project Information

Project Title: DELTA ROOFING OFFICE/WAREHOUSE

Construction Site:
1039 Riverside Street
Portland, ME 04103
Permit No. 06097

Owner/Agent:
Scott Leeman
Delta Roofing
1039 Riverside Street
Portland, ME 04103
207.878.1732
sleeman@deltaroofting.com

Designer/Contractor:
Brian Curley
PDT Architects
49 Dartmouth Street
Portland, ME 04103
207.775.1059
curley@pdtarchs.com

Section 2: General Information

Building Use Description by: **Activity Type**
Project Type: **New Construction**

<u>Activity Type(s)</u>	<u>Floor Area</u>
Office	3270
Storage, Industrial and Commercial	6432
Industrial Work, >= 20 ft Ceiling Height	1800

Section 3: Requirements Checklist

Interior Lighting:

- 1. Total actual watts must be less than or equal to total allowed watts.

Allowed Watts	Actual Watts	Complies
16737	10206	YES

Exterior Lighting:

- 2. Efficacy greater than 45 lumens/W.
Exceptions:
Specialized lighting highlighting features of historic buildings; signage; safety or security lighting; low-voltage landscape lighting.

Controls, Switching, and Wiring:

- 3. Independent controls for each space (switch/occupancy sensor).
Exceptions:
Areas designated as security or emergency areas that must be continuously illuminated.
Lighting in stairways or corridors that are elements of the means of egress.
- 4. Master switch at entry to hotel/motel guest room.
- 5. Each space provided with a manual control to provide uniform light reduction capability.
Exceptions:
Only one luminaire in space;



COMcheck Software Version 3.2.1

Mechanical Compliance Certificate

2001 IECC

Report Date: 08/03/06

Data filename: C:\Documents and Settings\veivian\My Documents\COMchk\DeltaRoofing.04aug06.cck

Section 1: Project Information

Project Title: DELTA ROOFING OFFICE/WAREHOUSE

Construction Site:

1039 Riverside Street
Portland, ME 04103
Permit No. 06097

Owner/Agent:

Scott Leeman
Delta Roofing
1039 Riverside Street
Portland, ME 04103
207.878.1732
sleeman@deltarroofing.com

Designer/Contractor:

Brian Curley
PDT Architects
49 Dartmouth Street
Portland, ME 04103
207.775.1059
curley@pdtarchs.com

Section 2: General Information

Building Location (for weather data): **Portland, Maine**
Climate Zone: **15**
Heating Degree Days (base 65 degrees F): **7378**
Cooling Degree Days (base 65 degrees F): **268**
Project Type: **New Construction**

Section 3: Mechanical Systems List

Quantity System Type & Description

- | | |
|---|--|
| 1 | HVAC System 4: Heating: Duct Furnace, Gas / Cooling: Rooftop Package Unit, Capacity >=90 - <135 kBtu/h, Air-Cooled Condenser / Multiple-Zone |
| 1 | Plant 1: Cooling: Condensing Unit, Capacity <135 kBtu/h, Condenser Air-Cooled |

Section 4: Requirements Checklist

Requirements Specific To: HVAC System 4 :

- 1. Equipment minimum efficiency: Duct Furnace (Gas): 80% Ec
- 2. Minimum one temperature control device per zone
- 3. Equipment minimum efficiency: Rooftop Package Unit: 10.3 EER
- 4. Discharge dampers prohibited with fan motors >25 hp
- 5. Balancing and pressure test connections on all hydronic terminal devices
- 6. Integrated air economizer required
- 7. Systems serving more than one zone must be VAV systems
- 8. Single-duct VAV terminals reduce primary air before reheating
- 9. Controls capable of resetting supply air temp (SAT) by 25% of SAT-room temp difference
- 10. Fan equipped with mechanical variable-speed drive

Requirements Specific To: Plant 1 :

- 1. Newly purchased cooling equipment meets the cooling efficiency requirements

Generic Requirements: Must be met by all systems to which the requirement is applicable:

ARCHITECTURE
INTERIOR DESIGN
PLANNING

PORTLAND



P D T A R C H I T E C T S

F A X

M E M O

N O T E S

T E L C O N

T R A N S M I T T A L

DATE: August 11, 2006
Mike Nugent
City of Portland
TO/COMPANY: Inspections Division
389 Congress St., Room 315
Portland, ME 04101
PROJECT: Delta Roofing Offices/Warehouse (05-136)
FROM: Marilyn Leivian
PAGES: Nine (9)
RE: COMCheck Certificates of Compliance

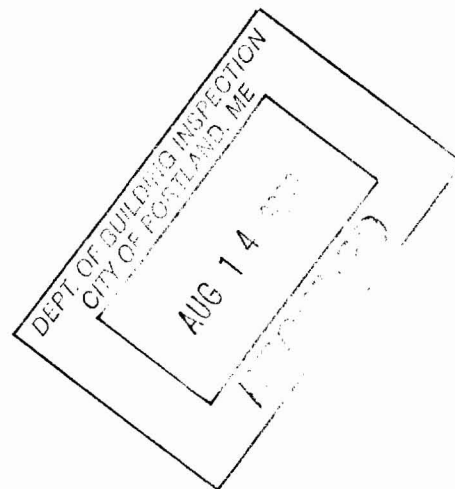
Mike,

Please find attached the complete package of COMCheck Certificates of Compliance (with signatures) for the Delta Roofing project. I trust this will complete the August 9, 2006 Construction Set submittal package.

Thank you,

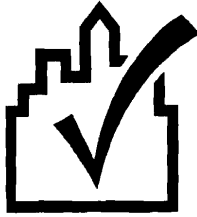
Marilyn Leivian
PDT Architects

cc: Brian Curley
Eric Rasmussen



Permit #

Permit Date



COMcheck Software Version 3.2.1

Envelope Compliance Certificate

2001 IECC

Report Date: 08/14/06

Data filename: \\Pdt_fs1\data2\temp\Marilyn\COMchk\PDT Project COMChecks\DeltaRoofing.04aug06.cck

Section 1: Project Information

Project Title: DELTA ROOFING OFFICE/WAREHOUSE

Construction Site:

1039 Riverside Street
Portland, ME 04103
Permit No. 06097

Owner/Agent:

Scott Leeman
Delta Roofing
1039 Riverside Street
Portland, ME 04103
207.878.1732
sleeman@deltaroofting.com

Designer/Contractor:

Brian Curley
PDT Architects
49 Dartmouth Street
Portland, ME 04103
207.775.1059
curley@pdtarchs.com

Section 2: General Information

Building Location (for weather data): **Portland, Maine**
Climate Zone: **15**
Heating Degree Days (base 65 degrees F): **7378**
Cooling Degree Days (base 65 degrees F): **268**
Project Type: **New Construction**
Vertical Glazing / Wall Area Pct.: **2%**

<u>Activity Type(s)</u>	<u>Floor Area</u>
Office	3270
Storage, Industrial and Commercial	6432
Industrial Work, >= 20 ft Ceiling Height	1800

Section 3: Requirements Checklist

Envelope PASSES: Design 32% better than code.

Climate-Specific Requirements:

Component Name/Description	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor
Orientation: NORTH					
Exterior Wall 1: Metal Frame, 16" o.c.	2807	0.0	12.5	0.068	0.075
Window 1: Metal Frame with Thermal Break:Double Pane with Low-E, Clear, SHGC 0.52	108	---	---	0.330	0.526
Door 1: Solid	84	---	---	0.240	0.122
Door 2: Overhead	336	---	---	0.067	0.122
Exterior Wall 2: Solid Concrete or Masonry <= 8", Furring: Wood	412	12.5	0.0	0.102	0.075
Orientation: EAST					
Exterior Wall 5: Metal Frame, 16" o.c.	1680	0.0	12.5	0.068	0.075
Exterior Wall 6: Solid Concrete or Masonry <= 8", Furring: Wood	320	12.5	0.0	0.102	0.075
Orientation: SOUTH					
Exterior Wall 3: Metal Frame, 16" o.c.	2807	0.0	12.5	0.068	0.075

Window 2: Metal Frame with Thermal Break:Double Pane with Low-E, Clear, SHGC 0.52	45	---	---	0.330	0.526
Door 3: Solid	42	---	---	0.240	0.122
Exterior Wall 4: Solid Concrete or Masonry <= 8", Furring: Wood	412	12.5	0.0	0.102	0.075
Orientation: WEST					
Exterior Wall 7: Metal Frame, 16" o.c.	2000	0.0	12.5	0.068	0.075
Window 3: Metal Frame with Thermal Break:Double Pane with Low-E, Clear, SHGC 0.52	99	---	---	0.330	0.526
Door 4: Air Lock Entry	240	---	---	0.330	0.122
Orientation: UNSPECIFIED ORIENTATION					
Roof 1: Metal Roof with Thermal Blocks	11502	0.0	35.2	0.028	0.053
Skylight 1: Metal Frame with Thermal Break:Double Pane with Low-E, Tinted, SHGC 0.52	200	---	---	0.700	0.053
Interior Wall 1: Metal Frame, 16" o.c.	4150	19.5	0.0	0.109	0.122
Floor 1: Slab-On-Grade:Unheated, Vertical 4 ft.	458	---	5.0	---	---

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.

Air Leakage, Component Certification, and Vapor Retarder Requirements:

- 1. All joints and penetrations are caulked, gasketed or covered with a moisture vapor-permeable wrapping material installed in accordance with the manufacturer's installation instructions.
- 2. Windows, doors, and skylights certified as meeting leakage requirements.
- 3. Component R-values & U-factors labeled as certified.
- 4. Insulation installed according to manufacturer's instructions, in substantial contact with the surface being insulated, and in a manner that achieves the rated R-value without compressing the insulation.
- 5. Stair, elevator shaft vents, and other dampers integral to the building envelope are equipped with motorized dampers.
- 6. Cargo doors and loading dock doors are weather sealed.
- 7. Recessed lighting fixtures are: (i) Type IC rated and sealed or gasketed; or (ii) installed inside an appropriate air-tight assembly with a 0.5 inch clearance from combustible materials and with 3 inches clearance from insulation material.
- 8. Building entrance doors have a vestibule and equipped with closing devices.
Exceptions:
 Building entrances with revolving doors.
 Doors that open directly from a space less than 3000 sq. ft. in area.
- 9. Vapor retarder installed.

Section 4: Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed envelope system has been designed to meet the 2001 IECC, Chapter 8, requirements in COMcheck Version 3.2.1 and to comply with the mandatory requirements in the Requirements Checklist.

Brian Curley
Principal Envelope Designer-Name

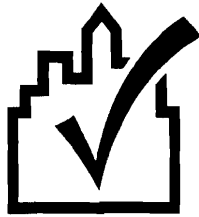

Signature

8/9/06
Date

Project Notes:

GENERAL CONTRACTOR: Robert Gaudreau
 Hardypond Construction
 1039 Riverside Street
 Portland, Maine 04103
 207.797.6066

Permit #
Permit Date



COMcheck Software Version 3.2.1 Lighting Compliance Certificate

2001 IECC

Report Date: 08/14/06

Data filename: \\Pdt_fs1\data2\temp\Marilyn\COMchk\PDT Project COMChecks\DeltaRoofing.04aug06.cck

Section 1: Project Information

Project Title: DELTA ROOFING OFFICE/WAREHOUSE

Construction Site:
1039 Riverside Street
Portland, ME 04103
Permit No. 06097

Owner/Agent:
Scott Leeman
Delta Roofing
1039 Riverside Street
Portland, ME 04103
207.878.1732
sleeman@deltarroofing.com

Designer/Contractor:
Brian Curley
PDT Architects
49 Dartmouth Street
Portland, ME 04103
207.775.1059
curley@pdtarchs.com

Section 2: General Information

Building Use Description by: **Activity Type**
Project Type: **New Construction**

<u>Activity Type(s)</u>	<u>Floor Area</u>
Office	3270
Storage, Industrial and Commercial	6432
Industrial Work, >= 20 ft Ceiling Height	1800

Section 3: Requirements Checklist

Interior Lighting:

1. Total actual watts must be less than or equal to total allowed watts.

Allowed Watts	Actual Watts	Complies
16737	10206	YES

Exterior Lighting:

2. Efficacy greater than 45 lumens/W.

Exceptions:

Specialized lighting highlighting features of historic buildings; signage; safety or security lighting; low-voltage landscape lighting.

Controls, Switching, and Wiring:

3. Independent controls for each space (switch/occupancy sensor).

Exceptions:

Areas designated as security or emergency areas that must be continuously illuminated.
Lighting in stairways or corridors that are elements of the means of egress.

4. Master switch at entry to hotel/motel guest room.

5. Each space provided with a manual control to provide uniform light reduction capability.

Exceptions:

Only one luminaire in space;

An occupant-sensing device controls the area;
The area is a corridor, storeroom, restroom, public lobby or guest room;
Areas greater than 250 sq.ft.

- 6. Automatic lighting shutoff control in spaces greater than 250 sq.ft in buildings larger than 5,000 sq.ft.
- 7. Photocell/astronomical time switch on exterior lights.
Exceptions:
Lighting intended for 24 hour use.
- 8. Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).
Exceptions:
Electronic high-frequency ballasts; Luminaires not on same switch.

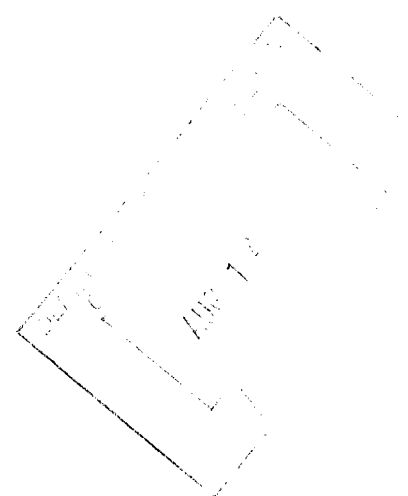
Section 4: Compliance Statement

Compliance Statement: The proposed lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2001 IECC, Chapter 8, requirements in COMcheck Version 3.2.1 and to comply with the mandatory requirements in the Requirements Checklist.

Brian M. Curley
Principal Lighting Designer-Name

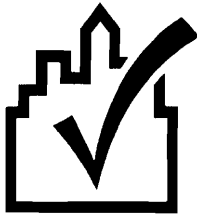
BMC
Signature

8/9/06
Date



Permit #

Permit Date



COMcheck Software Version 3.2.1

Lighting Application Worksheet

2001 IECC

Report Date:

Data filename: \\Pdt_fs1\data2\temp\Marilyn\COMchk\PDT Project COMChecks\DeltaRoofing.04aug06.cck

Section 1: Allowed Lighting Power Calculation

A Area Category	B Floor Area (ft ²)	C Allowed Watts / ft ²	D Allowed Watts (B x C)
Office	3270	1.5	4905
Storage, Industrial and Commercial	6432	1	6432
Industrial Work, >= 20 ft Ceiling Height	1800	3	5400
Total Allowed Watts =			16737

Section 2: Actual Lighting Power Calculation

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Incandescent 1: L1: downlights / Incandescent 50W	1	2	50	100
HID 1: L2: wall washers / Metal Halide 70W / Magnetic	1	2	70	140
Incandescent 2: L3: low voltage track / Incandescent 50W	4	2	200	400
Linear Fluorescent 1: L4: 2x2 parabolic / 24" T8U 32W / Electronic	2	31	64	1984
Linear Fluorescent 2: L5: 2x4 parabolic / 48" T8 32W / Electronic	3	22	96	2112
Linear Fluorescent 3: L7: 2x4 high output indust. / 46" T5 54W / Electronic	4	6	216	1296
HID 2: L8: Halo-owner provided / Metal Halide 175W / Magnetic	1	15	175	2625
HID 3: L9: wall packs / Metal Halide 175W / Magnetic	1	7	175	1225
Linear Fluorescent 4: 46" T5 54W / Electronic	2	3	108	324
Total Actual Watts =			10206	

Section 3: Compliance Calculation

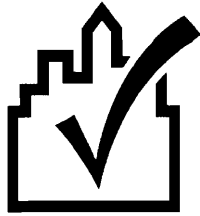
If the Total Allowed Watts minus the Total Actual Watts is greater than or equal to zero, the building complies.

Total Allowed Watts = 16737
 Total Actual Watts = 10206
 Project Compliance = 6531

Lighting PASSES: Design 39% better than code.

Permit #

Permit Date



COMcheck Software Version 3.2.1

Mechanical Compliance Certificate

2001 IECC

Report Date: 08/14/06

Data filename: \\Pdt_fs1\data2\temp\Marilyn\COMchk\PDt Project COMChecks\DeltaRoofing.04aug06.cck

Section 1: Project Information

Project Title: DELTA ROOFING OFFICE/WAREHOUSE

Construction Site:
1039 Riverside Street
Portland, ME 04103
Permit No. 06097

Owner/Agent:
Scott Leeman
Delta Roofing
1039 Riverside Street
Portland, ME 04103
207.878.1732
sleeman@deltarroofing.com

Designer/Contractor:
Brian Curley
PDT Architects
49 Dartmouth Street
Portland, ME 04103
207.775.1059
curley@pdtarchs.com

Section 2: General Information

Building Location (for weather data): **Portland, Maine**
Climate Zone: **15**
Heating Degree Days (base 65 degrees F): **7378**
Cooling Degree Days (base 65 degrees F): **268**
Project Type: **New Construction**

Section 3: Mechanical Systems List

Quantity **System Type & Description**

- 1 HVAC System 4: Heating: Duct Furnace, Gas / Cooling: Rooftop Package Unit, Capacity >=90 - <135 kBtu/h, Air-Cooled Condenser / Multiple-Zone
- 1 Plant 1: Cooling: Condensing Unit, Capacity <135 kBtu/h, Condenser Air-Cooled

Section 4: Requirements Checklist

Requirements Specific To: HVAC System 4 :

- 1. Equipment minimum efficiency: Duct Furnace (Gas): 80% Ec
- 2. Minimum one temperature control device per zone
- 3. Equipment minimum efficiency: Rooftop Package Unit: 10.3 EER
- 4. Discharge dampers prohibited with fan motors >25 hp
- 5. Balancing and pressure test connections on all hydronic terminal devices
- 6. Integrated air economizer required
- 7. Systems serving more than one zone must be VAV systems
- 8. Single-duct VAV terminals reduce primary air before reheating
- 9. Controls capable of resetting supply air temp (SAT) by 25% of SAT-room temp difference
- 10. Fan equipped with mechanical variable-speed drive

Requirements Specific To: Plant 1 :

- 1. Newly purchased cooling equipment meets the cooling efficiency requirements

Generic Requirements: Must be met by all systems to which the requirement is applicable:

- 1. Load calculations per 2001 ASHRAE Fundamentals
- 2. Plant equipment and system capacity no greater than needed to meet loads
 - Exception: Standby equipment automatically off when primary system is operating
 - Exception: Multiple units controlled to sequence operation as a function of load
- 3. Minimum one temperature control device per system
- 4. Minimum one humidity control device per installed humidification/dehumidification system
- 5. Thermostatic controls has 5 degrees F deadband
 - Exception: Thermostats requiring manual changeover between heating and cooling
- 6. Automatic Controls: Setback to 55 degrees F (heat) and 85 degrees F (cool); 7-day clock, 2-hour occupant override, 10-hour backup
 - Exception: Continuously operating zones
 - Exception: 2 kW demand or less, submit calculations
- 7. Automatic shut-off dampers on exhaust systems and supply systems with airflow >3,000 cfm
- 8. Outside-air source for ventilation; system capable of reducing OSA to required minimum
- 9. R-5 supply and return air duct insulation in unconditioned spaces R-8 supply and return air duct insulation outside the building R-8 insulation between ducts and the building exterior when ducts are part of a building assembly
 - Exception: Ducts located within equipment
 - Exception: Ducts with interior and exterior temperature difference not exceeding 15 degrees F.
- 10. Ducts sealed - longitudinal seams on rigid ducts; transverse seams on all ducts; UL 181A or 181B tapes and mastics
- 11. Mechanical fasteners and sealants used to connect ducts and air distribution equipment
- 12. Hot water pipe insulation: 1 in. for pipes <=1.5 in. and 2 in. for pipes >1.5 in. Chilled water/refrigerant/brine pipe insulation: 1 in. for pipes <=1.5 in. and 1.5 in. for pipes >1.5 in. Steam pipe insulation: 1.5 in. for pipes <=1.5 in. and 3 in. for pipes >1.5 in.
 - Exception: Piping within HVAC equipment
 - Exception: Fluid temperatures between 55 and 105 degrees F
 - Exception: Fluid not heated or cooled
 - Exception: Runouts <4 ft in length
- 13. Operation and maintenance manual provided to building owner
- 14. Balancing devices provided in accordance with IMC 603.15
- 15. Stair and elevator shaft vents are equipped with motorized dampers

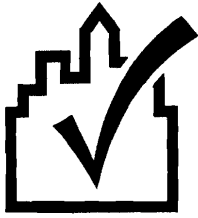
Section 5: Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2001 IECC, Chapter 8, requirements in COMcheck Version 3.2.1 and to comply with the mandatory requirements in the Requirements Checklist.

Brian M. Curley
Principal Mechanical Designer-Name

BMC
Signature

8/9/06
Date



COMcheck Software Version 3.2.1

Mechanical Requirements Description

2001 IECC

Report Date:

Data filename: \\Pdt_fs1\data2\temp\Marilyn\COMchk\PDT Project COMChecks\DeltaRoofing.04aug06.cck

The following list provides more detailed descriptions of the requirements in Section 4 of the Mechanical Compliance Certificate.

Requirements Specific To: HVAC System 4 :

1. The specified heating and/or cooling equipment is covered by the ASHRAE 90.1 Code and must meet the following minimum efficiency: Duct Furnace (Gas): 80% Ec
2. Each zone of a multiple-zone system must have its own temperature control device.
3. The specified heating and/or cooling equipment is covered by ASHRAE 90.1 Code and must meet the following minimum efficiency: Rooftop Package Unit: 10.3 EER
4. Fans with motors >25 hp may not be equipped with discharge dampers.
5. Hydronic heating and cooling coils must be equipped with a way to pressure test connections and measure and balance water flow and pressure.
6. An integrated air economizer is required for individual cooling systems over 65 kBtu/h in the selected climate. An integrated economizer allows simultaneous operation of outdoor-air and mechanical cooling.
7. Systems serving multiple thermostatic control zones must be variable-flow systems. Zone terminal controls must reduce the flow of primary supply air before reheating, recooling, or mixing air streams.
8. The specified multiple-zone system is equipped with single-duct VAV terminals. These terminals must be equipped with dampers, air valves, or other means to reduce the supply of primary supply air to a minimum prior to reheating.
9. Multiple-zone systems must include controls capable of resetting the supply air temperature by at least 25% of the difference between the design supply air temperature and the design room temperature.
10. Fans over 25 hp on a variable-flow system must have mechanical variable-speed drives.

Requirements Specific To: Plant 1 :

1. The specified cooling equipment is covered by Federal minimum efficiency requirements. New equipment of this type can be assumed to meet or exceed ASHRAE 90.1 Code requirements for equipment efficiency.

Generic Requirements: Must be met by all systems to which the requirement is applicable:

1. Design heating and cooling loads for the building must be determined using procedures in the ASHRAE Handbook of Fundamentals or an approved equivalent calculation procedure.
2. All equipment and systems must be sized to be no greater than needed to meet calculated loads. A single piece of equipment providing both heating and cooling must satisfy this provision for one function with the capacity for the other function as small as possible, within available equipment options.
 - Exception: The equipment and/or system capacity may be greater than calculated loads for standby purposes. Standby equipment must be automatically controlled to be off when the primary equipment and/or system is operating.
 - Exception: Multiple units of the same equipment type whose combined capacities exceed the calculated load are allowed if they are provided with controls to sequence operation of the units as the load increases or decreases.
3. Each heating or cooling system serving a single zone must have its own temperature control device.
4. Each humidification system must have its own humidity control device.
5. Thermostats controlling both heating and cooling must be capable of maintaining a 5 degrees F deadband (a range of temperature where no heating or cooling is provided).
 - Exception: Deadband capability is not required if the thermostat does not have automatic changeover capability between heating and cooling.
6. The system or zone control must be a programmable thermostat or other automatic control meeting the following criteria:a) capable of setting back temperature to 55 degrees F during heating and setting up to 85 degrees F during coolingb) capable of automatically setting back or shutting down systems during unoccupied hours using 7 different day schedulesc) have an accessible 2-hour occupant overridden) have a battery back-up capable of maintaining programmed settings for at least 10 hours without power.

- Exception: A setback or shutoff control is not required on thermostats that control systems serving areas that operate continuously.
 - Exception: A setback or shutoff control is not required on systems with total energy demand of 2 kW (6,826 Btu/h) or less.
7. Outdoor-air supply systems with design airflow rates >3,000 cfm of outdoor air and all exhaust systems must have dampers that are automatically closed while the equipment is not operating.
 8. The system must supply outside ventilation air as required by Chapter 4 of the International Mechanical Code. If the ventilation system is designed to supply outdoor-air quantities exceeding minimum required levels, the system must be capable of reducing outdoor-air flow to the minimum required levels.
 9. Air ducts must be insulated to the following levels:
 - a) Supply and return air ducts for conditioned air located in unconditioned spaces (spaces neither heated nor cooled) must be insulated with a minimum of R-5. Unconditioned spaces include attics, crawl spaces, unheated basements, and unheated garages.
 - b) Supply and return air ducts and plenums must be insulated to a minimum of R-8 when located outside the building.
 - c) When ducts are located within exterior components (e.g., floors or roofs), minimum R-8 insulation is required only between the duct and the building exterior.
 - Exception: Duct insulation is not required on ducts located within equipment.
 - Exception: Duct insulation is not required when the design temperature difference between the interior and exterior of the duct or plenum does not exceed 15 degrees F.
 10. All joints, longitudinal and transverse seams, and connections in ductwork must be securely sealed using weldments; mechanical fasteners with seals, gaskets, or mastics; mesh and mastic sealing systems; or tapes. Tapes and mastics must be listed and labeled in accordance with UL 181A or UL 181B.
 11. Mechanical fasteners and seals, mastics, or gaskets must be used when connecting ducts to fans and other air distribution equipment, including multiple-zone terminal units.
 12. All pipes serving space-conditioning systems must be insulated as follows: Hot water piping for heating systems: 1 in. for pipes <=1 1/2-in. nominal diameter 2 in. for pipes >1 1/2-in. nominal diameter. Chilled water, refrigerant, and brine piping systems: 1 in. insulation for pipes <=1 1/2-in. nominal diameter 1 1/2 in. insulation for pipes >1 1/2-in. nominal diameter. Steam piping: 1 1/2 in. insulation for pipes <=1 1/2-in. nominal diameter 3 in. insulation for pipes >1 1/2-in. nominal diameter.
 - Exception: Pipe insulation is not required for factory-installed piping within HVAC equipment.
 - Exception: Pipe insulation is not required for piping that conveys fluids having a design operating temperature range between 55 degrees F and 105 degrees F.
 - Exception: Pipe insulation is not required for piping that conveys fluids that have not been heated or cooled through the use of fossil fuels or electric power.
 - Exception: Pipe insulation is not required for runout piping not exceeding 4 ft in length and 1 in. in diameter between the control valve and HVAC coil.
 13. Operation and maintenance documentation must be provided to the owner that includes at least the following information:
 - a) equipment capacity (input and output) and required maintenance actions
 - b) equipment operation and maintenance manuals
 - c) HVAC system control maintenance and calibration information, including wiring diagrams, schematics, and control sequence descriptions; desired or field-determined set points must be permanently recorded on control drawings, at control devices, or, for digital control systems, in programming comments
 - d) complete narrative of how each system is intended to operate.
 14. Each supply air outlet or diffuser and each zone terminal device (such as VAV or mixing box) must have its own balancing device. Acceptable balancing devices include adjustable dampers located within the ductwork, terminal devices, and supply air diffusers.
 15. Stair and elevator shaft vents must be equipped with motorized dampers capable of being automatically closed during normal building operation and interlocked to open as required by fire and smoke detection systems. All gravity outdoor air supply and exhaust hoods, vents, and ventilators must be equipped with motorized dampers that will automatically shut when the spaces served are not in use. Exceptions:
 - Gravity (non-motorized) dampers are acceptable in buildings less than three stories in height above grade.
 - Ventilation systems serving unconditioned spaces.

CUNNINGHAM

Security Systems

313 Read Street, Portland, ME 04103
207-878-5858

331 A1

July 24, 2006

Attn: Captain Cass
City of Portland Building Inspections
389 Congress Street, Room #315
Portland, ME 04101
Fax#: (207) 874-8716

Dear Captain Cass,

This letter is to inform you that the Fire Alarm System located at Bio-Processing, 1045 Riverside Street, Portland, ME. has been tested and is fully functional at this time. Test signals have been received at our Central Monitoring Station. The system was designed and installed in accordance with NFPA72A Standards.

Should you have any questions or comments regarding this matter, please feel free to contact me at (207) 878-5858.

Please see attached Zone List.

Sincerely,



Richard P. Valliere, Office Manager

cc: Attn: Alan Cohen, State Fire Marshal
Fax# (207) 287-6251
Acct. File

PLANNING • INSTALLATION • MONITORING • SERVICE
Visit our web site at: WWW.CUNNINGHAMSECURITY.COM

CUNNINGHAM

Security Systems

313 Read Street, Portland, ME 04103
207-878-5858

**BIO-PROCESSING
1045 RIVERSIDE STREET
PORTLAND, ME 04103**

ZONE DESCRIPTIONS

- 25. RECEPTION PULL STATION**
- 26. HALL PULL STATION**
- 27. SHIPPING PULL STATION**
- 28. SPRINKLER FLOW**
- 29. GATE VALVE TAMPER**
- 30. KNOX BOX TAMPER**
- 31. FIRE PANEL SMOKE DETECTOR**

PLANNING • INSTALLATION • MONITORING • SERVICE
Visit our web site at: WWW.CUNNINGHAMSECURITY.COM