DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING PERMIT

This is to certify that PHOENIX PROPERTY SERVICES LLC Located At 144 HUTCHINS DR

Job ID: 2011-10-2520-NEWCOM CBL: 240- A-004-001

has permission to Construct a 105 'x 65' Maintenance Building and 38' x 48' 3-sided Salt Shed
provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.	A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

12/19/11

Fire Prevention Officer — Code Enforcement Officer / Plan Reviewer

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

Certificate of Occupancy

CITY OF PORTLAND, MAINE

Department of Planning and Urban Development
Building Inspections Division

Location: 144 HUTCHINS DR **CBL:** 240 A004001

Issued To: Phoenix Property Services Llc **Issued Date:** 11/29/2012

This is to certify that the building, premises, or part thereof, at the above location, built-altered-changed as to use under Building Permit No. 201111430 has had a final inspection, has been found to conform substantially to the requirements of the Building Code and the Land Use Code of the City of Portland, and is hereby approved for occupancy or use, limited or otherwise, as indicated below.

PORTION OF BUILDING OR PREMISES	APPROVED OCCUPANCY
105' x 65' Maintenance Building	USE GROUP F-1
38' x 48' 3-sided Salt Storage	USE GROUP S
	TYPE 5B
	IBC 2009

LIMITING CONDITIONS: NONE

Approved:

Inspector

Inspection Division Director

Notice: This certificate identifies the legal use of the building or premises, and ought to be transferred from owner to owner upon the sale of the property.

City of Portland, Maine - Building or Use Permit Application

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

Job No:	Date Applied:	CBL:	
2011-10-2520-NEWCOM	10/18/2011	240- A-004-001	
Location of Construction: 144 HUTCHINS DR	Owner Name: Phoenix Property Services LLC	Owner Address: PO Box 759, Saco, ME 04072	Phone: 571-3061
Business Name: Phoenix Property Services	Contractor Name: Portland Builders, Inc.	Contractor Address: 85 York Street, suite 3, Portland, ME 04101	Phone: 879-0118
Lessee/Buyer's Name:	Phone:	Permit Type: BLDG - Building	Zone: I-M
Past Use: Vacant Land	Proposed Use: Construction of a 64'93/4"x108' building for commercial property maintenance – repair of their equipment and storage of salt (sep 3-sided bldg.) and other maintenance items	Cost of Work: $400,000.00	CEO District:
		Fire Dept: ___ Approved w/ conditions ___ Denied ___ N/A Signature: Capt. Prine 11/15/11	Inspection: Use Group: F-1/S-1 Type: IBC 2009 Signature: JMB 12/19/11
Proposed Pro[redacted]		Pedestrian Activities District (P.A.D.)	
Permit Taken[redacted]		Zoning Approval	

1. This per[redacted] Applican[redacted] Federal [redacted]
2. Building[redacted] septic or[redacted]
3. Building[redacted] within si[redacted] False inf[redacted] permit a[redacted]

e or Reviews	Zoning Appeal	Historic Preservation
	___ Variance	✓ Not in Dist or Landmark
	___ Miscellaneous	___ Does not Require Review
	___ Conditional Use	___ Requires Review
	___ Interpretation	___ Approved
	___ Approved	___ Approved w/Conditions
	___ Denied	___ Denied
Min ___ MM		
Date: 11/1/11	Date:	Date:

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the appication 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

4' OC V R.Bar site OK as per plan GF 9:15
12/28/11

2-7-12 DWM Footings Salt Shed 80% OK will provide survey + SI report

3-22-12 DWM Gary 314-6755 underslab plumb OK

5-7-12 DWM Plumbing OK

5-31-12 DWM close-in OK pending revised floor plan

7-31-12 DWM/BKL/Lt Wallace Josh 838-0834 Final Provide: special inspection reports for both buildings, ~~Bridge Span~~ See conditions of approval Buildings #s 2, 3, 4, 5, 6, 9 + Fire 4, 6, Address. Elect Fail

11-29-12 DWM/BKL/Lt Wallace Bill Elec fail, Bldg fail, survey.

Fire OK. ~~Need conditions~~

DWM OK TO Final

BUILDING PERMIT INSPECTION PROCEDURES

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

or email: buildinginspections@portlandmaine.gov

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

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

Footings/Setbacks prior to pouring concrete, salt shed soil preparation or footing

Periodic Rebar Inspections

Underground Plumbing and Electrical Installation

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

Certificate of Occupancy/Final Inspection

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

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

PORTLAND MAINE

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

Director of Planning and Urban Development
Penny St. Louis

Job ID: 2011-10-2520-NEWCOM **Located At:** 144 HUTCHINS DR **CBL:** 240- A-004-001

Conditions of Approval:

Zoning

1. Separate permits shall be required for any new signage.
2. This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.
3. This I-M zone has maximum noise allowances. The City of Portland strictly enforces the level of sound generated on the property. Any verified noise violations shall require the owner to take mitigating measures to bring the property and the noise it generates into compliance.

Building

1. Application approval based upon information provided by applicant. Any deviation from approved plans requires separate review and approval prior to work.
2. Stamped plans shall be submitted for the BriteSpan building design.
3. The specifications of the fabric membrane, including flame characteristics shall be submitted for review.
4. A certificate of compliance is required from the BriteSpan Building Systems fabricator, their affiliates or the EOR indicating the work is in compliance with the approved construction documents.
5. Special Inspections or a sealed compliance letter indicating approval of the erection and anchoring specifications shall be submitted prior to issuance of the Certiificate of Occupancy.
6. Special inspection reports shall be submitted to this office on a periodic basis. Inspections of the Salt Shed soil preparation and foundation system are required. A final special inspection report must be submitted prior to issuance of a certificate of occupancy. This report must demonstrate any deficiencies and corrective measures that were taken.
7. Separate permits are required for any electrical, plumbing, sprinkler, fire alarm, HVAC systems, heating appliances, including pellet/wood stoves, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.
8. Ventilation of this space is required per ASRAE 62.1, 2007 edition.
9. Com check Certificate of Compliance Required

Job ID: 2011-10-2520-NEWCOM Located At: 144 HUTCHINS DR CBL: 240- A-004-001

Fire

1. Installation shall comply with City Code Chapter 10.
2. All construction shall comply with City Code Chapter 10.
3. This permit is being approved on the basis of the plans submitted. Any deviation from the plans would require amendments and approval.
4. As-built documents shall be submitted in pdf to the Building Inspections Office upon completion of job.
5. All smoke detectors and smoke alarms shall be photoelectric.
6. Fire extinguishers are required per NFPA 10.
7. Two means of egress are required from every story. "MRSA Title 25 § 2453"
8. Occupancies with an occupant load of 100 persons or more require panic hardware on all doors serving as a means of egress.
9. Emergency lights and exit signs are required. Emergency lights and exit signs are required to be labeled in relation to the panel and circuit and on the same circuit as the lighting for the area they serve.
10. Any cutting and welding done will require a Hot Work Permit from Fire Department.
11. Walls in structure are to be labeled according to fire resistance rating. IE; 1 hr. / 2 hr. / smoke proof.
12. A single source supplier should be used for all through penetrations.

Jeanie Bourke - 144 Hutchins Drive - Phoenix Property Maintenance Facility

From: Philip DiPierro
To: Code Enforcement & Inspections
Date: 12/6/2011 12:45 PM
Subject: 144 Hutchins Drive - Phoenix Property Maintenance Facility
CC: Wiar, Shukria

Hi all, this project, site plan #2011-286, the Phoenix Property Maintenance Facility located at 144 Hutchins Drive, meets minimum DRC site plan requirements for the issuance of the building permit.

Contact me with any questions. Thanks.

Phil

Entered PDF

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: 144 Hutchins Road		
Total Square Footage of Proposed Structure/Area: 6,825 SF	Square Footage of Lot	
Tax Assessor's Chart, Block & Lot Chart# 240 Block# A Lot# 4	Applicant *must be owner, Lessee or Buyer* Name Phoenix Property Services LLC Address PO Box 759 City, State & Zip Saco, ME 04072	Telephone: 571-3061
Lessee/DBA (If Applicable)	Owner (if different from Applicant) Name Address City, State & Zip	Cost Of Work: $ 360,200 C of O Fee: $ 75.00 Total Fee: $ 3,707

RECEIVED
OCT 18 2011
Dept. of Building Inspections
City of Portland Maine

Current legal use (i.e. single family) vacant
If vacant, what was the previous use? vacant
Proposed Specific use: Warehouse Storage
Is property part of a subdivision? no If yes, please name
Project description:
Construction of a 6,825 SF Industrial Building

Contractor's name: Portland Builders, Inc.
Address: 85 York Street, Suite 3
City, State & Zip Portland, ME 04101 Telephone: 879-0118
Who should we contact when the permit is ready: Josh Cushman Telephone: 838-0834
Mailing address: PO Box 4902, Portland ME 04112

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

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

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

Signature: Date: 10-17-11

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

Applicant: Phoenix Property Services. Date: 7/1/11

Address: 144 Hutchins Dr. C-B-L: 240-A-004

CHECK-LIST AGAINST ZONING ORDINANCE

Level II Site Plan - 2011-286

Date - vacant land.

Zone Location - IM

64'9 3/4" x 108' = 7,000#

Interior or corner lot - ~~(65x107=6955#)~~ commercial Property Management Co "Phoenix Management"

Proposed Use/Work - 7,000# commercial maintenance building, 2400# salt shed & parking repair service & warehousing/distribution

Sewage Disposal - public

Lot Street Frontage - 60' min. - 235 on subdivision (ok)

Front Yard - one foot each foot of building height. - 125'+ shown

Rear Yard - one foot each foot of building height - max 25' - site plan shows 25 setback - yes

Side Yard - one foot for each foot of building height up to 25' - site plan shows ~~25~~ 22' setback

Projections - N/A

Width of Lot - N/A

Height - 75' max. - Showing 19'7 5/8" to peak.

Lot Area - no requirement. - ~~94,090~~# given 94,002 in their calcs ~~29,806#~~

ok Lot Coverage/Impervious Surface - 75% = 70,567.5. - ~~31%~~ given ~~94,002~~ 29158/94090 = 31%

Area per Family - N/A

Off-street Parking - 14-332(1) floor area over 3,000# - 1 space for each 1,000# 6955 ÷ 1000 = 7 spaces. - 14 spc shown

Loading Bays - N/A

Site Plan - Level II - 2011-286

Shoreland Zoning/Stream Protection - N/A.

Flood Plains - panel 12 - zone X

* pavement setback from boundaries - 10' - shown on site plan

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Director of Planning and Urban Development
Penny St. Louis

October 18, 2011

Phoenix Property Services
Attention: Aaron Bateman
PO Box 759
Saco, ME 04072

Attar Engineering, Inc.
Attention: Kenneth A. Woods, PE
1284 State Road
Eliot, ME 03903

Project Name:	144 Hutchins Drive; Maintenance Facility	**Project ID:**	2011-286
Address:	144 Hutchins Drive	**CBL:**	240- A-004-001
Applicant:	Phoenix Property Services		
Planner:	Shukria Wiar		

Dear Mr. Bateman:

On October 17, 2011, the Planning Authority approved a Level II site plan application for maintenance facility, salt shed and site improvements at 144 Hutchins Drive as submitted by Christopher Stairs of Attar Engineering, Inc. and shown on the approved plan prepared by Attar Engineering, Inc. with a revision date of 10.17.2011 with the following conditions:

1. The applicant shall contribute $5,000 to the City in lieu of constructing the required 5 foot wide bituminous asphalt sidewalk on the proposal site. The contribution shall be made prior to the issuance of a building permit, and be used by the City to construct sidewalk/curbing along Hutchins Drive in the vicinity of the project; and

2. The applicant shall provide the status of the registration with MaineDEP Rule Chapter 574; all documentation shall be forwarded to the Planning Division prior to the issuance of a building permit; and

3. A Landscaping Plan shall be submitted, addressing the City Arborist memorandum dated 10.06.2011 for review and approval by the City Arborist and the Planning Authority prior to the issuance of a building permit; and

4. The approved retaining wall require engineered drawing to be reviewed and approved by the Inspections Division and Planning Authority prior to the issuance of building permit; and

5. The applicant shall submit utility capacity letters for water and wastewater prior to the issuance of building permit.

6. A revised photometric plan will be submitted for review and approval by the Planning Authority prior to the issuance of a building permit; the proposed lighting fixture at the entrance shall include house-side shield to meet the standard for illuminations.

7. If the applicant or all assigns intends to keep exposed stockpiles of loam, compost, etc. on site, either in the present or in the future, an Operation and Maintenance Plan shall be submitted to specify of how the exposed stockpiles would be managed to prevent erosion; and

8. The applicant and all assigns, must comply with the conditions of Chapter 32 Storm Water including Article III. Post-Construction Storm Water Management, which specifies the annual inspections and reporting requirements. The developer/contractor/subcontractor must comply with conditions of the construction storm water management plan and sediment & erosion control plan based on our standards and state guidelines.

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

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

1. **Develop Site According to Plan** The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Modification of any approved site plan or alteration of a parcel which was the subject of site plan approval after May 20, 1974, shall require the prior approval of a revised site plan by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.

2. **Separate Building Permits Are Required** This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Inspection Division.

3. **Site Plan Expiration** The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.

4. **Performance Guarantee and Inspection Fees** A performance guarantee covering the site improvements, inspection fee payment of 2.0% of the guarantee amount and seven (7) final sets of plans must be submitted to and approved by the Planning Division and Public Services Department prior to the release of a building permit, street opening permit or certificate of occupancy for site plans. If you need to make any modifications to the approved plans, you must submit a revised site plan application for staff review and approval.

5. **Defect Guarantee** A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

6. **Preconstruction Meeting** Prior to construction, a pre-construction meeting shall be held at the project site. This meeting will be held with the contractor, Development Review Coordinator, Public Service's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan. The site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.

7. **Department of Public Services Permits** If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

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

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

If there are any questions, please contact Shukria Wiar at (207) 756-8083 or via shukriaw@portlandmaine.gov

Sincerely,

Alexander Jaegerman
Planning Division Director

Attachments:

1. Jeff Tarling memo dated 10.06.2011
2. Performance Guarantee Packet

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

Comments Submitted

8/24/11

City of Portland
Development Review Application
Planning Division Transmittal form

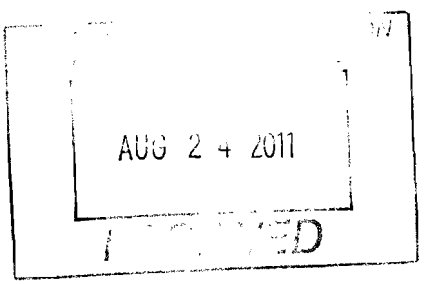
Application Number:	2011-286	**Application Date:**	6/21/2011 12:00:00 AM
CBL:	240-a-4		
Project Name:	Hutchins Drive Maintenance Facility		
Address:	144 Hutchins Drive		
Project Description:	Maintenance Facility Building		
Zoning:	IM		
Other Reviews Required:			
Review Type:	Level II		

revised plans
Near wetlands? Saltshed — ok per Zoning

Distribution List:

☐ Planner	Shukria Wiar	☐ Parking	John Peverada
☐ ZoningAdministrator	Marge Schmuckal	☐ Design Review	Alex Jaegerman
☐ Traffic	Tom Errico	☐ Corporation Counsel	Danielle West-Chuhta
☐ Stormwater	Dan Goyette	☐ Sanitary Sewer	John Emerson
☐ Fire Department	Keith Gautreau	☐ Inspections	Tammy Munson
☐ City Arborist	Jeff Tarling	☐ Historic Preservation	Deb Andrews
☐ Engineering	David Margolis-Pineo	☐ Outside Agency	
		☐ DRC Coordinator	Phil DiPierro

Final Comments needed by: August 31, 2011



Ann Machado, Zoning Specialist

July 6, 2011

This property is located in the I-M Zone. This is the initial site plan submittal. In order to complete my review I need more information. Some of the information submitted was also inaccurate.

1. I have a question about the total impervious surface on the site. The Project Data Sheet on the application gives the Proposed Total Paved Area as 21,658 sf. It gives the Proposed Total Impervious Area as 30,234 sf. Where does this calculation come from? The Proposed Building Footprint is 9,400 sf. If you add that to the Proposed Total Paved area the amount is 31,058 sf. Also on the site plan the maximum impervious surface ration gives the figure as 29,800 sf. I need to know what the Total Proposed Impervious Surface is.
2. I need more detail on exactly what the proposed use is. The Project Summary states that the use is a combination of repair services and warehousing and distribution. These are both permitted uses but I would like more information on exactly what is being repaired and what is being warehoused.
3. The zoning assessment on the site plan states that the maximum front yard is 25'. There is not a maximum front yard setback. There is a minimum setback based on the height of the building. The building must be set back one foot for each one foot of building height. We were not given elevation plans, so I cannot determine what the front yard setback should be so I don't know if it is being met.
4. To determine the parking requirement I need floor plans of the maintenance facility. Is there any office space within the building or is it all "industrial" space? Is there more than one floor? The required parking calculation on the site plan says 8,000 sf of industrial space but the footprint of the building is 7,000 sf.

144 Hutchins Drive - #240-A-004 - #2011-286

9/8/2011

I have reviewed the most recent submittal of 8/25/2011. The information submitted shows that the applicant meets the I-M Zoning requirements.

Separate building permits are required for construction. Separate permits are required for any new signage.

Please note that any HVAC systems will be required to meet the maximum noise allowances of the I-M zone. This office will require catalogue cuts showing the number of dBAs that will emanate from the specific units at the time of permit application.

Marge Schmuckal

Zoning Administrator

Ann Machado, Zoning Specialist

News upload in eplan on 8/25/11

July 6, 2011

This property is located in the I-M Zone. This is the initial site plan submittal. In order to complete my review I need more information. Some of the information submitted was also inaccurate.

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4. To determine the parking requirement I need floor plans of the maintenance facility. Is there any office space within the building or is it all "industrial" space? Is there more than one floor? The required parking calculation on the site plan says 8,000 sf of industrial space but the footprint of the building is 7,000 sf. floor plans look open

FILE COPY

ATTAR
ENGINEERING, INC
CIVIL • STRUCTURAL • MARINE

Input on 8/25/11 on e-plan

Shukria Wiar, Planner
City of Portland
389 Congress St.
Portland, Maine 04101

August 3, 2011
Project No.: C010-11

RE: Hutchins Drive Maintenance Facility
Hutchins Drive, Portland, ME
Response to comments

Dear Ms. Wiar:

I have attached a revised plan set and Stormwater Management Plan for the referenced project in response to comments provided by the city (letter dated July 11, 2011). The following items have been addressed (format and numbering is consistent with the city's review letter, our responses are in bold):

A. Zoning:

1. Please clarify the total impervious surface on the site. The Project Data Sheet on the application gives the Proposed Total Paved Area as 21,658 sf. It gives the Proposed Total Impervious Area as 30,234 sf. Where does this calculation come from? The Proposed Building Footprint is 9,400 sf. If you add that to the Proposed Total Paved area the amount is 31,058 sf. Also on the site plan the maximum impervious surface ration gives the figure as 29,800 sf. What the Total Proposed Impervious Surface is?

   See General Note 3 for site impervious area. Total impervious area is 29,751 SF, which may vary from General Note 3 due to paving within the Right-of-Way.

2. More detail on exactly what the proposed use is for the site. The Project Summary states that the use is a combination of repair services and warehousing and distribution. These are both permitted uses but more information on exactly what is being repaired and what is being warehoused is needed.

   A detailed description of the use and hours of operation has been provided in General Note 2.

   maintenance Bldg for Phoenix Manufacturing

3. The zoning assessment on the site plan states that the maximum front yard is 25'. There is not a maximum front yard setback. There is a minimum setback based on the height of the building. The building must be set back one foot for each one foot of building height. The elevation plans were not submitted; please submit elevations so that it can be determined if the front setback is being met.

   Building elevations have been provided and the front yard setback has been revised to show a 20' front yard setback on Sheet 1.

4. To determine the parking requirement, floor plans of the maintenance facility will need to be submitted. Is there any office space within the building or is it all "industrial" space? Is there more than one floor? The required parking calculation on the site plan says 8,000 sf of industrial space but the footprint of the building is 7,000 sf.

Floor plan has been provided along with the building elevations, building footprint is 7,000 SF. Parking requirements have been addressed in General Note 6.

B. Planning:

1. Site Lighting: all exterior site lighting, including lighting of building entrances, shall be full cutoff with no light emitted above the horizontal plane or spilled onto adjacent properties and streets. Please submit catalogue cuts for proposed lighting. Is the applicant proposing any lighting for the roadways and parking lot?

   Lighting plan and cut sheets have been provided, all fixtures have been designed as full cutoff.

2. Street Lighting. (i) Municipal street lighting shall be adequate for the safety and comfort of pedestrians and motorists and, where applicable, shall conform to specific lighting district requirements, as specified in Section 10 of the Technical Manual.

   The following note has been added to Sheet 2, "Proposed utility pole to be equipped with street light conforming to Section 10 of the technical manual (coordinate installation with CMP)"

3. Please submit elevations of the building for fire and zoning compliance.

   Building elevations are enclosed.

4. All proposed developments shall provide sidewalks along all frontages in accordance with Sections 14-498 and 14-499 of the City Code, installed to City specifications as described in Section 1 of the Technical Manual. An applicant may request a waiver from curb and sidewalk installation requirements if they meet applicable waiver criteria listed in Section 14-506 (b) of the City Code. No Sidewalk proposed. There is existing sidewalk nearby on other side of Hutchins from property. A sidewalk along the frontage of 121 Hutchins Drive has been approved and will be constructed.

   We are requesting a waiver for the requirements set forth in sections 14-498 and 14-499 of the city code (sidewalks and granite curbing). There is no sidewalk within 1000' of the project on the same side of the road.

5. Parking spaces and aisles shall meet applicable dimensional standards as detailed in Section 1 of the Technical Manual.

   All parking space and aisle dimensions have been provided on the Site Plan, Sheet 1.

6. The site plan shall provide secure bicycle parking in conformance with Section 1 of the Technical Manual and shall meet the following requirements: For Non-residential structures. Two (2) bicycle parking spaces for every ten (10) vehicle parking spaces for the first one hundred (100) required vehicle parking spaces, plus one (1) bicycle parking space for every twenty (20) required motor vehicle parking space over one hundred (100) required vehicle parking spaces.

   Bicycle parking is shown within the building on the floor plan, Sheet 3 of 3.

7. The applicant will need to submit for a sign permit (a separate permit) for the proposed project sign.

   Sheet 1, General Note 9 has been revised to reflect this requirement.

8. A survey plan needs to be submitted for review. Has the pins for the Stroudwater Estate subdivision been set?

   The stamped boundary survey has been submitted, a copy is attached. The lot has been monumented.

9. Availability and Adequate Capacity of Public Utilities: Please submit approved utility capacity letters.

   Letters of capacity for public utilities have been obtained and are included in this submittal.

10. The site plan shall preserve and protect significant natural features by incorporating them into site design.

8/25/11 submittal

GENERAL NOTES

1. THIS PLAN PROVIDES DETAILS FOR THE APPROVAL AND CONSTRUCTION OF A 7,000 SF INDUSTRIAL BUILDING WITH A SEPARATE 2,400 SF SALT SHED IN PORTLAND, MAINE. THE SITE IS LOCATED AT 144 HUTCHINS DRIVE AND IS IDENTIFIED ON THE CITY OF PORTLAND TAX ASSESSOR'S MAP 240, BLOCK A, LOT 4, AND IS 2.16 ACRES IN AREA WITH 235' OF STREET FRONTAGE ON HUTCHINS DRIVE.

2. THE PROPOSED BUILDING (APPROXIMATELY 7,000 SF FOOTPRINT) SHALL BE A MAINTENANCE FACILITY FOR PHOENIX MANAGEMENT. THE MAIN BUILDING WILL BE USED FOR STORING AND SERVICING EQUIPMENT (PLOW TRUCKS, BACK HOE LOADERS, BOBCATS, TRACTORS, MOWERS, ETC.) FOR THE MAJORITY OF THE YEAR HOURS SHALL BE FROM 5AM TO 9PM. DURING THE WINTER MONTHS THE FACILITY SHALL BE USED TO STORE AND SELL SALT TO LOCAL CUSTOMERS, HOURS OF OPERATION DURING SNOW EVENTS SHALL BE 24 HOURS.

3. THE PARCEL IS LOCATED IN THE INDUSTRIAL–MODERATE IMPACT (IM) DISTRICT.
DISTRICT REQUIREMENT ARE AS FOLLOWS:

MIN LOT SIZE = N/A
MIN STREET FRONTAGE = 60'
FRONT YARD (BUILDING HEIGHT) = 20'
MIN REAR AND SIDE YARD = 25'
MAX BUILDING HEIGHT = 75'

4. MAXIMUM IMPERVIOUS SURFACE RATIO ALLOWED IS 75% IN THE INDUSTRIAL–MODERATE IMPACT DISTRICT. COVERAGE CALCULATIONS ARE AS FOLLOWS:

29,158 SF / 94,090 SF = 31.0%

5. BOUNDARY, TOPOGRAPHIC AND WETLAND INFORMATION WAS TAKEN FROM REFERENCE 1 AND FIELD OBSERVATIONS TAKEN BY ATTAR ENGINEERING IN MAY OF 2011.

6. REQUIRED PARKING IS CALCULATED AS FOLLOWS:

7000 S.F. INDUSTRIAL SPACE:
(1/1000 S.F.) = 7 SPACES
TOTAL = 7 SPACES

14 SPACES ARE PROVIDED, OF WHICH 1 SPACE IS ADA ACCESSIBLE.

7. WATER AND SEWER SERVICE SHALL BE PROVIDED TO THE SITE BY THE PORTLAND WATER DISTRICT. WATER AND SEWER IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH RESPECTIVE DISTRICT REQUIREMENTS.

8. THE CONTRACTOR MUST CONTACT DIG SAFE AND ALL LOCAL UTILITIES PRIOR TO THE START OF CONSTRUCTION TO VERIFY THE LOCATION OF EXISTING SUBSURFACE UTILITIES AND CONDITIONS. LOCATING AND PROTECTING ANY UNDERGROUND OR ABOVE GROUND UTILITY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

9. PROPOSED SIGN SHALL BE SUBJECT TO APPROVAL PURSUANT TO SECTION 14–526 (d) 8.a. (IV) OF THE LAND USE CODE.

10. REPLACEMENT TREES MUST BE LISTED ON THE CITY OF PORTLAND APPROVED NATIVE SPECIES LIST. SEE EXISTING CONDITIONS PLAN FOR TREE SURVEY INFORMATION. STREET TREES MUST MEET ALL STANDARDS SET FORTH IN THE CITY OF PORTLAND TECHNICAL MANUAL SECTION 4.7.

11. SEE BUILDING FLOOR PLAN FOR BICYCLE PARKING AREA.

ALTAR
ENGINEERING, INC
CIVIL · STRUCTURAL · MARINE

8/25/11

Marybeth Richardson
Maine Department of Environmental Protection
312 Canco Road
Portland, Maine 04103

June 28, 2011
Project No.: C010-11

RE: 144 Hutchins Drive – Portland, Maine
Stormwater Permit-By-Rule (PBR) Application

Dear Ms. Richardson:

I have attached a Stormwater PBR application for the referenced project. Included in the application is a Letter of Agent Authorization and a plan set for your review. The project involves a new, 7,000 S.F. maintenance building, a 2,400 S.F. salt shed with associated parking, access and utility improvements. The project site (Tax Map 240, Block A, Lot 4) is located in the Industrial Moderate (IM) District and is approximately 2.16 acres in area.

The existing site is completely wooded with a wetland running through the property from the westerly property line to the north east corner. The completed development will create approximately 30,234 S.F. of impervious area.

Please contact me for any additional information. Thank you for your assistance.

Sincerely;

Christopher L. Stairs, EIT.

cc: Phoenix Property Services

C010-11stpbrcover

1284 State Road, Eliot, ME 03903 • tel (207) 439-6023 • fax (207) 439-2128

ATTAR
ENGINEERING, INC
CIVIL · STRUCTURAL · MARINE

8/25/11

Marybeth Richardson
Maine Department of Environmental Protection
312 Canco Road
Portland, Maine 04103

Aug. 10, 2011
Project No.: C010-11

RE: 144 Hutchins Drive – Portland, Maine
Permit-By-Rule (PBR) Application

Dear Ms. Richardson:

I have attached a NRPA Permit by Rule Notification Form for the referenced project. Included in the application is a Letter of Agent Authorization, USGS site location map and a plan set for your review. The project involves a new, 7,000 S.F. maintenance building, a 2,400 S.F. salt shed with associated parking, access and utility improvements. The project site (Tax Map 240, Block A, Lot 4) is located in the Industrial Moderate (IM) District and is approximately 2.16 acres in area.

The existing site is completely wooded with a stream running through the property from the westerly property line to the north east corner. The completed development will create approximately 30,234 S.F. of impervious area. We have maintained a 25' undisturbed buffer to the stream.

Please contact me for any additional information. Thank you for your assistance.

Sincerely;

Christopher L. Stairs, EIT.

cc: Phoenix Property Services

C010-11stpbrcover

1284 State Road, Eliot, ME 03903 • tel (207) 439-6023 • fax (207) 439-21

8/25/11

PROJECT DATA

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

Total Site Area	94,090	sq. ft.
Proposed Total Disturbed Area of the Site	48,023	sq. ft.
(If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland)		
IMPERVIOUS SURFACE AREA		
• Proposed Total Paved Area	20,351	sq. ft.
• Existing Total Impervious Area	0	sq. ft.
• Proposed Total Impervious Area	29,751	sq. ft.
• Proposed Total Impervious Area		sq. ft.
• Proposed Impervious Net Change	29,751	sq. ft.
BUILDING AREA		
• Proposed Building Footprint	9,400	sq. ft.
• Proposed Building Footprint Net change		sq. ft.
• Existing Total Building Floor Area	0	sq. ft.
• Proposed Total Building Floor Area		sq. ft.
• Proposed Building Floor Area Net Change		sq. ft.
• New Building	Yes	(yes or no)
ZONING		
• Existing	IM (Moderate Industrial)	
• Proposed, if applicable	IM (Moderate Industrial)	
LAND USE		
• Existing		
• Proposed		
RESIDENTIAL, IF APPLICABLE		
• Proposed Number of Affordable Housing Units		
• Proposed Number of Residential Units to be Demolished		
• Existing Number of Residential Units		
• Proposed Number of Residential Units		
• Subdivision, Proposed Number of Lots		
PARKING SPACES		
• Existing Number of Parking Spaces	0	
• Proposed Number of Parking Spaces	13	
• Number of Handicapped Parking Spaces	1	
• Proposed Total Parking Spaces	14	
BICYCLE PARKING SPACES		
• Existing Number of Bicycle Parking Spaces		
• Existing Number of Bicycle Parking Spaces		
• Proposed Number of Bicycle Parking Spaces		
• Total Bicycle Parking Spaces		
ESTIMATED COST OF PROJECT	$750,000	

6/24/11 — Although this set up in e-plan - there is NO drawings or documents

City of Portland
Development Review Application
Planning Division Transmittal form

Application Number: 2011-286 **Application Date:** 6/21/2011 12:00:00 AM
CBL: 240-a-4
Project Name: Hutchins Drive Maintenance Facility
Address: 144 Hutchins Drive

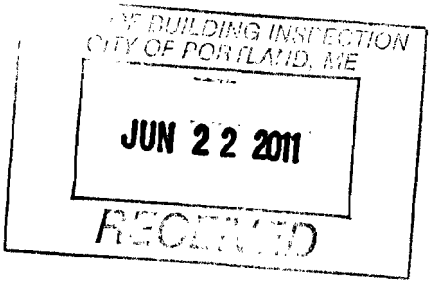
Project Description: Maintenance Facility Building
Zoning: IM
Other Reviews Required:
Review Type: Level II

Distribution List:

☐ Planner	Shukria Wiar	☐ Parking	John Peverada
☑ ZoningAdministrator	Marge Schmuckal	☐ Design Review	Alex Jaegerman
☐ Traffic	Tom Errico	☐ Corporation Counsel	Danielle West-Chuhta
☐ Stormwater	Dan Goyette	☐ Sanitary Sewer	John Emerson
☐ Fire Department	Keith Gautreau	☐ Inspections	Tammy Munson
☐ City Arborist	Jeff Tarling	☐ Historic Preservation	Deb Andrews
☐ Engineering	David Margolis-Pineo	☐ Outside Agency	
		☐ DRC Coordinator	Phil DiPierro

Preliminary Comments needed by: June 29, 2011

Final Comments needed by: July 6, 2011



Applicant: Phoenix Property Date: 6/22/11

Address: 144 Hutchins Dr. C-B-L: 240- A - ~~3~~ 4

CHECK-LIST AGAINST ZONING ORDINANCE

Date -

Zone Location - IM yes

? Bldg contractors & construction & Engineering services

Interior or corner lot -

Proposed Use/Work - New 7000# commercial maint Bldg
2400# salt shed

Sewage Disposal -

Lot Street Frontage - 60' min

Front Yard -

Rear Yard -

Side Yard -

Projections -

Width of Lot -

Height -

Lot Area - 94,002# given

Lot Coverage/Impervious Surface - 75% max - 29,808#

Area per Family - N/A

Off-street Parking -

Loading Bays -

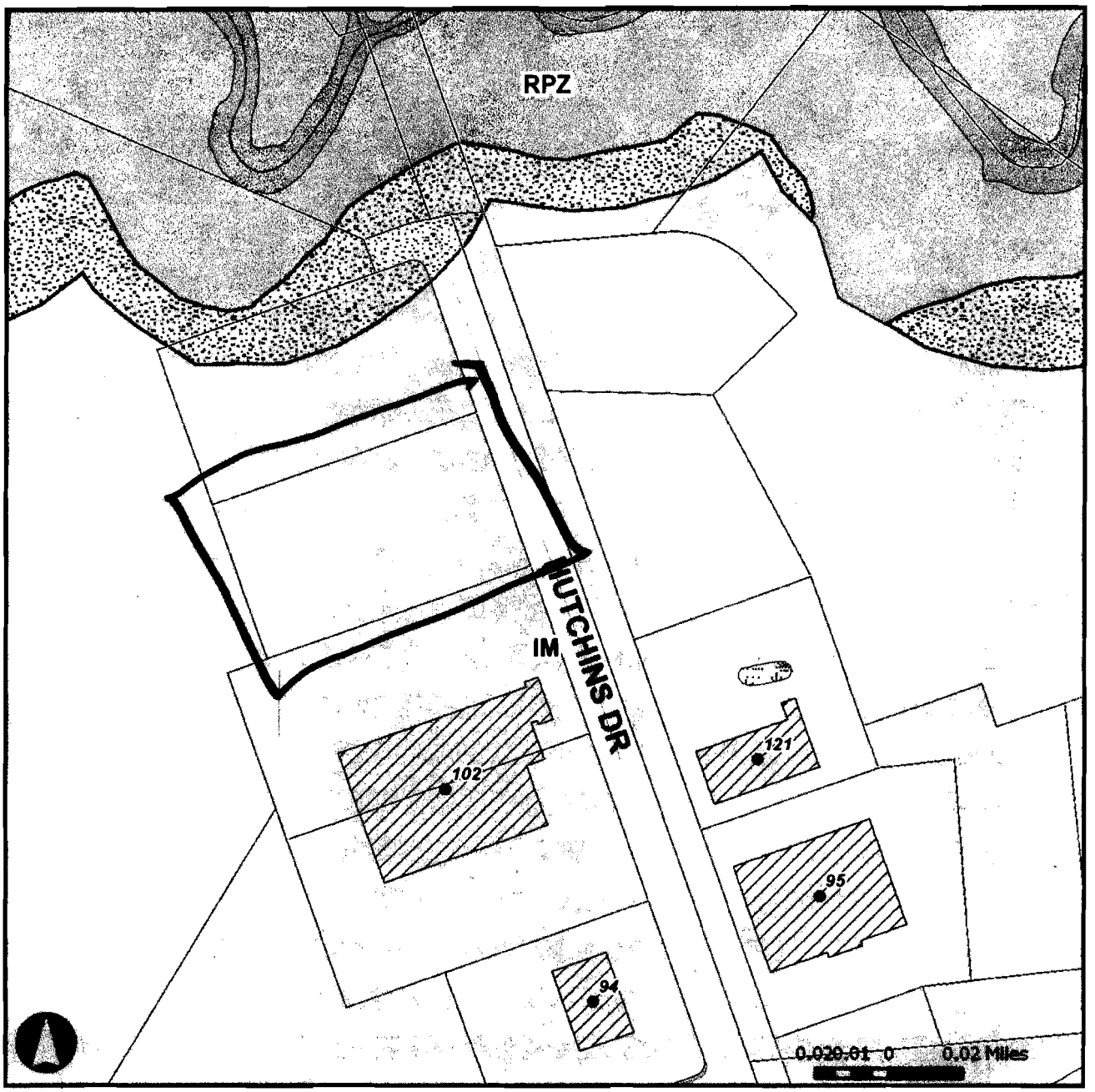
Site Plan - 2011-286

? Shoreland Zoning/ Stream Protection -

Bldg elev. Flood Plains - 12 & 17 —

30' private Drainage easement
10' edge of pavement

Map



Address Candidates

Address Candidates

Parcels

Interstate

Shoreland Overlay Zone

Stream Overlay Zone

Stream_protection

Island Zoning

C43

I-B

I-TS

Zoning (continued)

R1 Residential

R2 Residential

R3 Residential

R4 Residential

R5 Residential

R6 Residential

ROS Recreation Open

Zoning (continued)

C25

C26

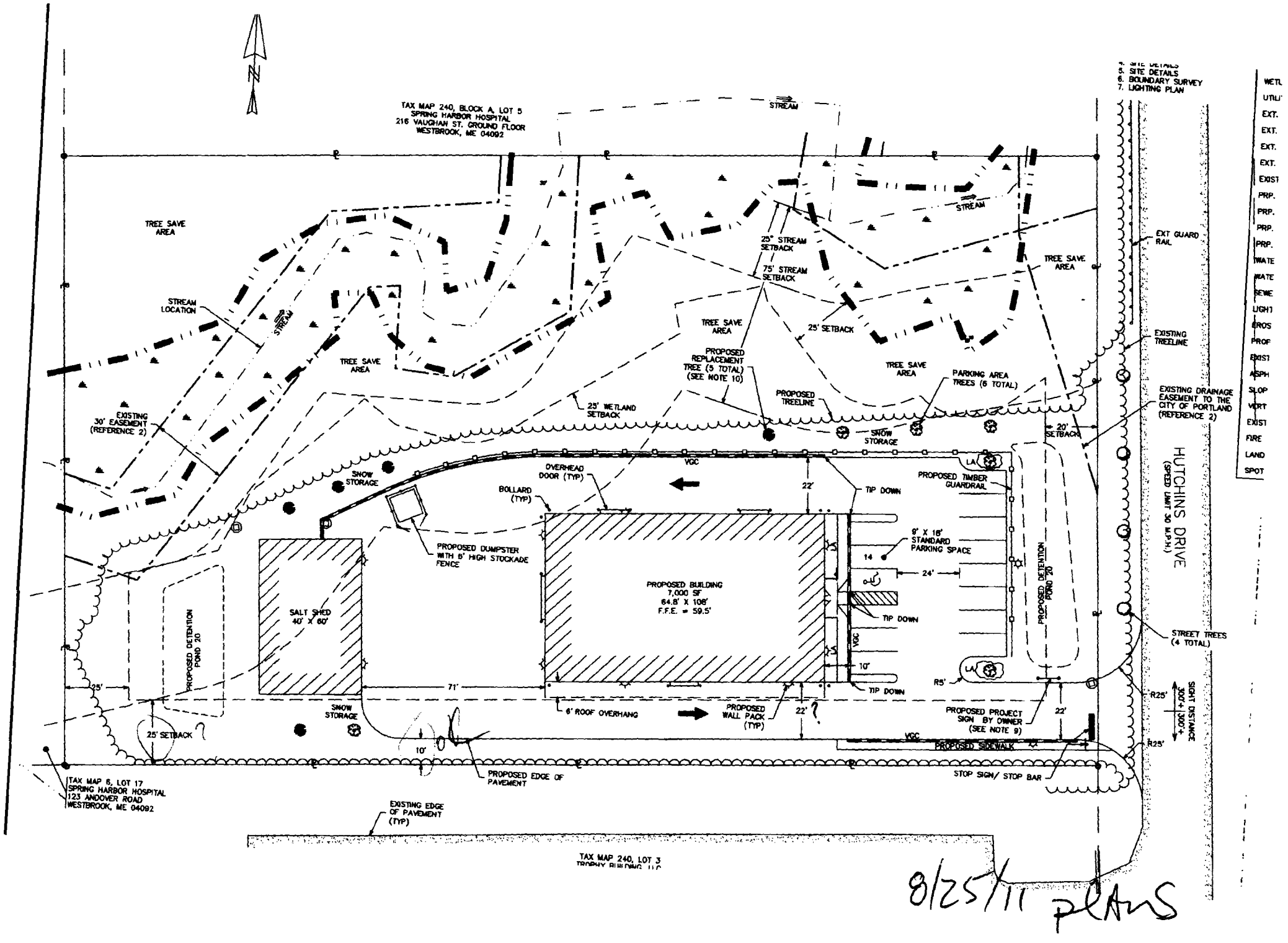
C27

C28

C29

C30

C31


TAX MAP 240, BLOCK A, LOT 5
SPRING HARBOR HOSPITAL
216 VAUGHAN ST. GROUND FLOOR
WESTBROOK, ME 04092
STREAM
TREE SAVE AREA
STREAM LOCATION
25' STREAM SETBACK
75' STREAM SETBACK
25' SETBACK
EXISTING 30' EASEMENT (REFERENCE 2)
25' WETLAND SETBACK
PROPOSED REPLACEMENT TREE (5 TOTAL) (SEE NOTE 10)
PROPOSED TREELINE
PARKING AREA TREES (6 TOTAL)
SNOW STORAGE
20' SETBACK
EXT GUARD RAIL
EXISTING TREELINE
EXISTING DRAINAGE EASEMENT TO THE CITY OF PORTLAND (REFERENCE 2)
HUTCHINS DRIVE
(SPEED LIMIT 30 M.P.H.)
OVERHEAD DOOR (TYP)
BOLLARD (TYP)
VGC
22'
TIP DOWN
PROPOSED TIMBER GUARDRAIL
9' X 18' STANDARD PARKING SPACE
14
24'
PROPOSED DUMPSTER WITH 6' HIGH STOCKADE FENCE
PROPOSED BUILDING
7,000 SF
64.8' X 108'
F.F.E. = 59.5'
PROPOSED DETENTION POND 20
SALT SHED
40' X 60'
10'
R5'
STREET TREES (4 TOTAL)
25'
71'
6" ROOF OVERHANG
PROPOSED WALL PACK (TYP)
PROPOSED PROJECT SIGN BY OWNER (SEE NOTE 9)
R25'
SIGHT DISTANCE 300'+
PROPOSED SIDEWALK
STOP SIGN/ STOP BAR
PROPOSED EDGE OF PAVEMENT
TAX MAP 6, LOT 17
SPRING HARBOR HOSPITAL
123 ANDOVER ROAD
WESTBROOK, ME 04092
EXISTING EDGE OF PAVEMENT (TYP)
TAX MAP 240, LOT 3
5. SITE DETAILS
6. BOUNDARY SURVEY
7. LIGHTING PLAN
WETL
UTILI
EXT.
EXT.
EXT.
EXT.
EXIST
PRP.
PRP.
PRP.
PRP.
WATE
WATE
SEWE
LIGHT
EROS
PROF
EXIST
ASPH
SLOP
VERT
EXIST
FIRE
LAND
SPOT

8/25/11 PLANS

Jeanie Bourke - RE: 144 Hutchins Drive Permit

From: Jeanie Bourke
To: Aaron Bateman
Date: 12/1/2011 10:44 AM
Subject: RE: 144 Hutchins Drive Permit
CC: 'Dorian Tarling'; 'Josh Cushman'; Bill Southworth; Ken Wood; Philip ...

Hi Aaron,
See below in red for the response to your comments. Let me know if you have further questions.
Thanks,
Jeanie

Jeanie Bourke
CEO/LPI/Plan Reviewer

City of Portland
Planning & Urban Development Dept./ Inspections Division
389 Congress St. Rm 315
Portland, ME 04101
jmb@portlandmaine.gov
Direct: (207) 874-8715
Office: (207) 874-8703

>>> Aaron Bateman <abateman@phoenixmanagementcompany.com> 11/30/2011 4:27 PM >>>
Hi Jeanie,

Quick follow up:

Heated Building Com Check will be provided as requested. (Sorry for the confusion).

Thanks
Aaron

From: Aaron Bateman
Sent: Wednesday, November 30, 2011 2:37 PM
To: 'JMB@portlandmaine.gov'
Cc: 'Philip DiPierro'; Josh Cushman; Dorian Tarling; Bill Southworth
Subject: FW: 144 Hutchins Drive Permit

Hi Jeanie,

I have a few questions regarding our permit application and the list sent below.

Geotechnical report was not required by either engineer who have provided or will be providing the foundation plans for the main building. Both designers have assumed a conservative soil baring capacity based on know soil conditions. Not sure why we would have to provide an additional report, please explain.
A Geotechnical investigation is required per IBC 2009 Sec. 1803.2 with exception for waiver where "satisfactory data from adjacent areas is available that demonstrates an investigation is not necessary". I did a little research of records for another project on Hutchins Dr from 2006. While this may not be near this site, the soils site class

was E and the seismic design category was D. Since I have not been provided the design certification data sheet for this project, I do not know what the engineer has specified.

Construction plans, etc, will be provided as requested.

Statement of Special inspections; we are assuming that the City will be providing all the necessary inspections regarding the utility connections (water & sewer). As far as any other inspection we are not sure what this would entail, could you please provide a list. Our thinking is that this is a private development and there are no extensions of any municipal owned infrastructures so the risk is ours and therefore there would be no special inspections required.
Special Inspections of the building construction are required per IBC 2009 Sec. 1704. Tables in this section list the required inspection intervals for the specific construction aspects, ie., concrete, steel, bolts, welding, fabrication, masonry, etc. The content of the prepared statement is in Sec. 1705

Certificate of design, etc will be provided as requested.

Heated building, ComCheck certificate of compliance is something we are not familiar with, could you please further explain what this is.

I appreciate the help with this, my direct number is 571-3061 and would be happy to walk through each issue.

Thanks
Aaron

From: Jeanie Bourke [mailto:JMB@portlandmaine.gov]
Sent: Wednesday, November 30, 2011 8:37 AM
To: Dorian Tarling
Cc: Josh Cushman
Subject: Re: 144 Hutchins Drive Permit

Hi Dorian,
Thank you for contacting me, I had not heard back from Josh since we spoke....
Here is the list of required details:

- Geotechnical report
- Construction plans, details, including third party stamped plans if this is a prefabricated structure
- Statement of Special inspections
- Certificate of design, design criteria as per the permit application documents
- Heated building, ComCheck Certificate of Compliance

Let me know if you have any questions.

Jeanie

Marge Schmuckal - ePlan Review New File Notification for PEZ.2011-286.LEVII.PRSP.743

From: <shukriaw@portlandmaine.gov>
To: <mes@portlandmaine.gov>
Date: 10/3/2011 9:57 AM
Subject: ePlan Review New File Notification for PEZ.2011-286.LEVII.PRSP.743

× ePlan

144 Hutchins DR.

New File Notification - Please **DO NOT** reply to this email.

Hello Marge Schmuckal:

One or more files have been added to the project listed below. Please contact the appropriate department at the numbers listed below if you have any questions regarding this email.

Project Name: PEZ.2011-286.LEVII.PRSP.743
Path: PEZ.2011-286.LEVII.PRSP.743\Drawings
Uploaded By: Shukria Wiar

Login to ePlan Review

Files:
1. C010-11Submittal.pdf
2. SITE PLAN SET.pdfV2

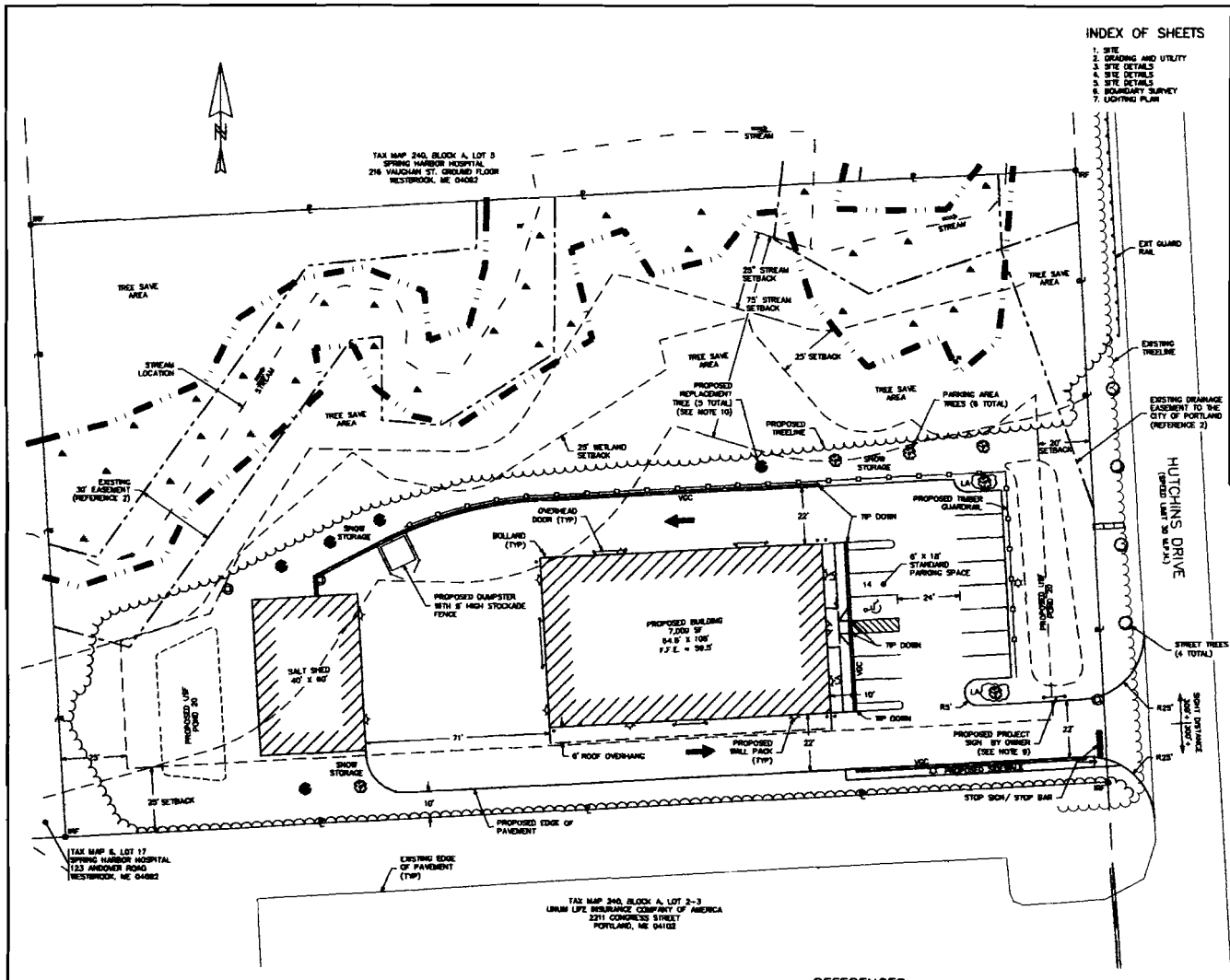
If you do not have access to the specified folder, please contact the Project Administrator.

Department of Planning and Urban Development
City of Portland
389 Congress Street
Portland, ME 04101

Planning Division, Development Review Services
(207) 874-8719

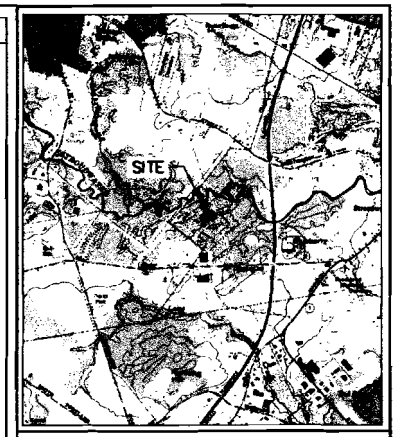
Building Permits
(207) 874-8703

10/5/11



LEGEND

EXISTING CONTOUR — XXX —
FINAL CONTOUR — XXX —
WETLAND BOUNDARY — W —
UTILITY POLE EXT. PRP.
EXT. WATER — EW —
EXT. SEWER — ES —
EXT. OVERHEAD UTIL — EOHU —
EXT. UNDERGROUND UTIL — EUE —
EXISTING EASEMENT
PRP. WATER — PW —
PRP. SEWER — PS —
PRP. UTILITY — PUE/T/C —
PRP. GAS — PG —
WATER VALVE
WATER SHUTOFF
SEWER MANHOLE
LIGHT POLE EXT. PRP.
EROSION CONTROL BERM
PROPOSED FENCE
EXISTING FENCE
ASPHALT CURB — AC —
SLOPED GRANITE CURB — SGC —
VERTICAL GRANITE CURB — VGC —
EXISTING CURB
FIRE HYDRANT EXT PRP
LANDSCAPED AREA LA
SPOT GRADE EXT. X57.31' PRP X57.31'



LOCATION MAP
APPROXIMATE SCALE: 1"=2000'

GENERAL NOTES

1. THIS PLAN PROVIDES DETAILS FOR THE APPROVAL AND CONSTRUCTION OF A 7,000 SF INDUSTRIAL BUILDING WITH A SEPARATE 2,400 SF SALT SHED IN PORTLAND, MAINE. THE SITE IS LOCATED AT 144 HUTCHINS DRIVE AND IS IDENTIFIED ON THE CITY OF PORTLAND TAX ASSESSOR'S MAP 240, BLOCK A, LOT 4, AND IS 2.16 ACRES IN AREA WITH 235' OF STREET FRONTAGE ON HUTCHINS DRIVE.

2. THE PROPOSED BUILDING (APPROXIMATELY 7,000 SF FOOTPRINT) SHALL BE A MAINTENANCE FACILITY FOR PHOENIX MANAGEMENT. THE MAIN BUILDING WILL BE USED FOR STORING AND SERVICING EQUIPMENT (PLOW TRUCKS, BACK HOE LOADERS, BOBCATS, TRACTORS, MOWERS, ETC.) FOR THE MAJORITY OF THE YEAR. HOURS SHALL BE FROM 8AM TO 5PM. DURING THE WINTER MONTHS THE FACILITY SHALL BE USED TO STORE AND SELL SALT TO LOCAL CUSTOMERS. HOURS OF OPERATION DURING SNOW EVENTS SHALL BE 24 HOURS.

3. THE PARCEL IS LOCATED IN THE INDUSTRIAL-MODERATE IMPACT (IM) DISTRICT.
DISTRICT REQUIREMENT ARE AS FOLLOWS:
min LOT SIZE = N/A
min STREET FRONTAGE = 60'
FRONT YARD (BUILDING HEIGHT) = 25'
min REAR AND SIDE YARD = 25'
MAX BUILDING HEIGHT = 75'

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11. SEE BUILDING FLOOR PLAN FOR BICYCLE PARKING AREA.

REFERENCES

1. "CONCEPTUAL PLAN – LOT 13" PREPARED CIRE/ THE BOULOS COMPANY BY TITCOMB ASSOCIATES. DATED 1/03/2011.

2. "STREUBAWER ESTATES" PREPARED BY H. I. & E. C. JORDAN – SURVEYORS. DATED 10 SEPTEMBER 1984. RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 144, PAGE 73.

CITY OF PORTLAND PLANNING BOARD	DATE

STATE OF MAINE
CUMBERLAND COUNTY ss. REGISTRY OF DEEDS
RECEIVED _____, 20__
AT ___ __ M. AND RECORDED IN
PLAN BOOK ____ PAGE ____
ATTEST _____ REGISTER

GRAPHIC SCALE
20 0 20 40 80 (FEET)

APPLICANT: PHOENIX MANAGEMENT
PO BOX 579
SACO, ME 04072-5118

OWNER OF RECORD: MAINE ALPHA FLOOR SANDING
23 RABBIT RUN
PORTLAND, ME 04102-2275

NOT FOR CONSTRUCTION

NO.	DESCRIPTION	DATE
	REVISIONS	
B.	REVIEW COMMENTS	08/16/11
A.	REVIEW COMMENTS	08/03/11

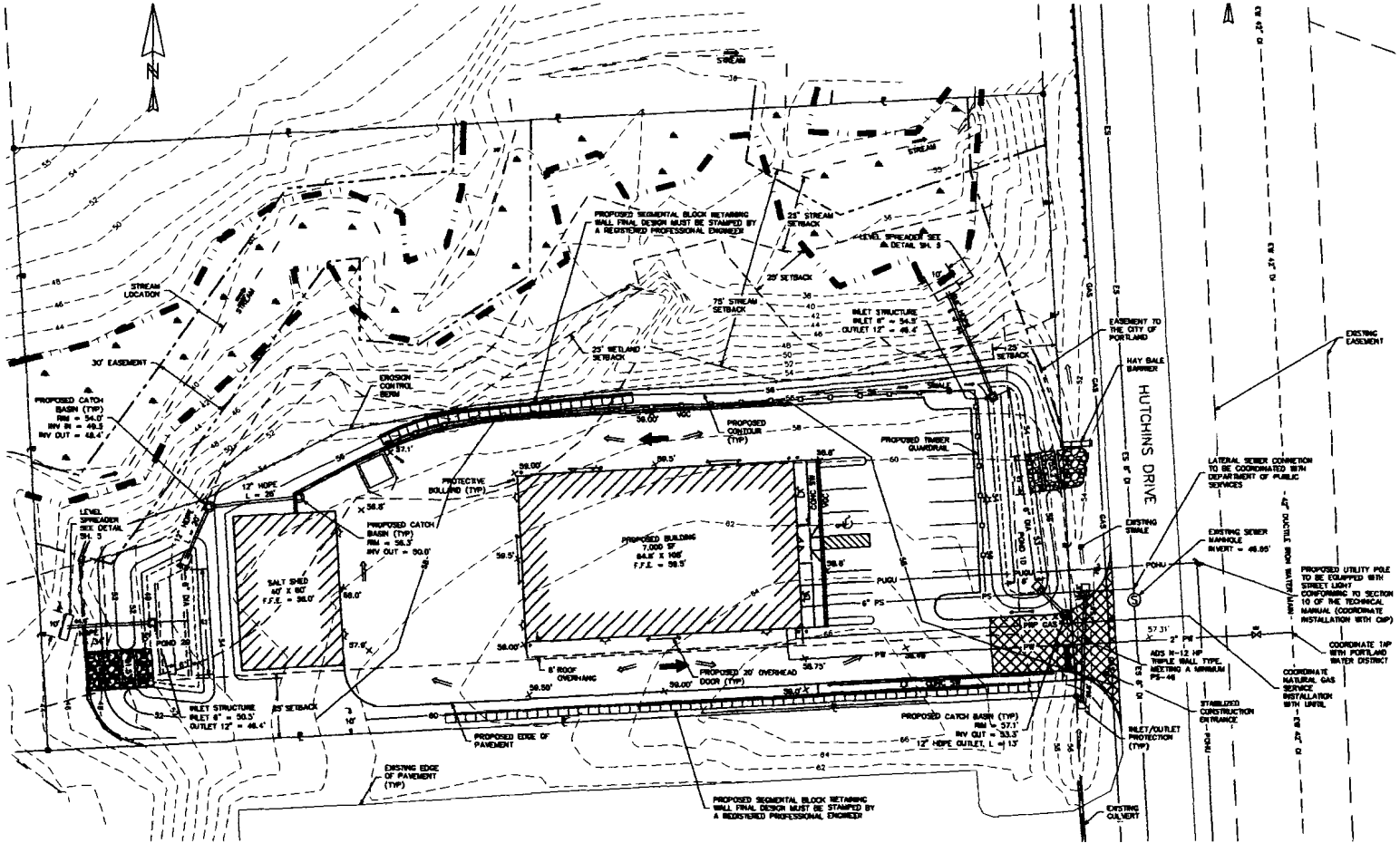
SITE PLAN
144 HUTCHINS DRIVE
HUTCHINS DRIVE PORTLAND, MAINE

FOR: PHOENIX PROPERTY SERVICES
PO BOX 759
SACO, ME 04072-5118

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE
1284 STATE ROAD – ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

SCALE:	APPROVED BY:	DRAWN BY:
1" = 20'		CLS
DATE: 06/17/11		REVISION - DATE B : 08/16/11
JOB NO: C010-11	CAD FILE: HUTCHINS SITE	SHEET 1 OF 7

10/5/11



LEGEND

EXISTING CONTOUR	XXX
FINAL CONTOUR	XXX
WETLAND BOUNDARY	WETLAND
UTILITY POLE	EXT. PROP.
EXT. WATER	EW
EXT. SEWER	ES
EXT. OVERHEAD UTIL.	EOHU
EXT. UNDERGROUND UTIL.	EUE
EXISTING EASEMENT	
PRP. WATER	PW
PRP. SEWER	PS
PRP. UTILITY	PUE/T/O
PRP. GAS	PG
WATER VALVE	WV
WATER SHUTOFF	
SEWER MANHOLE	
LIGHT POLE	EXT. PROP.
EROSION CONTROL BERM	
PROPOSED FENCE	
EXISTING FENCE	
ASPHALT CURB	AC
SLOPED GRANITE CURB	SGC
VERTICAL GRANITE CURB	VGC
EXISTING CURB	
FIRE HYDRANT	EXT. PROP.
LANDSCAPED AREA	LA
SPOT GRADE	EXT. X=57.31' PRP.X=57.31'

GENERAL NOTES

1. EXISTING TOPOGRAPHY WAS TAKEN FROM REFERENCE 1.
2. ALL SEWER LINES TO BE 6" PVC (SDR 35).
3. ALL STORM DRAINS SHALL BE ADS N-12 (HDPE) OR APPROVED EQUAL. PROPER BEDDING AND BACKFILLING ARE VITAL TO THE LONG TERM PERFORMANCE AND DURABILITY OF HDPE CULVERT INSTALLATIONS. SEE HDPE CULVERT TRENCH DETAIL.
4. CATCH BASINS AND DRAINAGE STRUCTURES SHALL BE CLEANED BY CONTRACTOR AFTER CONSTRUCTION.
5. ALL WATER SERVICES SHALL BE (TYPE K) COPPER WITHIN THE RIGHT OF WAY AND EITHER COPPER OR A MATERIAL SUITABLE TO THE PORTLAND WATER DISTRICT OR THE PROPERTY. ALL OTHER VALVES, FITTINGS AND CONNECTORS SHALL MEET CURRENT PORTLAND WATER DISTRICT STANDARDS.
6. A MINIMUM OF 5.0' OF COVER SHALL BE MAINTAINED OVER ALL WATER LINES.
7. PROPOSED UTILITIES ARE APPROXIMATELY LOCATED. CENTRAL MAINE POWER WILL PREPARE THE ELECTRICAL PLAN FOR CONSTRUCTION.

GRAPHIC SCALE
20 0 20 40 60 (FEET)

NOT FOR CONSTRUCTION

NO.	DESCRIPTION	DATE
B.	REVISED COMMENTS	08/15/11
A.	REVISED COMMENTS	06/03/11

GRADING AND UTILITY PLAN
144 HUTCHINS DRIVE
HUTCHINS DRIVE PORTLAND, MAINE

FOR: PHOENIX PROPERTY SERVICES
PO BOX 759
SACO, ME 04072-5118

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE
1284 STATE ROAD – ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

SCALE:	APPROVED BY:	DRAWN BY:
1" = 20'		CLS
DATE: 06/17/11		REVISION DATE B: 08/15/11
JOB NO: C010-11	CAD FILE: HUTCHINS GRAD	SHEET 2 OF 7

10/5/11

Primary use of facility

This facility will be primarily used as a storage and maintenance shop for landscaping tools and equipment.

The facility will also be used for storage and resale of salt/ salt sand during winter months and bark mulch and loam during spring, summer months.

Normal business hours

Normal business hours will be primarily 5am to 9pm Monday through Saturday. During winter snow events the facility will be a 24 hour a day operation.

Salt/ salt sand control measures

Amount of material stored on site is not to exceed 500 yards.

Material will be delivered by trailer dumps. Material will be dumped directly into shed. Any spillage onto parking lot will be immediately swept into shed.

Material will be loaded with a wheel loader primarily from inside the building.

The entire area will be swept up and material hauled off site at the end of the snow event.

Concrete and pavement will be assessed annually for cracks/deterioration and will be sealed accordingly.

144 Hutchins Drive – 2011-286

10/5/2011

The applicant has submitted final plans and comments. The plans and comments do not change the previous zoning approval. All previous conditions of approval are still in force.

Marge Schmuckal

Zoning Administrator

Fire Department Permit Requirements

Project:	144 Hutchins Drive Portland, ME 04104
Applicant:	Phoenix Property Services LLC PO Box 759 Saco, ME 04072
Proposed Use of Structure:	Industrial Warehouse
SF of Proposed Structure:	6,825
Existing and Proposed Fire Protection of Structure:	Existing—none, Proposed—non sprinkled

Jeanie Bourke - FW: FW: Foundation Plans & Anchor Bolt Plans / Reactions

From: Aaron Bateman <abateman@phoenixmanagementcompany.com>
To: "'Jeanie Bourke'" <JMB@portlandmaine.gov>
Date: 12/15/2011 10:34 AM
Subject: FW: FW: Foundation Plans & Anchor Bolt Plans / Reactions
CC: "'Matthew J. Miller, P.E.'" <matt@m2se.com>, "'Josh Cushman'" <jcushman@...
Attachments: Phoenix Seismic.pdf

Hi Jeanie,

Just left you a message. I apologize for the confusion but here is where we are. Matt Miller has confirmed that the seismic design category is C. Attached, I believe is his back up information.

We are having Ted Greenlaw/Seacoast revise the plans and specs to match the category C and these will be submitted to you ASAP. It is my hope that you can issue a conditioned permit to us this week to allow us to be able to pour the foundation starting on Monday.

Thanks
Aaron

From: Aaron Bateman
Sent: Tuesday, December 13, 2011 1:20 PM
To: 'Jeanie Bourke'
Cc: 'Josh Cushman'; Bill Southworth
Subject: FW: FW: Foundation Plans & Anchor Bolt Plans / Reactions

Hi Jeanie,

Below is Matt's response. Please let me know if we need to provide additional information.

Thanks
Aaron

From: Matthew J. Miller, P.E. [mailto:matt@m2se.com]
Sent: Tuesday, December 13, 2011 12:14 PM
To: Aaron Bateman
Subject: RE: FW: Foundation Plans & Anchor Bolt Plans / Reactions

Aaron,

Based on my quick investigation, the Mapped Spectral Accelerations should be:
Ss = 0.322
S1 = 0.078

Based on these values the Design Spectral Accelerations for Site Class E should be:

Sds = 0.487
Sd1 = 0.182

>>> Aaron Bateman <abateman@phoenixmanagementcompany.com> 12/9/2011 11:06 AM >>>
Hi Jeanie,

I have called Josh from Portland Builders asking him to take care of the Com Check certificates. I do not believe these have been provided to date. In the mean time if you could issue the permit with this as a remaining condition that would be great.

I could send someone over today to grab it if that is possible.

Thanks for all the help on this!

Aaron

From: Jeanie Bourke [mailto:JMB@portlandmaine.gov]
Sent: Friday, December 09, 2011 11:02 AM
To: Aaron Bateman
Subject: RE: FW: Foundation Plans & Anchor Bolt Plans / Reactions

Thanks Aaron, that's fine for the additional services information.

The only remaining item I have is the Com Check certificates, did I miss seeing these in an email?
Let me know if this is forthcoming, if not, I could issue the permit with a condition for this.
Jeanie

>>> Aaron Bateman <abateman@phoenixmanagementcompany.com> 12/9/2011 9:00 AM >>>
Hi Jeanie,

Attached is the statement of special Inspections. There is a small scope of services by others that will be performed by SW Cole. As soon as I have their info in hand I will forward it.

Could you send us a quick update of where you see the project permit at this point. We would like to start the foundation next week and are hoping the full permit could be pulled early in the week.

Thanks
Aaron

From: Jeanie Bourke [mailto:JMB@portlandmaine.gov]
Sent: Thursday, December 08, 2011 8:46 AM
To: Aaron Bateman
Cc: Bill Southworth; Josh Cushman
Subject: Re: FW: Foundation Plans & Anchor Bolt Plans / Reactions

Hi Aaron,
In addition to the scope and agreement of special inspections provided, please submit the "Draft (or finalized) Statement of Special Inspections dated December 6, 2011", and the Services By Others as outlined in Exhibit A.
Thanks'
Jeanie

Jeanie Bourke - FW: Revised Foundation Plans

From: Aaron Bateman <abateman@phoenixmanagementcompany.com>
To: Josh Cushman <jcushman@portlandbuilders.com>
Date: 12/15/2011 2:53 PM
Subject: FW: Revised Foundation Plans
CC: Bill Southworth <BSouthworth@phoenixmanagementcompany.com>, "'JeanieBour...
Attachments: 16838 Anchor Bolt Plans.pdf; Permits rev 2.pdf; Stamped Foundation Plans - Revised 12-09-2011.pdf

Hi Josh,

Please see Bill's e-mail below.

Thanks
Aaron

From: William J. Belanger III [mailto:wjb3@seacoastcranebuilding.com]
Sent: Thursday, December 15, 2011 2:45 PM
To: Aaron Bateman
Subject: Revised Foundation Plans

Aaron,

Attached are the revised foundation plans, anchor bolt plans & reactions, and permit plans. I should have a stamped set of permit drawings tomorrow along with a revised certificate of design.

On the revised anchor bolt plans and reactions (to be used in conjunction with the foundation plan) please note the following; Plate F is now noted on the revised plans. We previously sent the base templates to Portland Builders which include Base Plates A through E (4 of the these plates are labeled D). On the revised plans the plates labeled D will be used at locations D & F. No new plates are required to be sent. Please forward this information along to your foundation contractor. Please also note that the orientation of each plate is specifically detailed on the anchor bolt plan (page5).

Any questions, let us know.

Thanks,

Bill III

William J. Belanger III
Seacoast Crane & Building Co., Inc.
P.O. Box 540 :: 98 Route 236
Kittery, Maine 039040
www.seacoastcranebuilding.com

Certificate of Design

CORLE BUILDING SYSTEMS
114 Rosemont Lane Imler, PA 16655

16838 Certificate of Design.ME.doc

Revised 8/17/2009

This Certificate is to confirm that all components of the Steel Building System described below, to be supplied by Corle Building Systems, produced at its Facility at Imler, PA, have been or will be designed in accordance with the following standards, loads, and design criteria as specified in the order documents.

Project/Building Description

CBS Factory Order Number:	FO-16838
Purchaser/Customer Information:	Seacoast Crane & Building Co., Inc. P.O. Box 540 Kittery, ME 03904
Project Name and Location:	Phoenix Property Management Hutchins Drive Portland, ME 04101

Building Geometry:

Width:	65'-0"
Length:	105'-0"
Eave Height:	17'-3"
Roof Slope:	3.00/12

PDF

Design Standards

AISC: *Specification forStructural Steel for Buildings, Allowable Stress Design/9th Ed.*

AISI: *North American Specification for the Design of Cold-Formed Steel Structural Members, 2001 Ed.*

AWS D1.1/D1.1M: *Structural Welding Code – Steel, 2006 Ed.*

MBMA: *Metal Building Systems Manual,2006 Edition*

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City of Portland Maine

Design Load Criteria

Building Code:	International Building Code, 2009			
Dead Load:	2.63 psf plus primary framing actual weight			
Collateral Load:	5 psf			
Roof Live Load:	20 psf			
Frame Live Load:	20 psf			
Snow Load Criteria:	*Ground Snow Load, p_g:*	60 psf	*Thermal Factor, C_t:*	1.00
	Snow Exposure Factor, C_e:	1.00	*Flat Roof Snow Load, p_f:*	42 psf
	Snow Importance Factor, I_s:	1.00		
Wind Load Criteria:	*Basic Wind Speed:*	100 mph	*Occupancy Category:*	II
	Terrain Exposure:	B	*Internal Pressure Coefficients:*	+0.18/-0.18
	Wind Importance Factor, I_w:	1.00	*Components and Cladding not by CBS:*	+17.97 psf -24.02 psf

Seismic Criteria:	*Design Category:*	C	S_s:	0.322
	Site Class:	E	S_1:	0.078
	Seismic Importance Factor, I_e:	1.00	S_{ds}:	0.487
	Occupancy Category:	II	S_{d1}:	0.182
	Analysis Procedure:	Equivalent Lateral Force Procedure		
	Basic Seismic Force Resisting Systems:	Frame: Ordinary Steel Moment Frames FSW,BSW,LEW,REW: Ordinary Steel Concentrically Braced Frames		
	Response Modification Factors, R:	Frame = 3.25	FSW = 3.25	BSW = 3.25
	Seismic Response Coefficients, C_s:	Frame = 0.162	FSW = 0.162	BSW = 0.162
	Seismic Base Shear, V:	Longitudinal = 22.32 kips		Transverse = 29.94 kips

Mezzanine Loads:	*Dead Load:*	N/A	**Additional Loads:**	N/A
	Collateral Load:	N/A		
	Live Load:	N/A		

Certification by Engineer

I, T. James Eisenman, Jr., P.E., a licensed engineer in the State of Maine, certify that I have reviewed the design criteria for the steel building system described above and to the best of my knowledge all components have been designed to meet the applicable criteria as specified in the Order Documents.

STATE OF MAINE
T. JAMES EISENMAN JR.
No. 9637
LICENSED PROFESSIONAL ENGINEER

Signature

12/16/11
Date

SEAL

Project: New Building for Phoenix Property Management
Date Prepared: December 8, 2011

Structural Statement of Special Inspections

Project: *New Building for Phoenix Property Management*

Location: *Hutchins Drive, Portland, Maine*

Owner: *Phoenix Property Management*

This *Statement of Special Inspections* encompass the following discipline: **Structural – Foundations**

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 Structural Special Inspection Coordinator (SSIC) and the identity of other approved agencies to be retained for conducting these inspections and tests.

The Structural Special Inspection Coordinator shall keep records of all Structural inspections and shall furnish inspection reports to the Building Code Official (BCO) and the Structural Registered Design Professional in Responsible Charge (SRDP). 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 Structural 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 Structural Registered Design Professional in Responsible Charge at an interval determined by the SSIC and the BCO.

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 to the BCO 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: ☒ *Upon request of Building Official* _____ or ☐ per attached schedule.

Prepared by:

Theodore Greenlaw
(type or print name of the Structural Registered Design Professional in Responsible Charge)

Signature

12-16-11
~~December 8, 2011~~
Date

STATE OF MAINE
THEODORE GREENLAW
No. 3882
LICENSED PROFESSIONAL ENGINEER

Design Professional Seal

Owner's Authorization:

Signature Date

Building Code Official's Acceptance:

Signature Date

PDFV

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Dept. of Building Inspections
City of Portland Maine

Project: New Building for Phoenix Property Management
Date Prepared: December 8, 2011

Structural Statement of Special Inspections

Project: *New Building for Phoenix Property Management*

Location: *Hutchins Drive, Portland, Maine*

Owner: *Phoenix Property Management*

This *Statement of Special Inspections* encompass the following discipline: **Structural – Metal Building**

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 Structural Special Inspection Coordinator (SSIC) and the identity of other approved agencies to be retained for conducting these inspections and tests.

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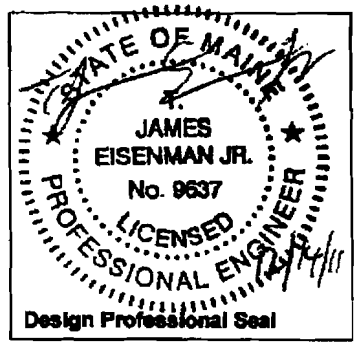
Interim Report Frequency: ☒ *Upon request of Building Official* _____ or ☐ per attached schedule.

Prepared by:

T. James Eisenman, Jr., PE
(type or print name of the Structural Registered Design Professional in Responsible Charge)

T. J. E. Jr.
Signature

12/14/11
~~December 8, 2011~~
Date



Design Professional Seal

Owner's Authorization:

Signature Date

Building Code Official's Acceptance:

Signature Date

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City of Portland Maine

specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement. Nothing contained in this paragraph shall prevent the SI from employing such independent consultants, associates and subcontractors as deemed appropriate to assist in the performance of services hereunder.

5.1.4 The SI and Client agree that the services performed by the SI to this Agreement are solely for the benefit of the Client and are not intended by either the SI or the Client to benefit any other person or entity. To the extent that any other person or entity is benefited by the services performed by the SI pursuant to this Agreement, such benefit is purely incidental and such other person or entity shall not be deemed a third party beneficiary to this Agreement.

5.2 Dispute Resolution

5.2.1 The SI and Client agree to negotiate any claim(s) or dispute(s) arising out of or related to the agreement between them in good faith prior to exercising any other provision of this Agreement.

5.2.2 If a claim or dispute between the SI and Client cannot be settled within 30 days by good faith negotiations the SI and Client agree to submit it to mediation in accordance with the mediation rules of the American Arbitration Association.

5.2.3 If the claim or dispute cannot be settled by good faith negotiations or mediation then either party may exercise their rights under law.

5.2.4 In no event shall a claim or dispute be made or sustained if it would be barred by the applicable statute of limitations.

5.3 Governing Laws

5.3.1 This Agreement shall be governed by the laws of the principal place of business of the SI.

Jeanie Bourke - FW: FW: Foundation Plans & Anchor Bolt Plans / Reactions

From: Aaron Bateman <abateman@phoenixmanagementcompany.com>
To: "'Jeanie Bourke'" <JMB@portlandmaine.gov>
Date: 12/15/2011 10:34 AM
Subject: FW: FW: Foundation Plans & Anchor Bolt Plans / Reactions
CC: "'Matthew J. Miller, P.E.'" <matt@m2se.com>, "'Josh Cushman'" <jcushman@...
Attachments: Phoenix Seismic.pdf

Hi Jeanie,

Just left you a message. I apologize for the confusion but here is where we are. Matt Miller has confirmed that the seismic design category is C. Attached, I believe is his back up information.

We are having Ted Greenlaw/Seacoast revise the plans and specs to match the category C and these will be submitted to you ASAP. It is my hope that you can issue a conditioned permit to us this week to allow us to be able to pour the foundation starting on Monday.

Thanks
Aaron

From: Aaron Bateman
Sent: Tuesday, December 13, 2011 1:20 PM
To: 'Jeanie Bourke'
Cc: 'Josh Cushman'; Bill Southworth
Subject: FW: FW: Foundation Plans & Anchor Bolt Plans / Reactions

Hi Jeanie,

Below is Matt's response. Please let me know if we need to provide additional information.

Thanks
Aaron

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Sent: Tuesday, December 13, 2011 12:14 PM
To: Aaron Bateman
Subject: RE: FW: Foundation Plans & Anchor Bolt Plans / Reactions

Aaron,

Based on my quick investigation, the Mapped Spectral Accelerations should be:
Ss = 0.322
S1 = 0.078

Based on these values the Design Spectral Accelerations for Site Class E should be:

Sds = 0.487
Sd1 = 0.182

Since this is a category II building these values correspond to a Seismic Design Category C.

A copy of my backup information is attached, where the design values for the 2009 IBC are based on the 2003 NEHRP provisions.

In review of the anchor rod drawings, the SER has the values of Ss and S1 listed at 0.41 and 0.1. If we use these higher values, then yes the building would be in seismic design category D.

I would recommend that the EOR from CORLE review the seismic values, and adjust them as necessary.

Please let me know if you have any questions or need any additional information.

Regards,

Matt

From: Aaron Bateman [mailto:abateman@phoenixmanagementcompany.com]
Sent: Tuesday, December 13, 2011 10:24 AM
To: 'Matthew J. Miller, P.E.'
Subject: FW: FW: Foundation Plans & Anchor Bolt Plans / Reactions

Hi Matt,

Could you please review the e-mail from Jeanie and get back to me.

Thanks
Aaron

From: Jeanie Bourke [mailto:JMB@portlandmaine.gov]
Sent: Friday, December 09, 2011 2:09 PM
To: Aaron Bateman
Cc: Bill Southworth; Josh Cushman
Subject: RE: FW: Foundation Plans & Anchor Bolt Plans / Reactions

Hi Aaron,
I am ok with issuing the permit with certain conditions, however, after further review of the statement of special inspections, I do have a couple of items. I apologize for not seeing this at first.

1. On page 11 of 12, Seismic Resistance, the engineer will need to justify not requiring inspections for 1.a as this is seismic design D

2. Engineers justification for no Quality Assurance Plan for seismic design D, Sec. 1705.3.1 only exempts design C.

3. A sealed and sign copy of the statement will need to be submitted, this can be a condition.

Thanks,
Jeanie

>>> Aaron Bateman <abateman@phoenixmanagementcompany.com> 12/9/2011 11:06 AM >>>
Hi Jeanie,

I have called Josh from Portland Builders asking him to take care of the Com Check certificates. I do not believe these have been provided to date. In the mean time if you could issue the permit with this as a remaining condition that would be great.

I could send someone over today to grab it if that is possible.

Thanks for all the help on this!

Aaron

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Sent: Friday, December 09, 2011 11:02 AM
To: Aaron Bateman
Subject: RE: FW: Foundation Plans & Anchor Bolt Plans / Reactions

Thanks Aaron, that's fine for the additional services information.

The only remaining item I have is the Com Check certificates, did I miss seeing these in an email?
Let me know if this is forthcoming, if not, I could issue the permit with a condition for this.
Jeanie

>>> Aaron Bateman <abateman@phoenixmanagementcompany.com> 12/9/2011 9:00 AM >>>
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Attached is the statement of special Inspections. There is a small scope of services by others that will be performed by SW Cole. As soon as I have their info in hand I will forward it.

Could you send us a quick update of where you see the project permit at this point. We would like to start the foundation next week and are hoping the full permit could be pulled early in the week.

Thanks
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Sent: Thursday, December 08, 2011 8:46 AM
To: Aaron Bateman
Cc: Bill Southworth; Josh Cushman
Subject: Re: FW: Foundation Plans & Anchor Bolt Plans / Reactions

Hi Aaron,
In addition to the scope and agreement of special inspections provided, please submit the "Draft (or finalized) Statement of Special Inspections dated December 6, 2011", and the Services By Others as outlined in Exhibit A.
Thanks'
Jeanie

Jeanie Bourke
CEO/LPI/Plan Reviewer

City of Portland
Planning & Urban Development Dept./ Inspections Division
389 Congress St. Rm 315
Portland, ME 04101
jmb@portlandmaine.gov
Direct: (207) 874-8715
Office: (207) 874-8703
>>> Aaron Bateman <abateman@phoenixmanagementcompany.com> 12/7/2011 4:23 PM >>>
Please find attached a proposal for special inspections.

Thanks
Aaron

From: Matthew J. Miller, P.E. [mailto:matt@m2se.com]
Sent: Wednesday, December 07, 2011 3:32 PM
To: Aaron Bateman
Subject: RE: Foundation Plans & Anchor Bolt Plans / Reactions

Aaron,

Attached, please find a copy of my proposal for Special Inspection Services. You should be getting a separate proposal from S.W. Cole.

Please let me know if you have any questions.

Regards,

Matt

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. The Statement of Responsibility is required for Seismic Design Category C or higher. Make additional copies of this form as required.

Project:

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.

Structural Schedule of Special Inspections

SEISMIC RESISTANCE - STRUCTURAL

VERIFICATION AND INSPECTION IBC Section 1707	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION
1. Special inspections for seismic resistance. Special inspection as specified in this section is required for the following:			Seismic Design Category: C		
a. The seismic-force-resisting systems in structures assigned to Seismic Design Category C, D, E or F	N	P	IBC 1707.1 – Exempted by Exception of Section 1705.3.1	N/A	PE/SE or EIT
2. Structural steel: Continuous special inspection for structural welding in accordance with AISC 341.	N	P	IBC 1707.2 – Exempted by Exception 1of Section 1707.2	N/A	AWS-CWI
3. Structural wood:					
a. Continuous special inspection during field gluing operations of elements of the seismic-force-resisting system.	N/A	C	IBC 1702.3		PE/SE or EIT
b. Periodic special inspections for nailing, bolting, anchoring and other fastening of components within the seismic-force-resisting system, including drag struts, braces and hold-downs	N/A	P	IBC 1702.3		PE/SE or EIT
4. Cold-formed steel framing: Periodic special inspections during welding operations of elements of the seismic-force-resisting system. Periodic special inspections for screw attachment, bolting, anchoring and other fastening of components within the seismic-force-resisting system, including struts, braces, and hold-downs	N/A	N			
4. Seismic isolation system. Provide periodic special inspection during the fabrication and installation of isolator units and energy dissipation devices if used as part of the seismic isolation system	N/A	N	IBC 1707.8		

Structural Schedule of Special Inspection Services

FABRICATION AND IMPLEMENTATION PROCEDURES – STRUCTURAL STEEL

VERIFICATION AND INSPECTION IBC Section 1704.2	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION
1. Fabrications Procedures: Review of fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved special inspection agency. At the completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents. -OR- 2. AISC Certification -OR- 3. International Accreditation Service's AC472 Certification for Metal Building Systems	Y	S	Fabricator shall submit one of the three qualifications	SII	PE/SE or EIT
4. At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents.	Y	S	IBC 1704.2.2	SII	PE/SE or EIT

Project: New Building for Phoenix Property Management
Date Prepared: December 6, 2011

VERIFICATION AND INSPECTION IBC Section 1704.3	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION
5) Floor and roof deck welds	Y	P	AWS D1.3	SI3	AWS-CWI
b. Reinforcing steel:					
1) Verification of weldability of reinforcing steel other than ASTM A706.	Y	C		SI3	
2) Reinforcing steel-resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special reinforced concrete shear walls and shear reinforcement.	Y	C	AWS D1.4 ACI 318 3.5.2		AWS-CWI
3) Shear reinforcement.	Y	C			AWS-CWI
4) Other reinforcing steel	Y	P			AWS-CWI
7. Inspection of steel frame joint details for compliance (IBC Sect 1704.3.2) with approved construction documents:					
a. Details such as bracing and stiffening.	Y	P	IBC 1704.3.2	SI1	PE/SE or EIT
b. Member locations.	Y	P			PE/SE or EIT
c. Application of joint details at each connection.	Y	P			PE/SE or EIT

Project: New Building for Phoenix Property Management
Date Prepared: December 6, 2011

Structural Schedule of Special Inspections - STEEL CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.3	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION
1 Material verification of high-strength bolts, nuts and washers					
a. Identification markings to conform to ASTM standards specified in the approved construction documents.	Y	S	AISC 360, Section A3.3 and applicable ASTM material Standards	SII	PE/SE or EIT
b Manufacturer's certificate of compliance required.	Y	S		SII	PE/SE or EIT
2 Inspection of high-strength bolting					
a. Snug-tight joints	Y	P	AISC 360, Section M2 5 IBC 1704 3.3	SI3	AWS/AISC-SSI
b. Pretensioned and slip-critical joints using turn-of-nut with matchmarking, twist-off bolt or direct tension indicator methods of installation	Y	P			AWS/AISC-SSI
c. Pretensioned and slip-critical joints using turn-of-nut without matchmarking or calibrated wrench methods of installation	Y	C			AWS/AISC-SSI
3 Material verification of structural steel and cold-formed steel deck.					
a. For structural steel, identification markings to conform to AISC 360	Y	S	AISC 360, Section M5.5	SII	PE/SE or EIT
b. For other steel, identification markings to conform to ASTM standards specified in the approved construction documents.	Y	S	Applicable ASTM material standards	SII	PE/SE or EIT
b. Manufacturers' certified mill test reports	Y	S	ASTM A 6 or ASTM A 568 IBC Sect 1708.4	SII	PE/SE or EIT
4. Material verification of weld filler materials:					
a. Identification markings to conform to AWS specification in the approved construction documents.	Y	S	AISC 360, Section A3.5 and applicable AWS A5 documents	SI3	PE/SE or EIT
b Manufacturer's certificate of compliance required.	Y	S		SII	PE/SE or EIT
5. Submit current AWS D1.1 welder certificate for all field welders who will be welding on this project.	Y	S	AWS D1.1	SII	PE/SE or EIT
6 Inspection of welding a. Structural steel and cold-formed steel deck:					
1) Complete and partial penetration groove welds.	Y	C	AWS D1.1 IBC 1704.3.1	SI3	AWS-CWI
2) Multipass fillet welds.	Y	C			AWS-CWI
3) Single-pass fillet welds> 5/16"	Y	C			AWS-CWI
4) Single-pass fillet welds< 5/16"	Y	P	AWS D1.1 IBC 1704.3.1		AWS-CWI

Project: New Building for Phoenix Property Management
Date Prepared: December 6, 2011

Structural Schedule of Special Inspections
CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.4	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION
1. Inspection of reinforcing steel, including prestressing tendons, and placement	Y	P	ACI 318: 3.5, 7.1-7.7	SI1 or SI2	PE/SE, EIT or ICC-RCSI
2. Inspection of reinforcing steel welding (Refer to Item 6B in Steel Construction Table below)	Y	P	AWS D1.4 ACI 318: 3.5.2	SI3	AWS-CWI
3. Inspect bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased or where strength design is used	Y	C	IBC 1911.5, 1912.1 ACI 318: 8.1.3, 21.2.8	SI1 or SI2	PE/SE, EIT or ICC-RCSI
4. Inspection of anchors installed in hardened concrete	Y	P	IBC 1912.1 ACI 318: 3.8.6, 8.1.3, 21.2.8	SI1 or SI2	PE/SE, EIT or ICC-RCSI
5. Verifying use of required design mix	Y	P	ACI 318: Ch 4, 5.2-5.4	SI1, SI2 or TA1	PE/SE, EIT or ICC-RCSI
6. At time fresh concrete is sampled to fabricate specimens for strength test, perform slump and air content test and temperature *In the absence of project specific specifications, the frequency of testing shall be per the schedule following this table*	Y	C	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8 IBC 1913.10	TA1	ACI-CFTT or ACI-STT
7. Inspection of concrete and shotcrete placement for proper application techniques	Y	C	ACI 318: 5.9, 5.10	SI1, SI2 or TA1	PE/SE, EIT or ICC-RCSI
8. Inspection for maintenance of specified curing temperature and techniques	Y	P	ACI 318: 5.11-5.13	SI1, SI2 or TA1	PE/SE, EIT or ICC-RCSI

Concrete Testing Frequency:

Concrete cylinders shall be taken, and fresh concrete tested at least once per placement or at the following intervals:

1. Retaining walls and footings: 50 cubic yards
2. Isolated Footings: 25 cubic yards
3. Slabs: 50 cubic yards

Project: New Building for Phoenix Property Management
Date Prepared: December 6, 2011

Structural Schedule of Special Inspections
SOILS & FOUNDATION CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.7, 1704.8, 1704.9	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION
Verify existing soil conditions, fill placement and load bearing requirements					
1. Verify materials below shallow foundations are adequate to achieve design bearing capacity	Y	P	IBC 1704.7	SI2	PE/GE, EIT or ETT
2. Verify excavations are extended to proper depth and have reached proper material	Y	P	IBC 1704.7	SI2	PE/GE, EIT or ETT
3. Perform classification and testing of compacted fill materials	Y	P	IBC 1704.7	SI2	PE/GE, EIT or ETT
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill	Y	C	IBC 1704.7	SI2	PE/GE, EIT or ETT
5. Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly	Y	P	IBC 1704.7	SI2	PE/GE, EIT or ETT

Structural Schedule of Special Inspections

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 to the Special Inspector for their records. *NOTE VERIFICATION THAT QUALIFIED INDIVIDUALS ARE AVAILABLE TO PERFORM STIPULATED TESTING AND/OR INSPECTION SHOULD BE PROVIDED PRIOR TO SUBMITTING STATEMENT. AGENT QUALIFICATIONS IN SCHEDULE ARE SUGGESTIONS ONLY; FINAL QUALIFICATIONS ARE SUBJECT TO THE DISCRETION OF THE REGISTERED DESIGN PROFESSIONAL PREPARING THE SCHEDULE.*

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge or Special Inspector of Record deems it appropriate that the individual performing a stipulated test or inspection have a specific certification, license or experience as indicated below, such requirement shall be listed below and shall be clearly identified within the schedule under the Agent Qualification Designation.

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

Experienced Testing Technician

ETT	Experienced Testing Technician – An Experienced Testing Technician with a minimum 5 years experience with the stipulated test or inspection

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

Other

Inspection Services (Exhibit A).

2.2.3.2 The SI shall prepare a report following each site visit.

2.2.3.3 The SI shall not be responsible for the means, methods, techniques, sequences, or procedures of construction selected by the Contractor or safety precautions and programs incident to the work of the Contractor.

2.2.3.4 The SI shall not be responsible for the failure of the Contractor to perform the construction work in accordance with the Contract Documents.

2.2.3.5 The SI shall not have the authority to stop work on the project.

2.2.4 Material Testing:

2.2.4.1 The SI shall review reports to determine if the Testing Laboratory(s) has verified conformance of the reported item of work with the Contract Documents.

2.2.4.2 The SI shall bring identified discrepancies to the attention of the Building Official, Prime Design Professional, Structural Engineer of Record, Client and Contractor.

Section 3 - Fees and Payments

3.1 Fees and Other Compensation

3.1.1 Services and Reimbursable Expenses are as stated in the Letter Agreement.

3.2 Payments on Account

3.2.1 Invoices for SI's services shall be submitted on a monthly basis. Invoices are payable when rendered and shall be considered past due if not paid within 60 days of the invoice date.

3.2.2 Retainers, if applicable to this project, shall be credited to the final invoice.

3.2.3 Inquiries or questions concerning the substance or content of any invoice shall be made to the SI in writing within 10 days of receipt of the invoice. A failure to notify the SI within this period shall constitute an acknowledgement that the service has been provided and payment is due.

3.3 Late Payments

3.3.1 A service charge will be charged at the rate of 1.5% (18% true annual rate) per month or the maximum allowable by law on the then outstanding balance of past due accounts. In the event any portion of the account remains unpaid 60 days after billing, the Client shall pay all costs of collection, including reasonable attorney's fees.

3.3.2 In the event that any portion of an account remains unpaid 30 days after billing, the SI may, without waiving any claim or right against the Client, and without liability

whatsoever to the Client, suspend or terminate the performance of all services.

Section 4 - Insurance, Indemnification & Risk Allocation

4.1 Insurance

4.1.1 The SI shall secure and endeavor to maintain professional liability insurance, commercial general liability insurance, and automobile liability insurance to protect the SI from claims for negligence, bodily injury, death, or property damage which may arise out of the performance of the SI's services under this Agreement. The SI shall, if requested in writing, provide certificates of insurance to the Client.

4.2 Indemnifications

4.2.1 The SI and the Client mutually agree to indemnify and hold each other harmless from any damages and losses arising from their own negligent acts, errors or omissions in their performance under this Agreement, to the extent that each party is responsible for such damages and losses on a comparative basis of fault.

4.3 Risk Allocation

4.3.1 In recognition of the relative risks, rewards and benefits of the Project to both the Client and the SI, the risks have been allocated such that the Client agrees that, to the fullest extent permitted by law, the SI's total liability to the Client for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of this Agreement, from any cause or causes shall not exceed the amount of $25,000 or the SI's fee, whichever is greater. Such causes include, but are not limited to, the SI's negligent act, errors, omissions, strict liability, breach of contract, breach of express or implied warranty, or any other theory of legal liability. This limitation of liability shall apply to the Structural Engineer of Record and its officers, members, directors, partners, agents, employees, and subconsultants.

Section 5 – Miscellaneous Provisions

5.1 Termination, Successors and Assigns

5.1.1 This Agreement may be terminated upon 10 days written notice by either party should the other fail to perform its obligations hereunder. In the event of termination, the Client shall pay the SI for all services rendered to the date of termination, all reimbursable expenses, and reasonable termination expenses.

5.1.2 The Client and SI each binds themselves, partners, successors, executors, administrators, assigns and legal representative to the other party of this Agreement and to the partners, successors, executors, administrators, assigns, and legal representative of such other party in respect to all covenants, agreements, and obligations of this Agreement.

5.1.3 Neither the Client nor the SI shall assign, sublet or transfer any rights under or interest in (including but without limitations, monies that may be due or monies that are due) this Agreement, without the written consent of the other, except as stated in the paragraph above, and except to the extent that the effect of this limitation may be restricted by law. Unless

1.3.3 **Contract Documents** are the Engineering and Architectural Drawings and Specifications issued for construction, plus clarification drawings, addenda, approved change orders and contractor designed elements.

1.3.4 **Inspection** is visual observations and materials testing to determine that the work is in substantial conformance with the requirements of the Contract Documents.

1.3.5 **Reimbursable Expenses** are expenses incurred directly or indirectly in connection with the project such as, but not limited to, transportation, meals or lodging for travel, long distance telephone calls and facsimile transmissions, overnight deliveries, courier services, professional service sales taxes, the cost of reproductions beyond those normally required for coordination and information purposes, and the cost of outside professional services.

1.3.6 **Shop Drawings** are those drawings prepared by or on behalf of the Contractor, based upon the Contract Documents that have been reviewed by and bear the review stamp of the appropriate design professionals.

Section 2 - Services

2.1 Services include those designated in the Scope of Special Inspection Services and further detailed below. Some inspection and testing duties may be performed by Testing Laboratories or other professionals.

2.2 Unless otherwise stated in the Agreement, the SI will provide the following services, as applicable to the project:

2.2.1 Administrative Services:

2.2.1.1 The SI shall keep records of all inspections related to Exhibit A.

2.2.1.2 The SI shall review inspection and materials testing reports and bring identified discrepancies to the attention of the Building Official, the Prime Design Professional, Structural Engineer of Record, Client and Contractor.

2.2.1.3 The SI shall distribute reports to the Building Official, the Prime Design Professional, Structural Engineer of Record, Client and Contractor. Reports will be submitted as required by the Building Official and the Prime Design Professional.

2.2.2 Certificates of Compliance Review:

2.2.2.1 Certificates of Compliance shall be reviewed for conformance with the standards specified in the Contract Documents. Identified discrepancies shall be brought to the attention of the Building Official, the Prime Design Professional, Structural Engineer of Record, Client and Contractor.

2.2.3 Field Inspection:

2.2.3.1 The SI shall make site visits to inspect work designated in the Scope of Special

EXHIBIT B - Terms and Conditions

This is an exhibit attached to and made part of the Agreement dated December 7, 2011, between

Phoenix Property Management (Client) and M^2 Structural Engineering, P.C. (Structural Engineer (Special Inspector, SI)).

Section 1 - General

1.1 This Agreement

1.1.1 These Terms and Conditions along with the Letter Agreement and Exhibit A form the Agreement as if they were part of one and the same document.

1.1.2 The Letter Agreement and Exhibit A may modify the applicability of these Terms and Conditions. Such limitation shall take precedence over provisions of this Exhibit.

1.2 General obligations of the Special Inspector and the Client

1.2.1 The Special Inspector (SI) shall perform Special Inspection Services as specified in Exhibit A and detailed in these Terms and Conditions. In rendering these services, the SI shall apply the skill and care ordinarily exercised at the same time and locale by structural engineers performing special inspection services.

1.2.2 The SI makes no warranties, expressed or implied, under this Agreement or otherwise, in connection with SI's Services.

1.2.3 The Client shall provide to the SI a complete set of Documents, signed and sealed by the Licensed Design Professional and approved by the Building Official, and applicable approved shop drawings and related documents, including the construction schedule.

1.2.4 The Client shall direct the Contractor to notify the SI of the Contractor's progress so the SI will have at least 24 hours notice prior to performance of work that will require inspection or testing.

1.2.5 The Client and SI shall each designate a person to act with authority on their behalf with respect to all aspects of the project.

1.2.6 The SI shall notify the Contractor of their presence and responsibilities at the job site.

1.2.7 The SI shall submit to the Building Official all required reports.

1.3 Definitions

1.3.1 **Special Inspector (SI)** is the licensed individual or firm that implements the special inspection program for the project.

1.3.2 **Testing Laboratory** is an agency or firm qualified to perform field and laboratory tests to determine the characteristics and quality of building materials and workmanship.

1. Review of soils and placement of fill as required by the Statement of Special Inspections.
2. Field inspection of Bolted and/or Welded steel connections.
3. Inspection of welding of reinforcing steel.
4. On site review of fabricator(s) shop(s), if required.
5. Special inspections of cold-formed steel framing.

EXHIBIT A – Scope of Special Inspection Services

This is an exhibit attached to and made part of the Agreement dated December 7, 2011, between

Phoenix Property Management (Client) and M^2 Structural Engineering, P.C. (Structural Engineer (Special Inspector, SI))

BASIC SERVICES

M^2 Structural Engineering, P.C. will provide WORK consisting of:

1. Site visits as required during foundation construction for general conformance with the contract documents and to review concrete placement.
2. Review concrete inspection field reports by the Testing Agency, as necessary, for work performed by ACI or ICC certified inspectors to verify concrete reinforcing work performed was in accordance with contract documents.
3. Review of concrete inspection field reports provided the Testing Agency for work performed by ACI or ICC certified inspectors to verify concrete placement work was in accordance with contract documents.
4. Review of concrete inspection field reports provided by the Testing Agency for work performed by ACI or ICC certified inspectors to verify bolts installed in concrete prior to and during placement. Reports shall indicate conformance of bolt position, embedment and concrete placement and consolidation around bolts.
5. Review of laboratory test reports for concrete test cylinders.
6. Site visits as required during, and one (1) site visit following structural steel erection to verify framing details are in conformance with Construction Documents.
7. Review of submittals required by the Statement of Special Inspections prepared by the Structural Engineer of Record and will include:
    a. Review of AISC or IAS Certification documentation from Structural Steel fabricator.
    b. Review of Structural Steel or Metal Building fabricator's "Certificate of Compliance."
    c. Review of required Welder's Certificate submittals.
    d. Review of material verification submittals.
8. Review of field reports, by others, for the inspection of field bolted and field welded connections.
9. Preparation and distribution of Non-Conformance reports as required.
10. Preparation and distribution of Interim Special Inspection Reports as required by the Structural Engineer of Record and/or Building Official.
11. Preparation of Final Report of Special Inspections.

EXCLUDED SERVICES

Services not included above are excluded from the WORK.

SERVICES BY OTHERS

The following services are to be provided by others or may be provided by M^2 Structural Engineering, P.C. as an additional service. For the purposes of this Agreement, the following are not included as part of M^2 Structural Engineering, P.C.'s WORK:

Reimbursable expenses will be billed at cost plus 10% in addition to the fee.

Our current hourly rate for engineering services is $100.00 per hour. This rate is effective through the last day of December 2012.

Additional Services will be charged at our standard hourly rates or billed at a mutually agreed upon fee.

This Letter of Agreement, and Exhibits A and B hereto, constitute the entire Agreement between the parties. Please examine these documents and sign and return one copy to me.

We are looking forward to working with you on this Project.

Respectfully,
M^2 Structural Engineering, P.C.

Matthew J. Miller, P.E.
President

Accepted by:

_____ _____
(Signature) (Date)

_____
(Printed Name)

_____
(Title)

M² Structural Engineering P.C.
23 Thornbury Way
Windham, ME 04062
(207) 892-0983

An Agreement between Client and Structural Engineer for Special Inspection Services

Based on the Council of American Structural Engineers document 4-2008

December 7, 2011

Phoenix Property Management
Attn: Aaron Bateman
PO Box 759
Saco, ME 04072

Reference: New Building for Phoenix Property Management
Hutchins Drive, Portland, ME
P2011-34

Dear: Aaron

We are pleased to propose the following Agreement for providing special inspection services on the above referenced project.

DESCRIPTION OF PROJECT

The Project consists of:

- A 7000 square foot pre-manufactured metal building.
- A 2400 square foot salt storage shed.
- And a 200 foot long (approx..) retaining wall.

SCOPE OF SERVICES

The services to be provided are described in the Scope of Special Inspection Services (Exhibit A) and the Terms and Conditions (Exhibit B). The services are based on Drawings prepared by Ted Greenlaw, CORLE, and Attar Engineering, Inc and the Draft Statement of Special Inspections dated December 6, 2011. It is our understanding that Phoenix Property Management will engage the services of a testing lab to perform field testing and inspection services under a separate contract.

Special Inspections for other disciplines not itemized in Exhibit A may be required, but are not included in this Agreement.

COMPENSATION

Compensation for our services will be a fee calculated on an hourly rate basis per our current hourly rates as indicated below. Fees for outside consultants will be billed at a cost plus 10% in addition to the fee. At this time we estimate the total fee to be between $1500.00 and $2000.00. This total fee shall be understood to be an estimate and is based on a construction time of three (3) months. If Basic Services have not been completed within this time, through no fault of the Structural Special Inspector, the amounts of compensation set forth in this Agreement shall be equitably adjusted.

To: Aaron Bateman
Subject: RE: Foundation Plans & Anchor Bolt Plans / Reactions

Aaron,

Attached, please find a copy of my proposal for Special Inspection Services. You should be getting a separate proposal from S.W. Cole.

Please let me know if you have any questions.

Regards,

Matt

Thanks Aaron, that's fine for the additional services information.

The only remaining item I have is the Com Check certificates, did I miss seeing these in an email?
Let me know if this is forthcoming, if not, I could issue the permit with a condition for this.
Jeanie

>>> Aaron Bateman <abateman@phoenixmanagementcompany.com> 12/9/2011 9:00 AM >>>
Hi Jeanie,

Attached is the statement of special Inspections. There is a small scope of services by others that will be performed by SW Cole. As soon as I have their info in hand I will forward it.

Could you send us a quick update of where you see the project permit at this point. We would like to start the foundation next week and are hoping the full permit could be pulled early in the week.

Thanks
Aaron

From: Jeanie Bourke [mailto:JMB@portlandmaine.gov]
Sent: Thursday, December 08, 2011 8:46 AM
To: Aaron Bateman
Cc: Bill Southworth; Josh Cushman
Subject: Re: FW: Foundation Plans & Anchor Bolt Plans / Reactions

Hi Aaron,
In addition to the scope and agreement of special inspections provided, please submit the "Draft (or finalized) Statement of Special Inspections dated December 6, 2011", and the Services By Others as outlined in Exhibit A.
Thanks'
Jeanie

Jeanie Bourke
CEO/LPI/Plan Reviewer

City of Portland
Planning & Urban Development Dept./ Inspections Division
389 Congress St. Rm 315
Portland, ME 04101
jmb@portlandmaine.gov
Direct: (207) 874-8715
Office: (207) 874-8703

>>> Aaron Bateman <abateman@phoenixmanagementcompany.com> 12/7/2011 4:23 PM >>>
Please find attached a proposal for special inspections.

Thanks
Aaron

From: Matthew J. Miller, P.E. [mailto:matt@m2se.com]
Sent: Wednesday, December 07, 2011 3:32 PM

From: Aaron Bateman [mailto:abateman@phoenixmanagementcompany.com]
Sent: Tuesday, December 13, 2011 10:24 AM
To: 'Matthew J. Miller, P.E.'
Subject: FW: FW: Foundation Plans & Anchor Bolt Plans / Reactions

Hi Matt,

Could you please review the e-mail from Jeanie and get back to me.

Thanks
Aaron

From: Jeanie Bourke [mailto:JMB@portlandmaine.gov]
Sent: Friday, December 09, 2011 2:09 PM
To: Aaron Bateman
Cc: Bill Southworth; Josh Cushman
Subject: RE: FW: Foundation Plans & Anchor Bolt Plans / Reactions

Hi Aaron,
I am ok with issuing the permit with certain conditions, however, after further review of the statement of special inspections, I do have a couple of items. I apologize for not seeing this at first.

1. On page 11 of 12, Seismic Resistance, the engineer will need to justify not requiring inspections for 1.a as this is seismic design D

2. Engineers justification for no Quality Assurance Plan for seismic design D, Sec. 1705.3.1 only exempts design C.

3. A sealed and sign copy of the statement will need to be submitted, this can be a condition.

Thanks,
Jeanie

>>> Aaron Bateman <abateman@phoenixmanagementcompany.com> 12/9/2011 11:06 AM >>>
Hi Jeanie,

I have called Josh from Portland Builders asking him to take care of the Com Check certificates. I do not believe these have been provided to date. In the mean time if you could issue the permit with this as a remaining condition that would be great.

I could send someone over today to grab it if that is possible.

Thanks for all the help on this!

Aaron

From: Jeanie Bourke [mailto:JMB@portlandmaine.gov]
Sent: Friday, December 09, 2011 11:02 AM
To: Aaron Bateman
Subject: RE: FW: Foundation Plans & Anchor Bolt Plans / Reactions

Jeanie Bourke - FW: FW: Foundation Plans & Anchor Bolt Plans / Reactions

From: Aaron Bateman <abateman@phoenixmanagementcompany.com>
To: "'Jeanie Bourke'" <JMB@portlandmaine.gov>
Date: 12/13/2011 1:20 PM
Subject: FW: FW: Foundation Plans & Anchor Bolt Plans / Reactions
CC: "'Josh Cushman'" <jcushman@portlandbuilders.com>, Bill Southworth <BSout...
Attachments: Phoenix Seismic.pdf

Hi Jeanie,

Below is Matt's response. Please let me know if we need to provide additional information.

Thanks
Aaron

From: Matthew J. Miller, P.E. [mailto:matt@m2se.com]
Sent: Tuesday, December 13, 2011 12:14 PM
To: Aaron Bateman
Subject: RE: FW: Foundation Plans & Anchor Bolt Plans / Reactions

Aaron,

Based on my quick investigation, the Mapped Spectral Accelerations should be:
Ss = 0.322
S1 = 0.078

Based on these values the Design Spectral Accelerations for Site Class E should be:

Sds = 0.487
Sd1 = 0.182

Since this is a category II building these values correspond to a Seismic Design Category C.

A copy of my backup information is attached, where the design values for the 2009 IBC are based on the 2003 NEHRP provisions.

In review of the anchor rod drawings, the SER has the values of Ss and S1 listed at 0.41 and 0.1. If we use these higher values, then yes the building would be in seismic design category D.

I would recommend that the EOR from CORLE review the seismic values, and adjust them as necessary.

Please let me know if you have any questions or need any additional information.

Regards,

Matt

ATTAR
ENGINEERING, INC
CIVIL STRUCTURAL · MARINE

Ms. Barbara Barhydt
Development Review Services Manager
Planning Division
389 Congress Street 4th Floor
Portland, ME 04101
(207) 874-8699
Fax: (207) 756-8256
bab@portlandmaine.gov

June 17, 2011
Project No.: C010-11

Re: Hutchins Drive Maintenance Facility
144 Hutchins Drive
Portland, Maine

Dear Ms. Barhydt:

On behalf of Phoenix Property Services I have attached a Level II Preliminary Site Plan application for your review and consideration for the referenced project. The project involves a new, 7,000 S.F. commercial maintenance building, A 2,400 SF salt shed, associated parking, access and utility improvements. The project site (Tax Assessor's Map 240, Block A, Lot 4) is located in the Industrial – Moderate Impact (IM) District and is approximately 2.16 acres in area.

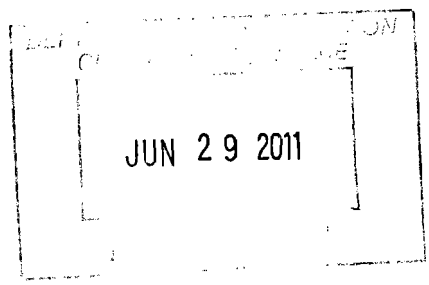
This project requires a Stormwater Permit by Rule from the Maine Department of Environmental Protection, an application for which has been filed and is included in this application.

Please contact me for any additional information or clarifications required.

Sincerely,

Christopher L. Stairs, EIT.
Project Engineer

cc: Phoenix Property Services



1284 State Road, Eliot, ME 03903 · tel (207) 439-6023 · fax (207) 439-2128

Project Summary – Hutchins Drive Maintenance Facility

The purpose of this project is to obtain permitting for a proposed 7,000 S.F. maintenance facility, a 2,400 S. F. salt shed, associated parking, access and utility improvements.

The proposed development will take place on Tax Assessor's Map 240, Block A, Lot 4. This lot is approximately 2.16 acres in area and is owned by Maine Alpha Floor Sanding. The applicant has a purchase and sale agreement with the owner.

Zoning is Industrial – Moderate Impact (IM). The proposed use will be a combination of repair services and warehousing and distribution. Both of which are permitted in the Industrial District.

Water service will be provided by the Portland Water District through an existing 42" Dia. main within a right of way adjacent to the Hutchins Drive right of way.

Sewer service will be provided by the Portland Sewer Department through connection to an existing 8" Dia. ductile iron pipe located within the Ranger Drive right-of-way

Overhead utilities will need to be extended along Hutchins Drive approximately 145' and across the right of way to the property. From there utilities will be installed underground.

Site lighting will consist of residential type cut-off wall-pack fixtures to be placed at each entry door to the proposed building.

The project will require a Stormwater Permit by Rule from the Maine Department of Environmental Protection (MDEP) Permit *(Chapter 500 – Stormwater Management)*. A copy of this application had been included with this application.

Traffic for the majority of the year will be based on an average of 5 employees which will create and average daily trip total of 10 trips. During storm events the owner is projecting to see approximately 30 trucks per day loading salt.

There is a private 30' wide drainage easement running through the site from the westerly property line to the north easterly corner of the property. In addition there is an easement to the city of Portland along the Hutchins Drive right of way.

Landscaping will consist of existing vegetation, turf areas and proposed plant materials.

Commercial solid waste disposal will be provided by a dumpster / compactor located on site.

PROJECT NAME: Hutchins Drive Maintenance Facility

PROPOSED DEVELOPMENT ADDRESS:

144 Hutchins Drive

PROJECT DESCRIPTION:

Proposed 7,000 SF, (65' X 107') industrial building with a separate 40' X 60' salt shed and associated parking.

CHART/BLOCK/LOT: 240-A-4

PRELIMINARY PLAN 6/17/11 (date)
FINAL PLAN _____ (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Phoenix Property Services Business Name, if applicable: Address: P.O. Box 759 City/State: Saco, ME Zip Code: 04072	**Applicant Contact Information** Work # (207) 571-3061 Home# Cell # Fax# e-mail: abateman@phoenixmanagementcompany.com
Owner – (if different from Applicant) Name: Maine Alpha Floor Sanding Address: 23 Rabbit Run City/State: Portland, ME Zip Code: 04102	**Owner Contact Information** Work # Home# Cell # Fax# e-mail:
Agent/ Representative Name: Attar Engineering, Inc. Kenneth A. Wood, P.E. Address: 1284 State Road City/State: Eliot, ME Zip Code: 03903	**Agent/Representative Contact Information** Work # (207) 439-6023 Cell # e-mail: ken@attarengineering.com
Billing Information Name: Same as Agent/Representative Address: City/State: Zip Code:	**Billing Information** Work # Cell # Fax# e-mail:

Engineer Name: Attar Engineering, Inc. Address: Kenneth A. Wood, P.E. 1284 State Road City/State : Eliot Zip Code: 03903	**Engineer Contact Information** Work # (207) 439-6023 Cell # Fax# (207) 439-2128 e-mail: ken@attarengineering.com
Surveyor Name: Address: City/State : Zip Code:	**Surveyor Contact Information** Work # Cell # Fax# e-mail:
Architect Name: Address: City/State : Zip Code:	**Architect Contact Information** Work # Cell # Fax# e-mail:
Attorney Name: Address: City/State : Zip Code:	**Attorney Contact Information** Work # Cell # Fax# e-mail:

APPLICATION FEES:

Check all reviews that apply. (Payment may be made by Cash or Check payable to the City of Portland.)

Level II Development (check applicable reviews)	**Fees Paid** (office use)	**Other Reviews** (check applicable reviews)	**Fees Paid** (office use)
_X_ Less than 10,000 sq. ft. ($400.00) ___ After-the-fact Review ($1,000.00 plus applicable application fee) _____ The City invoices separately for the following: • Notices ($.75 each) • Legal Ad (% of total Ad) • Planning Review ($40.00 hour) • Legal Review ($75.00 hour) Third party review is assessed separately.	___ ___	___ Traffic Movement ($1,000) ___ Stormwater Quality ($250) ___ Section 14-403 Review ($400 + $25/lot) # of Lots ___ x $25/lot = _____ ___ Other _____ ___ Change of Use ___ Flood Plain ___ Shoreland ___ Design Review ___ Housing Replacement ___ Historic Preservation	___ ___ ___
Plan Amendments (check applicable reviews) ___ Planning Staff Review ($250) ___ Planning Board Review ($500)	**Fees Paid** (office use) ___ ___		

APPLICATION SUBMISSION

As of December 1, 2010, all site plans and written application materials must be uploaded to a website for review. At the time of application, instructions for uploading the plans will be provided to the applicant. One paper set of the plans, written materials and application fee must be submitted to the Planning Division Office to start the review process.

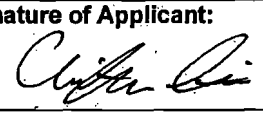
Until December 1, 2010, **submissions shall include seven (7) packets with folded plans containing the following materials:**

1. **Seven (7) full size site plans** that must be **folded.**
2. Seven (7) copies of all written materials or as follows, unless otherwise noted:
    a. Application form that is completed and signed.
    b. Cover letter stating the nature of the project.
    c. All Written Submittals (Sec. 14-525 2. (c), including evidence of right, title and interest.
5. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 100 feet.
6. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
7. Copy of the checklist completed for the proposal listing the material contained in the submitted application.
8. One (1) set of plans reduced to 11 x 17.

Refer to the application checklist for a detailed list of submittal requirements.
Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14), which includes the Subdivision Ordinance (Section 14-491) and the Site Plan Ordinance (Section 14-521). Portland's Land Use Code is on the City's web site: www.portlandmaine.gov Copies of the ordinances may be purchased through the Planning Division.

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 Planning Authority and Code Enforcement'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.

This application is for a Level II Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant:	**Date:**
	June 17, 2011

PROJECT DATA

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

Total Site Area	94,090	sq. ft.
Proposed Total Disturbed Area of the Site	48,023	sq. ft.
(If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland)		
IMPERVIOUS SURFACE AREA		
• Proposed Total Paved Area	21,658	sq. ft.
• Existing Total Impervious Area	0	sq. ft.
• Proposed Total Impervious Area	30,234	sq. ft.
• Proposed Total Impervious Area		sq. ft.
• Proposed Impervious Net Change	30,234	sq. ft.
BUILDING AREA		
• Proposed Building Footprint	9,400	sq. ft.
• Proposed Building Footprint Net change		sq. ft.
• Existing Total Building Floor Area	0	sq. ft.
• Proposed Total Building Floor Area		sq. ft.
• Proposed Building Floor Area Net Change		sq. ft.
• New Building	Yes	(yes or no)
ZONING		
• Existing	IM (Moderate Industrial)	
• Proposed, if applicable	IM (Moderate Industrial)	
LAND USE		
• Existing		
• Proposed		
RESIDENTIAL, IF APPLICABLE		
• Proposed Number of Affordable Housing Units		
• Proposed Number of Residential Units to be Demolished		
• Existing Number of Residential Units		
• Proposed Number of Residential Units		
• Subdivision, Proposed Number of Lots		
PARKING SPACES		
• Existing Number of Parking Spaces	0	
• Proposed Number of Parking Spaces	13	
• Number of Handicapped Parking Spaces	1	
• Proposed Total Parking Spaces	14	
BICYCLE PARKING SPACES		
• Existing Number of Bicycle Parking Spaces		
• Existing Number of Bicycle Parking Spaces		
• Proposed Number of Bicycle Parking Spaces		
• Total Bicycle Parking Spaces		
ESTIMATED COST OF PROJECT	?	

General Submittal Requirements – Preliminary Plan (Optional)
Level II Site Plan
Preliminary Plan Phase Check list (if elected by applicant)

Applicant Checklist	Planner Checklist	Number of Copies	Written Submittal Requirements
☑	☐	7 (1 paper copy as of Dec. 1)	Completed application form
☑	☐	1	Application fees
☑	☐	7 (1 paper copy as of Dec. 1)	Written description of project
☑	☐	7 (1 paper copy as of Dec. 1)	Evidence of right, title and interest.
☑	☐	7 (1 paper copy as of Dec. 1)	Copies of required State and/or Federal permits.
☑	☐	7 ((1 paper copy as of Dec. 1)	Written assessment of zoning.
☑	☐	7 (1 paper copy as of Dec. 1)	Written description of existing and proposed easements or other burdens.
☐	☐	7 (1 paper copy as of Dec. 1)	Written requests for waivers from individual site plan and/or technical standards, where applicable.
☑	☐	7 (1 paper copy as of Dec. 1)	Traffic analysis (may be preliminary, in nature, during the preliminary plan phase).
☑	☐	7 (1 paper copy as of Dec. 1)	Written summary of significant natural features located on the site.
☐	☐	7 (1 paper copy as of Dec. 1)	Written summary of project's consistency with related city master plans.
Applicant Checklist	**Planner Checklist**	**Number of Copies**	**Site Plan Submittal Requirements**
☑	☐	7 (1 paper copy as of Dec. 1)	Boundary Survey meeting the requirements of Section 13 of the City of Portland Technical Manual.
☑	☐	7 (1 paper copy as of Dec. 1)	**Preliminary Site Plan including the following:** *(*information provided may be preliminary in nature during preliminary plan phase):*
☑	☐		▪ *Existing and proposed structures with distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone).*
☑	☐		▪ *Location of adjacent streets and intersections and approximate location of structures on abutting properties.*
☑	☐		▪ *Proposed site access and circulation.*
☑	☐		▪ *Proposed grading and contours.*
☑	☐		▪ *Location and dimension of existing and proposed paved areas including all parking areas and vehicle, bicycle and pedestrian access ways.*
☑	☐		▪ *Preliminary landscape plan including existing vegetation to be preserved, proposed site landscaping and street trees.*
☑	☐		▪ *Existing and proposed utilities (preliminary layout).*
☑	☐		▪ *Preliminary infrastructure improvements (e.g. - curb and sidewalk improvements, roadway intersection modifications, utility connections, transit infrastructure, roadway improvements).*
☑	☐		▪ *Preliminary stormwater management and erosion control plan.*
☑	☐		▪ *Existing significant natural features located on the site (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features listed in Section 14-526 (b) 1. of the Land Use Code).*

☑	☐	▪ *Proposed alterations to and protection measures for significant natural features located on the site (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features listed in Section 14-526 (b)1. of the Land Use Code).*
☑	☐	▪ *Existing and proposed easements or public or private rights of way.*

General Submittal Requirements – Final Plan (Required)
Level II Site Plan
Final Plan Phase Check list (including items listed above in General Requirements for Preliminary Plan, if applicant did not elect to submit for a preliminary plan review)

Applicant Checklist	Planner Checklist	Number of Copies	Written Submittal Requirement
☐	☐	1	Evidence of financial and technical capacity.
☐	☐	1	Evidence of utilities' capacity to serve the development.
☐	☐	1	Written summary of fire safety (referencing NFPA fire code and Section 3 of the City of Portland Technical Manual).
☐	☐	1	Construction management plan.
☐	☐	1	Traffic Plan (if development will (1) generate 100 or more PCE or (2) generate 25 or more PCE and is located on an arterial, within 1/2 mile of a high crash location, and/or within ¼ mile of an intersection identified in a previous traffic study as a failing intersection).
☐	☐	1	Stormwater management plan.
☐	☐	1	Written summary of solid waste generation and proposed management of solid waste.
☐	☐	1	Written assessment of conformity with applicable design standards.
☐	☐	1	Manufacturer's verification that HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

			Final Plan Phase
☐	☐	7 (1 paper copy as of Dec. 1)	**Final Site Plan including the following**
☐	☐		▪ *Existing and proposed structures on the site with distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone).*
☐	☐		▪ *Location of adjacent streets and intersections and approximate location of structures on abutting properties.*
☐	☐		▪ *Proposed site access and circulation.*
☐	☐		▪ *Proposed grading and contours.*
☐	☐		▪ *Location and dimension of existing and proposed paved areas including all parking areas and vehicle, bicycle and pedestrian access ways. Proposed curb lines must be shown.*
☐	☐		▪ *Proposed loading and servicing areas, including applicable turning templates for delivery vehicles*
☐	☐		▪ *Proposed snow storage areas or snow removal plan.*
☐	☐		▪ *Proposed trash and recycling facilities.*
☐	☐		▪ *Landscape plan including existing vegetation to be preserved, proposed site landscaping and street trees.*
☐	☐		▪ *Existing and proposed utilities.*

☐	☐	▪ *Location and details of proposed infrastructure improvements (e.g. - curb and sidewalk improvements, roadway intersection modifications, utility connections, public transit infrastructure, roadway improvements).*
☐	☐	▪ *Proposed septic system, if not connecting to municipal sewer. (Portland Waste Water Application included in this application)*
☐	☐	▪ *Proposed finish floor elevation (FFE).*
☐	☐	▪ *Exterior building elevation(s) (showing all 4 sides).*
☐	☐	▪ *Proposed stormwater management and erosion controls.*
☐	☐	▪ *Exterior lighting plan, including street lighting improvements..*
☐	☐	▪ *Proposed signage.*
☐	☐	▪ *Identification of existing significant natural features located on the site (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features listed in Section 14-526 (b)1. of the Land Use Code). Wetlands must be delineated.*
☐	☐	▪ *Proposed alterations to and protection measures for of existing significant natural features located on the site (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features listed in Section 14-526 (b)1. of the Land Use Code).*
☐	☐	▪ *Total area and limits of proposed land disturbance.*
☐	☐	▪ *Soil type and location of test pits and borings.*
☐	☐	▪ *Details of proposed pier rehabilitation (Shoreland areas only).*
☐	☐	▪ *Existing and proposed easements or public or private rights of way.*

PORTLAND FIRE DEPARTMENT
SITE REVIEW
FIRE DEPARTMENT CHECKLIST

A separate drawing[s] shall be provided to the Portland Fire Department for all site plan reviews.

1. Name, address, telephone number of applicant.
2. Name address, telephone number of architect
3. Proposed uses of any structures [NFPA and IBC classification]
4. Square footage of all structures [total and per story]
5. Elevation of all structures
6. Proposed fire protection of all structures
   - ***As of September 16, 2010 all new construction of one and two family homes are required to be sprinkled in compliance with NFPA 13D. This is required by City Code. (NFPA 101 2009 ed.)***
7. Hydrant locations
8. Water main[s] size and location
9. Access to all structures [min. 2 sides]
10. A code summary shall be included referencing NFPA 1 and all fire department. Technical standards.

Some structures may require Fire flows using annex H of NFPA 1

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991

Date: 6/17/11

Mr. Frank J. Brancely,
Senior Engineering Technician,
Phone #: (207) 874-8832,
Fax #: (207) 874-8852,
E-mail:fjb@portlandmaine.gov

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 144 Hutchins Drive, Portland, ME

(Regarding addressing, please contact Leslie Kaynor, either at 756-8346, or at LMK@portlandmaine.gov)

Chart Block Lot Number: 240,A,4

Proposed Use:

Previous Use: Undevloped

Existing Sanitary Flows: 0 GPD

Existing Process Flows: 0 GPD

Description and location of City sewer, at proposed building sewer lateral connection:
Existing sewer manhole located on Hutchins Drive

Site Category:

Commercial	X
Industrial *(complete part 4 below)*	
Governmental	
Residential	
Other *(specify)*	

Clearly, indicate the proposed connection, on the submitted plans.

2. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: 75 GPD

Peaking Factor/ Peak Times:

Specify the source of design guidelines: *(i.e. X "Handbook of Subsurface Wastewater Disposal in Maine," "Plumbers and Pipe Fitters Calculation Manual," __ Portland Water District Records, __ Other (specify)*

Note: Please submit calculations showing the derivation of your design flows, either on the following page, in the space provided, or attached, as a separate sheet.

3. Please, Submit Contact Information.

Owner/Developer Name: Phoenix Management Company

Owner/Developer Address: P.O. Box 759, Saco, ME 04072

Phone: (207) 571-3061 Fax: E-mail: abateman@phoenixmanagementcompany.cc

Engineering Consultant Name: Attar Engineering, Inc.

Engineering Consultant Address: 1284 State Road, Eliot, ME 03903

Phone: (207) 439-6023 Fax: (207) 439-2128 E-mail: ken@attarengineering.com

City Planner's Name: Barbara Barhydt Phone: (207) 874-8699

Note: Consultants and Developers should allow +/- 15 days, for capacity status, prior to Planning Board Review.

4. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated: GPD

Do you currently hold Federal or State discharge permits? Yes ___ No ___

Is the process wastewater termed categorical under CFR 40? Yes ___ No ___

OSHA Standard Industrial Code (SIC): *(http://www.osha.gov/oshstats/sicser.html)*

Peaking Factor/Peak Process Times:

PHOENIX PROPERTY SERVICES
P.O. BOX 759
SACO, MAINE 04072-5118

June 16, 2011

City of Portland
Planning and Urban Development Department
Planning Department
Fourth Floor, City Hall
389 Congress Street
Portland, Maine 04101

RE: 144 Hutchins Drive

Dear Planning Staff:

Kenneth A. Wood, P.E. and Christopher L Stairs, E.I.T. of Attar Engineering, Inc. will be acting as our agents for the Level II applications for the referenced project.

Please contact me for any additional information.

Sincerely;

Aaron Bateman
President

PURCHASE AND SALE AGREEMENT - LAND ONLY

April 27 , 2011
Offer Date

_____ , _____ Effective Date
Effective Date is defined in Paragraph 20 of this Agreement

1. PARTIES: This Agreement is made between Phoenix Property Services , _____ ("Buyer") and Maine Alpha Floor Sanding , _____ ("Seller").

2. DESCRIPTION: Subject to the terms and conditions hereinafter set forth, Seller agrees to sell and Buyer agrees to buy ([X] all [ ] part of; If "part of" see para. 22 for explanation) the property situated in municipality of Portland , County of Cumberland . State of Maine, located at 144 Hutchins Dr and described in deed(s) recorded at said County's Registry of Deeds Book(s) 17009 , Page(s) 186 .

3. PURCHASE PRICE: For such Deed and conveyance Buyer agrees to pay the total purchase price of $ 170,000.00 . Buyer [ ] has delivered; or [X] will deliver to the Agency within 7 days of the Offer Date, a deposit of earnest money in the amount $ 10,000.00 . If said deposit is to be delivered after the submission of this offer and is not delivered by the above deadline, this offer shall be void and any attempted acceptance of this offer in reliance on the deposit being delivered will not result in a binding contract. Buyer agrees that an additional deposit of earnest money in the amount of $ n/a will be delivered n/a . Failure by Buyer to deliver this additional deposit in compliance with the above terms shall constitute a default under this Agreement. The remainder of the purchase price shall be paid by wire, certified, cashier's or trust account check upon delivery of the Deed.

This Purchase and Sale Agreement is subject to the following conditions:

4. EARNEST MONEY/ACCEPTANCE: CBRE/The Boulos Company ("Agency") shall hold said earnest money and act as escrow agent until closing; this offer shall be valid until April 28, 2011 (date) 5.00 [ ] AM [X] PM; and, in the event of non-acceptance, this earnest money shall be returned promptly to Buyer. In the event that the Agency is made a party to any lawsuit by virtue of acting as escrow agent, Agency shall be entitled to recover reasonable attorney's fees and costs which shall be assessed as court costs in favor of the prevailing party.

5. TITLE AND CLOSING: A deed, conveying good and merchantable title in accordance with the Standards of Title adopted by the Maine Bar Association shall be delivered to Buyer and this transaction shall be closed and Buyer shall pay the balance due and execute all necessary papers on October 31, 2011 (closing date) or before, if agreed in writing by both parties. If Seller is unable to convey in accordance with the provisions of this paragraph, then Seller shall have a reasonable time period, not to exceed 30 calendar days, from the time Seller is notified of the defect, unless otherwise agreed to in writing by both Buyer and Seller, to remedy the title. Seller hereby agrees to make a good-faith effort to cure any title defect during such period. If, at the later of the closing date set forth above or the expiration of such reasonable time period, Seller is unable to remedy the title, Buyer may close and accept the deed with the title defect or this Agreement shall become null and void in which case the parties shall be relieved of any further obligations hereunder and any earnest money shall be returned to the Buyer.

6. DEED: The property shall be conveyed by a Quit-Claim with Covenant deed, and shall be free and clear of all encumbrances except covenants, conditions, easements and restrictions of record which do not materially and adversely affect the continued current use of the property.

7. POSSESSION: Possession of premises shall be given to Buyer immediately at closing unless otherwise agreed in writing.

8. RISK OF LOSS: Until the closing, the risk of loss or damage to said premises by fire or otherwise, is assumed by Seller. Buyer shall have the right to view the property within 24 hours prior to closing for the purpose of determining that the premises are in substantially the same condition as on the date of this Agreement.

9. PRORATIONS: The following items, where applicable, shall be prorated as of the date of closing: rent, association fees, (other) no others . Real estate taxes shall be prorated as of the date of closing (based on municipality's fiscal year). Seller is responsible for any unpaid taxes for prior years. If the amount of said taxes is not known at the time of closing, they shall be apportioned on the basis of the taxes assessed for the preceding year with a reapportionment as soon as the new tax rate and valuation can be ascertained, which latter provision shall survive closing. Buyer and Seller will each pay their transfer tax as required by State of Maine.

RE/MAX By The Bay 970 Baxter Blvd., Suite 201 Portland, ME 04103
Phone: 207 553 7357 Fax: 866.552.7511 Derrick Buckspan

10. DUE DILIGENCE: Buyer is encouraged to seek information from professionals regarding any specific issue or concern.

Neither Seller nor Licensee makes any warranties regarding the condition, permitted use or value of Sellers' real property. This Agreement is subject to the following contingencies. with results being satisfactory to Buyer:

CONTINGENCY	YES	NO	DAYS FOR COMPLETION	OBTAINED BY	TO BE PAID FOR BY
1. SURVEY	[X]	[ ]	5/30/11	buyer	buyer
Purpose:					
2. SOILS TEST	[X]	[ ]	5/30/11	buyer	buyer
Purpose:					
3. SEPTIC SYSTEM DESIGN	[ ]	[X]			
Purpose:					
4. LOCAL PERMITS	[X]	[ ]	9/30/11	buyer	buyer
Purpose:					
5. HAZARDOUS WASTE REPORTS	[ ]	[X]			
Purpose:					
6. UTILITIES	[X]	[ ]	5/30/11	buyer	buyer
Purpose:					
7. WATER	[X]	[ ]	5/30/11	buyer	buyer
Purpose:					
8. SUB-DIVISION APPROVAL	[ ]	[X]			
Purpose:					
9. DEP/LURC APPROVALS	[X]	[ ]	9/30/11	buyer	buyer
Purpose:					
10. ZONING VARIANCE	[ ]	[X]			
Purpose:					
11. HABITAT REVIEW/ WATERFOWL	[ ]	[X]			
Purpose:					
12. MDOT DRIVEWAY/ ENTRANCE PERMIT	[X]	[ ]	9/30/11	buyer	buyer
Purpose:					
13. DEED RESTRICTION	[ ]	[X]			
Purpose:					
14. TAX EXEMPT STATUS	[ ]	[X]			
Purpose:					
15. OTHER	[X]	[ ]	9/30/11	buyer	buyer
Purpose: Building permits and approvals					

Further specifications regarding any of the above: All buyer due dilligence to be completed by 5/30/11. Receipt of permits and approvals to be completed by 9/30/11. Buyer agrees to apply for permits and approvals within fifteen (15) days of the effective date of this contract.

Unless otherwise specified above, all of the above will be obtained and paid for by Buyer. If the result of any investigation or other condition specified herein is unsatisfactory to Buyer, Buyer will declare the Agreement null and void by notifying Seller in writing within the specified number of days. and any earnest money shall be returned to Buyer. If the result of any investigation or other condition specified herein is unsatisfactory to Buyer, and Buyer wishes to pursue remedies other than voiding the Agreement. Buyer must do so to full resolution within the time period set forth above; otherwise this contingency is waived. If Buyer does not notify Seller that an investigation is unsatisfactory within the time period set forth above. this contingency is waived by Buyer. In the absence of inspection(s) mentioned above. Buyer is relying completely upon Buyer's own opinion as to the condition of the property.

21. CONFIDENTIALITY: Buyer and Seller authorize the disclosure of the information herein to the real estate licensees, attorneys, lenders, appraisers, inspectors, investigators and others involved in the transaction necessary for the purpose of closing this transaction. Buyer and Seller authorize the lender and/or closing agent preparing the entire closing statement to release a copy of the closing statement to the parties and their licensees prior to, at and after the closing.

22. OTHER CONDITIONS: Buyer will provide financing commitment subject to permits and approvals by 6/30/11.
Seller agrees to compensate or cause RE/MAX By The Bay to be compensated 4% of contract price at closing.

23. GENERAL PROVISIONS:

a. A copy of this Agreement is to be received by all parties and, by signature, receipt of a copy is hereby acknowledged. If not fully understood, contact an attorney. This is a Maine contract and shall be construed according to the laws of Maine.

b. Seller acknowledges that State of Maine law requires buyers of property owned by non-resident sellers to withhold a prepayment of capital gains tax unless a waiver has been obtained by Seller from the State of Maine Revenue Services.

c. Buyer and Seller acknowledge that under Maine law payment of property taxes is the legal responsibility of the person who owns the property on April 1, even if the property is sold before payment is due. If any part of the taxes is not paid when due, the lien will be filed in the name of the owner as of April 1 which could have a negative impact on their credit rating. Buyer and Seller shall agree at closing on their respective obligations regarding actual payment of taxes after closing. Buyer and Seller should make sure they understand their obligations agreed to at closing and what may happen if taxes are not paid as agreed.

d. Buyer acknowledges that Maine law requires continuing interest in the property and any back up offers to be communicated by the listing agent to the Seller.

24. ADDENDA: ☐ Yes Explain: _____ ☒ No

Buyer's Mailing address is _____.

4/27/11

BUYER DATE BUYER DATE

Phoenix Property Services.

Seller accepts the offer and agrees to deliver the above-described property at the price and upon the terms and conditions set forth and agrees to pay agency a commission for services as specified in the listing agreement.

Seller's Mailing address is _____.

SELLER Maine Alpha Floor Sanding DATE SELLER DATE

COUNTER-OFFER

Seller agrees to sell on the terms and conditions as detailed herein with the following changes and/or conditions:

The parties acknowledge that until signed by Buyer, Seller's signature constitutes only an offer to sell on the above terms and the offer will expire unless accepted by Buyer's signature with communication of such signature to Seller by (date) _____ (time) _____ ____ AM ____ PM.

SELLER DATE SELLER DATE

The Buyer hereby accepts the counter offer set forth above.

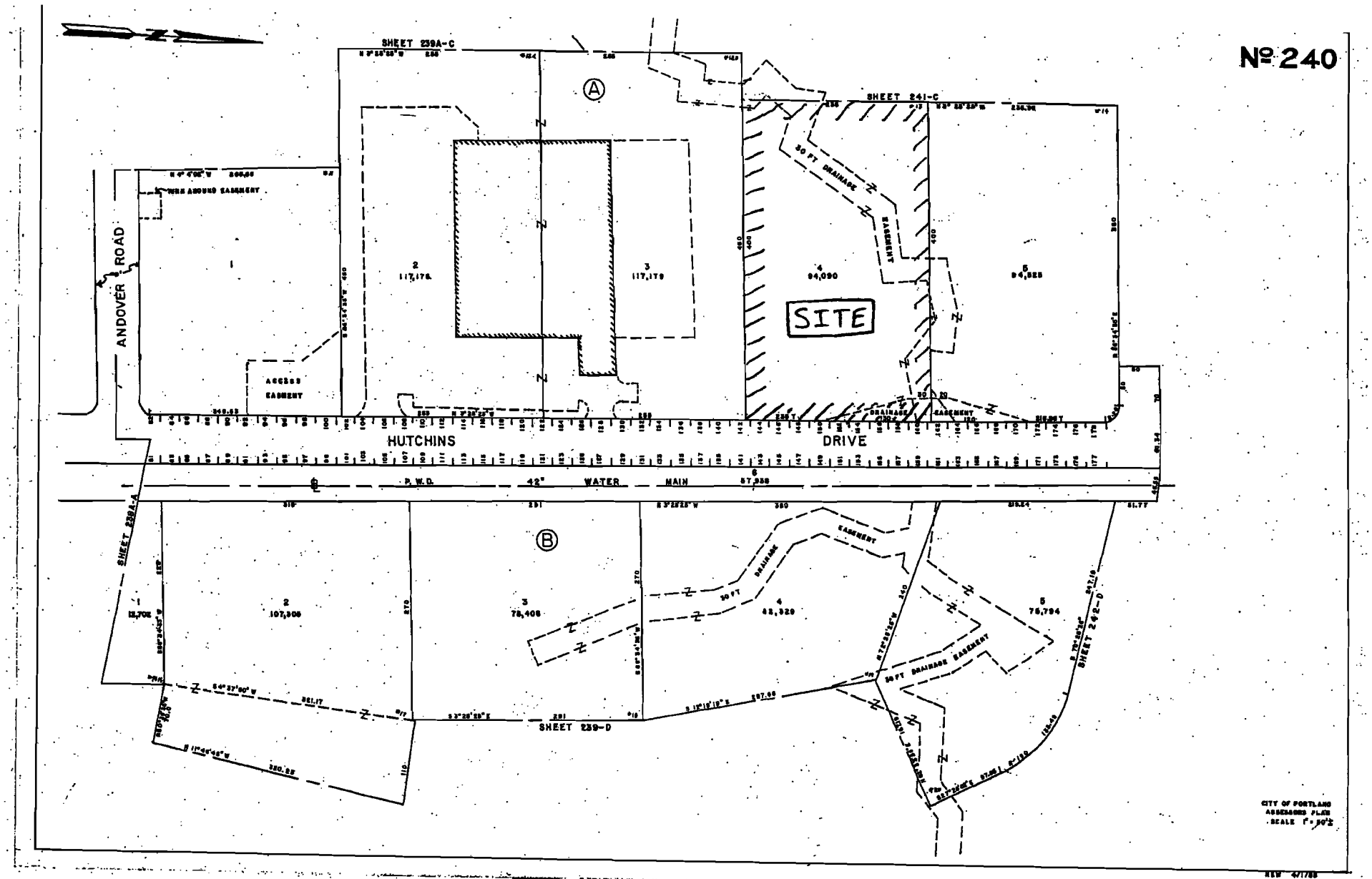
BUYER DATE BUYER DATE

EXTENSION:

The time for the performance of this Agreement is extended until _____ DATE.

SELLER DATE SELLER DATE

BUYER DATE BUYER DATE


Nº 240
SHEET 239A-C
SHEET 241-C
ANDOVER ROAD
TURN AROUND EASEMENT
ACCESS EASEMENT
30 FT DRAINAGE EASEMENT
SITE
HUTCHINS DRIVE
P.W.D. 42" WATER MAIN
SHEET 238A-A
SHEET 239-D
SHEET 242-D
30 FT DRAINAGE EASEMENT
CITY OF PORTLAND
ASSESSORS PLAN
SCALE 1" = 50'
REV 4/1/88

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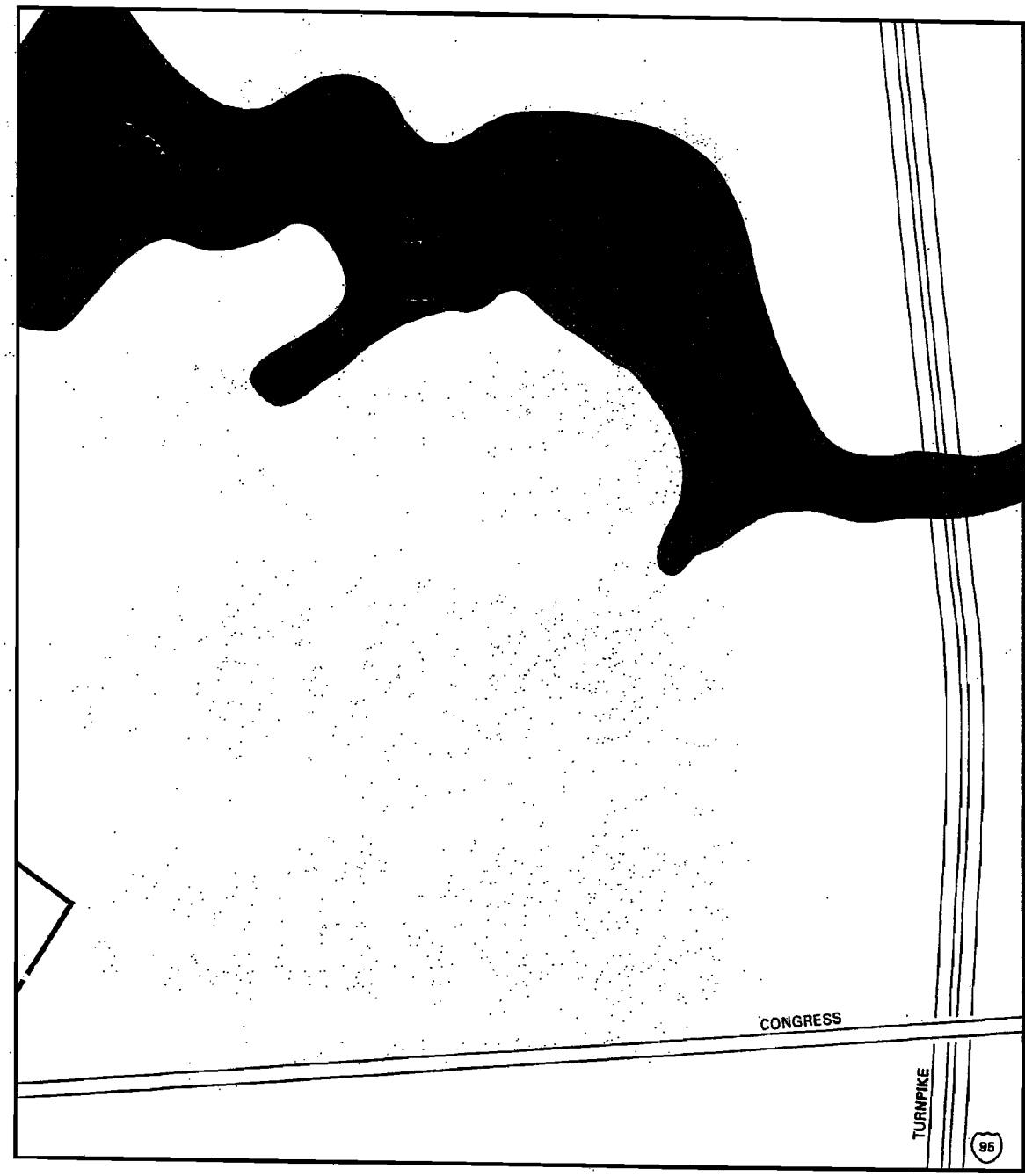
LOCATION MAP

HUTCHINS DRIVE
USGS 7.5 MINUTE SERIES
PORTLAND WEST QUADRANGLE
SCALE: 1 : 2,000



insurance agent or call the National Flood Insurance Pro

APPROXIMATE SCALE

400 0

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

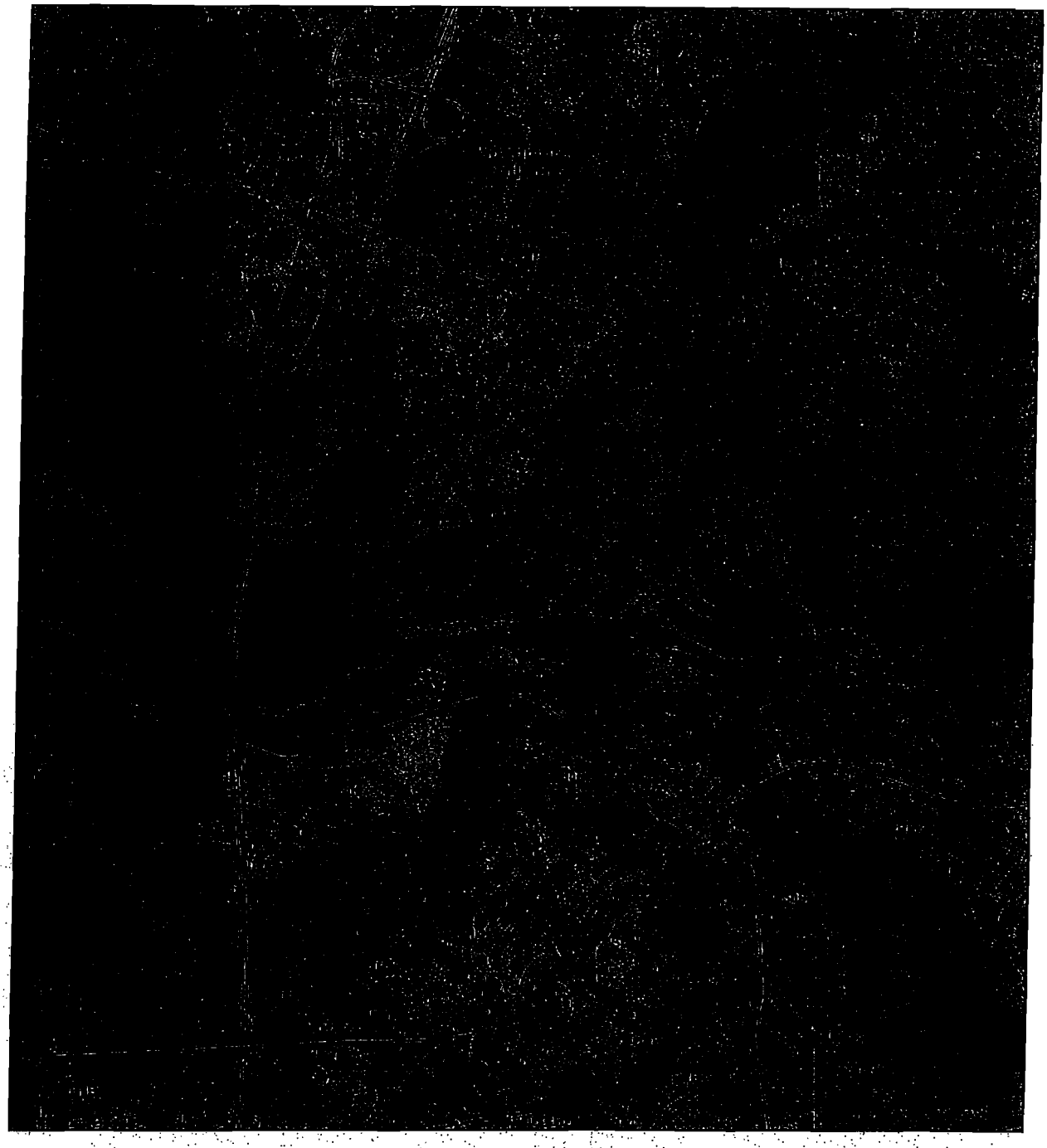
CITY OF
PORTLAND,
MAINE
CUMBERLAND COUNTY

PANEL 12 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230051 0012 C

MAP REVISED:
DECEMBER 8, 1998

Federal Emergency Management Agency



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SOILS MAP

144 HUTCHINS DRIVE
SOIL SURVEY OF
CUMBERLAND COUNTY
SCALE: 1 : 2,000

List of Abutters

Project: Hutchins Drive – Portland, ME C010-11

Location: Map 240 Lot A004 001

Map	Lot	Property Owner	Mailing Address
240	B004 001, B005 001, A005 001	Spring Harbor Hospital	216 Vaughan St. Ground Floor Portland, ME 04102
240	B003 001	Trophy Building LLC	299 Forest Avenue Portland, ME 04101
240	A002 001	UNUM Life Insurance Company of America	2211 Congress Street Portland, ME 04102
		Town of Westbrook	
006	000 017	Spring Harbor Hospital	123 Andover Road Westbrook, ME 04092

6/6/2011

ATTAR
ENGINEERING, INC
CIVIL • STRUCTURAL • MARINE

Marybeth Richardson
Maine Department of Environmental Protection
312 Canco Road
Portland, Maine 04103

June 17, 2011
Project No.: C010-11

RE: 144 Hutchins Drive – Portland, Maine
Stormwater Permit-By-Rule (PBR) Application

Dear Ms. Richardson:

I have attached a stormwater PBR application for the referenced project. Included in the application is a Letter of Agent Authorization and a plan set for your review. The project involves a new, 7,000 S.F. maintenance building, a 2,400 SF salt shed and associated parking, access and utility improvements. The project site (Tax Map 240, Block A, Lot 4) is located in the Industrial Moderate (IM) District and is approximately 2.16 acres in area.

The existing site is completely wooded with a wetland running through the property from the westerly property line the north east corner. The completed development will create approximately 30,234 S.F. of impervious area.

Please contact me for any additional information. Thank you for your assistance.

Sincerely;

Christopher L. Stairs, EIT.

cc: Phoenix Management Services

C010-11stpbrcover

1284 State Road, Eliot, ME 03903 ♦ tel (207) 439-6023 ♦ fax (207) 439-2128

STORMWATER PBR APPLICATION FORM **Page 1** ***03/06***

PLEASE TYPE OR PRINT IN *INK ONLY*

1. Name of Applicant:	**Aaron Bateman/Pheonix Property Services**	**5. Name of Agent: (if applicable)**	**Ken Wood/ Christopher Stairs**
2. Applicant's Mailing Address:	**PO Box 759 Saco, ME 04072-5118**	**6. Agent's Mailing Address:**	**Attar Engineering, Inc. 1284 State Road Eliot, ME 03903**
3. Applicant's Daytime Phone #:	**(207) 571-3061**	**7. Agent's Daytime Phone #:**	**(207) 439-6023**
4. Applicant's Fax #: (if available)	**---**	**8. Agent's Fax # and email address:**	**(207) 439-2128**
9. Location of Project: (Road, Street, Rt.#)	**144 Hutchins Drive**	**10. Town:**	**Portland**
		11. County:	**Cumberland**

12. Is this PBR for renewal of an individual stormwater permit? If yes, skip to Block 27 and signature page.	❑ Yes √ No

13. Type of Direct Watershed: (Check all that apply)	❑ Lake not most at risk ❑ Lake most at risk ❑ Lake most at risk, severely blooming √ River, stream or brook ❑ Urban impaired stream ❑ Freshwater wetland ❑ Coastal wetland ❑ Wellhead of public water supply	**14. Amount of Developed Area:**	❑ Total # of _____ acres OR √ Total # of **48,023** square feet
		15. Amount of Impervious Area:	❑ Total # of _____ acres OR √ Total # of **30,234** square feet

16. Creating a common plan of development or sale?	❑ Yes √ No	**17. Name of waterbody(ies) to which the project site drains:**	**Stroudwater River**
18. Brief Project Description:	**See attached sheet.**		
19. Size of Lot or Parcel:	❑ Total of ____square feet OR √ Total of **2.16** acres	**20. UTM Locations:(if known)**	UTM Northing: UTM Easting:
21. Deed Reference Numbers:	Book#: 144 Page#: 73	**22. Map and Lot Numbers:**	Map #: **240** Lot #: **4**
23. Project started prior to application?	❑ Yes➔ √ No	**If yes, Completed?** ❑ Yes ❑ No	**24. Resubmission of Application?** ❑ Yes √ No
25. Written Notice of Violation?	❑ Yes➔ √ No	**If yes, name of DEP enforcement staff involved:**	
26. Detailed Directions to the Project Site: (Attach separate sheet if necessary)	**See attached sheet.**		

27. SUBMISSIONS ▼

❒ This form (signed and dated) ❒ Fee	❒ Dept. of Inland Fisheries and Wildlife Approval (if in Essential Habitat)	❒ Photos of Area ❒ ESC Plan ❒ Location Map ❒ Site Plan	**For Renewal of an individual Stormwater permit only:** ❒ This form (signed and dated) ❒ Copy of original stormwater permit ❒ Fee

CERTIFICATIONS AND SIGNATURES LOCATED ON PAGE 2

OFFICE USE ONLY	Ck.#		Staff	Staff	
PBR #	FP	Date	Acc. Date	Def. Date	After Photos

With this Stormwater PBR notification form and my signature below, I am filing notice of my intent to carry out work which meets the requirements of the Maine Construction General Permit. I have read and will comply with all of the MCGP standards. In addition, I will file a Notice of Termination (NOT) within 20 days of project completion.

If this form is not being signed by the landowner or lessee of the property, attach documentation showing authorization to sign.

Signed_____ **Date:**_____

ATTAR
ENGINEERING, INC
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STORMWATER MANAGEMENT PLAN
144 HUTCHINS DRIVE
PORTLAND, MAINE

Project No.: C010-11 June 17, 2011

♦ Scope

This stormwater management plan has been prepared for 144 Hutchins Drive, a proposed commercial facility located in Portland, Maine. The developer, Phoenix Property Services proposes to construct the facility on an approximately 2.16 acre lot. The facility will consist of a 7,000 S.F. single-level building, a 2,400 S.F. salt shed and associated parking, driveway and utility improvements to support the development.

The project will create approximately 1.1 acres of developed area and approximately 0.70 acres of impervious area. Therefore the project must receive a Maine Department of Environmental Protection (MDEP) Chapter 500 (Stormwater Management) permit and must meet the Basic Standards, described in the MDEP publication, *Chapter 500, Stormwater Management*. The project must also meet the stormwater management requirements outlined in the Portland, Maine Zoning Ordinance.

♦ Site and Watershed Description

The site is located on Hutchins Drive in Portland, Maine. A 7½ minute series U.S.G.S. map of the project area is attached; the parcel is located near the end of Hutchins Drive on the left side of the road. The site is undeveloped, containing both wooded uplands and wooded wetlands.

The site is located in the Stroudwater River Watershed (source: USGS 7 ½ minute series, Portland West). The site drains to a wetland/ stream winding through the site from west to east. This stream outlets to the Stroudwater River within a half mile.

The topography of the site is rolling to steep (existing grades from 0% to 25%). On-site elevations (datum is NGVD1929) range from approximately 36' where the wetland exits the property to approximately 67' at the southerly edge of the developed area.

No areas of the site are located within a 100-Year Special Flood Hazard Area as determined by the Federal Emergency Management Agency (FEMA).

Proposed cuts and fills are mostly between 0 and 6 feet, with a maximum cut of 8 feet in some areas.

♦ Soils/Hydrologic Soil Groups

Soil types and their respective Hydrologic Soil Groups (HSG) were determined from the Soil Survey of Cumberland County, Maine. On site soils consist of Elmwood fine sandy loam (EmB, HSG C) and Sulfihemists (Frequently Flooded).

♦ **Methodology**

The stormwater quantity analysis was conducted using the HydroCAD Stormwater Modeling System by Applied Microcomputer Systems. The analysis was accomplished to determine the "Existing Condition" and "Developed Condition" stormwater flows. Both cases were analyzed for the 2, 10, and 25 year, 24-hour frequency storm events. The Existing Condition analyzes the site as it currently exists and the Developed Condition models the site with the proposed improvements described above.

♦ **Water Quantity Analysis and Results**

Existing Condition

The site was modeled as one subcatchment (SC) for the Existing Condition analysis. Analysis Point (AP) 1 was selected at the edge of the onsite wetland. Analysis Point 1 is located downstream of the proposed developed areas and provide a convenient location to compare Existing Condition flows to Developed Condition flows.

Developed Condition

The Developed Condition analysis consists of three subcatchments. Other features such as ponds and reaches were added to account for on-site routing, detention and treatment of stormwater. All Developed Condition flows are routed to AP 1 which is described above.

Tables showing Existing Condition peak flows, Developed Condition peak flows and the change in peak flow from Existing Condition to Developed Condition are presented on a separate page.

♦ **Summary**

The use of detention ponds to attenuate peak flows results in no significant increase in peak runoff quantity from the proposed 144 Hutchins Drive. No adverse effects are anticipated on any downstream properties or drainage structures for the analyzed storm events.

Sincerely;

Christopher L. Stairs, E.I.T.

C010-11SW

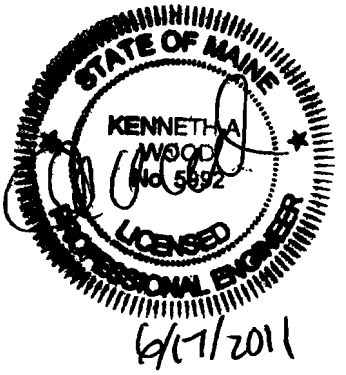
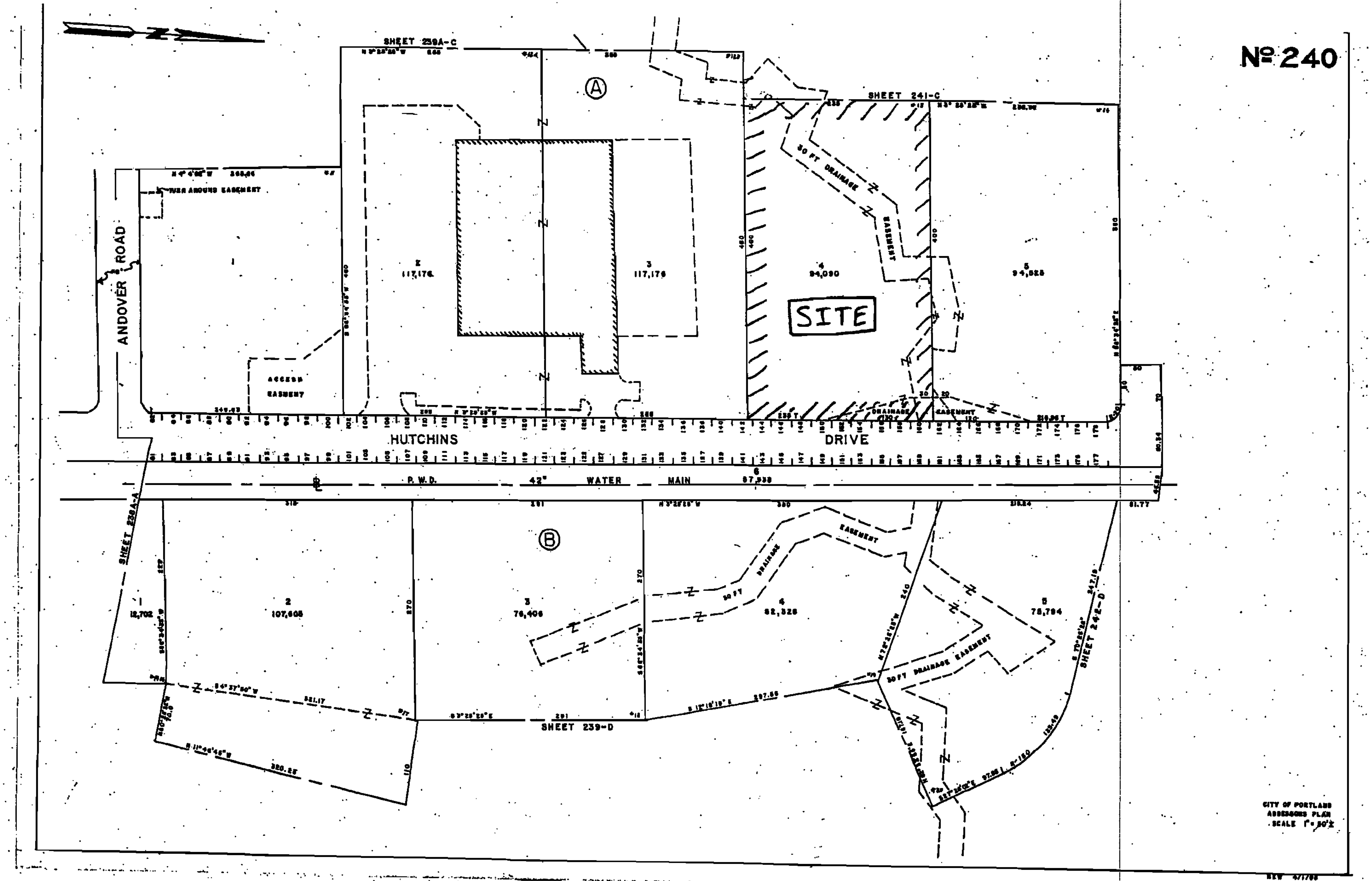


TABLE 1 - QUANTITY CALCULATIONS STORM EVENT

		2	10	25	
EXT	**AP 1**	1.23	3.05	4.06	(cfs)
		2	25	25	
DEV	**AP1**	1.13	2.26	2.86	(cfs)
CHANGE	**AP1**	-0.10	-0.79	-1.20	(cfs)



Nº 240
SHEET 239A-C
SHEET 241-C
SHEET 239A-A
SHEET 239-D
SHEET 242-D
A
B
SITE
ANDOVER ROAD
HUTCHINS DRIVE
P.W.D. 42" WATER MAIN
30 FT DRAINAGE EASEMENT
ACCESS EASEMENT
TURN AROUND EASEMENT
1
2
117,176
3
117,176
4
94,090
5
94,528
6
87,938
2
107,605
3
76,406
4
82,326
5
78,794
CITY OF PORTLAND
ASSESSORS PLAN
SCALE 1" = 80'±

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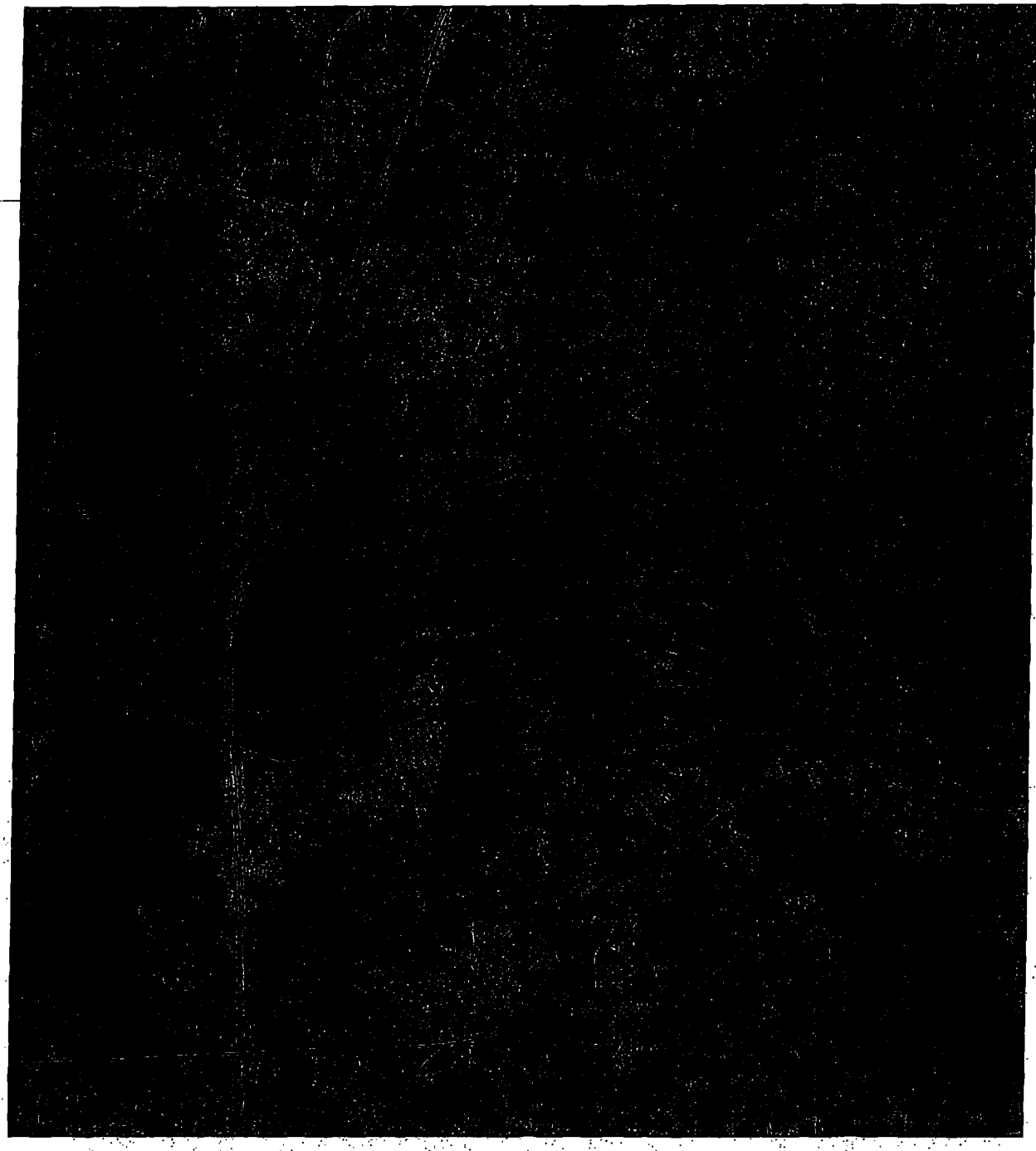
LOCATION MAP

HUTCHINS DRIVE
USGS 7.5 MINUTE SERIES
PORTLAND WEST QUADRANGLE
SCALE: 1 : 2,000



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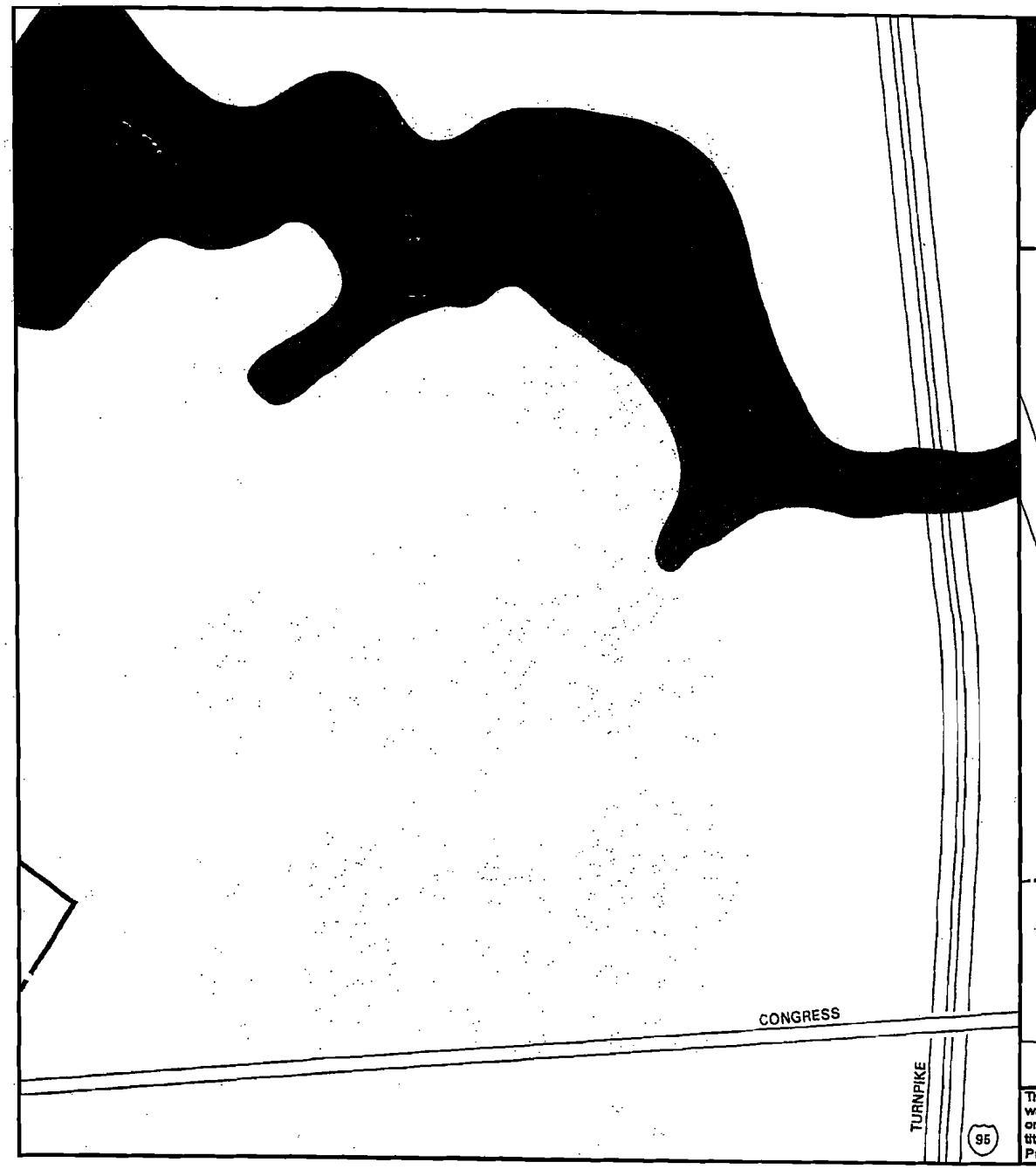
SOILS MAP

144 HUTCHINS DRIVE
SOIL SURVEY OF
CUMBERLAND COUNTY
SCALE: 1 : 2,000



insurance agent or call the National Flood Insurance Pro

APPROXIMATE SCALE

400 0

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND,
MAINE
CUMBERLAND COUNTY

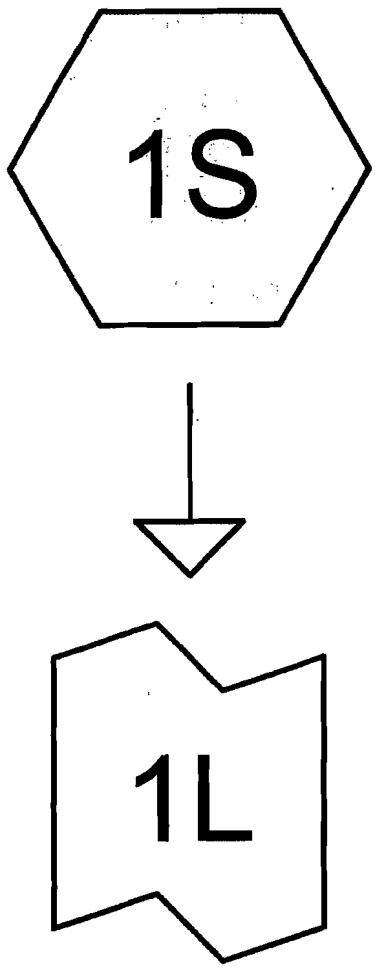
PANEL 12 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230051 0012 C

MAP REVISED:
DECEMBER 8, 1998

Federal Emergency Management Agency

EXISTING CONDITION CALCULATIONS



Subcat Reach Pond Link

Drainage Diagram for HUTCHINS EXT
Prepared by Attar Engineering, Inc., Printed 5/20/2011

Time span=5.00-36.00 hrs, dt=0.05 hrs, 621 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Runoff Area=69,240 sf 0.00% Impervious Runoff Depth=0.86"
Flow Length=271' Tc=10.9 min CN=73 Runoff=1.23 cfs 0.114 af

Link 1L: Inflow=1.23 cfs 0.114 af
Primary=1.23 cfs 0.114 af

Total Runoff Area = 1.590 ac Runoff Volume = 0.114 af Average Runoff Depth = 0.86"
100.00% Pervious = 1.590 ac 0.00% Impervious = 0.000 ac

Time span=5.00-36.00 hrs, dt=0.05 hrs, 621 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Runoff Area=69,240 sf 0.00% Impervious Runoff Depth=2.60"
Flow Length=271' Tc=10.9 min CN=73 Runoff=4.06 cfs 0.344 af

Link 1L: Inflow=4.06 cfs 0.344 af
Primary=4.06 cfs 0.344 af

Total Runoff Area = 1.590 ac Runoff Volume = 0.344 af Average Runoff Depth = 2.60"
100.00% Pervious = 1.590 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1S:

Runoff = 4.06 cfs @ 12.16 hrs, Volume= 0.344 af, Depth= 2.60"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.40"

Area (sf)	CN	Description
69,240	73	Woods, Fair, HSG C
69,240		100.00% Pervious Area

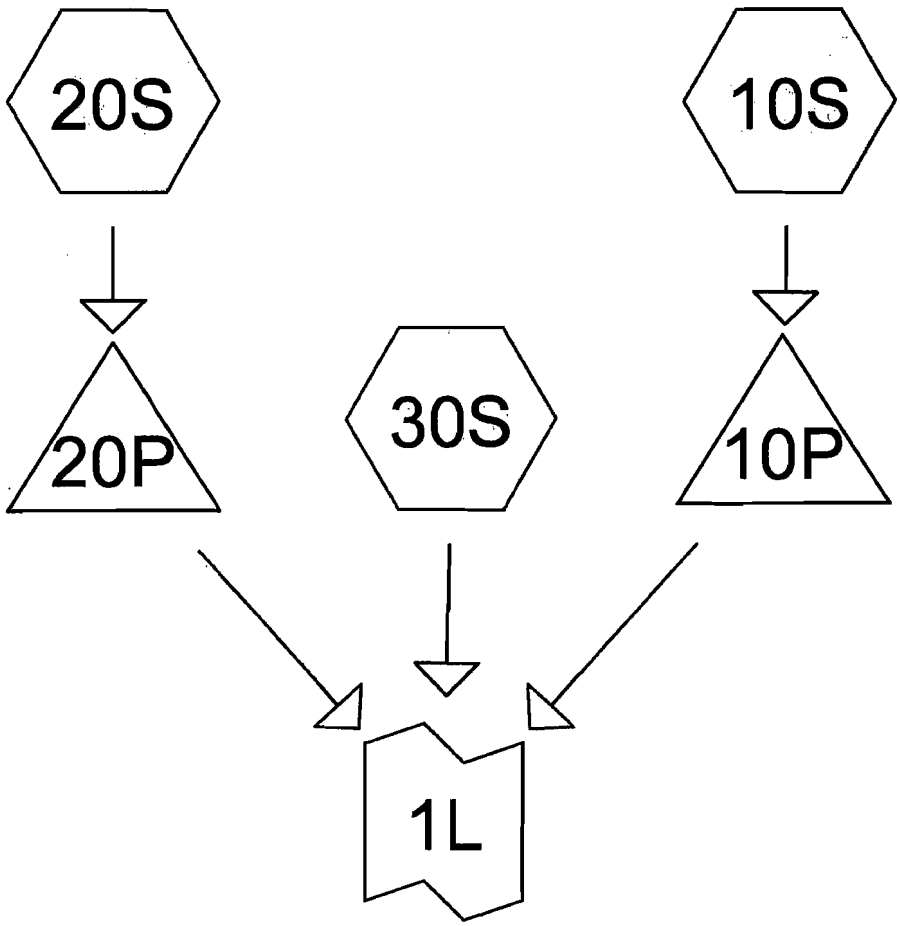
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	50	0.0600	0.10		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.00"
2.6	195	0.0620	1.24		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.1	26	0.3500	2.96		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
10.9	271	Total			

Summary for Link 1L:

Inflow Area = 1.590 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25-YEAR event
Inflow = 4.06 cfs @ 12.16 hrs, Volume= 0.344 af
Primary = 4.06 cfs @ 12.16 hrs, Volume= 0.344 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-36.00 hrs, dt= 0.05 hrs

DEVELOPED CONDITION CALCULATIONS



Subcat Reach Pond Link

Drainage Diagram for HUTCHINS DEV
Prepared by Attar Engineering, Inc., Printed 6/15/2011

Time span=5.00-36.00 hrs, dt=0.05 hrs, 621 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10S: Runoff Area=20,065 sf 74.67% Impervious Runoff Depth=2.16"
Flow Length=147' Tc=1.6 min CN=92 Runoff=1.24 cfs 0.083 af

Subcatchment 20S: Runoff Area=20,414 sf 73.39% Impervious Runoff Depth=2.16"
Flow Length=236' Tc=1.7 min CN=92 Runoff=1.27 cfs 0.084 af

Subcatchment 30S: Runoff Area=29,119 sf 2.21% Impervious Runoff Depth=0.91"
Flow Length=174' Tc=1.2 min CN=74 Runoff=0.73 cfs 0.051 af

Pond 10P: Peak Elev=54.13' Storage=1,290 cf Inflow=1.24 cfs 0.083 af
Primary=0.24 cfs 0.083 af Secondary=0.00 cfs 0.000 af Outflow=0.24 cfs 0.083 af

Pond 20P: Peak Elev=50.25' Storage=1,277 cf Inflow=1.27 cfs 0.084 af
Primary=0.25 cfs 0.084 af Secondary=0.00 cfs 0.000 af Outflow=0.25 cfs 0.084 af

Link 1L: Inflow=1.13 cfs 0.218 af
Primary=1.13 cfs 0.218 af

Total Runoff Area = 1.598 ac Runoff Volume = 0.218 af Average Runoff Depth = 1.64"
56.02% Pervious = 0.895 ac 43.98% Impervious = 0.703 ac

Time span=5.00-36.00 hrs, dt=0.05 hrs, 621 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10S: Runoff Area=20,065 sf 74.67% Impervious Runoff Depth>3.69"
Flow Length=147' Tc=1.6 min CN=92 Runoff=2.07 cfs 0.142 af

Subcatchment 20S: Runoff Area=20,414 sf 73.39% Impervious Runoff Depth>3.69"
Flow Length=236' Tc=1.7 min CN=92 Runoff=2.11 cfs 0.144 af

Subcatchment 30S: Runoff Area=29,119 sf 2.21% Impervious Runoff Depth=2.05"
Flow Length=174' Tc=1.2 min CN=74 Runoff=1.75 cfs 0.114 af

Pond 10P: Peak Elev=54.84' Storage=2,358 cf Inflow=2.07 cfs 0.142 af
Primary=0.31 cfs 0.142 af Secondary=0.00 cfs 0.000 af Outflow=0.31 cfs 0.142 af

Pond 20P: Peak Elev=51.05' Storage=2,346 cf Inflow=2.11 cfs 0.144 af
Primary=0.33 cfs 0.144 af Secondary=0.00 cfs 0.000 af Outflow=0.33 cfs 0.144 af

Link 1L: Inflow=2.26 cfs 0.400 af
Primary=2.26 cfs 0.400 af

Total Runoff Area = 1.598 ac Runoff Volume = 0.400 af Average Runoff Depth = 3.00"
56.02% Pervious = 0.895 ac 43.98% Impervious = 0.703 ac

Time span=5.00-36.00 hrs, dt=0.05 hrs, 621 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10S: Runoff Area=20,065 sf 74.67% Impervious Runoff Depth>4.46"
Flow Length=147' Tc=1.6 min CN=92 Runoff=2.48 cfs 0.171 af

Subcatchment 20S: Runoff Area=20,414 sf 73.39% Impervious Runoff Depth>4.46"
Flow Length=236' Tc=1.7 min CN=92 Runoff=2.52 cfs 0.174 af

Subcatchment 30S: Runoff Area=29,119 sf 2.21% Impervious Runoff Depth=2.69"
Flow Length=174' Tc=1.2 min CN=74 Runoff=2.32 cfs 0.150 af

Pond 10P: Peak Elev=55.17' Storage=2,928 cf Inflow=2.48 cfs 0.171 af
Primary=0.34 cfs 0.171 af Secondary=0.00 cfs 0.000 af Outflow=0.34 cfs 0.171 af

Pond 20P: Peak Elev=51.42' Storage=2,918 cf Inflow=2.52 cfs 0.174 af
Primary=0.36 cfs 0.174 af Secondary=0.00 cfs 0.000 af Outflow=0.36 cfs 0.174 af

Link 1L: Inflow=2.86 cfs 0.495 af
Primary=2.86 cfs 0.495 af

Total Runoff Area = 1.598 ac Runoff Volume = 0.495 af Average Runoff Depth = 3.72"
56.02% Pervious = 0.895 ac 43.98% Impervious = 0.703 ac

Summary for Subcatchment 10S:

Runoff = 2.48 cfs @ 12.03 hrs, Volume= 0.171 af, Depth> 4.46"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.40"

Area (sf)	CN	Description
14,982	98	Paved parking, HSG C
5,083	74	>75% Grass cover, Good, HSG C
20,065	92	Weighted Average
5,083		25.33% Pervious Area
14,982		74.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	21	0.0200	0.97		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.00"
0.8	59	0.0040	1.28		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.4	67	0.0300	2.60		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.6	147	Total			

Summary for Subcatchment 20S:

Runoff = 2.52 cfs @ 12.03 hrs, Volume= 0.174 af, Depth> 4.46"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.40"

Area (sf)	CN	Description
14,982	98	Paved parking, HSG C
5,432	74	>75% Grass cover, Good, HSG C
20,414	92	Weighted Average
5,432		26.61% Pervious Area
14,982		73.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	50	0.0150	1.03		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.00"
0.8	138	0.0190	2.80		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	48	0.0200	6.42	5.04	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.7	236	Total			

Summary for Subcatchment 30S:

Runoff = 2.32 cfs @ 12.02 hrs, Volume= 0.150 af, Depth= 2.69"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.40"

Area (sf)	CN	Description
644	98	Paved parking, HSG C
9,558	74	>75% Grass cover, Good, HSG C
18,917	73	Woods, Fair, HSG C
29,119	74	Weighted Average
28,475		97.79% Pervious Area
644		2.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	23	0.0200	0.99		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.00"
0.7	125	0.0440	3.15		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.1	26	0.4600	3.39		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.2	174	Total			

Summary for Pond 10P:

Inflow Area = 0.461 ac, 74.67% Impervious, Inflow Depth > 4.46" for 25-YEAR event
Inflow = 2.48 cfs @ 12.03 hrs, Volume= 0.171 af
Outflow = 0.34 cfs @ 12.51 hrs, Volume= 0.171 af, Atten= 86%, Lag= 29.0 min
Primary = 0.34 cfs @ 12.51 hrs, Volume= 0.171 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 55.17' @ 12.51 hrs Surf.Area= 1,793 sf Storage= 2,928 cf

Plug-Flow detention time= 95.0 min calculated for 0.171 af (100% of inflow)
Center-of-Mass det. time= 94.6 min (872.7 - 778.2)

Volume	Invert	Avail.Storage	Storage Description
#1	53.00'	4,555 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.00	924	0	0
54.00	1,302	1,113	1,113
56.00	2,140	3,442	4,555

Device	Routing	Invert	Outlet Devices
#1	Primary	53.00'	**12.0" Round Culvert**
			L= 44.0' CPP, square edge headwall, Ke= 0.500
			Outlet Invert= 49.00' S= 0.0909 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior
#2	Device 1	53.00'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Secondary	55.20'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
			Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.34 cfs @ 12.51 hrs HW=55.17' (Free Discharge)
↑—**1=Culvert** (Passes 0.34 cfs of 4.89 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.34 cfs @ 6.89 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=53.00' (Free Discharge)
↑—**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 20P:

Inflow Area = 0.469 ac, 73.39% Impervious, Inflow Depth > 4.46" for 25-YEAR event
Inflow = 2.52 cfs @ 12.03 hrs, Volume= 0.174 af
Outflow = 0.36 cfs @ 12.50 hrs, Volume= 0.174 af, Atten= 86%, Lag= 28.5 min
Primary = 0.36 cfs @ 12.50 hrs, Volume= 0.174 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 51.42' @ 12.50 hrs Surf.Area= 1,585 sf Storage= 2,918 cf

Plug-Flow detention time= 88.3 min calculated for 0.174 af (100% of inflow)
Center-of-Mass det. time= 87.9 min (866.1 - 778.2)

Volume	Invert	Avail.Storage	Storage Description
#1	49.00'	3,888 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
49.00	848	0	0
50.00	1,129	989	989
52.00	1,770	2,899	3,888

Device	Routing	Invert	Outlet Devices
#1	Primary	45.00'	**12.0" Round Culvert**
			L= 34.0' CPP, square edge headwall, Ke= 0.500
			Outlet Invert= 44.00' S= 0.0294 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior
#2	Device 1	49.00'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Secondary	51.50'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
			Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.36 cfs @ 12.50 hrs HW=51.42' (Free Discharge)
↑**1=Culvert** (Passes 0.36 cfs of 9.20 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.36 cfs @ 7.30 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=49.00' (Free Discharge)
↑**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Link 1L:

Inflow Area = 1.598 ac, 43.98% Impervious, Inflow Depth > 3.72" for 25-YEAR event
Inflow = 2.86 cfs @ 12.03 hrs, Volume= 0.495 af
Primary = 2.86 cfs @ 12.03 hrs, Volume= 0.495 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-36.00 hrs, dt= 0.05 hrs

OPERATION AND MAINTENANCE PROGRAM

ATTAR
ENGINEERING, INC
CIVIL · STRUCTURAL · MARINE

144 HUTCHINS DRIVE
PORTLAND, ME

OPERATION AND MAINTENANCE PROGRAM
STORMWATER MANAGEMENT BMP's

This project contains specific Best Management Practices (BMP's) for the conveyance, storage, and treatment of stormwater and the prevention of erosion. These BMP's consist of swales, underdrained soil filter ponds, catchbasins and culverts. All components should be inspected quarterly, and after every significant rain event of 1" in any 24-hour period. Additional inspection intervals are specified for certain BMP's, specifically, underdrained soil filters.

The party responsible for implementing this Operation and Maintenance Program (O & M Program) shall be the property owner.

Swales
All swales should be inspected for accumulation of debris, which could adversely affect the function of this BMP. These areas should also be maintained to have gradual slopes, which prevent channeling of stormwater and erosion of the bottom and sides of the swales.

Catch Basins
All catch basin grates, sumps, and inlets/outlets should be inspected for accumulation of debris, which could adversely affect the function of this BMP. Additionally, the basin inverts shall be inspected for clogging and material soundness. Sumps shall always be clear to a depth of 1' below the outlet invert. Inlet structures shall be inspected and cleaned of debris at least twice annually, once in the spring following snow melt and once in the autumn after leaf fall.

Culverts
Culvert inlets and outlets should be inspected for debris, which could clog the BMP. Additionally, the placement of rip-rap should be inspected to ensure that all areas remain smooth and no areas exhibit erosion in the form of rills or gullies.

Snow Removal
Snow shall be stockpiled only in the approved snow storage areas. Plowing of snow into wetland areas or detention ponds shall be avoided. Additionally, a mostly sand mix (reduced salt) shall be applied during winter months to prevent excessive salt from leaching into wetland areas. Excess sand shall be removed from the storage areas, all paved surfaces and adjacent areas each spring.

1284 State Road, Eliot, ME 03903 ◆ tel (207) 439-6023 ◆ fax (207) 439-2128

Stormwater Detention Areas
The Stormwater Detention Areas, including ponds and subsurface storage systems shall be inspected to ensure that there is no channeling of stormwater and that no debris accumulates within the detention areas. The inlets and outlets shall be inspected for erosion and any evidence of debris that could clog the culverts. Outlet structures and trash screens shall also be cleaned of debris. Emergency spillways and level spreaders shall be inspected for any evidence of rilling and channeling and shall be maintained to promote a level, sheet-flow discharge. Eroded areas and associated vegetation shall be repaired and maintained, if necessary.

Seeding, Fertilizing and Mulching
All exposed soil materials and stockpiles must be either temporarily or permanently seeded, fertilized and mulched in accordance with plan specifications. This is one of the most important features of the Erosion Control Plan, which will provide both temporary and permanent stabilization. Eroded or damaged lawn areas must be repaired until a 75% effective growth of vegetation is established and permanently maintained.

Record Keeping
Routine maintenance and inspections will be accomplished by the property owner [Phoenix Management, PO Box 759, Saco, ME 04072]. All inspections accomplished in accordance with this program shall be documented on the attached Inspection & Maintenance Log. Copies of the Log shall be kept by the property owner, and be made available to the Department (Maine Department of Environmental Protection), upon request.

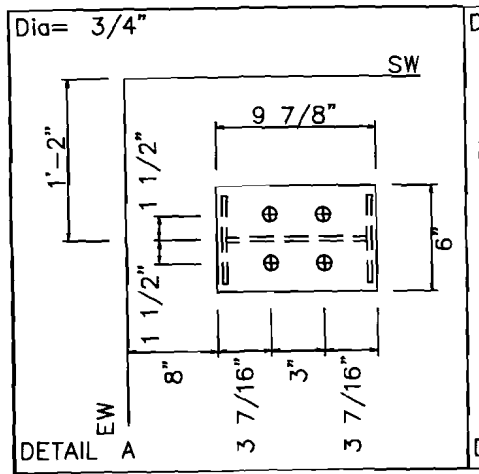
STATE OF MAINE
KENNETH A. WOOD
No. 5992
LICENSED
PROFESSIONAL ENGINEER

6/01/2011

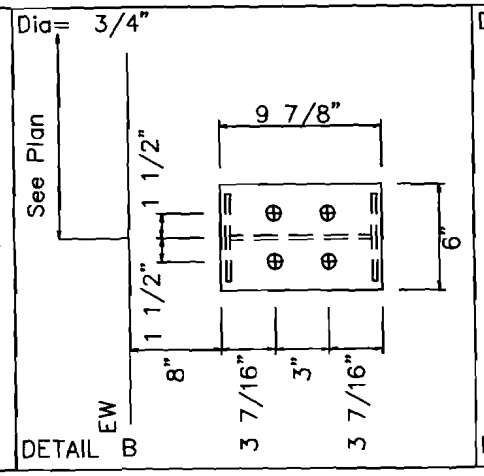
INSPECTION & MAINTENANCE LOG
144 HUTCHINS DRIVE

Date	Purpose[1]	Maintenance Done[2]	By

1. Purpose is the reason for the inspection. For example; "quarterly' or "after a significant rain event."
2. Maintenance Done means any maintenance required as a result of the inspection, such as trash removal or re-seeding of areas.



DETAIL A



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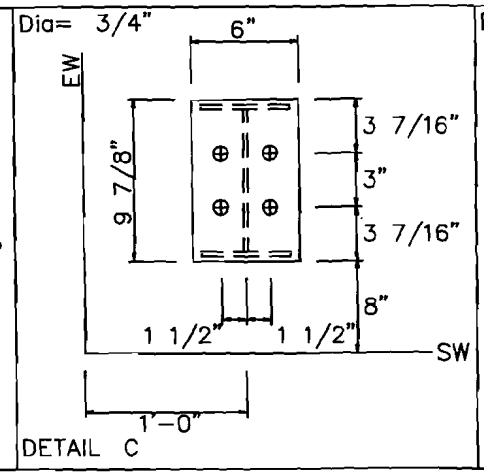
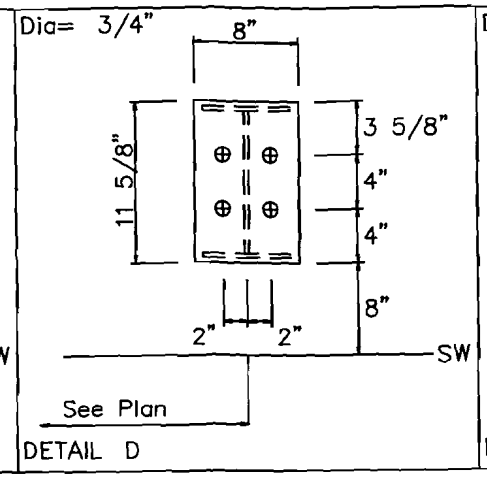
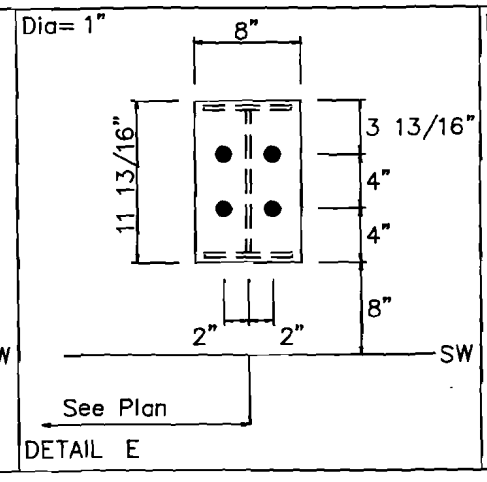


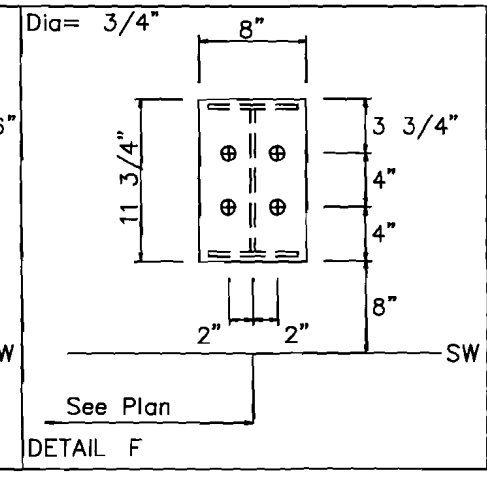
DETAIL C



DETAIL D



DETAIL E



DETAIL F

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City of Portland Maine

ADDITIONAL LOADING INFORMATION

Mezzanine Loads:

Dead Load _____ PSF
Collateral Load _____ PSF
Live Load _____ PSF

Crane Information:

Crane Type _____
CMAA Service Class _____
Crane capacity = _____ Kips
Bridge Weight = _____ Kips
Hoist/Trolley Weight = _____ Kips
Wheel Spacing = _____ Ft.

Additional Loads:

1. _____
2. _____
3. _____

CORLE
114 ROSEMONT LANE, IMLER, PA 16655 (814)276-9611

PHOENIX PROPERTY MANAGEMENT
65'-0" x 105'-0" x 17'-0"
DATE: 12/6/11 | REVISION: 02
ENG: JJT | DWN: DJH | APPD: JJT

F.O. 16838

PHOENIX PROPERTY MANAGEMENT

REVISION HISTORY

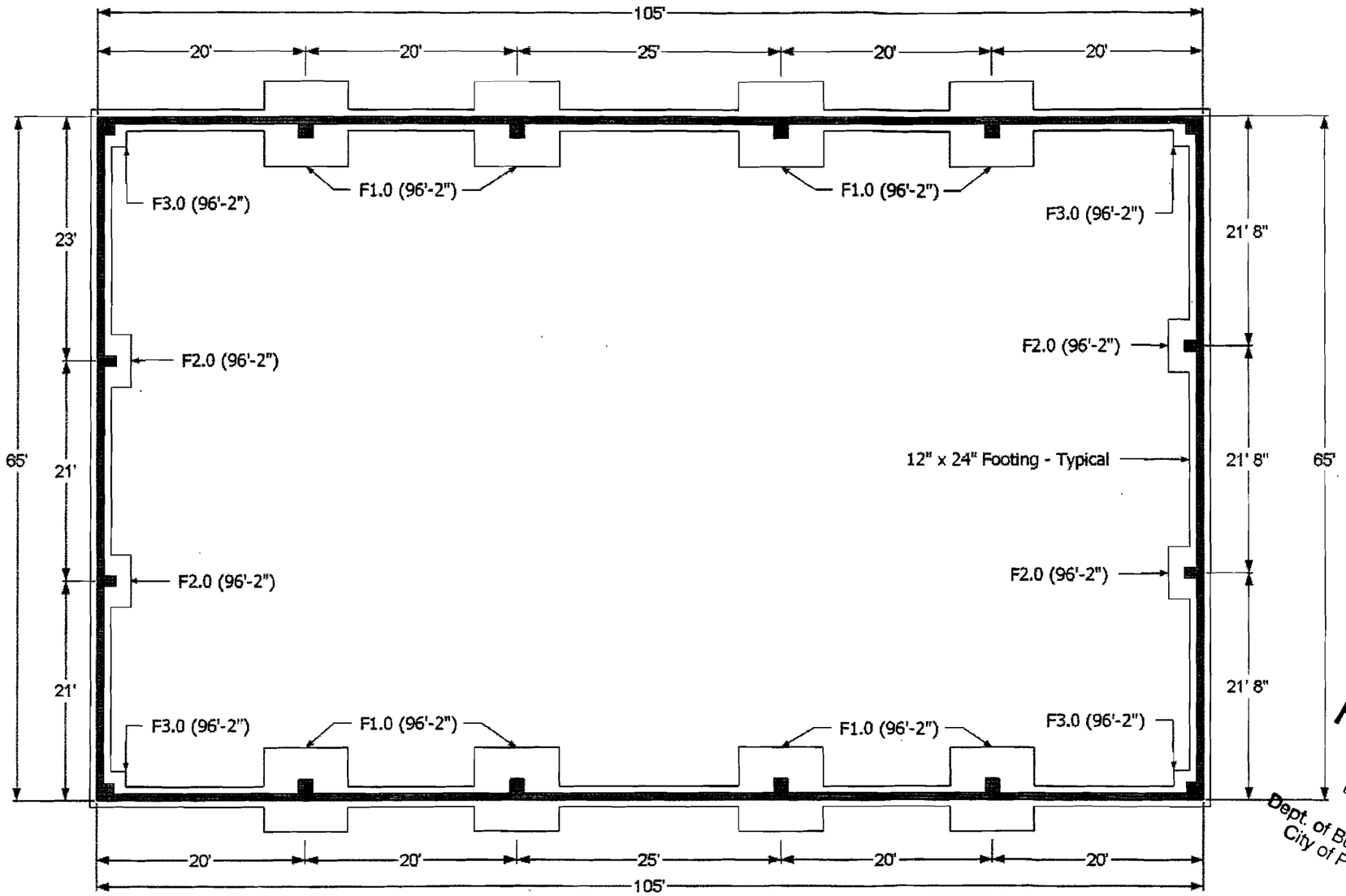
REV.	DESCRIPTION	DATE
01	SEE CO-01	12/5/11
02	SEE CO-02	12/14/11

DRAWING STATUS

FOR APPROVAL:
☐ THESE DRAWINGS, BEING FOR APPROVAL, ARE BY DEFINITION NOT FINAL, AND ARE FOR CONCEPTUAL REPRESENTATION ONLY. THEIR PURPOSE IS TO CONFIRM PROPER INTERPRETATION OF THE PROJECT DOCUMENTS. ONLY DRAWINGS ISSUED "FOR CONSTRUCTION" CAN BE CONSIDERED AS COMPLETE.

FOR PERMIT:
☐ THESE DRAWINGS, BEING FOR PERMIT, ARE BY DEFINITION NOT FINAL. ONLY DRAWINGS ISSUED "FOR CONSTRUCTION" CAN BE CONSIDERED AS COMPLETE.

FOR CONSTRUCTION:
■ FINAL DRAWINGS.



GENERAL NOTES:

1.) (0'-0") INDICATES TOP OF FOOTING ELEVATION.

2.) FOUNDATION PLAN IS BASED ON A PRE-ENGINEERED BUILDING SYSTEM MANUFACTURED BY CORLE BUILDING SYSTEMS (F.O. #16838).

3.) FOUNDATION DESIGN IS BASED ON A SOIL BEARING CAPACITY OF 2,500 PSF. IF ANY UNSUITABLE MATERIALS ARE ENCOUNTERED, NOTIFY STRUCTURAL FOUNDATION DESIGN ENGINEER. NO CONCRETE WILL BE PLACED IN FROZEN OR WATER FILLED TRENCHES.

4.) FOOTING & PIER CONCRETE SHALL BE 3,000 PSI, ¾" DESIGN MIX (MIN) WITH MRWR.

5.) PLACE VERTICAL CONTROL JOINTS AT EDGE OF EACH PILASTER.

6.) ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, MIN 60 KSI (DEFORMED).

7.) ALL ANCHOR BOLTS TO BE SET PER BUILDING MANUFACTURERS TOLERANCES. ANCHOR BOLTS TO BE DOUBLE NUTTED TO STEEL TEMPLATES FURNISHED BY CORLE BUILDING SYSTEMS, AND SECURELY PLACED AND LEVELED WITHIN FORMWORK PRIOR TO PLACEMENT OF CONCRETE.

8.) AVOID SPRAYING OF FORM RELEASE OIL ON ANY REINFORCING STEEL.

9.) VAPOR BARRIER AND INSULATION NOT SHOWN IS TO BE DETERMINED BY GENERAL CONTRACTOR.

10.) ALL INSPECTIONS AND TESTING ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR OR OWNER.

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Dept. of Building Inspections
City of Portland Maine

STATE OF MAINE
THEODORE GREENLAW
No. 13862
LICENSED
PROFESSIONAL ENGINEER

FOOTING SCHEDULE

MARK	WIDTH	LENGTH	THICKNESS	REINFORCING STEEL
F1.0	8'-0"	8'-0"	1'-0"	11- # 5 BARS ONE WAY 7- # 5 BARS ONE WAY
F2.0	5'-0"	4'-0"	1'-0"	5- # 5 BARS EACH WAY
F3.0	3'-6"	3'-6"	1'-0"	3- # 5 BARS EACH WAY

ANCHOR BOLT SCHEDULE

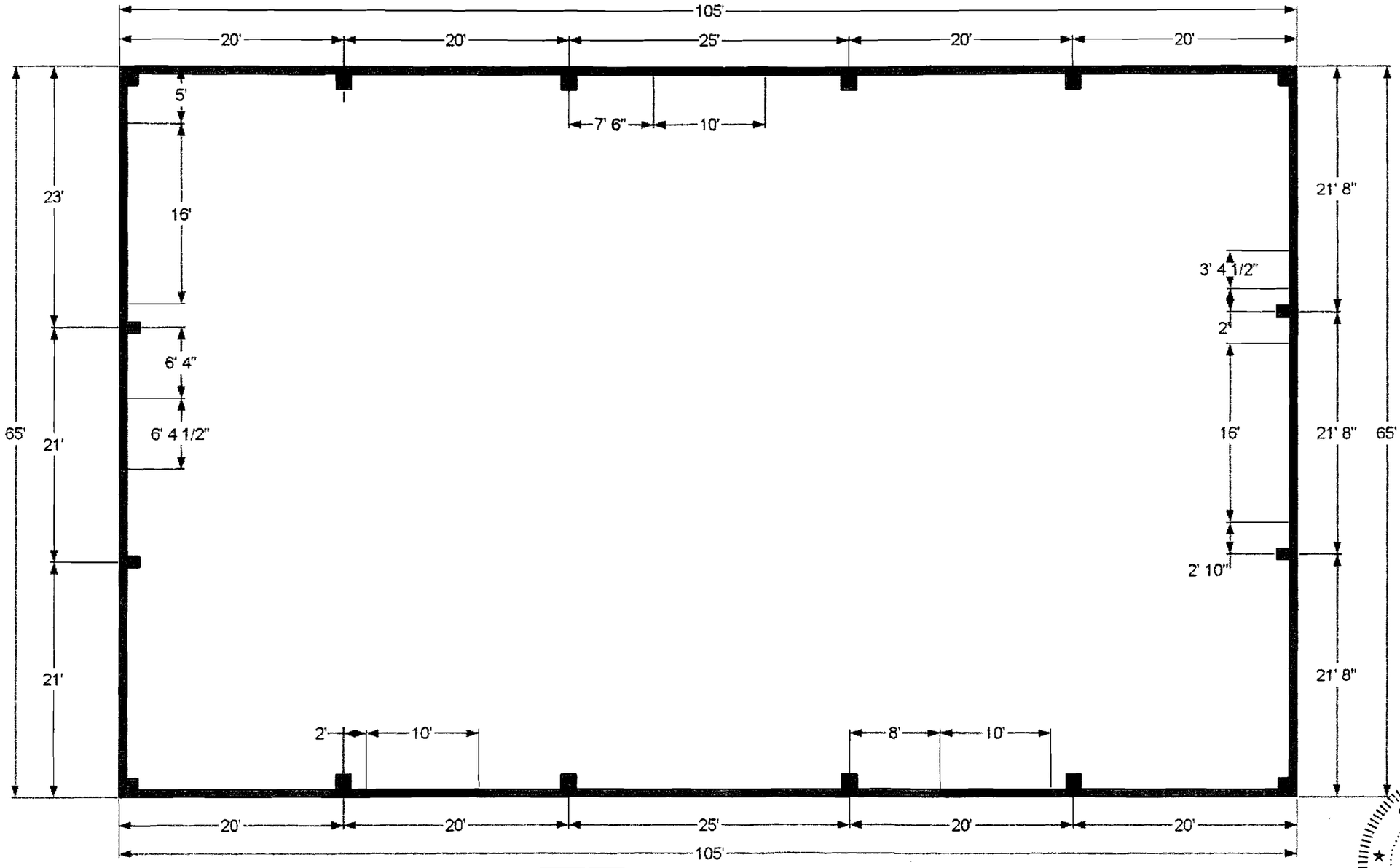
ANCHOR BOLT DESCRIPTION	PROJECTION	QTY
¾" A307 18" THREADED ROD W/ ONE WELDED NUT – INCLUDE 2 EXTRA NUTS AND 1 WASHER PER ANCHOR BOLT	2 ½"	48
1" A307 18" THREADED ROD W/ ONE WELDED NUT – INCLUDE 2 EXTRA NUTS AND 1 WASHER PER ANCHOR BOLT	2 ½"	16

OWNER: Phoenix Property Management
JOB LOCATION: Hutchins Drive, Portland, Maine
GENERAL CONTRACTOR: Portland Builders, Inc.
ENGINEER OF RECORD: Ted Greenlaw - 183 Columbia Road - Hanover, MA (781) - 826-8369

FOUNDATION PLAN AND NOTES

October 28th, 2011

S1



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City of Portland Maine

STATE OF MAINE
THEODORE GREENLAW
No. 3862
LICENSED PROFESSIONAL ENGINEER

DOOR LOCATIONS

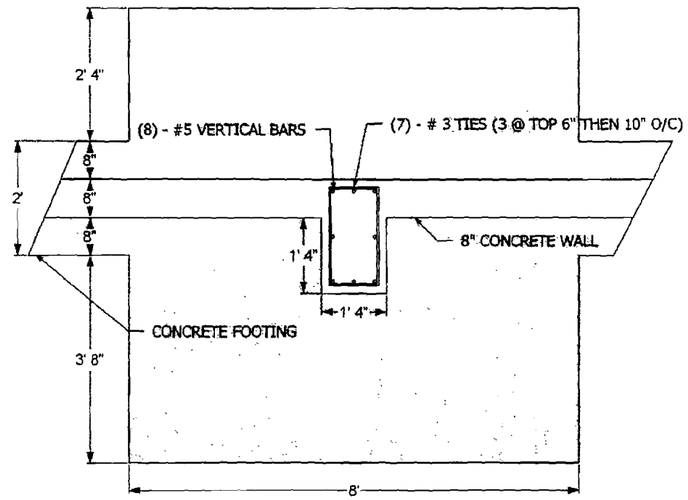
(8" DROPS AT ALL DOOR LOCATIONS)

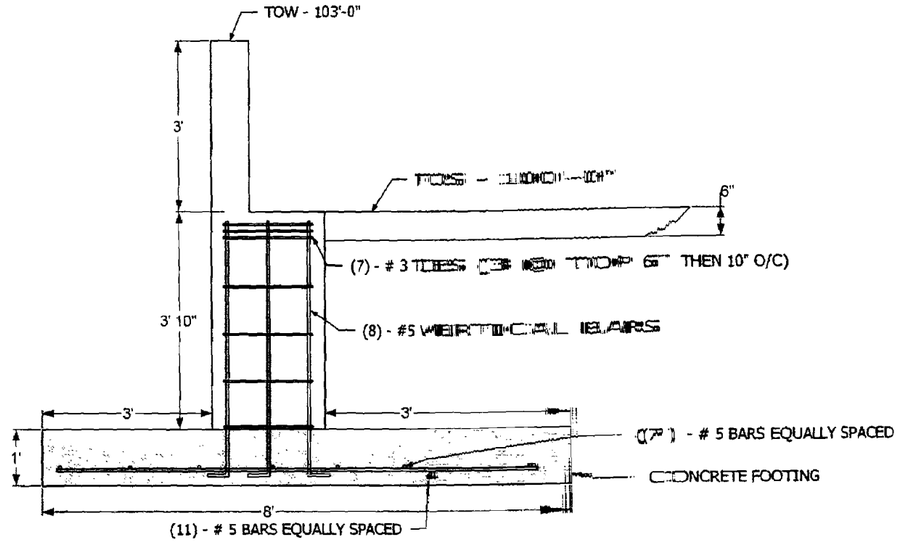
OWNER: Phoenix Property Management
JOB LOCATION: Hutchins Drive, Portland, Maine
GENERAL CONTRACTOR: Portland Builders, Inc.
ENGINEER OF RECORD: Ted Greenlaw - 183 Columbia Road - Hanover, MA (781) - 826-8369

FOUNDATION PLAN AND NOTES

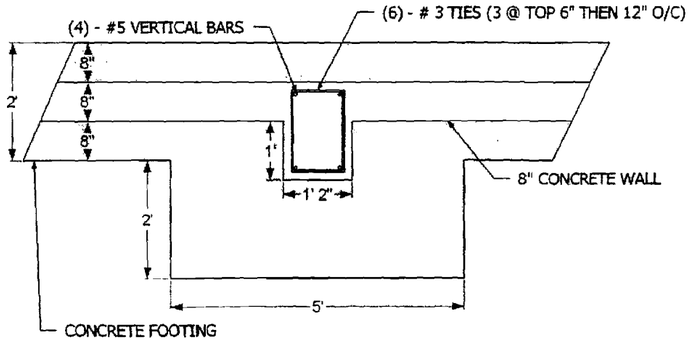
October 28th, 2011

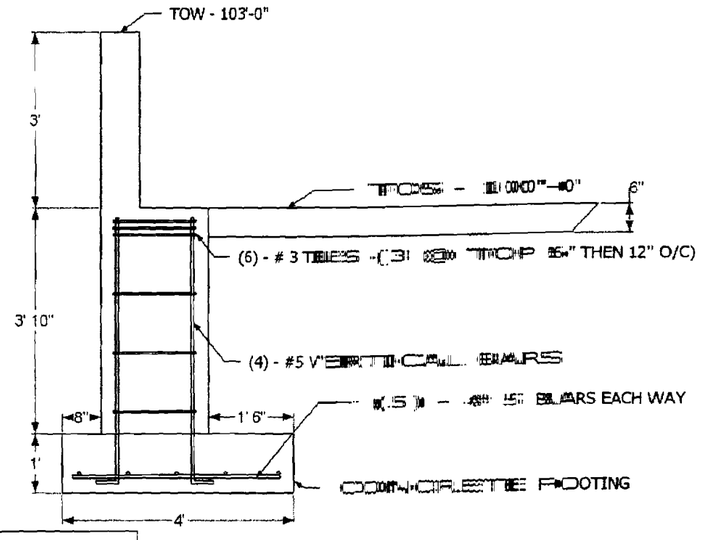
S2



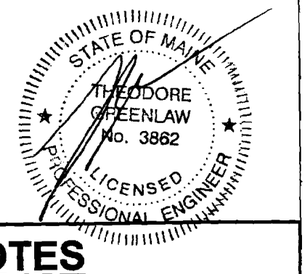


F1.0 FOOTING AND PIER DETAILS





F2.0 FOOTING AND PIER DETAILS

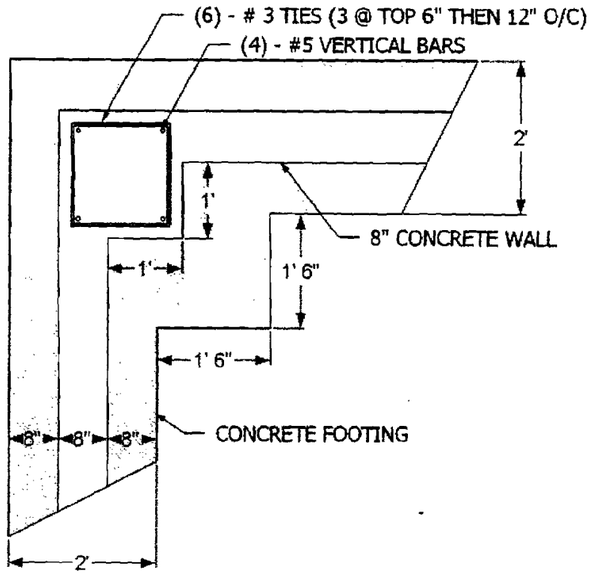


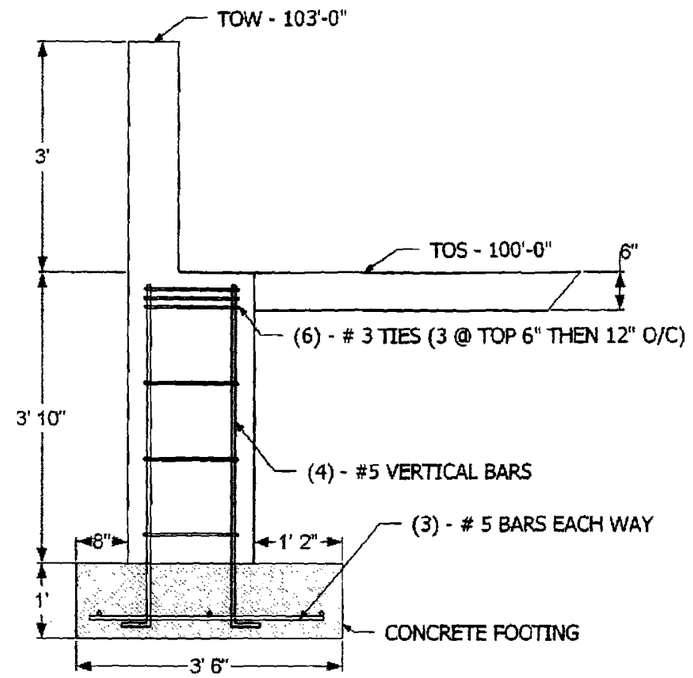
OWNER: Phoenix Property Management
JOB LOCATION: Hutchins Drive, Portland, Maine
GENERAL CONTRACTOR: Portland Builders, Inc.
ENGINEER OF RECORD: Ted Greenlaw - 183 Columbia Road - Hanover, MA (781) - 826-8369

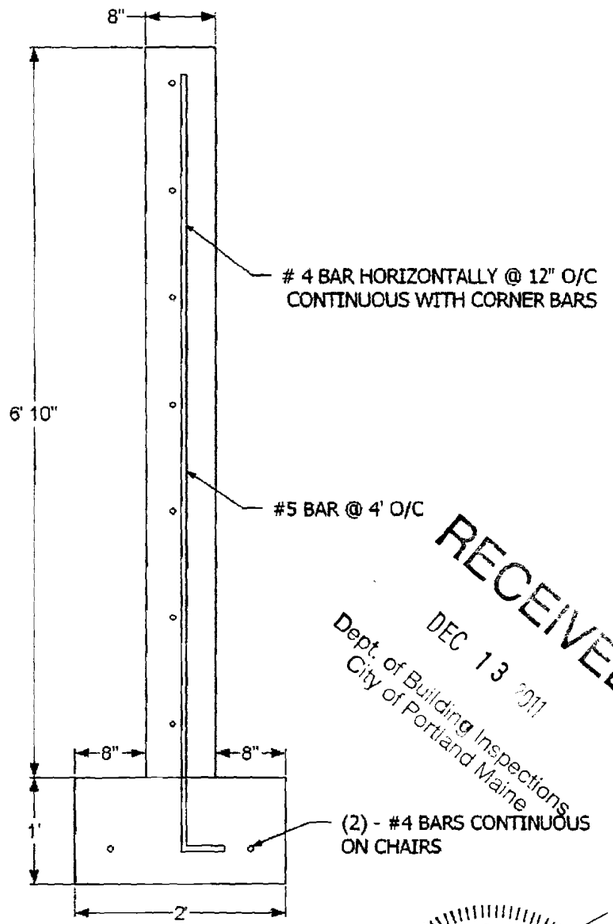
FOUNDATION PLAN AND NOTES

October 28th, 2011

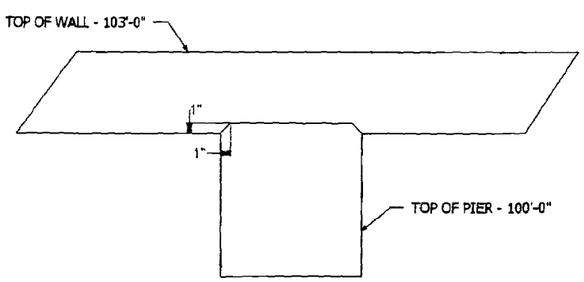
S3



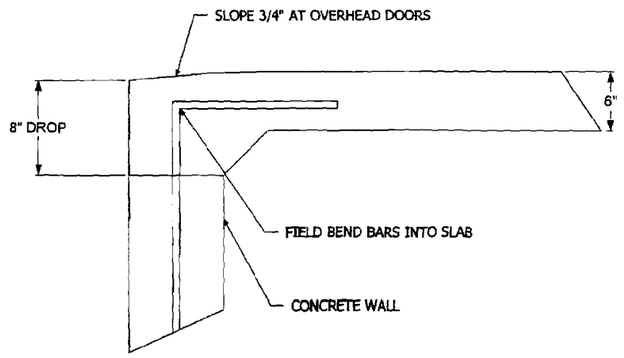




F3.0 FOOTING AND PIER DETAILS

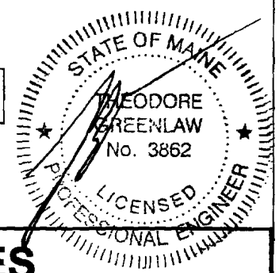


TYPICAL RELIEF DETAIL @ PIERS



OVERHEAD DOOR DETAILS

TYPICAL WALL DETAILS

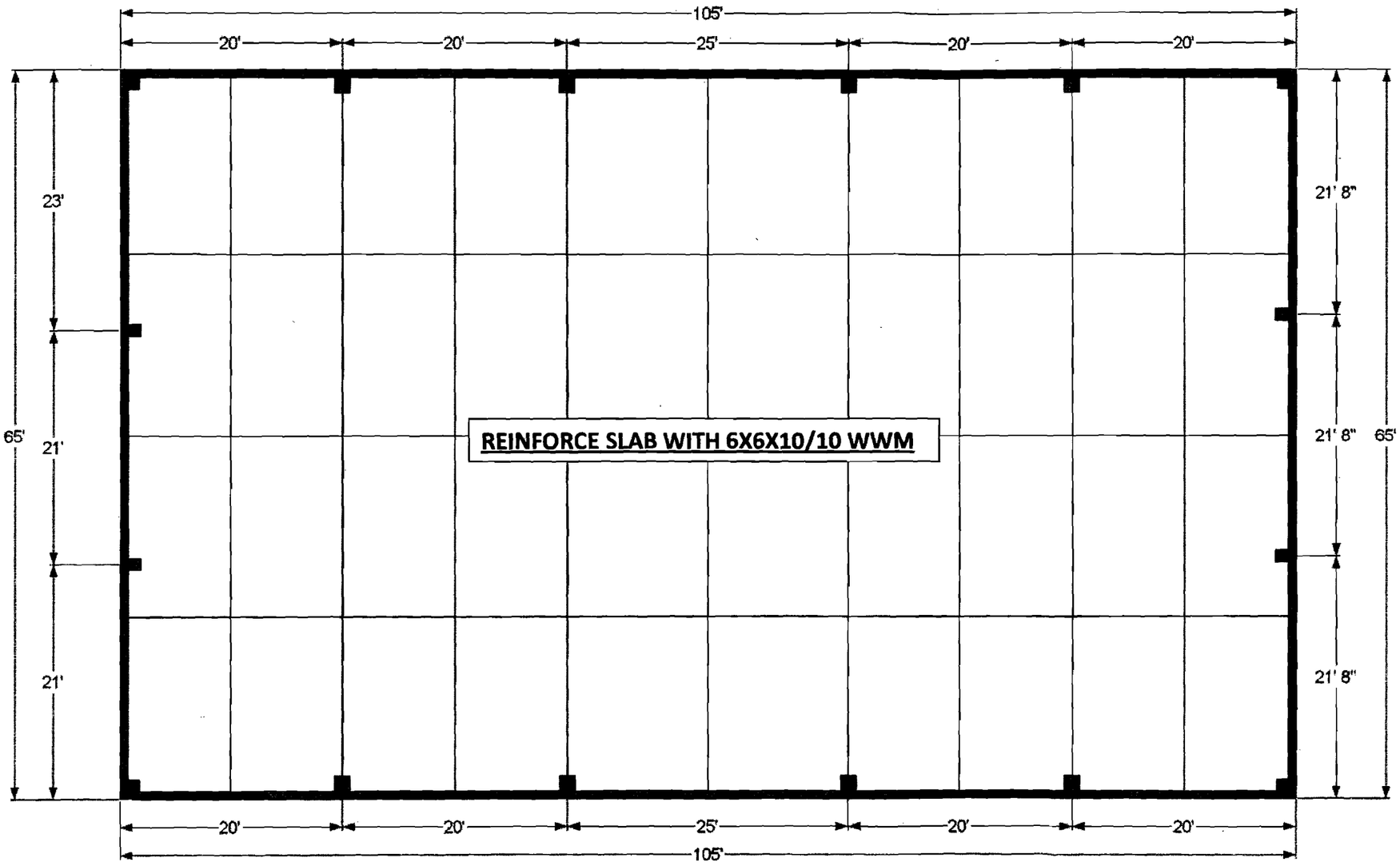


OWNER: Phoenix Property Management
JOB LOCATION: Hutchins Drive, Portland, Maine
GENERAL CONTRACTOR: Portland Builders, Inc.
ENGINEER OF RECORD: Ted Greenlaw - 183 Columbia Road - Hanover, MA (781) - 826-8369

FOUNDATION PLAN AND NOTES

October 28th, 2011

S4



SLAB NOTES:

1.) FLOOR SLABS SHALL BE 6" THICK AND SHALL HAVE A HARD STEEL TROWEL FINISH (UNO). 1 ½" DEEP HORIZONTAL CONTROL / /EXPANSION JOINTS TO BE SAW CUT.

2.) A MINIMUM OF 12" OF STRUCTURAL FILL (MDOT TYPE D) SHALL BE PLACED DIRECTLY BELOW THE FLOOR SLAB.

3.) STRUCTURAL FILL SHOULD BE PLACED IN MAXIMUM 6" LIFTS AND SHALL BE COMPACTED TO A MINIMUM 95% PROCTOR PER ASTM D1557.

4.) VAPOR BARRIER AND INSULATION NOT SHOWN IS TO BE DETERMINED BY GENERAL CONTRACTOR.

5.) ALL INSPECTIONS AND TESTING ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR OR OWNER.

CONTROL / EXPANSION JOINTS

(locations approximate, verify w/ GC)

OWNER: Phoenix Property Management
JOB LOCATION: Hutchins Drive, Portland, Maine
GENERAL CONTRACTOR: Portland Builders, Inc.
ENGINEER OF RECORD: Ted Greenlaw - 183 Columbia Road - Hanover, MA (781) - 826-8369

FOUNDATION PLAN AND NOTES

October 28th, 2011

S5

Conterminous 48 States
2003 NEHRP Seismic Design Provisions
Latitude = 43.65
Longitude = -70.34
Spectral Response Accelerations Ss and S1
Ss and S1 = Mapped Spectral Acceleration Values
Site Class B - Fa = 1.0 ,Fv = 1.0
Data are based on a 0.05 deg grid spacing

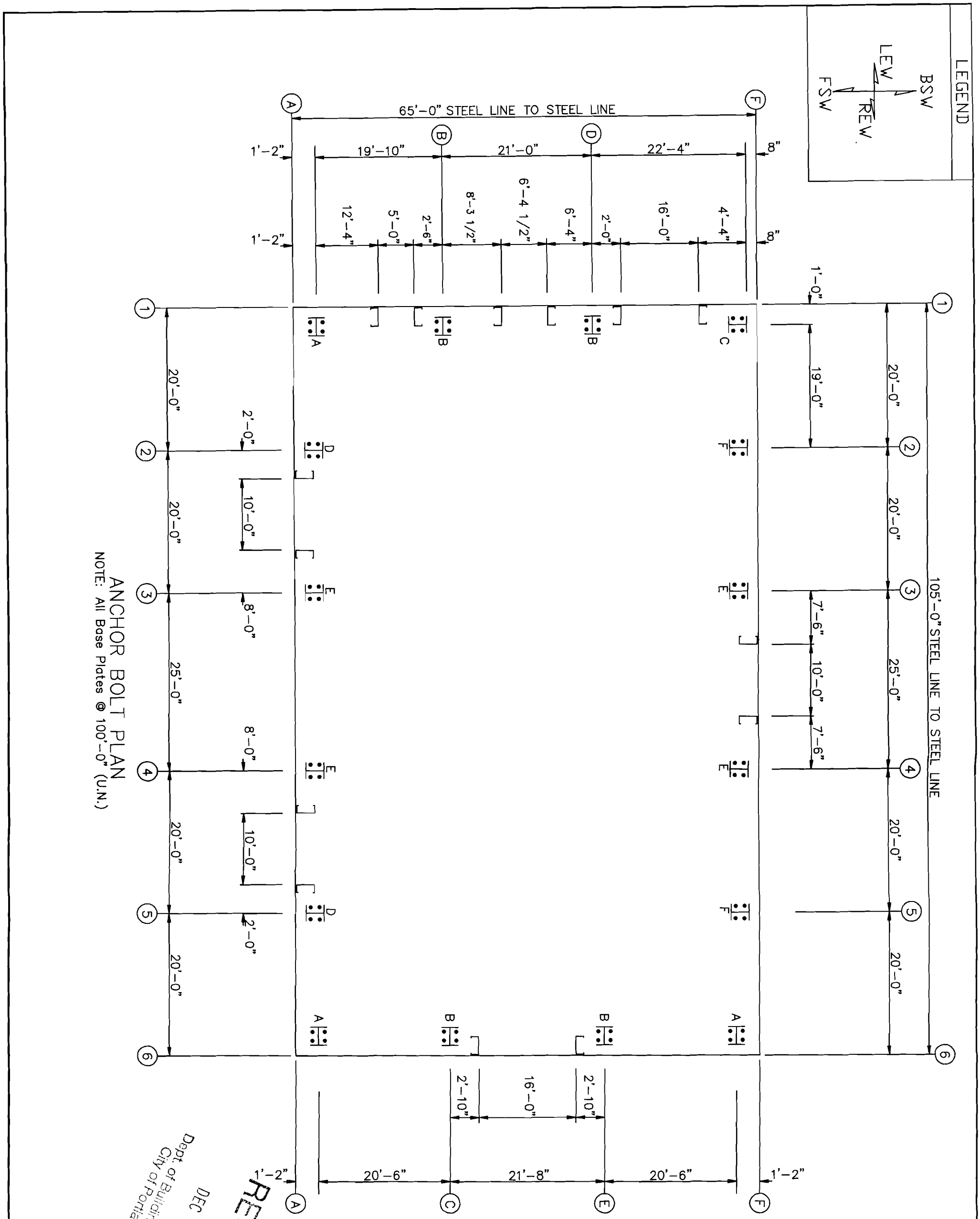
Period (sec)	Sa (g)	
0.2	0.322	(Ss, Site Class B)
1.0	0.078	(S1, Site Class B)

Conterminous 48 States
2003 NEHRP Seismic Design Provisions
Latitude = 43.65
Longitude = -70.34
Spectral Response Accelerations SMs and SM1
SMs = Fa x Ss and SM1 = Fv x S1
Site Class E - Fa = 2.27 ,Fv = 3.5

Period (sec)	Sa (g)	
0.2	0.731	(SMs, Site Class E)
1.0	0.272	(SM1, Site Class E)

Conterminous 48 States
2003 NEHRP Seismic Design Provisions
Latitude = 43.65
Longitude = -70.34
Design Spectral Response Accelerations SDs and SD1
SDs = 2/3 x SMs and SD1 = 2/3 x SM1
Site Class E - Fa = 2.27 ,Fv = 3.5

Period (sec)	Sa (g)	
0.2	0.487	(SDs, Site Class E)
1.0	0.182	(SD1, Site Class E)



ANCHOR BOLT PLAN

NOTE: All Base Plates @ 100'-0" (U.N.)

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City of Portland Maine

PAGE 2 OF 19

PHOENIX PROPERTY MANAGEMENT

F.O. 16838

DRAWING STATUS

- ☐ FOR APPROVAL: THESE DRAWINGS, BEING FOR APPROVAL, ARE BY DEFINITION NOT FINAL, AND ARE FOR CONCEPTUAL REPRESENTATION ONLY. THEIR PURPOSE IS TO CONFIRM PROPER INTERPRETATION OF THE PROJECT DOCUMENTS. ONLY DRAWINGS ISSUED "FOR CONSTRUCTION" CAN BE CONSIDERED AS COMPLETE.
- ☐ FOR PERMIT: THESE DRAWINGS, BEING FOR PERMIT, ARE BY DEFINITION NOT FINAL. ONLY DRAWINGS ISSUED "FOR CONSTRUCTION" CAN BE CONSIDERED AS COMPLETE.
- ■ FOR CONSTRUCTION: FINAL DRAWINGS.

REVISION HISTORY

REV.	DESCRIPTION	DATE
01	SEE CO-01	12/6/11
02	SEE CO-02	12/15/11

CORLE
114 ROSEMONT LANE, IMLER, PA 16655 (814)276-9611

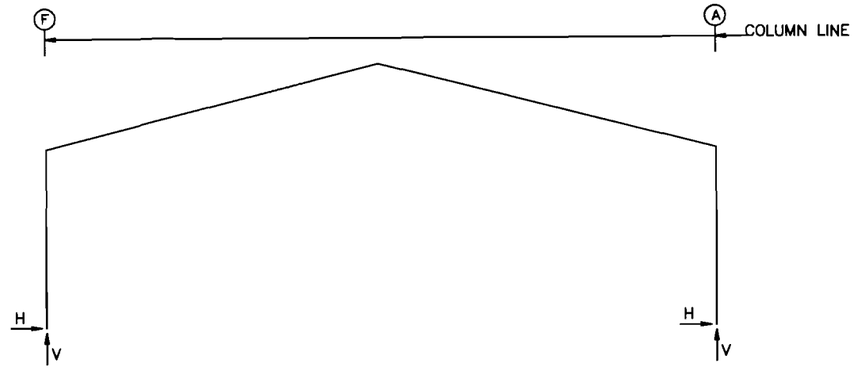
PHOENIX PROPERTY MANAGEMENT

65'-0" x 105'-0" x 17'-0"

DATE: 12/ 6/11 | REVISION: 02

ENG: JJT | DWN: DJH | APPD: JJT

FRAME LINES: 2 3 4 5



RIGID FRAME: ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc. Qty	Bolt Dia	Base Plate (in) Width	Length	Thick	Grout (in)
2 *	F	4	0.750	8.000	11.76	0.500	0.0
2 *	A	4	0.750	8.000	11.63	0.500	0.0

2 * Frame lines: 2 5

RIGID FRAME: ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc. Qty	Bolt Dia	Base Plate (in) Width	Length	Thick	Grout (in)
3 *	F	4	1.000	8.000	11.82	0.500	0.0
3 *	A	4	1.000	8.000	11.82	0.500	0.0

3 * Frame lines: 3 4

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	Dead Horiz	Dead Vert	Collateral Horiz	Collateral Vert	Live Horiz	Live Vert	Snow Horiz	Snow Vert	Wind_L1 Horiz	Wind_L1 Vert	Wind_R1 Horiz	Wind_R1 Vert
2 *	F	1.5	3.4	2.1	3.4	7.9	13.8	16.4	30.7	−7.2	−10.4	0.1	−6.8
2 *	A	−1.5	3.4	−2.1	3.3	−7.9	13.8	−16.4	30.6	−0.1	−6.8	7.2	−10.4

Frame Line	Column Line	Wind_L2 Horiz	Wind_L2 Vert	Wind_R2 Horiz	Wind_R2 Vert	LnWind1 Horiz	LnWind1 Vert	LnWind2 Horiz	LnWind2 Vert	Seismic_L Horiz	Seismic_L Vert	Seismic_R Horiz	Seismic_R Vert
2 *	F	−6.5	−6.9	0.8	−3.3	−3.1	−11.7	−2.1	−8.1	−4.7	−2.3	4.7	2.3
2 *	A	−0.8	−3.3	6.5	−6.9	3.1	−8.6	2.1	−5.0	−4.8	2.3	4.8	−2.3

Frame Line	Column Line	LnSeis Horiz	LnSeis Vert	LWIND1_L2E Horiz	LWIND1_L2E Vert	LWIND1_R2E Horiz	LWIND1_R2E Vert	LWIND2_L2E Horiz	LWIND2_L2E Vert	LWIND2_R2E Horiz	LWIND2_R2E Vert	F1UNB_SL_L Horiz	F1UNB_SL_L Vert
2 *	F	0.0	−10.9	0.0	−1.2	−0.3	−0.2	0.0	−1.2	−0.3	−0.2	14.2	26.7
2 *	A	0.0	0.0	0.3	−0.2	0.0	−1.2	0.3	−0.2	0.0	−1.2	−14.2	15.7

Frame Line	Column Line	F1UNB_SL_R Horiz	F1UNB_SL_R Vert
2 *	F	14.1	15.7
2 *	A	−14.1	26.7

Frame Line	Column Line	Dead Horiz	Dead Vert	Collateral Horiz	Collateral Vert	Live Horiz	Live Vert	Snow Horiz	Snow Vert	Wind_L1 Horiz	Wind_L1 Vert	Wind_R1 Horiz	Wind_R1 Vert
3 *	F	1.7	3.9	2.3	3.8	8.9	15.5	18.4	34.5	−6.8	−11.1	−1.1	−8.3
3 *	A	−1.7	3.9	−2.3	3.8	−8.9	15.5	−18.4	34.5	1.1	−8.3	6.8	−11.1

Frame Line	Column Line	Wind_L2 Horiz	Wind_L2 Vert	Wind_R2 Horiz	Wind_R2 Vert	LnWind1 Horiz	LnWind1 Vert	LnWind2 Horiz	LnWind2 Vert	Seismic_L Horiz	Seismic_L Vert	Seismic_R Horiz	Seismic_R Vert
3 *	F	−6.0	−7.1	−0.4	−4.3	−3.5	−12.8	−2.4	−8.8	−3.2	−1.6	3.2	1.6
3 *	A	0.4	−4.3	6.0	−7.1	3.5	−12.1	2.4	−8.1	−3.2	1.6	3.2	−1.6

Frame Line	Column Line	LnSeis Horiz	LnSeis Vert	LWIND1_L2E Horiz	LWIND1_L2E Vert	LWIND1_R2E Horiz	LWIND1_R2E Vert	LWIND2_L2E Horiz	LWIND2_L2E Vert	LWIND2_R2E Horiz	LWIND2_R2E Vert	F2UNB_SL_L Horiz	F2UNB_SL_L Vert
3 *	F	0.0	−10.9	0.0	−1.4	−0.4	−0.3	0.0	−1.4	−0.4	−0.3	15.9	30.0
3 *	A	0.0	−8.7	0.4	−0.3	0.0	−1.4	0.4	−0.3	0.0	−1.4	−15.9	17.6

Frame Line	Column Line	F2UNB_SL_R Horiz	F2UNB_SL_R Vert
3 *	F	15.9	17.6
3 *	A	−15.9	30.0

2 * Frame lines: 2 5
3 * Frame lines: 3 4

CORLE
114 ROSEMONT LANE, IMLER, PA 16655 (814)276-9811

PHOENIX PROPERTY MANAGEMENT
65'-0" x 105'-0" x 17'-0"
DATE: 12/ 6/11
REVISION: 02
ENG: JJT
DWN: DJH
APPD: JJT

F.O. 16838

PHOENIX PROPERTY MANAGEMENT

REVISION HISTORY

REV.	DESCRIPTION	DATE
01	SEE CO-01	12/6/11
02	SEE CO-02	12/15/11

DRAWING STATUS

☐ FOR APPROVAL:
THESE DRAWINGS, BEING FOR APPROVAL, ARE BY DEFINITION NOT FINAL, AND ARE FOR CONCEPTUAL REPRESENTATION ONLY. THEIR PURPOSE IS TO CONFIRM PROPER INTERPRETATION OF THE PROJECT DOCUMENTS. ONLY DRAWINGS ISSUED "FOR CONSTRUCTION" CAN BE CONSIDERED AS COMPLETE.

☐ FOR PERMIT:
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■ FOR CONSTRUCTION:
FINAL DRAWINGS.

ENDWALL COLUMN: BASIC COLUMN REACTIONS (k)

Frm Line	Col Line	Dead Vert	Collat Vert	Live Vert	Snow Horz	Snow Vert	Drift Vert	Rafter Wind_L Vert	Rafter Wind_R Vert	Brace Wind_L Vert	Brace Wind_R Vert	Wind_P Horz	Wind_S Horz
1	F	0.9	0.6	2.9	0.0	7.2	0.0	−2.8	−2.5	−2.8	−2.5	−1.3	1.5
1	D	1.5	1.6	6.2	−0.1	12.9	0.0	−5.8	−3.5	−5.8	−3.5	−3.3	3.7
1	B	1.4	1.5	5.7	−0.1	11.8	0.0	−3.1	−5.3	−3.1	−5.3	−3.1	3.5
1	A	0.9	0.6	2.7	0.0	6.8	0.0	−2.3	−2.8	−2.3	−2.8	−1.2	1.4

Frm Line	Col Line	LnWind1 Vert	LnWind2 Vert	Seis_L Vert	Seis_R Vert	E1UNB_SL_L Horz	E1UNB_SL_L Vert	E1UNB_SL_R Horz	E1UNB_SL_R Vert	−LWIND1_L− Horz	−LWIND1_L− Vert	−LWIND1_R− Horz	−LWIND1_R− Vert
1	F	−1.7	−1.0	0.1	0.3	0.0	5.0	0.0	1.3	0.0	−0.5	0.0	0.0
1	D	−4.0	−2.3	−0.2	−0.3	0.0	16.3	0.0	5.7	0.0	−0.6	0.0	0.1
1	B	−3.7	−2.2	−0.3	−0.1	0.0	4.4	0.0	15.6	0.0	0.1	0.0	−0.5
1	A	−1.6	−0.9	0.3	0.1	0.0	1.3	0.0	4.3	0.0	0.0	0.0	−0.5

Frm Line	Col Line	−LWIND2_L− Horz	−LWIND2_L− Vert	−LWIND2_R− Horz	−LWIND2_R− Vert
1	F	0.0	−0.5	0.0	0.0
1	D	0.0	−0.6	0.0	0.1
1	B	0.0	0.1	0.0	−0.5
1	A	0.0	0.0	0.0	−0.5

Frm Line	Col Line	Dead Vert	Collat Vert	Live Vert	Snow Vert	Rafter Wind_L Vert	Rafter Wind_R Vert	Brace Wind_L Vert	Brace Wind_R Vert	Wind_P Horz	Wind_S Horz	LnWind1 Vert	LnWind2 Vert
6	A	0.9	0.6	2.8	6.9	−2.9	−2.4	−2.9	−2.4	−1.3	1.5	−1.6	−1.0
6	C	1.5	1.6	6.0	12.5	−5.4	−3.4	−5.4	−3.4	−3.2	3.6	−3.8	−2.3
6	E	1.5	1.6	6.0	12.5	−3.4	−5.4	−3.4	−5.4	−3.2	3.6	−3.8	−2.3
6	F	0.9	0.6	2.8	6.9	−2.4	−2.9	−2.4	−2.9	−1.3	1.5	−1.6	−1.0

Frm Line	Col Line	Seis_L Vert	Seis_R Vert	E2UNB_SL_L Horz	E2UNB_SL_L Vert	E2UNB_SL_R Horz	E2UNB_SL_R Vert	−LWIND1_L− Horz	−LWIND1_L− Vert	−LWIND1_R− Horz	−LWIND1_R− Vert	−LWIND2_L− Horz	−LWIND2_L− Vert
6	A	0.1	0.3	0.0	4.5	0.0	1.2	0.0	−0.5	0.0	0.0	0.0	−0.5
6	C	−0.2	−0.3	0.0	16.0	0.0	5.2	0.0	−0.5	0.0	0.1	0.0	−0.5
6	E	−0.3	−0.2	0.0	16.0	0.0	4.5	0.0	0.1	0.0	−0.5	0.0	0.1
6	F	0.3	0.1	0.0	1.2	0.0	4.5	0.0	0.0	0.0	−0.5	0.0	0.0

Frm Line	Col Line	−LWIND2_R− Horz	−LWIND2_R− Vert
6	A	0.0	0.0
6	C	0.0	0.1
6	E	0.0	−0.5
6	F	0.0	−0.5

ANCHOR BOLT SUMMARY

Qty	Locate	Dia (in)	Type
○ 32	Endwall	3/4"	
○ 16	Frame	3/4"	
⊠ 16	Frame	1"	

BUILDING BRACING REACTIONS

Loc	Wall Line	Col Line	Reactions in plane of wall ± Reactions (k) Wind Horz	Wind Vert	Seismic Horz	Seismic Vert	Panel Shear (lb/ft)
L_EW	1	Bracing In Roof To Rigid Frame					
F_SW	A	3 ,4	4.2	*	11.5	*	
R_EW	6	Bracing In Roof To Rigid Frame					
B_SW	F	5 ,4	4.2	*	11.5	*	

*See RF reactions table for vertical and horizontal reactions in plane of the rigid frame.

ENDWALL COLUMN: ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc. Qty	Bolt Dia	Base_Plate (in) Width	Length	Thick	Grout (in)
1	F	4	0.750	6.000	9.875	0.375	0.0
1	D	4	0.750	6.000	9.875	0.375	0.0
1	B	4	0.750	6.000	9.875	0.375	0.0
1	A	4	0.750	6.000	9.875	0.375	0.0
6	A	4	0.750	6.000	9.875	0.375	0.0
6	C	4	0.750	6.000	9.875	0.375	0.0
6	E	4	0.750	6.000	9.875	0.375	0.0
6	F	4	0.750	6.000	9.875	0.375	0.0

NOTES FOR REACTIONS

1. All loading conditions are examined and only the maximum / minimum H or V and the corresponding H or V are reported.
2. Positive reactions are shown in the sketch. Foundation loads are in opposite directions.
3. Bracing reactions are in the plane of the brace with the H pointing away from the braced bay. The vertical reaction is downward.
4. Building reactions are based on the following building data:

DESIGN CRITERIA

Width (ft)	= 65
Length (ft)	= 105
Eave Height (ft)	= 17
Roof Slope (rise/12)	= 3.0:12
Building Code	= IBC 09
Local Code (State / Prov)	= IBC 09
Dead Load (psf)	= 2.630
Collateral Load (psf)	= 5
Roof Live Load (psf)	= 20.00
Frame Live Load (psf)	= 20
Snow:	
Ground Snow Load (psf)	= 60.0000
Snow Importance	= 1.0000
Thermal Coefficient	= 1.00
Snow Exposure Factor	= 1.00
Slippery Roof	= N
Roof Snow Load (psf)	= 42
Wind:	
Basic Wind Speed (mph)	= 100 mph
Occupancy Category	= II – Normal
Importance – Wind	= 1.00
Wind Exposure	= B
Enclosure Classification	= C
Internal Pressure Coefficients	
Pressure	= 0.18
Suction	= −0.18
Components & Cladding	
Design Pressure:	
Pressure	= 17.974
Suction	= −24.021

SEISMIC CRITERIA

Seismic Importance	= 1.00
Occupancy Category	= II – Normal
Mapped Spectral Response Accelerations	
Ss	= 0.3220
S1	= 0.0780
Spectral Response Coefficients	
Sds	= 0.4872
Sd1	= 0.1820
Site Class	= E
Seismic Design Category	= C
Base Shear	
Expanded Formula	= 0.667*Ie*Fa*Ss*W/R
Longitudinal Base Shear	=22.32
Transverse Base Shear	=29.94
Seismic Response Coefficients	
Frame	= 0.162
FSW	= 0.162
BSW	= 0.162
Response Modification Factors	
Frame	= 3
FSW	= 3
BSW	= 3

Equivilant Lateral Brace Force Procedure.

Steel systems not specifically detailed for seismic resistance.

RECEIVED
DEC 13
Dept. of Building Inspections
City of Portland Maine

CORLE
114 ROSEMONT LANE, IMLER, PA 16655 (814)276-9611

PHOENIX PROPERTY MANAGEMENT

65'-0" x 105'-0" x 17'-0"

DATE: 12/ 6/11 | REVISION: 02

ENG: JJT | DWN: DJH | APPD: JJT

F.O. 16838

PHOENIX PROPERTY MANAGEMENT

REVISION HISTORY

REV.	DESCRIPTION	DATE
01	SEE CO-01	12/6/11
02	SEE CO-02	12/14/11

DRAWING STATUS

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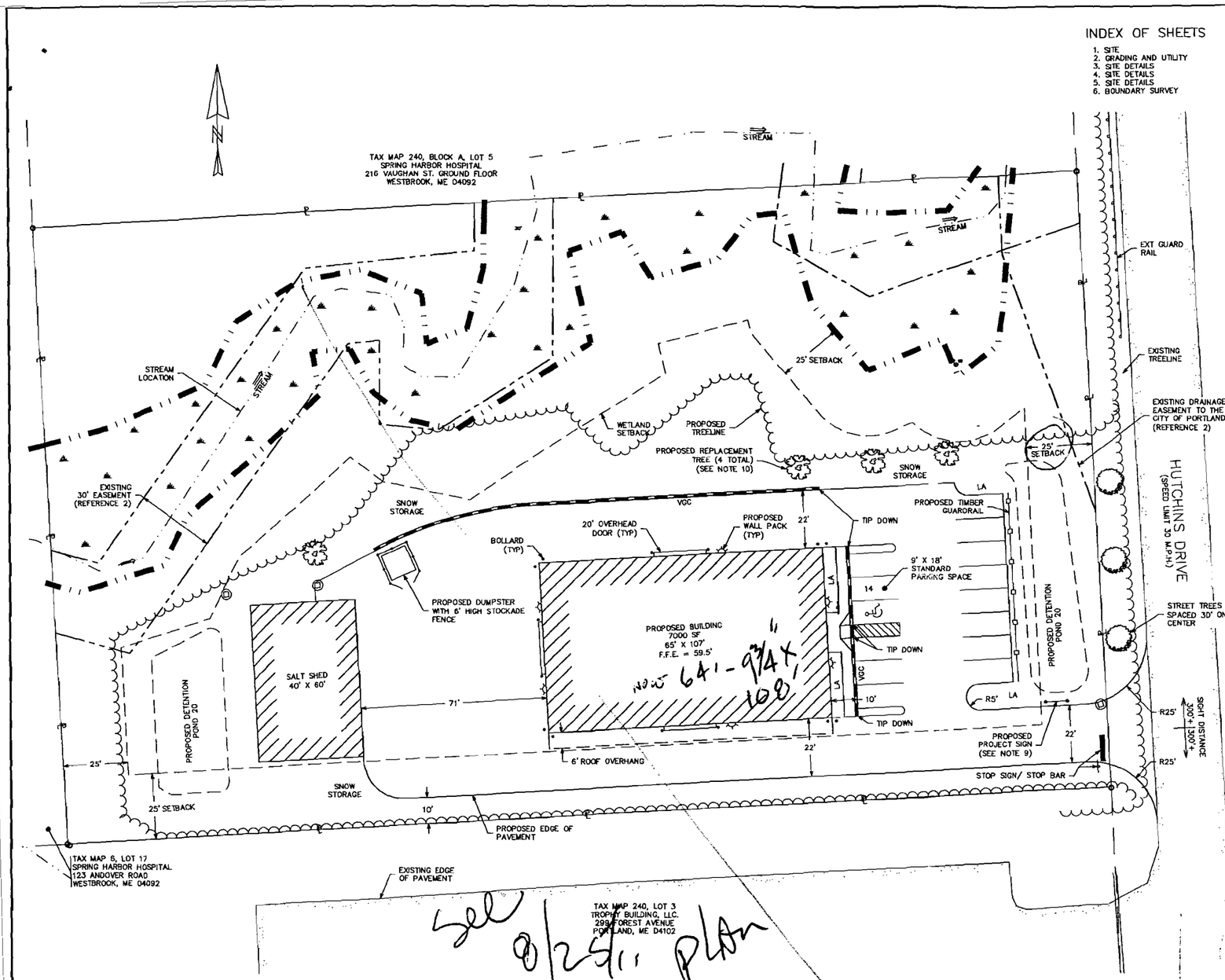
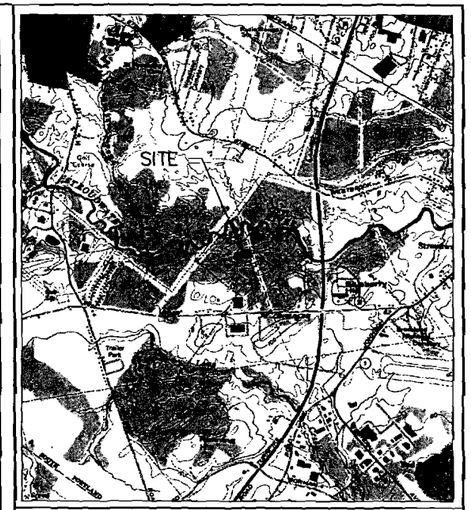
FOR CONSTRUCTION:
■ FINAL DRAWINGS.



INDEX OF SHEETS

LEGEND

EXISTING CONTOUR	XXX
FINAL CONTOUR	XXX
WETLAND BOUNDARY	UPLAND / WETLAND
UTILITY POLE	EXT. / PRP.
EXT. WATER	EW
EXT. SEWER	ES
EXT. OVERHEAD UTIL.	EOHU
EXT. UNDERGROUND UTIL.	EUE
EXISTING EASEMENT	
PRP. WATER	PW
PRP. SEWER	PS
PRP. UTILITY	PUE/T/C
PRP. GAS	PG
WATER VALVE	WV
WATER SHUTOFF	
SEWER MANHOLE	S
LIGHT POLE	EXT. / PRP.
SILTATION FENCE	
PROPOSED FENCE	
EXISTING FENCE	
ASPHALT CURB	AC
SLOPED GRANITE CURB	SGC
VERTICAL GRANITE CURB	VGC
EXISTING CURB	
FIRE HYDRANT	EXT. / PRP.
LANDSCAPED AREA	LA
SPOT GRADE	EXT. X57.31' PRP. X57.31'



LOCATION MAP
APPROXIMATE SCALE: 1"=2000'

GENERAL NOTES

1. THIS PLAN PROVIDES DETAILS FOR THE APPROVAL AND CONSTRUCTION OF AN 7000 SF INDUSTRIAL BUILDING WITH A SEPARATE 2400 SF SALT SHED IN PORTLAND, MAINE. THE SITE IS LOCATED AT 144 HUTCHINS DRIVE AND IS IDENTIFIED ON THE CITY OF PORTLAND TAX ASSESSOR'S MAP 240, BLOCK A, LOT 4, AND IS 2.16 ACRES IN AREA WITH 235' OF STREET FRONTAGE ON HUTCHINS DRIVE.

2. THE PROPOSED BUILDING (APPROXIMATELY 7,000 SF FOOTPRINT) SHALL BE A MAINTENANCE FACILITY FOR PHOENIX MANAGEMENT.

3. THE PARCEL IS LOCATED IN THE INDUSTRIAL–MODERATE IMPACT (IM) DISTRICT. DISTRICT REQUIREMENT ARE AS FOLLOWS:
   MIN LOT SIZE = N/A
   MIN STREET FRONTAGE = 80'
   MAX FRONT YARD = 25'
   MIN REAR AND SIDE YARD = 25'
   MAX BUILDING HEIGHT = 75'

4. MAXIMUM IMPERVIOUS SURFACE RATIO ALLOWED IS 75% IN THE INDUSTRIAL–MODERATE IMPACT DISTRICT. COVERAGE CALCULATIONS ARE AS FOLLOWS:
   29,800 SF / 94,002 SF = 31.7%

5. BOUNDARY, TOPOGRAPHIC AND WETLAND INFORMATION WAS TAKEN FROM REFERENCE 1 AND FIELD OBSERVATIONS TAKEN BY ATTAR ENGINEERING IN MAY OF 2011.

6. REQUIRED PARKING IS CALCULATED AS FOLLOWS:
   8000 S.F. INDUSTRIAL SPACE:
   (1/1000 S.F.) = 8 SPACES
   TOTAL = 8 SPACES

   14 SPACES ARE PROVIDED, OF WHICH 1 SPACE IS ADA ACCESSIBLE.

7. WATER AND SEWER SERVICE SHALL BE PROVIDED TO THE SITE BY THE PORTLAND WATER DISTRICT. WATER AND SEWER IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH RESPECTIVE DISTRICT REQUIREMENTS.

8. THE CONTRACTOR MUST CONTACT DIG SAFE AND ALL LOCAL UTILITIES PRIOR TO THE START OF CONSTRUCTION TO VERIFY THE LOCATION OF EXISTING SUBSURFACE UTILITIES AND CONDITIONS. LOCATING AND PROTECTING ANY UNDERGROUND OR ABOVE GROUND UTILITY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

9. PROPOSED SIGN SHALL BE SUBJECT TO APPROVAL PURSUANT TO SECTION 14–526 (d) 8.a. (IV) OF THE LAND USE CODE.

10. REPLACEMENT TREES MUST BE LISTED ON THE CITY OF PORTLAND APPROVED NATIVE SPECIES LIST. SEE EXISTING CONDITIONS PLAN FOR TREE SURVEY INFORMATION. STREET TREES MUST MEET ALL STANDARDS SET FORTH IN THE CITY OF PORTLAND TECHNICAL MANUAL SECTION 4.7.

JUN 29 2011

APPLICANT: PHOENIX MANAGEMENT
PO BOX 579
SACO, ME 04072–5118

OWNER OF RECORD: MAINE ALPHA FLOOR SANDING
23 RABBIT RUN
PORTLAND, ME 04102–2275

REFERENCES

1. "CONCEPTUAL PLAN – LOT 13" PREPARED CBRE/ THE BOULOS COMPANY BY TITCOMB ASSOCIATES. DATED 1/05/2011,

2. "STROUDWATER ESTATES' PREPARED BY H. I. & E. C. JORDAN – SURVEYORS. DATED 10 SEPTEMBER 1984. RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 144, PAGE 73.

CITY OF PORTLAND PLANNING BOARD	DATE

STATE OF MAINE
CUMBERLAND COUNTY ss. REGISTRY OF DEEDS
RECEIVED_____, 20__
AT__h.__m., M, AND RECORDED IN
PLAN BOOK_____ PAGE_____
ATTEST_____REGISTER

GRAPHIC SCALE
20 0 20 40 60 (FEET)

NOT FOR CONSTRUCTION

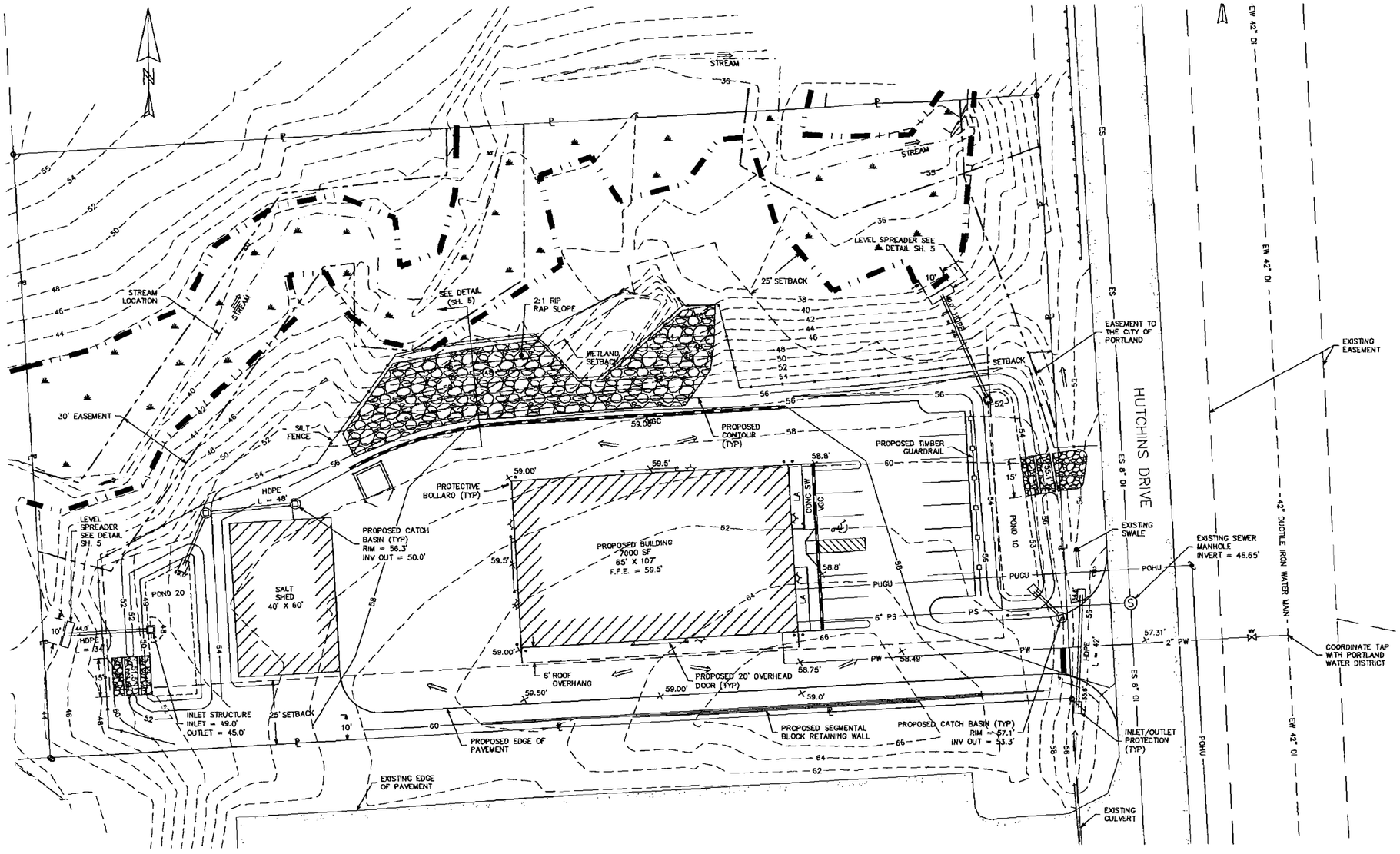
NO.	DESCRIPTION / REVISIONS	DATE

SITE PLAN
144 HUTCHINS DRIVE
HUTCHINS DRIVE PORTLAND, MAINE

FOR: PHOENIX PROPERTY SERVICES
PO BOX 759
SACO, ME 04072–5118

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE
1284 STATE ROAD – ELIOT, MAINE 03903
PHONE: (207)439–6023 FAX: (207)439–2128

SCALE:	APPROVED BY:	DRAWN BY:
1" = 20'		CLS
DATE: 06/17/11		REVISION : DATE – : –
JOB NO: C010–11	CAD FILE: HUTCHINS SITE	SHEET 1 OF _



LEGEND

EXISTING CONTOUR	XXX
FINAL CONTOUR	XXX
WETLAND BOUNDARY	UPLAND / WETLAND
UTILITY POLE	EXT. / PRP.
EXT. WATER	EW
EXT. SEWER	ES
EXT. OVERHEAD UTIL.	EOHU
EXT. UNDERGROUND UTIL.	EUE
EXISTING EASEMENT	
PRP. WATER	PW
PRP. SEWER	PS
PRP. UTILITY	PUE/T/C
PRP. GAS	PG
WATER VALVE	
WATER SHUTOFF	
SEWER MANHOLE	
LIGHT POLE	EXT. / PRP.
SILTATION FENCE	
PROPOSED FENCE	
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ASPHALT CURB	AC
SLOPED GRANITE CURB	SGC
VERTICAL GRANITE CURB	VGC
EXISTING CURB	
FIRE HYDRANT	EXT. / PRP.
LANDSCAPED AREA	LA
SPOT GRADE	EXT. X57.31' PRP. X57.31'

JUN 29 2011

GENERAL NOTES

1. EXISTING TOPOGRAPHY WAS TAKEN FROM REFERENCE 1.
2. ALL SEWER LINES TO BE 6" PVC (SDR 35).
3. ALL STORM DRAINS SHALL BE ADS N-12 (HDPE) OR APPROVED EQUAL. PROPER TRENCHING AND BACKFILLING ARE VITAL TO THE LONG TERM PERFORMANCE AND DURABILITY OF HDPE CULVERT INSTALLATIONS. SEE HDPE CULVERT TRENCH DETAIL.
4. CATCH BASINS AND DRAINAGE STRUCTURES SHALL BE CLEANED BY CONTRACTOR AFTER CONSTRUCTION.
5. ALL WATER MAINS SHALL BE DUCTILE IRON (DI). ALL OTHER VALVES, FITTINGS AND CONNECTIONS SHALL MEET CURRENT PORTLAND WATER DISTRICT STANDARDS.
6. A MINIMUM OF 5.0' OF COVER SHALL BE MAINTAINED OVER ALL WATER LINES.
7. PROPOSED UTILITIES ARE APPROXIMATELY LOCATED. CENTRAL MAINE POWER WILL PREPARE THE ELECTRICAL PLAN FOR CONSTRUCTION.

GRAPHIC SCALE
20 0 20 40 60 (FEET)

NOT FOR CONSTRUCTION

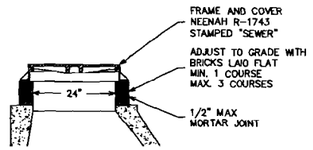
NO.	DESCRIPTION	DATE
	REVISIONS	

GRADING AND UTILITY PLAN PLAN
144 HUTCHINS DRIVE
HUTCHINS DRIVE PORTLAND, MAINE

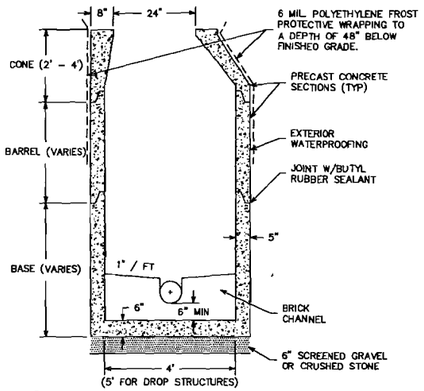
FOR: PHOENIX PROPERTY SERVICES
PO BOX 759
SACO, ME 04072-5118

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE
1284 STATE ROAD - ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

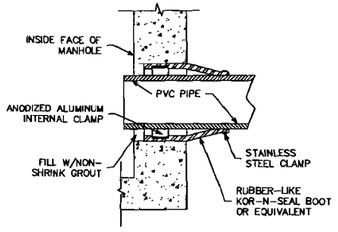
SCALE: 1" = 20'	APPROVED BY:	DRAWN BY: CLS
DATE: 06/17/11		REVISION : DATE - : -
JOB NO: C010-11	CAD FILE: HUTCHINS GRAD	SHEET 2 OF _



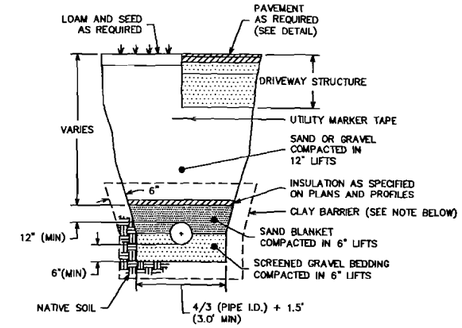
STANDARD COVER AND FRAME
SCALE: NTS



TYPICAL SANITARY MANHOLE
SCALE: NTS



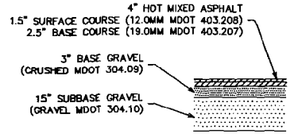
TYPICAL BOOT GASKET
SCALE: NTS



SEWER PIPE TRENCH DETAIL
SCALE: NTS

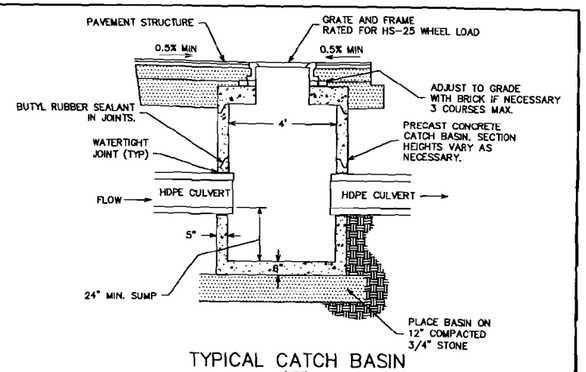
TRENCH TO BE SUPPORTED BY SLOPING BACK AT 2:1 OR OTHER ACCEPTABLE METHOD.

CLAY BARRIERS (12" THICK, APPOX. 100' INTERVALS) ALONG THE PIPE BEDDING SHALL BE INSTALLED IN AREAS OF HIGH GROUNDWATER OR AS DIRECTED BY THE INSPECTING ENGINEER.



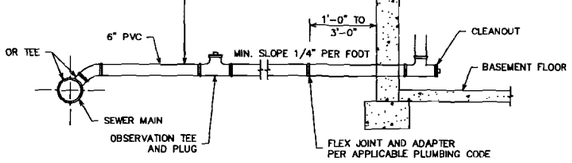
PAVEMENT CROSS-SECTION
ROADS AND DRIVEWAYS
(NTS)

GRAVEL FILL TO BE COMPACTED TO 95% MODIFIED PROCTOR



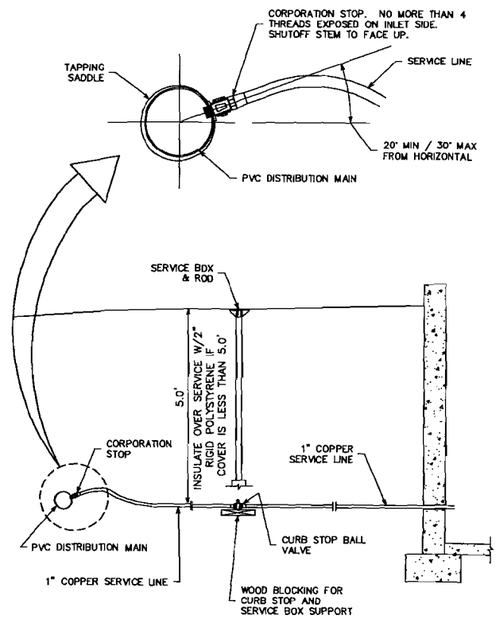
TYPICAL CATCH BASIN
(NTS)

CATCH BASINS ARE TO BE PRECAST CONCRETE CONSTRUCTION MEETING THE REQUIREMENTS OF ASTM DESIGNATION C478 OR PRECAST CONCRETE MANHOLE BLOCK CONSTRUCTION MEETING THE REQUIREMENTS OF ASTM C139. RADIAL TYPE. METAL FRAMES AND TRAPS MUST BE SET IN A FULL MORTAR BED WITH TOPS TO CONFORM TO THE AASHTO REQUIREMENTS.



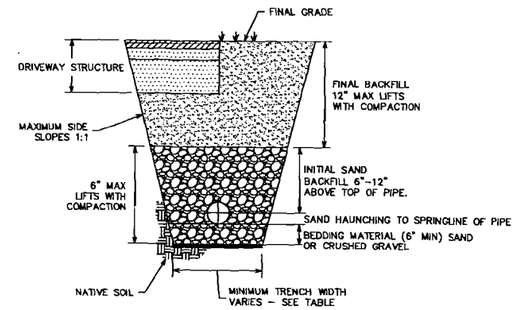
TYPICAL SERVICE CONNECTION
AND HOUSE LATERAL DETAIL
SCALE: NTS

NOTE: HOUSE SEWER MAY BE LOCATED BENEATH BASEMENT FLOOR



WATER SERVICE DETAIL
(NTS)

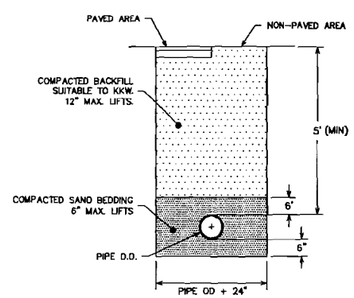
CONTRACTOR TO COORDINATE WITH WATER DISTRICT ON LOCATION OF CURB STOPS



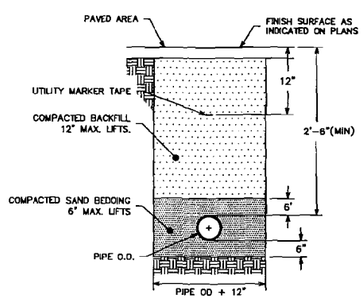
HDPE CULVERT TRENCH DETAIL
(NTS)

TRENCH TO BE SUPPORTED BY SLOPING BACK AT 2:1 OR OTHER ACCEPTABLE METHOD.

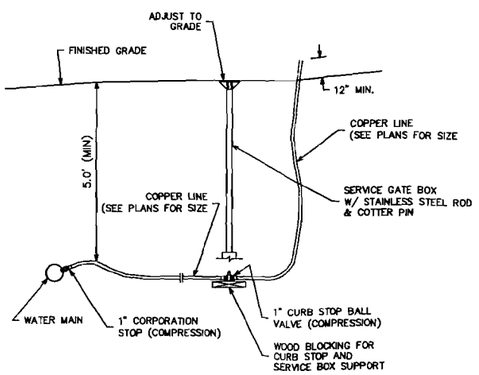
NOMINAL DIAMETER (IN)	MIN. TRENCH WIDTH (IN)
4	21
6	23
8	25
10	28
12	31
15	34
18	39
24	48
30	66
36	78
42	83
48	89
60	102



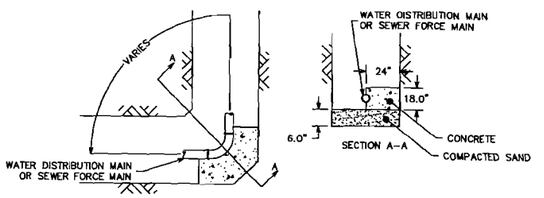
WATER LINE
TRENCH DETAIL
(NTS)



UTILITY CONDUIT
TRENCH DETAIL
(NTS)



WATER BLOWOFF ASSEMBLY DETAIL
(NTS)



THRUST BLOCK DETAIL
(NTS)

REVIEW SET
NOT FOR CONSTRUCTION

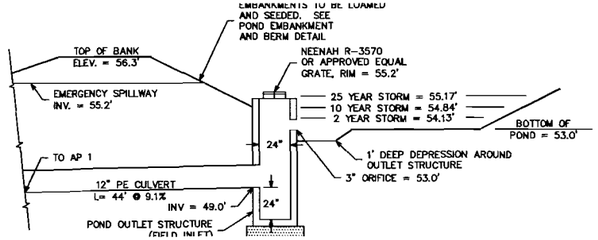
NO.	DESCRIPTION REVISIONS	DATE

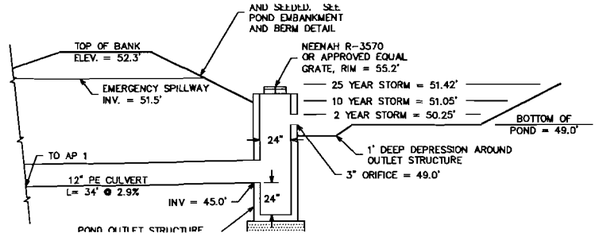
SITE DETAILS
144 HUTCHINS DRIVE
HUTCHINS DRIVE PORTLAND, MAINE

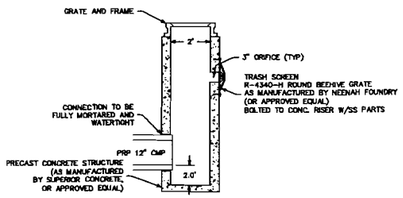
FOR: PHOENIX PROPERTY SERVICES
PO BOX 759
SACO, ME 04072-5118

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE
128 STATE ROAD - ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

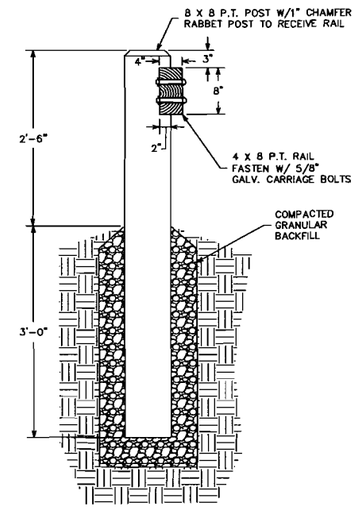
SCALE: AS NOTED	APPROVED BY:	DRAWN BY: CLS
DATE: 06/17/11		REVISION : DATE - : -
JOB NO: C010-11	CAD FILE: HUTCHINS DET	SHEET 3 OF



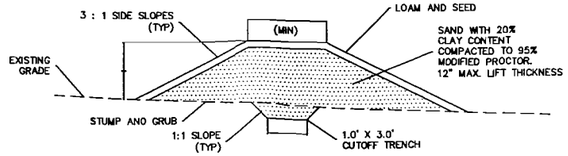




FIELD INLET (FI) DETAIL
(NTS)



TIMBER GUARDRAIL DETAIL
(NTS)
MAXIMUM POST SPACING SHALL BE 6'.



POND EMBANKMENT AND BERM DETAIL
SCALE: 1" = 5'

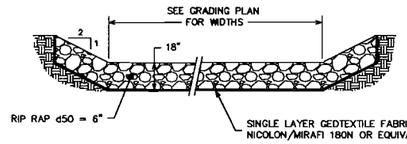
EMBANKMENT CONSTRUCTION NOTES

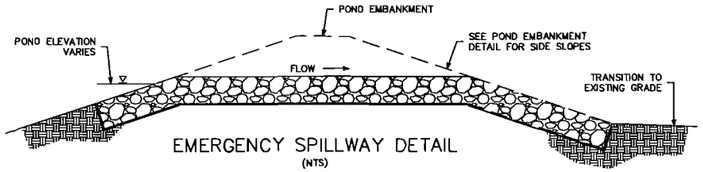
1. ALL ORGANIC MATERIAL, STUMPS, ROCKS AND BOULDERS SHALL BE REMOVED TO A MINIMUM DEPTH OF 24" BELOW SUBGRADE OF THE BASIN EMBANKMENT. ALL EXCAVATIONS BELOW THE BASIN EMBANKMENT SHALL HAVE A MINIMUM SLOPE OF 1H : 1V.

2. ALL BASIN EMBANKMENT FILL MATERIAL SHALL BE SAND WITH 20% CLAY CONTENT. EMBANKMENT FILL SHALL BE PLACED IN 12" (MAX.) LIFTS AND BE COMPACTED TO 95% MODIFIED PROCTOR. A CUTOFF TRENCH SHALL BE EXCAVATED AS SHOWN PRIOR TO CONSTRUCTION OF EMBANKMENT.

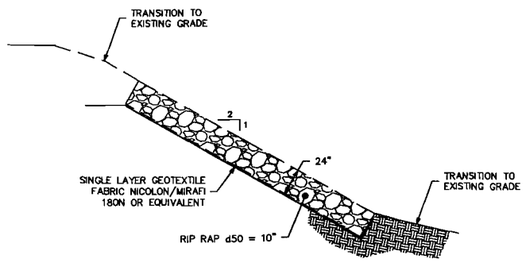
3. DETENTION BASIN AND ALL EXCAVATIONS SHALL BE KEPT FREE OF WATER DURING CONSTRUCTION.

4. EMBANKMENT SIDE SLOPES AND BOTTOM OF DETENTION BASIN SHALL BE LOAMED, SEEDED AND MULCHED IN ACCORDANCE WITH THE EROSION AND SEDIMENTION CONTROL NOTES.

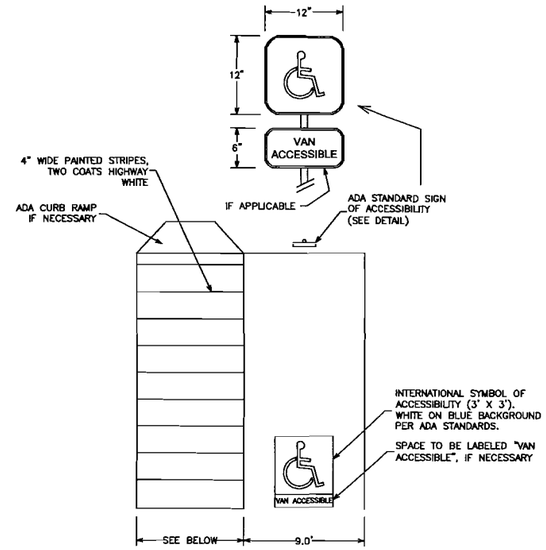




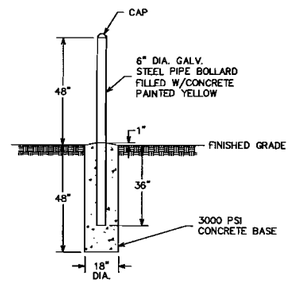
EMERGENCY SPILLWAY DETAIL
(NTS)



RIP RAP SLOPE DETAIL
(NTS)



ACCESSIBLE PARKING SPACE DETAIL
AISLE SHALL BE 5' WIDE FOR AUTOMOBILES OR 8' WIDE FOR VANS
(NTS)



PROTECTIVE BOLLARD DETAIL
(NTS)

REVIEW SET
NOT FOR CONSTRUCTION

NO.	DESCRIPTION	DATE
	REVISIONS	

SITE DETAILS
144 HUTCHINS DRIVE
HUTCHINS DRIVE PORTLAND, MAINE

FOR:
PHOENIX PROPERTY SERVICES
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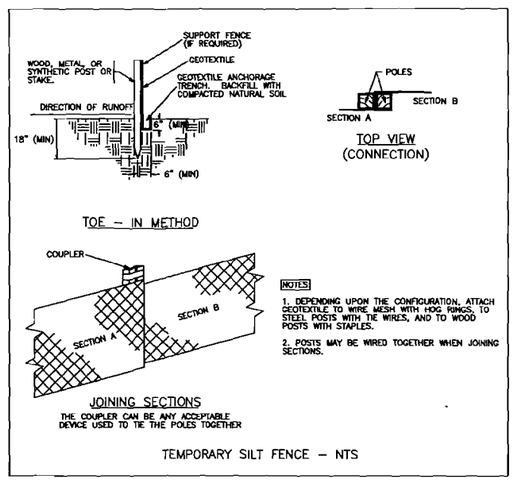
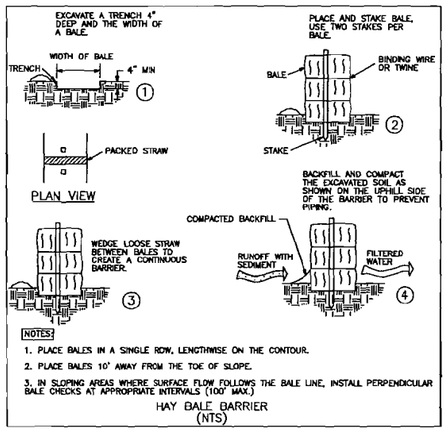
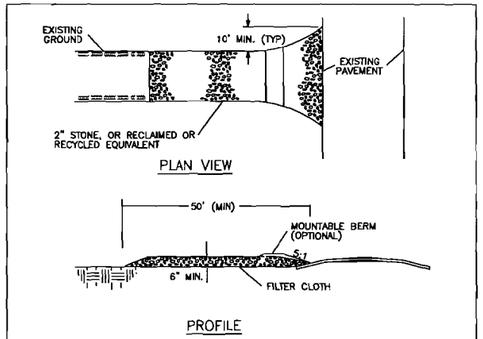


TEMPORARY SILT FENCE - NTS



HAY BALE BARRIER
(NTS)



STABILIZED CONSTRUCTION ENTRANCE

EROSION & SEDIMENTATION CONTROL NOTES

1. SILTATION FENCE OR HAY BALE BARRIERS WILL BE INSTALLED DOWNSLOPE OF ALL STRIPPING OR CONSTRUCTION OPERATIONS. A DOUBLE SILT FENCE BARRIER SHALL BE INSTALLED DOWNSLOPE OF ANY SOIL MATERIAL STOCKPILES. SILT FENCES SHALL BE INSPECTED AFTER EACH RAIN EVENT AND DAILY DURING PROLONGED RAIN. SILT AND SOIL PARTICLES ACCUMULATING BEHIND THE FENCE SHALL BE REMOVED AFTER EACH SIGNIFICANT RAIN EVENT AND IN NO INSTANCE SHOULD ACCUMULATION EXCEED 1/2 THE HEIGHT OF THE FENCE. TORN OR DAMAGED AREAS SHALL BE REPAIRED.

2. TEMPORARY AND PERMANENT VEGETATION AND MULCHING IS AN INTEGRAL COMPONENT OF THE EROSION AND SEDIMENTATION CONTROL PLAN. ALL AREAS SHALL BE INSPECTED AND MAINTAINED UNTIL THE DESIRED VEGETATIVE COVER IS ESTABLISHED. THESE CONTROL MEASURES ARE ESSENTIAL TO EROSION PREVENTION AND ALSO REDUCE COSTLY REWORK OF GRADED AND SHAPED AREAS.

3. SEEDING, FERTILIZER AND LIME RATES AND TIME OF APPLICATION WILL BE DEPENDENT ON SOIL REQUIREMENTS. TEMPORARY VEGETATION SHALL BE MAINTAINED IN THESE AREAS UNTIL PERMANENT SEEDING IS APPLIED. ADDITIONALLY, EROSION AND SEDIMENTATION MEASURES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.

4. ALL LAWN AREA SHALL BE PERMANENTLY SEEDED WITH THE FOLLOWING MIXTURE: 20 LB/ACRE KENTUCKY BLUEGRASS, 20 LB/ACRE CREEPING RED FESCUE AND 5 LB/ACRE PERENNIAL RYE GRASS FOR A TOTAL OF 45 LB/ACRE. FERTILIZER AND LIME RATES SHALL BE DEPENDENT ON SOIL TESTING. IN THE ABSENCE OF SOIL TESTS, FERTILIZE WITH 10-20-20 (N-P205-K201) AT 800 LB/ACRE AND LIME AT 3 TONS/ACRE. MULCH WITH HAY AT 70-90 LB/1000 S.F. 4" OF LOAM SHALL BE APPLIED PRIOR TO SEEDING.

5. ALL DRAINAGE SWALES, POND EMBANKMENTS AND CROSSING EMBANKMENTS SHALL BE SEEDED WITH A MIXTURE OF CREEPING RED FESCUE, REDTOP AND TALL FESCUE. THE MIXTURE SHALL CONTAIN 20 LB/ACRE CREEPING RED FESCUE, 2 LB/ACRE REDTOP AND 20 LB/ACRE TALL FESCUE. SEE THE ABOVE NOTE FOR FERTILIZER, LIME AND MULCHING RATES.

6. TEMPORARY VEGETATION OF ALL DISTURBED AREAS, MATERIAL STOCKPILES AND OTHER SUCH AREAS SHALL BE ESTABLISHED BY SEEDING WITH EITHER WINTER RYE AT A RATE OF 112 LB/ACRE OR ANNUAL RYEGRASS AT A RATE OF 40 LB/ACRE. WINTER RYE SHALL BE USED FOR FALL SEEDING AND ANNUAL RYEGRASS FOR SHORT DURATION SEEDING. SEEDING SHALL BE ACCOMPLISHED BEFORE OCTOBER 1.

7. TEMPORARY SEEDING OF DISTURBED AREAS SHALL BE ACCOMPLISHED BEFORE OCTOBER 1. PERMANENT SEEDING SHALL BE ACCOMPLISHED BEFORE SEPTEMBER 15.

8. ALL SEEDED AREAS SHALL BE MULCHED WITH HAY AT A RATE OF 2 BALES (70-90 LB) PER 1000 S.F. OF SEEDED AREA.

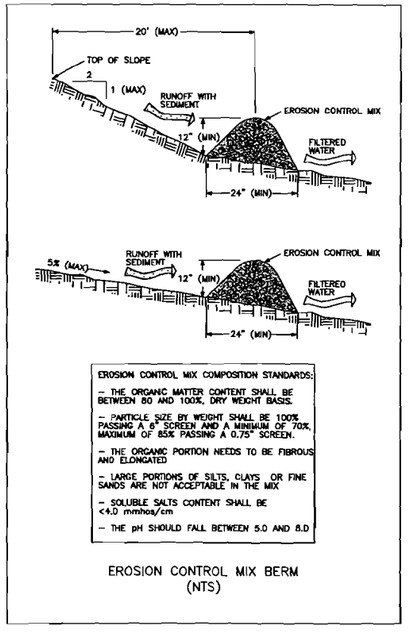
9. ALL DISTURBED AREAS ON THE SITE SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE.

10. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT ALL ACCESSES TO PUBLIC ROADS (SEE PLAN). TEMPORARY CULVERTS SHALL BE PROVIDED AS REQUIRED.

11. SLOPES 2:1 OR STEEPER SHALL BE TREATED WITH POLYJUTE OPEN WEAVE GEOTEXTILE (OR EQUIVALENT) AFTER SEEDING. JUTE MATS SHALL BE ANCHORED PER MANUFACTURER'S SPECIFICATIONS.

12. EXCESSIVE DUST CAUSED BY CONSTRUCTION OPERATIONS SHALL BE CONTROLLED BY APPLICATION OF WATER OR CALCIUM CHLORIDE.

13. THE CONTRACTOR MAY OPT TO USE EROSION CONTROL MIX BERM AS A SEDIMENT BARRIER IN LIEU OF SILTATION FENCE OR HAY BALE BARRIERS WITH APPROVAL FROM THE INSPECTING ENGINEER.



EROSION CONTROL MIX BERM
(NTS)

DRIVEWAY CONSTRUCTION NOTES

1. DRIVEWAYS TO BE CONSTRUCTED IN ACCORDANCE WITH THE APPROPRIATE CROSS SECTION DETAIL. GRAVEL FILL TO BE COMPACTED TO 95% MODIFIED PROCTOR IN ACCORDANCE WITH ASTM D 1557. LIFT THICKNESSES TO BE A MAXIMUM OF 6".

2. ALL STUMPS, ORGANIC MATERIAL, ROCKS AND BOULDERS TO BE REMOVED TO A MINIMUM DEPTH OF 24" BELOW SUBBASE.

3. ALL STUMPS, LEDGE AND LARGE BOULDERS TO BE REMOVED FROM THE CONSTRUCTION AREA. THE CONSTRUCTION AREA SHALL BE CLEARED AND ROUGH GRADED.

4. ALL CULVERTS TO BE ADS N-12 (HDPE) OR APPROVED EQUAL. CULVERT INLETS AND OUTLETS TO BE PROTECTED IN ACCORDANCE WITH THE CULVERT INLET/OUTLET PROTECTION DETAIL.

5. THE CONTRACTOR MUST CONTACT DIG SAFE AND ALL LOCAL UTILITIES PRIOR TO THE START OF CONSTRUCTION TO VERIFY THE LOCATION OF EXISTING SUBSURFACE UTILITIES AND CONDITIONS. LOCATING AND PROTECTING ANY UNDERGROUND OR ABOVE GROUND UTILITY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

WINTER CONSTRUCTION NOTES

NOVEMBER 1 - APRIL 15

1. EXPOSED AREAS SHOULD BE LIMITED TO AN AREA THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.

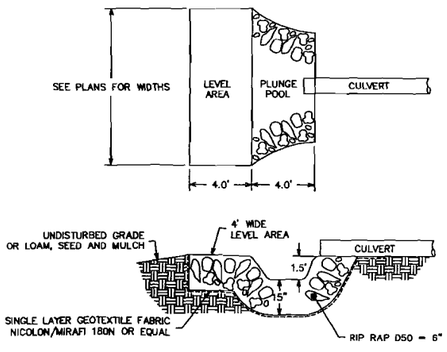
2. AN AREA SHALL BE CONSIDERED STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH HAY AT A RATE OF 100 LB/1000 S.F. OR DORMANT SEEDED, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE. IN ALL CASES, MULCH SHALL BE APPLIED SO THAT THE SOIL SURFACE IS NOT VISIBLE THROUGH THE MULCH.

3. FROM OCTOBER 15 TO APRIL 1, LOAM AND SEED WILL NOT BE REQUIRED. DURING PERIODS OF TEMPERATURES ABOVE FREEZING, DISTURBED AREAS SHALL BE FINE GRADED AND PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL PERMANENT SEEDING CAN BE APPLIED. AFTER NOVEMBER 1, DISTURBED AREAS MAY BE LOAMED, FINE GRADED AND DORMANT SEEDED AT A RATE 200-300% HIGHER THAN THE SPECIFIED PERMANENT SEEDING RATE. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, DISTURBED AREAS SHALL BE GRADED BEFORE FREEZING AND TEMPORARILY STABILIZED WITH MULCH. DISTURBED AREAS SHALL NOT BE LEFT OVER THE WINTER OR FOR ANY OTHER EXTENDED PERIOD OF TIME UNLESS STABILIZED WITH MULCH.

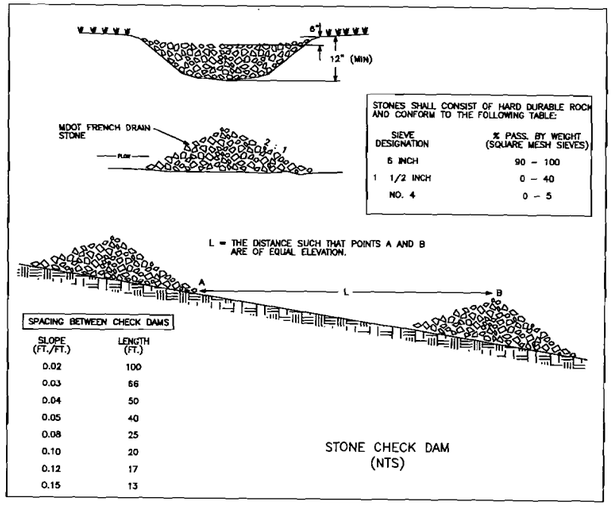
4. FROM NOVEMBER 1 TO APRIL 15 ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, TRACK OR WOOD CELLULOSE FIBER. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH SLOPES GREATER THAN 3%. SLOPES EXPOSED TO DIRECT WINDS AND FOR SLOPES GREATER THAN 8%. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15%. AFTER OCTOBER 1, THE SAME APPLIES TO ALL SLOPES GREATER THAN 8%.

5. DURING WINTER CONSTRUCTION, DORMANT SEEDING OR MULCH AND ANCHORING SHALL BE APPLIED TO ALL DISTURBED AREAS AT THE END OF EACH WORKING DAY.

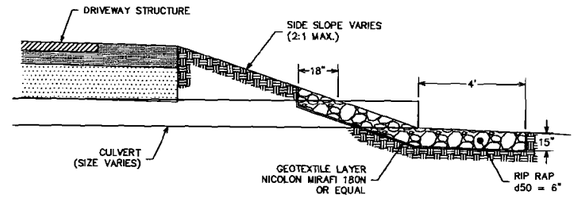
6. SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.



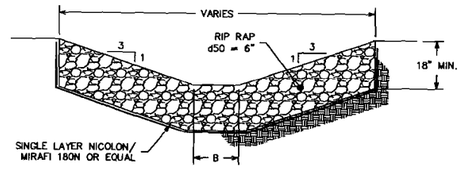
LEVEL SPREADER
(NTS)



STONE CHECK DAM
(NTS)

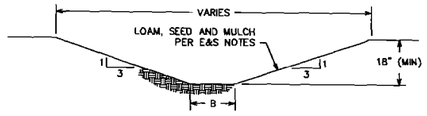


CULVERT INLET/OUTLET PROTECTION DETAIL
(NTS)



RIP RAP SWALE DETAIL
NTS

B (BOTTOM WIDTH) SHALL BE 2' FOR TYPE 1 SWALES AND 5' FOR TYPE 2 SWALES.



VEGETATED SWALE DETAIL
NTS

B (BOTTOM WIDTH) SHALL BE 2' FOR TYPE 1 SWALES AND 5' FOR TYPE 2 SWALES.

REVIEW SET
NOT FOR CONSTRUCTION

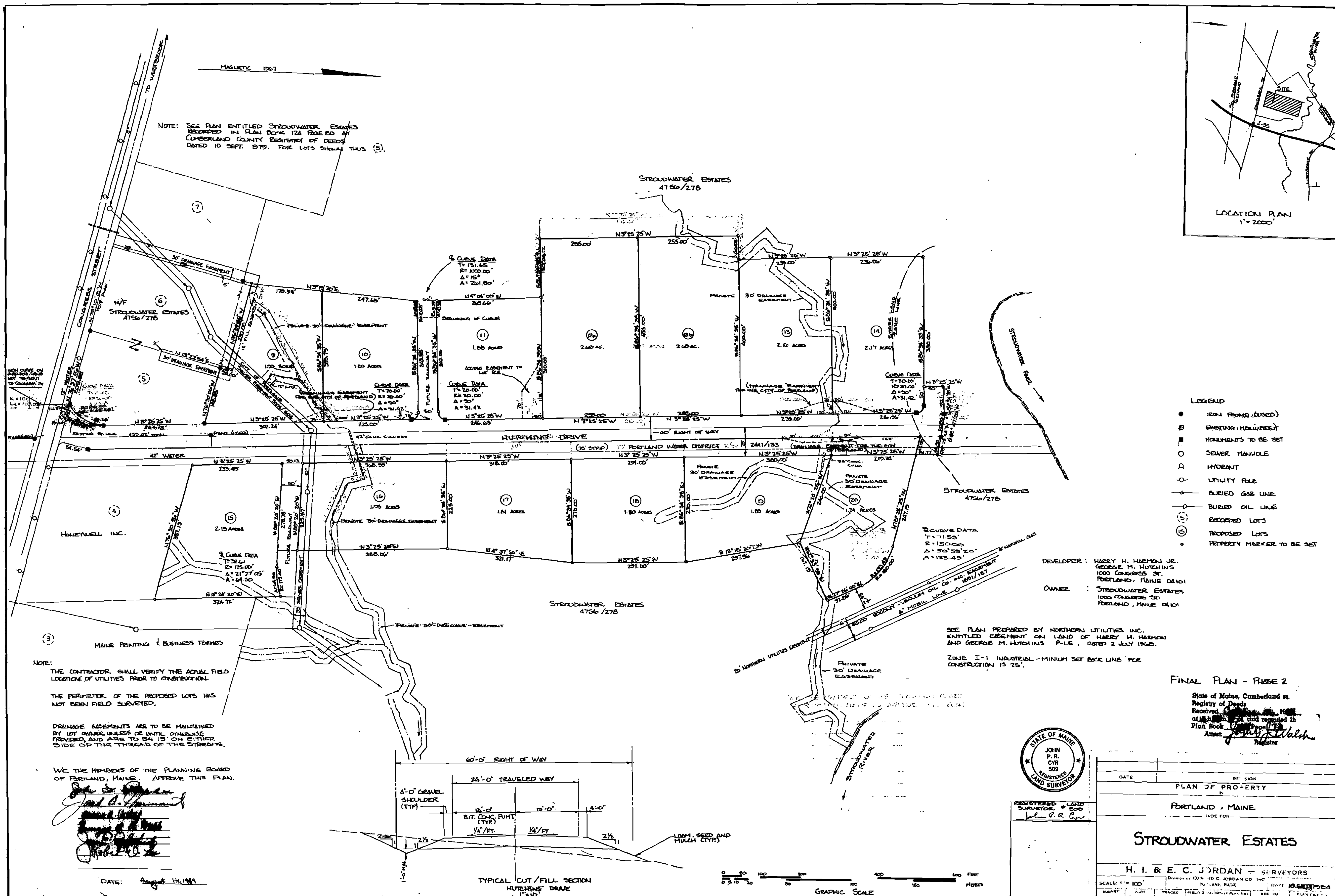
NO.	DESCRIPTION	DATE
	REVISIONS	

SITE DETAILS
144 HUTCHINS DRIVE
HUTCHINS DRIVE PORTLAND, MAINE

FOR: PHOENIX PROPERTY SERVICES
PO BOX 759
SACO, ME 04072-5118

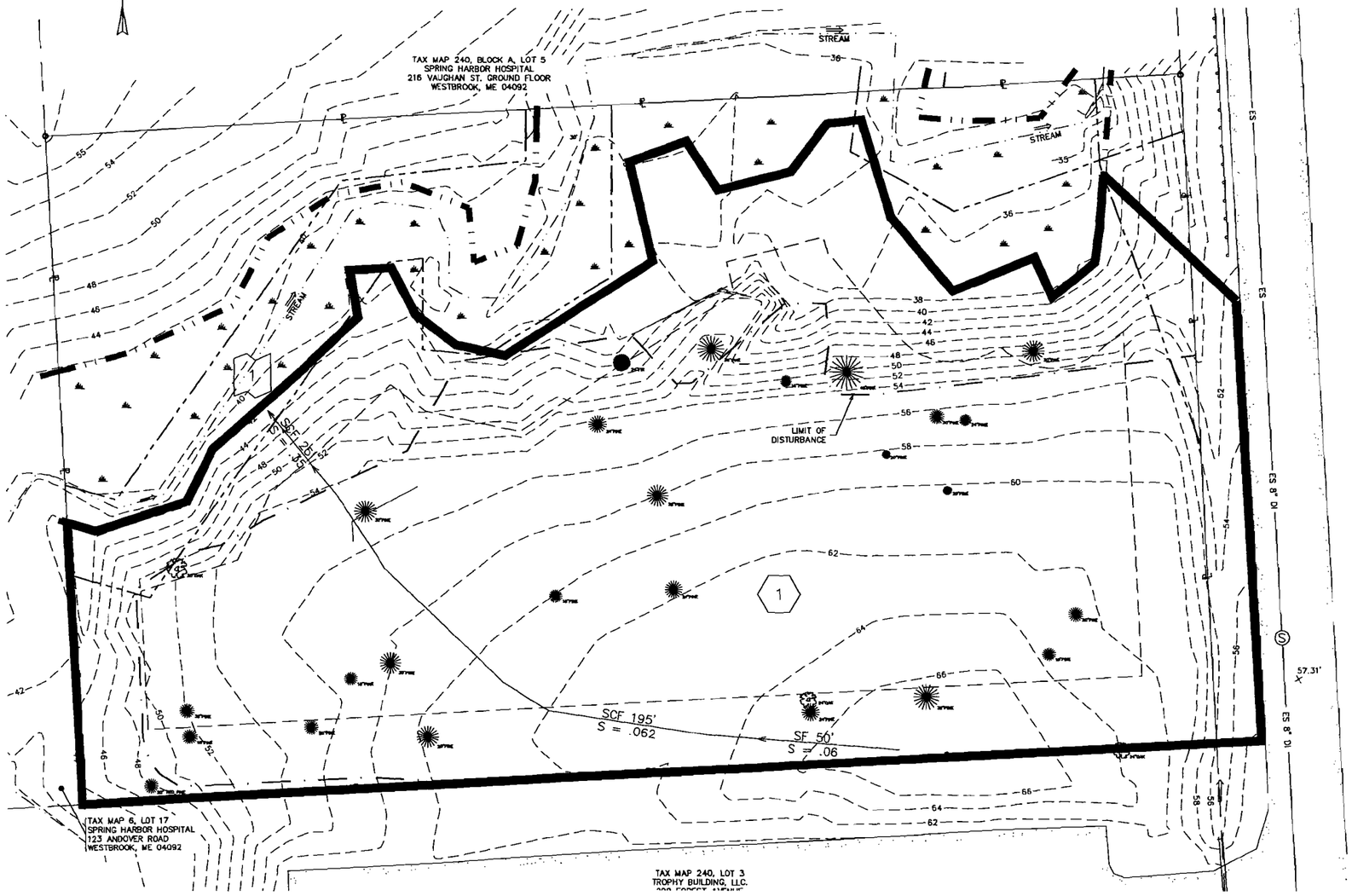
ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE
128 STATE ROAD - ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

SCALE: AS NOTED	APPROVED BY:	DRAWN BY: CLS
DATE: 6/17/11		REVISION : DATE - : -
JOB NO: C010-11	CAD FILE: HUTCHINS DET	SHEET 5 OF



MAGNETIC 1967
TO WESTBROOK
CONGRESS STREET
NOTE: SEE PLAN ENTITLED STROUDWATER ESTATES RECORDED IN PLAN BOOK 124 PAGE 80 AT CUMBERLAND COUNTY REGISTRY OF DEEDS DATED 10 SEPT. 1979. FOR LOTS SHOWN THUS (5).
STROUDWATER ESTATES 4756/278
30' DRAINAGE EASEMENT
N/F STROUDWATER ESTATES 4756/278
Private 30' Drainage Easement
FUTURE ROADWAY
ACCESS EASEMENT TO LOT 12A
BEGINNING OF CURVE
1.88 ACRES
2.40 AC.
2.40 AC.
2.10 ACRES
2.17 ACRES
1.00 ACRES
SHORE LAND ZONE LINE
(DRAINAGE EASEMENT FOR THE CITY OF PORTLAND)
STROUDWATER RIVER
HUTCHINS DRIVE
60' RIGHT OF WAY
(75' STRIP) PORTLAND WATER DISTRICT 2441/133
42' WATER
HONEYWELL INC.
2.15 ACRES
1.75 ACRES
1.81 ACRES
1.80 ACRES
1.80 ACRES
1.74 ACRES
PRIVATE 30' DRAINAGE EASEMENT
STROUDWATER ESTATES 4756/278
30' SEWER EASEMENT
CURVE DATA T=71.53' R=150.00 Δ=50°33'20" A=133.49'
20' NORTHERN UTILITIES EASEMENT
6" MOBIL LINE
MAINE PRINTING & BUSINESS FORMS
LEGEND
IRON FOUND (USED)
EXISTING MONUMENT
MONUMENTS TO BE SET
SEWER MANHOLE
HYDRANT
UTILITY POLE
BURIED GAS LINE
BURIED OIL LINE
RECORDED LOTS
PROPOSED LOTS
PROPERTY MARKER TO BE SET
DEVELOPER: HARRY H. HARMON JR. GEORGE M. HUTCHINS 1000 CONGRESS ST. PORTLAND, MAINE 04101
OWNER: STROUDWATER ESTATES 1000 CONGRESS ST. PORTLAND, MAINE 04101
SEE PLAN PREPARED BY NORTHERN UTILITIES INC. ENTITLED EASEMENT ON LAND OF HARRY H. HARMON AND GEORGE M. HUTCHINS P-LS, DATED 2 JULY 1968.
ZONE I-1 INDUSTRIAL - MINIUM SET BACK LINE FOR CONSTRUCTION IS 25'.
LOCATION PLAN 1" = 2000'
I-95
SITE
NOTE:
THE CONTRACTOR SHALL VERIFY THE ACTUAL FIELD LOCATIONS OF UTILITIES PRIOR TO CONSTRUCTION.
THE PERIMETER OF THE PROPOSED LOTS HAS NOT BEEN FIELD SURVEYED.
DRAINAGE EASEMENTS ARE TO BE MAINTAINED BY LOT OWNER UNLESS OR UNTIL OTHERWISE PROVIDED, AND ARE TO BE 15' ON EITHER SIDE OF THE THREAD OF THE STREAMS.
WE THE MEMBERS OF THE PLANNING BOARD OF PORTLAND, MAINE, APPROVE THIS PLAN.
DATE: August 14, 1984
60'-0" RIGHT OF WAY
26'-0" TRAVELED WAY
4'-0" GRAVEL SHOULDER (TYP)
BIT. CONC. PVMT. (TYP)
LOAM, SEED AND MULCH (TYP.)
TYPICAL CUT/FILL SECTION HUTCHINS DRIVE 1" = 10'
GRAPHIC SCALE
STATE OF MAINE JOHN P. R. CYR 509 REGISTERED LAND SURVEYOR
REGISTERED LAND SURVEYOR # 509
FINAL PLAN - PHASE 2
State of Maine, Cumberland ss. Registry of Deeds Received ... and recorded in Plan Book ... Page ... Attest ... Register
PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR
STROUDWATER ESTATES
H. I. & E. C. JORDAN - SURVEYORS
SCALE: 1" = 100'
4517-00
1285

144/43



LEGEND

WETLAND BOUNDARY	UPLAND / WETLAND
EXT. CONTOUR	XXX
PRP. CONTOUR	XXX
SUBCATCHMENT BNDY.	
SOIL TYPE BOUNDARY	
Tc PATH	FLOW TYPE/LENGTH

SOILS LEGEND

EmB – ELMWOOD FINE SANDY LOAM, 3% TO 8% SLOPES. HSG C

SU – SULFIHEMISTS, FREQUENTLY FLOODED

1 SUBCATCHMENT

1R REACH

1 POND

1 ANALYSIS POINT

FLOW TYPES

SF – SHEET FLOW
SCF – SHALLOW CONCENTRATED FLOW
CF – CHANNELIZED FLOW
PIPE – PE PIPE FLOW

GRAPHIC SCALE
20 0 20 40 60 (FEET)

NOT FOR CONSTRUCTION

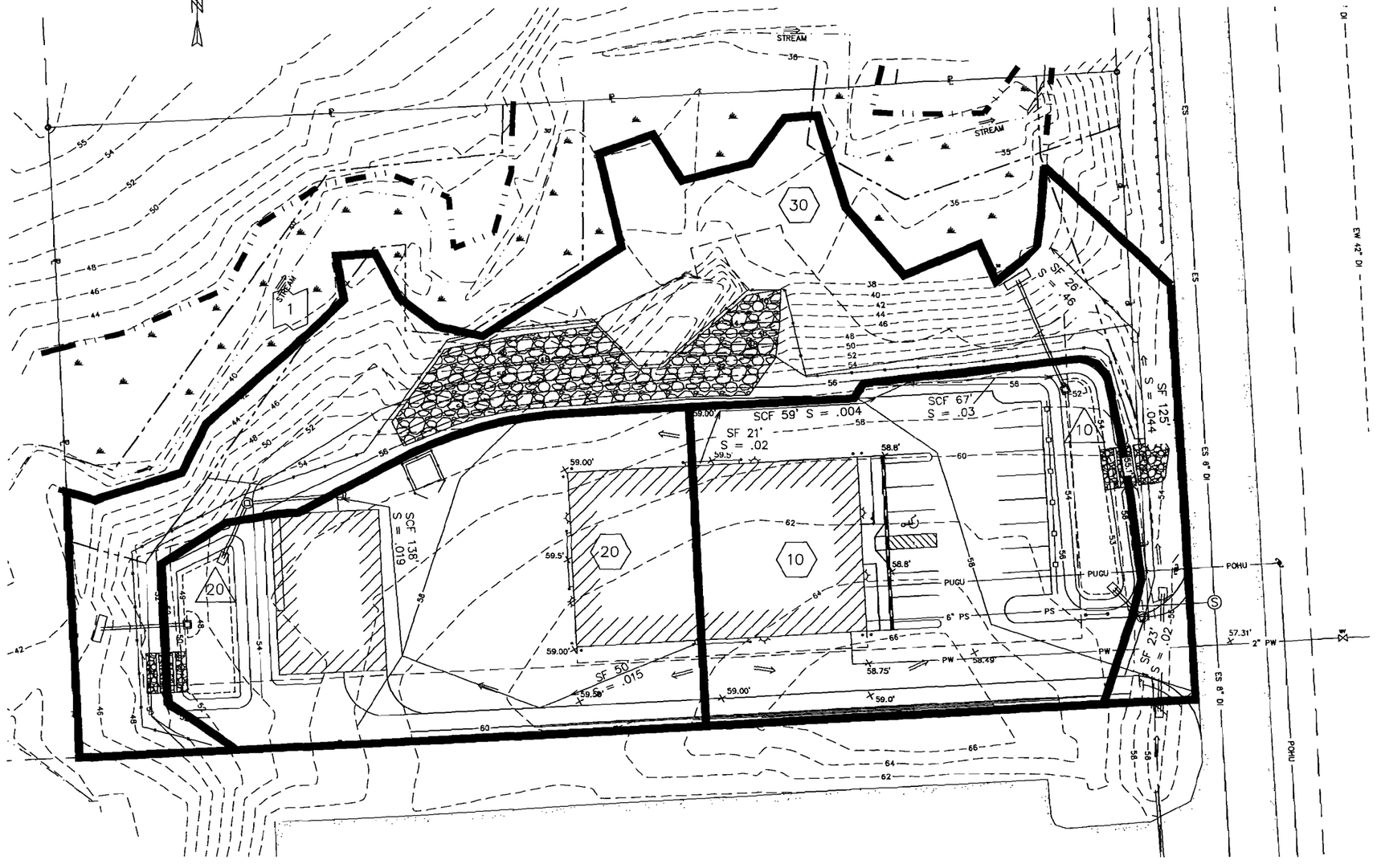
NO.	DESCRIPTION	DATE
	REVISIONS	

EXISTING CONDITIONS PLAN
HUTCHINS DRIVE
HUTCHINS DRIVE PORTLAND, MAINE

FOR: PHOENIX PROPERTY SERVICES
PO BOX 759
SACO, ME 04072–5118

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE
1284 STATE ROAD – ELIOT, MAINE 03903
PHONE: (207)439–6023 FAX: (207)439–2128

SCALE: 1" = 20'	APPROVED BY:	DRAWN BY: CLS
DATE: 06/17/11		REVISION : DATE - : -
JOB NO: C010–11	CAD FILE: HUTCHINS EXT	SHEET 1 OF 2



LEGEND

WETLAND BOUNDARY	UPLAND / WETLAND
EXT. CONTOUR	XXX
PRP. CONTOUR	XXX
SUBCATCHMENT BNDY.	
SOIL TYPE BOUNDARY	
Tc PATH	FLOW TYPE/LENGTH

SOILS LEGEND

EmB – ELMWOOD FINE SANDY LOAM, 3% TO 8% SLOPES. HSG C

SU – SULFIHEMISTS, FREQUENTLY FLOODED

1 SUBCATCHMENT

1R REACH

1 POND

1 ANALYSIS POINT

FLOW TYPES

SF – SHEET FLOW
SCF – SHALLOW CONCENTRATED FLOW
CF – CHANNELIZED FLOW
PIPE – PE PIPE FLOW

GRAPHIC SCALE
20 0 20 40 60 (FEET)

NOT FOR CONSTRUCTION

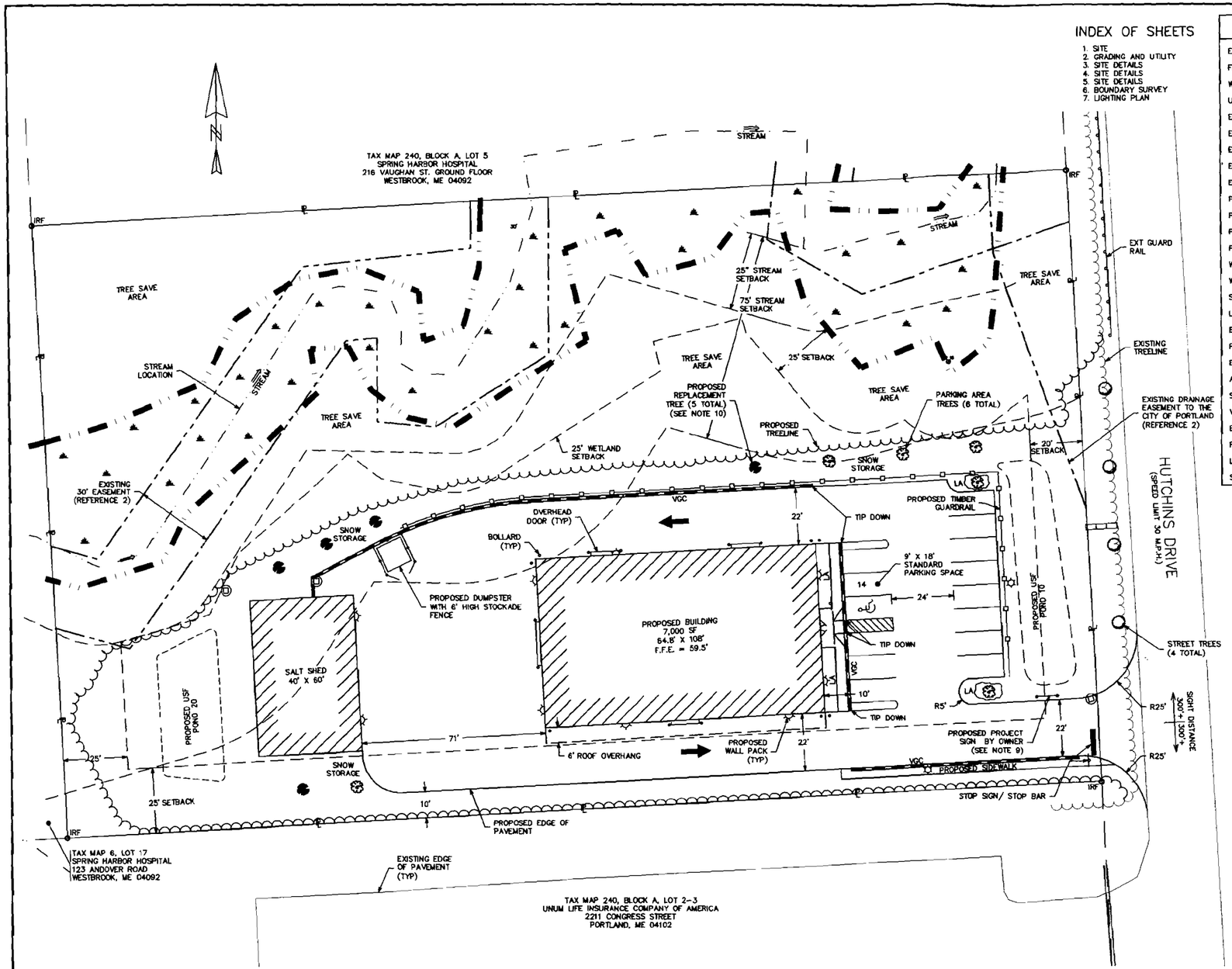
NO.	DESCRIPTION / REVISIONS	DATE

DEVELOPED CONDITIONS PLAN
HUTCHINS DRIVE
HUTCHINS DRIVE PORTLAND, MAINE

FOR: PHOENIX PROPERTY SERVICES
PO BOX 759
SACO, ME 04072-5118

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE
1284 STATE ROAD – ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

SCALE: 1" = 20'	APPROVED BY:	DRAWN BY: CLS
DATE: 06/17/11		REVISION : DATE - : -
JOB NO: C01D-11	CAD FILE: HUTCHINS EXT	SHEET 2 OF 2



INDEX OF SHEETS

LEGEND

EXISTING CONTOUR	XXX
FINAL CONTOUR	XXX
WETLAND BOUNDARY	UPLAND / WETLAND
UTILITY POLE	EXT. / PRP.
EXT. WATER	EW
EXT. SEWER	ES
EXT. OVERHEAD UTIL.	EOHU
EXT. UNDERGROUND UTIL.	EUE
EXISTING EASEMENT	
PRP. WATER	PW
PRP. SEWER	PS
PRP. UTILITY	PUE/T/C
PRP. GAS	PG
WATER VALVE	WV
WATER SHUTOFF	
SEWER MANHOLE	
LIGHT POLE	EXT. / PRP.
EROSION CONTROL BERM	
PROPOSED FENCE	
EXISTING FENCE	
ASPHALT CURB	AC
SLOPED GRANITE CURB	SGC
VERTICAL GRANITE CURB	VGC
EXISTING CURB	
FIRE HYDRANT	EXT. / PRP.
LANDSCAPED AREA	LA
SPOT GRADE	EXT. X57.31' PRP. X57.31'

LOCATION MAP
APPROXIMATE SCALE: 1"=2000'

GENERAL NOTES

1. THIS PLAN PROVIDES DETAILS FOR THE APPROVAL AND CONSTRUCTION OF A 7,000 SF INDUSTRIAL BUILDING WITH A SEPARATE 2,400 SF SALT SHED IN PORTLAND, MAINE. THE SITE IS LOCATED AT 144 HUTCHINS DRIVE AND IS IDENTIFIED ON THE CITY OF PORTLAND TAX ASSESSOR'S MAP 240, BLOCK A, LOT 4, AND IS 2.16 ACRES IN AREA WITH 235' OF STREET FRONTAGE ON HUTCHINS DRIVE.

2. THE PROPOSED BUILDING (APPROXIMATELY 7,000 SF FOOTPRINT) SHALL BE A MAINTENANCE FACILITY FOR PHOENIX MANAGEMENT. THE MAIN BUILDING WILL BE USED FOR STORING AND SERVICING EQUIPMENT (PLOW TRUCKS, BACK HOE LOADERS, BOBCATS, TRACTORS, MOWERS, ETC.) FOR THE MAJORITY OF THE YEAR HOURS SHALL BE FROM 5AM TO 9PM. DURING THE WINTER MONTHS THE FACILITY SHALL BE USED TO STORE AND SELL SALT TO LOCAL CUSTOMERS, HOURS OF OPERATION DURING SNOW EVENTS SHALL BE 24 HOURS.

3. THE PARCEL IS LOCATED IN THE INDUSTRIAL-MODERATE IMPACT (IM) DISTRICT.
DISTRICT REQUIREMENT ARE AS FOLLOWS:
MIN LOT SIZE = N/A
MIN STREET FRONTAGE = 60'
FRONT YARD (BUILDING HEIGHT) = 20'
MIN REAR AND SIDE YARD = 25'
MAX BUILDING HEIGHT = 75'

4. MAXIMUM IMPERVIOUS SURFACE RATIO ALLOWED IS 75% IN THE INDUSTRIAL-MODERATE IMPACT DISTRICT. COVERAGE CALCULATIONS ARE AS FOLLOWS:
29,158 SF / 94,090 SF = 31.0%

5. BOUNDARY, TOPOGRAPHIC AND WETLAND INFORMATION WAS TAKEN FROM REFERENCE 1 AND FIELD OBSERVATIONS TAKEN BY ATTAR ENGINEERING IN MAY OF 2011.

6. REQUIRED PARKING IS CALCULATED AS FOLLOWS:
7000 S.F. INDUSTRIAL SPACE:
(1/1000 S.F.) = 7 SPACES
TOTAL = 7 SPACES

14 SPACES ARE PROVIDED, OF WHICH 1 SPACE IS ADA ACCESSIBLE.

7. WATER AND SEWER SERVICE SHALL BE PROVIDED TO THE SITE BY THE PORTLAND WATER DISTRICT. WATER AND SEWER IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH RESPECTIVE DISTRICT REQUIREMENTS.

8. THE CONTRACTOR MUST CONTACT DIG SAFE AND ALL LOCAL UTILITIES PRIOR TO THE START OF CONSTRUCTION TO VERIFY THE LOCATION OF EXISTING SUBSURFACE UTILITIES AND CONDITIONS. LOCATING AND PROTECTING ANY UNDERGROUND OR ABOVE GROUND UTILITY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

9. PROPOSED SIGN SHALL BE SUBJECT TO APPROVAL PURSUANT TO SECTION 14-526 (d) 8.a. (iv) OF THE LAND USE CODE.

10. REPLACEMENT TREES MUST BE LISTED ON THE CITY OF PORTLAND APPROVED NATIVE SPECIES LIST. SEE EXISTING CONDITIONS PLAN FOR TREE SURVEY INFORMATION. STREET TREES MUST MEET ALL STANDARDS SET FORTH IN THE CITY OF PORTLAND TECHNICAL MANUAL SECTION 4.7. THE PLANTING OF ADDITIONAL TREES AND SHRUBS, IF NECESSARY, TO BE DETERMINED BY THE CITY ARBORIST AND PROJECT TEAM AT THE COMPLETION OF THE PROJECT.

11. SEE BUILDING FLOOR PLAN FOR BICYCLE PARKING AREA.

REFERENCES

1. "CONCEPTUAL PLAN - LOT 13" PREPARED CBRE/ THE BOULOS COMPANY BY TITCOMB ASSOCIATES. DATED 1/05/2011.

2. "STROUDWATER ESTATES" PREPARED BY H. I. & E. C. JORDAN - SURVEYORS. DATED 10 SEPTEMBER 1984. RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 144, PAGE 73.

APPLICANT: PHOENIX MANAGEMENT
PO BOX 579
SACO, ME 04072-5118

OWNER OF RECORD: MAINE ALPHA FLOOR SANDING
23 RABBIT RUN
PORTLAND, ME 04102-2275

STATE OF MAINE
CUMBERLAND COUNTY ss. REGISTRY OF DEEDS
RECEIVED_____, 20__
AT__h.__m., AND RECORDED IN
PLAN BOOK_____, PAGE_____
ATTEST_____REGISTER

GRAPHIC SCALE
20 0 20 40 60 (FEET)

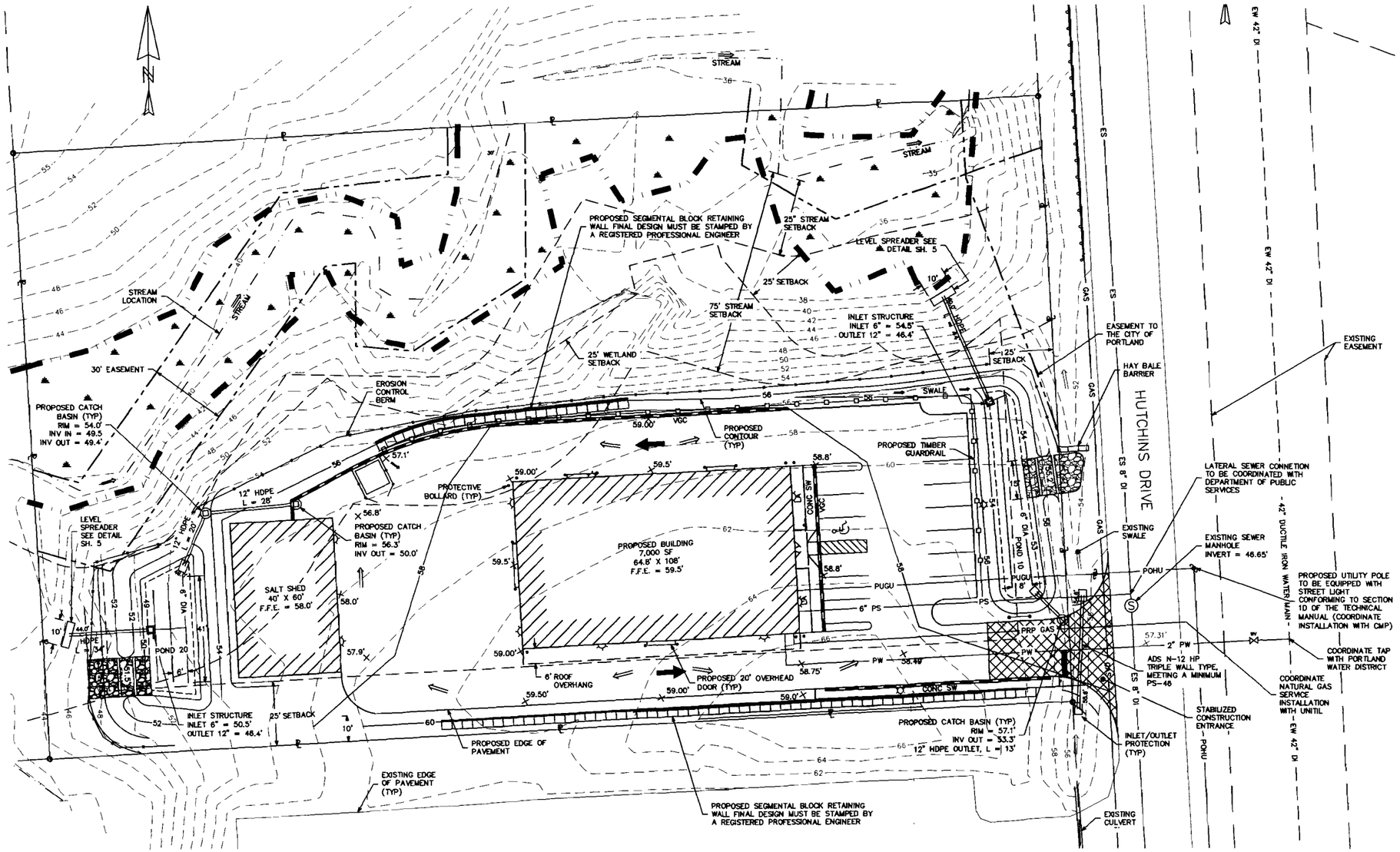
NO.	DESCRIPTION	DATE
C.	REVIEW COMMENTS	10/17/11
B.	REVIEW COMMENTS	09/16/11
A.	REVIEW COMMENTS	08/03/11
	REVISIONS	

SITE PLAN
144 HUTCHINS DRIVE
HUTCHINS DRIVE PORTLAND, MAINE

FOR: PHOENIX PROPERTY SERVICES
PO BOX 759
SACO, ME 04072-5118

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE
1284 STATE ROAD - ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

SCALE: 1" = 20'	APPROVED:	DRAWN BY: CLS
DATE: 06/17/11		REVISION : DATE C : 10/17/11
JOB NO: C010-11	CAD FILE: HUTCHINS SITE	SHEET 1 OF 7



LEGEND

EXISTING CONTOUR	xxx
FINAL CONTOUR	xxx
WETLAND BOUNDARY	UPLAND / WETLAND
UTILITY POLE	EXT. PRP.
EXT. WATER	EW
EXT. SEWER	ES
EXT. OVERHEAD UTIL.	EOHU
EXT. UNDERGROUND UTIL.	EUE
EXISTING EASEMENT	
PRP. WATER	PW
PRP. SEWER	PS
PRP. UTILITY	PUE/T/C
PRP. GAS	PG
WATER VALVE	
WATER SHUTOFF	
SEWER MANHOLE	
LIGHT POLE	EXT. PRP.
EROSION CONTROL BERM	
PROPOSED FENCE	
EXISTING FENCE	
ASPHALT CURB	AC
SLOPED GRANITE CURB	SGC
VERTICAL GRANITE CURB	VGC
EXISTING CURB	
FIRE HYDRANT	EXT. PRP.
LANDSCAPED AREA	LA
SPOT GRADE	EXT. x57.31' PRP. x57.31'

GENERAL NOTES

1. EXISTING TOPOGRAPHY WAS TAKEN FROM REFERENCE 1.
2. ALL SEWER LINES TO BE 6" PVC (SDR 35).
3. ALL STORM DRAINS SHALL BE ADS N-12 (HDPE) OR APPROVED EQUAL. PROPER TRENCHING AND BACKFILLING ARE VITAL TO THE LONG TERM PERFORMANCE AND DURABILITY OF HDPE CULVERT INSTALLATIONS. SEE HDPE CULVERT TRENCH DETAIL.
4. CATCH BASINS AND DRAINAGE STRUCTURES SHALL BE CLEANED BY CONTRACTOR AFTER CONSTRUCTION.
5. ALL WATER SERVICES SHALL BE (TYPE K) COPPER WITHIN THE RIGHT OF WAY AND EITHER COPPER OR A MATERIAL SUITABLE TO THE PORTLAND WATER DISTRICT ON THE PROPERTY. ALL OTHER VALVES, FITTINGS AND CONNECTIONS SHALL MEET CURRENT PORTLAND WATER DISTRICT STANDARDS.
6. A MINIMUM OF 5.0' OF COVER SHALL BE MAINTAINED OVER ALL WATER LINES.
7. PROPOSED UTILITIES ARE APPROXIMATELY LOCATED. CENTRAL MAINE POWER WILL PREPARE THE ELECTRICAL PLAN FOR CONSTRUCTION.

GRAPHIC SCALE
20 0 20 40 60 (FEET)

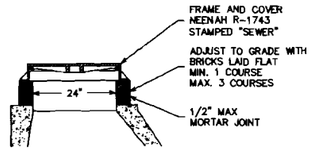
NO.	DESCRIPTION	DATE
	REVISIONS	
A.	REVIEW COMMENTS	08/03/11
B.	REVIEW COMMENTS	09/16/11

GRADING AND UTILITY PLAN
144 HUTCHINS DRIVE
HUTCHINS DRIVE PORTLAND, MAINE

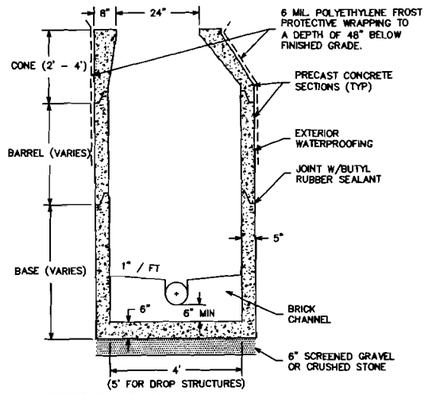
FOR: PHOENIX PROPERTY SERVICES
PO BOX 759
SACO, ME 04072-5118

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE
1284 STATE ROAD - ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

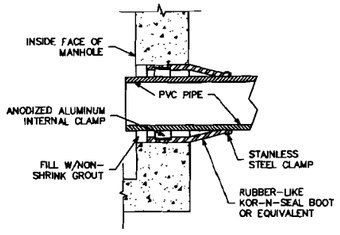
SCALE: 1" = 20'	APPROVED:	DRAWN BY: CLS
DATE: 06/17/11		REVISION : DATE B : 09/16/11
JOB NO: CD10-11	CAD FILE: HUTCHINS GRAD	SHEET 2 OF 7



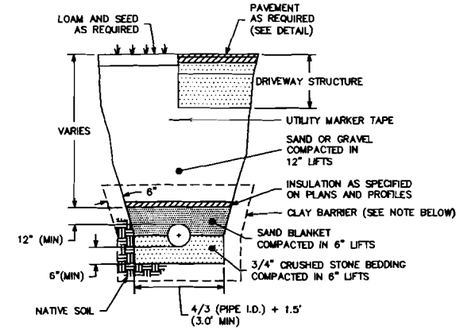
STANDARD COVER AND FRAME
SCALE: NTS



TYPICAL SANITARY MANHOLE
SCALE: NTS



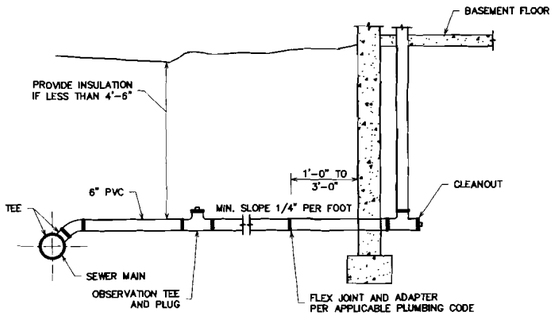
TYPICAL BOOT GASKET
SCALE: NTS



SEWER PIPE TRENCH DETAIL
SCALE: NTS

TRENCH TO BE SUPPORTED BY SLOPING BACK AT 2:1 OR OTHER ACCEPTABLE METHOD.

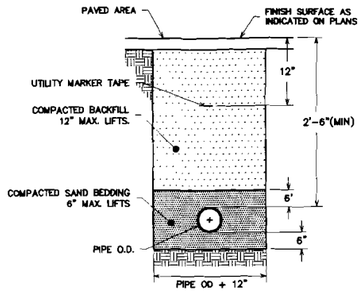
CLAY BARRIERS (12" THICK, APPOX. 100' INTERVALS) ALONG THE PIPE BEDDING SHALL BE INSTALLED IN AREAS OF HIGH GROUNDWATER OR AS DIRECTED BY THE INSPECTING ENGINEER.



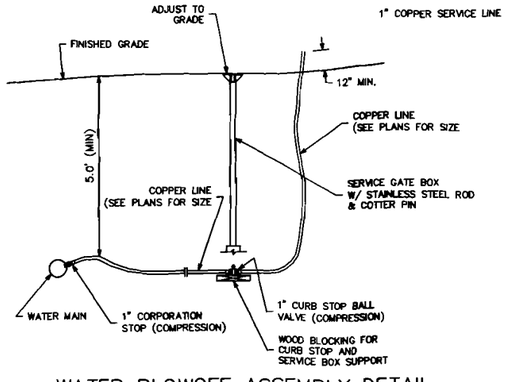
TYPICAL SERVICE CONNECTION
AND LATERAL DETAIL
SCALE: NTS

NOTE: SEWER MAY BE LOCATED BENEATH BASEMENT FLOOR

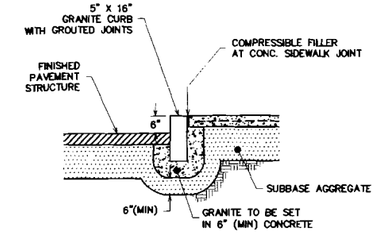
WATER LINE
TRENCH DETAIL
(NTS)



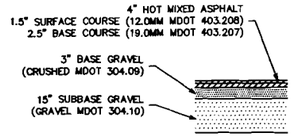
UTILITY CONDUIT
TRENCH DETAIL
(NTS)



WATER BLOWOFF ASSEMBLY DETAIL
(NTS)

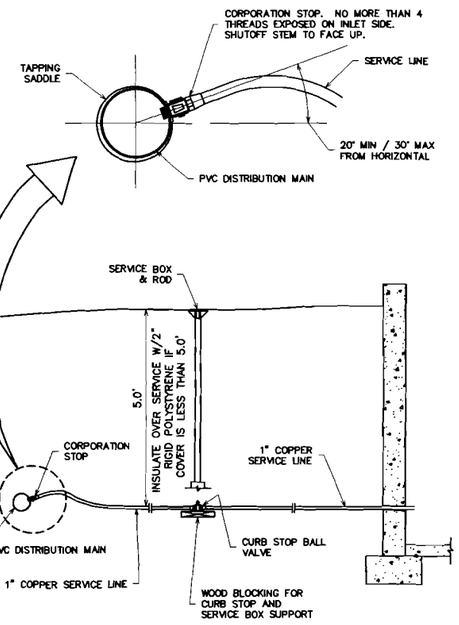


GRANITE CURB DETAIL
(NTS)



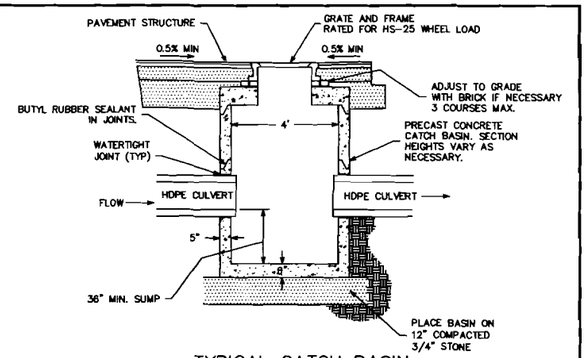
PAVEMENT CROSS-SECTION
ROADS AND DRIVEWAYS
(NTS)

GRAVEL FILL TO BE COMPACTED TO 95% MODIFIED PROCTOR



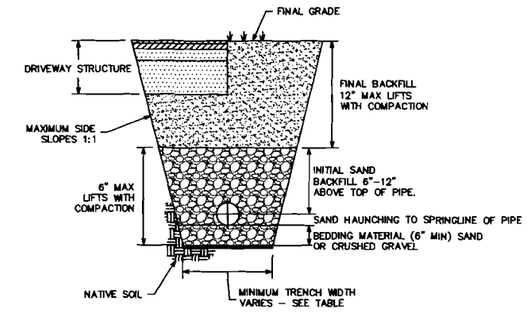
WATER SERVICE DETAIL
(NTS)

CONTRACTOR TO COORDINATE WITH WATER DISTRICT ON LOCATION OF CURB STOPS



TYPICAL CATCH BASIN
(NTS)

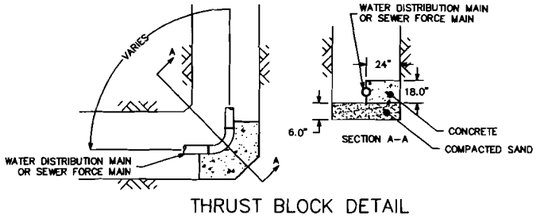
CATCH BASINS ARE TO BE PRECAST CONCRETE CONSTRUCTION MEETING THE REQUIREMENTS OF ASTM DESIGNATION C478 OR PRECAST CONCRETE MANHOLE BLOCK CONSTRUCTION MEETING THE REQUIREMENTS OF ASTM C139, RADIAL TYPE. METAL FRAMES AND TRAPS MUST BE SET IN A FULL MORTAR BED WITH TOPS TO CONFORM TO THE AASHTO REQUIREMENTS.



HDPE CULVERT TRENCH DETAIL
(NTS)

TRENCH TO BE SUPPORTED BY SLOPING BACK AT 2:1 OR OTHER ACCEPTABLE METHOD.

NOMINAL DIAMETER (IN)	MIN. TRENCH WIDTH (IN)
4	21
6	23
8	25
10	28
12	31
15	34
18	39
24	48
30	66
36	78
42	83
48	89
60	102



THRUST BLOCK DETAIL
(NTS)

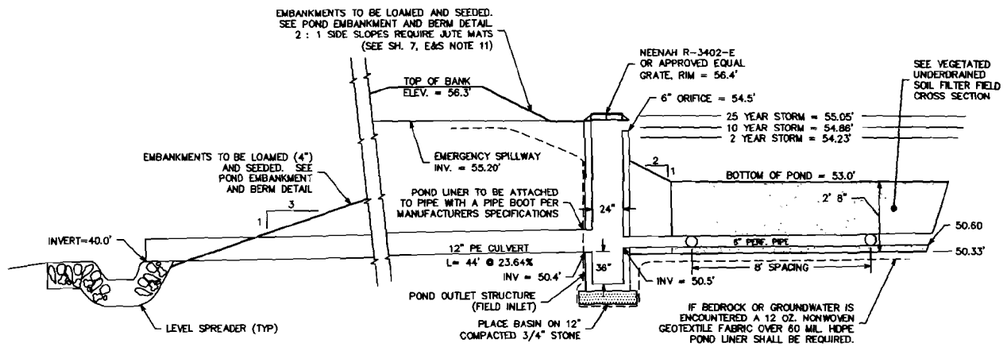
NO.	DESCRIPTION	DATE
	REVISIONS	
B.	REVIEW COMMENTS	09/16/11
A.	REVIEW COMMENTS	08/03/11

SITE DETAILS
144 HUTCHINS DRIVE
HUTCHINS DRIVE PORTLAND, MAINE

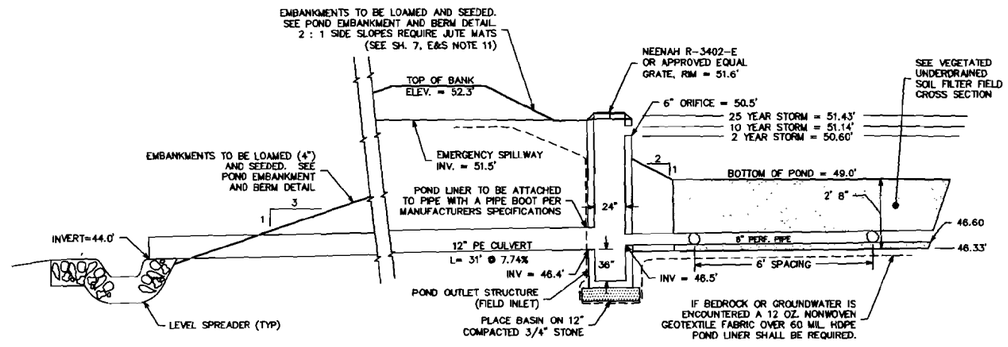
FOR: PHOENIX PROPERTY SERVICES
PO BOX 759
SACO, ME 04072-5118

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE
128 STATE ROAD - ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

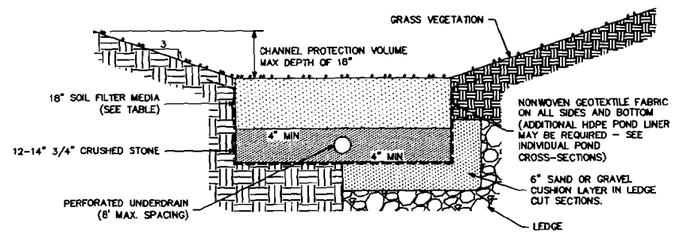
SCALE: AS NOTED	APPROVED BY:	DRAWN BY: CLS
DATE: 06/17/11		REVISION : DATE B : 09/16/11
JOB NO: C010-11	CAD FILE: HUTCHINS DET	SHEET 3 OF



CROSS-SECTION 10 (UNDERDRAIN SOIL FILTER POND) (SEE SH. 2 FOR PLAN VIEW)
(NTS)



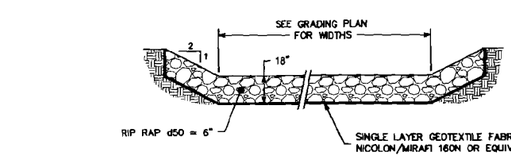
CROSS-SECTION 20 (UNDERDRAIN SOIL FILTER POND) (SEE SH. 2 FOR PLAN VIEW)
(NTS)

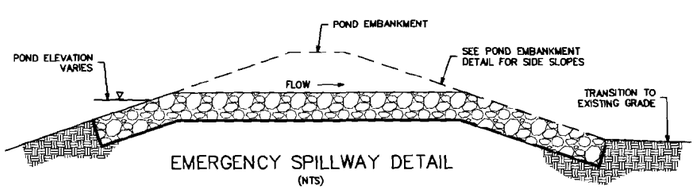


VEGETATED UNDERDRAINED SOIL FILTER FIELD CROSS SECTION
(NTS)

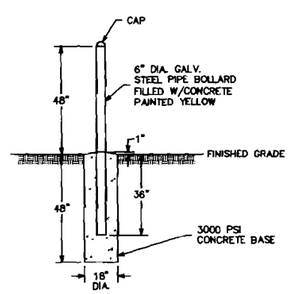
SOIL FILTER MEDIA NOTE:

THE SOIL FILTER MEDIA SHALL CONSIST OF A SILTY SAND OR SOIL MIXTURE COMBINED WITH 20% - 25% FINE SHREDDED BARK OR WOOD FIBER MULCH. THE MIXTURE MUST HAVE NO LESS THAN 5% AND NO MORE THAN 10% PASSING THE 200 SIEVE. PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST CHECK WITH THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION FOR UPDATED SOIL FILTER MEDIA SPECIFICATIONS.

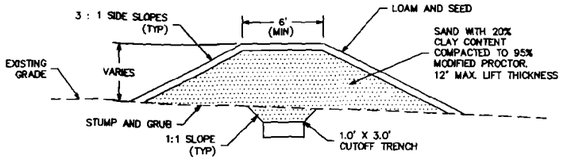




EMERGENCY SPILLWAY DETAIL
(NTS)



PROTECTIVE BOLLARD DETAIL
(NTS)



POND EMBANKMENT AND BERM DETAIL
SCALE: 1" = 5'

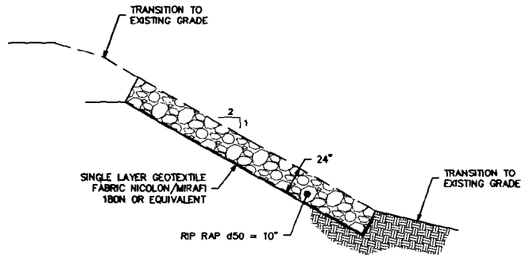
EMBANKMENT CONSTRUCTION NOTES

1. ALL ORGANIC MATERIAL, STUMPS, ROCKS AND BOULDERS SHALL BE REMOVED TO A MINIMUM DEPTH OF 24" BELOW SUBGRADE OF THE BASIN EMBANKMENT. ALL EXCAVATIONS BELOW THE BASIN EMBANKMENT SHALL HAVE A MINIMUM SLOPE OF 1H : 1V.

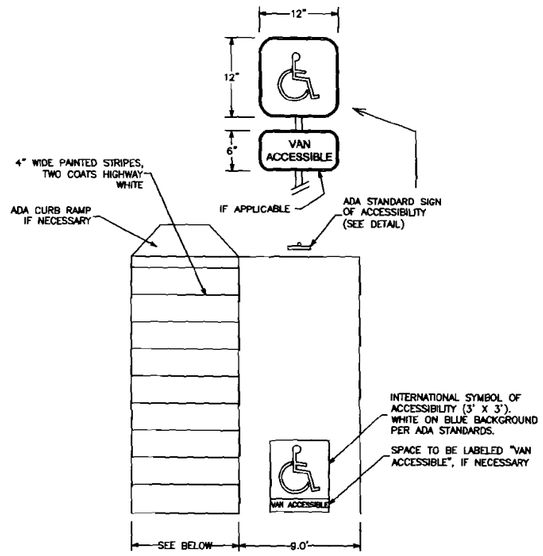
2. ALL BASIN EMBANKMENT FILL MATERIAL SHALL BE SAND WITH 20% CLAY CONTENT. EMBANKMENT FILL SHALL BE PLACED IN 12" (MAX.) LIFTS AND BE COMPACTED TO 95% MODIFIED PROCTOR. A CUTOFF TRENCH SHALL BE EXCAVATED AS SHOWN PRIOR TO CONSTRUCTION OF EMBANKMENT.

3. DETENTION BASIN AND ALL EXCAVATIONS SHALL BE KEPT FREE OF WATER DURING CONSTRUCTION.

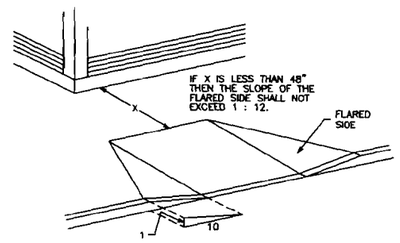
4. EMBANKMENT SIDE SLOPES AND BOTTOM OF DETENTION BASIN SHALL BE LOAMED, SEEDED AND MULCHED IN ACCORDANCE WITH THE EROSION AND SEDIMENTION CONTROL NOTES.



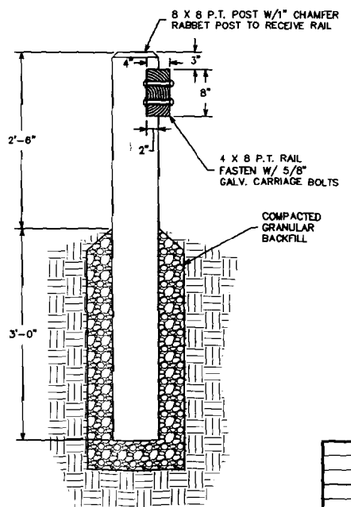
RIP RAP SLOPE DETAIL
(NTS)



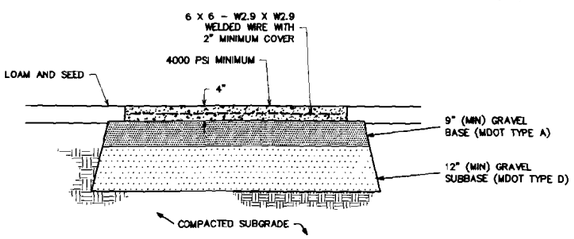
ACCESSIBLE PARKING SPACE DETAIL
AISLE SHALL BE 5' WIDE FOR AUTOMOBILES OR 8' WIDE FOR VANS
(NTS)



ADA CURB RAMP WITH FLARED SIDES
(NTS)



TIMBER GUARDRAIL DETAIL
(NTS)
MAXIMUM POST SPACING SHALL BE 6'.



CONCRETE SIDEWALK DETAIL
PROVIDE CRACK CONTROL JOINTS AT 6' INTERVALS (MAX)
SURFACE WITH MEDIUM BROOM FINISH
(NTS)

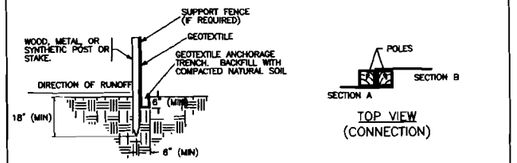
NO.	DESCRIPTION	DATE
B.	REVIEW COMMENTS	09/16/11
A.	REVIEW COMMENTS	08/03/11
	REVISIONS	

SITE DETAILS
144 HUTCHINS DRIVE
HUTCHINS DRIVE PORTLAND, MAINE

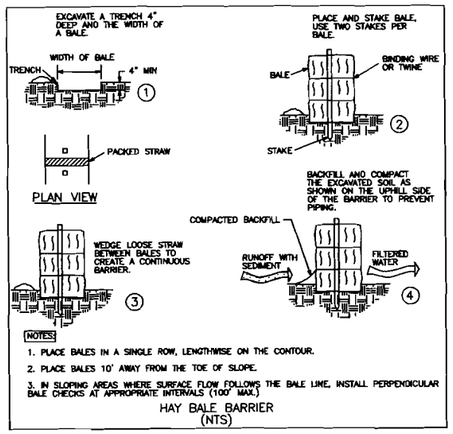
FOR: PHOENIX PROPERTY SERVICES
PO BOX 759
SACO, ME 04072-5118

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE
128 STATE ROAD - ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

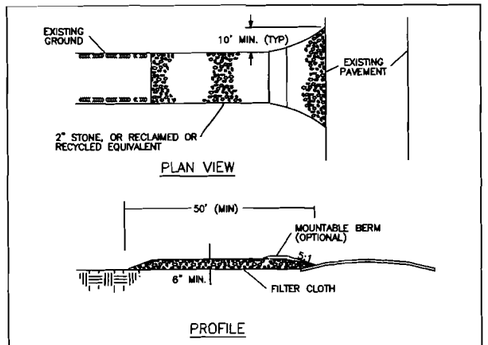
SCALE:	APPROVED BY:	DRAWN BY:
AS NOTED		CLS
DATE: 06/17/11		REVISION : DATE B : 09/16/11
JOB NO: C010-11	CAD FILE: HUTCHINS DET	SHEET 4 OF 7



TEMPORARY SILT FENCE - NTS



HAY BALE BARRIER
(NTS)



STABILIZED CONSTRUCTION ENTRANCE

EROSION & SEDIMENTATION CONTROL NOTES

1. SILTATION FENCE OR HAY BALE BARRIERS WILL BE INSTALLED DOWNSLOPE OF ALL STRIPPING OR CONSTRUCTION OPERATIONS. A DOUBLE SILT FENCE BARRIER SHALL BE INSTALLED DOWNSLOPE OF ANY SOIL MATERIAL STOCKPILES. SILT FENCES SHALL BE INSPECTED AFTER EACH RAIN EVENT AND DAILY DURING PROLONGED RAIN. SILT AND SOIL PARTICLES ACCUMULATING BEHIND THE FENCE SHALL BE REMOVED AFTER EACH SIGNIFICANT RAIN EVENT AND IN NO INSTANCE SHOULD ACCUMULATION EXCEED 1/2 THE HEIGHT OF THE FENCE. TORN OR DAMAGED AREAS SHALL BE REPAIRED.

2. TEMPORARY AND PERMANENT VEGETATION AND MULCHING IS AN INTEGRAL COMPONENT OF THE EROSION AND SEDIMENTATION CONTROL PLAN. ALL AREAS SHALL BE INSPECTED AND MAINTAINED UNTIL THE DESIRED VEGETATIVE COVER IS ESTABLISHED. THESE CONTROL MEASURES ARE ESSENTIAL TO EROSION PREVENTION AND ALSO REDUCE COSTLY REWORK OF GRADED AND SHAPED AREAS.

3. SEEDING, FERTILIZER AND LIME RATES AND TIME OF APPLICATION WILL BE DEPENDENT ON SOIL REQUIREMENTS. TEMPORARY VEGETATION SHALL BE MAINTAINED IN THESE AREAS UNTIL PERMANENT SEEDING IS APPLIED. ADDITIONALLY, EROSION AND SEDIMENTATION MEASURES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.

4. ALL LAWN AREA SHALL BE PERMANENTLY SEEDED WITH THE FOLLOWING MIXTURE: 2D LB/ACRE KENTUCKY BLUEGRASS, 20 LB/ACRE CREEPING RED FESCUE AND 5 LB/ACRE PERENNIAL RYE GRASS FOR A TOTAL OF 45 LB/ACRE. FERTILIZER AND LIME RATES SHALL BE DEPENDENT ON SOIL TESTING. IN THE ABSENCE OF SOIL TESTS, FERTILIZE WITH 10-20-20 (N-P205-K20!) AT 800 LB/ACRE AND LIME AT 3 TONS/ACRE. MULCH WITH HAY AT 70-90 LB/1000 S.F. 4" OF LOAM SHALL BE APPLIED PRIOR TO SEEDING.

5. ALL DRAINAGE SWALES, POND EMBANKMENTS AND CROSSING EMBANKMENTS SHALL BE SEEDED WITH A MIXTURE OF CREEPING RED FESCUE, REDTOP AND TALL FESCUE. THE MIXTURE SHALL CONTAIN 20 LB/ACRE CREEPING RED FESCUE, 2 LB/ACRE REDTOP AND 20 LB/ACRE TALL FESCUE. SEE THE ABOVE NOTE FOR FERTILIZER, LIME AND MULCHING RATES.

6. TEMPORARY VEGETATION OF ALL DISTURBED AREAS, MATERIAL STOCKPILES AND OTHER SUCH AREAS SHALL BE ESTABLISHED BY SEEDING WITH EITHER WINTER RYE AT A RATE OF 112 LB/ACRE OR ANNUAL RYEGRASS AT A RATE OF 40 LB/ACRE. WINTER RYE SHALL BE USED FOR FALL SEEDING AND ANNUAL RYEGRASS FOR SHORT DURATION SEEDING. SEEDING SHALL BE ACCOMPLISHED BEFORE OCTOBER 1.

7. TEMPORARY SEEDING OF DISTURBED AREAS SHALL BE ACCOMPLISHED BEFORE OCTOBER 1. PERMANENT SEEDING SHALL BE ACCOMPLISHED BEFORE SEPTEMBER 15.

8. ALL SEEDED AREAS SHALL BE MULCHED WITH HAY AT A RATE OF 2 BALES (70-90 LB) PER 1000 S.F. OF SEEDED AREA.

9. ALL DISTURBED AREAS ON THE SITE SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE.

10. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT ALL ACCESSES TO PUBLIC ROADS (SEE PLAN). TEMPORARY CULVERTS SHALL BE PROVIDED AS REQUIRED.

11. SLOPES 2:1 OR STEEPER SHALL BE TREATED WITH POLYJUTE OPEN WEAVE GEOTEXTILE (OR EQUIVALENT) AFTER SEEDING. JUTE MATS SHALL BE ANCHORED PER MANUFACTURER'S SPECIFICATIONS.

12. EXCESSIVE DUST CAUSED BY CONSTRUCTION OPERATIONS SHALL BE CONTROLLED BY APPLICATION OF WATER OR CALCIUM CHLORIDE.

13. THE CONTRACTOR MAY OPT TO USE EROSION CONTROL MIX BERM AS A SEDIMENT BARRIER IN LIEU OF SILTATION FENCE OR HAY BALE BARRIERS WITH APPROVAL FROM THE INSPECTING ENGINEER.

HOUSEKEEPING (STORMWATER - CHAPTER 500 APPENDIX C, MAINE DEP

1. SPILL PREVENTION. CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.

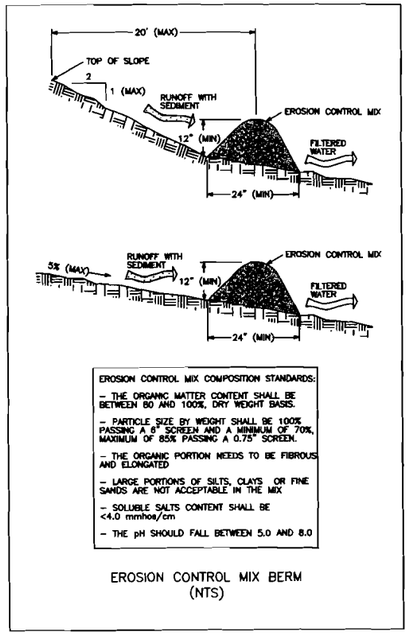
2. GROUNDWATER PROTECTION. DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.

3. FUGITIVE SEDIMENT AND DUST. ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL.

4. DEBRIS AND OTHER MATERIALS. LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

5. TRENCH OR FOUNDATION DE-WATERING. TRENCH DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER MUST BE REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, AND MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.

6. NON-STORMWATER DISCHARGES. IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES.OCATING AND PROTECTING ANY UNDERGROUND OR ABOVE GROUND UTILITY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.



EROSION CONTROL MIX COMPOSITION STANDARDS:
- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80 AND 100%, DRY WEIGHT BASIS.
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85% PASSING A 0.75" SCREEN.
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX
- SOLUBLE SALTS CONTENT SHALL BE <4.0 mmhos/cm
- THE pH SHOULD FALL BETWEEN 5.0 AND 8.0

EROSION CONTROL MIX BERM
(NTS)

DRIVEWAY CONSTRUCTION NOTES

1. DRIVEWAYS TO BE CONSTRUCTED IN ACCORDANCE WITH THE APPROPRIATE CROSS SECTION DETAIL. GRAVEL FILL TO BE COMPACTED TO 95% MODIFIED PROCTOR IN ACCORDANCE WITH ASTM D 1557. LIFT THICKNESSES TO BE A MAXIMUM OF 6".

2. ALL STUMPS, ORGANIC MATERIAL, ROCKS AND BOULDERS TO BE REMOVED TO A MINIMUM DEPTH OF 24" BELOW SUBBASE.

3. ALL STUMPS, LEDGE AND LARGE BOULDERS TO BE REMOVED FROM THE CONSTRUCTION AREA. THE CONSTRUCTION AREA SHALL BE CLEARED AND ROUGH GRADED.

4. ALL CULVERTS TO BE ADS N-12 (HDPE) OR APPROVED EQUAL. CULVERT INLETS AND OUTLETS TO BE PROTECTED IN ACCORDANCE WITH THE CULVERT INLET/OUTLET PROTECTION DETAIL.

5. THE CONTRACTOR MUST CONTACT DIG SAFE AND ALL LOCAL UTILITIES PRIOR TO THE START OF CONSTRUCTION TO VERIFY THE LOCATION OF EXISTING SUBSURFACE UTILITIES AND CONDITIONS. LOCATING AND PROTECTING ANY UNDERGROUND OR ABOVE GROUND UTILITY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

WINTER CONSTRUCTION NOTES

NOVEMBER 1 - APRIL 15

1. EXPOSED AREAS SHOULD BE LIMITED TO AN AREA THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.

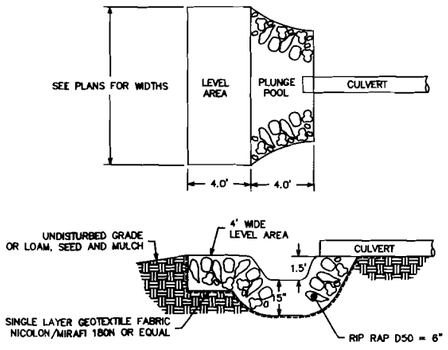
2. AN AREA SHALL BE CONSIDERED STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH HAY AT A RATE OF 100 LB/1000 S.F. OR DORMANT SEEDED, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE. IN ALL CASES, MULCH SHALL BE APPLIED SO THAT THE SOIL SURFACE IS NOT VISIBLE THROUGH THE MULCH.

3. FROM OCTOBER 15 TO APRIL 1, LOAM AND SEED WILL NOT BE REQUIRED. DURING PERIODS OF TEMPERATURES ABOVE FREEZING, DISTURBED AREAS SHALL BE FINE GRADED AND PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL PERMANENT SEEDING CAN BE APPLIED. AFTER NOVEMBER 1, DISTURBED AREAS MAY BE LOAMED, FINE GRADED AND DORMANT SEEDED AT A RATE 200-300% HIGHER THAN THE SPECIFIED PERMANENT SEEDING RATE. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, DISTURBED AREAS SHALL BE GRADED BEFORE FREEZING AND TEMPORARILY STABILIZED WITH MULCH. DISTURBED AREAS SHALL NOT BE LEFT OVER THE WINTER OR FOR ANY OTHER EXTENDED PERIOD OF TIME UNLESS STABILIZED WITH MULCH.

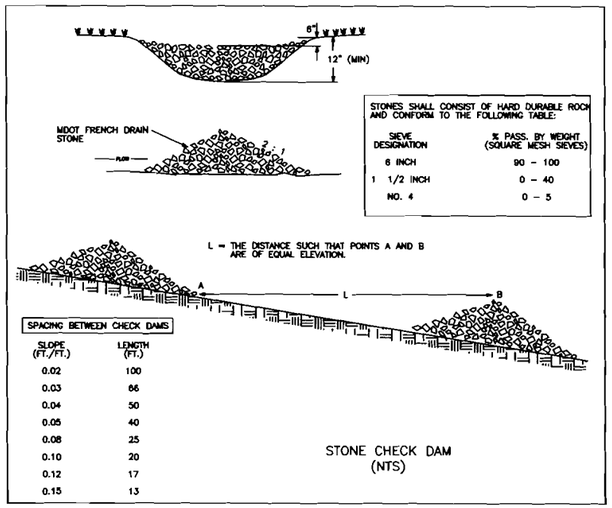
4. FROM NOVEMBER 1 TO APRIL 15 ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, TRACK OR WOOD CELLULOSE FIBER. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH SLOPES GREATER THAN 3%, SLOPES EXPOSED TO DIRECT WINDS AND FOR SLOPES GREATER THAN 8%. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1, THE SAME APPLIES TO ALL SLOPES GREATER THAN 8%.

5. DURING WINTER CONSTRUCTION, DORMANT SEEDING OR MULCH AND ANCHORING SHALL BE APPLIED TO ALL DISTURBED AREAS AT THE END OF EACH WORKING DAY.

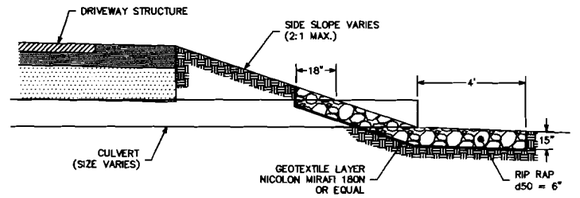
6. SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.



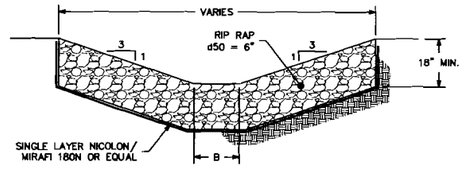
LEVEL SPREADER
(NTS)



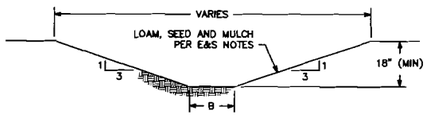
STONE CHECK DAM
(NTS)



CULVERT INLET/OUTLET PROTECTION DETAIL
(NTS)



RIP RAP SWALE DETAIL
NTS
B (BOTTOM WIDTH) SHALL BE 2' FOR TYPE 1 SWALES AND 5' FOR TYPE 2 SWALES.



VEGETATED SWALE DETAIL
NTS
B (BOTTOM WIDTH) SHALL BE 2' FOR TYPE 1 SWALES AND 5' FOR TYPE 2 SWALES.

NO.	DESCRIPTION	DATE
A.	REVIEW COMMENTS	8/3/11
	REVISIONS	

SITE DETAILS
144 HUTCHINS DRIVE
HUTCHINS DRIVE PORTLAND, MAINE

FOR: PHOENIX PROPERTY SERVICES
PO BOX 759
SACO, ME 04072-5118

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE
128 STATE ROAD - ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

SCALE: AS NOTED	APPROVED BY:	DRAWN BY: CLS
DATE: 6/17/11		REVISION : DATE A : 8/3/11
JOB NO: C010-11	CAD FILE: HUTCHINS DET	SHEET 5 OF 7

This project has been designed and fabricated in accordance with the following:

1. DESCRIPTION

Owner's Name and Address:	PHOENIX PROPERTY SERVICES 144 HUTCHINS RD. PORTLAND, ME. 4101
Building Supplier's Name and Address:	THE AUTUMN BREEZE GROUP P.O. BOX 94 FAIRLEE, VT. 05045
Manufacturer's Name and Address:	BRITESPAN BUILDING SYSTEMS INC. 37651 AMBERLEY ROAD. LUCKNOW, ON. N0G 2H0
Site Location:	PHOENIX PROPERTY SERVICES 144 HUTCHINS RD. PORTLAND, ME. 4101
Legal Address:	PHOENIX PROPERTY SERVICES 144 HUTCHINS RD. PORTLAND, ME. 4101
Building Type:	ATLAS 18
Building Size:	40' x 48' @ 12' o.c. (12.192m x 14.631m @ 3.658m o.c.) (1,920 sq. ft)
Applicable Building Code:	INTERNATIONAL BUILDING CODE 2009
Intended Use and Occupancy:	SAND / SALT STORAGE
Construction Type:	COMMERCIAL
Fabric Type:	NON - FR

2. DESIGN STANDARDS
International Building Code 2009 (IBC 2009), Chapter 16: Structural Design
AWSI/AISC 360-05, Specification for Structural Steel Buildings
AISI-Truss, North American Specification for the Design of Cold-Formed Steel Structural Members
NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2009 Edition

3. MANUFACTURING STANDARDS
Fabrication in accordance with ANSI/AISC 360-05 and AISI-Truss, as applicable.
Welding in accordance with AWS D1.3 Structural Welding Code and AISI-Truss, as applicable.
Britespan Building Systems Inc. is a AWS approved fabricator as per 85.17 and QC17 standards.
Welders have been qualified in accirdance with QC7-93.

4. DESIGN CRITERIA

Occupancy Category:	F3- Low Hazard
Exposure Category:	Exposure C (NON COASTAL) - EXPOSED
Enclosure Category:	PARTIALLY ENCLOSED

A) DEAD LOADS
I) Self-weight of Building Components
II) Collateral (hanging) load, not to exceed 0.25 psf as an allowance for mechanical, electrical ceiling, sprinklers, etc, or any combination there of.

B) LIVE LOADS

Live Loads determined in accordance with section 1607 of IBC 2009

Minimum roof live load.	12.0 psf

C) SNOW LOADS

Snow loads determined in accordance with section 1608 of IBC 2009

Ground Snow Load, Pg (1/50)	50.0 psf
Roof Snow Load, Pf	50.0 psf
Exposure Factor, Ce	0.9
Thermal Factor, Ct	1.2
Importance Factor, Is	0.8

D) WIND LOADS

Wind loads determined in accordance with section 1609 of IBC 2009

Wind Speed (3-sec Gust)	100 mph
Basic Wind Pressure, q	22.04 psf
Exposure Coefficient, Kh	0.96
Topographic Factor, Kzt	1.00
Directionality Factor, Kd	0.85
Importance Factor, Iw	0.87

E) LOAD COMBINATIONS
Load combinations determined in accordance with section 1605 of IBC 2009

5. BASE REACTIONS

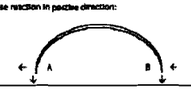
Project 1623 - 40ft Atlas SCNL 100W1 12ft ctrs

PROJECT: Britespan(Low Hazard, Partially open, Exposed Ce=0.9) Portland Maine USA

BASE REACTIONS: MAX FORCES AT THE FOUNDATION. ALL LOADS UNFACTORED. FOR QUOTATION PURPOSES ONLY

	SIDE A				SIDE B			
	HORIZONTAL		VERTICAL		HORIZONTAL		VERTICAL	
LOAD CASE:	X_a (kips)	X_a (kN)	Y_a (kips)	Y_a (kN)	X_b (kips)	X_b (kN)	Y_b (kips)	Y_b (kN)
DEAD	0.27	1.20 ←	0.5	2.22 ↓	-0.27	-1.20 →	0.5	2.22 ↓
LIVE	2	8.90 ←	3.8	16.90 ↓	-2	-8.90 →	3.8	16.90 ↓
SNOW	4.18	18.59 ←	8.1	27.13 ↓	-4.18	-18.59 →	8.1	27.13 ↓
SNOW UNBALANCE	2.35	9.56 ←	1.65	7.34 ↓	-2.15	-9.56 →	5.25	23.35 ↓
WIND CASE 1	-5.15	-22.91 →	-5.4	-24.02 ↑	2.9	10.21 ←	-6.3	-28.02 ↑
WIND CASE 2	-2.1	-9.34 →	-6.5	-28.91 ↑	2.1	9.34 ←	-6.5	-28.91 ↑

Note:
Negative values of Y reactions indicates uplift forces.
Sign convention for the base reaction in postive direction:



GENERAL
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THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLEY RESPONSIBLE FOR ACCURATE, GOOD QUALITY WORKMANSHIP IN ERECTING THIS BUILDING IN CONFORMANCE WITH THIS DRAWING, DETAILS REFERENCED IN THIS DRAWING AND INDUSRTY STANDARDS PERTAINING TO PROPER ERECTION INCLUDING THE PROPER USE OF TEMPORARY BRACING.

THIS BUILDING IS NOT DESIGNED TO BE LIFTED AS AN ASSEMBLED UNIT. BRITESPAN BUILDING SYSTEMS, INC. IS NOT RESONSIBLE FOR LOSSES AND/OR DAMAGE AS A RESULT OF LIFTING THIS BUILDING. IF, HOWEVER, IT HAS BEEN DETERMINED TO LIFT THIS BUILDING, IT IS THE RESONSIBILITY OF THE PERSON, FIRM OR COMPANY CONTRACTED TO LIFT THE BUILDING TO SECURE THE SERVICES OF A QUALIFIED ENGINEER TO ENSURE THE LIFT DOES NOT DAMAGE THE BUILDING AND TO DETERMINE AND FINALIZE ALL ASPECTS OF THE LIFT INCLUDING ALL PARTS/CONNECTORS TO BE ADDED TO THE BUILDING TO FACILITATE THE LIFT.

BRITESPAN BUILDING SYSTEMS, INC. IS NOT RESPONSIBLE FOR ERRORS, OMISSION OR DAMAGES INCURRED IN THE ERECTION OF THE COMPONENTS SHOWN ON THIS DRAWING, NOR FOR THE INSPECTION OF ERECTED COMPONENTS TO DETERMINE THE SAME.

THIS CERTIFICATION AND ENGINEERING SEAL APPLIES ONLY TO PRODUCTS DESIGNED AND FABRICATED BY BRITESPAN BUILDING SYSTEMS, INC. FOR THE LOADING CONDITIONS DESIGNED ON THESE DRAWINGS. CONCRETE FOUNDATIONS, STEEL COMPONENTS BY OTHERS AND ERECTION SUPERVISION ARE NOT THE RESPONSIBILITIES OF BRITESPAN BUILDING SYSTEMS, INC. OR THE CERTIFYING ENGINEER. ALL DOORS, WINDOWS AND ROLL-UP CURTAINS MUST BE DESIGNED TO SUPPORT THE SITE WIND LOADING AND ARE RELIED ON TO BE CLOSED IN THE EVENT OF HIGH WINDS.

ANCHOR BOLTS
ANCHOR BOLT DIAMETERS ARE DETERMINED IN ACCORDANCE WITH CSA STANDARD CAN3-S16.1 USING Fy = 36 KSI (248 MPa). ANCHOR BOLT LENGTHS AND LOAD TRANSFER TO THE FOUNDATION ARE TO BE DETERMINED BY OTHERS.

ANCHOR BOLT PROJECTIONS BASED ON NO GROUT ARE AS FOLLOWS:

FOUNDATION MUST BE LEVEL, SQUARE AND SMOOTH. ANCHOR BOLTS MUST BE ACCURATELY PLACED AS SHOWN ON THE DRAWINGS.

FINISHED FLOOR ELEVATIONS AND UNDERSIDE OF BASE PLATE SI 100'-0" (1000.000mm) UNLESS NOTED.

ERECTION
THE ERECTION MUST PROVIDE SAFE WORKING CONDITIONS AND PRACTICES CONFORMING TO ALL SAFETY REGULATIONS. ALL THE LIFTING DEVICES ARE TO BE SPECIFICALLY DESIGNED TO LIFT THE VARIOUS BUILDING COMPONENTS. SLINGS AND SPREADER BARS ARE TO BE USED TO PREVENT PERMANENT DEFORMATION OF ALL STRUCTURAL COMPONENTS.

ERECTION SHOULD START AT A BRACED BAY. ERECT AND TEMPORARILY SUPPORT TRUSSES. USE TREMPORARY BRACING AS REQUIRED TO ENSURE STABILITY OF THE FRAMES. INSTALL PURLINS AND CROSS BRACING. PLUMB AND SQUARE TRUSSES IN ACCORDANCE WITH CAN3-S16.1 AND OSHA 29 CFR PART 1926 - SAFETY STANDARD FOR STEEL ERECTION.

ENSURE ALL PURLINS REMAIN PARELLEL.

STRUCTURAL FRAMING MEMBERS ARE CONSIDERED PLUMB, LEVEL, AND ALIGNED WHEN THE VARIANCE DOES NOT EXCEED 1:500.

STRUCTURAL BOLTS
BOLTS IN CONNECTIONS NOT SUBJECT TO TENSION LOADS, OR WHERE LOOSENING DUE TO VIBRATION OR LOAD FLUCTUATIONS ARE NOT DESIGN CONSIDERATIONS NEED ONLY BE SNUG TIGHTENED, WHICH IS DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT.

ALL BOLTS LARGER THAN 1" (25mm) DIA. CONFORM TO ASTM A325.
ALL OTHER DIA HEX BOLTS CONFORM TO SAE GR.5 OR EQUIVALENT.
ALL BOLTS SHALL BE PLATED / GALVANIZED OR SUNSEAL COATED.
ALL BOLT REFERENCES REQUIRE BOTH BOLT AND NUT.

BOLTS IN CONNECTIONS NOT SUBJECT TO TENSION LOADS REQUIRE PRE-TENSIONING TO MINIMUM TENSION VALUES AS SHOWN IN THE TABLE BELOW.

TABLE A - BOLT TENSION

SIZE		GRADE 5	
in	mm	kips	kN
5/8	16	18	80
3/4	19	28	125
7/8	22	39	174
1.0	25	51	227
SIZE		A325	
1 1/8	29	56	248
1 1/4	32	74	316

STRUCTURAL BOLT TORQUE VALUES
TABLE B LISTS THE BOLT CLAMP WITH A SUGGESTED ASSEMBLY TORQUE VALUES.
TABLE B - IMPERIAL

SIZE		GRADE 5				
DIA.	Threads	Tensile	Proof	Clamp	Torque	Torque
INCH	Per	ksi	Load	Load	Dry	Lube
	Inch	Min	lbs	lbs	ft-lbs	ft-lbs
3/8	16	120	6600	4650	15	23
7/16	14	120	9050	6780	50	35
1/2	13	120	12100	9050	75	55
5/8	11	120	19200	14400	150	110
3/4	10	120	28400	21300	260	200
SIZE		A325				
1 1/4	7	105	71700	53800	1120	840

MATERIAL SPECIFICATIONS.
ROLLED STRUCTURAL SECTIONS CONFORM TO CSA G40.21-44R (300M).

STRUCTURAL PLATE CONFORMS TO THE FOLLOWING SPECIFICATIONS:
PLATES G40.21 44R G40.21/ASTM A572 GR 44 (300W)
H.S.S. G40.21 50R G40.21/ASTM A572 GR 50 (350W)

COATINGS OF STRUCTURAL PLATES ARE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM 153.

TRUSSES ARE HOT-DIP GALVANIZED INSIDE AND OUT IN ACCORDANCE ASTM 123.

CHROMATE CONVERSION COATING APPLIED OVER THE HOT-DIP GALVANIZED SURFACE TO PROVIDE ADDITIONAL CORROSION PROTECTION.

PURLINS AND TIE-DOWN PIPE ARE PRE-GALVANIZED.

DIAGONAL BRACE STEEL CABLES EXTRA HIGH STRENGTH PER ASTM A475
CROSS CABLES - Ø 5/16" (8mm) TYP U/N.

STRUCTURAL COMPONENTS ARE AS FOLLOWS:
2 3/8" (60.325mm) TUBES - 18" (457.2mm) O/O USING Ø 1 1/8" (28.575mm) WEB &
2 7/8" (73.025mm) PURLINS
ALL OTHER SIZE/GUAGES - MIN YEILD = 55ksi (379MPa).

FABRIC / LINER NOTES
EXTERIOR FABRIC IS AN INTEGRAL PART OF THE STRUCTURAL SYSTEM; REMOVAL OR ALTERATION WITHOUT PRIOR AUTHORIZATION IS PROHIBITED. ALL TEARS MUST BE PATCHED IMMEDIATELY TO AVOID WARRANTY PROBLEMS.

EXTERIOR FABRIC WILL DEFLECT UNDER LOAD, THEREOF ALL BUILDING ACCESSORIES (LIGHTING, HVAC, SPRINKLERS, ETC) MUST BE LOCATED BENEATH THE INNER CORD OF THE TRUSS, ANYTHING ABOVE THIS MUST BE REVIEWED AND APPROVED IN WRITING BY BRITESPAN BUILDING SYSTEMS, INC. SEVERE DAMAGE TO THE BUILDING AND ACCESSORIES MAY RESULT FROM FAILURE TO COMPLY WITH THIS REQUIRMENT.

FABRIC SPECIFICATIONS
ALL POLYETHYLENE MEMBRANES WILL POSSESS THE FOLLOWING MINIMUM SPECIFICATIONS:

PHYSICAL	PROPERTIES	DESCRIPTION
Base Scrim	HDPE 1600 denier yard	High Density Polyethylene.
Coating Thickness	4 mil (.95 gsm) ea. side	Minimum 4 to 6 mil exterior coating on each side of base scrim.
Surface Weight	Modified LDPE o/w UV	Modified Low Density Polyethylene coating with UV inhibitors.
Weight	12.5 oz. / sq yd. (410 gsm)	Minimum 12.5 oz. / sq yd.

STRENGTH	TEST STANDARD
Grab tensile strength	ASTM D-5034
Tongue tear strength	ASTM D-2261
Strip tensile strength	ASTM D-5035
Mullen burst	ASTM D-3786
Thickness	ASTM D-5199
Hydrostatic resistance	ASTM D-751A
Cold crack	ASTM D-2136
% Ligth transmission	ASTM E-903
UV & Weathering	ASTM D-4399
Permittivity	ASTM D-4491

FIRE	TEST STANDARD
Scale Flame Spread	ASTM E-84
Drip Flame Spread	CAN/ULC S-102

DRAWING SCHEDULE		REVISIONS			
DWG #	DRAWINGS TITLE	REV.	DATE	REV.	DATE
FB-1	COVER PAGE	1	23 NOV 11		
FB-2	BASEPLATE LAYOUT	1	23 NOV 11		
FB-3	PROJECT LAYOUT	1	23 NOV 11		
FB-4	PURLIN LAYOUT	1	23 NOV 11		
FB-5	BRACING LAYOUT	1	23 NOV 11		
EW-1	ENDWALL LAYOUT 1	1	23 NOV 11		
EW-2	ENDWALL LAYOUT 2	1	23 NOV 11		
BD-1	BASEPLATE DETAILS	1	23 NOV 11		
SD-1	STANDARD DETAILS 1	1	23 NOV 11		
SD-2	STANDARD DETAILS 2	1	23 NOV 11		
SD-3	STANDARD DETAILS 3	1	23 NOV 11		
ED-1	ENDWALL DETAILS	1	23 NOV 11		
ED-2	ENDWALL DETAILS	1	23 NOV 11		

ROOF PLAN NOTES
UNLESS NOTED, USE Ø5/8" (16mm) BOLTS FOR PURLIN TO TRUSS, CABLE OR ROD BRACING TO TRUSS AND ANGLES TO TRUSS FOR ALL CONNECTIONS.

CABLE / ROD AND PURLIN BRACING ARE AN INTIEGRAL PART OF THE TRUSS STRUCTURAL SYSTEMS AND SHOULD BE PROPERLY INSTALLED PRIOR TO ERECTION OF FABRIC ROOF AND ENDWALL PANELS. REMOVAL OR ALTERATION OF ANY BRACING WITHOUT PRIOR AUTHORIZATION FROM BRITESPAN BUILDING SYSTEMS, INC. IS PROHIBITED.

ELEVATION NOTES
HOLES REQUIRED IN HSS COLUMNS, HEADERS OR PURLINS FOR FRAMED OPENINGS. DOOR OR WINDOW POST CONNECTION TO BE BY ERECTOR.

WALK DOOR, WINDOW AND FRAMED OPENING POSTS TO BE FIELD ANCHORED TO CONCRETE WITH Ø1/2" (13mm) "HILTI KWIK-BOLTS" OR SIMILAR

MATERIAL STORAGE
GALVANIZED, ALUMINIZED, AND COLORED MATERIALS ARE SUBJECT TO CORROSION AND DISCOLORATION IF THEY ARE IMPROPERLY STORED. SHORT TERM JOB SITE STORAGE OF STEEL COMPONENTS MAY BE TOLERATED, PROVIDED CARE IS TAKEN TO KEEP THE MATERIALS DRY AT ALL TIMES. WHEN TRUSSES ARE ARE TO BE STORED OUTDOORS, THEY SHOULD BE PLACED AT AN ANGLE SUFFICIENT TO PROMOTE GOOD DRAINAGE. IN ADITTION, SEVERAL INCHES OF CLEARENCE MUST BE PROVIDED BETWEEN THE LOWER END AND THE GROUND TO ALLOW VENTILATION.

NOTE: BRITESPAN BUILDIGN SYSTEMS, INC. WILL NOT BE HELD RESPONSIBLE FOR MATERIALS WHICH ARE IMPROPERLY PROTECTED AFTER DELIVERY.

MANUFACTURING STANDARDS
FABRICATION IS IN ACCORDANCE WITH CAN/CSA-S16.1 AND CAN/CSA-S136, AS APPLICABLE.

BRITESPAN BUILDING SYSTEMS, INC. IS A CWB CERTIFIED DIVISION 2.1 MANUFACTURER OF TRUSSES. ALL WELDS ARE COMPLETED IN SHOP AS PER CWB STANDARD CSA W47.1 AND W59. AS PART OF OUR CWB CERTIFICATION AN INDEPENDENT THIRD PARTY TESTS OUR WELDERS AND PROCEDURES AND AUDITS OUR FACILITIES. THIS CERTIFICATION MEETS WITH AWS D1.1 AND D1.3 CRITIERIA.

BRITESPAN BUILDING SYSTEMS INC.
37651 Amberley Road
Lucknow, ON, Canada
N0G 2H0
PH: 1-519-528-2922
FAX: 1-519-528-2890

DEALER: THE AUTUMN BREEZE GROUP
P.O. BOX 94
FAIRLEE, VT. 05045

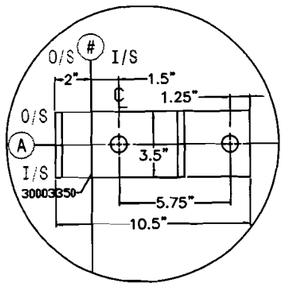
CUSTOMER: PHOENIX PROPERTY SERVICES
144 HUTCHINS RD.
PORTLAND, ME. 4101

PROJECT:
40' x 48' ATLAS 18
12 o.c.

DETAILER:	DWG REV	REVISED BY: DESCRIPTION	DATE
RV	1	PREPARED FOR STRUCTURAL REVIEW	23 NOV 11

WIDTH-STEEL-FAB-HSS-HSSDROP	PROJECT ID:	SO/ORDER ID:	DRAWING:	REV:
40-320-220-12-0	40 - PHOENIX	SO#1605	FB-1	1

VIEW A



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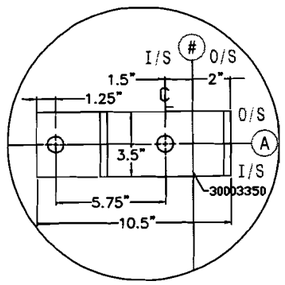

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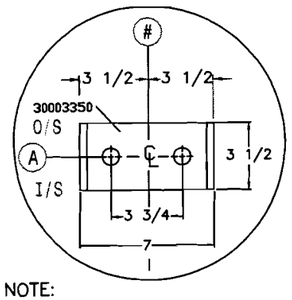
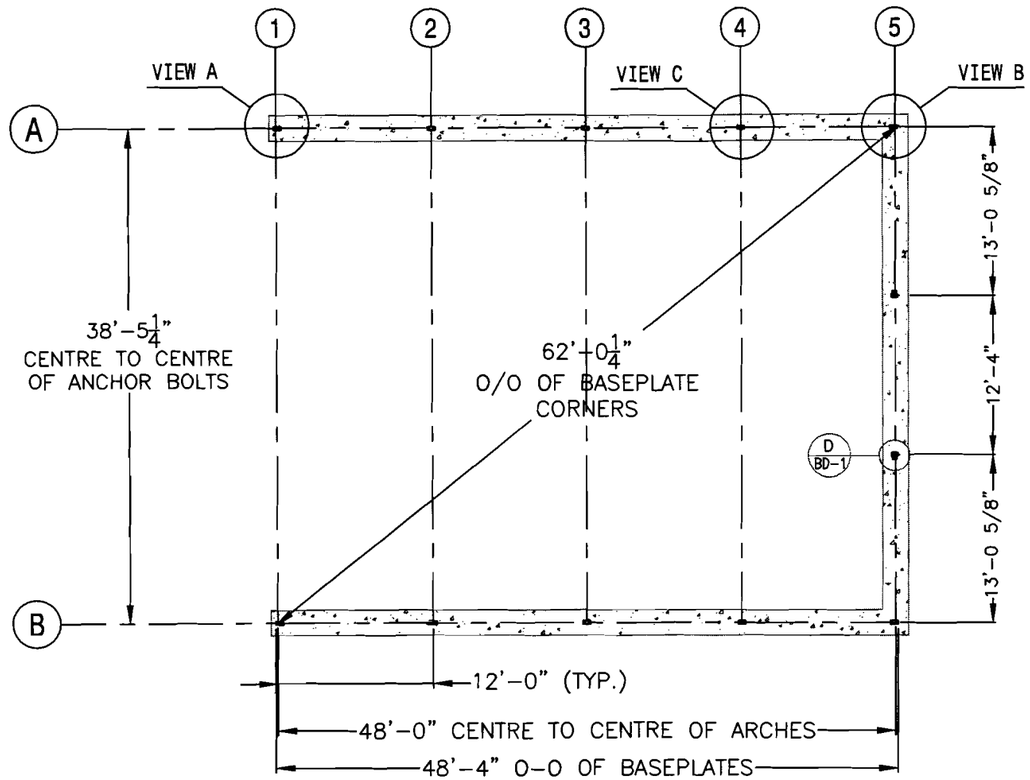


NOTE:

END BASEPLATES ARE OFFSET 1 1/2"



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DETAILER:	DWG REV	REVISED BY: DESCRIPTION	DATE
DS	1	PREPARED FOR STRUCTURAL REVIEW	11/23/11

DEALER
THE AUTUMN BREEZE GROUP
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FAIRLEE, VT. 05045

CUSTOMER:
PHOENIX PROPERTY SERVICES
144 HUTCHINS RD
PORTLAND ME. 4101

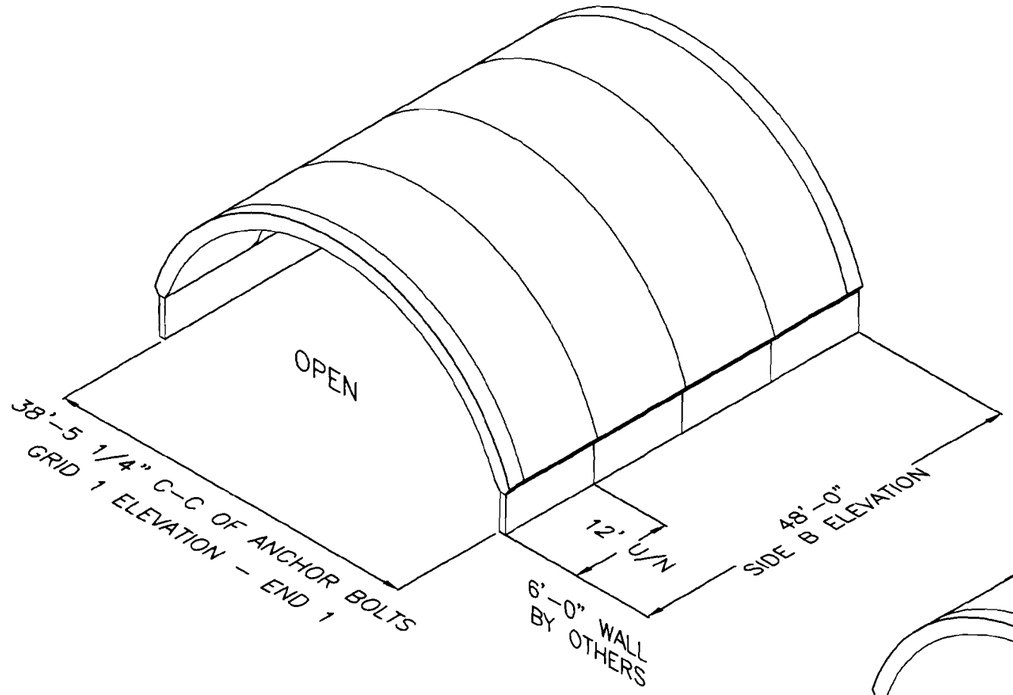
PROJECT:
ATLAS 18
40' x 48' - 12' o.c.
320 GM

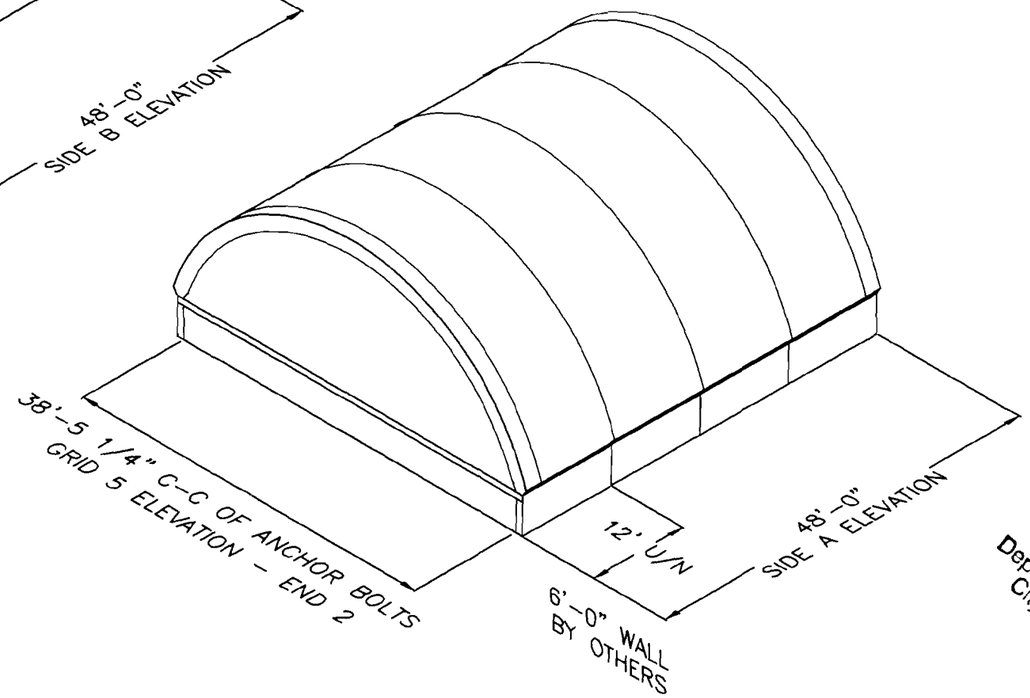
WIDTH-STEEL-FAB-HSS-HSSDROP
40-320-220-12-0

DRAWING TITLE:
BASEPLATE LAYOUT

PROJECT ID:	SO/ORDER ID:	DRAWING:	TAB TITLE:
40 - PHOENIX	SO# 1605	FB-2	002

LICENCED PROFESSIONAL ENGINEER





MAIN COVER: WHITE NON-FR
ENDFLAPS: WHITE NON-FR
ENDWALLS: WHITE NON-FR

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DS	1	PREPARED FOR STRUCTURAL REVIEW	11/23/11

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CUSTOMER:
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PORTLAND ME. 4101

WIDTH-STEEL-FAB-HSS-HSSDROP
40-320-220-12-0

PROJECT ID:
40 - PHOENIX

SO/ORDER ID:
SO# 1605

PROJECT:
ATLAS 18
40' x 48' - 12' o.c.
320 GM

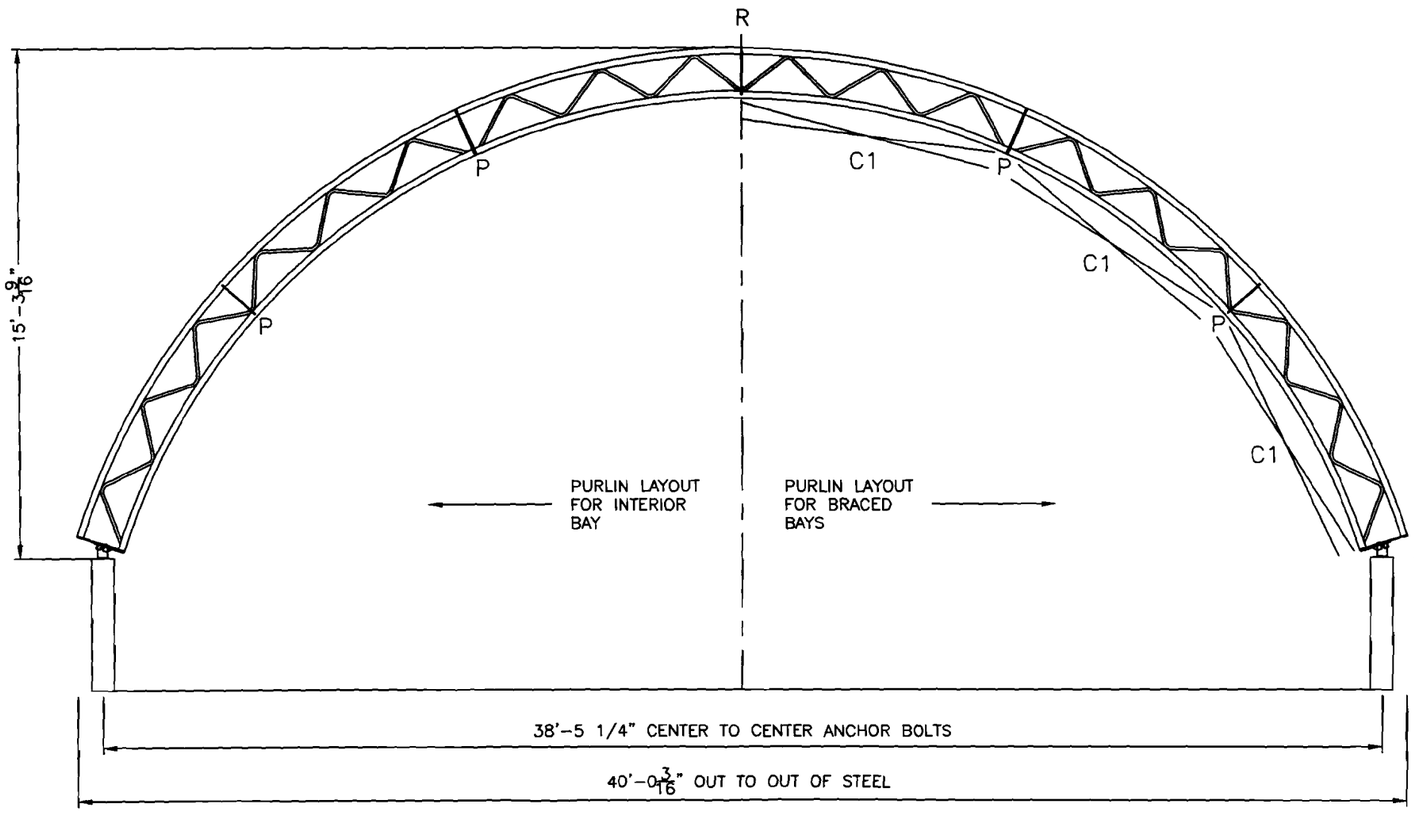
DRAWING TITLE:
PROJECT LAYOUT

DRAWING:
FB-3

TAB TITLE:
003

LICENCED PROFESSIONAL ENGINEER

Atlas 18
40 Wide – 320



BRACING LEGEND
P = PURLIN
R = RIDGE PURLIN
X = CROSS CABLE

INTERIOR ARCH

ITEM #	QTY
30003022	3

END ARCH

ITEM #	QTY
30003027	3

A-18 40'	16' BAY		14' BAY		12' BAY		10' BAY		8' BAY		6' BAY		5' BAY	
C1 CABLE	ITEM #	LENGTH	ITEM #	LENGTH	ITEM #	LENGTH	ITEM #	LENGTH	ITEM #	LENGTH	ITEM #	LENGTH	ITEM #	LENGTH
	861221-9	221"	861200-9	200"	861179-9	179"	861160-9	160"	861144-9	144"	861127-9	127"	861121-9	121"

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144 HUTCHINS RD
PORTLAND ME. 4101

WIDTH-STEEL-FAB-HSS-HSSDROP
40-320-220-12-0

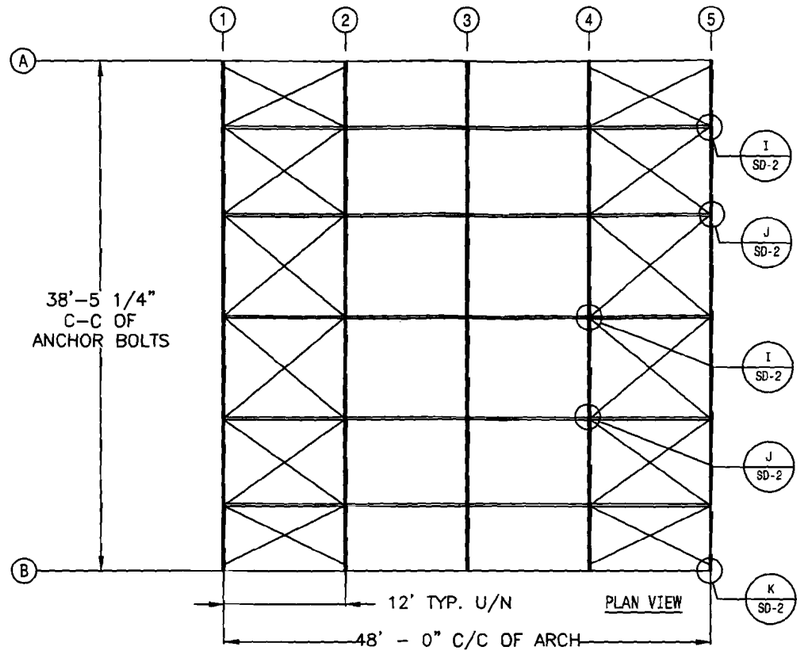
PROJECT ID:	SO/ORDER ID:
40 - PHOENIX	SO# 1605

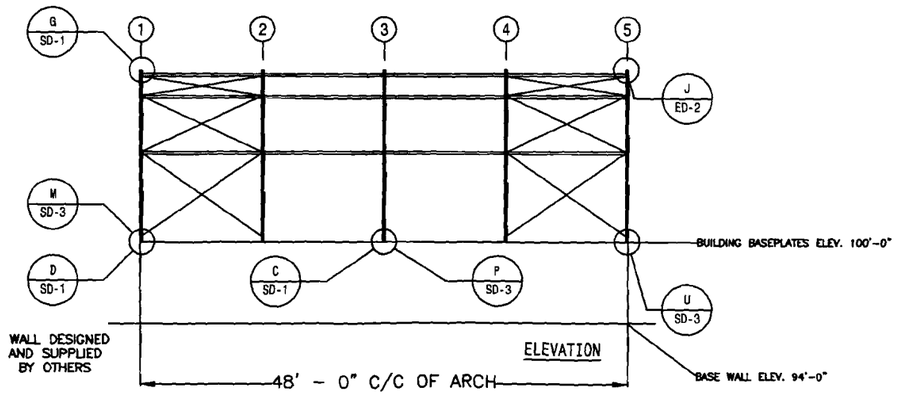
PROJECT:
ATLAS 18
40' x 48' - 12' o.c.
320 GM

DRAWING TITLE:
PURLIN & X-CABLE LAYOUT

DRAWING:	TAB TITLE:
FB-4	004

LICENCED PROFESSIONAL ENGINEER





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DETAILER:	DWG REV	REVISED BY: DESCRIPTION	DATE
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WIDTH-STEEL-FAB-HSS-HSSDROP
40-320-220-12-0

PROJECT ID:	SO/ORDER ID:
40 - PHOENIX	SO# 1605

PROJECT:
ATLAS 18
40' x 48' - 12' o.c.
320 GM

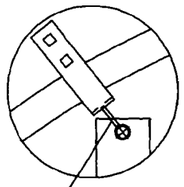
DRAWING TITLE:
BRACING LAYOUT

DRAWING:	TAB TITLE:
FB-5	005

LICENCED PROFESSIONAL ENGINEER

MARK#	QTY	COMPONENTS (in)

VIEW A



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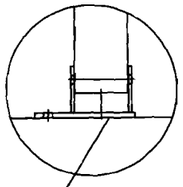

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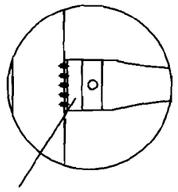

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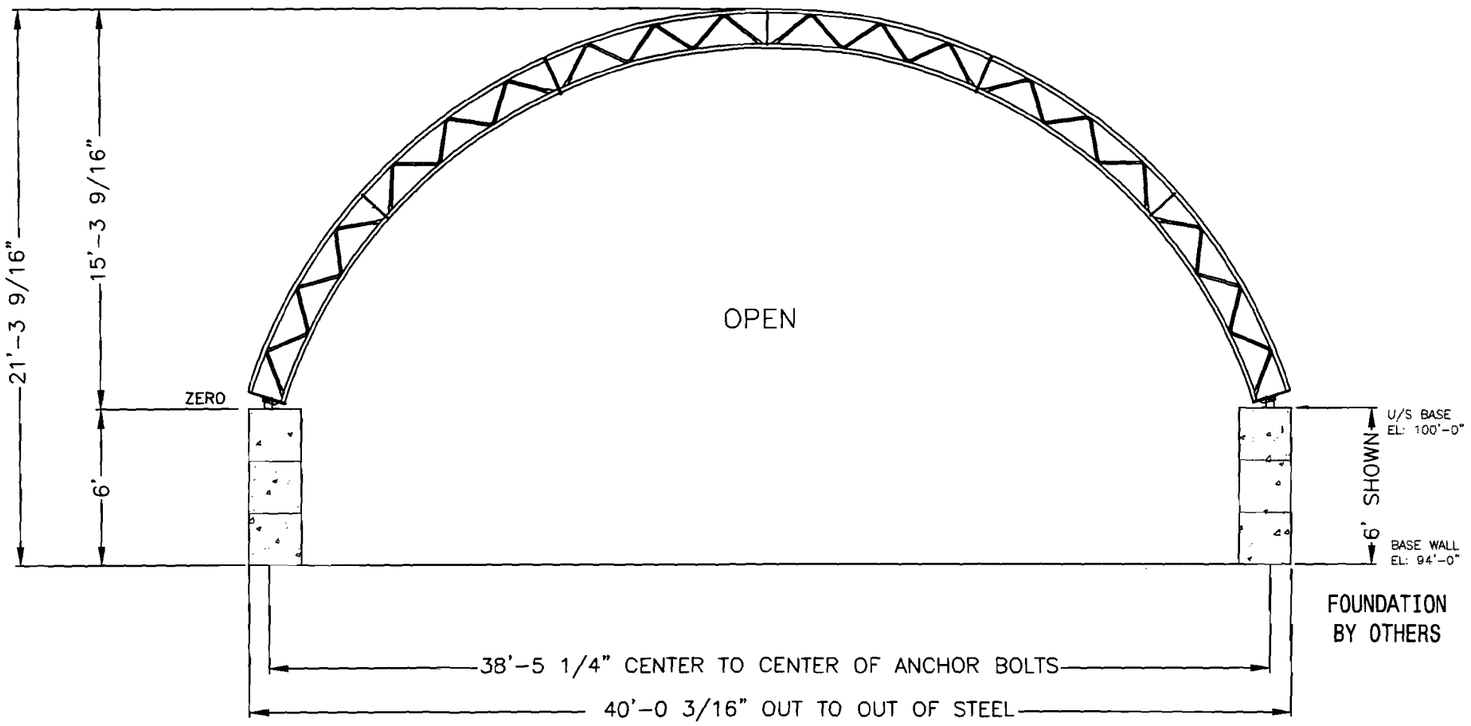

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WIDTH-STEEL-FAB-HSS-HSSDROP
40-320-220-12-0

PROJECT ID: 40 - PHOENIX
SO/ORDER ID: SO# 1605

PROJECT:
ATLAS 18
40' x 48' - 12' o.c.
320 GM

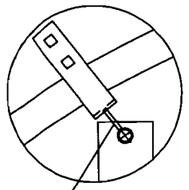
DRAWING TITLE:
ENDWALL LAYOUT

DRAWING: EW-1
TAB TITLE: 006a

LICENCED PROFESSIONAL ENGINEER

MARK#	QTY	COMPONENTS (in)
EC-1	2	4"X4"X1/8" 149 1/2" HSS
33302046	2	BASE PLATE – 4X4 HSS
33040238	2	BRKT –TOP SADDLE ASSY 4" – 2 3/8" CORD
FT	–	2 3/8" DIA 12 Ga FASTENING TUBE CUT TO LENGTH
33400805	2	BRACKET – 3X3X4 HORIZONTAL ANGLE
HZ-1	3	32000039 (2 1/2" – 14GA + 32000122 (2 7/8" 14 GA)

VIEW A



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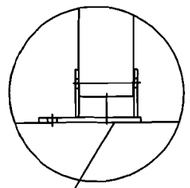
VIEW B



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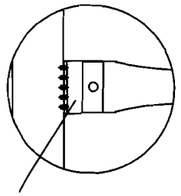

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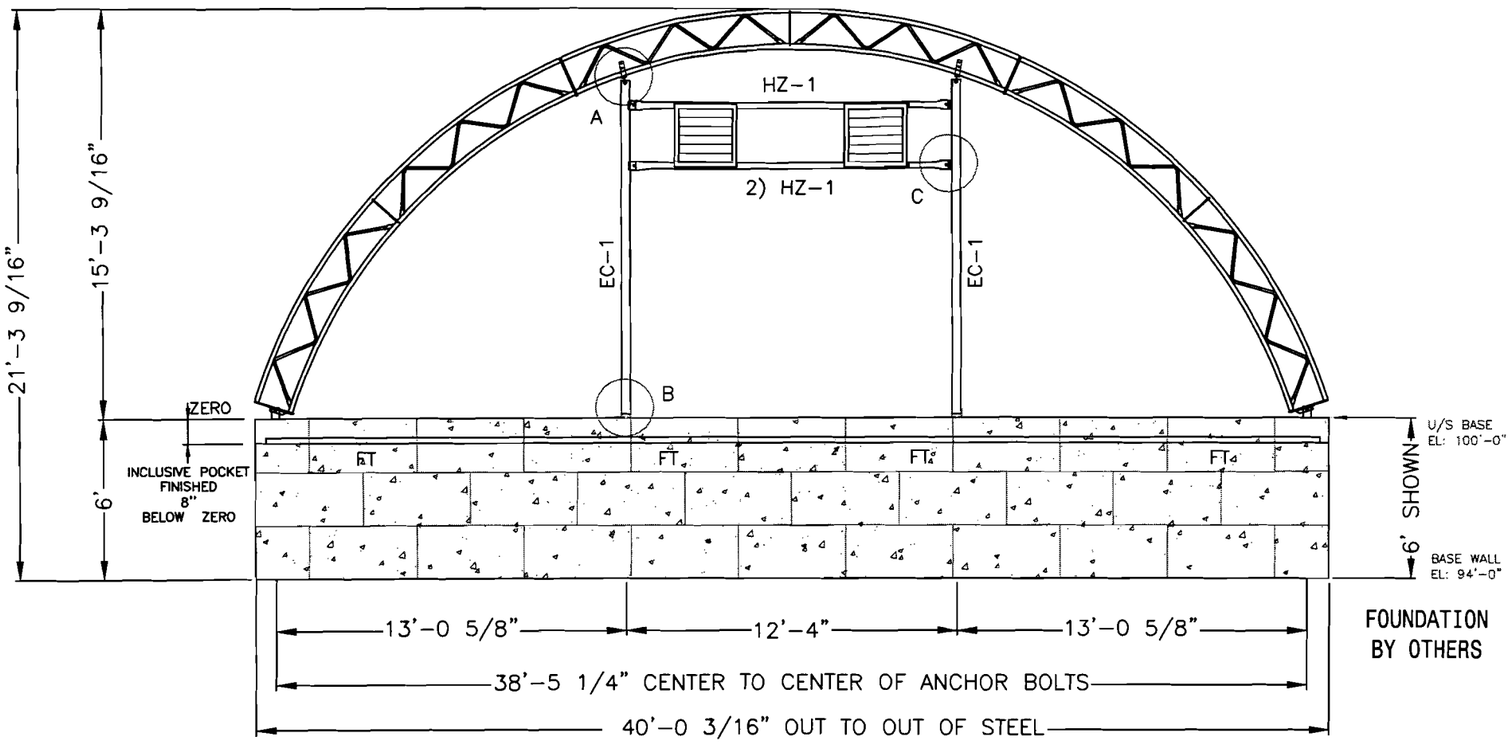

FOUNDATION BY OTHERS

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BRITESPAN BUILDING SYSTEMS INC.

37651 Amberley Road
Lucknow, ON, Canada
N0G 2H0
PH: 1-519-528-2922
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DETAILER:	DWG REV	REVISED BY: DESCRIPTION	DATE
DS	1	PREPARED FOR STRUCTURAL REVIEW	11/23/11

DEALER
THE AUTUMN BREEZE GROUP
P.O. BOX 94
FAIRLEE, VT. 05045

CUSTOMER:
PHOENIX PROPERTY SERVICES
144 HUTCHINS RD
PORTLAND ME. 4101

WIDTH-STEEL-FAB-HSS-HSSDROP
40-320-220-12-0

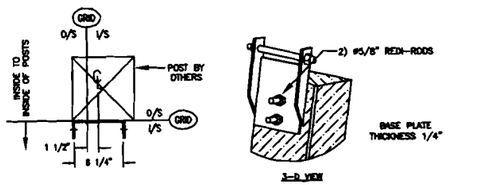
PROJECT ID: 40 - PHOENIX
SO/ORDER ID: SO# 1605

PROJECT:
ATLAS 18
40' x 48' - 12' o.c.
320 GM

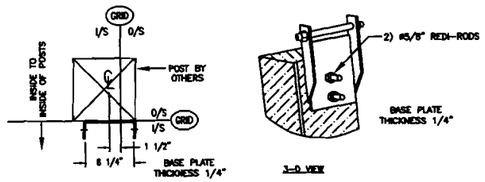
DRAWING TITLE:
ENDWALL LAYOUT

DRAWING: EW-2
TAB TITLE: 006b

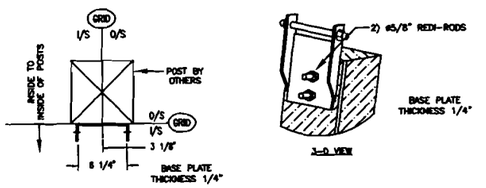
LICENCED PROFESSIONAL ENGINEER



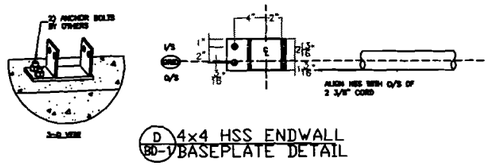
A LEFT END TRUSS
BD-1 BASEPLATE DETAIL



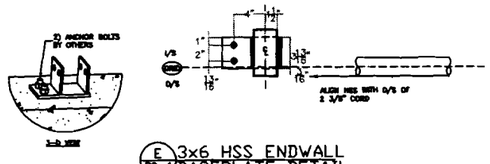
B RIGHT END TRUSS
BD-1 BASEPLATE DETAIL



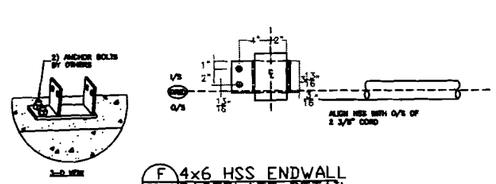
C COMMON TRUSS
BD-1 BASEPLATE DETAIL



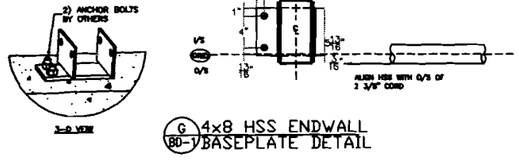
D 4x4 HSS ENDWALL
BD-1 BASEPLATE DETAIL



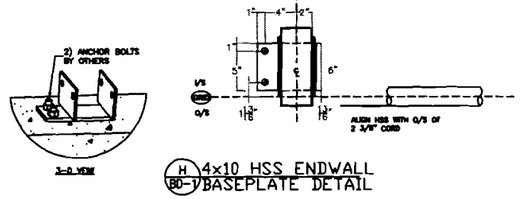
E 3x6 HSS ENDWALL
BD-1 BASEPLATE DETAIL



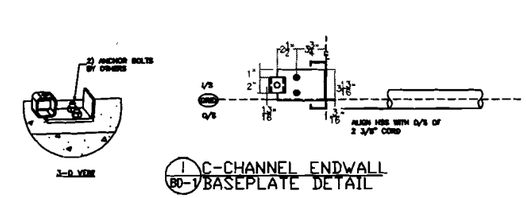
F 4x6 HSS ENDWALL
BD-1 BASEPLATE DETAIL



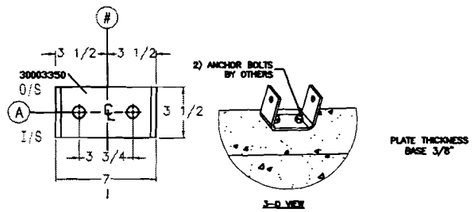
G 4x8 HSS ENDWALL
BD-1 BASEPLATE DETAIL



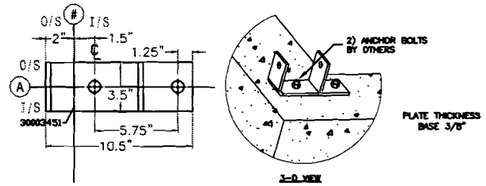
H 4x10 HSS ENDWALL
BD-1 BASEPLATE DETAIL



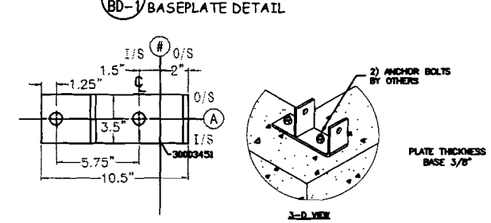
I C-CHANNEL ENDWALL
BD-1 BASEPLATE DETAIL



C COMMON TRUSS
BD-1 BASEPLATE DETAIL



B RIGHT END TRUSS
BD-1 BASEPLATE DETAIL



A LEFT END TRUSS
BD-1 BASEPLATE DETAIL

BRITESPAN
BUILDING SYSTEMS INC.
37651 Amberley Road
Lucknow, ON, Canada
N0G 2H0
PH: 1-519-528-2922
FAX: 1-519-528-2890

DETAILER:	DWG REV	REVISED BY: DESCRIPTION	DATE
DS	1	PREPARED FOR STRUCTURAL REVIEW	11/23/11

DEALER
THE AUTUMN BREEZE GROUP
P.O. BOX 94
FAIRLEE, VT. 05045

CUSTOMER:
PHOENIX PROPERTY SERVICES
144 HUTCHINS RD
PORTLAND ME. 4101

WIDTH-STEEL-FAB-HSS-HSSDROP
40-320-220-12-0

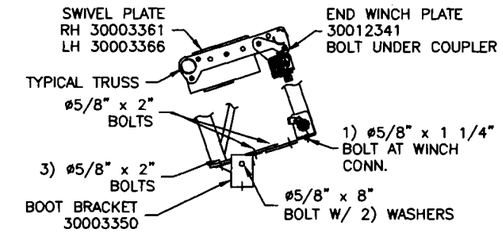
PROJECT ID:	SO/ORDER ID:
40 - PHOENIX	SO# 1605

PROJECT:
ATLAS 18
40' x 48' - 12' o.c.
320 GM

DRAWING TITLE:
BASEPLATE DETAILS

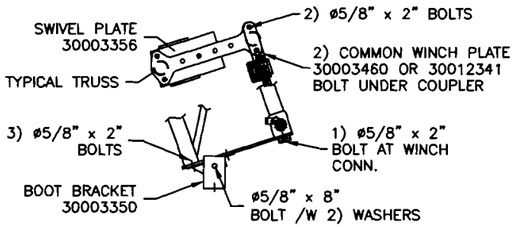
DRAWING:	TAB TITLE:
BD-1	007

LICENCED PROFESSIONAL ENGINEER



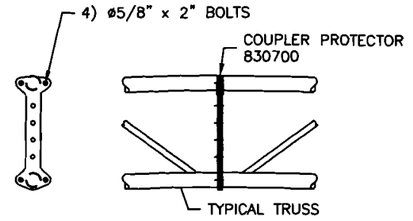
NOTE: FOR A GROUND MOUNT BUILDING W/ A POST MOUNT COVER, WINCHES WILL BE FIELD LOCATED TO WALL.

D / SD-1 END BASE CONNECTION

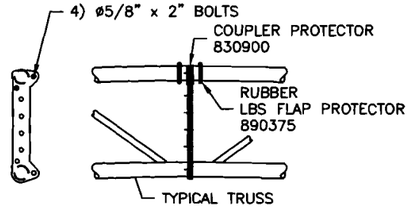


NOTE: FOR A GROUND MOUNT BUILDING W/ A POST MOUNT COVER, WINCHES WILL BE FIELD LOCATED TO WALL.

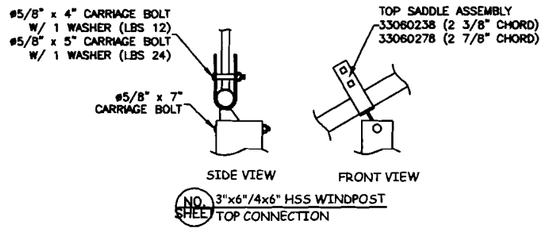
E / SD-1 COMMON BASE CONNECTION



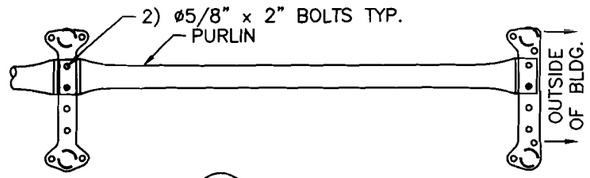
A / SD-1 COMMON COUPLER CONNECTION DETAIL



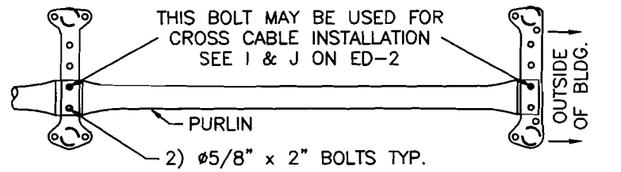
B / SD-1 END COUPLER CONNECTION DETAIL



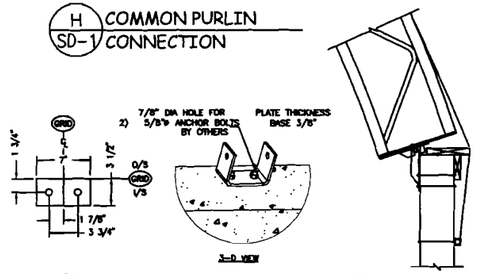
NO SHEET 3"x6"/4x6" HSS WINDPOST TOP CONNECTION



G / SD-1 COMMON COUPLER CONNECTION

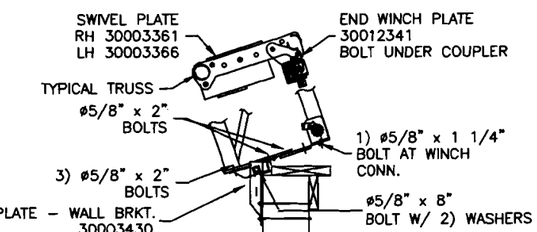


H / SD-1 COMMON PURLIN CONNECTION

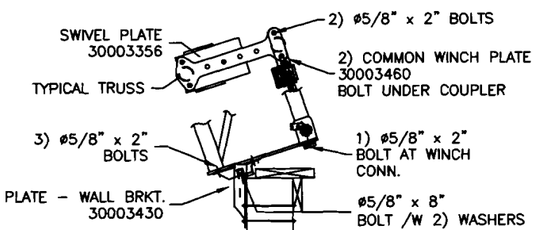


C / SD-1 COMMON TRUSS BASEPLATE DETAIL

C / SD-1 COMMON TRUSS WALL BRACKET DETAIL



D / SD-1 END BASE CONNECTION



E / SD-1 COMMON BASE CONNECTION

BRITESPAN
BUILDING SYSTEMS INC.
37651 Amberley Road
Lucknow, ON, Canada
N0G 2H0
PH: 1-519-528-2922
FAX: 1-519-528-2890

DETAILER:	DWG REV	REVISED BY: DESCRIPTION	DATE
DS	1	PREPARED FOR STRUCTURAL REVIEW	11/23/11

DEALER
THE AUTUMN BREEZE GROUP
P.O. BOX 94
FAIRLEE, VT. 05045

CUSTOMER:
PHOENIX PROPERTY SERVICES
144 HUTCHINS RD
PORTLAND ME. 4101

WIDTH-STEEL-FAB-HSS-HSSDROP
40-320-220-12-0

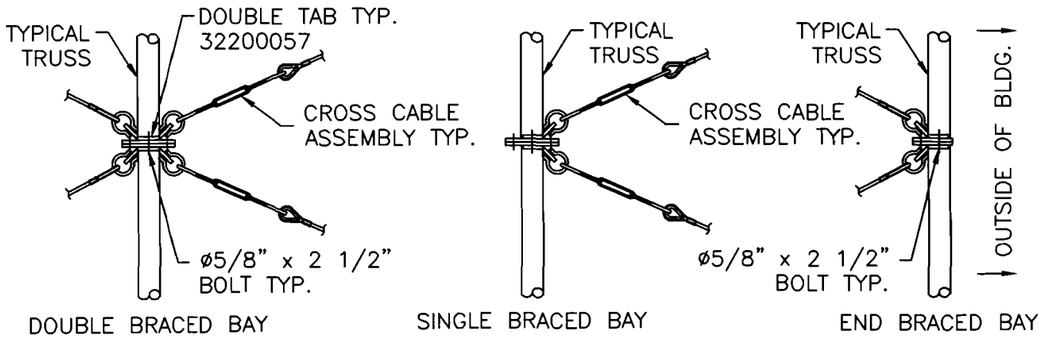
PROJECT ID: 40 - PHOENIX
SO/ORDER ID: SO# 1605

PROJECT:
ATLAS 18
40' x 48' - 12' o.c.
320 GM

DRAWING TITLE:
STANDARD DETAILS

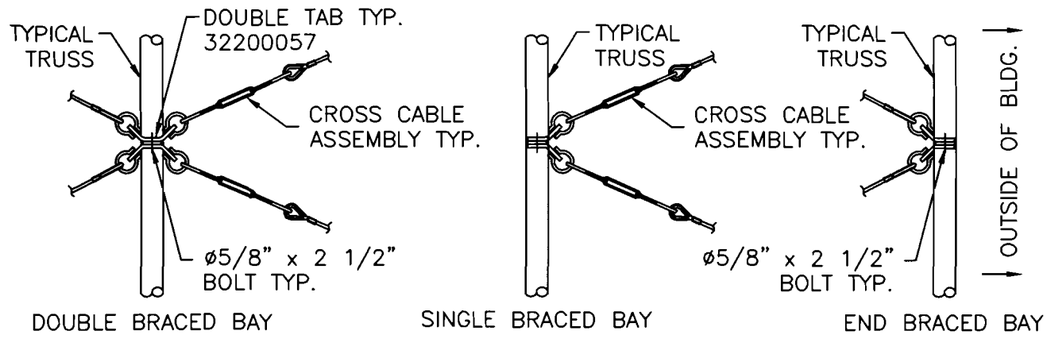
DRAWING: SD-1
TAB TITLE: 008

LICENCED PROFESSIONAL ENGINEER



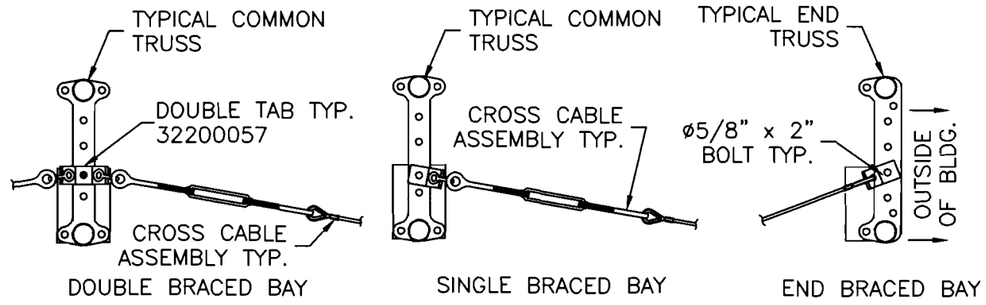
NOTE:
–INSTALL ALL TURNBUCKLES AT ONE END FOR EASE OF INSTALLATION.
–PURLINS REMOVED FOR CLARITY.

I / SD-2 CROSS CABLE AT COUPLER CONNECTION



NOTE:
–INSTALL ALL TURNBUCKLES AT ONE END FOR EASE OF INSTALLATION.
–PURLINS REMOVED FOR CLARITY.

J / SD-2 CROSS CABLE AT MID TRUSS CONNECTION



K / SD-2 CROSS CABLE AT BOOT CONNECTION

BRITESPAN BUILDING SYSTEMS INC.
37651 Amberley Road
Lucknow, ON, Canada
N0G 2H0
PH: 1-519-528-2922
FAX: 1-519-528-2890

DETAILER:	DWG REV	REVISED BY: DESCRIPTION	DATE
DS	1	PREPARED FOR STRUCTURAL REVIEW	11/23/11

DEALER
THE AUTUMN BREEZE GROUP
P.O. BOX 94
FAIRLEE, VT. 05045

CUSTOMER:
PHOENIX PROPERTY SERVICES
144 HUTCHINS RD
PORTLAND ME. 4101

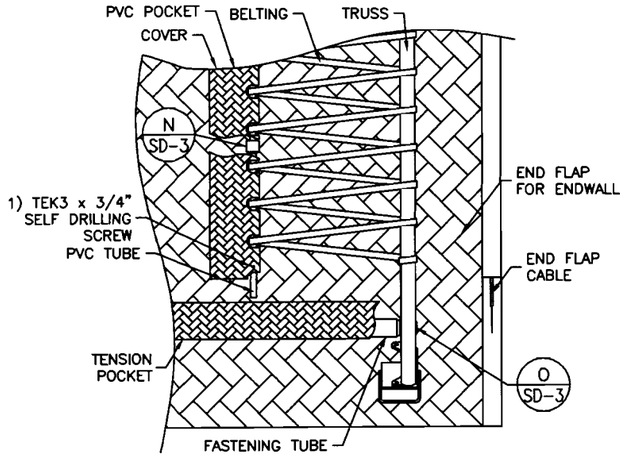
PROJECT:
ATLAS 18
40' x 48' - 12' o.c.
320 GM

WIDTH-STEEL-FAB-HSS-HSSDROP
40-320-220-12-0

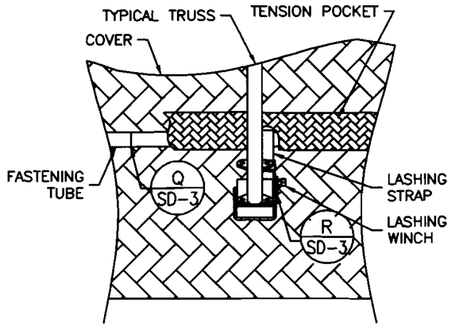
DRAWING TITLE:
STANDARD DETAILS

PROJECT ID:	SO/ORDER ID:	DRAWING:	TAB TITLE:
40 - PHOENIX	SO# 1605	SD-2	009

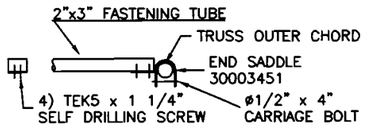
LICENCED PROFESSIONAL ENGINEER

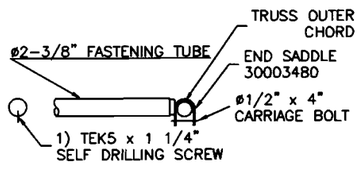


M / SD-3 PVC TUBE CONNECTION TO BUILDING



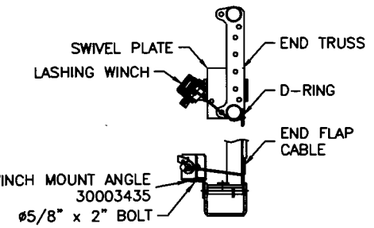
P / SD-3 FASTENING TUBE CONNECTION TO BUILDING 320



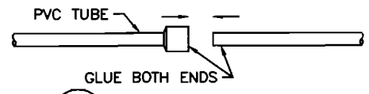


NOTES: -CUT OFF SWAGED END IF REQ'D
-POST MOUNT BUILDINGS USE ENDCAPS 804191 (2"X3") AND 804190 (ø2-3/8") INSTEAD OF SADDLE

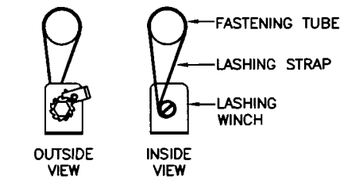
O / SD-3 FASTENING TUBE END SADDLE BRACKET



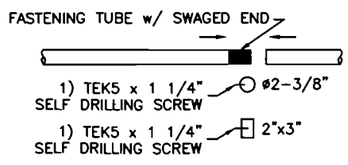
U / SD-3 END FLAP LASHING WINCH CONNECTION



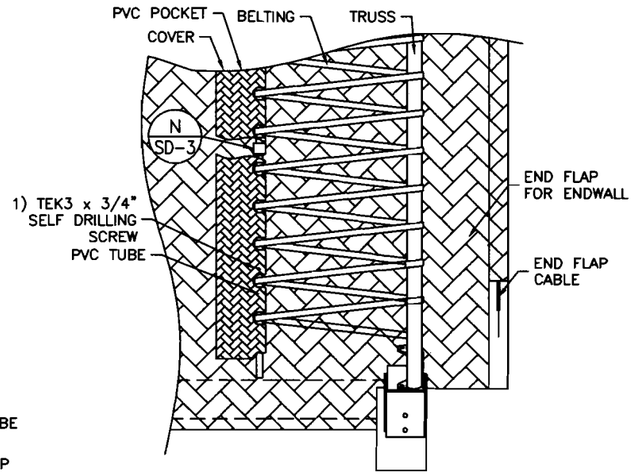
N / SD-3 PVC TUBE CONNECTION



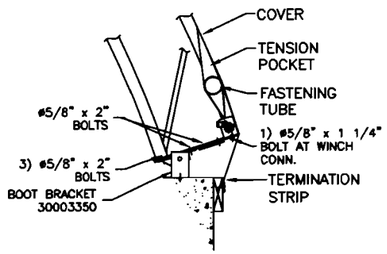
R / SD-3 LASHING STRAP CONN. TO LASHING WINCH



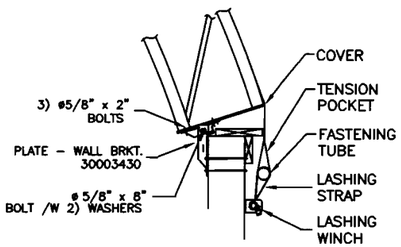
Q / SD-3 FASTENING TUBE CONNECTION



M / SD-3 PVC TUBE CONNECTION TO BUILDING



– / SD-3 320 STEEL w/ 320 MID-POCKET & APRON



– / SD-3 220 STEEL w/ 220 INCLUSIVE POCKET

BRITESPAN BUILDING SYSTEMS INC.
37651 Amberley Road
Lucknow, ON, Canada
N0G 2H0
PH: 1-519-528-2922
FAX: 1-519-528-2890

DETAILER:	DWG REV	REVISED BY: DESCRIPTION	DATE
DS	1	PREPARED FOR STRUCTURAL REVIEW	11/23/11

DEALER
THE AUTUMN BREEZE GROUP
P.O. BOX 94
FAIRLEE, VT. 05045

CUSTOMER:
PHOENIX PROPERTY SERVICES
144 HUTCHINS RD
PORTLAND ME. 4101

WIDTH-STEEL-FAB-HSS-HSSDROP
40-320-220-12-0

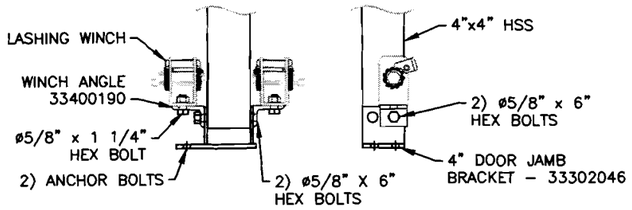
PROJECT ID: 40 - PHOENIX
SO/ORDER ID: SO# 1605

PROJECT:
ATLAS 18
40' x 48' - 12' o.c.
320 GM

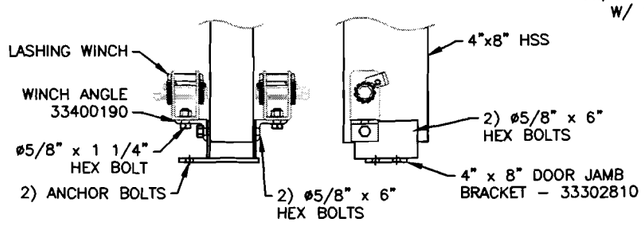
DRAWING TITLE:
STANDARD DETAILS

DRAWING: SD-3
TAB TITLE: 010

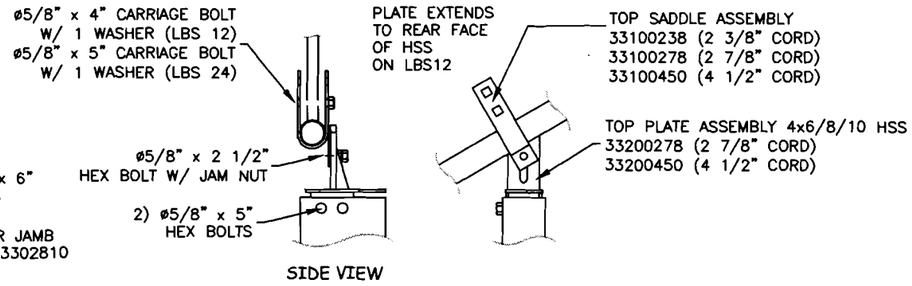
LICENCED PROFESSIONAL ENGINEER



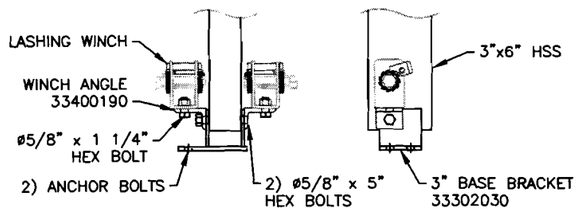
A ED-1 4"x4" HSS WINDPOST BASE CONNECTION



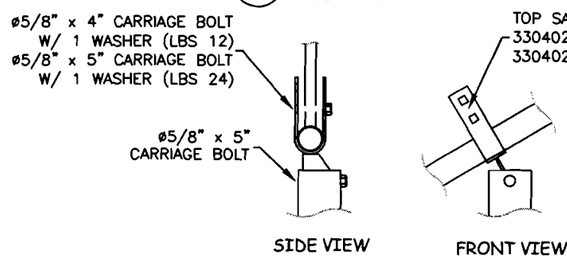
D ED-1 4"x8" HSS WINDPOST BASE CONNECTION



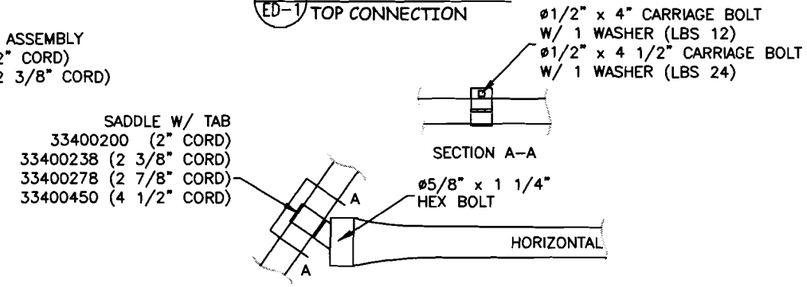
G ED-1 4"x8" HSS WINDPOST TOP CONNECTION



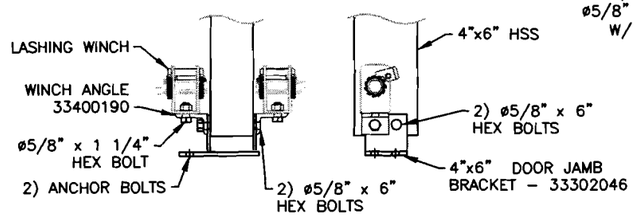
B ED-1 3"x6" HSS WINDPOST/JAMB BASE CONNECTION



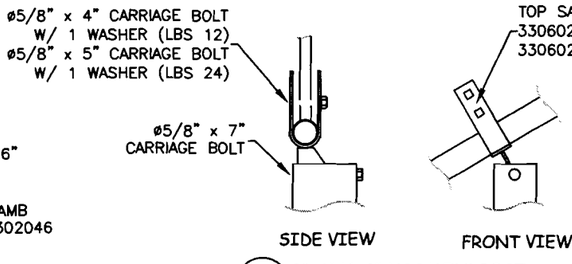
E ED-1 4"x4" HSS WINDPOST TOP CONNECTION



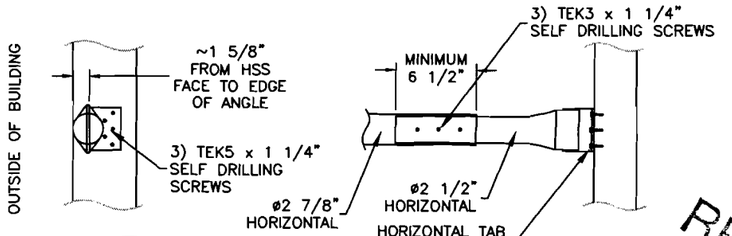
H ED-1 HORIZONTAL CONNECTION TO TRUSS



C ED-1 4"x6" HSS WINDPOST BASE CONNECTION



F ED-1 3"x6"/4x6" HSS WINDPOST TOP CONNECTION



I ED-1 HORIZONTAL CONNECTIONS

BRITESPAN BUILDING SYSTEMS INC.
37651 Amberley Road
Lucknow, ON, Canada
N0G 2H0
PH: 1–519–528–2922
FAX: 1–519–528–2890

DETAILER:	DWG REV	REVISED BY: DESCRIPTION	DATE
DS	1	PREPARED FOR STRUCTURAL REVIEW	11/23/11

DEALER
THE AUTUMN BREEZE GROUP
P.O. BOX 94
FAIRLEE, VT. 05045

CUSTOMER:
PHOENIX PROPERTY SERVICES
144 HUTCHINS RD
PORTLAND ME. 4101

WIDTH–STEEL–FAB–HSS–HSSDROP
40-320-220-12-0

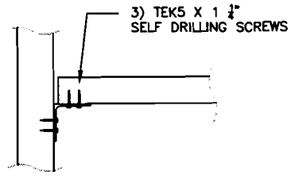
PROJECT ID: 40 - PHOENIX
SO/ORDER ID: SO# 1605

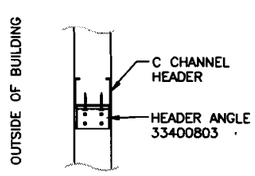
PROJECT:
ATLAS 18
40' x 48' - 12' o.c.
320 GM

DRAWING TITLE:
ENDWALL DETAILS

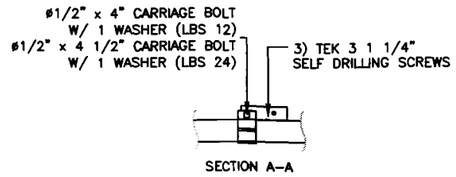
DRAWING: ED-1
TAB TITLE: 011

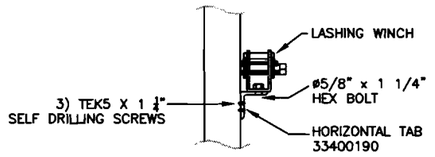
LICENCED PROFESSIONAL ENGINEER



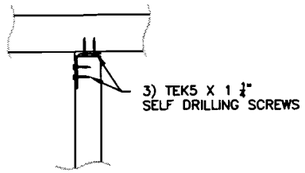


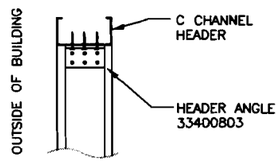
J ED-2 C-CHANNEL HEADER CONNECTION TO HSS WINDPOST/JAMB



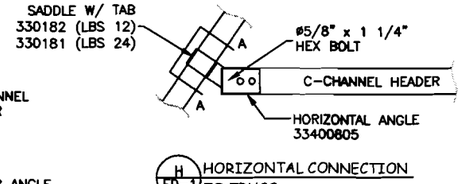


Q ED-2 LASHING WINCH CONNECTION TO HSS WINDPOST

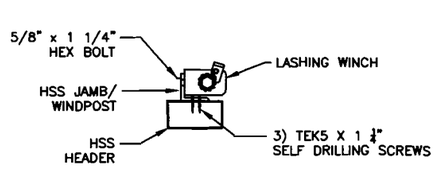




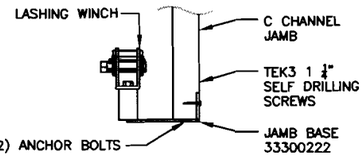
K ED-2 C-CHANNEL HEADER CONNECTION TO C-CHANNEL HEADER



H ED-1 HORIZONTAL CONNECTION TO TRUSS

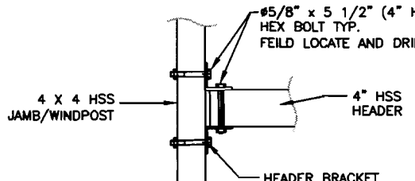


R ED-2 LASHING WINCH CONNECTION TO HSS HEADER

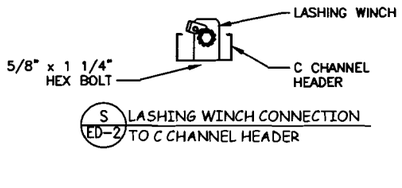


SEE BD – 1 BASEPLATE FOR DETAIL

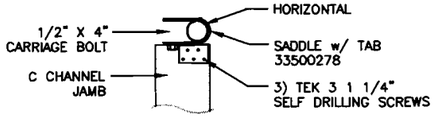
L ED-2 C-CHANNEL JAMB BASE CONNECTION



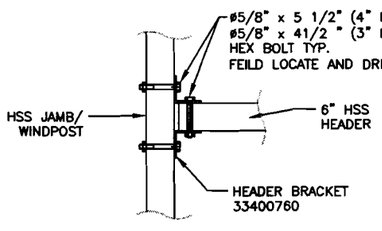
O ED-2 4"x4" HSS HEADER CONNECTION TO JAMB



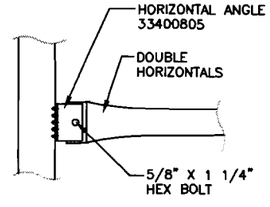
S ED-2 LASHING WINCH CONNECTION TO C CHANNEL HEADER

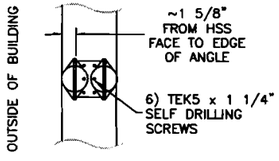


M ED-2 C-CHANNEL JAMB CONNECTION TO HORIZONTAL



P ED-2 3"x6" HSS HEADER CONNECTION TO JAMB





T ED-2 DOUBLE VENT HORIZONTAL CONNECTION TO HSS WINDPOST

BRITESPAN
BUILDING SYSTEMS INC.
37651 Amberley Road
Lucknow, ON, Canada
N0G 2H0
PH: 1-519-528-2922
FAX: 1-519-528-2890

DETAILER:	DWG REV	REVISED BY: DESCRIPTION	DATE
DS	1	PREPARED FOR STRUCTURAL REVIEW	11/23/11

DEALER
THE AUTUMN BREEZE GROUP
P.O. BOX 94
FAIRLEE, VT. 05045

CUSTOMER:
PHOENIX PROPERTY SERVICES
144 HUTCHINS RD
PORTLAND ME. 4101

WIDTH-STEEL-FAB-HSS-HSSDROP
40-320-220-12-0

PROJECT ID:	SO/ORDER ID:
40 - PHOENIX	SO# 1605

PROJECT:
ATLAS 18
40' x 48' - 12' o.c.
320 GM

DRAWING TITLE:
ENDWALL DETAILS

DRAWING:	TAB TITLE:
ED-2	012

LICENCED PROFESSIONAL ENGINEER

GENERAL NOTES

1. THE PURPOSE OF THIS PLAN IS TO PROVIDE DETAILS FOR THE CONSTRUCTION OF A NEW SINGLE-LEVEL SALT STORAGE STRUCTURE LOCATED AT 144 HUTCHINS DRIVE PORTLAND, ME.

2. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF ALL APPLICABLE STATE AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO:

2009 INTERNATIONAL BUILDING CODE (IBC)
ANSI / ASCE 7-05
ACI 318-05 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"
ACI 301-05 "SPECIFICATIONS FOR STRUCTURAL CONCRETE"
AISC STEEL CONSTRUCTION MANUAL
ANSI / AF&PA NDS-97
TMS 402-08 / ACI 530-08 / ASCE 5-08 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES"
TMS 602-08 / ACI 530.1-08 / ASCE 6-08 "SPECIFICATION FOR MASONRY STRUCTURES"
ANSI/TPI 1-2007 "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION"

ANY DISCREPANCIES BETWEEN THE ABOVE LISTED CODES AND THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.

3. ALL WORK SHALL BE PERFORMED BY PERSONS QUALIFIED IN THEIR TRADE AND LICENSED TO PRACTICE SUCH TRADE IN THE STATE IN WHICH THE PROJECT IS LOCATED.

4. THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH ANY ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS IN ADDITION TO SPECIFICATIONS AND ANY SHOP DRAWINGS PROVIDED BY SUBCONTRACTORS AND SUPPLIERS.

5. ALL DIMENSIONS, ELEVATIONS, AND CONDITIONS SHALL BE VERIFIED IN THE FIELD BY THE GENERAL CONTRACTOR (G.C.) AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION BEFORE PROCEEDING WITH THE AFFECTED PART OF WORK.

6. UNLESS OTHERWISE NOTED, DETAILS, SECTIONS, AND NOTES SHOWN ON THESE DRAWINGS SHALL BE CONSIDERED TYPICAL FOR ALL SIMILAR DETAILS.

7. THESE DRAWINGS DO NOT SHOW SIZE, LOCATION, OR TYPE OF OPENINGS IN THE FOUNDATION SYSTEM FOR ELECTRICAL, PLUMBING, OR MECHANICAL EQUIPMENT. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING OF THESE ITEMS.

8. ALL SHOP DRAWINGS PROVIDED BY OTHERS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO THE FABRICATION OF MATERIAL OR THE PURCHASE OF NON-RETURNABLE STOCK. QUANTITY AND DIMENSIONAL REVIEW IS THE CONTRACTOR'S RESPONSIBILITY.

9. ANY AND ALL TEMPORARY BRACING OR SHORING WHICH IS NEEDED TO HOLD THE STRUCTURE IN A SAFE AND STABLE POSITION UNTIL THE BUILDING IS COMPLETE, IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. CONSULT INDEPENDENT ENGINEER IF DESIGN ASSISTANCE OR REVIEW IS NEEDED.

FOUNDATION NOTES

1. A MAXIMUM ALLOWABLE SOIL PRESSURE OF 1,500 PSF WAS USED FOR THE DESIGN OF ALL FOOTINGS.

2. BACKFILL FOR FOOTINGS AND WALLS SHALL BE FREE DRAINING GRANULAR MATERIAL.

3. FOOTINGS SHALL BE PLACED ON NATURAL UNDISTURBED SOIL OR COMPACTED STRUCTURAL FILL. LEDGE, LARGE ROCKS AND SOFT AREAS OR UNDESIRABLE MATERIAL BELOW FOOTINGS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL. FOOTINGS IN EXCAVATIONS OF LEDGE SHALL BE PLACED ON A MINIMUM OF 2' OF STRUCTURAL FILL.

4. STRUCTURAL FILL SHALL BE PLACED IN 6 INCH LIFTS AND COMPACTED TO A MINIMUM 95% MODIFIED PROCTOR PER ASTM D1557. STRUCTURAL FILL SHALL BE A CLEAN, WELL GRADED SAND AND GRAVEL MIXTURE MEETING THE FOLLOWING GRADATION:

SCREEN OR SIEVE SIZE	PERCENT PASSING
6 INCHES	100
3 INCHES	70 – 100
NO. 4	35 – 70
NO. 40	5 – 35
NO. 200	0 – 5

5. FOOTINGS SHALL NOT BE PLACED ON FROZEN GROUND AND AND EXCAVATIONS SHALL BE FREE OF WATER.

6. THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 24" BELOW FINISH EXTERIOR GRADE.

7. FOOTING AND WALL ELEVATIONS ARE BASED ON A FIRST FLOOR ELEVATION OF 0'-0"

STRUCTURAL DESIGN CRITERIA

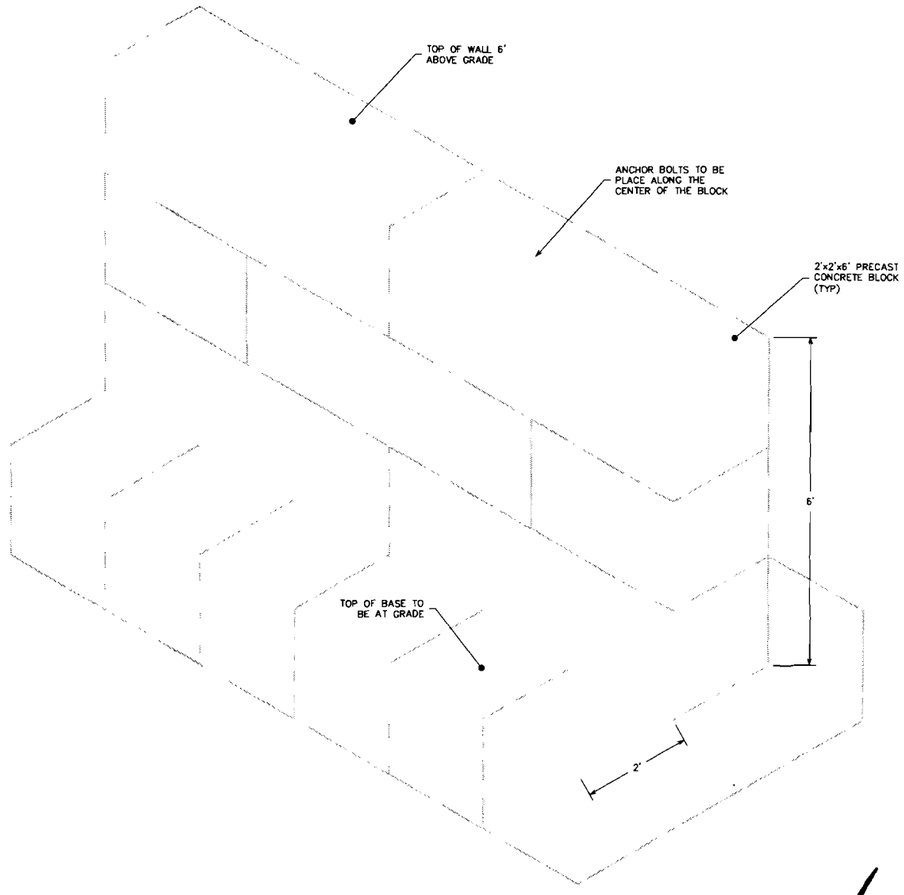
1. BUILDING CODE USED FOR DESIGN IS THE 2009 INTERNATIONAL BUILDING CODE (IBC).

2. SNOW LOAD:
GROUND SNOW LOAD, Pg = 50 PSF
IMPORTANCE FACTOR, I = 0.8
EXPOSURE FACTOR, Ce = 0.9
THERMAL FACTOR, Ct=1.2

3. WIND LOAD:
BASIC WIND SPEED, V = 100 MPH
IMPORTANCE FACTOR, I = 0.87
EXPOSURE CATEGORY (MAIN WIND FORCE RESISTING SYSTEM) = C
EXPOSURE CATEGORY (COMPONENTS AND CLADDING) = C

4. SEISMIC LOAD:
SEISMIC IMPORTANCE FACTOR = 1.0
SITE CLASS = E
SPECTRAL RESPONSE COEFFICIENTS, Ss = 0.35, S1 = 0.077
SEISMIC DESIGN CATEGORY = D

INDEX OF SHEETS



ISOMETRIC VIEW
SCALE 1/4" = 1'

PDF✓

COVER SHEET AND STRUCTURAL NOTES

PRELIMINARY
BID SET - NOT FOR CONSTRUCTION

S-1

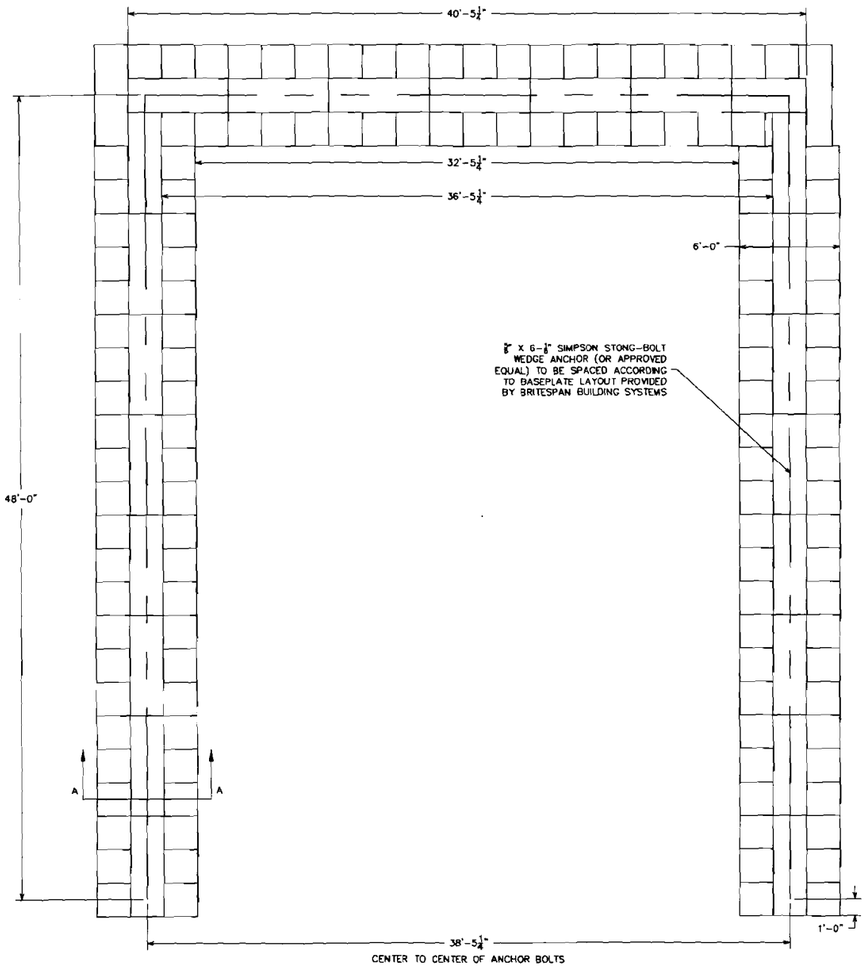
SALT SHED FOUNDATION
144 HUTCHINS DRIVE
PORTLAND, MAINE

FOR: PHOENIX PROPERTY SERVICES
PO BOX 759
SACO, ME 04072-5118

NO.	DESCRIPTION	DATE
A.	ADDED SHEET C-1 TO INDEX.	10/22/09
	REVISIONS	

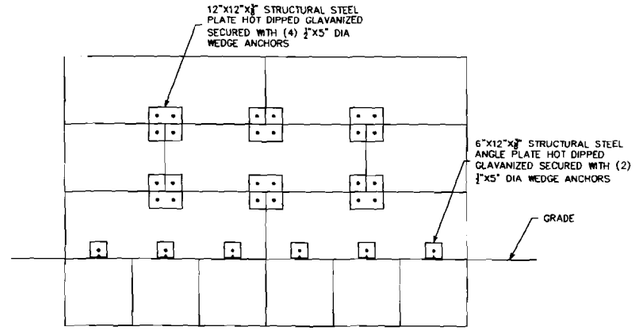
ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE
1284 STATE ROAD – ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

SCALE:	APPROVED BY:	DRAWN BY:
AS NOTED		CLS
DATE: 12/15/11		REVISION : DATE – : –
JOB NO: C010-11	CAD FILE: HUTCHINS BASE	SHEET 1 OF 2



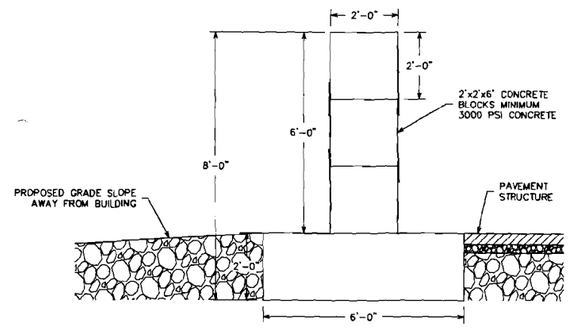
PLAN VIEW

SCALE: 1/4" = 1'



PLAN VIEW

SCALE: 1/2" = 1'



SECTION VIEW A-A

SCALE: 1/2" = 1'

FOUNDATION PLAN AND DETAILS

PRELIMINARY
BID SET - NOT FOR CONSTRUCTION

S-1

SALT SHED FOUNDATION
144 HUTCHINS DRIVE
PORTLAND, MAINE

FOR: PHOENIX PROPERTY SERVICES
PO BOX 759
SACO, ME 04072-5118

NO.	DESCRIPTION REVISIONS	DATE

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE
1284 STATE ROAD - ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

SCALE: AS NOTED	APPROVED BY:	DRAWN BY: CLS
DATE: 11/18/11		REVISION : DATE - : -
JOB NO: C010-11	CAD FILE: HUTCHINS BASE	SHEET 2 OF 2

Final Report of Special Inspections

New Building for Phoenix Property Management

Portland, Maine

July 27, 2012

Prepared By:

M^2 Structural Engineering, P.C.
23 Thornbury Way
Windham, ME 04062

Project No. 11128

Structural Statement of Special Inspections (Continued)

Final Report of Special Inspections (SSIC/SI 1)

[To be completed by the Structural Special Inspections Coordinator (SSIC/SI 1). Note that all Agent's Final Reports must be received prior to issuance.]

Project: *New Building for Phoenix Property Management*
Location: *Hutchins Road, Portland, ME*
Owner: *Phoenix Property Management*
Owner's Address: *PO Box 759*
Saco, Maine 04072

Architect of Record: *N/A* (name) *N/A* (firm)

Structural Registered Design Professional in Responsible Charge: *Various* (name) (firm)

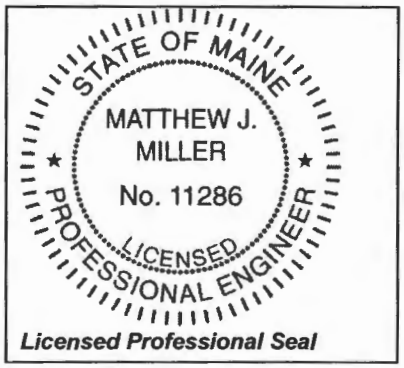
To the best of my information, knowledge and belief, the Special Inspections required for this project, and itemized in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved except as follows:

The SI team was not notified of a concrete placement for the foundation walls, and therefore cylinders for testing of the concrete were not cast. It was discussed that cores would be taken from the in place concrete for testing. M^2 SE was not notified of the results of the core samples.

Respectfully submitted,
Structural Special Inspection Coordinator

Matthew J. Miller, P.E.
(Type or print name)
M^2 Structural Engineering, P.C.
(Firm Name)

Signature 07/27/2012 Date



Licensed Professional Seal

Structural Statement of Special Inspections (Continued)

Special Inspector's/Agent's Final Report

Project: *New Building for Phoenix Property Management*

Special Inspector or Agent: Roger Domingo (*name*) S.W. COLE ENGINEERING, INC. (*firm*)

Designation:

To the best of my information, knowledge and belief, the Special Inspections or testing required for this project, and designated for this Inspector/Agent in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved.

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

Respectfully submitted,
Special Inspector or Agent:

Roger Domingo

(Type or print name)

Signature

7/25/2012

Date

Licensed Professional Seal or
Certification Number

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: Phoenix Property Management – Maintenance Building

Fabricator's Name: Corle

Address: 114 Rosemont Lane, Imler PA 16655

Certification or Approval Agency:

Certification Number:

Date of Last Audit or Approval:

Description of structural members and assemblies that have been fabricated:

Pre-Manufactured Metal Building System

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

Signature

07-25-12
Date

ENGINEERING MANAGER
Title

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

International Accreditation Service

CERTIFICATE OF ACCREDITATION

This is to signify that

CORLE BUILDING SYSTEMS, INC.
404 SARAH FURNACE ROAD
IMLER, PENNSYLVANA 16655

Inspection Program for the Manufacture of Metal Building Systems MB-146

has demonstrated that its in-plant inspection program for Part A-Fabrication of Structural Weldments and Cold-formed Products Requiring Welding, Part B-Fabrication of Cold-formed Products Not Requiring Welding, and Part C-Design of Metal Building Systems is in compliance with the International Accreditation Service, Inc., Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems (AC472) and is recognized under Section 1704.2.5.2 of the 2012 *International Building Code®*, and Section 1704.2.2 of earlier code editions, commencing March 1, 2012; expiring February 28, 2013.

Fabrication inspection procedures covered by this certificate are conducted in accordance with the fabricator's approved quality control manual. Periodic plant inspections are conducted by Farabaugh Engineering and Testing Inc. (AA-715), at 404 Sarah Furnace Road, Imler, Pennsylvania, to monitor the fabricator's quality management system verifying continual compliance with the requirements as listed in the above scope of accreditation. Accreditation is limited to the specified inspections related to the fabrication processes and procedures only. Accreditation does not cover the product, or the design or performance characteristics of the fabricated product.

Patrick V. McCullen
Vice President

IAS
ACCREDITED

C. P. Ramani, P.E.
President

Print Date: 04/04/2012

This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation. See the IAS Accreditation Listings on the web at www.icsonline.org for current accreditation information, or contact IAS directly at (562) 364-8201.

11-04576

M² Structural Engineering P.C.
23 Thornbury Way, Windham, ME 04062
(207) 892-0983

SPECIAL INSPECTIONS
FIELD REPORT

Report No. 03-001

Date:	December 22, 2011
Project:	Phoenix Property Management – Hutchins Drive, Portland, ME
Project Number:	11128
Time at Site:	2:00 pm – 2:30 pm
Weather:	Sunny, High 40's °F
Present at Site:	Matthew J. Miller, P.E. (M2SE)

Area(s) of Observations:

- Foundation walls and piers along Line F from 1 - 6

Observations:

1. The reinforcing steel and formwork for the walls and piers had been installed at the above referenced locations. Due to the height of the forms observations along the entire length of the wall was not possible. Observations were made at each pier location. At these locations the size, spacings, and clear cover distances were found to be in general conformance with the contract documents.
2. It was noted and discussed with Randy of Randy Concrete that the anchor rods had not been installed. M2SE notified Randy that in accordance with General Note 7 on the foundation drawings that the anchor rods are to be set and leveled prior to concrete placement. The anchor rods were in the process of being set and leveled in the pier at 6/F while M2SE was on site. A concrete truck had arrived while M2SE was on site. M2SE did not verify the installation of the anchor rods at other pier locations.
3. The concrete for this placement was supplied through Auburn Concrete. The batch ticket indicated that the concrete was a 3000 psi, air entrained concrete mix with ¾" aggregate. Testing of the concrete was not performed since neither M2SE nor S.W. Cole Engineering was notified of the placement. **Required testing in accordance with the Statement of Special Inspections for this placement was not completed.**
4. Based on observations made by M2SE and our discussions with Roger Domingo of S.W. Cole, the soil material at the foundation bearing elevations appeared to be primarily clay. In accordance with chapter 18 of the 2009 International Building code, the presumptive bearing capacity for this material would be approximately

1500 psf. In accordance with General Note #3 on the Foundation Plan prepared by Theodore Greenlaw, the foundation was designed based on a soil bearing capacity of 2500 psf. **The suitability of the foundation design for the actual site conditions should be verified by the Engineer of Record (EOR).**

Non-Conformance Items:

1. Refer to item 3 above: Concrete testing for this placement was not completed. EOR shall provide direction on in-situ concrete testing or shall determine whether an exception to this concrete testing in accordance with Section 1704.4 of the 2009 International Building Code may be applied.

2. Refer to item 4 above: The presumptive bearing capacity in accordance with the 2009 International Building Code for bearing on clay is less than the bearing capacity used in the design of the foundation. The EOR shall verify the adequacy of the foundation design or provide alternate foundation details.

M² Structural Engineering P.C.
23 Thornbury Way, Windham, ME 04062
(207) 892-0983

SPECIAL INSPECTIONS
FIELD REPORT

Report No. 03-002

Date:	December 29, 2011
Project:	Phoenix Property Management – Hutchins Drive, Portland, ME
Project Number:	11128
Time at Site:	12:00 pm – 12:30 pm
Weather:	Sunny, Low 30's °F
Present at Site:	Matthew J. Miller, P.E. (M2SE)

Area(s) of Observations:

- Foundation walls along Line 1 and Line A from 1-2

Observations:

1. The reinforcing steel and formwork for the walls and piers had been installed at the above referenced locations. The size, spacing and location of the reinforcing steel for the walls were observed and were in conformance with the contract documents. The pier reinforcing could not be verified since the forms had been erected and the anchor rods had been set in templates which covered the entire pier therefore blocking access to these locations.

Non-Conformance Items:

No non-conformance items were noted during this visit.

M² Structural Engineering P.C.
23 Thornbury Way, Windham, ME 04062
(207) 892-0983

SPECIAL INSPECTIONS
FIELD REPORT

Report No. 03-003

Date:	February 7, 2012
Project:	Phoenix Property Management – Hutchins Drive, Portland, ME
Project Number:	11128
Time at Site:	1:45 pm – 2:15 pm
Weather:	Cloudy, Upper 30's °F
Present at Site:	Matthew J. Miller, P.E. (M2SE)

Area(s) of Observations:

- Salt Storage Shed foundations

Observations:

1. Installation of the reinforcing steel for the salt storage shed was in progress, with the majority of the footing reinforcing installed. The sizes and spacing of the reinforcing was observed and was in general conformance with the contract documents.
2. Several areas were noted where the clear cover at the bottom of the footing was not in conformance. M2SE notified Randy of Randy's Concrete. M2SE was informed that they were having some concrete bricks delivered to support the bars.
3. Installation of the wall dowels for the exterior mat had just started while we were on site. The spacing of the bars was observed to be in conformance with the contract documents.
4. Several isolated areas were noted where standing water was present at the bottom of the footing. M2SE was informed that the water would be pumped out prior to concrete placement.

Non-Conformance Items:

No non-conformance items were noted during this visit.

M² Structural Engineering P.C.
23 Thornbury Way, Windham, ME 04062
(207) 892-0983

SPECIAL INSPECTIONS
FIELD REPORT

Report No. 05-001

Date:	December 29, 2011
Project:	Phoenix Property Management – Hutchins Drive, Portland, ME
Project Number:	11128
Time at Site:	10:15 am – 11:00 am
Weather:	Sunny, Low 30's °F
Present at Site:	Matthew J. Miller, P.E. (M2SE)

Area(s) of Observations:

- Metal Building Framing

Observations:

1. The erection of the primary framing for the metal building was substantially complete. Seacoast Crane and Building Co. was on site continuing to install the light gage eave and rake framing.
2. M2SE reviewed the sizes, spacings and details of the framing members. Physical measurements were limited to the members that were accessible from the ground level. The sizes of members at higher elevations were estimated. Based on our review, the building was in conformance with the contract documents.
3. Final installation of the lateral system, including tightening of the cable bracing and anchor rods had not been completed to date.

Non-Conformance Items:

No non-conformance items were noted during this visit.

M² Structural Engineering P.C.
23 Thornbury Way, Windham, ME 04062
(207) 892-0983

SPECIAL INSPECTIONS FIELD REPORT

Report No. 05-002

Date:	February 3, 2011
Project:	Phoenix Property Management – Hutchins Drive, Portland, ME
Project Number:	11128
Time at Site:	8:45 am – 9:15 am
Weather:	Sunny, mid 20's °F
Present at Site:	Matthew J. Miller, P.E. (M2SE)

Area(s) of Observations:

- Metal Building Framing

Observations:

1. The erection of the primary framing for the metal building was significantly complete. Seacoast Crane and Building Co. was on site installing the roof insulation and decking. Approximately ½ of the roof had been decked over.
2. The siding on three side of the building had been installed.
3. Tightening of the cable bracing and anchor rods appeared to have been completed, although temporary cable bracing was still in place.
4. The nuts on the anchor rods at Line A/4 did not fully engage the anchor rods. The top of the anchor rod was approximately 1/4" below the top of the nut. The Engineer of Record should review this condition and provide direction as necessary.

Non-Conformance Items:

Refer to Item #4 above: The nuts on the anchor rods at Line A/4 did not fully engage the anchor rods.

STRUCTURAL ENGINEER OF RECORD (S.E.R.) RESPONSE: (Provide attachment(s) as required)

S.E.R. Signature: _____ **Date:** _____

Is re-inspection by Special Inspector required?	**Yes** ☐	**No** ☐

CONTRACTOR VERIFICATION: (To be completed by either the General Contractor or sub-contractor responsible for portion of work in non-conformance and returned to the Special Inspector and Structural Engineer of Record)

I verify, that as of the date listed below, that the non-conforming item(s) noted above has (have) been corrected as required.

Date Completed: _____ By: _____
(Signed)

_____
(Print name)

_____
(Company)

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing **Project Number:** 11-1295

Client Contract Number:

Client: Phoenix Management

General Contractor:

Concrete Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast: 12/20/2011 **Time Cast:** 13:15 **Date Received:** 12/21/2011

Placement Location: SIDE C & D FOOTINGS

Placement Method: REAR DISCHARGE

Cylinders Made By: ERIK COHENOUR

Placement Vol. (yd³):

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: HOT WATER
MID RANGE
POZZUTEC 20 1%
AIR ENTRAINER

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 6.5

Air Content (%) (C-231): **Air WR:** 7.0

Air Temp (°F): 35

Conc. Temp (°F) (C-1064): 65

Load Number: 2

Mixer Number: 78

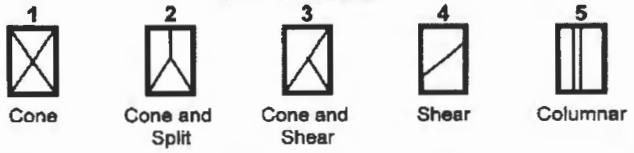
Ticket Number 197891

Cubic Yards: 10

Design (psi): 3000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
346-1A		4.00	12.57	12/27/2011	Lab	7	4	43.5	3460
346-1B		4.00	12.57	1/17/2012	Lab	28	4	53.0	4220
346-1C		4.00	12.57	1/17/2012	Lab	28	4	49.4	3930
346-1D				Hold	Lab				

Fracture Types



Remarks:

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S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing **Project Number:** 11-1295

Client Contract Number:

Client: Phoenix Management

General Contractor:

Concrete Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast: 12/28/2011 **Time Cast:** 3:11 **Date Received:** 12/29/2011

Placement Location: FRONT WALL - FOOTING

Placement Method: TAILGATE

Cylinders Made By: CHRISTOPHER HENES

Placement Vol. (yd³): 10

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: POZZUTEC

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 5

Air Content (%) (C-231): **Air WR:** 7.8

Air Temp (°F): 47

Conc. Temp (°F) (C-1064): 71

Load Number: 1

Mixer Number: 86

Ticket Number 197997

Cubic Yards: 10

Design (psi): **3000**

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
346-2A		4.00	12.57	1/4/2012	Lab	**7**	4	51.3	**4080**
346-2B		4.00	12.57	1/25/2012	Lab	**28**	4	59.4	**4730**
346-2C		4.00	12.57	1/25/2012	Lab	**28**	4	57.0	**4540**
346-2D				Hold	Lab				

Fracture Types

Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing

Project Number: 11-1295

Client: Phoenix Management

Client Contract Number:

General Contractor:

Concrete Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast: 12/29/2011 **Time Cast:**

Date Received: 12/30/2011

Placement Location: NORTH & EAST WALLS

Placement Method: REAR DISCHARGE

Cylinders Made By: ERIK COHENOUR

Placement Vol. (yd³): 15

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: HOT WATER
GLENIUM 7500
MICRO AIR
POZZ 20 1%

TEST RESULTS

Slump (In) (C-143): 5

Air Content (%) (C-231): 6.5 **Air WR:** 60

Air Temp (°F): 13

Conc. Temp (°F) (C-1064): 32

Load Number: 1

Mixer Number: 99

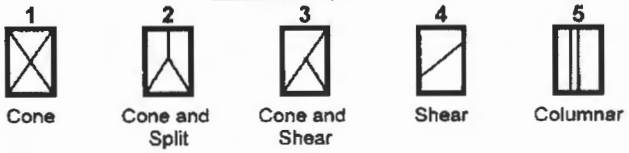
Ticket Number 198020

Cubic Yards: 7.55

Design (psi): **3000**

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
346-3A		4.00	12.57	1/5/2012	Lab	**7**	4	46.6	**3710**
346-3B		4.00	12.57	1/26/2012	Lab	**28**	4	66.8	**5320**
346-3C		4.00	12.57	1/26/2012	Lab	**28**	4	65.6	**5220**
346-3D				Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing **Project Number:** 11-1295

Client Contract Number:

Client: Phoenix Management

General Contractor:

Concrete Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast: 2/8/2012 **Time Cast:** 9:30 **Date Received:** 2/9/2012

Placement Location: SALT SHED FOOTING

Placement Method: TELEBELT

Cylinders Made By: ERIK COHENOUR

Placement Vol. (yd³): 73.5

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MICRO AIR
GLENIUM
POZZUTEC 20 1%

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 2.5

Air Content (%) (C-231): **Air WR:** 5.3

Air Temp (°F): 20

Conc. Temp (°F) (C-1064): 55

Load Number: 3

Mixer Number: 84

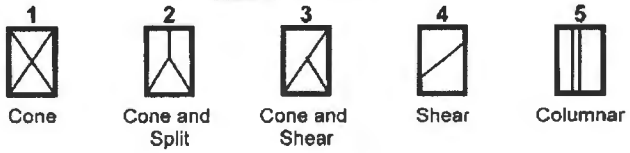
Ticket Number 191355

Cubic Yards: 10

Design (psi): **3000**

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
346-4A		4.00	12.57	2/15/2012	Lab	**7**	4	59.4	**4730**
346-4B		4.00	12.57	3/7/2012	Lab	**28**	4	69.6	**5540**
346-4C		4.00	12.57	3/7/2012	Lab	**28**	4	67.8	**5400**
346-4D				Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing **Project Number:** 11-1295

Client Contract Number:

Client: Phoenix Management

General Contractor:

Concrete Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast: 2/8/2012 **Time Cast:** 10:30 **Date Received:** 2/9/2012

Placement Location: SALT SHED FOOTING

Placement Method: TELEBELT

Cylinders Made By: ERIK COHENOUR

Placement Vol. (yd³): 73.5

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MICRO AIR
GLENIUM
POZZUTEC 20 1%

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 4.5

Air Content (%) (C-231): **Air WR:** 6.5

Air Temp (°F): 25

Conc. Temp (°F) (C-1064): 61

Load Number: 6

Mixer Number: 99

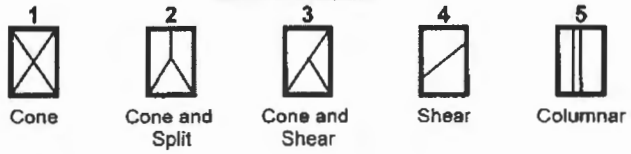
Ticket Number 191361

Cubic Yards: 10

Design (psi): **3000**

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
346-5A		4.00	12.57	2/15/2012	Lab	7	4	55.2	4390
346-5B		4.00	12.57	3/7/2012	Lab	28	4	63.5	5050
346-5C		4.00	12.57	3/7/2012	Lab	28	4	65.4	5210
346-5D				Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing **Project Number:** 11-1295

Client Contract Number:

Client: Phoenix Management

General Contractor:

Concrete Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast: 2/9/2012 **Time Cast:** 3:30 **Date Received:** 2/10/2012

Placement Location: SALT SHED WALLS

Placement Method: BELT

Cylinders Made By: CHRISTOPHER HENES

Placement Vol. (yd³): 42

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MICRO AIR
POZZUTEC
GLEN

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 3 3/4

Air Content (%) (C-231) **Air WR:** 62

Air Temp (°F): 43

Conc. Temp (°F) (C-1064): 69

Load Number: 4

Mixer Number: 86

Ticket Number 191405

Cubic Yards: 10.5

Design (psi): **3000**

Batch 2:49

Arrive 3:30

Depart 3:36

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
346-6A		4.00	12.57	2/16/2012	Lab	**7**	4	53.2	**4230**
346-6B		4.00	12.57	3/8/2012	Lab	**28**	4	57.4	**4570**
346-6C		4.00	12.57	3/8/2012	Lab	**28**	4	60.4	**4810**
346-6D				Hold	Lab				

Fracture Types

1 Cone both ends; 2 Cone one end w/ split; 3 Columnar; 4 Diagonal; 5 Side at top or bottom; 6 Pointed End

Remarks:

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S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing **Project Number:** 11-1295

Client Contract Number:

Client: Phoenix Management

General Contractor:

Concrete Supplier: F. R. CARROLL

PLACEMENT INFORMATION

Date Cast: 4/6/2012 **Time Cast:** 8:00 **Date Received:** 4/7/2012

Placement Location: 1ST FLOOR SLAB

Placement Method: PUMP

Cylinders Made By: JUSTIN BROWN

Placement Vol. (yd³): 130

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: FIBER
POZZUTEC
SUPER

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 6.5

Air Content (%) (C-231) **Air WR:** 2.7

Air Temp (°F): 42

Conc. Temp (°F) (C-1064): 60

Load Number: 15

Mixer Number: 15

Ticket Number 0026044

Cubic Yards: 10

Design (psi): 3000

Batch 7:00

Arrive 7:35

Depart 7:50

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
346-7A		4.00	12.57	4/13/2012	Lab	7	4	53.4	4250
346-7B		4.00	12.57	5/4/2012	Lab	28	4	78.6	6260
346-7C		4.00	12.57	5/4/2012	Lab	28	4	78.8	6270
346-7D				Hold	Lab				

Fracture Types

1 Cone both ends; 2 Cone one end w/ split; 3 Columnar; 4 Diagonal; 5 Side at top or bottom; 6 Pointed End

Remarks:

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S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing

Project Number: 11-1295

Client: Phoenix Management

Client Contract Number:

General Contractor:

Concrete Supplier: F. R. CARROLL

PLACEMENT INFORMATION

Date Cast: 4/6/2012 **Time Cast:** 8:45

Date Received: 4/7/2012

Placement Location: 1ST FLOOR SLAB

Placement Method: PUMP

Cylinders Made By: JUSTIN BROWN

Placement Vol. (yd³): 130

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: FIBER
POZZUTEC
SUPER

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 8

Air Content (%) (C-231) **Air WR:** 2.7

Air Temp (°F): 45

Conc. Temp (°F) (C-1064): 65

Load Number: 9

Mixer Number: 7

Ticket Number 0026048

Cubic Yards: 10

Design (psi): **3000**

Batch 7:45

Arrive 8:20

Depart

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
346-8A		4.00	12.57	4/13/2012	Lab	**7**	4	63.4	**5050**
346-8B		4.00	12.57	5/4/2012	Lab	**28**	4	89.6	**7130**
346-8C		4.00	12.57	5/4/2012	Lab	**28**	4	87.4	**6960**
346-8D				Hold	Lab				

Fracture Types

1 Cone both ends; 2 Cone one end w/ split; 3 Columnar; 4 Diagonal; 5 Side at top or bottom; 6 Pointed End

Remarks:

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S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing **Project Number:** 11-1295

Client Contract Number:

Client: Phoenix Management

General Contractor:

Concrete Supplier: F. R. CARROLL

PLACEMENT INFORMATION

Date Cast: 4/6/2012 **Time Cast:** 9:30 **Date Received:** 4/7/2012

Placement Location: 1ST FLOOR SLAB

Placement Method: PUMP

Cylinders Made By: JUSTIN BROWN

Placement Vol. (yd³): 130

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: FIBER
POZZUTEC
SUPER

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 7

Air Content (%) (C-231) **Air WR:** 3.0

Air Temp (°F): 48

Conc. Temp (°F) (C-1064): 64

Load Number: 12

Mixer Number: 17

Ticket Number 0026051

Cubic Yards: 10

Design (psi): **3000**

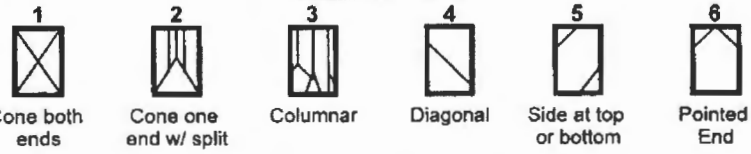
Batch 8:20

Arrive 8:55

Depart

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
346-9A		4.00	12.57	4/13/2012	Lab	**7**	4	61.8	**4920**
346-9B		4.00	12.57	5/4/2012	Lab	**28**	4	92.4	**7350**
346-9C		4.00	12.57	5/4/2012	Lab	**28**	4	92.8	**7390**
346-9D				Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Concrete Construction Observation Report

Project Name/Location:	144 Hutchins Drive – Portland	**Project No:**	11-1295
Client/Client's Rep.:	Phoenix Management	**Date:**	12-29-2011
Concrete Contractor:	Portland Builders	**Sheet:**	1 of 1
Placement Location:	North and East walls	**SWCE Rep.:**	EEC
Placement Type:	Footing ☐ Wall ☒ Column ☐ Slab ☐ Other ☐	**Arrived at Site:**	12:35
		Left Site:	14:15

PRE PLACEMENT OBSERVATIONS	**In Compliance**		**N/O**	**Comments**
Bar Size (diameter, length, bend and anchorage)	Yes ☒	No ☐	☐	Acceptable
Location (# of bars, spacing, and cover)	Yes ☒	No ☐	☐	
Splicing (weld joint, overlap)	Yes ☒	No ☐	☐	
Stability (wiring, chairs, and spacers)	Yes ☒	No ☐	☐	
Reinforcement free from mud, oil, rust, or other nonmetallic coatings	Yes ☒	No ☐	☐	
Reinforcement appears in conformance to specifications	Yes ☒	No ☐	☐	
Soil subgrade prepared in accordance with project specifications	Yes ☐	No ☐	☒	N/A

Referenced Drawings	**Date**	**Page**	**Rev.**	**ASTM**	**GRADE**
FOUNDATION REINF.	12-5-11	R01		A 615 ☒	40 ☐ 50 ☐ 60 ☒
				A 616 ☐	75 ☐
				A 617 ☐	
				A 706 ☐	A 775 Epoxy ☐

CONCRETE PLACEMENT OBSERVATIONS	**In Compliance**		**N/O**	**Comments**
Required mix used	Yes ☒	No. ☐	☐	3000psi
Placement and consolidation of concrete observed	Yes ☒	No. ☐	☐	
Concrete properly conveyed to all areas of placement	Yes ☒	No. ☐	☐	
Depth of layer maximum limits not exceeded	Yes ☒	No. ☐	☐	
Internal vibration (depth of insertion, spacing, time, vertical insertion, no conveyance of concrete by vibration)	Yes ☒	No. ☐	☐	
Even layering around openings and embedments	Yes ☐	No. ☐	☒	
Removal of temporary ties and spacers	Yes ☐	No. ☐	☒	

FIELD TESTING OF CONCRETE PERFORMED	Yes ☒	No ☐
***CYLINDER SET NO:** 346-3	←**refer to associated concrete test report*	

POST PLACEMENT OBSERVATIONS	**In Compliance**		**N/O**	**Comments**
Specified finish	Yes ☒	No. ☐	☐	Trowel
Protection of surfaces from cracking due to rapid drying	Yes ☐	No. ☐	☒	
Proper curing procedures implemented	Yes ☒	No. ☐	☐	Insulated blankets

NON-CONFORMANCE ITEMS OBSERVED	Yes ☐	No ☐
Non-Conformance Item Description:		
Action Taken by SWCE:		
Person(s) Notified:		

N/O = Not Observed

Notes:

Randy Concrete was placing concrete and rebar. Rebar appeared to be in general accordance with the Construction Drawings. Compression test specimens taken on first truck.

Attachments: None

Reviewed By: RED

S.W.COLE ENGINEERING, INC.

Report of Field Density
ASTM D6938

Project: **PORTLAND ME - 144 HUTCHINS DRIVE - MATERIALS TESTING** Project Number: **11-1295**

Client: **PHOENIX MANAGEMENT**

Field Density Test Results

Test #	Test Date	Tech	Test Location	Elev Feet	Test Depth	Lab ID	Dry Density	Moisture Content Percent	Compaction Percent	Required Compaction
1	12/28/2011	CMH	2' W & 10' N OF SE CORNER	95	12	14992G	116.4	5.3	99.0	95
2	12/28/2011	CMH	2' W & 30' N OF SE CORNER	95	12	14992G	112.1	14.5	95.3	95

Laboratory Compaction Test Reference

Lab ID	Date Received	Material Source	Material Type	Method	Max Dry Density	Optimum Moisture Content (%)	Comments
14992G	12/28/2011	On-site stockpile	Sand	ASTM D-1557 Modified A	117.6	12.4	

Elevation Notes:

Comments:

Reviewed By

S.W.COLE ENGINEERING, INC.

Report of Field Density
ASTM D6938

Project: **PORTLAND ME - 144 HUTCHINS DRIVE - MATERIALS TESTING** Project Number: **11-1295**

Client: **PHOENIX MANAGEMENT**

Field Density Test Results

Test #	Test Date	Tech	Test Location	Elev Feet	Test Depth	Lab ID	Dry Density	Moisture Content Percent	Compaction Percent	Required Compaction
3	1/4/2012	JSB	S WALL INTERIOR	58	12	14992G	112.8	2.8	95.9	95
4	1/4/2012	JSB	W WALL INTERIOR	58	12	14992G	112.2	2.3	95.4	95
5	1/4/2012	JSB	N WALL INTERIOR	58	12	14992G	112.9	3.3	96.0	95
6	1/4/2012	JSB	E WALL INTERIOR	58	12	14992G	111.8	2.5	95.1	95

Laboratory Compaction Test Reference

Lab ID	Date Received	Material Source	Material Type	Method	Max Dry Density	Optimum Moisture Content (%)	Comments
14992G	12/28/2011	On-site stockpile	Sand	ASTM D-1557 Modified A	117.6	12.4	

Elevation Notes:

Comments:

Reviewed By

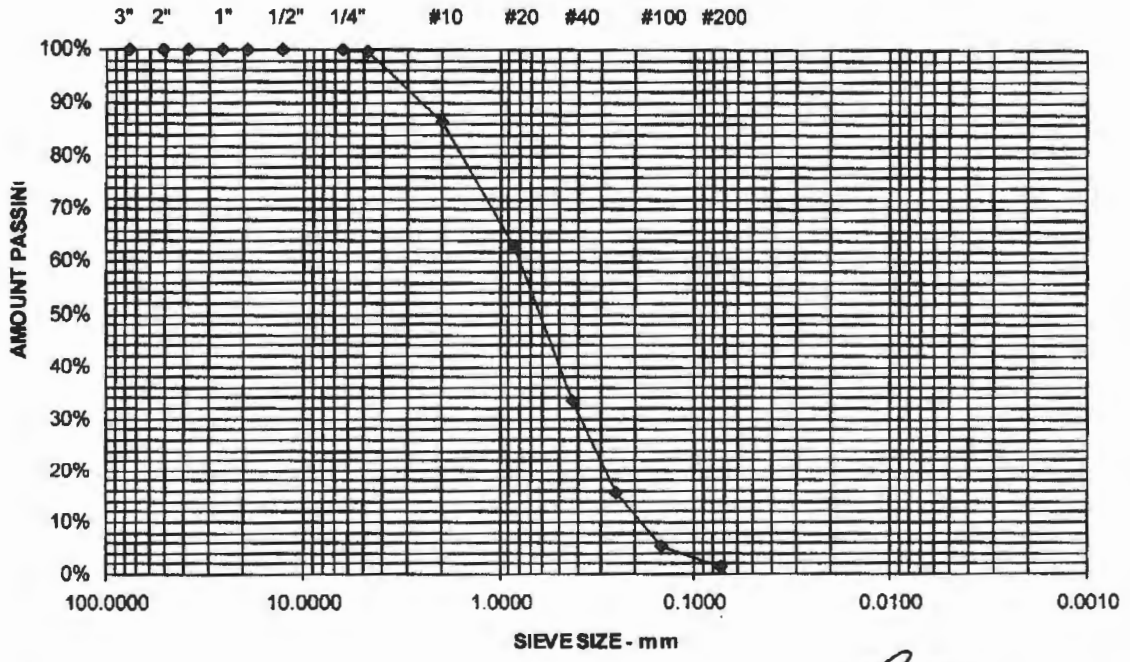
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	PORTLAND ME - 144 HUTCHINS DRIVE - MATERIALS TESTING	Project Number	11-1295
		Lab ID	14992G
Client	PHOENIX MANAGEMENT	Date Received	12/28/2011
Material Type	SAND	Date Completed	1/3/2012
Material Source	ON-SITE STOCKPILE	Tested By	ERIK COHENOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	SPECIFICATIONS (%)
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	
2.00 mm	No. 10	87	
850 um	No. 20	63	
425 um	No. 40	34	
250 um	No. 60	16	
150 um	No. 100	5	
75 um	No. 200	1.4	



Comments

Roger E. Domingo

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S.W.COLE ENGINEERING, INC.

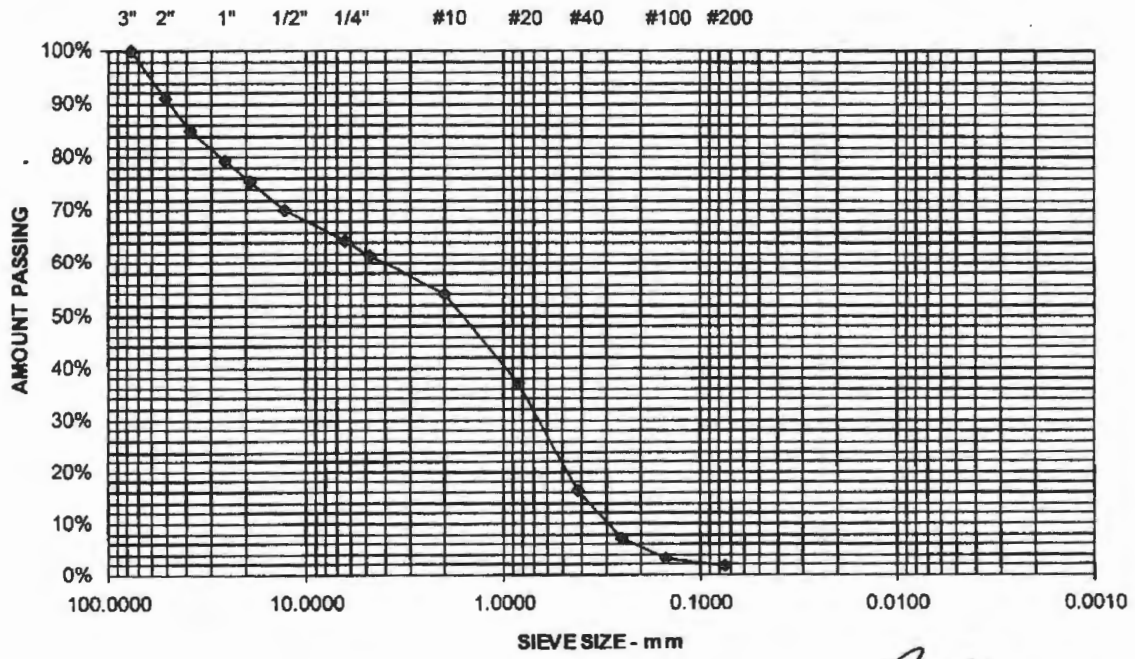
Report of Gradation

ASTM C-117 & C-136

Project Name	PORTLAND ME - 144 HUTCHINS DRIVE - MATERIALS TESTING	Project Number	11-1295
		Lab ID	14993G
Client	PHOENIX MANAGEMENT	Date Received	12/28/2011
Material Type	4" GRAVEL	Date Completed	1/4/2012
Material Source	ON-SITE STOCKPILE	Tested By	JUSTIN BISSON

STANDARD DESIGNATION (mm/um)	SIEVE SIZE	AMOUNT PASSING (%)	MDOT 703.06 TYPE D SPECIFICATIONS (%)
150 mm	6"	100	100
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	91	
38.1 mm	1-1/2"	85	
25.0 mm	1"	79	
19.0 mm	3/4"	75	
12.5 mm	1/2"	70	
6.3 mm	1/4"	64	25 - 70
4.75 mm	No. 4	62	
2.00 mm	No. 10	54	
850 um	No. 20	37	
425 um	No. 40	17	0 - 30
250 um	No. 60	7	
150 um	No. 100	3	
75 um	No. 200	1.8	0.0 - 7.0

SAMPLE MEETS SPECIFICATION



Comments

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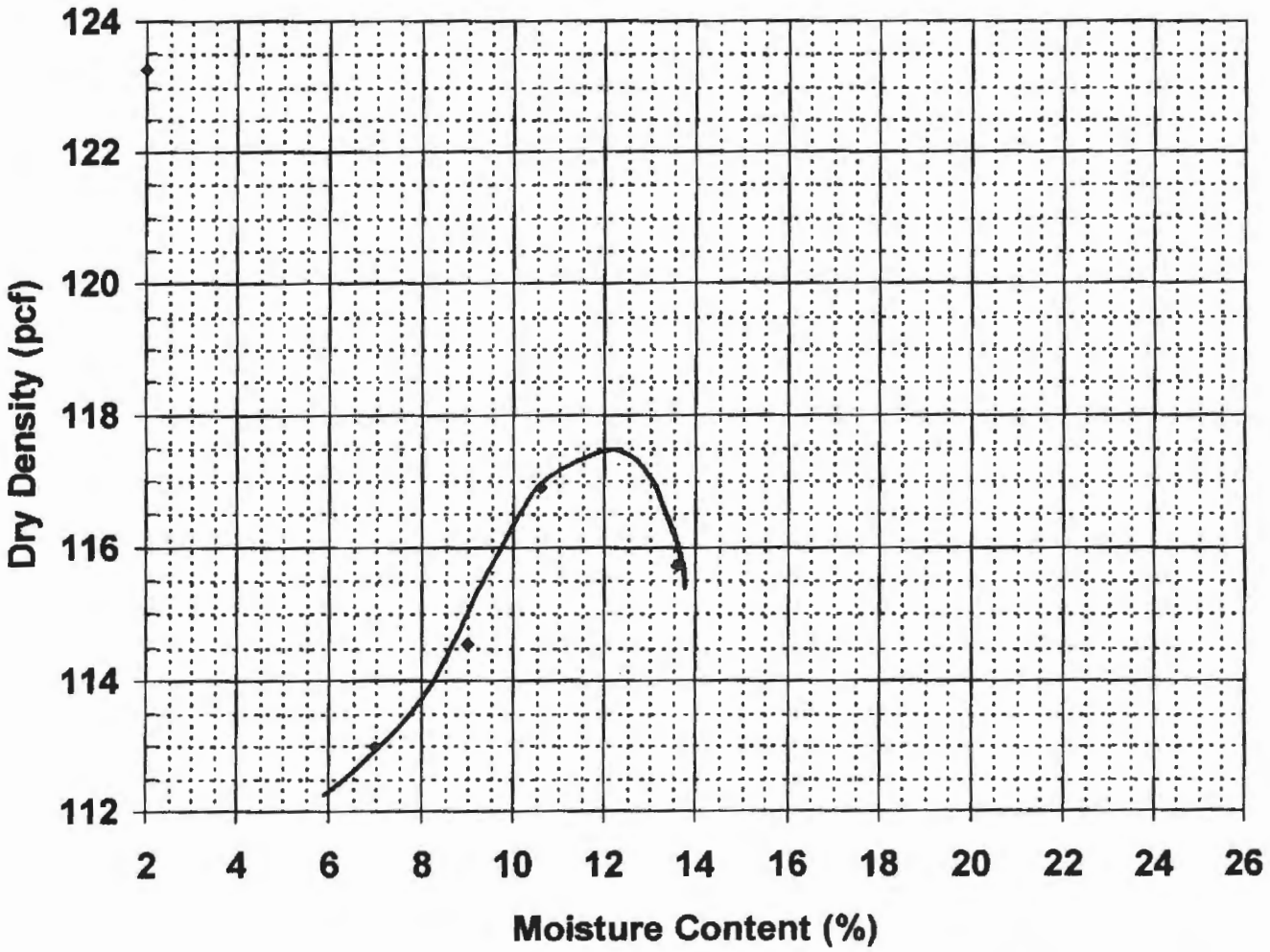
S.W.COLE ENGINEERING, INC.

Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure A

Project Name	PORTLAND ME - 144 HUTCHINS DRIVE - MATERIALS TESTING	Project Number	11-1295
		Lab ID	14992G
Client	PHOENIX MANAGEMENT	Date Received	12/28/2011
Material Type	SAND	Date Completed	1/3/2012
Material Source	ON-SITE STOCKPILE	Tested By	ERIK COHENOUR

Moisture-Density Relationship Curve



Maximum Dry Density (pcf)	117.5
Optimum Moisture Content (%)	12.4
Percent Oversized	0.2%

Corrected Dry Density (pcf)	**117.6**
Corrected Moisture Content (%)	**12.4**

Comments

Roger E. Domingo

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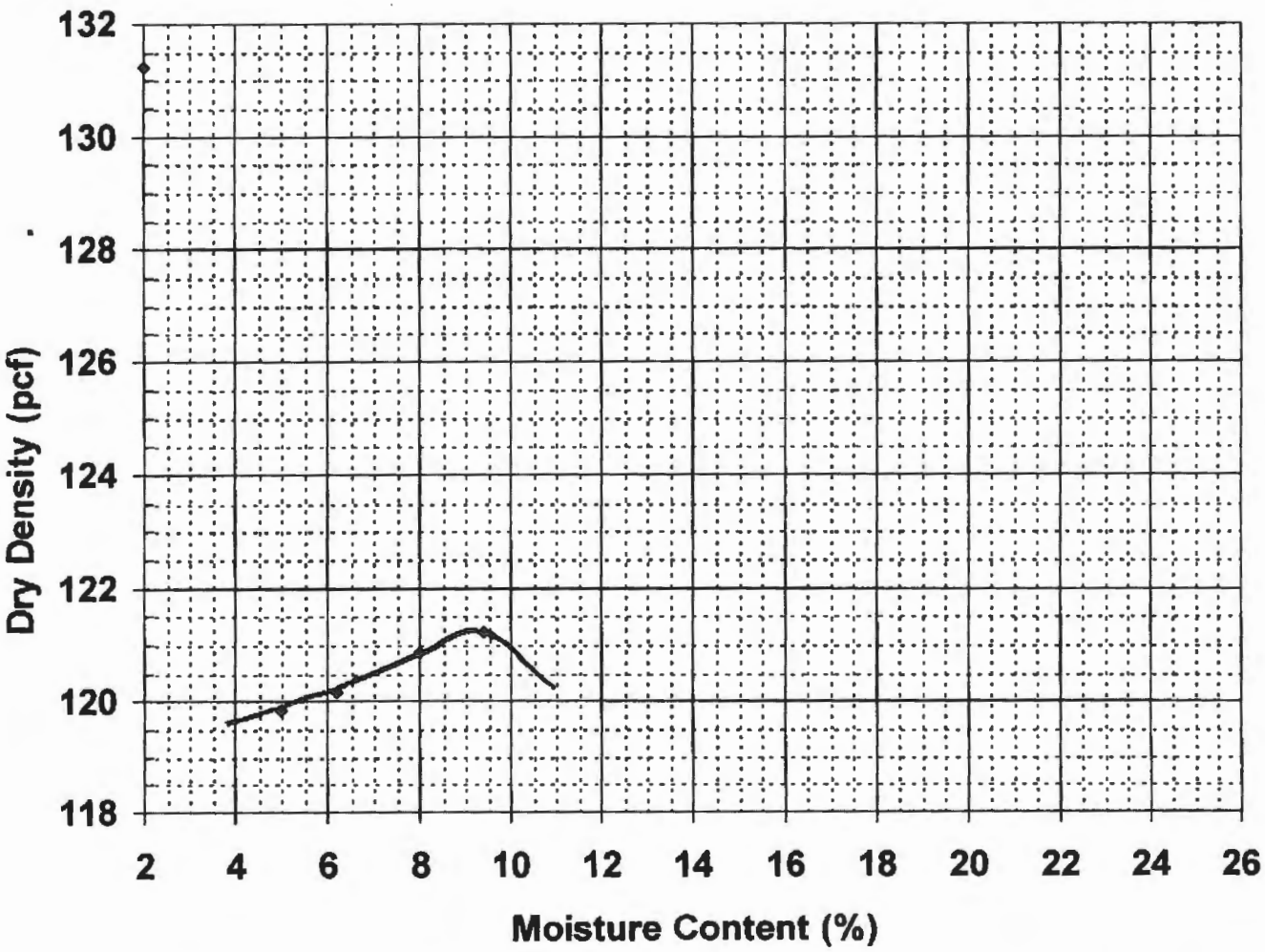
S.W.COLE ENGINEERING, INC.

Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure C

Project Name	PORTLAND ME - 144 HUTCHINS DRIVE - MATERIALS TESTING	Project Number	11-1295
		Lab ID	14993G
Client	PHOENIX MANAGEMENT	Date Received	12/28/2011
Material Type	4" GRAVEL	Date Completed	1/4/2012
Material Source	ON-SITE STOCKPILE	Tested By	ERIK COHENOUR

Moisture-Density Relationship Curve



Maximum Dry Density (pcf)	121.3
Optimum Moisture Content (%)	9
Percent Oversized	24.5%

Corrected Dry Density (pcf)	128.5
Corrected Moisture Content (%)	7.3

Comments

Roger E. Domingo

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COM*check* Software Version 3.9.0
Envelope Compliance Certificate

2009 IECC

Section 1: Project Information

Project Type: **New Construction**
Project Title : Pheonix Management

Construction Site:
Hutchins Drive
Portland, ME 04101

Owner/Agent:
Pheonix Management, LLC
P.O. Box 759
Saco, ME 04072

Designer/Contractor:
William Belanger
Seacoast Crane & Building Co., Inc
98 Route 236
P.O. Box 540
Kittery, ME 03904
207-439-5899

Section 2: General Information

Building Location (for weather data):	**Portland, Maine**
Climate Zone:	**6a**
Building Type for Envelope Requirements:	**Non-Residential**
Vertical Glazing / Wall Area Pct.:	**0%**

Activity Type(s)	Floor Area
Warehouse	7000

RECEIVED
AUG 17 2012
Dept. of Building Inspections
City of Portland Maine

Section 3: Requirements Checklist

Envelope PASSES: Design 15% 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(a)
Roof 1: Metal Building, Screw Down	7726	25.0	10.0	0.057	0.049
Exterior Wall 1: Metal Building Wall	4325	19.0	0.0	0.070	0.069
Window 1: Metal Frame with Thermal Break:Double Pane, Clear, SHGC 0.67	20	---	---	0.480	0.550
Entry Doors: Insulated Metal, Swinging	63	---	---	0.140	0.700
Overhead Doors: Insulated Metal, Swinging	868	---	---	0.070	0.700

(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. No roof insulation is installed on a suspended ceiling with removable ceiling panels.
- ☐ 5. 'Other' components have supporting documentation for proposed U-Factors.
- ☐ 6. 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.
- ☐ 7. Stair, elevator shaft vents, and other outdoor air intake and exhaust openings in the building envelope are equipped with motorized dampers.
- ☐ 8. Cargo doors and loading dock doors are weather sealed.

☐ 9. Recessed lighting fixtures installed in the building envelope are Type IC rated as meeting ASTM E283, are sealed with gasket or caulk.

☐ 10. Building entrance doors have a vestibule equipped with self-closing devices.
Exceptions:

- ☐ Building entrances with revolving doors.
- ☐ Doors not intended to be used as a building entrance.
- ☐ Doors that open directly from a space less than 3000 sq. ft. in area.
- ☐ Doors used primarily to facilitate vehicular movement or materials handling and adjacent personnel doors.
- ☐ Doors opening directly from a sleeping/dwelling unit.

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 2009 IECC requirements in COM*check* Version 3.9.0 and to comply with the mandatory requirements in the Requirements Checklist.

William J. Belanger III, PM — Name - Title

Signature

8-17-2012 — Date

Memorandum
Department of Planning and Development
Planning Division

TO: Inspections Department

FROM: Philip DiPierro, Development Review Coordinator

DATE: October 16, 2012

RE: C. of O. for # 144 Hutchins Drive, Maintenance Facility (Id#2011-287) (CBL 112 H 001001)

After visiting the site, I have the following comments:

Site work complete:

At this time, **I recommend issuing a permanent Certificate of Occupancy.**

Cc: Tammy Munson, Inspection Services Manager
Barbara Barhydt, Development Review Services Manager
File: 1 Solution