

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND BUILDING PERMIT

This is to certify that: Central Maine Power

Located At 116 BISHOP ST

Job ID: 2011-10-2574-ALTCOMM

CBL: 293-C-016-001

has permission to Erect new 16' x 24' electrical control substation

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

11/30/2011

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**

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.

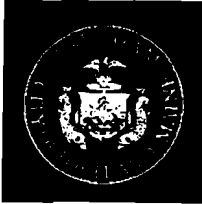
- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may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

Required Inspections:

1. Footings/Setbacks prior to pouring concrete
2. Foundation/Rebar
3. Foundation/Backfill
4. Close In Elec/Plmb/Frame prior to insulate or gyp
5. 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: 2011-10-2574-ALTCOMM

Located At: 116 BISHOP ST

CBL: 293- C-016-001

Conditions of Approval:

Zoning

1. This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.
2. It is understood that the building has been moved forward so that it will be within the I-M zone area on the property and not within the R-3 zone.
3. Separate permits are required for any new signage.

DRC

11-9-11

See Planning Approval Letter for Conditions of Approval.

Building

1. Application approval based upon information provided by applicant. Any deviation from approved plans requires separate review and approval prior to work.
2. Ventilation of this space is required per ASRAE 62.2 or 62.1, 2007 edition.
3. 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.
4. An inspection of the installation of the steel and concrete and structural bracing shall be conducted by a licensed engineer and a letter with his/her certification shall be submitted to this office stating compliance with the approved plans by the final inspection or CO.
5. Special inspection reports shall be submitted to this office on a periodic basis. 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.
6. Equipment shall be installed in compliance with the manufacturer's specifications and the UL listing.

Fire .

All construction shall comply with City Code Chapter 10.

This permit is being approved on the basis of the plans submitted. Any deviation from the plans would require amendments and approval.

As-built documents shall be submitted in pdf to the Building Inspections Office upon completion of job.

The Fire alarm and Sprinkler systems shall be reviewed by a licensed contractor[s] for code compliance. Compliance letters are required.

The fire alarm system shall comply with the City of Portland Standard for Signaling Systems for the Protection of Life and Property. All fire alarm installation and servicing companies shall have a Certificate of Fitness from the Fire Department.

All fire alarm records required by NFPA 72 should be stored in an approved cabinet located at the FACP labeled "FIRE ALARM RECORDS".

Records cabinet, FACP, annunciator(s), and pull stations shall be keyed alike.

Any cutting and welding done will require a Hot Work Permit from Fire Department.

Walls in structure are to be labeled according to fire resistance rating. IE; 1 hr. / 2 hr. / smoke proof.

A single source supplier should be used for all through penetrations.

Install shall comply with all manufacture's specifications.

City of Portland, Maine - Building or Use Permit Application

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

Job No: 2011-10-2574-ALTCOMM	Date Applied: 10/25/2011	CBL: 293- C-016-001	
Location of Construction: 116 BISHOP ST	Owner Name: CENTRAL MAINE POWER	Owner Address: 83 EDISON DRIVE - AUGUSTA, ME 04336	Phone: 626-9557
Business Name: CMP Electrical substation	Contractor Name: Matrix Service Industrial Contractors, Inc.	Contractor Address: 1510 Chester Pike Suite 500 - Eddystone, PA 19022	Phone:
Lessee/Buyer's Name:	Phone:	Permit Type: BLDG - Building	Zone: I-M with R-3 in rear
Past Use: Electrical substation for CMP utility	Proposed Use: Same: Electrical substation - to erect new control house 16' x 24'	Cost of Work: \$95,000.00	CEO District:
		Fire Dept: <input checked="" type="checkbox"/> Approved w/condition <input type="checkbox"/> Denied <input type="checkbox"/> N/A	Inspection: Use Group: U Type: SB IBC 2009 Signature: <i>[Signature]</i>
Proposed Project Description: Electrical Substation Expansion		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Gayle		Zoning Approval	

Special Zone or Reviews	Zoning Appeal	Historic Preservation
<input type="checkbox"/> Shoreland	<input type="checkbox"/> Variance	<input checked="" type="checkbox"/> Not in Dist or Landmark
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Miscellaneous	<input type="checkbox"/> Does not Require Review
<input type="checkbox"/> Flood Zone	<input type="checkbox"/> Conditional Use	<input type="checkbox"/> Requires Review
<input type="checkbox"/> Subdivision	<input type="checkbox"/> Interpretation	<input type="checkbox"/> Approved
<input type="checkbox"/> Site Plan	<input type="checkbox"/> Approved	<input type="checkbox"/> Approved w/Conditions
	<input type="checkbox"/> Denied	<input type="checkbox"/> Denied
Date: <i>OK with conditions</i> <i>9/18/11</i>	Date:	Date: <i>[Signature]</i>

CERTIFICATION

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

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

Statement of Special Inspections

Project: *BISHOP STREET SUBSTATION*

Location: *PORTLAND ME*

Owner: *CENTRAL MAINE POWER*

Design Professional in Responsible Charge:

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

- Structural Mechanical/Electrical/Plumbing
 Architectural Other: _____

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

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

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

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

Interim Report Frequency: *AT ARCHIVE INSTALLATION*

or per attached schedule.

Prepared by:

THOMAS W. HARDING, P.E.
(type or print name)

Thomas W. Harding, P.E. *11-30-11*
Signature Date



Owner's Authorization: *[Signature]*

Building Official's Acceptance:

Signature _____ Date _____ Signature _____ Date _____

Cold-Formed Steel Framing

Item	Agency # (Qualif.)	Scope
1. Member Sizes		
2. Material Thickness		
3. Material Properties		
4. Mechanical Connections		
5. Welding		
6. Framing Details		
7. Trusses		
8. Permanent Truss Bracing		
9. Other: Building Anchor Installation		The inspector's duties include verification of anchor type and dimensions; concrete type and compressive strength; predrilled hole dimensions and cleanliness; drill bit compliance with ANSIB212.15-1994; anchor spacings, edge

distances and embedment and anchor installation in accordance with Parkline's installation instructions.

Statement of Special Inspections

Project: **Bishop Street Substation Control House Building Foundation**

Location: **116 Bishop Street Portland, ME**

Owner: **Central Maine Power**

Design Professional in Responsible Charge: **Andrew J. Williams, P.E.**

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

- Structural Mechanical/Electrical/Plumbing
 Architectural Other: _____

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

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

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

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

Interim Report Frequency: *Monthly*

or per attached schedule.

Prepared by:

Andrew J. William, P.E.

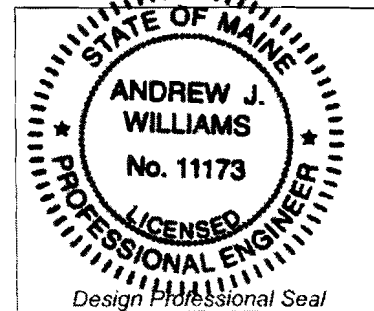
(type or print name)



Signature

11/28/2011

Date



Owner's Authorization:

Building Official's Acceptance:

Signature

Date

Signature

Date

Cast-in-Place Concrete

Item	Agency # (Qualif.)	Scope
1. Mix Design	4 1	<i>Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design. - ALL</i> <i>Review mix designs. - ALL</i>
2. Material Review	1, 2	<i>Review all material submittals. - ALL</i>
3. Reinforcement Installation	1, 2	<i>Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters - ALL</i>
4. Post-Tensioning Operations	N/A	
5. Welding of Reinforcing	N/A	
6. Anchor Rods	1, 2	<i>Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors. - ALL</i>
7. Concrete Placement	1, 2, 4	<i>Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated. - ALL</i>
8. Sampling and Testing of Concrete	4	<i>Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064). SAMPLE AS DESCRIBED IN SPEC SECTION 03 30 10</i>
9. Curing and Protection	1, 2	<i>Inspect curing, cold weather protection and hot weather protection procedures. CONTROL HOUSE FLOOR SLAB</i>
10. Other:		

Nicholas Adams - CMP Bishop Street Substation - Building Permit Application Support Drawings

From: "McKernan, Scott (Augusta,ME-US)" <SMcKernan@trcsolutions.com>
To: "Nicholas Adams (NADAMS@portlandmaine.gov)" <NADAMS@portlandmaine.gov>
Date: 11/29/2011 12:01 PM
Subject: CMP Bishop Street Substation - Building Permit Application Support Drawings
CC: "Libby, Dave (SNC Lavalin-T&D)" <david.libby@cmpco.com>
Attachments: 520-4-1.PDF; 520-4-2.PDF; 520-4-3.PDF; Parkline Erection Dwg Pkg.pdf

Mr. Adams,

As we discussed just now, attached are the stamped drawings to support the building permit application for the new control enclosure.

You should find (in pdf format):

- Foundation Plan & Details
- Floor Plan
- Exterior Elevations
- Manufacturer's (Parkline) Erection Drawing Package

I will forward the Statement of Special Inspections to you via email as soon as I receive it. I expect it later this afternoon.

If there is anything additional that you should require, please let me know. Thank you very much for your help.

V/R,



Scott McKernan
Project Manager



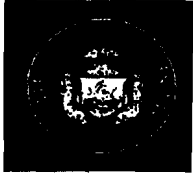
14 Gabriel Drive, Augusta, ME 04330
T: 207.620.3859 | F: 207.621.8226 | C: 207.215.5517

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Marge Schmuckal - 116 Bishop Street - CMP electrical substation

From: Marge Schmuckal
To: Barbara Barhydt ; Philip DiPierro
Date: 11/8/2011 11:54 AM
Subject: 116 Bishop Street - CMP electrical substation

We have a permit application for this project - please let us know when we can issue the permit/
Marge

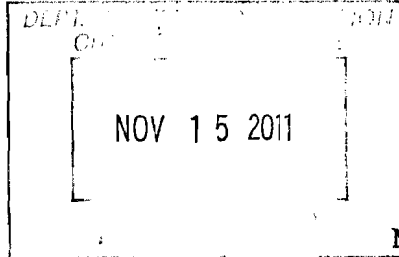


PORTLAND MAINE

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Planning & Urban Development Department
Gregory A. Mitchell, Acting Director

Planning Division
Alexander Jaegerman, Director



November 9, 2011

Central Maine Power Company
Attention: Gerry Mirabile
83 Edison Drive
Augusta, ME 04336

TRC Engineers
Attention: Mark Christopher
14 Gabriel Drive
Augusta, ME 04330

Project Name:	CMP Substation Expansion	Project ID:	2011-313
Address:	116 Bishop Street	CBL:	293-C-16
Applicant:	Central Maine Power Company		
Planner:	Shukria Wiar		

Dear Mr. Mirabile:

On October 6, 2011, the Planning Authority approved with conditions a Level I site plan for Central Maine Power Company for an expansion of the substation yard by 5,000 sq ft and the addition of electrical components, such as breakers, distribution line, transformer, and control house, at 116 Bishop Street. The decision is based upon the plans and application as submitted by Central Maine Power Company and prepared by TRC Engineers with a revision date of 10.27.2011. The proposal was reviewed for conformance with the standards of Portland's site plan ordinance. Since the approval letter dated 10.11.2011, the original condition #3 has been revised as the following:

A vehicular access easement or sufficient executed access agreement between CMP and the adjacent property owned by Deering Lodge Building Corporation, securing rights to improve and utilize the portion of the access drive to the CMP site that is shown on the adjacent property shall be submitted for Planning Authority and Corporation Counsel review and approval and upon city approval the easement or agreement shall be recorded at the Cumberland County Registry of Deeds, prior to the issuance of a certificate of occupancy.

The following original conditions of approval have been met:

1. The applicant shall contribute \$1,680.00 as an urban impaired stream mitigation fee in lieu of on-site stormwater mitigation measures; and
2. The applicant shall revise the final site plan to show the installation of a bituminous sidewalk along the frontage of the Central Maine Power Company Substation that abuts Bishop Street. The sidewalk shall comply with the City of Portland Technical Standard; and
3. The final site plan shall show the zone line that crosses the property.

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 the release of a building permit or site construction, a pre-construction meeting shall be held at the project site. This meeting will be held with the contractor, Development Review Coordinator, Public Service's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan. The site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.
7. **Department of Public Services Permits** If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)
8. **As-Built Final Plans** Final sets of 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
(28)

Alexander Jaegerman
Planning Division Director

Attachments:

1. Performance Guarantee Packet

Electronic Distribution:

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

Applicant: CMP

Date: 8/2/11

Address: 116 Bishop St

C-B-L: 293-C-16

CHECK-LIST AGAINST ZONING ORDINANCE

Date - Needs zone line on

Zone Location - I-M ^{UP} - 3 ^{plans}

Interior or corner lot - ^{not needed}

Proposed Use/Work - Substation EXPANSION - New Control House EXPANDING YARD

Sewage Disposal - City 16' x 24'

Lot Street Frontage -

Front Yard - 1' for each 1' of height (14.75' min) 70' indicated 49' scaled

Rear Yard - ~~1' for each 1' of height up to 35'~~ abuts residential zone - 40' scaled

Side Yard - 1' for each 1' of height (abuts I-M on side) (14.75') 40' scaled

Projections - 9/21/11 plans show the 16' x 24' bldg moved forward toward the street line

Width of Lot - still no zone line on the map

Height - 14.75' scaled

Lot Area - 35,719 sq ft

Lot Coverage / Impervious Surface 75% MAX $\frac{22085}{35719} = 61.83\%$ imperv

Area per Family - N/A

Off-street Parking -

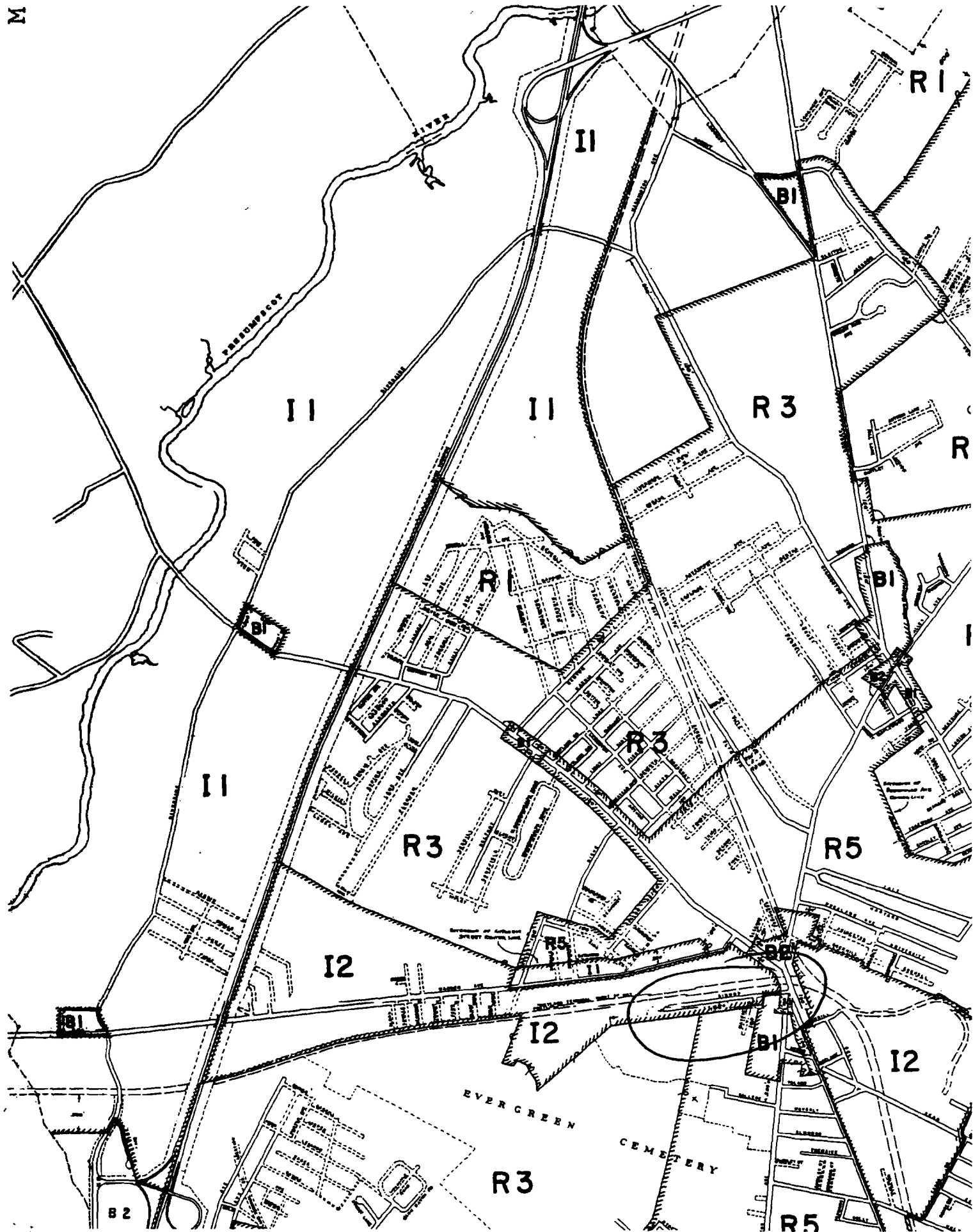
Loading Bays -

Site Plan - 2011-313

purchased properties behind the 100' x 100' in 1967 - Indices

Shoreland Zoning/ Stream Protection - N/A

Flood Plains - Panel 7 - Zone X



1957 Zoning

by measurement of the distance indicated on the maps from the normal high water line of the water body or the upland edge of wetland vegetation. Where such measurement is not the same as the location of the boundary on the Shoreland Zoning Maps, the measurement shall control, unless the Shoreland Zoning Map indicates that the zone boundary shall follow an existing property line.

(Code 1968, § 602.20.A; Ord. No. 15-92, § 4, 6-15-92)

Sec. 14-51. Extension of zone lines.

Where a zone boundary line divides a lot in single or joint ownership of record at the time such line is established, the provisions of this article for the less restricted portion of such lot shall extend not more than thirty (30) feet into the more restricted portion, provided that the lot has at least twenty (20) feet of street frontage in the less restricted zone when taken together with adjacent premises which are under the same or equivalent ownership or control. If such boundary line divides a business or industrial zone from a residence zone, no frontage on a street other than the principal business street in the less restricted zone may be taken into consideration in connection with the right herein granted. This section shall not apply to differing dimensional requirements, including height, within a zoning district.

(Code 1968, § 602.20.B; Ord. No. 35-89, 6-28-89)

Sec. 14-52. Conformity required.

No building or structure shall be erected, altered, enlarged, rebuilt, moved or used, and no premises shall be used unless in conformity with the provisions of this article.

(Code 1968, § 602.1.D)

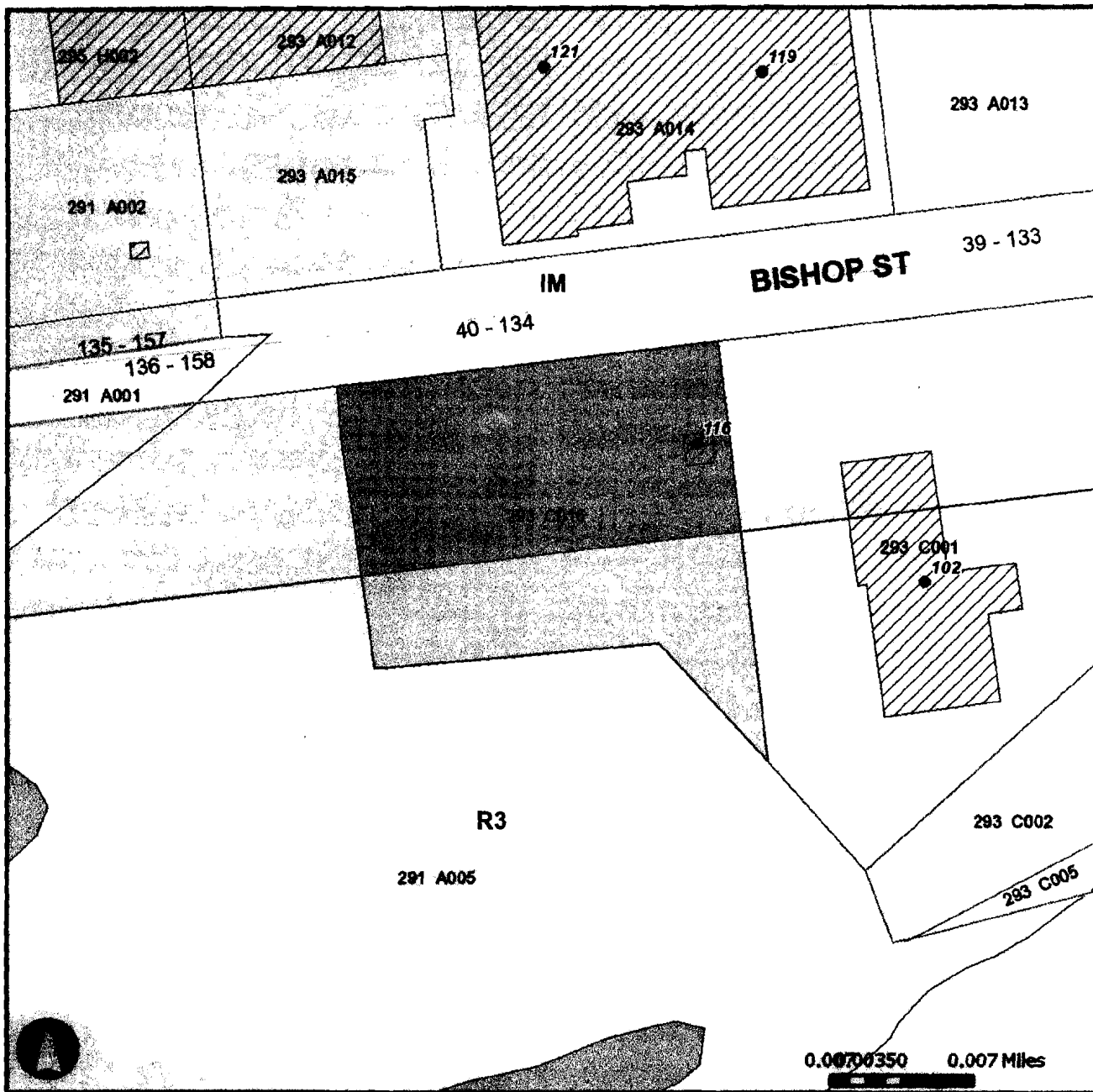
Sec. 14-53. Minimum requirements established.

In interpreting and applying the provisions of this article, they shall be held to be minimum requirements for the promotion of health, safety, convenience and welfare of the citizens of the city; for reducing the danger from fires; and for improving the city.

(Code 1968, § 602.1.E)

*Purchased the other
lots in 1967
zone line established
in 1957*

Map



Parcels	Stream Overlay Zone	Zoning (continued)	Zoning (continued)
Interstate	Stream_protection	R2 Residential	C25
Streets	Island Zoning	R3 Residential	C26
Buildings	C43	R4 Residential	C27
Building	I-B	R5 Residential	C28
Out Building	I-TS	R6 Residential	C29
	I-R1	ROS Recreation Open	C30
	I-R2	Space	C31

116 Bishop St

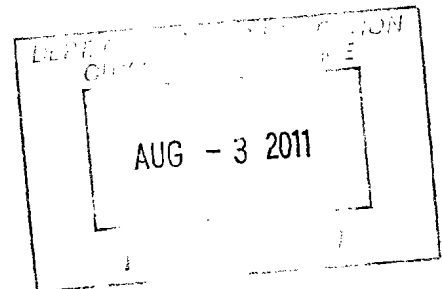
293-C-16

**Application for a
Level 1-Site Alteration Development Permit**

**Central Maine Power Company
Bishop Street Substation Expansion
Portland, Maine**

Prepared for:

**Central Maine Power Company
83 Edison Drive
Augusta, ME 04336**



Prepared by:

**TRC Companies, Inc.
14 Gabriel Drive
Augusta, ME 04330**

July 2011



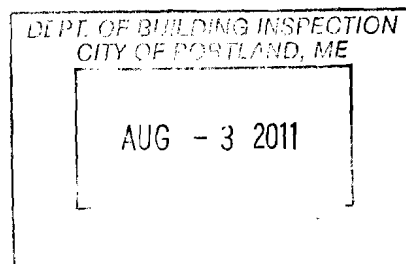


14 Gabriel Drive
Augusta, ME 04330

207.620.3800 PHONE
207.621.8226 FAX

www.TRCSolutions.com

8/3/11



July 29, 2011

Barbara Barhydt
Development Review Services Manager
Planning Division
389 Congress Street 4th Floor
Portland, ME 04101

Re: Level 1 Site Alteration Permit Application for the Central Maine Power Company (CMP)
Bishop Street Substation Expansion, Portland, Maine

Dear Barbara:

Enclosed is the Site Alteration application for the CMP Bishop Street Substation that we discussed back in late May. The substation expansion is important to improving electrical transmission and distribution service to that portion of Portland and neighboring Westbrook. The proposed work includes expanding the substation yard to include an additional 4,575 square-feet of impervious surface, adding specific electrical components, and adding a control house. I will be preparing a building permit application for the control house for submission within the next week or two.

Thanks for your advice and guidance with the project and I hope the application provides all the information the City staff needs to have for review. If there is anything I need to add or if there are any questions please call me at your earliest convenience.

Sincerely,

Mark W. Christopher, MS, CWB
Environmental Scientist

Cc: CMP, TRC, File 182847
Enclosures



**CENTRAL MAINE
POWER**

July 27, 2011

RE: Central Maine Power Company
Bishop Street Substation Expansion Project

To Whom It May Concern:

Central Maine Power Company hereby authorizes TRC Solutions, Inc., including but not limited to Mark W. Christopher, to act as its agent for purposes of permitting the Bishop Street Substation improvement project.

Please call me at 626-9557 or email me at gerry.mirabile@cmpco.com with any questions. Thank you.

Sincerely,

Gerry J. Mirabile

Gerry J. Mirabile
Lead Analyst - Compliance

83 Edison Drive, Augusta, ME 04336
Telephone 207.623.3521



**IBERDROLA
USA**



PROJECT SUMMARY

Central Maine Power Company (CMP) is expanding the existing Bishop Street 34.5 kV substation and installing several new electrical components and a control house. The substation is located at 116 Bishop Street (tax map 293-C-16) on a 0.82 acre parcel. The substation and proposed expansion area is within an area zoned as Industrial use and the site is surrounded by industrial and commercial uses. The substation expansion involves expanding the west fence line boundary 30 feet to the west and the south fence line boundary 24 feet to the south. The total area of new impervious expansion is approximately 4,575 square-feet. Outside the fence line the site will be stabilized with pervious materials such as riprap. New components that will be installed include adding two 34.5 kV breakers, adding a fourth distribution circuit into the existing switchgear, and replacing existing transformer T1 with a new transformer. The breakers and transformer are all supported by new concrete slab foundations. A control house will be constructed within the southeast corner to the expanded portion of the substation yard. The control house contains the monitoring and protection and control components of the substation. It is largely a prefabricated steel building 16 feet by 24 feet on a concrete slab foundation.

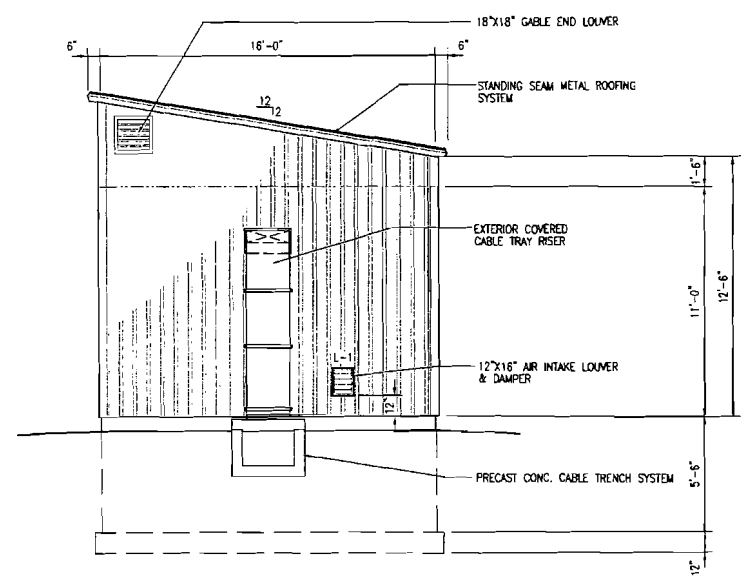
residential
in Portland
proper

The project components will improve service and reliability to residents and businesses that are served by the distribution circuits that originate from this substation. These areas largely include the west side of Portland including industrial, commercial, and residential areas, and many parts of Westbrook, which are largely residential. Expansion of the substation yard is necessary to provide the area for the control house, access for low-bed trailer trucks to bring in the new transformer, improve the grounding grid, and create room for possible future expansion. The entire site expansion will require approximately 1,000 cubic yards of fill including crush rock, gravel, and riprap.

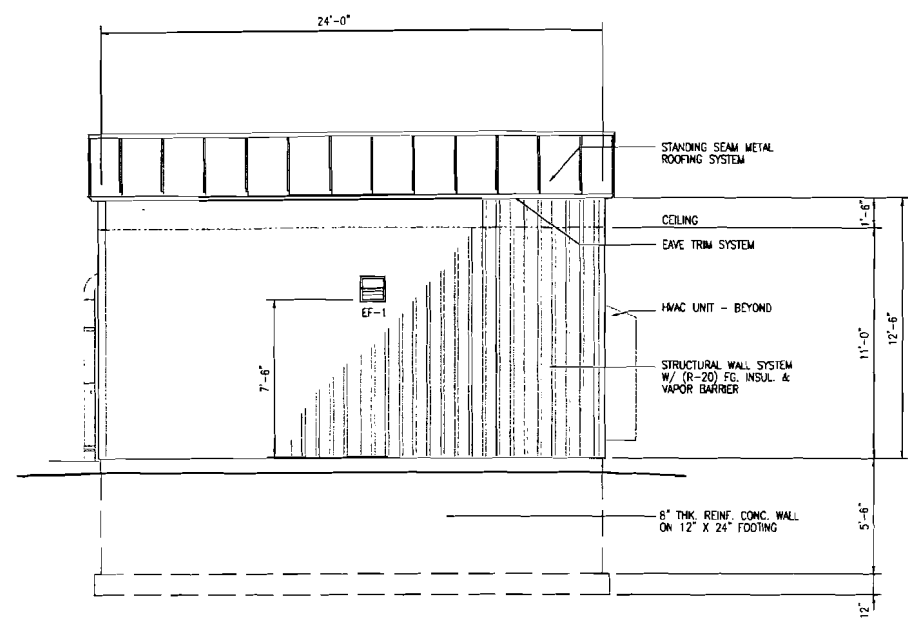
12-14-11 DWM ED 484-614-9328 Footings OK

12-16-11 DWM ED walls OK no back-fill inspection needed

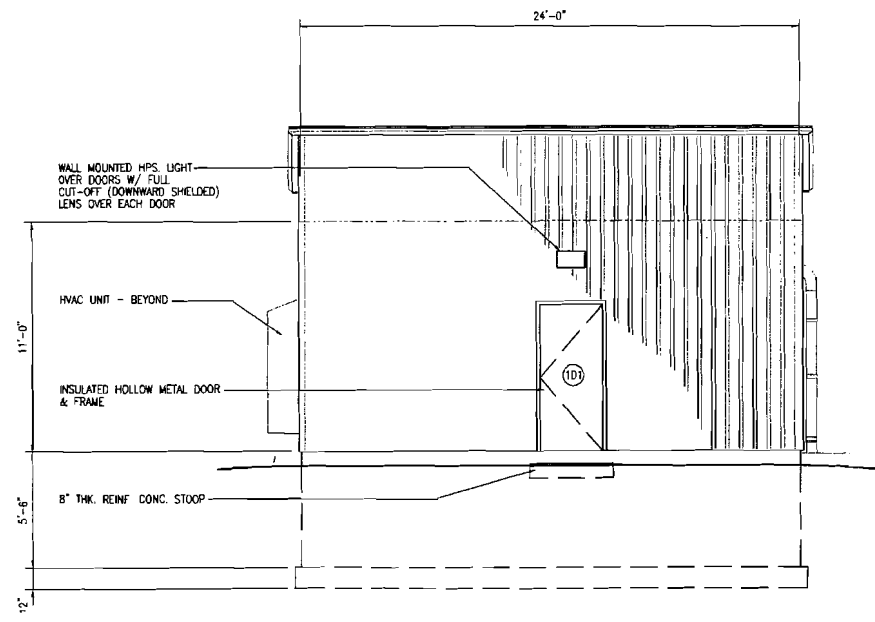
NO.	REVISION	DATE	BY	CK	P.E.



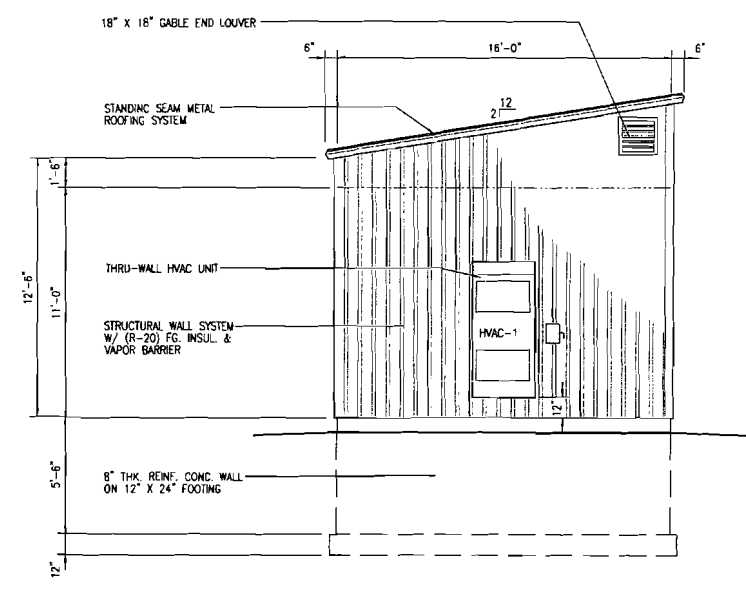
WEST ELEVATION
SCALE: 1/4" = 1'-0"



SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



NORTH ELEVATION
SCALE: 1/4" = 1'-0"



EAST ELEVATION
SCALE: 1/4" = 1'-0"

- REFERENCE DRAWINGS
- 520-3-11 SITE PLAN
 - 520-4-1 CONTROL HOUSE FOUNDATION PLAN & DETAILS
 - 520-4-2 CONTROL HOUSE FLOOR PLAN
 - 520-5-4 SH 1 CONTROL HOUSE LAYOUT
 - 520-5-4 SH 2 CONTROL HOUSE ELEVATIONS

ENGINEERING CONSULTANTS, LLC - ADDRESS
CTR
 249 WESTERN AVENUE
 AUGUSTA, ME 04330
 PROJECT NO: RL211

THIS DRAWING SHALL BE REVISED ON THE CARD SYSTEM ONLY

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NO.	REVISION	DATE	BY	CK	P.E. STAMPED	P.E. NO.	Professional Engineer Seal
0	IFC ISSUE FOR CONST 2011	10/21/11	TRC	TRC	AJM	11173	Professional Engineer Seal ANDREW J. WILLIAMS No. 11173 10/21/11

DESIGNED TRC/SPT
 DRAWN TRC/SPT
 CHECKED TRC/AJM
 APPROVED

PORTLAND MAINE

REVIEWED CENTRAL MAINE POWER COMPANY SYSTEM ENGINEERING
 DATE: 05/25/2011
 SCALE: AS NOTED

CONTROL HOUSE
 EXTERIOR ELEVATIONS
 BISHOP ST. S/S

520-4-3
 REV 0

NO.	REVISION	DATE	BY	CK	P.E.

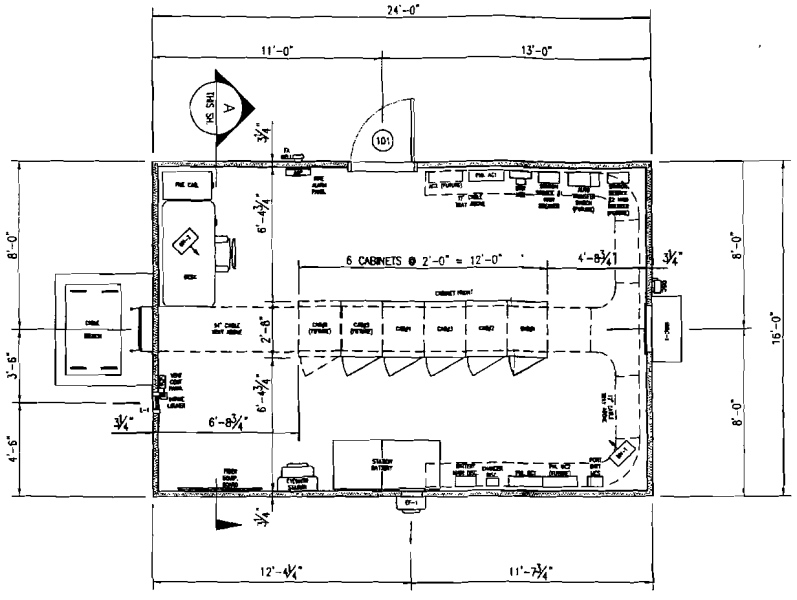
UNIT HEATER SCHEDULE				
MARK	QUANTITY	MFR & MODEL NO.	KW.	OPTIONS
UH-1	1	OMARK #UH03-21	3.0	208/240v / 1 ph ELECT., INTEGRAL THERMOSTAT, DISC. SWITCH & CLMG./WALL MNTG. BRACKET
UH-2	1	OMARK #UH03-21	3.0	208v/240v / 1 ph ELECT., INTEGRAL THERMOSTAT, DISC. SWITCH & CLMG./WALL MNTG. BRACKET

HVAC UNIT SCHEDULE				
MARK	QUANTITY	MFR & MODEL NO.	COOLING BTU/HR	OPTIONS
HVAC-1	1	LIEBERT #ET016TRPEA1	18,000	230v / 1 ph ELECT., ECONOMIZER, 5kw ELECT. HEAT & INT. GRILLES

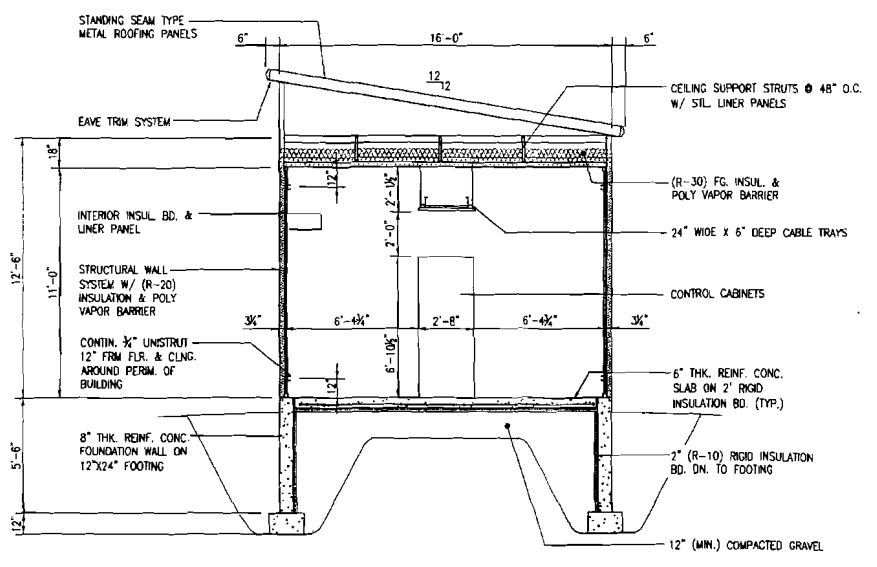
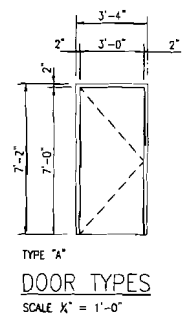
EXHAUST FAN SCHEDULE				
MARK	QUANTITY	MFR & MODEL NO.	CFM	OPTIONS
EF-1	1	GREENHECK DIRECT DRIVE #SE1-8-424-G	80	WALL COLLAR, BACKRAFT DAMPER, WEATHER HOOD W/ BIRD SCREEN & DISCONNECT SWITCH

INTAKE LOUVER SCHEDULE					
MARK	QUANTITY	MFR & MODEL NO.	FRET AREA	NOMINAL SIZE	OPTIONS
L-1	1	RUSKIN #ELMB110		12" W x 16" H	MILL FINISH, 120 VAC MOTOR OPER. DAMPER (MOTOR OPEN, SPRING CLOSE) & INSECT SCREEN

DOOR SCHEDULE							
NO.	SIZE	MATERIAL	TYPE	HARDWARE	CLOSER	WTHR. STRIP'G	REMARKS
101	3'-0" x 7'-0" x 1 3/4"	INSUL. HOLLOW METAL	A	PANIC BAR & PULL PLATE W/ ELECT. STRIKE & LOCKSET	YES	YES	ALUMINUM THRESHOLD W/ THERMAL BREAK



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



A BUILDING SECTION
SCALE: 1/4" = 1'-0"

- REFERENCE DRAWINGS
- 520-3-11 SITE PLAN
 - 520-4-1 CONTROL HOUSE FOUNDATION PLAN & DETAILS
 - 520-4-2 CONTROL HOUSE EXTERIOR ELEVATIONS
 - 520-5-4 SH 1 CONTROL HOUSE LAYOUT
 - 520-5-4 SH 2 CONTROL HOUSE ELEVATIONS
 - 520-5-2 CONDUIT PLAN

- NOTES
- EQUIPMENT SHOWN IS FOR GENERAL LAYOUT PURPOSES ONLY. SEE DWG 520-5-4 SH 1 FOR ACTUAL EQUIPMENT LAYOUT

ENGINEERING CONSULTANTS, LLC ADDRESS: 248 WESTERN AVENUE, SUITE 200, PORTLAND, ME 04103
PROJECT NO. 103211

CTRC

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NO.	REVISION	DATE	BY	CK	P.E. No.	P.E. No.

Professional Engineer Seal

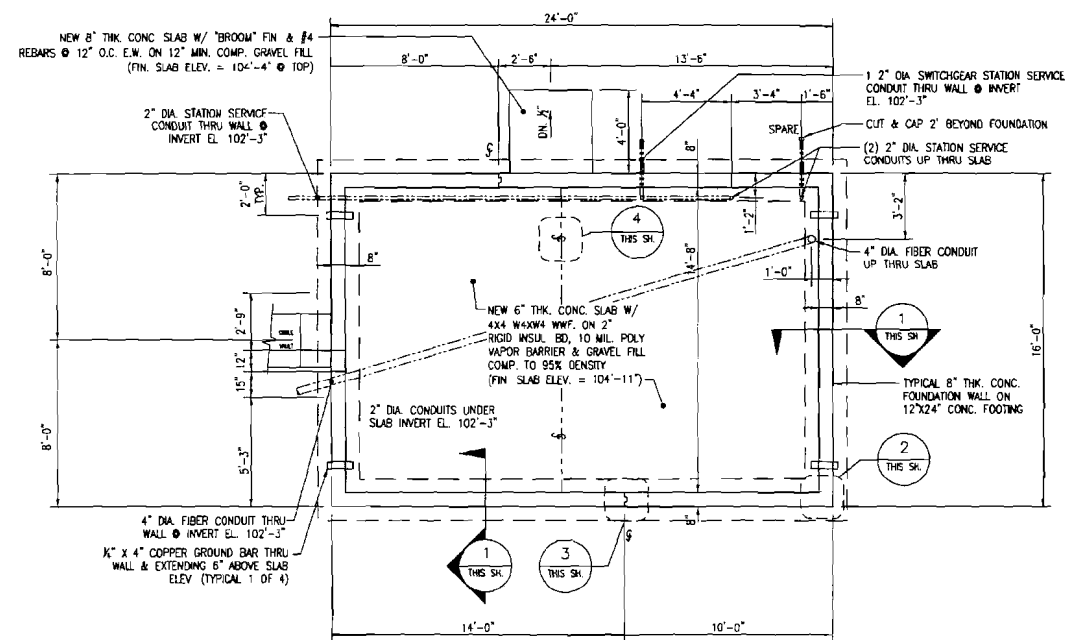
 ANDREW J. WILLIAMS
 No. 11173
 PROFESSIONAL ENGINEER
 10/21/11

DESIGNED TRC/SDT	CONTROL HOUSE FLOOR PLAN BISHOP ST. S/S	PORTLAND MAINE
DRAWN TRC/SDT		
CHECKED TRC/AJM		
APPROVED		
REVIEWED	CENTRAL MAINE POWER COMPANY SYSTEM ENGINEERING	520-4-2 REV 0
CENTRAL MAINE DATE: 05/26/2011 SCALE: AS NOTED		

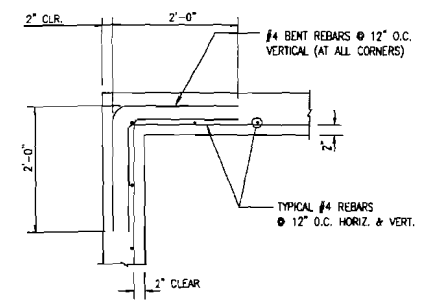
NO.	REVISION	DATE	BY	CK	P.E.

ENGINEERING CONSULTANT - (OOD) - ADDRESS
TRC
 248 WESTERN AVENUE
 AUGUSTA, ME 04330
 PROJECT NO. 18.211

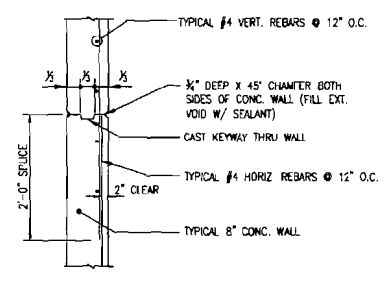
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 SUBMITTAL SHEET ONLY



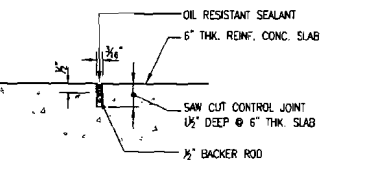
FOUNDATION PLAN
 SCALE: 1/4" = 1'-0"



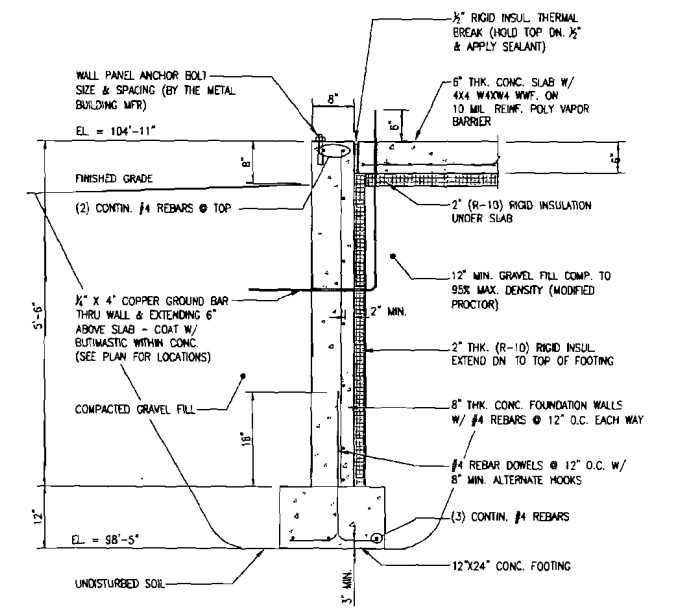
2 TYPICAL CORNER REINF. DETAIL
 THIS SK. SCALE: 3/4" = 1'-0"



3 WALL CONSTR. JOINT DETAIL
 THIS SK. SCALE: 3/4" = 1'-0"



4 SLAB CONTROL JOINT DETAIL
 THIS SK. NOT TO SCALE



1 SECTION
 THIS SK. SCALE: 3/4" = 1'-0"

REFERNECE DRAWINGS

- 520-37 FOUNDATION PLAN
- 520-3-11 SITE PLAN
- 520-4-2 CONTROL HOUSE FLOOR PLAN
- 520-4-3 FENCE & GROUNDING PLAN
- 520-6-2 CONDUIT PLAN

FOUNDATION NOTES

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH WORK. REPORT ANY DISCREPANCIES TO THE ENGINEER.
2. INSULATE AND WATERPROOF ALL FOUNDATION PENETRATIONS, COORDINATE DETAILS W/ OTHER TRADES.
3. PROVIDE 2" CLEAR COVER ON FOUNDATION REINFORCING. PROVIDE 2" CLEAR COVER ON SLAB REINFORCING.
4. ALL CONCRETE TO BE 4000psi @ 28 DAYS:
 - A. MAX. COARSE AGGREGATE SIZE - ASTM C3. 3/4"
 - B. AIR ENTRAINMENT - 5 TO 7 PERCENT
 - C. MAX. WATER CEMENT RATIO - 0.35 TO 0.46
 - D. SLUMP - 3 TO 5 INCHES
5. REINFORCING SHALL BE ASTM A615, 60ksi YIELD
6. ANCHOR RODS TO BE GALVANIZED ASTM F1554, GR. 36 (36ksi YIELD STRENGTH), UNLESS NOTED OTHERWISE
7. FOUNDATIONS TO BE BACKFILLED WITH GRAVEL (MDOT 703.06 TYPE A OR APPROVED EQUAL) & COMPACTED TO 95% OF ASTM D1557.
8. ACTUAL SIZE & SPACING OF HOT-DIPPED GALV ANCHOR BOLTS MUST BE CONFIRMED BY THE METAL BUILDING MANUFACTURER
9. THE CONCRETE SLAB SHALL BE PLACED LEVEL & FLAT TO MEET ACI TOLERANCES OF F22/F15.

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CONTROL HOUSE FOUNDATION PLAN & DETAILS
 BISHOP ST. S/S

PORTLAND MAINE

CENTRAL MAINE POWER COMPANY
 SYSTEM ENGINEERING

CENTRAL MAINE DATE: 05/26/2011
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520-4-1
 REV 0