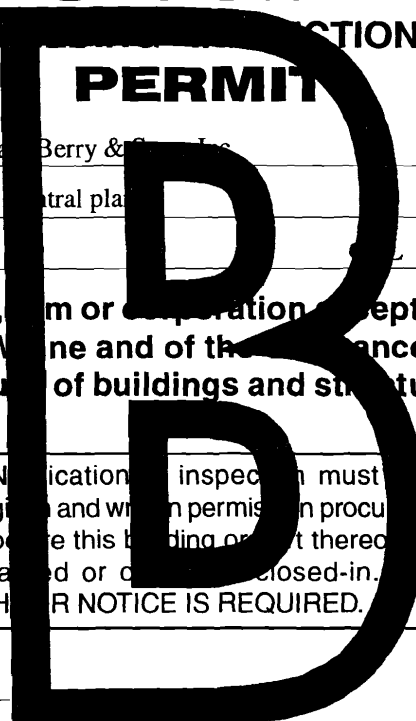


DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING INSPECTION

PERMIT



Please Read Application And Notes, If Any, Attached

PERMIT ISSUED
Permit Number: 041450
JUL 11 2006
CITY OF PORTLAND

This is to certify that Maine Medical Center/William Berry & Sons, Inc.
has permission to New three story building for central plant
AT 2 Bramhall St 053 D007001

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

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

Notification of inspection must be given and when permit is procured before this building or part thereof is occupied or closed-in.
HEAVY NOTICE IS REQUIRED.

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

OTHER REQUIRED APPROVALS

Fire Dept.
Health Dept.
Appeal Board
Other
Department Name

Handwritten signature of Director - Building & Inspection Services dated 7/11/06

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 04-1450	Issue Date: JUL 17 2006	CEL: 053 DC07001
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Location of Construction: 2 Bramhall St	Owner Name: Maine Medical Center	Owner Address: 22 Bramhall St	Phone:
Business Name:	Contractor Name: William Berry & Sons, Inc.	Contractor Address: 99 Conifer Hill Drive Danvers	Phone: 2032236026
Lessee/Buyer's Name	Phone:	Permit Type: Additions - Commercial	Zone: Contract Zone

Past Use: Commercial	Proposed Use: Commercial / new three story building for Central plant/ house MEP equip. To facilitate the hospital	Permit Fee: \$123,126.00	Cost of Work: \$13,670,000.00	CEO District: 2	Zone: C-41
		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied See Conditions	INSPECTION: Use Group: F1 Type: 1B 7/11/06 [Signature]		

Proposed Project Description:
New three story building for Central plant

foundation permit under # 05-1803 goes with this permit

Signature: Greg Cuss
Signature: [Signature]

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)
Action: Approved Approved w/Conditions Denied
Signature: _____ Date: _____

Permit Taken By: Idobson	Date Applied For: 09/24/2004	Zoning Approval		
------------------------------------	--	------------------------	--	--

<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..</p>	<p>Special Zone or Reviews</p> <p><input type="checkbox"/> Shoreland <i>N/A</i></p> <p><input type="checkbox"/> Wetland</p> <p><input type="checkbox"/> Flood Zone <i>Panel 13 Zone C</i></p> <p><input type="checkbox"/> Subdivision</p> <p><input checked="" type="checkbox"/> Site Plan 2004-0003</p> <p>Maj <input checked="" type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/></p> <p><i>OK with conditions</i> Date: <i>5/10/06</i></p>	<p>Zoning Appeal</p> <p><input type="checkbox"/> Variance</p> <p><input type="checkbox"/> Miscellaneous</p> <p><input type="checkbox"/> Conditional Use</p> <p><input type="checkbox"/> Interpretation</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Denied</p> <p>Date: _____</p>	<p>Historic Preservation</p> <p><input checked="" type="checkbox"/> Not in District or Landmark</p> <p><input type="checkbox"/> Does Not Require Review</p> <p><input type="checkbox"/> Requires Review</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Approved w/Conditions</p> <p><input type="checkbox"/> Denied</p> <p>Date: _____</p>
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*7/10/06
Large signs over back
66*

CERTIFICATION

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

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

City of Portland, Maine - Building or Use Permit

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

Permit No: 04-1450	Date Applied For: 09/24/2004	CBL: 053 D007001
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Location of Construction: 2 Bramhall St	Owner Name: Maine Medical Center	Owner Address: 22 Bramhall St	Phone:
Business Name:	Contractor Name: William Berry & Sons, Inc.	Contractor Address: 99 Conifer Hill Drive Danvers	Phone: (203) 223-6026
Lessee/Buyer's Name	Phone:	Permit Type: Additions - Commercial	

Proposed Use: Commercial / new three story building for Central plant/ house MEP equip. To facilitate the hospital	Proposed Project Description: New three story building for Central plant
--	--

Dept: Zoning **Status:** Approved with Conditions **Reviewer:** Marge Schmuckal **Approval Date:** 05/10/2006**Note:** foundation permit is under #05-1803 - based on elevations on submitted plans, the average grade is 80.03' - **Ok to Issue:**
the height from average grade = 40'

- 1) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.
- 2) Separate permits shall be required for any new signage.
- 3) Permits for future additions to the utility/central heating plant will require separate permits and shall meet the height requirements of the conditional contract zone.

Dept: Building **Status:** Approved with Conditions **Reviewer:** Mike Nugent **Approval Date:** 07/11/2006**Note:** **Ok to Issue:**

- 1) Final code compliant Sound level tests must occur prior to issuance of a C/O.

Dept: Fire **Status:** Approved with Conditions **Reviewer:** Cptn Greg Cass **Approval Date:** 05/10/2006**Note:** **Ok to Issue:**

- 1) Fire alarm system requires a Master box connection.
- 2) State Fire Marshall approval is required

Comments:

8/30/2005-gg: received 2 stamped & signed sets of drawings for CUP foundation & structural steel. /gg

From: Jeanie Bourke
To: Michael Collins
Date: 2/6/2008 3:43:43 PM
Subject: Re: MMC - CUP building permit # 041450 -temp CO?

Thanks....the letter from the engineer has been submitted for this building. The SI reports will be submitted on a CD at the completion of all the projects on the campus.

Greg, did you your reports?

Jeanie Bourke
Inspection Services Division Director

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

>>> Michael Collins 02/06 2:50 PM >>>
Need special inspection report(s), sprinkler/fire alarm test reports to issue C/O.

>>> Jeanie Bourke 02/06 11:06 AM >>>
Are we ready to issue this?
Got a call from Hank Dunn from MMC asking if it was ready....
252-7997
Thanks

Jeanie Bourke
Inspection Services Division Director

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



Commercial 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: 22 Bramhall Street		
Total Square Footage of Proposed Structure 12,042 SF	Square Footage of Lot 270,080 SF	
Tax Assessor's Chart, Block & Lot Chart# 053 Block# D Lot# 007	Owner: Maine Medical Center, Hank Dunn	Telephone: 207.871.6799
Lessee/Buyer's Name (If Applicable)	Applicant name, address & telephone: Maine Medical Center 22 Bramhall Street Portland, ME 04102-375	Cost Of Work: \$ 13,670,000 Fee: \$ 123,051
Current Specific use: <u>Vacant Land</u>		
Proposed Specific use: <u>BOCA F-1 Industrial</u>		
Project description: Construction of a new three story building to house a Central Plant which will include MEP equipment to facilitate the Hospital		
Contractor's name, address & telephone: William A. Berry & Son, Inc., 99 Conifer Hill Drive, Danvers, MA 01923, (978) 774-1057		
Who should we contact when the permit is ready: <u>Jason E. Lansberry</u>		
Mailing address: William A. Berry & Son, Inc. c/o Maine Medical Center 22 Bramhall Street Portland, ME 04102-3175		Phone: 203.223.6026

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

At the discretion of the Planning and Development Department, additional information may be required prior to permit approval. For further information stop by the Building Inspections office, room 315 City Hall or call 874-8703.

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

Signature of applicant: <u>Michael J. Berry</u>	Date: <u>9/25/04</u>
---	----------------------

Permit Fee: \$30.00 for the first \$1000.00 Construction Cost, \$9.00 per additional \$1000.00 cost

This is not a Permit; you may not commence any work until the Permit is issued.

SECTION
SEP 21 2004
E C W B

STATEMENT OF SPECIAL INSPECTIONS

PROJECT: Maine Medical Center - Charles Street Building and Front Lobby
LOCATION: Portland, Maine
PERMIT APPLICANT: Henry Dunn (Project Manager), Maine Medical Center
APPLICANT'S ADDRESS: 22 Bramhall Street
Portland, Maine 04102
PROJECT ARCHITECT: The Ritchie Organization (TRO)
PROJECT STRUCTURAL ENGINEER: Simpson Gumpertz & Heger Inc. (SGH)
REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE: Joseph J. Zona (SGH)

This statement of special inspections is submitted as a condition for permit issuance in accordance with Section 1704 of the 2003 International Building Code. It includes a *Schedule of Special Inspection Services* applicable to the above referenced project as well as the identity of the individuals, agencies, or firms intended to be retained for conducting these inspections.

The Special Inspector(s) shall keep records of all inspections and shall furnish interim inspection reports to the building official and to the registered design professional in responsible charge at a frequency agreed upon by the permit applicant and building official prior to the start of work. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the building official and the registered design professional in responsible charge prior to completion of that phase of work. A *Final Report of Special Inspections* documenting required special inspections and correction of any discrepancies noted in the inspections shall be submitted at the conclusion of the project.

Frequency of interim report submittals to Registered Design Professional in Responsible Charge:

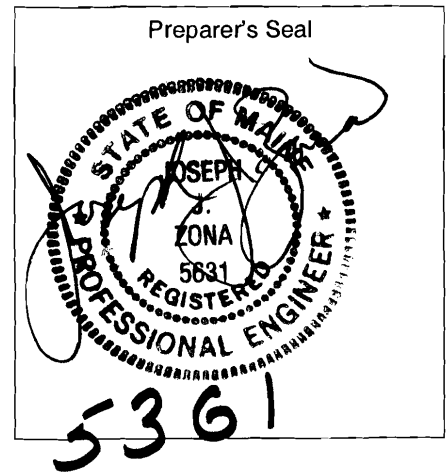
- Monthly Bi-Monthly Upon Completion Per attached schedule

The Special Inspection program does not relieve the Contractor of the responsibility to comply with the Contract Documents. Jobsite safety and means and methods of construction are solely the responsibility of the Contractor.

Prepared By:

Joseph J. Zona
Type or print name

Joseph J. Zona 9-22-04
Signature Date



To be filled out by Building Department and returned to applicant:

Building Official's Acceptance:

Signature

Date

Permit No.

Frequency of interim report submittals to building official:

- Monthly Bi-Monthly Upon Completion Per attached schedule

Maine Medical Center - Charles Street Building

SCHEDULE OF SPECIAL INSPECTION SERVICES					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	COMPLETED
1704.14 Smoke Control Systems					
Test smoke control systems.	Field testing	Y		SWC or TRO	
1704.13 Special Cases (work unusual in nature, including but not limited to alternative construction materials, unusual design applications, systems or materials with special manufacturer requirements. Attach 8 1/2x11 if needed).					
		N			
1707.5 Storage Racks and Access Floors					
Periodic inspection during the anchorage of access floors and storage racks 8 feet or greater in height.	Field inspection	N			
1707.6 Architectural Components					
Periodic inspection during the erection and fastening of exterior cladding	Field inspection	Y		TRO	
Periodic inspection during the erection and fastening of nonload bearing walls.	Field inspection	Y		TRO	
1707.7 Mechanical and Electrical Components					
Periodic inspection during the anchorage of electrical equipment for emergency or standby power systems	Field inspection	Y		TRO	
Periodic inspection during the anchorage of other electrical equipment	Field inspection	N			
Periodic inspection during installation of piping systems intended to carry flammable, combustible, or highly toxic contents and their associated mechanical units.	Field inspection	Y		TRO	
Periodic inspection during the installation of HVAC ductwork that will contain hazardous materials	Field inspection	Y		TRO	

TRO Project #: 4673
 SGH Project #: 20684.05

Maine Medical Center - Charles Street Building

SCHEDULE OF SPECIAL INSPECTION SERVICES																										
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT																								
		Y/N	EXTENT	AGENT*	COMPLETED																					
1708.5 Mechanical and Electrical Equipment																										
Submit certificate of compliance for designated seismic system components	Submittal review	Y		TRO																						
1707.8 Seismic Isolation System																										
Periodic inspection during the fabrication and installation of isolator units and energy dissipation devices used as part of the seismic isolation system.	Shop and field inspection	N																								
<p>* INSPECTION AGENTS</p> <table border="1"> <thead> <tr> <th>FIRM</th> <th>ADDRESS</th> <th>TELEPHONE NO.</th> </tr> </thead> <tbody> <tr> <td>1. S.W. Cole, (SWC)</td> <td></td> <td></td> </tr> <tr> <td>2. Simpson, Gumpertz & Heger, Structural Engineer (SGH)</td> <td></td> <td></td> </tr> <tr> <td>3. The Ritchie Organization, Mechanical Engineer (TRO)</td> <td></td> <td></td> </tr> <tr> <td>4. The Ritchie Organization, Electrical Engineer (TRO)</td> <td></td> <td></td> </tr> <tr> <td>5. The Ritchie Organization, Architect (TRO)</td> <td></td> <td></td> </tr> <tr> <td>6.</td> <td></td> <td></td> </tr> </tbody> </table>						FIRM	ADDRESS	TELEPHONE NO.	1. S.W. Cole, (SWC)			2. Simpson, Gumpertz & Heger, Structural Engineer (SGH)			3. The Ritchie Organization, Mechanical Engineer (TRO)			4. The Ritchie Organization, Electrical Engineer (TRO)			5. The Ritchie Organization, Architect (TRO)			6.		
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<p><i>Note: The inspection and testing agent(s) shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official prior to commencing work. The qualifications of the Inspection Agent(s) may be subject to the approval of the Building Official.</i></p>																										
<p>Is the Schedule of Special Inspection Services part of a Quality Assurance Plan as defined in Sections 1705 or 1706 of the Building Code? Yes No</p>																										
DATE:																										

Maine Medical Center - Charles Street Building

SCHEDULE OF SPECIAL INSPECTION SERVICES					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	COMPLETED
1704.2 Inspection of Fabricators					
Verify fabrication/quality control procedures.	In-plant review	Y		SWC	
1704.3 Steel Construction					
High-strength bolts, nuts, and washers.	Review material markings and certificates of compliance	Y		SWC or SGH	
Inspection of high-strength bolting.	Field inspection	Y		SWC or SGH	
Structural steel	Review certified test reports	Y		SGH	
Weld filler materials.	Review certificate of compliance and field verification	Y		SWC or SGH	
Structural steel welding.	Shop and field inspection	Y		SWC	
Reinforcing steel welding.	Shop and field inspection	N			
Inspection of steel frame joint details for compliance with approved construction documents.	Field inspection	Y		SWC or SGH	
1707.2 Structural Steel					
Continuous inspection of structural welding in accordance with AISC Seismic Provisions	Shop and field inspection	Y		SWC or SGH	
1708.4 Structural Steel					
Ultrasonically test for discontinuities behind and adjacent to welds with base metal thicker than 1.5 inches where subject to through-thickness weld shrinkage strains.	Shop and field testing	Y		SWC or SGH	
1704.4 Concrete Construction					
Inspection of reinforcing steel installation.	Field inspection	Y		SWC or SGH	
Inspection of prestressing steel installation.	In-plant or field inspection	N			
Prestressed concrete force application.	In-plant or field review	N			
Inspection of cast-in-place bolts.	Field inspection	Y		SWC or SGH	
Verification of required design mix.	Review submittals	Y		SGH	

Maine Medical Center - Charles Street Building

SCHEDULE OF SPECIAL INSPECTION SERVICES					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	COMPLETED
Fresh concrete sampling.	Field testing	Y		SWC	
Concrete placement.	Field review	Y		SWC or SGH	
Concrete curing operations.	Field review	Y		SWC or SGH	
Erection of precast concrete members.	Field review	Y		SWC or TRO	
Evaluation of concrete strength.	Field testing and review laboratory reports	Y		SWC or SGH	
Verification of in-situ concrete strength, prior to stressing of tendons in posttensioned concrete and prior to removal of shores and forms from beams and structural slabs.	Review field testing and laboratory reports	Y		SWC	
1708.3 Reinforcing and Prestressing Steel					
Review certified mill test reports	Field review	N			
Verify reinforcing steel weldability	Review testing reports	N			
1704.5 Masonry Construction					
Verify proportions of site prepared mortar and grout.	Review submittals	Y		TRO	
Verify construction of mortar joints.	Field inspection	Y		SWC or TRO	
Verify location of reinforcement and connectors.	Field inspection	Y		SWC or TRO	
Verify size and location of structural masonry elements.	Field and submittal review	N			
Verify type, size, and location of anchors, including details of anchorage of masonry to structural members, frames, or other construction.	Field inspection	Y		SWC or TRO	
Verify size, grade, and type of reinforcement.	Field inspection	Y		SWC or TRO	
Verify welding of reinforcing bars.	Field inspection	N			
Verify protection of masonry during hot/cold weather.	Field inspection	Y		SWC or TRO	
Verify grout space is clean prior to grouting.	Field inspection	Y		SWC or TRO	
Verify grout placement complies with code and construction document provisions.	Review submittals	Y		TRO	
Observe preparation of grout specimens, mortar specimens, and/or prisms.	Field review	Y		SWC or TRO	

Maine Medical Center - Charles Street Building

SCHEDULE OF SPECIAL INSPECTION SERVICES					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	COMPLETED
1708.1 Masonry					
Certificates of compliance used in masonry construction	Review submittals	N			
Verification of <i>f'm</i> prior to construction	Review submittals and field testing	N			
Verification of <i>f'm</i> every 5000 SF during construction	Review submittals and field testing	N			
Verification of proportions of materials in mortar and grout as delivered to the site	Field review	N			
1704.7 Soils					
Verify site preparation complies with approved soils report.	Field inspection	Y		SWC	
Verify placement and compaction of fill materials complies with approved soils report.	Field inspection	Y		SWC	
Verify dry-density of compacted fill complies with approved soils report.	Review field testing	Y		SWC	
1704.8 Pile Foundations					
Observe installation of pile foundations.	Field inspection	Y		SWC	
Observe pile foundation load tests.	Review field testing	Y		SWC	
1704.9 Pier Foundations					
Observe installation of pier foundations.	Field inspection	Y		SWC or TRO	
1707.3 Structural Wood					
Continuous inspection of field gluing operations of elements of the seismic-force resisting system.	Field inspection	N			
Periodic inspection of nailing, bolting, anchoring and other fastening of components with the seismic-force-resisting system.	Shop and field inspection	N			

Maine Medical Center - Charles Street Building

SCHEDULE OF SPECIAL INSPECTION SERVICES					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	COMPLETED
1707.4 Cold-formed Steel Framing					
Periodic inspection during welding operations of elements of the seismic-force-resisting system.	Shop and field inspection	Y		SWC or TRO	
Periodic inspections for screw attachment, bolting, anchoring and other fastening of components within the seismic-force-resisting system.	Shop and field inspection	Y		SWC or TRO	
1704.10 Wall Panels/Veneers					
Observe installation of exterior and interior architectural wall panels.	Field inspection	N			
Observe anchoring of veneers to the building structure.	Field inspection	N			
1704.11 Sprayed Fire-resistant Materials					
Verify surface condition preparation of structural members.	Field inspection	Y		SWC or TRO	
Verify application of sprayed fire-resistant materials.	Field inspection	Y		SWC or TRO	
Verify average thickness of sprayed fire-resistant materials applied to structural members.	Field inspection	Y		SWC or TRO	
Verify density of the sprayed fire-resistant material complies with approved fire-resistant design.	Field inspection and submittal review	Y		SWC or TRO	
Verify the cohesive/adhesive bond strength of the cured sprayed fire-resistant material.	Field inspection and submittal review	Y		SWC or TRO	
1704.12 Exterior Insulation and Finish Systems (EIFS)					
Inspect EIFS applications.	Field inspection	N			

Table 40.2.6 Maximum Travel Distance to Exits

Level of Protection	General Industrial Occupancy	Special Purpose Industrial Occupancy	High Hazard Industrial Occupancy
Protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1)	76 m (250 ft) ^T	122 m (400 ft)	23 m (75 ft)
Not protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1)	61 m (200 ft)	91 m (300 ft)	Not permitted

^TIn single-story buildings, a travel distance of 122 m (400 ft) shall be permitted, provided that a performance based analysis demonstrates that safe egress can be accomplished.

40.2.9.2 Emergency lighting shall not be required for the following:

- (1) Special purpose industrial occupancies without routine human habitation
- (2) Structures occupied only during daylight hours, with skylights or windows arranged to provide the required level of illumination on all portions of the means of egress during such hours

40.2.10 **Marking of Means of Egress.** Means of egress shall have signs in accordance with Section 7.10.

40.2.11 **Special Means of Egress Features. (Reserved)**

40.3 Protection.

40.3.1 **Protection of Vertical Openings.** Any vertical opening shall be protected in accordance with Section 8.6 unless otherwise permitted by one of the following:

- (1) In special purpose industrial and high hazard industrial occupancies where unprotected vertical openings exist and are necessary to manufacturing operations, such openings shall be permitted beyond the specified limits, provided that every floor level has direct access to one or more enclosed stairs or other exits protected against obstruction by any fire or smoke in the open areas connected by the unprotected vertical openings.
- (2) Approved, existing open stairs, existing open ramps, and existing escalators shall be permitted where connecting only two floor levels.
- (3) Approved existing unprotected vertical openings in buildings with low or ordinary hazard contents that are protected throughout by an approved automatic sprinkler system in accordance with 9.7.1.1(1) shall be permitted, provided that the following conditions exist:

- (a) The vertical opening does not serve as a required exit.
 - (b) All required exits consist of outside stairs in accordance with 7.2.2, smokeproof enclosures in accordance with 7.2.3, or horizontal exits in accordance with 7.2.4.
- (4) Vertical openings in accordance with 8.6.8.2 shall be permitted.

40.3.2* Protection from Hazards.

40.3.2.1 All high hazard industrial occupancies, operations, or processes shall have approved, supervised automatic extinguishing systems in accordance with Section 9.7 or other protection appropriate to the particular hazard, such as explosion venting or suppression.

40.3.2.2 Protection in accordance with 40.3.2.1 shall be provided for any area subject to an explosion hazard in order to minimize danger to occupants in case of fire or other emergency before they have time to use exits to escape.

40.3.2.3 Activation of the fire extinguishing or suppression system required by 40.3.2.1 shall initiate the required building fire alarm system in accordance with 40.3.4.3.4.

40.3.2.4 Hazardous areas in industrial occupancies protected by approved automatic extinguishing systems in accordance with Section 9.7 shall be exempt from the smoke-resisting enclosure requirement of 8.7.1.2.

40.3.3 Interior Finish.

40.3.3.1 **General.** Interior finish shall be in accordance with Section 10.2.

40.3.3.2 **Interior Wall and Ceiling Finish.** Interior wall and ceiling finish materials complying with Section 10.2 shall be Class A, Class B, or Class C in operating areas and shall be as required by 7.1.4 in exit enclosures.

40.3.3.3 **Interior Floor Finish.** (No requirements.)

40.3.4 Detection, Alarm, and Communications Systems.

40.3.4.1 **General.** A fire alarm system shall be required in accordance with Section 9.6 for industrial occupancies, unless the total capacity of the building is under 100 persons and of these fewer than 25 persons are above or below the level of exit discharge.

40.3.4.2 **Initiation.** Initiation of the required fire alarm system shall be by any of the following means:

- (1) Manual means in accordance with 9.6.2.1(1)
- (2) An approved automatic fire detection system in accordance with 9.6.2.1(2) throughout the building; plus a minimum of one manual fire alarm box in accordance with 9.6.2.5
- (3) An approved, supervised automatic sprinkler system in accordance with 9.6.2.1(3) throughout the building; plus a minimum of one manual fire alarm box in accordance with 9.6.2.5

40.3.4.3 Notification.

40.3.4.3.1 The required fire alarm system shall meet one of the following criteria:

- (1) It shall provide occupant notification in accordance with 9.6.3.
- (2) It shall sound an audible and visible signal in a constantly attended location for the purposes of initiating emergency action.

40.3.4.3.2 Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.

40.3.4.3.3 Existing presignal systems in accordance with 9.6.3.3 shall be permitted.

40.3.4.3.4 In high hazard industrial occupancies as described in 40.1.4.1(3), the required fire alarm system shall automatically initiate an occupant evacuation alarm signal in accordance with 9.6.3.

40.3.5 Extinguishment Requirements. (None)

40.3.6 Corridors. The provisions of 7.1.3.1 shall not apply.

40.4 Special Provisions: High-Rise Buildings. Automatic sprinkler requirements of 11.8.2.1 shall be required for new high-rise industrial occupancies, except for general low hazard or special purpose industrial occupancies.

40.5 Building Services.

40.5.1 Utilities. Utilities shall comply with the provisions of Section 9.1.

40.5.2 Heating, Ventilating, and Air Conditioning. Heating, ventilating, and air conditioning equipment shall comply with the provisions of Section 9.2.

40.5.3 Elevators, Escalators, and Conveyors. Elevators, escalators, and conveyors shall comply with the provisions of Section 9.3.

40.5.4 Rubbish Chutes, Incinerators, and Laundry Chutes. Rubbish chutes, incinerators, and laundry chutes shall comply with the provisions of Section 9.5.

40.6* Special Provisions for Aircraft Servicing Hangars.

40.6.1 The requirements of Section 40.1 through Section 40.5 shall be met, except as modified by 40.6.1.1 through 40.6.1.4.

40.6.1.1 There shall be not less than two means of egress from each aircraft servicing area.

40.6.1.2 Exits from aircraft servicing areas shall be provided at intervals not exceeding 46 m (150 ft) on all exterior walls.

40.6.1.3 Where horizontal exits are provided, doors shall be provided in the horizontal exit fire barrier at intervals not exceeding 30 m (100 ft).

40.6.1.4 Where dwarf, or "smash," doors are provided in doors that accommodate aircraft, such doors shall be permitted for compliance with 40.6.1.1 through 40.6.1.3.

40.6.2 Means of egress from mezzanine floors in aircraft servicing areas shall be arranged so that the travel distance to the nearest exit from any point on the mezzanine does not exceed 23 m (75 ft), and such means of egress shall lead directly to a properly enclosed stair discharging directly to the exterior, to a suitable cutoff area, or to outside stairs.

40.6.3 Dead ends shall not exceed 15 m (50 ft) for other than high hazard contents areas and shall not be permitted for high hazard contents areas.

42.1.1.2 Storage occupancies shall include all buildings or structures used primarily for the storage or sheltering of goods, merchandise, products, vehicles, or animals.

42.1.2 Multiple Occupancies. All multiple occupancies shall be in accordance with 6.1.14.

42.1.3 Definitions. See Chapter 3.

42.1.4 Classification of Occupancy.

42.1.4.1 Storage occupancies shall include all buildings and structures or parts thereof with occupancy as defined in 6.1.13.

42.1.4.2 Incidental storage in another occupancy shall not be the basis for overall occupancy classification.

42.1.4.3 Storage occupancies or areas of storage occupancies that are used for the purpose of packaging, labeling, sorting, special handling, or other operations requiring an occupant load greater than that normally contemplated for storage shall be classified as industrial occupancies. (See Chapter 40.)

42.1.5 Classification of Hazard of Contents. Contents of storage occupancies shall be classified as low hazard, ordinary hazard, or high hazard, in accordance with Section 6.2, depending on the character of the materials stored, their packaging, and other factors.

42.1.6 Minimum Construction Requirements. (No requirements)

42.1.7* Occupant Load. The occupant load, in number of persons for whom means of egress and other provisions are required, shall be determined on the basis of the maximum probable population of the space under consideration.

42.2 Means of Egress Requirements.

42.2.1 General. Each required means of egress shall be in accordance with the applicable portions of Chapter 7.

42.2.2 Means of Egress Components.

42.2.2.1 General. Components of means of egress shall be limited to the types described in 42.2.2.2 through 42.2.2.12.

42.2.2.2 Doors.

42.2.2.2.1 Doors complying with 7.2.1 shall be permitted.

42.2.2.2.2 Delayed-egress locks complying with 7.2.1.6.1 shall be permitted.

42.2.2.2.3 Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted.

42.2.2.2.4 Approved existing horizontal-sliding fire doors shall be permitted in the means of egress under the following conditions:

- (1) They are held open by fusible links.
- (2) The fusible links are rated at not less than 74°C (165°F).
- (3) The fusible links are located not more than 3050 mm (120 in.) above the floor.
- (4) The fusible links are in immediate proximity to the door opening.
- (5) The fusible links are not located above a ceiling.
- (6) The door is not credited with providing any protection under this Code.

Chapter 41 Reserved

Chapter 42 Storage Occupancies

42.1 General Requirements.

42.1.1 Application.

42.1.1.1 The requirements of this chapter shall apply to both new and existing storage occupancies.



 F A C T S H E E T

To	MICHAEL J. NUGENT, INSPECTION SERVICES MANAGER	Date	4 JANUARY 2006
Company	CITY OF PORTLAND MAINE CITY HALL RM 316 387 GORHAM ST.	Comm. No.	04677
From	BAILEY SILBERT	Fax Number	1 207 756 8090
Subject	MMC CENTRAL UTILITY PLANT CODE ANALYSIS & BACKUP MAT.	Telephone	

cc: RASHID ASHRAF

This is page 1 of 15 pages

Comments:

MR. NUGENT,

ATTACHED PLEASE FIND:

- CUP @ MMC CODE ANALYSIS 11/16/05 UPDATE
 - OSHA U.S. DEPT. OF LABOR FIXED INDUSTRIAL STAIRS SECTION 1910.24 &
 - NFPA 101 - 2003 CHAPTER 40 INDUSTRIAL OCCUPANCIES SECTIONS 40.2.5.2 & TABLE 40.2.5.2.1 INDUSTRIAL EQUIPMENT ACCESS & INDUSTRIAL EQUIPMENT ACCESS DIMENSIONAL CRITERIA
- AS BACK UP FOR EQUIPMENT MAINTENANCE & STAIR ACCESS DESIGNED.

RASHID ASHRAF AND I WILL CALL LATER TODAY TO DISCUSS THESE ISSUES WITH YOU. I HAVE ENCIRCLED AN ANALYSIS USING SECTION 503.1.2 FROM BOCA 1999 TO ALLOW BOTH THE CUP & THE L.L. BEAN BUILDINGS (TYPES 1B & 1A CONSTRUCTION RESPECTIVELY) TO BE CONSIDERED AS PORTIONS OF ONE BUILDING ON THE SAME LOT ABOLISHING THE NEED FOR RATED EXTERIOR WALLS.

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ARCHITECTURE PLANNING ENGINEERING INTERIOR DESIGN

TRO / The Ritchie Organization

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Maine Medical Center

22 Bramhall Street, Portland, Maine 04102

FAX TRANSMITTAL

Facilities Development

TELEPHONE NUMBER (207) 662-2011

FAX NUMBER (207) 662-6516

DATE: October 24, 2005

TO: Rashid Ashraf

FROM: Mark Doria

RE: MIMC-4 E-Beam Building types and requirements

Number of pages including cover sheet: 7

Message



To	Keith Davis & Rashid Ashraf	Date	September 09, 2005 Updated November 11, 2005 Updated*
From	Bailey Silbert	Comm. No.	04877.000
Subject	Code Analysis	Project Name	MMC Central Utility Plant

The above referenced project is analyzed as follows under the designated codes:

- **BOCA 1999 USE GROUP F – 1, Factory and Industrial Use Group** (Table 306.2, Moderate Hazard Factory and Industrial Occupancy, Boiler Works, Power Houses & Section 202.0 General Definitions, "Special industrial occupancies", p 15)
- **NFPA 101 – 2003 Chapter 40 Industrial Occupancies, 40.1.4.1 Subclassification of Industrial Occupancies (2) Special Purpose Industrial Occupancy, Ordinary Hazard.** Section 3.3.152.8.3 Special-Purpose Industrial Occupancy & A.3.3.152.8 Industrial Occupancy (7) Power plants. [Also, A.6.1.12.1 Industrial Occupancy (7) Power plants]
- **Construction Type** (Note: As an accessory building providing critical support to a hospital campus with acute care facilities the prudent construction type classification would be Type 1B (BOCA), fully sprinklered, notwithstanding that no minimum construction requirements are mandated under NFPA 101-2003, Section 40.1.6). **BOCA 1999 Construction Type 1B & NFPA 101 – 2003 Construction Type I (332) both with approved, supervised automatic sprinkler system throughout (per Section 906.0 for former & 9.7 for latter)**
- **Occupant Load - BOCA 1999, Table 1008.1.2 Industrial = 100 GSF/person; NFPA 101 – 2003 Table 7.3.1.2 Industrial Use, general = 100 SF/person, but Special Purpose Industrial = NA (Note Section 40.2.3 Capacity of Means of Egress. ("....shall comply with either of 40.2.3.1 or 40.2.3.2."), 40.2.3.2 "In only special purpose industrial occupancies, means of egress shall be sized to accommodate the occupant load as determined in accordance with Table 7.3.1.2; spaces not subject to human occupancy because of the presence of machinery or equipment shall not be included in the computation."**
- **Travel Distance - BOCA 1999, Table 1006.5 with Sprinklers = 250'; NFPA 101 – 2003 Table 40.2.6, Special Purpose Industrial Occupancy, "Protected throughout..... by sprinkler system..." = 400'.** (BOCA 1999 F-1 Use Group more stringent than NFPA 101 – 2003, Table 40.2.6 and rules)

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