

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 2013-00151	Issue Date:	CBL: 038 D015001
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Location of Construction: 82 FREE ST	Owner Name: CUMBERLAND COUNTY RECREATION CENTER	Owner Address: 1 CIVIC CENTER SQ PORTLAND, ME 04101		Phone:
Business Name:	Contractor Name: Cianbro Corp.	Contractor Address: 328 W. Commercial Street Portland ME 04102		Phone: (207) 773-5852
Lessee/Buyer's Name	Phone:	Permit Type: Alterations - Commercial		Zone: B3
Past Use: Cumberland Cty Civic Ctr	Proposed Use: Cumberland Cty Civic Ctr	Permit Fee: \$142,815.00	Cost of Work: \$14,272,000.00	CEO District: 2
		FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> N/A		INSPECTION: Use Group: <i>A-4/B</i> Type: <i>IB</i> <i>IBC 2009/MUBEC</i> Signature: <i>[Signature]</i> 5/1/13
Proposed Project Description: Fourth permit: full phase 2 construction ro remainder of project.		Signature: _____ PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.): Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Signature: _____ Date: _____		

Permit Taken By: bjs	Date Applied For: 01/24/2013	Zoning Approval		
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1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. 2. Building permits do not include plumbing, septic or electrical work. 3. Building permits are void if work is not started within six (6) months of the date of issuance. Fa pe	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone Subdivision Site Plan <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/>	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date: _____	Historic Preservation <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: _____
	Oversized Plans in oversized Plan Area (3 rolls) 05-10-13 [Handwritten signature/initials]	[Handwritten initials and date]	[Handwritten initials and date]

I hereby certify that I am the responsible person in charge of the work and I agree to conform to all applicable laws of the City of Portland, Maine. If the application is issued, I certify that the code official's authorized by such permit at any reasonable hour to enforce the provision of the

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

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.

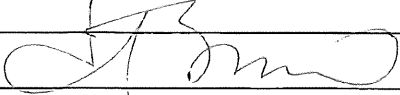
Location/Address of Construction: Cumberland County Civic Center Renovation 82 Free Street, Portland, Maine		
Total Square Footage of Proposed Structure/Area 156,200 s.f. total		Square Footage of Lot 100,536 SF or 2.308 acres
Tax Assessor's Chart, Block & Lot Chart# Block# Lot# 038 D 15	Applicant * must be owner, Lessee or Buyer* Name Cumberland County Address Recreation Center d/b/a One Civic Center Square City, State & Zip Portland, ME 04101	Telephone: 207-775-3481
Lessee/DBA (If Applicable)	Owner (if different from Applicant) Name Address City, State & Zip	Cost Of Work: \$14,272,000.00 C of O Fee: \$ Total Fee: \$14,301.00
<p>Current legal use (i.e. single family) <u>Assembly</u></p> <p>If vacant, what was the previous use? _____</p> <p>Proposed Specific use: <u>Assembly</u></p> <p>Is property part of a subdivision? <u>No</u> If yes, please name _____</p> <p>Project description: -Phase 1 (1st permit app.) of the project will be the Demolition of the NW corner and associated Sitework for the project. -Second permit application will be for the NW corner envelope, steel, & foundations. -Third permit application will be the full construction documents for the NW corner completion / fit-out -Fourth Fourth permit application will be the full Phase 2 construction documents for the remainder of the project</p>		
Contractor's name: <u>Cianbro Corporation</u>		
Address: <u>72 Dutton Street</u>		
City, State & Zip <u>Bangor, ME 04401</u>		Telephone: <u>207-992-0460</u>
Who should we contact when the permit is ready: <u>Brian Larsen</u>		Telephone: <u>860-462-4429</u>
Mailing address: <u>Construction Site Trailer: 57 Center St, Portland, ME 04101</u>		

RECEIVED
JAN 24 2013
Dept. of Building Inspections
City of Portland Maine

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: 1/23/2013

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



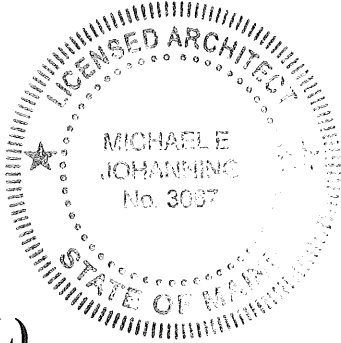
Accessibility Building Code Certificate

Designer: WBRC Architects / Engineers

Address of Project: Cumberland County Civic Center Renovation
One Civic Center Square, Portland, ME 04101


Nature of Project: Renovations and Additions

The technical submissions covering the proposed construction work as described above have been designed in compliance with applicable referenced standards found in the Maine Human Rights Law and Federal Americans with Disability Act. Residential Buildings with 4 units or more must conform to the Federal Fair Housing Accessibility Standards. Please provide proof of compliance if applicable.



(SEAL)

For WBRC Architects / Engineers

Signature:  1-29-13
Michael Johanning

Title: Architect

Firm: WBRC Architects / Engineers

Address: 30 Danforth St., Suite 306
Portland, Maine 04101

Phone: 207-947-4511

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov



Certificate of Design

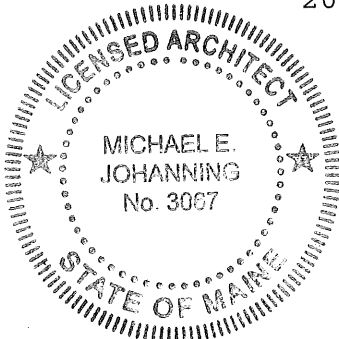
Date: January 24, 2013

From: WBRC Architects / Engineers

These plans and / or specifications covering construction work on:


The Cumberland County Civic Center Renovation to be complete
at One Civic Center Square in Portland, Maine.

Have been designed and drawn up by the undersigned, a Maine registered Architect / Engineer according to the *2003 International Building Code* and local amendments.
2009



(SEAL)

For WBRC Architects / Engineers

Signature: 

Michael Johanning

Title: Architect

Firm: WBRC Architects / Engineers

Address: 30 Danforth St., Suite 306

Portland, Maine 04101

Phone: 207-947-4511

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov



Certificate of Design Application

From Designer: WBRC Architects / Engineers
 Date: January 21, 2013
 Job Name: Cumberland County Civic Center Renovation
 Address of Construction: One Civic Center Square, Portland, ME 04101

2009

~~2003~~ International Building Code

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

Building Code & Year 2009 IBC Use Group Classification (s) Assembly A-4 and Business
 Type of Construction Type I-B (IBC) & Type II-222 (NFPA 101)
 Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC meeting NFPA 13&14
 Is the Structure mixed use? Yes If yes, separated or non separated or non separated (section 302.3) Un-separated
 Supervisory alarm System? Yes Geotechnical/Soils report required? (See Section 1802.2) Attached

Structural Design Calculations (see drawings)

Submitted for all structural members (106.1 - 106.11)

Design Loads on Construction Documents (1603)

Uniformly distributed floor live loads (7603.11, 1807)

Floor Area Use	Loads Shown
Fixed Seats	60 psf
Offices	50 + 15 partitions
Marquees	75 psf
<u>Continued below...</u>	

Wind loads (1603.1.4, 1609)

Simplified Method

Design option utilized (1609.1.1, 1609.6)

100 mph Basic wind speed (1809.3)
III, 1.15 Building category and wind importance Factor, I_w
C Wind exposure category (1609.4)
+/- 0.18 Internal pressure coefficient (ASCE 7)
upto 78.3 psf Component and cladding pressures (1609.1.1, 1609.6.2.2)
27.4 psf max Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

Equiv. Lat. Force Design option utilized (1614.1)

A Seismic use group ("Category")
0.16, 0.052 Spectral response coefficients, S_D s & S_{D1} (1615.1)
B Site class (1615.1.5)

Follow spots, projection & control booths: 50 psf
 Bleachers, lobbies, concourse, balconies, corridors, movable seating areas: 100 psf

not used Live load reduction
snow governs Roof *live* loads (1603.1.2, 1607.11)
43 psf Roof snow loads (1603.7.3, 1608)
50 psf Ground snow load, P_g (1608.2)
43 psf If $P_g > 10$ psf, flat-roof snow load P_f
1.0 If $P_g > 10$ psf, snow exposure factor, C_e
1.1 If $P_g > 10$ psf, snow load importance factor, I_s
1.1 Roof thermal factor, C_t (1608.4)
none Sloped roof snowload, P_s (1608.4)
A Seismic design category (1616.3)
** Basic seismic force resisting system (1617.6.2)
5.5, 4.5 Response modification coefficient, R , and deflection amplification factor, C_d (1617.6.2)
Equiv. Lat. Force Analysis procedure (1616.6, 1617.5)
*** Design base shear (1617.4, 1617.5.1)

Flood loads (1803.1.6, 1612)

n/a Flood Hazard area (1612.3)
FFE = 50' - 10" Elevation of structure at Mechanical Basement

Other loads

up to 2000 lbs Concentrated loads (1607.4)
15 psf Partition loads (1607.5)
Mechanical, Misc. loads (Table 1607.8, 1607.6.1, 1607.7, self weights 1607.12, 1607.13, 1610, 1611, 2404

**** Ordinary Reinforced Concrete Shear Walls**
***** Quad "A" 15 KIPS**
Quads "B&C" 75 KIPS, Quad "D" 15 KIPS

CITY OF PORTLAND
DEPARTMENT OF PLANNING & URBAN DEVELOPMENT

389 Congress Street
 Portland, Maine 04101

RECEIPT OF FEES

Application No:	201300151	Applicant:	CUMBERLAND COUNTY REC RE
Project Name:	Fourth permit: full phase 2 construc	Location:	82 FREE ST
CBL:	038 D015001	Permit Type:	Alterations - Commercial
Invoice Date:	01/24/2013		

Previous Balance	-	Payment Received	+	Current Fees	-	Current Payment	=	Total Due		Payment Due Date
\$0.00		\$0.00		\$142,815.00		\$0.00		\$142,815.00		On Receipt

First Billing

Previous Balance **\$0.00**

Fee Description	Qty	Fee/Deposit Charge
Certificate of Occupancy	1	\$75.00
Building Permit Fee First \$1000	1	\$30.00
Building Permit Fee Add'l \$1000	1	\$142,710.00
		\$142,815.00
Total Current Fees:		+ \$142,815.00
Total Current Payments:		- \$0.00
Amount Due Now:		\$142,815.00

Detach and remit with payment

<p>Bill to: CUMBERLAND COUNTY RECREATION CENTER 1 CIVIC CENTER SQ PORTLAND, ME 04101</p>	<p>CBL 038 D015001 Application No: 201300151 Invoice Date: 01/24/2013 Invoice No: 39854 Total Amt Due: \$142,815.00 Payment Amount: <input style="width: 100px; height: 20px;" type="text"/></p>
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Make checks payable to the *City of Portland*, ATTN: Inspections, 3rd Floor, 389 Congress Street, Portland, ME 04101.

Jeanie Bourke - RE: Eastland and Cumberland County Civic Center

From: Mark Cummings <wmark@fireriskmgt.com>
To: Benjamin Wallace <wallaceb@portlandmaine.gov>
Date: 3/6/2013 2:30 PM
Subject: RE: Eastland and Cumberland County Civic Center
CC: Chris Pirone <CPP@portlandmaine.gov>, Jeanie Bourke <JMB@portlandmaine.g...>
Attachments: Fire-Protection-Review_Civic-Ctr_PhaseII.pdf

Ben ... unless it was specified that the systems have to be “designed in their entirety” ... at this point in the process, I can’t necessarily answer all the questions you’ve asked below. For the suppression systems, they seem to be using a “performance specification” approach, such that they leave it up to the installing contractor to do the final layout of the systems, which are then submitted for approval for installing. In this instance, items like the final standpipe design and locations for the FDC’s aren’t necessarily included in the CD set ... not that I was provided at least. I am not pleased with the fire alarm system design. I doubt that a “fire guy/gal” did the layout, especially since these are showing up on electrical drawings. Right now I’m recommending that they go back and start over on that system ... and also recommended that they break out this system in its own drawing set. Does the City require these to be separate? ... or do you have any guidance one way or the other? I’m attaching the memo I sent back to WBRC earlier today with my comments on what may need to be “fixed” or addressed in some fashion. This should give you a feel where I think things stand on the overall “design” package. Please note this is a “draft” memo and I’ll be working with WBRC (Mike J.) to get this finalized if/as needed ... to include cleaning up any type errors since I’ve not yet had time to actually go back and do my normal “QA” on this document. mc

W. Mark Cummings, P.E.
 Fire Risk Management, Inc.
 (207) 442-7200 (w)
 (207) 233-7025 (c)
www.fireriskmgt.com

From: Benjamin Wallace [mailto:wallaceb@portlandmaine.gov]
Sent: Friday, March 01, 2013 9:53 AM
To: wmark@fireriskmgt.com
Cc: Chris Pirone; Jeanie Bourke; Tammy Munson
Subject: RE: Eastland and Cumberland County Civic Center

Good morning Mark,

Regarding the smoke alarms in the suites for the Eastland I think that if you believe in your professional opinion that arrangement provides an equivalent level or performance/protection it could be done that way. I would just

ask that you include this in you final approval letter as an equivalency as allowed by NFPA. I'm guessing that IBC has a similar provision but don't know for sure.

I don't recall phase two for the Civic Center being issued yet. The last time we spoke you still had questions regarding the smoke control system. I had questions with:

- fire alarm design, particularly occupant notification for the bowl and automatic smoke actuation of the smoke evac system for the bowl;
- considering the bowl smoke protected assembly seating without maintaining the smoke layer 6 feet above the east side of the concourse over the loading dock;
- The standpipe system design; and
- Making sure we have fire department connections together for both the sprinkler and standpipe systems on the Free St and Spring St sides.

Please keep in the loop on progress and when they are ready and we can meet to issue the permits. There may be another project in the mix that might require a third party review. I haven't had a chance to take a look at the application yet but it's a major project.

Will you e-mail me the suggested code analysis sheet you refered to when we met last. We would like to include it in the permit application packet if you're ok with that and it meets our needs.

Thanks,

Ben

Lt. Benjamin Wallace Jr.
Portland Fire Department
380 Congress Street
Portland, Maine 04101
(207)874-8400
wallaceb@portlandmaine.gov

>>> Mark Cummings 03/01/13 9:28 AM >>>

Ben ? et al;? I had a lengthy meeting with the IDC folks, along with the Architects, last Thursday on site at the hotel.? Spent a number of hours going over a variety of issues, from the ?smoke curtains? to fire barrier issues, to various fire protection system items.? Although I think ? from a design perspective ? all is ready for permitting, as we discussed at our meeting with Tammy a couple of weeks back, they (the Architects) ?REALLY need to ?fix? the life safety plans.? A number of items are not correct and these documents are extremely

confusing ? in that the really don't identify what codes are being used for what aspects of the various fire & life safety design.? I went over these in detail and they were supposed to get me updated sets this week.? As yet ? don't have them and I know Skip R. is pushing them hard to get those finalized ? since these really are the last ? hold point? for getting the final permitting info to Tammy & co.?? As soon as I have these back from the Archs, it is our intent that Skip & I will deliver the final docs and ? as needed ? address any questions that may arise.?

One side question I do have for you/Chris has to do with placement of smoke and/or combo smoke/CO detectors in some of the guest rooms.? As you know, many of these rooms have beams that subdivide the guest rooms.? Although most are not of the depth that would require two detectors (one on each side), even if the depth does exceed the ?10%? rule, code still allows for the detector to be placed on the underside of the beam as long as the area of the room does not exceed 900 ft².? ??As you may remember, many of the ceilings consist of a simple plaster layer on the concrete above.? Obviously, it's not possible to mount detectors to the ceilings in these situations and we will mount to walls as needed.? Equally, it will not be possible to mount to the underside of beams, since the fire proofing is directly connected to the beam and it's not possible to run the wiring.? Equally, this might also put the detector in jeopardy of damage, since the beam bottoms aren't all that high and could be damaged.? For those potential scenarios where the code would allow the detectors to be mounted on the underside of the beams, I would like to propose that we require that the detectors be wall mounted, immediately below the beam ? where it intersects the wall.? Given the size of these rooms, a really do not see any notable delay in actuation due to this arrangement ? versus what the codes would require.? Thoughts??

I need to get with WBRC regarding the civic center.? Was waiting .. I thought ? on some additional info for the Phase II part of the design/construction.? Has the permit for Phase I been issued?? I provided WBRC a memo that indicated that based on my review of that phase documentation, that was ready to proceed.? I think they had ?cleaned up? all areas where I had initial concerns. ?Will get back to you on that one shortly.? ?mc

?

W. Mark Cummings, P.E.
Fire Risk Management, Inc.
(207) 442-7200 (w)
(207) 233-7025 (c)
www.fireriskmgt.com

?

From: Benjamin Wallace [mailto:wallaceb@portlandmaine.gov]
Sent: Thursday, February 28, 2013 9:55 AM
To: Mark Cummings
Cc: Chris Pirone; Jeanie Bourke; Tammy Munson
Subject: Re: Eastland and Cumberland County Civic Center

?

Hi Mark,
Can I have an update for these two reviews.? We're getting pressure to get the permits issued.
Thanks,
Ben
?
Lt. Benjamin?Wallace Jr.
Fire Prevention Officer

Portland Fire Department
380 Congress Street
Portland, Maine 04101
(207)874-8400
wallaceb@portlandmaine.gov

>>> Benjamin Wallace 1/9/2013 3:10 PM >>>

Hi Mark,

What's the status of your third party review of the Civic Center and are you ready to meet with us for the final approval(s)?

Also were you engaged to review the whole Eastland Project?

Thanks,

Ben

Lt. Benjamin Wallace Jr.
Fire Prevention Officer
Portland Fire Department
380 Congress Street
Portland, Maine 04101
(207)874-8400
wallaceb@portlandmaine.gov

Notice: Under Maine law, documents - including e-mails - in the possession of public officials or city employees about government business may be classified as public records. There are very few exceptions. As a result, please be advised that what is written in an e-mail could be released to the public and/or the media if requested. ??????

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FIRE RISK MANAGEMENT, INC

1 Front St., Bath, ME 04530
207/442-7200 [-7272 (fax)]
FRM@fireriskmgt.com

Date: 6 March, 2013

Memo Report

From: W. Mark Cummings, P.E.

To: Michael Johanning, AIA; WBRC Architects and Engineers

Subject: Independent Fire Protection Review for Cumberland County Civic Center Renovations

A review has been completed of the fire protection construction documents (CD) set, dated 21 January, 2013, which has been developed to support renovation efforts at the Cumberland County Civic Center in Portland, ME. The documents reviewed included both the fire protection demolition and design drawings, along with the design specifications for the various fire protection and life safety related systems.

Fire Protection Related Drawings

The Civic Center is an existing facility. As such, a number of the fire and life safety protection systems and features already exist and may only be modified or not updated at all in connection with this renovation. However, given the level of detail that is provided with these documents, especially the drawing set, it is very difficult to ascertain whether the final design will, in fact, be code compliant. For example; the sprinkler system drawings utilize a "performance specification" approach that does not depict the final sprinkler system design. Also, although it does appear that some fire extinguishers are depicted on the Architectural drawings, it does not appear that these drawings consistently depict all extinguisher locations necessary to be fully code compliant.

The fire alarm system components are being included with the electrical drawings. This makes a review of this system very difficult. The fire alarm system design should follow standard drawing standards and be depicted separately, using the standard drawing naming/numbering scheme (FA series). A review of the electrical drawings that depict the fire alarm system components indicates there are numerous problems, both from the lack of devices as well as devices being depicted in areas where they are unnecessary. For example, numerous smoke and heat detectors are shown in areas where they are not needed, such as in corridors and closets. Additionally, symbols are used on the drawings that are not depicted in the legend. The fire alarm system design drawings must be reviewed in detail to not only ensure that they provide a code-compliant system, but one that does not require numerous components where they are not needed or required.

Some of the fire barrier requirements shown on the Life Safety Plans are not properly depicted and/or are not consistent with code requirements. For example, no fire rated barrier is depicted for the Fire Pump Room. These plans should be reviewed to verify that all fire rated barriers are properly depicted on the plans, to include highlighting requirements associated with floor/ceiling assemblies. It would also be recommended that all locations for the fire extinguishers be depicted on the life safety plans, such that they can be readily identified and verified as meeting code requirements.

Fire Protection Related Systems Design Specifications

In connection with a review of the related fire protection and life safety system specifications; the following sections were reviewed:

- 078100 – Applied Fireproofing
- 078413 – Penetration Firestopping
- 078446 – Fire Resistive Joint Systems
- 104413 – Fire Extinguisher Cabinets
- 104416 – Fire Extinguishers
- 210500 – Common Work For Fire Suppression
- 211200 – Fire Suppression Systems

211313 – Wet-Pipe Sprinkler Systems
230593 – Testing, Adjusting, and Balancing
230993 – Sequence of Operation
283111 – Digital, Addressable Fire-Alarm System

In addition to the above specifications, the Building Code and Smoke Control Reports were also reviewed and referenced, since these are both associated with the design specifications.

Building Code Report

It had previously been highlighted that there were some questions regarding the occupancy loading calculations used for the enclosed office areas associated with the mezzanine area in the Northwest corner of the Civic Center, which should be reviewed for accuracy. The Fire Resistance Rating table on page 6 of this report does not correctly depict the fire rating for the barriers that separate the Fire Pump Room from the remainder of the building (also the NFPA 20 section citation is incorrect). Since this is a fully sprinklered facility, one a one-hour rating is needed. This section also does not indicate whether NFPA or IBC requirements will have precedence when conflicting requirements exist; such as with the Emergency Generator Room. This should be stated. The Fire Resistance Rating for the building elements on page 7 also should indicate that only a one hour rating is required for the interior load-bearing structures that only support the roof.

Within paragraph 5.5 of the code report, the requirements listed for the standpipe systems should be reviewed. The IBC section referenced, 905.3.19, is incorrect (should be 905.4) and should also indicate the use of NFPA 14; albeit that is referenced in NFPA 1. Also the references to IBC section 905.3.2 should be removed, since these are for non-sprinklered buildings. In item 5.5.2, the specific drawings that depict the fire extinguisher locations should be referenced.

Item 5.6.2 should be clarified. This simply states that “one manual pull station is required.” This is not a correct statement.

Item 5.8.2 should be updated to add the word “less” to the first bullet; “... four stories or **less** are listed ...” Also, “and Standpipe” should be added to the title for item 5.9.2.

Section 078100

In item 3.4.A.1, the IBC section referenced is incorrect. This should be “1704.12.”

Section 078413

In item 1.5.C, paragraph 3.5 of this section should be referenced as pertaining to how the penetration seal assembly is to be inspected and tested. In item 1.7.C, the term “owner” is used. The owner should be defined within this specification section, to include if an “owner’s representative” may also have some jurisdiction. In paragraph 3.5, the source requirements for the tests and inspections should be cited; such as the IBC or other requirements. This paragraph should include the percentage of penetration seal assemblies that are to be tested; as appropriate.

Section 078446

As outlined previously, the “owner” should be defined within the specification and paragraph 3.5 should specifically outline the source for the required tests and inspections, along with the percentage of assemblies that must be tested.

Section 104413

Under paragraph 1.2, item B – “Related Sections”, the specific section number should be referenced (i.e.; 104416). This section should also list the drawing(s) where the specific locations for the cabinets are depicted.

Section 104416

Item 1.2.B.2 references a specification section that is not included with the design package. However, given the fact that the kitchen hood system(s) does exist, this section should be provided with this package. Currently, all design specifications for the fire protection aspects of the kitchen hood(s) is contained in (spread over) numerous mechanical specification sections. Also, since the kitchen hood system is a “fixed” system, including it as a related section in this specification section is likely not appropriate.

In paragraph 1.6, it is required that coordination occur with the extinguisher cabinet section. Currently, no document exists that outlines the type or size of extinguishers that are to be located throughout the building. Equally, item 3.2.A should specifically reference the drawings where the locations of the extinguishers can be found.

Section 210500

Item 1.1.D, Related Sections, should provide the specific section number for each section listed, not simply the Division number. The section listed as item 1.1.D.2 should be removed, since this project is not required to have seismically-qualified designs. This fact should be outlined within the Building Code Report. The specification section for the Standpipe system (211200) should be included within item 1.1.D.

Item 3.3.A seems to indicate that the suppression system piping is to be painted, referencing Division 09 sections (should specifically reference 099123). The referenced section does not specifically discuss fire protection systems/components, nor does it indicate the color to be used. If it is to be required that the piping and components are all to be painted, this should be specifically stated, with the proper color scheme indicated.

Section 211200

Item 1.2.B, Related Sections, should include both the sprinkler system section (211313) and the fire alarm system section (283111).

Items 1.5.C and D should be removed, since this section deals only with the standpipe system design, not sprinkler systems.

Remove reference to NFPA 14 in item 3.1.A. This code does not provide any information regarding hydrant flow tests.

Item 3.11.A needs to be clarified. NFPA 14 does not have any requirements for labeling or “pipe markers” on equipment. There is a requirement that listed pipe must be used and that it is clearly marked with the size and schedule info, but this is done when manufactured and not something that can be “installed.” If this is a reference to painting the piping and components, this should be specifically stated. If this is referring to the label plates for valves and other components that are to be affixed to each, this too should be clarified.

In item 3.12.A; it should be verified that all State required certifications will be adhered to with regards to the maintaining fire suppression systems.

In paragraph 3.13, consideration should be given to simply referencing compliance with NFPA 14 for all materials used. The current requirements address only piping that is 4-inch and smaller. All pipe sizes that could be installed should be included.

Section 211313

Item 1.2.B, specific specification section numbers should be provided. Item 1.2.B.3 should be removed; no fire pump section has been included.

Item 1.4.B should be expanded and clarified. A fire pump does exist for this facility; yet no mention is made of this and how it may, or may not, support the sprinkler systems. This is likely to be a point of confusion for any contractor that may be charged with design/installing these systems. The drawings indicate that the fire pump does supply the sprinkler systems. The specific flow characteristics for the fire pump (pump rating) should be provided, such that it can be used to support the necessary hydraulic calculations.

Item 1.5.C.1 should include fire pump data.

Item 1.6.D should include the review and permitting requirements for the City of Portland (PFD).

Item 1.8.A should be expanded to provide clarification on the overall renovation requirements, including that some systems are to remain, some will be modified, and others added. Cite the sprinkler system drawings as a reference.

Item 2.7.A should specify both the type (Storz) and size of fire department connection that is to be provided. Will assume that it is to be the same as that listed in the Standpipe section.

The wording in item 3.3.A should be updated to reflect that the piping is to be installed as indicated on the approved shop drawings.

In item 3.3.L, remove any reference to installing pressure gauges at the top of the standpipe risers, since this info should be included in the standpipe specification.

Item 3.11.A needs to be clarified. NFPA 13 does not have any requirements for labeling or “pipe markers” on equipment. There is a requirement that listed pipe must be used and that it is clearly marked with the size and schedule info, but this is done when manufactured and not something that can be “installed.” If this is a reference to painting the piping and components, this should be specifically stated. If this is referring to the label plates for valves and other components that are to be affixed to each, this too should be clarified.

Verify that it is really the intent to allow the use of “pendent” sprinklers in areas subject to freezing, as indicated by item 3.16.A.4.

Section 230993

It should be verified that it will be acceptable to the City (PFD) to allow the smoke control system (smoke exhaust fan) to be automatically shut down as outlined in item 1.16.G. Typically, only manual actions are used to deactivate and reset a life safety system such as this.

Section 283111

Paragraph 1.2 should be expanded to add an item 1.2.B – Related Sections, similar to other specification sections. This should include the following sections; 087100, 211200, 211313, 230593, 230993, and possibly along with some of the electrical division sections. Additionally, both the City (PFD) rules and regulations and the Smoke Control Report should be referenced as well, to ensure that this system accommodates all required features and functions.

Insert the word “smoke” in front of “detector” in item 2.3.G.1.a.

Insert an “e” in 2.3.K.1 in the sentence “announcement by “use” of ... “

Renumber item 2.3.K.3 to “.2”.

Remove the option to use a “wrench” in item 2.4.A.2. The City regulations will only allow for the use of a key to reset manual pull stations.

Item 2.10.A.4.a.1) allows for up to 180 seconds for manual actions to occur to either reset the fire alarm system after receiving an alarm signal from a smoke detector. This appears to be an inordinately long time frame to delay system operation. The Smoke Control Report only allows for a delay of 90 seconds in the smoke modeling associated with the system design parameters. Recommend that any delay in the automatic operation of this system be no greater than 60 to 90 seconds; which is more than sufficient time for operators to verify the accuracy of the alarm signal.

Paragraphs 2.15 and 2.16 make no references to the requirements for the wireless master box system as required by the City’s regulations. All requirements within this specification section must be reviewed to ensure that it complies with all the City’s requirements.

Replace the word “Door” with “Finish” where referencing specification section 087100 in item 3.4.A.

Paragraph 3.7 should be expanded to include specific testing requirements for the smoke control systems, including citing the required sources of testing parameters; such as the IBC sections.

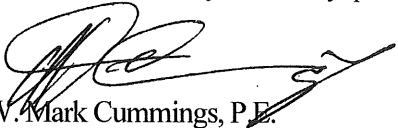
Summary

In general, the majority of the documents appear to need only some minor additions or changes as outlined above. It is strongly recommended that the fire alarm system drawings be established as a “separate set”, using standard drawing numbering and symbology for fire alarm systems. Currently, the layout that is depicted within the electrical drawings would not be fully code-compliant and there are many devices shown that are not needed/required. This will result in unnecessary costs for the owner, both as capital and life cycle expenditures. Equally, the life safety plans should be updated to reflect all required fire separation boundaries. It is also recommended that consideration be given to including the fire extinguisher/cabinets locations on these plans.

A new specification section for the kitchen hood fire protection systems should be added to the submittal package, such that these requirements are explicitly detailed within a single specification. This section would need to be related to the fire alarm specification section.

The Building Code Report needs some minor corrections as noted above. Equally, it is recommended that this document be expanded to clearly delineate the overall water supply issues; specifically as pertaining to the fire pump and how this system is being used to support the sprinkler systems, but apparently not the standpipe systems. The overall philosophy for providing adequate fire water for all systems should be highlighted and be coordinated with the Portland Fire Department's Pre-Fire Plan for this building.

Please let me know if you have any questions regarding the above.

A handwritten signature in black ink, appearing to read 'W. Mark Cummings', with a stylized flourish extending to the right.

W. Mark Cummings, P.E.