

**Area #3 Hydraulic Calculation - 5th Floor Guest Room**  
 1. Criteria: 30 gpm per square foot over the most remote room plus heads in each adjoining space not protected by self-closing fire door with hose allowance of 300 GPM added.  
 2. 01 sprinklers operating.  
 3. System demand at flow test: 173.75 GPM @ 88.79 PSI. This includes 30 GPM Hose Allowance. A Safety Factor of 26.88 PSI is available.

**Area #6 Hydraulic Calculation - 5th Floor Corridor**  
 1. Criteria: 30 gpm per square foot over the most remote 5 sprinklers in corridor. Guest Rooms are protected by self-closing fire doors. Hose allowance of 300 GPM added.  
 2. 01 sprinklers operating.  
 3. System demand at flow test: 175.97 GPM @ 49.73 PSI. This includes 250 GPM Hose Allowance. A Safety Factor of 50.03 PSI is available.

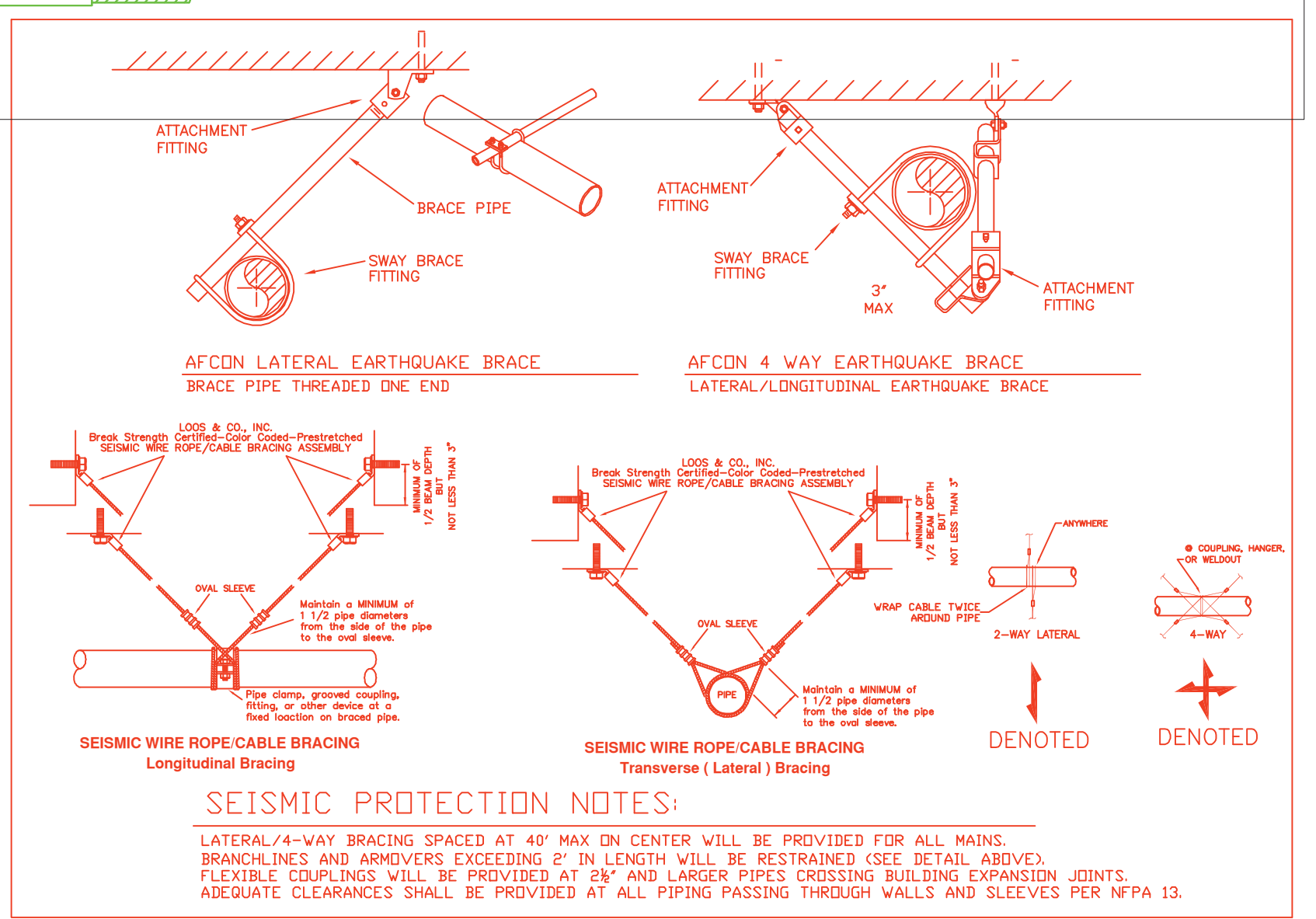
**Area #4 Hydraulic Calculation - 5th Floor Guest Room**  
 1. Criteria: 30 gpm per square foot over the most remote room plus heads in each adjoining space not protected by self-closing fire door with hose allowance of 300 GPM added.  
 2. 01 sprinklers operating.  
 3. System demand at flow test: 187.20 GPM @ 50.03 PSI. This includes 300 GPM Hose Allowance. A Safety Factor of 17.85 PSI is available.

TOP OF SLAB 154'-0"  
 TOP OF STEEL 153'-4" U.N.O.  
 TOP OF JOISTS +5"  
 TOP OF GIRDERS +2 1/2"  
 AT UNDERSIDE OF 6TH FLOOR STRUCTURE (IN ADDITION TO CEILING TYPES SHOWN)-PROVIDE (1) LAYER OF 1/2" 440 SOUND BARRIER BY HOMASOTE OR EQUIVALENT 25 GA. 7/8" FURRING CHANNELS AT 24" O.C. TIED TO JOIST BOTTOM CHORDS W/ 1/2" SWG HANGER WIRE. #1 LAYER OF THERMABARRIER SOUND ATTENUATION FIRE BLANKETS (SAFB) OR EQUAL FITTED TIGHTLY IN PLACE BETWEEN JOISTS (NO Voids).

**5th Floor Fire Sprinkler Plan**  
 1/8" = 1'-0"

Sprinkler Head Schedule					
Symbol	Count	Thread	K-Factor	Description	Note
⊙	36	1/2"	5.6	RELIABLE F1FR-56, 155' WHITE RECESSED PENDENT	RA1414
⊙	33	3/4"	8.0	RELIABLE F1FR WHITE OR EXTENDED COVERAGE RECESSED PENDENT	R4842
⊙	80	1/2"	4.2	RELIABLE F1FR WHITE OR RECESSED PENDENT	RA1413
○	1	1/2"	5.6	RELIABLE F1FR-56, 155' BRASS UPRIGHT	RA1425

150 = Total Number of Heads this floor



**SEISMIC DETAILS**

**Hampshire FIRE PROTECTION**  
 8 NORTH WENTWORTH AVENUE LONDONDERRY, NH 03053  
 PH: (603) 432-8221 FAX: (603) 434-3194  
 WEBSITE: HAMPSHIREFIRE.COM  
 MASS LIC# 003841 MAINE LIC# 238 VERMONT CERTIFIED

WATER SUPPLY DATA		SPRINKLERS	
Static pressure	108 psi	Total This Sheet	Total This Job
Residual pressure	102 psi	Symbol	Description
Flow	1537 gpm		
Location Corner of Commercial & Maple			
Elevation 0'-0"			
Date	May 11 2013 Time 6:00 AM		
Information	Portland Water		

Drawing Title		Revisions:		Date:
5th Floor Fire Sprinkler Plan		1		
Contract	No4396CME	2		
Drawn By	EVW	3		
Scale	As Noted	4		
Date	05-25-13	5		
Approval	By Portland ME	6		
		7		

Project:	
Marriott Courtyard Hotel	
321 Commercial Street	
Portland ME 04101	
Contract with:	
Opechee Construction	
11 Corporate Drive	
Belmont NH 03220	

**FIRE PROTECTION ENGINEER STAMP**

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 FIRE PROTECTION ENGINEER