

CODE ANALYSIS

NFPA 101 Life Safety Code - 2012 Edition(\*) Denotes if fully Sprinkled/Alarmed

Building Classification: Existing Business & Mercantile  
 Total First Floor Area (Mercantile) = 9,604 sf  
 Total Second thru Fifth Floor Area (Business) = 36,416 sf  
 Building Total Floor Area = 48,020 sf

Hazard Classification: Ordinary Hazard  
 Construction Type: Type III (000)  
 Occupant Loads: SF Mercantile @ 30 sf/occupant = 320 occupants  
 SF Business @ 100 sf/occupant = 385 occupants  
 Total Building Occupant Load = 705 occupants

Separation of Use Rating: 2 hour (1 Hour)  
 Janitor, Mech, Stor Rating: 1 hour  
 Star Rating: 2 hour (1 Hour)  
 Minimum Stair width: 44" clear; 36" if less than 50 occupants  
 Maximum Riser height: 7"  
 Minimum Tread width: 11"  
 Minimum Headroom: 6'-6" at stairs; 7'-6" at occupied areas  
 Maximum ht between landings: 12'-0"  
 Handrail height: 34"-36" @ 42" guardrail  
 Handrail top extension: 12" horz.  
 Handrail bottom extension: 11" angled + 12" horz.  
 Handrail diameter: 1-1/4" O.D.  
 Maximum baluster open space: Less than 4"

Building Uses

Building Uses	Mercantile	Business
(*) denotes if building is fully sprinkled		
Max. Allowable Travel Distance:	150' (250')	200' (300')
Max. Allowable Common Path:	75' (100')	75' (100')
Max. Dead End Corridor Length:	20' (50')	20' (50')
Minimum Egress Corridor Width:	44"/36" if >50 occ	44"/36" if >50 occ
Minimum Number of Required Exits:	2 (same as Business)	2 (1 if less than 100 Occupants and less than 100 travel Distance to egress floor level exit)
Minimum Horz Egress Enclosure rating:	1 hr (none)	1 hr (none)
Minimum Separation of exits:	Same as Business	0.5 diagonal (0.33)
Fire Escapes as means of egress:	Allowed (NA)	Allowed (NA)
Minimum Egress Door Width:	36"	36"

Exit Lighting:	Required	Required
Emergency Lighting:	Required	Required
Fire Alarm System:	Required	Required
Fire Sprinkler System:	Not Required	Required
Portable Fire Extinguishers:	Required	Required
Exit Devices/Panic Hardware:	Required	Required

City of Portland Compliance: NFPA 1 & PFD Technical Standards

2009 International Building Code

(\*) denotes if building is fully sprinkled

Use Group Classification: Existing Mercantile - Use Group M  
 Existing Business - Use Group B  
 Construction: Type III - Combustible/Non-Combustible, Unprotected  
 Occupant Loads: B @ 100 sf/occupant = 385 occupants  
 M @ 30 sf/occupant = 320 occupants  
 Total Building Occupant Load = 705 occupants

Area Use Separation Ratings: 2 hour (1 Hour)  
 Janitor, Mech & Storage Rooms: 1 hour

Building Limitations

Construction Type: IIIB Unprotected  
 Maximum Height: 2 story /55' @ M (+1 story /20')  
 3 story /55' @ B (+1 story /20')  
 Maximum Area / Floor: 12,500 sf @ M (+25,000 sf)  
 19,000 sf @ B (+38,000 sf)  
 Actual Area/Height: 5F & 5 Stories (Existing)

Fire Resistance Ratings

Load Bearing Exterior Walls: 2 hours  
 Fire Separation Exits (Stairs): 2 hours (1 hour)  
 Fire Separation of Uses: 2 hours (1 hour)  
 Shafts: 2 hours  
 Exit Corridors: 1 hour (none)  
 Minimum Number of Exits: 2 per occupancy type (1 if less than 30 occupants and 75' travel distance to exit from 2nd floor to exterior)

Maximum Dead End Corridor Length: 20'/50' at system furniture under 6' high  
 Maximum Common Travel Path: 75' (100')  
 Maximum Travel Distance: 200' (300') @ B / 200' (250') @ M  
 Minimum Corridor Width: 44"/36" if >50 occupants  
 Minimum Stair Width: 44"/36" if > 50 occupants  
 Maximum Riser Height: 7"  
 Minimum Tread Depth: 11"  
 Minimum Ramp Width: 44"/36" if > 50 occupants  
 Maximum Ramp Pitch: 1:12  
 Handrails: Same as NFPA 101  
 Minimum Ceiling Height: 7'-6"

Fire Alarm System: Required  
 Fire Sprinkler System: Required  
 Portable Fire Extinguishers: Required  
 Exit Lighting: Required  
 Emergency Lighting: Required

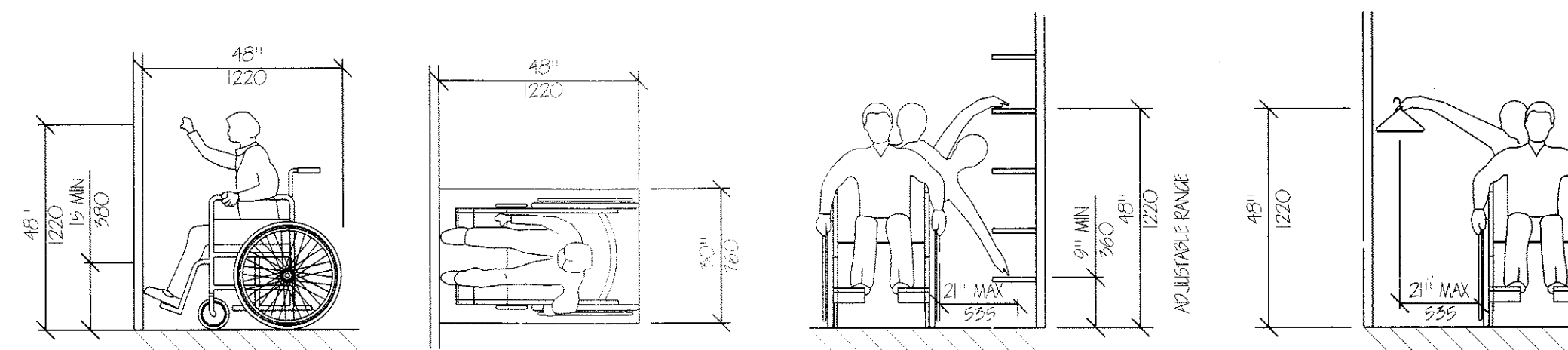
Building Live Loads

Office: 50 psf  
 Lobbies: 100 psf  
 Corridors: 80 psf  
 Storage: 125 psf @ light; 250 psf @ heavy

MUBEC (Maine Uniform Building Energy Code) MINIMUM INSULATION VALUES  
 Per 2009 IECC; Table 502.1.2, 502.2(1) and 502.3

ZONE GA	R-VALUE	U-FACTOR	SHGC
Exterior wall	18.5	0.054	NA
Windows	2.9	0.35	NR

End of Analysis

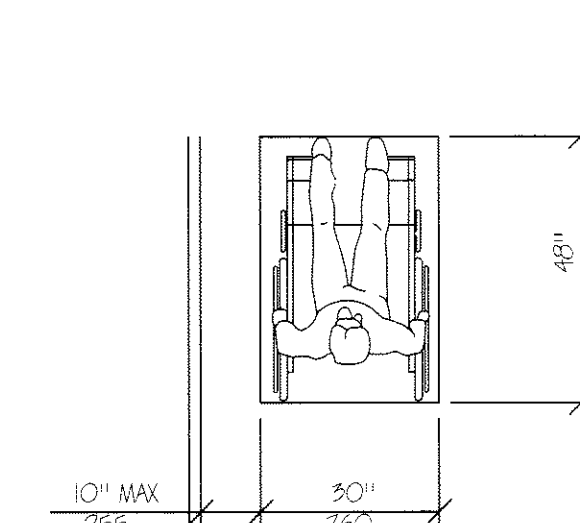


HIGH FORWARD REACH LIMIT  
NTS

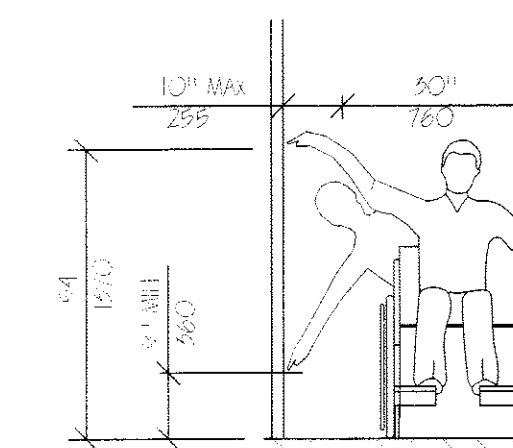
SHELVES

CLOSETS

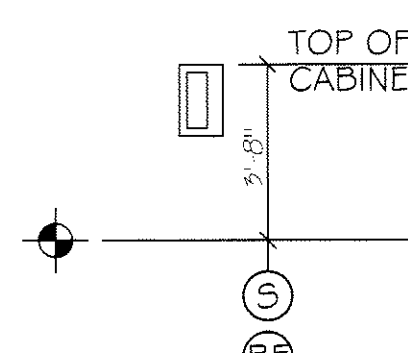
STORAGE SHELVES AND CLOSETS  
NTS



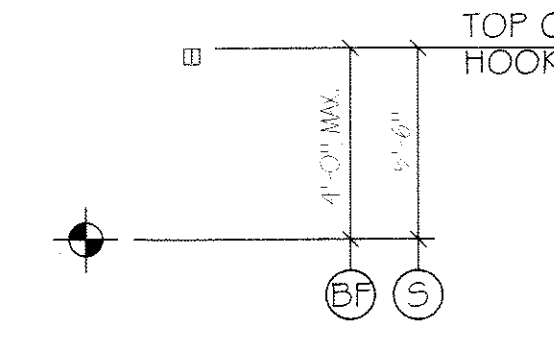
CLEAR FLOOR SPACE  
PARALLEL APPROACH  
NTS



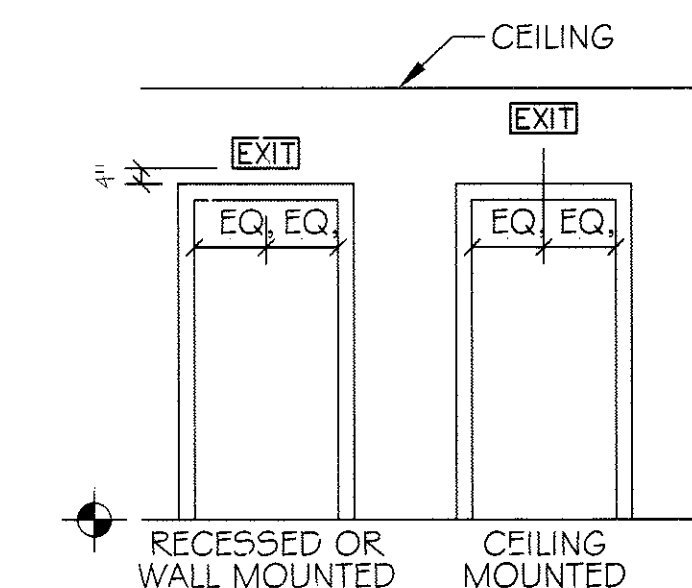
HIGH AND LOW  
SIDE REACH LIMITS  
NTS



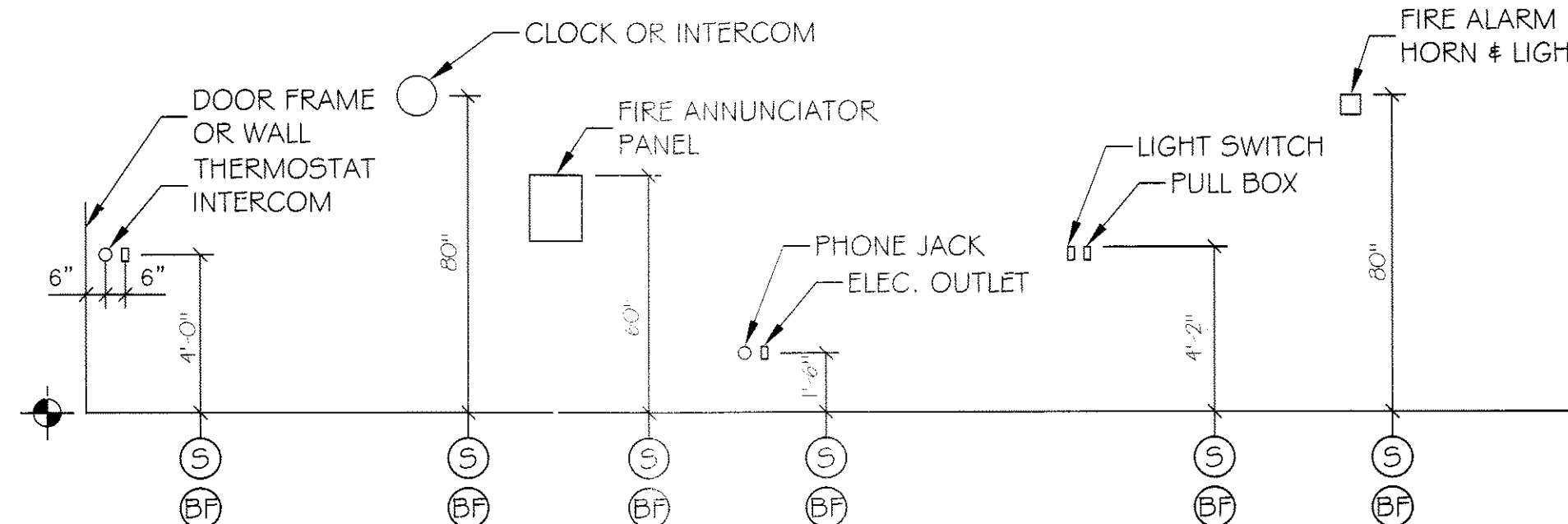
FIRE EXTINGUISHER  
CABINET (FEC)  
NTS



CLOTHES HOOK  
NTS



EXIT SIGNS  
TYPICAL UNLESS OTHERWISE NOTED  
NTS



ELECTRICAL & FIRE PROTECTION DEVICES  
TYPICAL UNLESS NOTED OTHERWISE  
NTS

LEGEND

- (S) STANDARD MOUNTING HEIGHT
- (BF) BARRIER FREE ADULT MOUNTING HEIGHT
- ◆ FINISH FLOOR LINE

NOTE

MOUNT ALL FIXTURES AT STANDARD MOUNTING HEIGHT UNLESS INDICATED OTHERWISE BY A SYMBOL. A SYMBOL AT ANY ROOM SHALL INCLUDE ONE OF ANY FIXTURE AND ACCESSORY WITHIN THE ROOM.

ACCESSIBILITY GENERAL NOTES

1. DOORWAYS SHALL HAVE A MINIMUM CLEAR WIDTH OF 32" WITH THE DOOR OPEN 90 DEGREES. MEASURED BETWEEN THE FACE OF THE DOOR AND THE OPPOSITE STOP.
2. ALL DOORS SHALL HAVE LEVER HANDLE HARDWARE, EXCEPT AT SECURED STORAGE ROOMS, MECHANICAL ROOMS, AND UTILITY ROOMS.
3. ALL CLOSERS SHALL BE 5LB PULL MAXIMUM AT DOORS EQUIPPED WITH LEVER HANDLE HARDWARE.
4. ALL DOORS WITH CLOSERS SHALL HAVE 18" CLEAR DISTANCE FROM THE LATCHSIDE OF THE OPENING TO ANY ADJACENT WALL OR OBSTRUCTION ON THE PULL SIDE OF THE OPENING.
5. ALL DOORS WITH CLOSERS SHALL HAVE 12" CLEAR DISTANCE FROM THE LATCHSIDE OF THE OPENING TO ANY ADJACENT WALL OR OBSTRUCTION ON THE PUSH SIDE OF THE OPENING.
6. ALL SIGNAGE SHALL BE MOUNTED 60" AFF TO BRaille COMPONENT AT LATCH-SIDE WALL OF DOORS AND OPENINGS.
7. COMPLY WITH 2010 EDITION OF THE AMERICANS WITH DISABILITIES ACT.