

**GENERAL NOTES - VISUAL NOTIFICATION**

- Audible sound level of fire alarm horns shall be at least 15 dB above the average ambient sound level or 5 dB above the maximum sound level having a duration of at least 60 seconds.
- An average ambient sound level greater than 105 dBA shall require the use of visible notification.
- The total sound pressure level produced by combining the ambient sounds pressure level with all audible notification appliances operating shall not exceed 110 dBA at the min hearing distance.

**GENERAL NOTES - VISUAL NOTIFICATION**

- Flash rate of strobe shall not exceed two flashes per second (2Hz) nor be less than one flash every second (1Hz) throughout the listed voltage range of the appliance.
- Maximum pulse duration shall be 0.2 seconds with a maximum duty cycle of 40%
- Wall mounted strobes shall be mounted such that the entire lens is not less than 80" and not greater than 96" above the finished floor or at mounting height specified using the performance-based alternative.
- If two groups of strobes are in the same room or visible, each group shall be synchronized, including if strobes are operated by separate systems.
- In square rooms w/ strobes not centered or in non-square rooms, the effective intensity from one strobe shall be determined by the max room size dimension by measuring the distance to the farthest wall or by doubling the distance to the farthest adjacent wall, whichever is greater.
- Strobes shall be located not more than 15' from the end of a corridor with a separation not greater than 100' and shall flash in synchronization. The effective intensity shall be rated not less than 15 cd.

**SYMBOL LEGEND**

- LED Exit Light (unswitched)
- LED Exit Light w/ Directional Arrow (unswitched)
- Self Contained, wall-mounted, Emergency Lighting Unit with 2 Heads and battery backup
- Self Contained, ceiling-mounted, Emergency Lighting Unit with 2 Heads and battery backup
- Single Head Remote Emergency Light
- Fire Alarm Audio/Visual, mount 6'-8" AFF, dB Level in Field (Candela Level)
- Fire Alarm Visual Strobe only, Flush mount 6'-8" AFF, (Candela Level)
- System connected Smoke Detector, photoelectric type w/ Sounder base
- Fire Alarm pull station, mount 48" AFF
- Fire Alarm Annunciator, location to be approved by Portland Fire Department
- Knox Box (location and type to be approved by Portland Fire Department)
- Fire extinguisher cabinet and type
- Existing to Remain
- Magnetic Hold Open (requires smoke detectors located on each side of door and connected to sprinkler system)
- Exterior grade / waterproof

**NOTES**

- Life safety equipment and locations shall conform to all applicable codes.
- Fully test and inspect sprinkler system.
- Provide duct smoke detectors at each 2,000 CFM supply duct.
- Provide duct smoke detectors at each 15,000 CFM supply and exhaust duct.
- Obtain water supply flow test if available within last three years, if not available test must be conducted.
- All sprinkler heads must be quick response type.
- Electrical outlets shall be provided for all plug-in equipment. All other outlets shall be located per all applicable codes.
- Provide laminated floor plan at each public room indicating direction to building exit.

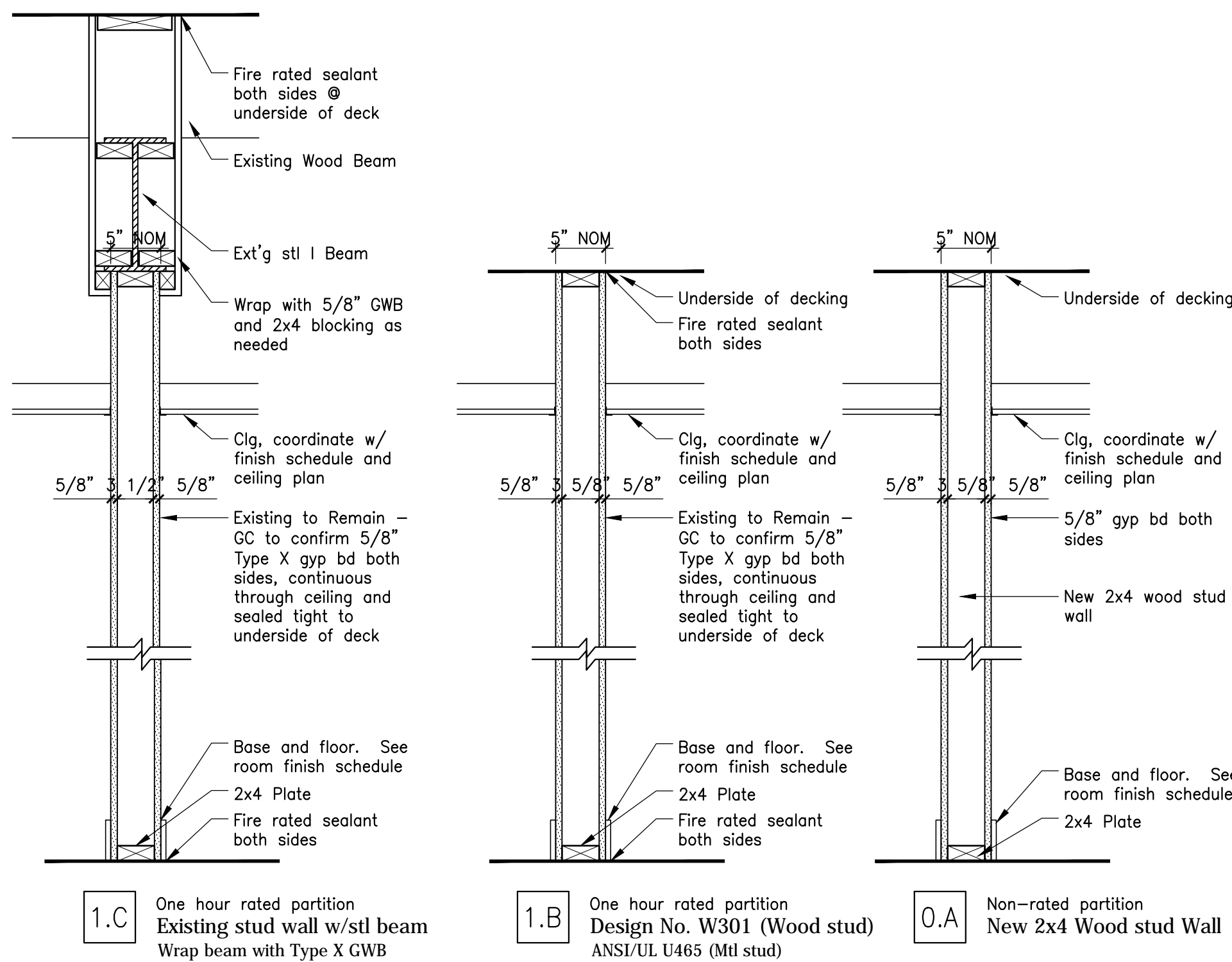
**Strobe Quantity and Intensity for Ceiling Mounted Appliances**

Room Size	Maximum lens height	Effective Intensity, one light (cd)
20 x 20	10	15
30 x 30	10	30
40 x 40	10	60
44 x 44	10	75
20 x 20	20	30
30 x 30	20	45
44 x 44	20	75
46 x 46	20	80
20 x 20	30	55
30 x 30	30	75
50 x 50	30	95
53 x 53	30	110
55 x 55	30	115
59 x 59	30	135
63 x 63	30	150
68 x 68	30	177
70 x 70	30	185

**Strobe Quantity and Intensity for Wall Mounted Appliances**

Room Size	Effective Intensity (cd), One light per room	Effective Intensity (cd), Four lights per room, one light per wall
20 x 20	15	NA
28 x 28	30	NA
30 x 30	34	NA
40 x 40	60	15
45 x 45	75	19
50 x 50	94	30
54 x 54	110	30
55 x 55	115	30
60 x 60	135	30
63 x 63	150	37
68 x 68	177	43
70 x 70	184	60
80 x 80	240	60
90 x 90	304	95
100 x 100	375	95
110 x 110	455	135
120 x 120	540	135
130 x 130	635	185

- Provide tile backer board at walls scheduled to receive ceramic tile.
- Lay out steel studs to conform to 4'-0" module where required to install gypsum board vertically to comply with tested fire-rated wall assemblies.
- Penetrations through walls to be acoustically or smoke sealed shall have sealant system conforming to approved installations.



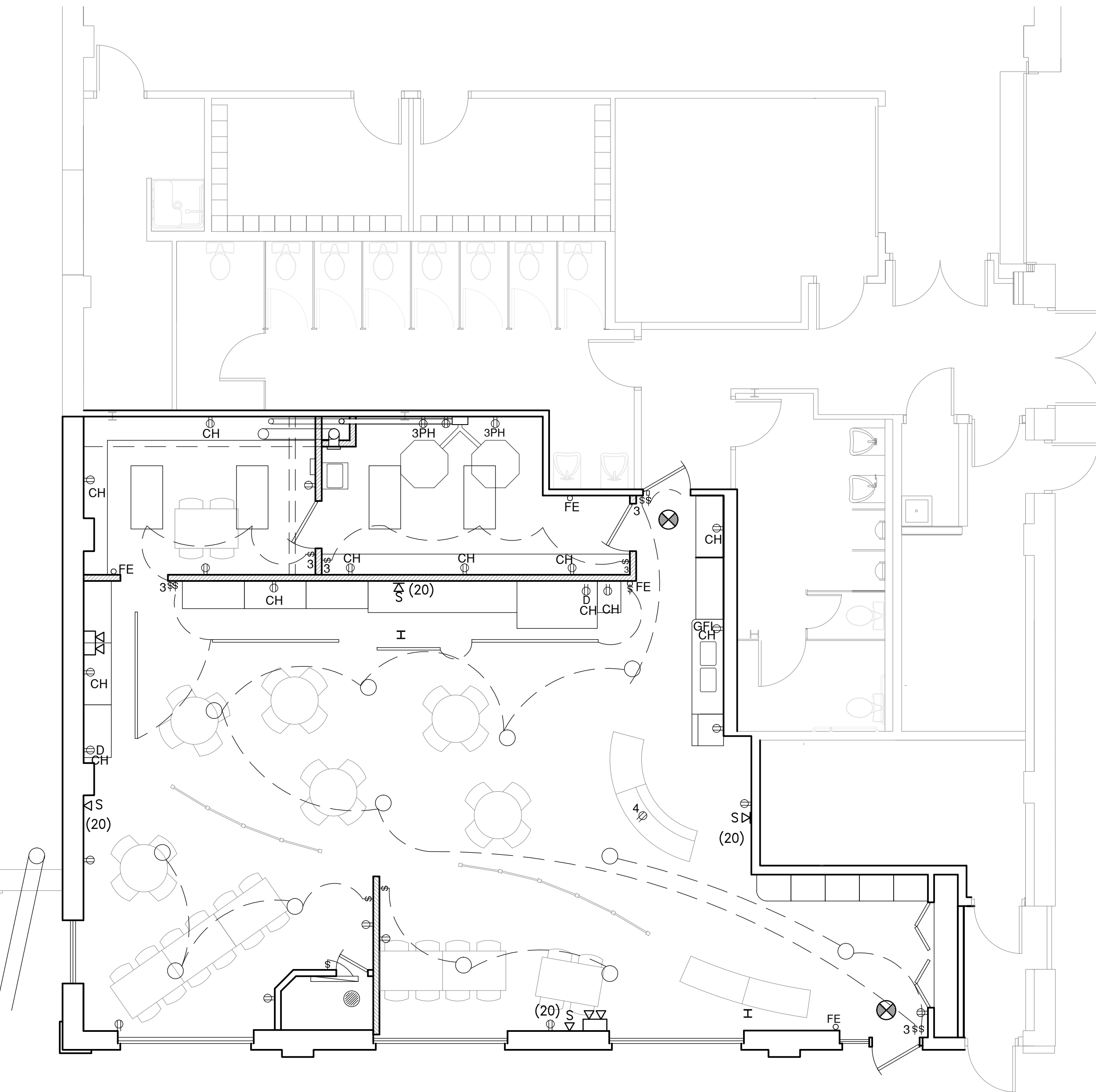
**2 Partition Types**  
Scale: 1" = 1'-0"

**Fire Extinguisher Cabinet**

FEC Fire Extinguisher Cabinet by Larsen or approved equivalent. Include Class K hazard in Kitchen

**Portable Fire Extinguishers:**

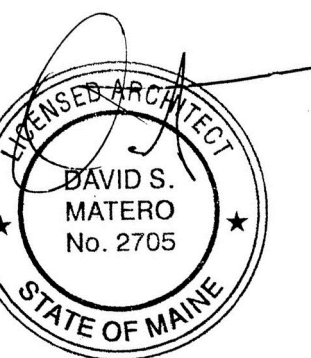
- Location of fire extinguishers and cabinets shall conform to NFPA 10 Standards for Fire Extinguisher Cabinets.
- Portable fire extinguisher rating shall be 2-A, spacing shall not exceed a maximum of 75' and 3,000 sf.
- Portable fire extinguisher rating in combustible cooking media exist shall be rated Class K, spacing shall not exceed a maximum travel distance of 30'.
- Provide rated cabinet if fully/semi recessed installed in rated partition.



**1 Electrical Life Safety Plan**  
Scale: 3/16" = 1'-0"

Consultants

Revisions



Job Number:  
Date: 12.16.14  
Scale: As Noted  
Drawing Title:

**Electrical Life Safety Plan**

**R.3**  
Issued for Permit