



RENOVATION OF THREE  
RESIDENCE HALLS  
POCAHONTAS, BOLLING,  
& DRAPER HALLS

RADFORD UNIVERSITY  
RADFORD, VIRGINIA

217-17565-000  
1115



Checked By  
Drawn By

MLW  
MBW

GRAPHIC SCALE - 3' = 1'-0"  
0 4' 8' 1'-0"

RADFORD UNIVERSITY - RENOVATION TO THREE RESIDENCE

Project Data Summary

Authority Having Jurisdiction: Virginia Bureau of Capital Outlay Management  
Applicable Building Codes: Virginia Rehabilitation Code (VRC), 2009 Edition, Part II  
Accessibility Standards: 2010 ADA Standards for Accessible Design (ASAD)  
Fire Suppression: Fully Sprinklered per NFPA 13  
Construction Classification: Existing Building constructed in 1954, Assuming Type IIIIB (of the current code)  
Building Occupancy Use Group: Existing R1/R2 (Dormitory) with B/A3/S2 Accessory Use Groups

Building Code Summary

| Code Topic                  | Section Ref. | Required/Allowed    | Provided            | Remarks |
|-----------------------------|--------------|---------------------|---------------------|---------|
| Construction Classification | 602          | IIIIB               | IIIIB               |         |
| Use and Occupancy Class.    | 302          | R1/R2 / B / A3 / S2 | R1/R2 / B / A3 / S2 |         |

|                              |           |                 |                     |  |
|------------------------------|-----------|-----------------|---------------------|--|
| Allowable Height - R1/R2     | Table 503 | 4 stories / 55' |                     |  |
| Height Increase - R1/R2      | 504.2     | 1 story / 20'   |                     |  |
| Adj. Building Height - R1/R2 |           | 5 stories / 75' | 3 stories / 40'-10" |  |
| Allowable Height - S2        | Table 503 | 3 stories / 55' |                     |  |
| Height Increase - S2         | 504.2     | 1 story / 20'   |                     |  |
| Adj. Building Height - S2    |           | 4 stories / 75' | 1 story             |  |
| Allowable Height - A3        | Table 503 | 2 stories / 55' |                     |  |
| Height Increase - A3         | 504.2     | 1 story / 20'   |                     |  |
| Adj. Building Height - A3    |           | 3 stories / 75' | 3 stories / 40'-10" |  |

|               |           |                               |                                      |           |
|---------------|-----------|-------------------------------|--------------------------------------|-----------|
| Building Area |           |                               |                                      |           |
| Basement      | Table 503 | 9500 SF (A3) / 19,000 (B)     | 3191 SF (A3) / 220 SF (B)            |           |
| First Floor   | Table 503 | 9500 (A3) / 18,000 (R1)       | 2237 SF (A3) / 7412 SF (R1)          |           |
| Second Floor  | Table 503 | 9500 (A3) / 16,000 (R1)       | 522 SF (A3) / 9069 SF (R1)           |           |
| Third Floor   | Table 503 | 9500 (A3) / 16,000 (R1)       | 522 SF (A3) / 9069 SF (R1)           |           |
| Subtotal      |           | 38,000 SF (A3)/48,000 SF (R1) | 6472 SF (A3)/25,550 SF (R1)          |           |
| Attic         |           |                               | 9591 SF                              |           |
| Grand TOTAL   |           |                               | 6472 SF (A3)/25,550 SF (R1)/9,591 SF | 41,613 SF |

|                                     |         |             |                     |            |
|-------------------------------------|---------|-------------|---------------------|------------|
| Occupant Load / Tabulation of Units |         |             |                     |            |
| Use Group                           | A3/B/S2 | R1 - Actual | R1 - Table 1004.1.1 | # Bedrooms |
| Basement                            | 86      | 0           | 0                   | 0          |
| First Floor                         | 43      | 45          | 87                  | 18         |
| Second Floor                        | 37      | 60          | 124                 | 25         |
| Third Floor                         | 37      | 59          | 115                 | 25         |
| Subtotal                            | 203     | 164         | 326                 | 68         |
| Attic                               | 33      | 0           | 0                   | 0          |
| Total                               | 236     | 164         | 326                 | 68         |

Total number of HC bathrooms: 5 (1 roll in shower)

|                                  |                 |                             |                |                     |
|----------------------------------|-----------------|-----------------------------|----------------|---------------------|
| Egress Width per Occupant        |                 |                             |                |                     |
| Means of Egress                  | Section Ref.    | Required/Allowed            | Provided       | Remarks             |
| Corridor Width                   | 1005.1 / 1018.2 | 0.15' per Occup. / 44' min. | Refer to Plans |                     |
| Egress Ramp Width                | 1010.5.1        | 0.15' per Occup. / 44' min. | Refer to Plans | 6'-8" min. headroom |
| Fully Accessible Means of Egress | 1007.1          | Not less than 2             | Refer to Plans | Existing            |

All Means of Egress stairs are existing to remain.

All new egress / exit door leafs 36" wide min. 36" door: 33" clear divided by 0.15'/person = 220 per leaf.

|         |                             |        |                        |                                   |
|---------|-----------------------------|--------|------------------------|-----------------------------------|
| Exiting | Exit Access Travel Distance | 1016.1 | 250' w/ Auto.Sprinkler | Less than 250' *w/ Auto.Sprinkler |
|---------|-----------------------------|--------|------------------------|-----------------------------------|

Fire Protection Requirements

| Code Topic              | Section Ref.                            | Required   | Provided             | Remarks   |
|-------------------------|---|--|----------------------|---|
| Separated Occupancies   | 508.4                                   | Basement / First Floor - A3/R1 (Horizontal assembly)   | 1 HR                 | The existing concrete joists with new SFRM added is believed to be similar to UL J701                                   |
|                         | 508.4                                   | First Floor/Second Floor - A3/R1 (Horizontal assembly) | 1 HR                 | Provide UL G504 assembly at new ceilings  |
|                         | 508.4                                   | First Floor/Second Floor - A3/R1 (Horizontal assembly) | 1 HR                 | The existing floor-ceiling assembly (where plaster ceiling is indicated to remain) is believed to be similar to UL G401 |
|                         | 508.4                                   | Fire Barrier - A3/R1                                   | 1 HR                 | The existing wall assembly appears to be 2 5/8" CMU with 5/8" plaster, on both sides, which affords a 1 1/2 hr rating   |
|                         | 508.4                                   | Fire Barrier - A3/R1                                   | 1 HR                 | Provide UL U906   |
| Stair Enclosure         | 1022.1                                  | Connecting 4 Stories or More                           | 2 HR                 | Existing to Remain  |
|                         | 708.4 / 3006.4                          | Elevator / Elevator Machine Room                       | 2 HR                 | Provide UL U906   |
| Fire Partitions         | 709 / 1018.1                            | Corridor Walls @ R1                                    | 1/2 HR               | The existing wall assembly appears to be 2 5/8" CMU with 5/8" plaster, on both sides, which affords a 1 1/2 hr rating   |
|                         | 709 / 1018.1                            | Corridor Walls @ A3                                    | 0 HR                 |   |
|                         | 709.3.2, Table 721.2.1.4, Table 721.3.2 | Sleeping Unit Separations                              | 1/2 HR               | The existing wall assembly appears to be 2 5/8" CMU with 5/8" plaster, on both sides, which affords a 1 1/2 hr rating   |
|                         | 709.3.2                                 | Sleeping Unit Separations                              | 1/2 HR               | new partition, see plans  |
| Horizontal Assemblies   | 712.420.3                               | Sleeping Unit Separations                              | 1/2 HR               | The existing floor-ceiling assembly (where plaster ceiling is indicated to remain) is believed to be similar to UL G401 |
|                         | 712.420.3                               | Sleeping Unit Separations                              | 1/2 HR               | Provide UL G504 assembly at new ceilings  |
|                         | 712.420.3                               | Sleeping Unit Separations                              | 1/2 HR               | Provide UL G547   |
| Fire Resistance Ratings | 713.4.1 / 717.2.5                       | Annular Space Filled                                   | Annular Space Filled |   |
| Duct penetrations       | 716.6.3 / 717.2.5                       | Annular Space Filled                                   | Annular Space Filled |   |
| Attic Draftstopping     | 717.4.2                                 | Not required   |                      | *w/ Auto.Sprinkler  |

Notes:

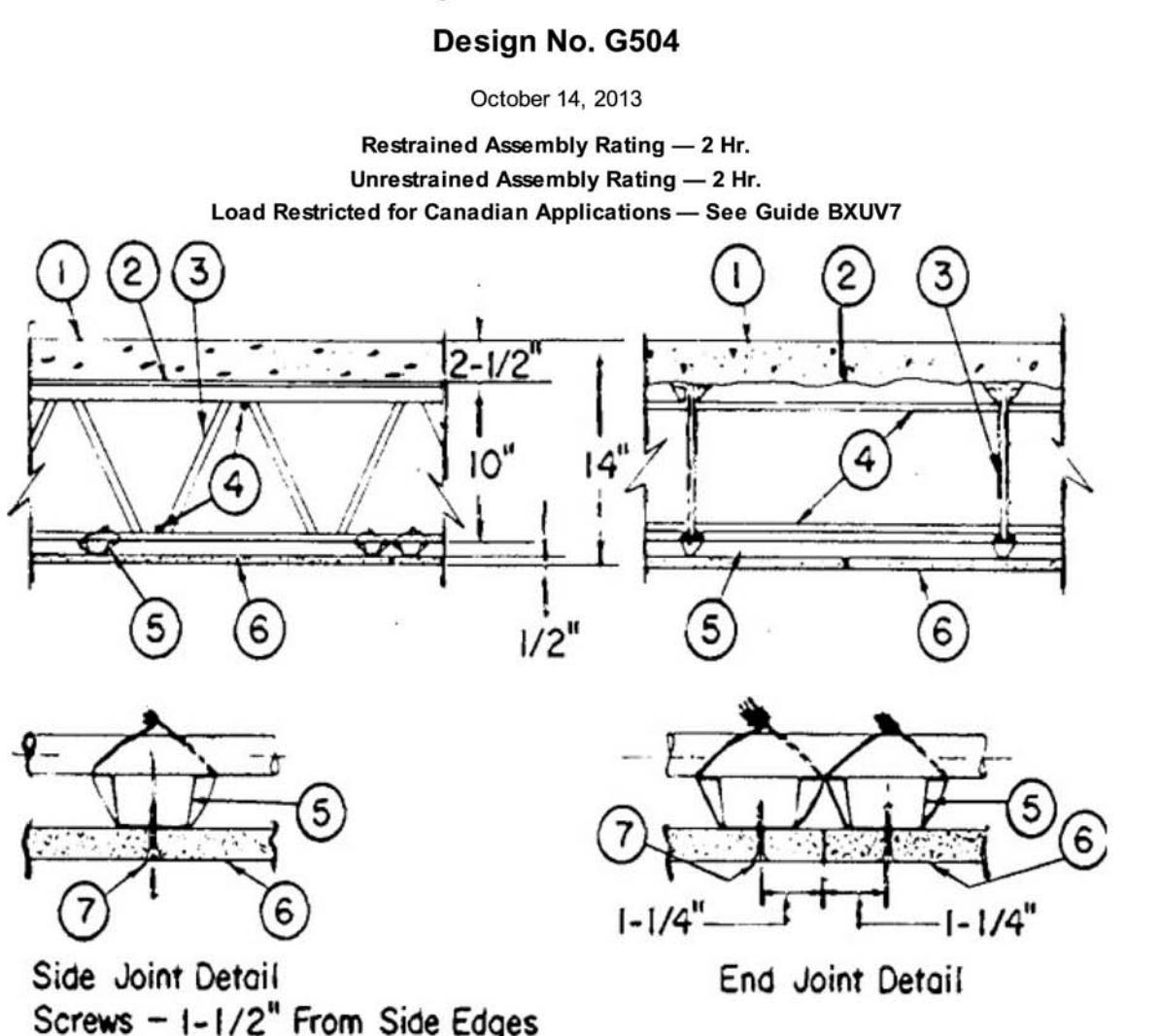
1. Assigned Use Groups and Construction Classification are assumed to be equivalent to the original Group Class in the 1949 Virginia Fire Safety Regulations w/ 1953 Amendments.  
2. All new work shall comply with VRC 2009. Parts of the building not being reconstructed, altered or repaired shall not be required to comply with VCC 2009 applicable to newly constructed buildings in accordance with VCC 103.5.2.

| Active Fire Protection     | Section Ref.             | Required   | Provided          | Remarks |
|----------------------------|--------------------------|--|-------------------|---------|
| Automatic Sprinkler System | 903                      | Yes  | Yes               |         |
| Standpipes                 | 905.3                    | No   | Yes               |         |
| Fire Extinguisher          | 906.1 / IFC 906.1 (2006) | On each floor, Shall not exceed 75', Max. 11,250 sf per extinguisher | Provided as Req'd |         |
| Fire Alarm System          | 907                      | Yes  | Yes               |         |
| Emergency Power            |                          |  |                   |         |
| Exit Signs                 | 1011.1, 2702.2.3         | Yes  | Yes               |         |
| Emergency Lighting         | 1006.3                   | Yes  | Yes               |         |

FIRE PROTECTION  
GENERAL NOTES AND  
DETAILS

FP001

See General Information for Fire-resistance Ratings - ANSI/UL 263



1. Normal-Weight Concrete — Carbonate or siliceous aggregate, 150+ or -3 pcft unit weight, 4000 psi compressive strength.

2. Metal Lath — 3/8 in. rib, 4 lb/sq yd expanded steel; tied to each joist at every other rib and midway between posts at side laps with 18 SWG galv steel wire.

As an alternate, the form material for the concrete may be corrugated steel deck 9/16 in. deep of 28 MSG (minimum) galv steel welded to supports 15 in. O.C. with washers. The concrete thickness shown in Part 1 shall be measured to the top plane of the steel deck.

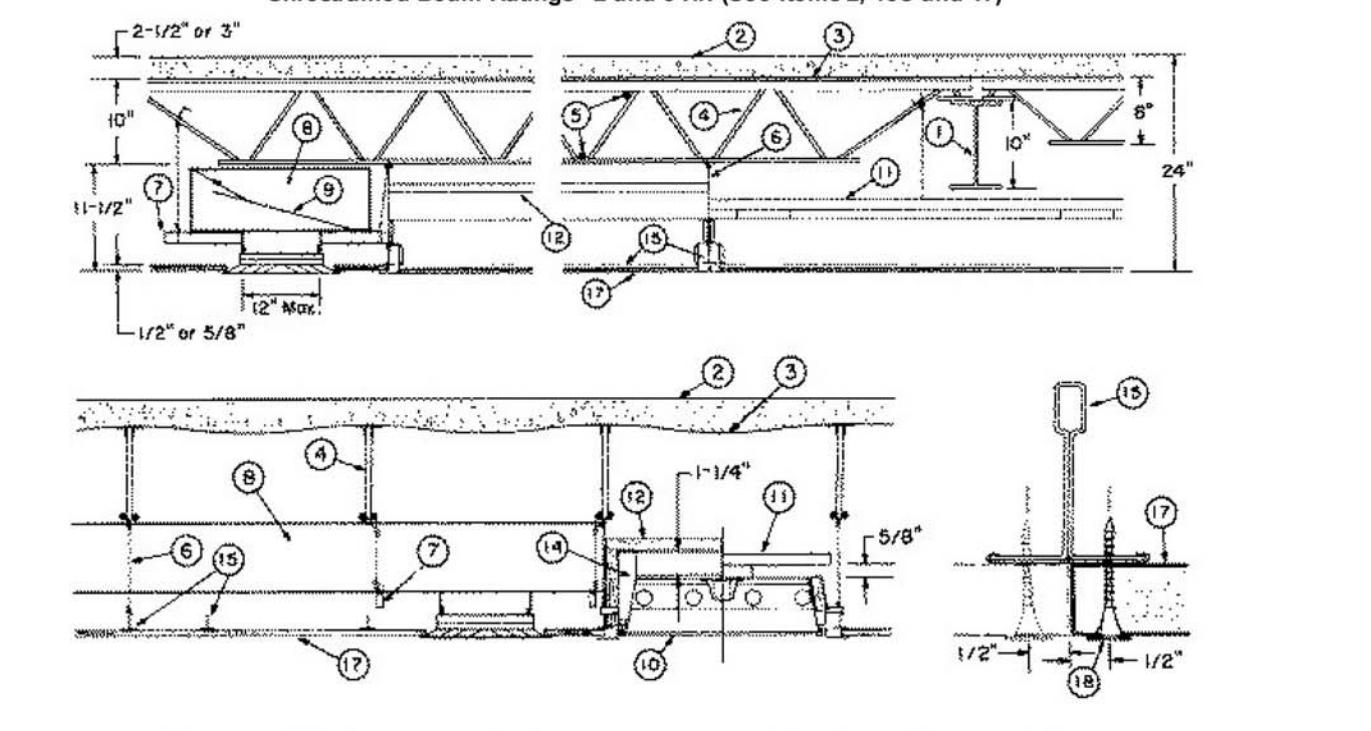
3. Steel Joists — Type 103 min size, spaced 24 in. O.C. and welded to end supports.

4. Horizontal Bridging — 1/2 in. diam continuous steel bar stock; welded to top and bottom chord of each joist.

database.ul.com/cgi-bin/web/USEXT/IFRAME/FireResistanceWizard.htm?item\_source=ulcom&utm\_medium=web&utm\_campaign=firerwizard

See General Information for Fire-resistance Ratings - ANSI/UL 263

**Design No. G547**  
October 15, 2013  
Restrained Assembly Ratings — 2 and 3 hr. (See Items 2, 15C and 17)  
Unrestrained Assembly Ratings — 2 and 3 hr. (See Items 2, 15C and 17)  
Unrestrained Beam Ratings — 2 and 3 hr. (See Items 2, 15C and 17)



3. Metal Lath — 3/8 in. rib, 3 lb per sq yd expanded steel. Tied to each joist at every other rib and midway between joists at side laps with 18 SWG galv steel wire. As an alternate for 2 hr assembly

Member 3 (Item 15A) is used — 5/8 in. thick, 4 in. wide, installed with long dimension perpendicular to cross tees with side joints centered along main runners and end joints centered along cross tees.

Fastened to cross tees with 1 in. long steel wallboard screws spaced 8 in. OC in the field and 8 in. OC along end joints.

4. Horizontal Bridging — 1/2 in. diam continuous steel bar stock; welded to top and bottom chord of each joist.

5. Purling Channels — No. 25 MSG galv steel 2-1/2 in. x 2-1/2 in. or 2-3/8 in. wide at top and 1-1/2 in. wide at bottom by 7/8 in. deep; spaced at 24 in. O.C. perpendicular to posts except at wallboard and end joints as below. Additional channel 75 in. long, positioned at each end joint of 2-1/2 in. O.C. from the continuing channel. Channels secured to each joist with 18 SWG galv steel wire tied into double strand saddle ties. Splices spliced by overlapping adjoining pieces 6 in., and securing together with double strands of 18 SWG galv steel wire at exposed end of channel. Splices to occur below joists and to be tied to lower chords of posts with an additional double strand of the tie wire.

As an alternate, furring channels may be secured to 1-1/2 in. cold-rolled channels at every intersection with double strand of 18 SWG galv wire. Cold-rolled channel spaced 24 in. OC and suspended perpendicular from lower chords of joists with 8 SWG galv wire spaced 48 in. OC along channels.

6. Steel Frame Members — (Optional, Not Shown) — Used as an alternate method to attach furring channels to joists (Item 5) to joists (Item 3). Clips spaced at 24" OC and secured to the bottom of the joist. Each joist is secured to the channel by a single length of 16 gauge galv steel wire spaced 48 in. OC. A 1/2 in. dia x 3/8 in. deep 16 galv steel cup washer is placed to surround the rubber insert. Clip attached to the bottom chord with a 1/4 in. dia zinc plated bolt inserted through the center groove and between the two washers. The depth of the bolt is equal to the depth of the bottom chord of the joist. The joint is secured to the top of the bottom chord with a second cup washer placed open side up, and a 1/4 in. zinc plated "Nyloc" nut. Furring channels are friction fitted into clips. RCS-1 clip use with 1-1/2 in. wide furring channels. RCS-1 (2.75) clip for use with 2-3/8 in. wide furring channels. End joints are secured with two self-tapping No. 6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the wallboard butt joints, as described in Item 6.

PAC INTERNATIONAL INC — Types RSIC-1, RSIC-1 (2.75).

7. Steel Framing Members — (Optional, Not Shown) — Used as an alternate method to attach furring channels to joists (Item 5) to joists (Item 3). Clips spaced at 24" OC and secured to the bottom of the joist. Each joist is secured to the channel by a single length of 16 gauge galv steel wire spaced 48 in. OC. A 1/2 in. dia x 3/8 in. deep 16 galv steel cup washer is placed to surround the rubber insert. Clip attached to the bottom chord with a 1/4 in. dia zinc plated bolt inserted through the center groove and between the two washers. The depth of the bolt is equal to the depth of the bottom chord of the joist. The joint is secured to the top of the bottom chord with a second cup washer placed open side up, and a 1/4 in. zinc plated "Nyloc" nut. Furring channels are friction fitted into clips. RCS-1 clip use with 1-1/2 in. wide furring channels. RCS-1 (2.75) clip for use with 2-3/8 in. wide furring channels. End joints are secured with two self-tapping No. 6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the wallboard butt joints, as described in Item 6.

STUDIO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

8. Gypsum Board\* — 1/2 in. thick, installed with long dimensions perpendicular to furring channels and side joints located midway between posts. End (butt) joints to be staggered and centered between the two furring channels which are spaced 2-1/2 in. OC. Wallboard fastened to furring channels with wallboard screws spaced 8 in. OC each side of every end joint and 12 in. OC in each row, starting in the field of each joist. Screws shall be spaced 1-1/2 in. apart in the field and 1-1/4 in. and 1-1/2 in. from end and side joints. Joint treatment not required for this rating, except for tapered, rounded-edge wallboard where edge joints are covered with paper tape and joint compound. As an alternate, nom 3/2 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer drywall. Joints reinforced.

database.ul.com/cgi-bin/web/USEXT/IFRAME/FireResistanceWizard.htm?item\_source=ulcom&utm\_medium=web&utm\_campaign=firerwizard

See General Information for Fire-resistance Ratings - ANSI/UL 263

**Design No. G547**  
October 15, 2013  
Restrained Assembly Ratings — 2 and 3 hr. (See Items 2, 15C and 17)  
Unrestrained Assembly Ratings — 2 and 3 hr. (See Items 2, 15C and 17)  
Unrestrained Beam Ratings — 2 and 3 hr. (See Items 2, 15C and 17)

JOHNS MANVILLE INTERNATIONAL INC — Rigid, Class I

KNAUF INSULATION GMBH — Rigid, Class I.

9. Damper — No. 13 MSG steel, hinged on one side. Protected on both surfaces with 1/16 in. thick ceramic fiber paper. Damper held in open position with 160 F fusible link bearing the UL Listing Mark. Damper to overlap duct outlet by 3 in.

In lieu of the damper described above, Duct Outlet Protection System A, as described in the Design Information Section, may be used with steel ducts. When 2-1/2 in. thick concrete and 5/8 in. thick wallboard are used:

10. Fixtures, Recessed Light — (bearing the UL Listing Mark). Fluorescent lamp type steel housing with adjustable mounting brackets, 2 by 4 size, with or without vented sides for air boots. Fixtures spaced so their area does not exceed 24 sq ft per 100 sq ft of ceiling area. Wired in conformance with the National Electrical Code.

11. Fixture Protection — Wallboard — 1/2 or 5/8 in. thick depending on ratings, cut into pieces to form a box assembly approx 1/2 in. longer and wider than the fixture with sufficient depth to provide at least 5/8 in. clearance between the fixture and the protective enclosure. The pieces are held together by 60 nails at each corner. Overlap on adjacent lay-in panels.

AMERICAN GYPSUM CO — Types AG-C, AGX-6, AGX-10, AGX-C.

CERTAINTEED GYPSUM INC — Type FRPC, SF3 or Type C.

CGC INC — Types C, IP-X2, IPC-AR.

GEORGIA-PACIFIC GYPSUM L L C — Types 5, C.

LAFARGE NORTH AMERICA INC — Types LGFC3, LGFC-C, LGFC-C/A.

NATIONAL GYPSUM CO — Types FSK-C, FSK-G, FSW-1, FSW-C or FSW-G.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types C, PG-3, PG-C.

GEORGIA-PACIFIC GYPSUM L L C — Types T, VPB-Type T or TG-C.

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR.

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR, WRC.

17A. Gypsum Board\* — For use when Batts and Blankets (Item 2) and Steel Framing Members (Item 15A) are used — 5/8 in. thick, 4 in. wide, installed with long dimension perpendicular to cross tees with side joints centered along main runners and end joints centered along cross tees. Fastened to cross tees with 1 in. long steel wallboard screws spaced 8 in. OC in the field and 8 in. OC along end joints.

18. Gypsum Board\* — For use when Battts and Blankets (Item 2) and Steel Framing Members (Item 15A) are used — 5/8 in. thick, 4 in. wide, installed with long dimension perpendicular to cross tees with side joints centered along main runners and end joints centered along cross tees. End joints of the sheets shall be staggered with spacing between joints on adjacent boards not less than 4 in. O.C.

CGC INC — Types C, IP-X2, IPC-AR, WRC.

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR, WRC.

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR, WRC.

18. Screw Wallboard — No. 6 Phillips-type, Type S self-drilling and self-tapping, 1 in. long. Screw heads may be either exposed or covered with joint compound.

19. Alternate Finishing System — (Not shown) — Batted joints may be either exposed or covered with paper tape or joint compound. As an alternate, nom 3/2 in. thick gypsum veneer plaster may be applied to the entire surface of the Classified wallboard.

20. Alternate Acoustical Material\* — (Not shown) — Optional, acoustical tile may be laminated to the entire surface of the gypsum wallboard.

Any manufacturer's optional acoustical material and adhesive presently classified for fire hazard with a flame spread value of 25 or less.

21. Battings and Blankets\* — Optional — Not Shown — When used Battings are limited to 1 hr. — For use with Steel Framing Members\* specifically Item 15A and Gypsum Board\* (specifically Item 17A)

- Any thickness mineral wool or glass fiber insulation bearing the UL Classification Mark for Surface Burning Characteristics, having a flame spread value of 25 or less and a smoke spread value of 50 or less. Insulation fitted in the concealed space, draped over steel framing members/gypsum wallboard ceiling membrane.

15. Steel Framing Members\*

a. Main Runners — Nom 12 ft long spaced 4 ft OC.

b. Cross Tees — Nom 4 ft long spaced 24 in. OC perpendicular to main runners via one additional cross tee located 5 in. on each side of each joint and of wallboard.

CHICAGO METALLIC CORP — Types 650, 650C, 670, 670C, the main runner ends may be riveted to the wall molding along one wall and the cross tee ends may be riveted to the wall molding along both adjacent walls. The rivets are intended to facilitate the ceiling installation, not to replace hanger wires.

16. Flexible Air Duct — (Not shown) — Class I Flexible Air Duct Material — Max inside diam 6 in. attached to supply air duct and air boots with 2 in. wide pressure-sensitive duct tape.

Any Class I Air Duct Material bearing the UL Listing Mark (Gas and Oil Equipment Directory).

14. Air Boots — No. 24 MSG galv steel air boots to be installed in not more than 67 percent of the total area of the end diagonal web shell of 0.307 sq in. Min. area of each of the first four interior diagonal webs shall be 0.277 sq in. All other interior webs shall have a min area of 0.196 sq in.

15. Steel Framing Members\*

a. Main Runners — Nom 12 ft long spaced 4 ft OC.

b. Cross Tees — Nom 4 ft long spaced 24 in. OC perpendicular to main runners via one additional cross tee located 5 in. on each side of each joint and of wallboard.

CHICAGO METALLIC CORP — Types 650, 650C, 670, 670C, the main runner ends may be riveted to the wall molding along one wall and the cross tee ends may be riveted to the wall molding along both adjacent walls. The rivets are intended to facilitate the ceiling installation, not to replace hanger wires.

15A. Alternate Steel Framing Members\* — (Not shown) — Main runners, cross tees, cross channels and wall angle as listed below:

a. Main Runners — Nom 10 or 12 ft, long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft. OC.

b. Cross Tees — Nom 4 ft, long, 1-1/2 in. wide face or 15/16 in. wide face installed at sides of light fixtures. Installed perpendicular to the main runners, spaced 24 in. OC. When Battts and Blankets\* (Item 21) are used, cross tees spaced 16 in. OC. Additional cross tees or cross channels spaced 8 in. from wall board to support Battts and Blankets\* (Item 21) are used. Battts and Blankets\* (Item 21) are to be secured to the wall angle or channel to facilitate the ceiling installation.

c. Cross Channels — Nom 4 ft, long, installed perpendicular to main runners, spaced 24 in. OC. When Battts and Blankets\* (Item 21) are used, cross channels spaced 16 in. OC.

d. Wall Angle or Channel — Painted or galv steel angle with 1 in. legs or channel with 1 in. legs, 1-9/16 in. deep attached to walls at perimeter of ceiling with fasteners 16 in. OC. To support steel framing member ends and for screw-attachment of the gypsum wallboard.

CGC INC — Type DGL or RX

USG INTERIORS LLC — Type DGL or RX

15B. Steel Framing Members\* — (Not shown) — As an alternate to Items 15 and 15A, Main runners nom 12 ft long, spaced 48 in. OC. Cross channels, 4 ft, long, installed perpendicular to main runners and spaced 24 in. OC. Additional cross channels required at each wallboard end joint, 8 in. from and on each side of wallboard end joint, and 8 in. from each side of light fixtures. Secondary cross tees (15/16 in. wide across flange), nom 4 ft long, installed at sides of light fixtures.

ARMSTRONG WORLD INDUSTRIES INC — Type DFR-8000.

16C. Steel Framing Members\* — (Not shown) — As an alternate to Items 15, 15A, 15B, Main runners nom 12 ft, long, spaced 48 in. OC. Cross channels, 4 ft, long, installed perpendicular to main runners and spaced 24 in. OC. Additional cross channels required at each wallboard end joint, 8 in. from and on each side of wallboard end joint, and 8 in. from each side of light fixtures. Cross tees, 4 ft long installed perpendicular to main runners and spaced 24 in. OC. Secondary cross tees required at each wallboard end joint, 8 in. from and on each side of wallboard end joint, and 8 in. from each side of light fixtures. Cross tees (15/16 in. wide across flange), nom 4 ft long, installed at sides of light fixtures.

CHICAGO METALLIC CORP — Type 630. When Type 630 Steel Framing Members are used, assembly and beam ratings are limited to 2 hr.

16. Wall Molding — (Not shown) — Min 0.019 in. thick steel channel, 1-11/16 in. with 15/16 in. legs, nailed to walls along perimeter of ceiling.

17. Gypsum Board — 4 ft, wide, installed with long dimension perpendicular to cross tees and with side joints centered along main runners. Wallboard fastened to cross tees and with one screw located 12 in. from mid span and one screw located at the midpoint of each side panel. Each wallboard side joint is to be located on alternating sides of cross tees. Wallboard end joints, wallboard cross sheets shall be 12 in. from the joint. Wallboard fastened to main runners with wallboard cross sheets 15/16 in. from mid span and 15/16 in. from each side of the wallboard end joint. End joints of the wallboard sheets shall be staggered with points in adjacent wallboard courses not less than 4 ft apart. Wallboard sheets screw-attached to flange of wall channel with wallboard screws spaced 12 in. OC.

When alternate Steel Framing Members\* (Item 15C) are used, wallboard installed with long dimension (side joints) perpendicular to the cross channels and 4 ft cross tees, and with the side

18. Wall Moldings — (Not shown) — Min 0.019 in. thick steel channel, 1-11/16 in. with 15

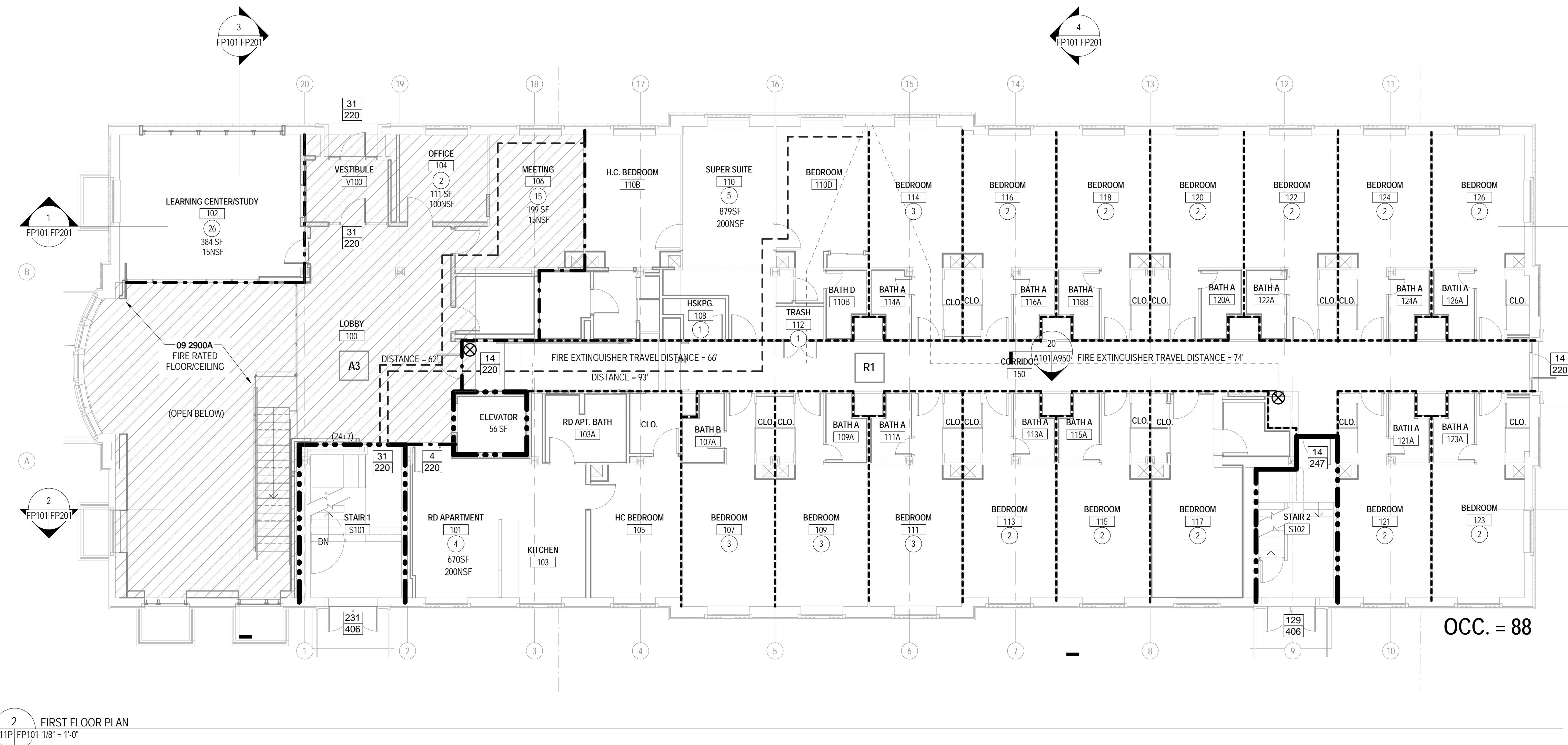
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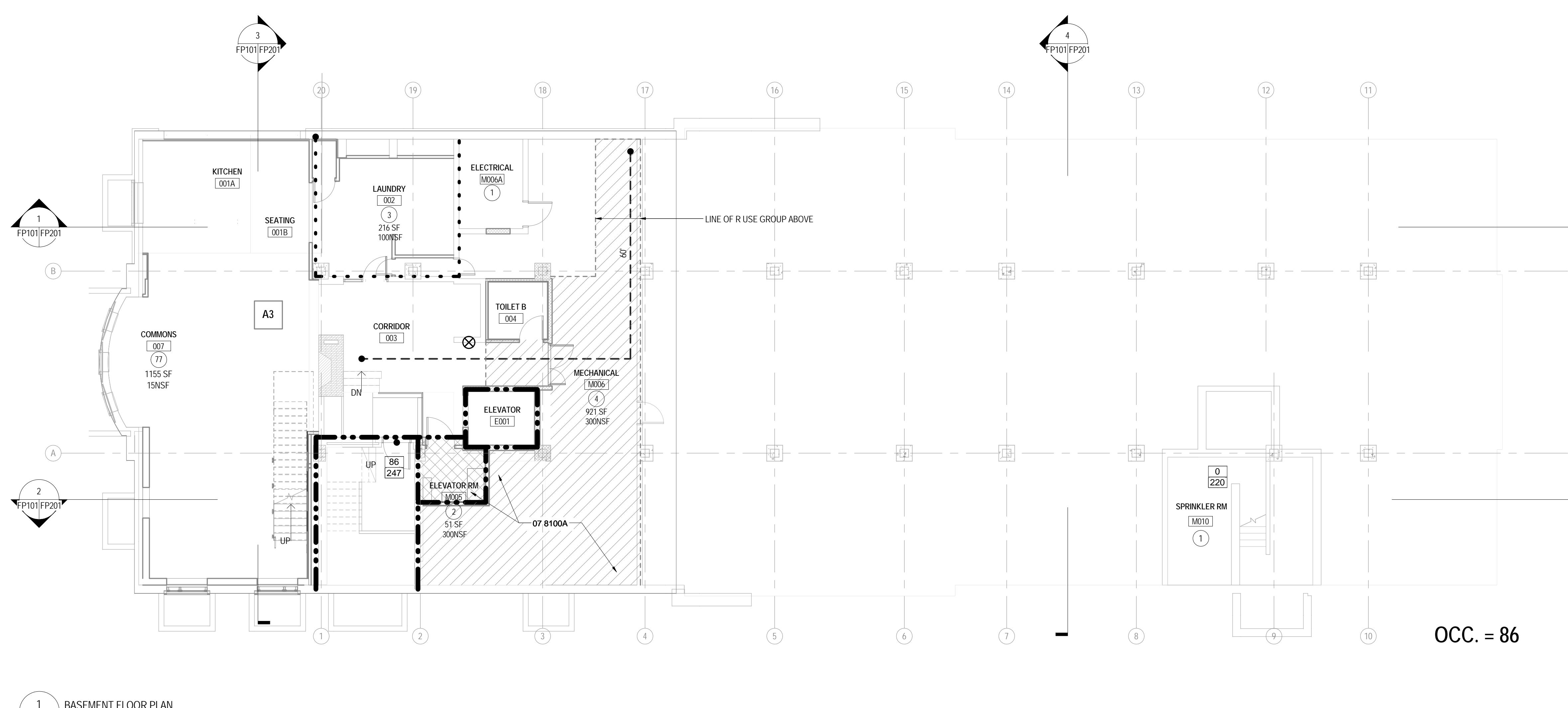
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VMDO Project Number 1115



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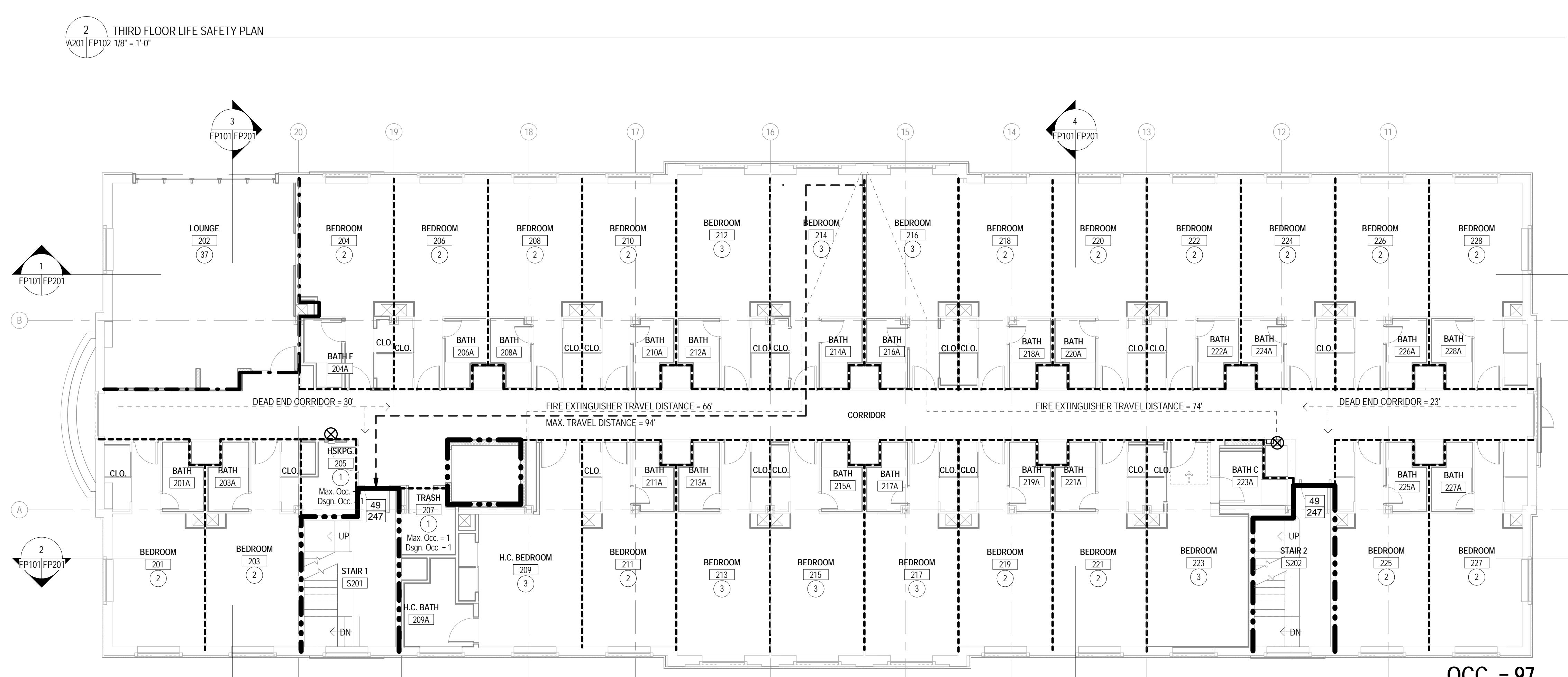
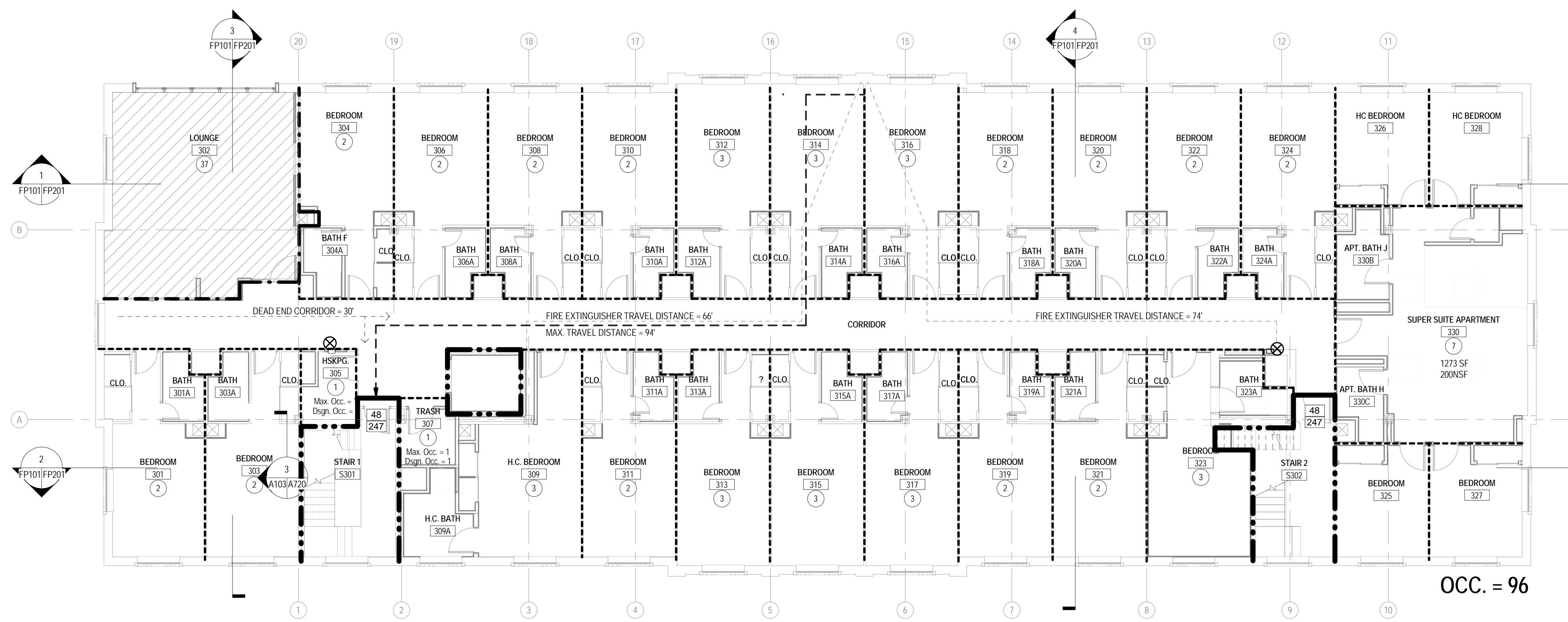
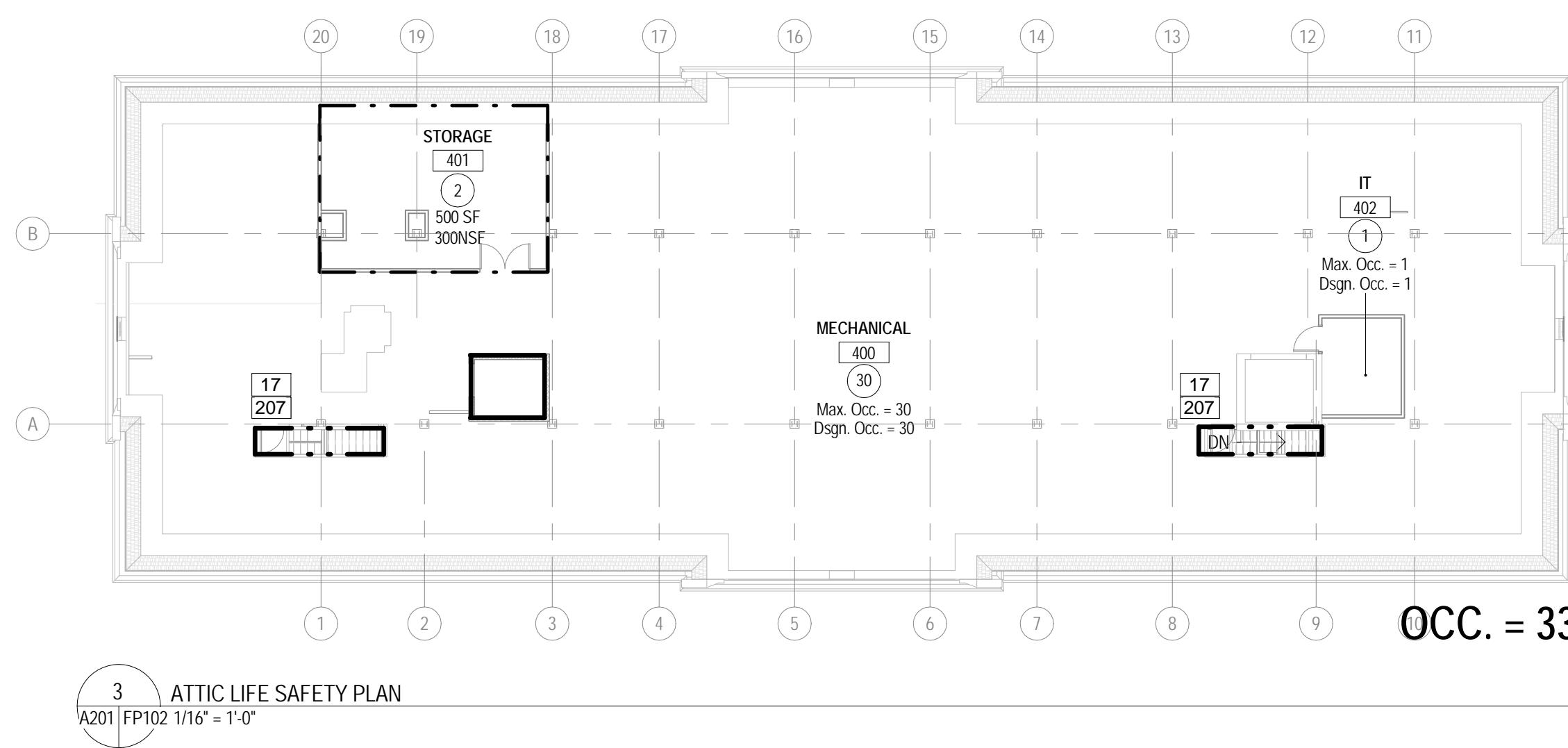
RENOVATION OF THREE  
RESIDENCE HALLS  
POCAHONTAS, BOLLING,  
& DRAPER HALLS

RADFORD UNIVERSITY  
RADFORD, VIRGINIA

Project Code  
VMDO Project Number  
217-17565-000  
1115



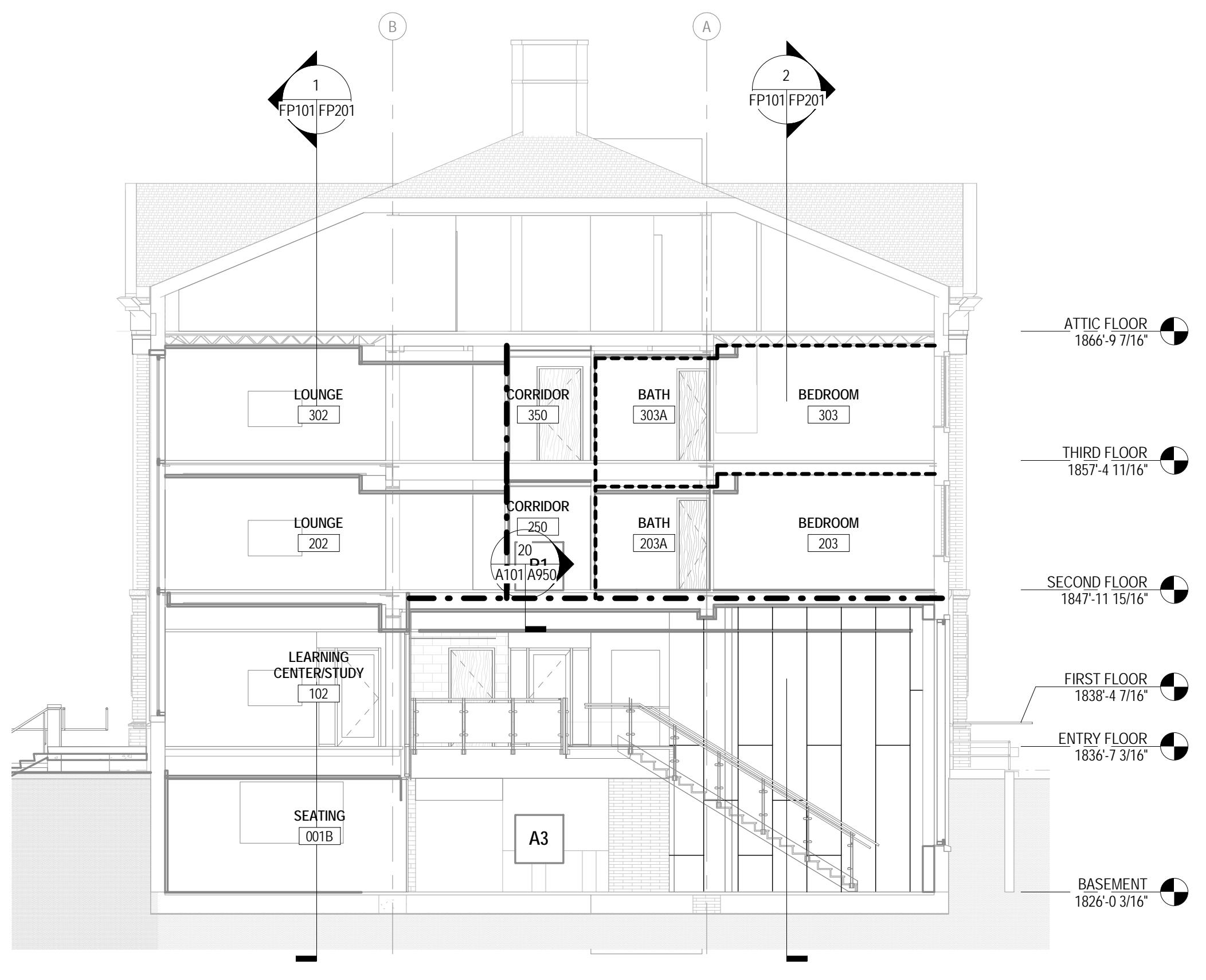
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MLW / ARS  
DEM / MBW



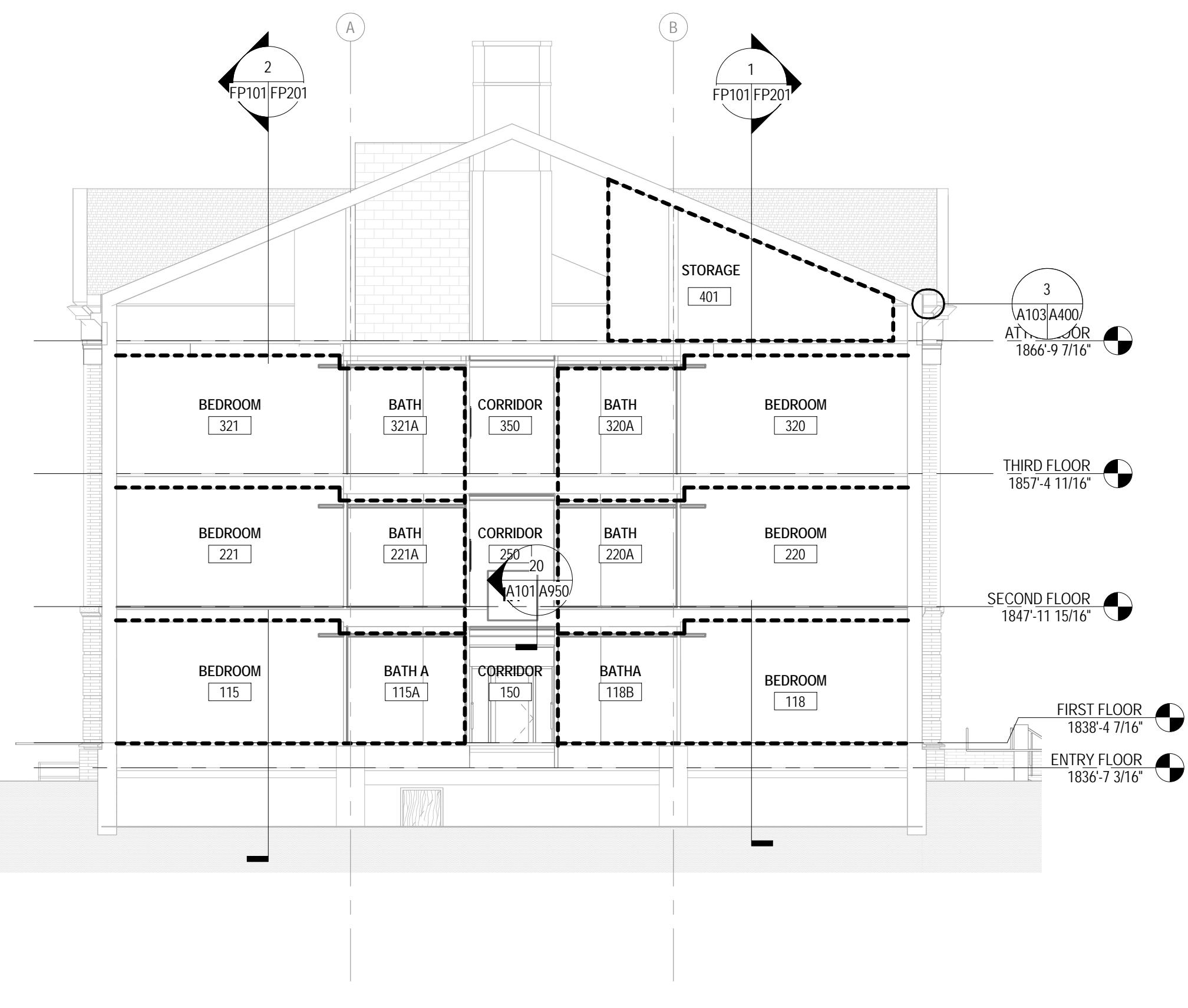
| FIRE PROTECTION LEGEND |   |
|------------------------|---|
| (1)                    | OCUPANCY  |
| (X)                    | FIRE EXTINGUISHER                                 |
| (26)                   | ACTUAL  |
| (220)                  | ALLOWABLE EGRESS CAPACITY FOR OPENING CLEAR WIDTH |
| — — — —                | COMMON PATH OF EGRESS TRAVEL                      |
| — — — —                | 2 HR RATED FIRE BARRIER                           |
| — — — —                | 1 HR RATED FIRE BARRIER                           |
| — — — —                | 1/2 HR RATED PARTITION                            |
| — — — —                | SMOKE PARTITION                                   |
| / / / /                | 1-HR HORIZONTAL FIRE SEPARATION AT CEILING ABOVE  |
| ◆ ◆ ◆ ◆                | 2-HR HORIZONTAL FIRE SEPARATION AT CEILING ABOVE  |

SECOND, THIRD, & ATTIC  
FLOOR LIFE SAFETY  
PLAN

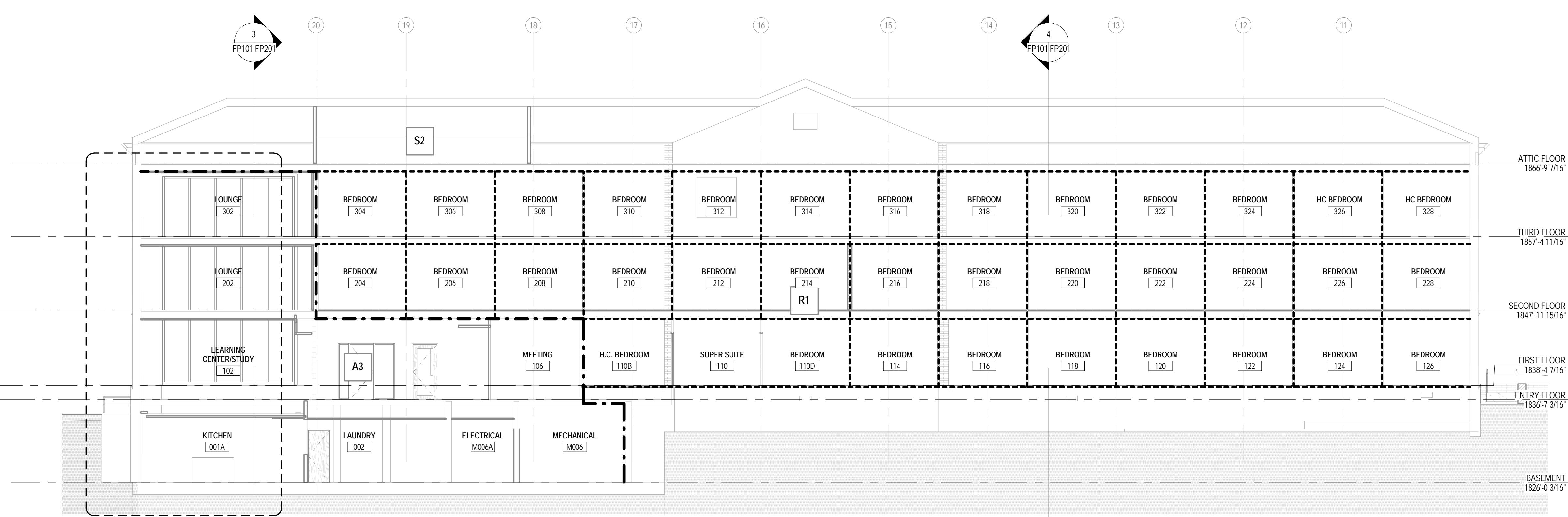
FP102



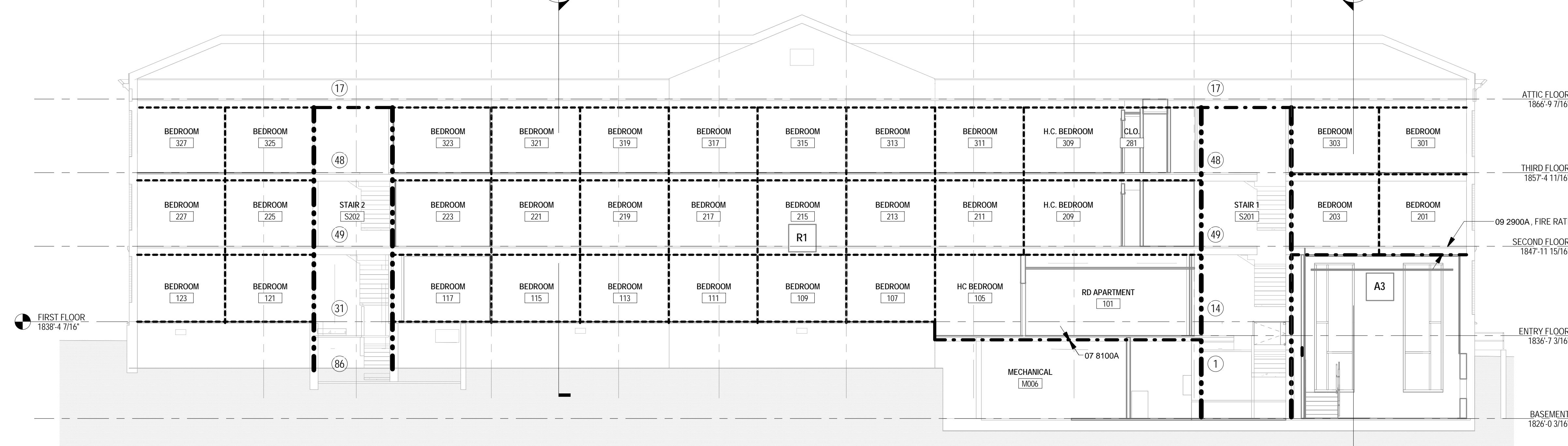
3 LS SECTION 3  
FP101 FP201 1/8" = 1'-0"



4 LS SECTION 5  
FP101 FP201 1/8" = 1'-0"



1 LS SECTION 1  
FP101 FP201 1/8" = 1'-0"



2 LS SECTION 2  
FP101 FP201 1/8" = 1'-0"

KEYNOTE LEGEND  
07 8100A  
09 2900A  
APPLIED FIREPROOFING  
GYPSUM BOARD

**VMDO ARCHITECTS**  
200 E MARKET STREET  
CHARLOTTESVILLE, VA 22902  
P 434.296.5684 F 434.296.4496  
www.vmdo.com

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**RADFORD**  
**UNIVERSITY**

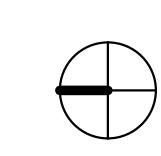
RENOVATION OF THREE  
RESIDENCE HALLS  
POCAHONTAS, BOLLING,  
& DRAPER HALLS

RADFORD UNIVERSITY  
RADFORD, VIRGINIA

Project Code  
VMDO Project Number  
217-17565-000  
1115



Checked By  
Drawn By  
MLW / ARS  
DEM / MBW



GRAPHIC SCALE - 1/8" = 1'-0"  
0 8'-0" 16'-0" 24'-0"

ISSUES AND REVISIONS  
NO. SUBMITTAL  
5 BID DOCUMENTS  
DATE  
05.19.14

FIRE PROTECTION LEGEND  
 ① OCCUPANCY  
 X FIRE EXTINGUISHER  
 ACTUAL  
 26 ALLOWABLE EGRESS CAPACITY FOR OPENING CLEAR WIDTH  
 COMMON PATH OF EGRESS TRAVEL  
 220 2 HR RATED FIRE BARRIER  
 1 HR RATED FIRE BARRIER  
 1/2 HR RATED PARTITION  
 SMOKE PARTITION  
 1-HR HORIZONTAL FIRE SEPARATION AT CEILING ABOVE  
 2-HR HORIZONTAL FIRE SEPARATION AT CEILING ABOVE

LIFE SAFETY BUILDING  
SECTIONS

FP201