

SYSTEM NO. WL5001  
F RATING - 1 AND 2 HOUR  
T RATING - 3/4 1 AND 1 1/2 HR  
L RATING AT AMBIENT - 2 CFMSQ FT  
L RATING AT 400 F - LESS THAN 1 CFMSQ FT

SECTION A - A

1 WALL ASSEMBLY-THE 1 OR 2 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A. STUDS-WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC WITH NOM 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE BY 1-3/8 IN. DEEP CHANNELS SPACED MAX 24 IN. OC.

B. WALLBOARD, GYPSUM-NOM 5/8 IN. THICK, 4 FT WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 14-1/2 IN FOR WOOD STUD WALLS AND 18 IN. FOR STEEL STUD WALLS.

THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS 1 HR WHEN INSTALLED IN A 1 HR FIRE RATED WALL AND 2 HR WHEN INSTALLED IN A 2 HR FIRE RATED WALL.

2 THROUGH PENETRANTS-ONE METALLIC PIPE OR TUBING TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. PIPE OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR TUBING MAY BE USED:

A. STEEL PIPE-NOM 1/2 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE

B. COPPER TUBING-NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING

C. COPPER PIPE-NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE

3 PIPE COVERING-NOM 1 OR 2 IN. THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN 35 PPI) GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKET. LONGITUDINAL JOINTS SEALED WITH METAL FASTENERS OR FACTORY-APPLIED SELF-SEALING LAP TAPE. TRANSVERSE JOINTS SEALED WITH METAL FASTENERS OR WITH BUTT STRIP TAPE SUPPLIED WITH THE PRODUCT. WHEN NOM 1 IN. THICK PIPE COVERING IS USED, THE ANNULAR SPACE BETWEEN THE PIPE COVERING AND THE CIRCULAR CUTOUT IN THE GYPSUM WALLBOARD LAYERS ON EACH SIDE OF THE WALL SHALL BE MIN 1/4 IN. TO MAX 3/8 IN. WHEN NOM 2 IN. THICK PIPE COVERING IS USED, THE ANNULAR SPACE BETWEEN THE PIPE COVERING AND THE CIRCULAR CUTOUT IN THE GYPSUM WALLBOARD LAYERS ON EACH SIDE OF THE WALL SHALL BE MIN 1/2 IN. TO MAX 3/4 IN.

SEE PIPE AND EQUIPMENT COVERING MATERIALS (EPG) CATEGORY IN BUILDING MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS. ANY PIPE COVERING MATERIAL MEETING THE ABOVE SPECIFICATIONS AND BEARING THE UL CLASSIFICATION MARKING WITH A FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS MAY BE USED.

THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS 3/4 HR WHEN NOM 1 IN. THICK PIPE COVERING IS USED. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS 1 HR AND 1 1/2 HR WHEN NOM 2 IN. THICK PIPE COVERING IS USED WITH 1 HR AND 2 HR FIRE RATED WALLS, RESPECTIVELY.

4 FIRESTOP SYSTEM-INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:

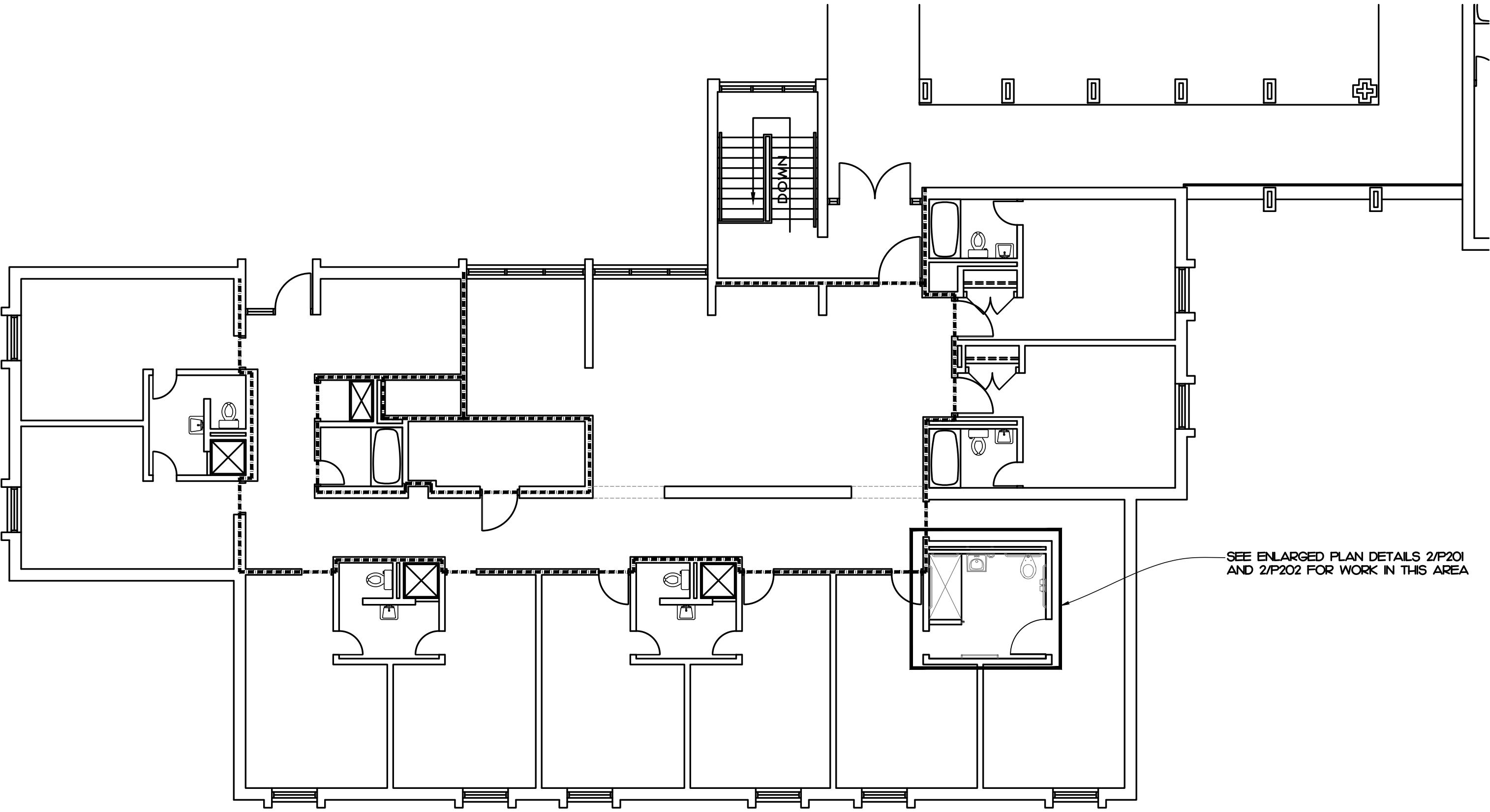
A. FILL, VOID OR CAVITY MATERIALS-WRAP STRIP-NOM 1/4 IN. THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL. SUPPLIED IN 2 IN. WIDE STRIPS. NOM 2 IN. WIDE STRIP TIGHTLY WRAPPED AROUND PIPE COVERING (FOIL SIDE OUT) WITH SEAM BUTTED. WRAP STRIP LAYER SECURELY BOUND WITH STEEL WIRE OR ALUMINUM FOIL TAPE AND SLID INTO ANNULAR SPACE APPROX 1/4 IN. SUCH THAT APPROX 3/4 IN. OF THE WRAP STRIP WIDTH PROTRUDES FROM THE WALL SURFACE. ONE LAYER OF WRAP STRIP IS REQUIRED WHEN NOM 1 IN. THICK PIPE COVERING IS USED. TWO LAYERS OF WRAP STRIP ARE REQUIRED WHEN NOM 2 IN. THICK PIPE COVERING IS USED.

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B. FILL, VOID OR CAVITY MATERIALS-CALULK-MIN 1/4 IN. DIAM CONTINUOUS BEAD APPLIED TO THE WRAP STRIP/WALL INTERFACE AND TO THE EXPOSED EDGE OF THE WRAP STRIP LAYER APPROX 3/4 IN. FROM THE WALL SURFACE.

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BEARING THE UL CLASSIFICATION MARKING



RATED WALL LEGEND

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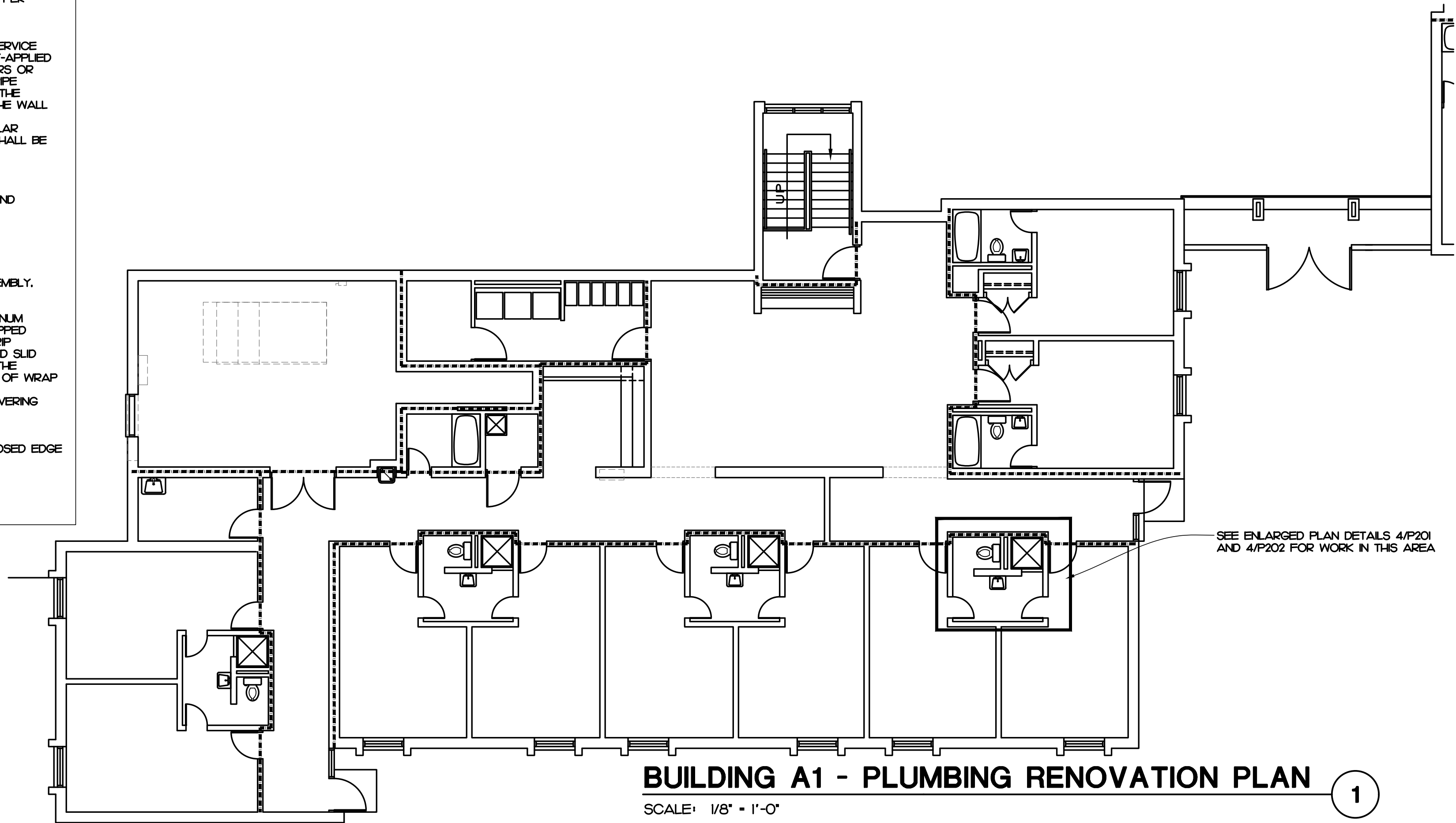
1 HOUR FIRE WALL

BUILDING A2 - PLUMBING RENOVATION PLAN

SCALE: 1/8" = 1'-0"

1

NOTE:  
ALL PLUMBING WORK TO BE  
ALTERNATE P-1



RATED WALL LEGEND

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1 HOUR FIRE WALL

BUILDING A1 - PLUMBING RENOVATION PLAN

SCALE: 1/8" = 1'-0"

1

NOTE:  
ALL PLUMBING WORK TO BE  
ALTERNATE P-1



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REVISIONS		5/27/25
FOR CONSTRUCTION		

STATE OF NORTH CAROLINA  
IMEG CONSULTANTS  
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No. F-1507  
PROFESSIONAL CORPORATION

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PREPARED FOR:  
NC DEPARTMENT  
OF INSTRUCTION  
SCO #  
24-27792-01A

GOVERNOR MOREHEAD SCHOOL  
SPRINKLER, ADA TOILET, LIGHTING  
UPGRADES FOR DORMS A, B, + D  
RALEIGH, NC

CONTENTS:  
PLUMBING  
PLANS -  
RENOVATION

DATE:  
May 27, 2025

DESIGNER: JAD  
ENGINEER: BWF

SHEET NO.  
P-101  
OF -