#### FIRE SAFING DETAIL. METALLIC PIPE THRU BLOCK WALL

# U.L. SYSTEM NO. W-J-1098 NOT TO SCALE

TUBING MAX. 6" DIA.

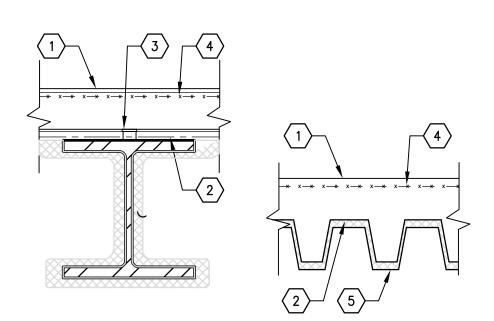
1. RATED PARTITION REFER TO ARCHITECTURAL DRAWING FOR FURTHER INFORMATION.

2. ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRE STOP SYSTEM. PIPE CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL

PIPE MAX. 30" DIA. CONDUIT 6" DIA. (SMALLER) RIGID STEEL CONDUIT. CONDUIT 4" DIA. (SMALLER) STEEL ELECTRICAL METALLIC TUBING.

3. POLYETHYLENE BACKER ROD OR MAX. 1" THICKNESS OF TIGHTLY-PACKED MINERAL WOOL INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING TO BE RECESSED FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF CAULK FILL MATERIAL.

4. CAULK: APPLIED TO FILL THE ANNULAR SPACE FLUSH BOTH SIDES OF WALL SURFACE. AT POINT CONTACT LOCATION BETWEEN PENETRANT AND WALL MIN. 1/4" DIA. BEAD OF CAULK SHALL BE APPLIED TO WALL SURFACES.



# U.L. DESIGN D858 - 2 HOUR RATING - (FLOOR SLAB)

BEAM - W10X25 MIN. SIZE.

(1) LIGHTWEIGHT CONC. EXPANDED SHALE OR SLATE AGGREGATE BY ROTARY-KILN METHOD: 113 (+2,5) PCF UNIT WEIGHT, 3,000 PSI COMPRESSIVE STRENGTH,

② STEEL FLOOR AND FORM UNITS (METAL FLOOR DECK) COMPOSITE 3" DEEP DEEP GALVANIZED UNITS, MIN 20 GA.: FLUTED.

(3) JOINT COVER - 2" WIDE PRESSURE SENSITIVE CLOTH TAPE APPLIED FOLLOWING THE CONTOUR OF STEEL FLOOR UNITS.

(4) WELDED WIRE MESH 6'X6", 8/8.

(5) TYPE D-C/F SPRAYED FIBER FIREPROOFING, APPLIED BY SPRAYING WITH WATER IN SEVERAL COATS TO FINAL UNTAMPERED THICKNESS AS SHOWN. USE OF ADHESIVES IS REQUIRED UNDER TRENCHES & CELLULAR UNITS OPTIONAL ON OTHER CONDITIONS MIN. AVG. AND MIN. IND.

DENSITY IS 13 PCF ON BM & STEEL FLOOR UNITS RESPECTIVELY

## FIRE PROOFING NOTES AND DETAILS

\*BEARING U.L. CLASSIFICATION.

EXISTING THICKNESS.

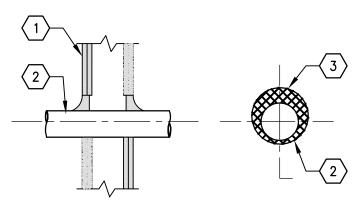
ALL PENETRATIONS THRU RATED WALLS WITHIN PROJECTED SCOPE (EXISTING & NEW PENETRATIONS) SHALL BE FULLY FIRESAFED TO MAINTAIN RATED ASSEMBLE.

2. TOP OF EXISTING CORRIDOR WALL FOR EXTENT OF THE PROJECT SCOPE SHALL BE FULLY FIRESAFED AT TOP OF WALL TO MAINTAIN FIRE RATED ASSEMBLY.

3. CONTRACTOR SHALL FULLY INSPECT EXISTING STEEL DECK AND BEAMS THROUGHOUT PROJECT SCOPE AND PATCH ALL AREA THAT FIREPROOFING IS MISSING TO WITH CAFCO FIRE PATCH OR APPROVED EQUIVALENT TO MATCH

4. ALL AREA WHERE EXISTING FIRE PROOFING IS REMOVED OR DAMAGED BY NEW CONSTRUCTION SHALL BE COMPLETELY PATCHED USING CAFCO FIRE PATCH OR APPROVED EQUIVALENT TO MATCH EXISTING THICKNESS.

5. WHERE EXISTING STEEL BEAMS/COLUMNS PENETRATE EXISTING/NEW FIRE RATED PARTITION THROUGHOUT PROJECTS' SCOPE. CONTRACTOR SHALL PACK FLANGES OF BEAMS & COLUMNS WITH MINERAL WOOL TO FULLY SEAL THE PENETRATING SIDES OF PARTITIONS.



## FIRE SAFING DETAIL. METALLIC PIPE THRU GYP. BD. WALL

# U.L. SYSTEM NO. W-L-1222 NOT TO SCALE

SECTION "A"

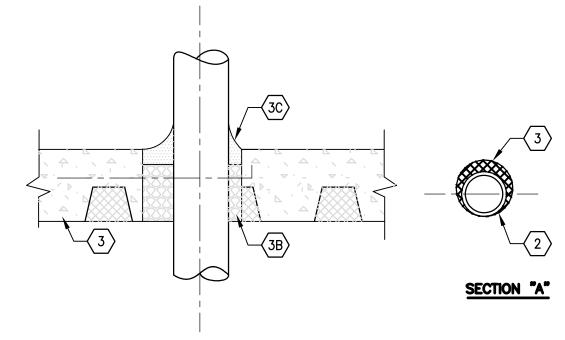
1. RATED PARTITION REFER TO ARCHITECTURAL DRAWING FOR FURTHER INFORMATION.

PLAN VIEW ECCENTRIC

2. ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRE STOP SYSTEM. THE ANNULAR OPENING SHALL BE MIN. 0"-2" (POINT OF CONTACT) MAX.

3. MIN. %" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. MIN. 1/2" DIA. BEAD OF CAULK TO THE PENETRANT-WALLBOARD INTERFACE AT THE POINT OF CONTACT LOCATION ON BOTH SIDES OF WALL.

CAULK MANUFACTURED BY MINNESOTA MINING + MANUFACTURING CO. - CP



#### FIRE STOPPING DETAIL AT SLAB PENETRATION

#### <u>U.L. SYSTEM DESIGN NO. C-AJ-1115</u>

1. FLOOR OR WALL ASSEMBLY: MINIMUM OF 4 ½" THICK REINFORCED CONCRETE FLOOR ASSEMBLY.

2. ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRE STOP SYSTEM.

3. FIRESTOP SYSTEM: THE FIRESTOP SYSTEM SHALL CONSIST OF THE

THICKNESS OF FILL MATERIAL.

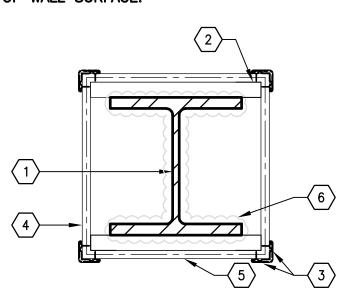
3A. STEEL WIRE MESH: (NOT SHOWN) WHERE NEEDED TO AID IN

SYSTEM INSTALLATION IN CONCRETE WALL CONSTRUCTION. 3B. PACKING MATERIAL: MIN 3-3/4" THICKNESS FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE

REQUIRED

**FOLLOWING:** 

3C. FILL, VOID OR CAVITY MATERIAL: CAULK: MIN. 3/4" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR BOTH SIDES OF WALL SURFACE.



## **EXISTING COLUMNS::**

## U.L. DESIGN X55 - 2 HOUR RATING

① STEEL COLUMN - (REFER TO STRUCTURAL)

2 16 GA GALV. METAL CONT. BREAKSHAPE, TACKWELD TO STEEL COLUMN

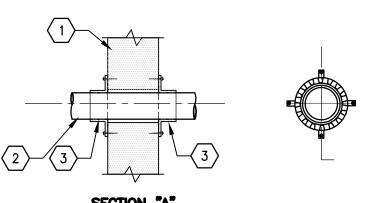
3 CORNER BEADS - 28 MSG GALVANIZED STEEL, 1/2" LESS ATTACHED WALL BOARD W/ #6 X 1" SCREWS, 12" O.C.

4 NOT USED

5 TYPE(S) BUGLE HEAD %" ABUSE RESISTANT GYP. BOARD FROM FLOOR TO 6" ABOVE FINISHED CEILING CONTINUE W/ %" GYP. BOARD FORM 6" ABOVE FINISHED CEILING TO UNDERSIDE OF DECK ABOVE.

(5) SPRAY APPLIED FIRE RESISTANT MATERIALS.

\*BEARING U.L. CLASSIFICATION.



## FIRE SAFING DETAIL. NON-METALLIC PIPE THRU BLOCK WALL

# U.L. SYSTEM NO. W-J-2217 NOT TO SCALE

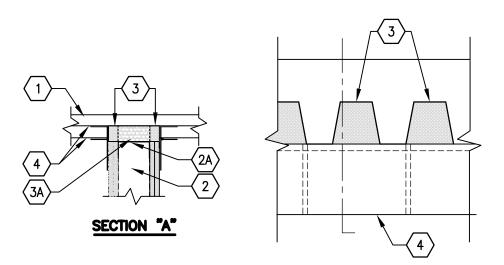
ASSEMBLY.

1. RATED PARTITION REFER TO ARCHITECTURAL DRAWING FOR FURTHER INFORMATION.

2. ONE NON-METALLIC PIPE OR CONDUIT TO BE CENTERED WITHIN OPENING. PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL

PVC PIPE: MAX. 4" DIA. (OR SMALLER) SCHEDULE SOLID CORE OR CELLULAR CORE PVC PIPE. RIGID NON-METALLIC CONDUIT: MAX 4" DIA. (SMALLER) SCHEDULE 40 CPVC PIPE: MAX 4" DIA. (OR SMALLER) SDR17 CPVC PIPE FOR USE ABS PIPE: MAX 4" DIA. (OR SMALLER) SCHEDULE 40. FRPP PIPE: MAX 4" DIA. (OR SMALLER) SCHEDULE 40. PVDF PIPE: MAX 4" DIA. (OR SMALLER) SDR 11.

3. FIRE STOP DEVICE — COLLAR: INSTALLED AND LATCHED AROUND PIPE AND SECURED TO BOTH SIDES OF WALL WITH\_\_\_\_\_ULTRA FAST ANCHOR STRAPS AS MANUFACTURED BY MINNESOTA MINING + MANUFACTURING CO.



### FIRE STOPPING DETAIL AT HEAD OF GYP. BD. WALL

## U.L. SYSTEM NO. HW-D-0003

1. ROOF SYSTEM OR CONCRETE FLOOR ASSEMBLY

2. RATED PARTITION REFER TO ARCHITECTURAL DRAWING FOR FURTHER

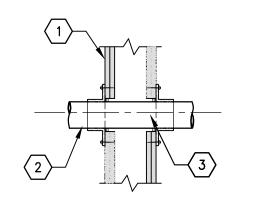
2A. STEEL FLOOR AND CEILING RUNNERS: 25 GAUGE GALV. STEEL CHANNELS SIZED TO ACCOMMODATE STUDS.

3. MIN. 4" THICKNESS OF MIN. 8 PCF DENSITY MINERAL WOOD. BATT. INSULATION CUT TO THE SHAPE OF THE FLUTED DECK. APPROX. 20% LARGER THAN THE AREA OF THE FLUTES & COMPRESSED INTO DECK FLUTES BETWEEN DEFLECTION CHANNEL & FLUTES. PROVIDE ADDITIONAL PIECES OF MINERAL WOOL COMPRESSED AND FIRMLY PACKED INTO THE FLUTES AND THE GAP BETWEEN TOP OF GYP. BD. AND BOTTOM OF DECK. MIN 3/4" THICK FOR 1 HR. RATED PARTITION AND MIN. OF 1-1/2" FOR 2 HR. RATED PARTITION.

MANUFACTURED BY ROCK WOOL MFG. CO. DELTA 8 BOARD OWENS CORNING HT. INC. STOPPING INSULATION.

3A. FORMING MATERIAL: MIN 2-3/4" & 4" THICKNESS OF MINIMUM 4PCF DENSITY MINERAL WOOL BATT. INSULATION FOR 1 HR. AND 2 HR RATED WALL, FIRMLY PACKED INTO FLUTES OF THE STEEL FLOOR UNITS AS A PERMANENT FORM AND RECESSED FROM BOTH SURFACES OF THE WALL.

4. MIN 1/8" WET 1/8" DRY THICKNESS OF FILL MATERIAL SPRAYED OR BRUSHED ON EACH SIDE OF THE WALL IN THE ROOF DECK FLUTES AND BETWEEN THE TOP OF THE GYP. BD. AND BOTTOM OF ROOF DECK TO COMPLETELY COVER MINERAL WOOL AND OVERLAP 1/2" ON ROOF DECK AND



## FIRE SAFING DETAIL. NON-METALLIC PIPE THRU GYP. BD. WALL

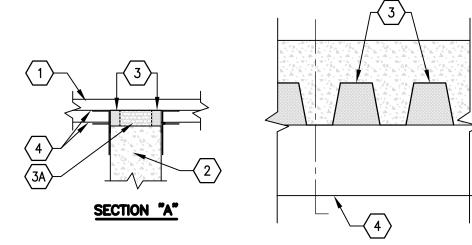
# U.L. SYSTEM NO. W-L- 2237 NOT TO SCALE

1. RATED PARTITION REFER TO ARCHITECTURAL DRAWING FOR FURTHER INFORMATION.

2. ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRE STOP SYSTEM. THE ANNULAR OPENING SHALL BE MIN. 0"-2" (POINT OF CONTACT) MAX.

3. MIN. %" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. MIN. 1/2" DIA. BEAD OF CAULK TO THE PENETRANT-WALLBOARD INTERFACE AT THE POINT OF CONTACT LOCATION ON BOTH SIDES OF WALL.

CAULK MANUFACTURED BY MINNESOTA MINING + MANUFACTURING CO. - CP



### FIRE STOPPING DETAIL AT HEAD OF BLOCK WALL

# U.L. SYSTEM NO. HW-D-0008 NOT TO SCALE

ROOF SYSTEM CONCRETE: MIN 2 1/2" THICK REINFORCED CONCRETE, AS MEASURED FROM THE TOP PLANE OF THE FLOOR UNITS. FLOOR ASSEMBLY

2. RATED PARTITION REFER TO ARCHITECTURAL DRAWING FOR FURTHER INFORMATION.

3. MIN. 4.0 PCF MINERAL WOOD. BATT. INSULATION COMPRESSED AND FIRMLY PACKED INTO THE FLUTES AND THE GAP BETWEEN THE TOP OF THE WALL AND BOTTOM OF FLOOR ON BOTH SIDES OF THE WALL. PIECES OF BATT. TO BE CUT A MIN 3" TO THE SHAPE OF THE DECK 25% LARGER THAN AREA OF FLUTES WITH 3" WIDE SECTIONS OF A THICKNESS AT LEAST 50% LARGER THAN THE GAP BETWEEN THE TOP WALL AND THE BOTTOM OF STEEL FLOOR. MINERAL WOOL COMPRESSED FIRMLY INTO FLUTES AND COMPRESSED IN THICKNESS AND INSERTED EDGE FIRST INTO GAPS BETWEEN THE SIDES OF WALL.

MANUFACTURED BY OWENS CORNING - PAROCSAFING INSULATION THERMAFER LLC - TYP SAF ROCK WOOL MFG. CO. DELTA SAFING BOARD.

3A. FORMING MATERIAL: MIN 4-1/2" THICKNESS OF MINIMUM 4PCF DENSITY MINERAL WOOL BATT. INSULATION FIRMLY PACKED INTO FLUTES OF THE STEEL FLOOR UNITS AND BETWEEN THE TOP OF THE WALL AND THE BOTTOM OF THE STEEL DECK AS A PERMANENT FORM.

4. MIN 1/8" WET 1/6" DRY THICKNESS OF FILL MATERIAL SPRAYED OR BRUSHED ON EACH SIDE OF THE WALL IN THE ROOF DECK FLUTES AND BETWEEN THE TOP OF THE GYP. BD. AND BOTTOM OF ROOF DECK TO COMPLETELY COVER MINERAL WOOL AND OVERLAP 1/2" ON ROOF DECK AND



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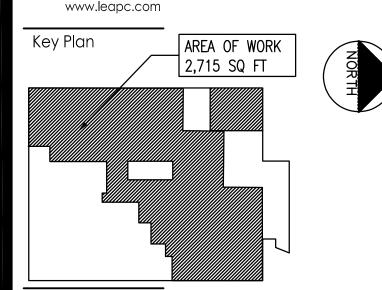
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RICHMOND UNIVERSITY MEDICAL CENTER TRANSFORMATION GRANT

669 CASTLETON AVE, STATEN ISLAND, NY SECOND FLOOR PROPOSED RENOVATION

Drawing No.

FIRE STOPPING DETAILS

Project No. Scale 225300004

Sheet

Revision