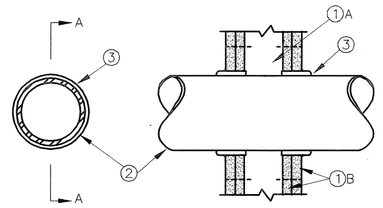
SYSTEM NO. W-L-1001

JUNE 15, 2005

F RATINGS – 1, 2, 3 AND 4 HR (SEE ITEMS 2 AND 3)
T RATINGS – 0, 1, 2, 3 AND 4 HR (SEE ITEM 3)
L RATING AT AMBIENT – LESS THAN 1 CFM PER SQ. FT.
L RATING AT 400°F – LESS THAN 1 CFM PER SQ. FT.



SECTION A-A

1. WALL ASSEMBLY – THE 1, 2, 3 OR 4 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 DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. STUDS – WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2 HR FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACE 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. GYPSUM BOARD* – NOM 1/2 OR 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 DIA OF OPENING IS 26 IN.

2. THROUGH-PENETRANT – ONE METALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN. OF 0 IN. (POINT CONTACT) TO MAX 2 IN. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
   A. STEEL PIPE – NOM 24 IN. DIA (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE – NOM 24 IN. DIA (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM. 12 IN. DIA (OR SMALLER) OR CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE.
   C. CONDUIT – NOM 6 IN. DIA (OR SMALLER) STEEL CONDUIT OR NOM 4 IN. DIA (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING.
   D. COPPER TUBING – NOM 6 IN. DIA (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
   E. COPPER PIPE – NOM 6 IN. DIA (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
   F. THROUGH PENETRATING PRODUCT† – FLEXIBLE METAL PIPING THE FOLLOWING TYPES OF STEEL FLEXIBLE METAL GAS PIPING MAY BE USED:
      F.1. NOM 2 IN. DIA (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. OMEGA FLEX, INC.
      F.2. NOM 1 IN. DIA (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. GASTIT, DIV OF TITEFLEX CORP.
      F.3. NOM 1 IN. DIA (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. WARD MFG, INC.

3. FILL, VOID OR CAVITY MATERIAL* – CAULK OR SEALANT – MIN. 5/8, 1–1/4, 1–7/8 AND 2–1/2 IN. THICKNESS OF CAULK FOR 1, 2, 3 AND 4 HR RATED ASSEMBLIES, RESPECTIVELY, APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. MIN. 1/4 IN. DIA BEAD OF CAULK APPLIED TO GYPSUM BOARD/PENETRANT INTERFACE AT POINT CONTACT LOCATION ON BOTH SIDES OF WALL. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED., AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

MAX PIPE OR CONDUIT DIA IN	F RATING, HR.	T RATING, HR
1	1 OR 2	0+, 1 OR 2
1	3 OR 4	3 OR 4
4	1 OR 2	0
6	3 OR 4	0
12	1 OR 2	0

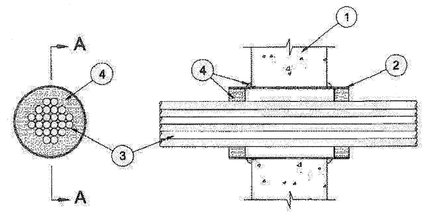
+WHEN COPPER PIPE IS USED, T RATING IS 0 HR.
3M COMPANY – TYPE CP 25WB+ OR FB-3000 WT

* BEARING THE UL CLASSIFICATION MARKING.

SYSTEM NO. W-J-3043

DECEMBER 9, 2008

F RATINGS – 2 HR
T RATINGS – 0 HR



Section A-A

1. WALL ASSEMBLY —MIN 6 IN. THICK LIGHTWEIGHT OR NORMAL WEIGHT (100–150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS* . MAX DIA OF OPENING IS 4–1/2 IN.

   SEE CONCRETE BLOCKS* (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.

2. STEEL SLEEVE —NOM 4 IN. DIA (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING (EMT) OR SCHEDULE 5 (OR HEAVIER) STEEL PIPE CAST OR GROUTED INTO WALL ASSEMBLY. SLEEVE INSTALLED SUCH THAT THE ENDS PROJECT 1–1/2 TO 2 IN. BEYOND EACH SIDE OF THE WALL.

3. CABLES —AGGREGATE CROSS-SECTIONAL AREA OF CABLES IN SLEEVE TO BE MAX 48 PERCENT OF THE CROSS-SECTIONAL AREA OF THE SLEEVE. TIGHT BUNDLE OF CABLES TO BE CENTERED WITHIN THE STEEL SLEEVE. THE ANNULAR SPACE WITHIN THE FIRESTOP SYSTEM SHALL BE A NOM 1/2 IN. CABLES TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL. ANY COMBINATION OF THE FOLLOWING TYPES AND SIZES OF CABLES MAY BE USED:
   A. MAX 200 PAIR NO. 24 AWG (OR SMALLER) COPPER CONDUCTOR CABLE WITH POLYVINYL CHLORIDE (PVC) JACKETING AND INSULATION.
   B. MAX 3/C NO. 2/0 AWG (OR SMALLER) ALUMINUM OR COPPER CONDUCTOR SERVICE ENTRANCE CABLE WITH PVC INSULATION AND JACKET.
   C. MAX 3/C NO. 8 AWG (OR SMALLER) NONMETALLIC SHEATHED (ROMEX) CABLE WITH COPPER CONDUCTORS, PVC INSULATION AND JACKET.
   D. MAX 7/C NO. 2/0 AWG (OR SMALLER) MULTICONDUCTOR POWER AND CONTROL CABLES WITH XLPE OR PVC INSULATION AND XLPE OR PVC JACKET.
   E. MAX RG59/U (OR SMALLER) COAXIAL CABLE WITH FLUORINATED ETHYLENE INSULATION AND JACKETING.
   F. MAX 62.5/48 FIBER OPTIC CABLE WITH PVC INSULATION AND JACKETING.
   G. MAX 4 PAIR NO. 24 AWG (OR SMALLER) COPPER CONDUCTOR DATA CABLE WITH HYLAR INSULATION AND JACKET.

4. FILL, VOID OR CAVITY MATERIAL* —PUTTY —MIN 1 IN. THICKNESS OF FILL MATERIAL APPLIED WITH ANNULUS, FLUSH WITH BOTH ENDS OF SLEEVE. A NOM 1/4 IN. DIA CONTINUOUS "ROPE" OF PUTTY SHALL BE APPLIED AROUND THE CIRCUMFERENCE OF THE STEEL SLEEVE AT ITS EGRESS FROM BOTH SIDES OF THE WALL.

SPECIFIED TECHNOLOGIES INC —SPECSEAL PUTTY

5. FILL, VOID OR CAVITY MATERIAL* —SEALANT —AS AN OPTION TO THE "ROPE" OF PUTTY, A MIN 1/4 IN. DIA BEAD OF SEALANT MAY BE APPLIED AT THE WALL/STEEL SLEEVE INTERFACE ON BOTH SIDES OF THE WALL.

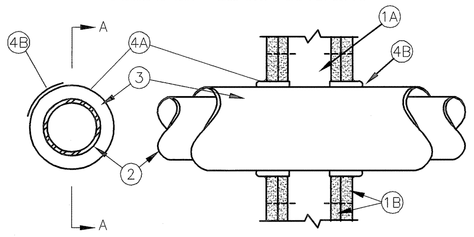
SPECIFIED TECHNOLOGIES INC —SPECSEAL SERIES SSS SEALANT, SPECSEAL LCI SEALANT OR SERIES LC SEALANT

*BEARING THE UL CLASSIFICATION MARK

SYSTEM NO. W-L-5001

MAY 19, 2005

F RATINGS – 1 AND 2 HR (SEE ITEM 1)
T RATINGS – 3/4, 1 AND 1–1/2 HR (SEE ITEM 3)
L RATING AT AMBIENT – 2 CFM PER SQ. FT.
L RATING AT 400°F – LESS THAN 1 CFM PER SQ. 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, U400 OR V400 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. (51 BY 102 MM) LUMBER SPACE 16 IN. (406 MM) OC WITH NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3–5/8 IN. (92 MM) WIDE BY 1–3/8 IN. (35 MM) DEEP CHANNELS SPACED MAX 24 IN. (610 MM) OC.
   B. GYPSUM BOARD• – NOM 5/8 IN. (16 MM) THICK, 4 FT. (122 CM) WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIA. OF OPENING IS 14–1/2 IN. (368 MM) FOR WOOD STUD WALLS AND 18 IN. (457 MM) 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. 12 IN. (305 MM) DIA. (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. COPPER PIPE – NOM. 6 IN (152 MM) DIA. (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

3. PIPE COVERING• – NOM. 1 OR 2 IN. (25 OR 51 MM) THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN 3.5 PCF) 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. (25 MM) 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 3/4 IN. (13 MM TO MAX 19 MM) SEE PIPE AND EQUIPMENT COVERING MATERIALS (BRGU) CATEGORY IN BUILDING MATERIALS DIRECTORY FOR NAME 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. (25 MM) 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. (51 MM) THICK PIPE COVERING IS USED WITH 1 HR. AND 2 HR. FIRE RATED WALLS, RESPECTIVELY.

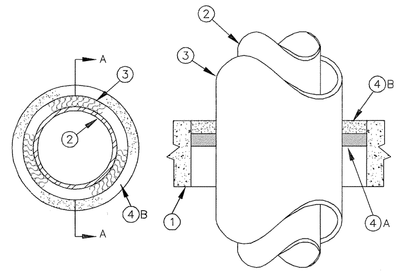
4. FIRESTOP SYSTEM – INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:
   A. FILL, VOID OR CAVITY MATERIALS• – WRAP STRIP – NOM. 1/4 IN. (6 MM) THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL, SUPPLIED IN 2 IN. (51 MM) WIDE STRIPS, NOM. 2 IN. (51 MM) 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 1–1/4 IN. (32 MM) SUCH THAT APPROX. 3/4 IN. (19 MM) OF THE WRAP STRIP WIDTH PROTRUDES FROM THE WALL SURFACE. ONE LAYER OF WRAP STRIP IS REQUIRED WHEN NOM. 1 IN. (25 MM) THICK PIPE COVERING IS USED. TWO LAYERS OF WRAP STRIP ARE REQUIRED WHEN NOM. 2 IN. (51 MM) THICK PIPE COVERING IS USED.
   B. 3M COMPANY – FS-195+ FILL, VOID OR CAVITY MATERIALS• – CAULK OR SEALANT – MIN. 1/4 IN. (6 MM) DIA. CONTINUOUS BEAD APPLIED TO THE WRAP STRIP/WALL INTERFACE AND TO THE EXPOSED EDGE OF THE WRAP STRIP LAYER APPROX 3/4 IN. (19 MM) FROM THE WALL SURFACE. 3M COMPANY – CP 25WB+, IC 15WB, FIREDAM 150+ OR FB-3000 WT

* BEARING THE UL CLASSIFICATION MARKING.

SYSTEM NO. C-AJ-5001

MARCH 05, 2007

F RATINGS – 1–1/2, 2 AND 3 HR (SEE ITEM 4)
T RATINGS – 0, 1/2, 3/4 AND 1 HR (SEE ITEMS 1A AND 4)
L RATING AT AMBIENT – 2 CFM PER SQ. FT.
L RATING AT 400°F – LESS THAN 1 CFM PER SQ. FT.



SECTION A-A

1. FLOOR OR WALL ASSEMBLY – MIN 2–1/2 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100–150) PCF CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS•. MAX DIA OF OPENING IS 18 IN. SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
   A. STEEL SLEEVE – (OPTIONAL, NOT SHOWN) – NOM 10 IN. (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL SLEEVE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY. SLEEVE MAY EXTEND A MAX OF 2 IN. ABOVE TOP OF FLOOR OR BEYOND EITHER SURFACE OF WALL, AS AN ALTERNATE, NOM 10 IN. DIA (OR SMALLER) SLEEVE FABRICATED FROM NOM 0.019 IN. THICK GALV STEEL CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY FLUSH WITH FLOOR OR WALL SURFACES. T RATING IS 0 HR WHEN SLEEVE IS USED.

2. THROUGH PENETRANTS – NOM 4 IN. DIA (OR SMALLER) TYPE L (OR HEAVIER) COPPER PIPE, NOM 12 IN. DIA (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM 12 IN. DIA (OR SMALLER) CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE OR NOM 12 IN. DIA (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE CENTERED IN THE OPENING AND RIGIDLY SUPPORTED ON BOTH SIDES OF THE FLOOR OR WALL ASSEMBLY.

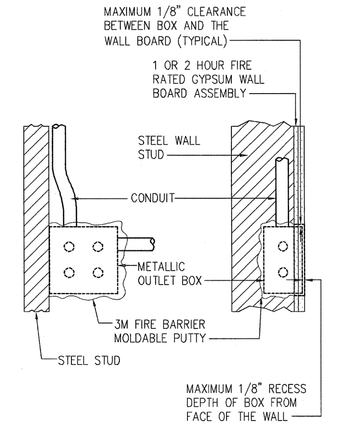
3. PIPE COVERING• – NOM 1/2 TO 2 IN. THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN 3.5 PCF) GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKET. LONGITUDINAL JOINTS SEALED WITH METAL FASTENERS OR FACTORY-APPLIED SELF-SEALING LAP TAPE. TRANSVERSE JOINTS SECURED WITH METAL FASTENERS OR WITH BUTT STRIP TAPE SUPPLIED WITH THE PRODUCT. SEE PIPE AND EQUIPMENT COVERING – MATERIALS• (BRGU) 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.

4. FIRESTOP SYSTEM – THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:
   A. PACKING MATERIAL – MIN 1 IN. THICKNESS OF FIRMLY PACKED MINERAL WOOL BATT INSULATION USED AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR SLEEVE OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF CAULK FILL MATERIAL (ITEM B).
   B. FILL, VOID OR CAVITY MATERIAL• – CAULK OR SEALANT – APPLIED TO FILL THE ANNULAR SPACE FLUSH WITH THE TOP SURFACE OF THE FLOOR OR SLEEVE OR FLUSH WITH BOTH SURFACES OF WALL. WHEN NOM PIPE COVERING THICKNESS IS 2 IN., MIN. THICKNESS OF CAULK FILL MATERIAL IS 2 IN. WHEN NOM. PIPE COVERING THICKNESS IS 1–1/2 IN. OR LESS, MIN THICKNESS OF CAULK FILL MATERIAL IS 1 IN. THE HOURLY F AND T RATINGS OF THE FIRESTOP SYSTEM ARE DEPENDENT UPON THE THICKNESS OF THE FLOOR OR WALL, THE SIZE OF PIPE, THE THICKNESS OF PIPE COVERING MATERIAL AND THE SIZE OF THE ANNULAR SPACE (BETWEEN THE PIPE COVERING MATERIAL AND THE EDGE OF THE CIRCULAR THROUGH OPENING) AS SHOWN IN THE FOLLOWING TABLE:

MIN FLOOR OR WALL THKNS, IN.	MAX PIPE DIA, IN.	NOM PIPE COVERING THICKNESS, IN.	ANNULAR SPACE IN.	F RATING HR.	T RATING HR.
2–1/2	4	1 OR 1–1/2	1/2 TO 2–3/8	2	1
4–1/2	4	2	1/4 TO 3–5/8	2	1–1/2
2–1/2	12	1	1/2 TO 1–1/2	2	1/2
4–1/2	12	1	1/2 TO 2–3/8	3	1
4–1/2	12	1/2	1/2 TO 2–3/8	2	0

3M. COMPANY – CP 25WB+ OR FB-3000 WT

* BEARING THE UL CLASSIFICATION MARKING.



NOTES:
1. WALL OPENING PROTECTION SYSTEM FOR 4"x4" MAXIMUM SIZE OUTLET BOXES MOUNTED ON OPPOSITE SIDES OF A WALL LESS THAN 24" APART, OR WHERE MORE THAN FIVE (5) OUTLET BOXES ARE INSTALLED PER 100 SQUARE FEET OF A WALL SURFACE ON THE SAME SIDE.
2. BOXES SHALL NOT BE INSTALLED BACK TO BACK.
3. DIAGRAM FOR USE WITH METALLIC OUTLET BOXES ONLY.
4. 1 OR 2 HOUR RATING.

100% SUBMITTAL

REVISION NO.	REVISION DESCRIPTION		

Revisions By Date

Department of Veterans Affairs
Medical Center
1826 Veterans Blvd.
Dublin, Ga. 31021

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 025444 ENGINEER LEE R. HARRELL, JR. 5/6/11

Architect/Engineer Address

Harrell, Saltrick & Hopper

Design & Management Solutions for the Built Environment
151 LOCUST STREET, SUITE #1
AVONDALE ESTATES, GA 30002
P 704.814.1325
F 704.321.0833
WWW.HSHPC.COM
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HSH PROJECT # 10004

Recommended Approvals:	
1. MEDICAL DIRECTOR	6. OPERATIONS SERVICE LINE MANAGER
2. ASSOCIATE DIRECTOR	7. INFECTION CONTROL SAFETY MANAGER
3. CHIEF OF STAFF	8. SAFETY MANAGER
4. ASSOC. DIRECTOR	9. GENERAL ENGINEER
5. SERVICE LINE MGRS.	10. COTR

Drawing Title: ELECTRICAL U.L. DETAILS

Project Title: RENOVATE 13A FOR ENDOSCOPY SUITE

Date: June 10, 2011

Project Number: 557-10-108

FULLY SPRINKLERED

Drawn	Building Number	AutoCAD File Name	DRAWING No.
GS	13A	10004E2.DWG	E-502

Checked	Reviewed	Const. Contract No.
JE/CDC		

Veterans Affairs

one inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot
three inches = one foot
one and one half inches = one foot
three quarters inch = one foot