RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT



ADDENDUM NO. 1

Bid # 1458 Fire Systems and Code Repairs Project at Santiago Canyon College

Address: 8045 E. Chapman Ave, Orange CA 92869

Project ID #2912

June 17, 2024

Owner: Rancho Santiago Community College District 2323 North Broadway, Room 112 Santa Ana, California 92706

RECEIPT OF THIS ADDENDUM MUST BE ACKNOWLEDGED ON BID FORM WHEN SUBMITTED

The following changes, additions, deletions or corrections shall become a part of the Contract Documents for the project named on the previous page and all other conditions shall remain the same. The Bidders shall be responsible for transmitting this information to all affected Subcontractors and Suppliers, prior to the closing of Bids. Prospective Bidders shall acknowledge receipt of this Addendum in the space provided on the Bid Proposal Form by the number. Failure to do so shall deem the Bid Proposal as non-responsive and subject the Bidder to disqualification.

Item No. AD 1-1: Updated Drawings

Drawings: Replace drawings F-002, F-603, and F-610 with their respective updated drawing sheets. See attached below.

Item No. AD 1-2: Response to RFI #1

The following provides a response to the Bidder's Request for Information (RFI). See attached Pre-bid Clarification Form below for RFI #1 response.

Enclosed:

Item No. AD 1-1: Updated Drawings F-002, F-603, and F-610

Item No. AD 1-2: Response to RFI #1

This is the end of Addendum No.1

GENERAL NOTES

- 1. THE METHODOLOGY FOR DETERMINING THE FIRE-RESISTANCE RATING FOR THE EXISTING BUILDINGS SURVEYED WAS AS FOLLOWS:
- 1.1. WHERE AVAILABLE, FIRE-RESISTANCE RATING DATA FOR CONSTRUCTION ASSEMBLIES WERE TAKEN DIRECTLY FROM CAMPUS RECORD DRAWINGS.
- 1.2. WHERE DATA WAS UNAVAILABLE FROM CAMPUS RECORD DRAWINGS, FIRE RESISTANCE RATINGS WERE DETERMINED BASED ON FIELD OBSERVATIONS. WHERE OPENING PROTECTIVES SUCH AS FIRE DOORS, FIRE DAMPERS, FIRE CAULKING, OR SPRAY FIRE PROOFING WERE OBSERVED, SUCH CONSTRUCTION BARRIERS WERE ASSUMED TO BE DESIGNED FOR A MINIMUM FIRE RESISTANCE OF ONE-HOUR. WHERE OPENING PROTECTIVES WERE FACTORY LABELED WITH A FIRE RESISTANCE RATING, THE VALUE WAS USED IN DETERMINING THE FIRE RESISTANCE RATING OF THE BARRIER IN WHICH THE PROTECTED OPENING WAS LOCATED.
- 2. SEE CHAPTER 7 OF THE CBC AND CFC FOR REQUIREMENTS REGARDING THE PROTECTION OF THROUGH PENETRATIONS, MEMBRANE PENETRATIONS, AND JOINTS. FIRESTOPPING SHALL BE INSTALLED IN ACCORDANCE WITH ITS LISTING. THE ASSEMBLIES MUST BE INSTALLED PER THE UL DETAILS EQUAL TO OR GREATER TO THOSE REFERENCED IN THESE DRAWINGS. ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS MUST BE FOLLOWED.
- 3. THE INSPECTION AND APPROVAL OF REPAIR WORK SHALL BE PERFORMED BY A DSA-APPROVED PROJECT INSPECTOR, SELECTED BY THE COMMUNITY COLLEGE DISTRICT.
- 4. INSPECTIONS WILL BE PERFORMED ON AN ONGOING BASIS AS COORDINATED WITH THE INSPECTOR AND THE DISTRICT.
- 5. PHOTO DOCUMENTATION OF REPAIRS SHALL BE COORDINATED WITH THE INSPECTOR.
- 6. THE RECOMMENDED ACTIONS, PRODUCTS, AND UL DETAILS ON SHEETS FP-6.01 THROUGH FP6.10 REPRESENT THE MINIMUM REQUIRED ACTION TO MEET THE INTENT OF CODE. EQUAL OR GREATER ASSEMBLY DETAILS MAY BE SUBMITTED FOR REVIEW AS AN APPROVED EQUAL AT NO ADDITIONAL
- 7. THROUGH-PENETRATIONS IN CONCRETE FLOORS/WALLS MAY BE PROTECTED WITH MINERAL WOOL AND FIRE SPRAY DETAIL 2/F-610 AS AN ALTERNATIVE TO DETAIL 2/F-603.
- 8. THE CONTRACTOR SHALL SUBMIT PRODUCT DATA FOR ALL CONSTRUCTION MATERIALS REQUIRED WITHIN THE SCOPE OF WORK.

COORDINATION NOTES

- 1. CONTRACTOR TO COORDINATE ACCESS WITH THE DISTRICT PM AT LEAST TWO WEEKS AHEAD OF SCHEDULED TIME FOR ACCESS.
- 2. CONTRACTOR TO CREATED DETAILED SCHEDULE OF WORK AND UPDATE WEEKLY. SCHEDULE WILL BE DONE BY ROOM NUMBER, PHOTO NUMBER, AND TIME FRAME REQUIRED FOR ACCESS. NOTE: MANY OF THE REPAIRS WILL NEED ACCESS TO TWO ROOMS FOR ONE REPAIR.
- 3. CONTRACTOR TO PROVIDE A DEFICIENCY TRACKER UPDATED WEEKLY FOR REVIEW WITH THE PM. PROVIDE DRAFT DEFICIENCY TRACKER DURING PRE-CON FOR ACCEPTANCE FROM THE DISTRICT PM.
- 4. NOTE REPAIRS WILL REQUIRE WORK TO BE DONE ON BOTH SIDES OF A WALL. SOME AREAS MAY REQUIRE SEPARATE COORDINATION TO COMPLETE THE REPAIRS IN ACCORDANCE WITH DETAILS.
- 5. CONTRACTOR RESPONSIBLE FOR ACCESSING ALL AREAS. CONTRACTOR RESPONSIBLE FOR ALL EQUIPMENT NECESSARY TO PERFORM THE SCOPE OF WORK. THE CONTRACT DOCUMENTS PROVIDE EXAMPLES OF POTENTIAL SPECIAL SITE COORDINATION, BUT IT IS CONSIDERED MEANS AND METHODS OF THE CONTRACTOR.
- 6. PROTECT ALL FLOORING AND REPAIR ANY DAMAGED AREAS. COORDINATE FLOOR PROTECTION WITH THE DISTRICT.
- 7. IF THE TEMPORARY REMOVAL OF PIPES, CONDUITS, OR DUCTS IS REQUIRED TO COMPLETE A REPAIR, THE DISTRICT SHALL BE NOTIFIED 48 HOURS PRIOR TO THE WORK, AND THE IMPACTS TO UPSTREAM/DOWNSTREAM CONNECTIONS SHALL BE EVALUATED TO DETERMINE THE EXTENT OF SHUT-DOWNS THAT NEED TO BE COORDINATED FOR WORK DURING NON-OCCUPIED HOURS. SUCH REMOVALS/REPLACEMENTS MUST BE COORDINATED AND PERFORMED BY AN ASSOCIATED LICENSED CONTRACTOR.

CODES NOTES

- 1. 2022 CFC SECTION 701.6: THE FIRE-RESISTANCE RATED CONSTRUCTION SHALL BE PROPERLY REPAIRED, RESTORED OR REPLACED WHERE DAMAGED, ALTERED, BREACHED, OR PENETRATED, AS IDENTIFIED IN THESE DOCUMENTS.
- 2. 2022 CFC SECTION 703.2: WHERE DAMAGED, MATERIALS USED TO PROTECT MEMBRANE- AND THROUGH-PENETRATIONS SHALL BE REPLACED OR RESTORED WITH SYSTEMS THAT MEET OR EXCEED THE THE CODE REQUIREMENTS APPLICABLE AT THE TIME WHEN THE ASSEMBLY WAS CONSTRUCTED, REMODELED OR ALTERED.
- 3. 2022 CFC SECTION 704.2: WHERE DAMAGED, MATERIALS USED TO PROTECT JOINTS AND VOIDS SHALL BE REPLACED OR RESTORED WITH SYSTEMS THAT MEET OR EXCEED THE THE CODE REQUIREMENTS APPLICABLE AT THE TIME WHEN THE ASSEMBLY WAS CONSTRUCTED, REMODELED OR ALTERED.

4. 2022 CFC SECTION 708.1: WHERE REQUIRED WHEN THE BUILDING WAS ORIGINALLY PERMITTED AND

- CONSTRUCTED, SPRAY FIRE-RESISTANT MATERIALS AND INTUMESCENT FIRE-RESISTANT MATERIALS SHALL BE VISUALLY INSPECTED TO VERIFY THAT THE MATERIALS DO NOT EXHIBIT EXPOSURE TO THE SUBSTRATE.
- 5. 2022 CBC SECTION 714.4.1.1: THROUGH PENETRATIONS SHALL BE PROTECTED USING SYSTEMS INSTALLED AS TESTED IN THE APPROVED FIRE-RESISTANCE-RATED ASSEMBLY. ALTERNATELY, THROUGH-PENETRATIONS SHALL BE PROTECTED BY AN APPROVED PENETRATION FIRESTOP SYSTEM INSTALLED AS TESTED IN ACCORDANCE WITH ASTM E814 OR UL 1479, WITH A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCH OF WATER AND SHALL HAVE AN F RATING OF NOT LESS THAN THE REQUIRED FIRE-RESISTANCE RATING OF THE WALL PENETRATED.
- 6. 2022 CBC SECTION 715.3: JOINTS INSTALLED IN OR BETWEEN FIRE-RESISTANCE RATED WALLS, FLOOR OR FLOOR/CEILING ASSEMBLIES AND ROOFS OR ROOF CEILING ASSEMBLIES SHALL BE PROTECTED BY AN APPROVED FIRE-RESISTANT JOINT SYSTEM DESIGNED TO RESIST THE PASSAGE OF FIRE FOR A TIME PERIOD NOT LESS THAN THE REQUIRED FIRE-RESISTANCE RATING OF THE WALL, FLOOR OR ROOF IN OR BETWEEN WHICH THE SYSTEM IS INSTALLED.
- 2022 CBC SECTION 703.5: ANY WALL REQUIRED TO HAVE PROTECTED OPENINGS OR PENETRATIONS SHALL BE EFFECTIVELY AND PERMANENTLY IDENTIFIED WITH SIGNS OR STENCILING IN THE CONCEALED SPACE. SUCH IDENTIFICATION SHALL:
- 7.1. BE LOCATED WITHIN 15 FEET OF THE END OF EACH WALL AND AT INTERVALS NOT EXCEEDING 30
- 7.2. INCLUDE LETTERING NOT LESS THAN 3 INCHES IN HEIGHT WITH A MINIMUM 3/8" STROKE IN A CONTRASTING COLOR INCORPORATING THE SUGGESTED WORDING, "FIRE AND/OR SMOKE BARRIER--PROTECT ALL OPENINGS."

BUILDING AND CODE

Building	Year of	CBC Edition
Dullullig	Construction	CBC Edition
Α	1984	1982 UBC*
В	1984	1982 UBC*
С	1988	1985 UBC*
D	1989	1985 UBC
Е	2002	1998 CBC
G	2010	2001 CBC
Н	2010	2007 CBC
L	2002	2001 CBC*
SC	2008	2001 CBC

*Based on drawing date

SHEET INDEX

GENERAL	
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	0

BUILDING A - BOOKSTORE F-A-101 BUILDING A 1ST FLOOR F-A-201 BUILDING A 2ND FLOOR F-A-601 REFERENCE PICTURES F-A-602 REFERENCE PICTURES

BUILDING B - CLASSROOMS

F-A-603

F-A-604

F-B-101	BUILDING B 1ST FLOC
F-B-201	BUILDING B 2ND FLOO
F-B-601	REFERENCE PICTURE
F-B-602	REFERENCE PICTURE
F-R-603	DEEICIENCY SCHEDI II

BUILDING C - CHILD DEVELOPMENT CENTER

REFERENCE PICTURES

DEFICIENCY SCHEDULE

F-C-101	BUILDING C 1ST FLOOR
F-C-601	REFERENCE PICTURES
F-C-602	DEFICIENCY SCHEDULE

BUILDING D - CAREER DEVELOPMENT & MATH SUCCESS CENTER

-D-101	BUILDING D 1ST FLOOR
-D-201	BUILDING D 2ND FLOOR
-D-601	REFERENCE PICTURES
-D-602	REFERENCE PICTURES
-D-603	DEFICIENCY SCHEDULE

BUILDING E - ADMISSION & FACULTY

F-E-101	BUILDING E 1ST FLOOR
F-E-201	BUILDING E 2ND FLOOR
F-E-301	BUILDING E 3RD FLOOR
F-E-601	REFERENCE PICTURES
F-E-602	DEFICIENCY SCHEDULE

BUILDING G - ATHLETICS AND AQUATICS COMPLEX

F-G-101	BUILDING G 1ST FLOOR
F-G-201	BUILDING G 2ND FLOOR
F-G-601	REFERENCE PICTURES
F-G-602	REFERENCE PICTURES
F-G-603	DEFICIENCY SCHEDULE

BUILDING H

F-H-101	BUILDING H 1ST FLOOR
F-H-201	BUILDING H 2ND FLOOR
F-H-301	BUILDING H 3RD FLOOR
F-H-601	REFERENCE PICTURES
F-H-602	REFERENCE PICTURES
F-H-603	DEFICIENCY SCHEDULE

BUILDING L - LIBRARY

F-L-101	BUILDING L 1ST FLOOR
F-L-201	BUILDING L 2ND FLOOR
F-L-601	REFERENCE PICTURES
F-L-602	DEFICIENCY SCHEDULE

BUILDING SC

F-SC-101	BUILDING SC 1ST FLOOR
F-SC-201	BUILDING SC 2ND FLOOF
F-SC-601	REFERENCE PICTURES
F-SC-602	REFERENCE PICTURES
F-SC-603	REFERENCE PICTURES
F-SC-604	DEFICIENCY SCHEDULE
F-SC-605	DEFICIENCY SCHEDULE

F-609

ETAILS	
601	DETAILS - NON INSULATED - GYPSUM WALL
602	DETAILS - INSULATED - GYPSUM WALL
603	DETAILS - NON INSULATED - CONCRETE WALL
604	DETAILS - INSULATED - CONCRETE WALL
605	DETAILS - WALL PATCHES
606	DETAILS - FLEX CONDUIT AND CABLES
607	DETAILS - FLEX CONDUIT AND CABLES
608	DETAILS - BULK CABLE BUNDLE PENETRATIONS

DETAILS - ENGINEERING JUDGMENTS FOR EQUIVALENCE DETAILS - DRYWALL PATCH, FIRE SPRAY, ELECTRICAL BOX





Long Beach // Irvine // Los Angeles San Diego // San Jose // Seattle

p2sinc.com

Project Title

SANTIAGO CANYON

FIRE SYSTEMS AND CODE REPAIRS PROJECT

Project Address:

Santiago Canyon College 8045 EAST CHAPMAN AVENUE ORANGE, CA 92869



Revisions Number	S Description	Date
	ADDENDUM #1	06/13/24

June 13, 2024

SHEET INDEX

F-002

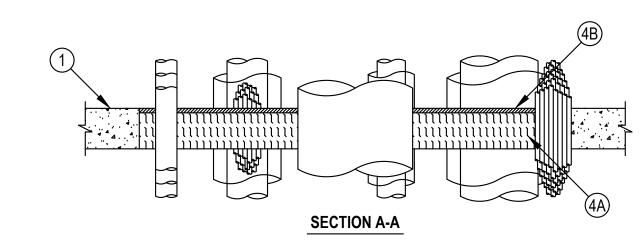
Addendum #1 6/17/2024 Item No. AD 1-1

System No. C-AJ-8143

Underwriters Laboratories, Inc.

to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814) CAN/ULC S115 F Rating — 2 Hr T Rating — 0 Hr FT Rating — 0 Hr FH Rating — 2 Hr FTH Rating — 0 Hr



System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed

1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete floor. Min 5 in. (127 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks*. Max size of opening is 1440 in.2 (9,290 cm2) with a max dimension of 48 in. (1219 mm).

See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers. 2. Through-Penetrant — One cable tray and one or more pipes, tubes or cable bundles may be installed within the opening. The total number of through-penetrants is dependent on the size of the opening and the types and sizes of the penetrants. Any combination of the penetrants described below may be used provided that the following parameters relative to the annular spaces are maintained. The annular space between cable tray and all other penetrants shall be min 3 in. (76 mm). The annular space between individual cables and cable bundles shall be a min 1/2 in. (13 mm). The annular space between individual cables and cable bundles and other penetrants shall be a min 1/2 in. (13 mm) except that a min 2 in. (51 mm) shall be maintained between the cables and copper pipes and tubes greater than a nom 3 in. (76 mm) diam and steel and iron pipes and conduits greater than a nom 4 in. (102 mm) diam. The annular space between metallic pipes, conduit and tubes and insulated pipes and tubes shall be a min 2 in. (51 mm). The annular space between nom 3 in (76mm) diam (and smaller) copper pipes and tubes and between nom 4 in (102mm) diam (and smaller) steel and iron pipes and conduits shall be min 1/2 in. (13 mm). The annular space between nom 2 in. (51 mm) diam (and smaller) metallic pipes and conduits shall be min 0 in. (point contact). The annular space between nonmetallic penetrants shall be min 1/2 in. (13 mm). The annular space between nonmetallic penetrants and other penetrants shall be min 2 in. (51 mm)The annular space between insulated penetrants, nonmetallic penetrants, or the cable tray and the periphery of opening shall be min 1/2 in. (13 mm). The annular space between all other penetrants and the periphery of opening shall be min 0 in. (point contact). A max annular space in the system shall be 12 in. (305 mm). Penetrants to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of penetrants may be used. A. Metallic Pipes — The following types of metallic pipes, tubes or conduits may be used:

1. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tube. 2. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe. 3. Steel Pipe — Nom 24 in. (610 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.

4. Iron Pipe — Nom 24 in. (610 mm) diam (or smaller) cast or ductile iron pipe.

5. Conduit — Nom 4 in. (102 mm) diam (or smaller) electric metallic tubing (EMT) or nom 6 in. (152 mm) diam (or smaller) rigid steel

B. Cables Bundles — Max 4 in. (102 mm) diam tightly bundled cables. Any combination of the following types and sizes of cables may be used: 1. Max 500 kcmil single copper or aluminum conductor power cable with thermoplastic insulation and polyvinyl chloride (PVC) jacket. 2. Max 300 pair No. 24 AWG copper conductor telecommunication cables with PVC insulation and jacket material. 3. Max 7/C copper conductor No. 12 AWG multi-conductor power and control cables with PVC or cross-linked polyethylene (XLPE)

insulation and PVC jacket. 4. Multiple fiber optical communication cables jacketed with PVC and having a max outside diam of 1/2 in.

5. Max 3/C No. 12 AWG steel clad cable with copper conductors and PVC insulation material. C. Individual Cables — Any of the following types and sizes of individual (non-bundled) cables may be used:

6. Multiple fiber optical communication cables jacketed with PVC and having a max outside diam of 1/2 in.

1. Max 3/C No. 2/0 AWG (or smaller) copper conductor PVC jacketed aluminum clad or steel clad TECK 90 cable.

2. Through Penetrating Product* — Any cables, Armored Cable+ or Metal Clad Cable+ currently Classified under the Through Penetrating Product category. See Through Penetrating Product (XHLY) category in the Fire Resistance Directory for names of manufacturers.

3. Max 500 kcmil single copper or aluminum conductor power cable with thermoplastic insulation and polyvinyl chloride (PVC) jacket. 4. Max 300 pair No. 24 AWG copper conductor telecommunication cables with PVC insulation and jacket material. 5. Max 7/C copper conductor No. 12 AWG multi-conductor power and control cables with PVC or cross-linked polyethylene (XLPE)

7. Max 3/C No. 12 AWG steel clad cable with copper conductors and PVC insulation material. 8. Max 4C/750 kcmil (or smaller) aluminum or copper conductor metal clad cable with aluminum or steel armor, with or without PVC jacket. D. Cable Tray* — (Not Shown) — Max 24 in. (610 mm) wide by 6 in. (152 mm) deep open-ladder steel or aluminum cable tray. Aggregate cross-sectional area of cable tray to be max 40 percent of the cross-sectional area of the cable tray based on a max 3 in. cable loading depth. Any combination of the types and sizes of cables described in Item 2B may be used. Cable tray to be rigidly supported on both sides of floor

or wall assembly. E. Nonmetallic Pipes — The following nonmetallic pipes may be used: 1. Polyvinyl Chloride (PVC) Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 cellular or solid-core PVC pipe for use in closed

(process or supply) or vented (drain, waste, or vent) piping systems. 2. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 2 in. (51 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or

3. Rigid Nonmetallic Conduit++ — Nom 2 in. (51 mm) diam (or smaller) (Schedule 40) PVC conduit installed in accordance with Article 347 of the National Electric Code (NFPA No. 70).

B. Pipe Insulation — (Optional, for use with Item 2A only) - Pipes and tubes of the sizes noted below may be provided with one of the following types of pipe insulations: A. Pipe Covering* — Nom 1-1/2 in. (38 mm) thick (or thinner) hollow cylindrical heavy density glass fiber units jacketed on the outside with an all

service jacket for pipes with a nom diam of 8 in. (203 mm) (or smaller) or tubes with a nom diam of 4 in. (102 mm) (or smaller). Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product.

See Pipe and Equipment Covering - Materials (BRGU) category in the 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. B. Pipe Covering* — Nom 2 in. (51 mm) thick (or thinner) hollow cylindrical heavy density glass fiber units jacketed on the outside with an all

service jacket for pipes or tubes with a nom diam of 2 in. (51 mm) (or smaller). Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. See Pipe and Equipment Covering - Materials (BRGU) category in the 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. C. Tube Insulation-Plastics+ — Nom 1 in. (25 mm) thick (or thinner) acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in

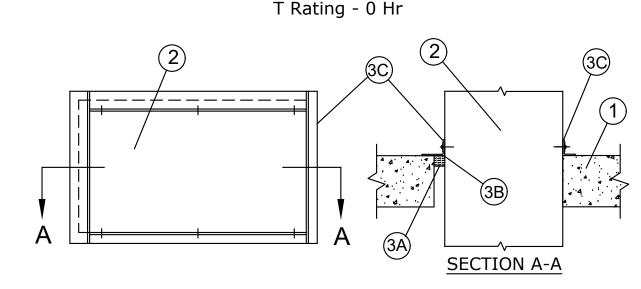
the form of tubing for pipes or tubes with a nom diam of 2 in. (51 mm) (or smaller). See Plastics (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used. 4. Firestop System — The firestop system shall consist of the following:

A. Packing Material — Min 4 in. (102 mm) thickness of 4 pcf (64 kg/m3) mineral wool batt insulation tightly packed into the opening as a permanent form. Packing material to be recessed from top surface of floor or both surfaces of wall to accommodate the required thickness of B. Fill, Void or Cavity Material - Sealant* — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus flush with the top surface of the floor or both surfaces of the wall. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE MAX Intumescent Sealant.

Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

MULTIPLE MISCELLANEOUS THROUGH CONCRETE WALL/FLOOR

System No. C-AJ-7016 May 19, 2005 F Rating - 2 & 3 Hr (See Item 1)



1. Floor or Wall Assembly - Min 2-1/2 in. (64 mm) thick or min 4-1/2 in. (114 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*.

Max area of opening is 576 sq in. (3716 c/m2) with max dimension of 36 in. (914 mm) for 2 hr assemblies and 544 sq in.

(3510 c/m2) with max dimension of 34 in. (864 mm) for 3 hr assemblies.

The F Rating is 2 hr and 3 hr for min 2-1/2 in. (64 mm) or min 4-1/2 in. (114 mm) thick

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Through Penetrants - One steel duct to be installed either concentrically or eccentrically within the firestop system. An annular space of min 0 in. (point contact) to max 4 in. (0 mm to max 102 mm) is required within the firestop system for 2 hr assemblies and min 0 in. (point contact) to max 2 in. is required within the firestop system for 3 hr assemblies. Steel duct to be rigidly supported on both sides of floor or wall assembly. The following sizes of steel ducts

A. Steel Duct - Nom 32 in. by 14 in. (813 mm by 356 mm) (or smaller) No. 22 gauge (or heavier) galv steel duct. B. Steel Duct - Nom 30 in. by 12 in. (762 mm by 305 mm) (or smaller) No. 24 gauge (or heavier) galv steel duct.

3. Firestop System - The firestop system shall consist of the following:

A. Packing Material - Nom 1 in. (25 mm) thickness of tightly packed mineral wool batt insulation 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 thickness of caulk fill material. B. Fill, Void or Cavity Material* - Caulk or Sealant - Min 1 in. (25 mm) thickness of fill material applied within

annulus, flush with top surface of floor or both surfaces of wall assembly. At the point contact location between duct and concrete, a min 1/4 in. (6 mm) diam bead of sealant shall be applied to the concrete/duct interface on the top surface of floor and on both surfaces of wall assembly.

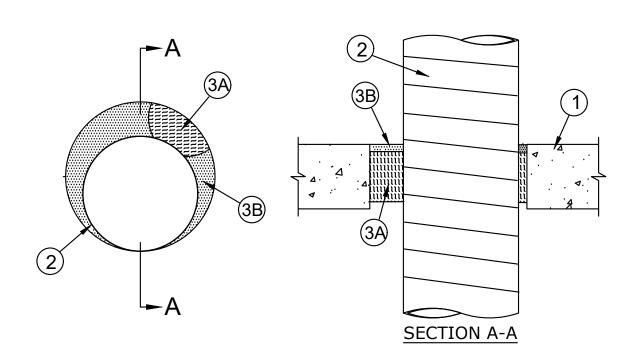
3M COMPANY - CP 25WB+, IC 15WB+ caulk or FB-3000 WT sealant.

C. Retaining Angles - Min 16 gauge galv steel angles sized to lap duct a min of 2 in. (51 mm) in. and lap top surface of floor or both surfaces of wall a min of 1 in. (25 mm). Angles attached to duct with min 1/2 in. (13 mm) long, No. 10 (or larger) sheet metal screws spaced a max of 1 in. (25 mm) from each end of duct and spaced a max of 6 in. (152 mm) OC.

*Bearing the UL Classification Marking

RECTANGULAR DUCT THROUGH CONCRETE WALL/FLOOR

System No. C-AJ-7081 May 19, 2005 F Rating - 2 Hr T Rating - 0 Hr W Rating - Class I (See Item 3)



1. Floor or Wall Assembly - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600- 2400 kg/m3) concrete. Floor assembly may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*. Wall assembly may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 18 in. (457 mm) Max diam of openings in floors constructed of hollow-core concrete is 7 in. (178

See Concrete Blocks (CAZT) categories in Fire Resistance Directory for names of manufacturers.

2. Through Penetrant - One steel duct to be installed either concentrically or eccentrically within the firestop system. An annular space of min 1/2 in. to max 1-1/2 in. (13 mm to max 38 mm) is required within the firestop system. Steel duct to be rigidly supported on both sides of floor or wall assembly. The following sizes of steel ducts may be used:

A. Steel Duct - Nom 16 in. (406 mm) diam (or smaller) No. 24 gauge (or heavier) spiral wound galv steel duct. B. Steel Vent Duct - Nom 10 in. (254 mm) diam (or smaller) No. 28 gauge (or heavier) galv steel vent duct.

3. Firestop System - The firestop system shall consist of the following:

A. Packing Material - Min 3-1/2 in. (89 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall to accommodate the required thickness of fill material. In floors constructed of hollow-core concrete, packing material to be recessed from top and bottom surfaces of floor as required to accommodate the required

B. Fill Void or Cavity Materials* - Caulk or Sealant - Min 1/2 in. (13 mm) thickness of caulk applied within the annulus, flush with top surface of floor or with both surfaces of wall. In floors constructed of hollow-core concrete, min 1/2 in. (13 mm) thickness of caulk applied within the annulus, flush with top and bottom surfaces of floor. resistance of through penetrant (Item 2) must be considered in addition

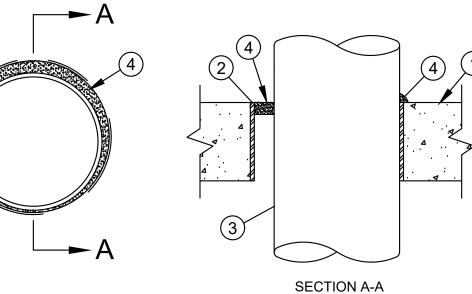
3M COMPANY - CP 25WB+, IC 15WB+ caulk or FB-3000 WT sealant.

(Note: W Rating applies only when FB-3000 WT sealant is used. Water resistance of throughpenetrant (Item 2) must be considered in addition to water resistance of firestop system.)

*Bearing the UL Classification Mark

ROUND DUCT THROUGH CONCRETE WALL/FLOOR

June 12, 2006 T Rating - 0 Hr F Rating - 2 Hr W Rating - Class 1 (See Item 4)



System No. C-AJ-1551

1. Floor or Wall Assembly - Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600 - 2400 kg/m³) concrete floors or min 3-1/2 in. (89 mm) thick reinforced lightweight or normal weight concrete walls. Floor assembly may also be constructed of any min 6 in.(152 mm) thick UL Classified hollow-core Precast Concrete Units*. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening 28 in. (711 mm). Max diam of opening in floors constructed of hollow-core concrete is 7 in. (78 mm).

See Concrete Blocks (CAZT) and Precast Concrete Units (CFTV) categories in Fire Resistance Directory for names of manufacturers. 2. Steel Sleeve - (Optional) - Nom 28 in. (711 mm) diam (or smaller) Schedule 10 (or heavier) steel sleeve cast or grouted into floor or wall assembly. Steel sleeve may be installed flush or may project max 2 in. (51 mm) beyond the floor or wall surfaces.

3. **Through Penetrant** - One metallic pipe, conduit, tubing or flexible metal piping installed concentrically or eccentrically within opening. Annular space between penetrant and periphery of opening or sleeve shall be min of 0 in. (0 mm, point contact) to max 3-7/8 in. (98 mm). Penetrant to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of penetrants may be used:

A. Steel Pipe - Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe - Nom 24 in. (610 mm) diam (or smaller) cast or ductile iron pipe.

C. Conduit - Nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing.

D. Copper Tubing - Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.

E. Copper Pipe - Nom 6 in. (152 mm) diam (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:

1) Nom 2 in. (51 mm) diam (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

2) Nom 1 in. (25 mm) diam (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 **GASTITE. DIV OF TITEFLEX**

3) Nom 1 in. (25 mm) diam (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

4. Firestop System - The details of the firestop system shall be as follows:

A. Packing Material - (Optional, Not Shown) - Polyethylene backer rod or min 1 in. (25 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation 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 thickness of fill material. In floors constructed of hollow-core concrete, packing material to be recessed from top and bottom surfaces of floor as required to accommodate the required thickness of fill material.

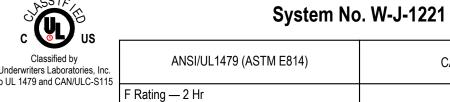
B. Fill, Void or Cavity Materials* - Caulk or Sealant - Min 1 in. (25 mm) thickness of caulk applied within the annulus, flush with top surface of floor or with both surfaces of wall. In floors constructed of hollow-core concrete, min 1 in. (25 mm) thickness of caulk applied within the annulus, flush with top and bottom surfaces of floor. Min 1/4 in. (6 mm) diam bead of caulk applied to the penetrant/ concrete or penetrant/sleeve interface at the point contact location on the top surface of floor or both surfaces of wall or hollow-core floor.

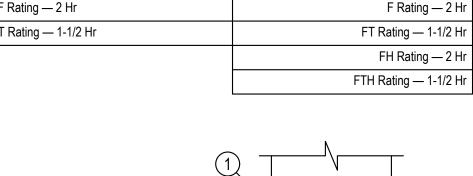
3M COMPANY - IC 15WB+ Caulk, CP 25WB+ Caulk or FB-3000 WT Sealant (Note - W Rating applies only when FB-3000 WT is used.)

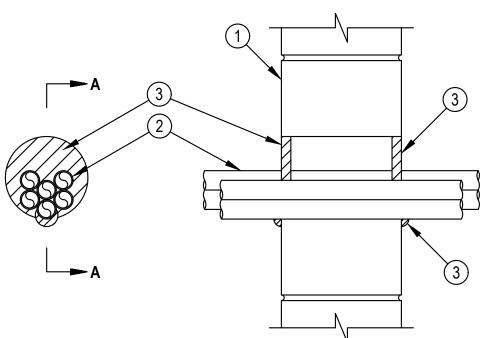
Bearing the UL Classification Mark

Addendum #1 6/17/2024 Item No. AD 1-1

CAN/ULC S115







SECTION A-A

1. Wall Assembly — Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 5-1/2 in. (140 mm).

See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers. 2. Through Penetrants — Max six nom 1 in. (25 mm) diam (or smaller) flexible steel conduits to be installed either concentrically or eccentrically within the firestop system. The annular space between the conduits and the periphery of the opening shall be min 0 in. (point contact) to max 3 in. (76 mm). Conduits to be rigidly supported on both sides of wall. 3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of sealant applied within annulus, flush with both surfaces of wall. A min

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada),

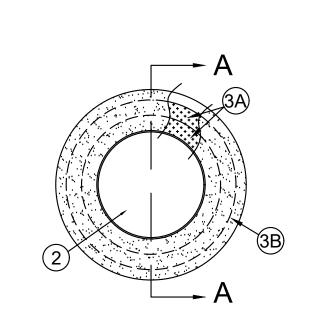
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant.

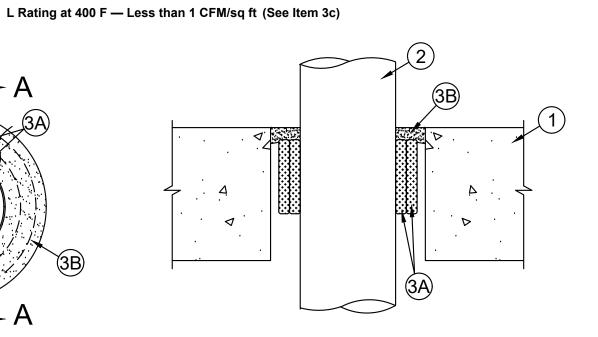


1/2 in, diam bead of sealant to be applied at the conduit/wall interface at the point contact location.

System No. C-AJ-2648

February 3, 2016 F Rating — 2 Hr T Rating — 0 Hr W Rating — Class I (See Item 3) L Rating at Ambient — Less than 1 CFM/sg ft (See Item 3c)





SECTION A-A

. **Floor or Wall Assembly** — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Floor assembly may also be constructed of any min 6

(152 mm) thick UL Classified hollow-core Precast Concrete Units*. Max diam of opening is 8 in. (203 mm). Max diam

opening in floors constructed with hollow-core concrete is 7 in. (178mm). See Concrete Blocks (CAZT) and Precast Concrete Units (CFTV) category in the Fire Resistance Directory for names of manufacturers 2. **Through Penetrant** — One nonmetallic pipe or conduit to be installed concentrically within the firestop system. The space between the pipe or conduit and the periphery of the opening shall be 11/16 in. (17.5 mm). Pipe or conduit to be

A. Polyvinyl Chloride (PVC) Pipe — Nom 6 in. (152 mm) diam (or smaller) Schedule 40 solid core PVC pipe for

supported on both sides of the floor or wall assembly. The following types and sizes of nonmetallic pipes or conduits

in closed (process or supply) or vented (drain, waste or vent) piping systems. B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 6 in. (152 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems. (See Item 3C.) C. Rigid Nonmetallic Conduit+ — Nom 6 in. (152 mm) diam (or smaller) Schedule 40 PVC conduit installed in

accordance with the National Electrical Code (NFPA No. 70). 3. **Firestop System** — The firestop system shall consist of the following: A. Fill, Void or Cavity Materials* — Wrap Strip — Two layers of min 3/16 in. (5 mm) thick intumescent material supplied in 2-1/2 in. (64 mm) wide strips. Two layers of wrap strip tightly wrapped around nonmetallic pipe and secured with either aluminum foil tape or filament tape. When installed in floors, wrap strip is to be installed within

opening such that the top of the wrap strip is min 1/4 in. (6 mm) below the top surface of floor. For wall assemblies, wrap strip is to be installed on both sides of wall and installed in the wall such that the wrap strip is recessed a min.

1/4 in. (6 mm) from both surfaces of wall. 3M COMPANY 3M FIRE PROTECTION PRODUCTS — Tuck-In Wrap Strip WS Roll B. Fill, Void or Cavity Materials* — Caulk or Sealant — Min 1/4 in. (6 mm) thickness of sealant applied within annular space, flush with top surface of floor. When hollow-core precast concrete units are used min 1/2 (13 mm) thickness of sealant applied within annular space, flush with top and bottom surfaces of floor. Wall assemblies are to have a min 1/4 in. (6 mm) diam depth of sealant applied to concrete or concrete block/wrap strip interface on both

sides of wall. 3M COMPANY 3M FIRE PROTECTION PRODUCTS — IC 15WB+ Caulk, CP 25WB+ Caulk, or 3000 WT Sealant (CP 25WB+ not suitable for use with CPVC pipes) C. Foil Tape — (Not Shown) — Required only when CPVC penetrant (Item 2B) is used. Nom 4 in. (102 mm) wide, 3 mil thick aluminum tape installed around pipe prior to installation of wrap strip. Foil tape is to be positioned such that

will be centered under the wrap strip material with adhesive side out. L Rating does not apply when Foil Tape and CPVC penetrant is used. (Note: W Rating only applies when FB 3000 WT Sealant is used in floor assembly. W Rating does not apply when CPVC penetrant is used.)

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or Certification (such as Canada), respectively. +Bearing the UL Listing Mark

PLASTIC PIPE THROUGH CONCRETE WALL/FLOOR



San Diego // San Jose // Seattle

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Project Title

SANTIAGO CANYON COLLEGE -FIRE SYSTEMS AND CODE REPAIRS PROJECT

Project Address:

Santiago 8045 EAST CHAPMAN AVENUE ORANGE, CA 92869



Revisions Number Description ADDENDUM #1 06/13/24

Designed

Drawn

Checked

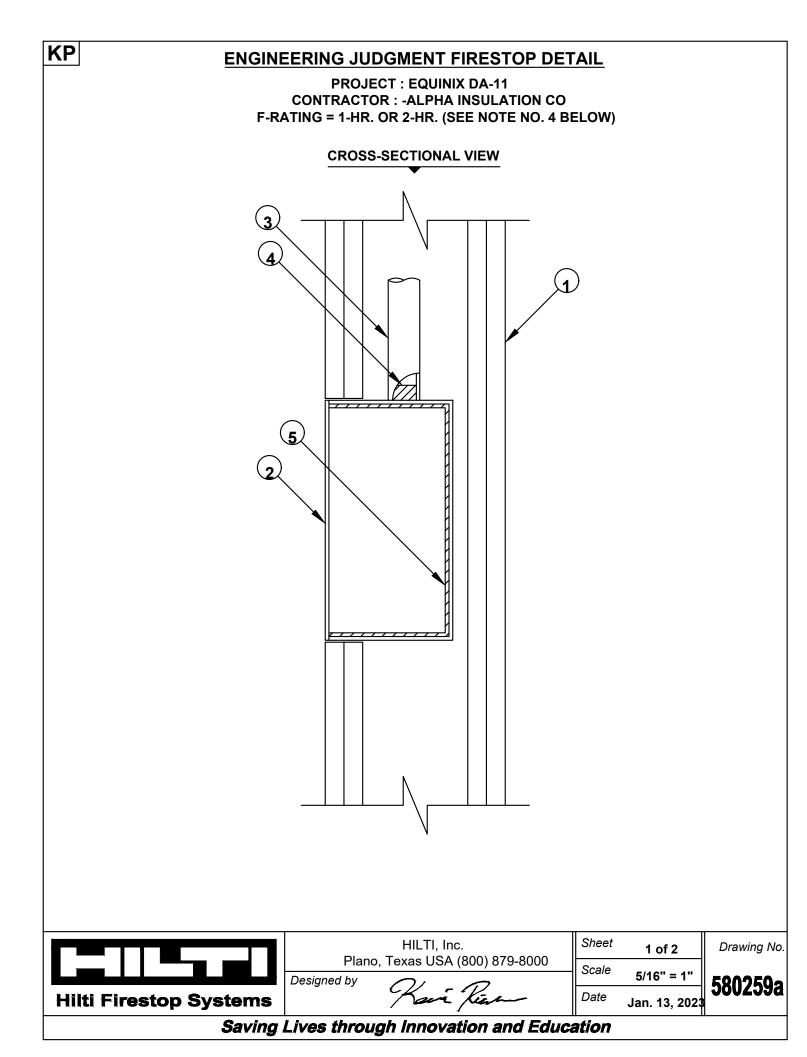
Approved June 13, 2024

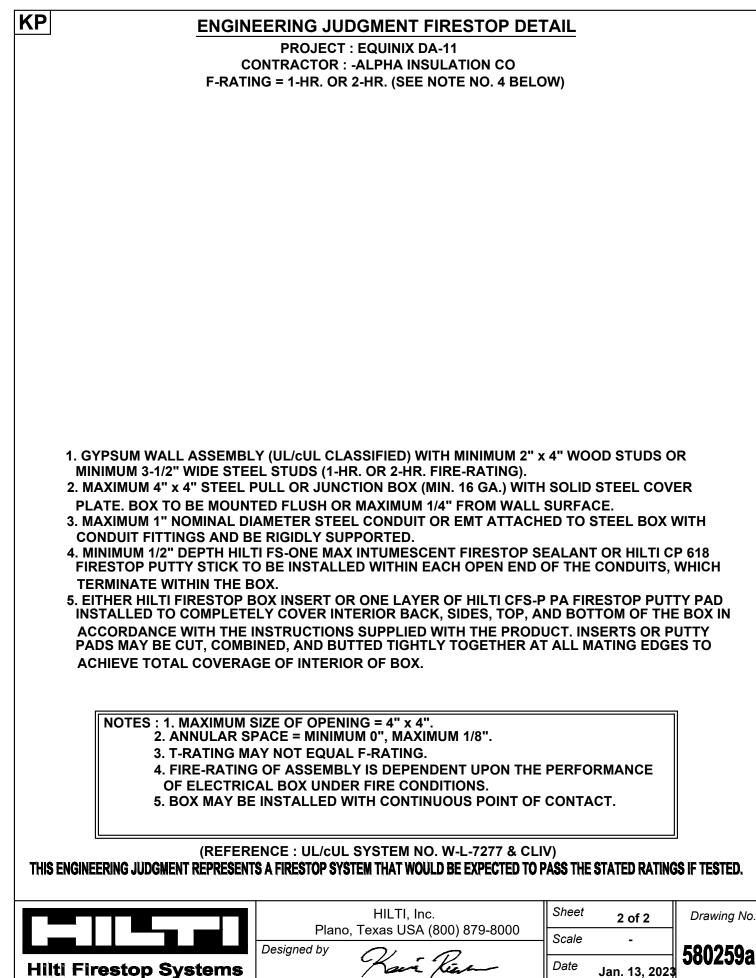
Submittal Addendum #1

DETAILS - NON INSULATED - CONCRETE WALL

Sheet Number

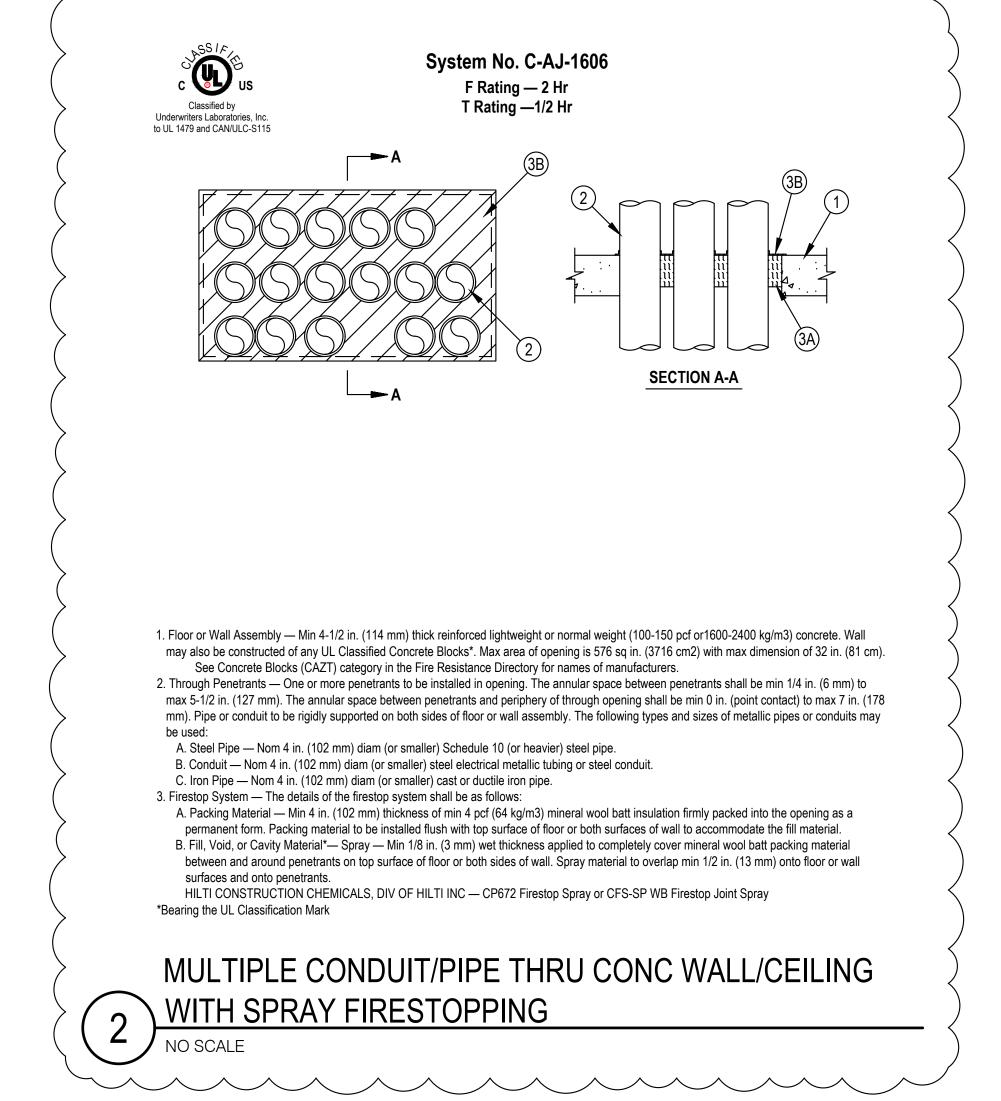
Addendum #1 6/17/2024 Item No. AD 1-1





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ENGINEERING JUDGMENT - ELECTRICAL BOX IN GYP



GA-225-2019 **REPAIR OF FIRE-RATED GYPSUM PANEL PRODUCT SYSTEMS**

Fire-rated gypsum panel product systems may be damaged during the life cycle of buildings. To maintain the required fire-rated separation between occupancies or areas, damaged systems must be repaired so that they are restored to their original fire-resistive condition. The repair procedures should be dictated by the severity of

Small holes (such as those caused by a doorknob) can be repaired by patching (see Figure 1). To maintain the integrity of the surface membrane, a gypsum panel product patch must be mechanically secured to blocking in the opening; attachment with joint compound material only is not acceptable. The patching material should be cut from type X or proprietary type X gypsum panel product of a thickness equal to the original panel so that the patch is in the same geometric shape as, but slightly larger than, the damaged area. The damaged area is then further enlarged to match exactly the size of the patch (see Figure 2). Use caution when cutting or fastening into stud cavities to avoid electrical shock or causing water leaks. Insulation, if present, must be restored. Metal runner track is secured to the edges of the frame opening (see Figure 3). The patch is screw-attached to the exposed face of the runner track with fasteners a maximum of 8 in. (200 mm) on center (see Figure 4). The patch should be treated with tape and joint compound to restore appearance, fire-resistance qualities, and acoustical performance (see Figures 5 and 6).

NOTE: Overlapping of joint tape can result in finishing problems.

Proprietary clip products are available that provide mechanical support for patching. Manufacturers of these products should be contacted for information.

If damage covers more than 100 in.2 (700 cm2) in 100 ft2 (10 m2) of wall or ceiling area, all materials in the damaged area must be removed back to the original framing to make the repair. Framing in the area to be repaired should be inspected and replaced if necessary without increasing original framing spacing. Replacement panels should be cut to fill the opening and mechanically attached to the framing. Ends and edges

of the panel that are not backed by framing materials should be supported with metal runner track. The repaired area should be finished with tape and joint treatment compound as necessary. Multiple-layer systems typically require that joints be staggered between layers. Proper repair of multiple-layer systems requires that face layers of panels be removed beyond the base layer joint to retain the staggered joint

To improve the appearance of large areas that are structurally sound but aesthetically unacceptable, a new layer of regular or type X gypsum panel may be installed with mechanical fasteners without adversely affecting the fire-resistance rating or acoustical performance.



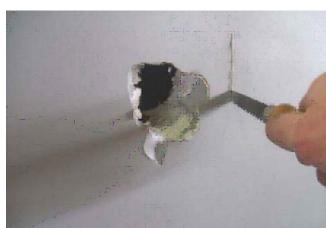




Figure 4: Apply Gypsum Panel Patch



Figure 3: Frame Opening



Figure 6: Redecorate Repaired Area **GYPSUM ASSOCIATION MEMBER COMPANY LIST 2019** AMERICAN GYPSUM COMPANY LLC CERTAINTEED GYPSUM CANADA, INC. CERTAINTEED GYPSUM, INC.

CGC INC. CONTINENTAL BUILDING PRODUCTS OPERATING COMPANY, LLC GEORGIA-PACIFIC GYPSUM LLC NATIONAL GYPSUM COMPANY PABCO® GYPSUM **UNITED STATES GYPSUM COMPANY**

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\FIRE-RATED GYPSUM BOARD WALL REPAIR DETAIL

www.gypsum.org



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Long Beach // Irvine // Los Angeles San Diego // San Jose // Seattle

p2sinc.com

Project Title

SANTIAGO CANYON COLLEGE -FIRE SYSTEMS AND CODE REPAIRS PROJECT

Project Address:

8045 EAST CHAPMAN AVENUE

ORANGE, CA 92869



Number Description ADDENDUM #1

Approved

June 13, 2024

DETAILS - DRYWALL PATCH, FIRE SPRAY, ELECTRICAL BOX

Sheet Number

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.)

PROJECT NAME:		Fire Systems and Code Repairs Project at Santiago Canyon College				
PROJECT NUMBER:		2912 BID		NUMBER:	1458	
EMAIL TO: facilitiesbid@rsccd.edu						
DATE:	DATE: 6/06/2024					
FROM:	Caliba Inc.		EMAIL:	bidding@calibainc.com		
SPEC SECTION:	n/a		DRAWING NUMBER:	n/a		
REQUESTED CLARIFICATION:						
		er's estimate for this project.				
RESPONSE TO CLARIFICATION:						
The estimated construction cost is in the range of \$315,000 and \$385,000. RFI #1 Response - RSCCD 6/17/2024						

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

END OF DOCUMENT

Rancho Santiago Community College District Bid #1458 Fire Systems and Code Repairs Project at Santiago Canyon College, SCC Project ID#2912 Page **17** of **58**