

UL/cUL SYSTEM NO. C-BJ-3042

MULTIPLE CABLE BUNDLES THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL ASSEMBLY

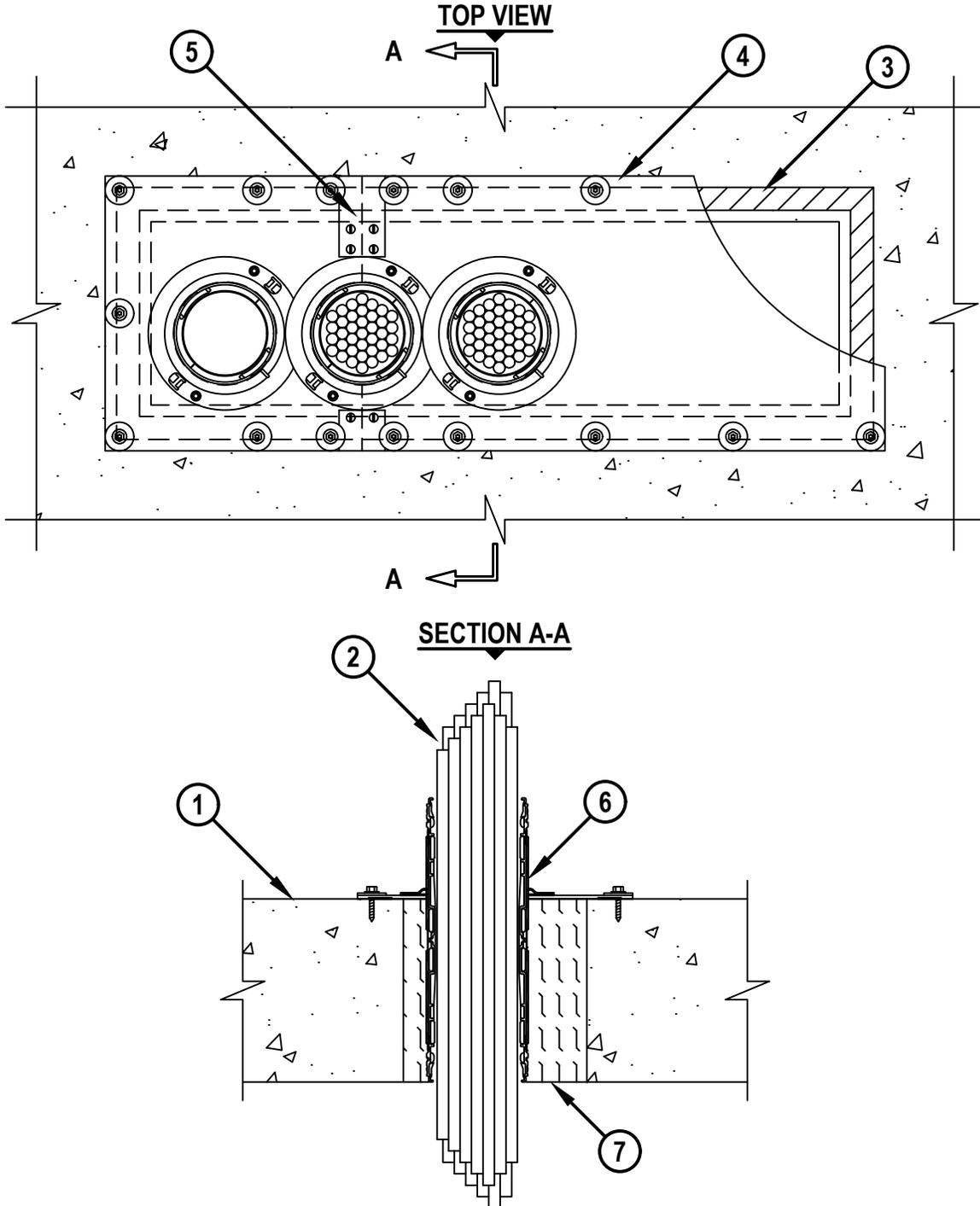
F-RATING = 2-HR.

T-RATING = 0-HR., 1-3/4-HR. OR 2-HR. (SEE NOTE NO. 5 BELOW)

L-RATING AT AMBIENT = LESS THAN 1 CFM/FT² AND 7 CFM/FT² (SEE TABLE BELOW)

L-RATING AT 400°F = LESS THAN 2 CFM/FT² AND 7 CFM/FT² (SEE TABLE BELOW)

CBJ3042a.030620



HILTI, Inc.
Plano, Texas USA (800) 879-8000

| | |
|-------|---------------|
| Sheet | 1 of 3 |
| Scale | 9/64" = 1" |
| Date | Mar. 02, 2020 |

Drawing No.
**CBJ
3042a**

Saving Lives through Innovation and Education

**MULTIPLE CABLE BUNDLES THROUGH CONCRETE
FLOOR/WALL OR BLOCK WALL ASSEMBLY**

F-RATING = 2-HR.

T-RATING = 0-HR., 1-3/4-HR. OR 2-HR. (SEE NOTE NO. 5 BELOW)

L-RATING AT AMBIENT = LESS THAN 1 CFM/FT² AND 7 CFM/FT² (SEE TABLE BELOW)

L-RATING AT 400°F = LESS THAN 2 CFM/FT² AND 7 CFM/FT² (SEE TABLE BELOW)

CBJ3042a.030620

1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 8" THICK).
 - B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. ONE OR MORE CABLE BUNDLES TO BE A COMBINATION OF ANY OF THE FOLLOWING :
 - A. MAX 100 PAIR NO. 24 AWG (OR SMALLER) COPPER CONDUCTOR TELECOMMUNICATION CABLE WITH POLYVINYL CHLORIDE (PVC) JACKETING AND INSULATION.
 - B. MAX 7/C NO. 12 AWG COPPER CONDUCTOR CONTROL CABLE WITH PVC OR XLPE JACKET AND INSULATION.
 - C. MAX 4/0 AWG TYPE RHH GROUND CABLE.
 - D. MAX 4 PR NO. 22 AWG CAT 6 COMPUTER CABLES.
 - E. MAX RG 6/U COAXIAL CABLE WITH FLUORINATED ETHYLENE INSULATION AND JACKETING.
 - F. FIBER OPTIC CABLE WITH POLYVINYL CHLORIDE (PVC) OR POLYETHYLENE (PE) JACKET AND INSULATION HAVING A MAX DIAM OF 1/2 IN. (13 MM).
 - G. MAX 20/C NO. 22 AWG SHIELDED PRINTER CABLE WITH PVC JACKET.
 - H. THROUGH-PENETRATING PRODUCT* — TWO COPPER CONDUCTORS NO. 18 AWG (OR SMALLER) POWER OR NON POWER LIMITED FIRE ALARM CABLE WITH OR WITHOUT A JACKET UNDER A METAL ARMOR.
AFC CABLE SYSTEMS INC
 - I. MAX 1/4 IN. (6 MM) DIAMETER S-VIDEO CABLE CONSISTING OF 2 MAX 24 AWG 75 OHM COAX OR TWISTED PAIR CABLE WITH PE INSULATION AND PVC JACKET.
 - J. THROUGH PENETRATING PRODUCT* — ANY CABLES, METAL-CLAD CABLE+ OR ARMORED CABLE+ CURRENTLY CLASSIFIED UNDER THE THROUGH PENETRATING PRODUCTS CATEGORY.
 - K. MAX 3/C NO 12 AWG MC CABLE.
3. ONE LAYER HILTI CP 619T PUTTY ROLL OR MINIMUM 1/2" BEAD HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT APPLIED UNDER COMPOSITE SHEET AROUND PERIMETER OF OPENING AND OVER BUTTED SEAM OR SLIT MADE IN COMPOSITE SHEET (NOT SHOWN ON SEAM).
4. HILTI CFS-COS FIRESTOP COMPOSITE SHEET CUT TO OVERLAP FLOOR OR WALL A MINIMUM OF 2". COMPOSITE SHEET INSTALLED WITH THE ALUMINUM FOIL FACING AGAINST THE FLOOR OR WALL AND SECURED WITH MINIMUM 3/16" DIAMETER BY 1-1/4" LONG STEEL ANCHOR SCREWS WITH 1-1/4" DIAMETER STEEL FENDER WASHERS AT MAXIMUM 2" FROM ENDS AND MAXIMUM 6" C/C. COMPOSITE SHEET CUT TO TIGHTLY FOLLOW THE CONTOUR OF THE PENETRANTS.



Hilti Firestop Systems

HILTI, Inc.
Plano, Texas USA (800) 879-8000

| | |
|-------|---------------|
| Sheet | 2 of 3 |
| Scale | - |
| Date | Mar. 02, 2020 |

Drawing No.

**CBJ
3042a**

MULTIPLE CABLE BUNDLES THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL ASSEMBLY

F-RATING = 2-HR.

T-RATING = 0-HR., 1-3/4-HR. OR 2-HR. (SEE NOTE NO. 5 BELOW)

L-RATING AT AMBIENT = LESS THAN 1 CFM/FT² AND 7 CFM/FT² (SEE TABLE BELOW)

L-RATING AT 400°F = LESS THAN 2 CFM/FT² AND 7 CFM/FT² (SEE TABLE BELOW)

CBJ3042a.030620

5. MINIMUM 2" WIDE STAINLESS STEEL STRIP (MIN. 24 GA.) CENTERED OVER ENTIRE LENGTH OF BUTT SEAM OR SLIT MADE IN THE COMPOSITE SHEET. COVER STRIP SECURED TO COMPOSITE SHEET WITH 3/4" STEEL SHEET METAL SCREWS SPACED MAXIMUM 3" C/C ON ALTERNATING EACH SIDE OF SEAM OR SLIT.
6. HILTI CP 653 (BA) SPEED SLEEVE (2" OR 4"), HILTI CP 653 4" BA ILS SPEED SLEEVE, OR HILTI CFS-SL GAL ILS SPEED SLEEVE ATTACHED TO TOP OF HILTI CFS-COS COMPOSITE SHEET WITH TWO NO. 8 SHEET METAL SCREWS THROUGH OPENINGS IN DEVICE FLANGE. SPEED SLEEVE INSTALLED WITH BOTH SMOKE GASKETS BETWEEN FLANGE AND COMPOSITE SHEET, AND SO THAT A NOMINAL 8" OF SPEED SLEEVE EXTENDS BELOW BOTTOM OF COMPOSITE SHEET. DEVICE SHALL BE TWISTED CLOSED TO CLOSE OFF ANY UNUSED OPENINGS IN DEVICE. MAXIMUM SIZE OF OPENING IN COMPOSITE SHEET FOR 2" DEVICES IS 3", AND FOR 4" DEVICES IS 4-1/2".
7. NOMINAL 8" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED AND FLUSH WITH UNDERSIDE OF HILTI CFS-COS COMPOSITE SHEET IN FLOORS, OR FLUSH WITH THE SURFACE OF ONE COMPOSITE SHEET ON ONE SIDE OF A WALL.

| MAX CABLE FILL | CABLE TYPE | SEALANT / GASKET | | SEALANT / GASKET | |
|----------------|--|-----------------------|-------|------------------------|-------------|
| | | L RATING, CFM / SQ FT | | L RATING, CFM / DEVICE | |
| | | AMBIENT | 400°F | AMBIENT | 400°F |
| 0% | — | 1 | 2 | LESS THAN 1 | LESS THAN 1 |
| 100% | ANY CABLES (ITEM NO. 2) IN ANY COMBINATION | 7 | 7 | LESS THAN 1 | LESS THAN 1 |

- NOTES :**
1. MAXIMUM SIZE OF OPENING = 30" x 30".
 2. ANNULAR SPACE BETWEEN OPENINGS IN COMPOSITE SHEET = MINIMUM 1-7/8".
 3. ANNULAR SPACE BETWEEN PERIPHERY OF CONCRETE AND OPENINGS IN COMPOSITE SHEET = MINIMUM 0" OR LARGER.
 4. CABLES MAY REPRESENT 0 TO 100% VISUAL FILL OF DEVICE.
 5. THE T-RATING FOR THE FIRESTOP SYSTEM IS 2 HR EXCEPT THAT WHEN CABLE TYPE 2A IS USED, THE T-RATING IS 1-3/4 HR AND WHEN CABLE TYPES 2J OR 2K ARE USED, THE T-RATING IS 0 HR.



HILTI, Inc.
Plano, Texas USA (800) 879-8000

| | |
|-------|---------------|
| Sheet | 3 of 3 |
| Scale | - |
| Date | Mar. 02, 2020 |

Drawing No.
**CBJ
3042a**