1. Location of Fire Wall and appeal proposal.
2. 1-hour rated roof assembly and supporting element extents.
Wall section at Fire Wall along Gridline JJ.
Location of revised Fire Wall detail.
Description of 1-hour rated roof assembly
Fireproofing sprayed on steel beam and supporting columns, blocking and deck (as applicable) to 2 hour thickness.

1 1/2" z-shaped channel (min. 16 GA.) fastened with steel fasteners to beam spaced max. 24" o.c. to support fire wall if low side of building collapses.

Melt-away clips allow high side of building to collapse and leave fire wall standings - see 12/S-605.

2-hour Fire Wall Shaded RED. Includes fireproofing low side beam and supporting columns.

See 4/A-419 and 2/A-718 for:
- Exterior Wall and Roof Construction
- UL for Rated Roof - Ceiling Assembly
- GA Rated Shaft Wall Assembly

Fire Wall revision overview sketch.
Proposed Fire Wall Detail

1 1/2" - 1'-0"

RATED ROOF-CEILING ASSEMBLY UL P230 AT ACT CEILING, UL P608 AT GYPSUM BOARD CEILING, SEE A-211C FOR EXTENTS

RATED SHAFT WALL ASSEMBLY GA WP 7065.5

TO BOTTOM OF CEILING GRID

7/8" FIBER CEMENT PANEL
CONT. 7/8" HAT CHANNEL
5/8" EXT. SHEATHING
2 1/2" CONT. HORIZ. RAINSCREEN GIRT
CONT. MINERAL WOOL INSULATION
CONT. AIR BARRIER
STARTER CLIP BY FIBER CEMENT MFR
FLUID APPLIED FLASHING
2 PLY SBS ROOFING
CANT STRIP
COVER BOARD
SEE 4 / A-419 FOR UL ASSEMBLY COMPONENTS
MIN. R-38 RIGID INSULATION
1/2" RATED PROTECTION BOARD
STRUCTURAL METAL DECK, REFER TO STRUCTURAL. FILL ALL DECK CORRUGATIONS WITH FIRE BLOCKING SET IN FIRE SEALANT CANT STRIP
2 PLY SBS ROOFING
FLUID APPLIED FLASHING
CONT. AIR BARRIER
2 1/2" CONT. HORIZ. RAINSCREEN GIRT
CONT. MINERAL WOOL INSULATION
CONT. AIR BARRIER
STARTER CLIP BY FIBER CEMENT MFR
FLUID APPLIED FLASHING
2 PLY SBS ROOFING
CANT STRIP
COVER BOARD
SEE 4 / A-419 FOR UL ASSEMBLY COMPONENTS
MIN. R-38 RIGID INSULATION
1/2" RATED PROTECTION BOARD
STRUCTURAL METAL DECK, REFER TO STRUCTURAL. FILL ALL DECK CORRUGATIONS WITH FIRE BLOCKING SET IN FIRE SEALANT
CONT. MINERAL WOOL INSULATION
CONT. AIR BARRIER
STARTER CLIP BY FIBER CEMENT MFR
FLUID APPLIED FLASHING
2 PLY SBS ROOFING
CANT STRIP
COVER BOARD
SEE 4 / A-419 FOR UL ASSEMBLY COMPONENTS
MIN. R-38 RIGID INSULATION
1/2" RATED PROTECTION BOARD
STRUCTURAL METAL DECK, REFER TO STRUCTURAL. FILL ALL DECK CORRUGATIONS WITH FIRE BLOCKING SET IN FIRE SEALANT
PLATE CONNECTION AS OCCURS PER STRUCT
CONT. STEEL BLOCKING PER STRUCT
Z CHANNEL AND MINERAL WOOL FIRE BLOCKING, FACED WITH FIRESTOP SPRAY, INSTALL PER EJ 352536b
1 1/2" Z CHANNEL
1 1/2 X 1 1/2" ANGLE
CONT. 1 1/2" Z CHANNEL (MIN. 16 GA) FASTENED W/ STEEL FASTENERS TO BEAM SPACED 24" O.C. MAX
J-RUNNER, TYP.
MELT AWAY CLIPS, INSTALL PER MFR. SEE STRUCT.

2
N-S FIRE WALL AT LOW ROOF
1 1/2" = 1'-0"

- Proposed revised detail at Fire Wall

KELLOGG MIDDLE SCHOOL
3330 SE 69TH AVE. PORTLAND, OR 97206

RA-67
Project # 90031
ENGINEERING JUDGMENT FIRESTOP DETAIL

PROJECT : KELLOGG MIDDLE SCHOOL
CONTRACTOR : CASCADE ACOUSTICS

F-RATING = 1-HR. OR 2-HR. (SEE NOTE NO. 3 BELOW)

CROSS-SECTIONAL VIEW

1. BUILT UP METAL ROOF DECK ASSEMBLY (MIN. 22 GA.) (NON FIRE-RATED).
2. Z-SHAPED CLIPS (MIN. 20 GA.) WITH THE FOLLOWING DIMENSIONS : MINIMUM 1" WIDE (BUT NOT EXCEEDING THE WIDTH OF THE WALL) WITH 2" UPPER AND LOWER LEGS, HEIGHT OF CLIPS TO BE EQUAL TO THE REQUIRED THICKNESS OF SPRAY APPLIED FIREPROOFING ON THE METAL DECK. LEGS OF CLIPS FASTENED TO BOTTOM OF METAL DECK (PRIOR TO APPLYING FIREPROOFING) AND TOP OF CEILING RUNNER WITH STEEL FASTENERS OR WELDS. CLIPS SPACED MAXIMUM 24" OC.
3. GYPSUM SHAFT WALL ASSEMBLY (UL/cUL CLASSIFIED) (1-HR. OR 2-HR. FIRE-RATING)(2-HR. SHOWN).
4. MINERAL WOOL SAFING (MIN. 4 PCF DENSITY) COMPRESSED 50%, TO COMPLETELY FILL JOINT AND FLUTE, FLUSH WITH WALL SURFACES.
5. MINIMUM 1/8" (WET) THICKNESS HILTI CFS-SP WB FIRESTOP JOINT SPRAY TO COMPLETELY COVER MINERAL WOOL, OVERLAPPING MINIMUM 1/2" ONTO GYPSUM WALL ASSEMBLY AND MINIMUM 2" ONTO FIREPROOFING.
6. SHEET METAL COVER PLATE (MIN. 18 GA.) COMPLETELY COVER JOINT, RECESSED 1/4" TO 3/4" FROM METAL DECK/Z-CLIP AND ATTACHED TO WALL WITH THE APPROPRIATE HILTI ANCHORS.

NOTES : 1. MAXIMUM WIDTH OF JOINT = 2".
2. THIS SYSTEM IS DESIGNED BASED UPON CANADIAN TEST STANDARD CAN/ULC-S115-11.
3. FIRE-RATING OF ASSEMBLY IS DEPENDENT UPON THE PERFORMANCE OF Z-CLIPS AND METAL DECK UNDER FIRE CONDITIONS.

THIS ENGINEERING JUDGMENT REPRESENTS A FIRESTOP SYSTEM THAT WOULD BE EXPECTED TO PASS THE STATED RATINGS IF TESTED.
(REFERENCE : UL/cUL SYSTEM NO. HW-D-0750 & HW-D-0571; UL SYSTEM NO. CJ-D-0004)

DJ

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

Designed by
Jan. 23, 2020

Sheet 1 of 1
Scale 7/32" = 1"
Drawing No. 352536b

- Fire Wall connection to deck detail.
## SHAFT WALLS

**GA FILE NO. WP 7065.2**

<table>
<thead>
<tr>
<th>PROPRIETARY*</th>
<th>2 HOUR</th>
<th>50 to 54 STC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FIRE</td>
<td>SOUND</td>
</tr>
</tbody>
</table>

**GYPSUM PANEL PRODUCTS, STEEL C-H, C-T, OR I STUDS**

One layer 1" x 24" proprietary type X glass mat gypsum panels inserted between 2-1/2" floor and ceiling runners with tab-flange section of 2-1/2" steel C-H, C-T, or I studs between panels.

**OPPOSITE SIDE:** Base layer 5/8" proprietary type X glass mat gypsum substrate applied parallel to studs with 1" Type S drywall screws 24" o.c. **Face** layer 5/8" proprietary type X glass mat gypsum substrate applied parallel to studs with 1-5/8" Type S drywall screws 12" o.c.

Sound tested with resilient channels 24" o.c. and 1-1/2" glass fiber insulation friction fit in stud space. (NLB)

**PROPRIETARY GYPSUM PANEL PRODUCTS**

National Gypsum Company .......................... 5/8" Gold Bond® Brand eXP®
Interior Extreme® Gypsum Panels
1" Gold Bond® Brand eXP® FIRE-SHIELD® Shaftliner

---

**GA FILE NO. WP 7065.5**

<table>
<thead>
<tr>
<th>PROPRIETARY*</th>
<th>2 HOUR</th>
<th>50 to 54 STC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FIRE</td>
<td>SOUND</td>
</tr>
</tbody>
</table>

**GYPSUM PANEL PRODUCTS, STEEL C-H, C-T, OR I STUDS**

One layer 1" x 24" proprietary type X gypsum panels inserted between 2-1/2" floor and ceiling runners with tab-flange section of 2-1/2" steel C-H, C-T, or I studs between panels.

**OPPOSITE SIDE:** Base layer 5/8" proprietary type X gypsum wallboard applied parallel or at right angles to studs with 1" Type S drywall screws 24" o.c. **Face** layer 5/8" proprietary type X gypsum wallboard applied parallel to studs with 1-5/8" Type S drywall screws 12" o.c.

Sound tested with 1-1/2" mineral fiber insulation friction fit in stud spaces. (NLB)

**PROPRIETARY GYPSUM PANEL PRODUCTS**

Georgia-Pacific Gypsum LLC ...... 5/8" ToughRock® Fireguard X™ Gypsum Board
1" DensGlass® Shaftliner

---

*Contact the manufacturer for more detailed information on proprietary products.*

Listing for GA WP 7065.5.