Fire-Rated Assemblies in Commercial Construction
NATIONAL GYPSUM COMPANY

FIRE-RATED ASSEMBLIES
IN COMMERCIAL CONSTRUCTION
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5/8" Gold Bond® Brand Kal-Kore® Fire-Shield C™ Plaster Base, Type C |
| Type FSL30               | 5/8" Gold Bond® Brand High Strength Fire-Shield® LITE®30 Gypsum Board |
| Type FSMR-C              | 1/2" Gold Bond® Brand XP® Fire-Shield C™ Gypsum Board, Type C  
5/8" Gold Bond® Brand XP® Fire-Shield C™ Gypsum Board, Type C |
| Type FSW                 | 5/8" Gold Bond® Brand Fire-Shield® Gypsum Board, Type X  
5/8" Gold Bond® Brand Fire-Shield® Exterior Soffit Board, Type X  
5/8" Gold Bond® Brand Hi Abuse® XP® Fire-Shield® Gypsum Board, Type X  
5/8" Gold Bond® Brand Sta-Smooth® Fire-Shield® Gypsum Board, Type X  
5/8" Gold Bond® Brand Fire-Shield® Gypsum Sheathing, Type X  
5/8" Gold Bond® Brand XP® Fire-Shield® Gypsum Board, Type X  
1" Gold Bond® Brand Fire-Shield® Shaftliner, Type X  
1" Gold Bond® Brand Fire-Shield® Shaftliner XP®, Type X |
| Type FSW-C               | 1/2" Gold Bond® Brand Fire-Shield C™ Gypsum Board, Type C  
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| Type FSW-G               | 1/2" Gold Bond® Brand Gridstone® Gypsum Ceiling Panels  
1/2" Gold Bond® Brand Gridstone® CleanRoom Gypsum Ceiling Panels |
| Type FSW-3               | 5/8" Gold Bond® Brand Fire-Shield® Gypsum Sheathing, Type X  
5/8" Gold Bond® Brand XP® Fire-Shield® Gypsum Board, Type X |
| Type FSW-5               | 5/8" Gold Bond® Brand Hi-Impact® XP® Fire-Shield® Gypsum Board, Type X  
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<tr>
<td>2 HOUR SHAFTWALL</td>
<td></td>
</tr>
<tr>
<td>1 HOUR FIRE AND SMOKE WALL</td>
<td>PRIORITY 3</td>
</tr>
<tr>
<td>1 HOUR FIRE WALL</td>
<td>PRIORITY 4</td>
</tr>
<tr>
<td>NON-RATED WALL</td>
<td>PRIORITY 5</td>
</tr>
</tbody>
</table>
1/4" MIN.

5/8" FIRE-SHIELD GYPSUM BOARD

3 5/8" STEEL STUD
24" O.C. MAX.

GLASS FIBER INSULATION
(OPTIONAL)

5/8" FIRE-SHIELD GYPSUM BOARD

STEEL TRACK - MECHANICALLY FASTEN
24" O.C. MAX. (SLOTTED TRACK OPTIONAL)

FLEXIBLE SEALANT
(OPTIONAL)

PARTITION - 1 HR
UL DESIGN: U465
UL DESIGN: V438

HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0103
UL DESIGN: HW-D-0076

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SS 102

© National Gypsum Properties, LLC
HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0043
UL DESIGN: HW-D-0292

PARTITION - 1 HR
UL DESIGN: U465
UL DESIGN: V438

1 HOUR PARTITION TO STEEL DECK

SCALE: 3"=1'-0"
DETAIL: SS 103

© National Gypsum Properties, LLC
1 HOUR PARTITION WITH DEFLECTION TRACK

5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" STEEL STUD 24" O.C. MAX.
GLASS FIBER INSULATION (OPTIONAL)
5/8" FIRE-SHIELD GYPSUM BOARD
STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)

HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0034
UL DESIGN: HW-D-0045

PARTITION - 1 HR
UL DESIGN: U465
UL DESIGN: V438

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SS 105

© National Gypsum Properties, LLC
5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" STEEL STUD
24" O.C. MAX.
GLASS FIBER INSULATION
(OPTIONAL)
5/8" FIRE-SHIELD GYPSUM BOARD
STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT
(OPTIONAL)

STEEL BEAM
SPRAY-APPLIED FIRE RESISTIVE MATERIAL
20 GA. Z-CLIPS @ 16" O.C. MAX., FASTEN BEFORE APPLICATION OF SPRAY ON FIREPROOFING
FASTEN STEEL TRACK TO Z-CLIPS
MINERAL WOOL INSULATION
ELASTOMERIC SPRAY FIRESTOP

PARTITION - 1 HR
UL DESIGN: U465
UL DESIGN: V438

HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0252
UL DESIGN: HW-D-0259

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SS 108

© National Gypsum Properties, LLC
CONCRETE ON FLUTED STEEL DECK

HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0617
UL DESIGN: HW-D-0635

STEEL BEAM
SPRAY-APPLIED FIRE RESISTIVE MATERIAL
3/8" DIAMOND MESH EXPANDED METAL LATH
MINERAL WOOL INSULATION
1 1/2" Z FURRING OR CHANNELS 24" O.C.

ELASTOMERIC SPRAY FIRESTOP

5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" STEEL STUD 24" O.C. MAX.
GLASS FIBER INSULATION (OPTIONAL)
5/8" FIRE-SHIELD GYPSUM BOARD
STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)

PARTITION - 1 HR
UL DESIGN: U465
UL DESIGN: V438

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SS 109

© National Gypsum Properties, LLC
MIN. 4 1/2" THICK REINFORCED CONCRETE

HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0079
UL DESIGN: HW-D-0083

PARTITION - 1 HR
UL DESIGN: U465
UL DESIGN: V438

5/8" FIRE-SHIELD GYPSUM BOARD

3 5/8" STEEL STUD 24" O.C. MAX.

GLASS FIBER INSULATION (OPTIONAL)

5/8" FIRE-SHIELD GYPSUM BOARD

STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX. (SLOTTED TRACK OPTIONAL)

FLEXIBLE SEALANT (OPTIONAL)
CONCRETE ON FLUTED STEEL DECK

1 1/4" PROFORM QUICK-SET FS-90 COMPOUND

GLASS FIBER INSULATION

STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

PROFORM QUICK-SET SETTING COMPOUND

3 5/8" STEEL STUD 24" O.C. MAX.

GLASS FIBER INSULATION (OPTIONAL)

STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)

HEAD OF WALL - 1 HR
WHI-495-PSV-1325

PARTITION - 1 HR
UL DESIGN: V497
PARTITION RATED FROM BOTH SIDES

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CONCRETE ON FLUTED STEEL DECK

5/8" FIRE-SHIELD GYPSUM BOARD

STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX. (SLOTTED TRACK OPTIONAL)

ELASTOMERIC SPRAY FIRESTOP

MINERAL WOOL INSULATION

FLEXIBLE SEALANT (OPTIONAL)

1/2" PERMABASE CEMENT BOARD

3 5/8" STEEL STUD 24" O.C. MAX.

MINERAL WOOL INSULATION

5/8" FIRE-SHIELD GYPSUM BOARD

STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)

HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0043
UL DESIGN: HW-D-0292

PARTITION - 1 HR
UL DESIGN: V452

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SS 113

© National Gypsum Properties, LLC
3 5/8" STEEL STUD
24" O.C. MAX.

STEEL TRACK - MECHANICALLY FASTEN
24" O.C. MAX.

GLASS FIBER INSULATION

PROFORM QUICK-SET
FS-90 COMPOUND

CONCRETE ON FLUTED
STEEL DECK

HEAD OF WALL - 2 HR
WHI 495-PSV-1068

2 LAYERS 5/8" FIRE-SHIELD
GYPSUM BOARD

3 5/8" STEEL STUD
24" O.C. MAX.

GLASS FIBER INSULATION
(OPTIONAL)

2 LAYERS 5/8" FIRE-SHIELD
GYPSUM BOARD

STEEL TRACK - MECHANICALLY FASTEN
24" O.C. MAX.

FLEXIBLE SEALANT
(OPTIONAL)

PARTITION - 2 HR
UL DESIGN: U411
UL DESIGN: V438

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SS 201

© National Gypsum Properties, LLC
CONCRETE ON FLUTED STEEL DECK

3 5/8" STEEL STUD
24" O.C. MAX.

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

MINERAL WOOL INSULATION

ELASTOMERIC SPRAY FIRESTOP

STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX. (SLOTTED TRACK OPTIONAL)

GLASS FIBER INSULATION (OPTIONAL)

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)

HEAD OF WALL - 2 HR
UL DESIGN: HW-D-0043
UL DESIGN: HW-D-0292

PARTITION - 2 HR
UL DESIGN: U411
UL DESIGN: V438

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SS 203

© National Gypsum Properties, LLC
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

3 5/8" STEEL STUD 24" O.C. MAX.

GLASS FIBER INSULATION (OPTIONAL)

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX. (SLOTTED TRACK OPTIONAL)

FLEXIBLE SEALANT (OPTIONAL)

CONCRETE ON FLUTED STEEL DECK

FIRESTOP SEALANT

MINERAL WOOL INSULATION

HEAD OF WALL - 2 HR
UL DESIGN: HW-D-0034
UL DESIGN: HW-D-0045

PARTITION - 2 HR
UL DESIGN: U411
UL DESIGN: V438

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SS 204

© National Gypsum Properties, LLC
CONCRETE ON FLUTED STEEL DECK

PROFORM QUICK-SET FS-90 COMPOUND

MINERAL WOOL INSULATION

CUT GYPSUM BOARD PANELS TO FIT DECK CONFIGURATION

FIRE TRAK SHADOWLINE MECHANICALLY FASTEN 24" O.C. MAX.

TOP ROW OF FASTENERS 3" FROM TOP OF GYPSUM BOARD

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

3 5/8" STEEL STUD 24" O.C. MAX.

GLASS FIBER INSULATION (OPTIONAL)

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)

PARTITION - 2 HR
UL DESIGN: U411
UL DESIGN: V438

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SS 207

National Gypsum Properties, LLC
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

3 5/8" STEEL STUD
24" O.C. MAX.

GLASS FIBER INSULATION
(OPTIONAL)

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

FLEXIBLE SEALANT
(OPTIONAL)

CONCRETE ON FLUTED STEEL DECK

STEEL BEAM

SPRAY-APPLIED FIRE RESISTIVE MATERIAL

20 GA. Z-CLIPS @ 16" O.C. MAX., FASTEN BEFORE APPLICATION OF SPRAY ON FIREPROOFING

FASTEN STEEL TRACK TO Z-CLIPS

MINERAL WOOL INSULATION

ELASTOMERIC SPRAY FIRESTOP

HEAD OF WALL - 2 HR
UL DESIGN: HW-D-0252
UL DESIGN: HW-D-0259

PARTITION - 2 HR
UL DESIGN: U411
UL DESIGN: V438

DATE: 11/05/13

SCALE: 3"=1'-0"

DETAIL: SS 208

© National Gypsum Properties, LLC
CONCRETE ON FLUTED STEEL DECK

SCALE: 3"=1'-0"

DATE: 11/05/13

© National Gypsum Properties, LLC

HEAD OF WALL - 2 HR
UL DESIGN: HW-D-0617
UL DESIGN: HW-D-0635

PARTITION - 2 HR
UL DESIGN: U411
UL DESIGN: V438

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" STEEL STUD 24" O.C. MAX.
GLASS FIBER INSULATION (OPTIONAL)
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)

ELASTOMERIC SPRAY FIRESTOP

3/8" DIAMOND MESH EXPANDED METAL LATH
MINERAL WOOL INSULATION

1 1/2" Z FURRING OR CHANNELS 24" O.C.

SPRAY-APPLIED FIRE RESISTIVE MATERIAL

STEEL BEAM

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

FLEXIBLE SEALANT (OPTIONAL)

GLASS FIBER INSULATION (OPTIONAL)

STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

3 5/8" STEEL STUD 24" O.C. MAX.

GLASS FIBER INSULATION (OPTIONAL)

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)
3 5/8" STEEL STUD
24" O.C. MAX.

STEEL TRACK - MECHANICALLY FASTEN
24" O.C. MAX. (SLOTTED TRACK OPTIONAL)

GLASS FIBER INSULATION (OPTIONAL)

FLEXIBLE SEALANT (OPTIONAL)

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

3 5/8" STEEL STUD
24" O.C. MAX.

MIN. 4 1/2" THICK REINFORCED CONCRETE

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

HED OF WALL - 2 HR
UL DESIGN: HW-D-0079
UL DESIGN: HW-D-0083

PARTITION - 2 HR
UL DESIGN: U411
UL DESIGN: V438

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
PARTITION - 2 HR
UL DESIGN: U411
UL DESIGN: V438

HEAD OF WALL - 2 HR
WHI-495-PSV-1326
HEAD OF WALL RATED FROM BOTH SIDES

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" STEEL STUD 24" O.C. MAX.
GLASS FIBER INSULATION (OPTIONAL)

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)

2" PROFORM QUICK-SET FS-90 COMPOUND
GLASS FIBER INSULATION

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" STEEL STUD 24" O.C. MAX.
GLASS FIBER INSULATION (OPTIONAL)

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
CONCRETE ON FLUTED STEEL DECK

3 5/8" STEEL STUD 24" O.C. MAX.

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX. (SLOTTED TRACK OPTIONAL)

MINERAL WOOL INSULATION

ELASTOMERIC SPRAY FIRESTOP

FLEXIBLE SEALANT (OPTIONAL)

1/4" MIN.

1/2" PERMABASE CEMENT BOARD

5/8" FIRE-SHIELD GYPSUM BOARD

3 5/8" STEEL STUD 24" O.C. MAX.

MINERAL WOOL INSULATION

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)

HEAD OF WALL - 2 HR
UL DESIGN: HW-D-0043
UL DESIGN: HW-D-0292

PARTITION - 2 HR
UL DESIGN: V452
CONCRETE ON FLUTED STEEL DECK

3\frac{5}{8}'' STEEL STUD
24'' O.C. MAX.

4 LAYERS 5/8'' FIRE-SHIELD GYPSUM BOARD

ELASTOMERIC SPRAY FIRESTOP

MINERAL WOOL INSULATION

STEEL TRACK - MECHANICALLY FASTENED 24'' O.C. MAX. (SLOTTED TRACK OPTIONAL)

GLASS FIBER INSULATION (OPTIONAL)

FLEXIBLE SEALANT (OPTIONAL)

HEAD OF WALL - 4 HR
UL DESIGN: HW-D-0043
UL DESIGN: HW-D-0292

PARTITION - 4 HR
UL DESIGN: V438

DATE: 11/05/13
SCALE: \(3''=1'-0''\)
DETAIL: SS 401

© National Gypsum Properties, LLC
VERTICAL JOINTS STAGGERED ONE STUD CAVITY ON OPPOSITE SIDES OF PARTITION

HORIZONTAL BASE LAYER JOINTS NEED NOT BE STAGGERED OR BACKED BY FRAMING

5/8" FIRE-SHIELD GYPSUM BOARD

PARTITION - 1 HR
UL DESIGN: U465
UL DESIGN: V438
2 HR PARTITION JOINT STAGGERING REQUIREMENTS

VERTICAL JOINTS
STAGGERED ONE STUD ON OPPOSITE SIDES OF PARTITION

HORIZONTAL BASE LAYER JOINTS NEED NOT BE STAGGERED OR BACKED BY FRAMING

VERTICAL JOINTS
STAGGERED ONE STUD CAVITY BETWEEN BASE AND FACE LAYERS

HORIZONTAL JOINTS
STAGGERED 12" MIN. BETWEEN BASE AND FACE LAYERS

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

DATE: 11/05/13
SCALE: 1/2"=1'-0"
DETAIL: SS 502

PARTITION - 2 HR
UL DESIGN: U411
UL DESIGN: V438

© National Gypsum Properties, LLC
STEEL STUDS

1/2" MAX.

5/8"

FIRE-SHIELD GYPSUM BOARD

1 5/8" TYPE S SCREWS 24" O.C.

VINYL OR METAL CONTROL JOINT

STEEL STUDS

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

5/8"

FIRE SHIELD GYPSUM BOARD

1 5/8" TYPE S SCREWS 24" O.C.

2 LAYERS 5/8" FIRE SHIELD GYPSUM BOARD

CONTROL JOINTS FOR FIRE-RATED SYSTEMS

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SS 503

© National Gypsum Properties, LLC
TAPE AND JOINT COMPOUND
5/8" FIRE-SHIELD GYPSUM BOARD
CORNER BEAD

PARTITION - 1 HR
UL DESIGN: U465
UL DESIGN: V438
INTERSECTIONS OF RATED PARTITIONS

PARTITION - 1 HR
UL DESIGN: U465
UL DESIGN: V438

PARTITION - 2 HR
UL DESIGN: U411
UL DESIGN: V438

1 HOUR RATED PARTITION

TAPE AND JOINT COMPOUND (TYP.)
1 LAYER REQUIRED AT 1 HOUR SMOKE PARTITION
2 HOUR RATED PARTITION (HIGHER PRIORITY)

SOLID CORE WOOD DOOR
JAMB ANCHOR CLIP
STEEL DOOR FRAME

1 HOUR CORRIDOR PARTITION
NON-RATED STEEL STUD PARTITION

TAPE AND JOINT COMPOUND (TYP.)
1 LAYER REQUIRED AT 1 HOUR SMOKE PARTITION
2 HOUR RATED PARTITION (HIGHER PRIORITY)
1 HOUR PARTITION AT 1 HOUR EXTERIOR WALL

DATE: 11/05/13
SCALE: 3\"=1'-0"
DETAIL: SS 506

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1 HOUR PARTITION AT NON-RATED EXTERIOR WALL

SCALE: 3"=1'-0"

DATE: 11/05/13

DETAIL: SS 507
TAPE AND JOINT COMPOUND

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

EXTERIOR WALL CLADDING

5/8" EXP EXTENDED EXPOSURE GYPSUM SHEATHING

FLEXIBLE SEALANT (OPTIONAL)

CONTINUOUS STEEL TRACK CLIPPED TO RECEIVE GYPSUM BOARD

5/8" FIRE-SHIELD GYPSUM BOARD

TAPE AND JOINT COMPOUND

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

2 HR PARTITION

DATE: 11/05/13

2 HOUR PARTITION AT 1 HOUR EXTERIOR WALL

SCALE: 3"=1'-0"

DETAIls: SS 508

© National Gypsum Properties, LLC
1/4" MIN.
CONCRETE ON FLUTED STEEL DECK

5/8" FIRE-SHIELD GYPSUM BOARD

CT, CH, OR I STUDS
24" O.C.

1" FIRE-SHIELD SHAFTLINER

STEEL J TRACK - MECHANICALLY FASTEN
24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)

MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE
24" O.C. MAX.

TOP ROW OF FASTENERS

UNSupported LENGTH
24" MAX.

HEAD OF WALL - 1 HR
FMJ.I.1J6Q8.AC

PARTITION - 1 HR
UL DESIGN: U499
UL DESIGN: W419

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SW 101

1 HOUR SHAFTWALL PARTITION

© National Gypsum Properties, LLC
1 HOUR SHAFTWALL WITH DEFLECTION TRACK

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SW 102

PARTITION - 1 HR
UL DESIGN: U499
UL DESIGN: W419

HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0194

CONCRETE ON FLUTED STEEL DECK

5/8" FIRE-SHIELD GYPSUM BOARD

CT, CH, OR I STUDS
24" O.C.

1" FIRE-SHIELD SHAFTLINER

STEEL J TRACK - MECHANICALLY FASTEN
24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)

FIRESTOP SEALANT

SLOTTED TRACK - MECHANICALLY FASTEN
24" O.C. MAX.
HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0548

PARTITION - 1 HR
UL DESIGN: U499
UL DESIGN: W419

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SW 104

CONCRETE ON FLUTED STEEL DECK

MINERAL WOOL INSULATION

ELASTOMERIC SPRAY FIRESTOP

STEEL DEEP LEG TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

5/8" FIRE-SHIELD GYPSUM BOARD

CT, CH, OR I STUDS 24" O.C.

1" FIRE-SHIELD SHAFTLINER

STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)

1/4" MIN.
CONCRETE ON FLUTED STEEL DECK

MINERAL WOOL INSULATION

ELASTOMERIC SPRAY FIRESTOP

STEEL DEEP LEG TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

5/8" FIRE-SHIELD GYPSUM BOARD

CT, CH, OR I STUDS 24" O.C.

1" FIRE-SHIELD SHAFTLINER

STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SW 105

© National Gypsum Properties, LLC
5/8" FIRE-SHIELD GYPSUM BOARD

CONCRETE ON FLUTED STEEL DECK

PROFORM QUICK-SET FS-90 COMPOUND

MINERAL WOOL INSULATION

CUT GYPSUM BOARD PANELS TO FIT DECK CONFIGURATION

FIRE TRAK SHADOWLINE MECHANICALLY FASTEN 24" O.C. MAX.

TOP ROW OF FASTENERS 3" FROM TOP OF GYPSUM BOARD

PARTITION - 1 HR
UL DESIGN: HW-D-0119

CT, CH, OR I STUDS
24" O.C.

1" FIRE-SHIELD SHAFTLINER

STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)

HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0119

DETAIL: SW 106

DATE: 11/05/13
SCALE: 3"=1'-0"
STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)

CONCRETE ON FLUTED STEEL DECK

2 1/2" MIN.
3" MAX.

STEEL BEAM
SPRAY-APPLIED FIRE RESISTIVE MATERIAL
20 GA. Z-CLIPS @ 24" O.C. MAX., FASTEN BEFORE APPLICATION OF SPRAY ON FIREPROOFING
MINERAL WOOL INSULATION

ELASTOMERIC SPRAY FIRESTOP

5/8" FIRE-SHIELD GYPSUM BOARD
CT, CH, OR I STUDS 24" O.C.
1" FIRE-SHIELD SHAFTLINER
STEEL TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)

PARTITION - 1 HR
UL DESIGN: U499
UL DESIGN: W419

HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0642
UL DESIGN: HW-D-0571

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SW 107
CONCRETE ON FLUTED STEEL DECK

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

FLEXIBLE SEALANT (OPTIONAL)

STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

TOP ROW OF FASTENERS

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

CT, CH, OR I STUDS 24" O.C.

1" FIRE-SHIELD SHAFTLINER

STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)

MECHANICALLY FASTEN 2" X 2" 20 GA. ANGLE 24" O.C. MAX.

PARTITION - 2 HR
UL DESIGN: U497
UL DESIGN: W419

HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SW 201

© National Gypsum Properties, LLC
1/4" MIN.
CONCRETE ON FLUTED STEEL DECK
5/8" FIRE-SHIELD GYPSUM BOARD
CT, CH, OR I STUDS 24" O.C.
24" O.C. MAX.
1" FIRE-SHIELD SHAFTLINER
5/8" FIRE-SHIELD GYPSUM BOARD
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
TOP ROW OF FASTENERS
PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419
HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC
24" MAX.
UNSupported LENGTH
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
TOP ROW OF FASTENERS
PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419
HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC
24" MAX.
UNSupported LENGTH
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
TOP ROW OF FASTENERS
PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419
HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC
24" MAX.
UNSupported LENGTH
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
TOP ROW OF FASTENERS
PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419
HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC
24" MAX.
UNsupported LENGTH
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
TOP ROW OF FASTENERS
PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419
HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC
24" MAX.
UNsupported LENGTH
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
TOP ROW OF FASTENERS
PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419
HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC
24" MAX.
UNsupported LENGTH
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
TOP ROW OF FASTENERS
PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419
HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC
24" MAX.
UNsupported LENGTH
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
TOP ROW OF FASTENERS
PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419
HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC
24" MAX.
UNsupported LENGTH
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
TOP ROW OF FASTENERS
PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419
HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC
24" MAX.
UNsupported LENGTH
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
TOP ROW OF FASTENERS
PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419
HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC
24" MAX.
UNsupported LENGTH
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
TOP ROW OF FASTENERS
PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419
HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC
24" MAX.
UNsupported LENGTH
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
TOP ROW OF FASTENERS
PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419
HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC
24" MAX.
UNsupported LENGTH
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
TOP ROW OF FASTENERS
PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419
HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC
24" MAX.
UNsupported LENGTH
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
TOP ROW OF FASTENERS
PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419
HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC
24" MAX.
UNsupported LENGTH
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
TOP ROW OF FASTENERS
PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419
HEAD OF WALL - 2 HR
FMJ.I.1J6Q8.AC
24" MAX.
UNsupported LENGTH
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)
MECHANICALLY FASTEN
2" X 2" 20 GA. ANGLE 24" O.C. MAX.
2 HOUR SHAFTWALL WITH DEFLECTION TRACK

HEAD OF WALL - 2 HR
UL DESIGN: HW-D-0194
UL DESIGN: HW-D-0342

PARTITION - 2 HR
UL DESIGN: U497
UL DESIGN: W419

CONCRETE ON FLUTED STEEL DECK

FIRESTOP SEALANT

SLOTTED CEILING TRACK MECHANICALLY FASTEN
24" O.C. MAX.

2 LAYERS 5/8"
FIRE-SHIELD GYPSUM BOARD

CT, CH, OR I STUDS
24" O.C.

1" FIRE-SHIELD SHAFTLINER

STEEL J TRACK - MECHANICALLY FASTEN
24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)

1/4" MIN.
CONCRETE ON FLUTED STEEL DECK

MINERAL WOOL INSULATION

ELASTOMERIC SPRAY FIRESTOP

STEEL DEEP LEG TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

CT, CH, OR I STUDS 24" O.C.

1" FIRE-SHIELD SHAFTLINER

STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)

HEAD OF WALL - 2 HR
UL DESIGN: HW-D-0548

PARTITION - 2 HR
UL DESIGN: U497
UL DESIGN: W419

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SW 204
HEAD OF WALL - 2 HR
UL DESIGN: HW-D-0569

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
CT, CH, OR I STUDS
24" O.C.

1" FIRE-SHIELD SHAFTLINER
STEEL J TRACK - MECHANICALLY FASTEN
24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)

CONCRETE ON FLUTED STEEL DECK
MINERAL WOOL INSULATION
ELASTOMERIC SPRAY FIRESTOP
STEEL DEEP LEG TRACK - MECHANICALLY FASTEN
24" O.C. MAX.

PARTITION - 2 HR
UL DESIGN: U497
UL DESIGN: W419

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SW 205

© National Gypsum Properties, LLC
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

PROFORM QUICK-SET FS-90 COMPOUND
MINERAL WOOL INSULATION

CUT GYPSUM BOARD PANELS TO FIT DECK CONFIGURATION

FIRE TRAK SHADOWLINE MECHANICALLY FASTEN 24" O.C. MAX.

TOP ROW OF FASTENERS 3" FROM TOP OF GYPSUM BOARD

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

CT, CH, OR I STUDS 24" O.C.

1" FIRE-SHIELD SHAFTLINER

STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.

FLEXIBLE SEALANT (OPTIONAL)

HEAD OF WALL - 2 HR
UL DESIGN: HW-D-0119

PARTITION - 2 HR
UL DESIGN: U497
UL DESIGN: W419

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SW 206

© National Gypsum Properties, LLC
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)

CONCRETE ON FLUTED STEEL DECK

2 1/2" MIN.
3" MAX.

STEEL BEAM
SPRAY-APPLIED FIRE RESISTIVE MATERIAL
20 GA. Z-CLIPS @ 24" O.C. MAX., FASTEN BEFORE APPLICATION OF SPRAY ON FIREPROOFING
MINERAL WOOL INSULATION

ELASTOMERIC SPRAY FIESTOP

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
CT, CH, OR I STUDS 24" O.C.
1" FIRE-SHIELD SHAFTLINER

STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)

HEAD OF WALL - 2 HR
UL DESIGN: HW-D-0642
UL DESIGN: HW-D-0571

PARTITION - 2 HR
UL DESIGN: U497
UL DESIGN: W419

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SW 207

© National Gypsum Properties, LLC
1/4" MIN.
CONCRETE ON FLUTED STEEL DECK

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
CT, CH, OR I STUDS 24" O.C.
1" FIRE-SHIELD SHAFTLINER
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)

STEEL BEAM
SPRAY-APPLIED FIRE RESISTIVE MATERIAL
3/8" DIAMOND MESH EXPANDED STEEL LATH
MINERAL WOOL INSULATION
1 1/2" Z FURRING OR CHANNELS 24" O.C.

ELASTOMERIC SPRAY FIREFOOT

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

HEAD OF WALL - 2 HR
UL DESIGN: HW-D-0645
UL DESIGN: HW-D-0636

PARTITION - 2 HR
UL DESIGN: U497
UL DESIGN: W419

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SW 208

2 HOUR SHAFTWALL PARTITION OFFSET FROM BEAM

© National Gypsum Properties, LLC
3 LAYERS 5/8" FIRE-SHIELD C GYPSUM BOARD

FLEXIBLE SEALANT (OPTIONAL)

STEEL J TRACK - MECHANICALLY FASTENED 24" O.C. MAX.

2 LAYERS 5/8" FIRE-SHIELD C GYPSUM BOARD

7/8" STEEL FURRING CHANNELS 16" O.C.

3 LAYERS 5/8" FIRE-SHIELD C GYPSUM BOARD

CT, CH, OR I STUDS 24" O.C.

1" FIRE-SHIELD SHAFTLINER

STEEL J TRACK - MECHANICALLY FASTENED 24" O.C. MAX.

FIRESTOP SEALANT

CONCRETE OR FLUTED STEEL DECK

PARTITION - 4 HR
UL DESIGN: V451
UL DESIGN: W419

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SW 401

© National Gypsum Properties, LLC
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

1" FIRE-SHIELD SHAFTLINER

STEEL J TRACK

1" FIRE-SHIELD SHAFTLINER

1" FIRE-SHIELD SHAFTLINER

CT, CH, OR I STUDS
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

2" x 2" 20 GA. ANGLE FASTENED TO J TRACK WITH TWO 3/8" PAN-HEAD SCREWS AT CEILING AND TWO AT FLOOR

12" MAX.

1" FIRE-SHIELD SHAFTLINER

1" FIRE-SHIELD SHAFTLINER

2" x 2" 20 GA. ANGLE FASTENED TO J TRACK WITH TWO 3/8" TYPE S-12 SCREWS AT CEILING AND TWO AT FLOOR

CT, CH, OR I STUDS

12" MAX.
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

STEEL J TRACK

PAN-HEAD SCREW 24" O.C.

STEEL J TRACK

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

1" FIRE-SHIELD SHAFTLINER

CT, CH, OR I STUDS

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
2 HOUR SHAFTWALL CORNER DETAIL

- 2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
- STEEL J TRACK
- 1" FIRE-SHIELD SHAFTLINER
- CT, CH, OR I STUDS
- 1" FIRE-SHIELD SHAFTLINER
SHAHFTWALL OVERHANG AT SLAB EDGE

- 5/8" FIRE-SHIELD GYPSUM BOARD
- CT, CH, OR I STUDS 24" O.C.
- 1" FIRE-SHIELD SHAFTLINER
- STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
- CONCRETE ON FLUTED STEEL DECK
- FLEXIBLE SEALANT (OPTIONAL)
- STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
- 5/8" FIRE-SHIELD GYPSUM BOARD
- CT, CH, OR I STUDS 24" O.C.
- 1" FIRE-SHIELD SHAFTLINER

DATE: 11/05/13
SCALE: 6"=1'-0"
DETAIL: SW 606
© National Gypsum Properties, LLC
J Track cut and folded to frame duct and fastened with pan-head screws. See Detail A.

J Track headers with webs cut to receive studs, fastened with pan-head screws. See Detail B.

J Track cut and folded to frame duct and fastened with pan-head screws. See Detail A.

Cut web from J Track to receive CT stud, fasten with pan-head screws. See Detail B.

Ceiling line.

CT, CH, or I studs 24" O.C.
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
1" FIRE-SHIELD SHAFTLINER
J TRACK
CLEARANCE GAP
MOUNTING ANGLES

DUCT SURFACE

MOUNTING ANGLES

DUCT SURFACE

FLEXIBLE SEALANT AS REQUIRED FOR SMOKE SEAL
J TRACK
1" FIRE-SHIELD SHAFTLINER
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
CONCRETE OR FLUTED STEEL DECK

8 GA. HANGER WIRE 24" O.C.

6" STEEL C TRACK 25 GA.

2" x 6" MINERAL WOOL

1" FIRE-SHIELD SHAFTLINER

4" CT STUDS 20 GA.

4" J TRACK 20 GA. EACH SIDE OF C TRACK

3 LAYERS 5/8" GOLD BOND FIRE-SHIELD C GYPSUM BOARD

INSTALL 2 PAN HEAD SCREW OPPOSITE C TRACK FLANGES 24" O.C.

HANGER ASSEMBLY DETAIL (REQUIRED FOR SPANS GREATER THAN 8'-0")

FLOOR-CEILING - 2 HR
UL DESIGN: G586

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: SW 703

2 HOUR HORIZONTAL SHAFTWALL

© National Gypsum Properties, LLC
2 HR RATED FLOOR-CEILING ASSEMBLY

MECHANICALLY FASTEN STEEL J TRACK 24" O.C.

FLEXIBLE SEALANT (OPTIONAL)
1/2" TYPE S OR S-12 PAN-HEAD SCREWS (TWO PER STUD)

DUCT

1" FIRE-SHIELD SHAFTLINER

2 1/2" CT STUDS 24" O.C.

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

1/2" TYPE S OR S-12 PAN-HEAD SCREW 24" O.C.

2 HR RATED WALL ASSEMBLY

J TRACK FASTENED TO STUDS 24" O.C. MAX.

3 LAYERS 5/8" FIRE-SHIELD C GYPSUM BOARD

4" CT STUDS 24" O.C.

J TRACK FASTENED 24" O.C.
2 HR SHAFTWALL ASSEMBLY - UL DESIGN: U498

1" SHAFTLINER FILLER STRIP
FASTEN J TRACKS WITH 1" TYPE S SCREWS 24" O.C.

STEEL COLUMN
NON-RATED STEEL STUD PARTITION
LATERAL STEEL BRACE

2 HR SHAFTWALL ASSEMBLY WITH LINER PANEL ORIENTED TOWARD LATERAL BRACE - UL DESIGN: U497
2 HR SHAFTWALL ASSEMBLY WITH LINER PANEL ORIENTED TOWARD LATERAL BRACE - UL DESIGN: U497

FASTEN J TRACKS WITH 1 5/8" TYPE S SCREWS 24" O.C.

1" SHAFTLINER FILLER STRIP

2 HR SHAFTWALL ASSEMBLY WITH LINER PANEL ORIENTED TOWARD LATERAL BRACE - UL DESIGN: U497

LATERAL STEEL BRACE

NON-RATED STEEL STUD PARTITION

STEEL COLUMN
2 HR SHAFTWALL ASSEMBLY
WITH LINER PANEL ORIENTED
TOWARD LATERAL BRACE
UL DESIGN: U497

STEEL BEAM

NON-RATED STEEL STUD
PARTITION

LATERAL STEEL BRACE

CONTROL JOINT

STAIR SHAFTWALL SECTION AT LATERAL BRACE

DATE: 11/05/13
SCALE: 1 1/2"=1'-0"
DETAIL: ST 104

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2 HR SHAFTWALL ASSEMBLY - UL DESIGN U497

30" x 6" x 1/2" STEEL PLATE

STEEL J TRACK

4" x 4" STEEL TUBE

1 1/2" x 6" x 1/2" STEEL PLATE

FIRE CAULK ALL SIDES OF STEEL PLATE PENETRATION

STEEL J TRACK

1" FIRE-SHIELD SHAFTLINER PANEL FASTENED TO STEEL J TRACKS WITH 1 1/2" TYPE S SCREWS

4" x 4" STEEL TUBE

1 1/2" x 6" x 1/2" STEEL PLATE

ATTACHMENT PLATE FOR GUIDE RAILS

30" x 6" x 1/2" STEEL PLATE

GUIDE RAIL BRACKET ASSEMBLY

DETAIL A

MINIMUM HOISTWAY WIDTH

MINIMUM HOISTWAY DEPTH

ELEVATOR CAB

GUIDERAIL BRACKET ASSEMBLY

PIT LADDER

DATE: 11/05/13

SCALE: 1/2"=1'-0"

ELEVATOR SHAFT ENCLOSURE PLAN

DETAIL: EV 101

© National Gypsum Properties, LLC
ELEVATOR SHAFTWALL HEAD AND JAMB DETAILS

SCALE: 3"=1'-0" DETAIL: EV 103

DATE: 11/05/13

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1 HR RATED FLOOR-CEILING ASSEMBLY

1 1/2 HR FIRE-RATED DAMPER

NON-RATED SUSPENDED CEILING

1 HR RATED PARTITION - UL DESIGN: U465 OR V438

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DATE: 11/05/13
SCALE: 1/2"=1'-0"
DETAIL: CR 101

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RATED OR NON-RATED FLOOR-CEILING ASSEMBLY

BRACING AS REQUIRED

DUCT

CORRIDOR WALL PERMITTED TO TERMINATE AT UPPER MEMBRANE OF CEILING ASSEMBLY

CORRIDOR CEILING CONSTRUCTED AS REQUIRED FOR CORRIDOR WALLS - 2009 IBC 709.4

1 HR RATED PARTITION - UL DESIGN: U465 OR V438

SCALE: 1/2"=1'-0"

DATE: 11/05/13

1 HOUR CORRIDOR ASSEMBLY

DETAIL: CR 102

© National Gypsum Properties, LLC
DUCT

SCALE: 1/2"=1'-0" DETAIL: CR 103

1 HOUR CORRIDOR ASSEMBLY

DATE: 11/05/13

1 HOUR GYPSUM BOARD MEMBRANE - 2 LAYERS 5/8" FIRE-SHIELD WALLBOARD PER GYPSUM ASSOCIATION DOCUMENT GA 610

MINERAL WOOL INSULATION

STEEL TRACK - FASTEN TO STUDS WITH 1 5/8" TYPE S SCREWS

1 HR RATED PARTITION - UL DESIGN: U465 OR V438

BRACING AS REQUIRED
2 HR RATED FLOOR-CEILING ASSEMBLY

1 1/2 HR FIRE-RATED DAMPER

NON-RATED SUSPENDED CEILING

2 HR RATED PARTITION - UL DESIGN: U411 OR V438

DUCT
DUCT

RATED OR NON-RATED
FLOOR-CEILING ASSEMBLY

BRACING AS REQUIRED

CORRIDOR WALL PERMITTED
TO TERMINATE AT UPPER
MEMBRANE OF CEILING
ASSEMBLY

CORRIDOR CEILING
CONSTRUCTED AS REQUIRED
FOR CORRIDOR WALLS -
2009 IBC 709.4

2 HR RATED PARTITION -
UL DESIGN: U411 OR V438
2 HR RATED PARTITION - UL DESIGN: U411 OR V438

BRACING AS REQUIRED

DUCT

MINERAL WOOL INSULATION

2 HOUR GYPSUM BOARD MEMBRANE - 4 LAYERS 5/8" FIRE-SHIELD WALLBOARD WITH 7/8" FURRING CHANNEL BETWEEN 3RD AND FACE LAYER PER GYPSUM ASSOCIATION DOCUMENT GA 610

STEEL TRACK - FASTEN TO STUDS WITH 1 5/8" TYPE S SCREWS

2 HOUR CORRIDOR ASSEMBLY

RATED OR NON-RATED FLOOR-CEILING ASSEMBLY

© National Gypsum Properties, LLC
DUCT

2 HOUR CORRIDOR ASSEMBLY

DATE: 11/05/13
SCALE: 1/2"=1'-0"
DETAIL: CR 204

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RATED OR NON-RATED FLOOR-CEILING ASSEMBLY

BRACING AS REQUIRED

MINERAL WOOL INSULATION

STEEL J TRACK - FASTEN TO STUDS WITH 1 5/8" TYPE S SCREWS

HORIZONTAL SHAFTWALL ASSEMBLY - UL DESIGN: G586
NOTE: FOR SPANS GREATER THAN 8'-0" REFER TO DETAIL SW 703 FOR INTERMEDIATE SUPPORTS

2 HR RATED PARTITION - UL DESIGN: U411 OR V438
FLOOR-CEILING - 2 HR
UL DESIGN: G514

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SCALE: 2"=1'-0"
DATE: 11/05/13
DETAIL: FC 202

MIN. 2 1/2" CONCRETE SLAB
3/8" EXPANDED STEEL RIB LATH

7/8" STEEL FURRING CHANNELS 24" O.C.
MIN. W8X31 STEEL BEAM
MIN. 10J2 OR 10K1 STEEL JOIST 24" O.C.
1/2" FIRE-SHIELD C GYPSUM BOARD

DATE: 11/05/13
2 HOUR FLOOR-CEILING ASSEMBLY
SCALE: 2"=1'-0"
COLUMN - 1 HR
UL DESIGN: X528

1/2" FIRE-SHIELD C OR 5/8" FIRE-SHIELD GYPSUM BOARD

MIN. W10X49 STEEL COLUMN

1 5/8" STEEL STUD

CORNER BEAD
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

MIN. W10X49 STEEL COLUMN

1 5/8" STEEL STUD

CORNER BEAD

COLUMN - 2 HR
UL DESIGN: X528
COLUMN - 3 HR
UL DESIGN: X510

MIN. W10X49 STEEL COLUMN

3 LAYERS
5/8" FIRE-SHIELD GYPSUM BOARD

1 5/8" STEEL STUD

CORNER BEAD

© National Gypsum Properties, LLC
MIN. W10X49 STEEL COLUMN

4 LAYERS 5/8" FIRE-SHIELD C GYPSUM BOARD

1 5/8" STEEL STUD

2" x 2" STEEL ANGLE

CORNER BEAD
CONCRETE ON FLUTED STEEL DECK

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

SPRAY APPLIED FIRE RESISTIVE MATERIAL PROVIDING FLAT SURFACE 1/4" FROM BOTTOM OF FLUTES

1"x2" STEEL ANGLE

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

BEAM - 2 HR
UL DESIGN: N501
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

4" SCHEDULE 5 STEEL PIPE, 4" CONDUIT, OR 3" COPPER TUBING

3 1/2" THICKNESS OF 0.5 PCF GLASS FIBER INSULATION FIRMLY PACKED INTO OPENING

2 1/2" MIN. STEEL STUDS 24" O.C. MAX. OR 2x4 WOOD STUDS 16" O.C. MAX.

PROFORM QUICK-SET FS-90 COMPOUND

WALL PENETRATION
F RATING - 2 HR
T RATING - 0 HR
UL DESIGN: W-L-1041

DATE: 11/05/13
SCALE: 3"=1'-0"
DETIAL: PN 101

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2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

MAX. 100 PAIR NO. 24 AWG CABLES MIN. 10% TO MAX. 33% OF AGGREGATE CROSS-SECTIONAL AREA OF OPENING

PROFORM QUICK-SET FS-90 COMPOUND

3 1/2" THICKNESS OF 0.5 PCF GLASS FIBER INSULATION FIRMLY PACKED INTO OPENING

2 1/2" MIN. STEEL STUDS 24" O.C. MAX. OR 2x4 WOOD STUDS 16" O.C. MAX.

7" MAX. DIAMETER

© National Gypsum Properties, LLC

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: PN 202

CABLE PENETRATION THROUGH WALL

WALL PENETRATION
F RATING - 2 HR
T RATING - 0 HR
UL DESIGN: W-L-3035
MIN. 1" THICKNESS PROFORM QUICK-SET FS-90 COMPOUND

MIN. 4 1/2" THICK LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR

NOM. 8" DIAMETER OR SMALLER STEEL EMT, CONDUIT OR PIPE GROUTED FLUSH WITH FLOOR OR WALL ASSEMBLY (OPTIONAL)

3" THICKNESS OF 6 PCF MINERAL WOOL INSULATION FIRMLY PACKED INTO OPENING

4" SCHEDULE 5 STEEL PIPE, 4" CONDUIT, OR 3" COPPER TUBING

NOTE: WALL ASSEMBLIES MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS
MAX. 100 PAIR NO. 24 AWG CABLES MIN. 10% TO MAX. 40% OF AGGREGATE CROSS-SECTIONAL AREA

MIN. 1" THICKNESS PROFORM QUICK-SET FS-90 COMPOUND

MIN. 4 1/2" THICK LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR MIN. 5" THICK CONCRETE WALL

NOM. 6" DIAMETER OR SMALLER SCHEDULE 40 STEEL EMT, CONDUIT OR PIPE GROUTED FLUSH WITH FLOOR OR WALL ASSEMBLY (OPTIONAL)

3" THICKNESS OF GLASS FIBER INSULATION FIRMLYPACKED INTO OPENING

MAX. 100 PAIR NO. 24 AWG CABLES MIN. 10% TO MAX. 40% OF AGGREGATE CROSS-SECTIONAL AREA OF OPENING

NOTE: WALL ASSEMBLIES MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS

FLOOR PENETRATION
F RATING - 3 HR
T RATING - 1/4 HR
UL DESIGN: C-AJ-3073

DATE: 11/05/13
SCALE: 3"=1'-0"
DETAIL: PN 302
MIN. 2" THICKNESS PROFORM QUICK-SET FS-90 COMPOUND

MIN. 4 1/2" THICK LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR

NOM. 6" DIAMETER OR SMALLER STEEL EMT, CONDUIT OR PIPE GROUTED FLUSH WITH FLOOR OR WALL ASSEMBLY (OPTIONAL)

2" THICKNESS OF MIN. 6 PCF MINERAL WOOL INSULATION FIRMLY PACKED INTO OPENING

NOTE: WALL ASSEMBLIES MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS
SOUND RATINGS FOR 1 HOUR PARTITIONS

5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" 25GA. STEEL STUDS 16" O.C.
3 1/2" GLASS FIBER INSULATION
5/8" FIRE-SHIELD GYPSUM BOARD

STC 57
TEST: RAL-TL06-334

UL DESIGN: U465, V438

5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" 25GA. STEEL STUDS 24" O.C.
3 1/2" GLASS FIBER INSULATION
1/2" SOUNDBREAK XP GYPSUM BOARD
5/8" FIRE-SHIELD GYPSUM BOARD

STC 54
TEST: RAL-TL07-389

UL DESIGN: U465, V438

5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" 25GA. STEEL STUDS 24" O.C.
3" MINERAL FIBER INSULATION
5/8" SOUNDBREAK XP GYPSUM BOARD

STC 52
TEST: RAL-TL07-148

UL DESIGN: U465, V438

5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" 25GA. STEEL STUDS 16" O.C.
3 1/2" GLASS FIBER INSULATION
5/8" SOUNDBREAK XP GYPSUM BOARD
5/8" FIRE-SHIELD GYPSUM BOARD

STC 49
TEST: NGC2009058

5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" 25GA. STEEL STUDS 16" O.C.
3 1/2" GLASS FIBER INSULATION
5/8" SOUNDBREAK XP GYPSUM BOARD

STC 47
TEST: NGC 2386

UL DESIGN: U465, V438

5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" 25GA. STEEL STUDS 24" O.C.
2 1/2" GLASS FIBER INSULATION
5/8" FIRE-SHIELD GYPSUM BOARD

STC 43
TEST: NGC 2502

UL DESIGN: U465, V438

5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" 25GA. STEEL STUDS 16" O.C.
3 1/2" SOUNDBREAK XP GYPSUM BOARD
5/8" FIRE-SHIELD GYPSUM BOARD

UL DESIGN: U465, V438

5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" 25GA. STEEL STUDS 16" O.C.
3 1/2" GLASS FIBER INSULATION
5/8" FIRE-SHIELD GYPSUM BOARD

UL DESIGN: U465, V438

5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" 25GA. STEEL STUDS 16" O.C.
3 1/2" GLASS FIBER INSULATION
5/8" FIRE-SHIELD GYPSUM BOARD
SOUND RATINGS FOR 2 HOUR PARTITIONS

UL DESIGN: U411, V438

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" 25GA. STEEL STUDS 16" O.C.
3 1/2" GLASS FIBER INSULATION
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

STC 50
TEST: NGC 2500

UL DESIGN: U411, V438

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" 25GA. STEEL STUDS 24" O.C.
3 1/2" GLASS FIBER INSULATION
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

STC 53
TEST: NGC2007002

UL DESIGN: U411, V438

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" 25GA. STEEL STUDS 24" O.C.
3" MINERAL FIBER INSULATION
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

STC 56
TEST: NGC 3022

UL DESIGN: U411, V438

2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD
3 5/8" 25GA. STEEL STUDS 24" O.C.
3 1/2" GLASS FIBER INSULATION
5/8" FIRE-SHIELD GYPSUM BOARD
5/8" SOUNDBREAK XP GYPSUM BOARD

STC 60
TEST: RAL-TL07-168
SOUND RATINGS FOR SHAFTWALL PARTITIONS

1" FIRE-SHIELD SHAFTLINER
2 1/2" 25GA. CT, CH, OR I STUDS 24" O.C.
1 1/2" GLASS FIBER INSULATION
5/8" FIRE-SHIELD GYPSUM BOARD

TEST: NGC 2542
STC 42

1" FIRE-SHIELD SHAFTLINER
2 1/2" 25GA. CT, CH, OR I STUDS 24" O.C.
1 1/2" GLASS FIBER INSULATION
1/2" RESILIENT CHANNEL 24" O.C.
5/8" FIRE-SHIELD GYPSUM BOARD

TEST: NGC 2541
STC 48

1" FIRE-SHIELD SHAFTLINER
2 1/2" 25GA. CT, CH, OR I STUDS 24" O.C.
1 1/2" GLASS FIBER INSULATION
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

TEST: NGC 2507
STC 48

1" FIRE-SHIELD SHAFTLINER
2 1/2" 25GA. CT, CH, OR I STUDS 24" O.C.
1 1/2" GLASS FIBER INSULATION
1/2" RESILIENT CHANNEL 24" O.C.
2 LAYERS 5/8" FIRE-SHIELD GYPSUM BOARD

TEST: NGC 2540
STC 51

5/8" FIRE-SHIELD GYPSUM BOARD
1" FIRE-SHIELD SHAFTLINER
2 1/2" 25GA. CT, CH, OR I STUDS 24" O.C.
1 1/2" GLASS FIBER INSULATION
5/8" FIRE-SHIELD GYPSUM BOARD

TEST: NGC 2534
STC 48

5/8" FIRE-SHIELD GYPSUM BOARD
1" FIRE-SHIELD SHAFTLINER
2 1/2" 25GA. CT, CH, OR I STUDS 24" O.C.
1 1/2" GLASS FIBER INSULATION
1/2" RESILIENT CHANNEL 24" O.C.
5/8" FIRE-SHIELD GYPSUM BOARD

TEST: NGC 2538
STC 52
FLUSH PATCH IN RATED PARTITION
FOR MEMBRANE PENETRATIONS LESS THAN 10" IN DIAMETER

NOTES:
FOR MULTIPLE LAYER SYSTEMS STAGGER VERTICAL AND HORIZONTAL PATCH JOINTS 12" MINIMUM AND FASTEN VERTICAL EDGES TO STUD FRAMING

FOR MINOR SURFACE ABRASIONS, PAPER TEARS, OR SMALL DENTS, REMOVE ALL LOOSE PAPER AND APPLY SETTING COMPOUND OVER THE DAMAGED AREA.
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Construction Services

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You’ve got the questions ... we’ve got the answers.
From left, the technical service team: Mark Chapman, Sam Halverson and Jim Farrell.