



**Fire-Rated Assemblies
in Commercial Construction**

Second Edition



**National 
Gypsum®**

The PURPLE BOOK® II

These gypsum board system details are intended solely as technical support incident to the sale and use of products provided by National Gypsum Company and manufactured by Gold Bond Building Products, LLC, PermaBASE Building Products, LLC and ProForm Finishing Products, LLC. Architects, engineers, design professionals, contractors, builders, building code officials, or construction industry professionals should consider this information for the selection, specification and use of products provided by National Gypsum Company in these systems.

Architects, engineers, designers and/or contractors involved should review these details with the authority having jurisdiction (AHJ), governing and/or inspection official at the time of the project submittal to determine if there are any discrepancies with local code or regulatory requirements. A design professional must provide a complete evaluation and verify the suitability of the system for a given application before beginning a project.

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For a guide to fire and safety information relating to certain systems described in The PURPLE Book® II, please refer to the information on National Gypsum's website at nationalgypsum.com/fire-and-safety-information or call National Gypsum Construction Services at 1-800-NATIONAL®. For copies of specific tests, call 1-800-NATIONAL®.



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National Gypsum Company
Fire-Rated Assemblies in Commercial Construction
Second Edition



Excellence Across The Board[®]

PREFACE

The PURPLE Book® II is the second edition of National Gypsum Company's Fire-Rated Assemblies in Commercial Construction. Originally published in 2013, The PURPLE Book has proven to be a trusted resource for architects, contractors and inspectors for assembly details pertaining to the application of products provided by National Gypsum Company in fire-rated construction.

The PURPLE Book features:

- GridMarX® detail, highlighting National Gypsum's patented pre-printed installation guide marks
- MaX 12® fastener pattern detail, highlighting National Gypsum's 12" on center optimized fastener pattern for single layer, 1-hour UL fire-rated assemblies
- National Gypsum Company fire-rated wall and ceiling assemblies
- Corner details for steel stud partitions
- Corner details for shaftwall assemblies
- Repair details for shaftwall assemblies

The PURPLE Book is one of a series of three technical guides from National Gypsum Company that have proven to be trusted resources for architects, inspectors, contractors, and builders.

- **The SoundBook®** provides technical details for acoustical assemblies and drawings of real-world sound-rated designs.
- **The Wood Book™** is first comprehensive construction guide for fire-rated assemblies in wood-frame construction.

Whatever stage your project is in, our 1-800-NATIONAL® Construction Services experts are always here to support you. Whether you have questions regarding fire-rated assemblies, products, specifications or building codes, we are just a phone call away.

To download copies of The PURPLE Book, The SoundBook and The Wood Book, visit the Design & Resource Center on nationalgypsum.com.



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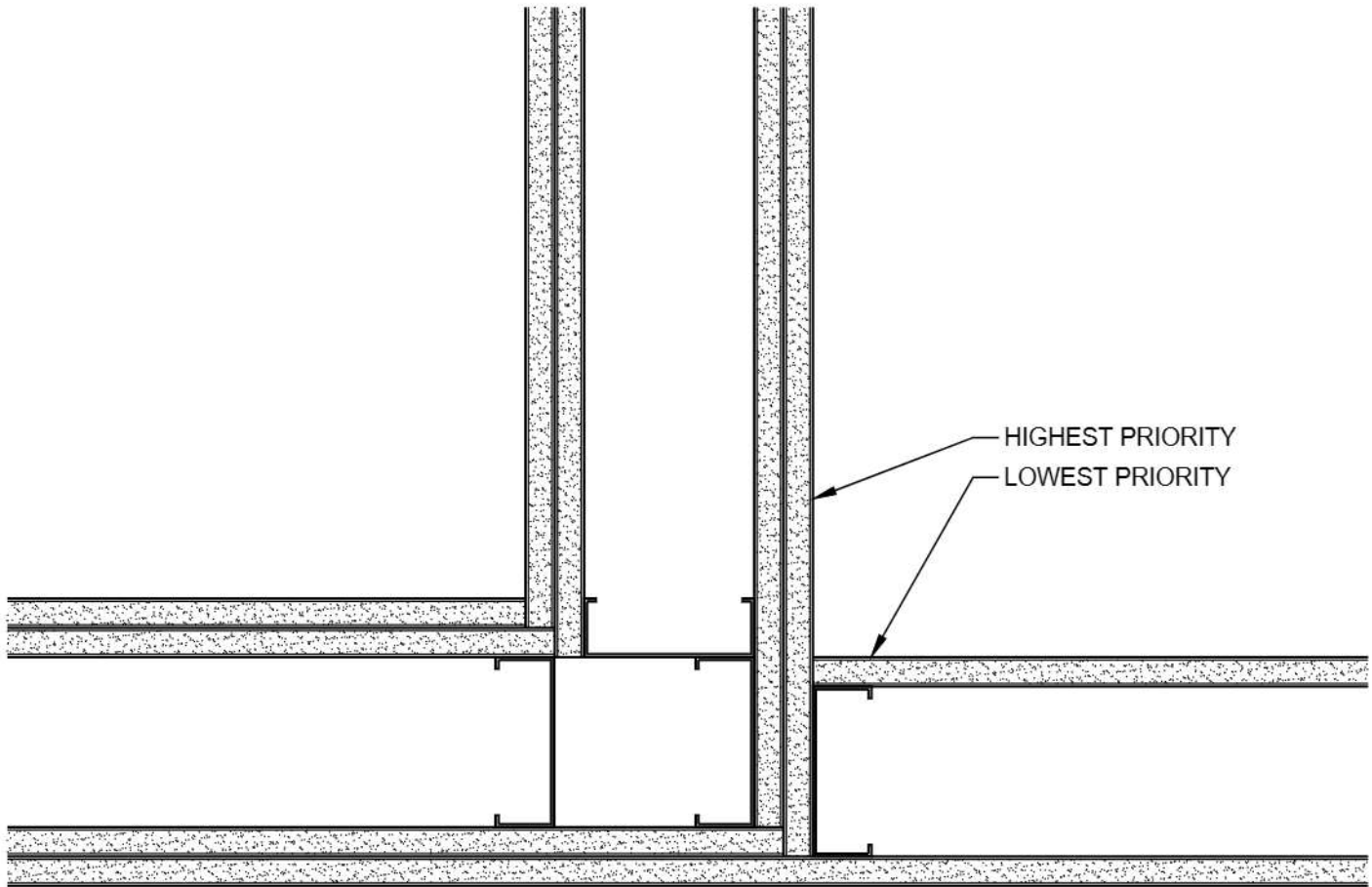
UL Core Type Designation	Product Name
Type FSW	5/16" Gold Bond® Brand Fire-Shield® Gypsum Board 5/8" Gold Bond® Brand Fire-Shield® Gypsum Board, Type X 5/8" Gold Bond® Brand Hi-Abuse® XP® Fire-Shield® Gypsum Board, Type X 5/8" Gold Bond® Brand Hi-Impact® XP® Fire-Shield® Gypsum Board, Type X 5/8" Gold 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 5/8" Gold Bond® Brand Fire-Shield C™ Gypsum Board, Type C 5/8" Gold Bond® Brand XP® Fire-Shield C™ Gypsum Board, Type C
Type FSK	5/8" Gold Bond® Brand Kal-Kore® Fire-Shield® Plaster Base, Type X
Type FSK-C	1/2" Gold Bond® Brand Kal-Kore® Fire-Shield C™ Plaster Base, Type C 5/8" Gold Bond® Brand Kal-Kore® Fire-Shield C™ Plaster Base, Type C
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-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 XP® Fire-Shield® Gypsum Board, Type X
Type FSW-5	5/8" Gold Bond® Brand Hi-Impact® XP® Fire-Shield® Gypsum Board, Type X 5/8" Gold Bond® Brand Hi Abuse® XP® Fire-Shield® Gypsum Board, Type X
Type FSW-6	5/8" Gold Bond® Brand eXP® Extended Exposure Sheathing, Type X 5/8" Gold Bond® Brand eXP® Interior Extreme® Gypsum Panel, Type X 5/8" Gold Bond® Brand eXP® Fire-Shield® Tile Backer, Type X 5/8" Gold Bond® Brand eXP® Interior Extreme® IR Gypsum Panel, Type X 5/8" Gold Bond® Brand eXP® Interior Extreme® AR Gypsum Panel, Type X
Type FSW-7	1" Gold Bond® Brand eXP® Extended Exposure Shaftliner, Type X
Type FSW-8	5/8" Gold Bond® Brand Fire-Shield® Gypsum Sheathing, Type X
Type eXP-C	1/2" Gold Bond® Brand eXP® Interior Extreme® C Gypsum Panel, Type C 5/8" Gold Bond® Brand eXP® Interior Extreme® C Gypsum Panel, Type C
Type FSLX	5/8" Gold Bond® Brand High Strength Fire-Shield® 60 Gypsum Board, Type X
Type FSL30	5/8" Gold Bond® Brand High Strength Fire-Shield® 30 Gypsum Board
Type SoundBreak XP	5/8" Gold Bond® Brand SoundBreak® XP® Gypsum Board, Type X
Type SoundBreak XP Gypsum Board	3/4" Gold Bond® Brand SoundBreak® XP® Gypsum Board
Type UltraShield	3/4" Gold Bond® Brand UltraShield FS® Gypsum Board 3/4" Gold Bond® Brand UltraShield FS® XP® Gypsum Board
Type DEXcell Glass Mat Roof Board	1/4", 1/2", or 5/8" DEXcell® Glass Mat Roof Board 1/4", 1/2", or 5/8" DEXcell® Glass Mat Roof Board

DATE: 09/01/18	UL DESIGNATIONS FOR GOLD BOND® PRODUCTS	
SCALE:	DETAIL: GN 101	

ASTM Product Standards	
C475	Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board
C1177	Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing
C1178	Standard Specification for Coated Glass Mat Water-Resistant Gypsum Backing Panel
C1325	Standard Specification for Fiber-Mat Reinforced Cementitious Backer Units
C1396	Standard Specification for Gypsum Board
C1658	Standard Specification for Glass Mat Gypsum Panels
ASTM Test Standards	
C473	Standard Test Methods for Physical testing of Gypsum Panel Products
C474	Standard Test Methods for Joint Treatment Materials for Gypsum Board Construction
C1629	Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels
D3273	Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
E84	Standard Test Method for Surface Burning Characteristics of Building Materials
E90	Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
E96	Standard Test Methods for Water Vapor Transmission of Materials
E119 (UL 263)	Standard Test Methods for Fire Tests of Building Construction and Materials
E136	Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C
G21	Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi
ASTM Application Standards	
C840	Standard Specification for Application and Finishing of Gypsum Board
C1280	Standard Specification for Application of Exterior Gypsum Panel Products for Use as Sheathing

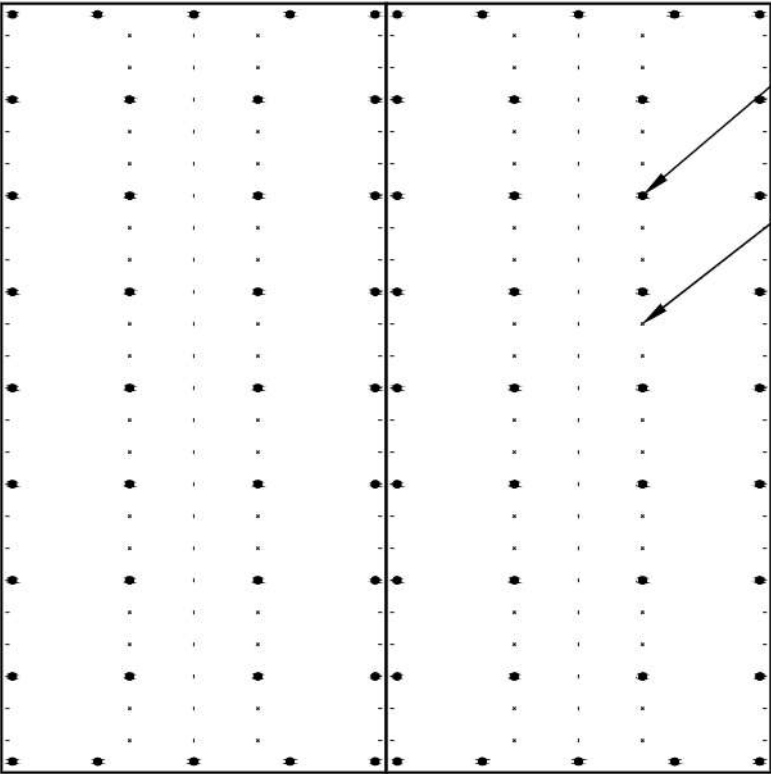
Gypsum Association Standards	
GA-214	Recommended Levels of Gypsum Board Finish
GA-216	Application and Finishing of Gypsum Panel Products
GA-253	Application of Gypsum Sheathing

DATE: 09/01/18	ASTM AND GYPSUM ASSOCIATION STANDARDS	
SCALE:	DETAIL: GN 102	



WALL PRIORITY LEGEND		
2 HOUR FIRE AND SMOKE WALL	—————	PRIORITY 1
2 HOUR FIRE WALL	—————	PRIORITY 2
2 HOUR SHAFTWALL	—————	PRIORITY 3
1 HOUR FIRE AND SMOKE WALL	—————	PRIORITY 4
1 HOUR FIRE WALL	—————	PRIORITY 5
NON-RATED WALL	—————	PRIORITY 5

DATE: 09/01/18	WALL PRIORITY LEGEND	
SCALE: 3"=1'-0"	DETAIL: GN 103	

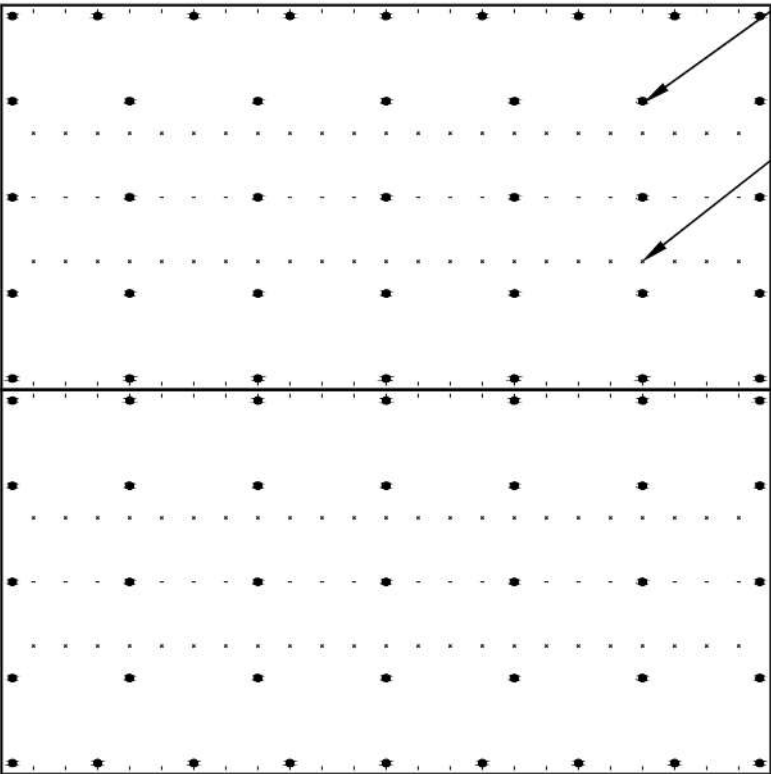


VERTICAL APPLICATION

1" TYPE S SCREWS 12" O.C. AT PERIMETER, FIELD, AND TOP AND BOTTOM TRACKS

GRIDMARX PREPRINTED FASTENING GUIDE

GRIDMARX PREPRINTED GUIDE MARKS RUN THE LENGTH OF THE BOARD AT FIVE POINTS IN FOUR-INCH INCREMENTS. MARKS RUN ALONG BOTH LONG EDGES AND AT 16", 24", AND 32". IN VERTICAL APPLICATIONS, GRIDMARX SERVE AS GUIDE MARKS TO IDENTIFY THE LOCATION OF FRAMING MEMBERS BEHIND THE GYPSUM BOARD AND A REFERENCE POINT FOR THE INSTALLATION OF FASTENERS. IN HORIZONTAL APPLICATIONS, GRIDMARX SERVE AS A REFERENCE POINT TO HELP IDENTIFY THE LOCATION OF FRAMING MEMBERS.



HORIZONTAL APPLICATION

1" TYPE S SCREWS 12" O.C. AT PERIMETER, FIELD, AND TOP AND BOTTOM TRACKS

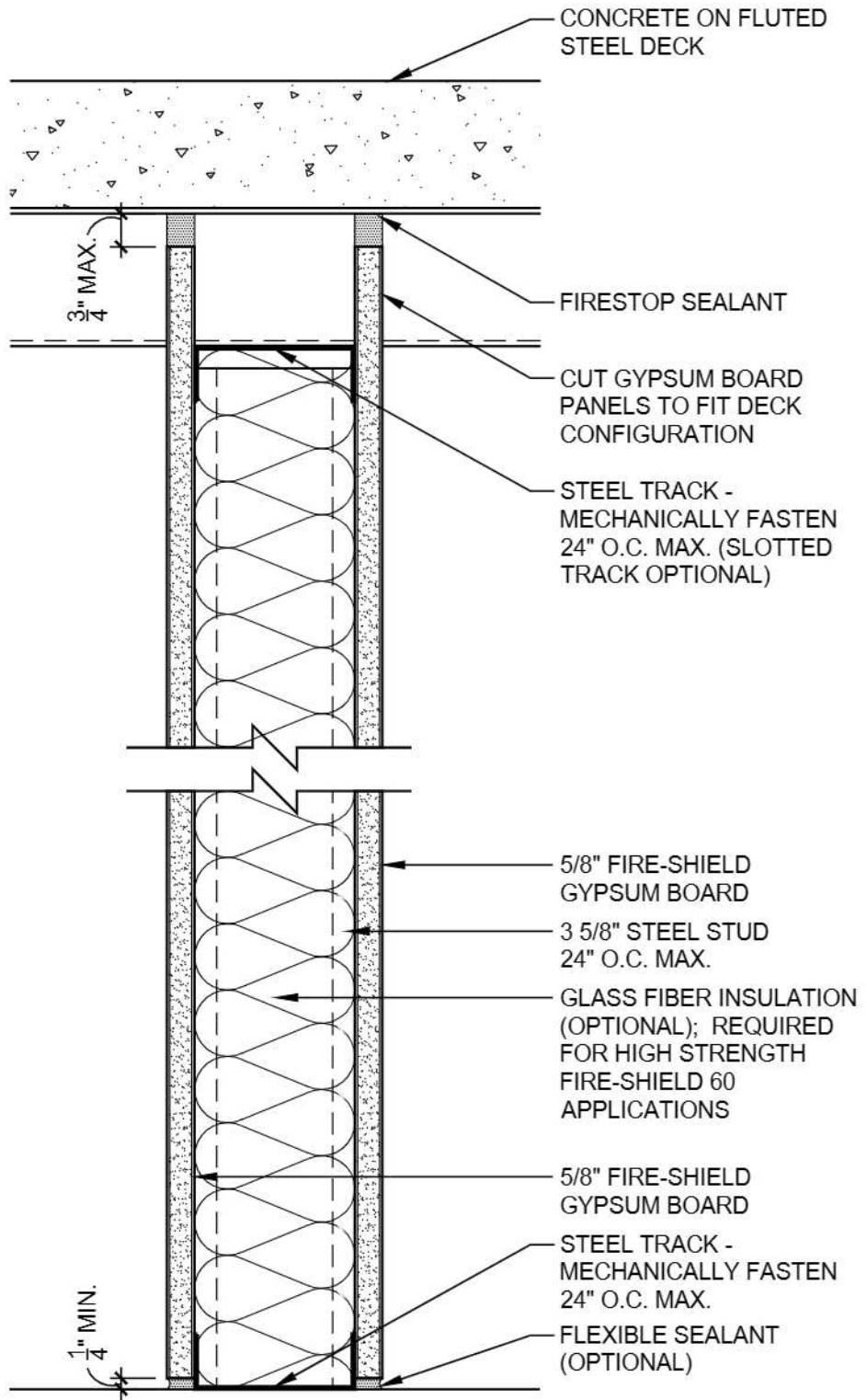
GRIDMARX PREPRINTED FASTENING GUIDE

- PARTITION - 1 HR
- UL DESIGN: U420
- UL DESIGN: U465
- UL DESIGN: V417
- UL DESIGN: V438
- UL DESIGN: V450
- UL DESIGN: V482
- UL DESIGN: V483
- UL DESIGN: V486
- UL DESIGN: V488
- UL DESIGN: W417
- UL DESIGN: W421
- UL DESIGN: W444

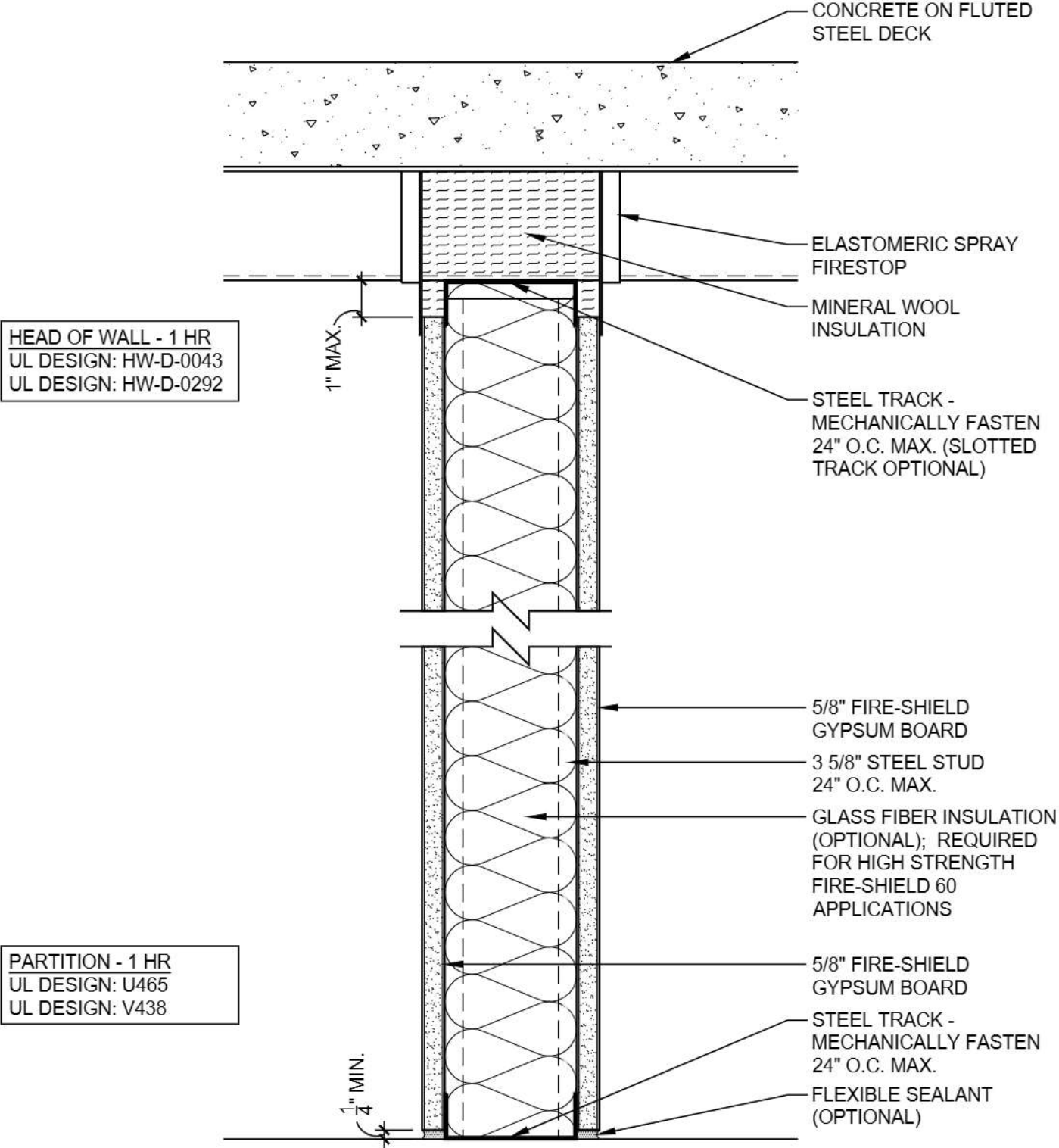
DATE: 09/01/18	MAX 12 FASTENER PATTERN FOR 1 HOUR PARTITIONS	
SCALE: 1/2"=1'-0"	DETAIL: MAX 12	

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

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



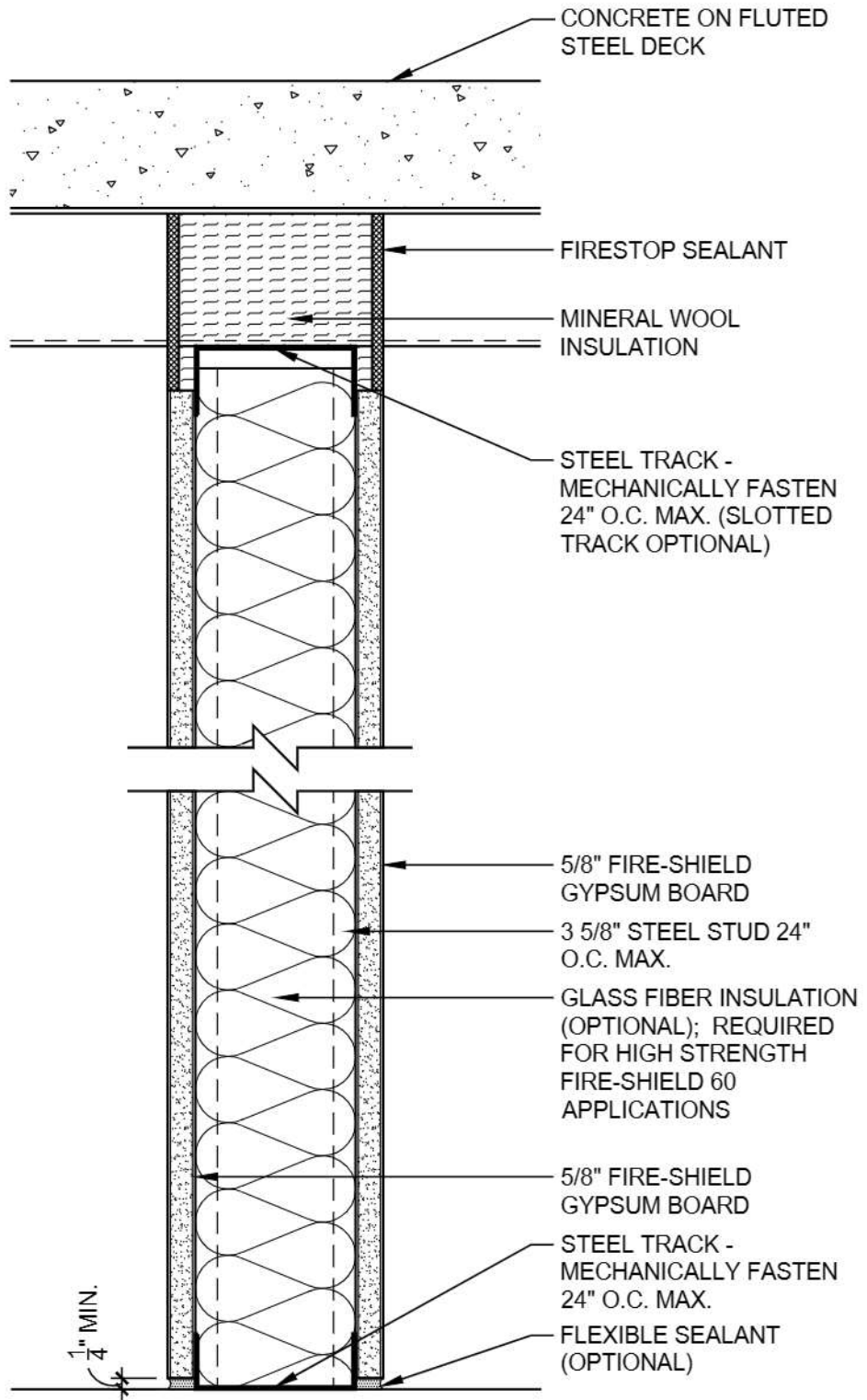
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SCALE: 3"=1'-0"		



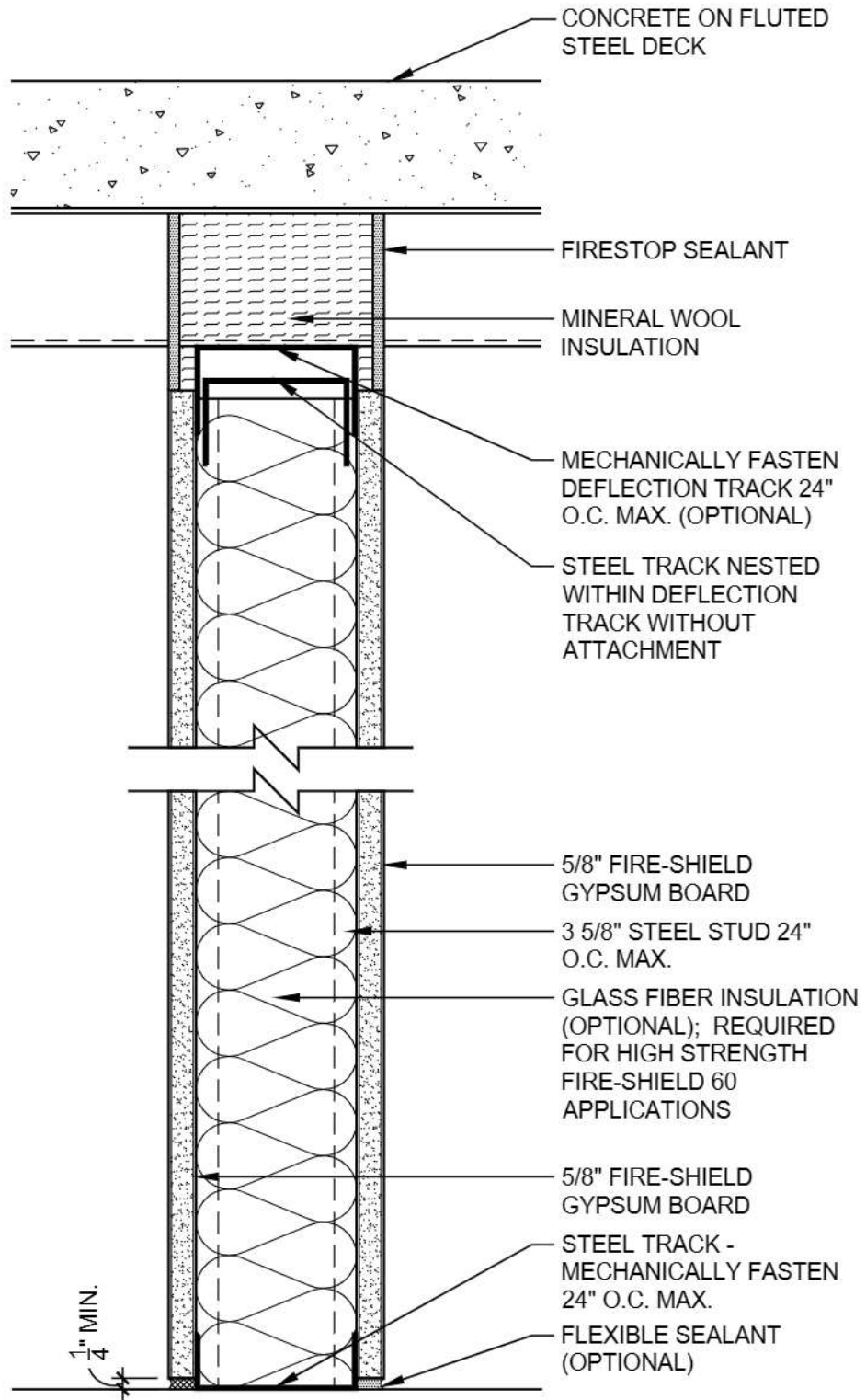
DATE: 09/01/18	1 HOUR PARTITION TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SS 103	

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: 09/01/18	1 HOUR PARTITION TO STEEL DECK	
SCALE: 3"=1'-0"		



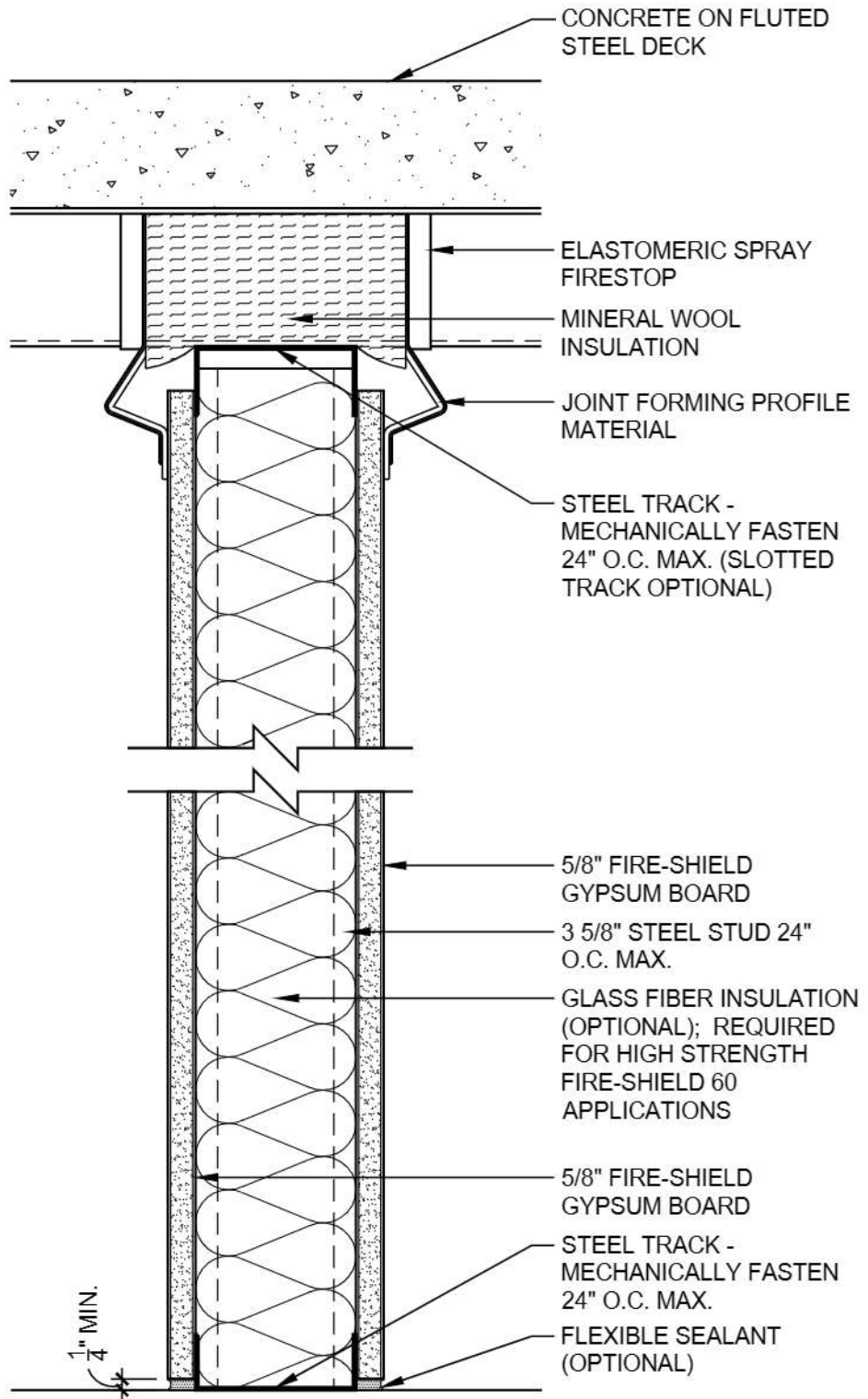
HEAD OF WALL - 1 HR
 UL DESIGN: HW-D-0034
 UL DESIGN: HW-D-0045

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

DATE: 09/01/18	1 HOUR PARTITION WITH DEFLECTION TRACK	
SCALE: 3"=1'-0"	DETAIL: SS 105	

HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0363

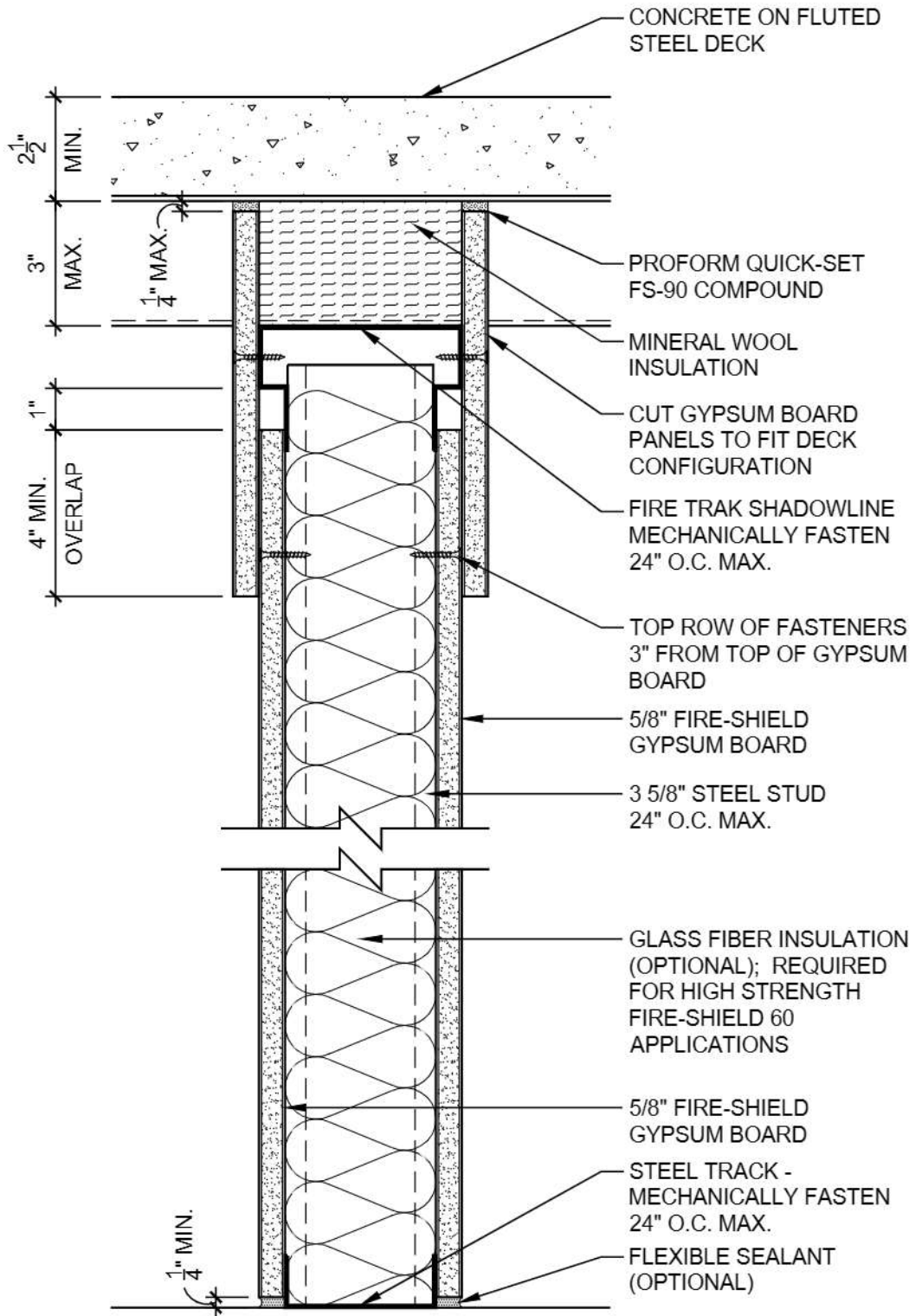
PARTITION - 1 HR
UL DESIGN: U465
UL DESIGN: V438



DATE: 09/01/18	1 HOUR PARTITION TO STEEL DECK	
SCALE: 3"=1'-0"		

HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0060

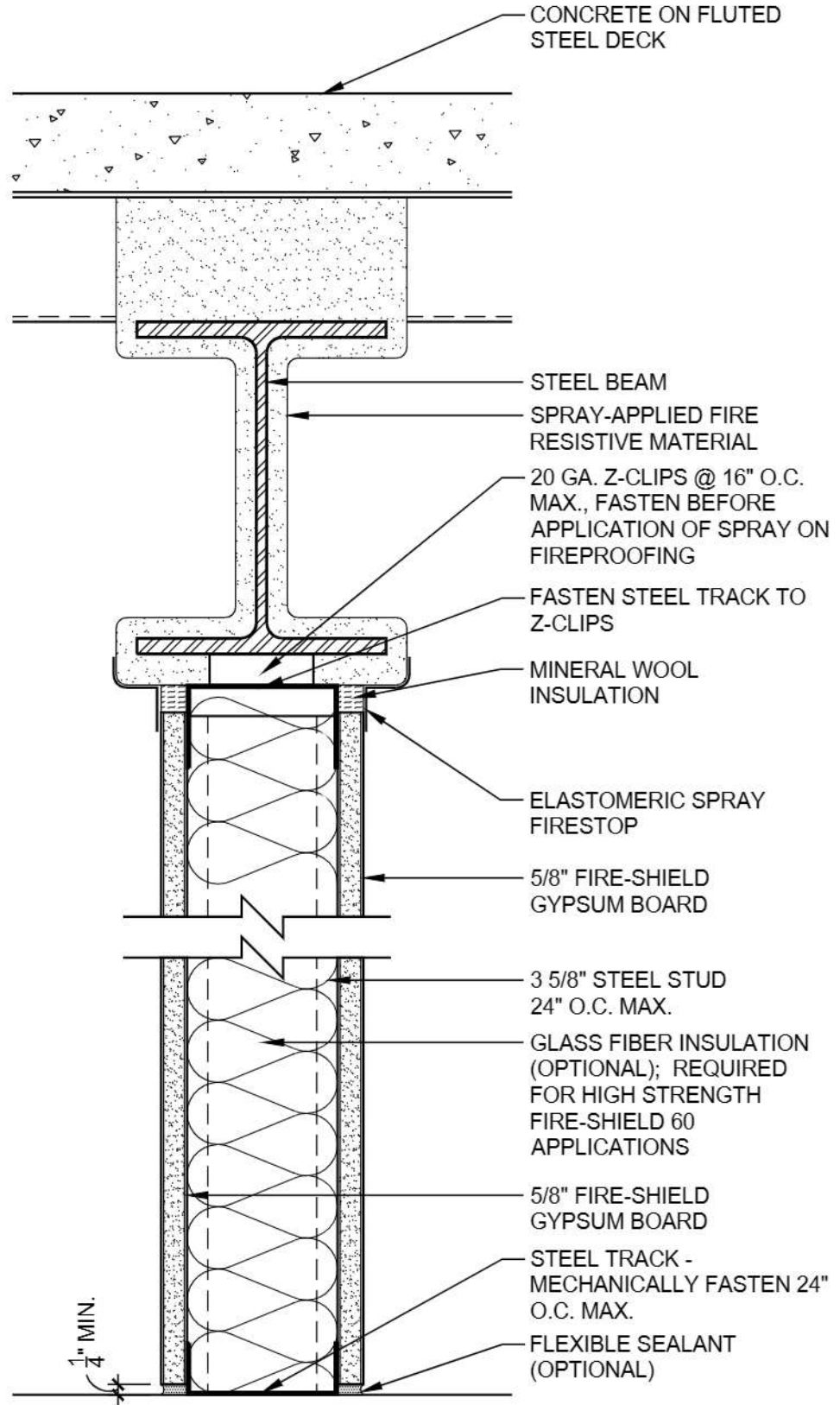
PARTITION - 1 HR
UL DESIGN: U465
UL DESIGN: V438



DATE: 09/01/18	1 HOUR PARTITION WITH DEFLECTION TRACK	
SCALE: 3"=1'-0"	DETAIL: SS 107	

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

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



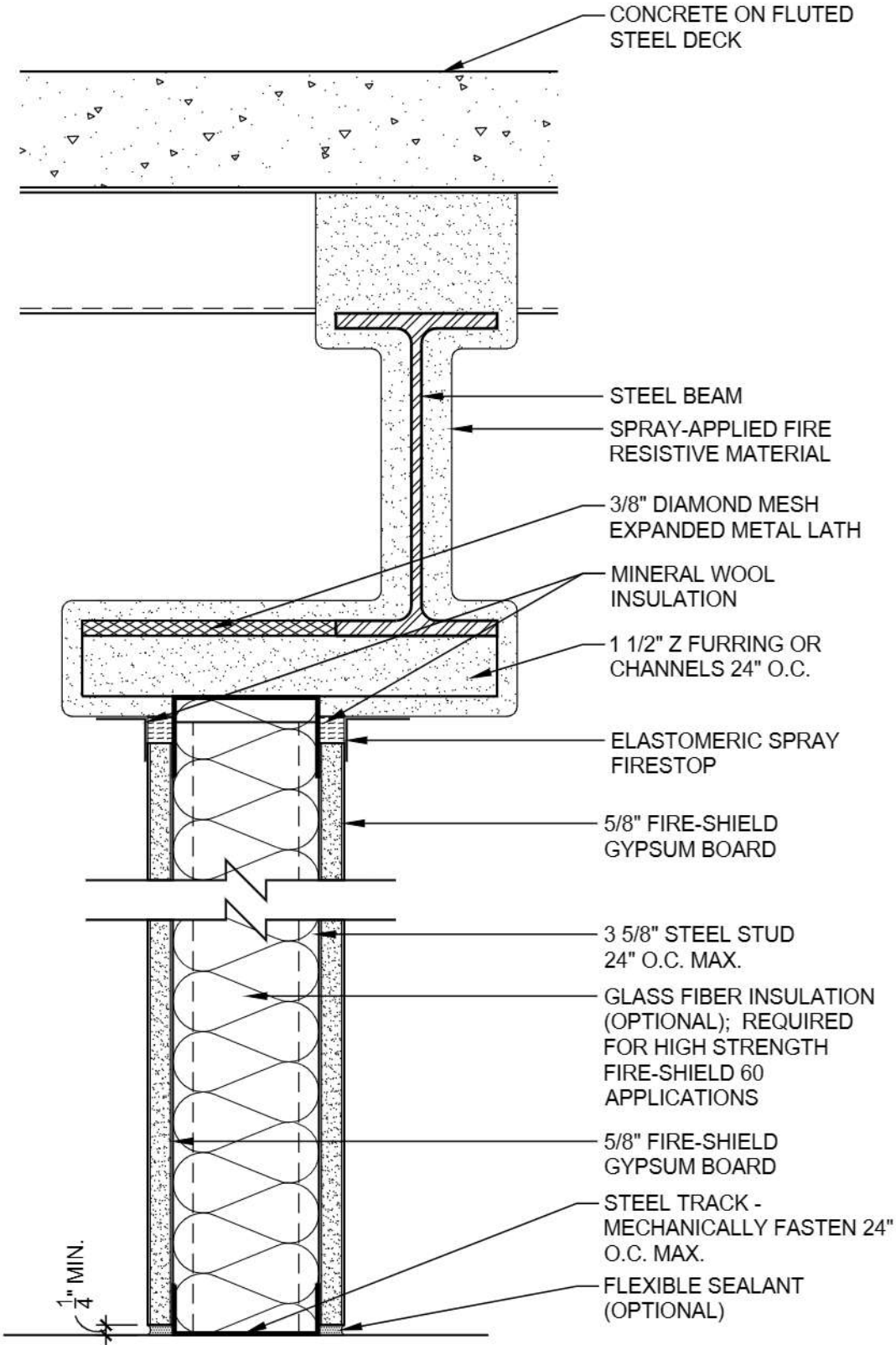
DATE: 09/01/18
 SCALE: 3"=1'-0"

1 HOUR PARTITION TO STEEL BEAM
 DETAIL: SS 108



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

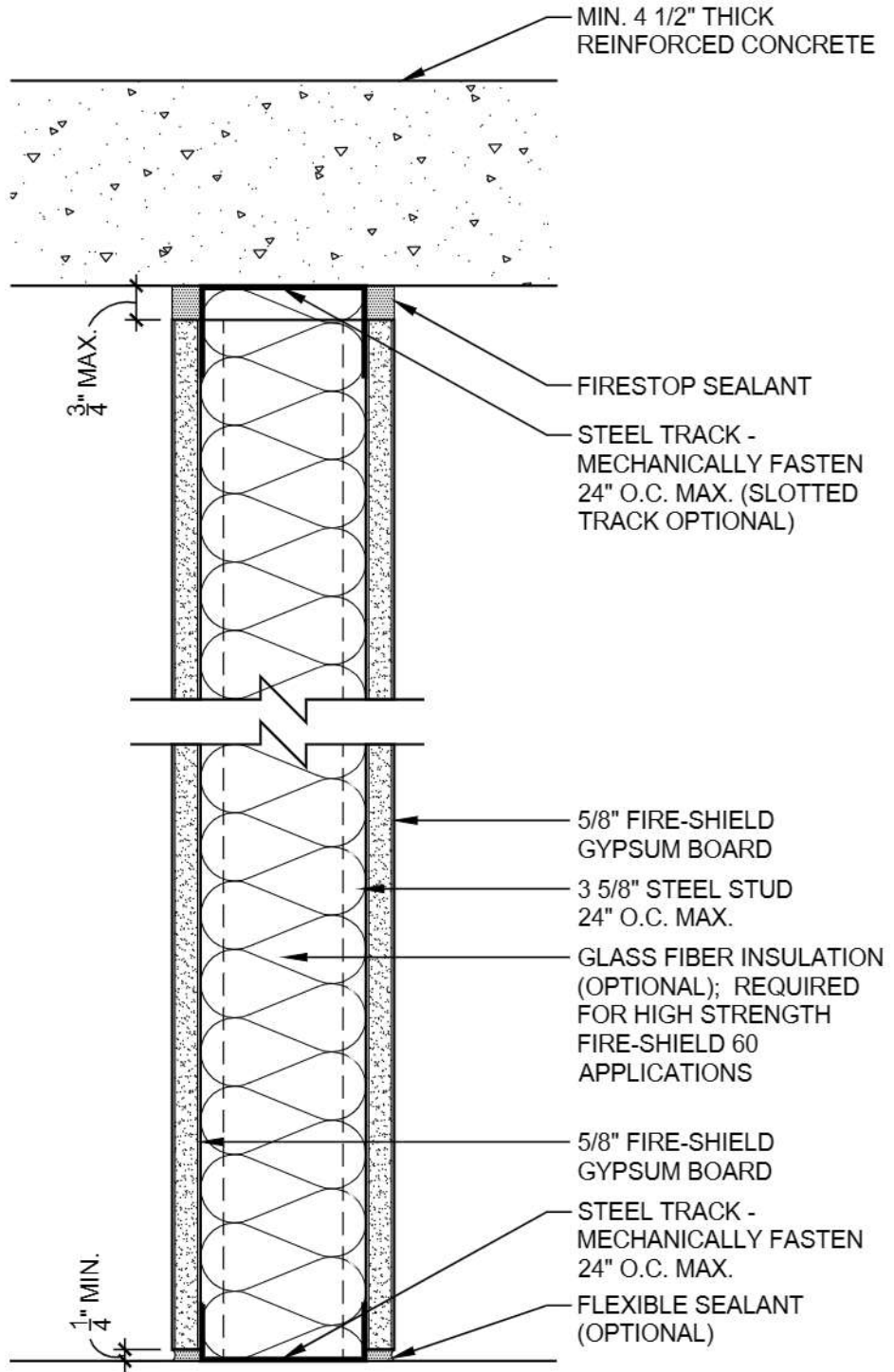
PARTITION - 1 HR
 UL DESIGN: U465
 UL DESIGN: V438



DATE: 09/01/18	1 HOUR PARTITION OFFSET FROM BEAM	
SCALE: 3"=1'-0"	DETAIL: SS 109	

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

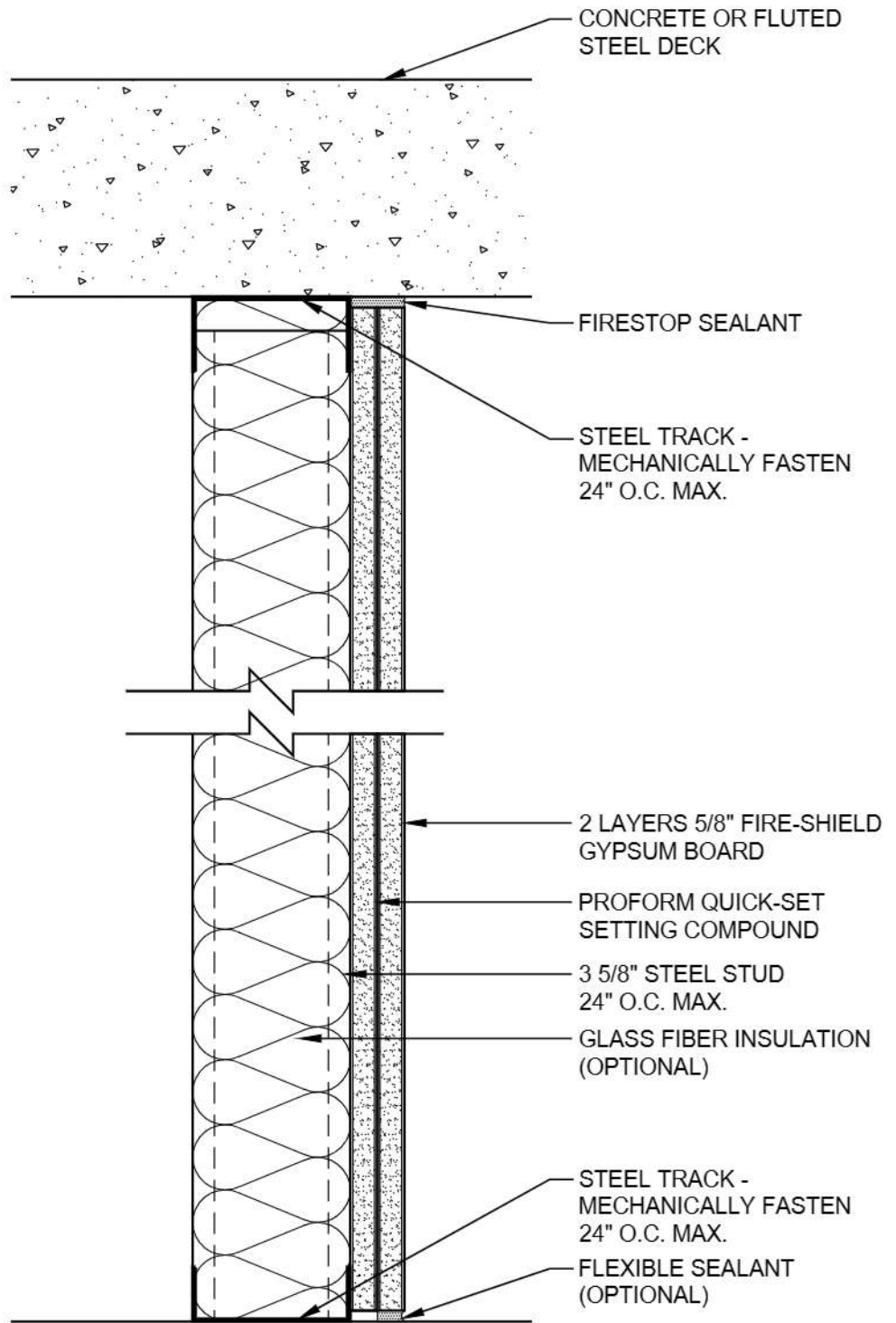
PARTITION - 1HR
 UL DESIGN: U465
 UL DESIGN: V438



DATE: 09/01/18
 SCALE: 3"=1'-0"

1 HOUR PARTITION TO CONCRETE SLAB
 DETAIL: SS 110



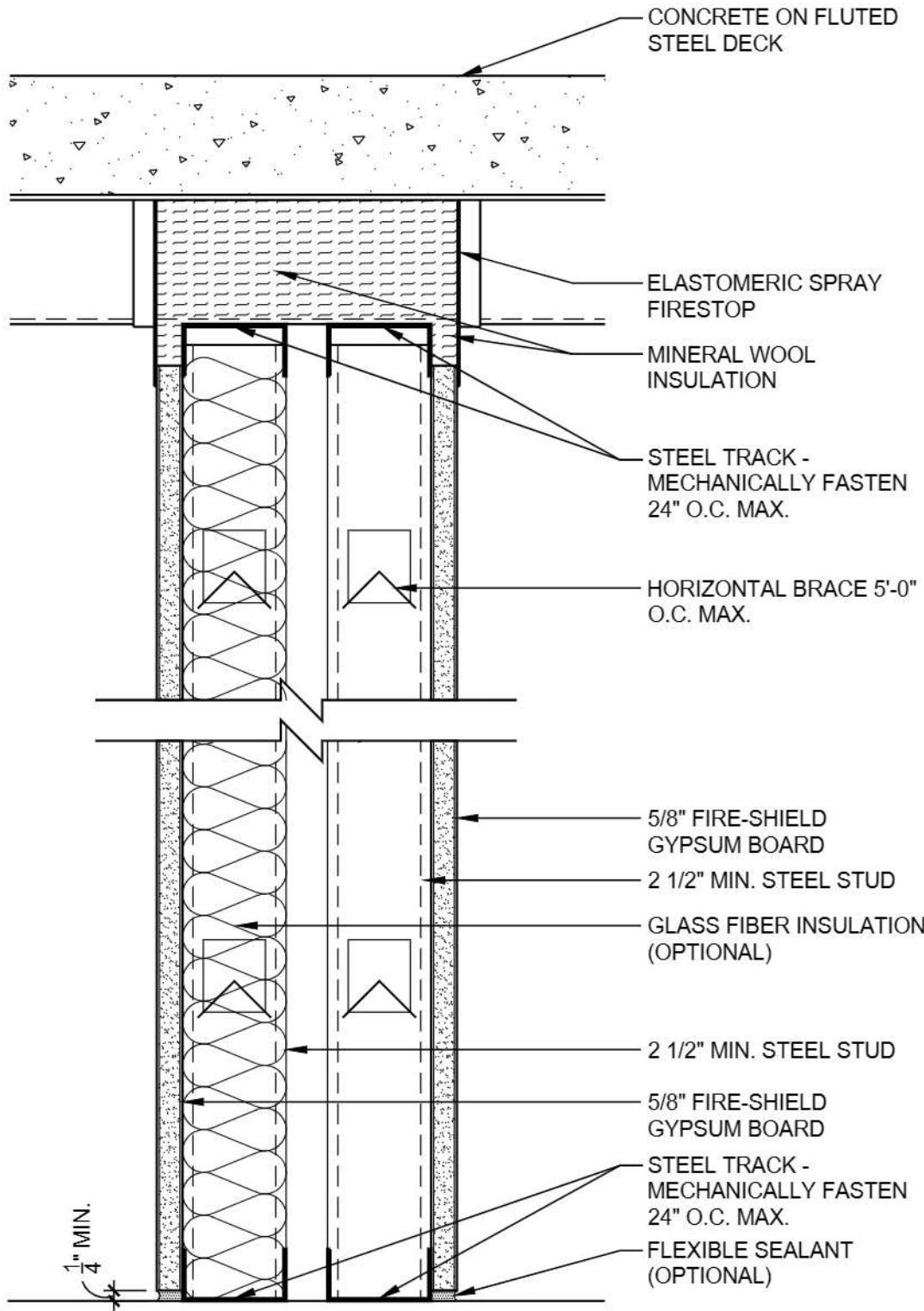


PARTITION - 1 HR
 UL DESIGN: V497
 PARTITION RATED FROM BOTH SIDES

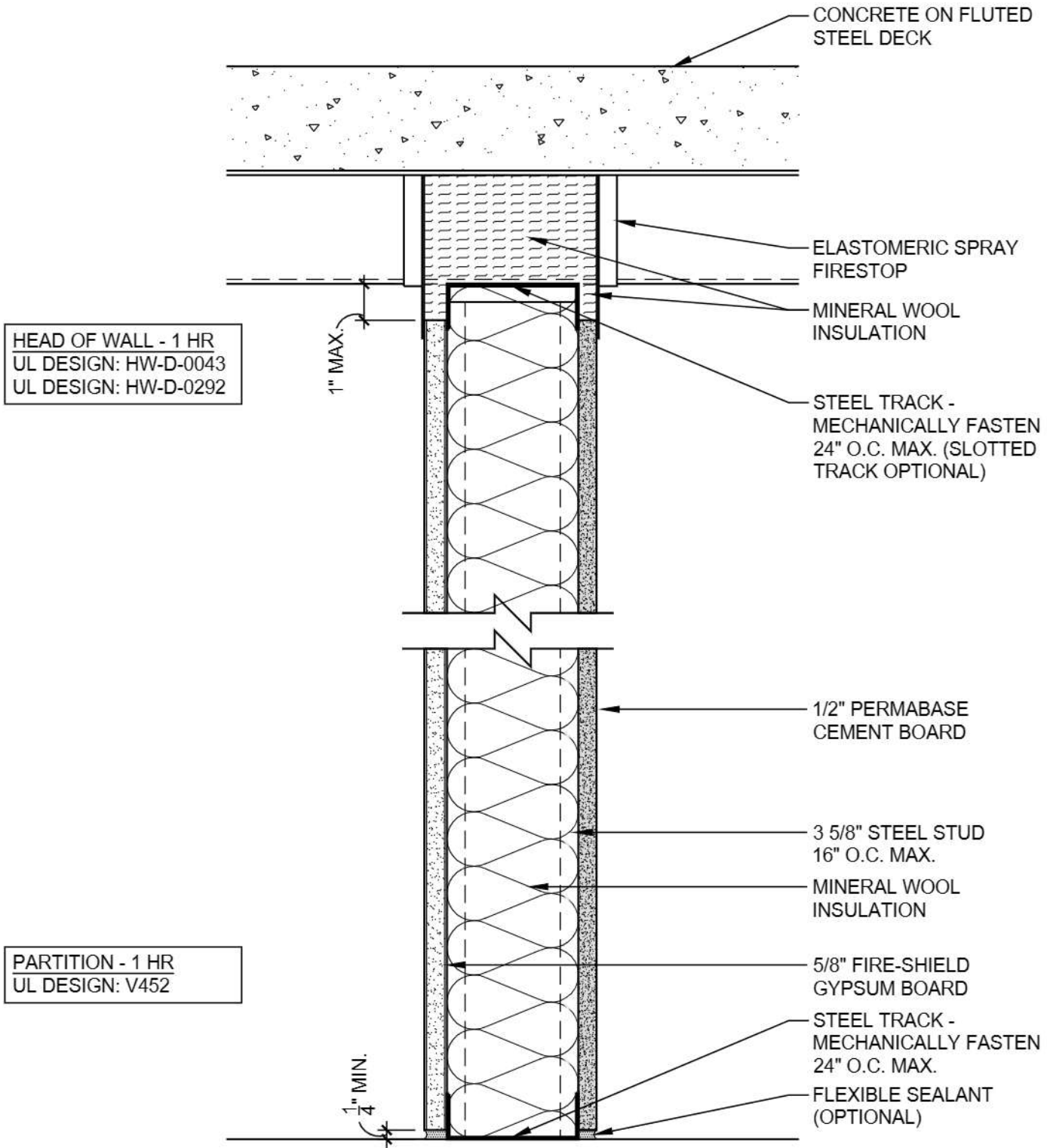
DATE: 09/01/18	1 HOUR 1 SIDED PARTITION TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SS 111	

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

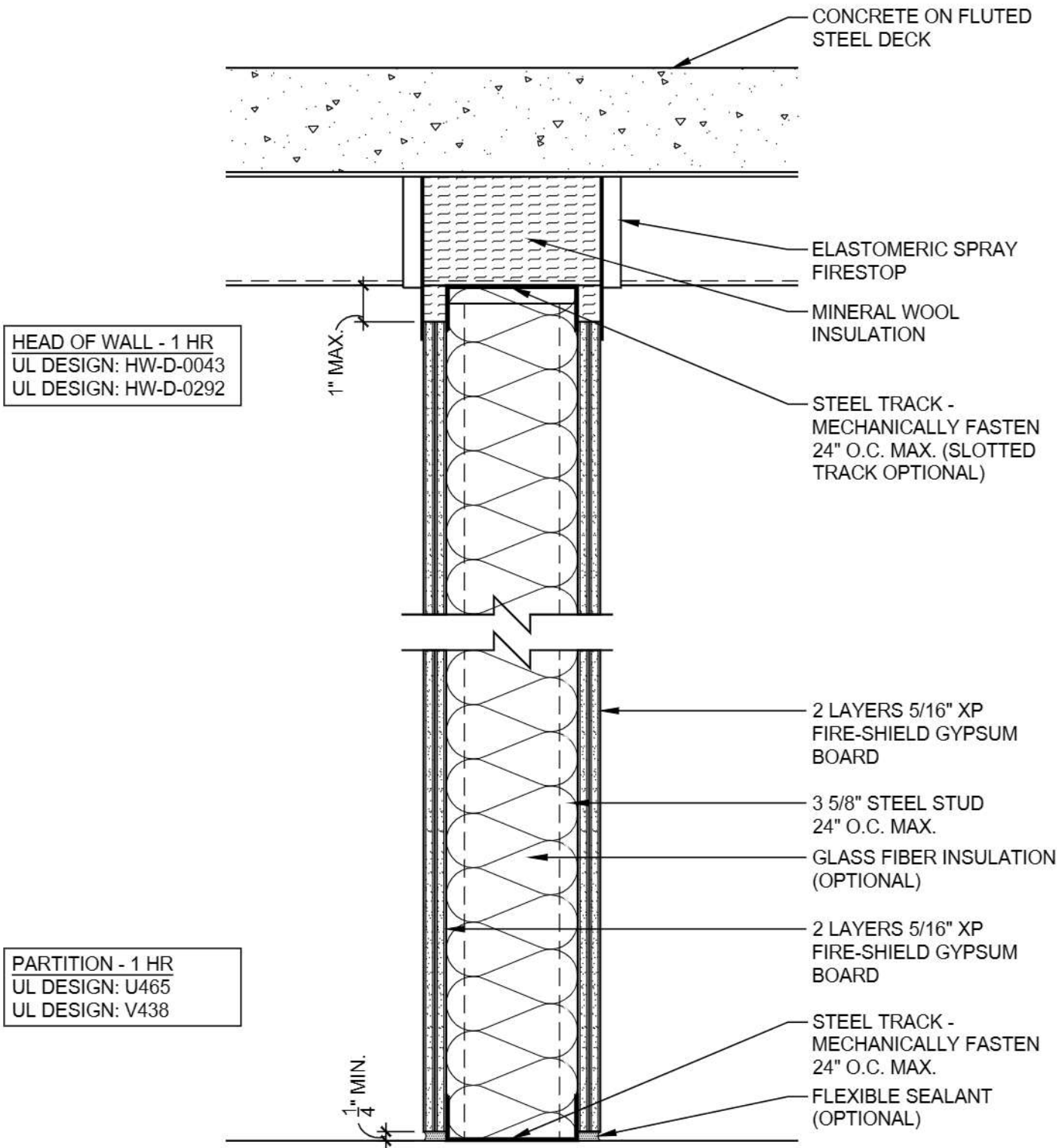
PARTITION - 1 HR
 UL DESIGN: V488



DATE: 09/01/18	1 HOUR CHASE WALL TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SS 112	



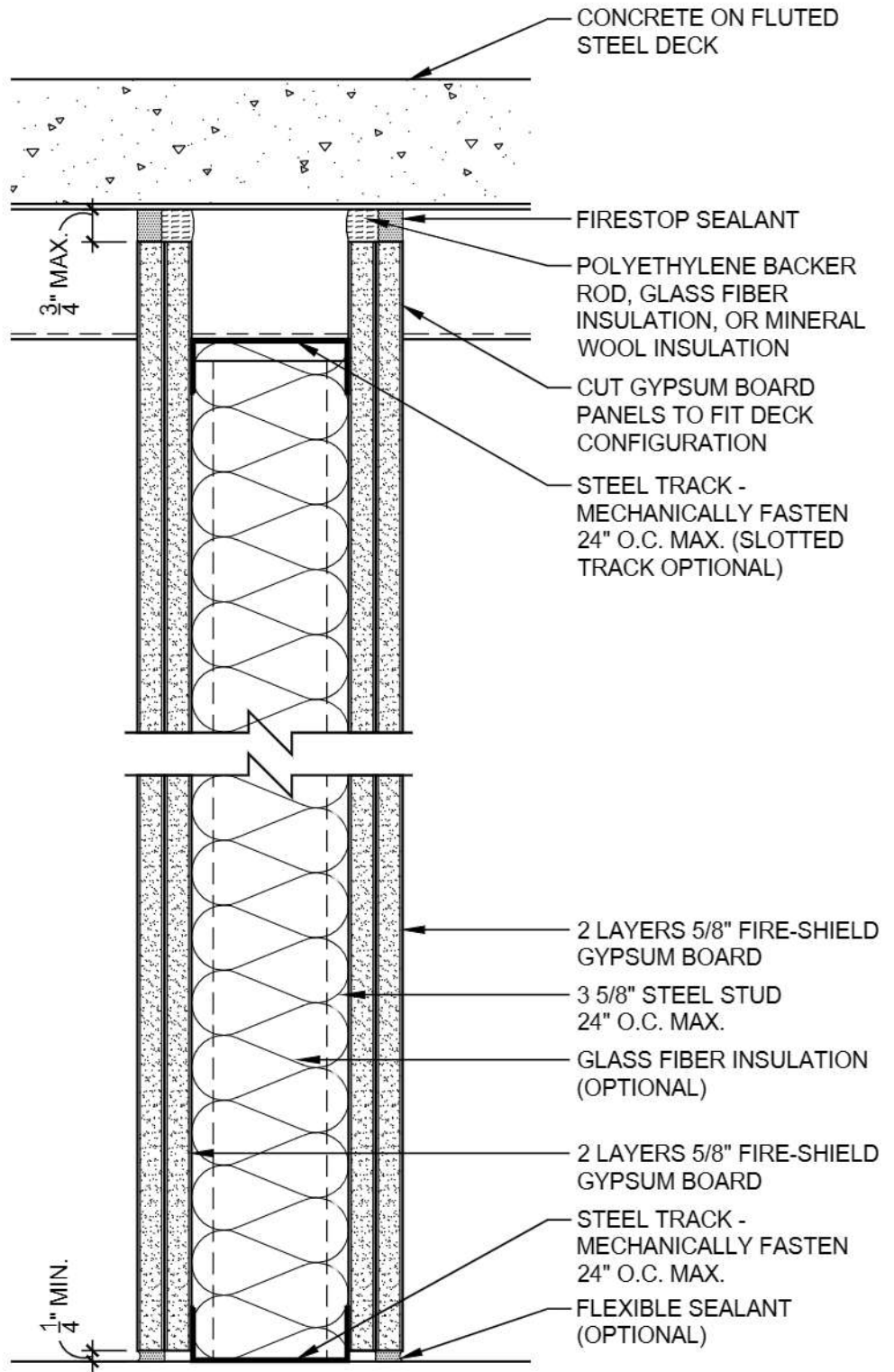
DATE: 09/01/18	1 HOUR CEMENT BOARD PARTITION TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SS 113	



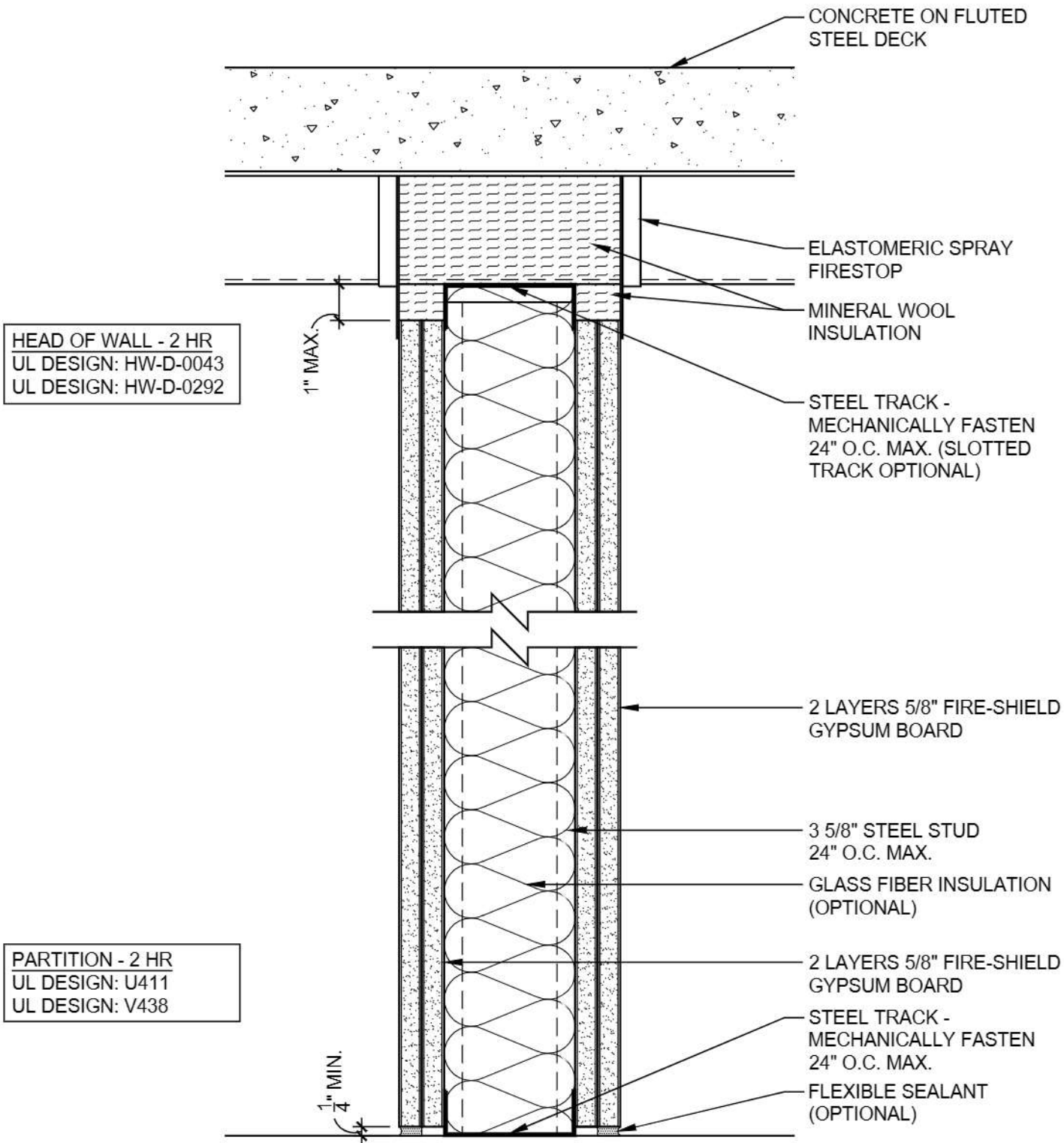
DATE: 09/01/18	1 HOUR PARTITION TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SS 114	

HEAD OF WALL - 2 HR
 UL DESIGN: HW-D-0103
 UL DESIGN: HW-D-0076

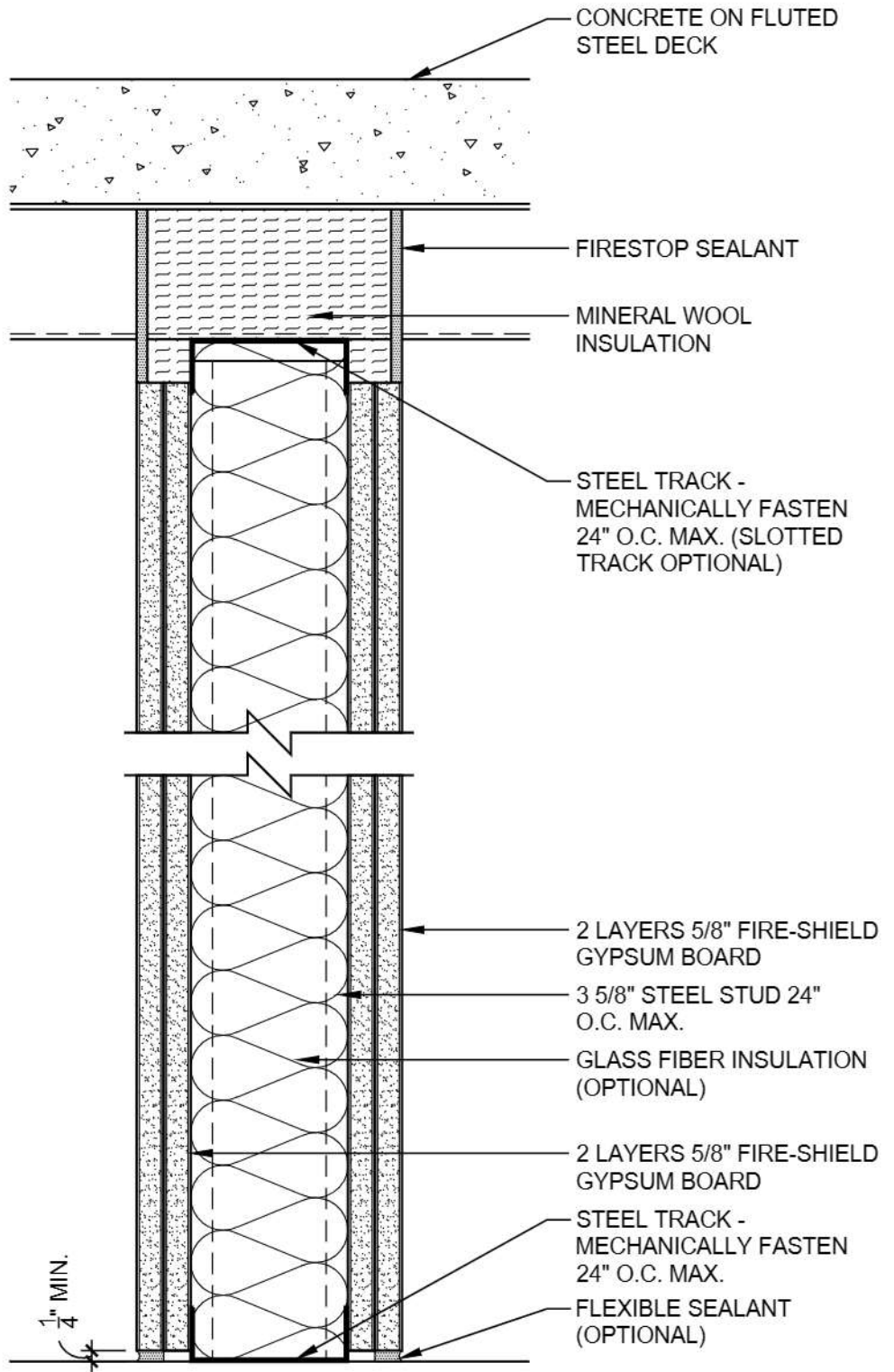
PARTITION - 2 HR
 UL DESIGN: U411
 UL DESIGN: V438



DATE: 09/01/18	2 HOUR PARTITION TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SS 202	



DATE: 09/01/18	2 HOUR PARTITION TO STEEL DECK	National Gypsum
SCALE: 3"=1'-0"		



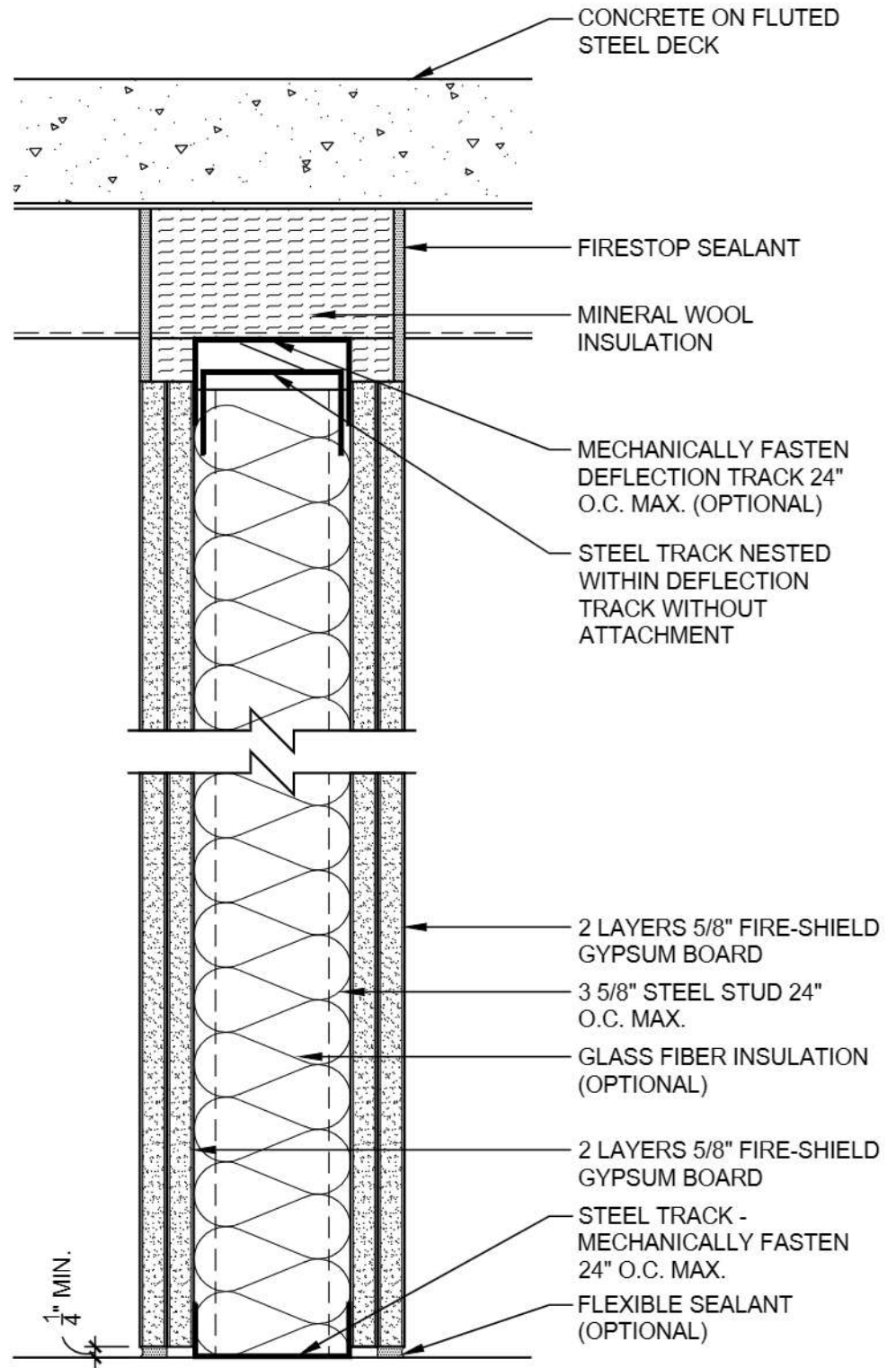
HEAD OF WALL - 2 HR
 UL DESIGN: HW-D-0034
 UL DESIGN: HW-D-0045

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

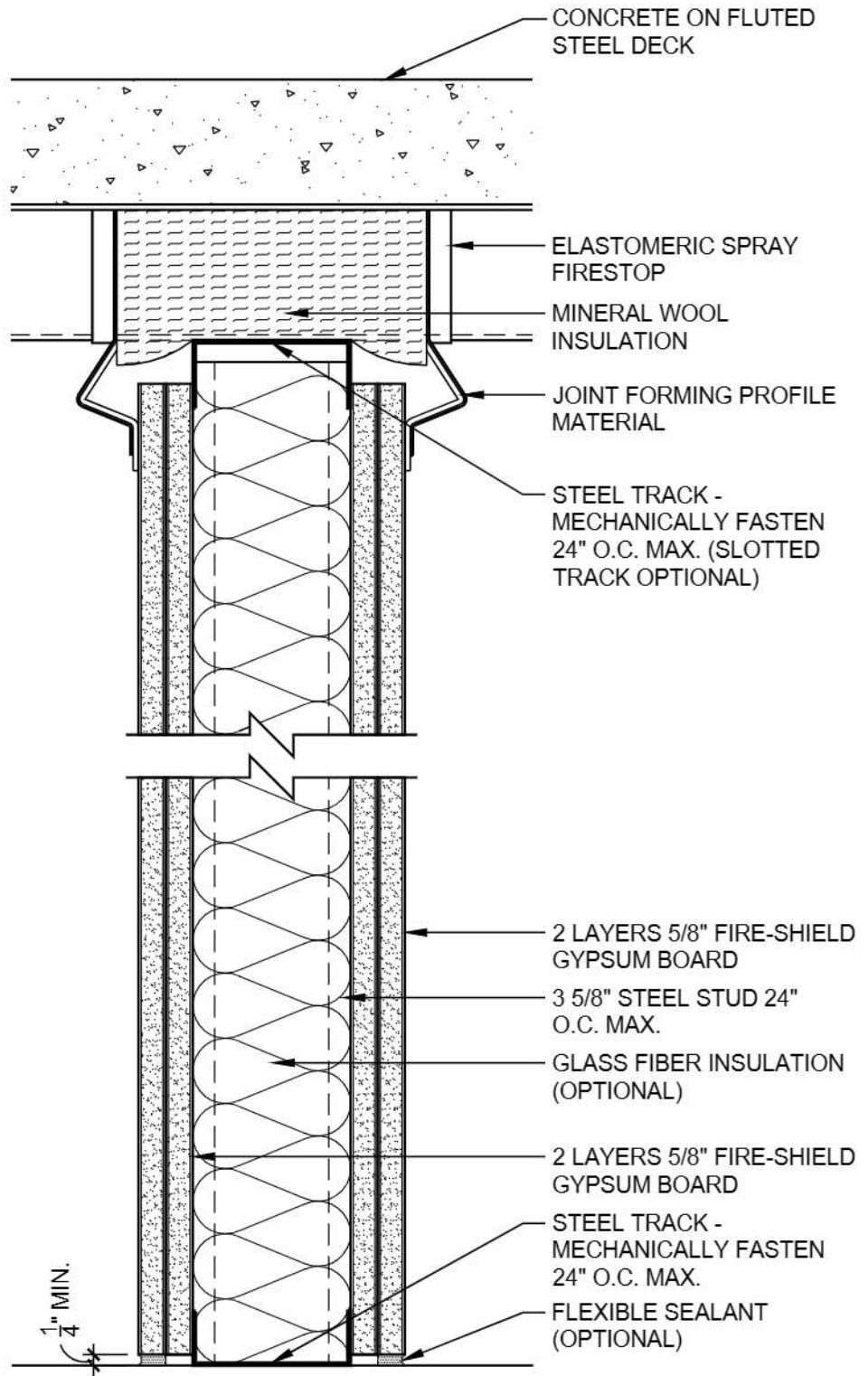
DATE: 09/01/18	2 HOUR PARTITION TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SS 204	

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: 09/01/18	2 HOUR PARTITION WITH DEFLECTION TRACK	
SCALE: 3"=1'-0"	DETAIL: SS 205	



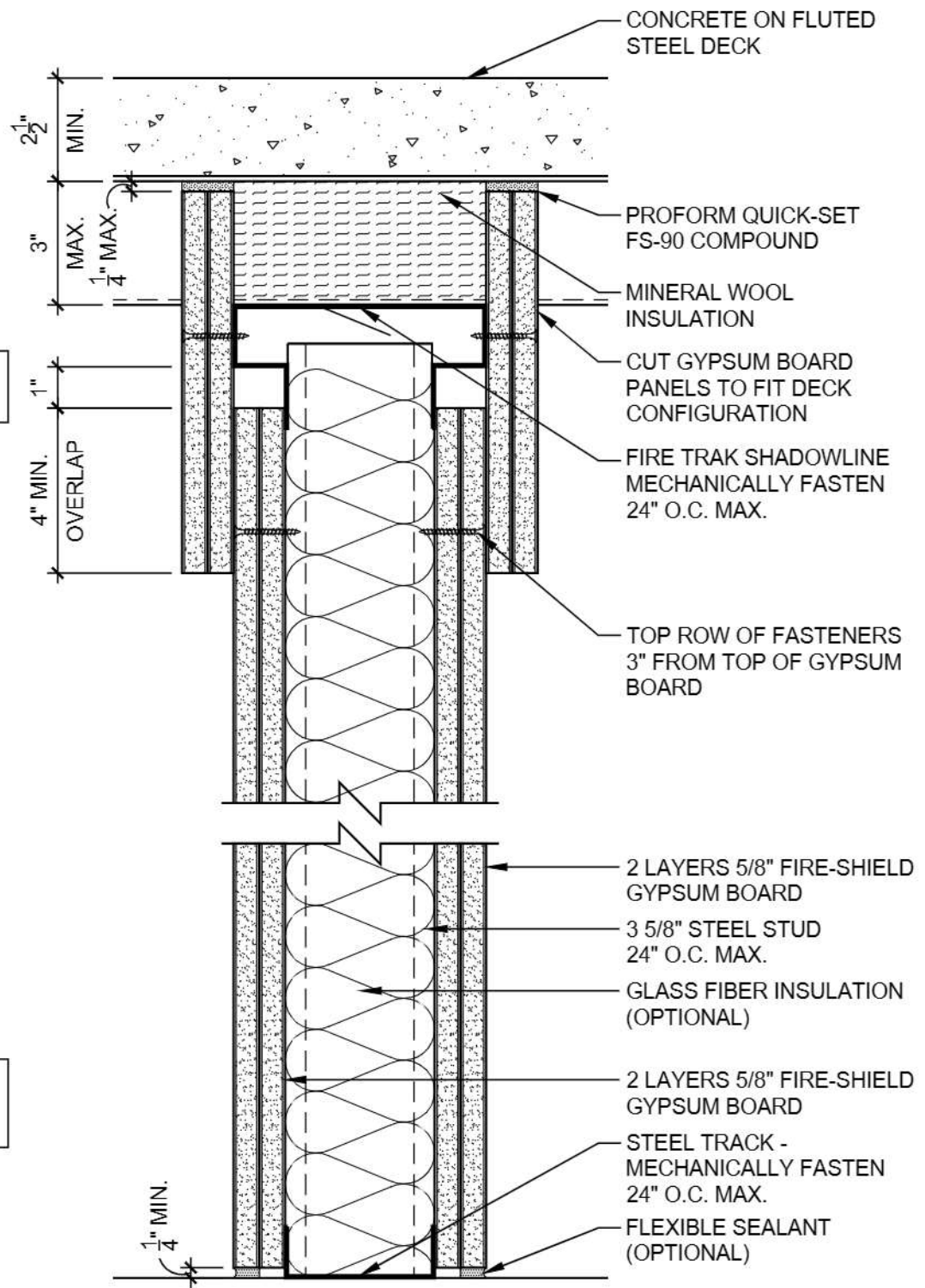
HEAD OF WALL - 2 HR
UL DESIGN: HW-D-0363

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

DATE: 09/01/18	2 HOUR PARTITION TO STEEL DECK	
SCALE: 3"=1'-0"		

HEAD OF WALL - 2 HR
UL DESIGN: HW-D-0060

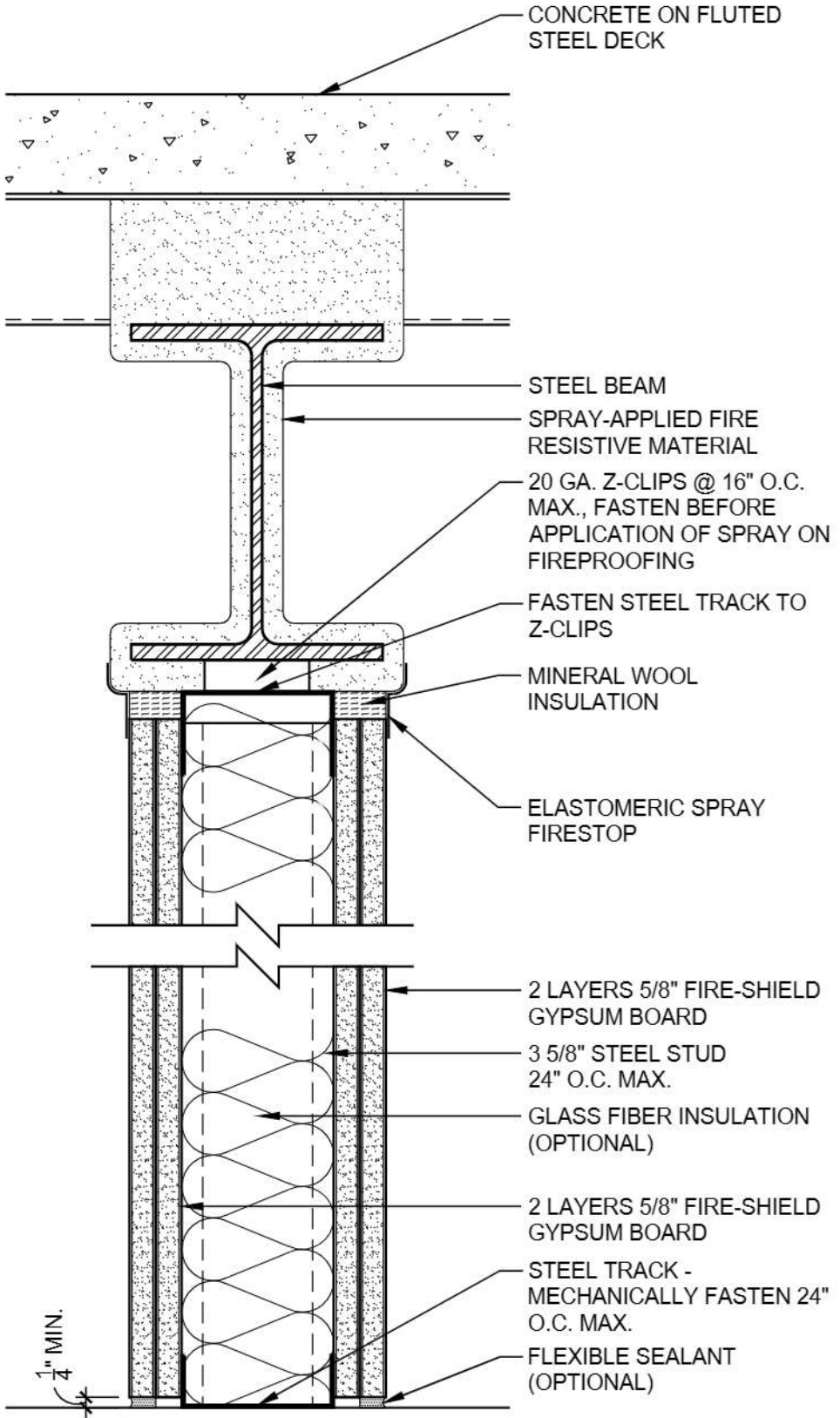
PARTITION - 2 HR
UL DESIGN: U411
UL DESIGN: V438



DATE: 09/01/18	2 HOUR PARTITION WITH DEFLECTION TRACK	
SCALE: 3"=1'-0"	DETAIL: SS 207	

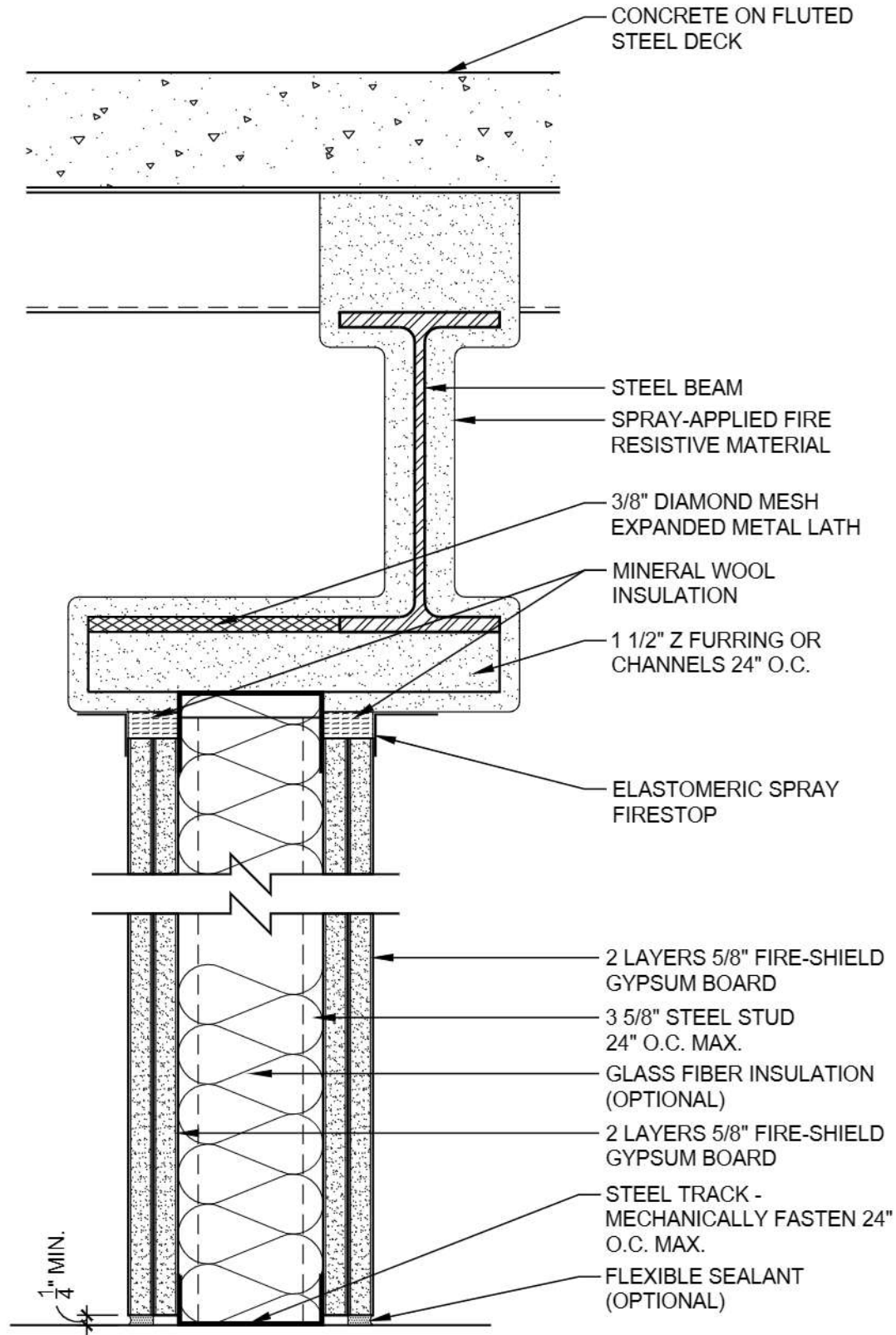
HEAD OF WALL - 2 HR
 UL DESIGN: HW-D-0252
 UL DESIGN: HW-D-0259

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



DATE: 09/01/18	2 HOUR PARTITION TO STEEL BEAM	
SCALE: 3"=1'-0"		

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

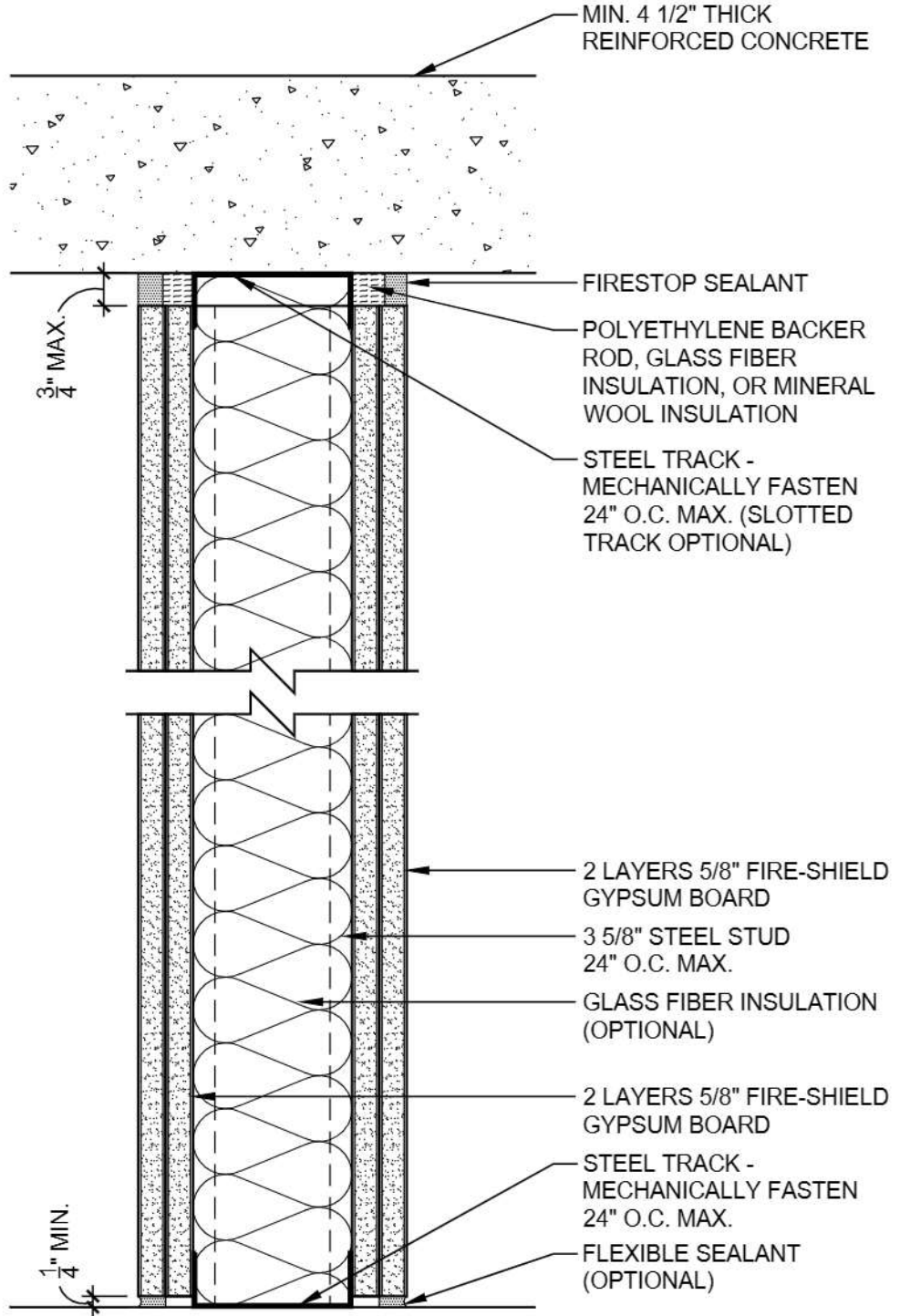


PARTITION - 2 HR
 UL DESIGN: U411
 UL DESIGN: V438

DATE: 09/01/18	2 HOUR PARTITION OFFSET FROM BEAM	
SCALE: 3"=1'-0"	DETAIL: SS 209	

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

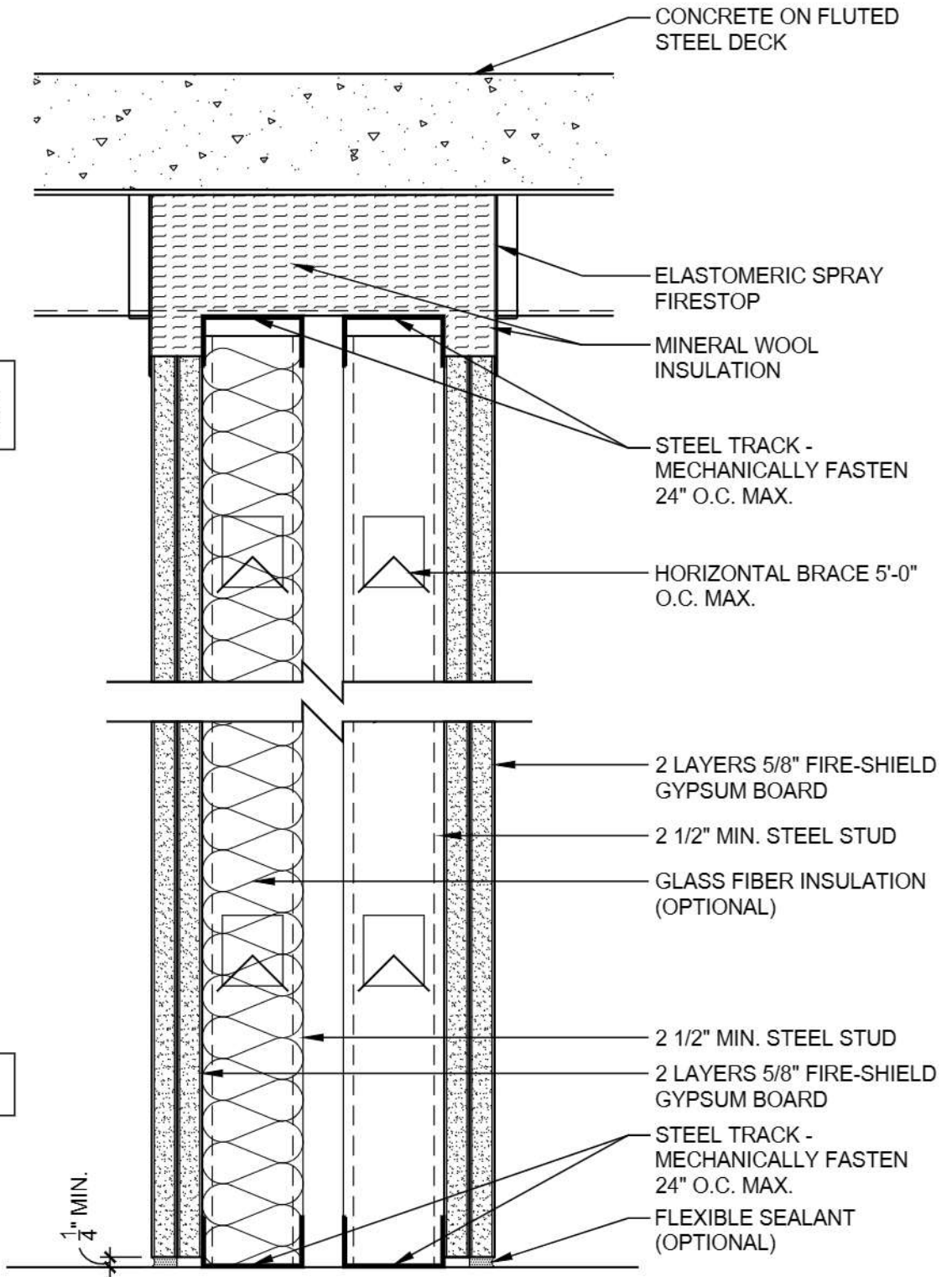
PARTITION - 2 HR
 UL DESIGN: U411
 UL DESIGN: V438



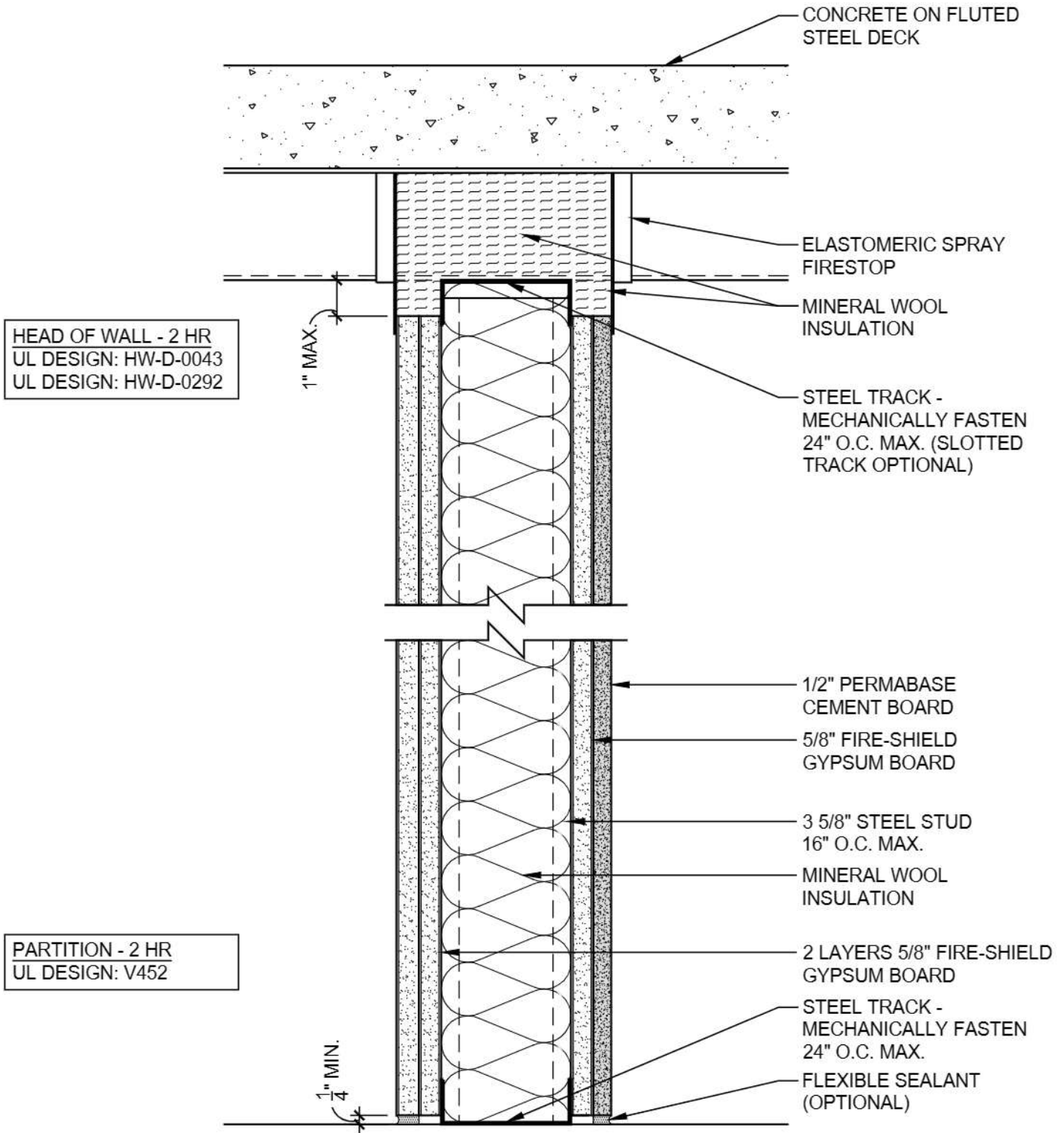
DATE: 09/01/18	2 HOUR PARTITION TO CONCRETE SLAB	
SCALE: 3"=1'-0"	DETAIL: SS 210	

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

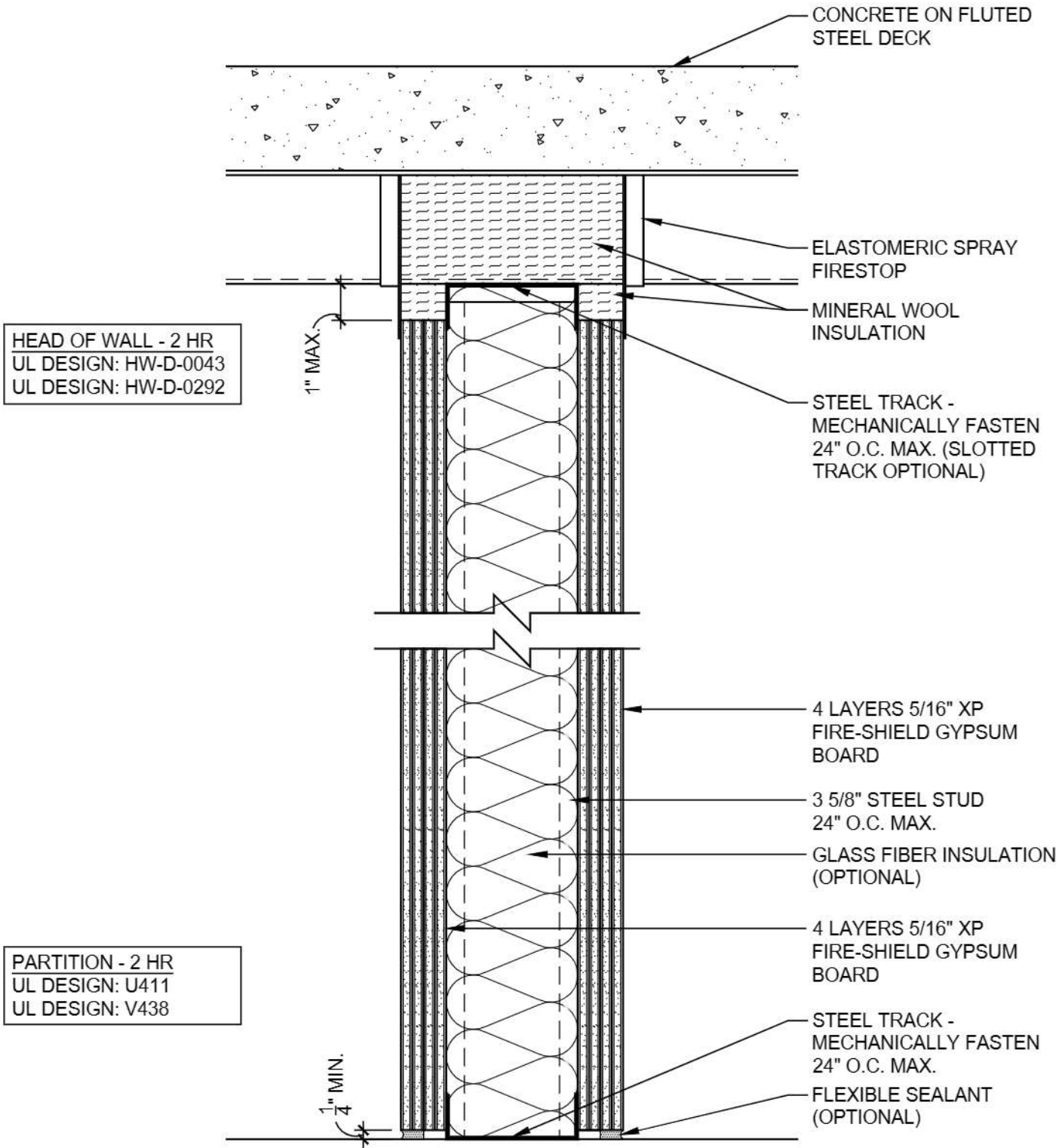
PARTITION - 2 HR
 UL DESIGN: V488



DATE: 09/01/18	2 HOUR CHASE WALL TO STEEL DECK	
SCALE: 3"=1'-0"		



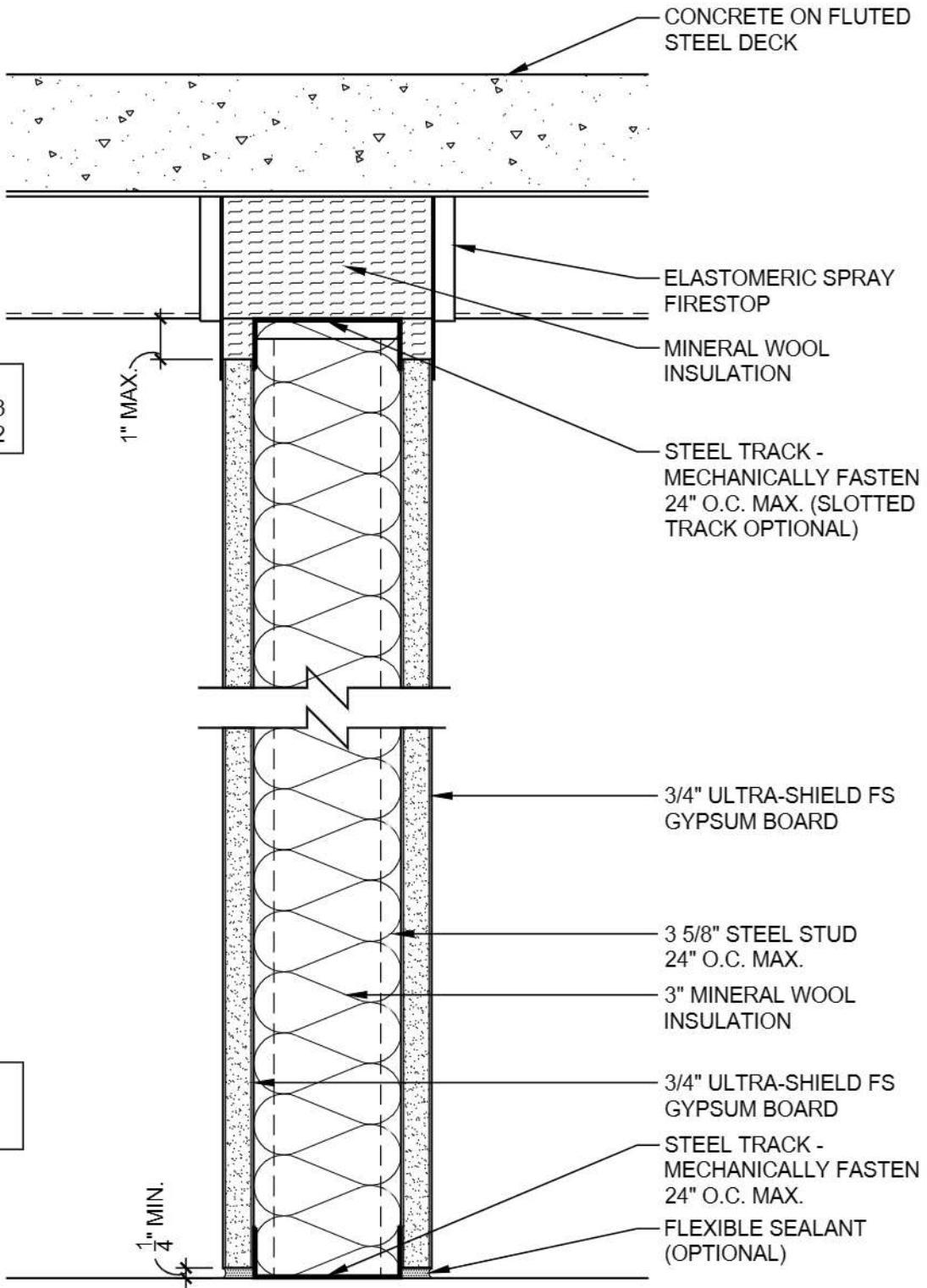
DATE: 09/01/18	2 HOUR CEMENT BOARD PARTITION TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SS 213	



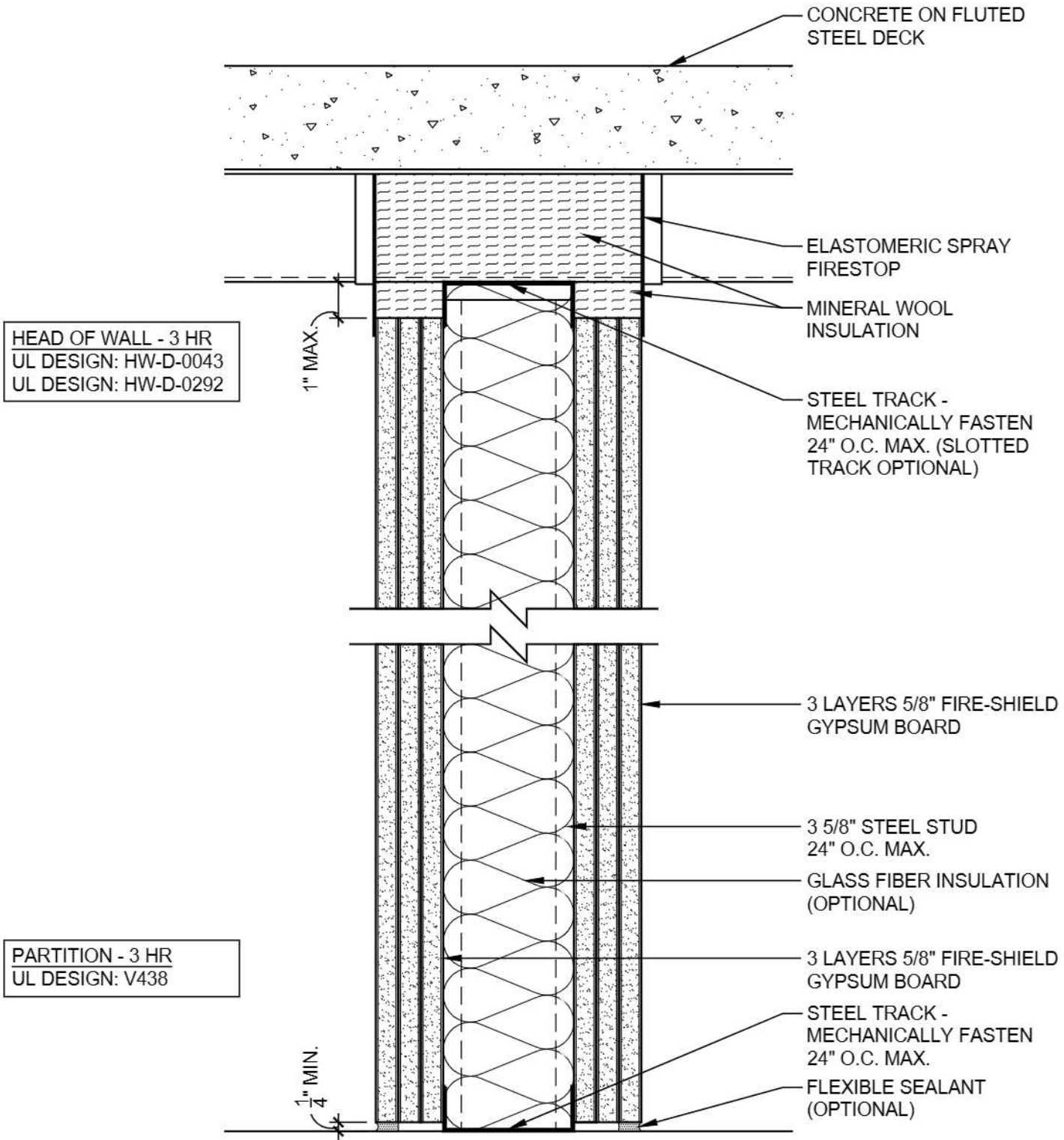
DATE: 09/01/18	2 HOUR PARTITION TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SS 214	

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

PARTITION - 2 HR
 UL DESIGN: W432
 UL DESIGN: V438



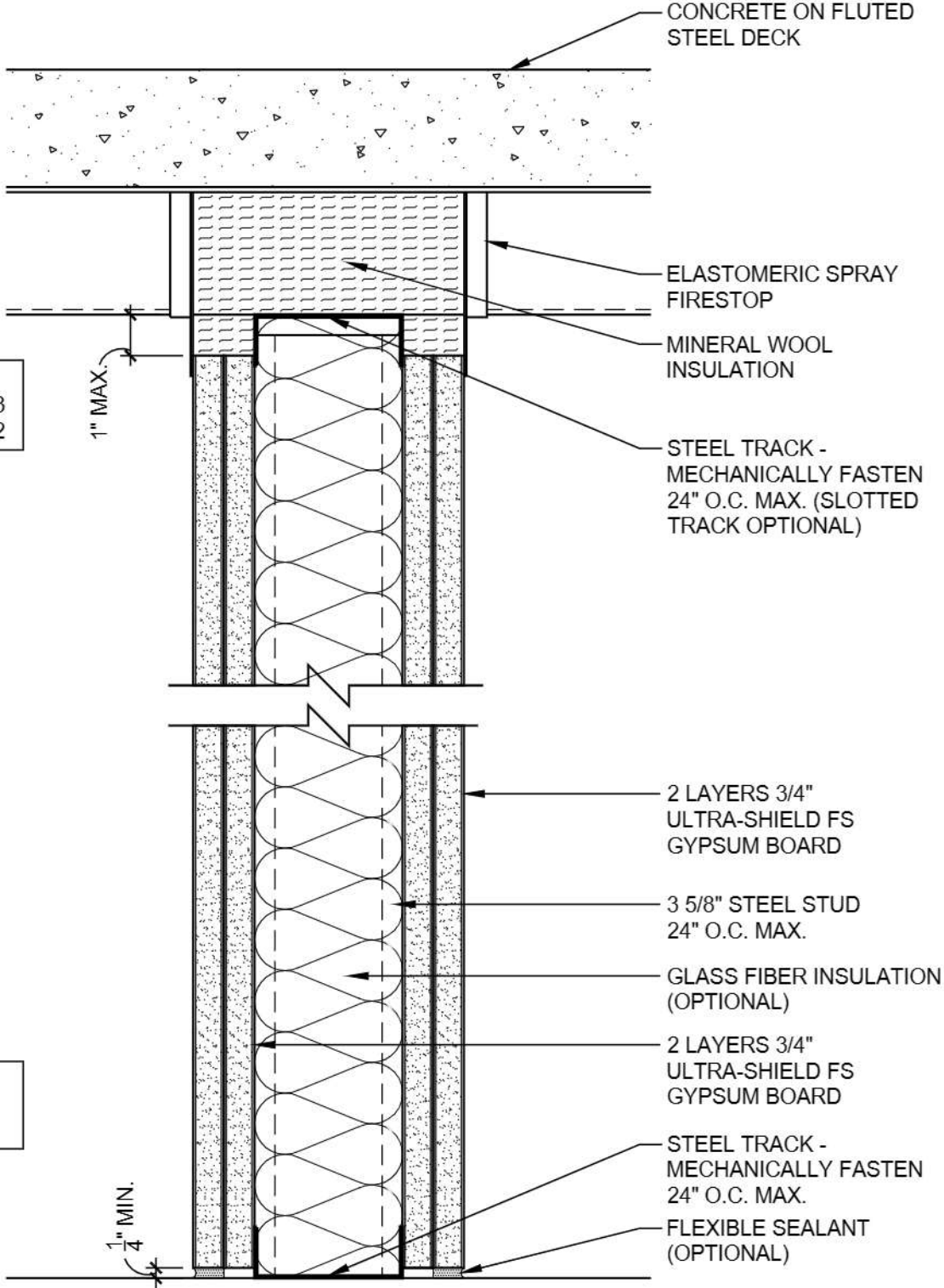
DATE: 09/01/18	2 HOUR PARTITION TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SS 215	



DATE: 09/01/18	3 HOUR PARTITION TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SS 301	

HEAD OF WALL - 3 HR
 UL DESIGN: HW-D-0043
 UL DESIGN: HW-D-0292

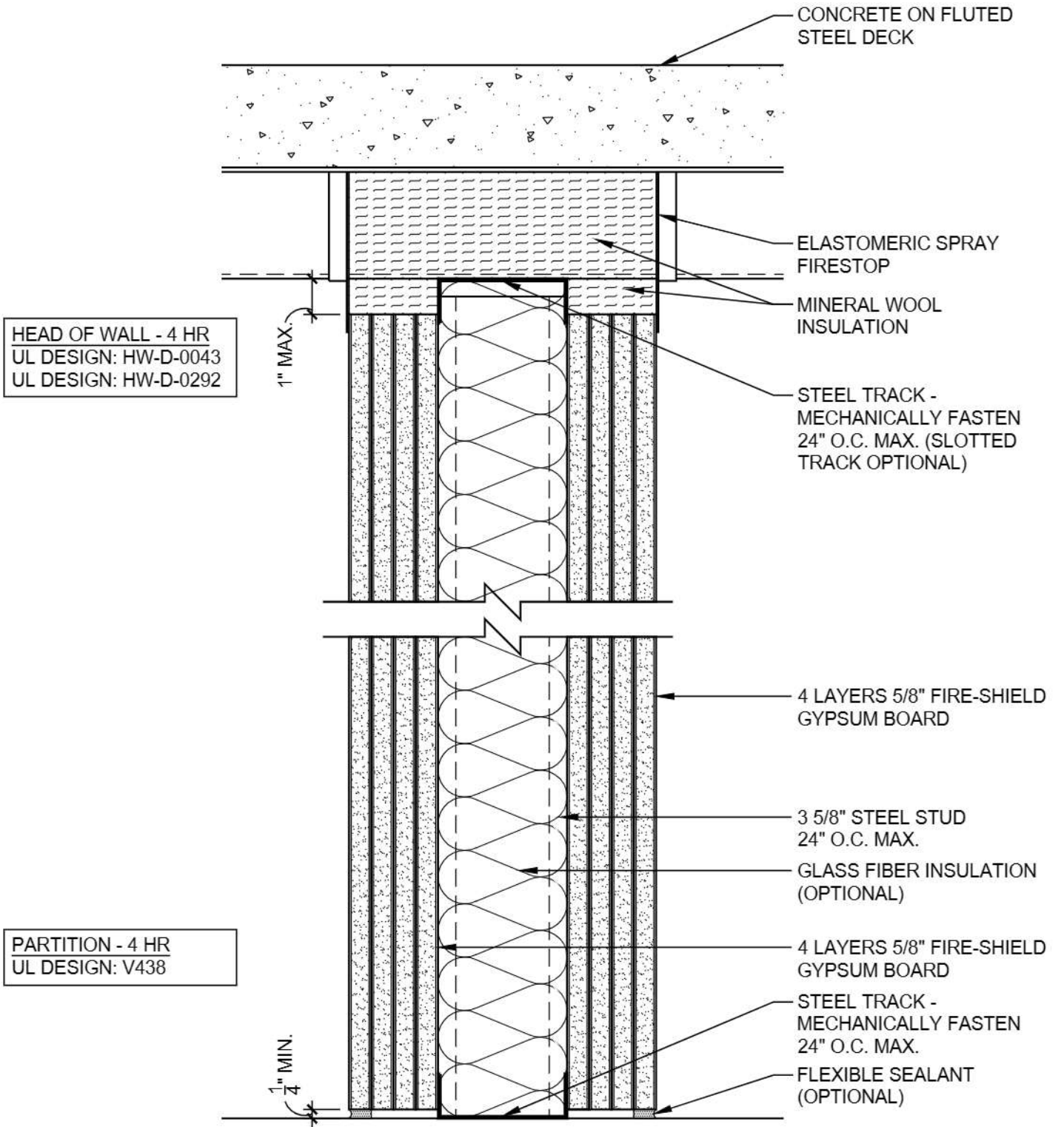
PARTITION - 3 HR
 UL DESIGN: W455
 UL DESIGN: V438



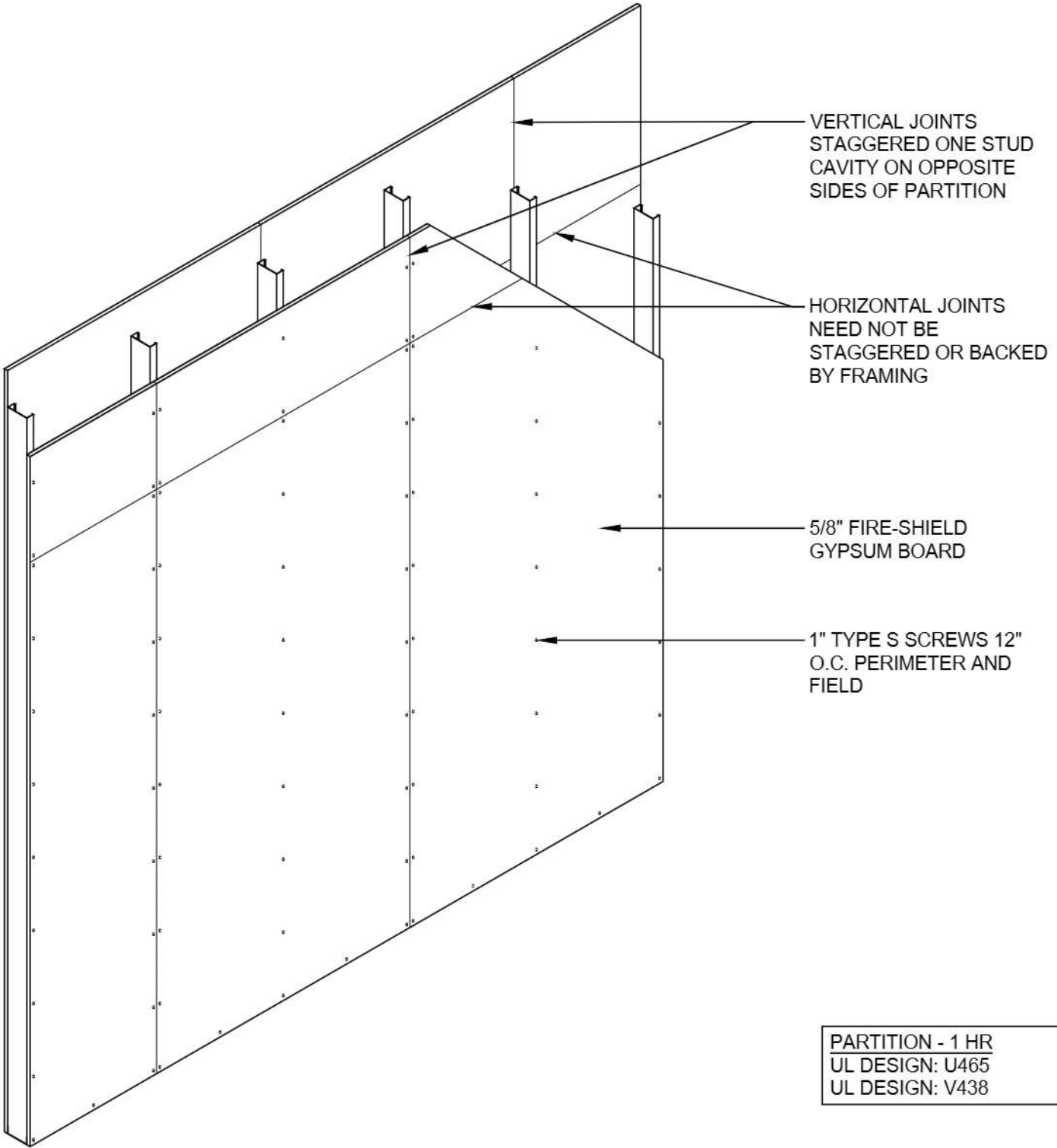
DATE: 09/01/18
 SCALE: 3"=1'-0"

3 HOUR PARTITION TO STEEL DECK
 DETAIL: SS 302



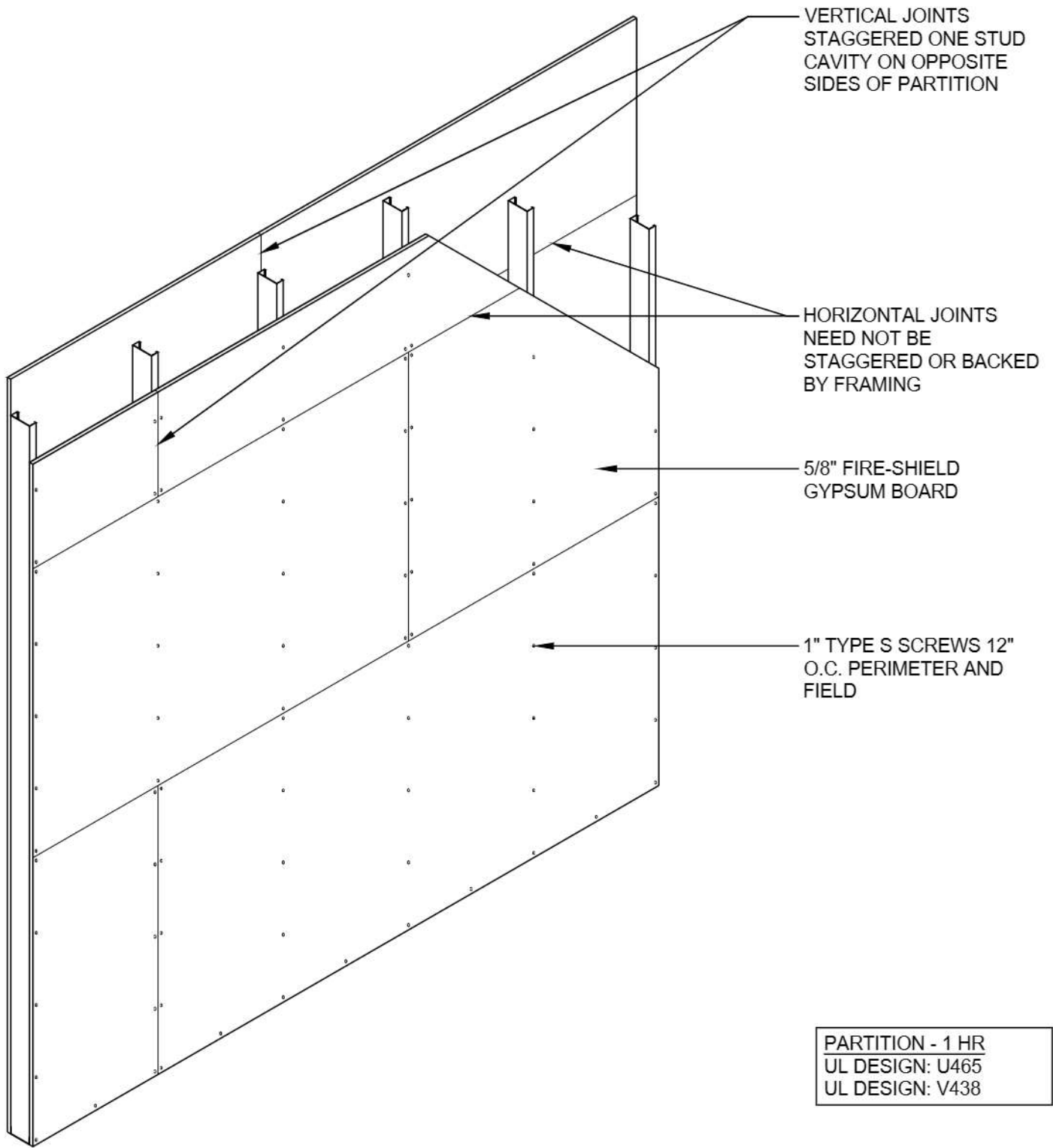


DATE: 09/01/18	4 HOUR PARTITION TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SS 401	

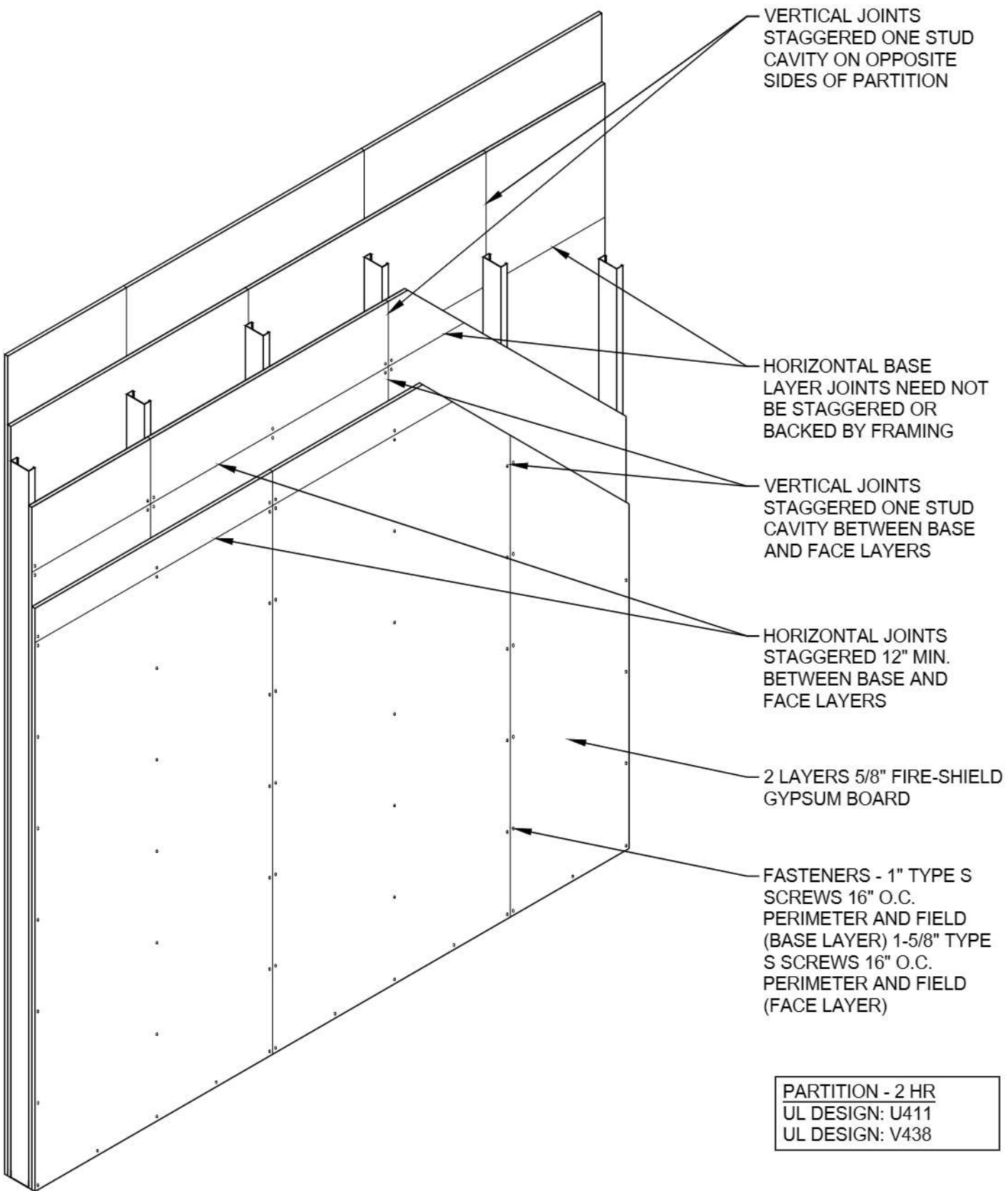


PARTITION - 1 HR
UL DESIGN: U465
UL DESIGN: V438

DATE: 09/01/18	1 HR PARTITION JOINT STAGGERING REQUIREMENTS	
SCALE: 1/2"=1'-0"	DETAIL: SS 501	



DATE: 09/01/18	1 HR PARTITION JOINT STAGGERING REQUIREMENTS	
SCALE: 1/2"=1'-0"	DETAIL: SS 502	



VERTICAL JOINTS
STAGGERED ONE STUD
CAVITY 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

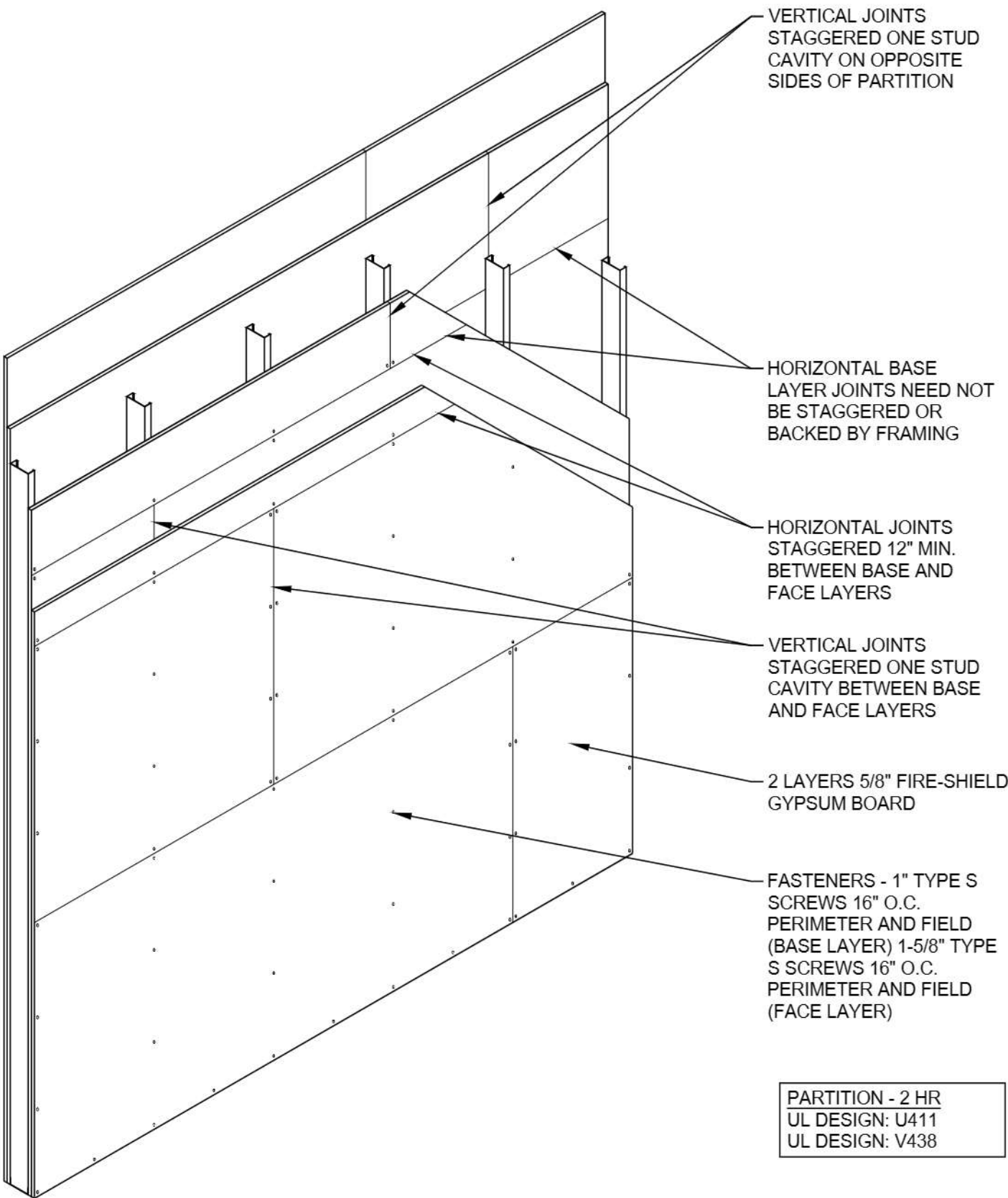
HORIZONTAL JOINTS
STAGGERED 12" MIN.
BETWEEN BASE AND
FACE LAYERS

2 LAYERS 5/8" FIRE-SHIELD
GYPSUM BOARD

FASTENERS - 1" TYPE S
SCREWS 16" O.C.
PERIMETER AND FIELD
(BASE LAYER) 1-5/8" TYPE
S SCREWS 16" O.C.
PERIMETER AND FIELD
(FACE LAYER)

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

DATE: 09/01/18	2 HR PARTITION JOINT STAGGERING REQUIREMENTS	
SCALE: 1/2"=1'-0"	DETAIL: SS 503	



VERTICAL JOINTS
STAGGERED ONE STUD
CAVITY ON OPPOSITE
SIDES OF PARTITION

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

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

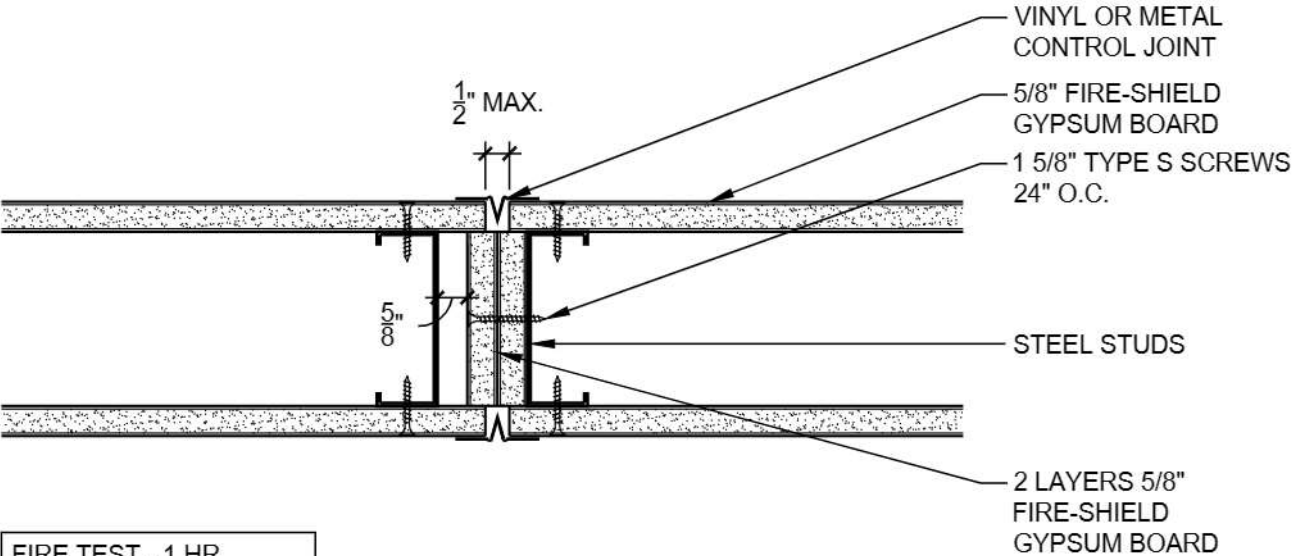
VERTICAL JOINTS
STAGGERED ONE STUD
CAVITY BETWEEN BASE
AND FACE LAYERS

2 LAYERS 5/8" FIRE-SHIELD
GYPSUM BOARD

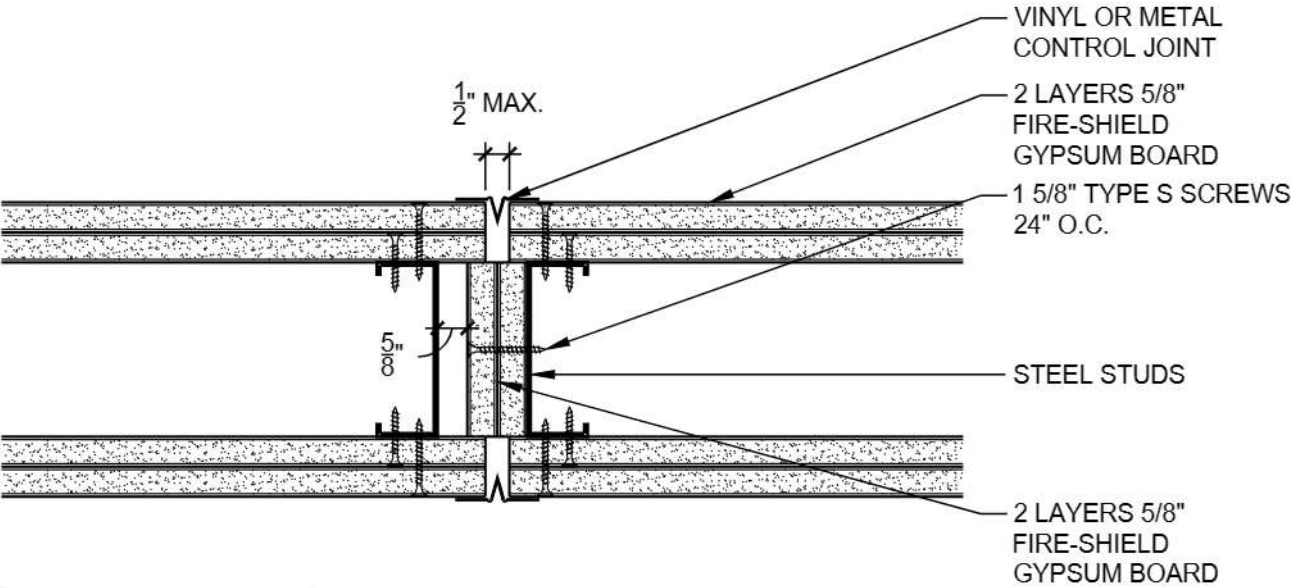
FASTENERS - 1" TYPE S
SCREWS 16" O.C.
PERIMETER AND FIELD
(BASE LAYER) 1-5/8" TYPE
S SCREWS 16" O.C.
PERIMETER AND FIELD
(FACE LAYER)

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

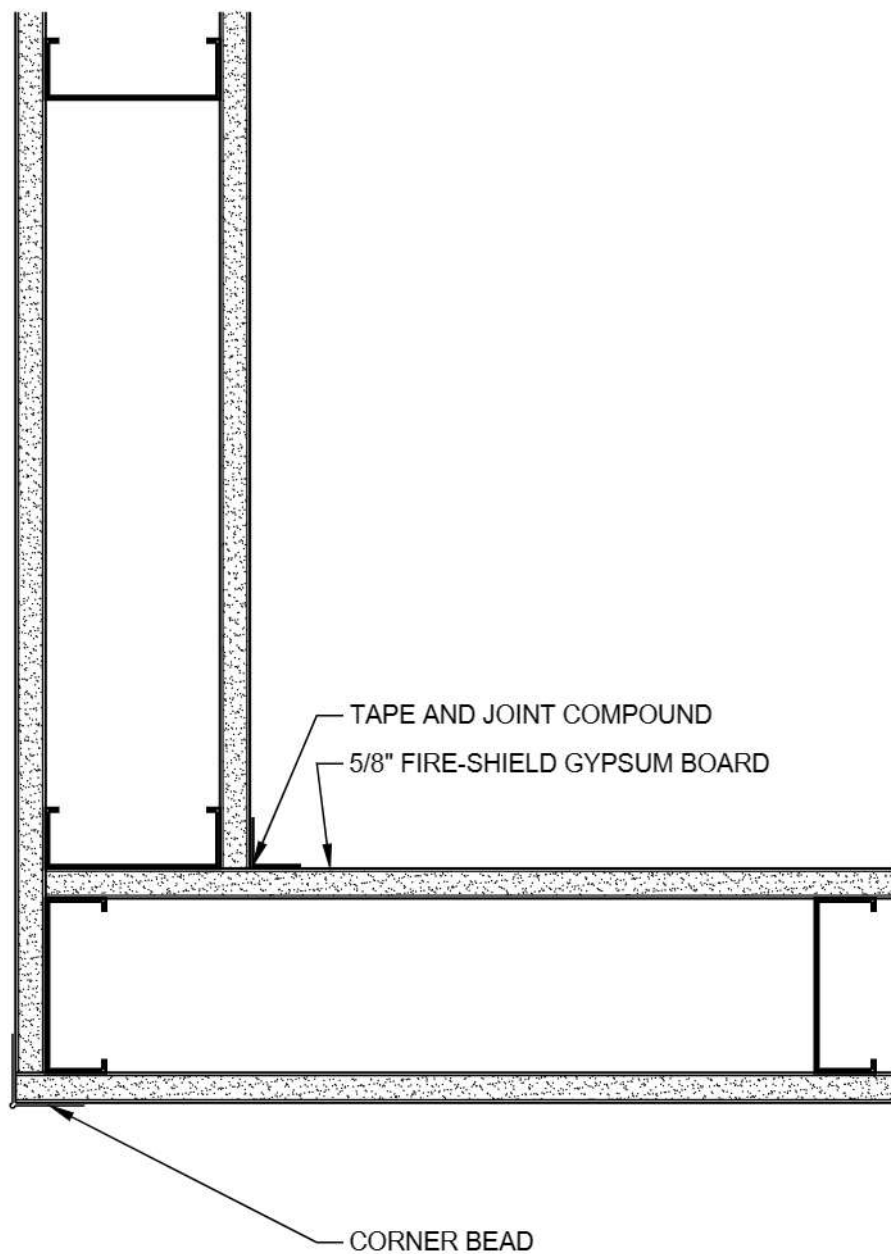
DATE: 09/01/18	2 HR PARTITION JOINT STAGGERING REQUIREMENTS	
SCALE: 1/2"=1'-0"	DETAIL: SS 504	



FIRE TEST - 1 HR
WHI-647-3024

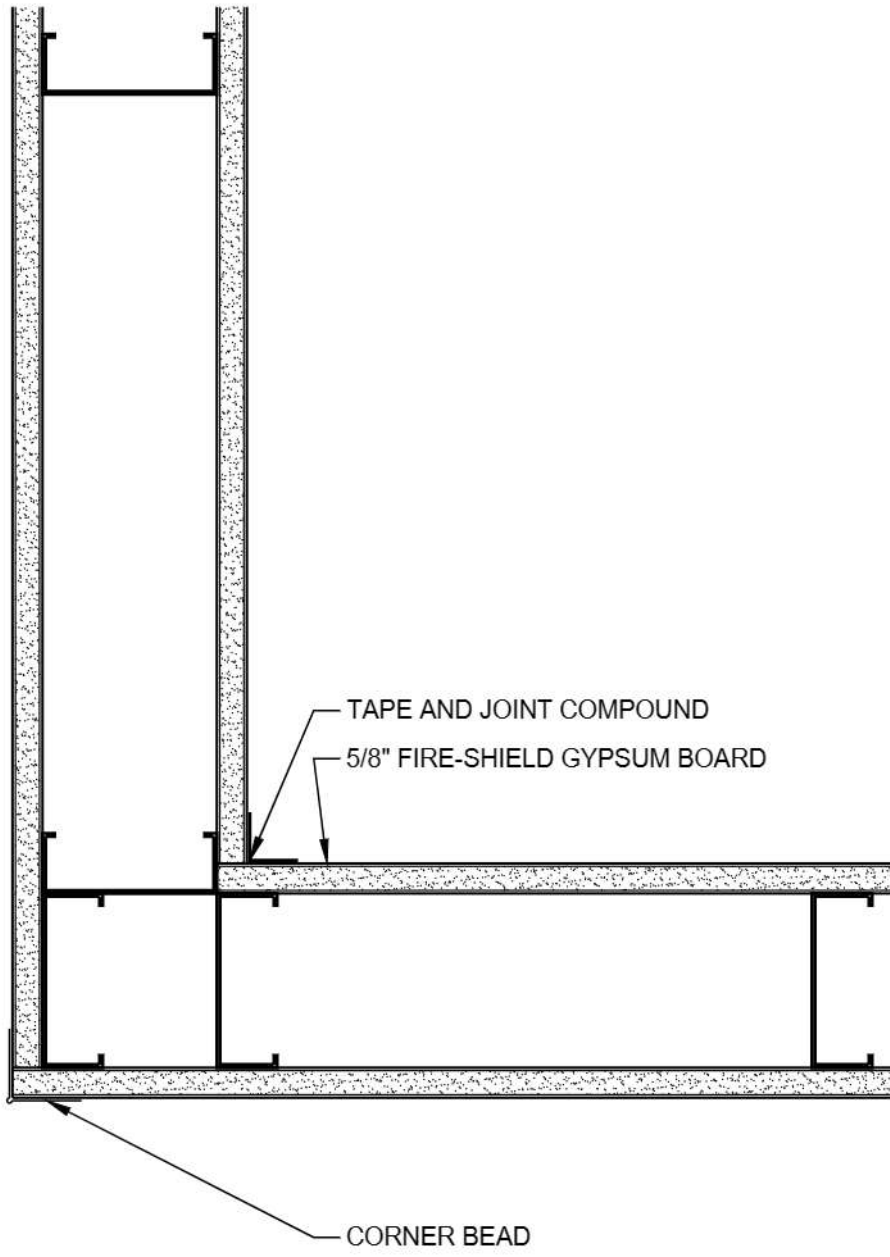


FIRE TEST - 2 HR
WHI-651-0318.1



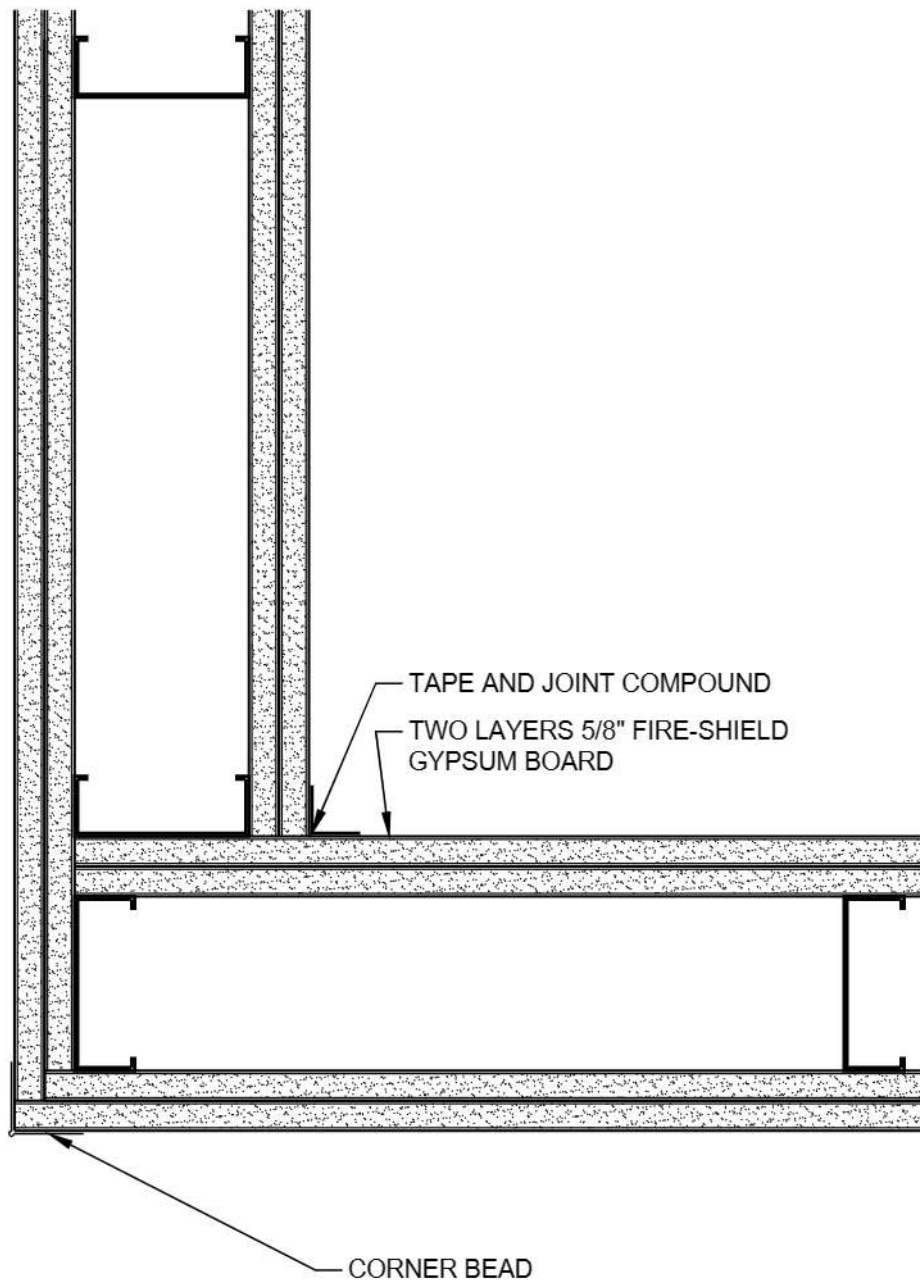
PARTITION - 1 HR
UL DESIGN: U465
UL DESIGN: V438

DATE: 09/01/18	1 HOUR PARTITION CORNER DETAIL	
SCALE: 3"=1'-0"	DETAIL: SS 601	



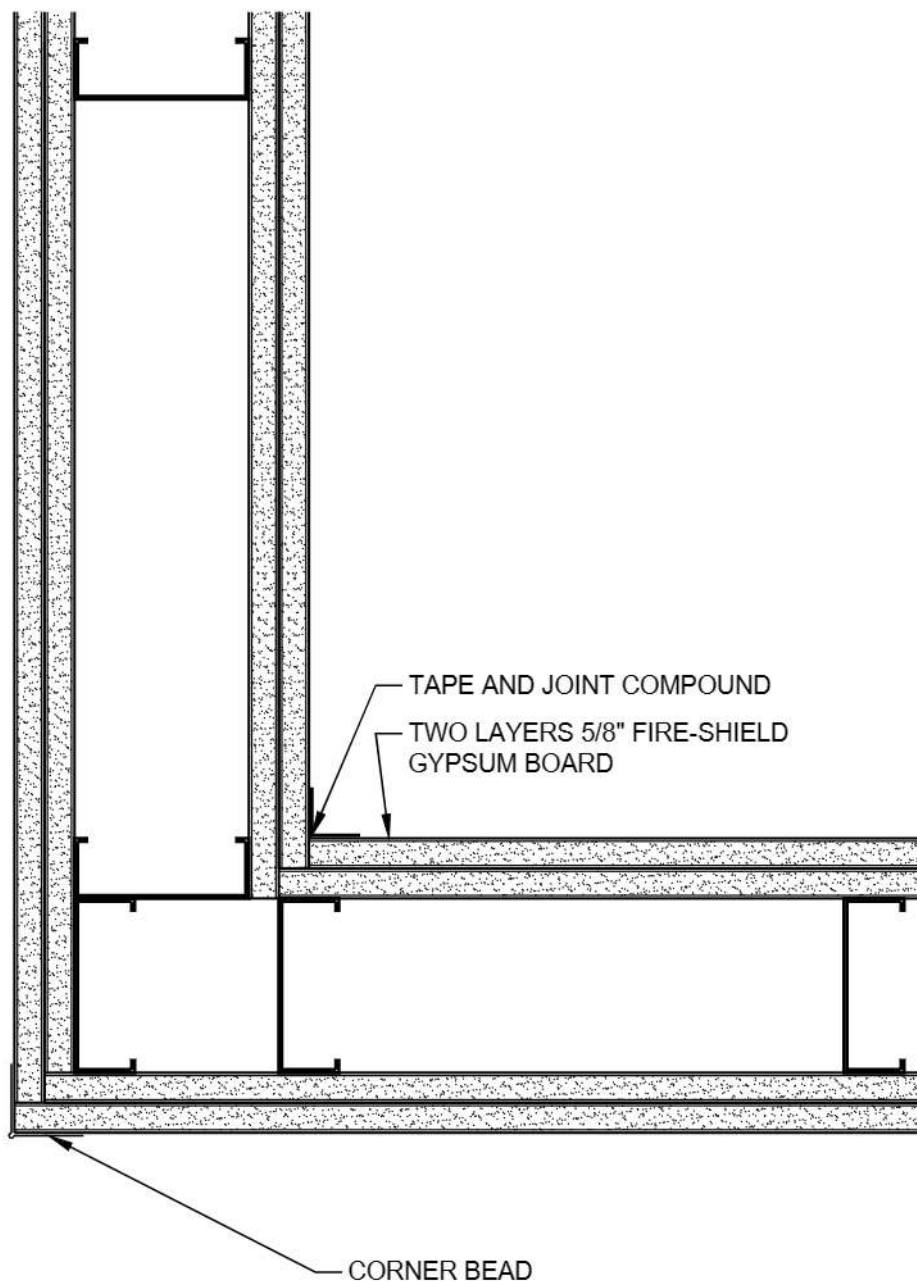
PARTITION - 1 HR
UL DESIGN: U465
UL DESIGN: V438

DATE: 09/01/18	1 HOUR PARTITION CORNER DETAIL	
SCALE: 3"=1'-0"	DETAIL: SS 602	



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

DATE: 09/01/18	2 HOUR PARTITION CORNER DETAIL	
SCALE: 3"=1'-0"	DETAIL: SS 603	

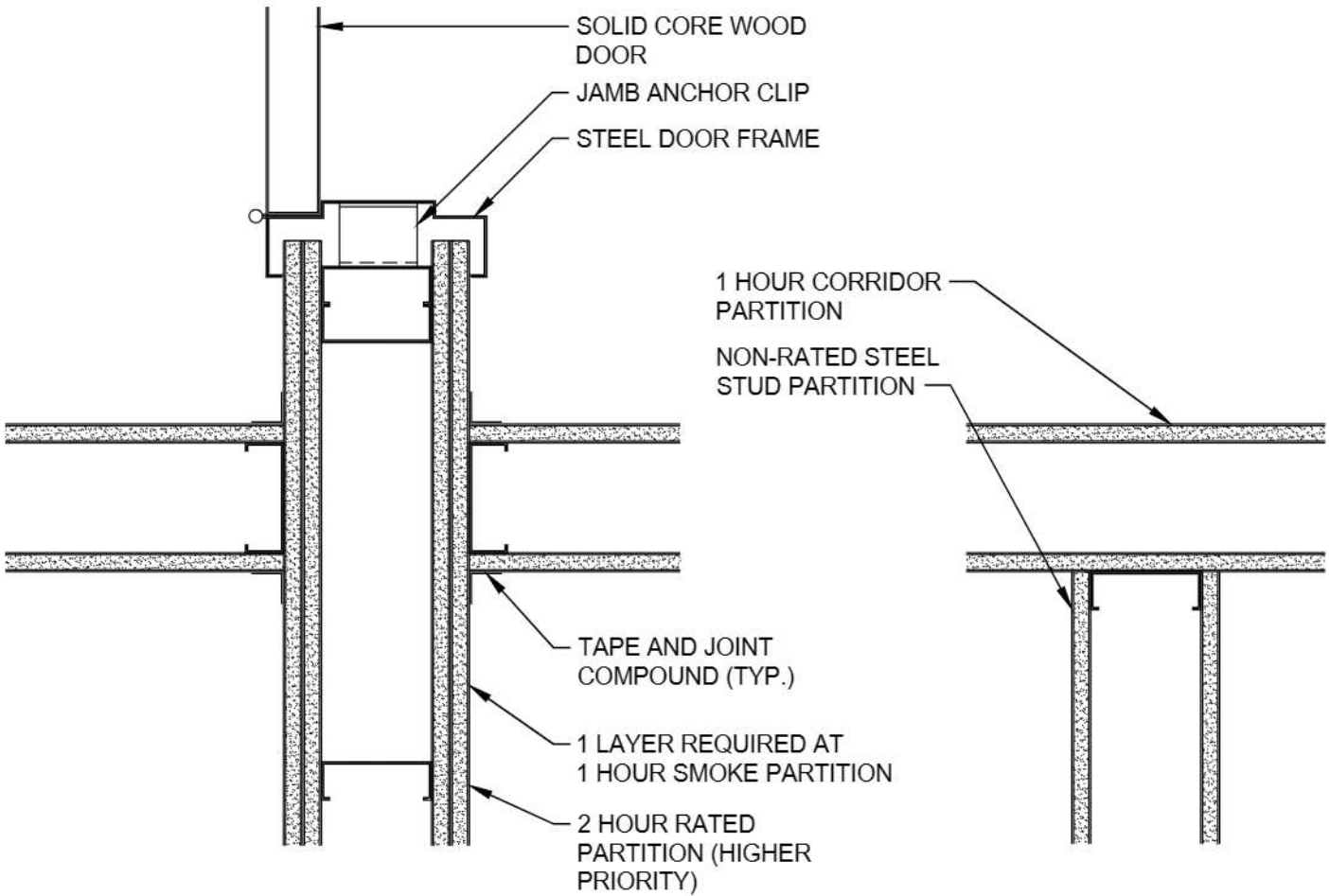
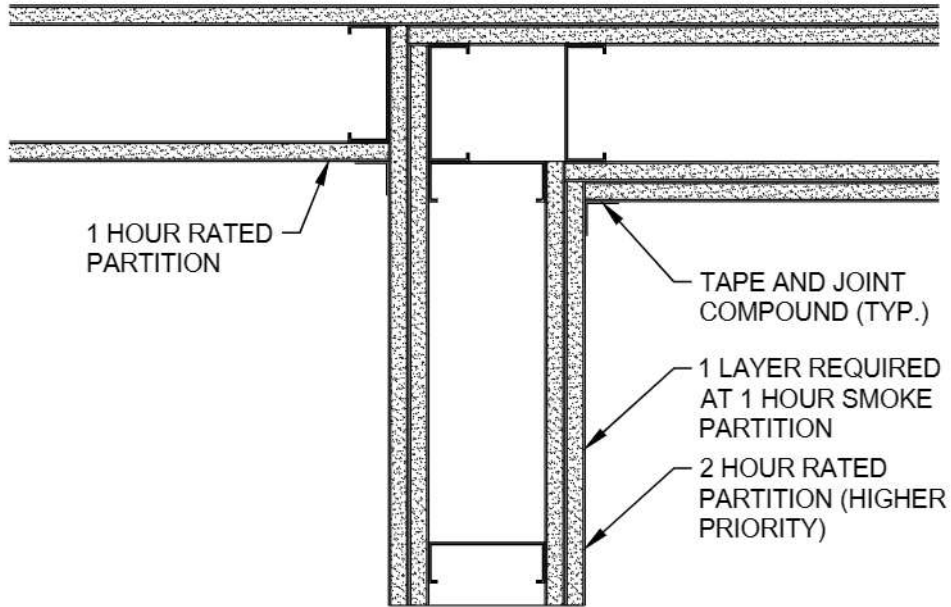


PARTITION - 2 HR
UL DESIGN: U411
UL DESIGN: V438

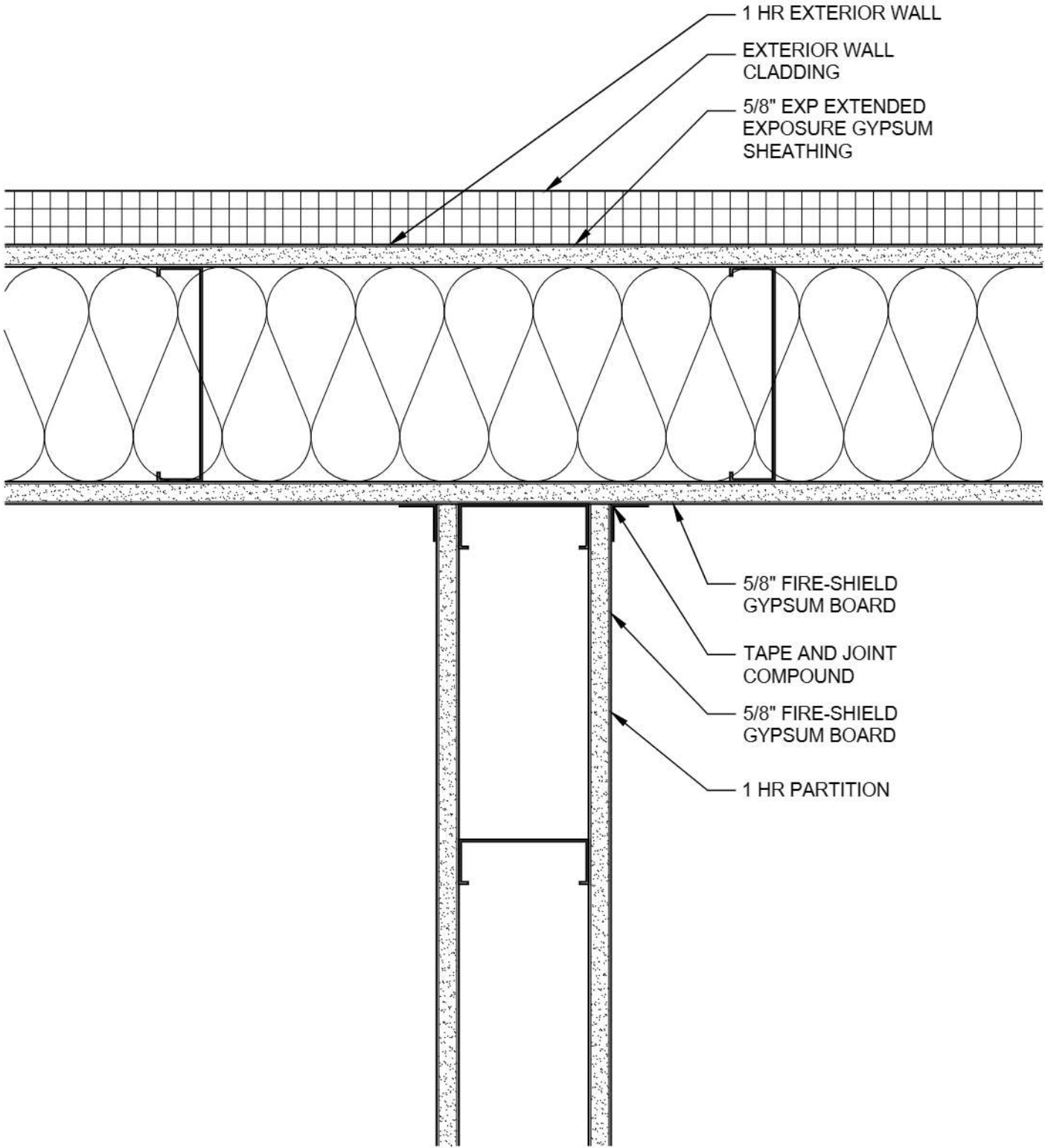
DATE: 09/01/18	2 HOUR PARTITION CORNER DETAIL	
SCALE: 3"=1'-0"	DETAIL: SS 604	

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

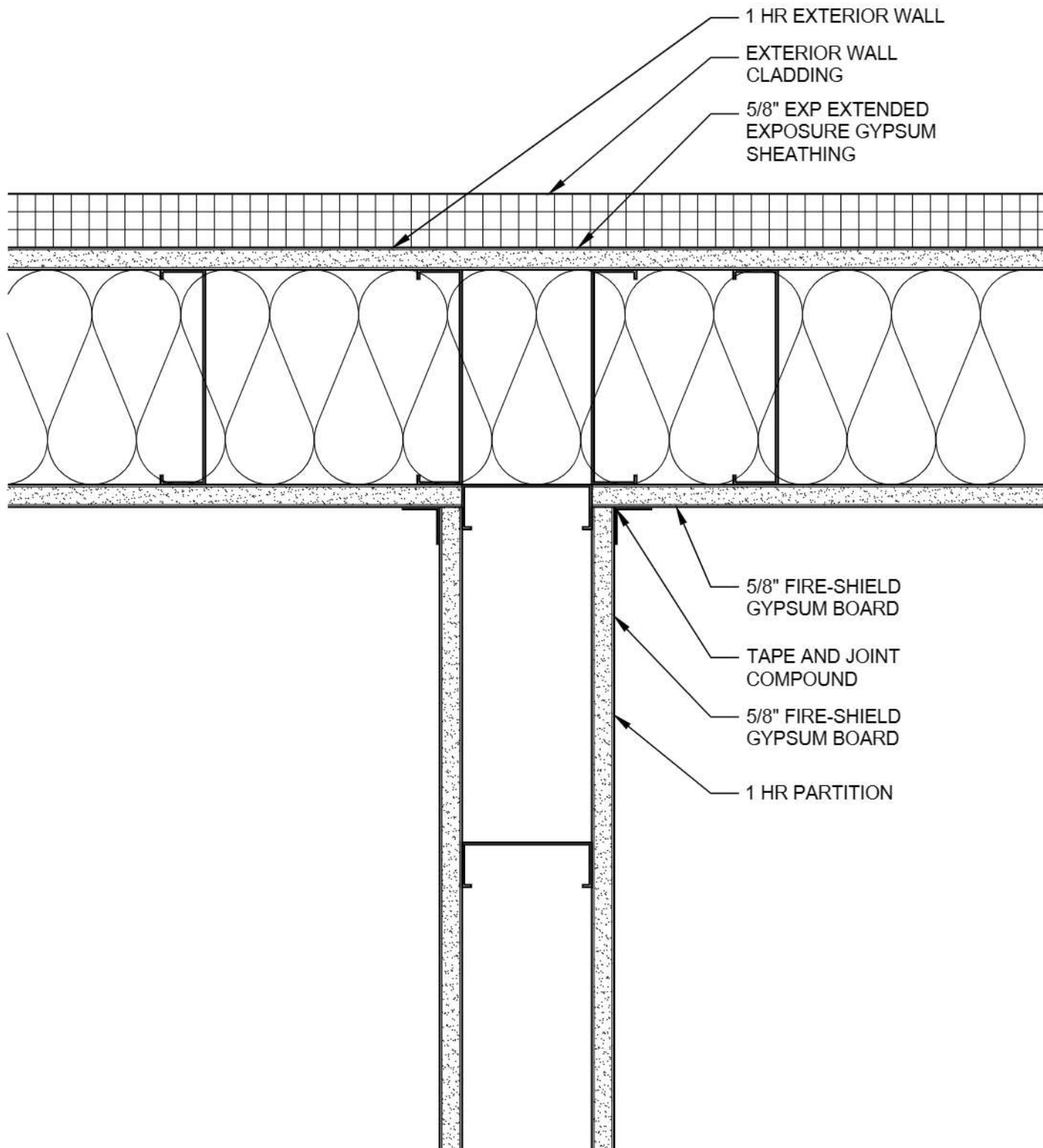
PARTITION - 2 HR
 UL DESIGN: U411
 UL DESIGN: V438



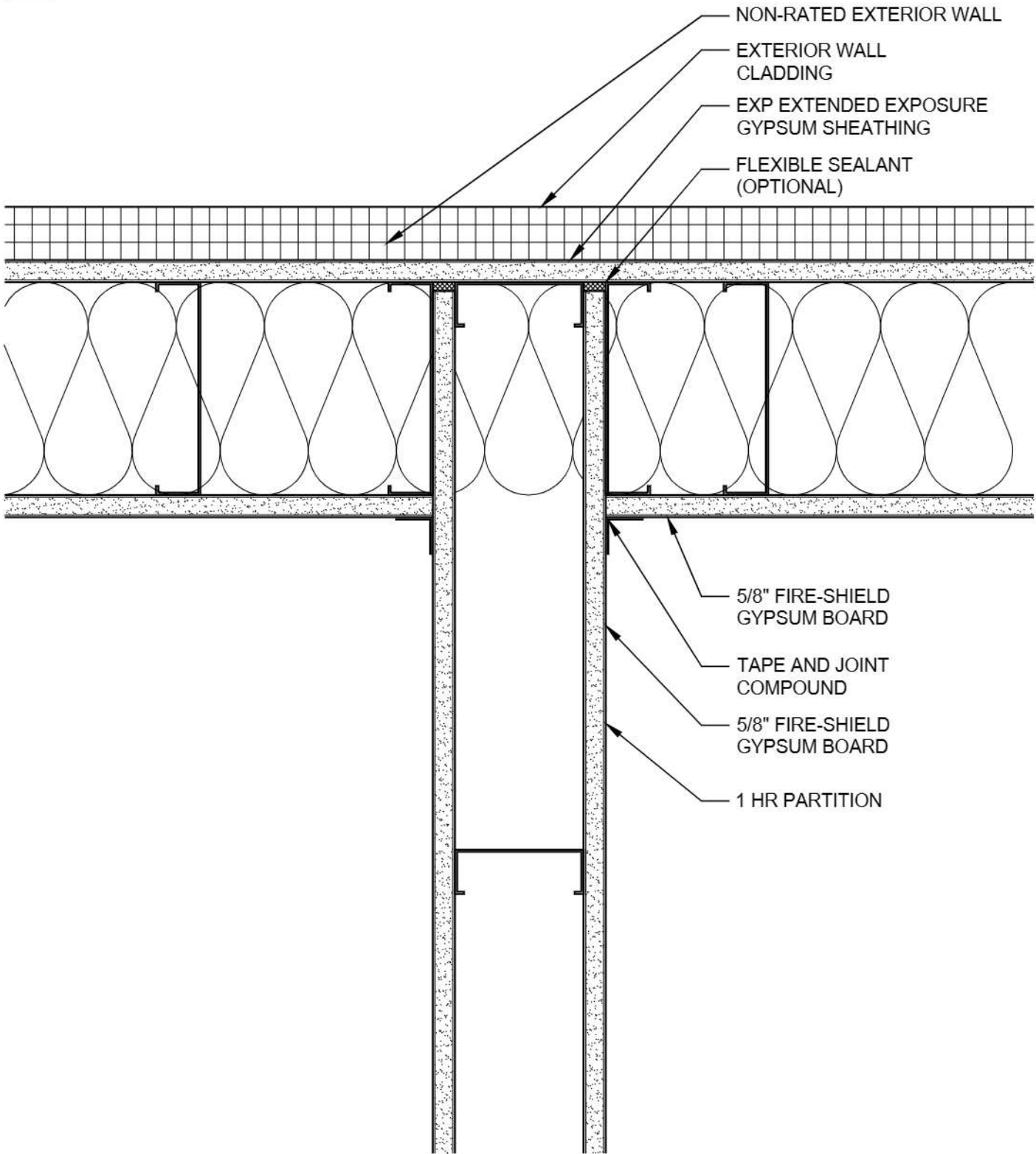
DATE: 09/01/18	INTERSECTIONS OF RATED PARTITIONS	
SCALE: 2"=1'-0"	DETAIL: SS 610	



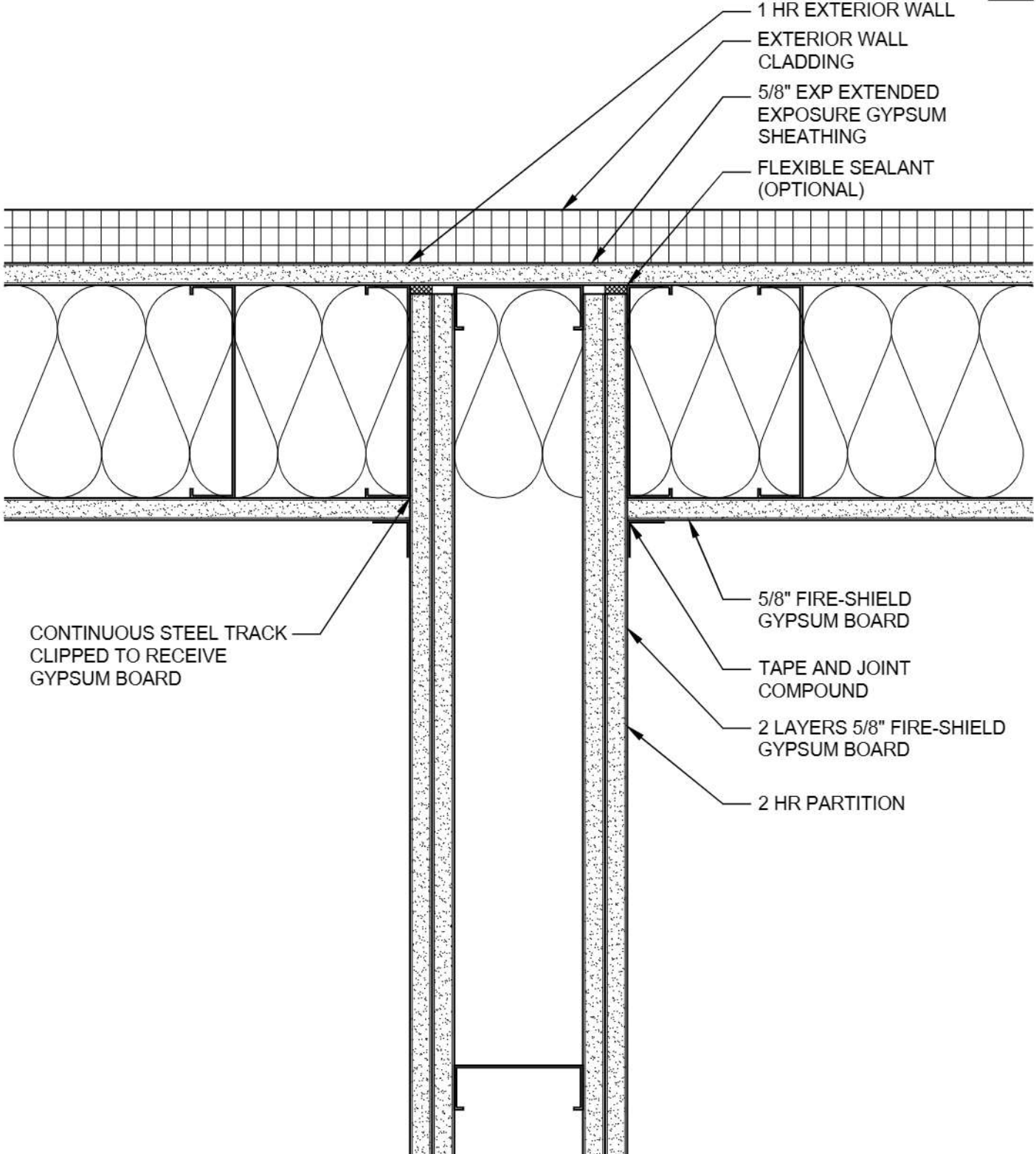
DATE: 09/01/18	1 HOUR PARTITION AT 1 HOUR EXTERIOR WALL	
SCALE: 3"=1'-0"	DETAIL: SS 611	



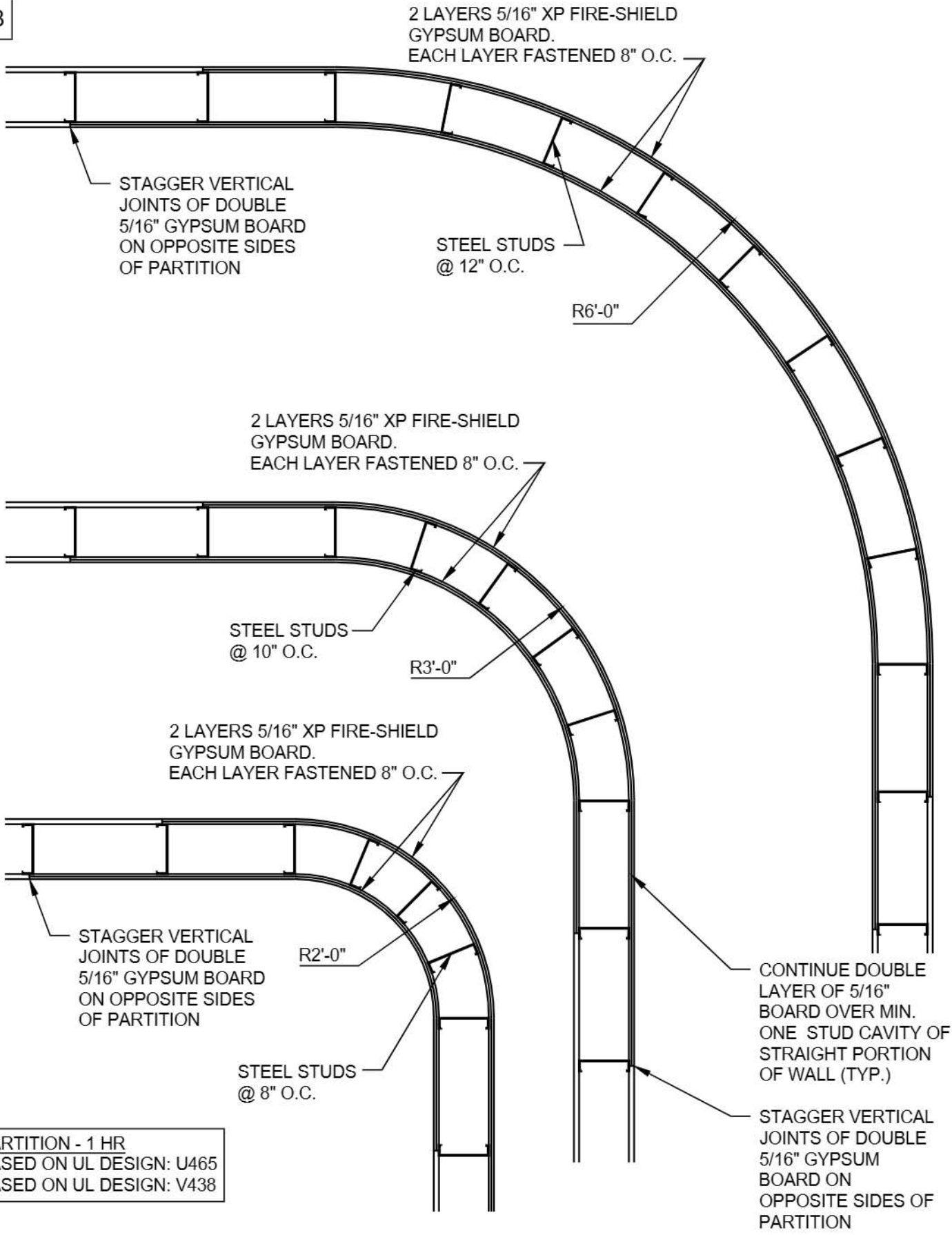
DATE: 09/01/18	1 HOUR PARTITION AT 1 HOUR EXTERIOR WALL	
SCALE: 3"=1'-0"	DETAIL: SS 612	



DATE: 09/01/18	1 HOUR PARTITION AT NON-RATED EXTERIOR WALL	
SCALE: 3"=1'-0"	DETAIL: SS 613	



DATE: 09/01/18	2 HOUR PARTITION AT 1 HOUR EXTERIOR WALL	
SCALE: 3"=1'-0"	DETAIL: SS 614	



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

DATE: 09/01/18	1 HOUR RATED CURVED CORNER DETAILS	
SCALE: 3/4"=1'-0"	DETAIL: SS 615	

4 LAYERS 5/16" XP FIRE-SHIELD GYPSUM BOARD

STAGGER VERTICAL BASE LAYER JOINTS OF DOUBLE 5/16" GYPSUM BOARD ON OPPOSITE SIDES OF PARTITION

CONTINUE INNER 2 LAYERS OF 5/16" BOARD OVER MIN. ONE STUD CAVITY OF STRAIGHT PORTION OF WALL (TYP.)

R6'-0"

STEEL STUDS @ 12" O.C.

STEEL STUDS @ 10" O.C.

R3'-0"

4 LAYERS 5/16" XP FIRE-SHIELD GYPSUM BOARD

STEEL STUDS @ 8" O.C.

STAGGER VERTICAL BASE LAYER JOINTS OF DOUBLE 5/16" GYPSUM BOARD ON OPPOSITE SIDES OF PARTITION

R2'-0"

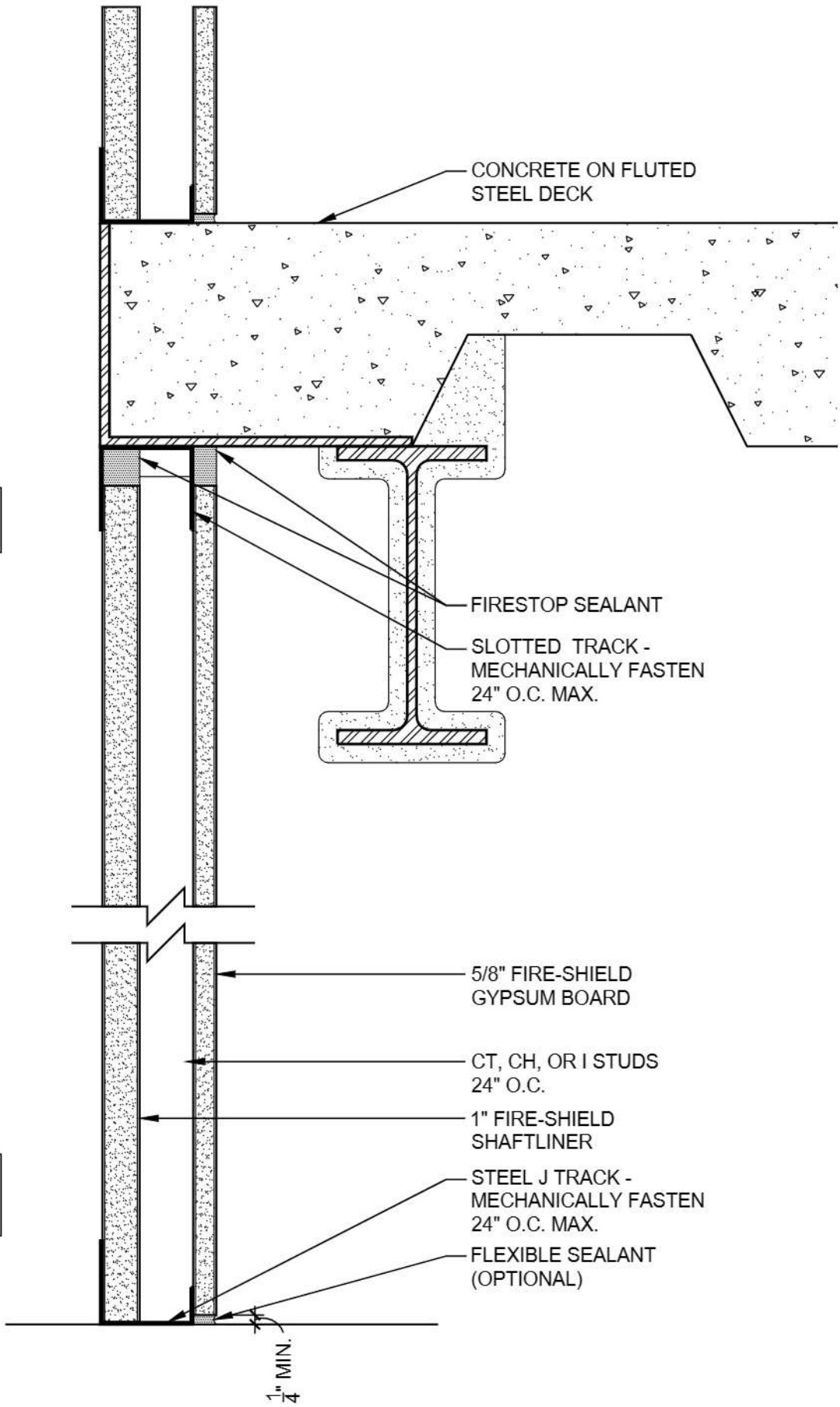
STAGGER VERTICAL BASE LAYER JOINTS OF DOUBLE 5/16" GYPSUM BOARD ON OPPOSITE SIDES OF PARTITION

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

DATE: 09/01/18	2 HOUR RATED CURVED CORNER DETAILS	
SCALE: 3/4"=1'-0"	DETAIL: SS 616	

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

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



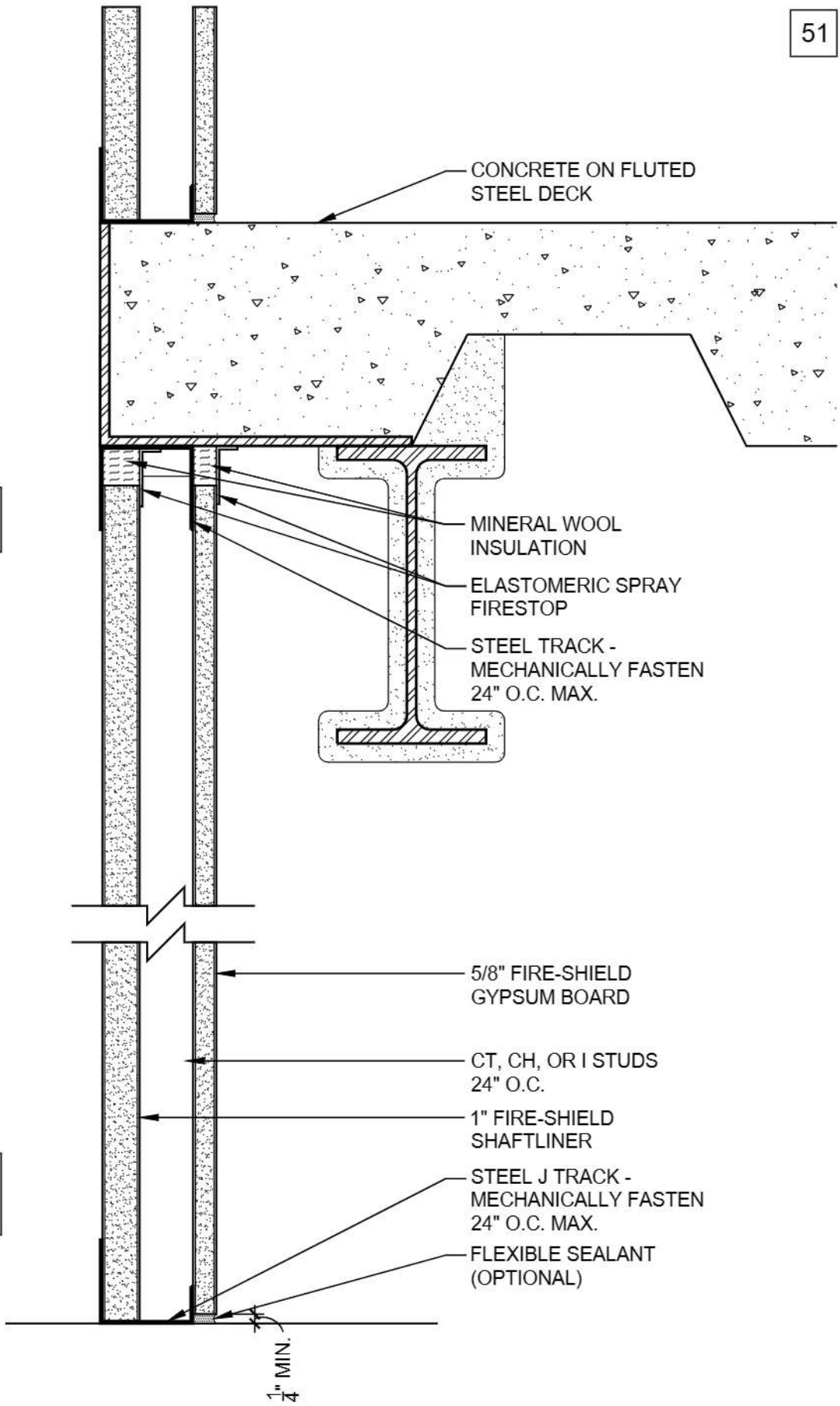
DATE: 09/01/18
SCALE: 3"=1'-0"

1 HOUR SHAFTWALL WITH DEFLECTION TRACK
DETAIL: SW 102

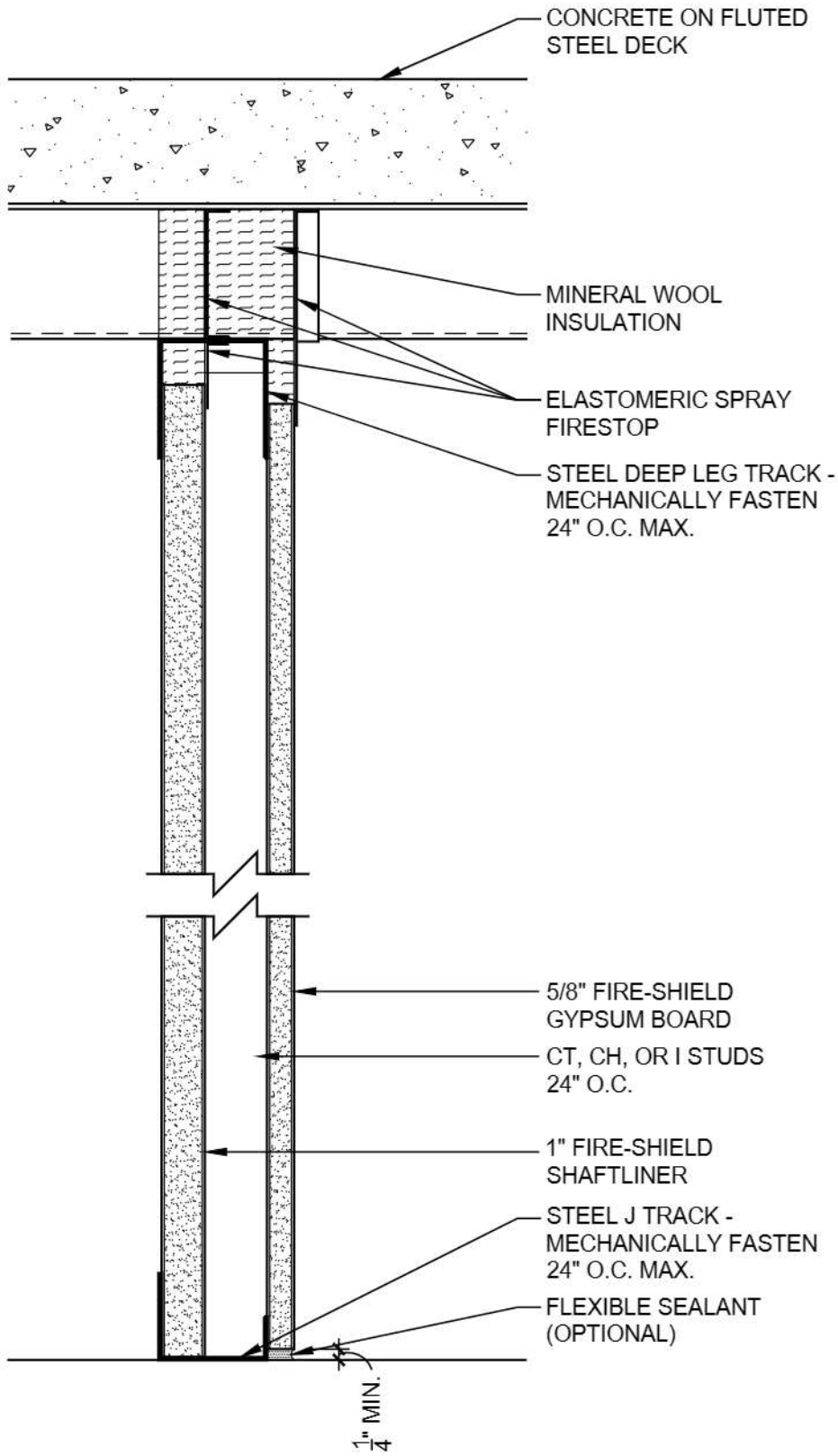


HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0572

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



DATE: 09/01/18	1 HOUR SHAFTWALL WITH DEFLECTION TRACK	
SCALE: 3"=1'-0"	DETAIL: SW 103	



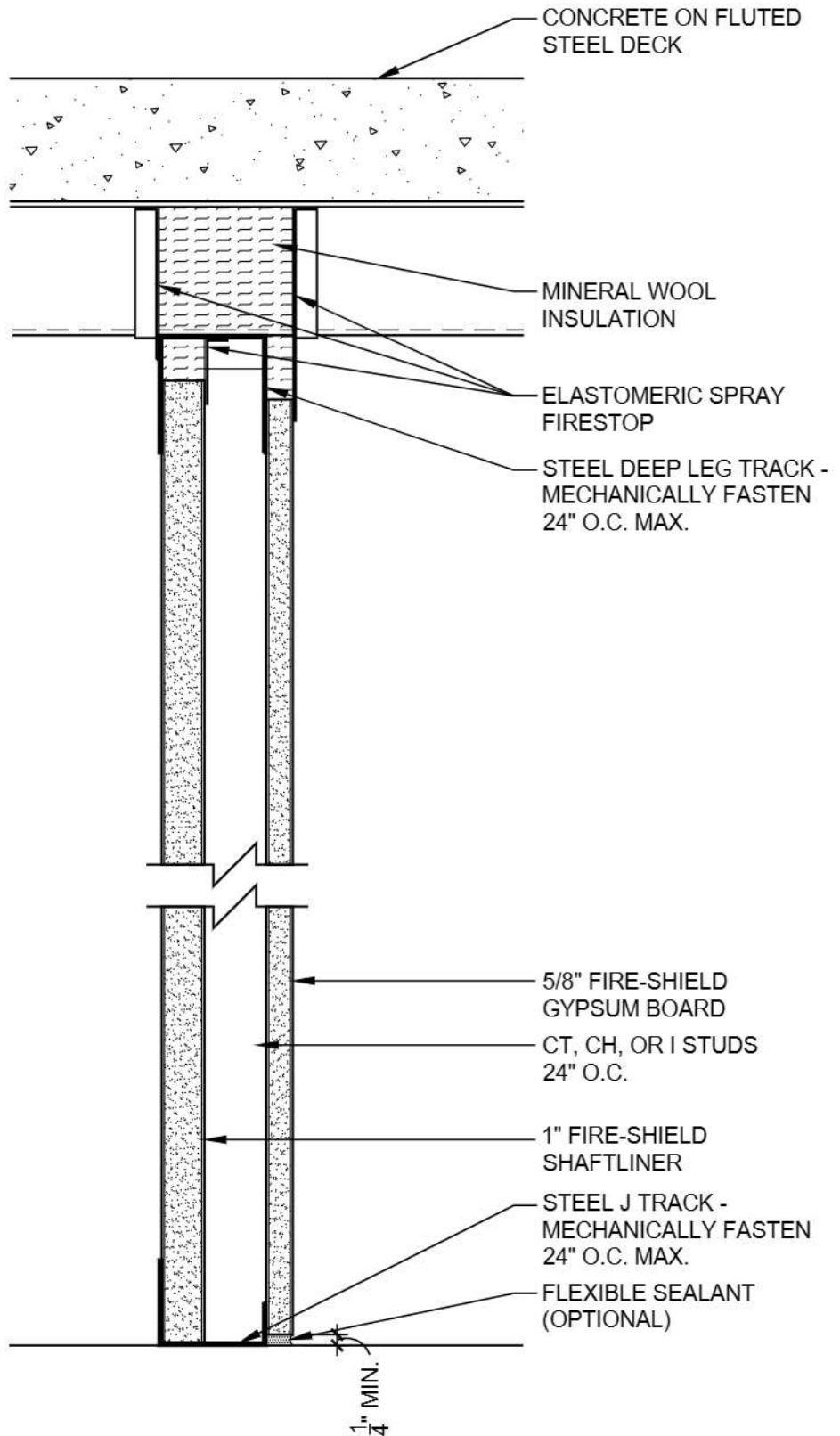
HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0548

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

DATE: 09/01/18	1 HOUR SHAFTWALL TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SW 104	

HEAD OF WALL - 1 HR
UL DESIGN: HW-D-0569

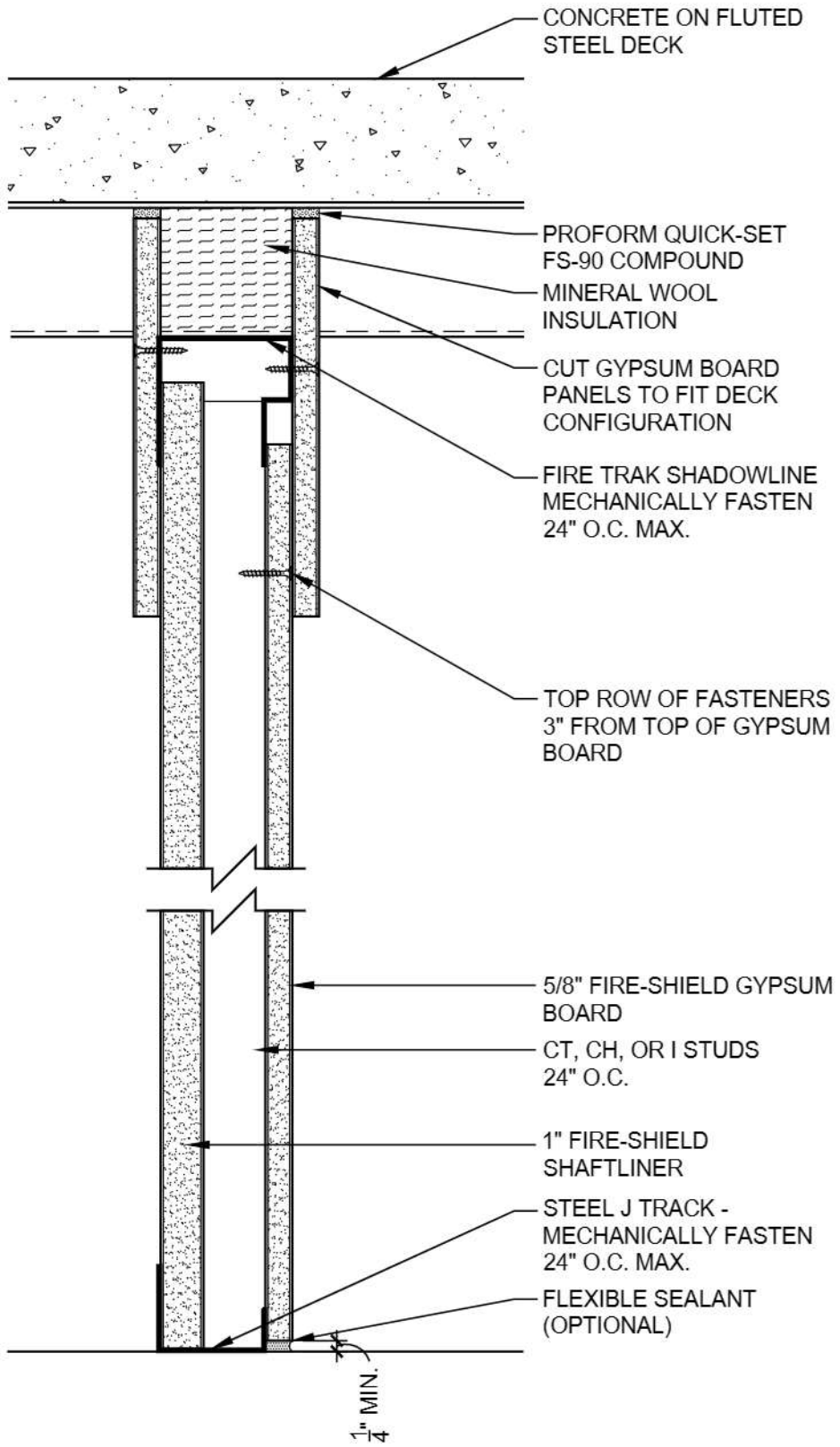
PARTITION - 1 HR
UL DESIGN: U499
UL DESIGN: W419



DATE: 09/01/18	1 HOUR SHAFTWALL TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SW 105	

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

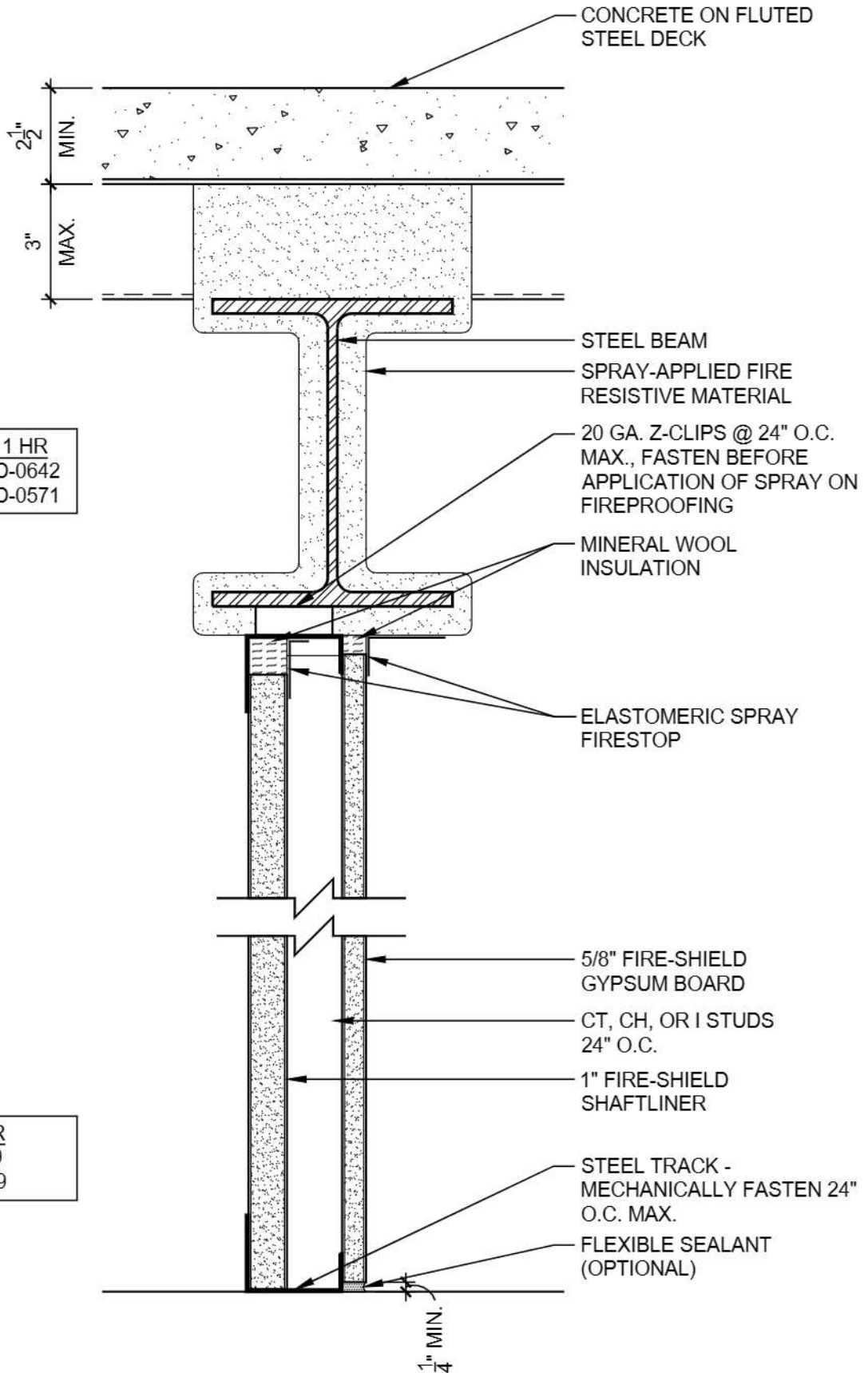
PARTITION - 1 HR
UL DESIGN: U499
UL DESIGN: W419



DATE: 09/01/18	1 HOUR SHAFTWALL WITH DEFLECTION TRACK	
SCALE: 3"=1'-0"	DETAIL: SW 106	

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

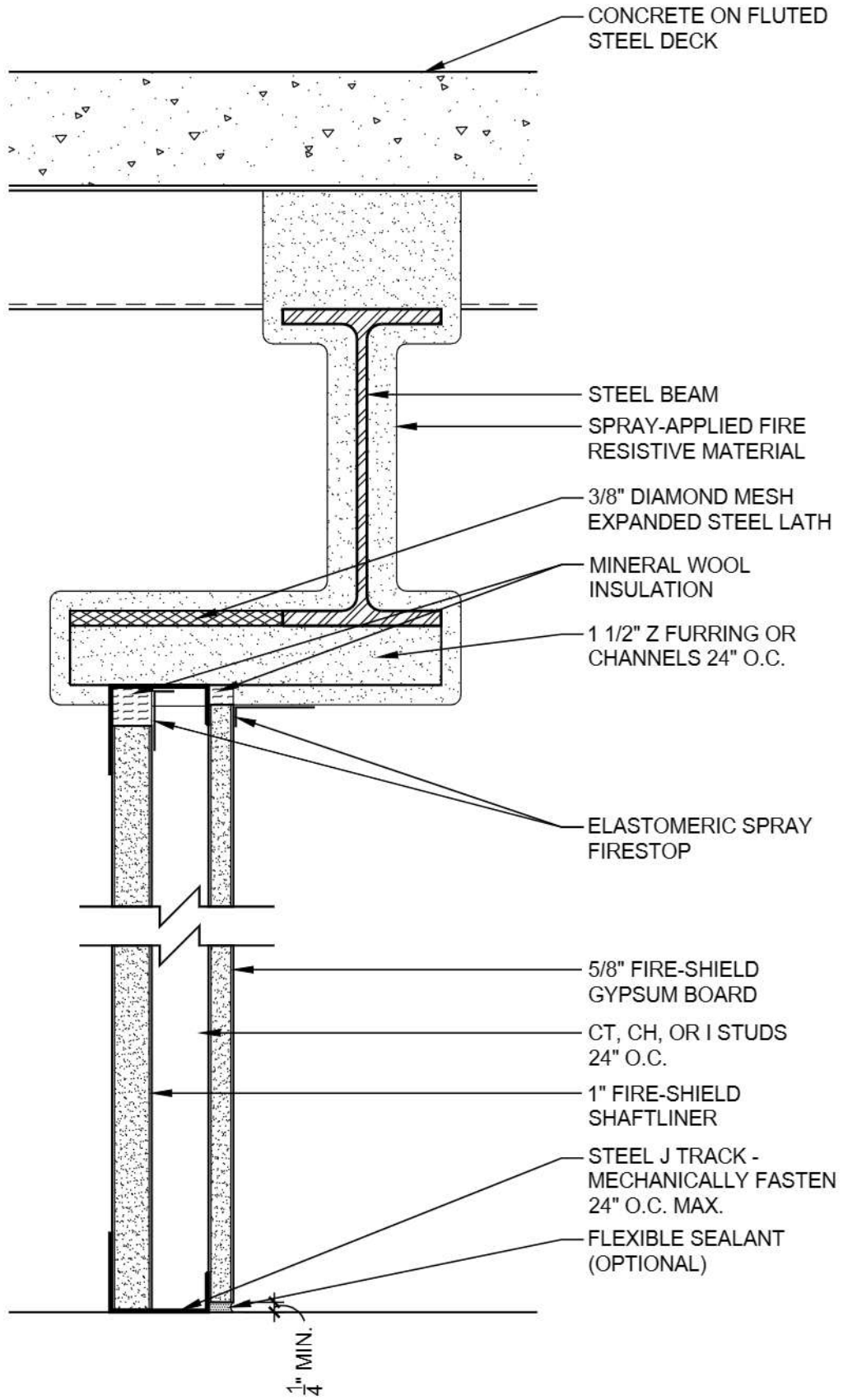
PARTITION - 1 HR
 UL DESIGN: U499
 UL DESIGN: W419



DATE: 09/01/18	1 HOUR SHAFTWALL PARTITION TO STEEL BEAM	
SCALE: 3"=1'-0"	DETAIL: SW 107	

HEAD OF WALL - 1 HR
 UL DESIGN: HW-D-0645
 UL DESIGN: HW-D-0636

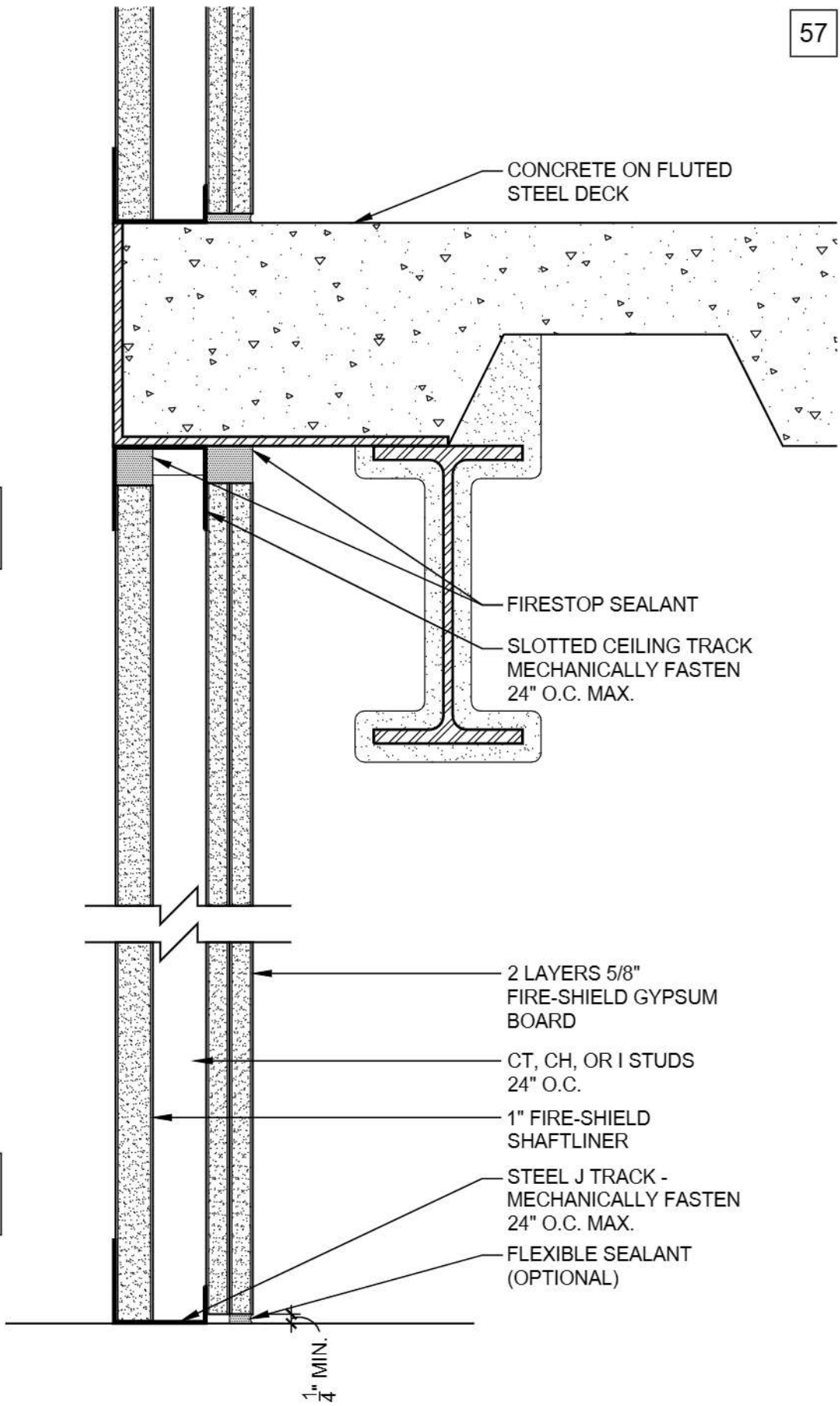
PARTITION - 1 HR
 UL DESIGN: U499
 UL DESIGN: W419



DATE: 09/01/18	1 HOUR SHAFTWALL PARTITION OFFSET FROM BEAM	
SCALE: 3"=1'-0"	DETAIL: SW 108	

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

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



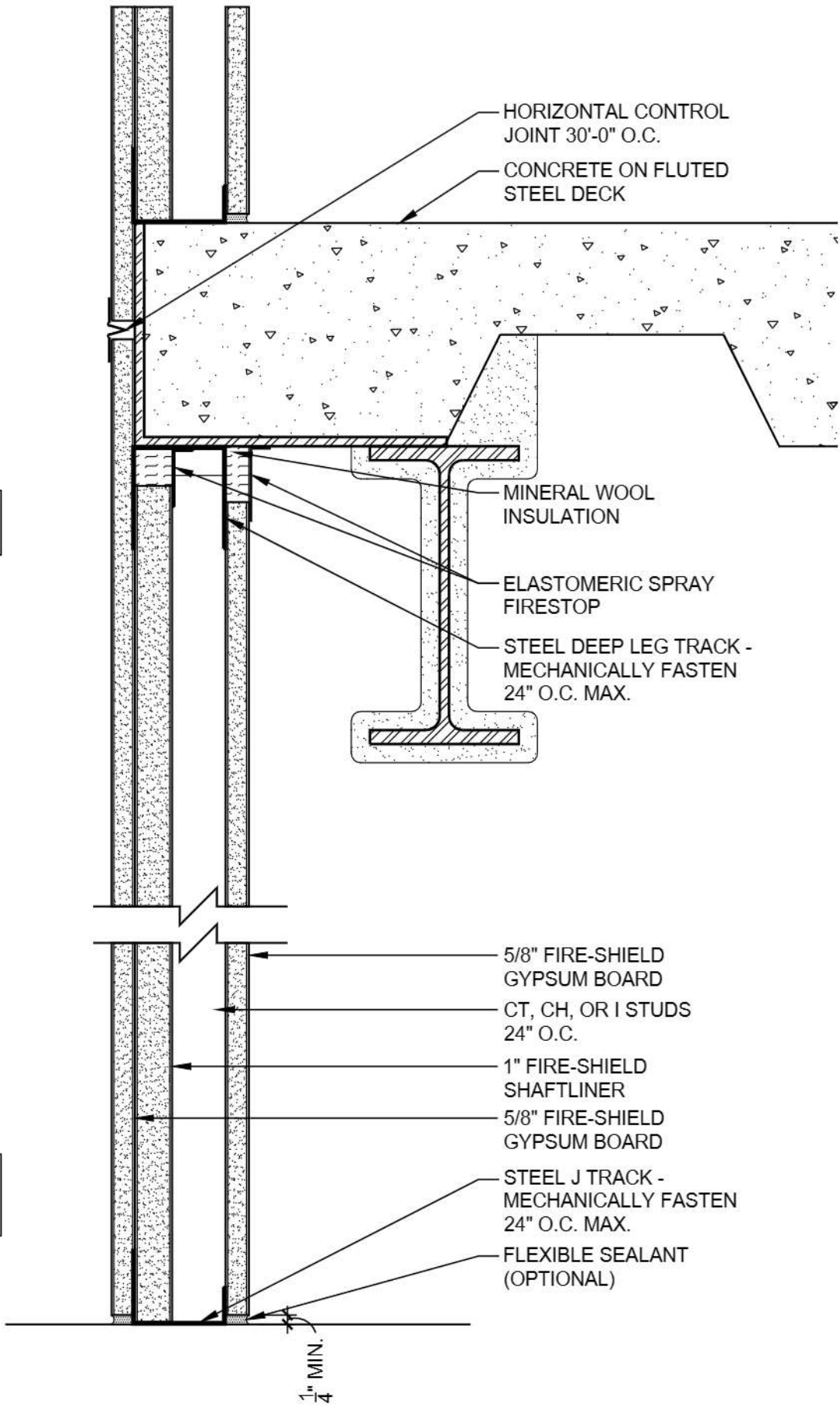
DATE: 09/01/18
SCALE: 3"=1'-0"

2 HOUR SHAFTWALL WITH DEFLECTION TRACK
DETAIL: SW 203



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

PARTITION - 2 HR
UL DESIGN: U498
UL DESIGN: W419



HORIZONTAL CONTROL JOINT 30'-0" O.C.
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
5/8" FIRE-SHIELD GYPSUM BOARD

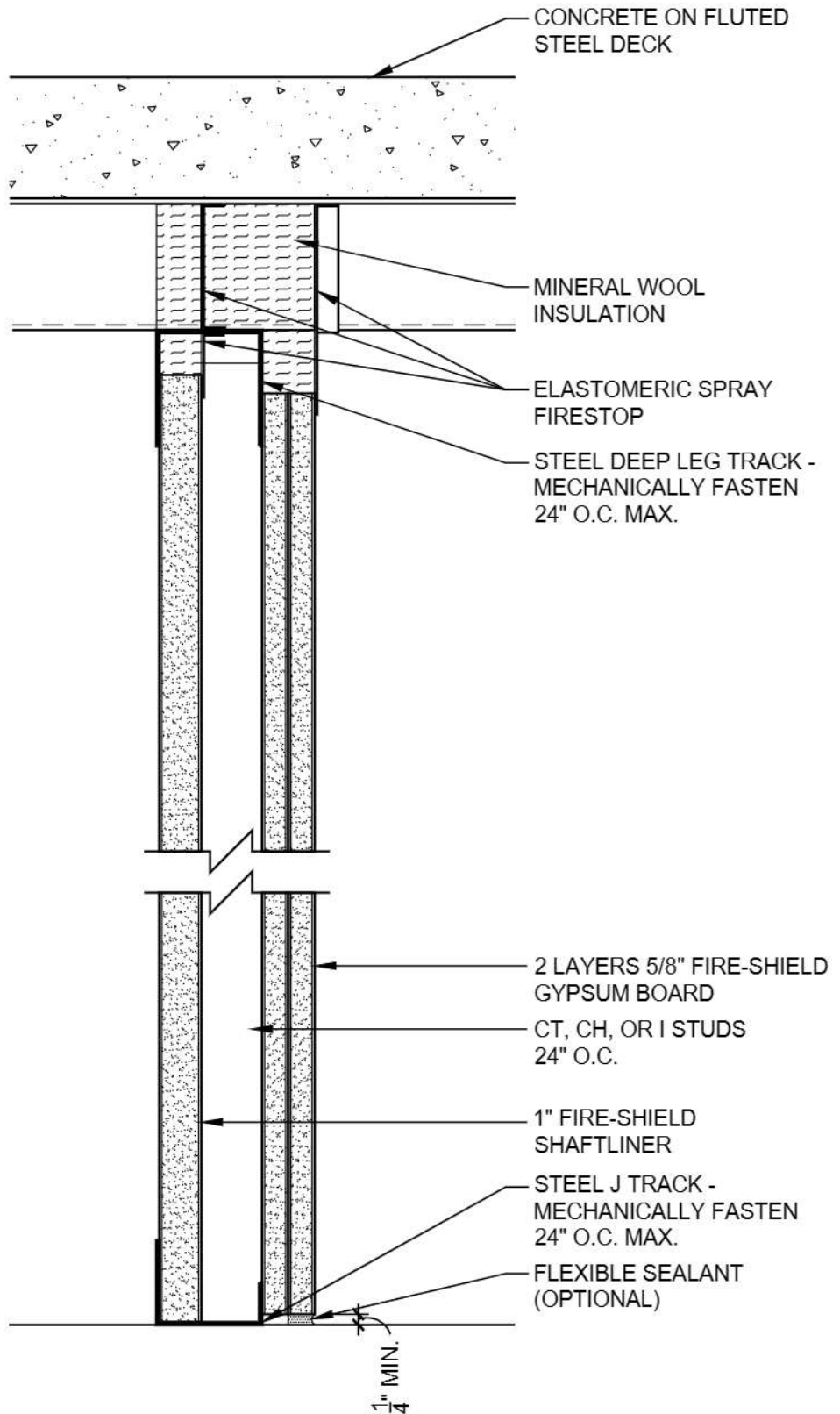
STEEL J TRACK - MECHANICALLY FASTEN 24" O.C. MAX.
FLEXIBLE SEALANT (OPTIONAL)

1/4" MIN.

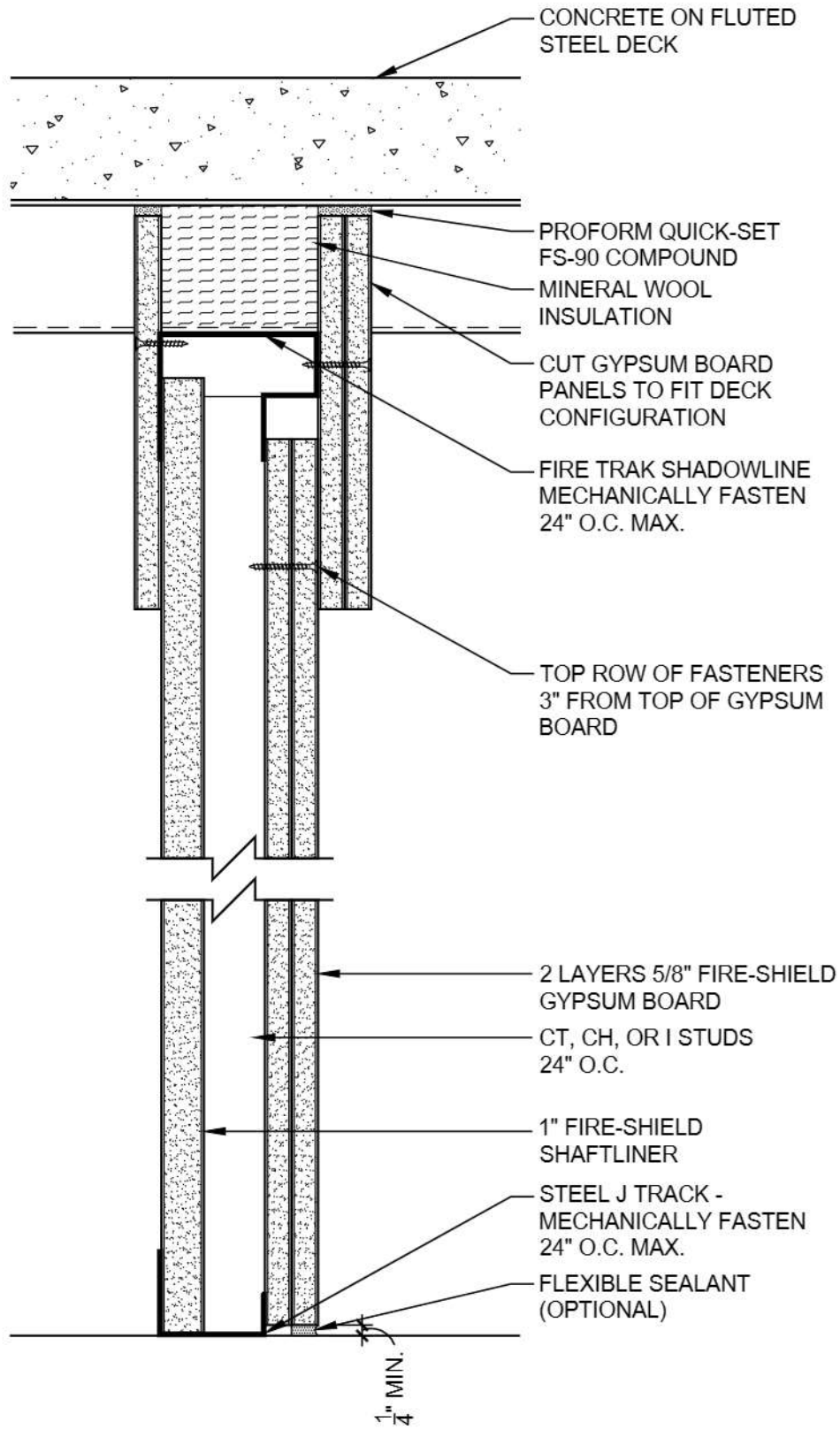
DATE: 09/01/18	2 HOUR SHAFTWALL PARTITION AT STAIR	
SCALE: 3"=1'-0"	DETAIL: SW 204	

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

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



DATE: 09/01/18	2 HOUR SHAFTWALL TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SW 205	



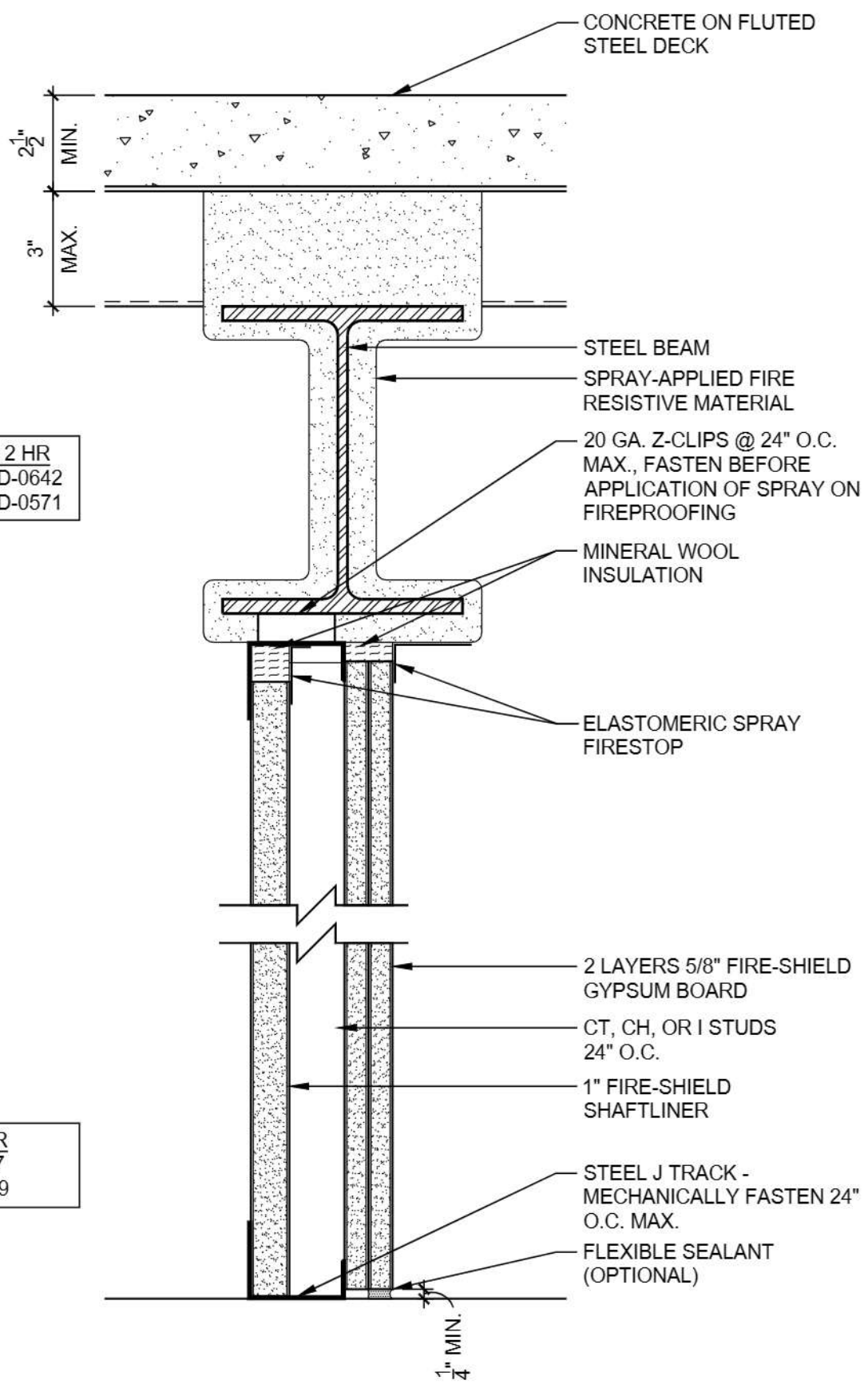
HEAD OF WALL - 2 HR
UL DESIGN: HW-D-0119

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

DATE: 09/01/18	2 HOUR SHAFTWALL WITH DEFLECTION TRACK	
SCALE: 3"=1'-0"	DETAIL: SW 206	

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

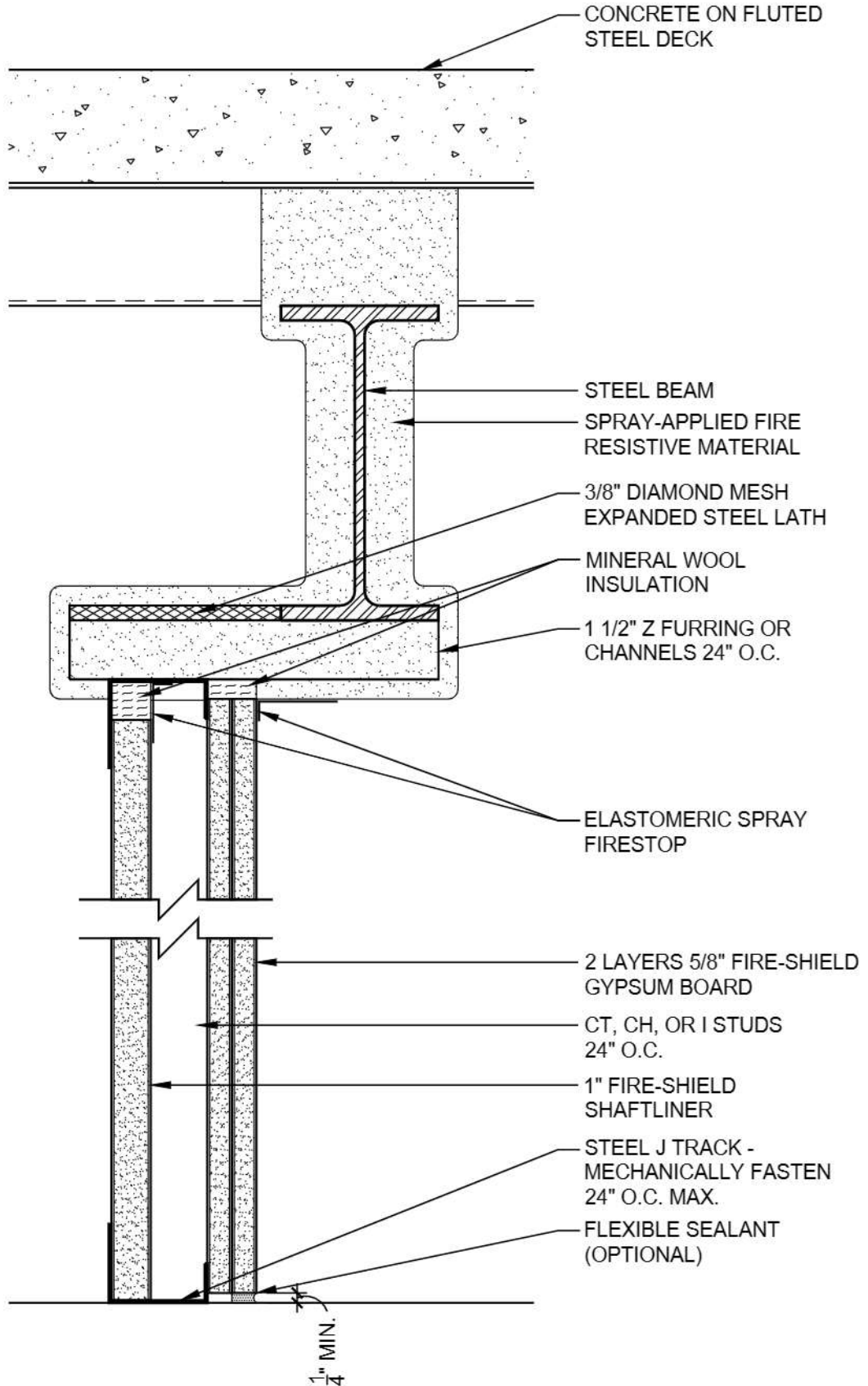
PARTITION - 2 HR
 UL DESIGN: U497
 UL DESIGN: W419



DATE: 09/01/18	2 HOUR SHAFTWALL PARTITION TO STEEL BEAM	
SCALE: 3"=1'-0"	DETAIL: SW 207	

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

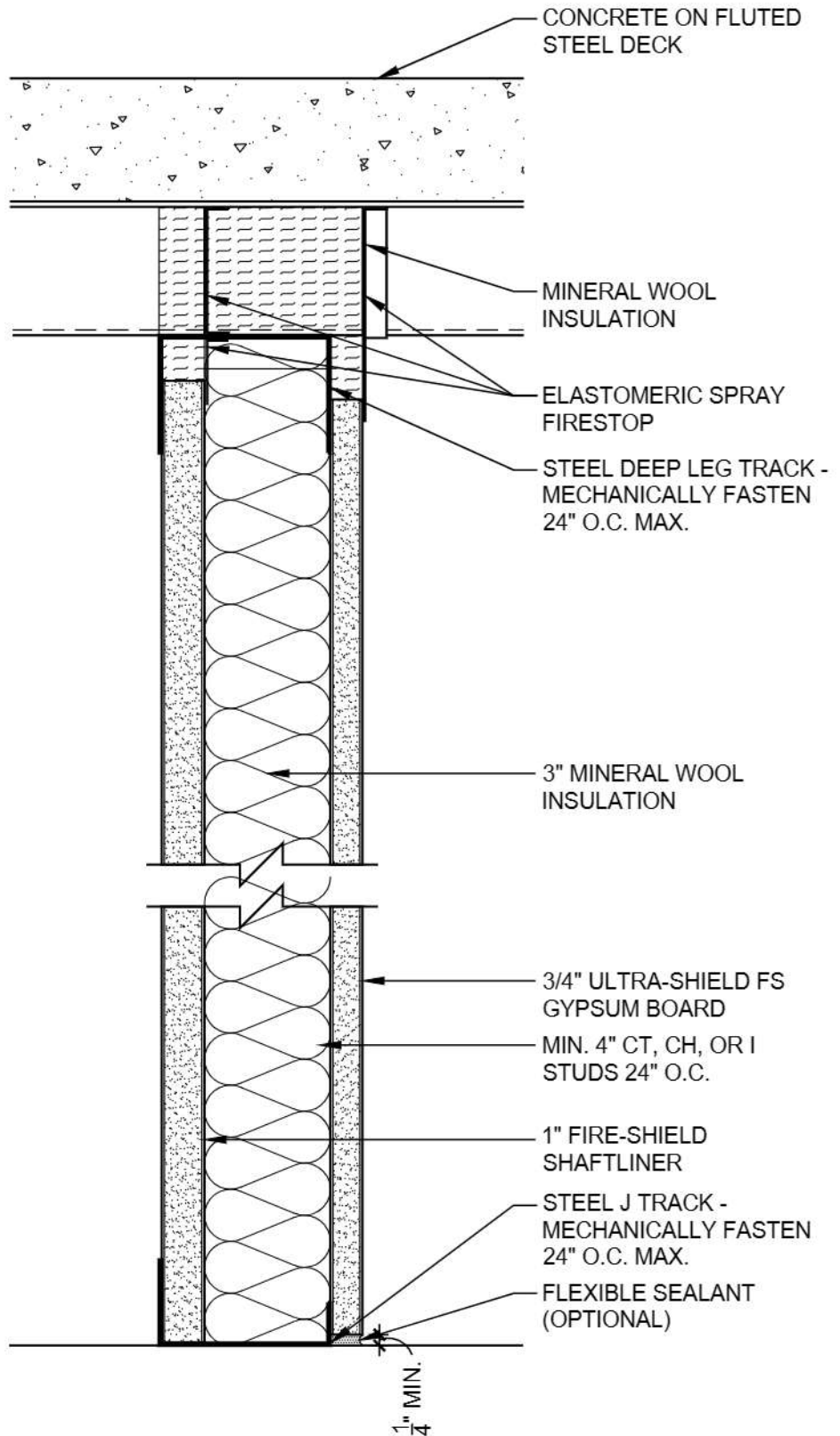
PARTITION - 2 HR
 UL DESIGN: U497
 UL DESIGN: W419



DATE: 09/01/18	2 HOUR SHAFTWALL PARTITION OFFSET FROM BEAM	
SCALE: 3"=1'-0"	DETAIL: SW 208	

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

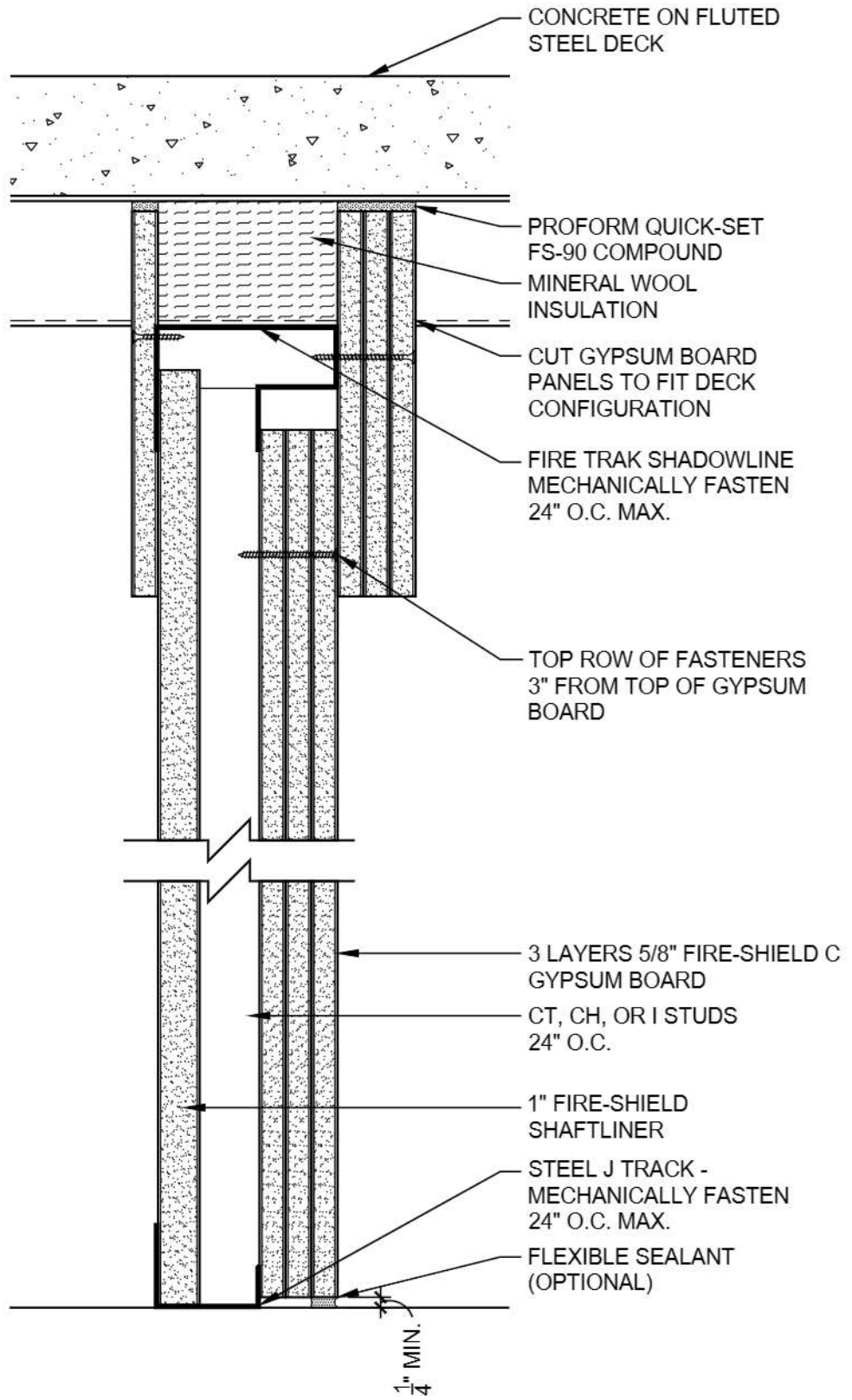
PARTITION - 2 HR
UL DESIGN: W441
UL DESIGN: W419




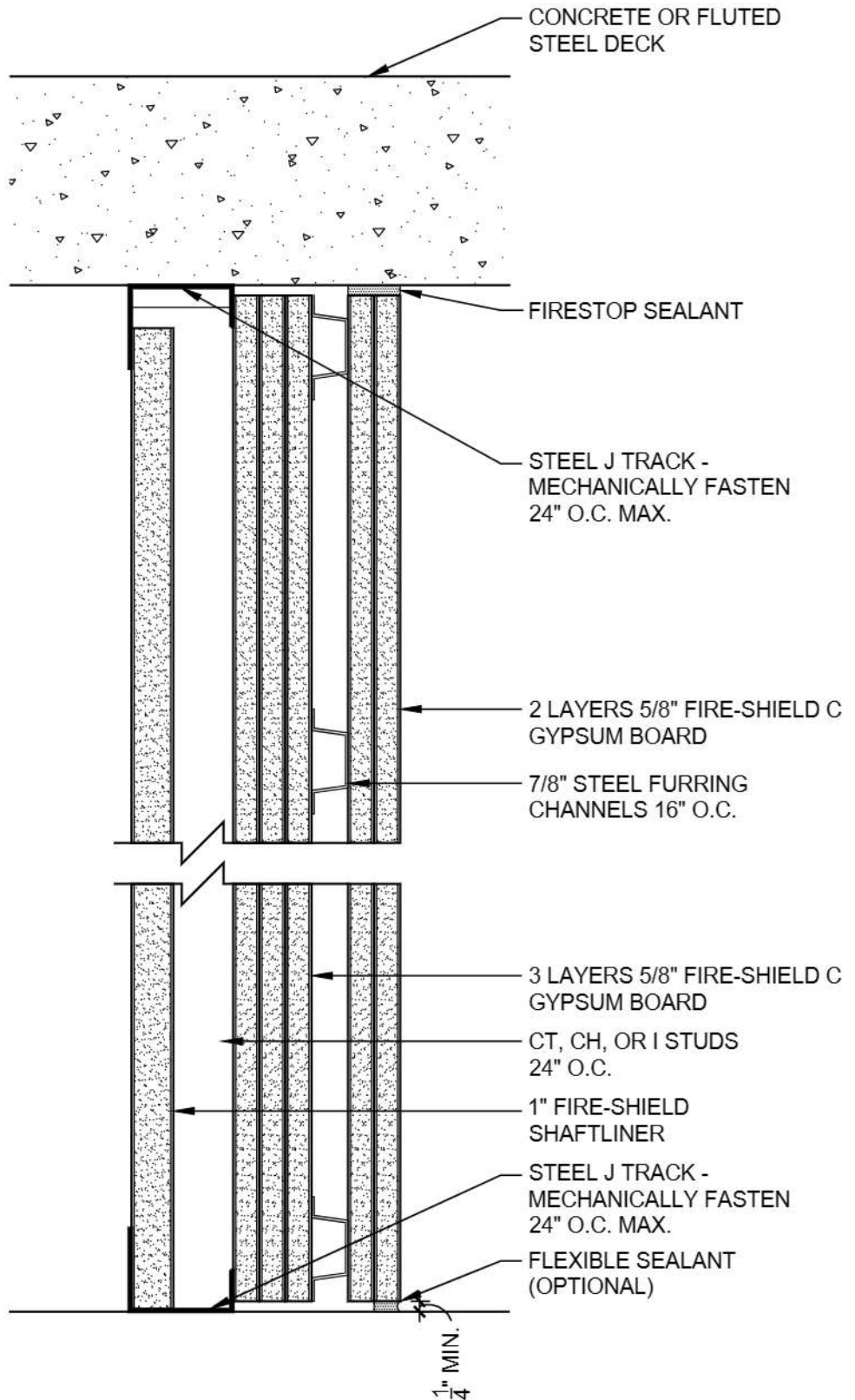
DATE: 09/01/18	2 HOUR SHAFTWALL TO STEEL DECK	
SCALE: 3"=1'-0"	DETAIL: SW 209	

HEAD OF WALL - 3 HR
UL DESIGN: HW-D-0119

PARTITION - 3 HR
UL DESIGN: W414
UL DESIGN: W419

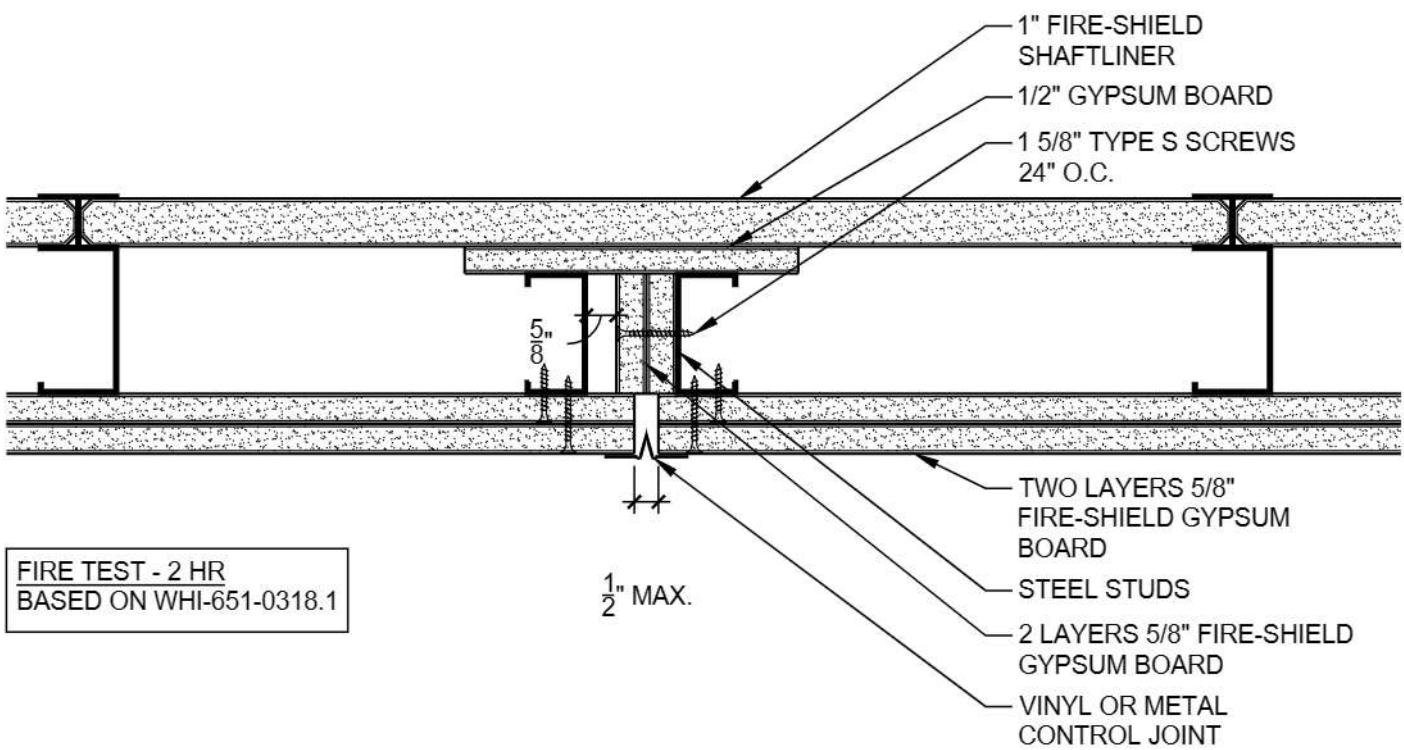
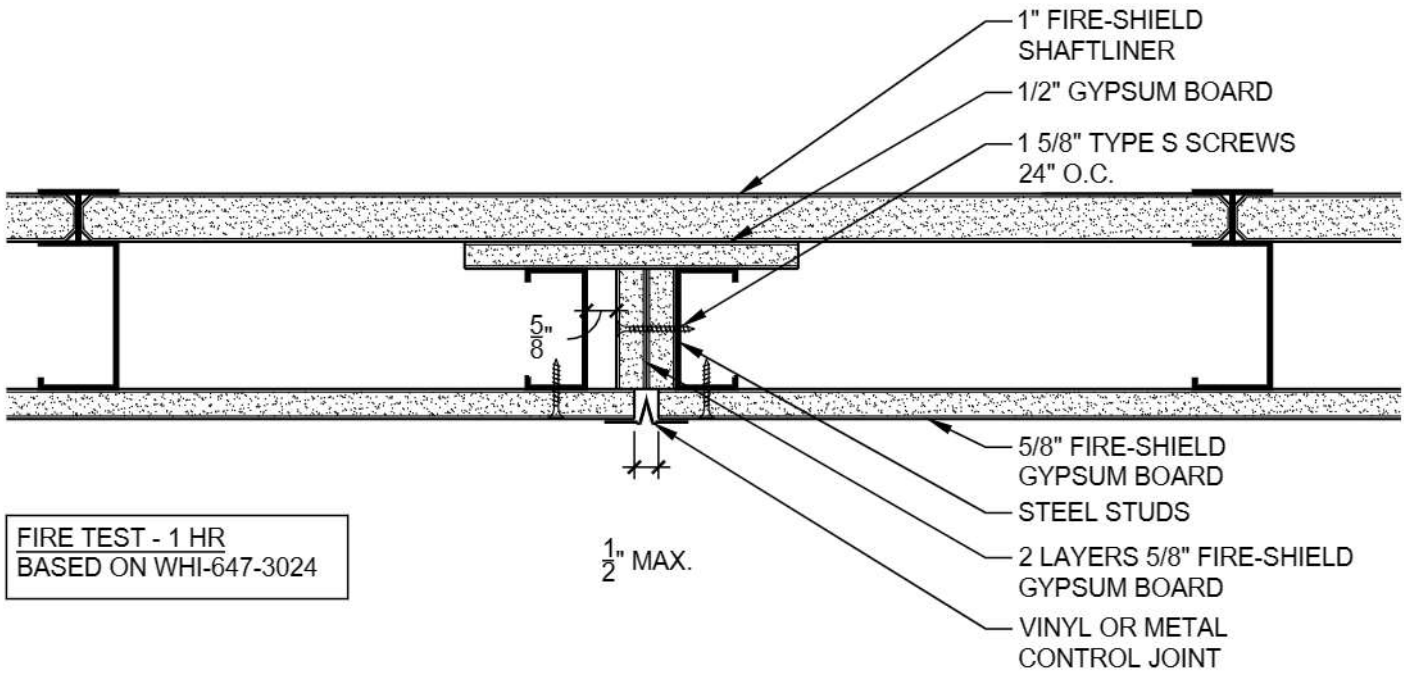


DATE: 09/01/18	3 HOUR SHAFTWALL WITH DEFLECTION TRACK	
SCALE: 3"=1'-0"	DETAIL: SW 301	

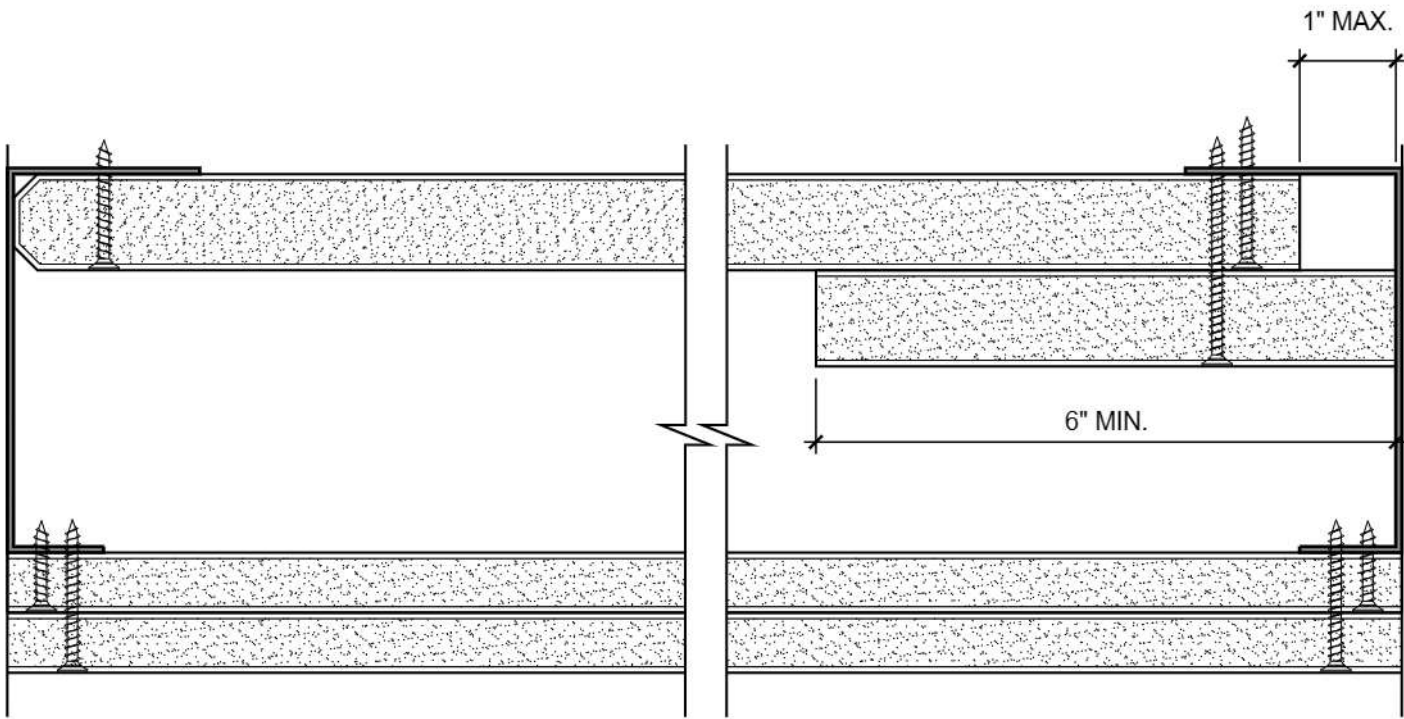


PARTITION - 4 HR
 UL DESIGN: V451
 UL DESIGN: W419

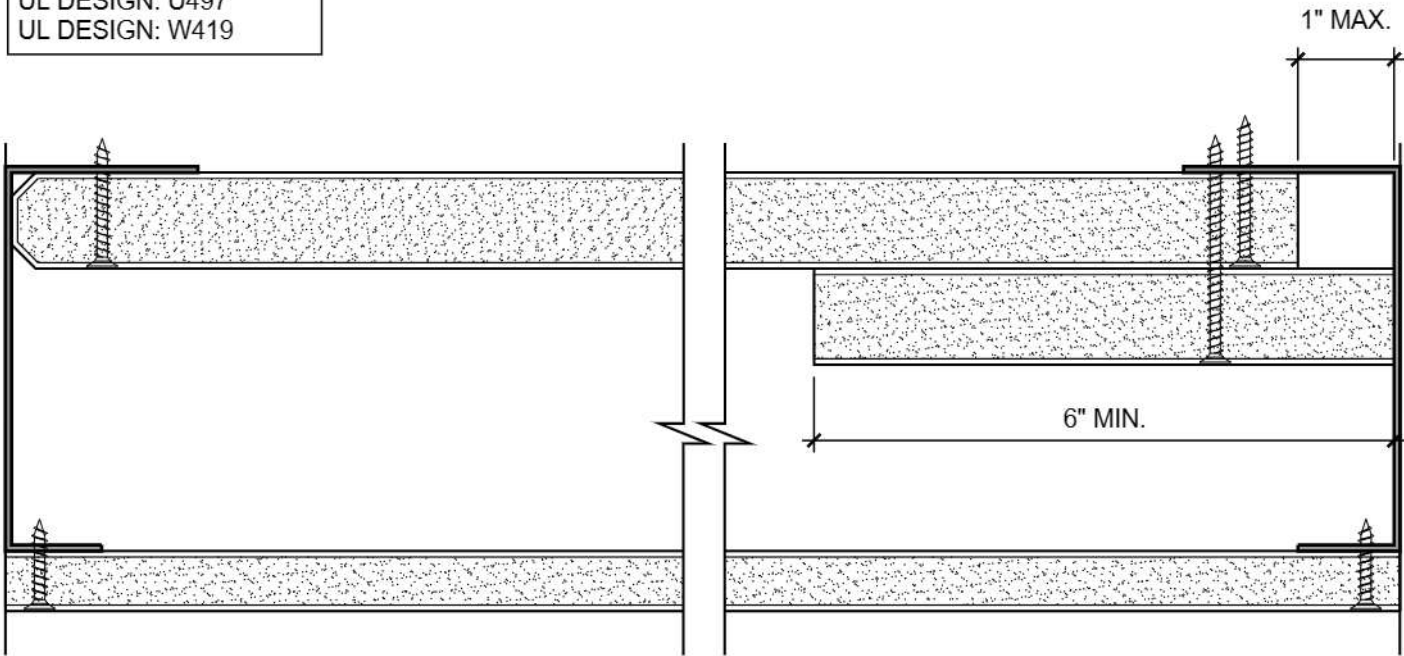
DATE: 09/01/18	4 HOUR SHAFTWALL PARTITION	
SCALE: 3"=1'-0"	DETAIL: SW 401	



DATE: 09/01/18	CONTROL JOINTS FOR SHAFTWALL SYSTEMS	
SCALE: 3"=1'-0"	DETAIL: SW 501	

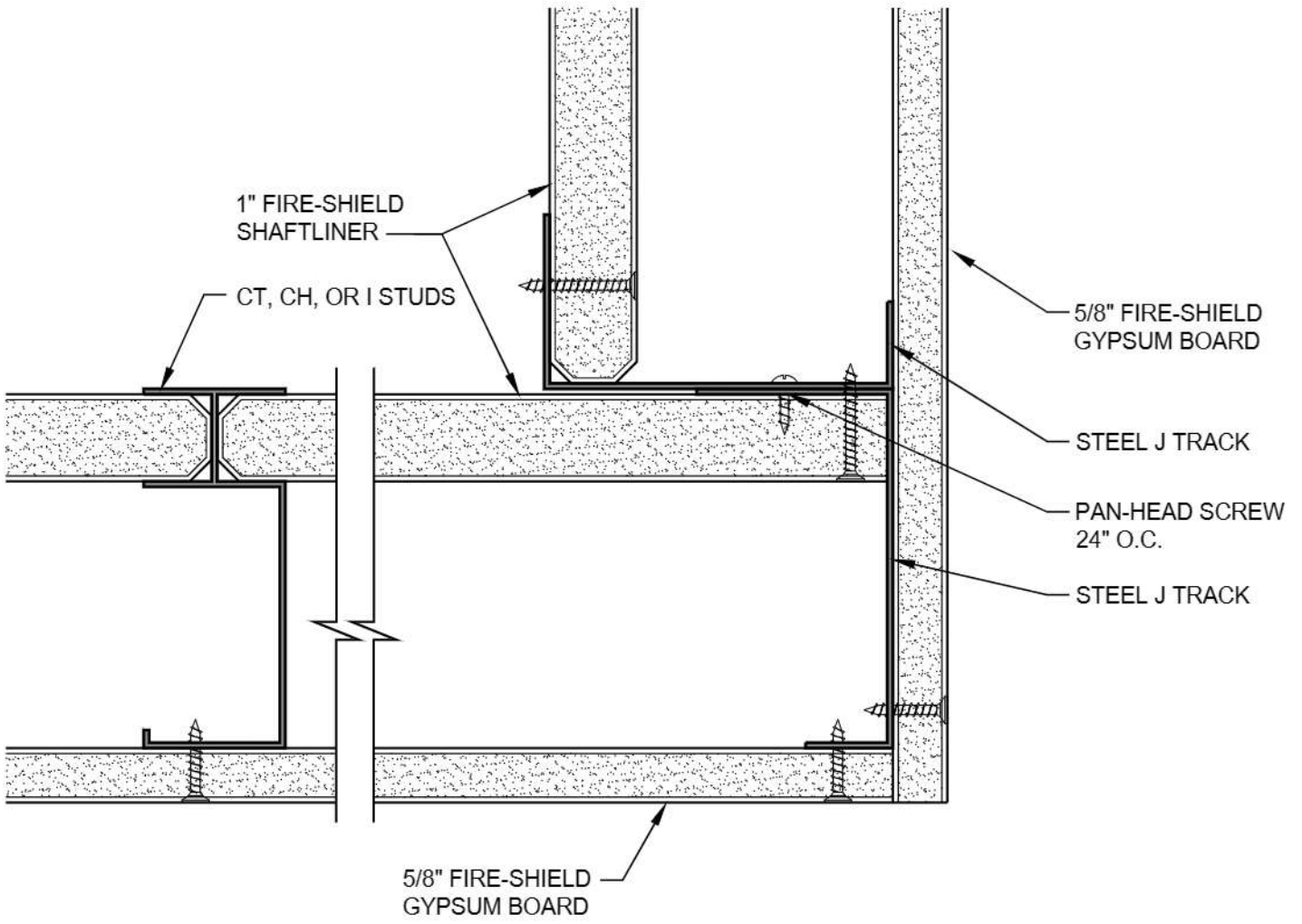


PARTITION - 2 HR
UL DESIGN: U497
UL DESIGN: W419

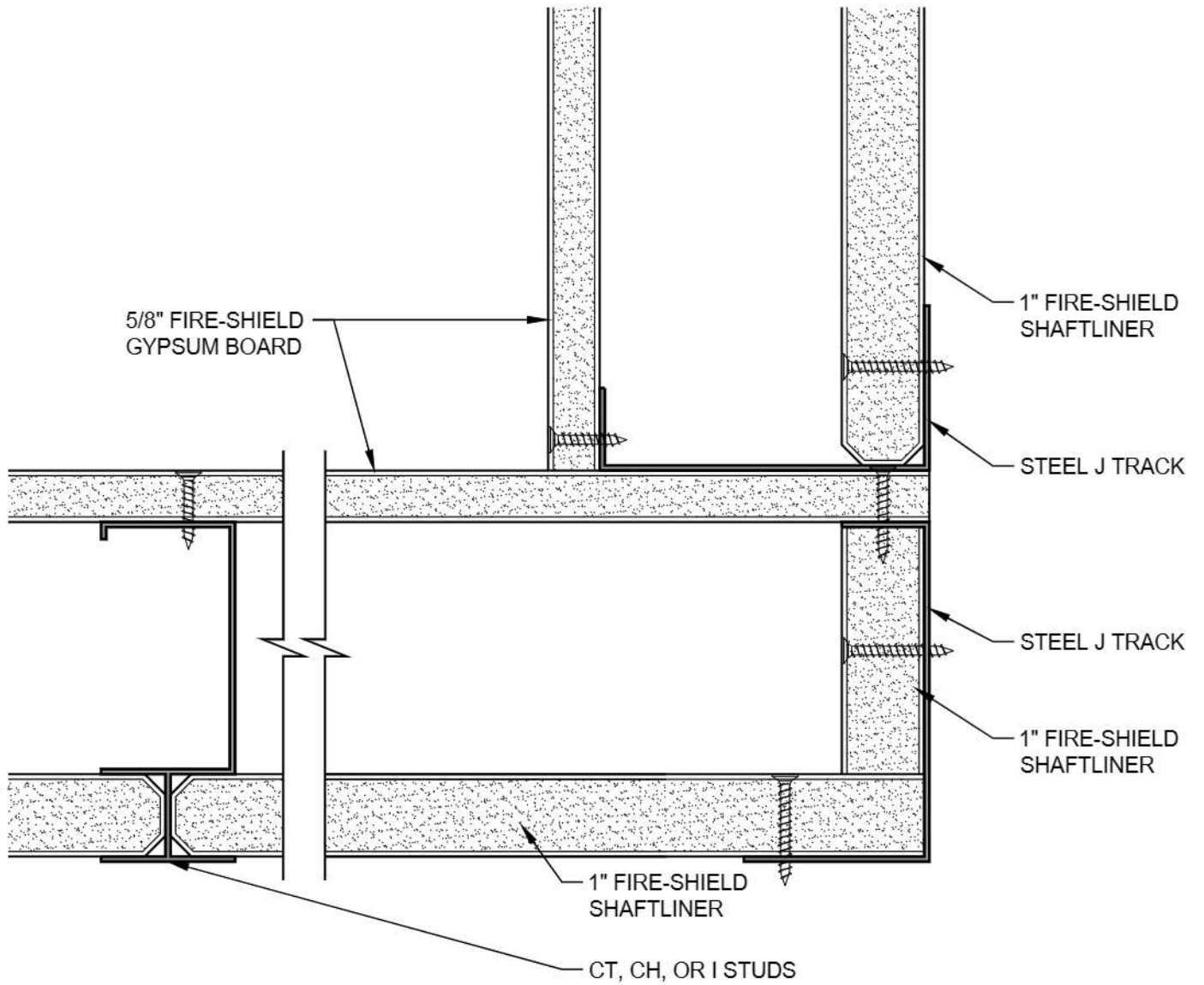


PARTITION - 1 HR
UL DESIGN: U499
UL DESIGN: W419

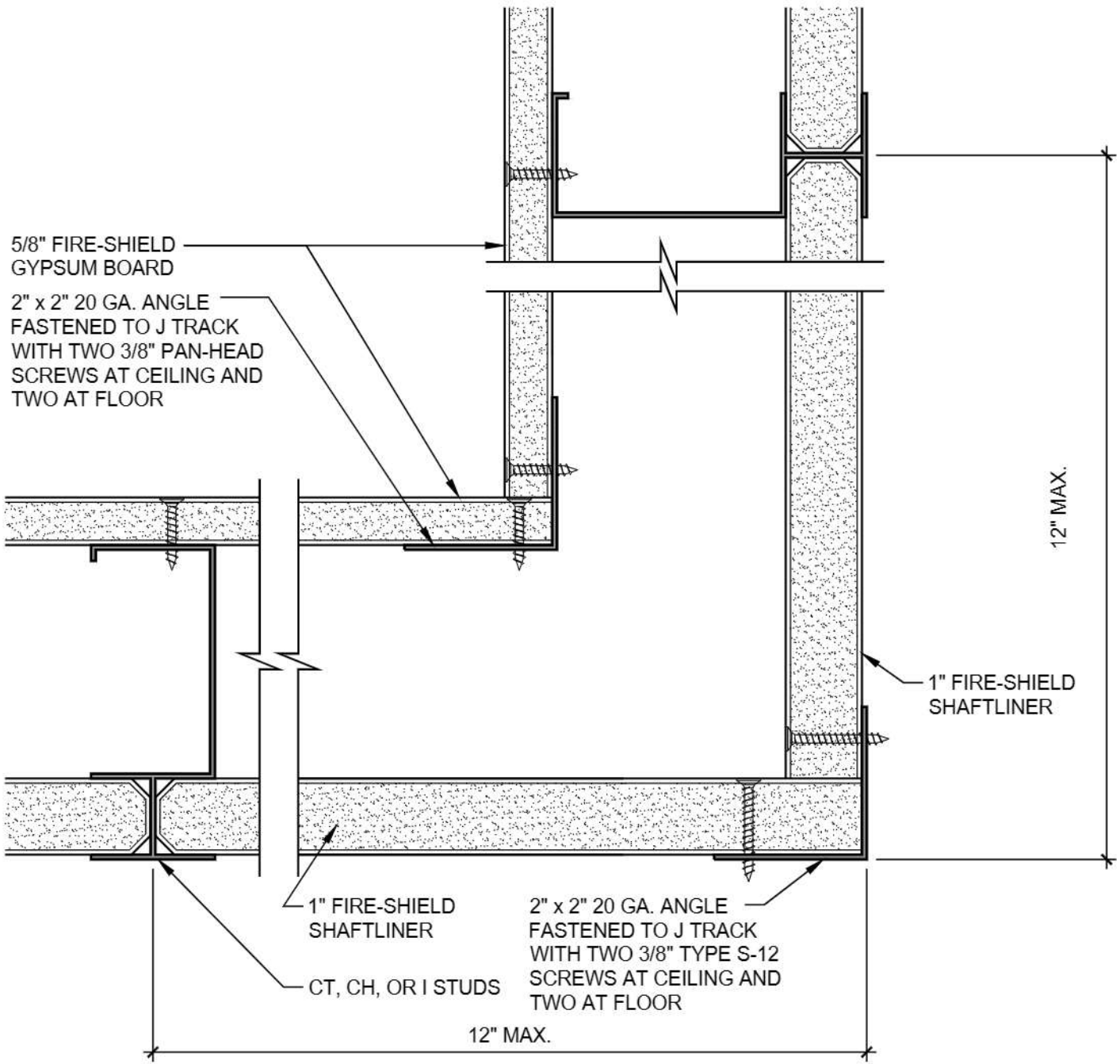
DATE: 09/01/18	SHAFTWALL END CONDITIONS	
SCALE: 6"=1'-0"	DETAIL: SW 601	



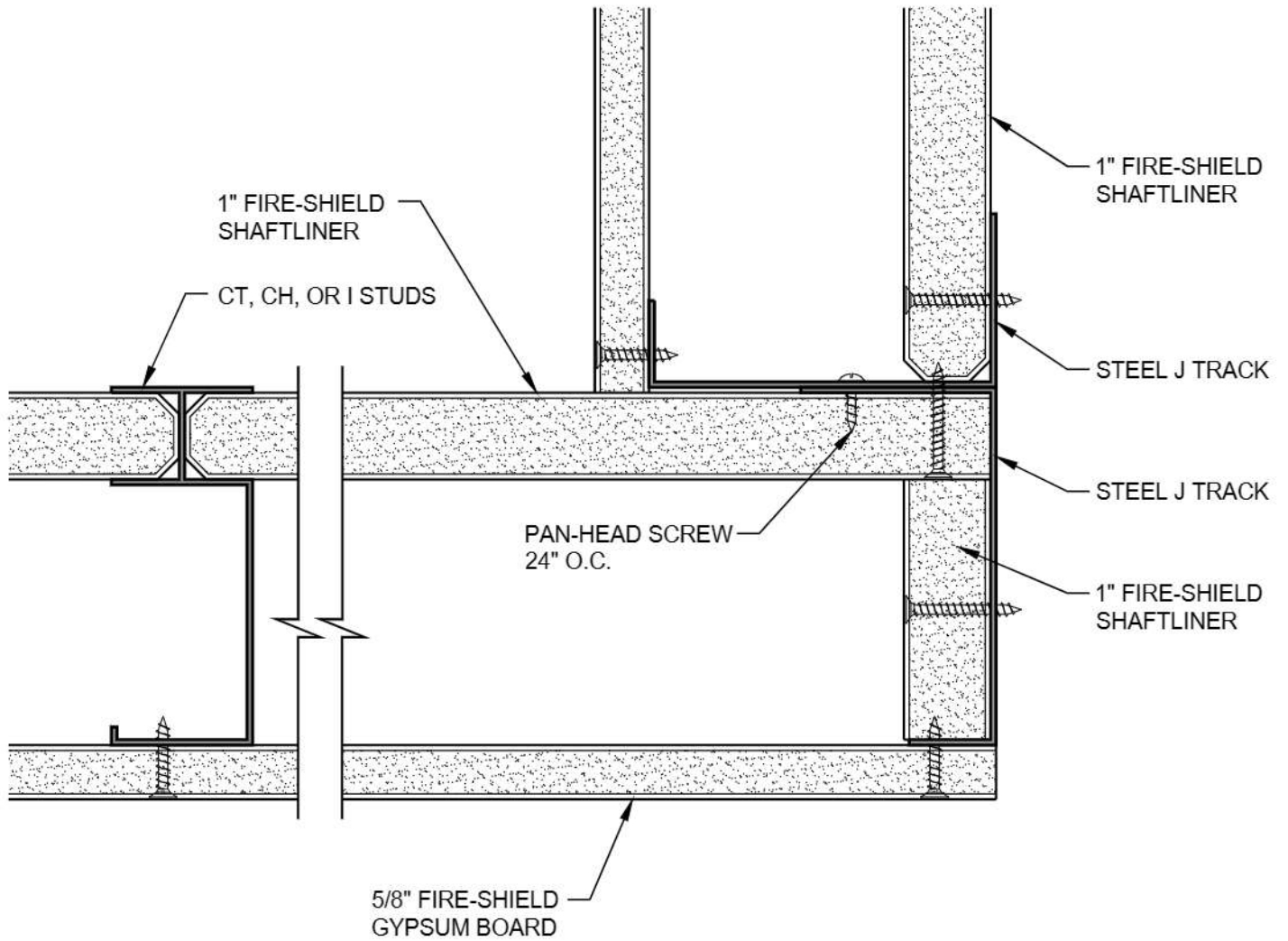
DATE: 09/01/18	1 HOUR SHAFTWALL CORNER DETAIL	
SCALE: 6"=1'-0"	DETAIL: SW 610	



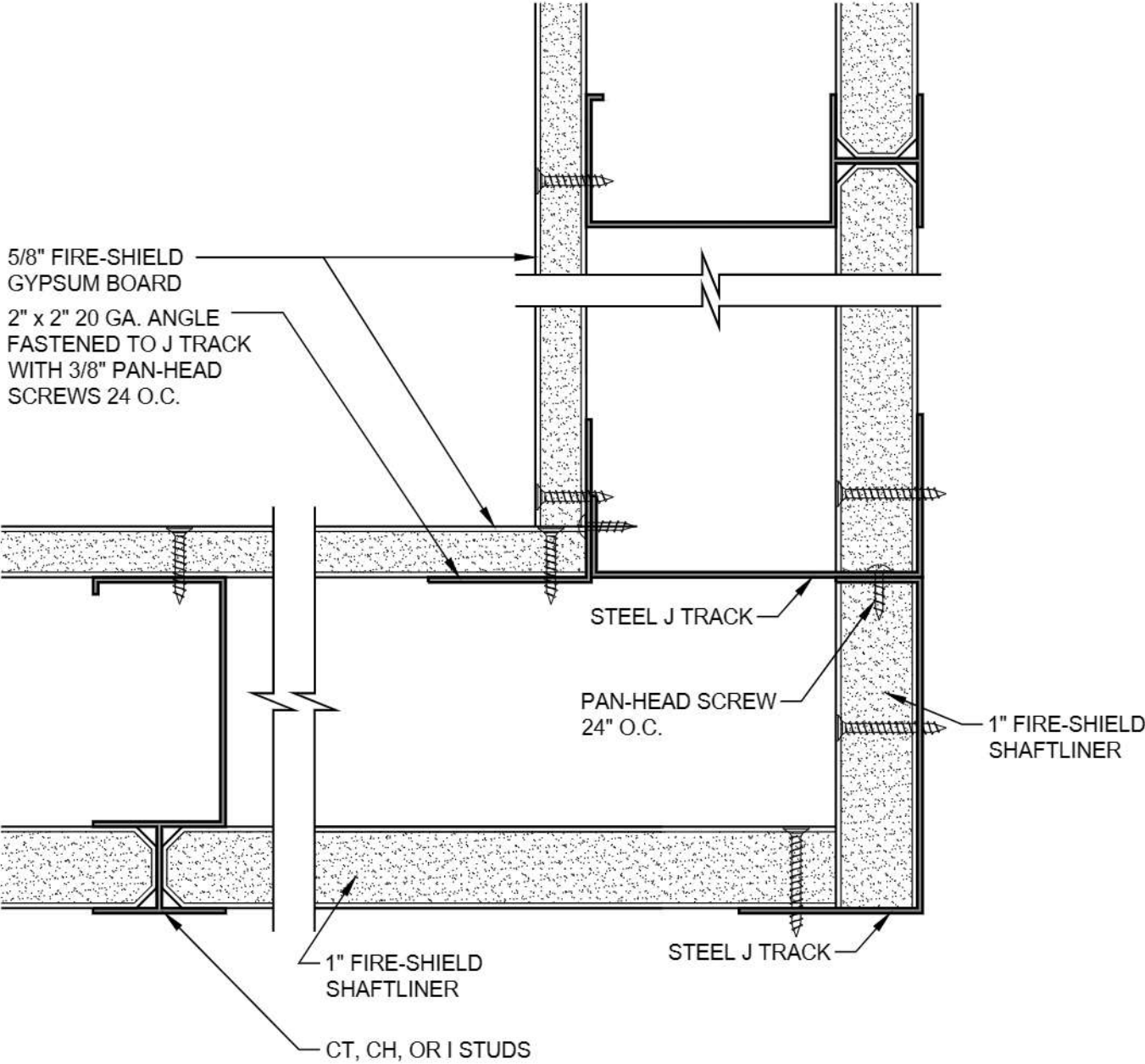
DATE: 09/01/18	1 HOUR SHAFTWALL CORNER DETAIL	
SCALE: 6"=1'-0"	DETAIL: SW 611	



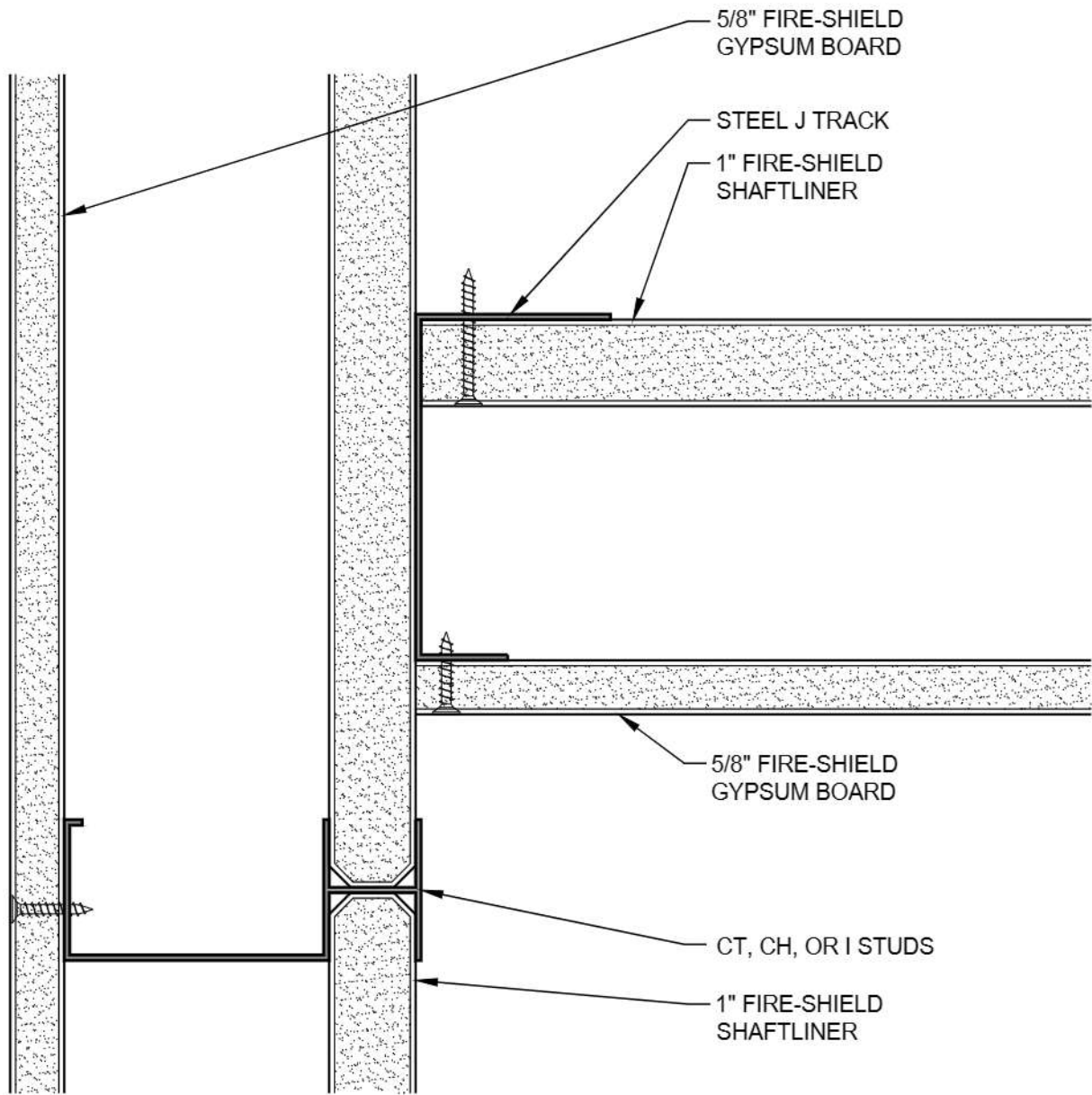
DATE: 09/01/18	1 HOUR SHAFTWALL CORNER DETAIL	
SCALE: 6"=1'-0"	DETAIL: SW 612	



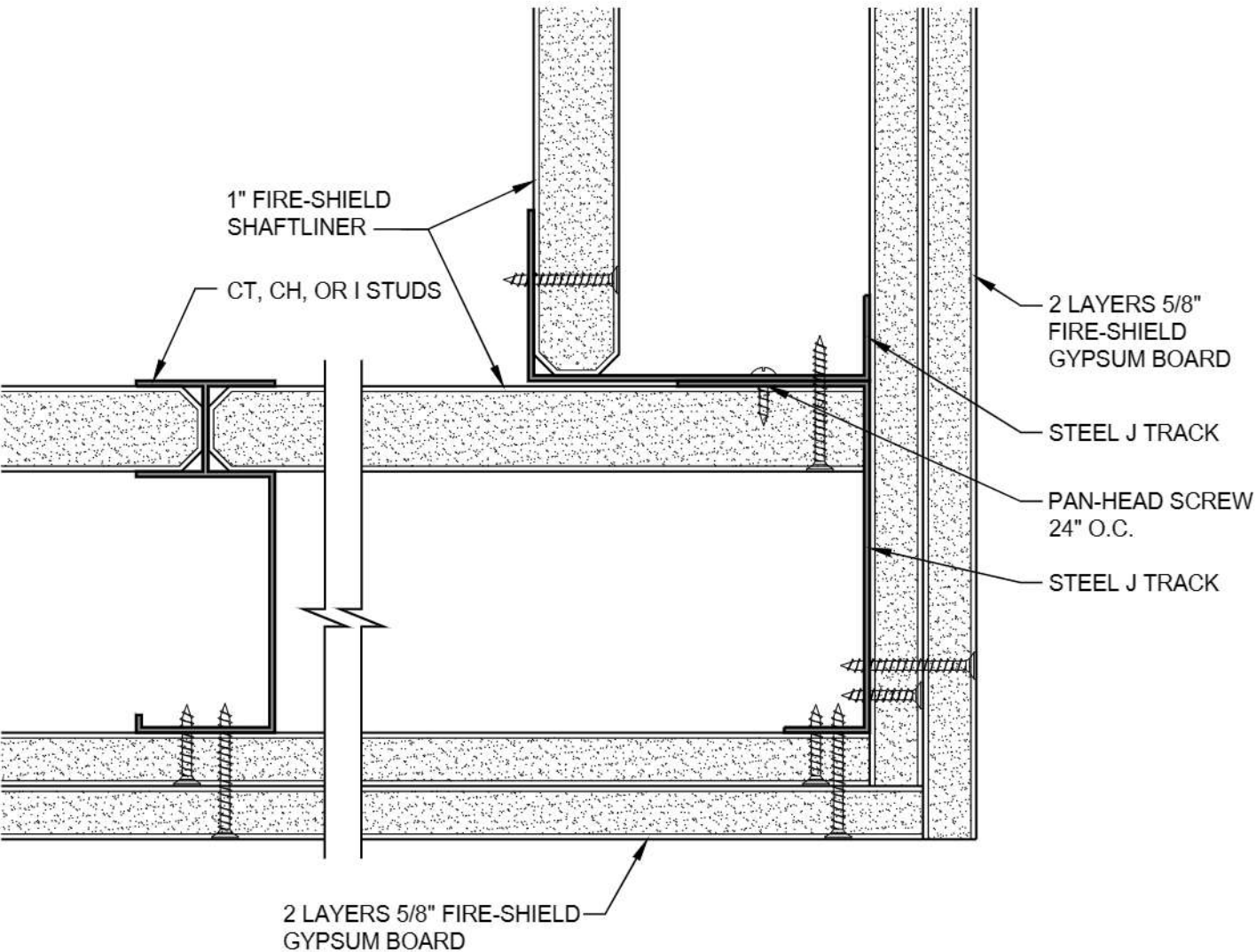
DATE: 09/01/18	1 HOUR SHAFTWALL CORNER DETAIL	
SCALE: 6"=1'-0"	DETAIL: SW 613	



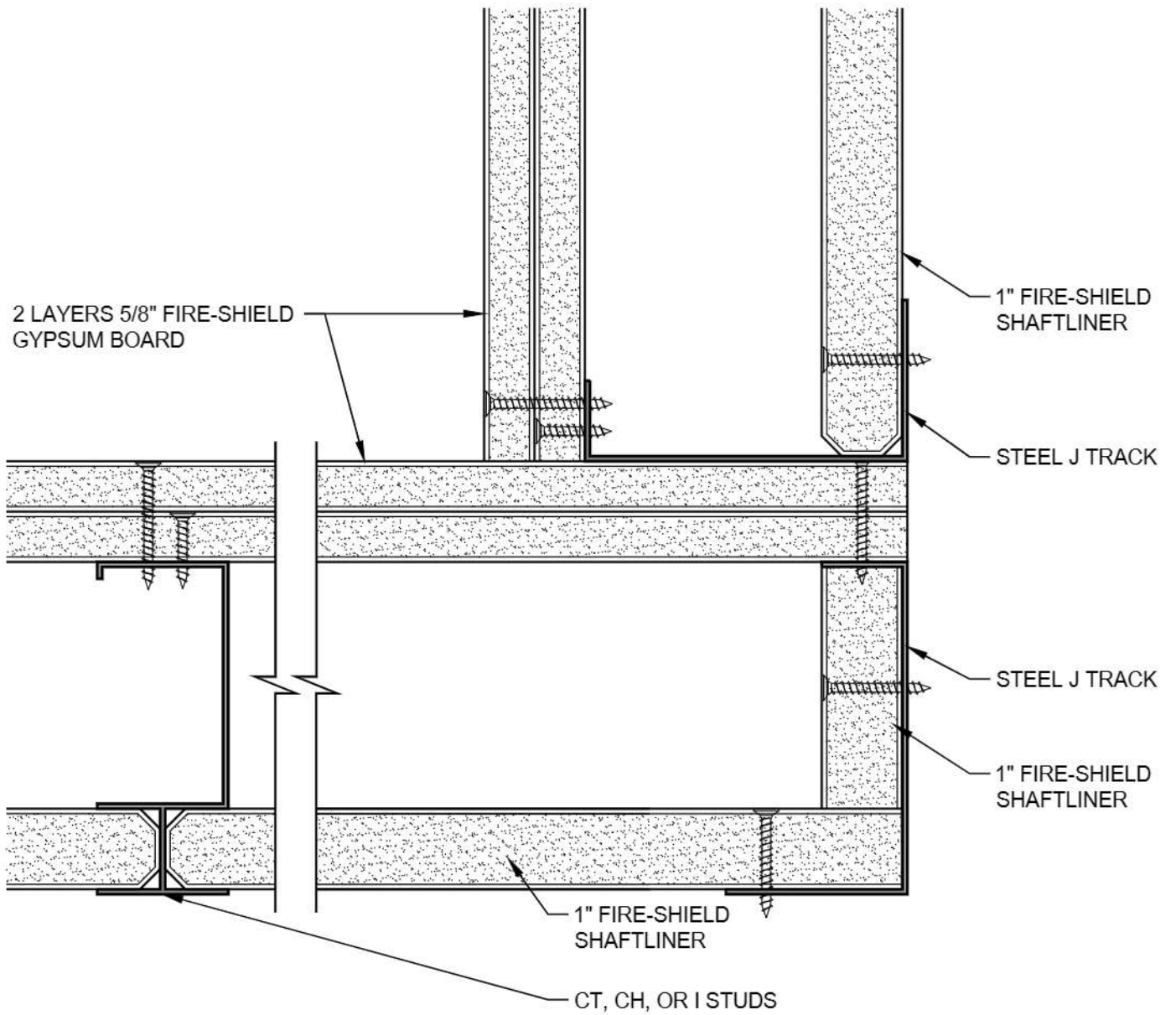
DATE: 09/01/18	1 HOUR SHAFTWALL CORNER DETAIL	
SCALE: 6"=1'-0"	DETAIL: SW 614	



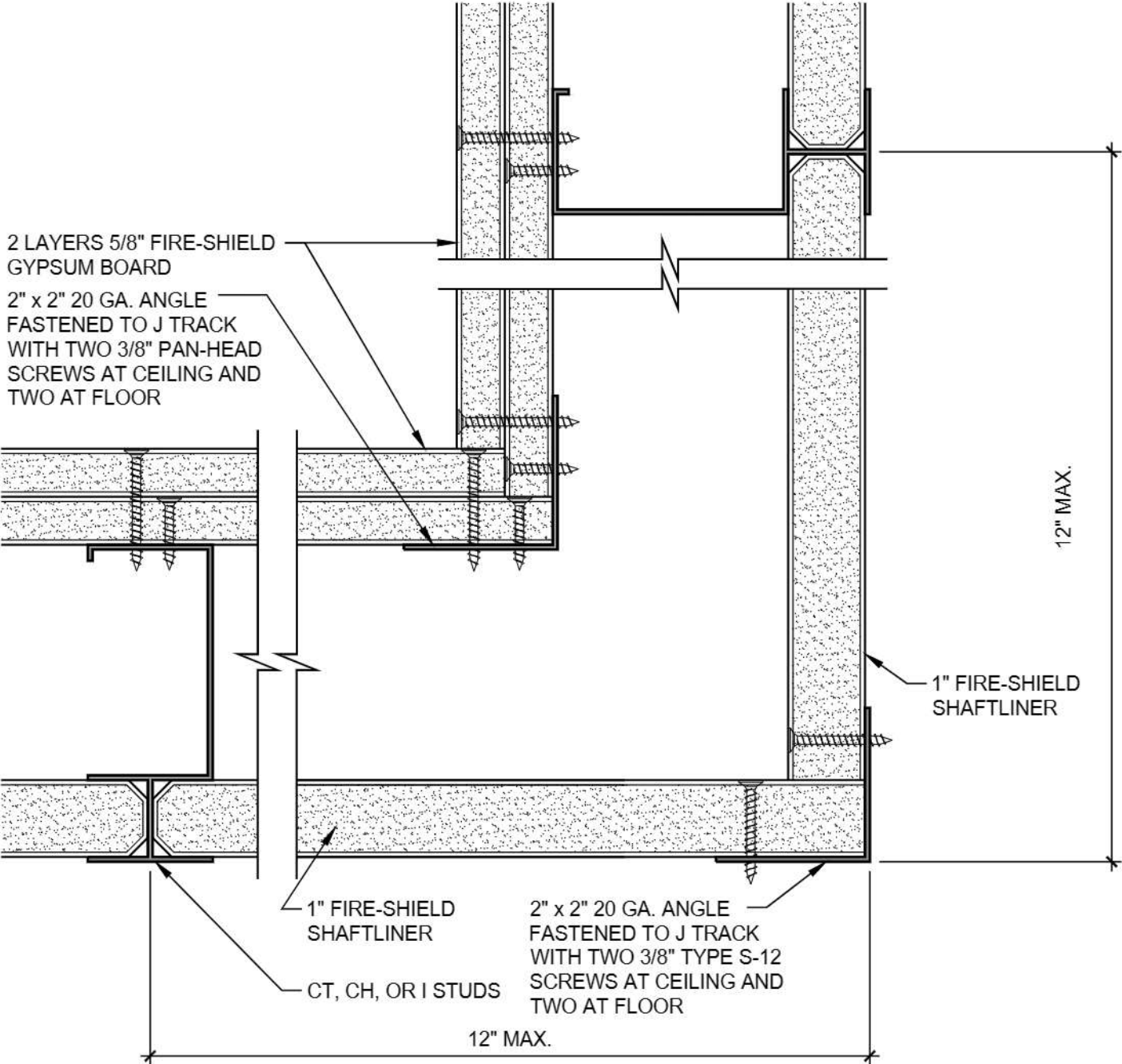
DATE: 09/01/18	1 HOUR SHAFTWALL CORNER DETAIL	
SCALE: 6"=1'-0"	DETAIL: SW 615	



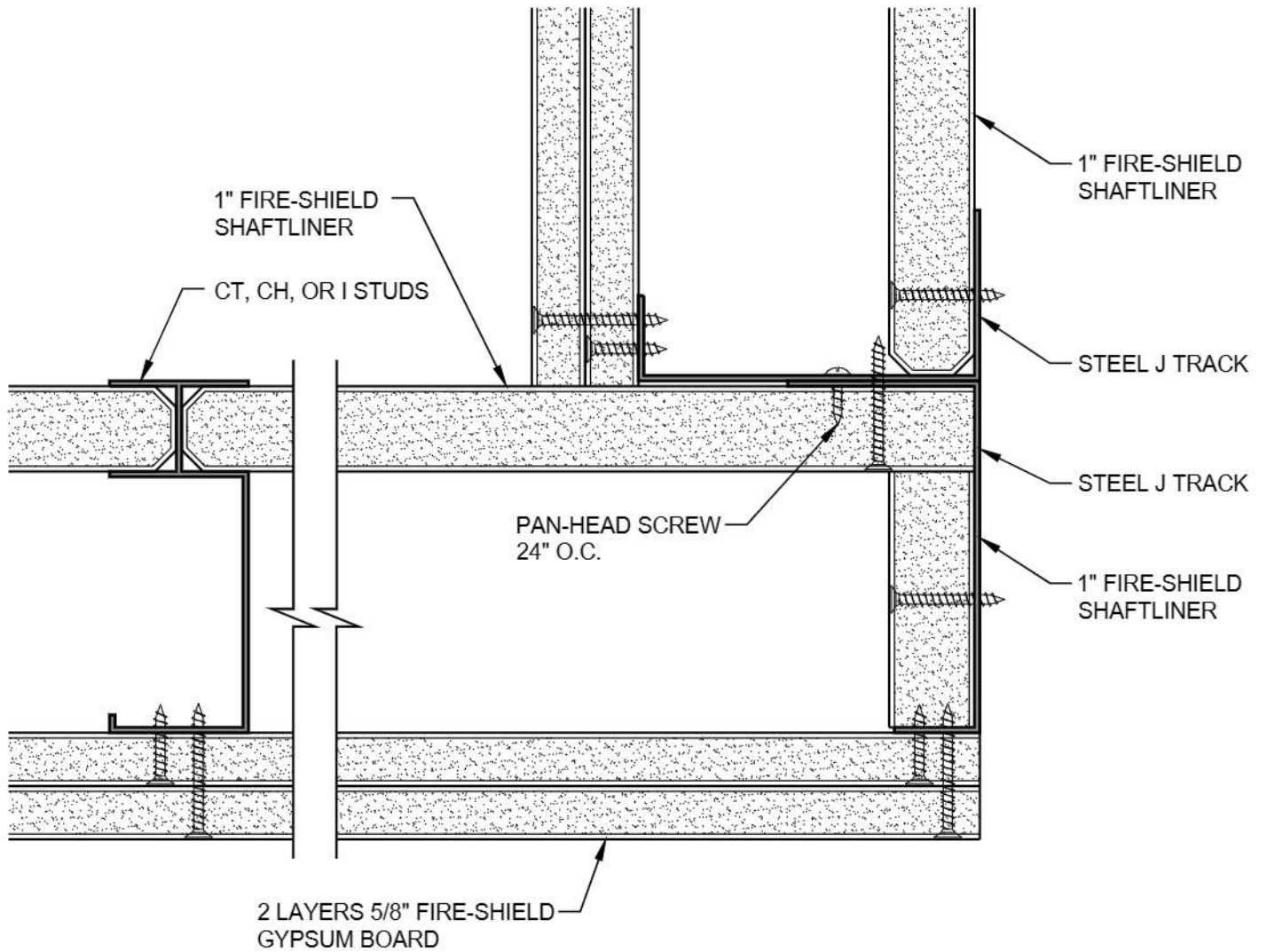
DATE: 09/01/18	2 HOUR SHAFTWALL CORNER DETAIL	
SCALE: 6"=1'-0"	DETAIL: SW 620	



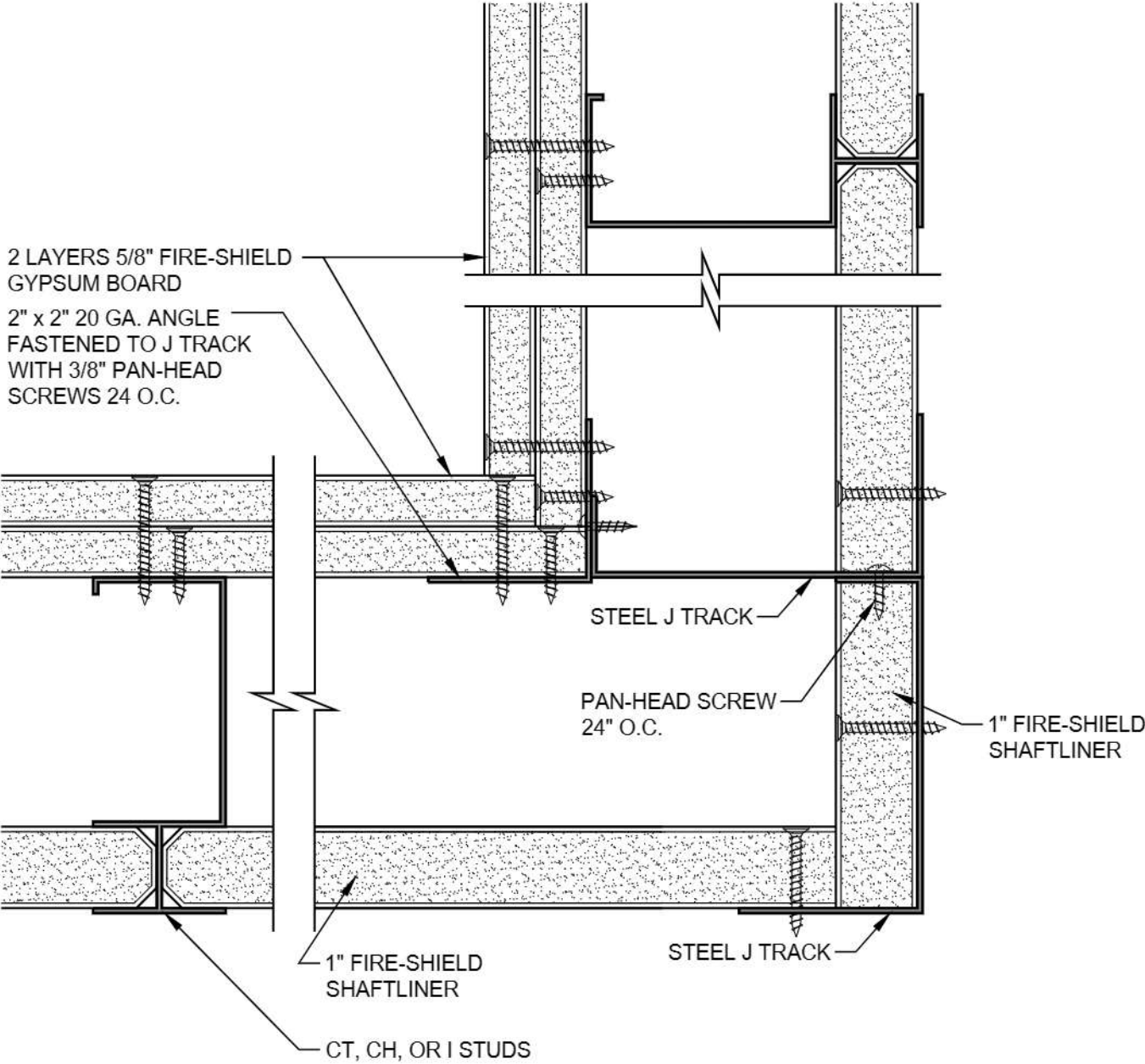
DATE: 09/01/18	2 HOUR SHAFTWALL CORNER DETAIL	
SCALE: 6"=1'-0"	DETAIL: SW 621	



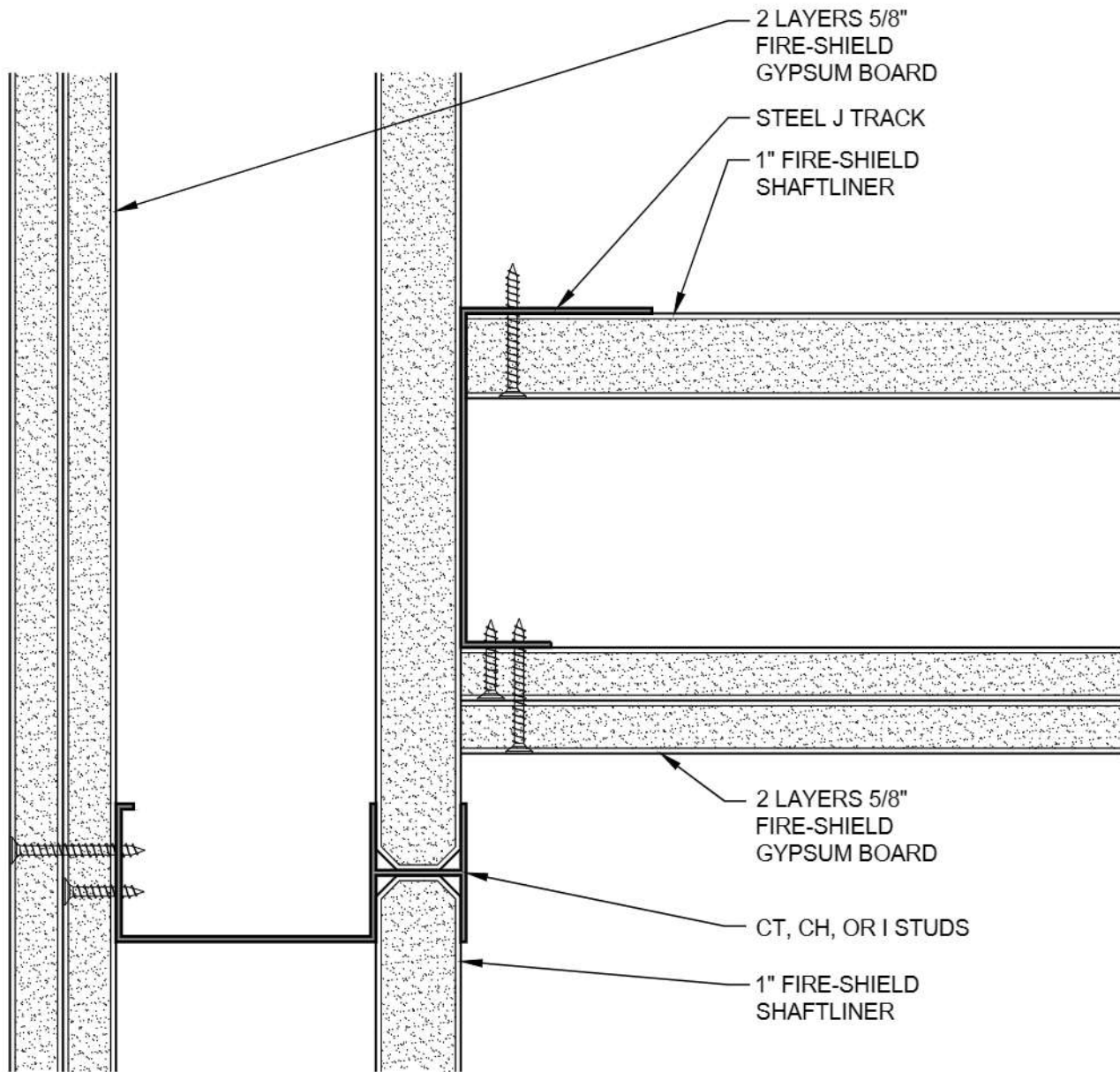
DATE: 09/01/18	2 HOUR SHAFTWALL CORNER DETAIL	
SCALE: 6"=1'-0"	DETAIL: SW 622	



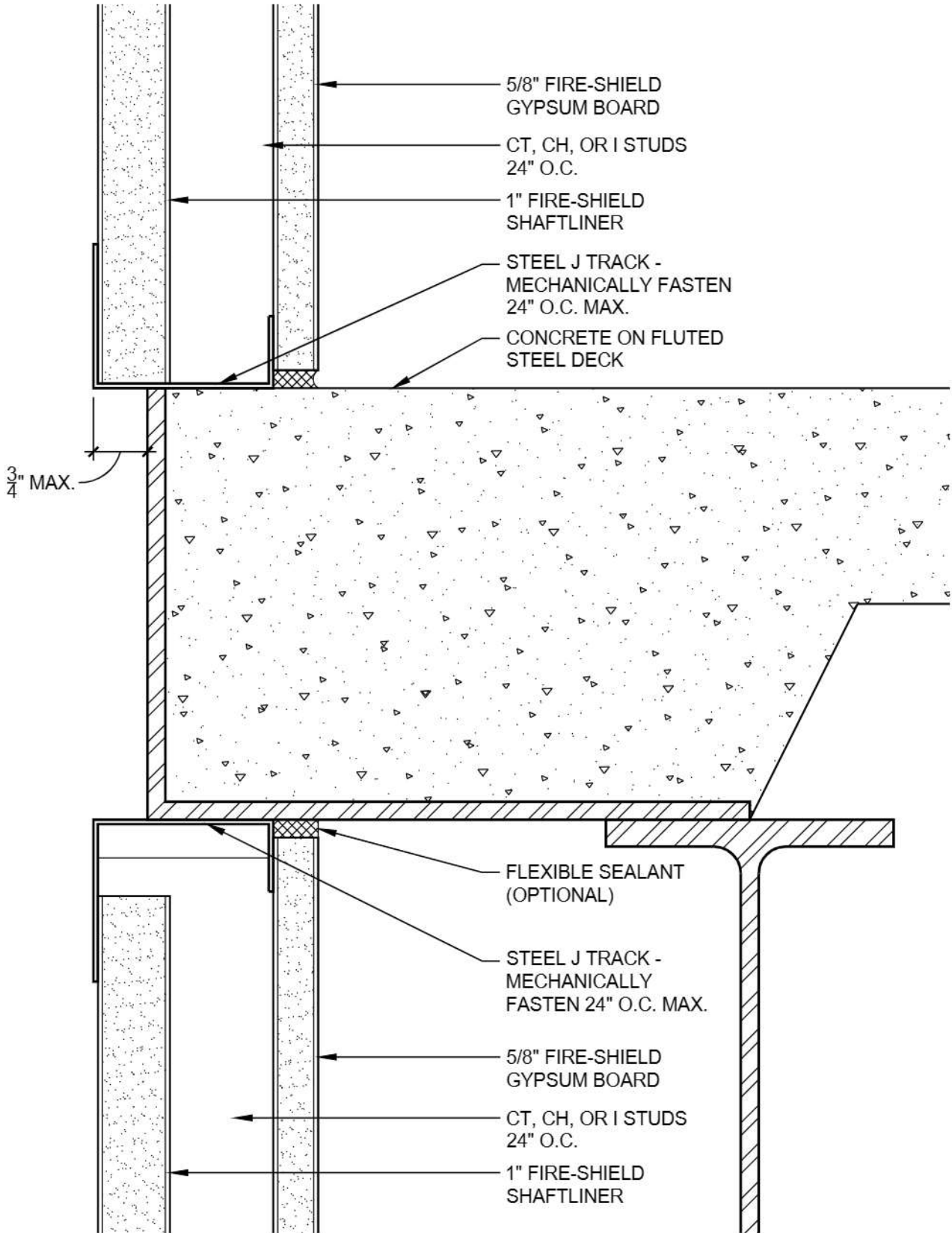
DATE: 09/01/18	2 HOUR SHAFTWALL CORNER DETAIL	
SCALE: 6"=1'-0"	DETAIL: SW 623	



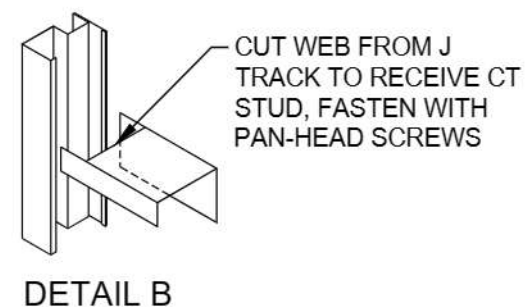
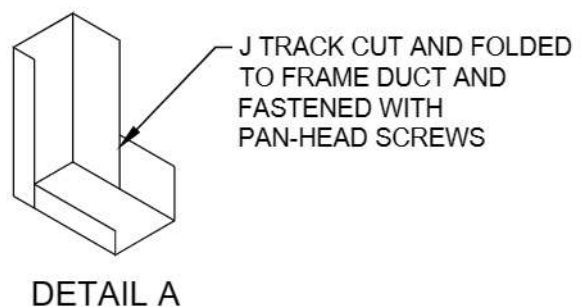
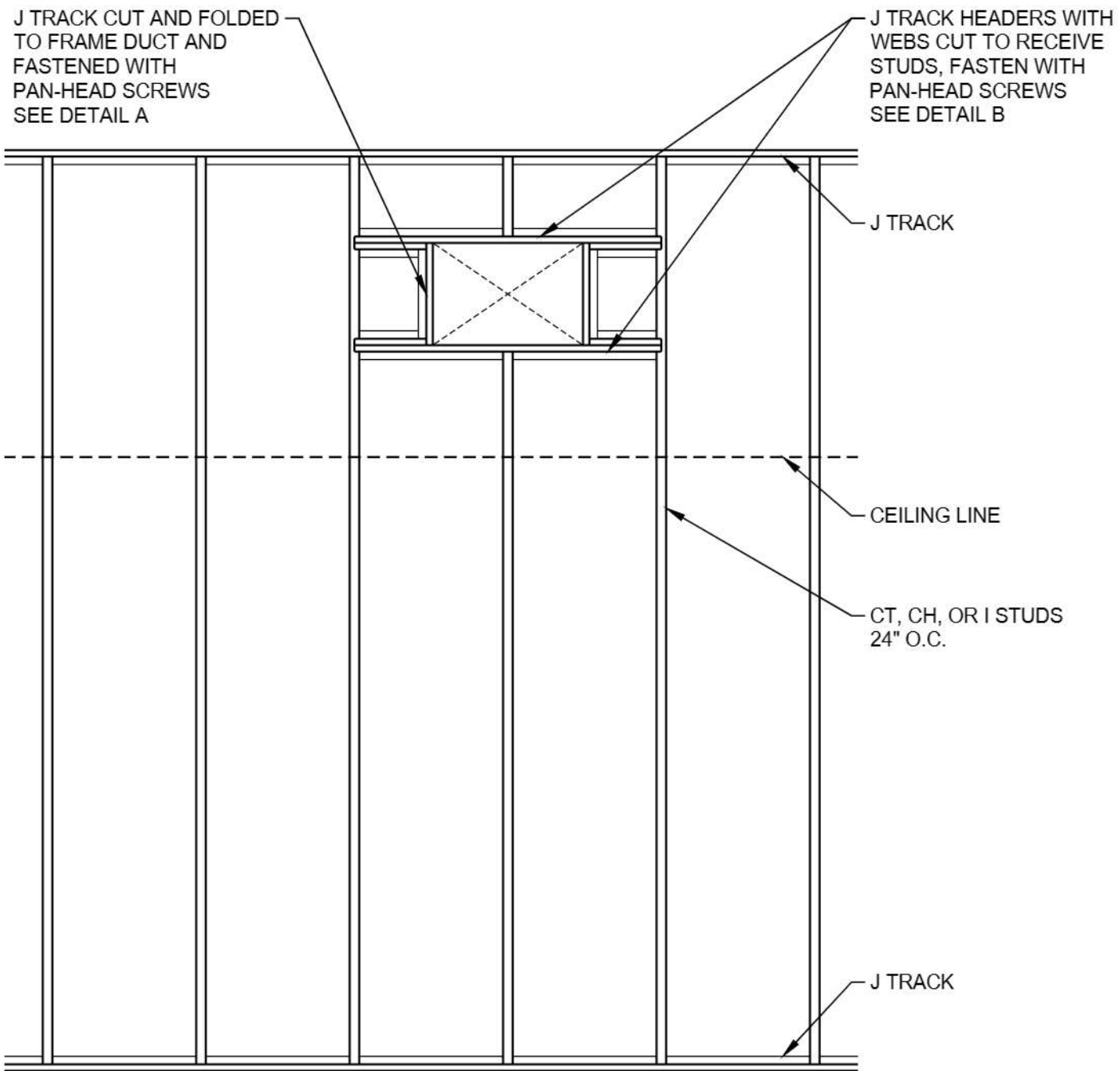
DATE: 09/01/18	2 HOUR SHAFTWALL CORNER DETAIL	
SCALE: 6"=1'-0"	DETAIL: SW 624	



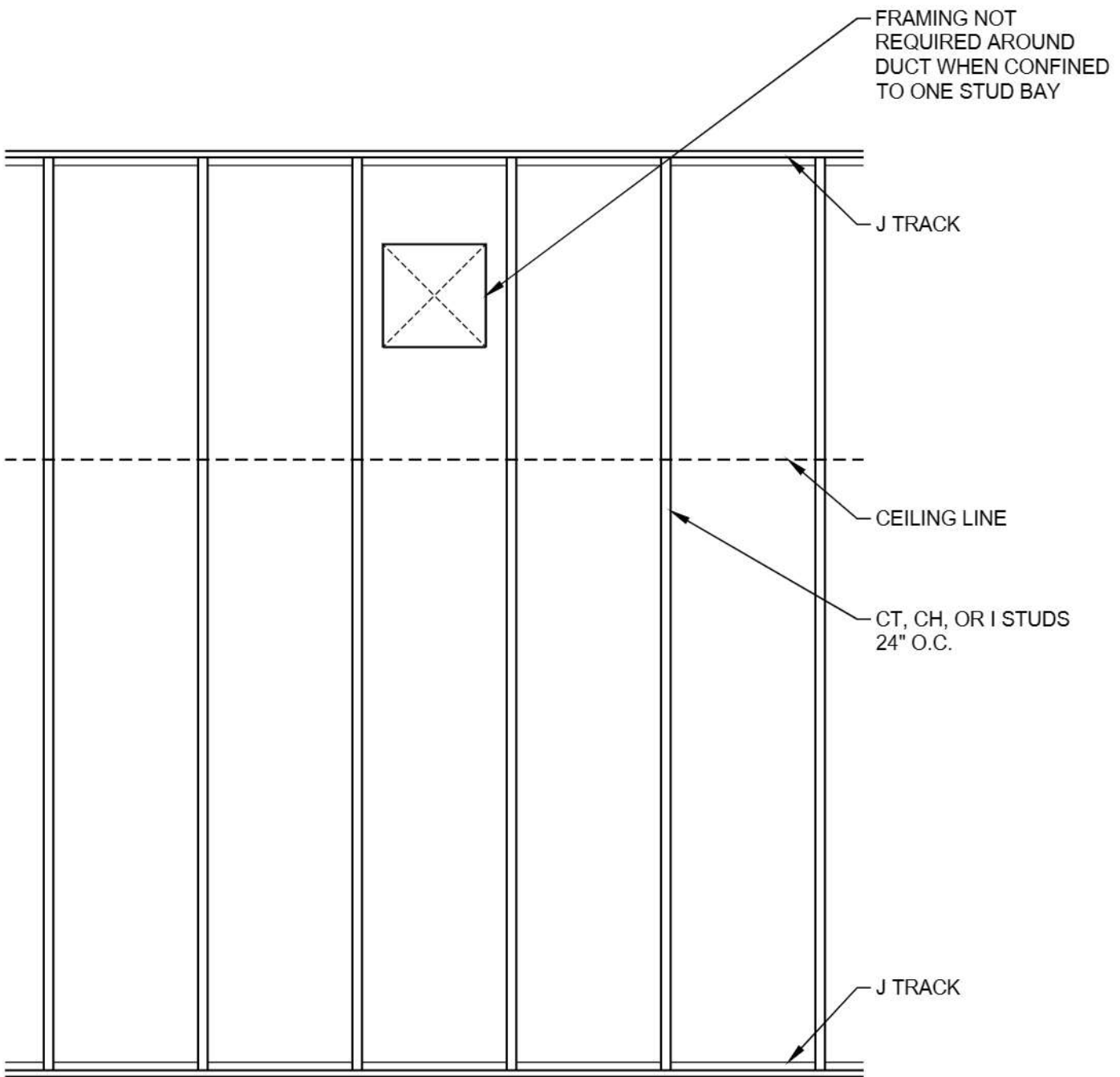
DATE: 09/01/18	2 HOUR SHAFTWALL CORNER DETAIL	
SCALE: 6"=1'-0"	DETAIL: SW 625	



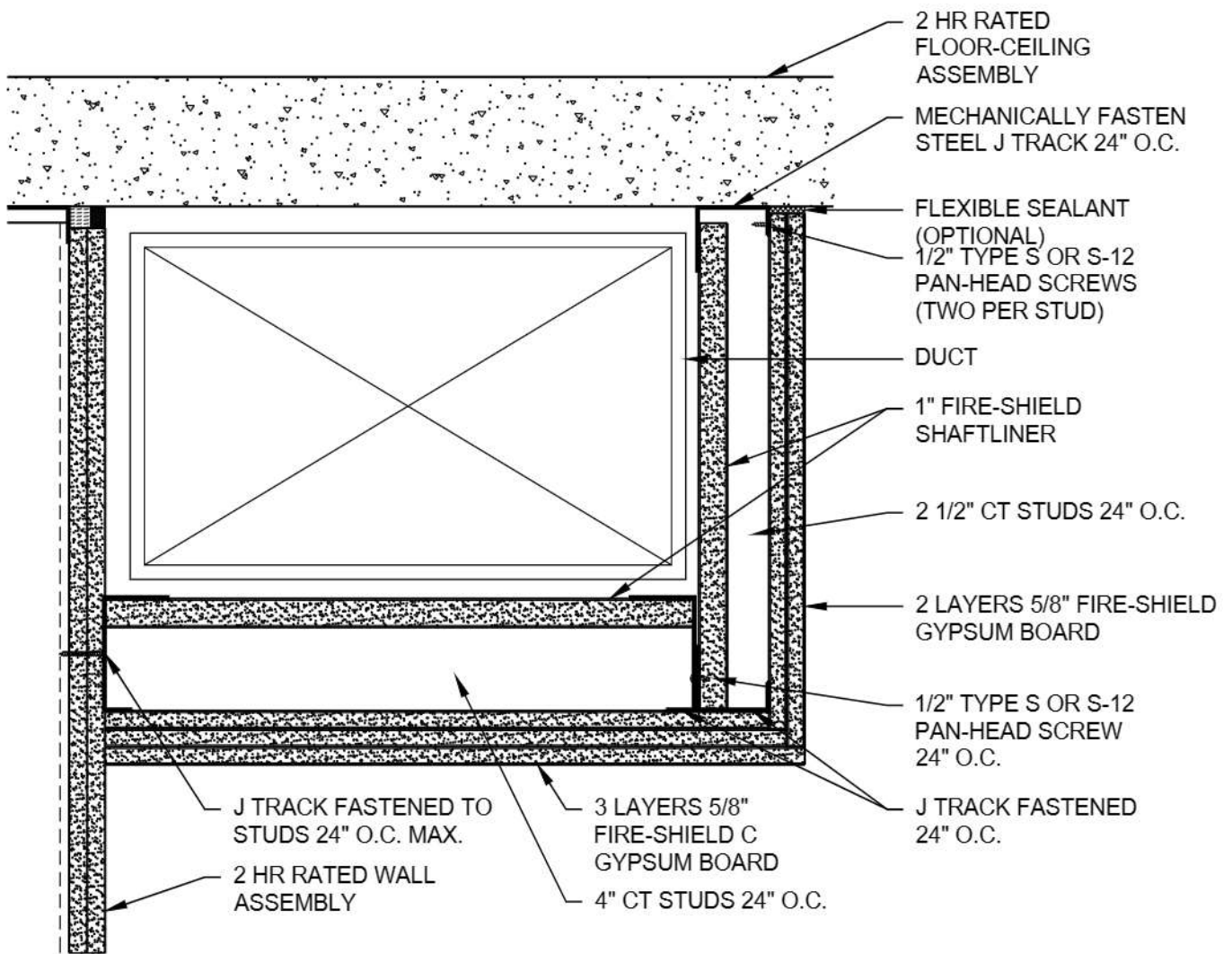
DATE: 09/01/18	SHAFTWALL OVERHANG AT SLAB EDGE	
SCALE: 6"=1'-0"	DETAIL: SW 650	



DATE: 09/01/18	SHAFTWALL FRAMING AT DUCT PENETRATION	
SCALE: 1/2"=1'-0"	DETAIL: SW 701	

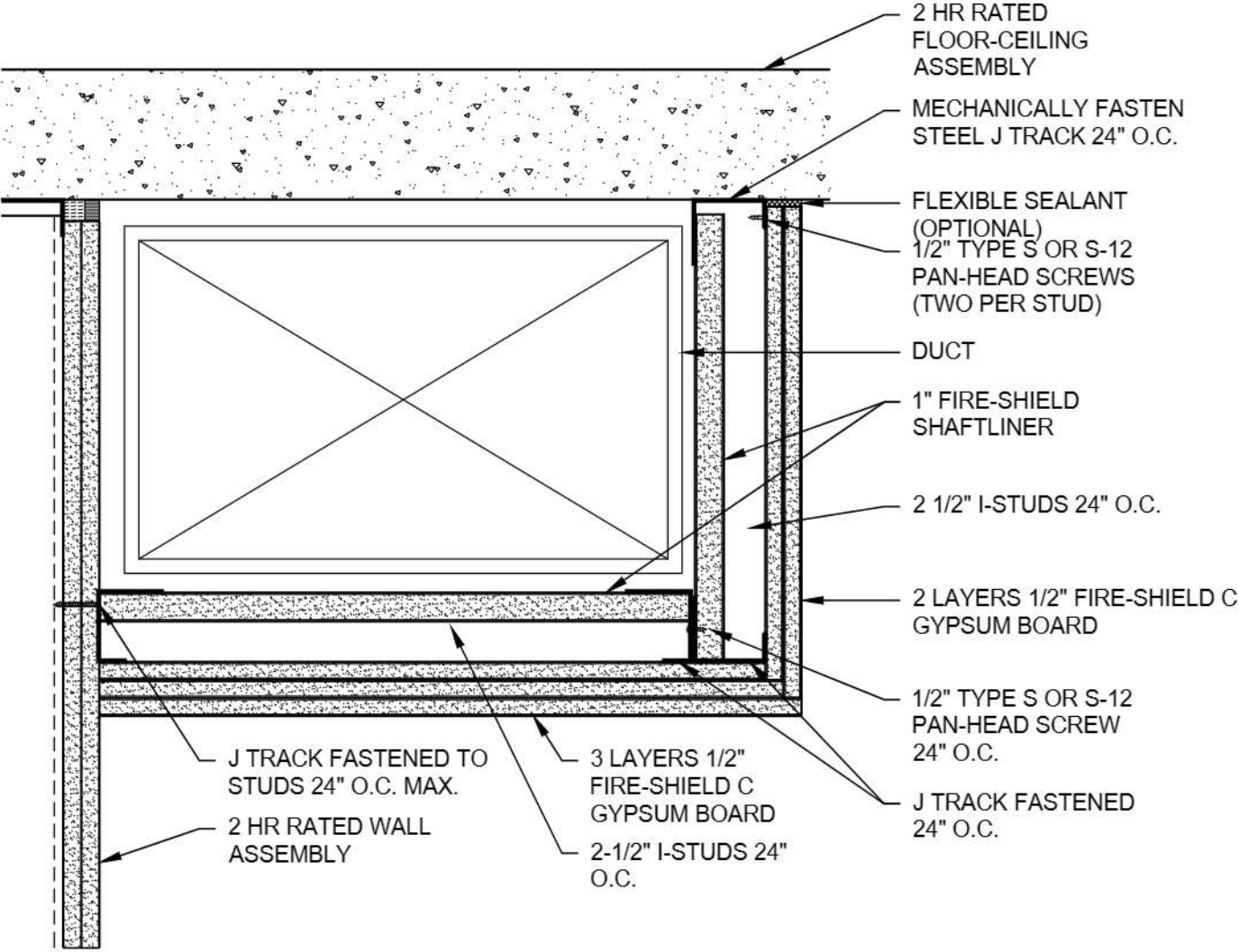


DATE: 09/01/18	SHAFTWALL FRAMING AT DUCT PENETRATION	
SCALE: 1/2"=1'-0"	DETAIL: SW 702	



VERTICAL - 2 HR
 UL DESIGN: W419
 HORIZONTAL - 2 HR
 UL DESIGN: I516

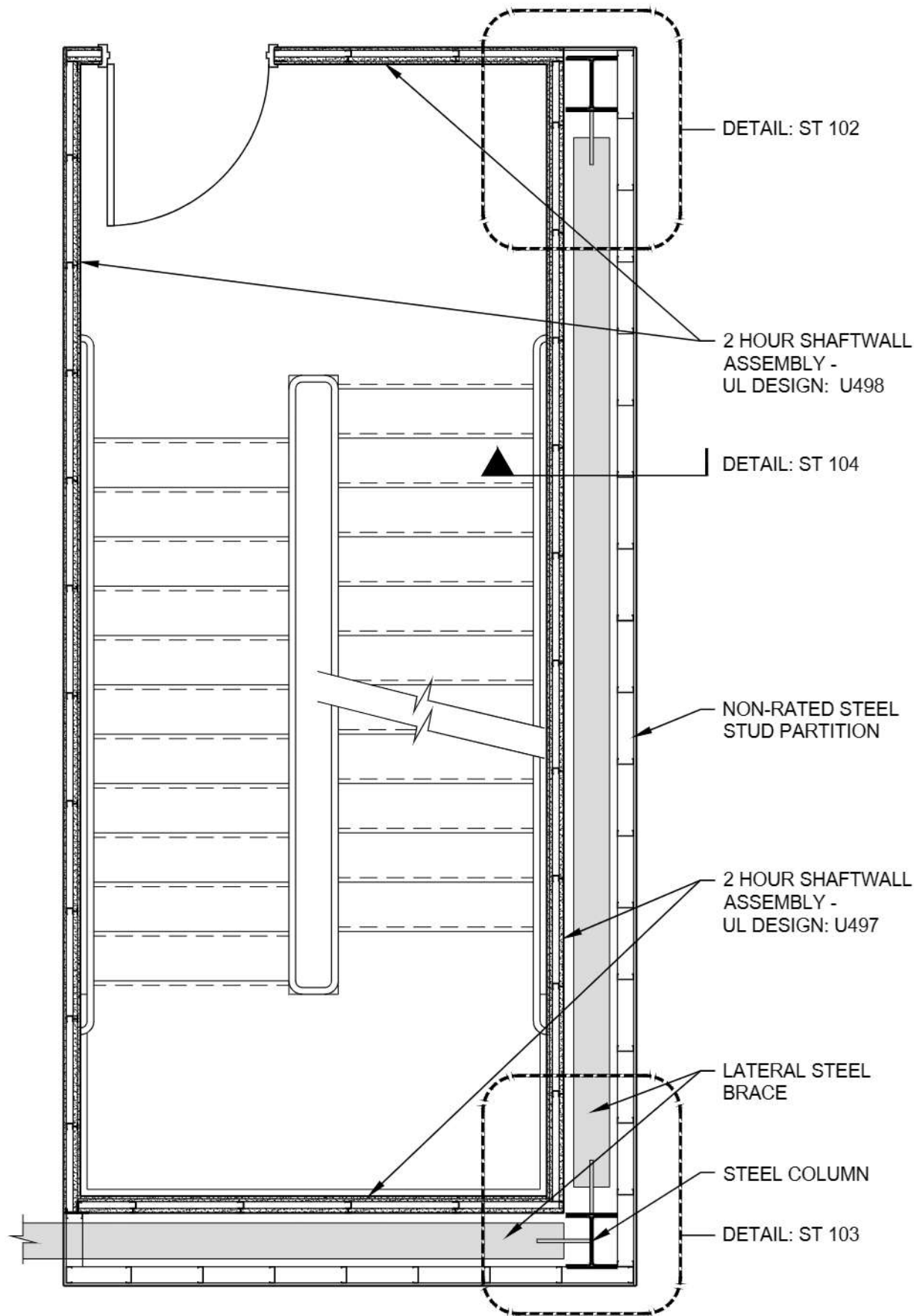
DATE: 12/12/22	2 HOUR HORIZONTAL DUCT PROTECTION	
SCALE: 2"=1'-0"	DETAIL: SW 704	



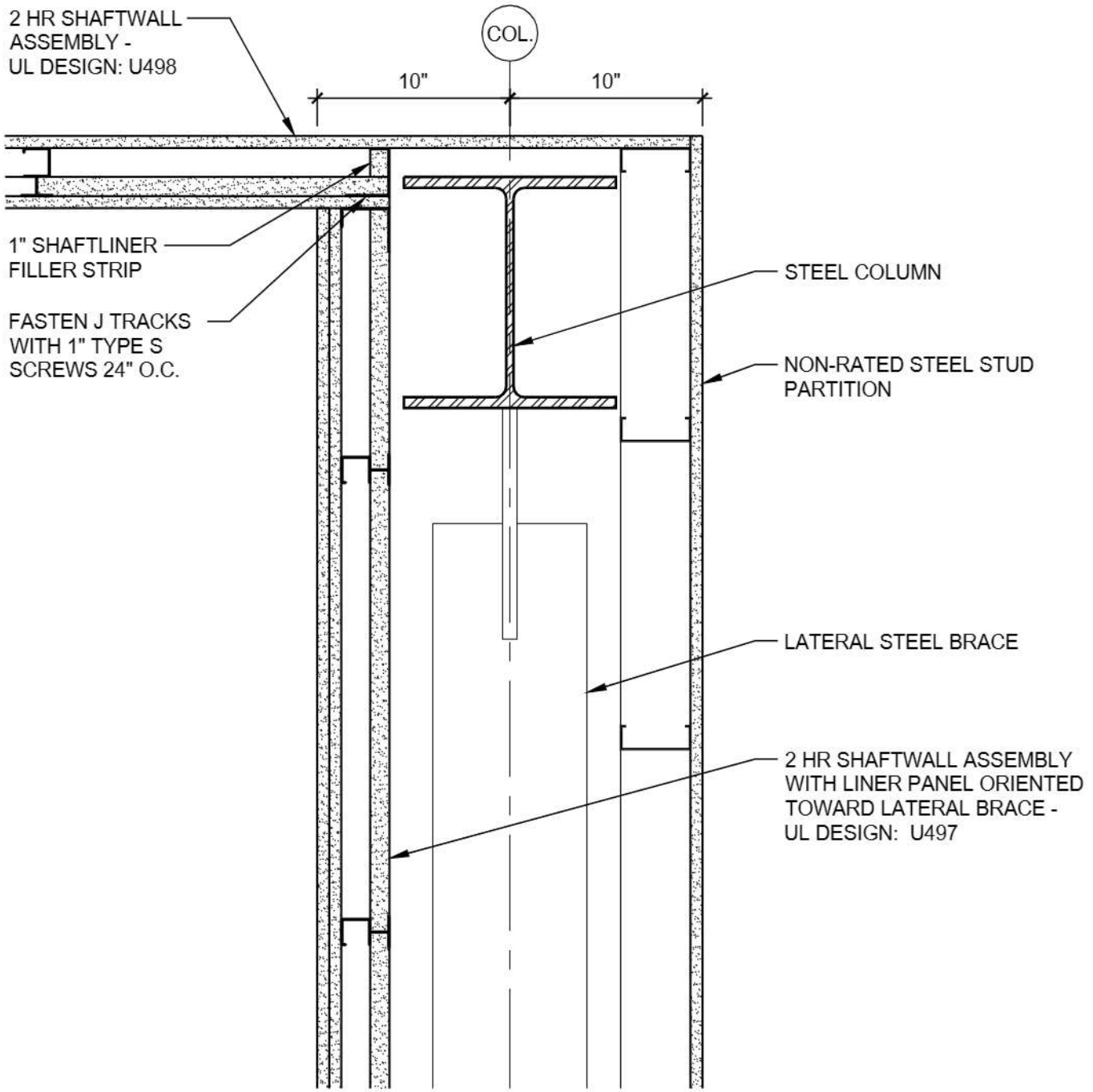
UL EVALUATION REPORT
UL ER R3501-02

VERTICAL - 2 HR
UL DESIGN: U497
HORIZONTAL - 2 HR
WHI 694-0300.1

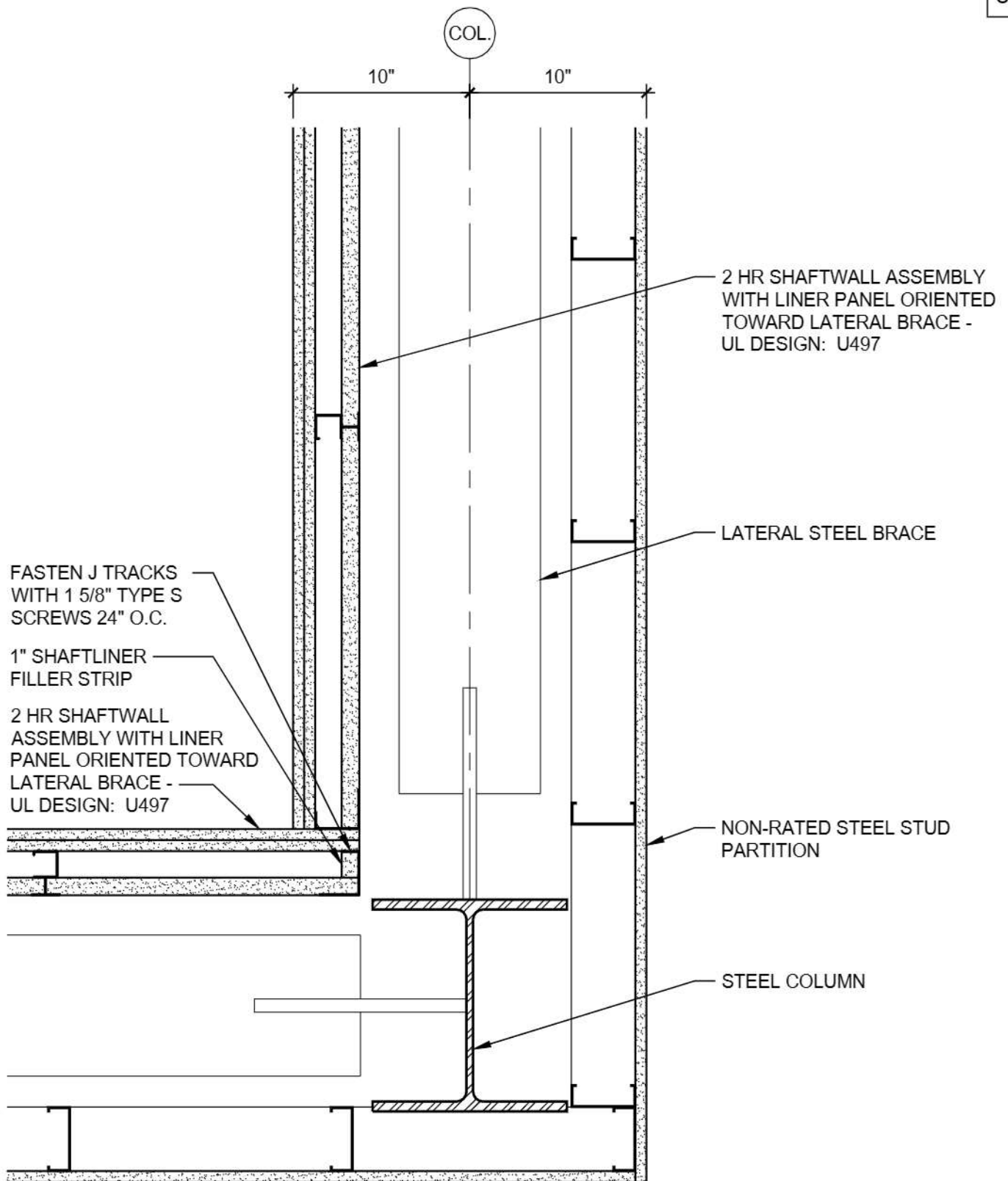
DATE: 09/01/18	2 HOUR HORIZONTAL DUCT PROTECTION	
SCALE: 2"=1'-0"	DETAIL: SW 705	



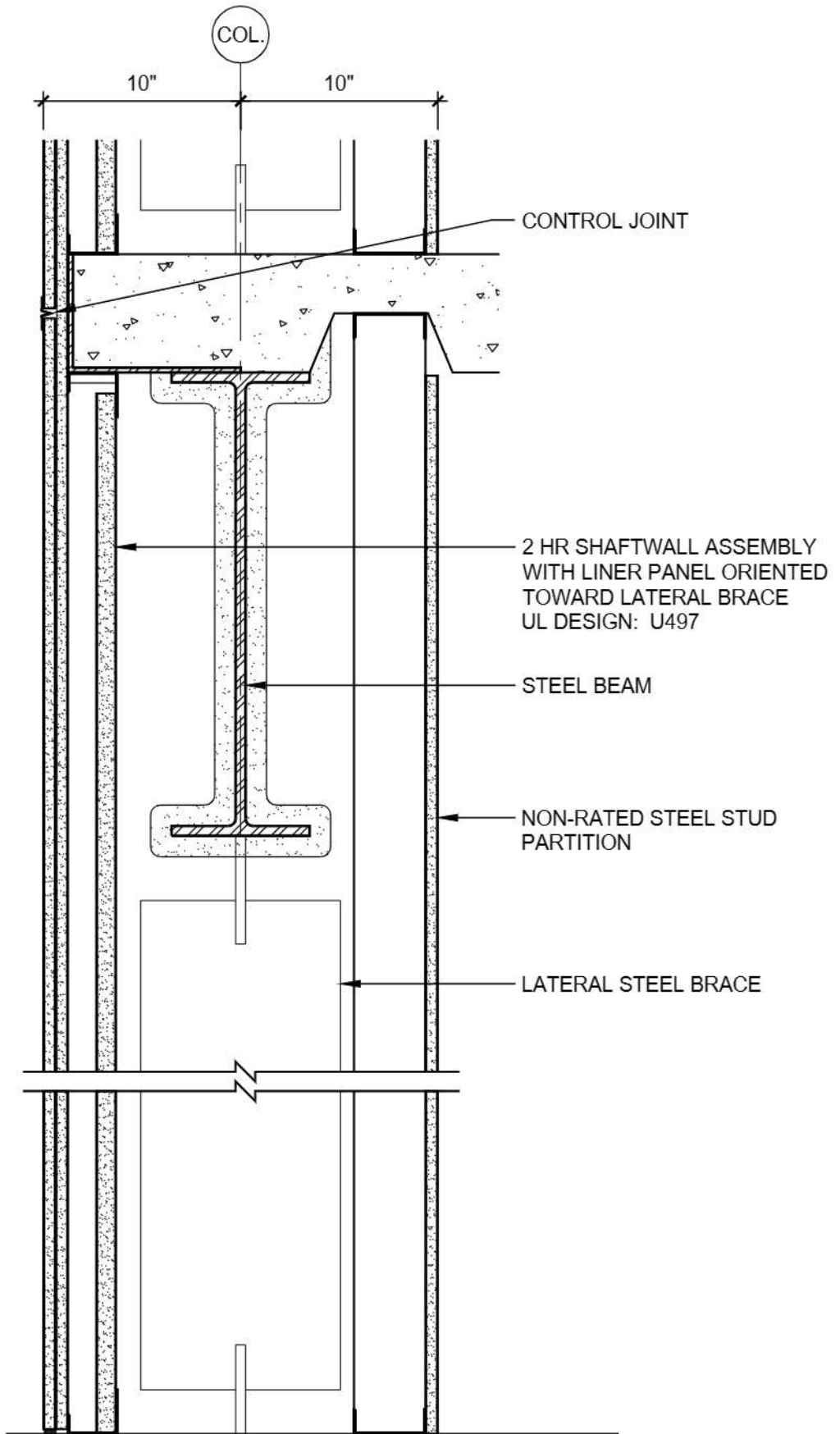
DATE: 09/01/18	FLOOR PLAN OF STAIR AT LATERAL BRACE	
SCALE: 3/8"=1'-0"	DETAIL: ST 101	



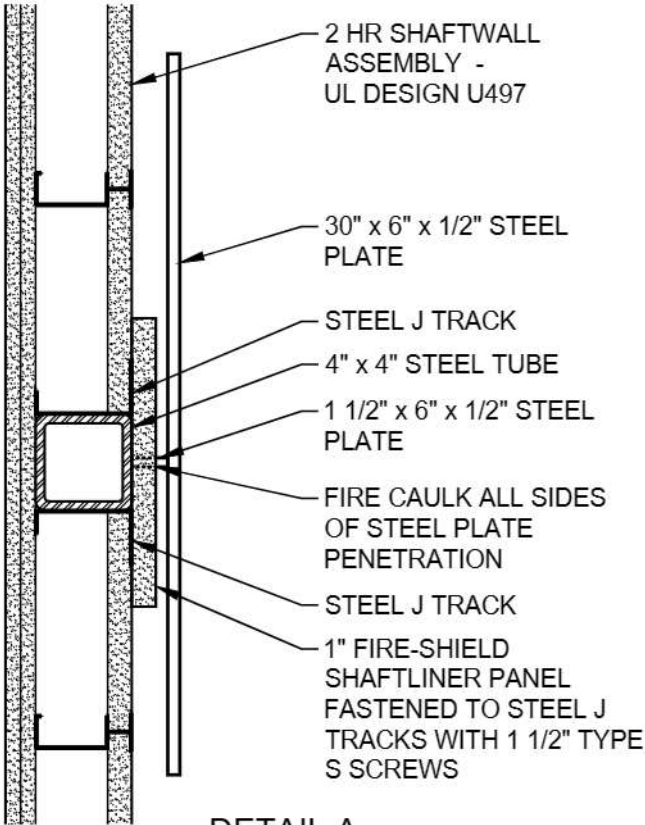
DATE: 09/01/18	STAIR SHAFTWALL CORNER AT LATERAL BRACE	
SCALE: 1 1/2"=1'-0"	DETAIL: ST 102	



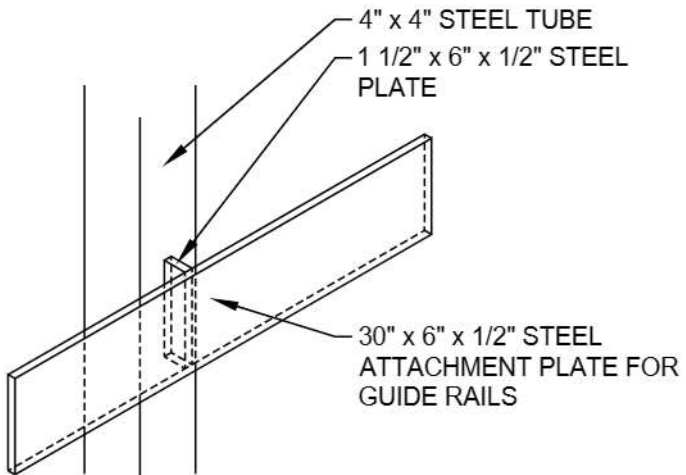
DATE: 09/01/18	STAIR SHAFTWALL CORNER AT LATERAL BRACE	
SCALE: 1 1/2"=1'-0"	DETAIL: ST 103	



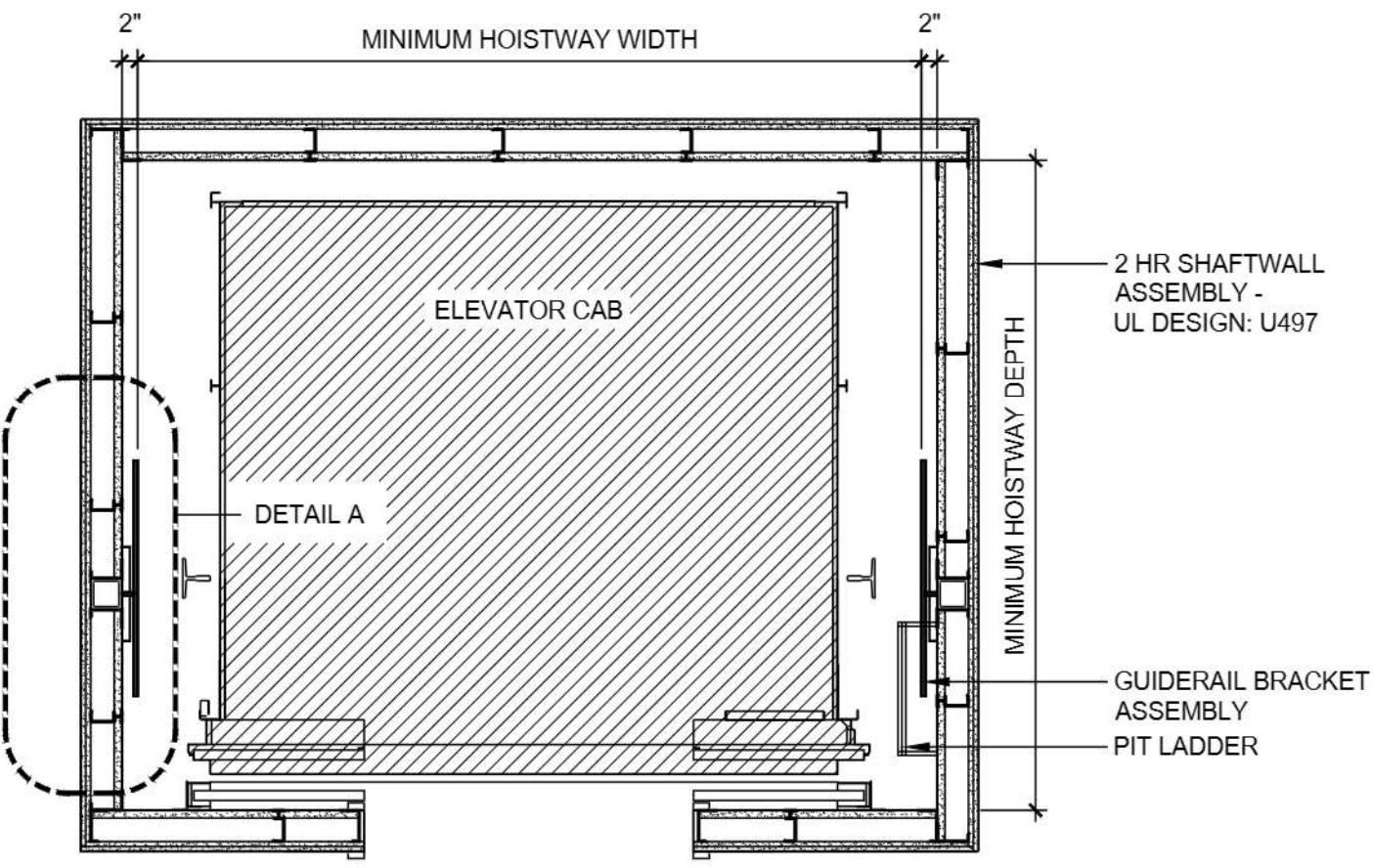
DATE: 09/01/18	STAIR SHAFTWALL SECTION AT LATERAL BRACE	
SCALE: 1 1/2"=1'-0"	DETAIL: ST 104	



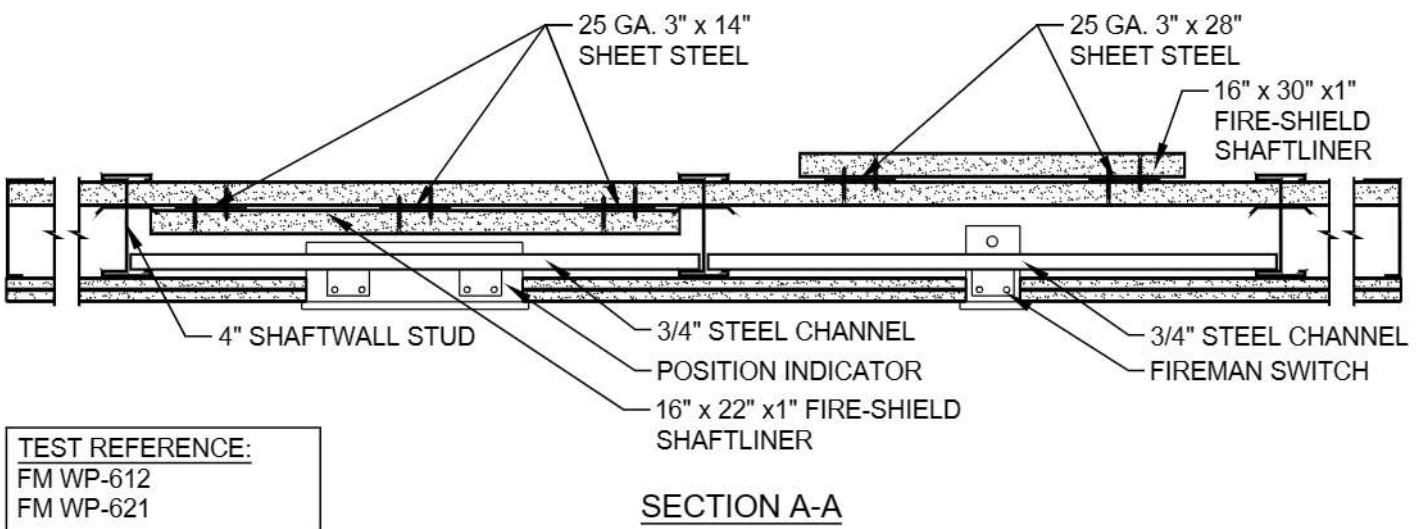
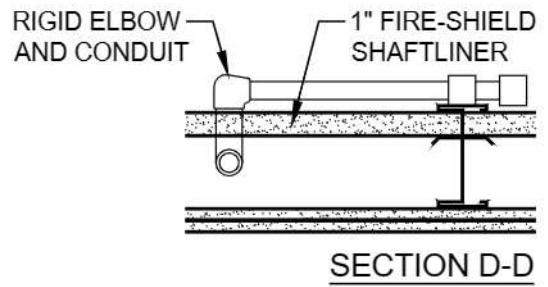
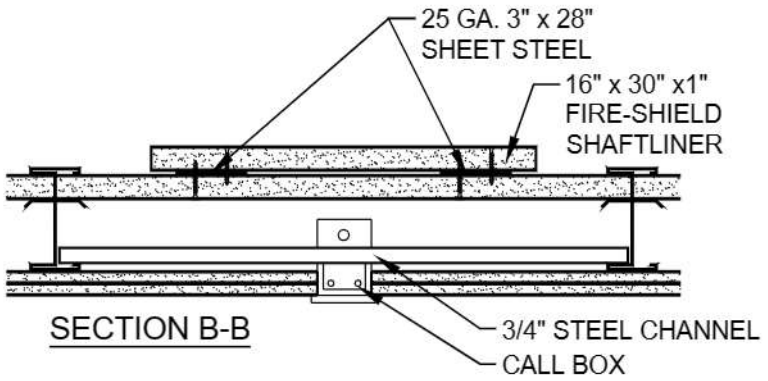
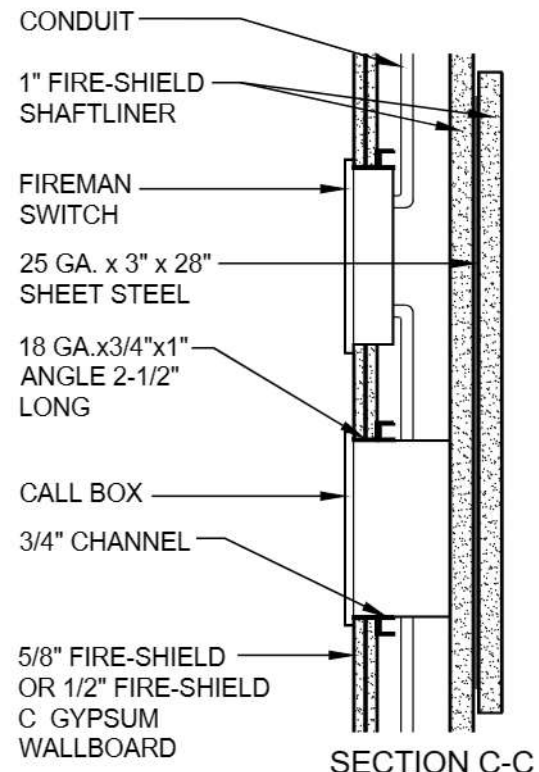
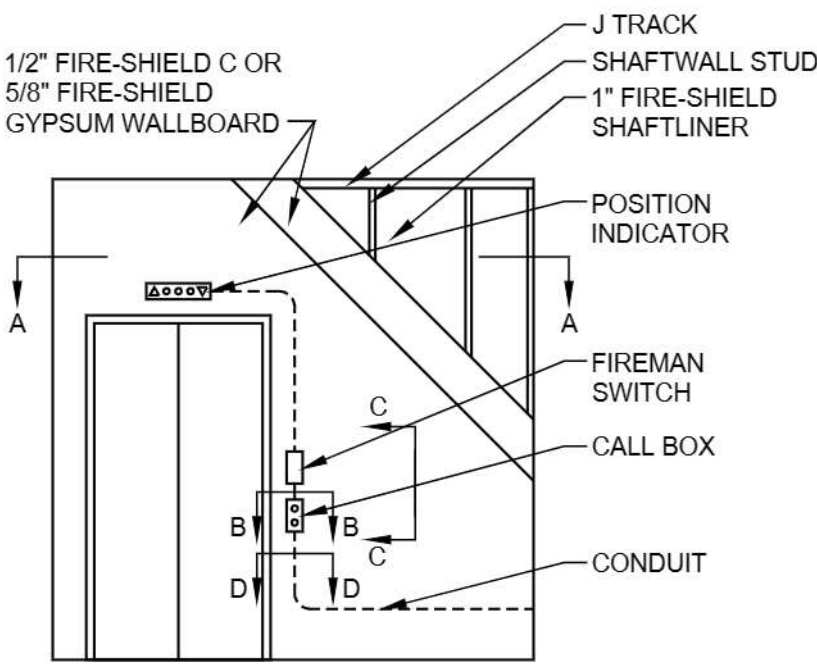
DETAIL A



GUIDE RAIL BRACKET ASSEMBLY

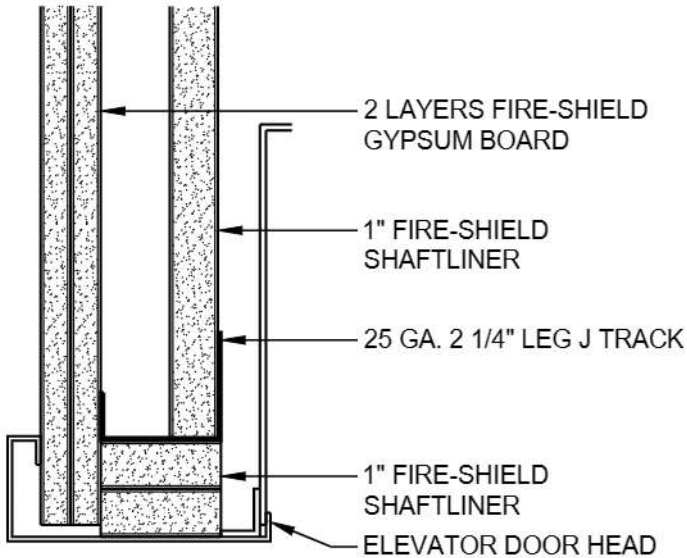


DATE: 09/01/18	ELEVATOR SHAFT ENCLOSURE PLAN	
SCALE: 1/2"=1'-0"	DETAIL: EV 101	

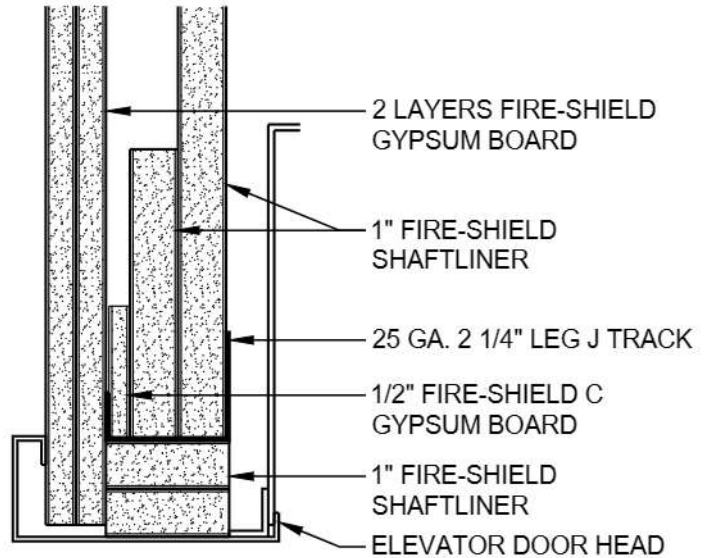


TEST REFERENCE:
 FM WP-612
 FM WP-621

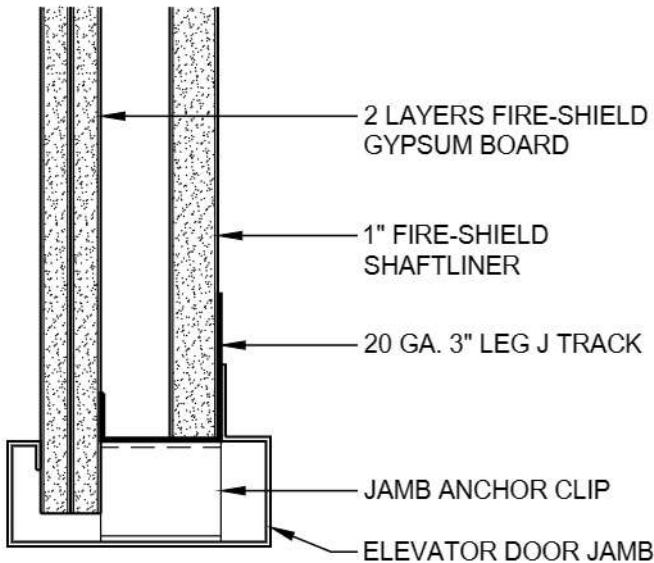
DATE: 09/01/18	POSITION INDICATOR AND CONTROL BOX PROTECTION IN ELEVATOR SHAFTWALL	
SCALE: 1 1/2"=1'-0"	DETAIL: EV 102	



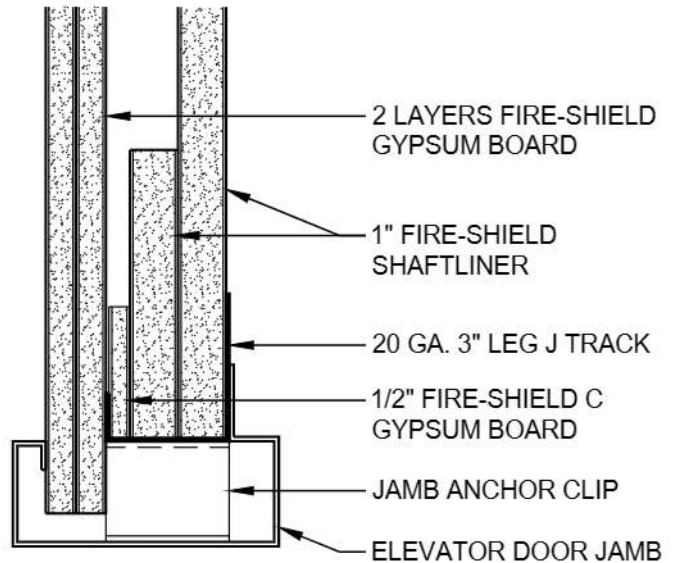
ELEVATOR DOOR HEAD



ELEVATOR DOOR HEAD
(FOR ELEVATOR DOORS > 7'-0")

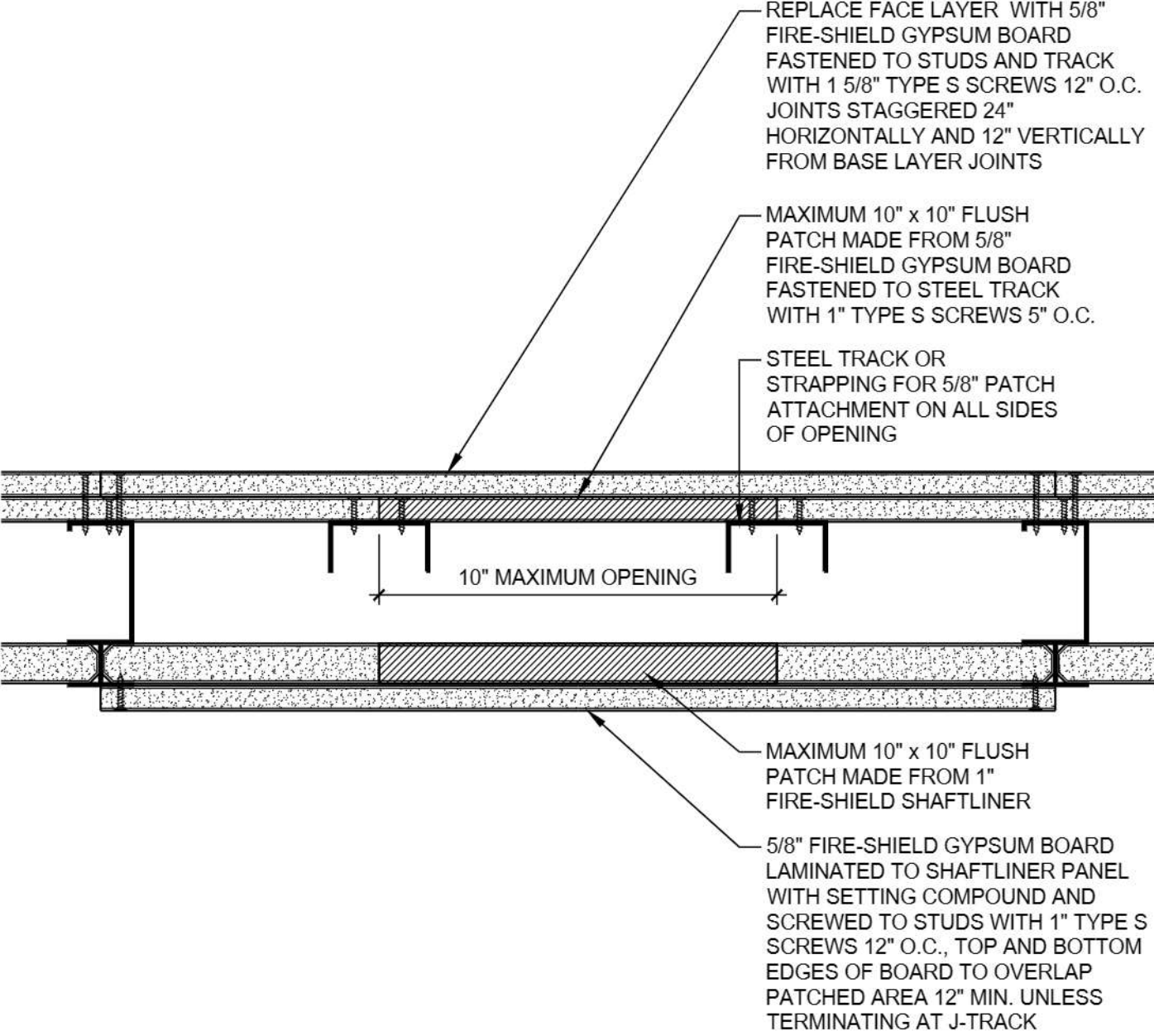


ELEVATOR DOOR JAMB

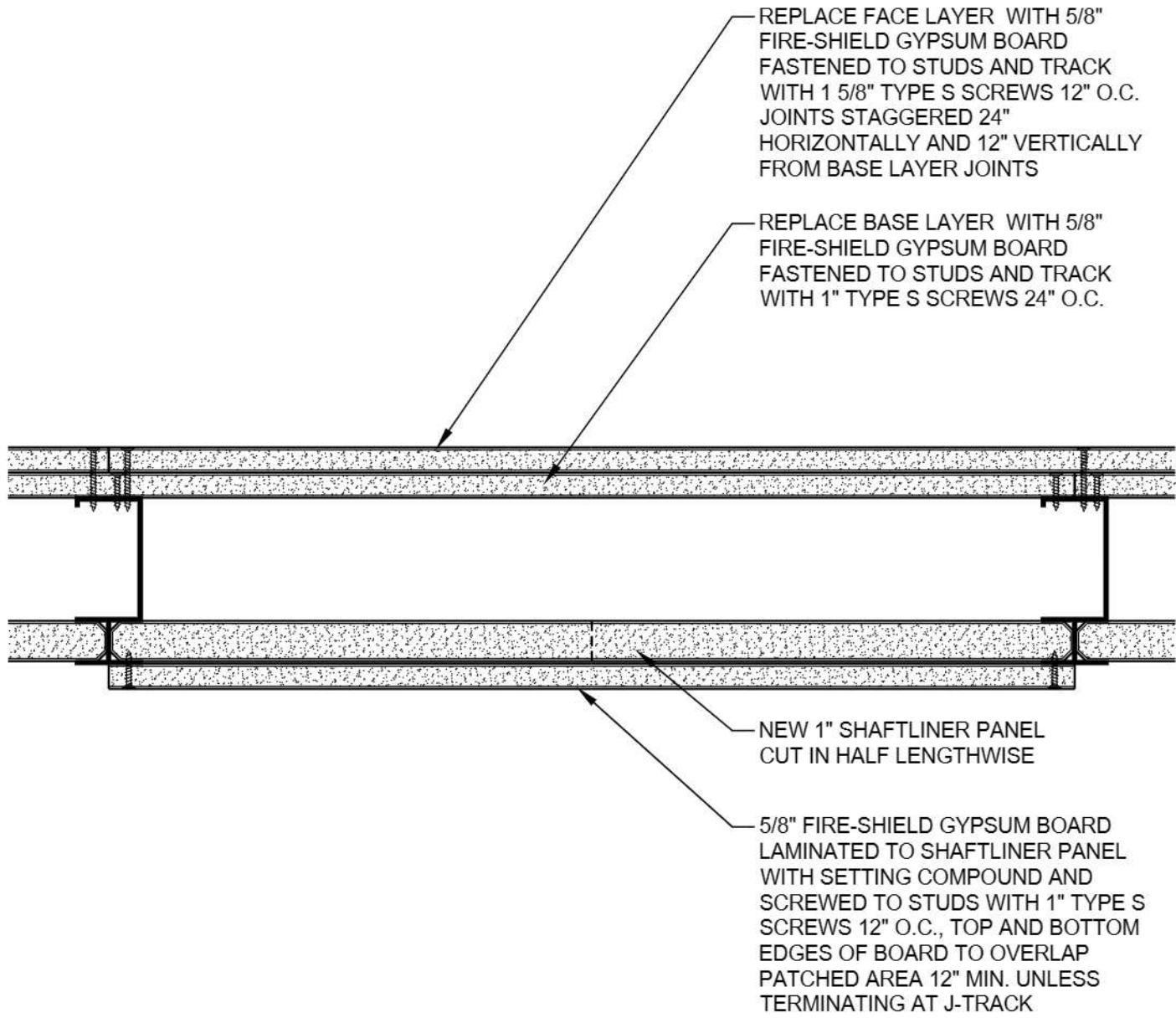


ELEVATOR DOOR JAMB
(FOR ELEVATOR DOORS > 7'-0")

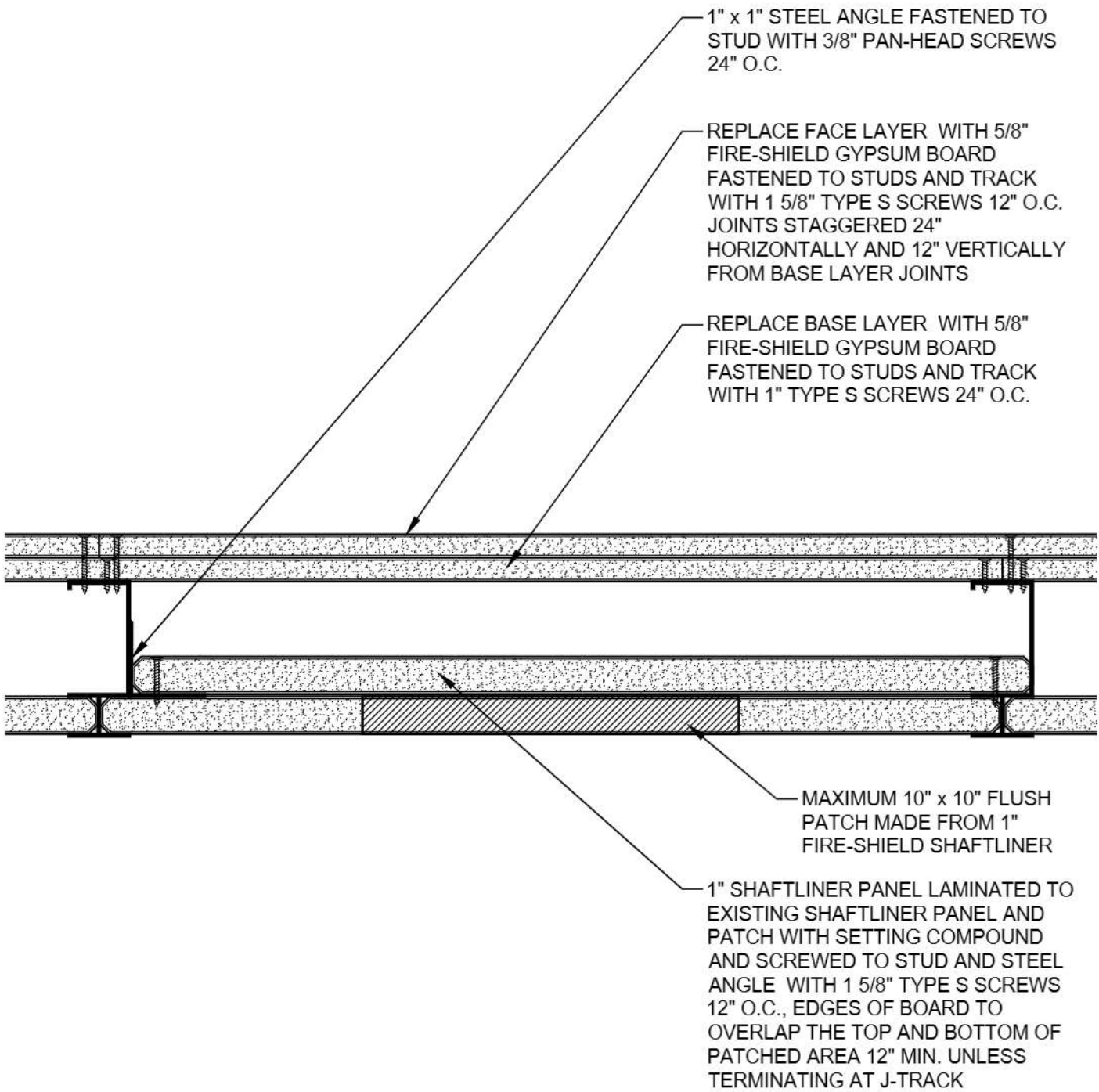
DATE: 09/01/18	ELEVATOR SHAFTWALL HEAD AND JAMB DETAILS	
SCALE: 3"=1'-0"	DETAIL: EV 103	



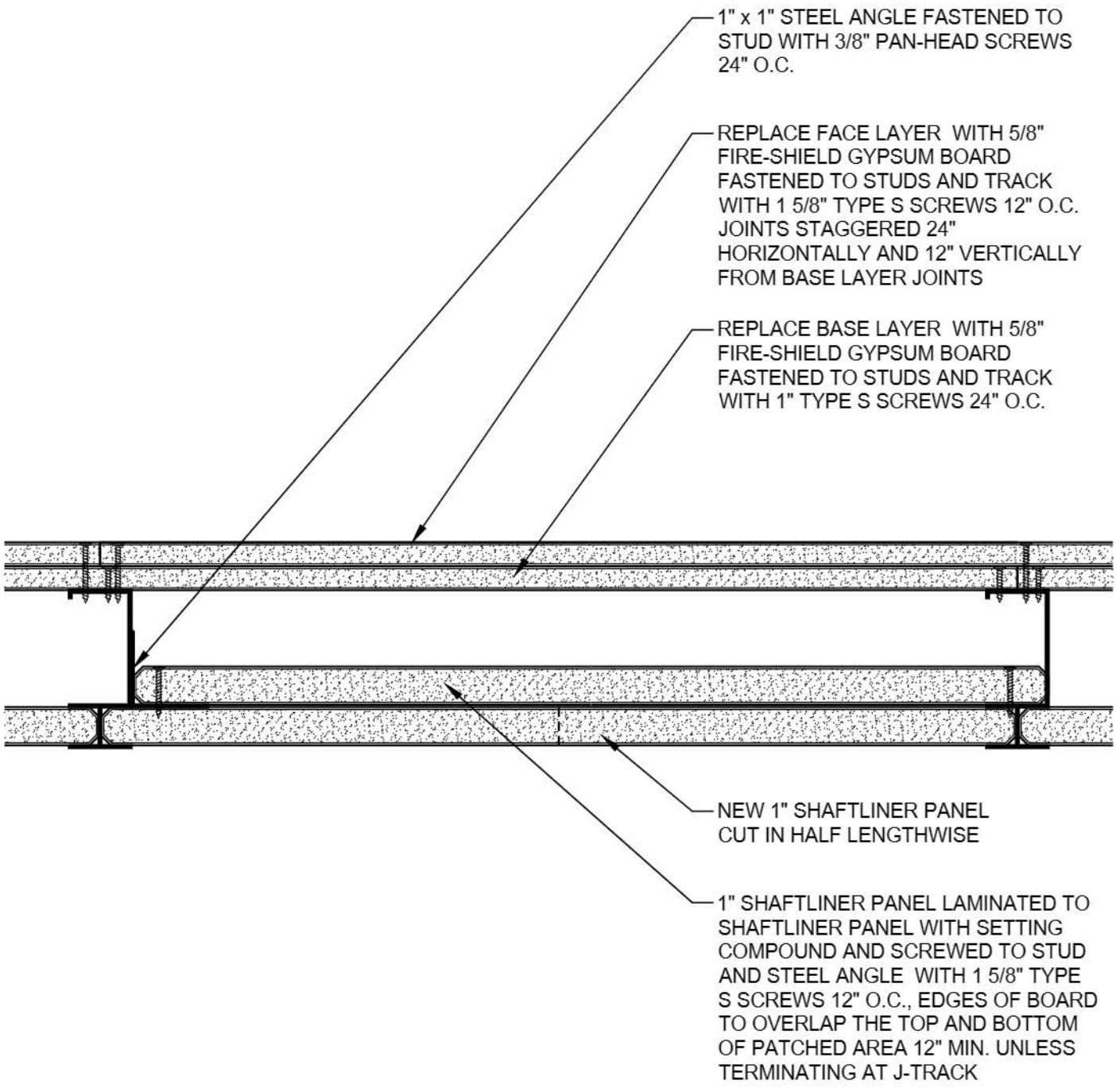
DATE: 09/01/18	2 HR SHAFTWALL REPAIR DETAIL	
SCALE: 3"=1'-0"	DETAIL: SR 101	



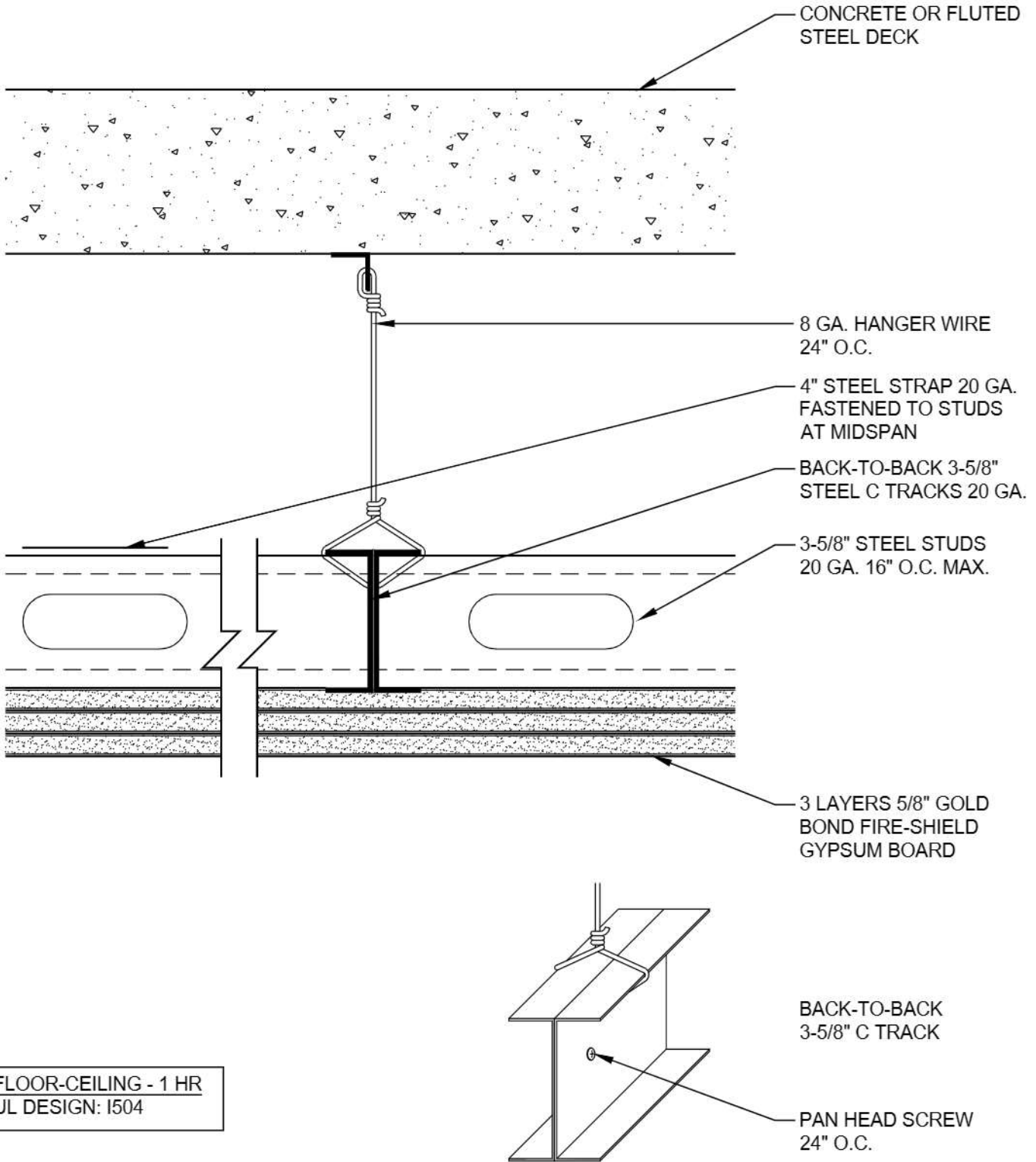
DATE: 09/01/18	2 HR SHAFTWALL REPAIR DETAIL	
SCALE: 3"=1'-0"	DETAIL: SR 102	



DATE: 09/01/18	2 HR SHAFTWALL REPAIR DETAIL	
SCALE: 3"=1'-0"	DETAIL: SR 103	



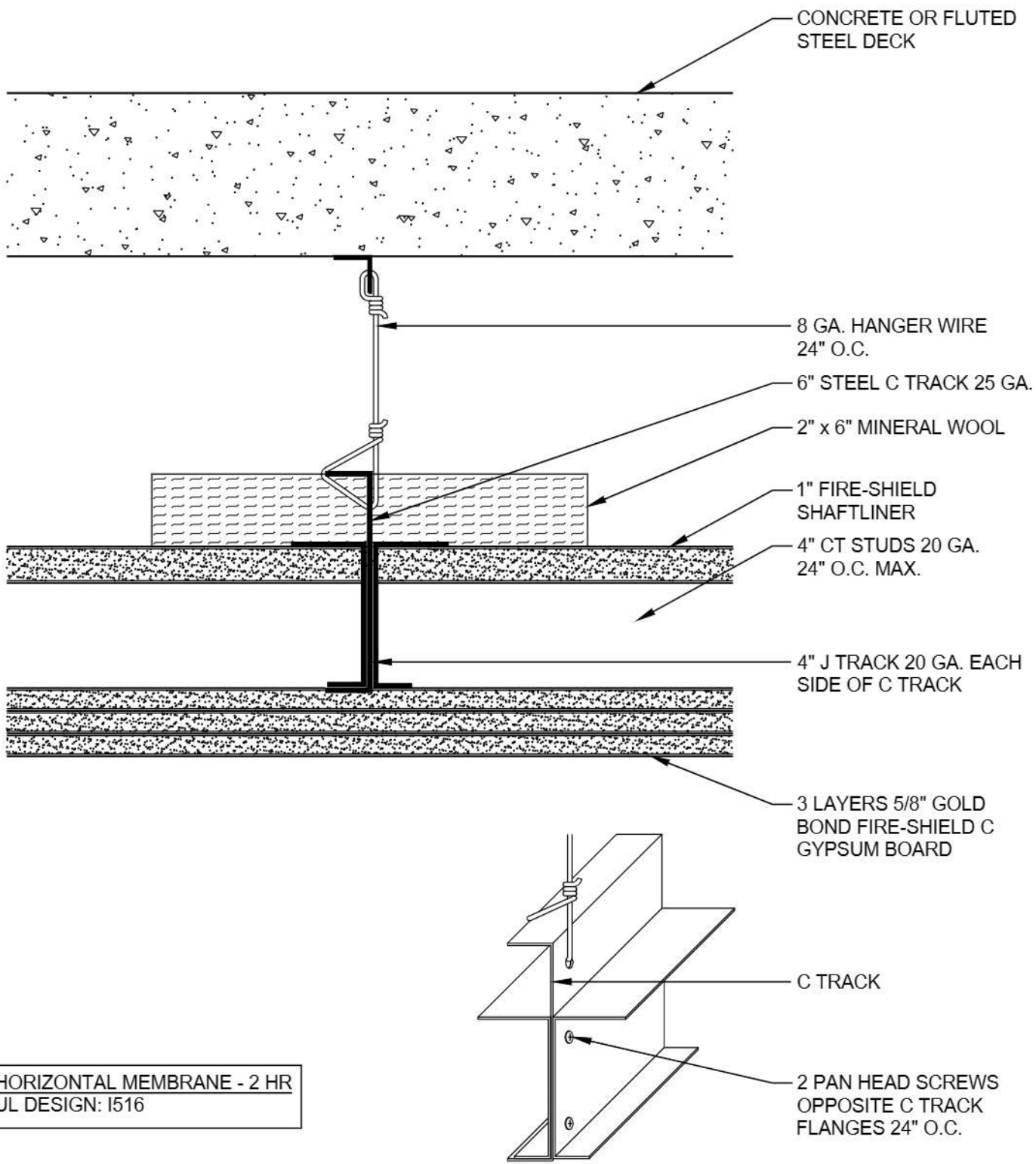
DATE: 09/01/18	2 HR SHAFTWALL REPAIR DETAIL	
SCALE: 3"=1'-0"	DETAIL: SR 104	



FLOOR-CEILING - 1 HR
UL DESIGN: I504

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

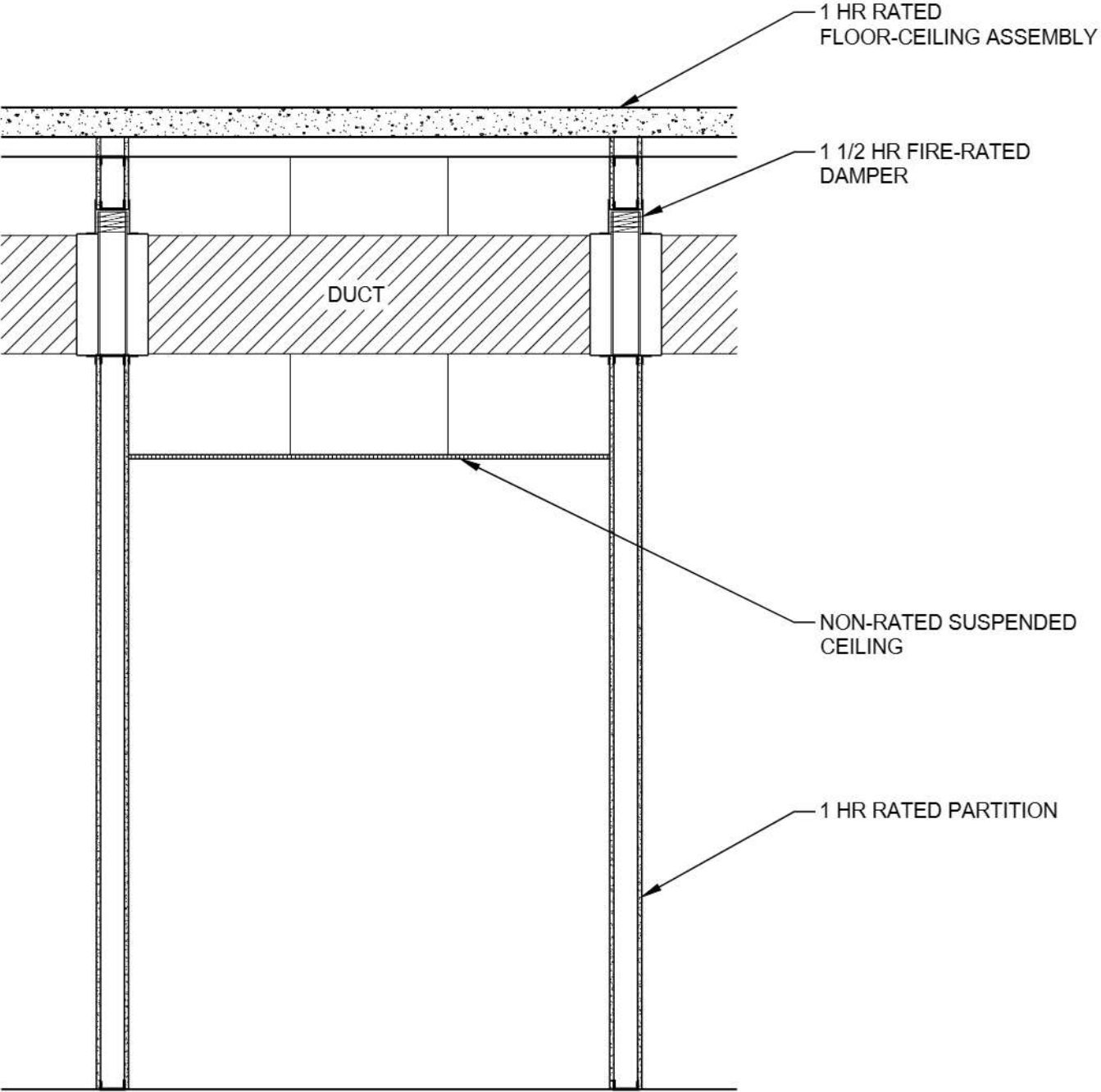
DATE: 09/01/18	1 HOUR HORIZONTAL MEMBRANE	
SCALE: 3"=1'-0"	DETAIL: HM 101	



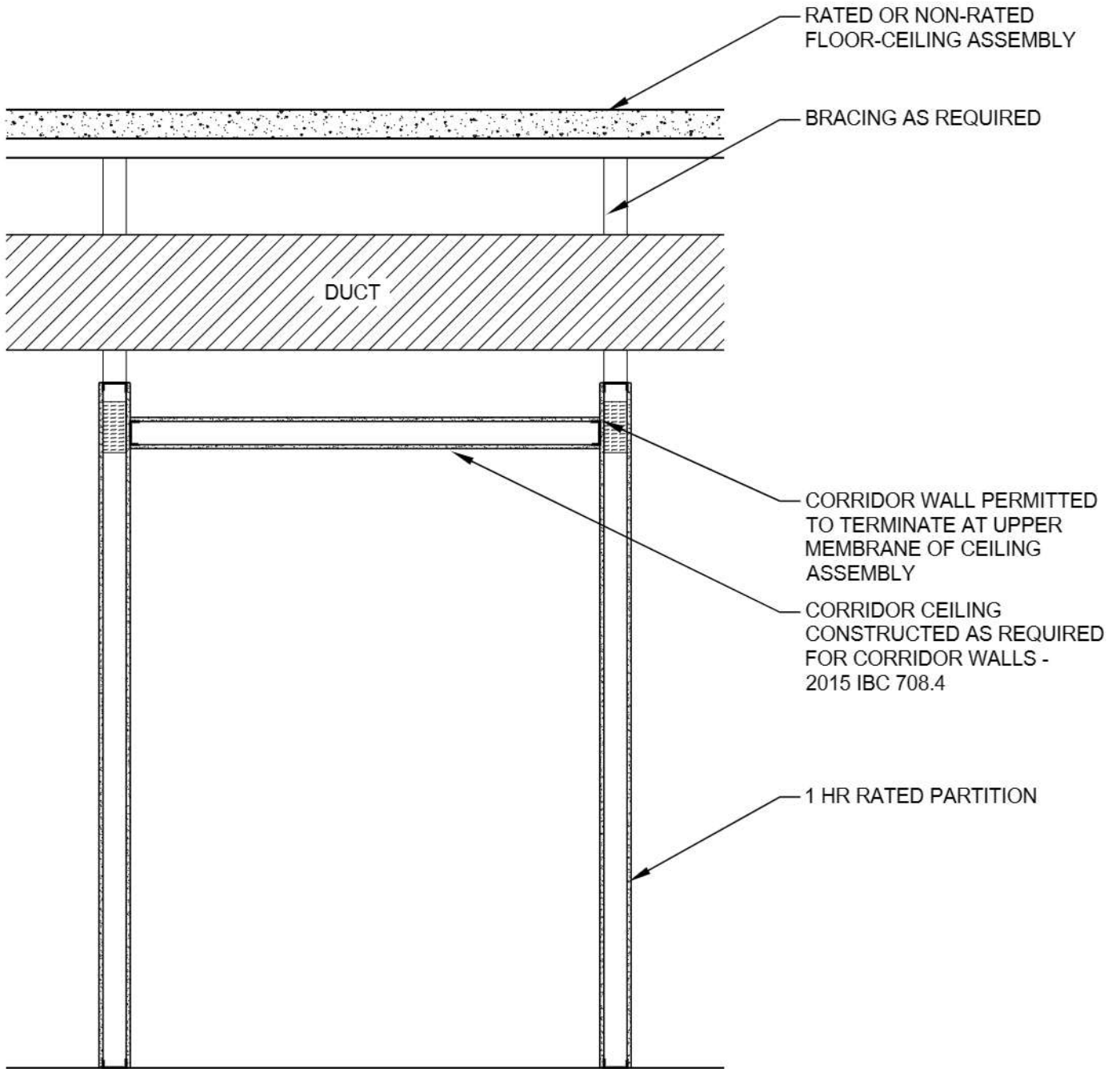
HORIZONTAL MEMBRANE - 2 HR
UL DESIGN: I516

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

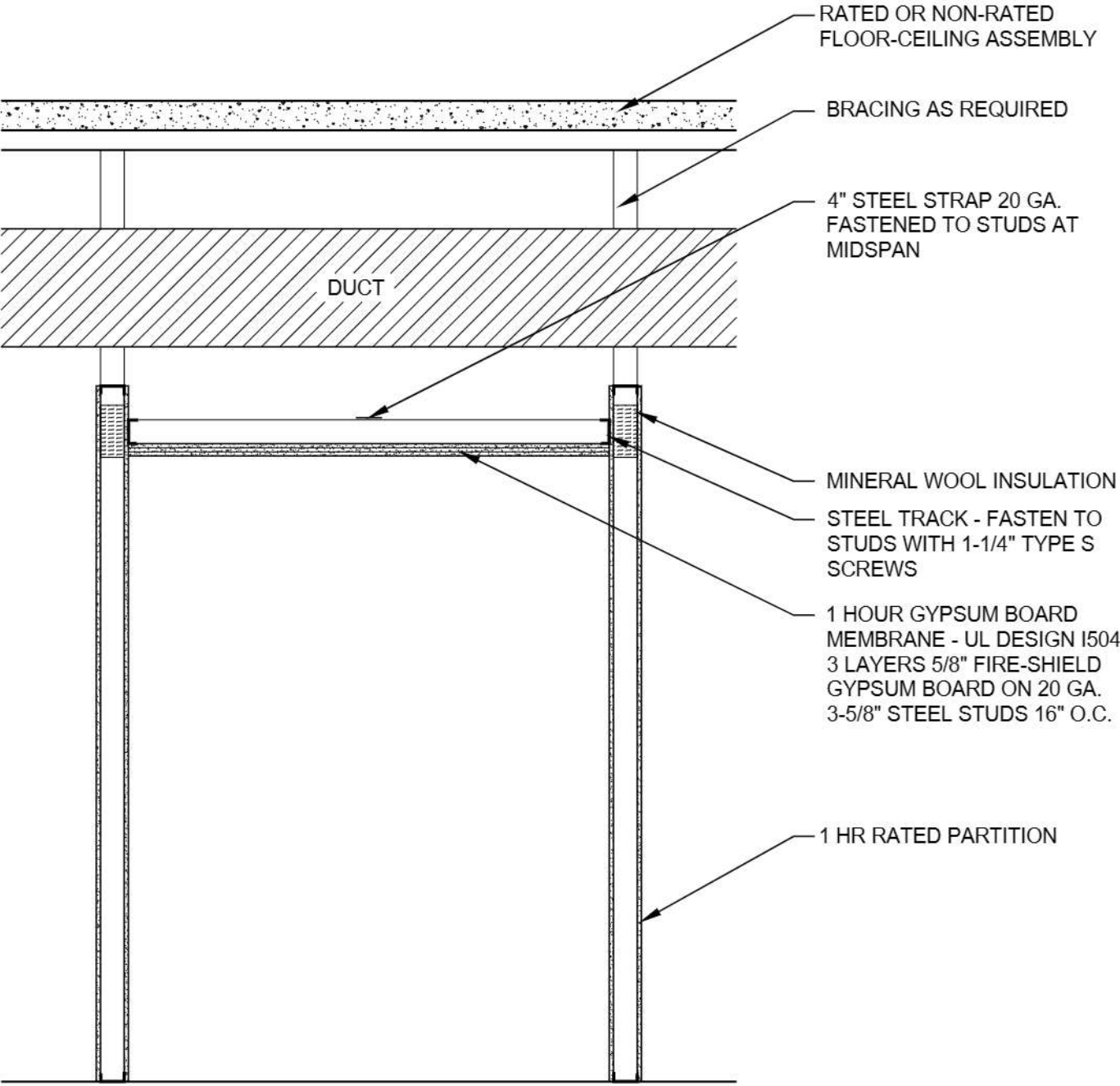
DATE: 12/12/22	2 HOUR HORIZONTAL MEMBRANE	
SCALE: 3"=1'-0"	DETAIL: HM 201	



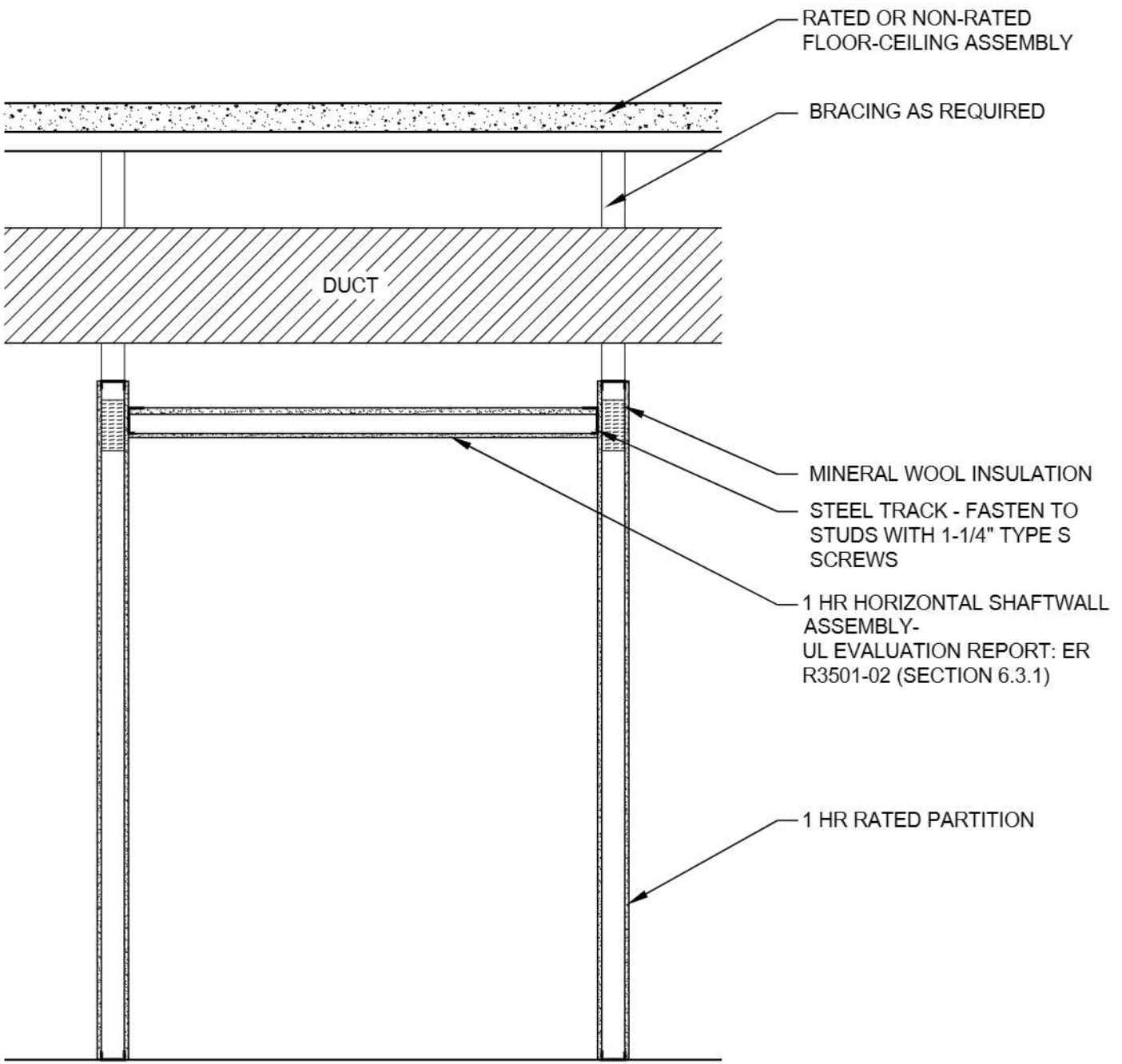
DATE: 09/01/18	1 HOUR CORRIDOR ASSEMBLY	
SCALE: 1/2"=1'-0"	DETAIL: CR 101	



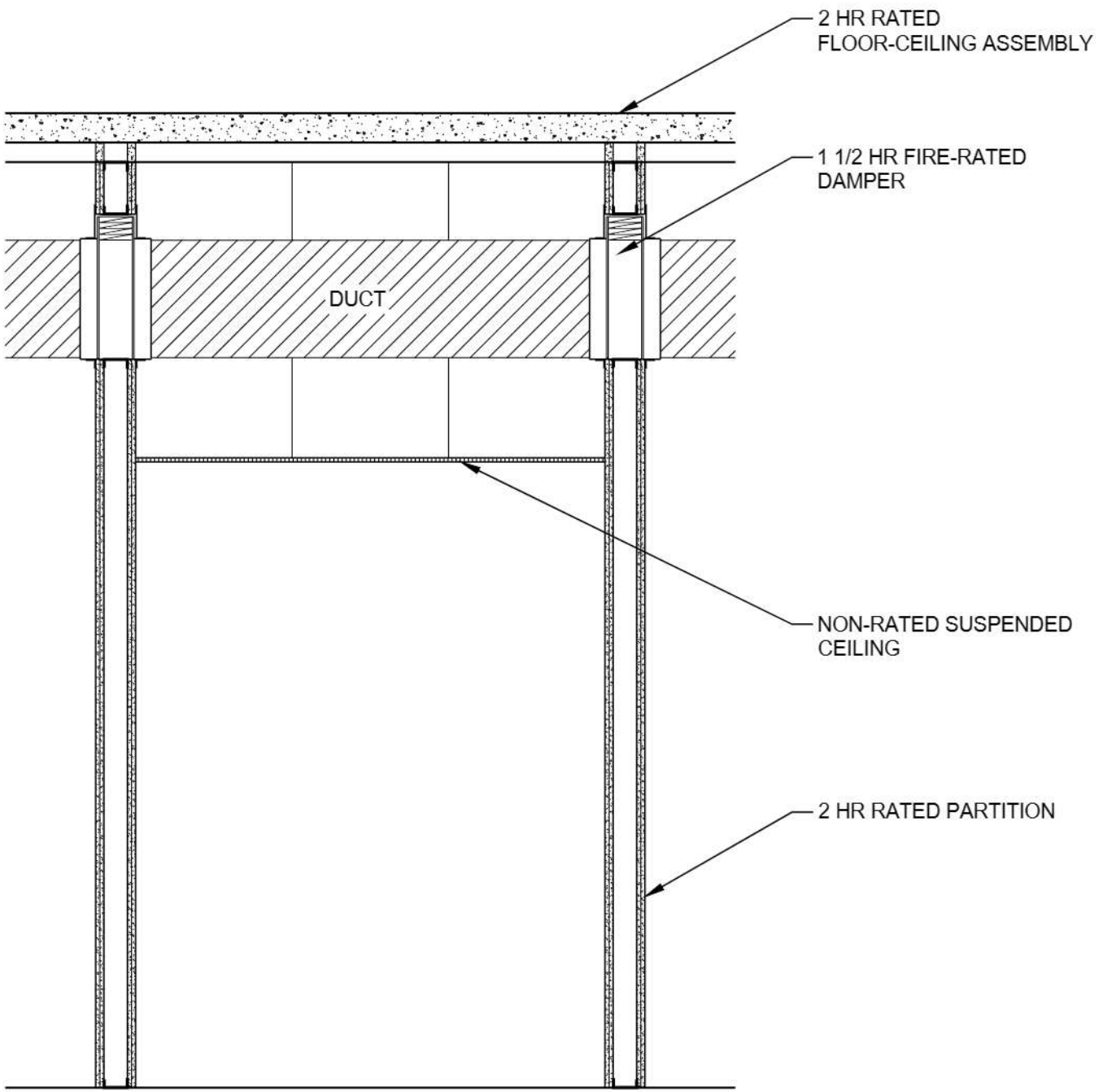
DATE: 09/01/18	1 HOUR CORRIDOR ASSEMBLY	
SCALE: 1/2"=1'-0"	DETAIL: CR 102	



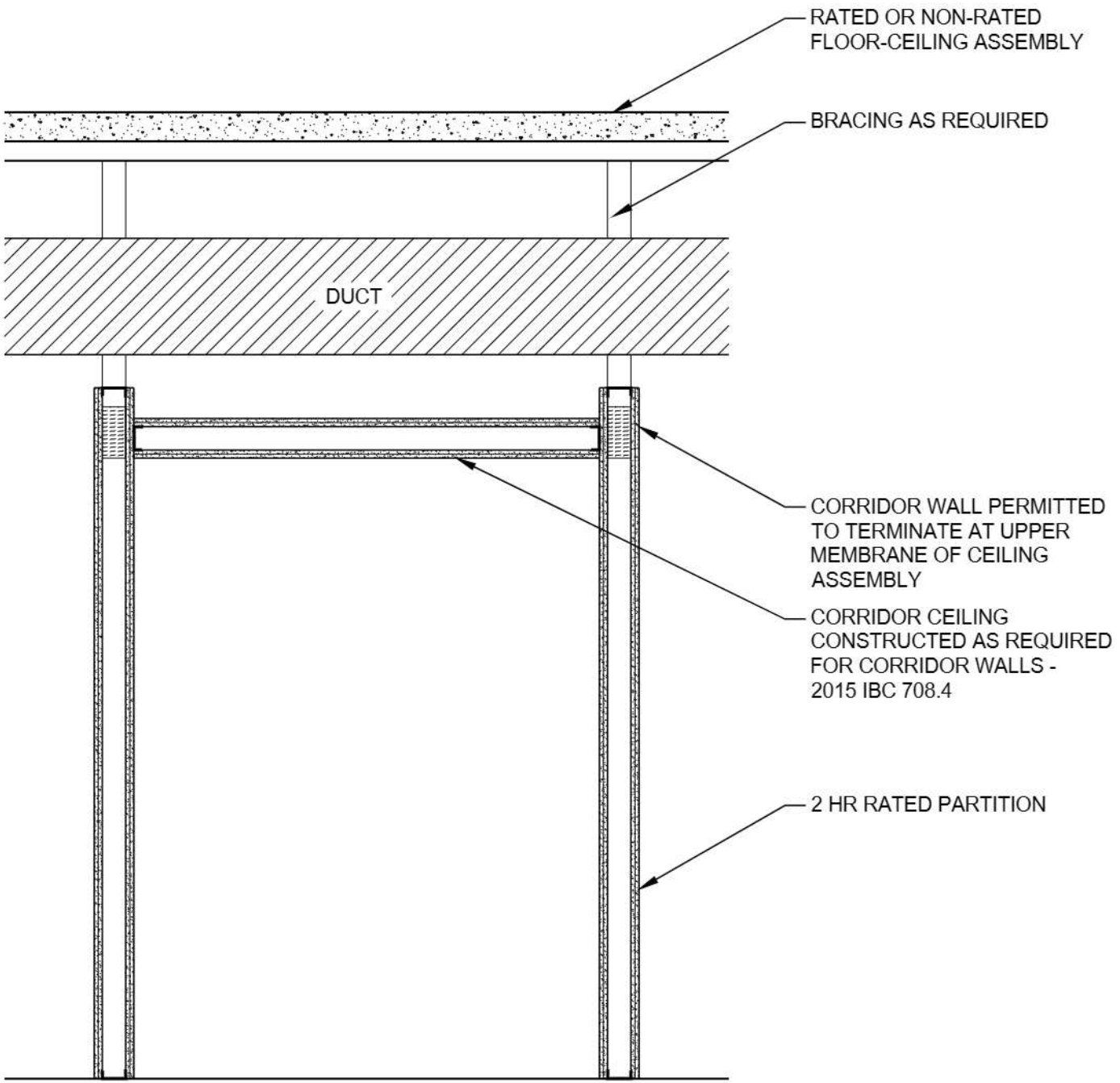
DATE: 09/01/18	1 HOUR CORRIDOR ASSEMBLY	
SCALE: 1/2"=1'-0"	DETAIL: CR 103	



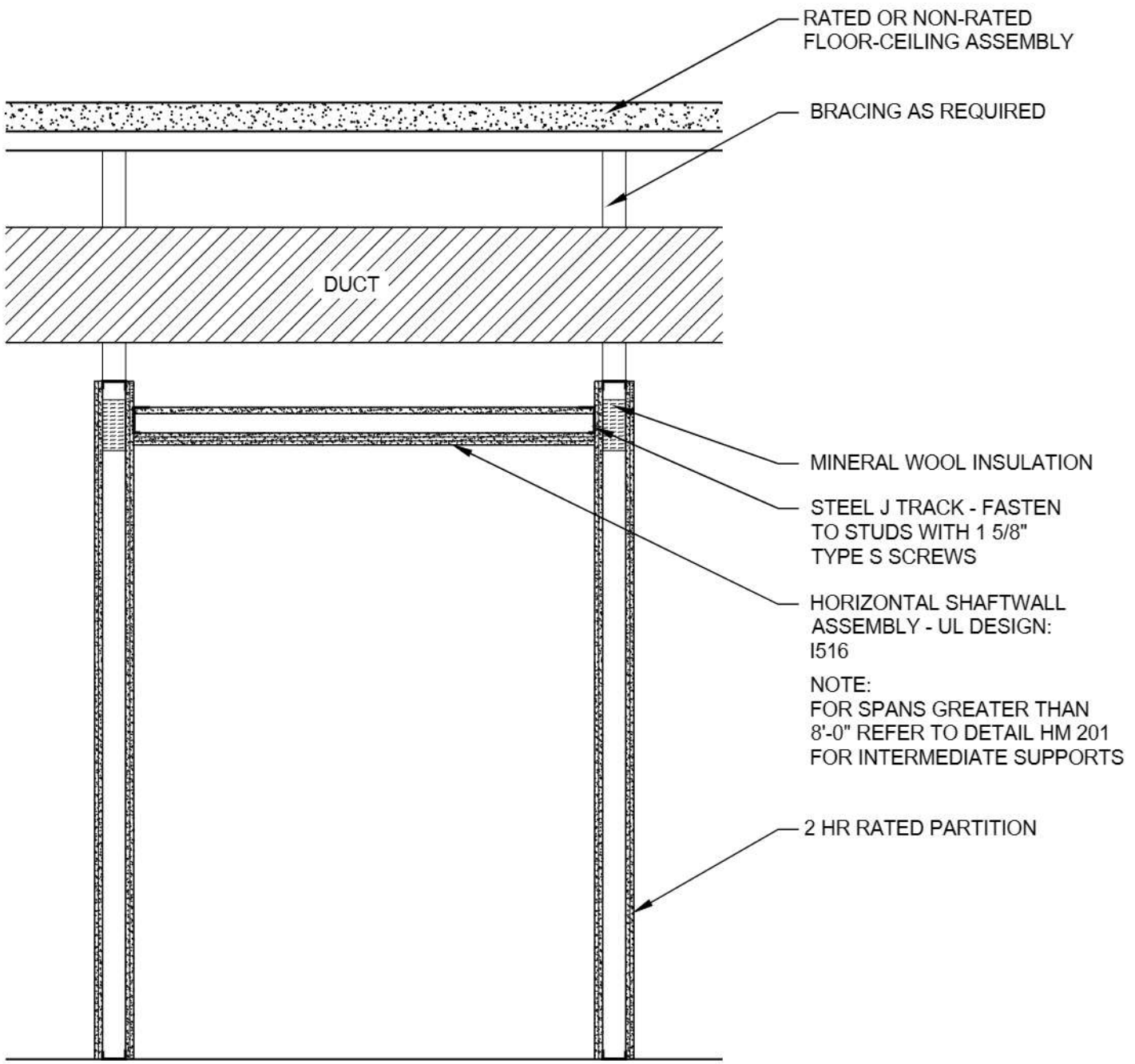
DATE: 04/06/17	1 HOUR CORRIDOR ASSEMBLY	
SCALE: 1/2"=1'-0"	DETAIL: CR 104	



DATE: 09/01/18	2 HOUR CORRIDOR ASSEMBLY	
SCALE: 1/2"=1'-0"	DETAIL: CR 201	

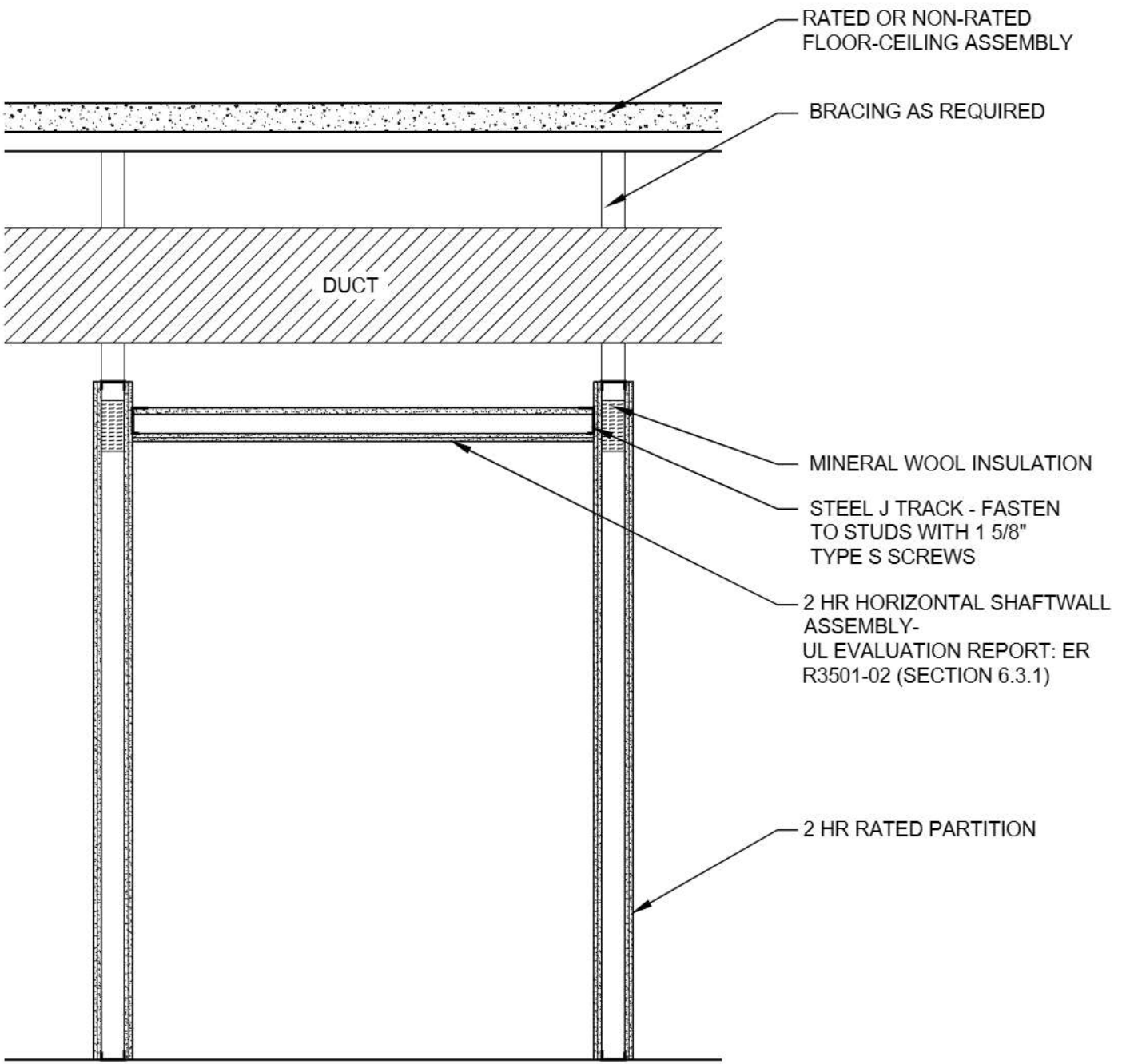


DATE: 09/01/18	2 HOUR CORRIDOR ASSEMBLY	
SCALE: 1/2"=1'-0"	DETAIL: CR 202	

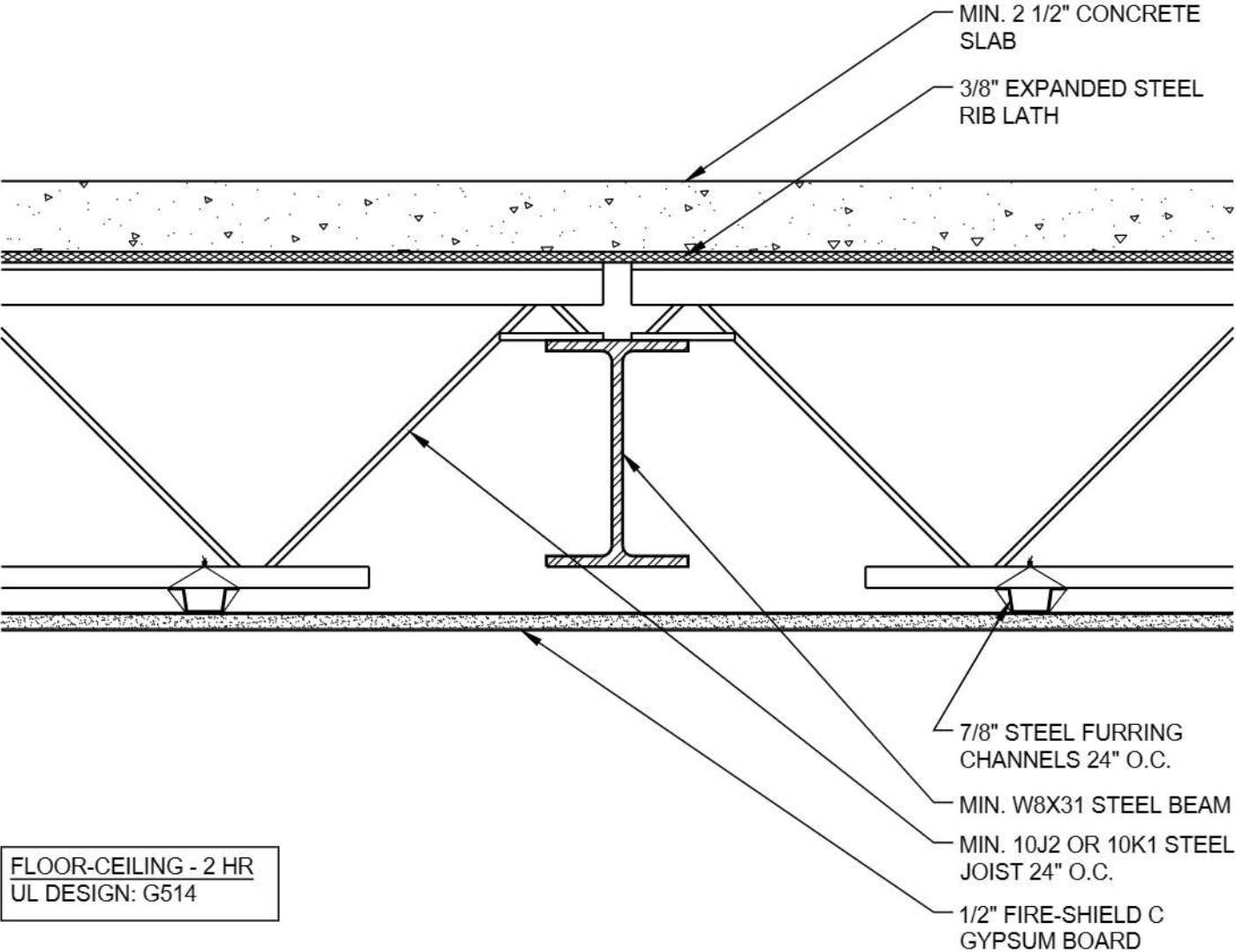


NOTE:
FOR SPANS GREATER THAN
8'-0" REFER TO DETAIL HM 201
FOR INTERMEDIATE SUPPORTS

DATE: 12/12/22	2 HOUR CORRIDOR ASSEMBLY	
SCALE: 1/2"=1'-0"	DETAIL: CR 203	



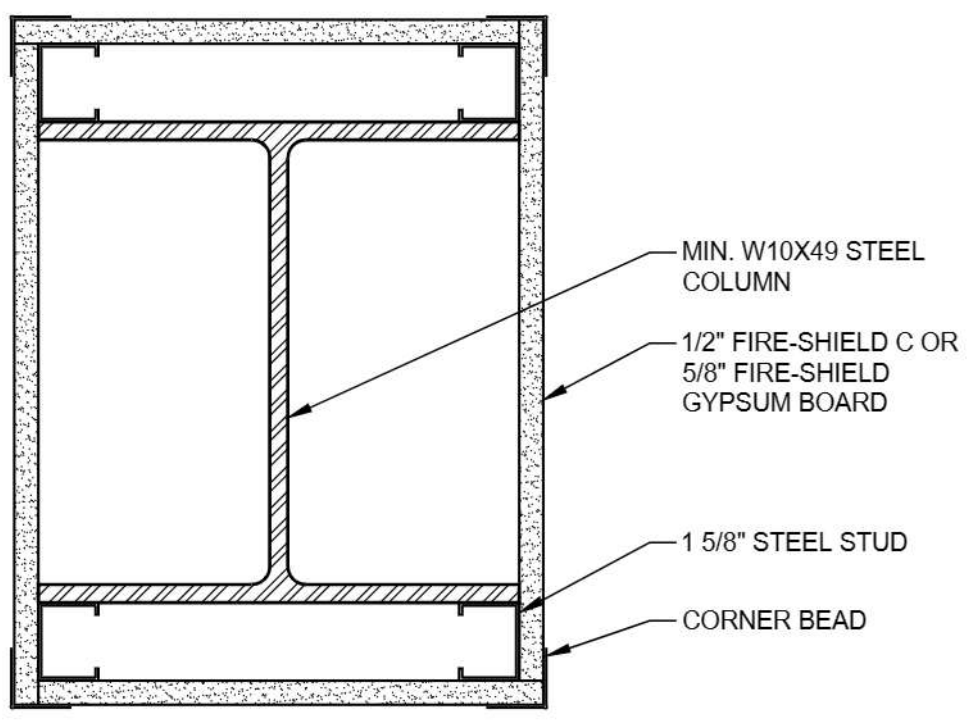
DATE: 09/01/18	2 HOUR CORRIDOR ASSEMBLY	
SCALE: 1/2"=1'-0"	DETAIL: CR 204	



FLOOR-CEILING - 2 HR
UL DESIGN: G514

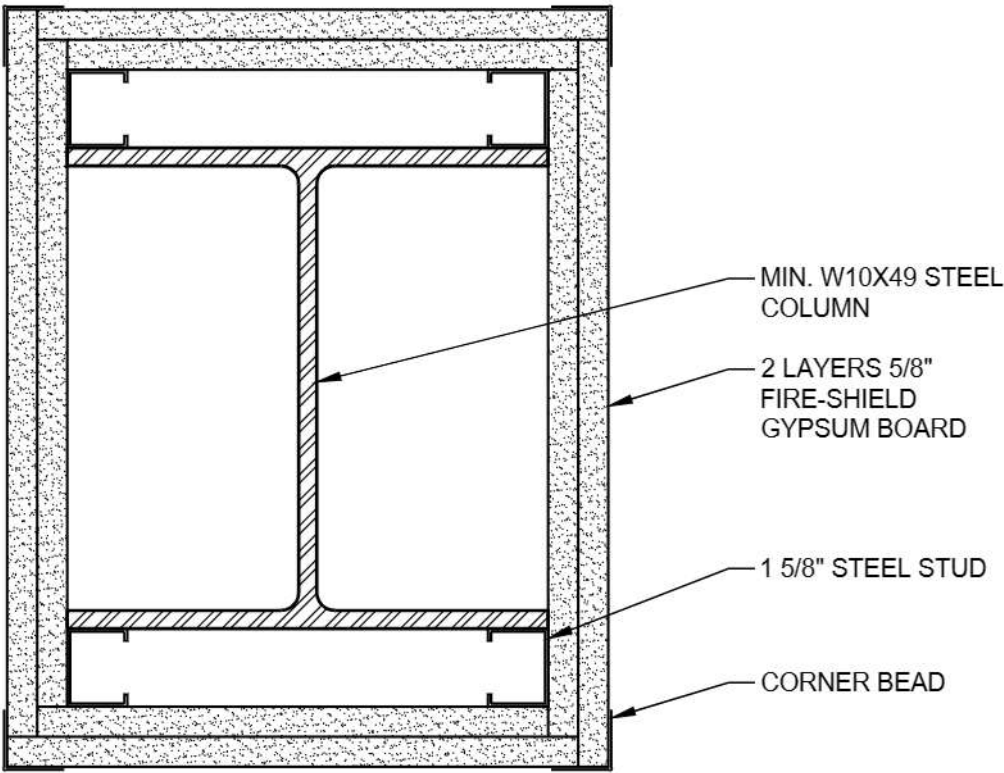
DATE: 09/01/18	2 HOUR FLOOR-CEILING ASSEMBLY	
SCALE: 2"=1'-0"	DETAIL: FC 201	

COLUMN - 1 HR
UL DESIGN: X528



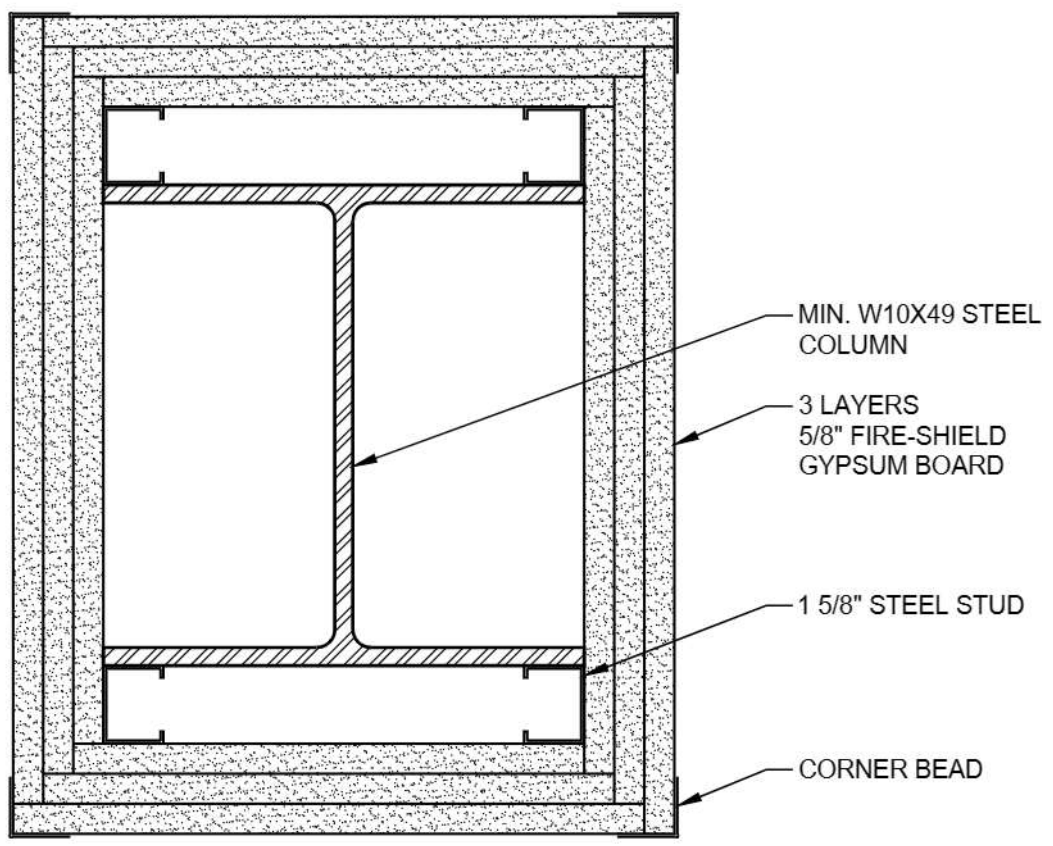
DATE: 09/01/18	1 HOUR RATED COLUMN	
SCALE: 3"=1'-0"	DETAIL: CL 101	

COLUMN - 2 HR
UL DESIGN: X528



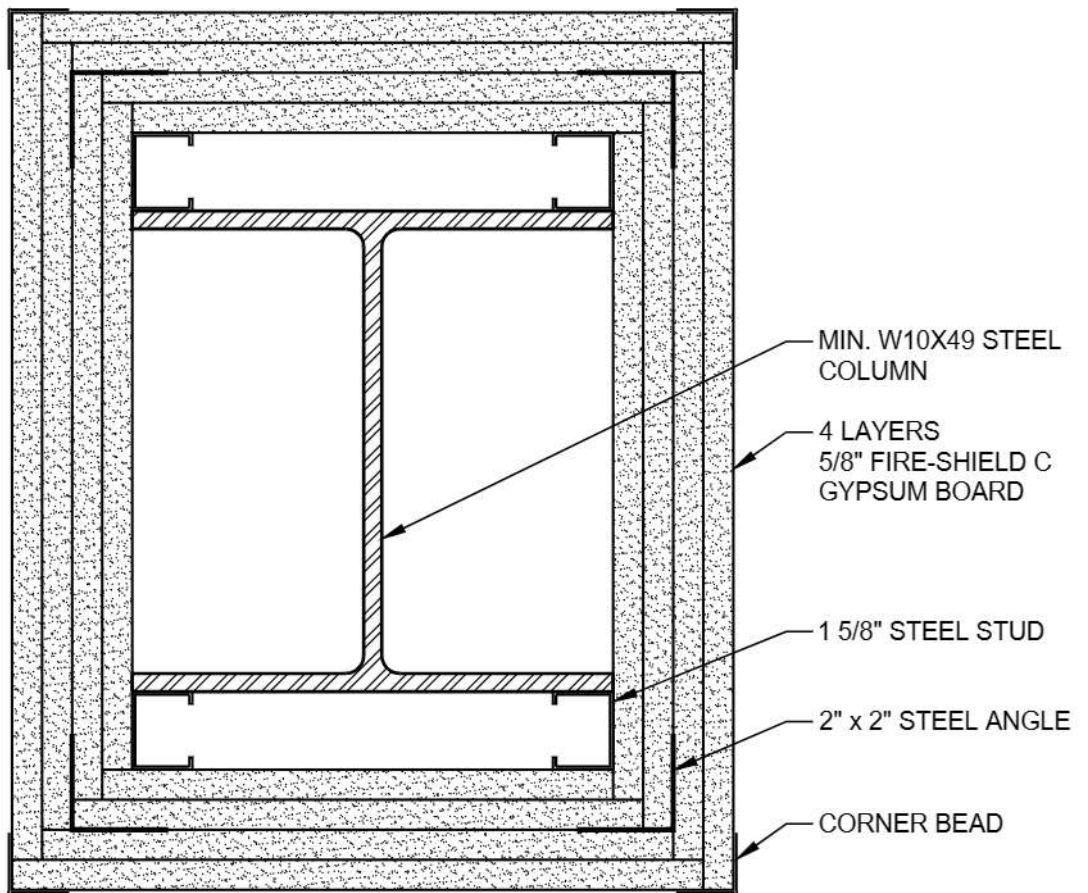
DATE: 09/01/18	2 HOUR RATED COLUMN	
SCALE: 3"=1'-0"	DETAIL: CL 201	

COLUMN - 3 HR
UL DESIGN: X510

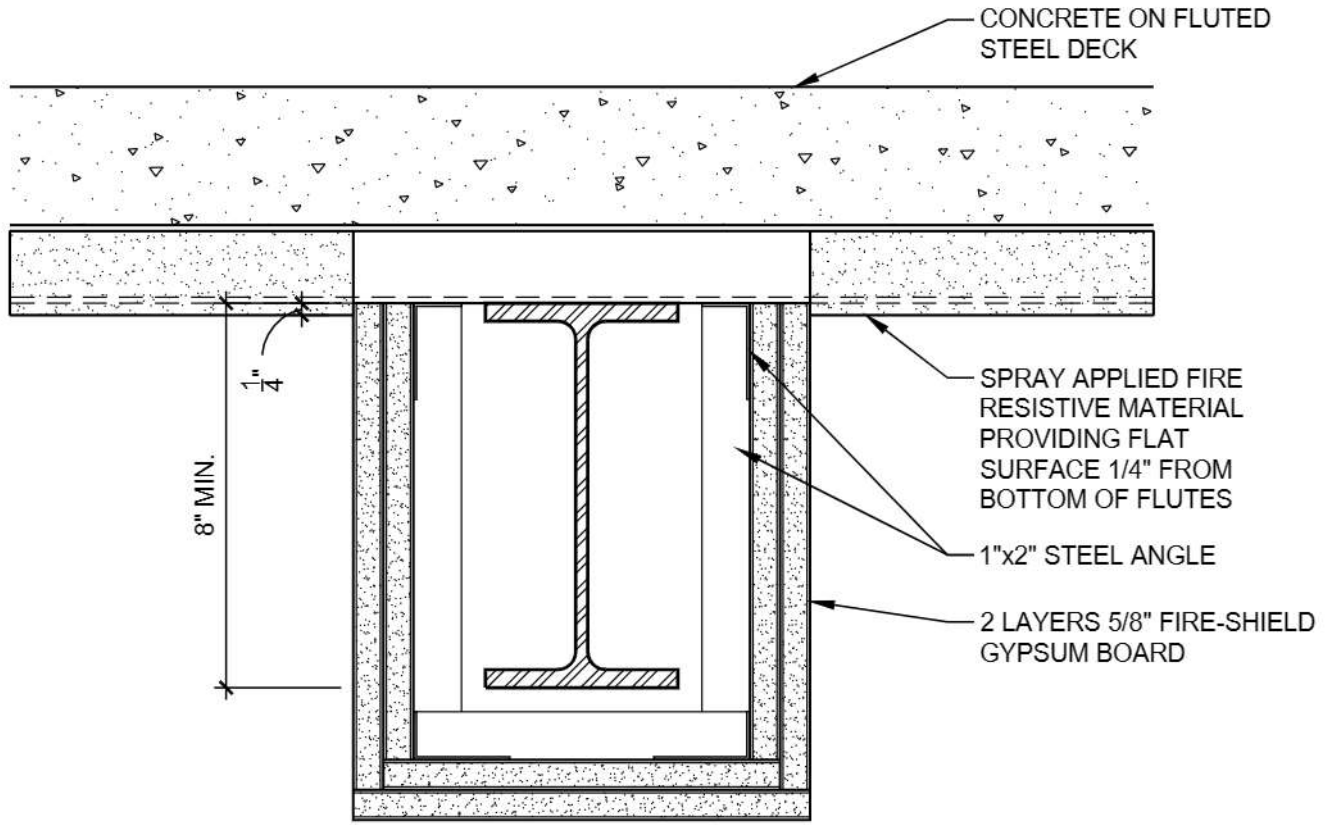


DATE: 09/01/18	3 HOUR RATED COLUMN	
SCALE: 3"=1'-0"	DETAIL: CL 301	

COLUMN - 4 HR
UL DESIGN: X501

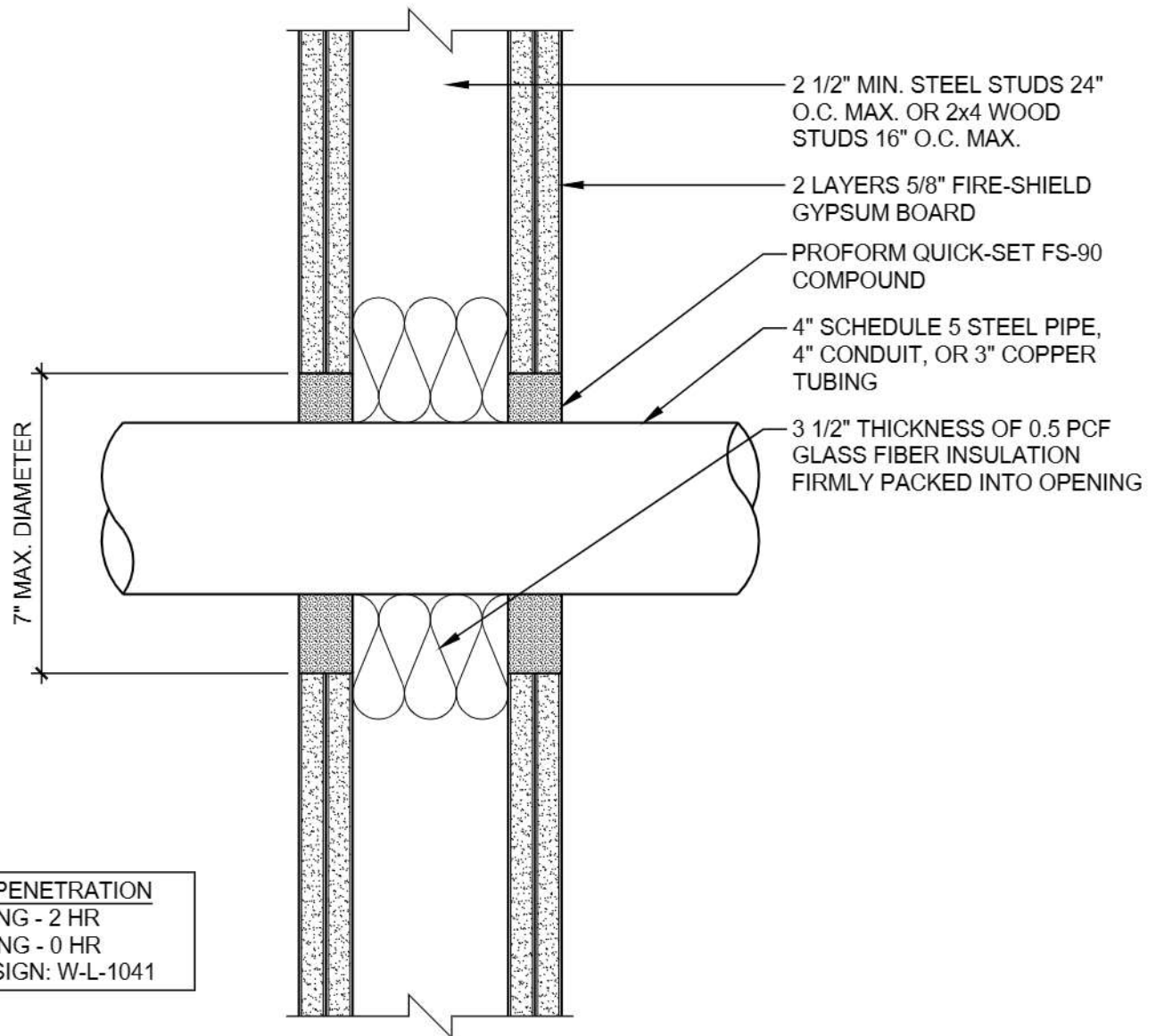


DATE: 09/01/18	4 HOUR RATED COLUMN	
SCALE: 3"=1'-0"	DETAIL: CL 401	

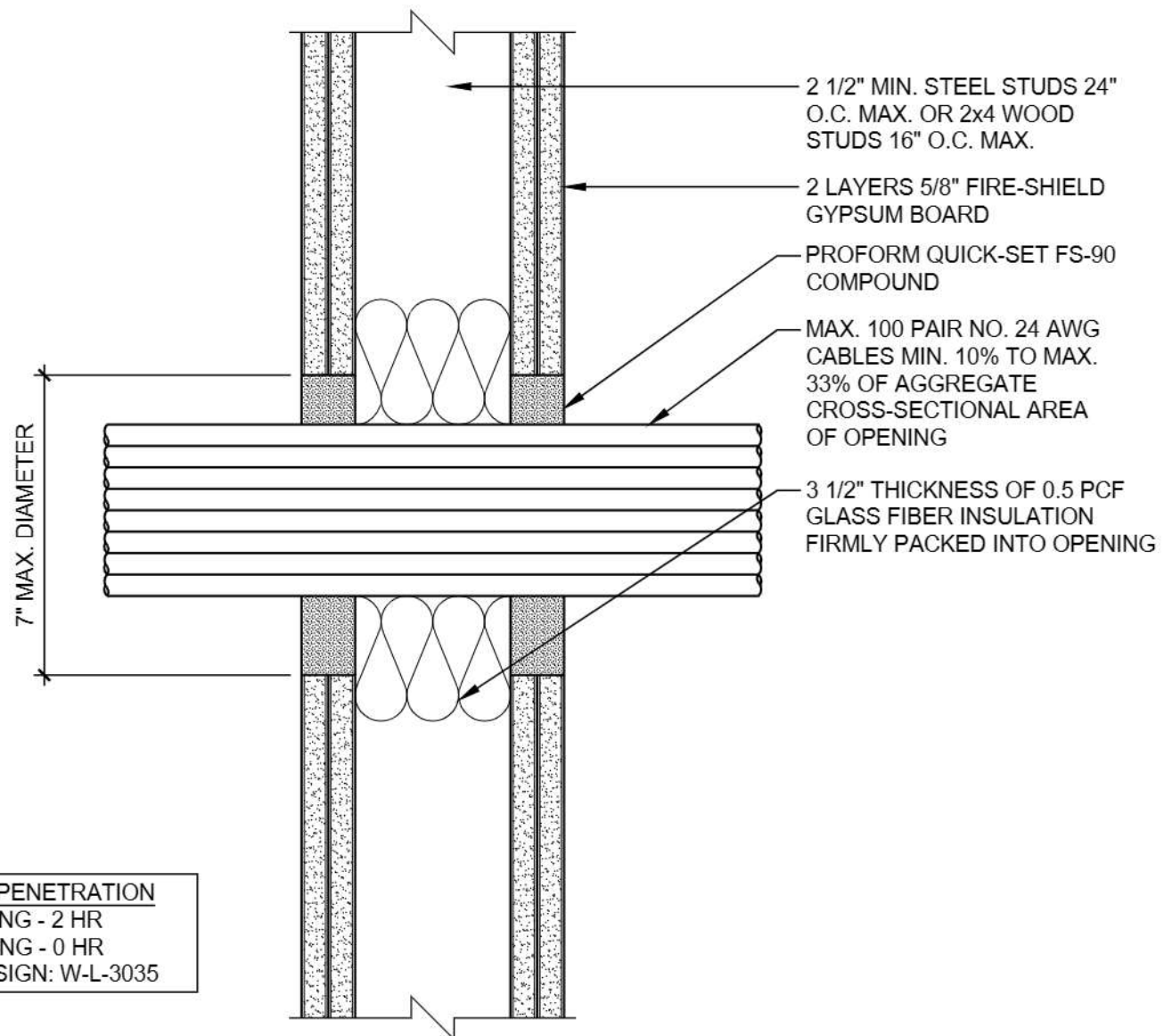


BEAM - 2 HR
UL DESIGN: N501

DATE: 09/01/18	2 HOUR STEEL BEAM	
SCALE: 3"=1'-0"	DETAIL: BM 201	

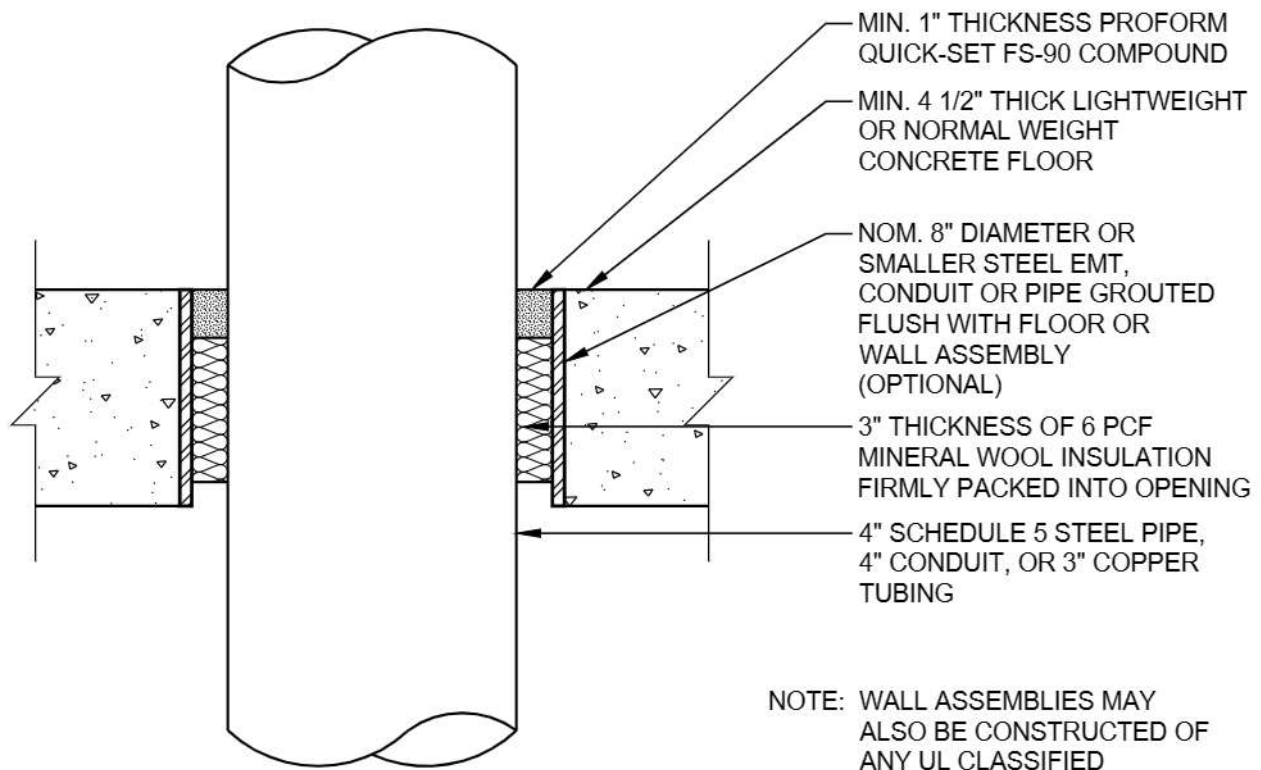


DATE: 09/01/18	PIPE PENETRATION THROUGH WALL	National Gypsum
SCALE: 3"=1'-0"	DETAIL: PN 201	



WALL PENETRATION
 F RATING - 2 HR
 T RATING - 0 HR
 UL DESIGN: W-L-3035

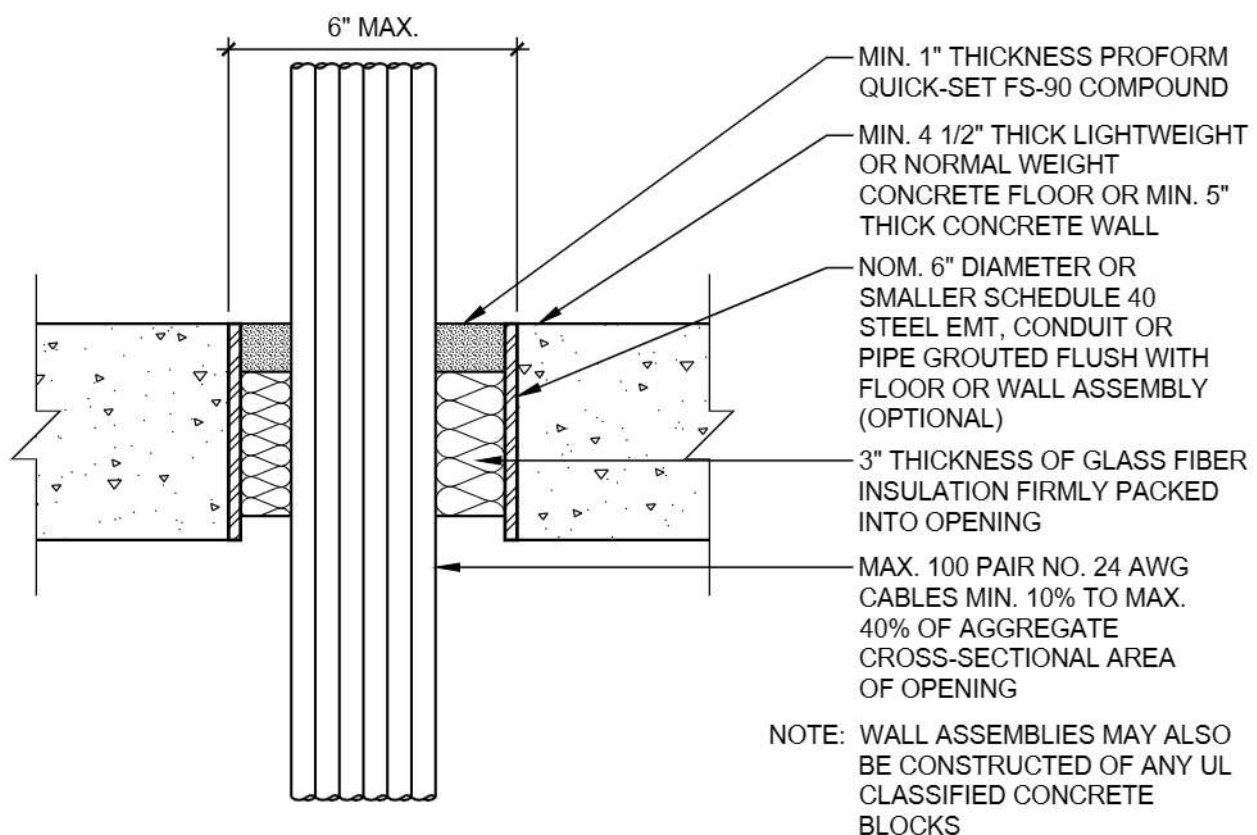
DATE: 09/01/18	CABLE PENETRATION THROUGH WALL	
SCALE: 3"=1'-0"	DETAIL: PN 202	



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

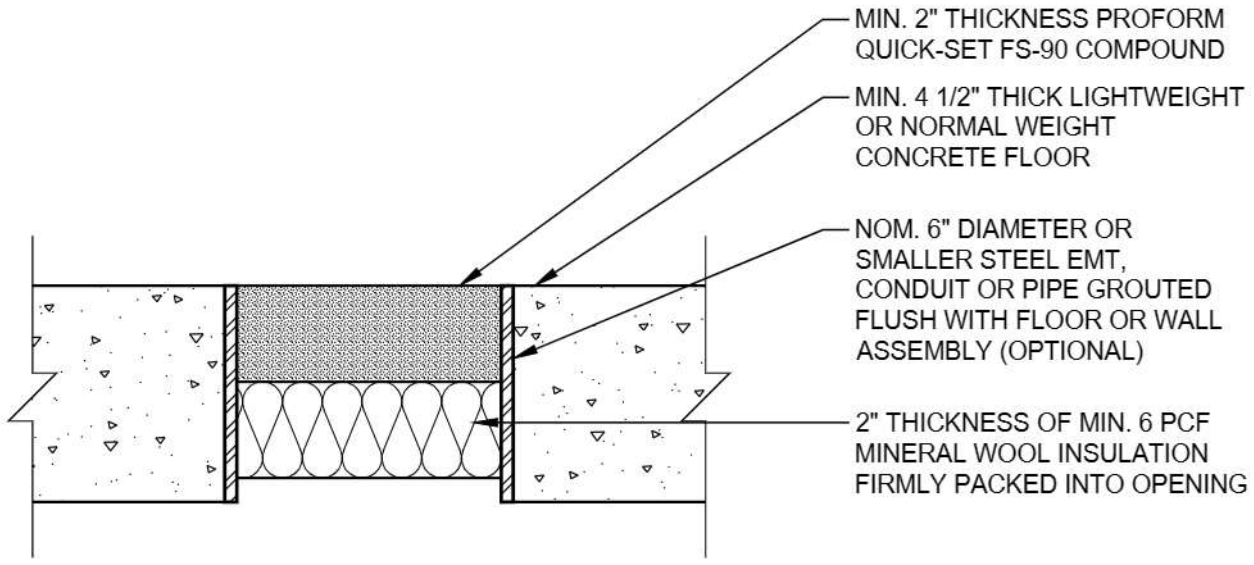
FLOOR PENETRATION
 F RATING - 3 HR
 T RATING - 0 HR
 UL DESIGN: C-AJ-1163

DATE: 09/01/18	PIPE PENETRATION THROUGH FLOOR	
SCALE: 3"=1'-0"	DETAIL: PN 301	




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

DATE: 09/01/18	CABLE PENETRATION THROUGH FLOOR	
SCALE: 3"=1'-0"	DETAIL: PN 302	

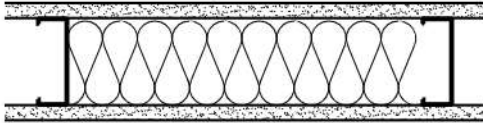


NOTE: WALL ASSEMBLIES MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS

VOID ASSEMBLY
 F RATING - 3 HR
 T RATING - 1/2 HR
 UL DESIGN: C-AJ-0038

DATE: 09/01/18	VOID FILL ASSEMBLY	
SCALE: 3"=1'-0"	DETAIL: PN 303	

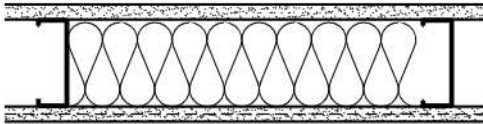
UL DESIGN: U465, V438



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

STC 43
 TEST: NGC 2502

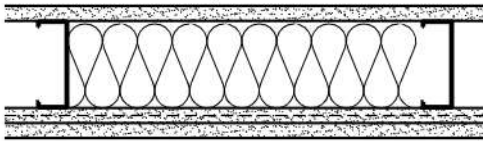
UL DESIGN: U465, V438



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

STC 49
 TEST: NGC2009058

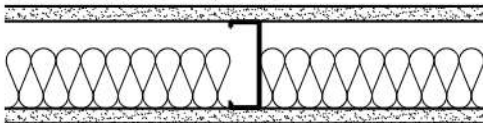
UL DESIGN: U465, V438



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 52
 TEST: RAL-TL07-148

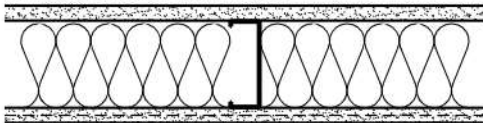
UL DESIGN: U465, V438



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 47
 TEST: NGC 2386

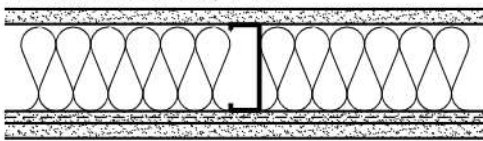
UL DESIGN: U465, V438



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 54
 TEST: RAL-TL07-389

UL DESIGN: U465, V438

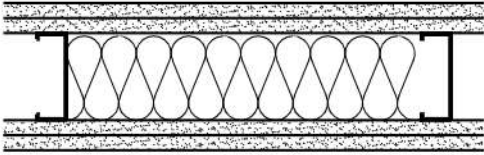


5/8" FIRE-SHIELD GYPSUM BOARD
 3 5/8" 25GA. STEEL STUDS 24" O.C.
 3 1/2" GLASS FIBER INSULATION
 1/2" SOUNDBREAK XP GYPSUM BOARD
 5/8" FIRE-SHIELD GYPSUM BOARD

STC 57
 TEST: RAL-TL06-334

DATE: 09/01/18	SOUND RATINGS FOR 1 HOUR PARTITIONS	
SCALE: 1 1/2"=1'-0"		

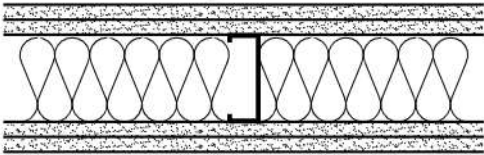
UL DESIGN: U411, V438



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

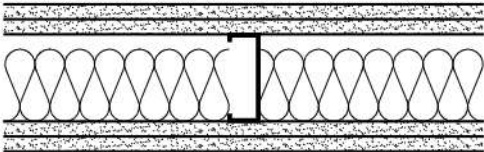
UL DESIGN: U411, V438



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

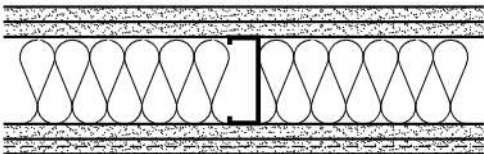
UL DESIGN: U411, V438



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

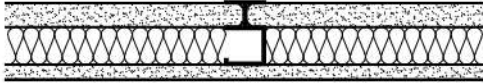
DATE: 09/01/18
SCALE: 1 1/2"=1'-0"

SOUND RATINGS FOR 2 HOUR PARTITIONS

DETAIL: SN 102



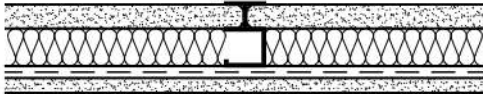
UL DESIGN: U499, W419



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

STC 42
TEST: NGC 2542

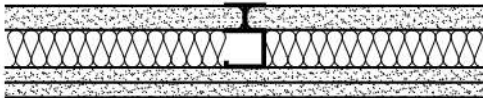
UL DESIGN: U499, W419



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

STC 48
TEST: NGC 2541

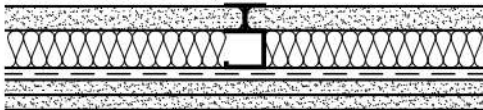
UL DESIGN: U497, W419



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

STC 48
TEST: NGC 2507

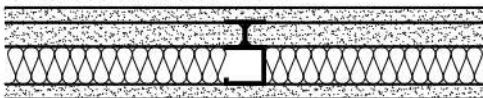
UL DESIGN: U497, W419



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

STC 51
TEST: NGC 2540

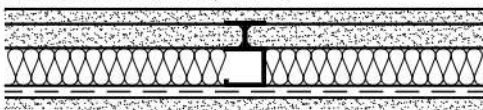
UL DESIGN: U498, W419



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

STC 48
TEST: NGC 2534

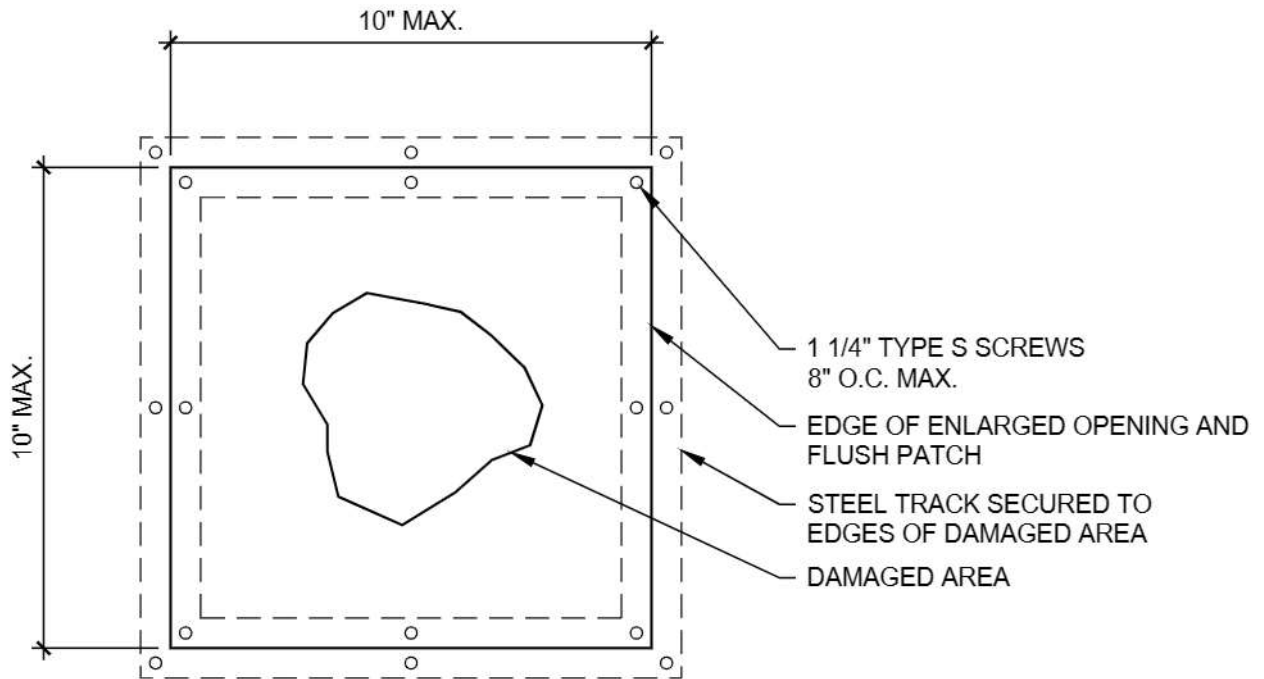
UL DESIGN: U498, W419



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

STC 52
TEST: NGC 2538

DATE: 09/01/18	SOUND RATINGS FOR SHAFTWALL PARTITIONS	
SCALE: 1 1/2"=1'-0"	DETAIL: SN 103	



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.

DATE: 09/01/18	REPAIR OF FIRE-RATED GYPSUM BOARD PARTITIONS	
SCALE: 3"=1'-0"	DETAIL: RE 101	

Notes

Notes

Excellence Across The Board®

National Gypsum Company is the exclusive service provider of reliable, high-performance building products manufactured by its affiliate companies and marketed under the Gold Bond®, ProForm®, and PermaBASE® brands. The National Gypsum name has been synonymous with high-quality, innovative products and exceptional customer service since 1925.

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8:00 a.m. – 4:45 p.m. ET | Monday-Friday
Email: techservice@nationalgypsum.com



Whether it's a question about specifications, code regulations, product usage or installation, the 1-800-NATIONAL Construction Services team offers more than 90 years of experience.

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