



## Series 22 Fire Rated Door System

### Description

The Plyco Series 22 is an 18 ga. galv. steel insulated fire-rated door for commercial KD or pre-hung with header. All Series 22 door units comply with ANSI A 250.8 (R2008) designation Level 2 Model 1. Fire labeling per NFPA 80 for 1-1/2 hour or 3 hour assemblies through Intertek-WHI.

### Physical Characteristics

PART NUMBER	SIZE/DESCRIPTION	FRAME DEPTH	PREP	OVERALL DIMENSIONS
23MPW3068-4 or 5*X	3/0 x 6/8 COMPLETE UNIT POWDER WHITE	4 3/4" or 5 3/4"	C or M	40" x 82" (40" X 84" w/4" Header**)
23MPW3070-4 or 5*X	3/0 x 7/0 COMPLETE UNIT POWDER WHITE	4 3/4" or 5 3/4"	C or M	40" x 86" (40" X 88" w/4" Header**)
23MPW4070-4 or 5*X	4/0 x 7/0 COMPLETE UNIT POWDER WHITE	4 3/4" or 5 3/4"	C or M	52" x 86" (52" X 88" w/4" Header**)
23MPW6068-4 or 5*X	6/0 x 6/8 DBL.CMPLT UNIT POWDER WHITE	4 3/4" or 5 3/4"	C or M	76" x 82" (76" X 84" w/4" Header**)
23MPW6070-4 or 5*X	6/0 x 7/0 DBL.CMPLT UNIT POWDER WHITE	4 3/4" or 5 3/4"	C or M	76" x 86" (76" X 88" w/4" Header**)

\*X = Lock Prep (Cylindrical or Mortise). Special sizes are not available. Blank doors are reversible. Threshold is swing-dedicated ADA.

\*\*A 4" masonry header depth option is available for the 5 3/4" frame bringing the height to 84" for 6/8 heights and 88" for 7/0 heights.

**DOUBLE DOORS** Double door has a Z-astragal with ASA strike attached to the inactive panel, and has UL Listed head and foot flushbolts.

A hardware mullion is utilized on all double active doors using panic hardware. Designate handing of active door of the pair.

**FINISH** Exposed door surfaces to be cleaned, treated, and coated with rust inhibitive primer and finish paint compliant with ANSI A250.10 and ANSI A250.3. Color is POWDER WHITE. Gray primer-only is used on specially ordered materials. High quality polyurethane finish paint (your color) available at an additional charge.

**HINGES** (3) 4.5" x 4.5" high-quality BMHA Certified, UL Listed standard weight commercial stainless steel (NRP) plain bearing hinges. Finish US 32D (ANSI/BHMI 630) Stainless Steel-Satin. Ball-bearing or heavy-weight hinges also available.

**THRESHOLD** Aluminum: Standard duty, ribbed saddle type UL approved, ADA approved.

**DOOR PANEL** 1-3/4" smooth 18 ga. A.60 galvanized steel skin with aluminum/vinyl surface mounted strip sweep. Rolled edge, mechanically joined with welded corners and reinforcements.

**BLOCKING** 14 ga. steel lock reinforcement, 14 ga. steel closer reinforcement.

**INSULATED** Super core 1# density odorless rigid polystyrene foam with adhesive bonding it to both steel surfaces.

**R-VALUE** R= 5.0 Panel only.

**LOCK FACE PREP** Gov 161 "C" prep with 2-1/8" lockset bore, backset of 2-3/4". For Mortise lock prep specify "MB" for mortise blank.

**DEAD BOLT** Not used in fire-rated assemblies except as confirmed acceptable by local code Authority Having Jurisdiction (AHJ).

**LITE KITS** 5" x 20" Safe-wire / 10" x 10" Safe-wire. Lites are used only on 1-1/2 hour rated assemblies, visible glass limited to 100 sq. inches. Wired lites meet impact safety standards ANSI Z97.1 Class A/CPSC 16 CFR 1201 Cat.II

**HINGE BACKERS** 7 ga. steel Hardware preparations comply with ANSI A 250.6.

**JAMB** Welded mitered corners, 16 ga. A.60 galvanized steel. 10 ga. steel hinge reinforcements. All frames are handed.

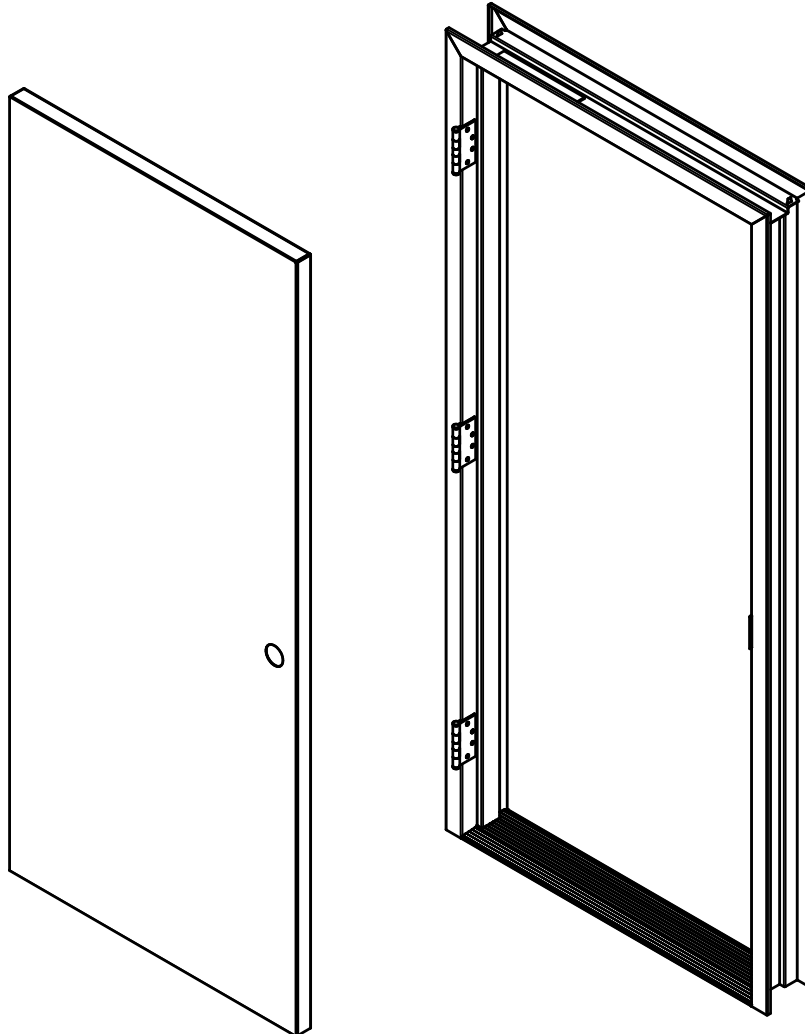
**FRAME SIZES** Stock frame sizes are 4-3/4" with 1/2" returns, 5-3/4" with 7/16" returns.

**INCLUDES** Wall mount anchors for masonry, steel stud, wood stud, wood framed or existing masonry, specify wall anchors to be used. Refer to Product Details Pages 12 & 13. For hardware, see Door Accessories. UL Listed Commercial Hardware is Required

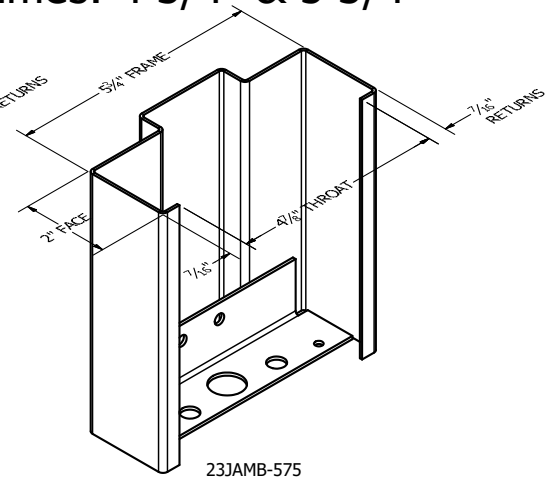
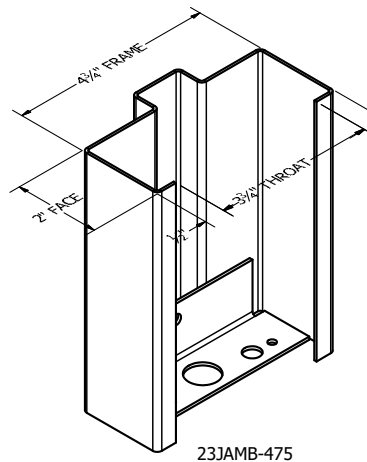
## Series 22 Fire Rated Door System

### Series 22 - Commercial Doors

Sizes:  
3068  
3070  
4070  
6068  
6070



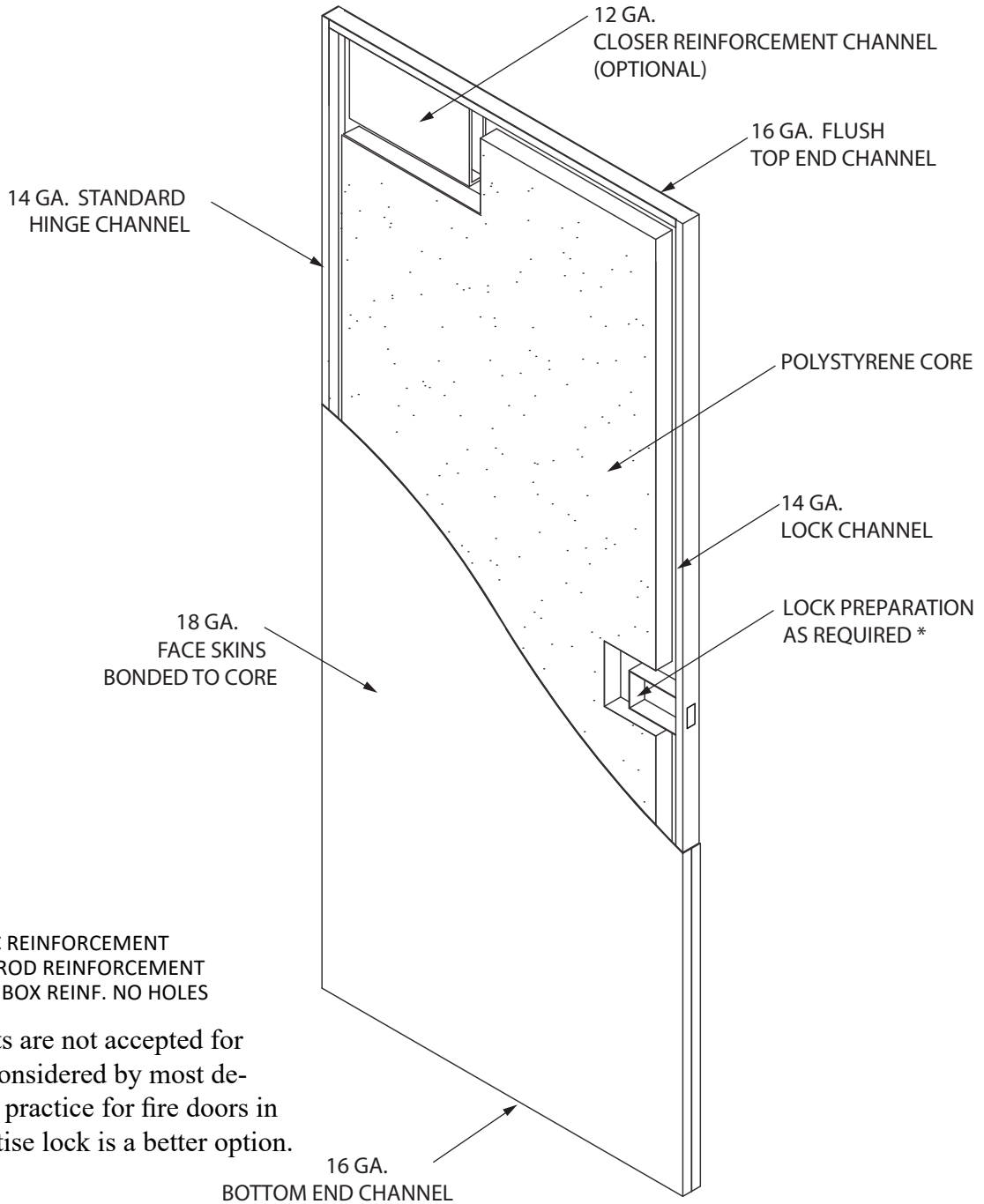
Frames: 4 3/4" & 5 3/4"



# Series 22 Fire Rated Door System

## Series 22 - Panel Details

### SERIES 22 MPW DOORS

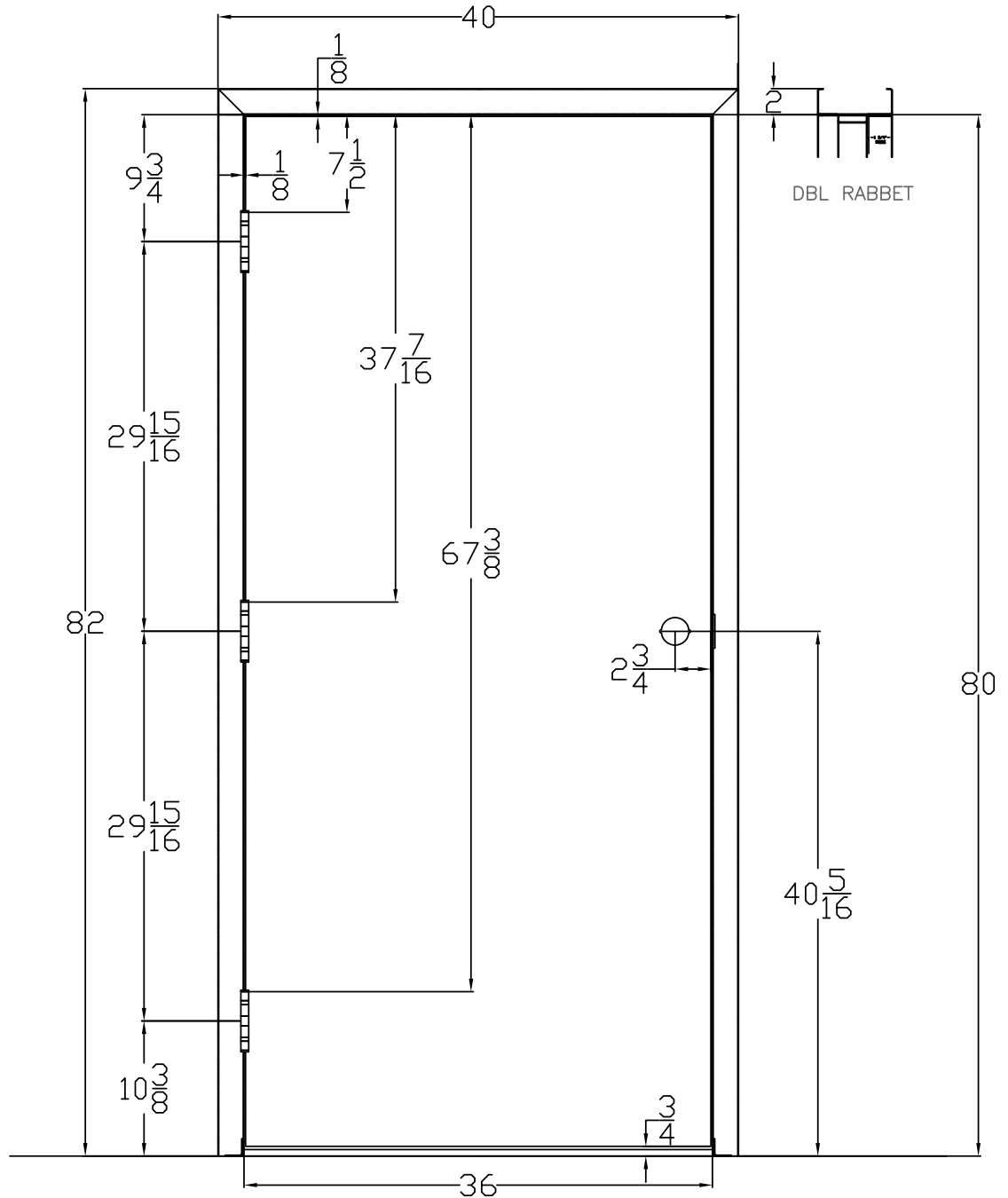


\* **LOCK PREPS**  
 C4-161  
 RP-RIM PANIC REINFORCEMENT  
 VR-VERTICAL ROD REINFORCEMENT  
 MB MORTISE BOX REINF. NO HOLES

Note: Deadbolts are not accepted for ADA and are considered by most designers as poor practice for fire doors in general. A mortise lock is a better option.

## Series 22 Fire Rated Door System

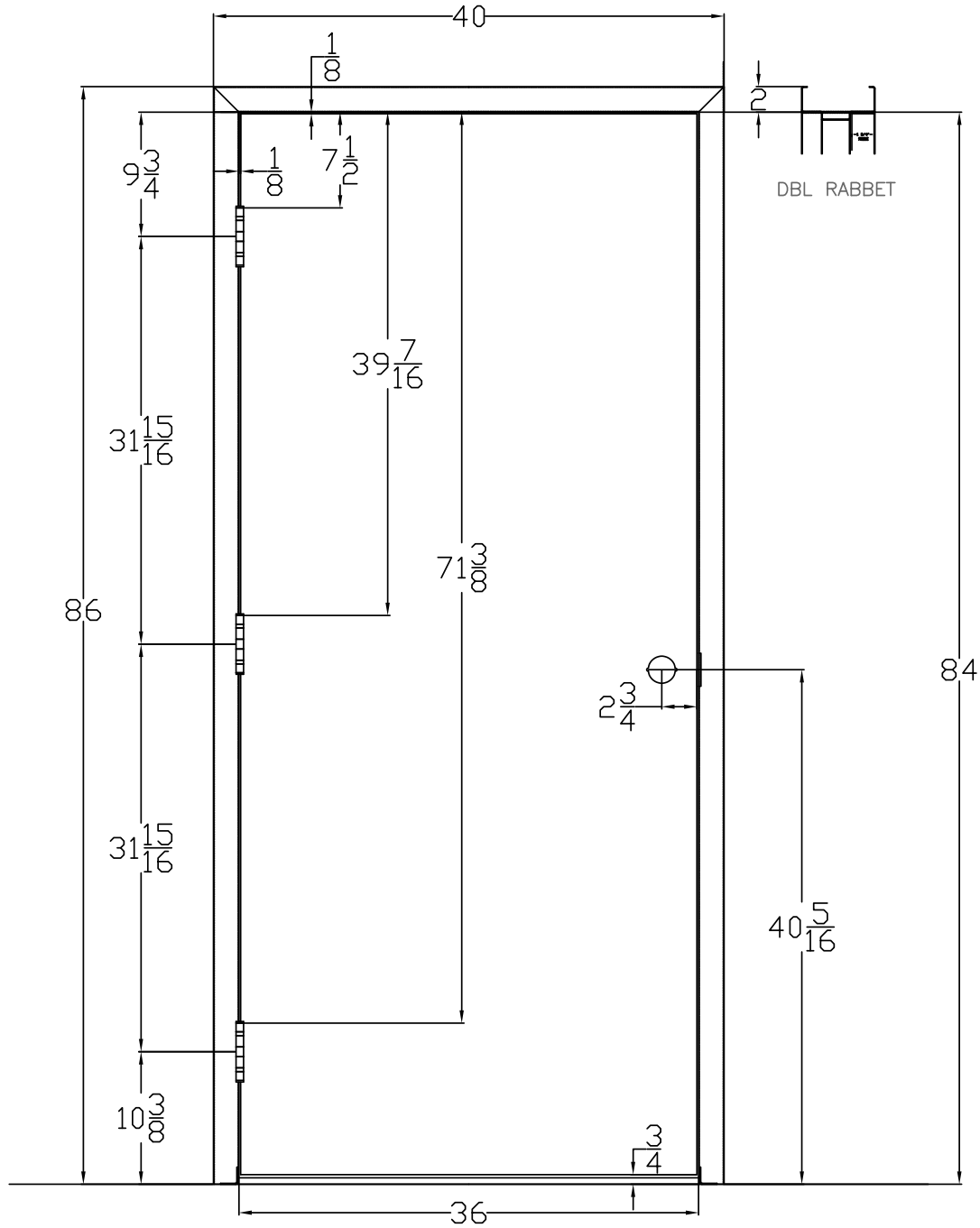
### Series 22 - Commercial Frames - Standard 3/0x 6/8



23MPW3068-4-C or 5-C HEADER 2" / 2"  
 PANEL FLUSH TOP RECESSED BOTTOM  
 INCLUDES HINGES FILLER PLATES AND THRESHOLD

**Series 22 Fire Rated Door System**

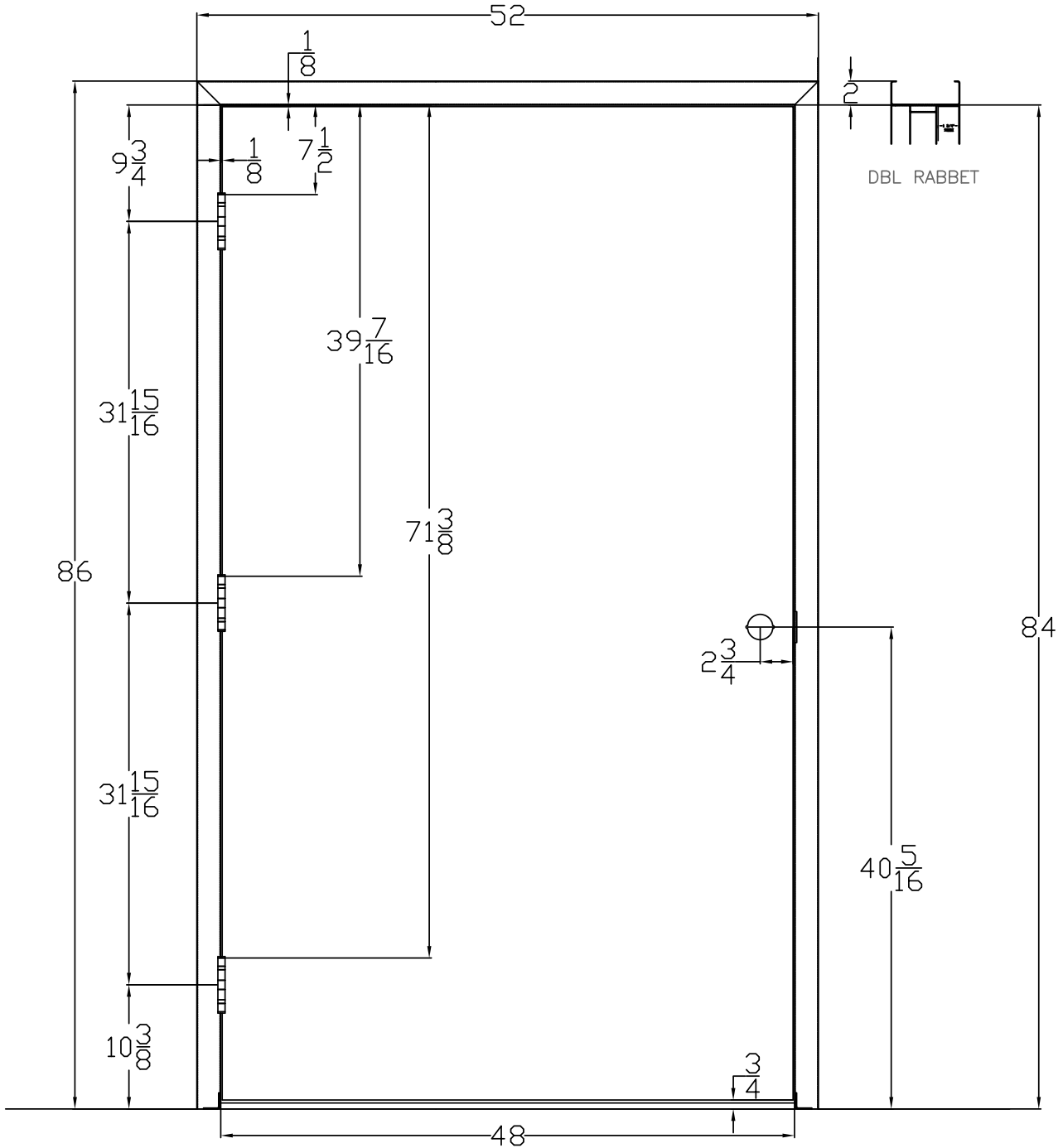
**Series 22 - Commercial Frames - Standard 3/0 x 7/0**



23MPW3070-4-C or 5-C HEADER 2"/2"  
 PANEL FLUSH TOP RECESSED BOTTOM  
 INCLUDES HINGES FILLER PLATES AND THRESHOLD

**Series 22 Fire Rated Door System**

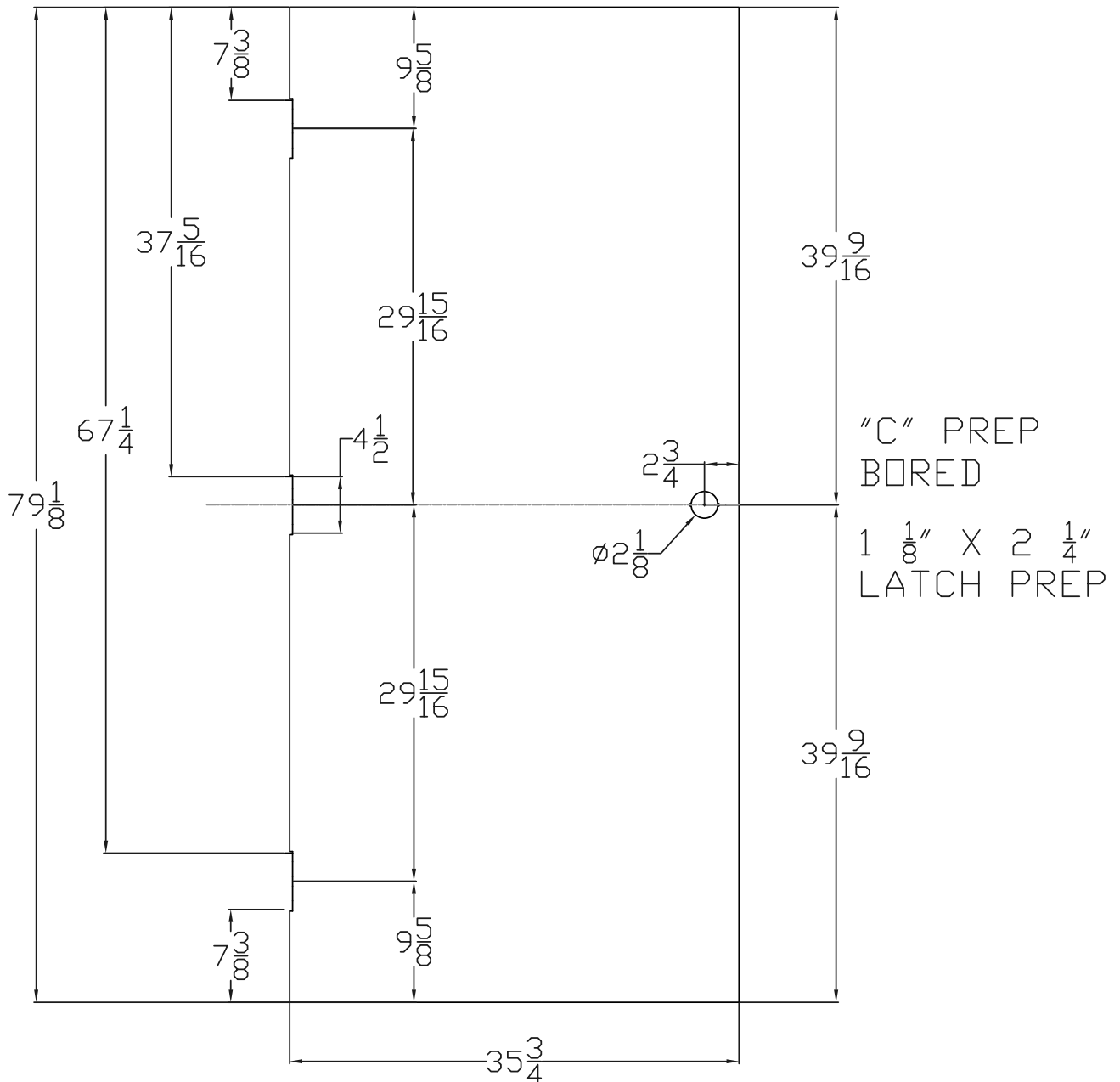
**Series 22 - Commercial Frames - Standard 4/0 x 7/0**



23MPW4070-4-C or 5-C HEADER 2"/2"  
 PANEL FLUSH TOP RECESSED BOTTOM  
 INCLUDES HINGES FILLER PLATES AND THRESHOLD

## Series 22 Fire Rated Door System

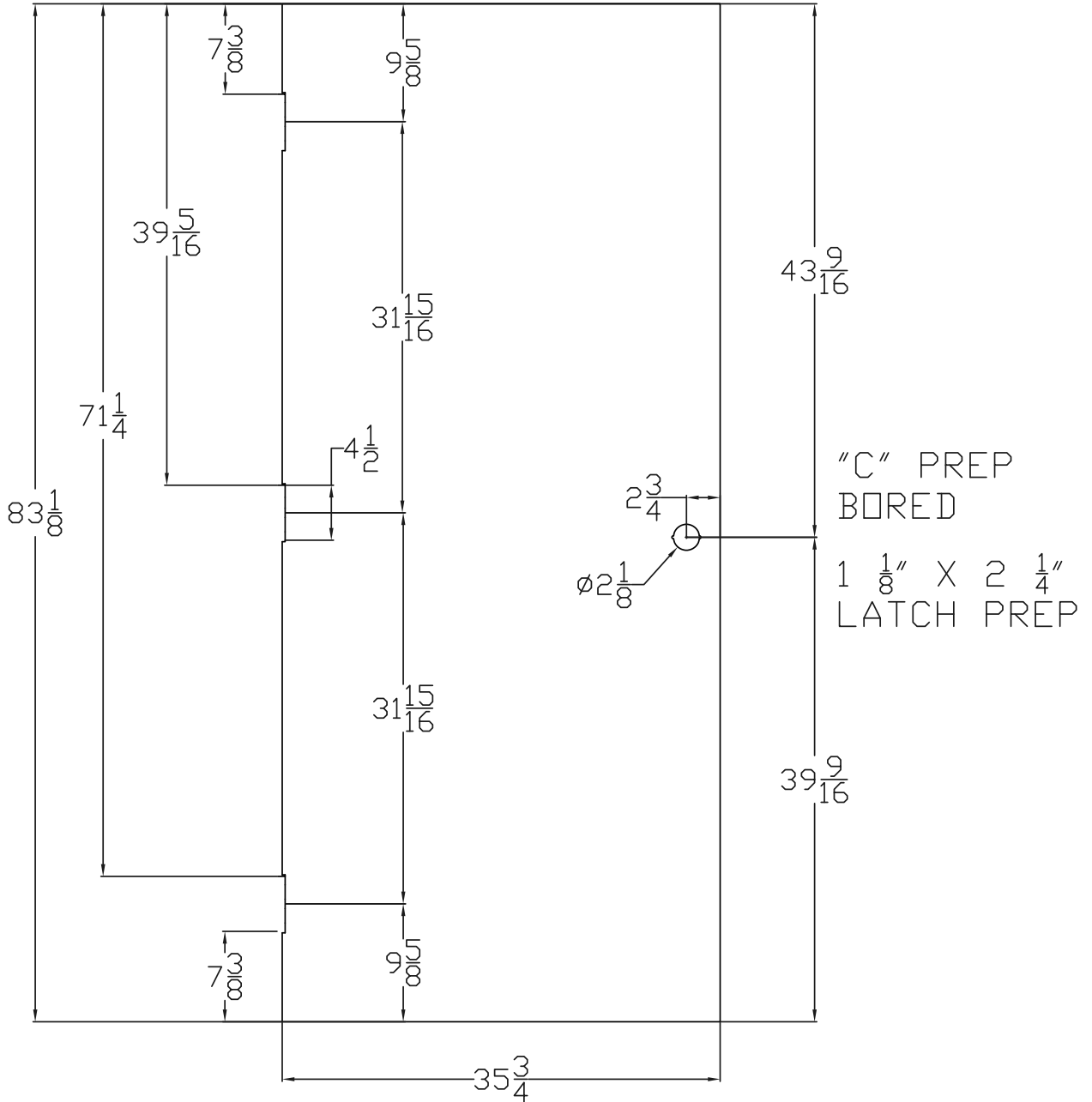
### Series 22 - 3068 Commercial Door Panel



23MPW3068 PANEL  
 FLUSH TOP - RECESSED BOTTOM  
 NON-HANDED, INCLUDES HINGE PLATES

**Series 22 Fire Rated Door System**

**Series 22 - 3070 Commercial Door Panel**

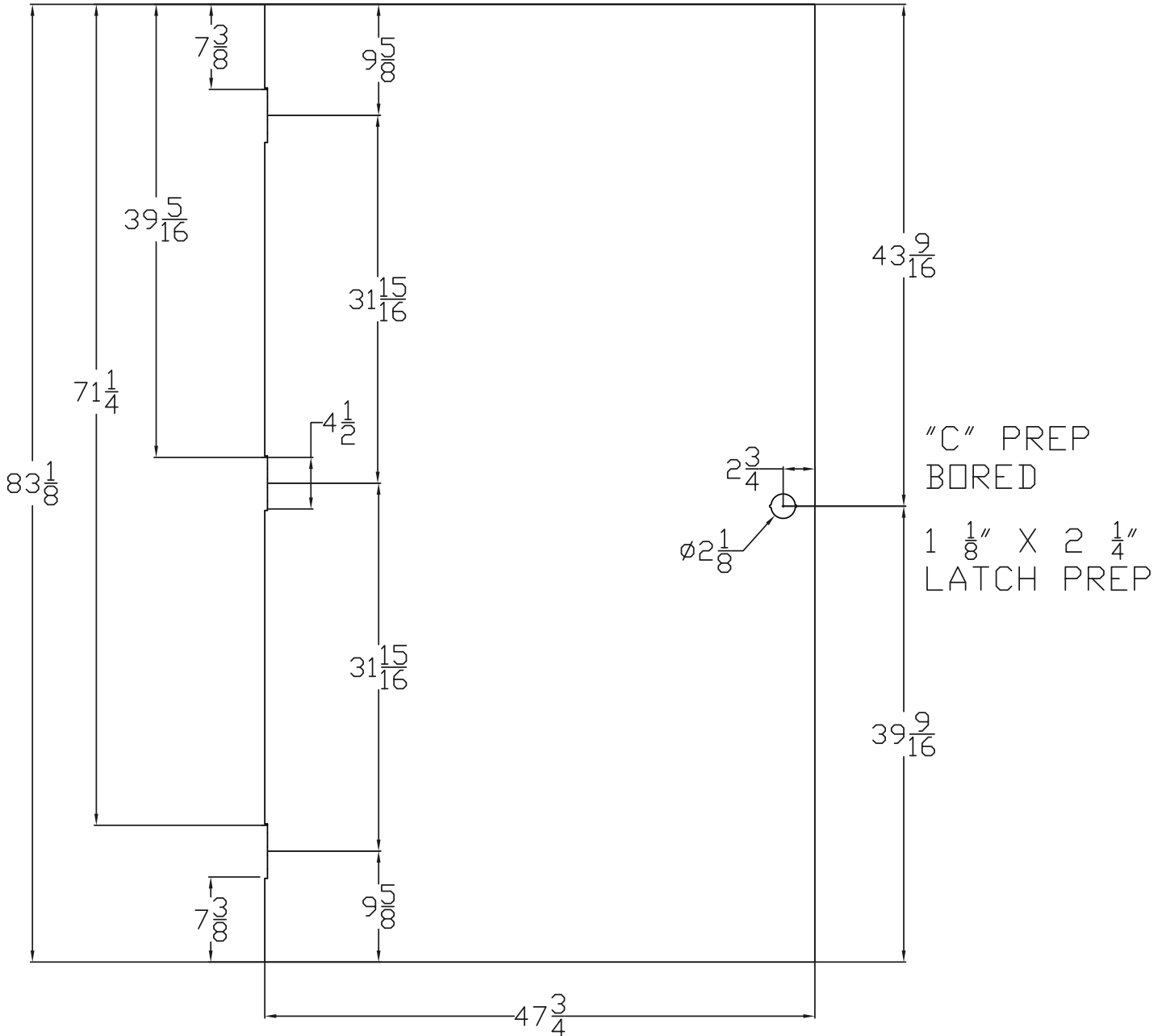


23MPW3070 PANEL  
 FLUSH TOP - RECESSED BOTTOM  
 NON-HANDED, INCLUDES HINGE PLATES



## Series 22 Fire Rated Door System

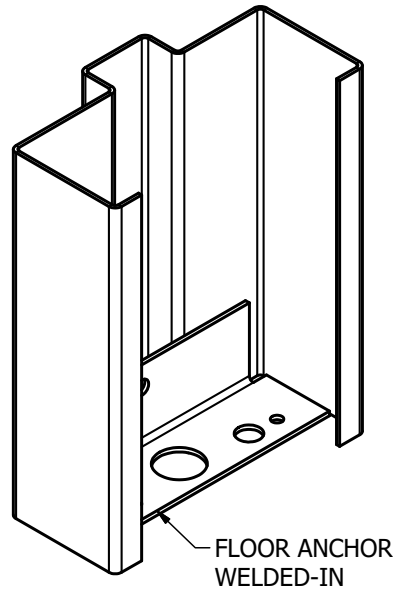
### Series 22 - 4070 Commercial Door Panel



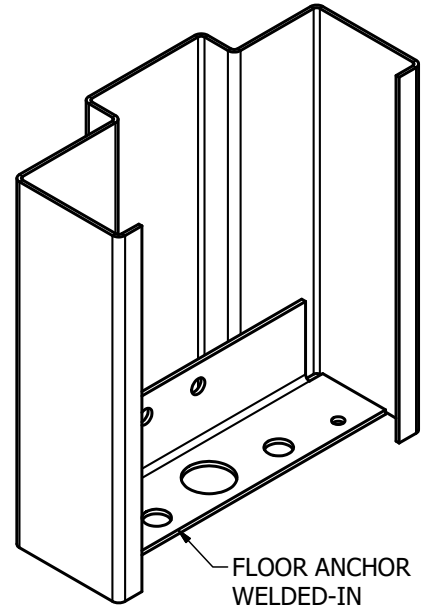
23MPW4070 PANEL  
 FLUSH TOP - RECESSED BOTTOM  
 NON-HANDED, INCLUDES HINGE PLATES

## Series 22 Fire Rated Door System

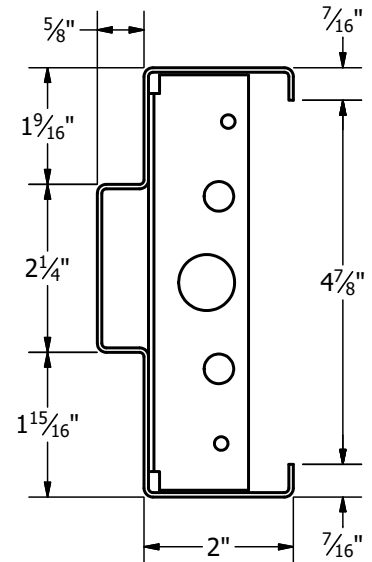
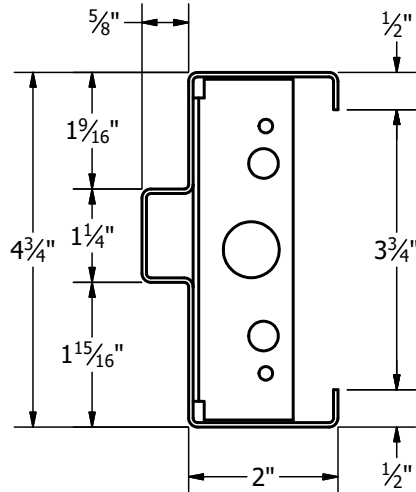
### Series 22 - 4 3/4" & 5 3/4" Jamb



23JAMB-475



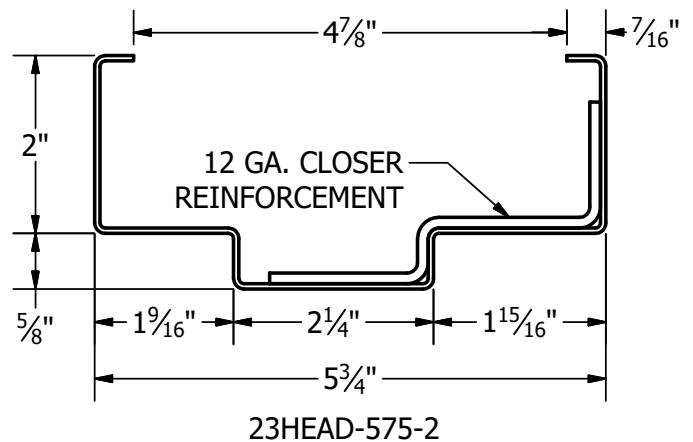
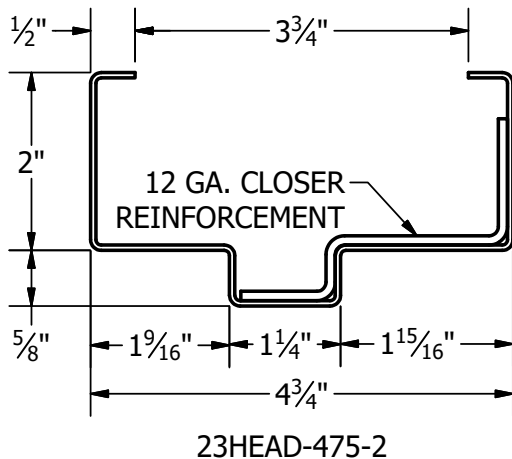
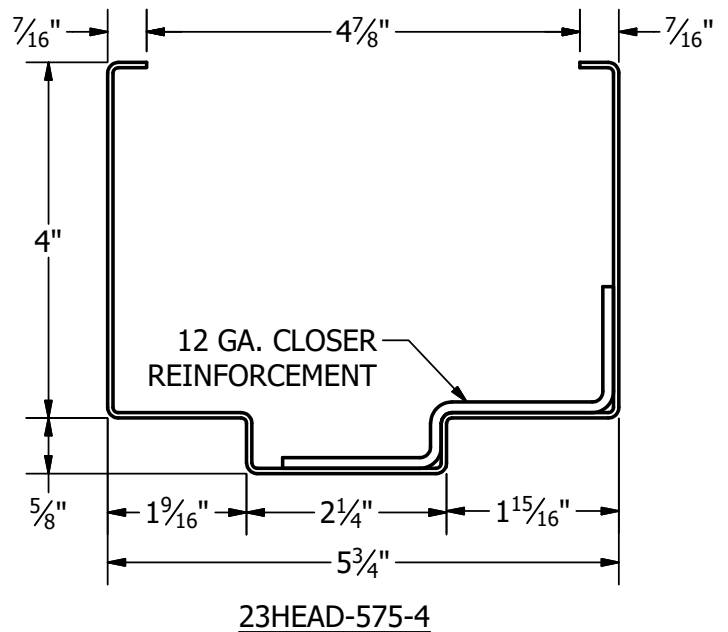
23JAMB-575



## Series 22 Fire Rated Door System

### Series 22 - 4 3/4" & 5 3/4" Headers

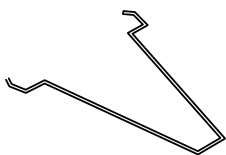
4" MASONRY HEADER  
AVAILABLE FOR 5 3/4"  
FRAMES



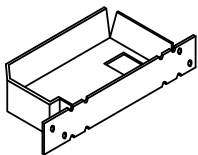
# Series 22 Fire Rated Door System

## Series 22 - Framing Anchors - Other Wall Types

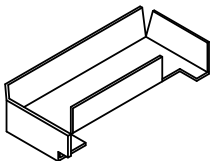
### STANDARD SNAP-IN ANCHOR TYPES



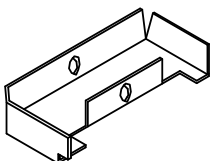
WIRE MASONRY ANCHOR  
 4 3/4", 5 3/4"  
 (6 - STANDARD)  
 SPECIFY "ANCHOR-WIRE" FOR MASONRY WIRE



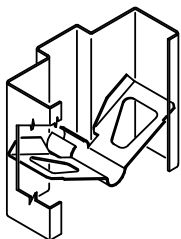
STUD ANCHOR  
 4 3/4", 5 3/4"  
 (8 - STANDARD)  
 SPECIFY "ANCHOR-S" FOR WOOD OR STEEL STUD



CHANNEL STEEL STUD ANCHOR  
 4 3/4", 5 3/4"  
 (8 - STANDARD)  
 SPECIFY "ANCHOR-C" FOR CHANNEL STEEL STUD



COMPLETED OPENING ANCHOR / LAG SCREW  
 (8 - STANDARD)  
 4 3/4", 5 3/4"  
 SPECIFY "CO-M" FOR COMPLETED MASONRY BLOCK OPENING  
 SPECIFY "CO-W" FOR COMPLETED WOOD FRAMED OPENING  
 (INCLUDES 8 - 3/8"x 4" FLAT HEAD LAG SCREW)



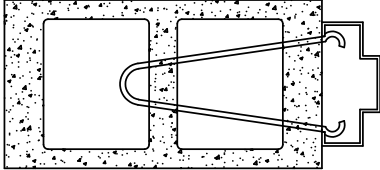

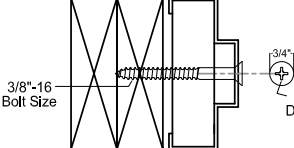

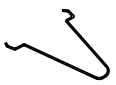

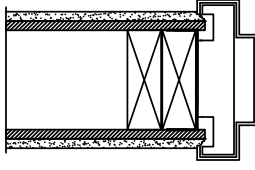

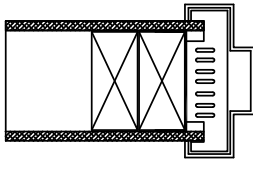

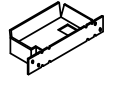
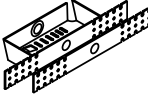
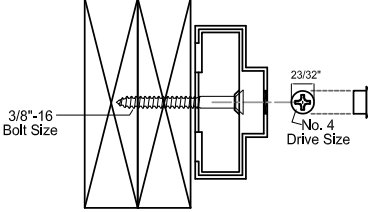

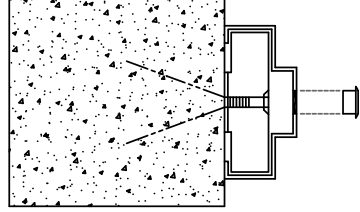

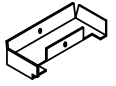
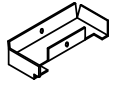
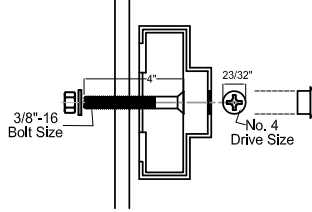

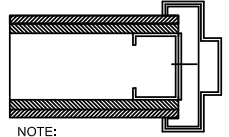

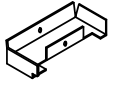
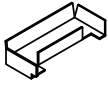
PUNCH AND DRAW SURFACE HOLES / LAG SCREW  
 (8 - STANDARD)  
 4 3/4", 5 3/4"  
 SPECIFY "PDL" FOR PUNCH & DRAW LAG  
 (INCLUDES 8 - 3/8"x 4" FLAT HEAD LAG SCREWS)

## Series 22 Fire Rated Door System

### Anchors/Wall Conditions

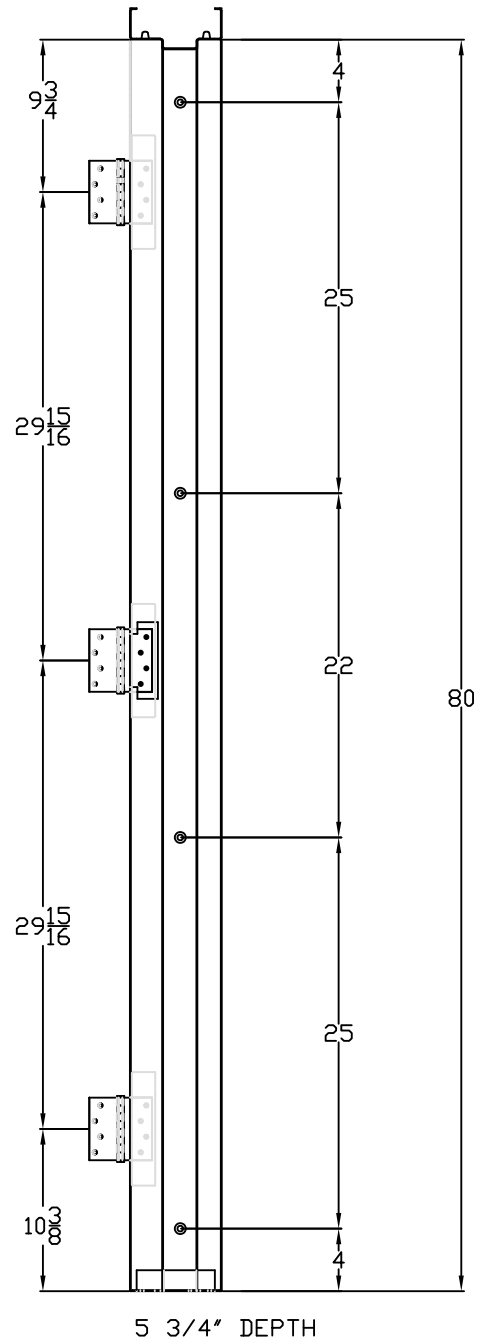
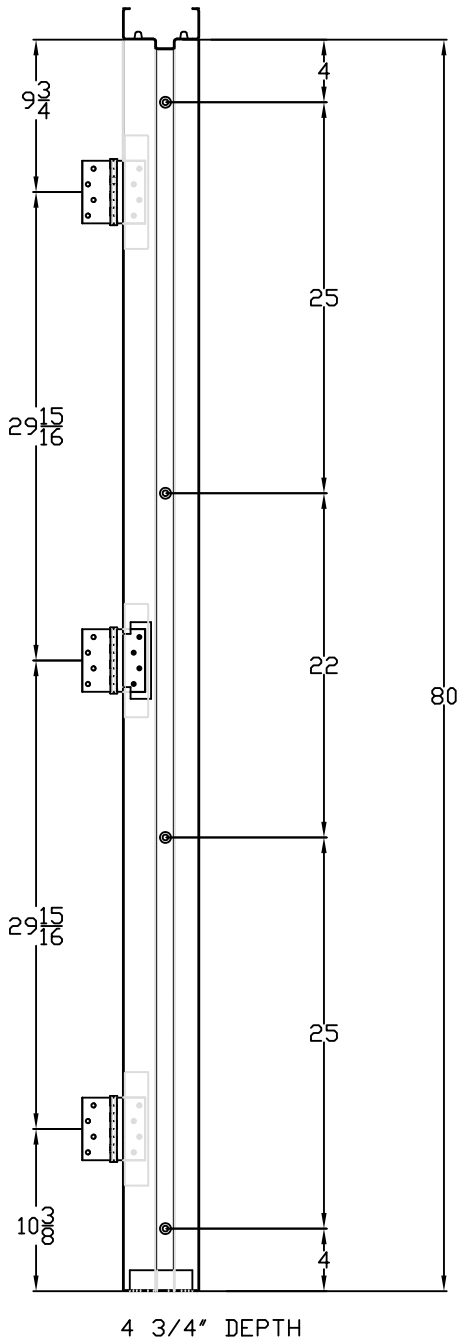
PLYCO CORPORATION [www.plyco.com](http://www.plyco.com)

ALL ANCHORS "SNAP IN" UNLESS OTHERWISE NOTED

 	  <p>NOTE: EXAMPLE WALL SHOWN</p>
 <p>WIRE MASONRY ANCHOR 3" THRU 8 3/4" (STANDARD) SPECIFY "M"</p>	 <p>PUNCH &amp; DIMPLE FOR 3/8" LAG BOLT 4 3/4" OR 5 3/4" JAMB DEPTH</p>
 	 
 <p>WOOD STUD ANCHOR 5 3/4"  (STANDARD) SPECIFY "S"</p>	 <p>ADJUSTABLE WOOD STUD ANCHOR 5 3/4", 6 1/4", 6 3/4", 7 1/4" 7 3/4", 8 1/4", 8 3/4" (OPTIONAL)</p>
 	 
 <p>COMPLETED OPENING ANCHOR 4 3/4", 5 3/4" ( 8 1/4" WELD IN) SPECIFY "CO-W" in WOOD FRAME</p>	 <p>COMPLETED OPENING ANCHOR 4 3/4", 5 3/4" ( 8 1/4" WELD IN) SPECIFY "CO-W" in WOOD FRAME SPECIFY "CO-M" in EXISTING MASONRY</p>
  <p>NUTS AND WASHERS INCLUDED</p>	  <p>NOTE: FINISHED WALL SHOWN</p>
 <p>COMPLETED OPENING ANCHOR w/ 4" BOLTS 4 3/4", 5 3/4" ( 8 1/4" WELD IN) FOR STEEL FRAME-OUTS</p>	 <p>CHANNEL STEEL STUD ANCHOR 4 3/4", 5 3/4" (STANDARD) SPECIFY "C" ALL OTHER DEPTHS WELD IN</p>

Series 22 Fire Rated Door System

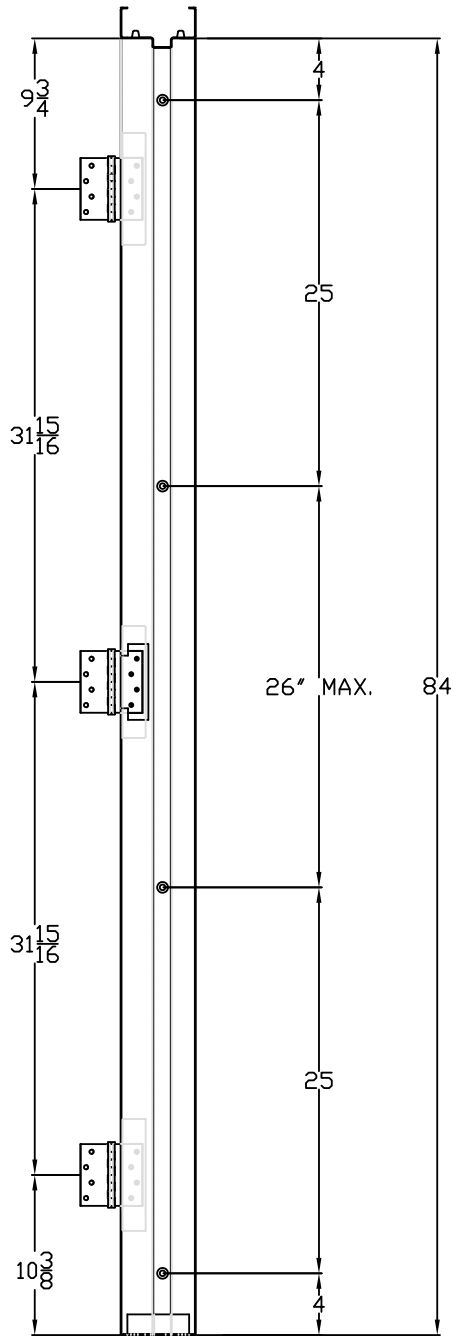
**Series 22 - Existing Opening Fastener Locations**



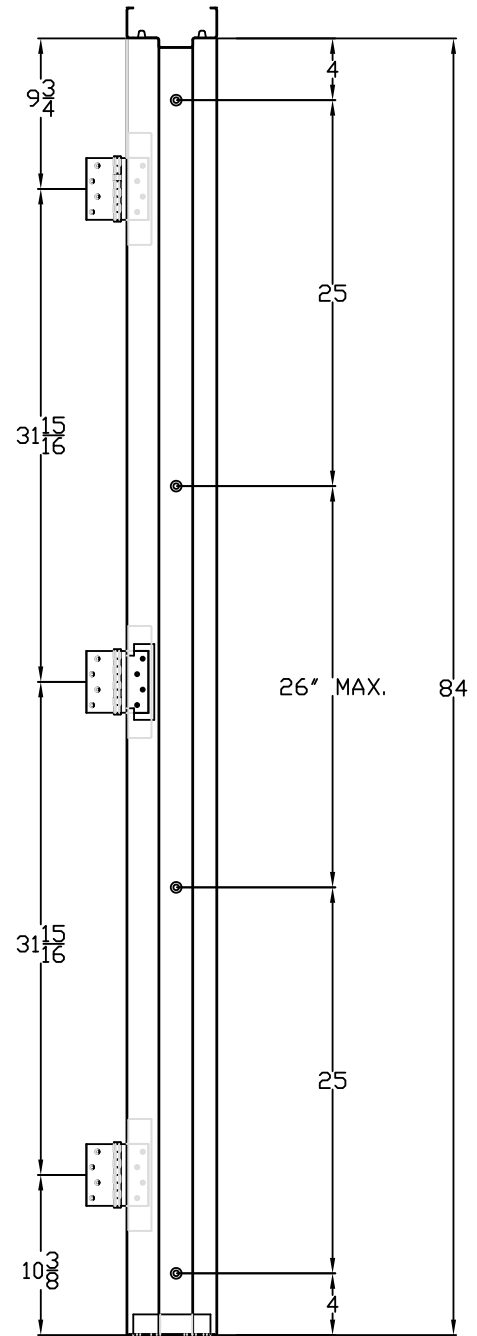
**SERIES 22/23 ANCHOR HOLE LOCATIONS - 6-8 JAMBS**

## Series 22 Fire Rated Door System

### Series 22 - Existing Opening Fastener Locations



4 3/4" DEPTH

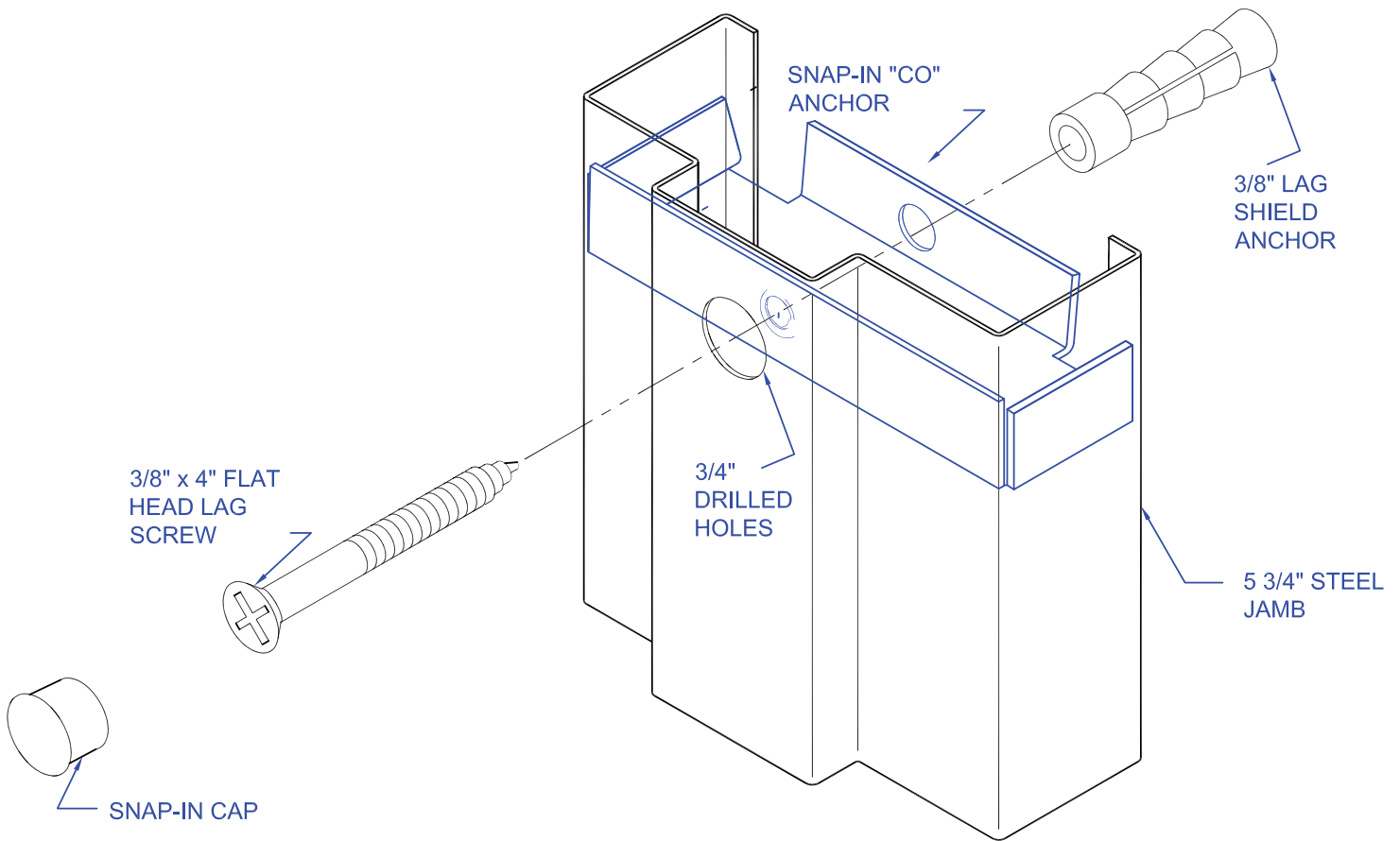


5 3/4" DEPTH

## SERIES 22/23 ANCHOR HOLE LOCATIONS - 7-0 JAMBS

## Series 22 Fire Rated Door System

### "CO-M" - Completed Opening Masonry Anchor

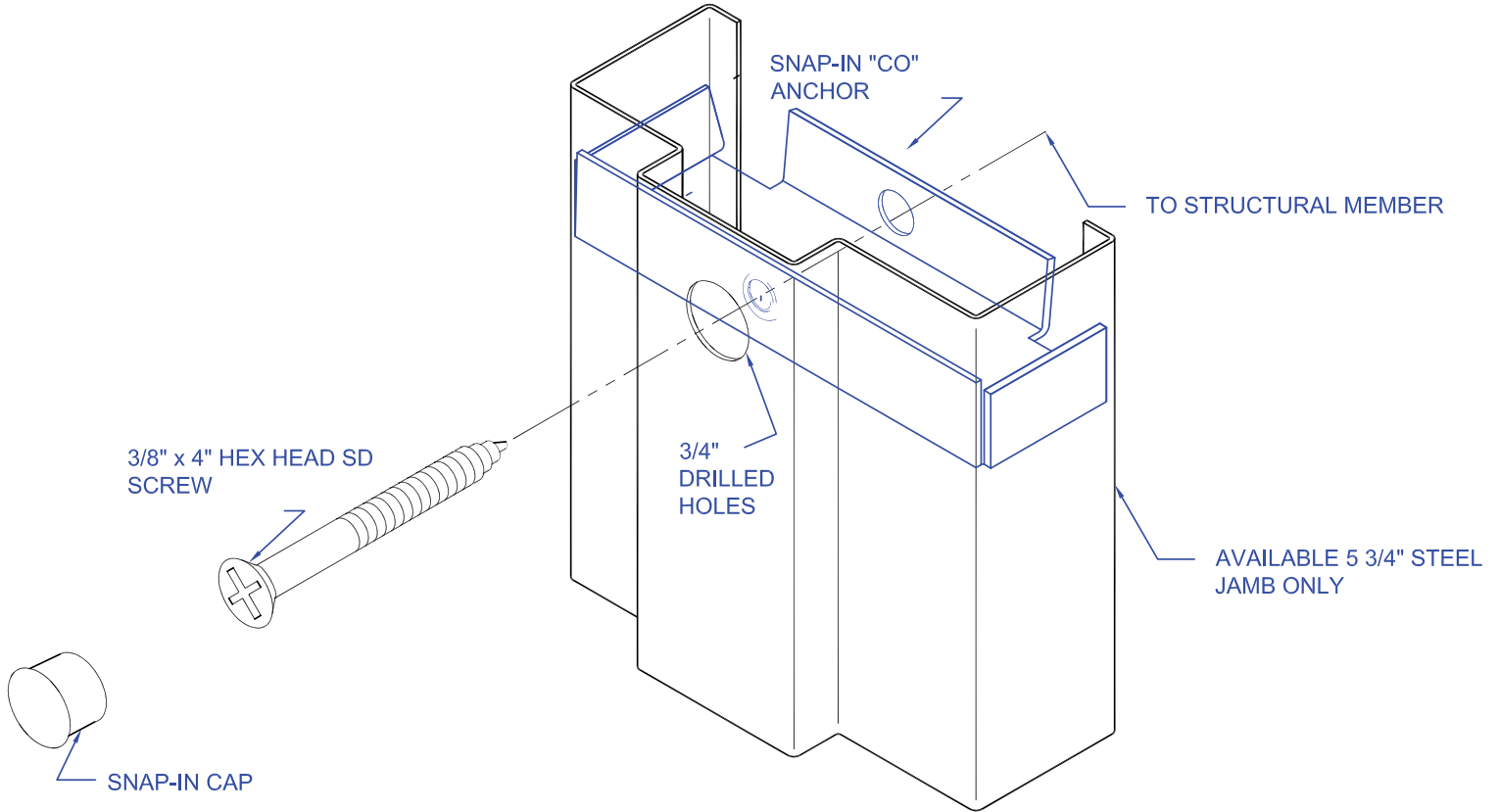


## "CO-M"- ANCHOR



## Series 22 Fire Rated Door System

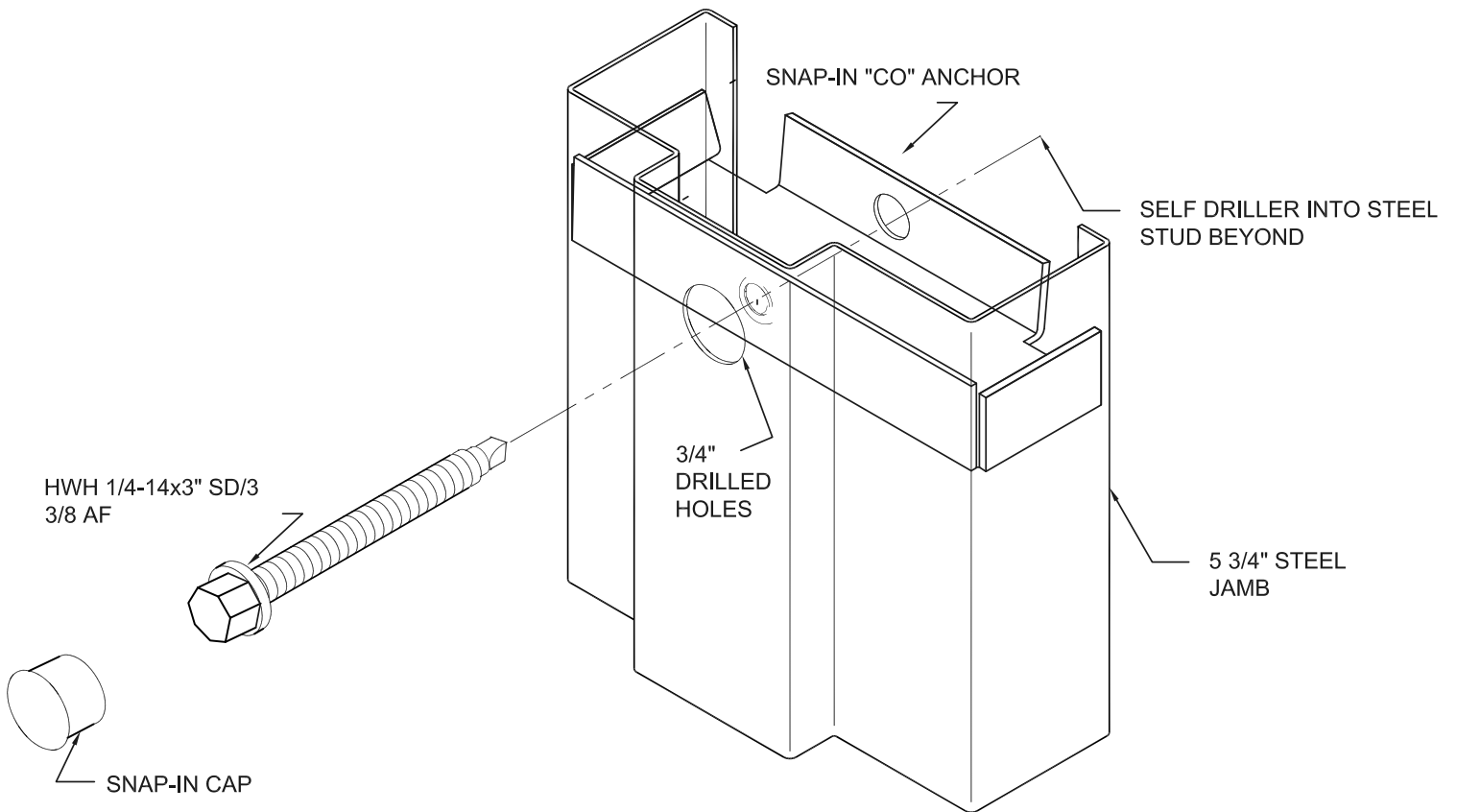
### "CO-W" - Completed Opening Wood Anchor



### "CO-W"- ANCHOR

## Series 22 Fire Rated Door System

### “CO-S” - Completed Opening Self-Drilling Anchor

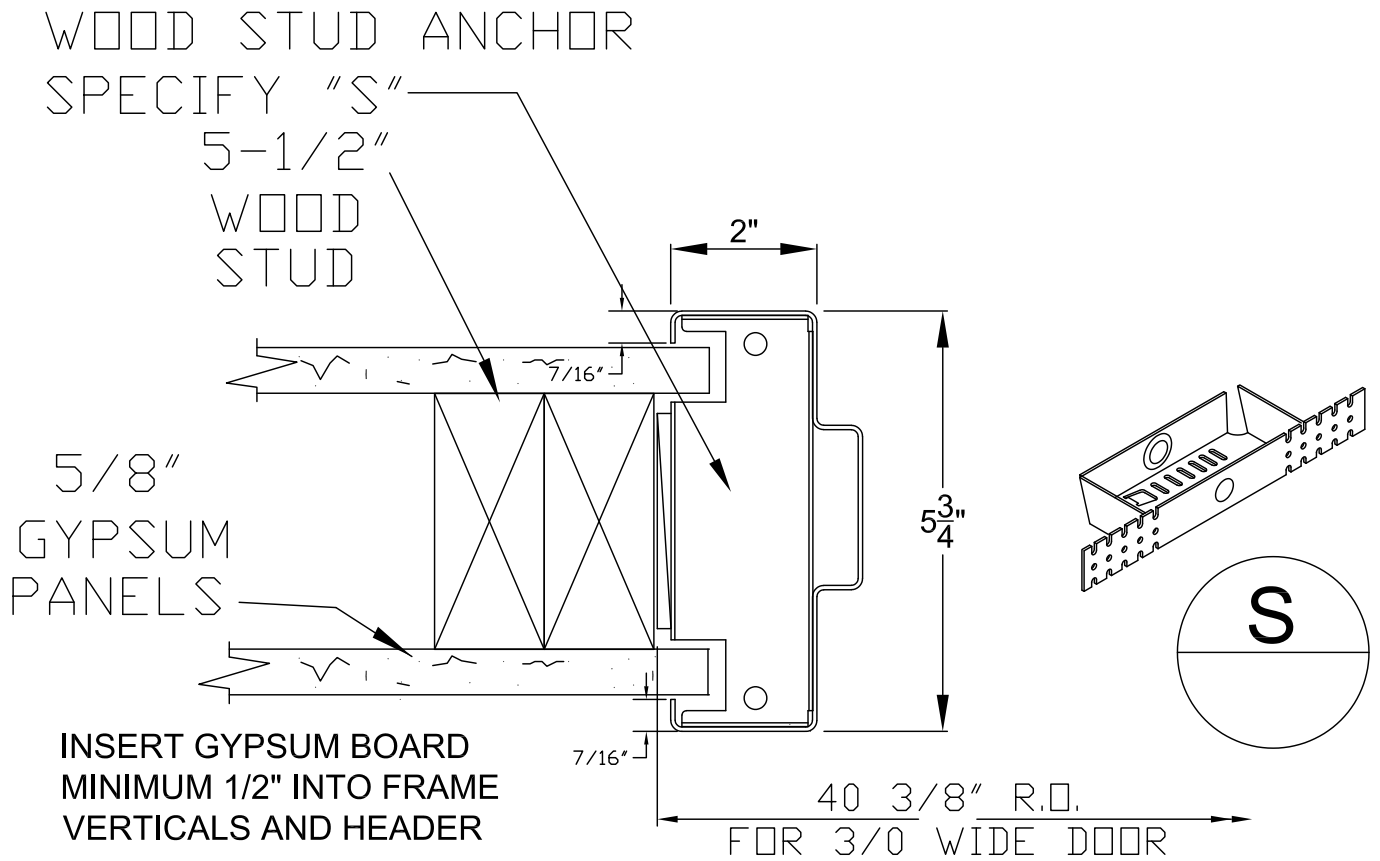


### "CO-S"- ANCHOR

### USING STEEL GIRT FASTENERS

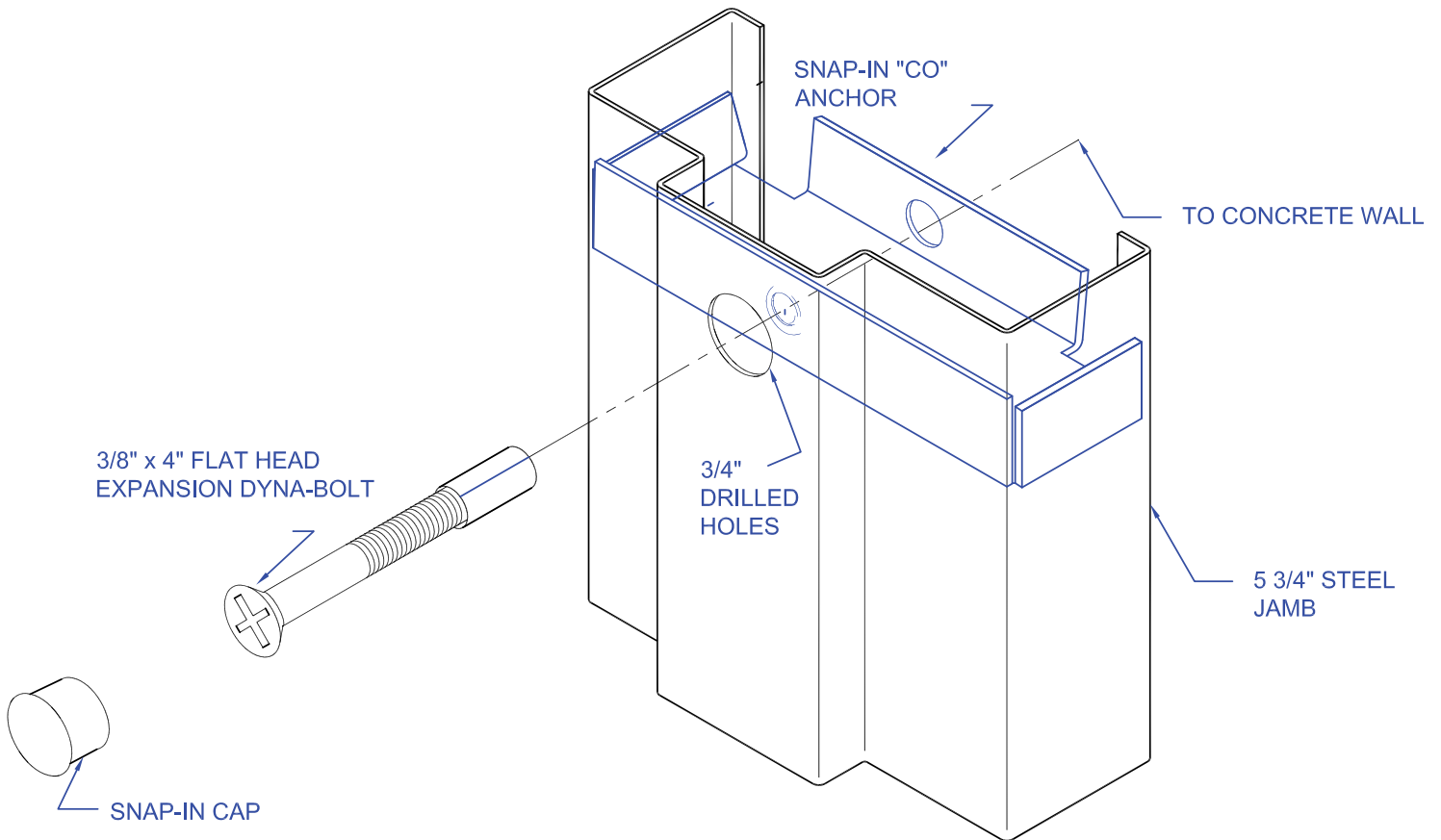
## Series 22 Fire Rated Door System

### Series 22 Gypsum Board Guidelines



### Series 22 Fire Rated Door System

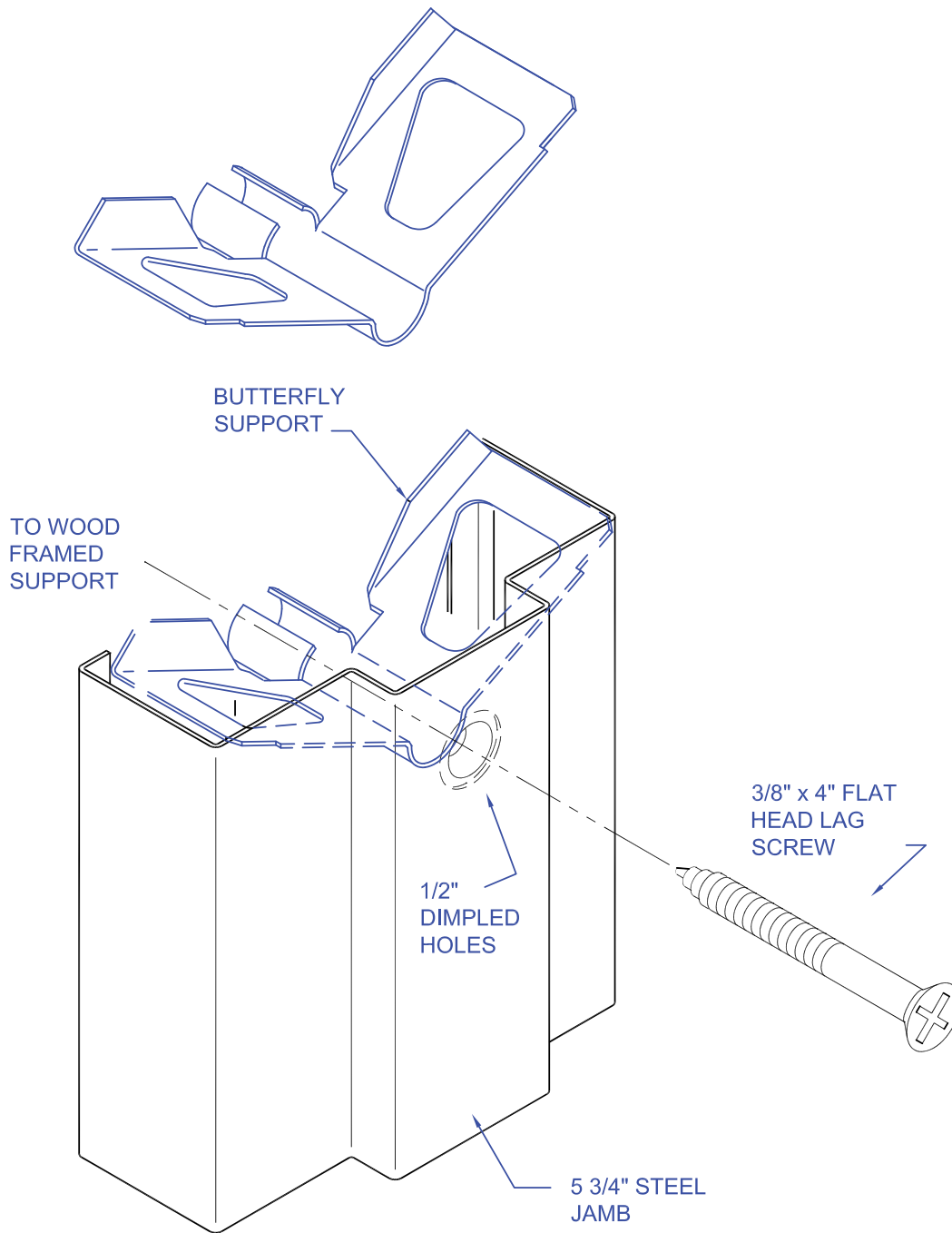
#### "CO-M" - Completed Opening Dynabolt Anchor



#### "CO-M" DYNA-BOLT

## Series 22 Fire Rated Door System

### "PD-L" - Punch & Draw - Lag Anchor



## "PD-L"- ANCHOR

## Series 22 Fire Rated Door System

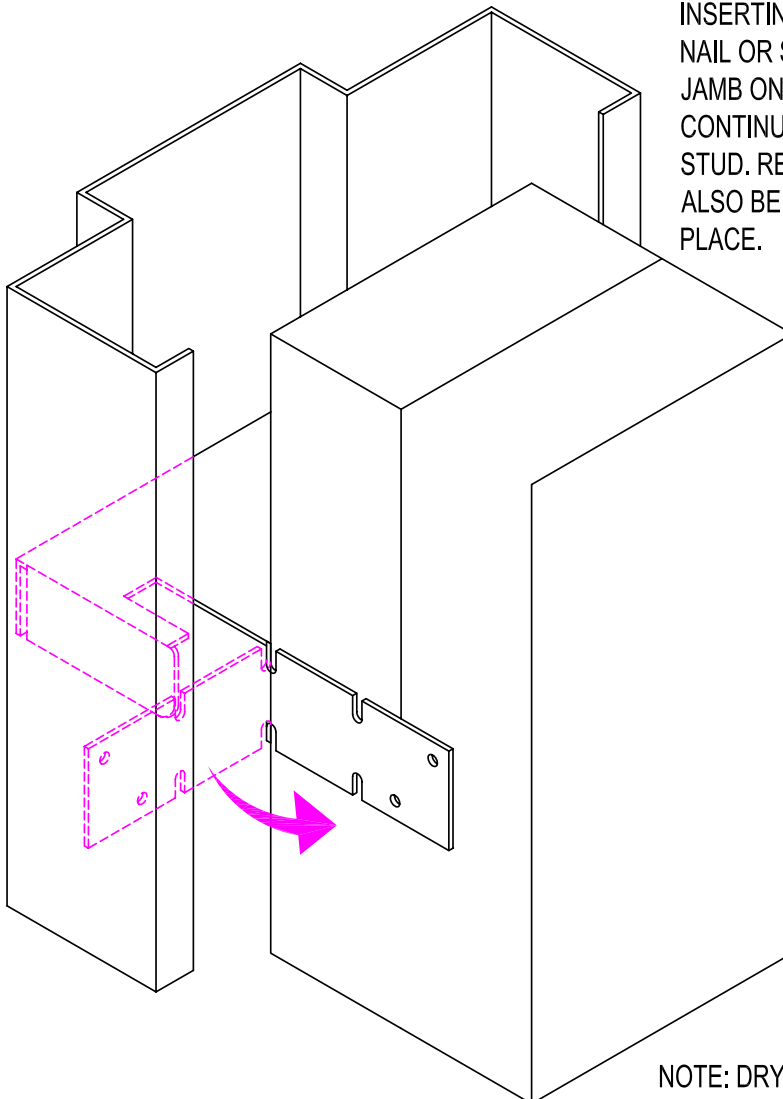
### “S” - Wood Stud Anchor

JAMB HEIGHT	ANCHOR QTY.	SPACING*
UP TO & INCLUDING 5'0"	2	30" MAX.
OVER 5'0" TO 7'6"	3	30" MAX.
OVER 7'6" TO 10'0"	4	30" MAX.
OVER 10'0" TO 11'10"	5	30" MAX.

\* 30" MAX. FROM JAMB BOTTOM UP @ BOTTOM ANCHOR

### WOOD STUD ANCHOR INSTALLATION

INSTALL ANCHORS AS SHOWN. ATTACH JAMBS TO FLOOR THROUGH FLOOR ANCHOR OR FLOOR EXTENTION IF POSSIBLE. BEND ANCHOR TABS AROUND STUD LEAVING DESIRED CLEARANCE BETWEEN FRAME RETURN AND STUD FOR INSERTING FINISHED WALL MATERIAL. SQUARE AND NAIL OR SCREW TOP ANCHOR TO STUD ON ONE JAMB ONLY. CHECK PLUMB AND SQUARE AND CONTINUE TO ATTACH BALANCE OF ANCHORS TO STUD. REPEAT FOR OPPOSITE JAMB. FRAMES MAY ALSO BE SUPPLIED WITH ANCHORS WELDED IN PLACE.

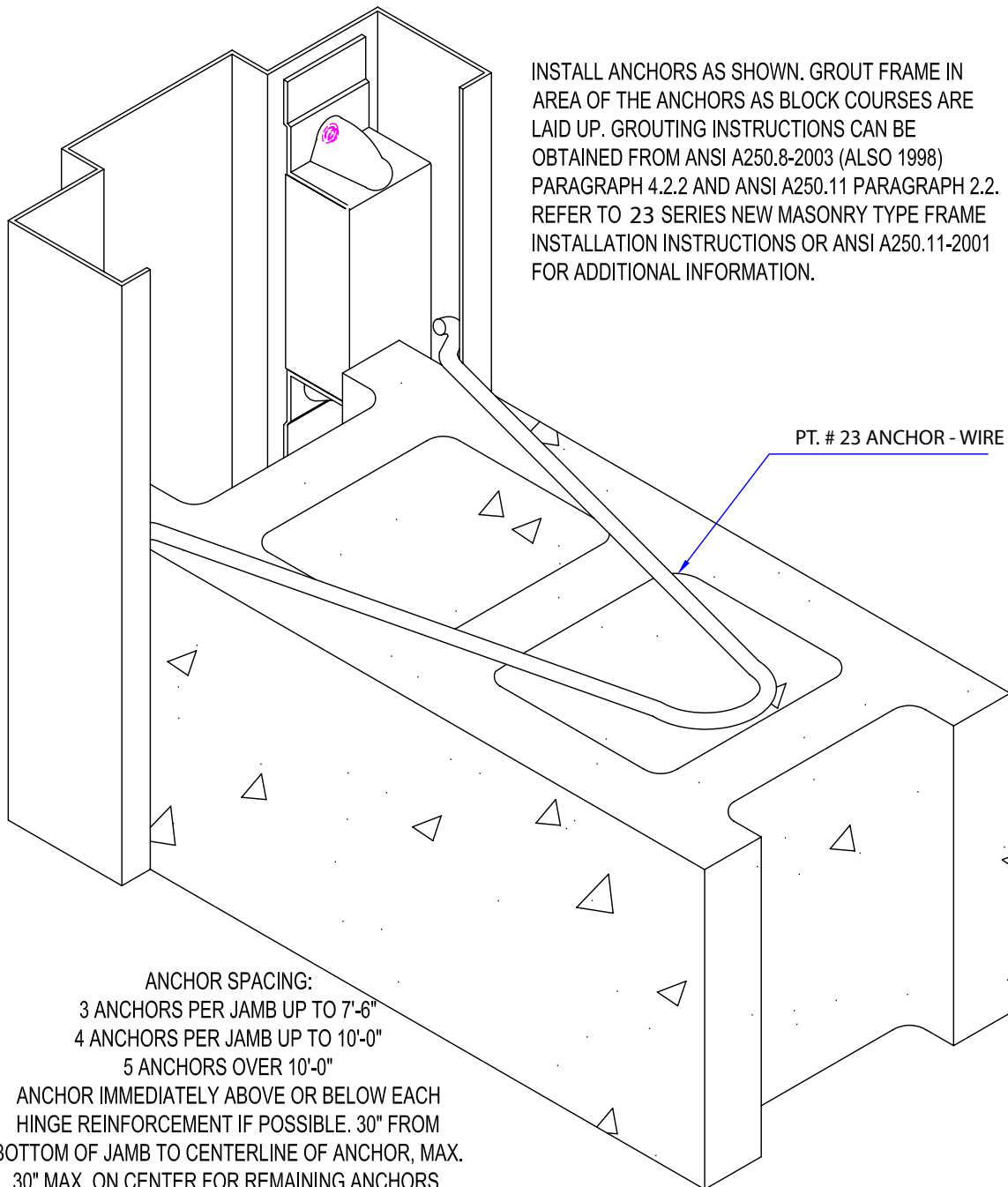


NOTE: DRYWALL MUST EXTEND AT LEAST  $\frac{1}{2}$ " INTO FRAME AT FIRE RATED INSTALLATIONS.

## Series 22 Fire Rated Door System

### “M” - Masonry - Wire Anchors

#### WIRE MASONRY ANCHOR INSTALLATION



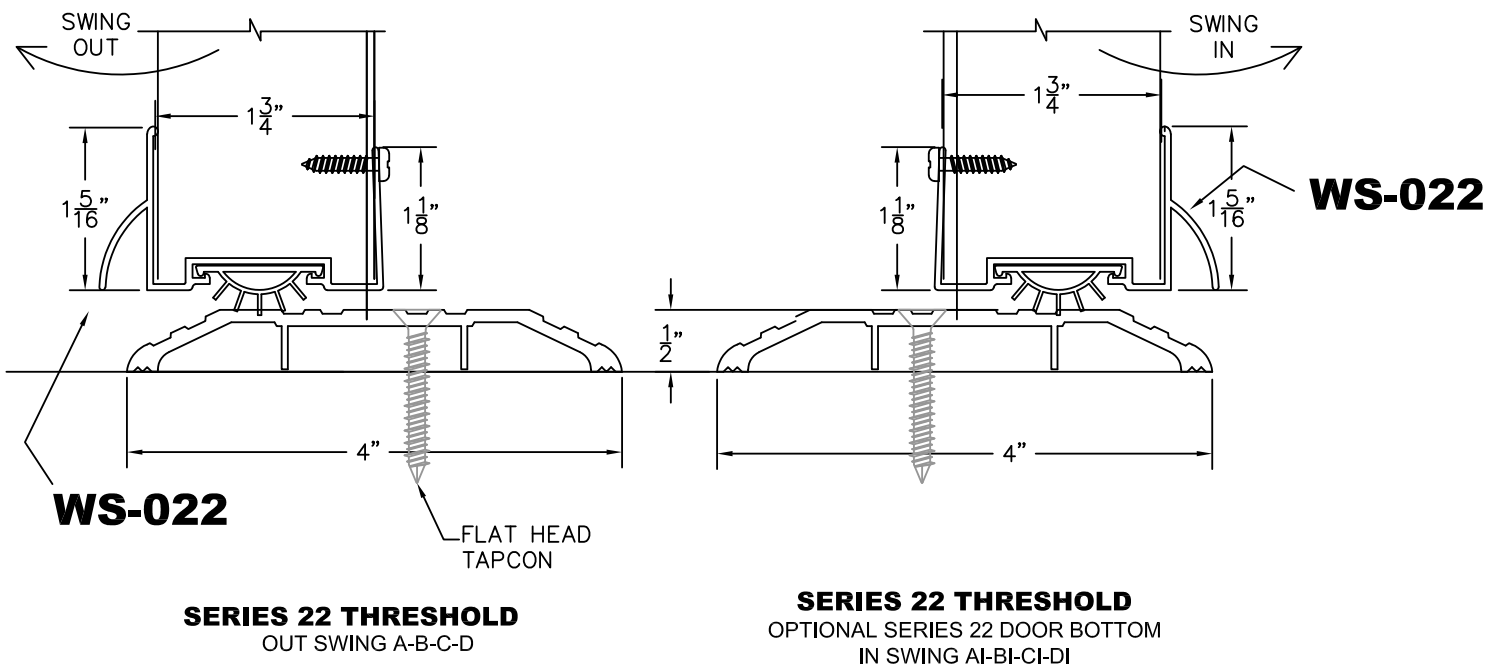
INSTALL ANCHORS AS SHOWN. GROUT FRAME IN AREA OF THE ANCHORS AS BLOCK COURSES ARE LAID UP. GROUTING INSTRUCTIONS CAN BE OBTAINED FROM ANSI A250.8-2003 (ALSO 1998) PARAGRAPH 4.2.2 AND ANSI A250.11 PARAGRAPH 2.2. REFER TO 23 SERIES NEW MASONRY TYPE FRAME INSTALLATION INSTRUCTIONS OR ANSI A250.11-2001 FOR ADDITIONAL INFORMATION.

PT. # 23 ANCHOR - WIRE

ANCHOR SPACING:  
3 ANCHORS PER JAMB UP TO 7'-6"  
4 ANCHORS PER JAMB UP TO 10'-0"  
5 ANCHORS OVER 10'-0"  
ANCHOR IMMEDIATELY ABOVE OR BELOW EACH HINGE REINFORCEMENT IF POSSIBLE. 30" FROM BOTTOM OF JAMB TO CENTERLINE OF ANCHOR, MAX. 30" MAX. ON CENTER FOR REMAINING ANCHORS.

## Series 22 Fire Rated Door System

### Series 22 Standard Threshold & Sweep



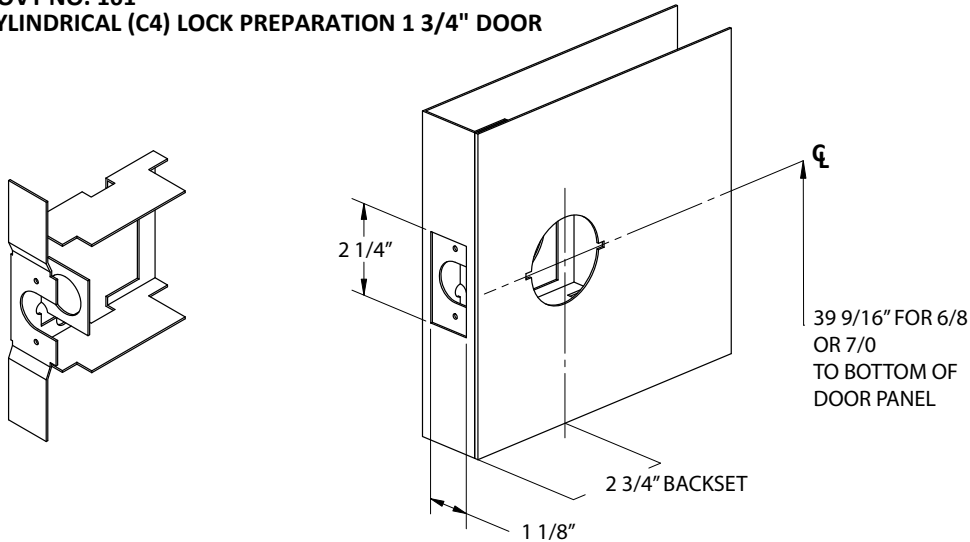
**WS-022 Door Bottoms with sweep are an available option on any Series 22. Available for 3/0, 4/0 & 6/0 doors. FIRE DOORS ARE NORMALLY INTERIOR - THE ORDER MUST STATE ONE OF THE ABOVE SEALS IN LIEU OF THE SINGLE FIN STYLE.**



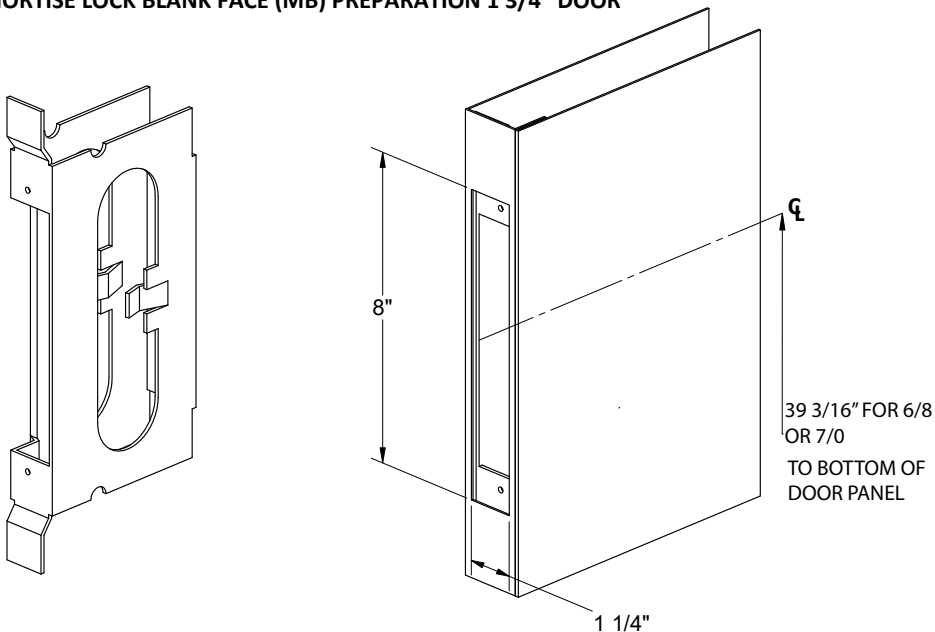
## Series 22 Fire Rated Door System

### Series 22/23 Standard Lock Preps

**SERIES 22/23 MITERED FRAME DOORS**  
**GOVT NO. 161**  
**CYLINDRICAL (C4) LOCK PREPARATION 1 3/4" DOOR**



**SERIES 22/23 MITERED FRAME DOORS**  
**GOVT NO. 86**  
**MORTISE LOCK BLANK FACE (MB) PREPARATION 1 3/4" DOOR**

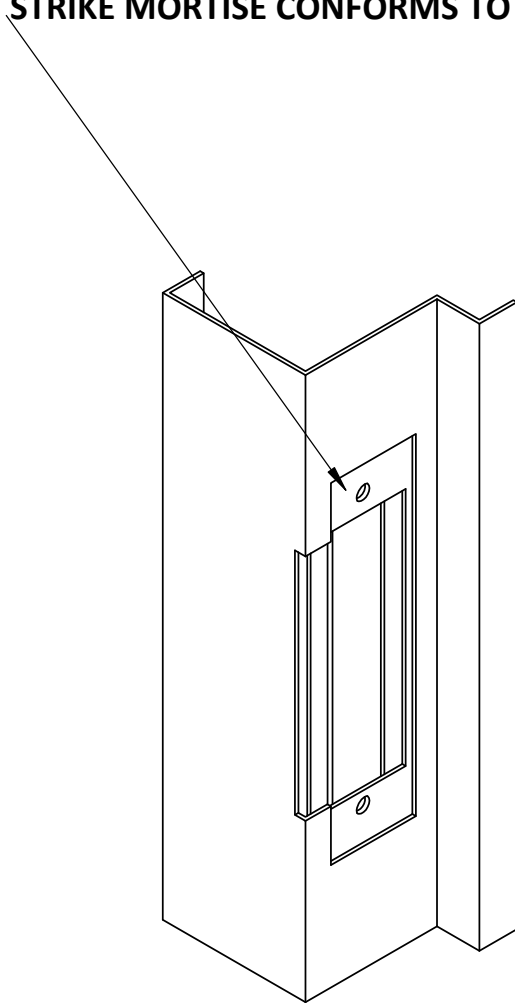


### Series 22 Fire Rated Door System

### Series 22/23 Standard ASA Strike Prep

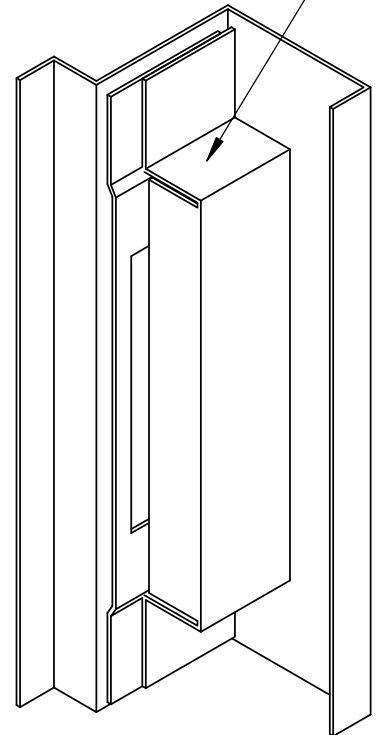
#### FRAME DETAILS STANDARD STRIKE PREPARATIONS

A 14 GAUGE STRIKE REINFORCEMENT  
PROJECTION IS WELDED TO FRAME.  
STRIKE MORTISE CONFORMS TO ANSI A156.115.



**UNIVERSAL  
"U" STRIKE MORTISE  
(ASA STRIKE)**

A 20 GAUGE STEEL PLASTER GUARD PROJECTION  
IS WELDED TO STRIKE REINFORCEMENT.



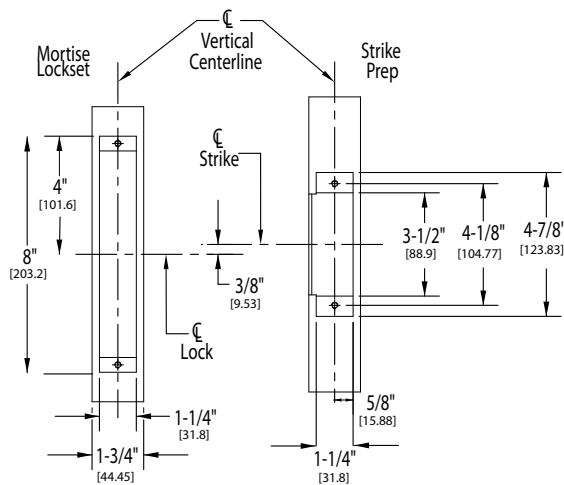
**BACK VIEW**

## Series 22 Fire Rated Door System

### Series 22/23 HES 1006 Electric Strike Prep

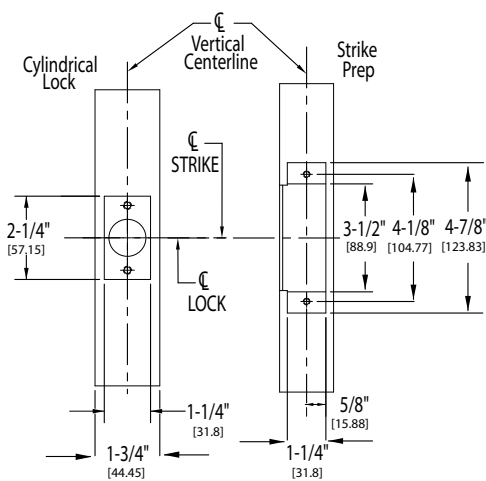
#### 1006 WITH MORTISE LOCKSETS Inches [mm]

Please note the horizontal centerline of the electric strike in relation to the centerline of the mortise lockset.



#### 1006 WITH CYLINDRICAL LOCKSETS Inches [mm]

Please note the horizontal centerline of the electric strike in relation to the centerline of the cylindrical lockset.

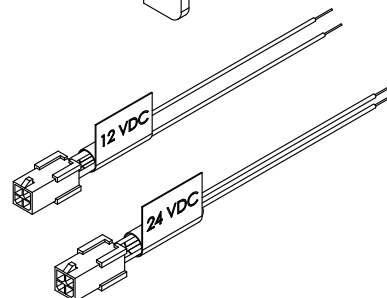
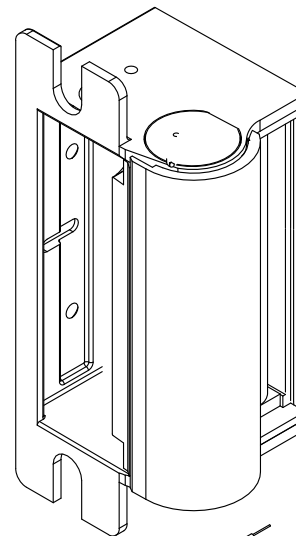
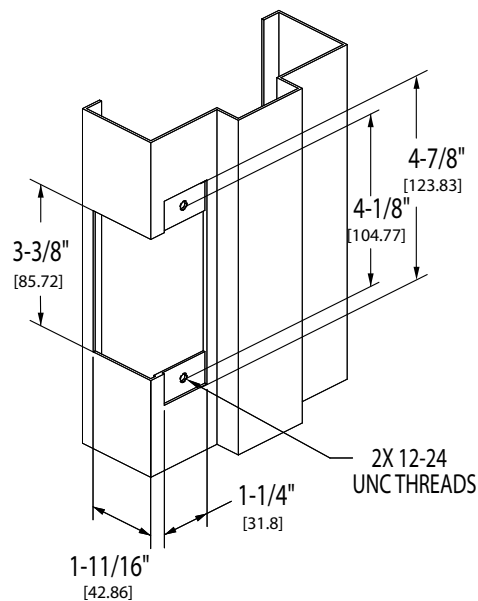


#### METAL JAMB INSTALLATION

#### FOR 1006 SERIES FACEPLATES

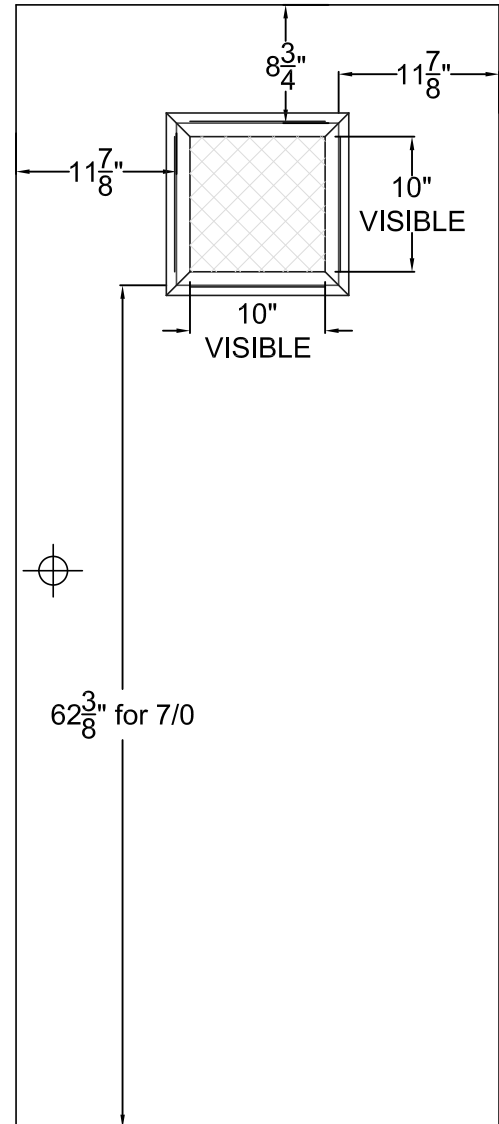
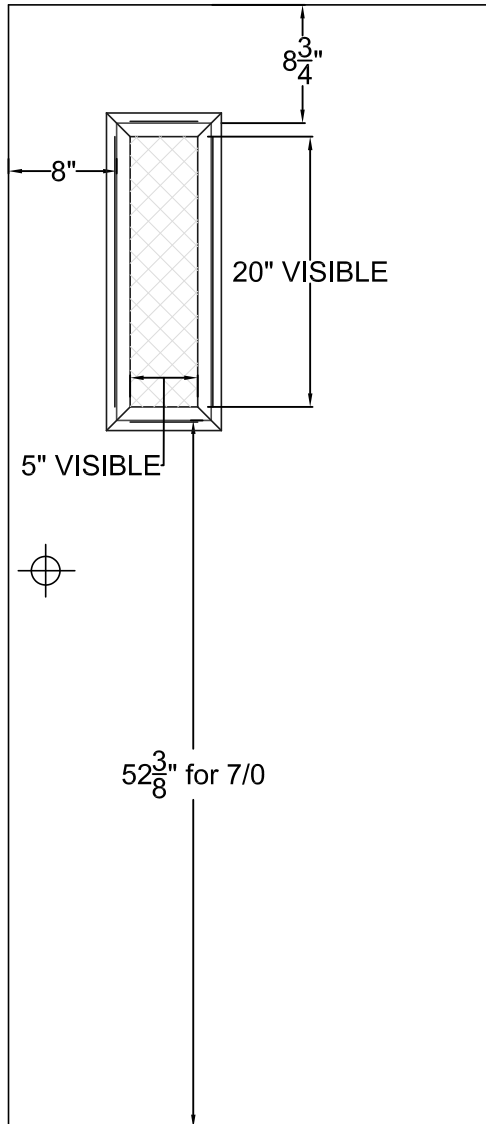
Cutout dimensions for option faceplates:

J, K, KM, N, NM, A, AM, H, HM, HT, T, Z, R and E



## Series 22 Fire Rated Door System

### Series 22 - Wired Lite Kits in Panels 1-1/2 Hour



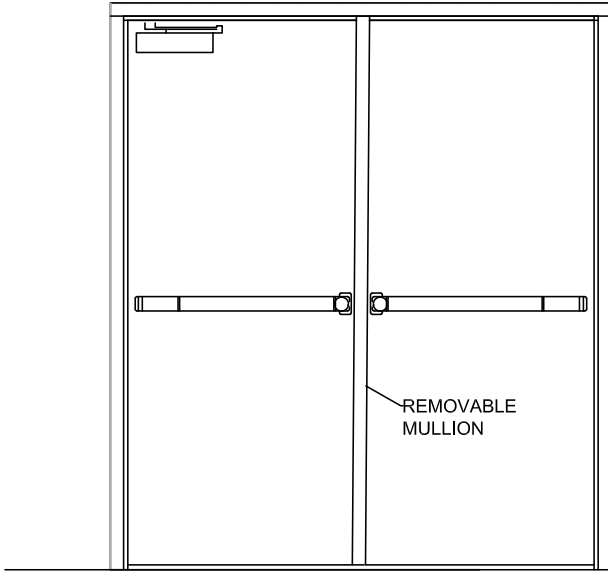
SAFE-WIRE 6" X 21" GLASS UNIT

SAFE-WIRE 11" X 11" GLASS UNIT

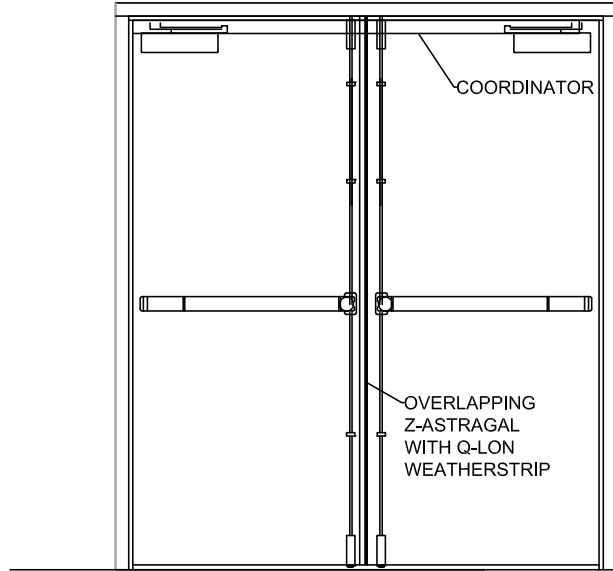
LITES ARE LIMITED TO 100 SQ. INCHES VISIBLE  
 GLASS UNITS ARE APPROVED CAT II WIRED GLASS  
 GLASS UNITS ARE 1" LARGER FOR 1/2" COVERAGE  
 OF THE PERIMTER OF THE STEEL UL-LISTED FRAMES

Series 22 Fire Rated Door System

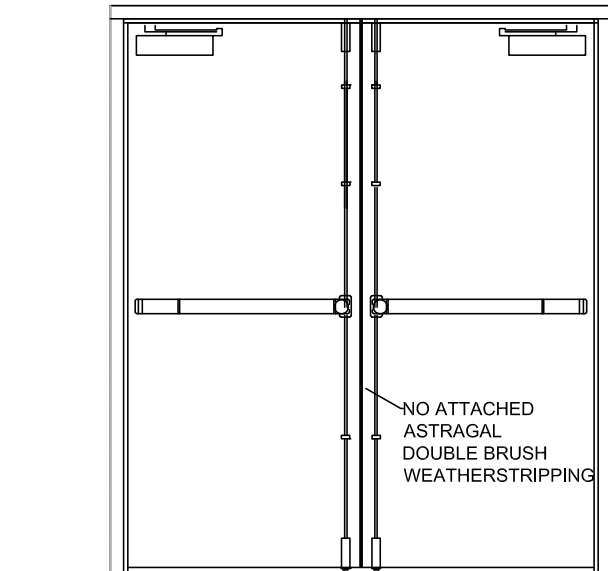
**Series 22/23 - Panic / Exit Hardware**



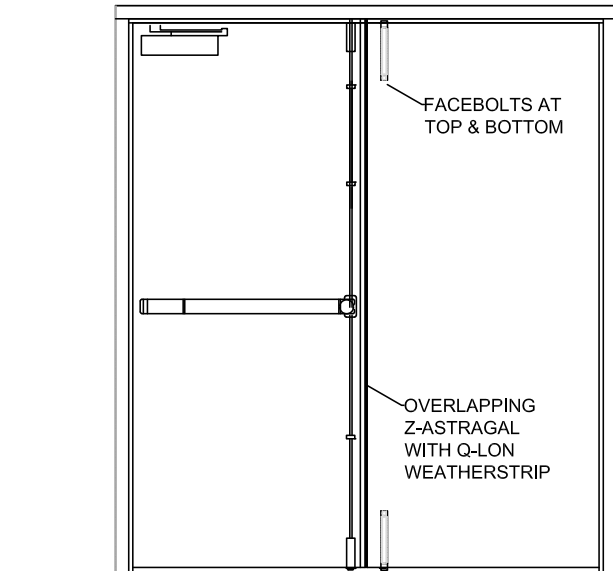
INSIDE VIEW OF DOUBLE ACTIVE DOOR WITH STANDARD BAR PANIC EXIT DEVICES BOTH DOORS WITH REMOVABLE MULLION



INSIDE VIEW OF DOUBLE ACTIVE DOOR WITH VERTICAL ROD PANIC EXIT DEVICE ON BOTH DOORS WITH COORDINATOR



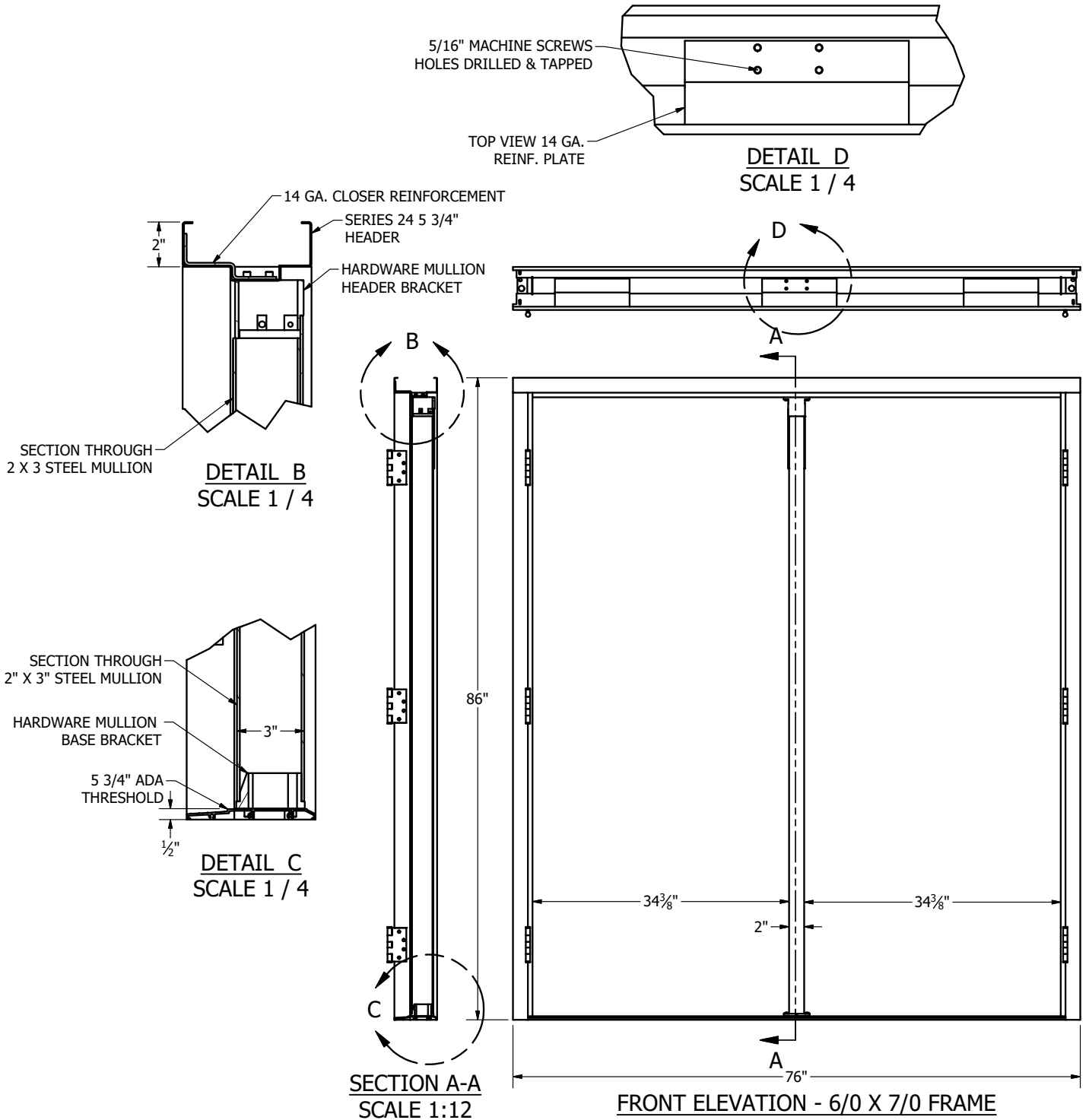
INSIDE VIEW OF DOUBLE ACTIVE DOOR WITH VERTICAL ROD PANIC EXIT DEVICES BOTH DOORS



INSIDE VIEW OF SINGLE ACTIVE DOOR WITH VERTICAL ROD PANIC EXIT DEVICE ON ONE DOOR

## Series 22 Fire Rated Door System

### Series 22/23 - Hardware Mullion



Door, Frame and Hardware Schedule

Door#	Frames											Door						Hardware						Remarks
	Series	Size	Hand	Gal	Gauge	Type	Depth	Throat	Anchor	Application	Gauge	Elev	Gal	Type	Core	Lock Prep	Hdw. Cpn#	Hinges	Lock	Closer	Thresh.	Wthr.Seal	Sweep	
EX. 23	3070	RHOS	A40	16	STEEU SUBFR.	5.75"	4.87"	GIJT-ANCHOR	MBZ/12" Curb	18	3070	A40	1-LG	STY	C		STD BB/NRP	ADV. GRADE 1 LEVER ENTRANC	CLOSER- COM	5.75	WS-024	WS-023	Add 7' x 34" Kkplate. Glass is 22' x 30" Insulated Tempered	
		Project Name: EXAMPLE		Completed by: T.Granitz		PHONE: 800-558-5895   FAX: 800-257-5926																		
		Job #:		Date: 3/30/2020		E-MAIL: tgranitz@plyco.com																		
		Customer: BUILDER NAME		Remarks: see "Specs" tab below for basic submittal information																				



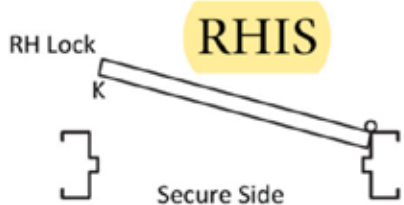
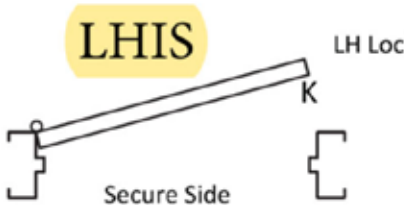
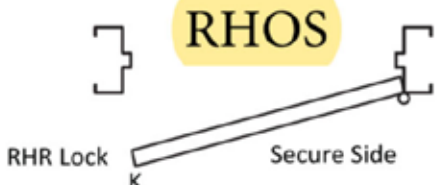
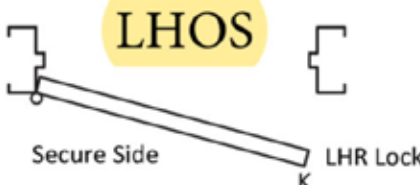
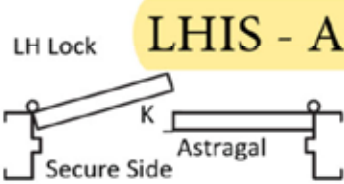
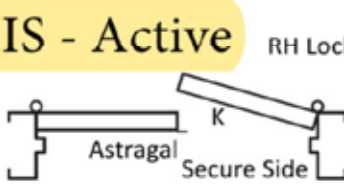
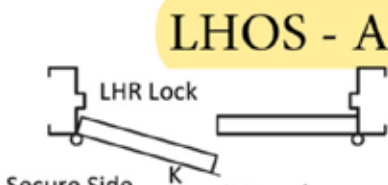

## Series 22 Fire Rated Door System

### Series 22/23 - Handing Chart

#### HANDING

To determine the hand of a door, view the door from the Secure Side (the side the hinges are on is the hand of the door).

- If the door swings away from the viewer, the hand is regular hand, i.e., right or left hand.
- If the door swings to the viewer, the door is reverse swing, i.e., right hand reverse swing or left hand reverse swing.

<p>Right Hand Door (swing in) Right Hand Frame</p>  <p><b>RHIS</b></p>	<p>Left Hand Door (swing in) Left Hand Frame</p>  <p><b>LHIS</b></p>
<p>Right Hand Reverse Door (swing out) Left Hand Frame</p>  <p><b>RHOS</b></p>	<p>Left Hand Reverse Door (swing out) Right Hand Frame</p>  <p><b>LHOS</b></p>
<p>Pair of Doors - LH Active (swing in) Double Door Frame - LH Active</p>  <p><b>LHIS - Active</b></p>	<p>Pair of Doors - RH Active (swing in) Double Door Frame - RH Active</p>  <p><b>RHIS - Active</b></p>
<p>Pair of Doors - LHR Active (swing out) Double Door Frame - RH Active</p>  <p><b>LHOS - Active</b></p>	<p>Pair of Doors - RHR Active (swing out) Double Door Frame - LH Active</p>  <p><b>RHOS - Active</b></p>