

SIERRA PACIFIC WINDOWS

H3 2.0 FEELSAFE MULLION SYSTEM

INSTALLATION ANCHORAGE DETAILS

GENERAL NOTES:

1.

THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT EDITION FLORIDA BUILDING CODE (FBC), EXCLUDING HVHZ AND HAS BEEN EVALUATED ACCORDING TO THE FOLLOWING:
- 1.1.

AAMA/WDMA/CSA 101/I.S.2/A440-08/11
- 1.2.

ASTM E1886-05/13a
- 1.3.

ASTM E1996-09/12a/14a
2.

ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY, 2X FRAMING, AND METAL FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
3.

1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
4.

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT IN NON-HVHZ AREAS.
5.

THIS MULLION SYSTEM FOR USE WITH SIERRA PACIFIC'S H3 2.0 FEELSAFE WINDOWS.
6.

AN IMPACT PROTECTIVE DEVICE IS NOT REQUIRED WITH THIS PRODUCT WHEN USED WITH SIERRA PACIFIC H3 2.0 FEELSAFE WINDOWS IN WIND ZONE 3 OR LESS.
7.

WINDOW FRAME MATERIAL: VINYL, WOOD, AND 6063-T5.
8.

PERIMETER INSTALLATION ANCHORAGE AND GLAZING SHALL BE AS REQUIRED BY THE INDIVIDUAL MULLED WINDOW'S PRODUCT APPROVAL.
9.

AS ALLOWED BY AAMA/WDMA/CSA 101/I.S.2/A440-11, SECTION 4.4.2.5, ANY GEOMETRIC SHAPE THAT FITS WITHIN THE TESTED SIZE AND SHAPE SHOWN FOR THE PRODUCT TYPE HEREIN SHALL BE PERMITTED TO BE QUALIFIED BY THE SHAPE, PROVIDED THAT THE FRAME, SASH, LEAVES, PANELS, HARDWARE, HARDWARE LOCATION, COMPONENTS AS APPLICABLE, AND CONSTRUCTION REMAIN THE SAME.

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INSTALLATION NOTES:

1.

ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN FOR NAIL FIN INSTALLATION. TWO (2) INSTALLATION ANCHORS ARE REQUIRED AT EACH ANCHOR LOCATION SHOWN FOR STRAP INSTALLATION.
2.

THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION OF THE MAXIMUM SIZE LISTED.
3.

INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF ±1/2 INCH THE DEPICTED LOCATION & SPACING IN THE ANCHOR LAYOUT DETAILS (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT.
4.

SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM(S). MAXIMUM ALLOWABLE SHIM STACK TO BE 11/16 INCH FOR DIRECT SET AND 1/4 INCH FOR OTHER WINDOWS OR 1/4 INCH WHEN OPTIONAL DIRECT SET FLUSH JAMB IS USED - SEE SHEET 22 FOR DETAILS. SHIM WHERE SPACE OF 1/16 INCH OR GREATER OCCURS. SHIM(S) SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER. SPACING BETWEEN SHIMS SHALL BE 6" MINIMUM TO 10" MAXIMUM PLACED AT THE INSTALLATION ANCHORS AND BETWEEN ANCHORS TO MEET REQUIRED SPACING.
5.

WINDOW FRAME TO SUBSTRATE INSTALLATION

5.1.

WINDOW FRAME TO SUBSTRATE INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WINDOW'S PRODUCT APPROVAL DOCUMENTS.

5.2.

INSTALLATION DETAILS SHOWN ON SHEETS 5 THROUGH 17 DETAIL STANDARD JAMB OPTION. SEE SHEET 22 FOR OPTIONAL FLUSH JAMB (SHOWN FOR DIRECT SET ONLY - SIMILAR FOR OTHER WINDOWS).

5.3.

INSTALLATION OF ANCHOR CLUSTERS AT MULLED WINDOW COMBINATIONS SHALL BE AS FOLLOWS.

5.3.1. FIN INSTALLATION:

FOR INSTALLATION INTO WOOD FRAMING USE #8 WOOD SCREWS OF SUFFICIENT LENGTH TO ACHIEVE 1-1/2 INCH MINIMUM EMBEDMENT INTO WOOD SUBSTRATE. ANCHORS SHALL BE PLACED SUCH THAT A MINIMUM EDGE DISTANCE OF 3/8" IS ACHIEVED. SILICON SEAL OVER SCREW HEADS.

5.3.2. FIN INSTALLATION:

FOR INSTALLATION INTO METAL STUD USE #8 GRADE 5 SELF-DRILLING OR SELF-TAPPING PH OR HWM SCREWS, OF SUFFICIENT LENGTH TO ACHIEVE A MINIMUM OF 3 THREADS PENETRATION BEYOND METAL WALL. ANCHORS SHALL BE PLACED SUCH THAT A MINIMUM EDGE DISTANCE OF 3/8" IS ACHIEVED. SILICON SEAL OVER SCREW HEADS.

5.3.3. STRAP INSTALLATION:

FOR INSTALLATION INTO WOOD FRAMING USE TWO (2) #8 WOOD SCREWS OF SUFFICIENT LENGTH TO ACHIEVE 1-1/2 INCH MINIMUM EMBEDMENT INTO WOOD SUBSTRATE. ANCHORS SHALL BE PLACED SUCH THAT A MINIMUM EDGE DISTANCE OF 3/4" AND MINIMUM SPACING OF 1" BETWEEN ANCHORS IS ACHIEVED.

5.3.4. STRAP INSTALLATION:

FOR INSTALLATION INTO METAL STUD USE TWO (2) #8 GRADE 5 SELF-DRILLING OR SELF-TAPPING PH OR HWM SCREWS OF SUFFICIENT LENGTH TO ACHIEVE A MINIMUM OF 3 THREADS PENETRATION BEYOND METAL WALL. ANCHORS SHALL BE PLACED SUCH THAT A MINIMUM EDGE DISTANCE OF 3/4" AND MINIMUM SPACING OF 1" BETWEEN ANCHORS IS ACHIEVED.

5.3.5. THROUGH FRAME INSTALLATION:

FOR INSTALLATION INTO WOOD FRAMING USE #10 WOOD SCREWS OF SUFFICIENT LENGTH TO ACHIEVE 1-1/2 INCH MINIMUM EMBEDMENT INTO WOOD SUBSTRATE. ANCHORS SHALL BE PLACED SUCH THAT A MINIMUM EDGE DISTANCE OF 3/4" IS ACHIEVED.

5.3.6. THROUGH FRAME INSTALLATION:

FOR INSTALLATION INTO METAL STUD USE #10 GRADE 5 SELF-DRILLING OR SELF-TAPPING PH OR HWM SCREWS, OF SUFFICIENT LENGTH TO ACHIEVE A MINIMUM OF 3 THREADS PENETRATION BEYOND METAL WALL. ANCHORS SHALL BE PLACED SUCH THAT A MINIMUM EDGE DISTANCE OF 3/4" IS ACHIEVED.

5.3.7. THROUGH FRAME OR STRAP INSTALLATION:

FOR INSTALLATION THROUGH 1X BUCK TO CONCRETE/MASONRY OR DIRECTLY INTO CONCRETE/MASONRY, USE 3/16 INCH ITW TAPCONS OF SUFFICIENT LENGTH TO ACHIEVE 1-1/2 INCH MINIMUM EMBEDMENT.

6.

MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES BUCKS AND WALL FINISHES WHICH INCLUDE BUT IS NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING.

7.

INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.

8.

INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BY THE ANCHOR MANUFACTURER.

9.

INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:

9.1.

WOOD - MINIMUM SPECIFIC GRAVITY OF 0.42.

9.2.

CONCRETE -MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.

9.3.

MASONRY - STRENGTH CONFORMANCE TO ASTM C-90, MEDIUM WEIGHT, DENSITY > 190 PCF

9.4.

STEEL - MINIMUM YIELD STRENGTH OF 33 SKI. MINIMUM WALL THICKNESS OF 35.9 MIL (0.0478" or 18 GAUGE).

9.5.

ALUMINUM - MINIMUM ALLOY 6063-T5. MINIMUM WALL THICKNESS OF 1/8"

SEE SHEETS 18 THROUGH 21 FOR MULLION SPAN VS. LOAD WIDTH DESIGN PRESSURE CAPACITY CHARTS AND APPROVED MULLED WINDOW CONFIGURATIONS

PROJECT # 0417-0302

SIERRA PACIFIC WINDOWS

11605 READING ROAD, PO BOX 8489

RED BLUFF, CA 96080

TITLE:

H3 2.0 FEELSAFE MULLION SYSTEM

GENERAL NOTES, INSTALLATION NOTES & TABLE OF CONTENTS

PREPARED BY:

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DATE: 4/8/18

SCALE: N.T.S.

DRAWING NO: SPW-PTC0001

SHEET: 1 OF 22

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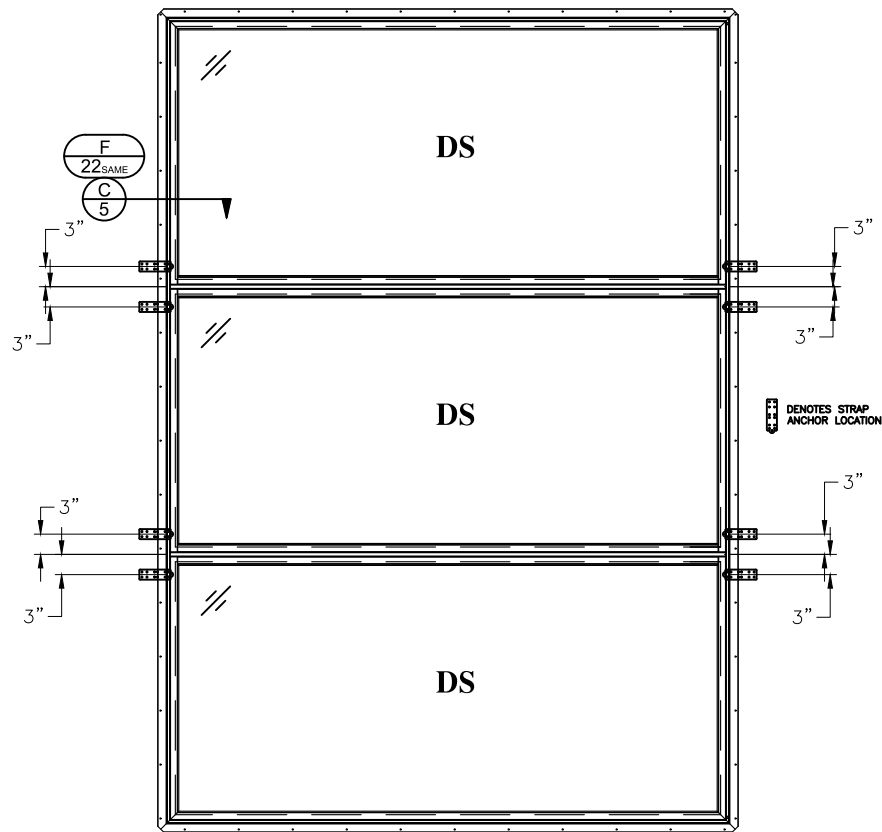
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FLORIDA

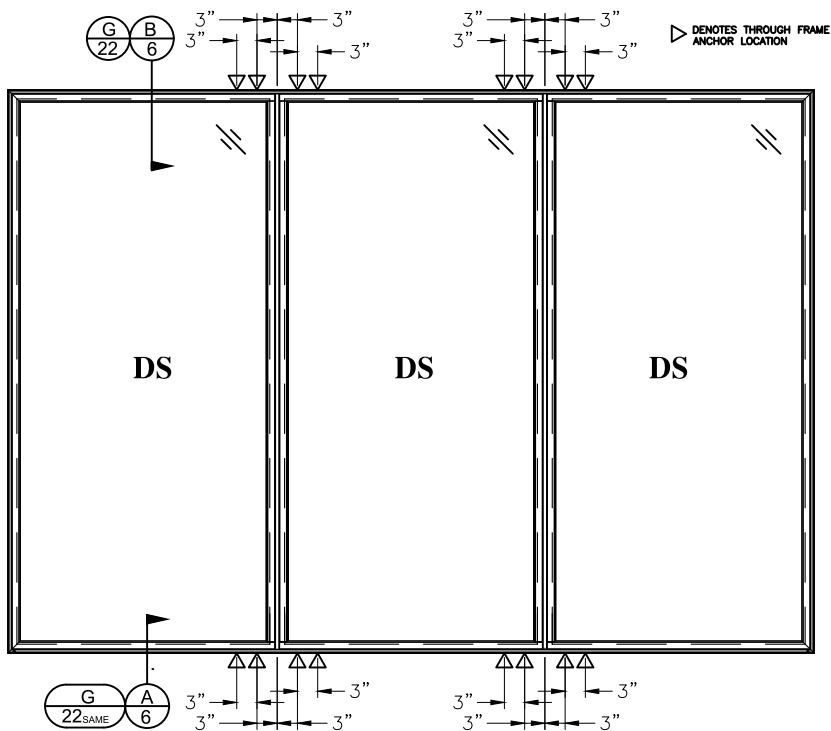
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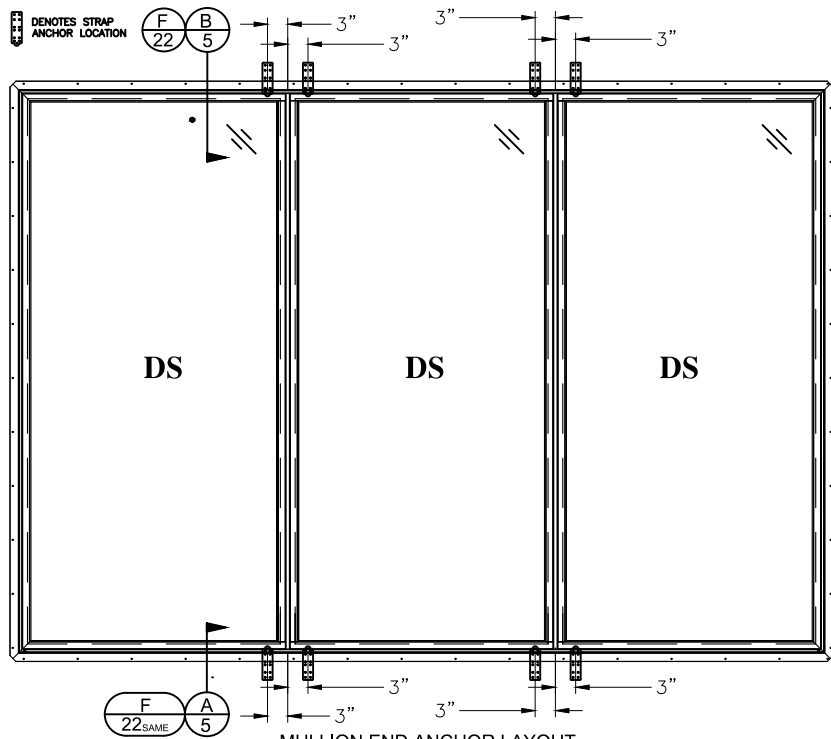
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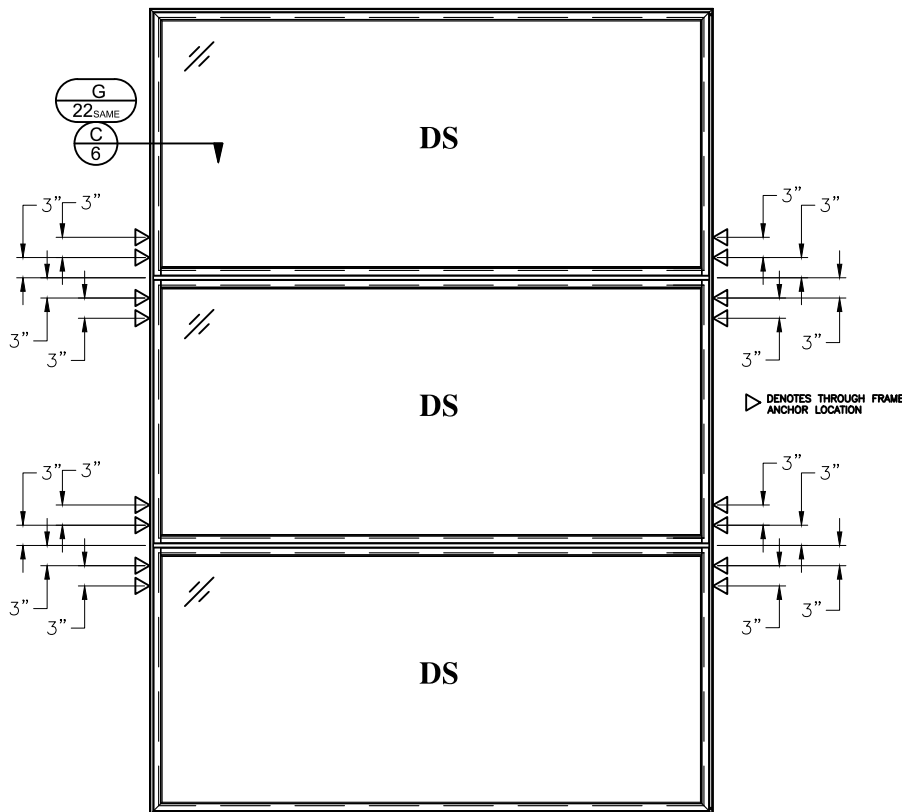
MULLION END ANCHOR LAYOUT
NAIL FIN & STRAP
HORIZONTAL CONFIGURATIONS WITH DIRECT SET (DS) WINDOWS
INSTALLATION ANCHORAGE FOR MULLION ENDS ONLY SHOWN
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PROJECT # 0417-0302

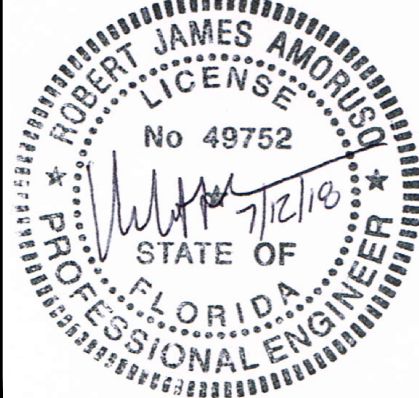
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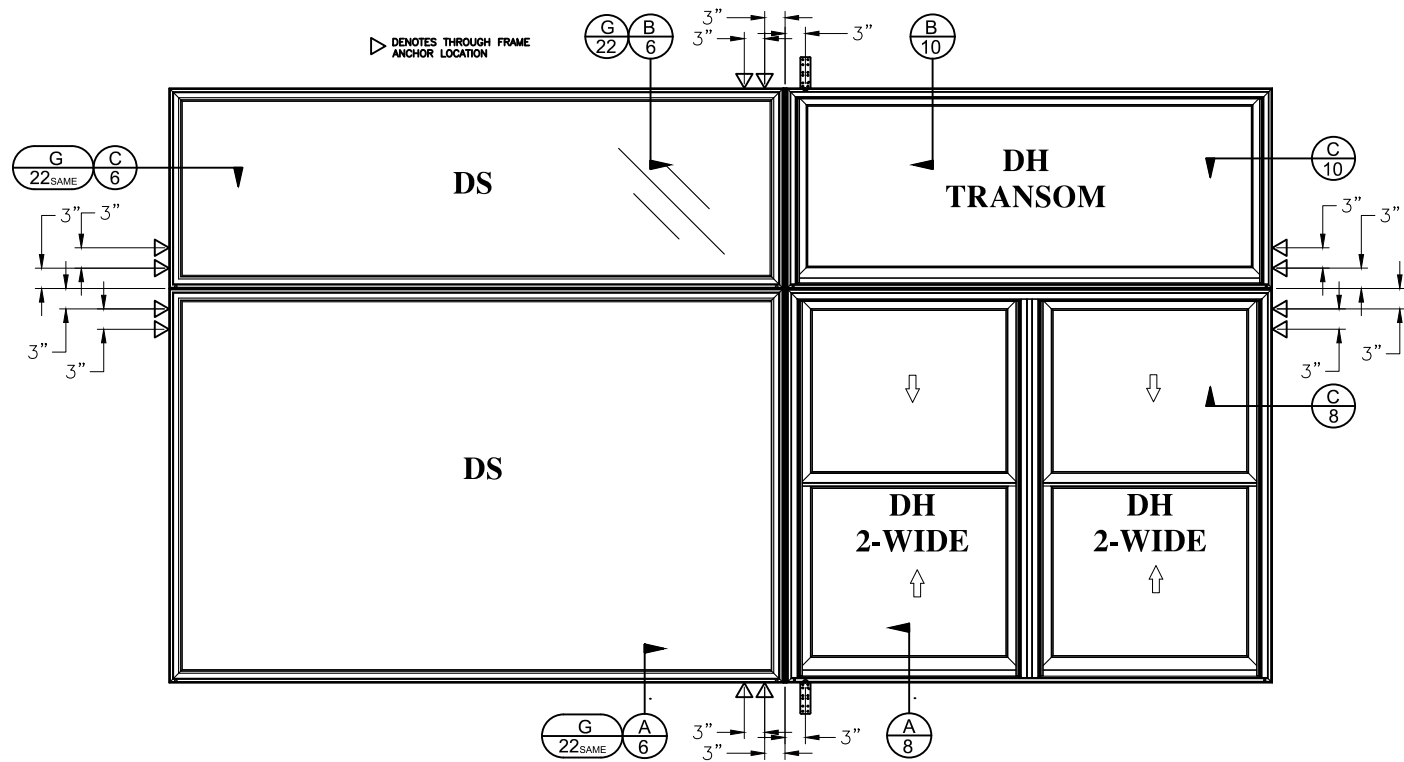
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DRAWN BY: RJA
DATE: 4/8/18
SCALE: N.T.S.
SHEET: 2 OF 22
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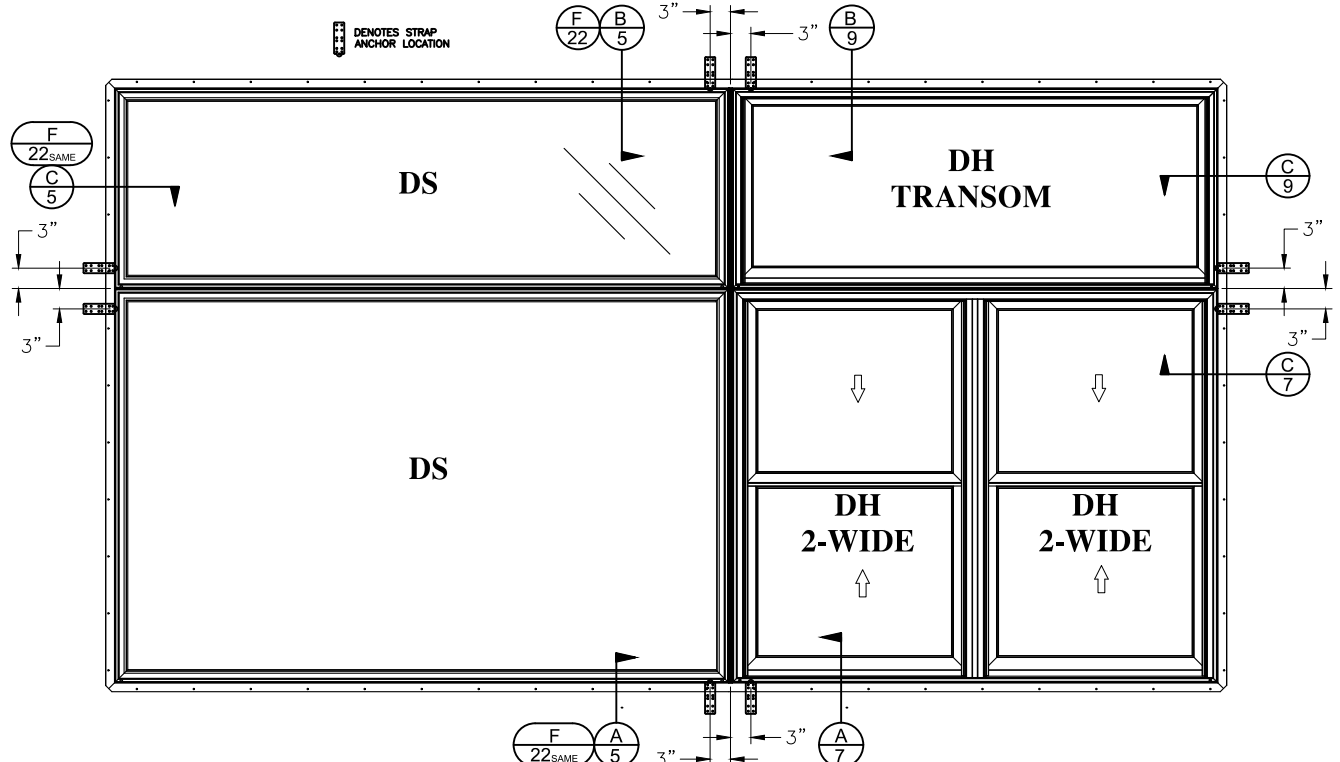
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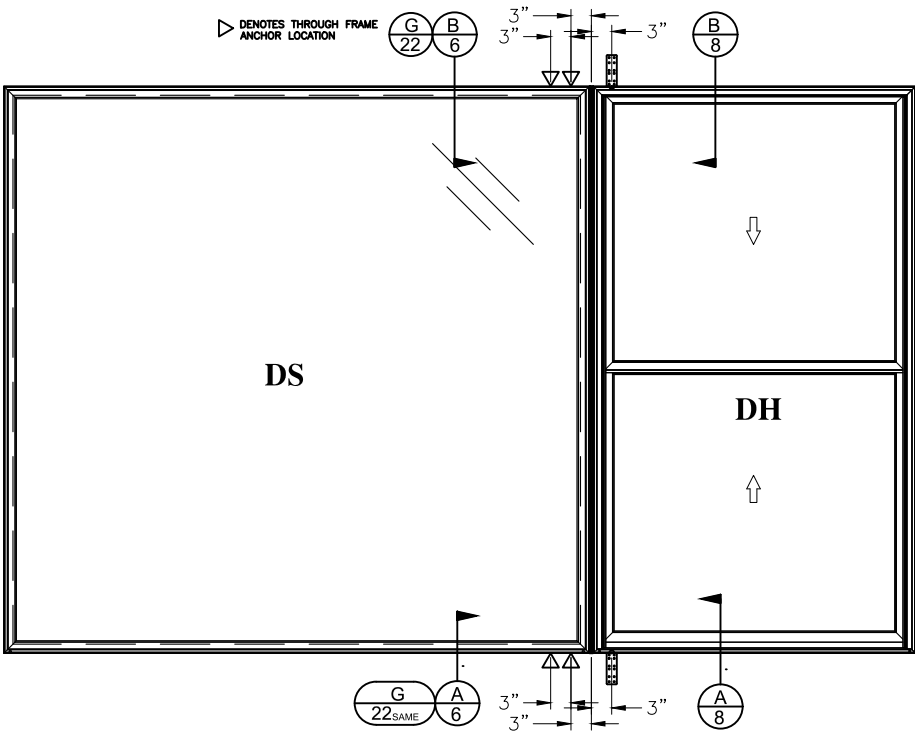




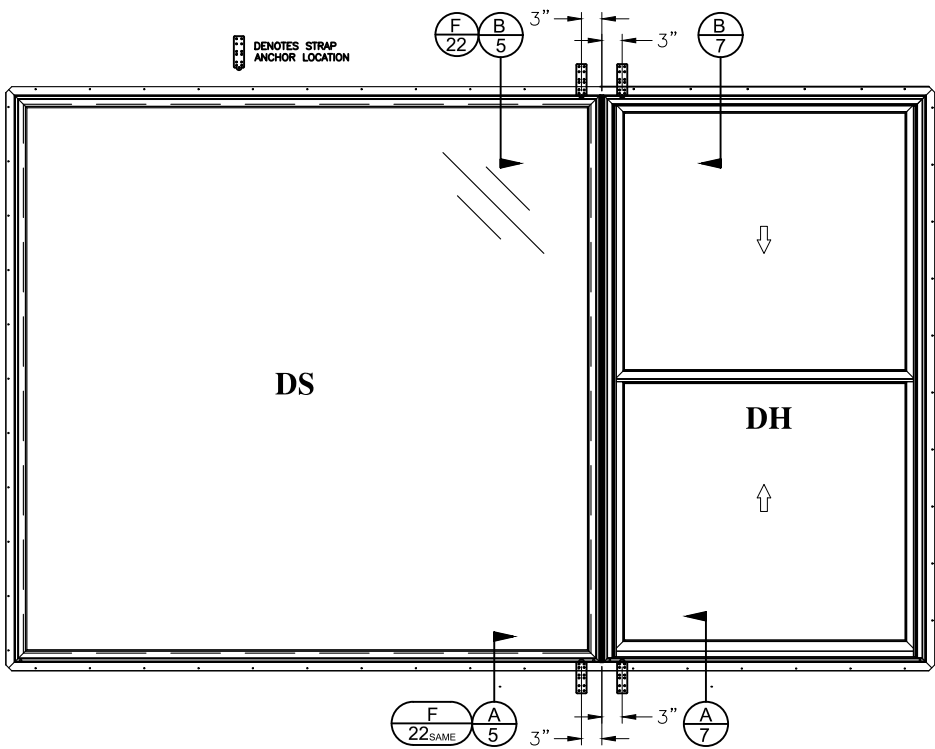
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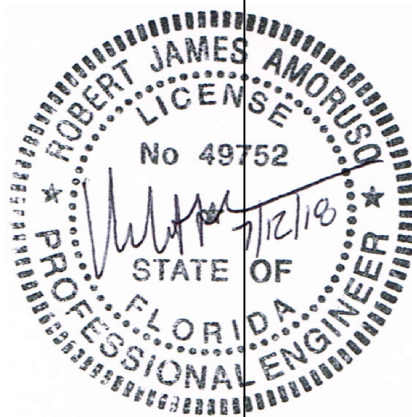
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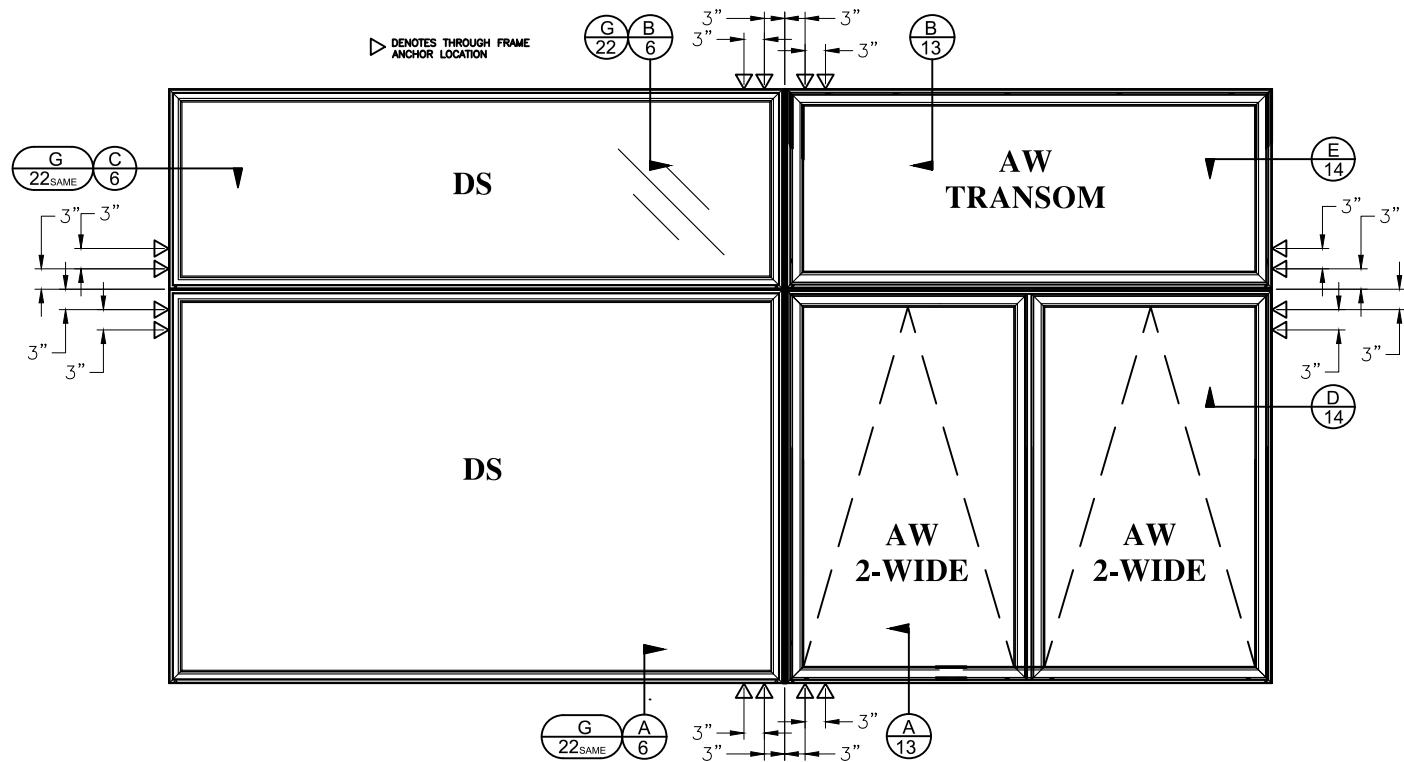
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H3 2.0 FEELS SAFE MULLION SYSTEM
TWO-WAY CONFIGURATION ELEVATIONS & ANCHORING LAYOUT

PREPARED BY:
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SCALE: N.T.S.
DATE: 4/8/18
DRAWING NO: SPW-PTC0001
SHEET: 3 OF 22
REV: --

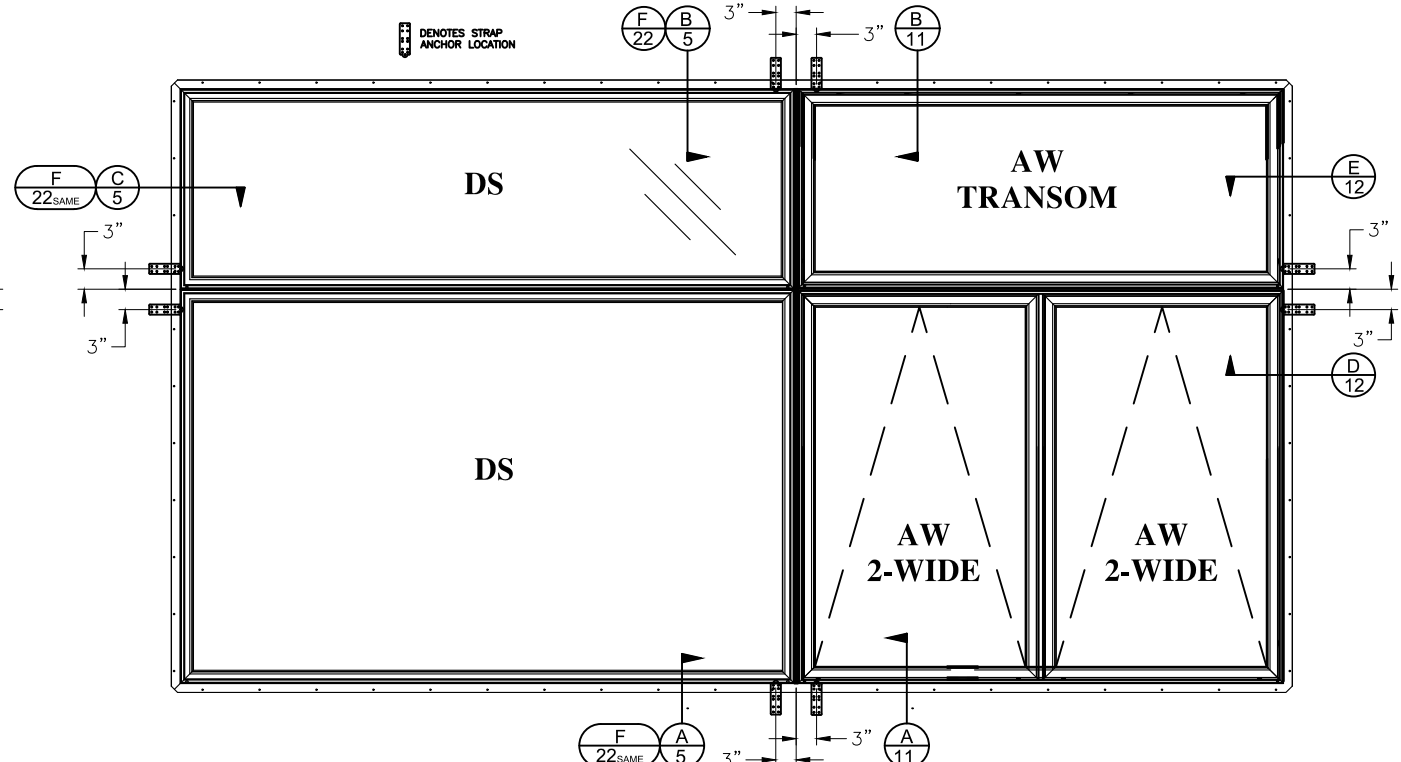
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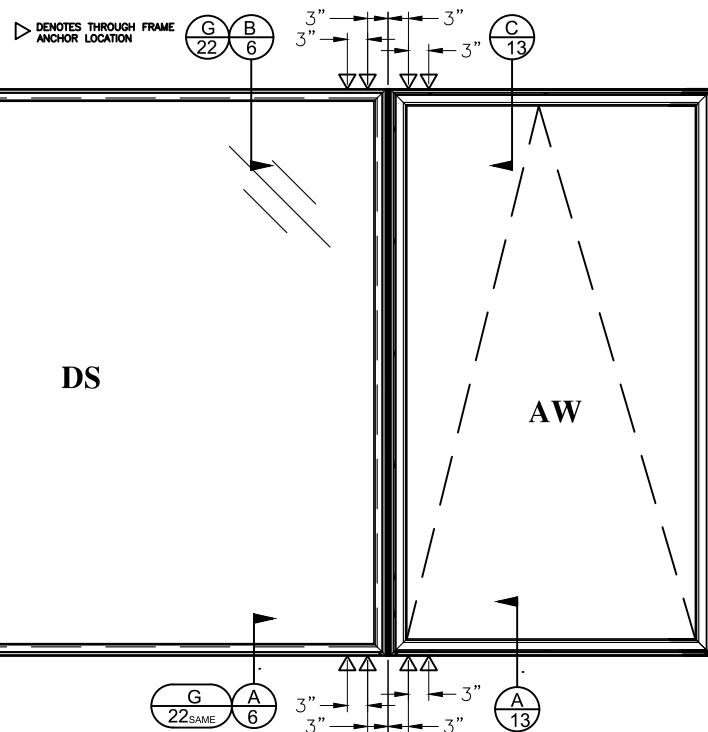




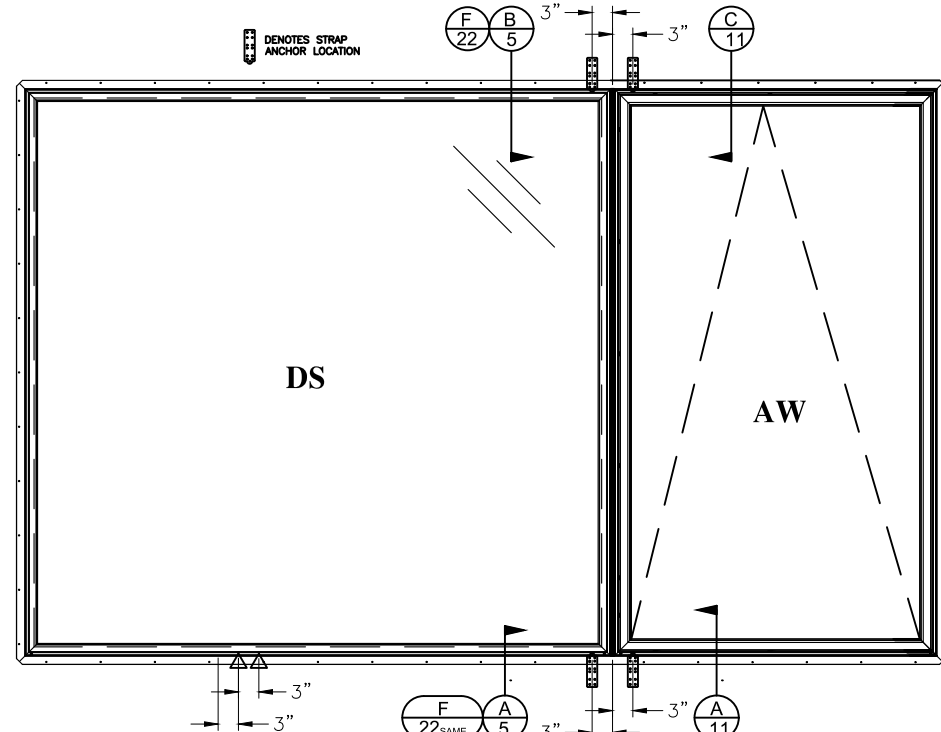
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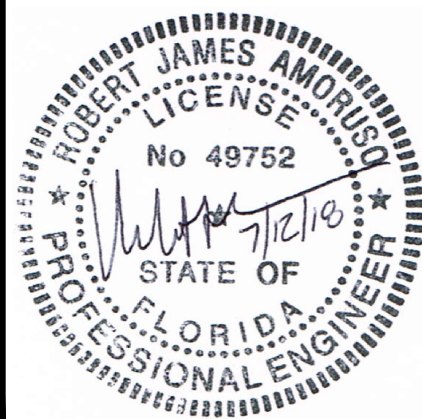
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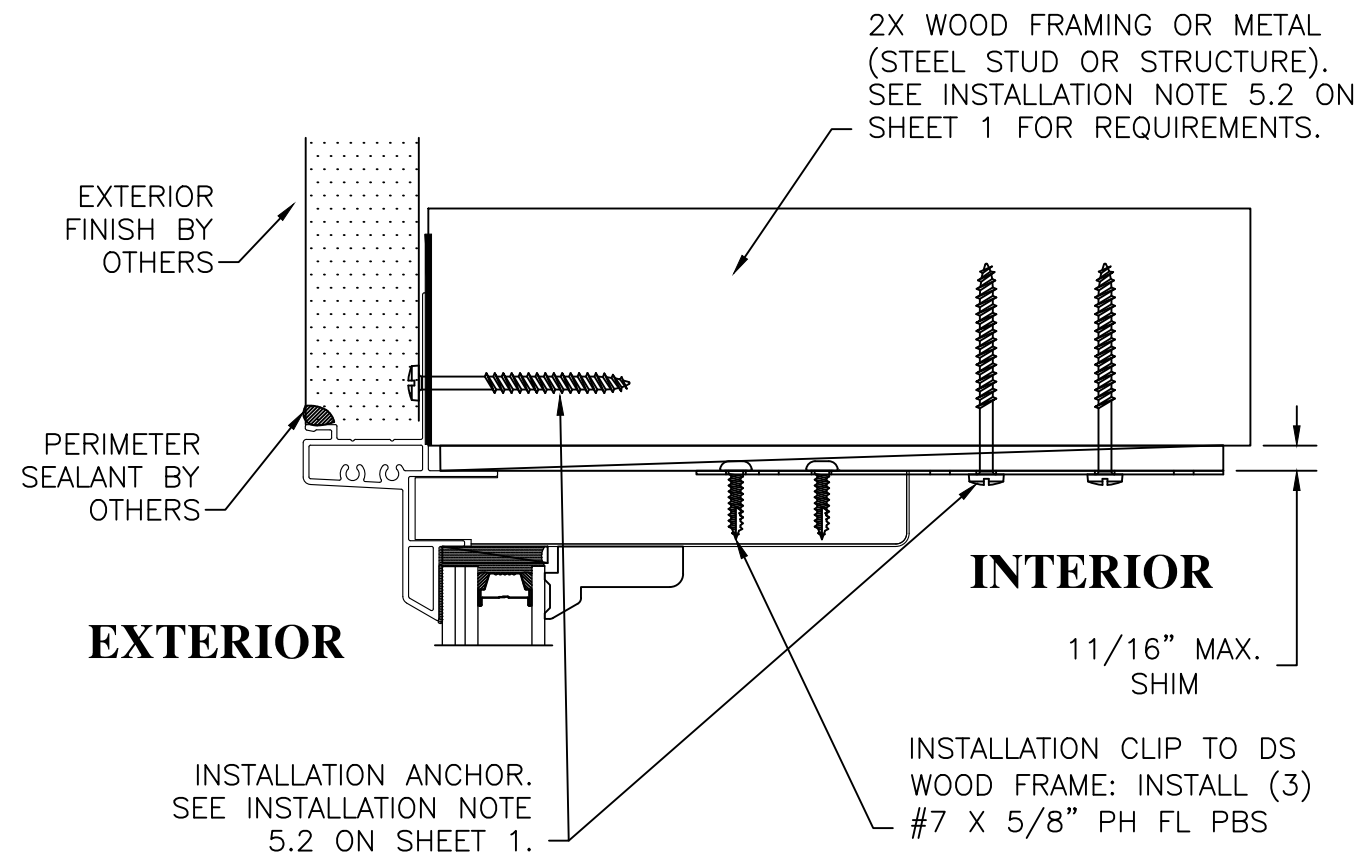
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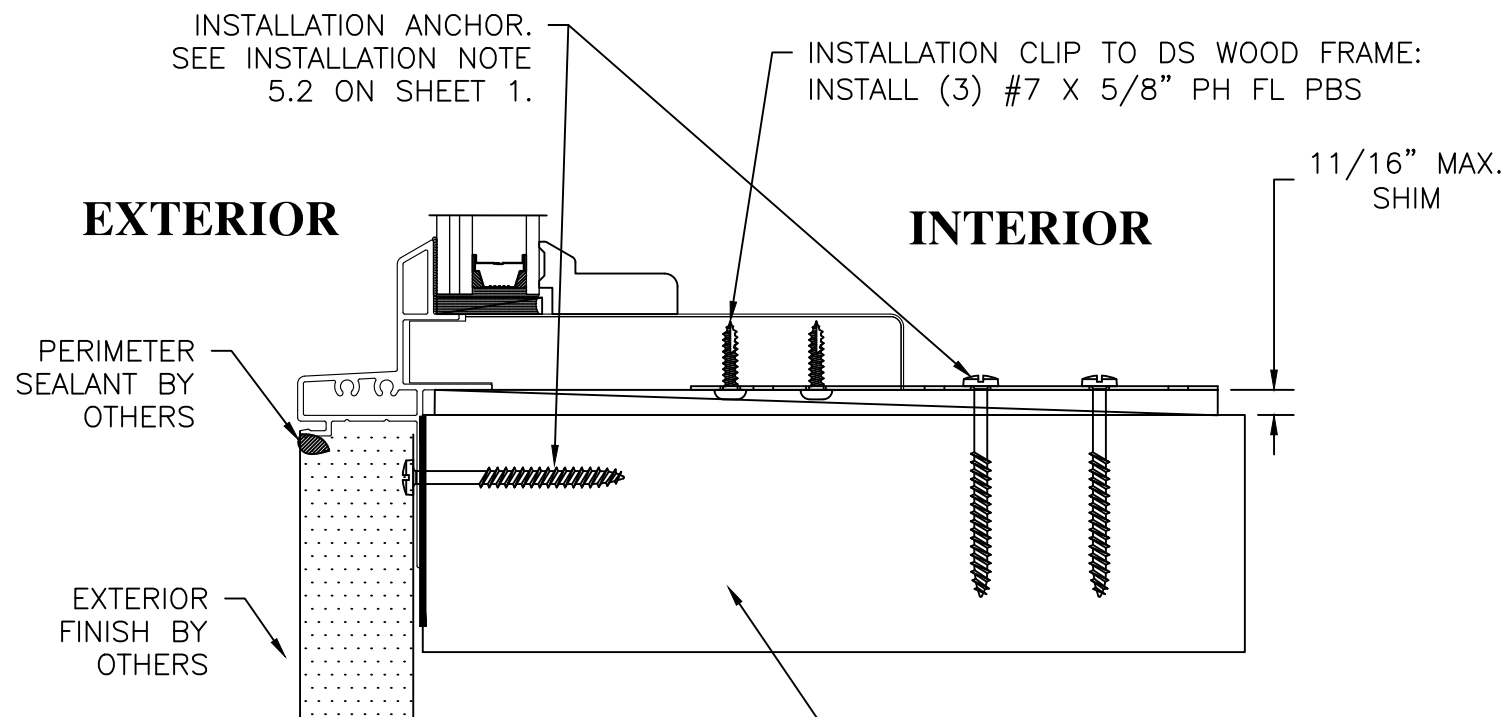
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SCALE: N.T.S.
DRAWING NO: SPW-PTC0001
SHEET: 4 OF 22
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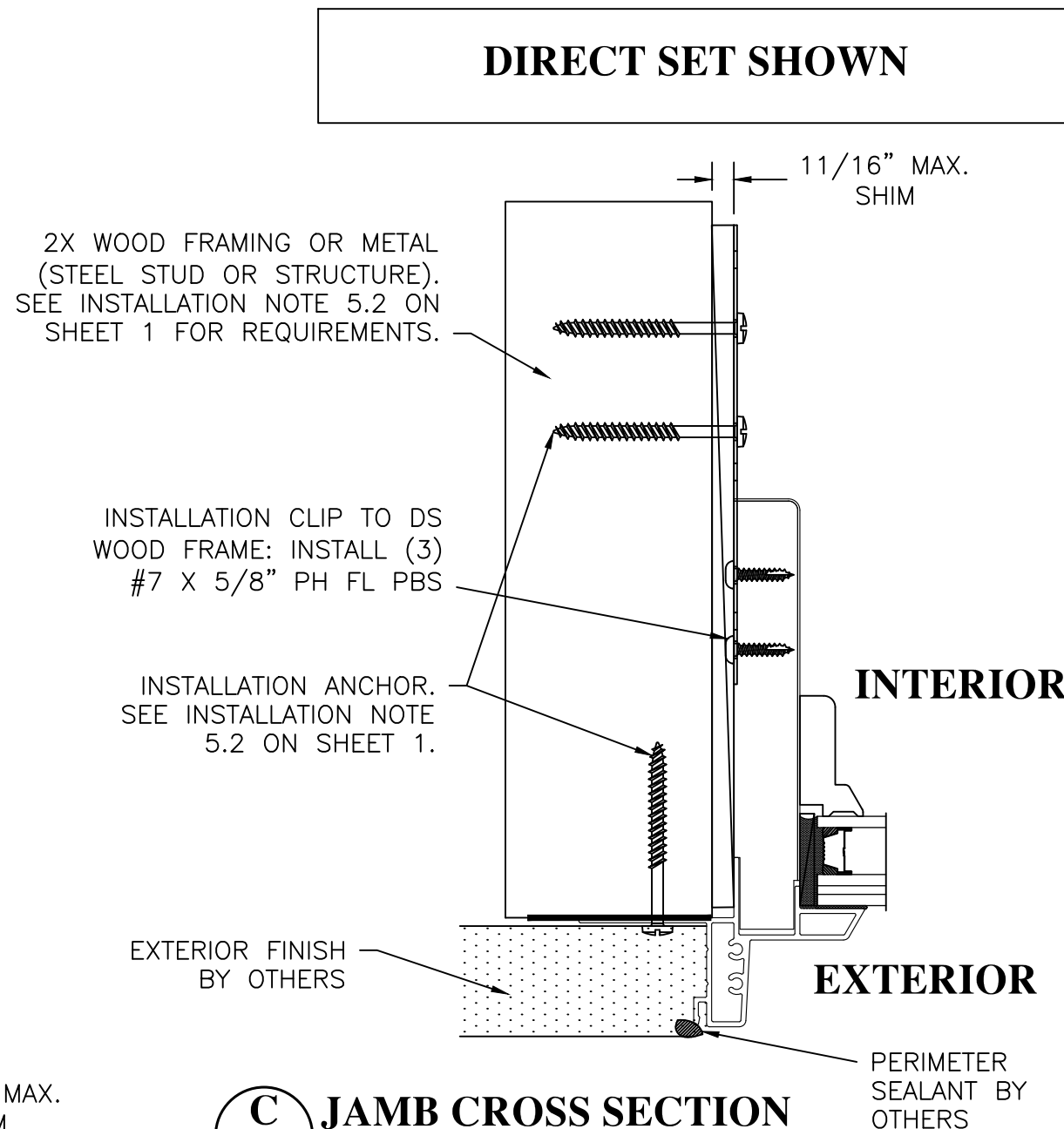




B
5 **HEAD CROSS SECTION**
FIN FRAME INSTALLATION
W/ INSTALLATION CLIP AT MULLIONS



A
5 **SILL CROSS SECTION**
FIN FRAME INSTALLATION
W/ INSTALLATION CLIP AT MULLIONS



C
5 **JAMB CROSS SECTION**
FIN FRAME INSTALLATION
W/ INSTALLATION CLIP AT MULLIONS

PROJECT # 0417-0302

SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
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TITLE: H3 2.0 FEELSAFE MULLION SYSTEM
DIRECT SET CROSS SECTIONS - FIN FRAME INSTALLATION

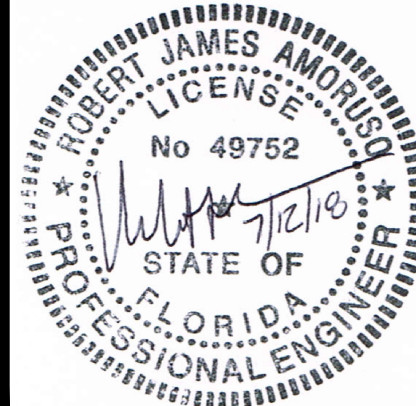
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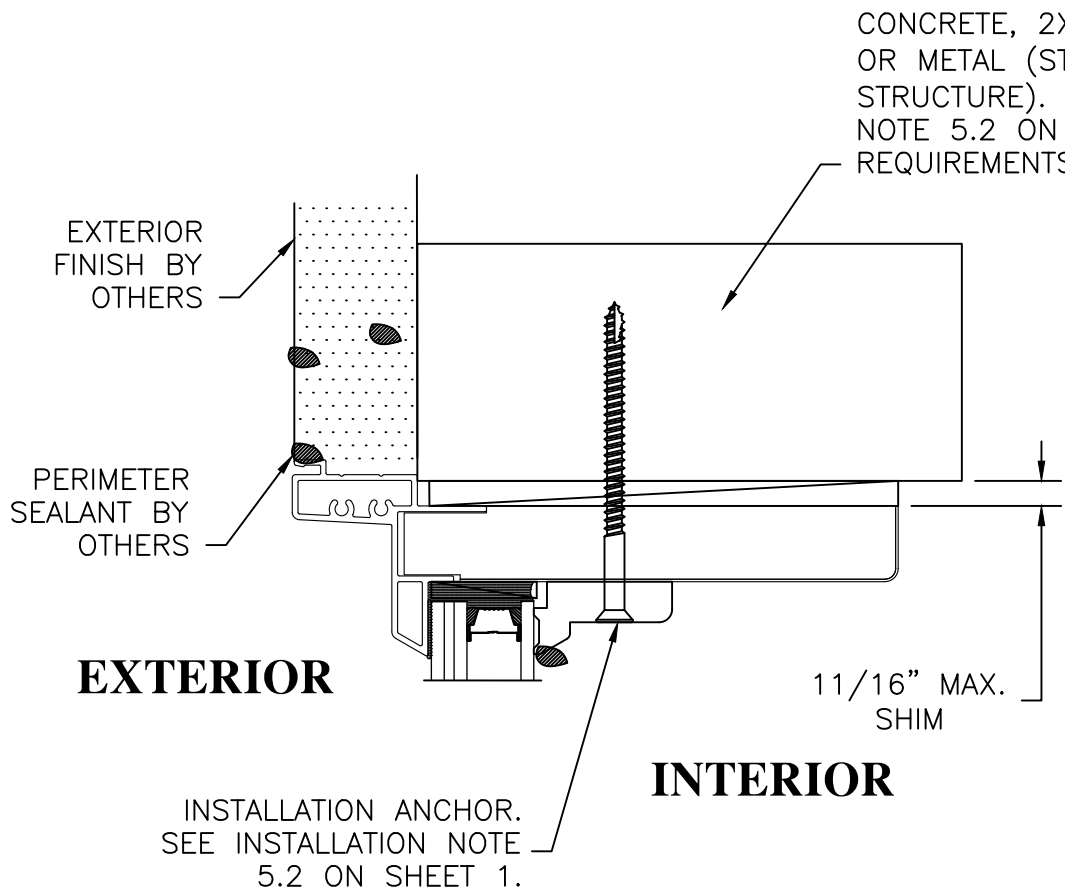
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REV: 5 OF 22 SHEET: 5 OF 22

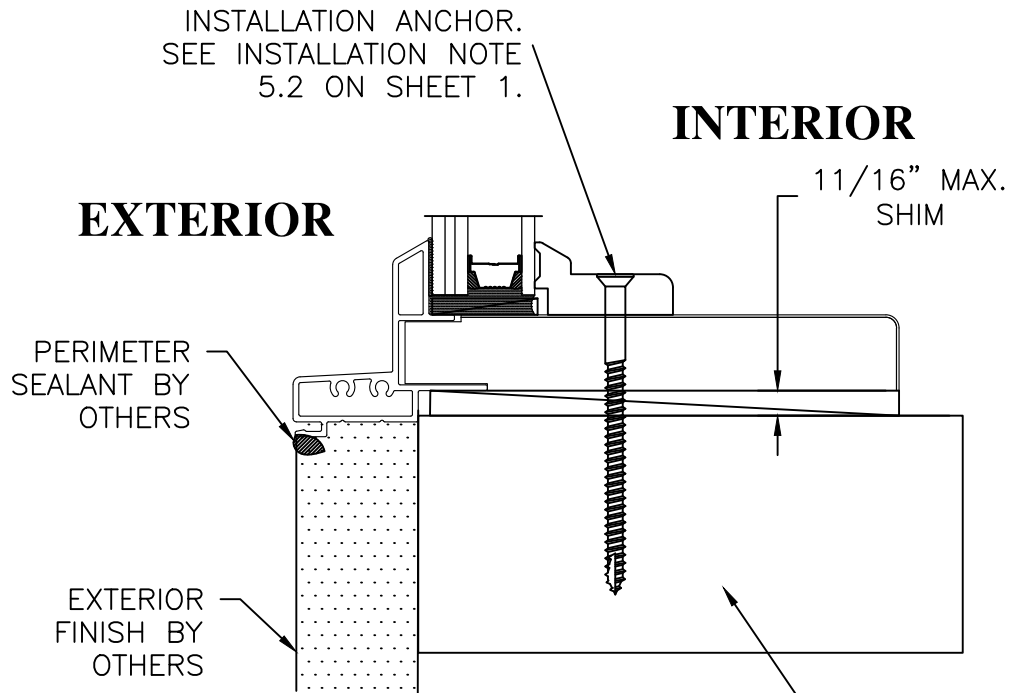
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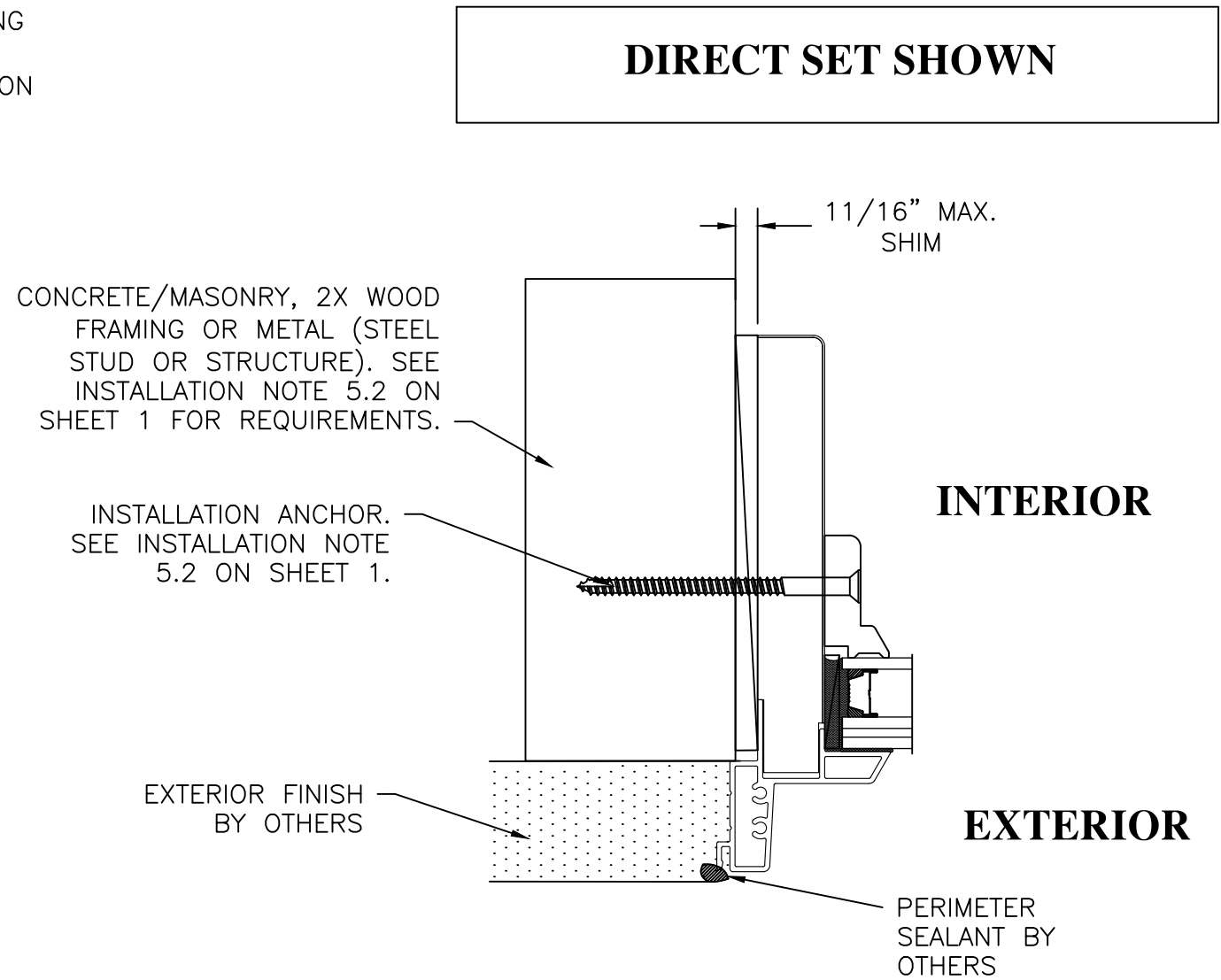




B HEAD CROSS SECTION
6 THROUGH FRAME INSTALLATION



A SILL CROSS SECTION
6 THROUGH FRAME INSTALLATION



C JAMB CROSS SECTION
6 THROUGH FRAME INSTALLATION

PROJECT # 0417-0302

SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
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TITLE: DIRECT SET CROSS SECTIONS - THROUGH FRAME INSTALLATION

PREPARED BY:

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REV: --

DATE: 4/8/18

DRAWING NO: SPW-PTC0001

SHEET: 6 OF 22

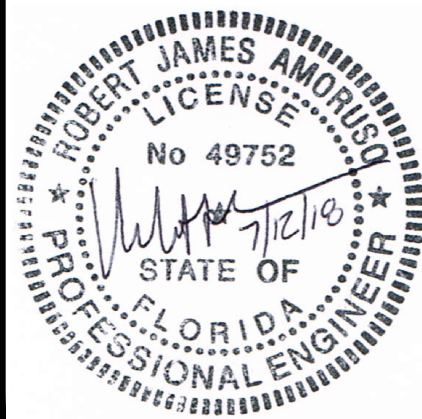
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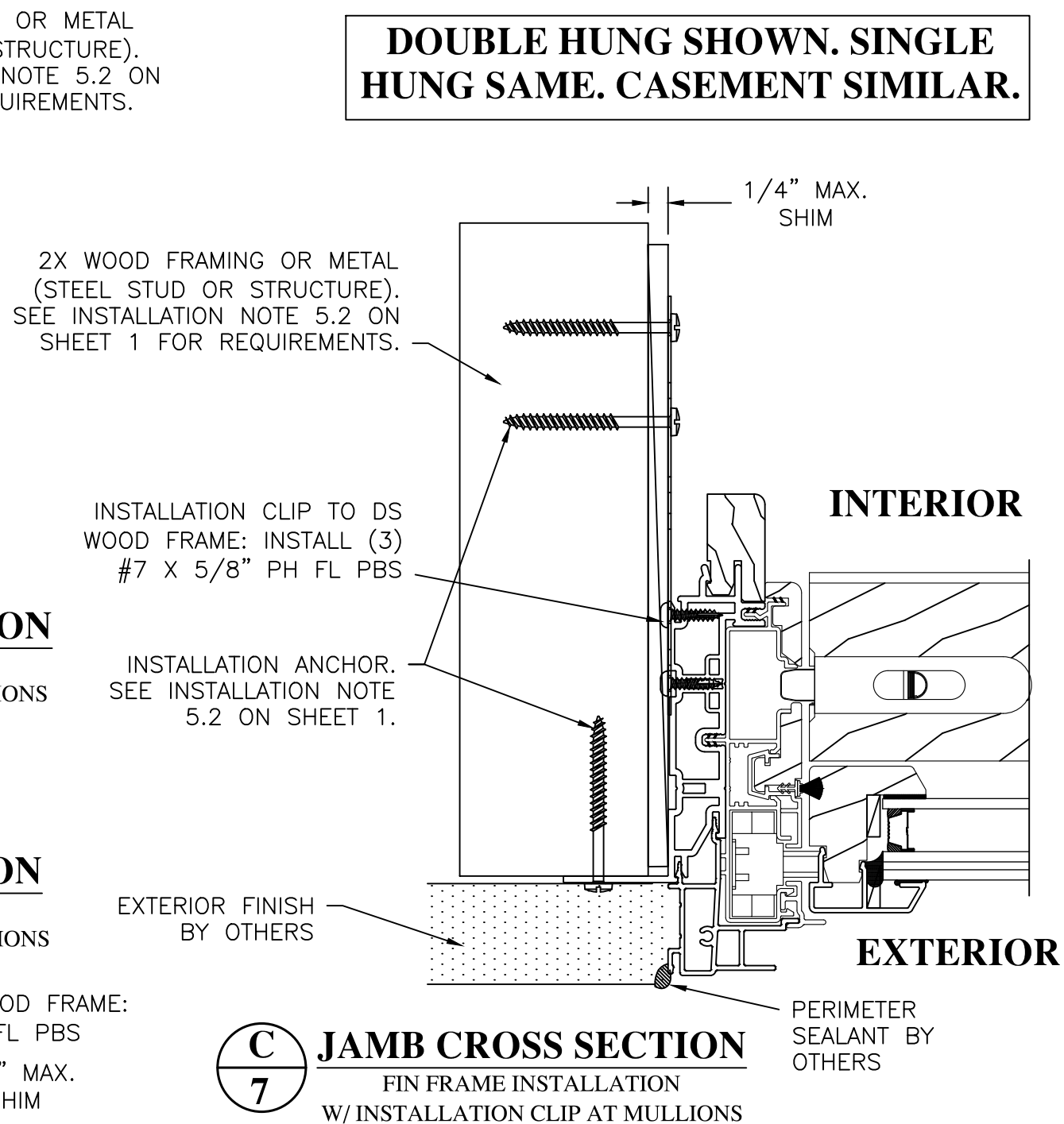
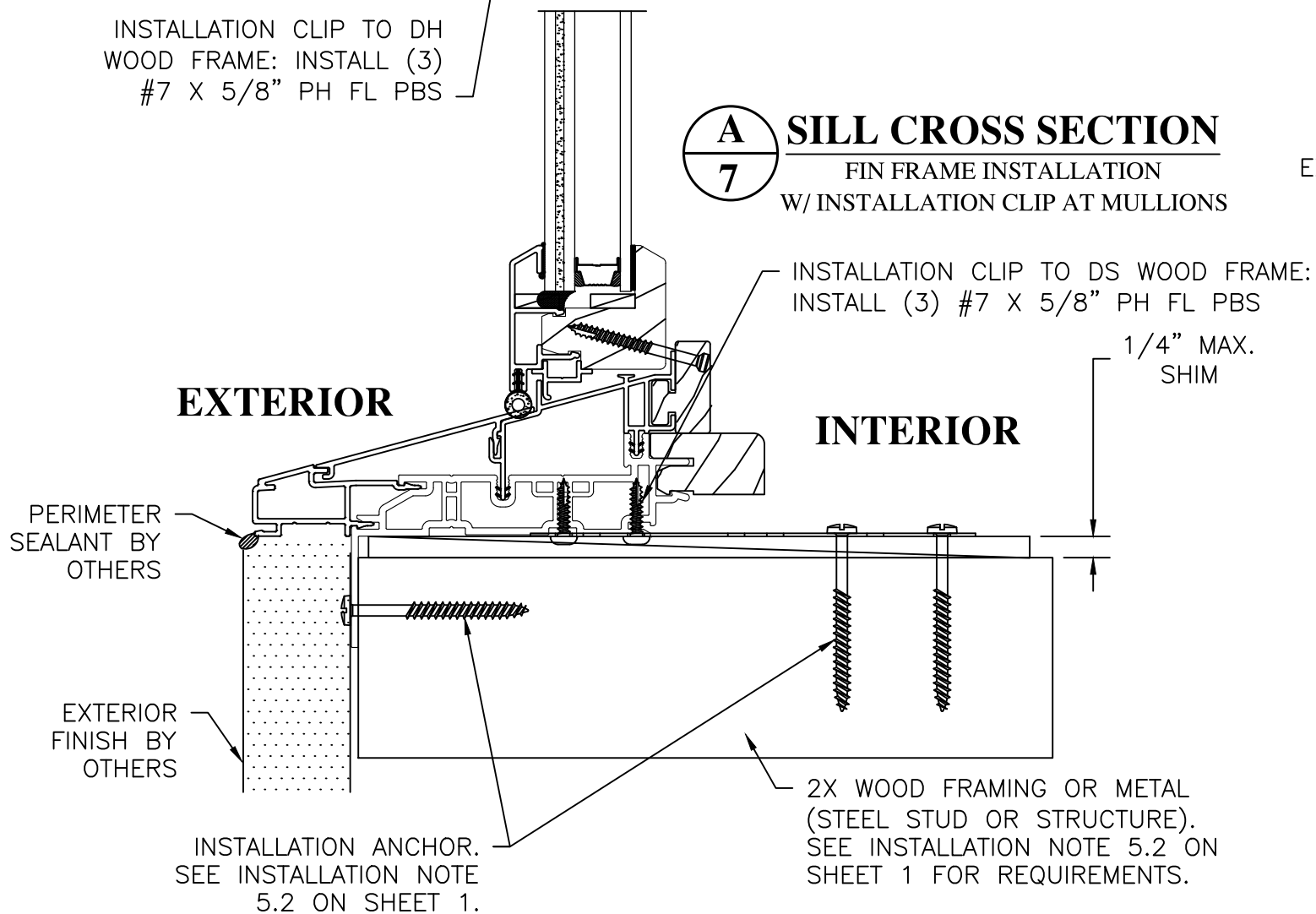
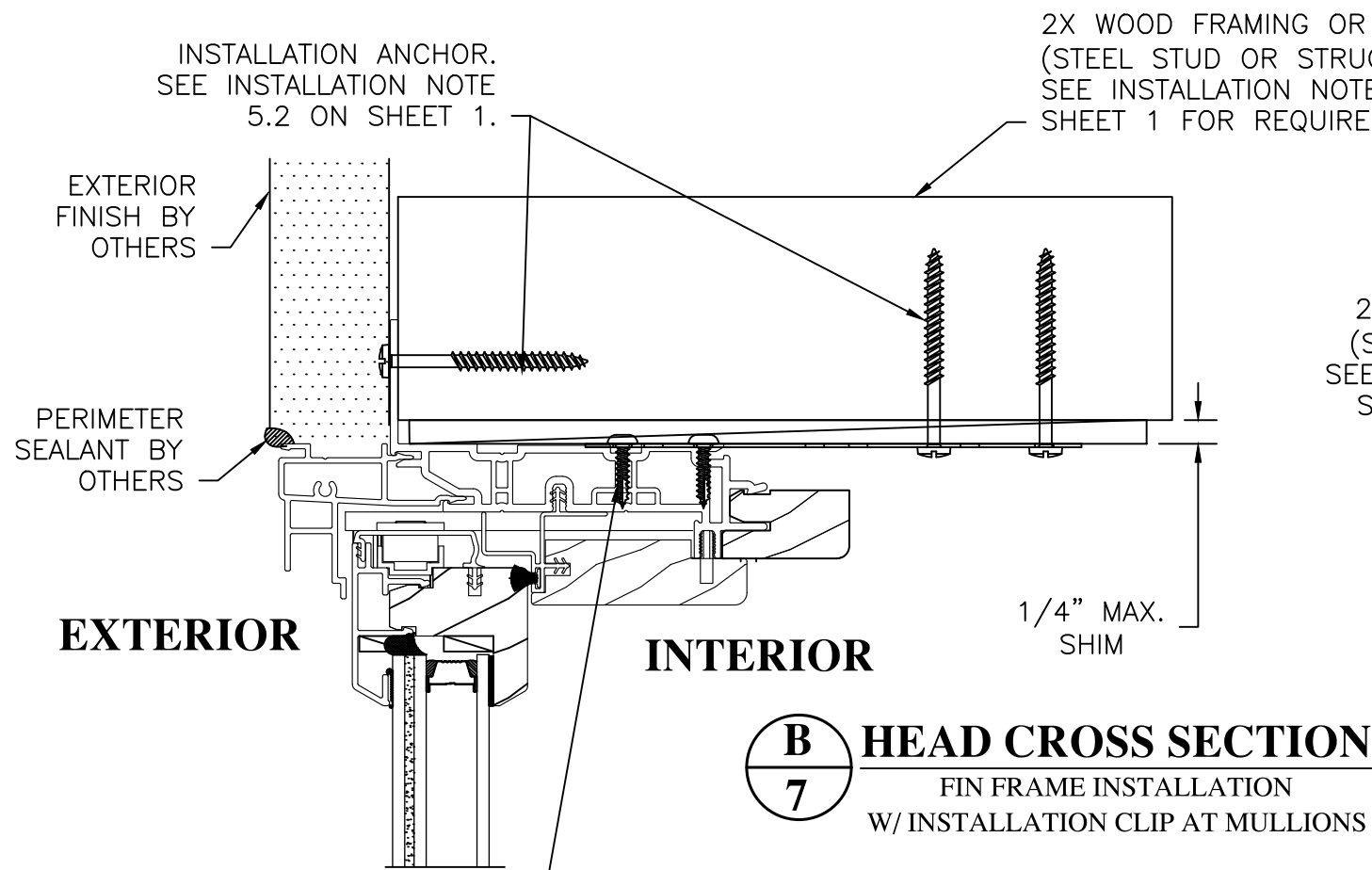
DESCRIPTION

DATE

BY

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**DOUBLE HUNG SHOWN. SINGLE
HUNG SAME. CASEMENT SIMILAR.**

PROJECT # 0417-0302

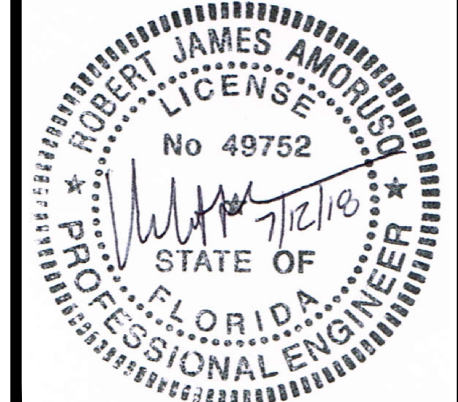
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RED BLUFF, CA 96080

TITLE: DOUBLE HUNG CROSS SECTIONS - FIN FRAME INSTALLATION

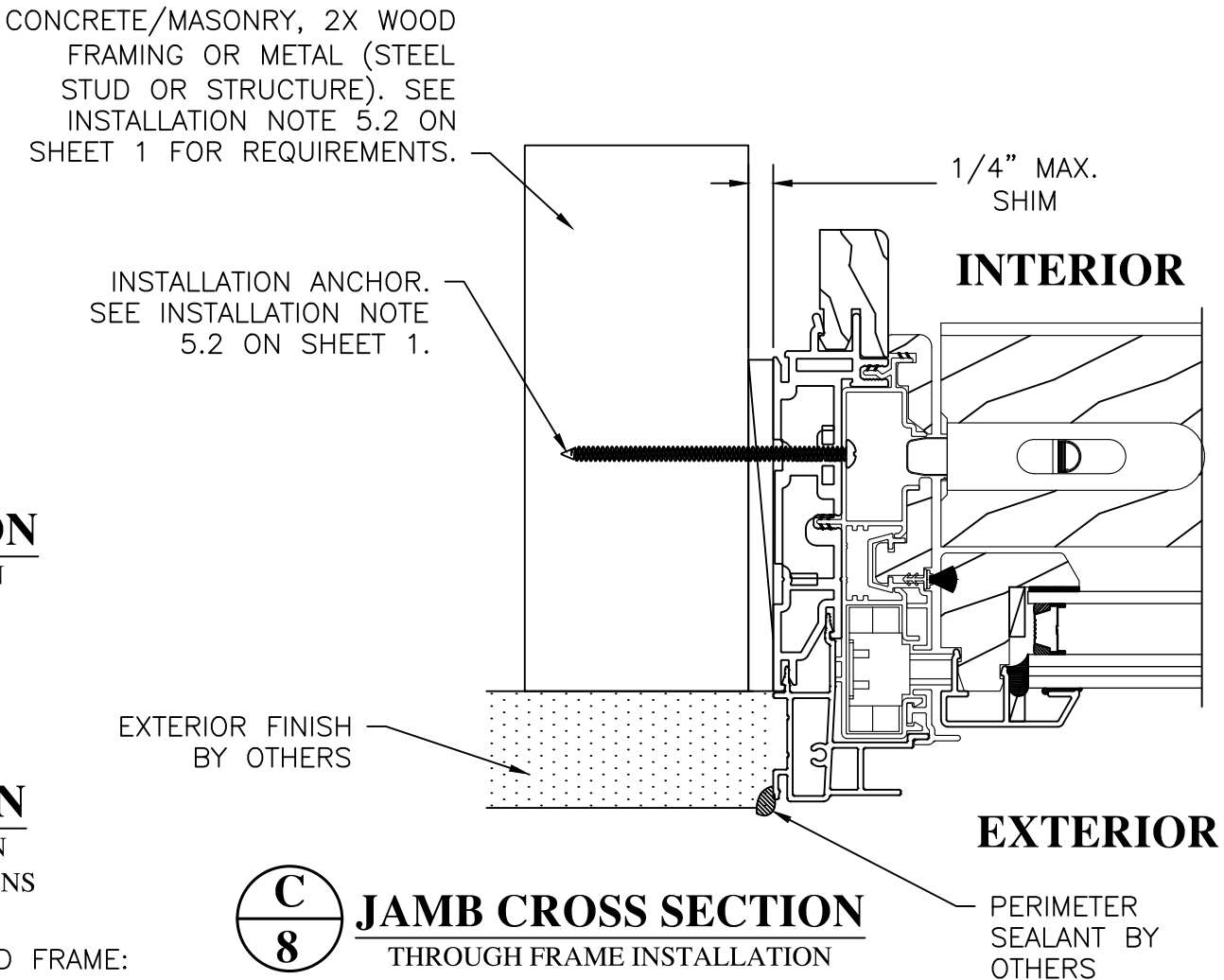
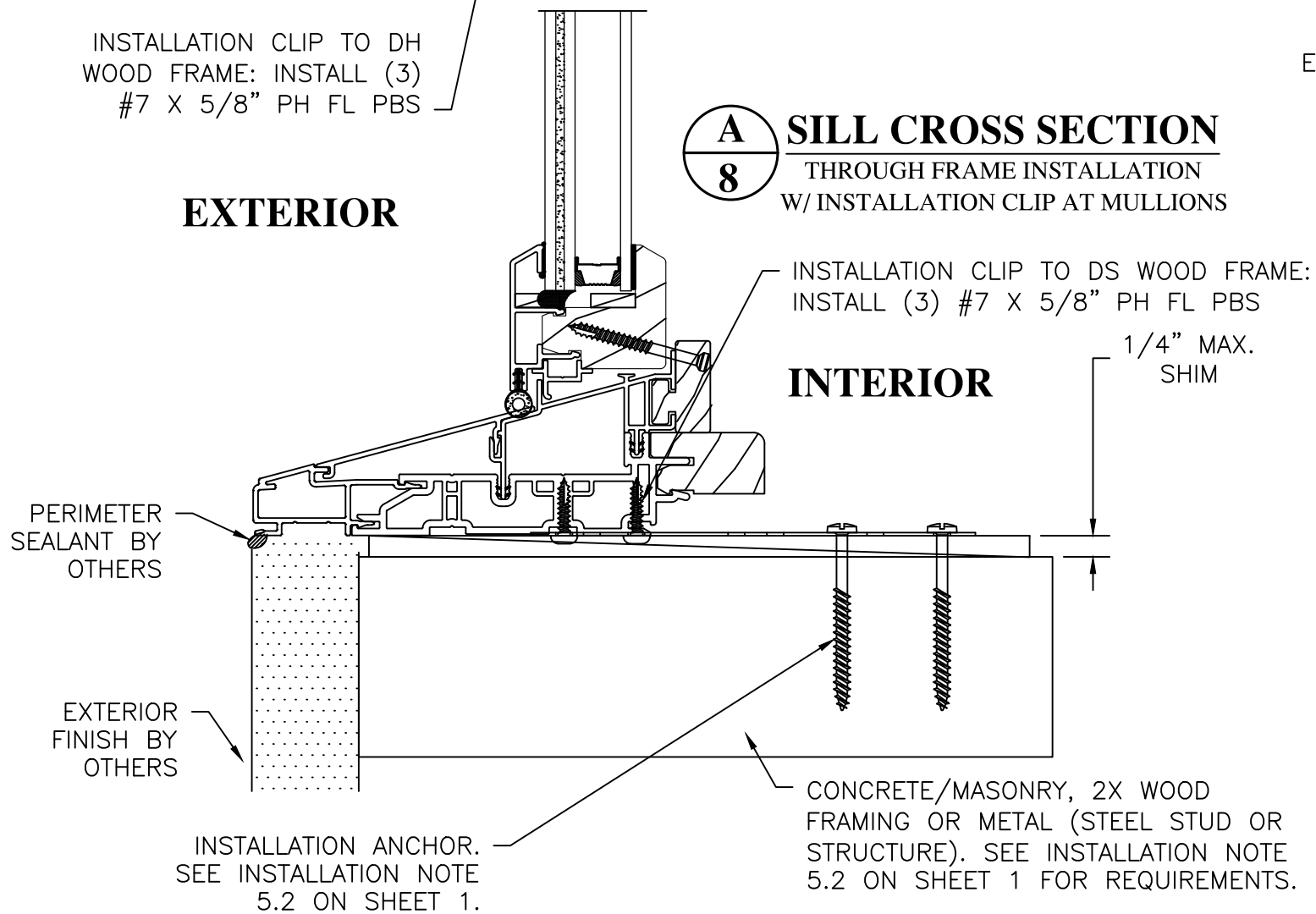
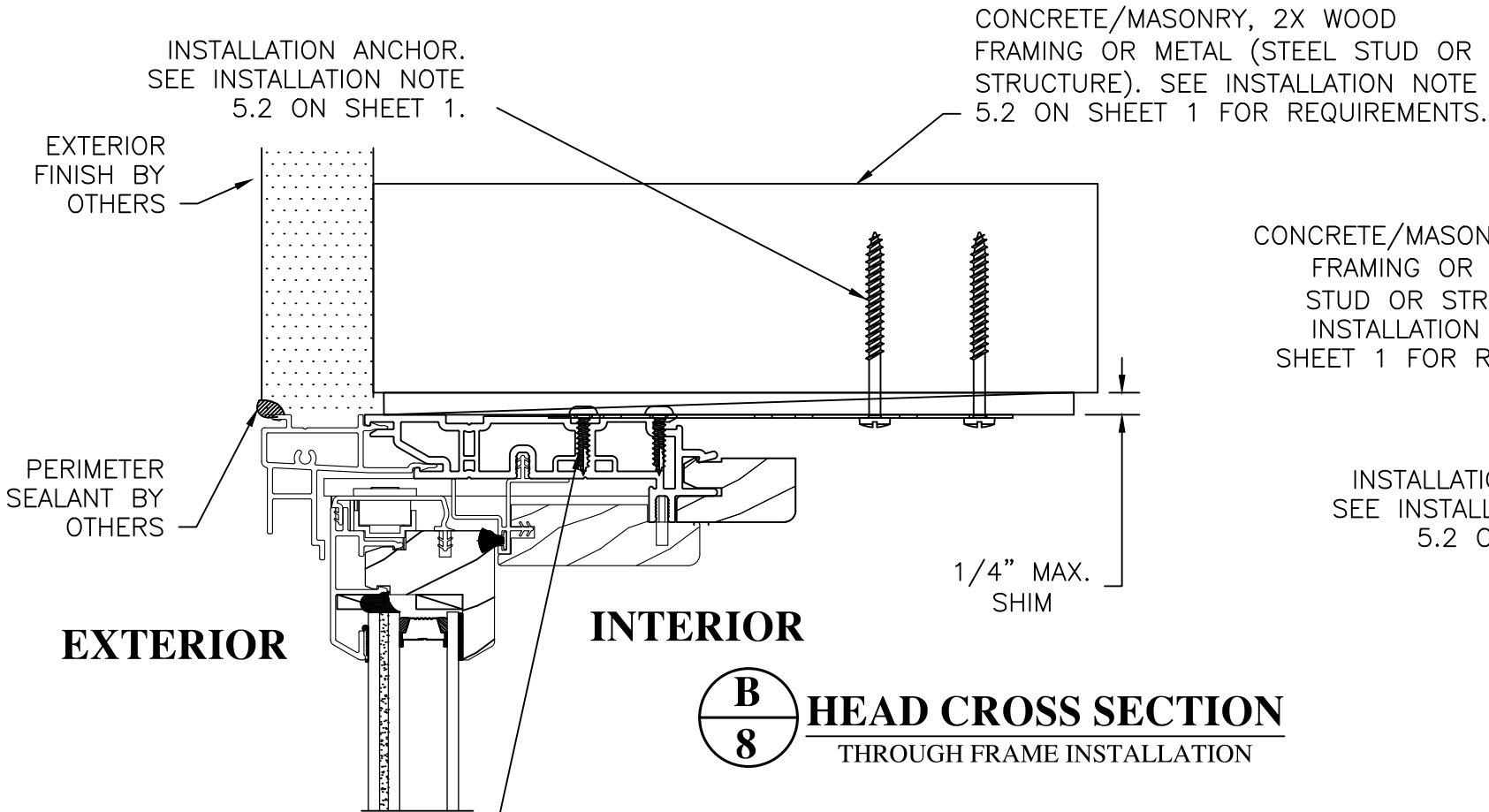
PREPARED BY: RJA
DATE: 4/8/18
DRAWING NO: SPW-PTC0001
SCALE: N.T.S.
SHEET: 7 OF 22

PTC PRODUCT DESIGN GROUP, LLC
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DOUBLE HUNG SHOWN. SINGLE HUNG SAME. CASEMENT SIMILAR.



PROJECT # 0417-0302

SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
RED BLUFF, CA 96080

TITLE: H3 2.0 FEELS SAFE MULLION SYSTEM
DOUBLE HUNG CROSS SECTIONS - THROUGH FRAME INSTALLATION

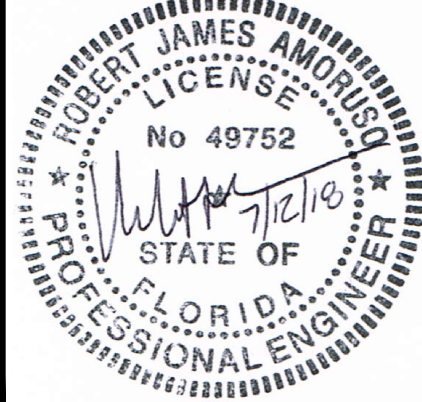
PREPARED BY: DRAWN BY: RJA DATE: 4/8/18

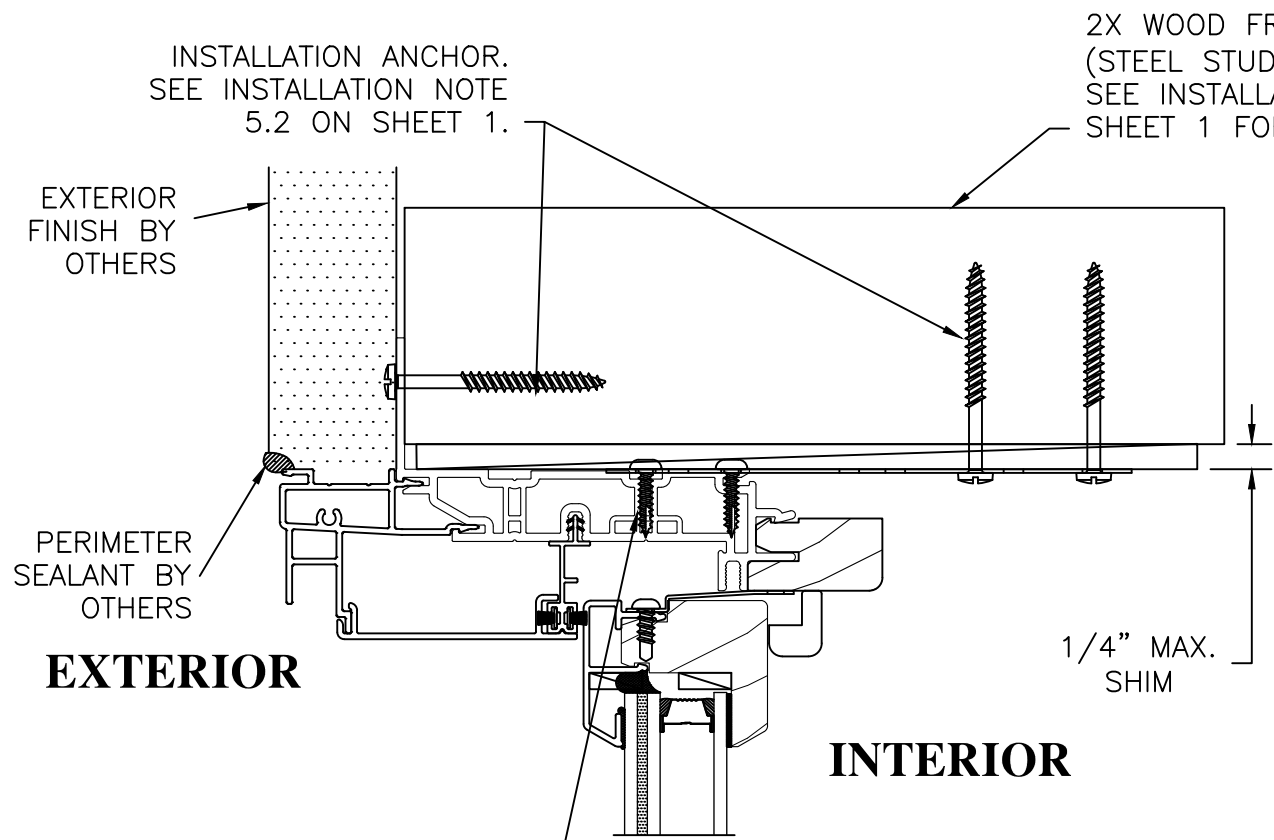
SCALE: N.T.S. DRAWING NO: SPW-PTC0001

REV: 8 OF 22 SHEET: 8 OF 22

DESCRIPTION DATE BY

Robert J. Amoruso, P.E.
Florida P.E. No. 49752





B
9 **HEAD CROSS SECTION**
FIN FRAME INSTALLATION
W/ INSTALLATION CLIP AT MULLIONS

INSTALLATION CLIP TO DH
WOOD FRAME: INSTALL (3)
#7 X 5/8" PH FL PBS

**DOUBLE HUNG TRANSOM SHOWN.
SINGLE HUNG TRANSOM SAME.
CASEMENT TRANSOM SIMILAR.**

2X WOOD FRAMING OR METAL
(STEEL STUD OR STRUCTURE).
SEE INSTALLATION NOTE 5.2 ON
SHEET 1 FOR REQUIREMENTS.

INSTALLATION CLIP TO DS
WOOD FRAME: INSTALL (3)
#7 X 5/8" PH FL PBS

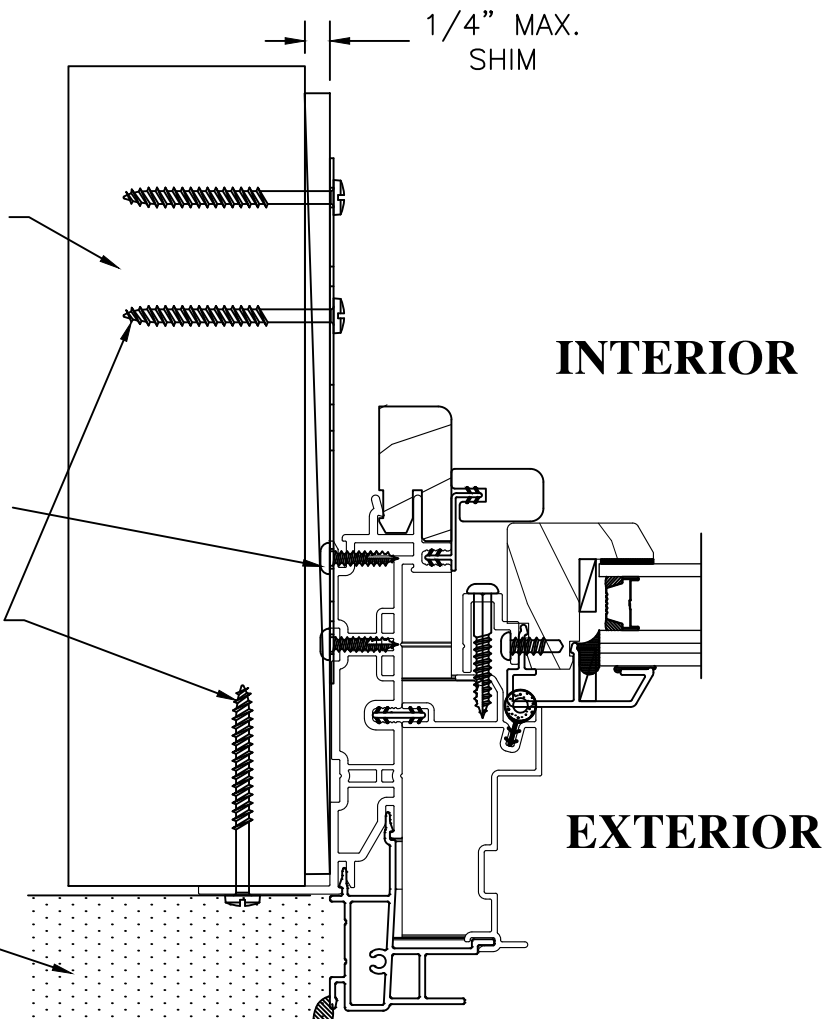
INSTALLATION ANCHOR.
SEE INSTALLATION NOTE
5.2 ON SHEET 1.

EXTERIOR FINISH
BY OTHERS

C
9

JAMB CROSS SECTION
FIN FRAME INSTALLATION
W/ INSTALLATION CLIP AT MULLIONS

PERIMETER
SEALANT BY
OTHERS



PROJECT # 0417-0302

SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
RED BLUFF, CA 96080

TITLE: DOUBLE HUNG TRANSOM CROSS SECTIONS - FIN FRAME INSTALLATION
PREPARED BY: H3 2.0 FEELS SAFE MULLION SYSTEM

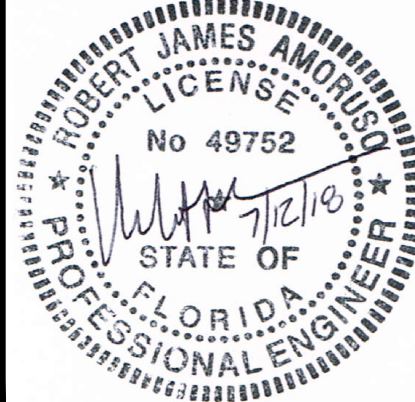
DRAWN BY: RJA DATE: 4/8/18

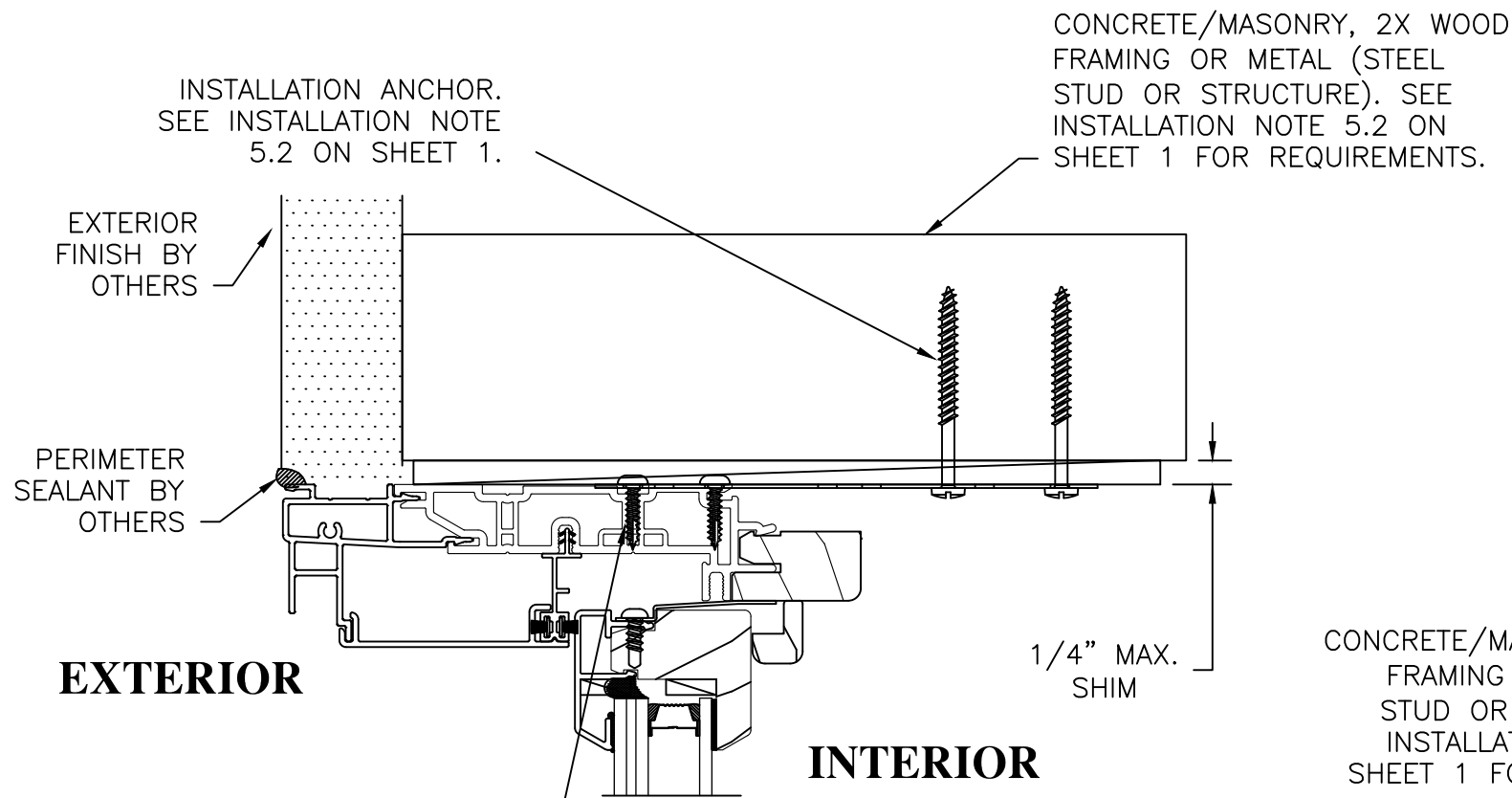
SCALE: N.T.S. DRAWING NO: SPW-PTC0001

REV: 9 OF 22 SHEET: 9 OF 22

DESCRIPTION: REV: DATE: BY:

Robert J. Amoruso, P.E.
Florida P.E. No. 49752

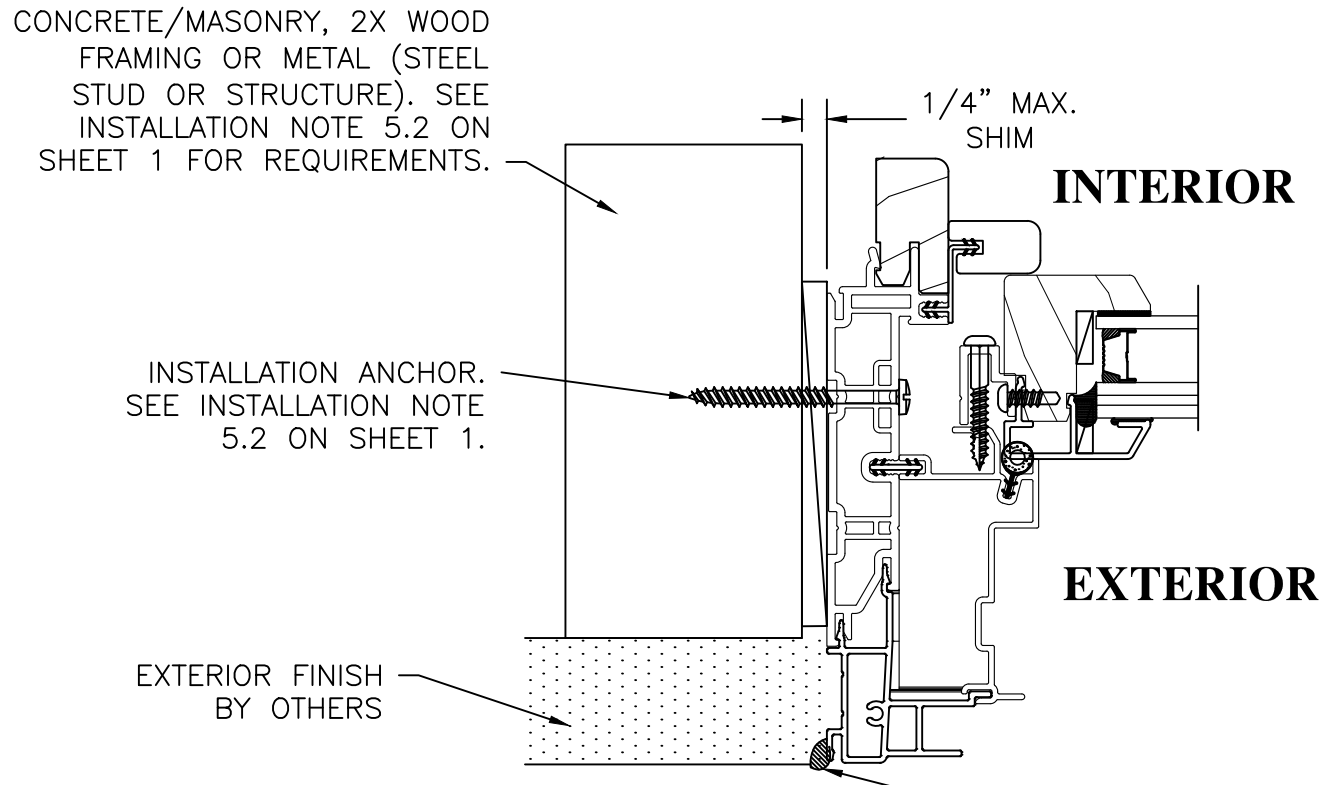




B
10 **HEAD CROSS SECTION**
THROUGH FRAME INSTALLATION

INSTALLATION CLIP TO DH
WOOD FRAME: INSTALL (3)
#7 X 5/8" PH FL PBS

DOUBLE HUNG TRANSOM SHOWN.
SINGLE HUNG TRANSOM SAME.
CASEMENT TRANSOM SIMILAR.



C
10 **JAMB CROSS SECTION**
THROUGH FRAME INSTALLATION

PERIMETER
SEALANT BY
OTHERS

PROJECT # 0417-0302

SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
RED BLUFF, CA 96080

TITLE: H3 2.0 FEELS SAFE MULLION SYSTEM
DOUBLE HUNG TRANSOM CROSS SECTIONS - THROUGH FRAME INSTALLATION

PREPARED BY: DRAWN BY: RJA DATE: 4/8/18

SCALE: N.T.S. DRAWING NO: SPW-PTC0001

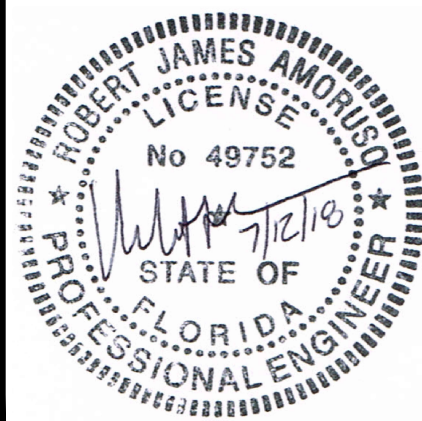
REV: 10 OF 22 SHEET: 10 OF 22

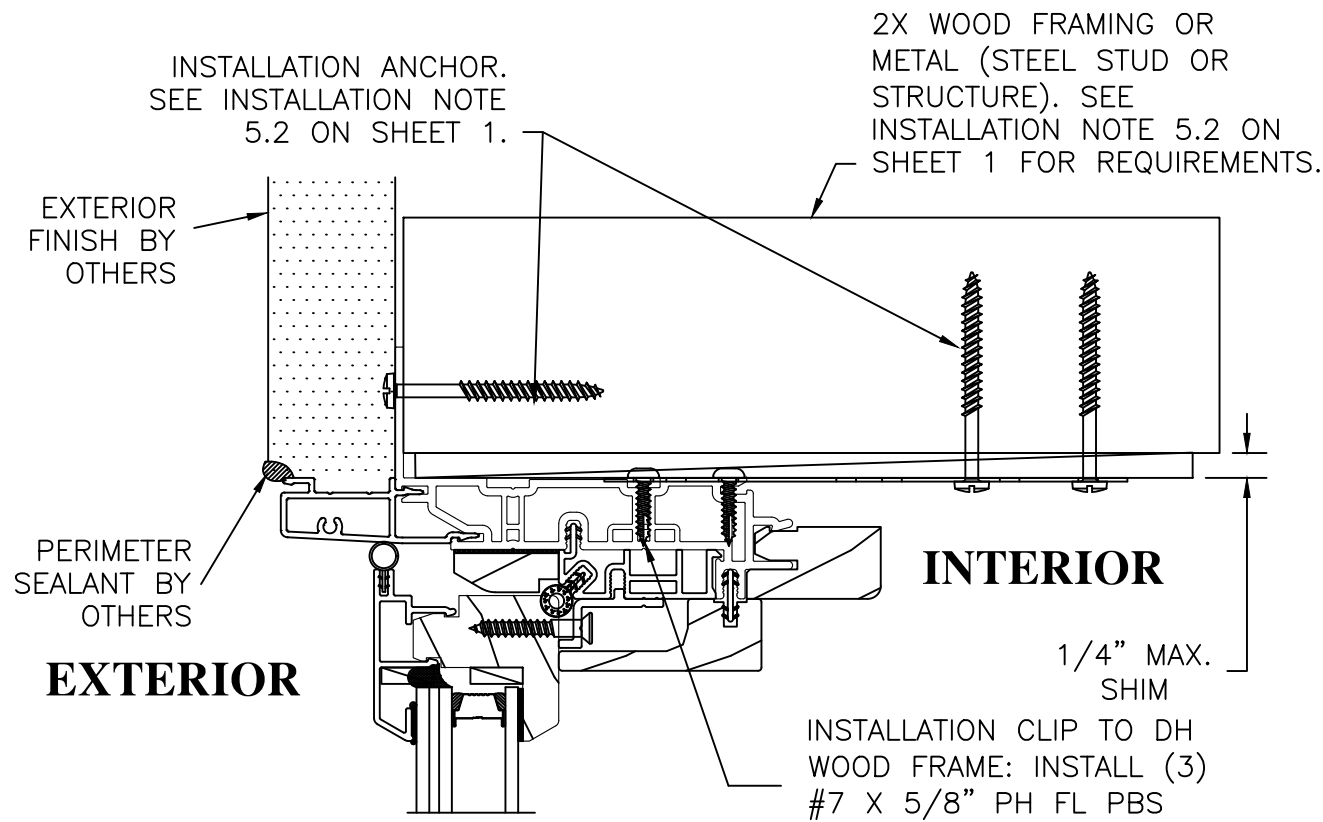
DESCRIPTION: REV: BY: DATE:

REV: 10 OF 22 SHEET: 10 OF 22

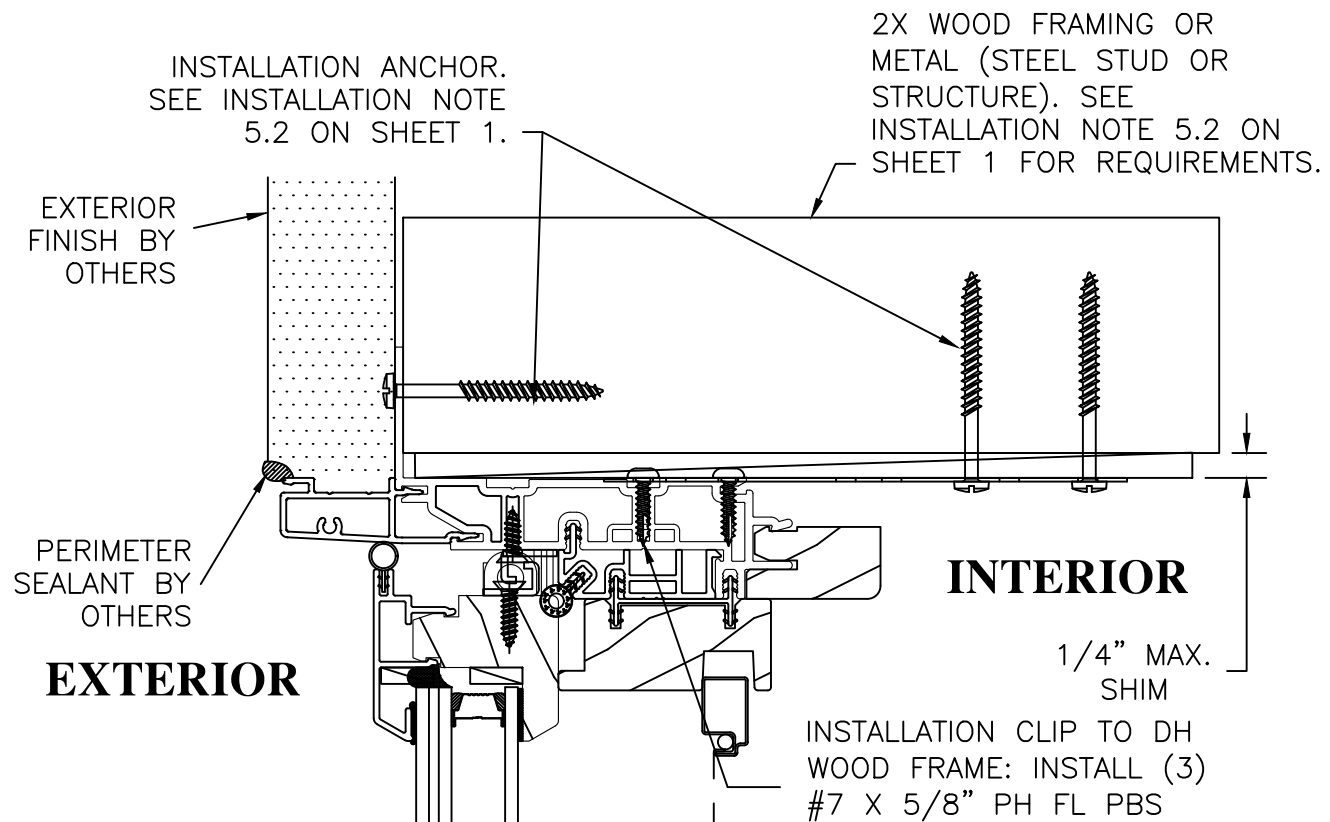
PTC PRODUCT DESIGN GROUP, LLC
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LONGWOOD, FLORIDA 32752
Phone: 321.690.1788
Fax: 321.690.1789
Email: info@ptc-corp.com

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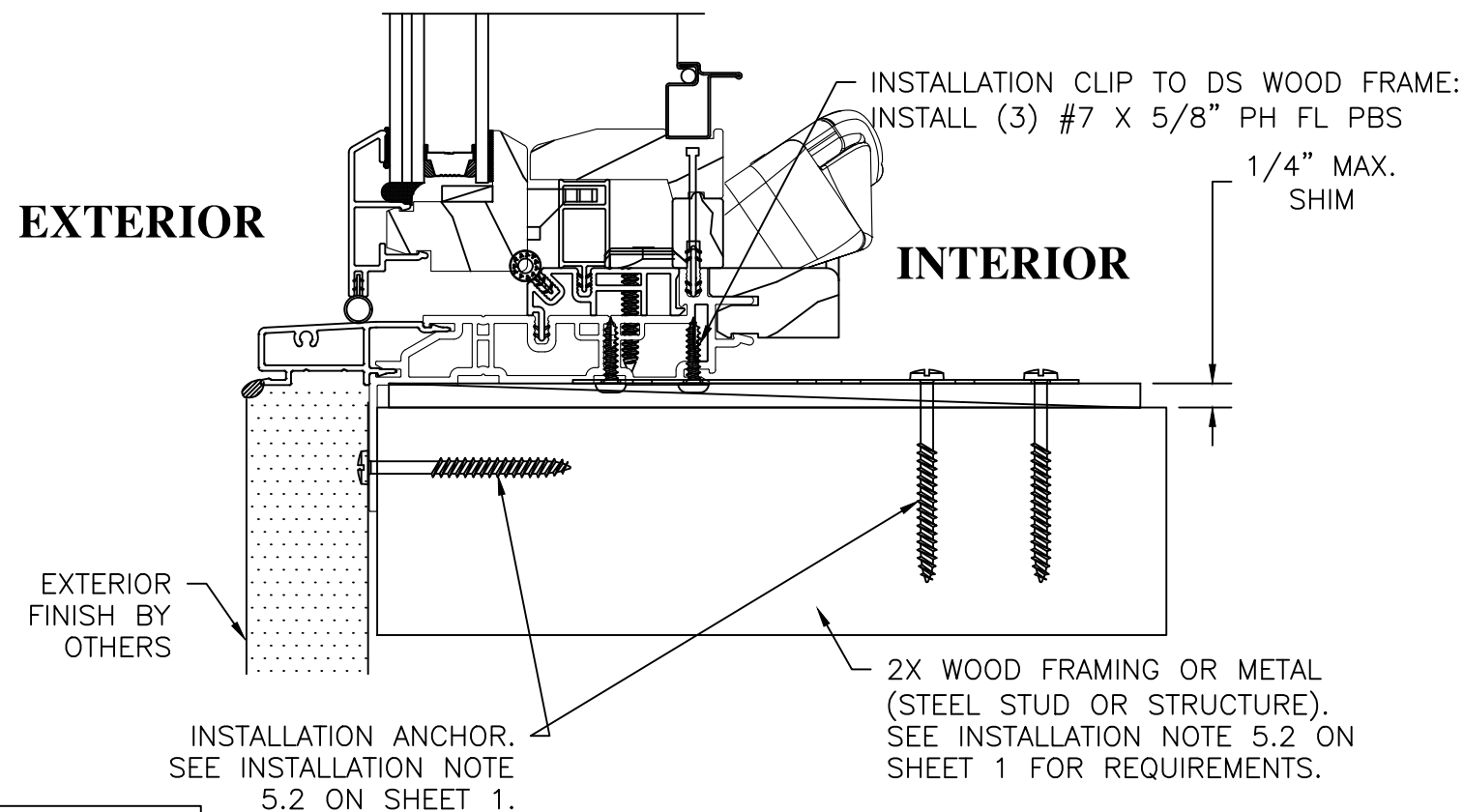




B
11 **HEAD - FIXED CROSS SECTION**
FIN FRAME INSTALLATION
W/ INSTALLATION CLIP AT MULLIONS



C
11 **HEAD - OPERABLE CROSS SECTION**
FIN FRAME INSTALLATION
W/ INSTALLATION CLIP AT MULLIONS



A
11 **SILL CROSS SECTION**
FIN FRAME INSTALLATION
W/ INSTALLATION CLIP AT MULLIONS

**AWNING WITH & WITHOUT
TRANSOM - HEAD & SILL**

PROJECT # 0417-0302

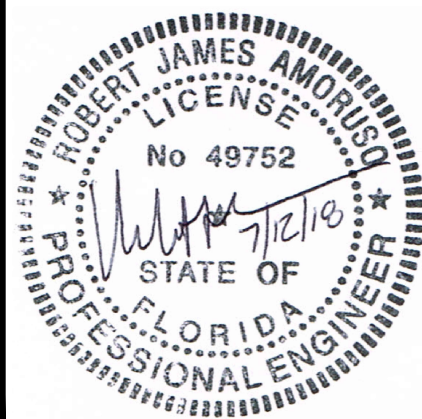
SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
RED BLUFF, CA 96080

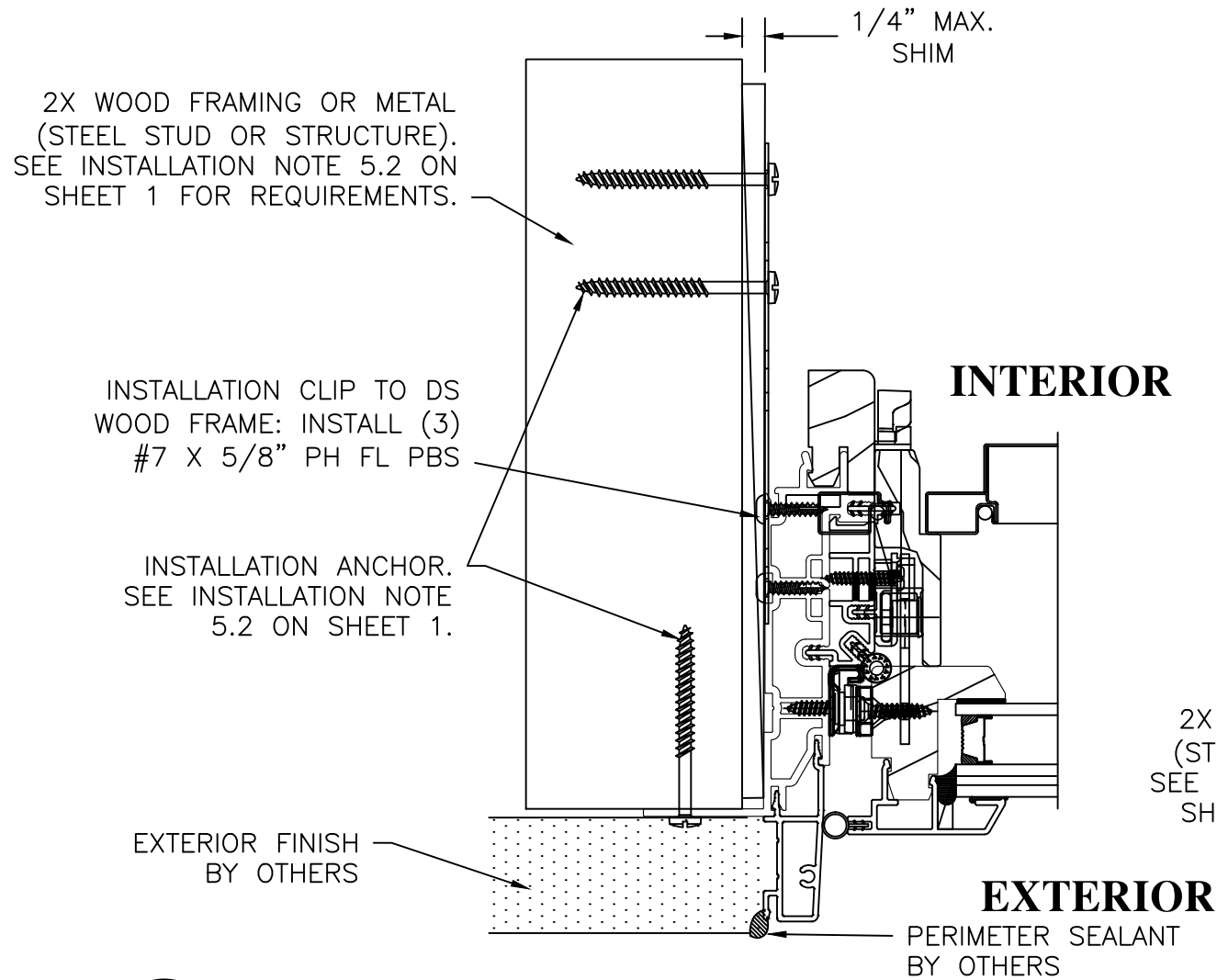
TITLE: H3 2.0 FEELS SAFE MULLION SYSTEM
AWNING HEAD & SILL CROSS SECTIONS - FIN FRAME INSTALLATION

PREPARED BY: RJA
DATE: 4/8/18
SCALE: N.T.S.
DRAWING NO: SPW-PTC0001
SHEET: 11 OF 22
REV: --

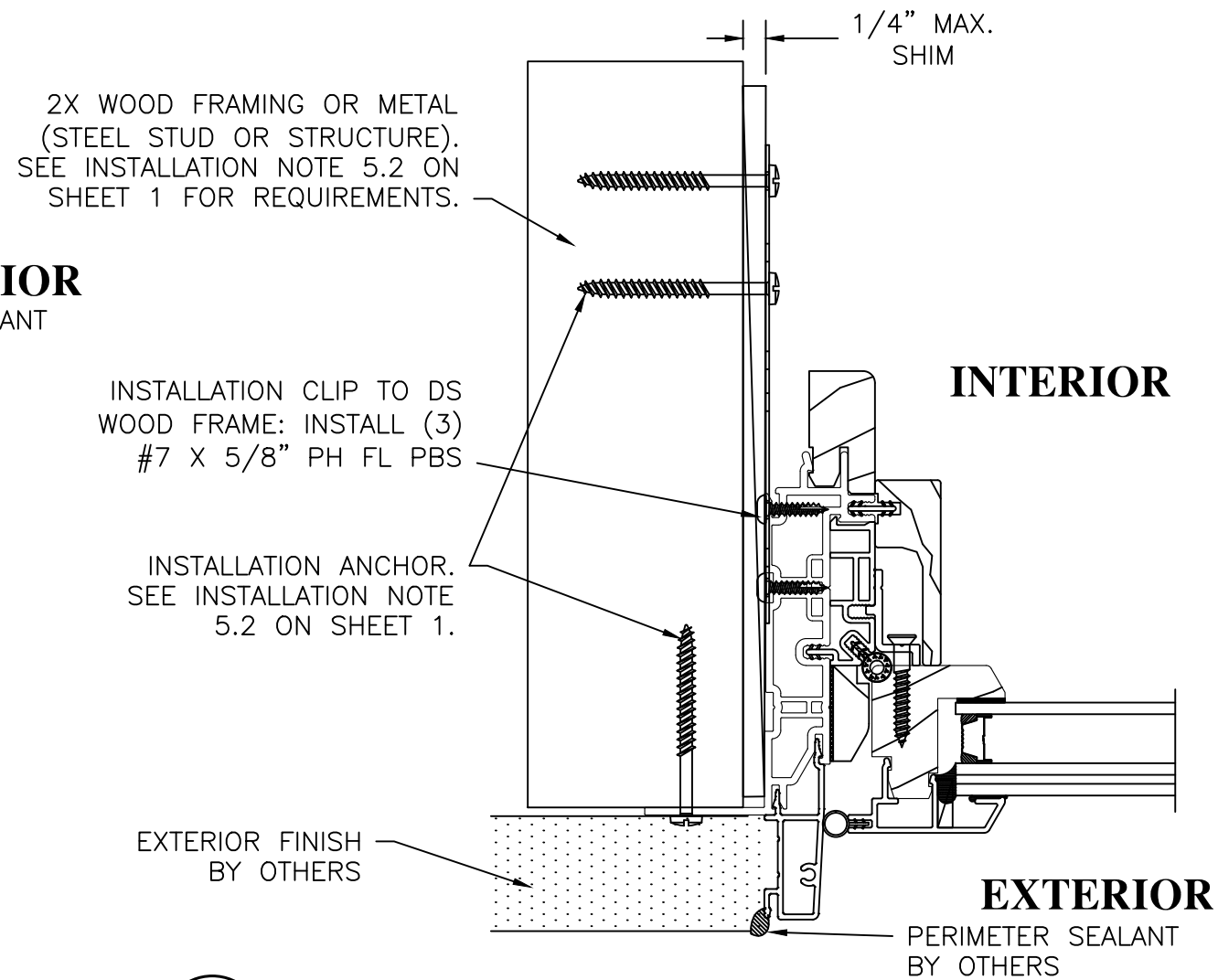
PTC PRODUCT DESIGN GROUP, LLC
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Florida P.E. No. 49752





D
12 **JAMB - OPERABLE CROSS SECTION**
FIN FRAME INSTALLATION
W/ INSTALLATION CLIP AT MULLIONS



E
12 **JAMB - FIXED CROSS SECTION**
FIN FRAME INSTALLATION
W/ INSTALLATION CLIP AT MULLIONS

**AWNING WITH & WITHOUT
TRANSOM - JAMBS**

PROJECT # 0417-0302

SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
RED BLUFF, CA 96080

TITLE: H3 2.0 FEELSAFE MULLION SYSTEM
AWNING JAMB CROSS SECTIONS - FIN FRAME INSTALLATION

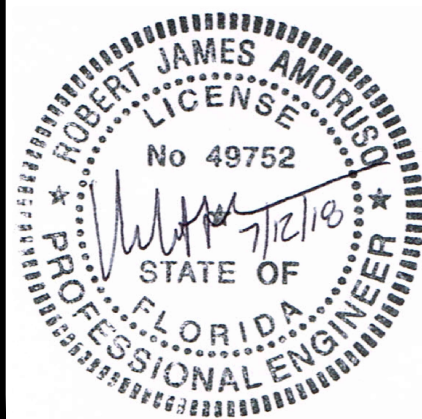
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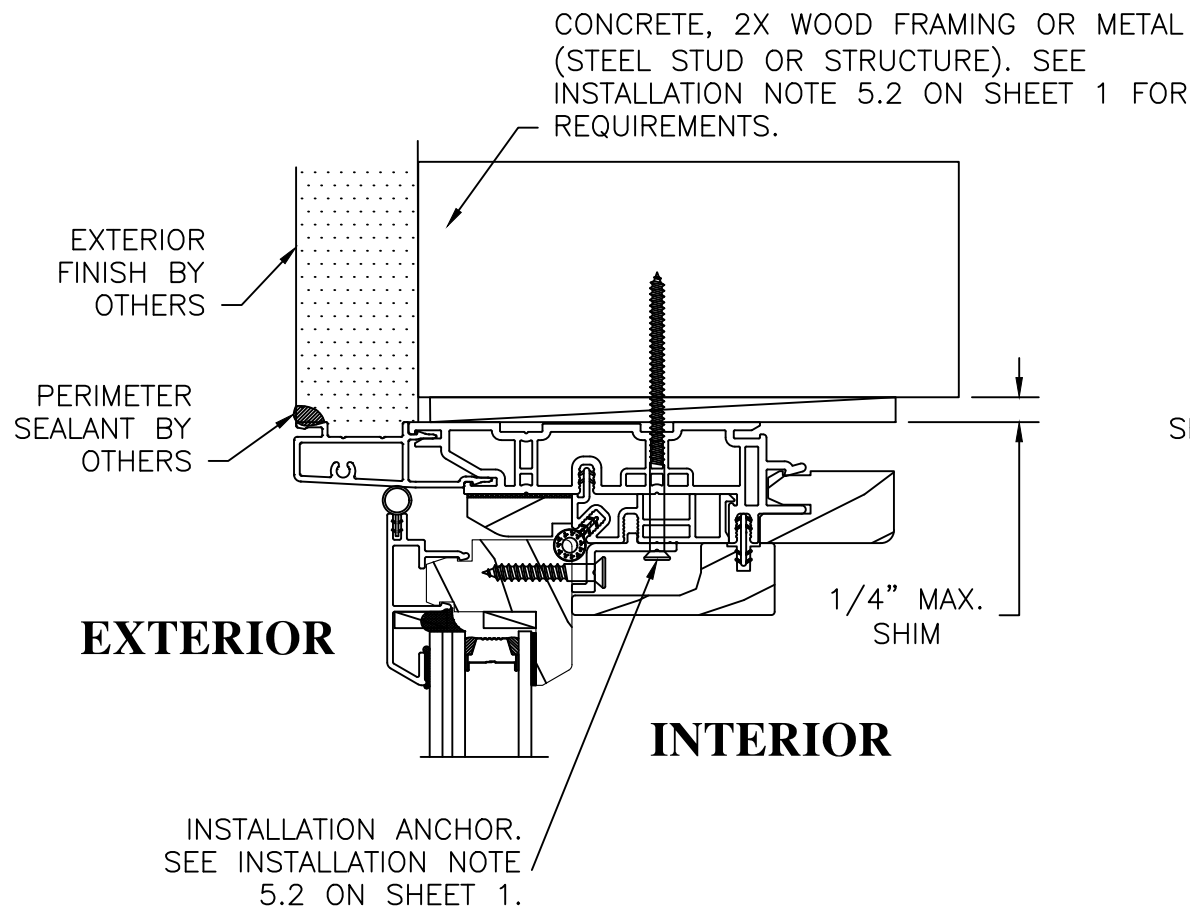
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REV: 12 OF 22 SHEET:

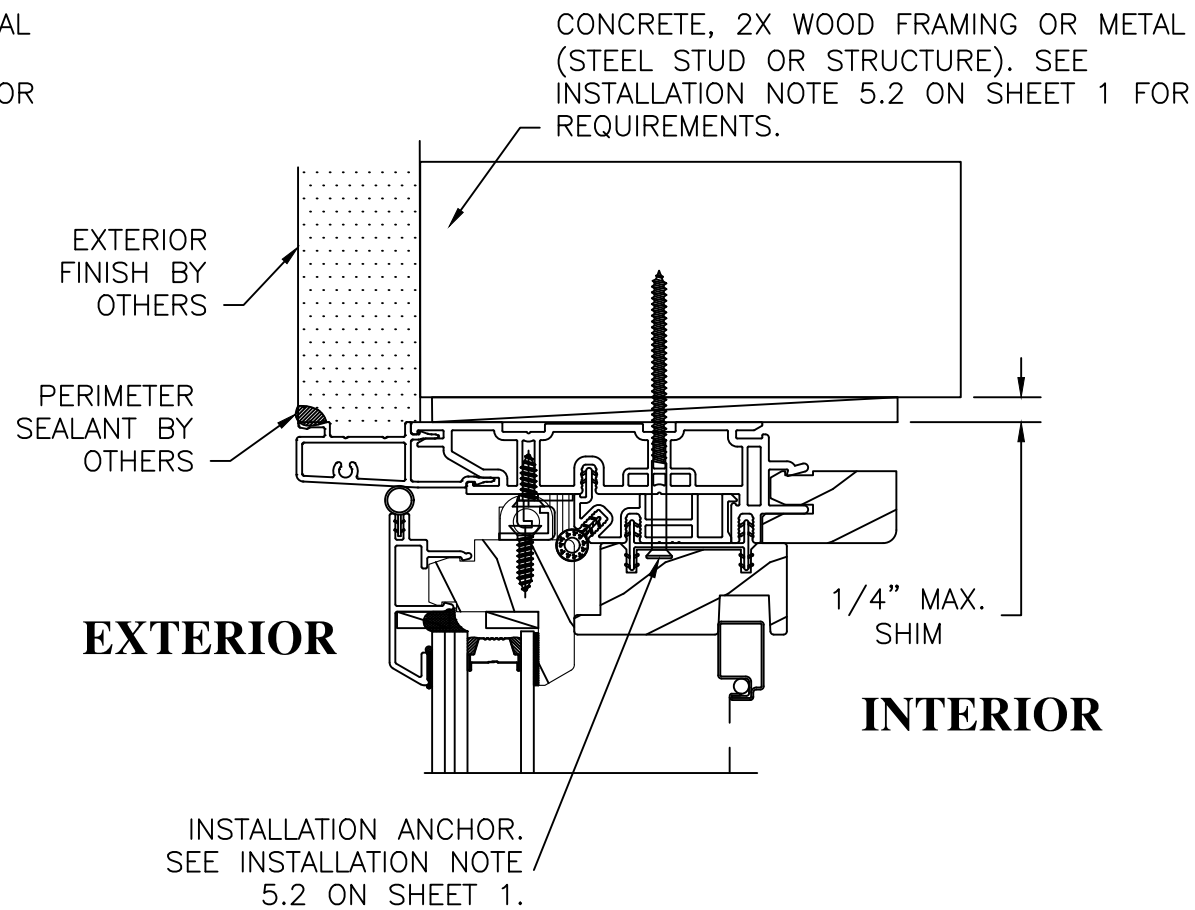
DESCRIPTION: DATE: BY:

Robert J. Amoruso, P.E.
Florida P.E. No. 49752

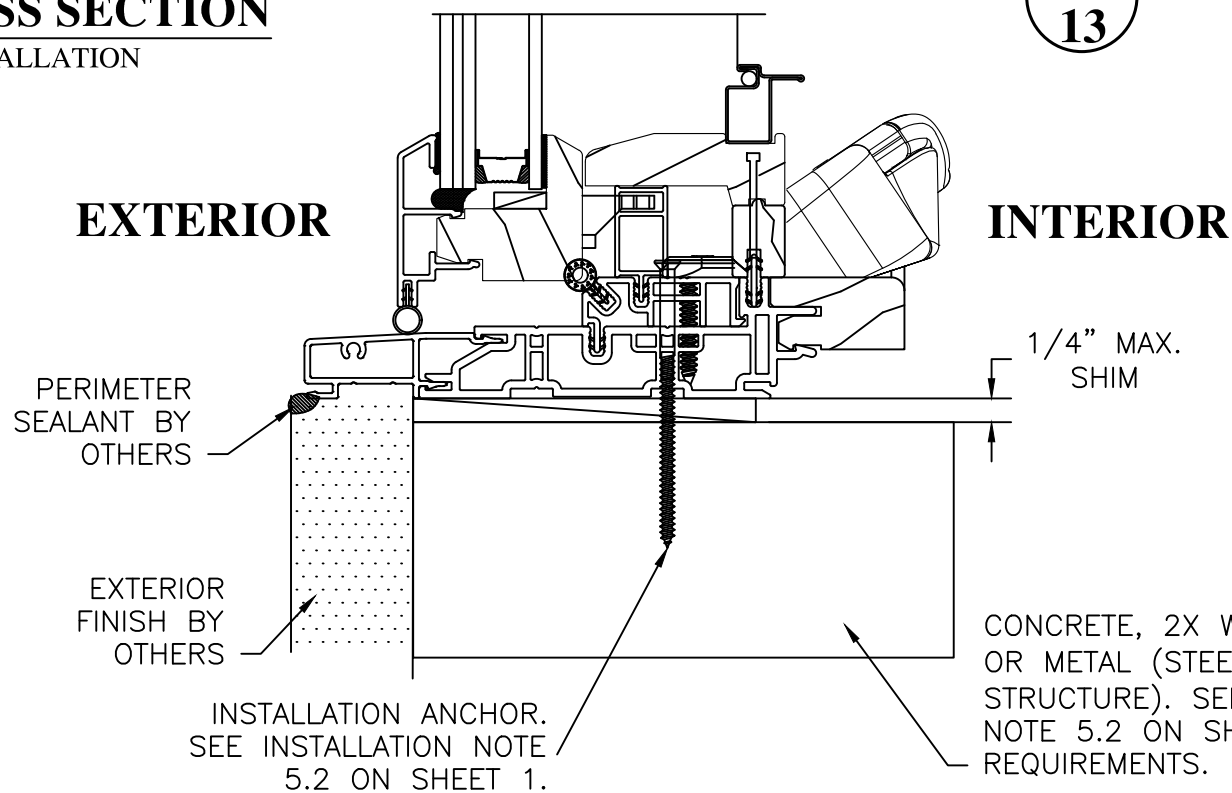




B
13 **HEAD - FIXED CROSS SECTION**
THROUGH FRAME INSTALLATION



C
13 **HEAD - OPERABLE CROSS SECTION**
THROUGH FRAME INSTALLATION



A
13 **SILL CROSS SECTION**
THROUGH FRAME INSTALLATION

**AWNING WITH & WITHOUT
TRANSOM - HEAD & SILL**

PROJECT # 0417-0302

SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
RED BLUFF, CA 96080

TITLE: H3 2.0 FEELS SAFE MULLION SYSTEM
AWNING HEAD & SILL CROSS SECTIONS - THROUGH FRAME INSTALLATION

PREPARED BY: DRAWN BY: RJA DATE: 4/8/18

SCALE: N.T.S. DRAWING NO: SPW-PTC0001

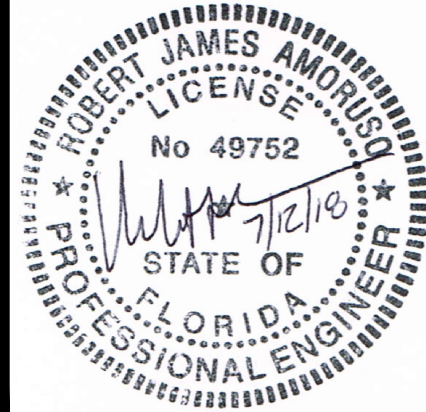
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DESCRIPTION: REV/

BY

DATE

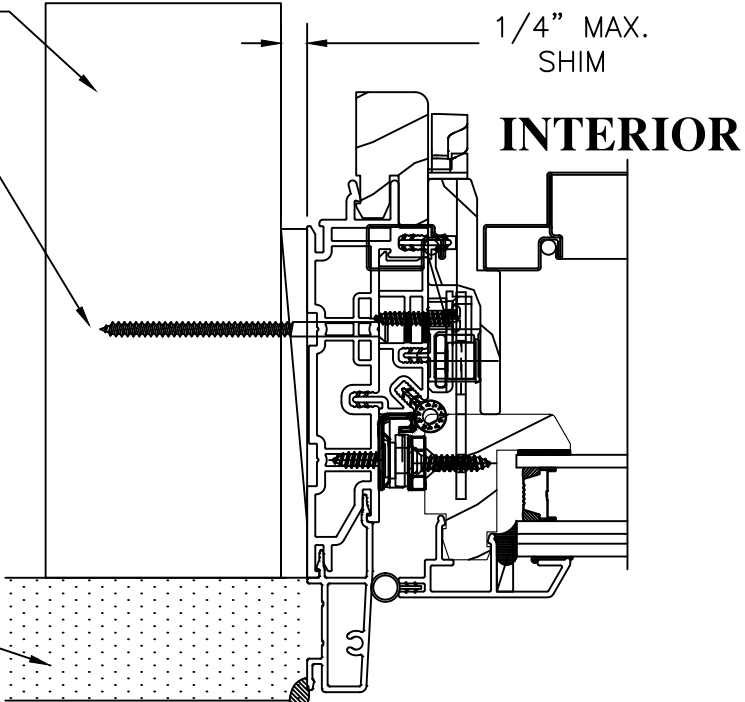
Robert J. Amoruso, P.E.
Florida P.E. No. 49752



CONCRETE/MASONRY, 2X WOOD
FRAMING OR METAL (STEEL
STUD OR STRUCTURE). SEE
INSTALLATION NOTE 5.2 ON
SHEET 1 FOR REQUIREMENTS.

INSTALLATION ANCHOR.
SEE INSTALLATION NOTE
5.2 ON SHEET 1.

EXTERIOR FINISH
BY OTHERS



EXTERIOR

PERIMETER
SEALANT BY
OTHERS

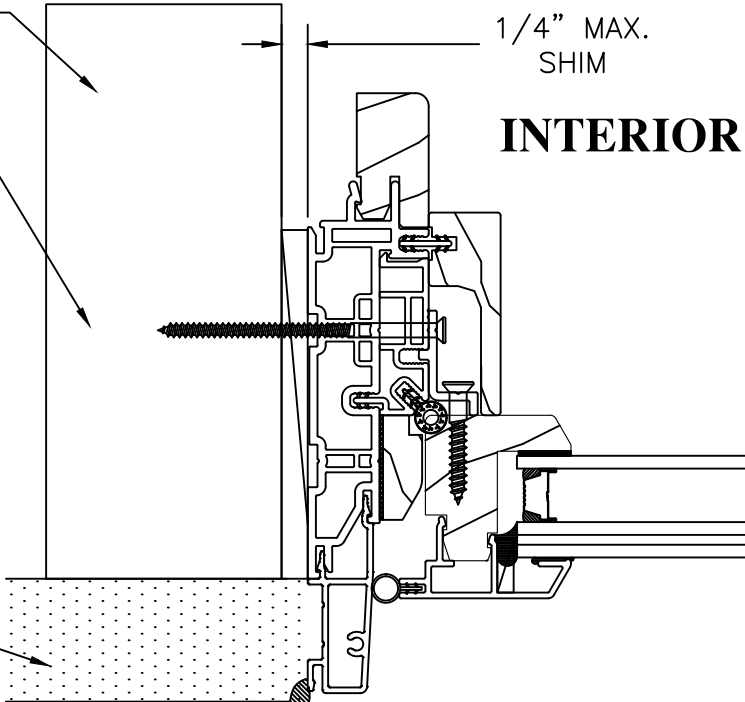
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14 **JAMB - OPERABLE CROSS SECTION**
THROUGH FRAME INSTALLATION

**AWNING WITH & WITHOUT
TRANSOM - JAMBS**

CONCRETE/MASONRY, 2X WOOD
FRAMING OR METAL (STEEL
STUD OR STRUCTURE). SEE
INSTALLATION NOTE 5.2 ON
SHEET 1 FOR REQUIREMENTS.

INSTALLATION ANCHOR.
SEE INSTALLATION NOTE
5.2 ON SHEET 1.

EXTERIOR FINISH
BY OTHERS



EXTERIOR

PERIMETER
SEALANT BY
OTHERS

E
14 **JAMB - FIXED CROSS SECTION**
THROUGH FRAME INSTALLATION

PROJECT # 0417-0302

SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
RED BLUFF, CA 96080

TITLE: H3 2.0 FEELSAFE MULLION SYSTEM

PREPARED BY: AWNING JAMB CROSS SECTIONS - THROUGH FRAME INSTALLATION

DRAWN BY: RJA

SCALE: N.T.S.

REV: --

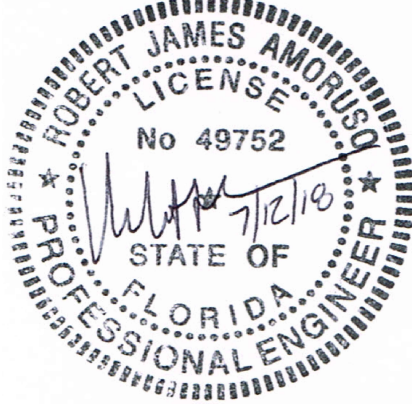
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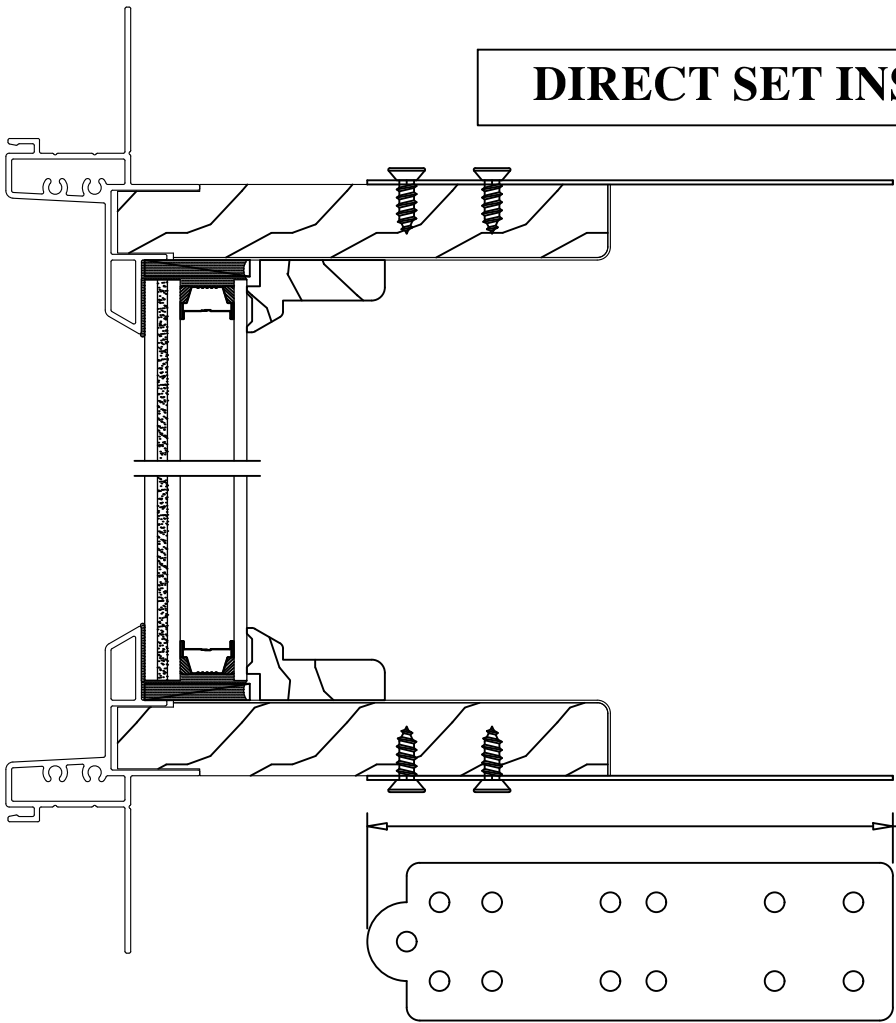
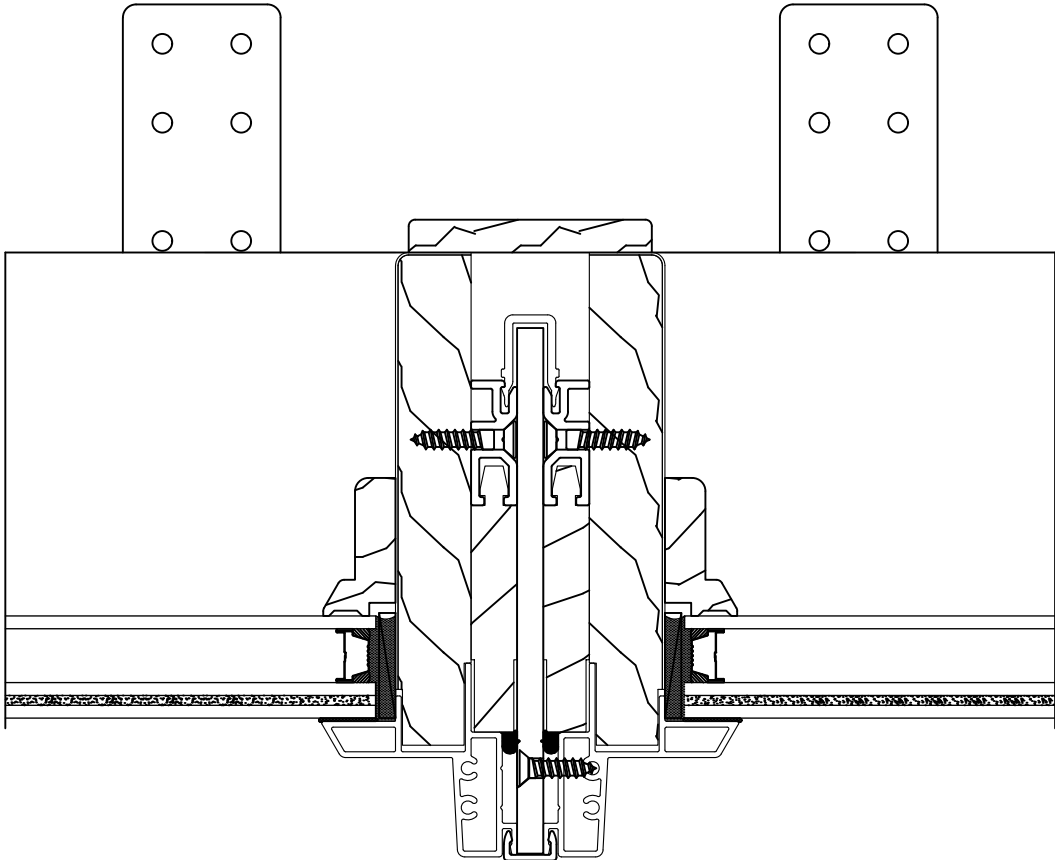
DRAWING NO: SPW-PTC0001

SHEET: 14 OF 22

REV/ DESCRIPTION DATE BY

Robert J. Amoruso, P.E.
Florida P.E. No. 49752

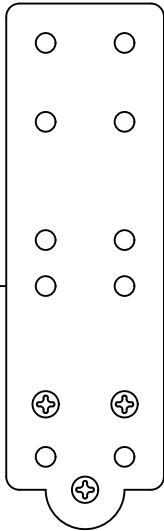




5.0 UP TO 6 ⁹/₁₆" JAMB
6.0 UP TO 7 ⁵/₁₆" JAMB
8.0 OVER 7 ⁵/₁₆" JAMB

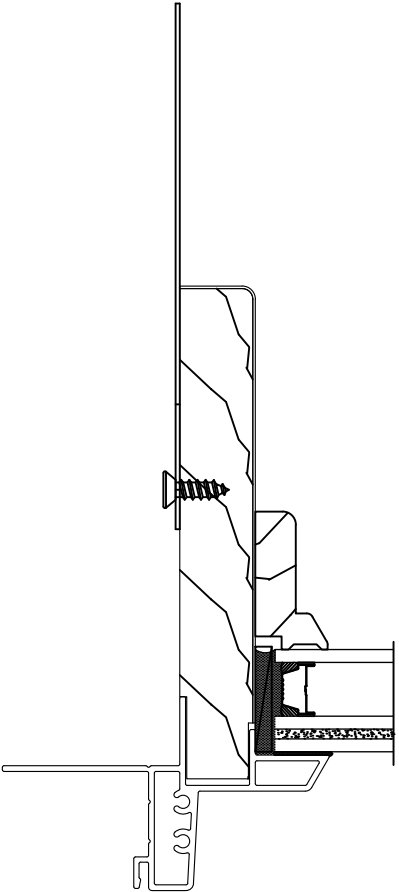
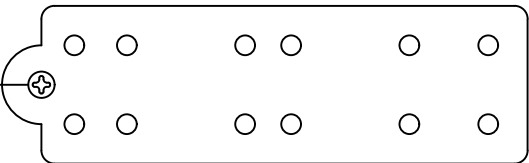
STRAP ANCHOR SHOWN IN
POSITION FOR FASTENING TO
ROUGH OPENING

INSTALLER TO USE (2) #8 X
1 1/4"



STRAP ANCHOR SHOWN
ROTATED FOR SHIPPING
INSTALL (1) # 7 X ⁵/₈" PH
FL PBS

1.938



DIRECT SET INSTALLATION CLIP

PROJECT # 0417-0302

SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
RED BLUFF, CA 96080

TITLE: H3 2.0 FEELSAFE MULLION SYSTEM
DIRECT SET INSTALLATION CLIP

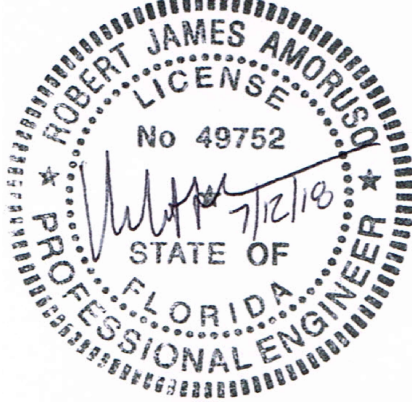
PREPARED BY: RJA DATE: 4/8/18

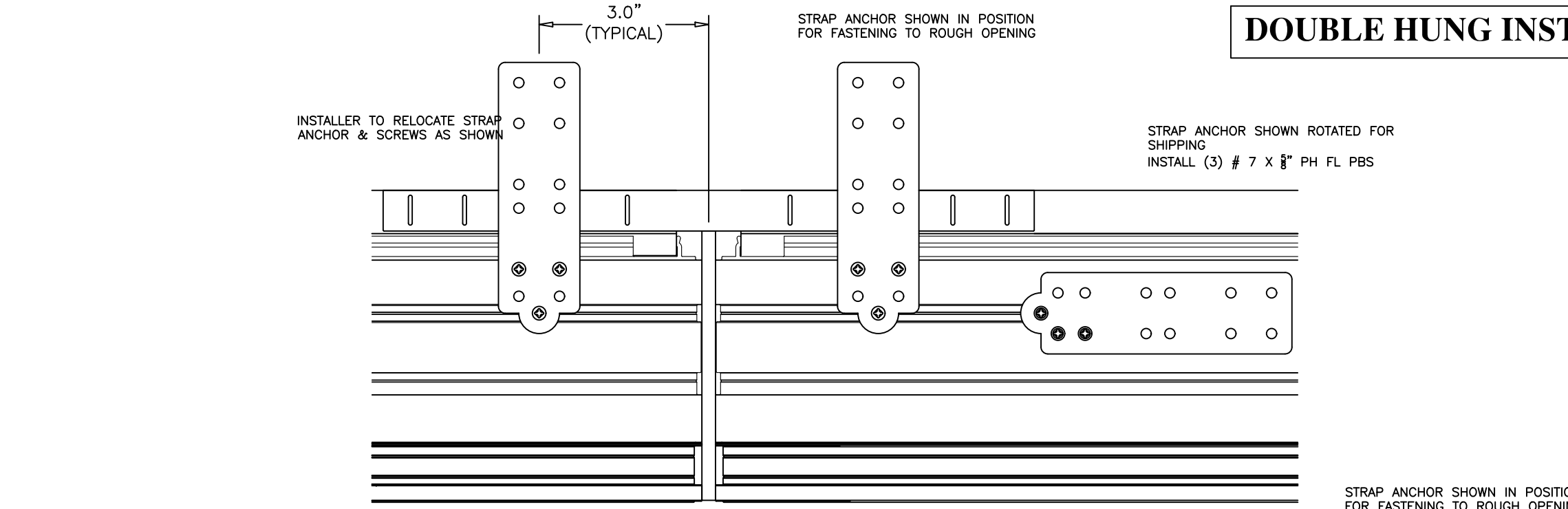
SCALE: N.T.S. DRAWING NO: SPW-PTC0001

REV: -- SHEET: 15 OF 22

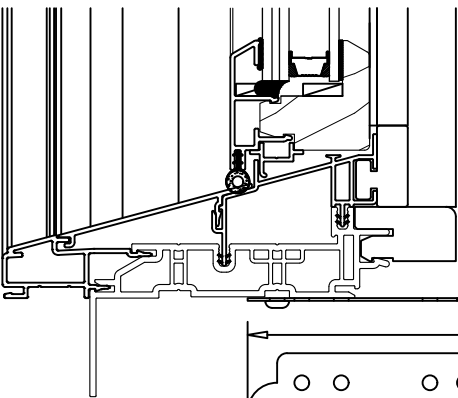
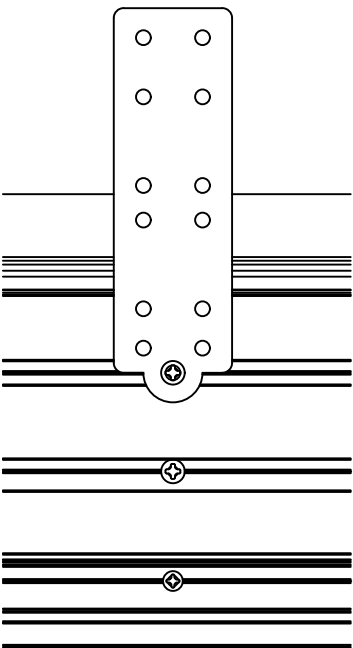
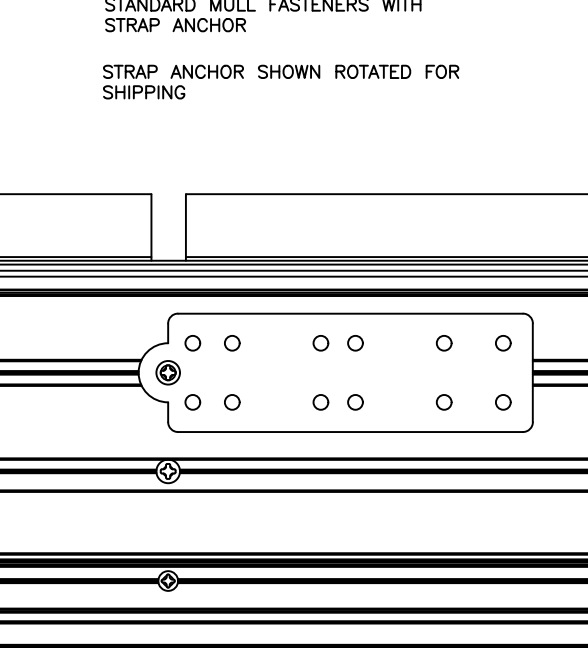
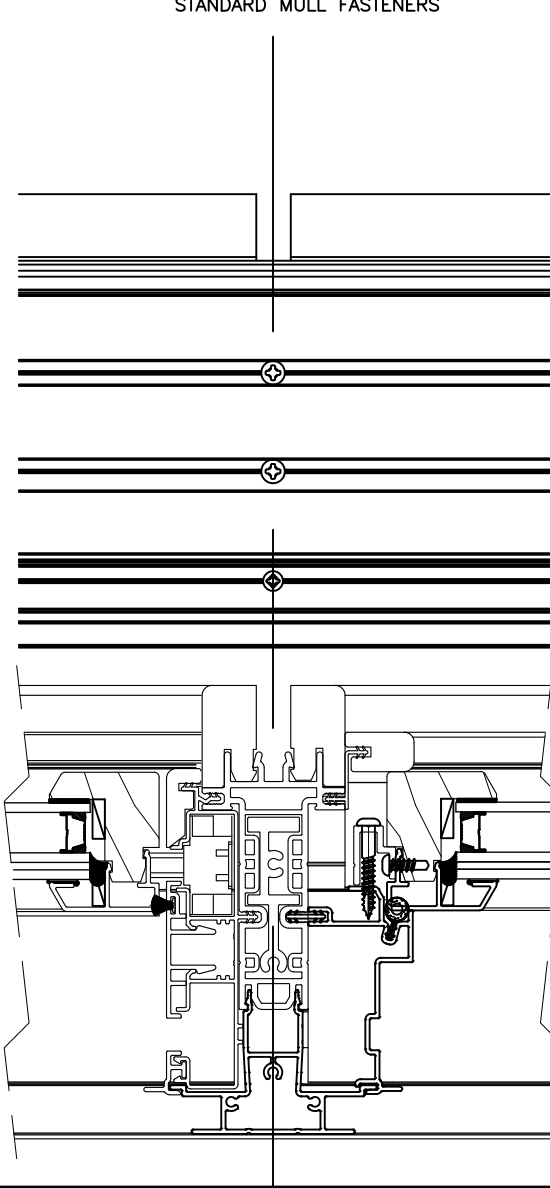
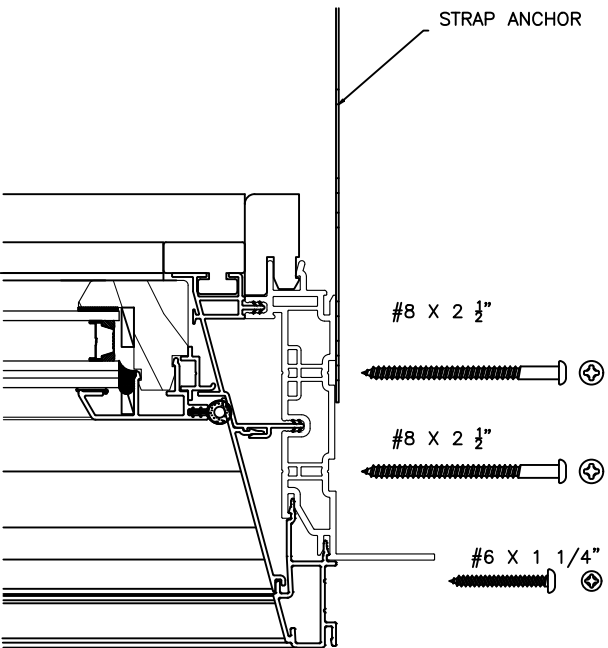
DESCRIPTION DATE BY

Robert J. Amoruso, P.E.
Florida P.E. No. 49752





DOUBLE HUNG INSTALLATION CLIP



BEND STRAP ANCHOR AS REQUIRED TO FIT WALL DEPTH

5.0 UP TO 6 9/16" JAMB
6.0 UP TO 7 5/16" JAMB
8.0 OVER 7 5/16" JAMB

PROJECT # 0417-0302

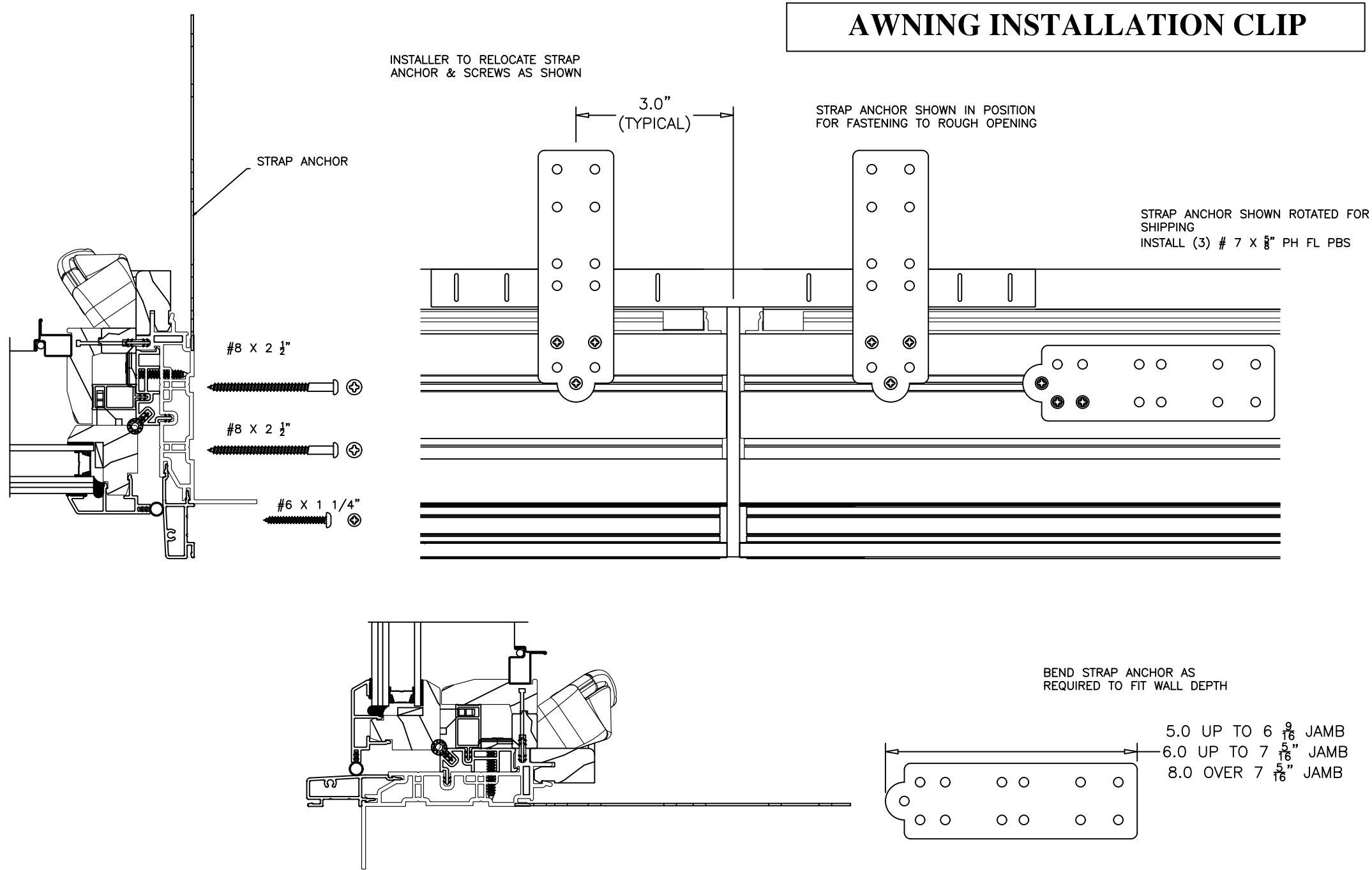
SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
RED BLUFF, CA 96080

TITLE:
H3 2.0 FEELS SAFE MULLION SYSTEM
DOUBLE HUNG INSTALLATION CLIP

PREPARED BY:	DRAWN BY:	DATE:
	RJA	4/8/18
	SCALE:	DRAWING NO:
	N.T.S.	SPW-PTC0001
	REV:	SHEET:
	—	16 OF 22

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Florida P.E. No. 49752



PROJECT # 0417-0302

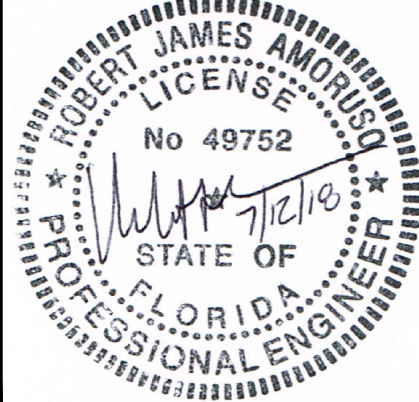
SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
RED BLUFF, CA 96080

TITLE:
H3 2.0 FEELSAFE MULLION SYSTEM
AWNING INSTALLATION CLIP

PREPARED BY:	DRAWN BY:	DATE:	DRAWING NO:	SHEET:
	RJA	4/8/18	SPW-PTC0001	17 OF 22
	N.T.S.			
	REV:			

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VERTICAL & HORIZONTAL CONFIGURATIONS
BOX MULLION WITH/WITHOUT 1/4" X 5" ALUMINUM PLATE REINFORCEMENT

Maximum Design Pressure Capacity Chart (psf) - Box Mullion With 1/4" Plate Reinforcement															
Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)	
		Positive	Negative			Positive	Negative			Positive	Negative			Positive	Negative
96	22	50	-60	102	22	50	-60	120	22	50	-60	144	22	50	-60
	30	50	-60		30	50	-60		30	50	-60		30	40	-48
	36	50	-60		36	50	-60		36	50	-60		36	33	-40
	42	50	-60		42	50	-60		42	50	-60		42	29	-35
	44	50	-60		44	50	-60		44	49	-58		44	28	-33
	48	50	-60		48	50	-60		48	45	-54		48	26	-31
	54	50	-60		54	50	-60		54	40	-49		54	23	-28
	60	50	-60		60	50	-60		60	37	-44		60	21	-25
	66	50	-60		66	50	-60		66	34	-41		66	19	-23
	72	50	-60		72	49	-59		72	32	-39		72	18	-22
	78	50	-60		78	47	-57		78	30	-37		78	17	-20
	84	50	-60		84	46	-55		84	29	-35		84	16	-19
96	50	-60	96	44	-53	96	27	-32	96	15	-18				
100	22	50	-60	108	22	50	-60	132	22	50	-60	156	22	42	-51
	24	50	-60		24	50	-60		24	50	-60		24	39	-46
	30	50	-60		30	50	-60		30	50	-60		30	31	-37
	36	50	-60		36	50	-60		36	43	-52		36	26	-31
	42	50	-60		42	50	-60		42	38	-45		42	23	-27
	44	50	-60		44	50	-60		44	36	-43		44	22	-26
	48	50	-60		48	50	-60		48	33	-40		48	20	-24
	54	50	-60		54	50	-60		54	30	-36		54	18	-21
	60	50	-60		60	48	-57		60	28	-33		60	16	-20
	66	50	-60		66	45	-53		66	26	-31		66	15	-18
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	78	49	-59		78	40	-48		78	23	-27		78	13	-16
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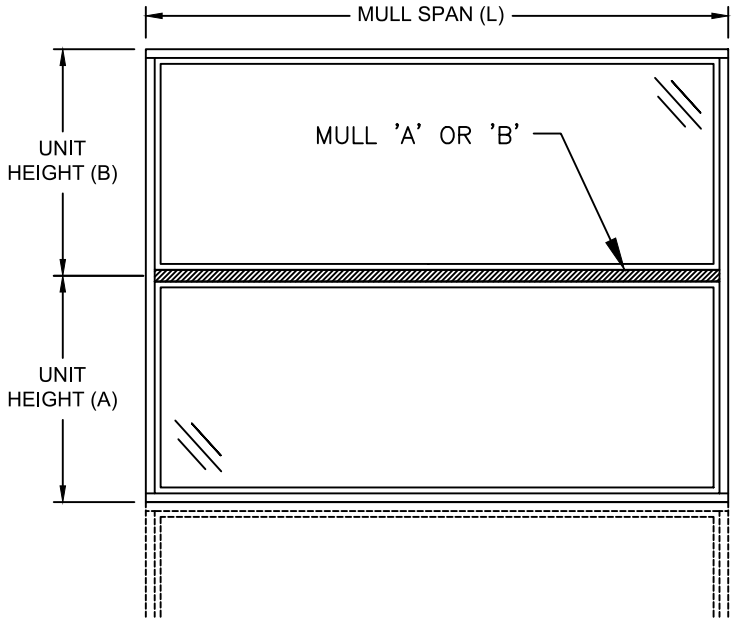
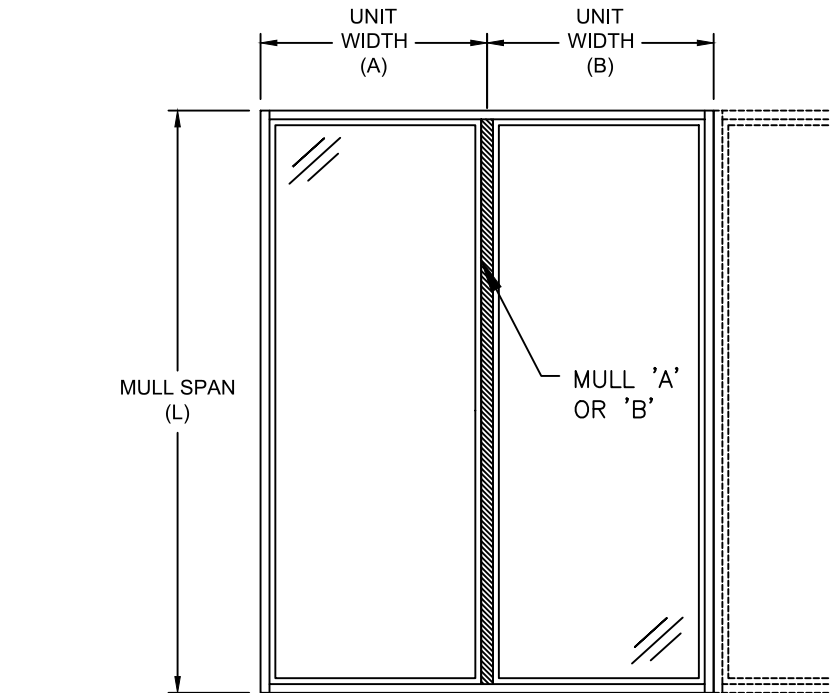
Maximum Design Pressure Capacity Chart (psf) - Box Mullion Without Reinforcement																			
Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)	
		Positive	Negative			Positive	Negative			Positive	Negative			Positive	Negative			Positive	Negative
≤ 72	≤ 96	50	-60																
78	18	50	-60	96	18	50	-60	106	18	50	-60	112	18	47	-57	118	18	40	-49
	20	50	-60		20	50	-60		20	43	-51		20	36	-44				
	30	50	-60		30	46	-56		30	29	-35		30	25	-30				
	36	50	-60		36	39	-47		36	24	-29		36	21	-25				
	42	50	-60		42	34	-41		42	21	-26		42	18	-22				
	44	50	-60		44	33	-40		44	20	-24		44	17	-21				
	48	50	-60		48	31	-37		48	19	-23		48	16	-19				
	54	50	-60		54	28	-34		54	17	-21		54	15	-17				
	60	48	-58		60	26	-32		60	16	-19		60	13	-16				
	66	47	-56		66	25	-30		66	15	-18		66	12	-15				
	72	46	-55		72	24	-28		72	14	-17		72	12	-14				
	78	45	-54		78	23	-27		78	13	-16		78	11	-13				
84	45	-55	84	22	-27	84	13	-15	84	11	-13								
96	45	-55	96	22	-26	96	12	-14	96	10	-12								
84	18	50	-60	100	18	50	-60	108	18	50	-60	116	18	43	-51	120	18	38	-46
	20	50	-60		20	50	-60		20	48	-57		20	38	-46		20	35	-42
	30	50	-60		30	41	-49		30	32	-39		30	26	-31		30	23	-28
	36	50	-60		36	35	-42		36	27	-33		36	22	-26		36	20	-24
	42	50	-60		42	30	-36		42	24	-29		42	19	-23		42	17	-21
	44	50	-60		44	29	-35		44	23	-27		44	18	-22		44	16	-20
	48	48	-57		48	27	-33		48	21	-25		48	17	-20		48	15	-18
	54	44	-52		54	25	-30		54	19	-23		54	15	-18		54	14	-17
	60	41	-49		60	23	-28		60	18	-21		60	14	-17		60	13	-15
	66	39	-47		66	22	-26		66	17	-20		66	13	-16		66	12	-14
	72	37	-45		72	20	-25		72	16	-19		72	12	-15		72	11	-13
	78	37	-44		78	20	-24		78	15	-18		78	12	-14		78	10	-13
	84	36	-44		84	19	-23		84	14	-17		84	11	-14		84	10	-12
	96	37	-44		96	19	-22		96	14	-17		96	11	-13		96	9	-11

MULL TYPE	
DESIGNATOR	DESCRIPTION
MULL 'A'	BOX MULLION - TIGHT
MULL 'B'	BOX MULLION WITH 1/4" X 5" ALUMINUM PLATE REINFORCEMENT

DESIGN PRESSURE CAPACITY CHART USAGE

LOAD (TRIBUTARY) WIDTH = (A + B)/2

- ENTER TABLE WITH MULL SPAN (L) AND LOAD WIDTH (LW) THE IS EQUAL TO MULLED ASSEMBLY.
- IF IN BETWEEN MULL SPAN AND LOAD WIDTH IN TABLE, USE NEXT LARGEST VALUES.
- INTERPOLATION BETWEEN MULL SPAN AND LOAD WIDTH VALUES IS ALLOWED.
- SEE SHEET 20 FOR MULL 'A' EXPANDED CHART AND SHEET 21 FOR MULL 'B' EXPANDED CHART



NOTES:

- APPROVED FENESTRATION TYPES INCLUDE FEELSAFE H3 2.0 DIRECT SET (DS), CASEMENT (CS), SINGLE HUNG (SH), DOUBLE HUNG (DH) AND AWNING (AW) INCLUDING AW & DH PICTURE & TRANSOM.
- 'TWO-WAY' MULLIONS REFER TO EITHER VERTICAL OR HORIZONTAL WITH INTERMEDIATE MEMBERS SIMILAR TO THOSE DIAGRAMMED ON THIS SHEET.
- THE POSITIVE AND NEGATIVE DESIGN PRESSURE CHARTS ABOVE ARE APPLICABLE FOR 'STANDARD INSTALLATION' PROCEDURES, SEE DETAILS ON SHEETS 4 TO 14.
- DESIGN PRESSURES SHALL BE GOVERNED BY THE LESSER OF THE MULLION ASSEMBLY (LISTED IN TABLE) OR INDIVIDUAL WINDOW.
- MULLIONS MAY BE USED IN ASSEMBLIES UTILIZING MORE THAN TWO WINDOW UNITS AND CAN BE USED FOR UNLIMITED NUMBER OF PANELS.

PROJECT # 0417-0302

SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
RED BLUFF, CA 96080

TITLE:
VERTICAL & HORIZONTAL MULL CONFIGURATIONS - LOAD CAPACITY CHARTS

PREPARED BY:
H3 2.0 FEELSAFE MULLION SYSTEM

DRAWN BY:
RJA

DATE:
4/8/18

SCALE:
N.T.S.

DRAWING NO:
SPW-PTC0001

REV:

SHEET:
18 OF 22

Robert J. Amoruso, P.E.
Florida P.E. No. 49752

TWO-WAY CONFIGURATIONS (WITH INTERMEDIATE MULLIONS)
BOX MULLION WITH/WITHOUT 1/4" X 5" ALUMINUM PLATE REINFORCEMENT

Maximum Design Pressure Capacity Chart (psf) - Box Mullion With 1/4" Plate Reinforcement															
Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)	
		Positive	Negative			Positive	Negative			Positive	Negative			Positive	Negative
96	22	50	-60	102	22	50	-60	120	22	50	-60	144	22	50	-60
	30	50	-60		30	50	-60		30	50	-60		30	40	-48
	36	50	-60		36	50	-60		36	50	-60		36	33	-40
	42	50	-60		42	50	-60		42	50	-60		42	29	-35
	44	50	-60		44	50	-60		44	49	-58		44	28	-33
	48	50	-60		48	50	-60		48	45	-54		48	26	-31
	54	50	-60		54	50	-60		54	40	-49		54	23	-28
	60	50	-60		60	50	-60		60	37	-44		60	21	-25
	66	50	-60		66	50	-60		66	34	-41		66	19	-23
	72	50	-60		72	49	-59		72	32	-39		72	18	-22
	78	50	-60		78	47	-57		78	30	-37		78	17	-20
	84	50	-60		84	46	-55		84	29	-35		84	16	-19
96	50	-60	96	44	-53	96	27	-32	96	15	-18				
100	22	50	-60	108	22	50	-60	132	22	50	-60	156	22	42	-51
	24	50	-60		24	50	-60		24	50	-60		24	39	-46
	30	50	-60		30	50	-60		30	50	-60		30	31	-37
	36	50	-60		36	50	-60		36	43	-52		36	26	-31
	42	50	-60		42	50	-60		42	38	-45		42	23	-27
	44	50	-60		44	50	-60		44	36	-43		44	22	-26
	48	50	-60		48	50	-60		48	33	-40		48	20	-24
	54	50	-60		54	50	-60		54	30	-36		54	18	-21
	60	50	-60		60	48	-57		60	28	-33		60	16	-20
	66	50	-60		66	45	-53		66	26	-31		66	15	-18
	72	50	-60		72	42	-51		72	24	-29		72	14	-17
	78	49	-59		78	40	-48		78	23	-27		78	13	-16
84	48	-57	84	39	-47	84	21	-26	84	12	-15				
96	46	-56	96	37	-44	96	20	-24	96	11	-13				

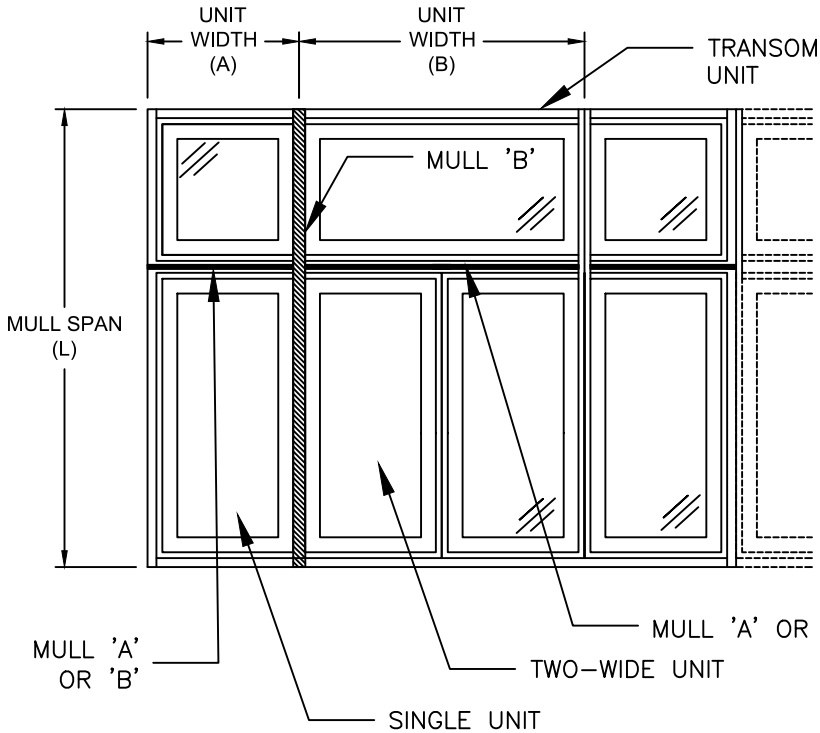
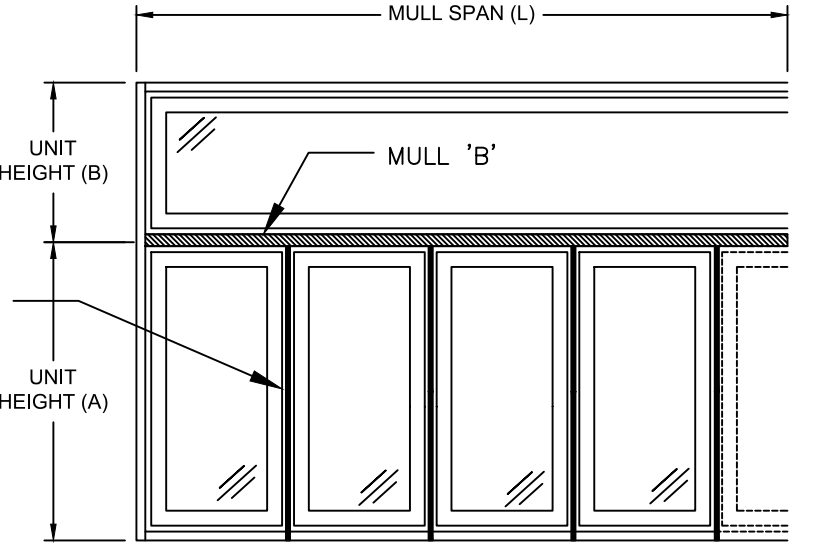
Maximum Design Pressure Capacity Chart (psf) - Box Mullion Without Reinforcement															
Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)	
		Positive	Negative			Positive	Negative			Positive	Negative			Positive	Negative
≤ 72	≤ 96	50	-60												
78	18	50	-60	96	18	50	-60	106	18	50	-60	112	18	47	-57
	20	50	-60		20	50	-60		20	50	-60		20	43	-51
	30	50	-60		30	46	-56		30	34	-41		30	29	-35
	36	50	-60		36	39	-47		36	29	-35		36	24	-29
	42	50	-60		42	34	-41		42	25	-30		42	21	-26
	44	50	-60		44	33	-40		44	24	-29		44	20	-24
	48	50	-60		48	31	-37		48	23	-27		48	19	-23
	54	50	-60		54	28	-34		54	20	-25		54	17	-21
	60	48	-58		60	26	-32		60	19	-23		60	16	-19
	66	47	-56		66	25	-30		66	18	-21		66	15	-18
	72	46	-55		72	24	-28		72	17	-20		72	14	-17
	78	45	-54		78	23	-27		78	16	-19		78	13	-16
84	84	45	-55	100	84	22	-27	108	84	15	-19	116	84	13	-15
	96	45	-55		96	22	-26		96	15	-18		96	12	-14
	18	50	-60		18	50	-60		18	50	-60		18	43	-51
	20	50	-60		20	50	-60		20	48	-57		20	38	-46
	30	50	-60		30	41	-49		30	32	-39		30	26	-31
	36	50	-60		36	35	-42		36	27	-33		36	22	-26
	42	50	-60		42	30	-36		42	24	-29		42	19	-23
	44	50	-60		44	29	-35		44	23	-27		44	18	-22
	48	48	-57		48	27	-33		48	21	-25		48	17	-20
	54	44	-52		54	25	-30		54	19	-23		54	15	-18
	60	41	-49		60	23	-28		60	18	-21		60	14	-17
	66	39	-47		66	22	-26		66	17	-20		66	13	-16
	72	37	-45		72	20	-25		72	16	-19		72	12	-15
	78	37	-44		78	20	-24		78	15	-18		78	12	-14
	84	36	-44		84	19	-23		84	14	-17		84	11	-14
	96	37	-44		96	19	-22		96	14	-17		96	11	-13

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PROJECT # 0417-0302

SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
RED BLUFF, CA 96080

DATE: 4/8/18
DRAWING NO: SPW-PTC0001
SHEET: 19 OF 22

PREPARED BY: RJA
SCALE: N.T.S.
REV: ---

PTC PRODUCT DESIGN GROUP, LLC
PO BOX 820775
LONGWOOD, FLORIDA 32752
Phone: 321.690.1788
Fax: 321.690.1789
Email: info@ptc-corp.com

BY: DATE: REV:

Robert J. Amoruso, P.E.
Florida P.E. No. 49752

PROFESSIONAL ENGINEER
STATE OF FLORIDA
No 49752
7/12/18

Maximum Design Pressure Capacity Chart (psf) - Box Mullion Without Reinforcement																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)		Mull Span (in)	Load Width (in)	Design Pressure (psf)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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≤ 72	≤ 96	50	-60	78	96	Positive	Negative	106	18	20	22	24	26	28	30	32	34	36	38	39	40	42	44	46	48	52	54	56	60	64	66	68	72	78	84	96																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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PROJECT # 0417-0302

SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
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H3 2.0 FEELS SAFE MULLION SYSTEM
BOX MULLION LOAD CAPACITY CHART

PREPARED BY: RJA

DATE: 4/8/18

DRAWING NO: SPW-PTC0001

SHEET: 20 OF 22

Robert J. Amoruso, P.E.
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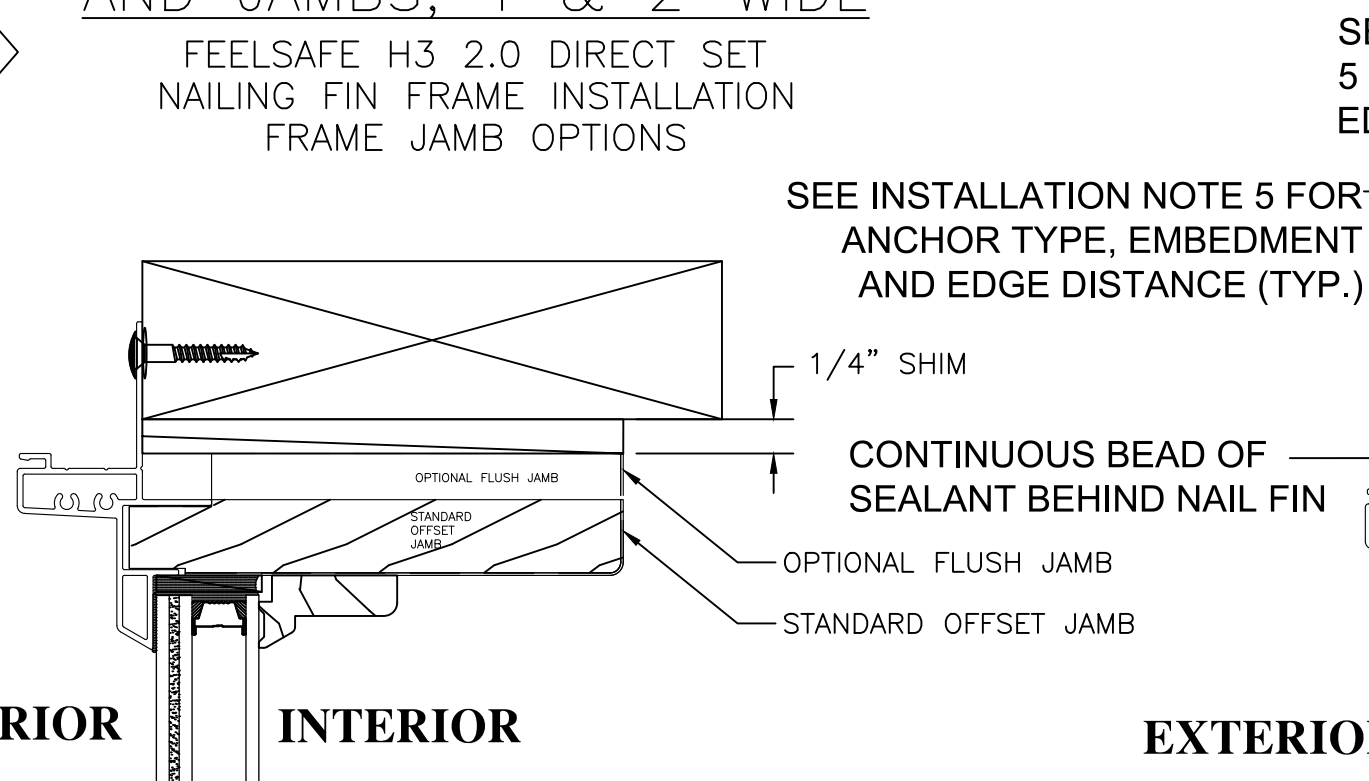
PROFESSIONAL ENGINEER
STATE OF FLORIDA
No 49752

7/12/18

FRAME JAMB OPTIONS HEAD DETAIL SHOWN, SAME AT SILL AND JAMBS, 1 & 2-WIDE

F
22

FEELSAFE H3 2.0 DIRECT SET
NAILING FIN FRAME INSTALLATION
FRAME JAMB OPTIONS



SEE INSTALLATION NOTE
5 FOR EMBEDMENT AND
EDGE DISTANCE (TYP.)

SEE INSTALLATION NOTE 9 FOR
APPLICABLE SUBSTRATES (TYP.)

SEE INSTALLATION
NOTE 3

CONTINUOUS BEAD OF
SEALANT BEHIND NAIL FIN

11/16" SHIM

OPTIONAL FLUSH JAMB

STANDARD OFFSET JAMB

STANDARD OFFSET JAMB

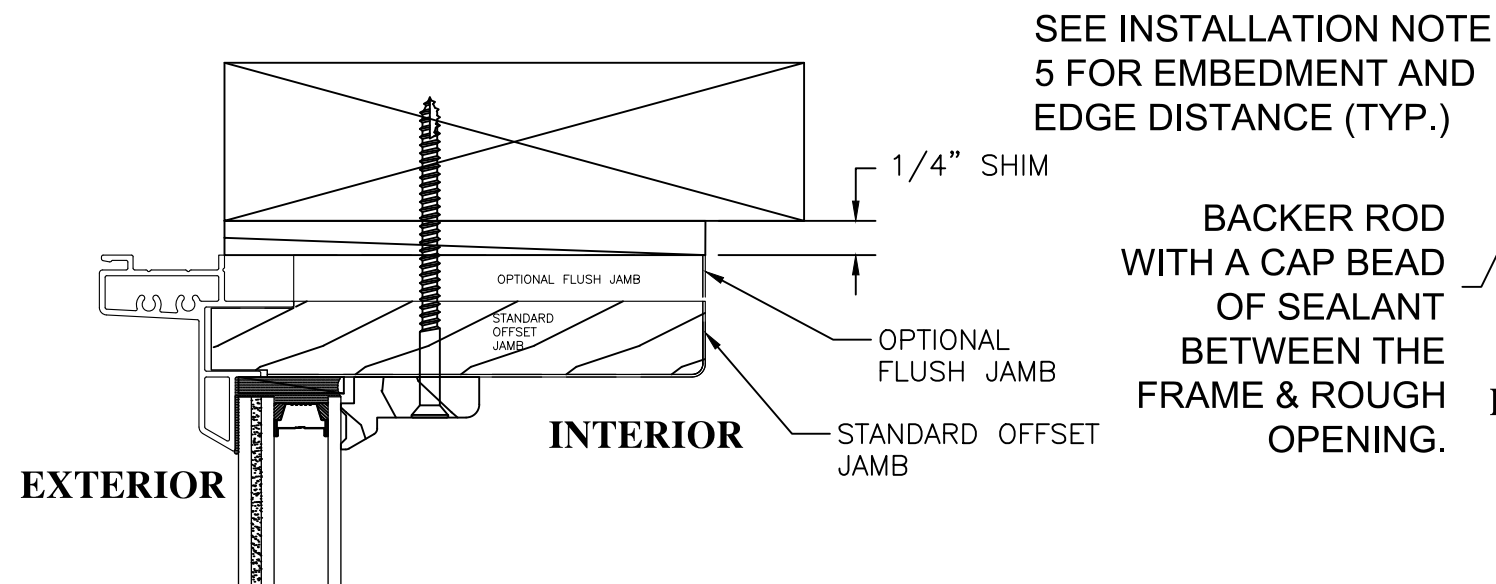
EXTERIOR

INTERIOR

FRAME JAMB OPTIONS HEAD DETAIL SHOWN, SAME AT SILL AND JAMBS, 1 & 2-WIDE

G
22

FEELSAFE H3 2.0 DIRECT SET
THROUGH FRAME INSTALLATION
FRAME JAMB OPTIONS



SEE INSTALLATION NOTE
5 FOR EMBEDMENT AND
EDGE DISTANCE (TYP.)

SEE INSTALLATION NOTE 9 FOR
APPLICABLE SUBSTRATES (TYP.)

SEE INSTALLATION
NOTE 3

BACKER ROD
WITH A CAP BEAD
OF SEALANT
BETWEEN THE
FRAME & ROUGH
OPENING.

11/16" SHIM

OPTIONAL FLUSH JAMB

STANDARD OFFSET
JAMB

STANDARD
OFFSET JAMB

EXTERIOR

INTERIOR

SEE INSTALLATION NOTE 5 FOR
ANCHOR TYPE, EMBEDMENT AND
EDGE DISTANCE (TYP.)

PROJECT # 0417-0302

SIERRA PACIFIC WINDOWS
11605 READING ROAD, PO BOX 8489
RED BLUFF, CA 96080

TITLE:
H3 2.0 FEELSAFE MULLION SYSTEM
STANDARD AND FLUSH JAMB OPTIONS

PREPARED BY:

RJA

DATE:

4/8/18

DRAWING NO:

SPW-PTC0001

SCALE:

N.T.S.

REV:

—

SHEET:

22 OF 22

DESCRIPTION

REV

DATE

BY

Robert J. Amoruso, P.E.
Florida P.E. No. 49752

