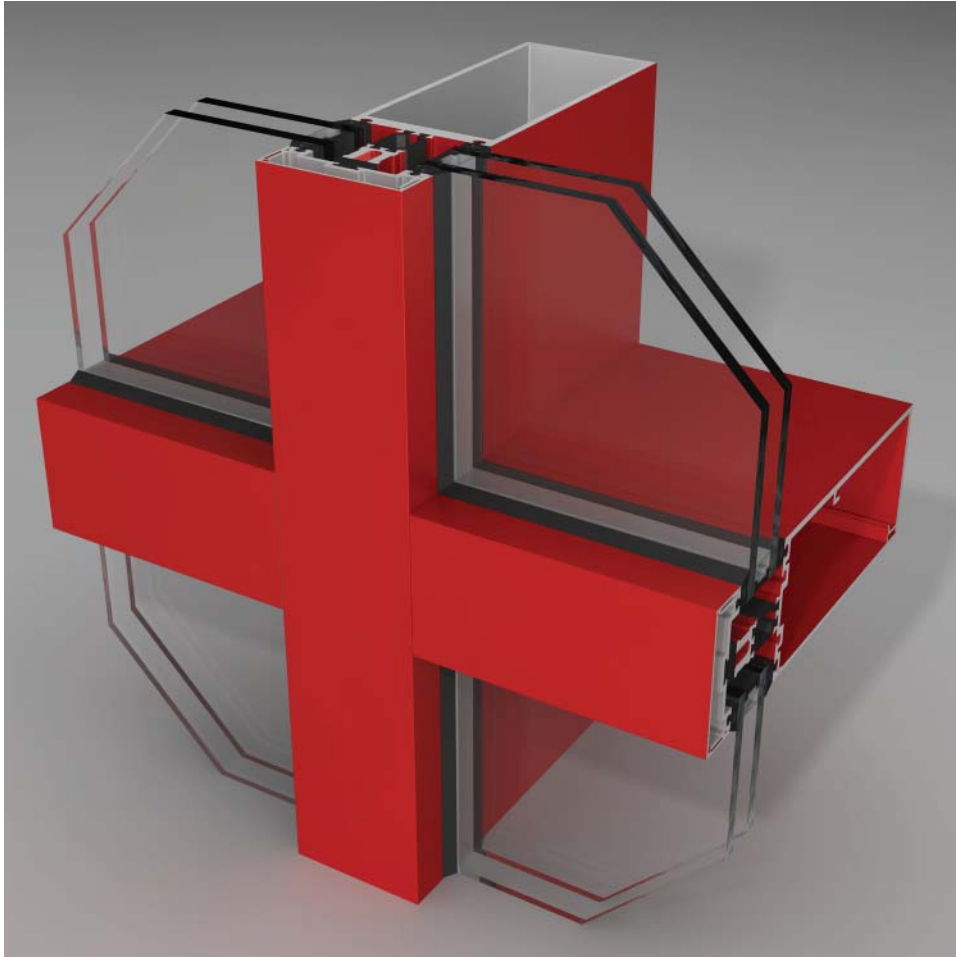


# 22.01 400TU High Performance Curtain Wall Description

## Thermal=Block™



$U_c = 0.31^*$   
 $CRF_f = 72^*$

### Description

Tubelite's newest thermally broken curtain wall product has been designed to meet or exceed today's stringent energy codes. The 400TU Series has a 2 1/2" face, and offers screw-spline or shear block joints. The pressure bar system can be stick fabricated, or assembled into "ladders" at your shop for field glazing.

Glass is positioned to the system exterior for enhanced resistance to rainwater. Seven

anodized finishes and 20 standard paint color are available on this framing system to complement any project with warranted protection, as well as street appeal. 400TU also accepts accessories like Tubelite Operable Windows, Thermal=Block® Doors, MaxBlock® Sun Shades and aLuminate® light shelves.

\* Dual Glazed system with Aluminum Pressure Plate

# 22.02

## 400TU High Performance Curtain Wall Guide Specifications

### General

#### Description

Furnish all necessary materials, labor and equipment for the complete installation of aluminum framing as shown on the drawings and specified herein.

Curtain wall framing shall be 400TU Series 2 1/2" x (6", 7 1/2" or 10" - dual glazed) (6 3/4", 8 1/4" or 10 3/4" - triple glazed) as manufactured by Tubelite Inc., Walker, Michigan. Whenever substitute products are to be considered, supporting technical literature, samples drawings and performance data must be submitted ten (10) days prior to bid in order to make a valid comparison of the products involved.

Test reports certified by an independent laboratory must be made available upon request.

#### Performance Requirements

Air infiltration shall not exceed 0.06 CFM/Ft<sup>2</sup> when tested in accordance with ASTM E-283 at a test pressure of 6.24 PSF.

There shall be no uncontrolled water entry when tested in accordance with ASTM E-331 "Water Penetration of Exterior Windows, Curtainwalls and Doors by Uniform Static Air Pressure Difference" at a test pressure of 15 PSF.

There shall be no uncontrolled water entry when tested in accordance with AAMA 501.1-94 at a dynamic pressure equivalent of 15 PSF.

Structural performance per ASTM E330 shall be based on a maximum allowable deflection of L/175 of the span or 3/4" maximum. The system shall perform to those criteria under a wind load of +70/-68 PSF.

Thermal values for transmittance and condensation resistance shall be as follows in these configurations:

Pressure Plate	Dual Glazed 7 1/2" System			
	U-value		AAMA 1503	
	NFRC 102	AAMA 1503	CRF Glass	CRF Frame
Aluminum	0.31	0.32	72	80
Polyamide	0.30	0.31	73	81

Pressure Plate	Dual Glazed 8 1/4" System			
	U-value		AAMA 1503	
	NFRC 102	AAMA 1503	CRF Glass	CRF Frame
Aluminum	0.21	0.22	79	83
Polyamide	0.21	0.21	80	84

The system shall have a Sound Transmission Class (STC) rating of 38/dual & 41/triple and an Outdoor-Indoor Transmission Class (OITC) rating of 32/dual & 30/triple

when tested in accordance with ASTM E90-09, ASTM E413-10 and ASTM E1332-10a.

There shall be no buckling, stress on glass, edge seal failure, excess stress on storefront structure, anchors and fasteners or reduction in performance when tested in accordance with AAMA 501.5-98 at a temperature range of 0° to 180° F.

### Products

#### Materials

Extrusions shall be of aluminum alloy 6063-T5 extruded within commercial tolerance and free from defects impairing strength and/or durability. Main framing sections to be of .075 inch minimum wall thickness and glazing stop moldings of .060 inch thickness.

Screws, bolts and all other accessories to be compatible with the aluminum under normal service conditions. Final fasteners and anchors must be reviewed and approved by a Professional Engineer.

Glazing shall be by means of an exterior roll-in wedge of high quality extruded elastomeric material, and an interior seal around the glass perimeter using DOW 995 structural silicone.

#### Finish

All exposed framing surfaces shall be free of scratches and other serious blemishes.

Finish to be: (architect select)

Etched and clear anodized  
(AAM10C21A31)

Clear - Class II (C2)

(AAM10C21A41)

Clear - Class I (C1)

Electrolytically deposited color  
(AAM10C21A44) Class 1

Champagne (CH)

Medium Bronze (MB)

Light Bronze (LB)

Dark Bronze (DB)

Extra Dk Bronze (EB)

Black (BL)

Copper (CA)

Fluoropolymer (70%) painted color \_\_\_\_\_.

### Execution

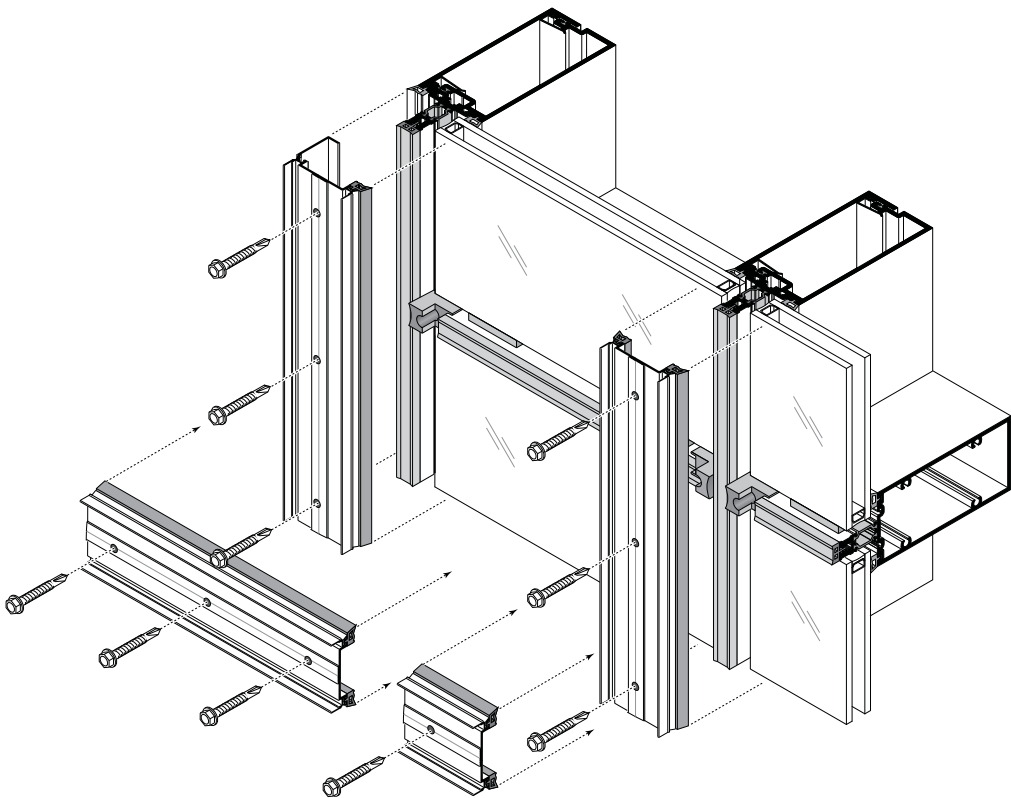
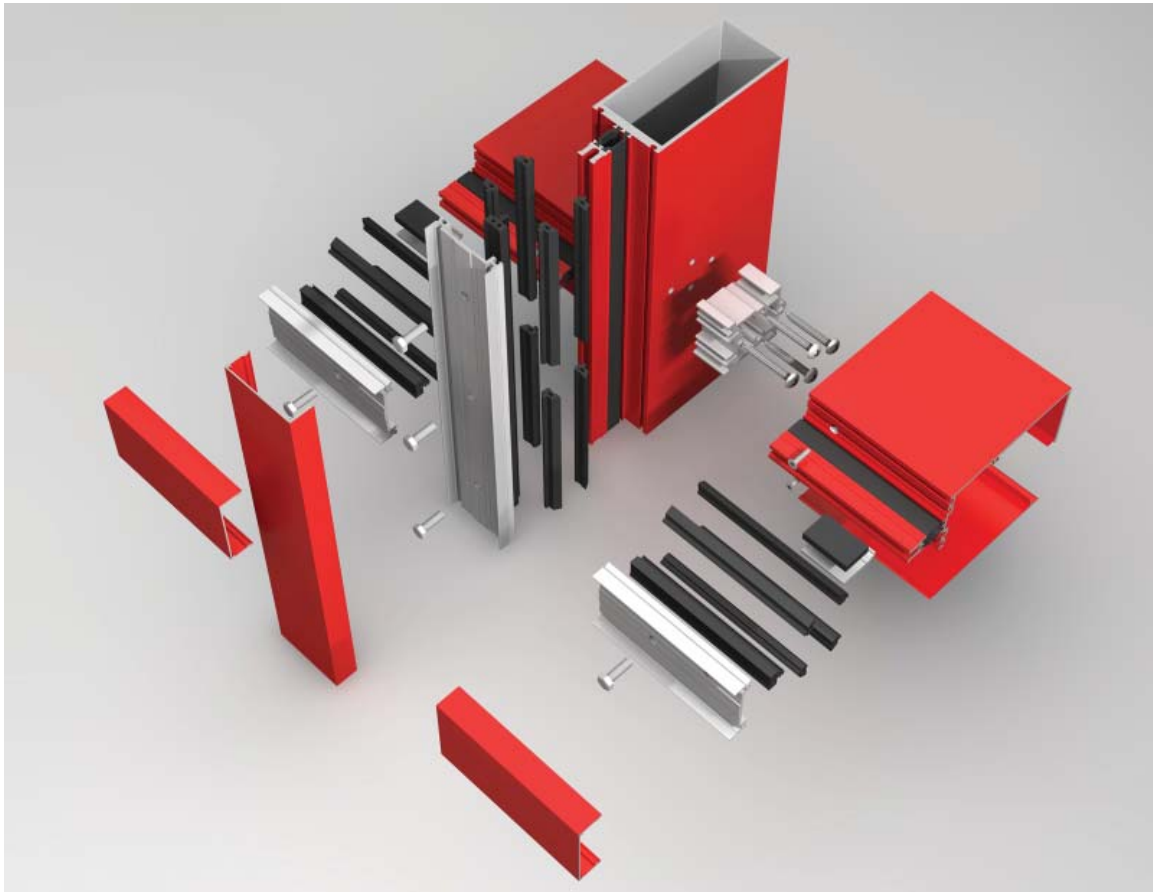
#### Installation

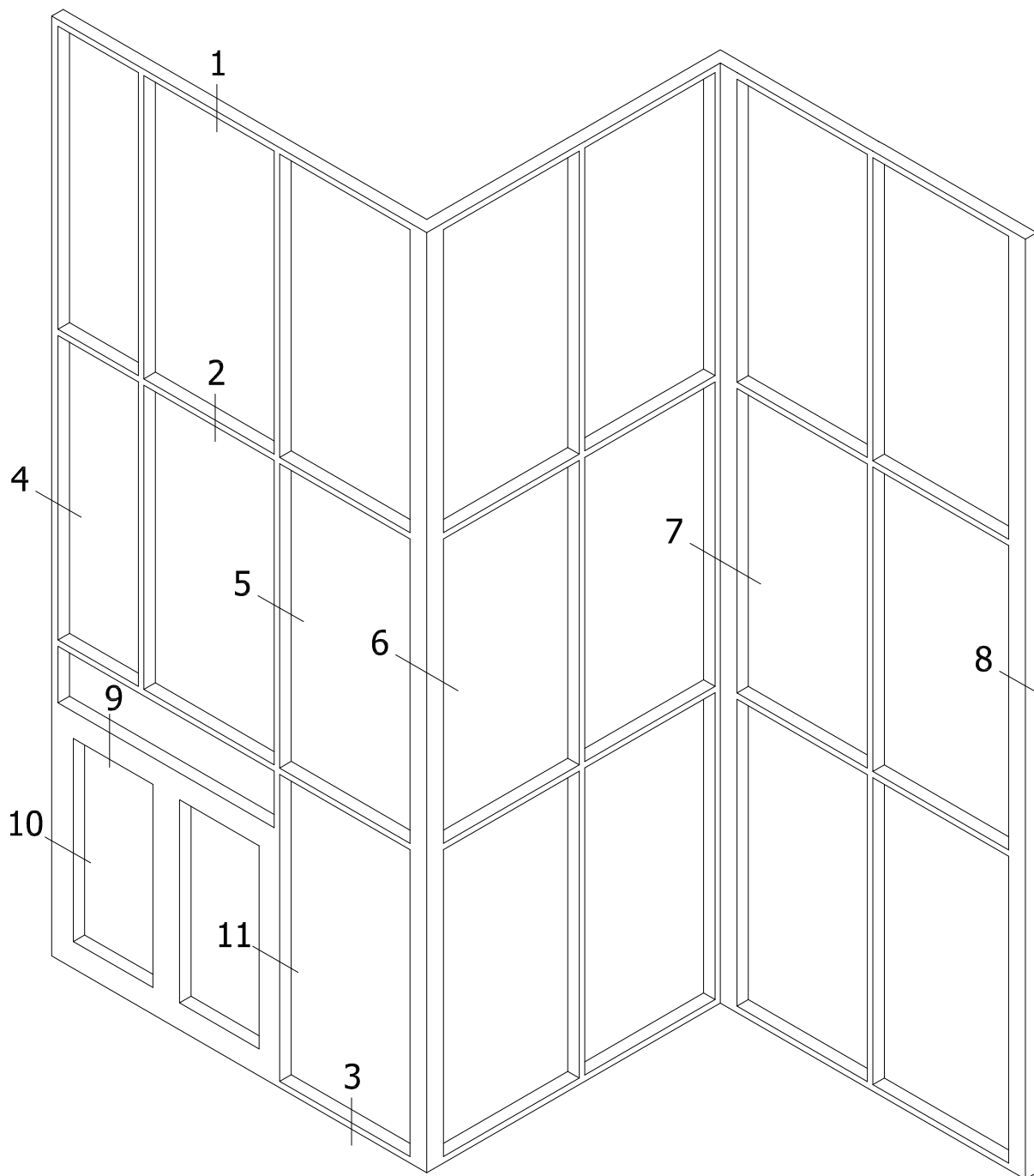
Shall be in accordance with the manufacturer's installation instructions and the approved shop drawings.

#### Note:

In keeping with Tubelite's policy of continuing product improvements, all specifications are subject to change without written notice by the manufacturer.

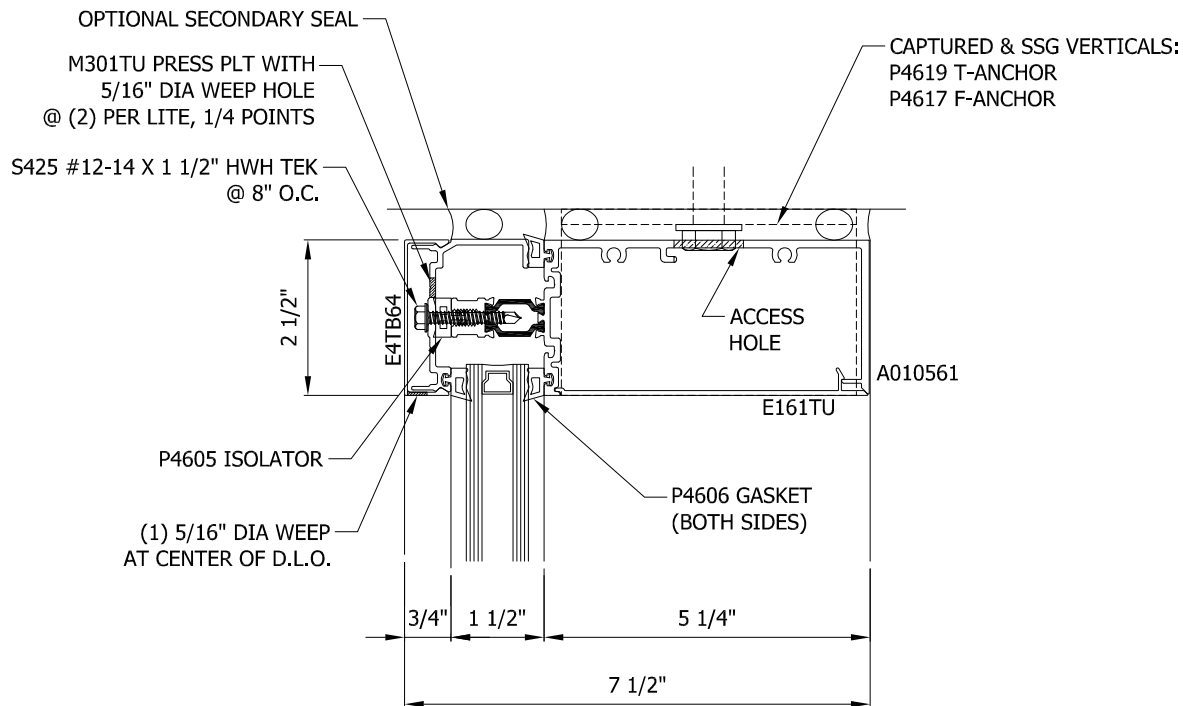
22.03  
400TU High Performance Curtain Wall  
Isometric Detail



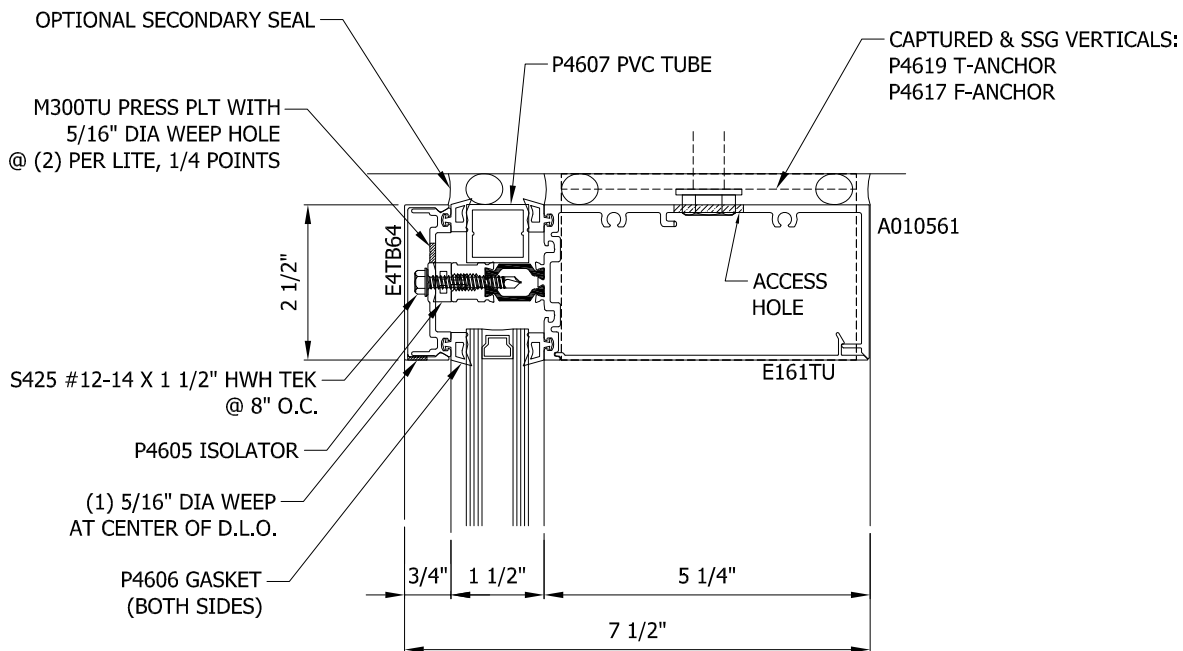


# 400TU Ultra Thermal Curtain Wall - Screw Spline - 5 1/4 - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE



**1**  
299.5SSHEAD  
STANDARD  
Screw Spline

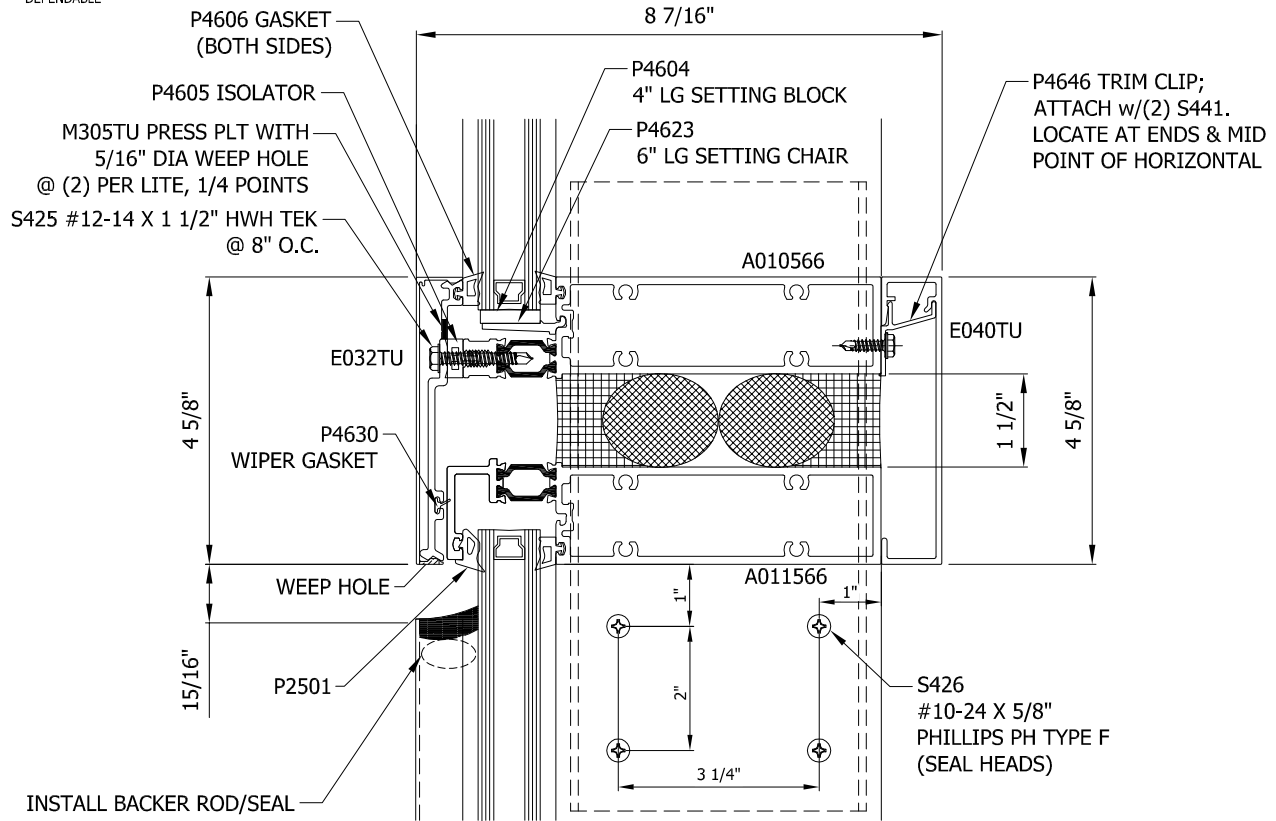


**1A**  
299.5SSHEAD  
OPTION  
Screw Spline

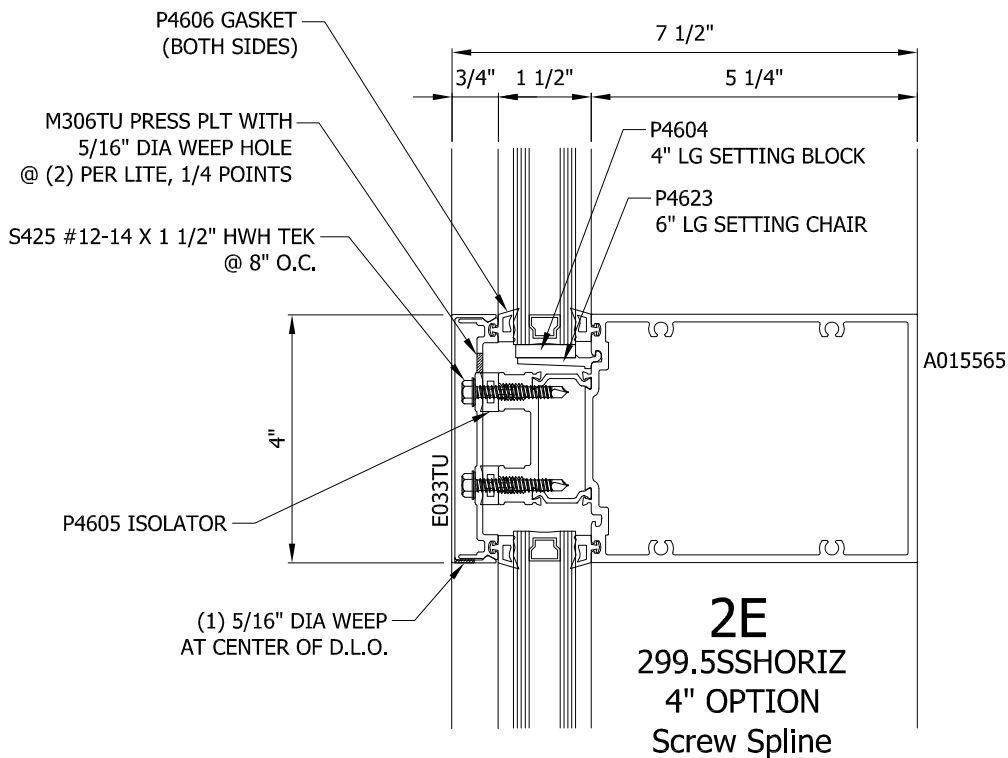


# 400TU Ultra Thermal Curtain Wall - Screw Spline - 5 1/4 - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE



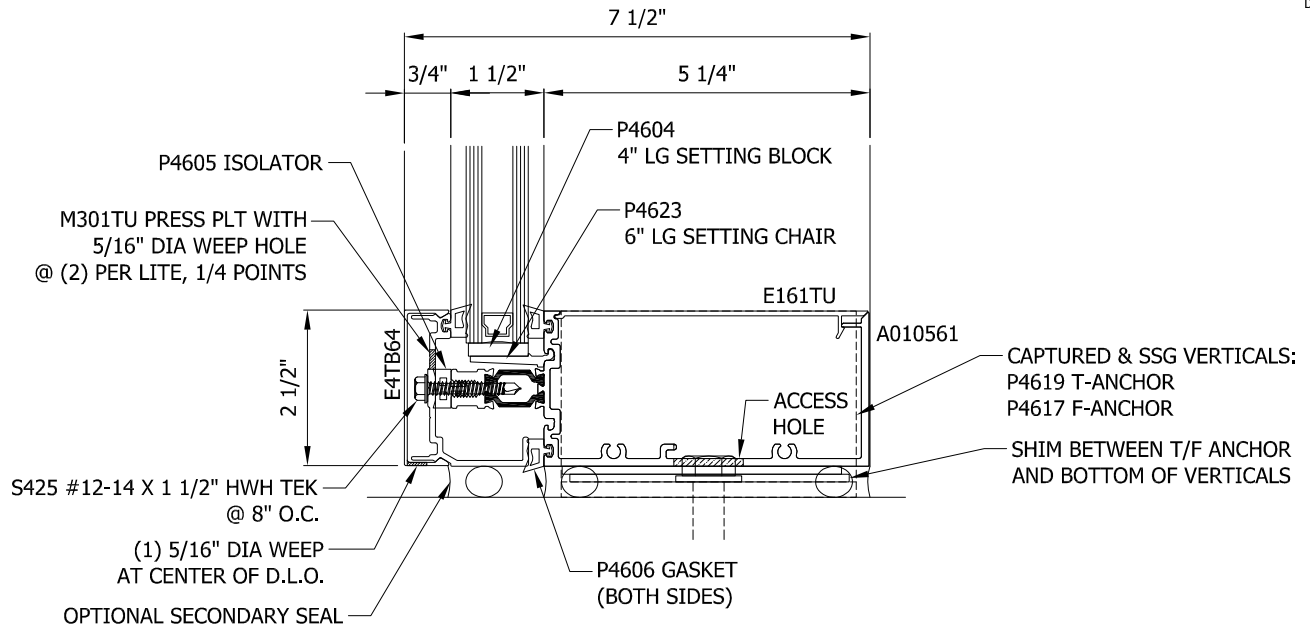
**2D**  
299.5SSHORZ  
EXPANSION OPTION  
Screw Spline



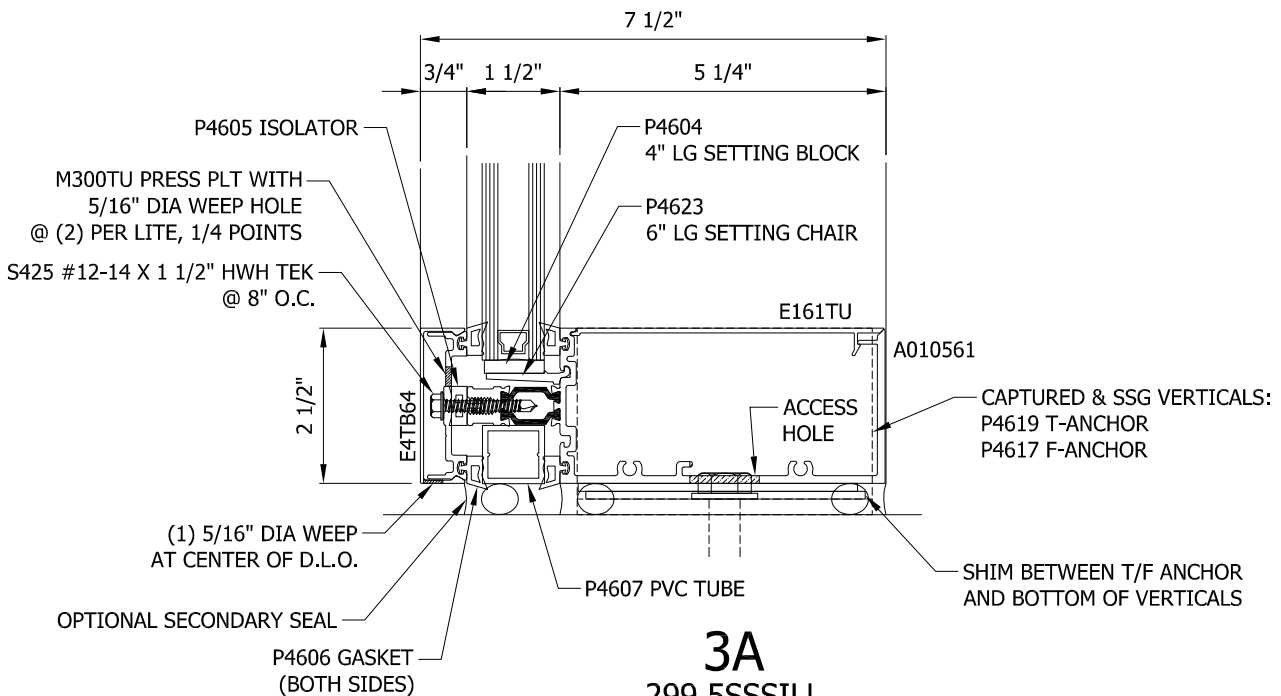
**2E**  
299.5SSHORIZ  
4" OPTION  
Screw Spline

# 400TU Ultra Thermal Curtain Wall - Screw Spline - 5 1/4 - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE



**3**  
299.5SSSILL  
STANDARD  
Screw Spline

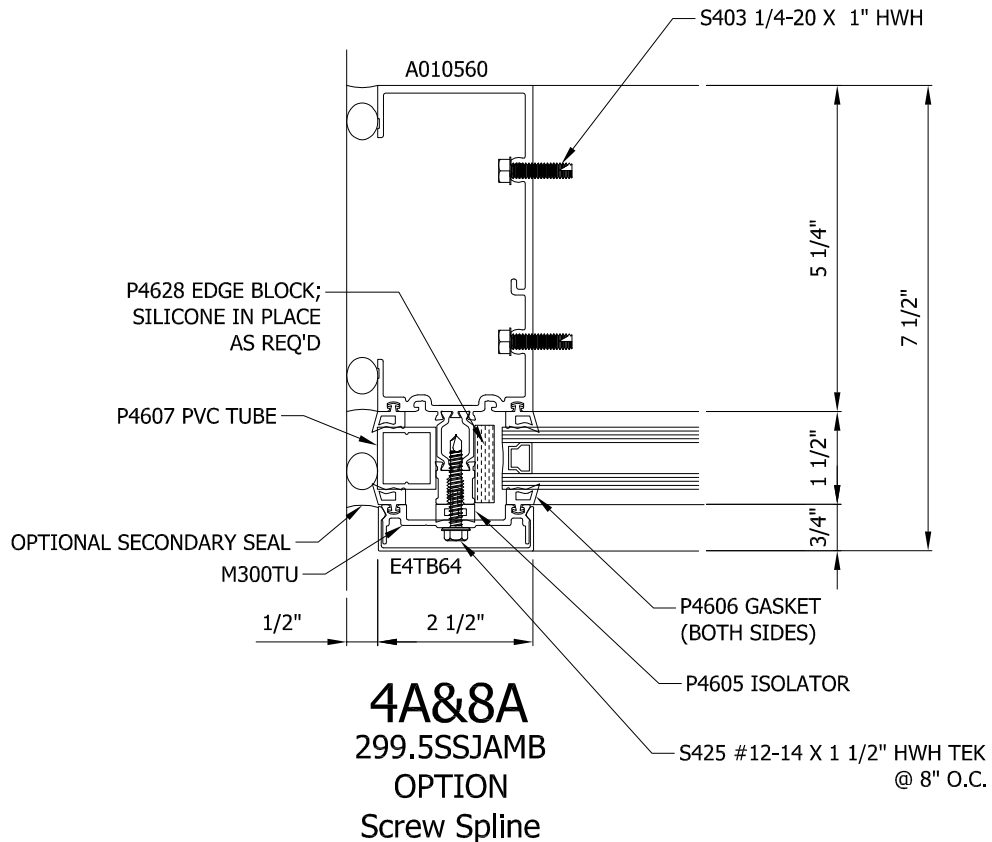
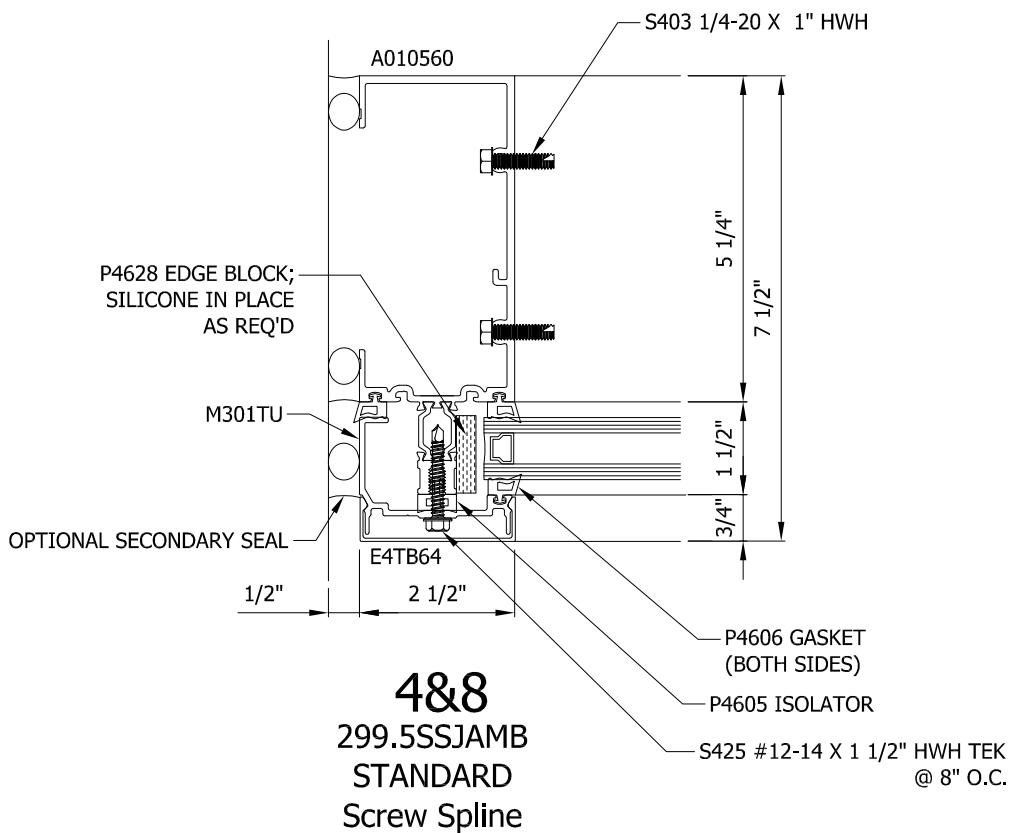


**3A**  
299.5SSSILL  
OPTION  
Screw Spline



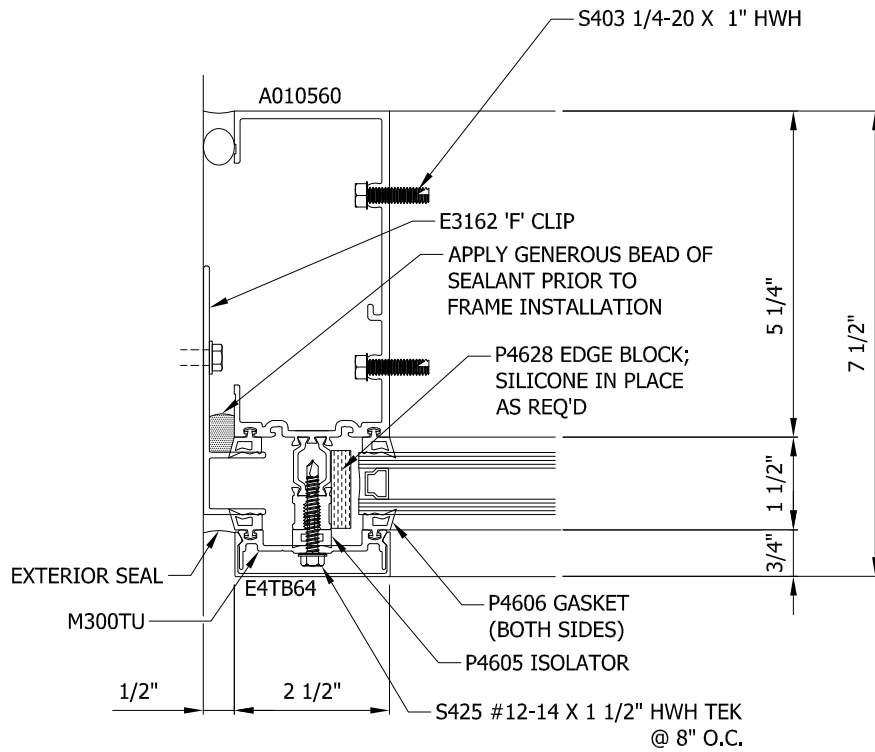
# 400TU Ultra Thermal Curtain Wall - Screw Spline - 5 1/4 - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE



# 400TU Ultra Thermal Curtain Wall - Screw Spline - 5 1/4 - Aluminum Pressure Plate

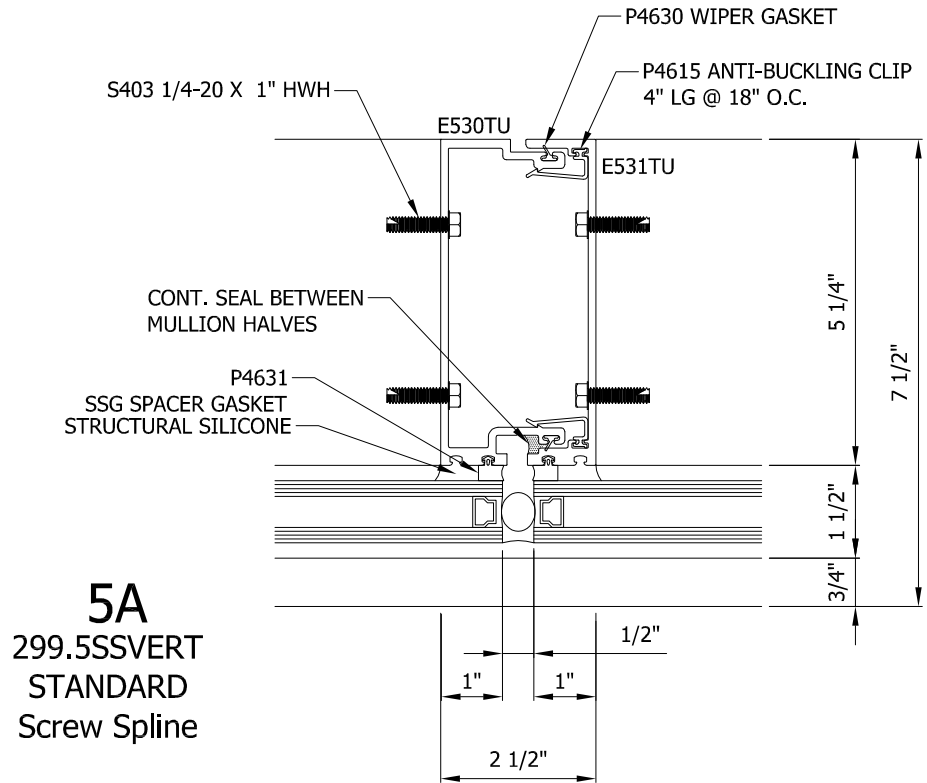
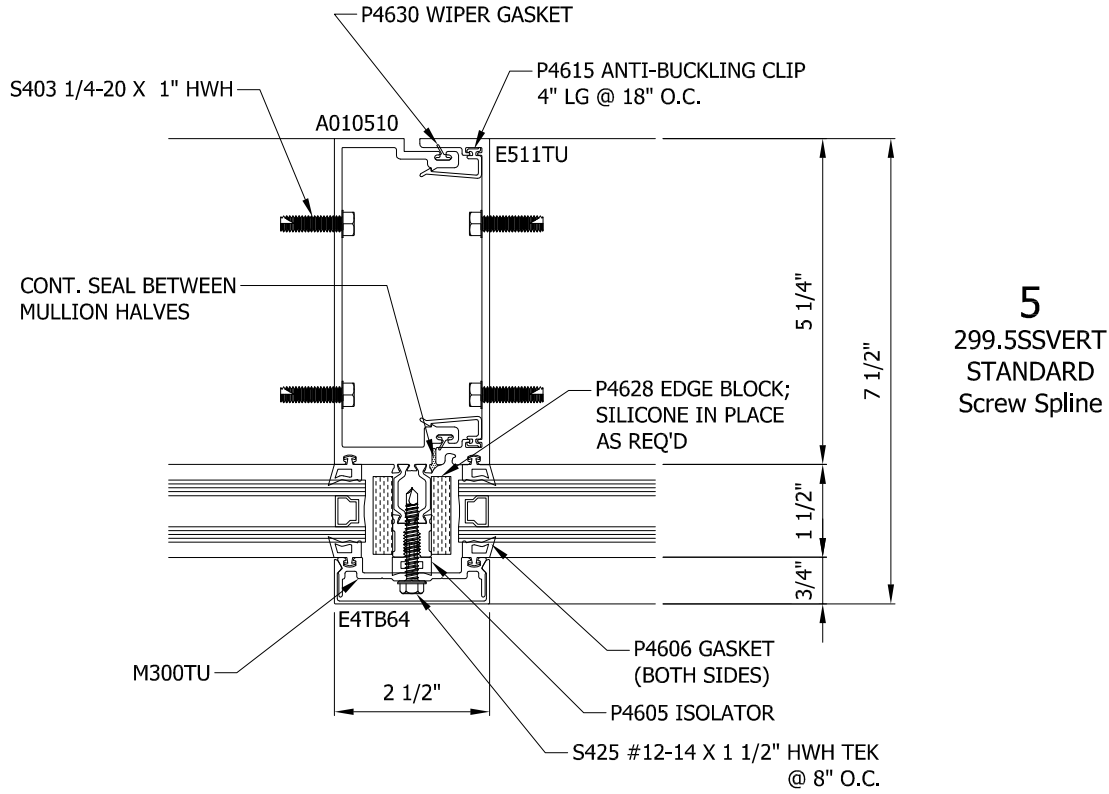
TUBELITE®  
DEPENDABLE



**4B&8B**  
299.5SSJAMB  
OPTION  
Screw Spline

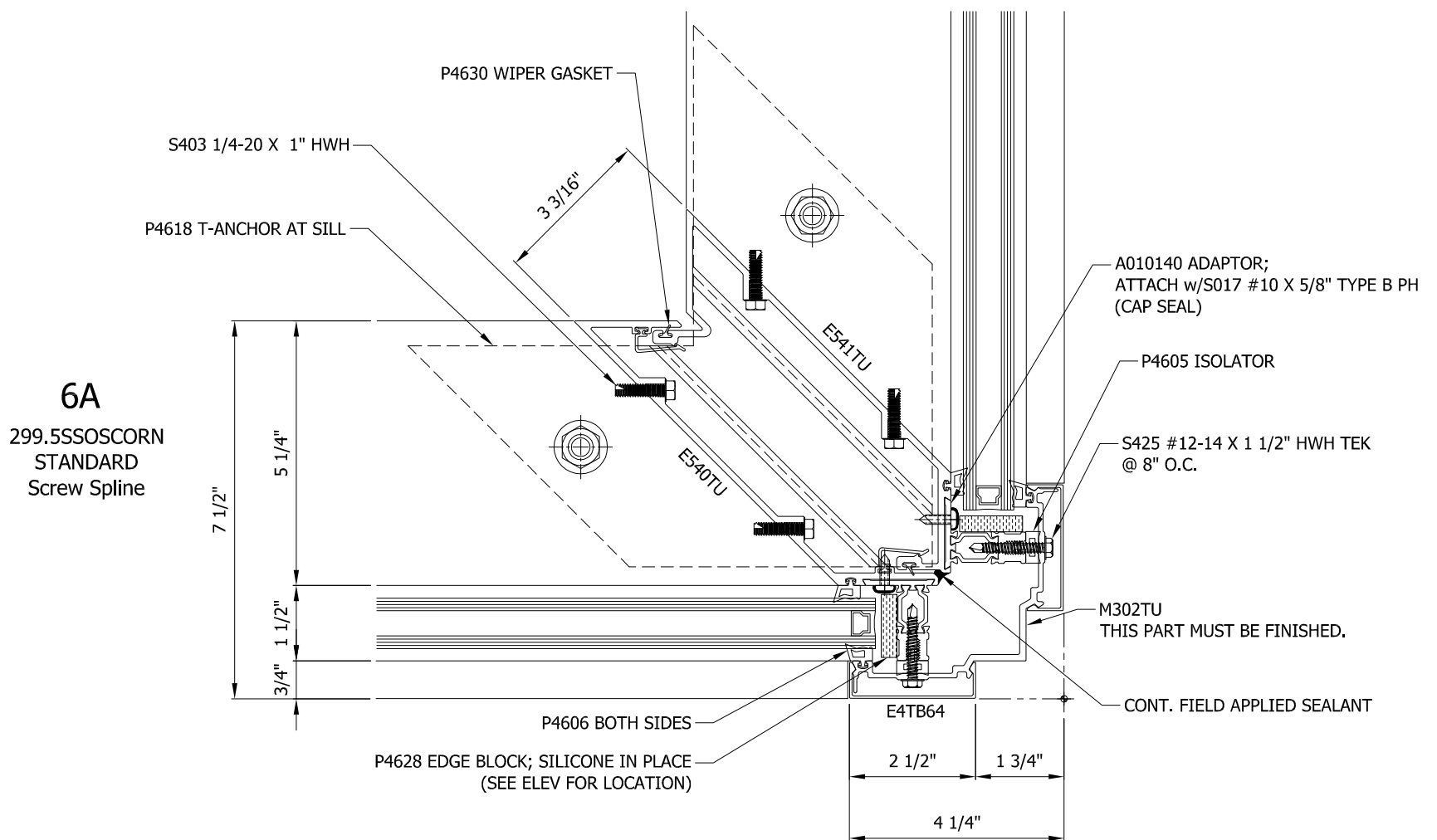
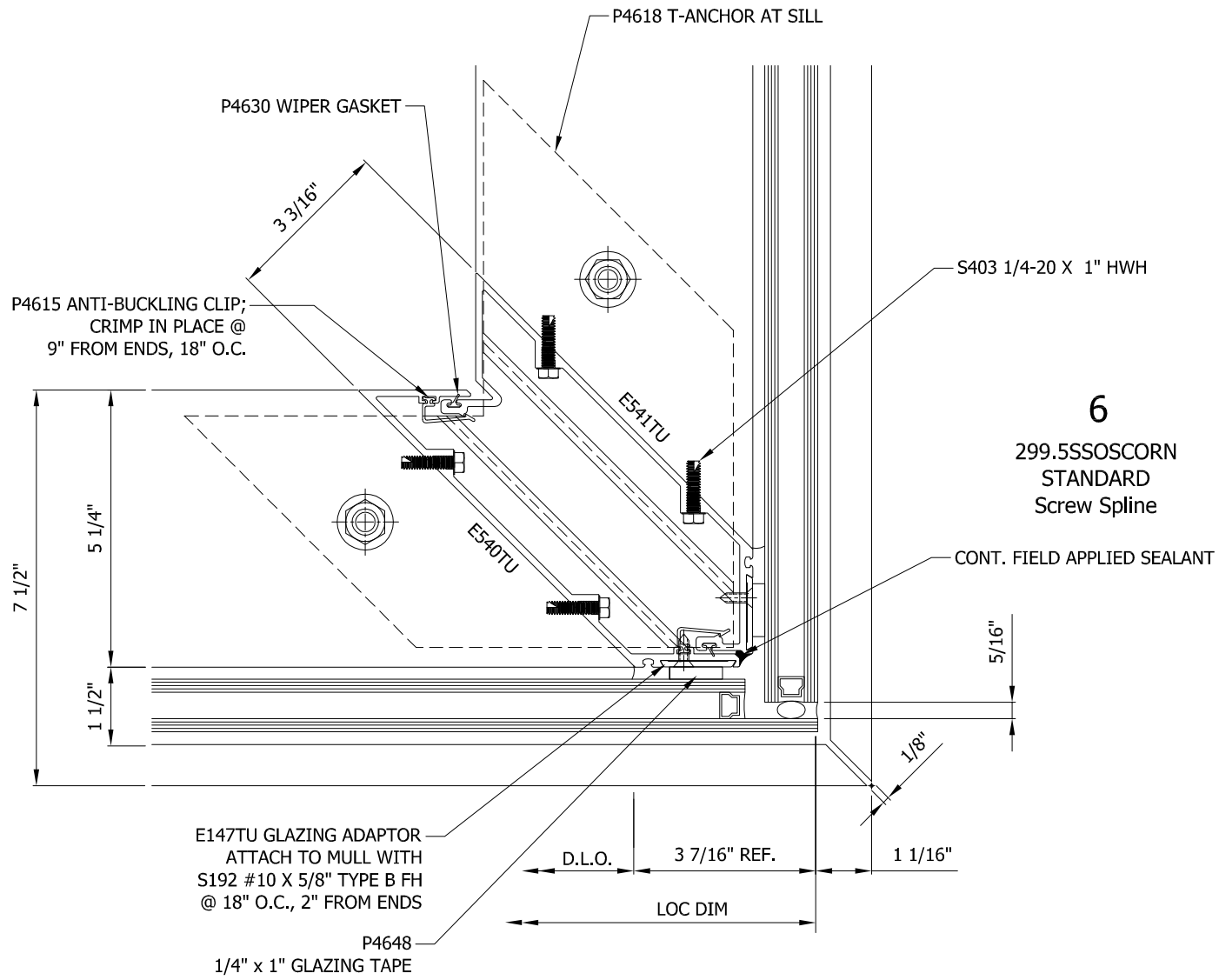
# 400TU Ultra Thermal Curtain Wall - Screw Spline - 5 1/4 - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE



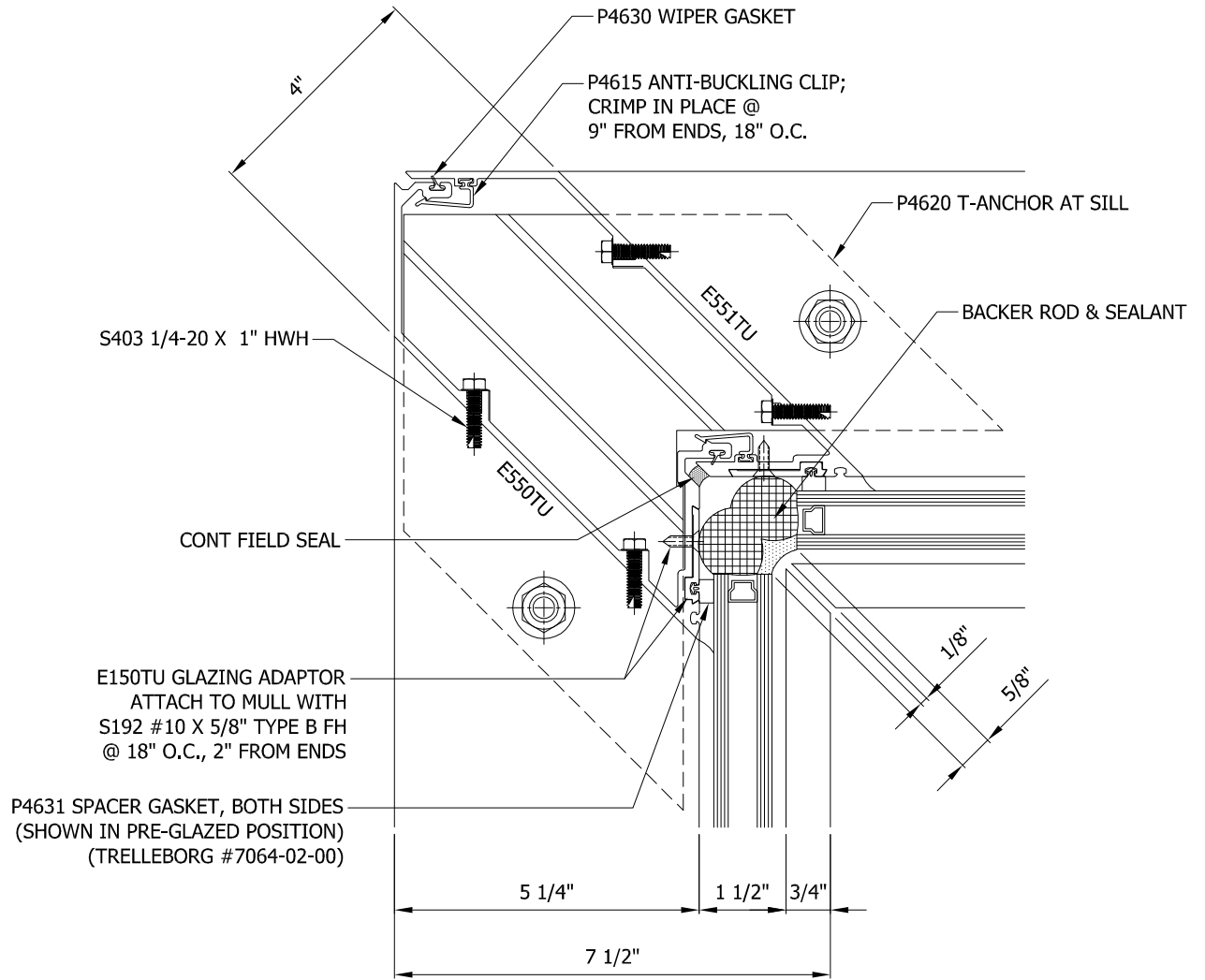
400TU Ultra Thermal Curtain Wall - Screw Spline - 5 1/4 - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE



# 400TU Ultra Thermal Curtain Wall - Screw Spline - 5 1/4 - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE

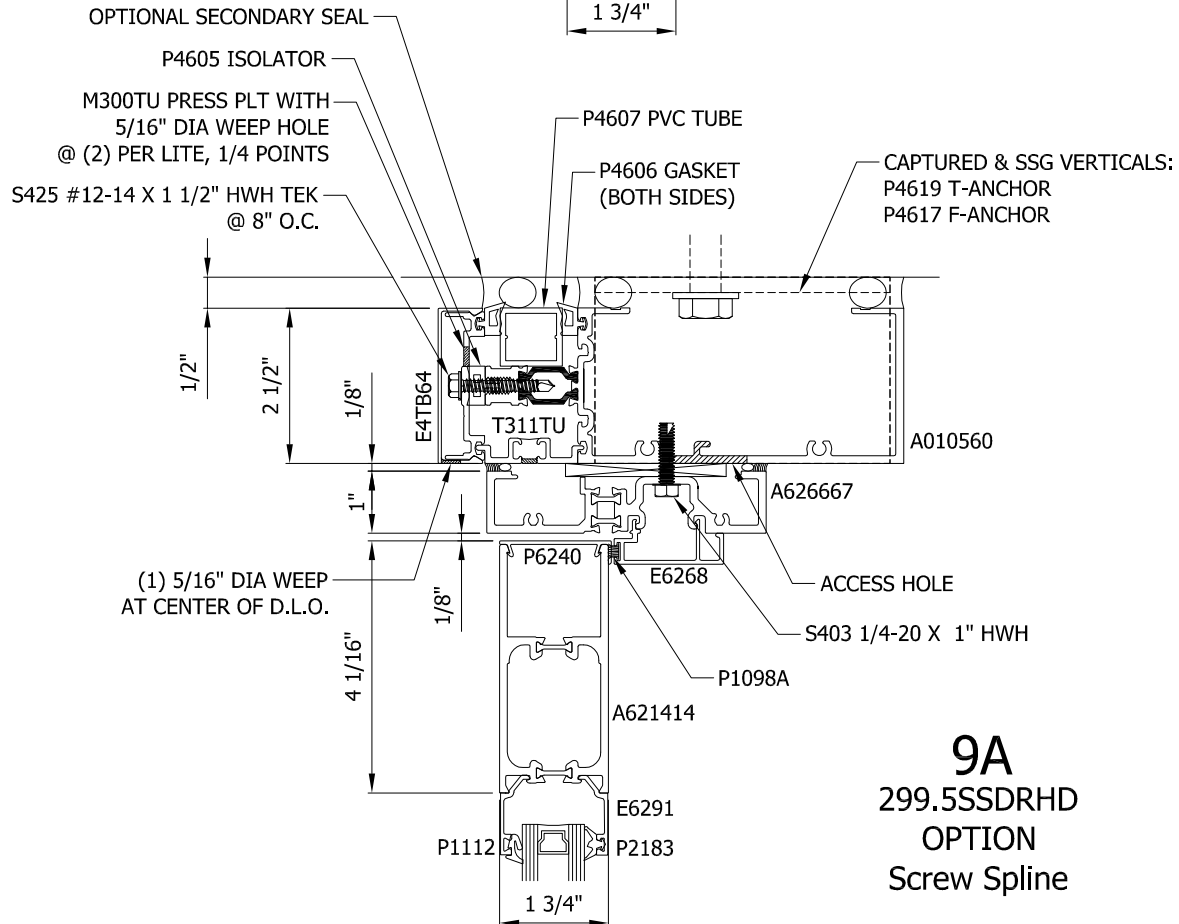
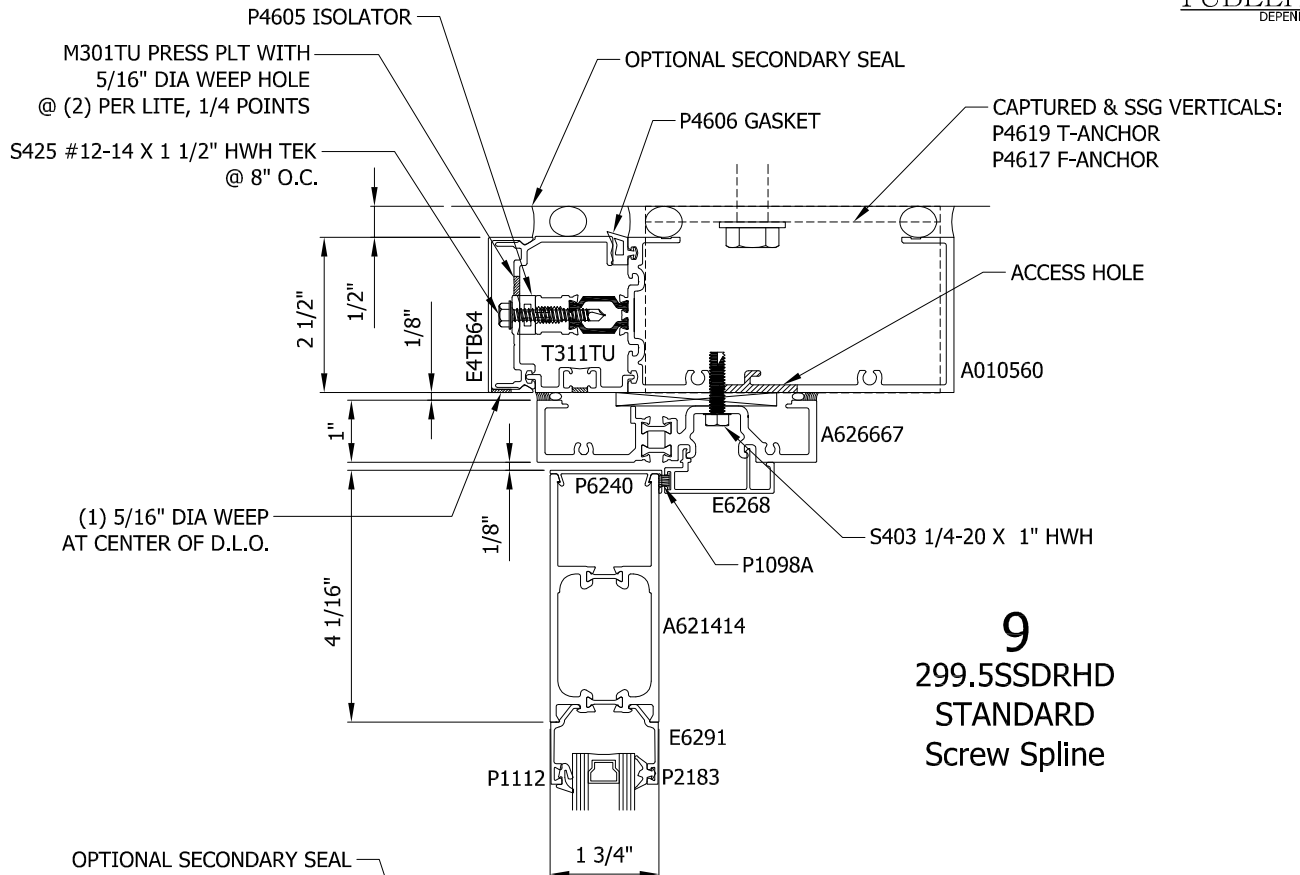


7

299.5SSISCORN  
STANDARD  
Screw Spline

# 400TU Ultra Thermal Curtain Wall - Screw Spline - 5 1/4 - Aluminum Pressure Plate

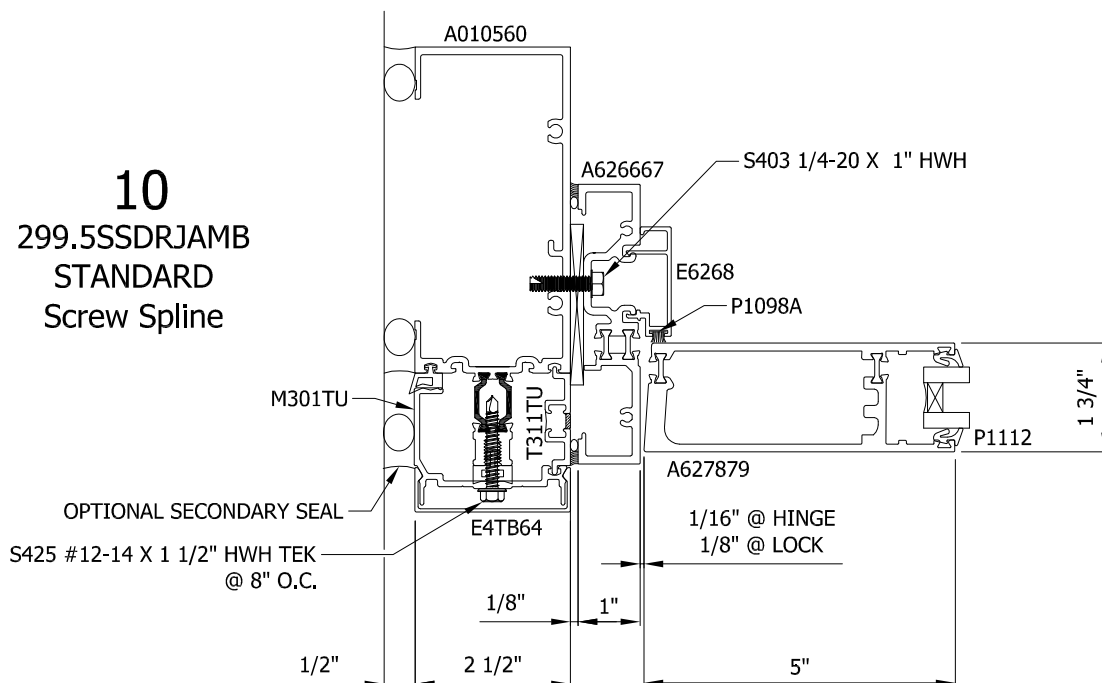
TUBELITE<sup>®</sup>  
DEPENDABLE



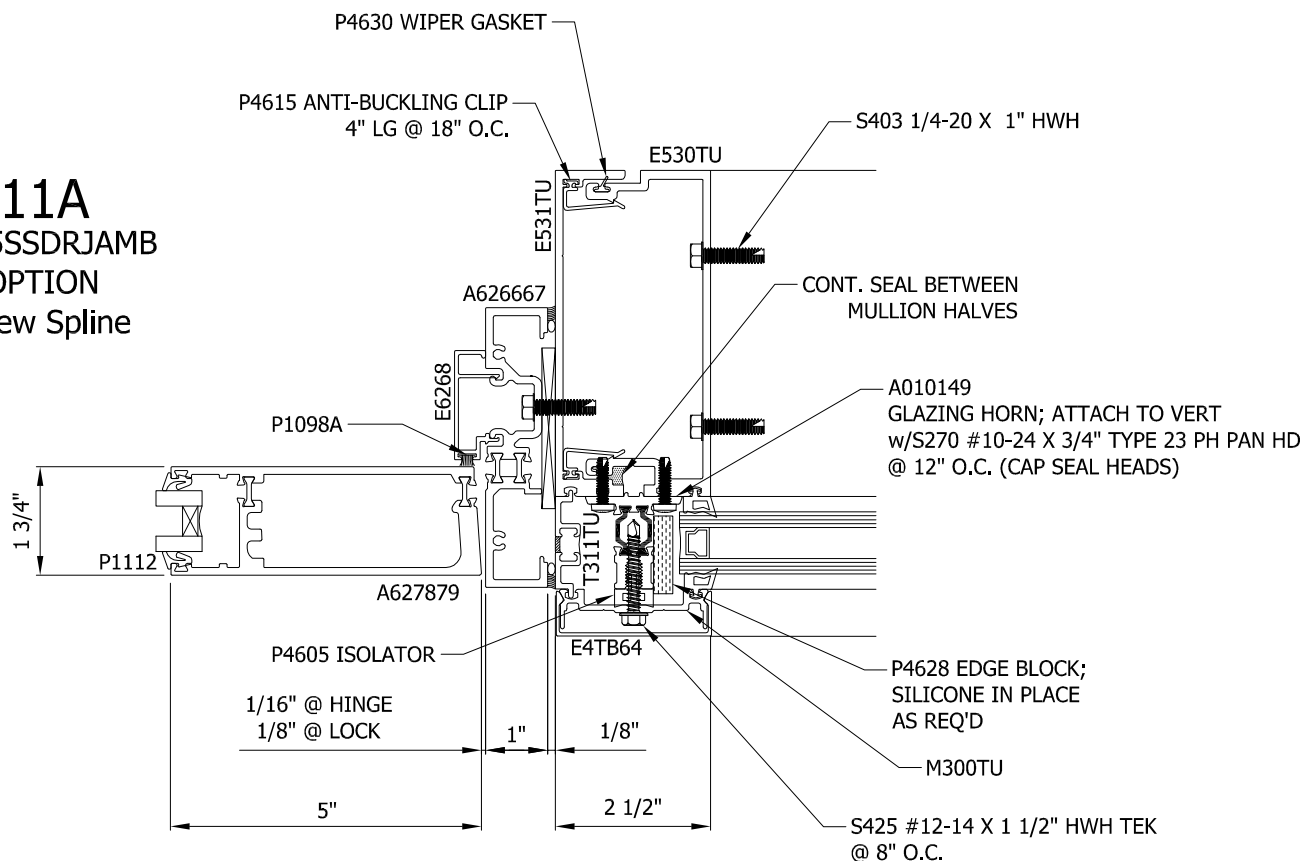
# 400TU Ultra Thermal Curtain Wall - Screw Spline - 5 1/4 - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE

## 10 299.5SSDRJAMB STANDARD Screw Spline

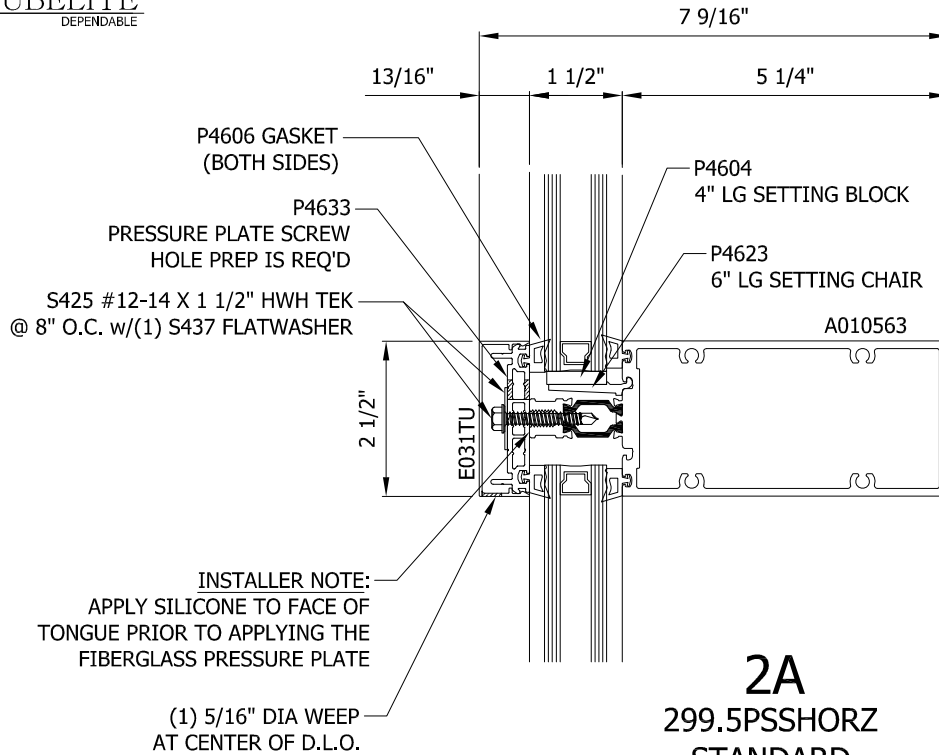


## 11A 299.5SSDRJAMB OPTION Screw Spline

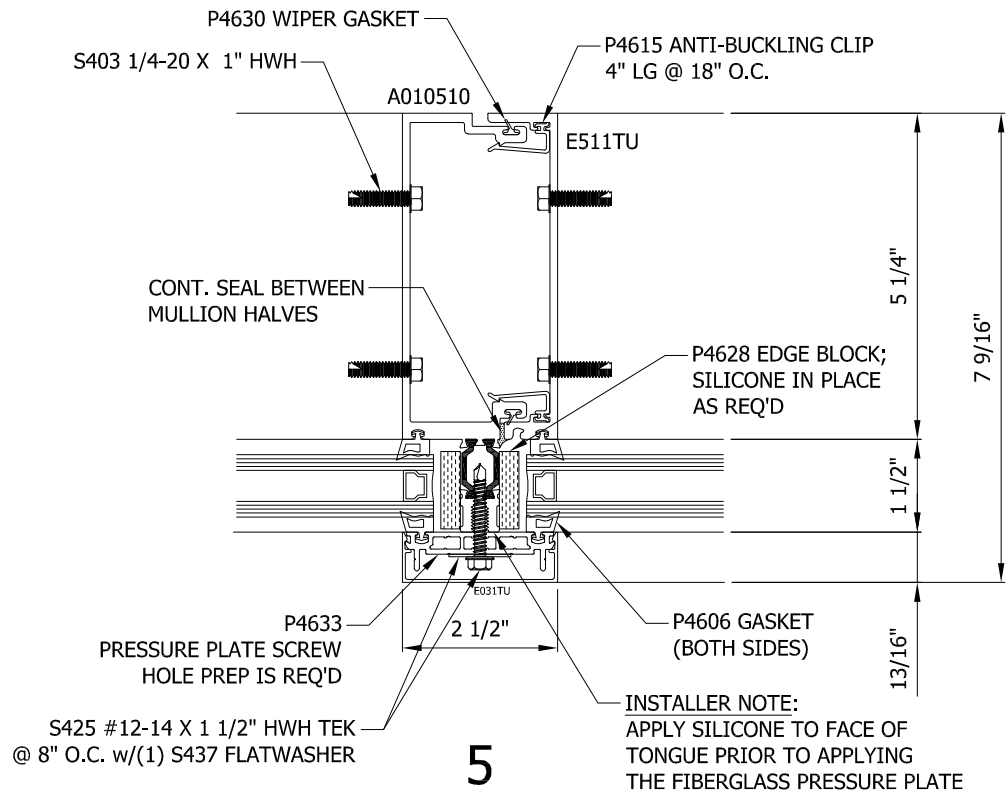


# 400TU Ultra Thermal Curtain Wall - Screw Spline - 5 1/4 - Polyamide Pressure Plate

**TUBELITE**  
DEPENDABLE



**2A**  
299.5PSSHORZ  
STANDARD  
Screw Spline



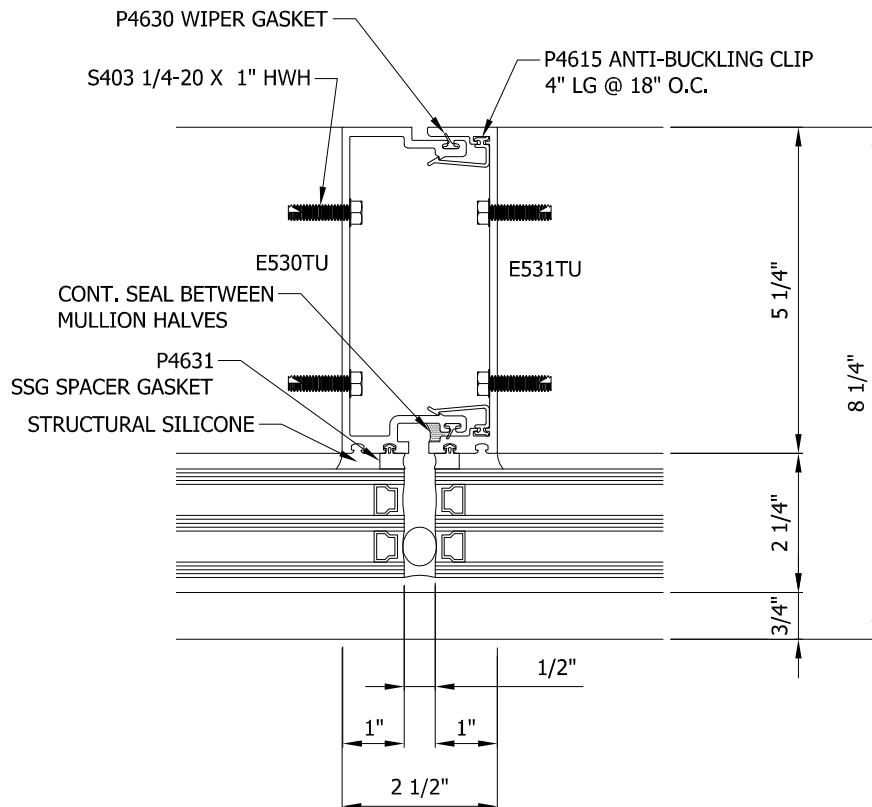
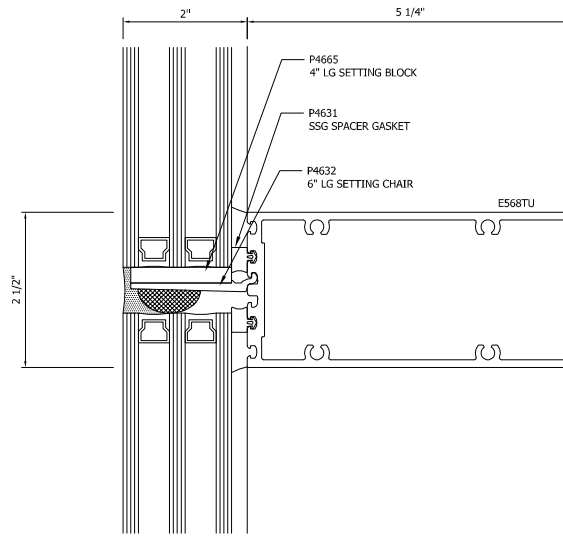
**5**  
299.5PSSVERT  
STANDARD  
Screw Spline



# 400TU Ultra Thermal Curtain Wall - Screw Spline - 5 1/4 - TG - Polyamide Pressure Plate

TUBELITE®  
DEPENDABLE

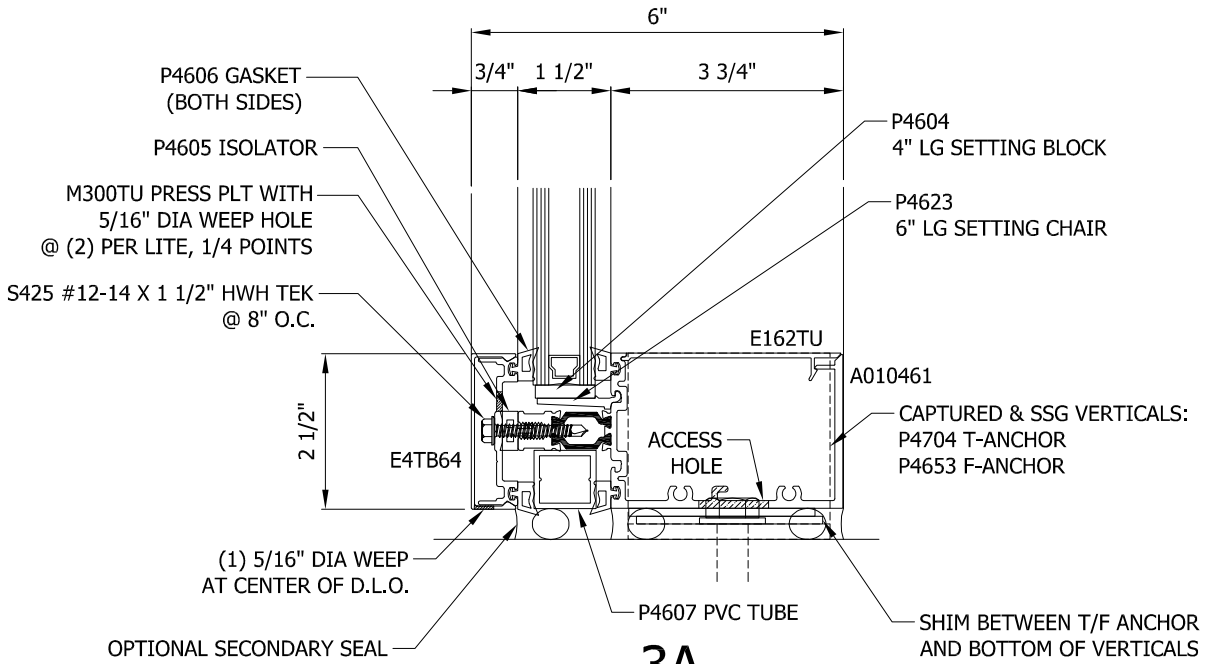
**2**  
299.5PTGSSHORZ  
OPTION SSG  
Screw Spline



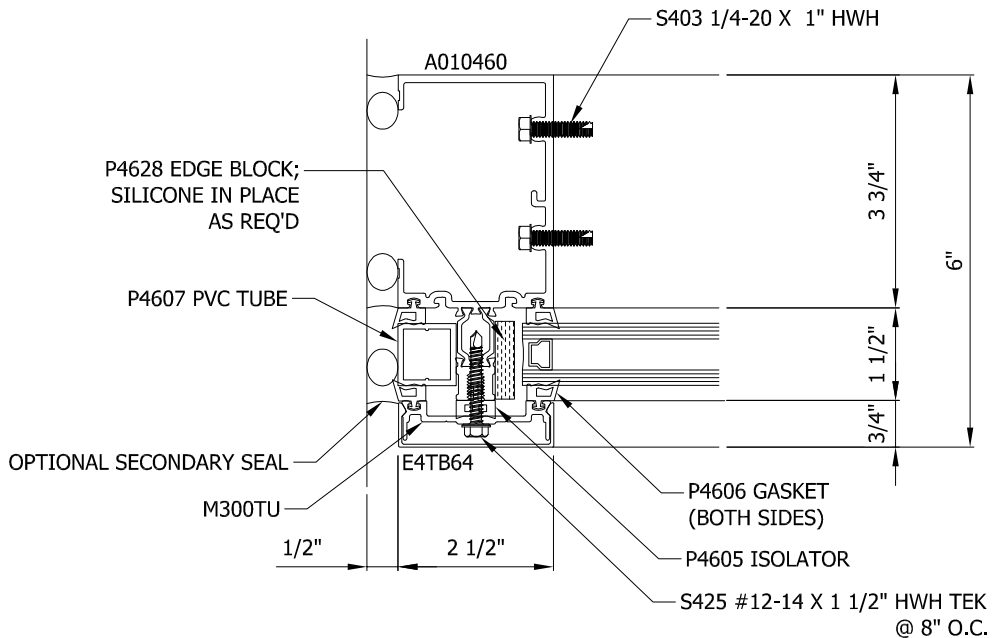
**5A**  
299.5PTGSSVERT  
STANDARD  
Screw Spline

# 400TU Ultra Thermal Curtain Wall - Screw Spline - 3 3/4 - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE



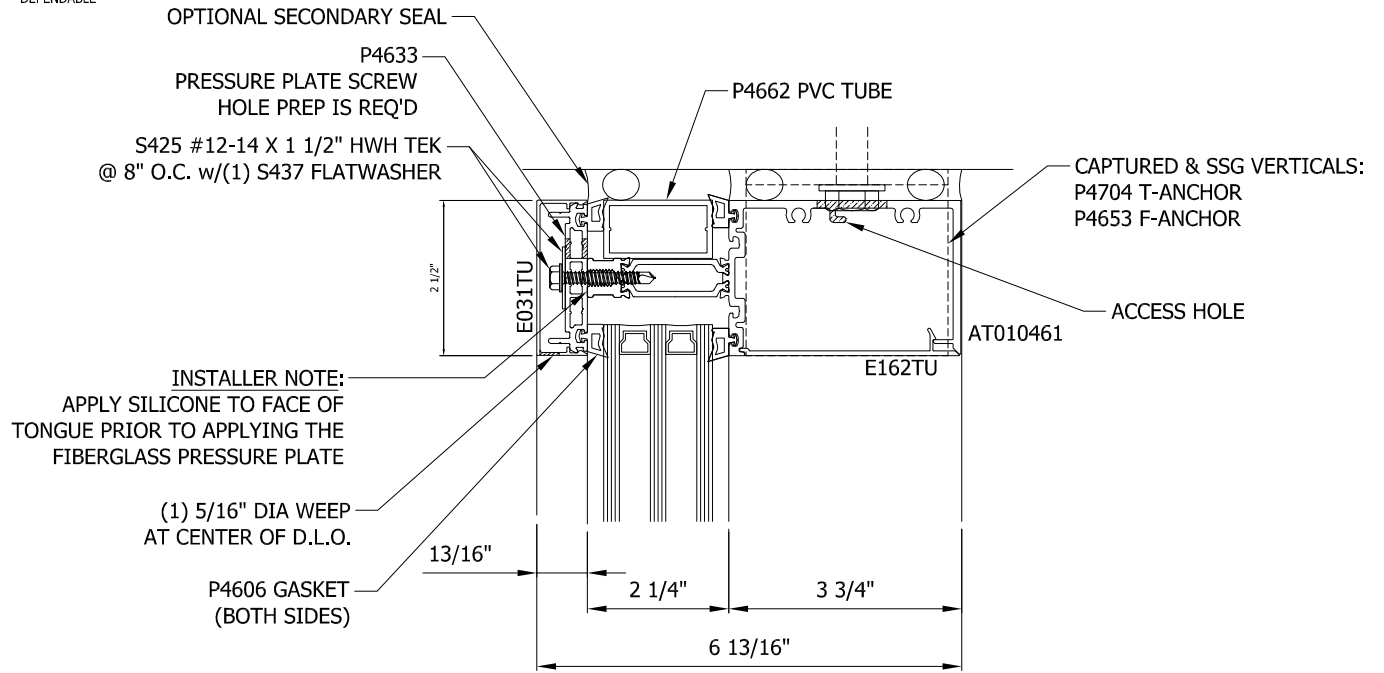
**3A**  
299.3SSSILL  
OPTION  
Screw Spline



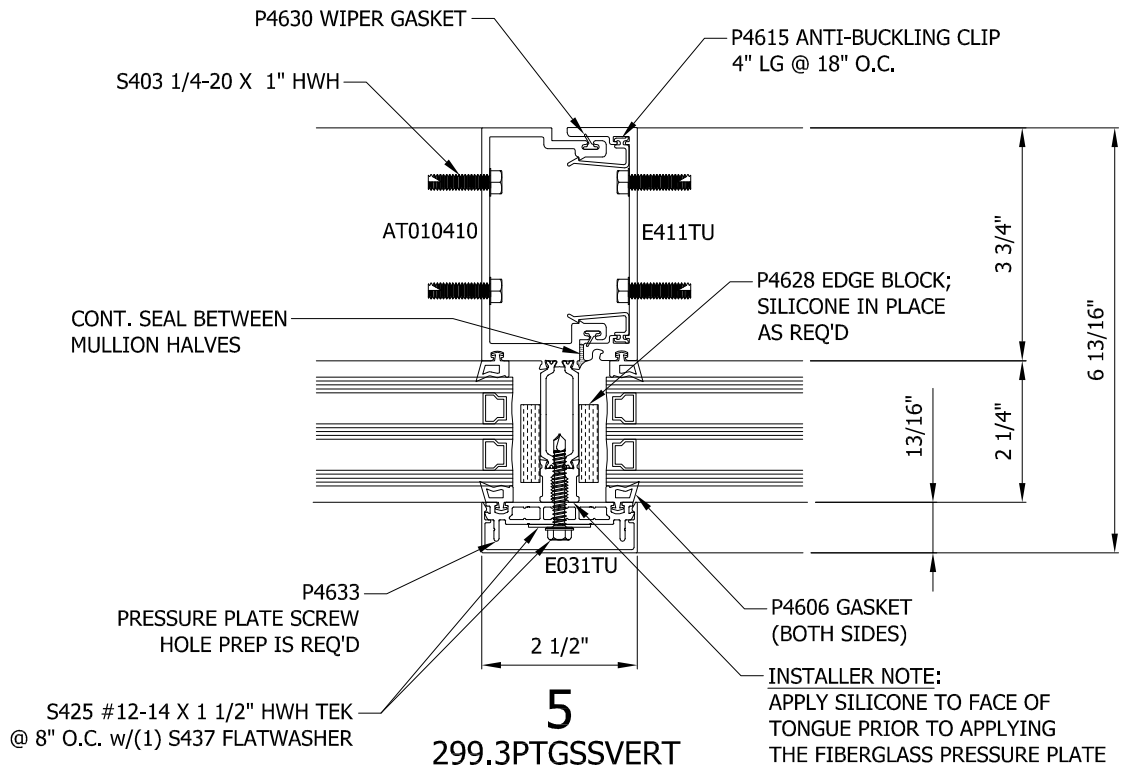
**4A&8A**  
299.3SSJAMB  
OPTION  
Screw Spline

# 400TU Ultra Thermal Curtain Wall - Screw Spline - 3 3/4 - TG - Polyamide Pressure Plate

**TUBELITE®**  
DEPENDABLE



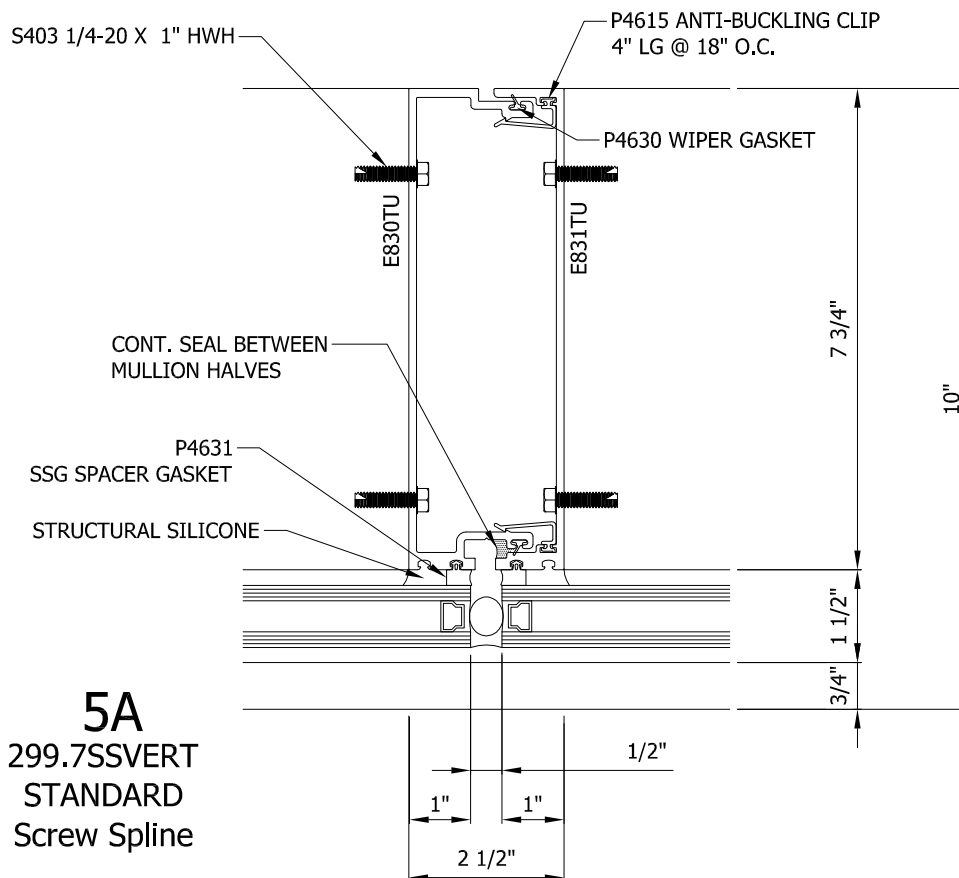
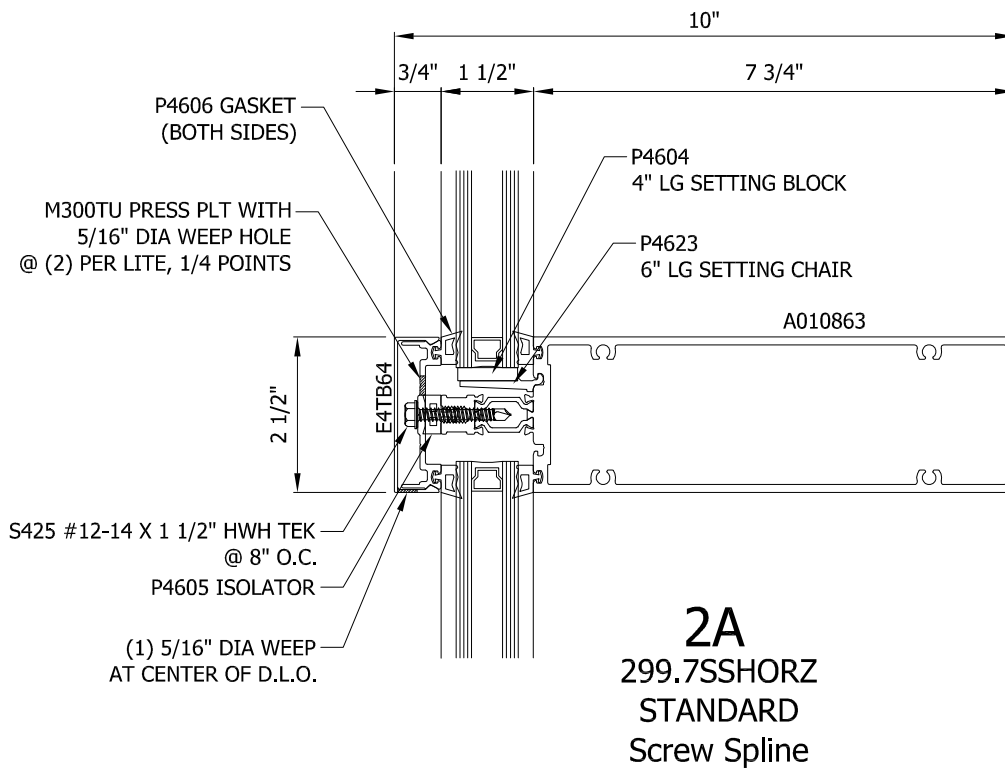
**1**  
**299.3PTGSSHEAD**  
**STANDARD**  
**Screw Spline**

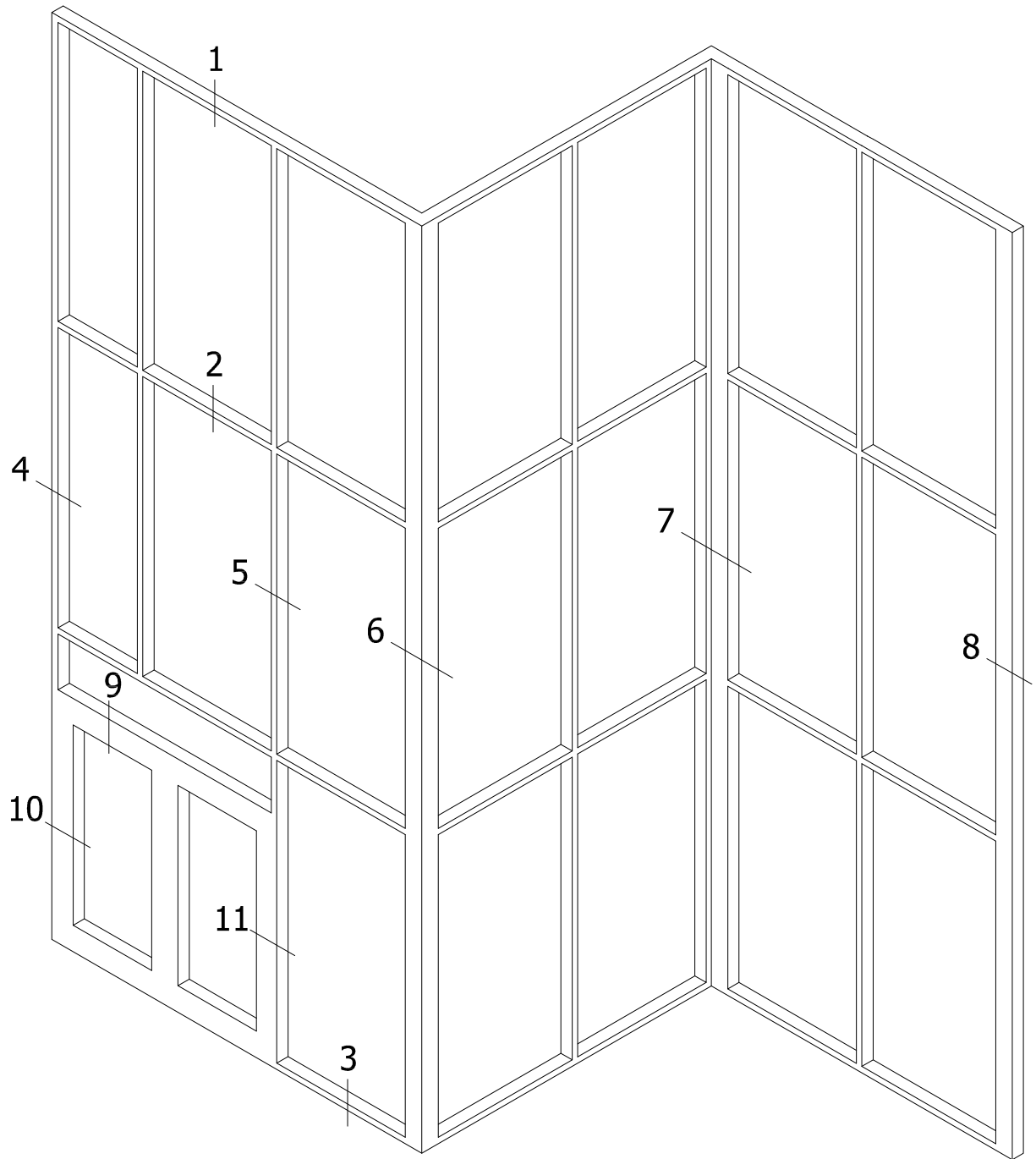


**5**  
**299.3PTGSSVERT**  
**STANDARD**  
**Screw Spline**

# 400TU Ultra Thermal Curtain Wall - Screw Spline - 7 3/4 - Aluminum Pressure Plate

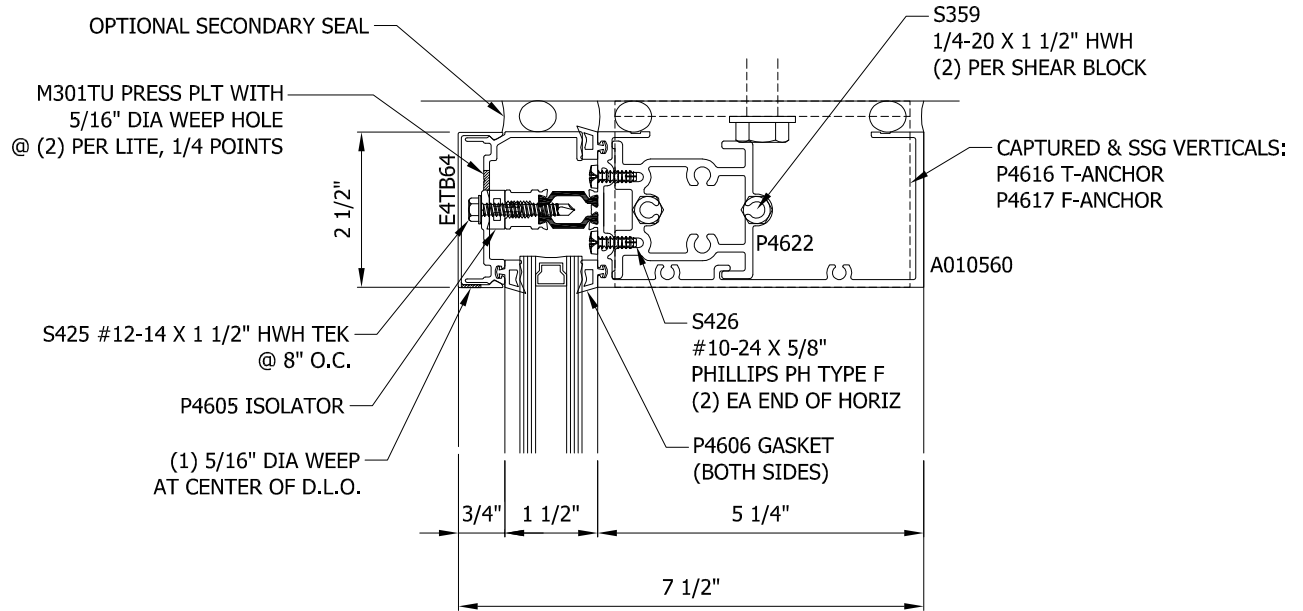
TUBELITE®  
DEPENDABLE



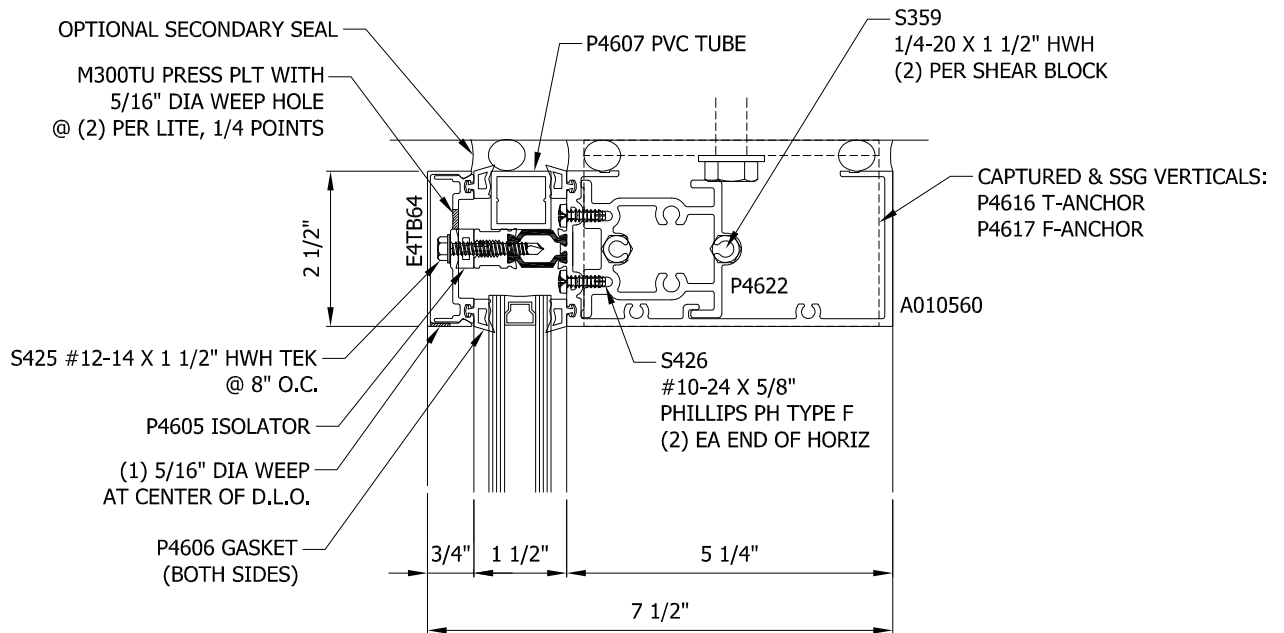


# 400TU Ultra Thermal Curtain Wall - Shear Clip - 5 1/4 - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE



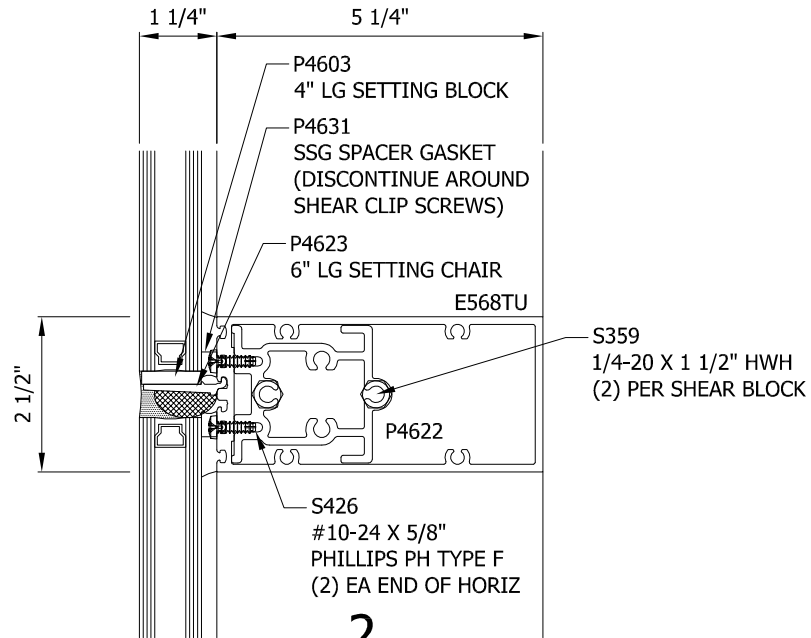
**1**  
299.5SBHEAD  
STANDARD  
Shear Clip



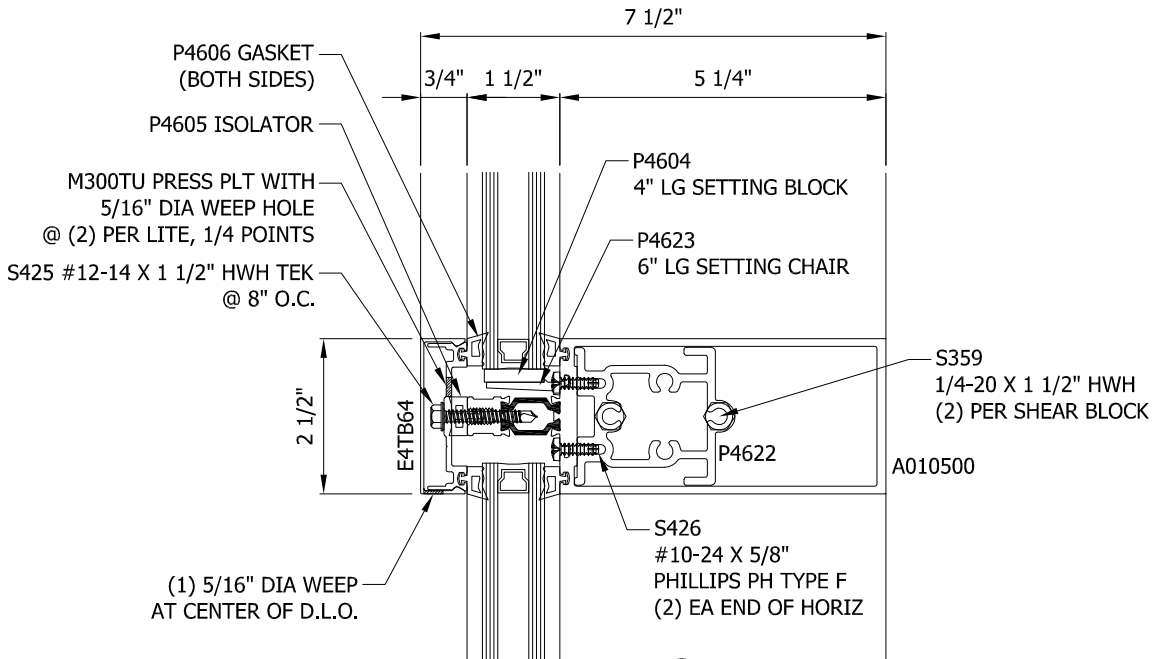
**1A**  
299.5SBHEAD  
OPTION  
Shear Clip

# 400TU Ultra Thermal Curtain Wall - Shear Clip - 5 1/4 - Aluminum Pressure Plate

TUBELITE<sup>®</sup>  
DEPENDABLE



**2**  
299.5SBHORZ  
OPTION SSG  
Shear Clip

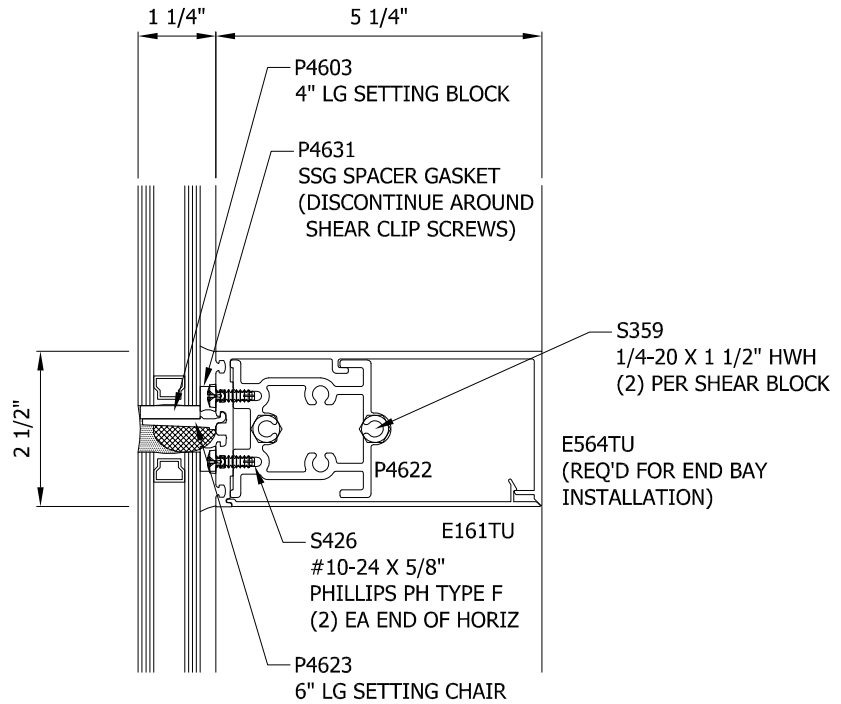


**2A**  
299.5SBHORZ  
STANDARD  
Shear Clip

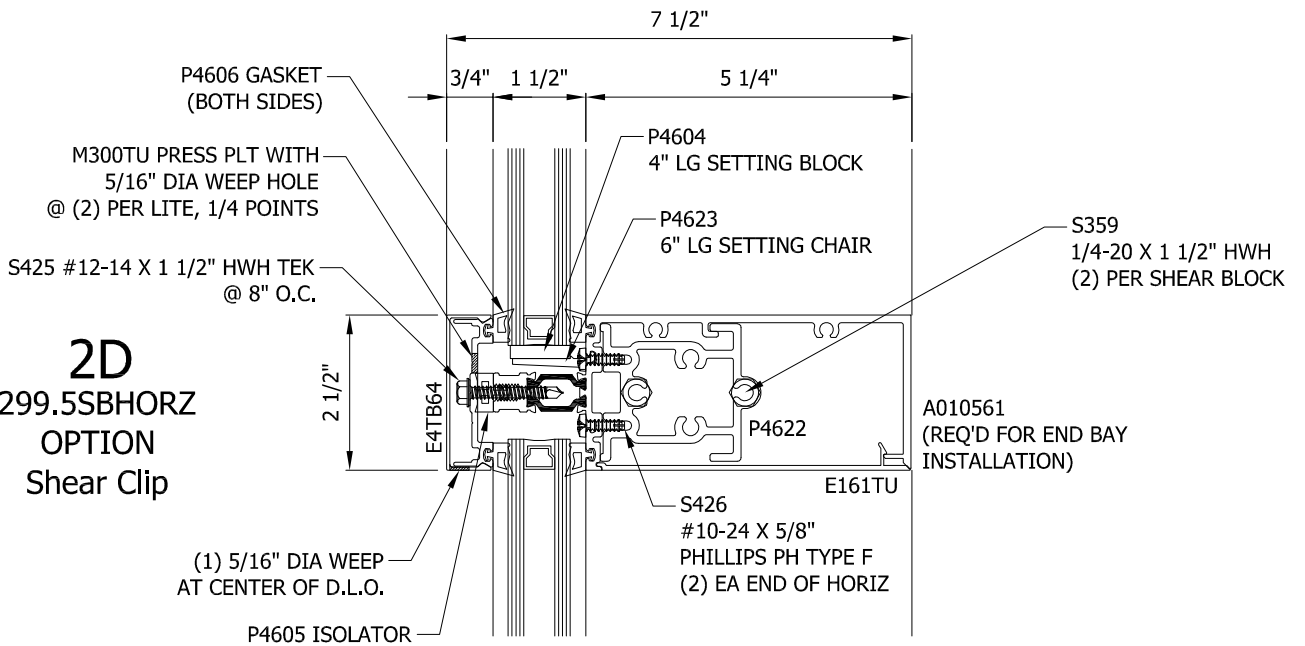
# 400TU Ultra Thermal Curtain Wall - Shear Clip - 5 1/4 - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE

## 2B 299.5SBHORZ OPTION SSG Shear Clip



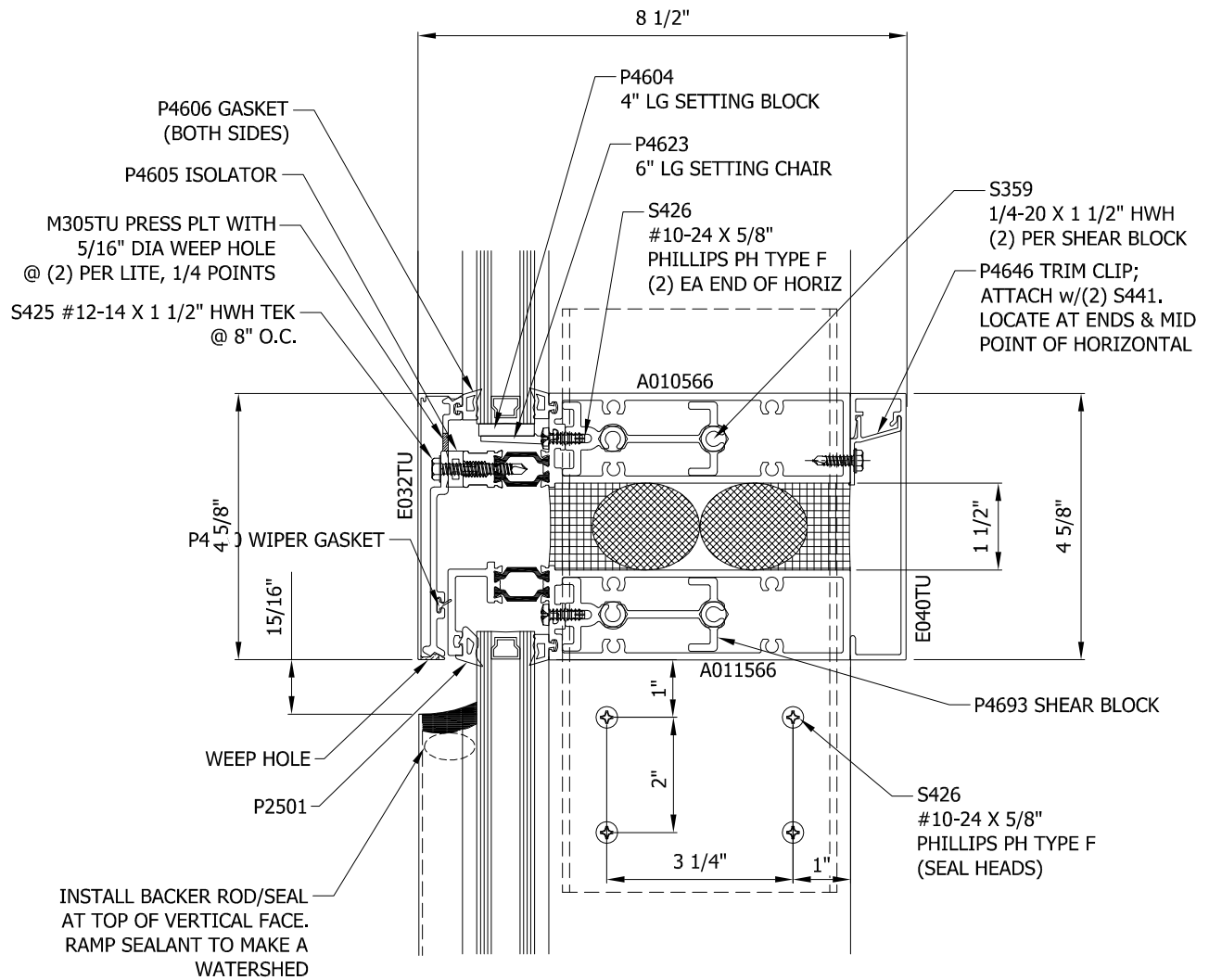
## 2D 299.5SBHORZ OPTION Shear Clip





# 400TU Ultra Thermal Curtain Wall - Shear Clip - 5 1/4 - Aluminum Pressure Plate

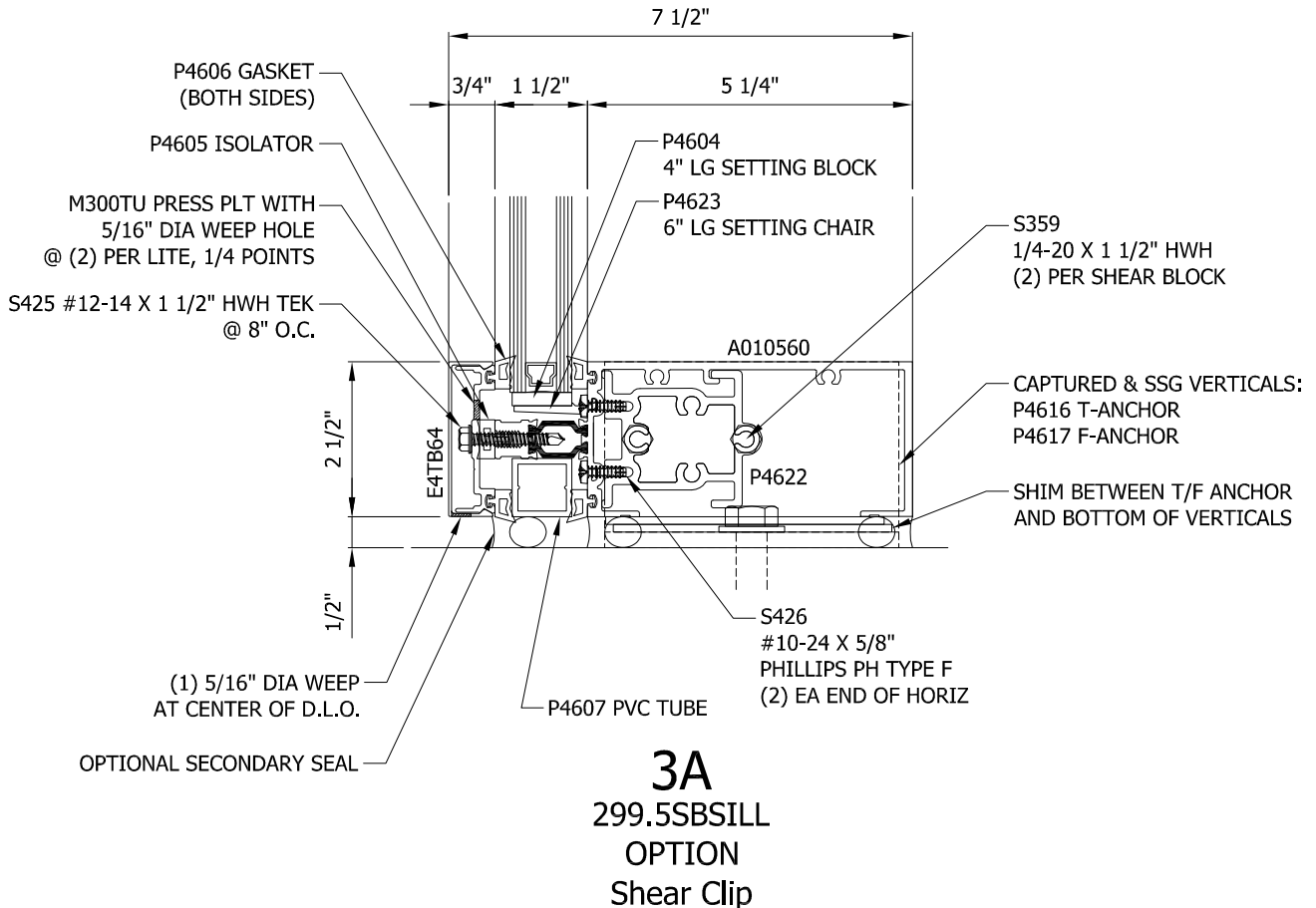
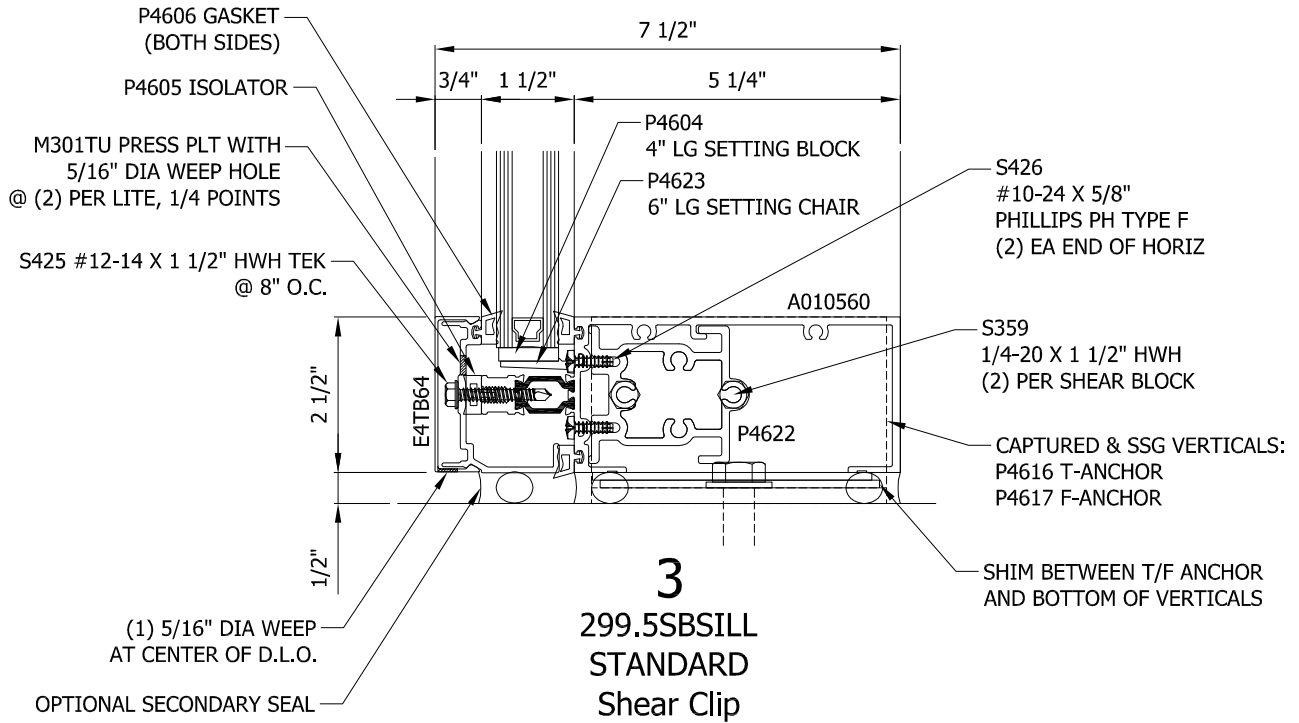
TUBELITE®  
DEPENDABLE



**2G**  
299.5SBHORZ  
EXPANSION OPTION  
Shear Clip

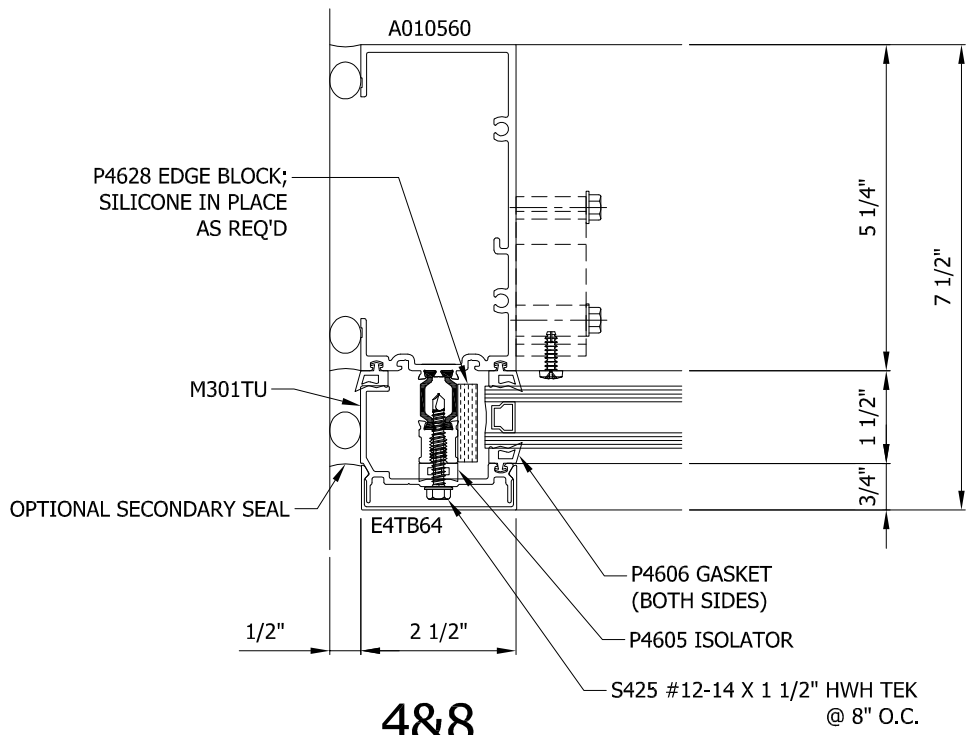
# 400TU Ultra Thermal Curtain Wall - Shear Clip - 5 1/4 - Aluminum Pressure Plate

TUBELITE<sup>®</sup>  
DEPENDABLE

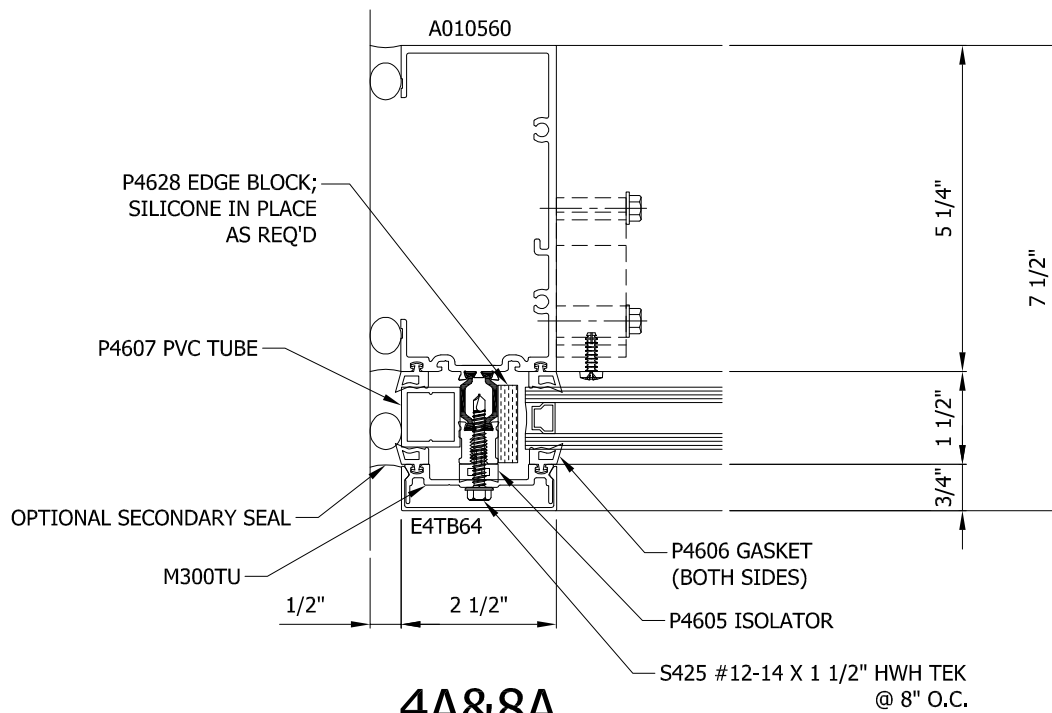


# 400TU Ultra Thermal Curtain Wall - Shear Clip - 5 1/4 - Aluminum Pressure Plate

TUBELITE<sup>®</sup>  
DEPENDABLE



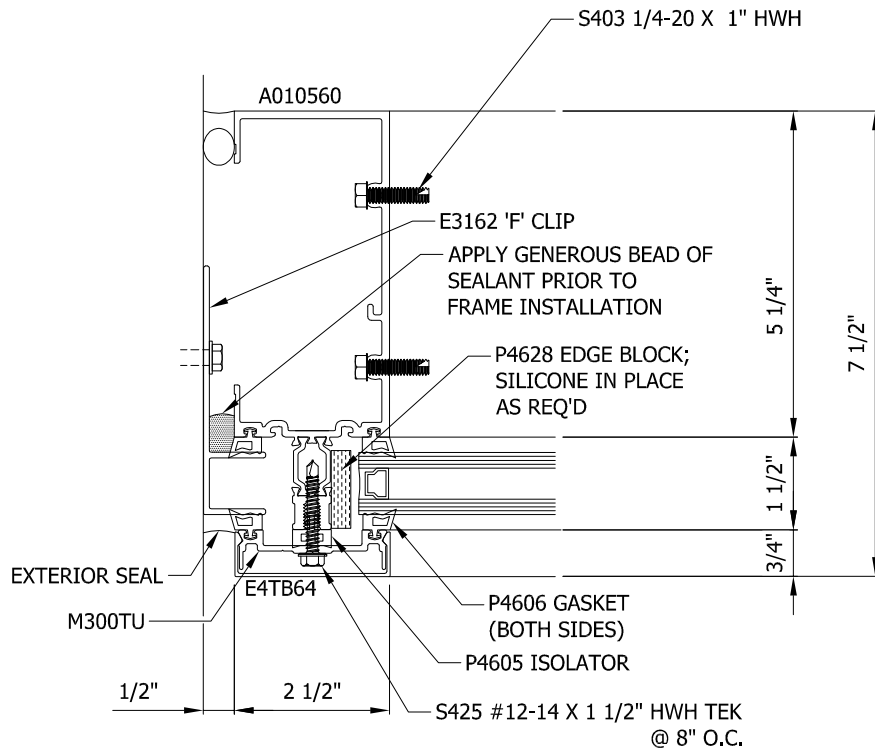
**4&8**  
299.5SBJAMB  
STANDARD  
Shear Clip



**4A&8A**  
299.5SBJAMB  
OPTION  
Shear Clip

# 400TU Ultra Thermal Curtain Wall - Shear Clip - 5 1/4 - Aluminum Pressure Plate

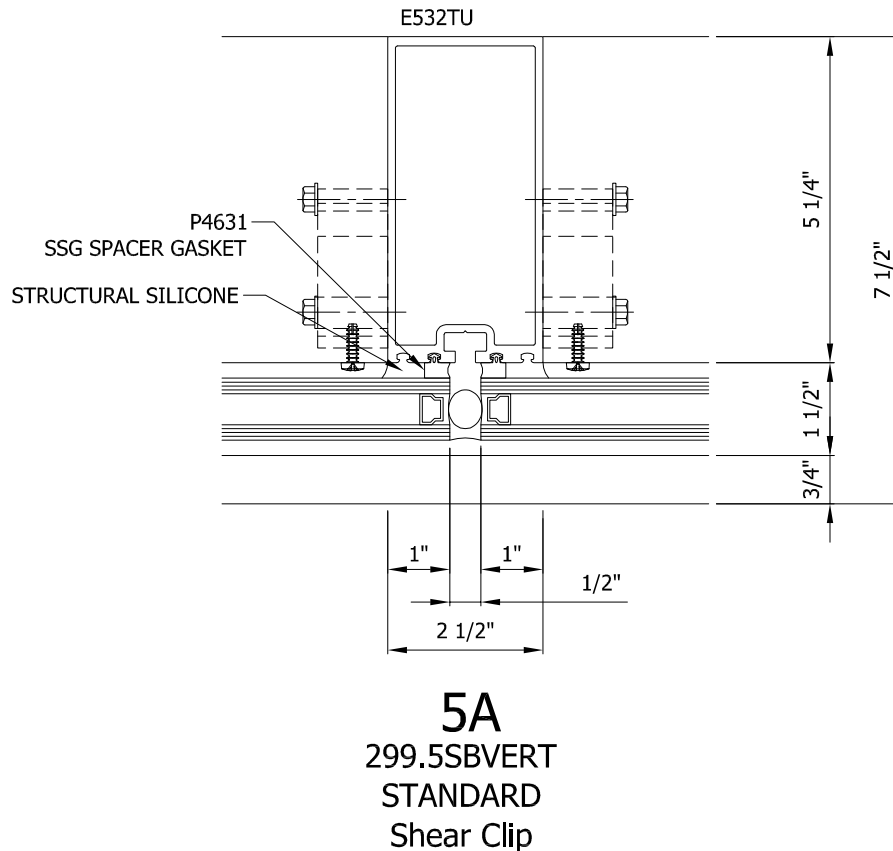
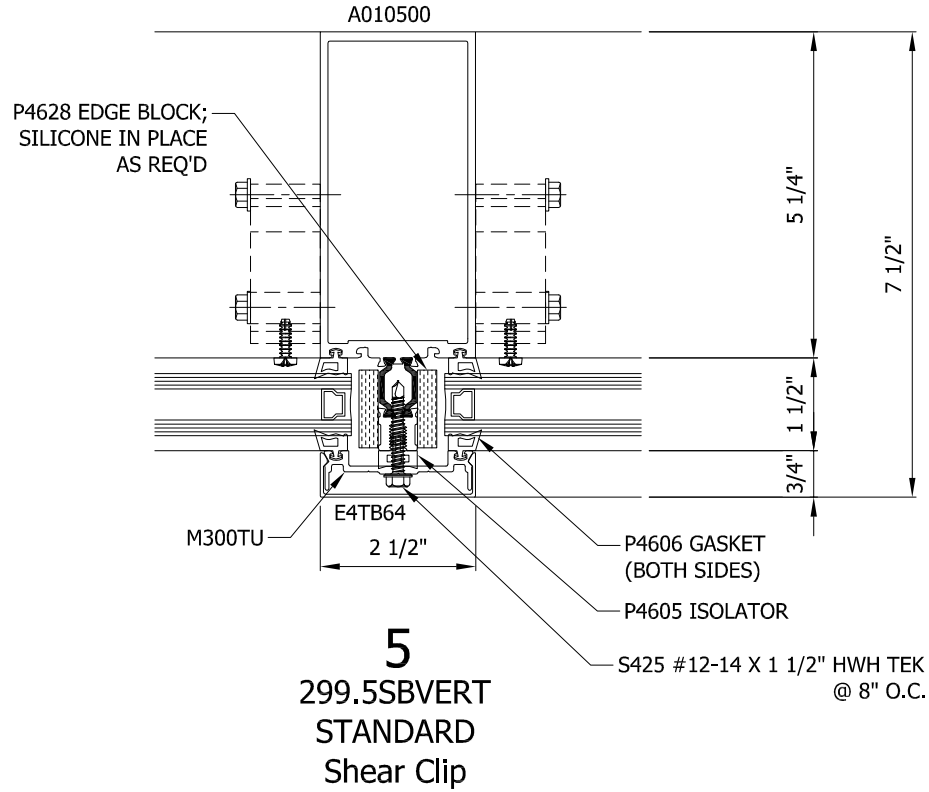
TUBELITE®  
DEPENDABLE



**4B&8B**  
299.5SSJAMB  
OPTION  
Screw Spline

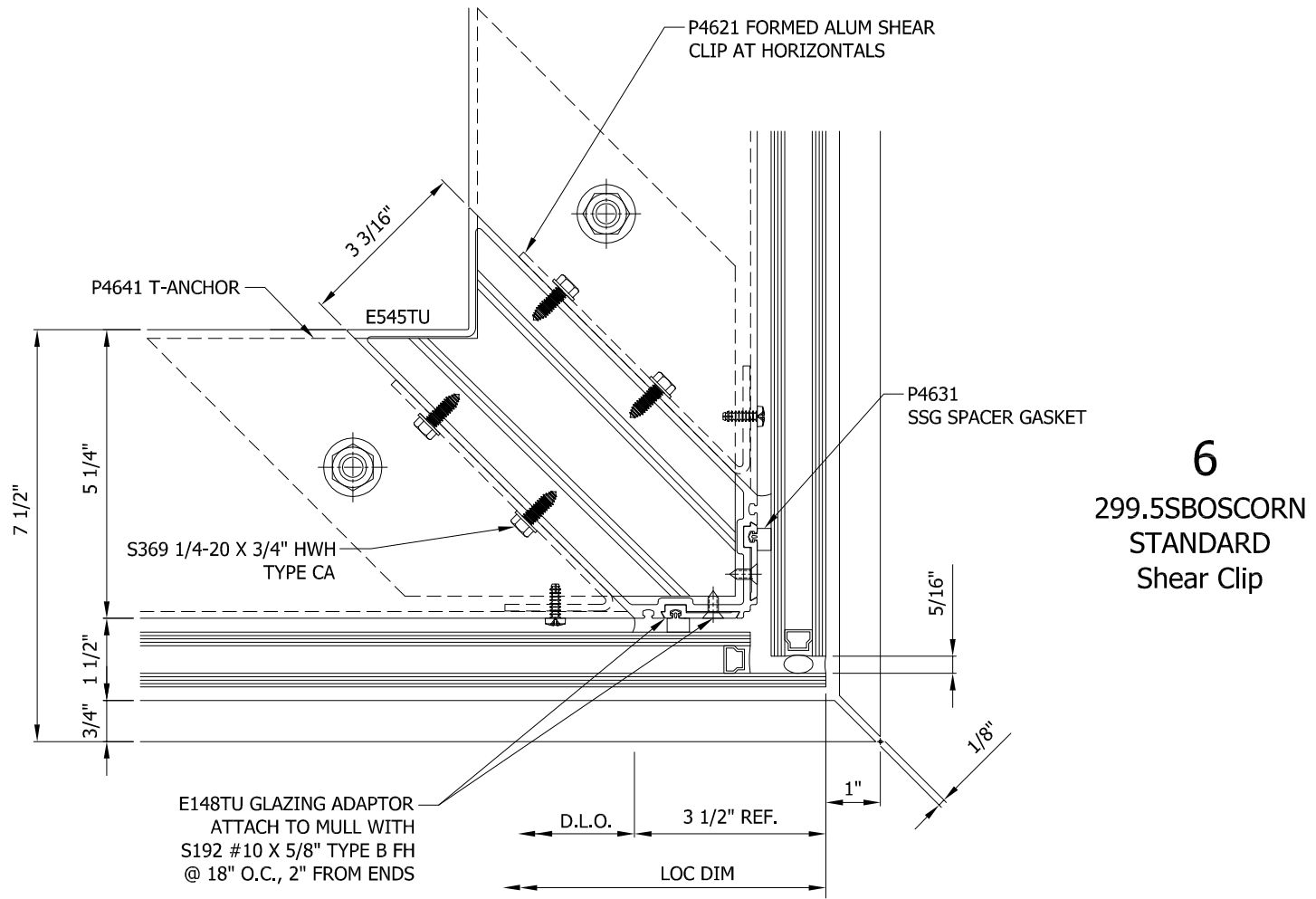
# 400TU Ultra Thermal Curtain Wall - Shear Clip - 5 1/4 - Aluminum Pressure Plate

TUBELITE<sup>®</sup>  
DEPENDABLE



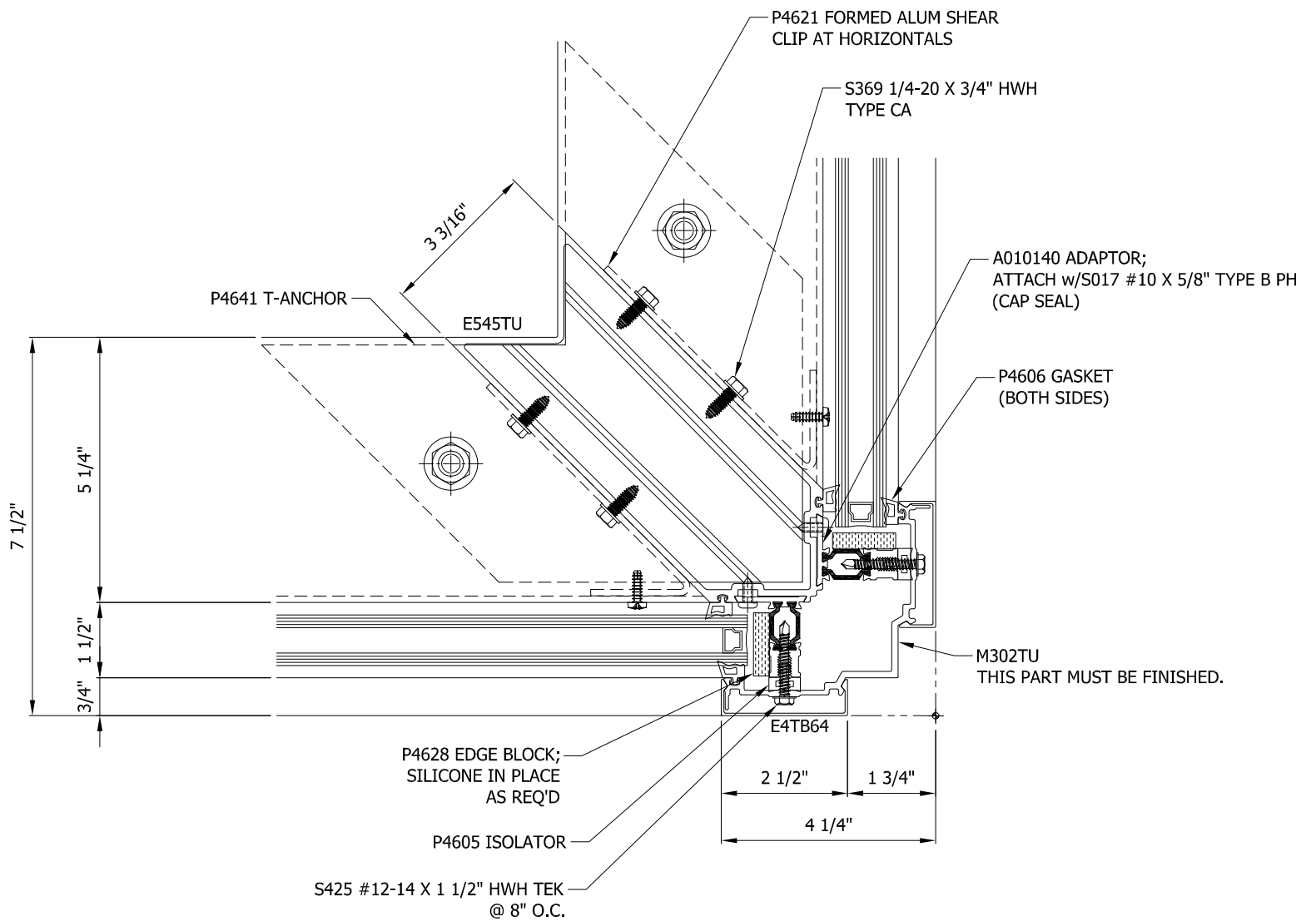
400TU Ultra Thermal Curtain Wall - Screw Spline - 5 1/4 - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE



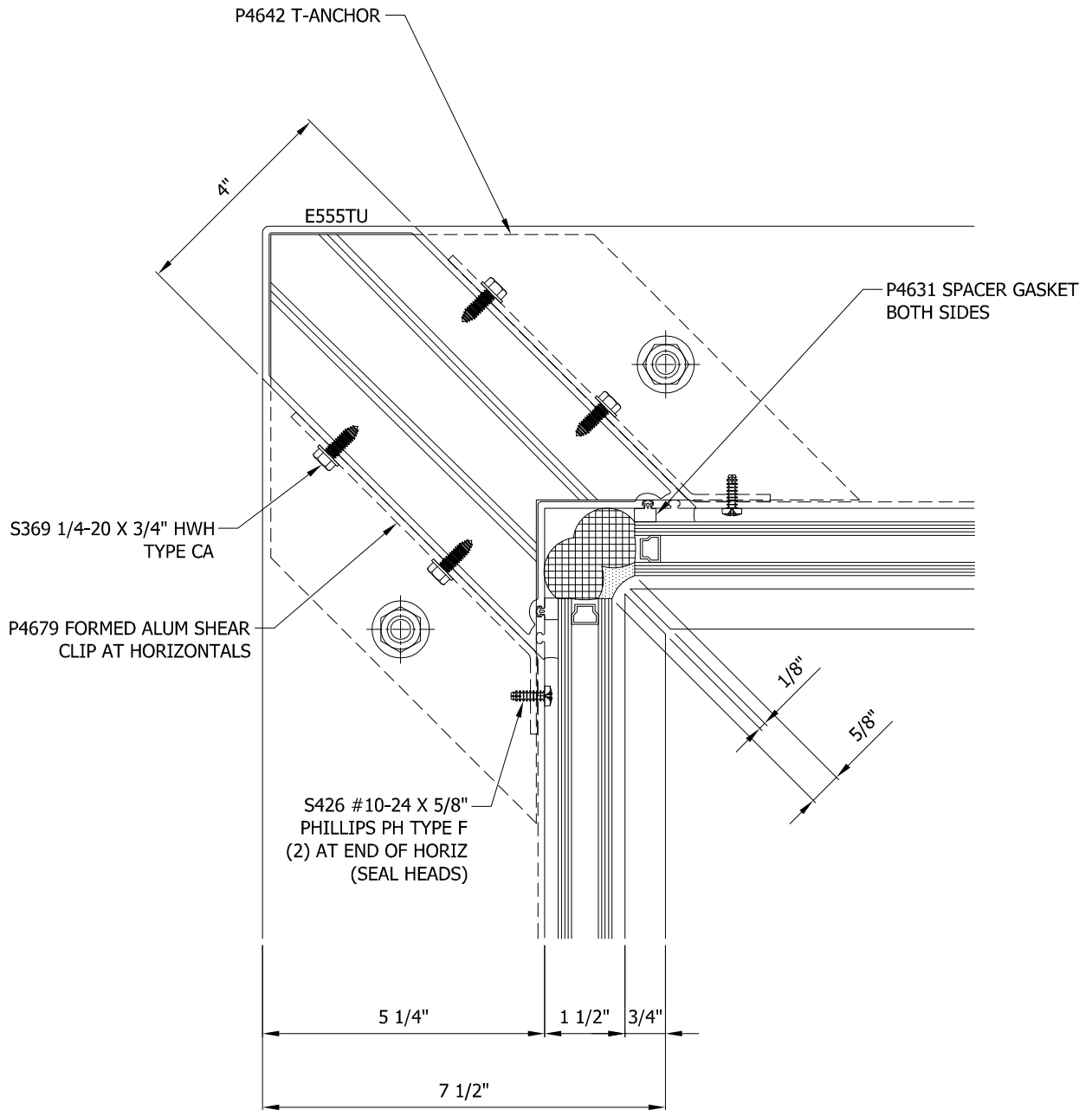
**6**  
299.5SBOSCORN  
STANDARD  
Shear Clip

**6A**  
299.5SBOSCORN  
STANDARD  
Shear Clip



# 400TU Ultra Thermal Curtain Wall - Shear Clip - 5 1/4 - Aluminum Pressure Plate

TUBELITE<sup>®</sup>  
DEPENDABLE

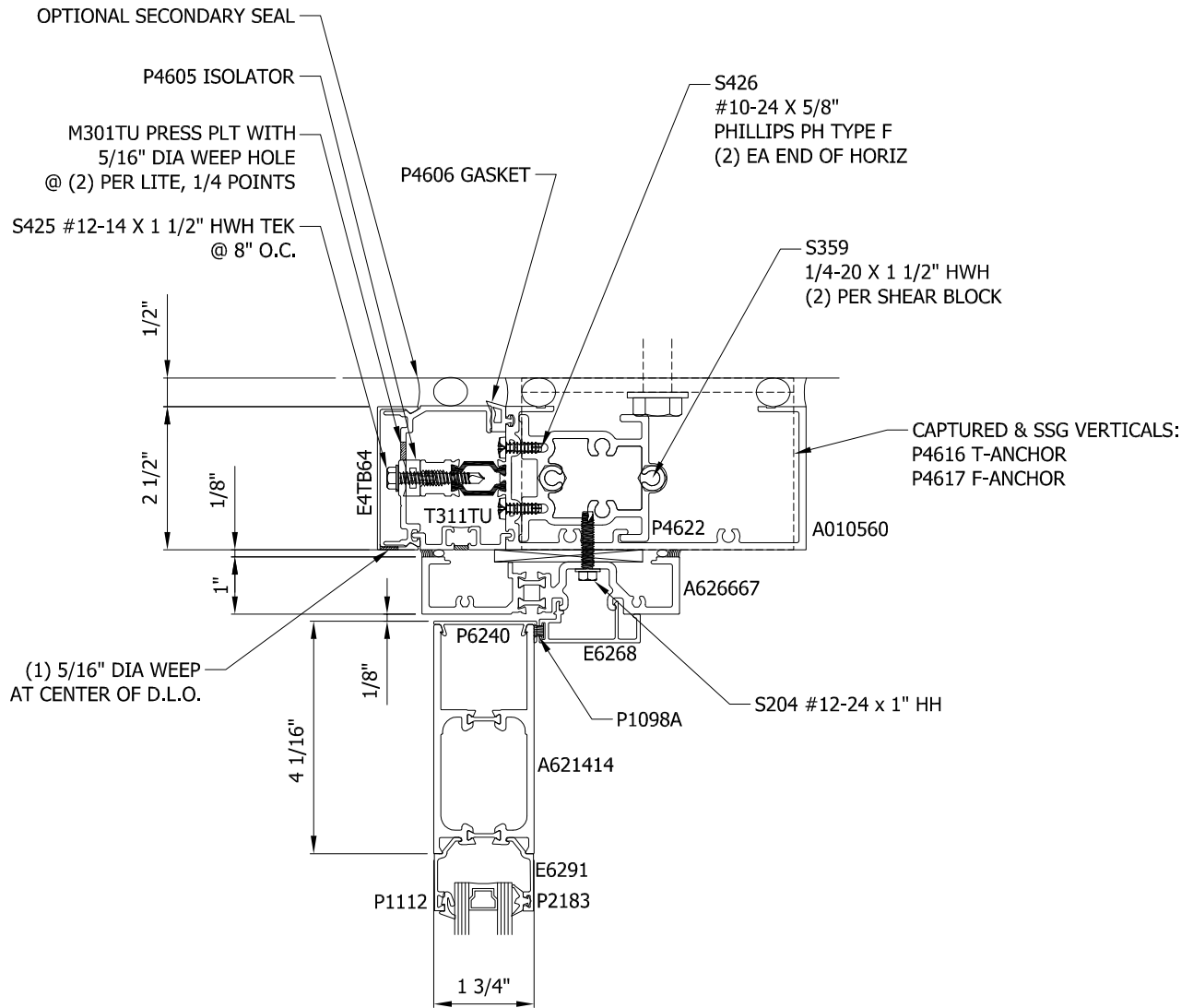


7

299.5SBISCORN  
STANDARD  
Shear Clip

# 400TU Ultra Thermal Curtain Wall - Shear Clip - 5 1/4 - Aluminum Pressure Plate

TUBELITE<sup>®</sup>  
DEPENDABLE



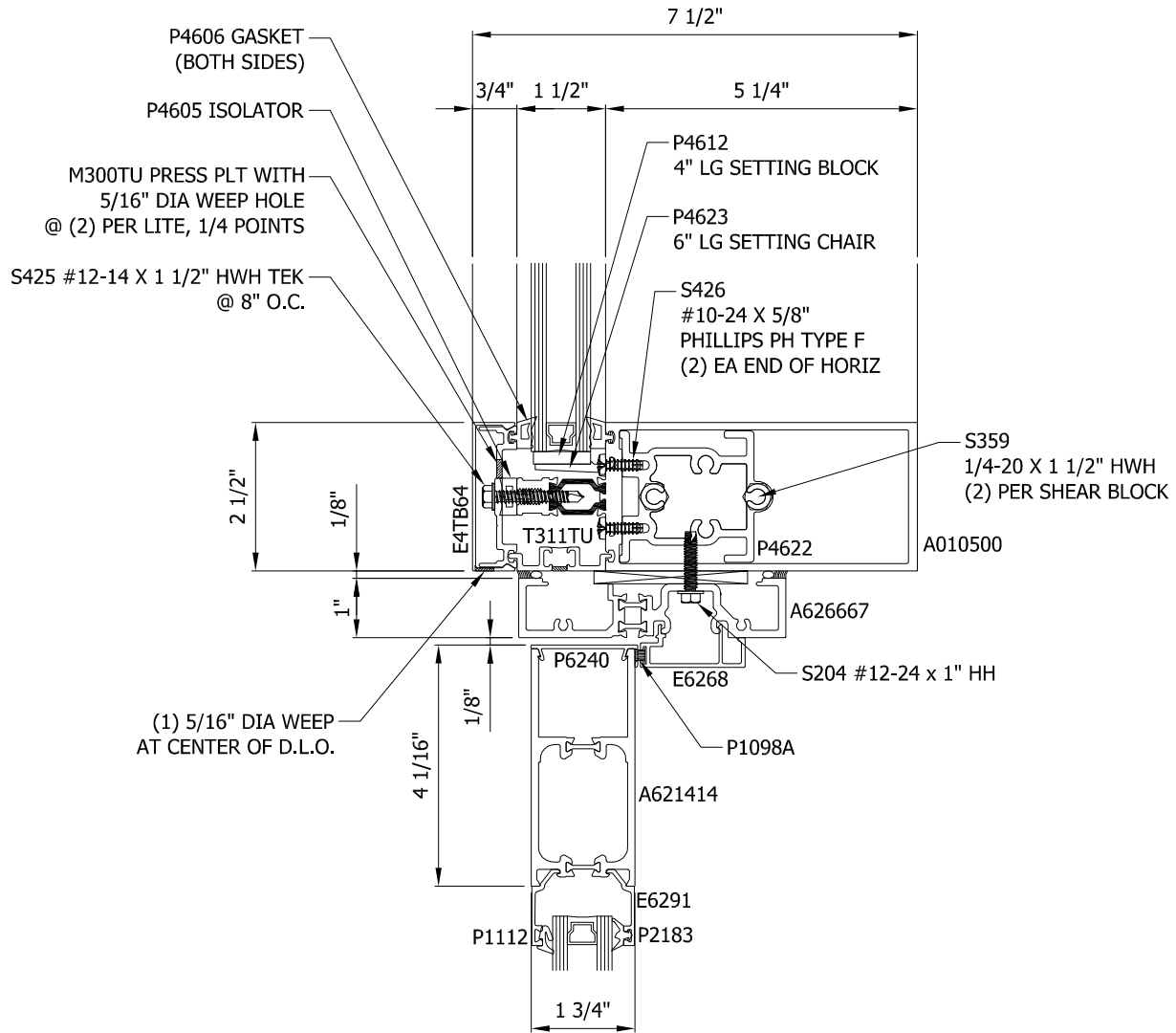
9

299.5SBDHRD  
STANDARD  
Shear Clip



# 400TU Ultra Thermal Curtain Wall - Shear Clip - 5 1/4 - Aluminum Pressure Plate

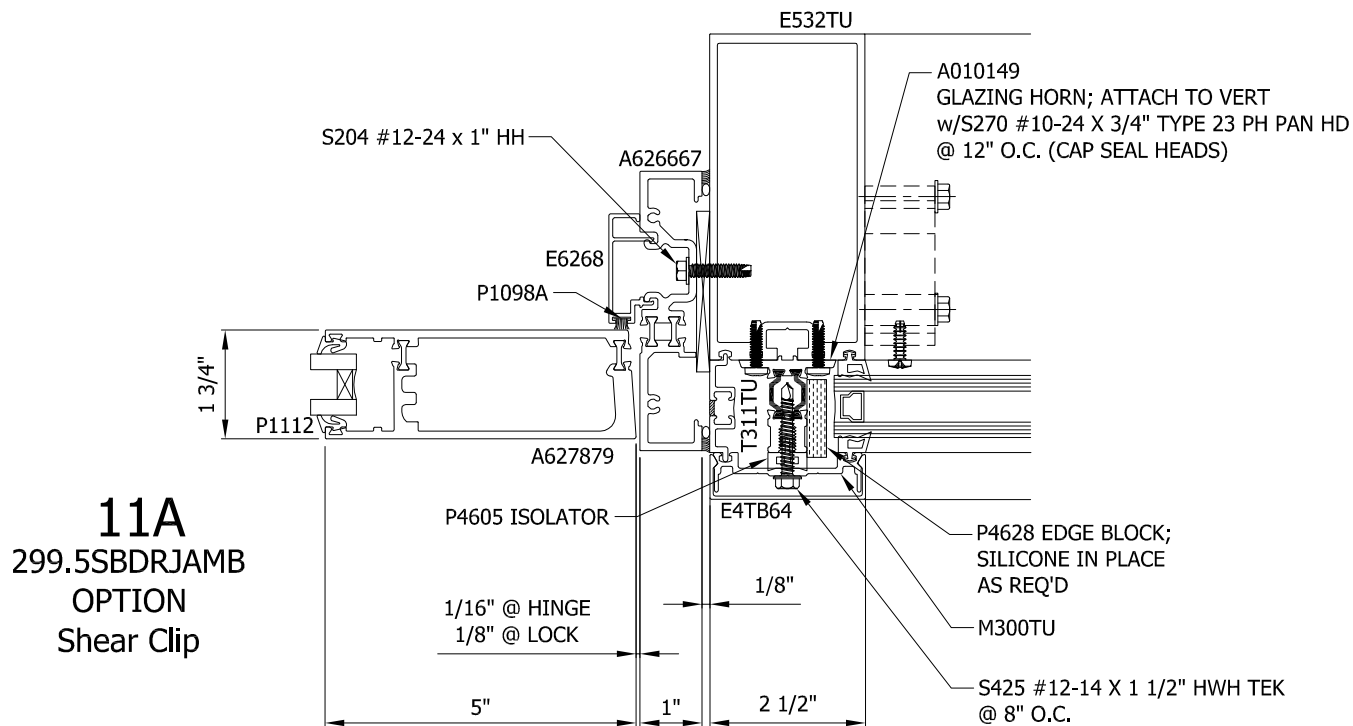
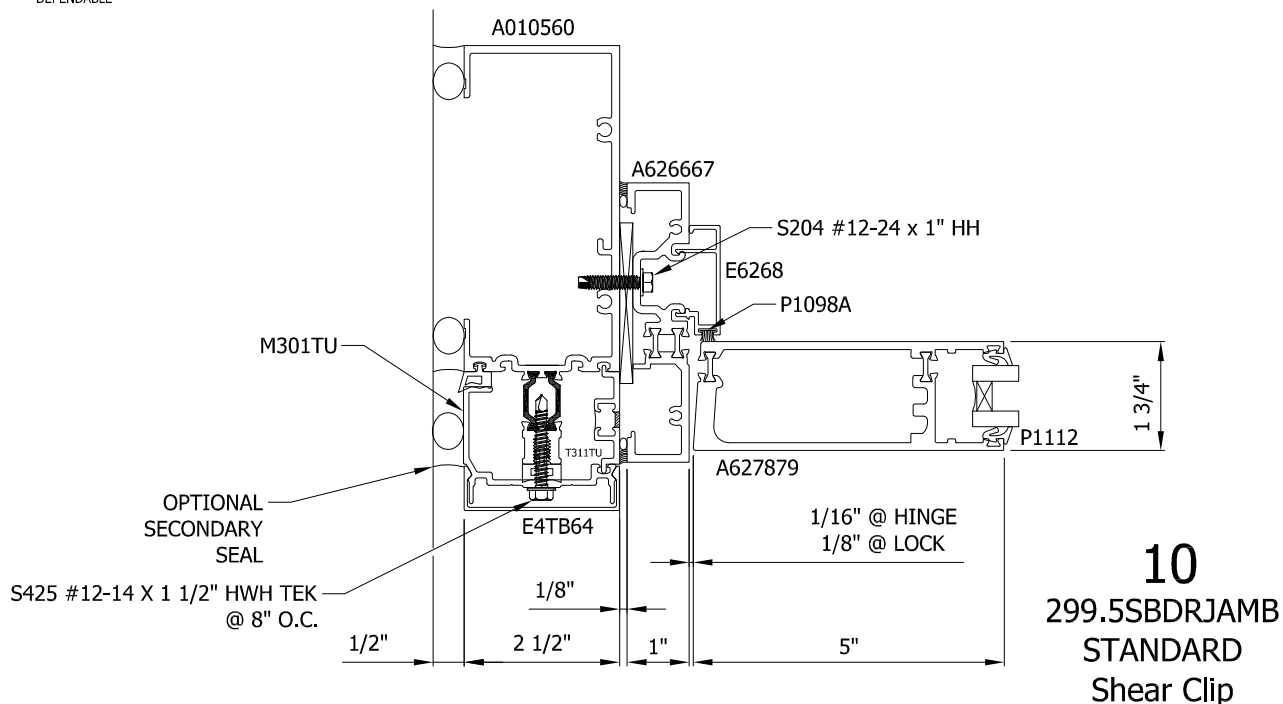
TUBELITE<sup>®</sup>  
DEPENDABLE



**9A**  
299.5SBDHRD  
STANDARD  
Shear Clip

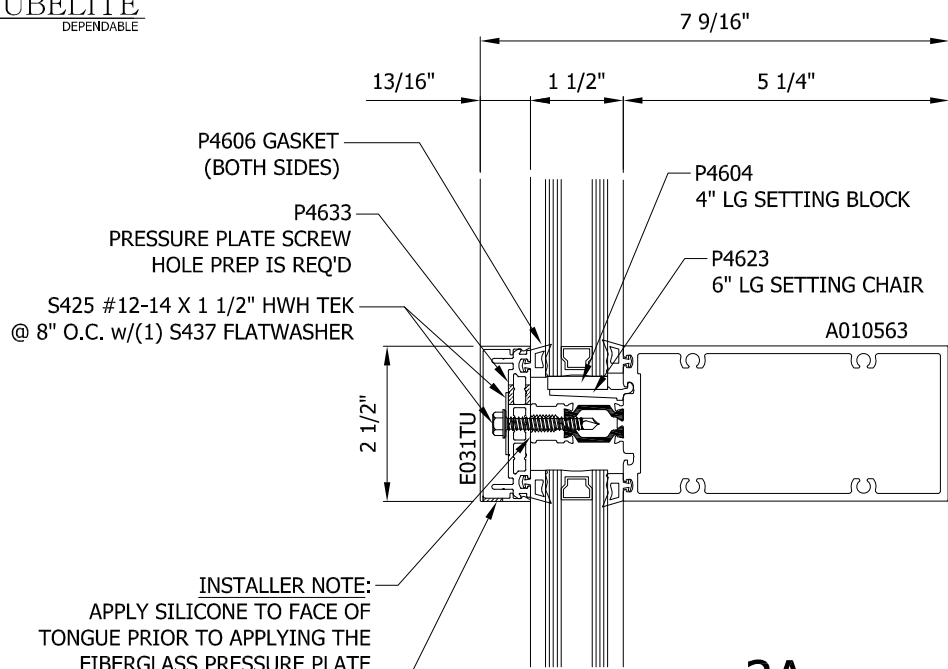
# 400TU Ultra Thermal Curtain Wall - Shear Clip - 5 1/4 - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE



# 400TU Ultra Thermal Curtain Wall - Shear Clip - 5 1/4 - Polyamide Pressure Plate

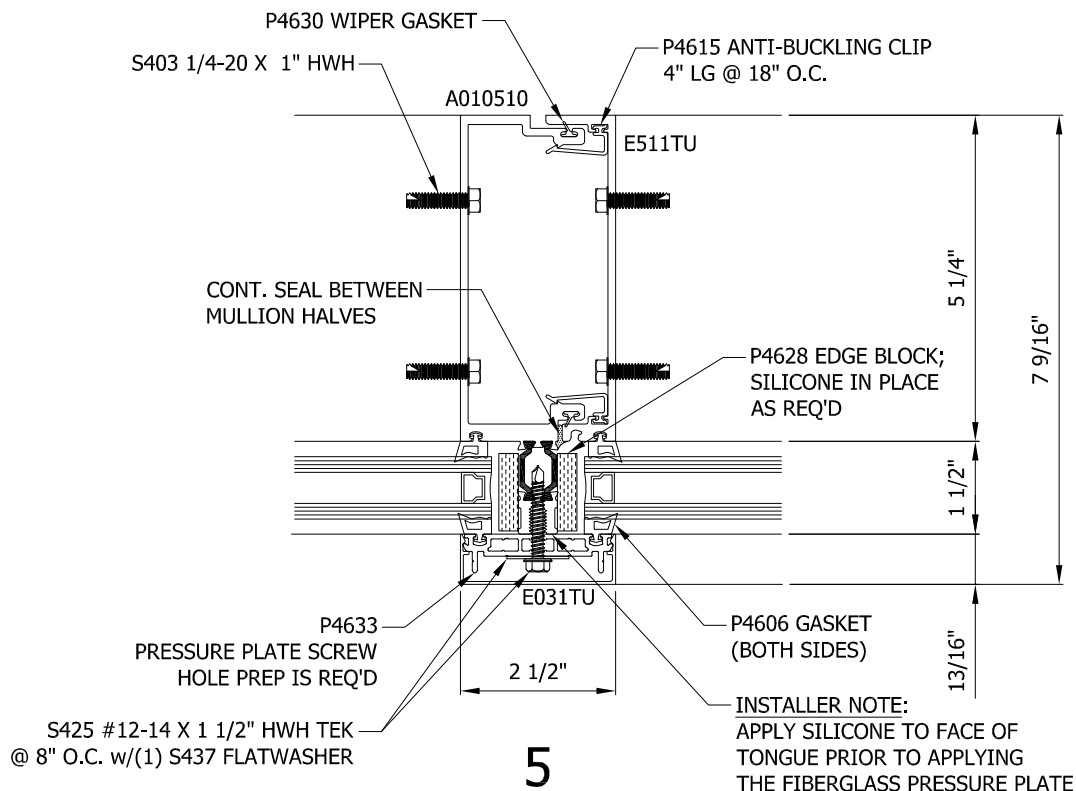
**TUBELITE**  
DEPENDABLE



**INSTALLER NOTE:**  
APPLY SILICONE TO FACE OF  
TONGUE PRIOR TO APPLYING THE  
FIBERGLASS PRESSURE PLATE

(1) 5/16" DIA WEEP  
AT CENTER OF D.L.O.

**2A**  
**299.5PSSHORZ**  
**STANDARD**  
**Screw Spline**



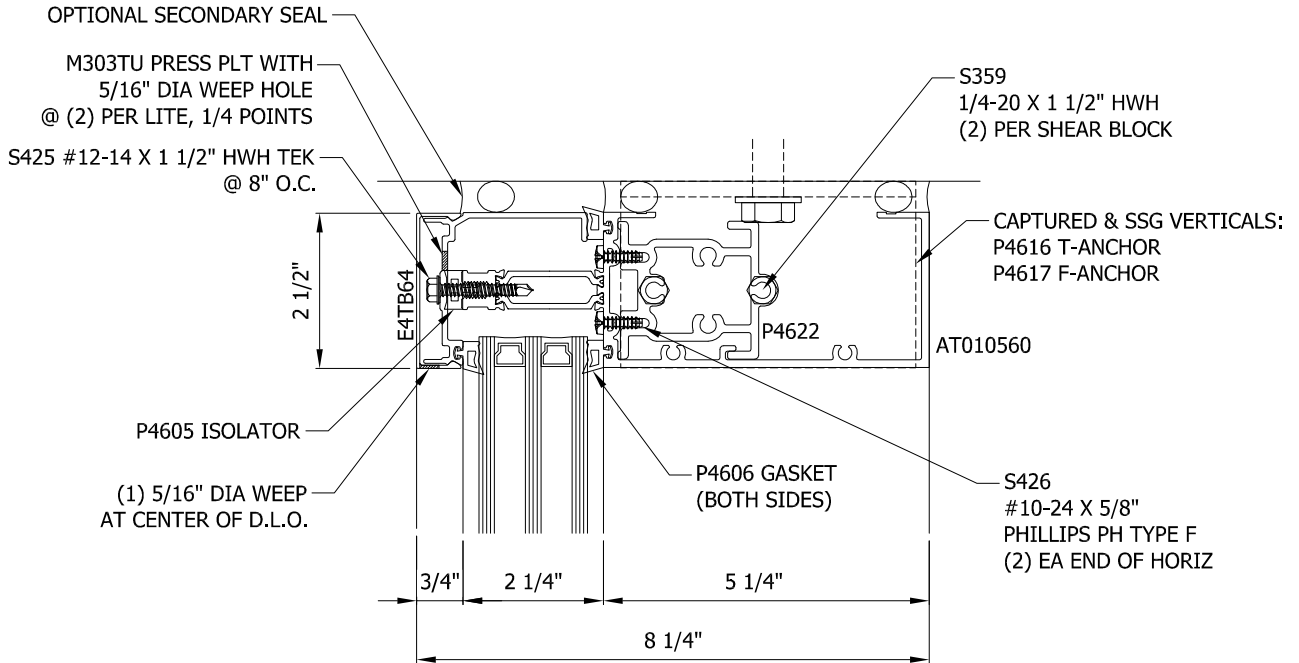
S425 #12-14 X 1 1/2" HWH TEK  
@ 8" O.C. w/(1) S437 FLATWASHER

**INSTALLER NOTE:**  
APPLY SILICONE TO FACE OF  
TONGUE PRIOR TO APPLYING  
THE FIBERGLASS PRESSURE PLATE

**5**  
**299.5PSSVERT**  
**STANDARD**  
**Screw Spline**

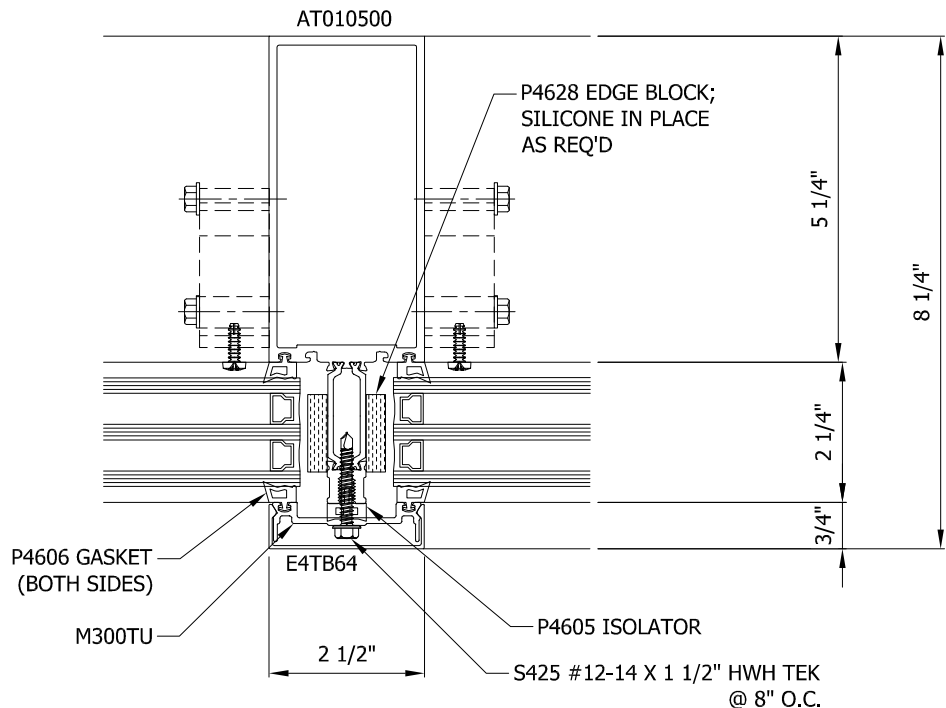
# 400TU Ultra Thermal Curtain Wall - Shear Clip - 5 1/4 - TG - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE



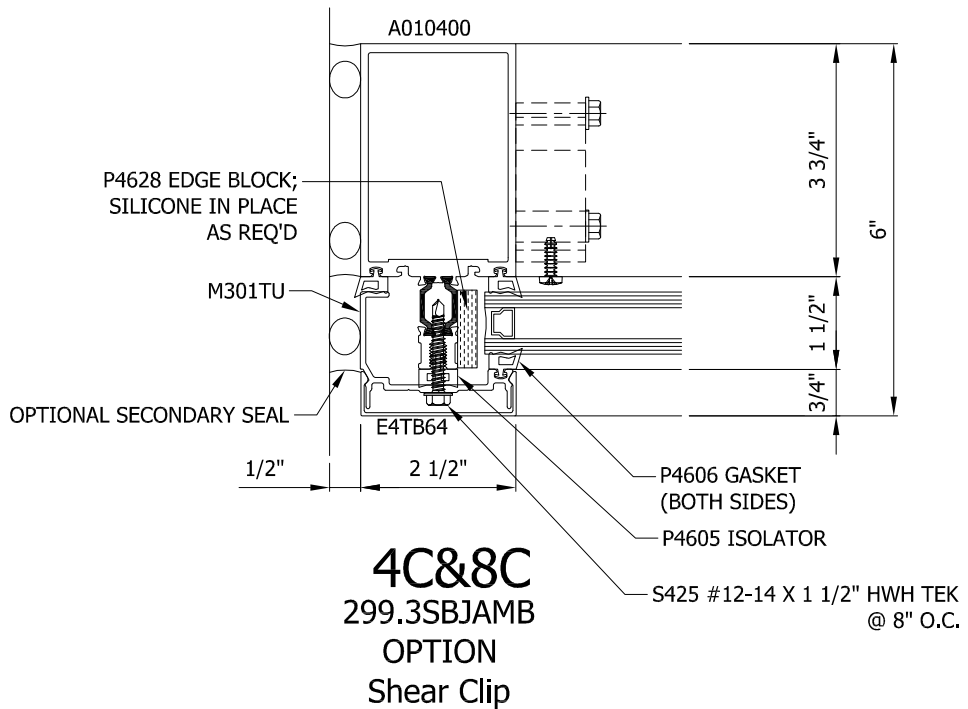
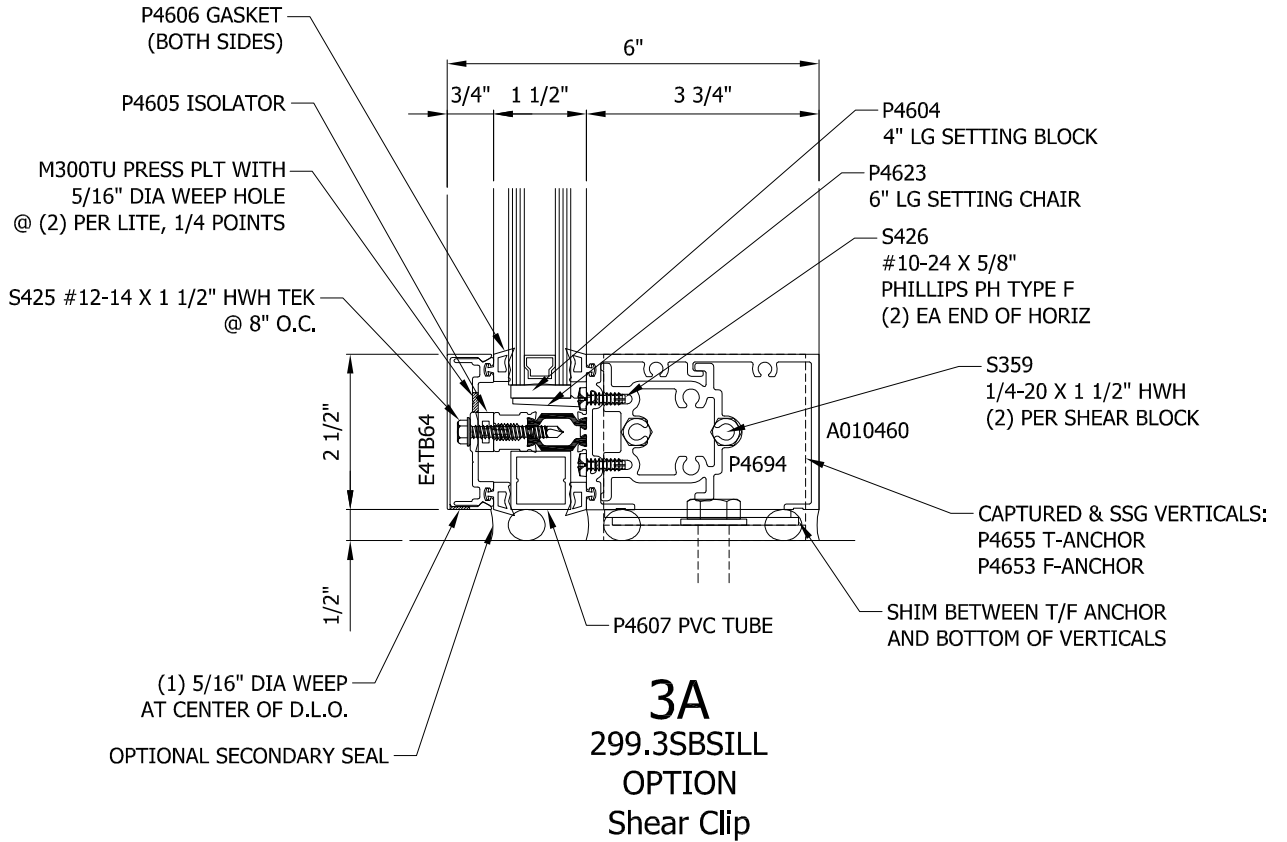
**1**  
299.5TGSBHEAD  
STANDARD  
Shear Clip

**5**  
299.5TGSBVERT  
STANDARD  
Shear Clip



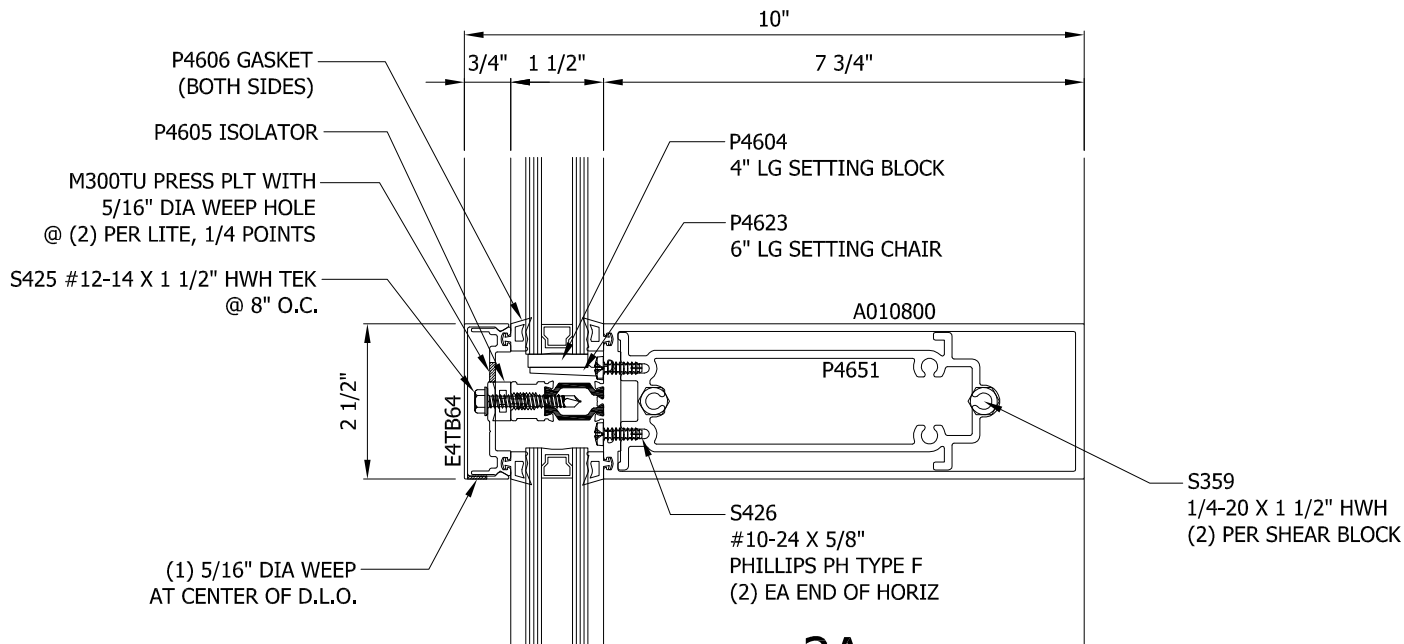
# 400TU Ultra Thermal Curtain Wall - Shear Clip - 3 3/4 - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE

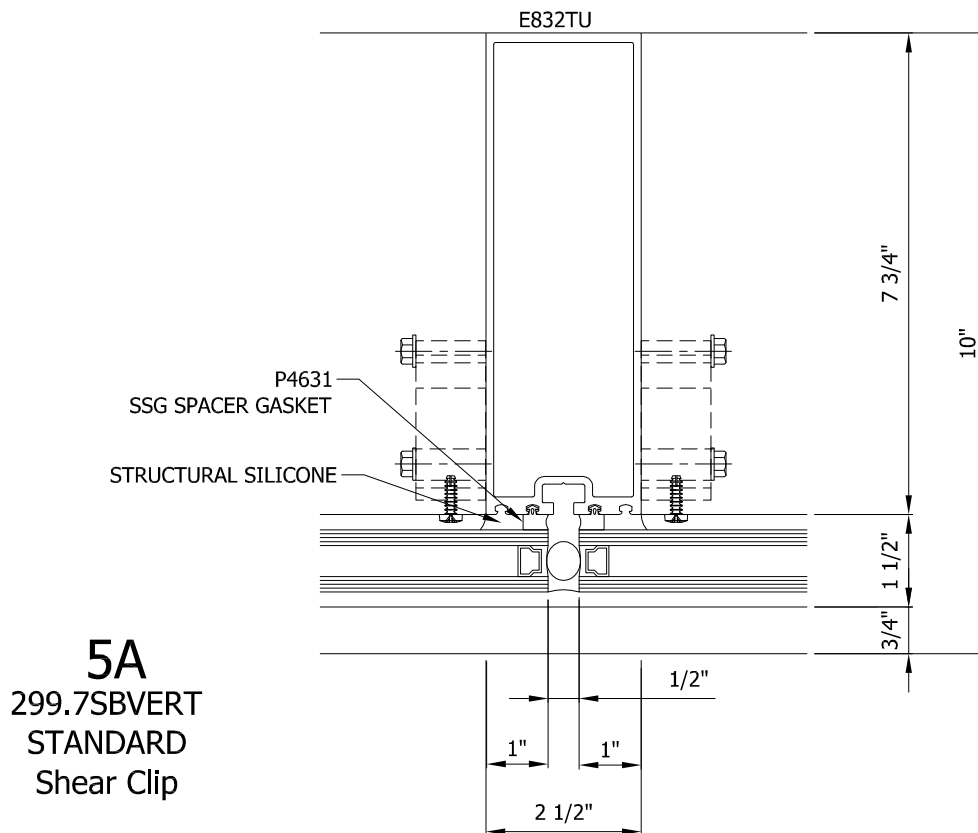


# 400TU Ultra Thermal Curtain Wall - Shear Clip - 7 3/4 - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE



**2A**  
299.7SBHORZ  
STANDARD  
Shear Clip

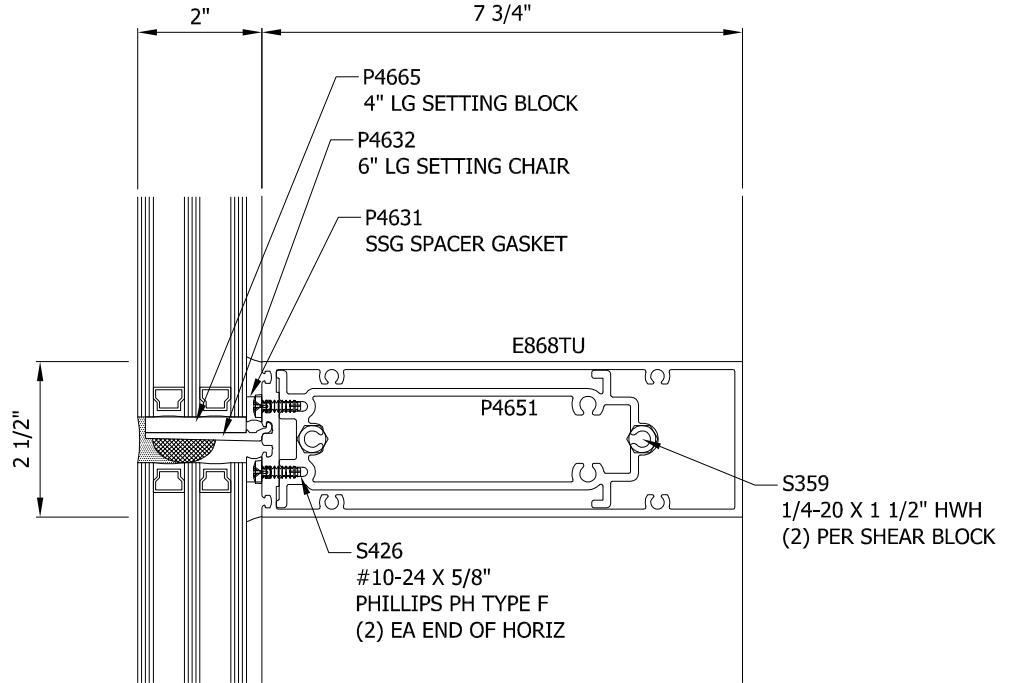


**5A**  
299.7SBVERT  
STANDARD  
Shear Clip

# 400TU Ultra Thermal Curtain Wall - Shear Clip - 7 3/4 - TG - Aluminum Pressure Plate

TUBELITE®  
DEPENDABLE

**2**  
299.7TGSBHORIZ  
OPTION SSG  
Shear Clip



**5A**  
299.7TGSBVERT  
STANDARD  
Shear Clip

