

CUSTOMER TECHNICAL MEMO # 243

Subject: Hunter Evo 101.6mm and 150mm DG Technical Manual and Wall Chart updates

Date: August 2015

Good Morning,

Please note the following pages have been revised and should replace the existing pages in your current Technical Manual.

Hunter Evo 101.6mm DG

- Page 1.0 - Technical Manual Release Notes updated with latest changes
- Pages 3.1.2 - HE406 DG Frame / Jamb 2 Way Glazing added
- Contacts Page updated (Last page)

Hunter Evo 150mm DG

- Contents Page updated (Extrusion & Load Tables)
- Page 1.0 - Technical Manual Release Notes updated with latest changes
- Page 2.1 - Specification page system description corrected
- Page 2.2.14 - Loading Table Page added to include HE488 / HE489
- Page 3.1.2 and 3.1.8 HE466 150mm DG Fame/ Jamb 2 Way Glazing added, ECO208 renamed to ECO208R
- Page 3.1.14 - HE488 / HE489 HD Wide Female & Male Mullions added
- Pages 3.6.4, 3.6.5, 3.6.9, 3.6.10, 3.6.14, 3.6.15, 3.6.19, 3.6.20 Manufacturing pages amended to include HE488 / HE489
- Contacts Page updated (Last page)

All the above pages have been included with this Technical Memo. The format has been set for double sided printing so you will be able to easily replace the current pages in your manual. (You will need to ensure your printer is set to double-sided printing.)

The latest Hunter Evo 101.6mm DG and Hunter Evo 150mm DG Technical Manuals, Hunter EVO 101.6 / 150mm DG Wall Charts have been updated on the Alspec website.

If you have any questions please do not hesitate to contact your nearest ALSPEC Area Manager or Sales Office.

ALSPEC ALUMINIUM SYSTEMS

TECHNICAL MANUAL

HUNTER EVO 101.6mm DG FLUSH GLAZED

Section 1.0

TECHNICAL MANUAL RELEASE NOTES

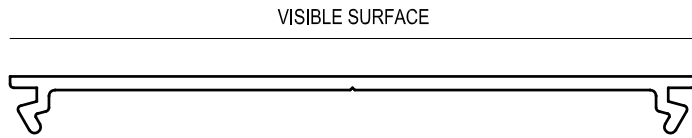
This page is intended to record all changes to the **HUNTER EVO 101.6mm DG FLUSH GLAZED FRAMING** technical manual pages. It is therefore critical that all changes are recorded in the below AMENDMENTS box prior to release to our customers.

Changes or additions to this manual will be itemised with a brief description and date when the amendments were made.

It is important that a copy of the page be issued with the update and inserted as the first page in the customer's technical manual.

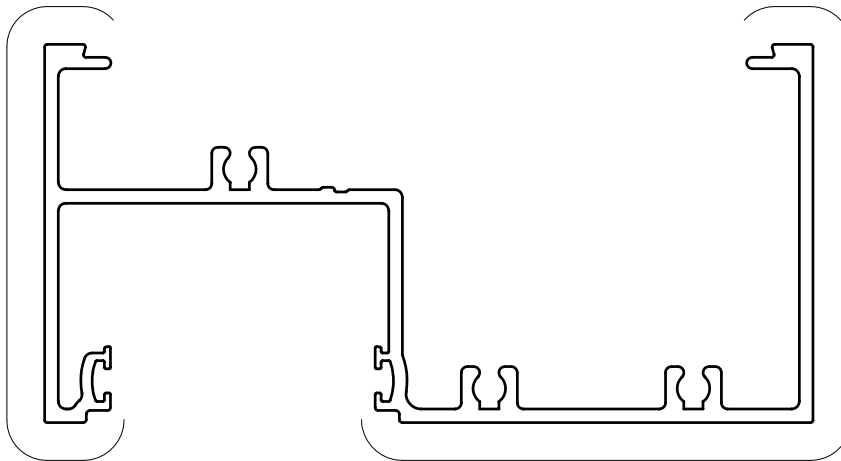
DATE	AMENDMENT DESCRIPTION	REMOVE PAGE	INSERT NEW PAGE
01 / 04 / 2013	<i>Technical manual initial release</i>	~	~
01 / 10 / 2014	<i>Manual reference number</i>	Cover	Cover
01 / 10 / 2014	<i>Contents - Test report results</i>	Contents	Contents
01 / 10 / 2014	<i>Technical manual release notes</i>	1.0	1.0
01 / 10 / 2014	<i>Wind load tables updated</i>	2.2.5 - 2.2.9	2.2.5 - 2.2.9
01 / 10 / 2014	<i>Test report results added</i>	2.3.1	2.3.1
01 / 10 / 2014	<i>Extrusions updated</i>	3.1.6 - 3.1.11	3.1.6 - 3.1.11
01 / 10 / 2014	<i>Accessories updated</i>	3.2.2 - 3.2.4	3.2.2 - 3.2.4
01 / 10 / 2014	<i>Detail pages updated</i>	3.4.1 - 3.4.3	3.4.1 - 3.4.3
01 / 12 / 2014	<i>Technical manual release notes</i>	1.0	1.0
01 / 12 / 2014	<i>Extrusions numbers amended</i>	3.1.7	3.1.7
01 / 08 / 2015	<i>Technical manual release notes updated</i>	1.0	1.0
01 / 08 / 2015	<i>Extrusion page amended</i>	3.1.2	3.1.2
01 / 08 / 2015	<i>Contact page updated</i>	Last Page	Last Page

EXTRUSIONS



**AS5
FLUSH ADAPTOR**

Mass. 0.500 Kg/m
Anod. Per. 213
Paint Per. 100



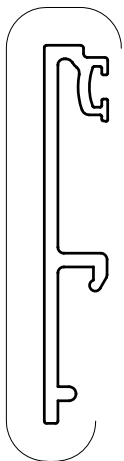
**HE401 100mm DG
FRAME / JAMB**

Mass. 1.468 Kg/m
Anod. Per. 592
Paint Per. 172

$I_{xx} = 757.25 \times 10^3 \text{ mm}^4$

VISIBLE SURFACES

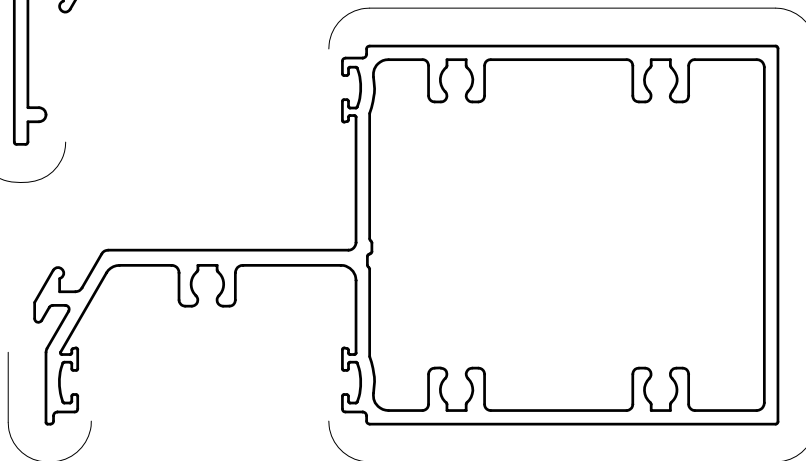
VISIBLE SURFACE



**HE313
FACE GLAZING BEAD**

Mass. 0.371 Kg/m
Anod. Per. 160
Paint Per. 100

VISIBLE SURFACES



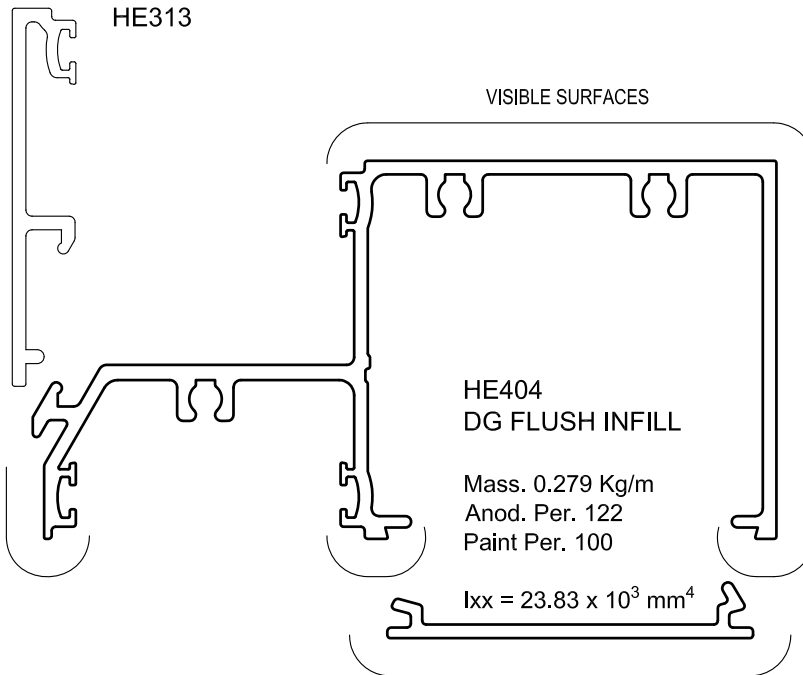
**HE412
EXTERNAL GLAZED
TRANSOM**

Mass. 1.702 Kg/m
Anod. Per. 399
Paint Per. 170

$I_{xx} = 561.20 \times 10^3 \text{ mm}^4$

EXTRUSIONS

HE313

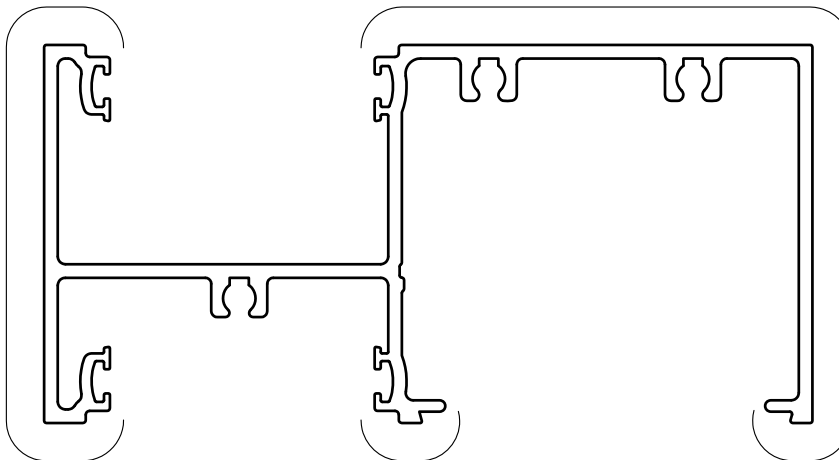


HE417
EXTERNAL GLAZE
SILL

Mass. 1.374 Kg/m
Anod. Per. 558
Paint Per. 121

$I_{xx} = 510.49 \times 10^3 \text{ mm}^4$

VISIBLE SURFACES

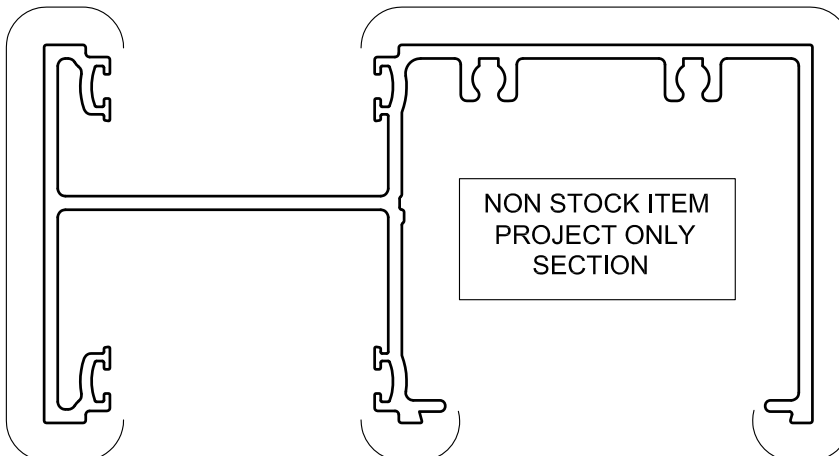


HE416
DG FRAME / JAMB
2 WAY GLAZING

Mass. 1.609 Kg/m
Anod. Per. 668
Paint Per. 177

$I_{xx} = 754.29 \times 10^3 \text{ mm}^4$

VISIBLE SURFACES



HE406
DG FRAME / JAMB
2 WAY GLAZING

Mass. 1.553 Kg/m
Anod. Per. 648
Paint Per. 177

$I_{xx} = 744.04 \times 10^3 \text{ mm}^4$



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ALSPEC ALUMINIUM SYSTEMS

TECHNICAL MANUAL

HUNTER EVO 150mm DG FLUSH GLAZED

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HUNTER
EVO

ALSPEC ALUMINIUM SYSTEMS

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HUNTER EVO

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HUNTER EVO 150mm DG FLUSH GLAZED

Section 1.0

TECHNICAL MANUAL RELEASE NOTES

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01 / 10 / 2014	<i>Transom load tables</i>	2.2.7, 2.2.9 - 2.2.13	2.2.7, 2.2.9 - 2.2.13
01 / 10 / 2014	<i>Accessories</i>	3.2.2 - 3.2.4	3.2.2 - 3.2.4
01 / 10 / 2014	<i>Details page</i>	3.4.1 & 3.4.4	3.4.1 & 3.4.4
01 / 10 / 2014	<i>Glazing Details</i>	3.7.5	3.7.5
01 / 08 / 2015	<i>Loading tables & extrusions contents page updated</i>	~	~
01 / 08 / 2015	<i>Tech manual release notes updated</i>	1.0	1.0
01 / 08 / 2015	<i>Specification page amended</i>	2.1	2.1
01 / 08 / 2015	<i>Loading table page added</i>	~	2.2.14
01 / 08 / 2015	<i>Extrusion page amended</i>	3.1.2 & 3.1.8	3.1.2 & 3.1.8
01 / 08 / 2015	<i>Extrusion page added</i>	~	3.1.14
01 / 08 / 2015	<i>Manufacturing drawings updated</i>	3.6.4, 3.6.5, 3.6.9, 3.6.10, 3.6.14, 3.6.15, 3.6.19, 3.6.20	3.6.4, 3.6.5, 3.6.9, 3.6.10, 3.6.14, 3.6.15, 3.6.19, 3.6.20
01 / 08 / 2015	<i>Contact page updated</i>	Last Page	Last Page

ALSPEC ALUMINIUM SYSTEMS

TECHNICAL MANUAL

HUNTER EVO 150mm DG FLUSH GLAZED

Section 2.1

SPECIFICATION

ALUMINIUM

Aluminium frames should be manufactured using ALSPEC's HUNTER EVO 150mm DG FLUSH GLAZED system.

Refer to wind load tables for maximum panel heights and widths.

GLAZING

- Minimum glass thickness is 6mm with standard DG Framing
- Maximum glass thickness is 30mm with standard DG Framing
- Minimum glass thickness is 16mm with Wide Pocket Framing
- Maximum glass thickness is 40mm with Wide Pocket Framing
- Glazing wedges shall be ALSPEC's wedges for HUNTER EVO 150mm DG FLUSH GLAZED to suit standard & captive glazing options, refer glazing pages 3.7.1 to 3.7.7

HARDWARE

- All other hardware as per ALSPEC Technical Manual.

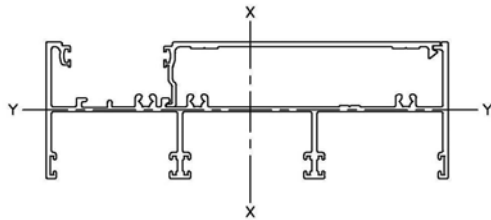
FINISHES

- All powder coated material shall be produced to AS3715.
- All anodised material shall be produced to AS1231.

All products are available from ALSPEC (A.B.N. 63 001 252 259) as detailed in the "ALSPEC" Catalogue or on the Internet at www.alspec.com.au . All such framing is to be constructed, assembled and fixed to meet the requirements of AS2047 (windows in buildings), AS1170 (loading code). All glass, glazing rubbers, seals and gaskets shall be applied in accordance with the requirements of AS1288 (glass in buildings – selection and installation).

Fabricators of the HUNTER EVO 150mm DG FLUSH GLAZED system should seek confirmation of design wind pressure and deflection criteria from the building designer.

LOADING TABLES



TRANSOM HE832 & HE390
$I_{xx} = 2171 \times 10^3 \text{ mm}^4$
$I_{yy} = 126 \times 10^3 \text{ mm}^4$
Max Stress = 110 Mpa
S = Serviceability limit state 1/250
U = Ultimate limit state

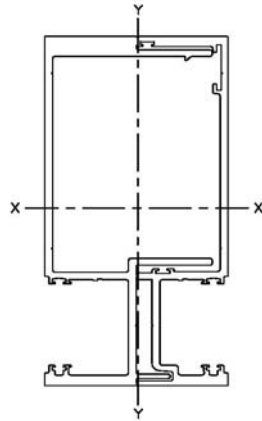
L/250

Transom Centres	Maximum Design Loads							
	2400	S (Pa)	3000	3000	3000			
	U (Pa)	9000	9000	6090				
	Max Weight (kg)	200	137	79				
2100	S (Pa)	3000	3000	3000				
	U (Pa)	9000	9000	6180				
	Max Weight (kg)	200	137	79				
1800	S (Pa)	3000	3000	3000				
	U (Pa)	9000	9000	6290				
	Max Weight (kg)	200	137	79				
1500	S (Pa)	3000	3000	3000	3000			
	U (Pa)	9000	9000	6550	4460			
	Max Weight (kg)	200	137	79	50			
1200	S (Pa)	3000	3000	3000	3000			
	U (Pa)	9000	9000	7390	5190			
	Max Weight (kg)	200	137	79	50			
900	S (Pa)	3000	3000	3000	3000	3000		
	U (Pa)	9000	9000	9000	6570	4950		
	Max Weight (kg)	200	137	79	50	34		
Transom length		1200	1500	1800	2100	2400	2700	3000

This table is based on theoretical section properties

Maximum glass weights have been determined to limit deflection to 5mm, using setting block locations at 1/8 points

LOADING TABLES



MULLION HE488 & HE489

$I_{xx} = 6003 \times 10^3 \text{ mm}^4$

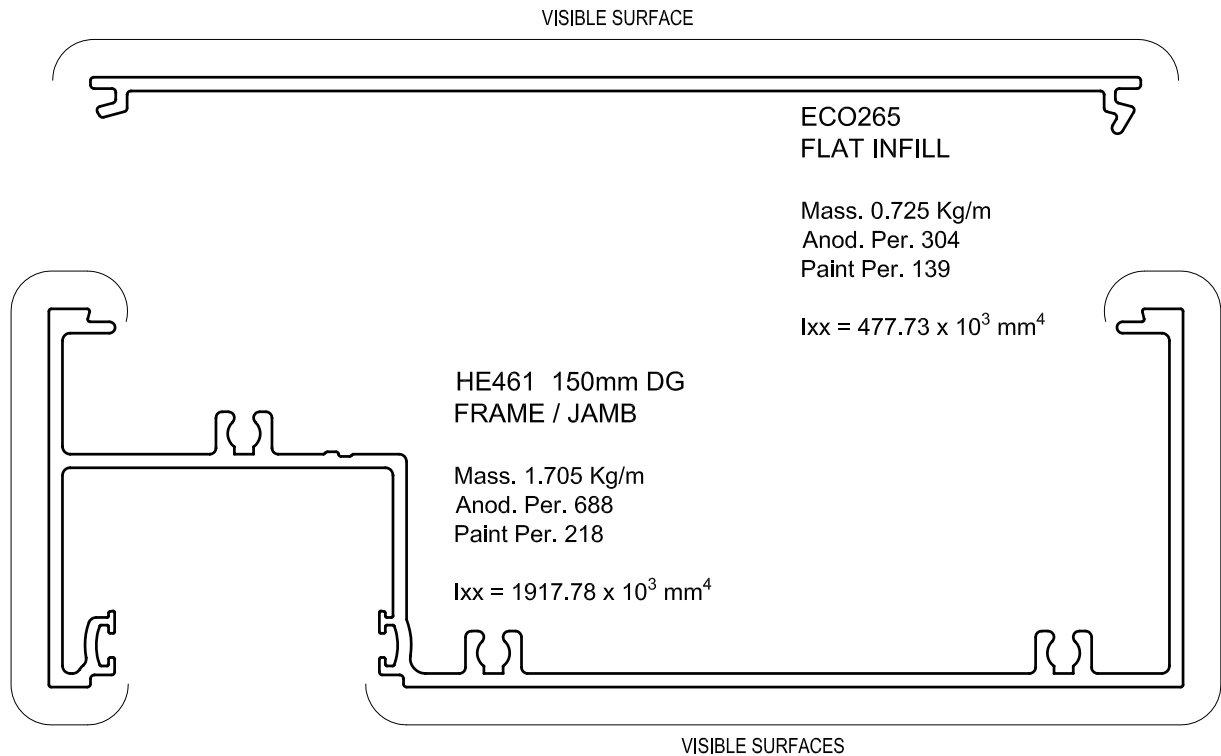
Max Stress = 110 Mpa
S = Serviceability limit state 1/250
U = Ultimate limit state

L/250

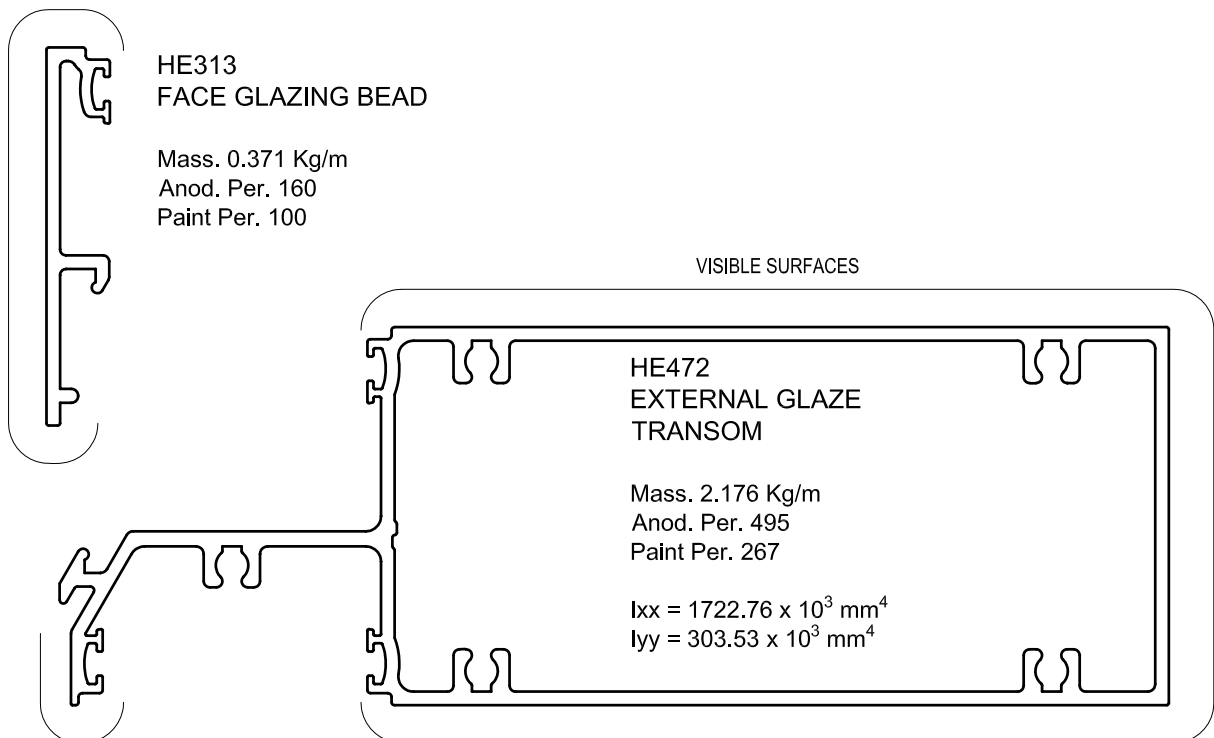
Mullion Height	Maximum Design Pressure (Pa)							
		600	900	1200	1500	1800	2100	2400
5100	S	1600	1070	810	660	560		
	U	4250	2850	2150	1740	1470		
4800	S	1920	1290	980	790	670	590	530
	U	4800	3220	2430	1970	1670	1450	1300
4500	S	2340	1570	1190	970	820	720	650
	U	5460	3670	2780	2250	1910	1670	1500
4200	S	2880	1940	1470	1200	1020	900	810
	U	6280	4220	3200	2600	2210	1940	1750
3900	S	3000	2430	1850	1510	1300	1150	1040
	U	7290	4910	3730	3040	2590	2280	2070
3600	S	3000	3000	2370	1950	1670	1490	1360
	U	9000	5780	4400	3600	3080	2730	2490
3300	S	3000	3000	3000	2560	2220	1990	1840
	U	9000	6900	5280	4340	3730	3330	3060
3000	S	3000	3000	3000	3000	3000	2750	2580
	U	9000	8400	6450	5330	4630	4170	3880
2700	S	3000	3000	3000	3000	3000	3000	3000
	U	9000	9000	8080	6730	5900	5400	5120
2400	S	3000	3000	3000	3000	3000	3000	3000
	U	9000	9000	9000	9000	7830	7320	7160
Mullion Spacing		600	900	1200	1500	1800	2100	2400

This table is based on theoretical section properties

EXTRUSIONS

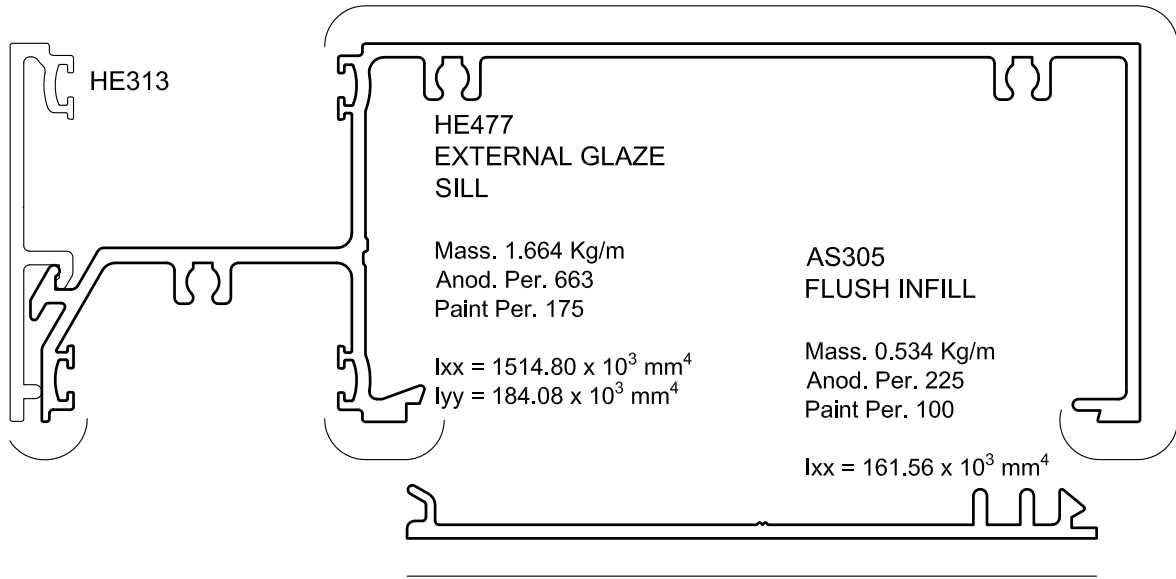


VISIBLE SURFACE



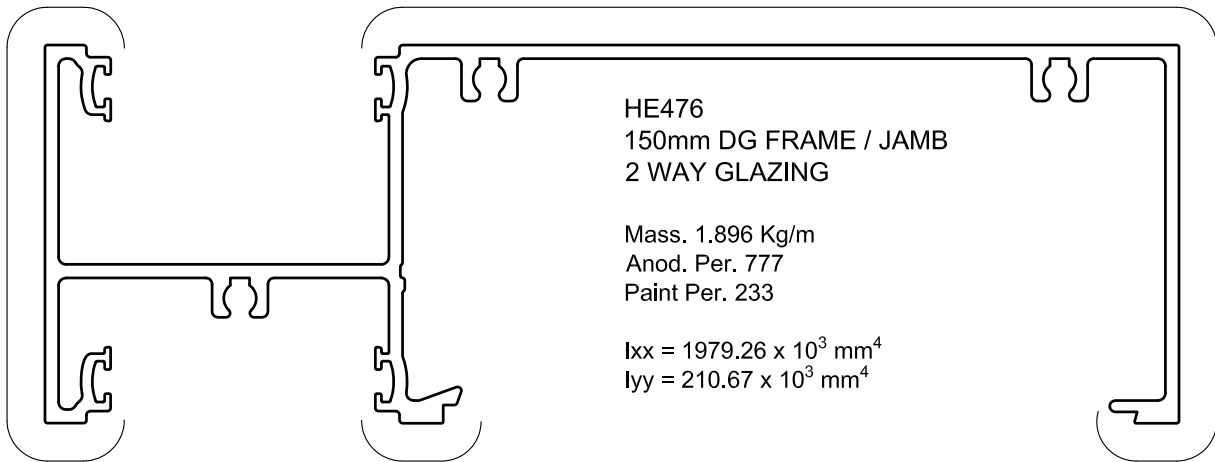
EXTRUSIONS

VISIBLE SURFACES

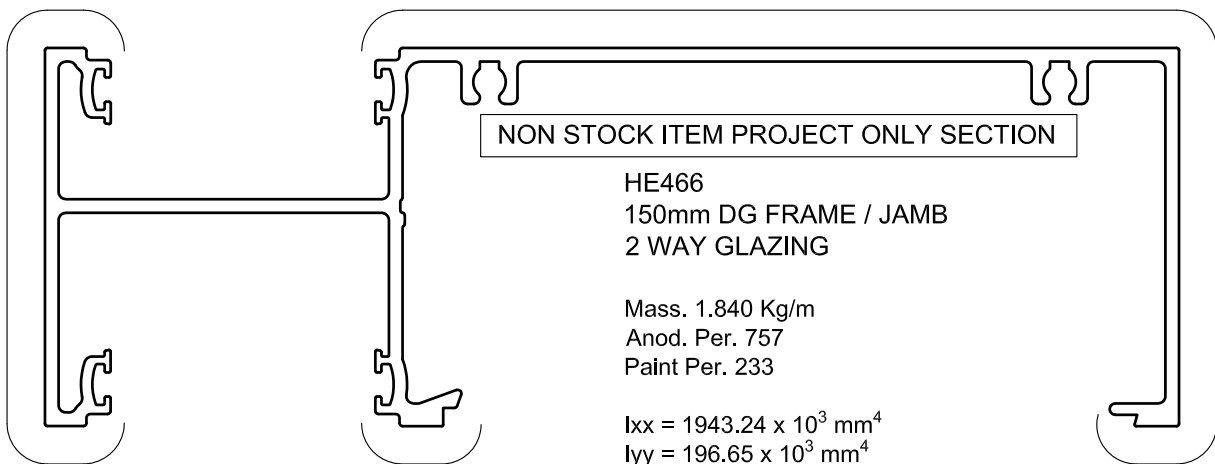


VISIBLE SURFACE

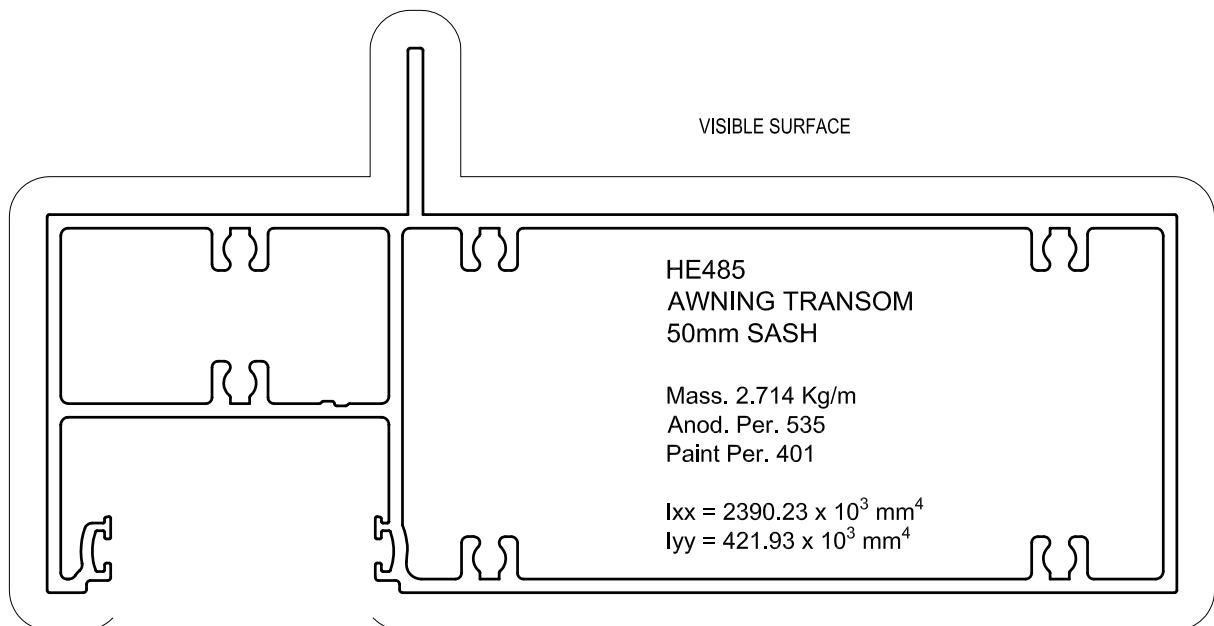
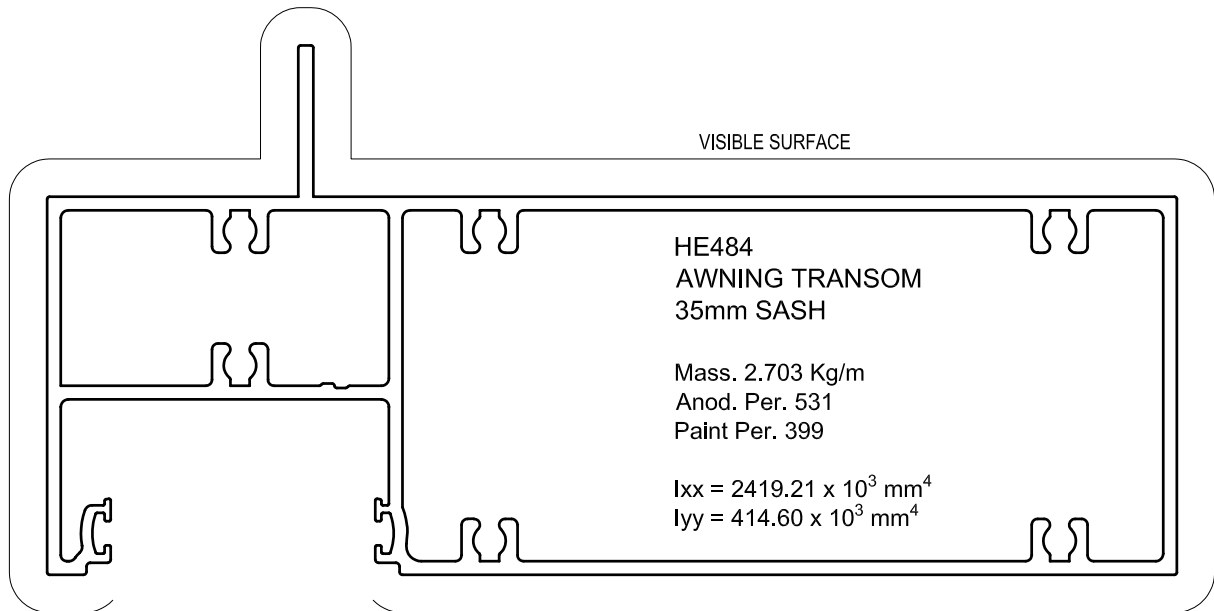
VISIBLE SURFACES



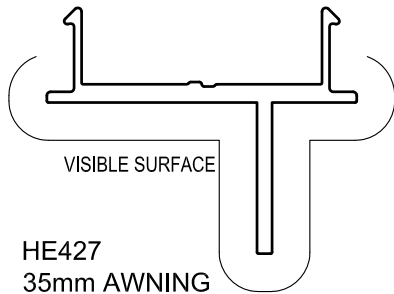
VISIBLE SURFACES



EXTRUSIONS

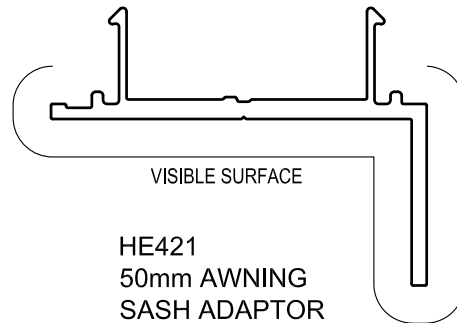


EXTRUSIONS



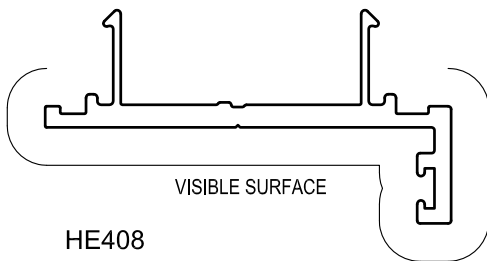
HE427
35mm AWNING
SASH ADAPTOR

Mass. 0.418 Kg/m
Anod. Per. 169
Paint Per. 100



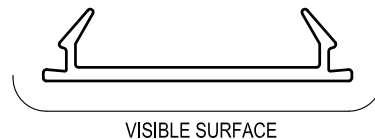
HE421
50mm AWNING
SASH ADAPTOR

Mass. 0.525 Kg/m
Anod. Per. 205
Paint Per. 100



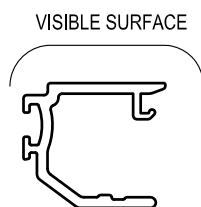
HE408
45mm DOOR STOP

Mass. 0.601 Kg/m
Anod. Per. 211
Paint Per. 100



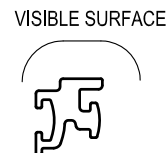
ECO208R
DG FLUSH
POCKET INFILL

Mass. 0.253 Kg/m
Anod. Per. 119
Paint Per. 100



HE430
SINGLE GLAZE
ADAPTOR

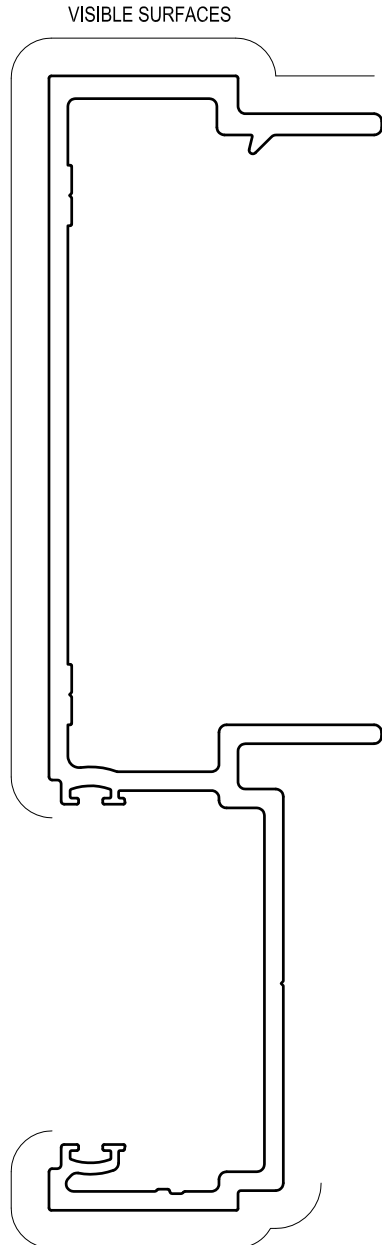
Mass. 0.195 Kg/m
Anod. Per. 111
Paint Per. 100



ECO123
GLAZING
ADAPTOR

Mass. 0.118 Kg/m
Anod. Per. 100
Paint Per. 100

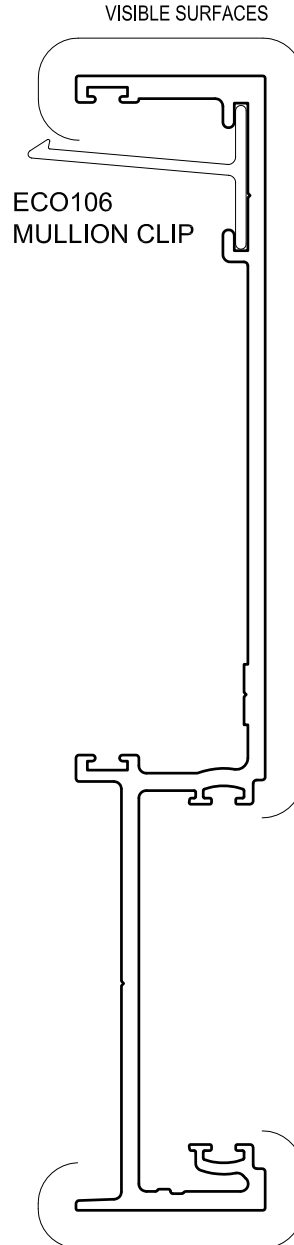
EXTRUSIONS - WIDE POCKET



HE562 150mm DG
MALE MULLION
WIDE POCKET

Mass. 2.053 Kg/m
Anod. Per. 604
Paint Per. 158

$I_{xx} = 1957.34 \times 10^3 \text{ mm}^4$

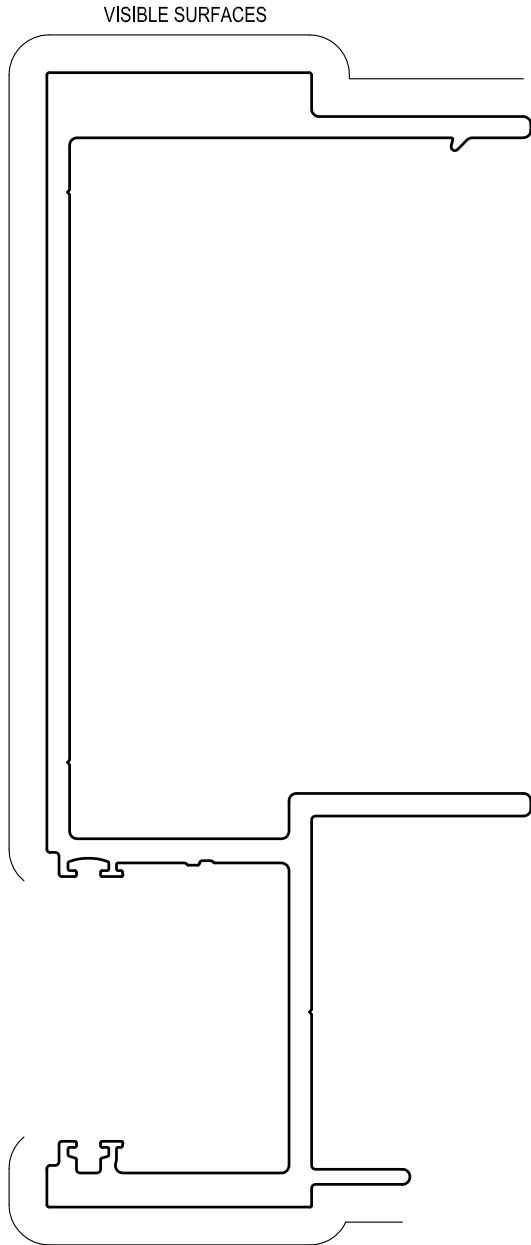


HE563 150mm DG
FEMALE MULLION
WIDE POCKET

Mass. 1.532 Kg/m
Anod. Per. 521
Paint Per. 158

$I_{xx} = 1461.08 \times 10^3 \text{ mm}^4$

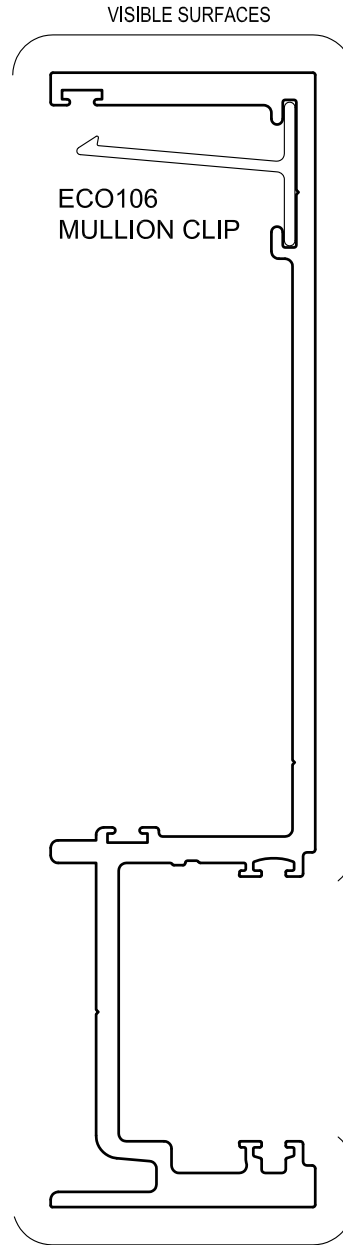
EXTRUSIONS



HE488
HD WIDE
MALE MULLION

Mass. 3.267 Kg/m
Anod. Per. 681
Paint Per. 228

$I_{xx} = 3681.67 \times 10^3 \text{ mm}^4$



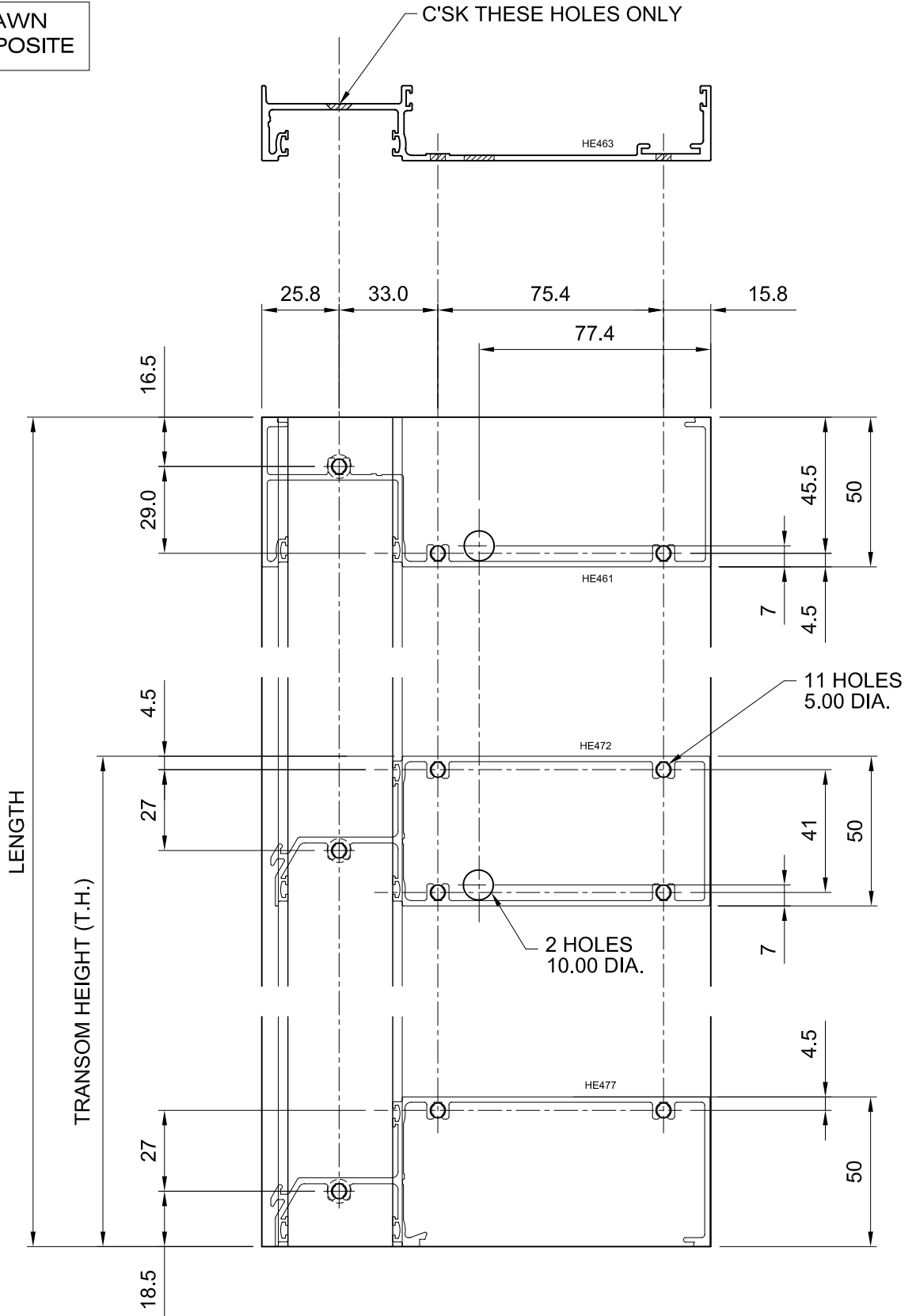
HE489
HD WIDE
FEMALE MULLION

Mass. 2.252 Kg/m
Anod. Per. 573
Paint Per. 185

$I_{xx} = 2321.11 \times 10^3 \text{ mm}^4$

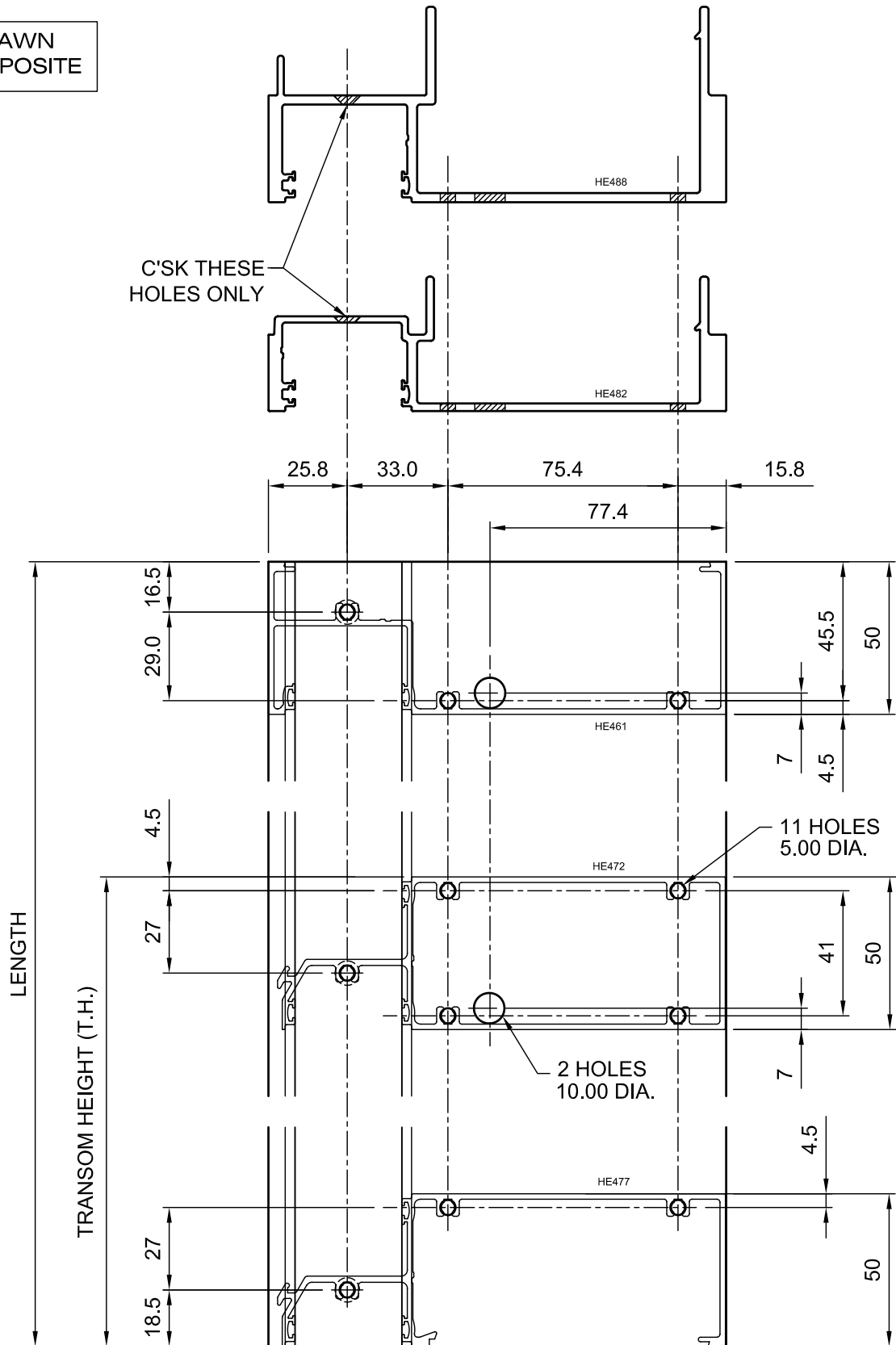
FRAME PREPARATION - EXTERNAL GLAZE

L.H. DRAWN
R.H. OPPOSITE



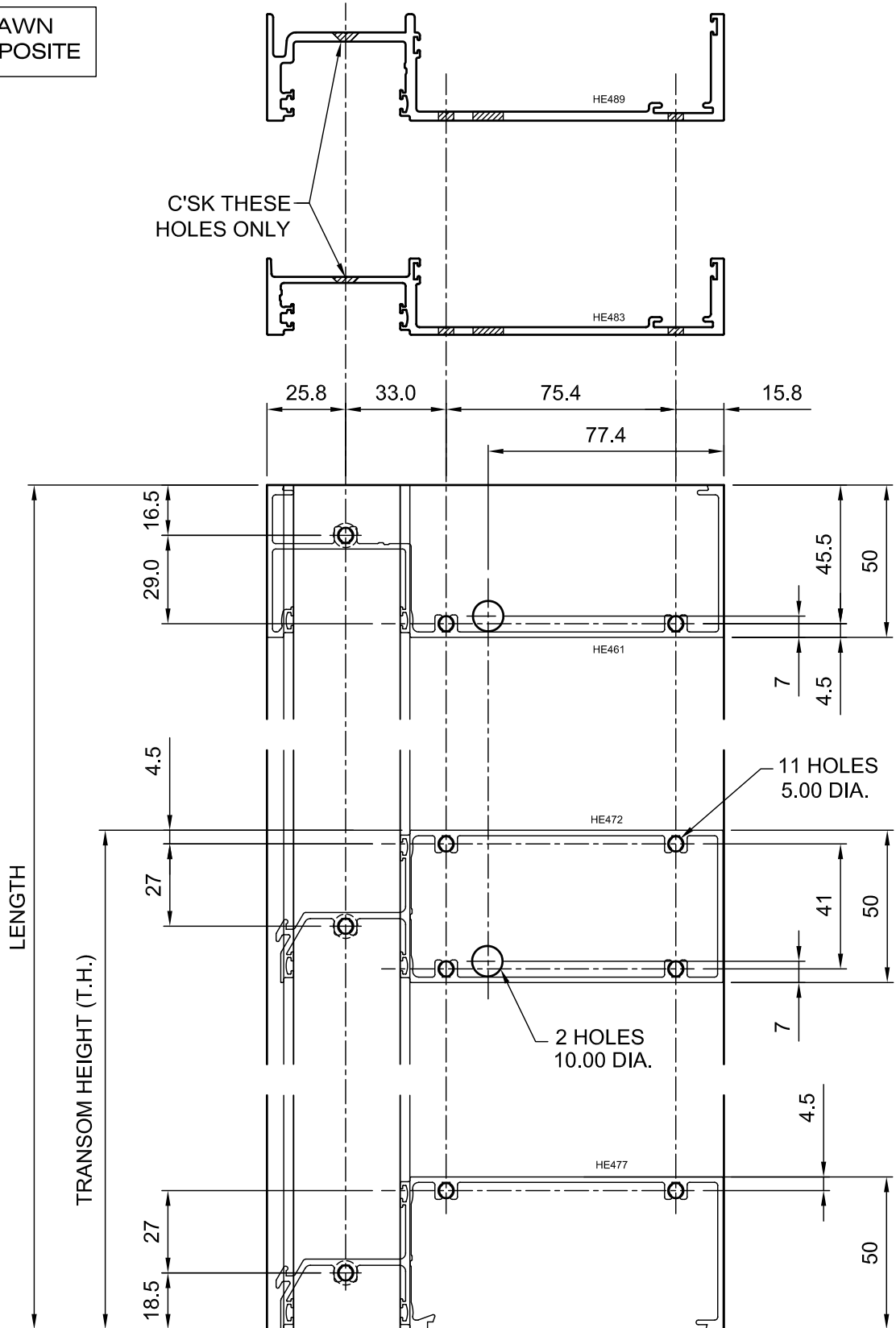
FRAME PREPARATION - EXTERNAL GLAZE

L.H. DRAWN
R.H. OPPOSITE



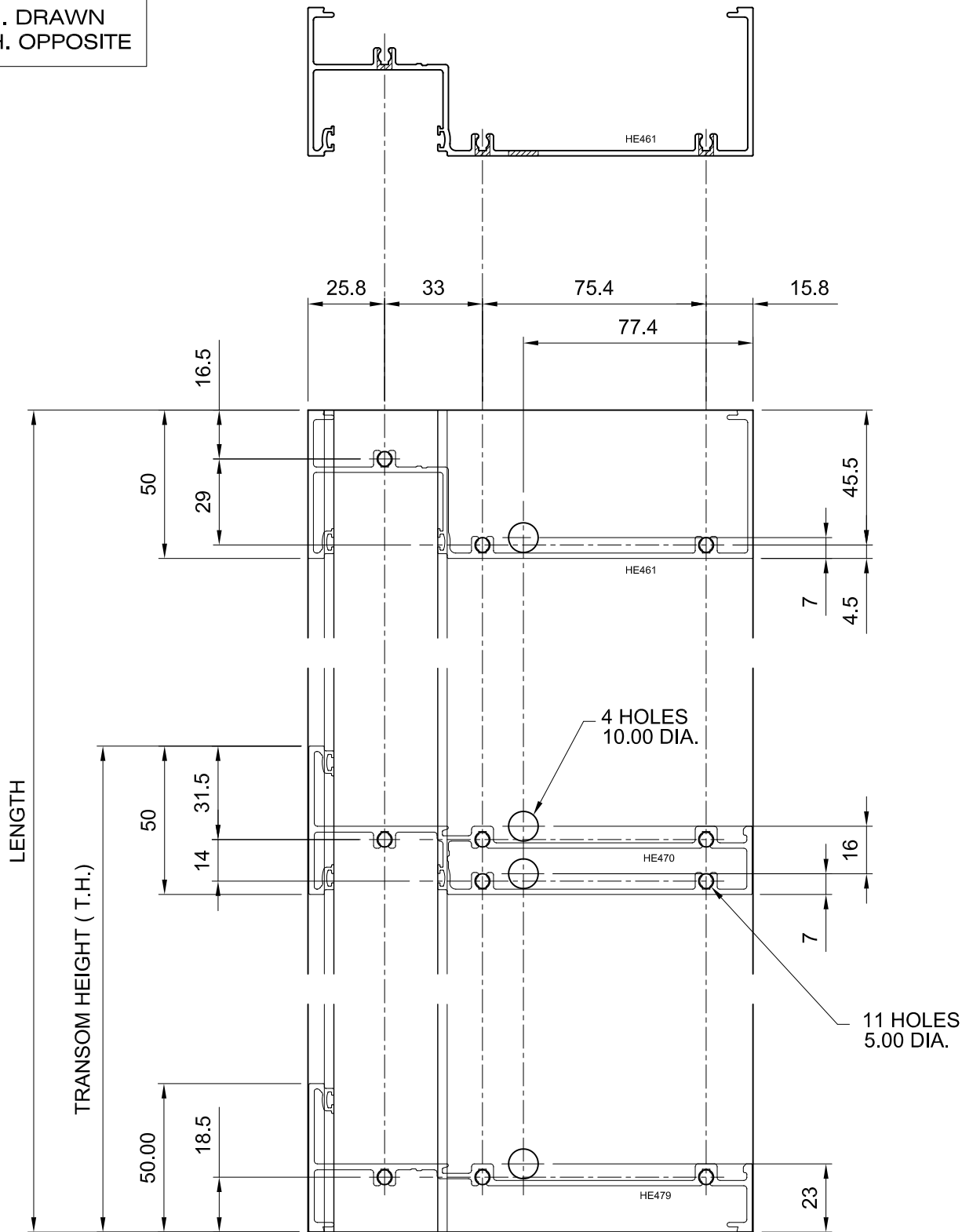
FRAME PREPARATION - EXTERNAL GLAZE

L.H. DRAWN
R.H. OPPOSITE



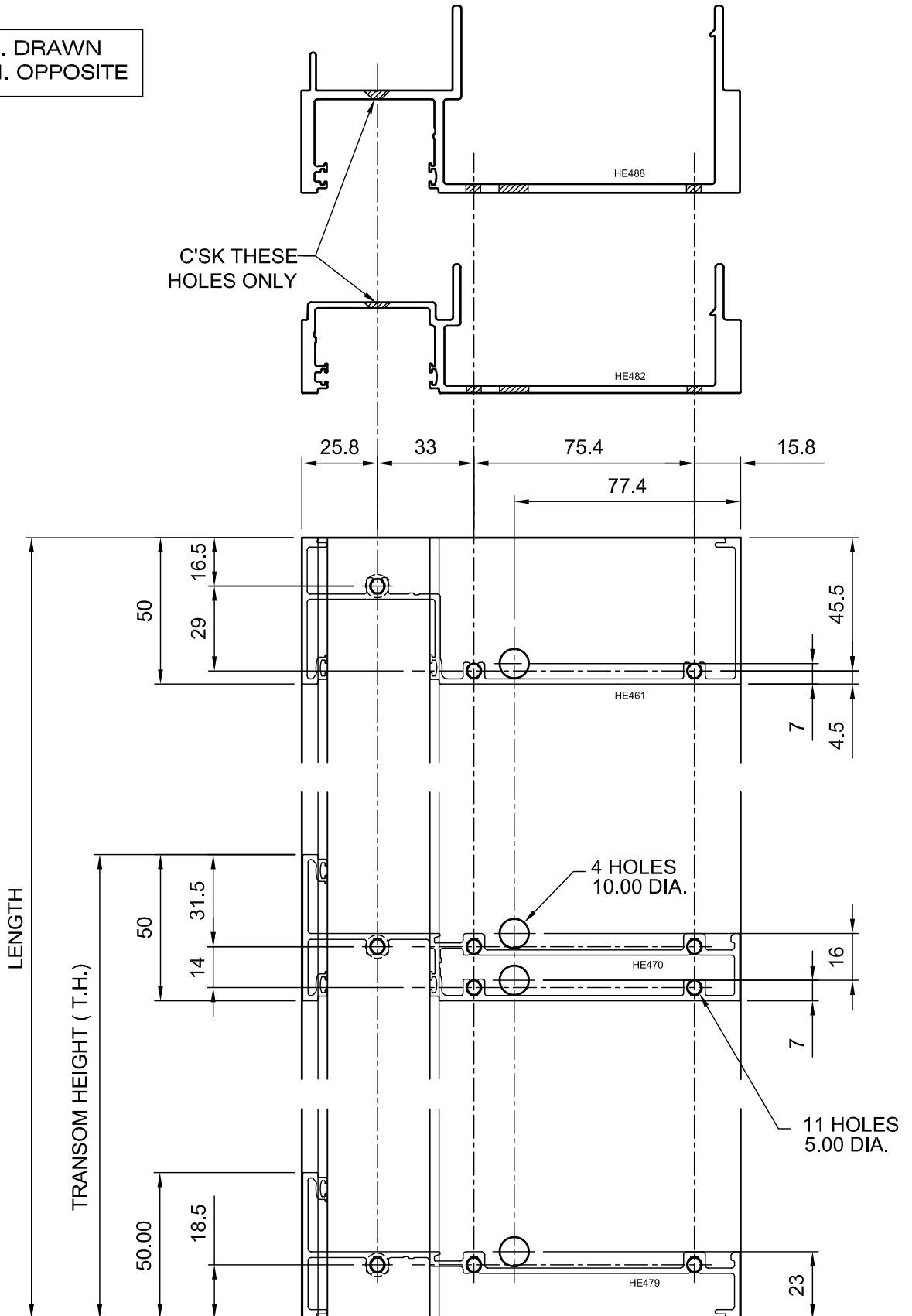
FRAME PREPARATION - INTERNAL GLAZE

L.H. DRAWN
R.H. OPPOSITE



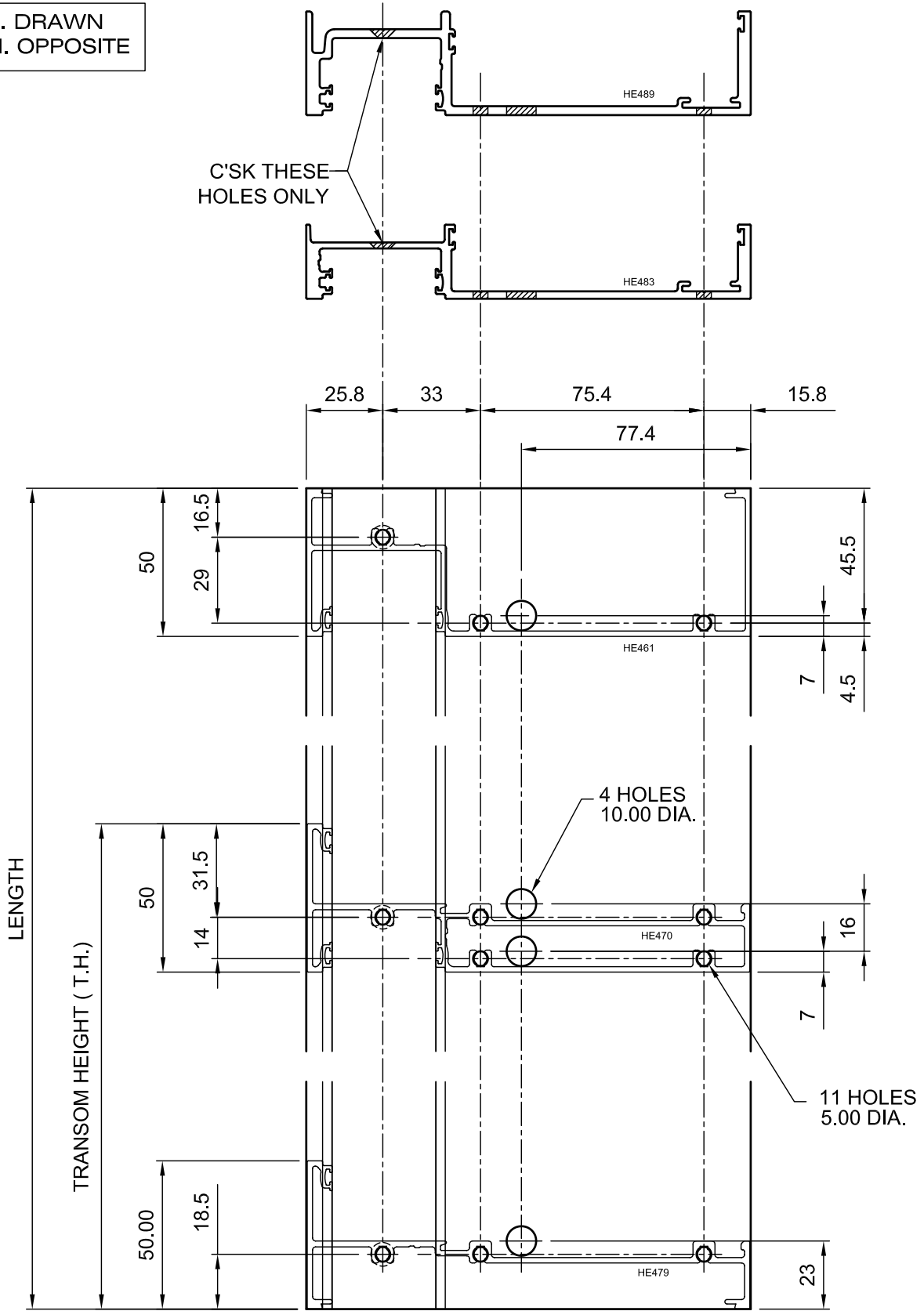
FRAME PREPARATION - INTERNAL GLAZE

L.H. DRAWN
R.H. OPPOSITE



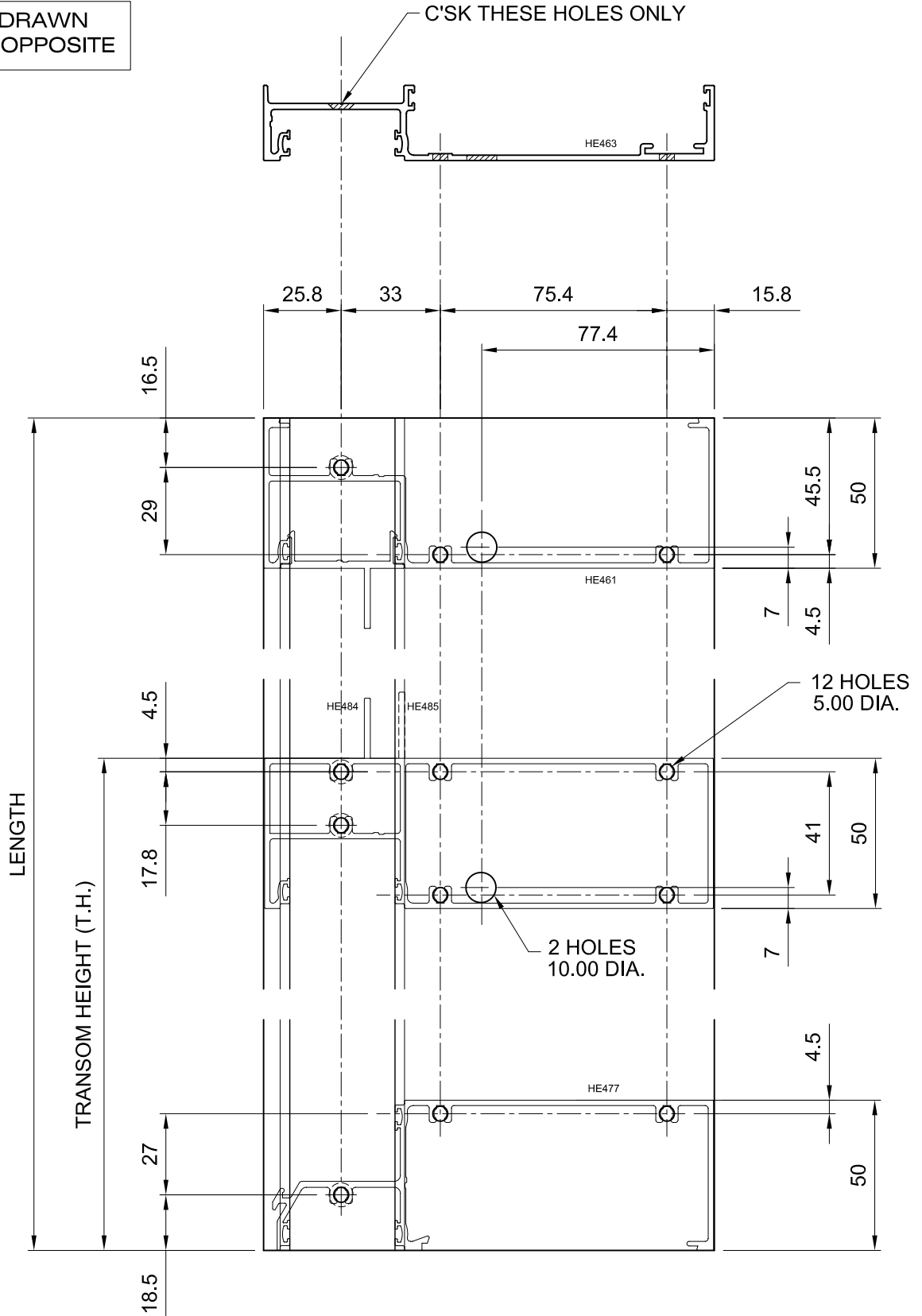
FRAME PREPARATION - INTERNAL GLAZE

L.H. DRAWN
R.H. OPPOSITE



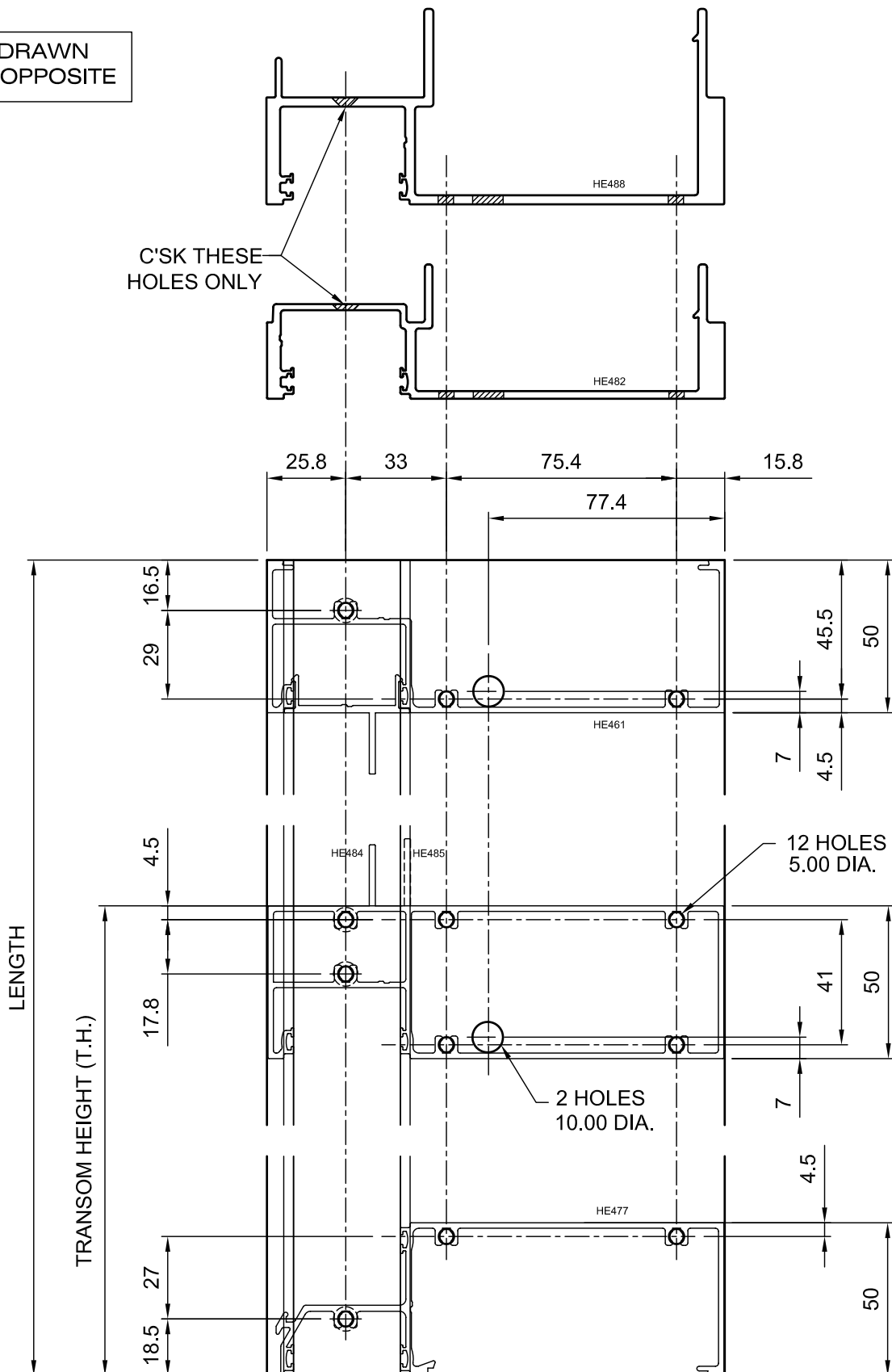
FRAME PREPARATION - EXTERNAL GLAZE AWNING WITH LOWLITE

L.H. DRAWN
R.H. OPPOSITE



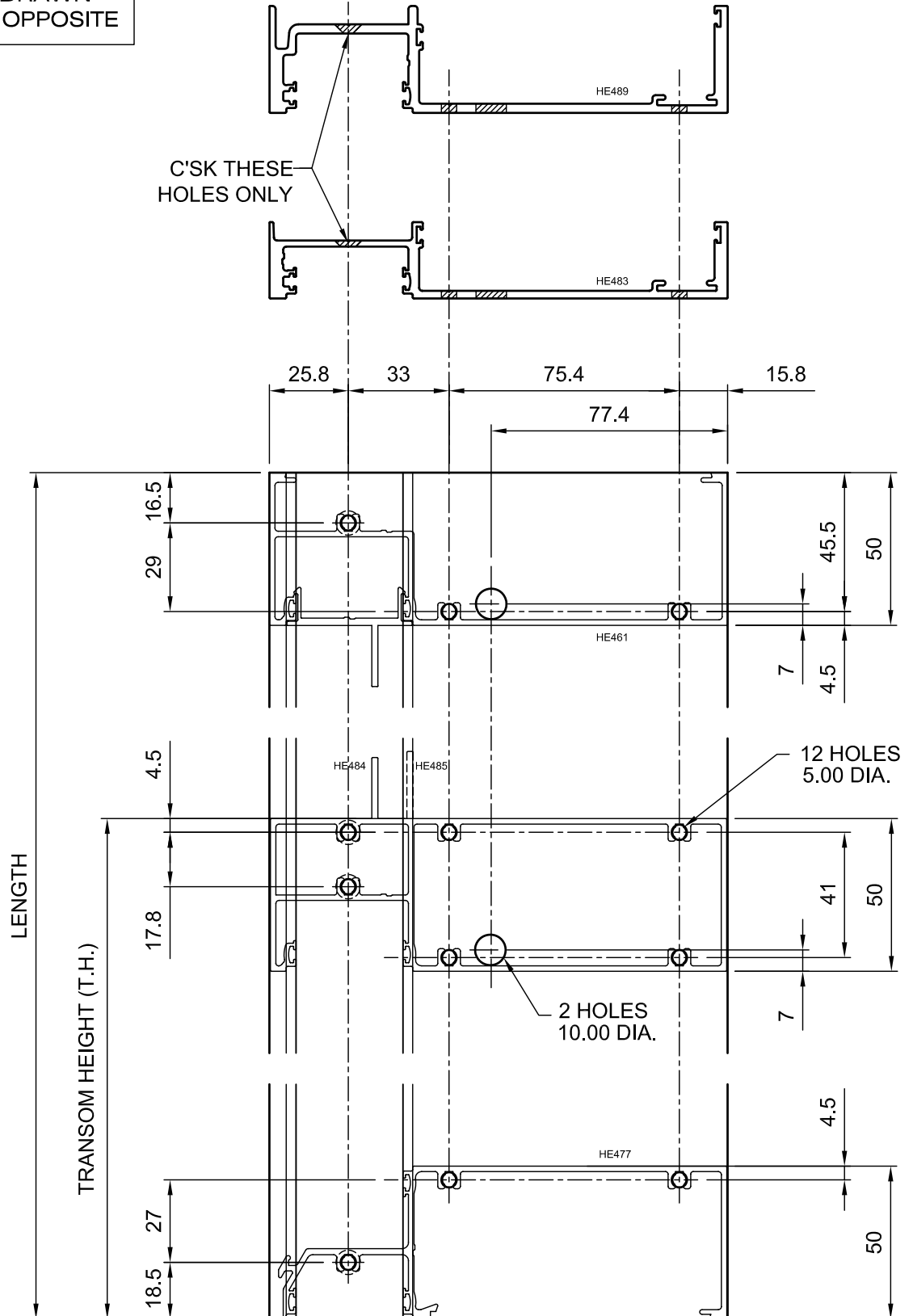
FRAME PREPARATION - EXTERNAL GLAZE AWNING WITH LOWLITE

L.H. DRAWN
R.H. OPPOSITE



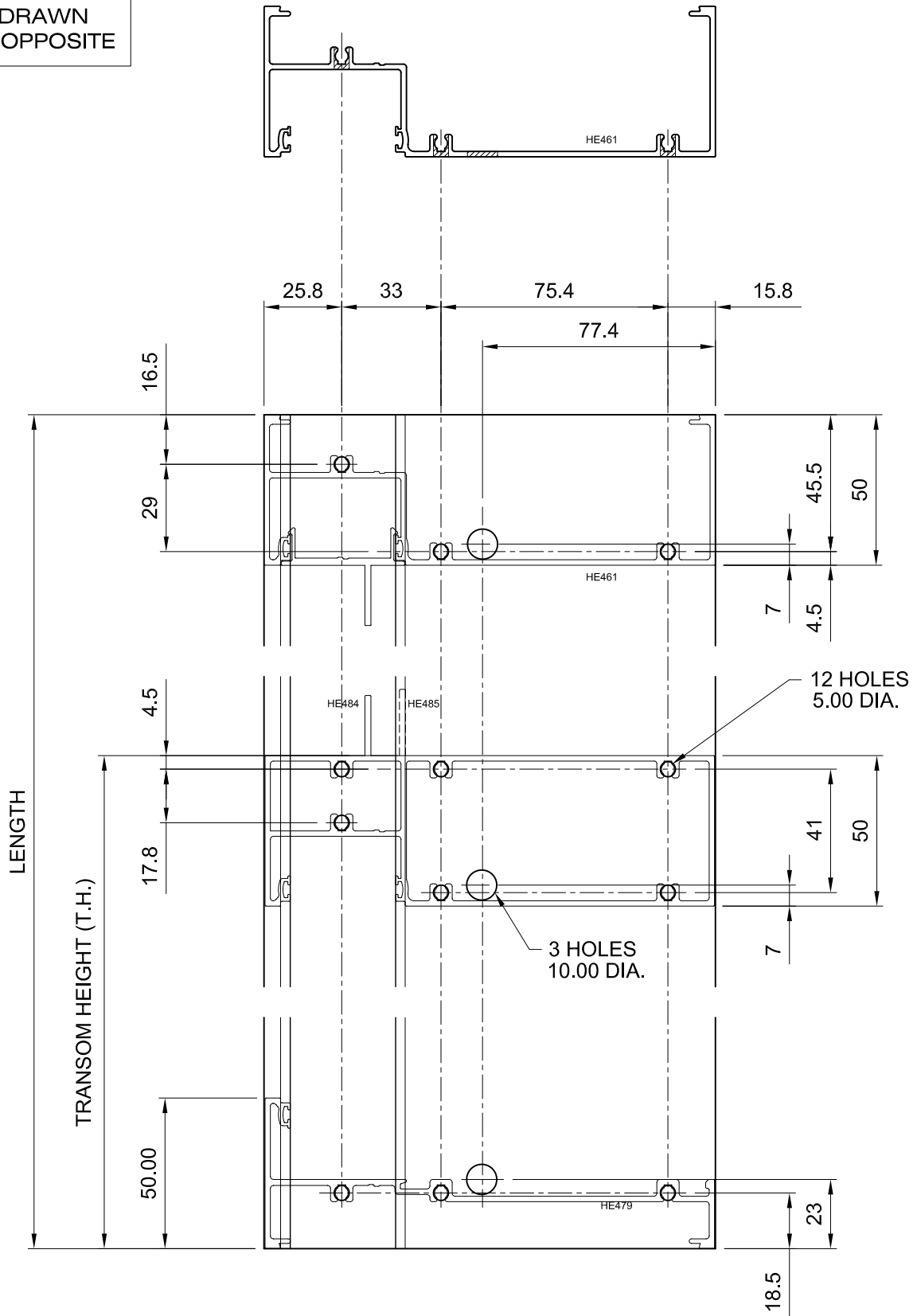
FRAME PREPARATION - EXTERNAL GLAZE AWNING WITH LOWLITE

L.H. DRAWN
R.H. OPPOSITE



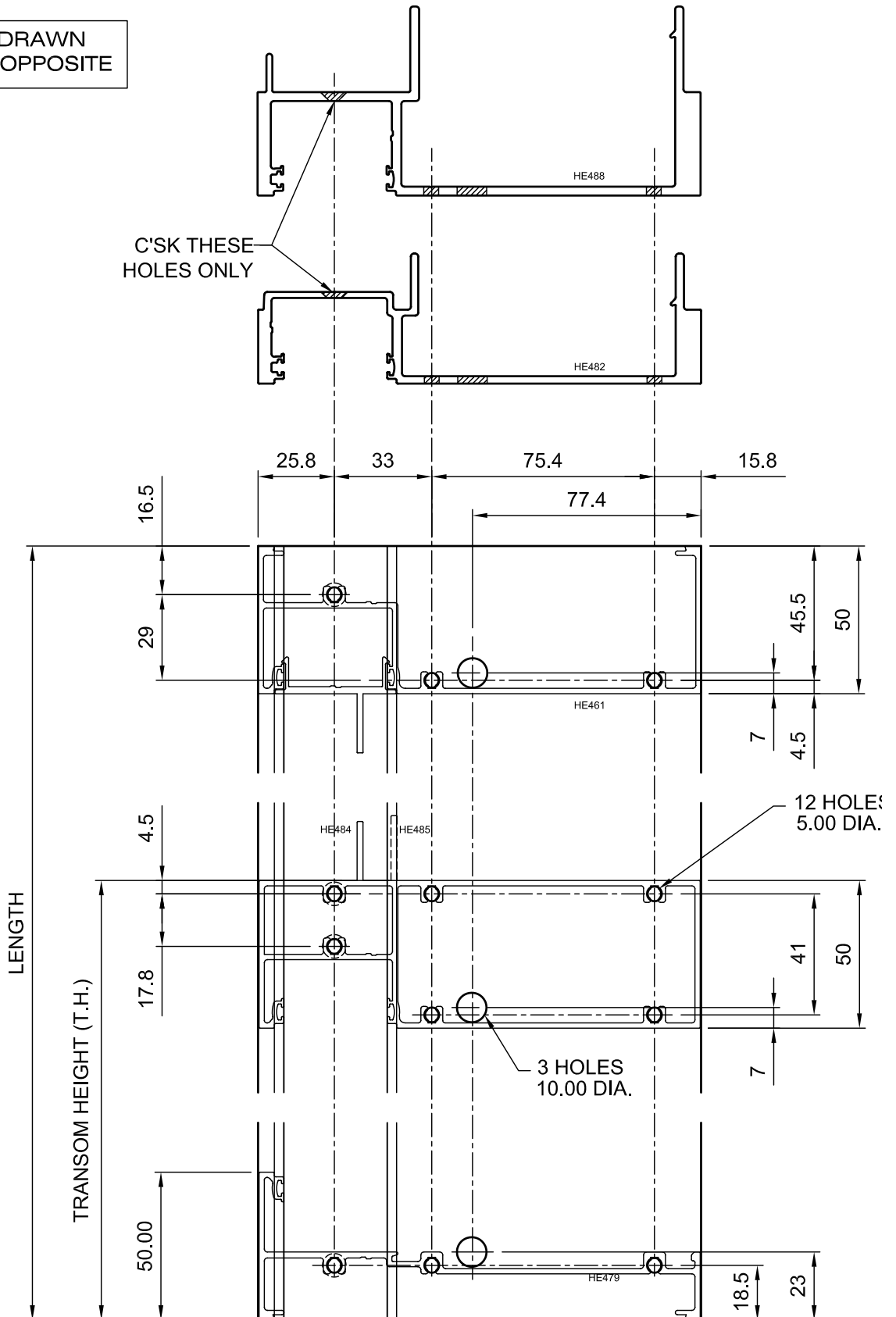
FRAME PREPARATION - INTERNAL GLAZE AWNING WITH LOWLITE

L.H. DRAWN
R.H. OPPOSITE



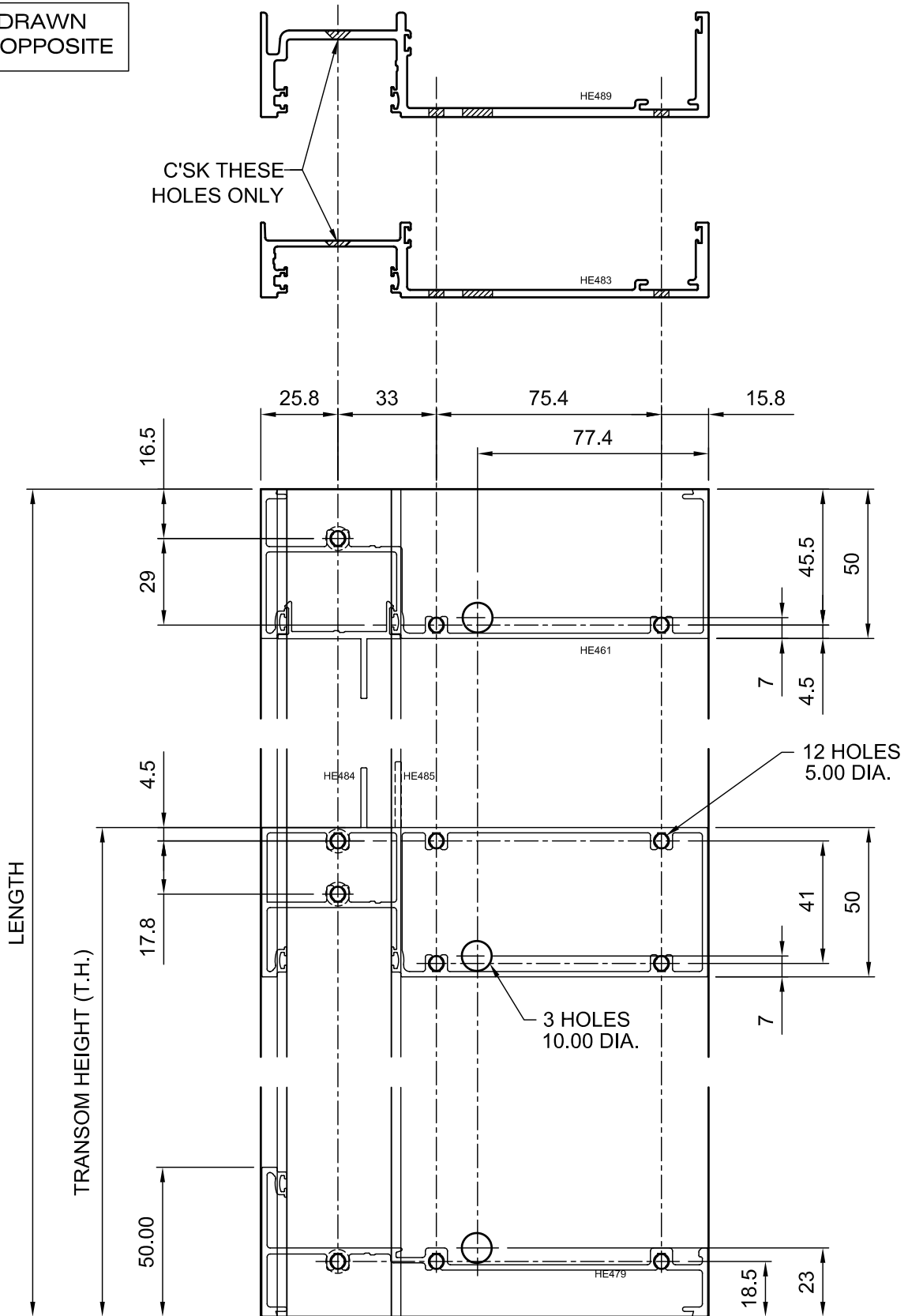
FRAME PREPARATION - INTERNAL GLAZE AWNING WITH LOWLITE

L.H. DRAWN
R.H. OPPOSITE



FRAME PREPARATION - INTERNAL GLAZE AWNING WITH LOWLITE

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R.H. OPPOSITE





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