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March 2010



Elegance 52 & Elegance 72 Curtain Walling

Technical Data Sheet

Sapa Building System

Elegance 52 & 72

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Design

Elegance 52

- **Contemporary Design:** Sapa Building Systems' Elegance 52 curtain walling system has been designed to offer specifiers the ultimate in design and performance for the facades of today's buildings. The wide choice of design variations that is offered within the Elegance 52 system complies with the ever increasing complexity of Building Regulations, British Standards and other regulatory demands.
- **Superior thermal performance:** Elegance 52 is a thermally broken curtain walling system that meets and exceeds the requirements of Building Regulations and provides high levels of thermal performance throughout a building. There are no UK standardised models or configurations for measuring the thermal insulation of curtain walling so figures are provided on a project specific basis.
- **Dual colour capability:** The Elegance 52 system can have differing finishes internally and externally.
- **Integrated design:** Elegance 52 features a range of design variants which allow the specifier maximum design flexibility. The system can be coupled to other systems within Sapa's extensive range of products to create buildings that are fully suited whatever their requirements.
- **Accreditation:** Elegance 52 has successfully undergone weather tightness testing at Taylor Woodrow's UK Technology Centre. This UKAS accredited facility follows procedures in accordance with the Centre for Window and Cladding Technology (CWCT) Standard Test Methods for curtain walling and also complies with BS EN 13830. A full report is available on request. Elegance 52 ST can be CE marked by Sapa fabricators if necessary.
- **Choice of appearance:** The Elegance 52 system comprises of six design variants. Please note that some variants are only available on a project specific basis and advice should be sought from Sapa prior to ordering or specifying Elegance curtain wall systems.
 - ST (Full Capped)
 - HL (Trame Horizontal)
 - SX (Structural Glazing - Toggle)
 - SG (Structural Glazing - Carrier Frame)
 - SGV (Structural Glazed Vent)
 - GF (Cassette Glazing)

Bespoke profiles can also be designed to allow specifiers to further personalise their designs.
- **Off-site construction:** Elegance can also be offered in a unitised form (Elegance 72), offering the benefits of off-site construction where required or desirable.
- **Ease of maintenance:** Elegance 52 is designed to be simple to manufacture and install on site by Sapa's fully trained and experienced independent fabricators.



■ Product

Elegance 52 curtain walling system

■ Design Variants

Can be constructed to form vertical, sloped or roof glazing that incorporates fixed and opening lights and doors.

■ Compatibility

Can be integrated with other products from the Sapa range including the Dualframe suite and 202 and Stormframe ST Commercial Door and Framing systems.

■ Application

Suitable for installation in new build or replacement projects in residential, commercial or public buildings.

■ Finishes

A wide range of polyester powder coat finishes is available to BS EN 12206:1 2004. Anodised finishes are to BS 3987 Grade AA25 etch silver with a range of special anodised finishes on application.

For more details, or to talk to a Project Consultant, contact us on 01684 853500.

Design Elegance 72

- **Contemporary Design:** Sapa Building Systems' Elegance 72 unitised curtain walling system has been designed to offer specifiers the ultimate in design and performance for the facades of today's buildings. The wide choice of design variations that is offered within the Elegance 72 unitised system complies with the ever increasing complexity of Building Regulations, British Standards and other regulatory demands.
- **Superior thermal performance:** Elegance 72 is a thermally broken unitised curtain walling system that meets and exceeds the requirements of Building Regulations and provides high levels of thermal performance throughout a building. There are no UK standardised models or configurations for measuring the thermal insulation of curtain walling so figures are provided on a project specific basis.
- **Dual colour capability:** The Elegance 72 system can have differing finishes internally and externally.
- **Integrated design:** Elegance 72 features a range of design variants which allow the specifier maximum design flexibility. The system can be coupled to other systems within Sapa's extensive range of products to create buildings that are fully suited whatever their requirements.
- **Accreditation:** Elegance 72 has successfully undergone weather tightness testing at Taylor Woodrow's UK Technology Centre. This UKAS accredited facility follows procedures in accordance with the Centre for Window and Cladding Technology (CWCT) Standard Test Methods for curtain walling and also complies with BS EN 13830. A full report is available on request.
- **Stick construction:** Elegance can also be offered in a stick form (Elegance 52), offering the benefits of off-site construction where required or desirable.
- **Ease of maintenance:** Elegance 72 is designed to be simple to manufacture and install on site by Sapa's fully trained and experienced independent fabricators.

■ Product

Elegance 72 unitised curtain walling system

■ Design Variants

Can be constructed to form vertical, sloped or roof glazing that incorporates fixed and opening lights and doors.

■ Compatibility

Can be integrated with other products from the Sapa range including the Dualframe suite and 202 and Stormframe ST Commercial Door and Framing systems.

■ Application

Suitable for installation in new build or replacement projects in residential, commercial or public buildings.

■ Finishes

A wide range of polyester powder coat finishes is available to BS EN 12206:1 2004. Anodised finishes are to BS 3987 Grade AA25 etch silver with a range of special anodised finishes on application.

For more details, or to talk to a Project Consultant, contact us on 01684 853500.



Performance

Performance data: Elegance 52 & 72

Composition and Manufacture

Aluminium profiles are extruded from aluminium alloy 6063 or 6060 T6 complying with the recommendations of BS EN 755-9:2001.

Elegance 52 and 72 are dry glazed systems using EPDM gaskets. Drainage can be field or mullion drained in accordance with the conditions on site.

Thermal break is by means of a continuous rigid PVC member which separates mullions and transoms from the pressure plate and external cappings.

Additional aluminium or steel profiles can be inserted in mullions where high inertia values are required for large spans.

Elegance 52 Weather Performance

CWCT Test Sequence A/BS EN 13830 (Static)

Air Permeability	600/AE750	CWCT/EN12152
Water Tightness	600/RE750	CWCT/EN12154
Wind Resistance	2400/3000	CWCT/EN13116

CWCT Test Sequence B (Dynamic)

Air Permeability	600 Pa
Water Tightness	600 Pa
Wind Resistance	2400 Pa

Elegance 72 Weather Performance

BS EN 13830 (Static and Dynamic)

Air Permeability	A4	EN12152
Water Tightness (Static)	RE1500	EN12154
Water Tightness (Dynamic)	600	DD ENV13050
Wind Resistance	2400	EN13116
Impact Resistance	E5	EN14019

CWCT Test Sequence B (Dynamic)

Air Permeability	600 Pa
Water Tightness	600 Pa
Wind Resistance	2400 Pa

Size Limitations

Sizes and spans can vary according to site conditions and the variant specified. Please contact our Marketing Team or Project Consultants for further information.

Hardware and Security

Elegance 52 and 72 can accommodate other window and door systems from the Sapa range. Contact our Marketing Team or Project Consultants for further information.

Glazing

Elegance 52 and 72 can accommodate glass, sealed units, spandrel panels or other infill panels from 4-50mm in thickness.

Site Work

A fabrication, installation and glazing service is available through a nationwide network of specialist curtain walling fabricators, installers and specialist subcontractors. For details of companies please contact our Marketing Team on 01684 853500.

Support services

- Our field based Project Consultants, working with our in-house Technical Support team, provide UK specifiers with specialist advice concerning the correct application of products, giving guidance on Building Regulations, British Standards and other issues such as product specifications, usage, maintenance and safety. Complementary to this, our Product Support Department has an invaluable reservoir of experience on every aspect of our product range.
- We also appreciate that the specification process is influenced by client demands to obtain best value, and to that end, we can participate in site visits, your design meetings and budgetary planning. We can assist with written specification documents (which can be supplied in either an NBS format, or your own specification layout) and supported by samples, literature and drawings for consultation or planning issues.
- Taking this partnership approach through the whole project allows on-site monitoring of manufacturing and installation ensuring the specifier always has professional support from a worldwide group. Drawing on one of the largest fabricator and installer networks in the UK, we can provide details of specialist contractors who will quote or tender competitively for any type of contract.
- For specification assistance or details of fabricators and installers, please call our Marketing Department on 01684 853500.

■ Sapa Group

Sapa Building Systems Limited is a member of the worldwide Sapa Group. We develop and market high value-added profiles in aluminium and are the leading independent producer of aluminium profiles in the world, with customers in Europe, North America and Asia. In the UK, the Sapa Group has extensive multi-site extrusion, re-melt and anodising facilities, and we partner with key suppliers to offer all of our profiles pre-finished in polyester powder coat to the relevant EN standards. These resources give us total control and a fast and co-operative response, offering total control and a fast and co-operative response.

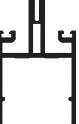
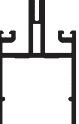
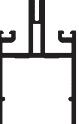
Backed by the resources of the Group, Sapa Building Systems Limited offers architects and specifiers a wide range of innovative aluminium systems for curtain walling, doors, windows and specialist applications. With a wealth of European knowledge and experience our company was founded on the highly respected Glostal, Monarch and RC System brands that have satisfied the demands of specifiers for over four decades. Sapa Building System's Quality Management processes are approved under BS EN ISO 9001:2000 and we have been recognised as an Investor in People for over 10 years.



PROFILE INERTIA VALUES

The following pages give information on the inertia values of the integral millions and transoms. BS 6399 Part 2 must be used to calculate the inertia value required.

Profile	Inertia (cm ⁴)
	9.45
	14.09
	6.42
	9.57
	16.77
	15.81
	40.63
	21.54

Profile	Inertia (cm ⁴)
	67.77
	25.46
	102.57
	29.76
	165.07
	34.99
	259.62
	40.77

Profile	Inertia (cm ⁴)
	393.11
	46.91
	663.73
	55.68
	923.84
	85.01
	1649.70
	94.82

* Available as part of our standard range. All other profiles are available to order and will therefore be subject to extended leadtimes. Please consult with your Project Consultant for further details.

Elegance 52 Curtain Walling

PROFILE INERTIA VALUES

Profile	Inertia (cm ⁴)
52i61	66.87
52i65	151.47
52i63	712.11
52M05	35.05
52i12	21.05

Profile	Inertia (cm ⁴)
52M07	57.00
52M08	86.80
52M10	12.40
52M11	181.18
52M12	37.16

Profile	Inertia (cm ⁴)
52M14	383.65
52M15	47.62
52M16	449.11
52M18	50.23
52M19	520.95
52M20	52.55
52M21	739.80
52M22	59.25

* Available as part of our standard range. All other profiles are available to order and will therefore be subject to extended leadtimes. Please consult with your Project Consultant for further details.

Elegance 52 Curtain Walling

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PROFILE INERTIA VALUES

Profile	Inertia (cm ⁴)
52R51	1.09
52R64	3.76
52R65	3.74
52R52	8.84
52T62*	5.53
52T60*	9.66
52R56	12.18
52T63*	12.70

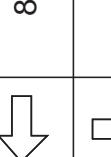
Profile	Inertia (cm ⁴)
52R53*	20.23
52T54*	14.97
52T62*	37.11
52T63*	18.37
52R57	91.60
52T61*	25.29
52R56	144.05
52T60*	29.83

Profile	Inertia (cm ⁴)
52T61*	218.10
52T63*	37.20
52T64*	305.59
52R57	42.20
52R56	11.51
52T60*	7.90
52R55	12.20
52T61*	7.71

* Available as part of our standard range. All other profiles are available to order and will therefore be subject to extended leadtimes. Please consult with your Project Consultant for further details.

Elegance 52 Curtain Walling

PROFILE INERTIA VALUES

Profile	Inertia (cm ⁴)	Profile	Inertia (cm ⁴)
	4.15		89.27
52R80	 	52T84	
	7.29		28.04
52R81	 	52T85	
	14.75		144.43
52T82	 	52T86	
	14.96		33.28
52T83	 	52T87	
	34.84		308.02
52T84	 	52H14	
	20.20		43.74
52P20	 	52H15	
	58.10		217.69
52T85	 	52T86	
	24.12		38.86
52T87	 	52P20	

* Available as part of our standard range. All other profiles are available to order and will therefore be subject to extended leadtimes. Please consult with your Project Consultant for further details.

Elegance 52 Curtain Walling

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PROFILE INERTIA VALUES

Profile	Inertia (cm ⁴)	Profile	Inertia (cm ⁴)
	7.20		18.00
	6.20		38.82
	10.70		11.72
	11.72		12.00
	12.00		14.724
	13.00		14.724
	13.00		151.60
	151.60		166.87
	166.87		172.30
	172.30		172.30
	172.30		172.30
	172.30		172.30

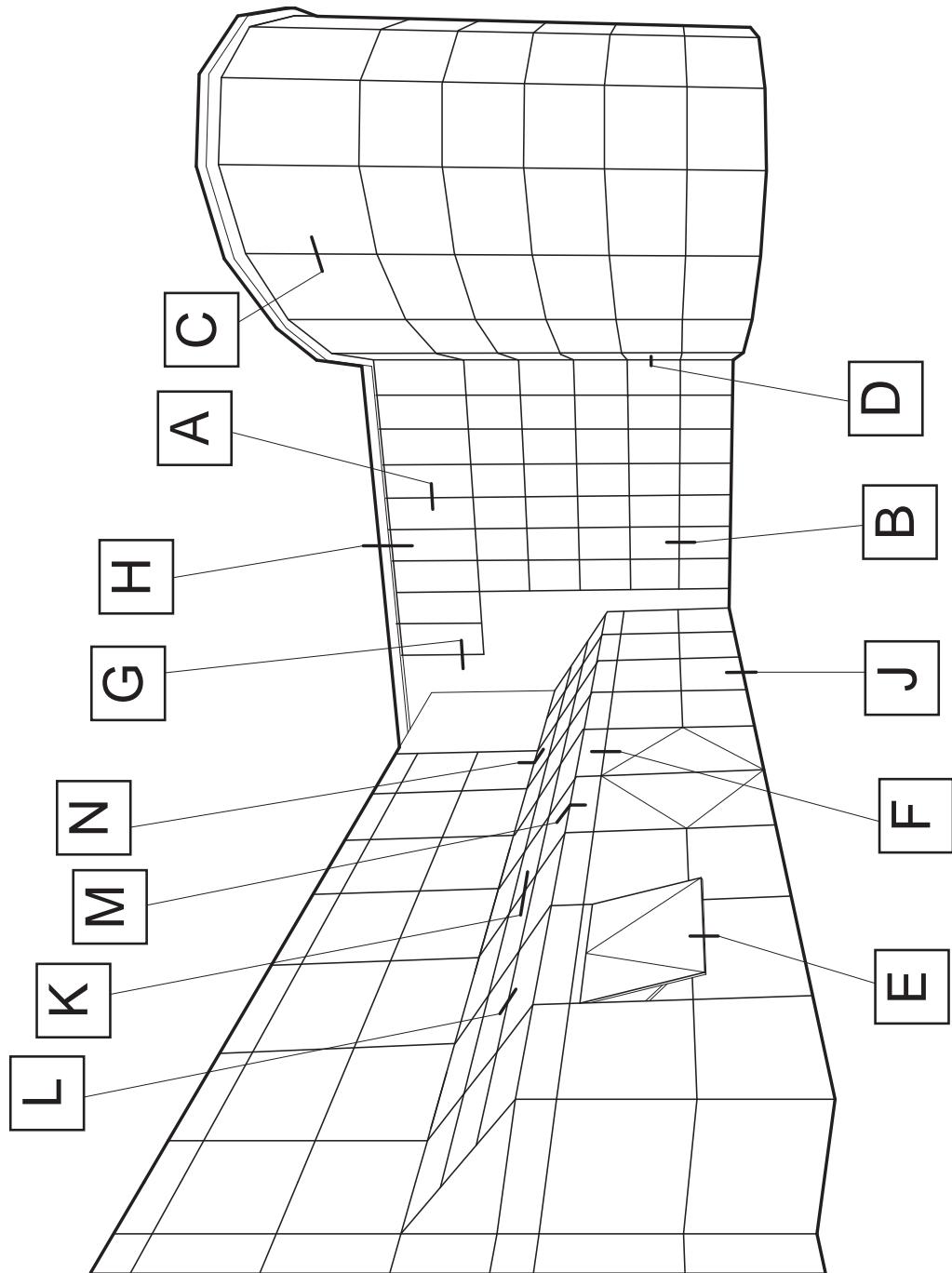
Profile	Inertia (cm ⁴)	Profile	Inertia (cm ⁴)
	77.98		91.20
	12.06		12.00
	12.44		14.724
	12.44		14.724
	12.73		151.60
	12.73		166.87
	12.90		172.30
	12.90		172.30
	13.24		172.30
	13.24		172.30

Profile	Inertia (cm ⁴)
	147.24
	147.24
	147.24
	147.24
	147.24
	147.24

* Available as part of our standard range. All other profiles are available to order and will therefore be subject to extended leadtimes. Please consult with your Project Consultant for further details.

Elegance 52 Curtain Walling		
Detail	Elevation	Page
Elegance 52		
A	Typical Elegance 52 ST Mullion	14
B	Typical Elegance 52 HL Mullion	15
B	Typical Elegance 52 SG Mullion	16
C	Typical Elegance 52 SX Mullion	17
D	Typical Elegance 52 GF Mullion	18
	Typical Elegance 52 ST Mullion with SGV Casement	19
	Typical Elegance 52 ST Expansion Mullion	20
E	Typical Elegance 52 ST Transom	21
F	Typical Elegance 52 HL Transom	22
G	Typical Elegance 52 SG Transom	23
H	Typical Elegance 52 SX Transom	24
J	Typical Elegance 52 GF Transom	25
	Typical Elegance 52 ST Transom with SGV Casement	26
	Typical Elegance 52 ST External Facet Mullion	27
K	Typical Elegance 52 ST Internal facet mullion	28
L	Typical Elegance 52 ST Overclad Mullion & Overclad Transom	29
M	Typical Elegance 52 ST Alternative Mullion	30
N	Typical Elegance 52 ST Insert Window	31
	Typical Elegance 52 ST Insert Door	32
	Typical Elegance 52 ST Jamb Mullion	33
	Typical Elegance 52 ST Head Transom	34
	Typical Elegance 52 ST Cill Transom	35
	Typical Elegance 52 ST Thermal Mullion	36
	Typical Elegance 52 ST Thermal Transom	37
	Typical Elegance 52 ST Cill Transoms	38
	Typical Elegance 52 ST Roof Transoms	39
	Typical Elegance 52 ST External Eaves Transom	40
	Typical Elegance 52 ST Internal Eaves Transom	41
	Typical Elegance 52 ST Roof Hip Mullion (150°)	42
	Typical Elegance 52 ST Roof Hip Mullion (135°)	43
Elegance 72 Unitted Curtain Walling		
	Typical Elegance 72 Mullion	44
	Typical Elegance 72 Transom	45

These drawings illustrate a number of the available profile combinations. Note that some products are only available on a project basis. Consult Sapa Building Systems for further details.

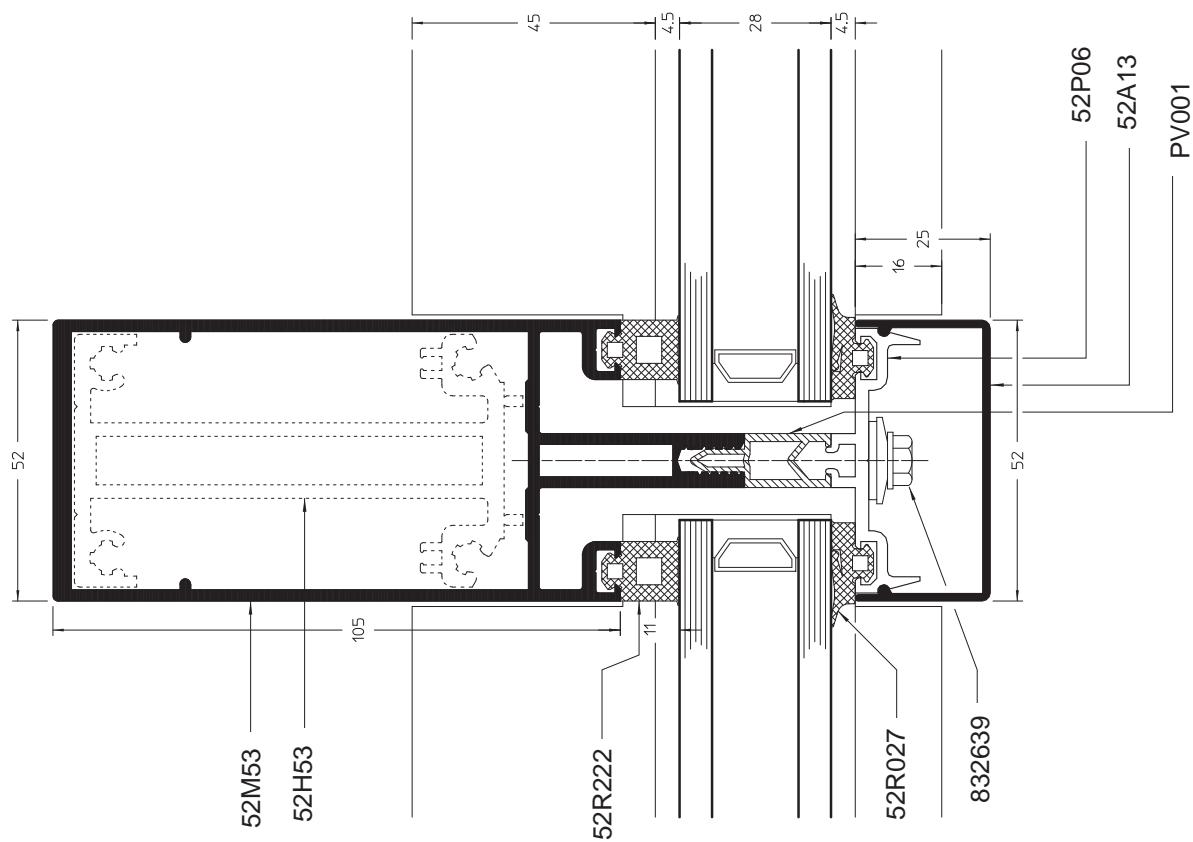


Elegance 52 ST Curtain Walling

GENERAL ARRANGEMENTS

Typical Mullion

A



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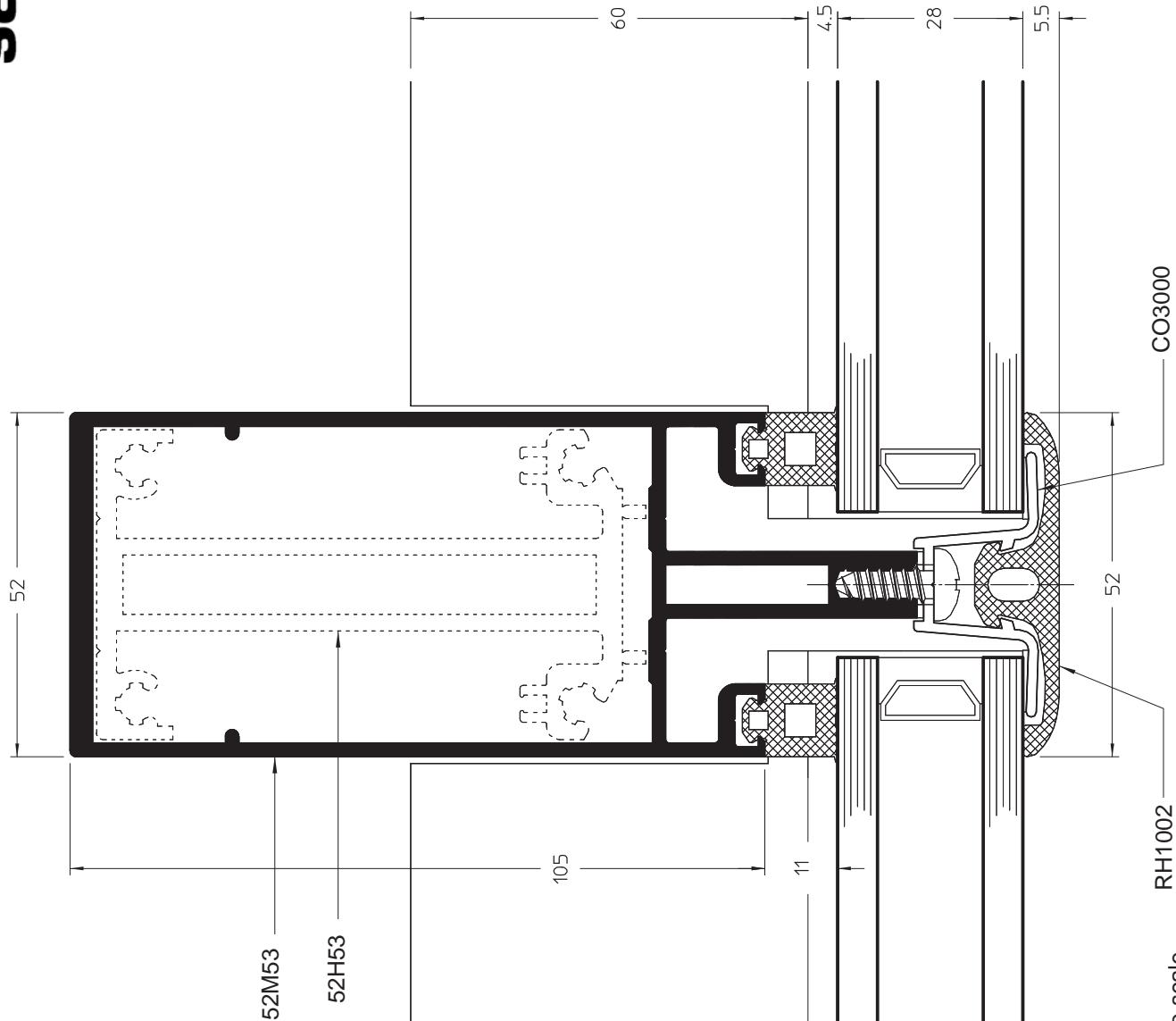
Elegance 52 HL Curtain Walling

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GENERAL ARRANGEMENTS

Typical Mullion

A



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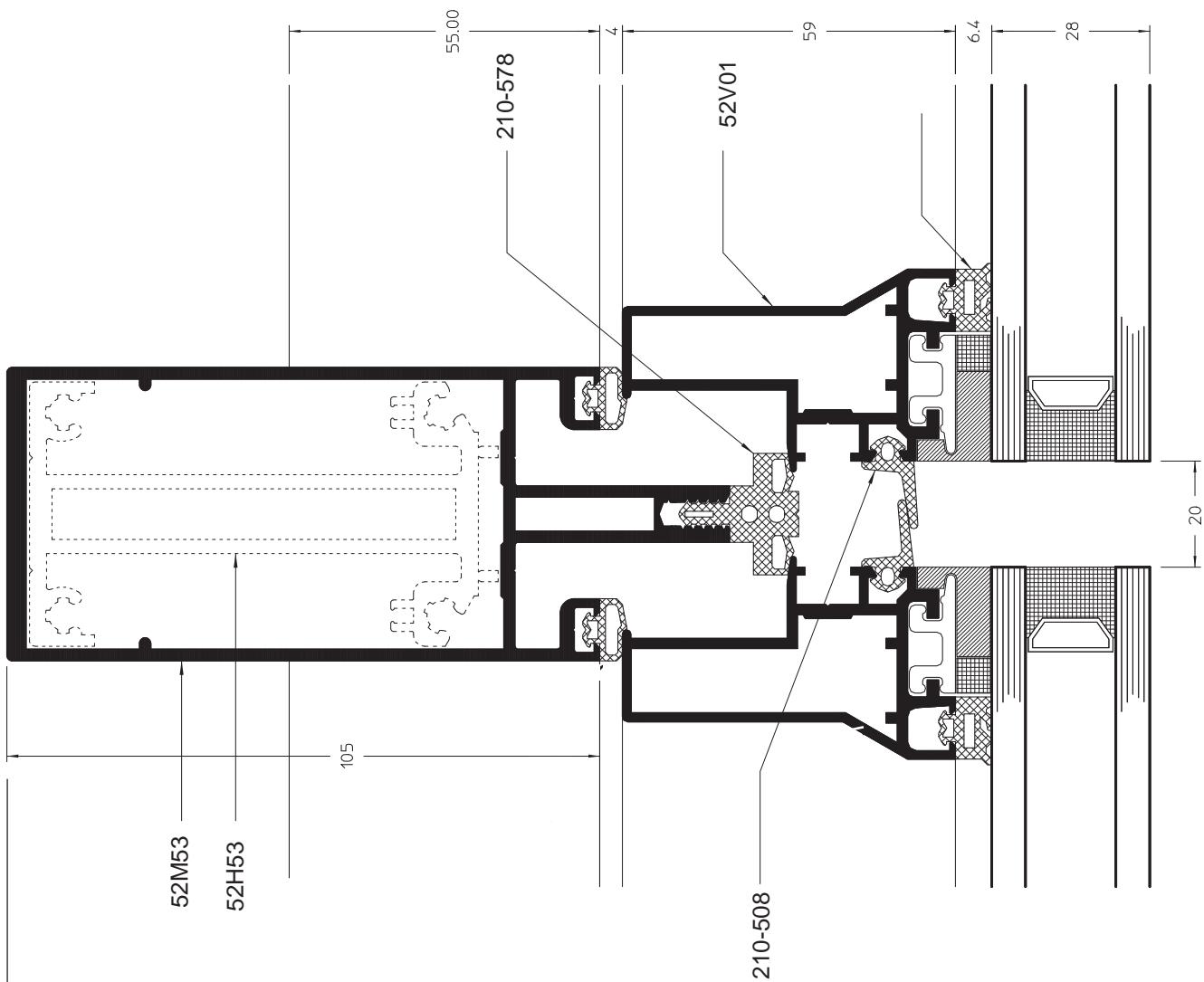
CO3000

Elegance 52 SG Curtain Walling

GENERAL ARRANGEMENTS

Typical Mullion

A



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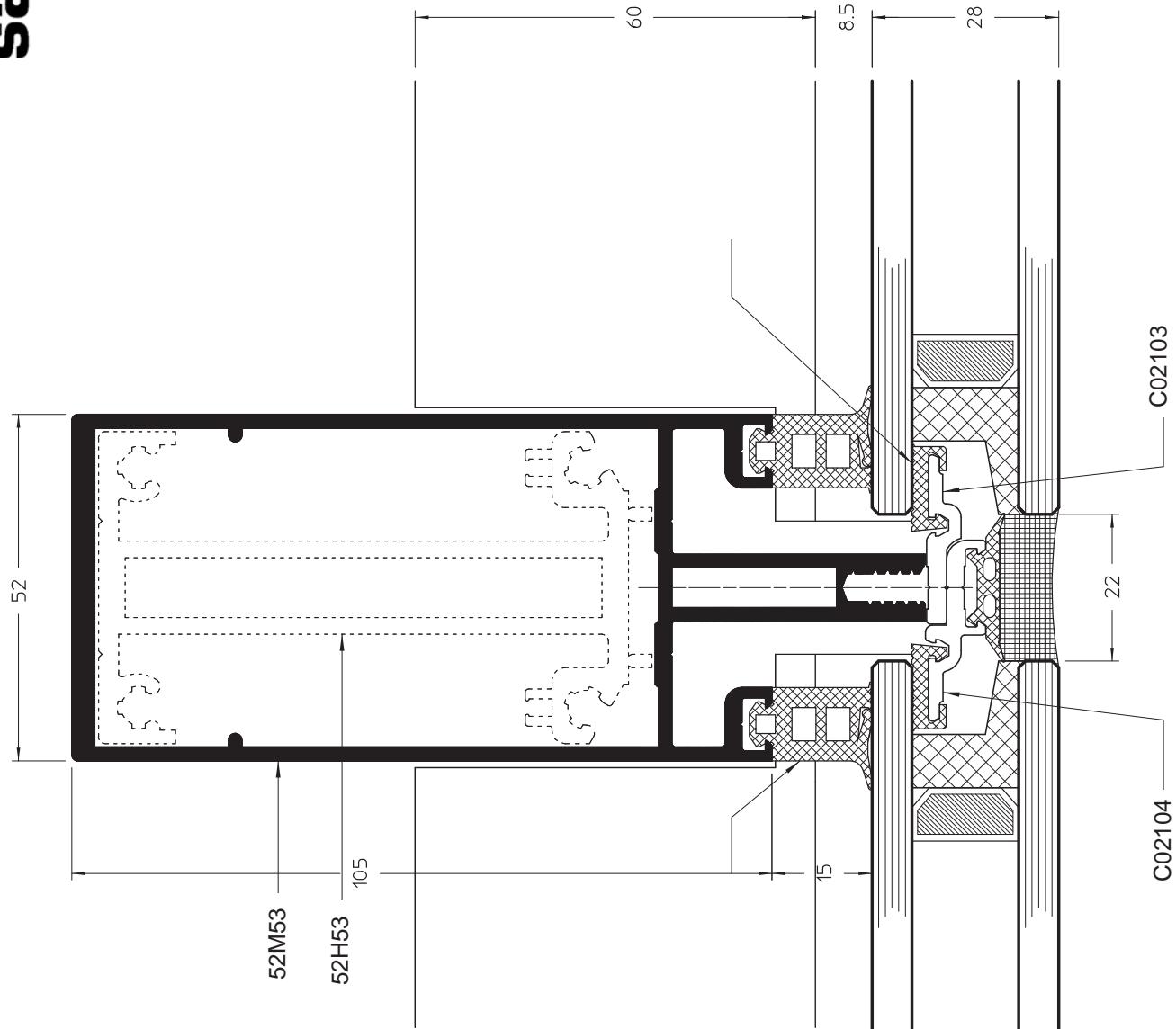
Elegance 52 SX Curtain Walling

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GENERAL ARRANGEMENTS

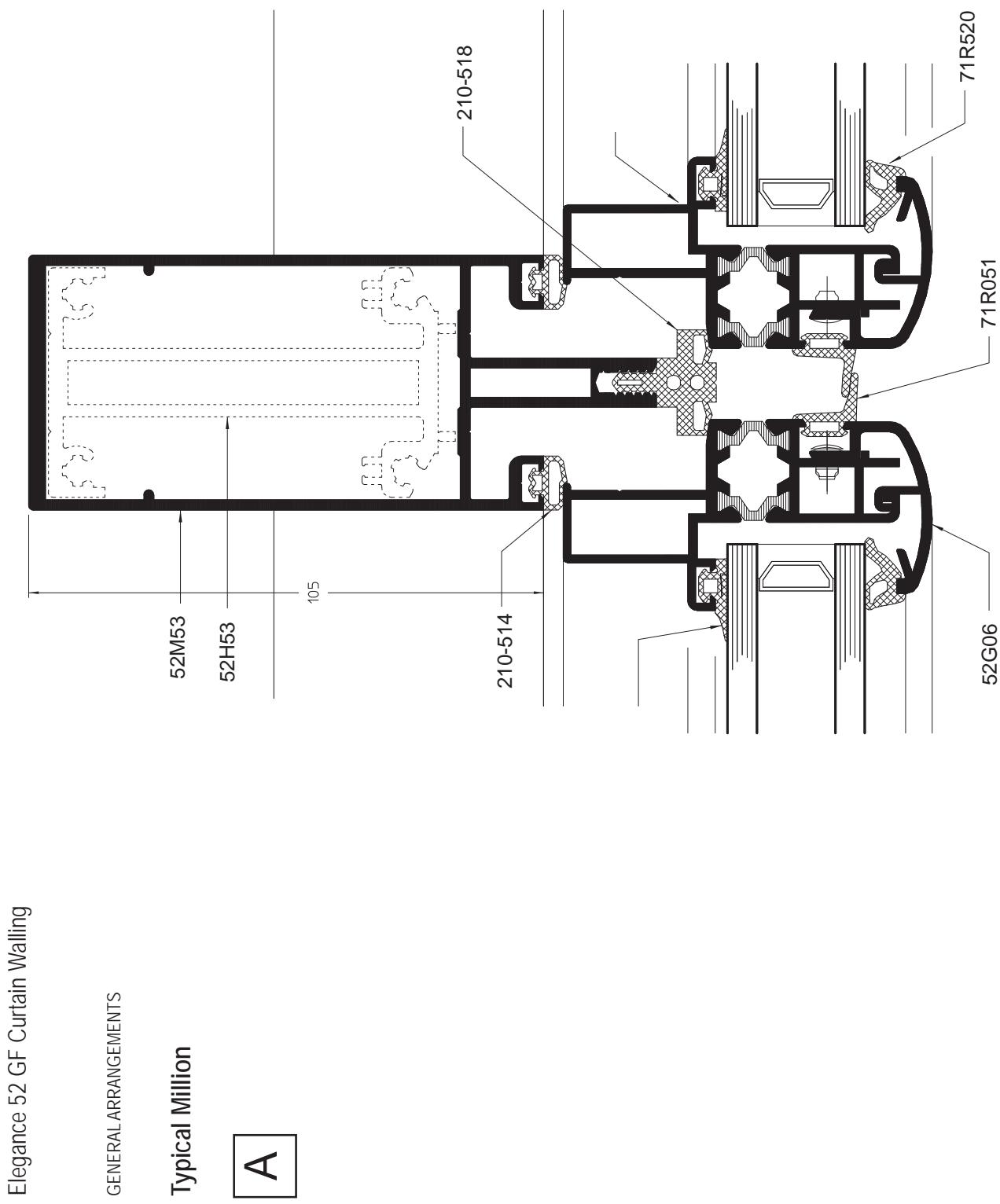
Typical Million

A



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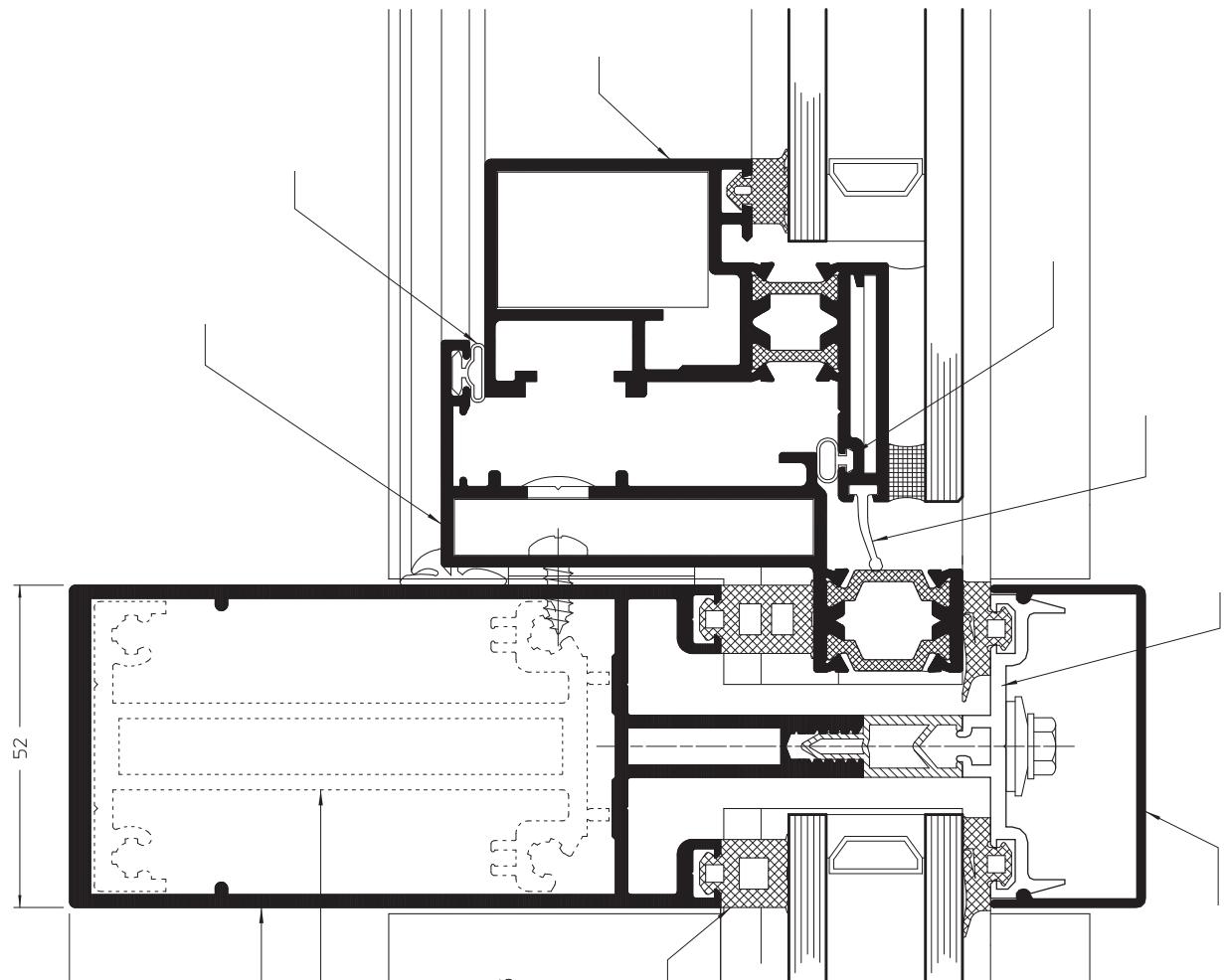
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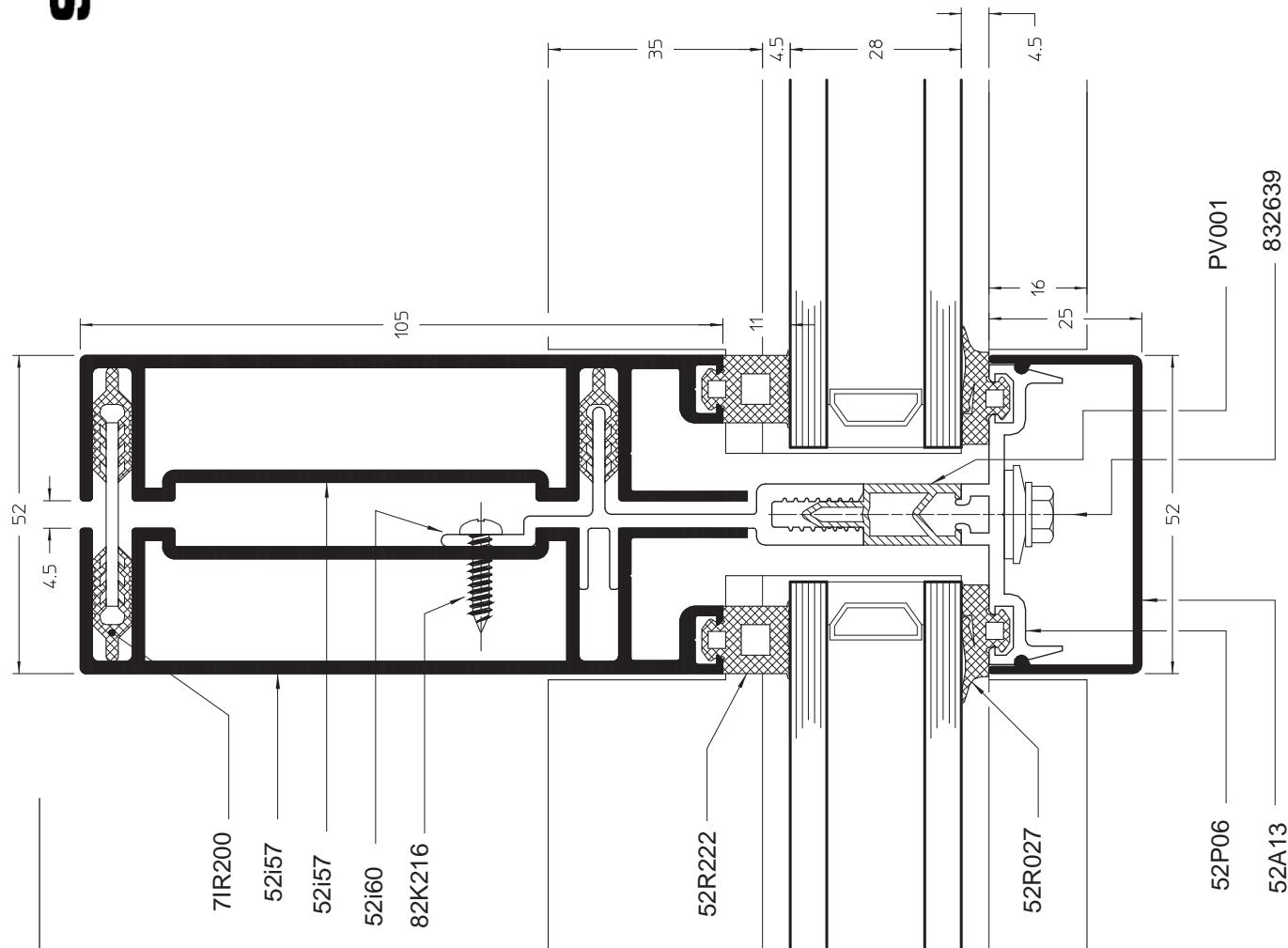
Elegance 52 ST Curtain Walling

GENERAL ARRANGEMENTS

Typical Mullion with
SGV Casement**A**

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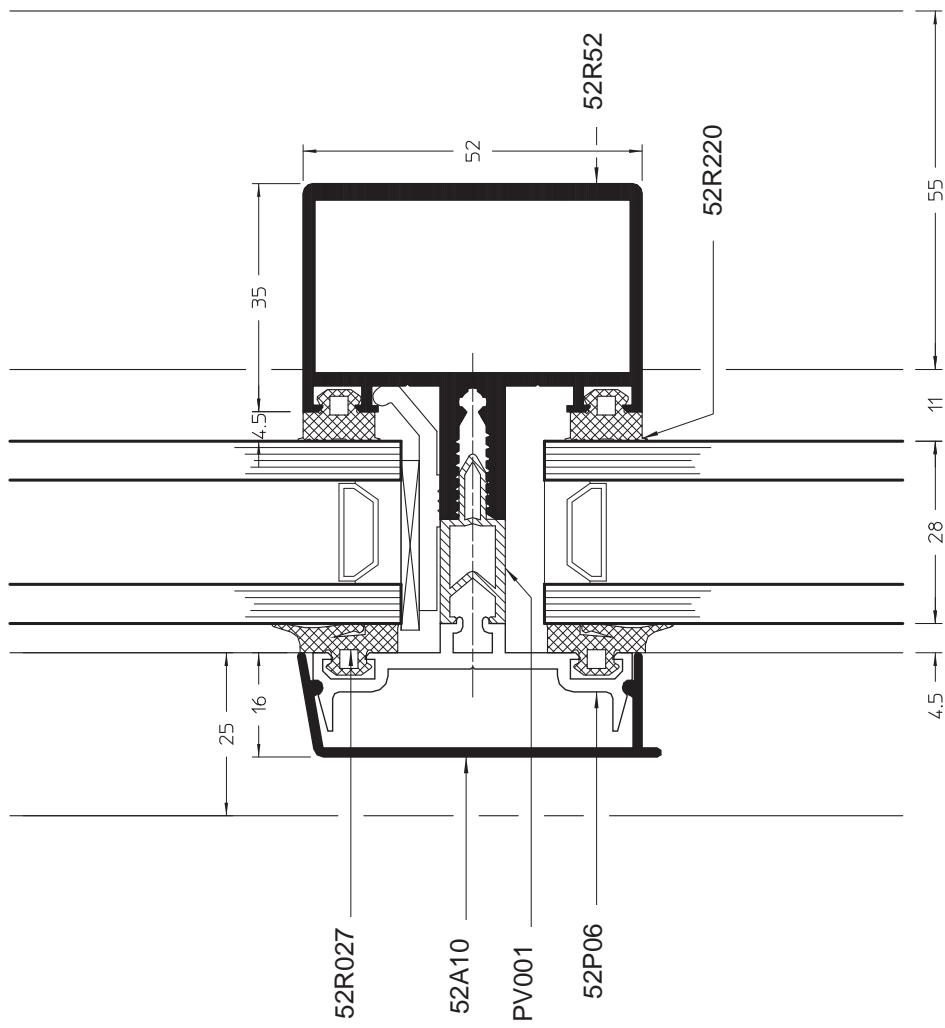


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GENERAL ARRANGEMENTS

Typical Transom

B

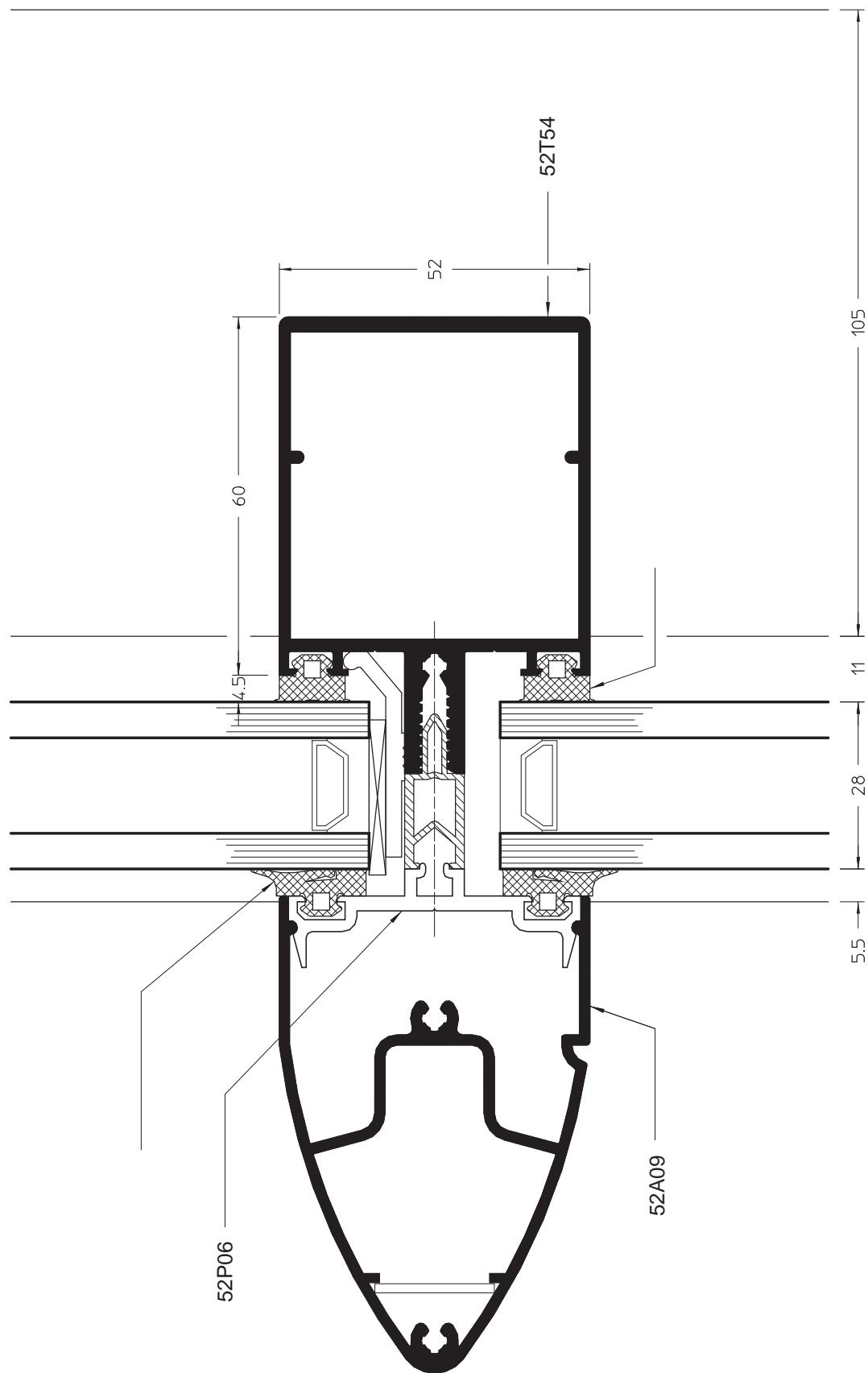


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Elegance 52 HL Curtain Walling

GENERAL ARRANGEMENTS

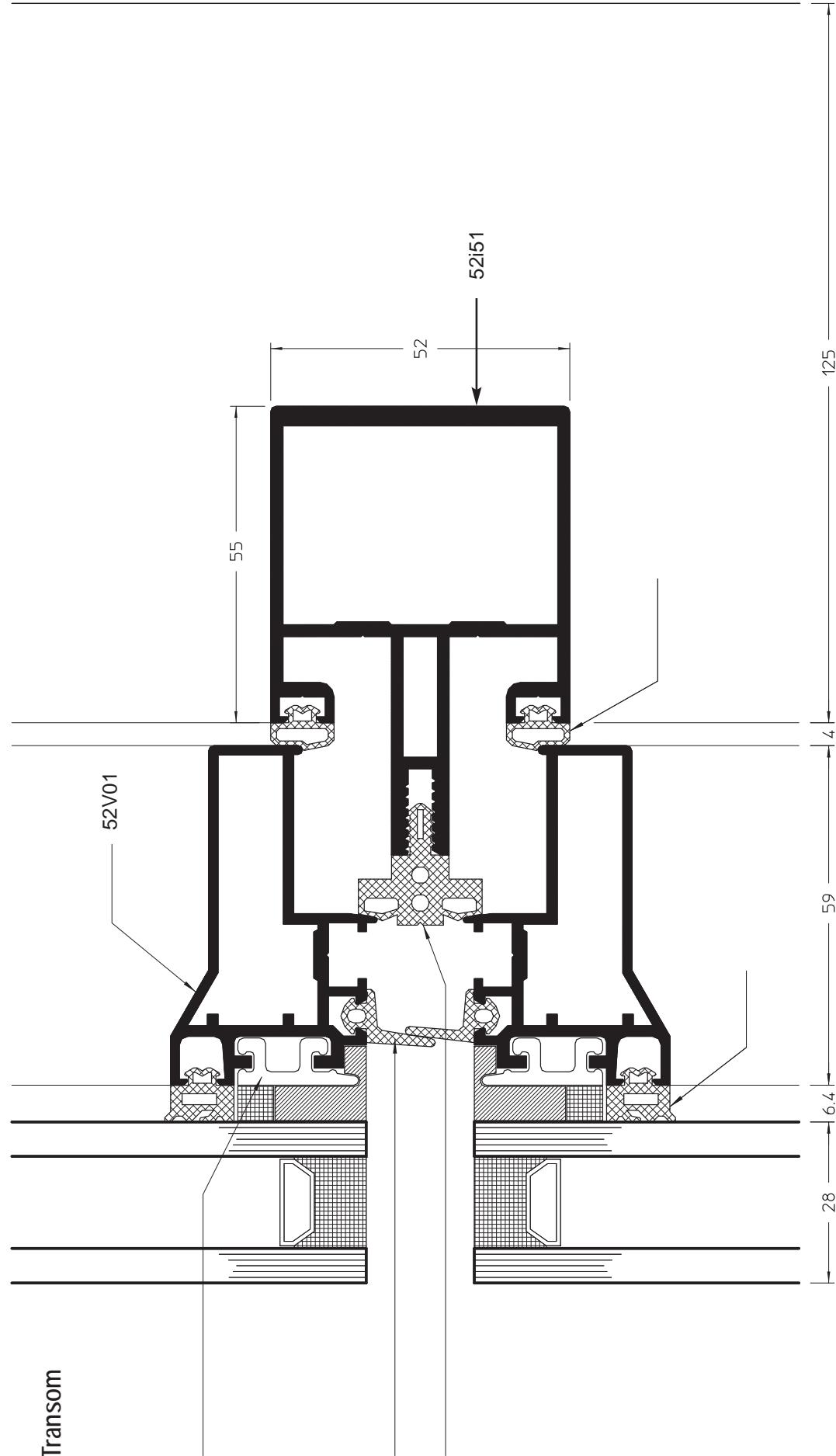
Typical Transom

B

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GENERAL ARRANGEMENTS

Typical Transom

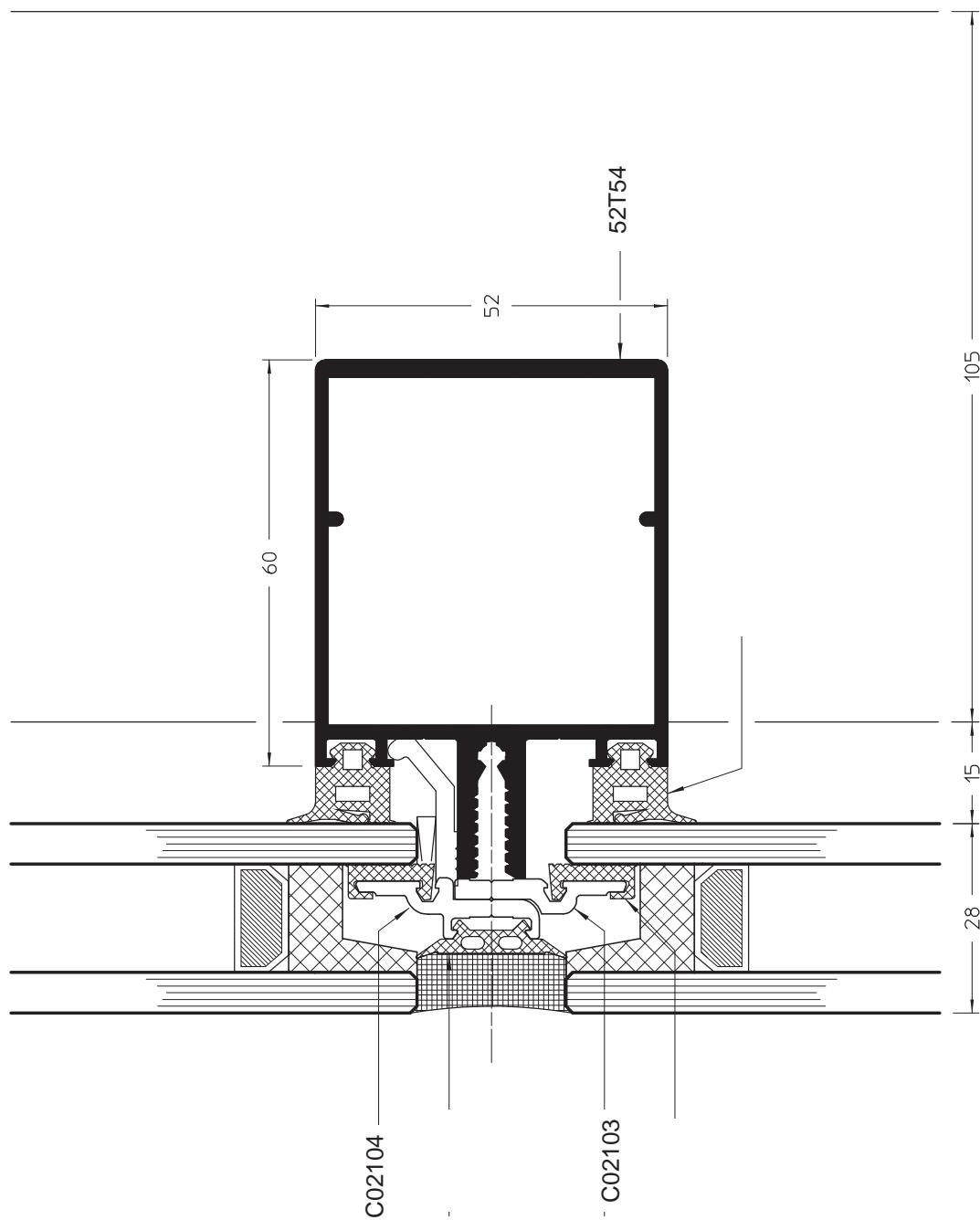
B

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Elegance 52 SX Curtain Walling

GENERAL ARRANGEMENTS

Typical Transom

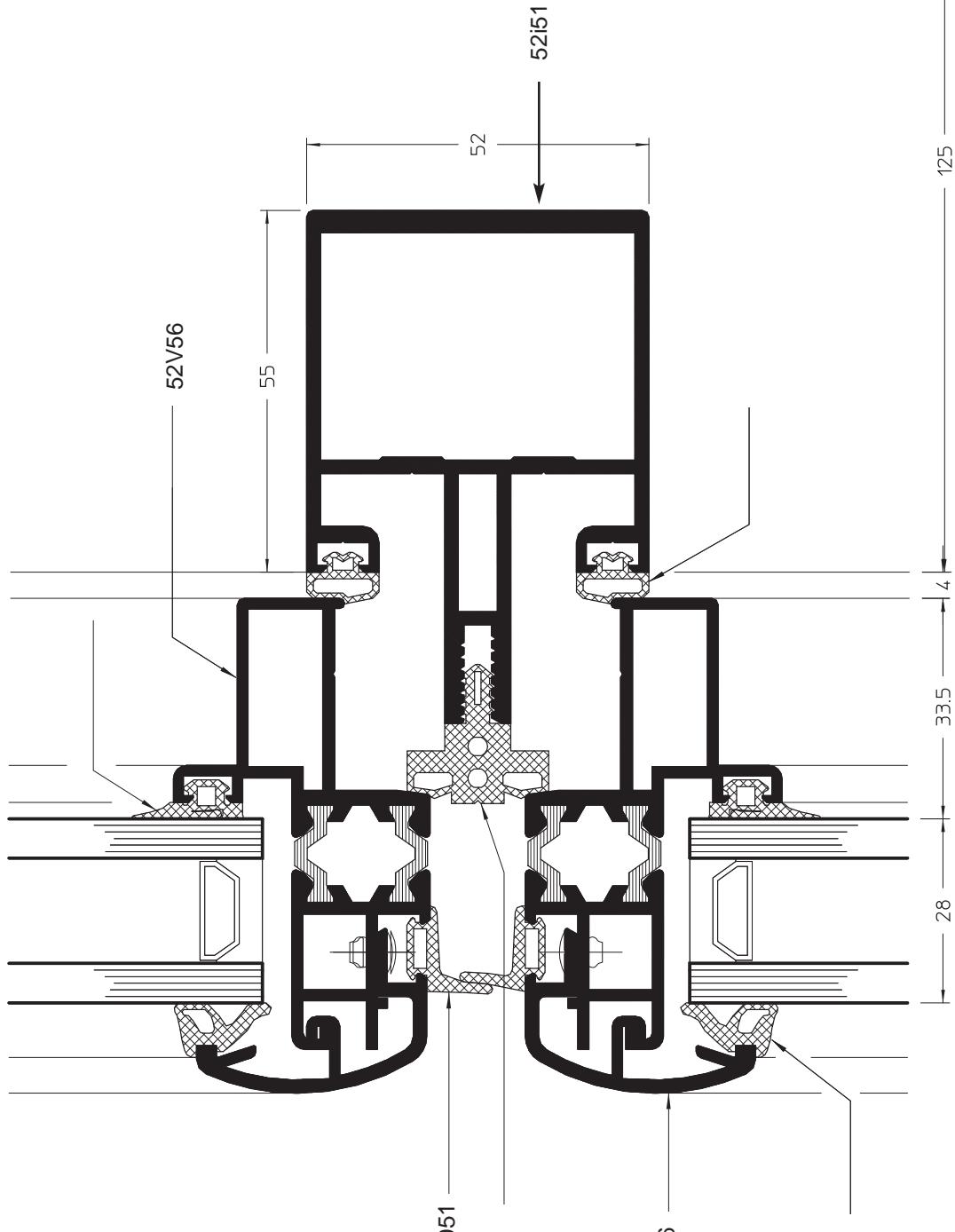
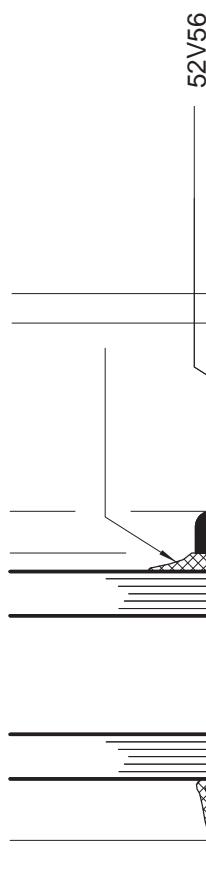
B

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Elegance 52 GF Curtain Walling

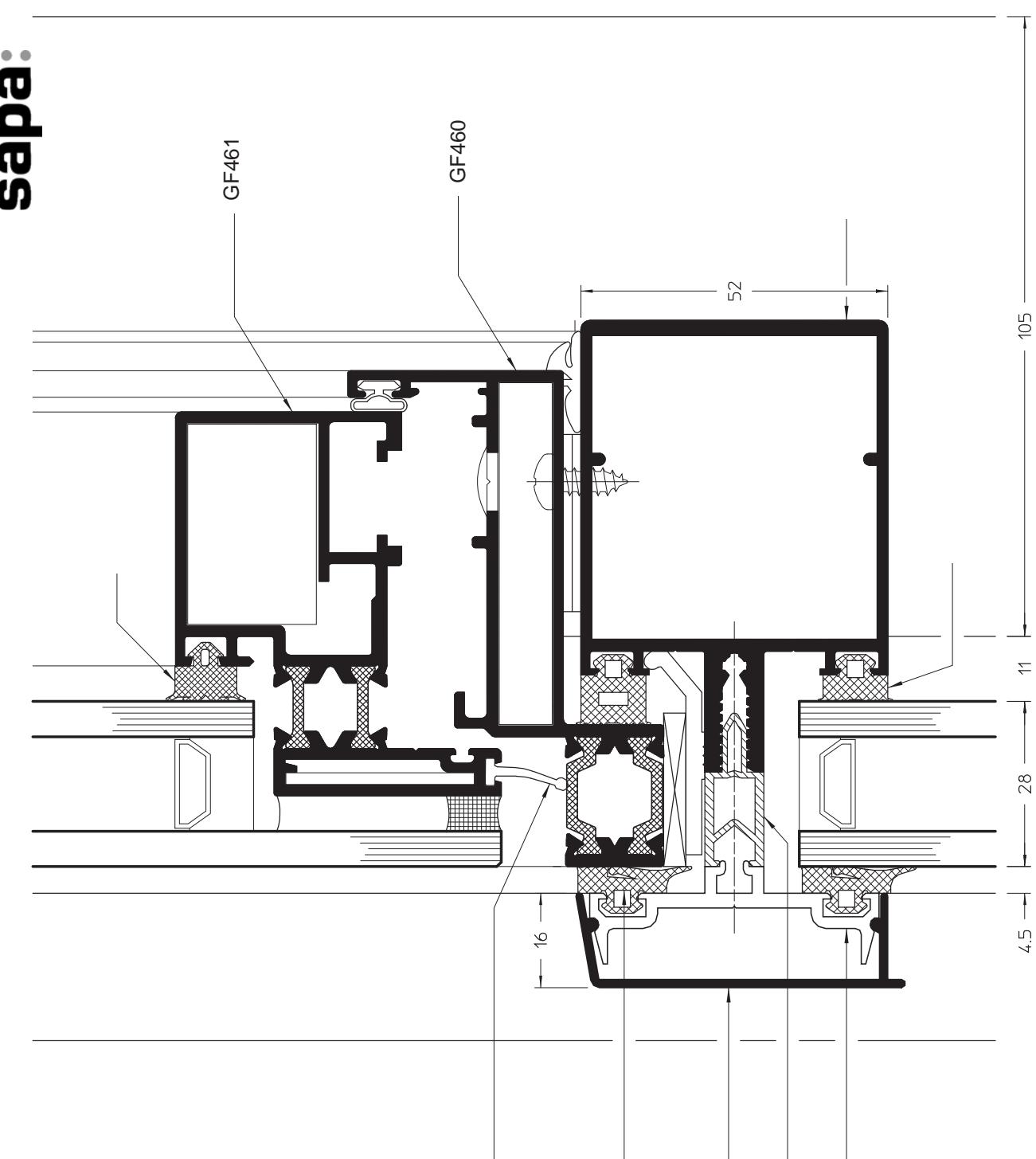
GENERAL ARRANGEMENTS

Typical Transom

B

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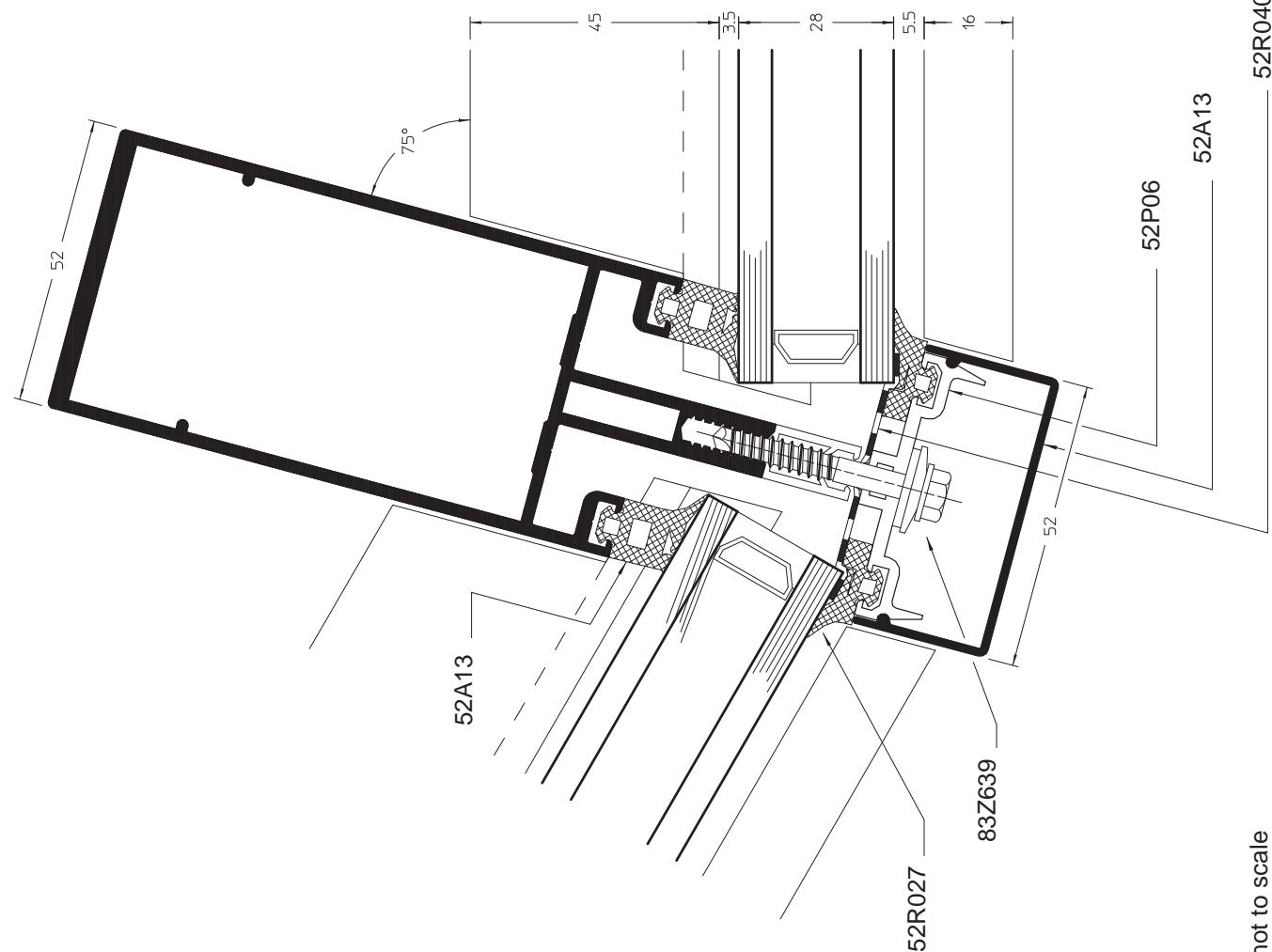
Elegance 52 ST Curtain Walling

GENERAL ARRANGEMENTS

Typical Transom with
SGV Casement

B

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Elegance 52 ST Curtain Walling

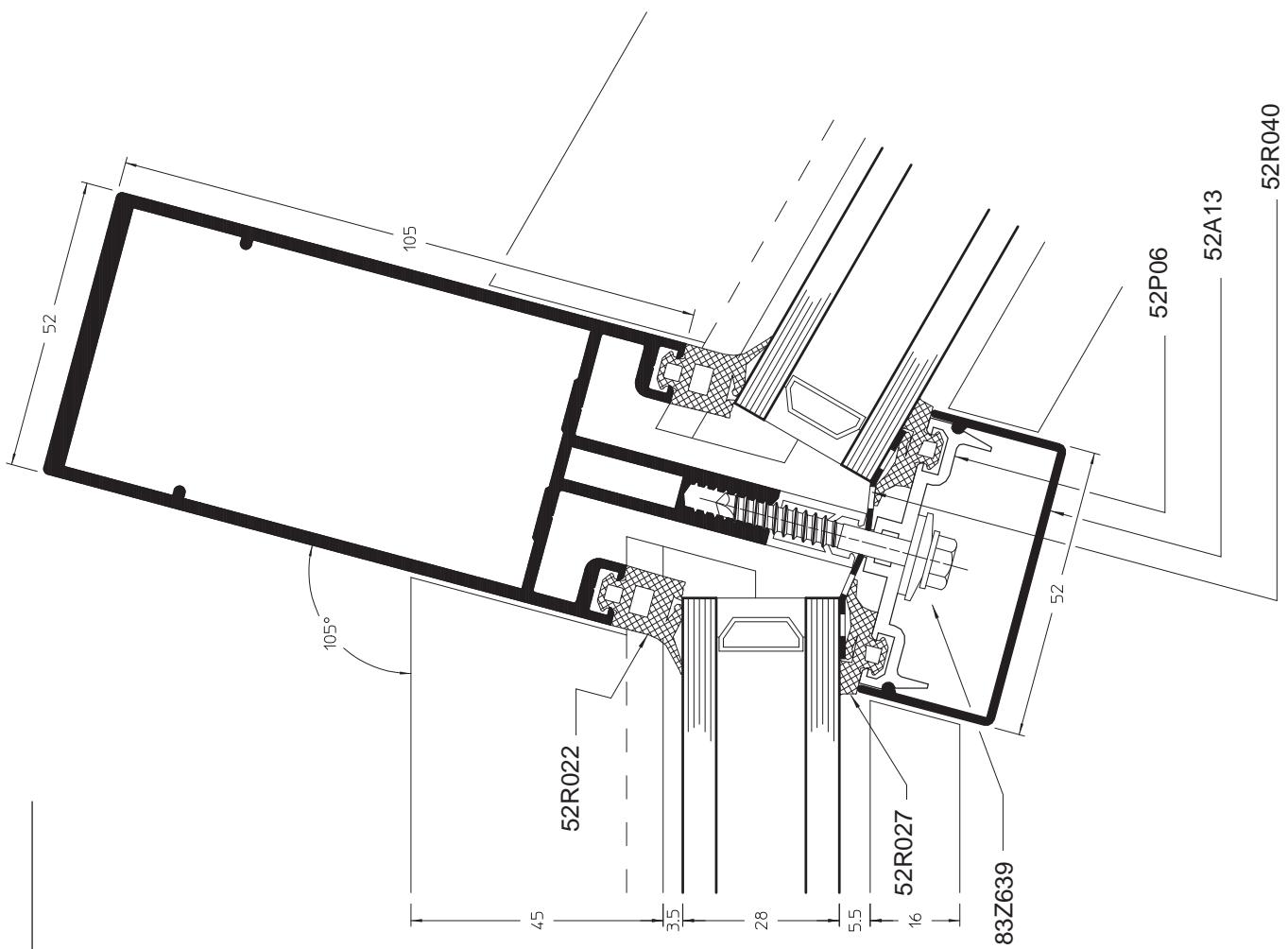
GENERAL ARRANGEMENTS

External Facet Mullion

C

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Elegance 52 ST Curtain Walling

GENERAL ARRANGEMENTS

Internal Facet Mullion

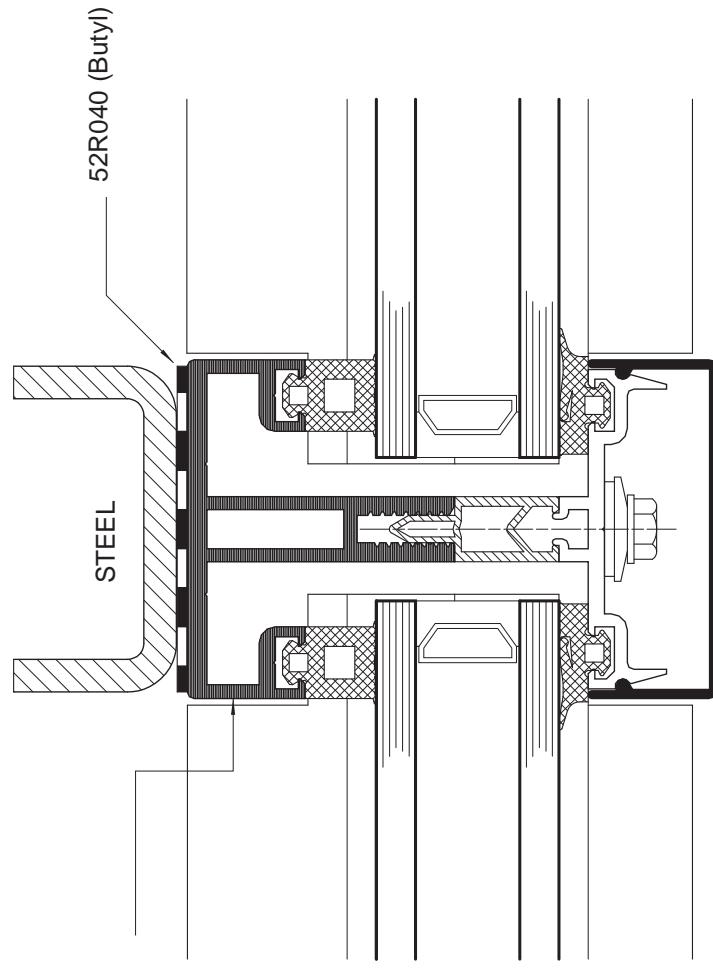
D

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Elegance 52 ST Curtain Walling

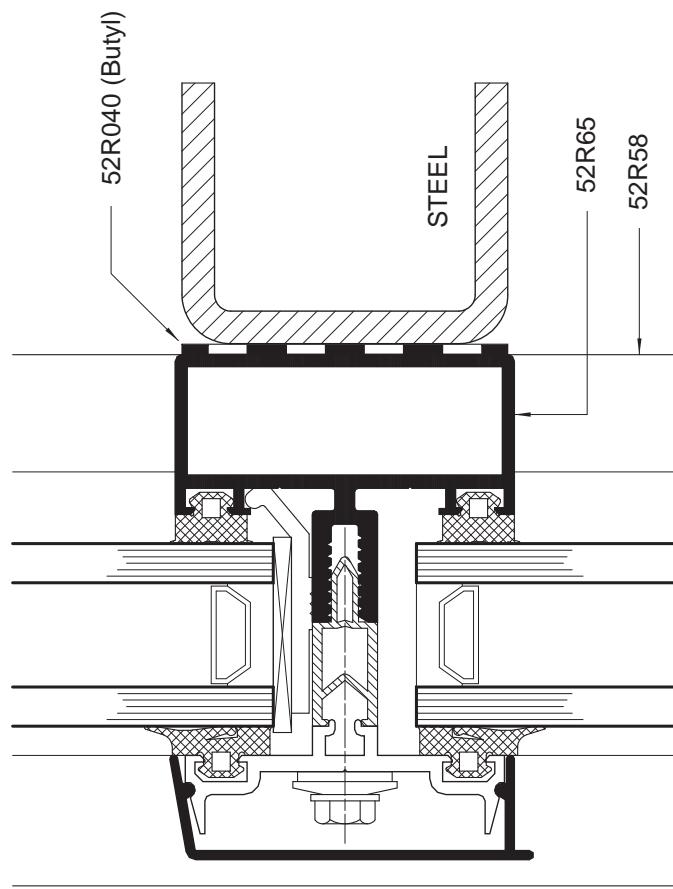
GENERAL ARRANGEMENTS

Overclad Mullion



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Overclad Transom

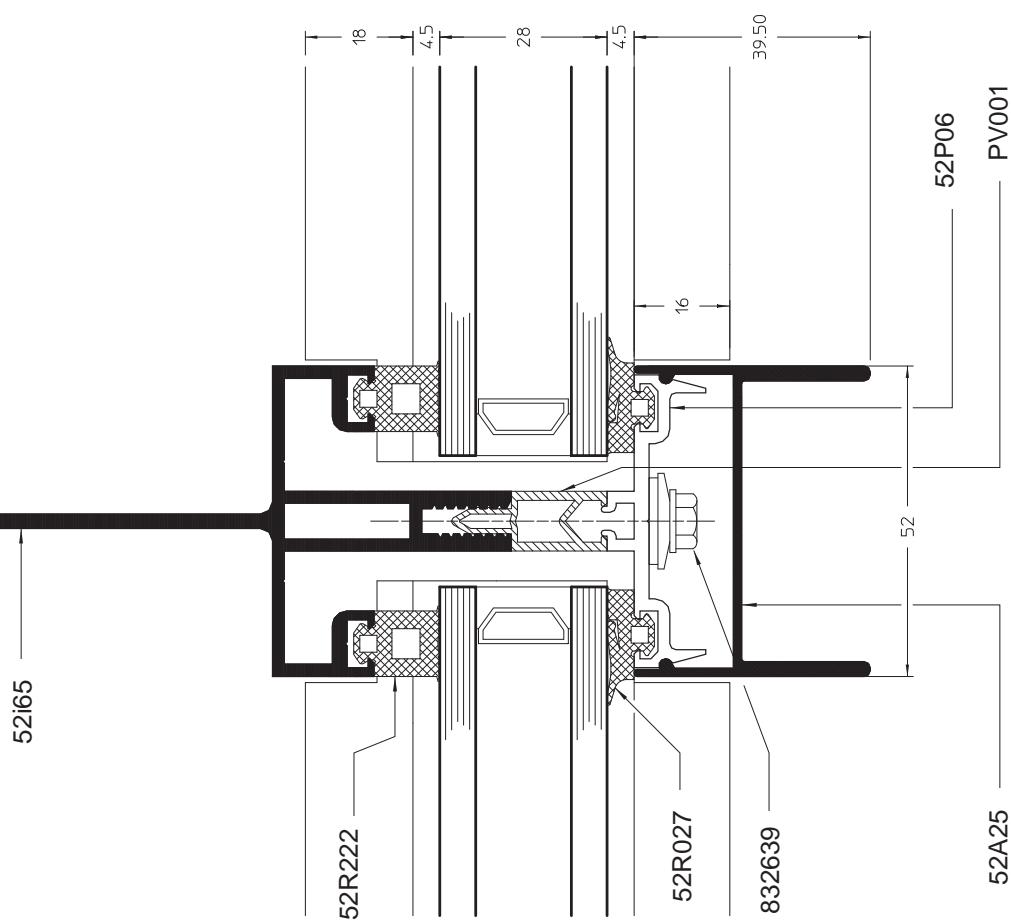


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Elegance 52 ST Curtain Walling

GENERAL ARRANGEMENTS

Typical Alternative Mullion and Cap



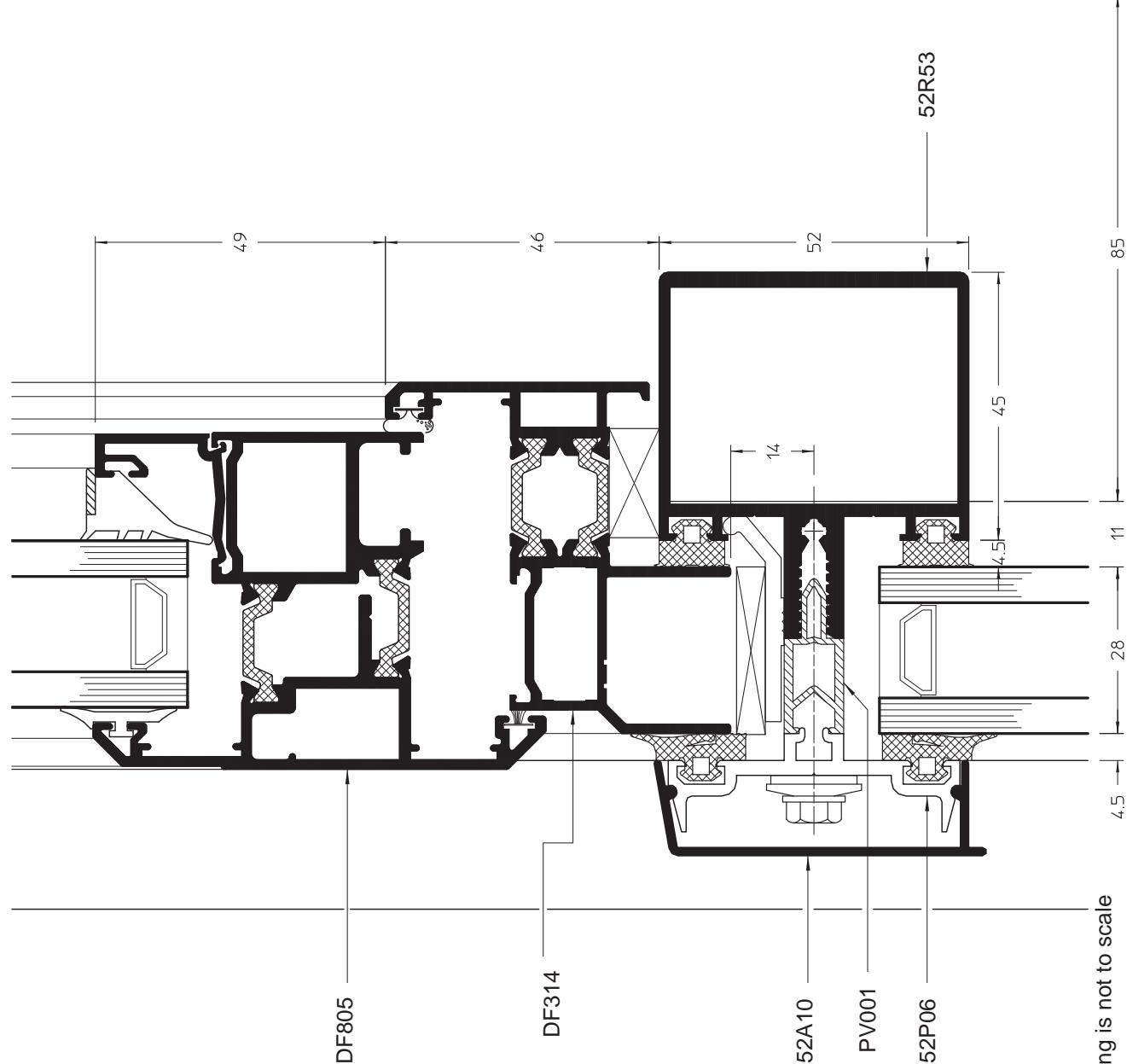
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Elegance 52 ST Curtain Walling

GENERAL ARRANGEMENTS

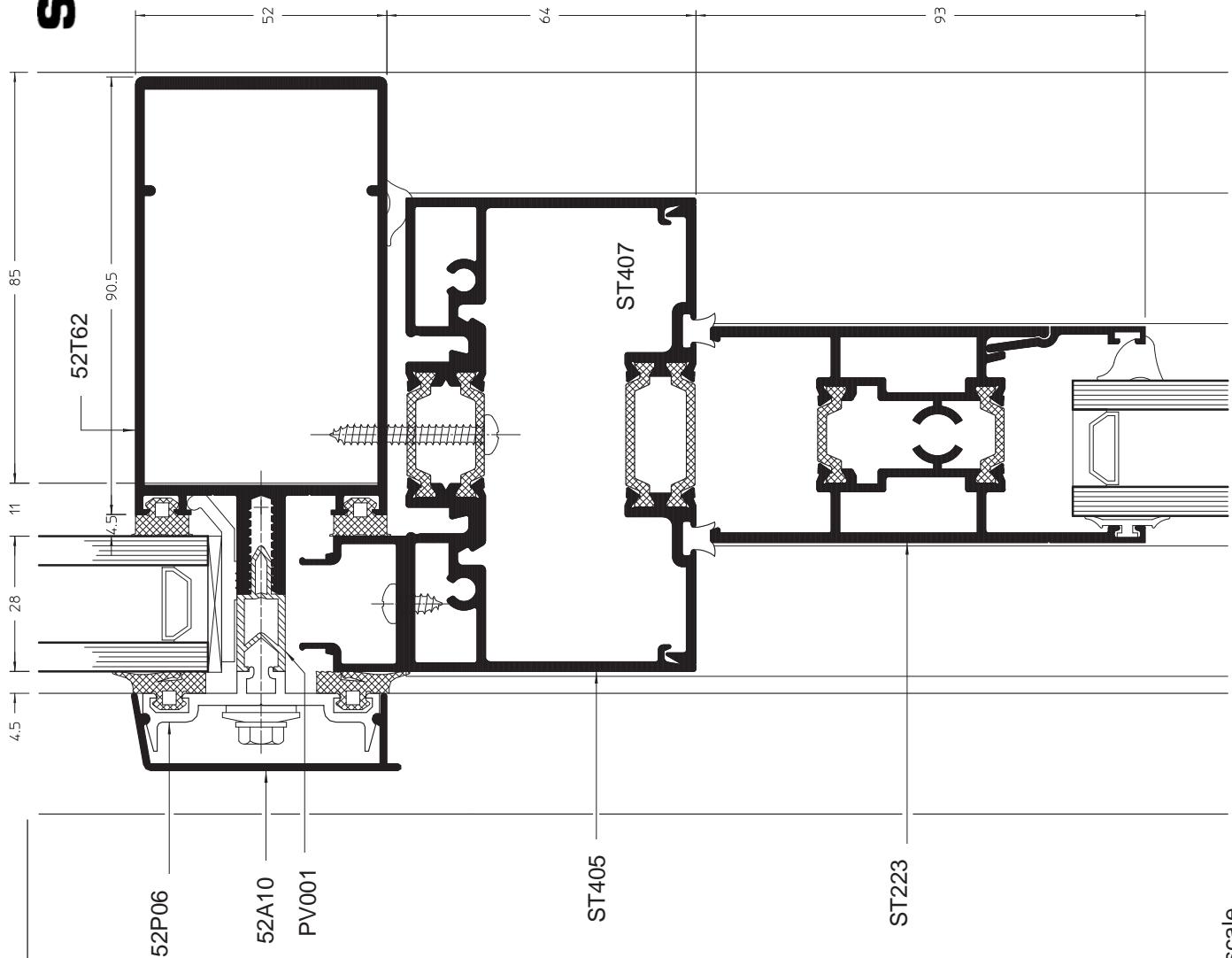
Insert Window (Dualframe)

E



sapa:

sapa:



Elegance 52 ST Curtain Walling

GENERAL ARRANGEMENTS

Insert Door (Stormframe)

F

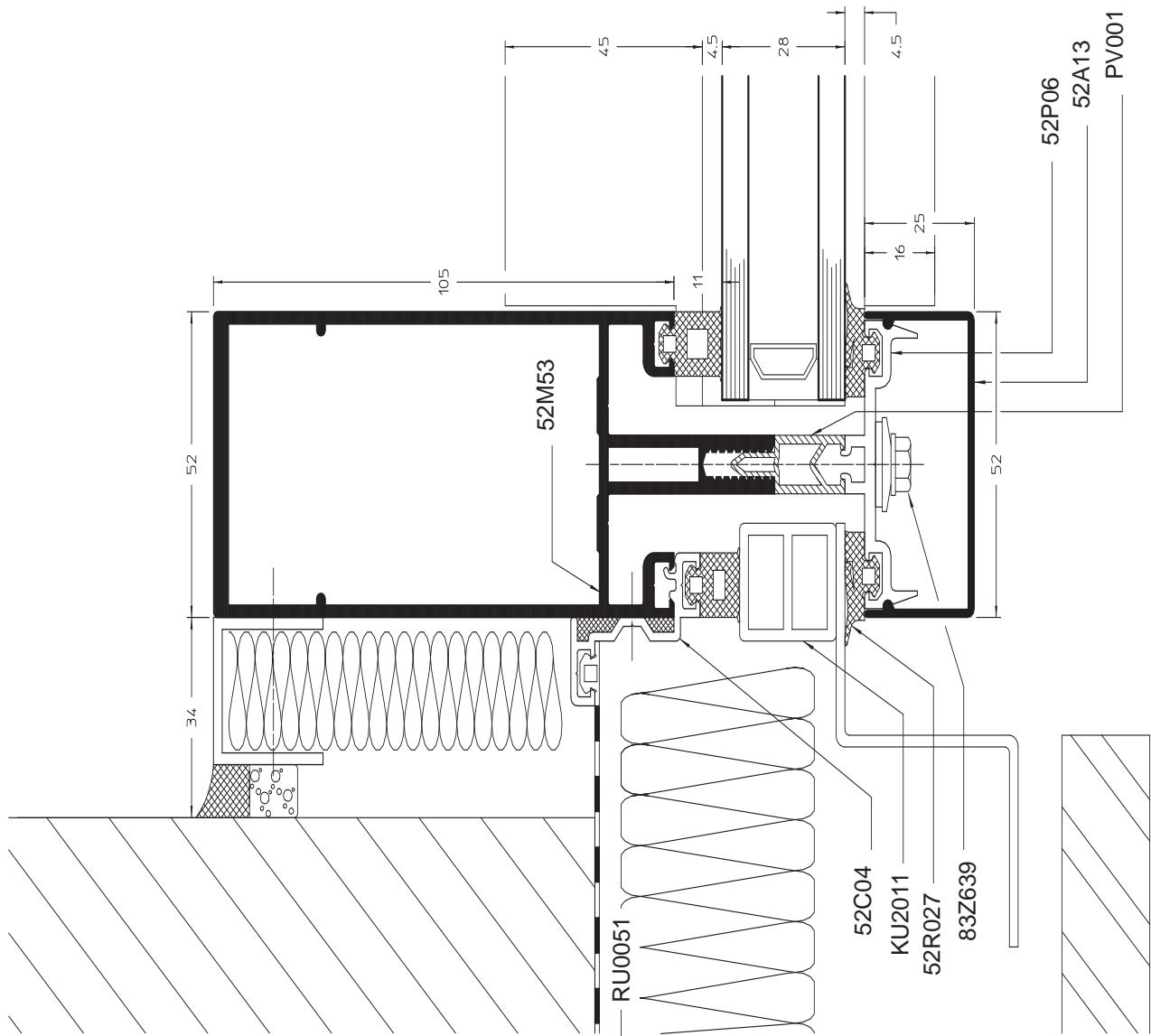
For illustration purposes this drawing is not to scale

Elegance 52 ST Curtain Walling

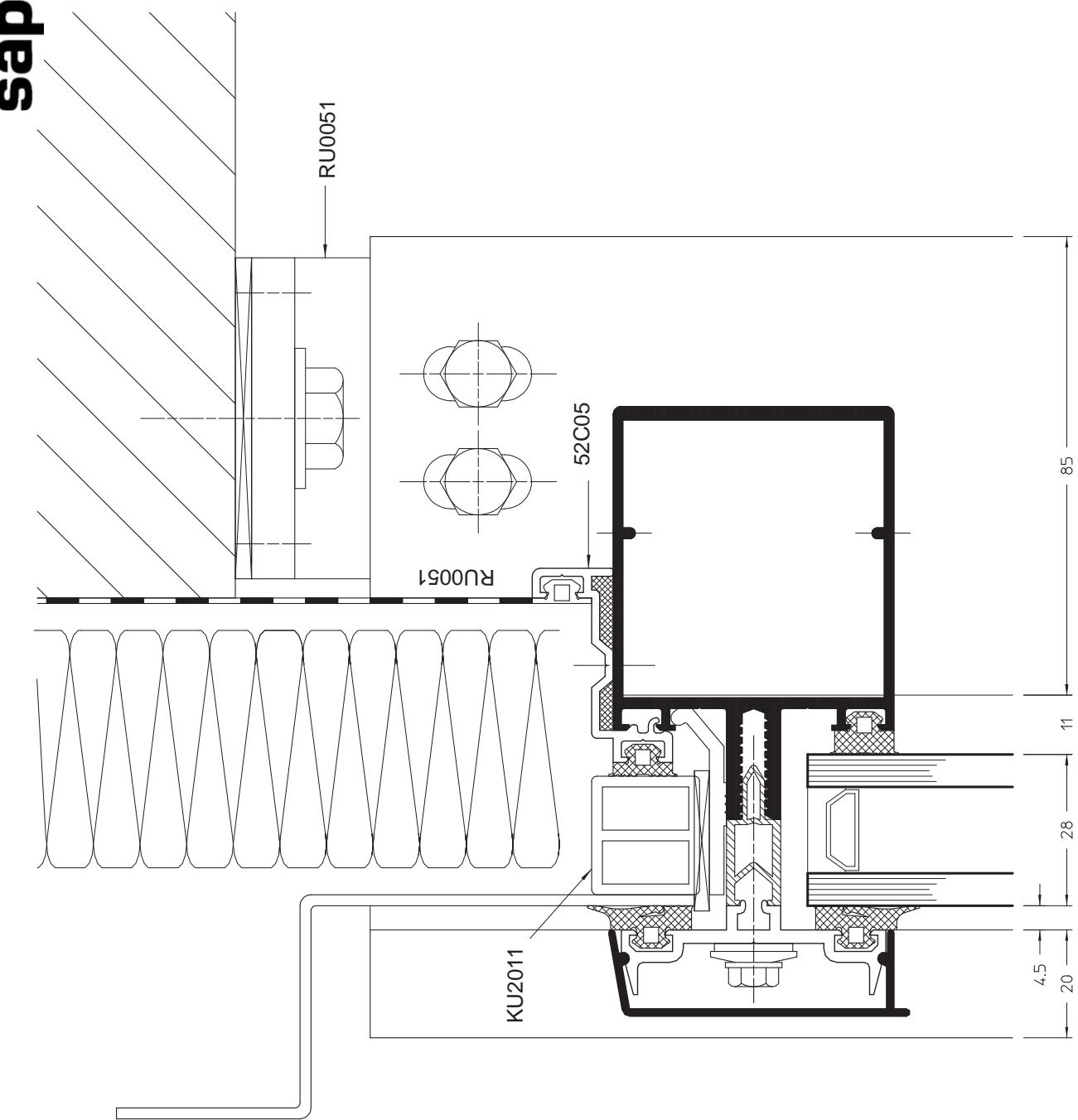
GENERAL ARRANGEMENTS

Jamb Mullion

G



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sapa:

Elegance 52 ST Curtain Walling

GENERAL ARRANGEMENTS

Head Transom

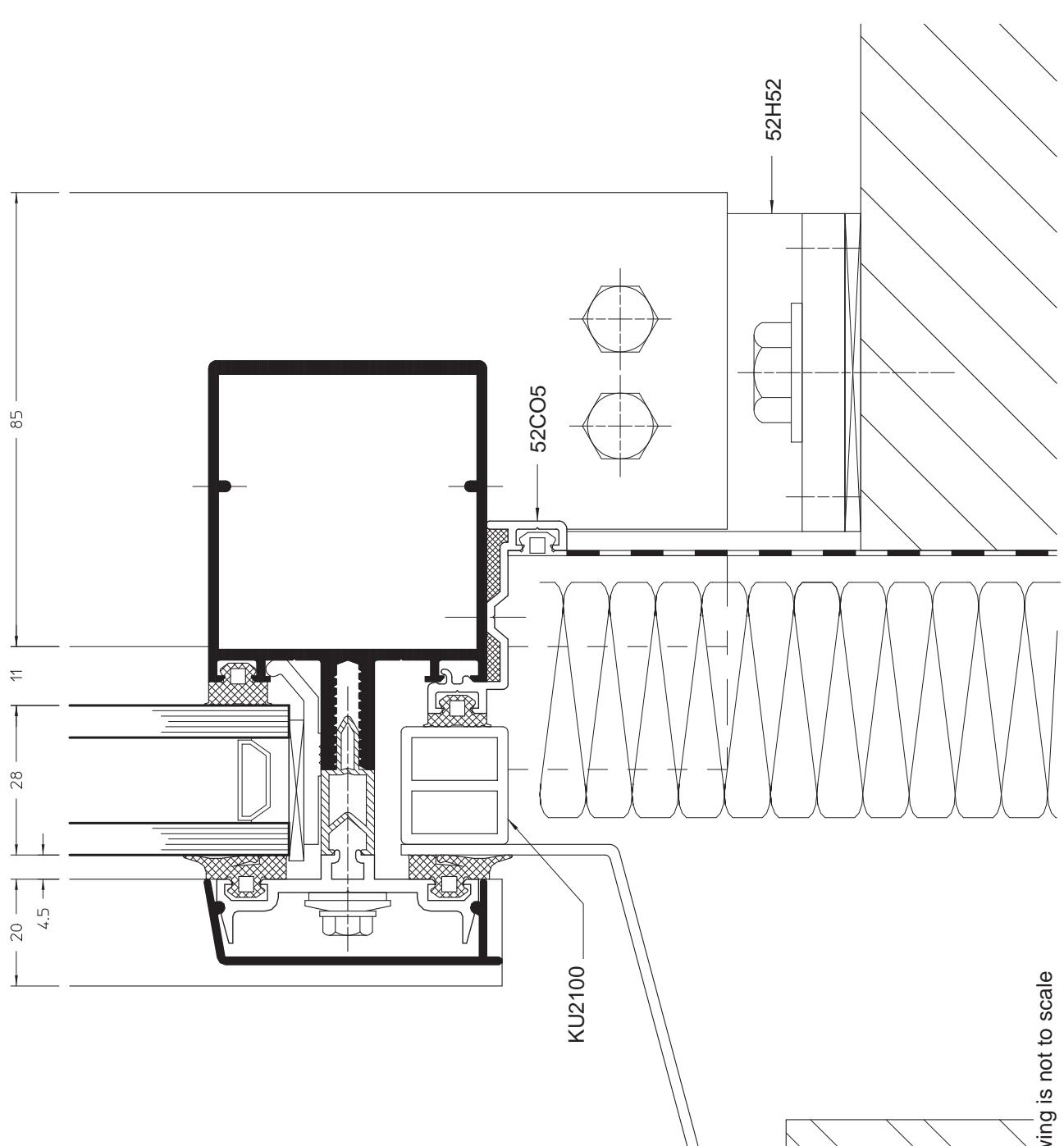
H

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Elegance 52 STCurtain Walling

GENERAL ARRANGEMENTS

Cill Transom



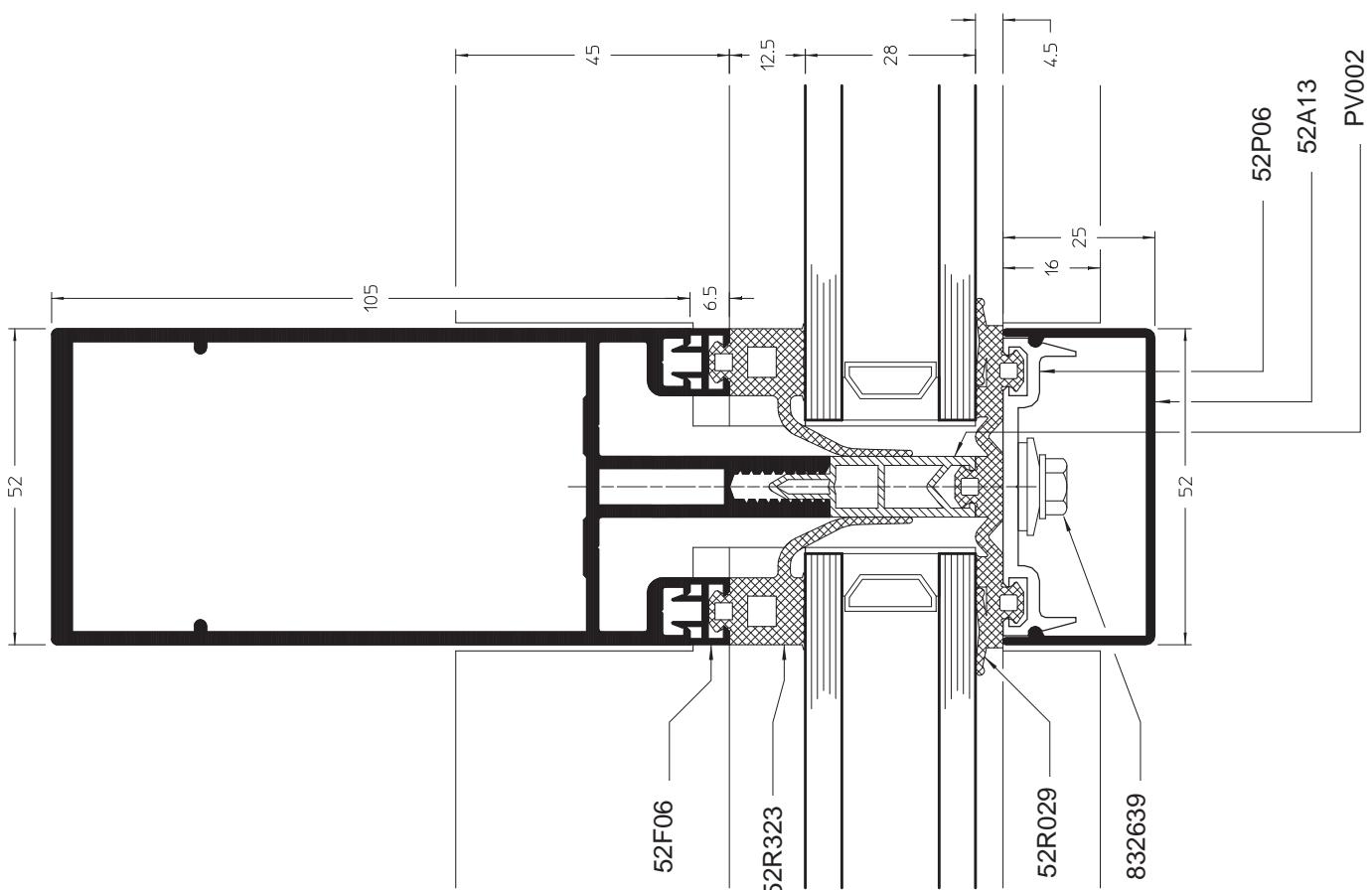
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Elegance 52 ST Curtain Walling

GENERAL ARRANGEMENTS

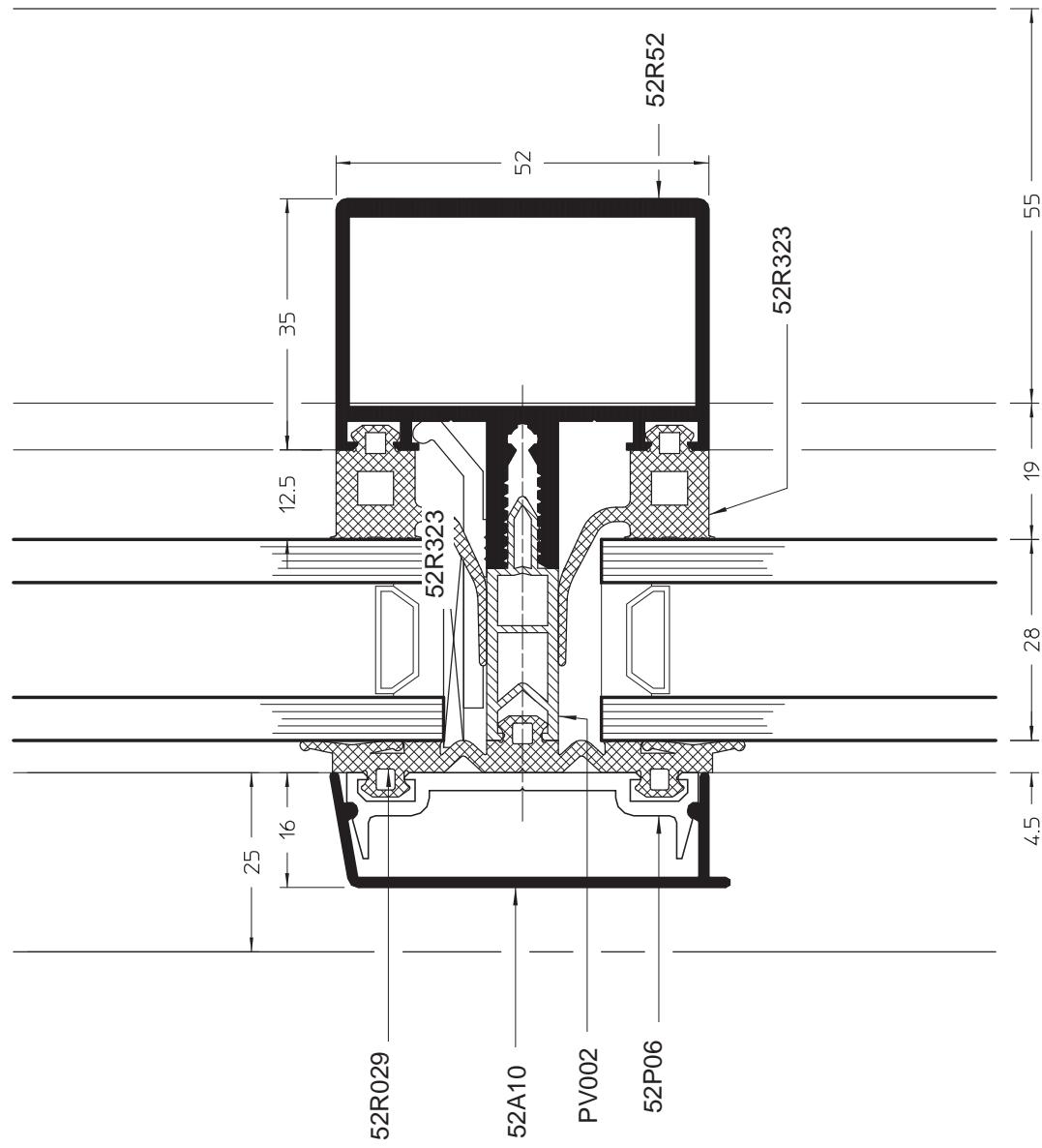
Mullion - Enhanced Thermal Break



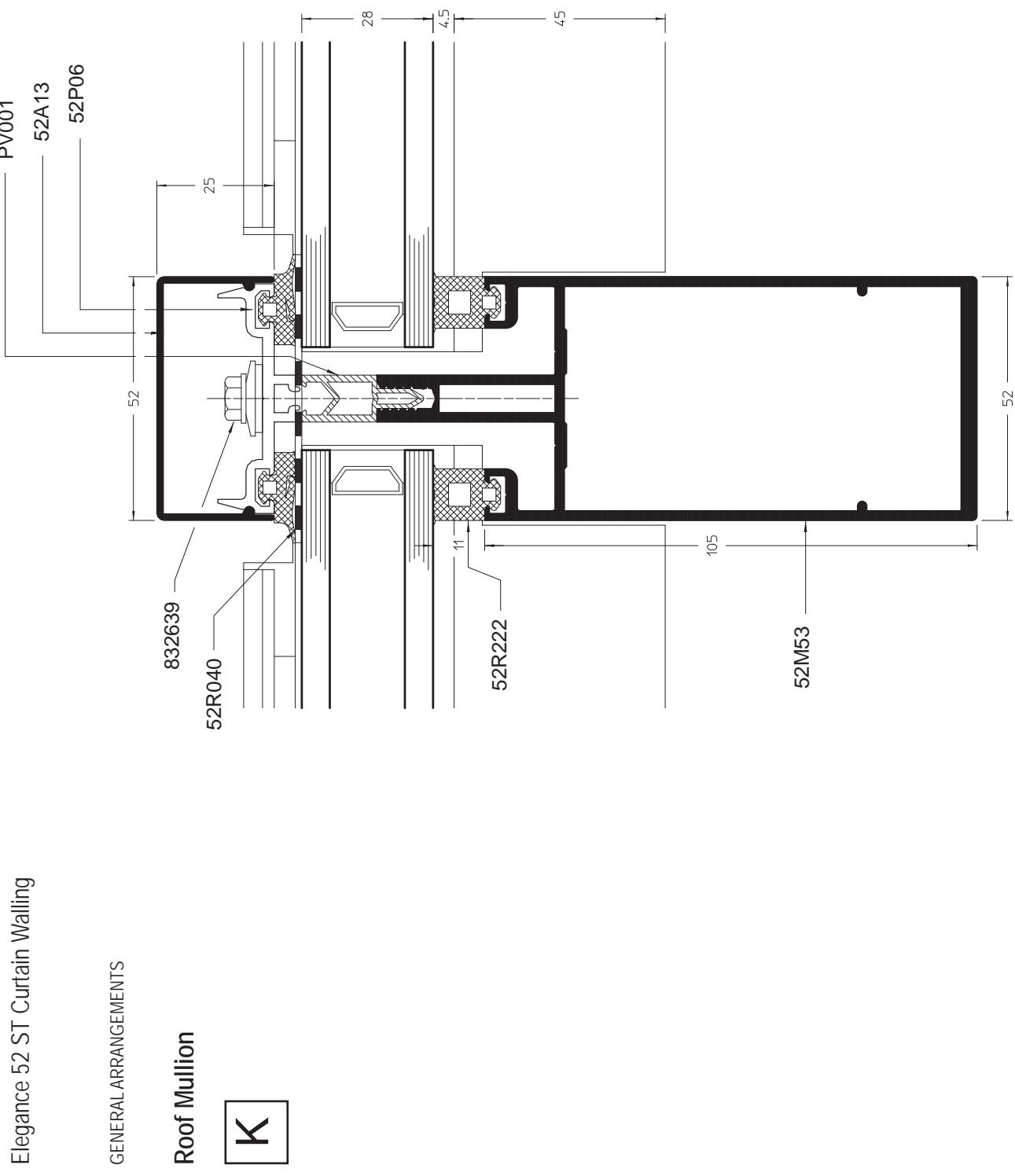
For illustration purposes this drawing is not to scale

GENERAL ARRANGEMENTS

Transom - Enhanced Thermal Break



For illustration purposes this drawing is not to scale

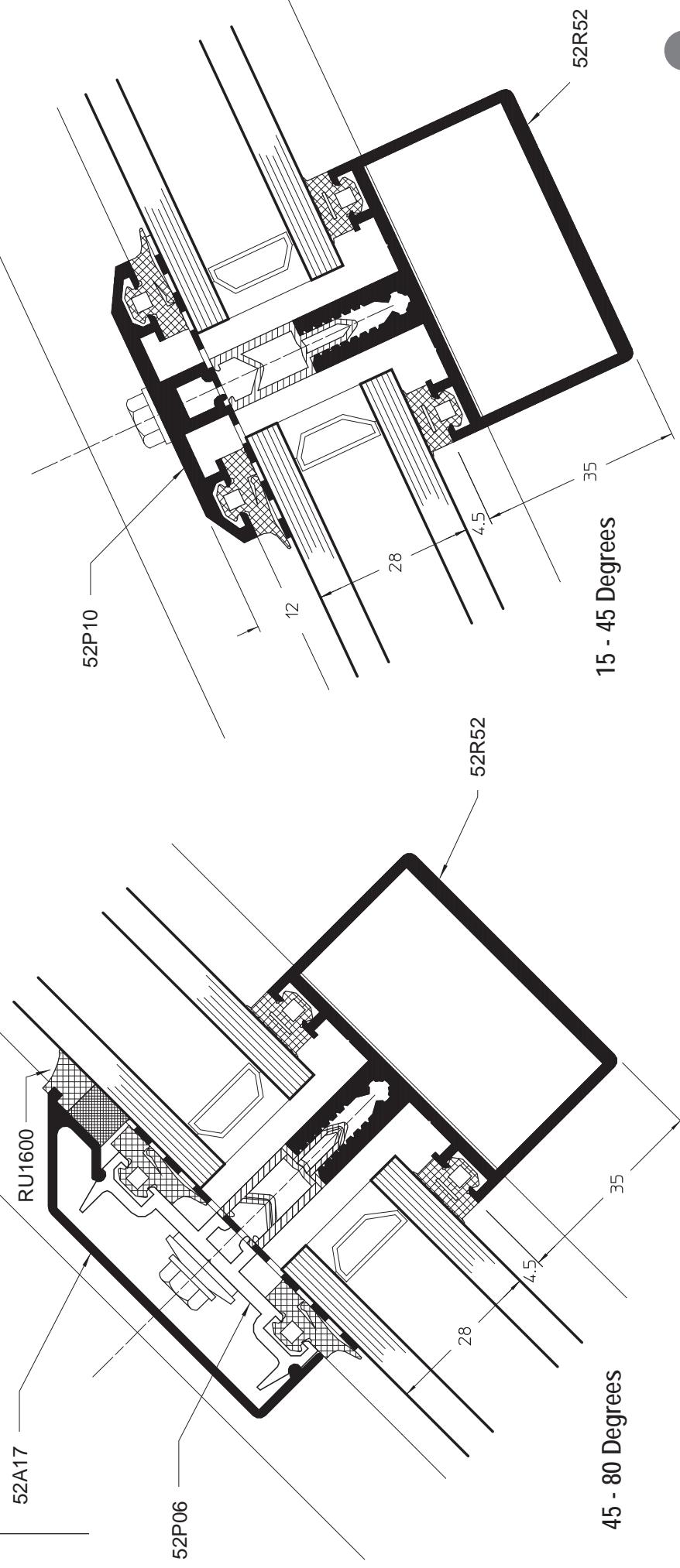


For illustration purposes this drawing is not to scale

Elegance 52 ST Curtain Walling

GENERAL ARRANGEMENTS

Roof Transoms

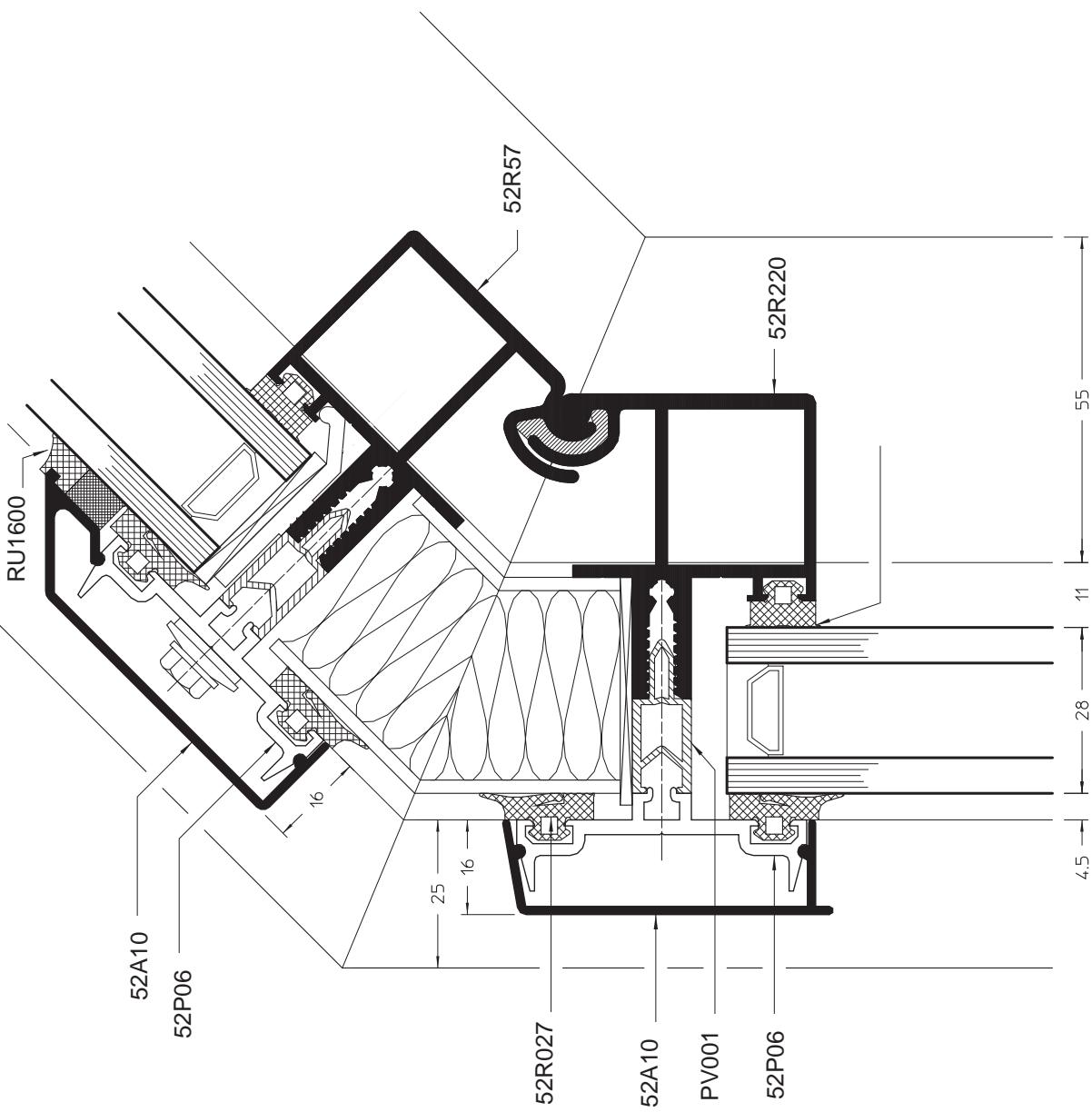


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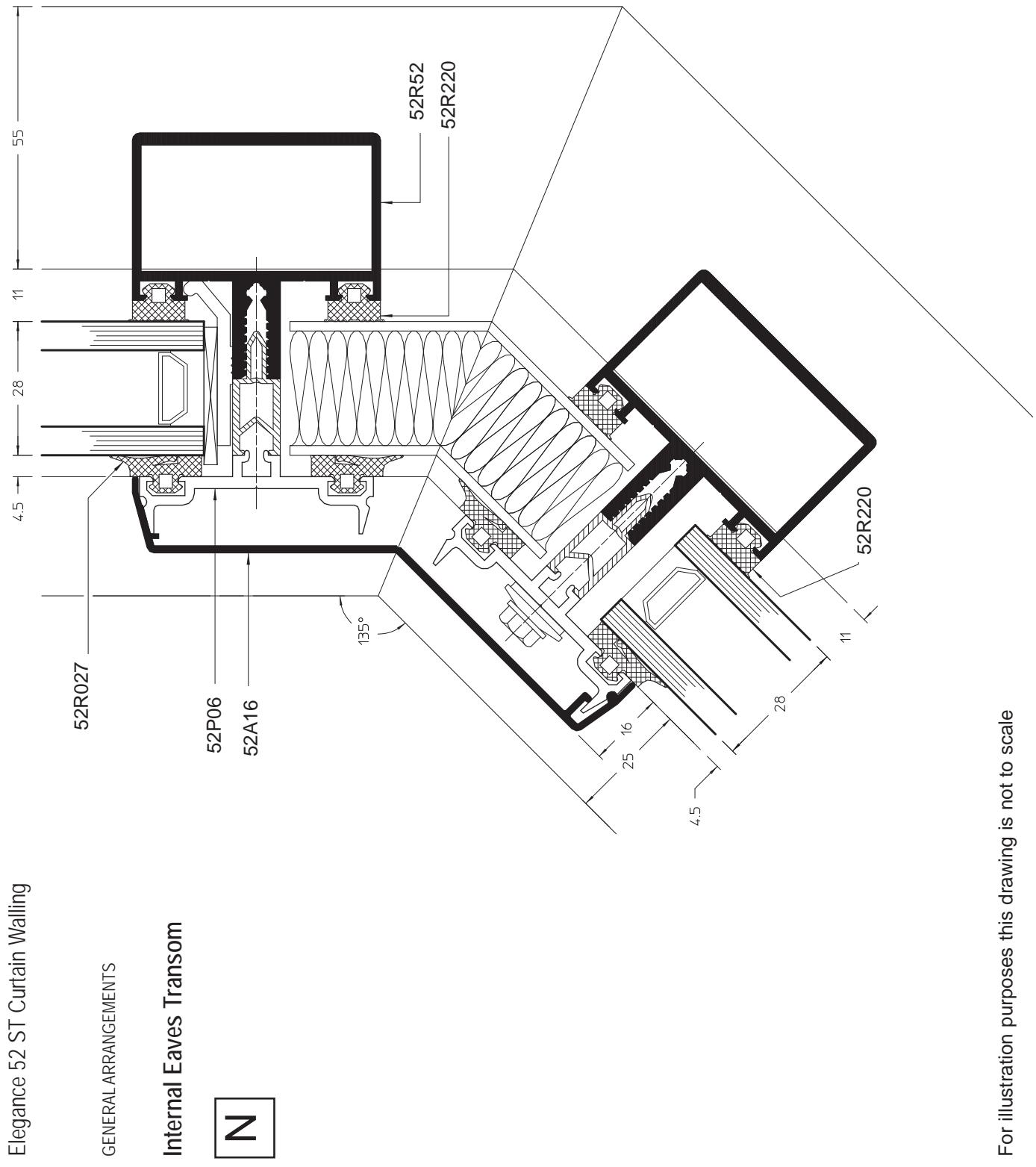
Elegance 52 ST Curtain Walling

GENERAL ARRANGEMENTS

External Eaves Transoms

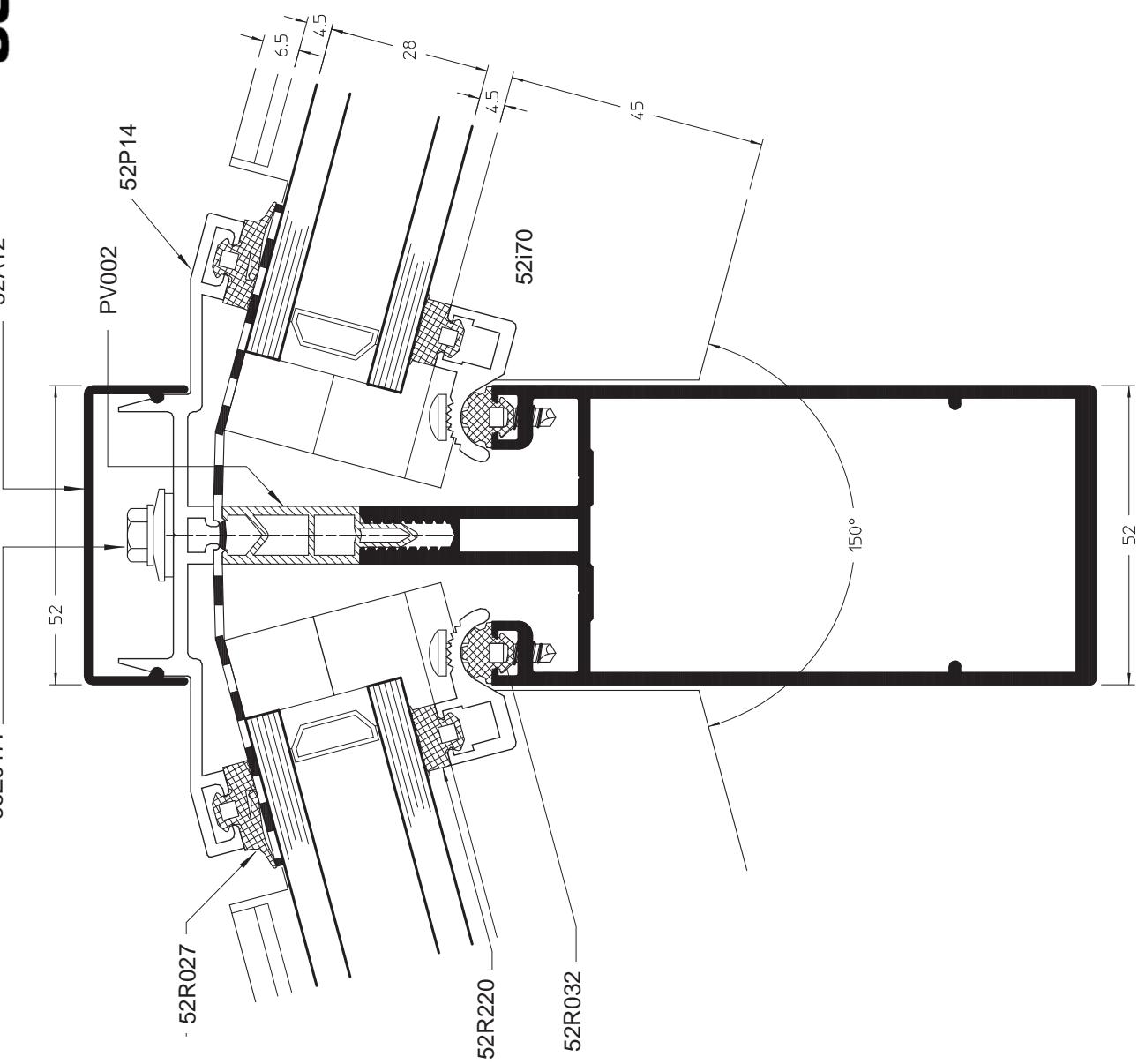


For illustration purposes this drawing is not to scale



sapa:**Elegance 52 ST Curtain Walling****GENERAL ARRANGEMENTS****Roof Hip Mullion (150°)**

83Z6477



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sapa:

Elegance 52 ST Curtain Walling

GENERAL ARRANGEMENTS

Roof Hip Mullion (135°)

8332647

P\V002

52A12

52P13

52R027

52R220

52R032

52T70

45

28

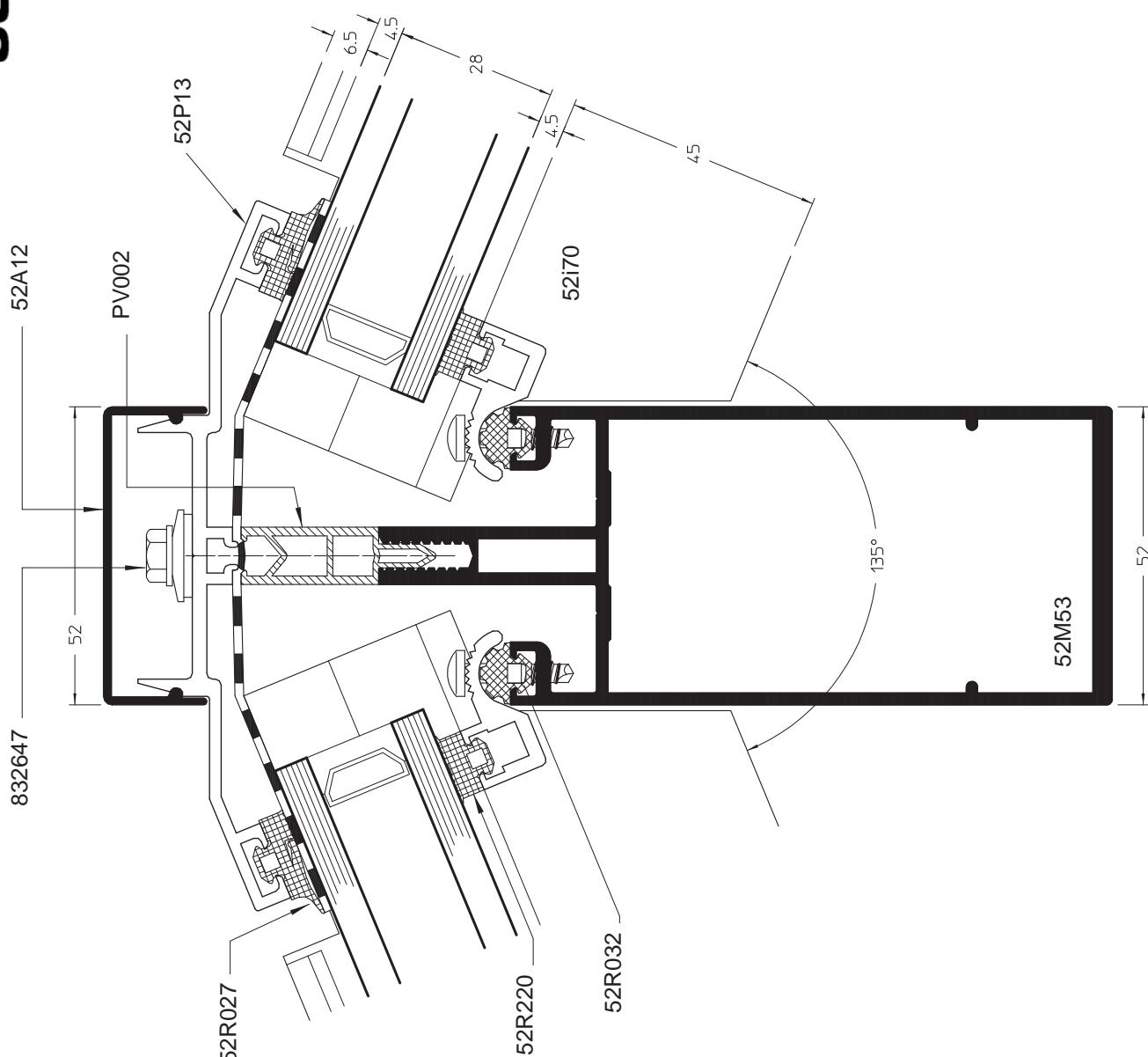
6.5

4.5

135°

52M53

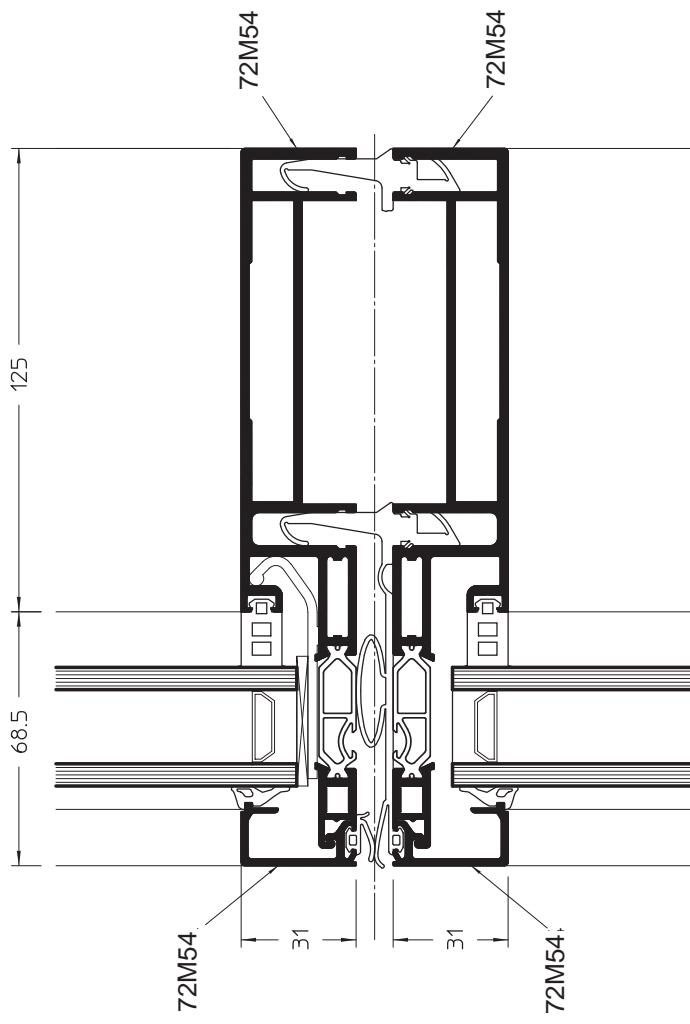
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Elegance 72 Unitised Curtain Walling

GENERAL ARRANGEMENTS

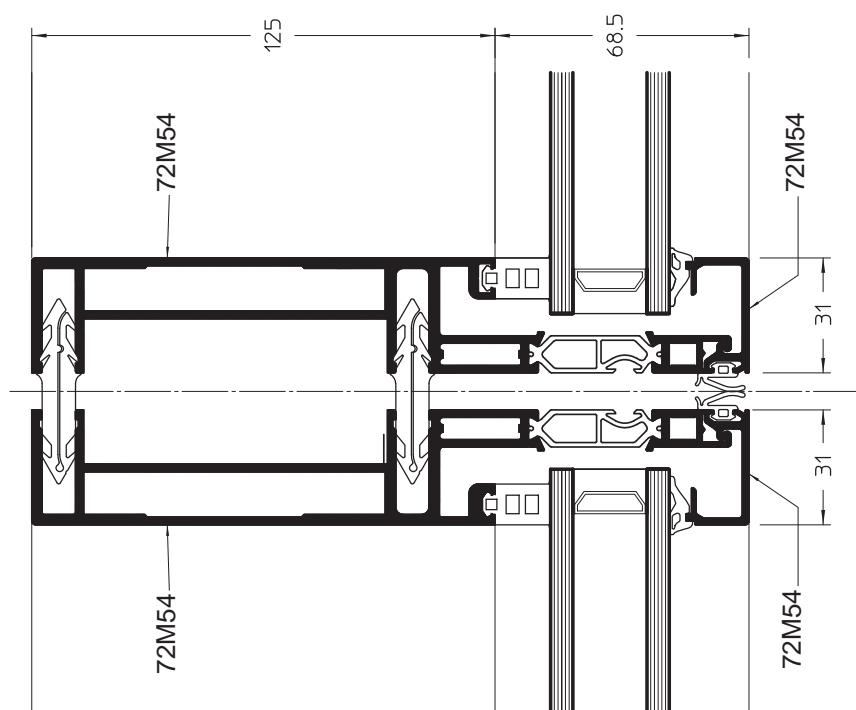
Typical Mullion



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GENERAL ARRANGEMENTS

Typical Transom



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