Fixed Windows

THERMAL WINDOWS, INC.®

Commercial Fixed Windows for Retrofit and New Construction

39 Rainbow - Kansas City, KS
Series 550, 750, 4151, Bronze

Midtown Reston Condominiums - Reston, VA
Series 550, 750, 4150, Crystal Ice

Langston Lofts - Washington, DC
Series 750, 1450, Clear Anodized

WinStar World Casino Hotel - Thackerville, OK
Series 750, White

Manufactured by Thermal Windows, Inc. • 12805 E. 31st Street • Tulsa, OK 74146 • (800) 259-7580 • Fax (918) 665-2197
Website: www.thermalwindows.com Email: info@thermalwindows.com

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FIXED WINDOWS

Standard Features

- Custom Sizes
- Inside glazing
- Integral Thermal Barrier throughout frame and sash
- AAMA 2604 organic powder coat finish
- 5 standard powder coat finish colors (see 'Finishes' section)
- Tested to AAMA specifications
- 1" Insulated glass

Available Options

- 2⅝", 3¼" and 4" frame depth
- Dual seal
- Anodized finishes
- AAMA 2605 high-performance finishes
- Tier 2 colors at no additional charge (minimums apply)
- Hundreds of special colors
- Hurricane-resistant glazing available in some models
- Low-E glass; tinted glass; obscure (frosted) glass
- Spandrel glass; insulating panels
- Panning, receptor systems, snap trim, angle trim
- Internal, external and special angled mullions
- Eyebrows (arched tops), circles, gothic arches, etc.
- Nailing fin
- Front flanged frame
- True divided lites
- Internal and external applied muntins

SERIES 550 2-5/8” FIXED WINDOW (CW80)

SPECIFICATIONS

I. GENERAL:

Scope of Work - Furnish all necessary materials, labor and equipment for the complete installation of aluminum windows for this project as shown on the drawings and herein specified. Windows shall be the "Series 550" as manufactured by Thermal Windows, Inc., Tulsa, Oklahoma. The "Series 550" is a fixed window with thermally improved frame. The specifications and materials for the "Series 550" are as follows:

II. PRODUCTS:

Materials - Aluminum shall be of proper alloy for commercial window construction. All extruded sections shall be of 6063-T5 aluminum alloy.

Frame - Main frame members shall be a nominal thickness as required by ANSI/AAMA 101. Main frame shall be 2.625" in depth. Main frames are to be extruded aluminum with a structural thermal barrier of high density low thermal conductivity polyurethane, poured and debridged.

III. CONSTRUCTION:

Assembly - Main frame shall be a mechanically joined construction. Corner joints should be "seam sealed" with a quality grade of sealant meeting the requirements of AAMA 803.3. All screws at joints of main frame shall be secured into integral screw ports.

Glazing - Glass shall be inside glazed with a butyl glazing tape and snap in extruded aluminum glazing bead containing a vinyl insert. The insulated glass units shall be 1" overall thickness with two panes of double strength glass, separated by a .750" air space for optimum insulation. All insulated glass units shall meet the requirements of the ASTM E 2190 specification, Class "A".

Finish - Shall be a factory applied baked polyurethane powder coat finish meeting the requirements of AAMA 2604 for Pigmented Organic Coating on Extruded Aluminum. Refer to “Colors and Finishes” chart for examples. Bronze anodizing, clear anodizing and high performance AAMA 2605 finishes are optional.

IV. PERFORMANCE:

Structural - Shall meet the requirements of AAMA/ WDMA/CSA 101/I.S.2/A440-08, CW-PG80 specification.

NFRC – Shall meet the requirements of NFRC 100 and 200.

Sound Transmission Class - Shall meet the requirements of ASTM E90. Ratings vary depending upon glazing. See Product Selection Guide for summary.

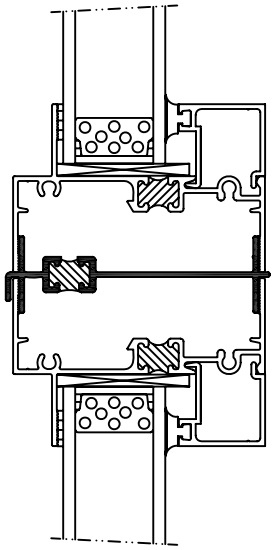
V. INSTALLATION:

Qualifications - Installation shall be performed by skilled, experienced tradesmen. Units shall be installed plumb, level, square and shall be secured in accordance with detailed shop drawings. A non-hardening sealant compatible with aluminum shall be provided by the installer and applied in sufficient quantity to provide a weathertight seal between the window and surrounding construction.

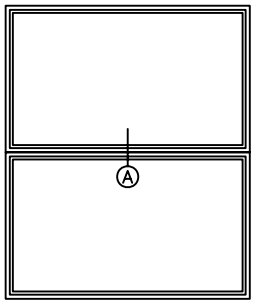
Installation Details - The window manufacturer shall submit complete installation details for the Architects approval. The drawings shall show elevations of windows, full size details of frame and vents, details of construction and anchorage of window.

SERIES 550 2-5/8” FIXED WINDOW (CW80)

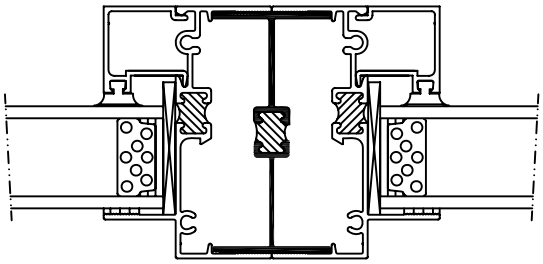
Typical Configurations (Scale: Half Size)



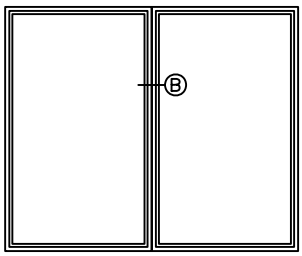
Ⓐ 550 PW – 550 PW



550–550



Ⓑ 550 PW – 550 PW

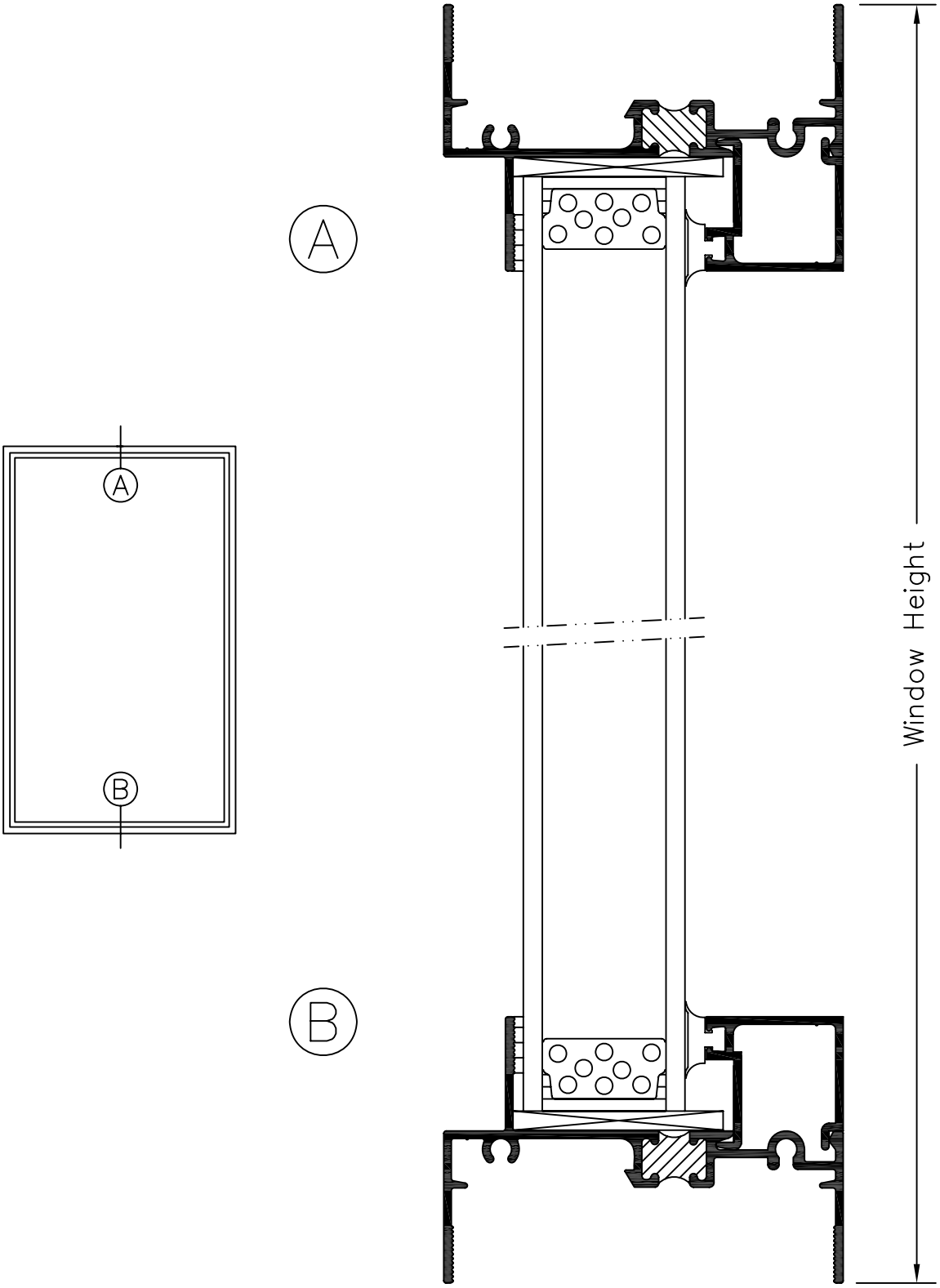


550–550

See Accessories section for additional options

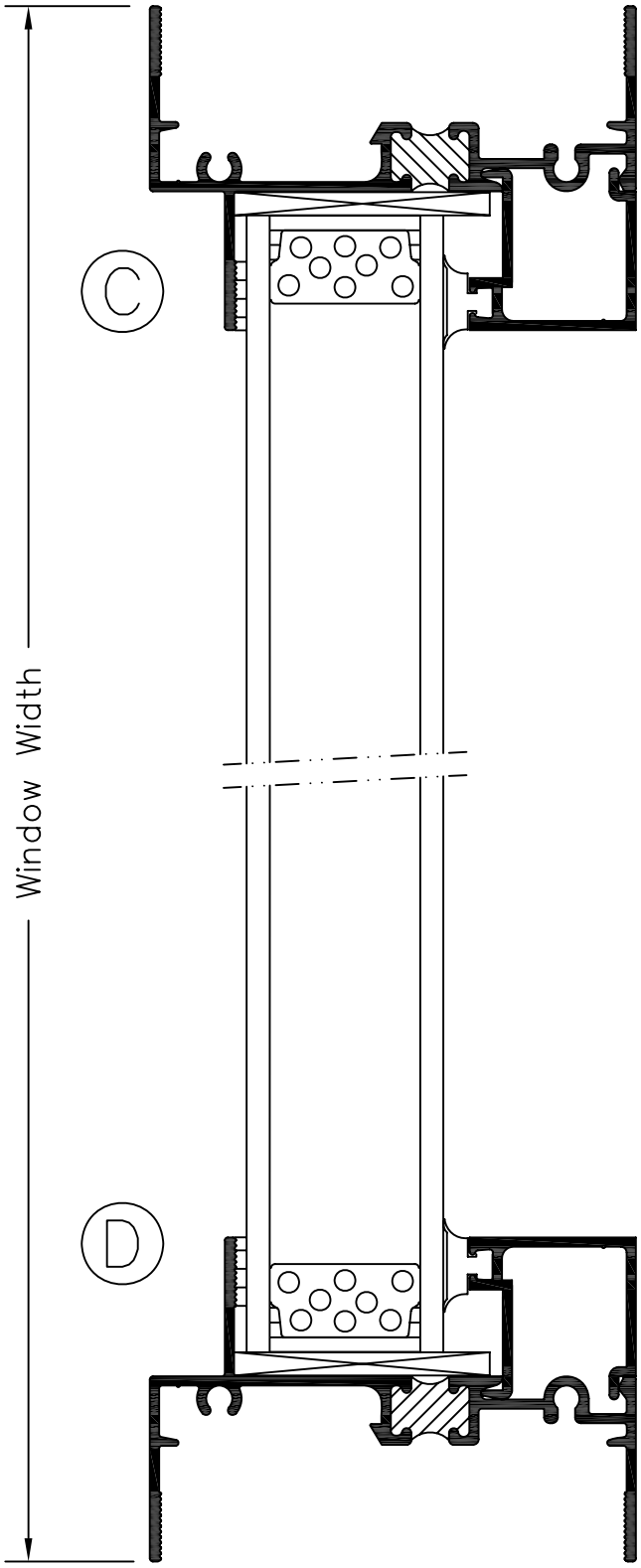
SERIES 550 2-5/8” FIXED WINDOW (CW80)

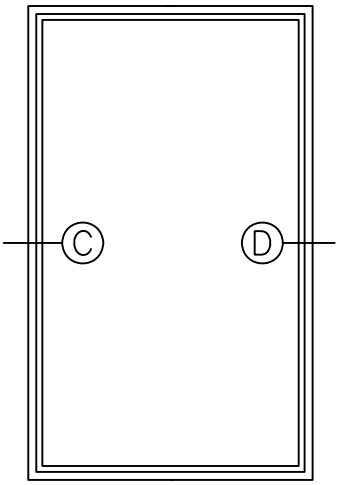
Product Details (Scale: Full Size)



SERIES 550 2-5/8” FIXED WINDOW (CW80)

Product Details (Scale: Full Size)





SERIES 750 3-1/4” FIXED WINDOW (CW80)

SPECIFICATIONS

I. GENERAL:

Scope of Work - Furnish all necessary materials, labor and equipment for the complete installation of aluminum windows for this project as shown on the drawings and herein specified. Windows shall be the "Series 750" as manufactured by Thermal Windows, Inc., Tulsa, Oklahoma. The "Series 750" is a fixed window with thermally improved frame. The specifications and materials for the "Series 750" are as follows:

II. PRODUCTS:

Materials - Aluminum shall be of proper alloy for commercial window construction. All extruded sections shall be of 6063-T5 aluminum alloy.

Frame - Main frame members shall be a nominal thickness as required by ANSI/AAMA 101. Main frame shall be 3.250" in depth. Main frames are to be extruded aluminum with a structural thermal barrier of high density low thermal conductivity polyurethane, poured and debridged.

III. CONSTRUCTION:

Assembly - Main frame shall be a mechanically joined construction. Corner joints should be "seam sealed" with a quality grade of sealant meeting the requirements of AAMA 803.3. All screws at joints of main frame shall be secured into integral screw ports.

Glazing - Glass shall be inside glazed with a butyl glazing tape and snap in extruded aluminum glazing bead containing a vinyl insert. The insulated glass units shall be 1" overall thickness with two panes of double strength glass, separated by a .750" air space for optimum insulation. All insulated glass units shall meet the requirements of the ASTM E 2190 specification, Class "A".

Finish - Shall be a factory applied baked polyurethane powder coat finish meeting the requirements of AAMA 2604 for Pigmented Organic Coating on Extruded Aluminum. Refer to “Colors and Finishes” chart for examples. Bronze anodizing, clear anodizing and high performance AAMA 2605 finishes are optional.

IV. PERFORMANCE:

Structural - Shall meet the requirements of AAMA/ WDMA/CSA 101/I.S.2/A440-08, CW-PG80 specification.

NFRC – Shall meet the requirements of NFRC 100 and 200.

Sound Transmission Class - Shall meet the requirements of ASTM E90. Ratings vary depending upon glazing. See Product Selection Guide for summary.

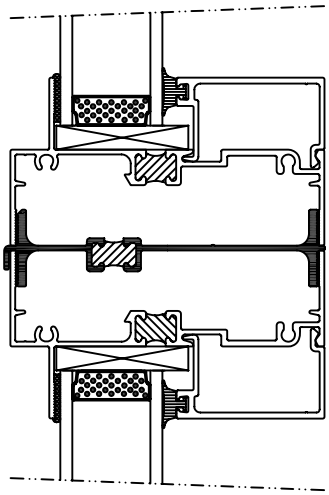
V. INSTALLATION:

Qualifications - Installation shall be performed by skilled, experienced tradesmen. Units shall be installed plumb, level, square and shall be secured in accordance with detailed shop drawings. A non-hardening sealant compatible with aluminum shall be provided by the installer and applied in sufficient quantity to provide a weathertight seal between the window and surrounding construction.

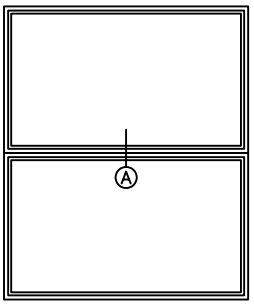
Installation Details - The window manufacturer shall submit complete installation details for the Architects approval. The drawings shall show elevations of windows, full size details of frame and vents, details of construction and anchorage of window.

SERIES 750 3-1/4” FIXED WINDOW (CW80)

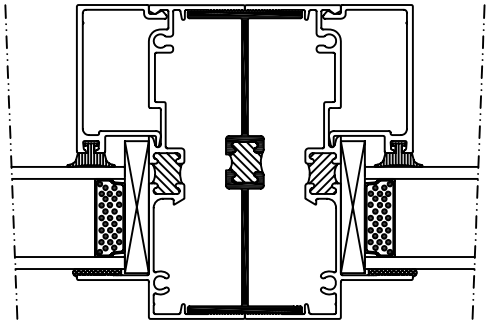
Typical Configurations (Scale: Half Size)



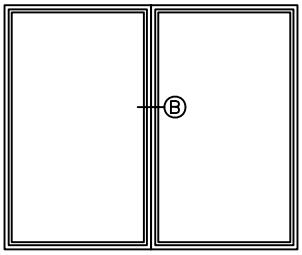
Ⓐ 750–750



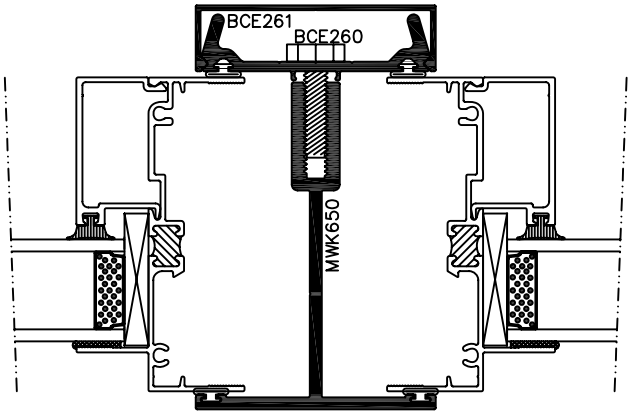
750 PW–750 PW



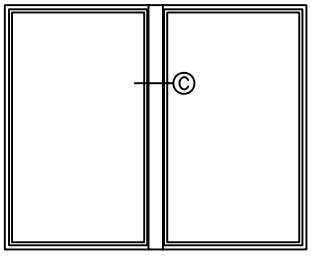
Ⓑ 750–750



750 PW–750 PW



© 750–750

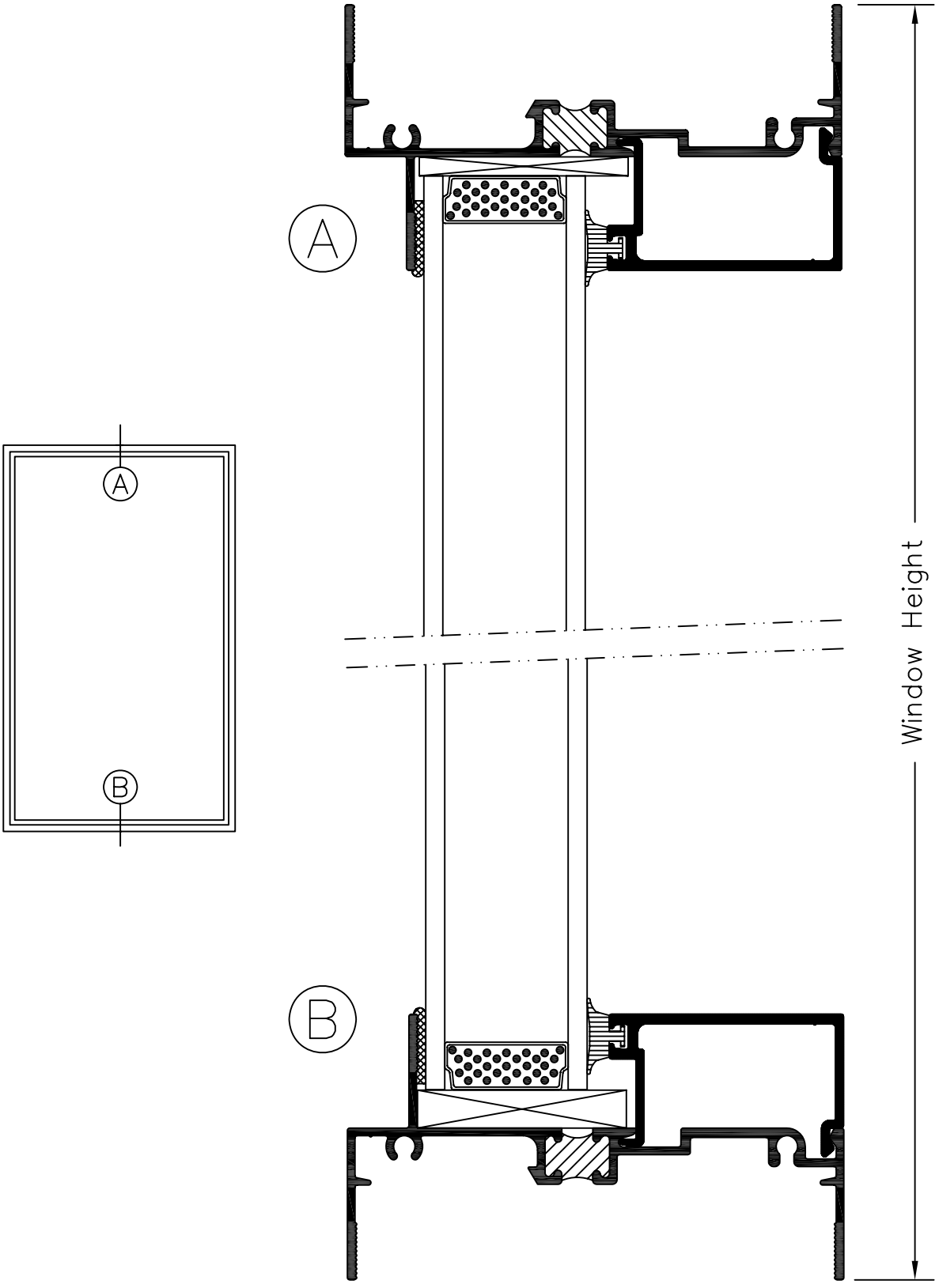


750 PW–750 PW

See Accessories section for additional options

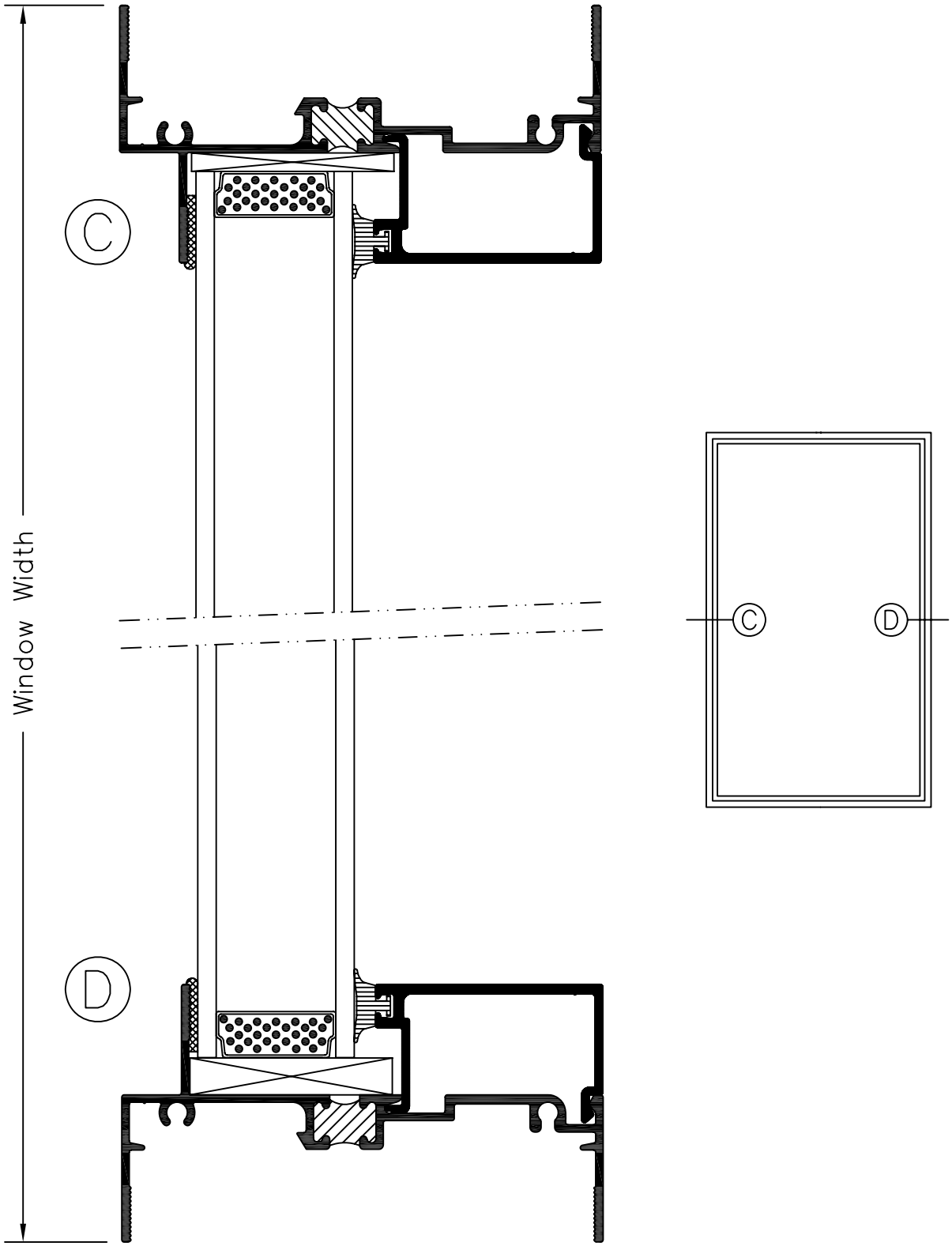
SERIES 750 3-1/4” FIXED WINDOW (CW80)

Product Details (Scale: Full Size)



SERIES 750 3-1/4” FIXED WINDOW (CW80)

Product Details (Scale: Full Size)



SERIES 850 2-5/8” FIXED WINDOW (AW75)

SPECIFICATIONS

I. GENERAL:

Scope of Work - Furnish all necessary materials, labor, and equipment for the complete installation of aluminum windows for this project as shown on the drawings and herein specified. Windows shall be the "Series 850" as manufactured by Thermal Windows, Inc., Tulsa, Oklahoma. The "Series 850" is a fixed window with thermally improved frame. The specifications and materials for the "Series 850" are as follows:

II. PRODUCTS:

Materials - Aluminum shall be of proper alloy for commercial window construction. All extruded sections shall be of 6063-T5 aluminum alloy.

Frame - Main frame members shall be a nominal thickness of .094. Main frame shall be 2.625" in depth. Main frames are to be extruded aluminum with a structural thermal barrier of high density low thermal conductivity polyurethane, poured and debridged.

III. CONSTRUCTION:

Assembly - Main frame shall be a mechanically joined construction. Corner joints should be "seam sealed" with a quality grade of sealant meeting the requirements of AAMA 803.3. All screws at joints of main frame shall be secured into integral screw ports.

Glazing - Glass shall be inside glazed with a butyl glazing tape and snap in extruded aluminum glazing bead containing a vinyl insert. The insulated glass units shall be 1" overall thickness with two panes of double strength glass, separated by a .750" air space for optimum insulation. All insulated glass units shall meet the requirements of the ASTM E 2190 specification, Class "A".

Finish - Shall be a factory applied baked polyurethane powder coat finish meeting the requirements of AAMA 2604 for Pigmented Organic Coating on Extruded Aluminum. Refer to “Colors and Finishes” chart for examples. Bronze anodizing, clear anodizing and high performance AAMA 2605 finishes are optional.

IV. PERFORMANCE:

Structural - Shall meet the requirements of AAMA/ WDMA/CSA 101/I.S.2/A440-08, AW-PG75 specification.

NFRC – Shall meet the requirements of NFRC 100 and 200.

Sound Transmission Class - Shall meet the requirements of ASTM E90. Ratings vary depending upon glazing. See Product Selection Guide for summary.

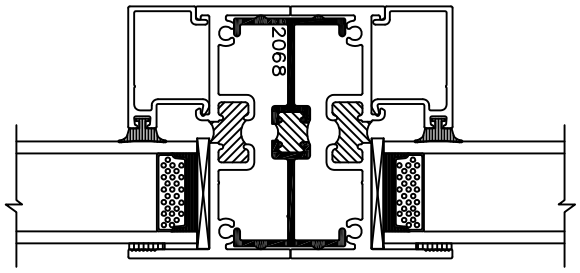
V. INSTALLATION:

Qualifications - Installation shall be performed by skilled, experienced tradesmen. Units shall be installed plumb, level, square and shall be secured in accordance with detailed shop drawings. A non-hardening sealant compatible with aluminum shall be provided by the installer and applied in sufficient quantity to provide a weathertight seal between the window and surrounding construction.

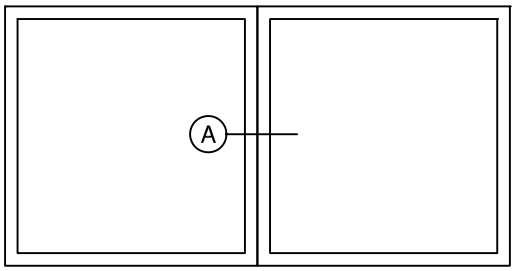
Installation Details - The window manufacturer shall submit complete installation details for the Architects approval. The drawings shall show elevations of windows, full size details of frame and vents, details of construction and anchorage of window.

SERIES 850 2-5/8” FIXED WINDOW (AW75)

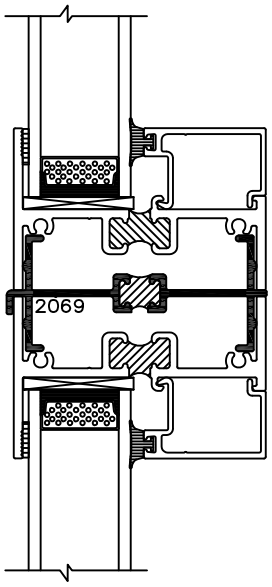
Typical Configurations (Scale: Half Size)



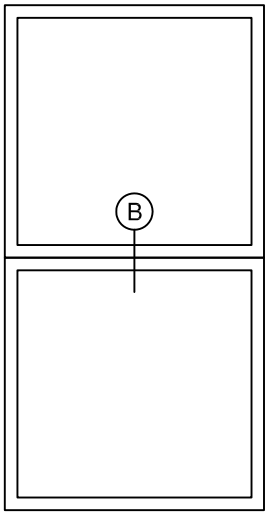
Ⓐ 850 PW - 850 PW



850 PW - 850 PW



Ⓑ 850 PW - 850 PW

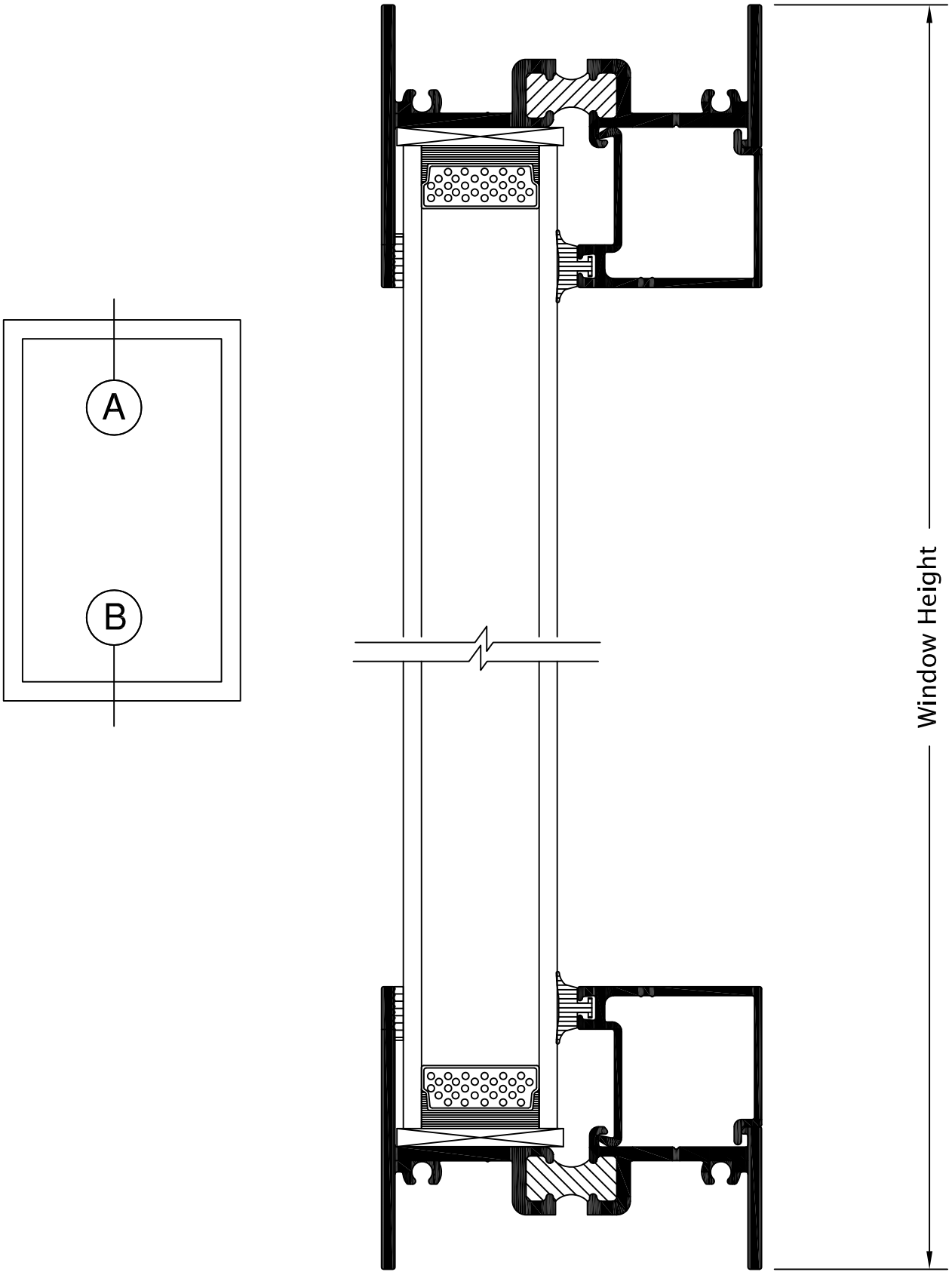


850 PW - 850 PW

See Accessories section for additional options

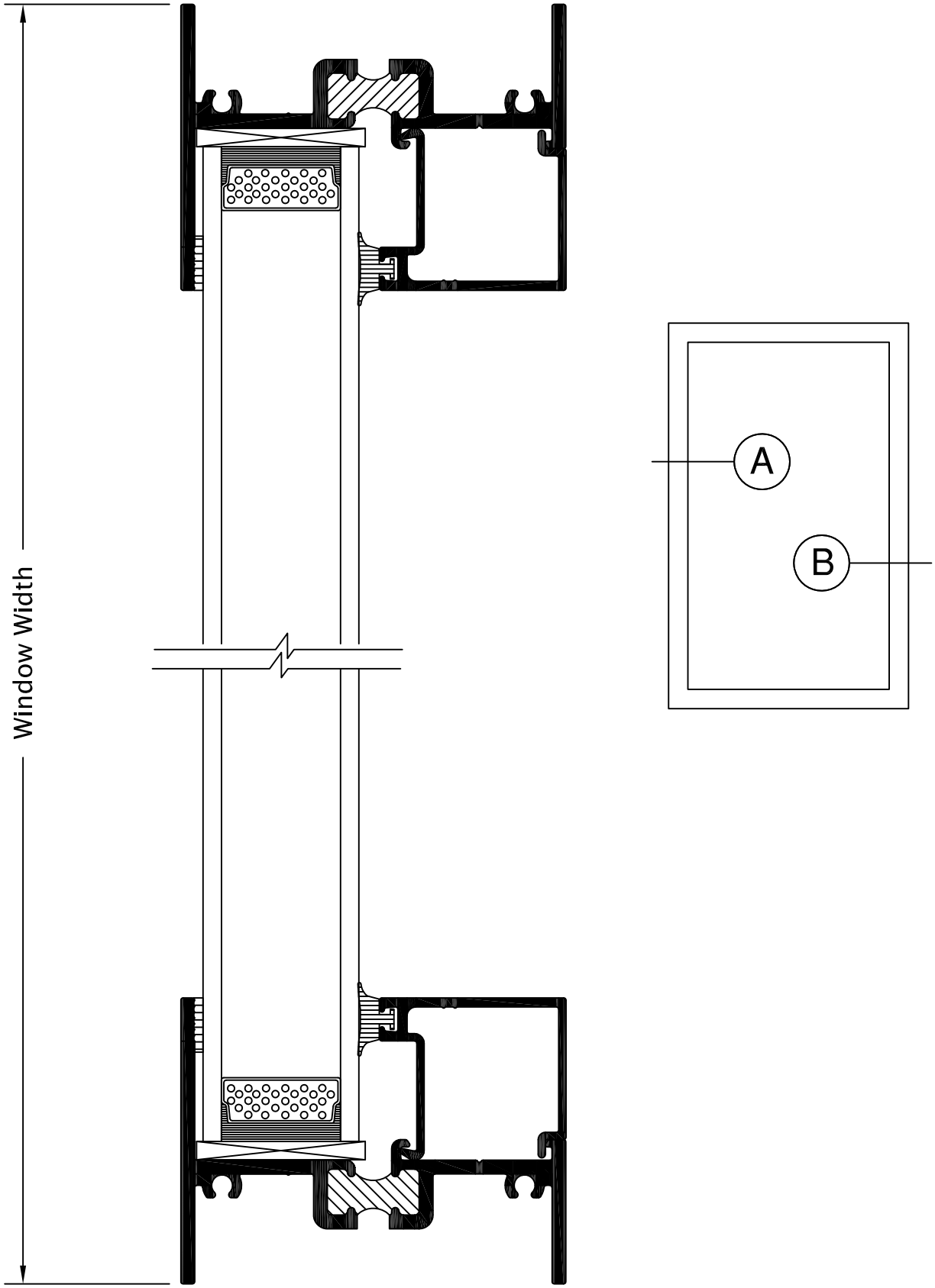
SERIES 850 2-5/8” FIXED WINDOW (AW75)

Product Details (Scale: Full Size)



SERIES 850 2-5/8” FIXED WINDOW (AW75)

Product Details (Scale: Full Size)



SERIES 1450 3-1/4” FIXED WINDOW (CW80)

SPECIFICATIONS

I. GENERAL:

Scope of Work - Furnish all necessary materials, labor and equipment for the complete installation of aluminum windows for this project as shown on the drawings and herein specified. Windows shall be the "Series 1450" as manufactured by Thermal Windows, Inc., Tulsa, Oklahoma. The "Series 1450" is a fixed window with thermally improved frame. The specifications and materials for the "Series 1450" are as follows:

II. PRODUCTS:

Materials - Aluminum shall be of proper alloy for commercial window construction. All extruded sections shall be of 6063-T5 aluminum alloy.

Frame - Main frame members shall be a nominal thickness as required by ANSI/AAMA 101. Main frame shall be 3.25" in depth. Main frames are to be extruded aluminum with a dual insulbar thermal barrier system creating a 5/8” wide thermal barrier.

III. CONSTRUCTION:

Assembly – Main frame shall be of mitered, sealed, crimped and staked corner construction. Each corner shall consist of one extruded aluminum corner key held in place with two die cast retainer pins, one die cast corner key staked in place and one friction fit hard plastic corner key.

Glazing – Glass shall be inside glazed using EPDM gasket at exterior perimeter with extruded aluminum glazing bead and EPDM wedge at interior of glass. The insulated glass units shall be 1" overall thickness with the interior and exterior lite of double strength glass, separated by a .750" air space for optimum insulation. All insulated glass units shall meet the requirements of the ASTM E 2190 specification, Class "A".

Finish - Shall be a factory applied baked polyurethane powder coat finish meeting the requirements of AAMA 2604 for Pigmented Organic Coating on Extruded Aluminum. Refer to “Colors and Finishes” chart for examples. Bronze anodizing, clear anodizing and high performance AAMA 2605 finishes are optional.

IV. PERFORMANCE:

Structural - Shall meet the requirements of AAMA A440-08, CW-PG80 specification.

NFRC – Shall meet the requirements of NFRC 100 and 200.

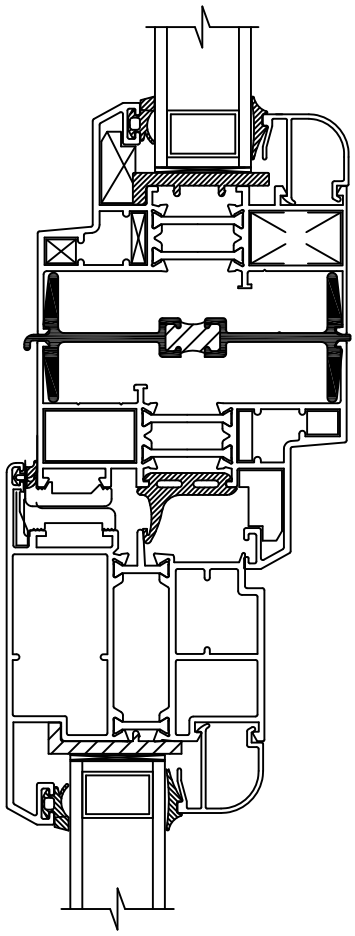
V. INSTALLATION:

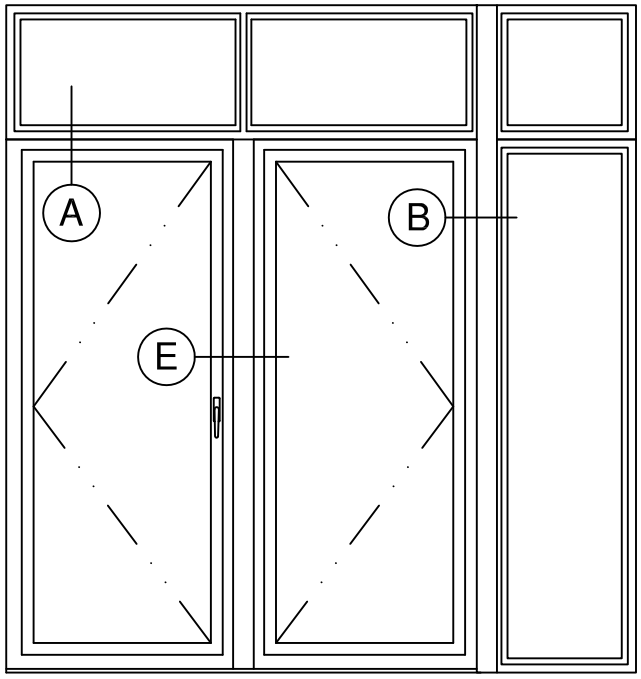
Qualifications - Installation shall be performed by skilled, experienced tradesmen. Units shall be installed plumb, level, square and shall be secured in accordance with detailed shop drawings. A non-hardening sealant compatible with aluminum shall be provided by the installer and applied in sufficient quantity to provide a weathertight seal between the window and surrounding construction.

Installation Details - The window manufacturer shall submit complete installation details for the Architects approval. The drawings shall show elevations of windows, full size details of frame and vents, details of construction and anchorage of window.

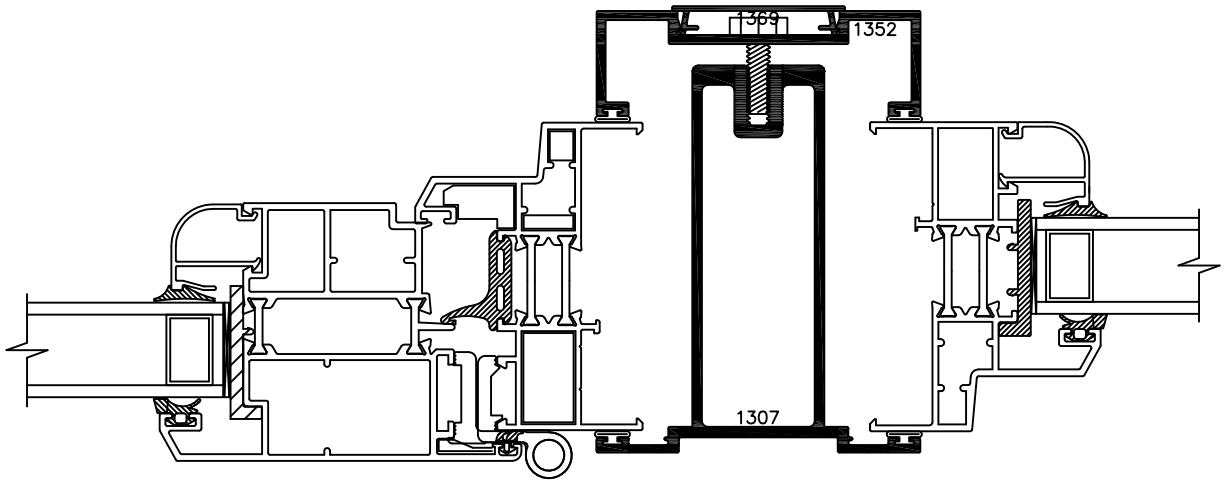
SERIES 1450 3-1/4” FIXED WINDOW (CW80)

Typical Configurations (Scale: Half Size)





(A) 1450 PW - 1400 TD

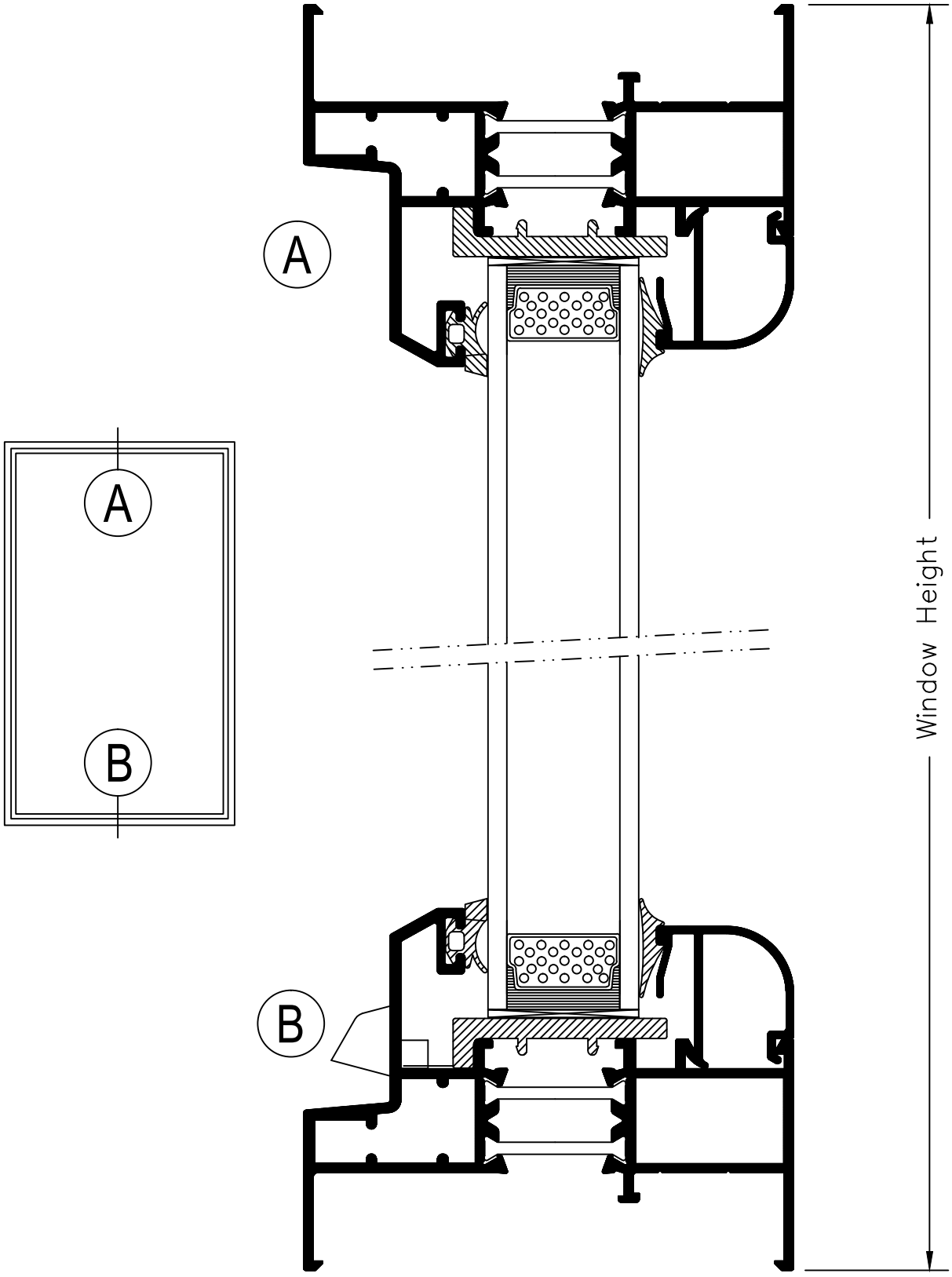


(B) 1400 TD - 1450 PW

See Accessories section for additional options

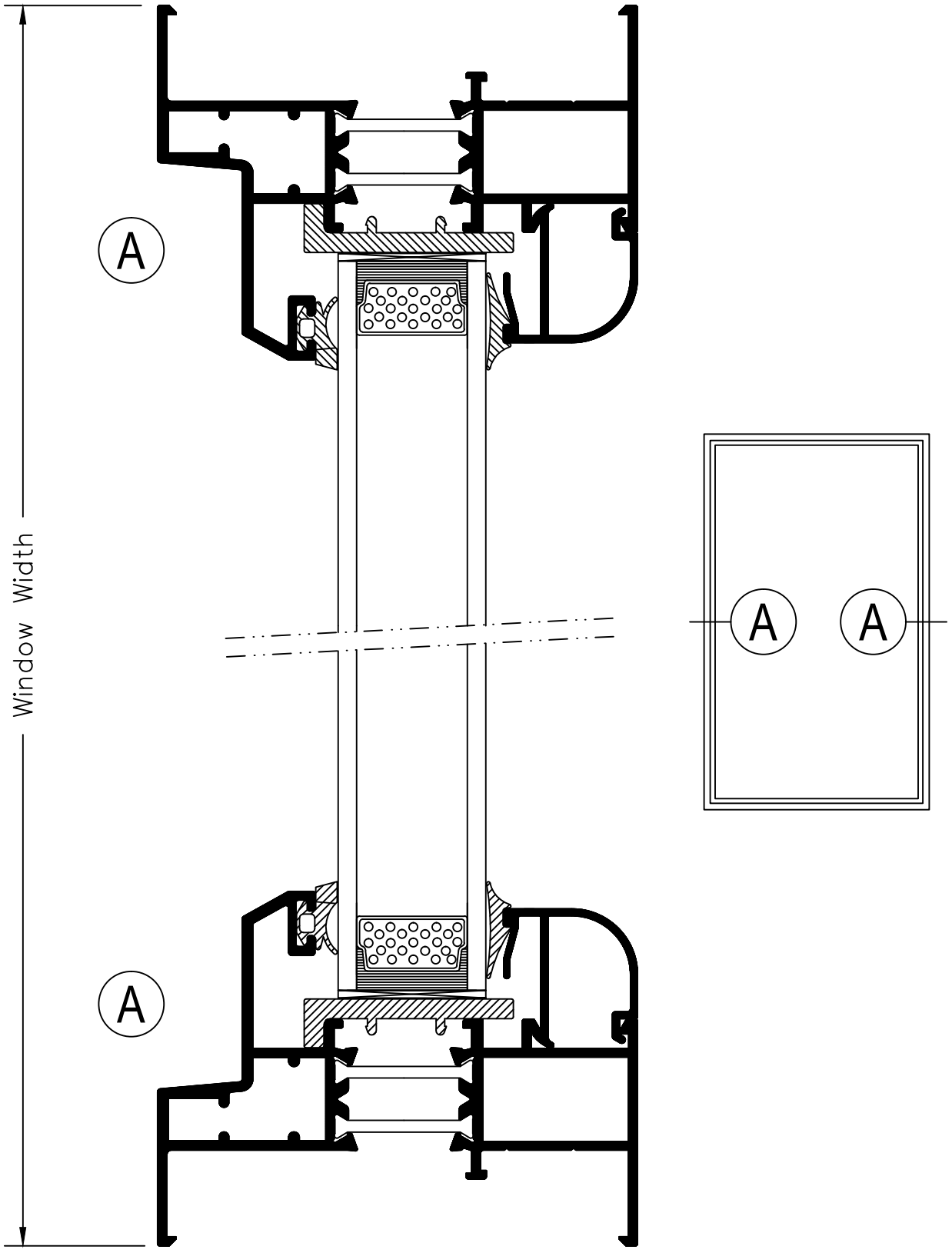
SERIES 1450 3-1/4” FIXED WINDOW (CW80)

Product Details (Scale: Full Size)



SERIES 1450 3-1/4” FIXED WINDOW (CW80)

Product Details (Scale: Full Size)



SERIES 4150 4” FIXED WINDOW (AW80)

SPECIFICATIONS

I. GENERAL:

Scope of Work - Furnish all necessary materials, labor and equipment for the complete installation of aluminum windows for this project as shown on the drawings and herein specified. Windows shall be the "Series 4150" as manufactured by Thermal Windows, Inc., Tulsa, Oklahoma. The "Series 4150" is a fixed lite picture window with a thermally improved frame. The specifications and materials for the "Series 4150" are as follows:

II. PRODUCTS:

Materials - Aluminum shall be of proper alloy for commercial window construction. All extruded sections shall be of 6063-T5 aluminum alloy.

Frame - Main frame members shall be a nominal thickness as required by ANSI/AAMA 101. Main frame shall be 4.000" in depth. Main frames members are to be extruded aluminum with a structural thermal barrier of high density low thermal conductivity polyurethane, poured and debridged.

III. CONSTRUCTION:

Assembly - Main frame shall be a mechanically joined construction. Corner joints should be "seam sealed" with a quality grade of sealant meeting the requirements of AAMA 803.3. The sash shall be assembled with two screws at each corner. All screws at joints of sash and main frame shall be secured into integral screw ports.

Glazing - Glass shall be factory glazed with an interior aluminium glazing bead with a wedge gasket. The insulated glass units shall be 1.000" overall thickness with two lites of .125” glass, separated by a .750" air space for optimum insulation. All insulated glass units shall meet the requirements of the ASTM E 2190 specification, Class "A".

Finish - Shall be a factory applied baked polyurethane powder coat finish meeting the requirements of AAMA 2604 for Pigmented Organic Coating on Extruded Aluminum. Standard Tier I colors available are bronze, white, crème, sandstone, and almond. Bronze anodizing, clear anodizing and high performance AAMA 605.2 finishes are optional.

IV. PERFORMANCE:

Structural - Shall meet the requirements of AAMA/ WDMA/CSA 101/I.S.2/A440-08, AW-PG80 specification.

NFRC – Shall meet the requirements of NFRC 100 and 200.

Forced Entry - Shall meet the requirements for ASTM F588 Load Identification Grade 10.

AT/FP – Shall meet the requirements of UFC 4-010-01. Engineering Calculations to ASTM F 2248-03 and/or Shock Tube Testing to ASTM F 1642/GSA TS01 Level 2/Minimal Hazard.

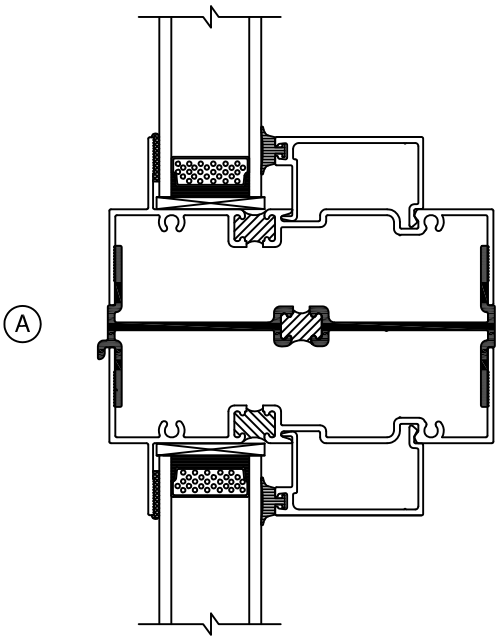
V. INSTALLATION:

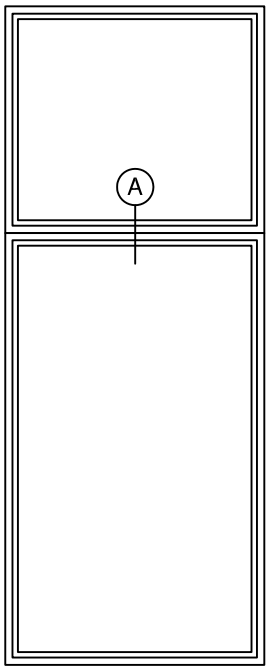
Qualifications - Only skilled mechanics with experience in this trade. Units shall be installed plumb, level, square and shall be secured in accordance with detailed shop drawings. A non-hardening sealant compatible with aluminum shall be provided by the installer and applied in sufficient quantity to provide a weathertight seal between the window and surrounding construction.

Installation Details - The window manufacturer shall submit complete installation details for the Architects approval. The drawings shall show elevations of windows, full size details of frame and vents, details of construction and anchorage of window.

SERIES 4150 4” FIXED WINDOW (AW80)

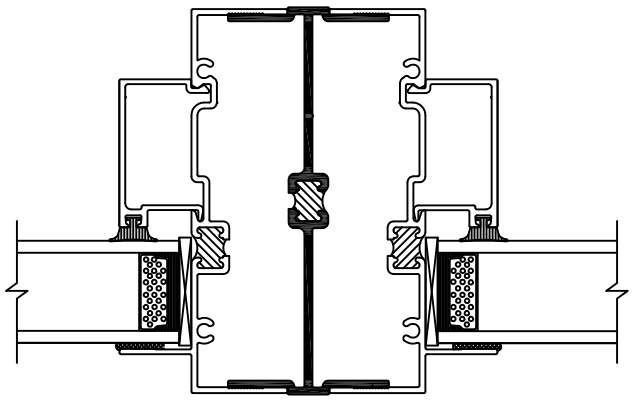
Typical Configurations (Scale: Half Size)

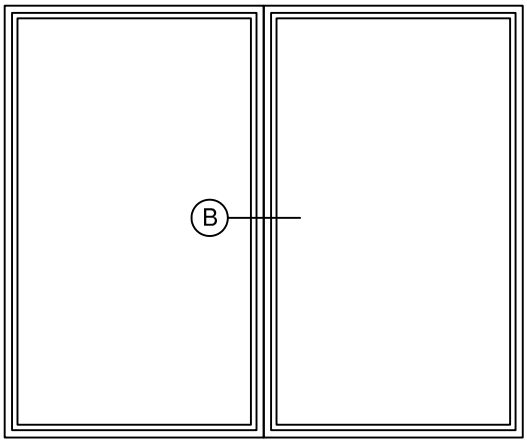




(A) 4150 FW - 4150 FW

4150 FW - 4150 FW





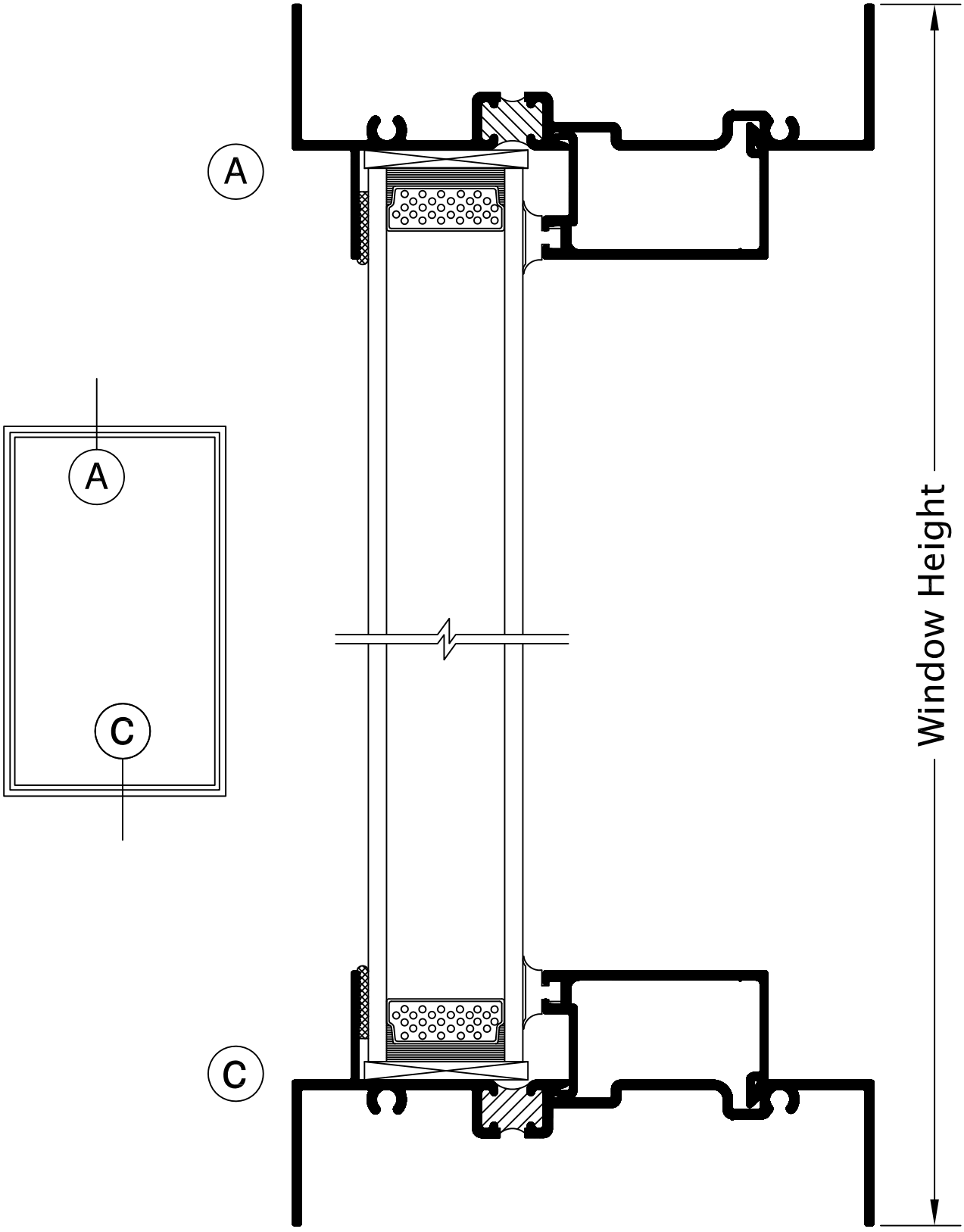
4150 FW - 4150 FW

4150 FW - 4150 FW

See Accessories section for additional options

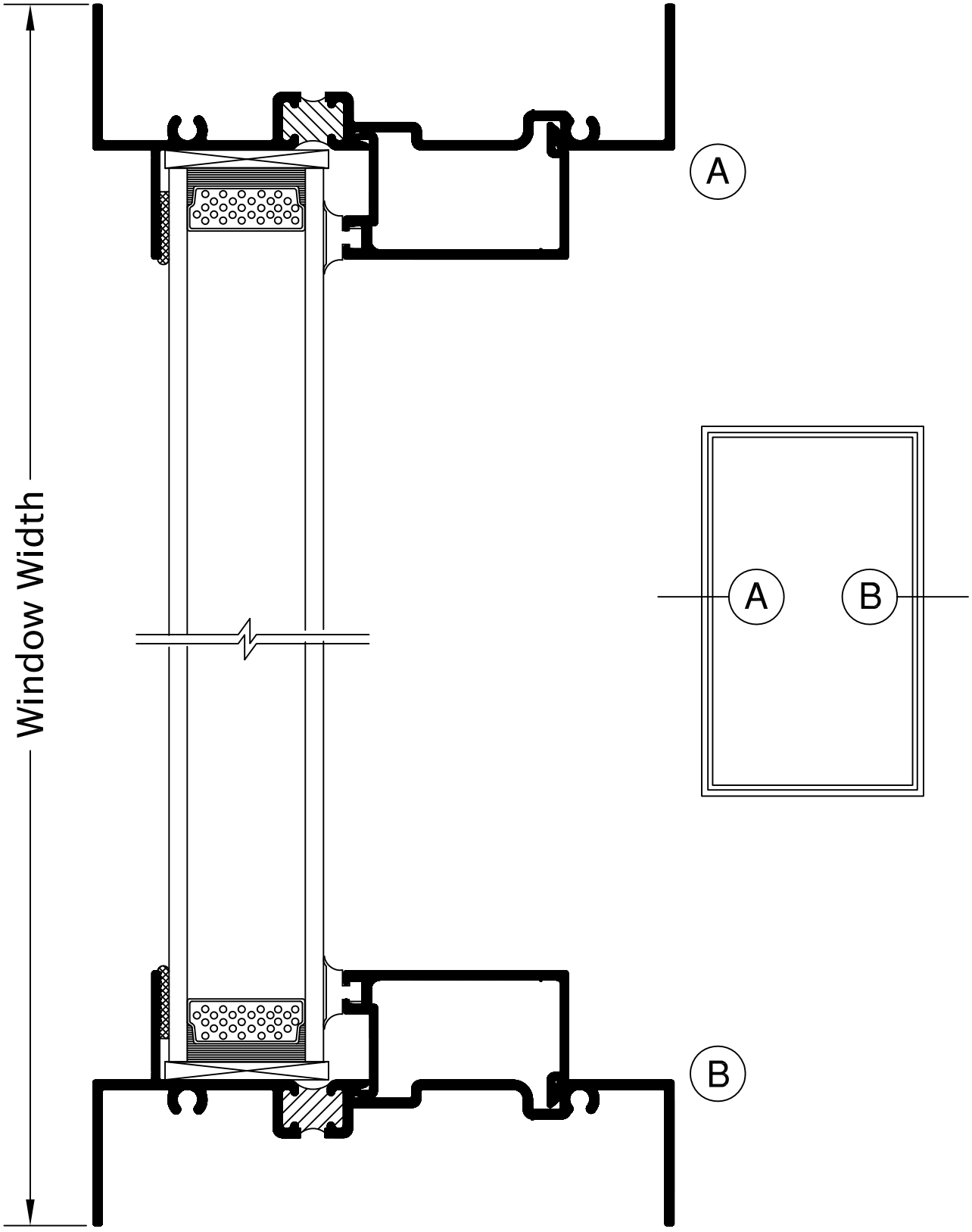
SERIES 4150 4” FIXED WINDOW (AW80)

Product Details (Scale: Full Size)



SERIES 4150 4” FIXED WINDOW (AW80)

Product Details (Scale: Full Size)



SERIES 4150HD 4” FIXED WINDOW (AW80 / IMPACT)

SPECIFICATIONS

I. GENERAL: Hurricane Impact Test - Double Glazed

Scope of Work - Furnish all necessary materials, labor and equipment for the complete installation of aluminum windows for this project as shown on the drawings and herein specified. Windows shall be the "Series 4150HD" as manufactured by Thermal Windows, Inc., Tulsa, Oklahoma. The "Series 4150HD" is a fixed lite picture window with a thermally improved frame. The specifications and materials for the "Series 4150HD" are as follows:

II. PRODUCTS:

Materials - Aluminum shall be of proper alloy for commercial window construction. All extruded sections shall be of 6063-T5 aluminum alloy.

Frame - Main frame members shall be a nominal thickness as required by ANSI/AAMA 101. Main frame shall be 4.000" in depth. Main frames members are to be extruded aluminum with a structural thermal barrier of high density low thermal conductivity polyurethane, poured and debridged.

III. CONSTRUCTION:

Assembly - Main frame shall be a mechanically joined construction. Corner joints should be "seam sealed" with a quality grade of sealant meeting the requirements of AAMA 803.3. The sash shall be assembled with two screws at each corner. All screws at joints of sash and main frame shall be secured into integral screw ports.

Glazing - Glass shall be factory glazed with an interior aluminium glazing bead with a wedge gasket. The glazing shall be in accordance with actual impact testing options. The Glazing options include Single Glazed Laminated Units (Large & Small Missile). Optional Insulated Glass Units with Polycarbonate Interlayer (Large & Small Missile). Optional Single Glazed Laminated Units (Large & Small Missile).

Finish - Shall be a factory applied baked polyurethane powder coat finish meeting the requirements of AAMA 2604 for Pigmented Organic Coating on Extruded Aluminum. Refer to “Colors and Finishes” chart for examples. Bronze anodizing, clear anodizing and high performance AAMA 2605 finishes are optional.

IV. PERFORMANCE:

Impact - Shall meet the requirements of AAMA 506-08, ASTM E 1886 and ASTM E 1996.

Structural - Shall meet the requirements of AAMA/ WDMA/CSA 101/I.S.2/A440-08, AW-PG80 specification.

NFRC – Shall meet the requirements of NFRC 100 and 200.

Forced Entry - Shall meet the requirements for ASTM F588 Load Identification Grade 10.

Sound Transmission Class - Shall meet the requirements of ASTM E90. Ratings vary depending upon glazing. See Product Selection Guide for summary.

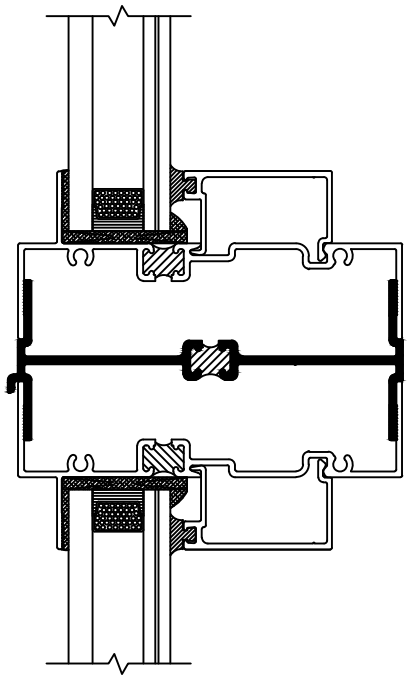
V. INSTALLATION:

Qualifications - Installation shall be performed by skilled, experienced tradesmen. Units shall be installed plumb, level, square and shall be secured in accordance with detailed shop drawings. A non-hardening sealant compatible with aluminum shall be provided by the installer and applied in sufficient quantity to provide a weathertight seal between the window and surrounding construction.

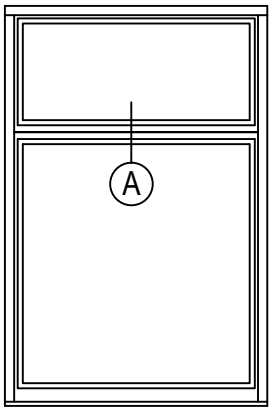
Installation Details - The window manufacturer shall submit complete installation details for the Architects approval. The drawings shall show elevations of windows, full size details of frame and vents, details of construction and anchorage of window

SERIES 4150HD 4” FIXED WINDOW (AW80 / IMPACT)

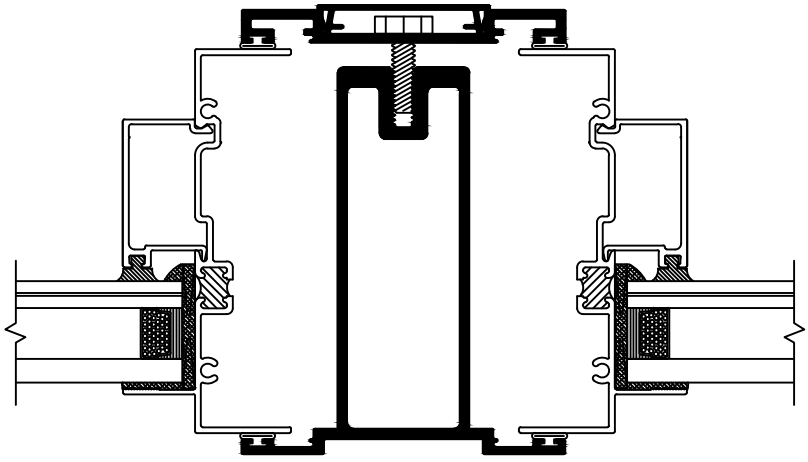
Typical Configurations (Scale: Half Size)



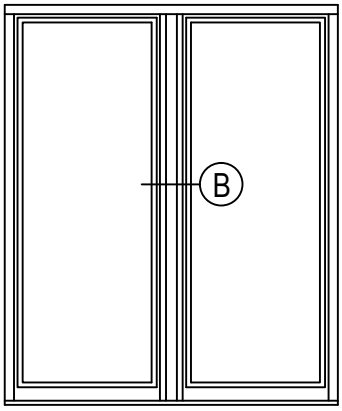
Ⓐ 4150–4150



4150–4150



Ⓑ 4150–4150

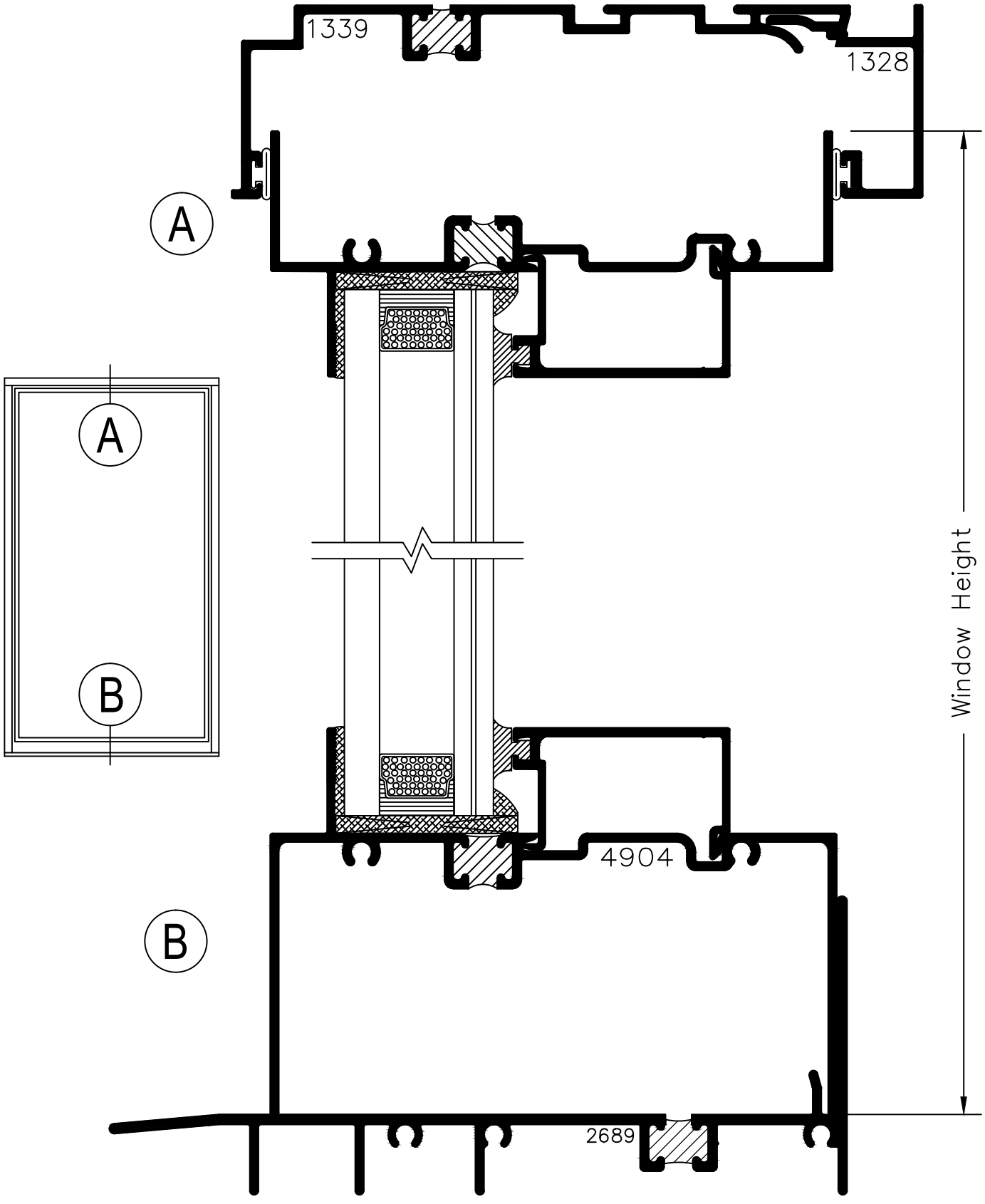


4150–4150

See Accessories section for additional options

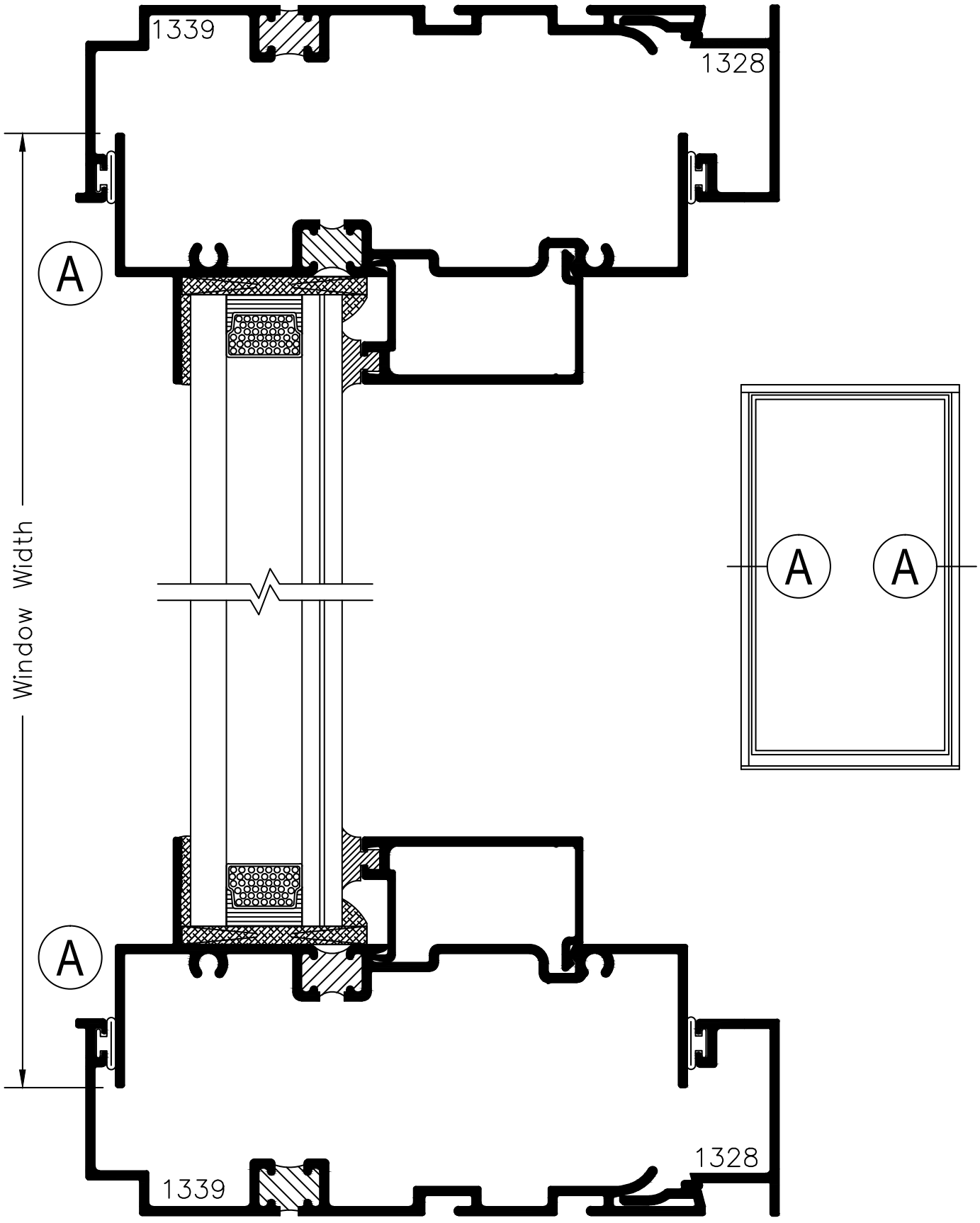
SERIES 4150HD 4” FIXED WINDOW (AW80 / IMPACT)

Product Details (Scale: Full Size)



SERIES 4150HD 4” FIXED WINDOW (AW80 / IMPACT)

Product Details (Scale: Full Size)



SERIES 4151 4-3/8” TRANSOM for SLIDING GLASS DOORS

SPECIFICATIONS

I. GENERAL:

Scope of Work - Furnish all necessary materials, labor and equipment for the complete installation of aluminum windows for this project as shown on the drawings and herein specified. Windows shall be the "Series 4151" as manufactured by Thermal Windows, Inc., Tulsa, Oklahoma. The "Series 4151" is a fixed window with a thermally improved frame. The specifications and materials for the "Series 4151" are as follows:

II. PRODUCTS:

Materials - Aluminum shall be of proper alloy for commercial window construction. All extruded sections shall be of 6063-T5 aluminum alloy.

Frame - Main frame members shall be a nominal thickness as required by ANSI/AAMA 101. Main frame shall be 4.375" in depth. Main frames members are to be extruded aluminum with a structural thermal barrier of high density low thermal conductivity polyurethane, poured and debridged.

III. CONSTRUCTION:

Assembly - Main frame shall be a mechanically joined construction. Corner joints should be "seam sealed" with a quality grade of sealant meeting the requirements of AAMA 803.3. The sash shall be assembled with two screws at each corner. All screws at joints of sash and main frame shall be secured into integral screw ports.

Glazing - Glass shall be factory glazed with an interior aluminum glazing bead with a wedge gasket. The insulated glass units shall be 1.000" overall thickness with two panes of double strength glass, separated by a .750" air space for optimum insulation. All insulated glass units shall meet the requirements of the ASTM E 2190 specification, Class "A".

Finish - Shall be a factory applied baked polyurethane powder coat finish meeting the requirements of AAMA 2604 for Pigmented Organic Coating on Extruded Aluminum. Refer to “Colors and Finishes” chart for examples. Bronze anodizing, clear anodizing and high performance AAMA 2605 finishes are optional.

IV. PERFORMANCE:

Structural - Shall meet the requirements of AAMA/WDMA/ CSA 101/I.S.2/ A440-08, AW-PG80 specification.

NFRC – Shall meet the requirements of NFRC 100 and 200.

Forced Entry - Shall meet the requirements for ASTM F588 Load Identification Grade 10.

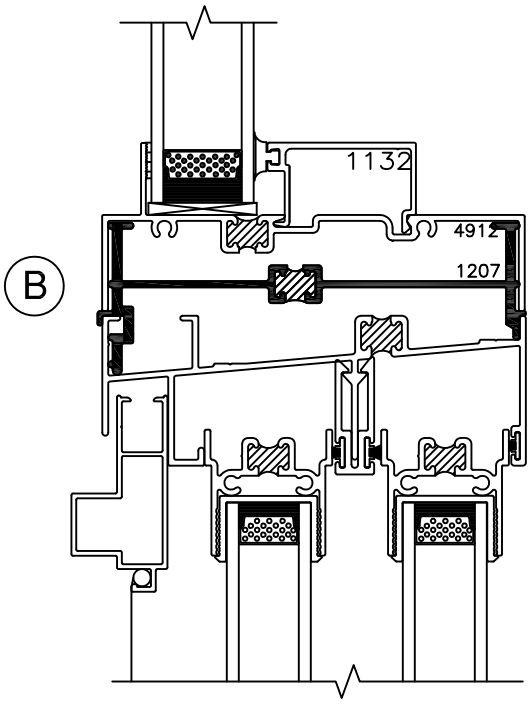
V. INSTALLATION:

Qualifications - Installation shall be performed by skilled, experienced tradesmen. Units shall be installed plumb, level, square and shall be secured in accordance with detailed shop drawings. A non-hardening sealant compatible with aluminum shall be provided by the installer and applied in sufficient quantity to provide a weathertight seal between the window and surrounding construction.

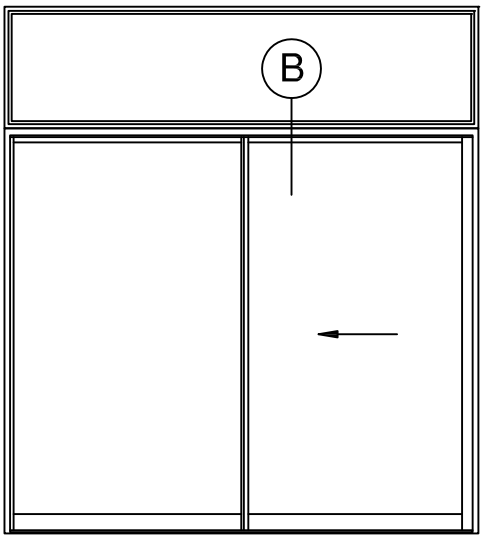
Installation Details - The window manufacturer shall submit complete installation details for the Architects approval. The drawings shall show elevations of windows, full size details of frame and vents, details of construction and anchorage of window.

SERIES 4151 4-3/8” TRANSOM for SLIDING GLASS DOORS

Typical Configurations (Scale: Half Size)



4151 - 9900

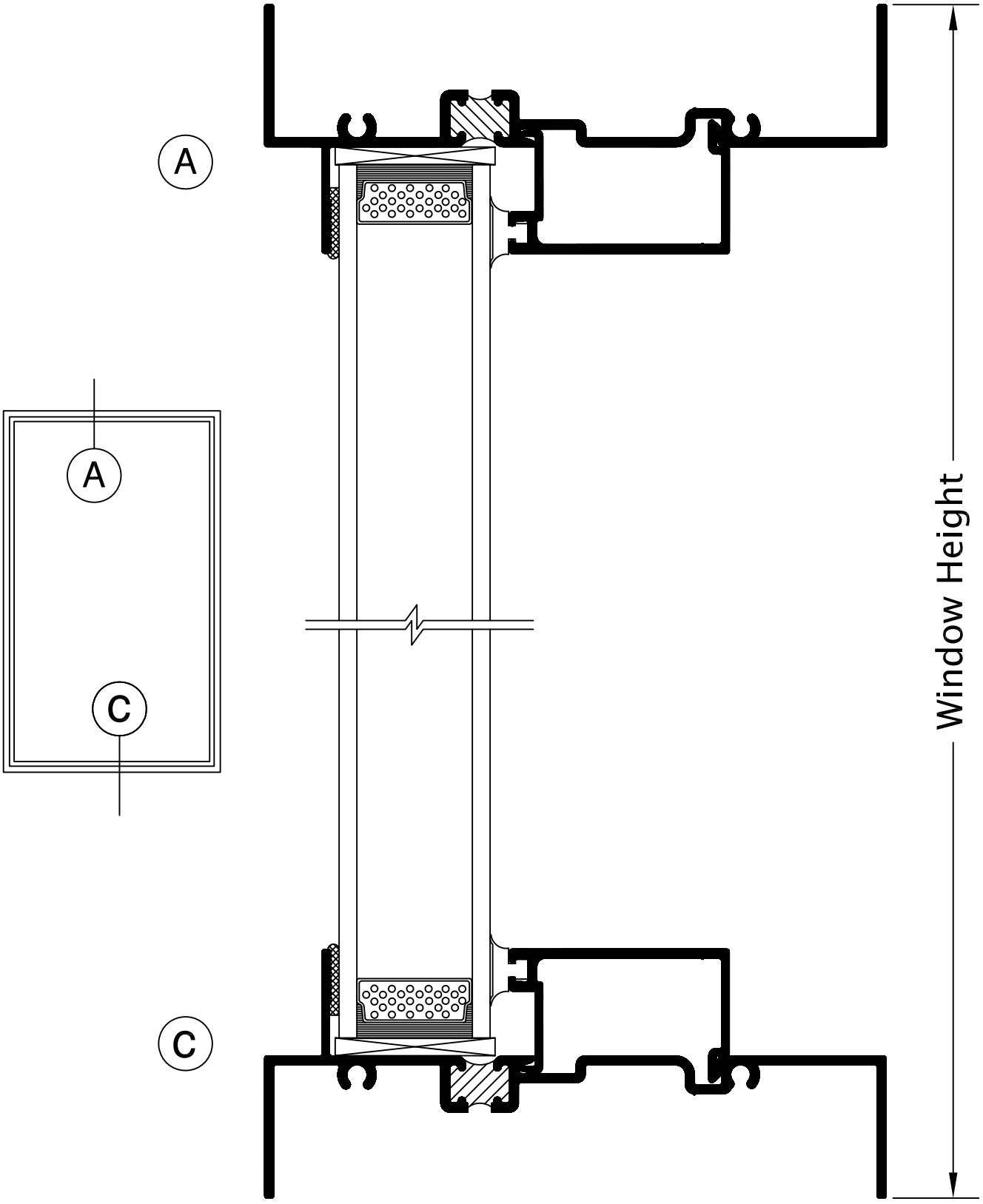


4151 - 9900

See Accessories section for additional options

SERIES 4151 4-3/8” TRANSOM for SLIDING GLASS DOORS

Product Details (Scale: Full Size)



SERIES 4151 4-3/8” TRANSOM for SLIDING GLASS DOORS

Product Details (Scale: Full Size)