

Features and Options	MSD-2
Glazing Performance.....	MSD-3
Design Data	
Size and Performance Data.....	MSD-6
Detailed Product Descriptions	MSD-11
Unit Sections	MSD-12

Document Navigation Tips:

Items listed in the table of contents above are active links that will take you to the corresponding page.

The logo on each page is a link back to this table of contents.

Bookmarks are also included in this PDF document and are available as an additional navigation option.

Features and Options

Glazing

Glazing Type

Dual-Pane Insulating Glass

Insulated Glass Options/Low-E Types

Low-E 366

Low-E 366/i89

Low-E 270

Glass

Tempered Glass

Gas Fill

Argon

Air

Frame and Panels

Thermally Broken Aluminum

Finishes ¹

Satin Anodized, Black Anodized, White, Fossil

Hardware

Finishes ¹

Satin Nickel, Black, White

(1) Contact your local sales representative for current designs and color options.



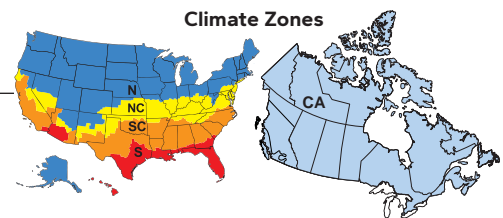
Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ¹				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown				
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂
										Zone				ER
Dual-Pane - Flush Sill										N	NC	SC	S	CA
1"	366/ clear	BNE-A-15-00042-00001	5	5	Argon	0.33	0.22	0.51	52					
1"	366/ i89	BNE-A-15-00052-00001	5	5	Argon	0.28	0.22	0.49	47			SC	S	
1"	270/ clear	BNE-A-15-00038-00001	5	5	Argon	0.33	0.29	0.55	52					
1"	366/ clear	BNE-A-15-00041-00001	5	5	Air	0.36	0.22	0.51	52					
1"	366/ i89	BNE-A-15-00051-00001	5	5	Air	0.31	0.22	0.49	44					
1"	270/ clear	BNE-A-15-00037-00001	5	5	Air	0.36	0.29	0.55	52					
Dual-Pan - Standard Sill										N	NC	SC	S	CA
1"	366/ clear	BNE-A-15-00108-00001	5	5	Argon	0.32	0.22	0.51	52					
1"	366/ i89	BNE-A-15-00118-00001	5	5	Argon	0.28	0.22	0.49	47			SC	S	
1"	270/ clear	BNE-A-15-00104-00001	5	5	Argon	0.33	0.29	0.55	52					
1"	366/ clear	BNE-A-15-00107-00001	5	5	Air	0.36	0.22	0.51	52					
1"	366/ i89	BNE-A-15-00117-00001	5	5	Air	0.31	0.22	0.49	44					
1"	270/ clear	BNE-A-15-00103-00001	5	5	Air	0.36	0.29	0.55	52					

R-Value = 1/U-Factor
 SHGC = Solar Heat Gain Coefficient
 VLT % = Visible Light Transmission
 CR = Condensation Resistance
 ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500. ENERGY STAR® values are updated to 2023 (version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

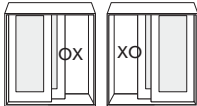
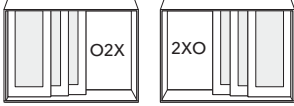
Visit www.energystar.gov for Energy Star guidelines.



	Frame Height		Panel Width		Panel Height		Handle Height (Dimension from bottom of panel to center of lock thumbturn)
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	
Multi-Slide Window	42"	78"	24"	72"	40"	75.98"	16"
Multi-Slide Door	78.0625"	143.5"	24"	72"	76.0425"	141.5"	43.191" (Contemporary)
							40.647" (Flush)

Corner Door height and width limitations differ from the pocketing and stacking multi-slide doors, please reach out to your local rep for more information.

Panel Interlocker	Frame Height	
	Minimum	Maximum
Aluminum Interlocker	42"	119.9375"
Aluminum Heavy Duty Interlocker	120"	143.5"

STACKING PANEL CONFIGURATION	Venting	Frame & Track Depth	Frame Width	Min.	Maximum Size (inches)			Performance Class and Grade	
				Frame Width	Frame Height	Panel Width End / Intermediate	Panel Height	Standard Sill	Flush Sill
2-Panel 	One-way	4" 2 tracks	43.411	97.495	96	49.319 / 48.773	93.980	R-PG20	NR
				121.495	143.5	61.319 / 60.773	141.5	NR	NR
3-Panel 	One-way	6" 3 tracks	62.874	144	96	49.319 / 48.773	93.980	R-PG20	NR
				180	143.5	61.319 / 60.773	141.5	NR	NR

X = Venting, O = Fixed. All dimensions are in inches.

*Non-rated, passed internal Air/Water/Structural testing

Those noted as NR are not AAMA/WDMA performance certified.

Custom sized units in 1/8" increments.

Doors are viewed from the exterior.

Contact your local sales representative for more information.



STACKING PANEL CONFIGURATION			Venting	Frame & Track Depth	Min. Frame Width	Maximum Size (inches)			Performance Class and Grade		
						Frame Width	Frame Height	Panel Width End / Intermediate	Panel Height	Standard Sill	Flush Sill
4-Panel			One-way	8" 4 tracks	82.337	238.505	143.5	61.319 / 60.773	141.5	NR	NR
			Bi-part	4" 2 tracks	85.491	241.856	143.5	61.319 / 60.773	141.5	NR	NR
5-Panel			One-way	10" 5 tracks	82.337	297.010	143.5	61.319 / 60.773	141.5	NR	NR
6-panel			Bi-part	6" 3 tracks	124.417	358.867	143.5	61.319 / 60.773	141.5	NR	NR
8-Panel			Bi-part	8" 4 tracks	163.343	475.877	143.5	61.319 / 60.773	141.5	NR	NR
10-Panel			Bi-part	10" 5 tracks	202.269	592.887	143.5	61.319 / 60.773	141.5	NR	NR

X = Venting, O = Fixed. All dimensions are in inches.

*Non-rated, passed internal Air/Water/Structural testing

Those noted as NR are not AAMA/WDMA performance certified.

Custom sized units in 1/8" increments.

Doors are viewed from the exterior.

Contact your local sales representative for more information.



POCKETING PANEL CONFIGURATION			Venting	Frame & Track Depth	Min. Frame Width	Maximum size (inches)				Performance Class and Grade	
						Frame Width	Frame Height	Panel Width End / Intermediate	Panel Height	Standard Sill	Flush Sill
1-Panel			One-way	2" 1 track	43.918	122.022	143.5	61.319 / 60.773	141.5	NR	NR
2-Panel			One-way	4" 2 tracks	63.381	144.507	96	49.319 / 48.773	93.980	Pending*	NR
						180.507	143.5	61.319 / 60.773	141.5	NR	NR
	Bi-part	2" 1 track	86.506	242.673	143.5	61.319 / 60.773	141.5	NR	NR		
3-Panel			One-way	6" 3 tracks	82.844	239.012	143.5	61.319 / 60.773	141.5	NR	NR
4-Panel			One-way	8" 4 tracks	102.307	297.517	143.5	61.319 / 60.773	141.5	NR	NR
			Bi-part	4" 2 tracks	125.432	359.683	143.5	61.319 / 60.773	141.5	NR	NR

X = Venting, O = Fixed. All dimensions are in inches.

*Non-rated, passed internal Air/Water/Structural testing

Those noted as NR are not AAMA/WDMA performance certified.

Custom sized units in 1/8" increments.

Doors are viewed from the exterior.

Contact your local sales representative for more information.



POCKETING PANEL CONFIGURATION			Min.	Maximum size (inches)				Performance Class and Grade	
	Venting	Frame & Track Depth	Frame Width	Frame Width	Frame Height	Panel Width End / Intermediate	Panel Height	Standard Sill	Flush Sill
5-Panel	One-way	10" 5 tracks	121.770	356.022	143.5	61.319 / 60.773	141.5	NR	NR
6-Panel	Bi-part	6" 3 tracks	164.355	476.693	143.5	61.319 / 60.773	141.5	NR	NR
8-Panel	Bi-part	8" 4 tracks	203.283	593.703	143.5	61.319 / 60.773	141.5	NR	NR
10-Panel	Bi-part	10" 5 tracks	242.209	710.713	143.5	61.319 / 60.773	141.5	NR	NR

X = Venting, O = Fixed. All dimensions are in inches.

*Non-rated, passed internal Air/Water/Structural testing

Those noted as NR are not AAMA/WDMA performance certified.

Custom sized units in 1/8" increments.

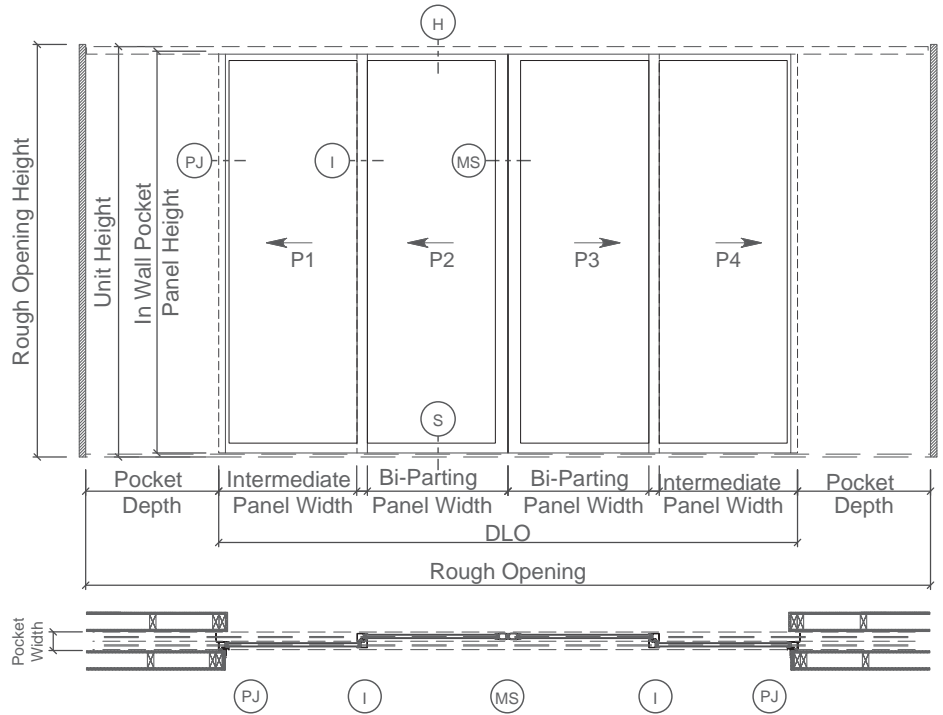
Doors are viewed from the exterior.

Contact your local sales representative for more information.



Key

- FW = Frame Width
- FH = Frame Height
- PW = Panel Width
- PH = Panel Height
- RO = Rough Opening
- DLO = Daylight Opening
- OTD = Overall Track Depth
- TP = Total # of panels
- FPD = Frame Pocket Depth
- AGW = Actual Glass Width
- AGH = Actual Glass Height
- PJ = Pocket Jamb
- MS = Meeting Stile

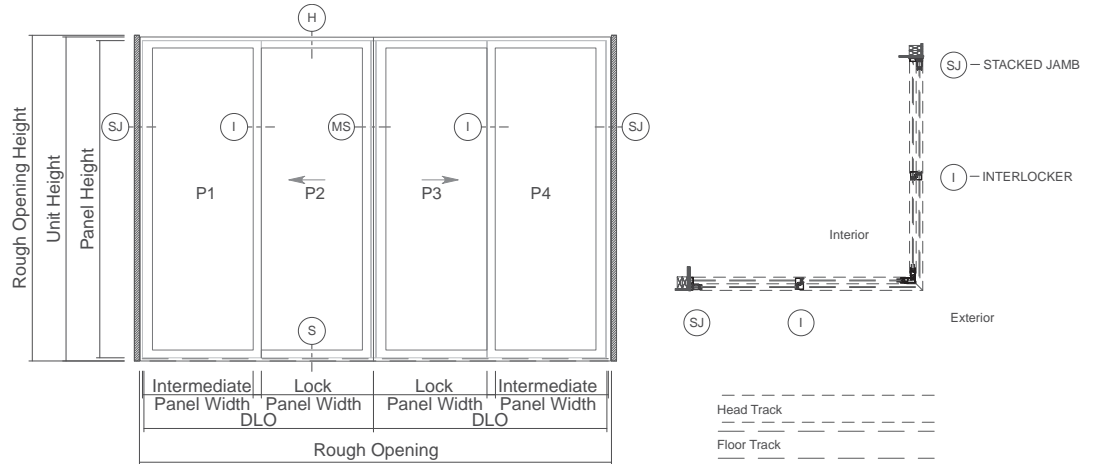


	Stacking: One Way (minimum 2 Panels)	Stacking: Bi-Parting	1 Pocket: One Way	2 Pocket: Bi-Parting
Frame Width	Starting Reference		Starting Reference	
RO Width	FW+0.5		FW+0.5	
Actual Glass Width	$(FW - 2.8818 - 3.0660 - (TP - 1) \times 1.4631) \div TP$	$(FW - 2.8818 \times 2 - 4.8011 - (TP - 2) \times 1.4631) \div TP$	$(FW - 3.0660 - (TP - 1) \times 1.4631 - 2.0318 - 2.8203) \div (TP + 1)$ For Units with High Load Interlock: $(FW - 3.0660 - (TP - 1) \times 1.4631 - (4.443 + (2.416 \times (TP - 2))) - 2.8203) \div (TP + 1)$ For 1-Panel Pocket: $(FW - 3.0660 - 2.0318 - 2.8203)$	$(FW - (TP - 2) \times 1.4631 - 2.0318 \times 2 - 2.8203 \times 2 - 4.8011) \div (TP + 2)$ For Units with Aluminum Heavy Duty Interlock: $(FW - (TP - 2) \times 1.4631 - (4.443 + (2.416 \times (TP - 2))) \times 2 - 2.8203 \times 2 - 4.8011) \div (TP + 2)$ For 1-Panel Pocket: $(FW - 3.0660 - 2.0318 - 2.8203)$
Panel Width	Fixed / Vent: $AGW + 2.4118 + 1.8653$ Intermediate: $AGW + 1.8653 \times 2$	Fixed / Vent / Active Bi-Part: $AGW + 2.4118 + 1.8653$ Intermediate: $AGW + 1.8653 \times 2$ Inactive Bi-Part: $AGW + 2.5569 + 1.8653$	Vent: $AGW + 2.4118 + 1.8653$ Intermediate: $AGW + 1.8653 \times 2$	Vent / Active Bi-Part: $AGW + 2.4118 + 1.8653$ Intermediate: $AGW + 1.8653 \times 2$ Inactive Bi-Part: $AGW + 2.5569 + 1.8653$
Frame Pocket Depth	n/a		Standard Interlock: $AGW + 1.5910 + 2.8203$ Aluminum Heavy Duty Interlocker: $AGW + 1.5910 + 2.8203 + 2.4145 \times (\# \text{ Tracks} - 1)$	
RO Pocket Depth	n/a		FPD + 0.250	
DLO Width	FW + 0.5		ROW - RO Pocket Depth	ROW - RO Pocket Depth $\times 2$
Frame Height	Starting Reference		Starting Reference	
RO Height / DLO Height	FH + 0.5		FH + 0.5	
Panel Height	FH - 2.020		FH - 2.020	
Finished Pocket Width	n/a		1-Panel Units (OR 2-Panel Bi-Parting): 2.808 2-Panel One Way (OR 4-Panel Bi-Parting) With Aluminum Heavy Duty Interlocker: 6.716 Others: OTD + 0.854	
OTD (minimum wall depth)	# Tracks $\times 1.954$		# Tracks $\times 1.954$	



Key

- FW = Frame Width
- FH = Frame Height
- PW = Panel Width
- PH = Panel Height
- RO = Rough Opening
- DLO = Daylight Opening
- OTD = Overall Track Depth
- TP = Total # of panels
- FPD = Frame Pocket Depth
- AGW = Actual Glass Width
- AGH = Actual Glass Height
- SJ = Stacked Jamb
- MS = Meeting Stile

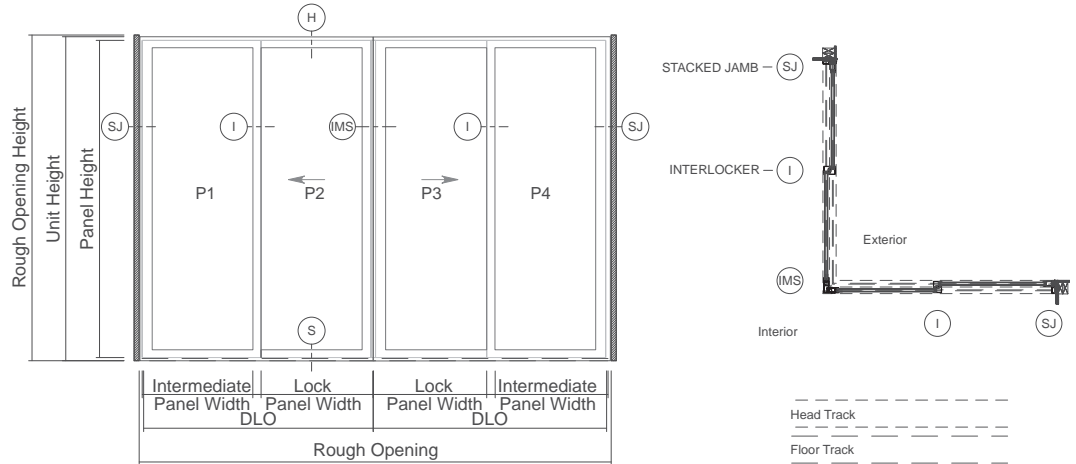


	90 Stacking: Side 1 (Passive Panel Side)	90 Stacking: Side 2 (Active Panel Side)	90 Pocket: Side 1 (Passive Panel Side)	90 Pocket: Side 2 (Active Panel Side)
Frame Width	Starting Reference		Starting Reference	
RO Width	FW1 + 0.25	FW2 + 0.25	FW1 + 0.25	FW2 + 0.25
Actual Glass Width	$\frac{((FW1 - 1.954 \times (TP2 - 1) - 1.0372) - 2.8818 - 3.0660 - (TP1 - 1) \times 1.4631) \div TP1}{}$	$\frac{((FW2 - 1.954 \times (TP1 - 1) - 1.0372) - 2.8818 - 3.0660 - (TP2 - 1) \times 1.4631) \div TP2}{}$	$\frac{((FW1 - 1.954 \times (TP2 - 1) - 1.0372) - 3.0660 - (TP1 - 1) \times 1.4631 - 2.0318 - 2.8203) \div (TP1 + 1)}{}$ For Units with Aluminum Heavy Duty Interlocker: $\frac{((FW1 - 1.954 \times (TP2 - 1) - 1.0372) - 3.0660 - (TP1 - 1) \times 1.4631 - (4.443 + (2.416 \times (TP1 - 2))) - 2.8203) \div (TP1 + 1)}{}$ For 1-Panel Pocket: $\frac{((FW1 - 1.954 \times (TP2 - 1) - 1.0372) - 3.0660 - 2.0318 - 2.8203)}{}$	$\frac{((FW2 - 1.954 \times (TP1 - 1) - 1.0372) - 3.0660 - (TP2 - 1) \times 1.4631 - 2.0318 - 2.8203) \div (TP2 + 1)}{}$ For Units with Aluminum Heavy Duty Interlocker: $\frac{((FW2 - 1.954 \times (TP1 - 1) - 1.0372) - 3.0660 - (TP2 - 1) \times 1.4631 - (4.443 + (2.416 \times (TP2 - 2))) - 2.8203) \div (TP2 + 1)}{}$ For 1-Panel Pocket: $\frac{((FW2 - 1.954 \times (TP1 - 1) - 1.0372) - 3.0660 - 2.0318 - 2.8203)}{}$
Panel Width	Fixed : AGW + 2.4118 + 1.8653 Intermediate: AGW + 1.8653 × 2 Corner Panel (Passive Panel): AGW + 1.8653 + 3.8262	Fixed : AGW + 2.4118 + 1.8653 Intermediate: AGW + 1.8653 × 2 Corner Panel (Active Panel): AGW + 1.8653 + 2.5569	Intermediate: AGW + 1.8653 × 2 Corner Panel (Passive Panel): AGW + 1.8653 + 3.8262	Intermediate: AGW + 1.8653 × 2 Corner Panel (Active Panel): AGW + 1.8653 + 2.5569
Frame Pocket Depth	n/a		Standard Interlock: AGW + 1.5910 + 2.8203 Aluminum Heavy Duty Interlocker: AGW + 1.5910 + 2.8203 + 2.4145 × (# Tracks (Side 1) - 1)	Standard Interlock: AGW + 1.5910 + 2.8203 Aluminum Heavy Duty Interlocker: AGW + 1.5910 + 2.8203 + 2.4145 × (# Tracks (Side 2) - 1)
RO Pocket Depth	n/a		FPD + 0.250	
DLO Width	FW1 + 0.25	FW2 + 0.25	ROW1 - RO Pocket Depth 1 + 1.954 × (TP2 - 1) + 1.0372 + 0.25	ROW2 - RO Pocket Depth 2 + 1.954 × (TP1 - 1) + 1.0372 + 0.25
Frame Height	Starting Reference		Starting Reference	
RO Height / DLO Height	FH + 0.5		FH + 0.5	
Panel Height	FH - 2.020		FH - 2.020	
Finished Pocket Width	n/a		1-Panel Units (OR 2-Panel Bi-Parting): 2.808 2-Panel One Way (OR 4-Panel Bi-Parting) With Aluminum Heavy Duty Interlocker: 6.716 Others: OTD + 0.854	
OTD (minimum wall depth)	# Tracks(Side 1) x 1.954		# Tracks(Side 2) x 1.954	



Key

- FW = Frame Width
- FH = Frame Height
- PW = Panel Width
- PH = Panel Height
- RO = Rough Opening
- DLO = Daylight Opening
- OTD = Overall Track Depth
- TP = Total # of panels
- FPD = Frame Pocket Depth
- AGW = Actual Glass Width
- AGH = Actual Glass Height
- SJ = Stacked Jamb
- IMS = Inverted Meeting Stile



	270 Stacking: Side 1 (Passive Panel Side)	270 Stacking: Side 2 (Active Panel Side)	270 Pocket: Side 1 (Passive Panel Side)	270 Pocket: Side 2 (Active Panel Side)
Frame Width	Starting Reference		Starting Reference	
RO Width	FW1 + 0.25	FW2 + 0.25	FW1 + 0.25	FW2 + 0.25
Actual Glass Width	$\frac{((FW1 - 1.0372) - 2.8818 - 3.0660 - (TP1 - 1) \times 1.4631)}{\div TP1}$	$\frac{((FW2 - 1.0372) - 2.8818 - 3.0660 - (TP2 - 1) \times 1.4631)}{\div TP2}$	$\frac{((FW1 - 1.0372) - 3.0660 - (TP1 - 1) \times 1.4631 - 2.0318 - 2.8203)}{(TP1 + 1)}$ For Units with Aluminum Heavy Duty Interlocker: $\frac{((FW1 - 1.0372) - 3.0660 - (TP1 - 1) \times 1.4631 - (4.443 + (2.416 \times (TP1 - 2))) - 2.8203)}{\div (TP1 + 1)}$ For 1-Panel Pocket: $((FW1 - 1.0372) - 3.0660 - 2.0318 - 2.8203)$	$\frac{((FW2 - 1.0372) - 3.0660 - (TP2 - 1) \times 1.4631 - 2.0318 - 2.8203)}{(TP2 + 1)}$ For Units with Aluminum Heavy Duty Interlocker: $\frac{((FW2 - 1.0372) - 3.0660 - (TP2 - 1) \times 1.4631 - (4.443 + (2.416 \times (TP2 - 2))) - 2.8203)}{\div (TP2 + 1)}$ For 1-Panel Pocket: $((FW2 - 1.0372) - 3.0660 - 2.0318 - 2.8203)$
Panel Width	Fixed: AGW + 2.4118 + 1.8653 Intermediate: AGW + 1.8653 × 2 Corner Panel (Passive Panel): AGW + 1.8653 + 3.8262	Fixed: AGW + 2.4118 + 1.8653 Intermediate: AGW + 1.8653 × 2 Corner Panel (Active Panel): AGW + 1.8653 + 2.5569	Intermediate: AGW + 1.8653 × 2 Corner Panel (Passive Panel): AGW + 1.8653 + 3.8262	Intermediate: AGW + 1.8653 × 2 Corner Panel (Active Panel): AGW + 1.8653 + 2.5569
Frame Pocket Depth	n/a		Standard Interlock: AGW + 1.5910 + 2.8203 Aluminum Heavy Duty Interlocker: AGW + 1.5910 + 2.8203 + 2.4145 × (# Tracks (Side 1) - 1)	Standard Interlock: AGW + 1.5910 + 2.8203 Aluminum Heavy Duty Interlocker: AGW + 1.5910 + 2.8203 + 2.4145 × (# Tracks (Side 2) - 1)
RO Pocket Depth	n/a		FPD + 0.250	
DLO Width	FW1 + 0.25	FW2 + 0.25	ROW1 - RO Pocket Depth1 + 1.0372 + 0.25)	ROW2 - RO Pocket Depth2 + 1.0372 + 0.25)
Frame Height	Starting Reference		Starting Reference	
RO Height / DLO Height	FH + 0.5		FH + 0.5	
Panel Height	FH - 2.020		FH - 2.020	
Finished Pocket Width	n/a		1-Panel Units: 2.808 2-Panel Side With Aluminum Heavy Duty Interlocker: 6.716 Others: OTD + 0.854	
OTD (minimum wall depth)	# Tracks(Side 1) x 1.954		# Tracks(Side 2) x 1.954	



Detailed Product Description

Frame

- Extruded aluminum head and jambs.
- Extruded aluminum sill tracks and extruded thermal breaks. Stainless steel track caps on which the rollers glide.
- Frame Finish is [Satin Anodized] [Black Anodized] [White] [Fossil].
- Frame Depth varies from 2" to 10" depending on configuration. See Overall Track Depth for dimension.
- 3/4" Flush Sill.

– or –

- 1-1/2" Performance Sill.

Door Panels

- Extruded aluminum with thermal breaks.
- Corners are secured with metal fasteners.
- Panels have premium adjustable quad rollers.
- Panels between 117.98" to 143.5" in height will include Aluminum Heavy Duty Interlocker for additional structural support.

Weatherstripping

- Extruded pile with quiet fin at head on interior and exterior of each track.
- Extruded pile with quiet fin at jambs on interior and exterior of each track with an end panel.
- Extruded pile with quiet fin at bottom of panels on interior and exterior.
- Extruded pile with quiet fin at panel interlocks.

Glazing System¹

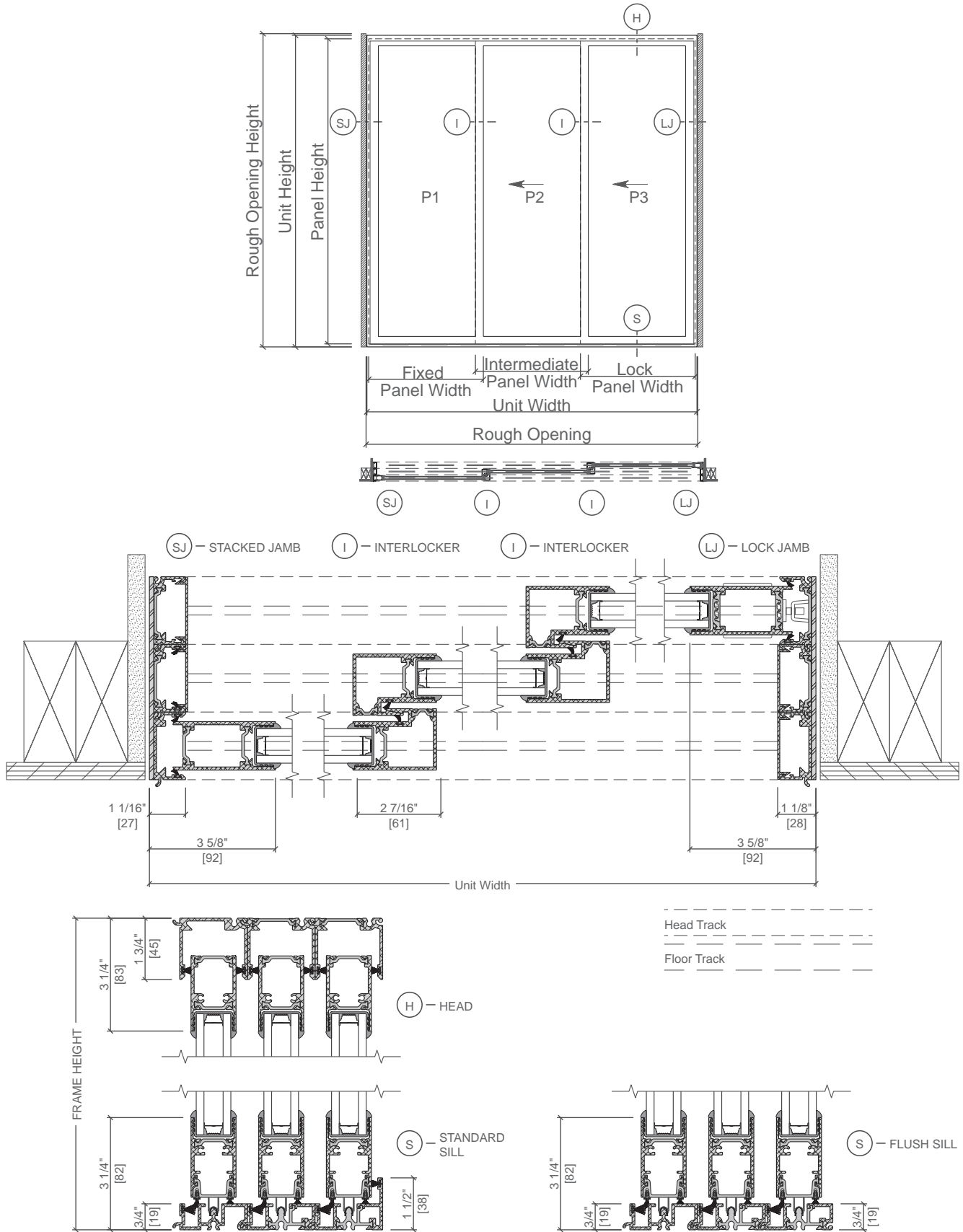
- Quality fully-tempered float glass complying with ASTM C 1048.
- Dry-glazed dual-pane 1" dual-seal insulating glass or non-impact laminated glass, [clear] [Low-E 366] [Low-E 366/i89] [Low-E 270]

Hardware

- Standard flush handle. Hardware finish is [Satin Nickel] [Matte Black] [White].
- Optional Contemporary Pull [Satin Nickel] [Matte Black] [White].
- Two-point stainless steel lock and strike hardware located on lead vent panel and bi-part panel.
- Biparting doors have an active handle set and inactive handle set in middle panels.
- Door hardware handle location from bottom of the panel to center of lock thumb turn is [46.647" [Flush Handle]] [43.191" [Contemporary Handle]].
- Window hardware handle location from bottom of the panel to center of lock thumb turn is [16" [Flush Handle]].

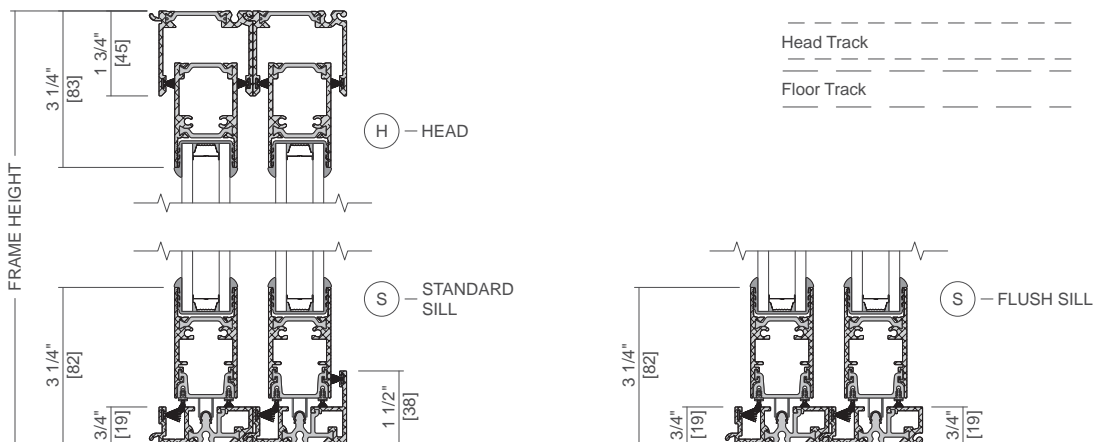
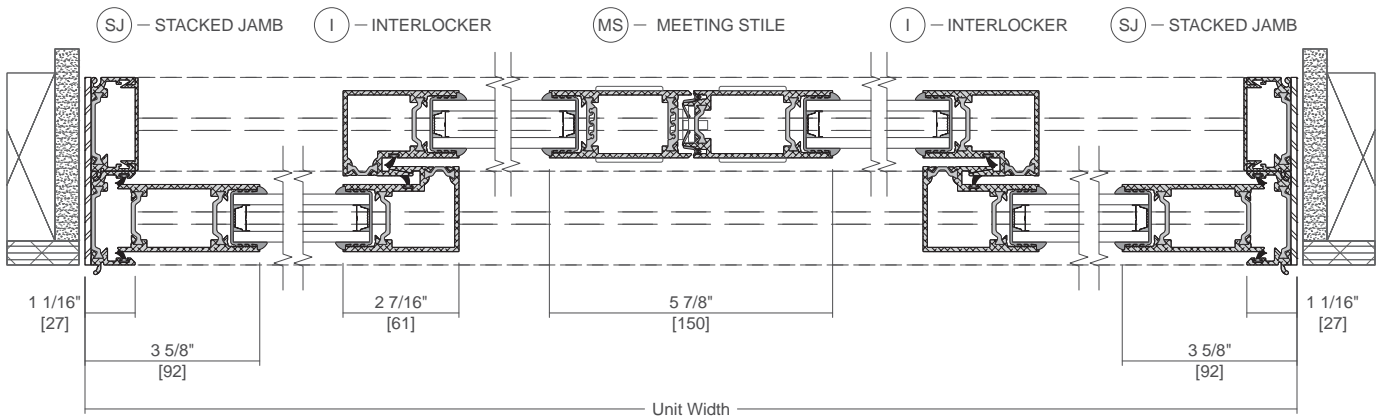
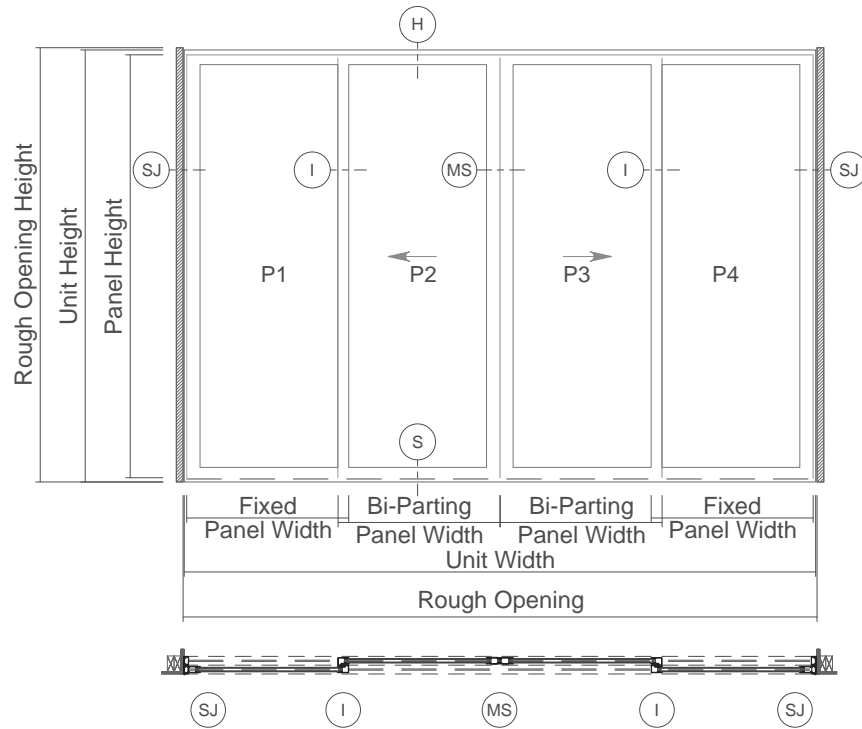
(1) Insulating glass with argon is Low-E coated. All other insulating glass is air-filled.

(2) Contact your local sales representative for current color options.



Scale 3" = 1' 0"

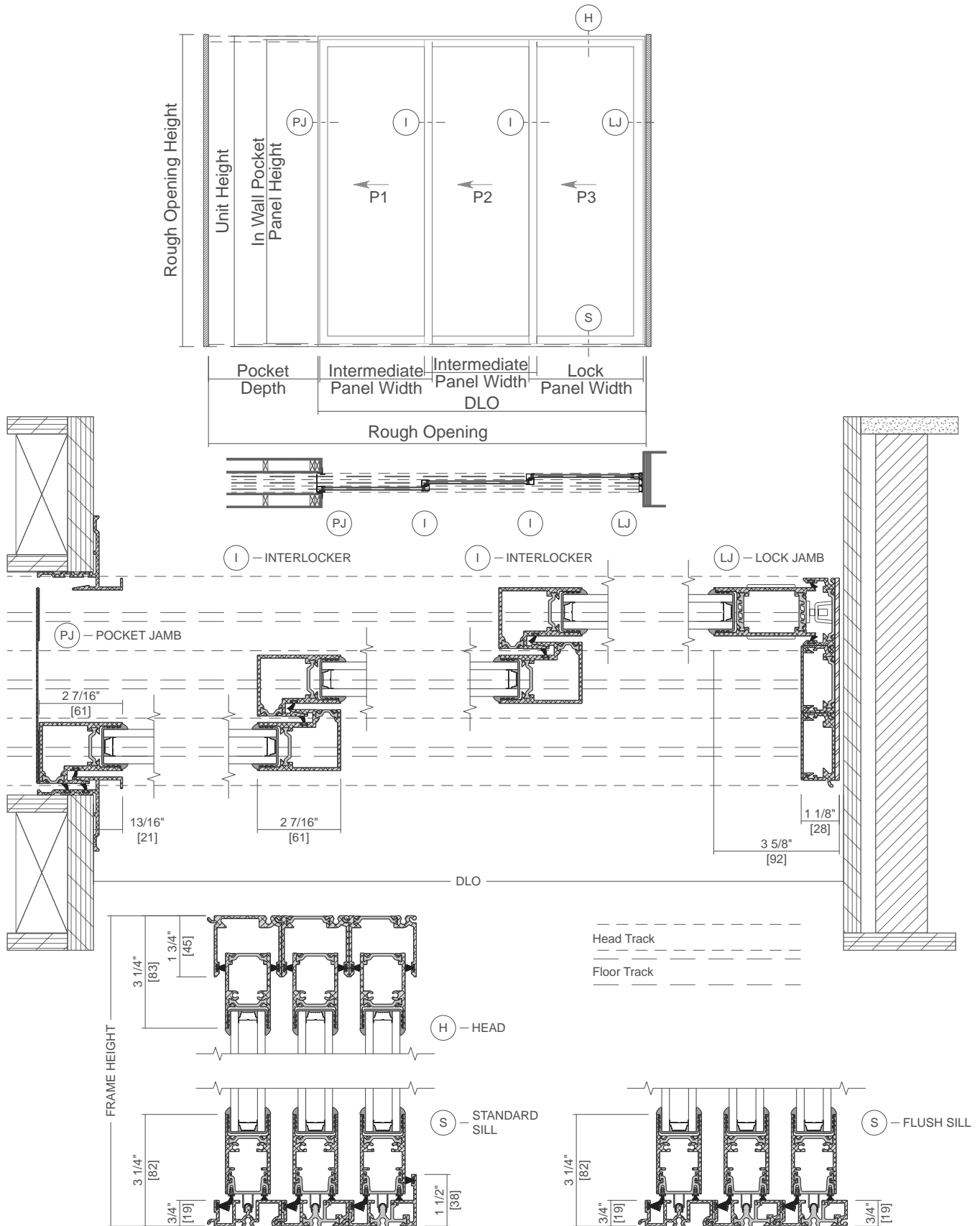
All dimensions are approximate.



Scale 3" = 1' 0"

All dimensions are approximate.

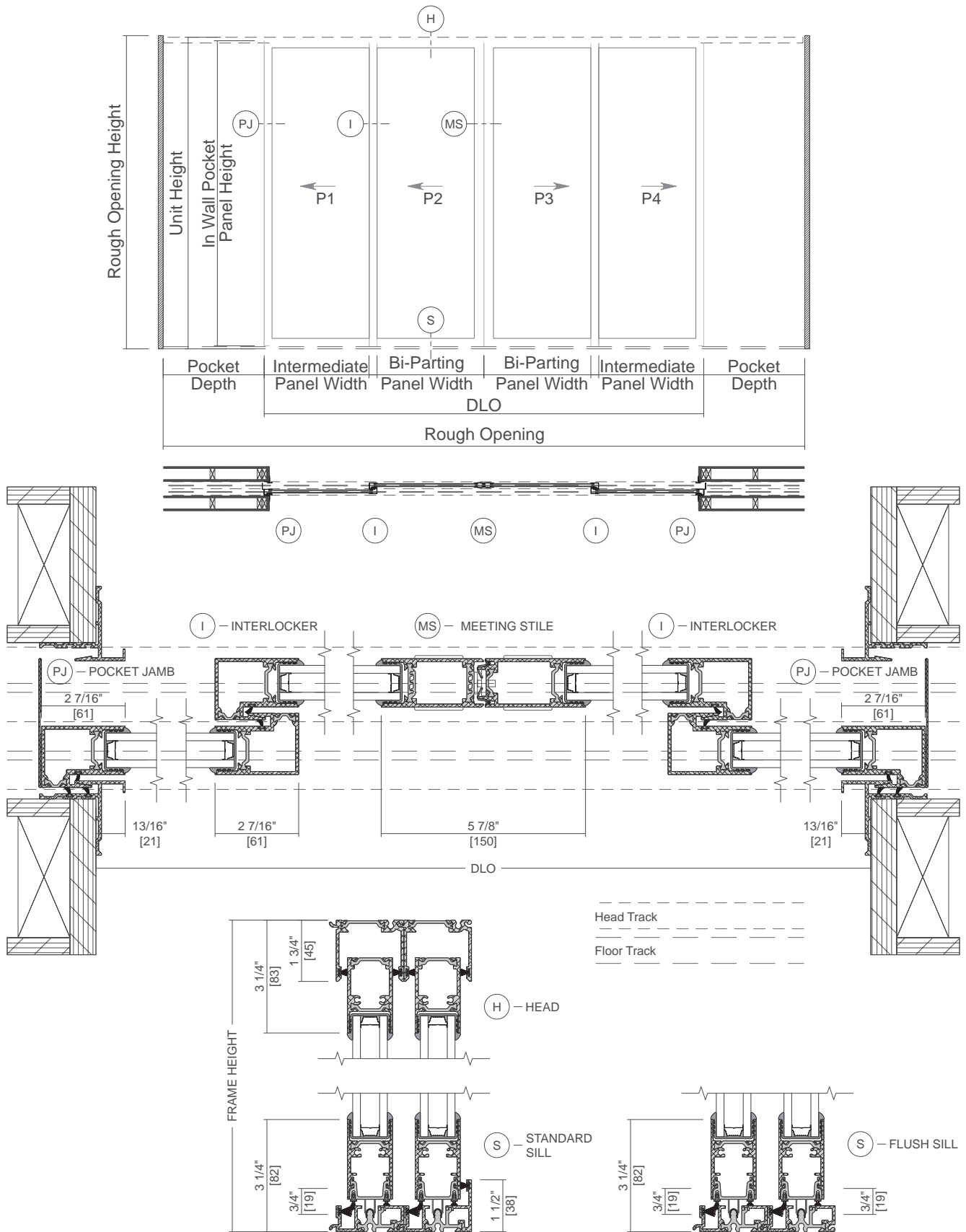
Rev. 01/07/2025



Scale 3" = 1' 0"

All dimensions are approximate.

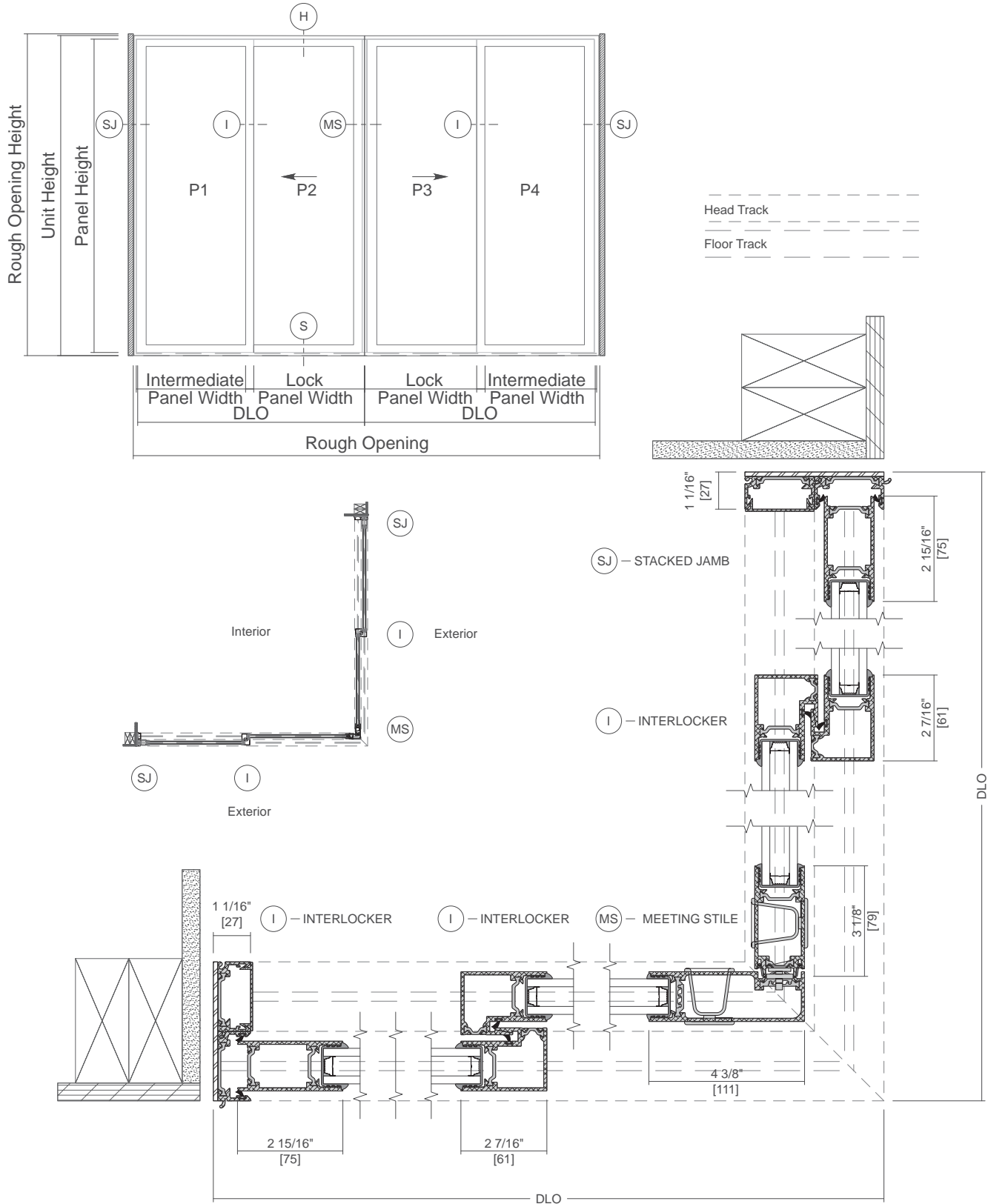
Rev. 01/20/2025



Scale 3" = 1' 0"

All dimensions are approximate.

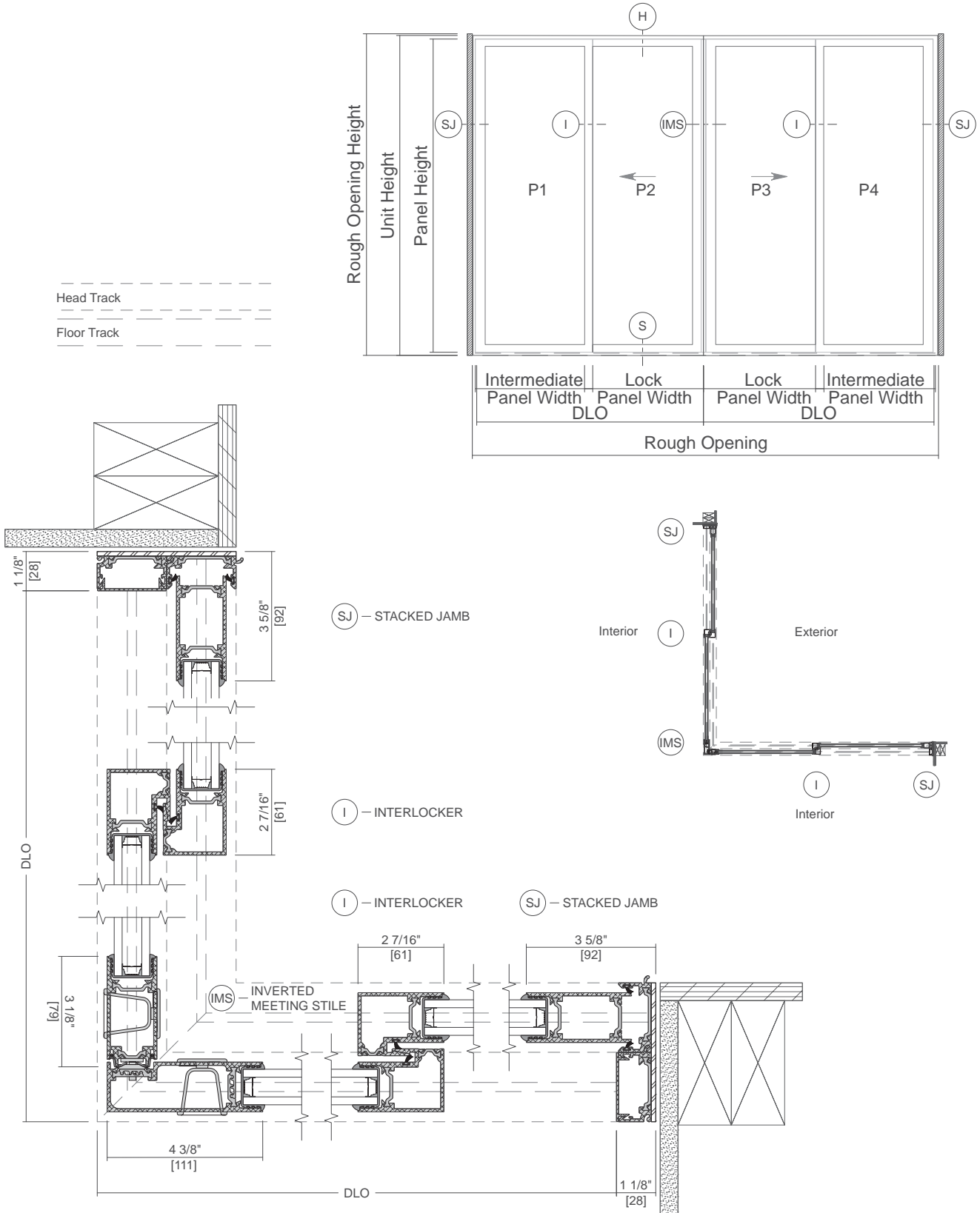
Rev. 01/20/2025



Contact your sales representative for sizes and limitations.

Scale 3" = 1' 0"

All dimensions are approximate.



Contact your sales representative for sizes and limitations.

Scale 3" = 1' 0"

All dimensions are approximate.