WESTERN
ARCHITECTURAL OPENINGS

Impact Collection 7630i Window Wall Installation Instructions

Integral Nail Fin Frame

Things to Know Before You Start

Removal of Old Fenestration Products

Before removing existing fenestration, verify that the replacement unit is the correct size and configuration and is free of damage. Inspect the opening for conditions that could affect installation and resolve any discrepancies before proceeding.

Ensure that any old fenestration products are removed and properly disposed of. You may be able to recycle or donate removed glass and frames. For more information, check with your local recycling agency, the American Architectural Manufacturers Association, the U.S. Environmental Protection Agency, or the Building Materials Reuse Association to locate a nearby company or organization that accepts used windows and doors. To donate removed products, contact local nonprofits in need of building supplies, such as Habitat for Humanity.

Please note: Homes and condominiums built before 1978 may have lead-based paint, which can pose serious health hazards during removal. Information and instruction regarding proper management of lead-based paint is available at www.epa.gov/lead.

Installation Preparation

Window walls are manufactured specifically for each application. Before installation, carefully review and understand these instructions and any drawings supplied. Western Architectural Openings products should be installed only by experienced and qualified installation professionals. Failure to follow these instructions may result in poor performance, including operation, security, and weatherproofing failures, and may void Western Architectural Openings' express limited warranties.

Verify that the window is the correct size and unit number marked on the opening. For mulled windows, refer to the Mull Sealing Instructions and the specific approval for each window type.

Impact anchorage is based on Florida Product Approval 27960, drawing PW7630FPA-LMI Revision A dated August 26, 2024. The supplied approval covers the integral fin frame and excludes the High Velocity Hurricane Zone (HVHZ). Confirm that the unit size, design pressure, substrate, and configuration match the approved application. The approval lists a design pressure of +60/−60 psf and Large Missile D and Small Missile A impact resistance.

Things to Know Before You Start

Product Handling and Storage

This is a finished product that must be protected before, during, and after installation to prevent damage to the glass, frame, finish, and hardware. Upon completion of installation, mask off and protect the window from chemical exposure such as paint or mortar/stucco.

Store the window in a dry location protected from the elements. Wet packaging can damage product finishes. If packaging becomes wet, immediately replace it with dry packaging. Store and transport the window on a flat, even surface. Do not drop or drag it from the delivery truck.

Components

The components supplied vary depending on the configuration. Before proceeding, inspect the components to become familiar with them and confirm that there is no damage that will affect the appearance or performance of the installed product. Report damaged or missing parts to your supplier immediately. If screens are included, they will be installed in a similar fashion as the glass panels.

Other Tools and Materials Necessary for Installation

1. Flashing membrane.
2. Sealant compatible with the flashing membrane and adjoining materials.
3. Approved #10 or #12 sheet-metal screws in steel, 18-8 stainless steel, or 410 stainless steel, or 3/16-inch steel Ultracon+ anchors. All anchor head types are acceptable. Select anchors, edge distances, and embedment from the Approved Anchors table.
4. Anchors long enough to provide the required embedment beyond wall dressing or stucco. For metal substrates, at least three threads must extend beyond the metal.
5. Levels of various sizes or a laser level.
6. Pry bar.
7. Dead-blow rubber mallet.
8. Glazing roller for vinyl.
9. Load-transferring shims. Unless a particular type is required by applicable building codes, wedge or horseshoe shims may be used. Shim evenly across the unit; each shim must cover the full frame width from front to back. Where the product is not flush to the substrate, provide shims at a maximum of 18 inches on center. The approved installation sections show a maximum shim thickness of 1/4 inch.

Things to Know Before You Start

Weatherproofing

Waterproof rough openings in accordance with AAMA Installation Masters standards, flashing and sealant manufacturer instructions, and applicable local building codes. The approval's anchorage

details do not establish the overall water-resistance sealing or flashing strategy; coordinate that work with the building envelope details.

Seal anchors and frame corners. Required embedment into the base material must extend beyond wall dressing or stucco. Anchors that contact dissimilar materials must meet the Florida Building Code requirements for corrosion resistance.

Wood bucks must be designed and installed to transfer window loads to the structure. Buck design and installation are the responsibility of the engineer or architect of record. The 2X bucks shown in the approval are at least 1-1/2 inches thick. Use only the substrate and anchorage combinations listed in the approved anchor table.

Frame Installation

1. Frame Components: Each window has a head assembly, a sill, and left and right jamb assemblies (Fig. 1).

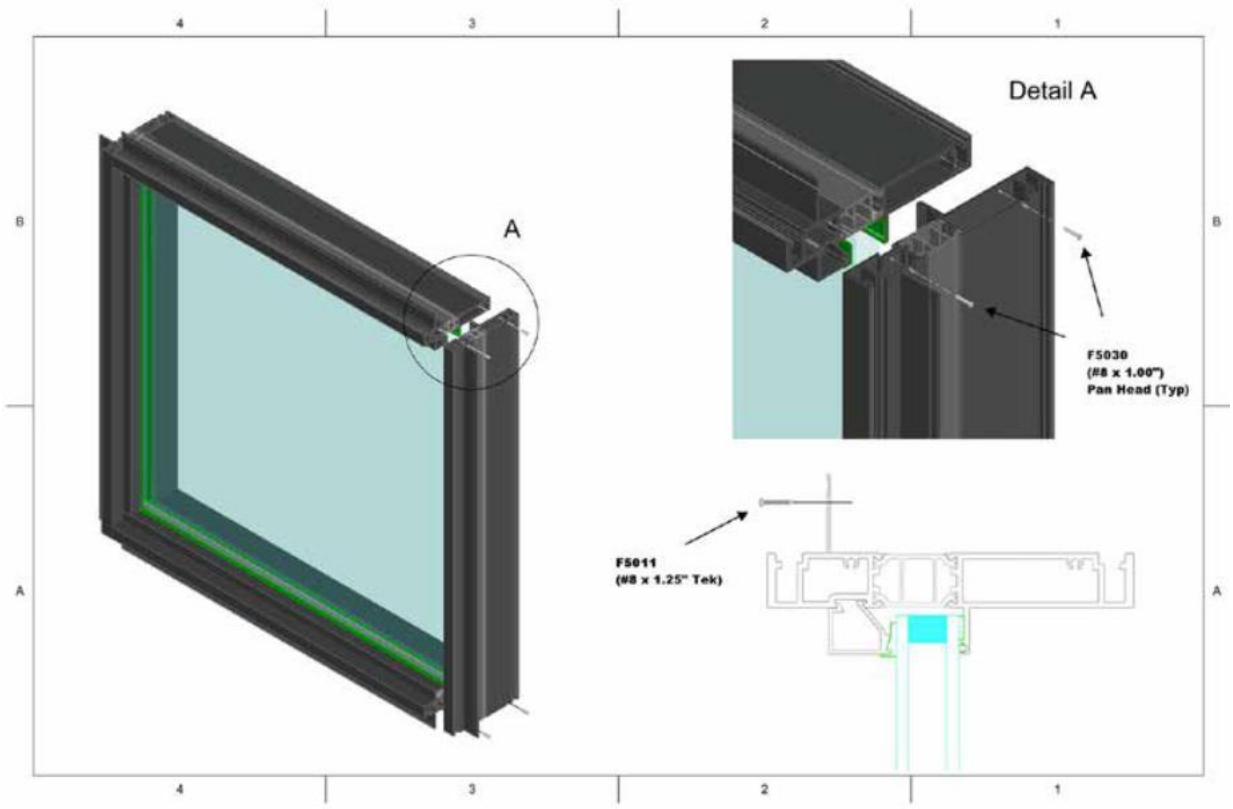


Fig. 1 Frame component orientation from the original installation instructions. The assembly screws shown in this illustration are not the structural installation anchors. Use the impact anchorage details in Figs. 2 through 4.

Nail Fin Instructions

1. Refer to the supplied CAD drawings or order acknowledgement and inspect the rough opening carefully to confirm that it is prepared for the configuration and size being installed. Confirm the integral fin frame and the approved substrate before selecting anchors.

2. Verify that the opening is the appropriate size and is square, plumb, and level. The approval shows a maximum single-panel buck size of 60 inches wide by 120 inches high. For double- and multiple-panel assemblies, use the configuration limits shown in Fig. 5.
3. Apply a continuous 3/8-inch bead of sealant to the interior face of the nail fin and place the window into the flashed opening. The nail flange must make full contact with the opening.
4. Check that the unit is square, plumb, and level, starting with the sill. Shim evenly from jamb to jamb, then level and plumb the jambs using shims to hold them in place at the top and bottom. Where the product is not flush to the substrate, use load-transferring shims at a maximum of 18 inches on center. Do not exceed the 1/4-inch shim thickness shown in Figs. 4 and 6.
5. Secure the head, sill, and both jamb integral fins to the structure with substrate-appropriate anchors from the Approved Anchors table. Locate anchors no more than 4 inches from each head, sill, and jamb corner and no more than 12 inches on center. At mullions, provide head and sill anchors within 4 inches of the mullion on each side, as shown in Fig. 5. Meet the specified edge distance and embedment for the selected anchor and substrate.
6. Seal all screws and fin edges when anchoring is complete.
7. Recheck that the unit is square, plumb, and level.

Use the integral fin anchorage details for wood, metal, concrete, and CMU in Fig. 4. All required embedment must extend into the specified base material beyond wall dressing or stucco. For architectural shapes, apply the bounding dimensions shown in the approval (Fig. 3).

Nail Fin Instructions

Approved Anchors Through the Integral Fin

Source: PW7630FPA-LMI Revision A, sheet 3, Table 1. All anchor head types are acceptable. Sheet-metal screws may be steel, 18-8 stainless steel, or 410 stainless steel.

Anchor	Substrate	Minimum edge distance	Minimum embedment
#10 SMS	Southern Pine (SG = 0.55)	1/2 inch	1-7/16 inches
#10 SMS	6063-T5 aluminum	3/8 inch	0.078 inch
#10 SMS	A36 steel	5/16 inch	0.050 inch
#10 SMS	A653 steel stud Grade 33	5/16 inch	0.035 inch (20 ga)
#12 SMS	Southern Pine (SG = 0.55)	1/2 inch	1-7/16 inches
#12 SMS	6063-T5 aluminum	7/16 inch	Refer to Fig. 2 Table 1
#12 SMS	A36 steel	5/16 inch	0.050 inch
#12 SMS	A653 steel stud Grade 33	5/16 inch	0.035 inch (20 ga)
3/16-inch steel Ultracon+	Concrete (3k)	1 inch	Refer to Fig. 2 Table 1

3/16-inch steel Ultracon+	Ungrouted CMU (ASTM C-90)	1 inch	1-1/4 inches
3/16-inch steel Ultracon+	Southern Pine (SG = 0.55)	1/2 inch	2 inches

The ungrouted CMU values may also be used for grouted CMU applications. For metal substrates, anchor length must provide at least three threads beyond the metal.

TABLE 1: ANCHORS INSTALLED THROUGH INTEGRAL FIN

Anchor	Substrate	Min. Edge Distance	Min. Embedment
#10 SMS (steel, 18-8 S.S. or 410 S.S.)	Southern Pine (SG = .55)	1/2"	1-7/16"
	6063-T5 Al	3/8"	0.078"
	A36 Steel	5/16"	0.05"
	A653 Steel Stud Gr. 33	5/16"	0.035" (20 ga)
#12, SMS (steel, 18-8 S.S. or 410 SS)	Southern Pine (SG = .55)	1/2"	1-7/16"
	6063-T5 Al	7/16"	0.078'
	A36 Steel	5/16"	0.05"
	A653 Steel Stud, Gr. 33	5/16"	0.035" (20 ga)
3/16" Steel Ultracon+	Concrete (3k)	1"	1.3/4"
	Ungrouted CMU, (ASTM C-90)	1"	1-1/4"
	Southern Pine (SG = .55)	1/2"	2"

1) "UNGROUTED CMU" VALUES MAY BE USED FOR GROUTED CMU APPLICATIONS.
2) ALL ANCHOR HEAD TYPES ARE ACCEPTABLE.
3) ANCHORS MUST BE OF SUFFICIENT LENGTH SO THAT A MINIMUM OF 3 THREADS EXTEND BEYOND THE METAL SUBSTRATE.

Fig. 2 Original anchor Table 1 from PW7630FPA-LMI, sheet 3, reproduced as supplied.

Impact Anchorage Locations

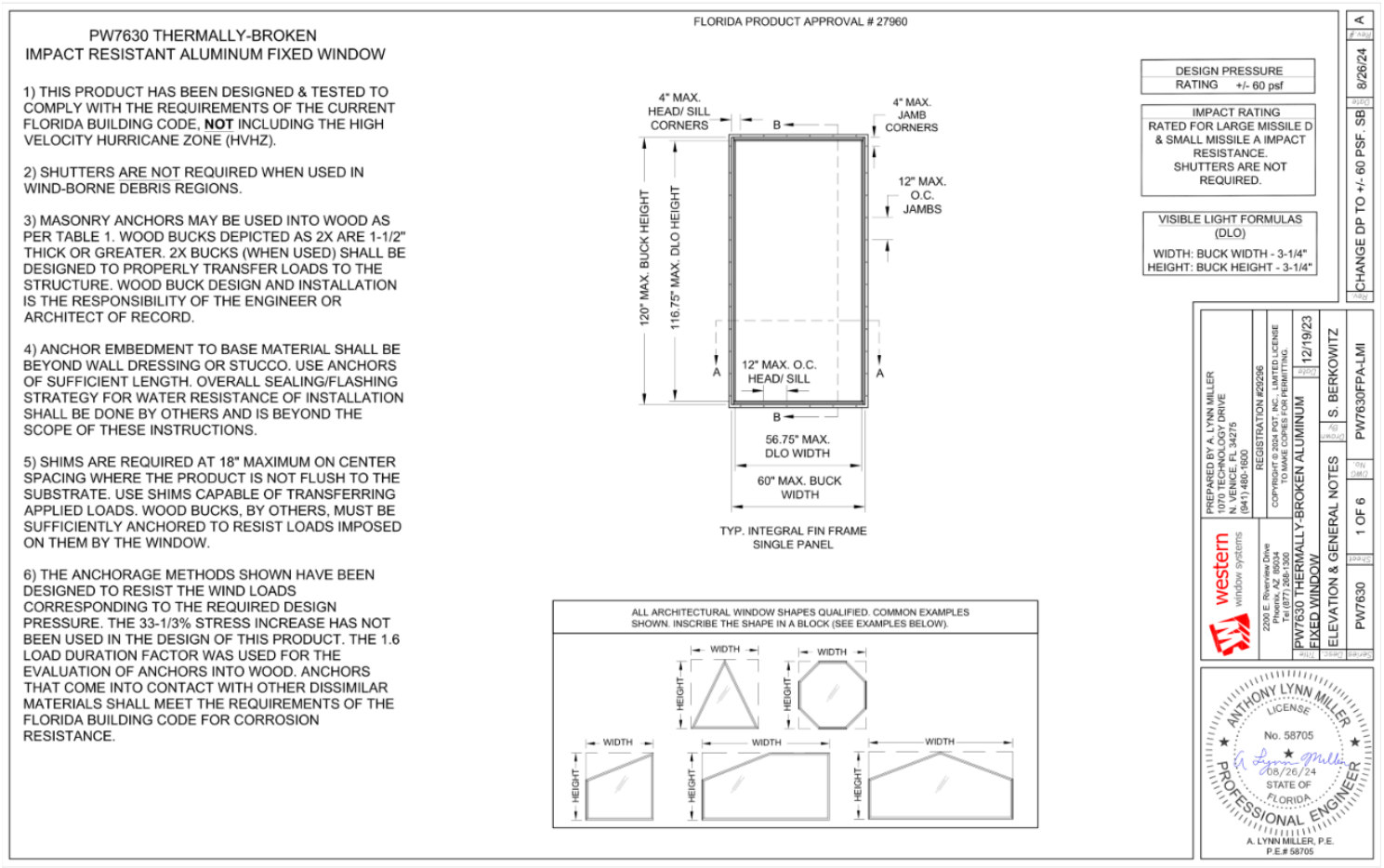


Fig. 3 PW7630FPA-LMI Revision A, sheet 1, reproduced as supplied. Single-panel elevation, maximum buck dimensions, architectural shape examples, and general notes. Revision A changes the design pressure to +60/-60 psf.

Impact Anchorage Sections

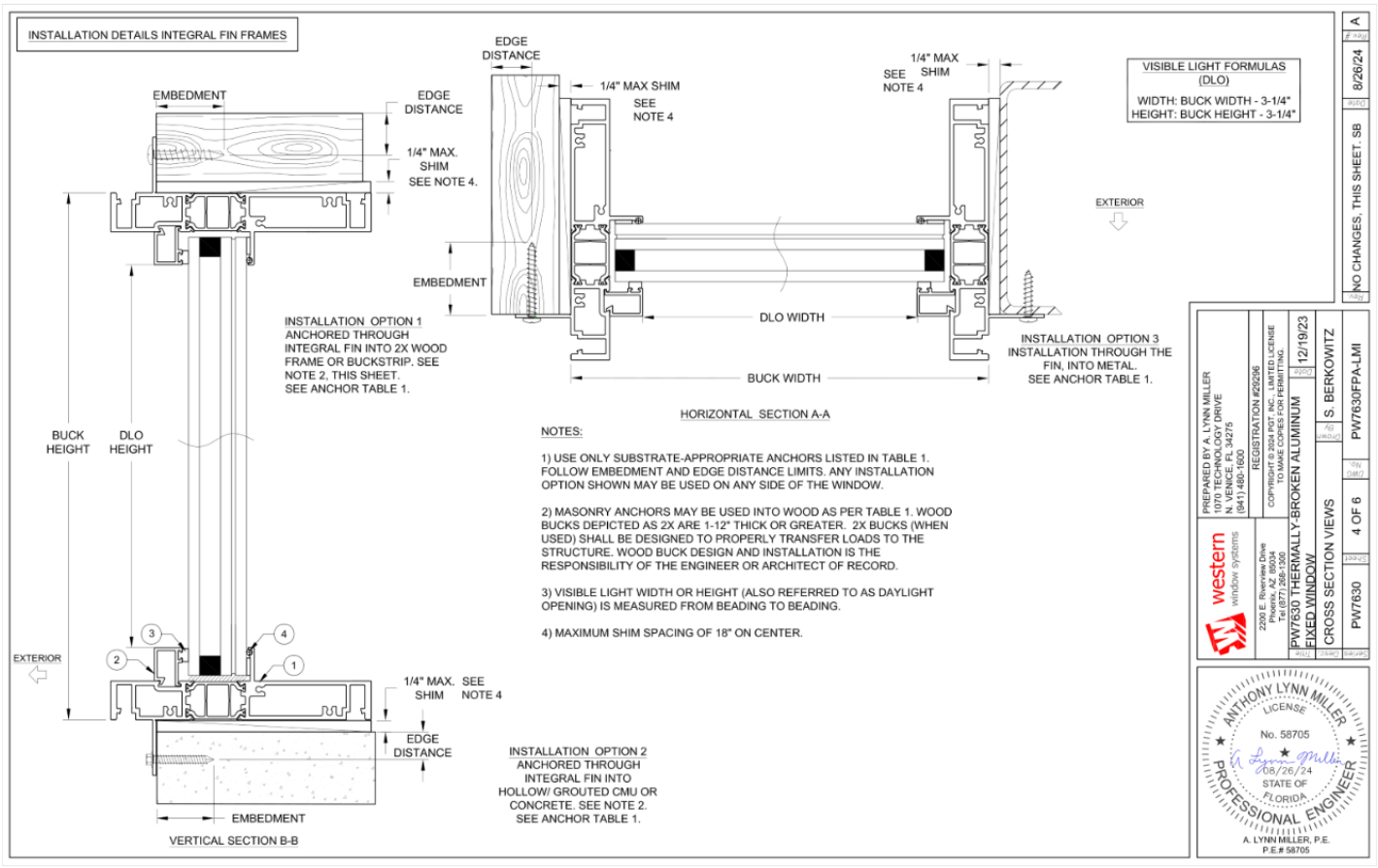


Fig. 4 PW7630FPA-LMI, sheet 4, reproduced as supplied. Sections A-A and B-B show integral fin anchorage into wood, metal, concrete, and CMU. Use the substrate-specific anchor requirements in Table 1. Any installation option shown may be used on any side of the window.

Equal Leg Instructions

The supplied impact approval provides anchorage through the integral fin only. It does not provide a through-frame equal-leg installation method. Equal-leg installations require separate approved anchorage details for the applicable impact configuration.

Mull Sealing Instructions

For impact assemblies, use the integral and combination mullion configurations shown in Fig. 5 and the cross sections in Fig. 6. Integral mullions have continuous head and sill frames; combination mullions have separate head and sill frames.

Things to Know Before You Start

1. Use sealants compatible with the building envelope's waterproofing membrane.
2. Use drip caps at the head for vertically mulled units with a nail fin. Order drip caps with the window order; they ship loose.

3. Use the approved mullion components and joint geometry. The approval identifies E6666B mullion clip as item 5 on sheet 6.

Equal Leg Application Instructions

The supplied approval does not detail equal-leg impact mulling. Obtain the applicable approved configuration before using an equal-leg mulled assembly.

Nail Fin Application Instructions

1. Confirm the approved assembly configuration in Fig. 5. The double-panel integral frame is shown with maximum buck dimensions of 120 inches wide by 120 inches high, with each panel no more than 60 inches wide. For multiple-panel assemblies, follow the panel and integral-frame limits shown; the approval permits an unlimited number of panels with combination mullions. The assemblies shown may be rotated 90 degrees.
2. Use the integral or combination mullion joint shown in Figs. 5 and 6, including the approved E6666B clips where shown. Follow the applicable project assembly details.
3. Maintain the perimeter anchorage and the additional head and sill anchors within 4 inches on each side of every mullion, as shown in Fig. 5. Use the selected anchor's substrate, edge distance, and embedment requirements. Maintain shimming at a maximum of 18 inches on center where the product is not flush to the substrate; maximum shim thickness is 1/4 inch.
4. Complete the joint sealing, fin-edge sealing, and flashing in accordance with the building envelope details and compatible sealant and flashing manufacturer instructions.

Impact Mullion Configurations

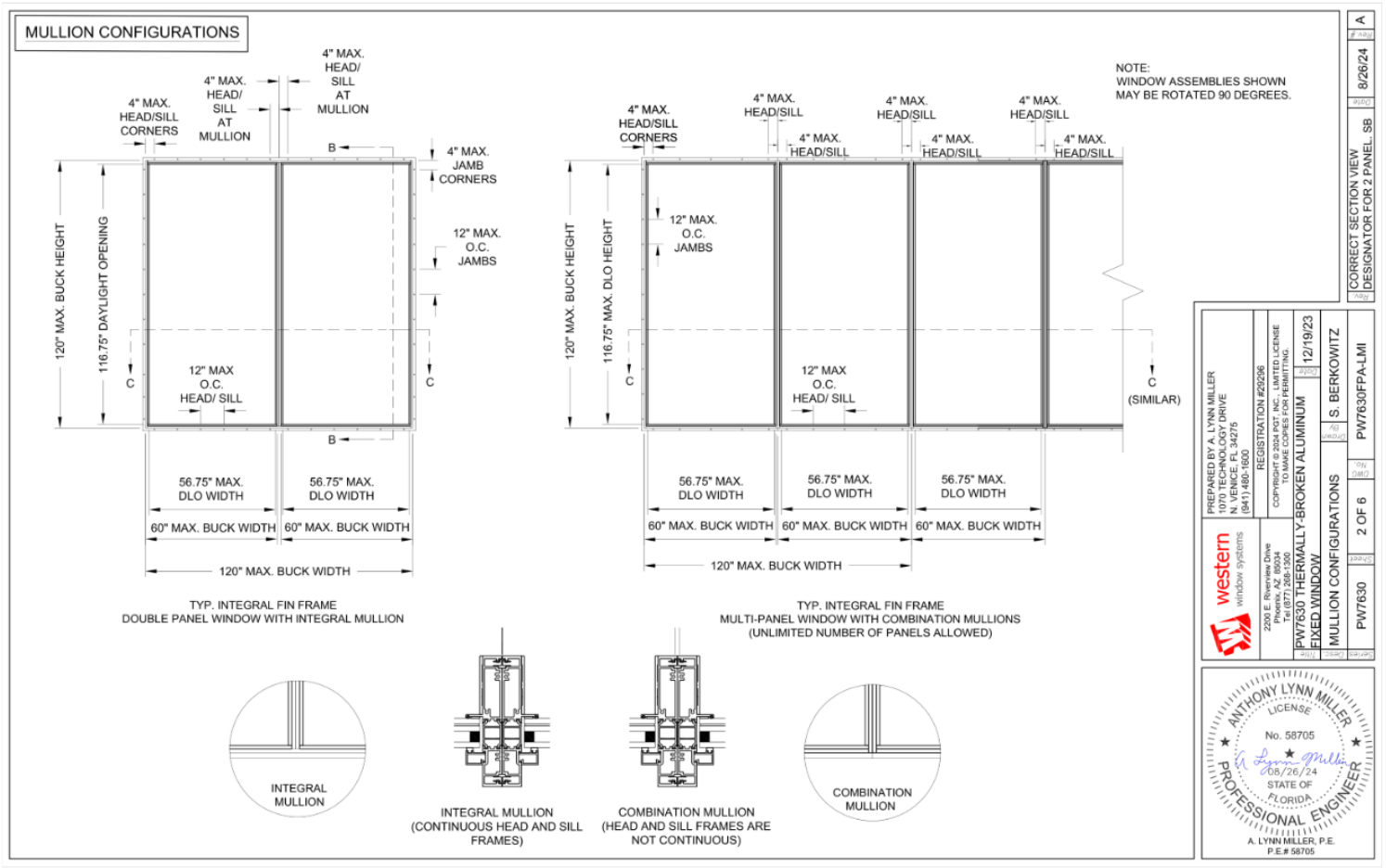


Fig. 5 PW7630FPA-LMI Revision A, sheet 2, reproduced as supplied. Integral and combination mullions, assembly limits, and required anchor locations at mullions.

Impact Mullion Anchorage Sections

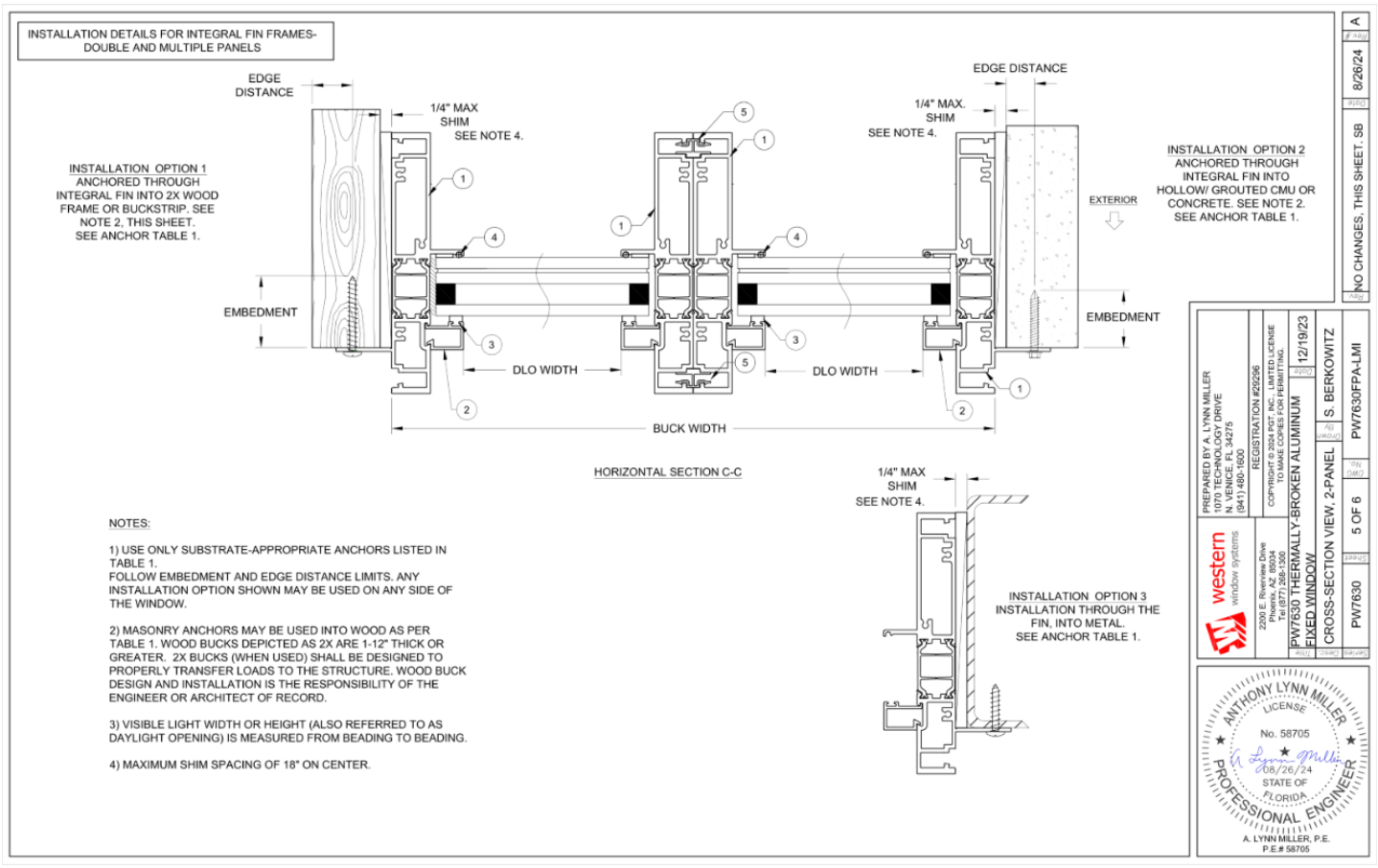


Fig. 6 PW7630FPA-LMI, sheet 5, reproduced as supplied. Section C-C shows double- and multiple-panel integral fin frames. Follow the substrate-specific anchor table, shim limits, and installation details.