

ES WINDOWS, INC.  
ES-V550 VINYL PROJECT-OUT WINDOW -L.M.I.& S.M.I.

GENERAL NOTES:

- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 8TH EDITION FLORIDA BUILDING CODE (2023) INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
- WINDOWS RATED FOR LARGE MISSILE IMPACT. IMPACT SHUTTERS ARE NOT REQUIRED.
- THESE WINDOWS ARE APPROVED FOR AIR AND WATER INFILTRATION.
- ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS. ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
- ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
- MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 8TH EDITION FLORIDA BUILDING CODE (2023) SECTION AS APPLICABLE.
- WOOD BUCKS AND METAL STRUCTURES NOT BY E.S. WINDOWS TO BE DESIGNED TO SUPPORT THE LOADS IMPOSED BY THIS GLAZING SYSTEM AND TO TRANSFER SUCH LOADS TO THE BUILDING MAIN STRUCTURE.
- ULTIMATE LOAD OBTAINED FROM ASCE 7-22, MULTIPLY BY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT. THE DESIGN LOADS SHOWN IN THIS DOCUMENT ARE ALLOWABLE DESIGN LOADS.
- ALL JOINT AND FRAME CONNECTION SEALED WITH SILICONE SEALANT.

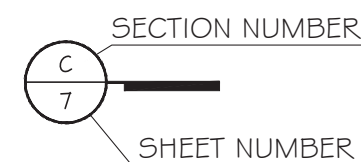
INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1: DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7-22 STANDARD.
- STEP 2: SEE SHEET E I FOR APPROVED TYPICAL ELEVATION.
- STEP 3: SEE CHARTS ON SHEET G I FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE BASED ON APPLICABLE WIND DURATION.
- STEP 4: ANCHOR OPTION SEE SHEET D I & D2. ANCHOR LAYOUT SEE ELEVATION.
- STEP 5: THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

## ABBREVIATIONS AND SYMBOLS

G.B. - GLASS BITE  
D.L.O. - DAYLITE OPENING  
F.H. - FRAME HEIGHT  
F.W. - FRAME WIDTH  
W/ - WITH  
W/O - WITHOUT  
O.C. - ON CENTER



## LIMITATIONS OF USE

- A- THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.
- B- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.
- C- THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
- D- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D.
- E- THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER AND RECORD THAT PREPARED IT.

FL 42157

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
# 55985  
C.M.N. 28677



July 11th, 2023

ES-V550 Vinyl Project-out Window-L.M.I.&amp; S.M.I.

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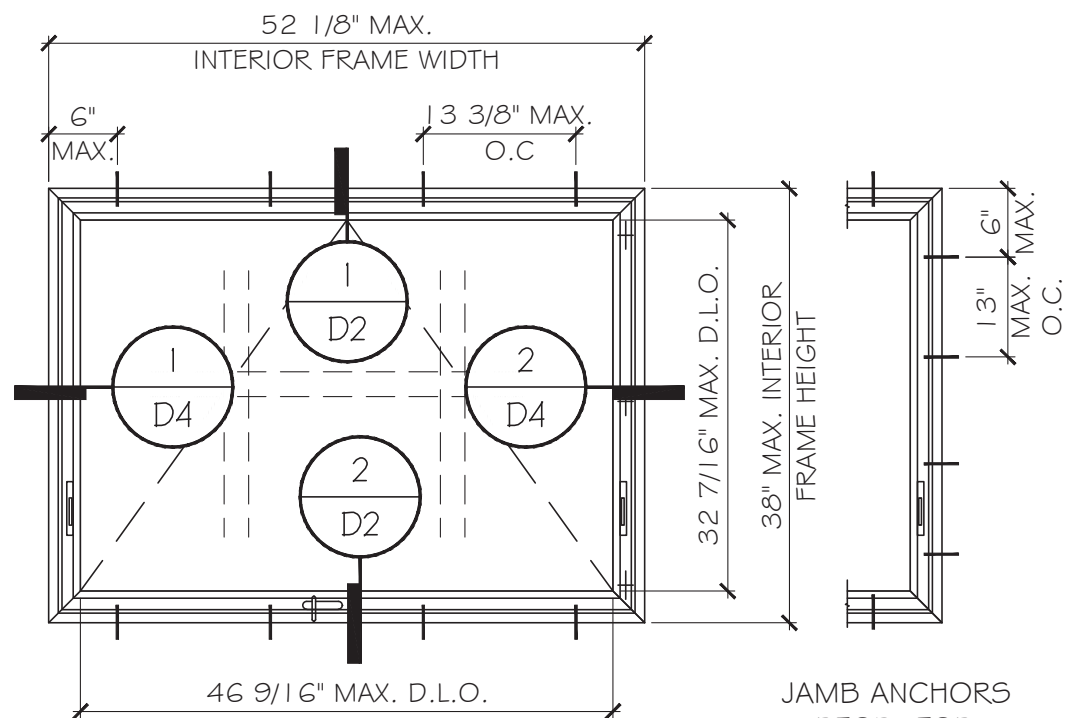
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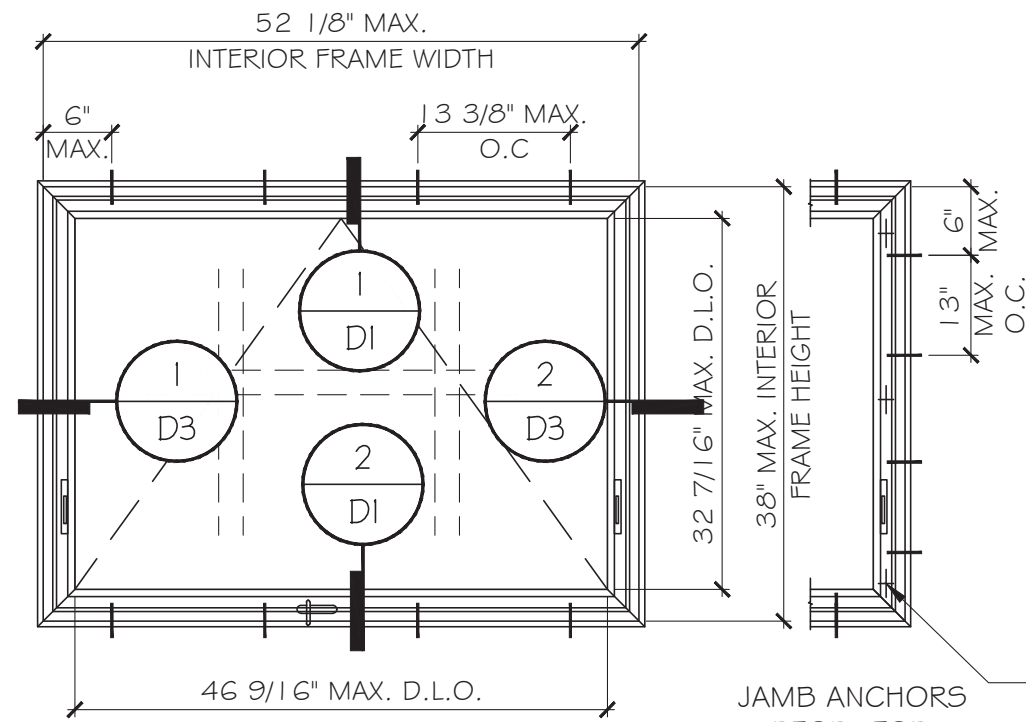
**MCY ENGINEERING, INC.**  
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**TYPICAL EXTERIOR ELEVATIONS**  
**FLUSH FRAME**  
 SEE SHEET G1 FOR DESIGN LOAD

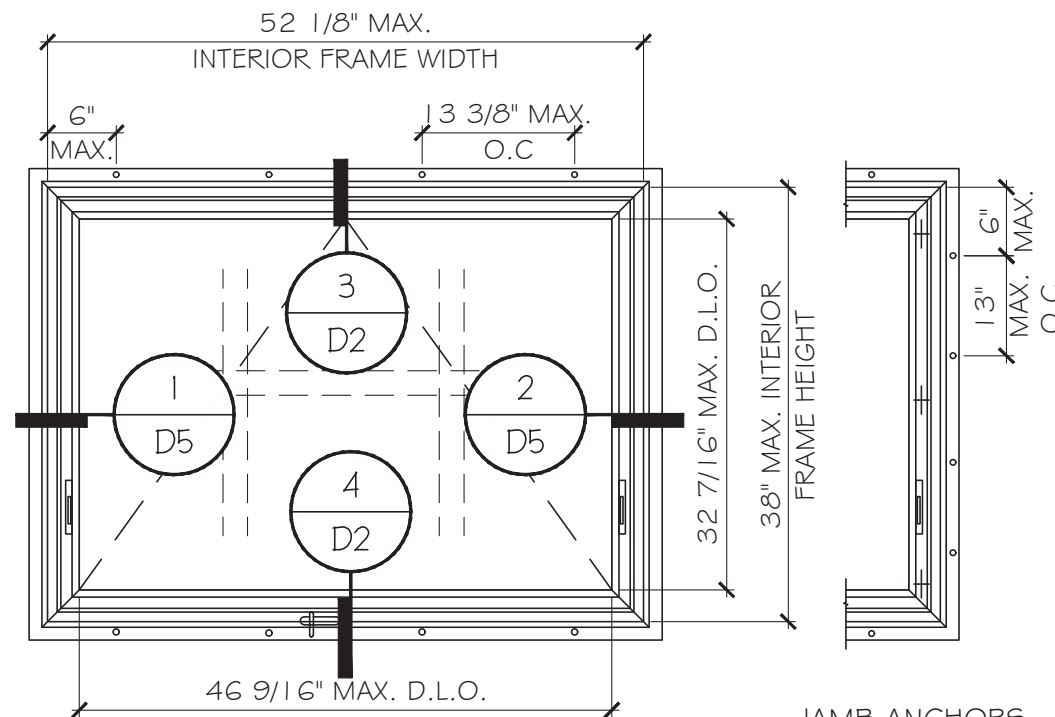


**TYPICAL EXTERIOR ELEVATIONS**  
**FLANGE FRAME**  
 SEE SHEET G1 FOR DESIGN LOAD

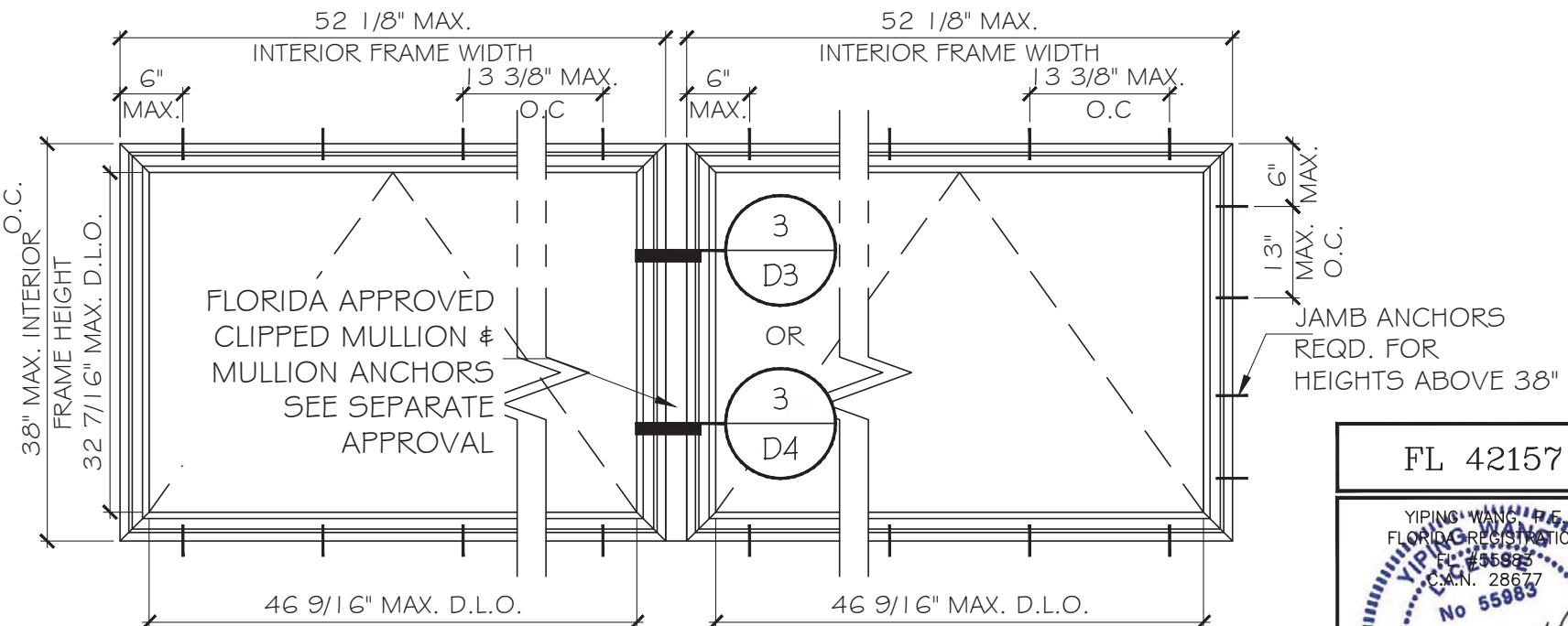
4 POINT LOCK  
 LOCKING POINTS  
 SEE CHART

| WDW. HEIGHT<br>UPTO | NO.OF<br>KEEPERS<br>AT SASH |
|---------------------|-----------------------------|
| 17"                 | 1 *                         |
| 27"                 | 2                           |
| 52"                 | 3                           |

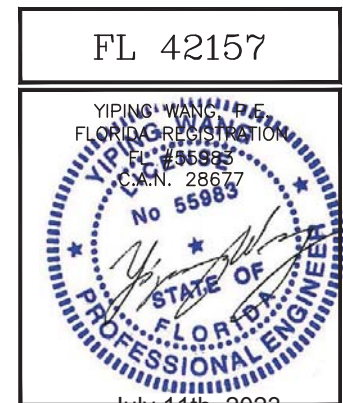
\* LIMIT MAX. WDW. WIDTH TO 35"  
 WITH 1 KEEPER



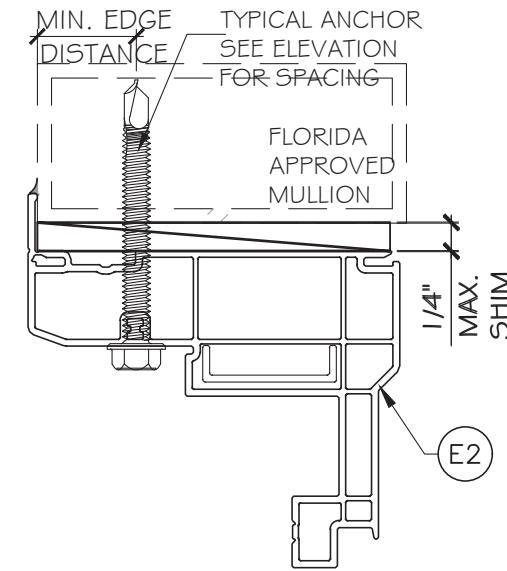
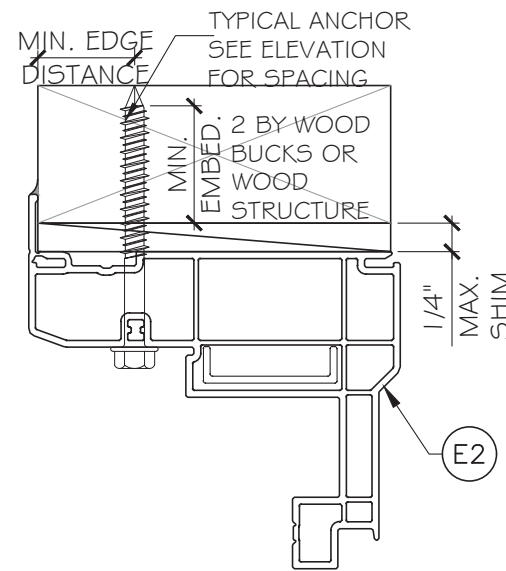
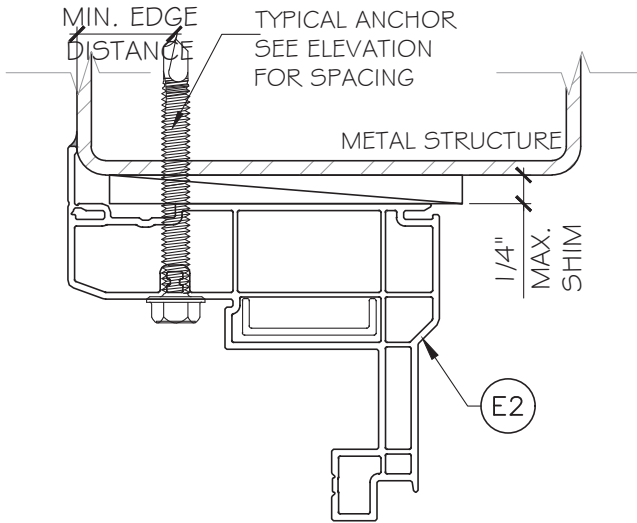
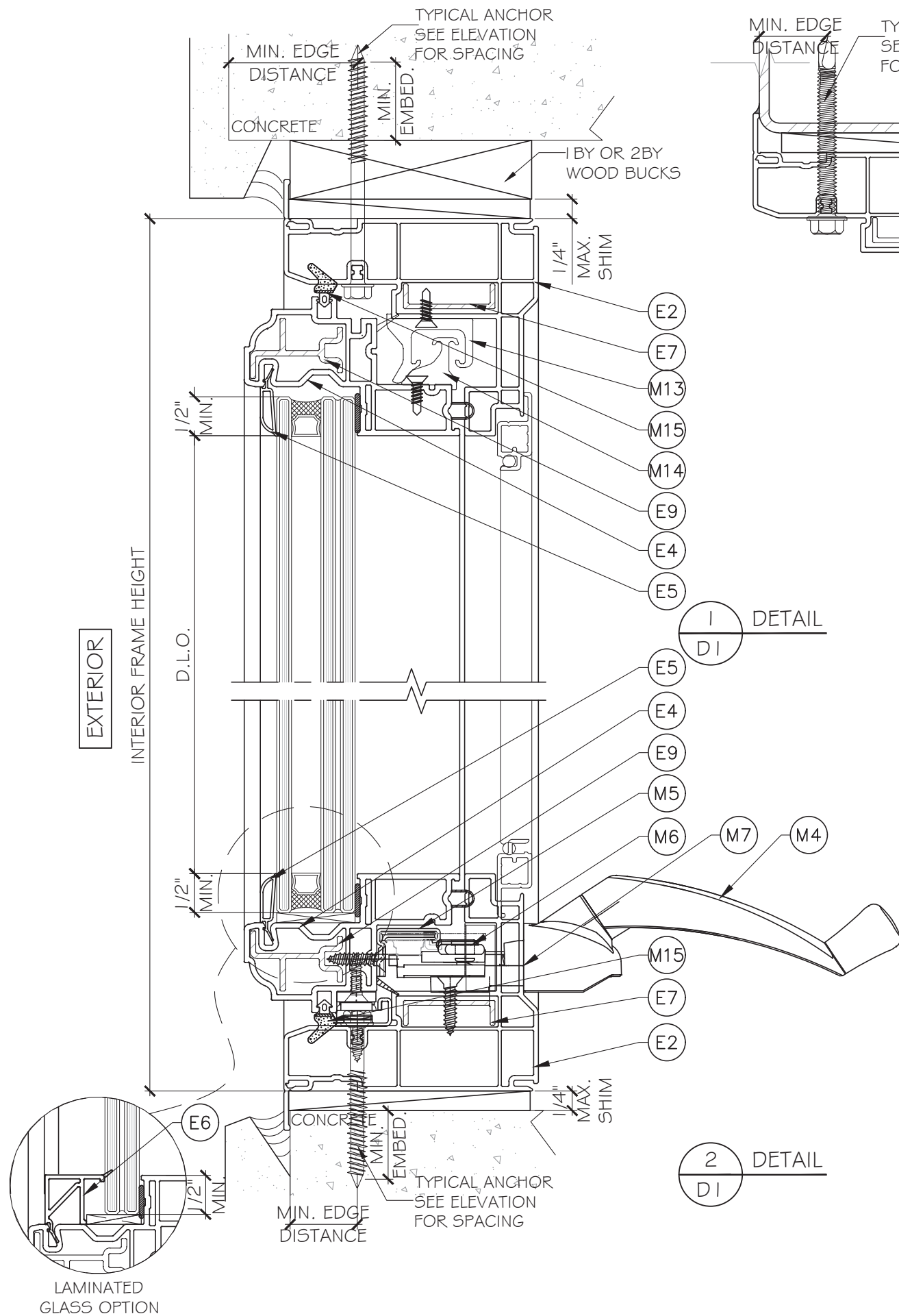
**TYPICAL EXTERIOR ELEVATIONS**  
**FIN FRAME**  
 SEE SHEET G1 FOR DESIGN LOAD



**TYPICAL EXTERIOR ELEVATIONS**  
 SEE SHEET G1 FOR DESIGN LOAD







TYPICAL ANCHOR TYPES: (SEE ELEVATIONS FOR SPACING)

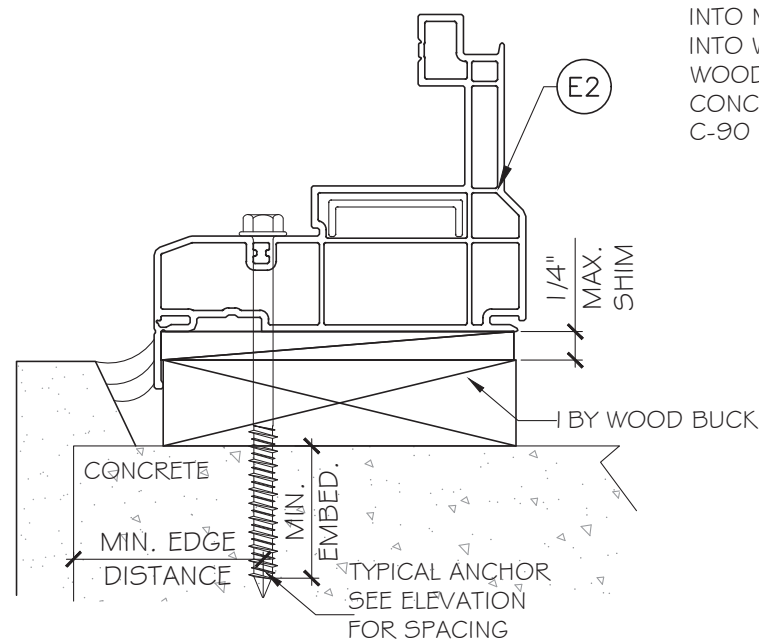
TYPE 'A' -- 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)  
 INTO 2 BY WOOD BUCKS OR WOOD STRUCTURES.  
 1 1/2" MIN. PENETRATION INTO WOOD (HEAD/ JAMBS)

THRU 1 BY BUCKS INTO CONCRETE OR BLOCKS  
 1 3/4" MIN. EMBED INTO CONCRETE (HEAD/ SILL/ JAMBS)  
 1 3/4" MIN. EMBED IN TO BLOCKS (JAMBS)

DIRECTLY INTO CONCRETE OR BLOCKS  
 1 3/4" MIN. EMBED IN TO CONCRETE (HEAD/ SILL/ JAMBS)  
 1 3/4" MIN. EMBED IN TO BLOCKS (JAMBS)

TYPE 'B' -- #14 SMS OR SELF-DRILLING SCREWS: (GRADE 2 CRS)  
 INTO FBC APPROVED MULLIONS, 1/8" THK. MIN.(6063-T5 MIN.)  
 OR INTO METAL STRUCTURES, STEEL: 12GA.MIN. (Fy=36 ksi MIN.)  
 (3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS  
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

INTO CONCRETE = 2-1/2" MIN.  
 INTO METAL STRUCTURE = 3/4" MIN.  
 INTO WOOD STRUCTURE = 1" MIN.  
 WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.  
 CONCRETE AT HEAD, SILL OR JAMB f'c=3 ksi MIN.  
 C-90 HOLLOW/ FILLED BLOCK AT JAMBS fm=2000 PSI MIN.



FL 42157

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 FLORIDA REGISTRATION  
 NO. 55983  
 C.E.N. 28677

JULY 11th, 2023

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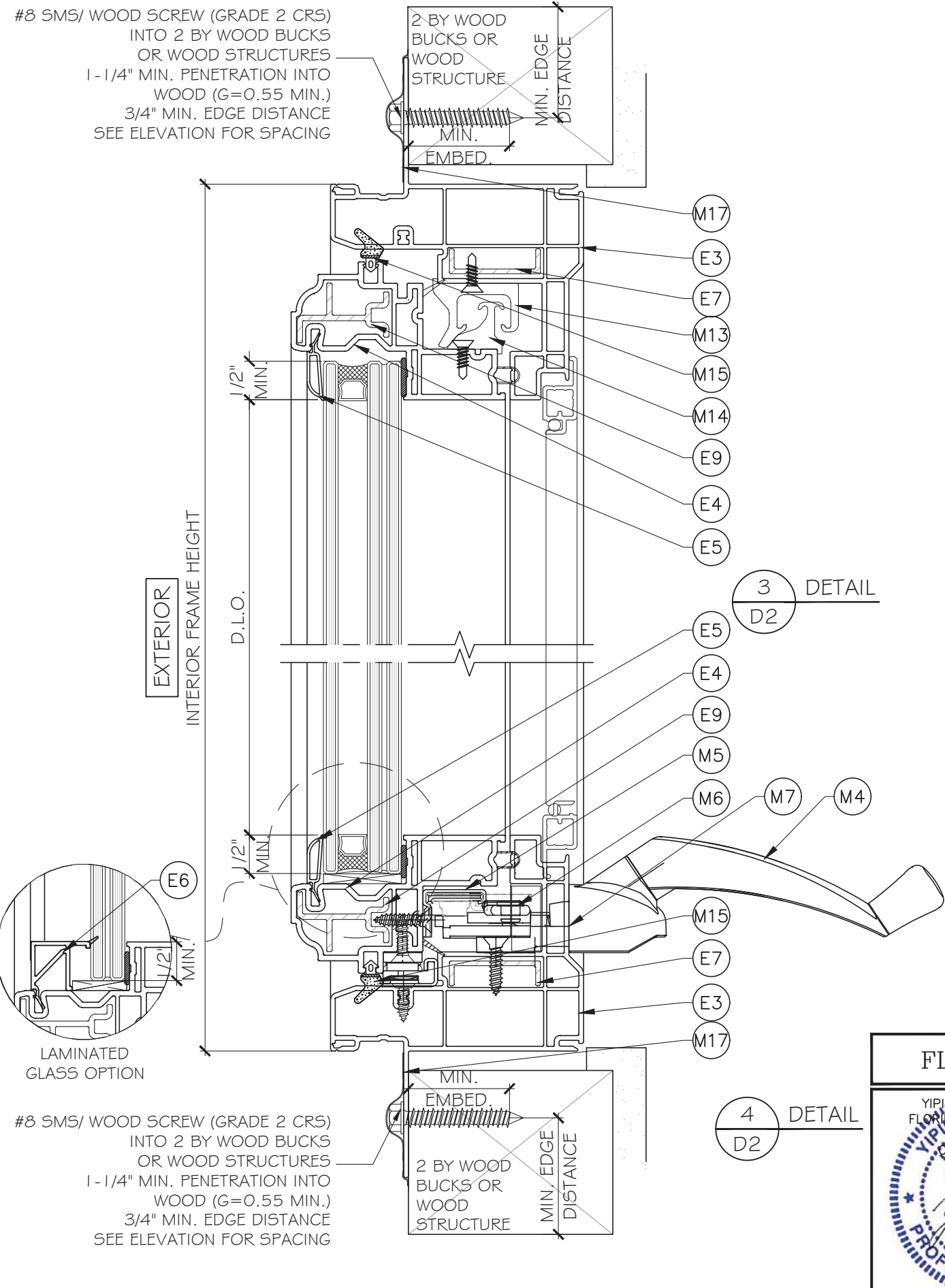
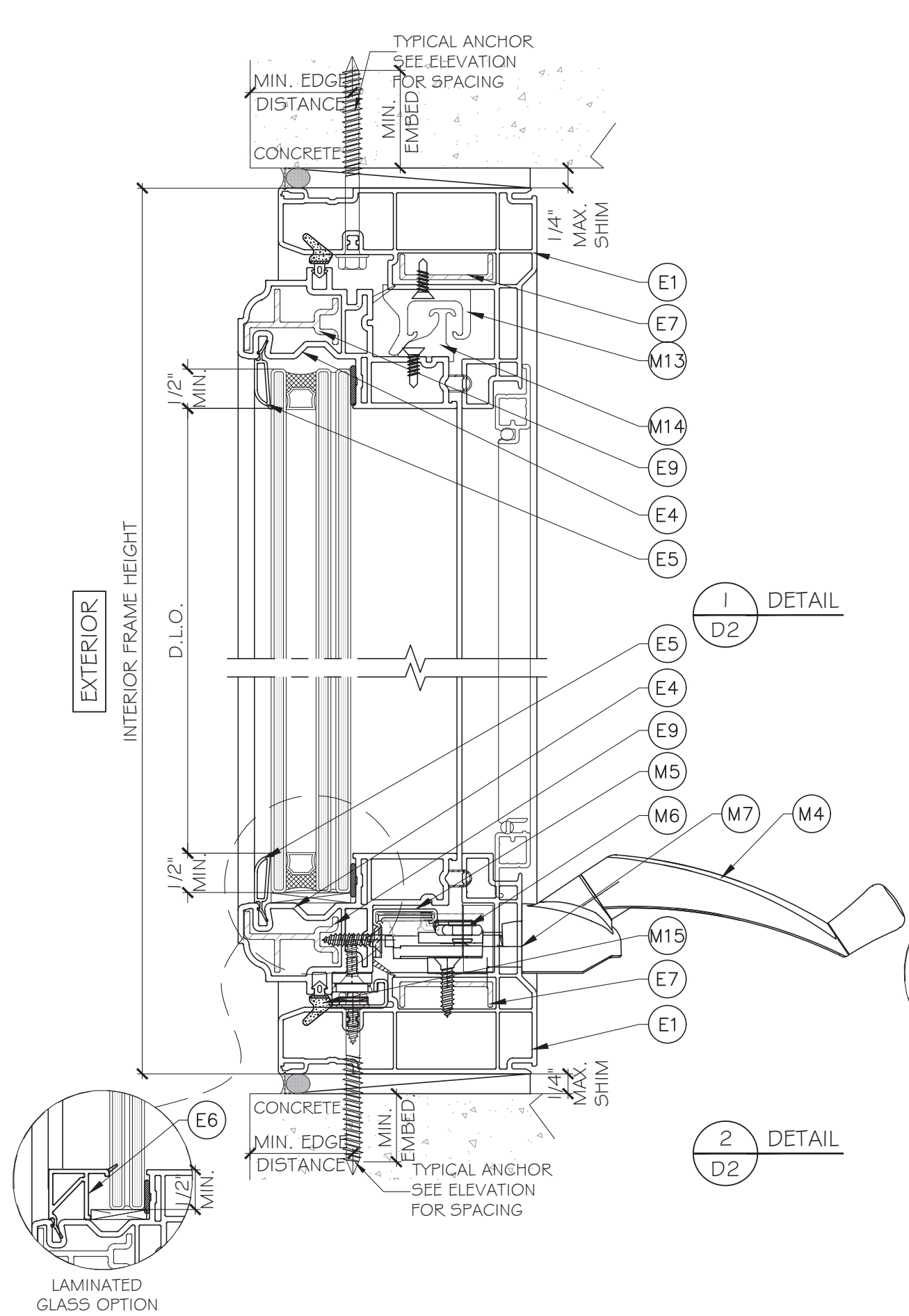
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| 1    | 06.23.2023 | MCY  | NEW      |             |

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06.23.2023

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Drawn Date  
06.23.2023

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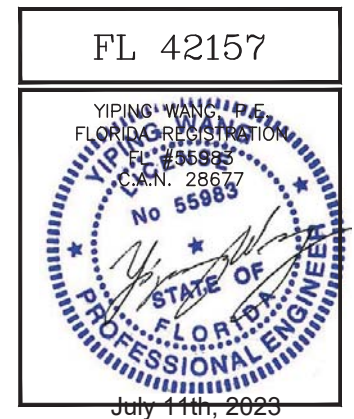
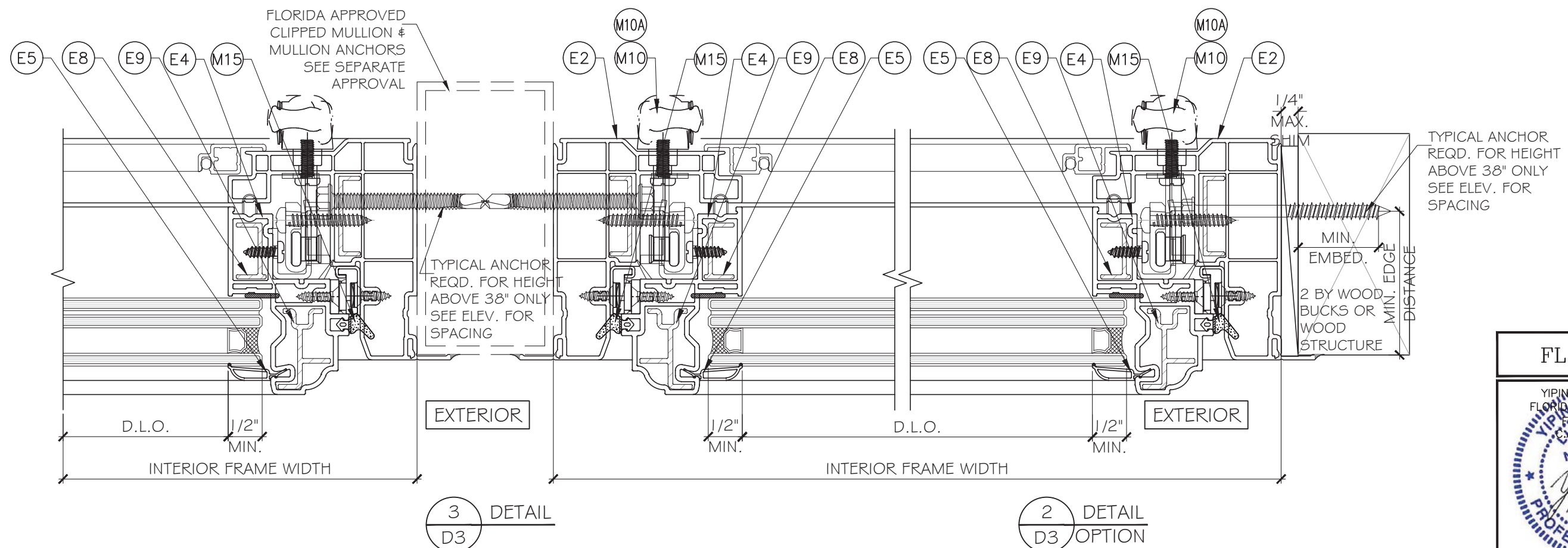
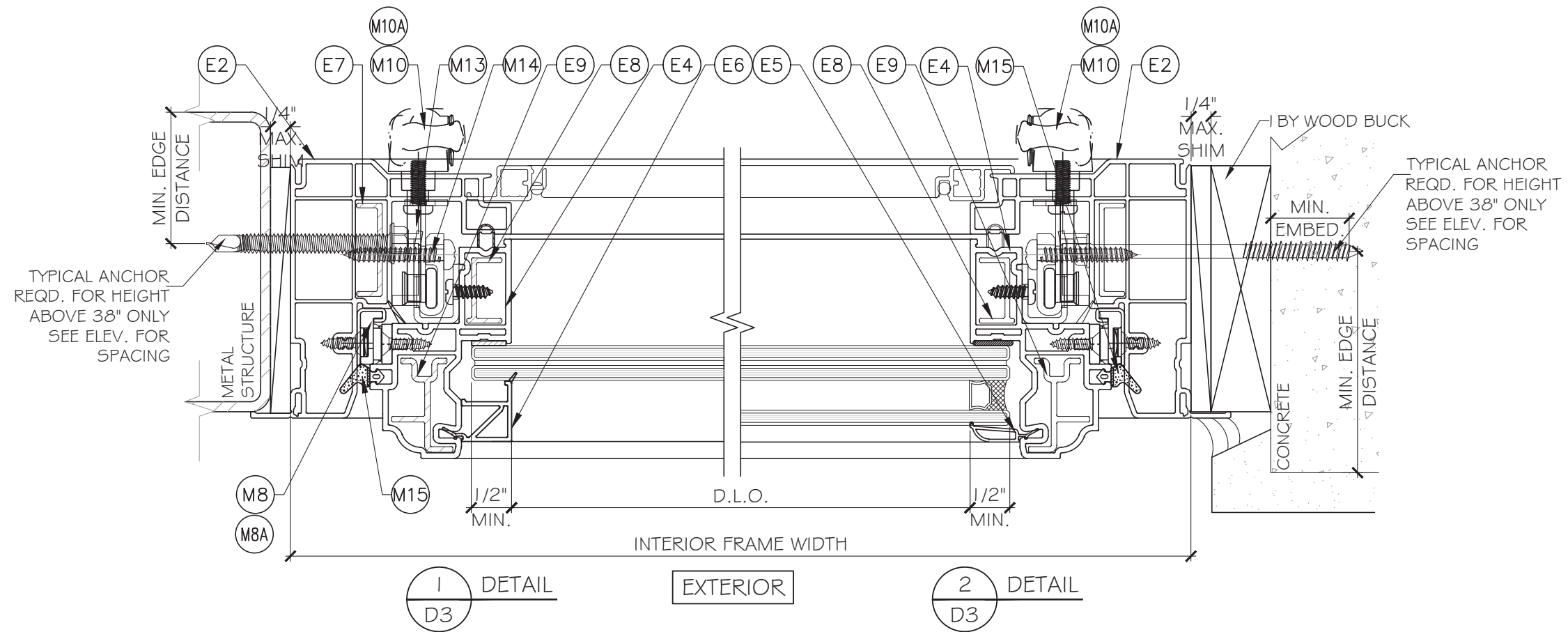
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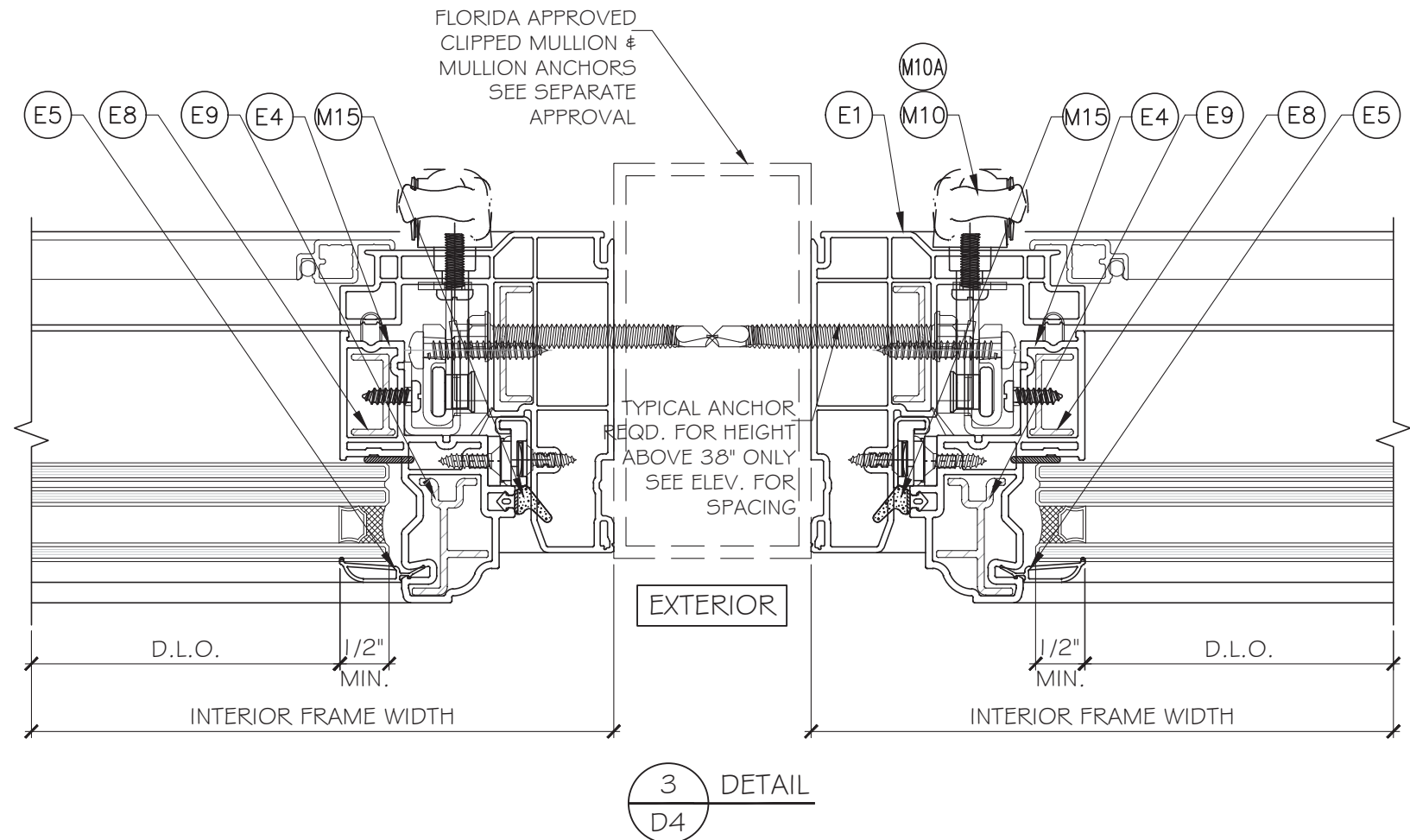
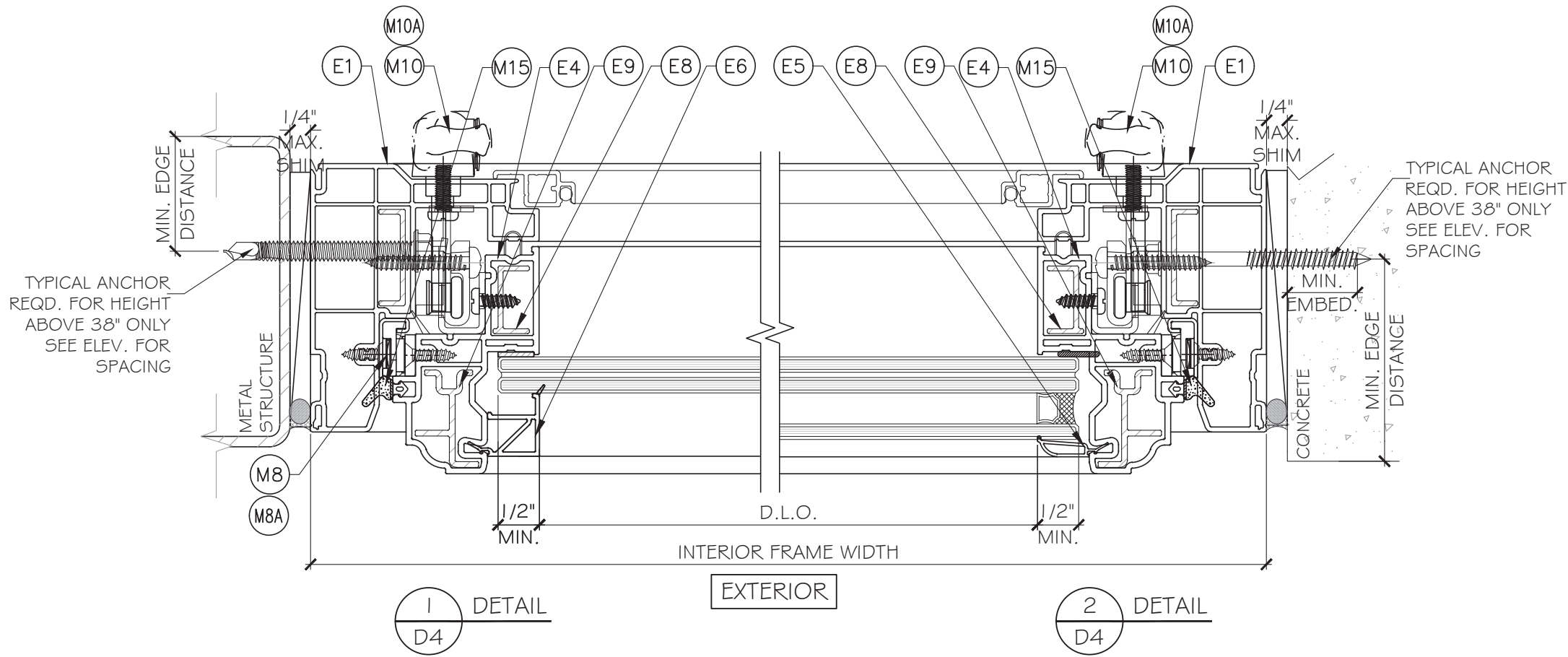
05 OF 10

FL 42157

YIPING WANG  
FLORIDA REGISTRATION  
No. 55983  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

July 11th, 2023

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FL 42157

YIPING WANG

FLORIDA REGISTRATION

FL #35983

C.A.N. 28677

No 55983

STATE OF FLORIDA

PROFESSIONAL ENGINEER

July 11th, 2023

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|                                                  |            |             |     |
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| ES-V550 Vinyl Project-out Window-L.M.I. & S.M.I. |            | Description |     |
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| Sheet No.<br>07 OF 10                            |            |             |     |

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July 1, 2022

~~July 11th, 2023~~

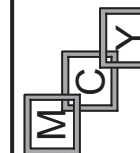
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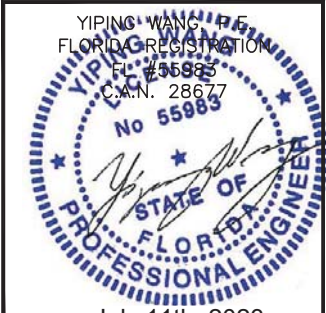
mcv@mcvengineering.com

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## BILL OF MATERIALS

| ITEM | PART                    | DESCRIPTION                               | MATERIAL        | MANUF.                      | REMARKS        |
|------|-------------------------|-------------------------------------------|-----------------|-----------------------------|----------------|
| E1   | ES-1011                 | EQUAL LEG FRAME                           | PVC             | DECEUNINCK NORTH AERICA LLC | -              |
| E2   | ES-1017                 | FLANGE FRAME                              | PVC             | DECEUNINCK NORTH AERICA LLC | -              |
| E3   | ES-1022                 | FIN FRAME                                 | PVC             | DECEUNINCK NORTH AERICA LLC | -              |
| E4   | ES-1012                 | SASH                                      | PVC             | DECEUNINCK NORTH AERICA LLC | -              |
| E5   | ES-1008                 | IG GLAZING BEAD                           | PVC             | DECEUNINCK NORTH AERICA LLC | -              |
| E6   | ES-1025                 | 7/16" MONOLITHIC GLAZING BEAD             | PVC             | DECEUNINCK NORTH AERICA LLC | -              |
| E7   | ES-804                  | FRAME REINFORCEMENT                       | 6005A-T5        | ES WINDOWS                  | -              |
| E8   | ES-805                  | SASH REINFORCEMENT (SMALL)                | 6005A-T5        | ES WINDOWS                  | -              |
| E9   | ES-806                  | SASH REINFORCEMENT (LARGE)                | 6005A-T5        | ES WINDOWS                  | -              |
| M1   | SCS 1200                | GLAZING SILICONE (1/2" X 3/16" BEAD)      | SILICONE        | GENERAL ELECTIC             | -              |
| M2   | DOW 995                 | GLAZING SILICONE (1/2" X 3/16" BEAD)      | SILICONE        | DOW CORNING                 | -              |
| M3   | DOW 899                 | GLAZING SILICONE (1/2" X 3/16" BEAD)      | SILICONE        | DOW CORNING                 | -              |
| M4   | 50.10.00.011            | OPERATOR                                  | -               | TRUTH                       | OPTIONAL       |
| M5   | 11576.92                | OPERATOR TRACK AND SLIDER ASSEMBLY        | -               | TRUTH                       | OPTIONAL       |
| M7   | 32658                   | GASKET                                    | -               | TRUTH                       | OPTIONAL       |
| M8   | 13.17.00.014(015)       | HINGE                                     | -               | TRUTH                       |                |
| M8A  | BPRPS-2101-26D55(26G55) | ALT. HINGE                                | -               | RADISSON INDUSTRIES         |                |
| M9   | -                       | SETTING BLOCK, 2 PER LITE                 | EPDM            | -                           | DUROMETER 85±5 |
| M10  | -                       | MULTI POINT LOCK SYSTEM                   | -               | TRUTH                       | -              |
| M10A | -                       | ALT. MULTI POINT LOCK SYSTEM              | -               | RADISSON INDUSTRIES         | -              |
| M13  | 72-10039                | FRAME SNUBBER                             | 6005A-T5        | ES WINDOWS                  | -              |
| M14  | 72-10040                | SASH SNUBBER                              | 6005A-T5        | ES WINDOWS                  | -              |
| M15  | QWS-580                 | SASH SEAL                                 | VINYL           | -                           | -              |
| M17  | -                       | PROTECTO WRAP WATERPROOFING OR EQUIV.     | -               | -                           | AT FIN FRAME   |
| S3   | -                       | #7 X 1/2" FLAT HEAD SMS - HINGE TRACK     | STAINLESS STEEL | -                           | AS REQD.       |
| S4   | -                       | #7 X 5/8" FLAT HEAD SMS - HINGE SASH ARM  | STAINLESS STEEL | -                           | AS REQD.       |
| S5   | -                       | #8 X 1" FLAT HEAD SMS- OPERATOR TRACK     | STAINLESS STEEL | -                           | AS REQD.       |
| S6   | -                       | #8" X 1/2" PAN HEAD SMS - KEEPER          | STAINLESS STEEL | -                           | 2 PER KEEPER   |
| S7   | -                       | #10-24 X 9-16" PAN HEAD SMS - LOCK HANDLE | STAINLESS STEEL | -                           | 2 PER HANDLE   |
| S8   | -                       | #8 X 1-1/2" PAN HEAD SMS - TIE BAR GUIDES | STAINLESS STEEL | -                           | 2 PER GUIDE    |
| S9   | -                       | #6 X 1/2" FLAT HEAD SMS - SNUBBERS        | STAINLESS STEEL | -                           | 2 PER SNUBBER  |

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EO-v330 v11y11 Reject-out window-E.M.I.&amp; C.M.I.:

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