

CONTINENTAL GLASS SYSTEMS, LLC.
SERIES 3900 WINDOW WALL W/WO REINFORCEMENT
LARGE AND SMALL MISSILE IMPACT (LMI/SMI)

GENERAL NOTES:

- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 7TH EDITION FLORIDA BUILDING CODE (2020) 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 7TH EDITION FLORIDA BUILDING CODE (2020) SECTION AS APPLICABLE.
- METAL STRUCTURES NOT BY CONTINENTAL GLASS SYSTEMS, LLC. 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 7-16, 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.

-SEALANTS:

ALL FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER GLAZING BEAD TO FRAME INSTALLATION FASTENERS SEALED WITH SILICONE SEALANT.

FRAME PERIMETER SEALANT TO BE DOWSIL DC790.

-TYPICAL ANCHORS: (SEE ELEVATIONS FOR SPACING)

TYPE 'A' -- 5/16" DIA. ULTRACON BY 'ELCO' (Fu 177 KSI, Fy=155 KSI)
DIRECTLY INTO CONCRETE OR MASONRY
1-3/4" MIN. EMBED INTO CONCRETE.

TYPE 'B' -- 5/16" DIA. SELF DRILLING SCREWS (GRADE 5 CRS)
INTO MIAMI-DADE COUNTY APPROVED MULLIONS (1/8" THK. MIN.)
INTO METAL STRUCTURES
STEEL: 1/8" THK. MIN. (6063-T5 MIN.)
ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

TYPE 'C' -- #14 SMS OR SELF DRILLING SCREWS (GRADE 5 CRS)
INTO MIAMI-DADE COUNTY APPROVED MULLIONS
(1/8" THK. MIN.) INTO METAL STRUCTURE.

TYPICAL EDGE DISTANCE

INTO CONCRETE = 2-1/2" MIN.
INTO METAL STRUCTURE = 3/4" MIN.

INSTRUCTIONS:
USE CHARTS AS FOLLOWS.

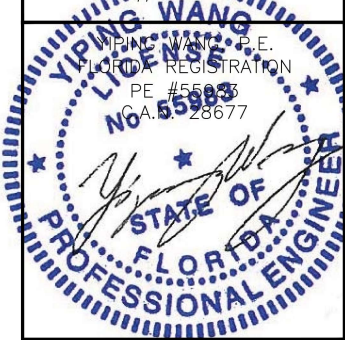
STEP 1: DETERMINE ALLOWABLE DESIGN LOAD REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7-16 STANDARD.

STEP 2: SEE CHARTS ON SHEET G1 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE. THE GLASS CAPACITY SHOULD BE GREATER THAN OR EQUAL TO THE ALLOWABLE DESIGN LOAD DETERMINED BY STEP 1.

STEP 3: CHECK MULLION AND JAMB CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEETS M1. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.

STEP 4: THE LOWEST VALUE RESULTING FROM STEPS 2 AND 3 SHALL APPLY TO ENTIRE SYSTEM.

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/SHE 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 OF RECORD THAT PREPARED IT.

SERIES 3900 WW	
FL #18312.1	
	
COVER	
DATE	08/21/15
SCALE	AS SHOWN
DRAWN	T.G.
PROJECT	15-100
DRAWING NO.	
AD15-57	
1 OF 11	

REVISIONS	
NO	DATE
1	10/9/20
	UPDATE TO FBC 2020

MCY

ENGINEERING, INC.

GLAZING CONSULTANTS

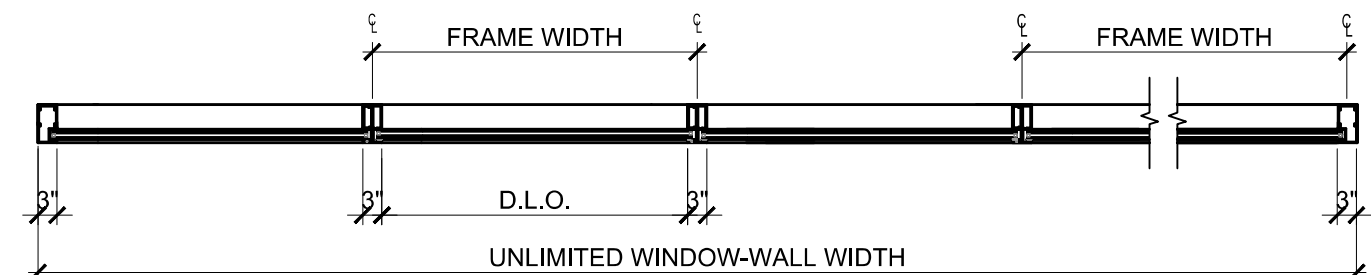
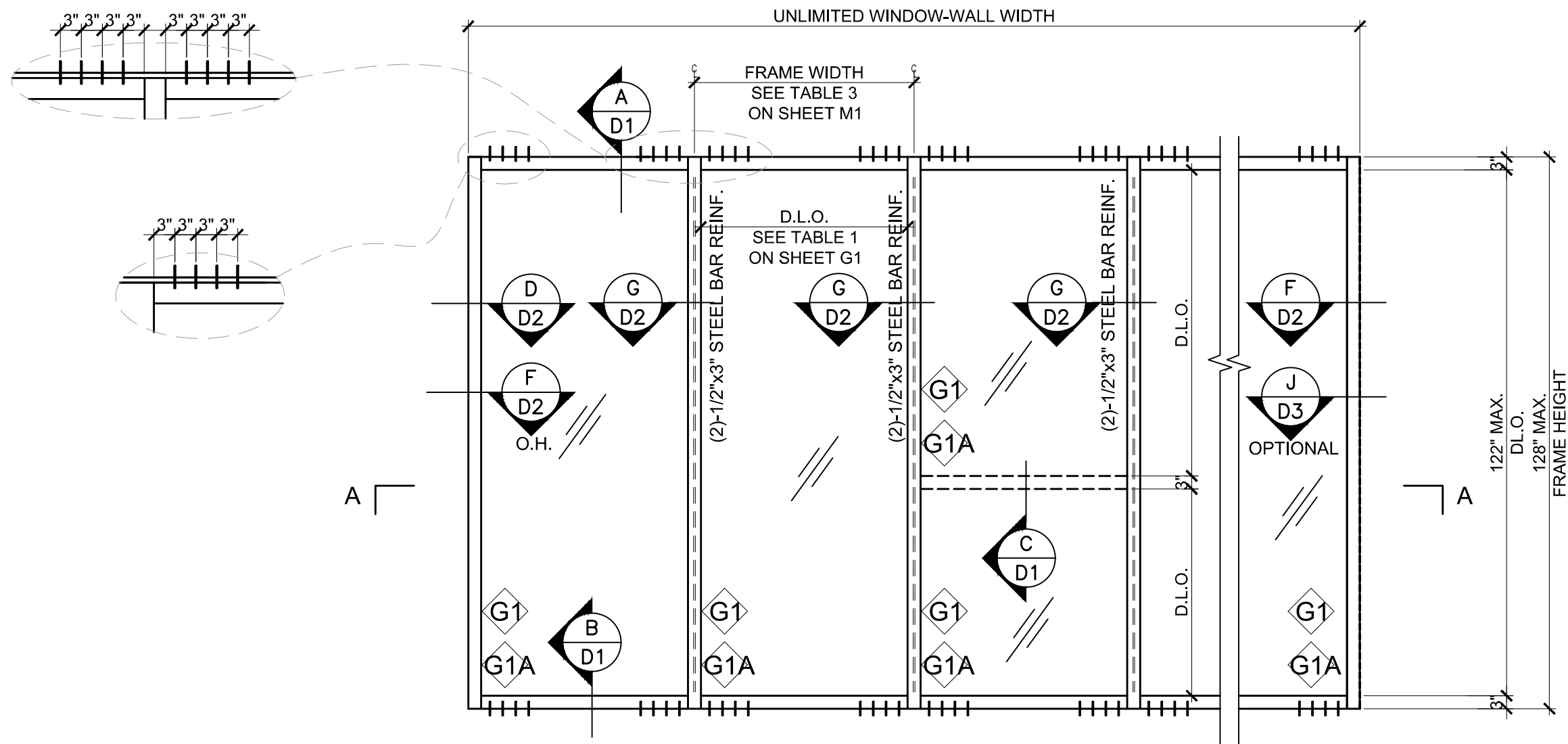
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P: 305.271.0117
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SERIES 3900 WINDOW WALL W/WO REINFORCEMENT - LMI

CONTINENTAL GLASS SYSTEMS, LLC.
325 WEST 74 PLACE HIALEAH, FL 33014
TEL (305) 231-1101 FAX (305) 231-1103



SERIES 3900 WW

FL #18312.1

YIPING WANG
P.E.
FLORIDA REGISTRATION
No. 55983
PE #55983
CA. 28677

STATE OF
FLORIDA
PROFESSIONAL ENGINEER

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E2

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PROJECT	15-100

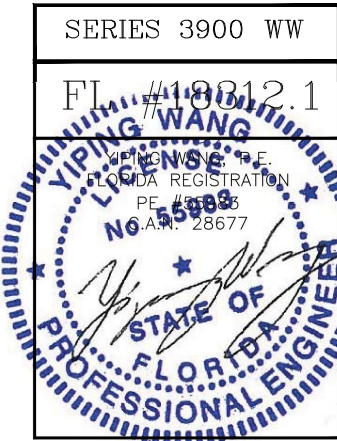
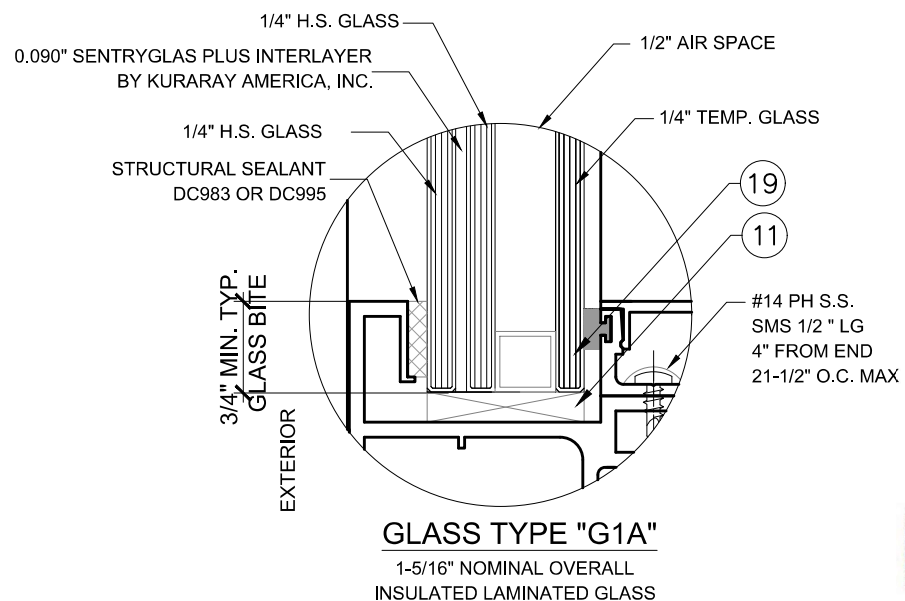
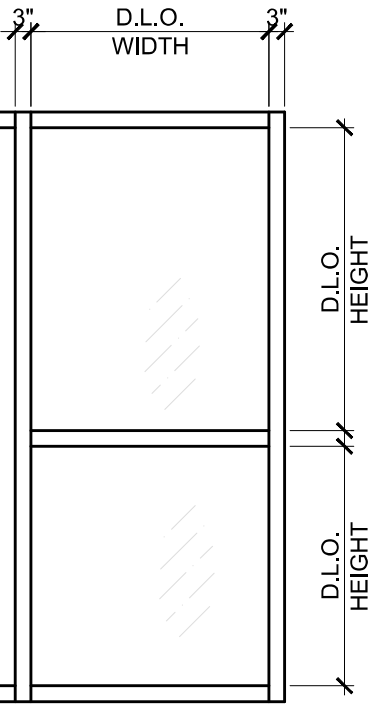
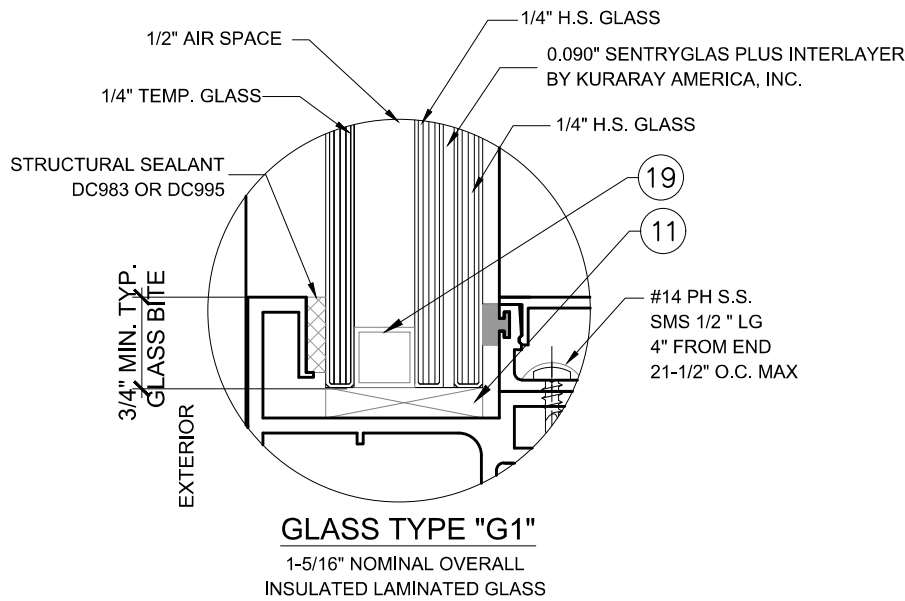
DRAWING NO.
AD15-57

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TABLE 1:

GLASS CAPACITY		
D.L.O. WIDTH	D.L.O. HEIGHT	TYPE G1&G1A
(IN.)	(IN.)	(PSF)
45	78	141
51		141
57		141
63		141
69		141
45	84	141
51		141
57		141
63		141
69		141
45	90	141
51		141
57		141
63		141
69		141
45	96	141
51		141
57		141
60		141
63		141
45	102	141
51		141
54		141
57		141
60		141
45	108	141
48		141
51		141
54		140
57		141
45	114	141
48		141
51		141
54		141
57		141
42	120	141
45		141
48		141
51		141
54		141
42	122	141
45		141
48		141
51		141
54		141

NOTE:
GLASS COMPLIES WITH ASTM
E1300-09 (3 SEC. GUSTS).



REVISIONS		NO. DATE DESCRIPTION	
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SERIES 3900 WINDOW WALL W/WO REINFORCEMENT - LMI

G1

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PROJECT	15-100

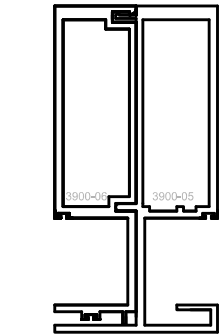
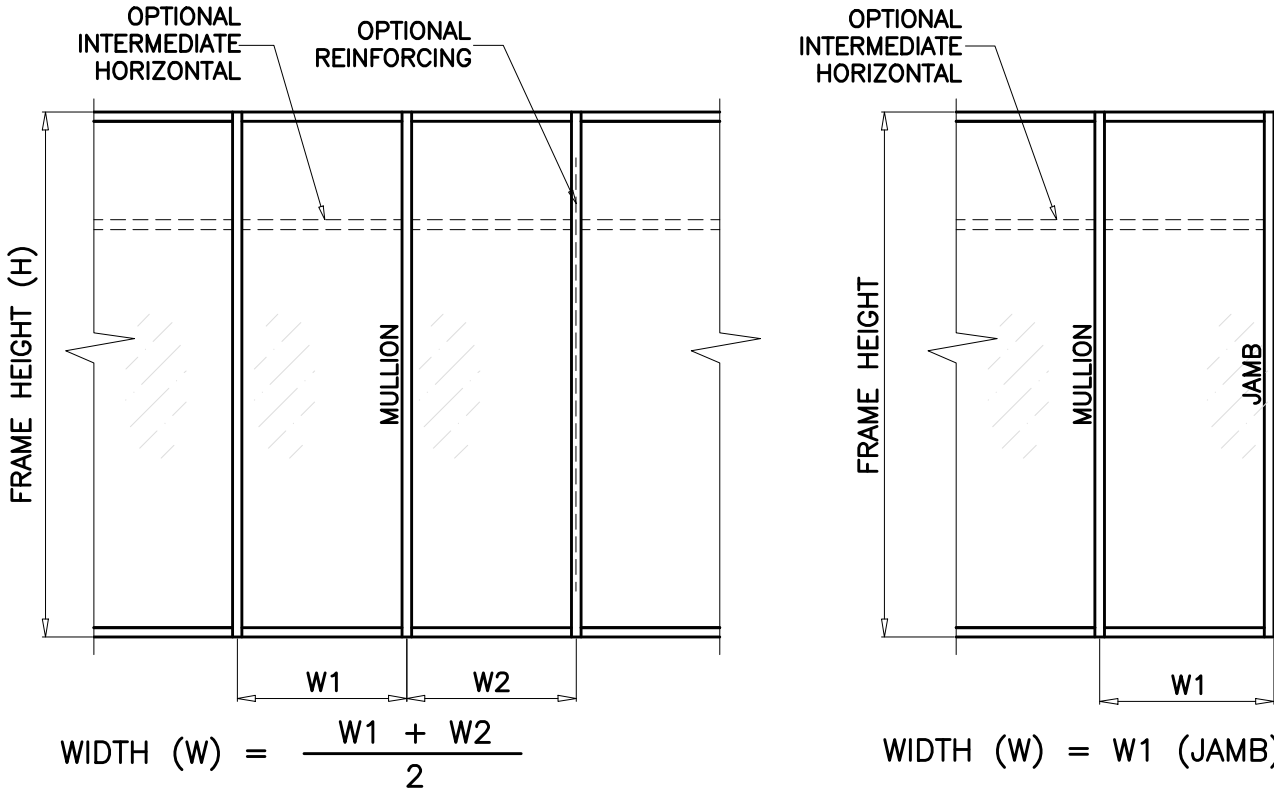
DRAWING NO.
AD15-57

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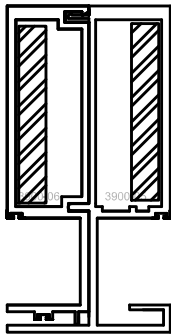
TABLE 2:

SINGLE SPAN MULLION LOAD CAPACITY – PSF						
MULLION TYPE		M1, M1A		J1	M2, M2A	
WINDOW PANEL		W/O HORIZ.	W/HORIZ.	W/O OR W/HORIZ.	W/O HORIZ.	W/HORIZ.
WIDTH W(IN)	HEIGHT H(IN)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)
48	84	126.0	126.0	141.0	141.0	141.0
54		126.0	126.0	141.0	141.0	141.0
60		126.0	126.0	141.0	141.0	141.0
66		126.0	126.0	141.0	141.0	141.0
72		126.0	126.0	141.0	141.0	141.0
48	90	126.0	126.0	141.0	141.0	141.0
54		126.0	126.0	141.0	141.0	141.0
60		126.0	126.0	141.0	141.0	141.0
66		126.0	126.0	141.0	141.0	141.0
72		–	–	141.0	141.0	141.0
48	96	126.0	126.0	141.0	141.0	141.0
54		126.0	126.0	141.0	141.0	141.0
60		126.0	126.0	141.0	141.0	141.0
66		–	–	141.0	141.0	141.0
48	102	126.0	126.0	141.0	141.0	141.0
54		126.0	126.0	141.0	141.0	141.0
60		126.0	126.0	141.0	141.0	141.0
63		–	–	141.0	141.0	141.0
48	108	126.0	126.0	141.0	141.0	141.0
54		126.0	126.0	141.0	141.0	141.0
57		126.0	126.0	141.0	141.0	141.0
60		–	–	141.0	141.0	141.0
48	114	126.0	126.0	141.0	141.0	141.0
51		126.0	126.0	141.0	141.0	141.0
54		126.0	126.0	141.0	141.0	141.0
57		–	–	141.0	141.0	141.0
45	120	126.0	126.0	141.0	141.0	141.0
48		126.0	126.0	141.0	141.0	141.0
51		126.0	124.4	141.0	141.0	141.0
54	126	–	–	141.0	141.0	141.0
45		–	–	141.0	141.0	141.0
48		–	–	141.0	141.0	141.0
51	128	–	–	141.0	141.0	141.0
45		–	–	141.0	141.0	141.0
48		–	–	141.0	141.0	141.0
51	128	–	–	141.0	141.0	140.0
45		–	–	141.0	141.0	140.0

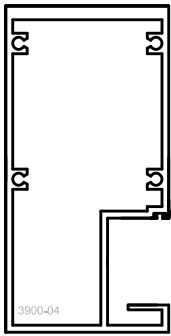
J1	Ix IN^4	Sx IN^3
3900-04	14.328	4.384
M1	Ix IN^4	Sx IN^3
3900-06	7.258	2.255
3900-05	10.582	3.510
TOTAL	17.840	5.542
M2	Ix IN^4	Sx IN^3
3900-06	7.258	2.255
3900-05	10.582	3.510
(2)ST-1	6.525	–
TOTAL	24.365	IN ALUM.
M1A	Ix IN^4	Sx IN^3
3900-24	12.645	3.042
3900-25	8.548	2.229
TOTAL	21.193	5.271
M2A	Ix IN^4	Sx IN^3
3900-24	12.645	3.042
3900-25	8.548	2.229
(2)ST-1	6.525	–
TOTAL	27.718	IN ALUM.



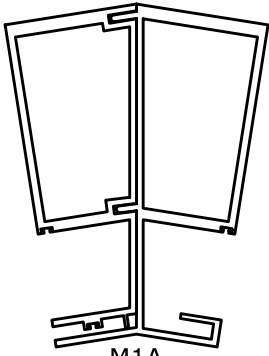
M1
MULLION
W/O REINFORCING



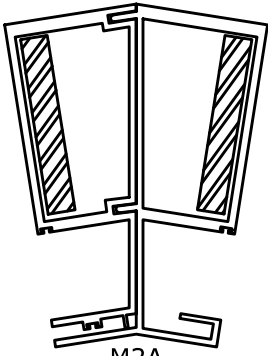
M2
MULLION W/(2) 1/2\"/>



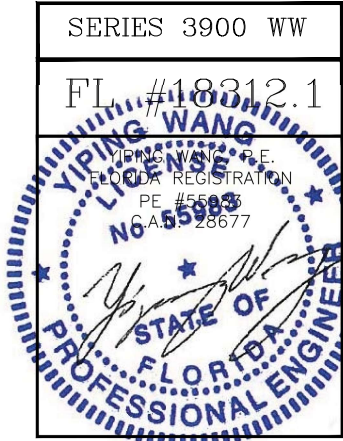
J1
JAMB
W/O REINFORCING



M1A
MULLION
W/O REINFORCING



M2A
MULLION W/(2) 1/2\"/>



REVISIONS

NO	DATE	DESCRIPTION
1	10/9/20	UPDATE TO FBC 2020

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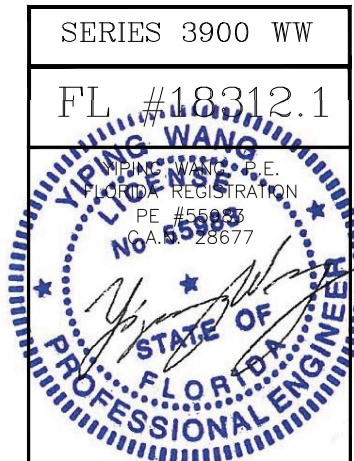
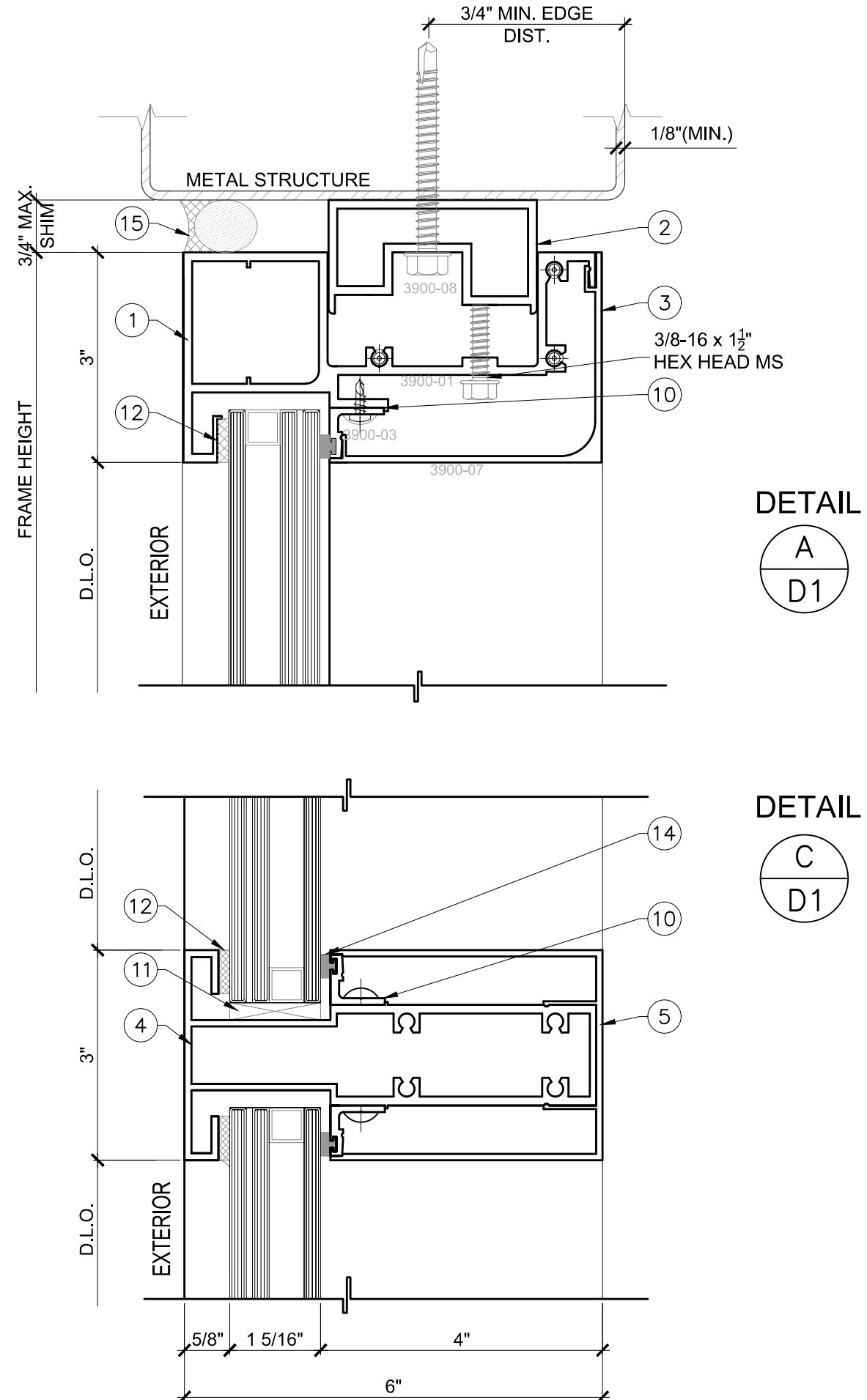
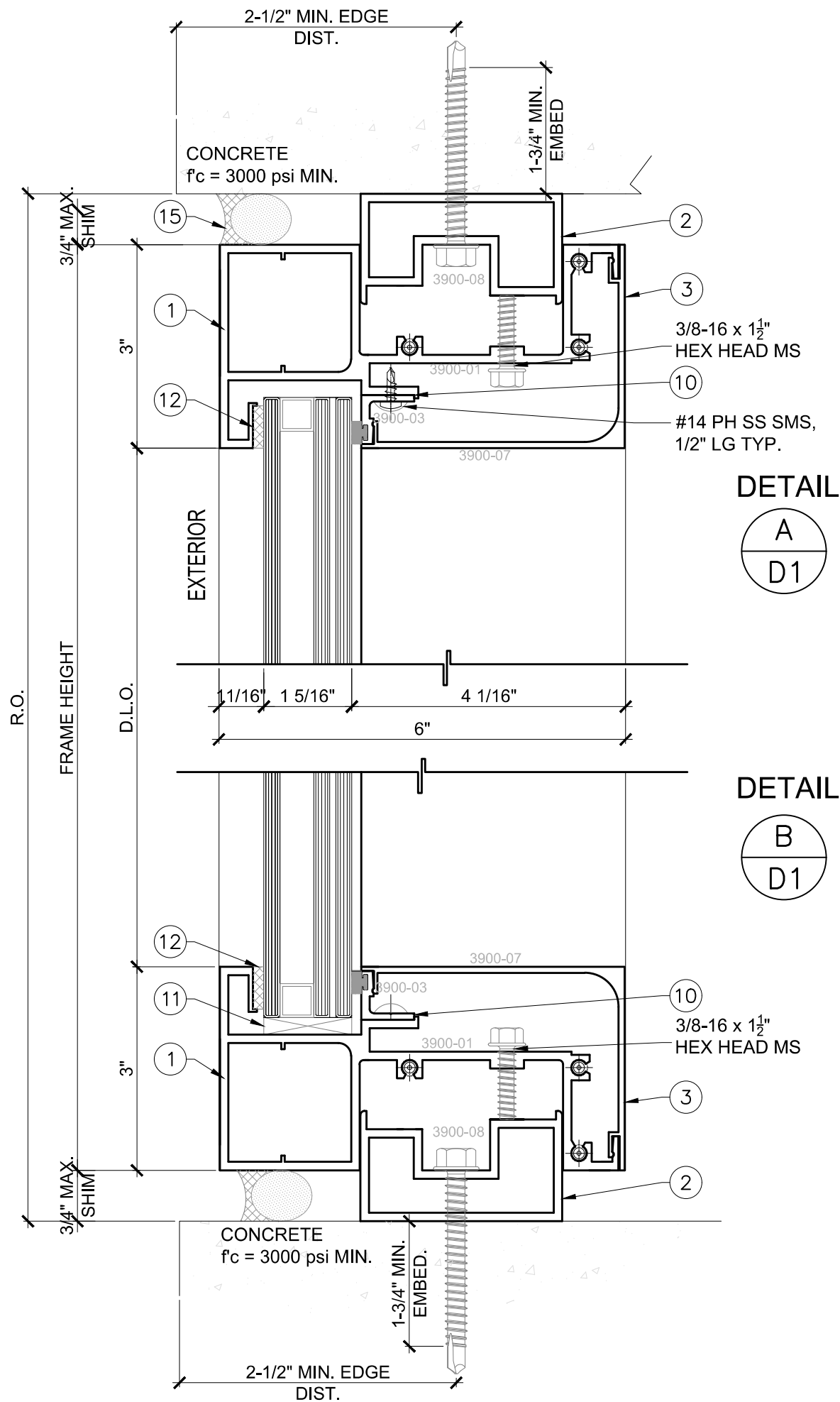
M1

DATE	08/21/15
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DRAWN	T.G.
PROJECT	15-100

DRAWING NO.

AD15-57

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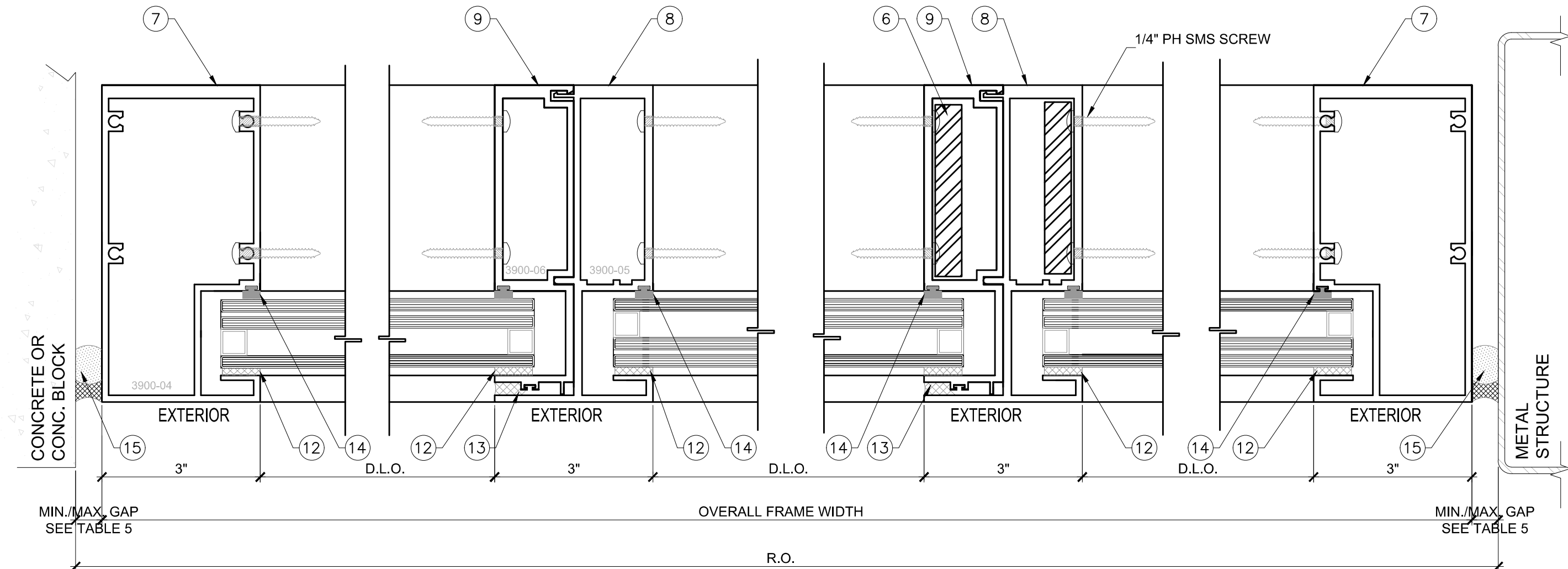
M C Y

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D1
DATE 08/21/15
SCALE AS SHOWN
DRAWN T.G.
PROJECT 15-100
DRAWING NO. AD15-57
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DETAIL D
D2

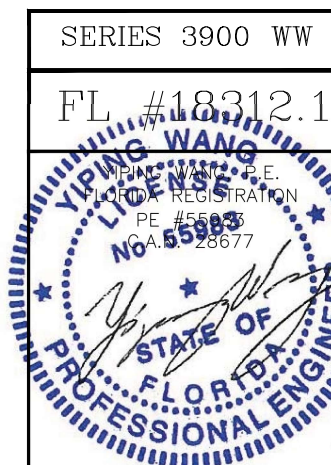
DETAIL E
D2

DETAIL G
D2

DETAIL F
D2

TABLE 5:

MAX. FRAME HEIGHT	JAMB GAP	
	MIN.	MAX.
90"	5/16"	1-1/2"
96"	5/16"	1-1/2"
102"	3/8"	1-1/2"
108"	3/8"	1-1/2"
114"	3/8"	1-1/2"
120"	1/2"	1-1/2"
126"	1/2"	1-1/2"
128"	1/2"	1-1/2"



NO.	DATE	DESCRIPTION
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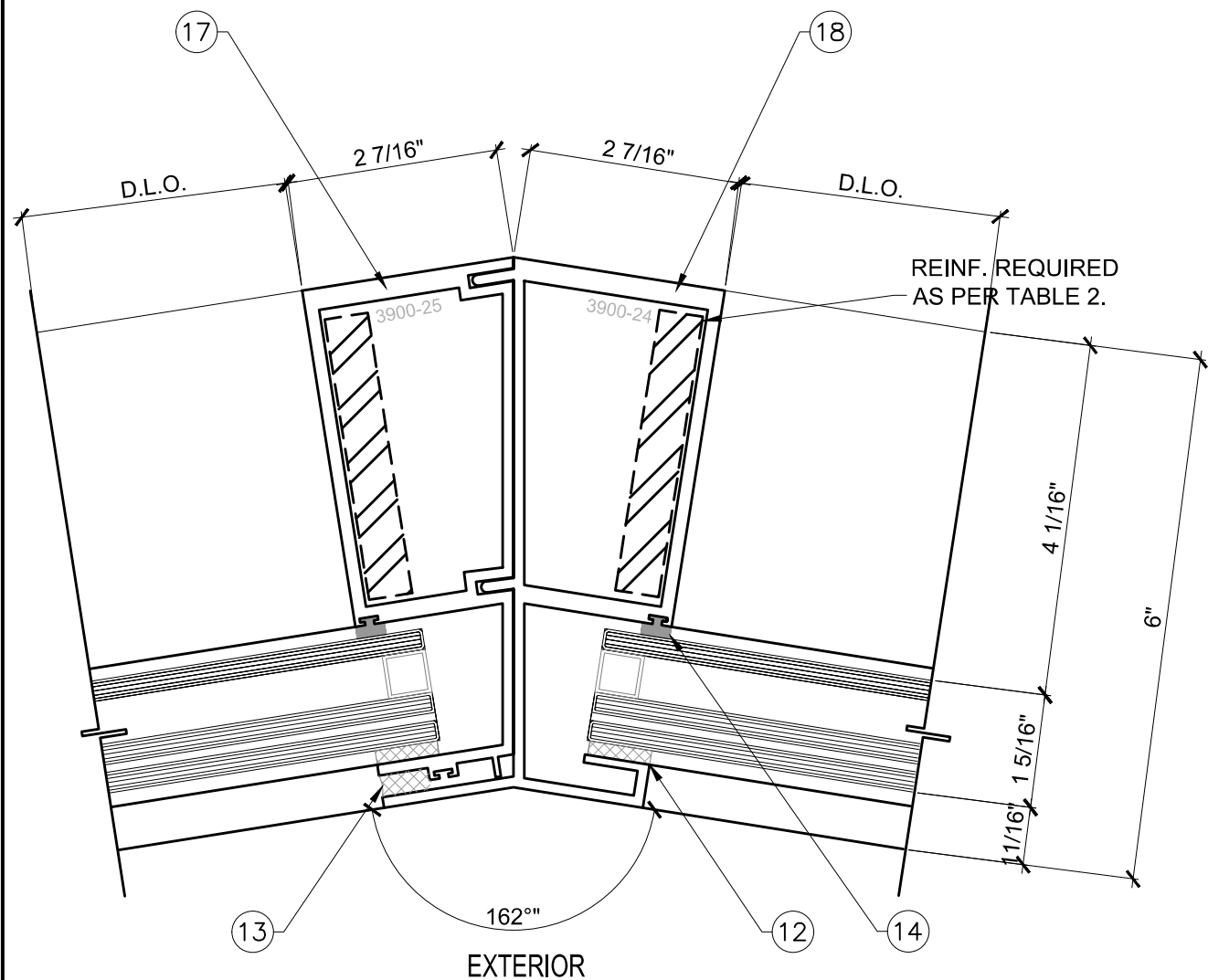
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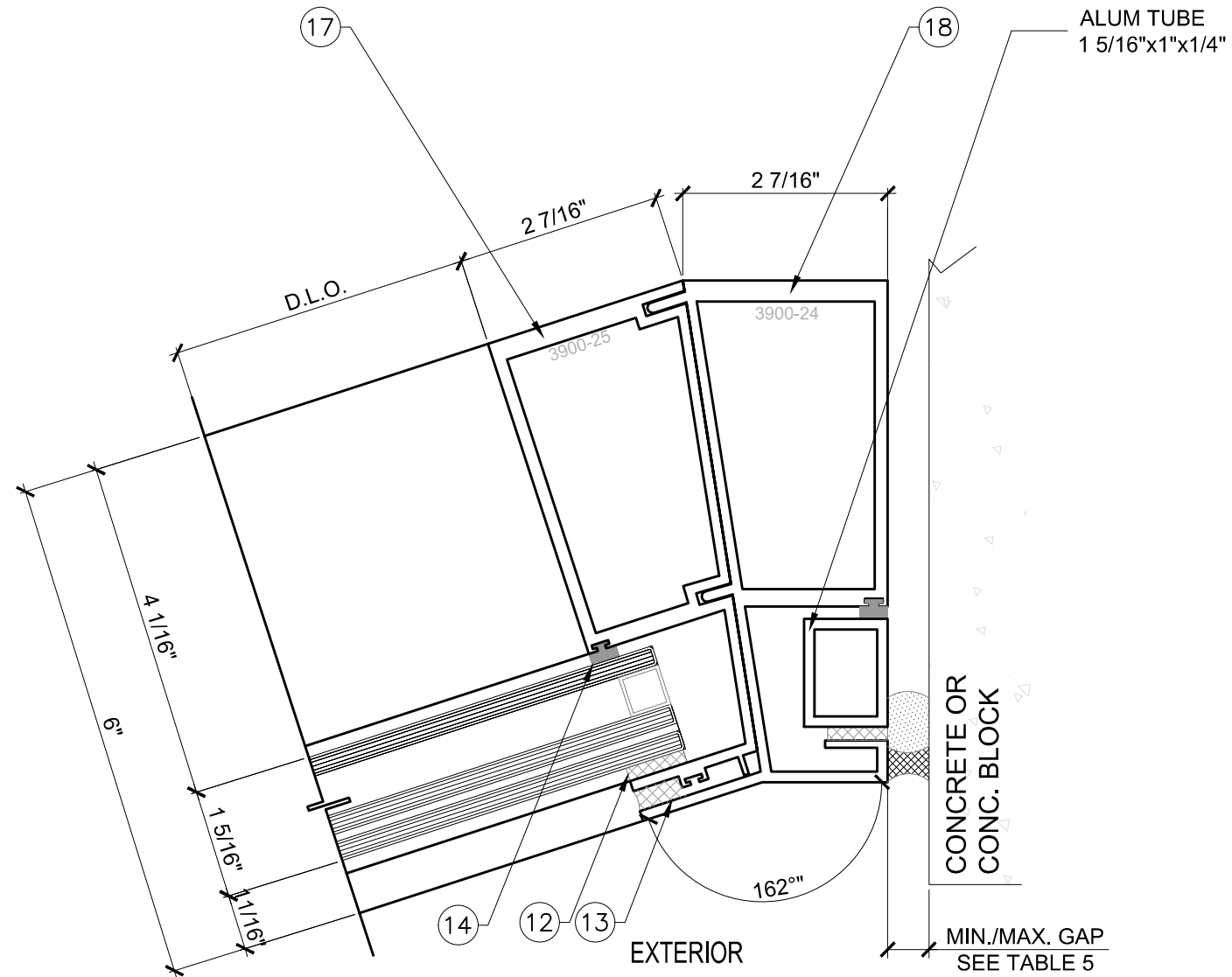
D2	
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DETAIL H
D3



DETAIL J
D3

SERIES 3900 WW

FL #18312.1

YIPING WANG
P.E.
FLORIDA REGISTRATION
No. 55983
PE #55983
CA. 28677

STATE OF
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1 HEAD & SILL
3900-01 6005-T5

2 ADJUSTER
3900-08 6005-T5

3 COVER
3900-07 6063-T6

10 GLAZING BEAD
3900-03 6005-T5

4 INTERMEDIATE
3900-12 6005-T5

5 COVER
3900-13 6005-T5

6 STEEL BAR REINFORCEMENT
3" X 1/2"

7 JAMB
3900-04 6005-T5

8 MALE
3900-05 6005-T5

9 FEMALE
3900-06 6005-T5

SERIES 3900 WW

FL #18812.1
YIPING WANG
PROFESSIONAL ENGINEER
FLORIDA REGISTRATION
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EXTRUSIONS

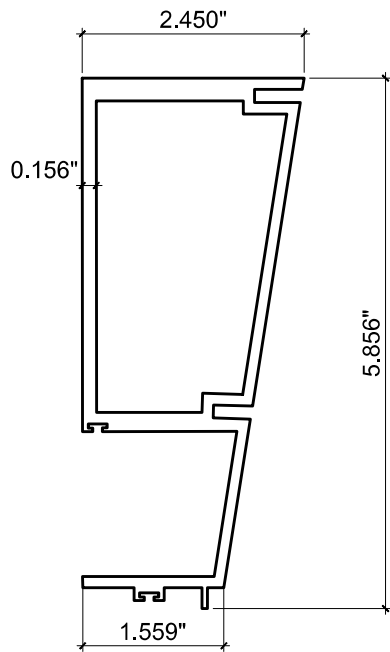
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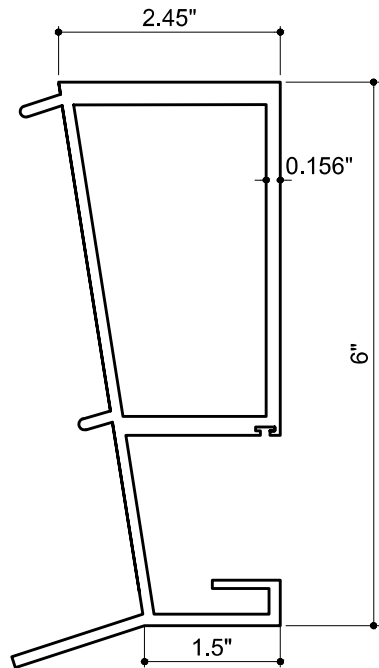
AD15-57

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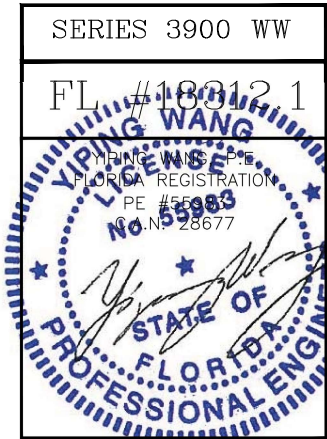
BILL OF MATERIALS				
ITEM #	PROFILE	DESCRIPTION	MATERIAL	MANUFACTURER/REMARKS
1	3900-01	HEAD/SILL	ALUM. 6005-T5	-
2	3900-08	ADJUSTER	ALUM. 6005-T5	-
3	3900-07	COVER	ALUM. 6063-T6	-
4	3900-12	INTERMEDIATE	ALUM. 6005-T5	-
5	3900-13	COVER	ALUM. 6063-T6	-
6	-	1/2" X 3" STEEL BAR REINFORCEMENT	STEEL	A36 MIN.
7	3900-04	JAMB	ALUM. 6005-T5	-
8	3900-05	MALE	ALUM. 6005-T5	-
9	3900-06	FEMALE	ALUM. 6005-T5	-
10	3900-03	GLAZING BEAD	ALUM. 6005-T5	-
11	-	1/4 " X 3/4 " X 4 " SETTING BLOCK - 70 DURO	SILICONE	-
12	-	DOWSIL STRUCTURAL SEALANT DC983 OR DC795	SILICONE	DOWSIL
13	-	DOWSIL DC795 CONT. PERIMETER SEALANT	SILICONE	DOWSIL
14	-	GASKET	POLYPROPYLENE / SANTOPRENE	ULTRA FAB
15	-	DOWSIL DC790 CONT. PERIMETER SEALANT AND BACKER ROD	SILICONE	DOWSIL
16	-	1/2" X 5" STEEL BAR REINFORCEMENT	STEEL	A36 MIN.
17	3900-25	FEMALE MULLION	ALUM. 6005-T5	-
18	3900-24	MALE MULLION	ALUM. 6005-T5	-
19	-	GLASS SPACER	ALUMINUM	-



17 FEMALE MULLION
3900-25 6005-T5



18 MALE MULLION
3900-24 6005-T5



REVISIONS

NO	DATE	DESCRIPTION
1	10/9/20	UPDATE TO FBC 2020

MCY

MCY ENGINEERING, INC. - GLAZING CONSULTANTS

12781 MIRAMAR PKWY. STE. 301 P: 305.271.0117
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SERIES 3900 WINDOW WALL W/WO REINFORCEMENT - LMI

CONTINENTAL GLASS SYSTEMS, LLC.
325 WEST 74 PLACE HIALEAH, FL 33014
TEL (305) 231-1101 FAX (305) 231-1103

BOM

DATE	08/21/15
SCALE	AS SHOWN
DRAWN	T.G.
PROJECT	15-100

DRAWING NO.

AD15-57

10 OF 11

