

SHEET INDEX	
101	COVER PAGE
102	TYPICAL ELEVATIONS
103	TYPICAL ELEVATIONS
104	GLAZING DETAILS
105	ALTERNATE DOOR CONFIGURATIONS
106	SECTIONAL DETAILS
107	SECTIONAL DETAILS
108	SECTIONAL DETAILS
109	SECTIONAL DETAILS
110	ANCHORAGE SPACING LAYOUT
111	ALTERNATE ANCHORING
112	PARTS LIST
113	PARTS LIST
114	CORNER ASSEMBLY DETAILS

ADDITIONAL DETAILS:

FOR SPECIAL SITE CONDITION, CONTACT HARTMAN WINDOWS AND DOORS, LLC. TO OBTAIN AUTOCAD/REVIT COMPATIBLE DETAILS OF THIS PRODUCT, KINDLY GET IN TOUCH WITH US BY SCANNING THE QR CODE PROVIDED BELOW OR CONTACTING US VIA OUR OFFICIAL EMAIL ADDRESS: CONTACT@JA-PE.COM.

THIS PRODUCT CAN BE COMBINED WITH ANY OTHER FBC APPROVED HARTMAN'S PRODUCTS. PLEASE REFER TO HARTMAN'S FBC APPROVED EUROPEAN MULLIONS TO DETERMINE THE APPROVED MULLION SIZES AND PRESSURES. WHEN MULLED COMBINATIONS ARE USED, THE LOWER DESIGN PRESSURE FROM EACH PRODUCT WILL APPLY TO THE ENTIRE SYSTEM. FINAL APPROVAL OF ALL DESIGNS SHALL BE GRANTED BY THE GOVERNING MUNICIPALITY.

DESIGN PRESSURES:

SINGLE DOOR (X) AND FIXED LITE (O): SEE SHEET 102
DOUBLE DOOR (XX): SEE SHEET 103

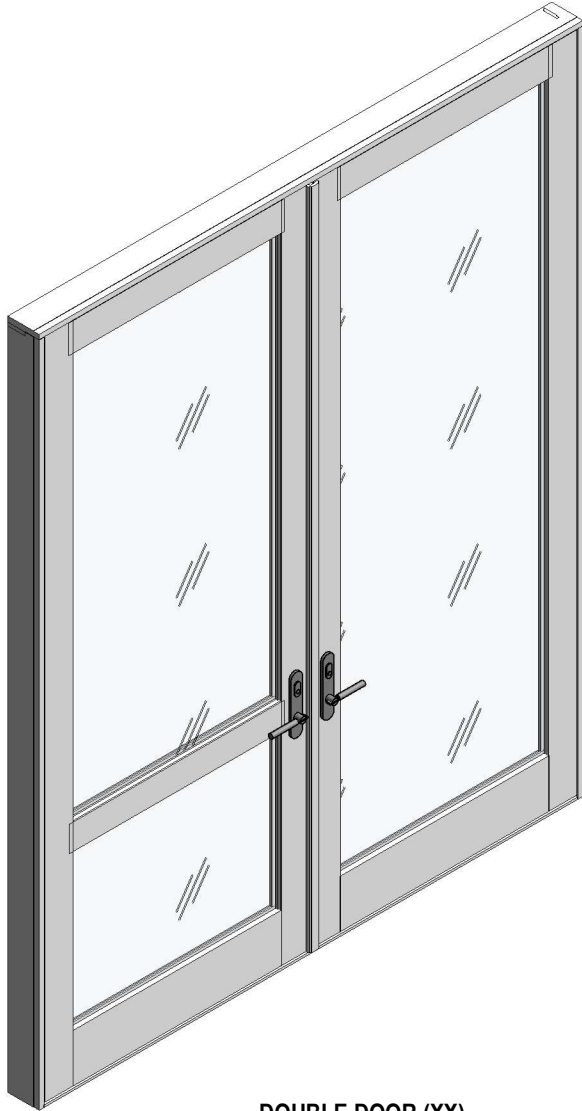
- APPROVAL APPLIES TO SINGLE OPERATING (X), STATIONARY (O) AND DOUBLE OPERATING (XX) UNITS.
- ALSO SIDE BY SIDE COMBINATIONS OF OPERATING/OPERATING OR OPERATING/STATIONARY UNITS IN MODULES OF TWO OR MORE DOORS.

HARTMAN WINDOWS & DOORS, LLC.

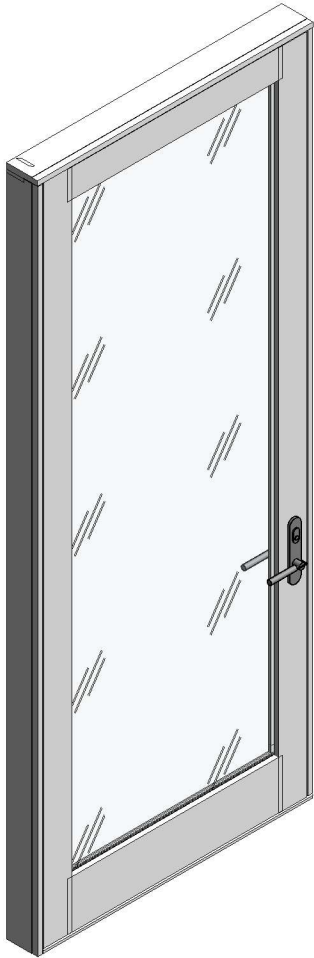
AMERICAN OUTSWING WOOD PATIO DOOR

(LARGE AND SMALL MISSILE IMPACT RATED)

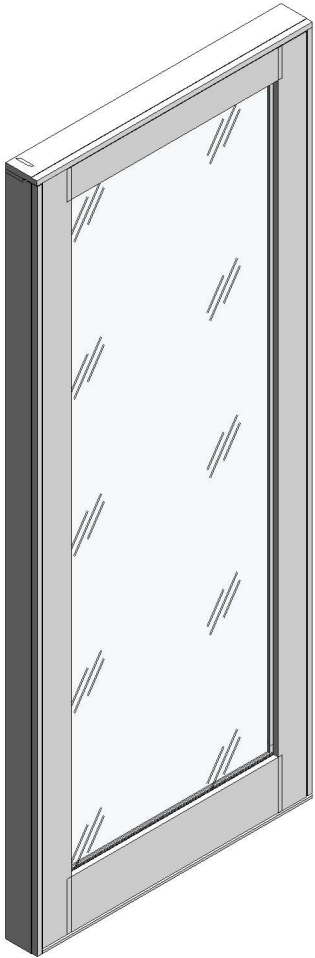
FL# 20652.2



DOUBLE DOOR (XX)



SINGLE DOOR (X)



FIXED LITE (O)

GENERAL NOTES

1. THIS SYSTEM PRESENTED HEREIN HAS UNDERGONE DESIGN AND TESTING IN FULL COMPLIANCE WITH THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) AND IS INTENDED FOR USE BOTH WITHIN AND OUTSIDE THE HIGH-VELOCITY HURRICANE ZONE (HVHZ) PER TAS 201/202/203.
2. THE GLASS CAPACITIES SPECIFIED IN THE CHARTS OF THIS CERTIFICATION ARE BASED ON ASTM E1300-16, UTILIZING A 3-SECOND GUST WIND SCENARIO.
3. THE DESIGN PRESSURES OUTLINED IN THIS DOCUMENT ARE DERIVED FROM MAXIMUM TESTED PRESSURES AND INCORPORATE A 1.5 SAFETY FACTOR.
4. THE PRESSURES PROVIDED IN THIS CERTIFICATION ARE DETERMINED USING THE ALLOWABLE STRESS DESIGN METHOD (ASD).
5. THIS PRODUCT HAS BEEN RIGOROUSLY TESTED IN ACCORDANCE WITH THE STANDARDS DESCRIBED IN NOTE 1 OF THE GENERAL NOTES. IT IS CONFIRMED TO BE RESISTANT TO LARGE MISSILE IMPACT, THEREBY NOT NECESSITATING THE USE OF IMPACT-RESISTANT SHUTTERS.
6. THE DESIGN OF THIS SYSTEM DOES NOT INCORPORATE A 33-1/3% INCREASE IN ALLOWABLE STRESS. FOR WOOD ANCHOR DESIGN, A WIND LOAD DURATION FACTOR OF CD=1.6 HAS BEEN EMPLOYED.
7. THE ARCHITECT/ENGINEER OF RECORD RESPONSIBLE FOR THE PROJECT'S SUPERSTRUCTURE, WITH WHICH THIS DESIGN IS ASSOCIATED, SHALL ENSURE THE INTEGRITY OF ALL SUPPORTING SURFACES. COORDINATION WITH THE PERMITTING CONTRACTOR IS REQUIRED, AND PROPER ANCHORING OF WOOD BUCKS (BY OTHERS) MUST FACILITATE LOAD TRANSFER TO THE EXISTING STRUCTURE.
8. THE DETAILS OF THE SYSTEM PROVIDED HEREIN ARE OF A GENERIC NATURE AND DO NOT OFFER SPECIFIC SITE INFORMATION. FOR SITE CONDITIONS THAT DIFFER FROM THOSE SPECIFIED HERE, A LICENSED ENGINEER OR REGISTERED ARCHITECT MUST PREPARE SITE-SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS CERTIFICATION.
9. THE CONTRACTOR IS ACCOUNTABLE FOR INSULATING ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS (E.G., STEEL WITH ALUMINUM).
10. THE SUBSTITUTION OF FASTENERS DESCRIBED IN THIS CERTIFICATION IS PERMISSIBLE, PROVIDED THE ALTERNATIVE ANCHOR EXHIBITS STRENGTH EQUAL TO OR GREATER THAN THE ORIGINALLY SPECIFIED ANCHOR. FINAL APPROVAL OF SUBSTITUTED ANCHORS SHALL BE GRANTED BY RELEVANT AUTHORITIES.
11. THE WOOD SCREWS REFERENCED IN THIS CERTIFICATION MUST MEET A MINIMUM GRADE OF 2 (FU = 74,000 PSI).
12. FASTENERS MUST BE CADMIUM PLATED OR COMPOSED OF OTHERWISE CORROSION-RESISTANT MATERIAL, CONFORMING TO "SPECIFICATIONS FOR ALUMINUM STRUCTURES" AS OUTLINED IN SECTION J.3 OF THE CURRENT CODE BY THE ALUMINUM ASSOCIATION, INC., IN ADDITION TO ANY APPLICABLE FEDERAL, STATE, AND/OR LOCAL CODES.
13. THE ENGINEER'S SEAL AFFIXED HERE VALIDATES THE STRUCTURAL DESIGN AS PRESENTED SOLELY. ANY USE OF THIS SPECIFICATION BY THE CONTRACTOR OR OTHERS INDEMNIFIES AND SAVES THE ENGINEER HARMLESS FROM ALL COSTS AND DAMAGES, INCLUDING LEGAL FEES AND APPELLATE FEES ARISING FROM MATERIAL FABRICATION, SYSTEM ERECTION, AND CONSTRUCTION PRACTICES BEYOND THE SCOPE CALLED FOR BY LOCAL, STATE, AND FEDERAL CODES OR DEVIATIONS FROM THE PLAN.
14. NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED BEYOND WHAT IS EXPRESSLY PROVIDED IN THIS DOCUMENT.
15. ALTERATIONS, ADDITIONS, OR ANY MARKINGS TO THIS DOCUMENT ARE STRICTLY PROHIBITED AND WILL INVALIDATE THIS CERTIFICATION.
16. PROPER SAFETY MEASURES MUST BE OBSERVED DURING THE INSTALLATION AND USE OF THIS SYSTEM, EVEN THOUGH THEY ARE NOT EXPLICITLY LISTED IN THIS CERTIFICATION.
17. EACH PRODUCT SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER SYSTEM, CONTAINING THE FOLLOWING REQUIRED INFORMATION:

HARTMAN WINDOWS AND DOORS, LLC

2107 WEST BLUE HERON BLVD

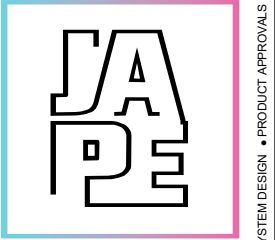
WEST PALM BEACH, FLORIDA 33404

TAS 201/202/203

APPROVED BY FLORIDA BUILDING COMMISSION

FLORIDA PRODUCT APPROVAL NUMBER FL# 20652.2

THIS PRODUCT IS APPROVED FOR IMPACT RESISTANCE LEVEL 'D'



JAVAD AHMAD PE, inc
7875 NW 12th St., Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

AMERICAN OUTSWING WOOD PATIO DOOR
(LARGE AND SMALL MISSILE IMPACT RATED)

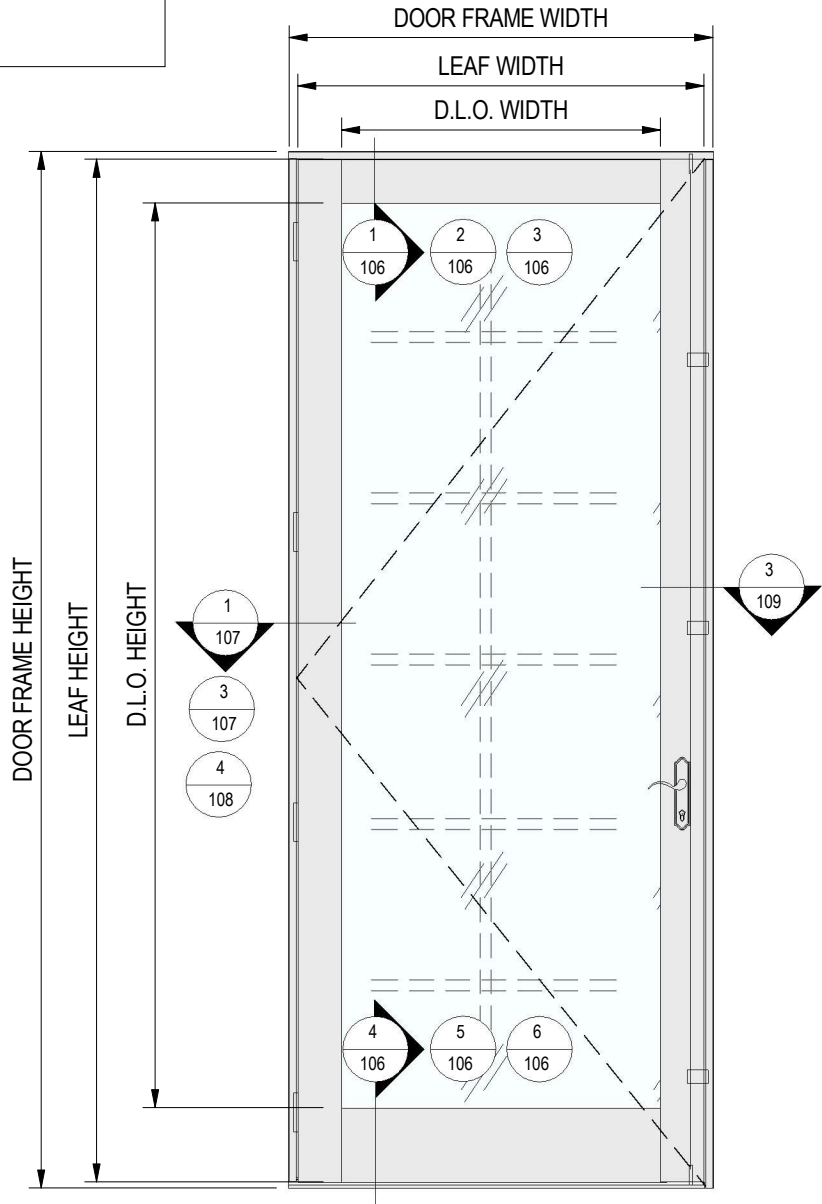
HARTMAN WINDOWS & DOORS, LLC.
2107 W. BLUE HERON BOULEVARD
WEST PALM BEACH, FL 33404
TELEPHONE: (561) 296-9600
FAX: (561) 296-9601

drawing no.	date:	JA-1425-23	drawn by:	check by:	BS	SJ	REVISION	DESCRIPTION	
								BY	
								DATE	
								No.	

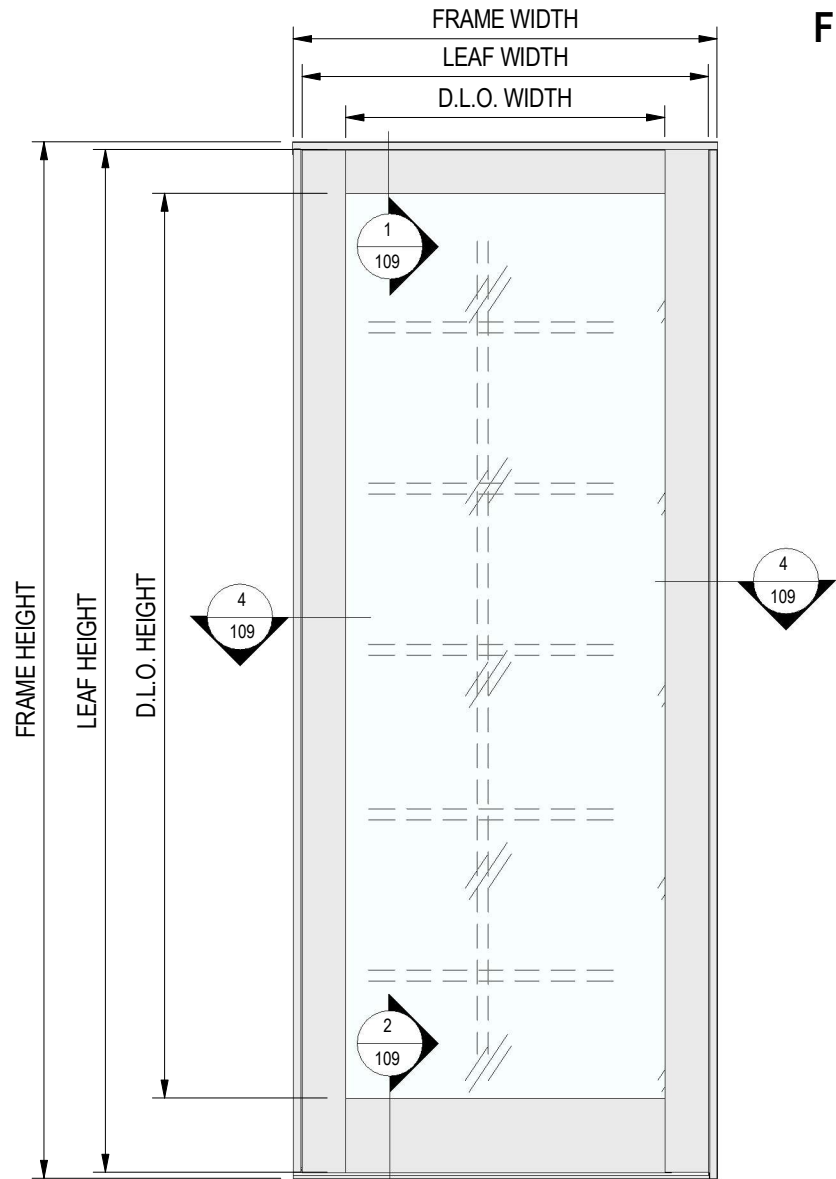


Sealed: 04-23-2024

TYPICAL ELEVATIONS



1
102 SINGLE DOOR (X) ELEVATION
N.T.S.



2
102 FIXED LITE (O) ELEVATION
N.T.S.

FL# 20652.2

LOADING CHART FOR SINGLE DOOR (X) AND FIXED LITE (O) - PRESSURES IN P.S.F. (ASD)						
GLASS TYPES A,B,F,G,I,HI						
DOOR FRAME WIDTH (in.)	DOOR FRAME HEIGHT (in.)					
	80, 84, 90, 96, 102, 108, 114, 120, 122.625	126	132	138	144	
24	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	
30	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	
36	+/- 70	+/- 70	+/- 70	+/- 64	+/- 59	
42	+/- 70	+/- 67	+/- 61	+/- 56	+/- 51	
48	+/- 63	+/- 59	0	0	0	
50.125	+/- 61	0	0	0	0	

LOADING CHART FOR SINGLE DOOR (X) AND FIXED LITE (O) - PRESSURES IN P.S.F. (ASD)							
GLASS TYPES C,D,E,II,JI							
DOOR FRAME WIDTH (in.)	DOOR FRAME HEIGHT (in.)						
	80, 84, 90, 96, 102, 108, 114, 120, 122.625	126	132	138	144		
24	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70		
30	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70		
36	+/- 70	+/- 70	+/- 70	+/- 70	+/- 68		
42	+/- 70	+/- 67	+/- 70	+/- 64	+/- 58		
48	+/- 70	+/- 68	0	0	0		
50.125	+/- 70	0	0	0	0		

LOADING CHART FOR SINGLE DOOR (X) AND FIXED LITE (O) - PRESSURES IN P.S.F. (ASD)							
OPAQUE WOOD PANEL TYPES K, L							
DOOR FRAME WIDTH (in.)	DOOR FRAME HEIGHT (in.)						
	80, 84, 90, 96, 102, 108, 114, 120, 122.625						
24	+/- 70						
30	+/- 70						
36	+/- 70						
42	+/- 70						
48	+/- 70						
50.125	+/- 70						



JAVAD AHMAD PE, inc

7875 NW 12th St., Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

AMERICAN OUTSWING WOOD
PATIO DOOR

(LARGE AND SMALL MISSILE IMPACT RATED)

HARTMAN WINDOWS & DOORS, LLC.

2107 W. BLUE HERON BOULEVARD
WEST PALM BEACH, FL 33404
TELEPHONE: (561) 296-9600
FAX: (561) 296-9601

drawing no.	date:	JA-1425-23	drawn by:	check by:	REVISION			
					DATE	BY	DESCRIPTION	
					No.			

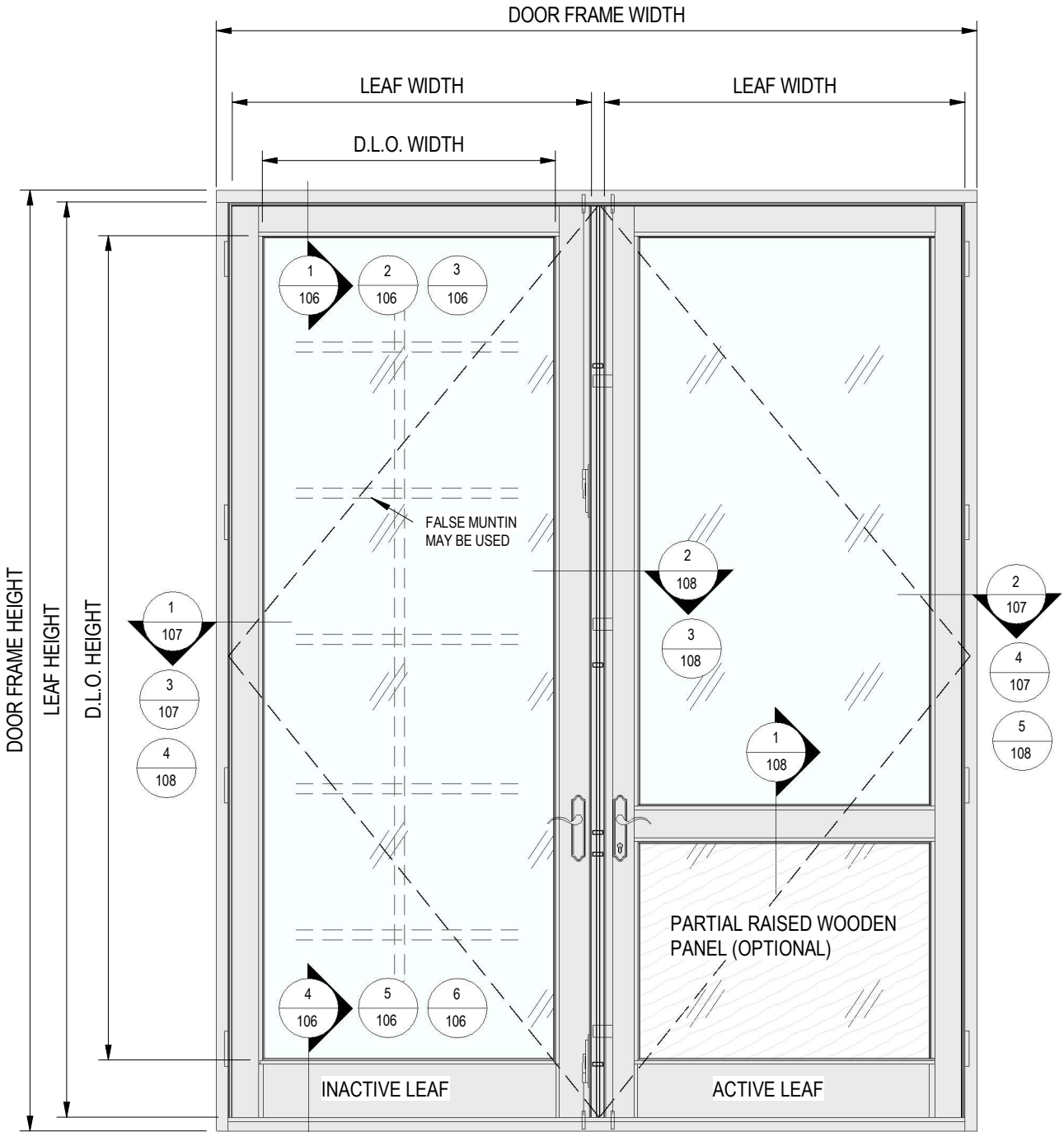


Sealed: 04-23-2024



JAVAD AHMAD PE, inc
7875 NW 12th St., Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS



LOADING CHART FOR DOUBLE DOOR (XX) - PRESSURES IN P.S.F. (ASD)					
GLASS TYPES A,B,F,G,I,HI					
DOOR FRAME WIDTH (in.)	DOOR FRAME HEIGHT (in.)				
	80, 84	90	96	102, 108, 114, 120	122.625
36	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70
42	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70
48	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70
54	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70
60	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70
66	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70
72	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70
78	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70
84	+/- 70	+/- 70	+/- 70	+/- 70	+/- 66
90	+/- 70	+/- 67	+/- 67	+/- 67	+/- 64
96	+/- 70	+/- 67	+/- 62	+/- 62	+/- 61
99.125	+/- 70	+/- 67	+/- 62	+/- 61	+/- 61

LOADING CHART FOR DOUBLE DOOR (XX) - PRESSURES IN P.S.F. (ASD)	
GLASS TYPES C,D,E,II,JI	
DOOR FRAME WIDTH (in.)	DOOR FRAME HEIGHT (in.)
	80, 84, 90, 96, 102, 108, 114, 120, 122.625
36	+/- 70
42	+/- 70
48	+/- 70
54	+/- 70
60	+/- 70
66	+/- 70
72	+/- 70
78	+/- 70
84	+/- 70
90	+/- 70
96	+/- 70
99.125	+/- 70

LOADING CHART FOR DOUBLE DOOR (XX) - PRESSURES IN P.S.F. (ASD)	
OPAQUE WOOD PANEL TYPE K, L	
DOOR FRAME WIDTH (in.)	DOOR FRAME HEIGHT (in.)
	80, 84, 90, 96, 102, 108, 114, 120, 122.625
36	+/- 70
42	+/- 70
48	+/- 70
54	+/- 70
60	+/- 70
66	+/- 70
72	+/- 70
78	+/- 70
84	+/- 70
90	+/- 70
96	+/- 70
99.125	+/- 70

AMERICAN OUTSWING WOOD PATIO DOOR
(LARGE AND SMALL MISSILE IMPACT RATED)

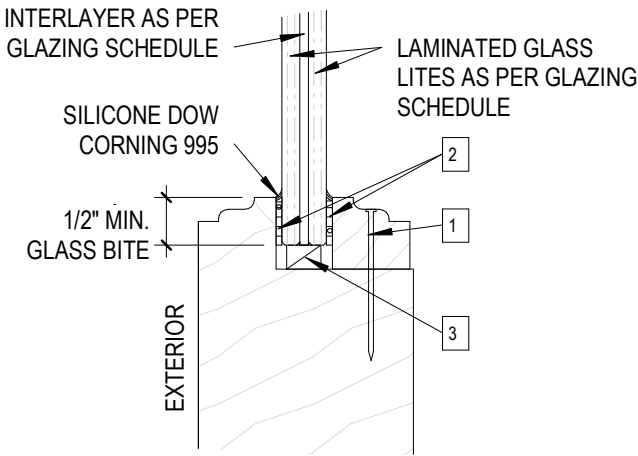
HARTMAN WINDOWS & DOORS, LLC.
2107 W. BLUE HERON BOULEVARD
WEST PALM BEACH, FL 33404
TELEPHONE: (561) 296-9600
FAX: (561) 296-9601

drawing no.	date:	JA-1425-23	drawn by:	check by:	REVISION			
					No.	DATE	BY	DESCRIPTION

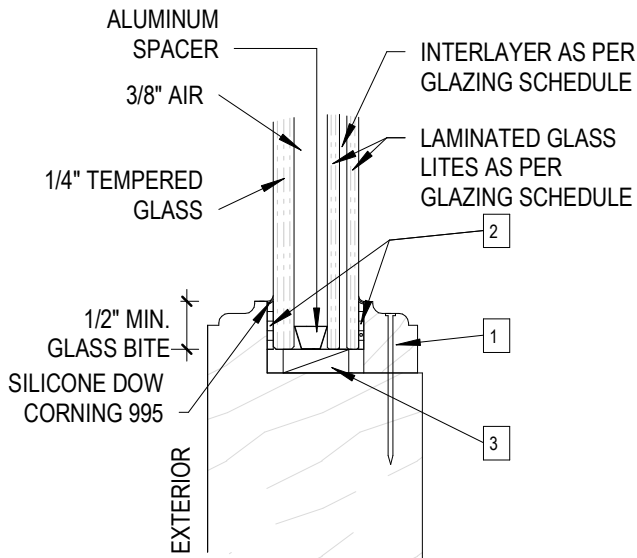


Sealed: 04-23-2024

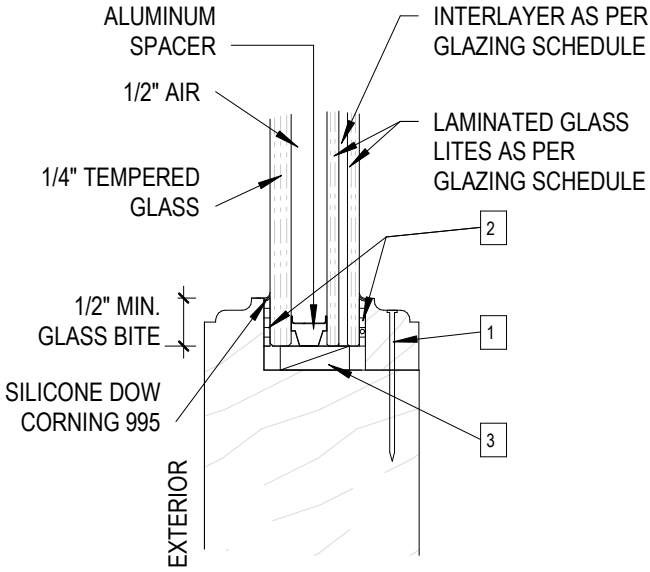
GLAZING DETAILS



1
104 GLAZING DETAIL FOR GLASS TYPE A,B,C,D,E,F
NOT TO SCALE



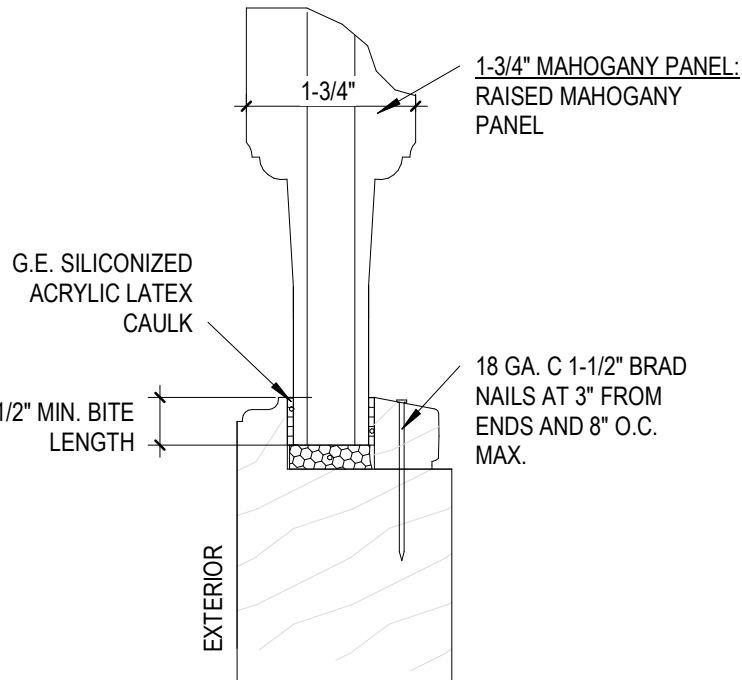
2
104 GLAZING DETAIL FOR GLASS TYPE HI, II
NOT TO SCALE



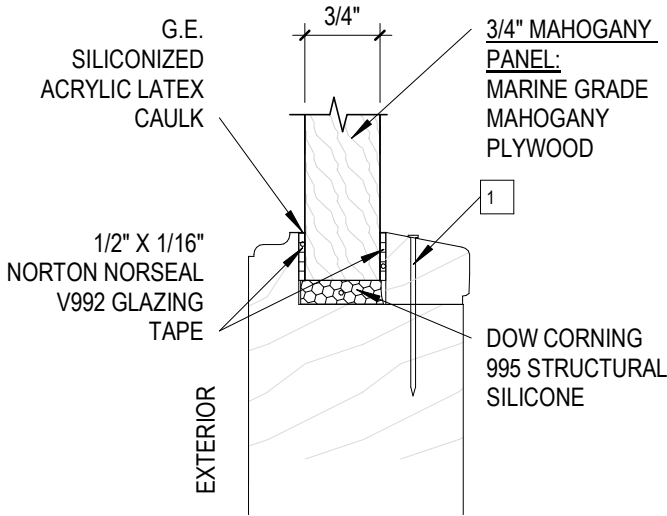
3
104 GLAZING DETAIL FOR GLASS TYPE GI, JI
NOT TO SCALE

FL# 20652.2

- 1
- 18 GA. X 1-1/2" BRAD NAILS AT 3" FROM ENDS AND 8" O.C. MAX.
- 2
- GLAZING TAPE 1/16" X 1/2" NORTON HPF970
- 3
- NEOPRENE SETTING BLOCK 80 +/- 5 DUROMETER AT 1/4 POINTS



4
104 GLAZING DETAIL FOR WOOD PANEL TYPE K
NOT TO SCALE



5
104 GLAZING DETAIL FOR WOOD PANEL TYPE L
NOT TO SCALE

GLAZING SCHEDULE			REF. DETAIL
GLASS TYPE	LAMINATED GLASS LITE	INTERLAYER	
A	3/16" ANNEALED GLASS	0.09" PVB INTERLAYER	
B	3/16" HEAT STREN'D GLASS	0.09" PVB INTERLAYER	
C	3/16" HEAT STREN'D GLASS	0.09" SENTRYGLAS INTERLAYER	
D	3/16" ANNEALED GLASS	0.09" SENTRYGLAS INTERLAYER	
E	1/4" HEAT STREN'D GLASS	0.09" SENTRYGLAS INTERLAYER	
F	1/4" HEAT STREN'D GLASS	0.075" PVB INTERLAYER	

GLASS TYPE	EXTERIOR GLASS LITE	LAMINATED GLASS LITE	INTERLAYER	REF. DETAIL
GI	1/4" TEMPERED GLASS	3/16" HEAT STREN'D GLASS	0.075" PVB INTERLAYER	3/ 104
HI	1/4" TEMPERED GLASS	1/8" ANNEALED GLASS	0.09" SENTRYGLAS INTERLAYER	2/ 104
II	1/4" TEMPERED GLASS	1/4" HEAT STREN'D GLASS	0.09" SENTRYGLAS INTERLAYER	2/ 104
JI	3/16" TEMPERED GLASS	3/16" HEAT STREN'D GLASS	0.09" SENTRYGLAS INTERLAYER	3/ 104



JAVAD AHMAD PE, inc

7875 NW 12th St., Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

AMERICAN OUTSWING WOOD

PATIO DOOR

(LARGE AND SMALL MISSILE IMPACT RATED)

HARTMAN WINDOWS & DOORS, LLC.

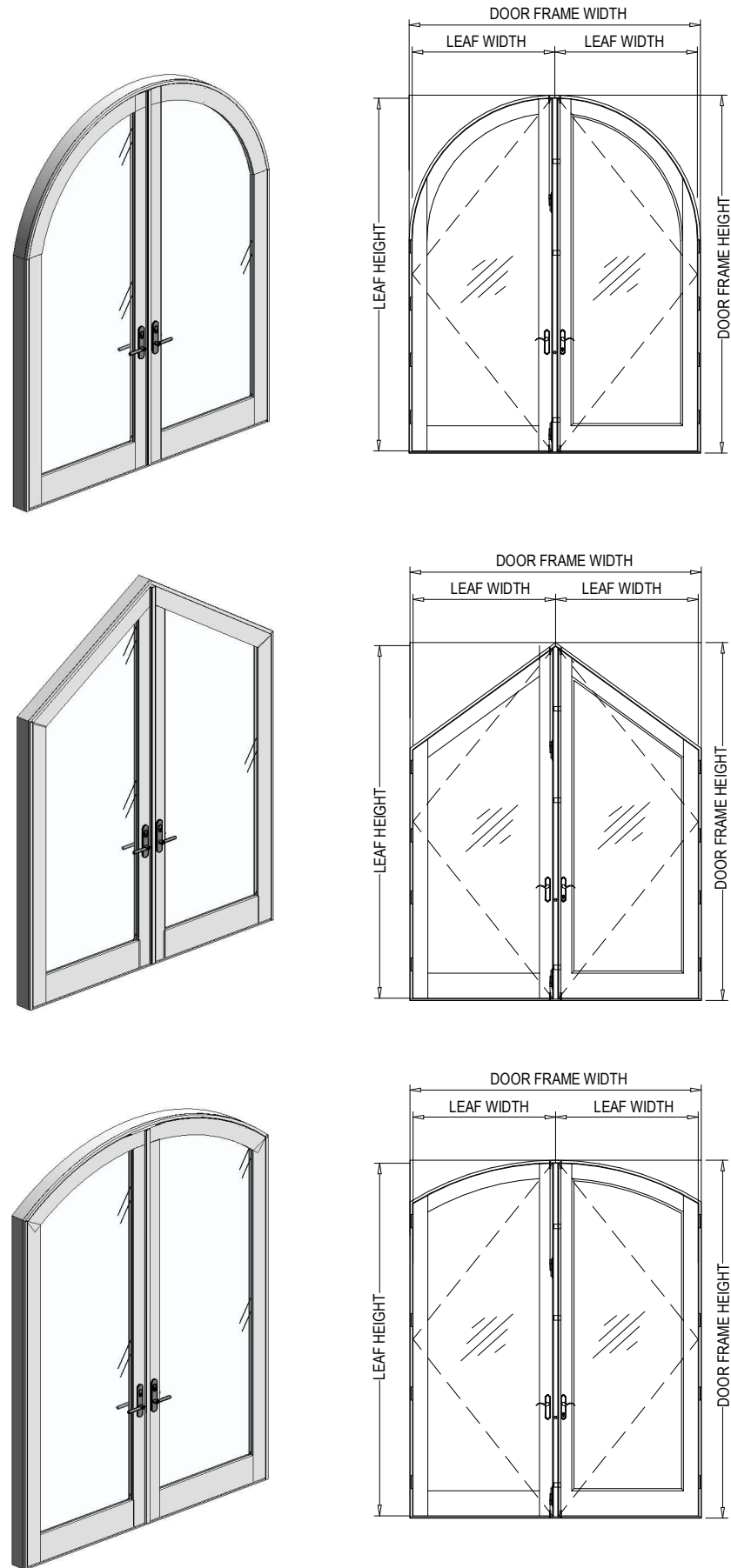
2107 W. BLUE HERON BOULEVARD
WEST PALM BEACH, FL 33404
TELEPHONE: (561) 296-9600
FAX: (561) 296-9601

BS	SJ				
drawn by:	check by:				
JA-1425-23	04-23-2024				
drawing no.	date:				
		REVISION			
		DESCRIPTION	BY	DATE	No.

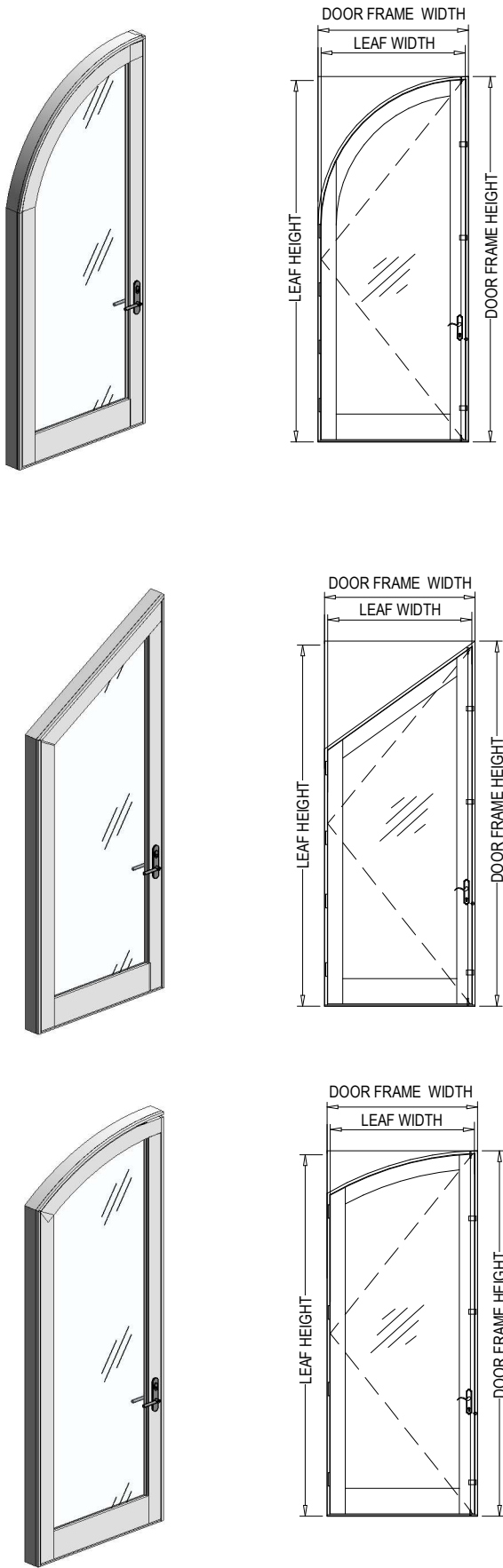


Sealed: 04-23-2024

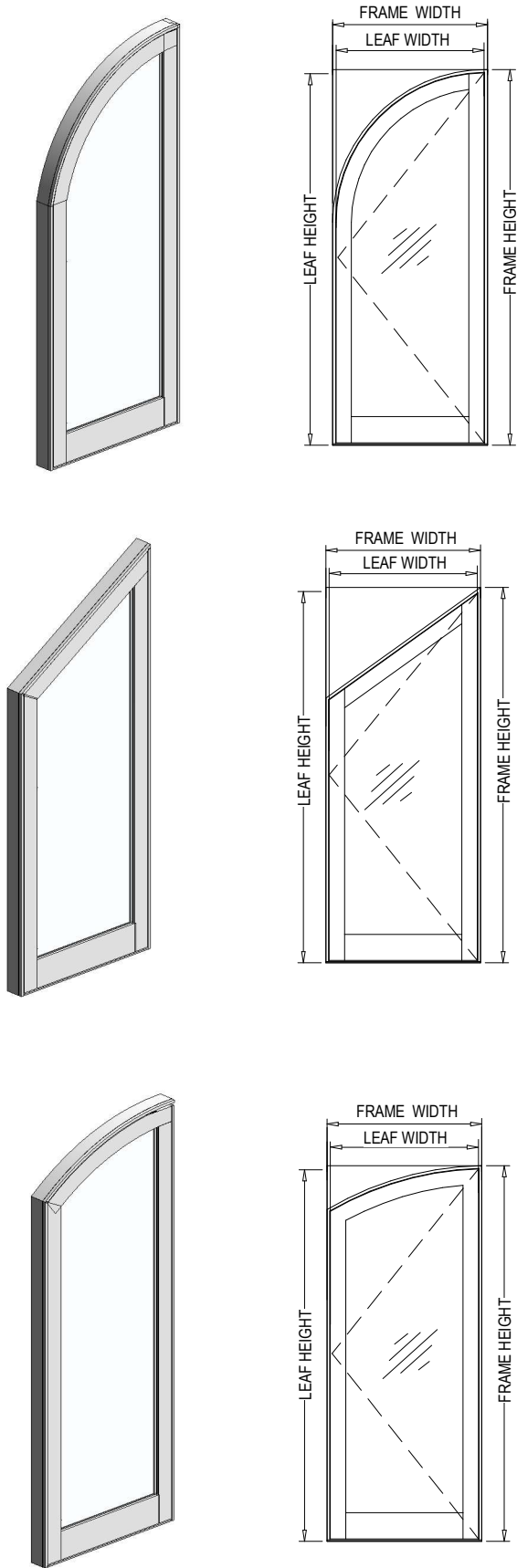
DOUBLE DOOR (XX) CONFIGURATIONS



SINGLE DOOR (X) CONFIGURATIONS



FIXED LITE (O) CONFIGURATIONS



LOCKING HARDWARE:

SINGLE LEAF DOORS:

6 POINT LOCKING SYSTEM BY 'SCHLEGEL' WITH KEEPERS ON FRAME AND SHOOT BOLTS ENGAGING SIMULTANEOUSLY AT HEAD & SILL ACTUATING HANDLE AT 37" FROM BOTTOM. DEAD BOLT LOCK AT 33-1/2" FROM BOTTOM.

3-3/4" LONG KEEPERS AT 10-1/2", 67-1/2" AND 98-1/2" FROM BOTTOM, FASTENED W/ (2) #8 X 1-1/4" FH SMS 8" LONG KEEPER AT 38" FROM BOTTOM FASTENED W/ (3) #8 X 1-1/4" FH SMS

DOUBLE LEAF DOORS (ACTIVE LEAF):

6 POINT LOCKING SYSTEM BY 'SCHLEGEL' WITH KEEPERS ON IN-ACTIVE LOCK STILE AND SHOOT BOLTS ENGAGING SIMULTANEOUSLY AT HEAD & SILL ACTUATING HANDLE AT 37" FROM BOTTOM. DEAD BOLT LOCK AT 33-1/2" FROM BOTTOM. 3-3/4" LONG KEEPERS AT 10-1/2", 67-1/2" AND 98-1/2" FROM BOTTOM, FASTENED W/ (2) #8 X 1-1/4" FH SMS 8" LONG KEEPER AT 38" FROM BOTTOM FASTENED W/ (3) #8 X 1-1/4" FH SMS

DOUBLE LEAF DOORS (INACTIVE LEAF):

CONCEALED FLUSH BOLTS BY 'HARTMAN' MANUALLY OPERATED LEVERS MOUNTED ON INSIDE FACE OF LEAF STILE.

HINGES:

4-1/2" X 4-1/2" ST. STEEL BUTT HINGES AT 8-1/4" FROM TOP, 12-1/4" FROM BOTTOM AND 30-1/8" O.C. MAX.

TO OBTAIN ALLOWABLE PRESSURES FOR ALTERNATIVE WINDOW SHAPES
- INSCRIBE ALTERNATIVE SHAPE IN A RECTANGULAR BOX, AS SHOWN ABOVE
- USE THE WIDTH AND HEIGHT OF THE BOX TO DETERMINE THE ALLOWABLE PRESSURES



JAVAD AHMAD PE, inc

7875 NW 12th St., Suite 102

Doral, FL 33126

Ph: (305) 424-8001

support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • PRODUCT APPROVALS

AMERICAN OUTSWING WOOD

PATIO DOOR

(LARGE AND SMALL MISSILE IMPACT RATED)

HARTMAN WINDOWS & DOORS, LLC.

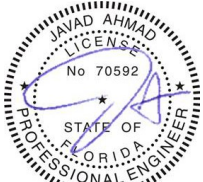
2107 W. BLUE HERON BOULEVARD

WEST PALM BEACH, FL 33404

TELEPHONE: (561) 296-9600

FAX: (561) 296-9601

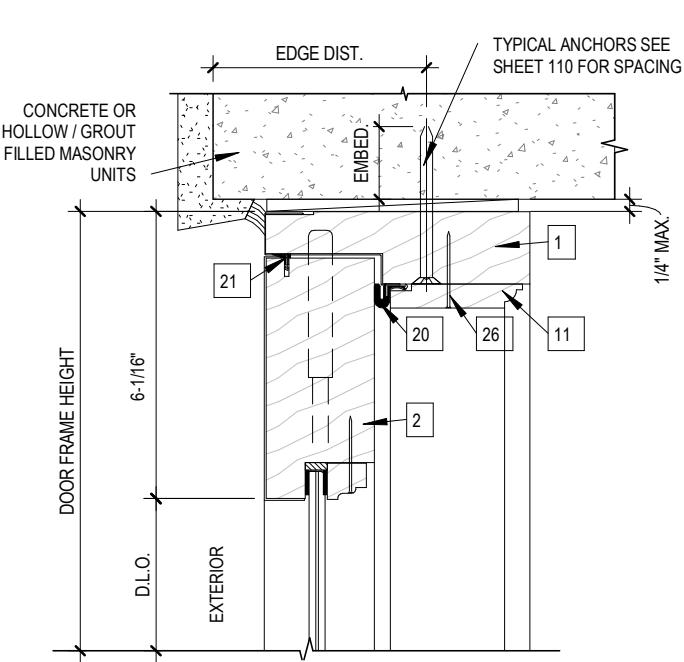
drawing no.	JA-1425-23	drawn by:	BS	check by:	SJ
date:	04-23-2024	REVISION			
No.		DATE	BY	DESCRIPTION	



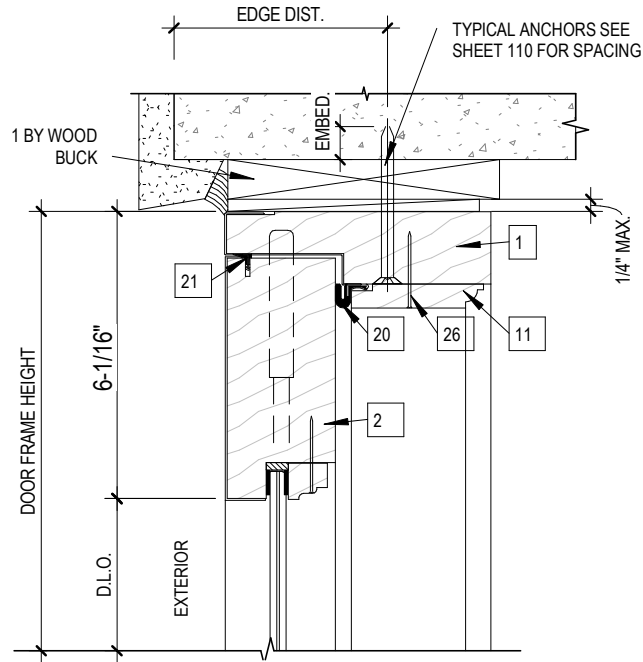
Sealed: 04-23-2024

SECTIONAL DETAILS

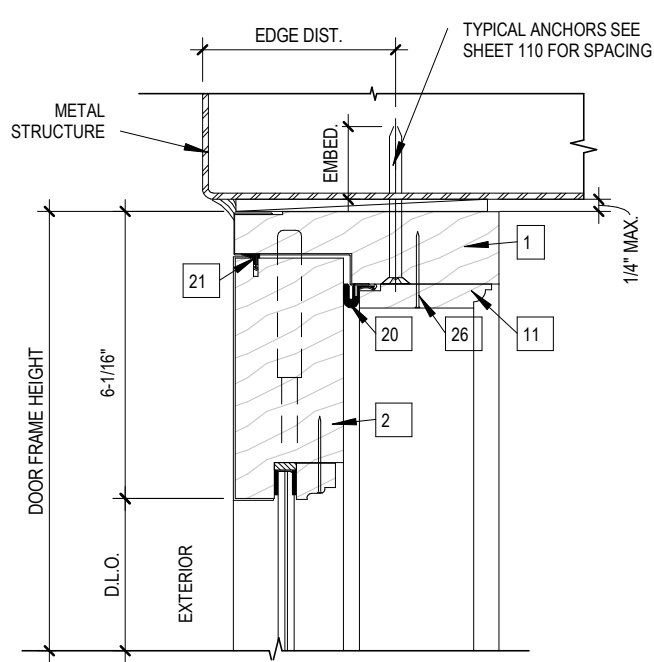
FL# 20652.2



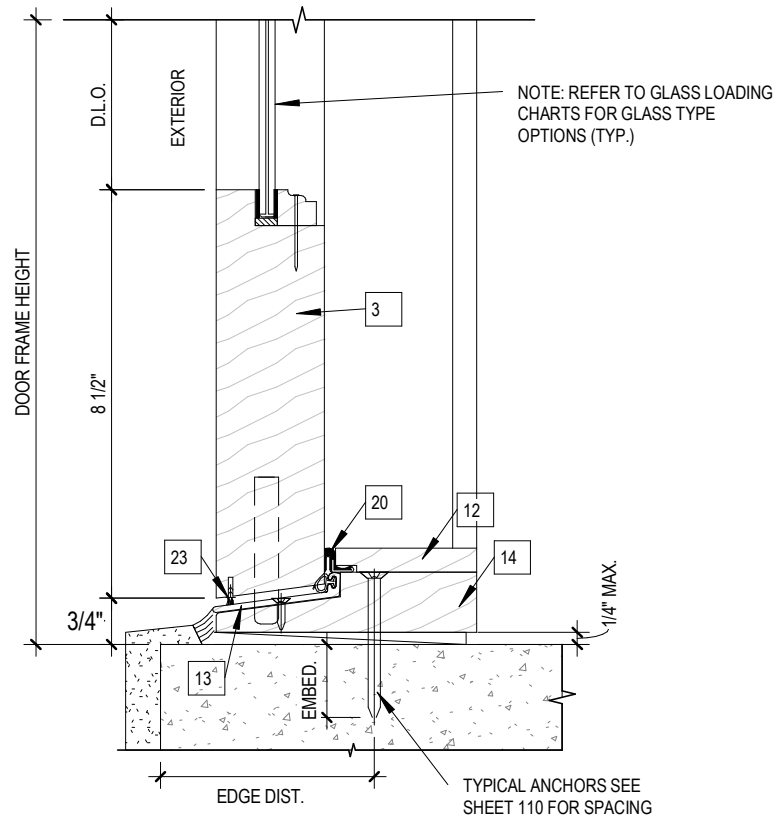
1
106
HEADER DETAIL 1
N.T.S.



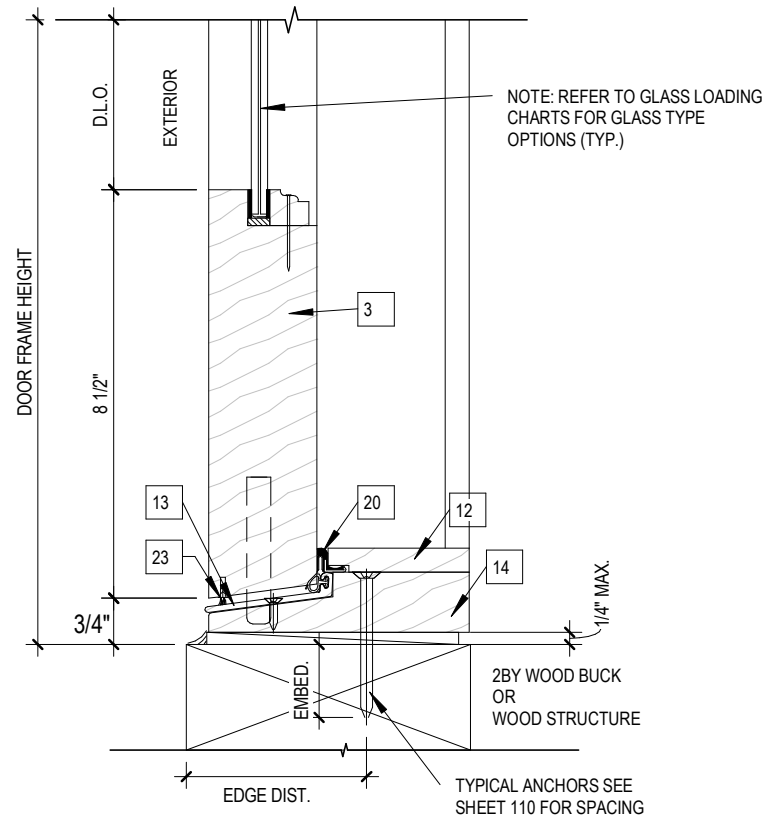
2
106
HEADER DETAIL 2
N.T.S.



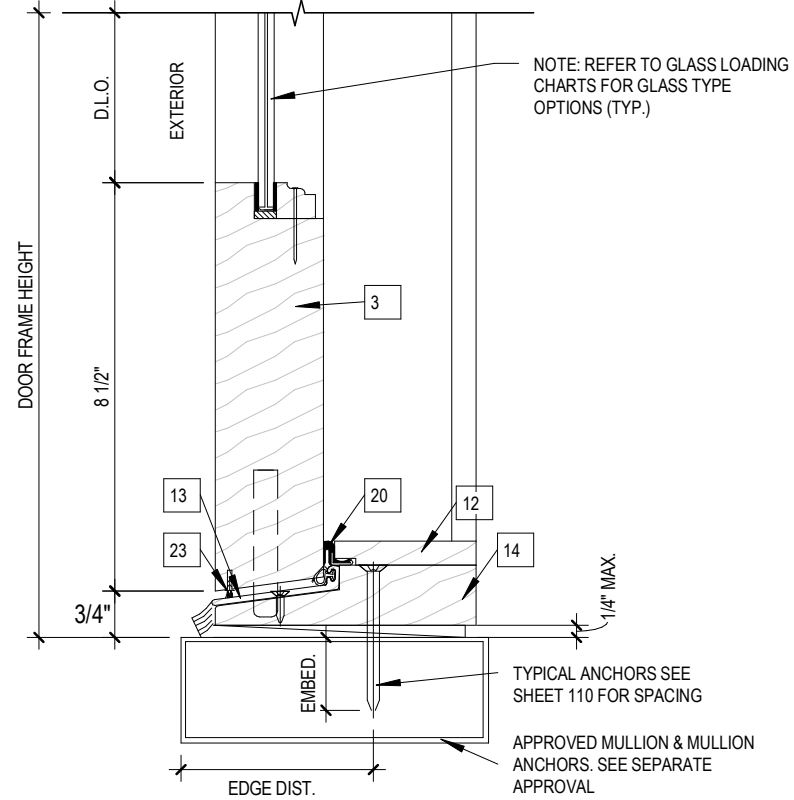
3
106
HEADER DETAIL 3
N.T.S.



4
106
SILL DETAIL 1
N.T.S.



5
106
SILL DETAIL 2
N.T.S.



6
106
SILL DETAIL 3
N.T.S.



JAVAD AHMAD PE, inc

7875 NW 12th St., Suite 102

Doral, FL 33126

Ph: (305) 424-8001

support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

AMERICAN OUTSWING WOOD

PATIO DOOR

(LARGE AND SMALL MISSILE IMPACT RATED)

HARTMAN WINDOWS & DOORS, LLC.

2107 W. BLUE HERON BOULEVARD

WEST PALM BEACH, FL 33404

TELEPHONE: (561) 296-9600

FAX: (561) 296-9601

drawing no.	date:	JA-1425-23	drawn by:	check by:	REVISION			
					No.	DATE	BY	DESCRIPTION
BS				SJ				



Sealed: 04-23-2024

106

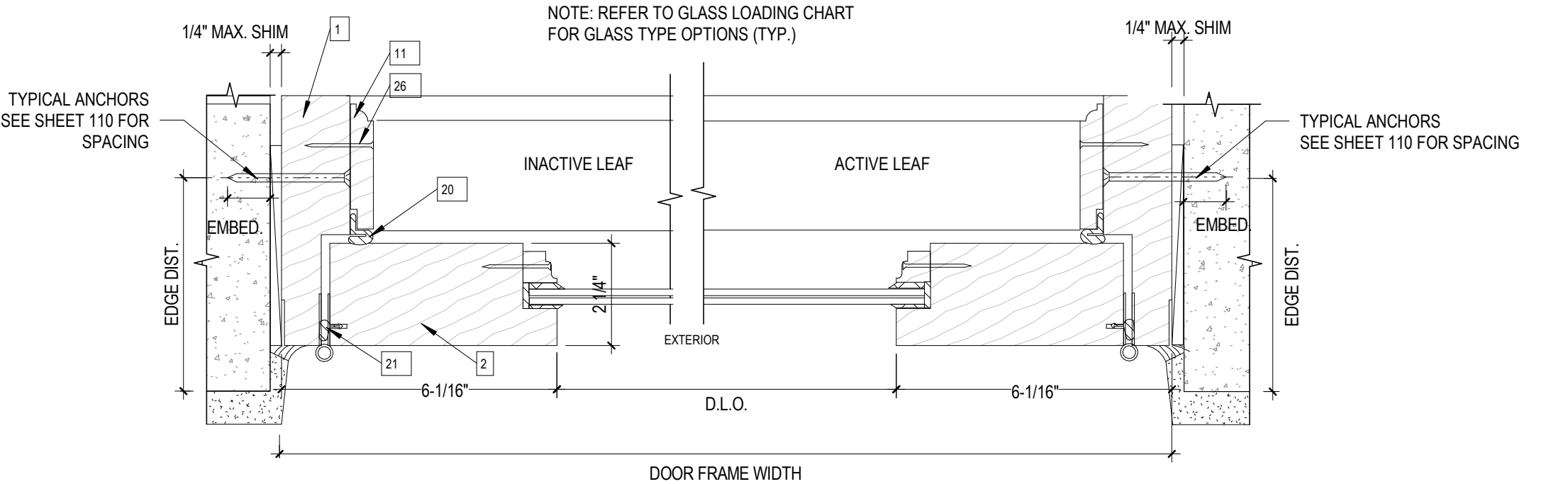
106 OF 114



JAVAD AHMAD PE, inc

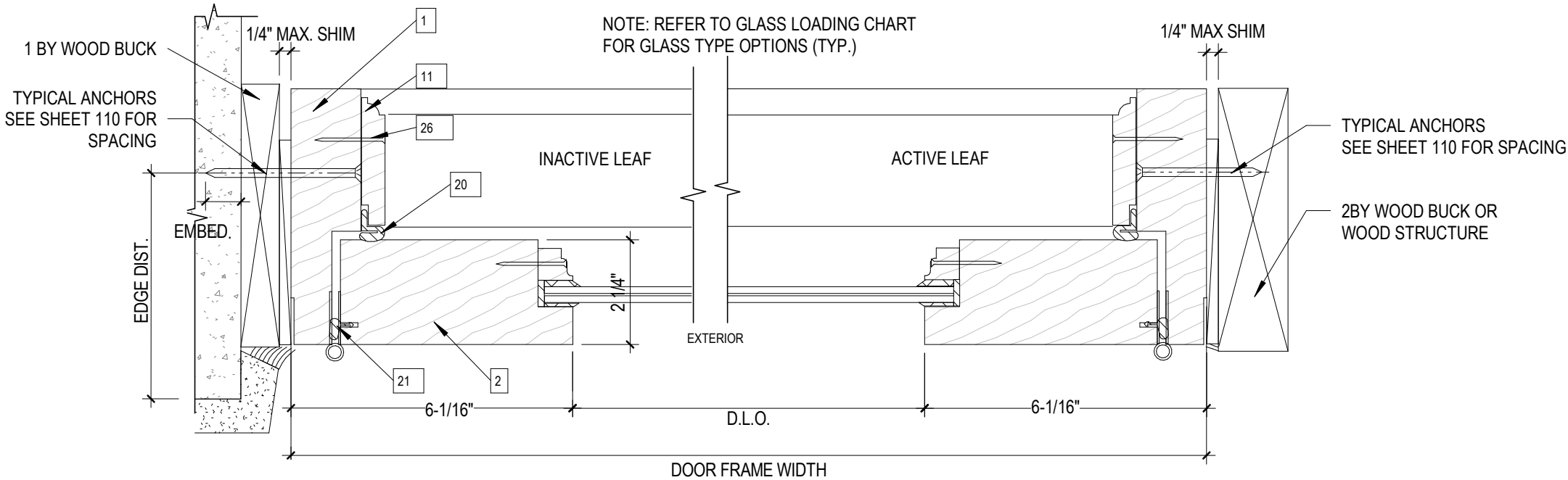
7875 NW 12th St., Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS



1 JAMB DETAIL 1A
107 N.T.S.

2 JAMB DETAIL 1B
107 N.T.S.



3 JAMB DETAIL 2A
107 N.T.S.

4 JAMB DETAIL 2B
107 N.T.S.

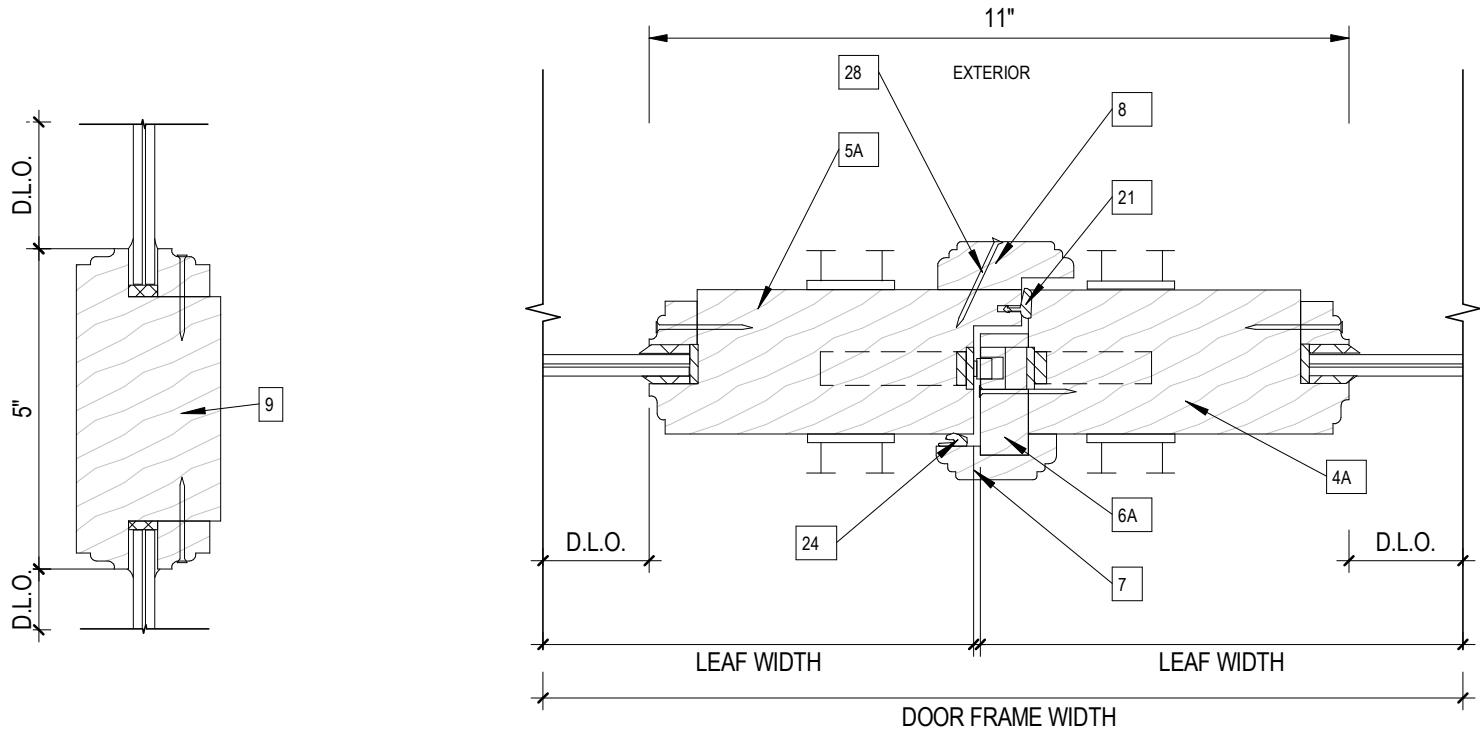
AMERICAN OUTSWING WOOD
PATIO DOOR
(LARGE AND SMALL MISSILE IMPACT RATED)

HARTMAN WINDOWS & DOORS, LLC.
2107 W. BLUE HERON BOULEVARD
WEST PALM BEACH, FL 33404
TELEPHONE: (561) 296-9600
FAX: (561) 296-9601

drawing no.	date:	JA-1425-23	drawn by:	check by:	REVISION			
					No.	DATE	BY	DESCRIPTION

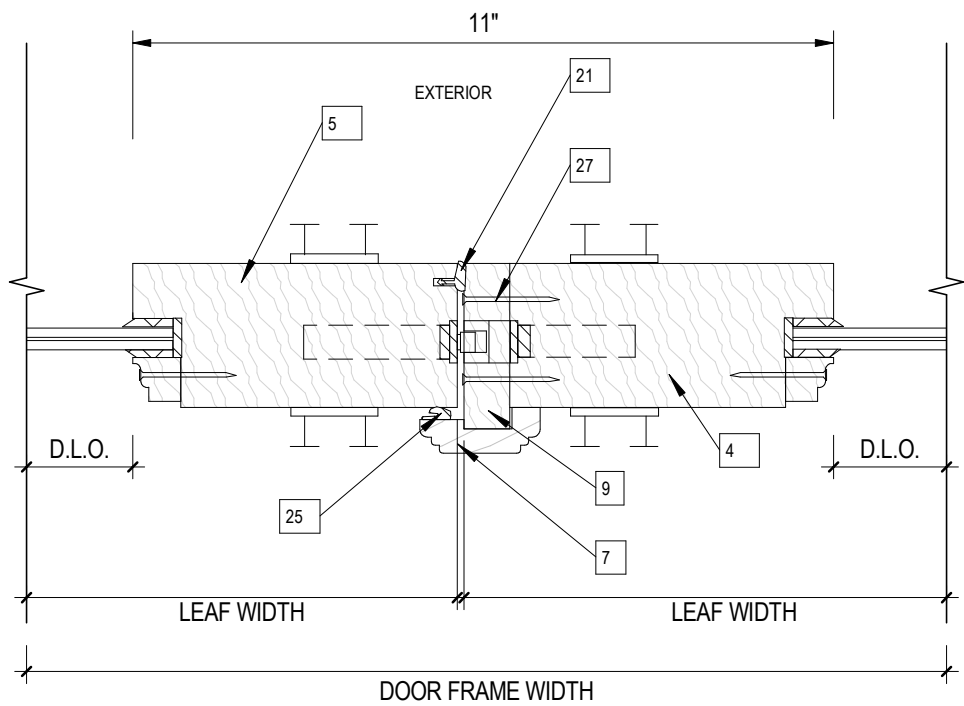


Sealed: 04-23-2024

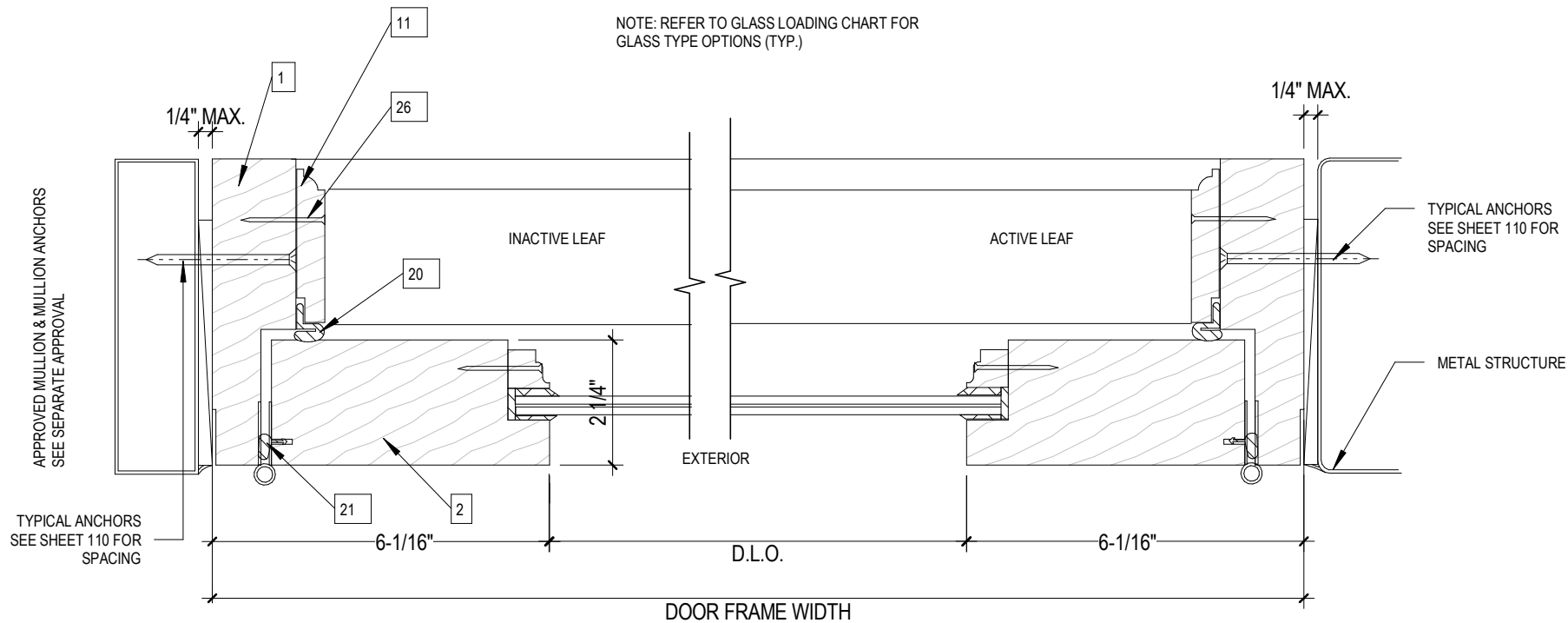


1
108
HORIZONTAL DETAIL
N.T.S.

2
108
INTERLOCK DETAIL 1
N.T.S.



3
108
INTERLOCK DETAIL 2
N.T.S.



4
108
JAMB DETAIL 3A
N.T.S.

5
108
JAMB DETAIL 3B
N.T.S.



JAVAD AHMAD PE, inc
7875 NW 12th St., Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com

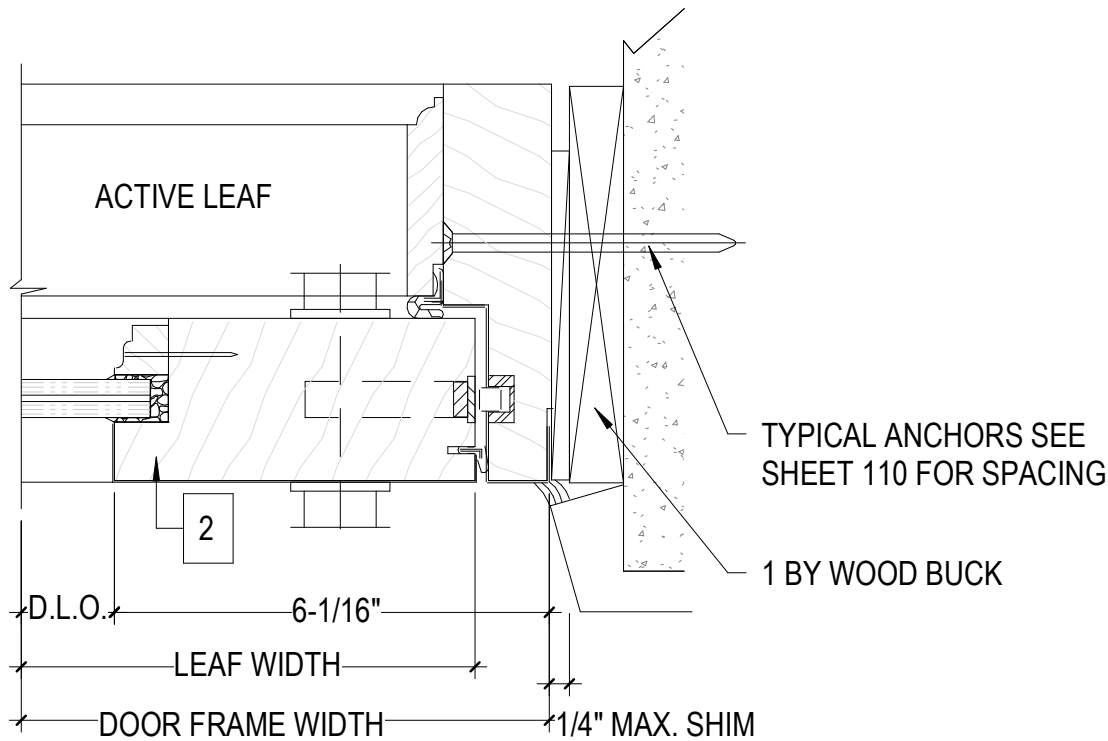
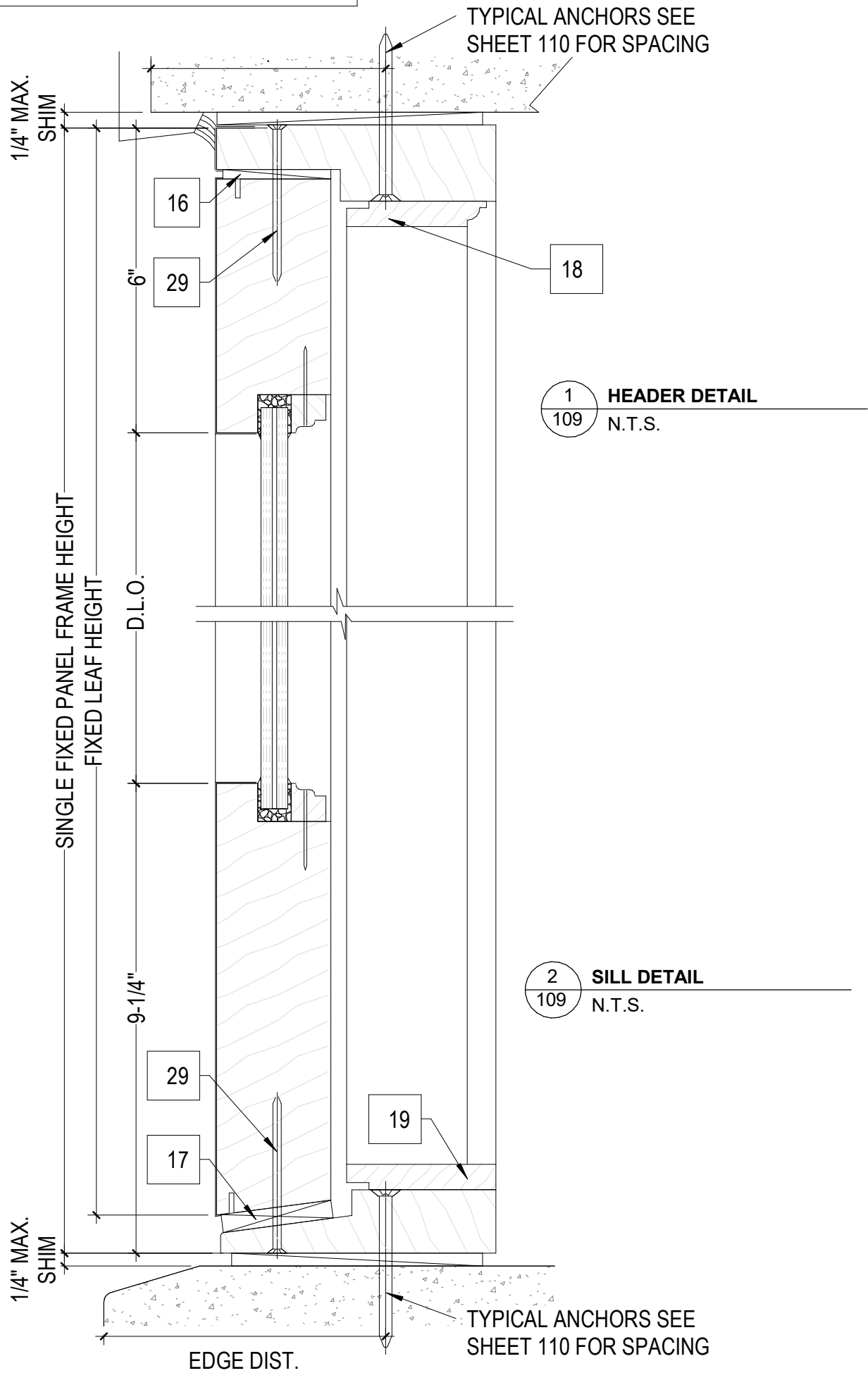
**AMERICAN OUTSWING WOOD
PATIO DOOR**
(LARGE AND SMALL MISSILE IMPACT RATED)

HARTMAN WINDOWS & DOORS, LLC.
2107 W. BLUE HERON BOULEVARD
WEST PALM BEACH, FL 33404
TELEPHONE: (561) 296-9600
FAX: (561) 296-9601

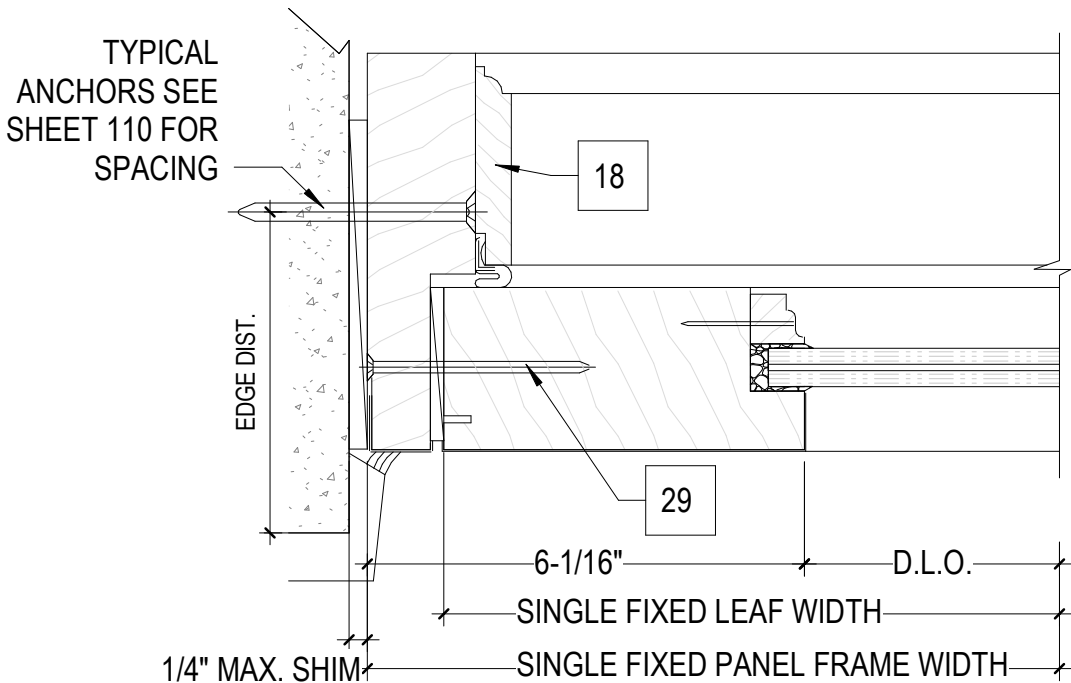
drawing no.	JA-1425-23	drawn by:	BS	check by:	SJ
date:	04-23-2024	REVISION			
No.		DATE	BY	DESCRIPTION	



Sealed: 04-23-2024



3 109 **JAMB DETAIL**
N.T.S.



4 109 **JAMB DETAIL**
N.T.S.



JAVAD AHMAD PE, inc

7875 NW 12th St., Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

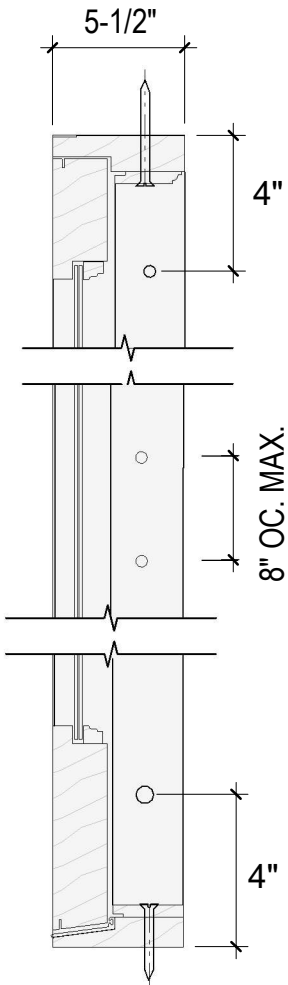
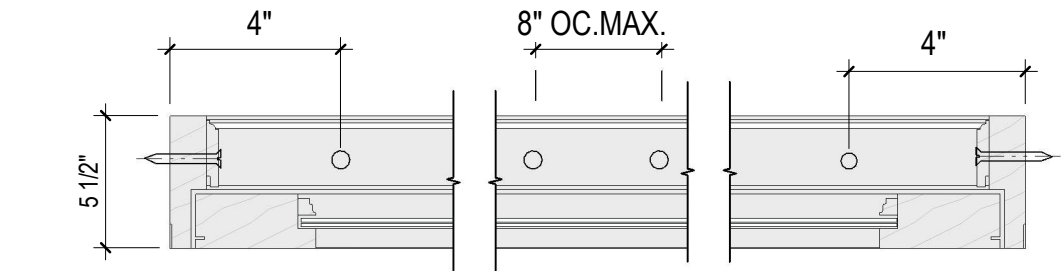
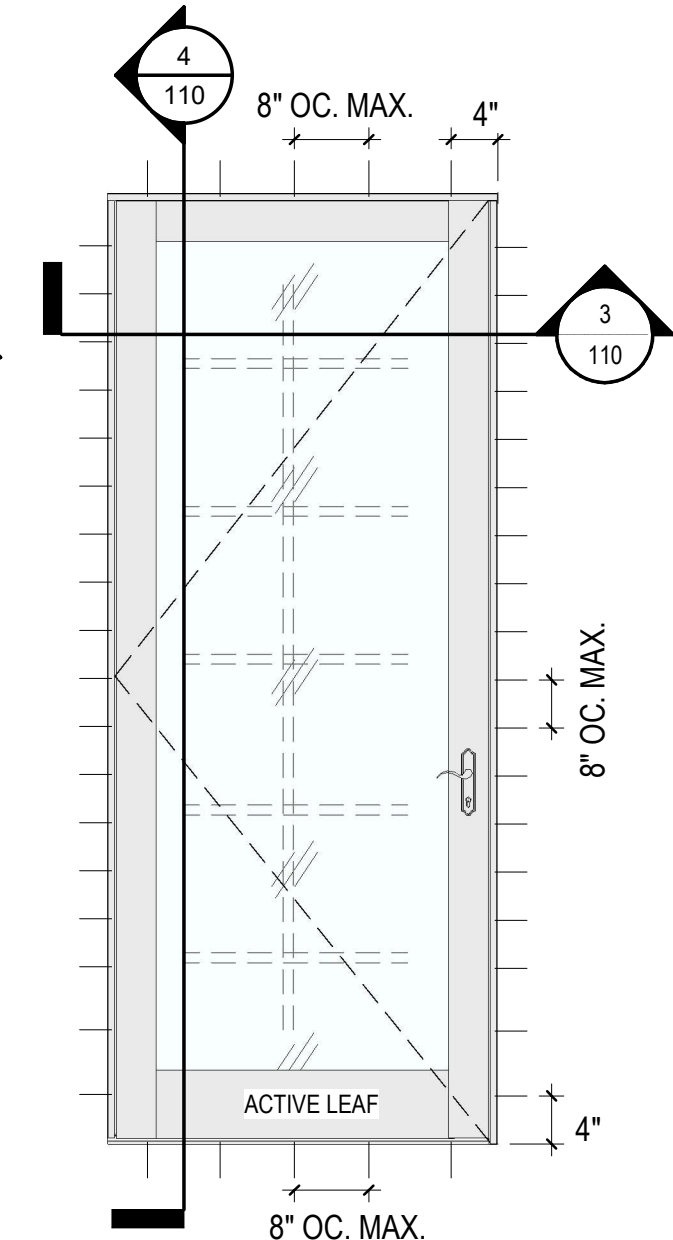
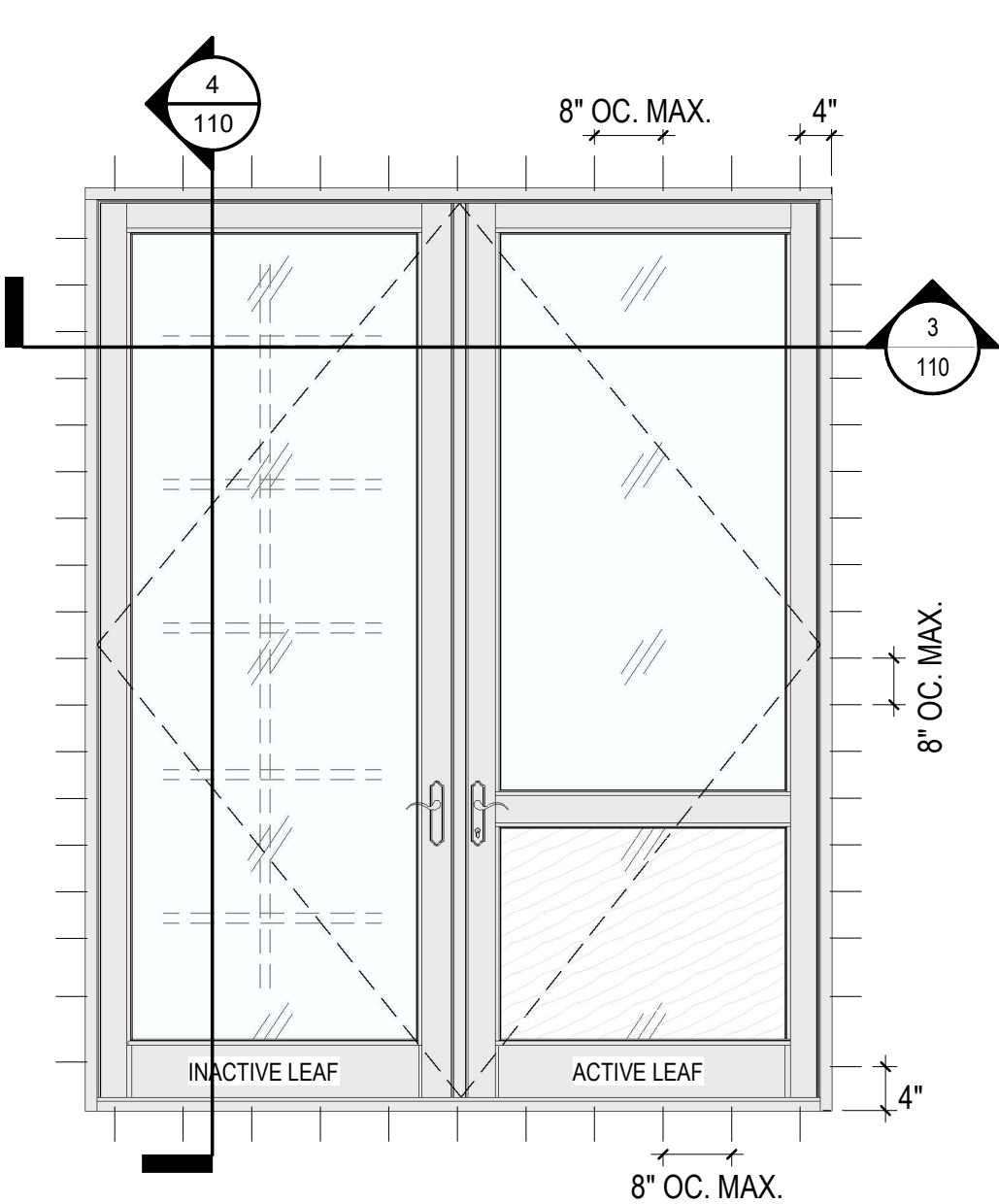
AMERICAN OUTSWING WOOD
PATIO DOOR
(LARGE AND SMALL MISSILE IMPACT RATED)

HARTMAN WINDOWS & DOORS, LLC.
2107 W. BLUE HERON BOULEVARD
WEST PALM BEACH, FL 33404
TELEPHONE: (561) 296-9600
FAX: (561) 296-9601

drawing no.	date:	JA-1425-23 04-23-2024	drawn by: check by:	BS SJ	REVISION			
					No.	DATE	BY	DESCRIPTION



Sealed: 04-23-2024



1
110
DOUBLE DOOR (XX) ELEVATION - ANCHORAGE DETAILS
N.T.S.

2
110
SINGLE DOOR (X) ELEVATION - ANCHORAGE DETAILS
N.T.S.

TYPICAL ANCHOR TYPES
(APPLIES TO ANCHOR GOING THRU THE DOOR FRAME):

TYPE A - 1/4" DEWALT ULTRACON (Fu = 177,000 PSI, Fy = 155,000 PSI)
INTO 2BY WOOD* WITH 1-1/2" MIN EMBEDMENT, AND 1-1/4" MIN EDGE DISTANCE

THRU 1BY WOOD INTO CONCRETE, OR HOLLOW/GROUT FILLED MASONRY* WITH 1-3/4" EMBEDMENT, AND 2-1/2" MIN EDGE DISTANCE

DIRECTLY INTO CONCRETE, OR HOLLOW/GROUT FILLED MASONRY* WITH 1-3/4" EMBEDMENT, AND 2-1/2" MIN EDGE DISTANCE

NOTE:

FOR INSTRUCTIONS TO ANCHOR THIS PRODUCT USING CLIPS, STRAPS, OR ANGLES, PLEASE REFER TO PAGES 111 FOR DETAILS REGARDING THE ANCHOR TYPE AND SPACING.

TYPE B - 1/4" "TEKS" SCREWS* SMS OR SDS (GRADE 5 MIN)
INTO ALUMINUM / STEEL* WITH 5 PITCHES PASSED THE THREAD PLANE, AND 1" MIN EDGE DISTANCE

INTO APPROVED MULLIONS* WITH 5 PITCHES PASSED THE THREAD PLANE, AND 3/4" MIN EDGE DISTANCE

ANCHOR / SUBSTRATE NOTES:

- WOOD AT HEAD, SILL OR JAMBS IS SOUTHERN YELLOW PINE #2 (SG=0.55 MIN.)
- CONCRETE AT HEAD, SILL OR JAMBS f_c= 3000 PSI
- HOLLOW/GROUT FILLED MASONRY UNITS AT JAMBS f_m= 2000 PSI
- STEEL (1/8" THICK, A36 MIN) AT HEAD, SILL OR JAMBS
- ALUMINUM (1/8" THICK, 6063-T6 MIN) AT HEAD, SILL OR JAMBS
- #14 316 SS SMS OR SDS IS PERMITTED TO BE SUBSTITUTED WITH TEKS SCREWS

4
110
JAMB ANCHOR LAYOUT
N.T.S.



JAVAD AHMAD PE, inc

7875 NW 12th St., Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

AMERICAN OUTSWING WOOD
PATIO DOOR
(LARGE AND SMALL MISSILE IMPACT RATED)

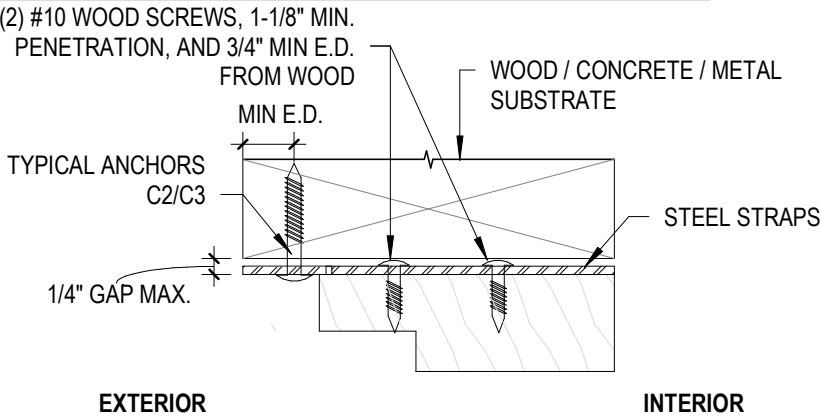
HARTMAN WINDOWS & DOORS, LLC.
2107 W. BLUE HERON BOULEVARD
WEST PALM BEACH, FL 33404
TELEPHONE: (561) 296-9600
FAX: (561) 296-9601

drawing no.	date:	JA-1425-23	drawn by:	check by:	04-23-2024	REVISION			
						No.	DATE	BY	DESCRIPTION

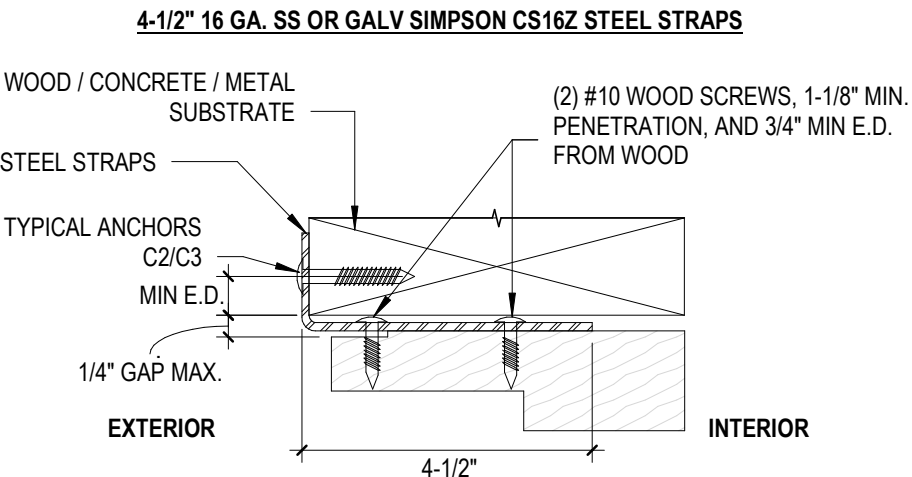


Sealed: 04-23-2024

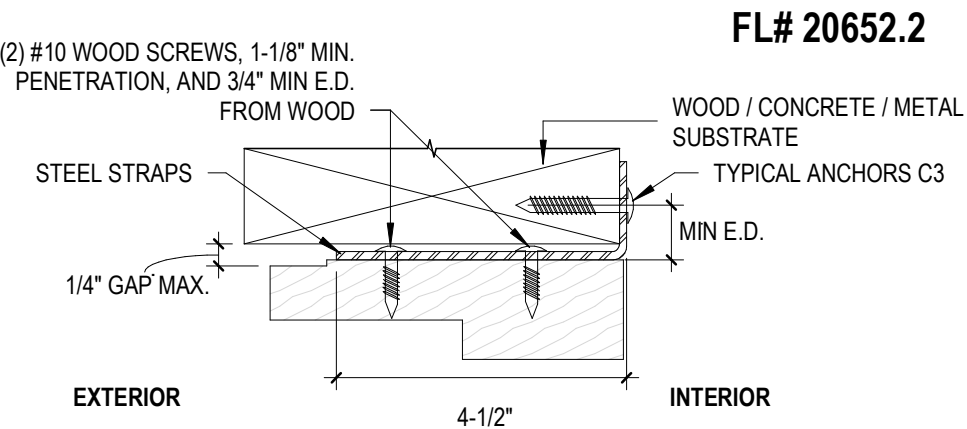
ALTERNATE ANCHORING



1
111
EXTERIOR FLAT STRAP
N.T.S

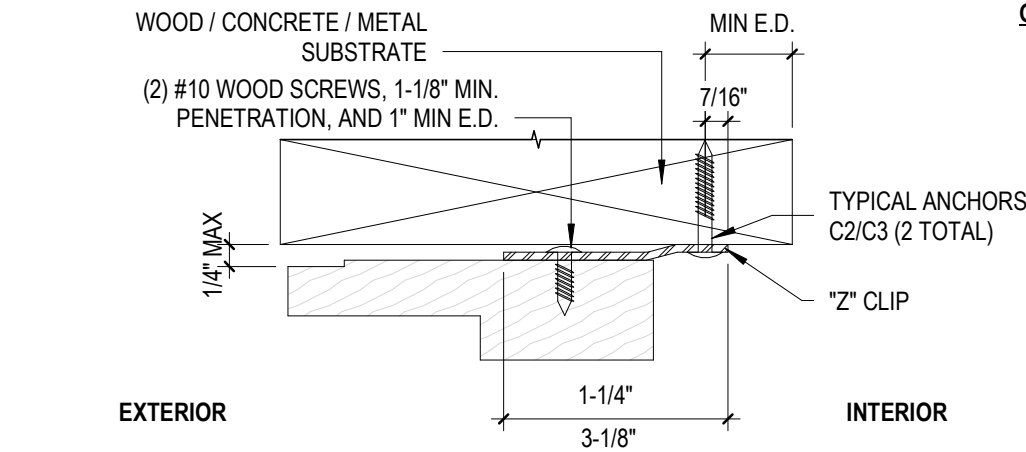


2
111
EXTERIOR BENT STRAP
N.T.S



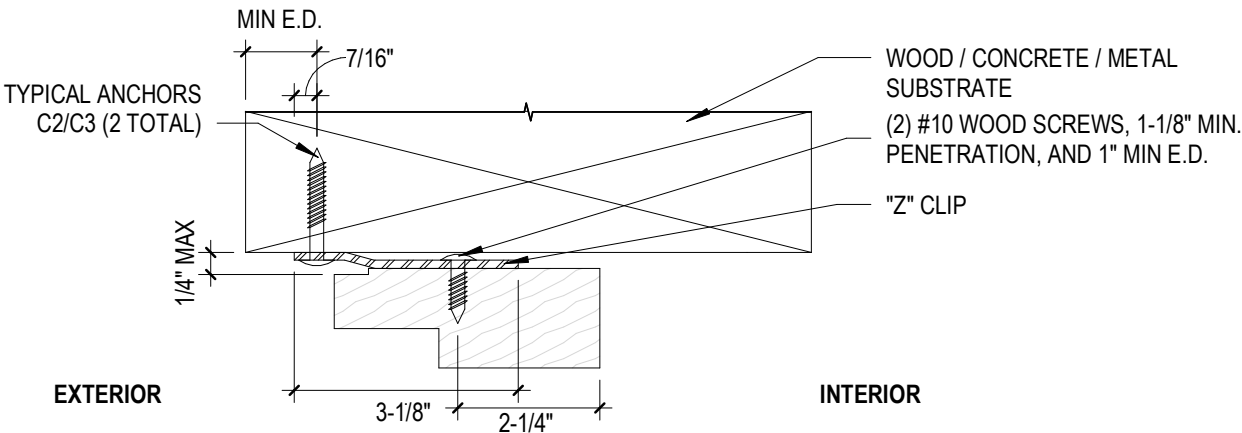
3
111
INTERIOR BENT STRAP
N.T.S

FL# 20652.2



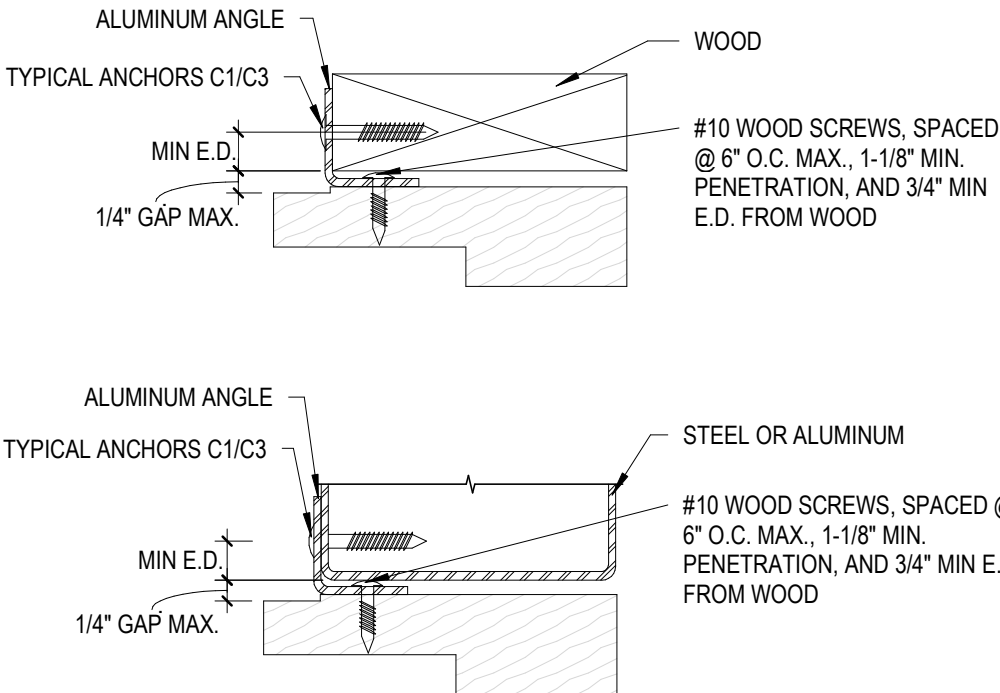
4
111
INTERIOR Z-CLIP STRAP
N.T.S

GALVANIZED STEEL "Z" CLIP (14 GA)



5
111
EXTERIOR Z-CLIP STRAP
N.T.S

1-1/2" X 1-1/2" X 1/8" ALUMINUM ANGLE (CONT.)



TYPICAL ANCHOR TYPES

TYPE C1 - 1/4" DEWALT ULTRACON (Fu = 177,000 PSI, Fy = 155,000 PSI)

- INTO 2BY WOOD WITH 1-1/2" MIN EMBEDMENT, AND 3/4" MIN EDGE DISTANCE

TYPE C2 - 1/4" DEWALT ULTRACON (Fu = 177,000 PSI, Fy = 155,000 PSI)

- INTO 2BY WOOD WITH 1-1/2" MIN EMBEDMENT, AND 3/4" MIN EDGE DISTANCE
- DIRECTLY INTO CONCRETE, OR HOLLOW/GROUT FILLED MASONRY* WITH 1-3/4" EMBEDMENT, AND 2-1/2" MIN EDGE DISTANCE

TYPE C3 - #12 SMS OR SDS (GRADE 5 MIN/316 SS)

- INTO ALUMINUM / STEEL WITH 5 PITCHES PASSED THE THREAD PLANE, AND 3/4" MIN EDGE DISTANCE
- INTO APPROVED MULLIONS WITH 5 PITCHES PASSED THE THREAD PLANE, AND 3/4" MIN EDGE DISTANCE
- INTO 2BY WOOD WITH 1-1/2" MIN ENGAGEMENT, AND 3/4" MIN EDGE DISTANCE

SUBSTRATE NOTES:

- WOOD AT HEAD, SILL OR JAMBS IS SOUTHERN YELLOW PINE #2 (SG=0.55 MIN.)
- CONCRETE AT HEAD, SILL OR JAMBS f'c= 3000 PSI
- HOLLOW/GROUT FILLED MASONRY UNITS AT JAMBS f'm= 2000 PSI
- STEEL (1/8" THICK, A36 MIN) AT HEAD, SILL OR JAMBS
- ALUMINUM (1/8" THICK, 6063-T6 MIN) AT HEAD, SILL OR JAMBS

NOTE:

CONTRACTOR SHALL BE RESPONSIBLE FOR INSULATING ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS (EXAMPLE: STEEL WITH ALUMINUM)

ANCHOR LAYOUT / SPACING:

FOR 1-1/2" X 1-1/2" X 1/8" ALUMINUM ANGLE (CONT.)-

- ANCHORS C1/C2/C3 SHALL BE PLACED AT-
- MAX. 6" O.C. SPACING
- MAX. 3" FROM UNIT CORNER FOR HEAD
- MAX. 4" FROM UNIT CORNER FOR JAMB

FOR GALVANIZED STEEL "Z" CLIP (14 GA) OR 4-1/2" 16 GA. SS OR GALV SIMPSON CS16Z STEEL STRAPS-

ANCHORS C1/C2/C3 SHALL BE PLACED AS PER ANCHOR LAYOUT SHOWN ON SHEET 111

THE STEEL CLIPS SHALL BE PLACED AT-

- MAX. 8" O.C. SPACING
- MAX. 3" FROM UNIT CORNER FOR HEAD
- MAX. 4" FROM UNIT CORNER FOR JAMB



JAVAD AHMAD PE, inc

7875 NW 12th St., Suite 102

Doral, FL 33126

Ph: (305) 424-8001

support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

AMERICAN OUTSWING WOOD

PATIO DOOR

(LARGE AND SMALL MISSILE IMPACT RATED)

HARTMAN WINDOWS & DOORS, LLC.

2107 W. BLUE HERON BOULEVARD

WEST PALM BEACH, FL 33404

TELEPHONE: (561) 296-9600

FAX: (561) 296-9601

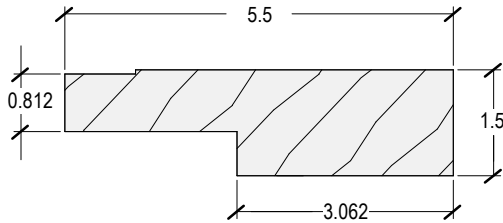
drawing no.	date:	JA-1425-23	drawn by:	check by:	BS	SJ	REVISION	DESCRIPTION	BY	DATE	No.						



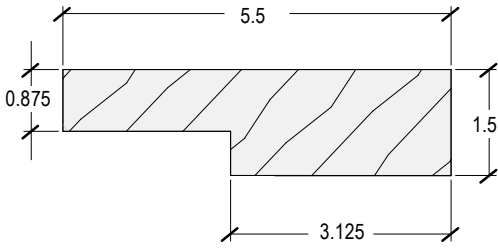
Sealed: 04-23-2024

PARTS LIST

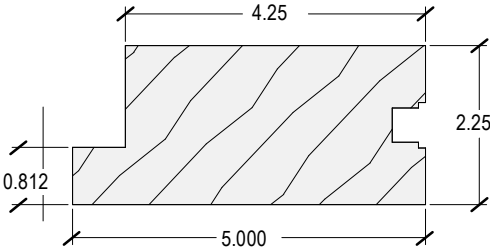
NOTE: ALL DIMENSIONS ARE IN INCHES



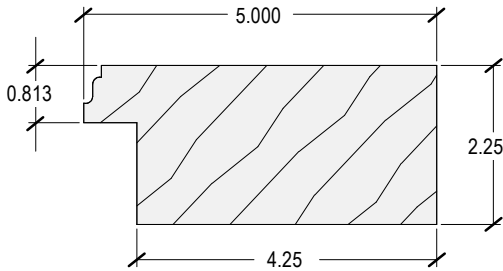
1 FRAME HEAD / JAMB



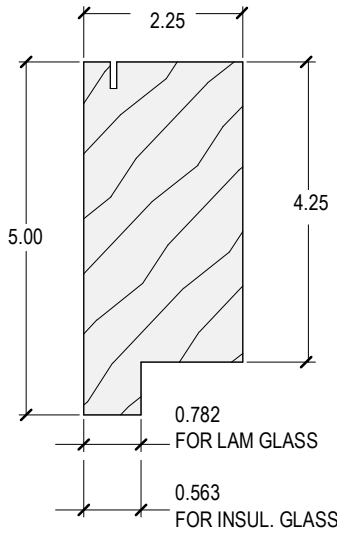
1A HEAD FRAME / JAMB



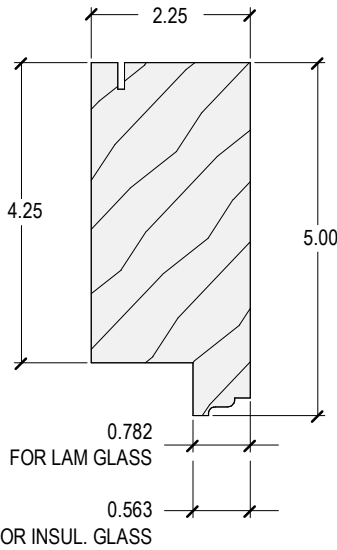
4 INACTIVE LEAF MTG. STILE



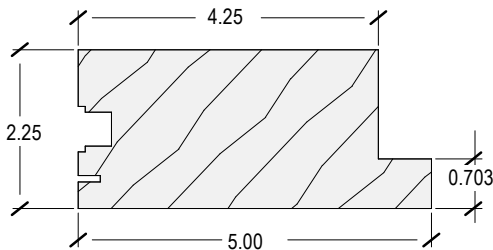
4A INACTIVE LEAF MTG. STILE



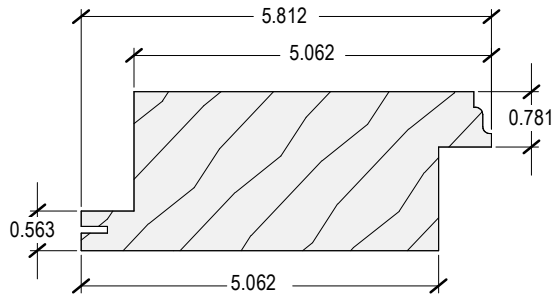
2 TOP RAIL / HINGE / STILE / LOCK STILE



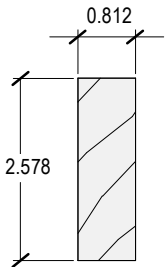
2A TOP RAIL / HINGE / STILE / LOCK STILE



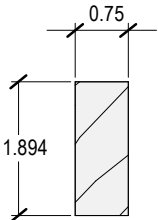
5 ACTIVE LEAF MTG. STILE



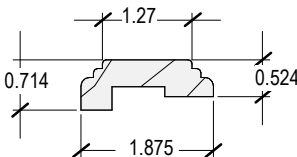
5A ACTIVE LEAF MTG. STILE



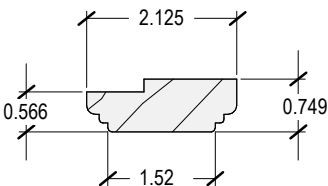
6 ASTRAGAL W/O EXTERNAL COVER



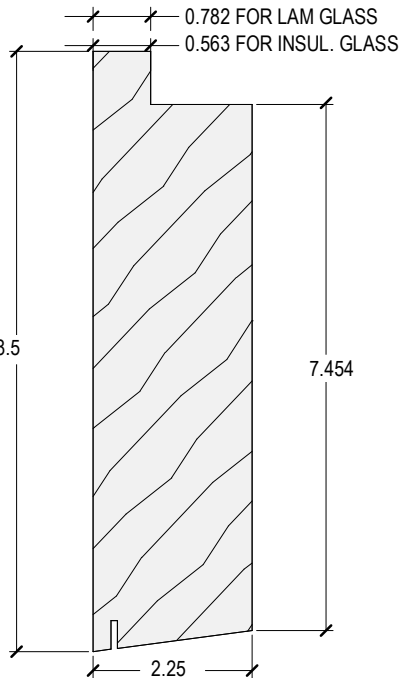
6A ASTRAGAL W/ EXTERNAL COVER



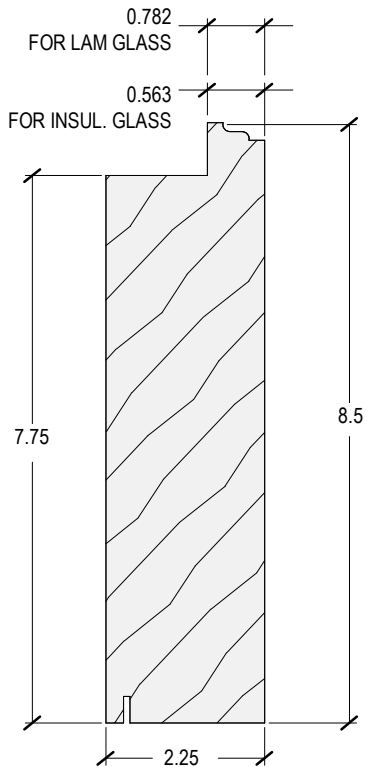
7 ASTRAGAL COVER INTERIOR



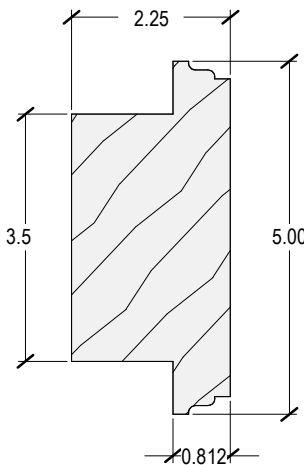
8 ASTRAGAL COVER EXTERIOR



3 BOTTOM RAIL



3A BOTTOM RAIL



9 MID RAIL / STILE

FL# 20652.2



JAVAD AHMAD PE, inc

7875 NW 12th St., Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

AMERICAN OUTSWING WOOD

PATIO DOOR

(LARGE AND SMALL MISSILE IMPACT RATED)

HARTMAN WINDOWS & DOORS, LLC.

2107 W. BLUE HERON BOULEVARD
WEST PALM BEACH, FL 33404
TELEPHONE: (561) 296-9600
FAX: (561) 296-9601

drawing no.	JA-1425-23	drawn by:	BS	check by:	SJ
date:	04-23-2024	revision	by	date	description
		No.			

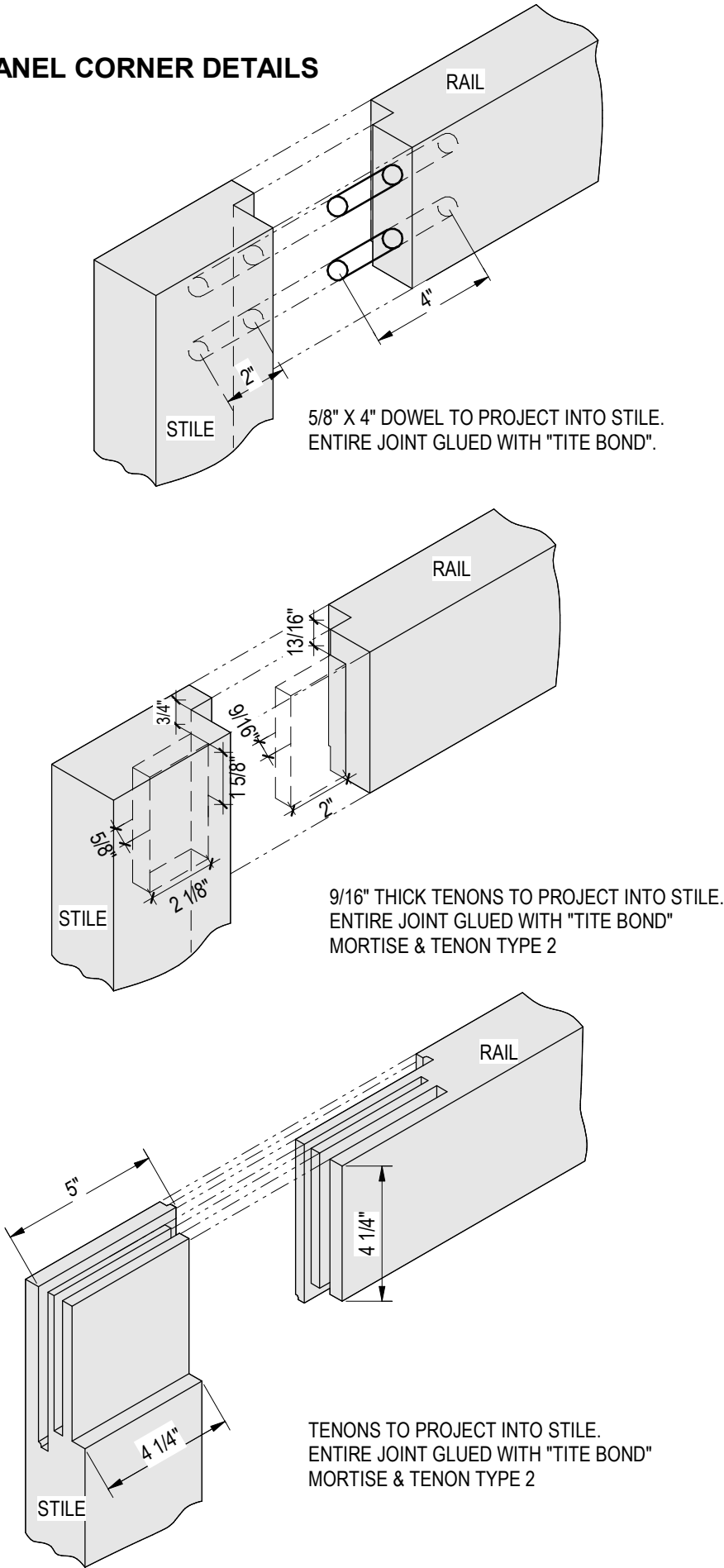


Sealed: 04-23-2024

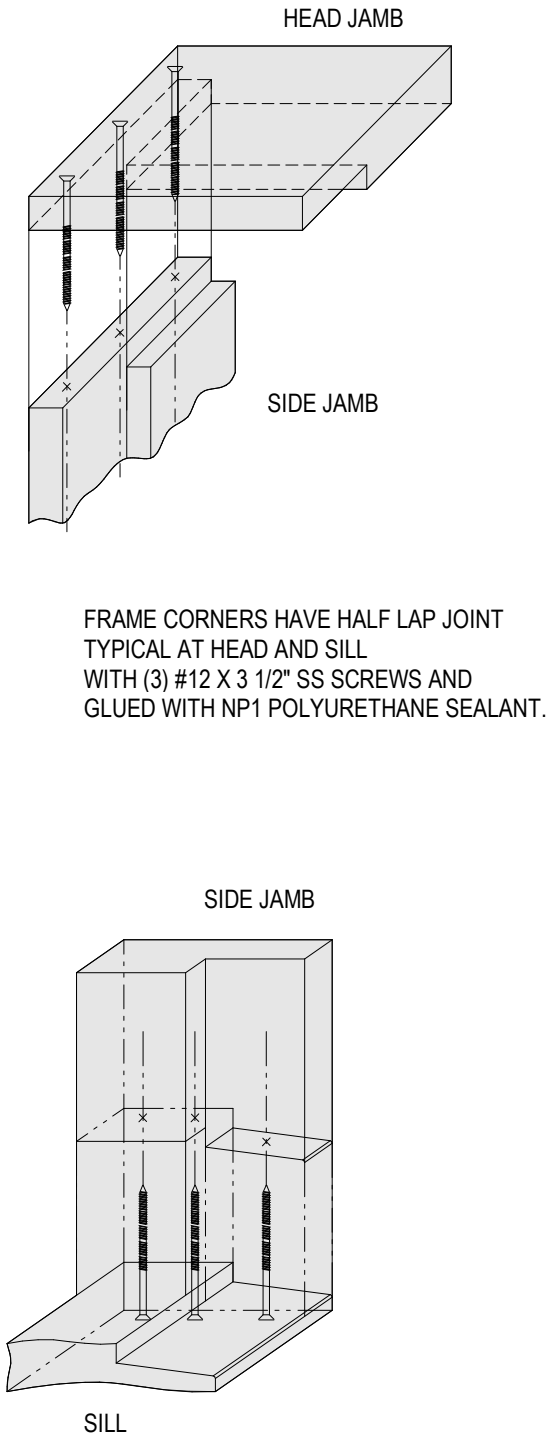
112

112 OF 114

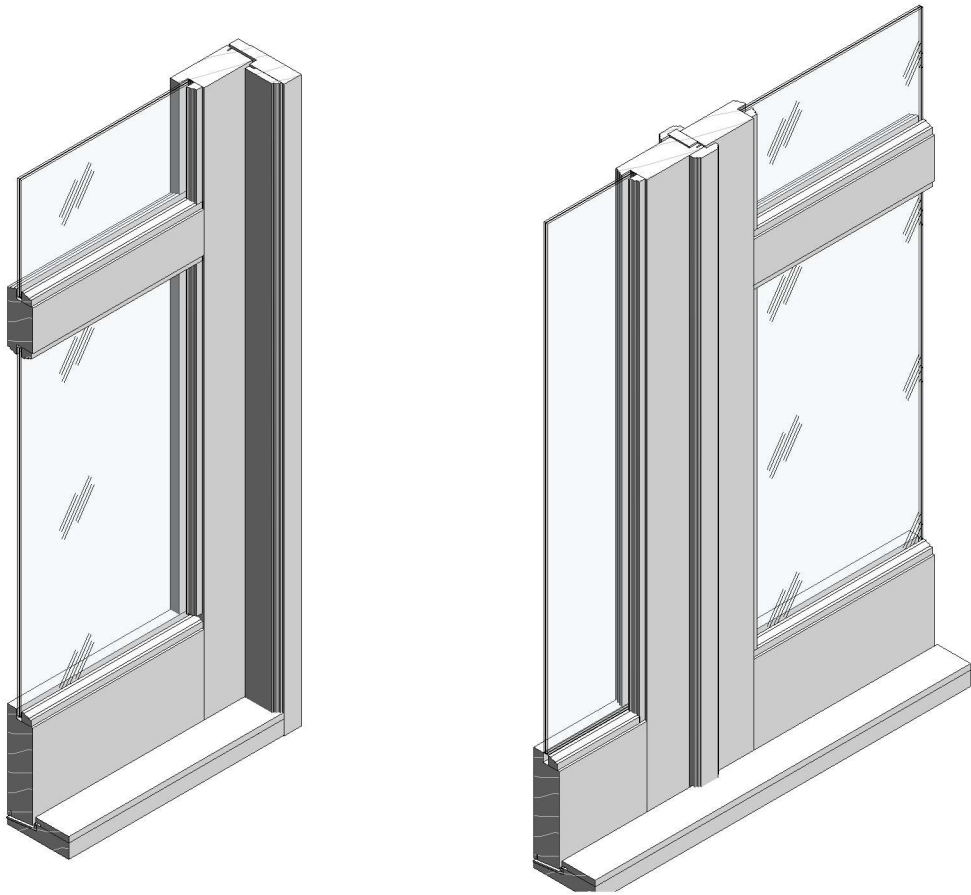
PANEL CORNER DETAILS



FRAME CORNER DETAILS



SECTIONAL DETAILS



JAVAD AHMAD PE, inc
7875 NW 12th St., Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com

**AMERICAN OUTSWING WOOD
PATIO DOOR**
(LARGE AND SMALL MISSILE IMPACT RATED)

HARTMAN WINDOWS & DOORS, LLC.
2107 W. BLUE HERON BOULEVARD
WEST PALM BEACH, FL 33404
TELEPHONE: (561) 296-9600
FAX: (561) 296-9601

drawing no.	date:	JA-1425-23	drawn by:	04-23-2024	check by:	REVISION			
						No.	DATE	BY	DESCRIPTION



Sealed: 04-23-2024