

ALUMINUM WALL PANEL SYSTEM

LARGE MISSILE IMPACT

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GENERAL NOTES

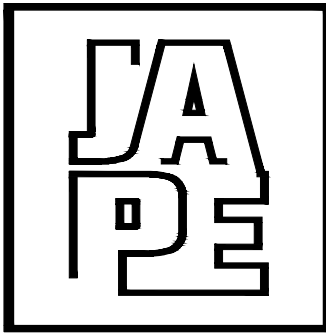
1. THIS SYSTEM PRESENTED HEREIN HAS UNDERGONE DESIGN AND TESTING IN FULL COMPLIANCE WITH THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) AND IS INTENDED FOR USE IN HIGH VELOCITY HURRICANE ZONE PER TAS 201/202/203.
2. THE DESIGN PRESSURES OUTLINED IN THIS DOCUMENT ARE DERIVED FROM MAXIMUM TESTED PRESSURES AND INCORPORATE A 1.5 SAFETY FACTOR.
3. THE PRESSURES PROVIDED IN THIS CERTIFICATION ARE DETERMINED USING THE ALLOWABLE STRESS DESIGN METHOD (ASD).
4. 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.
5. 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.
6. 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.

7. 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.
8. THE CONTRACTOR IS ACCOUNTABLE FOR INSULATING ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS (E.G., STEEL WITH ALUMINUM).
9. THE SUBSTITUTION OF FASTENERS DESCRIBED IN THIS CERTIFICATION IS PERMISSIBLE, PROVIDED THE ALTERNATIVE ANCHOR EXHIBITS STRENGTH EQUAL TO OR GREATER THAN THE ORIGINALLY SPECIFIED FINAL APPROVAL OF SUBSTITUTED ANCHORS SHALL BE GRANTED BY RELEVANT AUTHORITIES.
10. THE WOOD SCREWS REFERENCED IN THIS CERTIFICATION MUST MEET A MINIMUM GRADE OF 2 (FU = 74,000 PSI).
11. 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.
12. NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED BEYOND WHAT IS EXPRESSLY PROVIDED IN THIS DOCUMENT.

13. ALTERATIONS, ADDITIONS, OR ANY MARKINGS TO THIS DOCUMENT ARE STRICTLY PROHIBITED AND WILL INVALIDATE THIS CERTIFICATION.
14. PROPER SAFETY MEASURES MUST BE OBSERVED DURING THE INSTALLATION AND USE OF THIS SYSTEM, EVEN THOUGH THEY ARE NOT EXPLICITLY LISTED IN THIS CERTIFICATION.
15. EACH PRODUCT SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER SYSTEM, CONTAINING THE FOLLOWING REQUIRED INFORMATION:
ALOYD LLC.
1200 BRICKELL AVENUE
SUITE 1480 MIAMI, FL 33131.
PHONE: 888.969.0191

THIS PRODUCT IS APPROVED FOR IMPACT RESISTANT LEVEL 'D'

FL# 48087



JAVAD AHMAD PE, inc

7875 NW 12 Street, Suite 102
Doral, FL 33126
Ph: (305) 424-8001

support@ja-pe.com
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING
ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

PROJECT :

ALUMINUM WALL PANEL SYSTEM

CLIENT :

ALLOYD LLC.

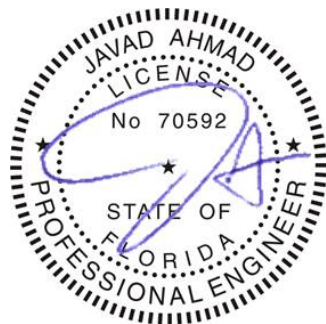
1200 BRICKELL AVENUE
SUITE 1480 MIAMI, FL 33131

REVISION

No.	DATE	BY	DESCRIPTION
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drawn by:	M.S.
check by:	
Drawing no.	JA-1550-25

Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 342



SEALED: 02-27-2026

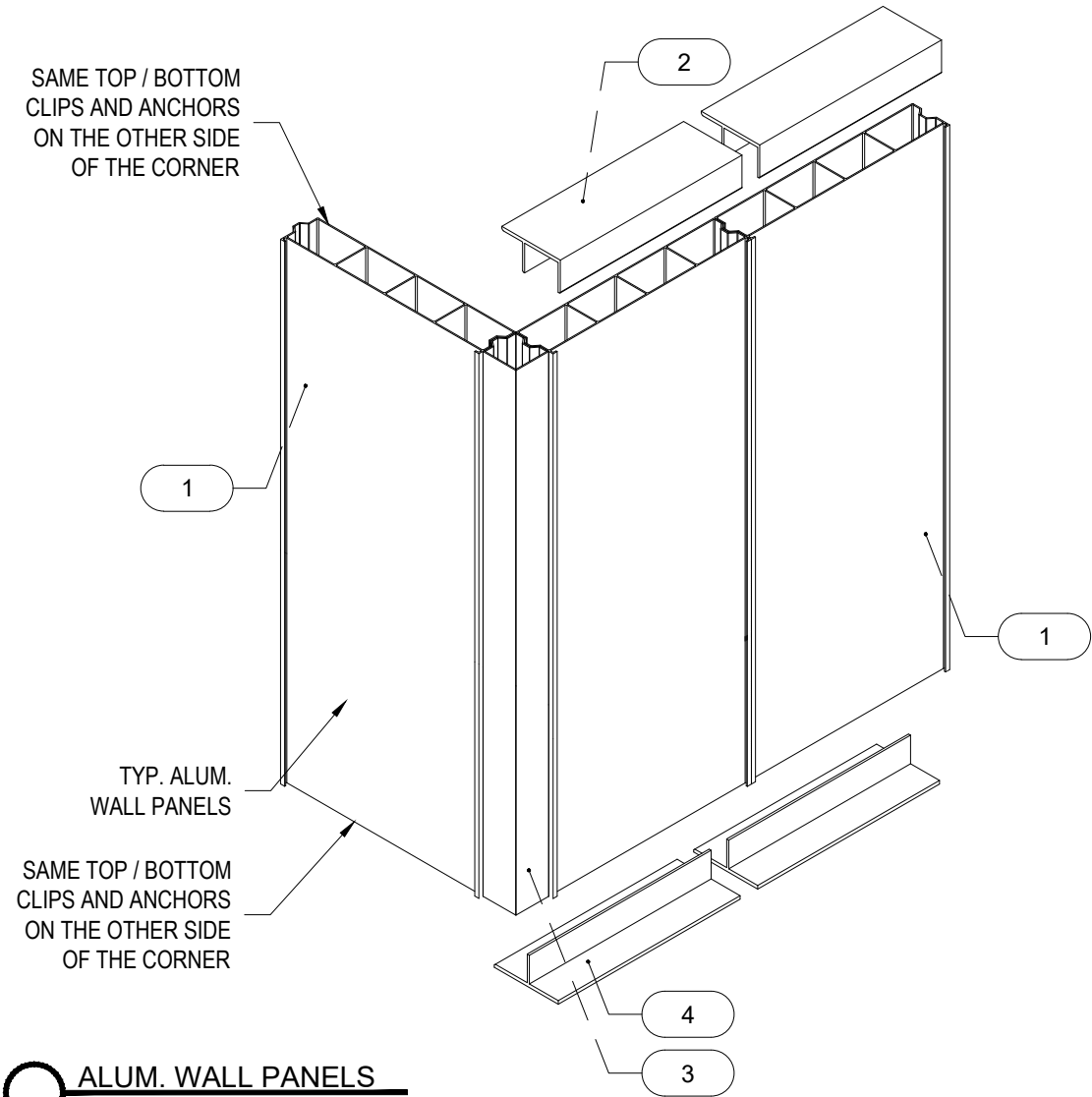
COVER PAGE

SHEET No
01 OF 08

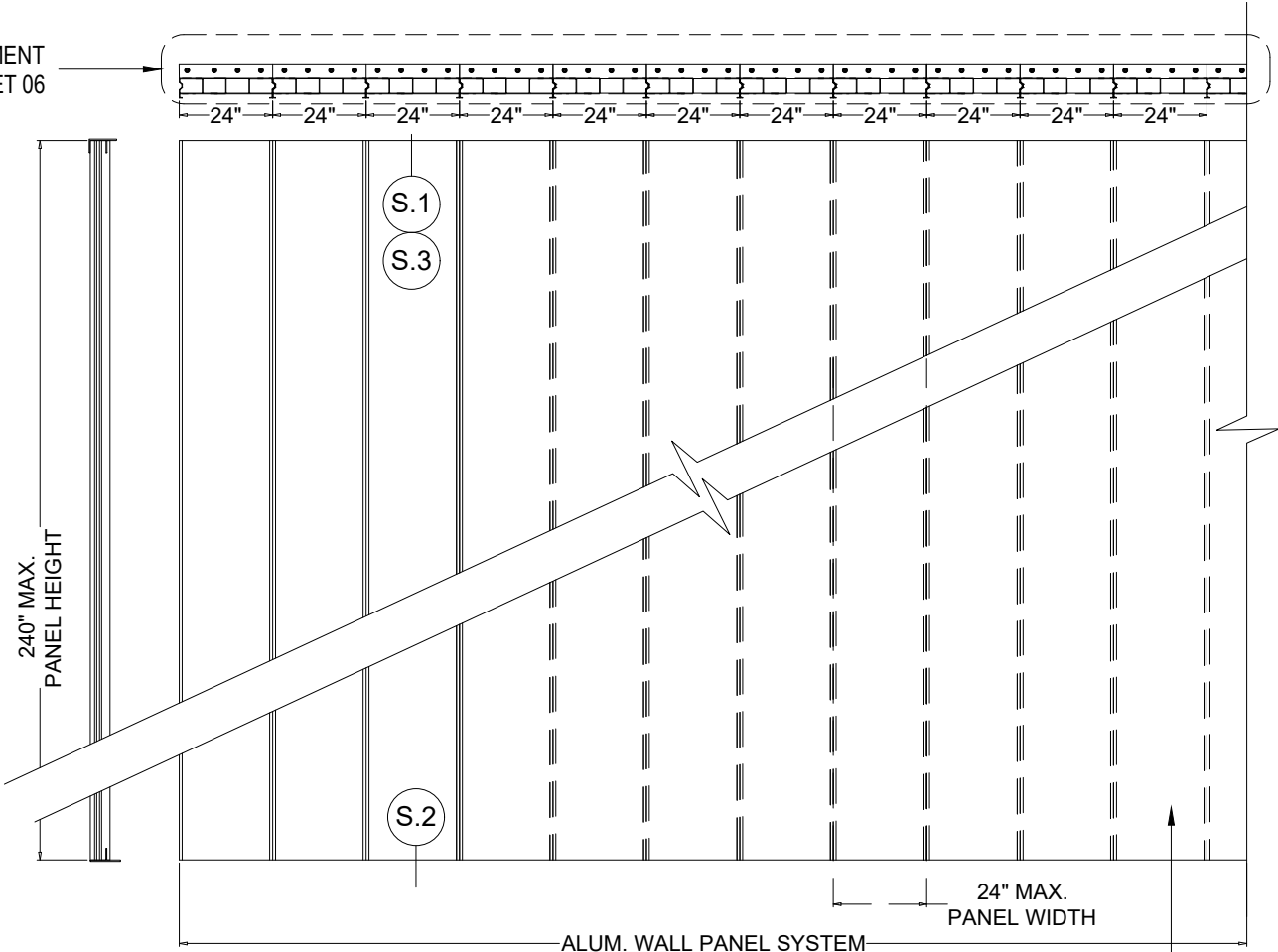
GENERAL NOTES:

PRODUCT COMPLIES WITH REQUIREMENTS OF ANSI Z97.1.
THIS SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT.
SHUTTERS ARE NOT REQUIRED.
WINDOW WALL FRAMES MAY BE WITH OR WITHOUT THERMAL BREAK.

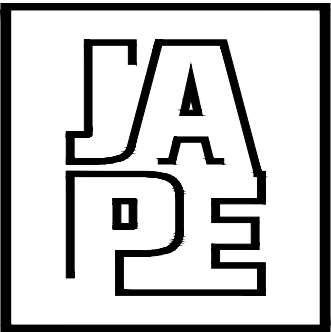
- A. CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.
- B. THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
- C. SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A LICENSED 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. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
- D. THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.



TYP. ANCHORS, SEE PLACEMENT AND SPACING AS PER SHEET 06



ALUM. WALL PANELS ELEVATION VIEW



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CIVIL FLA. PE # 70592 – C.A.N. 34254



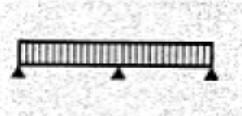
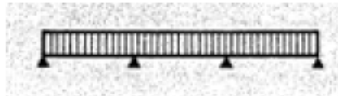
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TYP. ELEVATION

SHEET No.
2A OF 08

FL# 48087

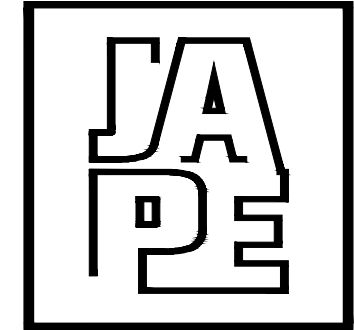
PRESSURE CHARTS:

Allowable area load (PSF) for Roof panel Type 2 out of plane																											
Maximum allowable deflection L/180. Full loaded (ASD)																											
support	Span (ft)																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
2	200	200	200	200	181	147	122	101	85	73	62	54	47	41	36	32	28	25	23	20	18	17	15	14	13	12	
3	200	200	200	200	200	200	200	200	200	175	150	129	113	99	87	77	68	61	55	49	44	40	37	33	31	28	
4(+)	200	200	200	200	200	200	200	191	161	137	117	101	88	77	68	60	53	48	43	39	35	32	29	26	24	22	
Maximum allowable deflection L/240. Full loaded (ASD)																											
support	Span (ft)																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
2	200	200	200	170	136	111	91	76	64	54	47	40	35	31	27	24	21	19	17	15	14	13	11	10	9	9	
3	200	200	200	200	200	200	200	183	154	131	112	97	84	74	65	58	51	46	41	37	33	30	27	25	23	21	
4(+)	200	200	200	200	200	200	172	143	121	103	88	76	66	58	51	45	40	36	32	29	26	24	21	20	18	16	
Maximum allowable deflection L/360. Full loaded (ASD)																											
support	Span (ft)																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
2	200	187	144	113	91	74	61	51	43	36	31	27	23	20	18	16	14	13	11	10	9	8	8	7	6	6	
3	200	200	200	200	200	178	146	122	103	87	75	65	56	49	43	38	34	30	27	25	22	20	18	17	15	14	
4(+)	200	200	200	200	171	139	115	96	81	68	59	51	44	39	34	30	27	24	21	19	17	16	14	13	12	11	
 2 supports				 3 supports								 4 or + supports															

Allowable Mechanical properties panel Type 2 out of plane								
Dimensions			Mechanical properties			Allowable forces		
Depths	width	Weight	Weak axis Inertia I_x	Weak axis Section Modulus S^1	Weak axis Section Modulus S^2	Allowable bending positive moment (M^1/Ω)	Allowable bending Negative moment (M^2/Ω)	Allowable bending Shear force (V/Ω)
in	in	lb/ft	in ⁴	in ³	in ³	kip-ft/panel	kip-ft/panel	kip/panel
5.07	24.625	12.5	33.26	10.8	16.67	17.54	27.07	20.61

NOTE:
ALL SUPPORTS SHALL BE DESIGNED BY OTHERS TO RESIST AND TRANSFER ALL APPLICABLE LOADS, INCLUDING GRAVITY AND WIND LOADS, IN ACCORDANCE WITH FBC 2023 AND ASCE 7-22.

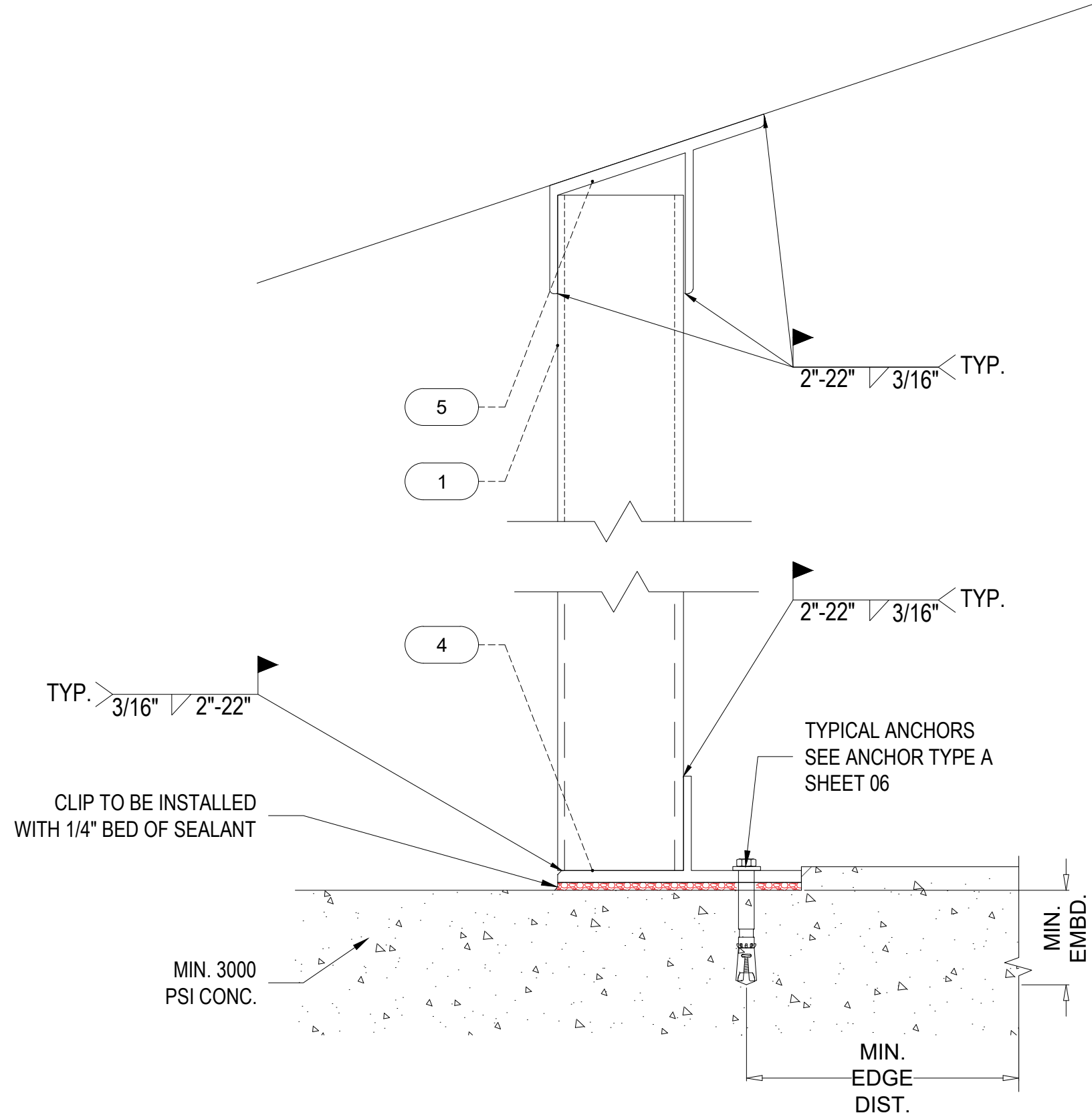
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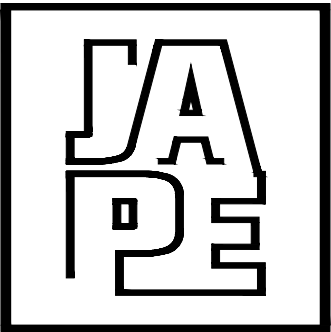
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CLIENT :			
ALOYD LLC.			
1200 BRICKELL AVENUE SUITE 1480 MIAMI, FL 33131			
REVISION			
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SEALED: 02-27-2026			
PRESSURE CHARTS			SHEET No. 2B OF 08



S1 TOP CONNECTION DETAIL

S2 BOTTOM CONNECTION DETAIL

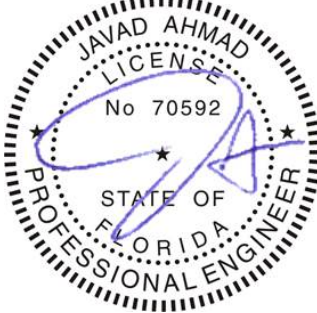
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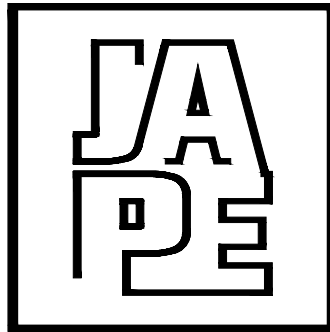
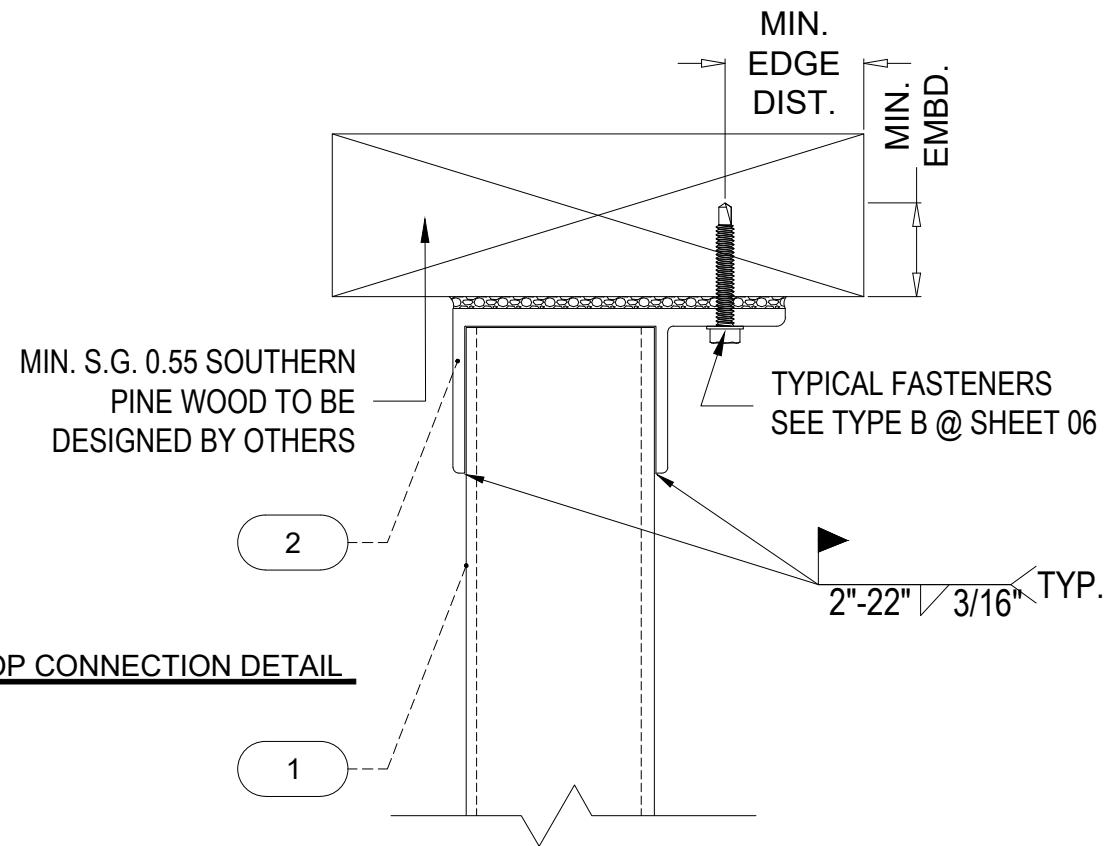
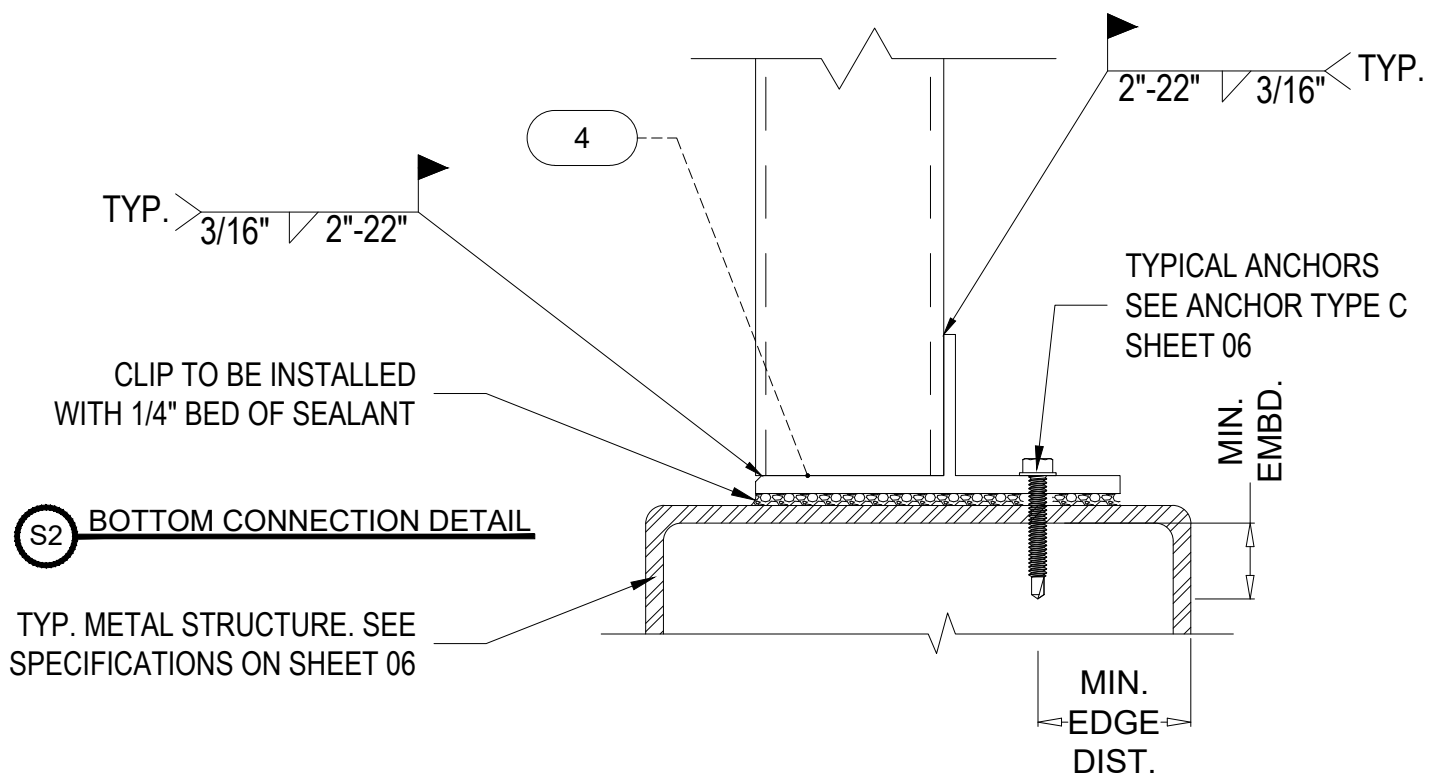
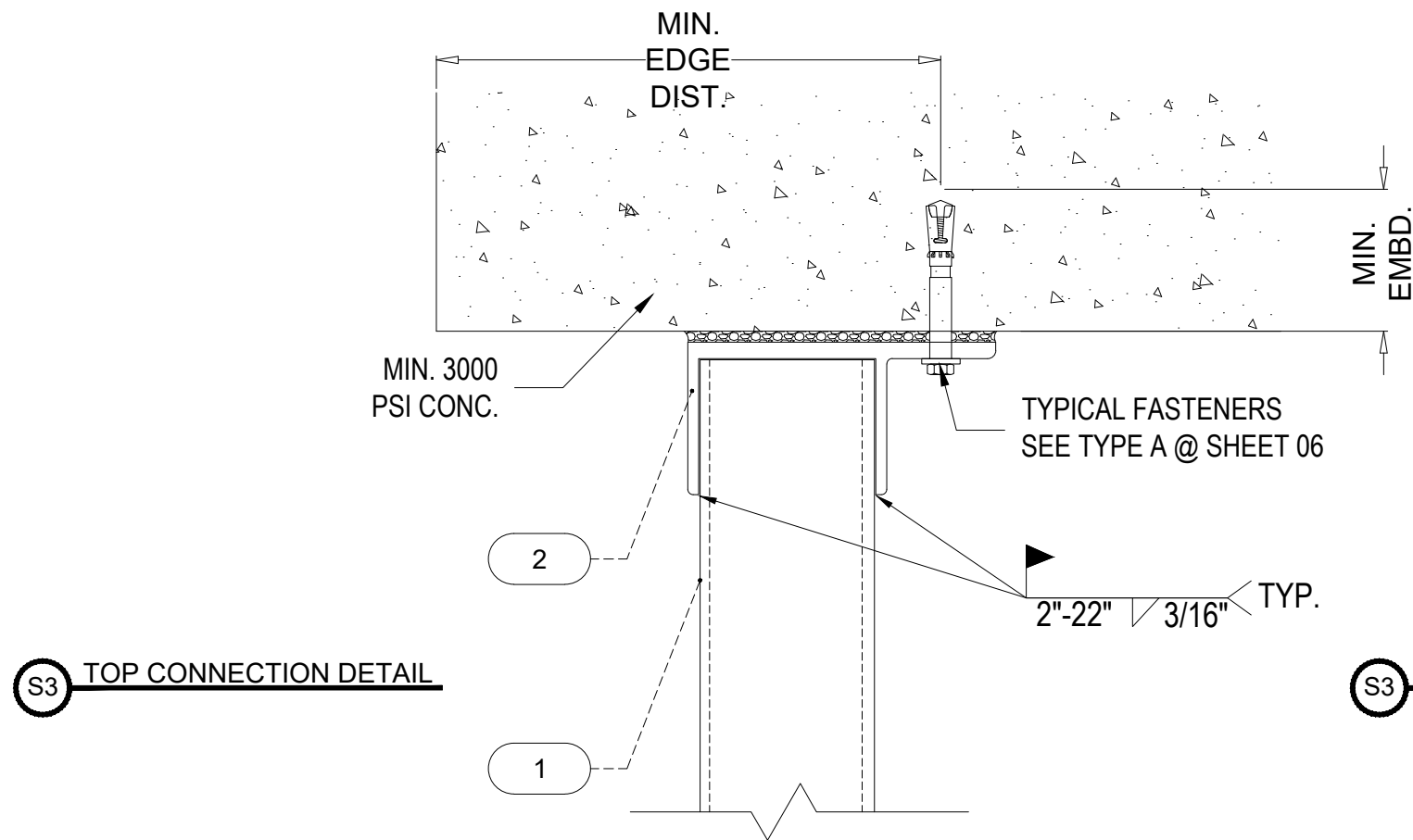


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SEC. DETAILS			SHEET No. 03 OF 08



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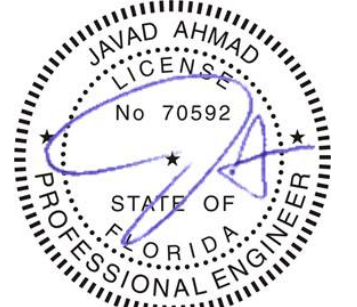
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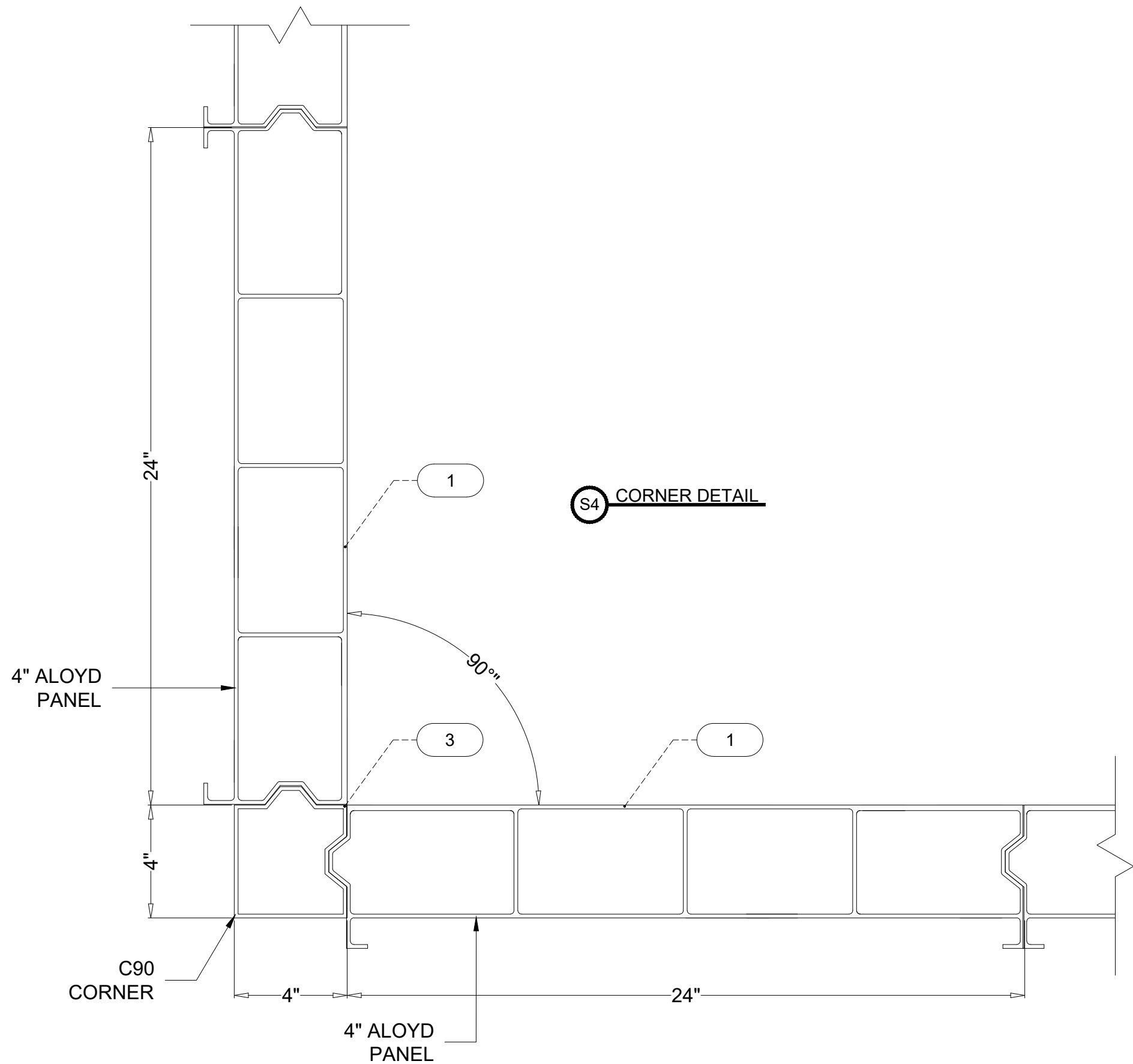
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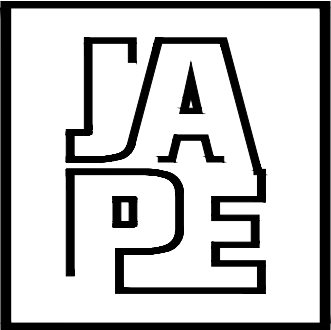
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SEC. DETAILS SHEET No. 04 OF 08

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SEC. DETAILS

SHEET No.
05 OF 08

SUBSTRATE ANCHORS:

A 1/2" DIA. HSL-4 CARBON STEEL ANCHOR (Fu=116 KSI, Fy=93 KSI)
DIRECTLY INTO CONCRETE OF 8" MIN. THK. f_c MIN. = 3000 PSI
3.15" MIN. EMBED INTO CONCRETE

ANCHOR EDGE DISTANCES
INTO CONCRETE = 6" MIN.

ANCHOR CL TO CL DISTANCE
INTO CONCRETE = 6" MAX. O.C.
TOTAL ANCHORS = 4 PER PANEL CLIP

B 5/8" DIA. LAG SCREWS (Fu=60 KSI, Fy=36 KSI)
DIRECTLY INTO WOOD STRUCTURES WITH MIN. S.G. = 0.55
2" MIN. EMBED INTO WOOD

ANCHOR EDGE DISTANCES
INTO CONCRETE = 2-1/2" MIN.

ANCHOR CL TO CL DISTANCE
INTO WOOD = 2-1/2" MAX. O.C.
TOTAL ANCHORS = 10 PER PANEL CLIP

C 3/8" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS)
INTO MIAMI-DADE COUNTY APPROVED MULLIONS
OR
INTO METAL STRUCTURES
(3) THREADS MIN. PENETRATION BEYOND METAL SUBSTRATE
ALUMINUM: 3/8" THK. MIN. (6063-T6 MIN.)
STEEL: 3/8" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

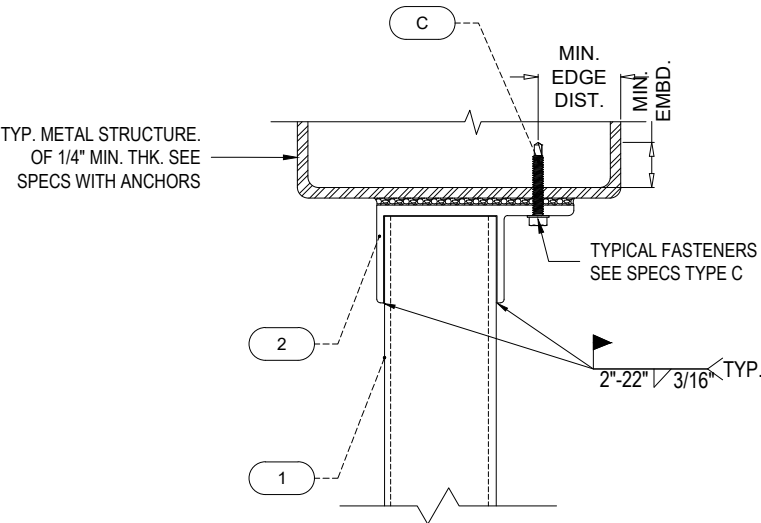
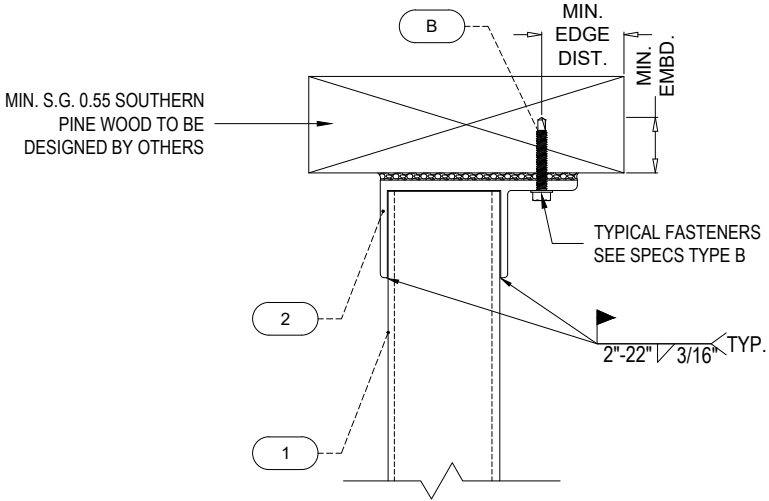
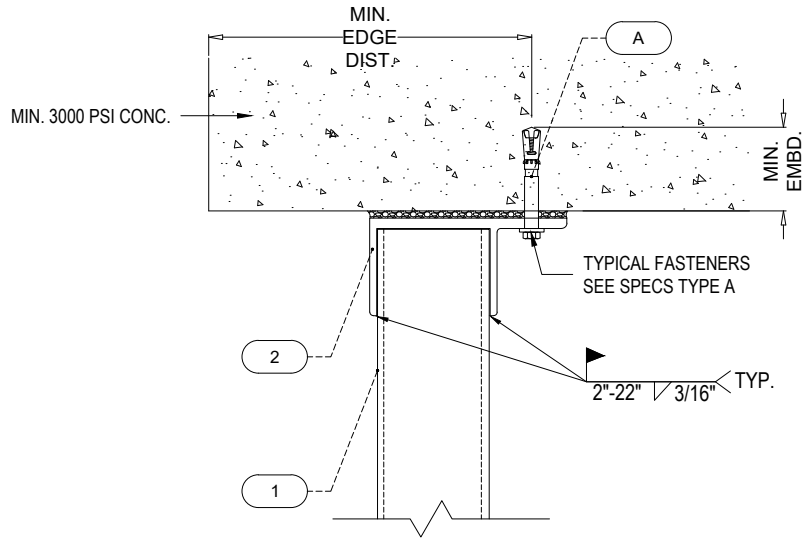
ANCHOR EDGE DISTANCES
INTO METAL STRUCTURE = 3/4" MIN.

ANCHOR CL TO CL DISTANCE
INTO METAL = 5" MAX. O.C.
TOTAL ANCHORS = 5 PER PANEL CLIP

SUBSTRATE STRENGTHS:

- WOOD AT TOP / BOTTOM SG = 0.55 MIN.
- CONCRETE AT TOP / BOTTOM f_c = 3000 PSI MIN.
- METAL AT TOP / BOTTOM TO BE 3/8" MIN. THK.
 - MIN. A36 STEEL
 - MIN. 6063-T6 ALUMINUM

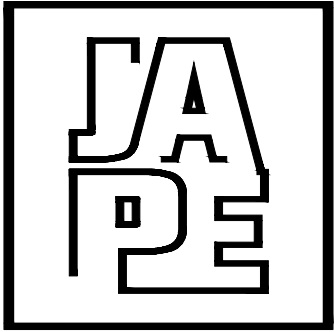
NOTE: STEEL IN CONTACT WITH ALUMINUM TO BE
PAINTED WITH BITUMINOUS PAINT TO AVOID CORROSION



GASKET SPECS:

MATERIAL: CLOSED-CELL NEOPRENE/EPDM BLEND, ASTM D1056 GRADE 2C2
COMPLIANT WITH SUFFIX REQUIREMENTS A1, B2, C1, F1, M.
ASTM D6576 TYPE II A/B (SOFT-MEDIUM).

DENSITY: 4–8 PCF (64–128 KG/M³).
COMPRESSION DEFLECTION @25%: 5–9 PSI (34.4–62 KPA).
COMPRESSION SET: 25% MAX.
WATER ABSORPTION: 5% MAX.
TENSILE STRENGTH: 80 PSI MIN (551 KPA).
ELONGATION: 150% MIN.
SERVICE TEMPERATURE: –40°F TO +250°F.
FLAMMABILITY: FMVSS-302 PASS (≥0.040"). UL-94 HF-1 RATED.



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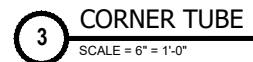
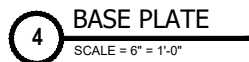
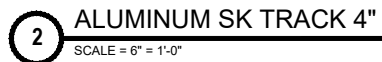


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ANCHOR OPTIONS

SHEET No.
06 OF 08

FL# 48087

The logo for the Japan Association of Political Economy (JAPE) is located in the top left corner. It consists of the letters "JAPE" in a bold, stylized, sans-serif font, enclosed within a square border.

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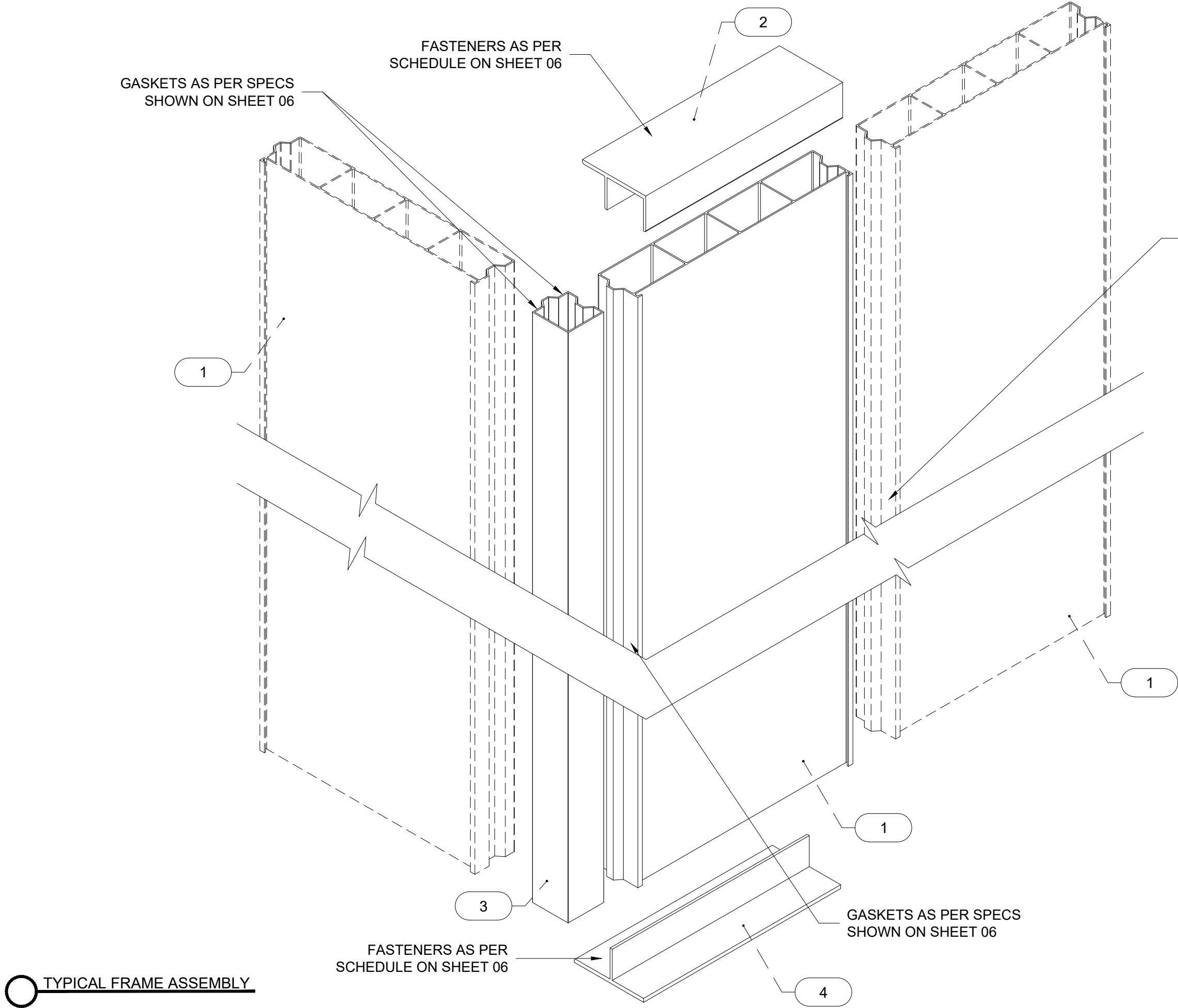


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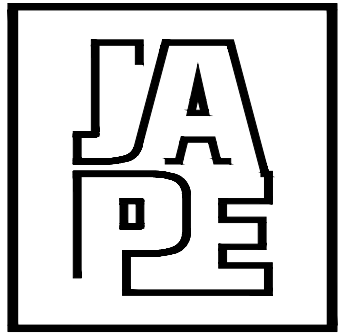
B.O.MATERIAL

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 TYPICAL FRAME ASSEMBLY



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check by:			
Drawing no.		JA-1550-25	
Eng: JAVAD AHMAD, PE CIVIL FLA. PE # 70592 – C.A.N. 34254			
			
SEALED: 02-27-2026			
INSTALLATION DET.		SHEET No. 08 OF 08	

FL# 48087