STRUCTALL BUILDING SYSTEMS

SNAP-N-LOCK FOAM CORE ROOF PANELS SPANS
3",4",6" THICK, ALUMINIUM & STEEL-SKINNED PANELS

GENERAL PERFORMANCE EVALUATION

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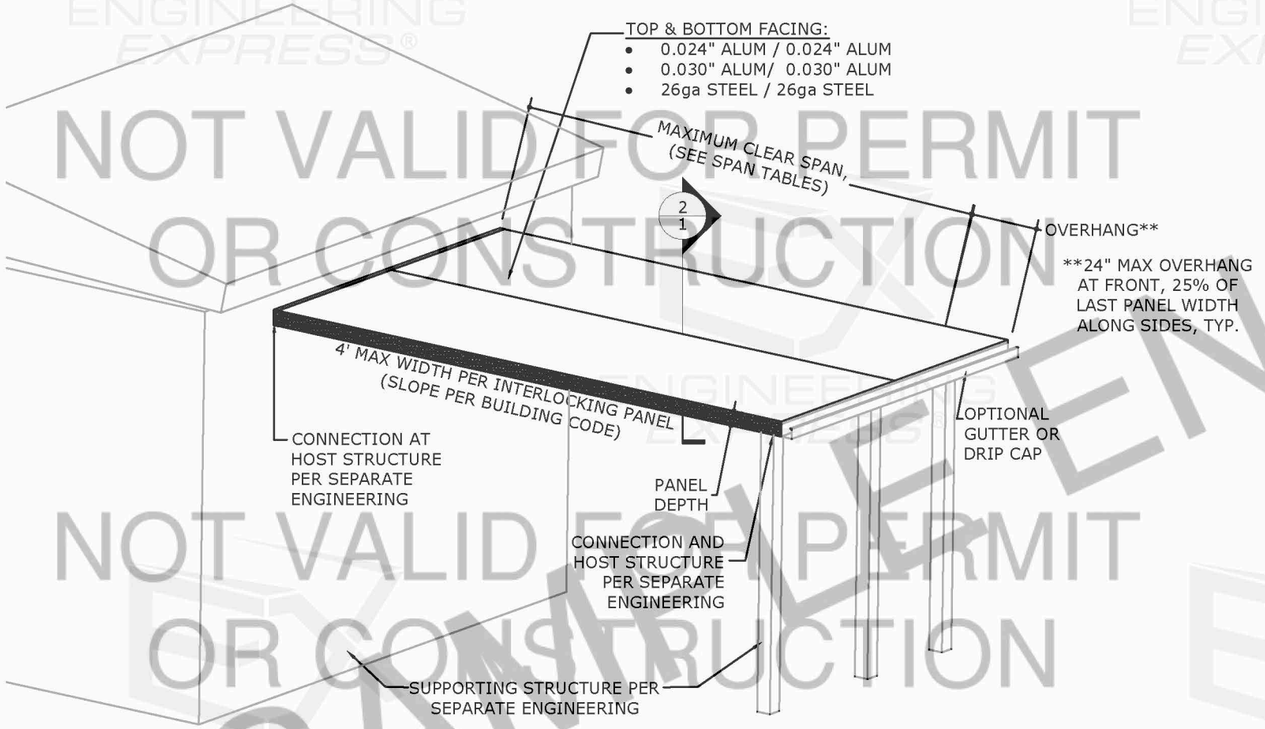
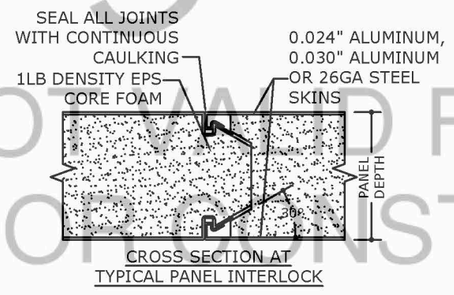


1/1 CLEAR SPAN ISOMETRIC

N.T.S. TYPICAL USE EXAMPLE, MAY VARY



CROSS SECTION AT TYPICAL PANEL INTERLOCK

2/1 SNAP-N-LOCK PANEL INTERLOCK DETAIL

N.T.S. DETAIL

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MAXIMUM ALLOWABLE DESIGN PRESSURES:	VARIES AS NOTED IN CLEAR SPAN TABLES

DESIGN NOTES

1. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE STRUCTURAL REQUIREMENTS OF THE 2015/2018/2021 INTERNATIONAL BUILDING CODES, 8TH EDITION FLORIDA BUILDING CODE (2023), 7TH EDITION FLORIDA BUILDING CODE (2020) AS WELL AS CURRENT VERSIONS OF THE MN, NC, NJ, NY, OH, SC, & VA BUILDING CODES AS APPLICABLE. CODE ENFORCED COMPLIES WITH STATE OF SEAL AND IF MULTIPLE VERSIONS LISTED THEN MOST STRINGENT APPLIES.
2. SEPARATE 'SITE-SPECIFIC' SEALED ENGINEERING SHALL BE REQUIRED IN ORDER TO DEVIATE FROM LOADS, DEFLECTIONS, OR SPANS CONTAINED HEREIN. LINEAR INTERPOLATION OF THE ALLOWABLE SPAN TABLES LISTED HEREIN SHALL NOT BE PERMITTED. CONTACT THIS FIRM FOR ALTERNATE SPAN CALCULATIONS AS MAY BE REQUIRED OR VISIT THE EMAIL/QR BELOW.
3. EPS CORE COMPOSITE PANELS SHALL BE CONSTRUCTED USING TYPE 3105-H254 ALUMINUM FACINGS OR ASTM A653, CS, TYPE B HOT DIP GALVANIZED G90 COATED STEEL FACINGS. EXPANDED POLYSTYRENE FOAM SHALL HAVE TYPICAL DENSITY OF 1.0 PCF. THE EPS FOAM SHALL BE ADHERED TO THE ALUMINUM FACING WITH MORAD M640 SERIES ADHESIVE (BY ROHM AND HAAS COMPANY). FABRICATION SHALL BE IN ACCORDANCE WITH APPROVED FABRICATION METHODS BY MANUFACTURER FOR ALL PANELS. REFER TO MANUFACTURER SPECS FOR MORE INFORMATION.
4. IF APPLICABLE, COMPOSITE ROOF PANELS SHALL COMPLY WITH CHAPTER 7 SECTION 720, CHAPTER 8 SECTION 803, CLASS A INTERIOR FINISH, AND CHAPTER 26 SECTION 2603 OF THE FBC.
5. EPS PANEL PERFORMANCE CHARACTERISTICS FOR SELF IGNITION, FLAME SPREAD AND SMOKE DENSITY HAVE BEEN QUALIFIED THROUGH APPLICABLE ASTM TEST STANDARDS AND SHALL BE PROVIDED BY THE MANUFACTURER AS REQUIRED.
6. DESIGN PRESSURES AS NOTED HEREIN ARE BASED ON A MAXIMUM TESTED PRESSURE DIVIDED BY A 2.0 FACTOR OF SAFETY. FOR ALTERNATE SAFETY FACTORS, SPANS SHALL BE ADJUSTED ACCORDINGLY.
7. THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.

GENERAL NOTES

8. THIS SPECIFICATION HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE BUILDING CODE.
9. THIS DOCUMENT IS ONLY VALID WITH ORIGINAL SIGNATURE AND SEAL OR DIGITAL SIGNATURE OF A P.E. OF THIS FIRM.
10. CONTRACTOR SHALL INVESTIGATE AND CONFORM TO ALL LOCAL BUILDING CODE AMENDMENTS WHICH MAY APPLY. DESIGN CRITERIA BEYOND AS STATED HEREIN MAY REQUIRE ADDITIONAL SITE-SPECIFIC SEALED ENGINEERING.
11. THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR.
12. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT. THIS DOCUMENT ALONE IS NOT INTENDED FOR PERMIT.
13. THE CONTRACTOR SHALL CAREFULLY CONSIDER POSSIBLE IMPOSING LOADS, INCLUDING BUT NOT LIMITED TO ANY CONCENTRATED LOADS WHICH MAY JUSTIFY GREATER DESIGN CRITERIA. THIS ADDITIONAL LOAD CRITERIA SHALL BE PROPERLY ANALYZED BY A LICENSED ENGINEER OR REGISTERED ARCHITECT.
14. ENGINEER SEAL AFFIXED HERE TO VALIDATES STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
15. ALTERATIONS, ADDITIONS, OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.
16. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.

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ALUMINUM & STEEL
GENERAL PERFORMANCE EVALUATION

REMARKS	DRWN	CHKD	DATE
INITIAL ISSUE (12-STRUC-01)	CSL	KL	4/05/12
2015 UPDATE (15-2409)	CSL	TSB	4/21/15
2020 UPDATE (20-25238)	TT	FLB	6/01/20
2023 UPDATE	CCB	FLB	1/02/24
-	-	-	-

23-70664

SCALE: NTS UNLESS NOTED

1 OF 2

MAXIMUM ALLOWABLE CLEAR SPAN TABLE:

Total Load*	Deflection Limit (L/...)	3" PANELS 0.024" Alum Skin 1-LB EPS	3" PANELS 0.030" Alum Skin 1-LB EPS	4" PANELS 0.024" Alum Skin 1-LB EPS	4" PANELS 0.030" Alum Skin 1-LB EPS	4" PANELS 26ga Steel Skin 1-LB EPS	6" PANELS 0.024" Alum Skin 1-LB EPS	6" PANELS 0.030" Alum Skin 1-LB EPS	6" PANELS 26ga Steel Skin 1-LB EPS
+/- 10 PSF	80	16'-11"	16'-0"	20'-0"	20'-0"	20'-2"	22'-1"	24'-0"	23'-0"
	120	14'-10"	16'-0"	17'-6"	19'-9"	20'-2"	21'-9"	24'-0"	23'-0"
	180	12'-11"	16'-0"	15'-3"	17'-3"	18'-5"	19'-0"	21'-4"	22'-9"
	240	11'-9"	15'-8"	13'-11"	15'-8"	16'-9"	17'-3"	19'-5"	20'-8"
+/- 15 PSF	80	14'-2"	16'-0"	16'-5"	17'-7"	16'-6"	18'-0"	20'-2"	20'-4"
	120	12'-11"	16'-0"	15'-3"	17'-3"	16'-6"	18'-0"	20'-2"	20'-4"
	180	11'-3"	15'-1"	13'-4"	15'-1"	16'-1"	16'-7"	18'-8"	19'-11"
	240	10'-3"	13'-8"	12'-1"	13'-8"	14'-8"	15'-1"	16'-11"	18'-1"
+/- 20 PSF	80	12'-3"	13'-10"	14'-3"	15'-3"	14'-3"	15'-7"	17'-5"	17'-8"
	120	11'-9"	13'-10"	13'-11"	15'-3"	14'-3"	15'-7"	17'-5"	17'-8"
	180	10'-3"	13'-8"	12'-1"	13'-8"	14'-3"	15'-1"	16'-11"	17'-8"
	240	9'-4"	12'-5"	11'-0"	12'-5"	13'-3"	13'-8"	15'-4"	16'-5"
+/- 25 PSF	80	10'-11"	12'-5"	12'-9"	13'-8"	12'-9"	14'-0"	15'-7"	15'-9"
	120	10'-11"	12'-5"	12'-9"	13'-8"	12'-9"	14'-0"	15'-7"	15'-9"
	180	9'-6"	12'-5"	11'-3"	12'-8"	12'-9"	14'-0"	15'-7"	15'-9"
	240	8'-8"	11'-6"	10'-3"	11'-6"	12'-4"	12'-8"	14'-3"	15'-3"
+/- 30 PSF	80	10'-0"	11'-4"	11'-7"	12'-5"	11'-8"	12'-9"	14'-3"	14'-5"
	120	10'-0"	11'-4"	11'-7"	12'-5"	11'-8"	12'-9"	14'-3"	14'-5"
	180	8'-11"	11'-4"	10'-7"	11'-11"	11'-8"	12'-9"	14'-3"	14'-5"
	240	8'-2"	10'-10"	9'-7"	10'-10"	11'-7"	11'-11"	13'-5"	14'-4"
+/- 35 PSF	80	9'-3"	10'-5"	10'-9"	11'-6"	10'-9"	11'-9"	13'-2"	13'-4"
	120	9'-3"	10'-5"	10'-9"	11'-6"	10'-9"	11'-9"	13'-2"	13'-4"
	180	8'-6"	10'-5"	10'-1"	11'-4"	10'-9"	11'-9"	13'-2"	13'-4"
	240	7'-9"	10'-4"	9'-2"	10'-4"	10'-9"	11'-4"	12'-9"	13'-4"
+/- 40 PSF	80	8'-8"	9'-9"	10'-1"	10'-9"	10'-1"	11'-0"	12'-4"	12'-5"
	120	8'-8"	9'-9"	10'-1"	10'-9"	10'-1"	11'-0"	12'-4"	12'-5"
	180	8'-2"	9'-9"	9'-7"	10'-9"	10'-1"	11'-0"	12'-4"	12'-5"
	240	7'-5"	9'-9"	8'-9"	9'-10"	10'-1"	10'-10"	12'-2"	12'-5"
+/- 45 PSF	80	8'-2"	9'-3"	9'-6"	10'-2"	9'-6"	10'-5"	11'-7"	11'-9"
	120	8'-2"	9'-3"	9'-6"	10'-2"	9'-6"	10'-5"	11'-7"	11'-9"
	180	7'-10"	9'-3"	9'-3"	10'-2"	9'-6"	10'-5"	11'-7"	11'-9"
	240	7'-1"	9'-3"	8'-5"	9'-6"	9'-6"	10'-5"	11'-7"	11'-9"
+/- 50 PSF	80			9'-0"	9'-7"	9'-0"	9'-10"	11'-0"	11'-2"
	120			9'-0"	9'-0"	9'-0"	9'-10"	11'-0"	11'-2"
	180			8'-11"	8'-11"	9'-0"	9'-10"	11'-0"	11'-2"
	240			8'-1"	8'-1"	9'-0"	9'-10"	11'-0"	11'-2"
+/- 55 PSF	80			8'-7"	8'-7"	8'-7"	9'-5"	10'-6"	10'-7"
	120			8'-7"	8'-7"	8'-7"	9'-5"	10'-6"	10'-7"
	180			8'-7"	8'-7"	8'-7"	9'-5"	10'-6"	10'-7"
	240			7'-10"	8'-10"	8'-7"	9'-5"	10'-6"	10'-7"
+/- 60 PSF	80			8'-2"	8'-9"	8'-3"	9'-0"	10'-1"	10'-2"
	120			8'-2"	8'-9"	8'-3"	9'-0"	10'-1"	10'-2"
	180			8'-2"	8'-9"	8'-3"	9'-0"	10'-1"	10'-2"
	240			7'-7"	8'-7"	8'-3"	9'-0"	10'-1"	10'-2"
+/- 65 PSF	80			7'-9"	7'-9"	7'-11"	8'-8"	9'-8"	9'-9"
	120			7'-9"	7'-9"	7'-11"	8'-8"	9'-8"	9'-9"
	180			7'-9"	7'-9"	7'-11"	8'-8"	9'-8"	9'-9"
	240			7'-5"	7'-5"	7'-11"	8'-8"	9'-8"	9'-9"
+/- 70 PSF	80			7'-3"	7'-3"	7'-7"	8'-4"	9'-4"	9'-5"
	120			7'-3"	7'-3"	7'-7"	8'-4"	9'-4"	9'-5"
	180			7'-3"	7'-3"	7'-7"	8'-4"	9'-4"	9'-5"
	240			7'-3"	7'-3"	7'-7"	8'-4"	9'-4"	9'-5"
+/- 75 PSF	80					7'-4"	8'-0"	9'-0"	9'-1"
	120					7'-4"	8'-0"	9'-0"	9'-1"
	180					7'-4"	8'-0"	9'-0"	9'-1"
	240					7'-4"	8'-0"	9'-0"	9'-1"
+/- 80 PSF	80							8'-8"	8'-10"
	120							8'-8"	8'-10"
	180							8'-8"	8'-10"
	240							8'-8"	8'-10"

TABLE USE INSTRUCTIONS:

1. DETERMINE TYPE OF ENCLOSURE TO BE COVERED (OPEN, SCREENED WALLS, OR FULLY ENCLOSED) AND CORRESPONDING DEFLECTION LIMIT.
2. THE SPANS LISTED HEREIN ARE APPLICABLE FOR NON-HABITABLE STRUCTURES ONLY.DETERMINE THE SITE SPECIFIC REQUIRED DESIGN LOAD PER BY SEPARATE ENGINEERING, CERTIFIED BY A DESIGN PROFESSIONAL IN ACCORDANCE WITH THE FLORIDA BUILDING CODE AND ANY GOVERNING CODE, MUNICIPALITY, AND BUILDING CODES IN EFFECT FOR THE PROJECT LOCATION.
3. *TOTAL LOAD = SUM OF ALL LOADS (WIND, LIVE, DEAD, ETC.) ACTING IN THE WORST CASE GRAVITY / UPLIFT LOAD COMBINATION.
4. BASED ON THE PROJECT DESIGN CONDITIONS DETERMINED, SELECT A SUITABLE ROOFING PANEL WITH AN ALLOWABLE SPAN GREATER THAN OR EQUAL TO THE PROJECT REQUIREMENTS.
5. COMPONENT FRONT CONNECTION TO SUPPORTING BEAM AND BACK CONNECTION TO HOST STRUCTURE TO BE DETERMINED SEPARATELY ON A SITE SPECIFIC BASIS BY A DESIGN PROFESSIONAL.

SPAN TABLE NOTES:

1. ALLOWABLE SPAN CALCULATIONS ARE BASED ON PRODUCT TESTING.
2. PANEL DEAD LOADS HAVE BEEN FACTORED INTO CALCULATIONS FOR GRAVITY LOADS AS WELL AS CALCULATIONS FOR PANEL PROPERTIES.
3. POSITIVE AND NEGATIVE DESIGN PRESSURE SHALL BE DETERMINED SEPARATELY PER ASCE 7 BASED ON SITE SPECIFIC APPLICATION AND COMPARED TO THE APPLICABLE TABLE ABOVE. THE LIMITING POSITIVE OR NEGATIVE PRESSURE SPAN VALUE SHALL BE USED FOR INSTALLATION.
4. CALCULATED PRESSURES SHALL CONSIDER THE CONTROLLING LOAD COMBINATION, USING ALL APPLICABLE ASCE 7 LOADS INCLUDING DEAD, LIVE, SNOW, WIND, AND ANY OTHER LOADING APPLICABLE TO THE INSTALLATION, DETERMINED PER SEPARATE CERTIFICATION.
5. TABLE CONSIDERS ASD DESIGN PRESSURES. TO CONVERT SEPARATELY CALCULATED ULTIMATE PRESSURES TO DESIGN PRESSURES, P(ULT)*0.6 = P(ASD).

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