



ELITE ALUMINUM CORPORATION

ASCE 7-16 COMPONENTS & CLADDING

WIND LOAD ROOF PRESSURE SUNROOM & OPEN CANOPY CHARTS

SOLID WALL

ROOF PRESSURES OVER SOLID/GLASS WALL ENCLOSURE					
WIND SPEED (MPH)	ASCE EXPOSURE CATEGORY	MONOSLOPE (PSF)			
		$\theta < 3^\circ$		$3^\circ < \theta < 10^\circ$	
		(+)	(-)	(+)	(-)
120	B	10	-22	10	-17
	C	10	-27	10	-21
	D	10	-33	10	-25
130	B	10	-26	10	-20
	C	10	-32	10	-24
	D	10	-39	10	-30
140	B	10	-30	10	-23
	C	10	-37	10	-28
	D	10	-45	10	-35
150	B	10	-35	10	-27
	C	10	-43	10	-33
	D	10	-52	10	-40
160	B	10	-40	10	-31
	C	10	-49	10	-38
	D	10	-60	10	-46
170	B	10	-45	10	-35
	C	10	-55	10	-43
	D	10	-67	10	-52

OPEN WALL

ROOF PRESSURE FOR OPEN -HOST ATTACHED					
WIND SPEED (MPH)	ASCE EXPOSURE CATEGORY	(PSF) $hc/he < 0.9$		(PSF) $0.9 < hc/he < 1$	
		(+)	(-)	(+)	(-)
		(+)	(-)	(+)	(-)
120	B	11	-11	11	-17
	C	13	-13	13	-21
	D	16	-16	16	-25
130	B	13	-13	13	-20
	C	15	-15	15	-24
	D	18	-18	18	-29
140	B	15	-14	15	-23
	C	18	-17	18	-28
	D	21	-21	21	-34
150	B	17	-17	17	-26
	C	20	-20	20	-32
	D	24	-24	24	-39
160	B	19	-19	19	-30
	C	23	-23	23	-36
	D	28	-27	28	-44
170	B	21	-21	21	-34
	C	26	-26	26	-41
	D	31	-31	31	-49

IMPORTANT DESIGN NOTE:
THIS PLAN PROVIDES WIND INFORMATION ONLY. SNOW, LIVE, SEISMIC & OTHER LOADING CONDITIONS SHALL ALSO BE CONSIDERED IN DETERMINING THE FINAL DESIGN PRESSURE FOR USE IN DETERMINING ROOF SPAN & SUBSTRUCTURE DESIGN.

θ = ROOF SLOPE
 H_e = HEIGHT OF ENCLOSURE
 H_c = HEIGHT OF MAIN BUILDING

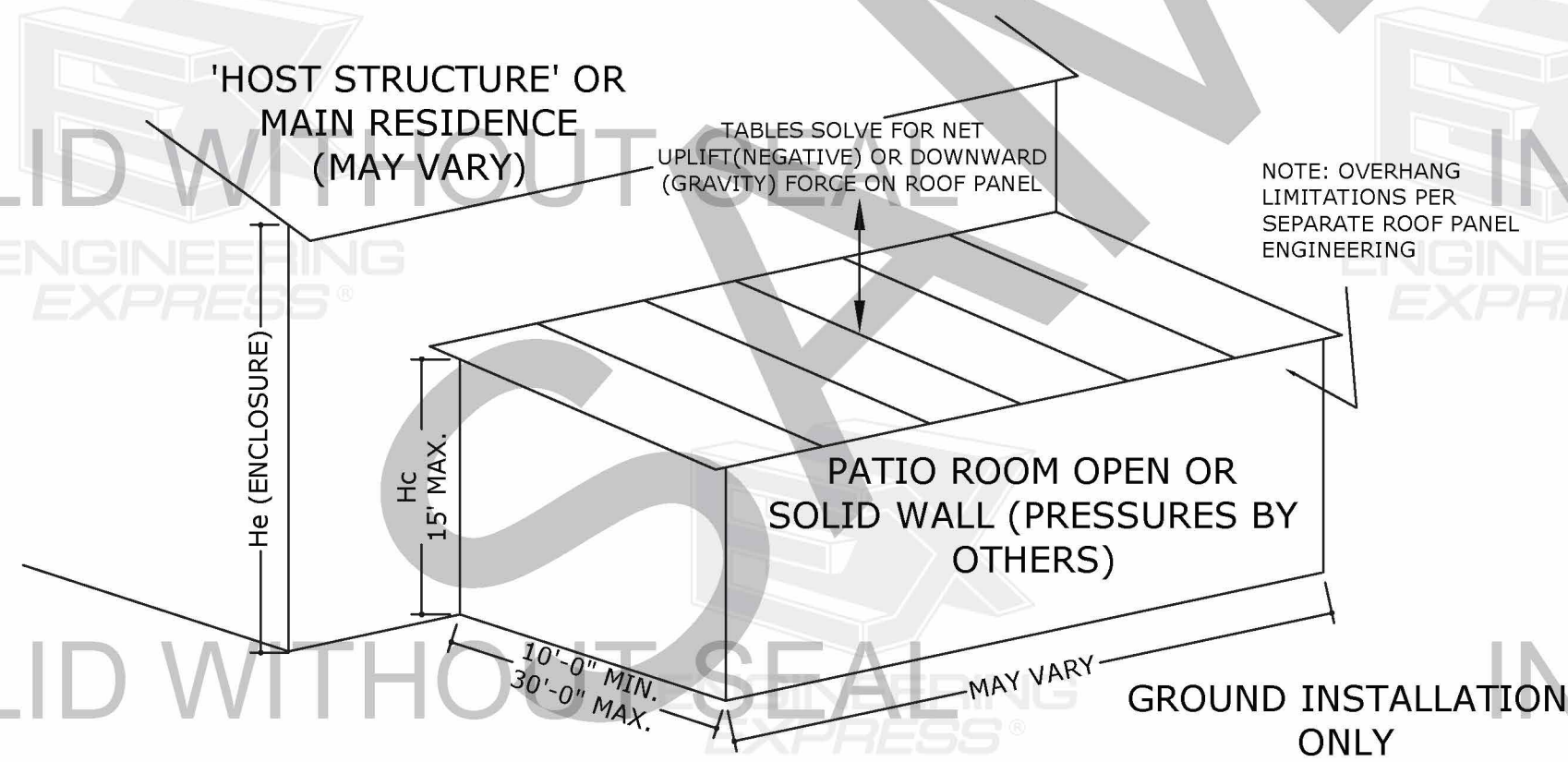
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- DESIGN:**
- POSITIVE & NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS USING ASD METHOD OF ASCE 7-16
 - ASCE 7-16 DESIGN PARAMETERS:
 - SOLID WALLS CHART: RISK CATEGORY II STRUCTURE ENCLOSED, $G_{cpi} = +/- 0.18$
 - OPEN WALLS & SCREENS: RISK CATEGORY I STRUCTURE OPEN, OR IRC TABLE AH106.4(1)
 - MEAN ROOF HEIGHT OF ENCLOSURE = 15' MAXIMUM FOR USE WITH THIS TABLE (GROUND).
 - ROOF TYPE: MONOSLOPE WITH 2:12 ROOF PITCH.
 - TRIBUTARY AREA = 10 SQFT USED IN CALCULATIONS
 - ZONE 1 CONSIDERED FOR ASCE ROOF LOADING AS CRITICAL PANEL SPAN LIES IN ZONE 1. FOR ADDITIONAL ZONES MAY APPLY; CONTACT A DESIGN PROFESSIONAL FOR SITE-SPECIFIC REQUIREMENTS AT ROOF ZONES NOT LISTED HEREIN.
 - DIRECTIONALITY FACTOR $K_d = 0.85$
 - TOPOGRAPHIC FACTOR $K_{zt} = 1.0$ (NO STEEP HILLS NEARBY)
 - PROJECTION OF ENCLOSURE FROM RESIDENCE NOT TO EXCEED 30', 10' MIN. USED IN CALCULATIONS.
 - MAX. HEIGHT OF ENCLOSURE NOT TO EXCEED THE LESSER OF MASTER PLAN SHEET LIMITATIONS OR AN ENCLOSURE AVERAGE HEIGHT (MEAN ROOF HEIGHT) OF 15'. HOUSE HEIGHT MAY VARY.
 - MONOSLOPE UPLIFT G_{cp} CHARTS USED FROM ASCE 7.
 - ROOF PANEL DEAD LOADS HAVE NOT BEEN ACCOUNTED FOR IN THIS DOCUMENT; SEE SEPARATE SPAN CHARTS FOR ROOF PANEL DEAD LOAD REDUCTIONS AND INCREASES ON A CASE-BY-CASE BASIS.
 - RESULTING PRESSURE SHALL BE COMPARED TO A PRODUCT APPROVED PATIO ROOM ROOF PANEL SPAN CHART WHICH SHALL HAVE HIGHER APPROVED/ALLOWABLE PRESSURES THAN LISTED HEREIN FOR A GIVEN CONFIGURATION WITH CRITERIA SET AND VERIFIED BY OTHERS.

- GENERAL NOTES:**
- THIS SPECIFICATION HAS BEEN CREATED IN ACCORDANCE WITH THE REQUIREMENTS OF ASCE 7-16 "ASD" METHODOLOGY.
 - THIS INFORMATION IS PROVIDED AS SUPPLEMENTAL INFORMATION TO BE PROVIDED WITH ELITE ROOF PANEL SPANS FOR PATIO ENCLOSURE TYPE ROOM SYSTEMS ONLY FOR THE UPLIFT VALUES SPECIFIED FOR GIVEN REGIONS. **THIS DOCUMENT IS TO BE USED ONLY WITH SEALED ELITE ROOF SPAN ENGINEERING BY THIS FIRM.**
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 - FOR HIGH VELOCITY HURRICANE ZONES, THE MINIMUM ROOF LIVE LOAD REQUIRED SHALL BE 30 PSF. CONTRACTOR SHALL VERIFY GOVERNING ROOF LOAD IN HVHZ BEFORE USE.
 - EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.

USE PRESSURE RESULTS FROM THESE TABLES FOR APPLICABLE WIND AREAS TO SELECT ROOF PANELS FROM ROOF PANEL CLEAR SPAN TABLES, POSTS, WALLS, & FOUNDATIONS BELOW (SEPARATE DOCUMENTS BY THIS ENGINEER FOR ELITE ALUMINUM CORPORATION ONLY)



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DESIGN PRESSURE GUIDELINES
MASTER PLAN SHEET

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