



9719 South Dixie Hwy., Unit #2
Miami, FL 33156

Ph: 305.609.3652
CA 28548

STRUCTURAL CALCULATIONS Miscellaneous Items

for

Huber Residence

12020 SW 77th Ave
Miami, FL 33156

prepared by:
Thomas Moe
PE 63863



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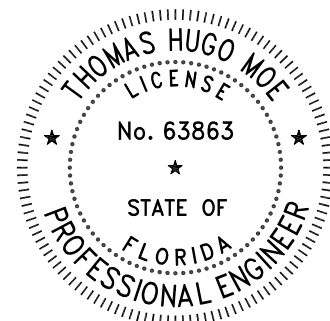
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DETERMINE WIND LOADING EXERTED ON FENCE, GATE, & PIER

$$q_z := 0.6 \cdot 0.00256 \cdot K_z \cdot K_{zt} \cdot K_d \cdot V^2 \quad \text{Velocity} := 115 \text{ mph}$$

$$K_z := 0.85$$

ASCE table 29.3-1

$$K_d := 1.03$$

ASCE table 26.6-1

$$q_z := 1 \cdot 0.00256 \cdot K_z \cdot K_d \cdot \text{Velocity}^2 \cdot \text{psf}$$

$$GC_{F_lateral} := 1.3$$

gust factor from
figure 29-4.1

$$q_z = 29.64 \cdot \text{psf}$$

$$\text{LateralPressure} := q_z \cdot GC_{F_lateral} \quad (LRFD)$$

$$0.6 \cdot (\text{LateralPressure}) = 23.12 \cdot \text{psf} \quad (ASD)$$

FOUNDATION DESIGN FOR GATE AND FENCE WIND LOADING AND SELF WEIGHT

WIND LOADING

$$\text{LateralPressure} := 23.1 \cdot \text{psf}$$

DETERMINE DISTRIBUTED LOADING

$$\text{trib}_{\text{gate}} := \frac{14.5 \cdot \text{ft}}{2}$$

$$\text{trib}_{\text{pier}} := 1 \cdot \text{ft}$$

$$\text{trib}_{\text{fence}} := \frac{5 \cdot \text{ft}}{2}$$

gate & picket pervious factor

$$\gamma_{\text{pervious}} := 0.33$$

$$\text{trib}_{\text{gate}} = 7.25 \text{ ft}$$

$$w_{\text{wind_gate}} := \text{LateralPressure} \cdot \gamma_{\text{pervious}} \cdot \text{trib}_{\text{gate}}$$

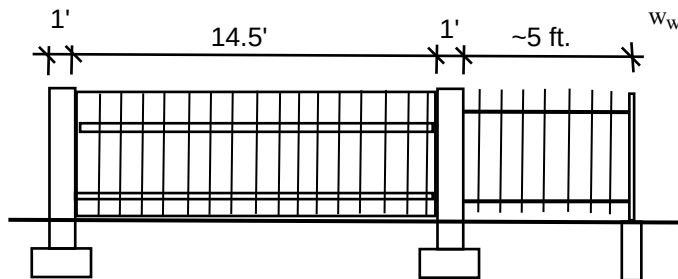
$$w_{\text{wind_fence}} := \text{LateralPressure} \cdot \gamma_{\text{pervious}} \cdot \text{trib}_{\text{fence}}$$

$$w_{\text{wind_gate}} = 55.27 \cdot \frac{\text{lb}}{\text{ft}}$$

$$w_{\text{wind_fence}} = 19.06 \cdot \frac{\text{lb}}{\text{ft}}$$

$$w_{\text{wind_pier}} := \text{LateralPressure} \cdot \text{trib}_{\text{pier}}$$

$$w_{\text{wind_pier}} = 23.1 \cdot \frac{\text{lb}}{\text{ft}}$$



DESIGN FOOTING AGAINST SLIDING AND OVERTURNING

DETERMINE WIND OVERTURNING

$$h := 6 \cdot \text{ft}$$

$$\gamma_{\text{concrete}} := 145 \cdot \frac{\text{lb}}{\text{ft}^3}$$

$$\gamma_{\text{soil}} := 110 \cdot \frac{\text{lb}}{\text{ft}^3}$$

$$w_{\text{wind_gate}} = 55.27 \cdot \frac{\text{lb}}{\text{ft}}$$

$$w_{\text{wind_pier}} = 23.1 \cdot \frac{\text{lb}}{\text{ft}}$$

$$w_{\text{wind_fence}} = 19.06 \cdot \frac{\text{lb}}{\text{ft}}$$

$$M_{\text{overturning}} := w_{\text{wind_gate}} \cdot h \cdot \left(\frac{h}{2} + 1 \cdot \text{ft} + 1.33 \cdot \text{ft} \right) + w_{\text{wind_pier}} \cdot h \cdot \left(\frac{h}{2} + 1 \cdot \text{ft} + 1.33 \cdot \text{ft} \right) + w_{\text{wind_fence}} \cdot h \cdot \left(\frac{h}{2} + 1 \cdot \text{ft} + 1.33 \cdot \text{ft} \right)$$

$$M_{\text{overturning}} = 3.12 \cdot \text{k} \cdot \text{ft}$$

resisting weights

$$P_{\text{ftg}} := \gamma_{\text{concrete}} (3 \cdot \text{ft} \cdot 3 \cdot \text{ft} \cdot 1.33 \cdot \text{ft})$$

$$P_{\text{column}} := \gamma_{\text{concrete}} (1 \cdot \text{ft}) \cdot (1 \cdot \text{ft}) \cdot (6 \cdot \text{ft} + 1 \cdot \text{ft})$$

$$P_{\text{ftg}} = 1.74 \cdot \text{k}$$

$$P_{\text{column}} = 1.02 \cdot \text{k}$$

$$P_{\text{soil}} := \gamma_{\text{soil}} (3 \cdot \text{ft} \cdot 3 \cdot \text{ft} - 1 \cdot \text{ft} \cdot 1 \cdot \text{ft}) \cdot 1 \cdot \text{ft}$$

$$P_{\text{soil}} = 0.88 \cdot \text{k}$$

OVERTURNING RESISTING

$$M_{\text{resisting}} := (P_{\text{ftg}} + P_{\text{soil}} + P_{\text{column}}) \cdot \frac{3 \cdot \text{ft}}{2}$$

$$M_{\text{resisting}} = 5.45 \cdot \text{k} \cdot \text{ft}$$

$$FS_{\text{overturning}} := \frac{M_{\text{resisting}}}{M_{\text{overturning}}}$$

$$FS_{\text{overturningReqd}} := \frac{1}{0.6}$$

$$FS_{\text{overturning}} = 1.75$$

>

$$FS_{\text{overturningReqd}} = 1.67$$

OK

CHECK SLIDING

$$h = 6 \text{ ft}$$

$$w_{\text{wind_gate}} = 55.3 \cdot \frac{\text{lb}}{\text{ft}}$$

$$w_{\text{wind_pier}} = 23.1 \cdot \frac{\text{lb}}{\text{ft}}$$

$$w_{\text{wind_fence}} = 19.06 \cdot \frac{\text{lb}}{\text{ft}}$$

$$V_{\text{sliding}} := w_{\text{wind_gate}} \cdot h + w_{\text{wind_pier}} \cdot h + w_{\text{wind_fence}} \cdot h$$

$$V_{\text{sliding}} = 584.55 \cdot \text{lb}$$

$$\mu := 0.35 \quad \text{coefficient against sliding}$$

$$P_{\text{soil}} = 880 \text{ lb}$$

$$P_{\text{column}} = 1015 \text{ lb}$$

$$P_{\text{ftg}} = 1736 \text{ lb}$$

$$V_{\text{resisting}} := \mu \cdot (P_{\text{soil}} + P_{\text{column}} + P_{\text{ftg}})$$

$$V_{\text{resisting}} = 1270.73 \text{ lb}$$

$$FS_{\text{sliding}} := \frac{V_{\text{resisting}}}{V_{\text{sliding}}}$$

$$FS_{\text{sliding}} = 2.2$$

>

$$FS_{\text{slidingReqd}} := 1.5$$

OK

SELECT 3'-0" X 3'-0" X 1'-4" PAD FOOTING

DESIGN OF TAPCON STONE CLADDING ANCHORAGE TO CBS WALL

LOADING

TRY 1/4" TAPCONS WITH MIN. 1-1/2" MIN. EMBEMENT INTO CMU HOLLOW BLOCK

$$P_{\text{wind}} := 55.66 \cdot \text{psf}$$

$$\text{Trib}_{\text{Area}} := (1.33 \cdot \text{ft}) \cdot \left(\frac{2.67 \cdot \text{ft}}{2} + \frac{2.67 \cdot \text{ft}}{2} \right)$$

$$\text{Trib}_{\text{Area}} = 3.55 \text{ ft}^2$$

CHECK WIDTHDRAWAL

$$\text{Tension}_{\text{perAttachment}} := P_{\text{wind}} \cdot \text{Trib}_{\text{Area}}$$

$$\text{Tension}_{\text{perAttachment}} = 197.7 \text{ lb}$$

$$\text{Tension}_{\text{perTapcon}} := \frac{\text{Tension}_{\text{perAttachment}}}{2}$$

$$\text{Tension}_{\text{perTapcon}} = 98.8 \text{ lb}$$

<

tapcon tension capacity with 3" spacing distance (interpolated) and 4" edge distance satisfied

$$\text{TapconTensionCapacity} := 84 \cdot \text{lb} + 0.5 \cdot (136 \cdot \text{lb} - 84 \cdot \text{lb})$$

$$\text{TapconTensionCapacity} = 110 \text{ lb}$$

OK

CHECK SHEAR

$$\text{panel}_{\text{wt}} := 10 \cdot \text{psf} \quad \text{panel weight is approximately 5 psf, use 10 psf (conservative)}$$

$$\text{Shear}_{\text{perAttachment}} := \text{panel}_{\text{wt}} \cdot \text{Trib}_{\text{Area}}$$

$$\text{Shear}_{\text{perAttachment}} = 35.5 \text{ lb}$$

$$\text{Shear}_{\text{perTapcon}} := \frac{\text{Shear}_{\text{perAttachment}}}{2}$$

$$\text{Shear}_{\text{perTapcon}} = 17.8 \text{ lb}$$

<

tapcon shear capacity with 3" spacing distance (interpolated) and 4" edge distance satisfied

$$\text{TapconShearCapacity} := 212 \cdot \text{lb} + 0.5 \cdot (224 \cdot \text{lb} - 212 \cdot \text{lb})$$

$$\text{TapconShearCapacity} = 218 \text{ lb}$$

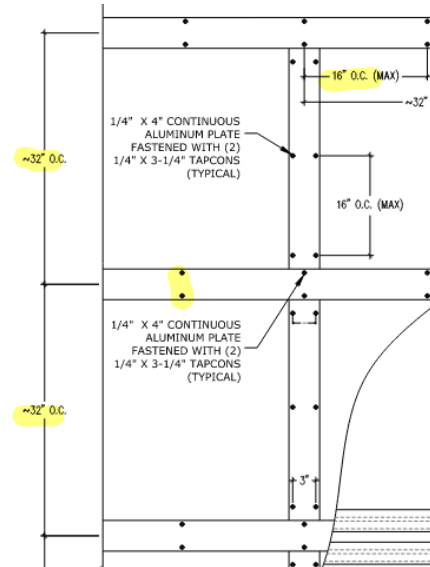
OK

CHECK COMBINED TENSION & SHEAR

$$\frac{\text{Tension}_{\text{perTapcon}}}{\text{TapconTensionCapacity}} + \frac{\text{Shear}_{\text{perTapcon}}}{\text{TapconShearCapacity}} = 0.98$$

less than 1, OK

1/4" TAPCONS 1" MIN. EMBEDMENT IS ADEQUATE



3 TENSION & SHEAR CAPACITIES

BASED ON EMBEDMENT, EDGE DISTANCE & SPACING
FOR **SINGLE** ANCHORS

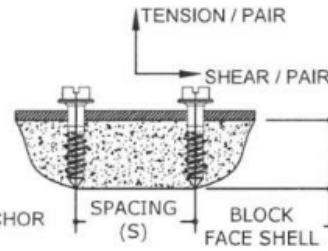
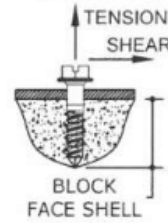
ANCHOR DIAM	EMBED	EDGE DIST	LIGHT-WEIGHT CMU BLOCK ($S \geq 16D$)		MEDIUM-WEIGHT CMU BLOCK ($S \geq 16D$)	
			TENSION	SHEAR	TENSION	SHEAR
3/16"	1"	2"	43 lb	83 lb	68 lb	135 lb
		4"	45 lb	83 lb		147 lb
1/4"	1"	2"	43 lb	108 lb	118 lb	161 lb
		4"	56 lb	125 lb		202 lb

4 TENSION & SHEAR CAPACITIES

BASED ON EMBEDMENT, EDGE DISTANCE & SPACING
FOR **PAIRS** OF ANCHORS*

ANCHOR DIAM	EMBED	SPACING (S)	EDGE DIST	LIGHT-WEIGHT CMU BLOCK	
				TENSION	SHEAR
3/16"	1"	1 1/2"	3"	103 lb	202 lb
		3"		103 lb	202 lb
1/4"	1"	2"	4"	84 lb	212 lb
		4"		136 lb	224 lb

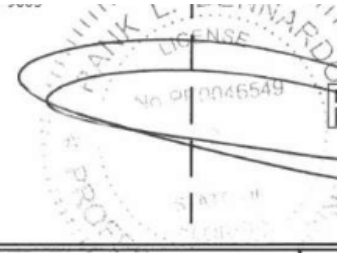
*REFER TO EDGE DISTANCE AND SPACING DETAIL FOR DEPICTION OF ANCHOR
SPACING & EDGE DISTANCE REQUIREMENTS FOR PAIRS OF ANCHORS



PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **24-0102.06**

Expiration Date **08/31/2026**

By 
Miami-Dade Product Control



DESIGN OF ALUMINUM CLIP ATTACHMENT TO ALUMINUM PLATE

LOADING

TRY (2) #12-24 HWH TEK SCREWS FASTENED TO 1/4" THICK ALUMINUM PLATE @ 32" O.C.

$$P_{\text{wind}} := 55.66 \cdot \text{psf}$$

$$\text{Trib}_{\text{Area}} := \left(\frac{2.67 \cdot \text{ft}}{2} + \frac{2.67 \cdot \text{ft}}{2} \right) \cdot \left(\frac{2.67 \cdot \text{ft}}{2} + \frac{2.67 \cdot \text{ft}}{2} \right)$$

$$\text{Trib}_{\text{Area}} = 7.13 \text{ ft}^2$$

CHECK TENSION

$$\text{Tension}_{\text{perAttachment}} := P_{\text{wind}} \cdot \text{Trib}_{\text{Area}}$$

$$\text{Tension}_{\text{perAttachment}} = 396.8 \text{ lb}$$

$$\text{Tension}_{\text{perTekScrew}} := \frac{\text{Tension}_{\text{perAttachment}}}{2}$$

allowable tension capacity per screw

$$\text{Tension}_{\text{perTekScrew}} = 198.4 \text{ lb}$$

<

$$\text{Tapcon}_{\text{TensionCapacity}} := 595 \cdot \text{lb}$$

OK

CHECK SHEAR

$$\text{panel}_{\text{wt}} := 10 \cdot \text{psf} \quad \text{panel weight is approximately 5 psf, use 10 psf (conservative)}$$

$$\text{Shear}_{\text{perAttachment}} := \text{panel}_{\text{wt}} \cdot \text{Trib}_{\text{Area}}$$

$$\text{Shear}_{\text{perAttachment}} = 71.3 \text{ lb}$$

$$\text{Shear}_{\text{perTekScrew}} := \frac{\text{Shear}_{\text{perAttachment}}}{2}$$

allowable shear capacity per screw

$$\text{Shear}_{\text{perTekScrew}} = 35.6 \text{ lb}$$

<

$$\text{Tapcon}_{\text{ShearCapacity}} := 607 \cdot \text{lb}$$

OK

CHECK COMBINED TENSION & SHEAR

$$\left(\frac{\text{Tension}_{\text{perTapcon}}}{\text{Tapcon}_{\text{TensionCapacity}}} \right)^2 + \left(\frac{\text{Shear}_{\text{perTapcon}}}{\text{Tapcon}_{\text{ShearCapacity}}} \right)^2 = 0.03 \quad \text{less than 1, OK} \quad \underline{\underline{\text{\#12-24 TEK SCREWS ARE ADEQUATE}}}$$

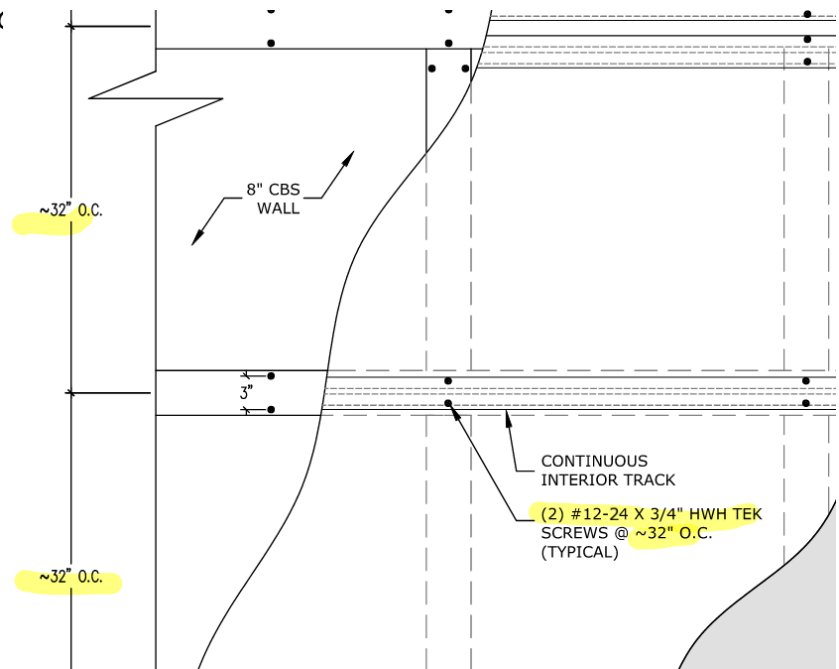


TABLE 4A—ALLOWABLE (ASD) PULL-OUT STRENGTH OF SCREWS INSTALLED IN ALUMINUM (lbf)^{1,2}

SCREW TYPE	SCREW SIZE	NOMINAL DIAMETER (in.)	POINT TYPE	THICKNESS OF ALUMINUM MEMBER NOT IN CONTACT WITH SCREW HEAD (inch)														
				6063-T5 (F _y = 16 ksi, F _u = 22 ksi)					6063-T6 (F _y = 25 ksi, F _u = 30 ksi)					6061-T6 (F _y = 35 ksi, F _u = 38 ksi)				
				1/16	1/8	3/16	1/4	5/16	1/16	1/8	3/16	1/4	5/16	1/16	1/8	3/16	1/4	5/16
Bi-Flex® Screws																		
1, 2	#8-18	0.164	#2	69	175	—	—	—	101	252	—	—	—	123	320	—	—	—
3, 4, 5	#10-16	0.190	#2	72	190	—	—	—	100	280	—	—	—	128	360	—	—	—
6, 7	#12-14	0.216	#2	70	206	—	—	—	106	308	—	—	—	134	406	—	—	—
8, 9	#12-14	0.216	#3	55	164	353	504	—	85	270	496	646	—	110	348	590	696	—
10	#12-24	0.216	#5	—	145	309	387	436	—	214	421	518	606	—	275	467	595	704
11	1/4-14	0.250	#2	84	237	—	—	—	133	357	—	—	—	180	473	—	—	—
12, 13, 14	1/4-20	0.250	#3	60	171	330	488	—	95	257	477	656	—	122	342	594	758	—
15, 16	1/4-20	0.250	#5	—	120	259	355	395	—	190	340	508	565	—	273	357	660	706
Dril-Flex® Screws																		
17	#10-16	0.190	#2	78	200	—	—	—	119	298	—	—	—	153	391	—	—	—
18A, 18B	#10-16	0.190	#3	76	180	—	—	—	100	277	—	—	—	132	381	—	—	—
19	#10-24	0.190	#3	82	193	—	—	—	100	283	—	—	—	109	361	—	—	—
20	#12-14	0.216	#2	103	226	—	—	—	114	329	—	—	—	146	415	—	—	—
21, 22	#12-14	0.216	#3	103	216	420	—	—	114	317	592	—	—	145	403	704	—	—
23	#12-24	0.216	#5	—	183	358	410	449	—	262	487	664	664	—	322	542	812	812
24	1/4-14	0.250	#3	85	241	437	—	—	123	346	644	—	—	144	428	832	—	—
25, 26, 27	1/4-20	0.250	#4	—	233	447	589	641	—	336	617	847	977	—	416	708	1,113	1,195
28	1/4-20	0.250	#5	—	224	437	596	600	—	333	621	842	882	—	434	752	1,075	1,134
Alumi-Flex® Screws																		
29, 30	#10-16	0.190	#3	71	190	—	—	—	109	286	—	—	—	143	379	—	—	—
31	#12-14	0.216	#3	66	189	391	—	—	114	286	556	—	—	132	382	556	—	—
32, 33	1/4-14	0.250	#3	72	199	422	826	—	107	313	589	826	—	130	401	688	826	—
34	1/4-20	0.250	#4	—	195	376	580	580	—	291	547	782	782	—	382	719	880	880

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45 N.

¹Allowable strengths are based on laboratory tests. Safety factors have been determined in accordance with the ADM. These values only apply to screws which are self-drilled.²For tension connections, the lowest of the allowable pull-out, pull-over, and screw tension strength must be used for design.TABLE 5A—ALLOWABLE (ASD) SHEAR (BEARING) CAPACITY OF ALUMINUM-TO-ALUMINUM SCREW CONNECTIONS (lbf)^{1,2,3,4}

SCREW TYPE	SCREW SIZE	NOMINAL DIAMETER (in.)	POINT TYPE	HEAD STYLE ⁵	THICKNESS OF ALUMINUM (IN CONTACT – NOT IN CONTACT) WITH SCREW HEAD (inch)											
					6063-T5 (F _y = 16 ksi, F _u = 22 ksi)				6063-T6 (F _y = 25 ksi, F _u = 30 ksi)				6061-T6 (F _y = 35 ksi, F _u = 38 ksi)			
					0.0625	0.0625	0.125	0.125	0.0625	0.0625	0.125	0.125	0.0625	0.0625	0.125	0.125
					—	—	—	—	—	—	—	—	—	—	—	—
Bi-Flex® Screws																
1	#8-18	0.164	#2	HWH	113	113	226	—	154	154	308	—	195	195	380	—
2	#8-18	0.164	#2	PPH	113	113	226	—	154	154	308	—	195	195	380	—
3	#10-16	0.190	#2	HWH	131	131	261	—	178	178	356	—	226	226	451	—
4	#10-16	0.190	#2	Pancake	131	131	261	—	178	178	356	—	226	226	451	—
5	#10-16	0.190	#2	PPH	131	131	261	—	178	178	356	—	226	226	451	—
6	#12-14	0.216	#2	HWH	149	149	297	—	203	203	405	—	257	257	513	—
7	#12-14	0.216	#2	PUFH	163	—	—	—	207	—	—	—	207	—	—	—
8	#12-14	0.216	#3	HWH	149	333	416	—	203	424	541	—	257	424	561	—
9	#12-14	0.216	#3	Pancake	149	335	425	—	203	426	442	—	257	426	442	—
10	#12-24	0.216	#5	HWH	149	149	423	607	203	203	547	607	257	257	559	607
11	1/4-14	0.250	#2	HWH	172	172	344	—	234	234	469	—	297	297	594	—
13	1/4-20	0.250	#3	HWH	172	324	453	—	234	412	623	—	297	412	725	—
15	1/4-20	0.250	#5	HWH	172	172	406	749	234	234	570	871	297	297	691	871
Dril-Flex® Screws																
17	#10-16	0.190	#2	PPH	131	131	261	—	178	178	356	—	226	226	451	—
18A, 18B	#10-16	0.190	#3	HWH	131	131	261	—	178	178	356	—	226	226	451	—
19	#10-24	0.190	#3	PWH	160	—	—	—	204	—	—	—	204	—	—	—
20	#12-14	0.216	#2	HWH	149	149	297	—	203	203	405	—	257	257	513	—
21	#12-14	0.216	#3	HWH	149	149	297	—	203	203	405	—	257	257	513	—
22	#12-14	0.216	#3	PUFH	168	326	—	—	214	415	—	—	214	415	—	—
23	#12-24	0.216	#5	HWH	149	149	433	696	203	203	578	760	257	257	637	760
24	1/4-14	0.250	#3	HWH	172	172	344	—	234	234	469	—	297	297	594	—
25	1/4-20	0.250	#4	HWH	172	172	498	—	234	234	663	—	297	297	724	—
28	1/4-20	0.250	#5	HWH	172	172	500	761	234	234	655	761	297	297	687	761
Alumi-Flex® Screws																
29	#10-16	0.190	#3	HWH	131	131	261	—	178	178	356	—	226	226	451	—
30	#10-16	0.190	#3	PUFH	111	—	—	—	142	—	—	—	142	—	—	—
31	#12-14	0.216	#3	HWH	149	327	—	—	203	416	—	—	257	416	—	—
32	1/4-14	0.250	#3	HWH	172	388	521	—	234	493	535	—	297	493	535	—
33	1/4-14	0.250	#3	PUFH	152	288	441	—	194	367	546	—	194	367	546	—
34	1/4-20	0.250	#4	HWH	172	172	436	—	234	234	544	—	297	297	544	—

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45 N. Notes for Tables 5A and 5B are on page 8.

MecaWind v2545

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Calculations Prepared by:

THM Structural Consulting
9719 S. Dixie Highway
Miami-Dade, FL, 33156
Date: Nov 25, 2025
Designer: THOMAS MOE

File Location: C:\Users\Tom\My Drive\My Doc's\MECA Wind Pressure\
Huber & Khomiak Residence_A.Allen Studio.wnd

Calculations Prepared For:

Client: HUBER & KHOMIAK RESIDENCE
Location: 12020 SW 77 AVE, PINECREST

General:

Reference Abbreviations: T: Table, F: Figure, E: Equation, S: Section, ¶: Paragraph

Wind Load Standard	=	ASCE 7-22	Basic Wind Speed	=	175.0 mph
Exposure Classification	=	C	Risk Category	=	II
Structure Type	=	Building	Basis for Wind Pressures	=	ASD
MWFRS Analysis Method	=	None	C&C Analysis Method	=	Ch 30 Pt 1
Dynamic Type of Structure	=	Rigid	Advanced Options	=	True
Simple Diaphragm Building	=	True	Altitude above Sea Level	=	0.000 ft
Base Elevation Of Structure	=	0.0000 ft	MWFRS Pressure Elevations	=	Mean Ht
Topographic Effects	=	None	Override Directionality Factor	=	False
Override Gust Factor	=	False	Override Minimum Pressure	=	False

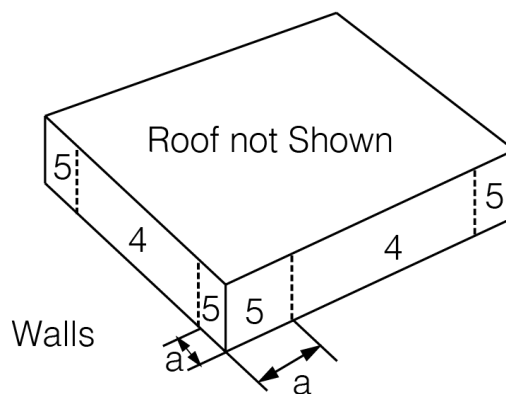
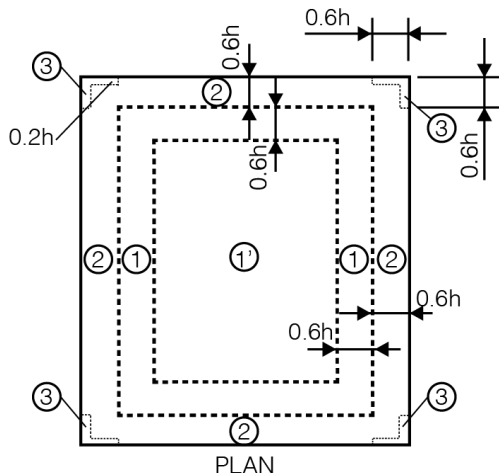
Building:

Roof = Roof Type	=	Flat	Encl = Enclosure Classification	=	Enclosed
IsCust = Custom Roof	=	False	RfHt = Roof Height	=	28.000 ft
W = Building Width	=	70.0000 ft	L = Building Length	=	110.0000 ft
OH = Overhang Configuration	=	All None	Par = Parapet	=	Solid
P _{ht} = Parapet Height	=	1.0000 ft	Z _i = Highest Opening Elevation	=	0.0000 ft
HT _{over} = Override Mean Roof Height	=	False	Ht _{man} = Mean Roof Height	=	28.000 ft
RA _{over} = Override Roof Area	=	False	GC _{pi_o} = Override GC _{pi} value	=	False
IsElev = Building is Elevated	=	False			

Exposure Constants T:26.11-1:

α = 3-s Gust-speed exponent	=	9.800	Z _g = Nominal Ht of Boundary Layer	=	2460.000 ft
$\hat{a}$ = Reciprocal of α	=	0.102	b = 3 sec gust speed factor	=	1.000
α_m = Mean hourly Wind-Speed Exponent	=	0.156	b _m = Mean hourly Windspeed Exponent	=	0.660
c = Turbulence Intensity Factor	=	0.200	e = Integral Length Scale Exponent	=	0.2000

Components and Cladding (C&C) Wind Loads per Ch 30 Pt 1 Roof & Wall



h = Mean structure height	=	28.000 ft
K _{zt} = No Topographic Feature	=	1.000
GC _{pi} = ± Internal Press Coef T:26.13-1	=	±0.18
K _e = Ground Elev Factor T:26.10-1	=	1.000
θ = Slope of Roof	=	0.00 °
a = Max(a ₁ , 0.04•B, 3 ft [0.9 m])	=	7.000 ft
0.6•h = Zone 1 & 2 Parameter	=	16.8000 ft

K _h = 2.41•(Min(Z,15)/Z _g) ^{2/α}	=	0.967
K _d = Directionality Factor T:26.6-1	=	0.85
LF = ASD Load Factor	=	0.60
q _h = .00256•K _h •K _{zt} •K _e •V ² •LF _{E:26.10-1}	=	45.48 psf
a ₁ = Min(0.1•B, 0.4•h)	=	7.000 ft
0.2•h = Zone 3 Parameter	=	5.6000 ft

C&C Wind Roof & Wall Detailed per Ch 30 Pt 1
All wind pressures include a Load Factor (LF) of 0.6

Description	Zone	Width ft	Span ft	Area ft ²	1/3 Rule	Reference	a ft	GC _{pi}	GC _{pd}	GC _{pu}	P _{max} psf	P _{min} psf
STONE CLADDING	4	3.0000	3.0000	9.00	No	F:30.3-1*	16.8	±0.18	0.90	-0.99	41.75	-45.23
STONE CLADDING	5	3.0000	3.0000	9.00	No	F:30.3-1*	16.8	±0.18	0.90	-1.26	41.75	-55.66

GC_{pd} = Down (+) External Coefficient
 P_{max} = $q_h \cdot K_d \cdot [GC_{pg} - GC_{pi}]$ [S:30.3-1]
+Press = Pressure Acting Toward Surface
§30.2.2 = C&C Min Pressure = 9.60 psf
Width = Width of Component
Area = Span • Width
a = Zone 2 width: $0.6 \cdot h$ F:30.3-1
Reference = Applicable Reference from Standard

GC_{pu} = Uplift (-) External Coefficient
 P_{min} = $q_h \cdot K_d \cdot [GC_{pu} - GC_{pi}]$ [S:30.3-1]
-Press = Pressure Acting Away from Surface
Zone = Applicable Zone per Figure
Span = Span of Component
1/3 Rule = Width limited to Span/3
 GC_{pi} = Internal Coef T:26.13-1
F:30.3-1 = *Since $\theta \leq 10^\circ$: Zone 4 & 5 GC_p reduced 10%