

STRUCTURAL DESIGN CRITERIA:

- THE DESIGN COMPLIES WITH THE REQUIREMENTS OF THE 2020 FLORIDA BUILDING CODE - SECTION 1609 AND OTHER REFERENCED CODES AND SPECIFICATIONS. ALL CODES AND SPECIFICATIONS SHALL BE LATEST EDITION AT TIME OF PERMIT.
- WIND LOAD CRITERIA: RISK CATEGORY 2, EXPOSURE "C"
BASED ON ASHRAE 7-10, 2020 FBC 1609-A WIND VELOCITY: V_{100} = 120 MPH
 V_{50} = 98 MPH
- ROOF DESIGN LOADS:
SUPERIMPOSED DEAD LOADS: 20 PSF
SUPERIMPOSED LIVE LOADS: 20 PSF
- FLOOR DESIGN LOADS:
SUPERIMPOSED DEAD LOADS: 25 PSF
SUPERIMPOSED LIVE LOADS: 100 PSF
CENTRIFUGAL BALCONY/CORRIDORS: 80 PSF
- WIND NET UPLIFT: ARE AS INDICATED ON PLANS

BUILDING COMPONENTS & CLADDING LOADS MEAN BUILDING HEIGHT = 30', EXPOSURE "B"					
NO.	TYPE	WIND	WIND	WIND	WIND
		120 MPH	120 MPH	140 MPH	140 MPH
1	10	12.0 / -18.9	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
2	10	11.4 / -18.4	13.6 / -21.0	16.0 / -24.6	18.5 / -31.4
3	10	10.0 / -16.6	11.9 / -22.2	13.9 / -26.0	16.1 / -30.2
4	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
5	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
6	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
7	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
8	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
9	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
10	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
11	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
12	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
13	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
14	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
15	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
16	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
17	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
18	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
19	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
20	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
21	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
22	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
23	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
24	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
25	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
26	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
27	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
28	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
29	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3
30	10	12.5 / -19.3	14.9 / -23.1	17.5 / -27.8	20.3 / -32.3

HEIGHT & EXPOSURE ADJUSTMENT COEFFICIENTS
FOR BUILDING COMPONENTS & CLADDING

BUILDING HEIGHT	EXPOSURE "B"	EXPOSURE "C"	EXPOSURE "D"
15	1.00	1.21	1.47
20	1.00	1.25	1.55
25	1.00	1.35	1.61
30	1.00	1.40	1.66

NOTE!
REFER TO THE METAL BUILDING SHOP DRAWINGS PREPARED BY THE CO. OF ALL EMBEDDED ANCHOR BOLTS.

NOTE!
ANCHOR BOLT SHALL BE APPLIED N 12" LIFT - E ALLT SHALL BE CONCRETE TO 30% DRY COMPACTION PER THE "MODIFIED PROCTOR" METHOD.

NOTE!
THE DESIGN UNDERSPECIFIED FOR THIS PROJECT AND LOCAL JURISDICTION REQUIREMENTS.

NOTE!
ALL ANCHOR BOLTS ARE A577 GRADE A36 STEEL ROD THREADED 3/12" BLACK AND FREE FROM RUST AND SCALE.

NOTE!
THIS PROJECT IS TYPE 3 UNPROTECTED CONSTRUCTION PER 1609-F50 TABLE 1609 AND TABLE 600.

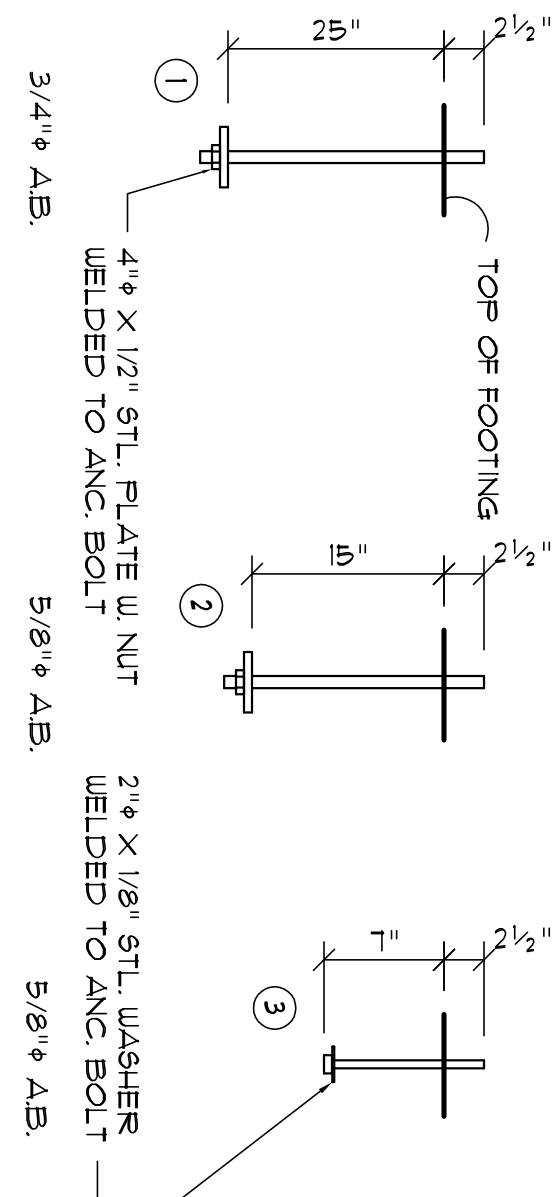
ANCHOR BOLT / FOUNDATION SIZING:

THE ANCHOR BOLT DIAMETERS AND DEVELOPED LENGTHS INDICATED IN THIS DRAWING WERE DETERMINED USING SHEAR FRICTION THEORY AS DESCRIBED IN ACI 308R-10. THE DEVELOPED LENGTHS WERE BASED ON ANCHOR BOLT MATERIAL OF A577 A507 (50,000 PSI) THE COMBINED FORCES ACTING AT THE BASE OF THE STEEL FRAME RESULTING IN A VERTICAL REACTION ACTING UPON THE FOUNDATION WERE DEVELOPED AS FOLLOWS:

$T = T_d + T_{sf}$

WHERE:

- T_d = TOTAL TENSILE FORCE PER BOLT
- T_{sf} = TENSILE FORCE PER BOLT DUE TO DIRECTLY APPLIED LOAD = P/N
- T_{sf} = TENSILE FORCE PER BOLT DUE TO SHEAR FRICTION = $V/(n \times u)$
- WHERE:
- P = TOTAL UPLIFT TO BE RESISTED BY ANCHOR BOLT GROUP
- V = TOTAL SHEAR FORCE TO BE RESISTED BY ANCHOR BOLT GROUP
- n = NUMBER OF ANCHOR BOLTS
- u = COEFFICIENT OF FRICTION (TAKEN AS 0.7 FOR UNROUTED BASE PLATES OR 0.5 FOR GROoved BASE PLATES)



NOTE!
ALL ANCHOR BOLTS ARE A577 GRADE A36 STEEL ROD THREADED 3/12" OR GRADE A507, BLACK AND FREE FROM RUST AND SCALE.

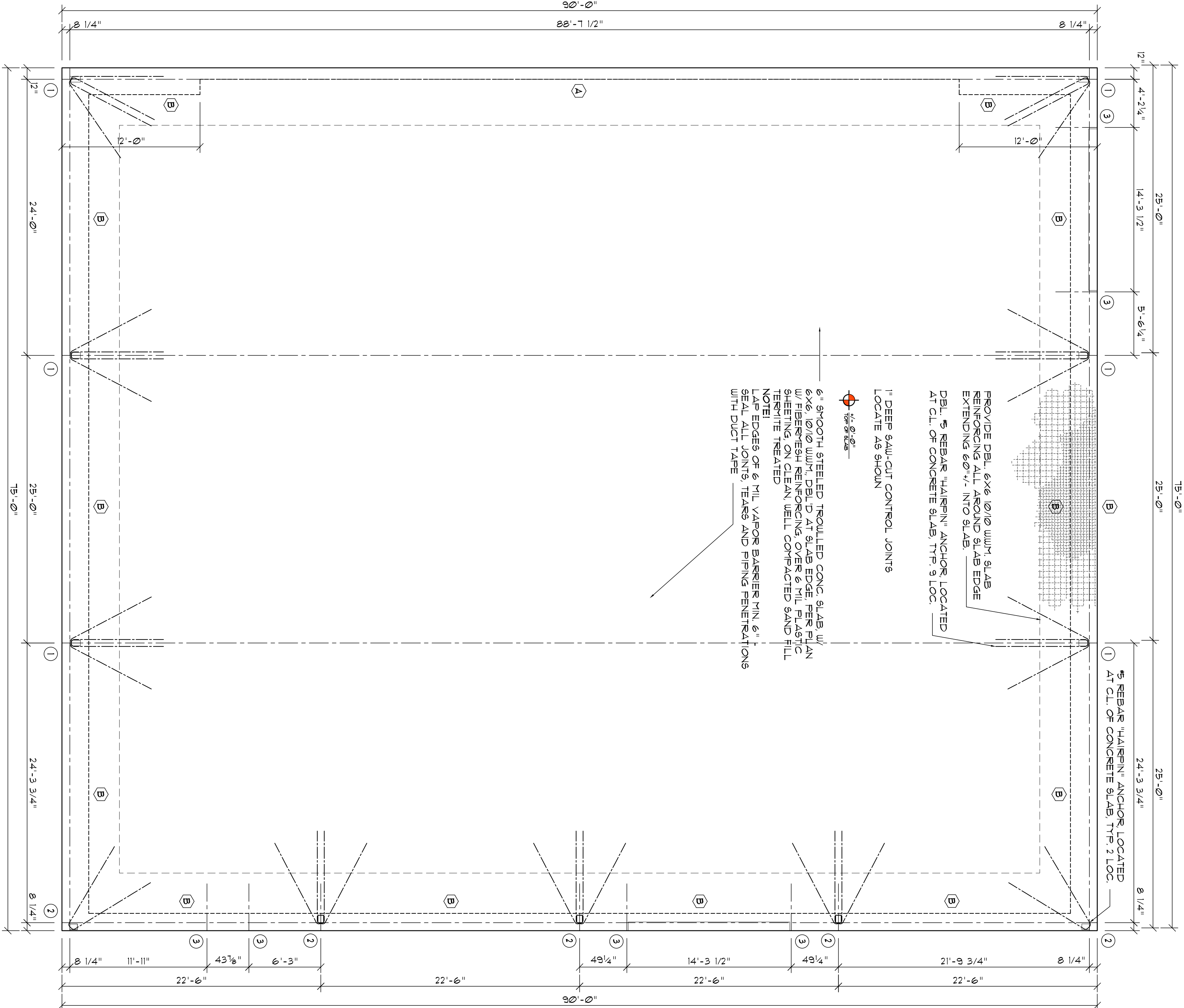
NOTE!
ALL DOOR/ENTRY OPENINGS INDICATED ARE NET SIZE AND REQUIRE 2 #5 ANCHOR BOLTS AT EACH SIDE OF THE OPENING REFER TO METAL BUILDING SHOP DRAWINGS FOR DETAIL.

Anchor Bolt Details

SCALE: 1" = 1'-0"

FOOTING SCHEDULE

- 12" X 12" X CONTINUOUS FOOTING, W/ 2 #5 REBAR BOTTOM, CONT, LAP SPLICE ALL REBAR A MINIMUM OF 40 BAR DIAMETERS - TYPICAL
- 18" X 18" X CONTINUOUS FOOTING, W/ 2 #5 REBAR TOP & BOTTOM, CONT, LAP SPLICE ALL REBAR A MINIMUM OF 40 BAR DIAMETERS - TYPICAL
- 28" X 28" X CONTINUOUS FOOTING, W/ 4 #5 REBAR TOP & BOTTOM, CONT, LAP SPLICE ALL REBAR A MINIMUM OF 40 BAR DIAMETERS - TYPICAL



Foundation PLAN

SCALE: 1/8" = 1'-0"