STRUCTURAL NOTES - CONCRETE

UNLESS OTHERWISE CALLED FOR IN SPECS OR DRAWINGS, ALL CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS AND RECOMMENDATIONS OF THE F.B.C.,2023 8th ED. CHAPTER 19, AND ACI 318-14

CONCRETE TO BE A MIX DESIGNED IN ACCORDANCE WITH ASTM C94/C94M-13 TO ACHIEVE A STRENGTH IN 28 DAYS AS STATED BELOW, WITH A PLASTIC AND WORKABLE MIX. A CERTIFICATE OF MANUFACTURES' MIX & STRENGTH IS TO BE PROVIDED. NO WATER IS TO BE ADDED AFTER TRUCK LEAVES THE PLANT, WITHOUT APPROVAL OF THE ENGINEER OR PLANT ENGINEER. PLANT CONTROL SHALL BE REQUIRED. MAX. MIX TIME AT POINT OF DEPOSIT SHALL BE 90 MINUTES. MIN. COMPRESSIVE STRENGTH SHALL BE AS FOLLOWS: (U.O.N.)
CONCRETE BALCONY/EYEBROW: 4000 PSI
RETAINING WALL: 4000 PSI
COLUMNS & BEAMS: 4000 PSI
CONCRETE STRENGTH @ 28 DAYS SHALL BE MIN. 4000 PSI

GROUT SLUMP REQUIRED ----- 8" TO 10" PROVIDE CLEANOUT HOLES

MORTAR SHALL COMPLY WITH A.S.T.M. C 270-01a

MORTAR SLUMP REQUIRED ----- 5" TO 8" TYPE AS PER F.B.C 2017-6th EDITION
CONTRACTOR TO CONSOLIDATE GROUT LIFTS WITH 3/4" VIBRATOR

REINFORCING STEEL SHALL CONFORM TO ASTM A-615/A-615M-12 GRADE 60. REINFORCING STEEL SHALL BE DETAILED & FABRICATED ACCORDING TO THE " MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES". HOOK ALL DISCONTINUOUS TOP REINFORCING. PROVIDE CORNERS W/ (2) #5 X 5'-0" BARS. CLEAR COVER FOR REINFORCING BARS SHALL BE:

FOOTINGS	3"	UNFORMED FACES	3"
SLABS	3/4"	FORMED FACES IN	
BEAMS/COLUMNS	1 1/2"	CONTACT W/EARTH	2"

CONCRETE TESTING IS TO BE PERFORMED AS FOLLOWING: (1) SET OF (5) CYLINDERS FOR EVERY 50 CU. YDS. OF CONCRETE AS PER ASTM C-94/C94M-13

MAX. AGGREGATE SIZE SHALL BE 3/4", & SHALL CONFORM TO ASTM C-33/C33M-13
MASONRY CONSTRUCTION & MATERIALS SHALL CONFORM W/ ALL REQUIREMENTS OF THE "SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530/530.1/ASCE 5-13), AS PUBLISHED BY THE MASONRY STANDARDS JOINT COMMITTEE 13

ALL BLOCK WALLS SHALL BE TWO-CELL HOLLOW CONC. MASONRY REGULAR SIZE BLOCK MANUF. IN CONFORMANCE W/ ASTM C-90-14, GRADE N, f'm = 1500 psi. BLOCK SHALL BE PLACED USING RUNNING BOND U.O.N. LAY-UP MASONRY WALLS TO BTM. OF TIE BEAMS BEFORE PLACING CONC. FOR IN-WALL COLUMNS. GROUT USED TO FILL MASONRY CELLS SHALL COMPLY W/ ASTM C-476-02, & SHALL PROVIDE A MIN. COMPRESSIVE STRENGTH OF 3,000 psi AT 28 DAYS. THE GROUT MIX SHALL HAVE A MAX. 3/8" COARSE AGGREGATE, & SHALL BE PLACED W/ A SLUMP OF 8" TO 10". PLACE GROUT IN ACCORDANCE W/ ACI 530-13. TYPE S MORTAR SHALL BE USED EXCLUSIVELY ON THIS PROJECT. MORTAR SHALL BE PROPORTIONED & MIXED AS OUTLINED UNDER ASTM C-270. HORIZ. & VERT. MORTAR JOINTS SHALL BE 3/8" THICK U.O.N. REMOVE MORTAR PROTRUSIONS THAT EXTEND INTO CELLS TO BE FILLED.

HORIZ. MORTAR JOINTS SHALL BE REINF. W/ #9 GAGE "LADDER TYPE" HORIZ. JOINT REINF. (ASTM CLASS B-2, HOT-DIPPED GALV.) AT ALTERNATE COURSES (16" ON CENTER), U.O.N. JOINT REINF. SHALL BE CONT. & SHALL LAP A MIN. 8".

VERTICAL CELLS FOR MASONRY SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR, UNOBSTRUCTED CONTINUOUS CELL.

CLEAN OUT OPENINGS SHALL BE PROVIDED AT THE BOTTOM OF GROUTED CELLS AT EACH LIFT. CLEAN OUTS SHALL BE SEALED AFTER CLEANING & INSPECTION AND BEFORE GROUTING.

ALL DOWELS, SLEEVES, CONDUITS, INSERTS, BLOCK OUTS, ANCHOR BOLTS & DRAINS SHALL BE IN PLACE BEFORE CONCRETING. FOR OPENINGS & SPECIAL FEATURES OMITTED ON THESE PLANS, SEE ARCHITECTURAL &/OR MECHANICAL DWGS.

SLAB SHALL BE A MIN. 4" THK. CONC. SLAB W/ 6"x6" 1.4w/1.4 W.W.M. SUPPORTED 36" O.C. EA. WAY (DBL. REINF. FOR 60" @ PERIMETER) IN THE MIDDLE TO UPPER ONE-THIRD OF THE SLAB W/ APPROVED "CHAIR", OVER 6 MIL. VISQUEEN VAPOR BARRIER, ON WELL COMPACTED, TERMITE TREATED, CLEAN FILL

SCRAPE SLAB AREA CLEAR OF ALL ORGANIC MATERIAL AND FILL W/ CLEAN SAND TO THE ELEVATION OF THE BTM. OF THE SLAB. SURFACE MATERIAL CAN BE USED AS SITE FILL.
ANY ADDITIONAL FILL PLACED ON THE BLDG. PAD SHALL BE COMPACTED TO A DRY DENSITY OF AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY, DETERMINED IN ACCORDANCE WITH ASTM D-1557. THE AREA OF THE BTM. OF THE FTGS. SHALL BE COMPACTED, PRIOR TO PLACEMENT OF STEEL, W/ A VIBRATORY COMPACTOR TO INSURE UNIFORM DENSITY BENEATH THE FOOTING. DENSITY TESTS SHALL BE TAKEN IN THE FOOTING AREAS.

SOIL SHALL BE TREATED FOR TERMITES FOR A DISTANCE OF FOUR (4) FEET BEYOND THE PERIMETER OF ALL FOOTINGS AND/OR SLAB EDGES.

ALL PLATES, ANGLES AND MISCELLANEOUS METAL ITEMS TO BE EMBEDDED IN CONCRETE SHALL BE SECURELY AND ACCURATELY FASTENED TO THE CONCRETE FORM WORK BY A MINIMUM OF TWO (2) FASTENERS PRIOR TO CONCRETE PLACEMENT.

BUNDLE ALL STRUCTURAL BEAM TOP BARS IN PAIRS OVER SUPPORT WITH TOP BARS FROM ADJACENT BEAM.

EXTEND BOTTOM BARS 8" PAST ALL OPENINGS GREATER THAN 3'-0" ON BOTH SIDES.

BOND BEAMS SHALL BE CONTINUOUS REINFORCEMENT, PROVIDED BY LAPPING SPLICES NOT LESS THAN 30". CONTINUITY SHALL BE PROVIDED AT ALL CORNERS BY BENDING 2 BARS FROM EACH DIRECTION AROUND THE CORNER 30" OR BY ADDING 2# 5 BENT 30" EACH LEG.
CONTINUITY @ COLS. SHALL BE PROVIDED BY CONTINUING HORIZONTAL REBARS THRU COLUMNS OR BY BENDING HORIZ. REINF. INTO COLS. A DISTANCE OF 30".
HOOK TOP OF VERTICAL BARS IN ALL TERMINATING COLUMNS 2" BELOW TOP OF SLAB AND 3" BELOW TOP OF THE BOND BEAM.
STRUCTURAL STL. SHALL BE FABRICATED & ERECTED IN ACCORDANCE W/ THE LATEST A.I.S.C. STL. CONSTR. MANUAL & SHALL CONFORM W/ THE LATEST A.S.T.M. SPECS. BOLTS SHALL CONFORM TO A.S.T.M. A325, ANCHOR BOLTS SHALL CONFORM TO A.S.T.M. A307. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS.
REINFORCING STEEL fy = 60,000 P.S.I. fs = 24,000 P.S.I. Es = 29,000,000 P.S.I.
Em = 1,500,000 P.S.I. N = Es/Em = 21.48
TEMPORARY SHORING FOR CONCRETE FLOORS AND BALCONIES SHALL USE STANDARD POST SHORES AT 4'-0" ON CENTER WITH DOUBLE 2X12 SILL NAILED WITH 16D NAILS AT 4" SPACING IN EACH DIRECTION. USE 4"X8" J-HEAD ON TOP OF EACH POST SHORE. USE 4"X6" BEAMS (SOUTHERN PINE #2 TYPICAL) SPANNING FROM POST SHORE TO POST SHORE. USE 4"X4" PURLINS AT 2'-0" SPACING SPANNING FROM BEAM TO BEAM. USE 3/4" PLYWOOD FOR CONCRETE FORM. ALL POST SHORES SHOULD BE BRACED AT MID-HEIGHT IN EACH DIRECTION. EACH ROW OF POST SHORES SHOULD HAVE A KNEE BRACE AT EACH ROW. CONSTRUCTION AND REMOVAL OF ALL FORMWORK SHALL BE DONE ACCORDING TO ACI 347.
CONTRACTOR IS RESPONSIBLE FOR THE ADEQUACY OF FORMS AND SHORING AND FOR SAFE PRACTICE IN THEIR USE AND REMOVAL. CONTRACTOR TO MAINTAIN FLOORS 100% SHORED. CONTRACTOR SHALL ERECT FORM WORK IN STRICT COMPLIANCE WITH ACI 347. PROVIDE CHAMFERS AT ALL CORNERS IN CONCRETE MEMBERS EXPOSED TO VIEW. FORM WORK TO REMAIN IN PLACE UNTIL CONCRETE HAS ATTAINED ENOUGH STRENGTH TO SUPPORT ALL DEAD LOADS PLUS A MINIMUM OF 50 P.S.F. OF ADDITIONAL CONSTRUCTION LOAD. CONTRACTOR SHALL COORDINATE ALL OPENINGS AS REQUIRED FOR OTHER TRADES. OPENINGS WHERE SHOWN ON THE STRUCTURAL DRAWINGS ARE TO IDENTIFY DESIGN INTENT ONLY. THE SPECIFIC DIMENSIONS AND LOCATIONS SHALL BE FURNISHED OR CONFIRMED BY THE TRADE REQUIRING THE OPENING.

REINFORCING STEEL:

REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A-615-12 GRADE 60 (Fy = 60KSI).

WELDED WIRE FABRIC SHALL BE 6"x6"-#10x#10

TIE-WIRES SHALL CONFORM WITH ASTM A82.
REBARS IN BEAMS, COLUMNS, AND SLABS SHALL BE FULLY SECURED PRIOR TO FINAL POUR.

REINFORCING STEEL SHALL BE CLEAN AND FREE FROM FOREIGN DEBRIS, NONMETALLIC COATINGS. THE REINFORCEMENT STEEL SHALL ALSO BE FREE FROM RESIDUES SUCH AS OIL, MUD, DIRT, SCALE ANY PITTING AND NICKS THAT IS MORE THAN 2% OF THE TOTAL CROSS-SECTIONAL AREA OF ANY REBAR.

REINFORCING STEEL SHALL HAVE THE FOLLOWING MINIMUM COVER:

ANY CONCRETE POURED AGAINST EARTH	3.0"
ALL FOOTINGS TOP, BOTTOM AND SIDES	3.0"
BEAMS PRIMARY REINFORCEMENT AND STIRRUPS TOP AND BOTTOM SIDES	1.5"
COLUMNS PRIMARY REINFORCEMENT, TIES AND SPIRALS	1.5"
SLAB-ON-GRADE BOTTOM COVER	2.0"
SLABS	1.5"

VERTICAL BARS IN CONCRETE COLUMNS MUST BE CONTINUOUS. REBARS SHALL BE LAPPED EQUIVALENT TO 42 DIAMETER OF LARGER SIZE LAPPING BARS OR MINIMUM 30 INCHES OR OTHERWISE AS NOTED. LAPPING BARS MUST BE SECURED WITH MINIMUM 3 TWIST TIES.
CORNER BARS IN CONCRETE BEAMS MUST LAP WITH MAIN BARS IN BEAMS A LENGTH EQUIVALENT TO 42 BAR DIAMETER OF LARGER SIZE BARS OR VERTICAL COLUMN REINFORCEMENT MUST LAP WITH HORIZONTAL REBARS IN MINIMUM 36 INCHES OR OTHERWISE AS NOTED. LAPPING BARS MUST BE BEAMS A LENGTH EQUIVALENT TO 15 BAR DIAMETER OF LARGER SIZE LAPPING SECURED WITH MINIMUM 4 TWIST TIES.
BARS OR MINIMUM 12 INCHES OR OTHERWISE AS NOTED. LAPPING BARS MUST CORNER BARS IN CONCRETE FOOTERS MUST LAP WITH ALL MAIN FOOTER BE SECURED WITH MINIMUM 2 TWIST TIES.
REBARS A LENGTH EQUIVALENT TO 42 BAR DIAMETER OF LARGER SIZE BARS OR MINIMUM 36 INCHES OR OTHERWISE AS NOTED. LAPPING BARS SHALL VERTICAL COLUMN REINFORCEMENT MUST LAP WITH HORIZONTAL REBARS IN BE SECURED WITH MINIMUM 4 TWIST TIES.

FOOTER AND SLAB A LENGTH EQUIVALENT TO 15 BAR DIAMETER OF LARGER SIZE LAPPING BARS OR MINIMUM 12 INCHES OR OTHERWISE AS NOTED. LAPPING BARS MUST BE SECURED BY MINIMUM 2 TWIST TIES.

REINFORCED UNIT MASONRY NOTES

THE REINFORCED UNIT MASONRY DESIGN FOR THIS STRUCTURE IS BASED ON RATIONAL ANALYSIS PER FBC

MASONRY BLOCK:

ALL BLOCK WALLS SHALL BE TWO-CELL HOLLOW CONC. MASONRY REGULAR SIZE BLOCK MANUF. IN CONFORMANCE W/ ASTM C90 & FBE 2017 6tH ED. CHAPTER 21, NI OR NII, PROVIDE PRECAST LINTELS AS NECESSARY. SHALL HAVE A MINIMUM PRISM STRENGTH OF f'm = 1500 psi. IN 28 DAYS IN ACCORDANCE WITH A.S.T.M. C1314-07. UNITS SHALL BE A MINIMUM OF 48 BLOCK SHALL BE PLACED USING RUNNING BOND U.O.N. LAY-UP MASONRY WALLS TO BTM. OF TIE BEAMS BEFORE PLACING CONC. FOR IN-WALL COLUMNS.

GROUT:

GROUT USED TO FILL MASONRY CELLS SHALL COMPLY W/ ASTM C-476, & SHALL BE OF PEA ROCK PUMP MIX AND PROVIDE A MIN. COMPRESSIVE STRENGTH OF 3,000 psi AT 28 DAYS .THE GROUT MIX SHALL HAVE A MAX. 3/8" COARSE AGGREGATE, & SHALL BE PLACED W/ A SLUMP OF 8" TO 10". PLACE GROUT IN ACCORDANCE WITH FBC 2017 - 6tH ED. CHAPTER 21

MORTAR:

TYPE S MORTAR IN ACCORDANCE WITH FBC 2017 - 6th ED. CHAPTER 21 SHALL BE USED EXCLUSIVELY ON THIS PROJECT. MORTAR SHALL BE PROPORTIONED & MIXED HORIZ. & VERT. MORTAR JOINTS SHALL BE 3/8" THICK U.O.N. REMOVE MORTAR PROTRUSIONS THAT EXTEND INTO CELLS TO BE FILLED. ALLOW MIN. OF 24 HRS FOR MORTER TO CURE BEFORE PLACING GROUT.

REINFORCEMENT:

CONCRETE MASONRY BLOCKS SHALL BE INSTALLED WITH MASONRY JOINT REINFORCEMENT AT OTHER COURSE. REINFORCEMENT SHALL BE CONTINUOUS WITH (2) BLOCK WIDTH LAPSE AT ENDS AND SHALL BE INSERTED INTO CELLS OR TIE COLUMNS MIN. 4"
THE MINIMUM SIZE OF HORIZONTAL JOINT REINFORCEMENT SHALL BE GAUGE 9 "LADDER" TYPE REINFORCEMENT.

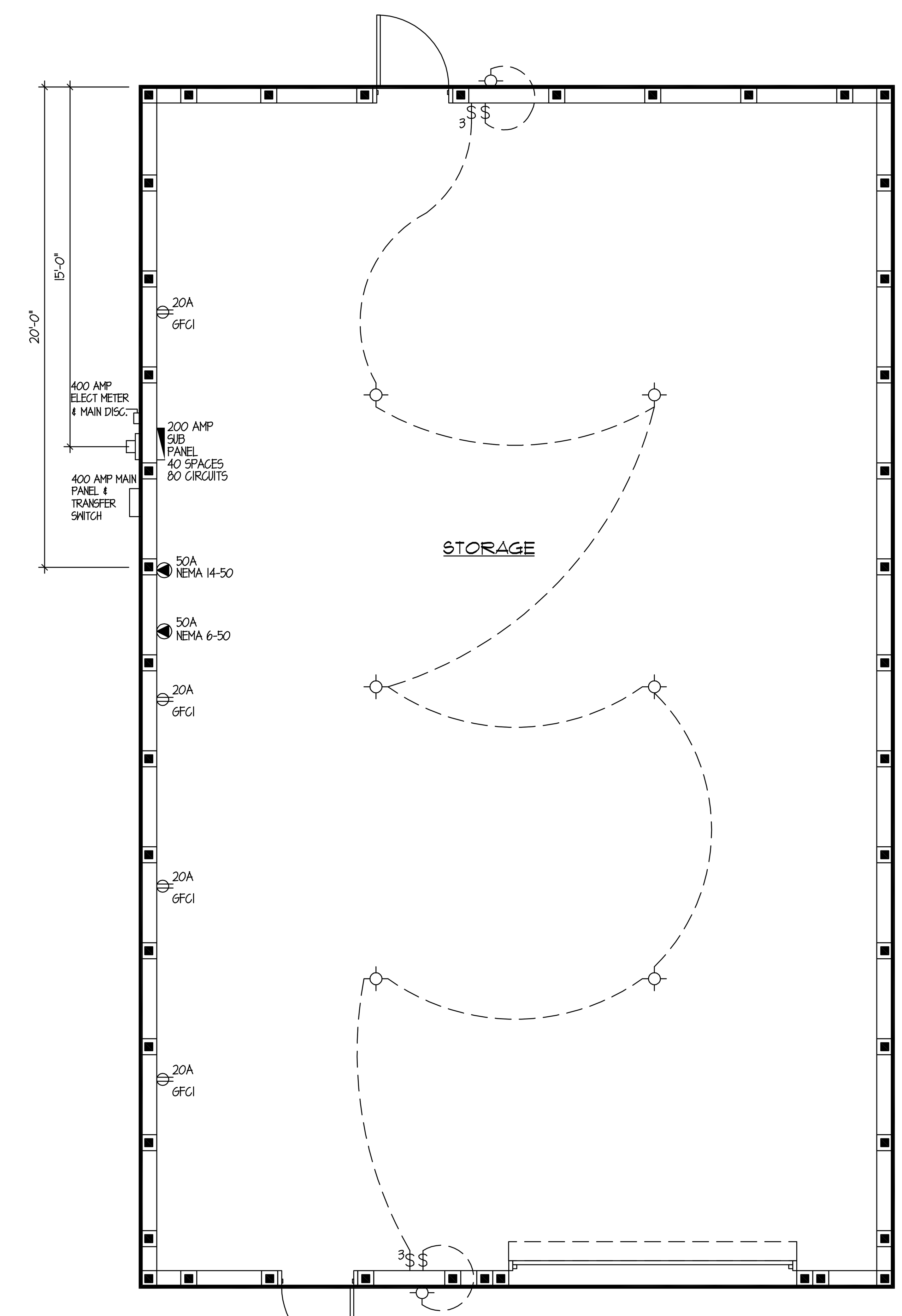
REINFORCED UNIT MASONRY SHALL BE STEEL REINFORCED GROUTED HOLLOW UNIT MASONRY. THE DESIGN OF BUILDINGS AND STRUCTURES OF REINFORCED UNIT MASONRY SHALL BE BY PROFESSIONAL ENGINEER.

GROUTED CELLS WITH REINFORCING SHALL HAVE A MINIMUM IF (1) # 5 VERTICAL AT EACH CORNER, EACH SIDE OF WALL OPENINGS, AND MAXIMUM OF 4'-0" THEREAFTER. SEE PLAN FOR LOCATION AND SIZE OF REINFORCEMENT.

REINFORCING BARS SHALL BE NEW BILLET STEEL PER FBC GRADE 60, LAP REINFORCING AS NOTED ON PLANS.

TIE BEAM AND FILLED CELLS SHALL BE PLACED IN SEPERATE LIFTS AND CONSOLIDATED AS REQUIRED TO COMPLETELY FILL EACH CELL. CLEAN OUT OPENINGS SHALL BE PROVIDED AT THE BOTTOM OF ALL FILLED CELLS FOR INSPECTION.

CLEANOUT OPENINGS SHALL BE PROVIDED AT THE BOTTOM OF GROUTED CELLS AT EACH LIFT OVER 4'-0" HIGH. CLEANOUTS SHALL BE SEALED AFTER CLEANING AND INSPECTION, AND BEFORE GROUTING.

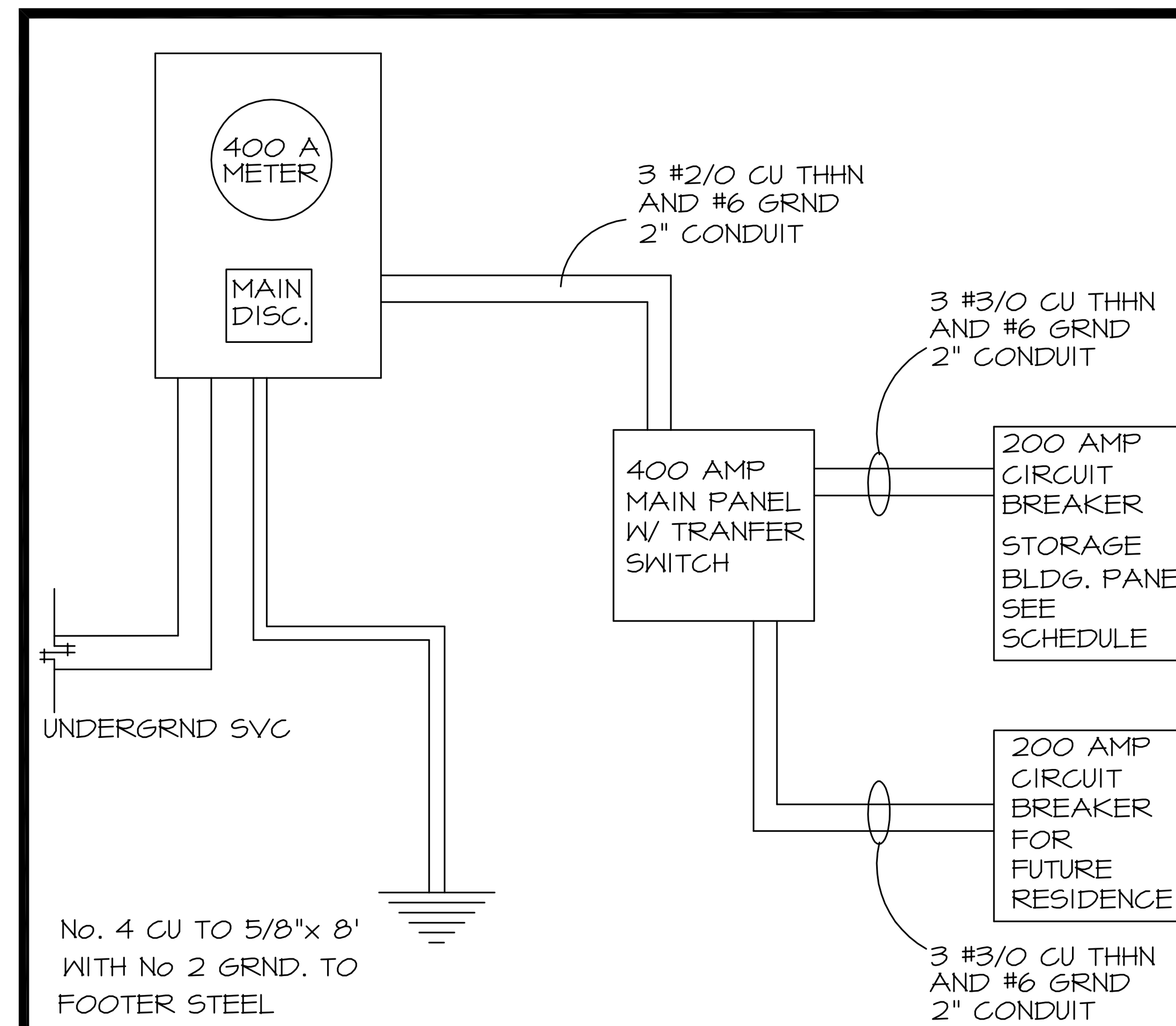


ELECTRICAL PLAN

SCALE 1/4" = 1'-0"

ELECTRICAL NOTES:

1. CONTRACTOR SHALL VERIFY WITH FP&L THE LOCATION OF SERVICE AND SHALL LOCATE METER AND PANELS AS REQUIRED.
2. ALL WIRE SHALL BE THHN COPPER, UNLESS OTHERWISE NOTED.
3. WHERE REQUIRED BY OTHER CODES, SERVICE AND FEEDER CONDUCTORS SHALL BE COPPER OF EQUAL AMPACITY.
4. ALL BRANCH CIRCUITS IN RACEWAY OR NON-METALLIC SHEATHED CABLE.
5. COORDINATE RACEWAY INSTALLATIONS WITH OTHER TRADES PRIOR TO CONSTRUCTION.
6. VERIFY ALL CONDUCTORS AND BREAKERS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS.
7. PROVIDE DISCONNECT SWITCH OF SIZE AS REQUIRED BY LOAD AND UNITS.
8. PROVIDE NON-FUSIBLE GENERAL DUTY SAFETY SWITCHES AT A/C EQUIPMENT, AND AT PUMPS NOT VISIBLE FROM CIRCUIT BREAKER PANEL AND AS PER MANUFACTURER'S RECOMMENDATIONS.
9. PROVIDE GFI BREAKERS OR OUTLETS FOR ALL BATHROOMS, GARAGE AND EXTERIOR OUTLETS AND AS SHOWN ON PLANS.
10. ELECTRICAL FIXTURES, TRIM AND APPLIANCES SHALL BE UL APPROVED AND AS SELECTED BY OWNER.
11. PROVIDE PRE-WIRED TELEPHONE OUTLETS AS SHOWN ON PLANS.
12. PROVIDE PRE-WIRED TV OUTLETS FOR CABLE AS SHOWN ON PLANS.
13. SMOKE DETECTORS TO BE 120V, INTERCONNECTED W /BATTERY BACKUP & WIRED ON KITCHEN OR BATHROOM LTG CIRCUITS AHEAD OF ALL SWITCHES.
14. AFCI CIRCUIT REQ'D FOR ALL BEDROOM RECEPTACLES



ELECTRICAL RISER

NOT TO SCALE

ELECTRIC CONTRACTOR TO VERIFY ALL PANEL LOADS AND CIRCUITS PRIOR TO CONSTRUCTION AND THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY FROM THE PLANS PRIOR TO CONSTRUCTION.

LOAD CALCULATIONS

ELECTRICAL EQUIPMENT		WATTS
1 CAR CHARGER -	50 AMP #6 WIRE	9600
1 WELDER CIRCUIT -	30 AMP #10 WIRE	3000
4 GENERAL OUTLET CIRCUITS -	20 AMP #12 WIRE	1200
1 LIGHTING CIRCUIT -	15 AMP #14 WIRE	1200
TOTAL		15000 W
TOTAL SERVICE LOAD 15000 :- 240V		62.5 AMPS

ELECTRICAL SYMBOL LEGEND

DUPLEX RECEPTACLE	SURFACE MOUNTED LIGHTING
GFCI WP GROUND FAULT INTERRUPT WATER PROOF	WALL MOUNTED LIGHTING
240 VOLT OUTLET	ELECT PANEL
SWITCH	ELECT METER
3 WAY SWITCH	

REVISIONS	BY

John T. Lamb
Digitally signed by John T. Lamb
Date: 2024.02.21 12:38:11 -05'00'

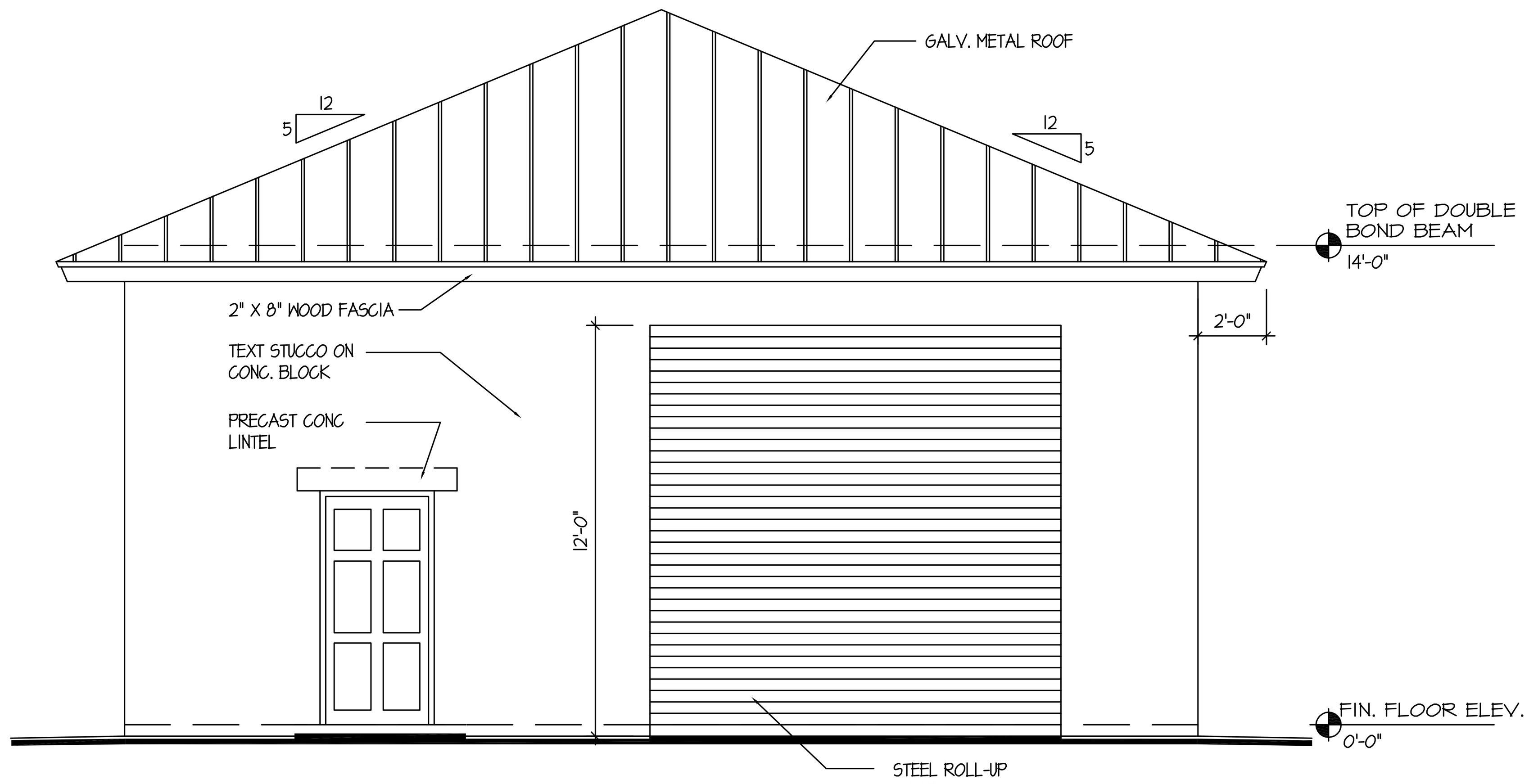
A NEW WORKSHOP FOR
ANDREW MYERS
108 SE TURTLE GLEN
LAKE CITY, FLORIDA.

ARCHTYPE DESIGN INC.
JOHN LAMB
(954) 978-9340
5485 WILES ROAD SUITE 407 AA0003503
COCONUT CREEK, FL. 33073 AR0015890

DRAWN	STEVE S.
CHECKED	JOHN L.
DATE	2-15-2024
SCALE	AS NOTED
JOB NO.	202-24
SHEET	A-4

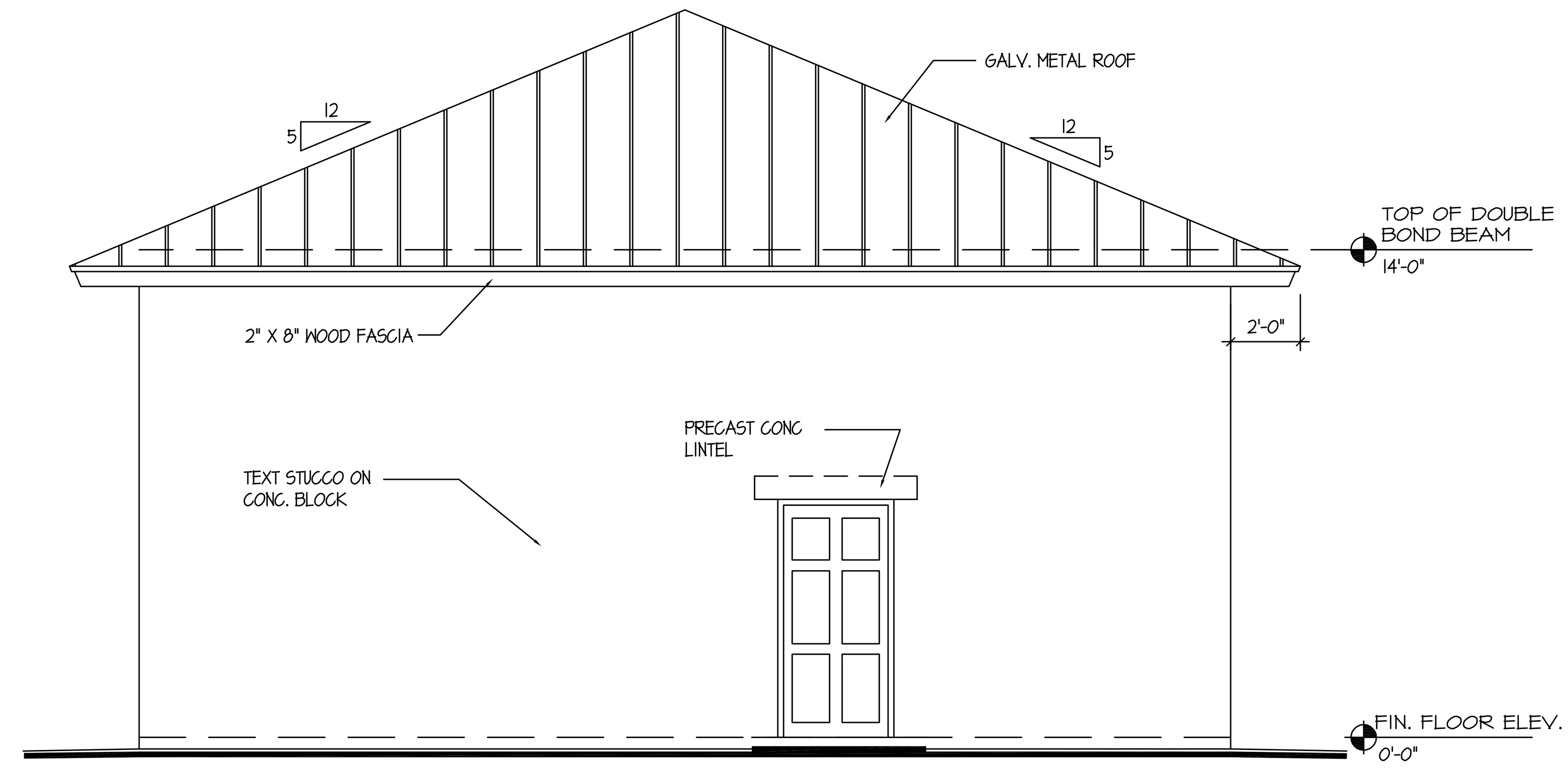
ELECTRICAL PLAN

OF 4 SHEETS



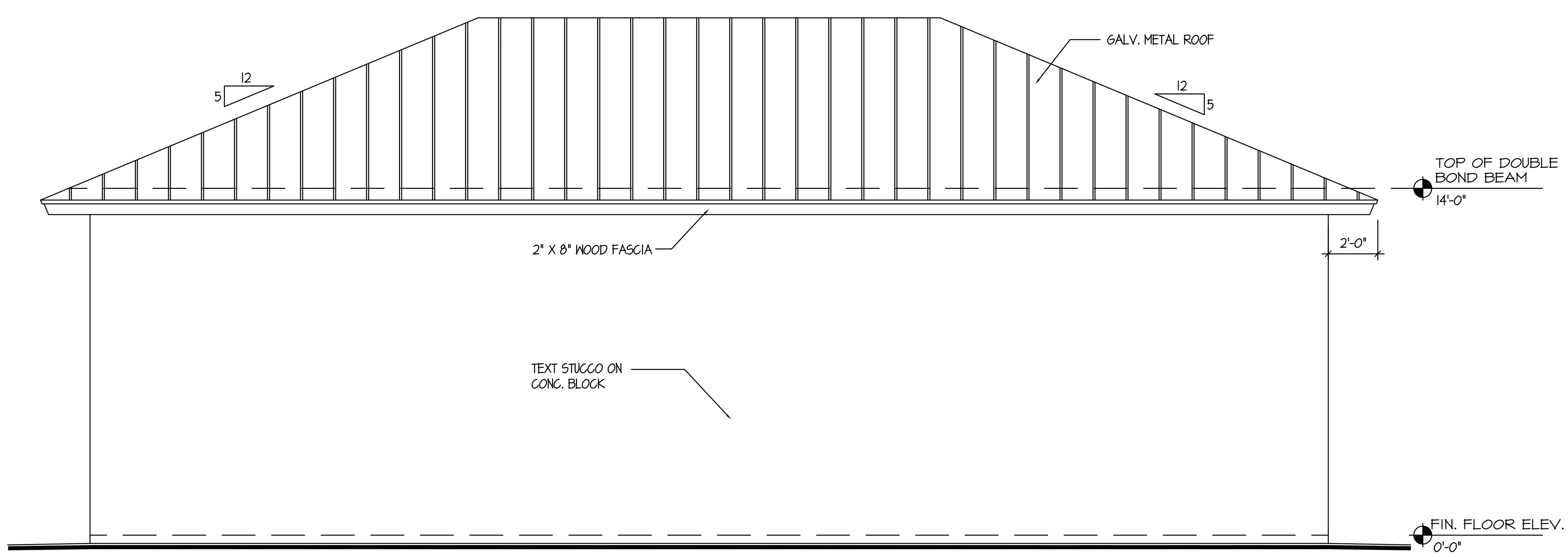
FRONT ELEVATION

SCALE 1/4" = 1'-0"



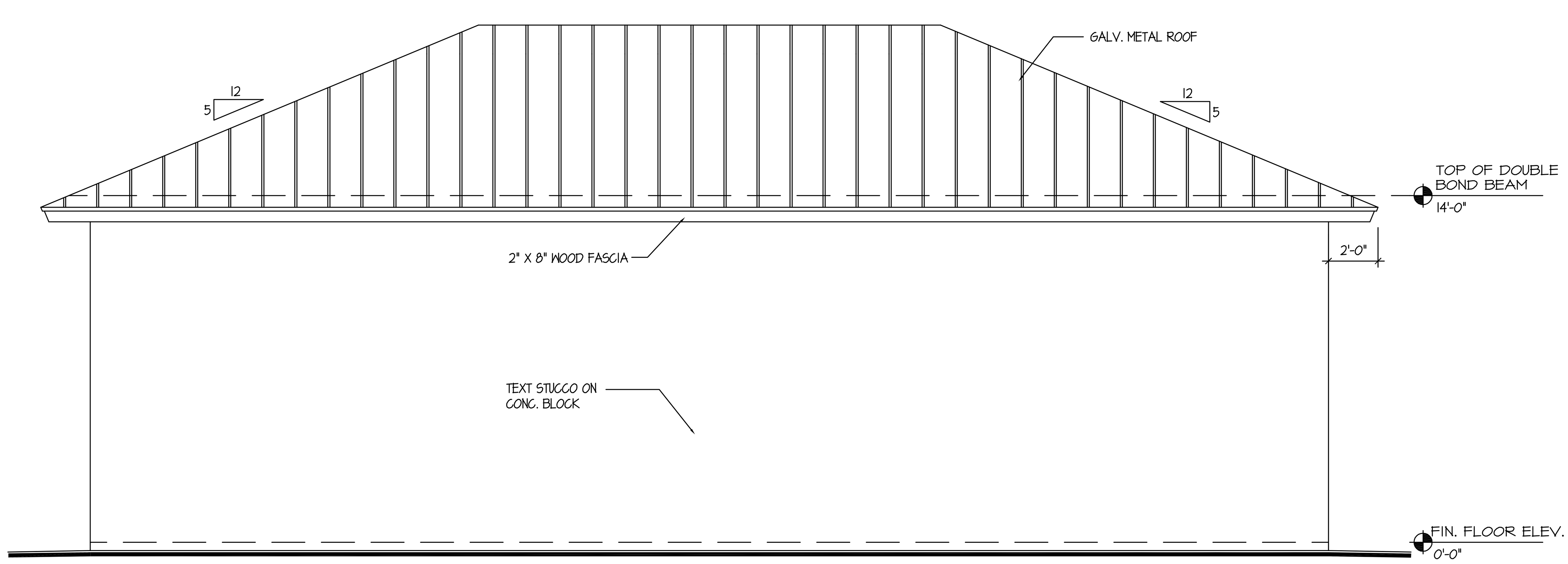
REAR ELEVATION

SCALE 1/4" = 1'-0"



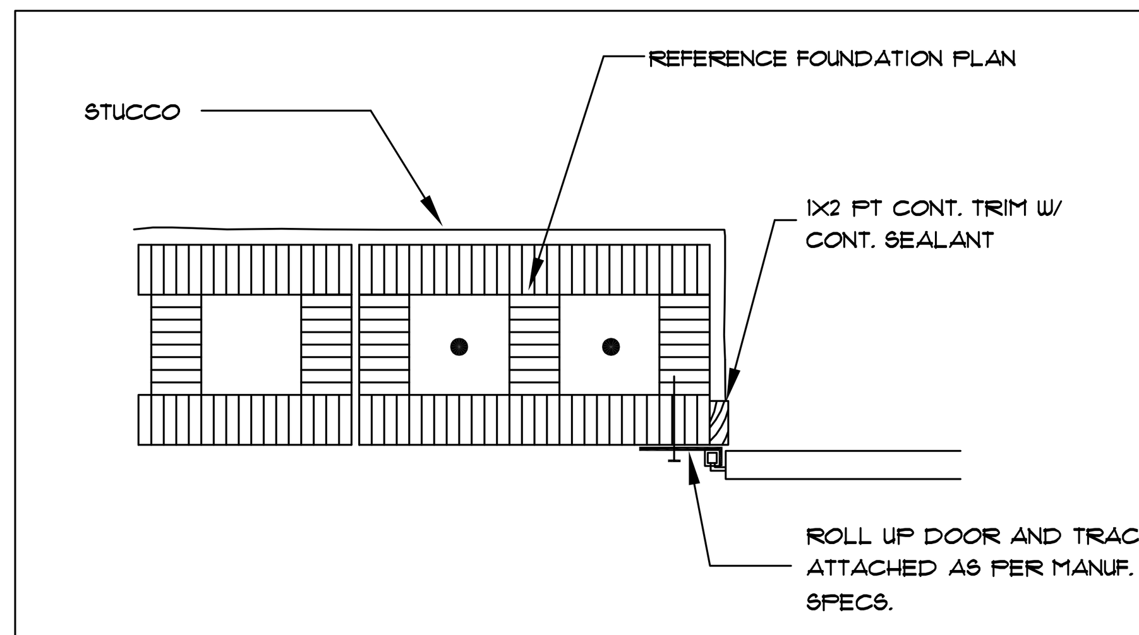
RIGHT SIDE ELEVATION

SCALE 1/4" = 1'-0"



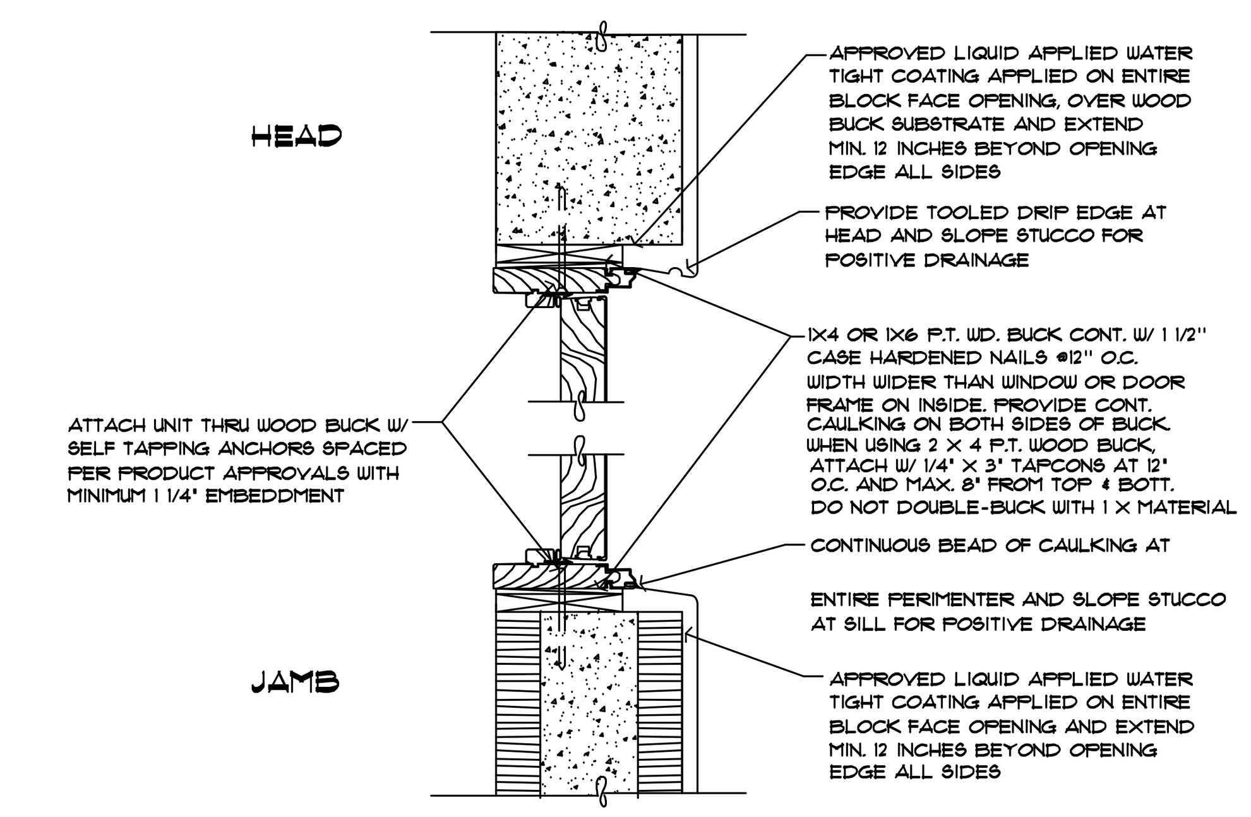
LEFT SIDE ELEVATION

SCALE 1/4" = 1'-0"



ROLL UP GARAGE DOOR BUCK

1 1/2'' = 1'-0''



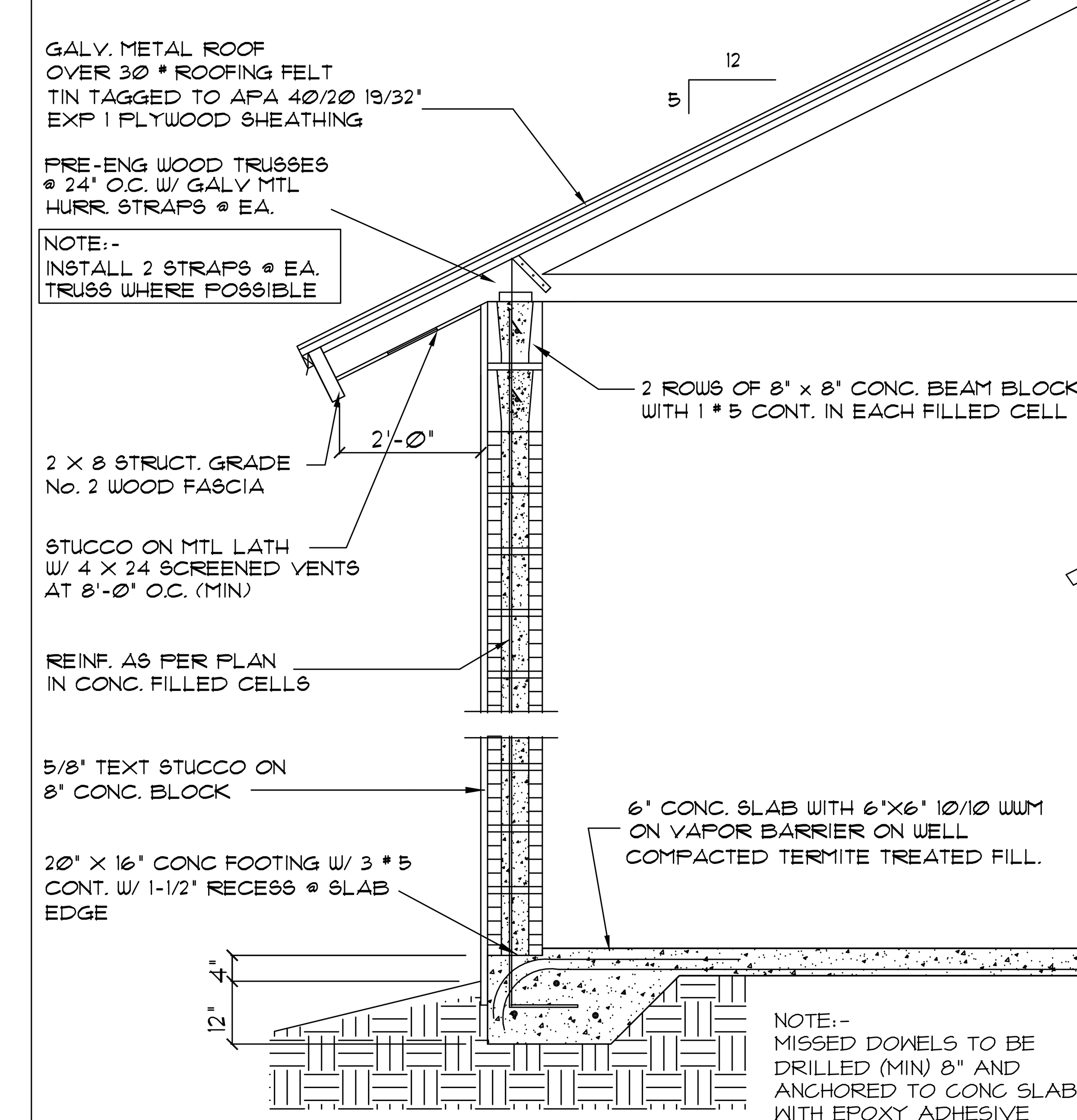
SWING DOOR BUCK DETAIL

1-1/2'' = 1'-0''

NOTE:-
APPLY SELF ADHERING WATERPROOFING MEMBRANE TO MASONRY OPENINGS PRIOR TO INSTALLATION OF WOOD BUCKS, APPLY TO INSIDE OF OPENING AND 12" (MIN) ON THE OUTSIDE FACE AROUND OPENING

NOTE:-

ALL TRUSS STRAPS ADDED AFTER POURING CONC. BEAM TO BE ATTACHED WITH MIN. (3)-3/16" X 1-1/2" LONG TAPCON ANCHORS PER STRAP (1,000 lbs ALLOWABLE UPLIFT) USE SIMPSON LSTA 18 OR USP RT16 STRAP WITH MIN (7) 16d NAILS INTO TRUSS



TYPICAL WALL SECTION

3/4" = 1'-0"

REVISIONS	BY

John Lamb
Digitally signed by John Lamb
Date: 2024.02.21 12:39:16 -05'00'

A NEW WORKSHOP FOR
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DRAWN	STEVE S.
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DATE	2-15-2024
SCALE	AS NOTED
JOB NO.	202-24
SHEET	A-2

ELEVATIONS
WALL SECTION

OF 4 SHEETS

SAFE GRAVITY LOADS FOR 8" PRECAST & PRESTRESSED U-LINTELS

CAST-CRETE — SAFE LOAD - POUNDS PER LINEAR FOOT

LENGTH / TYPE	8U8	8F8-0B / 8F8-1B	8F12-0B / 8F12-1B	8F16-0B / 8F16-1B	8F20-0B / 8F20-1B	8F24-0B / 8F24-1B	8F28-0B / 8F28-1B	8F32-0B / 8F32-1B
2'-10" (34") PRECAST	2231	3069	4605	6113	7547	8974	10394	11809
		3069	4605	6113	7547	8974	10394	11809
3'-6" (42") PRECAST	2231	3069	3719	5163	6607	8054	9502	10951
		3069	4605	6113	7547	8974	10394	11809
4'-0" (48") PRECAST	1966	2561	2751	3820	4890	5961	7034	8107
		2693	4605	6113	7547	8974	10394	11809
4'-6" (54") PRECAST	1599	1969	2110	2931	3753	4576	5400	6224
		2189	4375	6113	7547 (7)	8672	10294	11809
5'-4" (64") PRECAST	1217	1349	1438	1999	2560	3123	3686	4249
		1663	3090	5365	7547 (36)	7342 (19)	8733 (19)	10127 (19)
5'-10" (70") PRECAST	1062	1105	1173	1631	2090	2549	3009	3470
		1451	2622	4360	7168 (45)	6036 (19)	7181 (19)	8328 (20)
6'-6" (78") PRECAST	908	1238	2177	3480	3031	3707	4383	5061
		1238	2177	3480	5381	8360	10394 (37)	8825 (14)
7'-6" (90") PRECAST	743	1011	1729	2632	2205	2698	3191	3685
		1011	1729	2661	3898	5681	8467 (44)	6472 (15)
9'-4" (112") PRECAST	554	699	1160	1625	2564	3486	2818	3302
		752	1245	1843	2564	3486	4705 (37)	6390 (47)
10'-6" (126") PRECAST	475	535	890	1247	2093	2777	2163	2536
		643	1052	1533	2093	2781	3643 (38)	4754 (45)
11'-4" (136") PRECAST	362	582	945	1366	1846	2423	3127	4006
		582	945	1366	1846	2423	3127	4006
12'-0" (144") PRECAST	337	540	873	1254	1684	2193	2805	3552
		540	873	1254	1684	2193	2805	3552
13'-4" (160") PRECAST	296	471	755	1075	1428	1838	2316	2883
		471	755	1075	1428	1838	2316	2883
14'-0" (168") PRECAST	279	424	706	1002	1326	1697	2127	2630
		442	706	1002	1326	1697	2127	2630
14'-8" (176") PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
		458	783	1370	1902	2245	2517	2712
15'-4" (184") PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
		412	710	1250	1733	2058	2320	2513
17'-4" (208") PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
		300	536	950	1326	1609	1849	2047
19'-4" (232") PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
		235	418	750	1037	1282	1515	1716
21'-4" (256") PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
		180	340	598	845	1114	1359	1468
22'-0" (264") PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
		165	315	550	784	1047	1285	1399
24'-0" (288") PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
		129	250	450	654	884	1092	1222

SAFE UPLIFT LOADS FOR 8" PRECAST & PRESTRESSED U-LINTELS

CAST-CRETE — SAFE LOAD - POUNDS PER LINEAR FOOT

LENGTH / TYPE	8F8-1T / 8F8-2T	8F12-1T / 8F12-2T	8F16-1T / 8F16-2T	8F20-1T / 8F20-2T	8F24-1T / 8F24-2T	8F28-1T / 8F28-2T	8F32-1T / 8F32-2T
2'-10" (34") PRECAST	1972	3173	4460	5747	7034	8321	9608
	1972	3173	4460	5747	7034	8321	9608
3'-6" (42") PRECAST	1569	2524	3547	4569	5591	6613	7636
	1569	2524	3547	4569	5591	6613	7636
4'-0" (48") PRECAST	1363	2192	3079	3966	4853	5740	6627
	1363	2192	3079	3966	4853	5740	6627
4'-6" (54") PRECAST	1207	1940	2724	3508	4292	5077	5861
	1207	1940	2724	3508	4292	5077	5861
5'-4" (64") PRECAST	1016	1632	2290	2949	3607	4265	4924
	1016	1632	2290	2949	3607	4265	4924
5'-10" (70") PRECAST	909	1492	2093	2694	3295	3897	4498
	929	1492	2093	2694	3295	3897	4498
6'-6" (78") PRECAST	835 (12)	1340	1880	2419	2959	3498	4038
	835	1340	1880	2419	2959	3498	4038
7'-6" (90") PRECAST	727 (23)	1021	1634 (12)	2102 (11)	2571 (10)	3039 (10)	3508 (9)
	727	1166	1634	2102	2571	3039	3508
9'-4" (112") PRECAST	591	680	1133 (15)	1471 (15)	1811 (15)	2152 (16)	2494 (15)
	591	851	1326	1705	2084	2463	2842
10'-6" (126") PRECAST	530	552	914 (15)	1185 (15)	1458 (15)	1732 (15)	2007 (15)
	530	686	1183	1526	1865	2204	2544
11'-4" (136") PRECAST	474	485	798 (15)	1034 (15)	1272 (15)	1510 (15)	1749 (15)
	494	599	1028	1422	1738	2053	2369
12'-0" (144") PRECAST	470 (9)	441	723 (14)	936 (14)	1151 (15)	1366 (15)	1582 (15)
	470	543	928	1349	1649	1948	2247
13'-4" (160") PRECAST	418 (15)	373	606 (14)	783 (14)	962 (14)	1141 (14)	1321 (14)
	428	455	770	1145	1444	1718	1993
14'-0" (168") PRECAST	384 (15)	346	559 (14)	723 (14)	887 (14)	1052 (14)	1218 (14)
	410	420	709	1050	1434 (8)	1694 (8)	1954 (7)
14'-8" (176") PRESTRESSED	239	323	519 (13)	671 (13)	823 (13)	976 (14)	1129 (14)
	246	390	655	968	1324 (8)	1625 (11)	1874 (11)
15'-4" (184") PRESTRESSED	224	302	485 (13)	626 (13)	767 (13)	909 (13)	1052 (13)
	230	364	609	897	1224 (8)	1562 (14)	1801 (14)
17'-4" (208") PRESTRESSED	187	255	404 (12)	520 (12)	637 (12)	754 (12)	872 (12)
	192	303	500	732	993 (8)	1268 (14)	1470 (14)
19'-4" (232") PRESTRESSED	162	222	347 (11)	446 (11)	546 (12)	646 (12)	746 (12)
	166	261	424	616	831 (8)	1057 (14)	1225 (14)
21'-4" (256") PRESTRESSED	142	198	306 (11)	393 (11)	480 (11)	567 (11)	654 (11)
	142	230	369	531	713 (7)	903 (13)	1046 (13)
22'-0" (264") PRESTRESSED	137	192	295 (10)	378 (11)	461 (10)	545 (11)	629 (11)
	137	221	354	508	681 (7)	861 (13)	997 (13)
24'-0" (288") PRESTRESSED	124	175	267 (10)	341 (10)	416 (10)	491 (10)	566 (10)
	124	200	316	450	600 (7)	756 (12)	875 (13)

ATTACHMENT / FASTENER SPECIFICATIONS

APPLICATION	METHODS OF ATTACHMENT: HAND NAILED	METHODS OF ATTACHMENT: POWER ACTUATED	SPACING	REMARKS
PLYWOOD WALL SHEATHING APA 40/20 19/32" EXP 1	8d COMMON	2 1/2" X .131	4" O.C. PANEL EDGES 6" O.C. INTERMEDIATE SUPPORTS 4" O.C. CORNER STUDS	
PLYWOOD 2ND FLR. SHEATH'G APA 48/24 19/32" EXP 1	8d COMMON	2 1/2" X .131	4" O.C. PANEL EDGES 10" O.C. INTERMEDIATE SUPPORTS	12" O.C. @ INTERMEDIATE WHEN ADHESIVE IS USED
PLYWOOD ROOF SHEATHING APA 40/20 19/32" EXP 1	8d RING SHANK	2 1/2" X .131	4" O.C. PANEL EDGES 6" O.C. INTERMEDIATE SUPPORTS 4" O.C. @ GABLE ENDS	
COMPOSITION SHINGLES	1" X 3/8" , 12 GA	1" X .118, 11 GA	6 NAILS PER STRIP	GALVANIZED, NON-CORROSIVE
FLAT CEMENT TILE		2 1/2" X .131 (GA)	2 PER TILE	GALVANIZED, NON-CORROSIVE
BARREL CEMENT TILE		3" X .120 (GA)	2 PER TILE	GALVANIZED, NON-CORROSIVE
TIN TAGS	1" X 3/8" , 12 GA	1" X .118, 11 GA	6" O.C. IN ROLL DIRECTION 12" O.C. ACROSS WIDTH	11 GA. NON CORR. SM SHANK 12 GA. WIRE RING SHANK
WIRE LATH (GALV RUST RESIS) SOFFIT	1 1/2" X NO. 11 GA	1 1/2" X 1", 16 GA	6" O.C. @ SIDE LAPS & TIED @ 9" O.C. BETWEEN SUPPORTS	
WIRE LATH (GALV RUST RESIS) WALLS	4d GALVANIZED	1 1/2" X 1", 16 GA		
FASCIA	16d GALVANIZED	3" X .120 (GALV.)	2 EA. TRUSS END	

NOTE:

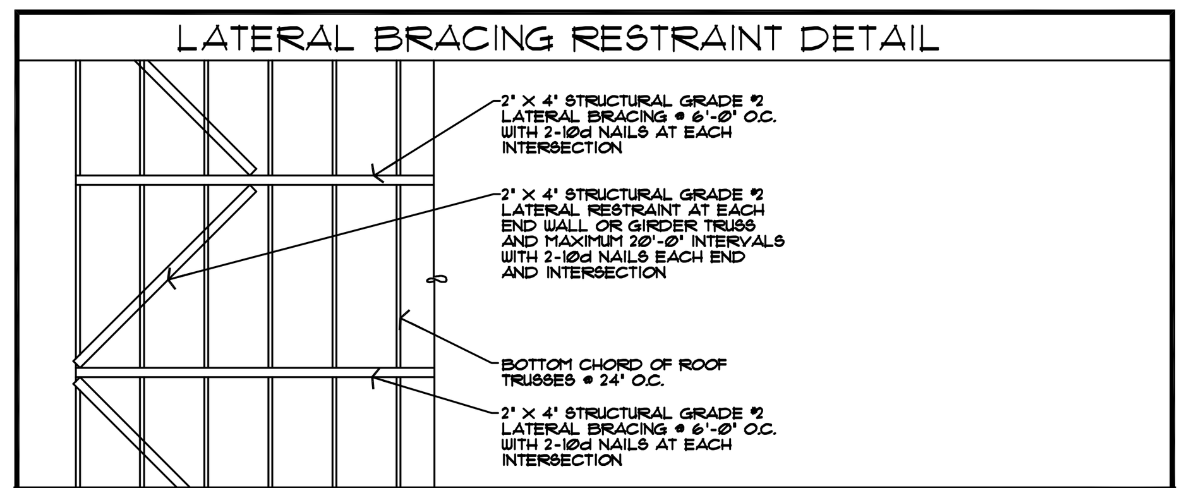
TRUSS SHOP DRAWINGS SHALL BE REVIEWED BY ARCHITECT/ENGINEER PRIOR TO POURING FLOOR SLAB

NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED, OR OTHERWISE REDUCED IN STRENGTH WITHOUT CONSULTING ARCHITECT/ENGINEER OF RECORD.

REPORT ANY DISCREPANCIES TO ARCHITECT/ENGINEER IMMEDIATELY

WINDOW/DOOR ROUGH OPENINGS REQUIRE VERIFICATION BY THE CONTRACTOR PRIOR TO BUILDING. ARCHITECT/ENGINEER WILL NOT BE RESPONSIBLE FOR ANY DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND WINDOW /DOOR SUPPLIER DATA

LATERAL BRACING RESTRAINT DETAIL



TRUSS ANCHOR SCHEDULE

MARK	MAX. UPLIFT	LATERAL LOAD	MANUF.	MODEL	FASTENER	REMARKS
A	1,810 LBS.	340/725 LBS.	SIMPSON	HETA16	(9) 10d NAILS	SINGLE ANCHOR AND MEMBER
B	3,620 LBS.	1225/1520 LBS.	SIMPSON	(2) HETA16	(12) 16d NAILS	DBL ANCHOR-DOUBLE MEMBER
C	5,075 LBS.	-	SIMPSON	HGUM5.25-SDS	(8) 5/8" X 5 TITENS (24) 1/4" X 2-1/2" SDS	DOUBLE OR TRIPLE MEMBER
D	1,885 LBS.	-	SIMPSON	MBHA3.56/16	(1) 3/4" ALL THREAD (18) 16d NAILS	DOUBLE OR TRIPLE MEMBER
E	1,140 LBS.	590/285 LBS.	SIMPSON	H-10A	(9)10d EA. MEMBER	WOOD TO WOOD
F	2,280 LBS.	1180/570 LBS.	SIMPSON	(2) H-10A	(9)10d EA. MEMBER	WOOD TO WOOD (DBL. ANCHOR)

TYPE OF ANCHOR — A(1) — AMOUNT OF ANCHORS
440 — UPLIFT (MAXIMUM ALLOWABLE FOR THIS CONNECTION)

TRUSSES NOT TAGGED REQUIRE ANCHOR "A" W/ AN UPLIFT VALUE OF 1810# MAX.
PROVIDE MOISTURE BARRIER OR GALVANIZED METAL SEAT BETWEEN WOOD TRUSSES AND CONCRETE.
BUILDER TO VERIFY ALL UPLIFT VALUES AND ANCHOR REQUIREMENTS PRIOR TO INSTALLATION.

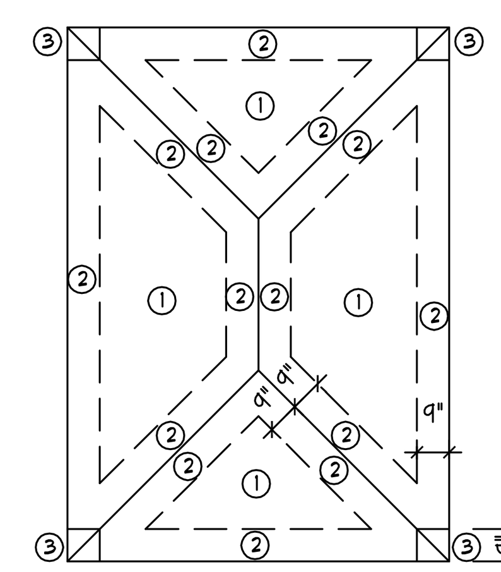
BUILDER MAY SUBSTITUTE SIMPSON ANCHORS FOR OTHER BRANDS WITH EQUAL OR GREATER VALUES

DESIGN LOADS

FLOOR LOADS		ROOF LOADS	
TCLL	40.0 PSF	TCLL	30.0 PSF
TCDL	10.0 PSF	TCDL	15.0 PSF
BCLL	0.0 PSF	BCLL	10.0 PSF
BCDL	5.0 PSF	BCDL	*10.0 PSF
TOTAL	55.0 PSF	TOTAL	55.0 PSF
DF	1.00	DF	1.33
WIND SPEED 170 MPH		CODE: ASCE 7-10	

*(NON-CONCURRENT)

NOTE:-
ROOF DEAD LOAD FOR UPLIFT DESIGN = 10 P.S.F.



WIND PRESSURE ZONES
ROOF DIAGRAM

ZONE 1: 39.1 PSF
ZONE 2: 68.1 PSF
ZONE 3: 68.1 PSF
END ZONE DISTANCE (a) = 4'-6"

NOTE:
DESIGN LATERAL LOADS FOR TRUSS CONNECTIONS (WORST CASE).

PARALLEL TO WALL (F1) = 205 lbs.
PERPENDICULAR TO WALL (F2) = 321 lbs.

STRUCTURAL NOTES - LUMBER

ALL LUMBER SHALL BE SPRUCE PINE FIR W/ A MINIMUM FIBER STRESS OF 1200 PSI, OR SOUTHERN PINE #2 STRUCTURAL GRADE, U.O.N.

HATCHED WALLS INDICATE BEARING FRAME PARTITIONS AND SHALL HAVE 2X STUDS AT 16" O/C WITH DOUBLE TOP PLATE.

ALL ROOF & FLOOR TRUSSES SHALL BE ENGINEERED BY A REGISTERED FLORIDA ENGINEER & TRUSS SHOP DRAWINGS SHALL BE SIGNED & SEALED BY SAID ENGINEER.

TRUSS MANUFACTURER SHALL SUBMIT FOUR (4) SETS OF TRUSS LAYOUT PLANS AND ENGINEERING SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW AS TO COMPLIANCE WITH DESIGN CONCEPT.

THE BOTTOM OF WOOD POSTS SHALL BE PROTECTED FROM DETERIORATION BY APPROVE PRODUCT OR METHOD.

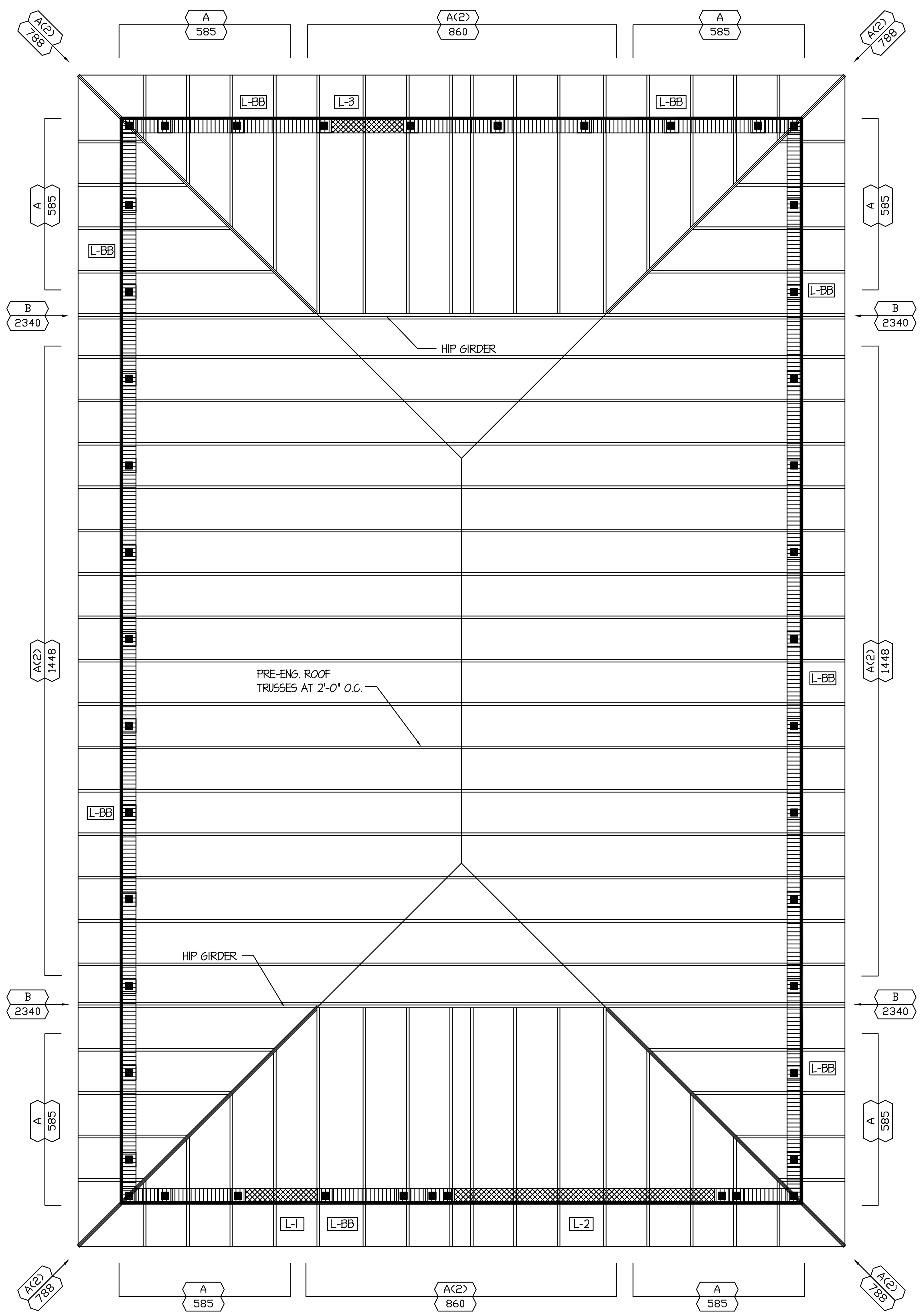
ALL WOOD TRUSSES SHALL BE ANCHORED AT BOTH ENDS WITH APPROVED GALV. METAL TRUSS STRAPS. TYPICAL EACH TRUSS. WHEN BEARING ON CONCRETE BEAM, EACH TRUSS MUST HAVE METAL TRUSS SEATS CAST INTO CONCRETE.

ALL WOOD TRUSSES TO BE ANCHORED TO BEARING FRAME PARTITION WITH APPROVED GALVANIZED METAL TRUSS STRAPS, TYPICAL EACH TRUSS.

TRUSS MANUFACTURER SHALL COORDINATE TRUSS FABRICATION WITH AIR CONDITIONING DUCT LAYOUT.

ALL WOOD IN CONTACT WITH MASONRY, CONCRETE OR STEEL SHALL BE P.T.

WHERE 1 X 3 FURRING STRIPS ARE NOT USED FOR CEILING, PROVIDE 1 X 4 BRACING @ 6'-0" O.C. @ BOTTOM CHORD & AS OTHERWISE CALLED FOR ON THE TRUSS SHOP DRAWINGS. ADEQUATE BRACING & BRIDGING SHALL BE USED DURING ERECTION OF THE TRUSSES TO PREVENT COLLAPSE OR DAMAGE TO THE TRUSSES.
PROVIDE DRAFT STOP BY CLADDING ONE SIDE OF FLOOR TRUSS W/ (1) LAYER OF 1/2" GYP. BOARD FOR FLOOR AREAS NOT TO EXCEED 500 SQ. FT.
ERECTION OF TRUSSES LONGER THAN 35' OVERALL LENGTH OR TALLER THAN 6' ON OVERALL HEIGHT SHALL BE SUPERVISED BY AN ENGINEER, ARCHITECT OR SPECIAL INSPECTOR. OWNER-BUILDERS SHALL PROVIDE A NOTARIZED LETTER OF INTENT FROM HIMSELF/HERSELF AND FROM THE SPECIAL INSPECTOR TO THIS EFFECT.



ROOF FRAMING PLAN

SCALE 1/4" = 1'-0"

PRE-CAST CONCRETE LINTEL SCHEDULE

LINTEL	SIZE	APPLIED LOADS: GRAVITY	APPLIED LOADS: UPLIFT	CAST-CRETE LOAD/ FOOT: GRAVITY	CAST-CRETE LOAD/ FOOT: UPLIFT	BOTT. OF LINTEL	REMARKS
L-BB	8" X 8"	DOUBLE BOND BEAM W/ 1 # 5 CONT EACH (TYPICAL)					
L-1	8" X 54"	440 lbs.	1220 lbs.	867 lbs.	1596 lbs.	6'-10"	8F8-1T
L-2	8" X 160"	670 lbs.	1428 lbs.	1428 lbs.	962 lbs.	12'-0"	8F24-1T/1B
L-3	8" X 54"	550 lbs.	560 lbs.	1969 lbs.	1207 lbs.	6'-8"	8F8-1T

NOTE :- LINTELS SPECIFIED ARE TO BE CAST-CRETE
REFER TO LOAD TABLES ON THIS SHEET

REVISIONS	BY

John T. Lamb
Digitally signed by John T. Lamb
Date: 2024.02.21 12:33:52 -05'00'

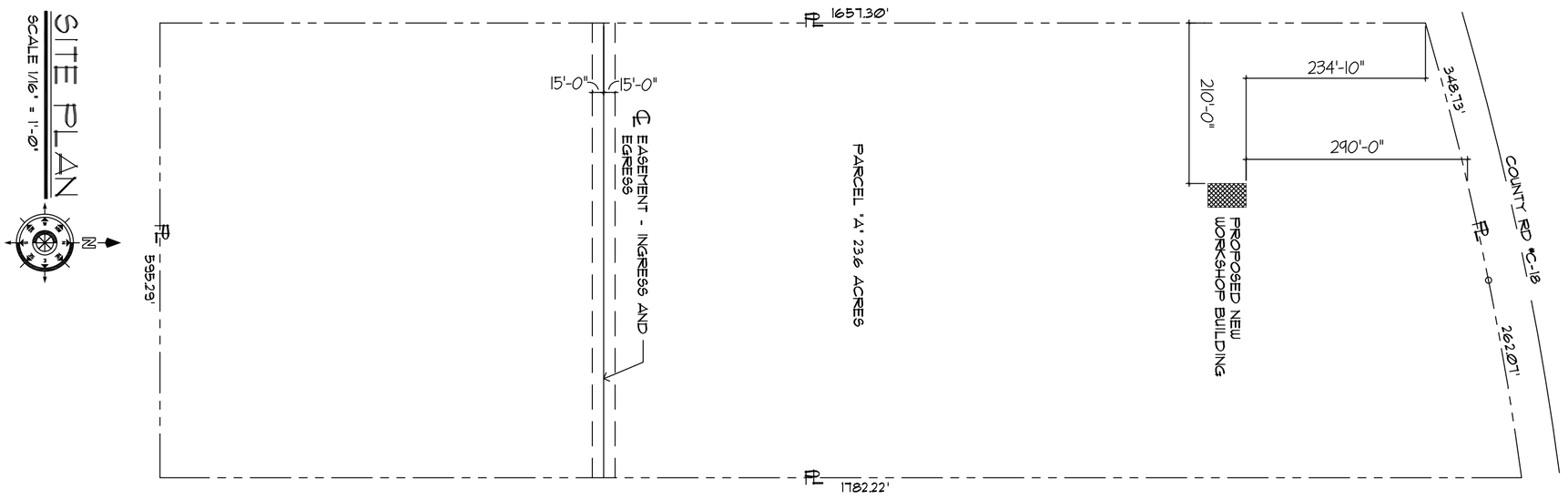
A NEW WORKSHOP FOR
ANDREW MYERS
108 SE TURTLE GLEN
LAKE CITY, FLORIDA.

ARCHTYPE DESIGN INC.
JOHN LAMB
(954) 978-9340
5485 WILES ROAD SUITE 407 AA0003503
COCONUT CREEK, FL. 33073 AR0015890

DRAWN: STEVE S.
CHECKED: JOHN L.
DATE: 2-15-2024
SCALE: AS NOTED
JOB NO.: 202-24
SHEET: A-3
ROOF FRAMING PLAN DETAILS
OF 4 SHEETS

SITE PLAN

SCALE 1/16" = 1'-0"

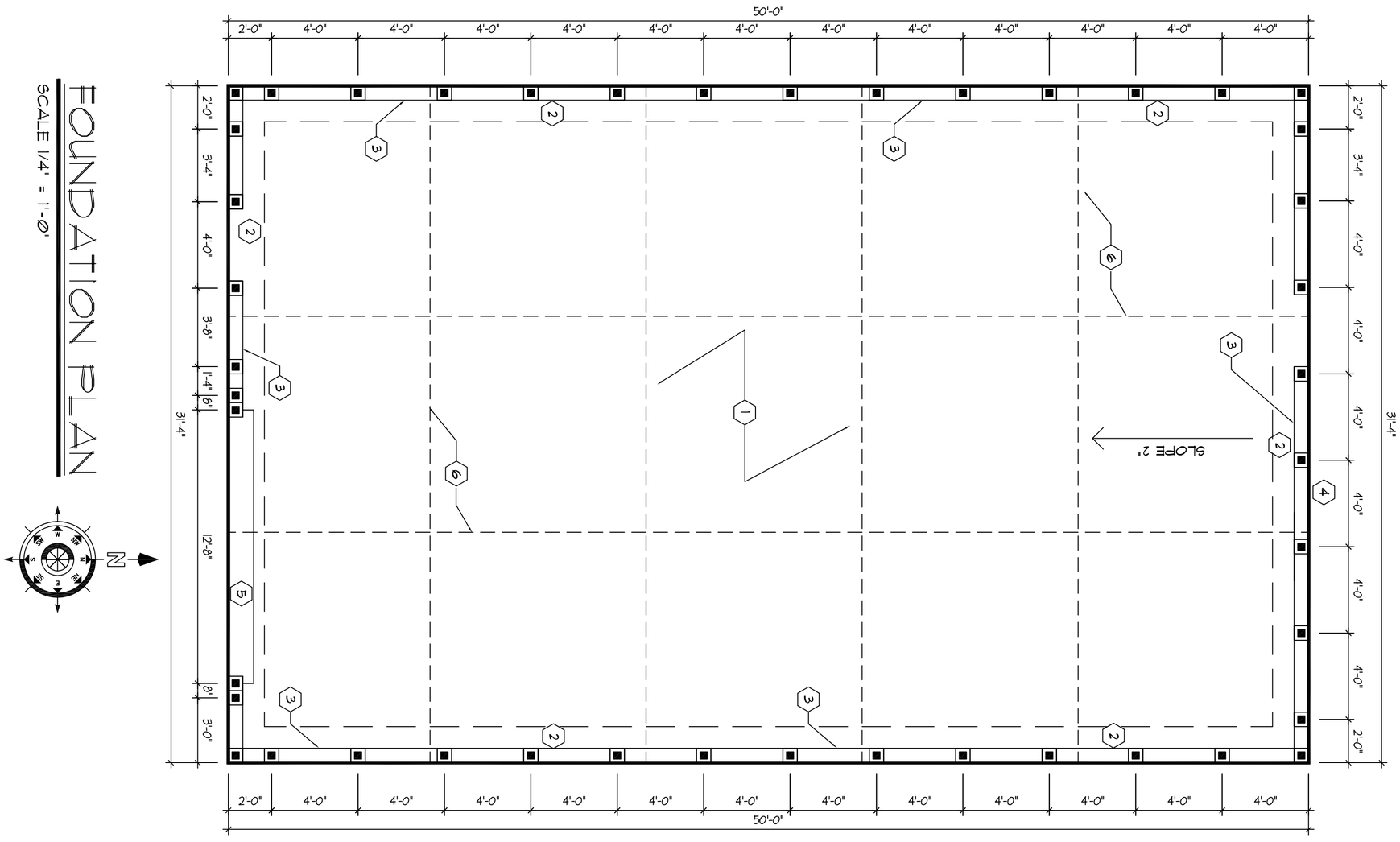


LEGAL DESCRIPTION

PARCEL 'A' PART OF SE 1/4
SECTION 19, TOWNSHIP 6
SOUTH, RANGE 18 EAST
COLUMBIA COUNTY,
FLORIDA

FOUNDATION PLAN

SCALE 1/4" = 1'-0"



NOTES

CONTRACTOR TO VERIFY DIMENSIONS IN FIELD BEFORE BEGINNING CONSTRUCTION.

DO NOT SCALE DRAWINGS, GO BY DIMENSION ONLY.

CONCRETE TO BE A MIN. (fc=4,000 PSI FOR FLOOR SLAB). (fc=4,000 PSI FOR COLUMNS).

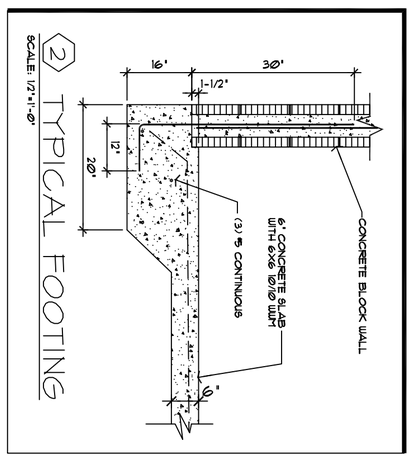
DISCREPANCIES TO BE REPORTED TO DESIGNER IMMEDIATELY.

COLUMN/FOOTING SCHEDULE

1. 6" MONO. CONC. SLAB W/ 6" x 6" 10/10 WWM ON 6 MIL VISQUEEN ON TERMITE TREATED CLEAN SAND FILL
2. 20" WIDE X 16" DEEP (MIN. BELOW SLAB RECESS) CONC. FOOTING WITH 3 #5 CONTINUOUS
3. 1-1/2" RECESS AT SLAB PERIMETER
4. 1 #5 VERT. IN CONC FILLED CELL FOOTING TO BEAM (MAX. 4'-0" O.C.)
5. 1-1/2" DEEP X 14" WIDE RAIN RISER
6. SAWCUT SLAB 1" DEEP IN 10'-0" X 10'-0" AREAS WITHIN 24" HOURS OF POURING CONCRETE

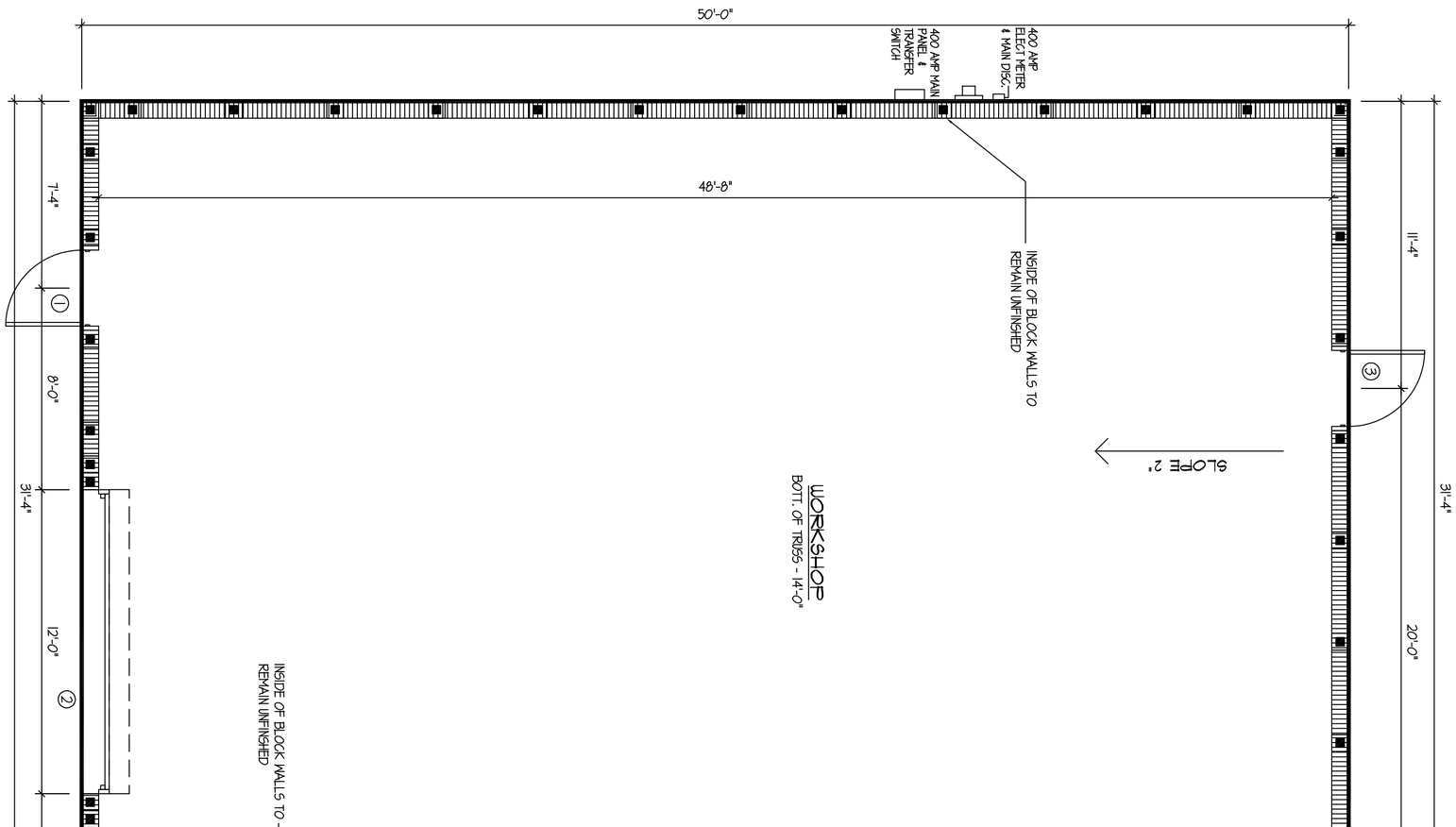
② TYPICAL FOOTING

SCALE: 1/2"=1'-0"



FLOOR PLAN

SCALE 1/4" = 1'-0"



AREA CALCULATIONS

TOTAL STORAGE AREA 1,561 SQ. FT.

EXTERIOR OPENING SCHEDULE

MARK	ROUGH OPNG. SIZE			WIND PRESSURE		REMARKS
	WIDTH	HEIGHT	TYPE	POS.	NEG.	
①	40"	82"	SOLID CORE PRE-HNG DOOR	+38	-45	3'-0" X 6'-8" DOOR
②	144"	144"	ROLL UP DOOR	+37	-42	
③	40"	82"	SOLID CORE PRE-HNG DOOR	+36	-40	3'-0" X 6'-8" DOOR

NOTE- PRESSURE RATINGS REQUIRED FOR WINDOWS/DOORS SHOWN HEREIN ARE BASED ON ASCE 7-10 COMPONENTS AND CLADDING - ASD DESIGN (LRFD) NO FURTHER REDUCTION IS ALLOWED

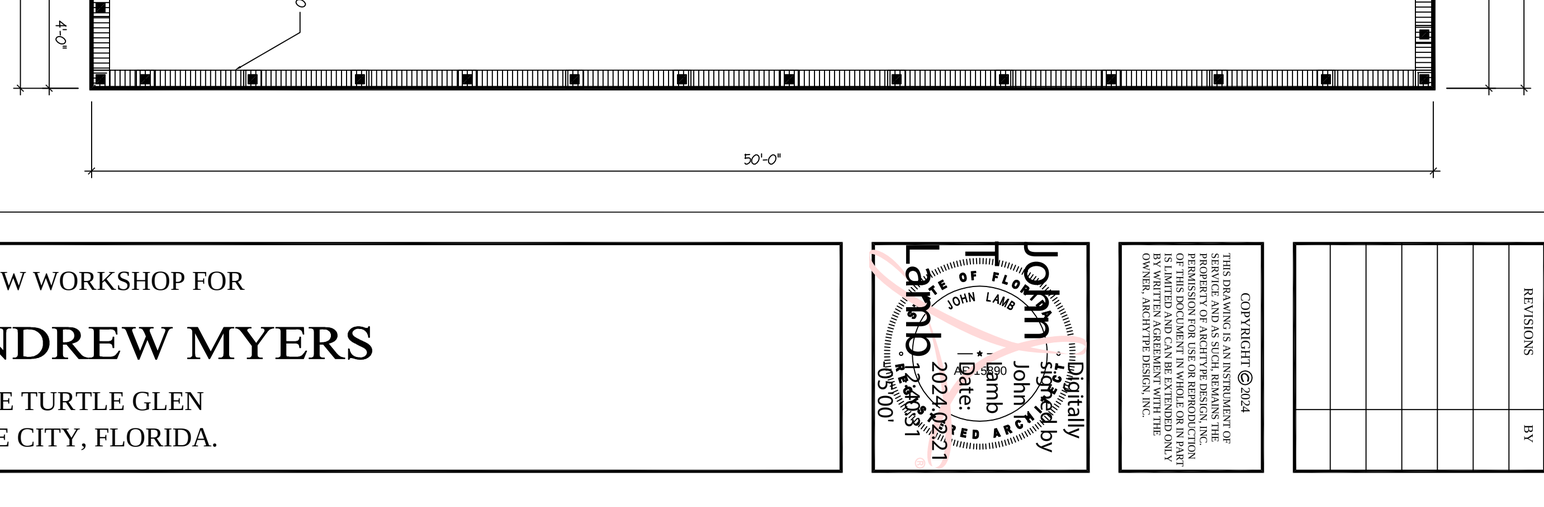
WIND ENGINEERING/STRUCTURAL NOTES

REF:- 2023 FLORIDA BUILDING CODE 8TH EDITION

1) WIND 110 MPH (3 SECOND GUST)
2) WIND IMPORTANCE FACTOR - (1.0)
3) WIND EXPOSURE CATEGORY - 'B'
4) INTERNAL PRESSURE COEFFICIENT - 0.18
5) COMPONENTS AND CLADDING
ONE STOREY
MEAN ROOF HEIGHT - 13'-0"
COMPONENTS AND CLADDING DESIGN PRESSURE 43PSF (WORSE CASE)
ROOF SHEATHING
USE 19/32" CDX PLYWOOD SHEATHING W/ 8d RING SHANK NAILS
4" O.C. PANEL EDGES
6" O.C. INTERMEDIATE SUPPORTS
4" O.C. AT GABLE ENDS
CONCRETE BLOCK
ALL MASONRY CELLS ADJACENT TO OPENINGS IN C.B.S. WALLS SHALL BE FULLY GROUTED AND CONTAIN #5 VERT. REBAR - SLAB TO BEAM

② TYPICAL WALL SECTION

SCALE: 1/2"=1'-0"



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A NEW WORKSHOP FOR

ANDREW MYERS

108 SE TURTLE GLEN
LAKE CITY, FLORIDA.

John Lamb — Digitally signed by John Lamb — Date: 2024.02.21 — STATE OF FLORIDA — JOHN LAMB — REGISTERED ARCHITECT

REVISIONS	BY

DRAWN: STEVE S.
CHECKED: JOHN L.
DATE: 2-15-2024
SCALE: AS NOTED
JOB NO.: 202-24
SHEET: A-1
SITE PLAN
FOUNDATION PLAN
FLOOR PLAN
OF 4 SHEETS