STRUCTURAL NOTES, SPECIFICATIONS AND GENERAL REQUIREMENTS

DESIGN CRITERIA

D-1 CODES: - FLORIDA BUILDING CODE 7th EDITION 2020
- ASCE 7-16 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES"

D-2

DESIGN LIVE LOADS:		DESIGN DEAD LOADS:	
ROOF	20 PSF	ROOF	30 PSF
FLOOR (OFFICE)	50 PSF	8" MASONRY WALLS	55 PSF
CORRIDOR, FIRST FLOOR	100 PSF	CONCRETE	150 PCF
CORRIDOR, OTHER FLOOR	80 PSF	FLOOR (CONC & MTL DECK)	60 PSF
MECH ROOMS	125 PSF	12" MASONRY WALLS	80 PSF
STAIRS	100 PSF		
WAITING AREAS	100 PSF		

D-3 DESIGN WIND SPEED: Vult = 150 MPH (3 SECOND GUST) PER FIGURE 1609B
Vasd = 116 MPH PER SECTION 1609.3.1
RISK CATEGORY II (PER TABLE 1604.5)
SURFACE ROUGHNESS: C PER SECTION 1609.4
WIND EXPOSURE CATEGORY: C PER SECTION 1609.4
MEAN ROOF HEIGHT: 30 FT
ENCLOSED BUILDING INTERNAL PRESSURE COEFFICIENT
GCpi = +/- 0.18

ASSUMPTIONS:
A. BUILDING IS ASSUMED TO BE ENCLOSED AS DEFINED BY SECTION 1609.2 FBC

THE BUILDING SATISFIES THE REQUIREMENTS OF SECTION 1609.6 "ALTERNATE ALL-HEIGHTS METHOD" AND ALL STRUCTURAL MEMBERS, CLADDING, FASTENERS, AND SYSTEMS PROVIDING THE STRUCTURAL INTEGRITY OF THE BUILDING HAVE BEEN DESIGNED FOR LOADS FROM TABLES LISTED IN ASCE 7-16 CHAPTER 27 - DIRECTIONAL PROCEDURE OF ASCE 7.

C. ALL COMPONENTS AND CLADDING SUBJECT TO WIND LOADINGS, I.E. DOORS, WINDOWS, JAMBS, ROOFING, ETC, SHALL BE DESIGNED AND FASTENED TO RESIST DESIGN WIND PRESSURES FOR COMPONENTS AND CLADDING, AS SHOWN ON PLAN.

D. ALL PRE-MANUFACTURED MAIN WIND FORCE RESISTING COMPONENTS, I.E. TRUSSES SHALL BE DESIGNED TO RESIST MAIN WIND FORCE RESISTING DESIGN FORCES, AS SPECIFIED ON PLAN AND SHALL BE IN AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

E. ALL GLAZING IS HAVE EITHER IMPACT RESISTANT GLAZING OR BE PROTECTED WITH AN IMPACT RESISTANT COVERING.
1. GLAZED OPENINGS LOCATED WITHIN 30 FT OF GRADE SHALL MEET THE REQUIREMENTS OF THE LARGE MISSILE TEST OF ASTM E 1996.
2. GLAZED OPENINGS LOCATED MORE THAN 30 FT ABOVE GRADE SHALL MEET THE REQUIREMENTS OF THE SMALL IMPACT TEST ASTM E 1996.

F. OWNER OR CONTRACTOR SHALL OBTAIN NECESSARY INSTALLATION SPECIFICATIONS AND INSPECTIONS REQUIRED TO COMPLY WITH MANUFACTURERS RECOMMENDATIONS FOR INSTALLATION OF COMPONENTS AND CLADDING FOR HURRICANE PRONE REGIONS.

D-4 SEISMIC: ZONE 0

D-5 NO GEOTECHNICAL REPORT HAS BEEN PREPARED FOR THIS PROJECT. ASSUMED SOIL CAPACITY DESIGN VALUE 2000PSF. CONTRACTOR TO SUBMIT GEOTECHNICAL REPORT PRIOR TO CONSTRUCTION

GENERAL NOTES

G-1 REVIEW ALL PROJECT DOCUMENTS PRIOR TO FABRICATION AND START OF CONSTRUCTION. REPORT ANY DISCREPANCIES TO ARCHITECT OR STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH WORK.

G-2 THE MASONRY WALLS ARE NOT DESIGNED TO WITHSTAND TEMPORARY CONSTRUCTION LOADS. IT IS THE CONTRACTOR'S RESPONSIBILITY AT ALL TIMES TO MAINTAIN WALL STABILITY DURING THE CONSTRUCTION PHASE OF THIS PROJECT.

G-3 IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT EXISTING FACILITIES, STRUCTURES AND UTILITY LINES FROM ALL DAMAGE DURING CONSTRUCTION.

G-4 NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED OR OTHERWISE REDUCED IN SIZE OR STRENGTH WITHOUT PRIOR APPROVAL IN WRITING FROM THE STRUCTURAL ENGINEER.

G-5 COORDINATE STRUCTURAL AND OTHER DRAWINGS THAT ARE PART OF THE CONTRACT DOCUMENTS FOR ANCHORED, EMBEDDED OR SUPPORTED ITEMS WHICH MAY AFFECT THE STRUCTURAL DRAWINGS (I.E. MECHANICAL, ELECTRICAL, PLUMBING, DUCTWORK, ETC.)

G-6 ALL DETAILS AND SECTIONS ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT EXCEPT WHERE A SEPARATE DETAIL IS SHOWN.

G-7 THE INTENTION OF THE PLANS AND SPECIFICATIONS IS TO PROVIDE ALL NECESSARY DETAILS TO CONSTRUCT A COMPLETE STRUCTURE. WHEN SPECIFIC INFORMATION IS MISSING OR IS IN CONFLICT. THE CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER.

G-8 THE ENGINEER SHALL NOT BE RESPONSIBLE FOR LAYOUT, DIMENSIONAL ERRORS OR DISCREPANCIES RESULTING FROM THE REPRODUCTION AND USE OF CONTRACT DRAWINGS FOR ERECTION AND SHOP DRAWINGS. USE OF CONTRACT DRAWINGS REPRODUCED IN WHOLE OR ANY PART IN SHOP DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR NOR SUBCONTRACTORS FROM THEIR RESPONSIBILITY TO ACCURATELY LAYOUT, COORDINATE, DETAIL, FABRICATE AND INSTALL A COMPLETE STRUCTURE.

G-9 REVIEW ALL SHOP DRAWINGS FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS AND FOR COMPLETENESS AND ANSWER ALL CONTRACTOR RELATED QUESTIONS. STAMP AND INITIAL ALL SHEETS PRIOR TO SUBMITTING SHOP DRAWINGS TO ARCHITECT/ENGINEER FOR REVIEW. NON-COMPLIANCE WITH THIS REQUIREMENT WILL RESULT IN REJECTION OF SUBMITTAL.

G-10 PRIOR TO ANY WORK, CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS TO VERIFY THE WORK CAN BE DONE AS INTENDED BY THESE DRAWINGS TO PRODUCE A FIRST CLASS PIECE OF WORK. CONTRACTOR SHALL CUT OPEN WALLS AND CEILINGS AS DEEMED NECESSARY TO VERIFY STRUCTURE IS AS ASSUMED BY THESE DRAWINGS. CONTACT M.K. STRUCTURAL WITH ANY DISCREPANCIES OF DRAWINGS OR ASSUMED CONDITIONS PRIOR TO ANY WORK.

SHALLOW FOUNDATIONS

SF-1 SOIL TO BE STRIPPED, COMPACTED AND TESTED IN ACCORDANCE WITHTHE RECOMMENDATIONS OF THE SOILS ENGINEER AND PROJECT SPECIFICATIONS.

SF-2 CENTER ALL FOOTINGS UNDER THEIR RESPECTIVE COLUMNS OR WALLS UNLESS OTHERWISE SHOWN ON PLANS. MAXIMUM MISPLACEMENT OR ECCENTRICITY - 2". TOLERANCE FOR MISLOCATION OF COLUMN DOWELS OR ANCHOR BOLTS TO BE PER ACI OR AISC STANDARDS.

SF-3 HORIZONTAL JOINTS IN FOOTINGS WILL NOT BE PERMITTED.

SF-4 COORDINATE PLUMBING LINES WITH FOOTING LOCATIONS FOR INTERFERENCE. INDIVIDUAL FOOTINGS CAN BE LOWERED WITH THE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER. CONTINUOUS WALL FOOTINGS SHOULD BE STEPPED AS DETAILED ON THE DRAWINGS.

SF-5 EXCAVATING UNDER OR NEAR IN-PLACE FOOTINGS/FOUNDATIONS WHICH DISTURBS THE COMPACTED SOIL BENEATH THE FOOTINGS/FOUNDATIONS WILL NOT BE PERMITTED.

SF-6 REINFORCING SHALL BE SUPPORTED ON PRECUTS CONCRETE PADS. DOWELS FOR COLUMNS AND FILLED CELLS SHALL BE SECURED IN PLACE PRIOR TO POURING CONCRETE. USE TEMPLATES FOR SETTING COLUMN DOWELS AND ANCHOR BOLTS.

DRILL-IN BOLTS, HEADED STUDS, SCREWS AND DOWELS

DI-1 WEDGE BOLTS SHALL BE ITW RAMSET/REDHEAD BOLTS OR APPROVED EQUIVALENT INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. DO NOT CUT EXISTING REINFORCING TO INSTALL.

DI-2 MASONRY AND CONCRETE SCREWS SHALL BE MANUFACTURED BY RAMSET/REDHEAD "TAPCONS" OR APPROVED EQUAL INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.

DI-3 ANCHORING ADHESIVE SHALL BE A TWO-COMPONENT SOLID EPOXY-BASED DISPENSED THROUGH A STATIC-MIXING NOZZLE SUPPLIED BY THE MANUFACTURER. SYSTEM SUPPLIED IN MANUFACTURER'S STANDARD SIDE-BY-SIDE CARTRIDGE AND EPOXY SHALL MEET THE MINIMUM REQUIREMENTS OF ASTM C-881 SPECIFICATION FOR TYPE I, II, IV AND V, GRADE 3, CLASS B AND C AND MUST DEVELOP A MINIMUM 10,560 PSI COMPRESSIVE YIELD STRENGTH AFTER 7-DAY CURE.

DI-4 GROUTED ANCHORS SHALL BE SIMPSON EPOXY-TIE ADHESIVE SYSTEM OR APPROVED EQUIVALENT INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.

DI-5 DRILL-IN REBAR DOWELS AND THREADED ROD ANCHORS (A307) SHALL BE SET USING A TWO-PART EPOXY AS DESCRIBED ABOVE.

DI-6 HEADED STUDS (H.S.) SHALL BE "NELSON" OR APPROVED EQUAL. INSTALL USING MANUFACTURER'S SPECIFICATIONS AND IN ACCORDANCE WITH AWS D1.1. ATTACHMENT OF STUDS SHALL BE SUFFICIENT TO DEVELOP THE FULL CAPACITY OF EACH INDIVIDUAL STUD (PER AWS D1.1).

DI-7 EXPANSION ANCHORS MAY BE SUBSTITUTED FOR ANCHOR BOLTS ONLY WITH THE APPROVAL OF THE ENGINEER OF RECORD IN WRITING. EXPANSION ANCHORS USED SHALL BE HILTI, SIMPSON, RAWL, OR APPROVED EQUAL.

STEEL JOISTS

SJ-1 WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR OPEN-WEB STEEL JOISTS AND LONG SPAN STEEL JOINTS, OF THE STEEL JOIST INSTITUTE, LATEST REVISION.

SJ-2 HANGERS FOR SUPPORT OF EQUIPMENT, OR MEMBERS SUPPORTING SUCH HANGERS, SHALL BE LOCATED AT PANEL POINTS OF JOISTS.

SJ-3 JOISTS SHALL BE DESIGNED TO SUPPORT THE LOADS LISTED, THOSE INDICATED ON PLANS AND AN ADDITIONAL CONCENTRATED DEAD LOAD NOT TO EXCEED 500# TO BE PLACED AT ANY PANEL POINT ALONG THE LENGTH OF THE JOIST. DEAD LOADS SHALL BE IN ACCORDANCE WITH THE MATERIALS SHOWN WITHIN THE CONTRACT DOCUMENTS AND SHALL BE NOTED ON THE SHOP DWG SUBMITTAL BY THE JOIST MANUF.

SJ-4 JOIST BOTTOM CHORDS SHALL BE DOUBLE ANGLES.

SJ-5 ROOF JOISTS AND BRIDGING SHALL BE DESIGNED TO RESIST A NET UNFACTORED UPLIFT PRESSURE AS SHOWN ON PLANS.

SJ-6 JOIST SIZES SHOWN ON PLANS SHALL BE THE MINIMUM ACCEPTABLE.

SJ-7 EXTEND AND CONNECT ALL BOTTOM CHORDS AFTER THE DEAD LOAD IS APPLIED AT LOCATIONS ON PLANS.

SJ-8 JOIST SHOP DWGS SHALL BE SUBMITTED WITH CALCULATIONS SIGNED/SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. SHOP DWGS SUBMITTED NOT SIGNED/SEALED WILL BE RETURNED WITHOUT REVIEW.

SJ-9 JOIST MANUFACTURER SHALL COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL LOADS DUE TO EQUIPMENT TO BE HUNG FROM ROOF STRUCTURE. ALL ADD'L LOADS SHALL BE CLEARLY INDICATED ON SHOP DWG SUBMITTALS.

SJ-10 JOIST TO BE DESIGNED TO ALLOW 1" MAXIMUM DIFFERENCE IN CAMBER BETWEEN ADJACENT PARALLEL JOISTS.

SJ-11 ALL STEEL JOISTS GREATER THAN FORTY FEET IN LENGTH REQUIRE A ROW OF BOLTED BRIDGING TO BE IN PLACE PRIOR TO SLACKENING OF HOIST LINES.

METAL DECKING

MD-1 ROOF METAL DECK AND FLOOR METAL DECK SHALL BE 1.5 TYPE "B" (G-60) OR APPROVED EQUAL.

MD-2 METAL DECK MANUFACTURER SHALL BE A MEMBER OF THE STEEL DECK INSTITUTE AND ALL DESIGN SHALL BE IN ACCORDANCE WITH APPLICABLE STANDARDS.

MD-3 SEE FASTENER REQUIREMENTS ON SHEET S1.0 FOR SCREWING AND SIDE LAP REQUIREMENTS.

MD-4 DECK SUBMITTALS SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED ENGINEER AND SHALL INCLUDE THE INTENDED FASTENING PATTERNS AND SHALL INDICATE THE CAPACITY UNDER COMBINED STRESSES DUE TO UPLIFT & DIAPHRAGM ACTION.

REINFORCED CONCRETE

RC-1 ALL CONCRETE DESIGN AND PLACEMENT SHALL BE IN STRICT ACCORDANCE WITH THE ACI "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE," ACI 318.

RC-2 PROVIDE (4) TEST CYLINDERS FOR EACH 50 C.Y. OF CONCRETE PLACED OR FRACTION THEREOF.

RC-3 STRUCTURAL CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS AND SHALL DEVELOP THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS:

SPREAD AND WALL FOOTINGS	3000 PSI
COLUMNS AND WALLS	3000 PSI
BEAMS AND SLABS	3000 PSI
TILT UP WALLS	3000 PSI
ALL OTHER CONCRETE	3000 PSI

RC-4 USE REGULAR WEIGHT CONCRETE.

RC-5 STRUCTURAL CONCRETE SHALL CONFORM TO ACI 301 AND HAVE THE FOLLOWING SLUMPS, WATER CEMENT RATIO & AGGREGATE REQUIREMENTS:

LOCATION	SLUMP	W/C RATIO	MAX. AGGREGATE
FOOTINGS	4"+/-1"	0.55	ASTM #57
SLABS ON GRADE	4"+/-1"	0.52	ASTM #57
COLUMNS	5"+/-1"	0.48	ASTM #57
BEAMS AND SLABS	5"+/-1"	0.48	ASTM #57
TILT UP WALLS	5"+/-1"	0.48	ASTM #57
TIE BMS & TIE COL'S	5"+/-1"	0.48	ASTM #8 PEAROCK

SUBMIT DESIGN MIXES FOR APPROVAL AT LEAST ONE WEEK PRIOR TO CONCRETE POUR. DESIGN MIX SUBMITTALS MUST INDICATE PROPOSED LOCATION OR TYPE OF USE. FAILURE TO DO SO WILL CAUSE DELAY AND/OR REJECTION OF SUBMITTALS.

RC-6 MAXIMUM WATER TO CEMENT RATIO WHEN NO BACK-UP DATA IS AVAILABLE:
a) 3000 PSI, 28 DAY COMPRESSIVE STRENGTH; W/C RATIO 0.58 MAXIMUM (NON-AIR ENTRAINED), 0.47 MAXIMUM (AIR ENTRAINED)

RC-7 FLYASH, WHEN USED, SHALL BE LIMITED TO 20% OF THE CEMENTITIOUS MATERIAL. DO NOT USE FOR EXPOSED SLABS

RC-8 SUBMIT COPIES OF CONCRETE MIX DESIGN TO ENGINEER FOR APPROVAL INFORMATION SHALL INCLUDE CEMENT CONTENT, WATER/CEMENT RATIO, SLUMP, ENTRAINED AIR, ADMIXTURE CONTENT AND QUANTITY.

RC-9 ALL REINFORCEMENT SHALL BE FASTENED AND SECURED TOGETHER TO PREVENT DISPLACEMENT BY CONSTRUCTION LOADS OR THE PLACING OF CONCRETE

RC-10 THE USE OF JITTERBUGS TO CONSOLIDATE CONCRETE WILL NOT BE PERMITTED.

RC-11 ALL PUMPED CONCRETE WITH #57 AGGREGATE IS TO CONTAIN A HIGH RANGE WATER REDUCING AGENT. MINIMUM SIZE OF DISCHARGE TO BE 4" I.D.

RC-12 A 2" I.D. DISCHARGE MAY BE USED WITH #8 AGGREGATE. USE PLASTICIZER ADMIXTURE IF NECESSARY TO INCREASE SLUMPS BEYOND THAT NOTED ABOVE.

RC-14 ALL REINFORCING STEEL SHALL BE DETAILED, FABRICATED AND INSTALLED IN ACCORDANCE WITH ACI 318 AND ACI DETAILING MANUAL, ACI-315 LATEST EDITION.

RC-15 REINFORCEMENT WITH RUST, MILL SCALE OR A COMBINATION OF BOTH SHALL BE CONSIDERED SATISFACTORY, PROVIDED THE MINIMUM DIMENSIONS (INCLUDING HEIGHT OF DEFORMATIONS) AND WEIGHT OF A HAND-WIRE-BRUSHED TEST SPECIMEN ARE NOT LESS THAN APPLICABLE SPECIFICATION REQUIREMENTS IN THE ASTM STANDARDS REFERENCE IN ACI 318. REINFORCING BARS SHALL CONFORM TO ASTM A-615, GRADE 60, LATEST REVISION, WITH SUPPLEMENT (S1), MARKED "S".

RC-16 ALL SLABS ON GRADE SHALL REINFORCED WITH:
6"X6"-10/10 WELDED WIRE FABRIC LOCATED IN THE MIDDLE TO UPPER PORTION OF THE SLAB. WELDED WIRE FABRIC SHALL BE SUPPORTED WITH APPROVED MATERIALS OR SUPPORTS NOT EXCEEDING 3 FT OR IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.

RC-17 WELDED WIRE FABRIC TO COMPLY WITH ASTM A185 SHEETS ONLY, NO ROLLS. INSTALL ON BRICKS OR BOLSTERS, AT MID-DEPTH OF THE SLAB.

RC-18 LAP CONTINUOUS REINF. AS NOTED IN LAP SPLICE SCHEDULE OR MIN 40 BAR DIA. LAP CONT. BOTTOM STEEL OVER SUPPORT AND CONT. TOP STEEL AT MIDSPAN UNLESS OTHERWISE SPECIFIED.

RC-19 TERMINATE ALL DISCONTINUOUS TOP BARS WITH STANDARD 90 DEGREE HOOK (PLACED VERTICALLY) UNLESS NOTED OTHERWISE.

RC-20 PROVIDE CONCRETE COVER OVER REINFORCEMENT AS FOLLOWS, UNLESS OTHERWISE NOTED:

MINIMUM COVER:	LOCATION AND CONDITION:
A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	ALL BARS 3"
B. CONCRETE EXPOSED TO EARTH OR WEATHER	#6 OR GREATER 2" #5 OR SMALLER 1-1/2"
C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND 1. SLABS, WALLS, AND JOISTS	#11 OR SMALLER 3/4" #14-#18 1-1/2"
2. BEAMS AND COLUMNS: (PRIMARY REINFORCEMENT, TIES, STIRRUPS, AND SPIRALS)	ALL BARS 1-1/2"
D. SLABS ON GRADE:	SINGLE MAT, TOP 1/2 TO 1/3 OF THICKNESS

RC-21 SLEEVE ALL PENETRATIONS THROUGH BEAMS AND SLABS INDIVIDUALLY. CORE DRILLING WILL NOT BE PERMITTED. SUBMIT LOCATION AND SIZE OF SLEEVES THROUGH BEAMS TO ENGINEER FOR REVIEW PRIOR TO CASTING CONCRETE. WHERE PIPING PENETRATES CONCRETE BEAMS, PLACE TWO #3 STIRRUPS @ 3" O.C. EACH SIDE OF PIPE, UNLESS OTHERWISE NOTED.

RC-22 NO REINFORCING BARS SHALL BE CUT TO ACCOMMODATE THE INSTALLATION OF ANCHORS, EMBEDS OR OTHER ITEMS.

RC-23 USE THE STRUCTURAL DRAWINGS INCLUDING REVISIONS AND ADDENDA IN CONJUNCTION WITH REVIEWED SHOP DRAWINGS FOR PLACEMENT OF REINFORCING.

RC-24 AT CHANGES IN DIRECTION OF CONCRETE WALLS, BEAMS & STRIP FOOTINGS, PROVIDE CORNER BARS OF SAME SIZE AND QUANTITY UNLESS NOTED OTHERWISE AS HORIZONTAL STEEL.

RC-25 ALL EMBEDDED ITEMS SHALL BE SECURELY TIED IN PLACE PRIOR TO CONCRETE PLACEMENT.

RC-26 THE GENERAL CONTRACTOR IS RESPONSIBLE FOR FOR PROVIDING THE CONSTRUCTION OF ALL FORMWORK IN ACCORDANCE WITH ACI 347.

RC-27 PLACE CONCRETE PER ACI 304. USE INTERNAL MECHANICAL VIBRATION FOR ALL CONCRETE. LIMIT MAXIMUM FREE FALL DROP OF CONCRETE TO 6'-0" FOR #57 AGGREGATE AND 8'-0" FOR #8 AGGREGATE. ALL PRECAUTIONS SHOULD BE TAKEN TO AVOID SEGREGATION OF CONCRETE DURING PLACEMENT.

RC-28 FOOTING SIZES SHOWN ARE FOR FOOTINGS CONSTRUCTED WITH SIDE FORMS. IF SOIL MATERIAL CAN HOLD A VERTICAL SHAPE, IT CAN BE USED AS AN EARTH FORM PROVIDED FOOTING WIDTH IS INCREASED 1" IN EACH HORIZONTAL DIRECTION. ALL SLOUGHED MATERIAL SHALL BE REMOVED FROM EXCAVATION BEFORE AND DURING PLACEMENT OF CONCRETE.

RC-29 PLACEMENT OF CONDUIT AND PIPES IN CONCRETE SHALL CONFORM TO ACI 318, SECTION 6.3.

REINFORCED MASONRY

M-1 MASONRY CONSTRUCTION SHALL CONFORM TO ACI "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (ACI/ASCE 530-08) AND "SPECIFICATIONS FOR MASONRY STRUCTURES" (ACI/ASCE 530.1-08), ASTM C-476, ASTM C-1019 AND NCMA TEK 107. EXCEPT AS AMENDED BELOW.

M-2 CONTRACTOR SHALL OBTAIN COPY OF MASONRY CODE AND SPECIFICATIONS FOR REFERENCE AT THE JOBSITE.

M-3 STRUCTURE HAS BEEN DESIGNED AS A BEARING WALL STRUCTURE. ALL MASONRY UNITS SHALL BE LAID PRIOR TO CONCRETE PLACEMENT OF COLUMNS, BEAMS AND SLABS FOR THE SAME STORY.

M-4 USE TYPE "M" MORTAR FOR ABOVE GRADE APPLICATIONS AND TYPE "S" MORTAR FOR BELOW GRADE APPLICATIONS. MORTAR SHALL CONFORM TO ASTM C270 (PROPORTION OR PROPERTY SPECIFICATION)

M-5 MASONRY UNITS SHALL CONFORM TO ASTM C90, NORMAL WEIGHT, TYPE II. MINIMUM NET COMPRESSIVE UNIT STRENGTH OF 2000 PSI TO PROVIDE NET AREA COMPRESSIVE STRENGH OF MASONRY (Fm') OF 1500 PSI.

M-6 ALL COLUMNS AND BEAMS INTEGRATED IN CMU WALLS ARE 8" AND 12" NOMINAL AND 7-5/8" AND 11-5/8" ACTUAL DIMENSIONS.

M-7 COARSE GROUT SHALL CONFORM TO ASTM C476, LATEST REVISION:
a.) 2500 PSI AT 28 DAYS
b.) 1/4" MAXIMUM AGREGATE SIZE
c.) 8" TO 11" SLUMP
d.) PROVIDE CLEANOUTS FOR LIFTS GREATER THAN 5'-0" IN HEIGHT. PUMP 4'-0" MAXIMUM GROUT LIFTS. FOR HIGH LIFT (12'-0" MAX). GROUTING WITH 30 MINUTE DELAY BETWEEN LIFTS.

M-8 A REINFORCED CONCRETE TIE BEAM OR MASONRY TIE BEAM SHALL BE PROVIDED IN ALL WALLS SHOWN ON THE STRUCTURAL DRAWINGS AT EACH FLOOR AND THE ROOF. USE GALVANIZED MESH TYPE CELL CAPS. PROVIDE CORNER BARS AT ALL BEAM CORNERS TO MATCH HORIZONTAL BARS.

M-9 UNLESS NOTED OTHERWISE, TIE BEAMS SHALL BE:
a.) 8"x24" CAST-IN-PLACE CONCRETE TIE BEAM REINFORCED W/ (2) #5 TOP AND BOTTOM W/ #3 STIRRUPS @ 16" O.C.

M-10 VERTICAL REINFORCING FOR FILLED CELLS SHALL CONFORM TO ASTM 615.

M-11 PROVIDE VERTICAL REINFORCEMENT IN GROUT FILLED CELLS:
A. AS SHOWN ON THE DRAWINGS
B. MAXIMUM 48" O.C.
C. AT ALL CORNERS AND INTERSECTIONS
D. AT ANCHORAGE OF CONNECTIONS OR BEARING OF BEAMS

M-12 REINFORCING BARS SHALL BE LAPPED 48 BAR DIAMETERS WHERE SPLICED AND SHALL BE WIRED TOGETHER. LAP VERTICAL REINFORCEMENT ABOVE GRADE BEAM AND ABOVE EACH FLOOR UNLESS NOTED OTHERWISE.

M-13 REINFORCE WALLS WITH LADDER-TYPE REINFORCEMENT EQUAL TO STANDARD DUR-O-WAL IN BED JOINTS 9-GA OR APPROVED EQUAL AT 16" O.C. MEASURED VERTICALLY U.O.N. PLACE PER MFR. RECOMMENDATIONS. EXTEND INTO COLUMNS, OR PROVIDE DOVETAIL ANCHORS TO SECURE MASONRY TO COLUMNS. PROVIDE PREFABRICATED "TEE" OR CORNER SECTIONS AT WALL INTERSECTIONS.

M-14 PROVIDE FULL MORTAR BEDDING AROUND ALL FILLED CELLS WITH VERTICAL REINFORCING.

M-15 PLACE ALL MASONRY IN RUNNING BOND WITH 3/8" MORTAR JOINTS.

M-16 AT INTERSECTING WALLS FIFTY PERCENT OF THE MASONRY SHALL BE LAID IN OVERLAPPING MASONRY BONDING PATTERN

M-17 REFER TO TYPICAL WALL SECTIONS FOR MAXIMUM CONSTRUCTION HEIGHT OF MASONRY WALLS. PROVIDE CLEAN-OUT HOLES AT BASE OF FILLED CELL WHEN THE CONCRETE POUR EXCEEDS 5 FEET IN HEIGHT.

M-18 GROUT FOR FILLED CELLS SHALL BE VIBRATED DURING PLACEMENT USING A "PENCIL" TYPE VIBRATOR.

M-19 VERTICAL REINFORCEMENT SHALL BE HELD IN POSITION AT THE TOP AND BOTTOM OF BAR AND AT 8'-0" OC MAXIMUM WITH A MINIMUM CLEARANCE OF 1/2" FROM MASONRY. THE CLEAR DISTANCE BETWEEN BARS SHALL NOT BE LESS THAN ONE BAR DIAMETER OR 1". CENTER BARS IN WALLS UNLESS NOTED OTHERWISE.

M-20 ALL REINFORCED CELLS ARE TO BE CLEAN AND FREE OF ANY FOREIGN MATERIAL OR DEBRIS.

M-21 TESTING OF GROUT TO COMPLY WITH ASTM C-1019.

M-22 OPENINGS SHALL HAVE BLOCK CELL AT EACH JAMB FILLED WITH GROUT AND REINFORCED.

STRUCTURAL STEEL

S-1 FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC "MANUAL OF STEEL CONSTRUCTION," FIFTEENTH EDITION AND THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS," LATEST EDITION.

S-2 MATERIAL SHALL CONFORM TO THE FOLLOWING, EXCEPT AS NOTED:
STRUCTURAL STEEL: GRADE A992 (Fy = 50 ksi)
ANGLES AND PLATES: ASTM A36 (Fy = 36 ksi)
ANCHOR BOLTS AND MACHINE BOLTS: ASTM A307 OR A36.
STRUCTURAL STEEL TUBING; ASTM A500, GRADE B, TYPE E OR S
HEADED STUD ANCHORS ASTM A108 GRADE S 1010 THRU 1020

S-3 UNLESS NOTED OTHERWISE, ALL BOLTS SHALL BE 5/8" DIAMETER A-325 AND SHALL BE BEARING TYPE CONNECTIONS.

S-4 ALL SHOP AND FIELD WELDING SHALL BE DONE BY CURRENTLY CERTIFIED WELDERS IN ACCORDANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE," LATEST EDITION.

S-5 USE E70XX ELECTRODES FOR ALL WELDING UNLESS NOTED OTHERWISE. GRIND SMOOTH ALL EXPOSED WELDS.

S-6 DO NOT WELD TO EMBEDS UNTIL CONCRETE HAS CURED AT LEAST 72 HOURS. USE APPROPRIATE WELDING PROCESSES TO LIMIT HEAT BUILDUP IN EMBED TO AVOID PLATE EXPANSION AND CRACKING OF CONCRETE.

S-7 HEADED STUD ANCHORS SHALL BE A307 AS MANUFACTURED BY NELSON STUD OR APPROVED EQUIVALENT. STUD WELDING SHALL CONFORM TO AWS D1.1 "STRUCTURAL WELDING CODE."

S-8 SURFACE PREPARATION AND SHOP PAINTING OF ALL STRUCTURAL STEEL MEMBERS SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE "CODE OF STANDARD PRACTICE "OF AISC.

S-9 SHOP PAINT-METAL ALKYD-OIL PRIMER, ANY OF THE FOLLOWING: SEE ARCHITECT FOR PREFERRED COLOR. MANUFACTURER DESIGNATION PORTER NO. 296 MOBILE NO. 13F812 TINEMIC NO. 1009 AMERON NO. 5102 AMERCOAT.

S-10 SHOP PAINT ALL STEEL EXCEPT SURFACES TO BE EMBEDDED IN CONCRETE, FIELD WELDED, OR COVERED WITH SPRAY-ON FIRE PROOFING. APPLY PAINT IN ACCORDANCE WITH SSPC-PA1, SHOP FIELD AND MAINTENANCE PAINTING. APPLY PAINT IN SUFFICIENT VOLUME OR COATS TO PROVIDE A MINIMUM DRY FILM THICKNESS OF AT LEAST 3 MILS BUT NOT MORE THAN 5 MILS.

S-11 GROUT UNDER BEARING PLATES SHALL BE NON-METALLIC, NON-SHRINK TYPE WITH A COMPRESSIVE STRENGTH OF AT LEAST 6000 PSI IN 7 DAYS. VIBROPRUF #11, BY LAMBERT CORPORATION, OR ACCEPTED SUBSTITUTE.

S-12 ALL STEEL EXPOSED TO EXTERIOR CONDITIONS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.

STEEL STAIRS

PES-1 ENGINEERED STAIR SYSTEM AND ALL STAIR SYSTEM CONNECTIONS TO THIS STRUCTURE SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA. SUBMIT SHOP DRAWINGS AND CALCULATIONS BEARING THE EMBOSSED SEAL AND SIGNATURE OF THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. THE CONFIGURATION OF THE STAIR SYSTEM SHALL BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS. STAIR SYSTEM AND ALL CONNECTIONS SHALL BE DESIGNED FOR ALL APPLICABLE LOADS AS INDICATED ON THE PLANS AND IN THE BUILDING CODE. THE LOADS SHALL BE CLEARLY INDICATED ON ALL SHOP DRAWINGS. SHOP DRAWINGS SHALL SHOW AND SPECIFY ALL CONNECTIONS UTILIZED WITHIN THE STAIR SYSTEM AS WELL AS CONNECTIONS TO AND LOADS IMPOSED UPON THE STRUCTURAL SYSTEM SHOWN ON THESE PLANS.

LIGHT GAUGE METAL STUDS AND TRUSSES:

LG-1 LIGHT GAGE METAL STUDS AND THEIR CONNECTIONS TO EACH OTHER SHALL BE DESIGNED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. SIGNED AND SEALED EMBOSSED SHOP DRAWINGS SHOWING STUD CONFIGURATION WITH MEMBER SIZES & CONNECTIONS, DESIGN LOADS, DURATION FACTORS AND ERECTION DETAILS MUST BE SUBMITTED AND APPROVED PRIOR TO FABRICATION.

LG-2 STEEL GRADES:
12 & 14 GA. STUDS FY (MIN) = 50 KSI; 16 GA. STUDS FY (MIN) = 33 KSI
18, 20 GA. STUDS (AND ALL TRACK) FY (MIN) = 33 KSI
FINISH: GALVANIZED IN ACCORDANCE WITH ASTM A924. (G60 IN CONFORMANCE WITH ASTM C955). SECTION PROPERTY AND DESIGN TO BE IN COMPLIANCE WITH AISI SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS.

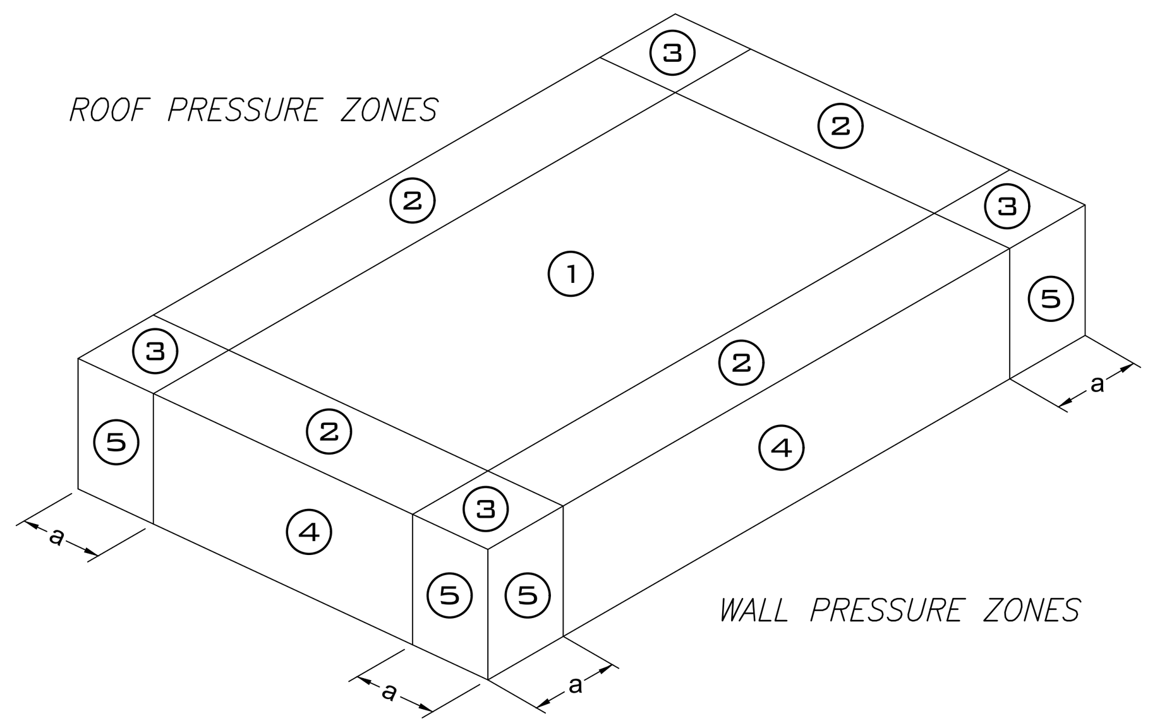
LG-3 MISCELLANEOUS FRAMING AND DETAILS NOT SHOWN TO BE INCLUDED AS REQUIRED TO PERFORM INTENDED FUNCTION ALSO, REFER TO ARCHITECTURAL SHEETS FOR ADDITIONAL DESIGN DETAIL REQUIREMENTS. DEFLECTION TO BE LIMITED TO L/240. BRIDGING TO BE SUPPLIED AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS. (5'-0" O.C. MAX. AND WITHIN 1'-0" OF DEFLECTION TRACKS)

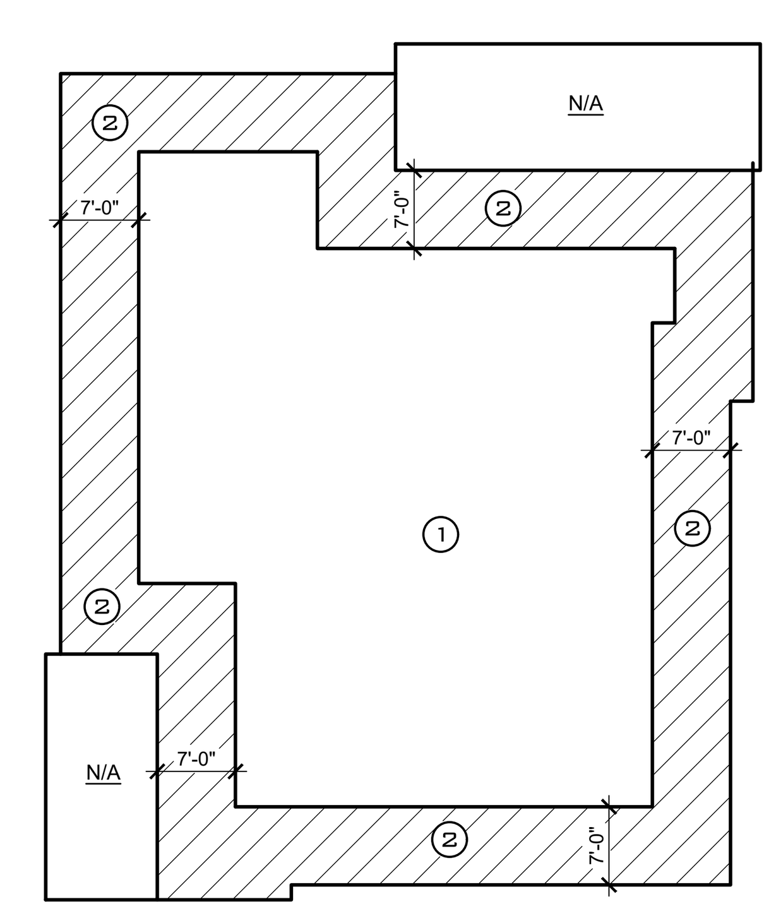
LG-4 PRE-ENGINEERED, PREFABRICATED LIGHT GAGE METAL TRUSSES AND FRAMING AND THEIR CONNECTIONS TO EACH OTHER SHALL BE DESIGNED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. SIGNED AND SEALED EMBOSSED SHOP DRAWINGS AND CALCULATIONS SHOWING TRUSS CONFIGURATION WITH MEMBER SIZES AND CONNECTIONS, DESIGN LOADS, DURATION FACTORS AND ERECTION DETAILS MUST BE SUBMITTED AND APPROVED PRIOR TO FABRICATION. DESIGN BASED ON TRUSS CONFIGURATION DEPICTED ON DRAWINGS. CONTRACTOR TO BE RESPONSIBLE FOR ALL COORDINATION AND EXPENSES DUE TO ADJUSTMENTS OR REVISIONS TO ASSUMED TRUSS CONFIGURATION. SEE PARAGRAPH 1.12 FOR LOADING REQUIREMENTS. 10.5 ALL CONNECTORS SHALL BE HOT DIPPED GALVANIZED. CONNECTOR MODEL NUMBERS ARE SIMPSON STRONG-TIE CONNECTORS, AS MANUFACTURED BY SIMPSON STRONG-TIE CO., 1450 DOLITTLE DRIVE, P.O. BOX 1568 SAN LEANDRO, CA 94577. SUBSTITUTIONS ARE ACCEPTABLE W/ APPROVAL FROM THE ENGINEER. INSTALL SIZE AND NUMBER OF FASTENERS AS SHOWN IN THE LATEST SIMPSON CATALOG.

COMPONENT AND CLADDING DESIGN WIND PRESSURES

WIND PRESSURE (PSF) @ 150 MPH, EXP C				
ROOF ZONES, Ultimate Pressures				
ZONE	AREA	POS	NEG	w/ OH
1	10	22.2	-75.5	-78.3
1	20	20.7	-70.5	-76.9
1	50	18.9	-63.9	-75.1
1	100	17.5	-59.0	-73.7
2	10	22.2	-99.5	-106.0
2	20	20.7	-93.1	-96.1
2	50	18.9	-84.6	-83.3
2	100	17.5	-78.3	-73.5
3	10	22.2	-135.6	-147.4
3	20	20.7	-122.9	-130.3
3	50	18.9	-106.0	-107.6
3	100	17.5	-93.1	-90.5
WALL ZONES, Ultimate Pressures				
4	10	54.4	-51.3	-
4	20	52.0	-49.3	-
4	50	48.6	-46.5	-
4	100	46.2	-44.3	-
5	10	54.4	-63.4	-
5	20	52.0	-59.1	-
5	50	48.6	-53.4	-
5	100	46.2	-49.3	-
WALL ZONES, Nominal Pressures (V=116mph)				
4	10	32.6	-30.8	-
4	20	31.2	-29.6	-
4	50	29.2	-27.9	-
4	100	27.7	-26.6	-
5	10	32.6	-38.0	-
5	20	31.2	-35.5	-
5	50	29.2	-32.1	-
5	100	27.7	-29.6	-

ZONE 1 - INTERIOR AREAS OF ROOF (INCLUDES ZONE 1')
ZONE 2 - EDGE ZONE (INCLUDES ZONES 2e, 2n, 2r)
ZONE 3 - CORNER ZONE (INCLUDES ZONES
ZONE 4 - INTERIOR AREAS OF WALL
ZONE 5 - EDGE ZONES OF WALL
DISTANCE "a" IS DEFINED AS 10 FT FROM DIAPHRAGM BOUNDARY FOR ROOFS AND 10 FT FROM ANY CORNER OF THE BUILDING FOR WALLS





ROOF

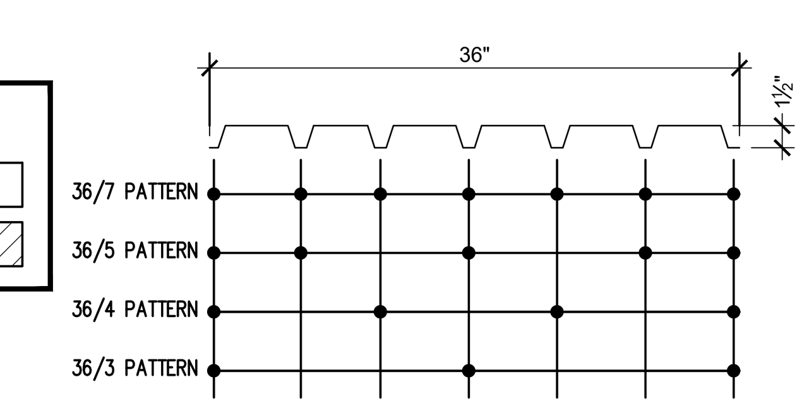
FLOOR DECK FASTENING PATTERN

BUILDING	ZONE	DECK GAGE	FLOOR DECK MINIMUM FASTENING PATTERN
SECOND FLOOR	TYP.	20 GA (G-60)	36/4 5/8" DIA. PUDDLE WELD W/ (4) #10 TEK SCREW SIDELAPS

ROOF DECK FASTENING PATTERN

BUILDING	ZONE	DECK GAGE	ROOF DECK MINIMUM FASTENING PATTERN
ROOF	①	20 GA	36/5 #12 TEK SCREWS W/ (8) #10 TEK SCREW SIDELAPS
ROOF	②	20 GA	36/7 #12 TEK SCREWS W/ (10) #10 TEK SCREW SIDELAPS

LEGEND
ZONE 1
ZONE 2



1 ROOF DECK TYPE 'B' PATTERN DIAGRAM
N.T.S.

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SUITE 201
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project number
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BREVARD HEALTH ALLIANCE SILVER PALM LOCATION

17 SILVER PALM AVENUE
MELBOURNE, FLORIDA 32901

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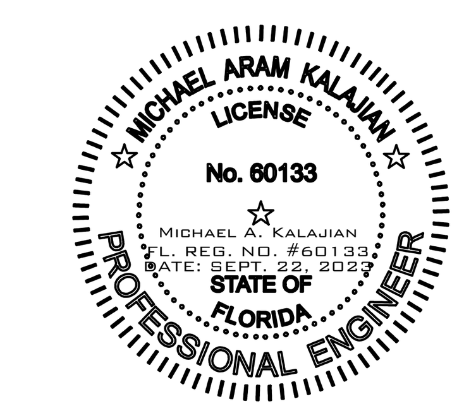

Registered Engineer: Michael A. Kalajian
Registered Engineer License: PE 60133

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S1.0

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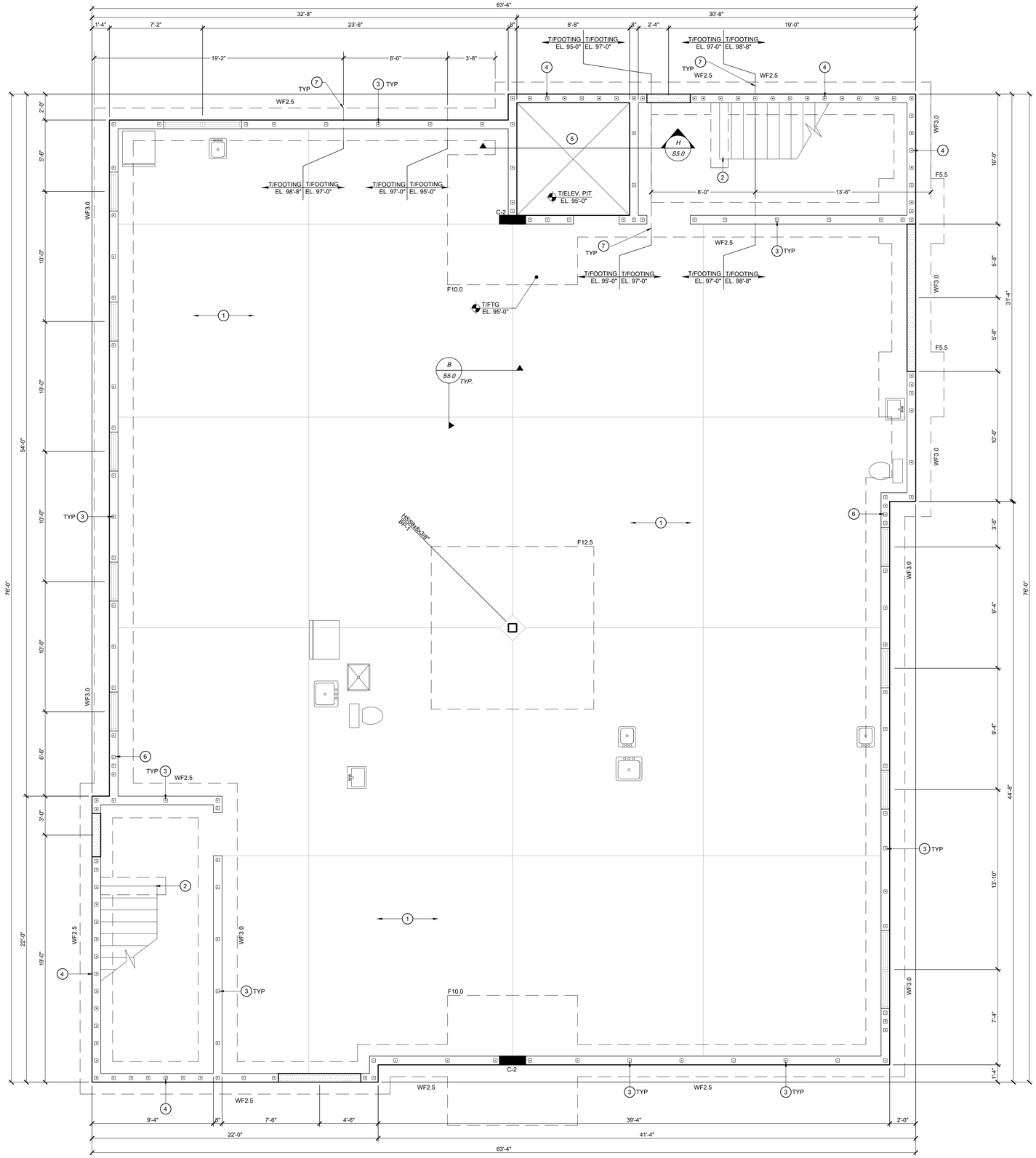

FOUNDATION PLAN

T/FOUNDATION EL. 98'-8" TYP. U.O.N.
TSLAB EL. 100'-0" TYP. U.O.N.

SCALE: 1/4"=1'-0"

NOTES:

1. 4" THICK 3000 PSI (MIN) CONCRETE SLAB ON GRADE U.N.O. W/6x6 W2.1xW2.1 W.W.M. AND FIBERMESH ON CLEAN COMPACTED FILL AND TREATED AGAINST TERMITES OVER 6 MIL. U.V. RESISTANT VAPOR BARRIER
2. PRE-ENGINEERED METAL PAN STAIRS AND LANDING, SEE GENERAL NOTES FOR REQUIREMENTS. SEE DETAIL D/S5.0 FOR STAIR FOUNDATION REQUIREMENTS
3. 8" MASONRY LOAD BEARING WALL REINF. W/ #5 BARS @ 48" O.C. IN GROUT FILLED CELLS, TYP. U.N.O.
4. 8" MASONRY LOAD BEARING WALL REINF. W/ #5 BARS @ 16" O.C. IN GROUT FILLED CELLS
5. ELEVATOR PIT, SEE ARCHITECTURAL DRAWINGS AND/OR MANUF. SPECIFICATIONS FOR PIT DEPTH AND SIZE REQUIREMENTS.
6. (3) FULL HEIGHT FILLED CELLS FOR GIRDER BEAMS ABOVE.
7. STEP FOUNDATION PER DETIAL N/S5.0

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FOUNDATION PLAN

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MICHAEL ARAM KALAJIAN LICENSE No. 60133 STATE OF FLORIDA PROFESSIONAL ENGINEER

Registered Engineer: Michael A. Kalajian

Registered Engineer License: PE 60133

sheet number

S2.0

drawn by: JES-KBJ checked by: MAK

BEAM SCHEDULE:

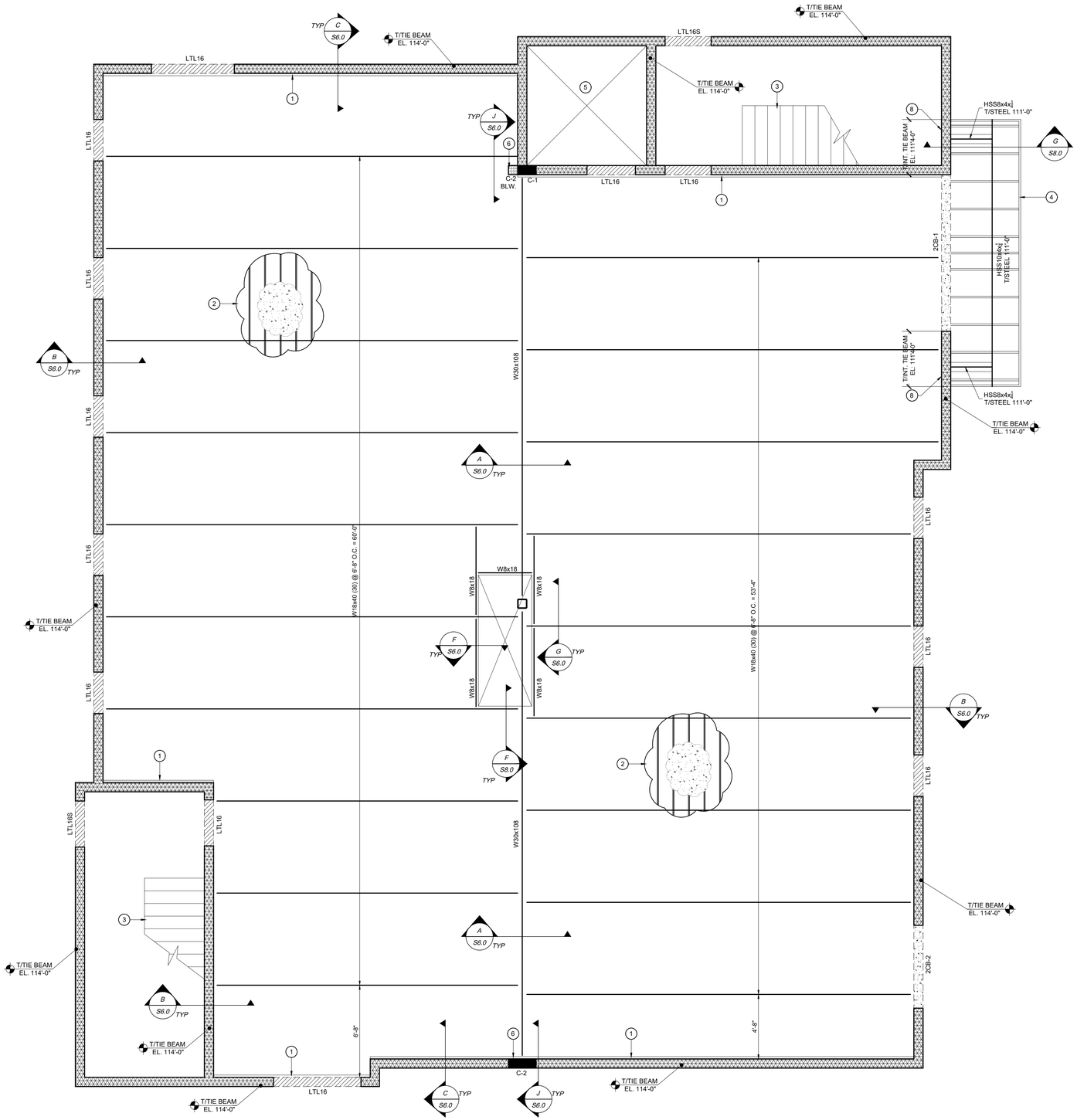
SYMBOL	BEAM SIZE	REBAR	STIRRUPS
	8"X24" CONCRETE TIE BEAM	(2) #5 TOP AND BOTTOM	#3 @ 16 O.C.
	LINTEL BOND BEAM	SEE DETAIL B/S8.0	N/A
	CONCRETE BEAM	SEE SCHEDULE S8.0	SEE SCHEDULE S8.0
	LIGHT GAUGE FRAMING BY DELEGATED ENGINEER	N/A	N/A

NOTES:

1. L5x3x$\frac{5}{16}$" LLV DECK SUPPORT ANGLE, SEE DETAIL C/S6.0
2. 4" TOTAL CONCRETE REINFORCED W/ 6x6 W1.4xW1.4 ON 1.5 VL, 20 GA GALVANIZED COMPOSITE FLOOR DECK, (G60) OR APPROVED EQUAL. SEE SHEET S1.0 FOR DECK ATTACHMENT
3. PRE-ENGINEERED METAL PAN STAIRS AND LANDING, SEE GENERAL NOTES FOR REQUIREMENTS.
4. LIGHT GAUGE ROOF TRUSSES, DESIGN BY OTHERS.
5. ELEVATOR SHAFT, SEE ARCH DRAWINGS FOR REQUIREMENTS.
6. CAST-IN-PLACE CONCRETE COLUMN. SEE DETAIL E/S8.0 FOR COLUMN SIZE AND REINFORCING
7. BLADE SIGN DESIGNED BY SPECIALTY ENGINEER. CONTRACTOR TO COORDINATE ATTACHMENT REQUIREMENT WITH BLADE SIGN DESIGNER
8. 8"x16" CONCRETE INTERMEDIATE TIE BEAM, W/ (2) #5 TOP AND BOTTOM W/ #3 STIRRUPS @ 12" O.C.

ELEVATION NOTES:

1. T/TIE BEAM EL: 114'-0" TYP. U.N.O.
2. T/STEEL EL: 113'-8" TYP. U.N.O.
3. T/SLAB EL: 114'-0" TYP. U.N.O.



SECOND FLOOR FRAMING PLAN

SCALE: 1/4"=1'-0"

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SECOND FLOOR FRAMING PLAN

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Registered Engineer: Michael A. Kalajian

Registered Engineer License: PE 60133

sheet number

S3.0

drawn by: JES-KBJ checked by: MAK

WHEN PLOTTED AT FULL SIZE THIS SHEET MEASURES 24" x 36"

BEAM SCHEDULE:

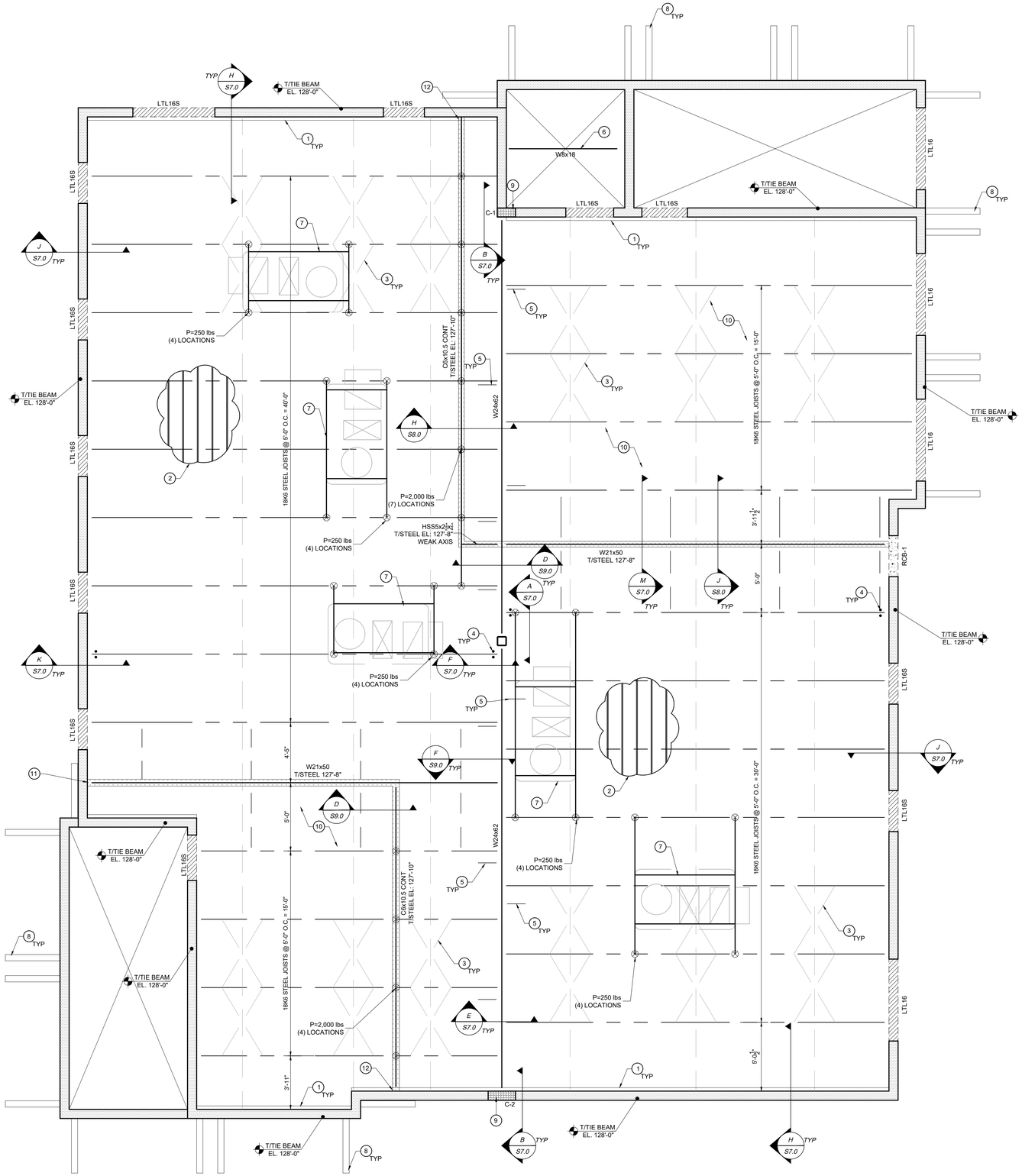
SYMBOL	BEAM SIZE	REBAR	STIRRUPS
	8"X16" CONCRETE TIE BEAM	(2) #5 TOP AND BOTTOM	#3 @ 16 O.C.
	LINTEL BOND BEAM	SEE DETAIL B/S8.0	N/A
	CONCRETE BEAM	SEE SCHEDULE S8.0	SEE SCHEDULE S8.0
	600S162-43 LIGHT GAUGE FRAMING @ 12" O.C.	SEE SHEET S9.0	SEE SHEET S9.0

NOTES:

1. L5x3x5/16" LLV DECK SUPPORT ANGLE, SEE DETAIL H/S7.0
2. 1 1/2", 20GA., GALVANIZED ROOF DECK, VULCRAFT TYPE "B" OR APPROVED EQUAL. SEE S1.0 FOR FASTENING PATTERN.
3. L 1-7/8"x1-7/8"x7/16" HORIZONTAL BRIDGING, EQUALLY SPACED. IN ADDITION A MINIMUM OF A SINGLE LINE OF BOTTOM CHORD BRIDGING MUST BE PROVIDED NEAR THE FIRST BOTTOM CHORD PANEL POINT AT EACH END OF JOIST DUE TO WIND UPLIFT, TYPICAL
4. JOIST SHALL BE FIELD BOLTED ON EACH SIDE OF EVERY COLUMN. SEE DETAILS F&K/S7.0
5. BOTTOM FLANGE BRACING @ 15'-0" O.C., SEE DETAILS E&F/S7.0
6. CONTRACTOR TO VERIFY ELEVATION OF HOIST BEAM WITH ELEVATOR MANUFACTURER
7. ROOF TOP MECHANICAL UNIT JOIST DESIGNER TO COORDINATED LOCATION AND SIZE OF UNIT WITH ARCHITECTURAL DRAWINGS, SEE DETAIL C,G,&L/S7.0
8. CONTRACTOR TO COORDINATE SIZE AND LOCATION OF ARCHITECTURAL BRACKING WITH ARCH PLANS. VERIFY SOLID ATTACHMENT REQUIREMENTS IN FIELD. GROUT MASONRY CELLS SOLID AS REQUIRED
9. CAST-IN-PLACE CONCRETE COLUMN, SEE DETAIL E/S8.0 FOR COLUMN SIZE AND REINFORCING
10. PROVIDE OPENING IN DECK IN COVERED ROOF DECK AREA FOR AIR FLOW. COORDINATE REQUIREMENTS WITH ARCHITECTURAL AND MEP DRAWINGS. SEE DETAIL G/S7.0
11. STEP TIE BEAM AS REQUIRED FOR DEEPER BEAMS AT TIE BEAM, SEE DETAIL G/S9.0
12. FIELD WELD STEEL CHANNEL TO EDGE ANGLE AT TIE IN LOCATION

ELEVATION NOTES:

T/TIE BEAM EL. 128'-0" TYP. U.N.O.
T/STEEL EL. 127'-5 1/2" TYP. U.N.O.
JOIST BEARING EL. 127'-5 1/2" TYP. U.N.O.



ROOF FRAMING PLAN

SCALE: 1/4"=1'-0"

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ROOF FRAMING PLAN

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MICHAEL ARAM KALAJIAN LICENSE No. 60133 STATE OF FLORIDA PROFESSIONAL ENGINEER
MICHAEL A. KALAJIAN FL REG. NO. #60133 DATE: SEPT. 22, 2023

Registered Engineer: Michael A. Kalajian
Registered Engineer License: PE 60133

sheet number

S4.0

drawn by: JES-KBJ checked by: MAK

BEAM SCHEDULE:

SYMBOL	BEAM SIZE	REBAR	STIRRUPS
	DBL 8"x8" MASONRY BOND BEAM	#5 CONT. EA. COURSE	N/A
	8"x8" MASONRY BOND BEAM	#5 CONT.	N/A
	LINTEL BOND BEAM	SEE DETAIL B/S8.0	N/A
	CONCRETE BEAM	SEE DETAIL A/S8.0	SEE DETAIL A/S8.0
	600S162-43 LIGHT GAUGE FRAMING @ 12" O.C.	SEE SHEET S9.0	SEE SHEET S9.0

NOTES:

1. ROOF DECK BELOW, SEE SHEET S4.0
2. 4'-0" TALL MAX., 8" MASONRY PARAPET WALL, MATCH REINFORCEMENT FROM WALL BELOW. #5 VERT. BAR SPACING 48" O.C. MAX. PROVIDE CONT. 8" "U" BLOCK AT ALL SCUPPER OPENING LOCATIONS. COORDINATE WITH ARCHITECTURAL DRAWINGS
3. SEE SHEET S4.0 FOR LINTEL/CONCRETE BEAM DESIGNATIONS, TYPICAL
4. PRE-ENGINEERING METAL ROOF TRUSSES, DESIGN BY OTHERS
5. DBLE BACK TO BACK LIGHT GAUGE STUD BELOW GIRDER TRUSS, W/ SIMPSON S/VGT & HDU6 BELOW TOP PLATE

ELEVATION NOTES:

- T/TIE BEAM EL. 130'-0" TYP. U.N.O.
- T/PARAPET EL. 130'-8" TYP. U.N.O.
- T/LIGHT GAUGE WALL EL. 130'-0" TYP. U.N.O.

ROOF SHEATHING REQUIREMENTS:

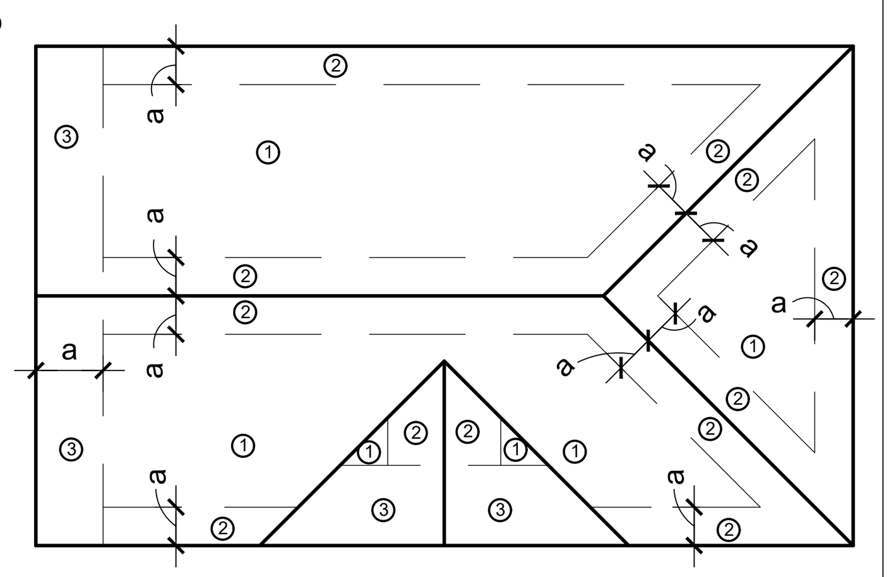
5/8" FIRE RETARDANT (FRT) RATED PLYWOOD SHEATHING
A. LONG DIMENSION PERPENDICULAR TO TRUSSES
B. END JOINTS STAGGERED
C. SEE FASTENING SCHEDULE

ROOF FASTENING SCHEDULE:

ZONE 1: #8 x 1½" @ 6" O.C. EDGE
#8 x 1½" @ 6" O.C. FIELD
ZONE 2: #8 x 1½" @ 4" O.C. ON EDGE
#8 x 1½" @ 4" O.C. FIELD
ZONE 3: #8 x 1½" @ 3" O.C. ON EDGE
#8 x 1½" @ 3" O.C. IN FIELD

ALLOWABLE FASTENERS:

#8 MODIFIED TRUSS HEAD SCREWS WITH MINIMUM DIMENSIONS:
A. 0.437" HEAD DIAMETER
B. ZINC PLATED
C. MEETS OR EXCEEDS ASTM SPECIFICATION C100,C954 AND C1513
D. 1½" SCREW LENGTH



NOTE: a, REFER TO SHEET S1.0 COMPONENT AND CLADDING FOR PRESSURES

TRUSS STRAP AND HOLD-DOWN SCHEDULE

TRUSS STRAP AND HOLD-DOWN SCHEDULE:

SEE TRUSS PLAN SUPPLIED BY TRUSS MANUFACTURER FOR THE LOCATION AND MAGNITUDE OF THE UPLIFTS. ALL FLOOR GIRDER TRUSSES SHALL BE DESIGNED ON A CASE TO CASE BASIS.

ALL FASTENERS ARE MANUFACTURED BY SIMPSON UNLESS NOTED OTHERWISE. FOLLOW MANUFACTURERS FASTENING SCHEDULE UNLESS SPECIFIED DIFFERENTLY ON PLANS. THE CONTRACTOR MAY SUBSTITUTE OTHER BRANDS OF HOLD- DOWN FASTENERS PROVIDED THEY MEET OR EXCEED THE CAPACITIES OF THE FASTENERS LISTED ABOVE.

THE CONTRACTOR MUST SUBMIT PERFORMANCE DATA FOR THE ALTERNATE FASTENERS FOR REVIEW BY THE ARCHITECT PRIOR TO INSTALLATION. IF AN ALTERNATE CONNECTOR IS DESIRED BY THE CONTRACTOR THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO INSTALLATION OF THE CONNECTOR FOR APPROVAL.

FOR ROOF TRUSSES BEARING ON LIGHT GAUGE WALLS:

FOR UPLIFTS FROM 0 TO 930 LBS.	USE (1) SIMPSON H10S	33 MIL, 20 GA MIN TRUSS

FOR ROOF TRUSSES BEARING ON MASONRY WALLS OR CONCRETE BEAMS:

FOR UPLIFTS FROM 0 TO 1,240 LBS.	USE (1) SIMPSON HETA 12	33 MIL, 20 GA MIN TRUSS
FOR UPLIFTS FROM 1,241 LBS TO 1,595 LBS.	USE (1) SIMPSON HETA 16	33 MIL, 20 GA MIN TRUSS
UPLIFTS FROM 1,596 LBS TO 1,770 LBS.	(2) SIMPSON HETA 16	33 MIL, 20 GA MIN TRUSS

CONNECTIONS FOR UPLIFTS GREATER THAN 7,720 LBS. FOR TRUSSES BEARING ON MASONRY WALLS WILL BE DESIGNED ON AN INDIVIDUAL BASIS.

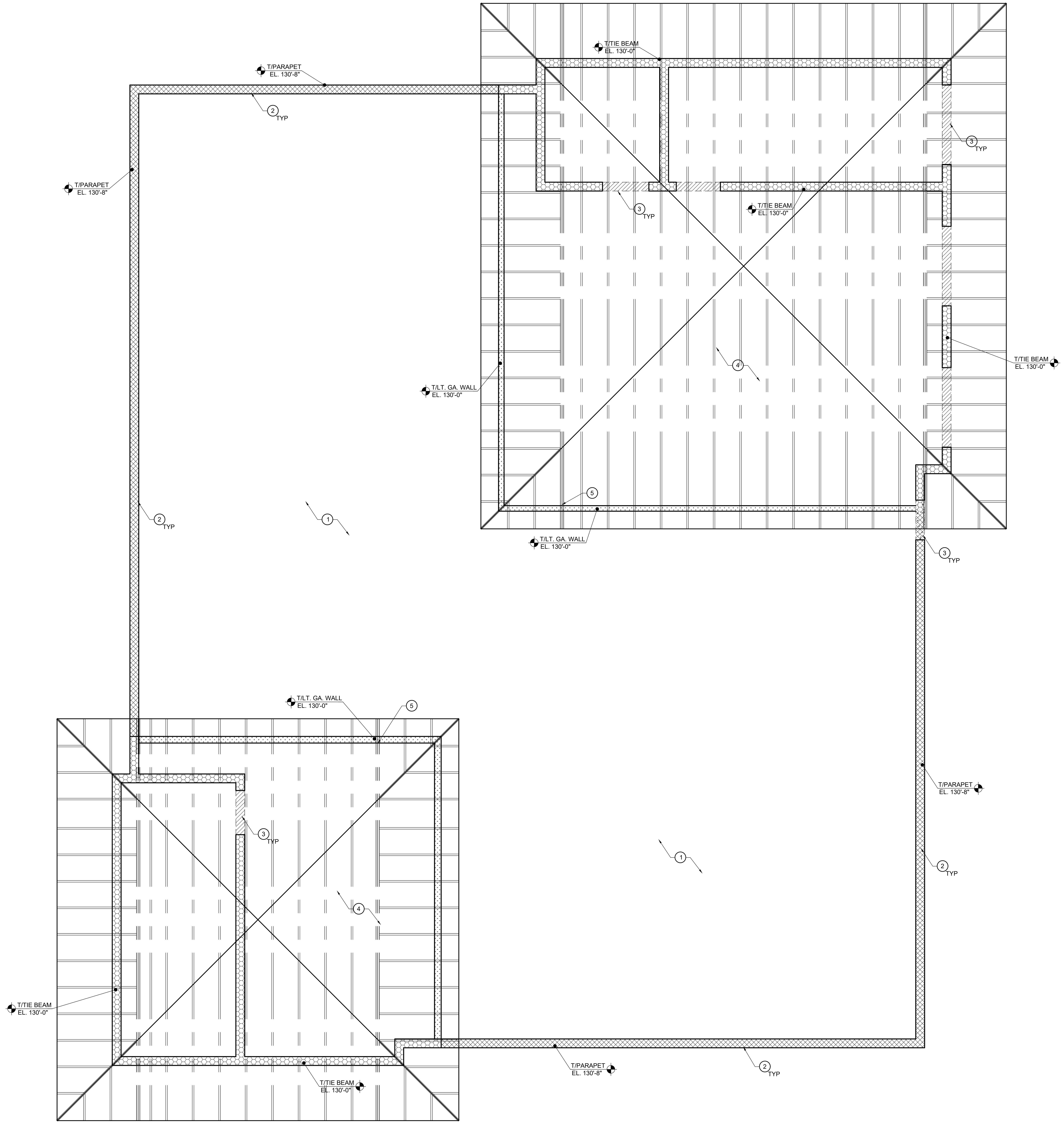
FASTENING SCHEDULE:

ALL CONNECTORS SHALL BE FASTENED PER MANUFACTURERS REQUIREMENTS AND RECOMMENDATIONS AS NOTED IN THE SIMPSON CATALOG. NOTIFY ENGINEER IF FASTENING REQUIREMENTS CAN NOT BE MEET BECAUSE OF ACTUAL BUILDING CONDITIONS OR FIELD MODIFICATIONS.

STRUCTURAL DESIGN IS BASED ON ASSUMED TRUSS LOADS. SUBMIT FINAL TRUSS SHOP DRAWINGS TO ENGINEER OF RECORD TO VERIFY DESIGN PRIOR TO CONSTRUCTION. STRUCTURAL DESIGN IS SUBJECT TO CHANGE BASED ON TRUSS MANUFACTURER PROVIDED LOADS

LIGHT GAUGE WALL SHEATHING:

- 1/2" APA FIRED RATED CDX PLYWOOD SHEATHING FASTENED W/ #10 SCREW @ 6" OC EDGE AND 12" OC FIELD



UPPER ROOF FRAMING PLAN

SCALE: 1/4"=1'-0"

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UPPER ROOF FRAMING PLAN

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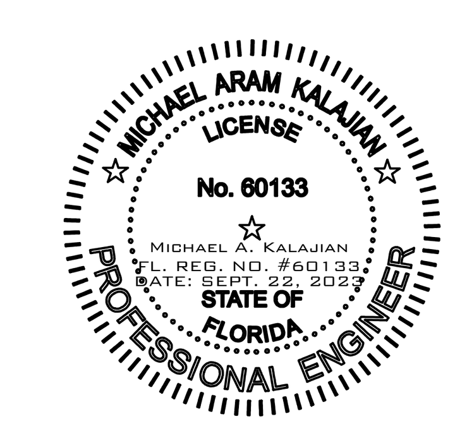
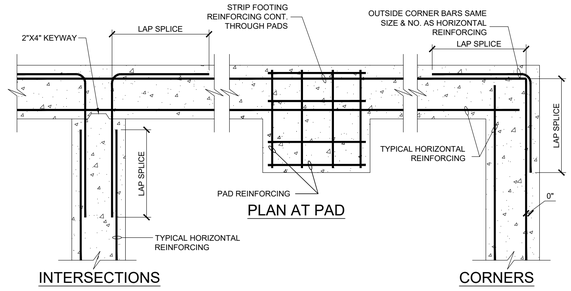


Registered Engineer: Michael A. Kalajian
Registered Engineer License: PE 60133

sheet number
S4.1

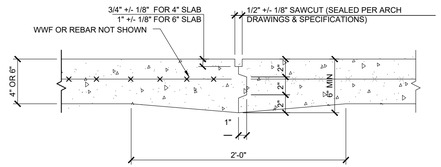
drawn by: JES-KBJ checked by: MAK



LAP SPLICE LENGTHS								
	BAR NO.							
f'c	3	4	5	6	7	8	9	10
COMPRESSION LAP SPLICE								
> 3000	12	15	19	23	27	30	34	39
CLASS A TENSION LAP SPLICE								
3000	13	17	21	25	36	42	47	53
4000	11	15	18	22	32	36	41	46
5000	10	13	16	20	28	32	36	41
CLASS B TENSION LAP SPLICE								
3000	16	22	27	33	47	54	61	68
4000	14	19	23	28	41	47	53	59
5000	13	17	21	25	37	42	47	53

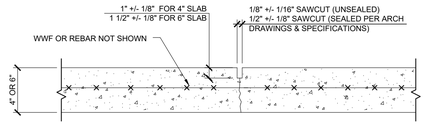
A - TYP. HORIZONTAL REINF-CONCRETE BEAMS AND FOOTINGS

SCALE 3/4"=1'-0"



CONSTRUCTION JOINT, CJ

(LABELED AS CJ ON PLAN). SUBMIT PROPOSED CONSTRUCTION JOINT LOCATIONS FOR APPROVAL PRIOR TO CONCRETE PLACEMENT.

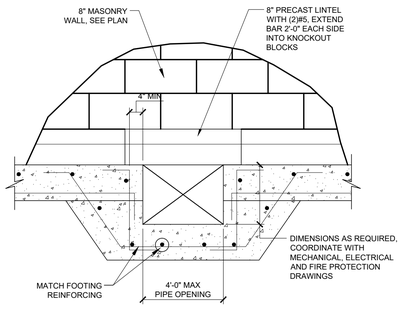


SAWCUT JOINT, SJ

(LABELED SJ ON PLAN) CONTROL JOINTS TO BE LOCATED AS SHOWN ON PLANS AND AT 20'-0" MAX. AND SHALL BE SAW CUT NO LATER THAN 8 HOURS AFTER CONCRETE PLACEMENT.

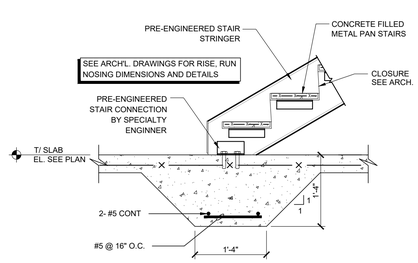
B - TYPICAL CONTROL JOINTS

SCALE 3/4"=1'-0"



C - TYP STEP FOOTING FOR UTILITIES

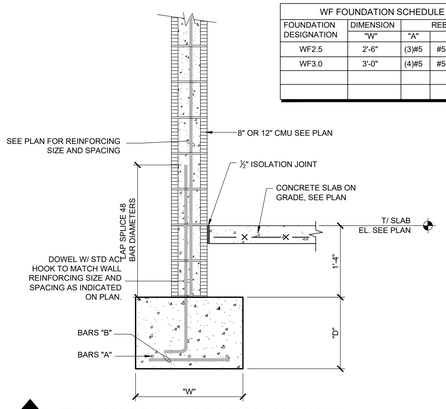
SCALE 3/4"=1'-0"



D - TYPICAL STAIR FOUNDATION

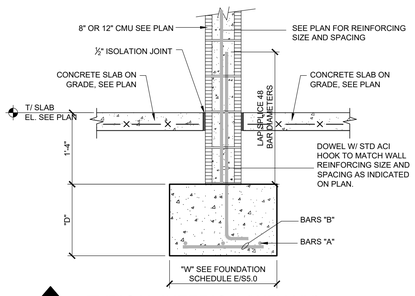
SCALE 1/2"=1'-0"

WF FOUNDATION SCHEDULE			
FOUNDATION DESIGNATION	DIMENSION	REBAR	
	"W"	"A"	"B"
WF2.5	2'-6"	(3)#5	#5@18" O.C.
WF3.0	3'-0"	(4)#5	#5@12" O.C.



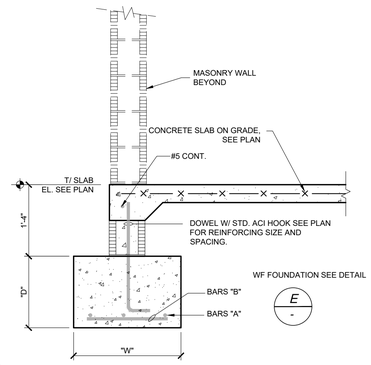
E - TYP. MASONRY SECTION (WFX.XX)

SCALE 3/4"=1'-0"



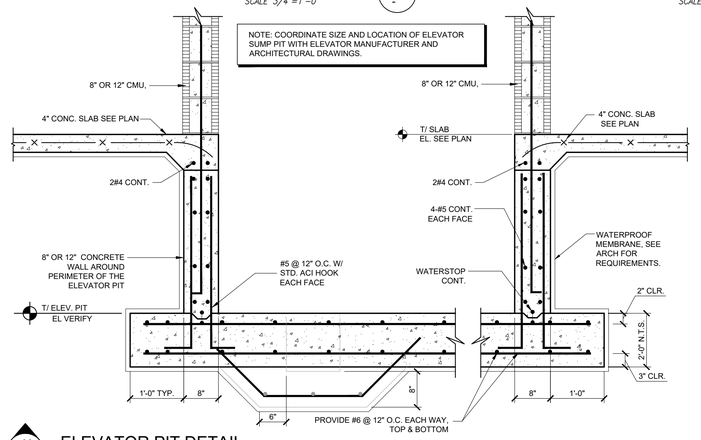
F - TYPICAL INTERIOR (WFX.XX)

SCALE 3/4"=1'-0"



G - WF FOUNDATION AT OPENINGS

SCALE 3/4"=1'-0"



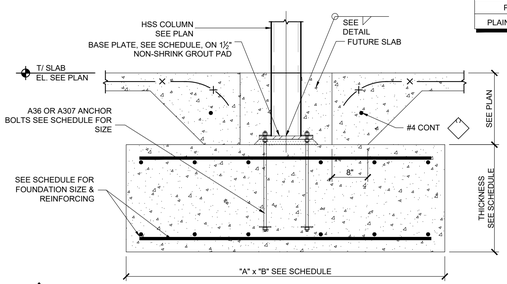
H - ELEVATOR PIT DETAIL

SCALE 3/4"=1'-0"

FOUNDATION SCHEDULE				
FOUNDATION DESIGNATION	DIMENSION		FOUNDATION THICKNESS	REBAR (BOTTOM)
	"A"	"B"		
F5.5	5'-6"	5'-6"	16"	(5) #6 EA. WAY
F10.0	10'-0"	10'-0"	20"	(11) #6 EA. WAY
F12.5	12'-6"	12'-6"	20"	(13) #6 EA. WAY (TOP&BOT.)

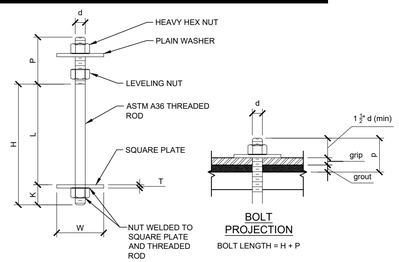
LETTERED DIMENSIONS		BOLT DIAMETER							
		1/2	5/8	3/4	7/8	1	1 1/4	1 1/2	1 3/4
SQUARE PLATE	W	3	3 1/2	3 1/2	4	4 1/2	5 1/2	6	7
	T	3/8	1/2	1/2	5/8	3/4	3/4	1	1
	HOLE DIA.	5/8	3/4	7/8	1	1 1/8	1 3/8	1 5/8	1 5/8
L		5 1/2	7 1/2	7 1/2	7 1/2	11	11	16	16
H		7	9	9 1/2	9 1/2	13	13 1/2	19	19 1/2
K		1 1/2	1 1/2	2	2	2	2 1/2	3	3 1/2
P (MIN)		3		4			5		
PLAIN WASHER		LIGHT					MEDIUM		

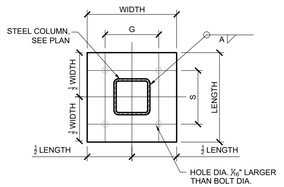
BASE PLATE SCHEDULE													
BASE PLATE DESIGNATION	BASE PLATE TYPE	BASE PLATE DIMENSIONS			COLUMN ATTACHMENT		ANCHOR RODS			COLUMN OFFSET			REMARKS
		LENGTH	WIDTH	THICKNESS	WELD "A"	WELD "B"	DIA. "D"	SPA. "S"	SPA. "G"	"H"	"V"		
BP-1	"A"	16"	16"	1 1/4"	3/8"	-	7/8"	13"	13"	-	-		-



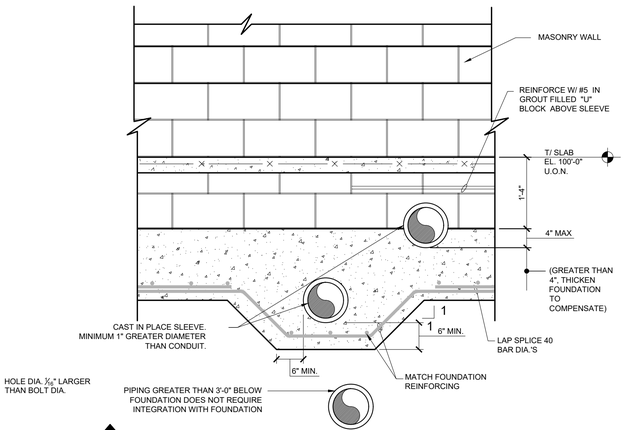
J - TYPICAL STEEL HSS COLUMN FOUNDATION (FX.X)

SCALE 3/4"=1'-0"





BASE PLATE TYPE "A"



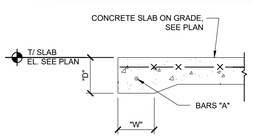
K - FOUNDATION CONDUIT SLEEVE

SCALE 3/4"=1'-0"

J - TYPICAL STEEL HSS COLUMN FOUNDATION (FX.X)

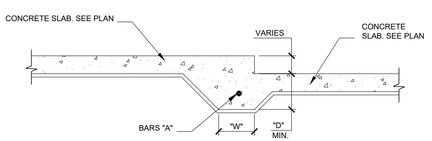
SCALE 3/4"=1'-0"

TF FOUNDATION SCHEDULE				
FOUNDATION DESIGNATION	DIMENSION		REBAR	
	"W"	"D"	"A"	"B"
TF0.67	0'-8"	0'-8"	(1)#5	-
TF1.0	1'-0"	1'-0"	(1)#5	-



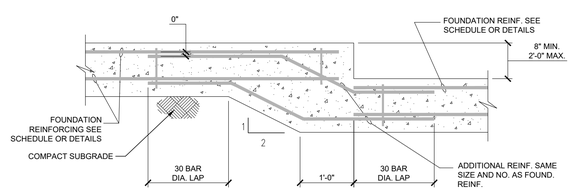
L - TYP. THICKENED EDGE FOUNDATION (TEX.XX)

SCALE 3/4"=1'-0"



M - TYP. STEPPED THICKENED EDGE FOUNDATION (T.E.)

SCALE 3/4"=1'-0"



N - TYPICAL STEPPED FOUNDATION

SCALE 3/4"=1'-0"

MK STRUCTURAL ENGINEERING
587 WEST EAU GALLIE BLVD
SUITE 201
MELBOURNE, FL 32935
P: 321.600.0672 OR 321.574.2702
www.mkstructural.com

Certificate of Authorization#:
CA 27800

project number

MK 23-151

BREVARD HEALTH ALLIANCE SILVER PALM LOCATION

17 SILVER PALM AVENUE
MELBOURNE, FLORIDA 32901

issued for	date
PERMIT SET	09/22/2023

revisions

item	description	date

scale

AS NOTED

sheet title

STRUCTURAL DETAILS

seal/signature

MICHAEL ARAM KALAJIAN LICENSE No. 60133 STATE OF FLORIDA PROFESSIONAL ENGINEER

Registered Engineer: Michael A. Kalajian

Registered Engineer License: PE 60133

sheet number

S5.0

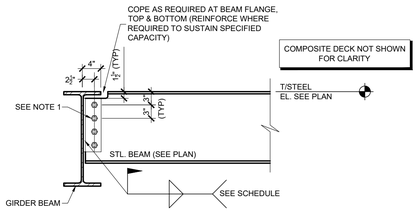
drawn by: JES-KBJ checked by: MAK

WHEN PLOTTED AT FULL SIZE THIS SHEET MEASURES 24" x 36"

SINGLE PLATE SHEAR FLOOR BEAM TO BEAM CONNECTION SCHEDULE

BEAM SIZE (SEE PLAN)	NO. OF ¾" DIA. A325-N BOLTS	THRU-PLATE THICKNESS	FILLET WELD SIZE (E70XX)	MAX. ALLOWABLE END REACTION (KIPS)	LENGTH (L) (INCH)
W8, W10	2	¼"	5/16"	11.1	6
W12, W14	3	¼"	5/16"	22.1	9
W16	4	¼"	5/16"	35.4	12
W18, W21	5	5/16"	¼"	49.1	15
W24	6	5/16"	¼"	62.7	18
W27, W30	7	5/16"	¼"	76.4	21

NOTES:
1. SEE SCHEDULE ABOVE FOR NUMBER OF BOLTS (3" GA.)
2. TABULATED VALUES ARE VALID FOR BEAMS WITH STANDARD OR SHORT-SLOTTED HOLES, FULLY TIGHTENED OR SNUG TIGHT.

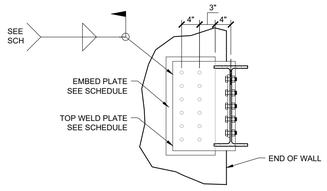


A TYP FRAMED FLOOR TO BEAM CONN.

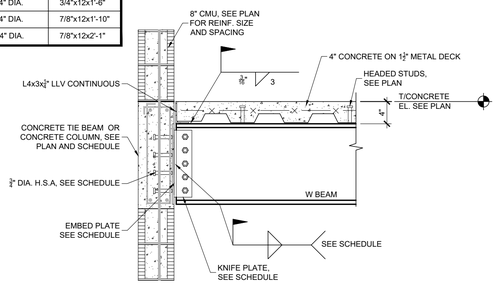
SCALE: 3/4"=1'-0"

SIMPLE SECOND FLOOR BEAM CONNECTION SCHEDULE

SUPPORT BEAM	NO. OF ¾" DIA. A325-N BOLTS	KNIFE PLATE SIZE	WELD	AT TYPICAL CONDITION		AT END OF WALL		
				EMBED PLATES	HEADED STUD ANCHORS (6")	EMBED PLATES	HEADED STUD ANCHORS (6")	TOP WELD PLATE
W8, W10	2-7/8" DIA.	1/4"x4"x0'-6"	3/16"	3/8x8x0'-8"	4-3/4" DIA.	1/2"x12x0'-10"	6-3/4" DIA.	1/2"x12x0'-8"
W12,W14	3-7/8" DIA.	1/4"x4"x0'-9"	3/16"	1/2x8x1'-2"	6-3/4" DIA.	5/8"x12x1'-0"	8-3/4" DIA.	5/8"x12x0'-10"
W16	4-7/8" DIA.	1/4"x4"x1'-0"	3/16"	1/2x8x1'-6"	8-3/4" DIA.	5/8"x12x1'-4"	8-3/4" DIA.	5/8"x12x1'-2"
W18	5-7/8" DIA.	5/16"x4"x 1'-3"	1/4"	5/8"x8x1'-10"	10-3/4" DIA.	3/4"x12x1'-8"	12-3/4" DIA.	3/4"x12x1'-6"
W24	6-7/8" DIA.	5/16"x4"x 1'-6"	1/4"	3/4"x8x2'-2"	12-3/4" DIA.	7/8"x12x2'-3"	16-3/4" DIA.	7/8"x12x1'-10"
W27	7-7/8" DIA.	5/16"x4"x 1'-9"	1/4"	3/4"x8x2'-6"	16-3/4" DIA.	7/8"x12x2'-3"	20-3/4" DIA.	7/8"x12x2'-1"



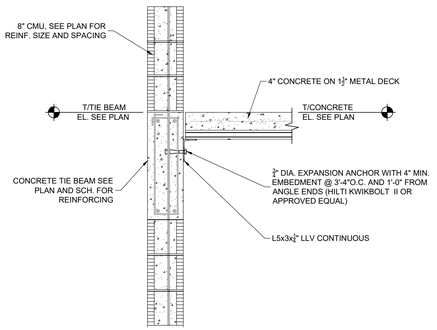
TYPICAL 2ND FLOOR CONNECTION AT END OF WWALL



TYPICAL FLOOR CONNECTION

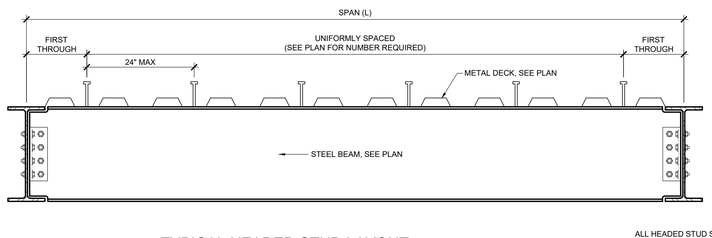
B TYPICAL FLOOR BEAM TO TIE BEAM OR COLUMN CONNECTION

SCALE: 3/4"=1'-0"

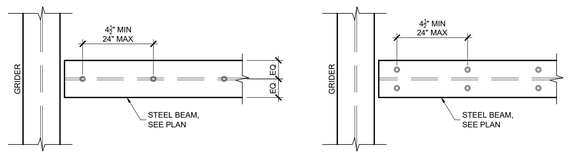


C TYPICAL DECK EDGE FLOOR SUPPORT

SCALE: 3/4"=1'-0"



TYPICAL HEADED STUD LAYOUT



SINGLE ROW OF STUDS

DOUBLE ROW OF STUDS

ALL HEADED STUD SHEAR CONNECTORS SHALL BE 3/4" DIA X 3" STUDS
AS MANUFACTURED BY THE "NELSON STUD COMPANY".

ALL HEADED STUD SHEAR CONNECTORS SHALL EXTEND 2" ABOVE THE DECK
AND HAVE 1" OF CONCRETE COVER ON TOP OF THE STUD. (TOTAL SLAB THICKNESS = 4").

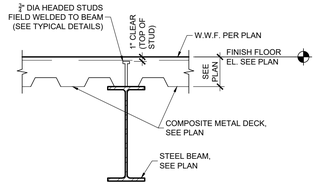
UNLESS NOTED OTHERWISE ON PLAN, HEADED SHEAR STUDS SHALL BE LOCATED UNIFORMLY ACROSS THE SPAN (L) OF THE BEAM IN THE TROUGH OF THE DECK THE MINIMUM CENTER TO CENTER SPACING OF STUDS SHALL BE 4D" O.C. THE MAXIMUM CENTER TO CENTER SPACING OF STUDS SHALL BE 24" O.C.

STEEL STUD SHEAR CONNECTORS SHALL CONFORM TO THE REQUIREMENTS OF "STRUCTURAL WELDING CODE-STEEL, AWSD1.1".

COMPOSITE STEEL DECK SHALL BE ATTACHED TO SUPPORTS AT A SPACING NOT TO EXCEED 16" O.C., SUCH ANCHORAGE SHALL BE ROVIDED BY STUD CONNECTORS OR A COMBINATION OF STUD CONNECTORS AND ¾" DIA. PUDDLE WELDS.

D TYPICAL HEADED STUD LAYOUT ON STEEL BEAM

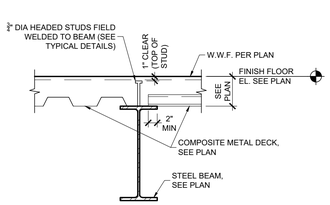
N.T.S



COMPOSITE DECK PERPENDICULAR TO BEAM

COMPOSITE DECK PARALLEL TO BEAM

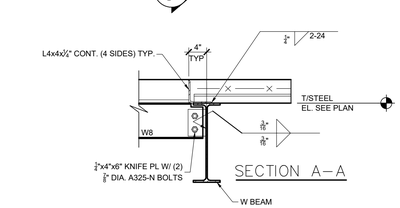
NOTE:
STEEL DECK RIBS OVER SUPPORTING BEAMS MAY BE SPLIT LONGITUDINALLY AND SEPARATED TO FORM A CONCRETE HAUNCH.



COMPOSITE DECK CHANGE IN DIRECTION

E TYPICAL COMPOSITE DECK ON STEEL BEAM

N.T.S

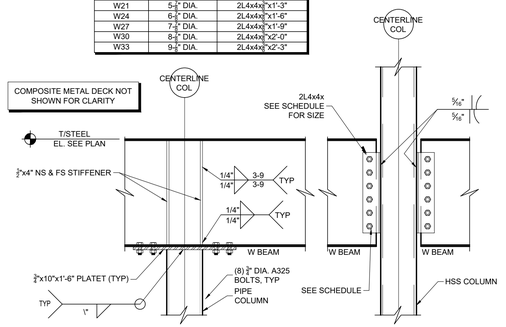


F TYP ELEVATED SLAB FLOOR OPENING

SCALE: 3/4"=1'-0"

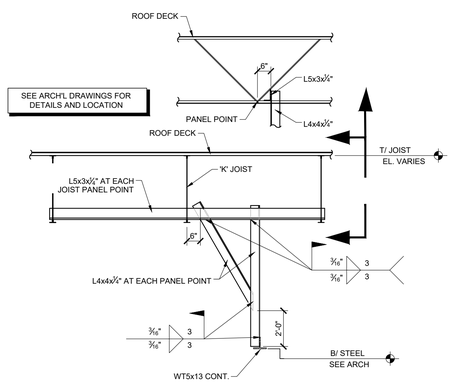
MAIN GIRDER BEAM CONNECTION

BEAM SIZE	NO. OF ¾" DIA. A325-N BOLTS	ANGLE SIZE
W16	4-¾" DIA.	2L4x4x¼"x1'-0"
W18	5-¾" DIA.	2L4x4x¼"x1'-3"
W21	5-¾" DIA.	2L4x4x¼"x1'-3"
W24	6-¾" DIA.	2L4x4x¼"x1'-6"
W27	7-¾" DIA.	2L4x4x¼"x1'-9"
W30	8-¾" DIA.	2L4x4x¼"x2'-0"
W33	9-¾" DIA.	2L4x4x¼"x2'-3"



TYPICAL FLOOR GIRDER BEAM TO STEEL COLUMN CONNECTION

SCALE: 3/4"=1'-0"



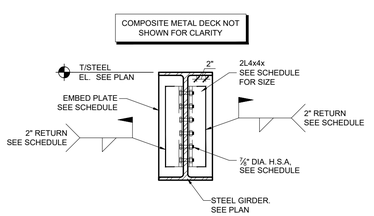
H PARTITION WALL SUPPORT

SCALE 3/4"=1'-0"

MAIN GIRDER BEAM CONNECTION

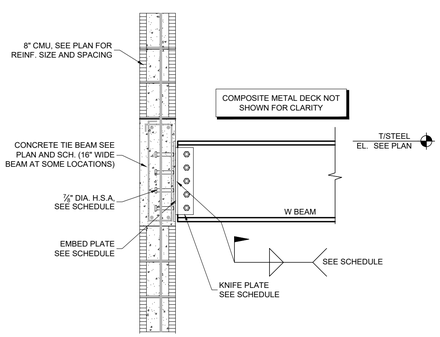
BEAM SIZE	NO. OF ¾" DIA. A325-N BOLTS	ANGLE SIZE	AT TYPICAL CONDITION	
			EMBED PLATES	HEADED STUD ANCHORS (6")
W16	4-¾" DIA.	2L4x4x¼"x1'-0"	½"x1'-0"x1'-6"	8-3/4" DIA.
W18	5-¾" DIA.	2L4x4x¼"x1'-3"	⅝"x1'-0"x1'-10"	10-3/4" DIA.
W21	5-¾" DIA.	2L4x4x¼"x1'-3"	⅝"x1'-0"x1'-10"	10-3/4" DIA.
W24	6-¾" DIA.	2L4x4x¼"x1'-6"	¾"x1'-0"x2'-2"	12-3/4" DIA.
W27, W30	7-¾" DIA.	2L4x4x¼"x1'-9"	¾"x1'-0"x2'-6"	16-3/4" DIA.
W33	8-¾" DIA.	2L4x4x¼"x2'-0"	¾"x1'-0"x3'-0"	20-3/4" DIA.

NOTES:
1. SEE SCHEDULE ABOVE FOR NUMBER OF BOLTS (3" GA.)
2. CONNECTIONS ARE VALID FOR BEAMS WITH STANDARD OR SHORT- SLOTTED HOLES, FULLY TIGHTENED OR SNUG TIGHT.



J TYPICAL FLOOR GIRDER TO TIE BEAM OR COLUMN CONCRETE CONNECTION

SCALE: 3/4"=1'-0"



TYPICAL FLOOR CONNECTION

MK STRUCTURAL ENGINEERING
587 WEST EAU GALLIE BLVD
SUITE 201
MELBOURNE, FL 32935
P: 321.600.0672 OR 321.574.2702
www.mkstructural.com

Certificate of Authorization#:
CA 27800

project number

MK 23-151

BREVARD HEALTH ALLIANCE SILVER PALM LOCATION

17 SILVER PALM AVENUE
MELBOURNE, FLORIDA 32901

issued for	date
PERMIT SET	09/22/2023

revisions

item	description	date

scale

AS NOTED

sheet title

STRUCTURAL DETAILS

seal/signature

MICHAEL ARAM KALAJIAN LICENSE No. 60133 MICHAEL A. KALAJIAN FL. REG. NO. #60133 DATE: SEPT. 22, 2023 STATE OF FLORIDA PROFESSIONAL ENGINEER

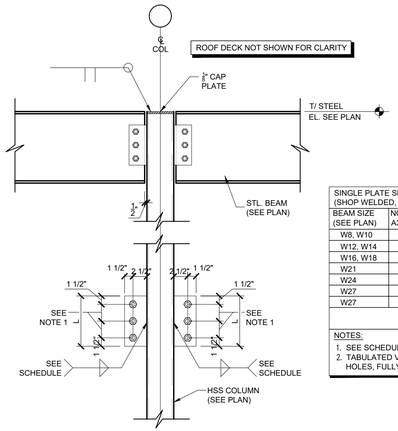
Registered Engineer: Michael A. Kalajian

Registered Engineer License: PE 60133

sheet number

S6.0

drawn by: JES-KBJ checked by: MAK



CONTINUOUS BEAMS
(NON-MOMENT CONNECTION)

SINGLE PLATE SHEAR BEAM CONNECTION SCHEDULE
(SHOP WELDED, FIELD BOLTED)

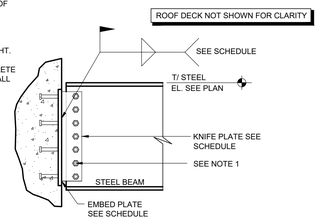
BEAM SIZE (SEE PLAN)	NO. OF 3/4" DIA. A325-N BOLTS	KNIFE PLATE THICKNESS (36 KSI)	FILLET WELD SIZE (E70XX)	MAX. ALLOWABLE END REACTION (KIPS)	LENGTH (L) (INCH)
W8, W10	2	3/8"	1/4"	8.2	6
W12, W14	3	3/8"	1/4"	16.3	9
W16, W18	4	3/8"	1/4"	26.1	12
W21	5	3/8"	1/4"	36.3	15
W24	6	3/8"	1/4"	46.3	18
W27	7	3/8"	1/4"	56.4	21
W27	8	3/8"	1/4"	66.2	24

NOTES:
1. SEE SCHEDULE ABOVE FOR NUMBER OF BOLTS (3" GA.)
2. TABULATED VALUES ARE VALID FOR BEAMS WITH STANDARD OR SHORT-SLOTTED HOLES, FULLY TIGHTENED OR SNUG TIGHT.

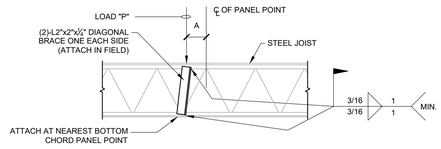
SIMPLE ROOF BEAM CONNECTION SCHEDULE

SUPPORT BEAM	NO. OF 3/4" DIA. A325-N BOLTS	KNIFE PLATE SIZE	WELD	AT TYPICAL CONDITION	
				EMBED PLATES	HEADED STUD ANCHORS (6")
W8, W10	2-3/4" DIA.	1/4"x4x0'-6"	3/16"	3/8x8x0'-8"	4-3/4" DIA.
W12,W14	3-3/4" DIA.	1/4"x4x0'-9"	3/16"	1/2x8x0'-10"	4-3/4" DIA.
W16	4-3/4" DIA.	1/4"x4x1'-0"	3/16"	1/2x8x1'-2"	6-3/4" DIA.
W18	5-3/4" DIA.	1/4"x4x 1'-3"	3/16"	5/8"x8x1'-6"	8-3/4" DIA.
W21	5-3/4" DIA.	1/4"x4x 1'-3"	3/16"	5/8"x8x1'-6"	8-3/4" DIA.
W24	6-3/4" DIA.	1/4"x4x 1'-6"	3/16"	3/4"x8x1'-10"	10-3/4" DIA.
W27	7-3/4" DIA.	1/4"x4x 1'-9"	3/16"	3/4"x8x2'-1"	12-3/4" DIA.

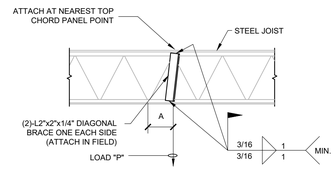
NOTES:
1. SEE SCHEDULE ABOVE FOR NUMBER OF BOLTS (3" GA.)
2. CONNECTIONS ARE VALID FOR BEAMS WITH STANDARD OR SHORT- SLOTTED HOLES, FULLY TIGHTENED OR SNUG TIGHT.
3. WHEN A BEAM FRAMES INTO A CONCRETE COLUMN AT THE END OF A MASONRY WALL THE EMBED PLATE SHALL BE 7½" WIDE.



TYPICAL CONDITION



LOAD ON TOP CHORD

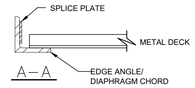


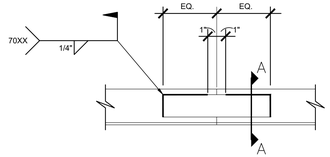
LOAD ON BOTTOM CHORD

NOTES:
1. DIAGONAL BRACE IS NOT REQUIRED FOR "A" LESS THAN TWO INCHES.
2. PROVIDE DIAGONAL BRACE AT LOCATION OF CONCENTRATED LOADS SUCH AS PARTITIONS, HEAVY PIPES, MECHANICAL UNITS, HEAVY LIGHTS AND ANY OTHER CONCENTRATED LOADS AS DIRECTED BY ENGINEER.
3. P = CONCENTRATED LOAD GREATER THAN 200 LBS.

EDGE ANGLE/DIAPHRAGM CHORD SPLICES

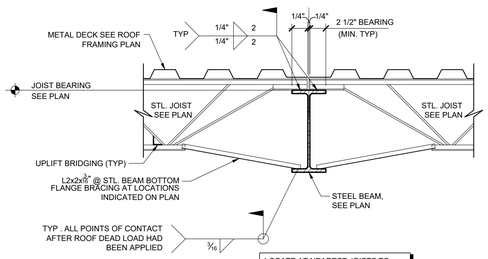
ANGLE	PLATE DIM.
L3x3x1/4"	1/2"x2 1/2"x9"
L4x4x1/4"	1/2"x3 1/2"x1'-0"
L5x3x1/4" LLV	1/2"x4 1/2"x10"
L5x3x1/4" LLH	1/2"x2 1/2"x1'-2"





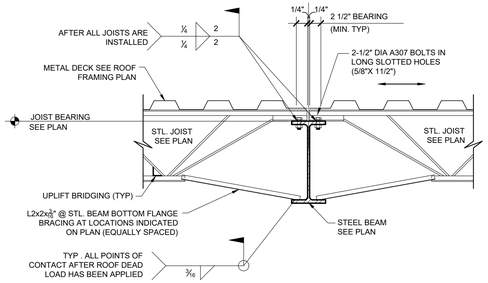
A TYPICAL ROOF STEEL BEAM TO STEEL COLUMN CONNECTION

SCALE 3/4"=1'-0"



B TYPICAL ROOF STEEL BEAM TO TIE BEAM CONN

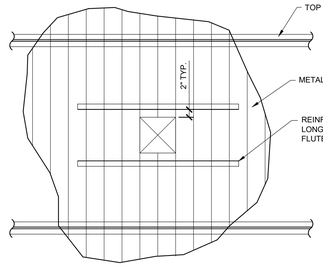
SCALE 3/4"=1'-0"



NOTE: THIS CONNECTION APPLIES ON EACH SIDE OF EVERY COLUMN

C TYPICAL POINT LOAD ON JOIST

SCALE 3/4"=1'-0"

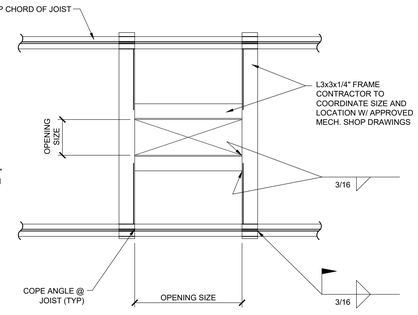


SMALL OPENING

OPENING SMALLER THAN 12" SQ.
LARGER THAN 6" SQ.

D DIAPHRAGM CHORD SPLICE

SCALE 3/4"=1'-0"

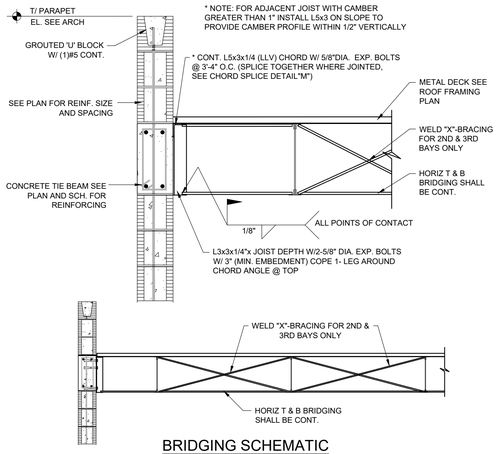


LARGE OPENING

LARGE THAN 12" SQ. OR ROUND

E TYPICAL JOIST TO BEAM

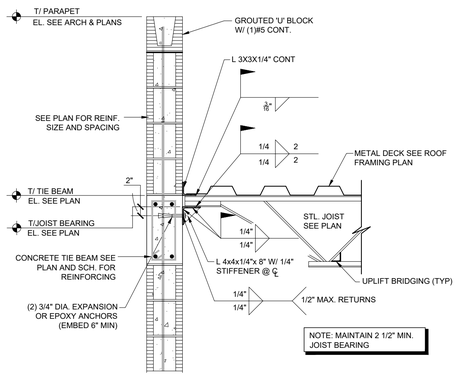
SCALE 3/4"=1'-0"



BRIDGING SCHEMATIC

F TYPICAL BOLTED JOIST TO BEAM

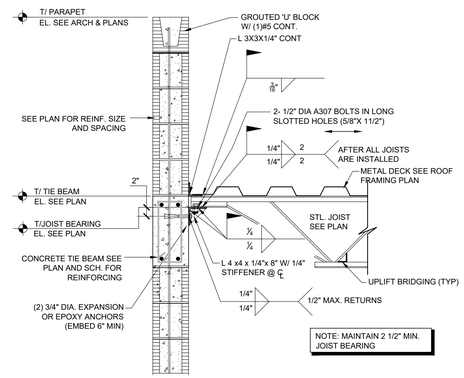
SCALE 3/4"=1'-0"



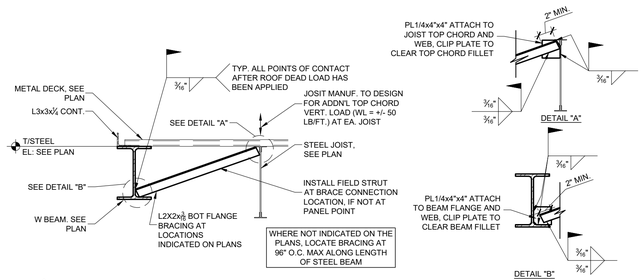
NOTE: MAINTAIN 2 1/2" MIN. JOIST BEARING

G TYPICAL ROOF OPENING DETAILS

SCALE 3/4"=1'-0"



NOTE: MAINTAIN 2 1/2" MIN. JOIST BEARING



M TYP. STEEL BEAM BOTTOM FLANGE BRACING (PARALLEL TO JOIST)

SCALE 3/4"=1'-0"

H TYPICAL BRIDGING DETAIL

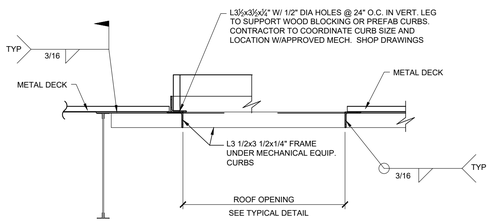
SCALE 3/4"=1'-0"

J "K" JOIST SUPPORT DETAIL

SCALE 3/4"=1'-0"

K BOLTED 'K' JOIST SUPPORT DETAIL

SCALE 3/4"=1'-0"



L MECHANICAL EQUIP. SUPPORT

SCALE 3/4"=1'-0"

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MK 23-151

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MICHAEL ARAM KALAJIAN — LICENSE — No. 60133 — MICHAEL A. KALAJIAN, P.E., REG. NO. PE60133, DATE: SEPT. 22, 2023 — STATE OF FLORIDA — PROFESSIONAL ENGINEER

Registered Engineer: Michael A. Kalajian

Registered Engineer License: PE 60133

sheet number

S7.0

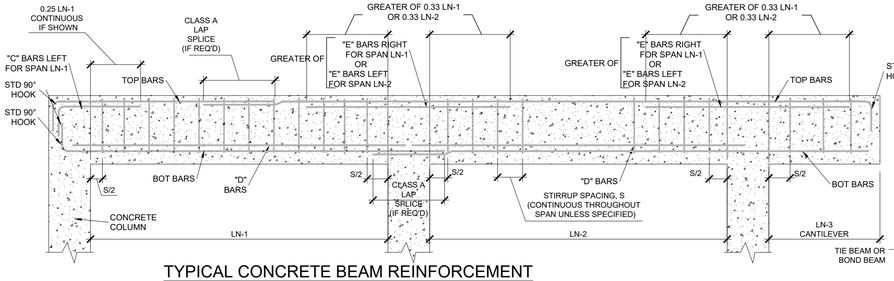
drawn by: JES-KBJ checked by: MAK

CONCRETE BEAM SCHEDULE

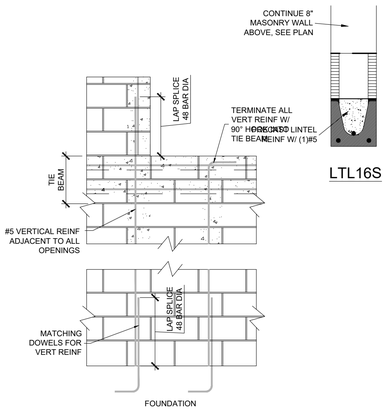
MARK	BEAM SIZE			REINFORCEMENT					STIRRUPS			REMARKS
	WIDTH	DEPTH	TOP OF BEAM ELEVATION	TOP BARS	"C" OR "E" BARS LEFT	"C" OR "E" BARS RIGHT	BOT BARS	"D" BARS	SIZE	TYPE	SPACING	
SECOND FLOOR FRAMING BEAMS												
2CB-1	8"	32"	112'-8"	(2) #6	-	-	(2) #6	-	#3		14" O.C.	SEE NOTE 1
2CB-2	8"	24"	110'-0"	(2) #5	-	-	(2) #5	-	#3		10" O.C.	
ROOF FRAMING BEAMS												
RCB-1	8"	24"	124'-0"	(2) #5	-	-	(2) #5	-	#3		10" O.C.	

NOTES:
1. ADD (2)#5 LONGITUDINAL REINF. EQUALLY SPACED FROM BOTTOM TO MID DEPTH ON EACH FACE, 2 BARS TOTAL

** CONTRACTOR TO VERIFY ALL BEAM SIZES PRIOR TO CONSTRUCTION REPORT ANY

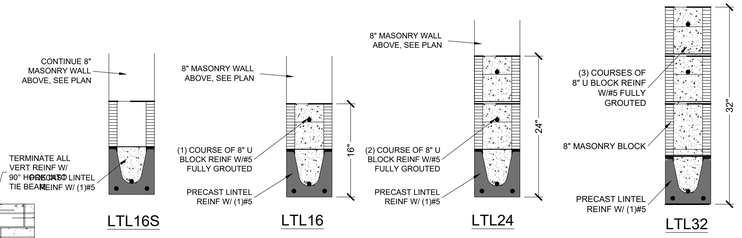


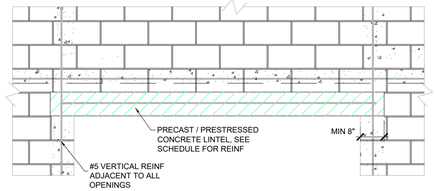
TYPICAL CONCRETE BEAM REINFORCEMENT



A TYPICAL MASONRY WALL REINFORCING

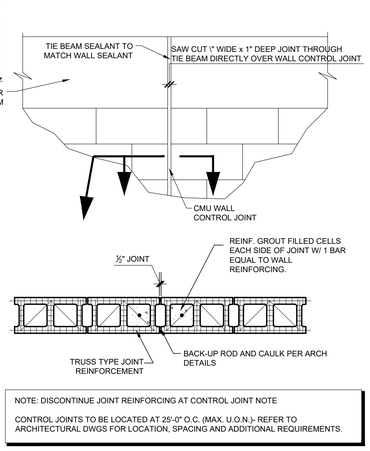
SCALE 1/2"=1'-0"





B TYPICAL PRECAST LINTEL

SCALE 1/2"=1'-0"

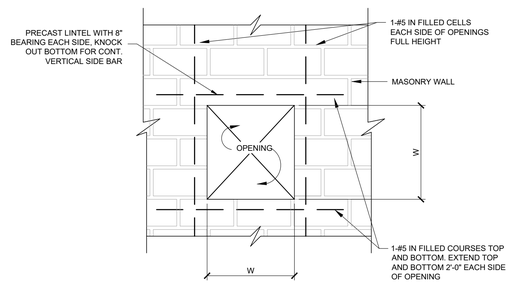


NOTE: DISCONTINUE JOINT REINFORCING AT CONTROL JOINT NOTE

CONTROL JOINTS TO BE LOCATED AT 25'-0" O.C. (MAX. U.O.N.)- REFER TO ARCHITECTURAL DWGS FOR LOCATION, SPACING AND ADDITIONAL REQUIREMENTS.

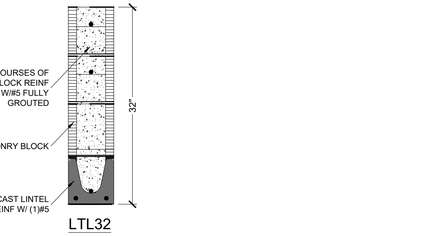
C TYPICAL MASONRY CONTROL JOINTS

SCALE 3/4"=1'-0"



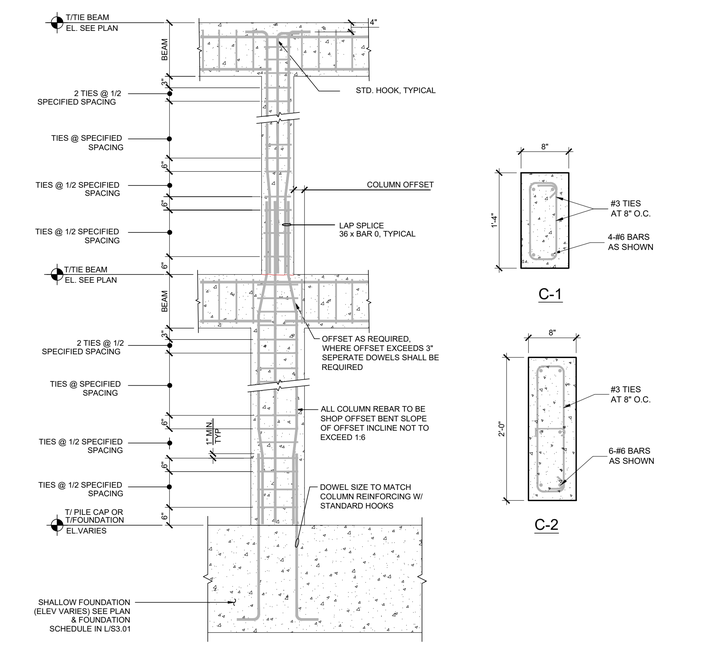
D TYPICAL MASONRY OPENING

SCALE 3/4"=1'-0"



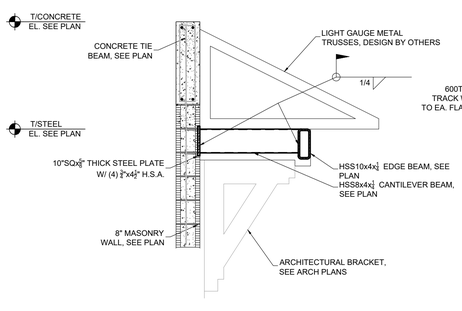
F SECTION AT EDGE OF DECK

SCALE 3/4"=1'-0"



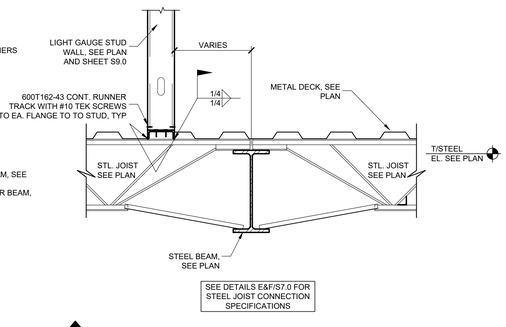
E TYPICAL CONCRETE COLUMN REINFORCEMENT

SCALE 3/4"=1'-0"



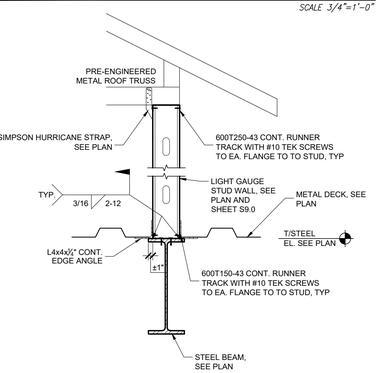
G LIGHT GAUGE AWNING

SCALE 3/4"=1'-0"



H STEEL & LIGHT GAUGE FRAMING

SCALE 3/4"=1'-0"



J STEEL & LIGHT GAUGE FRAMING

SCALE 3/4"=1'-0"

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SUITE 201
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P: 321.600.0672 OR 321.574.2702
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CA 27800

project number

MK 23-151

BREVARD HEALTH ALLIANCE
SILVER PALM LOCATION

17 SILVER PALM AVENUE
MELBOURNE, FLORIDA 32901

issued for	date
PERMIT SET	09/22/2023

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MICHAEL ARAM KALAJIAN LICENSE No. 60133 MICHAEL A. KALAJIAN P.E. REG. NO. #60133 DATE: SEPT. 22, 2023 STATE OF FLORIDA PROFESSIONAL ENGINEER

Registered Engineer: Michael A. Kalajian

Registered Engineer License: PE 60133

sheet number

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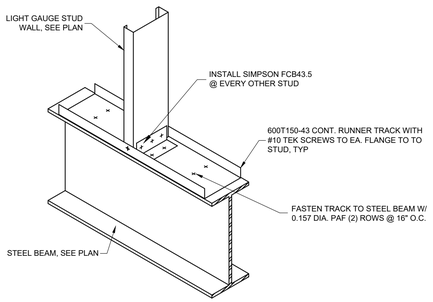
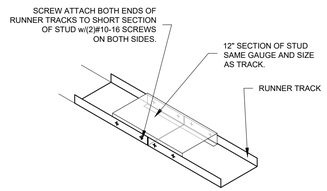
drawn by: JES-KBJ checked by: MAK



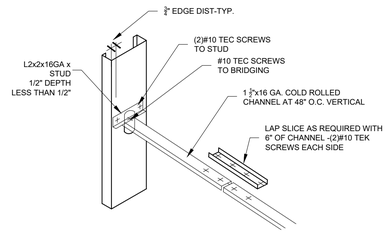
A - STUD TO TRACK CONNECTION TO STEEL BEAM

NTS



B - TOP/BOTTOM TRACK SPLICE

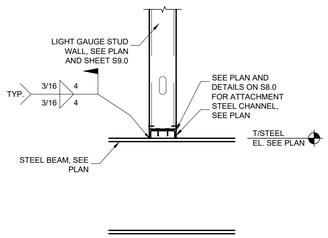
NTS



C - TYP. BRIDGING DETAIL

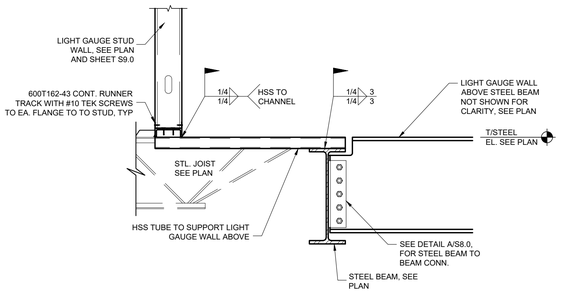
AT 48" O.C. ON LOAD BEARING FULL WALLS WITH NO OPENINGS

NTS



D - STEEL CHANNEL TO W BEAM CONNECTION

SCALE 3/4"=1'-0"



E - STEEL CHANNEL TO W BEAM CONNECTION

SCALE 3/4"=1'-0"

SINGLE PLATE SHEAR ROOF TO BEAM CONNECTION SCHEDULE				
BEAM SIZE (SEE PLAN)	NO. OF ¾" DIA. A325-N BOLTS	THRU-PLATE THICKNESS	FILLET WELD SIZE (E70XX)	LENGTH (L) (INCH)
W8, W10	2	¼"	3/16"	6
W12, W14	3	¼"	3/16"	9
W16	4	¼"	3/16"	12
W18, W21	5	5/16"	¼"	15
W24	6	5/16"	¼"	18
W27, W30	7	5/16"	¼"	21

NOTES:
1. SEE SCHEDULE ABOVE FOR NUMBER OF BOLTS (3" GA.)
2. TABULATED VALUES ARE VALID FOR BEAMS WITH STANDARD OR SHORT-SLOTTED HOLES, FULLY TIGHTENED OR SNUG TIGHT.

F - TYP FRAMED ROOF BEAM TO BEAM CONN.

SCALE: 3/4"=1'-0"

G - TIE BEAM "DROP DOWN" DETAIL

SCALE 3/4"=1'-0"

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