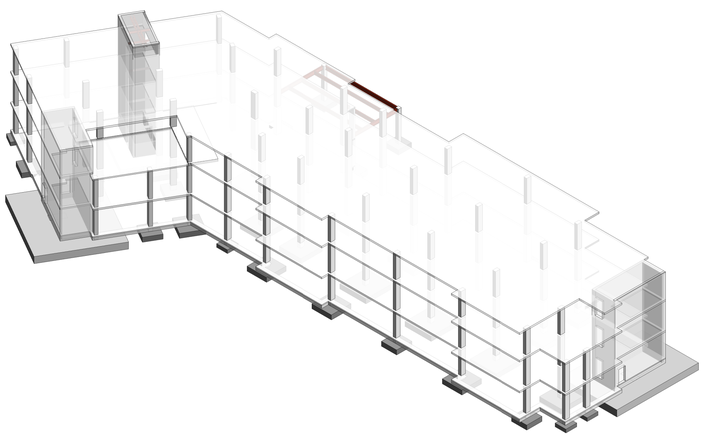


3D
S-001

ISOMETRIC VIEW - FOR REFERENCE ONLY

GENERAL REQUIREMENTS

A. THE GENERAL STRUCTURAL NOTES EMPLOY THE FOLLOWING DEFINITIONS AND ABBREVIATIONS:
   1. CONTRACT DOCUMENTS – THE LATEST SET OF DRAWINGS, SPECIFICATIONS, AND RECORDED ADDENDA AND AMENDMENTS ISSUED FOR BID OR CONSTRUCTION.
   2. LICENSED PROFESSIONAL (STRUCTURAL) ENGINEER – AN ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED AND QUALIFIED TO PERFORM THE WORK REQUIRED.
   3. STRUCTURAL ENGINEER OF RECORD – LICENSED PROFESSIONAL ENGINEER WHO IS IN RESPONSIBLE CHARGE FOR THE PREPARATION, SIGNING, DATING, SEALING, AND ISSUING OF STRUCTURAL ENGINEERING DOCUMENTS FOR ENGINEERING SERVICE OR CREATIVE WORK.
   4. DELEGATED ENGINEER – A LICENSED PROFESSIONAL ENGINEER WHO PROVIDES SERVICES OR CREATIVE WORK REGARDING A PORTION OF THE ENGINEERING PROJECT. THE DELEGATED ENGINEER IS THE ENGINEER OF RECORD FOR THAT PORTION OF THE ENGINEERING PROJECT. TYPICALLY, DELEGATED ENGINEERS FALL INTO ONE OF THE FOLLOWING CATEGORIES:
      a. AN INDEPENDENT CONSULTANT
      b. AN EMPLOYEE OR OFFICER OF AN ENTITY SUPPLYING COMPONENTS TO A FABRICATOR OR CONTRACTOR
      c. AN EMPLOYEE OR OFFICER OF A FABRICATOR OR CONTRACTOR
   5. DELEGATED ENGINEERING DOCUMENTS – ENGINEERING DOCUMENTS THAT ARE PREPARED BY A DELEGATED ENGINEER.
   6. DESIGN TEAM – DESIGN PROFESSIONALS INCLUDING THE ARCHITECT, STRUCTURAL ENGINEER, CIVIL ENGINEER, MEP ENGINEER, AND ANY OTHER CONSULTANT THAT ISSUES CONTRACT DOCUMENTS.
   7. CONTRACTOR – GENERAL CONTRACTOR, CONSTRUCTION MANAGER, DESIGN BUILDER, OR ANY OTHER ENTITY CONTRACTED BY THE OWNER TO PERFORM THE WORK.
   8. SHOP DRAWINGS – DRAWINGS DEPICTING INSTALLATION MEANS AND METHODS AND CATALOG INFORMATION ON STANDARD PRODUCTS. SHOP DRAWINGS SHALL BE PREPARED BASED ON ENGINEERING DIRECTION CONTAINED IN CONTRACT DOCUMENTS BY A CONTRACTOR, FABRICATOR, MANUFACTURER, OR LICENSED PROFESSIONAL ENGINEER, FOR INCORPORATION INTO THE PROJECT.
   9. ESTABLISHED CHANNELS – AT THE ONSET OF THE PROJECT, ARCHITECT, OWNER, AND CONTRACTOR SHALL ESTABLISH DESIRED LINES OF COMMUNICATION BETWEEN ALL PROJECT PARTIES. THESE AGREED UPON LINES OF COMMUNICATION ARE THE ESTABLISHED CHANNELS.
B. GENERAL STRUCTURAL NOTES ARE APPLICABLE TO THE DESIGN AND CONSTRUCTION OF THE ENTIRE PROJECT AND THUS ARE APPLICABLE TO EVERY SHEET WITHIN THIS SET.
C. WHERE A DETAIL, TYPICAL DETAIL, SECTION, TYPICAL SECTION, OR PLAN NOTE IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL SIMILAR OR LIKE CONDITIONS, UNLESS NOTED OTHERWISE.
D. ISOMETRIC VIEWS ARE FOR VISUALIZATION PURPOSES ONLY AND DO NOT CONVEY ALL OF THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
E. SHOULD THE CONTRACTOR ENCOUNTER A CONFLICT BETWEEN THESE DRAWINGS AND ANY OTHER CONTRACT DOCUMENT OR APPLICABLE CODE OR STANDARD OF PRACTICE DURING BIDDING, THE PROVISION RESULTING IN THE GREATER COST APPLIES. SHOULD THE CONTRACTOR ENCOUNTER A CONFLICT DURING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST FOR CLARIFICATION TO THE DESIGN TEAM, WHO WILL PROVIDE A WRITTEN RESPONSE IN RETURN.
F. SPECIFICATIONS HAVE BEEN ISSUED ON THIS PROJECT BY THE STRUCTURAL ENGINEER OF RECORD AND ARE AN INTEGRAL PART OF THE CONTRACT DOCUMENTS.
   SEE SPECIFICATIONS FOR MATERIALS TESTING REQUIREMENTS.
G. THE CONTRACTOR SHALL SUPERVISE AND DIRECT ALL WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE. THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR THE QUALITY AND CORRECTNESS OF THE WORK.
H. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COORDINATION OF THE STRUCTURAL WORK WITH OTHER TRADES INCLUDING, BUT NOT LIMITED TO: ARCHITECTURAL, CIVIL, AND MEP FOR FLOOR SLAB STEPS, SLOPES AND CURBS, FLOOR SLAB FINISH, OPENINGS IN STRUCTURAL FLOORS, ROOFS AND WALLS, ETC.
I. THE BUILDING HAS BEEN DESIGNED BY THE STRUCTURAL ENGINEER OF RECORD TO RESIST THE CODE REQUIRED VERTICAL AND LATERAL FORCES IN ITS FULLY COMPLETED CONDITION. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED BRACING, SHORING, AND OTHER CONSTRUCTION SUPPORTS NECESSARY TO ENSURE THE BUILDING'S STABILITY AND SAFETY THROUGHOUT THE DURATION OF CONSTRUCTION. FURTHER, THE CONTRACTOR SHALL NOT OVERLOAD THE STRUCTURE DURING CONSTRUCTION. THE CONTRACTOR SHALL RETAIN A LICENSED PROFESSIONAL ENGINEER TO PROVIDE THE ANALYSIS AND DESIGN NECESSARY TO DETERMINE POTENTIALLY OVERLOADED, UNSTABLE, OR HAZARDOUS CONDITIONS THAT MAY OCCUR AT ANY STAGE DURING CONSTRUCTION.
J. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AND COORDINATE WITH THE CONTRACT DOCUMENTS AND SHOP DRAWINGS.
K. THE CONTRACTOR SHALL NOT EMPLOY CONSTRUCTION MEANS OR METHODS THAT MAY DAMAGE UTILITIES, ADJACENT BUILDINGS, OR PROPERTY. DOCUMENTATION OF ADJACENT CONDITIONS PRIOR TO CONSTRUCTION IS RECOMMENDED. FURTHER, THE CONTRACTOR SHALL EITHER ADEQUATELY CONFINE THE SITE OR PROTECT ADJACENT PROPERTY FROM DAMAGE.
L. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROJECT SAFETY AND OSHA REQUIREMENTS. SHOULD THE STRUCTURAL ENGINEER OF RECORD NOTIFY THE CONTRACTOR OF A POTENTIALLY UNSAFE CONDITION, IT IS SOLELY AS A COURTESY FROM ONE PROFESSIONAL TO ANOTHER. IT SHOULD NOT BE INTERPRETED AS THE STRUCTURAL ENGINEER OF RECORD ASSUMING ANY RESPONSIBILITY FOR PROJECT SAFETY.
M. ALL STRUCTURES REQUIRE PERIODIC MAINTENANCE TO EXTEND LIFE SPAN AND ENSURE STRUCTURAL INTEGRITY FROM EXPOSURE TO THE ENVIRONMENT. A PLANNED PROGRAM OF MAINTENANCE SHALL BE ESTABLISHED BY THE BUILDING OWNER. THIS PROGRAM SHALL INCLUDE, BUT NOT BE LIMITED TO: PAINTING OF STRUCTURAL STEEL, PROTECTIVE COATINGS FOR CONCRETE, SEALANTS, CAULKED JOINTS, EXPANSION JOINTS, CONTROL JOINTS, SPALLS AND CRACKS IN CONCRETE, AND PRESSURE WASHING OF EXPOSED STRUCTURAL ELEMENTS EXPOSED TO A SALINE OR OTHER HARSH CHEMICAL ENVIRONMENT.
N. THE USE OF DE-ICING CHEMICALS ON ANY EXPOSED STRUCTURAL ELEMENT IS DISCOURAGED AND WILL ACCELERATE DETERIORATION OF STRUCTURAL ELEMENTS.
O. THE BUILDING OWNER SHALL NOT ALTER OR MODIFY ANY STRUCTURAL ELEMENT WITHOUT CONSULTING A LICENSED PROFESSIONAL ENGINEER. FURTHER, BUILDING OWNER SHALL NOT RENOVATE, REPURPOSE, ADD-ON TO, OR OTHERWISE MODIFY THE EXISTING STRUCTURAL SYSTEMS WITHOUT CONSULTING A LICENSED PROFESSIONAL ENGINEER.
P. CONTRACT DRAWINGS SHOW MAJOR OPENINGS IN FLOORS AND WALLS AND DO NOT NECESSARILY SHOW ALL OPENINGS REQUIRED. THE CONTRACTOR SHALL COORDINATE ALL OPENING SIZES AND LOCATIONS BETWEEN ALL DISCIPLINES AND TRADES. ADDITIONAL OPENINGS, BLOCKOUTS, AND SLEEVES MAY BE REQUIRED AND SHALL BE CONSTRUCTED USING THE TYPICAL DETAILS AND/OR REQUIREMENTS WITHIN THE CONTRACT DOCUMENTS. OPENINGS REQUIRED, BUT NOT SHOWN ON THE STRUCTURAL DRAWINGS, MUST BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.
Q. THE CONTRACTOR SHALL COORDINATE PIPING AND CONDUIT EMBEDDED IN OR ATTACHED TO SLABS, SLABS-ON-DECK, BEAMS, AND COLUMNS. ANY REQUIRED MODIFICATIONS TO STRUCTURAL MEMBERS OR THEIR REINFORCEMENT AS A RESULT OF EMBEDMENT OR ATTACHMENT SHALL BE SUBMITTED TO THE DESIGN TEAM FOR THEIR REVIEW. SEE GENERAL STRUCTURAL NOTES SECTION 'DESIGN CRITERIA' FOR LIMITATIONS OF MEP LOADING ON STRUCTURAL SYSTEMS.
R. THE STRUCTURAL ENGINEER OF RECORD'S ROLE DURING CONSTRUCTION
   1. THE STRUCTURAL ENGINEER OF RECORD SHALL NOT ASSUME CONTROL OF, OR RESPONSIBILITY FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, PROJECT SAFETY, THE ACTS AND OMISSIONS OF THE CONTRACTOR, OR THEIR FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
   2. STRUCTURAL ENGINEER OF RECORD SHALL NOT HAVE AUTHORITY TO STOP THE WORK OR AUTHORIZE CHANGES TO ANY CONTRACT SUM.
   3. PERIODIC SITE VISITS BY REPRESENTATIVES OF THE STRUCTURAL ENGINEER OF RECORD ARE SOLELY FOR THE PURPOSE OF BECOMING GENERALLY FAMILIAR WITH THE PROGRESS AND QUALITY OF THE WORK AND DETERMINING, IN GENERAL, IF THE WORK OBSERVED IS BEING PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THIS LIMITED OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS AND THAT OBSERVATIONS ARE QUALITATIVE, NOT QUANTITATIVE. THIS LIMITED INFORMATION WILL BE USED TO ADVISE THE OWNER/CONTRACTOR/ARCHITECT OF POTENTIAL DEFICIENCIES.
S. CLARIFICATION OF POSITION OF STRUCTURALLY FRAMING ELEMENTS
   1. USE ONLY DIMENSIONS INDICATED ON THE DRAWINGS, DO NOT SCALE ANY DIMENSIONS.
   2. IF NOT INDICATED ON DRAWINGS, ASSUME EQUAL SPACING BETWEEN ESTABLISHED DIMENSIONS.
   3. CENTER LINES OF COLUMNS AND FOUNDATIONS SHALL COINCIDE WITH GRID LINE INTERSECTION, UNLESS NOTED OTHERWISE.
   4. CENTER LINES OF FOOTINGS, GRADE BEAMS, AND WALLS SHALL COINCIDE WITH CENTER LINES OF FOUNDATIONS, UNLESS NOTED OTHERWISE.
   5. CENTER LINES OF FRAMING MEMBERS SHALL COINCIDE WITH COLUMN CENTER LINES, UNLESS NOTED OTHERWISE.
   6. ELEVATIONS SHOWN ARE TO TOP OF FOUNDATIONS, SLABS, OR BEAMS, UNLESS NOTED OTHERWISE.
T. SEE ARCHITECTURAL, CIVIL, MEP, AND VERTICAL TRANSPORTATION CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION RELATING TO THE COORDINATION OF STRUCTURAL COMPONENTS INCLUDING, BUT NOT LIMITED TO:
   1. CIVIL
      a. SITING OF BUILDING GRID LINES WITH RESPECT TO CITY BENCHMARKS
      b. SITE PREPARATION
      c. BACKFILLING MATERIALS AND REQUIREMENTS INCLUDING DRAINAGE ADJACENT TO RETAINING WALLS
      d. SITE ELEMENTS OUTSIDE OF BUILDING ENVELOPE
      e. NEW AND EXISTING SITE UTILITIES
   2. ARCHITECTURAL
      a. PLAN DIMENSIONS AND PROJECT DATUM
      b. SLAB EDGE DIMENSIONS AND FINISH ELEVATIONS
      c. WATERPROOFING AND DAMP PROOFING DETAILS
      d. SLAB SLOPES, STEPS AND DEPRESSIONS, RAMPS, TRENCHES
      e. EMBEDMENTS, INSERTS, BLOCKOUTS, ETC.
      f. CONCRETE FINISHES AND TOPPING SLABS
      g. CONCRETE CURBS AND HOUSEKEEPING PADS
      h. INTERIOR NON-STRUCTURAL MASONRY PARTITIONS
      i. LIFE SAFETY, FIRE RATING
      j. CAST-IN-PLACE STAIRS AND SUPPORTS
      k. OPERABLE PARTITIONS
   3. MEP
      a. PIPE AND DUCT SIZES FOR OPENING AND SLEEVE COORDINATION
      b. FLOOR DRAINS
      c. UNDERFLOOR AND PERIMETER DRAINAGE SYSTEMS
      d. EQUIPMENT CURBS
      e. CONDUITS AND EMBEDMENTS IN WALLS AND SLABS
   4. VERTICAL TRANSPORTATION
      a. INSERTS, HANGERS, TRENCHES, PITS, CONDUITS IN WALLS AND SLAB
U. THIS BUILDING QUALIFIES AS A THRESHOLD BUILDING PER CHAPTER 553.71 OF THE FLORIDA STATUTES. AS SUCH, SPECIAL INSPECTIONS SHALL BE REQUIRED PER CHAPTER 553.79 OF THE FLORIDA STATUTES BY PERSONS DULY AUTHORIZED TO PERFORM THEM BY CHAPTER 61G15-35.003 OF THE FLORIDA ADMINISTRATIVE CODE. SEE SPECIAL INSPECTION PLAN FOR SPECIFIC INSPECTION REQUIREMENTS.

ELECTRONIC DATA/REPRODUCTION

A. ALL INFORMATION CONTAINED IN THE ELECTRONIC FILES OF THE CONTRACT DOCUMENTS ARE INSTRUMENTS OF SERVICE OF THE ARCHITECT/STRUCTURAL ENGINEER OF RECORD AND SHALL NOT BE USED FOR OTHER PROJECTS, ADDITIONS TO THE PROJECT, OR THE COMPLETION OF THE PROJECT BY OTHERS. ELECTRONIC FILES OF THE STRUCTURAL DOCUMENTS REMAIN THE PROPERTY OF JEZERINAC GROUP AND IN NO CASE SHALL THEIR TRANSFER BE CONSIDERED A SALE.
B. THE USE OF ELECTRONIC FILES OR REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES THEIR ACCEPTANCE OF ALL INFORMATION SHOWN HEREIN AS CORRECT AND OBLIGATES THEMSELVES TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS OR OMISSIONS THAT MAY OCCUR HEREIN. THE USE OF ELECTRONIC FILES DOES NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR PROPER CHECKING AND COORDINATION OF DIMENSIONS, DETAILS, SIZE, AND QUANTITIES.
C. DIMENSIONS AND ELEMENT SIZES AND LOCATIONS IN THE ELECTRONIC FILES MAY NOT BE PRECISE AND, IN SOME CASES, HAVE BEEN INTENTIONALLY ALTERED FOR PRESENTATION PURPOSES. DO NOT SCALE DIMENSIONS ELECTRONICALLY OR OTHERWISE.
D. WHEN USED FOR THE PREPARATION OF SHOP DRAWINGS, ALL INFORMATION NOT APPLICABLE TO THE SUBCONTRACT SHALL BE REMOVED FROM THE DRAWINGS, INCLUDING, BUT NOT LIMITED TO: SHEET NUMBERS, SECTION MARKS, TITLE BLOCKS, AND REFERENCES TO THE CONTRACT DOCUMENTS.

SUBMITTALS

A. REFER TO DIVISION 01 OF SPECIFICATIONS FOR SUBMITTAL PROCEDURES AND REQUIREMENTS. REFER TO THE APPLICABLE SPECIFICATION SECTIONS FOR TECHNICAL CONTENT.
B. SUBMIT SPECIFIC COMPONENTS SUCH AS COLUMNS, FOUNDATIONS, ETC, IN A SINGLE PACKAGE. SUBMIT SIMILAR FLOORS TOGETHER.
C. **[TEN]** WORKING DAYS PRIOR TO SUBMITTING SHOP DRAWINGS, THE CONTRACTOR SHALL SUBMIT, FOR REVIEW AND COMMENT BY THE STRUCTURAL ENGINEER OF RECORD, A SCHEDULE WHICH DETAILS THE ESTIMATED QUANTITY OF SHOP DRAWINGS AND THE DATE THE SHOP DRAWINGS WILL BE RECEIVED BY THE STRUCTURAL ENGINEER OF RECORD. THE STRUCTURAL ENGINEER OF RECORD SHALL HAVE THE OPPORTUNITY TO REVIEW THE PROPOSED SCHEDULE AND SUBMIT COMMENTS TO THE CONTRACTOR. THE FINAL SHOP DRAWING SCHEDULE SHALL BE DEVELOPED AND SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD. IN ACCORDANCE WITH THE SHOP DRAWING SCHEDULE, THE STRUCTURAL ENGINEER OF RECORD WILL RETURN THE SHOP DRAWING ITEMS WITHIN TEN WORKING DAYS AFTER HAVING RECEIVED THE REPRODUCIBLE SHOP DRAWING.
D. THE CONTRACTOR SHALL REVIEW EACH SUBMITTAL PRIOR TO FORWARDING TO ARCHITECT AND STRUCTURAL ENGINEER OF RECORD. THE CONTRACTOR SHALL STAMP EACH SUBMITTAL VERIFYING THAT THE FOLLOWING IS ADDRESSED:
   1. THE SUBMITTAL IS REQUESTED.
   2. THE SUBMITTAL IS BASED ON THE LATEST DESIGN.
   3. THE SUBMITTAL IS CLEARLY CLOUDED FOR ALL THE DIFFERENCES FROM THE CONTRACT DOCUMENTS ON THE FIRST SUBMITTAL.
   4. THE SUBMITTAL IS CLEARLY CLOUDED FOR ALL CHANGES AND ADDITION FROM PREVIOUS SUBMITTAL.
   5. THE ARCHITECTS AND STRUCTURAL ENGINEER OF RECORD'S COMMENTS FROM ANY PREVIOUS SUBMITTALS ARE ADDRESSED.
   6. THE WORK IS COORDINATED AMONGST ALL CONSTRUCTION TRADES.
   7. THE SUBMITTAL IS COMPLETE.
   8. THE SUBMITTAL SHALL INCLUDE A STAMP INDICATING PROJECT NAME AND LOCATION, SUBMITTAL NUMBER, AND SPECIFICATION SECTION NUMBER.
E. THE STRUCTURAL ENGINEER OF RECORD'S REVIEW OF SUBMITTALS SHALL BE FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT.
F. THE STRUCTURAL ENGINEER OF RECORD SHALL RETURN, WITHOUT COMMENT, SUBMITTALS WHICH THE CONTRACTOR HAS NOT STAMPED OR WHICH DO NOT MEET THE ABOVE REQUIREMENTS.
G. FOR THE COMPONENTS DESIGNED BY A DELEGATED ENGINEER: PROVIDE SHOP DRAWINGS, DESIGN CALCULATIONS, AND A COVER LETTER SIGNED AND SEALED BY THE DELEGATED ENGINEER. LETTER SHALL INDICATE THAT THE SHOP DRAWINGS ARE IN CONFORMANCE WITH THE DELEGATED ENGINEER'S CALCULATIONS. REFER TO APPLICABLE SPECIFICATION SECTIONS FOR ADDITIONAL REQUIREMENTS.
H. DEFERRED SUBMITTALS ARE MANUFACTURER OR CONTRACTOR DESIGNED COMPONENTS PER THE CONTRACT DOCUMENTS. THESE ELEMENTS OF THE DESIGN ARE DEFERRED SUBMITTAL COMPONENTS AND HAVE NOT BEEN PERMITTED UNDER THE BASE BUILDING APPLICATION. DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT/STRUCTURAL ENGINEER OF RECORD, WHO SHALL REVIEW THEM FOR GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE CONTRACTOR SHALL SUBMIT THESE REVIEWED DEFERRED SUBMITTAL DOCUMENTS TO THE BUILDING OFFICIAL FOR APPROVAL. THESE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN TEAM HAS REVIEWED AND THE BUILDING OFFICIAL HAS APPROVED. SEE BELOW FOR THE LIST OF DEFERRED SUBMITTALS.
I. THE FOLLOWING SUBMITTALS ARE REQUIRED TO BE SUBMITTED FOR STRUCTURAL ENGINEER OF RECORD REVIEW AS OUTLINED IN THE SPECIFICATIONS:

031000	CONCRETE FORMWORK	(SS, CALC)
032000	CONCRETE REINFORCEMENT LAYOUT	(S)
033000	CONCRETE PRODUCT DATA	(S)
033000	DIMENSION PLANS AND SLEEVE LAYOUT DRAWINGS	(S)
033000	CONCRETE MIX DESIGNS	(CALC, TA)
033000	CONCRETE CONSTRUCTION JOINT LAYOUT	(S)
033000	SLAB-ON-GROUND SAWCUT CONTROL JOINT LAYOUT DRAWINGS	(S)
033816	POST-TENSIONING PRODUCT DATA	(S)
033816	POST-TENSIONING TENDON LAYOUT & INSTALLATION DRAWINGS	(DF, SS)
033816	POST TENSIONING TENDON FRICTION LOSS CALC	(DF, CALC)
033816	STRESSING RECORDS	(S)
042200	MASONRY PRODUCT DATA	(S)
042200	MASONRY REINFORCEMENT LAYOUT	(S)
051200	STRUCTURAL STEEL	(S)
051200	STRUCTURAL STEEL CONNECTIONS	(DF, S, CALC)
053100	STEEL DECK	(S)
054000	COLD-FORMED METAL FRAMING USED FOR EXTERIOR SHORING AND RESHORING HANDRAIL, GUARDRAIL, RAILING	(SS, CALC) (SEE ARCH) (DF, SS, CALC) (SS, CALC, REC)
054400	PRE-ENGINEERED CFS TRUSS SHOP DRAWINGS	(DF, S)
054400	PRE-ENGINEERED CFS TRUSS DELEGATED DESIGN SUBMITTAL	(DF, SS)
142000	ELEVATOR	(DF, SS, CALC, REC)
312319	DEWATERING	(GEO, REC)

S = SHOP DRAWING REQUIRED
DF = DEFERRED SUBMITTAL
SS = SIGNED AND SEALED SHOP DRAWINGS PREPARED BY A LICENSED DELEGATED ENGINEER IN THE STATE IN WHICH THE PROJECT IS LOCATED
CALC = SUPPORTING CALCULATIONS REQUIRED, SIGNED AND SEALED BY A LICENSED DELEGATED ENGINEER IN THE STATE IN WHICH THE PROJECT IS LOCATED.
REC = ITEMS SUBMITTED FOR RECORD ONLY AND WILL NOT HAVE STRUCTURAL ENGINEER OF RECORD SHOP DRAWING STAMP AFFIXED.
GEO = ITEMS SUBMITTED TO CONSTRUCTION GEOTECHNICAL ENGINEER FOR THEIR REVIEW.
TA = ITEMS SUBMITTED TO OWNER'S TESTING AGENCY FOR THEIR REVIEW.

GOVERNING CODES & STANDARDS

BUILDING CODE:	FBC 2023	FLORIDA BUILDING CODE, BUILDING
STANDARDS:	ASCE 7	AMERICAN SOCIETY OF CIVIL ENGINEERS: MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
	ACI 301	AMERICAN CONCRETE INSTITUTE: SPECIFICATIONS FOR CONCRETE CONSTRUCTION
	ACI 318	AMERICAN CONCRETE INSTITUTE: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
	TMS 402	THE MASONRY SOCIETY: BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES
	AISC 360	AMERICAN INSTITUTE OF STEEL CONSTRUCTION: SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
	AISC 341	AMERICAN INSTITUTE OF STEEL CONSTRUCTION: SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS
	AWS D1.1	AMERICAN WELDING SOCIETY: STRUCTURAL WELDING CODE - STEEL
	AWS D1.3	AMERICAN WELDING SOCIETY: STRUCTURAL WELDING CODE - SHEET STEEL
	AWS D1.4	AMERICAN WELDING SOCIETY: STRUCTURAL WELDING CODE - REINFORCING STEEL
	AISI S100	AMERICAN IRON AND STEEL INSTITUTE: NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS
	ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS

ABBREVIATIONS

ADDL	ADDITIONAL	L	LENGTH
ADJ	ADJACENT	LB(S)	POUND(S)
AFF	ABOVE FINISHED FLOOR	LL	LIVE LOAD
ALT	ALTERNATE	LLH	LONG LEG HORIZONTAL
APPROX	APPROXIMATE	LLV	LONG LEG VERTICAL
ARCH	ARCHITECT OR ARCHITECTURAL	LONG	LONGITUDINAL
ASD	ALLOWABLE STRESS DESIGN	LRFD	LOAD RESISTANCE FACTORED DESIGN
		LSH	LONG SIDE HORIZONTAL
B/	BOTTOM OF	LSV	LONG SIDE VERTICAL
B/B	BACK-TO-BACK	LTS	LAP TENSION SPLICE
BLDG	BUILDING	LW	LIGHT WEIGHT
BLKG	BLOCKING	LWC	LIGHT WEIGHT CONCRETE
BP	BASE PLATE		
BRG	BEARING	M	MOMENT
BOT	BOTTOM	MAX	MAXIMUM
BTWN	BETWEEN	MC	MOMENT CONNECTION(S)
		MECH	MECHANICAL
C	COMPRESSION	MEP	MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION
CFS	COLD-FORMED STEEL		
CIP	CAST-IN-PLACE	MFR	MANUFACTURER
CJ	CONTROL JOINT	MID	MIDDLE
CJP	COMPLETE JOINT PENETRATION	MIN	MINIMUM
CL	CENTER LINE	MISC	MISCELLANEOUS
CLR	CLEAR OR CLEARANCE		
CMU	CONCRETE MASONRY UNIT	NIC	NOT IN CONTRACT
COL	COLUMN	NS	NEAR SIDE
CONC	CONCRETE	NSFC	NOT SHOWN FOR CLARITY
CONN(S)	CONNECTION(S)	NTS	NOT TO SCALE
CONST	CONSTRUCTION	NWC	NORMAL WEIGHT CONCRETE
CONT	CONTINUOUS		
COORD	COORDINATE	OC	ON CENTER
		OD	OUTSIDE DIAMETER
D&E	DRILL & EPOXY	OF	OUTSIDE FACE
db	REINFORCING BAR DIAMETER	OH	OPPOSITE HAND
DBA	DEFORMED BAR ANCHOR	OPNG(S)	OPENING(S)
DCW	DEMAND CRITICAL WELD	OPP	OPPOSITE
°	DEGREE(S)	OSL	OUTSTANDING LEG
Ø	DIAMETER		
DIAG	DIAGONAL	PAF	POWDER ACTUATED FASTENER
DIM(S)	DIMENSION(S)	PERP	PERPENDICULAR
DL	DEAD LOAD	PJF	PREFORMED JOINT FILLER
DWG(S)	DRAWING(S)	PJP	PARTIAL JOINT PENETRATION
		PL	PLATE
EA	EACH	PLF	POUNDS PER LINEAL FOOT
EF	EACH FACE	PCST	PRECAST
EJ	EXPANSION JOINT	PREFAB	PRE-FABRICATED
EL	ELEVATION	PSF	POUNDS PER SQUARE FOOT
ELEV	ELEVATOR	PSI	POUNDS PER SQUARE INCH
EOS	EDGE-OF-SLAB	PT	POST-TENSIONED
EQ	EQUAL		
EQUIP	EQUIPMENT	REF	REFERENCE
EW	EACH WAY	REINF	REINFORCE(D) (ING) OR (MENT)
EXIST	EXISTING	REQ(D)	REQUIRE(D)
EXP	EXPANSION	REV	REVISION
EXT	EXTERIOR	RTU	ROOF TOP UNIT
F/F	FACE-TO-FACE	SCHED	SCHEDULE(D)
FD	FLOOR DRAIN	SDL	SUPERIMPOSED DEAD LOAD
FF	FINISH FLOOR	SER	STRUCTURAL ENGINEER OF RECORD
FND	FOUNDATION	SF	SQUARE FOOT (FEET)
FS	FAR SIDE	SIM	SIMILAR
FT	FEET	SLRS	SEISMIC LOAD RESISTING SYSTEM
FTG	FOOTING	SOG	SLAB-ON-GROUND
		SP	SPACE
GA	GAGE, GAUGE	SPEC(S)	SPECIFICATION(S)
GALV	GALVANIZED	SS	STAINLESS STEEL
GB	GRADE BEAM	STD	STANDARD
GC	GENERAL CONTRACTOR	STIFF	STIFFENER
GDR	GIRDER	STR	STRUCTURE OR STRUCTURAL
GEN	GENERAL	SYM	SYMMETRICAL
GYP	GYPSUM		
		T	TENSION
HCA	HEADED CONCRETE ANCHORS	T&B	TOP AND BOTTOM
HORIZ	HORIZONTAL	T&G	TONGUE & GROOVE
HSS	HOLLOW STRUCTURAL SECTION	T/	TOP OF
		TEMP	TEMPERATURE OR TEMPORARY
ID	INSIDE DIAMETER	TYP	TYPICAL
IF	INSIDE FACE		
IN	INCH	UNO	UNLESS NOTED OTHERWISE
INFO	INFORMATION		
INT	INTERIOR	V	SHEAR
ICC-ES	INTERNATION CODE COUNCIL - EVALUATION SERVICE	VERT	VERTICAL
		VIF	VERIFY IN FIELD
JST(S)	JOIST(S)	W	WITH
		W/O	WITHOUT
K	KIPS (1,000 POUNDS)	WP	WORK POINT
KLF	KIP PER LINEAR FOOT	WWR	WELDED WIRE REINFORCEMENT
KSF	KIP PER SQUARE FOOT		
KSI	KIPS PER SQUARE INCH		

STRUCTURAL THRESHOLD INSPECTIONS

A. PER CHAPTER 553.71 OF THE FLORIDA STATUTES, THIS BUILDING QUALIFIES AS A THRESHOLD BUILDING.
B. SPECIAL INSPECTORS OF THRESHOLD BUILDINGS (THRESHOLD INSPECTORS) SHALL MEET THE REQUIREMENTS OF RULE 61G15-35.003 OF THE FLORIDA ADMINISTRATIVE CODE.
C. PER CHAPTER 553.79 OF THE FLORIDA STATUTES, THE ENFORCING AGENCY SHALL REQUIRE A THRESHOLD INSPECTOR TO PERFORM STRUCTURAL INSPECTIONS ON A THRESHOLD BUILDING PERSUANT TO A STRUCTURAL INSPECTION PLAN PREPARED BY THE STRUCTURAL ENGINEER OF RECORD.
D. THRESHOLD INSPECTOR SHALL BE A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA WHO IS CERTIFIED UNDER CHAPTER 471.015 OF THE FLORIDA STATUTES, TO CONDUCT INSPECTIONS OF A THRESHOLD BUILDING. FURTHER, THE THRESHOLD INSPECTOR MUST BE ON THE FLORIDA BOARD OF PROFESSIONAL ENGINEERS LIST OF PERSONS QUALIFIED TO BE THRESHOLD INSPECTORS.
E. THE STRUCTURAL INSPECTION PLAN MUST BE SUBMITTED TO AND APPROVED BY THE ENFORCING AGENCY PRIOR TO THE ISSUANCE OF A BUILDING PERMIT FOR THE CONSTRUCTION OF A THRESHOLD BUILDING.
F. THE FEE OWNER OF A THRESHOLD BUILDING SHALL SELECT AND PAY ALL COSTS OF EMPLOYING A THRESHOLD INSPECTOR, BUT THE THRESHOLD INSPECTOR SHALL BE RESPONSIBLE TO THE ENFORCEMENT AGENCY.
G. THRESHOLD INSPECTIONS RELATED TO TEMPORARY CONDITIONS SUCH AS SHORING, RE-SHORING, AND TEMPORARY BRACING ARE REQUIRED TO BE PERFORMED BY THE CONTRACTOR'S DELEGATED ENGINEER. DELEGATED ENGINEER (NOT SPECIAL INSPECTOR) IS RESPONSIBLE FOR THE SUPERVISION, INSPECTION AND CERTIFICATION OF SUCH TEMPORARY SYSTEMS.
H. SEE STRUCTURAL INSPECTION PLAN FOR FURTHER INFORMATION.

STRUCTURAL DRAWING LIST

SHEET NUMBER	SHEET NAME
S-001	GENERAL NOTES
S-002A	LOADING CRITERIA
S-002B	LOAD PLANS
S-003	CONCRETE GENERAL NOTES
S-004	MASONRY GENERAL NOTES
S-005	STEEL GENERAL NOTES
S-121	FOUNDATION PLAN
S-122	SECOND FLOOR FRAMING PL

DESIGN CRITERIA

A. STRUCTURE LOCATION:
LONGITUDE: -80.059
LATITUDE: 26.85

B. LOADING:
1. SEE LOAD PLANS
2. RAIN LOAD:
DESIGN RAINFALL: 5"/HOUR (100-YEAR, 1-HOUR RAINFALL)
RAINWATER AT LOWEST POINT OF ROOF SHALL: (NOT POND DURING DESIGN RAINFALL / NOT EXCEED 6" DURING DESIGN RAINFALL)
DESIGN RAIN LOAD, R: 30 PSF
3. WIND LOAD:
ULTIMATE DESIGN WIND SPEED, V_{ult}: 170 MPH
NOMINAL DESIGN WIND SPEED, V_{asd}: 132 MPH
RISK CATEGORY: II
EXPOSURE CATEGORY: C
ENCLOSURE CLASSIFICATION: ENCLOSED
INTERNAL PRESSURE COEFFICIENT: +/- 0.18
COMPONENTS & CLADDING DESIGN PRESSURES: SEE WIND PRESSURE DIAGRAMS
4. SEISMIC LOAD:
RISK CATEGORY: II
SEISMIC IMPORTANCE FACTOR, I_E: 1.0
SITE CLASS: D (ASSUMED)
MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETER, S_s: 0.055 g
MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETER, S_1: 0.025 g
SPECTRAL RESPONSE ACCELERATION PARAMETER, S_{DS}: 0.049 g
SPECTRAL RESPONSE ACCELERATION PARAMETER, S_{D1}: 0.035 g
SEISMIC DESIGN CATEGORY: A
SEISMIC FORCE RESISTING SYSTEM: ORDINARY REINFORCED CONCRETE SHEAR WALLS
REDUNDANCY FACTOR, ρ: 1.0
OVERSTRENGTH FACTOR, $Ω_0$: 2.5
RESPONSE MODIFICATION FACTOR, R: 4
SEISMIC RESPONSE COEFFICIENT, C_s: 0.015
EFFECTIVE SEISMIC WEIGHT, W: 6750 KIPS
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE (ELF)
DESIGN BASE SHEAR: 255 KIPS

C. HANDRAIL AND GUARDRAIL LOADS:
CONCENTRATED AND DISTRIBUTED LOADS ARE TO BE APPLIED AT THE HANDRAIL OR TOP RAIL IN ANY DIRECTION. CONCENTRATED AND DISTRIBUTED LOADS ARE NOT TO BE APPLIED CONCURRENTLY.
CONCENTRATED LOAD 200 LB
DISTRIBUTED LOAD 50 PLF

D. FUTURE EXPANSION:
NO PROVISIONS HAVE BEEN MADE FOR FUTURE VERTICAL OR HORIZONTAL EXPANSION OF THE STRUCTURE.

E. SERVICEABILITY:
1. DEFLECTION LIMITS: TOTAL LOAD DEFLECTION ONLY APPLIES TO THE DEFLECTION DUE TO THE CREEP COMPONENT OF LONG-TERM DEAD LOAD DEFLECTION PLUS THE SHORT-TERM DEFLECTION. LONG-TERM DEFLECTION OF WOOD STRUCTURAL MEMBERS SHALL BE CALCULATED IN ACCORDANCE WITH THE AWC NDS. IT IS PERMITTED TO ESTIMATE THE CREEP-COMPONENT OF THE LONG-TERM DEFLECTION AS THE IMMEDIATE DEAD LOAD DEFLECTION.
a. ROOF MEMBERS
- TOTAL LOAD DEFLECTION: L/240
- TRANSITORY LOAD DEFLECTION: L/360

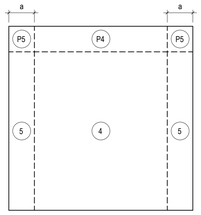
b. FLOOR MEMBERS
- TOTAL LOAD DEFLECTION: L/240
- LIVE LOAD DEFLECTION: L/360

c. EXTERIOR WALLS & CLADDING
- WIND LOAD DEFLECTION: L/360

d. INTERIOR PARTITIONS
- LIVE LOAD DEFLECTION: L/240

2. DRIFT LIMITS
a. INTERSTORY DRIFT: H/400
b. TOTAL STRUCTURE DRIFT: H/500

EWA	C&C External Pressure Loads - Main Roof (psf)									
	Zone									
(ft^2)	1	2	3	4	5	P4	P5	ROH 1	ROH 2	ROH 3
10	59.7	59.7	59.7	59.7	80.1	228.0	228.0	154.7	154.7	154.7
	-107.2	-147.9	-147.9	-147.9	-107.2	--	--	-175.1	-215.8	-215.8
20	51.6	51.6	51.6	51.6	76.5	204.0	204.0	139.3	139.3	139.3
	-95.0	-127.5	-127.5	-127.5	-83.3	--	--	-159.2	-191.8	-191.8
50	40.7	40.7	40.7	71.7	71.7	172.2	172.2	119.0	119.0	119.0
	-78.8	-100.5	-100.5	-78.5	-90.5	--	--	-138.3	-160.0	-160.0
100	32.6	32.6	32.6	68.1	68.1	148.2	151.4	103.6	103.6	103.6
	-66.5	-80.1	-80.1	-74.9	-83.3	--	--	-122.4	-136.0	-136.0
200	32.6	32.6	32.6	32.6	64.5	144.6	144.6	96.4	96.4	96.4
	-66.5	-80.1	-80.1	-80.1	-76.0	--	--	-118.8	-132.4	-132.4
500	32.6	32.6	32.6	59.7	59.7	139.8	139.8	86.9	86.9	86.9
	-66.5	-80.1	-80.1	-66.5	-66.5	--	--	-114.0	-127.6	-127.6

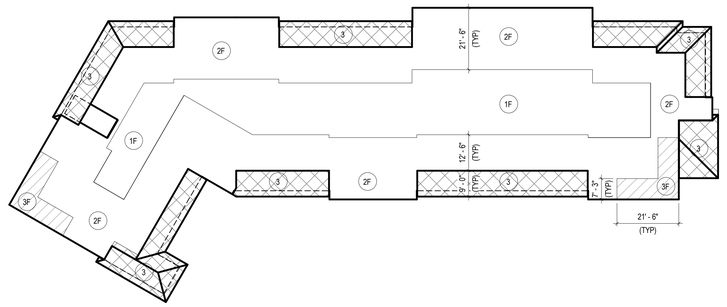


WALL ELEVATION

NOTES:

1. FOR COMPONENTS HAVING EFFECTIVE AREAS IN BETWEEN TABULATED VALUES, DESIGN LOADS MAY BE INTERPOLATED. OTHERWISE DESIGN LOAD SHALL BE TAKEN FROM THE NEXT LOWEST TABULATED EFFECTIVE AREA.
2. DESIGN VALUES SHOWN IN THIS TABLE ARE ULTIMATE VALUES FOR USE WITH LRFD DESIGN. VALUES MAY BE MULTIPLED BY 0.6 FOR USE WITH SERVICE LEVEL OR ASD DESIGN. REFER TO THE BUILDING CODE FOR APPLICABLE LOAD COMBINATIONS.
3. a = 6'-8". SEE ROOF PLAN MAP BELOW FOR LOCATION OF a-ZONES. WALL a-ZONE LOCATIONS TO MATCH ROOF a-ZONES.
4. POSITIVE PRESSURE VALUES REFER TO FORCES ACTING TOWARDS BUILDING OR COMPONENT FACE, NEGATIVE PRESSURE VALUES REFER TO FORCES ACTING AWAY FROM BUILDING OR COMPONENT FACE.
5. EACH COMPONENT AND ITS CONNECTION SHALL BE DESIGNED FOR MAXIMUM POSITIVE AND NEGATIVE FORCES.
6. PARAPET COMPONENTS AND CLADDING ARE THOSE ELEMENTS WHICH EXIST ABOVE THE HORIZONTAL PLANE OF THE ROOF AND SHALL BE DESIGNED FOR:
- POSITIVE AND NEGATIVE PRESSURES 4 OR 5 APPLIED TO THE SHEATHING OR PANELING AND ITS CONNECTION ON OUTSIDE FACE.
- POSITIVE PRESSURES 4 OR 5 APPLIED TO THE SHEATHING OR PANELING AND ITS CONNECTION ON ROOF SIDE FACE.
- NEGATIVE PRESSURES 2 OR 3 APPLIED TO THE SHEATHING OR PANELING AND ITS CONNECTION ON ROOF SIDE FACE.
- P4/5 SHALL BE APPLIED TO THE DESIGN OF THE STRUCTURAL ELEMENT OF THE PARAPET AND ITS CONNECTION, INCLUDING BUT NOT LIMITED TO THE STUD FRAMING OF THE PARAPET.

7. A DESIGN WIND PRESSURE HORIZONTAL VALUE OF ___ PSF AND VERTICAL VALUE OF ___ PSF SHALL BE APPLIED TO COMPONENTS WHICH ARE EITHER ROOFTOP STRUCTURES OR ROOFTOP APPURTENANCES AND THEIR CONNECTION. EXAMPLES OF THIS ARE RTUs, AHUs, AND SCREEN WALLS.
8. ROH# : DENOTES DESIGN WIND PRESSURE VALUES WHICH SHALL BE APPLIED AT ROOF OVERHANGS TO TOP SURFACE CLADDING OR SHEATHING AND ITS CONNECTION. SOFFIT CLADDING OR SHEATHING SHALL BE DESIGNED FOR SIMILAR PRESSURE TO THE ADJACENT WALL PRESSURE. A COMBINATION OF THESE FORCES SHALL BE APPLIED TO THE STRUCTURAL ELEMENT OF THE OVERHANG AND ITS CONNECTION, INCLUDING BUT NOT LIMITED TO THE STUD FRAMING OF THE OVERHANG.
9. ALL DOORS TO BE RATED TO RESIST DESIGN WIND PRESSURES SPECIFIED.



NO.	DATE	DESCRIPTION
	08/22/25	DESIGN DEVELOPMENT

WATERFORD CAMPUS - ASSISTED LIVING MEMORY CARE BUILDING

601 UNIVERSE BLVD JUNO BEACH , FL 33048

JEZERINAC GROUP
1615 FORUM PLACE, SUITE 3A
WEST PALM BEACH, FL 33401
T 561.622.8585
www.jezerinacgroup.com
CERTIFICATE OF AUTHORIZATION FL #30785
JG Project #: 21.18.004

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE BUILDING CODES AND MATERIAL SPECIFICATIONS.

THW DESIGN

2100 RiverEdge Parkway
Suite 900
Atlanta, GA 30328

2632 Broadway Street
Suite 201, South Building
San Antonio, TX 78215

PH: 770 916 2220
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PRELIMINARY DRAWINGS. NOT TO BE USED FOR RECORDING, IMPLEMENTATION, REGULATORY APPROVAL, PERMITTING, OR

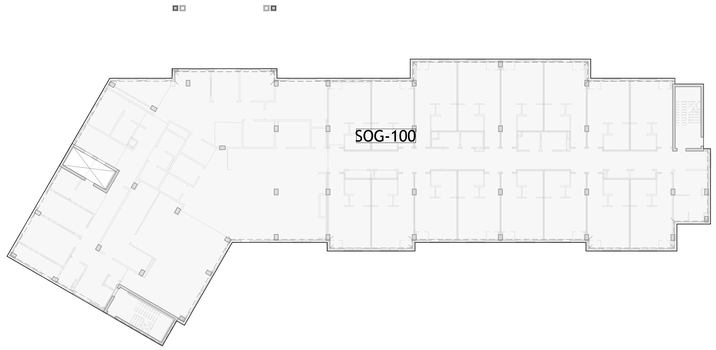
DESIGN DEVELOPMENT

Project No.: 2021009
Date: 08/22/2025

LOADING CRITERIA

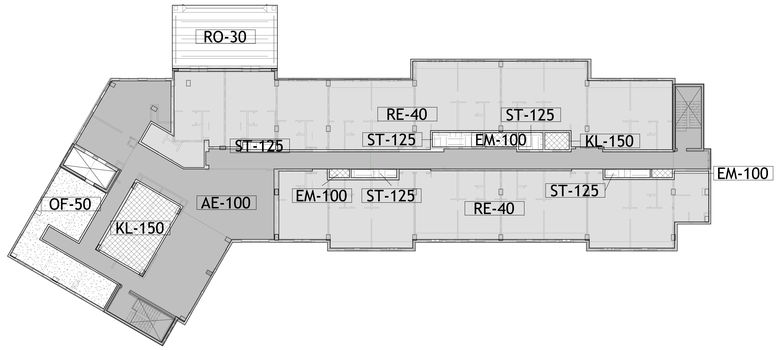
S-002A

8/25/2025 2:19:05 AM



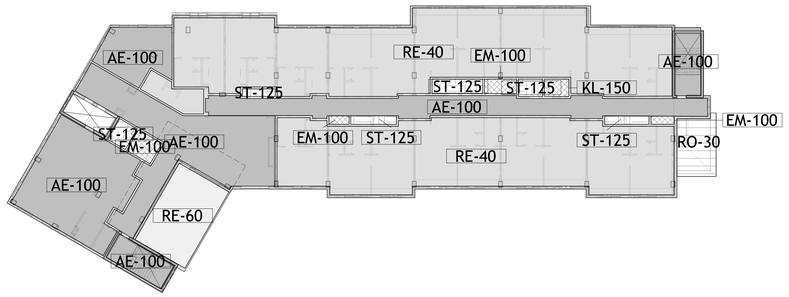
L1 S-002B GROUND FLOOR LOAD PLAN

3/64" = 1'-0"



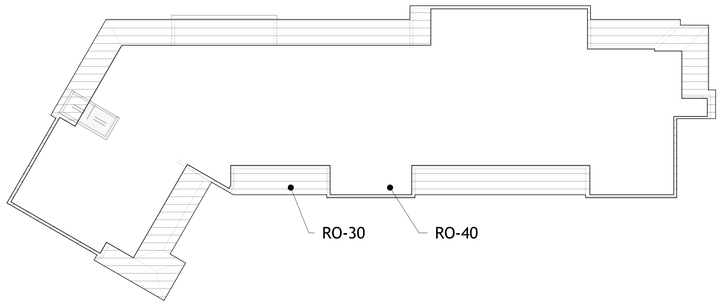
L2 S-002B SECOND FLOOR LOAD PLAN

3/64" = 1'-0"



L3 S-002B THIRD FLOOR LOAD PLAN

3/64" = 1'-0"



LR S-002B ROOF LEVEL LOAD PLAN

3/64" = 1'-0"

LOAD MAP KEY

MARK	OCCUPANCY OR USE	SUPERIMPOSED DEAD LOAD (PSF)	LIVE LOAD (PSF)	LIVE LOAD REDUCTION	COMMENTS
AE-100	ASSEMBLY/EGRESS	25	100	No	
EM-100	ELECTRICAL & MECHANICAL	25	100	No	
KL-150	KITCHEN & LAUNDRY	25	150	No	
OF-50	OFFICES	25	50	Yes	
RE-40	RESIDENTIAL	25	40	Yes	
RE-60	BALCONY	25	60	No	
RO-30	ROOF TYPICAL	35	30	Yes	
RO-40	ROOF WELL	10	40	Yes	
SOG-100	SLAB-ON-GROUND	25	100	No	
ST-125	STORAGE	25	125	No	

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THW DESIGN

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LOAD PLANS

S-002B

JEZERINAC
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TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE BUILDING CODES AND MATERIAL SPECIFICATIONS.

CONCRETE

A. ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH DIVISION 03 OF THE SPECIFICATIONS.
B. FOR CONCRETE MIXTURE REQUIREMENTS SEE SCHEDULE ON THIS SHEET.
C. THE USE OF RECYCLED CONCRETE IS PROHIBITED WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD.
D. NORMAL WEIGHT CONCRETE SHALL BE USED FOR ALL CONCRETE MEMBERS UNLESS NOTED OTHERWISE. NORMAL WEIGHT CONCRETE SHALL HAVE A CURED DENSITY OF 145 PCF ±5 PCF. WHERE LIGHT WEIGHT CONCRETE IS SPECIFIED THE CURED DENSITY SHALL BE 112 PCF ±3 PCF.
E. EACH MIX SHALL BE UNIQUELY IDENTIFIED BY MIX NUMBER AND THE INTENDED LOCATION OF PLACEMENT ON THE SPECIFIC PROJECT SHALL BE CLEARLY STATED.
F. ALL PROPOSED CONSTRUCTION JOINT LOCATIONS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER OF RECORD FOR APPROVAL. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED IN BEAMS, WALLS, AND SLABS UNLESS SPECIFICALLY SHOWN ON STRUCTURAL DRAWINGS OR BY WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD. FOR MILD REINFORCED MEMBERS, CONSTRUCTION JOINTS SHALL OCCUR WITHIN THE MIDDLE THIRD OF A MEMBERS SPAN. ALL APPROVED CONSTRUCTION JOINTS SHALL BE INDICATED, DIMENSIONED, AND DETAILED ON THE CONCRETE REINFORCEMENT SHOP DRAWINGS.
G. GIRDERS, BEAMS, HAUNCHES, DROP PANELS, DROP CAPS, AND CAPITALS SHALL BE POURED MONOLITHICALLY AS PART OF THE SLAB SYSTEM UNLESS NOTED OTHERWISE.
H. PROVIDE A ¾ INCH CHAMFER AT ALL EXPOSED CORNERS OF BEAMS, WALLS, ETC UNLESS NOTED OTHERWISE.
I. CONCRETE CORING AND INSTALLATION OF DRILLED ANCHORS IS NOT PERMITTED WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD.
J. REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL CONCRETE DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL COORDINATE BETWEEN THE ARCHITECTURAL, STRUCTURAL, AND MEP DRAWINGS TO FURNISH DIMENSIONED DRAWINGS THAT LOCATE AND SIZE ALL SLAB EDGES, OPENINGS, AND PENETRATIONS. THESE DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR APPROVAL.
K. EMBEDDED CONDUITS, PIPES, AND SLEEVES
   1. THE OUTSIDE DIAMETER OF CONDUITS, PIPES, AND SLEEVES SHALL NOT EXCEED ONE-THIRD THE THICKNESS OF THE SLAB, WALL OR BEAM IN WHICH THEY ARE EMBEDDED. EMBEDMENTS SHALL NOT SIGNIFICANTLY REDUCE THE CAPACITY OF THE MEMBERS THEY PENETRATE.
   2. THE MINIMUM CLEAR COVER FOR CONDUITS, PIPES, AND SLEEVES SHALL BE 1 ½" FOR CONCRETE EXPOSED TO EARTH OR WEATHER AND ¾" FOR CONCRETE NOT EXPOSED TO EARTH OR WEATHER.
   3. ALUMINUM EMBEDMENTS AND EMBEDMENTS MADE OF ANY OTHER MATERIAL HARMFUL TO THE CONCRETE OR REINFORCEMENT ARE PROHIBITED.
   4. EMBEDMENTS NOT SHOWN ON THE CONTRACT DOCUMENTS SHALL BE DESIGNED TO RESIST THE EFFECTS OF MATERIAL, PRESSURE, AND TEMPERATURE THAT THEY WILL BE SUBJECTED TO. THE WORK SHALL BE COORDINATED AMONGST ALL CONSTRUCTION TRADES.
   5. THE CONTENTS OF EMBEDDED PIPES SHALL NOT FLOW UNTIL THE CONCRETE HAS REACHED ITS SPECIFIED DESIGN STRENGTH.
   6. CONDUITS, PIPES, AND SLEEVES SHALL BE PLACED BETWEEN TOP AND BOTTOM LAYERS OF REINFORCEMENT IN SLABS AND BETWEEN INNER AND OUTER LAYERS OF REINFORCEMENT IN WALLS.
   7. EMBEDDED ITEMS SHALL BE FABRICATED AND INSTALLED SUCH THAT CUTTING, BENDING, OR DISPLACEMENT OF REINFORCEMENT FROM ITS SPECIFIED LOCATION IS NOT REQUIRED.

CONCRETE REINFORCEMENT

A. ALL CONCRETE REINFORCEMENT SHALL BE INSTALLED IN ACCORDANCE WITH DIVISION 03 OF THE SPECIFICATIONS.
B. ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 60 UNLESS NOTED OTHERWISE.
C. WHERE WELDS ARE INDICATED FOR REINFORCING STEEL ON THE DRAWINGS, REINFORCING STEEL SHALL BE A706, GRADE 60 UNLESS OTHERWISE NOTED.
D. WELDED WIRE REINFORCEMENT SHALL CONFORM TO THE MATERIAL REQUIREMENTS OF ASTM A1064.
E. ALL 90°, 135°, AND 180° HOOKED REINFORCEMENT SPECIFIED AND GRAPHICALLY DEPICTED IN THE CONTRACT DOCUMENTS SHALL BE DETAILED IN ACCORDANCE WITH ACI 318 STANDARD HOOK GEOMETRY FOR DEFORMED BARS IN TENSION AND FOR STIRRUPS, TIES, AND HOOPS.
F. FOR EVERY VERTICAL OR HORIZONTAL BAR DISCONTINUED BY AN OPENING, ONE BAR (MINIMUM OF 2 BARS) SHALL BE ADDED AT SIDE OF OPENING (HALF TO EACH SIDE, TYPICAL).
G. FOR CONCRETE CLEAR COVER TO REINFORCEMENT SEE SCHEDULE ON THIS SHEET UNLESS NOTED OTHERWISE. CLEAR COVER IN PARENTHESES ( ) DENOTES CLEAR COVER WHEN THE AS-BUILT APPLICATION IS EXPOSED TO WEATHER.
H. ALL LAP SPLICES SHALL BE CLASS B TENSION LAP SPLICES IN ACCORDANCE WITH ACI 318 UNLESS NOTED OTHERWISE. SEE LAP SPLICE SCHEDULE ON THIS SHEET FOR LAP SPLICE LENGTHS. UNLESS NOTED AS CONTINUOUS, REINFORCEMENT SHALL ONLY BE SPLICED AT LOCATIONS SHOWN ON THE CONTRACT DOCUMENTS. SPLICES AT NON-SPECIFIED LOCATIONS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER OF RECORD FOR APPROVAL.
I. A MINIMUM LAP SPLICE OF 8" SHALL BE PROVIDED AT ALL END AND SIDE LAP CONDITIONS FOR WELDED WIRE REINFORCEMENT UNLESS NOTED OTHERWISE.
J. MECHANICAL SPLICES ARE REQUIRED WHERE SPECIFIED ON THE CONTRACT DOCUMENTS. MECHANICAL SPLICES ARE ALSO REQUIRED TO SPLICE #14 AND #18 BARS. MECHANICAL SPLICES MAY ALSO BE USED AT THE CONTRACTOR'S OPTION, PROVIDED THE MECHANICAL SPLICES HAVE A CURRENT ICC-ES REPORT DEMONSTRATING THEY CAN DEVELOP 125% OF THE SPECIFIED YIELD STRENGTH OF THE BAR IN TENSION OR COMPRESSION. MECHANICAL SPLICES SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER OF RECORD FOR APPROVAL.
K. THE USE OF WELDED SPLICES IS PROHIBITED UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL SUBMIT THE LOCATIONS OF WELDED SPLICES TO THE STRUCTURAL ENGINEER OF RECORD FOR APPROVAL. IF APPROVED, WELDED SPLICES SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.
L. DOWELS SHALL MATCH SIZE AND SPACING OF PRIMARY REINFORCEMENT UNLESS NOTED OTHERWISE.
M. SEE TYPICAL DETAILS FOR REINFORCEMENT REQUIRED AT OPENINGS AND PENETRATIONS.
N. SUBMIT SHOP DRAWINGS WHICH ADEQUATELY DEPICT THE REINFORCEMENT BAR SIZES AND PLACEMENT. WRITTEN DESCRIPTION OF REINFORCEMENT WITHOUT ADEQUATE SECTIONS, ELEVATIONS, AND DETAILS IS NOT ACCEPTABLE.

EARTHWORK & FOUNDATIONS

A. GEOTECHNICAL INVESTIGATION REPORT
   1. FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL INVESTIGATION REPORT AS FOLLOWS:
      a. *REPORT TITLE:* ***[_____ (REPORT No. _____)]***
      b. *PREPARED BY:* ***[_____ , _____ FL]***
      c. *DATED:* ***[_____ , 20 _]***
   2. THE GEOTECHNICAL INVESTIGATION REPORT IS AVAILABLE TO THE CONTRACTOR UPON REQUEST TO THE OWNER. THE INFORMATION HEREIN MAY BE USED BY THE CONTRACTOR FOR HIS GENERAL REFERENCE ONLY. THE GEOTECHNICAL INVESTIGATION REPORT RECOMMENDATIONS SHALL SUPERSEDE THE MINIMUM CRITERIA STATED IN THE STRUCTURAL GENERAL NOTES.
B. SHALLOW FOUNDATIONS
   1. FOUNDATIONS ARE DESIGNED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION REPORT.
   2. FOUNDATION SIZES AND REINFORCEMENT ARE BASED ON AN ALLOWABLE BEARING PRESSURE OF **[____PSF]** PER THE GEOTECHNICAL INVESTIGATION REPORT.
   3. FOUNDATIONS SHALL BEAR A MINIMUM OF **['- "]** BELOW ADJACENT EXTERIOR GRADE.
   4. FOUNDATIONS SHALL BEAR ON COMPACTED STRUCTURAL FILL, NATURAL SOILS, OR ROCK PREPARED PER THE GEOTECHNICAL INVESTIGATION REPORT.
   5. PRIOR TO PLACEMENT OF CONCRETE, A QUALIFIED GEOTECHNICAL ENGINEER SHALL VERIFY SOILS CONFORMANCE TO THE RECOMMENDATIONS AND ASSUMPTIONS IN THE GEOTECHNICAL INVESTIGATION REPORT. ALL ADVERSE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT/ STRUCTURAL ENGINEER OF RECORD.
   6. SOILS BELOW FOUNDATIONS NOT MEETING DESIGN BEARING PRESSURE SHALL BE REMEDIATED PER THE GEOTECHNICAL INVESTIGATION REPORT AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF THE FOUNDATIONS.
   7. CENTER ALL FOUNDATIONS UNDER THEIR RESPECTIVE COLUMNS OR WALLS, UNLESS NOTED OTHERWISE.
   8. TOP OF FOUNDATION ELEVATIONS PROVIDED ON THE CONTRACT DRAWINGS ARE FOR PURPOSE OF THE CONTRACT AND SHALL BE ADJUSTED, AS REQUIRED, AT THE TIME OF EXCAVATION TO BEAR ON PROPERLY PREPARED SUPPORT SUBGRADE (PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS).
C. EARTHWORK AND EXCAVATION
   1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING, BUT NOT LIMITED TO: LAGGING, SHORING, AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS, AND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL BUILDING DEPARTMENT AND OSHA REGULATIONS.
   2. EXCAVATION SHALL NOT OCCUR WITHIN ONE FOOT OF THE ANGLE OF REPOSE OF ANY SOIL BEARING FOUNDATION UNLESS THE FOUNDATION IS PROTECTED AGAINST SETTLEMENT.
   3. THE EXTENT OF SUBGRADE PREPARATION SHALL EXTEND A MINIMUM OF 5'-0" BEYOND THE BUILDING PERIMETER.
   4. THE CONTRACTOR SHALL PROVIDE A SUBGRADE BENEATH THE SLAB-ON-GROUND PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
   5. UNLESS NOTED IN THE GEOTECHNICAL INVESTIGATION REPORT, COMPACT FILL TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR ASTM D-1557. EACH LAYER SHALL NOT EXCEED 8" LOOSE THICKNESS. COMPACT PRIOR TO THE PLACEMENT OF THE NEXT LAYER. COMPACTION SHALL MEET ALL RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION REPORT.
   6. PLACEMENT OF FILL AND COMPACTION SHALL BE MONITORED AND ACCEPTED BY A RETAINED TESTING AGENCY. PERFORM A MINIMUM OF ONE FIELD DENSITY TEST (ASTM D-1556 OR D-6938) FOR EVERY 2,500 SQUARE FEET OF EACH LAYER. THE TESTING AGENCY SHALL RANDOMLY SELECT TEST LOCATIONS.
   7. THE CONTRACTOR SHALL DETERMINE THE EXTENT OF THE CONSTRUCTION DEWATERING SYSTEMS REQUIRED FOR THE EXCAVATION. AT A MINIMUM, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING SITE.
   8. THE CONTRACTOR SHALL SUBMIT CONSTRUCTION DEWATERING PLAN TO THE GEOTECHNICAL ENGINEER FOR APPROVAL PRIOR TO BEGINNING EXCAVATION.
   9. THE CONTRACTOR SHALL INSTALL ALL NECESSARY DEWATERING SYSTEMS.
D. RETAINING WALL
   1. RETAINING WALLS SHALL BE DESIGNED FOR THE FOLLOWING:
      a. *LATERAL EARTH PRESSURE AT REST:* ***[PSF PER FOOT OF DEPTH]***
      b. *ACTIVE EARTH PRESSURE:* ***[PSF PER FOOT OF DEPTH]***
      c. *PASSIVE EARTH PRESSURE RESISTANCE:* ***[PSF PER FOOT OF DEPTH]***
      d. *SOIL FRICTION FACTOR:* ***[_]***
   2. RETAINING WALL DESIGN IS BASED ON DRAINED BACKFILL WITH NO BUILDUP OF WATER. THE CONTRACTOR SHALL PROVIDE A DRAINAGE SYSTEM IN ALL BACKFILL CONDITIONS (SEE CIVIL/ ARCHITECTURAL DRAWINGS FOR DRAINAGE SPECIFICATIONS).
   3. DO NOT BACKFILL AGAINST CANTILEVERED RETAINING WALLS UNTIL CONCRETE COMPRESSIVE STRENGTH, f'_c, REACHES ITS 28 DAY DESIGN STRENGTH. DO NOT BACKFILL PRIOR TO WATERPROOFING AND INSPECTION.
E. DEEP FOUNDATIONS
   1. DEEP FOUNDATIONS ARE DESIGNED BASED ON THE FOLLOWING DESIGN CRITERIA PER THE GEOTECHNICAL INVESTIGATION REPORT:
      a. *ALLOWABLE END BEARING PRESSURE:* ***[PSF]***
      b. *ALLOWABLE SKIN FRICTION (COMPRESSION,):* ***[PSF]***
         - *AT A DEPTH GREATER THAN* ***['- "]*** *BELOW FINISHED SLAB ELEVATION*
      c. *ALLOWABLE TENSION CAPACITY* ***['- "]*** *BELOW FINISHED FLOOR:* ***[PSF]***
      d. *MINIMUM EMBEDMENT INTO BEARING STRATUM:* ***['- "]***
      e. *DEPTH TO BEARING STRATUM (FOR ESTIMATING PURPOSES ONLY):* ***['- "]***
   2. ASSUMED BEARING DEPTH SHALL BE VERIFIED IN FIELD BY QUALIFIED GEOTECHNICAL ENGINEER RETAINED BY THE OWNER.
   3. PRIOR TO PLACEMENT OF CONCRETE, THE GEOTECHNICAL ENGINEER SHALL VERIFY SOILS CONFORMANCE TO THE RECOMMENDATIONS AND ASSUMPTIONS IN THE GEOTECHNICAL INVESTIGATION REPORT. ALL ADVERSE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT/ STRUCTURAL ENGINEER OF RECORD.
   4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY PROTECTING ALL EXCAVATIONS. WHERE NECESSARY, SHEET AND SHORE THE EXCAVATION WITH ALL REQUIRED TIEBACKS AND BRACING AS DETERMINED BY THE CONTRACTOR'S SHORING ENGINEER. THE SHORING ENGINEER SHALL BE LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED.

CONCRETE MIXTURE REQUIREMENTS

	APPLICATION	EXPOSURE CLASS	f'c (PSI)	TEST AGE	MODULUS OF ELASTICITY (KSI)	MAXIMUM W/CM	AIR CONTENT	NOMINAL MAXIMUM AGGREGATE	MAXIMUM CONCRETE WEIGHT
ON-GROUND	FOUNDATIONS	F0, S0, W1, C1	4000	28 DAYS	3122	SEE NOTE 2	SEE NOTE 3	1"	150 PCF
	EXTERIOR SLAB-ON-GROUND (EXTERIOR/PARKING)	F0, S0, W1, C1	4000	28 DAYS	3605	SEE NOTE 2	SEE NOTE 3	1"	150 PCF
	SLAB-ON-GROUND (INTERIOR)	F0, S0, W0, C0	3000	28 DAYS	3605	SEE NOTE 2	SEE NOTE 3	1"	150 PCF
VERTICAL	SHEAR WALLS AND COLUMNS	F0, S0, W2, C1	5000	28 DAYS	4031	0.50	SEE NOTE 3	3/4"	150 PCF
	CMU FILLED CELLS	GROUT MIX SHALL BE USED FOR CMU FILLED CELLS - SEE CONCRETE MASONRY UNIT GENERAL NOTES, DETAILS, AND SPECIFICATIONS							
ELEVATED	POST TENSIONED ELEVATED FRAMING (EXTERIOR)	F0, S0, W1, C1	6000 @ 28-DAYS 3000 @ 48-HOURS	28 DAYS	4031 @ 28-DAYS	SEE NOTE 2	SEE NOTE 3	3/4"	150 PCF
	POST TENSIONED ELEVATED FRAMING (INTERIOR)	F0, S0, W1, C1	6000 @ 28-DAYS 3000 @ 48-HOURS	28 DAYS	4031 @ 28-DAYS	SEE NOTE 2	SEE NOTE 3	3/4"	150 PCF
	ELEVATED SLABS AND BEAMS (NON-PRESTRESSED)	F0, S0, W1, C1	5000	28 DAYS	4031	SEE NOTE 2	SEE NOTE 3	3/4"	150 PCF

NOTES:

1. EXPOSURE CATEGORIES AND CLASSES FOR SULFATES, PERMEABILITY, AND CORROSION PROTECTION OF REINFORCEMENT IS CLASS ZERO UNLESS NOTED OTHERWISE.
2. WATER/CEMENT RATIO SHALL BE AS REQUIRED FOR THE SPECIFIED CONCRETE MIX DESIGN. THERE IS NO MAXIMUM WATER/CEMENT RATIO REQUIREMENT FOR THE EXPOSURE CLASSIFICATION ASSOCIATED WITH THIS APPLICATION. MAXIMUM WATER/CEMENT RATIO IS NOT APPLICABLE FOR DURABILITY REQUIREMENTS IN LIGHTWEIGHT CONCRETE.
3. THERE IS NO MANDATORY TARGET AIR CONTENT FOR THIS APPLICATION. THE CONTRACTOR MAY CHOOSE TO ADD AIR ENTRAINMENT TO IMPROVE THE WORKABILITY AND FINISHING PROPERTIES OF THE MIX. AIR CONTENT SHALL BE AS REQUIRED FOR THE SPECIFIED CONCRETE MIX.
4. COARSE AGGREGATE SHALL BE ASTM C 33, GRADED. SELECT GRADING CLASS PER TYPE OF CONSTURCTION OR LOCATION USED, AND IN RELATION TO SPECIFIC WEATER REGION. AGGREGATE SHALL BE FROM A SINGLE SOURCE. #67 GRADING SHALL BE USED FOR CONCRETE WITH 3/4 INCH MAXIMUM; # 57 GRADING SHALL BE USED FOR CONCRETE WITH 1 INCH MAXIMUM.

CAST-IN-PLACE CONCRETE (NON-PRESTRESSED) CLEAR COVER SCHEDULE

APPLICATION	BOTTOM	TOP	SIDES
FOUNDATIONS	3"	2"	3"
SLAB-ON-GROUND	SEE DETAILS	SEE DETAILS	3"
RETAINING WALLS	N/A	N/A	2"
SHEAR WALLS	N/A	N/A	1 ½"
COLUMNS	N/A	N/A	2" TO VERTICAL BARS
INTERIOR ELEVATED SLABS	¾"	¾"	1 ½"
EXTERIOR ELEVATED SLABS - POST TENSIONED	1"	1"	1 ½"
EXTERIOR ELEVATED SLABS - CONVENTIONAL	1"	1 ½"	1 ½"
STRUCTURED SLAB-ON-GROUND	3"	1 ½"	2"
BEAMS	1 ½"	1 ½"	1 ½"

DEVELOPMENT LENGTH SCHEDULE (INCHES)

BAR SIZE	MIN BAR SPACING (INCHES) (MAX OF db + 1" OR 2db)	TENSION Ld f'c 3,000	4,000	5,000	6,000	Ldh f'c 3,000	4,000	5,000	6,000
#3	1.375	17	15	13	12	9	8	7	6
#4	1.500	22	19	17	16	11	10	9	8
#5	1.625	28	24	22	20	14	12	11	10
#6	1.750	33	29	26	24	17	15	13	12
#7	1.875	48	42	38	34	20	17	15	14
#8	2.000	55	48	43	39	22	19	17	16
#9	2.375	62	54	48	44	25	22	20	18
#10	2.625	70	61	54	50	28	25	22	20
#11	2.875	78	67	60	55	31	27	24	22

LAP SPLICE LENGTH SCHEDULE (INCHES)

BAR SIZE	MIN BAR SPACING (INCHES)	TENSION (LTS) f'c = 4,000 PSI TOP BARS	OTHER	f'c = 5,000 PSI TOP BARS	OTHER	f'c = 6,000 PSI TOP BARS	OTHER
#4	1.500	33	25	29	23	27	21
#5	1.875	41	31	36	28	33	26
#6	2.250	49	37	44	34	40	31
#7	2.625	71	54	63	49	58	45
#8	3.000	81	62	72	56	66	51
#9	3.500	91	70	81	63	74	57
#10	3.875	102	79	92	71	84	64
#11	4.250	114	87	102	78	93	71

POST-TENSIONED CONCRETE

A. ALL POST-TENSIONED CONCRETE SHALL MEET THE REQUIREMENTS IN THE CONCRETE MIX SCHEDULE ON THIS SHEET. PRIOR TO STRESSING OF THE POST-TENSIONED SLAB, THE CONCRETE SHALL ATTAIN A MINIMUM OF TWO-THIRDS OF THE SPECIFIED 28-DAY COMPRESSIVE DESIGN STRENGTH, OR ALTERNATIVELY, THE MINIMUM REQUIRED BY THE POST-TENSIONING MANUFACTURER, WHICHEVER IS GREATER.
B. NO CONCRETE SHALL BE PLACED UNTIL THE POST-TENSIONING TENDONS AND REINFORCEMENT LOCATIONS HAVE BEEN INSPECTED AND APPROVED BY THE TESTING AGENCY.
C. THE CONTRACTOR SHALL SUBSTANTIATE CONCRETE STRENGTH BEFORE POST-TENSIONING AND STRESSING SHALL BEGIN WITHIN 24 HOURS FROM THE TIME THAT THE CONCRETE ATTAINS THE INDICATED STRENGTH. POST-TENSIONED CONCRETE SLABS SHALL REMAIN SHORED UNTIL THE SLAB IS STRESSED.
D. POST-TENSIONED FORCES SPECIFIED ON THE CONSTRUCTION DRAWINGS ARE EFFECTIVE FORCES AFTER ALL LOSSES ARE ACCOUNTED FOR.
   1. POST-TENSIONING SUPPLIER SHALL DETERMINE TENDON LOSSES IN ACCORDANCE WITH ACI 318 AND SHALL PROVIDE SUFFICIENT CABLE TO DEVELOP FINAL EFFECTIVE FORCES AS INDICATED ON THE STRUCTURAL DRAWINGS.
E. TENDONS SHALL BE STRESSED TO A MAXIMUM OF 80% OF f_{pu} WHILE ANCHORAGE STRESSES SHALL BE A MAXIMUM OF 70% OF f_{pu}. HOWEVER, STRESSES SHALL NOT BE GREATER THAN THE MAXIMUM VALUE RECOMMENDED BY THE MANUFACTURER OF THE POST-TENSIONING STEEL OR ANCHORAGE DEVICES.
F. ALL POST-TENSIONED FORCES SHOWN ARE IN KIPS OR KIPS/FT.
G. SLAB TENDONS FOR FORCES SHOWN IN KIPS ARE TO BE PLACED UNIFORMLY IN A BAND WIDTH ON EACH SIDE OF A COLUMN. PLACE EITHER TWO OR THREE TENDONS THROUGH A COLUMN SO THAT HALF OF THE REMAINING TENDONS ARE EQUAL ON EACH SIDE OF THE COLUMN.
   SLAB TENDONS FOR FORCES SHOWN IN KIPS/FT ARE TO BE PLACED UNIFORMLY BETWEEN INDICATED WIDTHS. AT LEAST TWO TENDONS SHALL PASS THROUGH EACH COLUMN.
H. ALL POST-TENSIONED SLAB THICKNESSES ARE AS MARKED ON THE CONSTRUCTION DRAWINGS.
I. AT DEAD ENDS AND STRESSING ENDS, TENDON CENTER OF GRAVITY SHALL BE AT CENTROID OF THE MEMBER, UNLESS NOTED OTHERWISE.
J. POST-TENSIONED SLABS ARE DESIGNED BASED ON TENDONS BEING CONTINUOUS BETWEEN EDGES OF SLABS AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY ADDITIONAL INTERMEDIATE STRESSING JOINTS OR CLOSURE STRIPS REQUIRED BY THE CONTRACTOR MAY REQUIRE ADDITIONAL REINFORCEMENT AND SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW AND APPROVAL BEFORE STARTING CONSTRUCTION.
K. COORDINATION OF THE DETAILING AND PLACEMENT OF TENDONS AND MILD REINFORCING STEEL BETWEEN SUPPLIERS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
   1. PLACE TOP REINFORCEMENT BARS UNIFORMLY IN A WIDTH EQUAL TO THE COLUMN WIDTH PLUS ONE AND A HALF TIMES THE SLAB THICKNESS ON EACH SIDE OF THE COLUMN. PLACE A MINIMUM OF THREE OR FOUR BARS THROUGH THE COLUMN SO THAT THE REMAINING BARS ARE EQUAL ON EACH SIDE OF THE COLUMN. WHERE NOT SHOWN OR CALLED OUT, PROVIDE THE SAME REINFORCEMENT AS SHOWN OR AS CALLED OUT FOR AT AREAS WITH SIMILAR CONDITIONS.
   2. BOTTOM BARS SHALL BE CENTERED IN SPAN, UNLESS NOTED OTHERWISE.
   3. PLACE TENDONS IN SMOOTH PARABOLIC DRAPES BETWEEN HIGH AND LOW POINTS SHOWN, UNLESS NOTED OTHERWISE.
   4. TENDON LOW POINTS SHALL BE AT MID-SPAN BETWEEN SUPPORTS, UNLESS NOTED OTHERWISE.
   5. OTHER TENDON CONTROL POINTS SHOWN ON THE STRUCTURAL DRAWINGS ARE DIMENSIONS TO THE CENTER OF GRAVITY FROM THE BOTTOM OF THE MEMBER, UNLESS NOTED OTHERWISE.
   6. PROVIDE CHAIRS AND SUPPORT BARS AS REQUIRED TO HOLD TENDONS IN THE CORRECT POSITION DURING PLACEMENT OF CONCRETE.
   7. TENDONS SHALL NOT DEVIATE FROM THEIR CORRECT POSITION BY MORE THAN ONE-EIGHTH OF AN INCH. SLIGHT DEVIATIONS IN TENDON SPACING WILL BE PERMITTED WHERE REQUIRED TO AVOID CONFLICTS WITH OPENINGS, INSERTS, ETC.
   8. SHOULD CONFLICT ARISE BETWEEN TENDONS, MILD REINFORCING STEEL, OR OTHER CONDUITS, TENDON LOCATIONS SHALL TAKE PRECEDENCE.
M. CONTRACTOR SHALL CONDUCT CONTINUOUS INSPECTION AND RECORDING OF JACKING FORCES AND ELONGATIONS WHICH ARE TO BE IMMEDIATELY SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW AND ACCEPTANCE PRIOR TO THE REMOVAL OF EXCESS TENDON END MATERIAL.
N. EXCESS TENDON END MATERIAL SHALL BE REMOVED ONLY BY A PLASMA CUTTER OR AN ACCEPTED SUBSTITUTION BY THE STRUCTURAL ENGINEER OF RECORD. NO TORCH CUTTING IS PERMITTED. TENDON ENDS SHALL NOT BE CUT UNTIL THE ENTIRE SLAB HAS BEEN SATISFACTORILY STRESSED AND THE STRUCTURAL ENGINEER OF RECORD HAS REVIEWED THE ELONGATIONS.
O. FOLLOWING REMOVAL OF EXCESS TENDON END MATERIAL, GREASE CAPS SHALL BE PLACED IN ACCORDANCE WITH THE POST-TENSIONING SUPPLIER. THE POST-TENSIONING SUPPLIER SHALL INSPECT AND PROVIDE A SIGNED AND SEALED LETTER FROM A STRUCTURAL ENGINEER LICENSED TO PERFORM THE WORK IN THE JURISDICTION WHERE THE PROJECT IS LOCATED, STATING THAT THE CORROSION PROTECTION SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED DOCUMENTS.
P. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION SIGNED AND SEALED BY A STRUCTURAL ENGINEER LICENSED TO PERFORM THE WORK IN THE JURISDICTION WHERE THE PROJECT IS LOCATED:
   1. DETAILED DESIGN OF TENDON END ANCHORAGES.
   2. THE CALCULATION OF STRESS LOSSES DUE TO CREEP, SHRINKAGE, TENDON RELAXATION, ANCHORAGE SLIP, AND FRICTION.
   3. POST-TENSIONED SHOP DRAWINGS.

SLAB-ON-GROUND

A. THE SLAB-ON-GROUND HAS BEEN DESIGNED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION REPORT.
B. SLAB THICKNESSES AND REINFORCEMENT ARE BASED ON A MODULUS OF SUBGRADE REACTION OF 47 PCI PER THE GEOTECHNICAL INVESTIGATION REPORT.
C. SUBGRADE PREPARATION SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION REPORT.
D. FOR INTERIOR SLABS, PLACE A 10-MIL (MINIMUM) VAPOR RETARDER BETWEEN THE SOIL AND BOTTOM OF SLAB. SEE CAST-IN-PLACE CONCRETE SPECIFICATIONS FOR APPROVED VAPOR RETARDER PRODUCTS/MANUFACTURERS. DO NOT USE SAND FOR RETARDERS AT EXTERIOR SLABS. SEE ARCHITECTURAL CONTRACT DOCUMENTS FOR PROJECT SPECIFIC REQUIREMENTS.
E. IF THE SLAB-ON-GROUND HAS BEEN DESIGNATED AS A STRUCTURAL SLAB-ON-GROUND IN THE CONTRACT DOCUMENTS, NO SAW CUTTING OF THE SLAB IS PERMITTED.
F. CONTROL JOINTS SHALL BE CUT INTO THE SURFACE OF THE SLAB, IN EACH DIRECTION. SEE THE TYPICAL SAW CUT JOINT DETAIL FOR TIME, DEPTH, AND SPACING OF JOINT REQUIREMENTS UNLESS NOTED OTHERWISE. CONTROL JOINTS SHALL BE CONSTRUCTED SUCH THAT THE AREA CONTAINED BY THE CONTROL JOINTS HAS A MAXIMUM RATIO OF LONG SIDE TO SHORT SIDE OF 1.5 TO 1 UNLESS NOTED OTHERWISE. DO NOT CONSTRUCT CONTROL JOINTS SUCH THAT L-SHAPED SLAB PANELS ARE CREATED.
G. COLUMN ISOLATION JOINTS SHALL BE CONSTRUCTED PER THE TYPICAL COLUMN ISOLATION JOINT DETAIL IN ORDER TO PROVIDE ADEQUATE SPACE FOR COLUMN INSTALLATION.
H. CONSTRUCTION JOINT LOCATIONS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER OF RECORD FOR APPROVAL. SLAB CONSTRUCTION JOINTS SHALL BE DOWELED.
I. WHERE SPECIFIED ON PLAN, WELDED WIRE REINFORCEMENT SHALL BE INSTALLED. WELDED WIRE REINFORCEMENT SHALL BE PROPERLY CHAIRED SUCH THAT IT IS LOCATED AT A DEPTH OF 1 1/2" FROM THE TOP OF SLAB.
J. REFERENCE ARCHITECTURAL AND MEP DOCUMENTS FOR SLAB FINISHES AND SLOPES NOT REFERENCED ON THE STRUCTURAL DOCUMENTS. THE MINIMUM SLAB THICKNESS SPECIFIED IN THE CONTRACT DOCUMENTS MUST BE MAINTAINED.
K. REFERENCE ARCHITECTURAL DOCUMENTS FOR VAPOR RETARDER AND SLAB AND CONTROL JOINT SEALANT REQUIREMENTS.
L. CONDUITS SHALL NOT BE PLACED WITHIN THE SLAB. CONDUITS SHALL BE PLACED BENEATH THE SLAB.

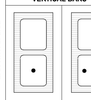
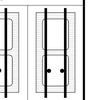
POST-INSTALLED ANCHORS

A. SEE THE POST-INSTALLED ANCHORS SPECIFIED PRODUCTS BY APPLICATION SCHEDULE ON THIS SHEET FOR PRE-APPROVED PRODUCTS.
   1. WHEN A SPECIFIC MANUFACTURER AND PRODUCT IS NOT CALLED FOR, IT IS ACCEPTABLE TO USE ANY OF THE LISTED PRODUCTS

CONCRETE MASONRY

A. MANUFACTURE AND INSTALL ALL CONCRETE MASONRY IN ACCORDANCE WITH DIVISION 04 SPECIFICATIONS. ALL MASONRY DESIGN SHALL CONFORM TO TMS 402 AND ALL MASONRY CONSTRUCTION SHALL CONFORM TO TMS 602.
B. ALL LOAD-BEARING, NON-LOAD-BEARING, AND BACKUP WALL CONCRETE MASONRY UNIT CONSTRUCTION SHALL CONFORM TO THE FOLLOWING MATERIAL STANDARDS:
   1. CONCRETE MASONRY UNITS: ASTM C90, NORMAL WEIGHT (135 PCF)
   2. MORTAR: ASTM C270, TYPE 'S' OR 'M' PORTLAND CEMENT/LIME ONLY (USE TYPE 'M' MORTAR WHEN MASONRY IS IN DIRECT CONTACT WITH SOIL; TYPE 'S' IS IN ALL OTHER CONDITIONS)
   3. GROUT: ASTM C476
   4. PORTLAND CEMENT: ASTM C150, TYPE I (TYPE III MAY BE USED FOR COLD-WEATHER CONSTRUCTION)
   5. HYDRATED LIME: ASTM C207, TYPE 'S'
   6. AGGREGATE: ASTM C404 (FOR GROUT)
   7. STEEL REINFORCEMENT: ASTM A615, GRADE 60
   8. JOINT REINFORCEMENT: ASTM A1064, TRUSS OR LADDER TYPE, GALVANIZE PER ASTM A153, TYPE B-2
C. CONCRETE MASONRY UNITS:
   1. F'_M SHALL BE 2000 PSI (MINIMUM NET AREA CMU COMPRESSIVE STRENGTH SHALL BE 2000 PSI).
   2. LAY CONCRETE MASONRY UNITS IN RUNNING BOND UNLESS NOTED OTHERWISE WITH UNITS DESIGNED TO ALIGN WITH WEBS IN EACH COARSE.
D. MORTAR:
   1. HEAD AND BED JOINTS SHALL BE 3/8 INCHES FOR THE THICKNESS OF THE FACE SHELL. WEBS ARE TO BE FULLY MORTARED IN ALL COURSES OF: PIERS, COLUMNS AND PILASTERS. IN THE STARTING COURSE, AND WHERE AN ADJACENT CELL IS TO BE GROUTED. REMOVE MORTAR PROTRUSIONS EXTENDING ½ INCHES OR MORE INTO CELLS TO BE GROUTED.
   2. PROVIDE FULL FACE SHELL MORTAR COVERAGE ON MASONRY UNIT HORIZONTAL AND VERTICAL (BED AND HEAD) FACE SHELL JOINTS.
E. GROUT:
   1. MASONRY GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28-DAYS.
   2. GROUT MIX SHALL CONTAIN PORTLAND CEMENT, AGGREGATE, AND A GROUT-ENHANCING SHRINKAGE-COMPENSATING ADMIXTURE.
   3. MAXIMUM SIZE OF AGGREGATE SHALL BE 3/8 INCH. SLUMP SHALL BE 8 TO 11 INCHES. WATER REDUCING ADMIXTURES MAY BE USED.
   4. GROUT ALL MASONRY CONTAINING REINFORCEMENT, AND WHERE INDICATED ON THE DRAWINGS. ALLOW MORTAR TO CURE 24 HOURS PRIOR TO GROUTING. PROVIDE CLEANOUT OPENINGS AT THE BASE OF THE CELLS CONTAINING REINFORCEMENT TO CLEAN THE CELL AND TO TIE THE VERTICAL BAR TO THE DOWEL. IN HIGH-LIFT GROUTING, USE 5'-0" (MAXIMUM) LIFTS, WITH ½ HOUR TO 1 HOUR BETWEEN LIFTS.
   5. GROUT SHALL BE VIBRATED WHILE PLACING TO ENSURE THAT CELLS ARE COMPLETELY FILLED.
F. STEEL REINFORCEMENT:
   1. PROVIDE VERTICAL REINFORCEMENT IN CELLS OF CONCRETE MASONRY UNITS (FULLY EMBEDDED IN GROUT) AS SHOWN ON THE PLANS AND OTHER DETAILS. MINIMUM REINFORCEMENT OF EXTERIOR MASONRY SHALL BE AS FOLLOWS:
      a. 1-#5 AT A MAXIMUM SPACING OF 48 INCHES
      b. 1-#5 AT EACH CORNER
      c. HEAVIER REINFORCEMENT MAY BE REQUIRED BY PLAN NOTES OR DETAILS IN THE DRAWINGS.
   2. REINFORCE WALLS WHERE INDICATED ON THE DRAWINGS AND AT ALL INTERSECTIONS, EACH SIDE OF OPENINGS AND AT THE ENDS OF WALLS. USE BAR SPACERS AT 10 FEET ON CENTER WHERE GROUT POUR HEIGHT EXCEEDS 10 FEET.
   3. ALL VERTICAL REINFORCEMENT SHALL HAVE STANDARD HOOK INTO BOND BEAM. TERMINATE AT HIGHEST BOND BEAM IF MASONRY DOES NOT EXTEND TO ROOF OR GROUTED CELL IS NOT CONTINUOUS TO ROOF. HOOK SHALL EXTEND TO THE UPPERMOST HORIZONTAL REINFORCEMENT OF THE BOND BEAM AND HAVE A MINIMUM EMBEDMENT OF 6 INCHES.
   4. ALL HORIZONTAL REINFORCEMENT AT ENDS OF BOND BEAMS SHALL HAVE STANDARD HOOK INTO VERTICAL GROUTED CELL. PROVIDE CORNER BARS SUCH THAT HORIZONTAL REINFORCEMENT IS CONTINUOUS AROUND CORNERS.
   5. COVER TO STEEL REINFORCEMENT WITHIN MASONRY ELEMENTS SHALL NOT BE LESS THAN THE FOLLOWING:
      a. EXPOSED TO EARTH OR WEATHER: 1 ½ INCHES (#5 AND SMALLER BARS), 2 INCHES (#6 AND LARGER BARS)
      b. NOT EXPOSED TO EARTH OR WEATHER: 1 ½ INCHES
G. JOINT REINFORCEMENT:
   1. JOINT REINFORCEMENT SHALL BE LADDER TYPE, 9 GAUGE, SPACED VERTICALLY AT EVERY 2 COURSES UNLESS NOTED OTHERWISE.
   2. PROVIDE JOINT REINFORCEMENT SPACED VERTICALLY AT EVERY COURSE FOR MASONRY BELOW GRADE AND IN PARAPETS AND CANTILEVERED WALLS.
   3. PROVIDE TWO ROWS OF JOINT REINFORCEMENT AT EVERY COURSE AT TOP AND BOTTOM OF OPENINGS (EXTEND 24 INCHES EACH SIDE).
   4. PROVIDE TWO ROWS OF JOINT REINFORCEMENT AT EVERY COURSE AT BOND BEAMS.
   5. OVERLAP DISCONTINUOUS JOINT REINFORCEMENT BY AT LEAST 6 INCHES.
   6. USE PREFABRICATED CORNERS AND TEES.
   7. EXTEND JOINT REINFORCEMENT A MINIMUM OF 4 INCHES INTO THE TIE BEAM.
   8. REFER TO PLANS AND DETAILS FOR BONDED JOINT REQUIREMENTS AT WALL CORNERS AND INTERSECTIONS. WHERE INDICATED ON DRAWINGS, INTERLOCK WALLS WITH METAL TIES, ANCHORS, OR PREFABRICATED JOINT REINFORCEMENT UNLESS NOTED OTHERWISE ON DRAWINGS OR SEE SPECIFICATIONS.
   9. LONGITUDINAL WIRES OF JOINT REINFORCEMENT SHALL BE FULLY EMBEDDED IN MORTAR OR GROUT WITH A MINIMUM HORIZONTAL EDGE COVER OF 5/8 INCHES WHEN EXPOSED TO EARTH AND WEATHER AND ½ INCHES WHEN NOT EXPOSED TO EARTH OR WEATHER.
H. REINFORCED MASONRY WALL CONSTRUCTION SHALL BE INSPECTED BY AN ENGINEER OR ARCHITECT IN ACCORDANCE WITH TMS 602.
I. WHERE ANCHOR BOLTS, WEDGE ANCHORS, OR ANCHORS SET IN EPOXY ARE PLACED IN A MASONRY WALL, FILL CELLS WITH GROUT FOR BOLTED COURSE, ONE COURSE ABOVE AND TWO COURSES BELOW.
J. USE PRESSURE-TREATED WOOD FOR WOOD IN CONTACT WITH MASONRY.
K. CALCIUM CHLORIDE SHALL NOT BE USED IN MORTAR OR GROUT.
L. REFER TO ARCHITECT'S DRAWINGS FOR THE EXTENT OF MASONRY WALLS AND DIMENSIONED LOCATION OF OPENINGS. NON-LOAD BERING WALLS MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS.
M. CONCRETE MASONRY UNITS SHALL BE CUT BELOW BEAMS, LINTELS, OR BOND BEAMS AS REQUIRED IN ORDER TO SET CONTINUOUS BEAM, LINTEL, OR BOND BEAMS AT THE PROPER ELEVATION.
N. ALL CELLS BELOW GRADE AND SLAB-ON-GROUND SHALL BE FULLY GROUTED.
O. THE FOLLOWING CRITERIA REGARDING PIPES AND CONDUITS EMBEDDED IN MASONRY SHALL BE ADHERED TO (SEE MEP DRAWINGS FOR LOCATIONS OF SLEEVES, PIPES, CONDUIT, ACCESSORIES, ETC). THESE CRITERIA WILL BE STRICTLY ENFORCED:
   1. CONDUITS, PIPES, AND SLEEVES OF ANY MATERIAL NOT HARMFUL TO MASONRY AND MEETING THE CRITERIA BELOW SHALL BE PERMITTED TO BE EMBEDDED IN MASONRY. ALL OTHER CONDUITS, PIPES, AND SLEEVES SHALL NOT BE EMBEDDED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.
   2. CONDUITS AND PIPES OF ALUMINUM SHALL NOT BE EMBEDDED IN STRUCTURAL MASONRY.
   3. CONDUITS, PIPES, AND SLEEVES PASSING THROUGH A WALL SHALL NOT SIGNIFICANTLY IMPAIR THE STRENGTH OF THE CONSTRUCTION. CONDUITS, PIPES, AND SLEEVES SHALL NOT PASS THROUGH JAMBS, LINTELS, BOND BEAMS, OR SHEAR WALLS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.
   4. CONDUITS AND PIPES SHALL NOT BE SPACED CLOSER THAN 3 DIAMETERS OR WIDTHS ON CENTER.
   5. CONDUITS AND PIPES SHALL BE FABRICATED AND INSTALLED SO THAT CUTTING, BENDING, OR DISPLACEMENT OF REINFORCEMENT FROM ITS PROPER LOCATION WILL NOT BE REQUIRED.
   6. CONDUITS AND PIPES, WITH FITTINGS, EMBEDDED WITHIN A COLUMN OR WALL SHALL NOT DISPLACE MORE THAN 2 PERCENT OF THE NET SECTION OR AS REQUIRED BY FIRE PROTECTION.
P. ALL MASONRY WALLS SHOWN ON THE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES IN THE FINAL CONSTRUCTED CONFIGURATION ONLY ASSUMING FULL BRACING TOP, BOTTOM, AND/OR SIDE OF WALL AS SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROPERLY AND ADEQUATELY BRACE ALL MASONRY WALLS AT ALL STAGES DURING CONSTRUCTION TO RESIST ERECTION LOADS AND LATERAL LOADS THAT COULD OCCUR PRIOR TO THE COMPLETION OF CONSTRUCTION.
Q. CONTROL JOINTS SHALL BE PROVIDED IN ALL CONCRETE MASONRY CONSTRUCTION. REFER TO TYPICAL CONTROL JOINT DETAIL FOR GUIDELINES AND SPACING.

CMU - REINFORCING SPLICES[1]

BAR WITH SPLICE	VERTICAL BARS[2]		HORIZONTAL BARS[3]			
						
	1 VERT.	2 VERT.	1 VERT. 1 HORIZ.	2 VERT. 1 HORIZ.	1 VERT. 2 HORIZ.	2 VERT. 2 HORIZ.
#4	21"	26"	21"	21"	26"[4]	45"[4]
#5	26"	40"	29"	26"	40"[4]	70"[4]
#6	43"	74"	57"	43"	74"[4]	131"[4]
#7	60"	107"	81"	60"	107"[4]	

NOTES:

1. SEE TYPICAL REBAR LAYOUT DETAIL FOR BAR PLACEMENT. WHERE BARS OF DIFFERENT SIZES ARE TO BE SPLICED, THE SPLICE LENGTH SHALL BE THAT REQUIRED FOR THE LARGER BAR.
2. SPLICES OF VERTICAL REINFORCEMENT SHALL BE PLACED NEXT TO THE MAIN BAR AS INDICATED IN THE ILLUSTRATION.
3. SPLICES OF HORIZONTAL REINFORCEMENT SHALL BE PLACED VERTICALLY OVER THE MAIN BAR.
4. SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS CONTAINING TOW BARS PER COURSE SHALL BE STAGGERED.

NO.	DATE	DESCRIPTION
	08/22/25	DESIGN DEVELOPMENT

WATERFORD CAMPUS - ASSISTED LIVING MEMORY CARE BUILDING

601 UNIVERSE BLVD JUNO BEACH , FL 33048

THW DESIGN

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Suite 900
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PRELIMINARY DRAWINGS. NOT TO BE USED FOR RECORDING, IMPLEMENTATION, REGULATORY APPROVAL, PERMITTING, OR

DESIGN DEVELOPMENT

Project No.: 2021009
Date: 08/22/2025

MASONRY GENERAL NOTES

S-004

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WEST PALM BEACH, FL 33401
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CERTIFICATE OF AUTHORIZATION FL #30785
JG Project #: 21.18.004

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE BUILDING CODES AND MATERIAL SPECIFICATIONS.

8/25/2025 2:19:13 AM

STRUCTURAL STEL

A. STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS UNLESS NOTED OTHERWISE ON THE CONTRACT DOCUMENTS:
   1. ROLLED SHAPES AND CHANNELS: ASTM A572 OR A992, MIN. YIELD STRENGTH 50 KSI
   2. ANGLES FOR TRUSSES AND BRACES: ASTM A36 MIN YIELD STRENGTH 36 KSI
   3. MISCELLANEOUS ANGLES: ASTM A36
   4. HOLLOW STRUCTURAL SECTIONS: ASTM A500 GRADE C, MIN YIELD STRENGTH 46 KSI FOR ROUND AND 50 KSI FOR RECTANGULAR HSS

B. CONNECTION MATERIAL SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS OR AS NEEDED FOR CONNECTION DESIGN:
   1. ANGLES: ASTM A36
   2. WTs: ASTM A992
   3. PLATES: ASTM A36
   4. BOLTS: ASTM A325
   5. NUTS: ASTM A563
   6. WASHERS: ASTM F436
   7. ANCHOR RODS: ASTM F1554 GRADE 36 WITH WELDABILITY SUPPLEMENT S1
   8. WELD ELECTRODES: MATCH FILLER METAL TO BASE METAL PER AWS D1.1

C. WHERE NO CAMBER IS INDICATED, FABRICATE BEAMS SO THAT ANY NATURAL CAMBER IS UPWARD AFTER ERECTION.
D. CANTILEVERED BEAMS WITH NATURAL MILL CAMBER SHALL BE ERECTED SUCH THAT THE CAMBER IS ORIENTED DOWNWARD (OR CONCAVE UP).
E. SPLICES SHALL BE ALLOWED ONLY AT LOCATIONS SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS UNLESS APPROVED OTHERWISE BY THE SER IN WRITING.
F. FOR STEEL MEMBERS AND EMBEDMENTS EXPOSED TO WEATHER, PROVIDE HOT-DIPPED GALVANIZED FINISH.
G. PROVIDE HOLES IN ALL STEEL AS REQUIRED TO PREVENT ANY ACCUMULATION OF WATER. ALL PENETRATIONS THROUGH MAIN MEMBERS SHALL NOT EXCEED 1 1/8" DIA. AND SHALL BE GROUND SMOOTH. THESE DRAINS MUST BE KEPT CLEAN AND OPEN.
H. SHOW ALL COPES, HOLES, OPENINGS AND MODIFICATIONS REQUIRED IN STRUCTURAL STEEL MEMBERS FOR ERECTION OR THE WORK OF OTHER TRADES ON THE SHOP DRAWINGS FOR APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.
I. FIELD MODIFICATIONS OF STRUCTURAL STEEL IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE ARCHITECT AND STRUCTURAL ENGINEER.
J. WHERE BEAM SHEAR IS NOT NOTED, DESIGN FOR 30K.
K. ALL CONNECTIONS SHALL BE DESIGNED FOR THE SPECIFIED SHEAR, MOMENT, AND AXIAL LOADS ON THE DRAWINGS. THE CONNECTIONS SHALL BE DESIGNED FOR LOAD REVERSAL. ALL CONNECTIONS FORCES SPECIFIED ON PLAN ARE ULTIMATE LEVEL FORCES UNLESS NOTED OTHERWISE.
L. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, DETAILING, AND FABRICATION OF ALL STEEL FRAMING CONNECTIONS UNLESS SPECIFICALLY NOTED AS 'COMPLETELY DESIGNED' ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL RETAIN A STRUCTURAL ENGINEER LICENSED TO PERFORM THE WORK IN THE JURISDICTION WHERE THE PROJECT IS LOCATED, WHO SHALL DESIGN THE CONNECTIONS. SUBMIT SIGN AND SEALED CALCULATIONS TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO STARTING FABRICATION.

   CONNECTION DESIGN SHALL MEET THE REQUIREMENTS OF THE AISC SPECIFICATIONS AND THE BUILDING CODE. CONNECTIONS SHALL BE CAPABLE OF RESISTING VERTICAL AND HORIZONTAL LOADS LISTED ON THE DRAWINGS. CONNECTION DESIGN SHALL PROVIDE AN ADEQUATE LOAD PATH TO TRANSFER THE LOADS FROM EACH MEMBER, THROUGH THE CONNECTION, INTO THE SUPPORTING MEMBER, AND SHALL CONSIDER THE EFFECTS OF THE FORCES ON EACH MEMBER. PROVIDE STIFFENER PLATES, WEB DOUBLER PLATES, FLANGE CONTINUITY PLATES, ETC, AS REQUIRED. MEMBERS SHOWN ON THE DRAWINGS HAVE NOT BEEN SIZED FOR LOCAL EFFECTS AT CONNECTIONS.

   STEEL CONNECTION DETAILS SHOW GENERAL CRITERIA FOR DESIGN AND DETAILING, AND ARE NOT INTENDED TO SHOW COMPLETE CONNECTION CONFIGURATIONS OR OTHER SPECIFIC INFORMATION THAT ARE THE RESPONSIBILITY OF THE CONNECTION DESIGN ENGINEER. ALTERNATIVE CONNECTION CONFIGURATION MAY BE SUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. CONNECTIONS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS ARE TO FABRICATED AS SHOWN.

   THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ERECTION AIDS THAT INCLUDE, BUT ARE NOT LIMITED TO ERECTION ANGLES, LIFT HOLES, AND OTHER AIDS.

   STEEL BEAMS ARE EQUALLY SPACED BETWEEN DIMENSION POINTS AT THE MAXIMUM DECK SPAN LOCATION UNLESS NOTED OTHERWISE. MINIMUM CONNECTIONS SHALL BE A TWO-BOLT CONNECTION USING 3/4 INCH-DIAMETER A325 BOLTS IN SINGLE SHEAR UNLESS NOTED OTHERWISE. ALL HIGH-STRENGTH BOLTS SHALL BE INSTALLED, TIGHTENED, AND INSPECTED IN ACCORDANCE WITH THE RCSC. BOLTS IN CONNECTIONS SHALL BE INSTALLED WITH FULL PRETENSION EXCEPT WHERE "SNUG-TIGHT" INSTALLATION IS SPECIFICALLY PERMITTED ON THE DRAWINGS. WHERE CONNECTIONS ARE NOTED AS SNUG-TIGHT, THE CONTRACTOR MAY INSTALL PER THE CRITERIA FOR SNUG-TIGHT BOLTS. BOLTS IN SLIP-CRITICAL CONNECTIONS SHALL BE INSTALLED USING TURN-OF-NUT PRETENSIONING, TWIST-OFF TYPE TENSION CONTROL BOLT PRETENSIONING, OR DIRECT-TENSION-INDICATOR (DTI) PRETENSIONING. ALL BOLT HOLES SHALL BE STANDARD SIZE UNLESS NOTED OTHERWISE.

WELDING

A. ALL WELDING SHALL BE PERFORMED IN STRICT ADHERENCE TO A WRITTEN WELDING PROCEDURE SPECIFICATION PER AMERICAN WELDING SOCIETY D1.1. ALL WELDING PARAMETERS SHALL BE WITHIN THE ELECTRODE MANUFACTURER'S RECOMMENDATIONS. WELDING PROCEDURES SHALL BE SUBMITTED TO THE OWNER'S TESTING AGENCY FOR REVIEW BEFORE STARTING FABRICATION OR ERECTION. COPIES OF THE WELDING PROCEDURE SPECIFICATION SHALL BE ON SITE AND AVAILABLE TO ALL WELDERS AND THE SPECIAL INSPECTOR.
B. ALL WELDS SHALL BE MADE USING LOW HYDROGEN ELECTRODES WITH MINIMUM TENSILE STRENGTH PER AWS D1.1 (MINIMUM 70 KSI).
C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE JOINT PREPARATIONS AND WELDING PROCEDURES THAT INCLUDE, BUT ARE NOT LIMITED TO: REQUIRED ROOT OPENINGS, ROOT FACE DIMENSIONS, GROOVE ANGLES, BACKING BARS, COPES, SURFACE ROUGHNESS VALUES, TAPERS, AND TRANSITIONS OF UNEQUAL PARTS.
D. WELDING SHALL BE DONE BY WELDERS WITH CURRENT AMERICAN WELDING SOCIETY CERTIFICATION.
E. FIELD WELDING SYMBOLS HAVE NOT NECESSARILY BEEN INDICATED ON THE DRAWINGS. WHERE SHOWN, PROPER FIELD WELDING PER AMERICAN WELDING SOCIETY D1.1 SHALL BE USED. WHERE NO FIELD WELDING SYMBOLS ARE SHOWN, IT IS THE CONTRACTORS RESPONSIBILITY TO COORDINATE THE USE OF SHOP AND FIELD WELDS.
F. ALL WELD SIZES SHALL BE THE LARGER OF: THE SIZE REQUIRED BY THE CONNECTION FORCES, MINIMUM SIZE PER ANSI/AWS D1.1 OR 3/16 INCH MINIMUM FILLET WELD, UNLESS NOTED OTHERWISE.
G. PROVIDE FILLET WELDS AT CONTACT POINTS BETWEEN STEEL MEMBERS SUFFICIENT TO DELEVOP THE ALLOWABLE TENSILE FORCE OF THE SMALLER MEMBER AT THE JOINT, UNLESS NOTED OTHERWISE.
H. ALL FILLET WELDS SHALL BE VISUALLY INSPECTED BY THE TESTING FIRM.
I. GROOVE WELDS SHALL BE FULL PENETRATION, UNLESS NOTED OTHERWISE.
J. ALL COMPLETE JOINT PENETRATION WELDS SHALL BE ULTRASONICALLY TESTED UPON COMPLETION OF THE CONNECTION, EXCEPT PLATES LESS THAN OR EQUAL TO 1/4-INCH-THICK SHALL BE MAGNETIC PARTICLE TESTED. REDUCTION IN TESTING MAY BE MADE IN ACCORDANCE WITH THE BUILDING CODE WITH APPROVAL OF THE ENGINEER.
K. A RUN-OFF TAB SHALL BE USED AT ALL BEVEL AND FULL PENETRATION WELDS. RUN-OFF TABS SHALL BE REMOVED BY NEAT CUTS AFTER WELD IS COMPLETED. GRIND SMOOTH WHERE REQUIRED BY DETAIL.
L. WHERE REQUIRED BY DETAIL, REMOVE WELD BACKING BARS AND GRIND SMOOTH AFTER WELD IS COMPLETED.
M. WHERE NECESSARY, REMOVE GALVANIZING OR PRIMER PRIOR TO WELDING.
N. STEEL USING COMPLETE JOINT PENETRATION GROOVE WELDS THAT FUSE THROUGH THE THICKNESS OF THE FLANGE OR WEB SHALL HAVE A MINIMUM CHARPY V-NOTCH IMPACT TESTING VALUE AS FOLLOWS:
   1. ASTM A6/A6M HOT-ROLLED SHAPES WITH A FLANGE THICKNESS EXCEEDING 2 INCHES AND BUILT-UP HEAVY SHAPES WITH PLATES EXCEEDING 2 INCHES IN THICKNESS: 20 FT-LB AT 70° FAHRENHEIT.
   2. REGARDLESS OF THICKNESS, ALL TRUSSES, LATERAL SYSTEM MEMBERS (INCLUDING COLUMNS, WIND GIRDERS, BRACES, ETC): 20 FT-LB AT 70° FAHRENHEIT.
   3. STEEL EXPOSED TO TEMPERATURES IN SERVICE BELOW 50° FAHRENHEIT: 20 FT-LB AT SERVICE TEMPERATURE + 20° FAHRENHEIT; 40° FAHRENHEIT MAXIMUM.
   4. WELD METAL: 20 FT-LB AT -20° FAHRENHEIT AND 40 FT-LB AT 70° FAHRENHEIT.
   5. TESTING IS TO BE IN ACCORDANCE WITH ASTM A6/A6M, SUPPLEMENTARY REQUIREMENT S30, CHARPY V-NOTCH IMPACT TEST FOR STRUCTURAL SHAPES – ALTERNATE CORE LOCATION, AT ROLLED SHAPES AND ASTM A673 FOR PLATES, AT ANY PERMITTED LOCATIONS. WELD METAL SHALL BE TESTED IN ACCORDANCE WITH ASTM E23, STANDARD METHODS FOR NOTCHED BAR IMPACT TESTING OF METALLIC MATERIALS FOR WELD METAL.

STEEL JOISTS

A. MANUFACTURE AND ERECT ALL STRUCTURAL STEEL JOISTS, JOIST GIRDERS, AND BRIDGING IN ACCORDANCE WITH SPECIFICATION SECTION 052100, SPECIFICATIONS OF THE STEEL JOIST INSTITUTE AND ALL OSHA REQUIREMENTS.
B. JOIST MANUFACTURER SHALL DESIGN JOISTS PER LISTED DESIGN CRITERIA AND ANY ADDITIONAL LOADING SHOWN ON PLAN OR IN DETAILS. AT A MINIMUM, JOIST SHALL BE DESIGNED PER STEEL JOIST INSTITUTE (SJI) LOAD TABLES.
C. JOISTS SHALL BE EQUALLY SPACED BETWEEN COLUMN LINES OR OTHER SPECIFICALLY LOCATED FRAMING MEMBERS UNLESS NOTED OTHERWISE.
D. STEEL JOISTS, JOIST GIRDERS, BRIDGING, AND THEIR CONNECTIONS SHALL BE DESIGNED FOR NET UPLIFT (NEGATIVE PRESSURE) AS INDICATED IN THE STRUCTURAL DRAWINGS. REFER TO THE APPLICABLE BUILDING CODE LISTED IN DESIGN CRITERIA FOR LOAD COMBINATIONS.
   1. DEAD LOAD (MIN) = 8 PSF (FOR UPLIFT)
E. STEEL JOISTS, JOIST GIRDERS, BRIDGING, AND THEIR CONNECTIONS SHALL BE DESIGNED FOR ADDITIONAL DOWN FORCE RESULTING FROM WIND (POSITIVE PRESSURE) AS INDICATED IN THE STRUCTURAL DRAWINGS.
   1. DEAD LOAD (MAXIMUM) = 20 PSF (SIMULTANEOUS WITH DOWNWARD WIND)
F. JOIST MANUFACTURER SHALL DESIGN AND DETAIL ALL BRIDGING PER SJI REQUIREMENTS AND CLEARLY INDICATE LOCATION ON STEEL JOIST ERECTION DRAWINGS.
   1. BRIDGING SHALL BE DESIGNED TO FULLY BRACE TOP CHORD OF JOISTS UNDER SERVICE LOADS FOR JOISTS NOT BRACED BY STEEL ROOF DECK.
   2. BOTTOM CHORD OF ROOF JOISTS SHALL BE DESIGNED FOR NET UPLIFT (COMPONENTS & CLADDING) SHOWN ON DIAGRAM ON S-002C, UNLESS NOTED OTHERWISE.
G. AN ALLOWABLE STRESS INCREASE FOR LOAD COMBINATIONS INCLUDING WIND IS NOT PERMITTED.
H. JOIST MANUFACTURER SHALL CAMBER JOISTS PER SJI CRITERIA.
I. PROVIDE MINIMUM BEARING PER SJI REQUIREMENTS AND CONNECT TO STEEL SUPPORT AS FOLLOWS:
   1. K-SERIES: 3/16" x 1" FILLET WELD EACH SIDE
   2. LH AND DLH SERIES: ½" x 2" FILLET WELD EACH SIDE
J. PROVIDE STANDARD DEPTH OF BEARING FOR ALL JOISTS AS SHOWN BELOW UNLESS NOTED IN DRAWINGS:
   1. K-SERIES – 2 ½"
   2. LH – 5"
   3. WHERE STEEL JOIST OR JOIST GIRDER SLOPE EXCEEDS ¼ INCH PER FOOT, PROVIDE SLOPED BEARING AS NOTED IN SLOPED SEAT REQUIREMENTS OF SJI.
K. JOIST MANUFACTURER SHALL DESIGN AND DETAIL FIELD BOLTING FOR ERECTION PER SJI REQUIREMENTS.

STEEL DECK GENERAL REQUIREMENTS

A. ALL STEEL DECK SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE DIVISION 05 SPECIFICATIONS.
B. STEEL DECK SHALL BE SUPPORTED BY A MINIMUM OF FOUR SUPPORT LOCATIONS (THREE SPAN CONDITION), UNLESS NOTED OTHERWISE.
C. THE CONTRACTOR SHALL COORDINATE SLAB/DECK OPENING SIZES AND LOCATIONS PER ARCHITECTURAL AND MEP CONTRACT DOCUMENTS. THE CONTRACTOR SHALL PROVIDE OPENING SUPPORT FRAMING AND/OR REINFORCEMENT AS REQUIRED PER TYPICAL DETAILS AND SUBMIT PROPOSED SLAB/DECK OPENINGS FOR REVIEW BY THE STRUCTURAL ENGINEER OF RECORD.
D. SHOP DRAWINGS SHALL BE SUBMITTED INDICATING:
   1. MATERIAL STRENGTH
   2. SECTION PROPERTIES
   3. DECK GAGE, LAYOUT
   4. FASTENER TYPE
   5. CONNECTION PATTERN
   6. CLOSURE ANGLES
E. THE CAPACITY OF THE DECK SHALL BE BASED ON CURRENT ICC-ES EVALUATION REPORTS.

STEEL ROOF DECK

A. STEEL ROOF DECK SHALL BE A MINIMUM YIELD STRENGTH OF 33 KSI, UNLESS NOTED OTHERWISE. ALL INTERIOR STEEL ROOF DECK SHALL CONFORM TO ASTM A1008. FACTORY PRIMED FOR PAINT. ALL EXPOSED STEEL ROOF DECK SHALL CONFORM TO ASTM A653 WITH G90 HOT-DIPPED GALVANIZATION, UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR EXTENTS.
B. STEEL ROOF DECK SHALL BE ATTACHED TO STEEL SUPPORTS WITH 5/8 INCH DIAMETER PUDDLE WELDS AND TO COLD-FORMED METAL FRAMING WITH #12 SELF-DRILLING SCREWS UNLESS NOTED OTHERWISE. WHEN DECK THICKNESS IS LESS THAN 0.028 INCHES, WELDS MUST BE MADE THROUGH MINIMUM 16 GAGE WELDING WASHERS. SPACING OF WELDS SHALL BE AS SPECIFIED IN THE DECK ATTACHMENT SCHEDULE.
C. WHERE STEEL MEMBERS ARE PARALLEL TO THE DECK FLUTES AND AT THE SAME ELEVATION OF THE BOTTOM OF THE DECK, ADJUST DECK LAYOUT AND WELD DECK TO STEEL WITH SAME WELDING AS REQUIRED FOR SIDE BOUNDARIES.
D. ERECT STEEL DECK CLOSURES AND OTHER LIGHT GAGE MATERIAL REQUIRED TO PRODUCE A COMPLETED INSTALLATION.
E. FLAT, RIDGE, AND VALLEY PLATES:
   UNLESS NOTED OTHERWISE, CONTRACTOR SHALL PROVIDE FLAT PLATES (20 GAGE MINIMUM) AT ALL LOCATIONS WHERE ROOF DECK CHANGES DIRECTION AND RIDGE OR VALLEY PLATES (20 GAGE MINIMUM) AT ALL LOCATIONS WHERE ROOF SLOPE EXCEEDS ½ INCH PER FOOT.
F. DO NOT HANG CEILINGS, DUCTS, LIGHT FIXTURES, EQUIPMENT, OR OTHER ITEMS FROM THE ROOF DECK WITHOUT PRIOR APPROVAL FROM THE DECK SUPPLIER AND REVIEW BY THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD.
G. SEE ARCHITECTURAL DRAWINGS FOR FINAL ROOF SLOPES. WHERE STRUCTURAL FRAMING DOES NOT CREATE THE SPECIFIED ROOF SLOPE, IT SHALL BE CREATED WITH RIGID INSULATION ABOVE THE DECK.

NON-COMPOSITE STEEL FORM DECK

A. NON-COMPOSITE STEEL FORM DECK SHALL BE A MINIMUM YIELD STRENGTH OF 60 KSI AND SHALL CONFORM TO ASTM A653 WITH G90 HOT-DIPPED GALVANIZATION, UNLESS NOTED OTHERWISE.
B. NON-COMPOSITE STEEL FORM DECK SHALL BE ATTACHED TO SUPPORTS WITH 5/8 INCH DIAMETER PUDDLE WELDS. WHEN DECK THICKNESS IS LESS THAN 0.028 INCHES, WELDS MUST BE MADE THROUGH MINIMUM 16 GAGE WELDING WASHERS. SPACING OF WELDS SHALL BE AS FOLLOWS:
   1. AT BUTTED ENDS: AT 10 INCHES ON CENTER
   2. AT PERIMETER/EDGES OF BUILDING: AT 10 INCHES ON CENTER
   3. INTERMEDIATE SUPPORTS: AT 10 INCHES ON CENTER
   4. SIDE LAPS: FOR FORM DECK WITH SPANS 3'-6" OR GREATER, PROVIDE TWO CONNECTIONS PER SPAN. HEX HEAD SCREWS, SIZE #10, OR CRIMPING (BUTTON PUNCHING) MAY BE USED AT SIDE LAP CONNECTIONS.

COLD-FORMED STEEL

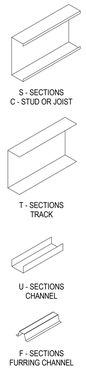
A. DESIGN, FABRICATION, AND ERECTION OF COLD-FORMED STEEL SHALL CONFORM TO AISI S100.
B. ALL STUDS, JOISTS, TRACK, BRIDGING, END CLOSURES, AND ACCESSORIES SHALL BE FORMED FROM STEEL THAT CORRESPONDS TO THE REQUIREMENTS OF AISI S100.
C. THE CONTRACTOR'S DELEGATED ENGINEER SHALL DESIGN ALL COLD-FORMED STEEL AND ITS CONNECTIONS TO THE BUILDING STRUCTURE. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR REQUIRED COLD-FORMED STEEL.
D. ALL EXTERIOR COLD-FORMED STEEL AND ITS CONNECTIONS TO THE BUILDING STRUCTURE SHALL BE DESIGNED PER 'DESIGN CRITERIA' AND 'COMPONENTS AND CLADDING WIND PRESSURES' LISTED IN THE STRUCTURAL DOCUMENTS.
E. ALL INTERIOR COLD-FORMED STEEL AND ITS CONNECTIONS TO THE BUILDING STRUCTURE SHALL BE DESIGNED PER 'DESIGN CRITERIA' LISTED IN THE GENERAL STRUCTURAL NOTES AND A MINIMUM OF 5 PSF INTERNAL PRESSURE NORMAL TO THE STRONG AXIS OF FRAMING MEMBER IN ADDITION TO DEAD LOAD.
F. ALL EXTERIOR COLD-FORMED STEEL SHALL HAVE A MINIMUM G90 GALVANIZED COATING. ALL INTERIOR COLD-FORMED STEEL SHALL HAVE A MINIMUM G60 GALVANIZED COATING.
G. ALL STUDS SHALL BE DESIGNED TO A MINIMUM GAUGE OF 43 MILS. STUD SPACING SHALL NOT EXCEED 24" ON CENTER.
H. ALL COLD-FORMED STEEL, 54 MIL AND THICKER SHALL HAVE A MINIMUM YIELD STRENGTH (F_y) OF 50 KSI.
I. ALL WELDING SHALL MEET REQUIREMENTS OF AWS D1.3 AND THE AISI STANDARD.
J. ALL SCREWS OR PINS SHALL BE NON-CORROSIVE NO. 8-18 (Ø = 0.125") OR LARGER, UNLESS NOTED OTHERWISE. DO NOT USE STAINLESS STEEL OR COPPER-COATED FASTENERS.
K. TRACKS SHALL BE THE SAME DEPTH AS STUDS OR JOISTS AND OF EQUAL OR THICKER GAUGE THAN STUDS OR JOISTS, UNLESS NOTED OTHERWISE. TRACKS SHALL BE CONNECTED IN ORDER TO SUPPORT STUDS OR JOISTS AT 24" ON CENTER, MAXIMUM. STUDS AND JOISTS SHALL BE CONNECTED TO TRACKS AT EACH SIDE.
L. INSTALLATION OF CURTAIN WALL FRAMING SHALL ACCOMMODATE VERTICAL DISPLACEMENT OF THE PRIMARY STRUCTURE.
M. DESIGN OF SLIP TRACKS SHALL CONFORM TO GUIDELINES ESTABLISHED IN STEEL STUD MANUFACTURER'S ASSOCIATION TECHNICAL NOTE NO. 1, PUBLISHED JANUARY 2000.
N. PROVIDE THE STANDARD TRACK, CLIP ANGLES, BRACING, REINFORCEMENTS, FASTENERS, AND ACCESSORIES AS RECOMMENDED BY THE MANUFACTURER FOR THE APPLICATION INDICATED AND AS NEEDED TO PROVIDE A COMPLETE FRAMING SYSTEM. INSTALL THE FRAMING SYSTEM IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTRUCTIONS AND RECOMMENDATIONS, UNLESS NOTED OTHERWISE.
O. MATCH FILLER METAL TO BASE METAL PER AWS D1.3 FOR WELDING STEEL STUDS. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AWS PROCEDURES. CONSULT MANUFACTURER FOR EQUIPMENT RECOMMENDATIONS AND PROPER ELECTRODE SELECTION. TOUCH UP WELDED AREAS WITH A ZINC RICH PAINT.
P. STUD-TO-STUD CONNECTIONS SHALL BE A MINIMUM OF (4) #8 TEK SCREWS AT EACH CONNECTION, UNLESS NOTED OTHERWISE.
Q. RESISTANCE TO MINOR AXIS BENDING AND ROTATION SHALL BE PROVIDED BY GYPSUM BOARD, GYPSUM SHEATHING, PLYWOOD, HORIZONTAL BRACING, OR CHANNEL SHAPED COLD-FORMED STEEL FRAMING BLOCKING.
R. SHOP DRAWINGS, INCLUDING CALCULATIONS, SHALL BE SIGNED AND SEALED BY A DELEGATED ENGINEER AND SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD AND ARCHITECT FOR REVIEW.
S. SHOP DRAWINGS SHALL CLEARLY INDICATE ALL FRAMING SIZES, CONNECTIONS, AND BRACING. IF FRAMING DEPTH IS NOT INDICATED IN THE CONTRACT DOCUMENTS, THE MOST ECONOMICAL MEMBER AND CONNECTION MEETING THE DESIGN CRITERIA SHALL BE PROVIDED.
T. CALCULATIONS SHALL CLEARLY INDICATE DESIGN LOADING, FRAMING SIZE, SPACING, ASSUMPTIONS, AND FORCES IMPOSED ONTO BUILDING STRUCTURE FROM CONNECTIONS.
U. STEEL STUD MANUFACTURERS ASSOCIATION FOUR PART NOMENCLATURE IDENTIFIES MEMBER DEPTH, TYPE, FLANGE WIDTH AND GAUGE.

COLD-FORMED STEEL FRAMING LEGEND

COLD-FORMED THICKNESS CONVERSIONS	
THICKNESS (MILS)	THICKNESS (GAGE)
33	20
43	18
54	16
68	14
97	12

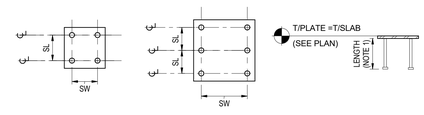
600 S 162 - 54

- MATERIAL THICKNESS: (EXAMPLE: 0.054" = 54 MILS: 1 MIL = 1/1000 IN.) MATERIAL THICKNESS IS THE MINIMUM BASE STEEL THICKNESS IN MILS. MINIMUM BASE STEEL THICKNESS REPRESENTS 95% OF THE DESIGN THICKNESS
- FLANGE WIDTH: (EXAMPLE: 1 5/8" = 1.625" = 162 x 1/100 INCH) ALL FLANGE WIDTHS ARE TAKEN IN 1/100 INCHES
- STYLE: (EXAMPLE: STUD OR JOIST SECTION = S) THE FOUR ALPHA CHARACTERS UTILIZED BY THE DESIGNATOR SYSTEM ARE:
  S = STUD OR JOIST SECTIONS
  T = TRACK SECTIONS
  U = CHANNEL SECTIONS
  F = FURRING CHANNEL SECTIONS
- MEMBER DEPTH: (EXAMPLE: 6" = 600 x 1/100 INCH) ALL MEMBER DEPTHS ARE TAKEN IN 1/100 INCHES. FOR ALL "T" SECTIONS, THE MEMBER DEPTH IS THE INSIDE TO INSIDE DIMENSION



STEEL EMBED PLATE SCHEDULE

MARK	PLATE GEOMETRY (IN)			EDGE DISTANCE	ANCHORS (AWS D1.1, TYPE B)			COMMENTS	REFERENCE DETAIL
	WIDTH	LENGTH	THICKNESS		#	DIAMETER	LENGTH		



LAYOUT WITH 4 ANCHORS — LAYOUT WITH 6 ANCHORS

NOTES:
1. ANCHOR LENGTH INDICATED IS FINAL LENGTH AFTER BURNOFF.
2. SEE PLAN FOR LOCATION OF KEYED SECTIONS & DETAILS REFERENCING EMBED PLATES AND ATTACHMENT OF CONNECTING ELEMENTS.
3. FOR LAYOUTS WITH MORE THAN 4 ANCHORS SEE KEYED SECTIONS/DETAILS FOR ANCHOR LAYOUTS.

NO.	DATE	DESCRIPTION
	08/22/25	DESIGN DEVELOPMENT

WATERFORD CAMPUS - ASSISTED LIVING MEMORY CARE BUILDING

601 UNIVERSE BLVD JUNO BEACH , FL 33048

THW DESIGN

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THOMPSON HANCOCK WITTE & ASSOCIATES, INC.

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DESIGN DEVELOPMENT

Project No.: 2021009
Date: 08/22/2025

STEEL GENERAL NOTES

S-005

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CERTIFICATE OF AUTHORIZATION FL #30785
JG Project #: 21.18.004

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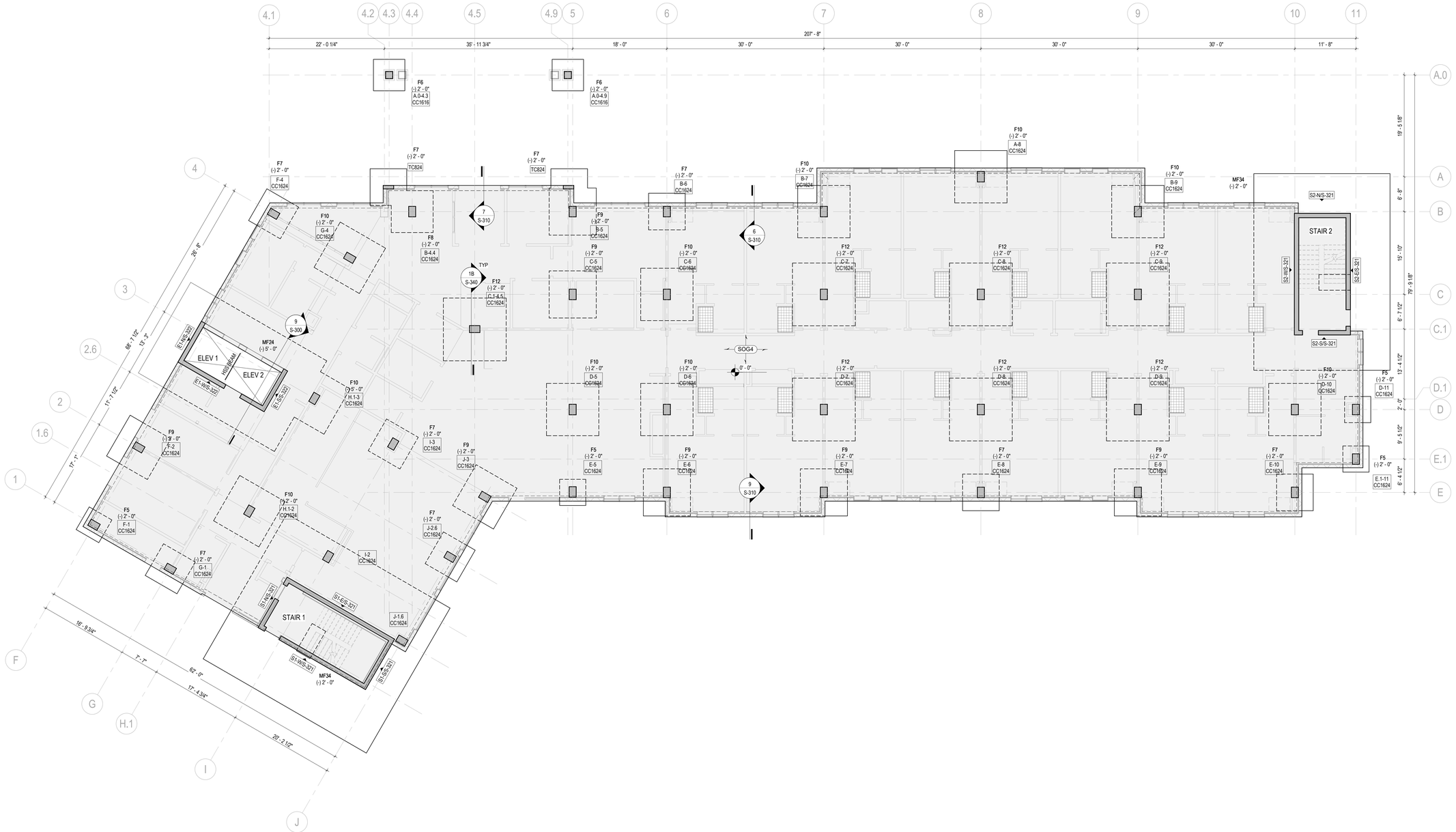

1 S-121 FOUNDATION PLAN

1/8" = 1'-0"

FOUNDATION PLAN NOTES:

1. X_-X# — LOCATION MARK
   CC##x## — COLUMN MARK (SEE SCHEDULE ON THIS SHEET AND NOTE 2)
   F#, WF#, OR P# — FOUNDATION OR PIER MARK (SEE SCHEDULE ON THIS SHEET)
   (-) X' - X" — TOP OF FOOTING/PIER ELEVATION
2. DENOTES CONCRETE COLUMN/PIER/WALL. FOR COLUMN SCHEDULE AND DETAILS SEE **SXXXX** SERIES. FOR WALL DETAILS SEE **SXXXX** SERIES.
3. DENOTES STEEL COLUMN. SEE **SXXXX**.
4. FOR STEEL COLUMN BASE PLATE INFORMATION, **SEE SXXXX**.
5. FOR TRENCHES ADJACENT TO FOUNDATIONS, SEE **SXXXX**. FOR PIPING PASSING UNDER WALL FOUNDATIONS, SEE **SXXXX**. PIPING PASSING UNDER FOOTINGS SHALL BE INSPECTED BEFORE FOUNDATIONS ABOVE ARE PREPARED.
6. GENERAL CONTRACTOR SHALL COORDINATE PLUMBING AND UTILITIES LOCATIONS WITH FOUNDATIONS AS NEEDED. ADDITIONALLY, GENERAL CONTRACTOR SHALL COORDINATE FOUNDATION ELEVATIONS WITH PLUMBING AND UTILITIES AS NEEDED. FORWARD ANY FOUNDATION LOCATION CHANGE REQUESTS TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW AND APPROVAL.
7. DENOTES STEP IN FOUNDATION, SEE **SXXXX**.
8. DENOTES LOAD BEARING CONCRETE MASONRY UNIT (CMU) WALL WITH **#X** AT **XX"** OC VERTICAL REINFORCEMENT, CENTERED IN FULLY-GROUTED CELL.
9. DENOTES NON-LOAD BEARING CONCRETE MASONRY UNIT (CMU) WALL WITH **#X** AT **XX"** OC VERTICAL REINFORCEMENT, CENTERED IN FULLY-GROUTED CELL.
10. DENOTES SHOWER DEPRESSION.

SLAB-ON-GROUND PLAN NOTES:

1. REFERENCE BUILDING TOP-OF-SLAB ELEVATION = **(+)X' - X" (XX.XX NAVD)**.
2. SOG# :DENOTES SLAB-ON-GROUND MARK (SEE SCHEDULE ON THIS SHEET).
3. SJ DENOTES SLAB-ON-GROUND CONTROL JOINT. FOR CONTROL JOINT REQUIREMENTS, SEE **SXXXX**.
4. FOR RE-ENTRANT CORNER BARS, **SEE SXXXX**.
5. INSTALL THICKENED SLAB UNDER STAIR STRINGER, **SEE SXXXX**.
6. FOR THICKENED SLAB UNDER NON-LOAD BEARING CONCRETE MASONRY WALLS, **SEE SXXXX**.
7. GENERAL CONTRACTOR SHALL COORDINATE HOUSEKEEPING PAD LOCATIONS.
8. DENOTES STEP IN TOP OF SLAB, **SEE SXXXX**.
9. SEE CIVIL DRAWINGS FOR BASE AND SUBGRADE PREPARATION INFORMATION.
10. SEE ARCHITECTURAL DRAWINGS FOR:
    - VAPOR BARRIER REQUIREMENTS AND LOCATIONS.
    - ALL SLOPED SLAB AREAS. (MAINTAIN SLAB THICKNESS NOTED ON PLAN AS A MINIMUM IN ALL AREAS).
    - ALL DEPRESSED SLAB AND/OR RAISED SLAB AREAS. (MAINTAIN SLAB THICKNESS NOTED ON PLAN AS A MINIMUM IN ALL AREAS).
    - ALL DIMENSIONS NOT SHOWN. VERIFY ALL DIMENSIONS SHOWN IN STRUCTURAL DRAWINGS WITH ARCHITECTURAL DRAWINGS AND REPORT ANY DISCREPENCIES OR DIMENSIONS NOT SHOWN ON ARCHITECTURAL DRAWINGS FOR CLARIFICATION.
    - SLAB SLOPES, DRAINS, STEPS, PENETRATIONS, FINISHES, AND ANY OTHER ADDITIONAL INFORMATION.

SLAB-ON-GROUND SCHEDULE

MARK	THICKNESS	REINFORCEMENT	REMARKS
SOG4	4"		

MAT FOUNDATION SCHEDULE

MARK	THICKNESS	REINFORCEMENT	
		TOP	BOTTOM
MF24	24"		
MF34	34"		

ISOLATED FOOTING SCHEDULE

MARK	GEOMETRY			REINFORCEMENT	
	WIDTH	LENGTH	THICKNESS	LONG BARS	SHORT BARS
F5	5' - 0"	5' - 0"	18"		
F6.0	6' - 0"	6' - 0"	24"		
F7	7' - 0"	7' - 0"	24"		
F8	8' - 0"	8' - 0"	24"		
F9	9' - 0"	9' - 0"	24"		
F10	10' - 0"	10' - 0"	24"		
F12	12' - 0"	12' - 0"	24"		

NO.	DATE	DESCRIPTION
	08/22/25	DESIGN DEVELOPMENT
	04/07/25	SCHEMATIC DESIGN

WATERFORD CAMPUS - ASSISTED LIVING MEMORY CARE BUILDING

601 UNIVERSE BLVD JUNO BEACH , FL 33048

THW DESIGN

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DESIGN DEVELOPMENT

Project No.: 2021009
Date: 08/22/2025

FOUNDATION PLAN

S-121

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JG Project #: 21.18.004

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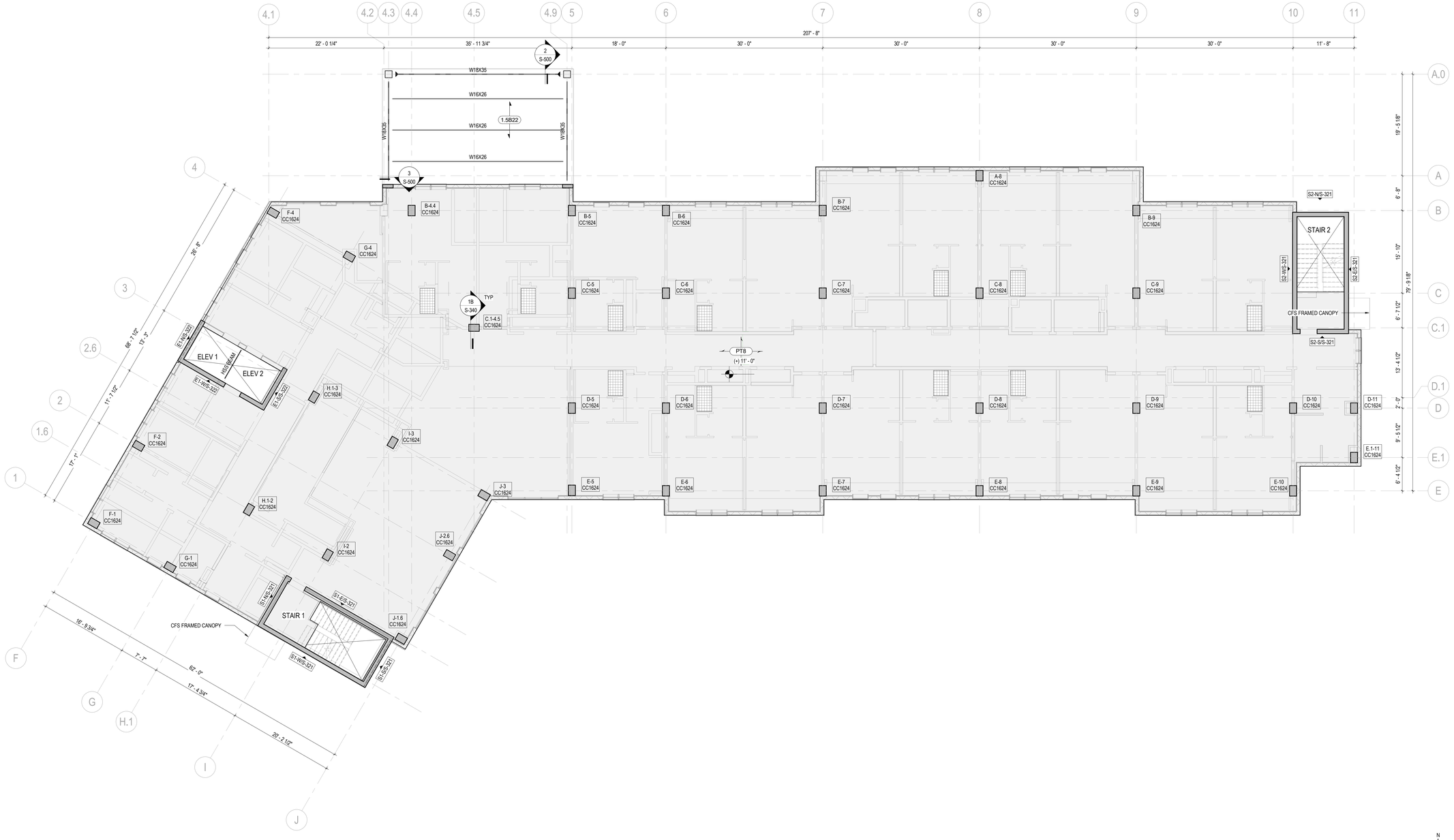

1 S-122 SECOND FLOOR FRAMING PLAN

1/8" = 1'-0"

CONCRETE FRAMING PLAN NOTES:

1. CONCRETE SLAB TAG:
   - ARROWS DENOTE SLAB SPAN DIRECTION
   - CS## : DENOTES SLAB MARK (SEE SCHEDULE ON THIS SHEET FOR SLAB THICKNESS AND REINFORCEMENT)
2. SEE PLAN FOR TOP OF SLAB ELEVATIONS.
3. DENOTES CONCRETE COLUMN/PIER/WALL. FOR COLUMN SCHEDULE AND DETAILS SEE **SXXXX** SERIES. FOR WALL DETAILS SEE **SXXXX** SERIES.
4. DENOTES LOAD BEARING CONCRETE MASONRY UNIT (CMU) WALL WITH **#X** AT **XX"** OC VERTICAL REINFORCEMENT, CENTERED IN FULLY-GROUTED CELL.
5. DENOTES NON-LOAD BEARING CONCRETE MASONRY UNIT (CMU) WALL WITH **#X** AT **XX"** OC VERTICAL REINFORCEMENT, CENTERED IN FULLY-GROUTED CELL.
6. DENOTES STEP IN TOP OF SLAB, **SEE SXXXX.**
7. SEE ARCHITECTURAL DRAWINGS FOR:
   - ALL SLOPED SLAB AREAS.
   - ALL DIMENSIONS NOT SHOWN. VERIFY ALL DIMENSIONS SHOWN IN THE STRUCTURAL DRAWINGS WITH ARCHITECTURAL DRAWINGS AND REPORT ANY DISCEPENCIES OR DIMENSIONS NOT SHOWN ON THE ARCHITECTURAL DRAWINGS FOR CLARIFICATION.
8. SEE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL FLOOR PENETRATIONS. SLEEVES, AND INSERTS REQUIRED TO BE CAST IN THE SLAB.
   - SLEEVES AND PENETRATIONS WITHIN 48 INCHES OF THE FACE OF ANY CONCRETE COLUMN (NOT SHOWN EXPLICITLY ON THE STRUCTURAL DRAWINGS) SHALL BE SUBMITTED FOR APPROVAL TO THE STRUCTURAL ENGINEER OF RECORD.
   - SLEEVES AND PENETRATIONS INTERRUPTING BANDED LINES OF TENDONS (NOT SHOWN EXPLICITLY ON THE STRUCTURAL DRAWINGS) SHALL BE SUBMITTED FOR APPROVAL TO THE STRUCTURAL ENGINEER OF RECORD.
   - SLEEVES AND PENETRATIONS GREATER THAN 12 INCHES IN LENGTH OR WIDTH (NOT SHOWN EXPLICITLY ON THE STRUCTURAL DRAWINGS) SHALL BE SUBMITTED FOR APPROVAL TO THE STRUCTURAL ENGINEER OF RECORD.
9. FOR REINFORCEMENT PLAN AND ADDITIONAL NOTES, SEE SHEET **SXXXX**.
10. FOR POST-TENSIONED LAYOUT PLAN AND ADDITIONAL NOTES, SEE SHEET **SXXXX**.
11. DENOTES SHOWER DEPRESSIONS.

NO.	DATE	DESCRIPTION
	08/22/25	DESIGN DEVELOPMENT
	04/07/25	SCHEMATIC DESIGN

WATERFORD CAMPUS - ASSISTED LIVING MEMORY CARE BUILDING

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Date: 08/22/2025

SECOND FLOOR FRAMING PLAN

S-122

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JG Project #: 21.18.004

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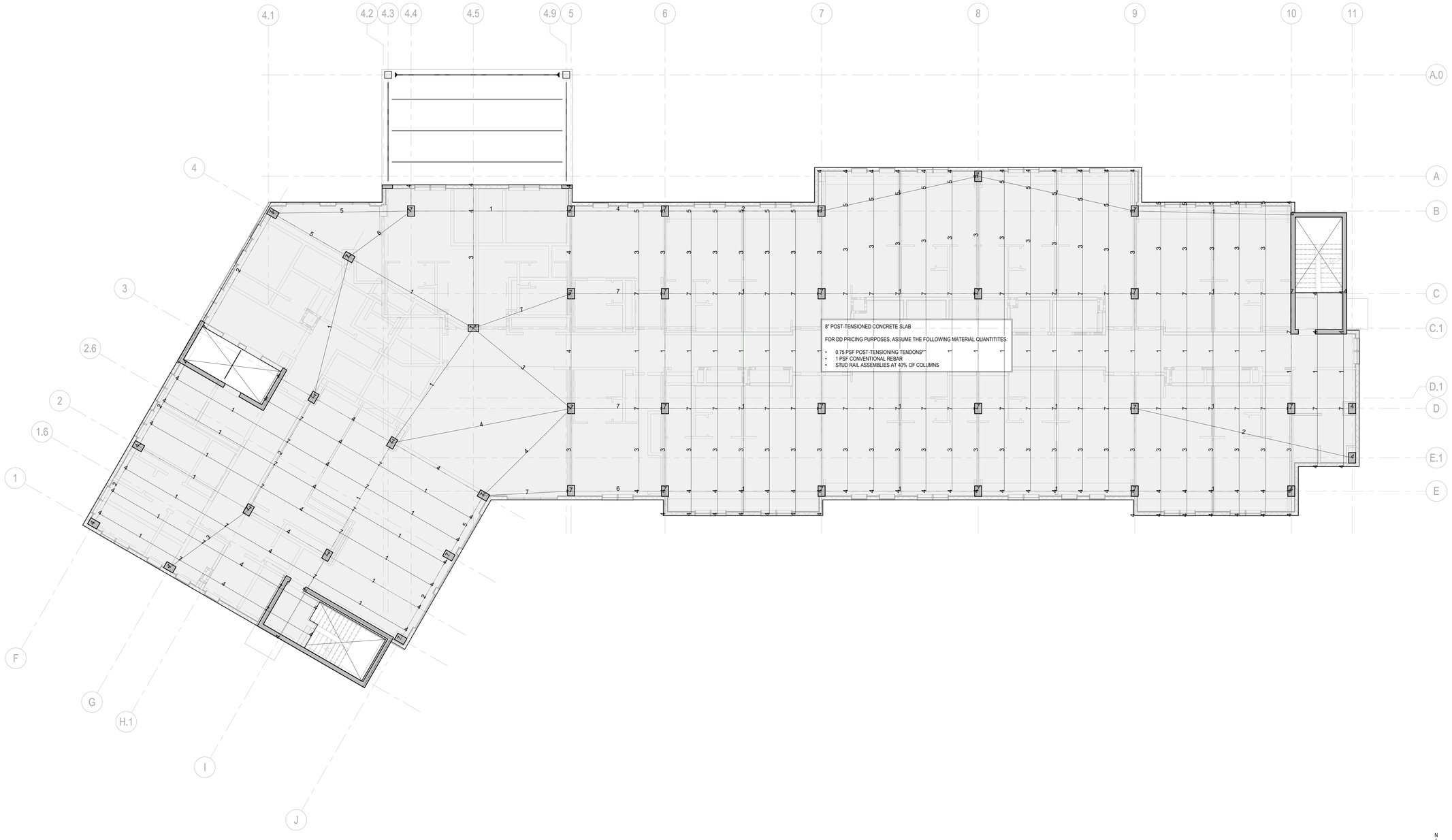

1 S-122-PT

SECOND FLOOR PT PLAN

1/8" = 1'-0"

POST-TENSIONED CONCRETE SLAB PLAN NOTES:

1. SEE FRAMING PLAN FOR SLAB GEOMETRY, REFERENCE ELEVATION, AND KEYED SECTIONS.
2. SEE POST-TENSIONED FRAMING GENERAL NOTES ON SHEET **SXXXX** AND DIVISION 03 SPECIFICATIONS FOR GENERAL REQUIREMENTS.
3. FOR TYPICAL POST-TENSIONED CONCRETE SECTIONS AND DETAILS, SEE **SXXXX**.
4. TENDON LAYOUT NOTES:
   - LINEWORK SHOWN FOR TENDON PATHS IS SCHEMATIC TO ILLUSTRATE DESIGN INTENT, BUT NOT MEANT TO INDICATE EXACT TENDON PATHS OR SPACING OF UNIFORMLY DISTRIBUTED TENDON BUNDLES.
   - A MINIMUM OF (2) TENDONS SHALL PASS THROUGH EACH COLUMN IN EACH DIRECTION, WITH TENDONS LOCATED INSIDE OF THE COLUMN VERTICAL REINFORCEMENT CAGE.
   - STRAIGHT LINE HORIZONTAL OFFETS SHOWN IN THE LAYOUT PLAN SHALL BE ACCOMPLISHED WITH SMOOTH HORIZONTAL CURVE/SWEEP PER DETAIL.
   - MAINTAIN CLEAR COVER BETWEEN EDGE-OF-SLAB (INCLUDING INTERIOR OPENINGS) AS INDICATED IN THE PROJECT SPECIFICATIONS AND TYPICAL DETAILS REFERENCED ABOVE.
5. TENDON DRAPE ELEVATION NOTES:
   - # :DENOTES PT TENDON DRAPE ELEVATION IN INCHES, MEASURED FROM BOTTOM OF SLAB / FRAMING TO THE CENTER-OF-GRAVITY OF THE TENDONS/STRAND BUNDLE (CGS).
   - AT DEAD ENDS AND STRESSING ENDS, CGS SHALL BE LOCATED AT THE CENTROID OF THE FRAMING (MID-DEPTH FOR SLAB CONDITIONS), UNLESS OTHERWISE NOTED.
   - TENDON HIGH POINTS SHALL BE LOCATED AT SUPPORTS (COLUMNS, WALLS, BEAMS, BANDED TENDON LINES) AS INDICATED ABOVE.
   - TENDON LOW POINTS SHALL BE LOCATED AT MID-SPAN BETWEEN SUPPORTS, UNLESS NOTED OTHERWISE.
6. TENDON FORCE NOTES:
   - F = # K :DENOTES EFFECTIVE PRESTRESS FORCE, IN KIPS, WITHIN BANDED TENDON GROUP OR BEAM.

     BANDED TENDON GROUPS SHALL BE PLACED IN FLAT BUNDLED GROUPS OF NO MORE THAN (5) TENDONS PER BUNDLE, SPACED AT NO MORE THAN 12 INCHES ON CENTER, WITH TENDONS FLAT IN ONE LAYER. TOTAL QUANTITY OF BANDED TENDONS SHALL BE EQUALLY DISTRIBUTED EACH SIDE OF THE COLUMN, MINUS A MINIMUM OF (2) TENDONS PASSING THROUGH THE COLUMN REINFORCEMENT CAGE PER NOTE ABOVE.
   - F = # KLF :DENOTES EFFECTIVE PRESTRESS FORCE, IN KIPS PER LINEAR FOOT, IN UNIFORMLY DISTRIBUTED TENDONS.

     UNIFORMLY DISTRIBUTED TENDON BUNDLES SHALL BE PLACED IN FLAT BUNDLED GROUPS OF NO MORE THAN (5) TENDONS PER BUNDLE, SPACED AT NO MORE THAN 5'-0" ON CENTER, WITH TENDONS FLAT IN ONE LAYER.

NO.	DATE	DESCRIPTION
	08/22/25	DESIGN DEVELOPMENT

WATERFORD CAMPUS - ASSISTED LIVING MEMORY CARE BUILDING

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DESIGN DEVELOPMENT

Project No.: 2021009
Date: 08/22/2025

SECOND FLOOR PT PLAN

S-122-PT

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CERTIFICATE OF AUTHORIZATION FL #30785
JG Project #: 21.18.004

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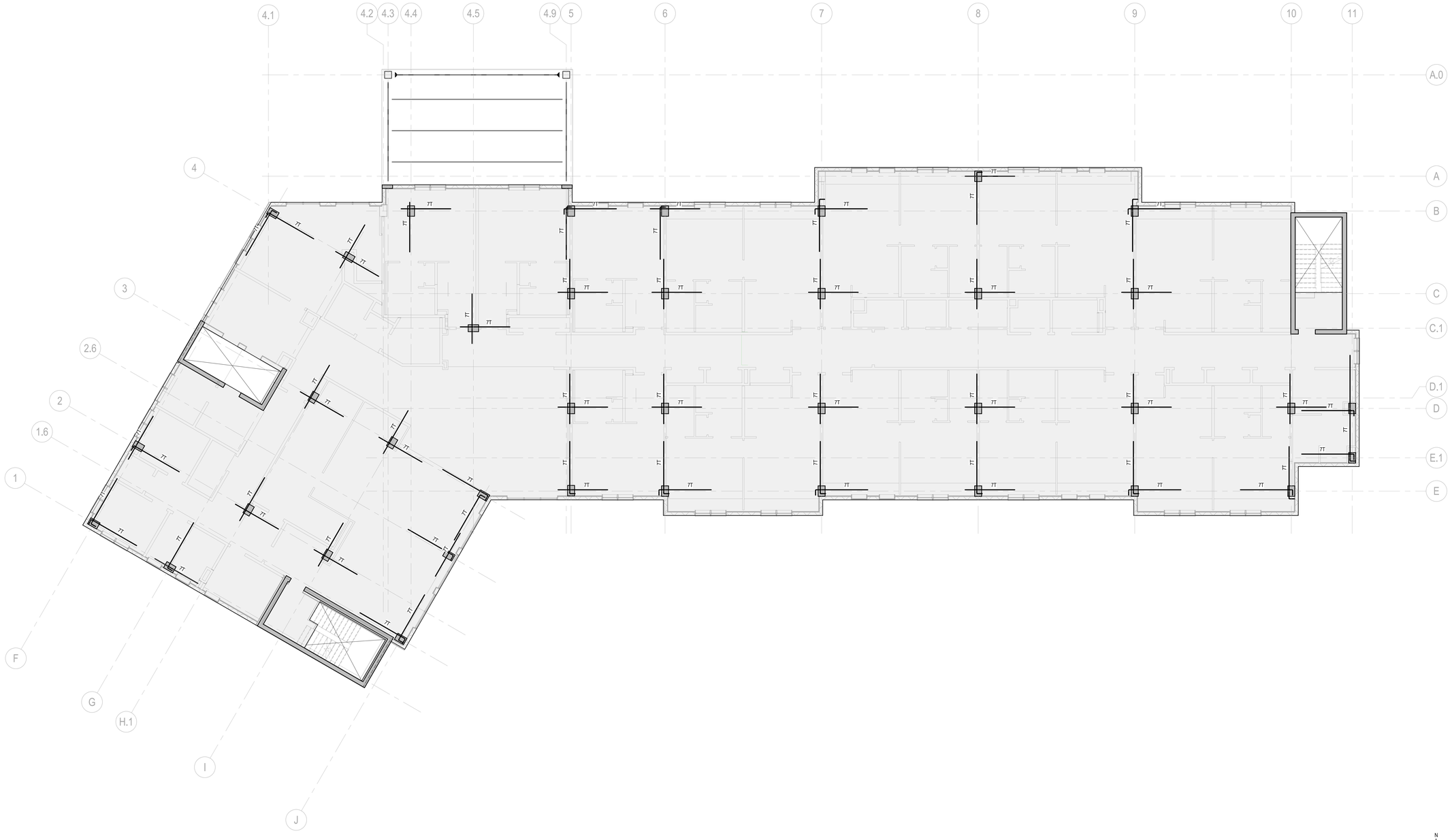
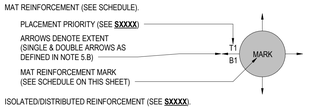


1 S-122-R SECOND FLOOR REINFORCING PLAN

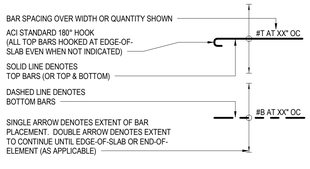
1/8" = 1'-0"

CONCRETE SLAB REINFORCEMENT PLAN NOTES:

1. FOR TYPICAL SLAB REINFORCEMENT DETAILS, SEE **SXXXX**.
2. PROVIDE CONTINUOUS REINFORCEMENT AROUND PERIMETER OF SLAB AND AT ALL INTERIOR SLAB EDGES (SEE **SXXXX**). SEE SXXXX FOR CONCEPTUAL LAYOUT (NOT INDICATIVE OF PROJECT SPECIFIC GEOMETRY) AND SPLICE/DEVELOPMENT REQUIREMENTS.
3. SLAB REINFORCEMENT SHALL BE #5 UNLESS NOTED OTHERWISE.
4. ##SR-#(#-#) DENOTES SHEAR STUD RAILS (SEE SCHEDULE ON THIS SHEET AND **SXXXX**).
5. SLAB REINFORCEMENT SYMBOLS AND NOMENCLATURE:
   - A. MAT REINFORCEMENT (SEE SCHEDULE).



   - B. ISOLATED/DISTRIBUTED REINFORCEMENT (SEE **SXXXX**).



   - C. TYPICAL NOMENCLATURE (SEE **SXXXX**).
   - D. REINFORCEMENT AT COLUMNS (SEE **SXXXX**).

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SECOND FLOOR REINFORCING PLAN

S-122-R

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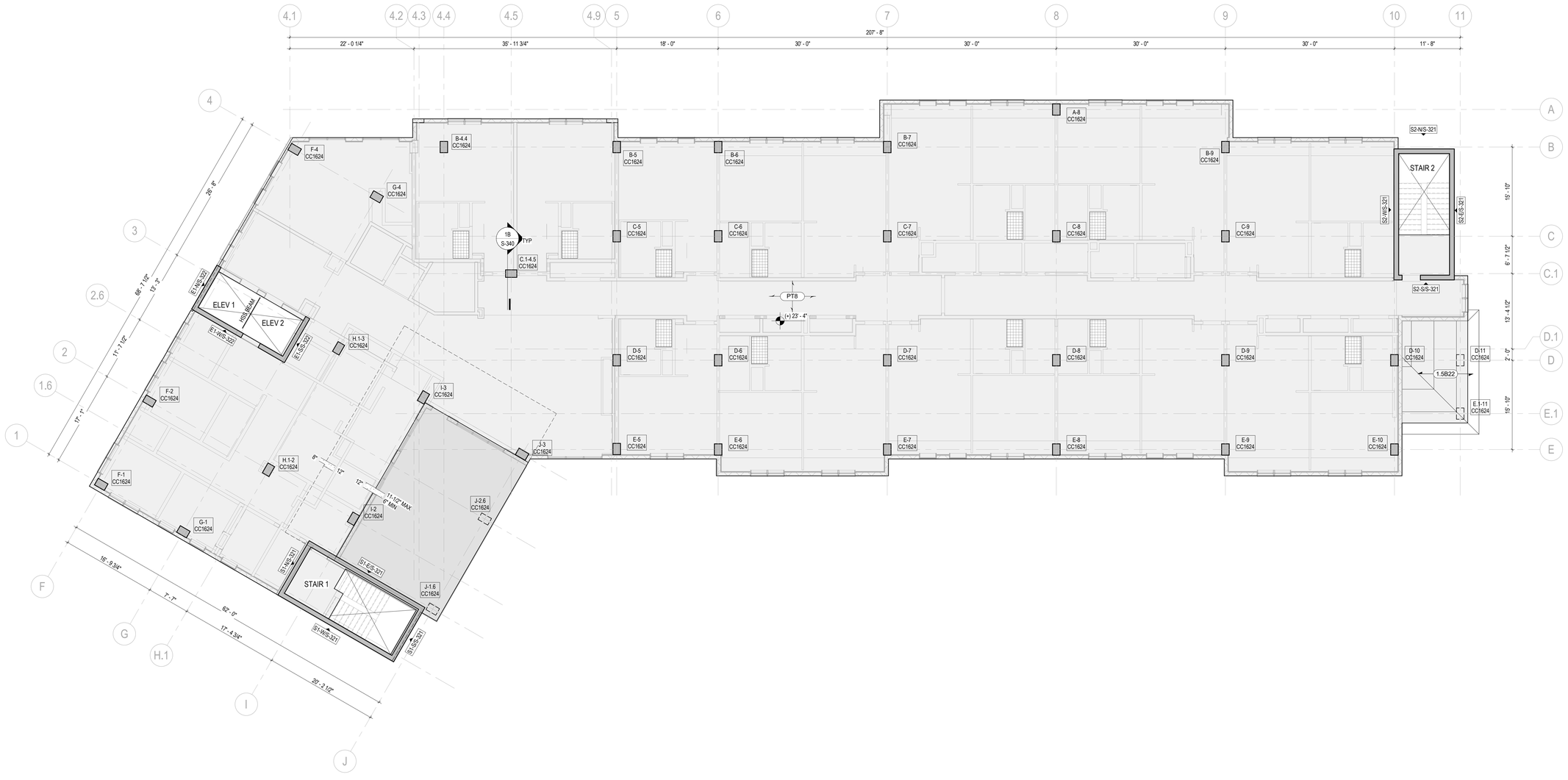

1 S-123

THIRD FLOOR FRAMING PLAN

1/8" = 1'-0"

CONCRETE FRAMING PLAN NOTES:

1. CONCRETE SLAB TAG:
   - ARROWS DENOTE SLAB SPAN DIRECTION
   - CS## — CS##: DENOTES SLAB MARK (SEE SCHEDULE ON THIS SHEET FOR SLAB THICKNESS AND REINFORCEMENT)
2. SEE PLAN FOR TOP OF SLAB ELEVATIONS
3. DENOTES CONCRETE COLUMN/PIER/WALL. FOR COLUMN SCHEDULE AND DETAILS SEE **SXXXX** SERIES. FOR WALL DETAILS SEE **SXXXX** SERIES.
4. DENOTES LOAD BEARING CONCRETE MASONRY UNIT (CMU) WALL WITH **#X** AT **XX"** OC VERTICAL REINFORCEMENT, CENTERED IN FULLY-GROUTED CELL.
5. DENOTES NON-LOAD BEARING CONCRETE MASONRY UNIT (CMU) WALL WITH **#X** AT **XX"** OC VERTICAL REINFORCEMENT, CENTERED IN FULLY-GROUTED CELL.
6. DENOTES STEP IN TOP OF SLAB, **SEE SXXXX.**
7. SEE ARCHITECTURAL DRAWINGS FOR:
   - ALL SLOPED SLAB AREAS.
   - ALL DIMENSIONS NOT SHOWN. VERIFY ALL DIMENSIONS SHOWN IN THE STRUCTURAL DRAWINGS WITH ARCHITECTURAL DRAWINGS AND REPORT ANY DISCEPENCIES OR DIMENSIONS NOT SHOWN ON THE ARCHITECTURAL DRAWINGS FOR CLARIFICATION.
8. SEE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL FLOOR PENETRATIONS. SLEEVES, AND INSERTS REQUIRED TO BE CAST IN THE SLAB.
   - SLEEVES AND PENETRATIONS WITHIN 48 INCHES OF THE FACE OF ANY CONCRETE COLUMN (NOT SHOWN EXPLICITLY ON THE STRUCTURAL DRAWINGS) SHALL BE SUBMITTED FOR APPROVAL TO THE STRUCTURAL ENGINEER OF RECORD.
   - SLEEVES AND PENETRATIONS INTERRUPTING BANDED LINES OF TENDONS (NOT SHOWN EXPLICITLY ON THE STRUCTURAL DRAWINGS) SHALL BE SUBMITTED FOR APPROVAL TO THE STRUCTURAL ENGINEER OF RECORD.
   - SLEEVES AND PENETRATIONS GREATER THAN 12 INCHES IN LENGTH OR WIDTH (NOT SHOWN EXPLICITLY ON THE STRUCTURAL DRAWINGS) SHALL BE SUBMITTED FOR APPROVAL TO THE STRUCTURAL ENGINEER OF RECORD.
9. FOR REINFORCEMENT PLAN AND ADDITIONAL NOTES, SEE SHEET **SXXXX**.
10. FOR POST-TENSIONED LAYOUT PLAN AND ADDITIONAL NOTES, SEE SHEET **SXXXX**.
11. DENOTES SHOWER DEPRESSIONS.

NO.	DATE	DESCRIPTION
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	04/07/25	SCHEMATIC DESIGN

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THIRD FLOOR FRAMING PLAN

S-123

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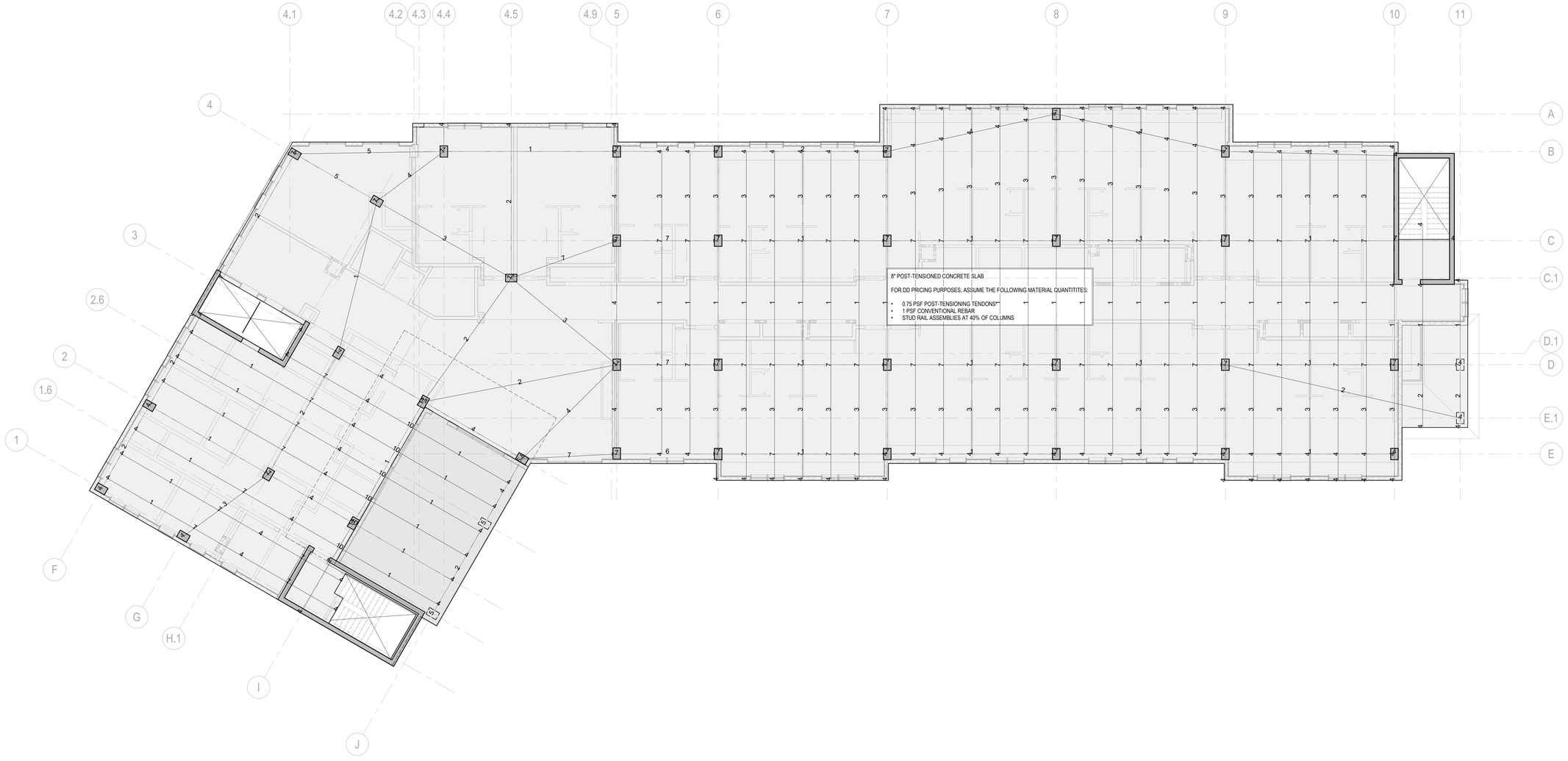

1 S-123-PT

THIRD FLOOR PT PLAN

1/8" = 1'-0"

N

POST-TENSIONED CONCRETE SLAB PLAN NOTES:

1. SEE FRAMING PLAN FOR SLAB GEOMETRY, REFERENCE ELEVATION, AND KEYED SECTIONS.
2. SEE POST-TENSIONED FRAMING GENERAL NOTES ON SHEET **SXXXX** AND DIVISION 03 SPECIFICATIONS FOR GENERAL REQUIREMENTS.
3. FOR TYPICAL POST-TENSIONED CONCRETE SECTIONS AND DETAILS, SEE **SXXXX**.
4. TENDON LAYOUT NOTES:
   - LINEWORK SHOWN FOR TENDON PATHS IS SCHEMATIC TO ILLUSTRATE DESIGN INTENT, BUT NOT MEANT TO INDICATE EXACT TENDON PATHS OR SPACING OF UNIFORMLY DISTRIBUTED TENDON BUNDLES.
   - A MINIMUM OF (2) TENDONS SHALL PASS THROUGH EACH COLUMN IN EACH DIRECTION, WITH TENDONS LOCATED INSIDE OF THE COLUMN VERTICAL REINFORCEMENT CAGE.
   - STRAIGHT LINE HORIZONTAL OFFETS SHOWN IN THE LAYOUT PLAN SHALL BE ACCOMPLISHED WITH SMOOTH HORIZONTAL CURVE/SWEEP PER DETAIL.
   - MAINTAIN CLEAR COVER BETWEEN EDGE-OF-SLAB (INCLUDING INTERIOR OPENINGS) AS INDICATED IN THE PROJECT SPECIFICATIONS AND TYPICAL DETAILS REFERENCED ABOVE.
5. TENDON DRAPE ELEVATION NOTES:
   - # DENOTES PT TENDON DRAPE ELEVATION IN INCHES, MEASURED FROM BOTTOM OF SLAB / FRAMING TO THE CENTER-OF-GRAVITY OF THE TENDONS/STRAND BUNDLE (CGS).
   - AT DEAD ENDS AND STRESSING ENDS, CGS SHALL BE LOCATED AT THE CENTROID OF THE FRAMING (MID-DEPTH FOR SLAB CONDITIONS), UNLESS OTHERWISE NOTED.
   - TENDON HIGH POINTS SHALL BE LOCATED AT SUPPORTS (COLUMNS, WALLS, BEAMS, BANDED TENDON LINES) AS INDICATED ABOVE.
   - TENDON LOW POINTS SHALL BE LOCATED AT MID-SPAN BETWEEN SUPPORTS, UNLESS NOTED OTHERWISE.
6. TENDON FORCE NOTES:
   - F = # K .DENOTES EFFECTIVE PRESTRESS FORCE, IN KIPS, WITHIN BANDED TENDON GROUP OR BEAM.

     BANDED TENDON GROUPS SHALL BE PLACED IN FLAT BUNDLED GROUPS OF NO MORE THAN (5) TENDONS PER BUNDLE, SPACED AT NO MORE THAN 12 INCHES ON CENTER, WITH TENDONS FLAT IN ONE LAYER. TOTAL QUANTITY OF BANDED TENDONS SHALL BE EQUALLY DISTRIBUTED EACH SIDE OF THE COLUMN, MINUS A MINIMUM OF (2) TENDONS PASSING THROUGH THE COLUMN REINFORCEMENT CAGE PER NOTE ABOVE.

   - F = # KLF .DENOTES EFFECTIVE PRESTRESS FORCE, IN KIPS PER LINEAR FOOT, IN UNIFORMLY DISTRIBUTED TENDONS.

     UNIFORMLY DISTRIBUTED TENDON BUNDLES SHALL BE PLACED IN FLAT BUNDLED GROUPS OF NO MORE THAN (5) TENDONS PER BUNDLE, SPACED AT NO MORE THAN 5'-0" ON CENTER, WITH TENDONS FLAT IN ONE LAYER.

NO.	DATE	DESCRIPTION
	08/22/25	DESIGN DEVELOPMENT

WATERFORD CAMPUS - ASSISTED LIVING MEMORY CARE BUILDING

601 UNIVERSE BLVD JUNO BEACH , FL 33048

THW DESIGN

2100 RiverEdge Parkway
Suite 900
Atlanta, GA 30328

2632 Broadway Street
Suite 201, South Building
San Antonio, TX 78215

PH: 770 916 2220
FAX: 770 916 2299

www.thw.com

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DESIGN DEVELOPMENT

Project No.: 2021009
Date: 08/22/2025

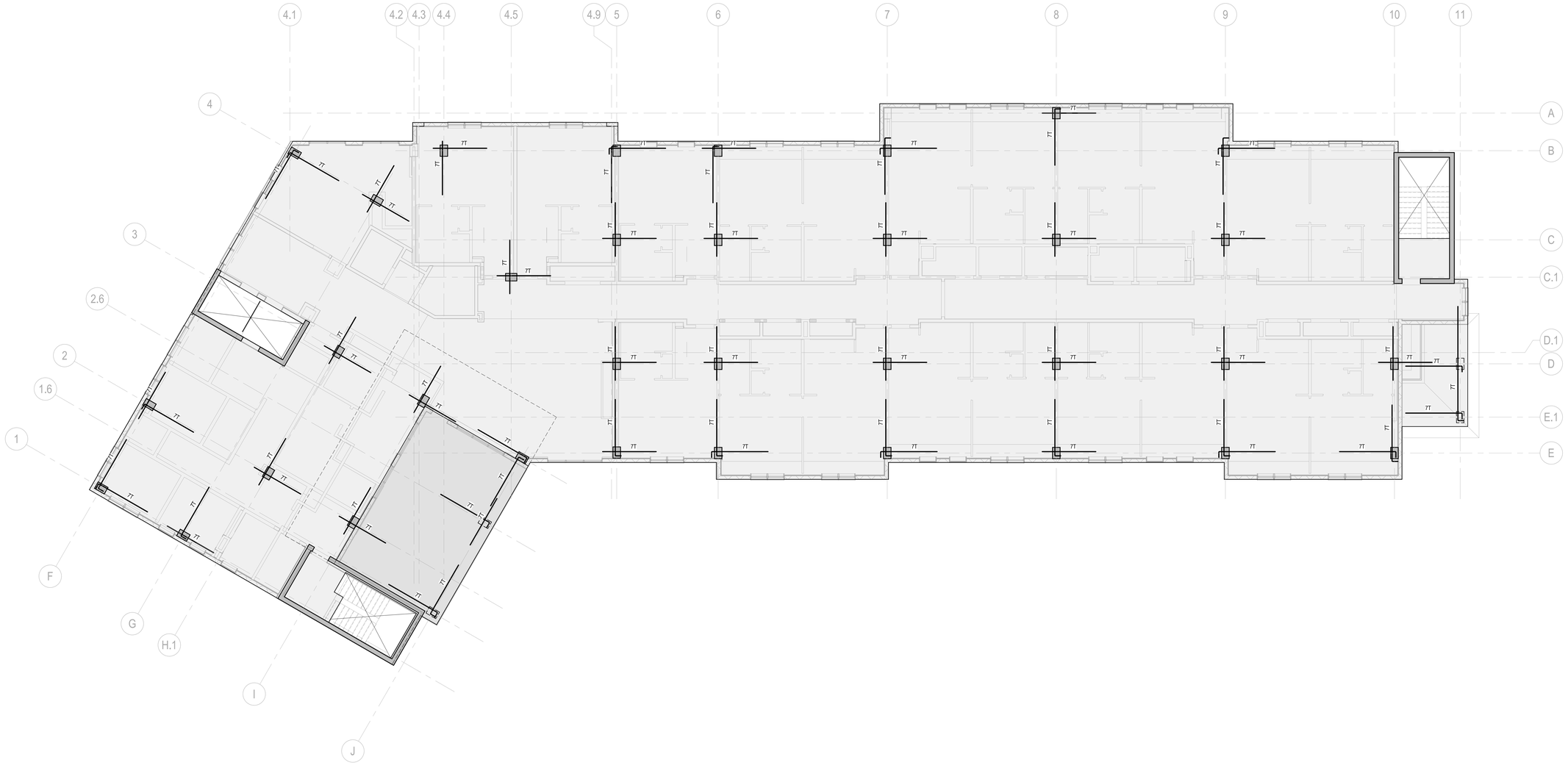
THIRD FLOOR PT PLAN

S-123-PT

JEZERINAC GROUP
1615 FORUM PLACE, SUITE 3A
WEST PALM BEACH, FL 33401
T 561.622.8585
www.jezerinacgroup.com
CERTIFICATE OF AUTHORIZATION FL #30785
JG Project #: 21.18.004

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE BUILDING CODES AND MATERIAL SPECIFICATIONS.

8/25/2025 2:19:21 AM

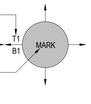


THIRD FLOOR REINFORCING PLAN

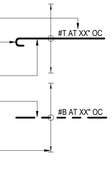
1 / S-123-R — 1/8" = 1'-0"

CONCRETE SLAB REINFORCEMENT PLAN NOTES:

1. FOR TYPICAL SLAB REINFORCEMENT DETAILS, SEE **SXXXX**.
2. PROVIDE CONTINUOUS REINFORCEMENT AROUND PERIMETER OF SLAB AND AT ALL INTERIOR SLAB EDGES (SEE **SXXXX**). SEE SXXXX FOR CONCEPTUAL LAYOUT (NOT INDICATIVE OF PROJECT SPECIFIC GEOMETRY) AND SPLICE/DEVELOPMENT REQUIREMENTS.
3. SLAB REINFORCEMENT SHALL BE #5 UNLESS NOTED OTHERWISE.
4. ##SR-#(#-#) :DENOTES SHEAR STUD RAILS (SEE SCHEDULE ON THIS SHEET AND **SXXXX**).
5. SLAB REINFORCEMENT SYMBOLS AND NOMENCLATURE:
   - A. MAT REINFORCEMENT (SEE SCHEDULE).
     - PLACEMENT PRIORITY (SEE **SXXXX**)
     - ARROWS DENOTE EXTENT (SINGLE & DOUBLE ARROWS AS DEFINED IN NOTE 5.B)
     - MAT REINFORCEMENT MARK (SEE SCHEDULE ON THIS SHEET)



   - B. ISOLATED/DISTRIBUTED REINFORCEMENT (SEE **SXXXX**).
     - BAR SPACING OVER WIDTH OR QUANTITY SHOWN
     - ACI STANDARD 180° HOOK (ALL TOP BARS HOOKED AT EDGE-OF-SLAB EVEN WHEN NOT INDICATED)
     - SOLID LINE DENOTES TOP BARS (OR TOP & BOTTOM)
     - DASHED LINE DENOTES BOTTOM BARS
     - SINGLE ARROW DENOTES EXTENT OF BAR PLACEMENT. DOUBLE ARROW DENOTES EXTENT TO CONTINUE UNTIL EDGE-OF-SLAB OR END-OF-ELEMENT (AS APPLICABLE)



   - C. TYPICAL NOMENCLATURE (SEE **SXXXX**).
   - D. REINFORCEMENT AT COLUMNS (SEE **SXXXX**).

N

NO.	DATE	DESCRIPTION
	08/22/25	DESIGN DEVELOPMENT

WATERFORD CAMPUS - ASSISTED LIVING MEMORY CARE BUILDING

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Project No.: 2021009
Date: 08/22/2025

THIRD FLOOR REINFORCING PLAN

S-123-R

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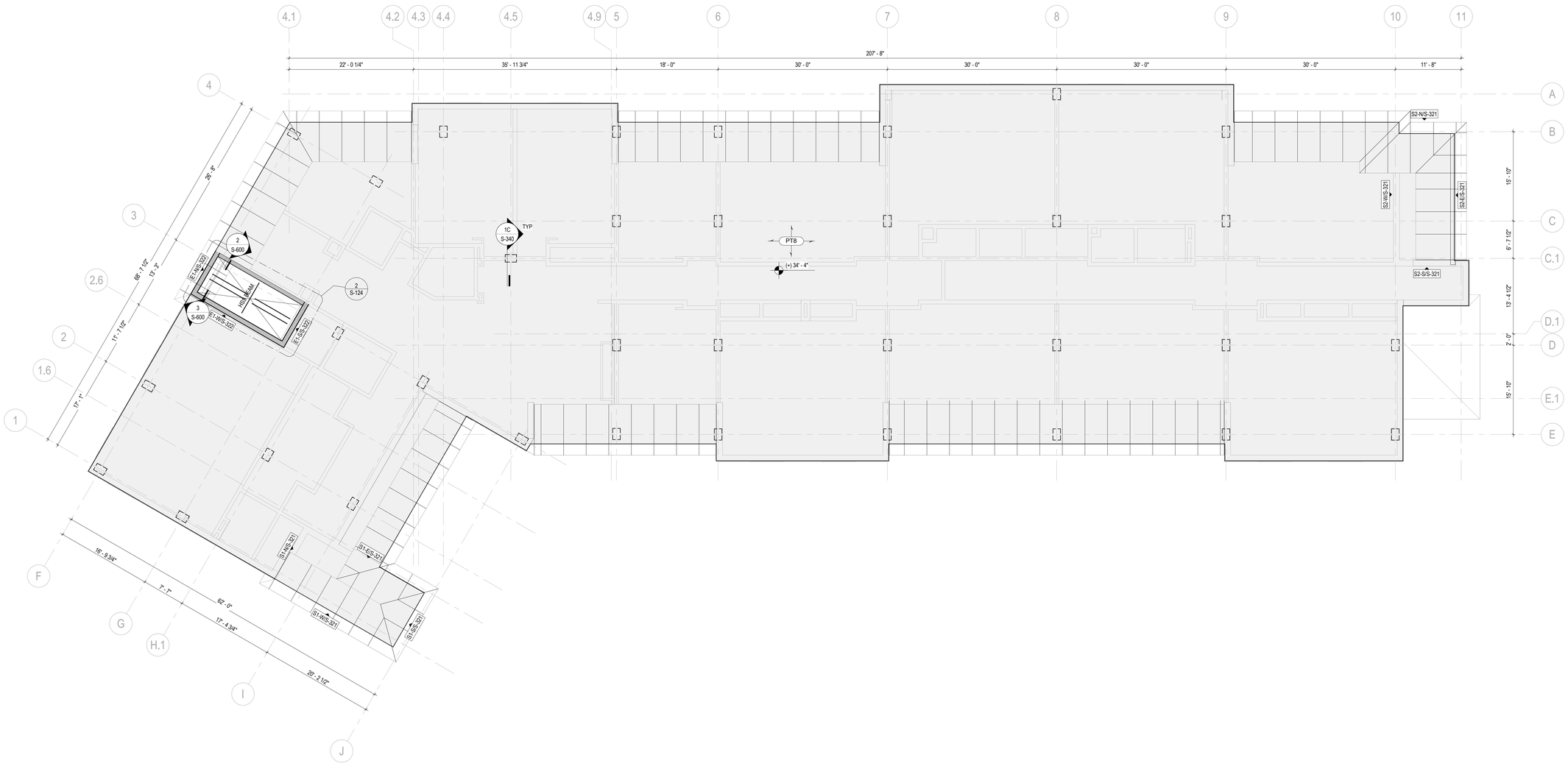
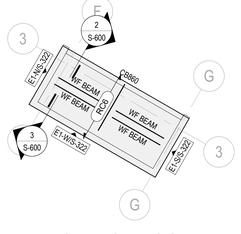


1 S-124 ROOF FRAMING PLAN

1/8" = 1'-0"

CONCRETE FRAMING PLAN NOTES:

1. CONCRETE SLAB TAG:
   - ARROWS DENOTE SLAB SPAN DIRECTION
   - CS## — CS##: DENOTES SLAB MARK (SEE SCHEDULE ON THIS SHEET FOR SLAB THICKNESS AND REINFORCEMENT)
2. SEE PLAN FOR TOP OF SLAB ELEVATIONS.
3. DENOTES CONCRETE COLUMN/PIER/WALL. FOR COLUMN SCHEDULE AND DETAILS SEE **SXXXX** SERIES. FOR WALL DETAILS SEE **SXXXX** SERIES.
4. DENOTES LOAD BEARING CONCRETE MASONRY UNIT (CMU) WALL WITH **#X** AT **XX"** OC VERTICAL REINFORCEMENT, CENTERED IN FULLY-GROUTED CELL.
5. DENOTES NON-LOAD BEARING CONCRETE MASONRY UNIT (CMU) WALL WITH **#X** AT **XX"** OC VERTICAL REINFORCEMENT, CENTERED IN FULLY-GROUTED CELL.
6. DENOTES STEP IN TOP OF SLAB, **SEE SXXXX.**
7. SEE ARCHITECTURAL DRAWINGS FOR:
   - ALL SLOPED SLAB AREAS.
   - ALL DIMENSIONS NOT SHOWN. VERIFY ALL DIMENSIONS SHOWN IN THE STRUCTURAL DRAWINGS WITH ARCHITECTURAL DRAWINGS AND REPORT ANY DISCEPENCIES OR DIMENSIONS NOT SHOWN ON THE ARCHITECTURAL DRAWINGS FOR CLARIFICATION.
8. SEE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL FLOOR PENETRATIONS. SLEEVES, AND INSERTS REQUIRED TO BE CAST IN THE SLAB.
   - SLEEVES AND PENETRATIONS WITHIN 48 INCHES OF THE FACE OF ANY CONCRETE COLUMN (NOT SHOWN EXPLICITLY ON THE STRUCTURAL DRAWINGS) SHALL BE SUBMITTED FOR APPROVAL TO THE STRUCTURAL ENGINEER OF RECORD.
   - SLEEVES AND PENETRATIONS INTERRUPTING BANDED LINES OF TENDONS (NOT SHOWN EXPLICITLY ON THE STRUCTURAL DRAWINGS) SHALL BE SUBMITTED FOR APPROVAL TO THE STRUCTURAL ENGINEER OF RECORD.
   - SLEEVES AND PENETRATIONS GREATER THAN 12 INCHES IN LENGTH OR WIDTH (NOT SHOWN EXPLICITLY ON THE STRUCTURAL DRAWINGS) SHALL BE SUBMITTED FOR APPROVAL TO THE STRUCTURAL ENGINEER OF RECORD.
9. FOR REINFORCEMENT PLAN AND ADDITIONAL NOTES, SEE SHEET **SXXXX**.
10. FOR POST-TENSIONED LAYOUT PLAN AND ADDITIONAL NOTES, SEE SHEET **SXXXX**.
11. DENOTES SHOWER DEPRESSIONS.



2 S-124 ELEVATOR HIGH ROOF PLAN

1/8" = 1'-0"

N

NO.	DATE	DESCRIPTION
	08/22/25	DESIGN DEVELOPMENT
	04/07/25	SCHEMATIC DESIGN

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Project No.: 2021009
Date: 08/22/2025

ROOF FRAMING PLAN

S-124

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CERTIFICATE OF AUTHORIZATION FL #30785
JG Project #: 21.18.004

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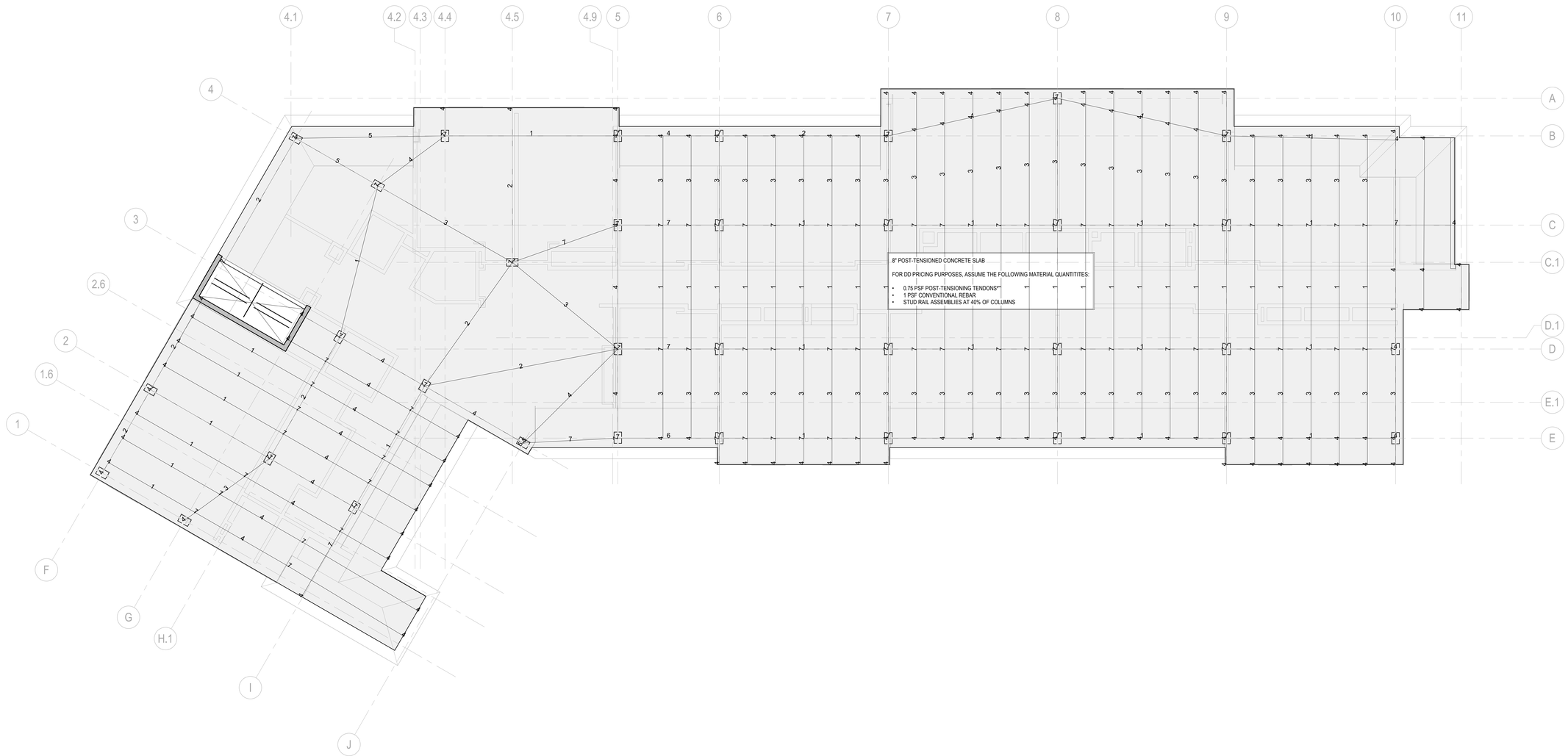

1
S-124-PT

ROOF PT PLAN

1/8" = 1'-0"

N

POST-TENSIONED CONCRETE SLAB PLAN NOTES:

1. SEE FRAMING PLAN FOR SLAB GEOMETRY, REFERENCE ELEVATION, AND KEYED SECTIONS.
2. SEE POST-TENSIONED FRAMING GENERAL NOTES ON SHEET **SXXXX** AND DIVISION 03 SPECIFICATIONS FOR GENERAL REQUIREMENTS.
3. FOR TYPICAL POST-TENSIONED CONCRETE SECTIONS AND DETAILS, SEE **SXXXX**.
4. TENDON LAYOUT NOTES:
   - LINEWORK SHOWN FOR TENDON PATHS IS SCHEMATIC TO ILLUSTRATE DESIGN INTENT, BUT NOT MEANT TO INDICATE EXACT TENDON PATHS OR SPACING OF UNIFORMLY DISTRIBUTED TENDON BUNDLES.
   - A MINIMUM OF (2) TENDONS SHALL PASS THROUGH EACH COLUMN IN EACH DIRECTION, WITH TENDONS LOCATED INSIDE OF THE COLUMN VERTICAL REINFORCEMENT CAGE.
   - STRAIGHT LINE HORIZONTAL OFFETS SHOWN IN THE LAYOUT PLAN SHALL BE ACCOMPLISHED WITH SMOOTH HORIZONTAL CURVE/SWEEP PER DETAIL.
   - MAINTAIN CLEAR COVER BETWEEN EDGE-OF-SLAB (INCLUDING INTERIOR OPENINGS) AS INDICATED IN THE PROJECT SPECIFICATIONS AND TYPICAL DETAILS REFERENCED ABOVE.
5. TENDON DRAPE ELEVATION NOTES:
   - # :DENOTES PT TENDON DRAPE ELEVATION IN INCHES, MEASURED FROM BOTTOM OF SLAB / FRAMING TO THE CENTER-OF-GRAVITY OF THE TENDONS/STRAND BUNDLE (CGS).
   - AT DEAD ENDS AND STRESSING ENDS, CGS SHALL BE LOCATED AT THE CENTROID OF THE FRAMING (MID-DEPTH FOR SLAB CONDITIONS), UNLESS OTHERWISE NOTED.
   - TENDON HIGH POINTS SHALL BE LOCATED AT SUPPORTS (COLUMNS, WALLS, BEAMS, BANDED TENDON LINES) AS INDICATED ABOVE.
   - TENDON LOW POINTS SHALL BE LOCATED AT MID-SPAN BETWEEN SUPPORTS, UNLESS NOTED OTHERWISE.
6. TENDON FORCE NOTES:
   - F = # K :DENOTES EFFECTIVE PRESTRESS FORCE, IN KIPS, WITHIN BANDED TENDON GROUP OR BEAM.

     BANDED TENDON GROUPS SHALL BE PLACED IN FLAT BUNDLED GROUPS OF NO MORE THAN (5) TENDONS PER BUNDLE, SPACED AT NO MORE THAN 12 INCHES ON CENTER, WITH TENDONS FLAT IN ONE LAYER. TOTAL QUANTITY OF BANDED TENDONS SHALL BE EQUALLY DISTRIBUTED EACH SIDE OF THE COLUMN, MINUS A MINIMUM OF (2) TENDONS PASSING THROUGH THE COLUMN REINFORCEMENT CAGE PER NOTE ABOVE.

   - F = # KLF :DENOTES EFFECTIVE PRESTRESS FORCE, IN KIPS PER LINEAR FOOT, IN UNIFORMLY DISTRIBUTED TENDONS.

     UNIFORMLY DISTRIBUTED TENDON BUNDLES SHALL BE PLACED IN FLAT BUNDLED GROUPS OF NO MORE THAN (5) TENDONS PER BUNDLE, SPACED AT NO MORE THAN 5'-0" ON CENTER, WITH TENDONS FLAT IN ONE LAYER.

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Project No.: 2021009
Date: 08/22/2025

ROOF PT PLAN

S-124-PT

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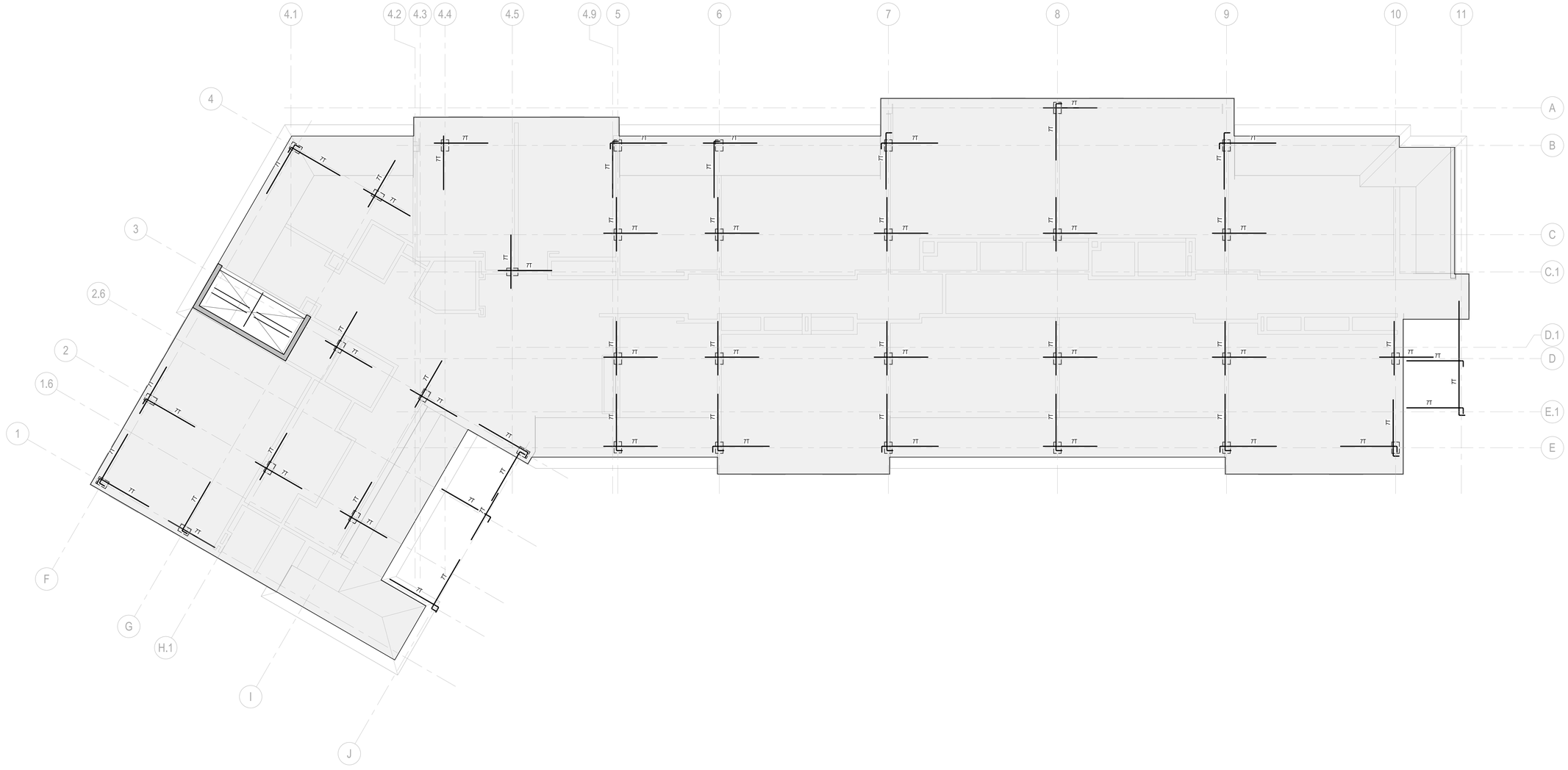
8/25/2025 2:19:25 AM



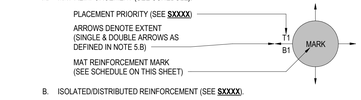
1 S-124-R

ROOF REINFORCING PLAN

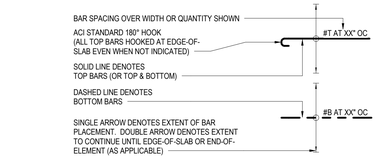
1/8" = 1'-0"

CONCRETE SLAB REINFORCEMENT PLAN NOTES:

1. FOR TYPICAL SLAB REINFORCEMENT DETAILS, SEE **SXXXX**.
2. PROVIDE CONTINUOUS REINFORCEMENT AROUND PERIMETER OF SLAB AND AT ALL INTERIOR SLAB EDGES (SEE **SXXXX**). SEE SXXXX FOR CONCEPTUAL LAYOUT (NOT INDICATIVE OF PROJECT SPECIFIC GEOMETRY) AND SPLICE/DEVELOPMENT REQUIREMENTS.
3. SLAB REINFORCEMENT SHALL BE #5 UNLESS NOTED OTHERWISE.
4. ##SR-#(#-#) :DENOTES SHEAR STUD RAILS (SEE SCHEDULE ON THIS SHEET AND **SXXXX**).
5. SLAB REINFORCEMENT SYMBOLS AND NOMENCLATURE:
   - A. MAT REINFORCEMENT (SEE SCHEDULE).
     - PLACEMENT PRIORITY (SEE **SXXXX**)
     - ARROWS DENOTE EXTENT (SINGLE & DOUBLE ARROWS AS DEFINED IN NOTE 5.B)
     - MAT REINFORCEMENT MARK (SEE SCHEDULE ON THIS SHEET)



   - B. ISOLATED/DISTRIBUTED REINFORCEMENT (SEE **SXXXX**).
     - BAR SPACING OVER WIDTH OR QUANTITY SHOWN
     - ACI STANDARD 180° HOOK (ALL TOP BARS HOOKED AT EDGE-OF-SLAB EVEN WHEN NOT INDICATED)
     - SOLID LINE DENOTES TOP BARS (OR TOP & BOTTOM)
     - DASHED LINE DENOTES BOTTOM BARS
     - SINGLE ARROW DENOTES EXTENT OF BAR PLACEMENT. DOUBLE ARROW DENOTES EXTENT TO CONTINUE UNTIL EDGE-OF-SLAB OR END-OF-ELEMENT (AS APPLICABLE)



   - C. TYPICAL NOMENCLATURE (SEE **SXXXX**).
   - D. REINFORCEMENT AT COLUMNS (SEE **SXXXX**).

N

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ROOF REINFORCING PLAN

S-124-R

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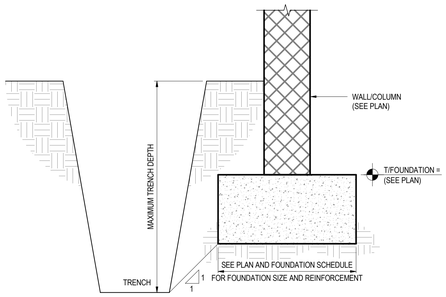
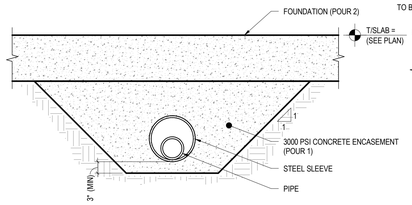


1 S-300 FOUNDATION ADJACENT TO TRENCH

3/4" = 1'-0"

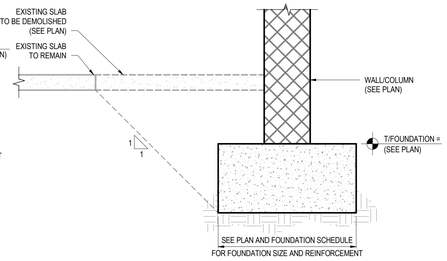


NOTES:

1. PIPE SLEEVE SHALL BE (2) PIPE DIAMETERS LARGER THAN CARRIER PIPE.
2. SLEEVE SHALL BE PITCHED TO MATCH CARRIER PIPE SLOPE.

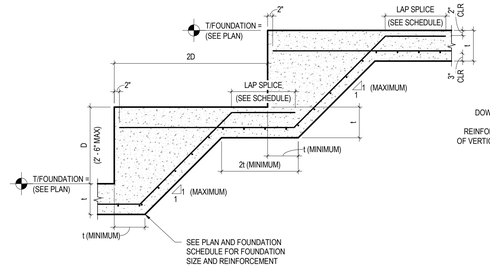
2 S-300 PIPE UNDER FOUNDATION

3/4" = 1'-0"



3 S-300 FOUNDATION ADJACENT TO EXISTING SLAB

3/4" = 1'-0"

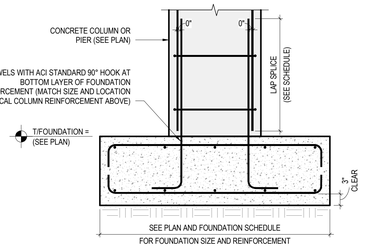


NOTES:

1. t = FOUNDATION THICKNESS (SEE PLAN).
2. D = DEPTH OF FOOTING STEP (SEE PLAN).
3. Ld = DEVELOPMENT LENGTH OF BAR (SEE SCHEDULE).

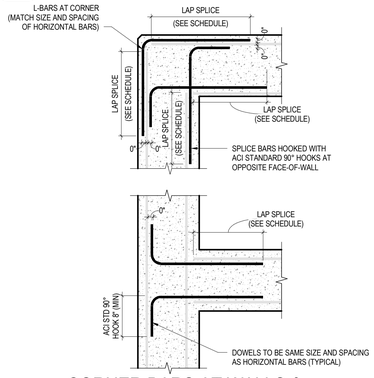
4 S-300 STEPPED CONTINUOUS WALL FOUNDATION

1/2" = 1'-0"



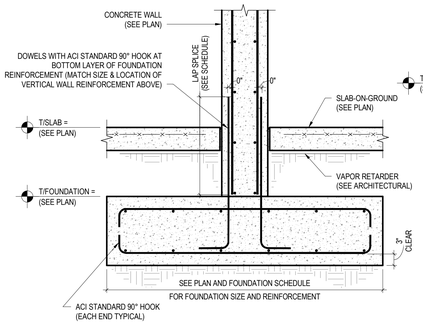
5 S-300 CONCRETE COLUMN/PIER FOUNDATION

3/4" = 1'-0"



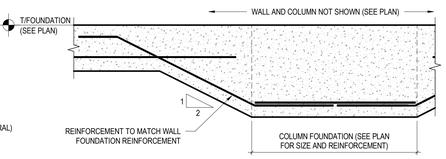
6 S-300 CORNER BARS AT WALLS & FOUNDATIONS

1" = 1'-0"



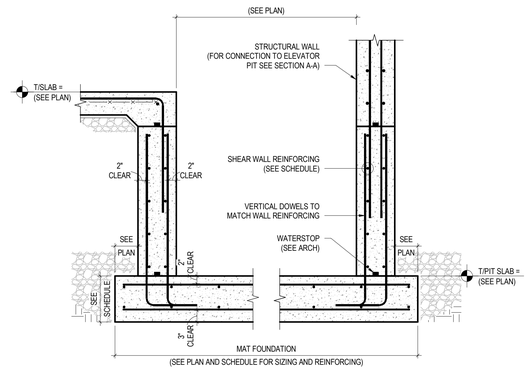
7 S-300 FOUNDATION AT CONCRETE WALL

3/4" = 1'-0"



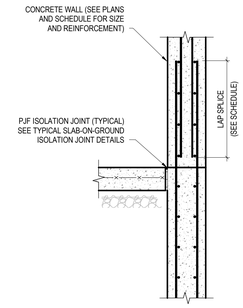
8 S-300 WALL FOUNDATION TO COLUMN FOUNDATION TRANSITION

3/4" = 1'-0"

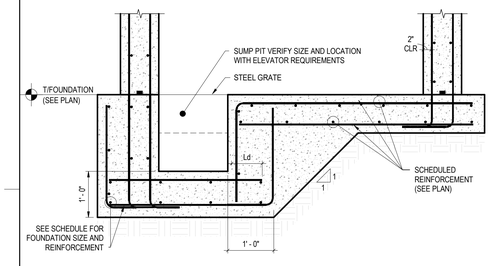


9 S-300 ELEVATOR PIT

3/4" = 1'-0"



SECTION A-A:
CAST-IN-PLACE CONCRETE



NOTES:

1. GC SHALL CONFIRM ALL DIMENSIONS WITH ELEVATOR MANUFACTURER PRIOR TO CONSTRUCTION.

10 S-300 ELEVATOR SUMP PIT

3/4" = 1'-0"

NO.	DATE	DESCRIPTION
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Project No.: 2021009
Date: 08/22/2025

TYPICAL FOUNDATION DETAILS

S-300

JEZERINAC
GROUP

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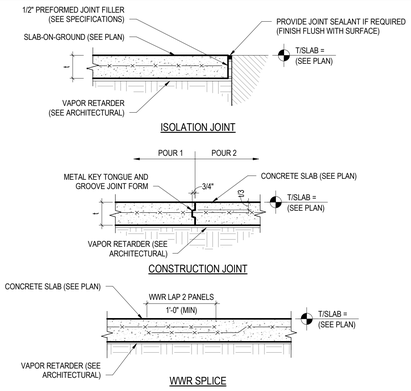
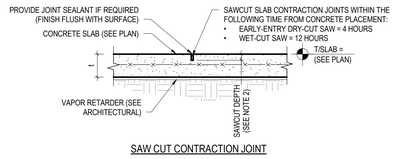
CERTIFICATE OF AUTHORIZATION FL #30785
JG Project #: 21.18.004

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE BUILDING CODES AND MATERIAL SPECIFICATIONS.



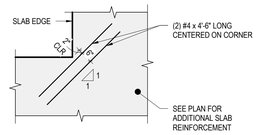


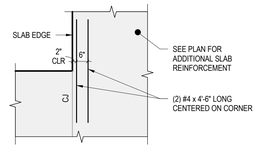
NOTES:

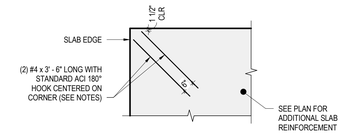
1. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR SEALANT REQUIREMENTS.
2. SAW CUT DEPTH SHALL BE AS FOLLOWS:
   - FIBER REINFORCED SLABS = T/3
   - ALL OTHER SLABS USING CONVENTIONAL WET-CUT SAW = T/4
   - ALL OTHER SLABS USING EARLY-ENTRY DRY-CUT SAW = T/5
3. SAW CUT JOINTS SHALL BE LOCATED AS FOLLOWS:
   - AT COLUMN LINES
   - BETWEEN COLUMNS LINES AT A SPACING NOT TO EXCEED 36xt (WHERE T DENOTES THE SLAB THICKNESS)
   - ADDITIONAL JOINTS AS REQUIRED TO MAINTAIN 1:1.5 MAXIMUM ASPECT RATIO
   - AT PRACTICAL, AT RETURN CORNERS, SLAB DEPRESSION CORNERS/EDGES, AND WALL ENDS/OPENINGS
4. ADDITIONAL SLAB REINFORCEMENT IS REQUIRED DEPENDENT ON JOINT LAYOUT PER TYIPCAL DETAILS ON THIS SHEET.

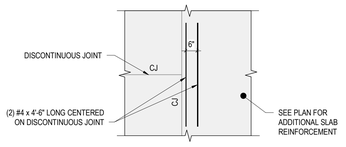
1 S-310 SLAB-ON-GROUND JOINT DETAILS

3/4" = 1'-0"







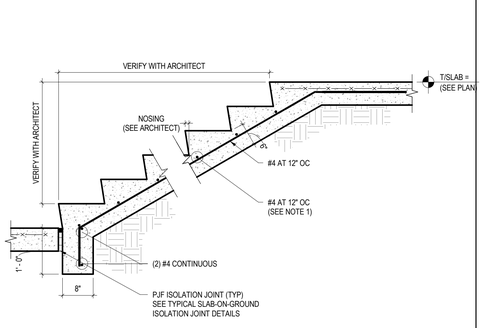


NOTES:

1. INSTALL ADDITIONAL REINFORCEMENT SHOWN 1-1/2" CLEAR FROM TOP-OF-SLAB.
2. NO ADDITIONAL REINFORCEMENT IS REQUIRED WHEN SAWCUT CONTRACTION JOINTS ALIGN WITH BOTH EDGES OF RETURN CORNER.

2 S-310 ADDITIONAL SLAB REINFORCEMENT AT CORNERS

3/8" = 1'-0"

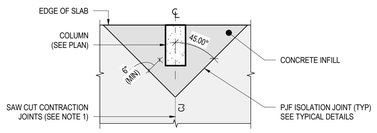


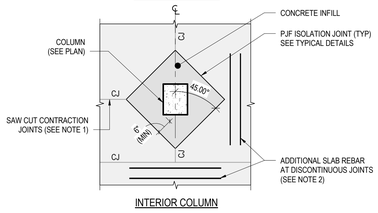
NOTES:

1. FOR STAIRS WIDER THAN 10'-0" INCREASE STEEL REINFORCEMENT TO #5 AT 6" OC.

3 S-310 CONCRETE STAIRS-ON-GROUND

3/4" = 1'-0"



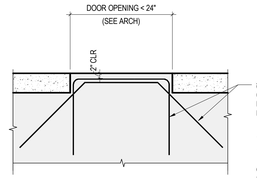


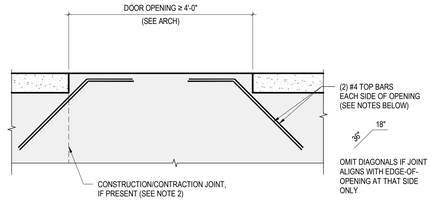
NOTES:

1. ALIGN SAW CUT CONTRACTION JOINTS WITH CORNERS OF DIAMOND BOXOUTS AT COLUMNS. SEE TYPICAL SLAB-ON-GROUND DETAILS FOR JOINT SPACING REQUIREMENTS BETWEEN COLUMNS.
2. WHEN CONTRACTION JOINTS DO NOT ALIGN WITH CORNERS OF DIAMOND BOXOUT, PROVIDE ADDITIONAL SLAB REINFORCEMENT SIMILAR TO DISCONTINUOUS JOINTS.
3. CONCRETE INFILL BETWEEN COLUMN AND ISOLATION JOINT SHALL BE POURED AFTER ALL THE SLABS SUPPORTED BY THE COLUMN HAVE BEEN POURED.
4. AS A GC OPTION, A PINWHEEL LAYOUT OR PJF DIRECT APPLIED TO FACE-OF-COLUMN OPTION MAY BE ACCEPTABLE IF THE SLAB-ON-GROUND IS POURED AFTER THE COLUMNS ARE INSTALLED. NOTIFY DESIGN TEAM OF DESIRE TO USE ALTERNATE DETAIL FOR FURTHER CONSIDERATION.
5. DETAIL SCHEMATICALLY SHOWS CONCRETE COLUMNS/PIERS. SIMILAR BOXOUTS ARE REQUIRED AT STEEL COLUMNS, WHERE THE DIMENSION OF THE DIAMOND BOXOUT SHALL BE COORDINATED WITH THE REQUIRED LAYBACK FOR SOIL STABILITY WHILE ALLOWING FOR BASE PLATE INSTALLATION ON ANCHOR RODS WITH ADEQUATE CLEARANCE FOR GROUT PLACEMENT BELOW THE BASE PLATE.

4 S-310 SLAB-ON-GROUND ISOLATION/CONTRACTION JOINT

1/2" = 1'-0"



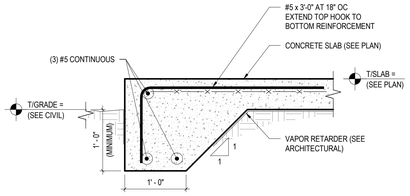


NOTES:

1. INSTALL REINFORCEMENT SHOWN LOCATED AT A DEPTH 1-1/2" CLEAR FROM TOP-OF-SLAB.
2. REINFORCEMENT SHALL NOT CROSS CONSTRUCTION JOINT OR SAWCUT CONTRACTOR JOINTS THAT ALLOW FOR MOVEMENT. I.E., DIAGONAL CORNER REINFORCEMENT SHALL BE OMITTED FROM ONE SIDE WHEN A PERPENDICULAR JOINT ALIGNS WITH EDGE-OF-OPENING AT THAT SIDE.

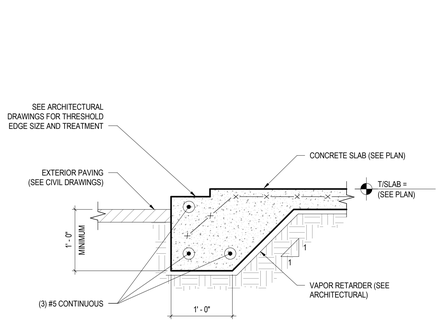
5 S-310 SLAB REINFORCEMENT AT DOOR OPENINGS

1/2" = 1'-0"



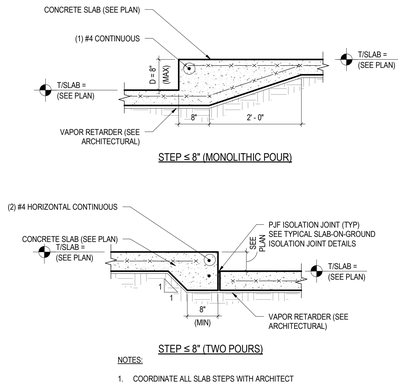
6 S-310 THICKENED EDGE-OF-SLAB

1" = 1'-0"



7 S-310 THICKENED EDGE-OF-SLAB AT OPENING

1" = 1'-0"

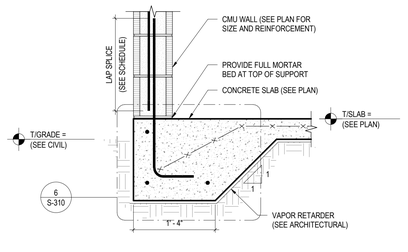


NOTES:

1. COORDINATE ALL SLAB STEPS WITH ARCHITECT

8 S-310 SLAB STEP DETAILS

3/4" = 1'-0"



9 S-310 CMU WALL AT THICKENED SLAB EDGE

1" = 1'-0"

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DESIGN DEVELOPMENT

Project No.: 2021009
Date: 08/22/2025

TYPICAL SLAB-ON-GROUND DETAILS

S-310

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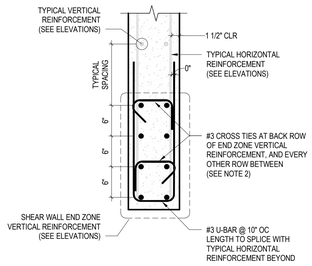


ENDS OF WALLS & AT OPENINGS
(E-TYPE MARK ON ELEVATIONS)

CORNER CONDITION
(L-TYPE MARK ON ELEVATIONS)

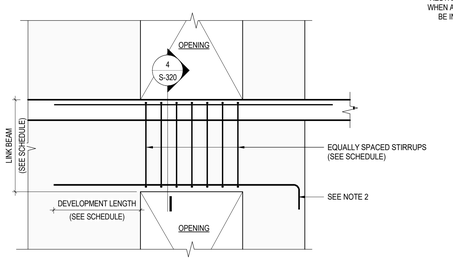
INTERSECTION CONDITION
(T-TYPE MARK ON ELEVATIONS)

NOTES:

1. BAR LAPS SHOWN OFFSET FOR CLARITY.
   - HORIZONTAL REINFORCEMENT SHALL BE LAPPED WITH BARS STACKED VERTICALLY
   - VERTICAL REINFORCEMENT SHALL BE LAPPED WITH BARS ALIGNED PARALLEL TO FACE-OF-WALL (OFFSET BENDS SHALL NOT BE PERMITTED)
2. CROSS TIE BAR ORIENTATION SHALL BE ALTERNATED AT EACH TIE IN BOTH THE HORIZONTAL AND VERTICAL DIRECTION
3. BAR COUNT INDICATED IN SHEAR WALL VERTICAL REINFORCEMENT SCHEDULE IS THE TOTAL QUANTITY OF BARS REQUIRED, DISTRIBUTED HALF EACH FACE AND THROUGHOUT CORNER/INTERSECTION CONDITIONS AS INDICATED IN DIAGRAMS BELOW.

1 S-320 SHEAR WALL END ZONE AND CORNER/INTERSECTION REBAR LAYOUTS

1" = 1'-0"



NOTES:

1. SHEAR WALL REINFORCEMENT IS NOT SHOWN IN THIS ELEVATION FOR CLARITY
2. WHEN LOCATED AT/NEAR A CORNER OR END-OF-WALL, LINK BEAM LONGITUDINAL REINFORCEMENT SHALL BE TERMINATED WITH AN ACI STANDARD 90° HOOK. GC OPTION TO USE A HEADED TERMINATOR IN LIEU OF HOOK - SUBMIT PRODUCT DATA FOR SER REVIEW. TOP REINFORCING SHALL CONTINUE INTO SLAB BEYOND WHEN GEOMETRY ALLOWS.

3 S-320 SHEAR WALL LINK BEAM ELEVATION

1/2" = 1'-0"

NOTES:

1. CLOSED STIRRUP MAY BE EITHER ONE CONTINUOUS BAR WITH A 135 HOOK ON EITHER END AROUND THE SAME LONGITUDINAL BAR, OR A U SHAPED STIRRUP WITH 135 DEGREE HOOKS AT EITHER END AND AN OPEN STIRRUP AS A CAP WITH A 135 DEGREE HOOK AT ONE END AND A 90 DEGREE HOOK AT THE OTHER (ACI 318 STANDARD OPTIONS FOR DETAILING OF CLOSED STIRRUP).
2. CONCRETE STRENGTH OF THE COUPLING BEAM SHALL MATCH THE SPECIFIED STRENGTH OF THE WALL BELOW, INCLUDING THE SLAB DEPTH.

4 S-320 LINK BEAM - SECTION

1" = 1'-0"

TYPICAL STACKED OPENINGS

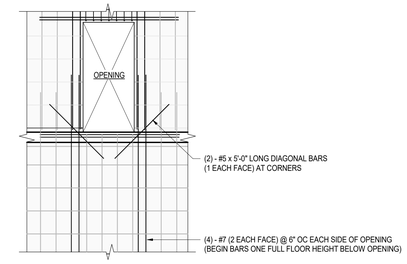
DISCONTINUOUS OPENING ALIGNMENT - NO OPENING ABOVE (UNLESS NOTED OTHERWISE ON SHEAR WALL ELEVATIONS)

NOTES:

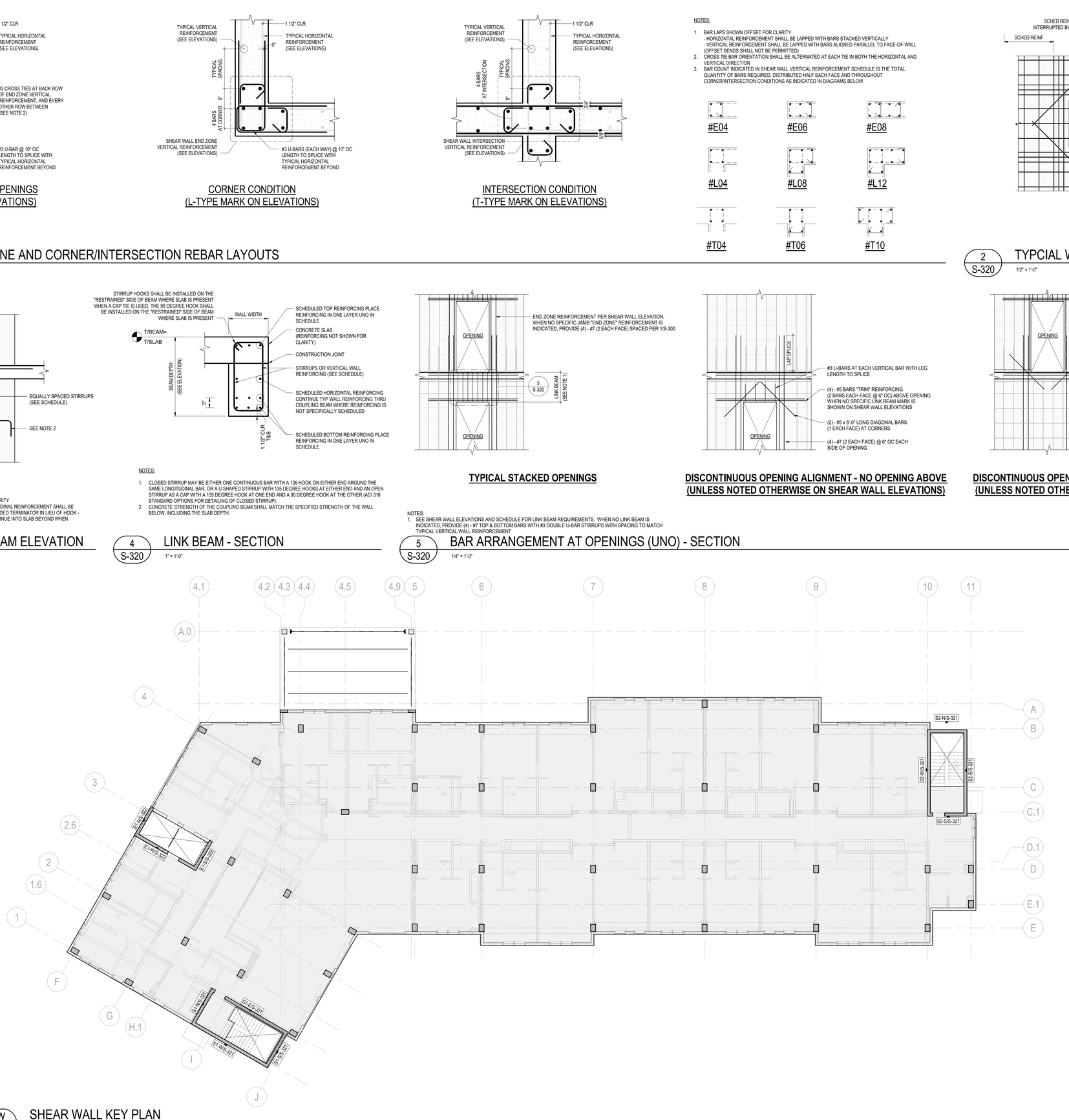
1. SEE SHEAR WALL ELEVATIONS AND SCHEDULE FOR LINK BEAM REQUIREMENTS. WHEN NO LINK BEAM IS INDICATED, PROVIDE (4) - #7 TOP & BOTTOM BARS WITH #3 DOUBLE U-BAR STIRRUPS WITH SPACING TO MATCH TYPICAL VERTICAL WALL REINFORCEMENT

5 S-320 BAR ARRANGEMENT AT OPENINGS (UNO) - SECTION

1/4" = 1'-0"

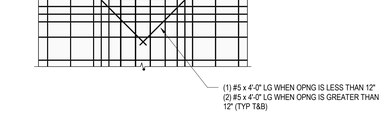


DISCONTINUOUS OPENING ALIGNMENT - NO OPENING BELOW (UNLESS NOTED OTHERWISE ON SHEAR WALL ELEVATIONS)



SW S-320 SHEAR WALL KEY PLAN

3/32" = 1'-0"



2 S-320 TYPCIAL WALL OPENING

1/2" = 1'-0"

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Project No.: 2021009
Date: 08/22/2025

TYPICAL CONCRETE SHEAR WALLS DETAILS

S-320

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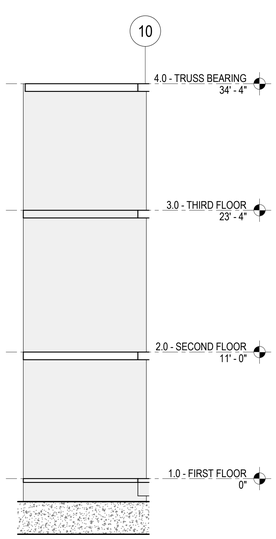
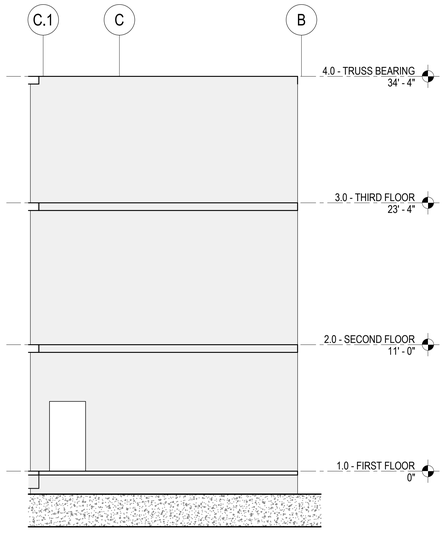


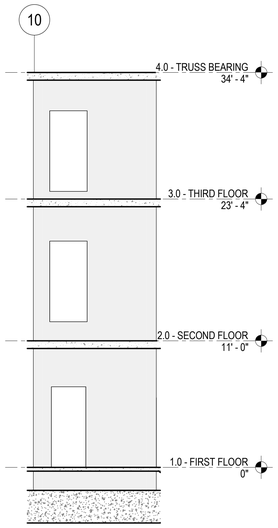
S2-N / S-321 **STAIR 2 NORTH WALL ELEVATION**

3/16" = 1'-0"



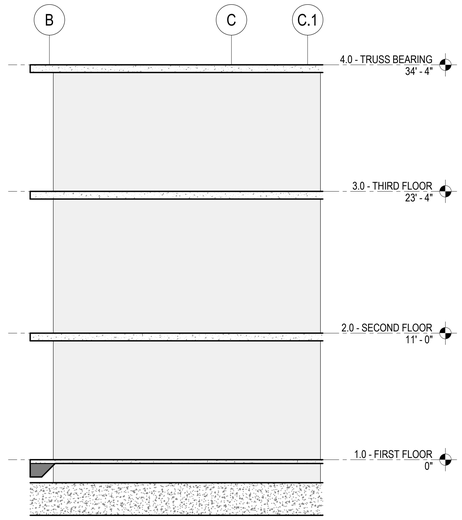
S2-E / S-321 **STAIR 2 EAST WALL ELEVATION**

3/16" = 1'-0"



S2-S / S-321 **STAIR 2 SOUTH WALL ELEVATION**

3/16" = 1'-0"



S2-W / S-321 **STAIR 2 WEST WALL ELEVATION**

3/16" = 1'-0"

SHEAR WALL ELEVATION NOTES:

1. DENOTES 10" WALL THICKNESS
   DENOTES 12 WALL THICKNESS
2. SEE ARCHITECTURAL DRAWING FOR ROUGH OPENING DIMENSIONS
3. SHEAR WALL REINFORCEMENT TAGS.
   - #V##: DENOTES TYPICAL VERTICAL REINFORCEMENT (SEE SCHEDULE ON THIS SHEET)
   - #E##: DENOTES VERTICAL END ZONE REINFORCEMENT (SEE SCHEDULE ON THIS SHEET)
   - #H##: DENOTES TYPICAL HORIZOTAL REINFORCEMENT (SH12 UNLESS NOTED OTHERWISE - (SEE SCHEDULE ON THIS SHEET)
   - CB##: DENOTES COUPLING BEA, MARK (SEE SCHEDULE ON THIS SHEET)
4. WHERE NOT SPECIACLLU NOTED WITH #E## OR CB## REINFORCING, PROVIDE (4)-#7 BARS AT ALL EDGES OF OPENINGS AND ENDS OF WALLS WITH (2) BARS EACH FACE SPACED AT 6" OC. BARS SHALL BE FULLY DEVELOPED FROM THE EDGE OF THE OPENING AND SHALL BE HOOKED AT WALL ENDS WHERE REQUIRED.
5. ALL BARS SHALL BE FULLY LAPPED, INCLUDING DOWELS INTO FOUNDATION ELEMENTS.
6. SEE DETAILS ON S-330.
7. GC SHALL VERIFY ALL DIMENSIONS AND LOCATIONS OF WALLS AND OPENINGS WITH ARCHITECTURAL DRAWINGS. NOTIFY DESIGN TEA, OF DISCREPANCIES.

TYPICAL VERTICAL REINFORCING

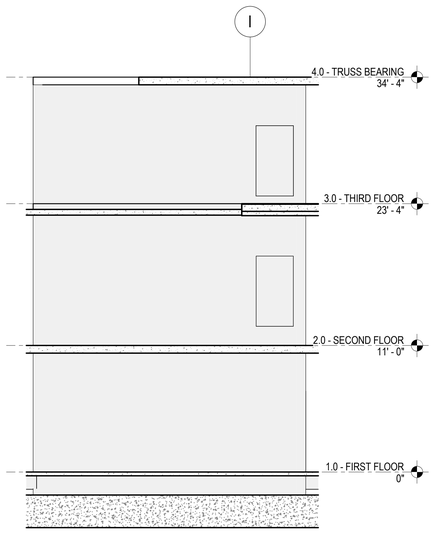
MARK	BAR SIZE	BAR SPACING	COMMENTS

VERTICAL CORNER REINFORCING

MARK	BAR SIZE	# BARS (1/2 EF)	COMMENTS

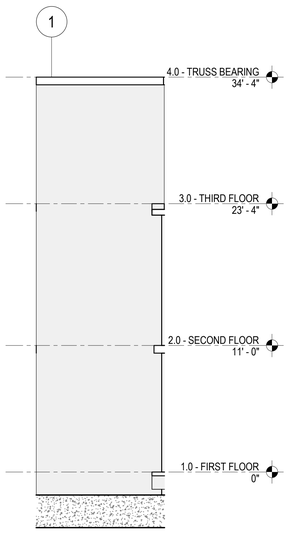
VERTICAL END REINFORCING

MARK	BAR SIZE	# BARS (1/2 EF)	COMMENTS



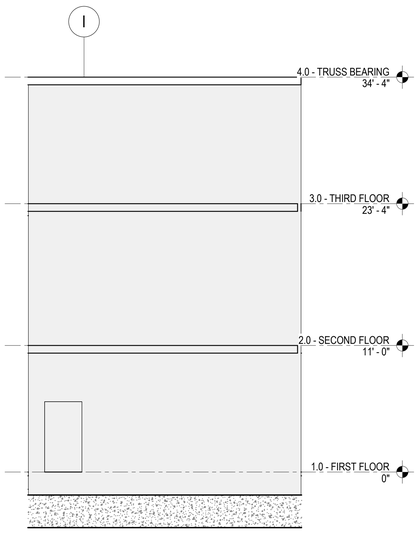
S1-E / S-321 **STAIR 1 EAST WALL ELEVATION**

3/16" = 1'-0"



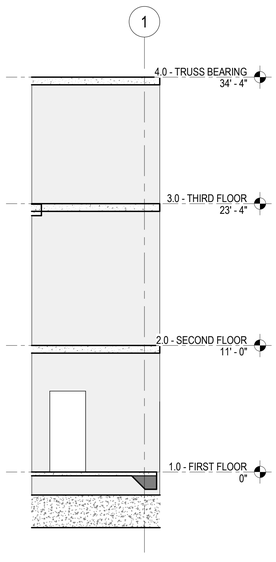
S1-S / S-321 **STAIR 1 SOUTH WALL ELEVATION**

3/16" = 1'-0"



S1-W / S-321 **STAIR 1 WEST WALL ELEVATION**

3/16" = 1'-0"



S1-N / S-321 **STAIR 1 NORTH WALL ELEVATION**

3/16" = 1'-0"

10" CONCRETE SHEAR WALLS

FOR DD PRICING PURPOSES, ASSUME THE FOLLOWING MATERIAL QUANTITIES:

- 3.5 PSF CONVENTIONAL REBAR

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Project No.: 2021009
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CONCRETE SHEAR WALL ELEVATIONS

S-321

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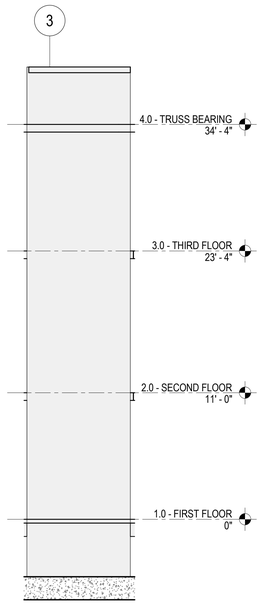
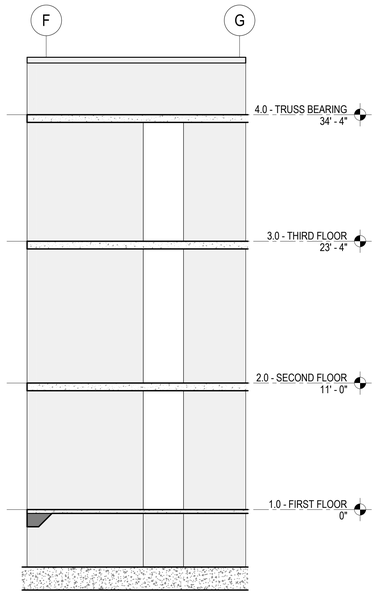


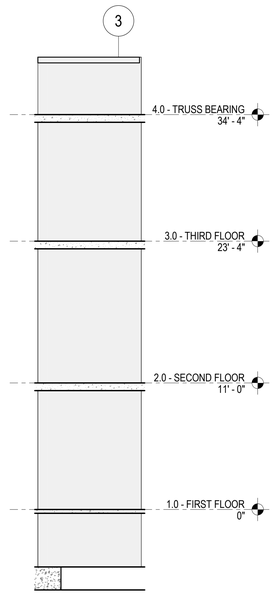
E1-N / S-322 ELEVATOR 1 NORTH WALL ELEVATION

3/16" = 1'-0"



E1-W / S-322 ELEVATOR 1 WEST WALL ELEVATION

3/16" = 1'-0"



E1-S / S-322 ELEVATOR 2 SOUTH WALL ELEVATION

3/16" = 1'-0"

SHEAR WALL ELEVATION NOTES:

1. DENOTES 10" WALL THICKNESS
   DENOTES 12 WALL THICKNESS
2. SEE ARCHITECTURAL DRAWING FOR ROUGH OPENING DIMENSIONS
3. SHEAR WALL REINFORCEMENT TAGS:
   - #V##: DENOTES TYPICAL VERTICAL REINFORCEMENT (SEE SCHEDULE ON THIS SHEET)
   - #E##: DENOTES VERTICAL END ZONE REINFORCEMENT (SEE SCHEDULE ON THIS SHEET)
   - #H##: DENOTES TYPICAL HORIZOTAL REINFORCEMENT (SH12 UNLESS NOTED OTHERWISE - (SEE SCHEDULE ON THIS SHEET)
   - CB##: DENOTES COUPLING BEA, MARK (SEE SCHEDULE ON THIS SHEET)
4. WHERE NOT SPECIACLLU NOTED WITH #E## OR CB## REINFORCING, PROVIDE (4)-#7 BARS AT ALL EDGES OF OPENINGS AND ENDS OF WALLS WITH (2) BARS EACH FACE SPACED AT 6" OC. BARS SHALL BE FULLY DEVELOPED FROM THE EDGE OF THE OPENING AND SHALL BE HOOKED AT WALL ENDS WHERE REQUIRED.
5. ALL BARS SHALL BE FULLY LAPPED, INCLUDING DOWELS INTO FOUNDATION ELEMENTS.
6. SEE DETAILS ON S-330.
7. GC SHALL VERIFY ALL DIMENSIONS AND LOCATIONS OF WALLS AND OPENINGS WITH ARCHITECTURAL DRAWINGS. NOTIFY DESIGN TEA, OF DISCREPANCIES.

TYPICAL VERTICAL REINFORCING

MARK	BAR SIZE	BAR SPACING	COMMENTS

VERTICAL CORNER REINFORCING

MARK	BAR SIZE	# BARS (1/2 EF)	COMMENTS

VERTICAL END REINFORCING

MARK	BAR SIZE	# BARS (1/2 EF)	COMMENTS

10" CONCRETE SHEAR WALLS

FOR DD PRICING PURPOSES, ASSUME THE FOLLOWING MATERIAL QUANTITIES:

- 3.5 PSF CONVENTIONAL REBAR

NO.	DATE	DESCRIPTION
	08/22/25	DESIGN DEVELOPMENT

WATERFORD CAMPUS - ASSISTED LIVING MEMORY CARE BUILDING

601 UNIVERSE BLVD JUNO BEACH , FL 33048

THW DESIGN

2100 RiverEdge Parkway
Suite 900
Atlanta, GA 30328

2632 Broadway Street
Suite 201, South Building
San Antonio, TX 78215

PH: 770 916 2220
FAX: 770 916 2299

www.thw.com

PRELIMINARY DRAWINGS. NOT TO BE USED FOR RECORDING, IMPLEMENTATION, REGULATORY APPROVAL, PERMITTING, OR

DESIGN DEVELOPMENT

Project No.: 2021009
Date: 08/22/2025

CONCRETE SHEAR WALL ELEVATIONS Copy 1

S-322

JEZERINAC GROUP

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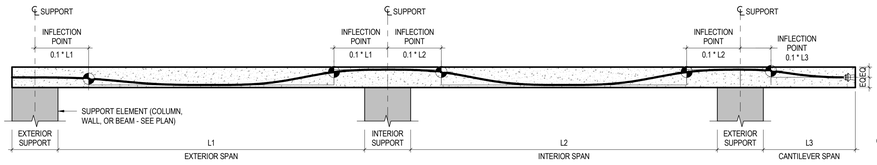
CERTIFICATE OF AUTHORIZATION FL #30785
JG Project #: 21.18.004

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE BUILDING CODES AND MATERIAL SPECIFICATIONS.

8/25/2025 2:19:34 AM

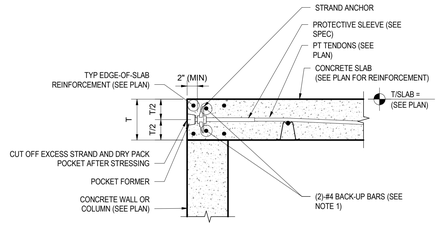


NOTES:

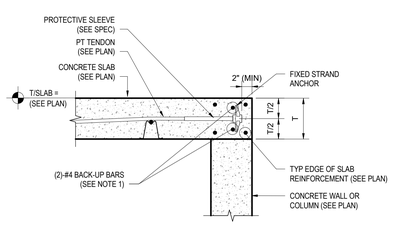
1. SEE PLANS FOR TENDON LAYOUT.
2. TENDON LOW POINTS ARE LOCATED MIDWAY BETWEEN HIGH POINTS UNLESS NOTED OTHERWISE.
3. TENDON LOW POINTS AT EXTERIOR SPANS ARE LOCATED 0.4L FROM CENTER LINE OF EXTERIOR SUPPORTS.
4. DRAPE TENDON IN PARABOLIC PROFILE BETWEEN LOW AND HIGH POINTS.
5. DROP PANELS, WHERE THEY OCCUR, ARE NOT SHOWN FOR CLARITY.

1 S-330 TYPICALTENDON PROFILE

1/2" = 1'-0"



STRESSING END



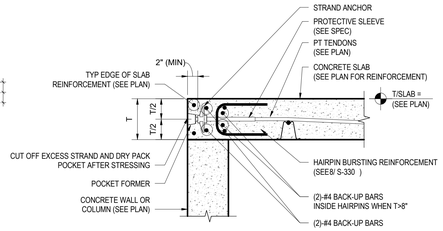
FIXED END

NOTES:

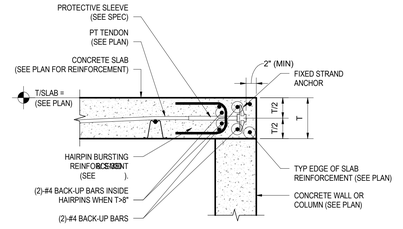
1. PROVIDE HAIRPIN BURSTING REINFORCEMENT SIMILAR TO BANDED TENDON ANCHORAGE FOR BUNDLES OF (6) OR MORE CABLES.

2 S-330 BANDED TENDON ANCHORAGE CONDITIONS

NTS



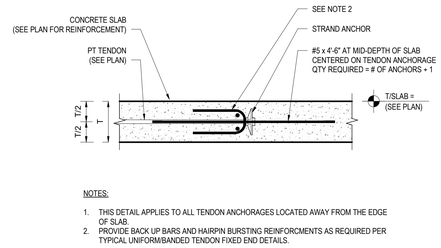
STRESSING END



FIXED END

3 S-330 ANCHORAGE AT ADDED TENDON

NTS

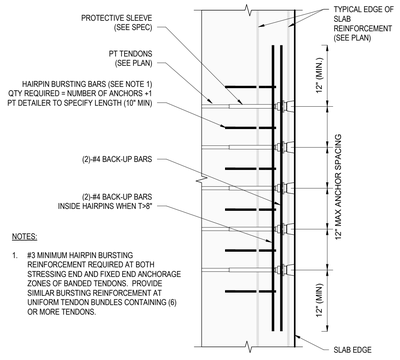


NOTES:

1. THIS DETAIL APPLIES TO ALL TENDON ANCHORAGES LOCATED AWAY FROM THE EDGE OF SLAB.
2. PROVIDE BACK UP BARS AND HAIRPIN BURSTING REINFORCEMENTS AS REQUIRED PER TYPICAL UNIFORM/BANDED TENDON FIXED END DETAILS.

4 S-330 UNIFORM TENDON ANCHORAGE CONDITIONS

NTS

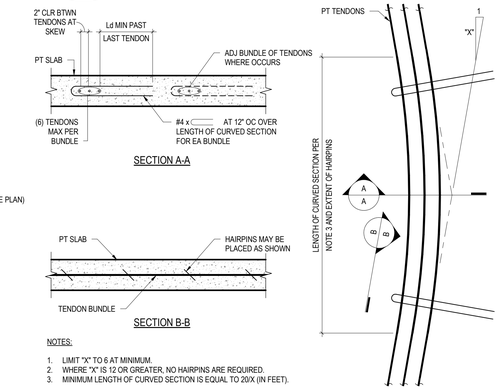


NOTES:

1. #3 MINIMUM HAIRPIN BURSTING REINFORCEMENT REQUIRED AT BOTH STRESSING END AND FIXED END ANCHORAGE ZONES OF BANDED TENDONS. PROVIDE SIMILAR BURSTING REINFORCEMENT AT UNIFORM TENDON BUNDLES CONTAINING (6) OR MORE TENDONS.

5 S-330 TYPICAL TENDON HORIZONTAL CURVE

3/4" = 1'-0"

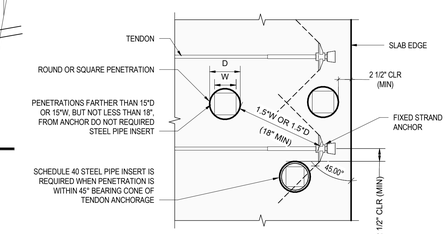


NOTES:

1. LIMIT "X" TO 6 AT MINIMUM.
2. WHERE "X" IS 12 OR GREATER, NO HAIRPINS ARE REQUIRED.
3. MINIMUM LENGTH OF CURVED SECTION IS EQUAL TO 20'X (IN FEET).

6 S-330 SLEEVES NEAR TENDON ANCHORAGE

1" = 1'-0"

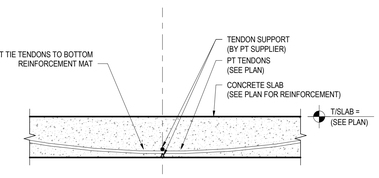


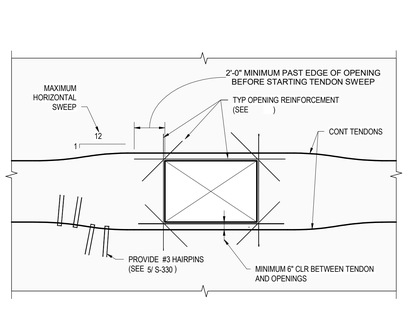
NOTES:

1. PENETRATIONS WITH DIMENSIONS GREATER THAN 12", REQUIRE TRIM BARS PER TYPICAL DETAIL
2. SLAB EDGE REINFORCEMENT AND POST TENSIONED BACKUP BARS NOT SHOWN FOR CLARITY. SEE PLAN AND KEYED SECTIONS AND DETAILS FOR REINFORCEMENT REQUIREMENTS.

7 S-330 PT TENDON LOW POINT - SECTION

1" = 1'-0"





8 S-330 TYPICAL BANDED ANCHORAGE ZONE

NTS

9 S-330 STRESSING BLOCKOUT

1/2" = 1'-0"

10 S-330 TENDONS AT SLAB OPENING

NTS

NO.	DATE	DESCRIPTION
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DESIGN DEVELOPMENT

Project No.: 2021009
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TYPICAL PT TENDON DETAILS

S-330

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CERTIFICATE OF AUTHORIZATION FL #30785
JG Project #: 21.18.004

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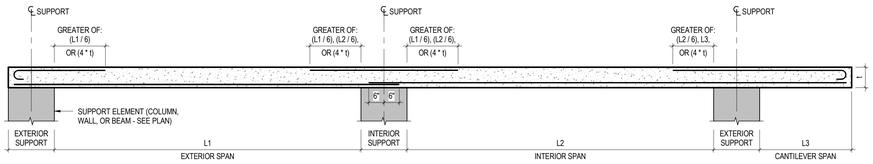
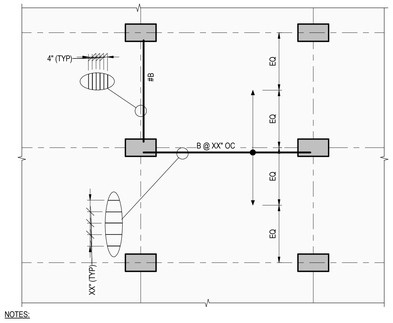


NOTES:

1. DRAWING IS NOT TO SCALE.
2. CLEAR COVER PER CONCRETE SLAB CLEAR COVER SCHEDULE ON ____.
3. BAR LENGTHS SHOWN ABOVE SHALL BE USED UNLESS NOTED OR SHOWN OTHERWISE ON DRAWINGS.
4. TERMINATE TOP BARS AT EDGE-OF-SLAB OR EDGE-OF-OPENING WITH ACI STANDARD 180° HOOKS TURNED FROM VERTICAL AS REQUIRED TO MAINTAIN CLEAR COVER
5. BOTTOM BARS SHALL BE DETAILED AS FOLLOWS:
   A. WHEN SHOWN ON PLAN AS CONTINUOUS BETWEEN SUPPORTS - FULL-LENGTH WITH MINIMUM EMBEDMENTS INTO SUPPORTS EACH END AS SHOWN ABOVE.
   B. WHEN SHOWN ON PLAN AS PARTIAL LENGTH - LENGTH EQUAL TO THAT INDICATED ON PLAN OR HALF OF THE SPAN IN WHICH THEY ARE PLACED (WHICHEVER IS GREATER) WITH 1/4 OF THE SPECIFIC BAR QUANTITY (ROUNDED UP - MINIMUM OF 2) CONTINUOUS BETWEEN SUPPORTS WITH MINIMUM EMBEDMENT INTO SUPPORTS EACH END AS SHOWN ABOVE.

1 S-331 TYPICAL POST-TENSIONED SLAB BAR LENGTHS

1/2" = 1'-0"

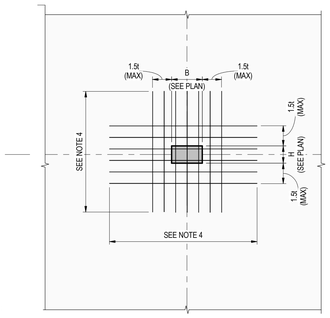


NOTES:

1. BARS SHOWN AS #B SHALL BE CENTERED ALONG COLUMN LINE UNLESS SPECIFICALLY NOTED OTHERWISE.
2. BAR SPACED FOR BARS SHOWN AS #B SHALL BE 4" OC UNLESS NOTED OTHERWISE.
3. BARS SHOWN AS SPACED AT xx" SHALL BE OF A QUANTITY AS REQUIRED TO FILL EVENLY THE EXTENTS SHOWN ON PLAN.
4. BOTTOM BARS SHALL BE CENTERED AT MID SPAN UNLESS NOTED OTHERWISE.
5. SEE TYPICAL POST TENSIONED SLAB REINFORCING LAYOUT DETAIL FOR BAR EXTENTS.

2 S-331 BOTTOM BAR PLACEMENT

NTS

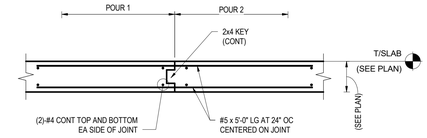


NOTES:

1. t= DENOTES SLAB THICKNESS AT COLUMN LOCATION.
2. PLACE A MINIMUM OF 2 OR 3 BARS THROUGH COLUMN SO THAT REMAINING BARS ARE EQUAL ON EACH SIDE OF COLUMN.
3. BAR SPACING SHALL BE SUCH THAT ALL BARS FIT WITHIN (B OR H) + 3t, BUT SHALL NOT BE SPACED GREATER THAN 12" OC.
4. SEE TYPICAL POST TENSIONED SLAB REINFORCING LAYOUT DETAIL FOR BAR LENGTHS.

3 S-331 TOP BAR PLACEMENT AT COLUMNS

NTS

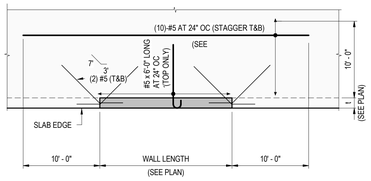


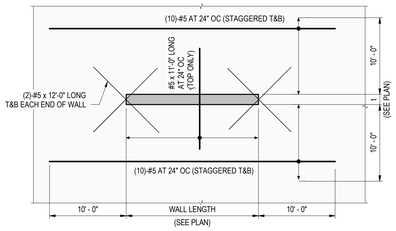
NOTES:

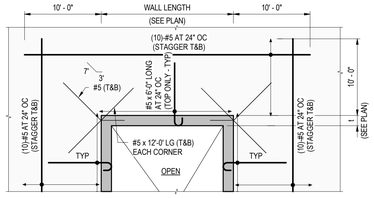
1. SUBMIT PROPOSED CONSTRUCTION JOINT LOCATIONS FOR REVIEW PRIOR TO CONSTRUCTION.
2. SCHEDULE REINFORCING AND/OR REINFORCING INDICATED ON PLAN SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS. MAINTAIN SPLICE LOCATIONS INDICATED IN FRAMING SECTIONS. ADDITIONAL SPLICES ARE NOT PERMITTED.
3. WHERE POST TENSION EXISTS, CONSTRUCTION JOINTS SHALL BE LOCATED SUCH THAT THE POST TENSIONING IS ANCHORED AT THE CENTER OF GRAVITY OF THE SLAB CROSS SECTION.
4. INTENTIONALLY ROUGHEN THE FACE OF SLAB AT CONSTRUCTION JOINT TO 1/4" MINIMUM AMPLITUDE FOR SLABS ≤ 6" THICK. INSTALL 2X4 CONT KEY AT SLABS > 6" THICK ALTERNATIVELY, STAY IN PLACE GALVANIZED STEEL BULKHEAD FORMS CAPABLE OF PROVIDING THE SPECIFIED SURFACE ROUGHNESS MAY BE USED.
5. CLEAR COVER TO ADDITIONAL JOINT REINFORCING SHALL BE AS REQUIRED FOR TYPICAL REINFORCING AT EACH LEVEL.

4 S-331 CONSTRUCTION JOINT IN PT SLAB

NTS





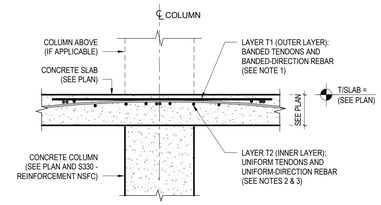


NOTES:

1. AT BASEMENT OR RETAINING WALL CONDITIONS, REINFORCING INDICATED SHALL BE INSTALLED CONTINUOUS ALONG FULL LENGTH OF WALL AND SLIPE CONNECTIONS SHALL BE PROVIDED

5 S-331 ADDITIONAL SLAB REINFORCEMENT AT CONCRETE WALLS

1/8" = 1'-0"

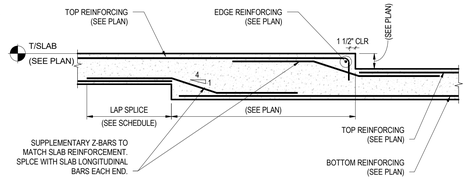


NOTES:

1. CONVENTIONAL TOP BAR REINFORCEMENT AS NOTED ON PLAN IN THE BANDED DIRECTION SHALL BE PLACED IN THE SAME LAYER AS THE BANDED POST TENSION TENDONS.
2. CONVENTIONAL TOP BAR REINFORCEMENT AS NOTED ON PLAN IN THE UNIFORM DIRECTION SHALL BE PLACED IN THE SAME LAYER AS THE UNIFORM POST TENSION TENDONS, AND SHALL BE DIRECTLY BELOW THE BANDED LAYER.
3. WHERE UNIFORM TENDONS ARE LOCATED FAR ENOUGH FROM THE COLUMN CENTERLINE TO NOT CONFLICT WITH BANDED TENDONS OR REINFORCEMENT, UNIFORM TENDONS SHALL BE LOCATED ABOVE THE BANDED TENDONS TO ACHIEVE THE DRAPE ELEVATION NOTED ON THE PLANS.

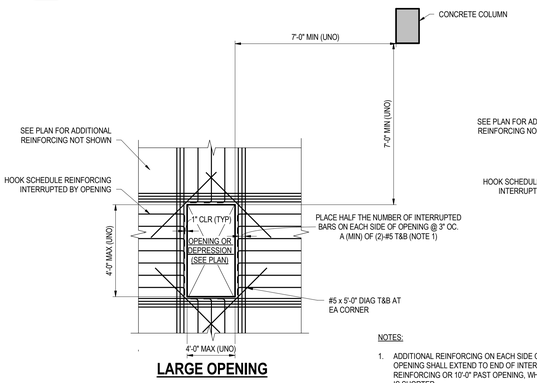
6 S-331 PLACEMENT PRIORITIES AT COLUMNS

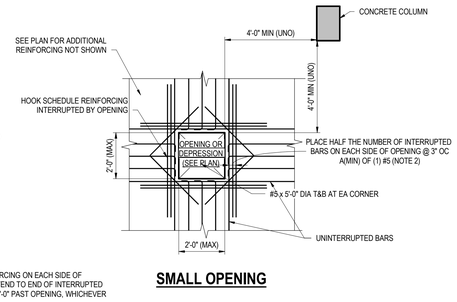
3/4" = 1'-0"



7 S-331 TYPICAL PT SLAB FOLD - DETAIL

3/4" = 1'-0"



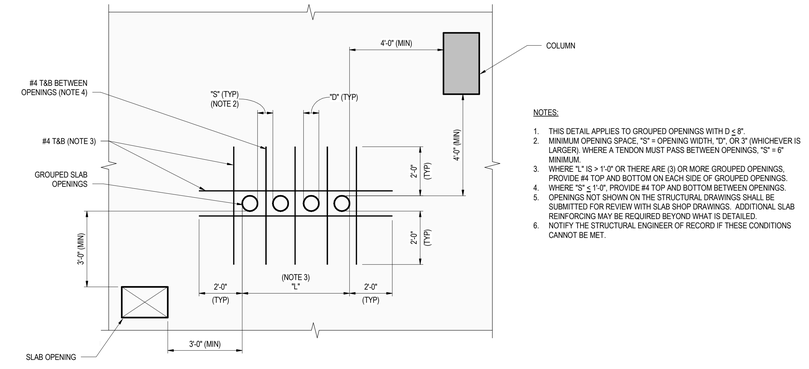


NOTES:

1. ADDITIONAL REINFORCING ON EACH SIDE OF OPENING SHALL EXTEND TO END OF INTERRUPTED REINFORCING OR 10'-0" PAST OPENING, WHICHEVER IS SHORTER.

8 S-331 TYPICAL SLAB OPENING REINFORCING AT POST-TENSIONED SLAB - PLAN

3/8" = 1'-0"

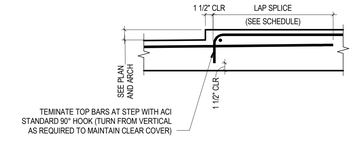


NOTES:

1. THIS DETAIL APPLIES TO GROUPED OPENINGS WITH D ≤ 8".
2. MINIMUM OPENING SPACE, "S" = OPENING WIDTH, "D", OR 3" (WHICHEVER IS LARGER). WHERE A TENDON MUST PASS BETWEEN OPENINGS, "S" = 6" MINIMUM.
3. WHERE "L" IS > 1'-0" OR THERE ARE (3) OR MORE GROUPED OPENINGS, PROVIDE #4 TOP AND BOTTOM ON EACH SIDE OF GROUPED OPENINGS.
4. WHERE "S" ≤ 1'-0", PROVIDE #4 TOP AND BOTTOM BETWEEN OPENINGS.
5. OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED FOR REVIEW WITH SLAB SHOP DRAWINGS. ADDITIONAL SLAB REINFORCING MAY BE REQUIRED BEYOND WHAT IS DETAILED.
6. NOTIFY THE STRUCTURAL ENGINEER OF RECORD IF THESE CONDITIONS CANNOT BE MET.

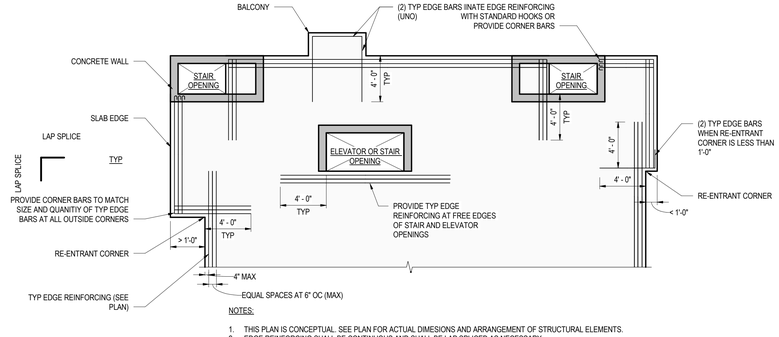
9 S-331 TYPICAL GROUPED OPENING REINFORCING AT POST-TENSIONED SLAB - PLAN

1/2" = 1'-0"



10 S-331 REBAR TRANSITION AT SLAB STEP

1" = 1'-0"



NOTES:

1. THIS PLAN IS CONCEPTUAL. SEE PLAN FOR ACTUAL DIMESIONS AND ARRANGEMENT OF STRUCTURAL ELEMENTS.
2. EDGE REINFORCING SHALL BE CONTINUOUS AND SHALL BE LAP SPLICED AS NECESSARY.
3. SEE PLAN AND KEYED SECTIONS AND DETAILS FOR ADDITIONAL REINFORCING NOT SHOWN IN THIS PLAN.

11 S-331 TYPICAL ELEVATED SLAB EDGE REINFORCING CONCEPTUAL PLAN

3/16" = 1'-0"

NO.	DATE	DESCRIPTION
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WATERFORD CAMPUS - ASSISTED LIVING MEMORY CARE BUILDING

601 UNIVERSE BLVD JUNO BEACH , FL 33048

THW DESIGN

2100 RiverEdge Parkway Suite 900 Atlanta, GA 30328

2632 Broadway Street Suite 201, South Building San Antonio, TX 78215

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DESIGN DEVELOPMENT

Project No.: 2021009
Date: 08/22/2025

TYPICAL PT REINFORCEMENT DETAILS

S-331

JEZERINAC GROUP

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CERTIFICATE OF AUTHORIZATION FL #30785
JG Project #: 21.18.004

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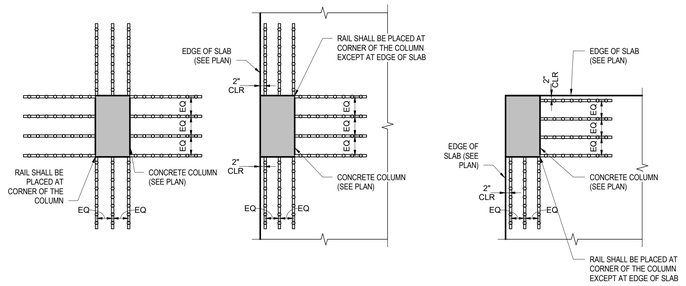
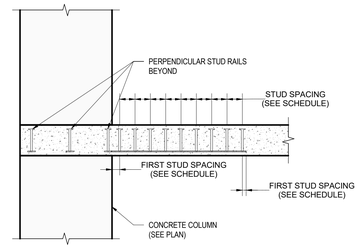


INTERIOR COLUMN | EDGE COLUMN | CORNER COLUMN

1 S-332 TYPICAL SHEAR STUD RAIL CONFIGURATIONS - PLAN

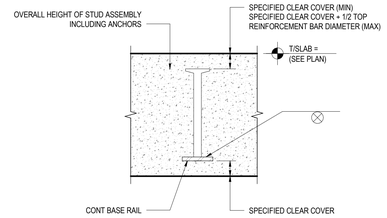
3/8" = 1'-0"



TYPICAL ELEVATION

2 S-332 TYPICAL SHEAR STUD RAIL LAYOUT - ELEVATION

3/4" = 1'-0"



TYPICAL STUD RAIL SECTION

3 S-332 TYPICAL SHEAR STUD LAYOUT - SECTION

3" = 1'-0"

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Project No.: 2021009
Date: 08/22/2025

TYPICAL PT REINFORCEMENT DETAILS

S-332

JEZERINAC GROUP
1615 FORUM PLACE, SUITE 3A
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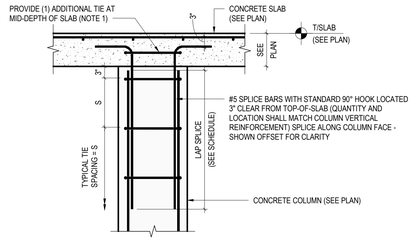
CERTIFICATE OF AUTHORIZATION FL #30785
JG Project #: 21.18.004

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE BUILDING CODES AND MATERIAL SPECIFICATIONS.

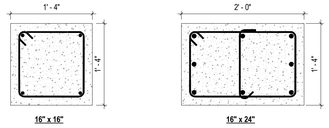
8/25/2025 2:19:35 AM



NOTES:
1. ADDITIONAL TIE WITHIN SLAB DEPTH NOT REQUIRED WHEN A BOTTOM MAT OF SLAB REINFORCEMENT IS PRESENT AT COLUMN LOCATION

1C S-340 CONCRETE COLUMN AT ROOF

3/4" = 1'-0"

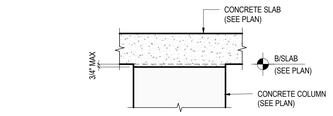


STRUCTURAL COLUMN SCHEDULE

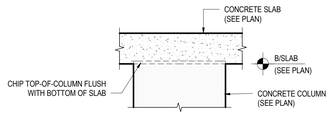
Type	GEOMETRY		REINFORCING		REMARKS
	WIDTH	DEPTH	VERTICAL	TIES	
CC1616	16"	16"	(4) #8	#3 @ 14" OC	
CC1624	16"	24"	(8) #7	#3 @ 14" OC	

2 S-340 COLUMN PLAN DETAILS

1" = 1'-0"



TOP-OF-COLUMN POURED BELOW BOTTOM-OF-SLAB



TOP-OF-COLUMN POURED ABOVE BOTTOM-OF-SLAB

NOTES:
1. DEVIATION FROM MAXIMUM TOLERANCES SHOWN ABOVE SHALL BE CORRECTED PRIOR TO PLACEMENT OF CONCRETE SLAB. WHEN TOP-OF-COLUMN IS INSTALLED BELOW BOTTOM-OF-SLAB BY MORE THAN THE TOLERANCE SHOWN ABOVE, THE DIFFERENCE SHALL BE POURED CONCRETE WITH STRENGTH EQUAL TO THE REQUIRED COLUMN STRENGTH.

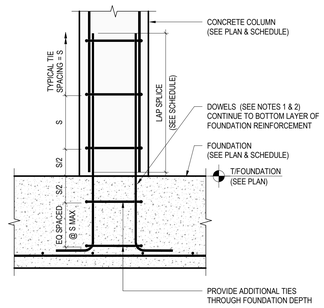
3 S-340 TOP-OF-COLUMN ELEVATION TOLERANCE

3/4" = 1'-0"

NOTES:
1. OFFSET BARS SHALL BE BENT PRIOR TO PLACEMENT IN COLUMN FORMS

1B S-340 CONCRETE COLUMN AT SLAB

3/4" = 1'-0"



NOTES:
1. DOWELS SHALL MATCH SIZE & QUANTITY OF COLUMN VERTICAL REINFORCEMENT ABOVE
2. DOWELS SHALL BE PLACED FOR A CONTACT LAP SPLICE WITH VERTICAL REINFORCEMENT ABOVE IN-LINE WITH FACE-OF-COLUMN (DO NOT OFFSET FROM FACE-OF-COLUMN). AT RECTANGULAR COLUMNS, OFFSET SHAL BE ALONG THE "LONG FACE" OF THE COLUMN AS SHOWN BELOW

1A S-340 CONCRETE COLUMN AT FOUNDATION

3/4" = 1'-0"

NO.	DATE	DESCRIPTION
	08/22/25	DESIGN DEVELOPMENT

WATERFORD CAMPUS - ASSISTED LIVING MEMORY CARE BUILDING

601 UNIVERSE BLVD JUNO BEACH , FL 33048

THW DESIGN

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DESIGN DEVELOPMENT

Project No.: 2021009
Date: 08/22/2025

TYPICAL CONCRETE COLUMN DETAILS

S-340

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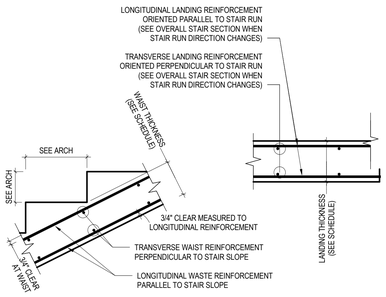
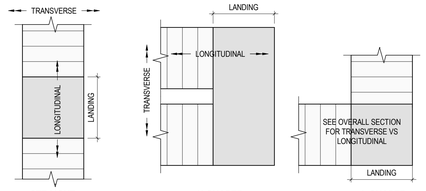


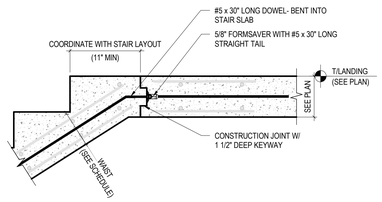
TYPICAL STAIR RUN **TYPICAL LANDING**



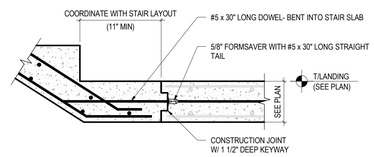
STRAIGHT **U-SHAPED** **L-SHAPED**

CONCRETE STAIR SLAB SCHEDULE				
MARK (SEE SECTION)	TYPE	THICKNESS	REINFORCEMENT	
			LONGITUDINAL	TRANSVERSE
7L1	STAIR LANDING	7"	#5 @ 12" OC T&B	#5 @ 8" OC T&B
8L1	STAIR LANDING	8"	#5 @ 12" OC T&B	#5 @ 8" OC T&B
9L1	STAIR LANDING	9"	(6) - #5 T&B	(6) - #5 T&B
7W1	STAIR WAIST	7"	(6) - #5 T&B	#5 @ 18" OC T&B
8W1	STAIR WAIST	8"	(6) - #5 T&B	#5 @ 18" OC T&B

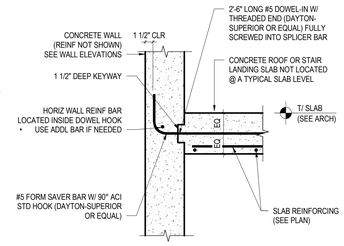
1 S-350 TYPICAL CAST-IN-PLACE CONCRETE STAIR DETAILS
1" = 1'-0"



2 S-350 STAIR DOWN TRANSITION AT LANDING
1" = 1'-0"



3 S-350 STAIR UP TRANSITION AT LANDING
1" = 1'-0"



4 S-350 INTERMEDIATE SLAB ATTACHMENT
1" = 1'-0"

6 S-350 CONCRETE STAIR DETAIL
3/4" = 1'-0"

7 S-350 STAIR DOWN TRANSITION AT MIDHEIGHT
1" = 1'-0"

8 S-350 STAIR UP TRANSITION AT MIDHEIGHT
1" = 1'-0"

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CONCRETE STAIR DETAILS

S-350

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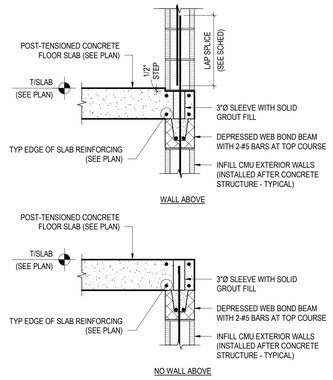

1
S-360

TYPICAL EDGE-OF-SLAB

3/4" = 1'-0"

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TYPICAL CONCRETE FRAMING DETAILS

S-360

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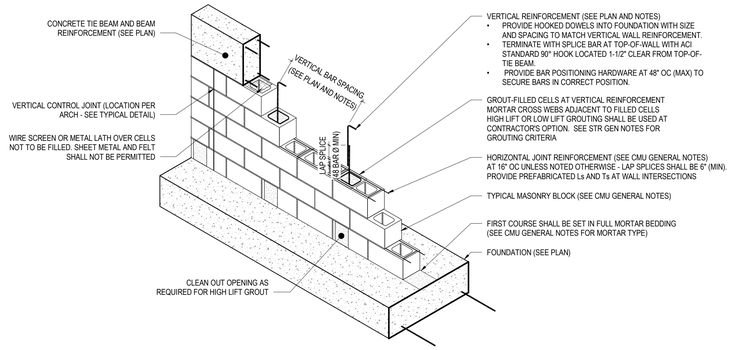
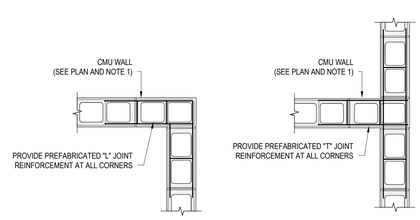


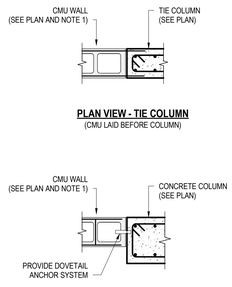
1 S-400 TYPICAL CMU WALL CONSTRUCTION - PERSPECTIVE

1/2" = 1'-0"



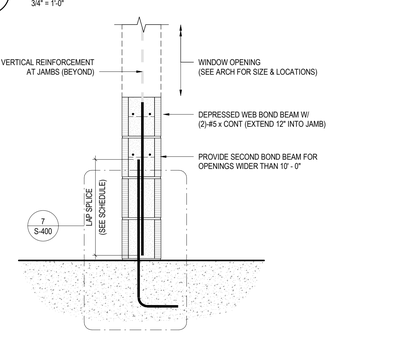
PLAN VIEW - CORNER | **PLAN VIEW - INTERSECTION**

NOTES:
1. VERTICAL REINFORCEMENT AND GROUTED CELLS NOT SHOWN ON THIS DETAIL - SEE TYPICAL DETAIL



PLAN VIEW - TIE COLUMN
(CMU LAID BEFORE COLUMN)

PLAN VIEW - COLUMN
(CMU LAID AFTER COLUMN)

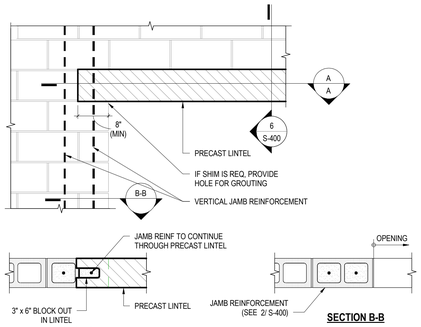


4 S-400 TYPICAL CMU JOINT REINFORCEMENT

3/4" = 1'-0"

8 S-400 CMU SILL - SECTION

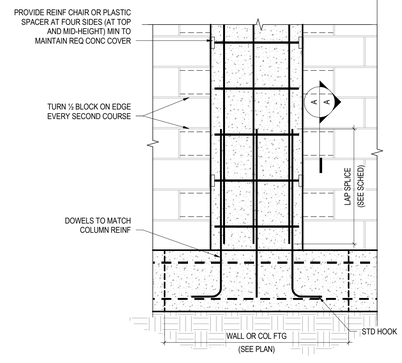
1" = 1'-0"

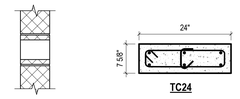


SECTION A-A | **SECTION B-B**

2 S-400 TYPICAL CMU WALL REINFORCEMENT

3/4" = 1'-0"





SECTION A-A | **TC24**

CONCRETE TIE-COLUMN SCHEDULE

MARK	GEOMETRY WIDTH	GEOMETRY DEPTH	REINFORCING VERTICAL	REINFORCING TIE	REMARKS
TC824	8"	24"	(6) #6	#3 @ 8" OC	

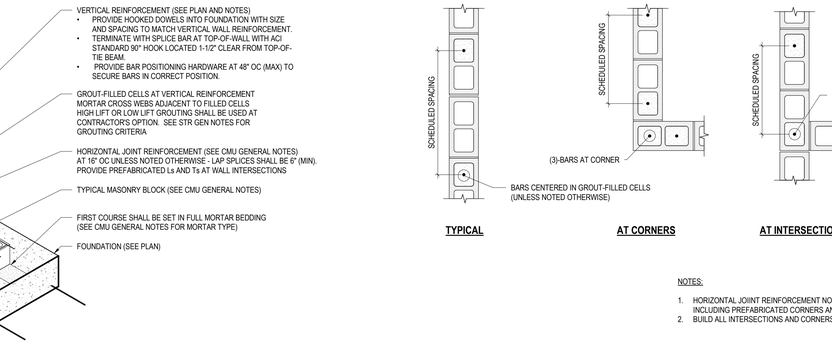
NOTE:
1. EXTEND COLUMN TO UPPERMOST TIE BEAM AND TERMINATE VERTICAL REINFORCEMENT WITH STANDARD HOOK 3" FROM TOP OF THE BEAM

5 S-400 CMU PRECAST LINTEL

3/4" = 1'-0"

9 S-400 TYPICAL CONCRETE TIE COLUMN

3/4" = 1'-0"

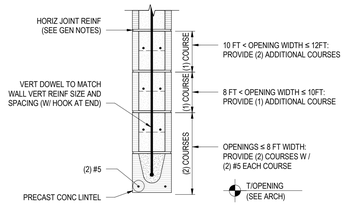


TYPICAL | **AT CORNERS** | **AT INTERSECTIONS** | **AT OPENINGS** | **AT NON-ORTHOGONAL CORNERS**

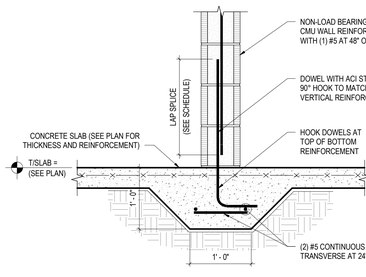
NOTES:
1. HORIZONTAL JOINT REINFORCEMENT NOT SHOWN FOR CLARITY. SEE "MASONRY NOTES" FOR JOINT REINFORCEMENT, INCLUDING PREFABRICATED CORNERS AND TEES.
2. BUILD ALL INTERSECTIONS AND CORNERS IN RUNNING BOND.

6 S-400 TYPICAL CMU LINTEL AT OPENING

1" = 1'-0"



NOTES:
1. MINIMUM LINTEL BEARING, 8" EACH END
2. EXTEND REINFORCING BARS 1' - 0" BEYOND FACE OF SUPPORT

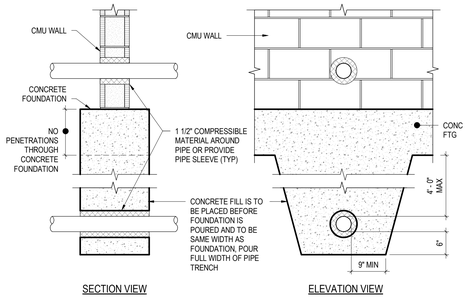


10 S-400 THICKENED SLAB AT CMU WALL

1" = 1'-0"

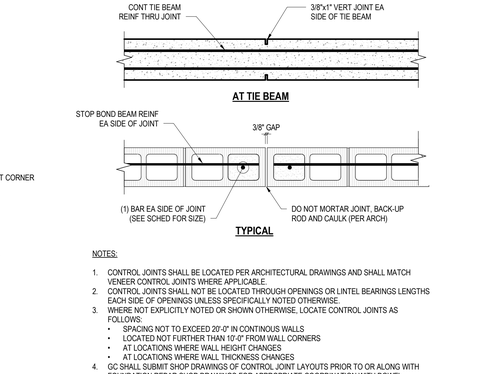
7 S-400 BASE-OF-CMU WALL CONNECTION

1" = 1'-0"



11 S-400 PIPE PENETRATION THROUGH WALL OR BELOW FOUNDATION

3/4" = 1'-0"

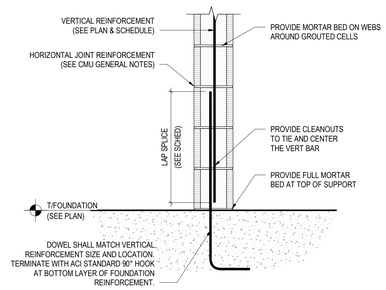


TYPICAL

NOTES:
1. CONTROL JOINTS SHALL BE LOCATED PER ARCHITECTURAL DRAWINGS AND SHALL MATCH VENEER CONTROL JOINTS WHERE APPLICABLE.
2. CONTROL JOINTS SHALL NOT BE LOCATED THROUGH OPENINGS OR LINTEL BEARINGS LENGTHS EACH SIDE OF OPENINGS UNLESS SPECIFICALLY NOTED OTHERWISE.
3. WHERE NOT EXPLICITLY NOTED OR SHOWN OTHERWISE, LOCATE CONTROL JOINTS AS FOLLOWS:
   - SPACING NOT TO EXCEED 20'-0" IN CONTINOUS WALLS
   - LOCATED NOT FURTHER THAN 10'-0" FROM WALL CORNERS
   - AT LOCATIONS WHERE WALL HEIGHT CHANGES
   - AT LOCATIONS WHERE WALL THICKNESS CHANGES
4. GC SHALL SUBMIT SHOP DRAWINGS OF CONTROL JOINT LAYOUTS PRIOR TO OR ALONG WITH FOUNDATION REBAR SHOP DRAWINGS FOR APPROPRIATE COORDINATION WITH DOWEL PLACEMENT.

3 S-400 CMU CONTROL JOINTS

1" = 1'-0"



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TYPICAL MASONRY DETAILS

S-400

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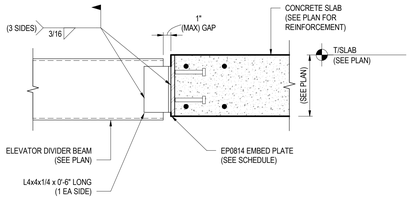
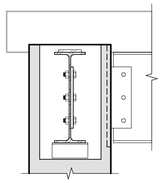


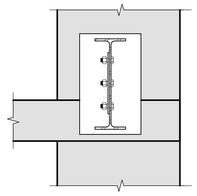
1 S-500 DIVIDER BEAM CONNECTION

NTS



2 S-500 STEEL BEAM TO COLUMN CONNECTION AT PORTE COCHERE

1" = 1'-0"



3 S-500 STEEL BEAM TO TIE COLUMN CONNECTION AT PORTE COCHERE

1" = 1'-0"

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STEEL FRAMING DETAILS

S-500

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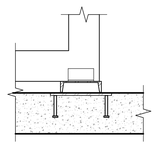
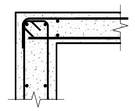


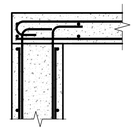
1 S-600 CFS ROOF TRUSS CONNECTION TO SLAB

1" = 1'-0"



2 S-600 ELEVATOR POP-UP CAP-TO-BEAM CONNECTION

1" = 1'-0"



3 S-600 ELEVATOR POP-UP CAP CONNECTION TO WALL

1" = 1'-0"

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ROOF FRAMING DETAILS

S-600

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JG Project #: 21.18.004

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE BUILDING CODES AND MATERIAL SPECIFICATIONS.