

ABBREVIATIONS AND SYMBOLS											
A/E	ARCHITECT/ENGINEER	FDN	FOUNDATION	PAF	POWDER ACTUATED FASTENER						
ABV	ABOVE	FF	FINISHED FLOOR	PRL	PARALLEL						
ADDL	ADDITIONAL	FL	FLOOR	PCF	POUNDS PER CUBIC FOOT						
ADJ	ADJACENT	FP	FIREPROOF(ING)	PCI	POUNDS PER CUBIC INCH						
AFF	ABOVE FINISHED FLOOR	FS	FAR SIDE	PEMB	PRE-ENGINEERED METAL BUILDING						
AHU	AIR HANDLING UNIT	FT	FOOT/FEET	PERM	PERIMETER						
ALT	ALTERNATE	FTG	FOOTING	PERP	PERPENDICULAR						
APPROX	APPROXIMATE(LY)	GA	GAUGE/GAGE	PJP	PARTIAL JOINT PENETRATION						
ARCH	ARCHITECT(URAL)	GALV	GALVANIZED	PL	PLATE						
AT	ANTITERRORISM	GB	GRADE BEAM	PLF	POUNDS PER LINEAR FOOT						
AVG	AVERAGE	GC	GENERAL CONTRACTOR	PC	PRECAST						
AWTS	AUTOMATIC WELDED THREADED STUDS	HORIZ	HORIZONTAL	PREFAB	PREFABRICATED						
B/PL	BASE PLATE OR BEARING PLATE	HP	HIGH POINT	PSF	POUNDS PER SQUARE FOOT						
B/	BOTTOM OF	HSA	HEADED STUD ANCHOR	PSI	POUNDS PER SQUARE INCH						
BD	BOARD	HT	HEIGHT	PT	PRE/POST-TENSIONING						
BF	BRACED FRAME	I/F	INSIDE FACE	PTW	PRESSURE TREATED WOOD						
BFF	BELOW FINISHED FLOOR	ID	INSIDE DIAMETER	PVMT	PAVEMENT						
BLDG	BUILDING	IN	INCH(ES)	QTY	QUANTITY						
BLK	BLOCK(ING)	INCL	INCLUDE	RAD	RADIUS						
BLW	BELOW	INFO	INFORMATION	RE:	REFER TO						
BM	BEAM	INT	INTERIOR	REINF	REINFORCEMENT						
BOT	BOTTOM	ISO JT	ISOLATION JOINT	REQD	REQUIRED						
BRG	BEARING	JST	JOIST	REV	REVISE(ION)						
BS	BOTH SIDES	JT	JOINT	RO	ROUGH OPENING						
BTWN	BETWEEN	K	KIP(S)	RTU	ROOF TOP UNIT						
CC	CENTER TO CENTER	KB	KNEE BRACE	SC	SLIP CRITICAL						
CF	CUBIC FOOT OR CUBIC FEET	KCF	KIPS PER CUBIC FEET	SCHED	SCHEDULE						
CFMF	COLD-FORMED METAL FRAMING	KLF	KIPS PER LINEAR FOOT	SECT	SECTION						
CIP	CAST IN PLACE	KSF	KIPS PER SQUARE FEET	SF	SQUARE FOOT						
CJ	CONTROL JOINT/CONSTRUCTION JOINT	KSI	KIPS PER SQUARE INCH	SHT	SHEET						
CJP	COMPLETE JOINT PENETRATION	L	LENGTH	SIM	SIMILAR						
CL	CENTERLINE	LAT	LATERAL	SL	SLOPE(D) OR SLOPING						
CLR	CLEAR OR CLEAR COVER	LBS	POUNDS	SLV	SLEEVE						
CMU	CONCRETE MASONRY UNIT	ld	DEVELOPMENT LENGTH	SOG	SLAB ON GRADE						
COL	COLUMN	Ldh	HOOK DEVELOPMENT LENGTH	SOD	SLAB ON METAL DECK						
CONC	CONCRETE	Lst	LAP SPLICE LENGTH	SP	SPACE(S) OR SPACING						
CONN	CONNECTION	Lsc	LAP SPLICE LENGTH	SPEC	SPECIFY OR SPECIFICATIONS						
CONST	CONSTRUCTION	LF	LINEAR FOOT	SQ	SQUARE						
CONT	CONTINUOUS	LLH	LONG LEG HORIZONTAL	STD	STANDARD						
CONTR	CONTRACTOR	LLV	LONG LEG VERTICAL	STIFF	STIFFENER						
COORD	COORDINATE	LONG	LONGITUDINAL	STL	STEEL						
CTR	CENTER(ED)	LP	LOW POINT	STRUCT	STRUCTURAL						
CY	CUBIC YARD	LSH	LONG SIDE HORIZONTAL	SUSP	SUSPEND(ED) OR SUSPENSION						
db	BAR DIAMETER	LSV	LONG SIDE VERTICAL	T&B	TOP AND BOTTOM						
DBA	DEFORMED BAR ANCHOR	LWT	LIGHT WEIGHT	T/	TOP OF						
DBL	DOUBLE	MEP	MECHANICAL, ELECTRICAL, & PLUMBING	TEMP	TEMPORARY						
DET	DETAIL	MATL	MATERIAL	THD	THREAD(ED)						
DIA	DIAMETER	MAX	MAXIMUM	THK	THICKNESS						
DIAG	DIAGONAL	MCJ	MASONRY CONTROL JOINT	TL	TOTAL LOAD						
DIM	DIMENSION	MECH	MECHANICAL	TRANS	TRANSVERSE						
DL	DEAD LOAD	MEZZ	MEZZANINE	TRTD	TREATED						
DN	DOWN	MFR	MANUFACTURE(R)	TYP	TYPICAL						
DTL	DETAIL	MID	MIDDLE	UNO	UNLESS NOTED OTHERWISE						
DWG	DRAWING	MIN	MINIMUM	VERT	VERTICAL						
DWL	DOWEL	MISC	MISCELLANEOUS	VIF	VERIFY IN FIELD						
E/	EDGE OF	MULT	MULTIPLE	W	WIDTH						
EA	EACH	MO	MASONRY OPENING	W/	WITH						
EF	EACH FACE	MTL	METAL	W/C	WATER TO CEMENT RATIO						
EIFS	EXTERIOR INSULATION FINISH SYSTEM	MWT	MEDIUM WEIGHT	W/O	WITHOUT						
EJ	EXPANSION JOINT	NF	NEAR FACE	WL	WIND LOAD						
ELEC	ELECTRICAL	NIC	NOT IN CONTRACT	WP	WORKING POINT						
ELEV	ELEVATION(S)	NUM	NUMBER	WT	WEIGHT						
EMBED	EMBED(ED)MENT)	NOM	NOMINAL	WWR	WELDED WIRE REINFORCEMENT						
ENG	ENGINEER	NS	NEAR SIDE	@	AT / AT EACH						
EOR	ENGINEER OF RECORD	NTS	NOT TO SCALE	(°)	DEGREE						
EQ	EQUAL	NWT	NORMAL WEIGHT	Ø	DIAMETER						
EQUIP	EQUIPMENT	O/F	OUTSIDE FACE	#	NUMBER						
EST	ESTIMATED	OC	ON CENTER	OD	OUTSIDE DIAMETER						
EW	EACH WAY	OPG	OPENING	o FD	FLOOR DRAIN						
EXCL	EXCLUDE(ING)	OPP	OPPOSITE	o RD	ROOF DRAIN						
(E)	EXISTING	OH	OPPOSITE HAND								
EXP	EXPANSION	OVH	OVERHEAD								
EXT	EXTERIOR	OWJ	OPEN WEB STEEL JOIST								
F/	FACE OF										
F/F	FACE TO FACE										

DRAWING LEGEND											
GENERAL ANNOTATIONS						CONCRETE CONSTRUCTION			STEEL CONSTRUCTION		
FS#	CONC SPREAD FTG TAG					CONC SPREAD FOOTING			STEEL COLUMN (W SHAPES)		
FC#	CONC CONTINUOUS FTG TAG					CONC CONTINUOUS FOOTING			STEEL COLUMN (HSS)		
XC#	COLUMN TAG					CONC WALL			STEEL COLUMN (HSS ROUND)		
XW#	WALL TAG					CONC BEAM			STEEL BEAM / GIRDER		
XB#	BEAM TAG					CONC BEAM/WALL BELOW			STEEL GIRDER TRUSS		
XP#	PIER TAG					CONC PIER			STEEL JOIST		
# = NUMERICAL DESIGNATION						CONCRETE CONSTRUCTION			STEEL CONSTRUCTION		
REF XX' - YY' ELEVATION CALLOUT (SECTION / DETAILS)						REF = T/OBJECT OR B/OBJECT			REF = T/OBJECT OR B/OBJECT		
REF XX' - YY' ELEVATION CALLOUT (PLAN)						XX' - YY' = OBJECT ELEVATION FROM DATUM			XX' - YY' = OBJECT ELEVATION FROM DATUM		
NOTE: AT FLOOR OR ROOF FRAMING PLANS, OPENINGS SHOWN ARE IN WALL BELOW						REINFORCED CAST-IN-PLACE CONCRETE SUSPENDED SLAB			REINFORCED CAST-IN-PLACE CONCRETE SUSPENDED SLAB		
SLOPE DESIGNATION (SEE ARCH FOR ACTUAL SLOPES)						START OF SLOPE WHERE SHOWN			START OF SLOPE WHERE SHOWN		
PLAN REFERENCE						TYPICAL (TYP) OR SIMILAR (SIM) DETAIL			TYPICAL (TYP) OR SIMILAR (SIM) DETAIL		
SHEET REFERENCE						DETAIL, SECTION OR ELEVATION REFERENCE			DETAIL, SECTION OR ELEVATION REFERENCE		
GREY TONE DESIGNATES EXISTING CONSTRUCTION						BLACK TONE DESIGNATES NEW CONSTRUCTION			BLACK TONE		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
P	GENERAL																			
N	G-1 METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THE NECESSARY PRECAUTIONS TO MAINTAIN THE INTEGRITY OF THE STRUCTURE AT EACH STAGE OF CONSTRUCTION.																			
M	G-2 STRUCTURAL ENGINEER WILL NOT BE RESPONSIBLE FOR ACTIVITIES UNDER THE CONTROL OF THE CONTRACTOR SUCH AS CONSTRUCTION SITE SAFETY, MEANS, METHODS AND SEQUENCES OF CONSTRUCTION. STRUCTURAL ENGINEER WILL NOT BE RESPONSIBLE FOR FABRICATION, ERECTION AND CONSTRUCTION REQUIREMENTS AS PRESCRIBED BY OSHA OR OTHER REGULATORY AGENCIES REGARDLESS OF INDICATION IN THESE DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL SAFETY REGULATIONS, PROGRAMS AND PRECAUTIONS RELATED TO ALL WORK ON THE PROJECT.																			
L	G-3 WHERE SUPPORTED SLABS OR ROOFS ARE TO BE USED FOR STAGING OR TEMPORARY CONSTRUCTION LOADS, THE CONTRACTOR MUST VERIFY THAT APPLIED LOADS DO NOT EXCEED THE DESIGN LOADS FOR THE SUPPORTING FLOORS OR ROOFS. DURING AND AFTER CONSTRUCTION, CONTRACTOR AND/OR CONTRACTING OFFICER MUST KEEP LOADS ON THE STRUCTURE WITHIN THE LIMITS OF THE DESIGN LOADS AS NOTED IN THESE DRAWINGS.																			
K	G-4 THE STRUCTURAL SYSTEMS SHOWN IN THESE DRAWINGS MUST NOT BE CONSIDERED STABLE UNTIL ALL STRUCTURAL ELEMENTS ARE IN PLACE AND COMPLETED. TEMPORARY BRACING, SHEETING, SHORING, ETC. REQUIRED TO ENSURE THE STRUCTURAL INTEGRITY/STABILITY OF THE EXISTING BUILDINGS, SIDEWALKS, UTILITIES, ETC, DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER EMPLOYED BY THE CONTRACTOR.																			
J	G-5 WHEN NOT SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS, THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING SLEEVE AND BLOCK-OUT REQUIREMENTS FOR PENETRATIONS PRIOR TO FABRICATION OR ERECTION OF THE STRUCTURE. PENETRATIONS OF STRUCTURAL MEMBERS ARE SUBJECT TO APPROVAL BY THE EOR. THE CONTRACTOR IS ALSO RESPONSIBLE FOR DETERMINING ANCHORAGE AND HANGER REQUIREMENTS REQUIRED FOR SUPPORTING EQUIPMENT, FINISHES, UTILITIES ET CETERA NOT INDICATED ON THE STRUCTURAL DRAWINGS.																			
H	G-6 CONTRACTOR MUST COORDINATE WITH ALL TRADES THE LOCATIONS AND DIMENSIONS OF ALL OPENINGS THROUGH FLOORS, ROOFS AND WALLS REGARDLESS OF IF THEY ARE SHOWN ON THE STRUCTURAL DRAWINGS.																			
G	G-7 THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING DIMENSIONS AND INSTALLATION REQUIREMENTS OF EQUIPMENT WITH THE SUPPORTING STRUCTURE.																			
F	G-8 THE STRUCTURAL DRAWINGS ARE SUPPLEMENTARY TO THE ARCHITECTURAL AND OTHER DISCIPLINE DRAWINGS. DO NOT ATTEMPT TO BID NOR CONSTRUCT ANY PORTION OF THIS PROJECT WITHOUT CONSULTING OTHER DISCIPLINES' DRAWINGS WITHIN THIS PROJECT. ALL CONFLICTS OR OMISSIONS, INCLUDING DIMENSIONS, BETWEEN THE VARIOUS ELEMENTS OF THE STRUCTURAL DRAWINGS AND/OR SPECIFICATIONS MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH ANY WORK INVOLVED. IN CASE THERE IS A CONFLICT BETWEEN DRAWINGS, SUBMIT A REQUEST FOR INFORMATION, AND PROCEED AS DIRECTED BY THE ENGINEER. ANY WORK DONE BY THE CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY WITHOUT OFFICIAL DIRECTION WILL BE DONE AT THE CONTRACTOR'S RISK.																			
E	G-9 FIREPROOFING, IF REQUIRED, OF STRUCTURAL ELEMENTS IS NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO THE SPECIFICATIONS, FIRE PROTECTION DRAWINGS AND/OR ARCHITECTURAL DRAWINGS.																			
D	G-10 IN CASE OF CONFLICT BETWEEN THE GENERAL NOTES, SPECIFICATIONS, DRAWINGS, OR WITHIN THESE DOCUMENTS, THE MOST STRINGENT REQUIREMENTS AS DETERMINED BY THE ENGINEER WILL GOVERN.																			
C	G-11 WORK NOT INDICATED ON A PART OF THE DRAWINGS, BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING LOCATIONS, IS TO BE REPEATED.																			
B	G-12 TYPICAL DETAILS ARE GENERALLY NOT REFERENCED ON THE DRAWINGS AND WILL APPLY IN AREAS WHERE CONDITIONS ARE SIMILAR AS DESCRIBED IN THE DETAILS. THE CONTRACTOR MUST IDENTIFY, COORDINATE AND APPLY THESE DETAILS AS NEEDED. TYPICAL DETAILS MAY BE REFERENCED ON PLANS OR DETAILS TO CLARIFY OR IDENTIFY A PARTICULAR CONDITION. THE PRESENCE OF SUCH A REFERENCE DOES NOT ALTER THE OBLIGATION OF THE CONTRACTOR TO APPLY THE DETAIL(S) AS NEEDED EVEN IF THEY ARE NOT REFERENCED.																			
A	G-13 THE STRUCTURAL DOCUMENTS HAVE BEEN DRAWN TO SCALE AS INDICATED ON THESE DRAWINGS. THIS IS TO CONFIRM GENERAL GEOMETRIC TOLERANCES TO THE GREATEST EXTENT POSSIBLE. HOWEVER, SOME COMPONENTS MAY NOT BE DRAWN TO SCALE TO REFLECT DESIGN INTENT. IF DIMENSIONAL INFORMATION IS NOT INDICATED AND/OR PROVIDED, THE ENGINEER MUST BE NOTIFIED IN WRITING. DO NOT SCALE DRAWINGS.																			
	CONSTRUCTION ADMINISTRATION																			
C	CA-1 CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SIZES, DIMENSIONS, AND ELEVATIONS ON SUBMITTALS AS RELATED TO DESIGN DOCUMENTS PRIOR TO DELIVERY TO THE ENGINEER FOR REVIEW.																			
B	CA-2 PREPARATION OF SHOP DRAWING SUBMITTALS FOR STRUCTURAL ELEMENTS WILL REQUIRE INFORMATION (I.E. DIMENSIONS, ETC.) FOUND IN THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND OTHER DISCIPLINE DRAWINGS. CONTRACTOR IS TO FURNISH SUFFICIENT INFORMATION, INCLUDING PROJECT SPECIFICATIONS, TO THE SUB-CONSULTANT CREATING THE SHOP DRAWING SUBMITTAL TO ALLOW FOR A COMPETE SUBMITTAL.																			
A	CA-3 SHOP DRAWINGS: A. SHOP DRAWINGS FOR MATERIALS MUST BE SUBMITTED TO THE ENGINEER AND CONTRACTING OFFICER FOR REVIEW PRIOR TO THE START OF FABRICATION OR COMMENCEMENT OF WORK.																			
	REINFORCED CONCRETE																			
	C-1 REINFORCED CONCRETE WORK MUST BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE (ACI) "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE - ACI 318" AND THE "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS- ACI 301."																			
	C-2 MAXIMUM MIX DESIGN W/C RATIO MUST NOT BE EXCEEDED. APPROVED ADMIXTURES SUCH AS PLASTICIZERS OR SUPERPLASTICIZERS MAY BE USED ON SITE TO INCREASE SLUMP AND FLOWABILITY AS REQUIRED FOR PLACEMENT. REFER TO ACI 311.5 FOR DOCUMENTATION REQUIREMENTS AND IBC CHAPTER 1703 FOR INSPECTION REQUIREMENTS.																			
	C-3 CAST-IN-PLACE CONCRETE MUST HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (f _c) AS INDICATED ON THE CONCRETE MIX DESIGN TABLE.																			
	C-4 THE STRUCTURE SUPPORTING ELEVATED FLOORS IS DESIGNED TO HAVE AN INITIAL (PRE-COMPOSITE) DEFLECTION OF NOT MORE THAN $\frac{1}{4}$ IN. DUE TO THE WEIGHT OF THE CONCRETE SLAB. THE CONTRACTOR MUST TAKE THIS DEFLECTION INTO ACCOUNT WHEN DETERMINING THE AMOUNT OF CONCRETE NECESSARY TO OBTAIN A LEVEL FLOOR AND MONITOR DEFLECTION DURING CONCRETE PLACEMENT.																			
	C-5 REINFORCEMENT AND EMBEDDED ITEMS: A. PROVIDE STANDARD HOOKS ON BARS TERMINATING AT A CONCRETE FACE UNLESS NOTED SUCH AS AT EDGES OF OPENINGS, SLAB EDGES, EXPANSION JOINTS, ENDS OF BEAMS AND ENDS OF WALLS.																			
	POST-INSTALLED ANCHORS																			
	PI-1 ALL ADHESIVE OR MECHANICAL ANCHORS MUST BE INSTALLED, INCLUDING HOLE DRILLING, DRILL BIT TYPE, PREPARATION, AND CLEANING IN ACCORDANCE WITH AN APPROVED INDEPENDENT EVALUATION REPORT (ICC-ES, IAPMO, OR APPROVED EQUAL), THE PROJECT DRAWINGS AND SPECIFICATIONS, AND IN ACCORDANCE WITH ALL MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).																			
	PI-2 POST-INSTALLED ANCHORS HAVE BEEN DESIGNED WITH HILTI ANCHORS (NOTED BELOW) AS THE BASIS OF DESIGN. PROVIDE APPROPRIATE ANCHOR WITH SIZE AND FINISH AS NOTED AND EQUIVALENT SHEAR AND TENSION CAPACITIES AFTER MODIFICATION DUE TO EMBODIMENT, SPACING AND EDGE DISTANCES. OTHER AVAILABLE MANUFACTURERS INCLUDE SIMPSON, ITW RED HEAD AND DEWALT. A. EXPANSION ANCHORS: KWIK BOLT 3 B. SCREW ANCHORS: KH-EZ SCREW ANCHOR C. ADHESIVE ANCHORS 1. CONCRETE: HIT HY-200 2. GROUTED CMU: HIT HY-270 D. SCREEN TUBE ANCHORS: HIT HY-270																			
	PI-3 SUBSTITUTION REQUEST FOR ALTERNATIVE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER PRIOR TO THE USE. SUBSTITUTION REQUEST MUST INCLUDE AN APPROVED INDEPENDENT EVALUATION REPORT (ICC-ES, IAPMO OR APPROVED EQUAL) AND SUPPORTING CALCULATIONS INDICATING COMPLIANCE WITH DESIGN INTENT. SUBSTITUTIONS MUST BE EVALUATED FOR THEIR COMPLIANCE WITH RELEVANT BUILDING CODES FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATIONS MUST CONSIDER INSTALLED SUBSTITUTION ANCHORS IN CONCRETE MUST BE SUITABLE FOR USE IN CRACKED CONCRETE APPLICATIONS.																			
	PI-4 DO NOT DISTURB, MAKE ATTACHMENTS, OR APPLY LOAD TO ADHESIVE ANCHORS PRIOR TO THE FULL CURE OF THE ADHESIVE. ADHESIVE ANCHORS MUST NOT BE FULLY LOADED UNTIL CONCRETE HAS REACHED 28-DAY DESIGN STRENGTH.																			
	PI-5 CONCRETE TEMPERATURE AT THE TIME OF INSTALLATION MUST BE MONITORED BY THE CONTRACTOR. CONTRACTOR MUST COMPLY WITH ALL MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS RELATIVE TO SUBSTRATE TEMPERATURE.																			
	FOUNDATIONS																			
	F-1 FOUNDATIONS HAVE BEEN DESIGNED AND MUST BE CONSTRUCTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT FOR THIS PROJECT AS LISTED IN THE DESIGN CRITERIA WHICH IS CONSIDERED AS THE BASIS OF FOUNDATION DESIGN. CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND UNDERSTANDING REQUIREMENTS SET FORTH WITHIN THE REPORT AS THEY APPLY TO THIS FOUNDATION DESIGN. THE STRUCTURAL ENGINEER IS NOT LIABLE OR RESPONSIBLE FOR THE ACCURACY OF RECOMMENDATIONS PRESENTED WITHIN THE GEOTECHNICAL REPORT.																			
	F-2 FOUNDATIONS MUST BE PLACED ON A MINIMUM OF 30" LAYER OF COMPAKTED SELECT FILL AND A 6" LAYER OF SCARIFIED RE-COMPAKTED SUBGRADE, CONFORMING TO RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT (MAXIMUM FILL LIFT = 8").																			
	F-3 THE CONTRACTOR IS TO RETAIN THE SERVICES OF A PROFESSIONAL GEOTECHNICAL ENGINEER, SUBJECT TO THE APPROVAL OF THE CONTRACTING OFFICER, TO VERIFY THAT THE MATERIAL ON WHICH FOUNDATIONS BEAR HAS AT LEAST THE CAPACITY AS NOTED IN THE DESIGN CRITERIA. PRIOR TO PLACING CONCRETE, AND AFTER COMPAKCTION OF SUBGRADE, ALL FOUNDATION EXCAVATIONS SHALL BE INSPECTED AND TESTED WHICH MUST INCLUDE IN PLACE DENSITY TESTING. IF THE SUBGRADE HAS LESS THAN THE STATED ALLOWABLE BEARING CAPACITY, THE WEAK SUBGRADE SHALL BE REMOVED, RECOMPACTED, AND RETESTED UNTIL IT IS SATISFACTORY AT NO ADDITIONAL COST TO THE OWNER. CONCRETE PLACEMENT SHALL NOT PROCEED UNTIL THE SUBGRADE MEETS THE MINIMUM DENSITY REQUIREMENTS OF THE SPECIFICATIONS AND THE GEOTECHNICAL REPORT, WHICHEVER IS MORE STRINGENT.																			
	F-4 EXTERIOR FOUNDATIONS ARE TO BEAR BELOW THE MINIMUM BEARING DEPTH FROM FINISHED GRADE GIVEN IN DESIGN CRITERIA GENERAL NOTE DC-4. INTERIOR FOUNDATIONS TO BEAR THE MINIMUM BEARING DEPTH OR AS INDICATED. FINAL BEARING ELEVATIONS MAY VARY TO SUIT SUBSURFACE SOIL CONDITIONS OR BELOW GRADE UTILITIES. NOTIFY THE ENGINEER AND CONTRACTING OFFICER OF ANY CHANGES. PROVIDE FOUNDATION STEPS AS NECESSARY.																			
	F-5 NO BACKFILLING AGAINST WALLS IS ALLOWED UNTIL THE SLABS AT THE TOP AND BOTTOM HAVE BEEN PLACED OR ADEQUATE SHORING HAS BEEN PROVIDED. WALLS AND GRADE BEAMS HAVING BACKFILL AGAINST BOTH SIDES ARE TO HAVE BACKFILL PLACED ON BOTH SIDES UNIFORMLY SO AS NOT TO EXCEED AN 8" DIFFERENTIAL.																			
	F-6 FOUNDATION DRAINAGE, INSULATION AND/OR WATERPROOFING IS NOT SHOWN OR SPECIFIED WITHIN THE STRUCTURAL PORTION OF THE CONSTRUCTION DOCUMENTS. REFERENCE OTHER PORTIONS OF THE CONSTRUCTION DOCUMENTS FOR DRAINAGE, INSULATION AND/OR WATERPROOFING, OR ITEMS ASSOCIATED WITH OTHER DISCIPLINES.																			
	MASONRY																			
	M-1 MASONRY WORK MUST BE IN CONFORMANCE WITH THE MASONRY SOCIETY (TMS) "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES — TMS 402" AND THE "SPECIFICATIONS FOR MASONRY STRUCTURES — TMS 602".																			
	M-2 REINFORCEMENT AND EMBEDDED ITEMS: A. REINFORCING TO BE DISCONTINUOUS AT CONTROL JOINTS UNLESS NOTED OTHERWISE. BOND BEAM REINFORCING AT THE TOPS AND BOTTOMS OF WALLS IS TO BE CONTINUOUS THROUGH JOINT. B. DOWEL REINFORCED MASONRY WALLS TO FOUNDATION. SIZE DOWELS TO MATCH WALL REINFORCEMENT. LOCATE DOWELS IN CELLS TO CONTAIN WALL REINFORCEMENT. LAP DOWELS WITH WALL REINFORCEMENT PER MASONRY LAP TABLE. C. UNLESS NOTED OTHERWISE, PLACE TYPICAL CMU REINFORCEMENT IN CENTER OF FULLY GROUTED CELLS AND SPACE AS FOLLOWS: 1. FOR 8" CMU: (1) #5 VERTICAL AT 32" ON CENTER, MINIMUM. 2. FOR 12" CMU: (1) #5 VERTICAL AT 24" ON CENTER, MINIMUM. 3. PROVIDE ADDITIONAL BARS AT CORNERS AND OPENINGS PER TYPICAL DETAILS. D. VERTICAL REINFORCING TO BE HELD SECURELY IN PLACE DURING GROUT PLACEMENT TO PREVENT DISPLACEMENT OF REINFORCEMENT. E. WELDING OF REINFORCEMENT IS PROHIBITED, UNLESS NOTED OTHERWISE. F. PROVIDE EMBEDS (INCLUDING ANCHORS) FOR SUPPORTING STRUCTURAL AND NON-STRUCTURAL ELEMENTS INCLUDING BUT NOT LIMITED TO: HANDRAILS, CANOPIES, MISCELLANEOUS STEEL, ETC.																			
	M-3 MASONRY ERECTION: A. GROUT CELLS SOLID AT: INSERTS, ANCHORS, AND ELEVATOR GUIDE RAILS IN ADDITION TO LOCATIONS SHOWN IN THE TYPICAL DETAILS. B. DO NOT FULLY GROUT WALLS UNLESS SPECIFICALLY CALLED OUT ON STRUCTURAL DRAWINGS. C. CONTROL JOINT SPACING IN MASONRY WALLS MUST BE PROVIDED WHERE INDICATED ON THE STRUCTURAL DRAWINGS, OR A MAXIMUM OF 24'-0" ON CENTER. D. MASONRY WALLS TO BE TEMPORARILY BRACED UNTIL FLOOR OR ROOF SYSTEM HAS BEEN INSTALLED AND HAS BECOME CAPABLE OF STABILIZING THE WALLS. E. COORDINATE BLOCKOUTS, REVEALS, HOLES, OPENINGS AND BUILT-IN ITEMS WITH ALL CONTRACT DOCUMENTS AND DISCIPLINES. F. PROVIDE VERTICAL MASONRY VENEER CONTROL JOINTS AS INDICATED ON THE																			

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PI-6 INSTALLATION OF ADHESIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED TO SUPPORT SUSTAINED TENSION LOADS MUST BE PERFORMED BY PERSONNEL CERTIFIED BY AN APPLICABLE CERTIFICATION PROGRAM. CERTIFICATION MUST INCLUDE WRITTEN AND PERFORMANCE TEST IN ACCORDANCE WITH THE ACI/RSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM, OR APPROVED EQUIVALENT, IN ACCORDANCE WITH ACI. PROOF OF CURRENT CERTIFICATION MUST BE SUBMITTED TO THE ENGINEER AND CONTRACTING OFFICER FOR APPROVAL PRIOR TO INSTALLATION. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR THESE ANCHORS.

PI-7 IF REINFORCING IS ENCOUNTERED DURING DRILLING, THAT HOLE IS TO BE ABANDONED. DO NOT DAMAGE REINFORCING TO MAINTAIN STRUCTURAL INTEGRITY OF SUBSTRATE COMPONENT. FILL ABANDONED HOLES WITH NON-SHRINK GROUT AND CONTACT THE STRUCTURAL ENGINEER FOR NEW LOCATIONS AND FURTHER INSTALLATION INSTRUCTIONS.

PI-8 POST-INSTALLED ANCHORS TO BE GALVANIZED WHERE EXPOSED TO EXTERIOR AND/OR CORROSIVE ENVIRONMENTS UNLESS THE ANCHOR IS OTHERWISE PROTECTED.

PI-9 SUBSTITUTION OF POST-INSTALLED ANCHORS FOR EMBEDDED ANCHORS SHOWN ON THE DRAWINGS IS NOT PERMITTED.

STRUCTURAL STEEL

S-1 STRUCTURAL STEEL WORK IS TO BE DETAILED AND CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING STANDARD(S):

- A. THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 360 "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS"
- B. THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 341 "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS"

S-2 PRIOR TO FABRICATION, THE STEEL FABRICATOR IS TO SUBMIT TO THE CONTRACTING OFFICER FOR REVIEW SHOP DRAWINGS SHOWING ERECTION PLANS, PIECE DRAWINGS, AND CONNECTION DETAILS.

S-3 STRUCTURAL STEEL FABRICATOR IS TO PROVIDE FOR VERTICAL AND HORIZONTAL FIELD ADJUSTMENT OF SUPPORT ASSEMBLIES.

S-4 STEEL BEAMS ARE TO BE EQUALLY SPACED IN BAYS UNLESS OTHERWISE NOTED.

S-5 FABRICATE AND INSTALL BEAMS WITH NATURAL CAMBER UP UNLESS CAMBER IS NOTED ON THE DRAWINGS.

S-6 STRUCTURAL STEEL FRAMES AND TRUSSES ARE TO BE SECURELY BRACED UNTIL FLOOR SLABS, ROOF DECKS AND SHEAR WALLS HAVE BEEN INSTALLED AND BECOME CAPABLE OF STABILIZING THE FRAMES.

S-7 UNLESS OTHERWISE NOTED, STRUCTURAL STEEL CONNECTIONS TO BE SHOP WELDED AND FIELD BOLTED.

S-8 BOLTED CONNECTIONS:

- A. BOLTS, TYPICAL: 3/4" MINIMUM DIAMETER ASTM F 3125 GR. A325N UNO WITH MATCHING WASHERS AND HEAVY HEX NUTS. BOLTS MUST BE INSTALLED IN A SNUG TIGHT CONDITION WHICH IS ACHIEVED WHEN CONNECTED PARTS ARE IN FIRM CONTACT.
- B. DO NOT REUSE ANY BOLTS, NUTS, AND/OR WASHERS.
- C. DO NOT APPLY ANY WELD TO BOLTS, NUTS, OR WASHERS UNO.

S-9 WELDED CONNECTIONS:

- A. USE E70XX ELECTRODES UNLESS OTHERWISE INDICATED ON THE DRAWINGS. E60XX MAY BE USED FOR WELDING COLD-FORMED STEEL DECKS AND FRAMING.
- B. WELDING OF DEFORMED BAR ANCHORS AND/OR HEADED STUD ANCHORS IS TO BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- C. FILLET WELD SIZES NOT DESIGNATED MUST BE THE SAME AS THE THINNEST CONNECTED PARTS OR 1/8-INCH FILLET WELD ALL AROUND.

S-10 SUBSTITUTION OF POST-INSTALLED ANCHORS FOR EMBEDDED ANCHORS SHOWN ON THE DRAWINGS IS NOT PERMITTED.

S-11 PAINT AND PROTECTION:

- A. EXPOSED STRUCTURAL STEEL TO RECEIVE PAINTED FINISH TO BE SHOP CLEANED AND PRIME PAINTED IN ACCORDANCE WITH SPECIFICATION SECTION 05 12 00 PART 2 - PRODUCTS. REFERENCE ARCHITECTURE FOR FINISH PAINT SYSTEMS.
- B. EXPOSED STRUCTURAL STEEL FOR SCREEN WALLS, EQUIPMENT PLATFORMS, LOOSE ANGLE LINTELS ETC, TO BE HOT DIPPED GALVANIZED PER ASTM A 123
- C. GALVANIZED FASTENERS AND ACCESSORIES TO BE HOT DIPPED GALVANIZED PER ASTM A 153/A 153M.
- D. PROVIDE MINIMUM 3" CONCRETE COVER FOR STEEL BELOW GRADE.

MISCELLANEOUS STEEL

MS-1 COORDINATE ALL MISCELLANEOUS STEEL ITEMS WITH STRUCTURAL STEEL NOTES.

MS-2 PRIOR TO FABRICATION, THE STEEL FABRICATOR IS TO SUBMIT THE FOLLOWING TO THE CONTRACTING OFFICER FOR REVIEW:

- A. SHOP DRAWINGS SHOWING ERECTION PLANS, PIECE DRAWINGS, AND CONNECTION DETAILS.

MS-3 MANUFACTURE STEEL GRATING IN ACCORDANCE WITH THE "METAL BAR GRATING MANUAL" AS PUBLISHED BY THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS.

- A. STEEL FOR GRATING TO CONFORM TO ASTM A 1011/A 1011M. GRATING TO BE TYPE W-19-6 (1" x 3/16") WITH GALVANIZED FINISH.
- B. ALUMINUM FOR GRATING TO CONFORM TO ASTM B 221. GRATING TO BE TYPE AS NOTED WITH MILL FINISH, UNO.

OPEN WEB STEEL JOISTS

J-1 DESIGN, FABRICATION AND ERECTION OF OPEN WEB STEEL JOISTS MUST CONFORM TO THE STEEL JOIST INSTITUTE (SJI) "STANDARD SPECIFICATIONS AND LOAD TABLES FOR STEEL JOISTS AND JOIST GIRDERS."

J-2 DESIGN ALL JOISTS, INCLUDING SLOPE, CAMBER AND BEARING ENDS. PROVIDE ALL BRIDGING LOCATIONS AND LAYOUTS. ALL DESIGNS MUST BE IN ACCORDANCE WITH SJI SPECIFICATIONS WITH A MAXIMUM DEFLECTION OF TL/180 AND LL/240.

J-3 STEEL JOISTS ARE TO BE DESIGNED FOR ALL LOADS INDICATED AS WELL AS WIND UPLIFT AS SHOWN ON SHEET S-005.

J-4 PROVIDE BRIDGING, BOTTOM CHORD EXTENSIONS AND ASSOCIATED ANCHORAGE IN ACCORDANCE WITH SJI REQUIREMENTS. BRIDGING, BOTTOM CHORD EXTENSIONS AND ASSOCIATED ANCHORAGE IS BY THE JOIST MANUFACTURER UNLESS NOTED OTHERWISE. WHERE ERECTION BRIDGING IS REQUIRED, HAVE IN PLACE A ROW OF BOLTED BRIDGING BEFORE RELEASING HOIST LINES.

J-5 BOTTOM CHORD EXTENSIONS TO BE INSTALLED AS REQUIRED BY OSHA AND THE STEEL JOIST SUPPLIER. DO NOT FULLY CONNECT EXTENSIONS TO THE SUPPORTING STRUCTURE UNTIL APPLICABLE DEAD LOAD HAS BEEN APPLIED.

J-6 STEEL JOIST MANUFACTURER IS TO PROVIDE ADDITIONAL BOTTOM CHORD BRIDGING FOR UPLIFT LOADS.

J-7 PROVIDE ANCHORS AND FASTENERS REQUIRED FOR INSTALLATION OF JOISTS, BRIDGING AND BOTTOM CHORD EXTENSIONS.

J-8 STEEL JOISTS ARE TO BE EQUALLY SPACED IN BAYS UNO. DO NOT EXCEED JOIST SPACING INDICATED ON THE DRAWINGS.

J-9 JOIST SEATS HAVE BEEN ASSUMED TO BE AS LISTED BELOW, UNO. MODIFICATIONS TO THE STRUCTURE FOR ALTERNATE DEPTHS MUST BE COORDINATED BY THE GENERAL CONTRACTOR.

A. ALL SERIES: 5"

J-10 HANGERS SUPPORTING MECHANICAL, ELECTRICAL OR OTHER EQUIPMENT ARE TO BE PLACED AT JOIST PANEL POINTS (WELDING NOT PERMITTED) AND APPLIED LOADS ARE TO BE COORDINATED WITH STEEL JOIST MANUFACTURER. DO NOT SUSPEND EQUIPMENT FROM BRIDGING OR METAL DECK.

J-11 STEEL JOIST MANUFACTURER TO VERIFY SIZE, LOCATION AND WEIGHT OF SUPPORTED MECHANICAL UNITS AND ASSOCIATED OPENINGS PRIOR TO FABRICATION.

METAL DECK

D-1 METAL DECK MUST BE DETAILED IN ACCORDANCE WITH THE STEEL DECK INSTITUTE (SDI) "DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS AND ROOF DECKS".

D-2 DECK UNITS HAVE BEEN DESIGNED TO BE A MINIMUM OF THREE (3) SPANS CONTINUOUS WITH LAPS PLACED OVER SUPPORTS.

D-3 REFER TO ROOF DECK SCHEDULE ON S-603 WHICH INCLUDES DEPTH PROFILE, THICKNESS, AND ATTACHMENT.

LIGHT GAGE STEEL FRAMING

LG-1 STRUCTURAL MEMBERS MUST BE DESIGNED IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE (AISI) "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" (LATEST EDITION).

LG-2 STRUCTURAL MEMBERS TO BE FORMED FROM CORROSION RESISTANT STEEL CONFORMING TO ASTM A 653/A 653M WITH MINIMUM YIELD STRESS (Fy) ACCORDING TO STRUCTURAL PERFORMANCE.

LG-3 LIGHT GAGE MEMBERS AND DETAILS SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS ARE FOR BID PURPOSES ONLY. STRUCTURAL STUD AND/OR JOIST FRAMING MEMBERS AND CONNECTIONS ARE TO BE ENGINEERED BY THE MANUFACTURER. DESIGN CALCULATIONS AND SHOP DRAWINGS INDICATING JAMBS, POSTS, HEADERS, BRACING AND PIECES NECESSARY FOR CONSTRUCTION MUST BE SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW. DESIGN CALCULATIONS ARE TO BE PREPARED BY OR UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE UNITED STATES AND BEARING THE SEAL OF THAT PROFESSIONAL ENGINEER.

LG-4 MAXIMUM STUD SPACING TO BE 16" ON CENTER WITH DOUBLED STUDS (MINIMUM) AT EACH SIDE OF OPENINGS.

LG-5 FRAMING COMPONENTS ARE TO BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS OR AS AN ANGULAR FIT AGAINST ABUTTING MEMBERS.

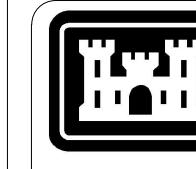
LG-6 FIELD CUTTING OF STUDS MUST BE DONE BY SAWING OR SHEARING, TORCH CUTTING OF COLD-FORMED MEMBERS IS UNACCEPTABLE.

LG-7 FASTENING OF COMPONENTS IS TO BE WITH SELF-DRILLING SCREWS OR WELDING. WELDING OF STUDS MUST COMPLY WITH AWS D1.3/D1.3M. WELDS TO BE TOUCHED-UP WITH ZINC-RICH PAINT. SCREWS AND WELDS TO BE OF SUFFICIENT SIZE TO ENSURE THE STRENGTH OF THE CONNECTION. WIRE TYING OF COMPONENTS IS NOT PERMITTED.

LG-8 LIGHT GAGE STEEL FRAMING MEMBERS ARE TO BE SECURELY ATTACHED TO THE STRUCTURE WHERE INDICATED ON THE DRAWINGS OR APPROVED SHOP DRAWINGS. FASTENERS TO BE COMPATIBLE WITH THE STRUCTURAL MEMBERS. POWDER DRIVEN FASTENERS ARE NOT ACCEPTABLE FOR STRUCTURAL APPLICATIONS.

LG-9 PROVIDE VERTICAL SLIDE TRACKS, OR SLIDE CLIPS, WHERE INDICATED ON THE DRAWINGS OR OTHERWISE REQUIRED TO ALLOW FOR VERTICAL STRUCTURAL MOVEMENTS. MAXIMUM EXPECTED STRUCTURE LIVE LOAD DEFLECTION IS L/360 AT FLOORS AND L/240 AT ROOFS.

LG-10 REFERENCE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING SHEATHING TYPE, FINISHES, OPENINGS, LOCATIONS ETC.



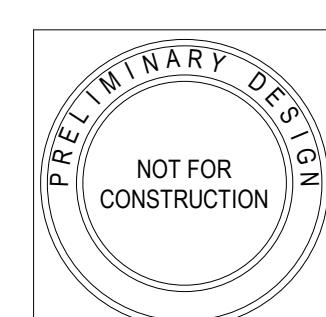
US Army Corps of Engineers ®

MARK	DESCRIPTION

US ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT	ISSUE DATE: JULY 17, 2025
	SOLICITATION NO.:
	CONTRACT NO.:

KORTE CONSTRUCTION 5700 OAKLAND AVE, SUITE 275 ST. LOUIS, MO 63110	DESIGNER BY: DRAWN BY: CHECKED BY: SUBMITTED BY:

GENERAL STRUCTURAL NOTES CREECH AIR FORCE BASE, CLARK COUNTY, NV DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2 494137	SHEET ID



S-003

CONCRETE REINFORCING DEVELOPMENT AND LAP SPLICE TABLE

BAR SIZE	f _c = 4500 PSI								
	#3	#4	#5	#6	#7	#8	#9	#10	#11
ld (TOP BARS)	18	24	30	35	51	59	66	74	82
ld (OTHER BARS)	14	18	23	27	40	45	51	57	64
l _{st} (TOP BARS)	24	32	39	46	67	77	86	97	107
l _{st} (OTHER BARS)	18	24	30	35	51	59	66	74	82
ld _h	12	12	12	14	17	19	21	24	27
f _c = 5000 PSI									
BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11
ld (TOP BARS)	17	23	28	34	49	56	63	71	78
ld (OTHER BARS)	13	17	22	26	38	43	48	54	60
l _{st} (TOP BARS)	23	30	37	45	64	73	82	93	102
l _{st} (OTHER BARS)	17	23	28	34	49	56	63	71	78
ld _h	12	12	12	14	16	18	20	23	25

NOTES:

1. LENGTHS SHOWN ARE IN INCHES.
2. LENGTHS SHOWN ABOVE ARE FOR SINGLE REINFORCING BARS WITH MAXIMUM YIELD STRENGTH OF 60KSI.
3. LENGTHS SHOWN ASSUME CLEAR SPACING OF BARS ARE AT LEAST 2 TIMES BAR DIAMETER AND CLEAR COVER OF AT...
4. LENGTHS SHOWN ABOVE ARE FOR NORMAL WEIGHT CONCRETE. FOR LIGHT WEIGHT CONCRETE, MULTIPLY VALUES BY...
5. FOR EPOXY COATED BARS, MULTIPLY VALUES BY 1.5.
6. WHEN SPLICING BARS OF DIFFERENT SIZES, USE SPLICE LENGTH FOR LARGER BAR.
7. SPLICES (LAPS) OF REINFORCING BARS MUST BE CLASS 'B' TENSION LAPS PER ACI 318, UNLESS NOTED OTHERWISE.
8. TOP BARS ARE HORIZONTAL REINFORCING BARS WITH 12 INCHES OR MORE OF FRESH CONCRETE IS PLACED BELOW.
9. OTHER BARS ARE ANY REINFORCING BARS THAT DO NOT MEET QUALIFICATION FOR TOP BARS.

ELEMENT	f _c (PSI), WEIGHT	EXPOSURE CLASS (NOTES 1 & 2)
FOOTINGS	4500, NW	F0, S2, W0, C1
FOUNDATION (STEM) WALLS	4500, NW	F1, S2, W0, C1
ADMIN INTERIOR SLAB ON GRADE	4500, NW	F0, S2, W0, C0
HANGAR BAY INTERIOR SLAB ON GRADE	5000, NW	F0, S2, W0, C1
EXTERIOR SLABS	4500, NW	F1, S2, W0, C1
LEVELING GROUT	5000, NW	

NOTES:

1. EXPOSURE CLASS INDICATES THE SEVERITY OF THE ANTICIPATED EXPOSURE OF CONCRETE MEMBERS, IN ACCORDANCE WITH ACI 318, CHAPTER 18.
2. PROVIDE TYPE V OR EQUIVALENT SULFATE RESISTANT CEMENT (AS APPROVED BY THE ENGINEER) IN ALL CONCRETE.
3. CONCRETE STRENGTH, f_c, IS THE COMPRESSIVE STRENGTH AT 28 DAYS UNLESS NOTED OTHERWISE.
4. NORMAL WEIGHT (NW) CONCRETE SHALL HAVE A DRY DENSITY OF 145 ±4 PCF, UNO. LIGHTWEIGHT CONCRETE (LW) MUST HAVE A DRY DENSITY OF 115 ±5 PCF UNO.
5. MIX DESIGNS MUST BE IN ACCORDANCE WITH ACI 301.
6. WHERE CONCRETE IS EXPOSURE CLASS F3, RESTRICTIONS ON MAXIMUM FLY ASH AND/OR OTHER CEMENTITIOUS MATERIALS APPLY. REFER TO ACI 318, TABLE 26.4.2.2(B) FOR REQUIREMENTS.
7. AIR CONTENT FOR F1 EXPOSURE MUST BE BETWEEN 4.5% TO 6% UNLESS APPROVED OTHERWISE BY THE ENGINEER. THERE IS NO AIR CONTENT REQUIREMENT FOR THE F0 EXPOSURE CONCRETE.
8. MAXIMUM W/C RATIO MUST NOT BE EXCEEDED. APPROVED ADMIXTURES SUCH AS PLASTICIZERS MAY BE USED ON SITE.
9. CONCRETE FLEXURAL STRENGTH OF HANGAR BAY SOG WILL BE 550 PSI MIN AND 650 PSI MAX AT 90 DAYS.

ELEMENT	SPECIFIED COMPRESSIVE STRENGTH
CONCRETE MASONRY	f _m = 2000 PSI
GROUT FOR CONCRETE MASONRY	f _g ≥ f _m (2000 PSI MINIMUM)

NOTES:

1. PROVIDE MEDIUM WEIGHT HOLLOW CONCRETE MASONRY UNITS FOR GENERAL USE UNLESS OTHERWISE NOTED.
2. MORTAR FOR CONCRETE MASONRY MUST BE TYPE S AT EXTERIOR WALLS AND TYPE N AT INTERIOR WALLS.

BAR SIZE	SINGLE REINFORCING			DOUBLE REINFORCING		
	8" CMU	10" CMU	12" CMU	8" CMU	10" CMU	12" CMU
#3	12	12	12	13	13	13
#4	13	12	12	22	22	22
#5	19	16	13	35	35	35
#6	37	29	24	54	54	54
#7	-	40	33	-	63	63
#8	-	-	50	-	-	72

NOTES:

1. LAP SPLICE LENGTHS ARE IN INCHES.
2. LAP SPLICES IN REINFORCED MASONRY MUST HAVE MINIMUM LENGTHS AS DEFINED ABOVE UNLESS NOTE OTHERWISE.
3. TABULATED VALUES ARE CALCULATED IN ACCORDANCE WITH TMS 402/602-16 CHAPTER 6.
4. SPLICE AND DEVELOPMENT LENGTHS ARE THE SAME VALUE FOR HORIZONTAL AND VERTICAL BARS.
5. SINGLE REINFORCING IS A SINGLE BAR CENTERED IN CMU BLOCK CELL, DOUBLE REINFORCING IS TWO BARS IN A CMU BLOCK CELL WITH 2 INCH MINIMUM CLEAR COVER FROM OUTSIDE FACE OF BLOCK.
6. TABULATED VALUES BASED ON UNCOATED REINFORCEMENT WITH A YIELD STRENGTH, f_y = 60 KSI.
7. TABULATED VALUES BASED ON MASONRY COMPRESSIVE STRENGTH, f_m = 2000 PSI



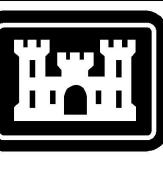
US Army Corps of Engineers ®

DATE

US ARMY CORPS OF ENGINEERS	ISSUE DATE:	JULY 17, 2025
LOS ANGELES DISTRICT	SOLICITATION NO.:	
	CONTRACT NO.:	
KORTE CONSTRUCTION	CHECKED BY:	Checker
5700 OAKLAND AVE, SUITE 275	SUBMITTED BY:	
ST. LOUIS, MO 63110	SIZE:	
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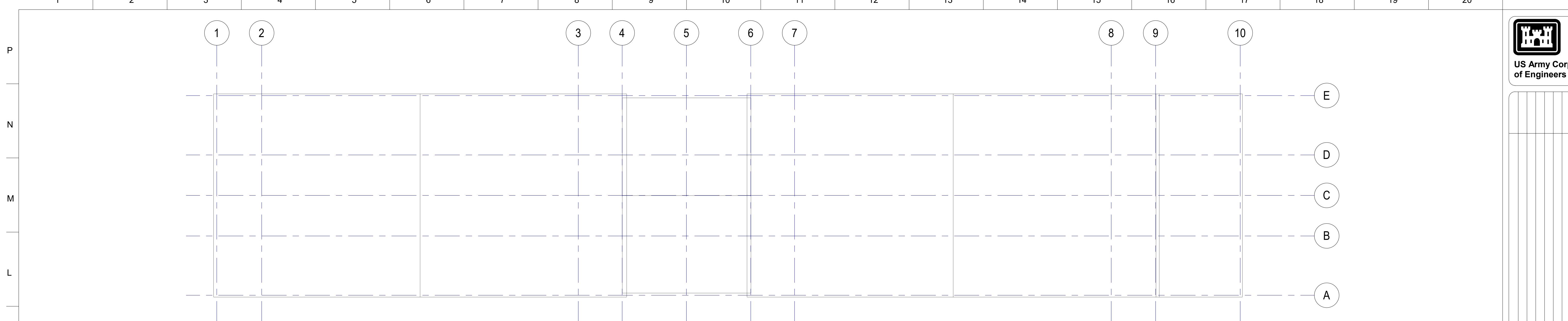
CREECH AIR FORCE BASE, CLARK COUNTY, NV	GENERAL STRUCTURAL NOTES
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2	
494137	

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FOR REVIEW	



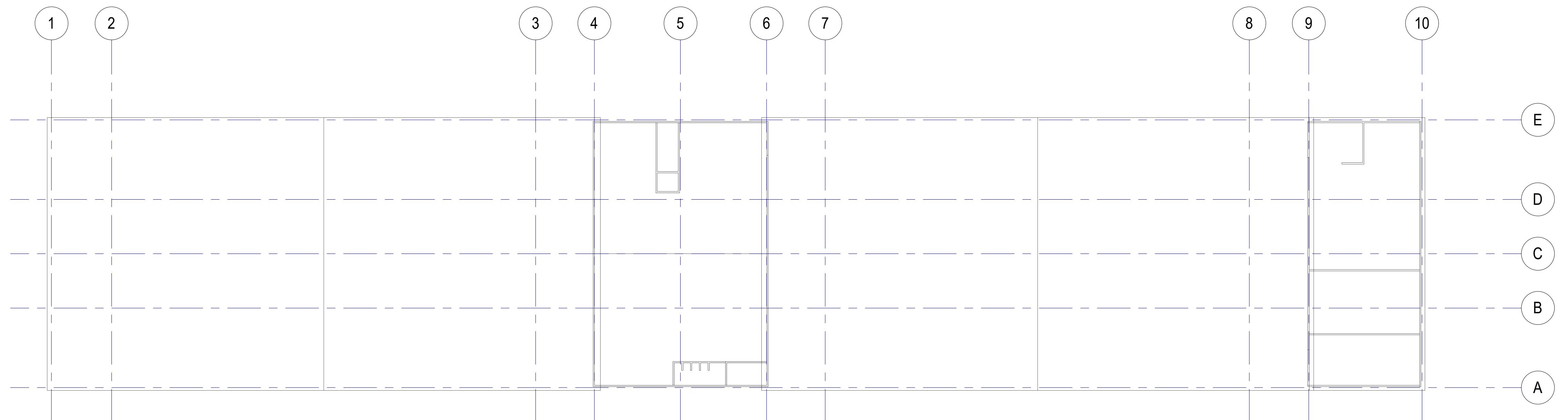
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DATE



K3 OVERALL ROOF SNOW DRIFT LOAD PLAN

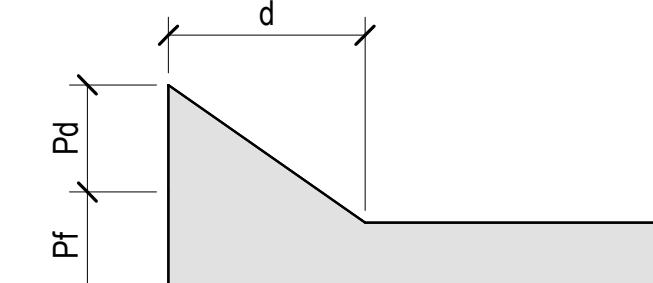
1" = 30'-0"



D3 OVERALL WIND COMPONENTS AND CLADDING ROOF LOAD PLAN

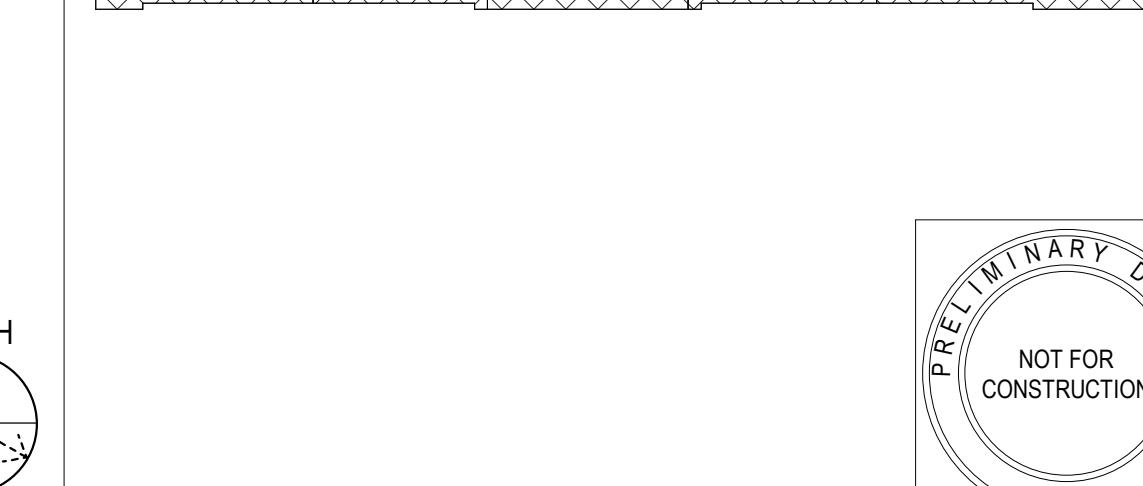
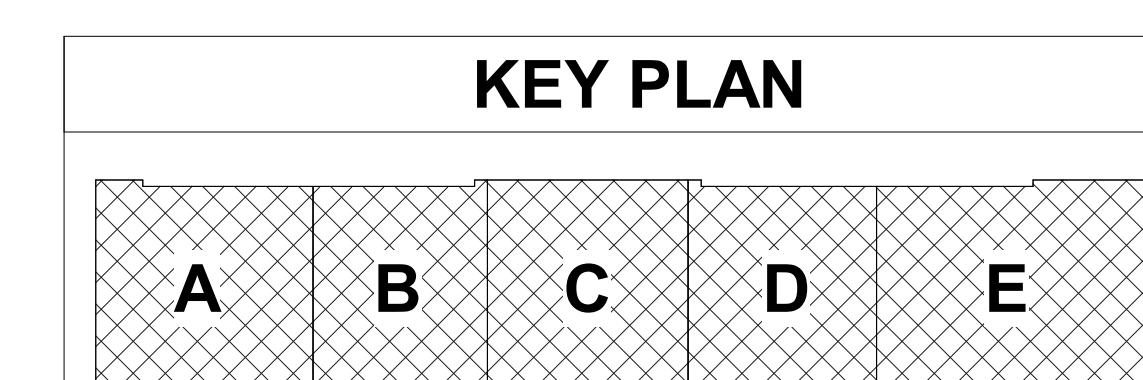
1" = 30'-0"

SNOW DRIFT LOAD KEY			
MARK	SURCHAGE LOAD (Pd)	DRIFT WIDTH (d)	BALANCED SNOW LOAD (Pf)
SD-1	30 PSF	8 FT	4.2 PSF
SD-2	25 PSF	7 FT	4.2 PSF



WIND LOAD MAP KEY					
MARK	PATTERN	USAGE	WIND LOAD (PSF)		
			50 FT ²	100 FT ²	500 FT ²
①	Horizontal lines	INTERIOR ROOF ZONE (ZONE1)	-36.0 PSF 16.0 PSF	-33.2 PSF 16.0 PSF	-26.7 PSF 16.0 PSF
②	Vertical lines	ROOF END ZONE (ZONE 2&3)	-59.7 PSF 16.0 PSF	-52.5 PSF 16.0 PSF	-35.7 PSF 16.0 PSF
③	Diagonal lines	OVERHANG ZONE (ZONES 2&3)	-52.8 PSF 16.0 PSF	-44.4 PSF 16.0 PSF	-24.9 PSF 16.0 PSF

1" = 30'-0" 0 15' 30' 60' 90'



PLAN
NORTH

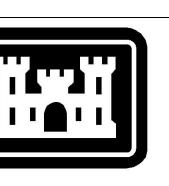
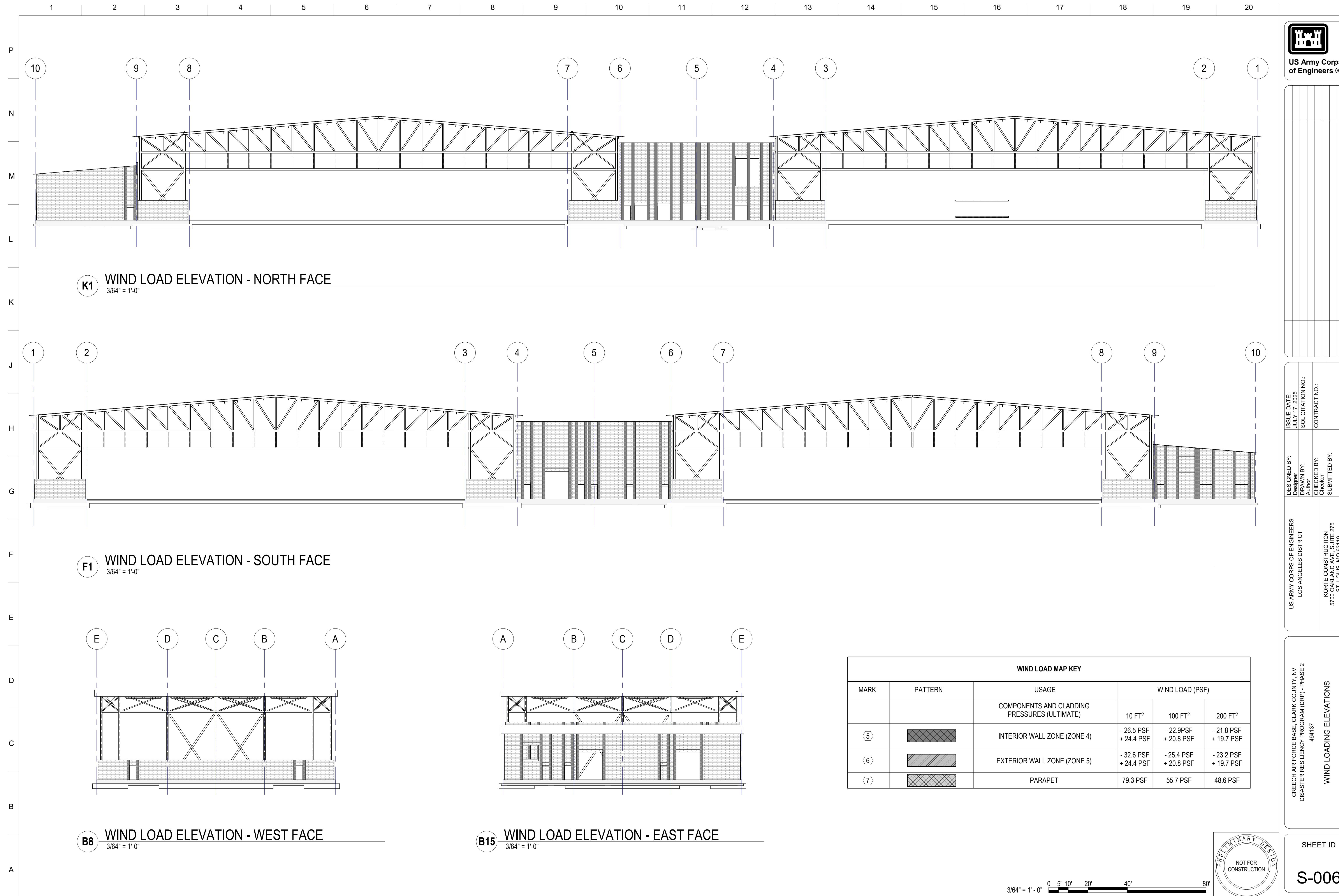
CREECH AIR FORCE BASE, CLARK COUNTY, NV
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494137

LOADING PLANS

SHEET ID

S-005

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ST. LOUIS, MO 63110

CREECH AIR FORCE BASE, CLARK COUNTY, NV
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2
494137

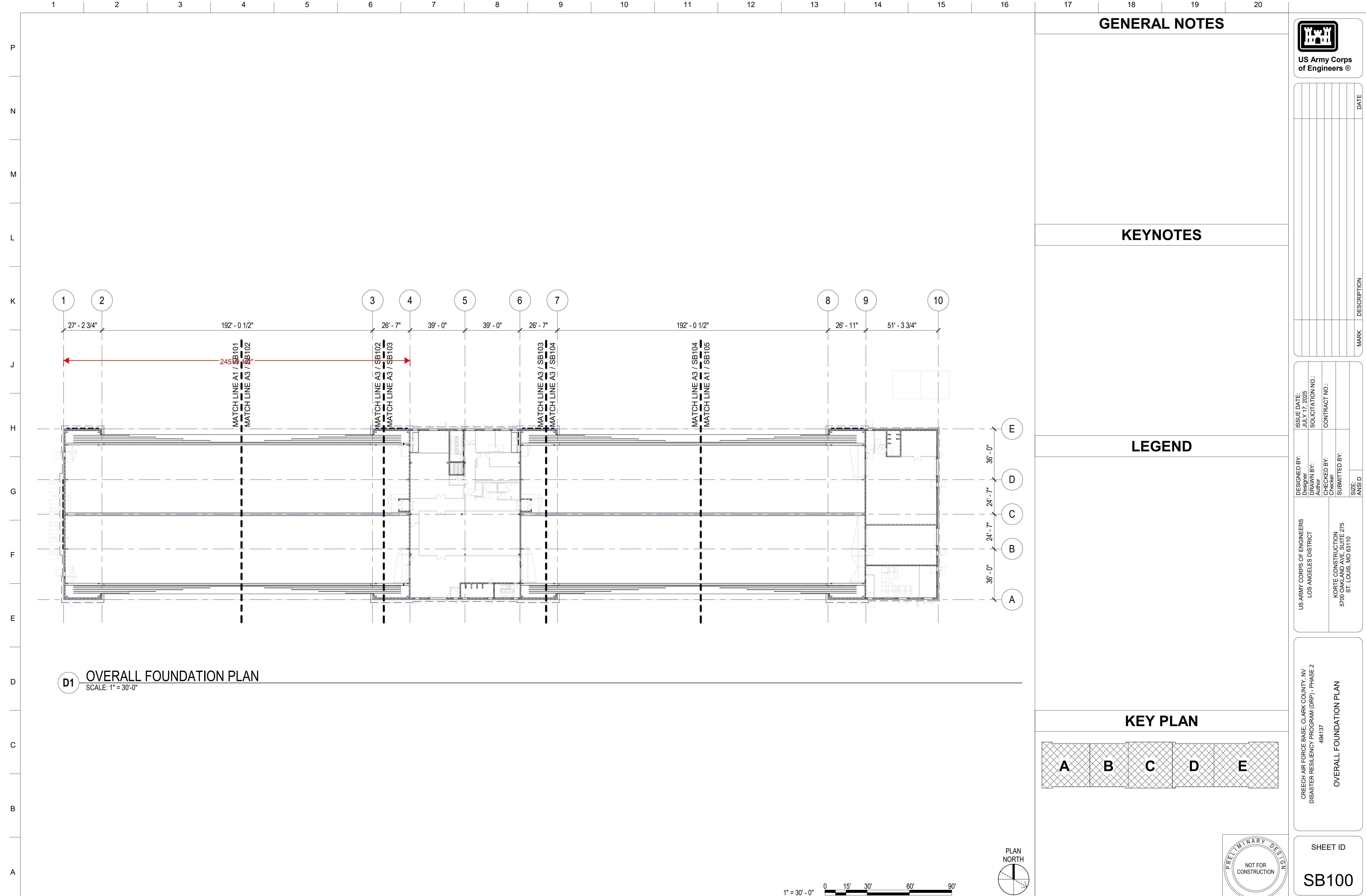
WIND LOADING ELEVATIONS

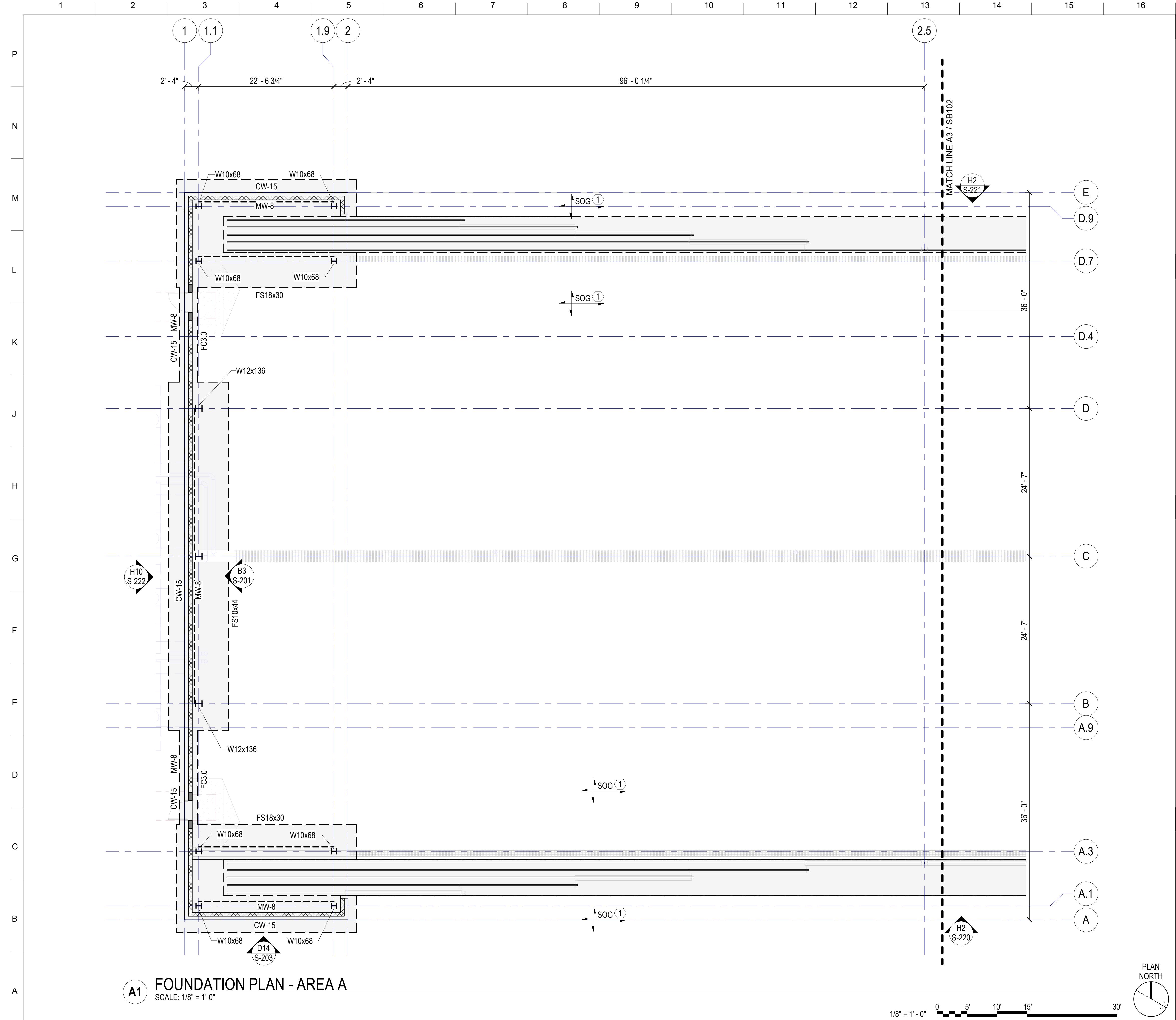
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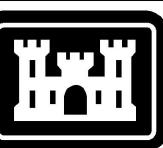
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3/64" = 1' - 0" 0 5' 10' 20' 40' 80'





GENERAL NOTES

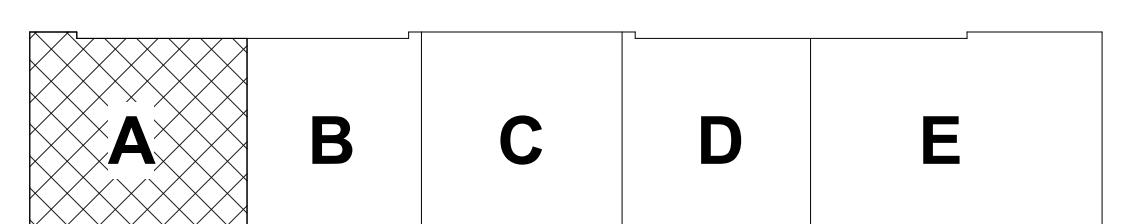


US Army Corps
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KEYNOTES

LEGEND

KEY PLAN



FOUNDATION PLAN - AREA A

CREECH AIR FORCE BASE, CLARK COUNTY, NV

DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2

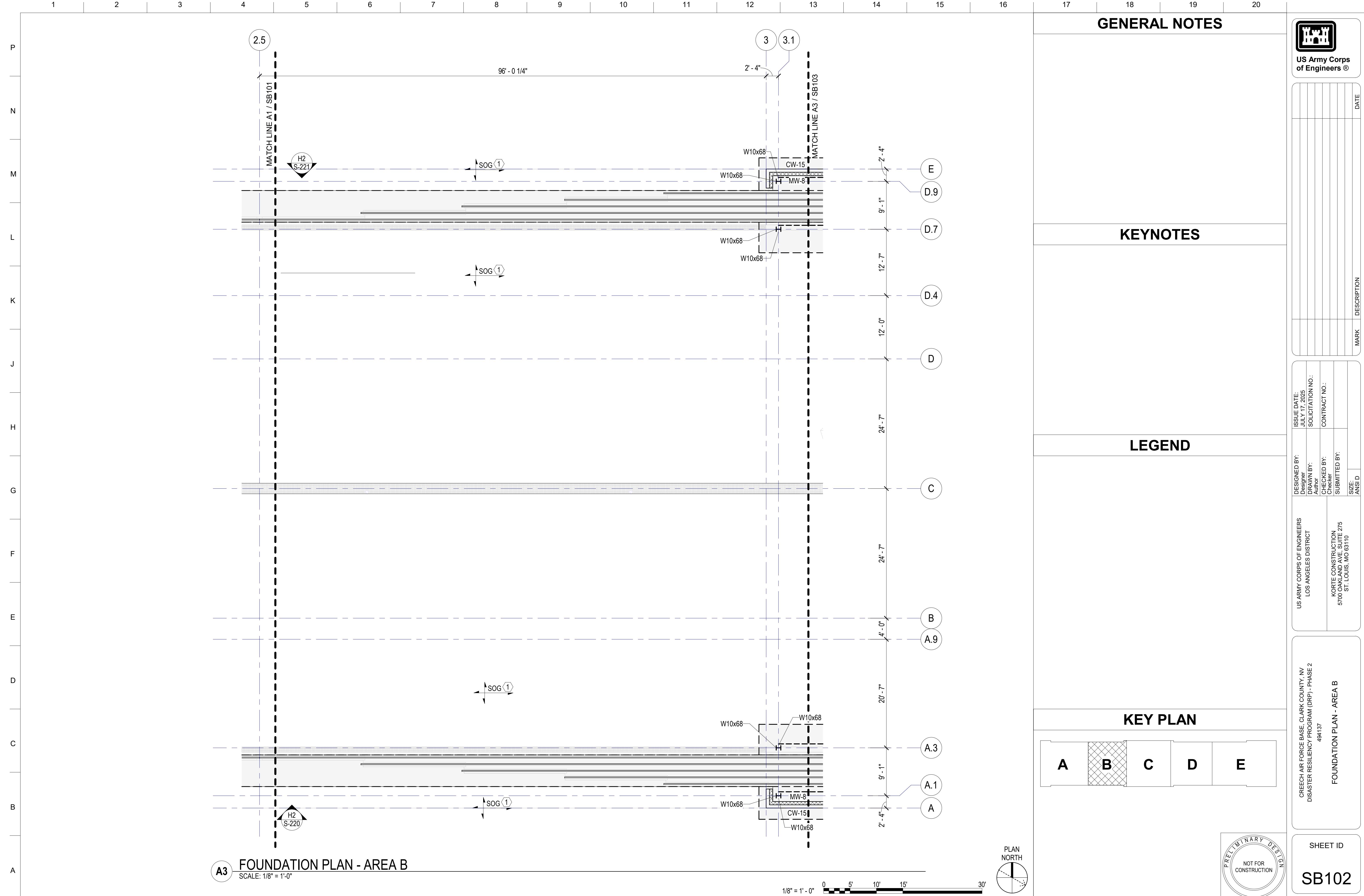
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CREECH AIR FORCE BASE DISASTER RESILIENCY PLAN

SHEET ID

SB101

FOR REVIEW



1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

P
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A

FOUNDATION PLAN - AREA D

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

1/8" = 1'-0" 0 5' 10' 15' 30'

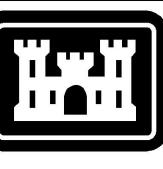
Dimensions:

- Width: 96' - 0 1/4"
- Height: 2' - 4" to 24' - 7"
- Vertical levels: A (2' - 4"), A.1 (9' - 1"), A.3 (20' - 7"), B (4' - 0"), C (24' - 7"), D (12' - 0"), D.4 (12' - 7"), D.7 (9' - 1"), D.9 (2' - 4"), E (2' - 4"), 6.9, 7, 7.5

Labels:

- W10x68 (reinforcement)
- SOG 1 (foundation beam labels)
- A2 S-221 (callout)
- A2 S-220 (callout)
- MATCH LINE A3 / SB103
- MATCH LINE A1 / SB105
- Column locations: 6.9, 7, 7.5, A, B, C, D, D.4, D.7, D.9, E

GENERAL NOTES



U.S. Army Corps Engineers ®

KEYNOTES

LEGEND

KEY PLAN

FOR REVIEW

04

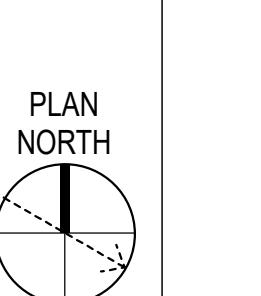
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LOS ANGELES DISTRICT	
DESIGNER	CONTRACT NO.:
DRAWN BY: Author	JULY 17, 2025
CHECKED BY: Checker	SOLICITATION NO.:
SUBMITTED BY: KORTE CONSTRUCTION 5700 OAKLAND AVE, SUITE 275 ST. LOUIS, MO 63110	
SIZE: ANSI D	

EECH AIR FORCE BASE, CLARK COUNTY, NV
STER RESILIENCY PROGRAM (DRP) - PHASE 2

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FOUNDATION PLAN - AREA D



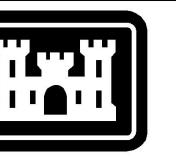
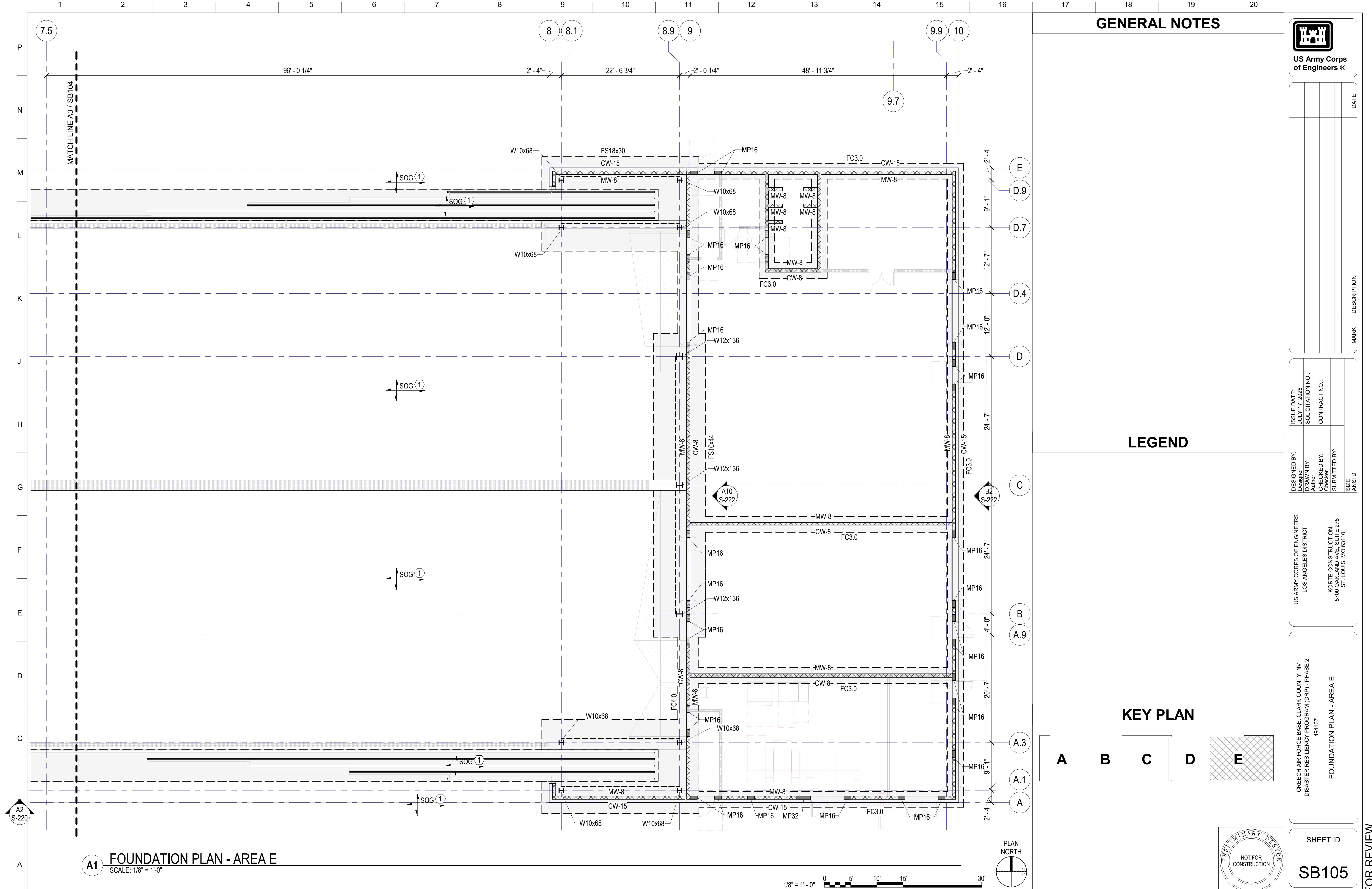
A scale bar with markings at 0, 5', 10', 15', and 30'. To the left of the scale, the text "1/8" = 1' - 0" is displayed, indicating a scale factor of 1/8 inch equals 1 foot.

FOR REVIEW

SHEET ID

SB104

SB104



U.S. Army Corps Engineers ®

DATE

GENERAL NOTES

The logo for the U.S. Army Corps of Engineers, featuring a stylized fort or castle with a central tower and a drawbridge, enclosed in a rectangular border.

DATE

LEGEND

KEY PLAN

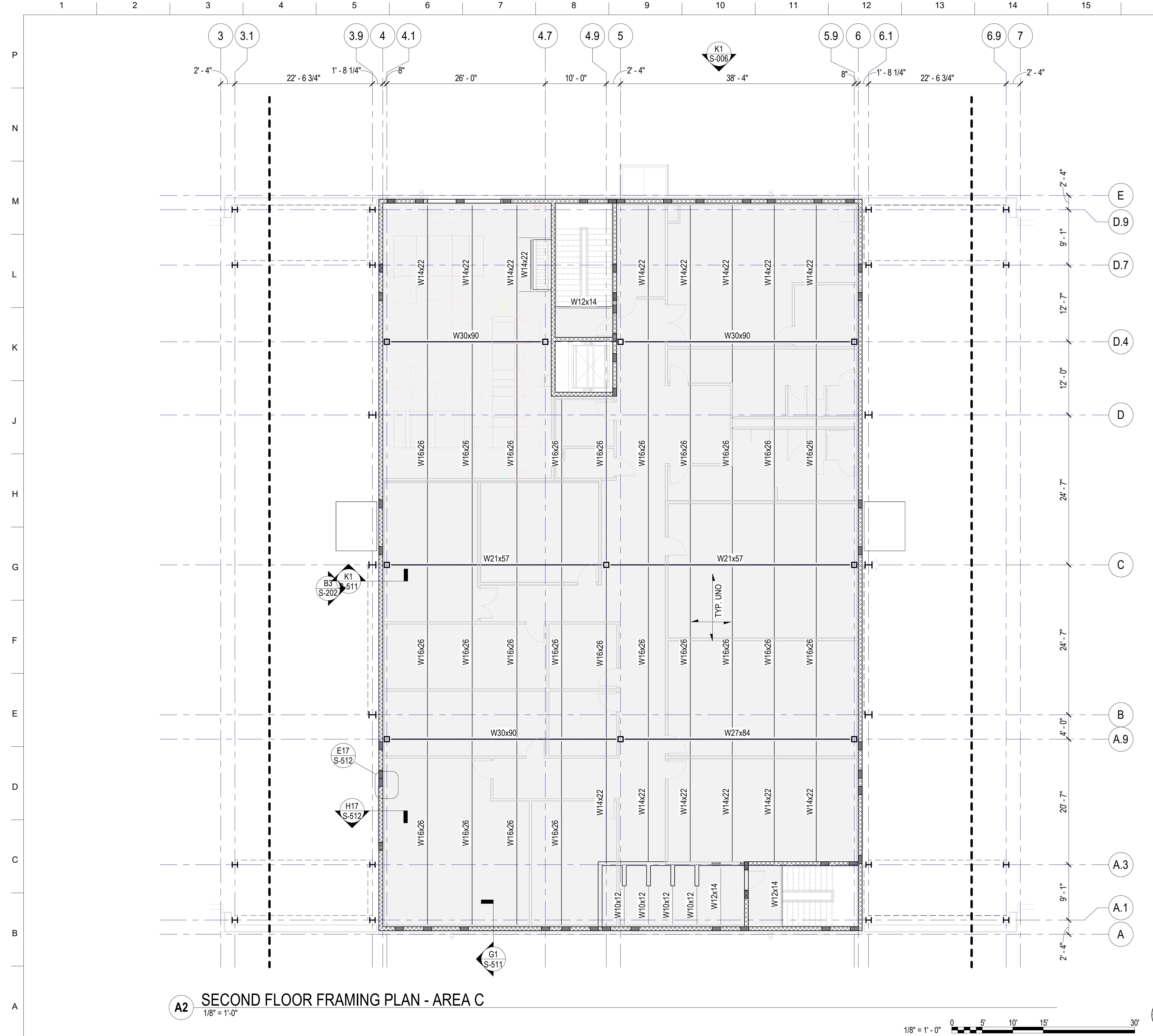
MASTER RESILIENCY PROGRAM (DRP) - PHASE 2
494137
FOUNDATION PLAN - AREA E

DISA

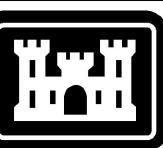
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SB105

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GENERAL NOTES



US Army Corps
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KEYNOTES

LEGEND

KEY PLAN

SECOND FLOOR FRAMING PLAN - AREA C

SF121

SF121

FOR REVIEW

GENERAL NOTES

LEGEND

KEY PLAN

MEZZANINE FLOOR FRAMING PLAN - AREA E

A1 MEZZANINE FLOOR FRAMING PLAN - AREA E

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

1/8" = 1' - 0" 0 5' 10' 15' 30'

PLAN NORTH

NOT FOR CONSTRUCTION

SHEET ID

SF122

US ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

KORTE CONSTRUCTION
5700 OAKLAND AVE. SUITE 275
ST. LOUIS, MO 63110

DESIGNED BY:
DRAWN BY:
CHECKED BY:

ISSUE DATE:
JULY 17, 2025
SOLICITATION NO.:
CONTRACT NO.:

404137

CRECH AIR FORCE BASE, CLARK COUNTY, NV
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2

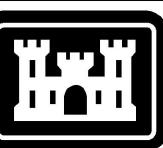
MEZZANINE FLOOR FRAMING PLAN - AREA E

PRELIMINARY DESIGN

NOT FOR CONSTRUCTION

NO. 913

GENERAL NOTES



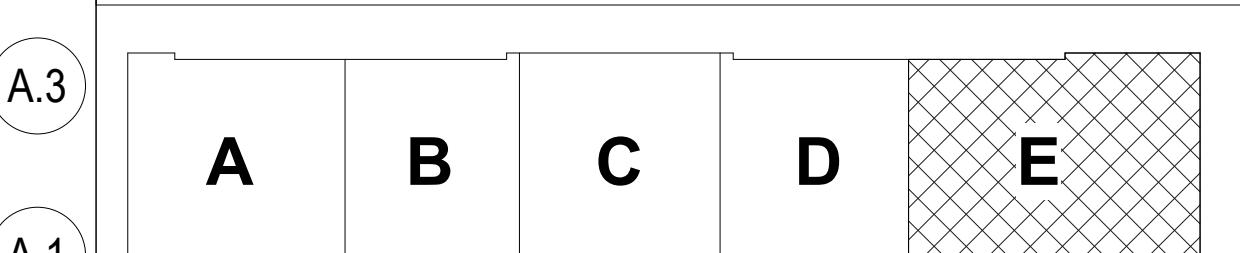
US Army Corps
of Engineers ®

MATERIAL	DESCRIPTION	DATE

LEGEND

US ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT		DESIGNED BY: Designer	ISSUE DATE: JULY 17, 2025
		DRAWN BY: Author	SOLICITATION NO.:
		CHECKED BY: Checker	CONTRACT NO.:
		SUBMITTED BY: KORTE CONSTRUCTION 5700 OAKLAND AVE, SUITE 275 ST. LOUIS, MO 63110	SIZE: ANSI D

KEY PLAN



A **B** **C** **D** **E**

GREECH AIR FORCE BASE, CLARK COUNTY, NV
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2

494137

MEZZANINE FLOOR FRAMING PLAN - AREA E

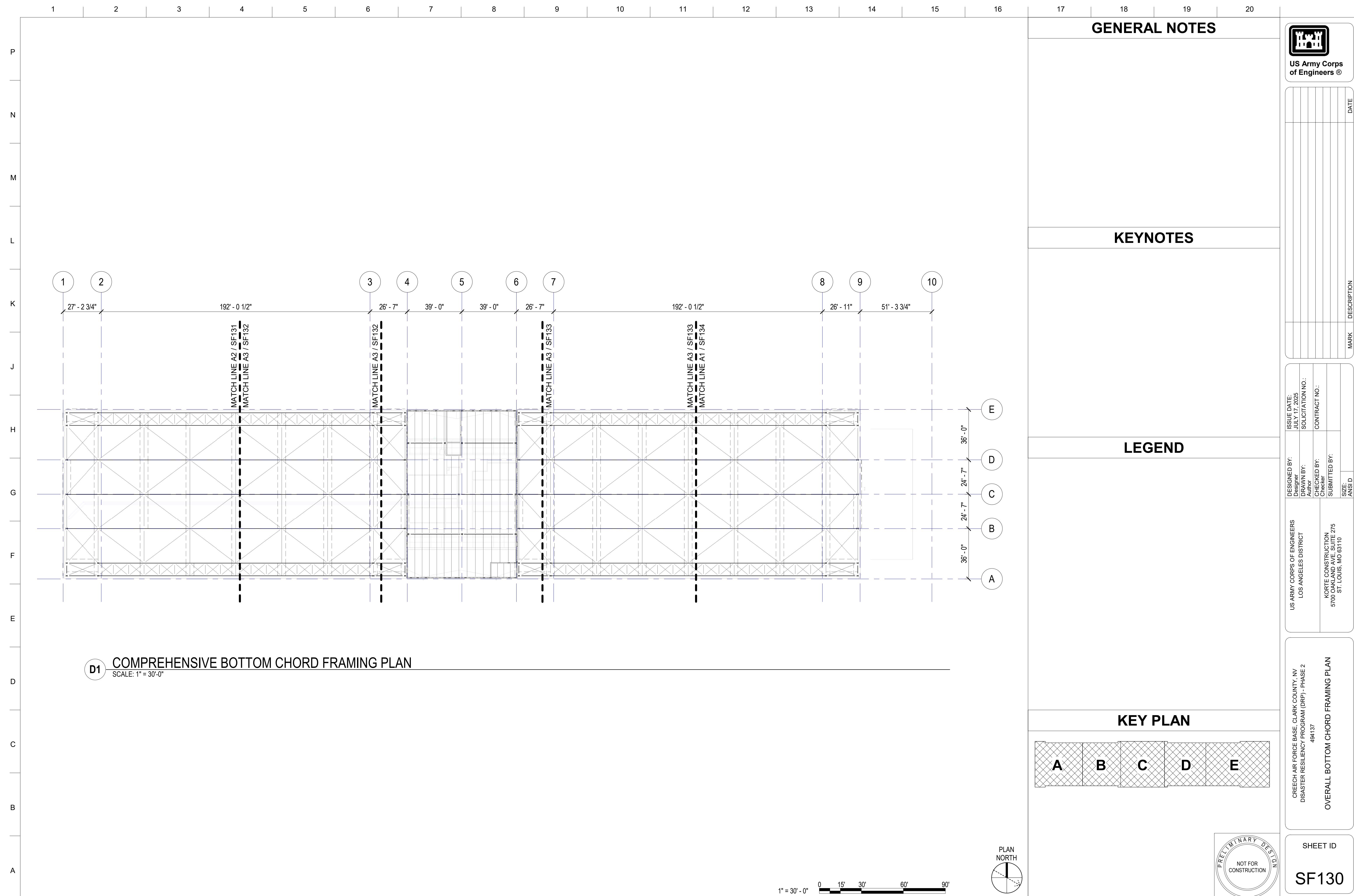
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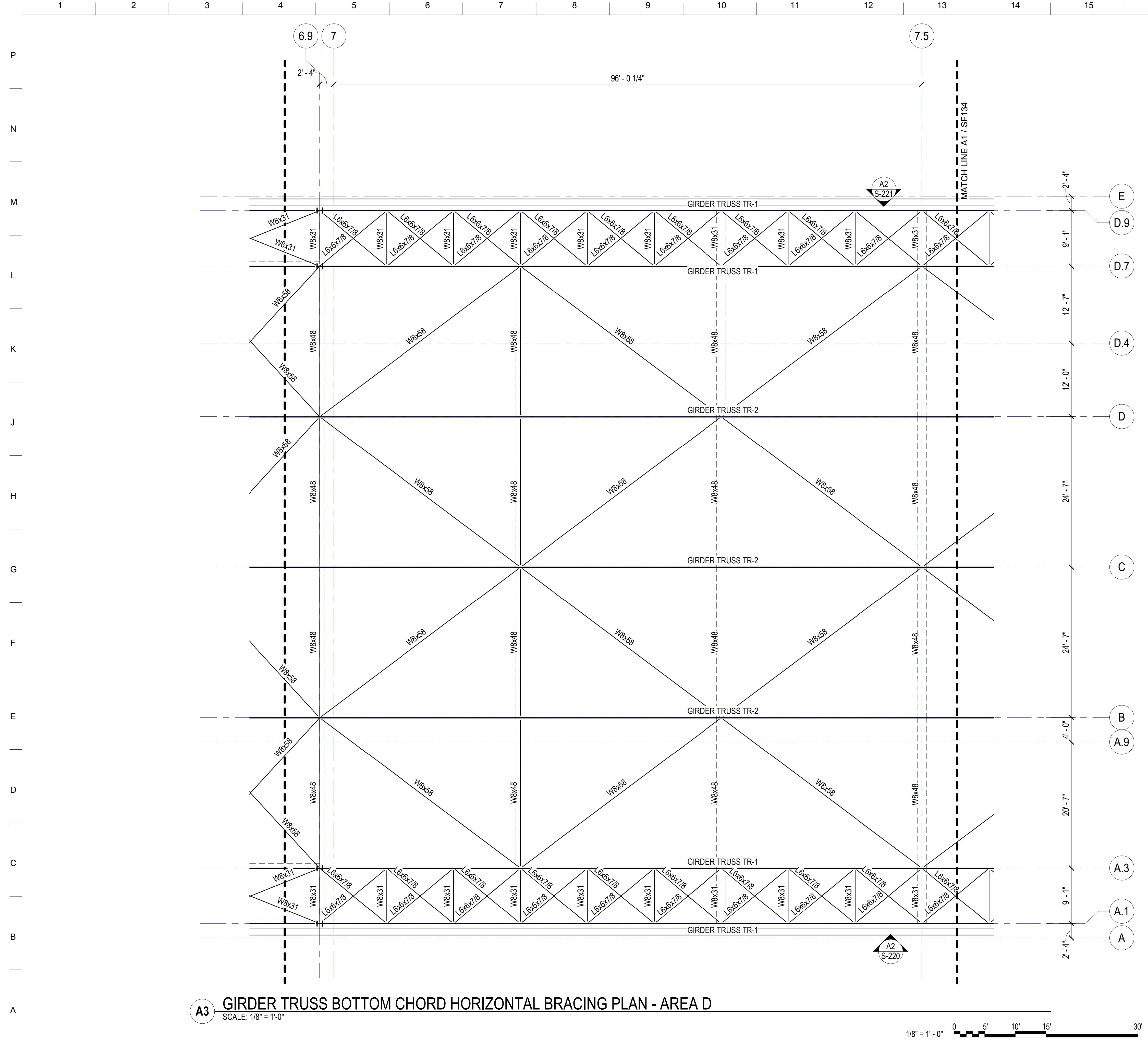
SHEET ID

SF122

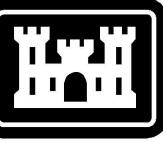
of 122

FOR REVIEW





GENERAL NOTES

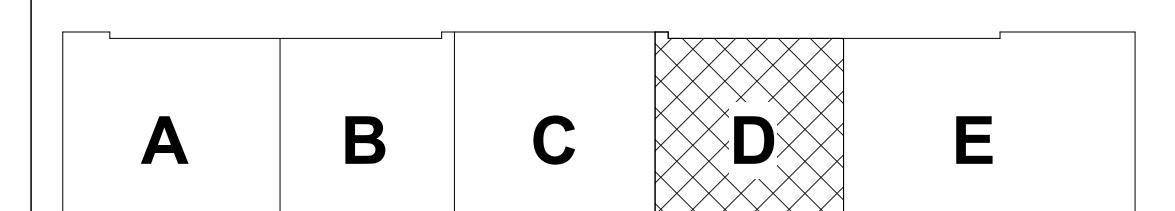


US Army Corps of Engineers ®

KEYNOTES

LEGEND

KEY PLAN



CHORD FRAMING PLAN - AREA D
CREECH AIR FORCE BASE, CLARK COUNTY, NV
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2
494137

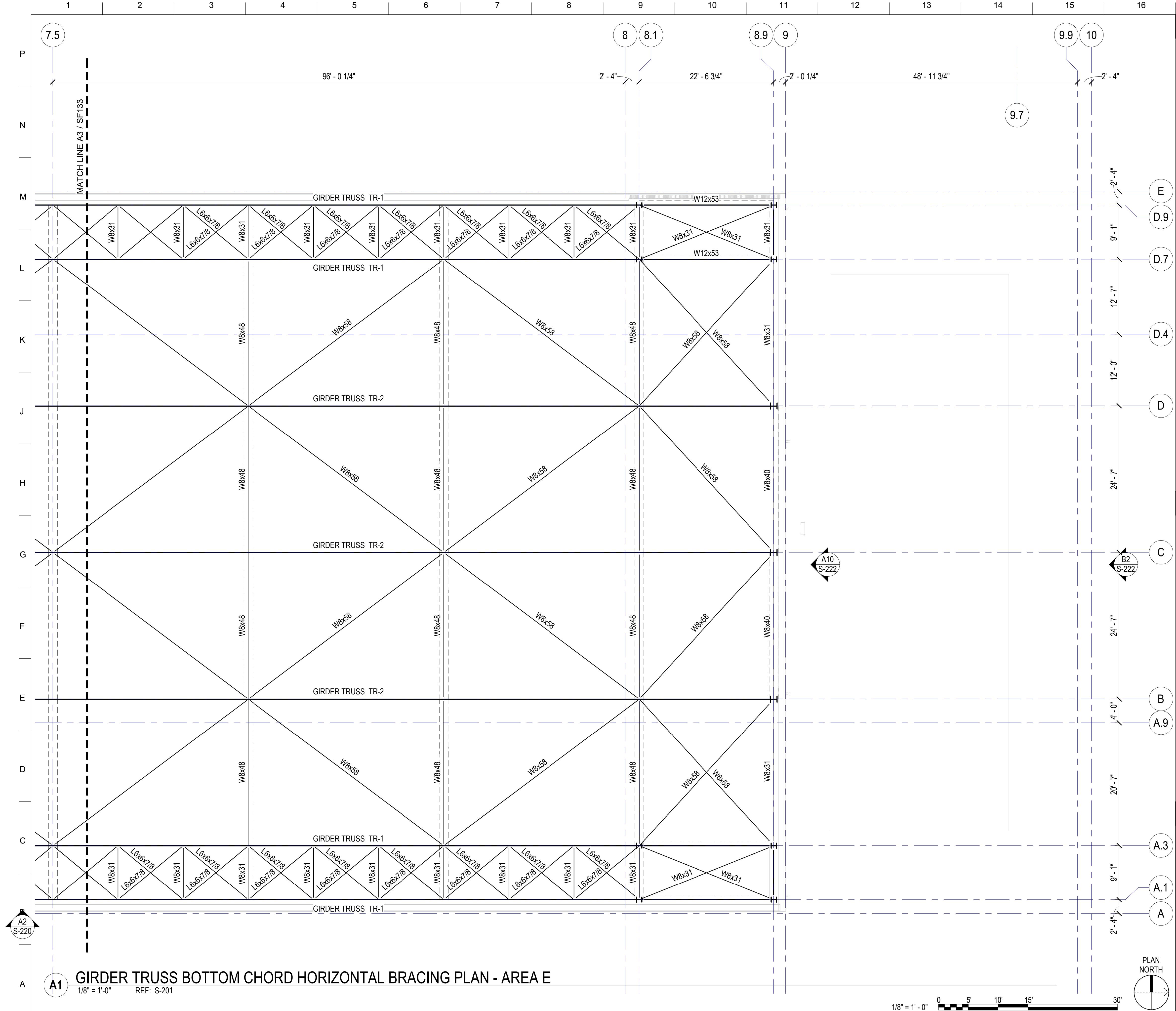
BO
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SHEET ID

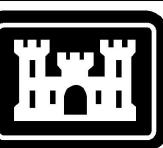
SE133

SF-133

FOR REVIEW



GENERAL NOTES

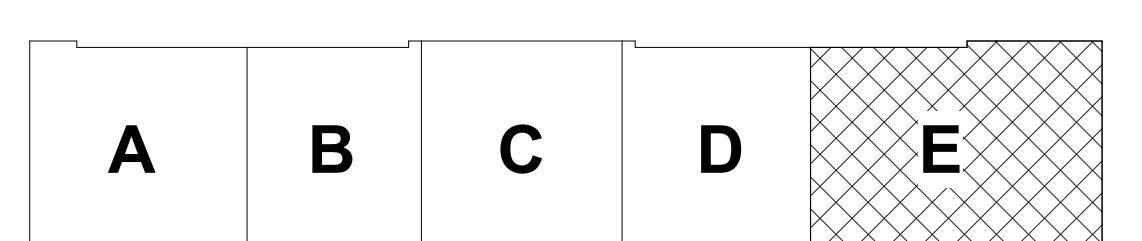


US Army Corps
of Engineers ®

LEGEND

KORTE CONSTRUCTION 5700 OAKLAND AVE, SUITE 275 ST. LOUIS, MO 63110	
Designer DRAWN BY: Author	JULY 17, 2025 SOLICITATION NO.:
CHECKED BY: Checker	CONTRACT NO.:
SUBMITTED BY:	
SIZE: ANSID	

KEY PLAN



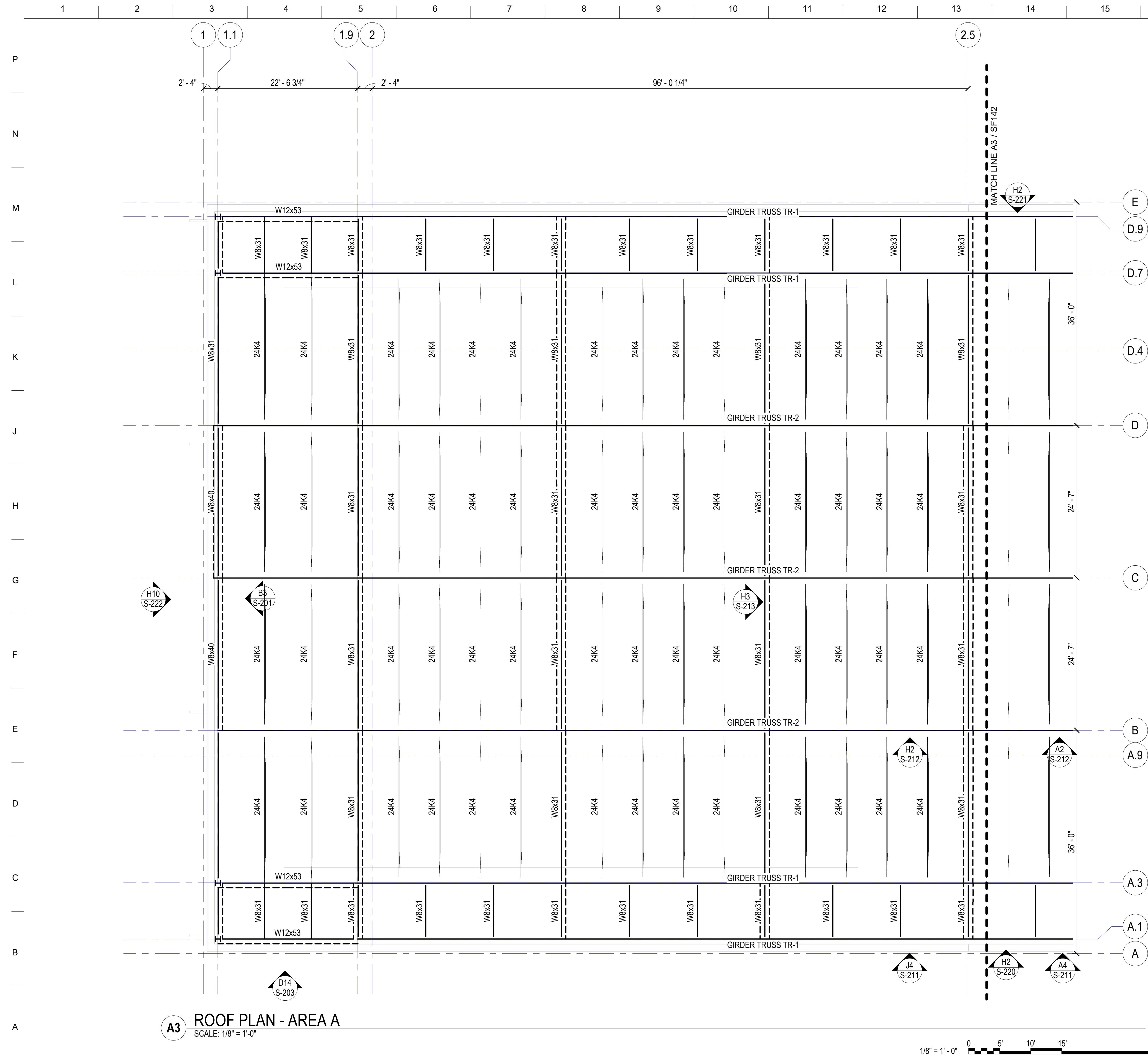
CREECH AIR FORCE BASE, CLARK COUNTY, NV
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2

494137

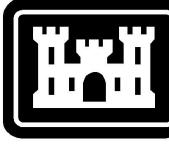
OTTOM CHORD FRAMING PLAN - AREA E

SHEET ID
SF134

FOR REVIEW



GENERAL NOTES

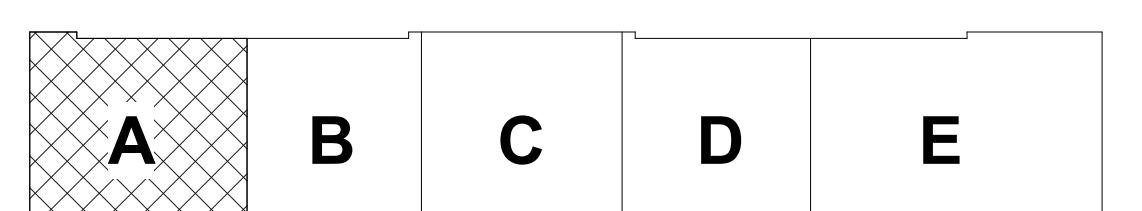


US Army Corps of Engineers ®

KEYNOTES

LEGEND

KEY PLAN

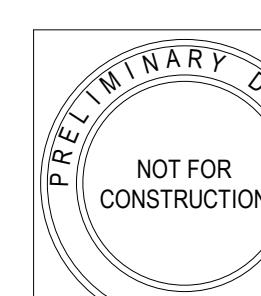
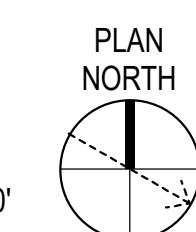


ROOF PLAN - AREA A

A3 SCALE: 1/8" = 1'-0"

A3 ROOF PLAN
SCALE: 1/8" = 1'-0"

A scale bar with markings at 0, 5, 10, and 15 feet. Below the scale bar, the text "1/8\" data-bbox="111 83 220 138" is displayed, followed by a black and white checkered pattern representing 1/8 inch.



SHEE

— 15 —

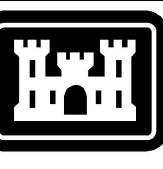
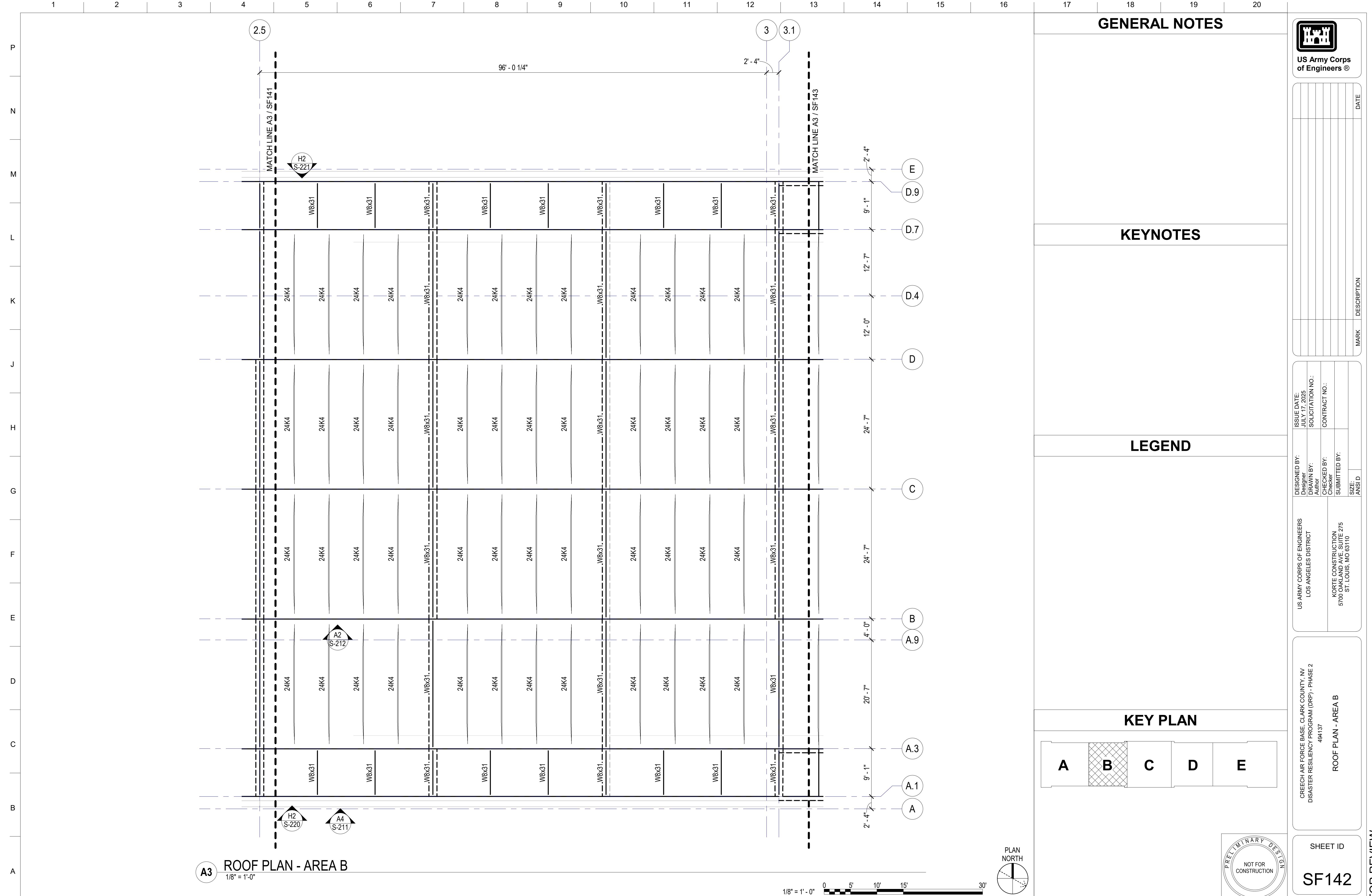
GN

SE1

SF

1. *What is the name of the author?*

1
FOR REVIEW



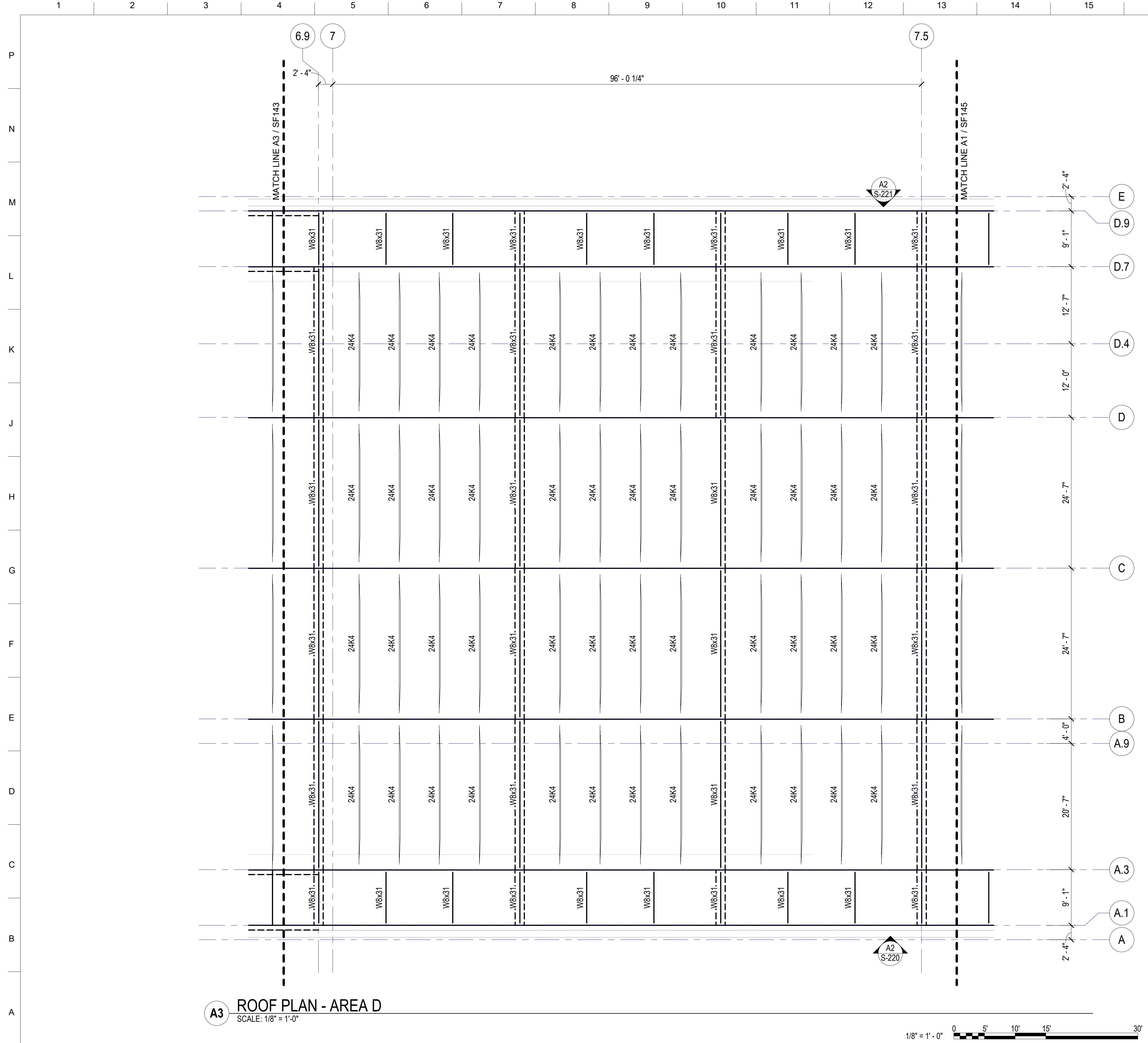
US Army Corps of Engineers ®

LOS ANGELES DISTRICT		Designer	JULY 17, 2025
		DRAWN BY: Author	SOLICITATION NO.:
		CHECKED BY: Checker	CONTRACT NO.:
		SUBMITTED BY:	
KORTE CONSTRUCTION 5700 OAKLAND AVE, SUITE 275 ST. LOUIS, MO 63110		SIZE: ANSI D	

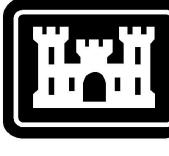
CREECH AIR FORCE BASE, CLARK COUNTY, NV
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2

SHEET ID
SF142

FOR REVIEW



GENERAL NOTES

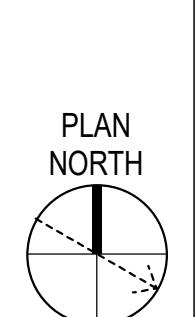


US Army Corps of Engineers ®

KEYNOTES

LEGEND

KEY PLAN



A3 ROOF PLAN - AREA D

A5 SCALE: 1/8" =

A scale bar representing 1/8 inch as 1 foot - 0 inch. It features a black and white checkered pattern for the first 1/8 inch, followed by a solid black bar for the remaining 15 inches.

US ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT		DESIGNED BY: Designer	ISSUE DATE: JULY 17, 2025
		DRAWN BY: Author	SOLICITATION NO.:
		CHECKED BY: Checker	CONTRACT NO.:
		SUBMITTED BY: KORTE CONSTRUCTION 5700 OAKLAND AVE, SUITE 275 ST. LOUIS, MO 63110	SIZE: ANSI D

CLARK COUNTY
DRIVE BASE, CLARK COUNTY
DRIVE INCY PROGRAM (DRP) -
494137

CREECH AIR FORCE BASE, CLARK COUNTY, NV
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2
494137

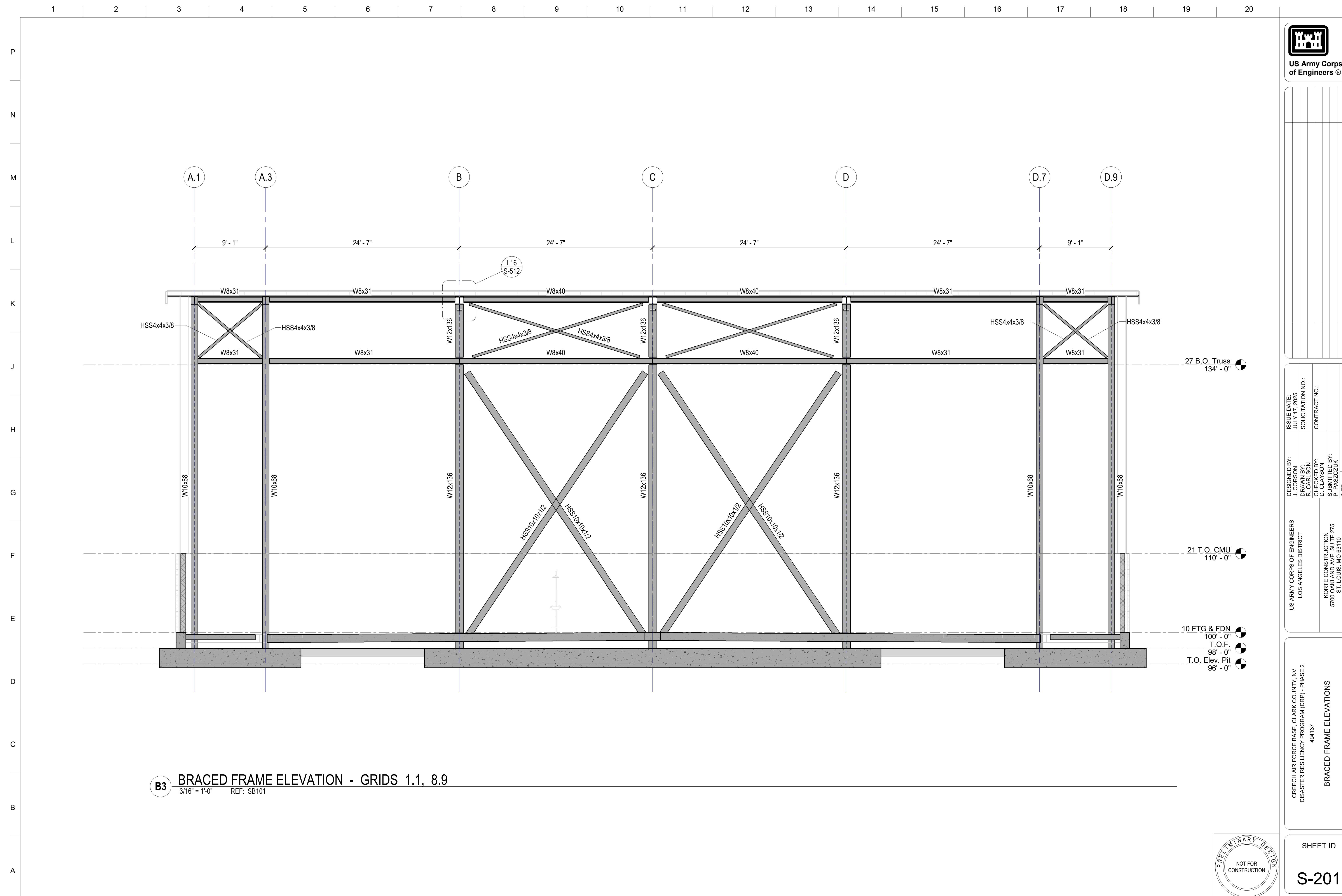
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SHEET

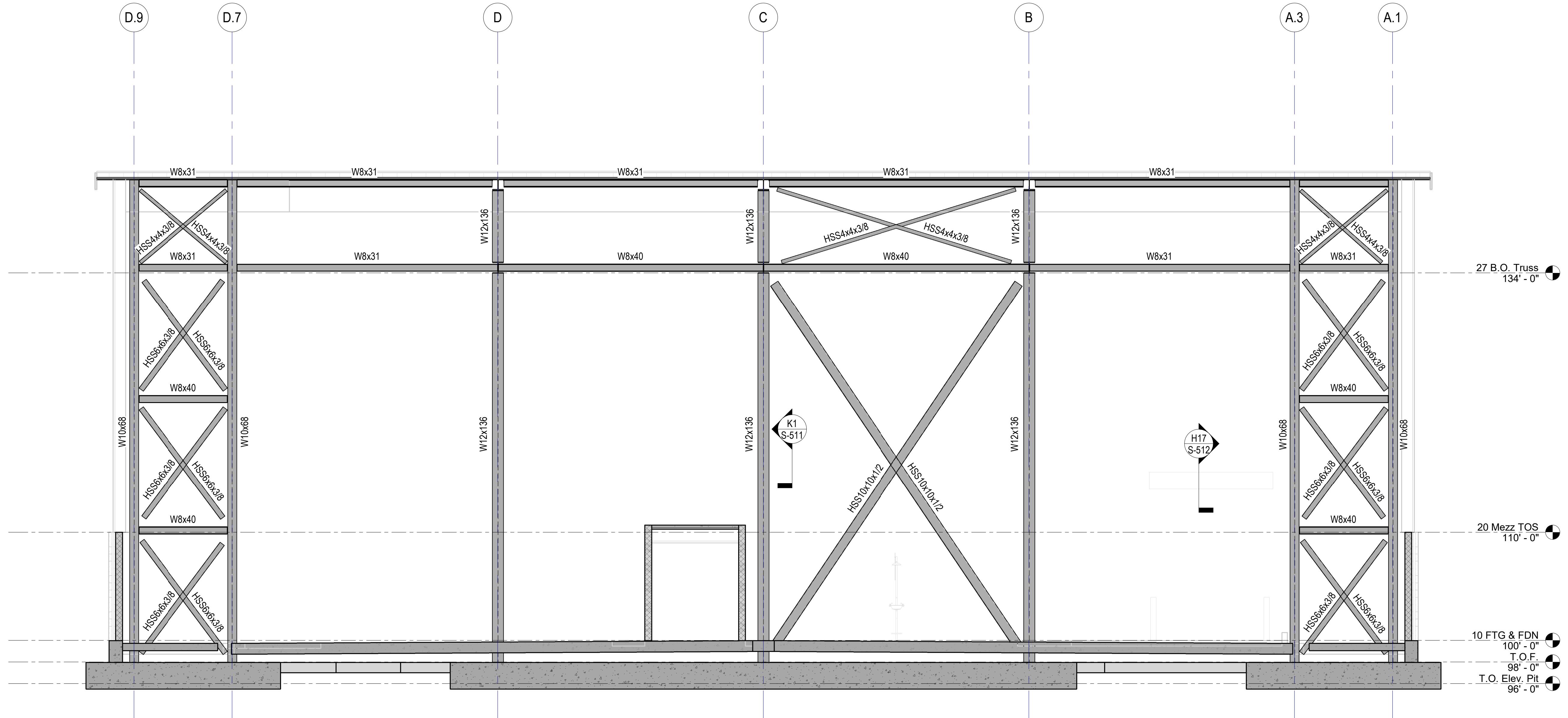
SF144

1000

FOR REVIEW



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B3 BRACED FRAME ELEVATION - GRIDS 3.9, 6.
3/16" = 1'-0" REF: SB103

DISASTER RESILIENCY PROGRAM (DRP) - PHASE
494137
BRACED FRAME ELEVATIONS

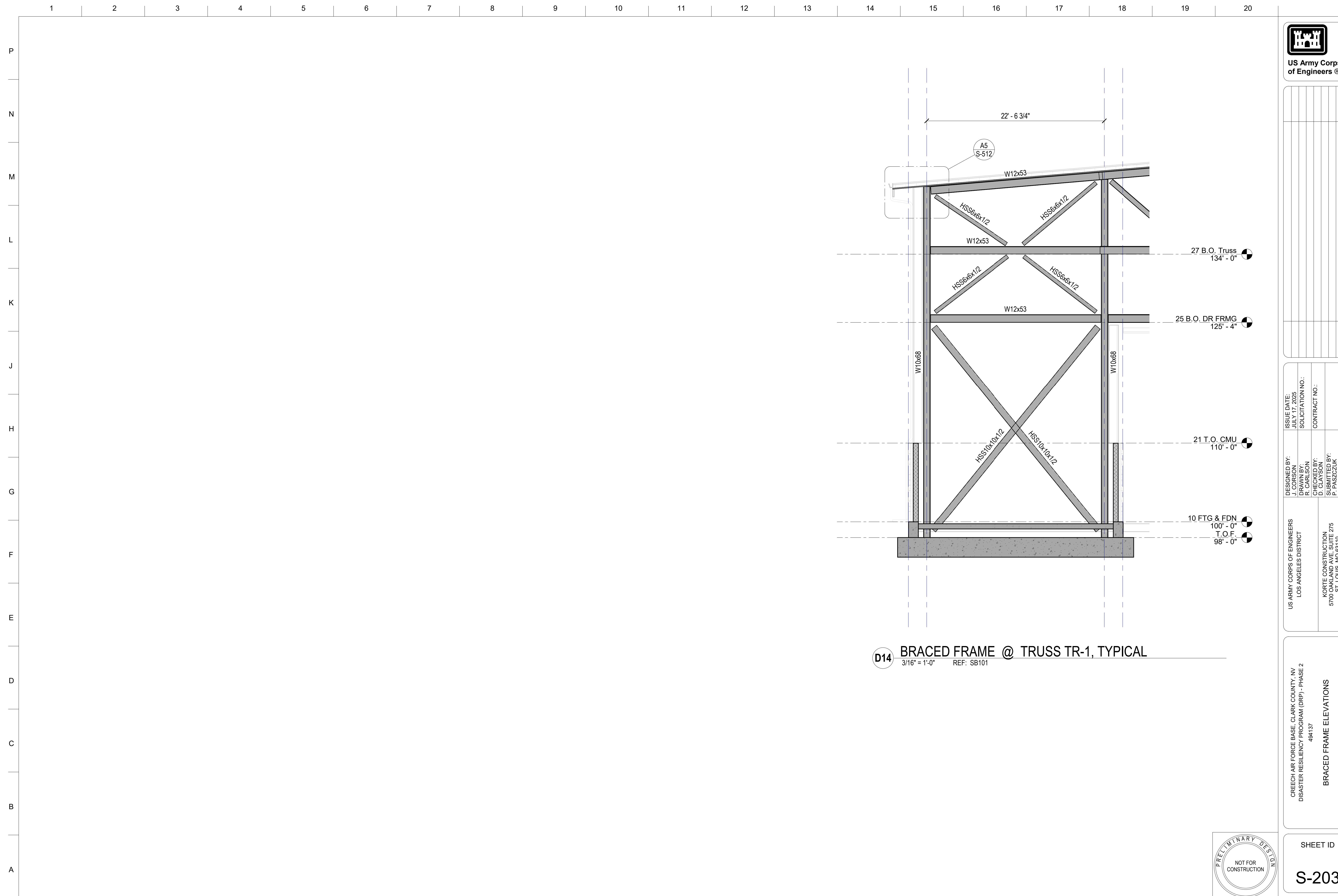
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2
494137
BRACED FRAME ELEVATIONS

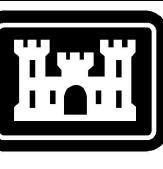
4

SHEET II

S-20

FOR REVIEW





US Army Corps
of Engineers ®

DATE

H2 GIRDER TRUSS TR-2 - GRIDS B C D (WEST)
3/16" = 1'-0" REF: SF131

3/16" = 1'-0" REF: SF13

1. *What is the primary purpose of the study?*

JOHN C. CORSON LOS ANGELES DISTRICT	J. CORSON DRAWN BY: R. CARLSON	CHECKED BY: D. CLAYSON	SUBMITTED BY: P. PASZCZUK	SIZE: ANSI D
KORTE CONSTRUCTION 5700 OAKLAND AVE, SUITE 275 ST. LOUIS, MO 63110				

CREECH AIR FORCE BASE, CLARK COUNTY, NV
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2

494137

GIRDER TRUSS ELEVATIONS

D

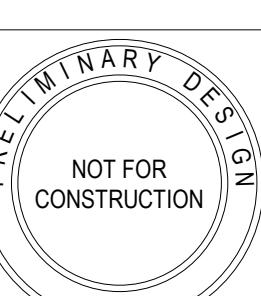
SHEET ID

S-212

A2 GIRDER TRUSS TR-2 - GRIDS B C D (EAST)
3/16" = 1'-0" REF: SF131

A2 3/16" = 1'-0" REF: S

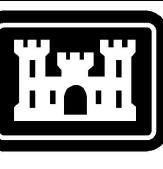
6/16/1995 REPPS



SHEET ID
S-212

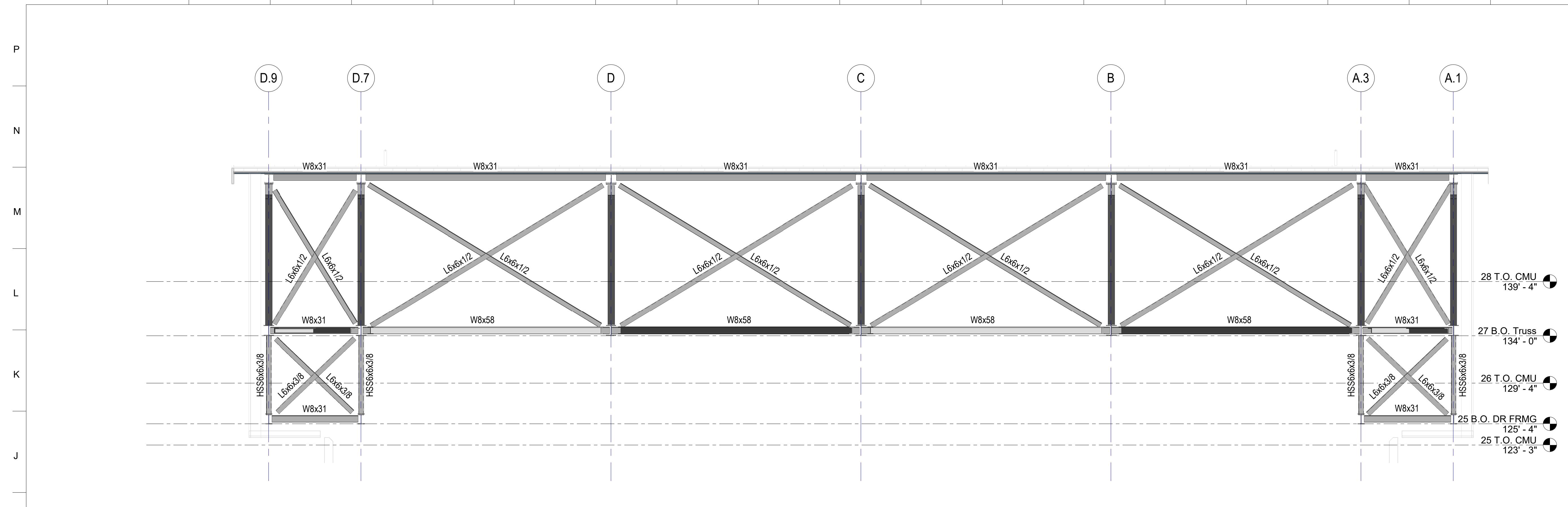
FOR REVIEW

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |



US Army Corps
of Engineers ®

DATE



H3 TYPICAL GIRDER TRUSS VERTICAL BRACING ELEVATION

3/16" = 1'-0" REF: SF131

H3 3/16" = 1'-0" REF: SF13

PIICAL GIRDER TRUSS VERTICAL BRACING
ELEVATION
CREECH AIR FORCE BASE, CLARK COUNTY, NV
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2
494137

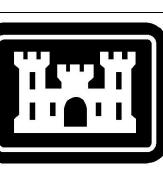
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SHEET ID

S-213

FOR REVIEW

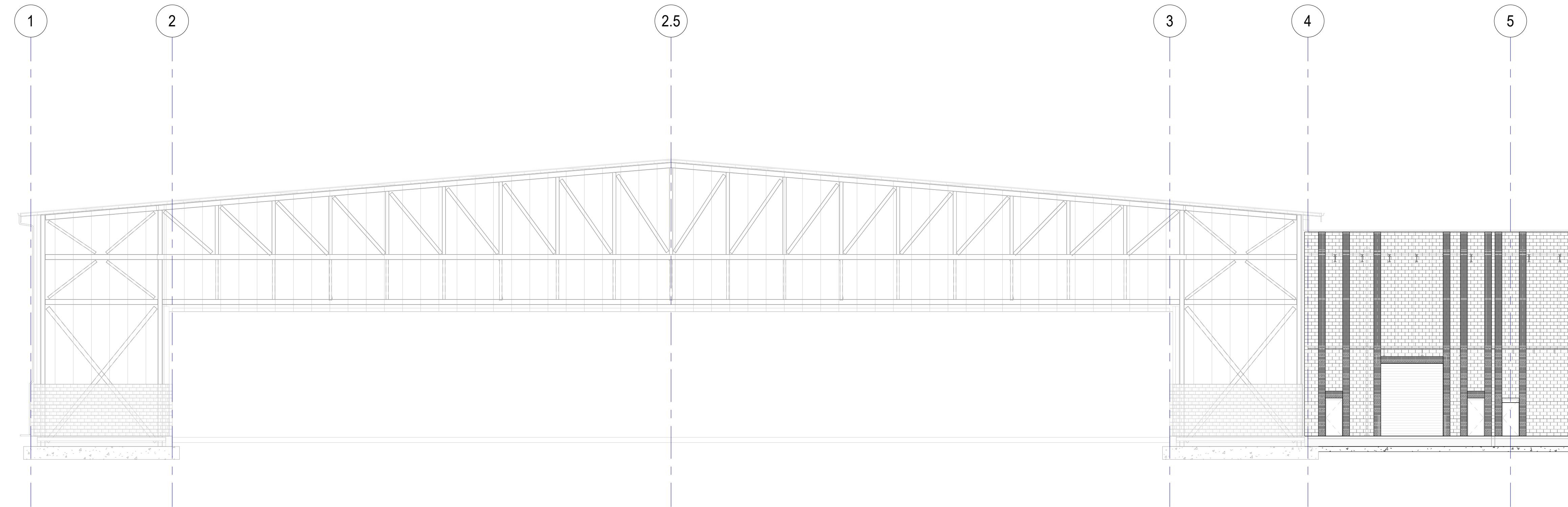
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US Army Corps
of Engineers ®

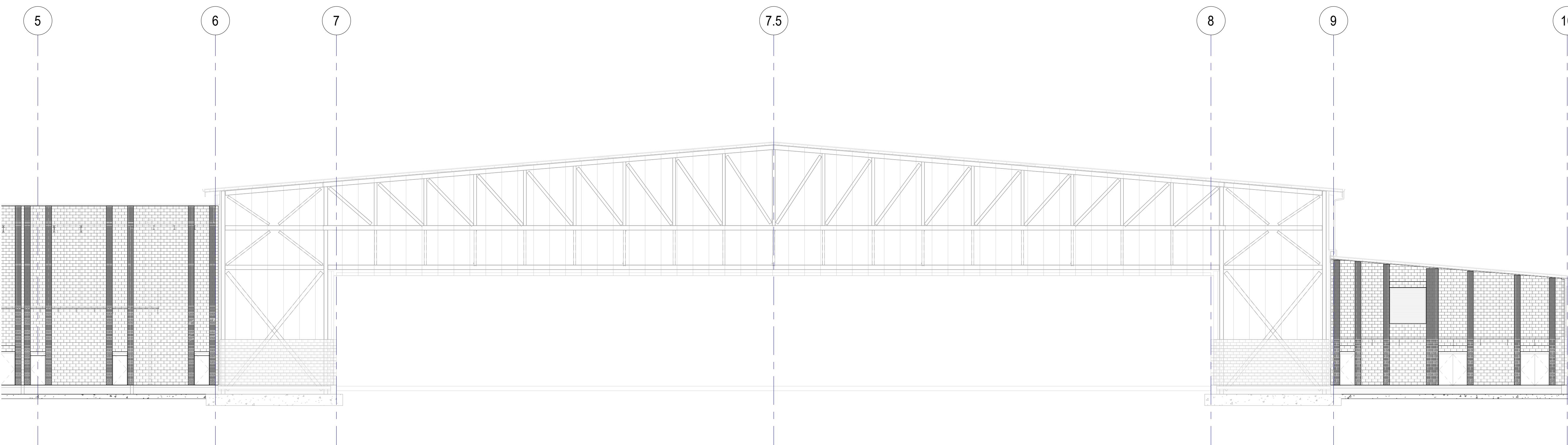
DATE

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H2 WIND GIRT ELEVATION - SOUTH FACE, (WEST)

1:150 REF: SB101



A2 WIND GIRT ELEVATION - SOUTH FACE, (EAST)

1:150 REF: SB103

CREECH AIR FORCE BASE, CLARK COUNTY, NV
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2
494137

WIND GIRT ELEVATIONS

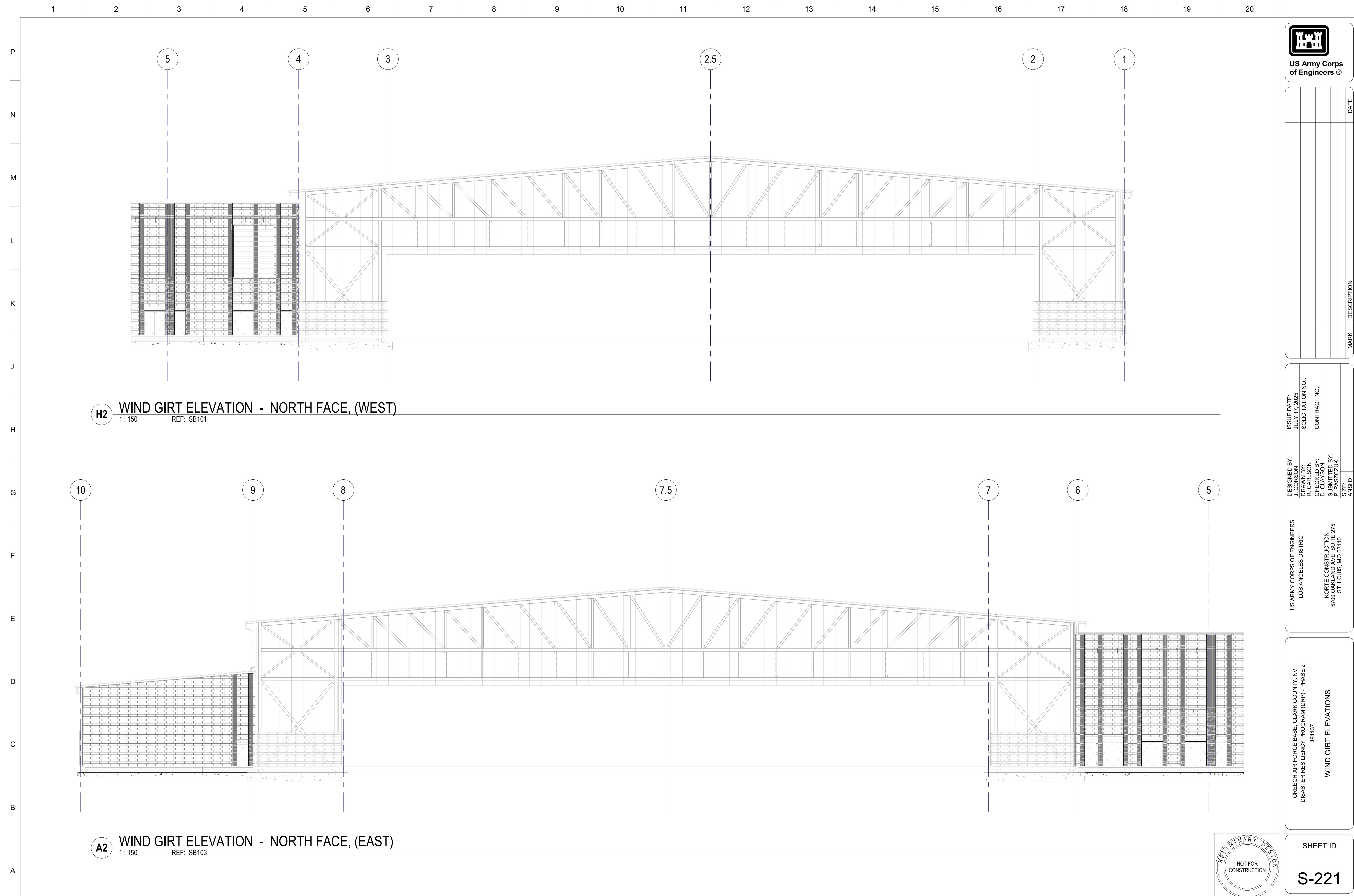
US ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT
KORTE CONSTRUCTION
5700 OAKLAND AVE, SUITE 275
ST. LOUIS, MO 63110

PRELIMINARY DESIGN
NOT FOR CONSTRUCTION
N 91

SHEET ID

S-220

FOR REVIEW



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US Army Corps
of Engineers ®

DATE

DESIGNED BY: J. CORSON	ISSUE DATE: JULY 17, 2025
DRAWN BY: R. CARLSON	SOLICITATION NO.:
CHECKED BY: D. CLAYSON	CONTRACT NO.:
SUBMITTED BY: P. PASZCZUK	SIZE: ANSI D

US ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT	KORTE CONSTRUCTION 5700 OAKLAND AVE, SUITE 275 ST. LOUIS, MO 63110
--	--

CREECH AIR FORCE BASE, CLARK COUNTY, NV DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2 494137	
WIND GIRT ELEVATIONS	



SHEET ID
S-223
FOR REVIEW

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20

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US Army Corps
of Engineers ®

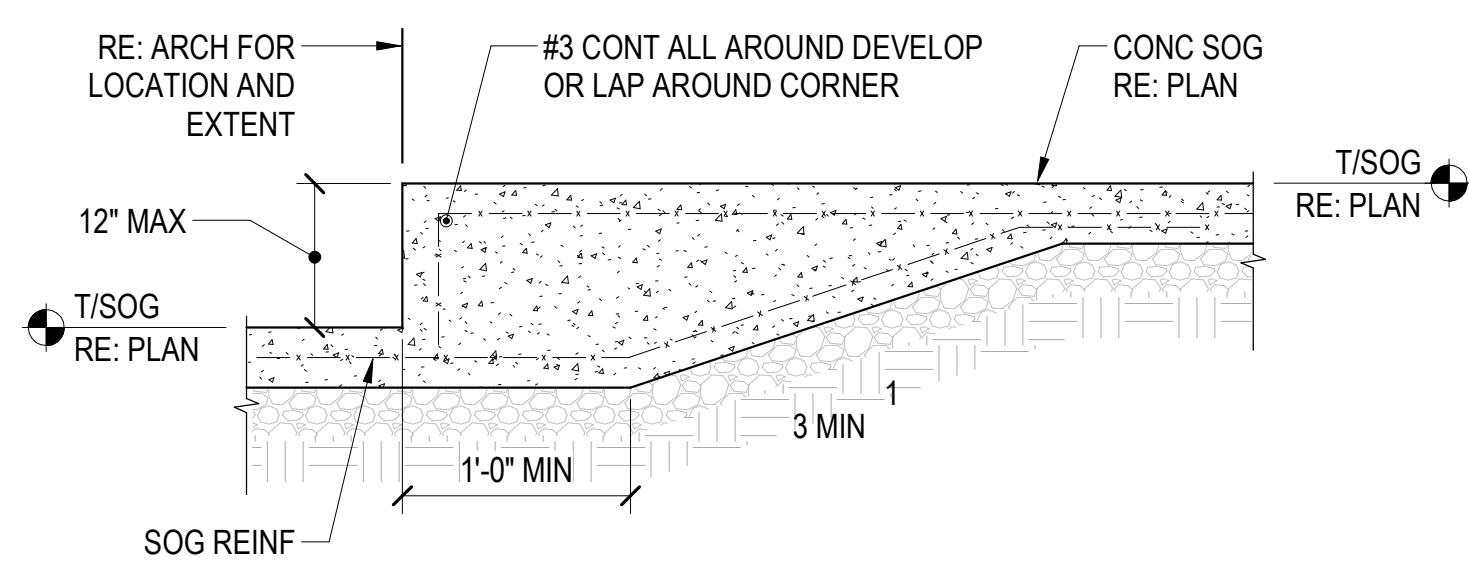
DATE

DESIGNED BY:	ISSUE DATE:
J. CORSON	JULY 17, 2025
DRAWN BY:	SOLICITATION NO.:
R. CARLSON	
CHECKED BY:	CONTRACT NO.:
D. CLAYSON	
SUBMITTED BY:	
P. PASZCZUK	
SIZE:	
ANSI D	

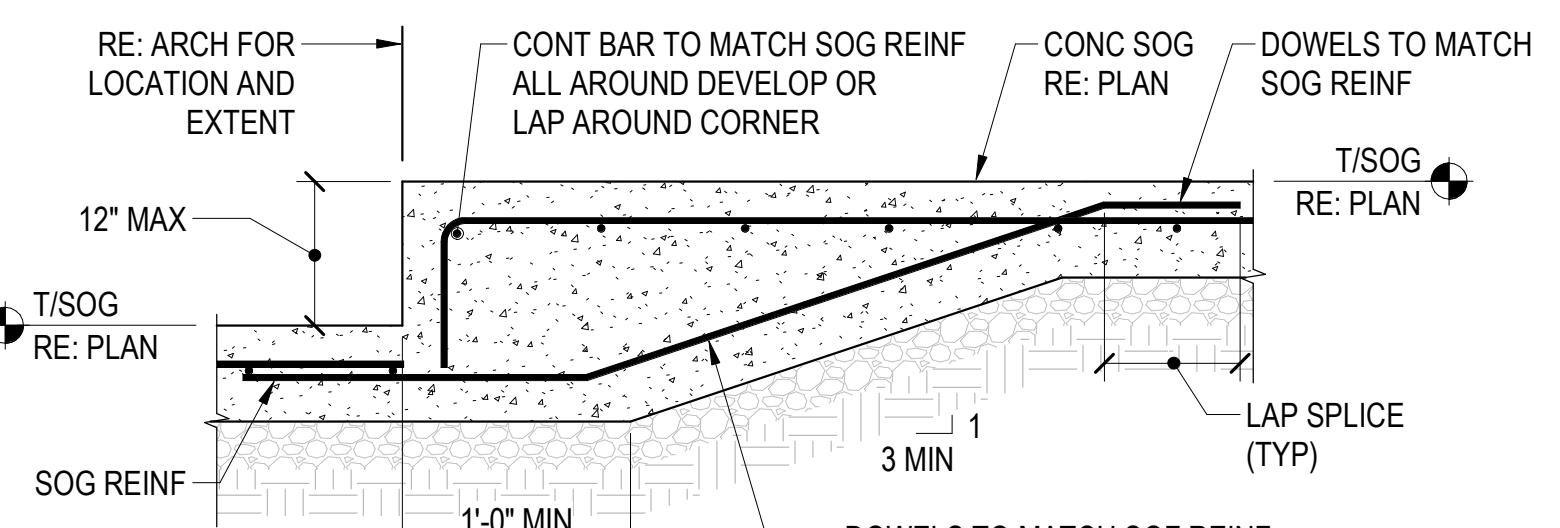
US ARMY CORPS OF ENGINEERS	LOS ANGELES DISTRICT
CREECH AIR FORCE BASE, CLARK COUNTY, NV	
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2	
494137	
KORTE CONSTRUCTION	
5700 OAKLAND AVE, SUITE 275	
ST. LOUIS, MO 63110	

PRELIMINARY	DES
NOT FOR	CONSTRUCTION
N 91	
WALL SECTIONS	

SHEET ID	S-301
FOR REVIEW	



TYPE A WELDED WIRE REINFORCEMENT

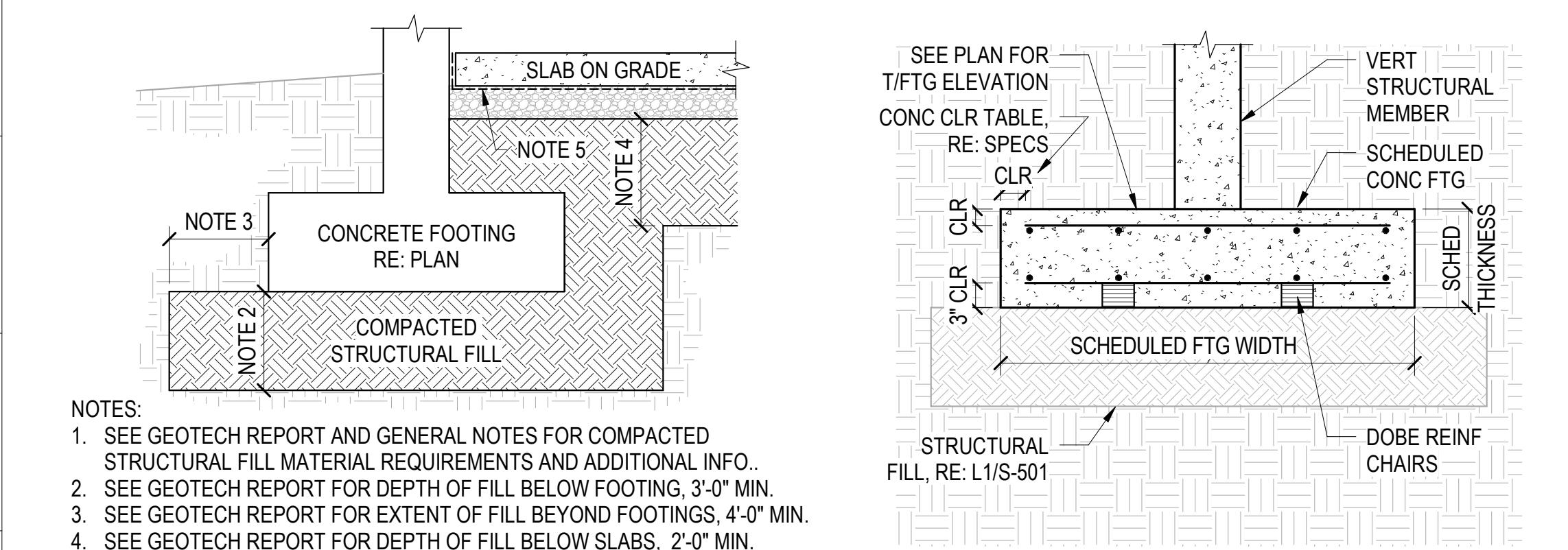


TYPE B DEFORMED BAR REINFORCEMENT

5 TYP DEPRESSED SLAB (UP TO 12")
NTS

NOTES:

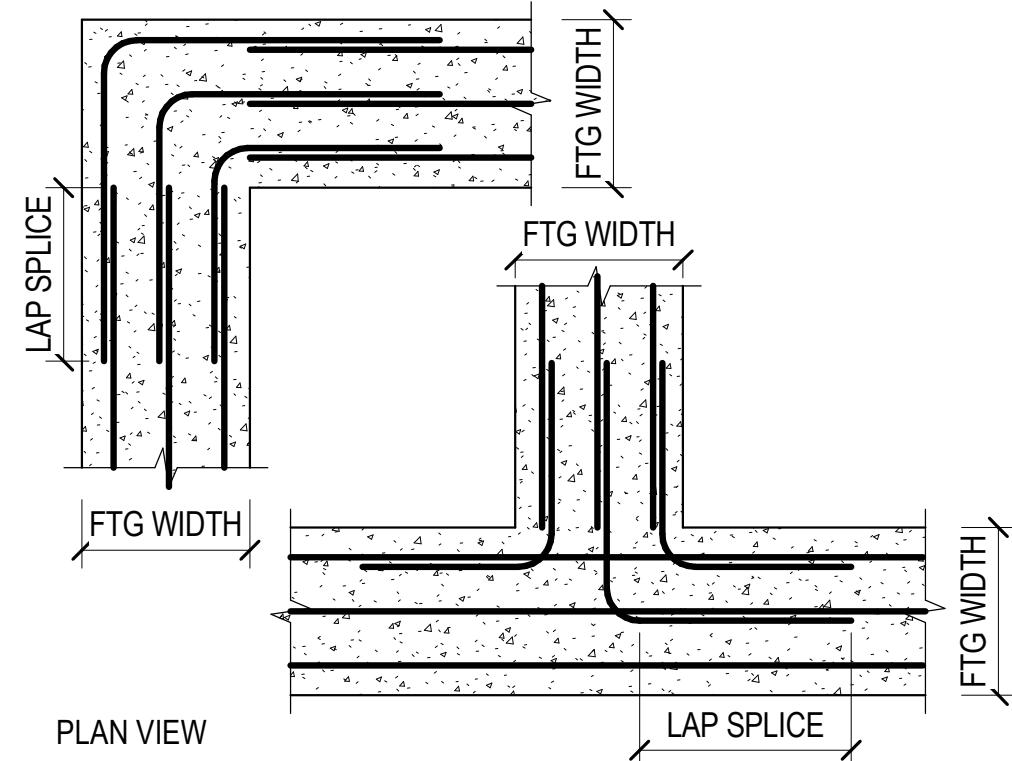
1. AT DETAIL A ONLY: CONTRACTOR OPTION TO PROVIDE CONSTRUCTION JOINT AT FACE OF DEPRESSION AND DISCONTINUE WWR AT JOINT.
2. PROVIDE ROUNDED EDGE ALL AROUND SLAB DEPRESSION.



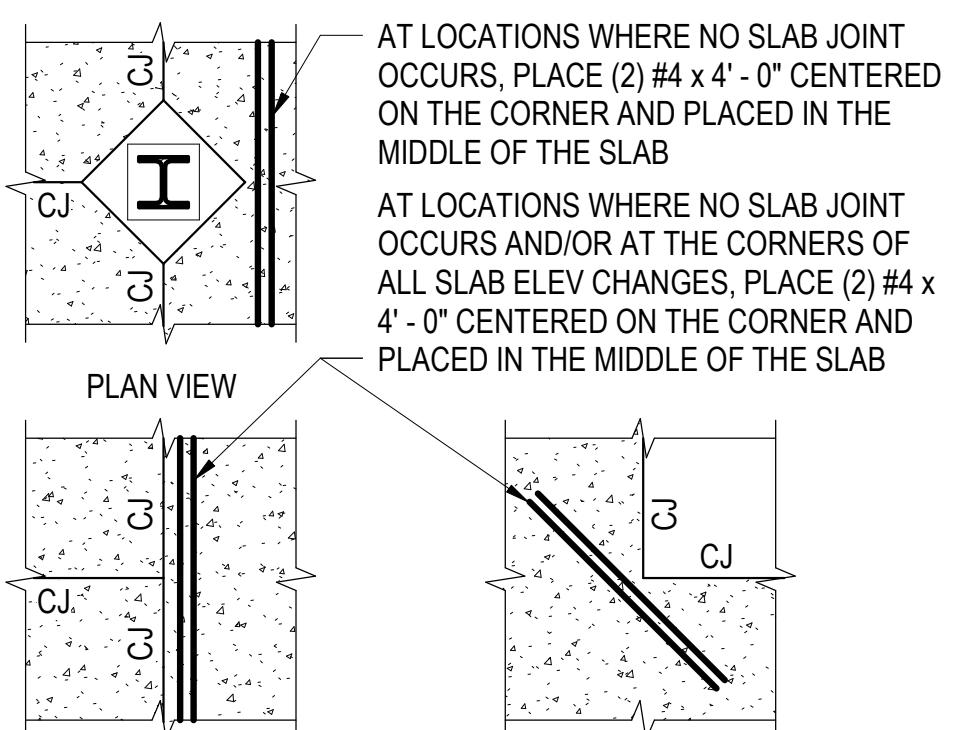
YP COMPACTED STRUCTURAL FILL



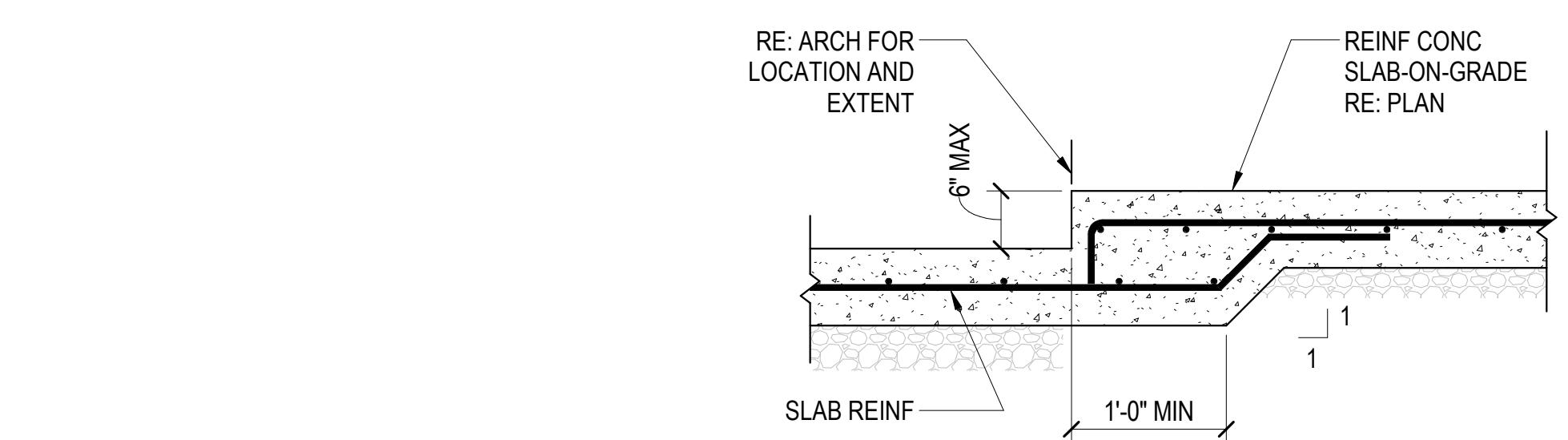
YP FOOTING REINF



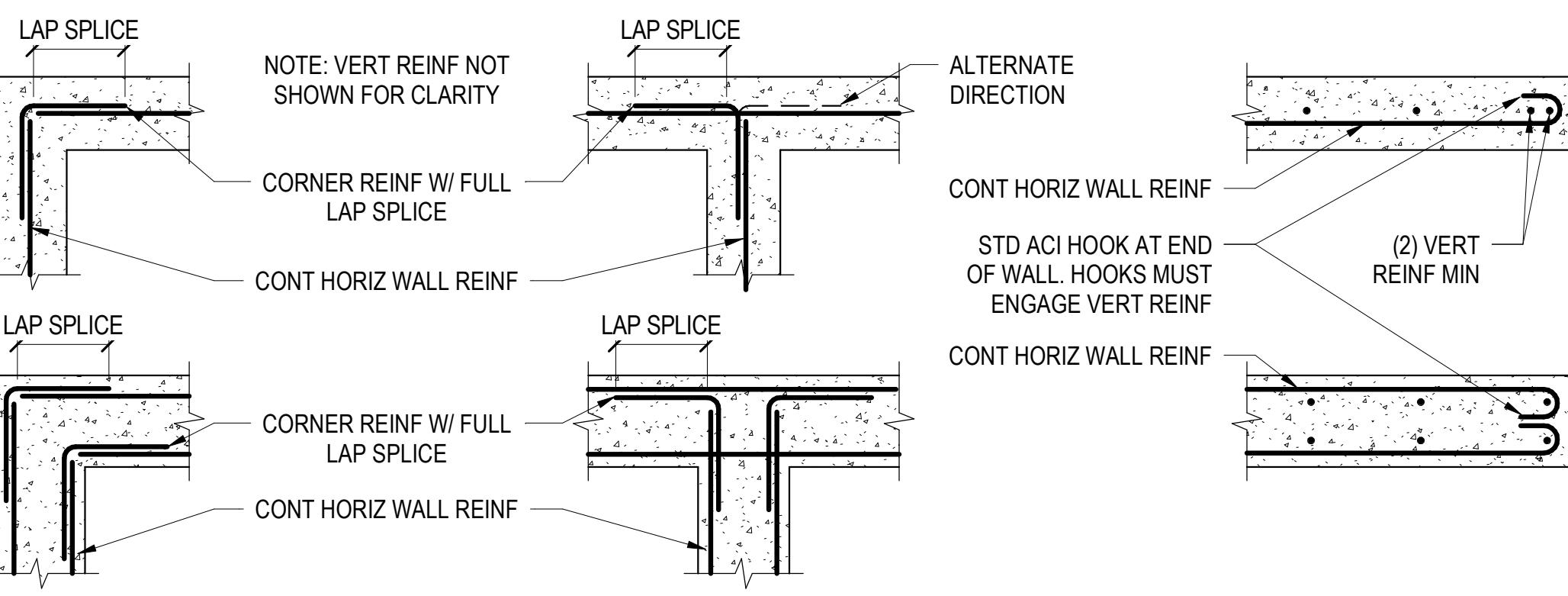
9 TYP FOOTING CORNER REINF



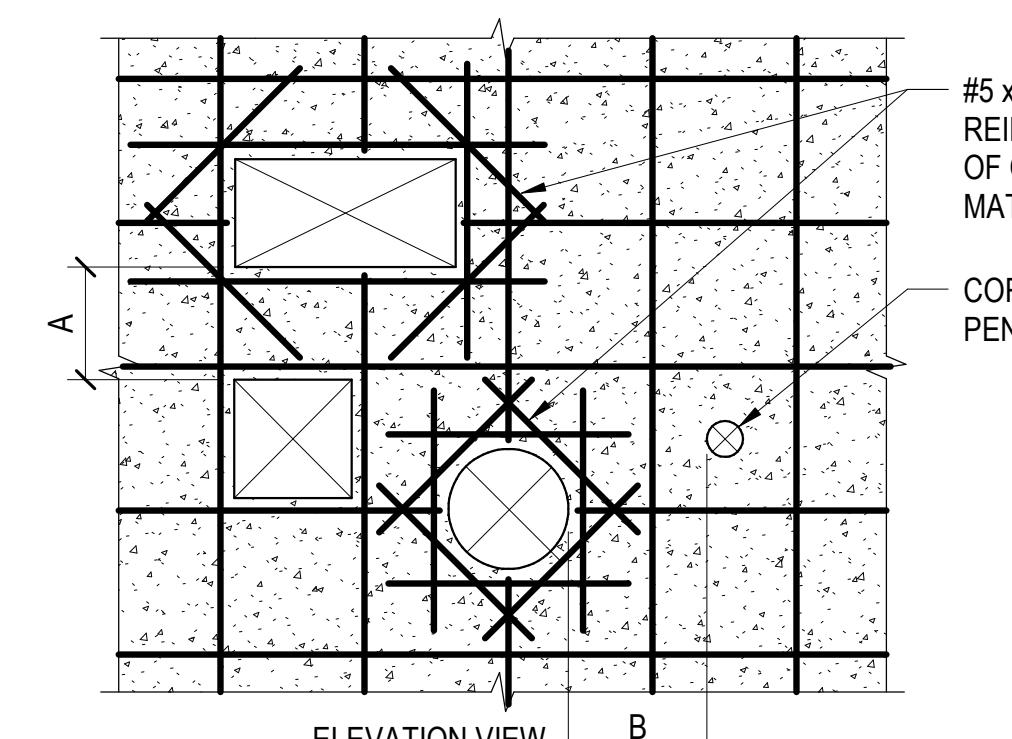
TYP DISCONTINUOUS JOINT REINF



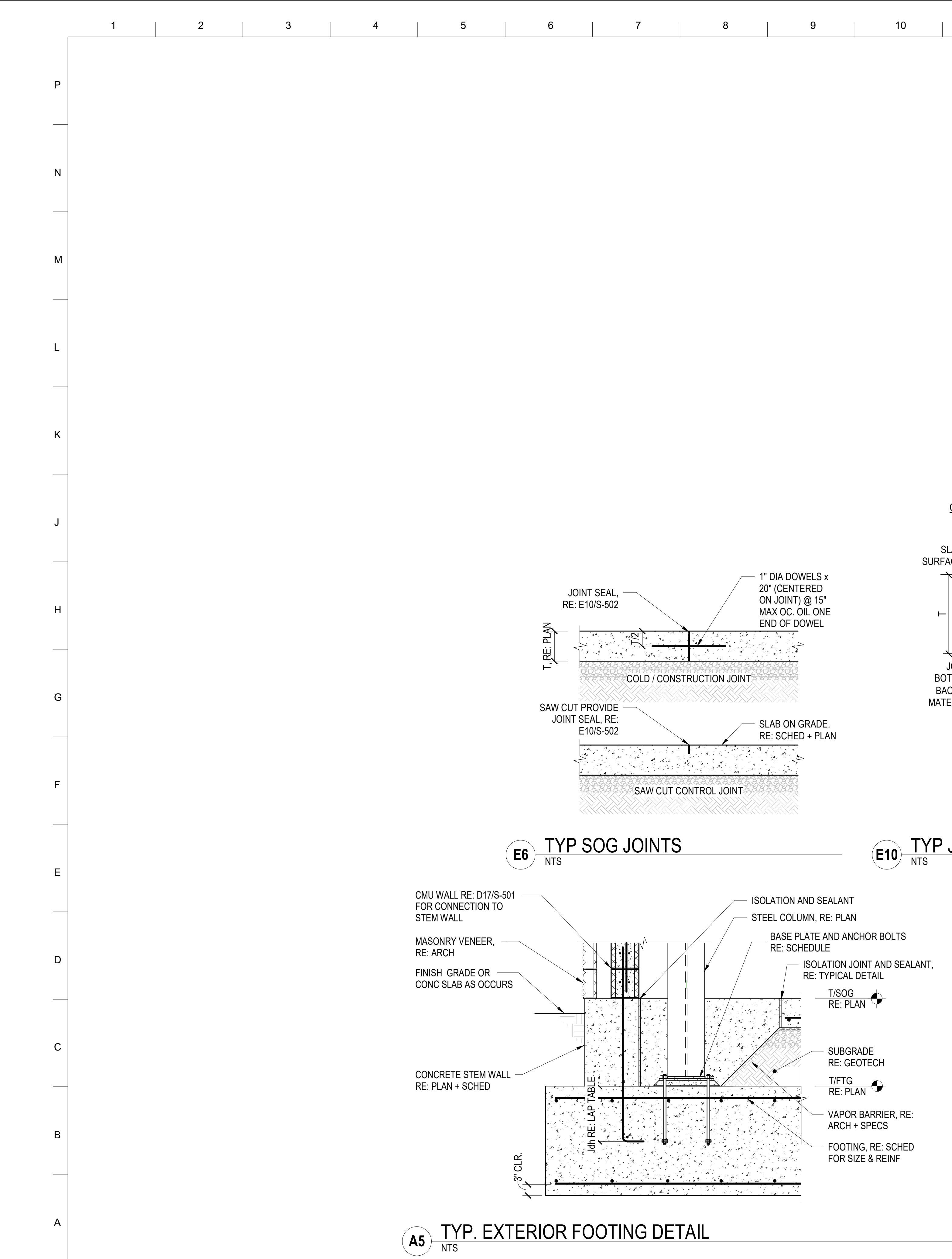
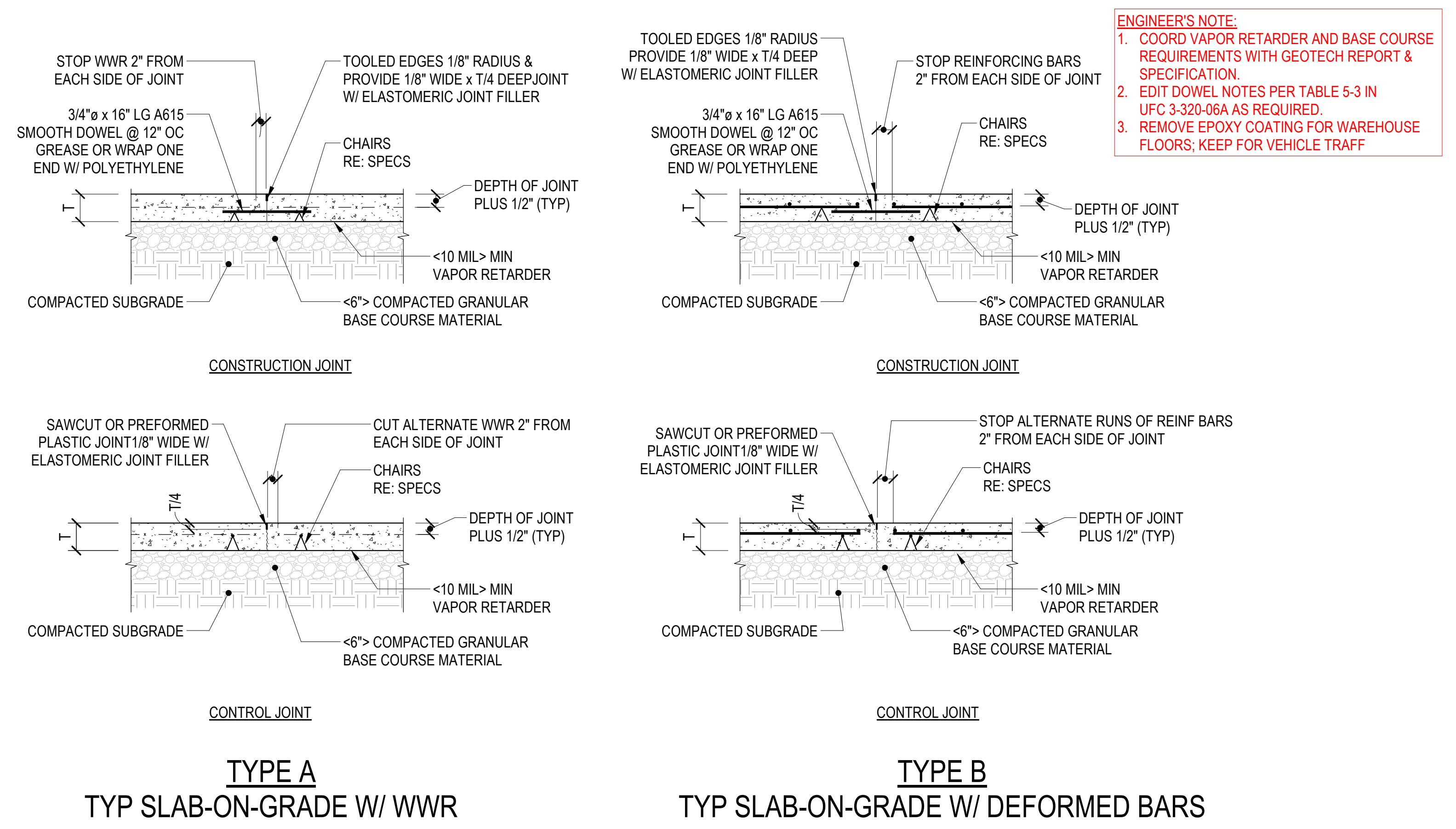
H5 TYP DEPRESSED SLAB

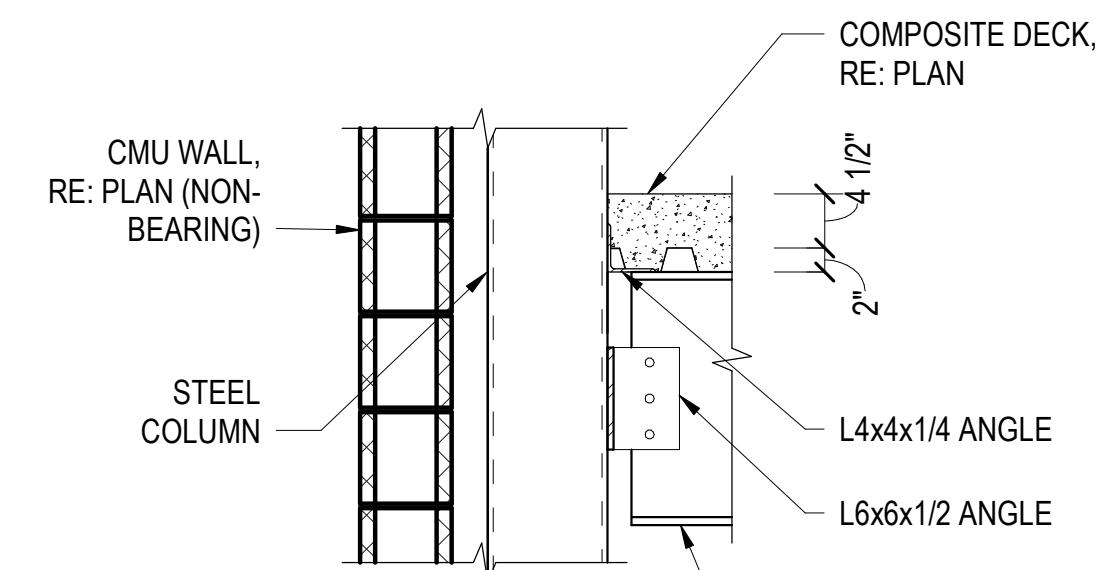


W/P CONC WALL HORIZ REINFORCING

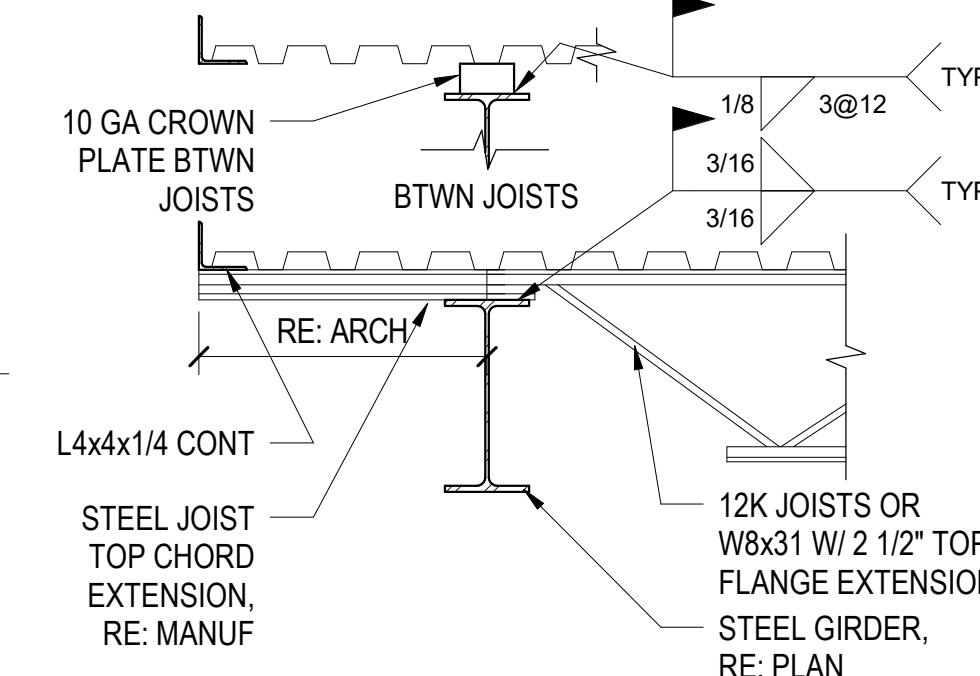


TYP MISC OPENINGS IN REINF CONC WALL





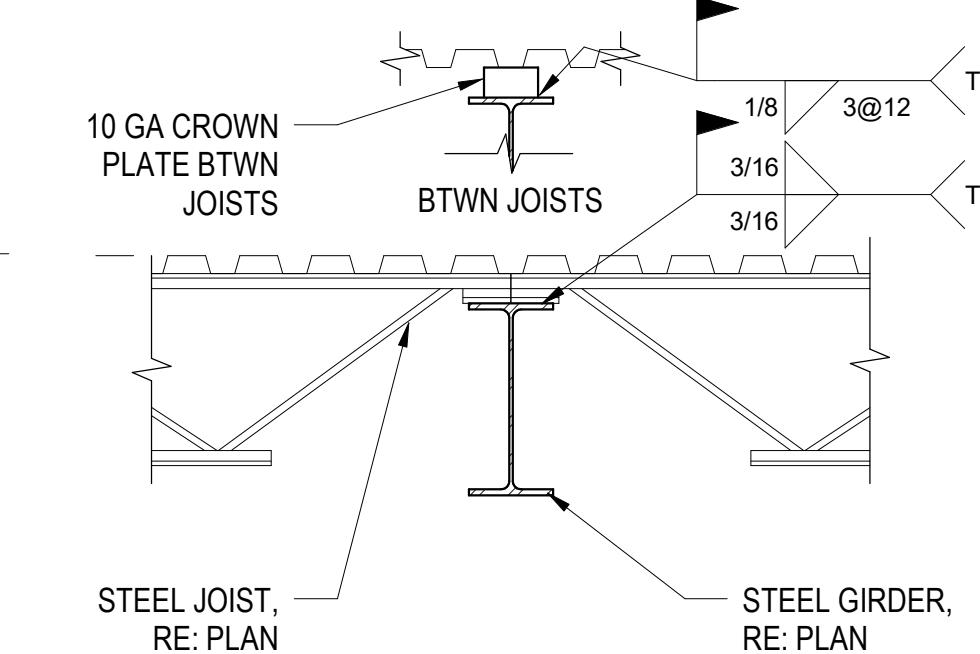
K1 TYP. COMPOSITE DESK EDGE AT CMU
REF: S-202



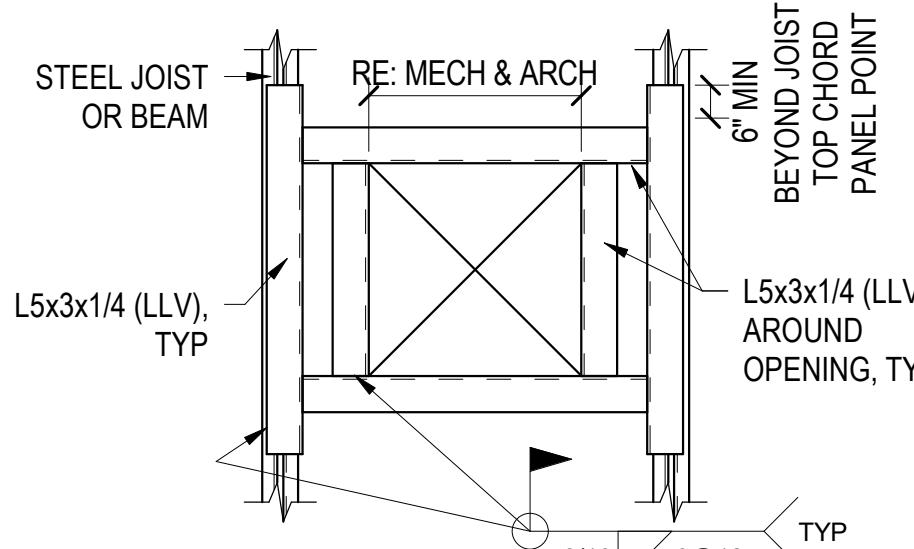
H5 TYP ROOF JOIST ON EDGE GIRDER
REF: SF121



G1 TYP. COMPOSITE DESK EDGE AT CMU
REF: SF121



D5 TYP ROOF JOIST ON GIRDER
REF: SF121



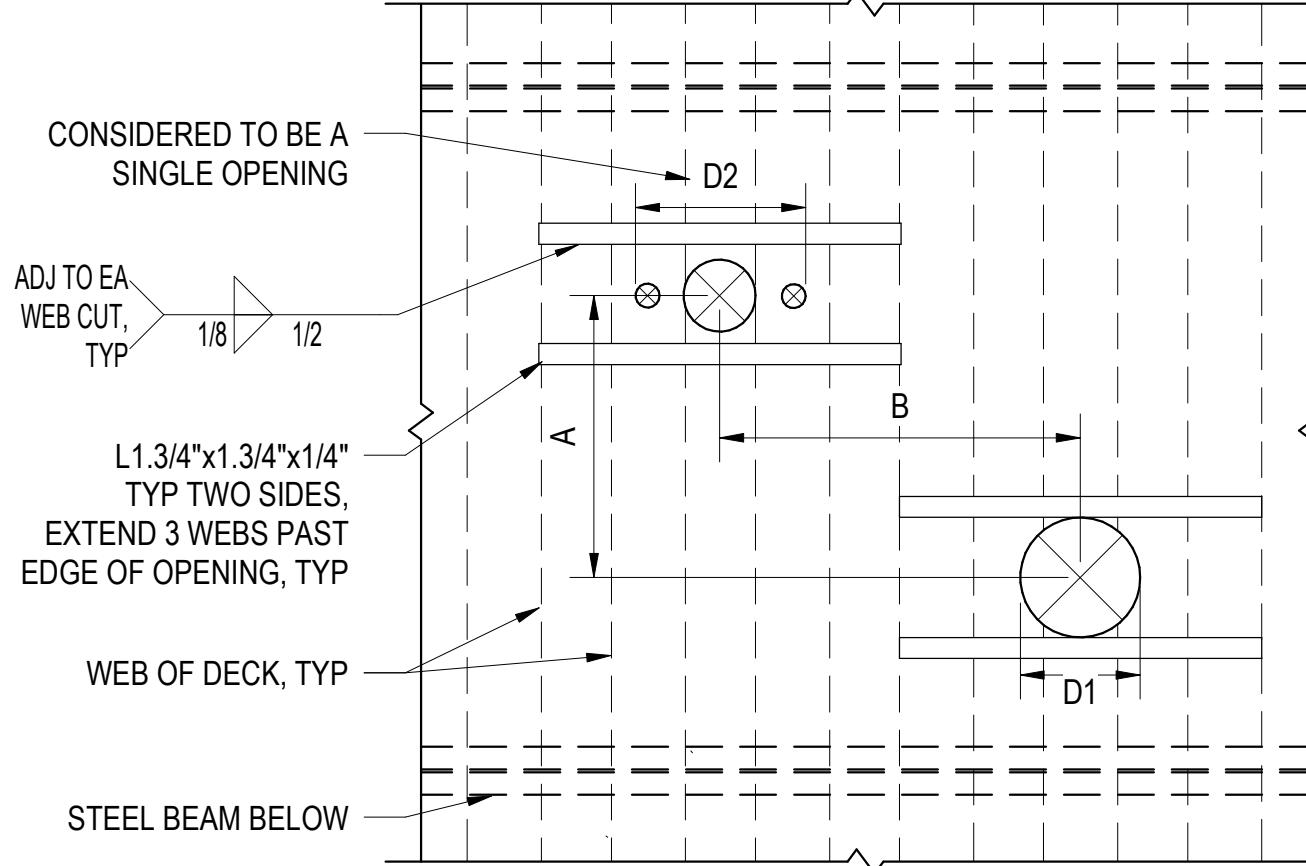
A5 TYP ROOF OPENING SUPPORT
REF: SF121

USE THIS DETAIL FOR HOLES CUTTING INTO MORE THAN:
3 ADJACENT WEBS FOR 6" AND 8" MODULE DECK OR
2 ADJACENT WEBS FOR 12" MODULE DECK

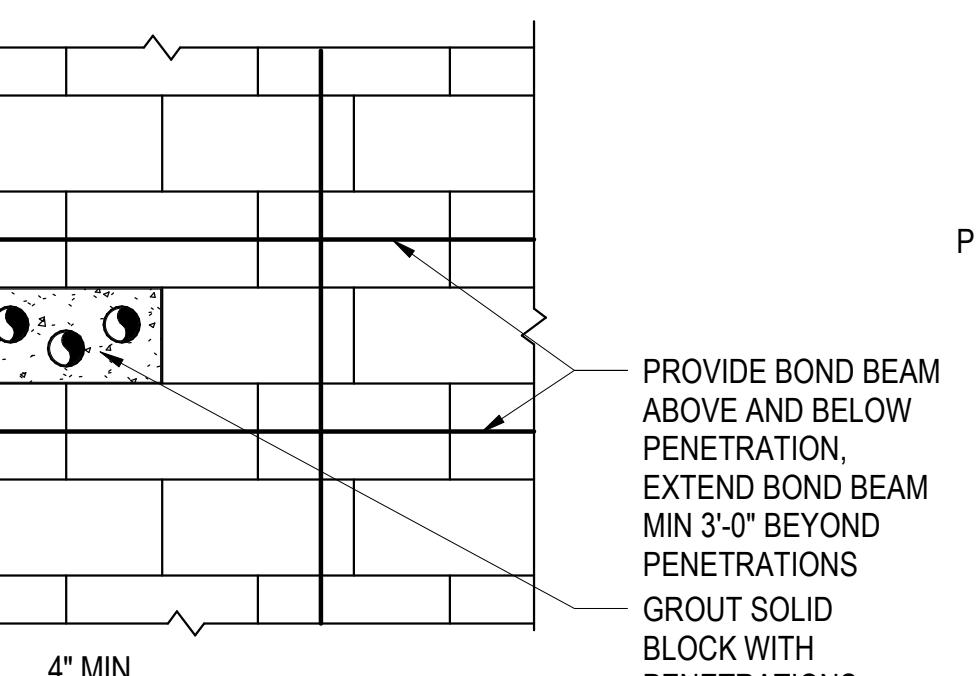
PRIOR TO CONCRETE POUR, SMALL OPENINGS SHOULD BE BLOCKED OUT AND FLOOR DECK LEFT INTACT. HOLES LESS THAN 6" IN DIAMETER AND CUTTING NO MORE THAN 1 WEB NEED NO REINFORCING. AFTER THE CONCRETE HAS CURED, THE BLOCKOUT CAN BE REMOVED AND THE FLOOR DECK IN THE AREA OF THE HOLE REMOVED.

NOTES:

1. ANGLES SHALL BE PLACED ON TOP OF THE DECK
2. IF DIMENSION 'A' IS GREATER THAN 4X01, 4X02, OR 32" (WHICHEVER IS LARGER), THEN THERE IS NO RESTRICTION ON DIMENSION 'B'.
3. IF DIMENSION 'B' IS GREATER THAN 4X01, 4X02, OR 32" (WHICHEVER IS LARGER), THEN THERE IS NO RESTRICTION ON DIMENSION 'A'.
4. IF DIMENSIONS 'A' AND 'B' ARE LESS THAN 4X01, 4X02, OR 32" (WHICHEVER IS LARGER), THE OPENING GROUP WILL BE CONSIDERED AS A SINGLE HOLE, AND MUST BE REINFORCED AS REQUIRED FOR THE LARGER OPENING.

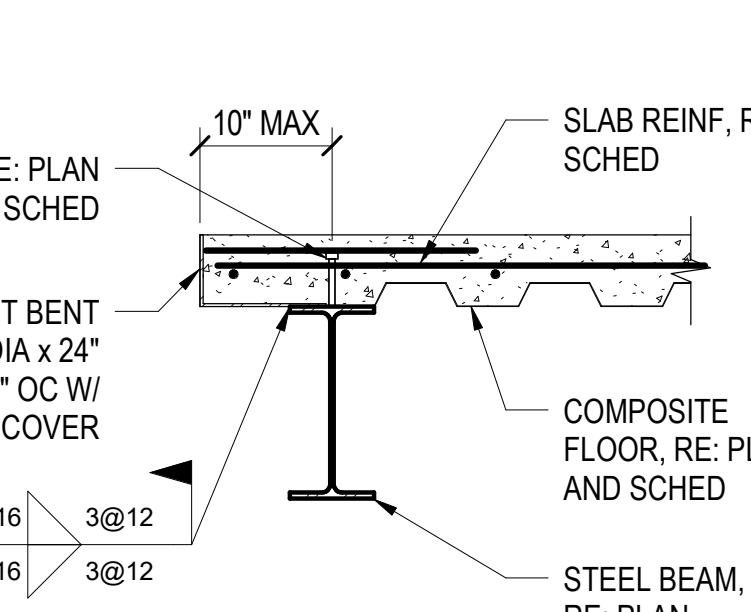


H9 TYPICAL OPENINGS IN COMPOSITE DECK
REF: SF121



NOTES:
1. A MAXIMUM OF ONE BLOCK (1'-4") BETWEEN VERTICAL WALL REINFORCING LOCATIONS MAY BE SLEVED FOR UTILITY PENETRATIONS.
2. DO NOT PLACE OR ENCROACH UPON CELLS CONTAINING VERTICAL WALL REINFORCING.

D9 PENETRATION THROUGH
MASONRY WALL
REF: SF121



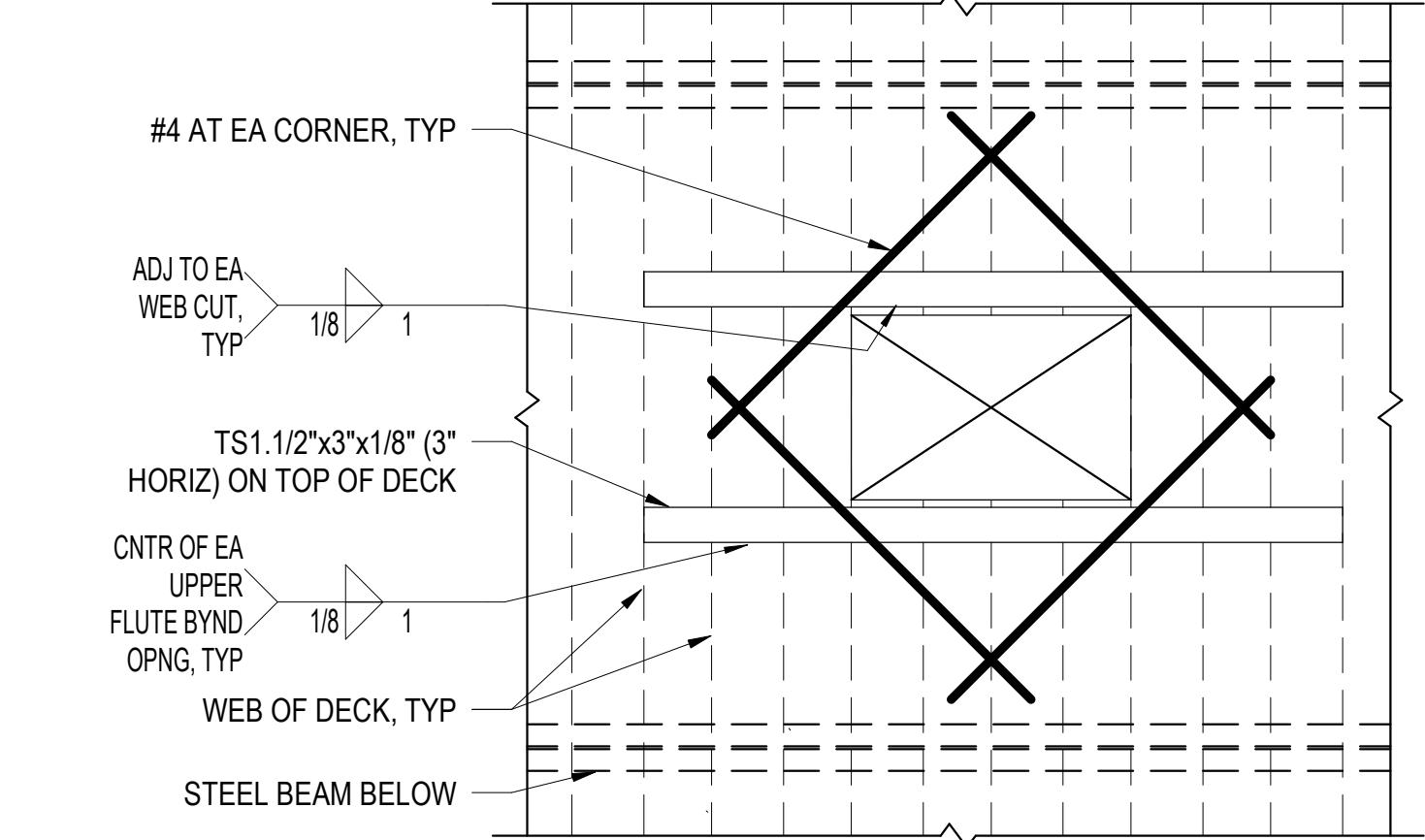
A9 TYP COMPOSITE FLOOR SLAB EDGE
REF: SF121

USE THIS DETAIL FOR LARGER HOLES, RECTANGULAR OR SQUARE

PRIOR TO CONCRETE POUR, SMALL OPENINGS SHOULD BE BLOCKED OUT AND FLOOR DECK LEFT INTACT. HOLES LESS THAN 6" IN DIAMETER AND CUTTING NO MORE THAN 1 WEB NEED NO REINFORCING. AFTER THE CONCRETE HAS CURED, THE BLOCKOUT CAN BE REMOVED AND THE FLOOR DECK IN THE AREA OF THE HOLE REMOVED.

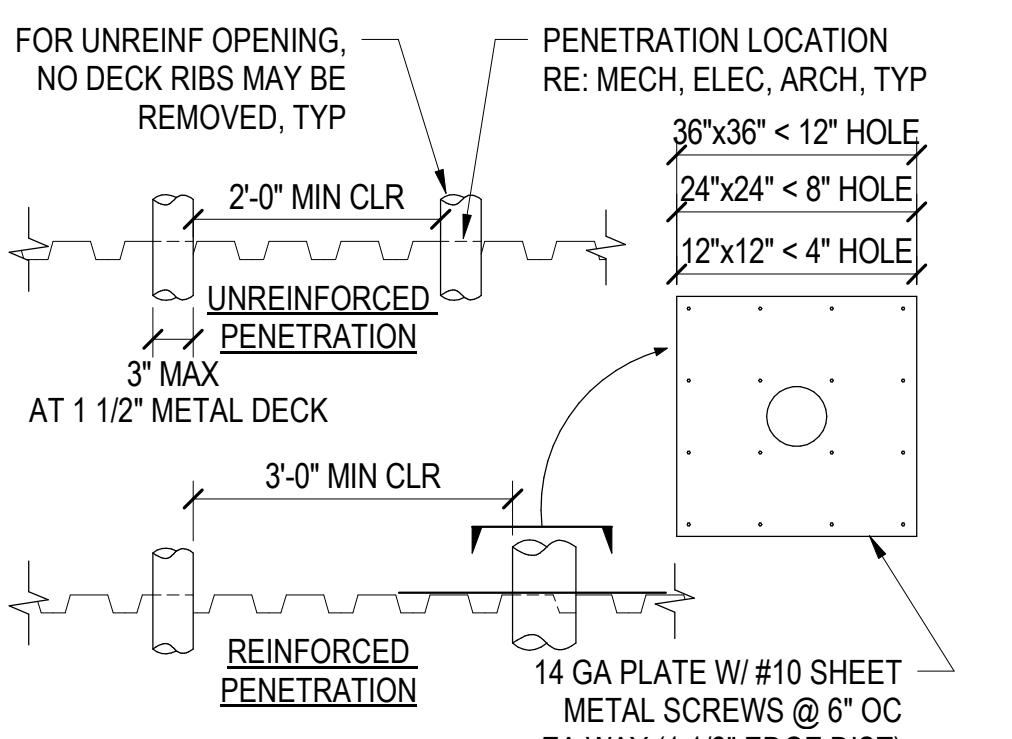
NOTES:

1. IF THE OPENING OR GROUP OF OPENINGS OCCURS IN ONE DECKING UNIT, THE OPENING OR OPENING GROUP MAY BE CUT PRIOR TO POURING OF CONCRETE.
2. IF THE OPENING OR GROUP OF OPENINGS CUTS THROUGH TWO DECKING UNITS, THE DECKING SHALL NOT BE CUT UNTIL CONCRETE HAS BEEN PLACED AND CURED. AT THE TIME OF POURING, SUITABLE SLEEVES OR BULKHEADS SHALL BE PLACED AROUND THE OPENING.
3. WHEN THE MAX DIMENSION OF AN OPENING OR OPENING GROUP EXCEEDS 24", PROVIDE W8X10 HEADER BEAMS BELOW THE DECK AT ALL SIDES.



A13 CMU STEEL GIRT
REF: SF121

NOTE:
1. THIS DETAIL APPLIES WHEN SUPPORT AT A PANEL POINT IS IMPOSSIBLE. CONTACT THE EOR AND JOIST MANUFACTURER TO REVIEW CONCENTRATED LOADS > 100# THAT ARE NOT SPECIFICALLY RECORDED ON THE CONTRACT DRAWINGS AND PART OF THE INITIAL JOIST DESIGN.
2. CONCENTRATED POINT LOADS TOTALING 100# OR LESS CAN BE LOCATED AT ANY POINT ALONG THE TOP OR BOTTOM CHORD OF AN OPEN WEB JOIST OR GIRDER BETWEEN ADJACENT PANEL POINTS WITHOUT MEETING THESE REQUIREMENTS.
3. WHEN CONCENTRATED LOADS GREATER THAN 100# ON OPEN WEB JOISTS OR GIRDERS ARE LOCATED MORE THAN 6" FROM THE PANEL WORKPOINTS AT EITHER THE TOP OR BOTTOM CHORD, ADDITIONAL DIAGONAL WEB MEMBERS MUST BE FURNISHED AND INSTALLED BY THE CONTRACTOR AS SHOWN IN THIS DETAIL.
4. A LIMIT OF (4) CONCENTRATED 100# POINT LOADS PER JOIST OR GIRDER WILL BE PERMITTED ON SPANS OF 12'-0" AND GREATER. JOIST BRIDGING MUST NEVER BE USED TO SUPPORT HANGING LOADS.



A17 TYP ROOF OPENING < 12" DIAMETER
REF: SF121

CREECHE AIR FORCE BASE, CLARK COUNTY, NV
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2
49137

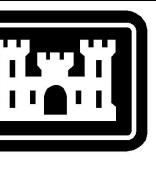
FRAMING DETAILS

PRELIMINARY DESIGN
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SHEET ID: S-511
FOR REVIEW

ISSUE DATE:
JULY 17, 2025
SOLICITATION NO.:
CONTRACT NO.:
SUBMITTED BY:
P. PASZCZUK
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT
KORTE CONSTRUCTION
5700 OAKLAND AVE, SUITE 275
ST. LOUIS, MO 63110

PRELIMINARY DESIGN
NOT FOR CONSTRUCTION
SHEET ID: S-511
FOR REVIEW

US Army Corps
of Engineers ®

DATE

DESIGNED BY:	J. CORSON
DRAWN BY:	R. CARLSON
CHECKED BY:	D. CLAYSON
SUBMITTED BY:	P. PASZCZUK
SIZE:	ANSI D
US ARMY CORPS OF ENGINEERS	LOS ANGELES DISTRICT
KORTE CONSTRUCTION	5700 OAKLAND AVE, SUITE 275 ST. LOUIS, MO 63110

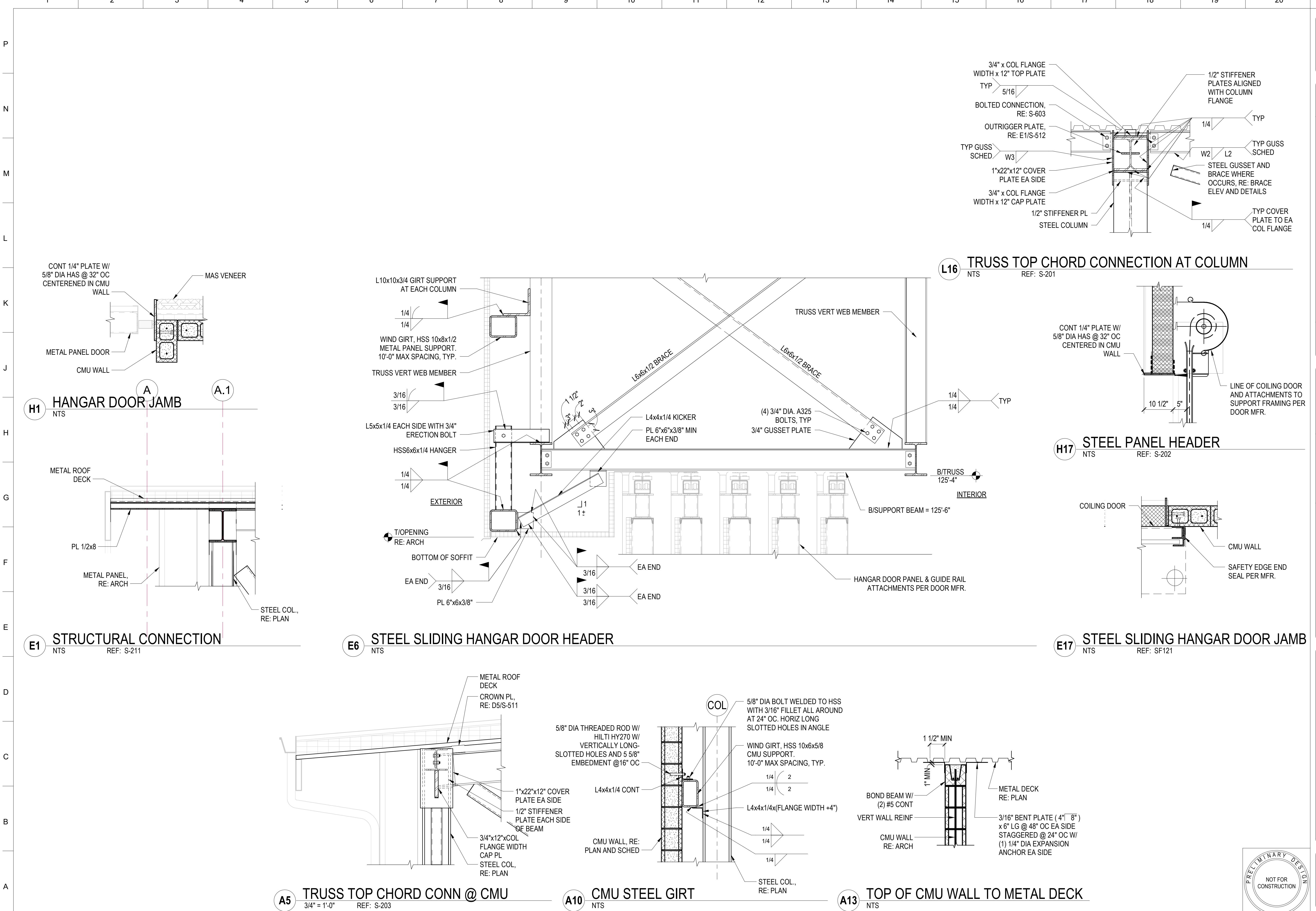
CREECH AIR FORCE BASE, CLARK COUNTY, NV
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2
494137

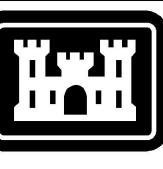
FRAMING DETAILS

PRELIMINARY DESIGN
NOT FOR CONSTRUCTION

SHEET ID
AOF
S-512

FOR REVIEW



US Army Corps
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N
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COVER PLATE EA SIDE
CENTERED ON END OF
BRACE SLOT. SAME SIZE
AND WELD AS BRACE TO
GUSSET CONN, RE:
GUSSET PL SCHED

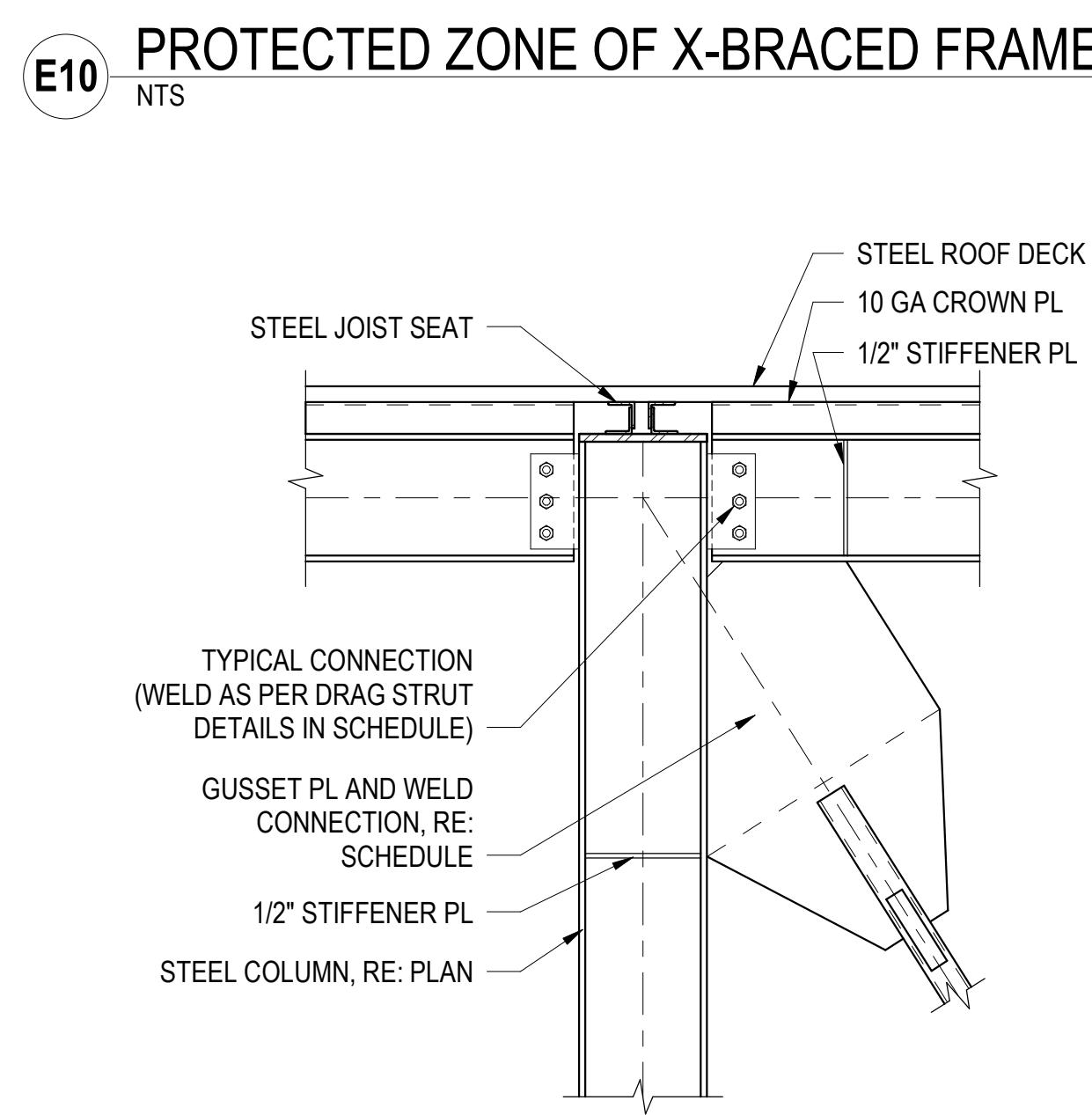
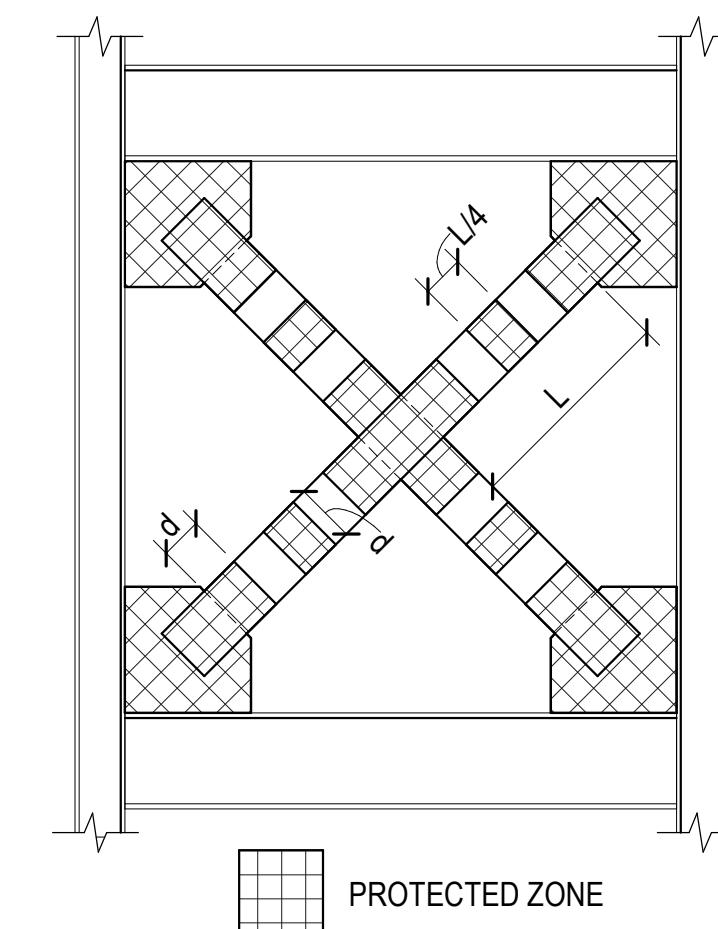
STEEL BRACE

12" WIDE (20" WIDE FOR
HSS8x8x5/8 BRACES) x 1-1/4"
THICK GUSSET PL SLOTTED
THROUGH CONTINUOUS
BRACE (NO WELD)

3/4" MAX

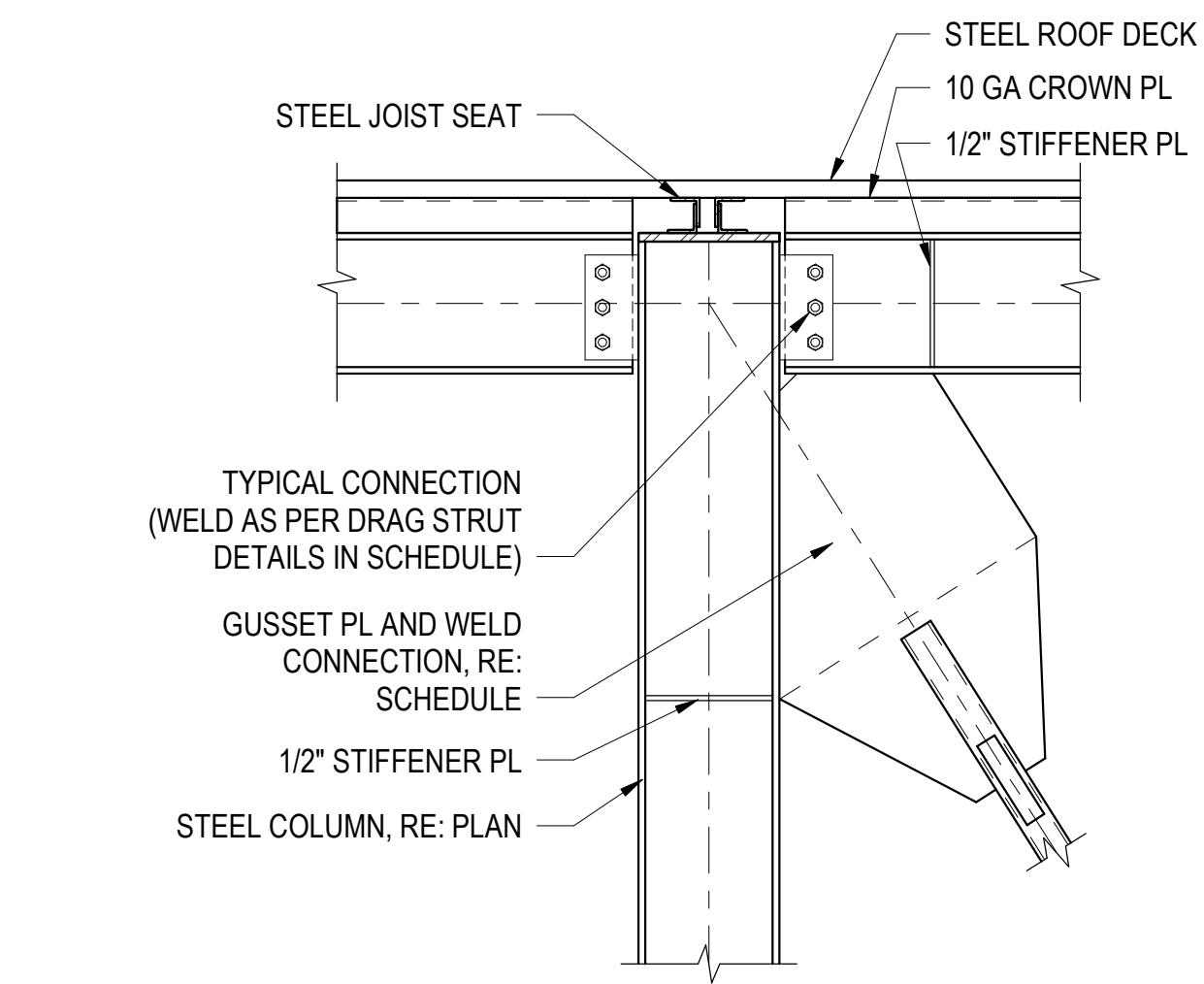
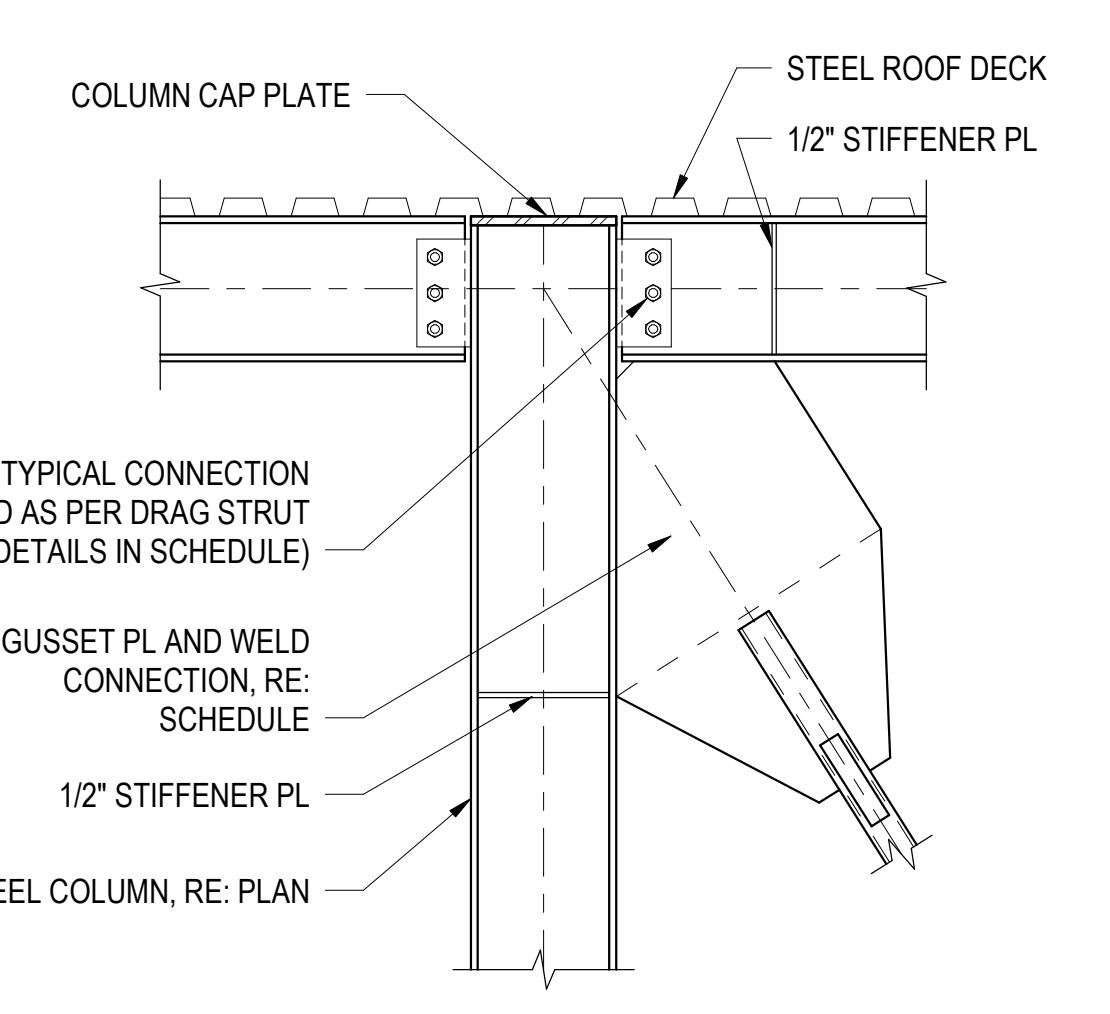
W1 L1 TYP

RE: S-602 GUSSET PL
SCHEDULE FOR W1 AND L1

A5 TYP X-BRACE INTERSECTION DETAIL
NTSA10 TYP BRACED FRAME ROOF CONNECTION
NTS

NOTES:

1. DISCONTINUITIES RESULTING FROM FABRICATION AND ERECTION PROCEDURES AND FROM OTHER ATTACHMENTS ARE PROHIBITED IN THE REGION OF A MEMBER OR A CONNECTION ELEMENT DESIGNATED AS A PROTECTED ZONE.
2. WELDED STEEL HEADED STUD ANCHORS AND OTHER CONNECTIONS ARE PERMITTED IN PROTECTED ZONES.
3. WITHIN THE PROTECTED ZONE, HOLES, TACK WELDS, ERECTION AIDS, AIR-ARC GOUGING, AND UNSPECIFIED THERMAL CUTTING FROM FABRICATION OR ERECTION OPERATIONS SHALL BE REPAIRED AS REQUIRED BY THE ENGINEER OF RECORD (EOR).
4. STEEL HEADED STUD ANCHORS SHALL NOT BE PLACED ON BEAM FLANGE WITHIN THE PROTECTED ZONE.
5. ARC SPOT WELDS AS REQUIRED TO ATTACH DECKING ARE PERMITTED.
6. DECKING ATTACHMENTS THAT PENETRATE THE BEAM FLANGE SHALL NOT BE PLACED ON BEAM FLANGES WITHIN THE PROTECTED ZONE, EXCEPT POWER-ACTUATED FASTENERS UP TO 0.18 IN (4.6 MM) DIAMETER ARE PERMITTED.
7. WELDED, BOLTED, OR SCREWED ATTACHMENTS OR POWER-ACTUATED FASTENERS FOR PERIMETER EDGE ANGLES, EXTERIOR FACADES, PARTITIONS, DUCT WORK, PIPING, OR OTHER CONSTRUCTION SHALL NOT BE PLACED WITHIN THE PROTECTED ZONE. EXCEPTION: OTHER ATTACHMENTS ARE PERMITTED WHERE DESIGNATED OR APPROVED BY THE EOR.
8. PROTECTED ZONES BE PERMANENTLY MARKED BY THE FABRICATOR AND RE-MARKED BY THE OWNER'S DESIGNATED REPRESENTATIVE IF THOSE MARKINGS ARE OBSCURED IN THE FIELD, SUCH AS BY APPLICATION OF FIREPROOFING.

E10 PROTECTED ZONE OF X-BRACED FRAME
NTSA10 TYP BRACED FRAME ROOF CONNECTION
NTSA15 TYP BRACED FRAME ROOF CONNECTION
NTSCREECH AIR FORCE BASE, CLARK COUNTY, NV
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2
494137

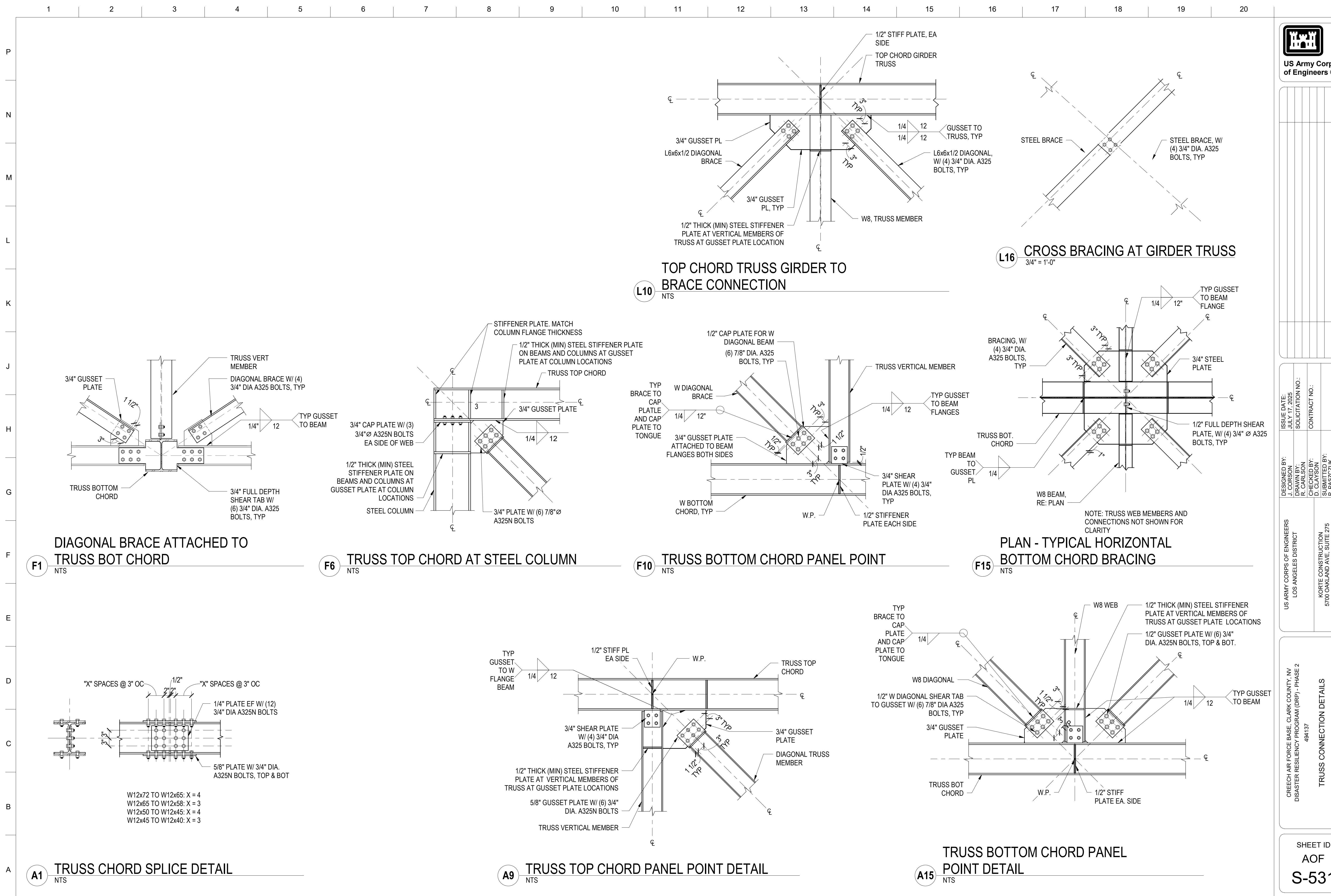
BRACED FRAME DETAILS

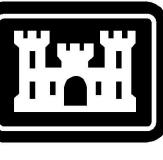
SHEET ID
AOF
S-521

FOR REVIEW

DESIGNED BY: J. CORSON
DRAWN BY: R. CARLSON
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DATE

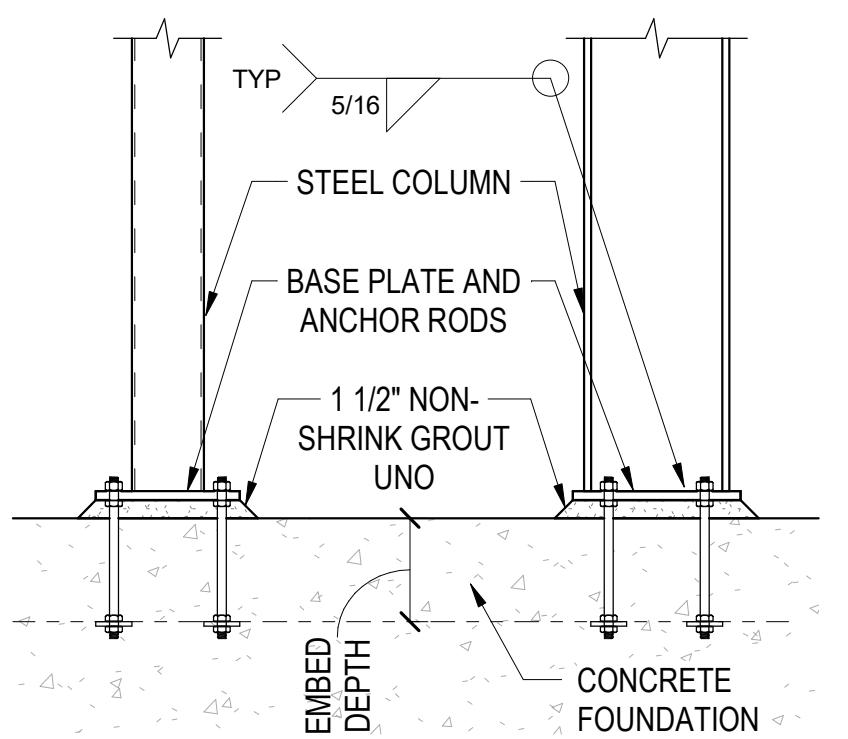


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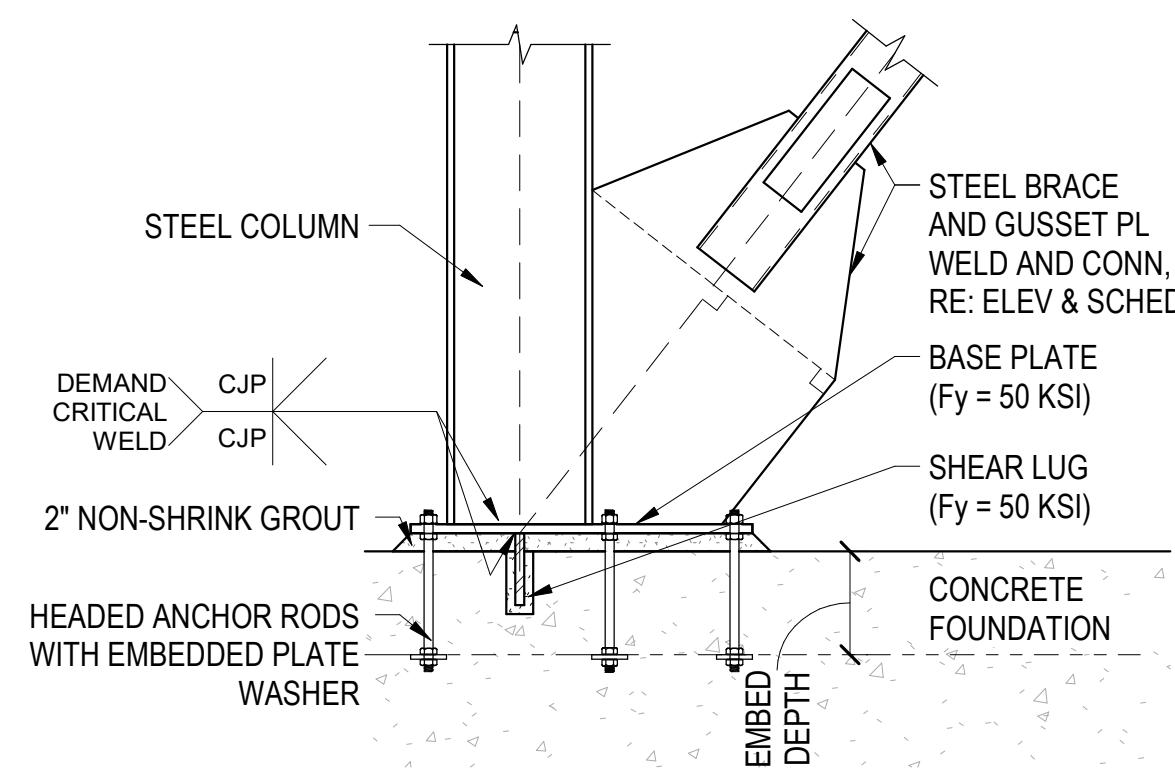
DATE

STEEL BRACED FRAME COLUMN & BASE PLATE SCHEDULE

COLUMN MARK	COLUMN SIZE	BASE PLATE				ANCHOR ROD		SHEAR LUG		NOTES
		TYPE	THICKNESS	"M" DIM	"N" DIM	"A" DIM	"P" DIM	DIA.	EMBED	



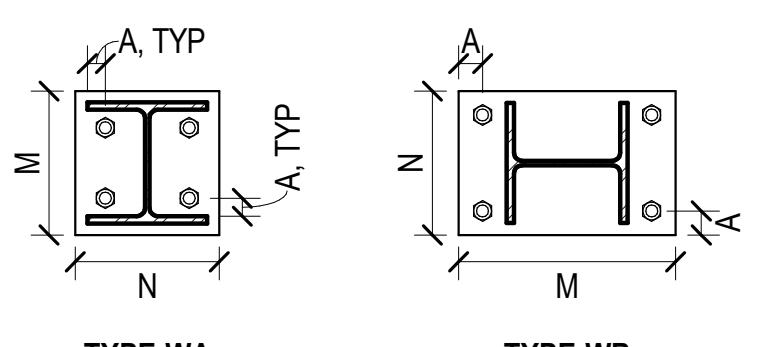
TYPICAL COLUMN BASE CONDITION



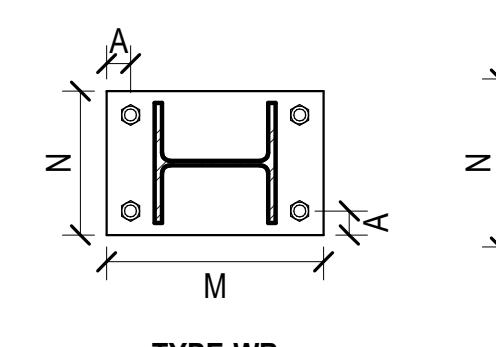
TYPICAL BRACED FRAME COLUMN BASE CONDITION

NOTES:

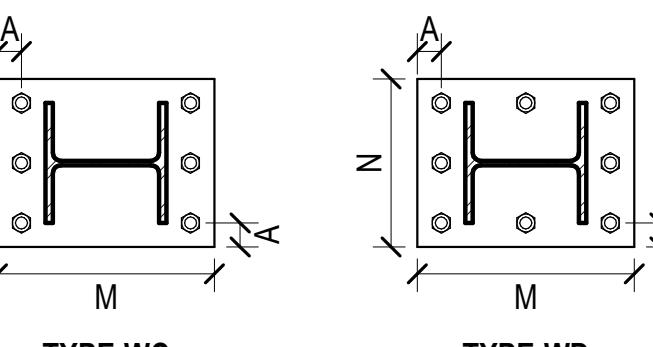
- ALL BASE PLATES AND SHEAR LUGS MUST BE ASTM A572 GR50 STEEL, TYP UNO
- ALL ANCHOR RODS MUST BE ASTM F-1554 GR55 MIN UNO. THEY MUST BE HEADED ANCHOR RODS W/ 3"x3"x3/8" PLATE WASHERS WITH DOUBLE NUTS OR EMBED PLATE EMBEDDED IN CONCRETE AT THE EMBEDMENT DEPTH SPECIFIED, TYP UNO.
 - ALL ANCHOR RODS MUST HAVE HARDENED WASHERS AND NUTS, WITH FULL HEIGHT OF EXTENSIONS THREADED
 - WASHERS MUST CONFORM TO AISC STEEL CONSTRUCTION MANUAL TABLE 14-2
 - BASE PLATE HOLES MAY INCREASE PER AISC STEEL CONSTRUCTION MANUAL TABLE 14-2
- ALL BASE PLATES MUST BEAR ON MIN 1 1/2" THICK (2" THICK AT BRACED FRAMES) 5000 PSI NON-SHRINK GROUT AND MUST HAVE LEVELING NUTS, TYP UNO
- ALL BASE PLATES MUST BE WELDED TO THE COLUMN WITH A 1/4" FILLET WELD ALL AROUND, TYP UNO
- ALL ANCHOR RODS MUST BE SET IN PLACE WITH A TEMPLATE. THEY MUST BE PLACED PLUMB AND AT THE CORRECT DEPTH AND EXTENSION
- THE WIDTH OF ALL SHEAR LUGS IS THE SAME AS THE 'N' DIMENSION SHOWN IN BASE PLATE TYPES
- NOTCH SHEAR LUGS AS REQ'D TO ACCOMMODATE REINF STEEL
- SEE THE STRUCTURAL GENERAL NOTES FOR ADDITIONAL INFORMATION



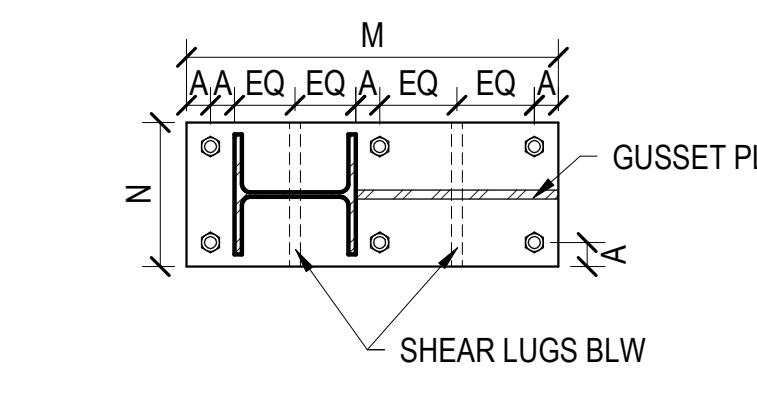
TYPE-WA



TYPE-WB



TYPE-WC

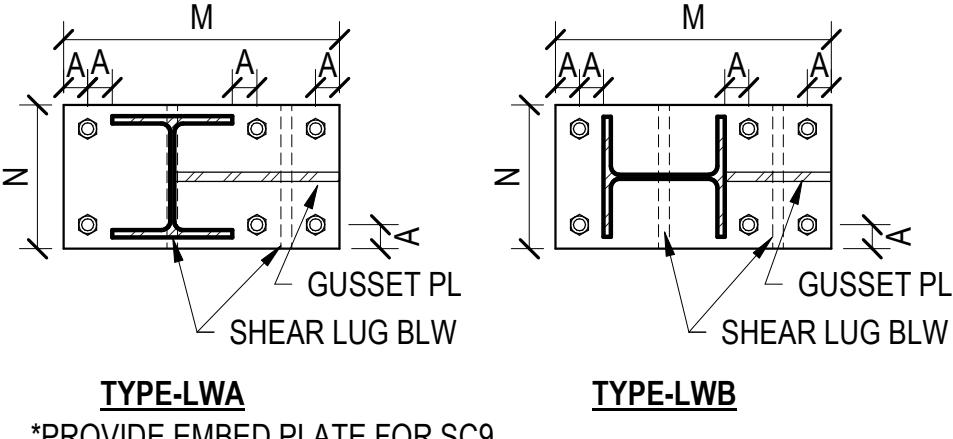
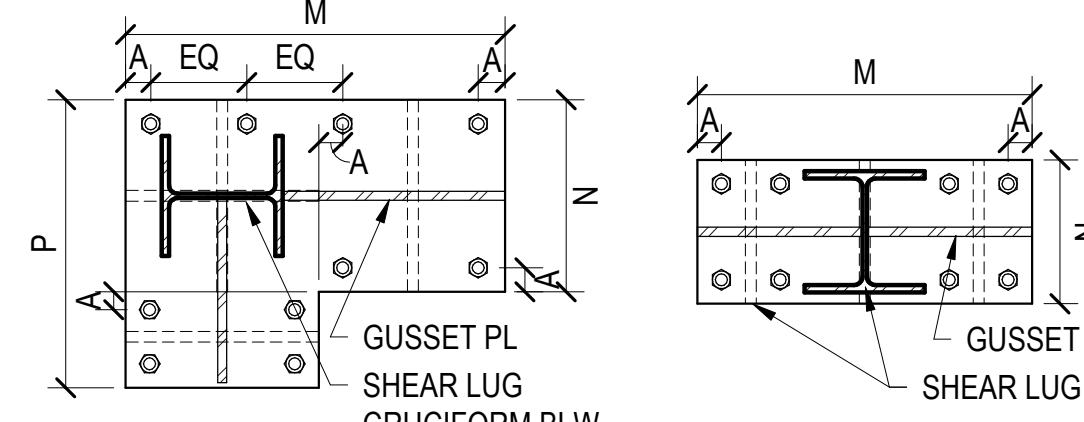


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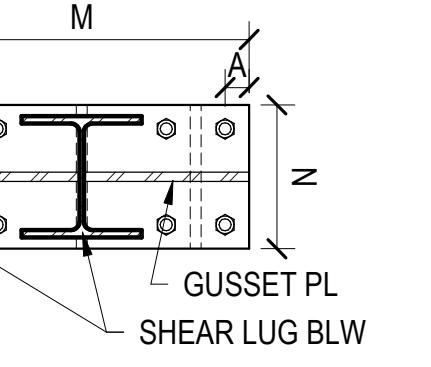
GUSSET PL

SHEAR LUGS BLW

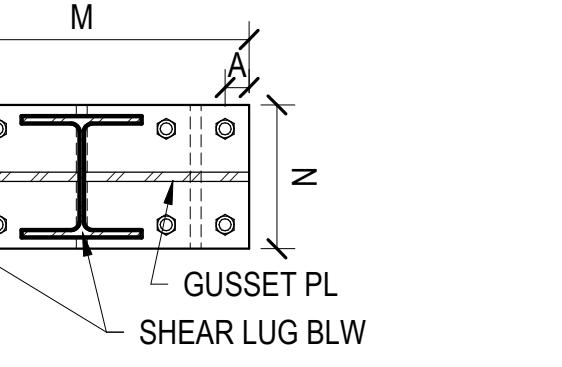
*PROVIDE EMBED PLATE, RE: K15/S-502

*PROVIDE EMBED PLATE FOR SC9,
RE: K15/S-502

*PROVIDE EMBED PLATE, RE: K15/S-502



*PROVIDE EMBED PLATE, RE: K15/S-502



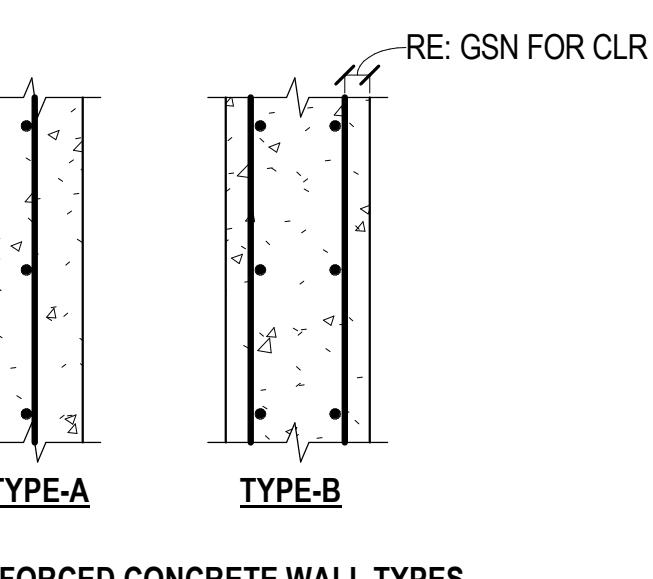
*PROVIDE EMBED PLATE, RE: K15/S-502

CONCRETE WALL SCHEDULE

MARK	WIDTH	TYPE	WALL REINFORCING		NOTES
			HORIZONTAL	VERTICAL	
CW-8	8"	TYPE A	#5 @ 12" OC	#5 @ 12" OC	
CW-15	1' - 3"	TYPE A	#5 @ 12" OC	#5 @ 12" OC	

NOTES:

- SEE TYPICAL DETAILS FOR REINFORCING AT CORNERS, INTERSECTIONS, AND OPENINGS.
- PROVIDE DOWELS WITH STANDARD HOOKS AND/OR PROPER LAP LENGTH TO THE STRUCTURE ABOVE AND BELOW WITH SIZE AND SPACING TO MATCH THE VERT REINF IN THE WALL, TYP UNO.
- THE LAP SPLICE LENGTH OF VERT REINF MUST BE AS SHOWN IN THE CONCRETE REINF DEVELOPMENT AND LAP SPLICE TABLE IN THE GENERAL NOTES. ADJUST HEIGHT OF EACH LIFT AS REQUIRED.
- WHEN A SINGLE CURTAIN OF REINF IS SPECIFIED, PLACE THE VERT REINF IN THE CENTER OF THE WALL, TYP UNO.
- AT TOP AND BTM OF WALL, INCLUDING ALL DECK BEARING ELEVATIONS, PROVIDE (2) #5 CONT IN ADDITION TO SCHEDULED REINFORCING.
- ALL HORIZONTAL REINF MUST TERMINATE AT ENDS OF WALLS AND ALL JAMBS WITH A STANDARD 180 DEGREE HOOK. END OF WALL IS DEFINED AS ANY WALL SEGMENT THAT EITHER CHANGES DIRECTION AND/OR CHANGES TO A DIFFERENT WALL TYPE.
- SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS.



REINFORCED CONCRETE WALL TYPES

FOOTING SCHEDULE

MARK	WIDTH	LENGTH	THICK	TRANSVERSE REINFORCING		LONGITUDINAL REINFORCING		NOTES
				NO.	SIZE	NO.	SIZE	
FS3.0	3' - 0"	3' - 0"	1' - 0"	(5)	#6	(5)	#6	
FS6.0	6' - 0"	6' - 0"	1' - 0"	(5)	#6	(5)	#6	
FS7.0	7' - 0"	7' - 0"	1' - 0"	(5)	#6	(5)	#6	
FS10.0	10' - 0"	10' - 0"	1' - 6"	(5)	#6	(5)	#6	
FS10.44	58'-0"	100'-0"	2' - 6"	(4)	#5	--	#5 @ 12" OC	TOP & BOTTOM
FS14.0	111'-0"	100'-0"	1' - 6"	(5)	#6	(5)	#5 @ #6" OC	
FS18.30	18' - 0"	30' - 0"	2' - 6"					TOP & BOTTOM

NOTES:

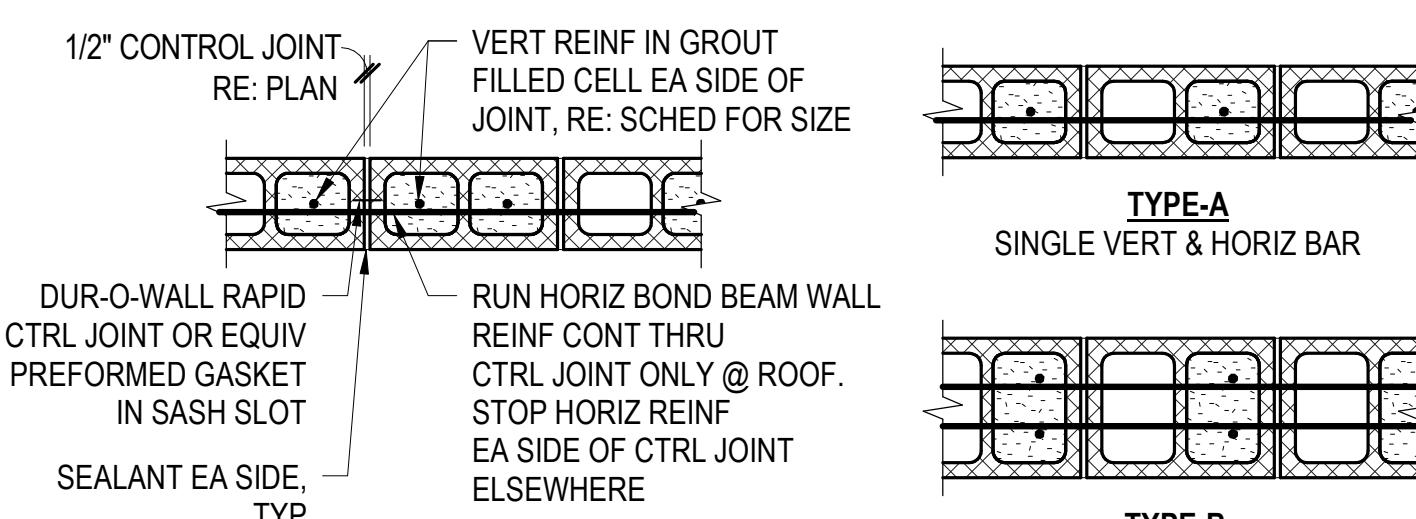
- ALL FOOTINGS MUST BEAR ON PROPERLY PREPARED MATERIAL. SEE FOUNDATION SECTION OF THE STRUCTURAL GENERAL NOTES.
- ALL FOOTINGS MUST BE CENTERED BELOW THE WALL AND/OR COLUMN ABOVE, TYP UNO.
- ALL EARTH FORMED FOOTINGS MUST HAVE REQUIRED CONCRETE COVER FOR REINFORCEMENT PER THE CONCRETE COVER TABLE.
- ALL EXTERIOR FOOTINGS MUST BEAR BELOW THE EFFECTS OF FROST. SEE THE DESIGN CRITERIA SECTION OF THE STRUCTURAL GENERAL NOTES FOR MINIMUM BEARING DEPTH.
- PROVIDE MINIMUM COVER FOR ALL REINFORCING PER THE STRUCTURAL GENERAL NOTES AND/OR THE CONCRETE COVER SCHEDULE.
- PLACE ALL FOOTING REINFORCING IN BOTTOM OF FOOTING WITH 3" CLEAR CONCRETE COVER, TYP UNO.
- PLACE TRANSVERSE REINFORCING NEAREST EARTH AND LONGITUDINAL REINFORCING ON TOP OF TRANSVERSE REINFORCING.
- PLACE TOP REINFORCING IF NOTED ON SCHEDULE. AS A MINIMUM, ALL FOOTINGS GREATER THAN OR EQUAL TO 18" IN THICKNESS REQUIRE #6 @ 12" OC EA WAY IN THE TOP OF FOOTING UNLESS THE SCHEDULE PROVIDES MORE STRINGENT REQUIREMENTS.
- EXTEND CONTINUOUS FOOTINGS 12" MINIMUM PAST EDGE OF WALL, UNLESS OTHERWISE NOTED ON PLANS.
- REINFORCING IN CONTINUOUS FOOTINGS MUST PASS THROUGH INTERSECTING SPOT FOOTINGS.
- ALL REINFORCING FOR SPOT FOOTINGS AND MAT FOOTINGS AT BRACED FRAMES AND MOMENT FRAMES MUST HAVE A 90 DEGREE HOOK AT EA END.
- PROVIDE DOWELS WITH STANDARD HOOKS FROM FOOTINGS TO ANY REINFORCED ELEMENT ABOVE WITH SIZE AND SPACING TO MATCH VERTICAL REINFORCING IN THE ELEMENT ABOVE.
- ANY INCREASE IN THE SIZE OF FOOTINGS SHOWN MAY REQUIRE ADDITIONAL REINFORCING. COORDINATE WITH THE ENGINEER OF RECORD.
- PENETRATIONS THROUGH FOOTINGS ARE NOT ALLOWED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.
- ALL CONTINUOUS FOOTINGS MUST BE FC2.0 MINIMUM, AND ALL SPOT FOOTINGS MUST BE FS3.0 MINIMUM UNO ON PLANS.
- SEE THE STRUCTURAL GENERAL NOTES FOR ADDITIONAL INFORMATION.

MASONRY WALL SCHEDULE

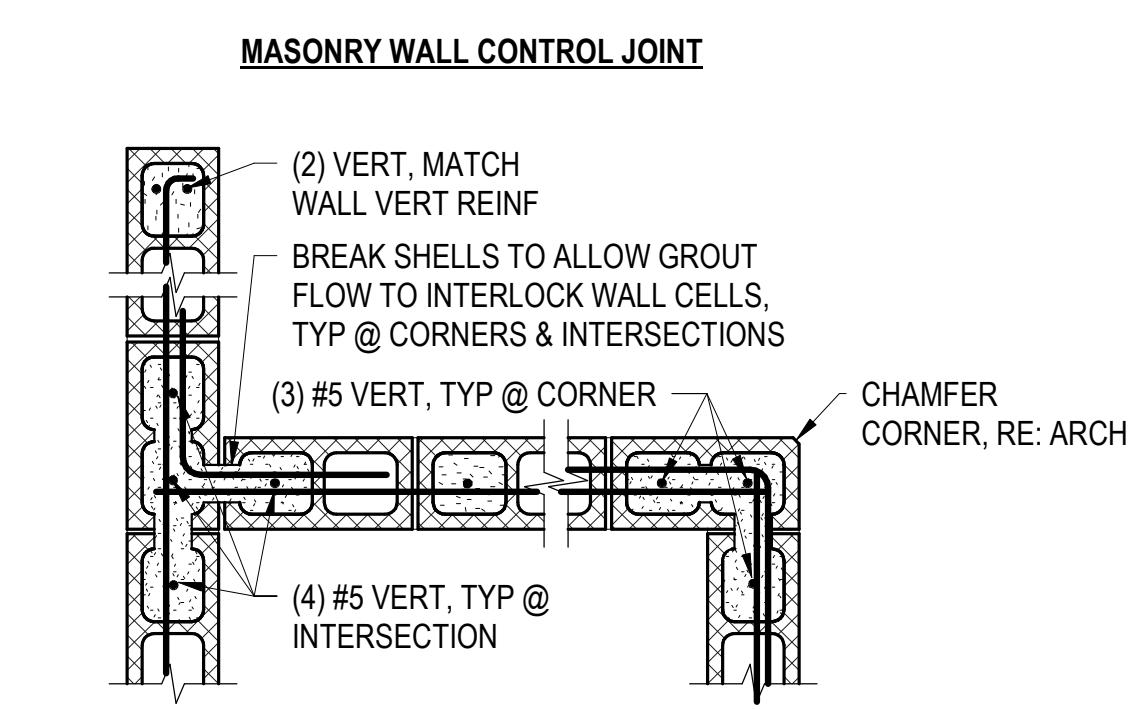
MARK	WIDTH	TYPE	WALL REINFORCING		NOTES
			HORIZONTAL	VERTICAL	
MW-8	8"	A	#5 @ 48" OC	#5 @ 32" OC	

NOTES:

- SEE TYPICAL DETAILS FOR REINFORCING AT CORNERS, INTERSECTIONS, AND OPENINGS.
- GROUT ALL CELLS SOLID THAT CONTAIN REINFORCING, EMBEDS, AND/OR BOLTS, TYP.
- DO NOT SOLID GROUT WALLS UNO.
- ALL MASONRY BELOW GRADE MUST BE GROUTED SOLID.
- LAY ALL BLOCK IN RUNNING BOND, TYP UNO.
- HORIZONTAL WALL REINF MUST CONTINUE THROUGH LINTELS. WHERE BOTH HORIZ WALL AND LINTEL REINF OCCUR IN THE SAME COURSE, USE THE LARGER REINFORCEMENT ONLY.
- ALL HORIZ REINF MUST TERMINATE AT ENDS OF WALL AND JAMBS WITH STANDARD 180 DEG HOOKS. PLACE ADDITIONAL VERT BAR IN CENTER OF WALL IF NECESSARY.
- PROVIDE SCHEDULED BOUNDARY COLUMNS AT END OF WALLS. SEE TYP MASONRY ELEVATION.
- AT TOP AND BOTTOM OF WALL PROVIDE (2) #5 CONT IN ADDITION TO SCHEDULED REINFORCING.
- AT ALL DECK AND JOIST EMBED LOCATIONS, PROVIDE (2) #5 CONT IN ADDITION TO SCHEDULED REINFORCING.
- PROVIDE DOWELS WITH STANDARD HOOKS AND/OR PROPER LAP LENGTH TO THE STRUCTURE ABOVE AND BELOW WITH SIZE AND SPACING TO MATCH THE VERT REINF IN THE WALL, TYP UNO.
- THE LAP SPLICE LENGTH OF VERT REINF MUST BE AS SHOWN IN THE MASONRY REINF LAP SPLICE TABLE IN THE GENERAL NOTES. ADJUST HEIGHT OF EACH LIFT AS REQUIRED.
- WHEN A SINGLE CURTAIN OF REINF IS SPECIFIED, PLACE THE VERT REINF IN THE CENTER OF THE WALL, TYP UNO.
- WHEN A DOUBLE CURTAIN OF REINF IS SPECIFIED, PLACE EACH CURTAIN AT THE FACE OF THE WALL WITH THE VERT REINF CLOSEST TO THE SHELL WITH A CLEAR DISTANCE BETWEEN 1/2" AND 1" TO THE INSIDE FACE OF THE SHELL.
- ALL WALLS MUST INCLUDE LADDER TYPE JOINT REINF SPACED AT 16" OC VERTICALLY WITH AT LEAST TWO WIRES OF W1.7 (GALVANIZED).
- SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS.



DESIGNED BY: J. CORSON	ISSUE DATE: JULY 17, 2025
DRAWN BY: R. CARLSON	SOLICITATION NO.:
CHECKED BY: D. CLAYSON	CONTRACT NO.:
SUBMITTED BY: P. PASZCZUK	SIZE: ANSD

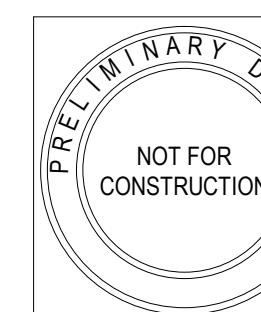
US ARMY CORPS OF ENGINEERS
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5700 OAKLAND AVE, SUITE 275
ST. LOUIS, MO 63110

MASONRY WALL REINF LAYOUT

CREECH AIR FORCE BASE, CLARK COUNTY, NV
DISASTER RESILIENCY PROGRAM (DRP) - PHASE 2

494137

STRUCTURAL SCHEDULES
SHEET ID AOF S-601 FOR REVIEW

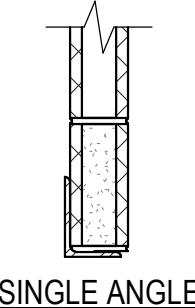


#	STEEL GUSSET PLATE CONNECTION SCHEDULE						
MARK	GUSSET PLATE THICKNESS	GEOMETRY AND WELDING INFORMATION			COVER PLATE INFO		NOTES
	W1 SIZE	L1 LENGTH	W2 SIZE	L2 LENGTH	W3 SIZE	PLATE SIZE	

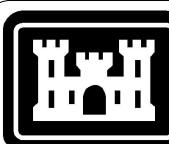
VENEER LINTEL SCHEDULE

LOOSE LINTEL SCHEDULE FOR NON-LOAD BEARING MASONRY WALLS

OPENING WIDTH	WALL THICKNESS	4" WALL	
		UP TO 4'-0"	L4x3 1/2x5/16 LLV
4'-0" TO 6'-0"		L5x3 1/2x5/16 LLV	
6'-0" TO 8'-0"		L6x3 1/2x5/16 LLV	
8'-0" TO 12'-0"		L6x6x1/2	
12'-0" TO 16'-0"		L8x6x5/8 LLV	



SINGLE ANGLE

US Army Corps
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DATE

NOTES:

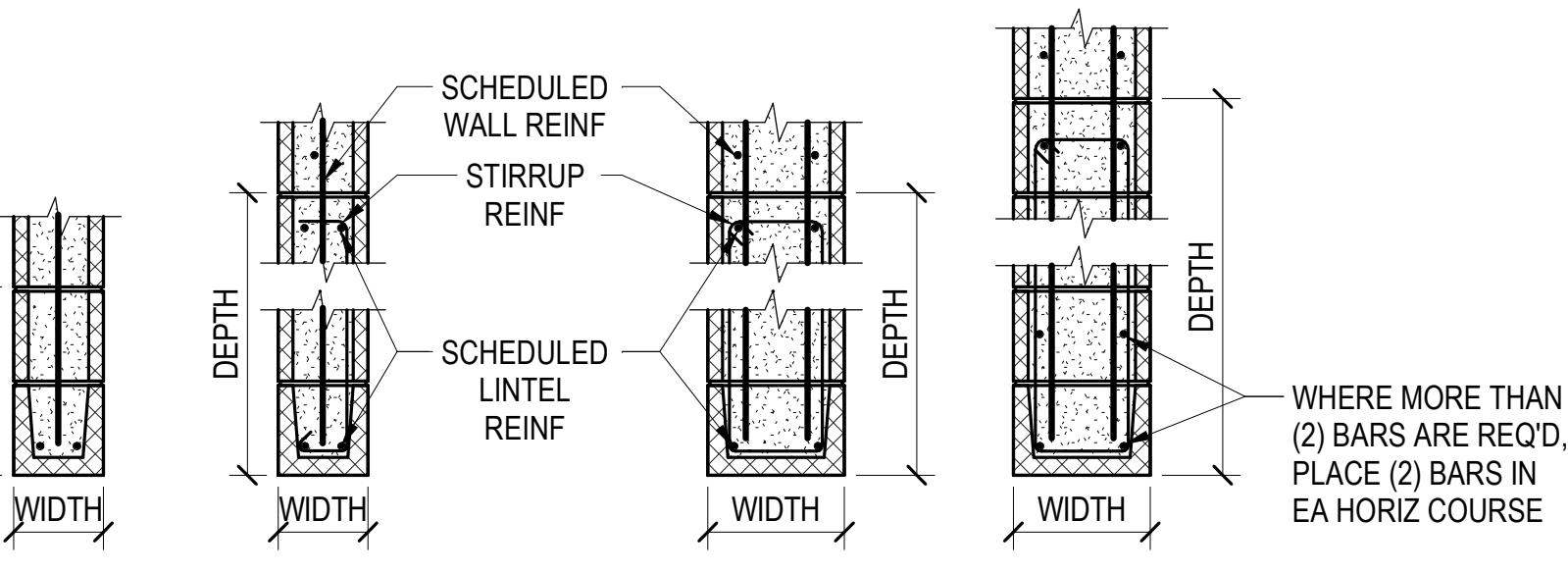
1. RE: STRUCTURAL, ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR OPENING SIZE AND LOCATION.
2. CONNECT ALL DOUBLE ANGLES BACK TO BACK AT 2'-0" OC MAXIMUM SPACING.
3. PROVIDE 6" MINIMUM BEARING AT FIRST FULL MASONRY CELL AT EACH END OF LOOSE LINTEL.
4. FOR OPENINGS 6'-0" AND WIDER, FULLY GROUT FIRST FULL CELL EACH SIDE OF OPENING FOR FULL HEIGHT OF WALL.
5. FOR OPENINGS LESS THAN 6'-0" WIDE, FULLY GROUT FIRST FULL CELL EACH SIDE OF OPENING FOR MINIMUM HEIGHT OF 8", BUT NOT LESS THAN THE FULL CELL HEIGHT, BELOW LINTEL BEARING ELEVATION.
6. FULLY GROUT ALL CELLS WHERE LOOSE LINTELS ARE LOCATED.
7. ANGLES IN EXTERIOR WALLS ARE TO BE GALVANIZED.

MASONRY LINTEL SCHEDULE

MARK	WIDTH	DEPTH	TYPE	LINTEL REINFORCING		NOTES
				HORIZONTAL	STIRRUPS	
MB16	7 5/8"	1'-4"	A	(2) #5	N/A	

NOTES:

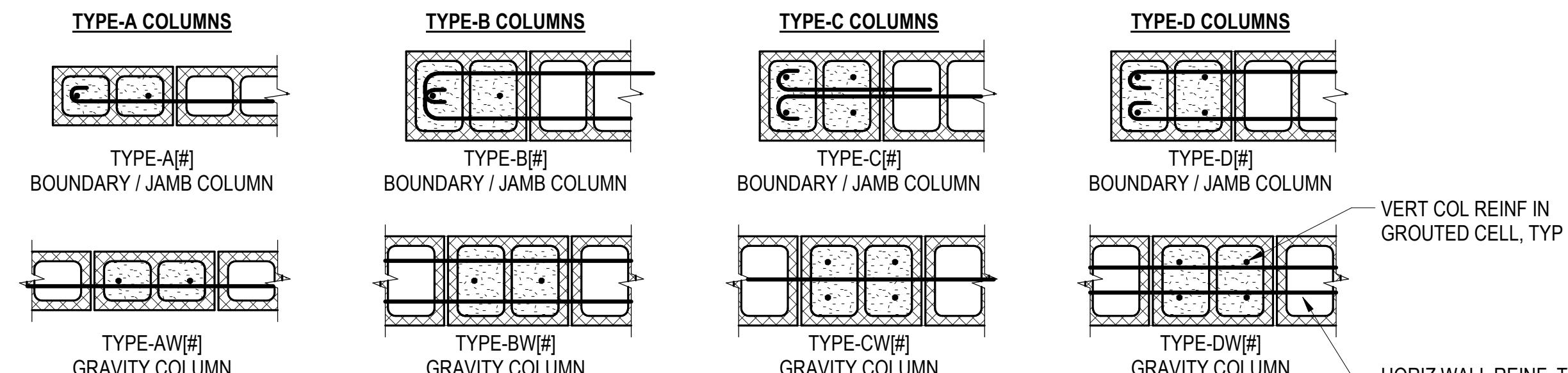
1. LINTELS MUST BE OF THE SAME MATERIAL AND WIDTH AS THE WALL IN WHICH THEY ARE CONSTRUCTED.
2. LINTELS MUST BE GROUTED MONOLITHICALLY WITH THE SUPPORTING WALL AND COLUMNS.
3. GROUT LINTELS SOLID FOR DEPTH SHOWN IN THE SCHEDULE, PLUS AS PER DETAILS, STRUCTURAL NOTES, AND/OR WALL SCHEDULE.
4. EXTEND HORIZONTAL REINFORCING 48 BAR DIAMETERS MIN BEYOND THE EDGE OF ALL OPENINGS. PROVIDE A 90° STANDARD HOOK WHERE THIS CANNOT BE ACCOMPLISHED.
5. NO DUCTS, OPENINGS, OR PENETRATIONS WILL OCCUR THROUGH BEAMS UNO.
6. REINFORCING INDICATED IN LINTEL SCHEDULE IS IN ADDITION TO WALL HORIZ AND VERT REINFORCING.
7. SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS.



MASONRY LINTEL TYPES

MASONRY JAMB AND COLUMN SCHEDULE

MARK	SIZE	TYPE	COLUMN REINFORCING		NOTES
			VERTICAL	TIES	
MP16	8x16	A2	#5 EA CELL	N/A	
MP32	8x16	A2	#5 EA CELL	N/A	



NOTES:

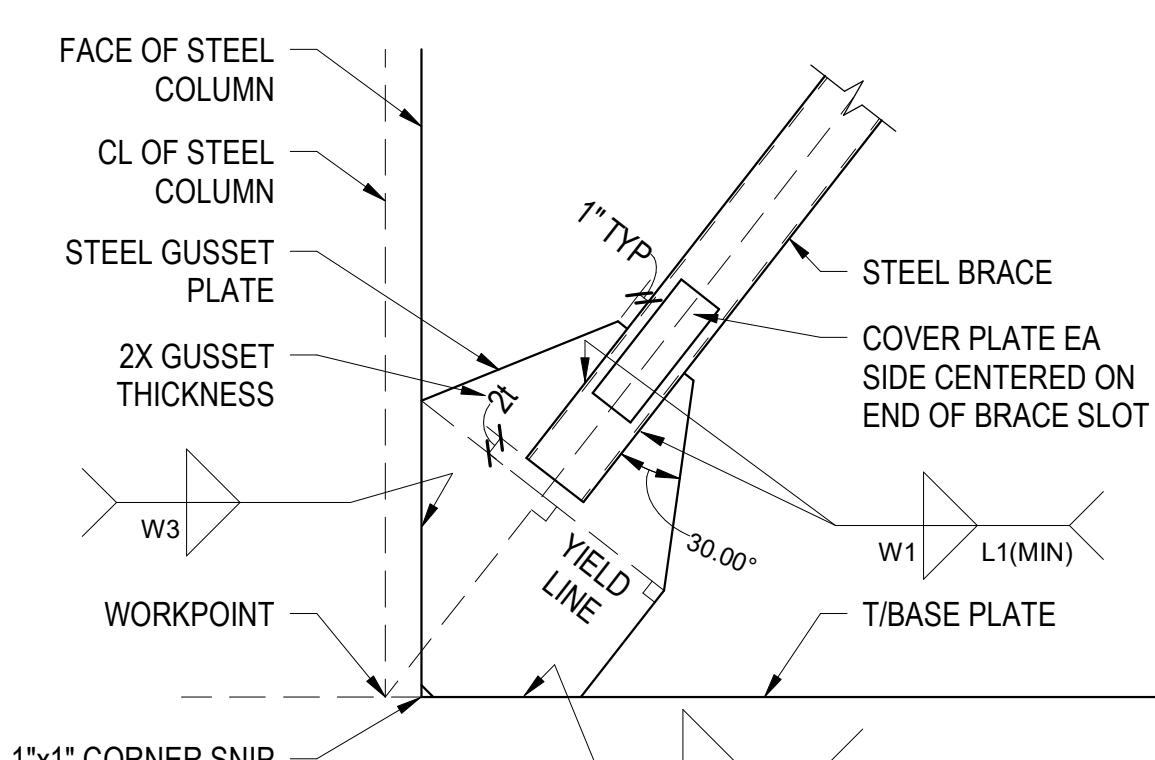
1. DESIGNATION "TYPE A[#]" WHERE "A" EQUALS THE WALL TYPE IN WHICH THE COLUMN/JAMB OCCURS AND WHERE [#] EQUALS THE NUMBER OF VERTICALLY GROUTED CELLS CONTAINING REINFORCING.
2. HORIZONTAL WALL REINF MUST RUN CONTINUOUS THROUGH MASONRY COLUMNS.
3. GROUT ALL REINFORCED CELLS AND VOIDS SOLID.
4. MASONRY COLUMN REINF MUST EXTEND FULL HEIGHT FROM MARK ON PLAN DOWN TO FOUNDATION AND TERMINATE WITH A STANDARD 90° HOOK. FOR CONC FOUNDATION WALL HEIGHTS OVER 50", VERT MASONRY REINF MUST DOWEL 4" MIN INTO FOUNDATION WALL.
5. NUMBER OF VERT BARS IS TOTAL NUMBER OF BARS.
6. SEE ARCHITECTURAL DRAWINGS FOR SPECIAL COURSING ARRANGEMENTS.
7. ALL TIES MUST TERMINATE WITH A STANDARD MASONRY HOOK.
8. SEE MASONRY REINFORCING SPLICE LENGTH TABLES FOR REINF LAP LENGTHS.
9. SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS.

CREECH AIR FORCE BASE, CLARK COUNTY, NV
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494137

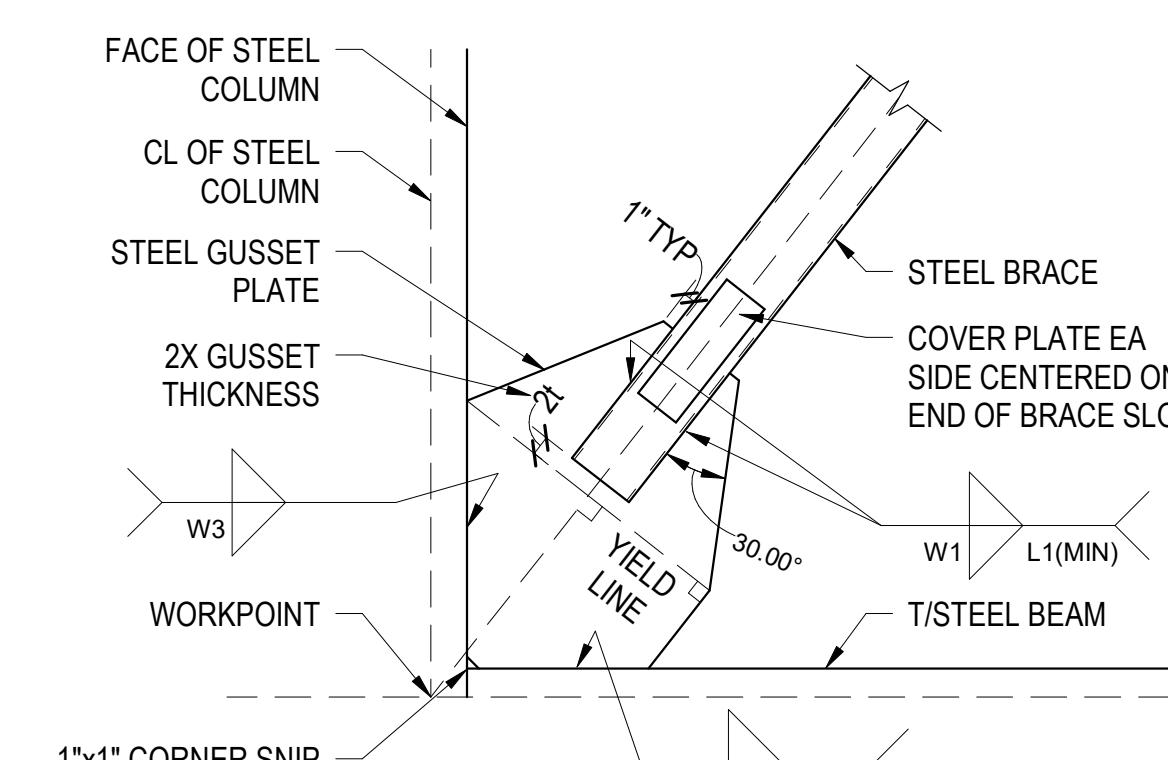
STRUCTURAL SCHEDULES

SHEET ID
AOF
S-602

FOR REVIEW



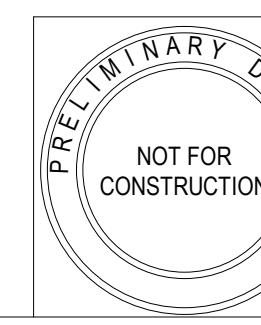
TYPICAL STEEL GUSSET PLATE TO BASE PLATE DETAIL



TYPICAL STEEL GUSSET PLATE TO STEEL BEAM DETAIL

NOTES:

1. RE: BRACED FRAME ELEVATIONS FOR MARKED LOCATIONS OF EACH GUSSET ASSEMBLY.
2. ALL GUSSET PLATES MUST BE A572 GRADE 50 STEEL.
3. ALL COVER PLATES MUST BE A572 GRADE 50 STEEL.
4. AT CONTRACTOR'S OPTION, FILLET WELDS MAY BE REPLACED WITH CJP WELDS SO LONG AS REQUIRED TESTING IS PERFORMED PER GOVERNING BUILDING CODE.
5. YIELD LINE SHOULD EXACTLY INTERSECT WITH COLUMN FACE OR BASE PLATE/BEAM FACE DEPENDING ON THE GEOMETRY.
6. LENGTH L1 IS A MINIMUM WELD LENGTH. USE LENGTH L2 AS A BASELINE TO ESTABLISH THE YIELD LINE.
7. PLACE 1/2" THICK FOAM EACH SIDE OF GUSSET PLATE WHEN CONCRETE POURS AROUND GUSSET PLATE.

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