	А		J
A/E	ARCHITECT/ENGINEER	JST	JOIST
ACI	AMERICAN CONCRETE INSTITUTE	JT	JOINT
ADDL			K
ADJ AFF	ADJACENT ABOVE FINISH FLOOR		IX
AISC	AMERICAN INSTITUTE OF STEEL	K	KIPS (1000 LBS)
-	CONSTRUCTION	KSI	KIPS PER SQUARE INCH
ALT	ALTERNATE		
ANSI	AMERICAN NATIONAL STANDARDS		<b>L</b>
APPRO>	APPROXIMATE (-LY)	L	ANGLE SHAPE
ARCH	ARCHITECTURAL, ARCHITECT	LB, #	POUND
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	LD	
ASTM	AMERICAN SOCIETY FOR TESTING AND	LL	
AWS	AMERICAN WELDING SOCIETY		
		LONG	LONGITUDINAL
	В	LP	LOW POINT
PC		LVL	LEVEL
BLDG	BUILDING		М
BM	BEAM		111
BOD	BOTTOM OF DECK	MAX	MAXIMUM
BOT	ВОТТОМ	MC	MISCELLANEOUS CHANNEL SHAPE
BP	BASE PLATE	MECH	MECHANICAL
BRG	BEARING BOTH SIDES	MEP	MECHANICAL, ELECTRICAL, PLUMBING
BVI	BEVELED		
BW	BOTH WAYS	MISC	MINIMOM
	0	MT	STRUCTURAL TEE CUT FROM MISC STE
	C	MTL	METAL
<u> </u>			NI
CG CG			IN
Cl	CONSTRUCTION JOINT	N/A	NOT APPI ICARI F
CL	CENTERLINE	NF	NEAR FACE
CLR	CLEAR, CLEARANCE	NS	NEAR SIDE
CMU	CONCRETE MASONRY UNIT	NTS	NOT TO SCALE
COL	COLUMN		$\cap$
CONC	CONCRETE		0
CONST		OC	ON CENTER
CONTR	CONTRACTOR	OPNG	OPENING (-S)
CONX	CONNECTION	OPP	OPPOSITE
		OH	OPPOSITE HAND
	D		P
DETI	DETAIL		
DIA	DIAMETER	PERP	PERPENDICULAR
DIAG	DIAGONAL	PL	PLATE
DIM	DIMENSION	PLBG	PLUMBING
DL	DEAD LOAD	PLF	POUNDS PER LINEAR FOOT
DN	DOWN		
DO		PSF	POUNDS PER SQUARE FOOT
DWG	DOWEI	PSI	POUNDS PER SQUARE INCH
	<b>F</b>		P
	E		
			RADIUS
FA	FACH	RAD	
EA EF	EACH EACH FACE	RAD RD	ROOF DRAIN
EA EF EJ	EACH EACH FACE EXPANSION JOINT	RAD RD RE:, REF	ROOF DRAIN REFER TO
EA EF EJ ELEC	EACH EACH FACE EXPANSION JOINT ELECTRICAL	RAD RD RE:, REF REINF	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT)
EA EF EJ ELEC ELEV, EL	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION	RAD RD RE:, REF REINF REQD	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED
EA EF EJ ELEC ELEV, EL EMBED	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED	rad Rd Re:, Ref Reinf Reqd Rev	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION
EA EF EJ ELEC ELEV, EL EMBED ENGR	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUID: FADTUOLIAKE	RAD RD RE:, REF REINF REQD REV	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQ	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT	RAD RD RE:, REF REINF REQD REV	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE	RAD RD RE:, REF REINF REQD REV SCHED	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D)
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY	RAD RD RE:, REF REINF REQD REV SCHED SDI	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEFT
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S)
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES)
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION <b>SCHEDULE(D)</b> STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION <b>S</b> SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT FD	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR FLOOR DRAIN FOUNDATION	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIRRUP
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT FD FDN FF	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR FLOOR DRAIN FOUNDATION FINISH FLOOR	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR STL STD	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION <b>S</b> SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIFFENER STIRRUP
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT FD FD FD FD FD FF FIN	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR FLOOR DRAIN FOUNDATION FINISH FLOOR FINISH (-ED)	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR STIR STL STR STR	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIFFENER STIFFENER STIFFENER STRUCTURAL STRUCTURAL
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT FD FDN FF FIN FF	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR FLOOR DRAIN FOUNDATION FINISH FLOOR FINISH FLOOR FLOOR	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR STIF STIR STL STR STRUCT	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION <b>S</b> SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIRRUP STEEL STRUCTURAL STRUCTURAL
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT FD FDN FF FIN FLR FS ET	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR FLOOR DRAIN FOUNDATION FINISH FLOOR FINISH (-ED) FLOOR FAR SIDE ECOT/EEET	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR STIR STL STR STR STRUCT	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIRRUP STEEL STRUCTURAL STRUCTURAL STRUCTURAL
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT FD FDN FF FIN FF FIN FLR FS FT FTG	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR FLOOR DRAIN FOUNDATION FINISH FLOOR FINISH (-ED) FLOOR FAR SIDE FOOT/FEET FOOTING	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR STIF STIR STL STR STRUCT	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIRRUP STEEL STRUCTURAL STRUCTURAL STRUCTURE
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT FD FDN FF FIN FLR FS FT FTG	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR FLOOR DRAIN FOUNDATION FINISH FLOOR FINISH (-ED) FLOOR FAR SIDE FOOT/FEET FOOTING	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR STL STR STL STR STRUCT	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIRRUP STEEL STRUCTURAL STRUCTURAL STRUCTURE TOP OF TOP OF
EA EF EJ ELEC ELEV, EL EMBED EQ EQUIP ES EW EXIST EXP EXT FD FD FD FD FD FF FIN FL FS FT FT FTG	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR <b>F</b> NOOR DRAIN FOUNDATION FINISH FLOOR FINISH (-ED) FLOOR FAR SIDE FOOT/FEET FOOTING	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR STL STR STL STR STRUCT	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIRRUP STEEL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT FD FDN FF FIN FLR FS FT FTG	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR FLOOR DRAIN FOUNDATION FINISH FLOOR FINISH FLOOR FINISH (-ED) FLOOR FAR SIDE FOOT/FEET FOOTING	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR STL STR STL STR STRUCT T/ T&B TEMP THRD	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIRRUP STEEL STRUCTURAL STRUCTURAL STRUCTURE TOP OF TOP OF TOP & BOTTOM TEMPERATURE, TEMPORARY THREADED
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT FD FDN FF FIN FF FIN FLR FS FT FTG	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR FLOOR DRAIN FOUNDATION FINISH FLOOR FINISH FLOOR FINISH (-ED) FLOOR FAR SIDE FOOT/FEET FOOTING GAGE OR GAUGE	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR STL STR STL STR STRUCT T/ T&B TEMP THRD THRU	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIRRUP STEEL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURE TOP OF TOP OF TOP S BOTTOM TEMPERATURE, TEMPORARY THREADED THROUGH
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT FD FDN FF FIN FLR FS FT FTG GA GALV GB	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR <b>F</b> FLOOR DRAIN FOUNDATION FINISH FLOOR FINISH (-ED) FLOOR FAR SIDE FOOT/FEET FOOTING GAGE OR GAUGE GALVANIZED GRADE REAM	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR STL STR STL STR STRUCT T/ T&B TEMP THRD THRU TOC	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIRRUP STEEL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL TOP OF TOP OF TOP S BOTTOM TEMPERATURE, TEMPORARY THREADED THROUGH TOP OF CONCRETE
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT FD FDN FF FIN FLR FS FT FTG GA GALV GB GC	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR FLOOR DRAIN FOUNDATION FINISH FLOOR FINISH (-ED) FLOOR FAR SIDE FOOT/FEET FOOTING GAGE OR GAUGE GALVANIZED GRADE BEAM GENERAL CONTRACTOR	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR STL STR STL STR STRUCT T/ T&B TEMP THRD THRD THRU TOC TOS	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIRRUP STEEL STRUCTURAL STRUCTURAL STRUCTURE TOP OF TOP OF TOP OF TOP & BOTTOM TEMPERATURE, TEMPORARY THREADED THROUGH TOP OF STEEL
EA EF EJ ELEC ELEV, EL EMBED EQ EQUIP ES EW EXIST EXP EXT FD FDN FF FIN FLR FS FT FTG GA GALV GB GC	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR FLOOR DRAIN FOUNDATION FINISH FLOOR FINISH FLOOR FINISH (-ED) FLOOR FAR SIDE FOOT/FEET FOOTING GAGE OR GAUGE GALVANIZED GRADE BEAM GENERAL CONTRACTOR	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR STL STR STL STR STIFF STIR STL STR STRUCT	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIRUP STEEL STRUCTURAL STRUCTURAL STRUCTURE TOP OF TOP OF TOP OF TOP & BOTTOM TEMPERATURE, TEMPORARY THREADED THROUGH TOP OF STEEL TOP OF STEEL TOP OF STEEL TOP OF STEEL TYPICAL
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT FD FDN FF FIN FLR FS FT FTG GA GALV GB GC	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR FLOOR DRAIN FOUNDATION FINISH FLOOR FINISH FLOOR FINISH (-ED) FLOOR FAR SIDE FOOT/FEET FOOTING GAGE OR GAUGE GALVANIZED GRADE BEAM GENERAL CONTRACTOR	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR STL STR STL STR STRUCT T/ T&B TEMP THRD THRU TOC TOS TYP	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIFFENER STIRUP STEEL STRUCTURAL STRUCTURAL STRUCTURE TOP OF TOP & BOTTOM TEMPERATURE, TEMPORARY THREADED THROUGH TOP OF STEEL TOP OF STEEL TOP OF STEEL TOP OF STEEL TOP OF STEEL
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT FD FDN FF FIN FF FIN FLR FS FT FTG GA GALV GB GC	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR FLOOR DRAIN FOUNDATION FINISH FLOOR FINISH FLOOR FINISH (-ED) FLOOR FAR SIDE FOOT/FEET FOOTING GAGE OR GAUGE GALVANIZED GRADE BEAM GENERAL CONTRACTOR	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR STL STR STRUCT T/ T&B TEMP THRD THRU TOC TOS TYP	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIRUP STEEL STRUCTURAL STRUCTURAL STRUCTURE TOP OF TOP 0F TOP & BOTTOM TEMPERATURE, TEMPORARY THREADED THROUGH TOP OF STEEL TOP OF STEEL TOP OF STEEL TOP OF STEEL TYPICAL
EA EF EJ ELEC ELEV, EL EMBED ENGR EQ EQUIP ES EW EXIST EXP EXT FD FDN FF FIN FLR FS FT FTG GA GALV GB GC	EACH EACH FACE EXPANSION JOINT ELECTRICAL ELEVATION EMBEDMENT, EMBEDDED ENGINEER EQUAL, EARTHQUAKE EQUIPMENT EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR <b>F</b> FLOOR DRAIN FOUNDATION FINISH FLOOR FINISH (-ED) FLOOR FAR SIDE FOOT/FEET FOOTING <b>G</b> GAGE OR GAUGE GALVANIZED GRADE BEAM GENERAL CONTRACTOR HOOK EACH END	RAD RD RE:, REF REINF REQD REV SCHED SDI SECT SHT SIM SPEC SSL STD STIFF STIR STL STR STRUCT T/ T&B TEMP THRD THRU TOC TOS TYP	ROOF DRAIN REFER TO REINFORCE (-D,-ING,-MENT) REQUIRED REVISION SCHEDULE(D) STEEL DECK INSTITUTE SECTION SHEET SIMILAR SPECIFICATION(S) SHORT SLOTTED (HOLES) STANDARD STIFFENER STIRUP STEEL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURE TOP OF TOP OF TOP & BOTTOM TEMPERATURE, TEMPORARY THREADED THROUGH TOP OF STEEL TYPICAL UNLESS NOTED OTHERWISE
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# STRUCTURAL SYMBOLS

(ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS)

SURFACE - STEPPED SURFACE - SLOPE UP SURFACE - SLOPE DOWN SURFACE - SLOPE (2) WAYS MOMENT CONNECTION

### THE FOLLOWING SYMBOLS ARE USED TO REPRESENT THE MATERIALS SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO SPECIFICATIONS AND GENERAL NOTES FOR MATERIAL QUALITIES REQUIRED.



	SLOPE INDICATOR
	STRUCTURAL ARROW (DIRECTION OF SPAN)
	COLUMN PASSING THRU THIS LEVEL
-3" )	TOP OF STEEL ± DEVIATION FROM TYPICAL



# **SPECIAL INSPECTIONS**

VERIFICATION AND INSPECTION

CONCRETE CONSTRUCTION

1. INSPECTION OF REINFORCING STEEL AND PLACEMENT.

- 2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2, ITEM 2B.
- 3. INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.
- 4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.
- 5. VERIFYING USE OF REQUIRED DESIGN MIX.
- 6. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPER CONCRETE.
- 7. INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.
- 8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.
- 9. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.
- 10. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.

### STEEL CONSTRUCTION

- 1. INSPECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360.
- 2. INSPECTION OF COLD FORMED STEEL STRUCTURAL FRAMING SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISI S240.

### MASONRY CONSTRUCTION

1. MASONRY CONSTRUCTION SHALL BE INSPECTED AND VERIFIED IN ACCORDANCE WITH TMS 402 / ACI 530 / ASCE 5 AND TMS 602 / ACI 530.1 / ASCE 6 QUALITY ASSURANCE PR REQUIREMENTS.

### WOOD CONSTRUCTION

1. SPECIAL INSPECTIONS OF THE FABRICATION PROCESS OF PREFABRICATED WOOD STRUCTURAL ELEMENTS AND ASSEMBLIES SHALL BE IN ACCORDANCE WITH IBC SECTIO SPECIAL INSPECTIONS OF SITE-BUILT ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS SECTION.

### SOIL

- 1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.
- 2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.
- 3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.
- 4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.
- 5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.

### WIND RESISTANCE

1. WIND RESISTING COMPONENTS:

- A. ROOF CLADDING
- B. WALL CLADDING
- C. ALL OTHER INSPECTIONS REQUIRED BY TEXAS DEPARTMENT OF INSURANCE.

CONTINUOUS MEANS FULL-TIME OBSERVATION OF WORK. PERIODIC MEANS PART-TIME OR INTERMITTENT OBSERVATION OF WORK AND AT THE COMPLETION OF WORK. ALL OTHER INSPECTIONS NOT LISTED ABOVE BUT REQUIRED BY IBC OR THE CLIENT SHALL BE PERFORMED.

- THE OWNER SHALL ASSIGN AND EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THE SPECIAL INSPECTIONS TABLE ABOVE PER SECTION 1705 OF THE IBC. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS AND PROVIDE SPECIAL INSPECTION REPORTS. THE SPECIAL INSPECTORS OR CONTRACTOR SHALL SUBMIT INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO COMPLETION OF THAT PHASE OF WORK. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED AT A POINT IN TIME AGREED UPON BY THE PERMIT APPLICANT AND THE BUILDING OFFICIAL PRIOR TO THE START OF WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE SPECIAL INSPECTOR REGARDING INDIVIDUAL INSPECTIONS FOR ITEMS LISTED IN THE SPECIAL INSPECTIONS TABLE ABOVE AND AS NOTED ON THE BUILDING DEPARTMENT APPROVED PLANS. ADEQUATE NOTICE AND ACCESS TO APPROVED PLANS SHALL BE PROVIDED SO THAT THE SPECIAL INSPECTOR HAS TIME TO BECOME FAMILIAR WITH THE PROJECT.
- 4. FABRICATORS OF STRUCTURAL, LOAD-BEARING MEMBERS AND ASSEMBLIES SHALL CONFORM TO THE REQUIREMENTS OF SECTION 1704.2.5 OF THE IBC.

	CONTINUOUS	PERIODIC	REFERENCED STANDARD
	-	Х	ACI 318: 3.5, 7.1-7.7
	-	-	AWS D1.4, ACI 318: 3.5.2
	-	Х	ACI 318: 8.1.3, 21.2.8
	-	х	ACI 318: 3.8.6, 8.1.3, 21.2.8
	-	Х	ACI 318: CH. 4, 5.2-5.4
ATURE OF THE	Х	-	ASTM C 172, ASTM C31, ACI 318: 5.6, 5.8
	х	-	ACI 318: 5.9, 5.10
	-	Х	ACI 318: 5.11-5.13
	-	Х	ACI 318: 6.1.1
	-	х	ACI 318: 6.2
	-	-	AISC 360 CH. N
	-	-	AISI 240 CH. D
ON 1704.2.5.			
	-	Х	
	-	Х	
	-	Х	
	Х	-	
	-	Х	
	-	x	
	-	x	

1910.4

1909.1

1910.10

1910.9

1908.5, 1909.1



Checked : CEM

	C	GEN	NERA		TES				F	OUNDATION NOT
	1.	BUILD A.	ING AND DESIG 2012 INTERNA	N CODES: TIONAL BUILDIN	G CODE				1.	REFER TO THE GEOTECHNICAL REPORT AND SPECIF EXCAVATION, SUBGRADE PREPARATION, FILL AND CO
		В.	ASCE 7-10: MI	NIMUM DESIGN	LOADS FOR BUIL	DINGS AND OTH	IER STRUCTURES	3	2.	INFORMATION. FOUNDATION DESIGNS AND SUBGRADE PREPARATIC
		C.		)F STANDARD P	RACTICE FOR DE				3	GEOTECHNICAL REPORT NUMBER XXXXXXXX BY TB
		D. E.	AGI 318: BUILL AISC 360: SPE	CIFICATION FOR	STRUCTURAL S	TEEL BUILDINGS	S, LATEST EDITIO	N	0.	ALLOWABLE SOIL BEARING PRESSURE MAY BE INCRE OF SHORT DURATION SUCH AS WIND FORCES. FOOT
		F.	AISC MANUAL	OF STEEL CON	STRUCTION, LAT	EST EDITION			4.	GEOTECHNICAL REPORT. CONTRACTOR AND TESTING LABORATORY REPRESE
D		G.	AISI 2007: SPE		R THE DESIGN OF	COLD-FORMED	STEEL STRUCTU	JRAL MEMBERS		THOROUGHLY FAMILIAR WITH SITE AND SUBGRADE II EXACT QUANTITIES OF CUT AND FILL FOR ESTIMATIN GEOTECHNICAL REPORT.
		п. I.	TMS 402/ACI 5	30/ASCE 6: BUIL	DING CODE REQ	LIS	R MASONRY STRU	JCTURES, LATEST EDITION	5.	ARRANGE FOR OWNER'S INDEPENDENT TESTING AG
		J.	NATIONAL DE	SIGN SPECIFICA	TION (NDS) FOR	WOOD CONSTR	UCTION, LATEST	EDITION		CONCRETE. CUT AND FILL OPERATIONS SHALL BE INS STATE WHERE THE PROJECT IS LOCATED.
	2. 3.		PANCY CATEGO	DRY		II			6.	A QUALIFIED AND REGISTERED GEOTECHNICAL ENGI WORKING FOR THE TESTING LABORATORY, SHALL DI
		A.	FLOOR			100 PSF				FOUNDATION DESIGN CRITERIA ABOVE, AND ALL OTH THICKNESS, EMBEDMENT DEPTH, AND REMOVAL OF OF ANY CONDITIONS NOT IN ACCORDANCE WITH FOU
		B.	ROOF			20 PSF			7.	
	4.	WIND A.	LOADS: BASIC WIND S	PEED (3 SECON	D GUST)	115 MPH	(ULTIMATE)			OF THE STRUCTURAL FILL MATERIAL AND COMPACTI
		В.	IMPORTANCE	FACTOR, I		1.0			8. 9.	DO NOT PLACE GRADE BEAMS, WALLS, FOOTINGS OF
		C.				C			10.	MAINTAIN PROPER SITE DRAINAGE DURING CONSTRU PREVENT PONDING OF SURFACE RUNOFE NEAR THE
		D. E.	DESIGN WIND	PRESSURES (C	OMPONENTS & (	CLADDING)			11.	KEEP OPEN EXCAVATIONS AROUND BUILDING DRY. B
					SUR	FACE PRESSUR	F (PSF)		12.	PROTECT PIPES AND CONDUITS RUNNING THRU WAL
					50 SF AREA	100 SF AREA	150 SF AREA			FOOTINGS AND GRADE BEAMS PERPENDICULAR TO F THE GRADE BEAMS. ALTERNATIVELY, PROVIDE A CO FOOTINGS AND GRADE BEAMS. LOWER FOOTINGS A
			WAL		+10.0 / -16.4	+10.0 / -15.9	+10.0 / -15.9	-	13	ADJACENT TRENCH EXCAVATIONS.
					+10.0 / -22.0	+10.0 / -18.9	+10.0 / -18.9		14.	AVOID DAMAGING EXISTING UNDERGROUND UTILITIE
С			ROO	F INTERIOR	+14.3 / -15.6	+13.6 / -14.9	+13.2 / -14.5		15.	REFER TO CIVIL DRAWINGS FOR LIMITS OF EXCAVATI
			ZON	ES END	+14.3 / -18.0	+13.6 / -16.6	+13.2 / -15.7	-		
				CORNER	+14.3 / -18.0	+13.6 / -16.6	+13.2 / -15.7	]		
			a. (+) VA BUILD b. FOR S	LUES INDICATE   ING. MALLER TRIBUT	PRESSURES TOV	VARDS THE BUIL	LDING. (-) VALUES	S INDICATE PRESSURES AWAY FROM THE	1.	PROVIDE CONCRETE AS SHOWN BELOW. PROVIDE BA ACCORDANCE WITH RECOMMENDATIONS OF ACI 301
		F	c. WIDTH	I OF END ZONES	3	4.5 FT ENVELO		FOR LOW-RISE BUILDINGS		A. NORMAL WEIGHT (150 PCF), F'c = 3,000 PSI CC
	5.	SNOW	/ LOADS							a. SLAB-ON-GRADE, GRADE BEAMS, FOO b. ALL CONCRETE NOT SPECIFICALLY CO
		Α.	GROUND SNC	W LOAD, Pg		20 PSF			2.	REFER TO THE SPECIFICATIONS FOR MAXIMUM WATE REQUIREMENTS. PROVIDE CONCRETE MIXES DESIGN
		В. С.	SNOW EXPOS	URE FACTOR, C	re	1.0 1.0			3	THE STRUCTURAL ENGINEER.
		D.	THERMAL FAC	CTOR, Ct		1.0			5.	NOT ALLOWED UNLESS SPECIFICALLY NOTED OR API ENGINEER OF PROPOSED CONSTRUCTION JOINT OR
	6.	SEISM	IIC LOADS:							JOINTS INDICATED ON THE DRAWINGS. PROVIDE 6,00 BETWEEN CONSTRUCTION JOINTS. PROVIDE 75-FOO GRADE BEAM CONSTRUCTION JOINTS IN MIDDLE 1/3 (
		А. В.	RISK CATEGO	RY		1.0 II			4	OF THE GIRDER'S SPAN, OFFSET THE JOINT IN THE G
		C.	MAPPEL SPEC	TRAL RESPONS	SE ACCELERATIO	NS S <sub>S</sub> = 0.11 S <sub>1</sub> = 0.06	4 7			REINFORCING STEEL AND LAP SPLICE WITH THE MAIN THE REINFORCING LAP SCHEDULE.
		D.	SITE CLASS			D			5.	CHAMFER EXPOSED EDGES 3/4 INCH UNLESS OTHER
		E.	DESIGN SPEC	TRAL RESPONS	E ACCELERATIO	NS $S_{DS} = 0.1$ $S_{D1} = 0.10$	21 07		6. 7.	WIRE BRUSH AND CLEAN CONSTRUCTION JOINTS PR REFERENCE THE APPROPRIATE DISCIPLINE'S DRAWI
В		F.	SEISMIC DESI	GN CATEGORY		В			8	PENETRATIONS. PROVIDE ADEQUATE STRUCTURAL FRAMING AS APPL
		G.	BASIC SEISMI	C FORCE RESIS	TING SYSTEM	STRUCT	URAL STEEL SYS RESISTANCE	TEM NOT SPECIFICALLY DETAILED FOR		THROUGH THE SLABS, WALLS, AND FLOOR DECK. OP DETAILED.
		H.	DESIGN BASE	SHEAR	IFNT	0.044W	Δ		9.	FOR PIPE INSTALLED HORIZONTALLY WITHIN SLABS, APPROVED BY THE STRUCTURAL ENGINEER. FOR PIP
		J.	RESPONSE M	ODIFICATION FA	CTOR	3	•			OUTSIDE DIAMETER OF 30 PERCENT OF THE SLAB TH OF REINFORCEMENT WITHIN THE CENTER THIRD OF OR WIDTHS ON CENTER.
	_	K.	ANALYSIS PR	DCEDURE		EQUIVAL	ENT LATERAL FC	RCE PROCEDURE		
	7.	GENE A.	SPECIFICATIC	ENTS: NS ARE PART O	F THE CONSTRU	CTION DOCUME	NTS AND MUST E	E USED IN CONJUNCTION WITH THE		LEINFORGING STE
			DRAWINGS. W NOTIFY A/E.	HERE REQUIRE	MENTS INDICATE	ED ON THE STRU	JCTURAL DRAWIN	NGS DIFFER FROM THE SPECIFICATIONS,	1.	PROVIDE DETAILING, FABRICATION, AND INSTALLATIC ACI 318.
		В.	VERIFY EXIST	ING CONDITIONS	S AND DIMENSIO DCEEDING WITH	NS PRIOR TO BE ANY PHASE OF \	GINNING WORK ( WORK.	OR FABRICATING MATERIALS. NOTIFY A/E OF	2.	COORDINATE PLACEMENT OF CAST-IN-PLACE EMBED ATTACH EMBED ITEMS TO FORMWORK OR REINFORC
		C.	VERIFY WITH	OTHER DISCIPLI S, PADS, AND W	NE DRAWINGS T ALL OPENINGS.	HE LOCATION O	F CHASES, INSEF	RTS, OPENINGS, SLEEVES, FINISHES,	3.	PROVIDE CLASS "B" REINFORCEMENT SPLICES FOR O ACCORDANCE WITH ACI 318, UNLESS OTHERWISE NO
		D.	DO NOT SCAL	E DRAWINGS FO	OR THE PURPOSI	E OF ESTABLISH	ING DIMENSIONS		4.	MAINTAIN THE FOLLOWING CONCRETE COVERAGE F
		E.	DETAILS LABE SAME OR SIM	LED "TYPICAL D LAR TO THOSE	ETAILS" ON DRA SPECIFICALLY DI	WINGS APPLY TO ETAILED. SUCH I S REGARDING A	O SITUATIONS OC DETAILS APPLY V PPLICABILITY OF	CURRING ON THE PROJECT THAT ARE THE /HETHER OR NOT DETAILS ARE REFERENCEI "TYPICAL DETAILS"		A. CONCRETE CAST AGAINST AND PERMANENTI
		F.		THE SLAB-ON-C						a. NO. 6 AND LARGER - 2 INCHES b. NO. 5 AND SMALLER - 1-1/2 INCHES
			SUBMIT FOR A	VE REVIEW A PF	ROPOSED CRANE	S AND WILL REC SUPPORT PLAN	N FOR SLABS PRI	OR TO COMMENCING WORK.		C. CONCRETE NOT EXPOSED TO WEATHER OR I a. SLABS AND WALLS
		G.	DO NOT STOF OF 80 PERCEI ARE INFORME	E OR STACK CO NT OF LIVE LOAE D AND DO NOT	DNSTRUCTION M/ D. GENERAL CON VIOLATE THIS IM	ATERIALS ON SU TRACTOR WILL PORTANT REQU	JPPORTED SLABS BE RESPONSIBLE IIREMENT. AVOID	B, ELEVATED FLOORS, OR ROOFS IN EXCESS E AND ENSURE THAT ALL SUB-CONTRACTORS IMPACT WHEN PLACING MATERIALS ON	5	<ul> <li>NO. 14 AND NO. 18 - 1-1/2 INCH</li> <li>NO. 11 AND SMALLER - 3/4 INCI</li> <li>b BEAM STIRRUPS - 1-1/2 INCHES</li> </ul>
		н	POURED OR E	RECTED FLOOF	RS OR ROOF.		NS REPRESENT T	HE FINISHED STRUCTURE LINI ESS INDICATE	5.	DO NOT WELD OR BEND REINFORCEMENT IN THE FIE
			OTHERWISE, MEANS AND N	THEY DO NOT IN	DICATE THE ME	THOD OF CONST ROVIDE ALL MEA	RUCTION. THE C	ONTRACTOR IS RESPONSIBLE FOR THE ED TO PROTECT THE STRUCTURE, WORKMEN	, 6.	WHEN SPECIFICALLY APPROVED, PROVIDE WELDED
			AND OTHER P SHORING FOR RETAINING W	ERSONS DURIN CONSTRUCTIO ALLS AND OTHE	G CONSTRUCTION N EQUIPMENT, S R TEMPORARY S	IN. SUCH MEASU HORING FOR TH SUPPORTS AS RE	JRES SHALL INCL TE BUILDING, FOF EQUIRED.	UDE, BUT ARE NOT LIMITED TO, BRACING, RMS AND SCAFFOLDING, SHORING OF		ELECTRODES FOR WELDING OF REINFORCEMENT IN AND CONNECTIONS IN REINFORCED CONCRETE CON
<u> </u>		I.	PRINCIPAL OF	ENINGS THROU		G ARE SHOWN ( OPENINGS AND	ON DRAWINGS. EX	KAMINE THE ARCHITECTURAL AND	7.	PROVIDE CONTINUOUS HORIZONTAL WALL REINFOR INTERSECTIONS AS SHOWN ON TYPICAL BAR PLACIN
			THE STRUCTU	IRAL DRAWINGS	S OR NOT. VERIF	Y SIZE AND LOC/ THE OPENINGS S	ATION OF ALL OP SHOWN ON THE S	ENINGS WITH THE MECHANICAL TRUCTURAL DRAWINGS TO THE ENGINEER'S	8.	PROVIDE BAR SUPPORT ACCESSORIES IN ACCORDAT REINFORCED CONCRETE STRUCTURES. SUPPORT BE
		J.			ALL MISCELLANE	OUS FRAMING M	IEMBERS SHOWN	I ON THE ARCHITECTURAL DRAWINGS. THESE	E 9.	CENTER. PROVIDE BAR SUPPORTS WITH PLASTIC COATED LEC
		K.	MEMBERS MA	Y NOT BE SHOW	VN ON THE STRU	CTURAL DRAWI	NGS. ITS AND SYSTEM	S SHALL BE DESIGNED AND CONSTRUCTED		TO VIEW. PROVIDE STAINLESS STEEL BAR SUPPORTS
L			TO RESIST SE	ISMIC FORCES /	AS DETERMINED	IN CHAPTER 13	OF ASCE 7.			

## **TES**

### ICATIONS FOR GENERAL REQUIREMENTS OF EARTHWORK, OVER OMPACTION, WATERPROOFING AND OTHER PERTINENT REQUIREMENTS AND

ON ARE BASED UPON THE RECOMMENDATIONS PROVIDED IN THE 3D, DATED TBD.

OIL BEARING PRESSURE OF 1500 PSF (FACTOR OF SAFETY = 3). THE EASED BY ONE-THIRD WHEN CONSIDERING TOTAL LOADS, INCLUDING LOADS INGS SHALL BEAR IN SPECIFIED BEARING MATERIAL AS NOTED IN THE

NTATIVE SHALL READ THE GEOTECHNICAL REPORT AND BECOME NFORMATION. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING G AND CONSTRUCTION. SUBGRADE SHALL BE PREPARED AS NOTED IN THE

ENCY TO MONITOR CUT AND FILL OPERATIONS, AND PERFORM FIELD COMPACTION AND APPROVE FOOTING SUBGRADE PRIOR TO PLACING SPECTED AND APPROVED BY A GEOTECHNICAL ENGINEER LICENSED IN THE

NEER, LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED AND TERMINE CONFORMANCE OF THE FOUNDATION BEARING STRATA WITH THE IER CONTRACT DOCUMENTS, AND VERIFY SIZE, REINFORCING STEEL, CUT MATERIAL. TESTING LABORATORY SHALL NOTIFY CONTRACTOR AND A/E JNDATION DESIGN CRITERIA OR CONTRACT DOCUMENTS.

THE GEOTECHNICAL REPORT FOR FILL BELOW THE BUILDING. EXTEND FILL FER ON ALL SIDES. REFER TO THE GEOTECHNICAL REPORT FOR THE DEPTH ON REQUIREMENTS.

UNTIL FOUNDATIONS ARE PLACED.

R SLABS AGAINST SUBGRADE CONTAINING FREE WATER, FROST, OR ICE. JCTION TO ENSURE SURFACE RUNOFF AWAY FROM STRUCTURES AND TO STRUCTURES.

ACKFILL AGAINST FOUNDATIONS AND GRADE BEAMS AS SOON AS NS IF FLOODING OCCURS PRIOR TO BACKFILLING.

LLS AND SLABS WITH 1/2 INCH EXPANSION MATERIAL. LOWER CONTINUOUS PIPE RUNS, TO ALLOW PIPES TO PASS ABOVE THE FOOTINGS OR THOUGH NCRETE JACKET IF PIPES ARE LOW ENOUGH TO BE PLACED BELOW THE AND GRADE BEAMS PARALLEL TO PIPE RUNS TO AVOID SURCHARGE ONTO

VATION. DO NOT LEAVE EXCAVATION OPEN OVERNIGHT.

S SUCH AS WATER MAINS, SANITARY SEWERS, BURIED CABLES, ETC., WHICH

IONS.

ATCH MIXING, TRANSPORTATION, PLACING AND CURING OF CONCRETE IN ACI 318 AND ASTM C94. USE TYPE I PORTLAND CEMENT UNLESS OTHERWISE REMENTS AS SPECIFIED.

ONCRETE AT 28 DAYS

TINGS OVERED

ER/CEMENT RATIOS, MINIMUM CEMENT CONTENTS AND OTHER MIX DESIGN IED BY A QUALIFIED TESTING LABORATORY FOR REVIEW AND APPROVAL BY

INDICATED ON THE DRAWINGS. HORIZONTAL CONSTRUCTION JOINTS ARE PROVED BY THE STRUCTURAL ENGINEER. NOTIFY THE STRUCTURAL CONTROL JOINT LOCATIONS WHICH ARE DIFFERENT OR IN ADDITION TO 0-SQUARE FOOT MAXIMUM AREA OF CONCRETE PLACEMENT IN THE SLAB T MAXIMUM SPACING OF CONSTRUCTION JOINTS IN GRADE BEAMS. PROVIDE OF THE SPAN. WHEN A BEAM INTERSECTS A GIRDER WITHIN THE MIDDLE 1/3 IRDER A DISTANCE EQUAL TO TWICE THE WIDTH OF THE BEAM.

BUT NOT SIZED, PROVIDE DOWELS THAT MATCH SIZE AND LCOATION OF MAIN N REINFORCING STEEL. REINFORCING BARS SHALL BE SPLICED AS NOTED IN

RWISE NOTED.

IOR TO POURING NEW CONCRETE. NGS FOR SUB SLAB PIPING, FLOOR DRAINS, AND SLAB AND WALL

ROVED BY THE STRUCTURAL ENGINEER FOR MECHANICAL OPENINGS ENINGS ARE NOT PERMITTED THROUGH BEAMS UNLESS SPECIFICALLY

UNLESS SPECIFICALLY INDICATED IN THE STRUCTURAL DRAWINGS OR PES INSTALLED HORIZONTALLY WITHIN THE SLAB, PROVIDE MAXIMUM IICKNESS. PLACE CONDUIT OR PIPE BETWEEN THE TOP AND BOTTOM LAYERS THE SLAB. DO NOT SPACE CONDUITS OR PIPES CLOSER THAN 3 DIAMETERS

# EEL NOTES

ON OF REINFORCING AND ACCESSORIES IN ACCORDANCE WITH ACI 315 AND

DS AND ANCHOR RODS. SET ANCHOR RODS WITH A TEMPLATE. SECURELY

CONTINUOUS REINFORCEMENT. PROVIDE STANDARD 90-DEGREE HOOKS IN TED. STAGGER SPLICES UNLESS SPECIFICALLY NOTED.

OR REINFORCING STEEL UNLESS OTHERWISE NOTED:

Y EXPOSED TO EARTH - 3 INCHES

N CONTACT WITH THE GROUND

LD UNLESS SPECIFICALLY SHOWN OR APPROVED BY STRUCTURAL

REINFORCEMENT IN ACCORDANCE WITH ASTM A706. USE LOW HYDROGEN CONFORMANCE WITH "WELDING REINFORCEMENT STEEL, METAL INSERTS NSTRUCTION", AMERICAN WELDING SOCIETY, AWS D1.4.

CEMENT WITH 90-DEGREE BENDS AND EXTENSIONS AT CORNERS AND G DETAILS.

NCE WITH THE LATEST ACI MANUAL OF STANDARD PRACTICE FOR DETAILING EAM REINFORCING ON BEAM BOLSTERS SPACED NOT MORE THAN 4 FEET ON

GS OR HOT DIP GALVANIZING AFTER FABRICATION FOR CONCRETE EXPOSED S FOR CONCRETE TO RECEIVE A SANDBLAST FINISH.

- ANCHORS INSTALLED IN HARDENED CONCRETE TO BE USED ONLY WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS CONTRACTOR SHALL OBTAIN APPROVAL FROM THE A/E PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. PLACE POST-INSTALLED ANCHORS SUCH THAT THEY AVOID CONFLICTING WITH EXISTING REBAR. WHERE INDICATED, PROVIDE THE FOLLOWING POST-INSTALLED ANCHOR:
  - EPOXY ADHESIVE ANCHORS: HILTI HIT-HY 200 SYSTEM FOR ANCHORAGE TO CONCRETE
- ALLOWABLE ANCHOR SUBSTITUTIONS SHALL BE SUBMITTED TO THE A/E WITH INFORMATION DEMONSTRATING а THAT THE ANCHOR SUBSTITUTION PROVIDES EQUAL OR GREATER PERFORMANCE VALUES.
- INSTALL ANCHORS IN ACCORDANCE WITH THE CURRENT ICBO REPORT FOR THE ANCHORS AND THE MANUFACTURER'S RECOMMENDATIONS. ALL ANCHORS SHALL BE INSTALLED BY A MANUFACTURER CERTIFIED INSTALLER.
- INSTALL ANCHORS PERPENDICULAR TO THE FACE OF THE CONCRETE. DEVIATION FROM PERPENDICULAR GREATER THAN 10 DEGREES IS UNACCEPTABLE.
- CREATE A TEMPLATE AT EACH ANCHOR CONNECTION LOCATION PRIOR TO FABRICATING HOLES IN CONNECTION PLATES. MAKE TEMPLATE BY LOCATING EXISTING REBAR WITH THE HELP OF A PACHOMETER. REPOSITION ANCHORS A MAXIMUM OF 1 1/2 INCHES AS REQUIRED TO AVOID CONFLICTS WITH EXISTING REINFORCEMENT.
- FILL ALL ABANDONED HOLES WITH EPOXY GROUT.
- PROVIDE HOLES IN CONNECTION PLATES NO MORE THAN 1/16 OF AN INCH LARGER THAN THE ANCHOR DIAMETER. IF LARGER HOLES ARE NEEDED FOR ERECTION PURPOSES, PROVIDE PLATE WASHERS WELDED TO THE CONNECTION PLATE TO TRANSFER THE BOLT LOAD.
- CLEAN DRILLED HOLES FREE OF DEBRIS/DUST AND INSPECT PRIOR TO APPLYING EPOXY AND INSTALLING ANCHORS.

# STRUCTURAL STEEL NOTES

- PROVIDE STRUCTURAL STEEL OF THE FOLLOWING ASTM DESIGNATIONS UNLESS OTHERWISE NOTED:
  - STRUCTURAL STEEL WIDE FLANGE AND WT SHAPES ASTM A 992 (GRADE 50)
  - STRUCTURAL STEEL STANDARD SHAPES, CHANNELS AND ANGLES ASTM A 36
- C. EDGE ANGLES, BENT PLATES, HANGER AND BRACES ASTM A 36
- D. STRUCTURAL PIPE ASTM A 53, GRADE B
- E. STRUCTURAL TUBING (SQUARE OR RECTANGULAR) ASTM A 500, GRADE C
- BASE PLATES AND MISCELLANEOUS STEEL PLATES ASTM A 36
- CONNECTION MATERIALS:
- BEAM COLUMN STIFFENER PLATES AND DOUBLER PLATES TO MATCH THE GRADE STEEL OF STRUCTURAL а. ELEMENT
- b. ALL CONNECTION MATERIALS, EXCEPT AS OTHERWISE NOTED HEREIN OR IN THE DRAWINGS, INCLUDING BEARING PLATES, GUSSET PLATES, STIFFENER PLATES, ANGLES, ETC. - ASTM A 36
- HIGH STRENGTH BOLTS ASTM A 325 OR ASTM F1852
- HARDENED STEEL WASHERS ASTM F 436
- ANCHOR RODS ASTM F1554, GRADE 55
- HEAVY HEX NUTS ASTM A 563
- HEADED STUD ANCHORS TO CONFORM TO THE REQUIREMENTS OF ASTM A 29/A 29M, AWS D1.1, AND SECTION A3.6 OF AISC 360 SPECIFICATION.
- WELD MINIMUM SIZE AND STRENGTH 2
  - PROVIDE MINIMUM SIZE OF FILLET WELDS AS SPECIFIED IN TABLE J2.4 OF THE AISC MANUAL. USE 1/4 INCH FILLET WELD UNLESS NOTED OTHERWISE.
  - PROVIDE MINIMUM EFFECTIVE THROAT THICKNESS OF PARTIAL PENETRATION GROOVE WELDS AS SPECIFIED IN TABLE J2.3 OF THE AISC MANUAL
  - DEVELOP THE FULL TENSILE STRENGTH OF THE MEMBER ELEMENT JOINED ON ALL SHOP AND FIELD WELDS UNLESS OTHERWISE NOTED ON THE DRAWINGS.
  - WHERE CONNECTIONS ARE NOTED ON DRAWINGS AS MOMENT CONNECTIONS, PROVIDE WELDS TO DEVELOP FULL FLEXURAL CAPACITY OF THE LESSER MEMBER.
- PROVIDE ELECTRODES FOR FIELD OR SHOP WELDING THAT CONFORM TO AWS D1.1 CLASS E70XX.
- PROVIDE MINIMUM OF TWO BOLTS PER CONNECTION. MINIMUM BOLT DIAMETER TO BE 3/4 INCH.
- PROVIDE BOLTS, NUTS AND WASHERS THAT ARE HOT DIP GALVANIZED ACCORDING TO ASTM A 153, CLASS C WHEN USED TO CONNECT STEEL ELEMENTS THAT ARE HOT DIP GALVANIZED AFTER FABRICATION.
- PROVIDE SIMPLE SHEAR CONNECTIONS FOR STEEL CONNECTIONS NOT OTHERWISE SPECIFIED UTILIZING HIGH STRENGTH BEARING BOLTS IN SINGLE OR DOUBLE SHEAR. PROVIDE DOUBLE ANGLE OR SINGLE PLATE SHEAR TAB BOLTED CONNECTIONS.
  - UNLESS LARGER REACTION IS SHOWN ON DRAWINGS, PROVIDE MINIMUM DESIGN FORCES AS FOLLOWS:
  - NONCOMPOSITE BEAMS: BEAM-TO-BEAM OR BEAM-TO-COLUMN CONNECTION TO DEVELOP THE REACTION OF CONNECTED BEAM. OBTAIN END REACTION FROM UNIFORM LOAD TABLES OF THE AISC MANUAL OF STEEL CONSTRUCTION. PROVIDE MINIMUM SHEAR CAPACITY OF 12,000 POUNDS FOR BEAMS 8 INCHES AND 10 INCHES DEEP. PROVIDE MINIMUM SHEAR CAPACITY OF 8,000 POUNDS FOR BEAMS LESS THAN 8 INCHES DEEP.
  - ADD TO REACTIONS LISTED ABOVE LOADS OR REACTIONS OF MEMBERS SUPPORTED BY BEAM WITHIN THREE FEET OF BEAM END AND VERTICAL COMPONENTS OF FORCES IN BRACE MEMBERS FRAMING INTO BEAM.
- 6. STEEL FABRICATION
- FABRICATE AND ASSEMBLE STRUCTURAL MEMBERS/ASSEMBLIES IN SHOP TO GREATEST EXTENT POSSIBLE.
- CAMBER OF STRUCTURAL STEEL MEMBERS IS INDICATED ON THE DRAWINGS. WHERE POSSIBLE, CAMBER OF BEAMS TO BE APPLIED BY COLD BEND PROCESS. CAMBER INDICATED ON DRAWINGS ARE INTENDED TO BE FINAL CAMBER AT TIME OF ERECTION, AND WITHIN A TOLERANCE OF MINUS ZERO TO PLUS 1/8 INCH FOR EACH TEN FEET OF MEMBER LENGTH.
- C. SPLICING OF STRUCTURAL STEEL MEMBERS IS PROHIBITED WITHOUT PRIOR APPROVAL BY THE A/E.
- STEEL FABRICATOR SHALL BE RESPONSIBLE FOR ALL ERRORS OF DETAILING ON THE SHOP DRAWINGS, ERRORS IN FABRICATION, AND THE CORRECT FITTING OF STRUCTURAL STEEL MEMBERS.
- CONFORM TO THE AISC CODE OF STANDARD PRACTICE, FOR ERECTION TOLERANCES. FIELD MODIFICATION TO STRUCTURAL STEEL IS PROHIBITED WITHOUT PRIOR APPROVAL BY THE A/E.
- CLEAN STEEL OF RUST, LOOSE MILL SCALE AND OTHER FOREIGN MATERIALS WHERE REQUIRED FOR FABRICATION, FITTING UP, OR WELDING.
- DO NOT CUT STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT PRIOR REVIEW AND APPROVAL OF THE 9

AFTER FABRICATION, HOT DIP GALVANIZE STRUCTURAL STEEL AND THEIR CONNECTIONS PERMANENTLY EXPOSED TO THE 10. OUTSIDE. SUCH ITEMS INCLUDE BUT ARE NOT LIMITED TO:

- SHELF ANGLES PARAPET WALL SUPPORTING MEMBERS
- SCREEN WALL SUPPORTING MEMBERS EMBEDDED PLATES IN CONCRETE
- BUILDING CLADDING SUPPORT STEEL ALL OTHER STEEL MEMBERS EXPOSED TO WEATHER
- EXAMINE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR OTHER ITEMS THAT REQUIRE HOT DIPPED GALVANIZATION.
- 12 PROVIDE NON-SHRINK/NON-METALLIC GROUT FOR BASE PLATES WITH MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 8000 PSI.
- 13. SUBMIT CALCULATIONS FOR CONNECTION DESIGNS NOT DETAILED ON DRAWINGS. DESIGN CONNECTIONS UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.
- THE STRUCTURAL STEEL FABRICATOR MUST FURNISH STEEL SHOP DRAWINGS FOR ARCHITECT'S AND STRUCTURAL ENGINEER'S 14. REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS MUST INCLUDE WELDING PROCEDURES, TESTING PROGRAMS FOR WELDING AND HIGH STRENGTH BOLTING, COATING MATERIAL, AND ERECTION SEQUENCE ON SHOP DRAWINGS.
- MILL STEEL COLUMN ENDS TO FIT FLUSH WITH BASE PLATE, CAP PLATE, AND END PLATES. FIELD ASSEMBLY OF THESE STEEL ELEMENTS TO THE COLUMNS IS PROHIBITED.
- BE RESPONSIBLE FOR ANY TEMPORARY SHORING OR BRACING DURING CONSTRUCTION PHASE PRIOR TO COMPLETING 16. CONNECTIONS AND POURING FLOOR SLABS.

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# WOOD FRAMING NOTES

WOOD FRAMING SHALL MEET THE FOLLOWING MINIMUM STRESS PROPERTIES UNLESS NOTED OTHERWISE:

	MEMBER SIZE	BENDING F₀ (PSI)	TENSION PARALLEL TO GRAIN Ft (PSI)	SHEAR PARALLEL TO GRAIN F <sub>v</sub> (PSI)	COMPRESSION PERPENDICULAR TO GRAIN Fc (PSI)	COMPRESSION PARALLEL TO GRAIN Fc (PSI)	ELASTIC MODULUS E (PSI)
	2x6	1,000	600	175	565	1,400	1,400,000
BETTER	2x10	800	475	175	565	1,300	1,400,000
	2x12	750	450	175	565	1,250	1,400,000
ROSBORO GLULAM X-BEAM	SEE DWGS	2,400	-	265	650	-	1,800,000

PROVIDE SIMPSON STRONG-TIE CONNECTORS OR EQUIVALENT FOR WOOD FRAMING CONNECTIONS TO SUPPORTING MEMBERS. USE STRONG-TIE CONNECTORS AND NAILS OF APPROPRIATE SIZE AND CAPACITY FOR THE SUPPORTED MEMBER AND INSTALL ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

ALL ROOF AND EXTERIOR WALL SHEATHING SHALL BE APA RATED CDX PLYWOOD WITH EXTERIOR GLUE (EXPOSURE 1) OR ORIENTED STRAND BOARD (OSB) WITH EXTERIOR GLUE (EXPOSURE 1), AND SHALL BEAR THE STAMP OF AN APPROVED TESTING AGENCY.

INSTALL ROOF SHEATHING WITH THE LONG DIMENSION OF THE PANEL PERPENDICULAR TO SUPPORTS UNLESS NOTED OTHERWISE, AND WITH PANEL CONTIUOUS OVER TWO OR MORE SPANS. STAGGER END JOINTS.

ALL ROOF SHEATHING SHALL BE APA RATED EXPOSURE 1 CDX PLYWOOD SHEATHING WITH A MINIMUM THICKNESS OF 5/8 INCH. DOC PS-1 OR PS-2, WITH A SPAN RATING OF AT LEAST 32/16 NAILED WITH 10d GALVANIZED COMMON NAILS AT 4 INCHES ON CENTER AT PANEL EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS. 10d NAILS SHALL HAVE A MINIMUM 0.148 INCH DIAMETER AND 1 1/2 INCHMINIMUM PENETRATION INTO SUPPORTING FRAMING.

OUTSIDE OF EXTERIOR WALLS SHALL BE SHEATHED WITH APA RATED EXPOSURE 1 OSB OR CDX PLYWOOD SHEATHING WITH A MINIMUM THICKNESS OF 5/8 INCH, DOC PS-1 OR PS-2, AND FASTENED TO WALL STUDS WITH 10d GALVANIZED COMMON NAILS AT 6 INCHES ON CENTER AT EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS. PROVIDE BLOCKING AT UNSUPPORTED PANEL EDGES. 10d NAILS SHALL HAVE A MINIMUM OF 0.148 INCH DIAMETER AND 1 1/2 INCH MINIMUM PENETRATION INTO SUPPORTING FRAMING.

INSTALL JOISTS, RAFTERS, HEADERS AND BEAMS "CROWN UP."

ALL JOISTS SHALL HAVE DIAGONAL BRIDGING OR FULL DEPTH BLOCKING AT 8 FEET ON CENTER MAXIMUM ALONG THE SPAN AND AT SUPPORTING BEAMS OR WALLS.

CUTTING, BORING OR NOTCHING OF FRAMING MEMBERS, IF REQUIRED, SHALL CONFORM TO THE LIMITATIONS PRESCRIBED BY THE IBC AND MAY BE DISALLOWED FOR SOME FRAMING MEMBERS BY THE A/E.

ALL WOOD IN CONTACT WITH CONCRETE AND EXTERIOR MASONRY SHALL BE PRESSURE TREATED.

REFER TO THE IBC FOR MINIMUM FASTENING CRITERIA. ALL NAILS TO BE COMMON WIRE SIZE. NAILING SHALL COMPLY WITH REQUIREMENTS OF NAILING SCHEDULE UNLESS NOTED OTHERWISE.

12. MOISTURE CONTENT OF ALL WOOD MEMBERS SHALL NOT EXCEED 19%.

# **PRE-ENGINEERED TRUSS NOTES**

ALL TRUSSES CALLED OUT IN THE DRAWINGS SHALL BE PRE-ENGINEERED, MANUFACTURED TRUSSES. TRUSSES SHALL CONFORM TO THE SPACING, DIMENSIONS AND LAYOUTS CALLED OUT IN THESE NOTES AND ON THE PLANS AND SHALL BE DESIGNED FOR SPECIFIED LOADINGS.

MAXIMUM LIVE LOAD DEFLECTION FOR TRUSSES NOT TO EXCEED L/360. MAXIMUM TOTAL LOAD DEFLECTION NOT TO EXCEED L/240 OR 3/4 INCH, WHICHEVER IS GREATER.

TRUSSES AND CONNECTOR PLATES SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST REVISION OF THE TRUSS PLATE INSTITUDE SPECIFICATIONS. TRUSS MANUFACTURER SHALL DESIGN THE TRUSS TO WALL CONNECTIONS, U.N.O. ON THE DETAILS. PROVIDE FRAMING ANCHORS AND/OR TRUSS HANGERS AS REQUIRED AND AS SHOWN ON THE DRAWINGS.

PROVIDE TRUSS SHOP DRAWINGS, INSTALLATION DRAWINGS, AND CALCULATIONS PREPARED BY THE TRUSS MANUFACTURER IN ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, ETC.

CONTINUOUSLY BRACE AND SUPPORT TRUSSES DURING UNLOADING TO PREVENT EXCESSIVE STRESS ON THE JOINTS. DO NOT PERMIT TRUSSES TO DROP, SAG, OR BE SUPPORTED IN A DIRECTION PERPENDICULAR TO THE TRUSS PLANE. INSTALL TRUSSES IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, INCLUDING PROPER HANDLING, SAFETY PRECAUTIONS, TEMPORARY BRACING DURING ERECTION AND ALL OTHER SAFEGUARDS.

INSTALL ALL PERMANENT CHORD BRACING REQUIRED BY TRUSS SHOP DRAWINGS (TYPICALLY 3 ROWS OF 2x4 - FULL LENGTH OF BUILDING).

INSPECT ALL TRUSSES AFTER INSTALLATION FOR DAMAGE. NOTIFY A/E IMMEDIATELY OF DAMAGED TRUSSES. REMOVE AND REPLACE ALL DAMAGED TRUSSES.

TRUSSES ARE A DEFERRED SUBMITTAL ITEM AND CONTRACTOR IS REQUIRED TO COMPLETE THE FOLLOWING:

FIRST, THE TRUSS PLANS AND CALCULATIONS, SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED, SHALL BE SUBMITTED TO THE A/E FOR REVIEW BEFORE SUBMITTING TO THE BUILDING DEPARTMENT. SECOND, THE SHOP DRAWINGS SHALL BE SUBMITTED WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED BY THE A/E AND HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE BUILDING DESIGN. THE TRUSS DESIGN SHALL BE APPROVED BY THE BUILDING DEPARTMENT BEFORE THE TRUSSES ARE FABRICATED. GENERAL CONTRACTOR SHOULD PLAN FOR REVIEW TIME BY BOTH THE A/E AND BUILDING OFFICIAL IN THE CONSTRUCTION SCHEDULE.



ms consultants, inc engineers, architects, planners 2221 Schrock Road Columbus, Ohio 43229 p 614.898.7100 f 614.898.7570 www.msconsultants.com

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# WHATABURGER

NOTICE: THIS ARCHITECTURAL AND ENGINEERING DRAWING IS GIVEN IN CONFIDENCE AND SHALL BE USED ONLY PURSUANT TO THE AGREEMENT WITH THE ARCHITECT. NO OTHER USE, DISSEMINATION, OR DUPLICATION MAY BE MADE WITHOUT PRIOR WRITTEN CONSENT OF THE ARCHITECT. ALL COMMON LAW RIGHTS OF COPYRIGHT AND OTHERWISE ARE HEREBY SPECIFICALLY RESERVED.



### PROFESSIONAL OF RECORD: Craig E. Metzger No 2019031268 Exp Date: 12/31/21

REV	DESCRIPTION	DATE
	Issued for Bid/Permit	12/21/20

40497-01 Project No.:

Client Project No.:

Drawing Title

### GENERAL NOTES

Date:	10/30/2020	Phase:	BID/PERMIT
Designed:	CEM	Drawing No	). <i>:</i>
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# PLAN NOTES

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- 1. REFER TO SHEET S0.1 FOR GENERAL NOTES.
- 2. TOP OF STRUCTURAL SLAB ELEVATION CORRESPONDS TO ARCHITECTURAL FINISH FLOOR ELEVATION 100'-0" AND CIVIL ELEVATION 1019.25'.

5

- 3. C.J. INDICATES CONTROL JOINT. RE: A4/S5.1 FOR DETAILS.
- 4. PROVIDE 10 MIL POLYETHYLENE VAPOR BARRIOR IMMEDIATELY BELOW SLAB-ON-GRADE.
- 5. REFER TO THE GEOTECHNICAL REPORT FOR SUBGRADE PREPARATION.
- 6. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND SIZES OF ALL WALLS AND WALL OPENINGS.
- 7. COORDINATE ALL SLAB PENETRATIONS WITH ARCHITECTURAL AND MECHANICAL / ELECTRICAL / PLUMBING DRAWINGS.
- 8. AT CONDUIT PENETRATIONS AT GRADE BEAMS, PROVIDE ADDITIONAL (2) #5 REBAR 3" ABOVE AND BELOW CONDUIT.
- 9. RE: A3/S5.2 FOR NON-LOAD BEARING PARTITION WALL CONNECTION TO SLAB.
- 10. COORDINATE ALL EXTERIOR WALL STUD LOCATIONS WITH PRE-MANUFACTURED WOOD TRUSSES. A STUD IS REQUIRED TO BE LOCATE BELOW CENTERLINE OF EACH TRUSS U.N.O. ON ROOF FRAMING PLAN. LOCATE ANCHOR BOLTS TO AVOID STUDS/POSTS.
- 11. ALL EXTERIOR WALL STUDS ARE 2x6 STUDS SPACED AT 12" O.C. MAX., U.N.O. REFER TO ARCHITECTURAL DRAWINGS FOR INTERIOR WALL STUD SIZES AND SPACING.
- 12. RE: S5.2 FOR STEEL COLUMN BASE PLATE AND ANCHOR ROD SIZES AND DETAILS.



ms consultants, inc. engineers, architects, planners 2221 Schrock Road Columbus, Ohio 43229 p 614.898.7100 f 614.898.7570 www.msconsultants.com

## **KEYNOTES**

- 01 5" CONCRETE SLAB ON GRADE W/ #4 @ 18" O.C. EACH WAY.
- 02 8" WIDE x 4" TALL BRICK LEDGE, TYPICAL AROUND PERIMETER. OMIT AT DOORS.
- 04 (3) 2x6 STUD PACK. RE: A5/S5.2 FOR NAILING DETAILS.
- 06 HSS 16x4x5/16 COLUMN.
  08 HSS 5-1/2x5-1/2x5/16 COLUMN.
- PROVIDE 2% SLOPE AWAY FROM BUILDING AT TOP OF EXTERIOR SLAB-ON-GRADE.
- 25 HSS 5x5x1/4 COLUMN
- 28 TYPICAL CORNER STUD PACK. RE: A4/S5.2 FOR DETAIL.





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REV	DESCRIPTION	DATE
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Project No.: 40497-01

Client Project No.:

Drawing Title:

FOUNDATION PLAN

Date:	10/30/2020	Phase:	BID/PERMIT
Designed:	CEM	Drawing No	).:
Drawn :	CLS	C1	1
Checked :	CEM	51.	
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## **PLAN NOTES**

- 1. REFER TO SHEET S0.1 FOR GENERAL NOTES.
- 2. COORDINATE LOCATIONS OF ALL WALLS AND WALL OPENINGS WITH ARCHITECTURAL DRAWINGS.
- 3. REFER TO MECHANICAL DRAWINGS FOR RTU DETAILS. RTU WEIGHTS NOT TO EXCEED XXXX LBS FOR RTU-1 AND XXXX LBS FOR RTU-2.
- 4. RE: B3/S5.2 FOR DIAPER CHANGING STATION DETAIL.
- 5. PROVIDE STUD PACK WITH HOLDDOWN AT ALL BUILDING CORNERS. SEE A4/S5.2 FOR DETAILS.
- 6. ALL NAILING SHALL CONFORM TO IBC TABLE 2304.10.1, U.N.O.
- 7. RE: C1/S5.2 FOR TYPICAL TOP PLATE SPLICE DETAIL AT ALL EXTERIOR WALLS.
- 8. RE: B4 & B5/S5.2 FOR TYPICAL CUTTING, NOTCHING, AND BORING OF WOOD STUDS.
- 9. PROVIDE 2x SOLID BLOCKING IN WALLS AS REQUIRED FOR REINFORCEMENT OF ALL GRAB BARS, RESTROOM FIXTURES, PLUMBING LINES, WALL BUMPERS, ETC. SEE ARCHITECTURAL AND KITCHEN INTERIOR ELEVATIONS FOR EQUIPMENT HEIGHTS AND LOCATIONS. SEE ARCHITECTURAL BUILDING AND WALL SECTIONS FOR LOCATIONS FOR ADDITIONAL BLOCKING REQUIREMENTS.
- 10. PROVIDE 2x6 SOLID BLOCKING BETWEEN WALL STUDS AT 4'-0" O.C.
- 11. PRE-MANUFACTURED ROOF WOOD TRUSSES TO BE SPACED AT 2'-0" ON CENTER, U.N.O. RE: S5.7 FOR TRUSS DIAGRAMS AND LOADING CRITERIA. DOUBLE TRUSSES UNDER MECHANICAL UNITS AND WHERE SHOWN ON PLAN.
- 12. REFER TO GENERAL NOTES FOR ROOF DECKING AND NAILING PATTERN.

### **KEYNOTES**

- 05 EXTERIOR CANOPY BELOW. RE: S5.9 FOR ENLARGED FRAMING PLAN.
- 09 HSS 10x4x5/16 BEAM.
- 12 EXTERIOR SUNSHADE. RE: S5.10 FOR ENLARGED FRAMING PLAN.
- HIGH ROOF ABOVE. RE: S5.9 FOR ENLARGED FRAMING PLAN.ROOF HATCH. RE: ARCH.
- 17 5-1/2"x15" 24F-V4 GLULAM X-BEAM.
- 18 EXHAUST FAN OPENING IN ROOF DECK. RE: MECH. FOR SIZE. SHIFT LOCATION ACCORDINGLY TO AVOID ROOF FRAMING.
- 19 (2) 2x6 BTW. ROOF TRUSSES.
- 20 RTU 1. RE: MECH. MAX. WEIGHT = 2,000 LBS.
- 21 RTU 2. RE: MECH. MAX. WEIGHT = 2,000 LBS.
- RTU 3. RE: MECH. MAX. WEIGHT = 2,400 LBS.
   ROOF TOP SCREENWALL. RE: S5.6 FOR STRUCTURAL DETAILS. RE: ARCH. FOR FINISHES AND (
- 23 ROOF TOP SCREENWALL. RE: S5.6 FOR STRUCTURAL DETAILS. RE: ARCH. FOR FINISHES AND CLADDING.
  30" DEEP PRE-MANUFACTURED WOOD ROOF TRUSS. RE: TRUSS DIAGRAM ON S5.7 FOR DETAILS.
  33 (2) 30" DEEP PRE-MANUFACTURED SHORT WOOD ROOF TRUSSES, BACK-TO-BACK. RE: TRUSS DIAGRAM
- ON S5.7 FOR DETAILS.
- 34 (2) 30" DEEP PRE-MANUFACTURED WOOD ROOF TRUSSES, BACK-TO-BACK. RE: TRUSS DIAGRAM ON S5.7 FOR DETAILS.



ms consultants, inc. engineers, architects, planners 2221 Schrock Road Columbus, Ohio 43229 p 614.898.7100 f 614.898.7570 www.msconsultants.com

WHATABURGER PROTOTYPE 20-M

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REV	DESCRIPTION	DATE
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Project No.: 40497-01

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Drawing Title:

### ROOF FRAMING PLAN

Date:	10/30/2020	Phase:	BID/PERMIT
Designed:	CEM	Drawing No	).:
Drawn :	CLS	C1	<b>റ</b>
Checked :	CEM	<b>3</b> 1.	Ζ
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## **KEYNOTES**

02 8" WIDE x 4" TALL BRICK LEDGE, TYPICAL AROUND PERIMETER. OMIT AT DOORS.

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- 03 DOUBLE 2x6 TOP PLATE. 04 (3) 2x6 STUD PACK. RE: A5/S5.2 FOR NAILING DETAILS.
- HSS 16x4x5/16 COLUMN.
- HSS 5-1/2x5-1/2x5/16 COLUMN. HSS 10x4x5/16 BEAM.
- 10 HSS 5-1/2x5-1/2x5/16 BEAM.

4

- 11 HDR1, RE: C2/S5.2.
- GRADE BEAM. REFER FOUNDATION PLAN FOR DETAILS. 28 TYPICAL CORNER STUD PACK. RE: A4/S5.2 FOR DETAIL.
- HEADER SUPPORT STUDS. RE: C2/S5.2 AND A1/S5.2 FOR FRAMING DETAILS.



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REV	DESCRIPTION	DATE
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Project No.: 40497-01

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### FRAMING ELEVATIONS

Date:	10/30/2020	Phase: BID/PERMIT
Designed:	CEM	Drawing No.:
Drawn :	CLS	004
Checked :	CEM	52.1











TOP' BARS ARE HORIZONTAL REBARS WITH MORE THAN 12 IN OF FRESH CONCRETE CAST BELOW THE BARS AT THE DEVELOPMENT LENGTH. 'Ld' FOR #3 AND #4 BARS IN SLAB OR WALL ARE CONSERVATIVE AND MAY BE REDUCED TO 0.75 TIMES.

FOR LIGHT-WEIGHT CONCRETE MULTIPLY THE TABULATED VALUES BY 1.3.

TENSION LAP SPLICES CLASS B FOR TOP & BOTTOM BARS (GRADE 60 UNCOATED 

	BARS NORMAL WEIGHT CONCRETE)									
BAR SIZE	ťc=3000 psi		f'c=4000 psi		ťc=5000 psi		f'c=6000 psi		f'c=8000 psi	
	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT
#3	2'-4"	1'-9"	2'-0"	1'-6"	1'-10"	1'-5"	1'-8"	1'-4"	1'-5"	1'-4"
#4	3'-1"	2'-4"	2'-8"	2'-1"	2'-5"	1'-10"	2'-2"	1'-8"	1'-11"	1'-5"
#5	3'-10"	3'-0"	3'-4"	2'-7"	3'-0"	2'-4"	2'-9"	2'-1"	2'-4"	1'-10"
#6	4'-8"	3'-7"	4'-0"	3'-1"	3'-7"	2'-9"	3'-3"	2'-6"	2'-10"	2'-2"
#7	6'-9"	5'-2"	5'-10"	4'-6"	5'-3"	4'-0"	4'-9"	3'-8"	4'-2"	3'-2"
#8	7'-9"	5'-11"	6'-8"	5'-2"	6'-0"	4'-7"	5'-5"	4'-2"	4'-9"	3'-8"
#9	8'-8"	6'-8"	7'-6"	5'-9"	6'-9"	5'-2"	6'-2"	4'-9"	5'-4"	4'-1"
# 10	9'-10"	7'-6"	8'-6"	6'-6"	7'-7"	5'-10"	6'-11"	5'-4"	6'-0"	4'-7"
# 11	10'-11"	8'-4"	9'-5"	7'-3"	8'-5"	6'-6"	7'-8"	5'-11"	6'-8"	5'-1"
NOTE		1			1	1	1			

FOR CLASS 'A' SPLICE (PERMITTED ONLY WHEN NOT MORE THAN HALF THE BARS SPLICED AND SPLICES STAGGERED

BY THE DISTANCE OF SPLICE LENGTH), USE SAME AS 'Id' = TENSION DEVELOPMENT LENGTH TABLE.







<u>180° HOOK</u>

MAX OFFSET BEND

**TENSION SCHEDULE & BAR BENDS** A1

С













			. (==	2						
\ Ldh		2" MIN COVER				÷		dh	2" M COV	1IN 'ER
90° HOOK	SIDE COVE	R ≥ 2 1/2"				STANDA	RD 180° HO	OK SIDE CO	VER ≥ 2 1/2	
10 psi	f'c = 4	000 psi	f'c = 50	000 psi	f'c = 60	)00 psi	f'c = 70	00 psi	f'c = 8	000 psi
0.7Lhb	Ldh	0.7Lhb	Ldh	0.7Lhb	Ldh	0.7Lhb	Ldh	0.7Lhb	Ldh	0.7Lhb
7"	9"	6"	8"	6"	7"	6"	7"	6"	6"	6"
10"	1'-0"	8"	11"	7"	10"	7"	9"	6"	8"	6"
1'-0"	1'-3"	10"	1'-1"	9"	1'-0"	8"	11"	8"	10"	7"
1'-2"	1'-6"	1'-0"	1'-4"	11"	1'-3"	10"	1'-1"	9"	1'-1"	9"
1'-5"	1'-9"	1'-3"	1'-7"	1'-1"	1'-5"	1'-0"	1'-4"	11"	1'-3"	10"
1'-7"	2'-0"	1'-5"	1'-9"	1'-3"	1'-7"	1'-2"	1'-6"	1'-1"	1'-5"	1'-0"
1'-10"	2'-3"	1'-7"	2'-0"	1'-5"	1'-10"	1'-3"	1'-8"	1'-2"	1'-7"	1'-1"
2'-0"	2'-6"	1'-9"	2'-3"	1'-7"	2'-1"	1'-5"	1'-11"	1'-4"	1'-9"	1'-3"

Ldh = DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION.

Ldh = 0.7 Lhb FOR #11 BARS AND SMALLER WHEN SIDE COVER (NORMAL TO PLAN OF HOOK) IS NOT LESS THAN 2 1/2" AND FOR 90° HOOKS, COVER ON BAR EXTENSION BEYOND HOOK IS NOT LESS THAN 2 INCHES.

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	NOTE:		

<u>NOTE:</u> FOR 'D' ETC SEE C HANDBOOK GOVERNING EDITI

	bar Dia	MIN "D"
	#3	1 1/2"
	#4	2"
<u>UP/11E</u>	#5	2 1/2"
	#6	3"
CRSI	#7	3 1/2"
	#8	4"
HION.	#9	4 1/2"





ONTROL	JOINT	SLAB-0	ON-GRA	١DE

Phase: BID/PERMIT

Drawing No.:

S5.

Date:

Designed: CEM

Drawn : CLS

Checked : CEM

10/30/2020







![](_page_9_Figure_0.jpeg)

![](_page_9_Picture_1.jpeg)

![](_page_9_Picture_2.jpeg)

2

![](_page_9_Picture_3.jpeg)

![](_page_9_Picture_5.jpeg)

![](_page_9_Picture_6.jpeg)

![](_page_9_Figure_7.jpeg)

![](_page_9_Figure_8.jpeg)

![](_page_9_Figure_9.jpeg)

ROOF SHEATHING

3

(2) 2x6 TOP PLATE

V

![](_page_9_Figure_10.jpeg)

![](_page_10_Figure_0.jpeg)

![](_page_10_Figure_1.jpeg)

V

![](_page_10_Figure_2.jpeg)

4

B4 <u>SECTION</u> 1" = 1'-0"

![](_page_10_Figure_4.jpeg)

![](_page_10_Figure_5.jpeg)

![](_page_10_Figure_6.jpeg)

![](_page_10_Picture_7.jpeg)

![](_page_10_Figure_8.jpeg)

B5 DETAIL 1" = 1'-0"

![](_page_11_Figure_0.jpeg)

![](_page_12_Figure_0.jpeg)

![](_page_12_Picture_1.jpeg)

![](_page_12_Figure_2.jpeg)

![](_page_12_Figure_3.jpeg)

![](_page_12_Figure_4.jpeg)

![](_page_12_Figure_5.jpeg)

SECTION

(A4) <u>SECTIN</u> 3/8" = 1'-0"

4

![](_page_12_Figure_7.jpeg)

Checked : CEM

![](_page_13_Figure_0.jpeg)