

- A. CODES AND STANDARDS:
- THE FOLLOWING CODES AND STANDARDS, INCLUDING ALL SPECIFICATIONS REFERENCED WITHIN, SHALL APPLY TO THE DESIGN, CONSTRUCTION, QUALITY CONTROL AND SAFETY OF ALL WORK PERFORMED ON THE PROJECT. USE THE LATEST EDITIONS UNLESS NOTED OTHERWISE.
  - "2007 ARKANSAS FIRE PREVENTION CODE," AND A.C.A. 12-80-101 ET. SEQ. (ARKANSAS LAM).
  - "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" (ANSI/ASCE 7-05), AMERICAN SOCIETY OF CIVIL ENGINEERS.
  - "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," ACI 318-05, AMERICAN CONCRETE INSTITUTE.
  - "MANUAL OF STANDARD PRACTICE," CONCRETE REINFORCING STEEL INSTITUTE.
  - "MANUAL OF STEEL CONSTRUCTION - ALLOWABLE STRESS DESIGN," NINTH EDITION, 1989, AMERICAN INSTITUTE OF STEEL CONSTRUCTION (INCLUDING SPECIFICATIONS FOR ANCHOR BOLTS, AND AISC CODE OF SPECIFICATION FOR STEEL CONSTRUCTION, JOINTS USING ASTM A325 OR A449 BOLTS, AND AISC CODE OF STANDARD PRACTICE, IF ANY, AS INDICATED IN THE CONTRACT DOCUMENTS).
  - "MANUAL OF STEEL CONSTRUCTION VOLUME II CONNECTIONS," ASD 9TH EDITION/LRFD 1ST EDITION, AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
  - "STRUCTURAL WELDING CODE ANSI/AWS D1.1-2006," AMERICAN WELDING SOCIETY.
- B. DESIGN DATA:
- GRAVITY - SUPERIMPOSED DEAD LOADS
  - TESLA MRI TRAILER
  - 34,000 LBS REAR JACK STANDS
  - 29,000 LBS FRONT JACK STANDS
  - GRAVITY - SUPERIMPOSED LIVE LOADS
  - ROOF LIVE LOAD 20 PSF MINIMUM
  - (SNOW LOAD IS USED WHEN GREATER THAN 20 PSF)
  - GROUND SNOW LOAD
  - ROOF SNOW LOAD
  - $P_f = (p_g)(1) = (20)(1.15) = 23 + DRIFTING$   
SNOW AS APPLICABLE.
  - LATERAL LOADS - WIND
  - MAN WIND-FORCE RESISTING SYSTEM:
  - (1) BASIC WIND SPEED: 90 MPH
  - EXPOSURE: C
  - IMPORTANCE FACTOR (IM): 1.15
  - INTERNAL PRESSURE COEFFICIENT
  - HEIGHT (FT): 15
  - EFFECTIVE PRESSURE (PSF): 17
  - SEISMIC
  - a. SEISMIC IMPORTANCE FACTOR (I): 1.25
  - b. SPECTRAL RESPONSE ACCELERATION (S<sub>s</sub>): 0.185
  - c. SPECTRAL RESPONSE ACCELERATION (S<sub>1</sub>): 0.146
  - d. SITE CLASS: C
  - e. SPECTRAL RESPONSE COEFFICIENT (S<sub>ds</sub>): 0.106
  - f. SPECTRAL RESPONSE COEFFICIENT (S<sub>d1</sub>): 0.106
  - g. SEISMIC DESIGN CATEGORY: B
  - h. BASIC SEISMIC-FORCE-RESISTING SYSTEM: STRUCTURAL
  - i. STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
  - j. DESIGN BASE SHEAR: 0.042 \* W (SERVICE LOAD)
  - k. ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE
  - l. RESPONSE MODIFICATION FACTOR (R): 3.0
  - m. DESIGN BASE SHEAR: 0.042 \* W (SERVICE LOAD)
- C. FOUNDATIONS/GEOTECHNICAL REPORT:
- NO GEOTECHNICAL REPORT HAS BEEN PROVIDED FOR THIS PROJECT. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER REGISTERED IN THE STATE OF ARKANSAS TO PROVIDE GEOTECHNICAL ENGINEERING SERVICES AS REQUIRED.
  - FOUNDATIONS PLACED ON UNDISTURBED SOIL AT ELEVATIONS INDICATED HAVE BEEN DESIGNED FOR AN ALLOWABLE NET BEARING PRESSURE OF 2000 PSF.
  - MATERIALS:
    - THE FOLLOWING ASTM STANDARDS AND DESIGN STRESSES SHALL BE USED FOR THE APPROPRIATE MATERIALS USED IN THE CONSTRUCTION OF THIS PROJECT.
    - CEMENT: ASTM C150, TYPE I OR III
    - FLY ASH: ASTM C615, TYPE C (LIMIT TO 25% MAX OF CEMENTitious CONTENT BY WEIGHT)
    - AGGREGATES: ASTM C33 (NORMAL WEIGHT)
    - CONCRETE: ALL CONCRETE EXPOSED TO WEATHER AND ALL WATER TIGHT CONCRETE SHALL BE AIR-ENTRAINED 5% ± 1-1/2% BY VOLUME. AIR-ENTRAINING ADMIXTURE RECEIVING A STEEL TROWEL FINISH.
    - CONCRETE TO COMPLY WITH ASTM C260. DO NOT EXCEED 3% AIR CONCRETE
    - APPLICATION: 28 DAYS (CE) 4000 W/C (MAX) 0.50
    - REINFORCEMENT: a. SLABS ON GRADE b. FOOTINGS
    - ASTM A615, GRADE 60
    - ASTM A183
    - ASTM A992
    - ASTM A36
    - ASTM A500
    - ASTM A325
    - ASTM F1554, GRADE 36
    - WELDING ELECTRODES
    - ANCHOR BOLTS
    - GENERAL:  - CONSTRUCTION:
    - GENERAL
    - REPRODUCTION OF ANY PORTION OF THE STRUCTURAL CONTRACT DRAWINGS FOR RESUBMITTAL AS SHOP DRAWINGS IS PROHIBITED. SHOP DRAWINGS PRODUCED IN SUCH A MANNER WILL BE REJECTED AND RETURNED.
    - SUBMIT SHOP DRAWINGS AT LEAST 15 DAYS BEFORE DATE REVIEWED SUBMITTALS WILL BE NEEDED. CERTIFICATION THAT HE HAS VERIFIED ALL FIELD MEASUREMENTS, CONSTRUCTION CRITERIA, MATERIALS AND SIMILAR DATA AND HAS CHECKED EACH DRAWING FOR COMPLETENESS, COORDINATION AND COMPLIANCE WITH THE CONTRACT DOCUMENTS.

E. CONSTRUCTION:

    - GENERAL
    - STRUCTURAL SHAPES
    - PLATES, CHANNELS, ANGLES & MISCELLANEOUS
    - HOLLOW STRUCTURAL TUBE
    - HIGH STRENGTH BOLTS
    - ASTM A500
    - ASTM A325
    - ASTM F1554, GRADE 36
    - WELDING ELECTRODES
    - ANCHOR BOLTS
    - GENERAL:

- THESE DRAWINGS REPRESENT THE COMPLETED PROJECT WHICH HAS BEEN DESIGNED FOR THE INDICATED IN THE DESIGN DATA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALLOWABLE CONSTRUCTION LOADS AND TO PROVIDE PROPER DESIGN AND CONSTRUCTION OF FRAMEWORK, FORMWORK, SKELETON, SHEETING AND SHORING, ETC. THE CONTRACTOR IS NOT RESPONSIBLE FOR THE DESIGN DATA.
- INSPECTION AND TESTING:
  - THE CONTRACTOR SHALL ENGAGE AN INSPECTION AGENCY TO PROVIDE INSPECTIONS AND TESTING WITH THE INSPECTION AGENCY. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AND TESTING.
  - IN CASE OF CONFLICT BETWEEN THE GENERAL NOTES, PLANS, AND DETAILS, THE MOST RIGID REQUIREMENTS SHALL GOVERN.
  - CONTRACTOR SHALL REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL REQUIREMENTS FOR SIZE AND LOCATION OF OPENINGS, SLEEVES, AND INSERTS.
  - AFTER FOOTING EXCAVATIONS HAVE BEEN MADE TO DESIGN ELEVATIONS, THE INDEPENDENT TESTING AGENCY SHALL INSPECT AND TEST THE BEARING SOIL TO VERIFY THAT IT MEETS THE REQUIRED DESIGN CAPACITY.
  - CAST-IN-PLACE CONCRETE:
  - SAMPLE FRESH CONCRETE IN ACCORDANCE WITH ASTM C172. MOLD TEST CYLINDERS IN TESTING AT 7 DAYS. TWO FOR TESTING AT 28 DAYS. AND ONE SPARE. TEST CYLINDERS SHALL BE MADE FOR EACH DAYS WORK FOR EACH CLASS OF CONCRETE.
  - EACH TIME COMPRESSIVE CYLINDERS ARE TAKEN TEST SLUMP, AIR CONTENT, AND TEMPERATURE.
  - STRUCTURAL STEEL:
  - PERIODICALLY VERIFY THAT THE PROPER MATERIALS FOR HIGH-STRENGTH BOLTS, STRUCTURAL STEEL, AND WELD FILLER MATERIALS ARE BEING USED.
  - TEST ANY WELD FOR WHICH VISUAL EXAMINATION INDICATES AN UNUSUAL CONDITION AND/OR POOR QUALITY.
  - WELDING INSPECTION AND TESTING PROCEDURES SHALL BE IN ACCORDANCE WITH THE AWS CODE.
  - FOUNDATIONS & STRUCTURAL EARTHWORK:
  - GENERAL:
  - CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS THAT MAY AFFECT THE INSTALLATION OF THE FOUNDATION SYSTEM AS SHOWN PRIOR TO STARTING WORK.
  - THE SIZE, LOCATION AND DEPTH OF THE UTILITIES ARE NOT KNOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES, WHICH MAY BE AFFECTED BY THE CONSTRUCTION PROCESS.
  - ALL FOUNDATIONS SHALL BE PLACED ON UNDISTURBED SOIL OR COMPACTED STRUCTURAL FILL BY THE GEOTECHNICAL ENGINEER.
  - CONCRETE FOR FOUNDATIONS SHALL BE PLACED ON THE SAME DAY SUBGRADE APPROVAL IS GIVEN BY THE GEOTECHNICAL ENGINEER.
  - THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT ALL EXISTING STRUCTURES, CURBS, STREETS, ETC FROM DAMAGE BY CONSTRUCTION EQUIPMENT. THE CONTRACTOR SHALL NOT DISPOSE OF ANY LIQUIDS, SLURRY, SPILLS OR CHEMICALS ON THE SITE EXCEPT AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL RESOURCES OR OTHER AGENCIES HAVING JURISDICTION.
  - CORE DRILLING OF FOUNDATIONS SHALL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY THE STRUCTURAL ENGINEER.
  - NO SPLICES OF REINFORCEMENT SHALL BE PERMITTED EXCEPT AS DETAILED OR AUTHORIZED BY THE STRUCTURAL ENGINEER. MAKE BARS CONTINUED AROUND CORNERS. WHEN PERMITTED, SPLICES SHALL BE MADE BY CONTACT TENSION LAP SPLICES, UNLESS OTHERWISE NOTED.
  - ALL REINFORCING BARS MARKED CONTINUOUS SHALL BE SPLICED WITH A CLASS B TENSION LAP. FOUNDATIONS AND SLABS SHALL NOT HAVE JOINTS IN A HORIZONTAL PLANE UNLESS SHOWN OTHERWISE.
  - WELDED WIRE FABRIC REINFORCEMENT SHALL BE SUPPLIED IN SHEETS. LAP TWO FULL MESH LENGTHS AT SPLICES AND WIRE TOGETHER.
  - NO WELDING OF REINFORCING SHALL BE PERMITTED UNLESS SPECIFICALLY CALLED FOR OR APPROVED BY THE STRUCTURAL ENGINEER.
  - STRUCTURAL STEEL:
  - GENERAL:
  - ALL SHOP AND FIELD CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS OR WELDS. ALL HIGH STRENGTH BOLTS AND NUTS SHALL BE CLEARLY MARKED BY AWS SPECIFICATIONS. CONNECTIONS MADE WITH UNMARKED BOLTS AND NUTS WILL BE REJECTED.
  - PROVIDE ACCESS FOR INSPECTION OF ALL SHOP AND FIELD CONNECTIONS FOR PROPER MATERIALS AND WORKMANSHIP.
  - UNLESS OTHERWISE NOTED, ALL A325 BOLTS SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION DEFINED AS THE TIGHTNESS ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH. THE SNUG TIGHT CONDITION MUST ENSURE THAT THE PILES OF THE CONNECTED MATERIAL HAVE BEEN BROUGHT INTO SNUG CONTACT.
  - PERMANENT FRAMING AND FINAL CONNECTION DETAILS ARE SHOWN ON THE DRAWINGS. THE FABRICATOR AND ERECTOR ARE RESPONSIBLE FOR THE DESIGN OF TEMPORARY BRACING AND RECOMMENDED ERECTION PROCEDURES.
  - WELDING ELECTRODES, WELDING PROCESS, MINIMUM PREHEAT AND INTERPASS TEMPERATURES SHALL BE IN ACCORDANCE WITH THE AWS AND AWS QUALIFICATION TESTS. DAMAGED OR WELDS IS TO BE REPLACED OR REWELDED TO THE SATISFACTION OF THE STRUCTURAL ENGINEER.
  - WELDES SHALL HAVE CURRENT EVIDENCE OF PASSING THE APPROPRIATE AWS QUALIFICATION TESTS. THE ENGINEER MAY REQUEST SUCH EVIDENCE AT ANY TIME DURING THE PROJECT.
  - GAS CUTTING TORCHES SHALL NOT BE USED TO CORRECT FABRICATION ERRORS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

COLUMN BASE PLATE SCHEDULE					
MARK	BASE PLATE SIZE		ANCHOR BOLT		
	WIDTH	LENGTH	THICK	NO	SIZE
BP-1	6"	1'-0"	3/4"	2	3/4"
BP-2	-	-	-	-	-
BP-3	-	-	-	-	-
BP-4	-	-	-	-	-
BP-5	-	-	-	-	-
BP-6	-	-	-	-	-
BP-7	-	-	-	-	-
BP-8	-	-	-	-	-
BP-9	-	-	-	-	-
BP-10	-	-	-	-	-
BP-11	-	-	-	-	-
BP-12	-	-	-	-	-
BP-13	-	-	-	-	-
BP-14	-	-	-	-	-
BP-15	-	-	-	-	-
BP-16	-	-	-	-	-
BP-17	-	-	-	-	-
BP-18	-	-	-	-	-
BP-19	-	-	-	-	-
BP-20	-	-	-	-	-
BP-21	-	-	-	-	-
BP-22	-	-	-	-	-
BP-23	-	-	-	-	-
BP-24	-	-	-	-	-
BP-25	-	-	-	-	-
BP-26	-	-	-	-	-
BP-27	-	-	-	-	-
BP-28	-	-	-	-	-
BP-29	-	-	-	-	-
BP-30	-	-	-	-	-
BP-31	-	-	-	-	-
BP-32	-	-	-	-	-
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BP-38	-	-	-	-	-
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BP-232	-	-	-	-	-







