STRUCTURAL QUALITY CONTROL

NOTE: THE OWNER WILL HIRE SPECIAL INSPECTORS AS INDICATED FOR THE SPECIAL INSPECTIONS NOTED IN SPECIFICATION SECTION 01410. CONTRACTOR SHALL HIRE AND PAY FOR INSPECTIONS AND TESTS SPECIFIED IN THE OTHER SPECIFICATION SECTIONS THAT ARE NOT COVERED ON THE SCHEDULE OF SPECIAL INSPECTIONS.
SEE SPECIFICATION SECTION 01410 STRUCTURAL TESTS AND SPECIAL INSPECTIONS FOR ADDITIONAL INFORMATION.

ABBREVIATIONS

(NOTE: NOT ALL ABREVIATIONS USED)

ADJ	ADJACENT	GA.	GAGE	N.T.S.	NOT TO SCALE
A.F.F.	ABOVE FINISHED FLOOR	GALV.	GALVANIZED	O.C.	ON CENTER
ARCH.	ARCHITECTURAL	G.C.	GENERAL CONTRACTOR	P.J.	PANEL JOINT
B.F.F.	BELOW FINISHED FLOOR	HCP	HIGH CHAIRS WITH PLATES	PL	PLATE
BLDG.	BUILDING	HORIZ.	HORIZONTAL	P.O.J.	PANEL OVERLAP JOINT
BOT.	BOTTOM	HSS	STRUCTURAL TUBING	P.S.J.	POUR STRIP JOINT
BTWN	BETWEEN	JT.	JOINT	REINF.	REINFORCEMENT
C	CHANNEL	K	KIPS	REQ'D.	REQUIRED
CL	CENTER LINE	KCJ	KEYED CONTROL JOINT	SECT.	SECTION
CLR.	CLEAR	KSF	KIPS PER SQUARE FOOT	SHT.	SHEET
COL.	COLUMN	KSI	KIPS PER SQUARE INCH	SIM.	SIMILAR
CONC.	CONCRETE	LBS	POUNDS	SPA.	SPACING
CONN.	CONNECTION	L ^d	TENSION DEVELOPMENT	STD.	STANDARD
CONT.	CONTINUOUS	LOB	LENGTH OF BAR	T.O.F.	TOP OF FOOTING
DBA	DEFORMED BAR ANCHOR	LLH	LONG LEG HORIZONTAL	T.O.S.	TOP OF STEEL
Dia	DIAMETER	LLV	LONG LEG VERTICAL	T.O.W.	TOP OF WALL
DTL	DETAIL	LT.	LIGHT	TYP.	TYPICAL
EA.	EACH	MANUF.	MANUFACTURER	U.N.O.	UNLESS NOTED OTHERWISE
E.F.	EACH FACE	MATL.	MATERIAL	VERT. OR V	VERTICAL
ELEV.	ELEVATION	MAX.	MAXIMUM	VSC	VERTICAL SLIDING CLIP
EXIST.	EXISTING	MECH.	MECHANICAL	W.W.F.	WELDED WIRE FABRIC
EXP.	EXPANSION	MID.	MIDDLE	W/	WITH
FLR	FLOOR	MIN.	MINIMUM	ZRC	ZINC BASE PAINT

SYMBOLS

L	ANGLE	∅	DIAMETER	<	LESS THAN	X/SY.Y	SECTION "X" ON SHEET "SY.Y"
@	AT	#	NUMBER	>	GREATER THAN		

STRUCTURAL DESIGN CRITERIA

BUILDING CODE: 2006 INTERNATIONAL BUILDING CODE

GRAVITY LOADS: (REFERENCE: ASCE 7-05)

LIVE LOADS:

UNIFORM LOAD

FLOORS: 1st FLOOR SLAB.....100 PSF
MECHANICAL, ELECTRICAL
& STORAGE.....150 PSF
SIDEWALKS.....100 PSF

ROOF: MINIMUM (NON-REDUCIBLE).....20 PSF
GROUND SNOW LOAD.....Pg = 10 PSF

DEAD LOADS:

FLOORS: ACTUAL WEIGHTS OF MATERIAL PLUS ALLOWANCE FOR NON-UNIFORM LOADS

LATERAL LOADS:

WIND: (REFERENCE: ASCE 7-05)
BASIC WIND SPEED.....90 MPH
EXPOSURE.....C
WIND IMPORTANCE FACTOR.....Iw = 1.15
INTERNAL PRESSURE COEFFICIENTS.....+/- 0.18 ENCLOSED
WIND LOAD ON WINDOWS AND DOORS: FIELD ...24 PSF
WITHIN 10' OF CORNER:.....30 PSF

SEISMIC: (REFERENCE: 2006 INTERNATIONAL BUILDING CODE)

OCCUPANCY CATEGORY.....III
SEISMIC IMPORTANCE FACTOR.....Ie = 1.25
SPECTRAL RESPONSE COEFFICIENTS.....Ss = 0.463
.....S1 = 0.176
SITE CLASS.....C
ADJUSTED MCE SPECTRAL RESPONSE.....Sms = 0.556
.....Sm1 = 0.286
DESIGN SPECTRAL RESPONSE ACCELERATION.....SDS = 0.370
.....SD1 = 0.191
SEISMIC DESIGN CATEGORY.....C
RESPONSE MODIFICATION FACTOR (R).....3
BASIS SEISMIC FORCE RESISTING SYSTEM
ORDINARY REINFORCED CONCRETE SHEAR WALL AND STEEL BRACED FRAMES NOT DETAILED FOR SEISMIC RESISTANCE

DESIGN BASE SHEAR.....V = 0.154W
ANALYSIS PROCEDURE.....EQUIVALENT LATERAL FORCE

SYSTEMS AND COMPONENTS REQUIRING SPECIAL INSPECTION
SPECIAL INSPECTION IS REQUIRED BY 2006 IBC CHAPTER 17 FOR SEISMIC DESIGN CATEGORY C AND FOR DESIGN WIND SPEED EXCEEDING 110 MPH. SEE THE SPECIAL INSPECTION CHART THIS PAGE FOR A LIST OF ITEMS REQUIRING SPECIAL INSPECTION.

STRUCTURAL DESIGN APPROACH:
THE ROOF STRUCTURE CONSISTS OF TONGUE AND GROOVE WOOD DECKING SPANNING BETWEEN GLULAM AND STEEL BEAMS SPANNING BETWEEN COLUMNS AND A CONCRETE BEARING WALL. THE COLUMNS ARE SUPPORTED BY A SHALLOW FOUNDATION SYSTEM. THE FLOOR STRUCTURE IN THE MECHANICAL ROOM CONSISTS OF COMPOSITE STEEL FLOOR DECK SPANNING BETWEEN STEEL BEAMS SPANNING BETWEEN COLUMNS. LATERAL STABILITY FOR THE BUILDING IS PROVIDED BY THE ROOF STRUCTURE ACTING AS A DIAPHRAGM SPANNING BETWEEN REINFORCED CONCRETE WALL AND STEEL BRACED FRAMES.

STRUCTURAL GENERAL NOTES

A. STABILITY DURING CONSTRUCTION, SHORING, AND TEMPORARY STRUCTURES:

1. PERMANENT STABILITY OF THE BUILDING AND COMPONENTS IS NOT PROVIDED UNTIL ALL THE STRUCTURAL ELEMENTS ARE INSTALLED AS SHOWN ON THE CONTRACT DRAWINGS; THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING STABILITY TO ALL NON-SELF SUPPORTING ELEMENTS AND SAFETY TO ALL WORKERS, ANIMALS AND PROPERTY DURING CONSTRUCTION AND UNTIL ALL PERMANENT BRACING ELEMENTS ARE INSTALLED.
2. WHERE SHORING AND/OR TEMPORARY STRUCTURES ARE REQUIRED IN ORDER TO SATISFY THE CONTRACT REQUIREMENTS; THE CONTRACTOR IS TO DESIGN & BUILD THE TEMPORARY STRUCTURES WITHOUT EXTRA COST TO THE CONTRACT. THE DESIGN SHALL BE DONE BY A REGISTERED PROFESSIONAL ENGINEER.
3. BRACING USED TO STABILIZE THE BUILDING DURING THE ERECTION PROCESS SHALL BE DESIGNED BY THE CONTRACTOR SO TO NOT TWIST OR DISTORT MEMBERS. SPECIFICALLY, IF CABLES ARE USED THEY SHALL BE ATTACHED TO THE CENTER OF THE COLUMN AND NOT WRAPPED AROUND THE COLUMN IN A MANNER THAT WILL TWIST THE COLUMN.
4. THE TEMPORARY BRACING USED TO STABILIZE THE BUILDING DURING THE ERECTION PHASE SHALL BE DESIGNED BY THE CONTRACTOR FOR LOADS AS REQUIRED BY THE APPLICABLE CODES. THE DESIGN OF THE BRACING SHALL TAKE TAKE INTO ACCOUNT ADDITIONAL FORCES DUE TO THERMAL CONTRACTION AND EXPANSION OF THE BUILDING FRAME AND BRACES.
5. THE ANCHOR BOLTS FOR STEEL COLUMNS ARE NOT DESIGNED TO STABILIZE STRUCTURE BY PROVIDING FIXITY OF THE COLUMN BASE DURING ERECTION OF THE STEEL. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR STABILITY DURING THE ERECTION PHASE AND UNTIL ALL GRAVITY AND LATERAL LOAD RESISTING ELEMENTS ARE IN PLACE AND WELDING AND/OR BOLTING INSPECTION IS COMPLETE.
6. SEE NOTE D.5 BELOW

B. MISCELLANEOUS:

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH DRAWINGS RELATING TO OTHER TRADES. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND COORDINATING DIMENSIONS, CLEARANCES, OPENINGS, PIPE SLEEVES, CURBS, ETC. WITH THE WORK OF OTHER TRADES.
2. PRINCIPAL OPENINGS THROUGH THE FRAMING ARE SHOWN ON THESE DRAWINGS. THE GENERAL CONTRACTOR SHALL EXAMINE THE DRAWINGS FOR REQUIRED OPENINGS AND SHALL PROVIDE FOR ALL OPENINGS WHETHER SHOWN ON THESE DRAWINGS OR NOT, AND SHALL VERIFY SIZE AND LOCATION OF ALL OPENINGS WITH ALL SUB-CONTRACTORS. NOMINAL PIPE SLEEVES THROUGH THE DECK WILL NOT REQUIRE FRAMING UNLESS THE OPENING EXCEEDS 10" IN DIAMETER.
3. LOADINGS FOR MECHANICAL ROOMS ARE BASED ON THE WEIGHTS OF ASSUMED EQUIPMENT AS INDICATED ON THE MECHANICAL DRAWINGS (INCLUDING THE WEIGHT OF CONCRETE PADS, WHERE INDICATED). ANY CHANGES IN TYPE, SIZE, OR NUMBER OF PIECES OF EQUIPMENT SHALL BE REPORTED TO THE ARCHITECT/ENGINEER FOR VERIFICATION OF THE ADEQUACY OF SUPPORTING MEMBERS PRIOR TO THE PLACEMENT OF SUCH EQUIPMENT.
4. THE CONTRACTOR SHALL INSURE THAT ALL CONSTRUCTION LOADS DO NOT EXCEED THE DESIGN LIVE LOADS INDICATED ON THE STRUCTURAL DRAWINGS AND THAT THESE LOADS ARE NOT PUT ON THE STRUCTURAL MEMBERS PRIOR TO THE TIME THAT THE CONCRETE REACHES THE FULL DESIGN STRENGTH AND ALL FRAMING MEMBERS AND THEIR CONNECTIONS ARE IN PLACE.
5. THE CONTRACTOR SHALL PROVIDE SIGNS AT MECHANICAL ROOMS POSTED IN A CONSPICUOUS LOCATION INDICATING THE FLOOR LIVE LOAD CAPACITY AS STATED IN THE DESIGN CRITERIA SECTION OF THIS DRAWING. THE SIGNS SHALL CONFORM TO THE REQUIREMENTS OF THE BUILDING CODE AND THE BUILDING INSPECTOR. SEE SPECIFICATIONS FOR GENERAL SIGN REQUIREMENTS.
6. DESIGN OF CRANE OPENINGS IN THE STRUCTURE IS THE RESPONSIBILITY OF THE CONTRACTOR. DESIGN DOCUMENTS SHALL BEAR THE SEAL OF A REGISTERED PE AND ALL CALCULATIONS SHALL BE SUBMITTED FOR REVIEW BY THE ARCHITECT/ENGINEER. REVIEW DOES NOT IMPLY ACCEPTANCE OF RESPONSIBILITY FOR DESIGN ADEQUACY.

C. FOOTINGS & EARTHWORK:

1. FOUNDATION DESIGN IS BASED ON SOIL INVESTIGATION AND REPORT BY GRUBBS HOSKYN BARTON & WYATT/ LITTLE ROCK, AR.
2. POSITIVE SURFACE DRAINAGE SHOULD BE ESTABLISHED AT THE START OF WORK, BE MAINTAINED DURING CONSTRUCTION TO PREVENT SURFACE WATER PONDING. FOUNDATION OR SUBGRADE SOILS BECOME SATURATED SHALL BE EXCAVATED TO SUITABLE SOILS.
3. CONTRACTOR TO PROVIDE FOR DE-WATERING OF EXCAVATIONS FROM EITHER SURFACE WATER, GROUND WATER OR SEEPAGE. SOME SURFACE AND GROUND WATER IS ANTICIPATED IN EXCAVATIONS, AND THEY SHALL BE DE-WATERED BEFORE POURING CONCRETE.
4. CONTRACTOR SHALL PROVIDE AND INSTALL ALL CRIBBING, SHEATHING AND SHORING REQUIRED TO SAFELY RETAIN THE EARTH BANKS. SHORING AND BRACING OF TRENCHES SHALL MEET THE REQUIREMENTS OF OSHA.
5. NO BACKFILLING SHALL BE DONE AGAINST FOUNDATION WALLS AND GRADE BEAMS UNTIL CONCRETE HAS ATTAINED ITS 28 DAYS STRENGTH AND AT BASEMENT WALLS UNTIL FIRST FLOOR CONCRETE HAS ATTAINED ITS 7 DAYS STRENGTH
6. IN NO CASE SHALL BULLDOZERS OR OTHER HEAVY EQUIPMENT BE PERMITTED CLOSER THAN 10'-0" FROM ANY FOUNDATION WALL.
7. SEE SHEET S002 FOR PLAN SHOWING LOCATIONS OF UNDERCUTS AND ADDITIONAL NOTES

D. CONCRETE AND REINFORCING STEEL:

1. ALL REINFORCING SHALL BE A-615 GRADE 60 STEEL.
2. ALL REINFORCING SHALL BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. IF REQUIRED, ADDITIONAL BARS OR STIRRUPS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR ALL BARS.
3. ALL REINFORCING BARS SHALL BE LAPPED 60 BAR DIAMETERS - 24" MIN. U.N.O. LAP GRADE BEAM AND WALL TOP REINFORCEMENT AT CENTER OF SPAN. LAP GRADE BEAM AND WALL BOTTOM REINFORCEMENT AT SUPPORT. TERMINATE CONTINUOUS BARS AT NON CONTINUOUS END WITH STANDARD HOOKS.
4. CONCRETE COVER FOR REINFORCING STEEL SHALL BE 1" FOR SLABS AND WALLS. ALL CONCRETE EXPOSED TO WEATHER OR EARTH SHALL HAVE CONCRETE COVER OF 2" FOR BARS LARGER THAN #5, 1-1/2" FOR #5 BARS OR SMALLER, AND 3" FOR ALL CONCRETE PLACED AGAINST EARTH, U.N.O. TOLERANCES SHALL BE AS PER ACI-318.
5. HORIZONTAL CONSTRUCTION JOINTS SHALL BE PERMITTED ONLY WHERE SHOWN ON THE STRUCTURAL DRAWINGS. HORIZONTAL OR NEAR HORIZONTAL JOINTS SHALL BE PREPARED BY ROUGHENING THE SURFACE IN AN APPROVED MANNER SO THAT THE AGGREGATE IS EXPOSED UNIFORMLY, LEAVING NO LAITANCE, LOOSENED PARTICLES OR DAMAGED CONCRETE.
6. PIPES OR CONDUITS PLACED IN FOUNDATION AND SLABS SHALL NOT BE SPACED CLOSER THAN 3 DIAMETERS ON CENTERS. PIPES AND CONDUITS PLACED IN SLAB SHALL NOT HAVE AN OUTSIDE DIAMETER LARGER THAN 1/3 OF SLAB THICKNESS. ALUMINUM CONDUITS SHALL NOT BE PLACED IN CONCRETE.
7. PROVIDE CORNER BARS IN ALL CONCRETE MEMBERS AND AT INTERSECTIONS. MATCH SIZE AND SPACING OF HORIZONTAL BARS IN THOSE CONCRETE MEMBERS.
8. REINFORCING BARS SHALL NOT BE WELDED, UNLESS SPECIFICALLY NOTED ON THE DRAWING AS BEING WELDED. WELDED REINF. SHALL CONFORM TO ASTM A706.
9. ALL LAPS IN WELDED WIRE FABRIC SHALL BE ONE MESH PLUS TWO INCHES AT SPLICES.
10. PROVIDE STANDARD BAR CHAIRS AND SPACERS AT MAXIMUM 3'-0" CENTERS OR CLOSER AS REQUIRED FOR ALL SLABS AND BEAMS ABOVE GRADE.
11. COARSE AGGREGATE FOR CONCRETE SHALL NOT CONTAIN LIGNITE, STEEL, OR OTHER MATERIALS THAT MAY BE DETRIMENTAL TO THE CONCRETE.
12. MAXIMUM TOLERANCE FOR SLAB EDGES IS 1/2" +/- EXCEPT WHERE TIGHTER TOLERANCE IS REQUIRED FOR ARCHITECTURAL REASONS.
13. CONCRETE POURED WHEN AIR TEMPERATURES EXCEEDING 90 DEGREES F ARE EXPECTED SHALL BE CURED BY MOIST CURING METHODS INCLUDING COVERING WITH PLASTIC OR BURLAP AND KEPT MOIST FOR 7 DAYS MINIMUM. CONCRETE POURED DURING OTHER CONDITIONS SHALL BE CURED USING ONE OF THE APPLICABLE METHODS NOTED IN THE SPECIFICATIONS.
14. ALL WELDED WIRE FABRIC WITH WIRE LARGER THAN W2.0 SHALL BE PROVIDED IN SHEETS, ROLLS ARE NOT ACCEPTABLE. WELDED WIRE FABRIC WITH W2.0 AND SMALLER BARS MAY BE PROVIDED IN ROLLS OR SHEETS.
15. CONCRETE STRENGTH AT 28 DAYS:

ITEM	MINIMUM STRENGTH	AIR ENTRAINING	WATER REDUCING ADMIX REQ'D
REINFORCED FOOTING	3.0 KSI	NONE	WRA
REINFORCED WALLS, GRADE BEAMS & COLUMNS	4.0 KSI	5% AIR	WRA
INTERIOR SLAB ON GRADE	3.0 KSI	NONE	WRA
TYPICAL FLOOR SLAB (U.N.O.) ON STEEL DECK	3.0 KSI	NONE	WRA

WRA - INDICATES WATER REDUCING ADMIXTURE

16. PROVIDE FLEXIBLE PIPE OR OTHER METHOD TO POUR CONCRETE INSIDE HOLLOW STEEL COLUMN TO PREVENT DROPPING CONCRETE MORE THAN 6'-0".

E. MASONRY WALLS:

1. CONCRETE BLOCK SHALL CONFORM TO ASTM C-90, LIGHTWEIGHT TYPE I, MOISTURE CONTROLLED UNITS. ASSUMED DESIGN ULTIMATE COMPRESSIVE STRENGTH: fm' = 1,500 PSI.
2. MORTAR SHALL CONFORM TO ASTM C-270 TYPE S.
3. THE CONTRACTOR SHALL NOT PLACE LOADS ON BOND BEAMS OR MASONRY CELLS FILLED WITH GROUT UNTIL THE GROUT HAS CURED FOR A MINIMUM OF 3 DAYS.
4. FILL ALL BOND BEAMS AND MASONRY CELLS CONTAINING VERTICAL BARS (AS SHOWN ON CONTRACTOR'S SHOP DRAWINGS) WITH COARSE GROUT AS NOTED IN JOB SPECIFICATIONS. GROUT SLUMP SHALL BE IN THE RANGE OF 9" TO 11". GROUT SHALL BE CONSOLIDATED IN THE CELLS BY USE OF A MECHANICAL VIBRATOR. GROUT COMPRESSIVE MINIMUM STRENGTH AT 28 DAYS SHALL BE 2500 PSI.
5. CONTRACTOR SHALL PROTECT MASONRY STORED ON THE JOBSITE AND CONCRETE MASONRY WALLS UNDER CONSTRUCTION FROM RAIN AND OTHER FORMS OF MOISTURE.
6. PIPES, CONDUIT, AND OTHER ITEMS SHALL NOT BE PLACED IN MASONRY CELLS WITH VERTICAL OR HORIZONTAL REINFORCING.

F. STRUCTURAL STEEL:

1. THE DESIGN OF STRUCTURAL STEEL IS BASED ON THE AISC MANUAL OF STEEL CONSTRUCTION LOAD & RESISTANCE FACTOR DESIGN - 2ND EDITION.
2. ALL BEAMS AND GIRDERS SHALL CONFORM TO ASTM A992 OR A572 GRADE 50, Fy = 50 KSI. ALL PLATES SHALL CONFORM TO ASTM A-36 U.N.O., FY = 36 KSI, ALL MISCELLANEOUS STEEL SHALL BE ASTM A-36, FY = 36 KSI.
3. ALL COLUMNS SHALL CONFORM TO ASTM A992 OR A572 GRADE 50, FY = 50 KSI.
4. ALL TUBE MEMBERS SHALL CONFORM TO ASTM A-500 GRADE B, FY = 46 KSI.
5. ALL BOLTED CONNECTIONS FOR STRUCTURAL STEEL SHALL BE WITH 3/4" DIAMETER A325-SC LOAD INDICATOR BOLTS (SHOP AND FIELD), UNLESS NOTED OTHERWISE.
6. COLUMN ANCHOR BOLTS SHALL CONFORM TO ASTM A36 AND SHALL HAVE TWO HEAVY HEX NUTS EACH END UNLESS NOTED OTHERWISE. PLACE & SECURE ANCHOR BOLTS IN FOUNDATION MEMBER BEFORE CONCRETE IS POURED. DO NOT WAIT UNTIL CONCRETE IS POURED AND PLACE ANCHOR BOLTS IN WET CONCRETE.
7. CONNECTION DETAILING:
   a. DESIGN CONNECTIONS AS FOLLOWS:
      1) STEEL BEAM-TO-GIRDER CONNECTIONS SHALL BE TYPE SHOWN ON S501 AND SHALL BE DESIGNED FOR NUMBER OF BOLTS TO SUPPORT REACTIONS INDICATED.
      2) STEEL BEAM-TO-PRECAST CONCRETE COLUMN CONNECTIONS SHALL BE TYPE SHOWN ON S500
   b. STEEL BEAM TO COLUMN CONNECCTIONS SHALL BE BASED: USE MAXIMUM NUMBER OF BOLTS ALLOWED FOR GIVEN SECTION AS SHOWN ON 7/S501 OR ON UNIFORM LOAD CAPACITY SHOWN IN AISC "TABLE FOR ALLOWABLE LOADS ON BEAMS".
   c. CANTILEVERED BEAM CONNECTIONS SHALL DEVELOP CAPACITY OF THE BEAM BOTH IN SHEAR AND MOMENT.
   d. CONNECTION OF SECONDARY MEMBER (UNLESS SHOWN OTHERWISE) IN TENSION OR COMPRESSION SHALL DEVELOP CAPACITY OF MEMBER IN TENSION.
8. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE WITH AWS SPECIFICATIONS LATEST EDITIONS. WELDING SHALL BE INSPECTED AND TESTED AS NOTED IN THE SPECIFICATIONS. WELDING INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELDING INSPECTOR.
9. ALL WELDING ELECTRODES SHALL CONFORM TO AWS A5.1 GRADE E-70. BARE ELECTRODES AND GRANULAR FLUX SHALL CONFORM TO AWS A5.17, F-70, AWS FLUX CLASSIFICATION.
10. STRUCTURAL STEEL CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND COORDINATING ALL DIMENSIONS AND ELEVATIONS SHOWN ON STRUCTURAL DRAWINGS WITH ARCHITECTURAL DRAWINGS. IN CASE OF CONFLICTS, THE ARCHITECT/ENGINEER IS TO BE NOTIFIED AND WILL PROVIDE THE CONTRACTOR WITH CORRECT ELEVATIONS AND DIMENSIONS FOR WHICH THE CONTRACTOR IS RESPONSIBLE TO INCORPORATE ON THE ERECTION DRAWINGS AT NO EXTRA COST.
11. SPLICING OF STRUCTURAL STEEL MEMBERS WHERE NOT DETAILED IS PROHIBITED WITHOUT PRIOR APPROVAL. IF APPROVED, THE CONTRACTOR SHALL HAVE THE CONNECTION TESTED BY ULTRASONIC TESTING METHOD BY AN INDEPENDENT TESTING LAB.
12. FINAL BOLTING OR WELDING SHALL NOT BE PERFORMED UNTIL THE STRUCTURE HAS BEEN PROPERLY ALIGNED.
13. THE MINIMUM PLATE THICKNESS SHALL BE 1/4", THE MINIMUM BOLT DIAMETER SHALL BE 3/4", THE MINIMUM WELD SHALL HAVE A 1/4" THICK THROAT CONTINUOUS AND THE MINIMUM CONNECTION SHALL BE THREE BOLTS, U.N.O.
14. NO CHANGE IN SIZE OR POSITION OF THE STRUCTURAL ELEMENTS SHALL BE MADE: HOLES, SLOTS, CUTS, ETC., ARE NOT PERMITTED THROUGH ANY MEMBER UNLESS THEY ARE DETAILED ON THE APPROVED SHOP DRAWINGS.
15. ALL STEEL NOT REQUIRED TO BE SHOP PAINTED (SEE SPECIFICATIONS) SHALL BE CLEANED OF OIL, GREASE, DIRT, RUST, LOOSE MILL SCALE, ETC. AND ALL OTHER FOREIGN MATERIALS.
16. ALL 24" OUTSIDE DIAMETER ROUND HOLLOW TUBE COLUMNS SHALL CONFORM TO ASTM A252 GRADE 3 WITH MINIMUM 0.438 INCH WALL THICKNESS AND FY = 45KSI.

G. METAL DECKING, ROOF AND FLOORS, ETC.:

1. STEEL DECK:
   FLOOR DECK SHALL BE 2" GALVANIZED COMPOSITE STEEL DECK. SEE DRAWINGS FOR GAUGES. SEE SPECIFICATIONS FOR ANCHORAGE AND INSTALLATION.
2. CONTRACTOR SHALL PROVIDE SUPPORT FOR METAL DECK AROUND COLUMNS, SCREED PLATES AROUND THE OPENINGS, AND EDGE SLAB.
3. SUSPENDED CEILINGS, LIGHT FIXTURES, DUCTS, OR OTHER UTILITIES SHALL NOT BE SUPPORTED BY THE STEEL ROOF DECK.

H. ROUGH CARPENTRY:

1. ALL PLYWOOD SHALL BE STRUCTURAL 1 CONFORMING TO PRODUCT STANDARD PS 1 WITH EXTERIOR GLUE.
2. BOLT HOLES SHALL BE 1/16" LARGER THAN THE BOLT SIZE. RETIGHTEN ALL NUTS PRIOR TO CLOSING IN.
3. STANDARD CUT WASHERS SHALL BE USED UNDER HEAD AND NUTS AGAINST WOOD.
4. DO NOT NOTCH BOTTOMS OF WOOD MEMBERS, EXCEPT WHERE SHOWN IN DETAILS. OBTAIN A/E APPROVAL FOR ANY HOLES IN ALL WOOD MEMBERS EXCEPT AS NOTED BELOW.
5. ALL NAILS SHALL BE COMMON WIRE NAILS. WHERE DRIVING OF NAILS CAUSES SPLITTING, HOLES FOR THE NAILS SHALL BE SUB DRILLED. GALVANIZED NAILS SHALL BE USED FOR PLYWOOD ROOF SHEATHING AND WITH TREATED LUMBER AND PLYWOOD.
6. PROVIDE A MINIMUM 1/4" GAP BETWEEN ALL PLYWOOD ROOF SHEATHING.
7. ALL CONNECTORS, NAILS AND CONNECTION MATERIAL INCLUDING ANCHOR BOLTS, IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT-DIP GALVANIZED WITH A MINIMUM G185 COATING, TYPE 304 STAINLESS STEEL, OR TYPE 316 STAINLESS STEEL. DO NOT USE STAINLESS STEEL IN CONTACT WITH HOT-DIPPED GALVANIZED STEEL.

I. GLUE LAMINATED BEAMS

1. ALL MEMBERS SHALL BE MANUFACTURED IN ACCORDANCE WITH U.S. DEPARTMENT OF COMMERCE VOLUNTARY STANDARD PS 56-73, AITC STANDARD 117-79 AND OTHER APPLICABLE AITC STANDARDS.
2. GLUED LAMINATED WOOD BEAMS SHALL BE SOUTHERN PINE. SEE SPECIFICATIONS FOR MINIMUM ALLOWABLE DESIGN STRESSES. USE EXTERIOR TYPE ADHESIVES UNLESS OTHERWISE NOTED.
3. BEAMS SHALL BE ARCHITECTURAL APPEARANCE GRADE.
4. ALL LAMINATIONS FOR 'GLU-LAM' BEAMS SHALL BE 3/4" TO 1-1/2" THICK AND OF THE WIDTH SHOWN OR NOTED. ALL LAMINATIONS SHALL BE PARALLEL TO THE BOTTOM EDGE OF THE BEAM. IF BEAM SIZES VARY FROM DIMENSIONS GIVEN ON THE DRAWINGS CONTRACTOR SHALL COORDINATE SIZES (IF APPROVED) WITH THE FABRICATOR FOR THE CONNECTOR PLATES.
5. THE GLUED LAMINATED WOOD FABRICATOR SHALL FURNISH SHOP DRAWINGS FOR REVIEW BY THE ARCHITECT/ENGINEER BEFORE FABRICATION.

J. SOLID SAWN WOOD DECKING

1. SOLID SAWN WOOD DECKING SHALL BE #1 GRADE SOUTHERN YELLOW PINE KILN DRIED WITH A TONGUE AND GROOVE.
2. ANCHOR DECKING TO SUPPORTS WITH HOT-DIPPED GALVANIZED NAILS AT EACH SUPPORT. ANCHOR DECKING TO ADJACENT DECKING WITH ADHESIVE ALONG THE TONGUE AND MINIMUM 8d NAILS AT 2' ON CENTER.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 12969
JORDAN W. LANE

POLK STANLEY ROWLAND CURZON PORTER
ARCHITECTS, LTD.

700 SOUTH SCHILLER
LITTLE ROCK, AR 72201
501.378.0878 office
501.372.7629 fax

509 W. SPRING STREET, SUITE 150
FAYETTEVILLE, AR 72701
479.444.0473 office
473.251.7216 fax

www.polkstanley.com

CONSULTANTS:

CIVIL ENGINEER:
MCCLELLAND ENGINEERS

LANDSCAPE ARCHITECT:
LARSON BURNS SMITH

STRUCTURAL ENGINEER:
CROMWELL ENGINEERS INC.

MECH., ELEC., PLUMB ENGINEER:
CROMWELL ENGINEERS INC.

GLOBAL VILLAGE CONSULTANT
CAMBRIDGE SEVEN ASSOCIATES

INTERIOR DESIGNER:
POLK STANLEY ROWLAND CURZON PORTER ARCHITECTS

GENERAL CONTRACTOR:
CDI CONTRACTORS, INC.

NOTES:

ISSUE DATE:
17 SEPTEMBER 07

REVISIONS:

#	DATE:	DESCRIPTION:

MURPHY KELLER EDUCATION CENTER

HEIFER INTERNATIONAL CENTER

LITTLE ROCK, ARKANSAS

PSRCP JOB NUMBER:
431E

CONTENTS:
GENERAL NOTES

SHEET NUMBER:
S001