A. GENERAL

1. GENERAL CONTRACTORS SHALL VERIFY ALL GRADES, DIMENSIONS AND CONDITIONS AT THE JOB SITE WITH COMPLETE SET OF DRAWINGS PRIOR TO BIDDING AND COMMENCING CONSTRUCTION. THE ARCHITECT OR ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.
2. ALL MATERIALS AND WORK PERFORMED SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE 2007 CALIFORNIA BUILDING CODE AND ANY OTHER APPLICABLE CODES AND ORDINANCES.
3. THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE STRUCTURE SHOWN ON THESE DRAWINGS IS STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. GENERAL CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKMAN AND OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT TO BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT AND SHORING FOR THE STRUCTURE.
4. IN NO CASE SHALL DIMENSIONS BE SCALED FROM DRAWINGS AND/OR DETAILS. ANY DISCREPANCIES FOUND WITHIN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECTS AND THE ENGINEERS ATTENTION FOR CLARIFICATION PRIOR TO PROCEEDING. ANY WORK INSTALLED PRIOR TO AND/OR IN CONFLICT WITH SUCH CLARIFICATION SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE AND AT NO ADDITIONAL COST TO THE OWNER.
5. WHERE A DETAIL, SECTION OR A NOTE IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS UNLESS NOTED OTHERWISE.
6. GENERAL CONTRACTOR TO NOTIFY ARCHITECT AND ENGINEER AS TO ANY DISCREPANCIES BETWEEN SPECIFICATIONS, GENERAL NOTES, STRUCTURAL PLANS AND DETAILS.
7. ANY REFERENCES TO THE WORDS APPROVED, OR APPROVAL IN THESE DOCUMENTS SHALL BE HERE DEFINED TO MEAN GENERAL ACCEPTANCE OR REVIEW AND SHALL NOT RELIEVE THE CONTRACTOR AND/OR HIS SUBCONTRACTORS OF ANY LIABILITY IN FURNISHING THE REQUIRED MATERIALS OR LABOR SPECIFICATION.
8. ALL MATERIALS SHALL BE FURNISHED AS SHOWN HEREIN UNLESS ALTERNATES ARE APPROVED IN WRITING BY THE ARCHITECT, OWNER, AND STRUCTURAL ENGINEER OF THE RECORD.
9. CONNECTIONS OF ALL ITEMS SUPPORTED BY THE STRUCTURE ARE THE RESPONSIBILITY OF THE DISCIPLINES WHO MAKE THESE ATTACHMENTS. REVIEW AND COORDINATE ALL THE REQUIREMENTS AND THE ARCHITECTS PROJECT SPECIFICATIONS AS APPLICABLE.
10. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION AND COORDINATION WITH ARCHITECTURAL, CIVIL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SPRINKLER DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK, INCLUDING THAT OF ALL SUBTRADES.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER INDICATED ON CONTRACT DRAWINGS OR NOT, AND TO PROTECT THEM FROM DAMAGE. REPAIR AND REPLACE OF SAID WORK SHALL BE AT THE EXPENSE OF THE CONTRACTOR.
12. UNLESS NOTED, SUBMIT SHOP DRAWINGS FOR ALL FABRICATED MATERIALS. SHOP DRAWINGS WILL NOT BE REVIEWED UNLESS, THEY ARE APPROVED AND ACCEPTED WITH A STAMP FROM GENERAL CONTRACTOR AS CONFORMING TO THE CONSTRUCTION DOCUMENTS.
13. VIBRATIONAL EFFECTS OF MECHANICAL AND/OR ANY OTHER EQUIPMENT HAVE NOT BEEN CONSIDERED BY THE STRUCTURAL ENGINEER.
14. UNLESS NOTED OTHERWISE, ELEVATIONS SHOWN ON THE DRAWINGS ARE TO TOP OF BEAMS AND FOUNDATION.

B. DESIGN CRITERIA

1. CODE: 2007 CALIFORNIA BUILDING CODE
2. DESIGN LOADS:

A. ROOF LOAD
15 PSF ..... DEAD LOAD
16 PSF ..... DEAD LOAD (WITH SOLAR PANELS)
25 PSF ..... DEAD LOAD (CANOPIES WITH STUCCO CEILING FINISH, VERIFY LOCATIONS W/ARCH. DWG'S)
20 PSF ..... LIVE LOAD (REDUCIBLE)

B. WIND LOADS

BASIC WIND SPEED (3 SECOND GUST) = 95 mph
WIND LOAD IMPORTANCE FACTOR = 1.0
WIND EXPOSURE CATEGORY "C" FOR MAIN WINDFORCE-RESISTING SYSTEM
WIND EXPOSURE CATEGORY "C" FOR COMPONENTS AND CLADDING

C. EARTHQUAKE DESIGN DATA

SEISMIC IMPORTANCE FACTOR, I = 1.0
SEISMIC USE GROUP = I
MAPPED SPECTRAL RESPONSE ACCELERATIONS
Ss = 1.5g, S1 = 0.6g,
SITE CLASS = D
SITE COEFFICIENTS
Fa = 1.0, Fv = 1.5
CUMULATED SPECTRAL RESPONSE COEFFICIENTS
Sds = 1.0g, Sd1 = 0.6g
SEISMIC DESIGN CATEGORY = D

BASIC SEISMIC FORCE RESISTING SYSTEM: LIGHT-FRAMED SHEATHED WOOD PANELS

SEISMIC RESPONSE COEFFICIENT, Cs = 0.154

RESPONSE MODIFICATION FACTOR, R = 6.5

ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE ANALYSIS
DESIGN BASE SHEAR, V = Cs*W

C. FOUNDATION

1. FOUNDATION DESIGN IS BASED ON GEOTECHNICAL REPORT BY "SOUTHERN CALIFORNIA SOIL & TESTING REPORT DATED AUGUST 5, 2008, SCS&T # 0821025P.
2. ALL DESIGN PARAMETERS SHALL BE VERIFIED BY THE GEOTECHNICAL ENGINEER OF THE RECORD. DESIGN SOIL BEARING PRESSURE OF 2500 PSF AT A DEPTH OF 18" BELOW LOWEST ADJACENT COMPACTED SUBGRADE FOR CONTINUOUS FOOTINGS AND FOR ISOLATED PADS
3. SITE SHALL BE PREPARED IN COMPLIANCE WITH THE SOILS REPORT, AND WITH COORDINATION OF CONTRACT DOCUMENTS. THE MOST CONSERVATIVE RECOMMENDATIONS SHALL GOVERN.
4. THE GEOTECHNICAL REPORT IN ITS ENTIRETY SHALL BE MADE AS PART OF THE CONTRACT DOCUMENTS.
5. THE CONTRACTOR SHALL INFORM THE ARCHITECT AND ENGINEER OF LOCATION OF EXISTING UTILITIES AND COMMENCE WORK ONLY AFTER WRITTEN APPROVAL FROM THE ARCHITECT.
6. ALL FOUNDATION EXCAVATION, FILLING, BACK FILLING, AND BUILDING PADS SHALL BE INSPECTED AND APPROVED BY THE SOILS ENGINEER.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING NECESSARY TO SUPPORT CUT AND/OR FILL SECTIONS DURING EXCAVATION, AND FOR FORMING AND PLACEMENT OF CONCRETE.
8. BACK FILL AGAINST WALLS SHALL BE PLACED EVENLY AGAINST BOTH SIDES OF WALLS UNTIL THE LOWER GRADE IS REACHED.
9. ALL RETAINING WALLS HAVE BEEN DESIGNED AS A FREE DRAINING CONDITION. DESIGN FOR THE DRAINAGE SYSTEM SHALL BE BY OTHERS AND SHALL MEET THE REQUIREMENTS OF THE SOILS REPORT.
10. FOUNDATION WALLS THAT RETAIN EARTH SHALL BE BRACED AGAINST BACKFILLING PRESSURES UNTIL FLOOR SLABS AT TOP AND BOTTOM ARE IN PLACE.

D. REINFORCING STEEL

1. ALL REINFORCING STEEL NO. 4 OR LARGER SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615, GRADE 60 AND NO. 3 OR SMALLER, SHALL CONFORM TO ASTM A615, GRADE 40 U.N.O.. ALL REINFORCING SHALL BEAR MILL STOCK IDENTIFICATION.
2. CLEAR COVERAGE OF CONCRETE OVER OUTER REINFORCING BARS SHALL BE SHOWN IN DETAILS AND DETAILS.
3. BARS SHALL BE CLEAN OF RUST, MUD, OIL, GREASE OR OTHER COATING MATERIAL LIKELY TO IMPAIR BONDING.
4. GRADE 60 REINFORCING BARS SHALL NOT BE BENT WITHOUT THE APPROVAL OF THE ENGINEER.
5. ALL REINFORCEMENT MUST BE CONTINUOUS EXCEPT AS DETAILED. ALL SPLICE AND LAP LOCATIONS SHALL BE VERIFIED WITH THE ENGINEER.
6. ALL WELDED REINFORCING STEEL SHALL CONFORM TO ASTM A706, GRADE 60. REINFORCING STEEL WELDING SHALL CONFORM TO AWS D1.4. WELDING SHALL BE PERFORMED BY A CERTIFIED WELDER USING LOW HYDROGEN E70XX ELECTRODES. ALL FIELD WELDING SHALL BE CONTINUOUSLY INSPECTED BY A REGISTERED DEPUTY INSPECTOR. NO WELDING SHALL BE DONE AT THE BEND IN A BAR.
7. CONTRACTOR SHALL NOT PLACE ANY REINFORCING UNTIL SHOP DRAWINGS HAVE BEEN APPROVED.
8. WELDED WIRE MESH SHALL CONFORM TO ASTM A 185 GRADE 65 FOR PLAIN WIRE AND ASTM A 497 GRADE 75 FOR DEFORMED BAR.

E. STRUCTURAL STEEL

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST EDITION OF AISC MANUAL OF STEEL CONSTRUCTION AND SPECIFICATIONS.
2. MATERIALS:

* TUBE MEMBERS ..... ASTM A500, GRADE B (F_y=46 KSI)
* PIPE COLUMNS ..... ASTM A53, GRADE B
* SHAPES COLUMNS & BEAMS ..... ASTM A992 GRADE 50
* ANGLES, CHANNELS, PLATES & BARS ..... ASTM A36
* HIGH STRENGTH BOLTS ..... ASTM 325N OR A490
* SHEAR STUDS ..... ASTM A108 & A.W.S. D1.1 (F_y=65KSI)
* HEADED ANCHOR BOLTS ..... ASTM A307, GRADE "B"
* ANCHOR BOLTS & RODS ..... ASTM F1554, GRADE 36
* WASHERS ..... ASTM F436
* NUTS ..... ASTM A563
* THREADED RODS ..... ASTM A36

3. STRUCTURAL STEEL FABRICATORS (APPROVED BY BLD'G DEPT) SHALL FURNISH SHOP DRAWINGS OF ALL STEEL FOR REVIEW OF STRUCTURAL ENGINEER PRIOR TO FABRICATION.
4. EXCEPT WHERE ENCASED IN MASONRY, CONCRETE OR SPRAYED ON FIRE PROOFING, ALL STEEL SHALL RECEIVE ONE SHOP COAT OF RUST INHIBITIVE PRIMER.
5. HOLES SHALL NOT BE PLACED IN STEEL MEMBERS UNLESS SPECIFICALLY DETAILED ON DRAWINGS. STEEL MEMBERS SHALL BE SHORED WHEN PERMISSIBLE HOLES ARE CUT OR BURNED. BOLT HOLES SHALL CONFORM TO AISC SPECIFICATION, AND SHALL BE STANDARD HOLES UNLESS OTHERWISE NOTED.
6. ALL EXPOSED ENDS OF STEEL MEMBERS SHALL BE CAPPED WITH STEEL PLATE. $1/4"$ THICK WITH GROUND SMOOTH WELD.
7. STRUCTURAL STEEL SHALL BE DELIVERED TO THE JOB SITE FREE OF RUST, MILL SCALE, GREASE, ETC.
8. ALL FOREIGN BOLTS MUST BE APPROVED BY DEPARTMENT OF BUILDING AND SAFETY PRIOR TO THEIR USE.

F. WELDING

1. ALL WELDING SHALL CONFORM TO THE LATEST EDITION OF THE STRUCTURAL WELDING CODE ANSI/AWS D1.1-2000.
2. ALL WELDING SHALL BE PERFORMED USING THE SHIELDED METAL ARC WELDING PROCESS (SMAW) WITH E70XX ELECTRODES OR THE SUBMERGED ARC WELDING PROCESS (SAW) WITH E70XX. LOW HYDROGEN ELECTRODES SHALL BE USED AND PARENT METALS SHALL BE PREHEATED.
3. ALL WELDING SHALL BE PERFORMED BY A CERTIFIED WELDER. ALL FIELD WELDING SHALL BE CONTINUOUSLY INSPECTED BY A REGISTERED DEPUTY INSPECTOR. ALL FIELD WELDING MUST BE INDICATED ON SHOP DRAWINGS.
4. ALL EXPOSED WELDED CONNECTIONS SHALL BE FILLED AND GROUND SMOOTH AND SUBJECT TO ARCHITECTS APPROVAL.
5. ALL WELDS NOT SPECIFIED SHALL BE CONTINUOUS FILLET WELDS. SIZE OF WELDS SHALL BE BASED ON AISC STANDARDS FOR THICKER MATERIAL CONNECTED.

G. CONCRETE

1. ALL CONCRETE MATERIALS, CONSTRUCTION AND WORKMANSHIP SHALL CONFORM TO THE LATEST ADOPTED EDITION OF THE ACI CODE AND SPECIFICATION (ACI-318-05 & ACI-301) AND APPLICABLE CBC.
2. CONCRETE MIXES SHALL BE DESIGNED BY A RECOGNIZED TESTING LABORATORY AND COPIES OF DESIGN SHALL BE SUBMITTED TO THE ARCHITECT. FLASH IS NOT ALLOWED FOR SLAB-ON-GRADE.
3. THE CONCRETE SUPPLIER SHALL BEAR THE RESPONSIBILITY THAT THE MIX DESIGN WILL ATTAIN REQUIRED SPECIFIED STRENGTH AND SHRINKAGE CHARACTERISTICS. ACCEPTANCE OF MIX DESIGN SHALL BE BASE ONLY ON CONFORMANCE OF SPECIFIED DESIGN STRENGTH AND DESIGN SLUMP.
4. UNLESS NOTED CEMENT SHALL BE TYPE II IN CONFORMANCE WITH ASTM C-150, WITH MAXIMUM 8% OF TRICALCIUM ALUMINATE (CA3AL).
5. AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C-33. THE NOMINAL MAXIMUM SIZE OF THE AGGREGATES SHALL NOT EXCEED 1/3 SLAB THICKNESS, NOR $3/4"$ OF THE MINIMUM CLEAR SPACING BETWEEN REINFORCING BARES.
6. THE MAXIMUM SLUMP AT PLACEMENT SHALL NOT EXCEED 4 INCHES FOR ALL CONCRETE.
7. ADMIXTURES SHALL NOT BE USED WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.
8. UNLESS NOTED THE MAXIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS SHALL BE AS DESIGNATED BELOW;

SULFATE EXPOSURE	WATER SOLUBLE SULFATE (SO_4) IN SOIL, % OF WEIGHT	SULFATE (SO_4) IN WATER PPM	CEMENT TYPE	MAXIMUM WATER/ CEMENT RATIO	MIN. CONCRETE STRENGTH f'c, PSI FOUND.	ELEVATED SLAB	RETAINING WALLS	SLAB ON GRADE
NEGLIGIBLE	$0.00 \le S_{O_4} < 0.10$	$0 \le S_{O_4} < 150$	II	0.50	4000	4000	4000	4000
MODERATE	$0.10 \le S_{O_4} < 0.20$	$150 \le S_{O_4} < 1500$	II	0.50	4000	4000	4000	4000
~~SEVERE~~	~~$0.2 \le S_{O_4} < 2.00$~~	~~$1500 \le S_{O_4} < 10000$~~	~~V~~	~~0.45~~	~~4500~~	~~4500~~	~~4500~~	~~4500~~
~~VERY SEVERE~~	~~$S_{O_4} > 2.00$~~	~~$S_{O_4} > 10000$~~	~~V+ POZZOLAN~~ ***	~~0.45~~	~~4500~~	~~4500~~	~~4500~~	~~4500~~
MAXIMUM SIZE AGGREGATE					$1\frac{1}{2}"$	1"	1"	$1\frac{1}{2}"$

*** POZZOLAN THAT HAS BEEN DETERMINED BY TEST OR SERVICE RECORD TO IMPROVE SULFATE RESISTANCE WHEN USED IN CONCRETE CONTAINING TYPE V CEMENT.

GENERAL CONTRACTOR SHALL PROVIDE MIX DESIGN TO ADDRESS THE SULFATE CHARACTERISTICS OF THE ON-SITE SOIL, THE AGGREGATE BASE (PROVIDED BY THE CONTRACTOR) AND ALL SOILS, SUBBASE, AGGREGATE BASE, ETC. THAT WILL BE IN DIRECT CONTACT WITH THE CONCRETE. THE CONTRACTOR SHALL PROVIDE AN ANALYTICAL REPORT FROM A STATE CERTIFIED LABORATORY OF THE SULFATE CONTENT FOR ALL AGGREGATE BASE AND IMPORT SOILS PRIOR TO BEING DELIVERED TO THE PROJECT SITE AND INCLUDED IN THE BUILDING CONSTRUCTION. AGGREGATE BASE THAT IS IN DIRECT CONTACT WITH THE SLAB-ON-GRADE AND/OR FOUNDATIONS SHALL HAVE A SOLUBLE SULFATE CONTENT LESS THAN 150 PARTS PER MILLION (PPM).

9. CONCRETE CURING SHALL COMPLY WITH ACI 308.
10. ALL REINF. BARS, WIRE MESH, ANCHOR BOLTS, HOLD DOWN ANCHORS & OTHER CONCRETE INSERTS SHALL BE SECURED IN CORRECT PLACEMENT POSITION, & APPROVED BY THE BLDG. INSPECTOR PRIOR TO PLACING CONCRETE.
11. UNLESS NOTED MAXIMUM SPACING OF FLOOR CONTROL JOINTS FOR INTERIOR SLAB-ON-GRADE SHALL BE 12'-0" IN EACH DIRECTION. THE MAXIMUM RATIO OF LONG SIDE TO SHORT SIDE SHALL NOT EXCEED 1.5:1. SPACING OF CONTROL JOINTS SHOULD BE REDUCED AT HOT AND/OR DRY WEATHER CONDITIONS. FOR ADDITIONAL REQ'S SEE ARCH. SLAB PLAN. CONTRACTOR SHALL SUBMIT LAYOUT OF CONTROL JOINTS TO ARCHITECT AND ENGINEER BEFORE WORK COMMENCES.
12. PIPES, DUCTS, CONDUITS, ETC. SHALL NOT BE PLACED IN SLABS UNLESS APPROVED BY THE ENGINEER. AS A GUIDE, MATERIAL SIZE (O.D.) SHALL NOT EXCEED 0.5 SLAB THICKNESS AND SHALL BE LOCATED IN THE MIDDLE 1/3 OF THE SLAB. CLEAR SPACING BETWEEN ADJACENT CONDUITS OR PIPES SHALL BE A MINIMUM OF 2 TIMES THE LARGER (O.D.) MATERIAL SIZE.
13. CONTRACTOR SHALL SUBMIT CONSTRUCTION JOINT LAYOUT DRAWINGS TO THE ARCHITECT AND ENGINEER FOR REVIEW AND APPROVAL PRIOR TO COMMENCEMENT.
14. REFER TO ARCHITECTURAL DRAWINGS FOR MOLDS, GROOVES, ACCESSORIES, LOCATION OF FLOOR, SLAB DEPRESSIONS, SIDEWALKS AND EXTERIOR SLAB.
15. A QUALIFIED GEOTECHNICAL ENGINEER SHALL CERTIFY THE PAD PRIOR TO SLAB POUR. IF WEATHER CONDITIONS CHANGE RE-CERTIFICATION IS REQUIRED. FOR FINISHES OF SLAB SEE ARCHITECTURAL DRAWINGS. SLAB WITH CRACKS WILL NOT BE ACCEPTED. SLAB REPLACEMENT SHALL BE AT OPTION OF OWNER AT CONTRACTOR'S EXPENSE.

H. WOOD FRAMING

1. ALL FRAMING SHALL CONFORM TO THE GRADES AS SET BY THE W.C.L.I.B. OR W.W.P.A. LATEST 2006 INTERNATIONAL BUILDING CODE AND NATIONAL DESIGN SPECIFICATION (N.D.S.) ALL LUMBER SHALL BEAR THE GRADE STAMP OF AN APPROVED TESTING AGENCY, EXCEPT EXPOSED LUMBER AT VISIBLE AREAS.
2. UNLESS NOTED OTHERWISE, FRAMING LUMBER SHALL BE DOUGLAS FIR-LARCH.
   - 2.1 STUDS 2" THICK. 4" WIDE AND LARGER ..... NO. 2
   - 2.2 NAILERS, TOP PLATES, & LEDGERS ..... NO. 2
   - 2.3 SUBPURLINS, BEAMS, STRINGERS, HEADERS 4" AND THICKER, 6" AND WIDER ..... NO. 1
   - 2.4 POSTS AND COLUMNS 4x4 AND LARGER ..... NO. 1
   - 2.5 STRUCTURAL JOISTS AND PLANKS 2" TO 4" THICK, 6" AND WIDER ..... NO. 1
   - 2.6 TYPICALLY OTHER LUMBER UNLESS NOTED OTHERWISE SHALL BE ..... NO. 1
   - 2.7 BLOCKING ..... NO. 2
   - 2.7A BLOCKING AT ROOF LINE ..... NO. 1
3. PLYWOOD SHEATHING SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF U.S. PRODUCT STANDARDS 1-07. STRUCTURAL USE PANELS SHALL CONFORM TO NER-108 (APA-PRP-108). EACH PANEL SHALL BE IDENTIFIED BEARING THE APPROPRIATE A.P.A. GRADE STAMP.
4. ROOF SHEATHINGS SHALL BE FIVE PLY WITH THICKNESS AND PANEL INDEX AS INDICATED ON DRAWINGS. STAGGER SHEETS PER PLAN. ROOF NAILING SHALL BE PER SCHEDULE ON DRAWINGS, OR AS INDICATED ON NOTES. INSTALL SHEETS WITH FACE GRAIN ACROSS SUPPORTS EXCEPT WHERE NOTED OTHERWISE.
5. ROOF SHEATHING, AND SHEAR WALL PANELS NAILING AND INSTILLATION SHALL BE INSPECTED AND APPROVED BY THE BUILDING DEPARTMENT PRIOR TO COVERING.
6. STRUCTURAL MEMBERS SHALL NOT BE CUT FOR PIPES, CONDUIT, ETC. UNLESS SPECIFICALLY DETAILED ON DRAWINGS.
7. FOR NAILING SCHEDULE COMPLY WITH 2006 INTERNATIONAL BUILDING CODE AMMENDMENTS TO IBC 2006 AND CITY OF NORTH LAS VEGAS. TABLE 2304.9.1
8. ALL NAILS SHALL BE COMMON NAILS IN COMPLIANCE WITH FEDERAL SPECIFICATIONS FF-N-105B. SINKERS SHALL NOT BE ALLOWED UNLESS APPROVED BY THE ENGINEER. ALL NAILS EXPOSED TO WEATHER, HEAT AND/OR MOISTURE SHALL BE GALVANIZED.
9. ALL WOOD IN CONTACT WITH THE GROUND, MASONRY, OR CONCRETE WITHIN 48 INCHES OF THE GROUND SHALL BE PRESSURE TREATED.
10. ALL FRAMING HARDWARE SHALL BE MANUFACTURED BY "SIMPSON STRONG TIE" COMPANY, INC., OR APPROVED EQUAL WITH VALID & CURRENT I.C.B.O. & LARR REPORT. ALL CONNECTIONS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION AND SPECIFICATION TO DEVELOP THE MAXIMUM CAPACITY.
11. LAG SCREWS SHALL CONFORM TO A.N.S.I. B.18.
12. BOLTS SHALL CONFORM TO ASTM A307. ALL BOLTS THROUGH WOOD SHALL HAVE STANDARD WASHERS U.N.O. BOLT HOLES SHALL BE BORED $1/32"$ TO $1/16"$ LARGER THAN THE BOLT DIAMETER UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE TIGHTENED PRIOR TO BEING COVERED.
13. SILL PLATES SHALL BE BOLTED TO FOUNDATIONS WITH $5/8"$ DIAMETER x10" LONG ANCHOR BOLTS AT 4'-0" O.C. (UNLESS NOTED OTHERWISE), EMBEDDED 7 INCHES MINIMUM IN CONCRETE. BOLTS SHALL HAVE $1\frac{5}{8}"$ WASHER NUTS. MINIMUM 2 BOLTS PER PLATE. ONE BOLT WITHIN 12 INCHES OF PLATE END CORNERS.
14. PROVIDE BOUNDARY NAILING OF PLYWOOD DIAPHRAGM PER SCHEDULE AT ALL ROOF OPENINGS.
15. PROVIDE 2x SOLID BLOCKING AT ALL JOIST AND RAFTER BEARING LOCATION.
16. A DOUBLE TOP PLATE MADE OF TWO MEMBERS OF THE SAME SIZE AS THE STUDS SHALL BE PLACED AT THE TOP OF EVERY BEARING PARTITION OR EXTERIOR WALL. SUCH DOUBLE PLATES SHALL BE LAPPED AT CORNERS. JOINTS IN UPPER AND LOWER MEMBERS SHALL BE AT LEAST FOUR FEET APART. EXCEPT AT CORNERS. USE 10-16d NAILS MINIMUM ON EACH SIDE OF EACH SPLICE UNLESS NOTED OTHERWISE.
17. FASTENERS IN PRESERVATIVE-TREATED WOOD SHALL BE APPROVED SILICON BRONZE OR COPPER, STAINLESS STEEL OR HOT-DIPPED ZINC-COATED STEEL.
    - i. EXCEPTION: WHERE APPROVED, FASTENERS USED IN CONTACT WITH PRESERVATIVE-TREATED WOOD PRODUCTS WHEN NOT BELOW GRADE OR EXPOSED TO WEATHER (I.E. INTERIOR WALL CONSTRUCTION IN A CONDITIONED ENVIRONMENT).
    - ii. ALTERNATE MATERIAL AND METHODS MUST BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE PER IBC 104.2.8 AND THE CITY OF NORTH LAS VEGAS.

J. MASONRY

1. CONCRETE MASONRY UNITS (HOLLOW UNITS) SHALL BE GRADE "N", MEDIUM WEIGHT, (MAXIMUM DENSITY 115 PCF) CONFORMING TO ASTM C90 AND CBC STANDARD, MINIMUM ULTIMATE STRENGTH OF BLOCK SHALL BE 1900 PSI. SEE ARCHITECTURAL FOR TYPE, PATTERN AND JOINT DETAILS. ALL UNITS BELOW ROUGH GRADE OR IN CONTACT WITH SOIL SHALL BE NORMAL WEIGHT.
2. GROUT SHALL BE COARSE GROUT (PEA GRAVEL) WITH COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS MAXIMUM DENSITY SHALL BE 140 PCF. GROUT WITHIN $1\frac{1}{2}$ HOURS FROM INTRODUCING WATER INTO THE MIXTURE. ANY ADMIXTURES CONTAINING CHLORIDES SHALL NOT BE USED IN MORTAR OR IN GROUT
3. MORTAR SHALL BE 1800 PSI IN 28 DAYS.TYPE "S" AS DEFINED IN TABLE 21A-A OF THE 2007 CALIFORNIA BUILDING CODE AND CONFORMING TO ASTM C270
4. MINIMUM SPECIFIED STRENGTH OF THE MASONRY ASSEMBLAGE "f'm" SHALL BE 1500 PSI.
5. UNLESS NOTED, LAY MASONRY IN RUNNING BOND. USE CLOSED END UNITS AT CORNERS.
6. GROUTING PROCEDURE FOR LIFTS EXCEEDING FOUR FEET: PROVIDE CLEAN OUT OPENINGS AT THE BOTTOM OF THE LIFT IN EVERY CELL TO BE FILLED. LIFT NOT TO EXCEED 8'-0".
7. ALL CELLS SHALL BE GROUTED SOLID. HOLD TOP OF EACH GROUT 2" DOWN BELOW TOP OF BLOCK.
8. CONTINUOUS INSPECTION OF WORK INVOLVING MASONRY IS REQUIRED, UNLESS NOTED OTHERWISE.
9. PROVIDE OPEN END BLOCKS FOR CONTINUOUS VERTICAL BARS.
10. CONTRACTOR SHALL ADEQUATELY BRACE ALL MASONRY WALLS DURING ERECTION AND NOT REMOVE THESE MEMBERS UNTIL DESIGN LATERAL SUPPORT IS ADEQUATELY IN PLACE
11. PROVIDE 2-#5 VERTICAL BARS AND ALL ENDS, CORNERS, JAMBS AND INTERSECTIONS OF ALL MASONRY WALLS UNLESS NOTED OTHERWISE HORIZONTAL BEAMS, BOND BEAMS AND REINFORCING SHALL BE DISCONTINUOUS AT CONTROL JOINTS
12. PROVIDE MASONRY PRISM TESTING IN ACCORDANCE WITH CBC STANDARDS.
13. CONCRETE MASONRY UNITS SHALL NOT BE WETTED UNLESS SPECIFICALLY APPROVED.
14. UNLESS NOTED. VERTICAL AND HORIZONTAL REINFORCING. TIES AND EMBEDDED ITEMS SHALL BE IN PLACE PRIOR TO GROUTING. UNLESS NOTED, VERTICAL AND HORIZONTAL REINFORCING LAP SPLICE SHALL BE 48 BAR DIAMETERS, BUT NOT LESS THAN 12" USE POSITIONERS TO HOLD VERTICAL REINFORCING IN PLACE. SPACING OF POSITIONERS SHALL NOT EXCEED 200 BAR DIAMETERS NOR 10 FEET LOCATE 8" MAX. ABOVE TOP OF GROUT LEFT, TYPICALLY

K. COLD-FORMED STEEL FRAMING

1. ALL METAL FRAMING MEMBERS TO COMPLY WITH ASTM STANDARDS, SPECIFICATIONS, AND ICC ESR-4943P* BY SSMA (STEEL STUD MANUFACTURERS ASSOCIATION).
2. ALL METAL FRAMING AND THEIR CONNECTIONS NOT SPECIFIED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED BY THE CONTRACTOR.
3. DESIGN SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES, INCLUDING: 2007 CBC, 2006 IBC, AISC, ANSI AND AWS.
4. LATERAL LOAD CRITERIA - SEE SECTION "B"
5. DESIGN SHALL ALLOW FOR LATERAL DEFLECTIONS DUE TO SEISMIC FORCES PER CBC 2007 AND ASCE 7-05.
6. CONTRACTOR SHALL COORDINATE THE CONNECTION OF WINDOW AND DOOR SYSTEMS AND OTHER ARCHITECTURAL ITEMS TO METAL FRAMING MEMBERS.
7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS SIGNED BY A REGISTERED CIVIL OR STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL BY THE BUILDING OFFICIAL AND THE ARCHITECT.
8. SIZES OF METAL FRAMING SHALL COMPLY WITH THE STRUCTURAL AND ARCHITECTURAL DRAWINGS.
9. EXTERIOR METAL FRAMING AND MEMBERS IN CONTACT WITH CONCRETE AND/OR MASONRY SHALL HAVE A G60 GALVANIZED COATING PER ASTM A1003-08. ALL OTHER METAL FRAMING SHALL HAVE G40 MINIMUM OR EQUIVALENT COATING.
10. METAL FRAMING CALLED OUT ON THE STRUCTURAL DRAWINGS BY SIZE AND GAUGE SHALL BE FURNISHED BY SSMA (METAL STUD MANUFACTURERS ASSOCIATION).
11. ALL STUDS AND TRACK MATERIAL TO COMPLY WITH ASTM A653 SS GRADE 33 OR ASTM A1011 SS GRADE 33 FOR THICKNESS 18GA AND LIGHTER AND ASTM A653 SS GRADE 50 CLASS 1 OR 3 OR ASTM A1011 SS GRADE 50 FOR THICKNESS 16GA AND HEAVIER.
12. FASTENERS FOR CONNECTING METAL FRAMING MEMBERS TO COMPLY WITH ASTM C1513-04 AND SHALL BE #10-16x$5/8"$ PAN HEAD SELF DRILLING AND TAPPING SHEET METAL SCREWS U.N.O. ON THE STRUCTURAL DRAWINGS.

L. WOOD TRUSSES/JOISTS

1. ALL WOOD TRUSSES SHALL BE DESIGNED AND MANUFACTURED BY A LICENSED MANUFACTURER APPROVED BY THE BUILDING DEPARTMENT IN CONFORMANCE WITH CBC SECTION 1701.2
2. TRUSS MANUFACTURER SHALL PROVIDE THE FOLLOWING AS A MINIMUM: DESIGN AND FABRICATION DATA, LUMBER SPECIFICATION, SPAN OF TRUSSES, SPACING OF TRUSSES, ANY STRESS INCREASES, METAL CONNECTORS, THEIR GAUGE, SIZE, THICKNESS AND STRESSES, FORCES, JOINT DEFLECTIONS AND CONFIGURATION.
3. THE ENGINEERED TRUSS DESIGN IS THE SOLE RESPONSIBILITY OF THE MANUFACTURER. TRUSS MANUFACTURER SHALL PROVIDE SHOP DRAWINGS AND CALCULATIONS SIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE WHERE PROJECT IS LOCATED
4. THE ENGINEER OF RECORD, ARCHITECT, GENERAL CONTRACTOR & BUILDING DEPARTMENT SHALL REVIEW AND APPROVE TRUSS SHOP DRAWINGS PRIOR TO FABRICATION. CONTRACTOR SHALL HAVE BUILDING DEPARTMENT APPROVED TRUSS PLANS ON THE JOB SITE PRIOR TO FOUNDATION INSPECTION
5. HANGERS SHALL BE FABRICATED AND COMPLY TO AN APPROVED CURRENT I.C.C. REPORT. SUBMIT I.C.C. REPORT FOR REVIEW WITH TRUSS SHOP DRAWINGS. PROVIDE CALCULATIONS AND DESIGN OF HANGERS AS REQUIRED FOR MULTIPLE TRUSS CONDITIONS INDICATED ON THE DRAWINGS OR WHERE REQUIRED BY TRUSS MANUFACTURER.
6. ROOF TRUSSES SHALL BE DESIGNED FOR ALL APPLICABLE LOADS PER CODE AND AS SHOWN ON THE DRAWINGS. MANUFACTURER SHALL DESIGN TRUSSES FOR UNIFORM LOADS, TRIANGULAR LOADS AND ANY ADDITIONAL CONCENTRATED LOADS, AXIAL LOADS, AND BENDING LOADS NOTED OR INDICATED (IF APPLICABLE) ON ALL DRAWINGS (ARCHITECTURAL, MECHANICAL, SPRINKLER AND ELECTRICAL). ALIGN PANEL POINTS TO TO FACILITATE DUCT PASSAGE WHERE REQUIRED BY THE ARCHITECT OR MECHANICAL ENGINEER.
7. DO NOT HANG, OR SUPPORT ANY LOADS FROM BOTTOM CHORD UNLESS SPECIFICALLY NOTED OR DETAILED ON THE STRUCTURAL DRAWINGS.
8. TOP CHORD MEMBERS OF TRUSSES SHALL BE DOUGLAS FIR OR BETTER. CONNECTOR PLATES (IF APPLICABLE) SHAL