

GENERAL NOTES

1. DESIGN CRITERIA

A. CODE: INTERNATIONAL BUILDING CODE, 2012 EDITION W/ 2014 GEORGIA AMENDMENTS

B. DESIGN LOADS:	
ROOF DEAD LOAD	20 PSF
ROOF LIVE LOAD	20 PSF
MECHANICAL ROOF AREA LIVE LOAD (UNREDUCIBLE)	30 PSF
GROUND SNOW LOAD	5 PSF
UNIT FLOOR DEAD LOAD	35 PSF
ADDITIONAL UNIT MECHANICAL EQUIPMENT ROOM LOAD	50 PSF
UNIT FLOOR DEAD LOAD W/ HANOVER PAVERS	50 PSF
UNIT FLOOR LIVE LOAD	40 PSF
CORRIDOR DEAD LOAD	35 PSF
CORRIDORS SERVING UNITS LIVE LOAD	40 PSF
CORRIDORS SERVING ASSEMBLY LIVE LOAD	100 PSF
ASSEMBLY LIVE LOAD	100 PSF
BALCONY DEAD LOAD	35 PSF
BALCONY LIVE LOAD	40 PSF
STAIR LIVE LOAD	100 PSF
STORAGE AREAS LIVE LOAD	125 PSF

C. WIND DESIGN CRITERIA:	
WIND SPEED (ULTIMATE)	115 MPH
EXPOSURE CATEGORY	EXP "B"
ENCLOSURE CATEGORY	I (1.0)
BUILDING RISK CATEGORY	I (1.0)
GUST RESPONSE FACTOR	0.85
INTERNAL PRESSURE COEFFICIENT	+/- 0.18

D. SEISMIC DESIGN CRITERIA:	
SHORT PERIOD, SDS	0.213g
1 SEC. PERIOD, SD1	0.148g
SEISMIC DESIGN CATEGORY	C
SEISMIC USE GROUP	1
SITE CLASS	D
R (LIGHT FRAMED WALLS W/ WOOD STRUCTURAL PANEL)	6.5
C2 (LIGHT FRAMED WALLS W/ WOOD STRUCTURAL PANEL)	4.0
BASIC STRUCTURAL AND SEISMIC RESISTING SYSTEM:	
1. EQUIVALENT LATERAL FORCE PROCEDURE, LIGHT FRAMED WALLS W/ WOOD STRUCTURAL PANELS	
BUILDING BASE SHEARS:	
BUILDING 1	227.2 kips
BUILDING 2	98.9 kips
BUILDING 3	29.2 kips
BUILDING 4	75.0 kips

2. GENERAL

A. THE FOLLOWING SPECIFICATIONS ARE AN OUTLINE OF MINIMUM MATERIAL REQUIREMENTS AND THEIR APPLICATION. MANUFACTURER SPECIFICATION AND LOCAL CODE REQUIREMENTS, WHEN IN EXCESS OF MINIMUM SPECIFICATION, SHALL CONTROL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW AND SUBMIT ALL SHOP DRAWINGS AND REPORT ALL DOCUMENT DISCREPANCIES TO THE STRUCTURAL ENGINEER PRIOR TO FABRICATION OR ERECTION.

B. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION, AND THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.

C. ALL DIMENSIONS TO TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS AND DETAILS.

D. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.

E. WHERE A SECTION IS CUT ON THE DRAWINGS, IT SHALL APPLY AT ALL LIKE OR SIMILAR CONDITIONS U.N.O.

F. SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:

- SIZE & LOCATION OF ALL DOOR & WINDOW OPENINGS
- SIZE & LOCATION OF ALL ROOF OPENINGS.
- FLOOR AND ROOF FINISHES.
- DETAILS OF VENEER ATTACHMENT.
- LOCN & EXTENT OF INSULATION.

G. SEE MECHANICAL, PLUMBING, ELECTRICAL AND CIVIL DRAWINGS FOR THE FOLLOWING INFORMATION:

- PIPE RUNS, SLEEVES, HANGERS, TRENCHES, WALL AND SLAB OPENINGS, ETC.
- ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS.
- CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES.
- UNDERGROUND CONCRETE DUCTS, TRENCHES, PITS OR MANHOLES.
- CONCRETE AND ASPHALT PAVEMENT

H. THE CONTRACT STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE, UNLESS OTHERWISE INDICATED. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR ALL MEANS AND METHODS OF CONSTRUCTION AND SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE - WORKMEN OR OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO: BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, SHORING FOR EARTH BANKS, FORMS, SCAFFOLDING, PLANKING, SAFETY NETS, SUPPORT AND BRACING FOR CRANES, ETC. MODIFICATION OR SUBSTITUTION MUST BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

J. ALL CONNECTOR TYPES REFER TO SIMPSON STRONG-TIE SPECIFICATIONS. ANY CHANGE, MODIFICATION OR SUBSTITUTION MUST BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

3. CONCRETE

A. CONCRETE PROTECTION FOR REINFORCEMENT OF POURED-IN-PLACE MEMBERS: (SEE SECTION 7.7 ACI 318 LATEST EDITION).

B. PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE I.

C. REFER TO ARCHITECTURAL DRAWINGS FOR CLIPS, GROOVES, GROUNDS, ETC., TO BE CAST IN CONCRETE AND CONCRETE FINISHES.

D. ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE SECURED IN POSITION PRIOR TO PLACING CONCRETE.

E. SLEEVE PLUMBING OPENINGS IN SLABS BEFORE PLACING CONCRETE AND BEND REINFORCING AROUND SLEEVES. CORING NOT PERMITTED IN FLOOR SLABS, UNLESS APPROVED BY STRUCTURAL ENGINEER.

F. ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE AS FOLLOWS:
FOOTINGS/ GRADE BEAMS/ PILE CAPS/ TIE BEAMS 3000 PSI
SLAB ON GRADE 3000 PSI
PLASTERS, COLUMNS, BASEMENT & CANTILEVERED RETAINING WALLS & RETAINING WALL FOOTINGS 4000 PSI

G. CONCRETE SLUMP SHALL BE 3" TO 5" AT TIME OF PLACEMENT.

H. CONCRETE MIX DESIGNS SHALL BE ESTABLISHED BY THE SUPPLIER IN ACCORDANCE WITH ACI 318-08. MIX DESIGNS SHALL BE SUBMITTED WITH BACK-UP DATA PER ACI 318-08 TO THE ARCHITECT FOR REVIEW PRIOR TO CONCRETE PLACEMENT.

J. ALL CONCRETE EXPOSED TO THE WEATHER SHALL CONTAIN 5 TO 7% ENTRAINED AIR.

K. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318, ACI 318.1 & ACI 301. CONCRETE TEST REPORTS SHALL BE AVAILABLE AT JOB SITE.

L. LIGHTWEIGHT CONCRETE IS DEFINED AS CONTAINING LIGHTWEIGHT AGGREGATE AND HAVING A MAXIMUM EQUILIBRIUM DENSITY OF 115 PCF.

4. REINFORCING STEEL

A. REINFORCING BARS SHALL BE DEFORMED BARS CONFORMING TO ASTM A-615, GRADE 60.

B. CLEAR COVERAGE OF CONCRETE OVER OUTER REINFORCING BARS SHALL BE IN ACCORDANCE WITH ACI 318-08, SECTION 7.7 UNLESS SPECIFICALLY DETAILED OTHERWISE ON THE DRAWINGS.

C. ALL REINFORCING BAR BENDS TO BE MADE COLD.

D. CONTRACTORS SHALL NOT PLACE ANY REINFORCING UNTIL APPROVED SHOP DRAWINGS ARE RECEIVED ON THE JOB.

E. BARS SHALL BE IN CONTACT WHEN FORMING A LAP SPICE, UNLESS NOTED OTHERWISE.

F. PROVIDE CORNER BARS @ ALL TURN-DOWN SLAB CORNERS AND C.I.P. CONCRETE WALL CORNERS. PROVIDE 30" LAP BETWEEN CORNER BARS AND MAIN REINFORCING.

G. WELDED WIRE FABRIC SHALL CONFORM TO ASTM-A185.

H. REINFORCING STEEL MARKED "CONTINUOUS" SHALL BE LAPPED W/ CLASS "B" LAP SPICE UNLESS SPECIFICALLY DETAILED OTHERWISE. LAP WELDED WIRE MESH ONE FULL MESH AT SIDE AND END LAPS.

5. FOUNDATION

A. FOUNDATION DESIGN IS BASED ON "GEO-TECHNICAL EXPLORATION, CIRCLE 75 MULTIMULTY DEVELOPMENT, PHASE II CIRCLE 75 PARKWAY AND CRESCENT STAMP DRIVE, COBB COUNTY, GEORGIA" PERFORMED BY UNITED CONSULTING AND DATED JULY 28, 2015 PROJ. NUMBER 2013.3927.02. FOUNDATION DESIGN IS BASED ON AN ALLOWABLE SOIL BEARING PRESSURE OF 3,000 PSF.

B. CONTRACTOR TO PROVIDE FOR DE-WATERING IN EXCAVATIONS FROM EITHER SURFACE WATER, GROUND WATER OR SEEPAGE.

C. CONTRACTOR SHALL PROVIDE AND INSTALL ALL CRIBBING, SHEATHING AND SHORING REQUIRED TO SAFELY RETAIN THE EARTH BANKS.

D. CONTRACTOR SHALL PROTECT ALL UTILITY LINES, ETC. ENCOUNTERED DURING EXCAVATION AND BACKFILLING.

E. ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED, BUT NOT BEFORE CONCRETE HAS ATTAINED FULL DESIGN STRENGTH.

F. ALL NON-CANTILEVER BASEMENT WALL AND FOUNDATION WALLS SHALL BE Laterally SHORED UNTIL SLAB ON GRADE AT TOP OF WALL HAS BEEN PLACED & GAINED 75% DESIGN STRENGTH.

G. CONTRACTOR SHALL OBTAIN A COPY OF THE ABOVE REFERENCED SOILS REPORT AND COMPLY WITH ITS RECOMMENDATIONS.

H. FOUNDATION WALLS, RETAINING WALLS & BASEMENT WALLS HAVE NOT BEEN DESIGNED FOR CONSTRUCTION EQUIPMENT SURCHARGE, WHERE CONSTRUCTION EQUIP. SURCHARGES WALLS, WALLS SHALL BE SHORED AS REQUIRED.

J. THE SOILS ENGINEER OF RECORD SHALL CERTIFY IN WRITING THAT ALL FOUNDATIONS WERE PLACED AND COMPLETED AS REQUIRED.

K. UNDER SLAB DRAINAGE SYSTEMS, IF REQUIRED, ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS. DRAINAGE SYSTEMS SHALL BE PROVIDED AS DETERMINED AND RECOMMENDED BY THE GEO-TECHNICAL ENGINEER OF RECORD.

L. RETAINING WALL DRAINAGE SYSTEMS ARE NOT SHOWN ON THE STRUCTURAL DWGS. SEE ARCH & CIVIL DWGS FOR DRAINAGE SYSTEM INFO.

M. RETAINING WALL DRAINAGE SYSTEMS ARE NOT SHOWN ON THE STRUCTURAL DWGS. SEE ARCH & CIVIL DWGS FOR DRAINAGE SYSTEM INFO.

6. SOLID SAWN & LAMINATED LUMBER

A. ALL LUMBER SHALL BE VISUALLY GRADED, SOUTHERN PINE DIMENSION LUMBER, SEASONED AND WITH 19 % MAX. MOISTURE CONTENT, U.N.O., AND IN ACCORDANCE WITH THE FOLLOWING MINIMUM GRADE REQUIREMENTS:
STUDS SEE STUD SCHEDULE
JOISTS STRUCT. GRADE NO. 2
BEAMS (2"-4" THICK) STRUCT. GRADE NO. 2
POSTS STRUCT. GRADE NO. 2
PLATE STOCK STRUCT. GRADE NO. 3

B. GRADES SHALL BE DETERMINED IN ACCORDANCE WITH SPIB GRADING RULES AGENCY.

C. BRACE STUD WALLS UNTIL ALL PLYWOOD DECKING, ROOF TRUSSES, AND SHEAR PANELS ARE IN PLACE

D. USE PRESSURE TREATED WOOD WITH ALKALINE COPPER QUAT (ACQ) OR COPPER AZOLE (CBA) FOR ALL EXPOSED LUMBER AND WITH ACQ, CBA OR SODIUM BORATES (SBX FOR SILL PLATES IN CONTACT WITH CONCRETE. ALL FASTENERS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT-DIP GALVANIZED PER ASTM A153. ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT-DIP GALVANIZED PER ASTM A653 AND MADE FROM CLASS S155 SHEET WITH 1.85 OUNCES MINIMUM OF ZINC COATING PER SQUARE FOOT.

E. ALL SILL PLATES SHALL BE ANCHORED TO MASONRY OR CONCRETE FOUNDATIONS WITH 3/8" A307 GRADE A 8" @ 48" O.C. MAX. WITH 7 MIN. EMBEDMENT (U.N.O.). SEE NOTE 6-D FOR ADO'L REQ'S. EXCEPTION: INTERIOR SILL PLATES MAY BE ANCHORED WITH HLTI D5 72 P10 POWDER ACTUATED FASTENERS @ 18" O.C. MAX. PROVIDE PINS AT 6" AND 10" FROM ENDS OF PLATE WITH 2 PINS MIN. IN ANY PLATE. SEE NOTE 6-F FOR ADO'L REQ'S.

F. HANDRAILS, GUARDRAILS AND STAIRWAYS INCLUDING ALL COMPONENTS AND THEIR CONNECTIONS SHALL BE DESIGNED BY THE SUPPLIER IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE.

G. INSTALL BEAMS WITH CROWN UP.

H. ALL LVL MEMBERS SHALL BE (MIN.): Fb=2600 psi., Fv=285 psi. & E=1,900,000 psi.

J. ALL PSL COLUMNS SHALL BE (MIN.): Fb=2400 psi., Fv=190 psi. & E=1,800,000 psi. ALL PSL BEAMS SHALL BE (MIN.): Fb=2900 psi., Fv=290 psi. & E=2,000,000 psi.

K. THE NUMBER OF WALL STUDS AT BEARING POINTS OF 2X MEMBER BEAMS SHALL MATCH THE NUMBER OF MEMBERS IN THE BEAM (U.N.O.). ALL LVL AND PSL BEAMS SHALL HAVE A (3) STUD MIN. BEARING (U.N.O.). THE CENTERLINE OF THE BEAM SHALL BE THE CENTERLINE OF THE SUPPORTING WALL STUDS.

7. WOOD TRUSSES

A. ALL TRUSS CONNECTOR PLATES SHALL BE MANUFACTURED FROM ASTM A446-72 GRADE A GALVANIZED STEEL OF NO LESS THAN 20 GAUGE THICKNESS WITH A MINIMUM YIELD OF 33,000 psi AND AN ULTIMATE TENSILE STRENGTH OF 45,000 psi. CONNECTOR PLATE GAUGES SHALL BE AS REQUIRED BY MANUFACTURERS DESIGN CALCULATIONS.

B. TRUSS SHOP DRAWINGS SHALL BE SUBMITTED FOR THE ARCHITECTS REVIEW PRIOR TO FABRICATION AND SHALL INCLUDE THE FOLLOWING:
1. STRESS REDUCTION FACTORS USED FOR PLATES
2. TOP AND BOTTOM CHORD DESIGN LOADS IN P.L.F.
3. SIZE, GAUGE, AND EXACT LOCATION BY DIMENSION OF PLATES
4. LUMBER SPECIES AND GRADES USED
5. SEAL AND SIGNATURE OF TRUSS COMPANY ENGINEER IN RESPONSIBLE CHARGE ON ALL TRUSS ENGINEERED SHEETS OR DRAWINGS

6. NAME AND TRADEMARK OF PLATE MANUFACTURER AND TRUSS FABRICATOR AS WELL AS PROJECT NAME AND LOCATION
7. UNIFORM, LATERAL AND CONCENTRATED LOAD REQUIREMENTS AS NOTED ON PLANS AND/OR CORRESPONDING DETAILS
8. ALL TRUSS CONNECTION HARDWARE REQUIREMENTS
9. ALLOWABLE LOADS FOR STRESS GRADE LUMBER AND PLATES AS ALLOWED BY S.B.C.C.I. AND I.C.B.O. INCLUDING I.C.B.O. REPORT NUMBER

C. FIELD REPAIR OF DAMAGED TRUSSES MUST BE APPROVED IN WRITING BY THE TRUSS ENGINEER AND ENGINEER OF RECORD.

D. ALL ROOF TRUSS BEARING WALLS SHALL HAVE METAL FASTENERS TO RESIST UPLIFT FORCES AS NOTED ON ROOF FRAMING PLANS.

E. TRUSS SUPPLIER IS TO PROVIDE PLAN AND PROCEDURES FOR INSTALLING, SECURING AND BRACING OF ALL TRUSSES

F. TRUSS SUPPLIER SHALL PROVIDE TRUSS BLOCKS CAPABLE OF TRANSFERRING LATERAL LOADS AS NOTED ON PLANS AND/OR DETAILS

G. APPROVED TRUSS PLANS SHALL BE AVAILABLE ON JOB SITE DURING TIMES OF INSPECTION.

H. TRUSS MANUFACTURER TO PROVIDE OR ALIGN TRUSS ABOVE ALL SHEAR WALLS AS DETAILED.

I. TRUSS MANUFACTURER TO COORDINATE WITH MECH. / PLUMBING DWGS. FOR ADDITIONAL CONCENTRATED LOADS DUE TO DOMESTIC WATER AND SPRINKLER PIPE SUPPORTS.

J. TRUSS MANUFACTURER SHALL COORDINATE TRUSS LAYOUT WITH MECH/PLUMBING DRAWINGS TO ALLOW ALL PIPES AND DUCTS ADEQUATE SPACE FOR PROPER INSTALLATION.

K. TRUSSES TO BE DESIGNED FOR LIVE LOAD DEFLECTION OF L/480 AND TOTAL LOAD DEFLECTION OF L/300.

8. LATERAL LOAD RESISTING SYSTEM

A. ROOF DECK AND SUBFLOORS ARE DESIGNED AS UNBLOCKED DIAPHRAGMS.
1. ROOF SHEATHING SHALL BE 23/32" THICK EXPOSURE 1 RATED O.S.B. WITH A 48/24 PANEL SPAN INDEX (U.S.) AND BEAR THE TRADEMARK STAMP OF THE AMERICAN PLYWOOD ASSOC. (APA) PANELS SHALL BE NAILED WITH 8d NAILS @ 6" OC AT ALL PANEL EDGES AND 12" O.C. AT ALL INTERIOR SUPPORTS AND INSTALLED W/STEEL TIECLIPS PER MANUF. RECOMMENDATIONS & CODE REQ'S.
2. FLOOR SHEATHING SHALL BE 23/32" THICK T & G EXPOSURE 1 RATED O.S.B. WITH A 48/24 PANEL SPAN INDEX (U.S.) AND BEAR THE TRADEMARK STAMP OF THE AMERICAN PLYWOOD ASSOC. (APA). PANELS SHALL BE NAILED WITH 10d NAILS @ 6" OC AT ALL PANEL EDGES AND 12" OC AT ALL INTERIOR SUPPORTS.

B. STRUCTURAL PANEL SHEAR WALLS SHALL BE 15/32" THICK EXPOSURE 1 RATED WALL PANEL SPAN INDEX (U.S.) AND BEAR THE TRADEMARK STAMP THE AMERICAN PLYWOOD ASSOC. (APA). PANELS SHALL BE NAILED IN ACCORDANCE WITH SHEAR WALL SCHEDULE ON S4-00.

C. REFER TO BRACING PLANS FOR TYPE AND LOCATION OF ALL SHEARWALLS AND HOLD DOWN OF ANCHORS. REFER TO SHEET S4-00 FOR EXPLANATION AND MINIMUM FASTENER REQUIREMENTS FOR ALL SHEARWALL TYPES AND HOLD DOWN ANCHORS.

D. FRAMING DETAILS INCORPORATE MINIMUM REQUIREMENTS FOR LATERAL LOAD TRANSFER. ANY CHANGE, MODIFICATION OR SUBSTITUTE FOR MATERIALS (INCLUDING GRADE OR SPECIES) OR FASTENERS MUST BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

E. ALL CONNECTOR TYPES REFER TO SIMPSON STRONG-TIE SPECIFICATIONS. ANY CHANGE, MODIFICATION OR SUBSTITUTION MUST BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

9. MASONRY

A. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS (F'm) SHALL BE 1500 PSI.

B. MATERIAL SHALL BE AS FOLLOWS:
CMU—GRADE N, ASTM C-90 (UNIT STRENGTH = 1800 PSI)
MORTAR—TYPE S FOR WALLS NOT IN CONTACT WITH EARTH
TYPE M FOR WALLS IN CONTACT WITH EARTH

C. GROUT FOR CONCRETE MASONRY WALL SHALL CONFORM TO ASTM C476, f'c = 3,000 PSI MIN. GROUT SHALL BE CONSOLIDATED BY THOROUGHLY RODDING ALL CELLS.

D. GROUT PLACEMENT SHALL BE LOW-LIFT. THE CONSTRUCTION JOINTS ARE CREATED BY THE LEVEL OF GROUT STOPPING AT 1-1/2" FROM TOP OF MASONRY AND THE STEEL REINFORCING PROJECTING ABOVE THE TOP COURSE OF A SUFFICIENT HEIGHT TO PROVIDE A LAP AT THE SPLICE OF 48 BAR DIAMETERS. THE CONSTRUCTION JOINT SHALL BE LOCATED 3'-0" MINIMUM FROM TOP AND BOTTOM OF STRUCTURAL ELEMENTS SUCH AS SLABS, ROOFS, ETC.

E. CONCRETE MASONRY WALLS SHALL BE TEMPORARILY BRACED DURING ERECTION. REMOVE TEMPORARY BRACING ONLY AFTER WALLS ARE CONNECTED TO SUPPORTING ELEMENTS.

F. ALL CONCRETE BLOCK BELOW GRADE SHALL HAVE ALL CELLS FILLED WITH GROUT.

G. ALL CELLS CONTAINING REINFORCEMENT SHALL BE GROUTED SOLID.

H. MAXIMUM CONTROL JOINT SPACING IN MASONRY WALL = 25'-0" UNLESS NOTED. SEE ARCHITECTURAL DRAWINGS FOR LOCATION.

J. UNLESS SPECIFICALLY NOTED OTHERWISE, ALL CMU WALLS SHALL BE REINFORCED AS FOLLOWS:
1. VERT. REINF. SEE 15/58-21
CONTINUOUS BOND BEAM REINF W/2-6#5 CONT @ ALL FLOOR LEVELS, @ TOP OF WALL AND @ SLAB ON GRADE ELEVATION.
2. CONTINUOUS @ GA. TRUSS TYPE HORIZONTAL JOINT REINFORCEMENT AT 16" O.C. VERTICALLY.

K. DOWEL ALL CMU MASONRY WALLS INTO GRADE BEAMS, ELEVATED CONCRETE SLABS, AND CONCRETE FOUNDATION WALLS. DOWELS SHALL HAVE STANDARD HOOKS AND MINIMUM FOOTING EMBEDMENT OF 9". DOWELS SHALL BE OF SUFFICIENT LENGTH TO PROVIDE 48 BAR DIAMETER LAP WITH VERTICAL REINFORCING. DOWELS SHALL BE OF SAME SIZE AND LOCATION AS VERTICAL WALL REINFORCING.

L. SEE ARCHITECTURAL DRAWINGS FOR ALL C.M.U. WALL OPENING SIZES AND LOCATIONS.

M. ALL C.M.U. SHALL BE PLACED IN RUNNING BOND.

N. ALL MASONRY CONSTRUCTION AND INSPECTION SHALL COMPLY WITH ACI 530-08 & ACI 530.1-08

O. ALL CONCRETE MASONRY CONSTRUCTION SHALL BE INSPECTED AND TESTED PER THE REQ'TS OF ACI 530.1-11. COSTS OF THE SERVICES OF AN INDEPENDENT TESTING LABORATORY TO PERFORM TESTING AND INSPECTION SERVICES SHALL BE BORNE BY THE CONTRACTOR.

P. CMU GROUT FILL SHALL ARRIVE AT THE JOB SITE WITH A SLUMP BETWEEN 3" TO 5". PRIOR TO DEPOSITING GROUT, SUPERPLASTICIZER SHALL BE ADDED TO THE GROUT AT THE JOB SITE INCREASING THE SLUMP TO 8" TO 10".

Q. CMU WALL REINFORCING SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION. DRAWINGS SHALL SHOW ALL WALL AND PLASTER REINFORCING IN PLAN AND IN ELEVATION.

R. PROVIDE CORNER BARS AT ALL BOND BEAMS TO ENSURE CONTINUITY AT CORNERS. LAP CORNER BARS 48 BAR DIAMETERS WITH BOND BEAM BARS.

S. PROVIDE BAR SUPPORTS AND POSITIONERS AS REQUIRED TO ENSURE THAT FINAL IN-PLACE LOCATION OF REINFORCING IS AS INDICATED ON THE DRAWINGS.

T. MASONRY SHALL BE PROTECTED FROM FREEZING DURING PLACEMENT & CURING. COLD WEATHER MASONRY PROCEDURES SHALL COMPLY W/ACI 530-08 & ACI 530.1-08.

U. THE GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL BRACING AND SHORING FOR ALL MASONRY WALLS AS REQUIRED TO ENSURE STABILITY DURING CONSTRUCTION.

10. STRUCTURAL STEEL

A. STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL BE DONE IN ACCORDANCE WITH THE A.I.S.C. MANUAL OF STEEL CONSTRUCTION (9TH EDITION). ALL CONNECTIONS SHALL BE SHOP WELDED AND FIELD BOLTED EXCEPT AS NOTED ON DRAWINGS. FIELD BOLTS SHALL BE 3/4" DIA. A.I.S.T.M. A325 BEARING TYPE BOLTS WITH THREADS INCLUDED IN THE SHEAR PLANE (UNLESS NOTED). ALL FIELD WELDING SHALL BE DONE WITH E-70XX ELECTRODES.

B. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:
W SHAPES ASTM A992
HSS SHAPES ASTM A500, GR B
PLATES, ANGLES, CHANNELS ASTM A36
PIPE ASTM A501

C. ALL WELDING SHALL BE DONE BY QUALIFIED WELDERS AND SHALL CONFORM TO THE "CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION", LATEST EDITION.

D. THE GENERAL CONTRACTOR SHALL SUBMIT TO THE ARCHITECT, FOR REVIEW, ENGINEERED AND CHECKED SHOP DRAWINGS SHOWING SHOP FABRICATION DETAILS, FIELD ASSEMBLY DETAILS AND ERECTION DRAWINGS FOR ALL STRUCTURAL STEEL.

E. ALL CONNECTIONS SHALL BE DESIGNED AND DETAILED BY THE FABRICATOR. DETAILING SHALL BE PERFORMED USING RATIONAL ENGINEERING DESIGN AND STANDARD PRACTICE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE GENERAL DETAILS SHOWN ON THE DRAWINGS ARE CONCEPTUAL ONLY AND DO NOT INDICATE THE REQUIRED NUMBER OF BOLTS OR WELD SIZES, UNLESS SPECIFICALLY NOTED.

F. ALL CONNECTIONS SHALL BE SIMPLE SHEAR CONNECTIONS UTILIZING HIGH-STRENGTH BOLTS IN BEARING-TYPE CONNECTIONS (UNO) WITH THREADS INCLUDED IN THE SHEAR PLANE.

G. NON-COMPOSITE BEAM CONNECTIONS SHALL BE DESIGNED FOR THE REACTION DUE TO MAXIMUM ALLOWABLE LOAD FOR THE APPROPRIATE SPAN AND SHAPE BASED ON THE BEAM TABLES OF THE A.I.S.C. MANUAL OF STEEL CONSTRUCTION (13TH EDITION).

H. MINIMUM NUMBER OF BOLT ROWS BASED ON MEMBER DEPTH FOR W & C SHAPES ARE AS FOLLOWS:
UP TO 12" DEEP 2 ROWS
14" TO 16" DEEP 3 ROWS
18" TO 21" DEEP 4 ROWS
24" DEEP 5 ROWS

I. ALL SIMPLE SHEAR CONNECTIONS SHALL BE CAPABLE OF END ROTATION AS PER THE REQUIREMENTS OF THE A.I.S.C. CODE SECTION ON UNRESTRAINED MEMBERS, SECTION J1.2

J. ALL BEAMS AND GIRDERS SHALL BE FABRICATED WITH NATURAL CAMBER UP.

K. AFTER FABRICATION, ALL STEEL SHALL BE CLEANED OF ALL RUST, LOOSE MILL SCALE AND OTHER FOREIGN MATERIALS.

L. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF ALL ERECTION PROCEDURES AND SEQUENCES WITH RELATION TO TEMPERATURE DIFFERENTIALS.

M. THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT THE PRIOR APPROVAL OF THE ARCHITECT.

N. ALL ADDITIONAL STEEL REQUIRED BY THE CONTRACTOR FOR ERECTION PURPOSES AND SITE ACCESS OF STOCKPILED MATERIALS SHALL BE PROVIDED AT NO COST TO THE OWNER. ALL SUCH ADDITIONAL STEEL SHALL BE REMOVED BY THE CONTRACTOR.

O. ALL STEEL EXPOSED TO EARTH SHALL BE PAINTED WITH BITUMINOUS COATING. ALL STRUCTURAL STEEL EXPOSED TO THE WEATHER SHALL BE SHOP PRIMED & FIELD PAINTED W/TWO COATS OF PAINT.

P. ALL WELDED JOINTS SHALL COMPLY W/ THE PROVISIONS OF AWS D1.1, STRUCTURAL WELDING CODE BY AMERICAN WELDING SOCIETY (SECTION 2207). THE GC SHALL MAKE PROOF OF WELDER CERTIFICATION AVAILABLE AT THE JOB SITE.

11. NAILING

PENNY WEIGHT	DIAMETER	LENGTH
8d	.131"	2 1/2"
10d	.148"	3"
16d	.162"	3 1/2"

CONNECTIONS

TYPICAL FRAMING CONNECTION

TOE NAIL EACH END 2-8d COMMON
FACE NAIL 2-8d COMMON
FACE NAIL 2-8d COMMON
FACE NAIL 2-8d COMMON

TOE NAIL 3-8d COMMON
FACE NAIL 3-8d COMMON
TOE NAIL 3-8d COMMON
TOE NAIL 3-8d COMMON
FACE NAIL 3-8d COMMON
FACE NAIL 3-8d COMMON

TOE NAIL 4-8d COMMON
TOE NAIL 8d COMMON @ 6" O.C.

FACE NAIL 10d COMMON @ 12" O.C. STAGGERED EA. FACE
FACE NAIL 10d COMMON @ 16" O.C.

BLIND & FACE NAIL 2-16d COMMON
END NAIL 2-16d COMMON

FACE NAIL 3-16d COMMON
3-16d COMMON @ EACH JOIST
2-16d COMMON @ EACH BEARING
END NAIL 2-16d COMMON @ EACH END
FACE NAIL 16d COMMON @ 16" O.C.
SEE 6/53-00
16d COMMON @ 24" O.C.
FACE NAIL 2-16d COMMON OR 3-10d COMMON

FACE NAIL 3-16d COMMON OR 4-10d COMMON
FACE NAIL 3-16d COMMON OR 4-10d COMMON
SEE 6/53-00

FACE NAIL 3-16d COMMON OR 4-10d COMMON
FACE NAIL 3-16d COMMON OR 4-10d COMMON

SEE 6/53-00

WOOD STRUCTURAL PANEL SUBFLOORING.
15/32", 1/2", 7/16"

19/32" - 3/4"

1", 1 1/8"

15/32", 1/2"

16 GA GALV WIRE STAPLES, 3/8 MIN. CROWN @ 4" O.C. EDGES AND 7" INTERMEDIATE

16 GA GALV WIRE STAPLES, 3/8 MIN. CROWN @ 2 1/2" O.C. EDGES AND 4" INTERMEDIATE

WOOD STRUCTURAL PANEL ROOF AND WALL SHEATHING AND PARTICLE-BOARD WALL SHEATHING

1/2" OR LESS

19/32" OR GREATER

5/16" - 1/2"

19/32" - 3/4"

5/16" - 1/2"

19/32" - 3/4"

1/2" REGULAR

1/2" STRUCTURAL