GENERAL NOTES:

(THESE SPECIFICATIONS ARE IN ADDITION TO AND DO NOT EXCLUDE ANY FOUND IN THE GENERAL SPECIFICATIONS FOR THE PROJECT)

1. THE CONTRACT STRUCTURAL DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION. PROVIDE ALL MEASURES REQUIRED TO PROTECT THE STRUCTURE, WORKMEN, AND OTHER PERSONS DURING CONSTRUCTION, INCLUDING BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, FORMS AND SCAFFOLDING, SHORING OF RETAINING WALLS AND OTHER TEMPORARY SUPPORTS REQUIRED. COMPLY WITH APPLICABLE REQUIREMENTS OF OSHA AND OTHER GOVERNING BODIES HAVING JURISDICTION AT THE SITE.

2. SHOP DRAWINGS FOR CONCRETE AND MASONRY REINFORCING, STRUCTURAL STEEL, JOIST, AND METAL FLOOR AND ROOF DECKING SUBMITTALS SHALL COMPLY WITH THE FOLLOWING:

A. CONTRACTOR SHALL FURNISH COMPLETE AND DETAILED SHOP DRAWINGS PREPARED UNDER SUPERVISION OF A REGISTERED STRUCTURAL ENGINEER. THESE DRAWINGS SHALL SHOW SIZES, LOCATION, TYPE AND EXTENT OF ALL MEMBERS, BOLTS AND WELDS.

B. INDICATE THE DATE OF THE STRUCTURAL DRAWINGS USED FOR SHOP DRAWING PREPARATION.

C. INDICATE WELDS BY STANDARD AWS SYMBOLS AND SHOW SIZE LENGTH AND TYPE OF EACH WELD.

D. PROVIDE SETTING DRAWINGS, TEMPLATES AND DIRECTIONS FOR INSTALLATION OF ANCHOR BOLTS AND OTHER ANCHORAGES TO BE INSTALLED BY OTHERS.

E. CONTRACTOR SHALL REVIEW AND STAMP ALL SHOP DRAWINGS PRIOR TO SUBMITTAL FOR ENGINEERING REVIEW.

F. CONTRACTOR SHALL HAVE AN APPROVED SET OF STRUCTURAL STEEL SHOP DRAWINGS AND PROOF OF WELDER CERTIFICATION AT THE JOBSITE AT ALL TIMES.

G. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.

H. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR BUILDING LOCATION AND ORIENTATION. COORDINATE ALL DIMENSIONS WITH ARCH. DRAWINGS. DO NOT SCALE DRAWING.

I. WHERE A DETAIL IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE AND SIMILAR CONDITIONS EVEN THOUGH NOT SPECIFICALLY MARKED ON THE DRAWINGS.

3. DESIGN LOADS:
THE BUILDING STRUCTURE DESCRIBED IN THESE PLANS SHALL BE CONSTRUCTED IN COMPLIANCE WITH 2012 IBC WITH ALL GEORGIA AMENDMENTS.

A. GRAVITY LOADS
DEAD LOADS:
ROOF: 20.0 PSF

LIVE LOADS:
ROOF: 20.0 PSF

B. SNOW LOADS:
GROUND SNOW LOAD (Pg): 5 PSF
BALANCED ROOF SNOW LOAD (Ph-RAIN): 10.5 PSF
SNOW EXPOSURE FACTOR (Ce): 0.9
SNOW IMPORTANCE FACTOR (Is): 1.1
THERMAL FACTOR (Ct): 1.0

C. WIND LOADS ULTIMATE LOADS:
BASIC WIND SPEED (3 SEC. GUST): 120 MPH
RISK CATEGORY: III
EXPOSURE CATEGORY: B
INTERNAL PRESSURE (GCpi): +/-0.18

SEE ASCE-7 FOR COMPONENT & CLADDING LOADS BASED ON TRIBUTARY AREAS FOR INDIVIDUAL ELEMENTS.

D. SEISMIC DESIGN CRITERIA:
SEISMIC IMPORTANCE FACTOR (Ie): 1.25
RISK CATEGORY: III
MAPPED SPECTRAL RESPONSE ACCELERATIONS:
Ss: 0.226lg S1: 0.097/2g
SITE CLASS: D (ASSUMED)
SdS(5): 0.242g SdD1): 0.156g
SITE COEFFICIENT
Fa = 1.6 Fv = 2.4
SEISMIC DESIGN CATEGORY: C
BASIC SEISMIC FORCE RESISTING SYSTEM:
STEEL SYSTEMS NOT SPECIFICALLY DESIGNED FOR SEISMIC RESISTANCE
SEISMIC RESPONSE COEFFICIENT (Cs): 0.1008
DESIGN RESPONSE MODIFICATION FACTOR (R): 3.0
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE

FOUNDATION NOTES:

1. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3000 PSI U.N.O. . EXTERIOR CONCRETE SHALL BE AIR ENTRAINED TO 6% +/- 11/2%

2. SEE ARCHITECTURAL DRAWINGS FOR SIDE WALK EXTENTS, PLANTER, AND PAVER LOCATIONS, CONCRETE PADS AND STAIRS, SEE ARCH. FOR DIMENSIONS AT INTERIOR MASONRY PARTITIONS, AND DETAILS.

3. COORDINATE FINISHED FLOOR ELEVATIONS (F.F.E.) WITH ARCH. AND CIVIL DRAWINGS.

4. REFERENCE F.F.E = (SEE FOUNDATION PLANS)

5. ALL FOOTINGS HAVE BEEN DESIGNED BASED UPON AN ASSUMED ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF.

6. ALL FOUNDATION EXCAVATIONS SHALL BE EVALUATED BY THE GEOTECHNICAL ENGINEER OR TESTING AGENCY PRIOR TO PLACING ANY FOUNDATION CONCRETE. CONTACT STRUCTURAL ENGINEER IF THE ALLOWABLE SOIL BEARING PRESSURE IS LESS THAN 2000 PSF.

7. ALL EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 1'-4" BELOW F.F.E. OR THE ADJACENT EXTERIOR FINISH GRADE, UNLESS NOTED OTHERWISE.

8. TOP OF INTERIOR FOOTINGS SHALL BE A MINIMUM OF 0-8" BELOW F.F.E. COORDINATE TOP OF FOOTING ELEV. W/ PLUMBING AND LOWER FOOTING IF NECESSARY

9. PRIOR TO COMMENCING ANY FOUNDATION WORK, COORDINATE WORK WITH ANY EXISTING OR NEW UTILITIES. LOWER FOUNDATION AS REQUIRED TO AVOID INTERFERENCE WITH UTILITIES, EXCEPT WHERE ZERO LOT LINE FOOTINGS ARE LOCATED PARALLEL TO ADJACENT BUILDINGS. REFER TO THE FOUNDATION PLAN FOR FOOTING STEPS AT ADJACENT BUILDINGS - CONTACT ARCH./STRUCTURAL ENGINEER IF A CONFLICT OCCURS.

10. PROTECT PIPES AND CONDUITS RUNNING THROUGH WALLS AND SLABS WITH 1/2" INCH EXPANSION MATERIAL. LOWER CONTINUOUS FOOTING AND GRADE BEAMS PERPENDICULAR TO PIPE RUNS TO ALLOW PIPES TO PASS ABOVE THE FOOTINGS OR THROUGH THE GRADE BEAMS. ALTERNATIVELY, PROVIDE A CONCRETE JACKET IF PIPES ARE LOW ENOUGH TO BE PLACED BELOW THE FOOTINGS AND GRADE BEAMS PARALLEL TO PIPE RUNS. TO AVOID SURCHARGE ONTO ADJACENT TRENCH EXCAVATIONS.

11. ARRANGE FOR OWNER'S INDEPENDENT TESTING AGENCY TO MONITOR CUT AND FILL OPERATIONS AND PERFORM FIELD DENSITY AND MOISTURE CONTENT TESTS TO VERIFY COMPACTION AND APPROVE FOOTING SUBGRADES PRIOR TO PLACING CONCRETE.

CONCRETE SLAB NOTES:

1. FLOOR SLABS ON GRADE SHALL BE 4" THICK 3000 PSI MINIMUM COMPRESSIVE STRENGTH NORMAL WEIGHT CONCRETE. REINFORCED w/ 6X6-W1.4/W1.4 (10GA) WWF UNLESS NOTED OTHERWISE. LOCATE SINGLE LAYER OF WWF AT MID DEPTH OF SLAB. PROVIDE 15 MIL (MIN) POLYOLEFIN VAPOR BARRIER WITH JOINTS LAPPED 6" AND TAPED UNDER ALL INTERIOR SLABS.

2. PROVIDE A 4" THICK #57 STONE DRAINAGE FILL BELOW ALL INTERIOR SLABS ON GRADE UNLESS NOTED OR DETAILED OTHERWISE.

3. WHERE CONTROL/CONSTRUCTION JOINTS ARE NOT INDICATED, PROVIDE CONTROL/CONSTRUCTION JOINTS AT 12'-0" O.C. IN EACH DIRECTION. THE LENGTH OF ANY PANEL SHALL NOT EXCEED 1.5 TIMES THE WIDTH. CONSTRUCTION JOINTS ADJACENT TO INTERIOR WALLS SHALL BE DOWELED WITH 3/4" DIAMETER SMOOTH RODS AT 24" O.C. LOCATED AT MID DEPTH OF SLAB.

4. CONDUITS AND PIPES EMBEDDED IN SLABS ON GRADE:
SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN ONE-THIRD THE OVERALL THICKNESS OF THE SLAB. THEY SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS OR WIDTHS ON CENTER. A MINIMUM SLAB THICKNESS OF 2/3 THE SLAB THICKNESS MUST BE MAINTAINED OVER THE EMBEDDED CONDUITS OR PIPES.

5. COORDINATE THE EXACT LOCATION AND EXTENTS OF ALL FLOOR SLOPES, RECESSED AREAS, DRAIN AND TRENCH LOCATIONS WITH OWNER, ARCHITECTURAL AND PLUMBING DRAWINGS.

REINFORCED CONCRETE NOTES:

1. STRUCTURAL MEMBERS OF REINFORCED CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI318.

2. ALL CONCRETE SHALL HAVE A SLUMP OF 4" (+/-1") AND A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI U.N.O. CONCRETE EXPOSED TO FREEZE-THAW SHALL BE AIR ENTRAINED TO 6% AIR CONTENT +/- 1 1/2%.

3. ALL STEEL REINFORCEMENT SHALL BE ASTM 615-GRADE 60. ALL WELDED STEEL REINFORCEMENT SHALL BE ASTM A706-GR. 60. WELDED WIRE REINFORCEMENT SHALL BE ASTM A 185, PLAIN, FABRICATED FROM AS DRAWN STEEL WIRE OR IN FLAT SHEETS.

4. UNLESS NOTED OTHERWISE, CAST IN PLACE CONCRETE WALLS AND FLOORS SHALL HAVE THE FOLLOWING STEEL PROVIDED AROUND ALL OPENINGS: 2-#5 (LENGTH OF OPENING + 48") ALONG EACH SIDE OF OPENING AND TWO (2)-#5X5'-0" DIAGONALLY AT EACH CORNER.

5. ALL CONCRETE COMPRESSIVE STRENGTH TESTS SHALL BE AVAILABLE AT JOB SITE.

6. ALL LAP SPLICE LENGTHS SHALL BE AS SHOWN IN TABLE ON THIS SHEET.

7. MINIMUM CONCRETE COVER FOR REINFORCING STEEL: (UNO)
A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
B. CONCRETE EXPOSED TO EARTH AND WEATHER:
#5 REBAR AND SMALLER: 2"
#6 REBAR AND LARGER: 2"
C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH:
SLABS, WALLS, AND JOISTS:
#14 OR #18 BARS: 1 1/2"
#11 BARS AND SMALLER: 2"
BEAMS AND COLUMNS: 2"

8. CONTRACTOR SHALL COORDINATE DIMENSIONS OF EMBEDDED STEEL FOR EQUIPMENT AND OTHER ITEMS.

STEEL NOTES:

1. STRUCTURAL STEEL
A. SHALL CONFORM TO THE LATEST STANDARDS OF ASTM:
WIDE FLANGE BEAMS: A992
OTHER STRUCTURAL STEEL SHAPES, PLATES AND BARS: A36
HOLLOW STRUCTURAL STEEL SECTIONS (ROUND AND RECTANGULAR): A500 GRADE B
STRUCTURAL STEEL PIPE: A53 GRADE B

B. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC 360-10) USING LOAD AND RESISTANCE FACTOR DESIGN.

C. PROVIDE 11/2" (MINIMUM) NON-SHRINK 5000 PSI GROUT UNDER ALL BASE PLATES.

D. SHOP OR FIELD SPLICES BETWEEN SUPPORTS THAT ARE NOT REQUIRED BY DESIGN WILL NOT BE ALLOWED. ANY MEMBERS CONTAINING SUCH SPLICES FOUND IN THE FIELD SHALL BE REMOVED AND REPLACED WITH UNSPLICED MEMBERS AT THE FABRICATOR'S EXPENSE.

2. STEEL CONNECTIONS:
A. WHERE BEAM REACTIONS OR DETAILS ARE NOT SHOWN IN THE CONSTRUCTION DOCUMENTS. CONNECTIONS SHALL BE DESIGNED FOR ONE-HALF THE MAXIMUM (SIMPLE SPAN) UNIFORM LOAD WHICH THE MEMBER WILL SUPPORT FOR THE SPAN SHOWN ON THE DRAWINGS.

B. UNLESS LARGER REACTION IS SHOWN ON DRAWINGS, PROVIDE MINIMUM DESIGN FORCES AS FOLLOWS:
1. NON COMPOSITE BEAMS: BEAM-TO-BEAM OR BEAM-TO-COLUMN CONNECTION TO DEVELOP THE REACTION OF CONNECTED BEAM. OBTAIN END REACTION FROM ALLOWABLE UNIFORM LOAD TABLES IN PART 2 OF THE AISC MANUAL OF STEEL CONSTRUCTION.

C. 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.

D. BRACE CONNECTIONS SHALL BE IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS. ANGLE SIZES, PLATE SIZES, AND SIZE AND LENGTHS OF WELDS SHALL BE DESIGNED IN ACCORDANCE WITH THE FOLLOWING:
(1) DESIGN CONNECTIONS OF DIAGONAL MEMBERS TO DEVELOP THE LOADS SHOWN ON THE BRACE DETAILS.
(2) WHERE FORCES ARE NOT INDICATED ON THE DETAILS, DESIGN CONNECTIONS OF DIAGONAL MEMBERS TO DEVELOP THE FULL TENSILE CAPACITY OF THE DIAGONAL MEMBER.
(3) SIZE GUSSET PLATES AND ALL WELDS TO RESIST THE FORCE OF THE DIAGONAL MEMBERS. PLATES AND WELDS SHALL BE SIZED FOR TENSIONS, SHEARS, AND MOMENTS CAUSED BY CONCENTRIC AND ECCENTRIC FORCES.
(4) ALL BRACE CONNECTIONS SHALL USE WELDS OR FULLY TENSIONED A325 CLASS A SLIP CRITICAL BOLTS.
(5) BOLTS SHALL BE HIGH STRENGTH A-325 BOLTS OF SAME SIZE AND NUMBER AS SHOWN ON DRAWINGS. CONNECTIONS SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A-325 OR A-490 BOLTS. CONNECTIONS ARE BEARING TYPE.

E. BOLTS SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION UNLESS OTHERWISE NOTED ON THE DRAWINGS.

3. WELDS:
A. PROVIDE MINIMUM SIZE OF FILLET WELDS AS SPECIFIED IN TABLE J2.4 OF THE AISC MANUAL

B. ALL WELDING SHALL CONFORM TO THE LATEST "STRUCTURAL WELDING CODE" BY THE AMERICAN WELDING SOCIETY. ALL WORK SHALL BE PERFORMED BY CERTIFIED WELDERS EXPERIENCED IN THE TYPE OF CONSTRUCTION INVOLVED. PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE.

C. DEVELOP THE FULL TENSILE STRENGTH OF THE MEMBER ELEMENT JOINED, ON ALL SHOP AND FIELD WELDS, UNLESS NOTED OTHERWISE ON THE DRAWINGS.

D. ALL WELDS ARE CONTINUOUS FOR THE FULL LENGTH OF THE CONNECTION UNLESS NOTED OTHERWISE ON DRAWINGS.

4. COLD FORMED STEEL FRAMING
A. COLD FORMED STEEL FRAMING STRENGTH CRITERIA:
(1) 18 MIL-43 MIL - 33 KSI MIN. YIELD STRESS
(2) 54 MIL-97 MIL - 50 KSI MIN. YIELD STRESS
(3) RUNNER TRACK - 33 KSI MIN. YIELD STRESS (UNO)

B. ATTACH METAL FRAMING TO PRIMARY STRUCTURE WITH A DEFLECTION TRACK OR A STEEL NETWORK INC. VERTICAL DEFLECTION CLIP'S CAPABLE OF ALLOWING 1" OF VERTICAL DEFLECTION IF WALL FRAMING IS SUPPORTED BY SLAB ON GRADE OR OTHER RIGID SUPPORT.

C. PLACE ALL COLD-FORMED STEEL STUD WALL BRIDGING HORIZONTALLY WITH A MAXIMUM VERTICAL SPACING OF FOUR FEET UNLESS NOTED OTHERWISE. AS AN OPTION, CONTINUOUS COLD-FORMED CHANNELS MAY BE POSITIONED THROUGH THE STUD PUNCH OUTS AS BRIDGING PROVIDED THE CHANNELS PROPERLY FASTENED TO EACH STUD. PROVIDE MANUFACTURERS RECOMMENDED BRIDGING TO BOTH FLANGES OF MEMBER IF FLANGE IS NOT PERMANENTLY BRACED WITH GYPSUM OR PLYWOOD SHEATHING.

D. PLUMB, ALIGN, AND SECURELY ATTACH STUDS TO THE FLANGES OF BOTH UPPER AND LOWER RUNNERS. SPLICES IN STUDS ARE NOT PERMITTED.

E. PROVIDE HEADERS AND SUPPORTING STUDS FOR FRAMING OF WALL OPENINGS PER MANUFACTURERS RECOMMENDATIONS BASED ON THE SPAN OF THE OPENING.

F. ALL INTERIOR SUSPENDED GYPSUM BOARD SOFFITS SHALL BE SUPPORTED BY STRUCTURAL STEEL MEMBERS PER DETAIL 16&17/S4.2. SOFFITS SHALL NOT BE SUSPENDED FROM METAL DECK.

5. METAL STUD FASTENERS:
A. SCREW CONNECTIONS
USE #10-16 KWIK FLEX SELF-DRILLING SCREWS OR APPROVED EQUAL UNLESS OTHERWISE NOTED. 2 SCREWS PER CONNECTION MIN., UNLESS NOTED OTHERWISE OR A PRE-ENGINEERED TRUSS.

B. POWER DRIVEN FASTENERS:
(1) FASTENING TO CONCRETE:
USE 0.145" DIA. DOME HEAD NAIL TYPE "X-27" BY HILTI OR APPROVED EQUAL UNLESS NOTED OTHERWISE.
MIN. EMBEDMENT = 1 1/4"MIN. EDGE DISTANCE = 2"
MIN. SPACING = 3" MAX. SPACING = 12"
(2) FASTENING TO STEEL:
USE 0.145" DIA. DOME HEAD KNURLED SHANK FASTENER TYPE "X-EDN" BY HILTI OR APPROVED EQUAL UNLESS NOTED OTHERWISE.
MIN. EMBEDMENT = FULL PENETRATION
MIN. EDGE DISTANCE = 1/2"
MIN. SPACING = 1 1/2" MAX. SPACING 12"
(3) PINS SHALL BE LOCATED 1/2" FROM OUTSTANDING LEG OF CLIP ANGLES WHERE ATTACHING TO STRUCTURAL STEEL ANGLES.

6. METAL DECKING
A. PROVIDE DESIGN, FABRICATION, AND ERECTION OF METAL DECK CONFORMING TO THE STEEL DECK INSTITUTE'S "CODE OF RECOMMENDED STANDARD PRACTICE AND BASIC DESIGN SPECIFICATIONS".

B. ALL DECK SHALL BE FABRICATED TO PROVIDE A THREE SPAN CONDITION UNLESS INDICATED OTHERWISE. PROVIDE 1 1/2" MINIMUM BEARING AT EXTERIOR AND 3" MINIMUM AT INTERIOR CONDITION.

C. ATTACHMENT AT PERIMETER OF DECK SHALL BE EQUAL TO ATTACHMENT AT DECK SHEET LAPS AND DECK SHEET ENDS. USE PARTIAL OR SLOTTED SHEETS SHALL BE ATTACHED AT EVERY FLUTE REGARDLESS OF ATTACHMENT PATTERN.

D. PROVIDE STEEL ROOF FRAMING AT ALL OPENINGS IN FLOOR AND ROOF DECK 12" OR GREATER. ROOFTOP UNIT CURBS AND OTHER UNITS CURBS SHALL BEAR DIRECTLY ON STEEL ANGLE FRAME. FASTEN CURBS TO FRAMES w/ #12 SCREWS @ 12" O.C. OR EQUIVALENT WELDS. ROOF DECK SHALL BE ATTACHED TO ALL FRAME ANGLES @ 12" O.C. OR EVERY FLUTE.

E. PROVIDE L3 1/2x2 1/2x3/8" (U.N.O.) LLV CONTINUOUS ANGLE AT ROOF DECK EDGES AT JOIST BEARING. WELD TOP TO JOIST WITH 2" WELD ON TOP OF JOIST @ TOE OF ANGLE AND UNDERNEATH ANGLE TO EDGES OF JOIST. ATTACH DECK TO CONTINUOUS ANGLE WITH RECOMMENDED PATTERN OF FASTENERS OR ALL FLUTES IF DECK END BEARS ON ANGLE. WELD ANGLE TO COLUMNS ON EACH LEG WHERE CROSSING COLUMN LINES.

F. ALTERNATE FASTENER TYPES MAY BE ALLOWED WITH PRIOR APPROVAL BY STRUCTURAL ENGINEER. FASTENER PATTERN FOR ALTERNATE FASTENERS WILL BE DETERMINED DURING APPROVAL.

G. BUILDING ELEMENTS SHALL NOT BE SUPPORTED FROM METAL FLOOR OR ROOF DECK. THIS INCLUDES: SOFFITS, CEILINGS; MECHANICAL EQUIPMENT AND DUCTS; ELECTRICAL EQUIPMENT; CONDUITS LARGER THAN 3/4" AND THEIR JUNCTION BOXES; LIGHTING; PIPING SYSTEMS FOR WATER, GAS, SPRINKLERS.

H. METAL PAN STAIR FRAMING SIZES SHOWN ARE FOR REFERENCE ONLY. STAIR FRAMING SHALL BE DESIGNED BY FABRICATOR. REFER TO ARCHITECTURAL DRAWINGS FOR STAIR DIMENSIONS AND LAYOUT. REFER TO SPECIFICATIONS FOR REQUIRED DESIGN LOADS. LANDINGS MAY BE ANCHORED TO WALLS OR POSTS MAY BE ADDED TO BEAR ON SLAB BELOW WHERE POSTS ARE NOT EXPOSED IN THE FINISHED STAIR.

I. COLUMN BASEPLATES THAT DO NOT HAVE THREE ANCHORS SHALL BE ADEQUATELY BRACED OR SUPPORTED BY OTHER MEANS DURING ERECTION TO SATISFY OSHA REQUIREMENTS.

REINFORCED MASONRY NOTES:

1. ALL MASONRY WALLS SHALL HAVE CELLS REINFORCED AND DOWELED INTO FOUNDATION OR TOP OF CONCRETE WALL AS NOTED ON THE DRAWINGS. ALL MASONRY BELOW GRADE SHALL BE GROUTED SOLID.

2. REINFORCED CELLS SHALL BE FILLED WITH GROUT AND SHALL BE CONTINUOUS FROM FOUNDATION TO THE TOP OF THE WALL.

3. FILL REINFORCED CELLS WITH MECHANICALLY MIXED GROUT.
A. GROUT SHALL CONFORM TO ASTM C-476 AND BE SPECIFIED BY PROPORTION REQUIREMENTS. MINIMUM GROUT STRENGTH SHALL BE 2000 PSI PER CRITERIA.

B. GROUT SHALL BE MIXED FOR AT LEAST 5 MINUTES AND PLACED WITHIN 1 1/2 HOURS FROM THE INITIAL INTRODUCTION OF WATER AND PRIOR TO INITIAL SET.

C. BETWEEN GROUT POURS, A HORIZONTAL CONSTRUCTION JOINT SHALL BE FORMED BY STOPPING ALL CMU AT THE SAME ELEVATION AND WITH THE GROUT STOPPING A MINIMUM OF 1 1/2" BELOW A MORTAR JOINT, EXCEPT AT THE TOP OF THE WALL. WHERE BOND BEAMS OCCUR, THE GROUT POUR SHALL BE STOPPED A MINIMUM OF 1/2" BELOW THE TOP OF THE MASONRY.

D. CMU WALLS SHALL BE CONSTRUCTED USING LOW-LIFT GROUTING (5'-0" MAX. POUR HEIGHTS).

E. CONSOLIDATE GROUT POURS 12 INCHES OR LESS IN HEIGHT BY MECHANICAL VIBRATION OR PUDDLING. CONSOLIDATE GROUT POURS EXCEEDING 12 INCHES IN HEIGHT BY MECHANICAL VIBRATION, AND RECONSOLIDATE BY MECHANICAL VIBRATION AFTER INITIAL WATER LOSS AND SETTLEMENT HAS OCCURRED. ALTERNATE METHODS OF CONSOLIDATION MUST BE APPROVED BY THE SPECIAL INSPECTOR AND ENGINEER PRIOR TO BEGINNING GROUT PLACEMENT.

4. ALL CMU SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH (f'm) OF 1500 PSI. MASONRY UNITS SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 1900 PSI.

5. MORTAR SHALL BE ASTM 270 TYPE 'S'. MINIMUM MORTAR STRENGTH SHALL BE 1800 PSI.

A. THICKNESS OF BED JOINTS SHALL BE 3/8" EXCEPT THAT THE THICKNESS OF THE BED JOINT OF THE STARTING COURSE PLACED OVER FOUNDATIONS SHALL NOT BE LESS THAN 1/4" AND NOT MORE THAN 3/4". FIRST JOINT AT TOP OF FOOTING SHALL BE A FULL MORTAR BEDDED AREA.

B. MORTAR SHALL BE MIXED UNTIL MIXTURE IS UNIFORM THROUGHOUT.

C. UNUSED MORTAR SHALL BE DISCARDED WITHIN 2 1/2 HOURS AFTER INITIAL MIXING.

D. PROPOSED MORTAR MIX DESIGN SHALL BE LABORATORY TESTED PRIOR TO SUBMITTAL FOR APPROVAL TO PROVIDE BASIS FOR MONITORING OF FIELD MORTAR TESTS.

6. ALL MASONRY SHALL CONFORM TO ASTM C-90 BLOCK AND BE CONSTRUCTED USING RUNNING BOND (U.N.O).

7. REINFORCING STEEL SHALL CONFORM TO ASTM A615-GRADE 60. FOR WELDED REINFORCING USE ASTM A706-GRADE 60.

8. ALL MASONRY WALLS SHALL HAVE STANDARD HORIZONTAL (9 GA.) LADDER TYPE REINFORCING @ 16" O.C. JOINT REINFORCEMENT SHALL CONFORM TO ASTM A951.

9. COORDINATE REQUIRED TYPE, SIZE, GAUGE, AND SPACING OF STEEL ANCHORS FOR ATTACHMENT OF MASONRY VENEER WITH ARCH. DRAWINGS. MINIMUM ANCHOR SPACING SHALL BE: 16" O.C. VERTICALLY AND 24" O.C. HORIZONTALLY. INDIVIDUAL ANCHORS SHALL BE 9 GA. WIRE MINIMUM. EYE ANCHORS SHALL BE MINIMUM 2" JOINT REINFORCING AND ALL ANCHORS SHALL BE HOT DIPPED GALVANIZED.

10. CONTROL JOINTS IN CONCRETE MASONRY SHALL HAVE A MAXIMUM SPACING OF 24'-0" O.C. (UNO). COORDINATE THE LOCATION OF CONTROL JOINTS WITH ARCH. DWGS. CONTROL JOINTS SHALL NOT BE LOCATED WITHIN STRUCTURAL PILASTERS OR MASONRY LINTELS.

11. SLEEVE ALL PLUMBING OR FIRE PROTECTION PIPING THROUGH CMU WALLS.

12. REINFORCING BARS FOR VERTICAL FILLED CELLS SHALL BE LAPPED ACCORDING TO MASONRY LAP LENGTH TABLE.

13. COORDINATE EXACT LOCATION AND EXTENT OF ALL OPENINGS IN MASONRY WALLS WITH ARCH. DRAWINGS. SEE ARCH. DOOR SCHEDULE AND LINTEL SCHEDULE &S3.2.

14. MINIMUM MASONRY COVER FOR REINFORCING STEEL:
A. MASONRY EXPOSED TO WEATHER OR EARTH:
2" FOR BARS LARGER THAN #5
1 1/2" FOR #5 AND SMALLER BARS
B. MASONRY NOT EXPOSED TO WEATHER OR EARTH: 1 1/2"
C. BARS SHALL BE LOCATED IN CENTER

15. ALL EXTERIOR MASONRY WALLS SHALL BE REINFORCED WITH #5 BARS VERTICAL AT 48" O.C. UNLESS NOTED OTHERWISE.
ALL WALLS MARKED AS SHEAR WALLS SHALL BE REINFORCED AS FOLLOWS:
(a.) #5 BARS VERTICAL AT 48" O.C.

ALL BARS OVER STEEL BEAMS SHALL HAVE DOWELS EPOXIED TO THE TOP FLANGE OF THE BEAM WITH A 5/16" x 4" LONG WELD ALL AROUND. DOWEL LENGTH SHALL BE EQUAL TO THE LAP SPLICE LENGTH IN MASONRY ADDED TO THE SLAB THICKNESS. ALL VERTICAL BARS SHALL BE DOWELED INTO FOOTINGS OR TOP OF CONCRETE RETAINING WALLS USING THE LAP SPLICE LENGTH FOR CONCRETE.

SPECIAL INSPECTION NOTES:

A. THE SPECIAL INSPECTOR SHALL BE EMPLOYED BY THE OWNER. SPECIAL INSPECTOR SHALL BE FULLY QUALIFIED, APPROVED BY THE BUILDING OFFICIAL, REGISTERED BY THE APPLICABLE REGISTRATION BOARD AS REQUIRED BY THE LOCAL BUILDING OFFICIAL, AND SHALL BE ACCEPTABLE TO THE ARCHITECT.

B. THE SPECIAL INSPECTOR SHALL PROVIDE FULL TIME CONSTRUCTION QUALITY CONTROL INSPECTIONS AND TESTING. THE SPECIAL INSPECTOR SHALL CONFIRM THAT ALL WORK REQUIRING INSPECTION IS PERFORMED IN COMPLIANCE WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS, BUILDING CODE REQUIREMENTS AND LOCAL BUILDING DEPARTMENT REQUIREMENTS.

C. SPECIAL INSPECTIONS ARE REQUIRED AS NOTED IN THE STATEMENT OF SPECIAL INSPECTIONS AND THE 2006 IBC CHAPTER 17. THE CONTRACTOR SHALL OBTAIN A COPY OF THE STATEMENT OF SPECIAL INSPECTIONS AND NOTIFY THE SPECIAL INSPECTOR WHEN WORK IS READY TO BE INSPECTED.

D. FAILURE TO NOTIFY THE SPECIAL INSPECTOR PRIOR TO OBSCURING AN ITEM REQUIRING INSPECTION MAY RESULT IN THE CONTRACTOR REMOVING AND/OR OTHER WORK TO ALLOW INSPECTION. THIS WORK WILL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. FAILURE TO HAVE REQUIRED ITEMS INSPECTED IS REASON FOR REJECTION OF THE WORK.

E. PREMATURE NOTIFICATION FOR INSPECTIONS WILL RESULT IN ADDITIONAL INSPECTION WITH ALL EXPENSES AND FEES PAID FOR BY THE CONTRACTOR.

SEE SHEET S5.1 FOR SPECIAL INSPECTION CHECKLIST.

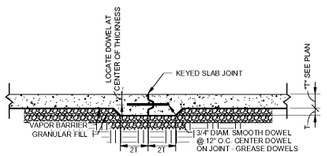
STRUCTURAL ENGINEER OF RECORD SITE OBSERVATIONS:

THE SPECIAL INSPECTOR IS RESPONSIBLE FOR CONTINUOUS AND PERIODIC INSPECTION OF ALL WORK AS REQUIRED IN THE STATEMENT OF SPECIAL INSPECTIONS. THE STRUCTURAL ENGINEER OF RECORD OBSERVATION IS IN ADDITION TO THE SPECIAL INSPECTION AND DOES NOT SERVE AS THE SPECIAL INSPECTION FOR THE ITEMS NOTED. THE STRUCTURAL ENGINEER OF RECORD WILL OBSERVE THE INITIAL AREAS WHERE THE WORK NOTED IN THE FOLLOWING LIST IS BEING PERFORMED. CORRECTIONS TO THE WORK PERFORMED IN THE INITIAL AREAS NOTED BY THE ENGINEER OF RECORD SHALL BE FOLLOWED IN SUBSEQUENT AREAS WHERE SIMILAR WORK IS TO BE PERFORMED.

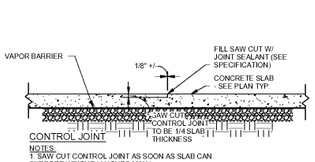
1. CONTRACTOR SHALL NOTIFY THE ARCHITECT FIVE WORKING DAYS PRIOR TO THE FOLLOWING CONSTRUCTION MILESTONES SO THE PROJECT ENGINEER CAN OBSERVE THE WORK:
A. SPREAD FOOTING FOUNDATIONS, EACH TYPE OF RETAINING WALL FOUNDATIONS - AFTER FOUNDATION REINFORCING IS PLACED AND PRIOR TO PLACING CONCRETE FOR THE FOUNDATIONS
B. EACH TYPE OF RETAINING WALL - AFTER WALL REINFORCING IS PLACED AND PRIOR TO PLACING CONCRETE FOR THE WALL.
C. FIRST SLAB ON GRADE PLACEMENT - AFTER SLAB REINFORCING IS PLACED AND BEFORE PLACING SLAB ON GRADE.
D. REINFORCED MASONRY WALLS - AFTER WALLS AND REINFORCING ARE INSTALLED AND PRIOR TO GROUTING.
E. STEEL STRUCTURE - AFTER FLOOR AND ROOF FRAMING AND ROOF DECK IS FULLY INSTALLED AND PRIOR TO INSTALLING INSULATION OR ROOFING.
F. FLOOR SLAB ON METAL DECK PLACEMENT - AFTER SLAB REINFORCING IS PLACED AND BEFORE PLACING SLAB.

2. FAILURE TO NOTIFY THE STRUCTURAL ENGINEER PRIOR TO ANY CONSTRUCTION MILESTONE OBSERVATION MAY RESULT IN THE CONTRACTOR REMOVING OTHER WORK TO ALLOW OBSERVATION. THIS WORK WILL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

3. PREMATURE NOTIFICATION FOR SITE VISIT WILL RESULT IN ADDITIONAL OBSERVATION WITH ALL EXPENSES AND FEES PAID FOR BY THE CONTRACTOR.



CONSTRUCTION JOINT



CONTROL JOINT

NOTES:
1. SAW CUT CONTROL JOINT AS SOON AS SLAB CAN SUPPORT WEIGHT (4 HOURS MAX.