

GENERAL NOTES:

COORDINATION:

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH AND COORDINATED WITH ARCHITECTURAL DRAWINGS AND OTHER CONTRACT DOCUMENTS.

2. THE PROJECT ARCHITECT SHALL BE RESPONSIBLE FOR REVIEWING/COORDINATING ALL DIMENSIONS, ELEVATIONS AND DETAILS SHOWN ON THE STRUCTURAL DRAWINGS WITH THE ARCHITECTURAL DRAWINGS.

3. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL OF THE CONTRACT DOCUMENTS AND LATEST ADDENDA AND FOR SUBMITTING SUCH DOCUMENTS TO SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS AND ERECTION IN THE FIELD. THE GENERAL CONTRACTOR SHALL COMPARE THE STRUCTURAL DRAWINGS AND OTHER CONTRACT DRAWINGS AND REPORT ANY DISCREPANCY BETWEEN AND WITHIN EACH SET OF DRAWINGS WITH THE PROJECT ARCHITECT AND THE STRUCTURAL ENGINEER PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.

4. DRAWINGS SHOW GENERAL AND TYPICAL SECTIONS/DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR SECTIONS/DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO THE APPROVAL OF THE ENGINEER.

5. THE STRUCTURAL MEMBERS OF THIS PROJECT HAVE BEEN DESIGNED BY THE STRUCTURAL ENGINEER TO RESIST THE REQUIRED CURE GRAVITY AND LATERAL FORCES THAT COULD OCCUR IN THE FINAL COMPLETED STRUCTURE ONLY. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL REQUIRED BRACING/SHORING DURING CONSTRUCTION TO MAINTAIN THE STABILITY AND SAFETY OF ALL STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PROCESS UNTIL THE STRUCTURE IS TIED TOGETHER AND COMPLETED.

6. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR THE METHODS, TECHNIQUES AND SEQUENCES OF PROCEDURES TO PERFORM THE WORK. THE SUPERVISION OF THE WORK IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

7. LOADS APPLIED TO THE STRUCTURE DURING CONSTRUCTION SHALL NOT EXCEED THE SAFE LOAD-CARRYING CAPACITY OF THE STRUCTURAL MEMBERS. THE LIVE LOADS USED FOR THE DESIGN OF THE STRUCTURE ARE INDICATED IN THE GENERAL NOTES. DO NOT APPLY ANY CONSTRUCTION LOADS UNTIL STRUCTURAL FRAMING IS PROPERLY INSTALLED AND ALL TEMPORARY BRACING IS IN PLACE.

8. ALL ASTM AND OTHER REFERENCES ARE PER THE LATEST EDITIONS UNLESS NOTED OTHERWISE.

9. EQUIPMENT PADS SHALL BE PROVIDED BY THE MECHANICAL, ELECTRICAL, OR PLUMBING CONTRACTORS REQUIRING THE PAD.

10. COORDINATE THE EXACT SIZE AND LOCATION OF ALL SLEEVES AND OPENINGS THROUGH CONCRETE WALLS, CONCRETE SLABS OR MASONRY WALLS WITH ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.

11. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. CONTRACTOR SHALL REVIEW, APPROVE AND SIGN EACH SHEET PRIOR TO SUBMISSION. THE STRUCTURAL ENGINEER'S REVIEW SHALL BE FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS. THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK AND COORDINATE THE SHOP DRAWINGS PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF THE SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, DIMENSIONS, ETC. **CONTRACT DRAWINGS SHALL NOT BE USED FOR SHOP DRAWINGS.** SUBMIT PDF FILES FOR REVIEW.

12. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO ASCERTAIN CONDITIONS WHICH MAY ADVERSELY AFFECT THE WORK OR COST THEREOF.

13. WHERE CONFLICTS OCCUR BETWEEN GENERAL NOTES, STRUCTURAL DRAWINGS AND SPECIFICATIONS THE MOST STRINGENT REQUIREMENT SHALL APPLY.

14. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. THE ENGINEER WILL NOT ADVISE NOR ISSUE DIRECTION AS TO SAFETY PRECAUTIONS AND PROGRAMS.

FOUNDATIONS:

1. FOUNDATION DESIGN OF FOOTINGS BASED ON SOIL REPORT BY ARDAMAN & ASSOCIATES, INC., SHREVEPORT, LOUISIANA, FILE NO. 12.94.038, DATED 3-12-12. ALLOWABLE SOIL BEARING PRESSURE 1,500 PSF FOR CONTINUOUS WALL FOOTINGS AND 2,000 PSF FOR SPREAD COLUMN FOOTINGS.

2. ALL FOOTINGS AND SLAB ON GRADE SHALL BEAR ON UNDISTURBED RESIDUAL SOIL OR STRUCTURAL COMPACTED FILL AS PER SOIL REPORT RECOMMENDATIONS. ALL FOUNDATION EXCAVATIONS SHALL BE EVALUATED BY THE GEOTECHNICAL ENGINEER/TESTING AGENCY PRIOR TO PLACING CONCRETE FOR FOUNDATIONS.

3. COMPACT ALL MATERIALS SUPPORTING SLAB ON GRADE OR FOOTINGS AS PER GEOTECHNICAL ENGINEERS RECOMMENDATIONS. SOILS TESTING LABORATORY SHALL CONDUCT COMPACTION TESTS ON ALL STRUCTURAL FILL MATERIAL.

4. NO UNBALANCED BACKFILLING SHALL BE DONE AGAINST BASEMENT WALLS UNLESS WALLS ARE BRACED BY TEMPORARY BRACING OR BY PERMANENT CONSTRUCTION.

5. FOUNDATION WALLS WITH BACKFILL ON EACH SIDE SHALL BE BACKFILLED EVENLY ON EACH SIDE. THESE WALLS HAVE NOT BEEN DESIGNED FOR UNBALANCED SOIL LOADS. ALL BASEMENT WALLS (FOUNDATION WALLS WITH DOWELS INTO SLAB ON GRADE) SHALL BE SHORED UNTIL SLAB ON GRADE REACHES 75 PERCENT OF THE 28 DAY COMPRESSIVE STRENGTH. WATERPROOF BACKSIDE OF ALL FOUNDATION WALLS UNLESS NOTED OTHERWISE.

6. COORDINATE FOUNDATION WORK WITH EXISTING UTILITIES. FOUNDATIONS SHALL BE LOWERED WHERE REQUIRED TO AVOID UTILITIES. NOTIFY PROJECT ARCHITECT AND STRUCTURAL ENGINEER TO PROVIDE REINFORCED CONCRETE PIER FOR COLUMN FOOTINGS

7. UNLESS NOTED OTHERWISE COLUMN CENTERLINES SHALL BE CENTERLINES OF COLUMN FOOTINGS.

8. HEAVY GRADING EQUIPMENT SHALL NOT BE ALLOWED WITHIN THE HEIGHT OF THE WALL (HORIZONTALLY) OF BASEMENT OR CANTILEVER RETAINING WALLS.

SLAB ON GRADE:

1. CONTROL JOINTS FOR SLAB ON GRADE SHALL BE LOCATED AS SHOWN ON PLAN, WITH A MAXIMUM JOINT SPACING OF 2 1/2 TIMES THE SLAB THICKNESS IN FEET. JOINTS SHALL BE FORMED USING SAW CUTS 1/8" WIDE (MAXIMUM) BY 1/4" (1 1/4" MIN.) DEEP. SAW CUT AS SOON AS PRACTICAL AND WITHIN 12 HOURS AFTER PLACING CONCRETE. JOINTS SHALL BE FILLED WITH SEMI-RIGID EPOXY JOINT FILLER (CONSP. POLUREA JOINTFILL (OR EQUIVALENT)).

2. SIDEWALKS AND OTHER EXTERIOR SLABS ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS. SEE ARCHITECTURAL, SITE AND CIVIL DRAWINGS FOR LOCATIONS, DIMENSIONS AND ELEVATIONS.

3. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF DEPRESSED SLAB AREAS AND DRAINS. FLOOR SLABS SHALL SLOPE TO ALL FLOOR DRAINS. GENERAL CONTRACTOR SHALL COORDINATE WITH PLUMBING DRAWINGS - TYPICAL.

4. USE EVAPORATION RETARDER ONE OR MORE TIMES AFTER THE STRIKEOFF WHEN HIGH TEMPERATURES, LOW HUMIDITY AND/OR WIND WILL CAUSE CRUSTING AND PLASTIC CRACKING.

5. EXPOSED FLOOR SLAB AREAS ARE TO RECEIVE 2 - COATS OF 25K MIN. SOLIDS ACRYLIC HARDENER AND SEAL (SPEC CHEM'S CURE AND SEAL WB 25 OR SPEC CHEM'S CURE AND SEAL 25UV, OR EQUIVALENT). APPLICATION IS TO CONFORM TO MANUFACTURER'S SPECIFICATIONS. FIRST COAT IS FOR CURING, SECOND COAT IS FOR SEALING AND DUST PROOFING AFTER BUILDING CONSTRUCTION COMPLETION. FIRST COAT ONLY REQUIRED WHERE SLAB IS RECEIVING FLOOR COVERING.

6. SEE GEOTECHNICAL REPORT/GEOTECHNICAL ENGINEER FOR VAPOR RETARDER AND UNDERSLAB DRAINAGE FILL REQUIREMENTS. VAPOR RETARDER SHALL BE 10 MIL AND MEET ASTM E 1745 CLASS A INSTALLED PER ASTM E 1643 WITH LAPPED JOINTS NOT LESS THAN 6 INCHES.

CONCRETE:

1. CONCRETE SHALL BE PROPORTIONED TO MEET THE REQUIREMENTS OF THE FOLLOWING:

| ELEMENT | 28-DAY STRENGTH (PSI) | SLUMP RANGE (IN.) | UNIT WEIGHT (PCF) |
|-----------------|-----------------------|-------------------|-------------------|
| COLUMN FOOTINGS | 3000 | 3-5 | 150 |
| WALL FOOTINGS | 3000 | 3-5 | 150 |
| SLAB ON GRADE | 3000 | 3-4 | 150 |

2. PORTLAND CEMENT SHALL BE ASTM C 150, TYPE I. FLY ASH SHALL CONFORM TO ASTM C 618, CLASS F AND SHALL NOT EXCEED 25% OF CEMENT CONTENT BY WEIGHT. SLAG SHALL CONFORM TO ASTM C 989.

3. NORMAL WEIGHT AGGREGATE SHALL CONFORM TO ASTM C 33. CONCRETE AGGREGATE GRADATION SHALL BE IN ACCORDANCE WITH ASTM C33 SPECIFICATION. "SPECIFICATION FOR CONCRETE AGGREGATE". FINE AGGREGATE SHALL CONSIST OF NATURAL SAND OR A COMBINATION THEREOF, WITH A FINENESS MODULUS BETWEEN 2.3 AND 3.1. LARGER COURSE AGGREGATE MIXES UP TO #67 ARE ACCEPTABLE FOR FLOOR SLAB CONCRETE TO MINIMIZE SHRINKAGE CRACKING.

4. FLY ASH AND/OR SLAG SHALL NOT BE PERMITTED IN CONCRETE PLACED SUBJECT TO COLD WEATHER PLACEMENT PROCEDURES.

5. CONCRETE EXCEEDING THE SPECIFIED SLUMP RANGES SHALL BE RETURNED. DO NOT ADD WATER TO THE CONCRETE MIX AT THE JOB SITE WITHOUT THE WRITTEN PERMISSION FROM THE STRUCTURAL ENGINEER.

6. ALL REINFORCING STEEL SHALL BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE. ALL WELDED WIRE FABRIC (W.W.F.) SHALL BE ASTM A82 AND A185 COLD DRAWN STEEL WIRE. W.W.F. SHALL BE DELIVERED TO THE JOB SITE IN FLAT SHEETS (NO ROLLS). PLACE SHEETS ON BOLSTERS AT 36" MAXIMUM TO LOCATE IN UPPER THIRD OF SLAB. LAP CONTINUOUS REINFORCING BARS 36 BAR DIAMETERS UNLESS NOTED OTHERWISE. PROVIDE CORNER BARS IN ALL WALLS AND FOOTINGS. BAR SUPPORTS, DESIGN, DETAILING, FABRICATION, AND PLACING OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE ACI CODE AND DETAILING MANUAL AND CRSI'S "MANUAL OF STANDARD PRACTICE".

7. MINIMUM CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE:

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|---|--------|
| CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH..... | 3" |
| CONCRETE EXPOSED TO EARTH OR WEATHER: | |
| No. 6 THROUGH No. 18 BARS..... | 2" |
| No. 5 AND SMALLER..... | 1 1/2" |
| CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: | |
| SLABS, WALLS AND JOISTS: | |
| No. 14 AND NO. 18 BARS..... | 1 1/2" |
| No. 11 AND SMALLER..... | 3/4" |
| BEAMS AND COLUMNS: | |
| PRIMARY REINFORCEMENT, TIES, STIRRUPS AND SPIRALS..... | 1 1/2" |

8. ANCHOR RODS FOR COLUMNS SHALL BE POSITIONED WITH A TEMPLATE PRIOR TO PLACING CONCRETE IN PIER OR FOOTING. NUTS SHALL BE TIGHTENED ON EACH SIDE OF THE TEMPLATE TO HOLD THE ANCHOR BOLTS IN PLACE.

9. CONCRETE DESIGN AND REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (CODE REFERENCED ACI 318) AND WITH "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" (ACI 315-92). CONCRETE PLACED DURING HOT WEATHER AND COLD WEATHER SHALL MEET THE RECOMMENDATIONS OF ACI/PCA/TCA. CONCRETE SHALL BE SAMPLED AND TESTED BY AN INDEPENDENT TESTING AGENCY IN ACCORDANCE WITH ACI 318.

10. CONCRETE MIXES SHALL BE DESIGNED IN ACCORDANCE WITH ACI 301. WATER SHALL NOT BE ADDED TO THE CONCRETE MIX AT THE JOB SITE WITHOUT THE PRIOR WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER.

11. UNLESS OTHERWISE SHOWN ON ARCHITECTURAL DRAWINGS, PROVIDE 3/4" CHAMFER AT ALL COLUMN, WALL SLAB AND BEAM EDGES THAT ARE EXPOSED TO VIEW IN THE FINAL STRUCTURE.

12. PROVIDE VERTICAL CONTROL OR CONTRACTION JOINTS AT 25' MAXIMUM IN ALL CONCRETE BASEMENT WALLS, RETAINING WALLS, OR SCREENWALLS. PROVIDE VERTICAL EXPANSION JOINTS AT 100' MAXIMUM IN THE LINEAR PLANE OF THE WALL. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS IN AESTHETIC WALLS.

13. FIBER REINFORCEMENT - POLYPROPYLENE FIBRILLATED FIBERS USE AT 1.5 POUNDS PER CUBIC YARD WITH A MINIMUM AVERAGE RESIDUAL STRENGTH OF 45 PSI IN ACCORDANCE WITH ASTM 1399 TESTING - FIBERMESH 300 OR EQUIVALENT.

14. SLAB ON GRADE SHALL HAVE AN OVERALL FLOOR FLATNESS (FF) OF 25 WITH A MINIMUM LOCAL VALUE OF 17 AND AN OVERALL FLOOR LEVELNESS (FL) OF 20 WITH A MINIMUM LOCAL VALUE OF 15.

MASONRY:

1. MASONRY CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATION FOR MASONRY STRUCTURES (CODE REFERENCED ACI 530.1)" AND NCMA SPECIFICATION TEK NOTES AND BIA TECHNICAL NOTES ON BRICK CONSTRUCTION. CONTINUOUS INSPECTION SHALL BE PERFORMED BY AN INDEPENDENT TESTING AGENCY FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS.

2. ALL HOLLOW CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C-90, LIGHTWEIGHT. MINIMUM NET COMPRESSIVE STRENGTH (f'm) SHALL BE 1,500 PSI. FILL BLOCK CELLS WHERE REBAR OCCURS SOLID WITH GROUT. SUBMIT VERIFICATION OF ALL MATERIALS TO ARCHITECT FOR APPROVAL.

3. ALL BRICK UNIT MASONRY SHALL CONFORM TO ASTM C-216, GRADE SW, TYPE FBS. MINIMUM NET COMPRESSIVE STRENGTH (f'm) SHALL BE 3,000 PSI. VERIFICATION OF ALL MATERIALS TO ARCHITECT FOR APPROVAL.

4. MORTAR SHALL BE PORTLAND CEMENT-LIME MIX (PORTLAND CEMENT SHALL COMPLY WITH ASTM C 150, TYPE I OR III, AND HYDRATED LIME COMPLYING WITH ASTM C 270) OR MORTAR CEMENT ASTM C 1329 - TYPE S, **THE USE OF MASONRY-CEMENT IS STRICTLY FORBIDDEN.** AGGREGATE FOR MORTAR SHALL COMPLY WITH ASTM C 144.

5. GROUT FOR UNIT MASONRY SHALL COMPLY WITH ASTM C 476 (SLUMP 8 TO 11 INCHES). AGGREGATE FOR GROUT SHALL COMPLY WITH ASTM C404. COMPRESSIVE STRENGTH SHALL BE GREATER THAN OR EQUAL TO 2,000 PSI OR f'm, WHICHEVER IS GREATER. TESTING SHALL BE DONE IN AN ABSORBENT MOLD IN ACCORDANCE WITH ASTM C 1019.

6. MASONRY JOINT REINFORCEMENT SHALL COMPLY WITH ASTM A-951 AND SHALL BE HOT DIPPED GALVANIZED CARBON STEEL. BRICK TIES SHALL CONFORM TO SEISMIC DESIGN CATEGORY REQUIREMENTS (SUBMIT FOR APPROVAL). BRICK TIES USED IN SEISMIC DESIGN CATEGORY A, B, C SHALL BE SPACED AT 16" VERTICAL AND 24" HORIZONTAL. PROVIDE IN LENGTHS NOT LESS THAN 10 FEET IN LENGTH WITH PREFABRICATED CORNER AND TEE UNITS. FOR MULTIPLY THE MASONRY PROVIDE ADJUSTABLE 2-PIECE UNITS. PROVIDE CONTINUITY AT CORNERS AND WALL INTERSECTIONS BY USING PREFABRICATED "L" AND "T" SECTIONS. LAP REINFORCEMENT A MINIMUM OF 6". SPACE REINFORCEMENT NOT MORE THAN 16" O.C. PROVIDE REINFORCEMENT NOT MORE THAN 8" ABOVE OR BELOW WALL OPENINGS AND EXTENDING 24" BEYOND OPENINGS. CUT REINFORCEMENT AT CONTROL AND EXPANSION JOINTS UNLESS NOTED OTHERWISE.

7. ALL BOND BEAM REINFORCING AT FLOOR AND ROOF DIAPHRAGMS SHALL BE CONTINUOUS THROUGH MASONRY CONTROL JOINTS - UNLESS NOTED OTHERWISE.

8. PROVIDE VERTICAL CONTROL JOINTS AT 1.5 TIMES WALL HEIGHT OR 25' MAXIMUM (WHICHEVER IS LEAST). SEE ARCHITECTURAL DRAWINGS.

9. THE MASONRY CONTRACTOR SHALL PROVIDE ALL REQUIRED TEMPORARY WALL BRACING DURING CONSTRUCTION.

10. THE MINIMUM QUALITY ASSURANCE PROGRAM FOR NON-ESSENTIAL FACILITIES SHALL COMPLY WITH TABLE 1.14.2 OF ACI 530.

STRUCTURAL STEEL:

1. ALL W-SHAPE STRUCTURAL STEEL SHALL BE ASTM A992, ALL OTHER STRUCTURAL SHAPES SHALL BE ASTM A-36, SQUARE OR RECTANGULAR HSS SHAPES SHALL CONFORM TO ASTM A-500, GRADE B, ROUND HSS SHAPES SHALL CONFORM TO ASTM A-500, GRADE B, STRUCTURAL STEEL PIPE COLUMNS SHALL CONFORM TO ASTM A-501 OR ASTM A-53, TYPE E OR S, GRADE B. DESIGN, DETAILING, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE AISC CODE AND DETAILING MANUAL. NO STRUCTURAL MEMBERS SHALL BE SPICED EXCEPT AS SHOWN ON APPROVED SHOP DRAWINGS.

2. FABRICATOR IS SOLELY RESPONSIBLE FOR THE DESIGN OF THE CONNECTIONS SHOWN ON THE STRUCTURAL DRAWINGS. REVIEW OF STRUCTURAL STEEL CONNECTIONS BY WGP, INC. IS FOR GENERAL DESIGN INTENT ONLY. FOR THE PURPOSE OF CONNECTION DESIGN, THE FABRICATOR SHALL RETAIN A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT. THE ENGINEER SHALL SEAL, SIGN AND SUBMIT DESIGN CALCULATIONS FOR ALL NON-STANDARD AND LATERAL RESISTING CONNECTION DESIGNS. A NOTE SHOULD ACCOMPANY THE SEAL STATING THAT THE SEAL IS FOR "CONNECTION DESIGN ONLY" AND DOES NOT INCLUDE RESPONSIBILITY FOR MEMBER OR BUILDING DESIGN, DIMENSIONS, FITUP, ERECTION AND ETC. GENERALLY CONNECTIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE SCHEMATIC AND ARE INTENDED TO SHOW THE RELATIONSHIP OF THE MEMBERS. CONNECTIONS SHALL BE DESIGNED FOR REACTIONS SHOWN ON CONTRACT STRUCTURAL DRAWINGS. IF REACTIONS ARE NOT SHOWN ON CONTRACT STRUCTURAL DRAWINGS, DESIGN FOR ONE HALF (1/2) THE ALLOWABLE LOAD ON THE MEMBER, USING THE AISC "ALLOWABLE UNIFORM LOAD TABLES" WITH GIVEN BEAM SPAN, OR A MINIMUM OF 10 KIPS, WHICHEVER IS GREATEST. MEMBER FORCES AND REACTIONS HAVE BEEN REDUCED IN CONFORMANCE TO CODE PROVISIONS RELATED TO COMBINATIONS OF LOADINGS THAT INCLUDE WIND AND SEISMIC FORCES. NO FURTHER REDUCTIONS IN FORCES OR INCREASED IN ALLOWABLE STRESSES IS PERMITTED. CONNECTIONS MAY BE BOLTED OR WELDED UNLESS NOTED OTHERWISE.

3. FABRICATOR SHALL BE CATEGORY I CERTIFIED (CONVENTION STEEL STRUCTURES), OR A COMPANY SPECIALIZING IN PROJECTS OF THIS NATURE WITH A MINIMUM OF 5 YEARS OF EXPERIENCE.

4. ALL SHOP AND FIELD WELDING SHALL BE BY A CERTIFIED WELDER AND SHALL CONFORM TO AWS STANDARDS (LATEST EDITION). FIELD FILLET WELDS GREATER THAN 1/4" THICKNESS SHALL BE INSPECTED BY AN INDEPENDENT TESTING AGENCY.

5. WHERE CAMBER IS NOT PRESENT ERECT MILL CAMBER UP.

6. SEE ARCHITECTURAL DRAWINGS FOR MISCELLANEOUS STEEL NOT SHOWN ON STRUCTURAL DRAWINGS.

7. GALVANIZE OR PAINT ALL EXTERIOR EXPOSED STRUCTURAL STEEL, SEE ARCHITECTURAL DRAWINGS.

TIMBER/WOOD/PLYWOOD/OSB:

1. A STRUCTURAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF THE PROJECT SHALL DESIGN WOOD TRUSSES. DESIGN FOR ALL CODE REQUIRED LIVE, SNOW AND WIND LOADS. DESIGNS SHALL BE SEALED AND SIGNED BY HIM/HER AND SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL. FABRICATION SHALL BE BY A MEMBER OF THE TRUSS PLATE INSTITUTE, INC. SUBMIT SHOP DRAWINGS SHOWING LAYOUT OF TRUSSES AND STRUCTURAL FRAMING INCLUDING ARRANGEMENT, DIMENSIONS, MATERIALS, GRADES, STRESS VALUES, CONNECTORS, ANCHORAGE, AND RELATION TO ADJACENT WORK TO ARCHITECT FOR APPROVAL. TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING MINIMUM LOADS:

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|------------------------|----------|
| FLOOR TRUSSES: | |
| TOP CHORD DEAD LOAD | 22.0 PSF |
| BOTTOM CHORD DEAD LOAD | 13.0 PSF |
| TOP CHORD LIVE LOAD | 40.0 PSF |

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| ROOF TRUSSES: | |
| TOP CHORD DEAD LOAD | 8.0 PSF |
| BOTTOM CHORD DEAD LOAD | 12.0 PSF |
| TOP CHORD LIVE LOAD | 20.0 PSF |
| BOTTOM CHORD LIVE LOAD (WHERE CODE REQUIRED) | 10.0 PSF |

GENERAL CONTRACTOR SHALL PROVIDE TRUSS SUPPLIER WITH SPRINKLER LAYOUT PLAN WITH HANGER LOCATIONS AND WEIGHTS. GENERAL CONTRACTOR SHALL PROVIDE TRUSS SUPPLIER WITH ALL OTHER HVAC/ELECTRICAL HANGING LOADS.

2. ALL TEMPORARY TRUSS BRACING REQUIRED FOR ERECTION, AS PER THE GUIDELINES SET FORTH BY THE TRUSS PLATE INSTITUTE PUBLICATION "HIB-91", SHALL BE PERMANENTLY ATTACHED AND REMAIN IN PLACE TO SERVE AS PERMANENT TRUSS BRACING UNLESS NOTED OTHERWISE.

3. TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED, DRILLED OR ALTERED IN ANY OTHER MANNER WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER RESPONSIBLE FOR DESIGNING THE TRUSSES.

4. LOAD BEARING PARTITIONS, JACKS, BEAMS AND COLUMN SUPPORTS MUST BE SOLID BLOCKED THROUGH FLOOR, TRUSSES AND PLYWOOD CANNOT SUPPORT CONCENTRATED POINT LOADS. 1-JOIST MATERIAL SHOULD NOT BE USED AS BLOCKING UNDER CONCENTRATED POINT LOADS. ALL POINT LOADS MUST BE CARRIED TO FOUNDATIONS WITH ADEQUATE BLOCKING AND/OR BEAMS.

5. TRUSS LAYOUTS AND CONFIGURATIONS SHOWN ARE SCHEMATIC ONLY AND MAY BE ALTERED AS REQUIRED. COORDINATE TRUSS CONFIGURATIONS WITH ALL ARCHITECTURAL REQUIREMENTS AND OTHER TRADES.

6. WOOD TRUSSES SHALL BE ERECTED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY AND PERMANENT BRACING AS REQUIRED FOR THE SAFE ERECTION AND PERFORMANCE OF THE TRUSSES. PLYWOOD/OSB ROOF SHEATHING SHALL RUN CONTINUOUS UNDER ALL VALLEY/OVERBUILD TRUSSES - TYPICAL.

7. WOOD TRUSSES USED IN THE POOL BUILDING MUST BE INSPECTED BIANNUALLY. A MOISTURE BARRIER AT THE BOTTOM CHORD OF THE TRUSSES MUST BE INSTALLED. TRUSS PLATES SHALL HAVE TWO COATS OF EPOXY ASPHALT PAINT MINIMUM. AN ACTIVE ATTIC EXHAUST FAN MUST BE INSTALLED.

8. PROVIDE MINIMUM OF TWO (2) STUDS UNDER 2-PLY TRUSSES, THREE (3) STUDS UNDER 3-PLY TRUSSES AND FOUR (4) STUDS UNDER 4-PLY TRUSSES UNLESS NOTED OTHERWISE.

9. MICRO-LAM (LVL) TIMBER SHALL HAVE THE FOLLOWING MINIMUM ALLOWABLE DESIGN STRESSES: BENDING STRESS, Fb = 2,600 PSI, HORIZONTAL SHEAR STRESS, Fv = 285 PSI, AND MODULUS OF ELASTICITY, E = 1,900,000 PSI - CONNECT MULTIPLE MEMBERS TOGETHER AS PER MANUFACTURERS RECOMMENDATIONS.

10. ALL WOOD CONNECTORS, ANCHORS, FASTENERS, TIES, STRAPS, BASES, CAPS, ETC. SHALL BE SIMPSON "STRONG-TIE" (OR EQUIVALENT). CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. **ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL MEET THE REQUIREMENTS OF ASTM A653 (CLASS G185) OR ASTM A153.**

11. ALL FRAMED LUMBER SHALL BE SOUTHERN PINE NO. 2 (SURFACED AT 19% MOISTURE CONTENT) OR BETTER - UNLESS NOTED OTHERWISE. ALL STUD TOP AND BOTTOM PLATES SHALL BE SOUTHERN PINE STUD GRADE OR BETTER.

12. ALL LOAD BEARING TIMBER WALL STUDS - SEE WALL STUD SCHEDULE SHEET S002.

13. ALL TIMBER/WOOD/PLYWOOD/OSB IN CONTACT WITH CONCRETE OR MASONRY OR EXPOSED TO THE EXTERIOR SHALL BE PRESSURE TREATED.

14. ALL WOOD CONNECTIONS SHALL NOT BE LESS THAN THOSE SPECIFIED IN TABLE 2304.9.1 OF THE CURRENT NORTH CAROLINA BUILDING CODE/IBC UNLESS NOTED OTHERWISE. LEAD HOLES FOR LAG SCREWS SHALL BE IN ACCORDANCE WITH NDS REQUIREMENTS.

15. GENERAL CONTRACTOR SHALL COORDINATE LOCATION OF TRUSSES WITH OTHER TRADES - SHIFT TRUSSES A MAXIMUM OF 3 1/2" AS REQUIRED.

16. ALL NON TONGUE AND GROOVE PLYWOOD/OSB PANELS SHALL HAVE 1/8" GAP AT ALL PANEL EDGES. PROVIDE SIMPSON PSLC (OR EQUIVALENT) PLYWOOD CLIPS @ 24" AT PANEL EDGES OF ALL ROOF PLYWOOD/OSB SHEATHING. WHERE SHEATHING IS APPLIED TO BOTH SIDES OF A SHEAR WALL PROVIDE DOUBLE STUDS OR STAGGER SHEATHING JOINTS.

17. WALL SHEATHING SHALL LAP AND CONNECT TO FOUNDATION SILL PLATE AND LAP PAST WALL PLATES TO CONNECT TO UPPER STORY FLOOR PLATE - PROVIDE EDGE PATTERN NAILING. PROVIDE 2x BLOCKING AT ALL EDGES.

18. ALL TIMBER/WOOD POSTS GREATER THAN 5" IN SIZE SHALL BE SOUTHERN PINE, NO. 2 DENSE SR OR BETTER. TYPICAL UNLESS NOTED OTHERWISE.

FLAT ROOFS:

1. FLAT ROOFS SHALL HAVE CONTROLLED DRAINAGE PROVISIONS AND SHALL BE EQUIPPED WITH A SECONDARY DRAINAGE SYSTEM AT A HIGHER ELEVATION WHICH PREVENTS PONDING ON THE ROOF ABOVE THAT ELEVATION. THE SECONDARY DRAINAGE SYSTEM SHALL BE POSITIONED SO THAT A 3" MAXIMUM DEPTH OF WATER WILL POND ON THE ROOF DURING THE DESIGN RAINSTORM. THE DESIGN OF THE ROOF DRAINAGE, SECONDARY DRAINAGE AND/OR OVERFLOW SCUPPERS IS BEYOND THE SCOPE OF THE STRUCTURAL ENGINEER'S SCOPE OF SERVICES.

FOLDING PARTITION:

1. FOLDING PARTITION IS ASSUMED TO BE 10'-0" HIGH WITH A WEIGHT OF 12 PSF. MAXIMUM SUPPORT LIVE LOAD DEFLECTION SHALL BE LIMITED TO 1 1/2". GENERAL CONTRACTOR SHALL VERIFY WITH PARTITION SUPPLIER.

POST-INSTALLED ANCHORS:

1. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONTRACT DOCUMENTS. CONTRACTOR SHALL OBTAIN APPROVAL FROM STRUCTURAL ENGINEER OF RECORD PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE GIVEN TO AVOID CONFLICTS WITH EXISTING STEEL REINFORCING. HOLES SHALL BE DRILLED AND CLEANED AS PER MANUFACTURERS RECOMMENDATIONS. ANCHORS SHALL BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS. CONTRACTOR INSTALLING ADHESIVE ANCHORS SHALL BE TRAINED BY THE MANUFACTURERS REPRESENTATIVE. THIS TRAINING SHALL INCLUDE HOLE DRILLING, CLEANING AND INSTALLATION METHODS FOR CONSTRUCTION CONDITIONS ON THIS PROJECT.

*CONCRETE ANCHORS SEISMIC DESIGN CATEGORY A, B, C, D, E, AND F:
1) EXPANSION ANCHORS - "STRONG-BOLT 2" OR "STRONG-BOLT" BY SIMPSON STRONG-TIE, "KWIK BOLT 17" BY HILTI OR EQUIVALENT, "POWER STUD" SD1" BY POWERS FASTENERS - UNLESS NOTED OTHERWISE.

2) CONCRETE ADHESIVE ANCHORS - "SET-XP EPOXY-TIE" BY SIMPSON STRONG-TIE, "HIT-RE 500-SD" OR "HIT-HY 150 MAX-SD" BY HILTI OR EQUIVALENT - UNLESS NOTED OTHERWISE.

3) SCREW ANCHORS - "TITEN HD" BY SIMPSON STRONG-TI, "KWIK HUS-EZ" BY HILTI OR EQUIVALENT.

4) SLEEVE ANCHORS - "HSL-3" BY HILTI OR EQUIVALENT.

*MASONRY ANCHORS:

1) EXPANSION ANCHORS - "WEDGE-ALL" BY SIMPSON STRONG-TIE, "KWIK BOLT 3" BY HILTI OR EQUIVALENT - UNLESS NOTED OTHERWISE.

2) ADHESIVE ANCHORS (GROUT FILLED) - "SET EPOXY-TIE" BY SIMPSON STRONG-TIE, "HIT-HY 150 MAX" BY HILTI OR EQUIVALENT - UNLESS NOTED OTHERWISE.

3) ADHESIVE ANCHORS (HOLLOW CMU OR BRICK) - "SET EPOXY-TIE" BY SIMPSON STRONG-TIE, "HIT-HY 70" BY HILTI OR EQUIVALENT - UNLESS NOTED OTHERWISE.

4) SCREW ANCHORS - "TITEN HD" BY SIMPSON STRONG-TIE, "HUS-H" BY HILTI OR EQUIVALENT.

5) SLEEVE ANCHORS - "SLEEVE-ALL" BY SIMPSON STRONG-TIE, "HLC" BY HILTI OR EQUIVALENT.

STAIR DESIGN:

1. STAIRS, LANDINGS AND HANDRAILS SHALL BE DESIGNED BY A STRUCTURAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF THE PROJECT. DESIGNS SHALL BE SEALED AND SIGNED BY HIM/HER AND SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL. SUBMIT SHOP DRAWINGS SHOWING LAYOUT OF STAIRS AND STRUCTURAL FRAMING, INCLUDING ARRANGEMENT, DIMENSIONS, CONNECTIONS AND RELATION TO ADJACENT WORK TO ARCHITECT FOR APPROVAL.

LADDER AND HANDRAIL DESIGN:

1. LADDERS AND HANDRAILS SHALL BE DESIGNED BY A STRUCTURAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF THE PROJECT. DESIGNS SHALL BE SEALED AND SIGNED BY HIM/HER AND SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL. SUBMIT SHOP DRAWINGS SHOWING LAYOUT OF LADDER AND HANDRAIL AND STRUCTURAL FRAMING, INCLUDING ARRANGEMENT, DIMENSIONS, CONNECTIONS AND RELATION TO ADJACENT WORK TO ARCHITECT FOR APPROVAL.

ELEVATOR:

1. GENERAL CONTRACTOR SHALL COORDINATE/VERIFY ALL STRUCTURAL STEEL REQUIRED FOR GUIDE RAIL SUPPORT AND HOIST BEAM. PROVIDE W8x10 HOIST BEAM AND HSS 6x4x5/16 GUIDE RAIL UNLESS NOTED OTHERWISE. VERIFY/COORDINATE ALL STEEL LOCATIONS, DIMENSIONS AND ELEVATIONS - TYPICAL.

PRE-MANUFACTURED CANOPIES AND AWNINGS:

1. THE DESIGN, CONNECTION AND ALL ATTACHMENTS OF ALL CANOPIES AND AWNINGS SHALL BE THE RESPONSIBILITY OF THE CANOPY/AWNING SUPPLIER. THE GENERAL CONTRACTOR SHALL COORDINATE ALL ATTACHMENT REQUIREMENTS AND PROVIDE ADDITIONAL STUDS, BLOCKING ETC. AS REQUIRED.

SIMPSON ANCHOR TIEDOWN SYSTEMS (ATS):

1. ATS IS AN ASSEMBLAGE OF STEEL COMPONENTS, WHICH INCLUDE RODS, PLATES, COUPLER NUTS, TAKE-UP DEVICES AND NUTS. STUDS, POSTS AND BLOCKING BY ENGINEER OF RECORD.

2. SIMPSON STRONG-TUE IS PROVIDING THE ANCHOR TIEDOWN SYSTEM TO MEET THE DESIGN FORCES PROVIDED BY THE ENGINEER OF RECORD. THE EOR IS RESPONSIBLE FOR EVALUATING THE EFFECTS OF LUMBER SHRINKAGE AND ATS ELONGATION ON SHEARWALL DRIFT.

3. GENERAL CONTRACTOR OR INSTALLER OF ATS SHALL CUT RODS TO LENGTH AS REQUIRED.

4. DO NOT WELD PRODUCTS UNLESS DRAWINGS SPECIFICALLY IDENTIFY A PRODUCT AS ACCEPTABLE FOR WELDING, OR UNLESS SPECIFIC APPROVAL FOR WELDING IS PROVIDED BY SIMPSON STRONG-TIE.

5. FULLY ENGAGE EACH ROD INTO THE SPECIFIED COUPLING NUT OR UNTIL EACH ROD CAN BE SEEN FULLY IN THE WITNESS HOLES.

6. INSTALL NUTS AND ISOLATOR NUTS SNUG TIGHT, PLUS AN ADDITIONAL 1/2 TURN.

7. IN THE EVENT OF A DISCREPANCY BETWEEN THE STRUCTURAL DRAWINGS AND SIMPSON INSTALLATION DRAWINGS, THE STRUCTURAL DRAWINGS SHALL GOVERN.

FLOOD ZONE DATA(SEE CIVIL DRAWING C003:

1. PROPERTY IS LOCATED IN FLOOD ZONE 'X' SHADED (AREAS OF 500 YEAR FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1') ACCORDING TO PANEL 75, 22073C0075E, DATED MACH 15, 1994.

2. THE PROPERTY LOCATED ADJACENT TO THE SOUTH WEST END OF THE PROPERTY IS SHOWN TO BE ELEV. 67 MSL, ON PANEL 75, 22073C0075E, DATED MACH 15, 1994.

3. FINISH FLOOR ELEVATION OF THE BUILDING IS 71.50 MSL.

NOTE!
SEE SOILS REPORT FOR FOOTING BEARING ELEVATION INFORMATION
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