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GENERAL NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING AND BRACING ALL WORK DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL OSHA REGULATIONS ON THE PROJECT SITE. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND DIMENSIONS SHOWN AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO FABRICATION AND CONSTRUCTION.
- THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY THE CONTRACTOR OR THE SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL TO THE WORK OF THE CONTRACTOR. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE FAILURE OF THE CONTRACTOR TO PERFORM THE CONSTRUCTION WORK IN ACCORDANCE WITH DRAWINGS. THE COST OF ANY TESTS OR WORK REQUIRED BECAUSE OF CONTRACTOR'S FAILURE TO PERFORM IN ACCORDANCE WITH THE DRAWINGS SHALL BE BORNE BY THE CONTRACTOR.
- CONTRACTOR SHALL VISIT SITE TO OBSERVE (E) CONSTRUCTION AND AS-BUILT CONDITIONS. SURVEY PROJECT SITE TO LOCATE EXISTING BUILDING COMPONENTS AND UTILITIES AFFECTING NEW CONSTRUCTION. REMOVE / RELOCATE EXISTING ITEMS IF REQUIRED FOR NEW CONSTRUCTION. COORDINATE ANY DISRUPTION OF SERVICES WITH OWNER.
- CONTRACTOR SHALL COORDINATE ALL DIMENSIONS AND ELEVATIONS RELATED TO WORK SHOWN WITH THE DETAILER AND AS-BUILT CONDITIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL DIMENSIONS WITH THE FABRICATOR. NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE ALL ROOF, FLOOR, AND WALL OPENINGS WITH STRUCTURAL, ARCHITECTURAL, AND MECHANICAL COMPONENTS.
- ALL MATERIAL, WORKMANSHIP, AND DESIGN SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE, CURRENT EDITION.
- REFERENCE TO STANDARD SPECIFICATIONS OF ANY TECHNICAL SOCIETY, ORGANIZATION, OR ASSOCIATION, OR TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE LATEST STANDARD, CODE, SPECIFICATION, UNLESS SPECIFICALLY STATED OTHERWISE.
- BOTH BAILEY AND SON ENGINEERING, INC. AND THE ENGINEER WHOSE PROFESSIONAL SEAL IS AFFIXED TO THESE CONTRACT DRAWINGS DISCLAIM ANY IMPLIED WARRANTIES OF ANY KIND WHATSOEVER INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND ANY IMPLIED WARRANTY OF FITNESS OF THESE DRAWINGS AND/OR SPECIFICATIONS.
- THE CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMISSION. DRAWINGS SHALL BEAR THE CONTRACTOR'S APPROVAL STAMP ACCEPTING RESPONSIBILITY FOR DIMENSIONS, QUANTITY, QUALITY, AND COORDINATION WITH ALL DISCIPLINES. ELECTRONIC TRANSFER OF CAD FILES TO AID THE CONTRACTOR OR FABRICATOR IS NOT RECOMMENDED BUT AUTOCAD DWG. FILES ARE AVAILABLE UPON RECEIPT OF FULLY COMPLETED CASE DOCUMENT 11 AND A FEE OF \$50.00 FOR EACH DIFFERENT DRAWING SHEET REQUESTED.
- THE REHABILITATION OF AN EXISTING STRUCTURE REQUIRES ASSUMPTIONS TO BE MADE REGARDING EXISTING CONDITIONS. THESE ASSUMPTIONS MAY NOT BE VERIFIABLE WITHOUT ADDITIONAL COST OR WITHOUT DESTROYING OTHERWISE SERVICEABLE PORTIONS OF THE STRUCTURE. THE ENGINEER SHALL NOT BE LIABLE FOR ANY COST ARISING FROM THE DISCOVERY OF UNKNOWN CONDITIONS IN THE EXISTING STRUCTURE.

DESIGN LOADS AND CRITERIA:

INTERNATIONAL BUILDING CODE, 2012 EDITION

FLOOR DEAD LOAD: 12 psf
 FLOOR LIVE LOAD: 50 psf - OFFICES
 80 psf CORRIDORS

CONCRETE AND REINFORCING NOTES:

- ALL CONCRETE WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH ACI 318, INCLUDING HOT WEATHER CONCRETING PROCEDURES IN ACI 305 AND COLD WEATHER CONCRETING PROCEDURES IN ACI 306.
- MATERIALS SHALL MEET THE FOLLOWING REQUIREMENTS, UNLESS NOTED OTHERWISE:
 - FOUNDATION CONCRETE.....3000 PSI*
 - SLAB ON GRADE CONCRETE.....4000 PSI*
 - FOUNDATION WALLS.....3000 PSI*
 - PROVIDE 6% AIR ENTRAINING IN CONCRETE EXPOSED TO WEATHER.
 - MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS.
 - CONCRETE IN WALLS TO ALSO HAVE A HIGH RANGE WATER REDUCER (HRWR).
 - SLUMP FOR WALLS TO BE 3 INCHES BEFORE ADDING HRWR. SLUMP FOR FOOTINGS TO BE 2 TO 4 INCHES.
 - REINFORCING BARS.....ASTM A615, GRADE 60
 - WELDABLE REINFORCING BARS.....ASTM A706, GRADE 60
 - ANCHOR BOLTS, SLEEVES, AND OTHER EMBEDDED STEEL.....ASTM A36
 - WELDED WIRE FABRIC.....ASTM A185
 - CONCRETE AGGREGATE.....ASTM C33
- CONCRETE FINISHES DETERMINED BY OWNER. CURING COMPOUND SHALL MEET ASTM C1315 WITH A MIN. OF 25% SOLIDS CONTENT BY VOLUME.
- ANCHOR BOLTS TO BE LOCATED WITH A TOLERANCE OF 1/8 INCH.
- ALL CONTINUOUS REINFORCING BARS SHALL BE TURNED AND LAPPED AT ALL CORNERS AND INTERSECTIONS OF WALLS AND FOUNDATIONS. USE MINIMUM TEMPERATURE REINFORCING AS CALLED FOR BY ACI 318 WHERE REINFORCING IS NOT SHOWN.
- ALL REINFORCING SPLICES SHALL BE CLASS "B" PER ACI 318, UNLESS NOTED OTHERWISE.
- CONCRETE TEST CYLINDERS AND SLUMP TESTS ARE TO BE MADE FOR EACH 50 CUBIC YARDS OR FRACTION THEREOF, OR FOR EACH 5,000 SQUARE FOOT OF SURFACE AREA PLACED. TEST RESULTS SHALL BE REPORTED IN WRITING TO THE ENGINEER WITHIN 48 HOURS AFTER TESTS ARE MADE.
- LIMIT USE OF FLY ASH TO NOT EXCEED 20% OF CEMENTITIOUS MATERIAL BY WEIGHT (CEMENT + FLY ASH).

STRUCTURAL STEEL NOTES:

- DESIGN, FABRICATION, AND ERECTION OF ALL STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE AISC MANUAL OF STEEL CONSTRUCTION, FOURTEENTH EDITION, UNLESS NOTED OTHERWISE.
- MATERIALS SHALL MEET THE REQUIREMENTS OF THE FOLLOWING SPECIFICATIONS:
 - WIDE FLANGE STRUCTURAL STEEL.....ASTM A992, GRADE 50
 - STRUCTURAL STEEL.....ASTM A36
 - STRUCTURAL TUBING.....ASTM A500, GRADE B, FY (MIN) = 46 KSI
 - BOLTS.....ASTM A325-N
 - WELDING ELECTRODES.....AWS-A5.1, E70XX LOW HYDROGEN (OR EQUAL)
 - STEEL PIPE.....ASTM A53, TYPE E OR S, GRADE B
- ALL WELDING SHALL BE MADE BY A CERTIFIED WELDER IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN WELDING SOCIETY SPECIFICATIONS D1.1. MINIMUM SIZE OF FILLET WELD SHALL BE 1/16" SMALLER THAN MATERIAL THICKNESS OF THICKER PART JOINED, UNLESS NOTED OTHERWISE.
- ELECTRODE STORAGE FOR LOW-HYDROGEN ELECTRODES SHALL BE STORED @ 250° WHEN EXPOSURE EXCEEDS REQUIREMENTS OF COLUMN A, TABLE 51 OF AWS. WELD CLEANING AND PAINTING OF COMPLETED WELDS SHALL BE IN ACCORDANCE WITH AWS.
- UNLESS NOTED OTHERWISE ON THE PLANS, CONNECTIONS SHALL DEVELOP AT LEAST ONE-HALF OF THE TOTAL UNIFORM LOAD CAPACITY TABULATED IN THE TABLES OF THE AISC MANUAL FOR THE GIVEN SECTION AND SPAN OF THE BEAM IN QUESTION. IN NO CASE, HOWEVER, SHALL THE LENGTH OF FRAMED CONNECTIONS BE LESS THAN ONE-HALF THE "T" DIMENSION OF THE BEAM WEB. CONNECTIONS INDICATED ON THE PLANS BY "*" SHALL CONTAIN THE MAXIMUM NUMBER OF ROWS OF BOLTS, AT 3" PITCH, THAT CAN BE FIT IN A CLIP ANGLE WHOSE LENGTH EQUALS THE "T" DIMENSION OF THE BEAM.
- ALL BOLTED CONNECTIONS SHALL BE BEARING-TYPE USING 3/4" DIAMETER AND BROUGHT TO A SNUG TIGHT CONDITION. A325-N BOLTS WITH THREADS INCLUDED IN SHEAR PLANE, UNLESS NOTED OTHERWISE.
- SHOP CONNECTIONS MAY BE BOLTED OR WELDED.
- FIELD CONNECTIONS SHALL BE BOLTED UNLESS NOTED OTHERWISE ON DRAWINGS.

- ALL BEAMS SHALL FRAME INTO COLUMN (OR POST) FLANGES OR WEBS AND NOT PLACED ON TOP OF COLUMN CAP PLATES UNLESS INDICATED ON FRAMING PLAN AS A CONTINUOUS BEAM. IF A COLUMN CAP PLATE IS REQUIRED, THE ELEVATION FOR THE TOP OF COLUMN CAP PLATE SHALL MATCH TOP OF BEAM FRAMING TO THE COLUMN (OR POST), UNLESS NOTED OTHERWISE.
- SURFACE PREPARATIONS FOR STRUCTURAL STEEL SUBJECT NOT SUBJECT TO EXTERIOR ENVIRONMENTAL CONDITIONS SHALL BE CLEANED IN ACCORDANCE WITH SSPC - SP3 (POWER TOOL CLEANING), AND PRIMER WITH SSPC PAINT 15, OR BETTER, 2 MILS DFT AND SHALL BE COMPATIBLE WITH OVERCOAT.
- WHEN STRUCTURAL STEEL SPECIAL INSPECTIONS IN ACCORDANCE WITH IBC, CHAPTER 17 APPLY,
 - A. THE CONTRACTOR SHALL PROVIDE THE STEEL INSPECTOR:
 - WELDER QUALIFICATION CERTIFICATES (DATED WITHIN THE PAST 48 MONTHS)
 - WELD PROCEDURES FOR WHICH WELDERS ARE CERTIFIED.
 - ELECTRODE TYPE TO BE USED FOR STRUCTURAL STEEL.
 - ELECTRODE TYPE TO BE USED FOR METAL DECKING.
 - B. ALL PJP AND CJP WELDS SHALL BE CONTINUOUSLY MONITORED DURING WELDING.
 - C. ALL MULTIPASS FILLET WELDS SHALL BE CONTINUOUSLY MONITORED DURING WELDING.
 - D. SINGLE-PASS FILLET WELDS GREATER THAN 5/16" SHALL BE CONTINUOUSLY MONITORED DURING WELDING.
 - E. INSTALLATION OF HIGH-STRENGTH BOLTS SHALL BE PERIODICALLY INSPECTED DURING INSTALLATION.
 - F. VERIFICATION OF HIGH STRENGTH BOLTS WILL BE REQUIRED.
 - G. BEARING-TYPE CONNECTIONS SHALL REQUIRE PERIODIC INSPECTION.
 - H. SLIP-CRITICAL CONNECTIONS SHALL REQUIRE PERIODIC INSPECTION WHEN TURN-OF-NUT MATCHMARKING IS USED.
 - I. SLIP-CRITICAL CONNECTIONS SHALL BE CONTINUOUSLY MONITORED WHEN TURN-OF-NUT MATCHMARKING IS NOT USED.

WOOD AND WOOD TRUSS NOTES:

- STRUCTURAL LUMBER:
 - 2"x10" 2ND FLOOR JOISTS: SPRUCE-PINE-FIR, NO.2 GRADE, OR SOUTHERN YELLOW PINE NO.2 DENSE, OR BETTER
 - 2"x4" OR 2"x6" WALL STUDS: NO.2 SPF OR SYP NO.2 NON-DENSE
 - 2"x6" CEILING JOISTS: SOUTHERN YELLOW PINE - NO.2 NON-DENSE OR BETTER
- SUBFLOOR TO BE 3/4" T&G PLYWOOD SHEATHING TO BE NAILED AND GLUED TO JOISTS WITH 8D RINGED SHANK NAILS AT 12" O.C. GLUE TO CONFORM TO PERFORMANCE SPECIFICATION AFG- 01, DEVELOPED BY THE AMERICAN PLYWOOD INSTITUTE.
- LOAD BEARING WALLS SHALL HAVE BRIDGING AT 48" MAXIMUM.
- PROVIDE A MINIMUM OF TWO (2) STUDS BELOW ALL GIRDER TRUSS BEARING LOCATIONS OR BEAMS.

CONCRETE MASONRY NOTES:

- ALL MASONRY WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE ACI 530. ALL HOLLOW CONCRETE BLOCK SHALL BE LIGHTWEIGHT (105 LBS/FT.³ MAX.) AND SHALL MEET THE REQUIREMENTS OF ASTM C90, TYPE II, GRADE N. (f'm = 1500 PSI).
- MORTAR SHALL MEET ASTM C270 FOR TYPE S MORTAR.
- FILL ALL MASONRY CELLS AND BOND BEAMS CONTAINING REINFORCING BARS WITH REINFORCED MASONRY GROUT, (RMG), MEETING REQUIREMENTS OF ASTM C476, AND WITH A MIN. 28-DAY COMPRESSIVE STRENGTH OF 2500 PSI.
- JOINT REINFORCING SHALL BE TRUSS OR LADDER TYPE DUR-O-WAL WITH NO. 9 (W1.7) WIRES, AND SHALL BE HOT-DIP GALVANIZED. LOCATE JOINT REINFORCING AS FOLLOWS:
 - A. AT 8" ON CENTER IN WALLS BELOW SLAB ON GRADE AND IN RETAINING WALLS.
 - B. AT 16" ON CENTER IN ALL OTHER WALLS.
- PROVIDE REINFORCED MASONRY LINTELS AT ALL WALL OPENINGS WIDER THAN 16", UNLESS NOTED OTHERWISE. FILL JAMB CELLS UP TO LINTEL ELEVATION BEFORE LINTEL BLOCKS ARE PLACED.
- BLOCK SHALL BE PLACED IN RUNNING BOND, JOINTS TO BE 3/8"; TOOL ALL JOINTS CONCAVE.
- ALL CONTINUOUS REINFORCING BARS SHALL BE TURNED AND LAPPED AT ALL CORNERS AND INTERSECTIONS OF BOND BEAMS. 8" BOND BEAMS SHALL HAVE A MINIMUM OF TWO #5 BARS. BOND BEAMS SHALL HAVE A 24" MINIMUM BEARING AT EACH END.
- LOCATE CONTROL JOINTS AND EXPANSION JOINTS AS RECOMMENDED BY THE NCMA (40 FEET MAXIMUM SPACING) AND AS APPROVED BY THE ARCHITECT. DISCONTINUE BOND BEAM REINFORCING AT CONTROL JOINTS EXCEPT FOR BOND BEAMS AT THE PLANE OF A ROOF, A FLOOR, OR AT THE TOP OF THE WALL.
- VERTICAL WALL REINFORCING TO BE SPLICED WITH THE FOLLOWING MINIMUM LAPS, OR APPROVED WELDED OR MECHANICAL SPLICE: #5 BARS - 30" LAP
- WHERE INTERFERENCE PREVENTS A CONTINUOUS RUN OF WALL REINFORCING, OFFSET THE MINIMUM DISTANCE REQUIRED TO BY-PASS THE INTERFERENCE, LAP AS SPECIFIED, AND EXTEND SPLICE BAR INTO TOP OF WALL.
- UNLESS NOTED OTHERWISE, PROVIDE THE FOLLOWING MINIMUM VERTICAL WALL REINFORCEMENT: A #5 SPACED AT 48" MAX. & A #5 ON EACH SIDE OF WALL OPENINGS AND CONTROL JOINTS, AT ENDS OF WALLS, AND AT CORNERS. CONTINUE VERTICAL REINFORCING THROUGH INTERMEDIATE LEVEL BOND BEAMS AND EXTEND INTO BOND BEAM AT TOP OF WALL.
- UNLESS NOTED OTHERWISE, PROVIDE BOND BEAMS IN THE FOLLOWING LOCATIONS:
 - A. WITHIN 8" OF THE TOP COURSE OF MASONRY IN ALL WALLS.
 - B. AT THE TOP OF WALL OPENINGS.
- HOLES FOR SLEEVE ANCHORS MUST BE DRILLED WITH A ROTARY DRILL. DO NOT USE HAMMER DRILL. ANCHORS SHALL BE EMBEDDED IN FILLED CELLS WHERE POSSIBLE.
- CONTRACTOR SHALL INSURE THAT ALL CELLS WITH STAIR STRINGER ATTACHMENTS ARE FILLED SOLID WITH GROUT.
- ALL CMU WALL INTERSECTIONS SHALL HAVE ONE OF THE FOLLOWING:
 - A) PRE-FABRICATED "T" OR "L" SECTIONS (TO MATCH WALL INTERSECTION) @ 16" OC MAX VERTICALLY AND 50% OF THE MASONRY UNITS LAID IN AN OVERLAPPING PATTERN
 - B) PRE-FABRICATED "T" OR "L" SECTIONS (TO MATCH WALL INTERSECTION) @ 8" OC MAX VERTICALLY AND AT LEAST 30" IN EACH DIRECTION AT THE INTERSECTION.

SUBMITTALS:

- FURNISH AT LEAST THREE HARD COPIES OF ALL SUBMITTALS AND SHOP DRAWINGS TO ENGINEER. ALLOW A MINIMUM OF 10 WORKING DAYS FOR REVIEW OF EACH SUBMITTAL. FABRICATOR SHALL INSURE THAT ALL PLACEMENT AND DETAIL DRAWINGS ARE CHECKED IN-HOUSE PRIOR TO SUBMITTAL. DRAWINGS NOT REVIEWED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL TO ENGINEER ARE SUBJECT TO REJECTION. ELECTRONIC COPIES OF REQUIRED SUBMITTALS (SHOP DRAWINGS, CALCULATIONS, PRODUCT INFORMATION, ETC.) WILL NOT BE ACCEPTED, UNLESS APPROVED BY THE ENGINEER. AT THE TIME OF ELECTRONIC SUBMISSION, THE GENERAL CONTRACTOR SHALL INCLUDE PAYMENT FOR PRINTING AND REPRODUCTION COSTS ASSOCIATED WITH THE REVIEW AND DISTRIBUTION OF SUBMITTAL COMMENTS. ALL ELECTRONIC SUBMITTALS SHALL INCLUDE THE GENERAL CONTRACTOR'S REVIEW COMMENTS WHEN THEY ARE TRANSMITTED TO THE ENGINEER.
- REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER OF RECORD DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, QUANTITIES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.
- SUBMITTALS REQUIRED:
 - A. CONCRETE "READY-MIX" DESIGNS.....YES NO
 - B. CONCRETE COMPRESSION TEST REPORTS.....YES NO
 - C. REINFORCED MASONRY GROUT (RMG) MIX DESIGN.....YES NO
 - D. REINFORCING SHOP DRAWINGS.....YES NO
 - E. STRUCTURAL STEEL SHOP DRAWINGS.....YES NO

NO.	DESCRIPTION	DESIGNED BY: GLE	DRAWN BY: M.C.	CHECKED BY: GLE
0	ISSUED FOR CONSTRUCTION	09.01.15		CLB
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DWG. NO.	DRAWING TITLE
S01	PROJECT NOTES & DESIGN CRITERIA
S1	GENERAL ARRANGEMENT AND FRAMING PLANS
S2	SECTIONS & DETAILS
S3	STAIR FRAMING PLAN & DETAILS

OFFICE BUILDING RENOVATION
 305 WEST HENRY ST.
 SPARTANBURG, SC
 CLIENT: CITY OF SPARTANBURG
 PROJECT NOTES & DESIGN CRITERIA

DRAWING NUMBER
S01
 BaSE Project No. 15122