

1.0. CODES AND STANDARDS:
1.1. INTERNATIONAL BUILDING CODE 2018 EDITION INCLUDING ALL SUBSEQUENT SUPPLEMENTS AND AMENDMENTS THERETO.
1.2. "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES"; AMERICAN SOCIETY OF CIVIL ENGINEERS, ASCE 7-10.
1.3. "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS"; PUBLICATION 360-10 BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, AND AS AMENDED IN SPECIFICATIONS.

4.0. CONCRETE:
4.1. CONCRETE SHALL HAVE 28-DAY COMPRESSIVE STRENGTHS AND DENSITIES AS FOLLOWS:
ELEMENT/MEMBER STRENGTH FC DENSITY WC
FOOTINGS & SLABS ON GRADE 3 KSI 145 PCF
SLABS ON STEEL DECK 3.5 KSI 115 PCF
STAIR PAN FILL 3 KSI 115 PCF

5.0. REINFORCING STEEL:
5.1. REINFORCING SHALL BE DOMESTIC NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60 OR 60S INCLUDING STIRRUPS AND TIES, EXCEPT THAT REINFORCING WHICH IS REQUIRED TO BE WELDED SHALL CONFORM TO ASTM A706.
5.2. FIELD BENDING OF CONCRETE REINFORCING STEEL IS NOT PERMITTED WITHOUT WRITTEN APPROVAL OF THE COR.

6.0. INSPECTION AND TESTING:
6.1. AN INDEPENDENT TESTING LABORATORY SHALL BE RETAINED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS TO PERFORM TESTING OF FOUNDATION BEARING STRATA, ENGINEERED FILLS, CONCRETE, GROUT, STEEL, AND WELDING. SEE PROJECT SPECIFICATIONS FOR REQUIREMENTS.
6.2. THE CONTRACTOR, IN CONJUNCTION WITH THE TESTING LABORATORY AND IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, SHALL DETERMINE THE FREQUENCY OF THE TESTING NECESSARY TO INSURE THAT THE DESIGN REQUIREMENTS ARE BEING MET.

Table with 4 columns: ABBREV., DEFINITION, ABBREV., DEFINITION. Lists various structural abbreviations like HOF (Horizontal Outer Face), HK (Hook), HORZ (Horizontal), etc.

2.0. SPECIFICATIONS:
2.1. THE STRUCTURAL GENERAL NOTES ARE NOT A SUBSTITUTE OR A REPLACEMENT FOR THE PROJECT SPECIFICATIONS. THESE NOTES ARE INTENDED AS A GUIDE TO THE DESIGN AND/OR CONSTRUCTION REQUIREMENTS ESTABLISHED FOR THIS PROJECT.

4.2. CONCRETE MIX DESIGNS:
A. SUBMITTALS: SUBMIT WRITTEN REPORTS OF EACH PROPOSED CONCRETE MIX NOT LESS THAN 15 DAYS PRIOR TO THE START OF WORK. DESIGN MIXES PREPARED MORE THAN TWENTY-FOUR (24) MONTHS PRIOR TO THE DATE OF THE SUBMITTAL ARE NOT PERMITTED.
B. MIX DESIGNS, INCLUDING W/C RATIOS AND SLUMPS, SHALL BE PREPARED IN ACCORDANCE WITH THE MOST CURRENT ACI 301 CHAPTER 4, EXCEPT WHERE NOTED OTHERWISE IN THE PROJECT SPECIFICATIONS.

5.4. ALL REINFORCING SHALL BE DETAILING MANUFACTURED AND PLACED IN ACCORDANCE WITH ACI SP-66 "ACI DETAILING MANUAL - 2004" AND THE "CRSI MANUAL OF STANDARD PRACTICE" LATEST EDITION.
5.5. MINIMUM CONCRETE COVER OVER REINFORCING SHALL BE U.N.O.:
A. UNFORMED SURFACE CAST AGAINST EARTH..... 3 IN.
B. FORMED SURFACE EXPOSED TO EARTH/WEATHER..... 2 IN.

7.0. CONSTRUCTION AND SAFETY:
7.1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL SAFETY REGULATIONS, PROGRAMS AND PRECAUTIONS RELATED TO ALL WORK ON THIS PROJECT.
7.2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF PERSONS AND PROPERTY EITHER ON OR ADJACENT TO THE PROJECT AND SHALL PROTECT SAME AGAINST INJURY, DAMAGE OR LOSS.

Table with 4 columns: ABBREV., DEFINITION, ABBREV., DEFINITION. Lists abbreviations like OH (Opposite Hand), OPN (Opening), PC (Precast), etc.

2.2. CONTRACTOR AND STRUCTURAL STEEL FABRICATOR SHOULD ACQUAINT THEMSELVES WITH THE REQUIREMENTS FOR DOMESTICALLY PRODUCED BOLTS AND FOR STEEL CONNECTION DESIGN REQUIREMENTS NOTED HEREIN AND IN THE STRUCTURAL STEEL SPECIFICATIONS.
2.3. CONTRACTOR AND STRUCTURAL STEEL FABRICATOR SHOULD ACQUAINT THEMSELVES WITH THE REQUIREMENTS FOR DOMESTICALLY PRODUCED BOLTS AND FOR STEEL CONNECTION DESIGN REQUIREMENTS, INCLUDING SIGNED AND SEALED SHOP DRAWINGS AND CONNECTION DESIGN CALCULATIONS, NOTED HEREIN AND IN THE STRUCTURAL STEEL SPECIFICATIONS.

4.3. CURING:
A. LIQUID MEMBRANE CURING COMPOUND WITH A MINIMUM 30% SOLIDS CONTENT SHALL BE APPLIED WITHIN TWO (2) HOURS AFTER COMPLETION OF FINISHING TO ALL CONCRETE IN WALLS AND WALLS, U.N.O. OTHER THAN FOOTINGS AND GRADE BEAMS.
B. FLOORS IN AREAS RECEIVING QUARRY TILE, CERAMIC TILE AND LIQUID FLOOR HARDENER SHALL BE CURED WITH SPECIFIED DISSIPATING LIQUID MEMBRANE CURING COMPOUND OR WET CURED BY USE OF MOISTURE RETAINING COVER.

5.6. DEVELOPMENT LENGTHS AND LAP SPLICES SHALL BE IN ACCORDANCE WITH ACI 318 CHAPTER 25 AS INDICATED BELOW AND AS INDICATED ON THE DRAWINGS, WHERE SPLICES ARE NOT CALLED OUT ON THE DRAWINGS, USE CLASS "B".
5.7. A CLASS "B" SPLICE IS REQUIRED WHEREVER ALL REINFORCING BARS CROSSING A SECTION ARE SPLICED.

7.3. MEANS AND METHODS OF CONSTRUCTION AND ERECTION OF STRUCTURAL MATERIALS ARE SOLELY THE CONTRACTOR'S RESPONSIBILITY.
7.4. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED IN CONJUNCTION WITH THE DRAWINGS OF OTHER CONSULTANTS AND TRADES. THE CONTRACTOR SHALL COORDINATE THE VARIOUS REQUIREMENTS.

Table with 4 columns: ABBREV., DEFINITION, ABBREV., DEFINITION. Lists abbreviations like REINFG (Reinforcing), REINF (Reinforcement), RECD (Reinforced), etc.

Table with 3 columns: AREA, LIVE LOAD, DEAD LOAD. Lists design loads for roof and slab on grade.

4.4. WHEN COLD WEATHER CONDITIONS EXIST, PLACE AND CURE CONCRETE IN ACCORDANCE WITH ACI 308.2 (PART 1) AND ACI 308.3 (PART 2), WHERE USE IS DESIRED, SUBMIT FOR ENGINEER'S APPROVAL A NON-CORROSIVE, NON-CHLORIDE, ACCELERATING ADMIXTURE FOR CONCRETE EXPOSED TO TEMPERATURES BELOW 40 DEGREES.

Table with 4 columns: FC COMPRESSION, TENSION, PSI, ALL CASES, CASE 1, CASE 2. Lists steel tensile strengths.

7.5. NO OPENINGS NOR ANY CHANGES IN SIZE, DIMENSION OR LOCATION SHALL BE MADE IN ANY STRUCTURAL ELEMENTS WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
7.6. OPENINGS 1'-0" OR LESS ON A SIDE ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO DRAWINGS OF OTHER CONSULTANTS FOR SUCH OPENINGS.

Table with 4 columns: ABBREV., DEFINITION, ABBREV., DEFINITION. Lists abbreviations like T (Top), TXXX (Top of XXX), TOX (Top of XXX Extension), etc.

3.2. SEISMIC LOADS:
RISK CATEGORY IV
RISK IMPORTANCE FACTOR "I" 1.5
SITE SOIL CLASSIFICATION D (ASSUMED PENDING GEOTECHNICAL REPORT)
MAPPED SPECTRAL RESPONSE "Ss/S1" 0.170g/0.093g
DESIGN SPECTRAL RESPONSE "Sds/Sd1" 0.161g/0.149g
SEISMIC DESIGN CATEGORY D

4.5. WHEN HOT WEATHER CONDITIONS EXIST, PLACE AND CURE CONCRETE IN ACCORDANCE WITH ACI 305 "HOT WEATHER CONCRETING" - COOL MATERIALS BEFORE MIXING TO MAINTAIN CONCRETE PLACEMENT TEMPERATURE BELOW 90 DEGREES.
4.6. ALL CONSTRUCTION JOINTS IN THE DRAWINGS SHALL BE INCORPORATED INTO THE STRUCTURE UNLESS THE COR APPROVES THEIR ELIMINATION.

5.8. REINFORCING BARS SHALL BE WELDED ONLY WHERE SHOWN ON THE STRUCTURAL DRAWINGS AND WELDS SHALL BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING CODE - REINFORCING STEEL" (AWS D1.4). NO OTHER REINFORCING MAY BE WELDED WITHOUT THE APPROVAL OF THE COR. TACK WELDING OF ANY REINFORCING IS STRICTLY PROHIBITED.
5.9. WELDED WIRE MESH SHALL BE LAPPED 1'-0" AT ALL SPLICES.

7.7. FIREPROOFING OF STRUCTURAL ELEMENTS IS NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO THE SPECIFICATIONS AND ARCHITECTURAL DRAWINGS FOR FIRE RATING REQUIREMENTS, MATERIALS AND METHODS.
7.8. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURE. SUCH LOADS SHALL NOT EXCEED THE CAPACITY OF THE STRUCTURE AT ANY TIME.

Table with 4 columns: ABBREV., DEFINITION, ABBREV., DEFINITION. Lists abbreviations like V (Vertical), VEF (Vertical Each Face), VIF (Vertical Inner Face), etc.

3.3. WIND LOADS PER ASCE 7-10:
BASIC WIND SPEED (3-SECOND GUST) 120 MPH (ULTIMATE)
RISK CATEGORY IV
ASCE 7 EXPOSURE CATEGORY B
WIND PRESSURES FOR CLADDING AND OTHER COMPONENTS VARY WITH SHAPE FACTORS FOR THOSE COMPONENTS - SEE APPROPRIATE ASCE 7-10 SECTIONS

4.7. ADDITIONAL CONSTRUCTION JOINTS, REQUIRED TO FACILITATE CONSTRUCTION, ARE SUBJECT TO THE APPROVAL OF THE COR AND MAY REQUIRE ADDITIONAL REINFORCING. SUCH JOINTS SHALL BE CLEARLY DETAILED ON THE SHOP DRAWINGS AND ALL REINFORCING SHALL PASS CONTINUOUSLY THROUGH THE JOINT.
4.8. REINFORCING IN ALL ABUTTING CONCRETE, INCLUDING FOOTINGS, SHALL BE CONTINUOUS THROUGH OR AROUND ALL CORNERS OR INTERSECTIONS. DOVELS OR SPLICES SHALL BE EQUAL IN SIZE AND SPACING TO THE REINFORCING IN THE ABUTTING MEMBERS.

5.10. ALL REINFORCING TERMINATING AT THE TOPS OF COLUMNS AND PILASTERS SHALL BE HOOKED, U.N.O.
5.11. SUBMIT SHOP DRAWINGS FOR FABRICATION, BENDING, AND PLACEMENT OF CONCRETE REINFORCEMENT. COMPLY WITH ACI DETAILING MANUAL (SP-66) SHOWING BAR SCHEDULES, STIRRUP SPACING, DIAGRAMS OF BENT BARS, ARRANGEMENT OF CONCRETE REINFORCEMENT, INCLUDE SPECIAL REINFORCEMENT REQUIRED AT OPENINGS THROUGH CONCRETE STRUCTURES. INCLUDE ALL ACCESSORIES SPECIFIED/REQUIRED TO SUPPORT REINFORCING. THE SHOP DRAWING SHOULD INCLUDE ELEVATIONS OF ALL WALLS.

7.9. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION, AND ANY FIREPROOFING OF STRUCTURAL ELEMENTS IS NOT SHOWN ON THE STRUCTURAL MEANS AND METHODS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
7.10. THE CONTRACTOR SHALL INFORM THE COR, CLEARLY AND EXPLICITLY IN WRITING, OF ANY DEVIATION OR SUBSTITUTION OF REQUIREMENTS OF THE CONTRACT DOCUMENTS. CONTRACTOR IS NOT RELIEVED OF ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS BY VIRTUE OF THE COR'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNLESS THE CONTRACTOR HAS CLEARLY AND EXPLICITLY INFORMED THE COR IN WRITING OF ANY DEVIATIONS OR SUBSTITUTIONS AT TIME OF SUBMISSION, AND THE STRUCTURAL ENGINEER HAS GIVEN WRITTEN APPROVAL FOR THE SPECIFIC DEVIATIONS OR SUBSTITUTIONS.

Table with 4 columns: ABBREV., DEFINITION, ABBREV., DEFINITION. Lists abbreviations like W (Wide), WIF (Wide Inner Face), WW (Welded Wire Fabric), etc.

3.4. DRIFTING SNOW LOADS PER ASCE 7-10:
50 YEAR GROUND SNOW LOAD "Pg" 10.0 PSF
RISK CATEGORY II
IMPORTANCE FACTOR "I" 1.0
ROOF EXPOSURE TYPE PARTIAL
EXPOSURE FACTOR "Ce" 1.00
THERMAL FACTOR "Ct" 1.00
MINIMUM ROOF SNOW LOAD (PG") 10.0 PSF
FLAT ROOF SNOW LOAD "Pf" 7.0 PSF
RAIN-ON-SNOW SURCHARGE 5.0 PSF
FLAT ROOF DESIGN SNOW LOAD 12.0 PSF

4.9. REFER TO ARCHITECTURAL DRAWINGS FOR DOOR AND WINDOW OPENINGS, DRIPS, REGLETS, WASHES, MASONRY ANCHORS, BRICK LEDGE ELEVATIONS, SLAB DEPRESSIONS AND MISCELLANEOUS EMBEDDED PLATES, BOLTS, ANCHORS, ANGLES, ETC.
4.10. REFER TO ARCHITECTURAL DRAWINGS FOR CONCRETE FINISHES. WHERE FINISH IS NOT SPECIFIED, CONFORM TO REQUIREMENTS OF ACI 301.
4.11. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR UNDERFLOOR, PERIMETER AND OTHER DRAINS AND FOR SLEEVES, OUTLET BOXES, CONDUIT, ANCHORS, ETC. THE VARIOUS TRADES ARE RESPONSIBLE FOR THEIR ITEMS.

5.12. SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMISSION AND SHALL BEAR THE CONTRACTOR'S APPROVAL STAMP ACCEPTING RESPONSIBILITY FOR DIMENSIONS, QUANTITIES AND COORDINATION WITH THE OTHER TRADES. DRAWINGS MAY BE ELECTRONICALLY SUBMITTED, PROVIDED LEGIBILITY IS MAINTAINED. REVIEW COMMENTS ONLY WILL BE ELECTRONICALLY FORWARDED TO THE CONTRACTOR.
5.14. CONTRACTOR SHALL PROVIDE IN HIS SCHEDULE FOR A SHOP DRAWING REVIEW AND RETURN TIME OF A MINIMUM OF FIFTEEN (15) WORKING DAYS IN THE STRUCTURAL ENGINEER'S OFFICE.
5.15. CONTRACTOR SHALL NOTIFY THE COR A MINIMUM OF 48 HOURS PRIOR TO ALL CONCRETE POURS IN ORDER TO PERMIT REINFORCING STEEL REVIEW IF REQUIRED BY THE COR.

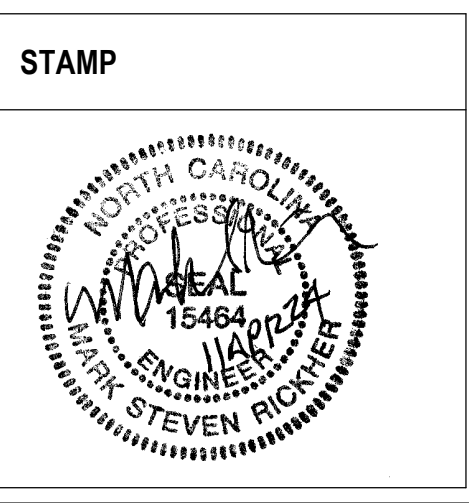
7.11. ALL THINGS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE DEFICIENCIES, OMISSIONS, CONTRADICTIONS OR AMBIGUITIES IN THE DRAWINGS OR SPECIFICATIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/STRUCTURAL ENGINEER. CORRECTIONS OR WRITTEN INTERPRETATIONS SHALL BE ISSUED BEFORE AFFECTED WORK MAY PROCEED.
7.12. IF THE CONTRACTOR CANNOT CONSTRUCT ANY PORTION OF THE WORK IDENTIFIED IN THE DRAWINGS IN ACCORDANCE WITH THESE DRAWINGS AND SPECIFICATIONS, THEN THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE COR PRIOR TO PROCEEDING WITH THE WORK. WORK THAT DOES NOT COMPLY WITH THE DRAWINGS MAY REQUIRE REMOVAL, TESTING, OR ENGINEERING EVALUATION AT THE CONTRACTOR'S EXPENSE.

Table with 4 columns: ABBREV., DEFINITION, ABBREV., DEFINITION. Lists abbreviations like XE (Extended End Joist), etc.

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