



Facilities Management
1161 West Samford Avenue
Auburn University, AL 36849
Phone: (334) 844-4810
Fax: (334) 844-9458
Safety is our first priority.
Think Safety. Act Safely.

No.	Revision	Date



JMR+H
Architecture, PC
445 Dexter Avenue
Suite 6050
Montgomery, AL 36104
Phone: (334) 420-6672
Fax: (334) 420-6692
JMR+H Project Number: 19-968
Drawn By: DT

Auburn University Building
Ham Wilson Arena
Renovations
Project Number 19-451

SHEET TITLE:
GENERAL NOTES -
CONT

DRAWN BY:
BRH
CHECKED BY:
BRH
DATE:
JANUARY 21, 2021
FILE NUMBER:
-
PROJECT NUMBER:
19-451
SHEET NUMBER:

S1.1
34 of 61

MA.7 ALL BLOCK CELLS AND CAVITIES BELOW GRADE SHALL BE FILLED WITH CONCRETE OR GROUT.

MA.8 SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF MASONRY CONTROL JOINTS AND OPENINGS.

MA.9 REINFORCING BARS: ASTM A615 GRADE 60. LAP REINFORCING BARS ACCORDING TO TYPICAL DETAILS.

MA.10 HORIZONTAL JOINT REINFORCING: LADDER TYPE, 9 GAGE SPACED VERTICALLY AT 16", UNLESS NOTED. PLACE REINFORCING ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. LAP REINFORCING A MINIMUM OF 6".

MA.11 WHEN REINFORCING BARS ARE SPECIFIED, PROVIDE AT EACH SIDE OF CONTROL JOINTS, OPENINGS AND WALL ENDS ACCORDING TO TYPICAL DETAILS. REINFORCING BARS TO BE CENTERED IN WALL, UNLESS NOTED.

MA.12 CONDUIT, PIPING, AND SLEEVES OF ANY MATERIAL TO BE EMBEDDED IN MASONRY SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

A. CONDUIT, PIPING, AND SLEEVES OF ALUMINUM SHALL NOT BE EMBEDDED IN MASONRY.

B. CONDUIT, PIPING, AND SLEEVES SHALL NOT PASS THROUGH JAMBS, LINTELS, BOND BEAMS, OR SHEAR WALLS WITHOUT APPROVAL BY THE STRUCTURAL ENGINEER.

C. REINFORCING SHALL NOT BE CUT, BENT, OR DISPLACED FOR PLACEMENT OF CONDUIT, PIPING, AND SLEEVES.

D. CONDUIT, PIPING, AND SLEEVES SHALL BE NO CLOSER THAN 3 DIAMETERS ON CENTER. MINIMUM SPACING OF DIFFERENT DIAMETERS SHALL BE DETERMINED USING THE LARGER DIAMETER.

MA.13 TEMPORARY BRACING OF CMU WALLS IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL REMAIN IN PLACE UNTIL PERMANENT RESTRAINT IS PROVIDED.

PA. POST INSTALLED ANCHORS

PA.1 POST INSTALLED ANCHORS SHALL COMPLY WITH ACI-318 CHAPTER 17.

PA.2 ACCEPTABLE MANUFACTURERS SHALL INCLUDE BUT ARE NOT LIMITED TO HILTI, INC. AND SIMPSON STRONG-TIE COMPANY, INC. AND DEWALT ANCHORS.

PA.3 CARE SHALL BE TAKEN IN PLACING POST INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR.

PA.4 HOLES SHALL BE DRILLED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SHOWN SHALL BE SUBMITTED BY THE CONTRACTOR ALONG WITH PREPARED DOCUMENTATION DEMONSTRATING THAT THE PRODUCT IS CAPABLE OF ACHIEVING EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE.

PA.5 THE CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S INSTALLATION GUIDELINES, SPECIFICATIONS, AND RECOMMENDATIONS.

PA.6 ADHESIVE ANCHORS MUST BE INSTALLED IN CONCRETE AGED A MINIMUM OF 21 DAYS.

PA.7 CONCRETE ANCHORS:

1. MECHANICAL ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI-355.2 AND ICC-ES AC193.

2. ADHESIVE ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI355.4 AND ICC-ES AC308.

3. MECHANICAL ANCHORS FOR USE IN THE UNDER SIDE OF NORMAL WEIGHT HOLLOW CORE AND POST TENSION SLABS WHERE EMBEDMENT DEPTH SHALL NOT EXCEED 3/4 INCHES, APPROVED PRODUCTS INCLUDE: DEWALT UNIS-UNDERST+.

PA.8 MASONRY ANCHORS:

1. ANCHORAGE TO SOLID-GROUTED CONCRETE MASONRY:

A. MECHANICAL AND CONCRETE SCREEN ANCHORS FOR USE IN SOLID-GROUTED CONCRETE MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC01 OR ICC-ES AC106, RESPECTIVELY.

B. ADHESIVE ANCHORS FOR USE IN SOLID-GROUTED CONCRETE MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC58 OR AC60.

2. ANCHORAGE TO HOLLOW CONCRETE MASONRY/UNREINFORCED CLAY BRICK MASONRY:

A. SCREW ANCHORS FOR USE IN HOLLOW CONCRETE MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED IN ACCORDANCE WITH ICC-ES AC106.

B. ADHESIVE ANCHORS WITH SCREEN TUBES SHALL BE TESTED AND QUALIFIED IN ACCORDANCE WITH ICC-ES AC58 OR AC60, AS APPROPRIATE. THE APPROPRIATE SCREEN TUBE SHALL BE USED AS RECOMMENDED BY THE ADHESIVE MANUFACTURER.

QC. CONCRETE QUALITY CONTROL TESTING DURING CONSTRUCTION

QC.1 ALL CONCRETE SHALL USE AIR-ENTRAINING ADMIXTURE AT THE MANUFACTURER'S PRESCRIBED RATE TO RESULT IN CONCRETE AT POINT OF PLACEMENT HAVING TOTAL AIR CONTENT AS NOTED ABOVE.

QC.2 CONCRETE AGGREGATES SHALL CONFORM TO SPECIFICATION FOR CONCRETE AGGREGATES, ASTM C33.

QC.3 WATER: ASTM C94/C94M; WATER FOR CONCRETE SHALL BE CLEAN, FRESH AND POTABLE.

QC.4 CEMENT:

A. CEMENT SHALL CONFORM TO THE SPECIFICATION FOR PORTLAND CEMENT, ASTM C150, TYPE I (NORMAL).

B. BRAND OF CEMENT: UNLESS ACCEPTED BY THE STRUCTURAL ENGINEER, USE ONE BRAND OF CEMENT THROUGHOUT THE PROJECT.

QC.5 CONCRETE MIX DESIGNS:

A. AN INDEPENDENT TESTING AGENCY SHALL PREPARE DESIGN MIXES FOR EACH TYPE AND STRENGTH OF CONCRETE BY EITHER LABORATORY TRIAL MIXTURES OR FIELD EXPERIENCE METHODS AS SPECIFIED IN ACI 301.

B. CONCRETE MIX DESIGNS MUST BE SUBMITTED A MINIMUM OF 15 DAYS PRIOR TO THE PLACEMENT OF CONCRETE FOR STRUCTURAL ENGINEER'S ACCEPTANCE. ANY ADJUSTMENT IN APPROVED MIX DESIGNS INCLUDING CHANGES IN ADMIXTURES MUST BE SUBMITTED IN WRITING TO THE STRUCTURAL ENGINEER FOR ACCEPTANCE PRIOR TO USE IN THE FIELD.

C. PUMPED CONCRETE: CONCRETE DESIGNED TO BE PUMPED SHALL BE SO NOTED ON THE MIX DESIGNS AND SHALL HAVE MIX PROPORTIONS COMPATIBLE WITH THE PUMPING PROCESS.

QC.6 ADMIXTURES: USE ONLY ADMIXTURES APPROVED BY THE STRUCTURAL ENGINEER AND CONTAINING NO CHLORIDE IONS.

QC.7 THE CONTRACTOR WILL EMPLOY A TESTING AGENCY TO PERFORM TESTS AND TO SUBMIT TEST REPORTS. SAMPLING AND TESTING REQUIREMENTS FOR QUALITY CONTROL DURING PLACEMENT OF CONCRETE ARE AS FOLLOWS:

A. SAMPLING FRESH CONCRETE: ASTM C172, EXCEPT MODIFIED FOR PUMP TO COMPLY WITH ASTM C94.

1. SLUMP: ASTM C143, ONE TEST FOR EACH SET OF COMPRESSIVE STRENGTH TEST SPECIMENS.

2. AIR CONTENT: ASTM C173 VOLUMETRIC METHOD FOR LIGHTWEIGHT; ASTM C231 PRESSURE METHOD FOR NORMAL WEIGHT CONCRETE; ONE FOR EACH SET OF COMPRESSIVE STRENGTH TEST SPECIMENS.

3. CONCRETE TEMPERATURE: TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEGREES (4.4 DEGREES C) AND BELOW, AND WHEN 80 DEGREES F (27 DEGREES C) AND ABOVE; AND EACH TIME A SET OF COMPRESSION TEST SPECIMENS ARE MADE. ASTM C1064/C1064M

4. COMPRESSIVE TEST SPECIMEN: ASTM C31, ONE SET OF FOUR STANDARD CYLINDERS FOR EACH COMPRESSIVE STRENGTH TEST, UNLESS DIRECTED TO MOLD AND STORE CYLINDERS FOR LABORATORY CURED TEST SPECIMENS EXCEPT WHEN FIELD-CURE TEST SPECIMENS ARE REQUIRED.

COMPRESSIVE STRENGTH TESTS: ASTM C39; OBTAIN ONE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE. ONE SPECIMEN TESTED AT 7 DAYS, TWO SPECIMENS TESTED AT 28 DAYS, AND ONE SPECIMEN RETAINED IN RESERVE FOR LATER TESTING IF REQUIRED.

A. WHEN STRENGTH OF FIELD-CURED CYLINDERS IS LESS THAN 85 PERCENT OF COMPANION LABORATORY-CURED CYLINDERS, EVALUATE CURRENT OPERATIONS AND PROVIDE CORRECTIVE PROCEDURES FOR PROTECTING AND CURING THE IN-PLACE CONCRETE.

B. STRENGTH LEVEL OF CONCRETE WILL BE CONSIDERED SATISFACTORY IF AVERAGES OF SETS OF THREE CONSECUTIVE STRENGTH TEST RESULTS EQUAL OR EXCEED SPECIFIED COMPRESSIVE STRENGTH, AND NO INDIVIDUAL STRENGTH TEST RESULTS FALLS BELOW SPECIFIED COMPRESSIVE STRENGTH BY MORE THAN 500 PSI.

QC.8 TEST RESULTS WILL BE REPORTED IN WRITING TO OWNER, STRUCTURAL ENGINEER, ARCHITECT AND CONTRACTOR. REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN THE PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING AGENCY, CONCRETE TYPE AND CLASS, LOCATION OF CONCRETE BATCH IN STRUCTURE, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIX PROPORTIONS AND MATERIAL; COMPRESSIVE BREAKING STRENGTH AND TYPE OF BREAK FOR BOTH 7-DAY TESTS AND 28-DAY TESTS.

QC.9 ADDITIONAL TESTS: THE TESTING AGENCY WILL MAKE ADDITIONAL TESTS OF IN-PLACE CONCRETE WHEN TEST RESULTS INDICATE SPECIFIED CONCRETE STRENGTHS, SLUMP, AIR ENTRAINMENT, OR OTHER CHARACTERISTICS HAVE NOT BEEN ATTAINED IN THE STRUCTURE, AS DIRECTED BY THE STRUCTURAL ENGINEER. CONTRACTOR SHALL PAY FOR SUCH TESTS CONDUCTED, AND ANY OTHER ADDITIONAL TESTING AS MAY BE REQUIRED.

Symbol Legend	
SYMBOL	DESCRIPTION
	New Grid Bubble
	Existing Grid Bubble
SIM REF Section Number Sheet Number	Section SIM - similar situation usually noted with a note on section REF - same situation
SIM REF Elevation Number Sheet Number	Elevation SIM - similar situation usually noted with a note on section REF - same situation
SIM REF Detail Number Sheet Number	Detail SIM - similar situation usually noted with a note on section REF - same situation
 Name Elevation	Level and Elevation Indicator
	Spot Elevation
	Revision Cloud and Number
 (n = DEPTH IN INCHES)	Slab Recess
	X-Bracing
	Cantilevered Moment Connection
	Moment Connection
	Beam Splice
	North Arrow
 View Number 1 View Name A101 1/8" = 1'-0" Scale Size Sheet Number	Section/Detail/Elevation Title

Material Designations

- Brick
- Grout
- Gravel
- Earth
- Rock
- Concrete
- Masonry (Plan)
- Continuous Wood Framing
- Wood Blocking or Shims

Line Type and Weight Examples

- New Construction
- Existing Construction
- Demo Construction
- Grid Lines
- Center Lines

Tolerances
Project - 1/256"
Dimension - 1/16"
Roof Slope - 1/32"
Angle - 0.00°

Order Plans