

STRUCTURAL GENERAL NOTES:

DESIGN LIVE LOADS:

ROOF LIVE LOAD: (NCSCB 2018 Section 1607.11)
UNIFORM LOAD (on Horizontal Projection) 20'R1'R2 PSF

CONCENTRATED LOAD (All Roof Surfaces) 300 LBS

CONCENTRATED LOAD (Primary Roof Member Exposed to a Work Floor, Single Panel Pl. of Truss Richard or Any Point along Primary Member) OVER MANUFACTURING, STORAGE OR REPAIR AREA 2000 LBS OVER ALL OTHER OCCUPANCIES 300 LBS

WOOD TRUSS LOADS: (ALSO SEE REQUIRED CONCENTRATED LOADS ABOVE)

LIVE LOAD: (on Horizontal Projection)
TOP CHORD SEE ROOF LOADS ABOVE
BOTTOM CHORD 20 PSF
DEAD LOAD:
TOP CHORD 10 PSF
BOTTOM CHORD 10 PSF
NET SERVICE LOAD WIND UPLIFT 15 PSF

FLOOR LIVE LOAD: (SLAB ON GRADE) 150 PSF

SNOW: (NCSCB 2018 Section 1607.11)
SNOW EXPOSURE FACTOR, C_e 1.0
THERMAL FACTOR, C_t 1.0
IMPORTANCE FACTOR, (SNOW LOADS) 1.0
50-YEAR REQUIREMENT GROUND SNOW LOAD, P_g 10 PSF

WIND LOADS: (NCSCB 2018 Section 1609 - ASCE 7-5)
BASIC DESIGN WIND VELOCITY V_{ult} 115 MPH
OCCUPANCY CATEGORY II
EXPOSURE CATEGORY C
IMPORTANCE FACTOR, (WIND LOADS) 1.0
INTERNAL PRESSURE COEFFICIENTS +/- 0.18

DESIGN WIND PRESSURES FOR EXTERIOR COMPONENT AND CLADDING MATERIALS

ROOF
ZONE 1 +12 PSF/30 PSF
ZONE 2 +12 PSF/50 PSF
ZONE 3 +12 PSF/76 PSF
WALLS
ZONE 4 +28 PSF/30 PSF
ZONE 5 +28 PSF/37 PSF

SEISMIC DESIGN: (NCSCB 2018 SECTION 1613 - ASCE 7-10)

SITE CLASS (REPORT) D 0.223 g
MAPPED SPECTRAL ACCELERATION AT 0.2 sec, S_d 0.008 g
MAPPED SPECTRAL ACCELERATION AT 1.0 sec, S_1 1.6
SITE COEFFICIENT, F_a 2.4
SITE COEFFICIENT, F_v 2.4
SOIL MODIFIED SHORT PERIOD SPECTRAL RESPONSE ACCELERATION, S_Ms 0.356 g
SOIL MODIFIED LONG PERIOD SPECTRAL RESPONSE ACCELERATION, S_M1 0.236 g
SHORT PERIOD SPECTRAL RESPONSE ACCELERATION, S_dS 0.237 g
LONG PERIOD SPECTRAL RESPONSE ACCELERATION, SD_1 0.157 g
OCCUPANCY CATEGORY II
SEISMIC DESIGN CATEGORY C
IMPORTANCE FACTOR, I 1.0

SEISMIC FORCE-RESISTING SYSTEM:

BEARING WALL SYSTEM
BASIC STRUCTURAL SYSTEM:
LIGHT FRAMED WALLS SHEATHED WITH WOOD STRUCTURAL PANELS

RESPONSE MODIFICATION FACTOR, R 6 1/2
SYSTEM OVERSTRENGTH FACTOR, Ω 3
DEFLECTION AMPLIFICATION FACTOR, C_d 4
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

GENERAL NOTES:

- THESE DRAWINGS SHALL BE USED WITH ARCHITECTURAL AND OTHER CONTRACT DOCUMENTS. DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2018 EDITION OF THE NORTH CAROLINA STATE BUILDING CODE.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AND SHORING OF THE STRUCTURE AND COMPONENTS UNTIL ALL COMPONENTS ARE ERRECTED AND ALL CONNECTIONS ARE FULLY MADE. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FRAMING IS COMPLETED AND ALL MASONRY CONSTRUCTION AT PERIMETER IS COMPLETED AND THE ROOF DECK CONNECTIONS ARE COMPLETED. CONTRACTOR SHALL BRACE ALL WALLS DURING CONSTRUCTION AGAINST WIND OR CONSTRUCTION LOADS.
- THE GENERAL CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL OPENINGS THROUGH ROOFS, FLOORS AND WALLS. VERIFY WITH THE TENANT, ARCHITECT AND VARIOUS TRADES AS REQUIRED. OPENINGS NOT SO VERIFIED SHALL BE MODIFIED, IF REQUIRED, AT NO ADDITIONAL COST.
- EQUIPMENT PADS SHALL BE PROVIDED BY THE MECHANICAL, ELECTRICAL, OR PLUMBING CONTRACTORS REQUIRING THE PAD.
- CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, PROCEDURES AND SAFETY ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- THE GENERAL CONTRACTOR SHALL VERIFY ALL NEW AND EXISTING DIMENSIONS PRIOR TO FABRICATION OF ANY STRUCTURAL COMPONENTS. NOTIFY ARCHITECT IMMEDIATELY IF DIMENSIONAL CONFLICTS EXIST.

CONCRETE TESTING

- TESTING AGENCY: OWNER WILL EMPLOY AND PAY FOR A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO SAMPLE MATERIALS, PERFORM TESTS, AND SUBMIT TEST REPORTS DURING CONCRETE PLACEMENT. SAMPLING AND TESTING FOR QUALITY CONTROL MAY INCLUDE THOSE SPECIFIED IN THIS ARTICLE.
- TESTING SERVICES: TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE DETERMINED ACCORDING TO ASTM C 173 SHALL BE PERFORMED ACCORDING TO THE FOLLOWING REQUIREMENTS:
A. TESTING FREQUENCY: OBTAIN AT LEAST ONE COMPOSITE SAMPLE FOR EACH 100 CU. YD. OF CONSTRUCTION THEREOF OF EACH CONCRETE MIX PLACED EACH DAY.
B. WHEN FREQUENCY OF TESTING WILL PROVIDE FEWER THAN FIVE COMPOSITE STRENGTH TESTS FOR EACH CONCRETE MIX, TESTING SHALL BE CONDUCTED FROM AT LEAST FIVE RANDOMLY SELECTED BATCHES OR FROM EACH BATCH IF FEWER THAN FIVE ARE USED.
- SLUMP: ASTM C 143; ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
- AIR CONTENT: ASTM C 231, PRESSURE METHOD, FOR NORMAL WEIGHT CONCRETE; ASTM C 173, VOLUMETRIC METHOD, FOR STRUCTURAL LIGHTWEIGHT CONCRETE; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX.
- CONCRETE TEMPERATURE: ASTM C 1064; TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEGREES AND BELOW AND NEVER BE LOWERED ABOVE ONE TEST FOR EACH COMPOSITE SAMPLE.
- UNIT WEIGHT: ASTM C 472; FRESH UNIT WEIGHT OF STRUCTURAL LIGHTWEIGHT CONCRETE; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX.

QUALITY INSPECTION

- STRUCTURAL INSPECTORS ARE NOT REQUIRED PER NCSCB 1705.1.

COMPRESSION TEST SPECIMENS: ASTM C 31/C 31M; CAST AND LABORATORY CURE ONE SET OF FIVE STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE.

- CAST AND FIELD CURE ONE SET OF FIVE STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE.
- TWO CYLINDERS SHALL BE BROKEN AT 7 AND TWO AT 28 DAYS. THE FIFTH CYLINDER SHALL BE HELD IN RESERVE AND BROKEN AT THE DIRECTION OF THE STRUCTURAL ENGINEER.
- WHEN STRENGTH OF FIELD-CURED CYLINDERS IS LESS THAN 85 PERCENT OF COMPANION LABORATORY-CURED CYLINDERS, CONTRACTOR SHALL EVALUATE OPERATIONS AND PROVIDE CORRECTIVE PROCEDURES FOR PROTECTING AND CURING IN-PLACE CONCRETE.
- STRENGTH OF EACH CONCRETE MIX WILL BE SATISFACTORY IF EVERY AVERAGE OF ANY THREE CONSECUTIVE COMPRESSIVE-STRENGTH TESTS EQUALS OR EXCEEDS SPECIFIED COMPRESSIVE STRENGTH AND NO COMPRESSIVE-STRENGTH TEST VALUE FALLS BELOW SPECIFIED COMPRESSIVE STRENGTH BY MORE THAN 900 PSI.
- TEST RESULTS SHALL BE REPORTED IN WRITING TO ARCHITECT, CONCRETE MANUFACTURER, AND CONTRACTOR WITHIN 48 HOURS OF TESTING. REPORTS OF COMPRESSIVE-STRENGTH TESTS SHALL CONTAIN PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING AND INSPECTING AGENCY, LOCATION OF CONCRETE BATCH IN WORK, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIX PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7-DAY AND 28-DAY TESTS.
- NONDESTRUCTIVE TESTING: IMPACT HAMMER, SONOSCOPE, OR OTHER NONDESTRUCTIVE DEVICE MAY BE PERMITTED BY ARCHITECT BUT WILL NOT BE USED AS SOLE BASIS FOR APPROVAL OR REJECTION OF CONCRETE.
- ADDITIONAL TESTS: TESTING AND INSPECTING AGENCY SHALL MAKE ADDITIONAL TESTS OF CONCRETE WHEN TEST RESULTS INDICATE THAT SLUMP, AIR ENTRAINMENT, COMPRESSIVE STRENGTHS, OR OTHER REQUIREMENTS HAVE NOT BEEN MET, AS DIRECTED BY ARCHITECT. TESTING AND INSPECTING AGENCY MAY CONDUCT TESTS TO DETERMINE ADEQUACY OF CONCRETE BY CORED CYLINDERS COMPLYING WITH ASTM C 42 OR BY OTHER METHODS AS DIRECTED BY ARCHITECT.

SHOP DRAWINGS:

- SUBMIT SHOP DRAWINGS ON ALL MATERIALS FOR REVIEW BEFORE FABRICATION. THE CONTRACT DRAWINGS SHALL NOT BE USED AS BASE DRAWINGS FOR SHOP DRAWINGS. SHOP DRAWINGS SUBMITTED FOR REVIEW WHICH WERE PREPARED WITH CONTRACT DRAWINGS USED AS BASE DRAWINGS WILL BE REJECTED.
- ALL SUBMITTALS TO ENGINEER FOR REVIEW SHALL BE PREVIOUSLY REVIEWED BY THE CONTRACTOR, WITH HIS APPROVAL STAMPED ON THE DRAWINGS, DATED AND SIGNED. SUBMITTALS NOT CONFORMING SHALL BE SUFFICIENT REASON FOR REJECTION BY THE ENGINEER.

REINFORCING STEEL:

- REINFORCING STEEL SHALL CONFORM TO ASTM A 615, AND SHALL BE GRADE 60. REINFORCING STEEL THAT IS TO BE WELDED OR OTHERWISE INDICATED, SHALL BE ASTM A 706 GRADE 60.
- WELDED WIRE FABRIC SHALL BE NEW BILLET STEEL, COLD DRAWN CONFORMING TO THE ASTM SPECIFICATIONS A 185 AND A 82.
- BAR SUPPORTS, DESIGN, DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE CODE AND DETAILING MANUAL, LATEST EDITION. SUPPORT ALL REINFORCING ON METAL CHAIRS OR BOLSTERS.
- ALL REINFORCING STEEL LAPS FOR MASONRY SHALL BE AS INDICATED IN THE SCHEDULE UNLESS NOTED OTHERWISE. 18" MINIMUM. USE CORNER BARS IN BOND BEAMS AND AT CORNERS OF EACH RUN OF LONGITUDINAL REINFORCING. CORNER BARS SHALL BE THE SAME SIZE AND SPACING AS LONGITUDINAL BARS. OVERLAP STEPS IN BOND BEAMS BY 8 FEET.
- ALL REINFORCING STEEL LAPS FOR CONCRETE REINFORCING SHALL BE CONSIDERED A CLASS B SPLICE UNLESS NOTED OTHERWISE, 18" MINIMUM.

CONCRETE:

- PROVIDE MINIMUM CONCRETE COVER FOR ALL REINFORCING IN ACCORDANCE WITH ACI 117.
- ALL AGGREGATES SHALL CONFORM TO ASTM C 33 WITH A MAXIMUM COARSE AGGREGATE SIZE OF 1" (NO. 57 SIEVE) FOR SLABS-ON-GRADE AND FOOTINGS AND A MAXIMUM COARSE AGGREGATE SIZE OF 3/4" (NO. 47) FOR ALL OTHER CONCRETE. ALL MATERIALS SHALL BE PROPORTIONED TO PRODUCE A WELL-GRADED MIXTURE OF HIGH DENSITY AND MAXIMUM WORKABILITY.
- FLY ASH SHALL CONFORM TO ASTM C 618, CLASS C OR F AND SHALL BE LIMITED TO WEIGHT, TO A MAXIMUM OF 20% OF THE TOTAL CEMENT PLUS FLY ASH. OTHER POZZOLAN MATERIALS SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
- THE MAXIMUM WATER TO CEMENTITIOUS MATERIALS RATIO SHALL BE, AS SPECIFIED BELOW, FOR THE RESPECTIVE LOCATIONS:
INTERIOR CONDITION 0.50
EXTERIOR CONDITION 0.45
- ALL CONCRETE SHALL BE NORMAL WEIGHT (N.W.) WITH A MAXIMUM UNIT WEIGHT OF 150 POUNDS PER CUBIC FOOT AND SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH, AS SPECIFIED BELOW, FOR THE RESPECTIVE LOCATIONS:
FOOTINGS 3,000 PSI N.W.
SLABS-ON-GRADE (INTERIOR) 3,500 PSI N.W.
SLABS-ON-GRADE (EXTERIOR) 4,000 PSI N.W.
CONCRETE NOT OTHERWISE SPECIFIED 4,000 PSI N.W.
- ALL EXPOSED CONCRETE SHALL BE AIR-ENTRAINED (6%, +/- 1%).
- MIX DESIGNS SHALL BE SUBMITTED FOR APPROVAL IN CONFORMANCE WITH ACI 301. SUBMITTALS NOT CONFORMING WILL BE REJECTED. CONCRETE SHALL BE PLACED ONLY WITH AN APPROVED MIX DESIGN FOR THE LOCATION TO BE USED.
- ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS, UNLESS OTHERWISE NOTED ON THE CONTRACT DRAWINGS OR IN THE SPECIFICATIONS. COORDINATE CONCRETE WORK WITH OTHER TRADES BEFORE BEGINNING WORK. VIBRATE ALL CONCRETE PLACED IN FOOTING EXCAVATIONS. THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE OWNER AND ARCHITECT ANY REQUIREMENTS BY THE OWNER, OR VARIOUS TRADES FOR TRENCHES, PITS, INSERT ITEMS, OPENINGS, ETC. WHICH MAY BE REQUIRED IN THE FLOOR SLABS BEFORE PLACING CONCRETE.
- ALL COLD WEATHER CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 308R, COLD WEATHER CONCRETING. HOT WEATHER CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 308R, HOT WEATHER CONCRETING.
- THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER FAR ENOUGH IN ADVANCE OF THE TIME EACH CONCRETE POUR IS TO BE MADE TO ALLOW AMPLE TIME TO CHECK THE LAYOUT OF THE STEEL BEFORE BEGINNING THE ACTUAL POUR, BUT NOT IN ADVANCE OF THE TIME THAT 90% OF THE STEEL FOR THAT POUR HAS BEEN PLACED.

WOOD CONSTRUCTION:

- MAXIMUM DEFLECTION FOR WOOD TRUSSES IS L/240 FOR MAXIMUM DEAD PLUS LIVE LOAD AND L/360 FOR MAXIMUM LIVE LOAD.
- ALL FRAMED LUMBER SHALL BE SOUTHERN YELLOW PINE (SYP) NO. 12 OR BETTER FOR STUDS AND TOP PLATES AND SOUTHERN YELLOW PINE (SYP) NO. 2 OR BETTER FOR BOTTOM PLATES, LINTELS, BEAMS, JOISTS, AND RAFTERS UNLESS OTHERWISE INDICATED IN THE DRAWINGS. ALL EXTERIOR EXPOSED WOOD FRAMING SHALL BE PRESURE TREATED (PTL) SOUTHERN YELLOW PINE (SYP) NO. 2 OR BETTER. DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2005 EDITION OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS) BY THE AMERICAN FOREST & PAPER ASSOCIATION (AF&PA). MINIMUM ALLOWABLE STRESS VALUES ARE AS LISTED IN "DESIGN VALUES FOR WOOD CONSTRUCTION - NDS SUPPLEMENT".
- DESIGN AND FABRICATION OF ALL PREMANUFACTURED WOOD TRUSSES SHALL CONFORM TO THE "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION" BY AF&PA, "TIMBER CONSTRUCTION STANDARDS" BY ATC AND "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION" (ANSI/TPI 1) BY TPI. ALL LUMBER SHALL BE SOUTHERN YELLOW PINE NO. 2 OR BETTER (NO. 3 FOR WEB MEMBERS).
- THE TRUSS DESIGN CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND SHALL BEAR THE NAME AND SEAL OF A PROFESSIONAL ENGINEER LICENSED IN NORTH CAROLINA. SUBMIT DESIGN CALCULATIONS AND SHOP DRAWINGS ON ALL MATERIALS FOR REVIEW BEFORE FABRICATION. ALL SUBMITTALS SHALL BE PREVIOUSLY REVIEWED BY THE CONTRACTOR, WITH HIS APPROVAL STAMPED ON THE DRAWINGS, DATED AND SIGNED. SUBMITTALS NOT CONFORMING SHALL BE SUFFICIENT REASON FOR REJECTION.
- PREMANUFACTURED WOOD TRUSSES SHALL BE BRACED BOTH TEMPORARILY DURING CONSTRUCTION AND PERMANENTLY IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE PUBLICATION "BUILDING COMPONENT SAFETY INFORMATION: GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING METAL PLATE CONNECTED WOOD TRUSSES" PCS-1-03 FROM THE WOOD TRUSS COUNCIL OF AMERICA (WTCA) AND THE TRUSS PLATE INSTITUTE AND AS REQUIRED BY THE DESIGN OF THE TRUSSES. A COPY OF PCSI-1-03 SHALL BE KEPT AT THE JOBSITE AT ALL TIMES FOR REVIEW AND REFERRAL.
- CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, PROCEDURES AND SAFETY ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- FOR LOADBEARING WALLS 9' TO 12' TALL - INSTALL ONE ROW OF WOOD BLOCKING AT STUD END HEIGHT. FOR LOAD BEARING WALLS OVER 12' TO 16' TALL - INSTALL TWO ROWS OF WOOD BLOCKING AT STUD THIRD POINTS.
- WOOD TRUSS BRACING:
A) PROVIDE PERMANENT DIAGONAL 2 X 4 BRACING AT EACH END OF EACH GROUP OF TRUSSES IN THE PLANE OF EACH WEB MEMBER WHICH REQUIRES CONTINUOUS LATERAL BRACING BEYOND TRUSS DESIGN. PROVIDE PERMANENT TOP CHORD AND BOTTOM CHORD LATERAL BRACING MEMBERS AT 10' SPACING ON CENTERS.
B) PROVIDE PERMANENT 2X4 DIAGONAL BRACING ON BOTTOM CHORDS AT EACH END OF EACH GROUP OF TRUSSES.
C) ATTACH ALL BRACING WITH TWO 10D NAILS AT EACH MEMBER. EACH BRACING MEMBER SHALL BE A MINIMUM OF 8' LONG AND SPAN A MINIMUM OF FOUR TRUSSES. LAP BRACING MEMBERS OVER AT LEAST TWO TRUSSES.
8. ROOF SHEATHING AND ATTACHMENT:
A) ROOF SHEATHING IS 3/4" (23/32") APA RATED SHEATHING, EXPOSURE 1.
B) STAGGER END JOINTS OF PLYWOOD ROOF SHEATHING PANELS BY 4'-0". BLOCK ALL UNSUPPORTED EDGES.
C) NAILING PATTERN: USE 8d NAILS (0.131"x3") @ 12" O.C. AT SUPPORTED PLYWOOD PANEL EDGES OF UNBLOCKED ROOF SHEATHING @ 4" O.C. AT SUPPORTED PLYWOOD PANEL EDGES OF BLOCKED ROOF SHEATHING @ 6" O.C. ALONG EACH INTERMEDIATE SUPPORT OF EACH PLYWOOD PANEL @ 6" O.C. AT PERIMETER BLOCKING, PERIMETER TRUSSES, AND SHEARWALLS

MASONRY:

- LIGHT AGGREGATE, HOLLOW CONCRETE MASONRY UNITS SHALL CONFORM TO THE STANDARD SPECIFICATION FOR HOLLOW CONCRETE MASONRY UNITS ASTM C-90. THE CONCRETE MASONRY UNITS SHALL BE GRADE N-II WITH A MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI ON THE NET CONCRETE MASONRY AREA, AVERAGE OF THREE UNITS, WITH AN ASSUMED COMPRESSIVE STRENGTH OF MASONRY, f_m , OF 1500 PSI MINIMUM. SUBMIT EVIDENCE IN WRITING TO THE ARCHITECT TO SUBSTANTIATE THESE VALUES.
- USE TYPE S MORTAR WITH A MINIMUM AVERAGE 28-DAY COMPRESSIVE STRENGTH OF 1800 PSI. TYPE S MORTAR SHALL CONFORM TO ASTM C 270. MORTAR SHALL BE PCL (PORTLAND CEMENT SHALL COMPLY WITH ASTM C 150 TYPE I OR III AND HYDRATED LIME SHALL COMPLY WITH ASTM C 207) OR MORTAR CEMENT ASTM C 1329, TYPE S. DO NOT USE MASONRY CEMENT.
- THE ACI BUILDING CODE REQUIREMENTS FOR MASONRY CONSTRUCTION (ACI 530/ASCE 5) SHALL APPLY FOR ALL CONCRETE MASONRY UNITS CONSTRUCTION AND ALL BRICK MASONRY CONSTRUCTION. ALL MASONRY CONSTRUCTION SHALL CONFORM TO THE "SPECIFICATIONS FOR COLD WEATHER MASONRY CONSTRUCTION". CONTROL JOINT SPACING FOR CMU CONSTRUCTION SHALL NOT EXCEED THAT RECOMMENDED BY NCMA FOR THE HEIGHT AND THICKNESS OF THE WALL FOR GRADE N-II CONCRETE MASONRY, 24" MAXIMUM. DO NOT EXTEND CONTROL JOINTS THROUGH MASONRY LINTELS.
- HOLLOW CONCRETE MASONRY UNITS SHALL BE LAID WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS AND WEBS. USE HORIZONTAL JOINT REINFORCEMENT AT 16" O.C. IN ALL CMU WALLS.
- USE FINE AGGREGATE GROUT WHERE SPACE TO BE FILLED IS LESS THAN 2 INCHES IN ANY DIMENSION. OTHERWISE USE COARSE AGGREGATE GROUT. AGGREGATES FOR MASONRY GROUT SHALL CONFORM TO ASTM C 404. COURSE AGGREGATE SHALL BE ASTM C 33, NO. 8 OR NO. 89 WITH A MAXIMUM 3/8" AGGREGATE SIZE. MASONRY GROUT SHALL CONFORM TO THE VOLUME PROPORTIONS OF TABLE 1, ASTM C 476. MAXIMUM LIFT IS 4'-0". ROD EACH LIFT TO CONSOLIDATE GROUT. GROUT FOR HOLLOW MASONRY UNITS SHALL CONFORM TO ASTM C 476 WITH AN 8" TO 11" SLUMP.
- FILL ALL CELLS OF ALL CONCRETE MASONRY UNITS SOLID WITH GROUT BELOW GRADE.
- USE CORNER BARS IN BOND BEAMS AND AT CORNERS OF EACH RUN OF LONGITUDINAL REINFORCING. CORNER BARS SHALL BE THE SAME SIZE AND SPACING AS LONGITUDINAL BARS. OVERLAP STEPS IN BOND BEAMS BY 8 FEET.
- ALL VERTICAL REINFORCING SHALL BE ACCURATELY LOCATED WITH VERTICAL REINFORCING BAR POSITIONERS IN THE CELLS AND BED JOINTS. LOCATE PER MANUFACTURERS RECOMMENDATIONS.
- ALL MASONRY SHALL BE LAID IN RUNNING BOND UNLESS OTHERWISE SHOWN.

FOUNDATION:

- THE REPORTED MAXIMUM NET ALLOWABLE BEARING PRESSURE USED IN DESIGN IS 2500 PSF ON SUITABLE RESIDUAL SOIL OR PROPERLY COMPACTED STRUCTURAL FILL FOR WALL AND COLUMN FOOTINGS. STRUCTURAL FILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 8" AND COMPACTED TO A MINIMUM OF 96% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698). THE UPPER 12" OF STRUCTURAL FILL DIRECTLY BENEATH FLOOR SLABS SHALL BE COMPACTED TO 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. ADDITIONAL FILL PLACEMENT REQUIREMENTS ARE A PART OF THE SPECIFICATIONS. THE GEOTECHNICAL INVESTIGATION IS REPORTED BY SUMMIT ENGINEERING PROJECT No. 1409-G0002 DATED JULY 10, 2020. ALL FILL MATERIAL SHALL BE PLACED UNDER THE SUPERVISION AND CONTROL OF AN INDEPENDENT TESTING LABORATORY. THE INDEPENDENT SOIL TESTING LABORATORY SHALL VERIFY IN WRITING THAT THE MINIMUM SAFE ALLOWABLE SOIL BEARING PRESSURE IS AVAILABLE BEFORE FOUNDATIONS ARE PLACED. IN THE EVENT THAT THE DESIGN ALLOWABLE BEARING PRESSURE IS NOT AVAILABLE, THE ENGINEER SHALL BE NOTIFIED AND THE SOIL CONDITION AND FOUNDATION SHALL BE EVALUATED AND FOOTING SIZES ADJUSTED IF REQUIRED.

REFER TO THE GEOTECHNICAL REPORT FOR FURTHER INFORMATION ON PREPARING THE SITE BEFORE ANY FOUNDATION WORK.

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Professional Engineer Seal
8/14/20

ISSUANCE
PERMIT SUBMITTAL 08/14/2020

REVISIONS	NO.	DATE	DESCRIPTION
AEI PROJECT No.			20091
FILE NUMBER			
PROJECT MANAGER			DS
PROFESSIONAL EOR			LDA
DRAWN BY			CADD
CHECKED BY			LDA

STRUCTURAL GENERAL NOTES
SO

SEE SHEET S1 FOR POPEYES STRUCTURAL SPECIFICATIONS: