STRUCTURAL NOTES

A. GENERAL

1. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER CONSTRUCTION IS FULLY COMPLETED. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING CONSTRUCTION, INCLUDING PROVISIONS FOR CHANGEABLE WEATHER UNTIL THE BUILDING IS ENCLOSED AND CONDITIONED. THE CONTRACTOR SHALL DESIGN, INSTALL AND SUBSEQUENTLY REMOVE ANY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS NECESSARY TO MAINTAIN SAFETY AND STRUCTURAL STABILITY DURING CONSTRUCTION. ANCHOR RODS AT STEEL COLUMNS HAVE NOT BEEN DESIGNED FOR, AND WILL NOT PROVIDE, TEMPORARY BRACING OR SUPPORT FOR OTHER COLUMNS OR OTHER CONNECTED FRAMING MEMBERS DURING CONSTRUCTION.

2. THE CONTRACTOR IS SOLELY RESPONSIBLE TO FOLLOW ALL APPLICABLE SAFETY CODES, BUILDING CODES AND GOVERNING REGULATIONS WITH JURISDICTION OVER THE CONSTRUCTION SITE DURING ALL PHASES OF CONSTRUCTION.

3. ANY FRAMING SHOWN ON DRAWINGS THAT SUPPORTS EQUIPMENT (WHETHER SUPPORTED ABOVE OR SUSPENDED BELOW), DESIGN LOADS, OPENINGS AND PENETRATIONS, AND STRUCTURAL MEMBERS IN ANY MANNER RELATED TO HVAC, PLUMBING, ELECTRICAL OR FIRE PROTECTION REQUIREMENTS IS BASED ON EQUIPMENT DESIGNED, SHOWN AND/OR SPECIFIED IN THE CONSTRUCTION DOCUMENTS. ALL REQUIRED FRAMING MAY NOT BE SHOWN. USING THE DETAILS PROVIDED ON THE STRUCTURAL DRAWINGS, THE GENERAL CONTRACTOR AND SUB-CONTRACTORS AND/OR EACH PRIME CONTRACTOR MUST COORDINATE AND INSTALL THE ACTUAL FRAMING REQUIRED FOR THE EQUIPMENT TO BE INSTALLED, AND INCLUDE COSTS FOR ALL REQUIRED FRAMING IN THE BID. IF THE CONTRACTOR REQUESTS AND RECEIVES APPROVAL TO SUBSTITUTE EQUIPMENT, THE CONTRACTOR MUST ALSO INSTALL THE FRAMING REQUIRED FOR THE SUBSTITUTED EQUIPMENT AS WELL, WITHOUT ADDITIONAL COST TO THE PROJECT, INCLUDING ANY AND ALL FEES REQUIRED BY THE ARCHITECT AND/OR ENGINEERS TO RE-DESIGN AND REVISE THE CONSTRUCTION DOCUMENTS.

4. SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THESE STRUCTURAL NOTES, THE SPECIFICATIONS, OR WITH EACH OTHER, THE STRICTEST PROVISION SHALL GOVERN.

5. DESIGN BASIS: 2018 NORTH CAROLINA BUILDING CODE BASED ON THE IBS 2015, INCLUDING ALL ADOPTED REFERENCE STANDARDS AND MATERIAL SPECIFICATIONS REFERENCED THEREIN.

6. DESIGN CRITERIA
   a. FLOOR LIVE LOADS

AREA	UNIFORM (PSF)	CONCENTRATED (POUNDS)
CONCRETE SLABS-ON-GROUND	125	1,000

   b. ROOF LOADING
      1. DESIGN ROOF LIVE LOAD (MINIMUM) 25 PSF
      2. ROOF SNOW LOADS:
         a. GROUND SNOW LOAD, Pg 10 PSF
         b. FLAT-ROOF SNOW LOAD, Pf 7.0 PSF
         c. SNOW EXPOSURE FACTOR, Ce 1.0
         d. SNOW LOAD IMPORTANCE FACTOR, Is 1.0
         e. THERMAL FACTOR, Ct 1.0
         f. DRIFT SURCHARGE, Pd REFER TO ROOF FRAMING PLAN FOR DRIFT LOADS WHERE APPLICABLE
      3. THE ROOF STRUCTURE HAS BEEN DESIGNED FOR THE ROOF LOADINGS INDICATED ABOVE SUCH THAT AN ADEQUATE ROOF SLOPE AND DRAINAGE SYSTEM ARE REQUIRED TO PREVENT PONDING LOADS WHICH MAY EXCEED THE DESIGN ROOF LOADS.
   c. WIND LOADING
      1. DESIGN WIND SPEED, Vasd/Vult 92 MPH/118 MPH
      2. RISK CATEGORY II
      3. WIND EXPOSURE CATEGORY C
      4. INTERNAL PRESSURE COEFFICIENT, GCpi +0.18, -0.18
      5. COMPONENTS AND CLADDING (PRESSURES INDICATED ARE EDGE ZONE (BUILDING CORNER) SERVICE LEVEL PRESSURES BASED ON A MINIMAL EFFECTIVE AREA AND MAY BE REDUCED ACCORDINGLY FOR INTERIOR ZONES AND LARGER EFFECTIVE AREAS):
         a. ROOF +17 PSF, -29 PSF
         b. WALLS +17 PSF, -23 PSF
   d. SEISMIC DESIGN CRITERIA
      1. SEISMIC IMPORTANCE FACTOR, Ie 1.0
      2. RISK CATEGORY II
      3. MAPPED SPECTRAL RESPONSE ACCELERATIONS:
         a. SHORT PERIODS, Ss 0.148
         b. 1 SECOND PERIOD, S1 0.07
      4. SITE CLASS D (ASSUMED)
      5. DESIGN SPECTRAL RESPONSE ACCELERATIONS:
         a. SHORT PERIODS, Sds 0.157
         b. 1 SECOND PERIOD, Sd1 0.112
      6. SEISMIC DESIGN CATEGORY B
      7. BASIC SEISMIC-FORCE-RESISTING-SYSTEM: LIGHT FRAMED WALLS SHEATHED WITH WOOD STRUCTURAL PANEL RATED FOR SHEAR RESISTANCE
      8. DESIGN BASE SHEAR 2.2 KIPS
      9. SEISMIC RESPONSE COEFFICIENT, Cs 0.02
      10. RESPONSE MODIFICATION FACTOR, R 6 1/2
      11. ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
   e. ALL FRAMING MEMBERS HAVE BEEN DESIGNED TO MEET THE CODE MINIMUM LIVE LOAD AND TOTAL LOAD DEFLECTION CRITERIA.

7. SPECIAL INSPECTIONS: IN ACCORDANCE WITH OBC CHAPTER 17, THE OWNER SHALL EMPLOY INSPECTION AGENCIES TO PERFORM SPECIAL INSPECTIONS AND TESTS DURING CONSTRUCTION INCLUDING SPECIAL INSPECTIONS DURING FABRICATION OF ALL SHOP-FABRICATED STRUCTURAL COMPONENTS. SPECIAL INSPECTIONS DURING SHOP FABRICATION OF STRUCTURAL COMPONENTS ARE NOT REQUIRED FOR FABRICATORS REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTIONS. ALL INSPECTION AGENCIES SHALL BE QUALIFIED AND APPROVED BY THE BUILDING OFFICIAL. THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTIONS (REFER TO OTHER DISCIPLINES FOR SPECIAL INSPECTIONS OF NON-STRUCTURAL SYSTEMS WHERE REQUIRED):
   a. SOILS.
   b. CONCRETE CONSTRUCTION.
   c. MASONRY CONSTRUCTION.
   d. STRUCTURAL STEEL FABRICATION AND CONSTRUCTION INCLUDING FIELD WELDING AND INSTALLATION OF HIGH STRENGTH BOLTS.
   e. WOOD CONSTRUCTION.

8. COORDINATE ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. SEE THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS NOT SHOWN. ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE INTENDED TO AUGMENT, NOT SUPERSEDE, THOSE SHOWN ON THE ARCHITECTURAL DRAWINGS. DO NOT SCALE THE DRAWINGS. DRAWINGS MAY NOT BE TO SCALE.

9. SHOP DRAWINGS
   a. SUBMIT THE FOLLOWING SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW PRIOR TO FABRICATION:
      1. CONCRETE REINFORCING AND MIX DESIGNS FOR EACH CLASS OF CONCRETE.
      2. MASONRY REINFORCING STEEL
      3. STRUCTURAL STEEL
      4. PRE-ENGINEERED, PRE-FABRICATED TRUSSES
      5. PREFABRICATED ITEMS PER PARAGRAPH A.10.b BELOW.
   b. THE CONTRACTOR SHALL REVIEW AND ACCEPT FULL RESPONSIBILITY FOR DIMENSIONAL CORRECTNESS. ALL SHOP DRAWINGS MUST BEAR THE APPROVAL STAMP OF THE CONTRACTOR (TO INCLUDE INITIALS, DATE AND DISPOSITION), PRIOR TO REVIEW BY THE ARCHITECT OR ENGINEER. THE ENGINEER WILL RETURN ALL SHOP DRAWINGS, UNREVIEWED, THAT DO NOT BEAR THE APPROVAL STAMP OF THE CONTRACTOR.
   c. USE OF PROPRIETARY PROJECT MANAGEMENT SOFTWARE AND SELECTION OF MANDATORY "APPROVED" OR SIMILAR BUTTONS FOR SHOP DRAWING, RFI, OR OTHER CONSTRUCTION ADMINISTRATION DOCUMENTATION MAKES NO CERTIFICATION OR IN ANY WAY CHANGES THE LANGUAGE OR DISPOSITION OF THE SHOP DRAWING STAMP OF THE STRUCTURAL ENGINEER OF RECORD. IN ALL CASES, THE LANGUAGE OF THE SHOP DRAWING STAMP OF THE STRUCTURAL ENGINEER OF RECORD OVERRIDES ANY CONFLICTING LANGUAGE FOUND IN AUTOMATED PROJECT MANAGEMENT SOFTWARE WHOSE USE IS MANDATED BY THE CONTRACTOR OR OTHER PARTY.

10. ARCHITECTURAL ITEMS OR PREFABRICATED ITEMS SHOWN ON THE STRUCTURAL DRAWINGS ARE REFERENCED FOR GENERAL COORDINATION PURPOSES ONLY.
   a. TYPICAL REFERENCED ARCHITECTURAL ITEMS INCLUDE BUT MAY NOT BE LIMITED TO: DRAINS, DRAIN TILES, FINISHES, DOORS, WINDOWS, AND ITEMS FOR THERMAL AND MOISTURE PROTECTION. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR MATERIAL REQUIREMENTS, PLACEMENT AND EXACT LOCATION OF SUCH ITEMS.
   b. TYPICAL REFERENCED PREFABRICATED ITEMS, NOT SPECIFICALLY DESIGNED OR SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL, INCLUDE BUT MAY NOT BE LIMITED TO: STAIRS, GUARDRAILS, CURTAIN WALL/STOREFRONT SYSTEMS, AWNINGS AND PREFABRICATED FRAMING. SUCH SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH THE BUILDING CODE, FURNISHED AND INSTALLED AS REQUIRED BY OTHER PORTIONS OF THE CONTRACT DOCUMENTS.
      1. THE STRUCTURAL DESIGN OF PREFABRICATED ITEMS AND THEIR CONNECTIONS TO THE SUPPORTING STRUCTURE OR SUPPORTING SYSTEMS BY OTHER TRADES SHALL BE THE RESPONSIBILITY OF THE RESPECTIVE SUPPLIER. THE GENERAL CONTRACTOR SHALL COORDINATE ALL SUPPORT/CONNECTION REQUIREMENTS BETWEEN ALL INVOLVED TRADES/SUPPLIERS.
      2. THE STRUCTURAL DESIGN OF STAIRS AND GUARDRAILS AND THEIR CONNECTIONS TO THE SUPPORTING STRUCTURE SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF THE PROJECT. SUBMIT SHOP DRAWINGS WHICH EXHIBIT THE SEAL OF THE ENGINEER RESPONSIBLE FOR THE DESIGN.

B. FOUNDATIONS

1. NOTIFY THE ARCHITECT AS SOON AS POSSIBLE OF ANY UNUSUAL SOIL OR SUB-SURFACE CONDITIONS IN VARIANCE WITH TEST BORINGS, SUCH AS UNEXPECTED SPRING OR SEEPAGE WATER, MATERIAL DIFFERING FROM TEST BORINGS, OR SOIL/EXCAVATIONS OF QUESTIONABLE BEARING CAPACITY.

2. FOUNDATIONS HAVE BEEN DESIGNED TO BEAR ON FIRM, UNDISTURBED SOIL OR ENGINEERED FILL HAVING A MINIMUM ALLOWABLE BEARING CAPACITY OF 2,000 POUNDS PER SQUARE FOOT. DESIGN BASED ON GEOTECHNICAL REPORT BY ATC ASSOCIATES TITLES "GEOTECHNICAL ENGINEERING SERVICES, POPEYE'S, SPOUTS SPRINGS NORTH CAROLINA, ATC PROJECT NUMBER 199TDG2206.

3. BEAR EXTERIOR FOUNDATIONS A MINIMUM OF 3'-0" BELOW EXTERIOR GRADE. STEP FOUNDATIONS AS REQUIRED TO COMPLY WITH ACTUAL GRADES, REGARDLESS OF FOOTING STEPS AND GRADES SHOWN ON THE DRAWINGS.

4. STEP THE TOPS OF ALL FOOTINGS BELOW UTILITY INVERT ELEVATIONS SO AS NOT TO INTERFERE WITH FOOTING SIZE AND REINFORCING. COORDINATE LOCATIONS AND ELEVATIONS OF FOOTING STEPS WITH ARCHITECTURAL AND PLUMBING DRAWINGS. WHERE UTILITY TRENCHES PASS BENEATH THICKENED SLABS OR OCCUR BELOW ADJACENT BUILDING FOUNDATIONS, FILL UTILITY EXCAVATIONS WITH CLASS IV CONCRETE FOR FULL WIDTH OF EXCAVATION TO THE UNDERSIDE OF THICKENED SLABS OR THE UNDERSIDE OF ADJACENT BUILDING FOUNDATIONS. EXTEND CLASS IV CONCRETE FILL FULL WIDTH AND LENGTH OF FOUNDATION PLUS 1'-6" BEYOND THE EDGE OF FOUNDATION EACH SIDE. PROVIDE A MINIMUM OF 2" SEMI-COMPRESSIBLE MATERIAL AROUND UNDERGROUND UTILITIES ENCASED IN CLASS IV CONCRETE FILL.

5. RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER TO INSPECT AND APPROVE BUILDING PAD PREPARATION AND FOUNDATION EXCAVATIONS FOR THE FOUNDATION DESIGN PARAMETERS INDICATED ABOVE. COORDINATE THE SCHEDULING OF THE GEOTECHNICAL ENGINEER'S SITE INSPECTION SERVICES WITH THE ANTICIPATED DATE OF CONCRETE PLACEMENT.

6. KEEP FOUNDATION EXCAVATIONS FREE OF WATER AT ALL TIMES. REPLACE SOFT OR WEAKENED SOIL WITH CLASS IV CONCRETE OR ENGINEERED FILL.

7. THE EXISTENCE OF UNDERGROUND STRUCTURES AND/OR UTILITIES IS NOT KNOWN. USE EXTREME CARE WHEN EXCAVATING SO AS NOT TO DISTURB ANY EXISTING UNDERGROUND STRUCTURES AND/OR UTILITIES. COORDINATE WITH THE SURVEY AND WITH THE OWNER TO OBTAIN ANY INFORMATION AVAILABLE REGARDING EXISTING UTILITIES.

8. BACKFILL AGAINST BOTH SIDES OF BELOW GRADE WALLS EQUALLY UNTIL THE LOWER ELEVATION IS ATTAINED.

C. REINFORCED CONCRETE

1. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST, ADOPTED EDITIONS OF THE STANDARDS AND MATERIAL SPECIFICATIONS REFERENCED HEREIN.

2. REFERENCE STANDARDS BY THE AMERICAN CONCRETE INSTITUTE (ACI)
   a. ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE," EXCEPT AS SPECIFICALLY MODIFIED IN THE SPECIFICATIONS AND/OR HEREIN.
   b. ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE."
   c. ACI 305, "HOT WEATHER CONCRETING" AND ACI 306, "COLD WEATHER CONCRETING."
   d. ACI 315, "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" UNLESS DETAILED OTHERWISE ON THE STRUCTURAL DRAWINGS.

3. MATERIALS
   a. STRUCTURAL CONCRETE

CLASS	LOCATION	f'c (psi)
I	FOOTINGS	3,000
II	INTERIOR SLABS-ON-GROUND AND ALL INTERIOR CONCRETE NOT OTHERWISE IDENTIFIED	3,500
III	EXTERIOR SLABS-ON-GROUND AND ALL EXTERIOR CONCRETE NOT OTHERWISE IDENTIFIED	4,500 (with air)
IV	BACKFILL BELOW FOOTINGS	1,500

      1. THE MIX DESIGNS SHOWN ABOVE ARE BASED ON CONCRETE IN CONTACT WITH SOIL OR WATER WITH A NEGLIGIBLE SULFATE RESISTANCE CATEGORY (S0) PER ACI 318. THE GEOTECHNICAL ENGINEER SHALL CONFIRM THE SULFATE RESISTANCE CATEGORY AND NOTIFY THE ARCHITECT AS SOON AS POSSIBLE IF THE SULFATE RESISTANCE CATEGORY DIFFERS FROM THAT LISTED.
   b. ALL DEFORMED REINFORCING BARS: ASTM A615, GRADE 60.
   c. ALL WELDED WIRE FABRIC: ASTM A1064, DELIVERED IN FLAT SHEETS.

4. FIELD MANUAL: PROVIDE AT LEAST ONE COPY OF THE ACI FIELD REFERENCE MANUAL, SP-15, IN THE FIELD OFFICE AT ALL TIMES.

5. CONTINGENCIES
   a. INSTALL SUPPORTS AS REQUIRED TO MAINTAIN ALIGNMENT OF SCHEDULED REINFORCING. INCLUDE SUCH SUPPORTS WITH THE BID.

6. OPENINGS
   a. IF ANY OPENING NOT SHOWN ON THE DRAWINGS IS REQUIRED, SECURE APPROVAL OF THE STRUCTURAL ENGINEER BEFORE PROCEEDING.

7. FOOTINGS
   a. INSTALL CORNER BARS AT FOOTING CORNERS TO MATCH HORIZONTAL REINFORCING. LAP CORNER BARS 48 BAR DIAMETERS WITH HORIZONTAL FOOTING REINFORCING.
   b. INSTALL LEAN CONCRETE (CLASS IV) UNDER FOUNDATIONS FOR ACCIDENTAL OVER-EXCAVATION, SOFT SPOTS AND TRENCHES.

8. PROVIDE 48 BAR DIAMETER LAP SPLICES AT ENDS OF CONTINUOUS HORIZONTAL REINFORCING.

9. CONTRACTION AND CONSTRUCTION JOINTS
   a. PROVIDE CONTRACTION JOINTS IN ALL INTERIOR SLABS-ON-GROUND, WHETHER SHOWN OR NOT, AT MAXIMUM INTERVALS OF TWELVE FEET, EACH WAY, UNLESS SHOWN OR NOTED OTHERWISE.

10. CONCRETE COVER: UNLESS NOTED OTHERWISE, DETAIL REINFORCING TO PROVIDE MINIMUM CONCRETE COVER AS FOLLOWS:
   a. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3 INCHES
   b. CONCRETE EXPOSED TO EARTH OR WEATHER
      #5 BARS AND SMALLER 1-1/2 INCHES
      OTHERS 2 INCHES

D. ENGINEERED MASONRY CONSTRUCTION

1. ALL MASONRY CONSTRUCTION SHALL CONFORM TO THE LATEST, ADOPTED EDITIONS OF THE STANDARDS AND MATERIAL SPECIFICATIONS REFERENCED HEREIN.

2. REFERENCE STANDARDS
   a. ACI 530/ASCE 5/TMS 402, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES."
   b. ACI 530.1/ASCE 6/TMS 602, "SPECIFICATION FOR MASONRY STRUCTURES."
      1. CONFORM COLD WEATHER MASONRY CONSTRUCTION TO PARAGRAPH 1.8.C.
      2. CONFORM HOT WEATHER MASONRY CONSTRUCTION TO PARAGRAPH 1.8.D.

3. MATERIALS
   a. CONCRETE BLOCK: ASTM C90, MINIMUM NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS: 2,500 PSI.
   b. MORTAR: TYPE S, MINIMUM COMPRESSIVE STRENGTH: 1,800 PSI.
   c. BOND BEAM AND CORE FILL: ASTM C476, COARSE TYPE, MINIMUM COMPRESSIVE STRENGTH: 2,500 PSI.
   d. BAR REINFORCING: ASTM A615, GRADE 60.

4. REINFORCED MASONRY: APPLY THE FOLLOWING REQUIREMENTS WHERE VERTICAL REINFORCING BARS ARE DETAILED ON THE DRAWINGS.
   a. COORDINATE LOCATIONS OF REINFORCING DOWELS TO BE CAST-IN TO CONCRETE FOOTINGS WITH THE CONCRETE SUB-CONTRACTOR.
   b. SOLIDLY FILL ALL CORES CONTAINING VERTICAL REINFORCING WITH GROUT.
   c. SUBMIT REINFORCING STEEL SHOP DRAWINGS SHOWING REINFORCING STEEL SIZES, SPACINGS AND LOCATIONS AND DETAILS OF DOWELS.

5. MISCELLANEOUS
   a. MASONRY WALLS ARE NOT DESIGNED TO BE STABLE DURING CONSTRUCTION. THE CONTRACTOR SHALL INSTALL, IN A TIMELY MANNER TO PREVENT COLLAPSE OF THE WALLS, ADEQUATE BRACING DESIGNED TO RESIST ALL APPLICABLE LOADS OR FORCES. BRACING SHALL REMAIN IN PLACE UNTIL ALL STRUCTURAL ELEMENTS PROVIDING LATERAL SUPPORT FOR THE WALLS ARE IN PLACE AND THE WALLS HAVE ATTAINED THE SPECIFIED DESIGN STRENGTH.
   b. FILL VERTICAL COLLAR JOINTS BELOW GRADE SOLIDLY WITH MORTAR.
   c. FILL CORES SOLIDLY AROUND ANCHOR RODS. SOLIDLY FILL ALL CORES A MINIMUM OF 8 INCHES ALL AROUND WHERE EXPANSION ANCHORS AND/OR CHEMICAL ADHESIVE ANCHORS ARE TO BE INSTALLED.
   d. LAY HOLLOW MASONRY UNITS WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS. PROVIDE FULL MORTAR COVERAGE FOR ALL WEBS IN THE STARTING COURSE ON FOOTINGS AND WHEN ADJACENT TO CELLS OR CAVITIES TO BE REINFORCED OR FILLED WITH GROUT. LAY SOLID UNITS WITH FULL HEAD AND BED JOINTS.

E. STRUCTURAL STEEL

1. ALL STEEL CONSTRUCTION SHALL COMPLY WITH THE LATEST, ADOPTED EDITIONS OF THE STANDARDS AND MATERIAL SPECIFICATIONS REFERENCED HEREIN.

2. REFERENCE STANDARDS
   a. ANSI/AISC 360, "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC. (AISC).
   b. AISC 303, "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC. (AISC).
   c. "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS" BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC).
   d. AWS D1.1, "STRUCTURAL WELDING CODE" BY THE AMERICAN WELDING SOCIETY (AWS).

3. MATERIALS
   a. ANGLES, PLATES AND BARS: Fy = 36 KSI, ASTM A36.
   b. HOLLOW STRUCTURAL SECTIONS (HSS): ASTM A500, GRADE C.
      1. SQUARE/RECTANGULAR: Fy = 50 KSI.
   c. HIGH STRENGTH BOLTS: ASTM A325 OR A490.
   d. ANCHOR RODS: ASTM F1554, GRADE 36.
   e. THREADED RODS: ASTM A36, Fy = 36 KSI.
   f. NUTS: ASTM A563.
   g. WASHERS: ASTM F436.
   h. ELECTRODES: SERIES E70.
   i. CHEMICAL ADHESIVE ANCHORS: HILTI HIT-RE 500 V3.

4. THE CONTRACTOR, FABRICATOR OR ERECTOR SHALL NOTIFY THE ENGINEER OF RECORD AND THE OWNER'S DESIGNATED CONSTRUCTION REPRESENTATIVE IF CHANGES ARE REQUIRED TO THE STRUCTURAL STEEL FRAME TO ALLOW ERECTION TO CONFORM TO OSHA REGULATIONS, INCLUDING SUB-PART R. BIDS SHALL BE BASED ON THE ERECTION METHOD CHOSEN BY THE CONTRACTOR OR ERECTOR. BASE BIDS TO INCLUDE THE COST FOR MODIFICATION OF THE STRUCTURAL STEEL, STEEL JOISTS, JOIST GIRDERS, STEEL DECK OR LATERAL-LOAD-RESISTING SYSTEM BASED ON THE CHOSEN METHOD OF ERECTION.

5. PAINT
   a. DO NOT PAINT STEEL OR ANCHOR RODS WHICH WILL BE ENCASED IN CONCRETE OR ANY INTERIOR STEEL WHICH WILL BE LOCATED INSIDE THE FINISHED PRODUCT CONCEALED FROM VIEW, INCLUDING STEEL THAT WILL RECEIVE SPRAYED FIREPROOFING, TYPICAL UNLESS NOTED OTHERWISE.
   b. PAINT EXPOSED, EXTERIOR STEEL MEMBERS, INCLUDING STEEL MEMBERS CONCEALED IN EXTERIOR WALLS WITH TWO COATS OF SHOP PRIMER, TYPICAL UNLESS NOTED OTHERWISE.

6. MISCELLANEOUS
   a. PROTECT STEEL BELOW GRADE BY A MINIMUM OF 3 INCHES OF CAST-IN-PLACE CONCRETE OR 4 INCHES OF SOLID OR SOLIDLY-GROUTED MASONRY.
   b. INSTALL HEAVY NUT AND WASHER AT ALL ANCHOR RODS, BOTH ENDS. ANCHOR ROD LENGTHS SHOWN OR LABELED REFER TO THE EMBEDMENT LENGTH FROM TOP OF CONCRETE OR MASONRY TO FACE OF LOWER WASHER. PROVIDE OVERALL TOTAL ROD LENGTHS AS REQUIRED TO INCLUDE PROJECTIONS AT TOP, AND WASHER AND NUT AT THE BOTTOM.
   c. FINISH ENDS OF ALL COLUMNS, STIFFENERS AND ALL OTHER MEMBERS IN DIRECT BEARING.

7. REFER TO ARCHITECTURAL DRAWINGS FOR MISCELLANEOUS STEEL (STAIRS, LADDERS, BOLLARDS, GRATING, HANDRAILS, ETC.).

F. STRUCTURAL LUMBER

1. ALL STRUCTURAL LUMBER CONSTRUCTION SHALL CONFORM TO THE LATEST, ADOPTED EDITIONS OF THE STANDARDS AND MATERIAL SPECIFICATIONS REFERENCED HEREIN.

2. REFERENCE STANDARD
   a. ANSI/AWC NDS, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" BY THE AMERICAN WOOD COUNCIL (AWC).

3. MATERIALS
   a. ALL LUMBER SHALL COMPLY WITH THE REQUIREMENTS OF DOC PS 20. FURNISH LUMBER WITH EACH PIECE FACTORY-MARKED WITH GRADE STAMP OF INSPECTION AGENCY VERIFYING COMPLIANCE WITH GRADING RULE REQUIREMENTS AND IDENTIFYING GRADING AGENCY, GRADE, SPECIES, MOISTURE CONTENT AND MILL.
   b. ALL WOOD STRUCTURAL PANELS SHALL COMPLY WITH REQUIREMENTS OF DOC PS 1, DOC PS 2, HPVA HP I AND APA PDS. FACTORY-MARK ALL WOOD STRUCTURAL PANELS WITH A GRADING STAMP OF THE INSPECTION AGENCY.
   c. STUDS: SPRUCE-PINE-FIR, NO.2 GRADE OR BETTER, ACCORDING TO THE NATIONAL LUMBER GRADES AUTHORITY (NLGA), SEASONED AT 19% M.C.
   d. STRUCTURAL LUMBER: SPRUCE-PINE-FIR NO. 2 OR BETTER, ACCORDING TO THE NATIONAL LUMBER GRADES ASSOCIATION (NLGA), SEASONED AT 19% M.C.
   e. WOOD STRUCTURAL PANELS (PLYWOOD OR ORIENTED STRAND BOARD):
      1. ROOF: 19/32" (5/8" NOMINAL), APA RATED SHEATHING, 40/20, EXPOSURE 1, U.N.O.
      2. WALL: 15/32" (1/2" NOMINAL), APA RATED SHEATHING, 32/16, EXPOSURE 1.
   f. FASTENERS
      1. NAILS: COMMON STEEL WIRE NAILS, CONFORMING TO ASTM F1667.
      2. WOOD SCREWS: FLAT HEAD, CONFORMING TO ANSI/ASME STANDARD B18.6.1.
      3. BOLTS, NUTS AND WASHERS: CONFORM TO ASTM A307, ASTM A563 AND ASTM F436, RESPECTIVELY.
   g. WOOD-PRESERVATIVE TREATMENT: COMPLY WITH THE APPLICABLE REQUIREMENTS OF AWPA STANDARD U1. MARK EACH TREATED ITEM WITH THE APPROPRIATE QUALITY MARK.

4. CONNECTIONS: AS A MINIMUM, CONFORM CONNECTIONS FOR STRUCTURAL MEMBERS TO THE FASTENING SCHEDULE LISTED IN TABLE 2304.9.1 OF THE OHIO BUILDING CODE.
   a. PROVIDE GALVANIZED CONNECTORS BY THE SIMPSON STRONG-TIE CO. INSTALL ALL CONNECTORS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
   b. WOOD STRUCTURAL PANELS TO WOOD ROOF TRUSSES: NAILED, USE 10d COMMON NAILS SPACED AT 6 INCHES O.C. AT PANEL EDGES AND 12 INCHES O.C. AT INTERMEDIATE SUPPORTS. INSTALL PLYWOOD CLIPS AT MID-SPAN OF PLYWOOD BETWEEN SUPPORTS.
   c. WOOD STRUCTURAL PANELS TO WOOD STUDS: USE 10d COMMON NAILS SPACED AT 6 INCHES O.C. AT PANEL EDGES AND 12 INCHES O.C. AT INTERMEDIATE SUPPORTS. BLOCK ALL EDGES WITH FULL-DEPTH BLOCKING.
   d. PROVIDE GALVANIZED FASTENERS FOR ALL EXTERIOR APPLICATIONS AND FOR ALL WOOD-PRESERVATIVE TREATED MATERIALS.
   e. AT POSTS AND JAMBS OF OPENINGS, NAIL MULTIPLE STUDS TOGETHER WITH 10d NAILS AT 8" O.C., FULL LENGTH.

5. MISCELLANEOUS
   a. AT ALL EXTERIOR STUD WALLS AND INTERIOR BEARING WALLS, INSTALL A CONTINUOUS LINE OF SOLID BLOCKING AT MID-HEIGHT OF THE WALL, BUT AT NO GREATER THAN 5'-0" ON CENTER MAXIMUM.
   b. UNLESS NOTED OTHERWISE, INSTALL MINIMUM DOUBLE JACK BEARING STUDS UNDER EACH END OF ALL BEAMS AND GIRDER TRUSSES, BUT NOT LESS THAN THE NUMBER REQUIRED TO PROVIDE FULL-WIDTH SOLID BEARING OF THE SUPPORTED MEMBERS.
   c. INSTALL STANDARD THREE-STUD CORNER CONSTRUCTION AT INSIDE AND OUTSIDE CORNERS, PROVIDING NAILING SURFACES FOR SHEATHING. INSTALL BLOCKING AS REQUIRED.
   d. AT DOOR AND WINDOW OPENINGS IN INTERIOR PARTITION (NON-LOADBEARING) WALLS, INSTALL A MINIMUM OF ONE JACK BEARING STUD AND ONE FULL-HEIGHT KING STUD AT EACH END OF HEADERS, UNLESS NOTED OR SCHEDULED OTHERWISE. AT DOOR AND WINDOW OPENINGS IN EXTERIOR WALLS, INSTALL A MINIMUM OF TWO JACK BEARING STUDS AND TWO FULL-HEIGHT KING STUDS AT EACH END OF HEADERS, UNLESS NOTED OR SCHEDULED OTHERWISE.
   e. UNLESS NOTED OTHERWISE, AT EXTERIOR WALLS INSTALL TRIPLE 2 X 8 HEADERS OVER OPENINGS IN 2 X 6 STUD WALLS.

      UNLESS NOTED OTHERWISE, AT INTERIOR PARTITION (NON-LOADBEARING) WALLS, INSTALL DOUBLE 2 X 6 HEADERS OVER OPENINGS IN 2 X 4 STUD WALLS AND TRIPLE 2 X 6 HEADERS OVER OPENINGS IN 2 X 6 STUD WALLS.
   f. INSTALL ONE LAYER OF 1/2" THICK WOOD STRUCTURAL PANEL BETWEEN EACH MEMBER OF DIMENSIONAL LUMBER HEADERS.
   g. TREAT ALL EXTERIOR LUMBER OR LUMBER IN CONTACT WITH CONCRETE OR MASONRY WITH PRESERVATIVE IN ACCORDANCE WITH AWPA.
   h. INSTALL WOOD STRUCTURAL PANEL WALL SHEATHING ON ALL EXTERIOR WALLS.
   i. EXTEND MULTIPLE BEARING STUDS CONTINUOUSLY FROM SUPPORTED MEMBER DOWN TO STRUCTURAL STEEL BEAMS, OR MASONRY FOUNDATION WALLS.
   j. PROVIDE AND INSTALL TEMPORARY AND PERMANENT BRACING FOR PRE-ENGINEERED, PRE-FABRICATED WOOD TRUSSES AS INDICATED ON THE TRUSS MANUFACTURER'S APPROVED SHOP DRAWINGS.
   k. HOT-DIP GALVANIZE ALL STEEL CONNECTORS AND PRODUCTS 14 GA. AND THICKER AFTER FABRICATION THAT ARE IN CONTACT WITH PRESERVATIVE-TREATED WOOD. PROVIDE MINIMUM 2.0 OZ. COATING, ALL SIDES, PER ASTM A123. PROVIDE HOT-DIPPED GALVANIZED CONNECTORS PER ASTM A153 OR STAINLESS STEEL CONNECTORS.

      HOT-DIP GALVANIZE ALL STEEL CONNECTORS AND PRODUCTS LESS THAN 14 GA. THICK AFTER FABRICATION THAT ARE IN CONTACT WITH PRESERVATIVE-TREATED WOOD. PROVIDE MINIMUM 1.85 OZ. COATING, ALL SIDES, PER ASTM A653. PROVIDE HOT-DIPPED GALVANIZED CONNECTORS PER ASTM A153 OR STAINLESS STEEL CONNECTORS.

G. PRE-ENGINEERED, PRE-FABRICATED WOOD TRUSSES

1. THE DESIGN, FABRICATION AND INSTALLATION OF ALL PRE-ENGINEERED, PREFABRICATED WOOD TRUSSES SHALL CONFORM TO THE LATEST, ADOPTED EDITIONS OF THE STANDARDS AND MATERIAL SPECIFICATIONS REFERENCED HEREIN.

2. REFERENCE STANDARDS
   a. ANSI/AWC NDS, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" BY THE AMERICAN WOOD COUNCIL (AWC).
   b. ANSI/TPI-1, "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION" BY THE TRUSS PLATE INSTITUTE (TPI).

3. MATERIALS
   a. THE TERM "TRUSS" USED IN THIS SECTION APPLIES TO TRUSSES THAT ARE DESIGNED AND FABRICATED AS SEPARATE ENGINEERED PRODUCTS, AND DELIVERED TO THE PROJECT SITE FOR INSTALLATION.
   b. LUMBER: SPECIES PER DESIGN BY THE TRUSS MANUFACTURER, NO. 2 GRADE OR BETTER, 15% MAXIMUM M.C., EXCEPT THE TRUSS MANUFACTURER MAY USE STUD-GRADE FOR WEB MEMBERS.

4. DESIGN
   a. THE TRUSS MANUFACTURER SHALL DESIGN, DETAIL, PROVIDE AND INSTALL ALL INTERNAL TRUSS COMPONENT CONNECTIONS.
   b. THE TRUSS MANUFACTURER SHALL DESIGN AND DESIGNATE ALL TRUSS-TO-TRUSS HANGERS. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TRUSS-TO-TRUSS HANGERS IN ACCORDANCE WITH THE HANGER MANUFACTURER'S SPECIFICATIONS.
   c. METAL CONNECTOR PLATES: USE GALVANIZED SHEET STEEL CONFORMING WITH ASTM A653, COATING CLASS G60 . MANUFACTURE WITH HOLES, PLUGS, TEETH, OR PRONGS UNIFORMLY SPACED AND FORMED.
   d. IN ADDITION TO THE UNIFORM LOADS INDICATED BELOW, DESIGN TRUSSES FOR ALL SUPERIMPOSED DEAD LOADS INCLUDING BUT NOT LIMITED TO OVERLAY FRAMING, CHIMNEYS, MECHANICAL EQUIPMENT, ETC. DESIGN TRUSSES FOR THE EFFECTS OF DRIFTING SNOW WHERE APPLICABLE. DESIGN TRUSSES AND REQUIRED BRACING TO RESIST THE NET WIND UPLIFT INDICATED ON THE DRAWINGS.
   e. DESIGN OF MEMBERS AND CONNECTIONS SHALL BE PERFORMED BY A PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF THE PROJECT, EXPERIENCED IN SIMILAR DESIGN, RETAINED BY THE MANUFACTURER.
   f. DESIGN BOTTOM CHORDS OF GIRDER TRUSSES FOR THE END REACTIONS OF SUPPORTED TRUSSES.
   g. DESIGN ALL TRUSSES FOR ADDITIONAL SERVICE LOADS INDICATED ON PLAN.

5. DESIGN LOADS
   a. ROOF LOADS:
      1. TOP CHORD DEAD LOAD: 10 PSF
      2. TOP CHORD LIVE LOAD: SEE PARAGRAPH A.6.b, GENERAL NOTES
      3. BOTTOM CHORD DEAD LOAD: 5 PSF
      4. BOTTOM CHORD LIVE LOAD: 20 PSF WHERE REQUIRED BY OBC BASED ON WEB CONFIGURATION
      5. WIND LOADING: SEE PARAGRAPH A.6.c, GENERAL NOTES
         a. NET WIND UPLIFT: 12 PSF
   b. DEFLECTIONS
      1. ROOF
         a. MAXIMUM LIVE LOAD DEFLECTION: L/360, OR 0.75" MAXIMUM
         b. MAXIMUM TOTAL LOAD DEFLECTION: L/240, OR 1" MAXIMUM
   c. DESIGN ALL BRACING AND BRACING CONNECTIONS FOR ALL TRUSS TOP CHORDS, BOTTOM CHORDS AND WEB MEMBERS. PARTICULAR ATTENTION SHALL BE GIVEN TO AREAS IN THE FINISHED STRUCTURE WHICH CONTAIN TRUSSES WITH UN-SHEATHED TOP AND/OR BOTTOM CHORD MEMBERS.

6. SUBMITTALS
   a. SUBMIT TRUSS SHOP DRAWINGS WHICH EXHIBIT THE SEAL OF THE ENGINEER RESPONSIBLE FOR THE TRUSS DESIGN.
   b. SUBMIT LAYOUT DRAWING WHICH INDICATES THE LOCATION OF EACH TRUSS.
   c. SUBMIT HANGER CONNECTOR TYPES AND LOCATIONS.
   d. INDICATE ALL TEMPORARY AND PERMANENT BRACING REQUIREMENTS OF TRUSS MEMBERS. IN AREAS WHERE TRUSS TOP CHORDS AND/OR BOTTOM CHORDS DO NOT RECEIVE SHEATHING, INDICATE THE REQUIRED CHORD BRACING AND BRACE SPACINGS FOR ALL APPLICABLE LOAD CASES. INDICATE ANCHORAGE OF "CAP" TRUSSES AND/OR "OVERLAY" TRUSSES.

ISSUE TABLE

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PHILIPPE LALONDE

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TEL: 214-343-9400 www.dimensiongrp.com

Project

LOUISIANA KITCHEN 19 72 POPEYES

Store Type
US 2112 PROTOTYPE
2112-21

Location
1517 NC 24-87
CAMERON, NC

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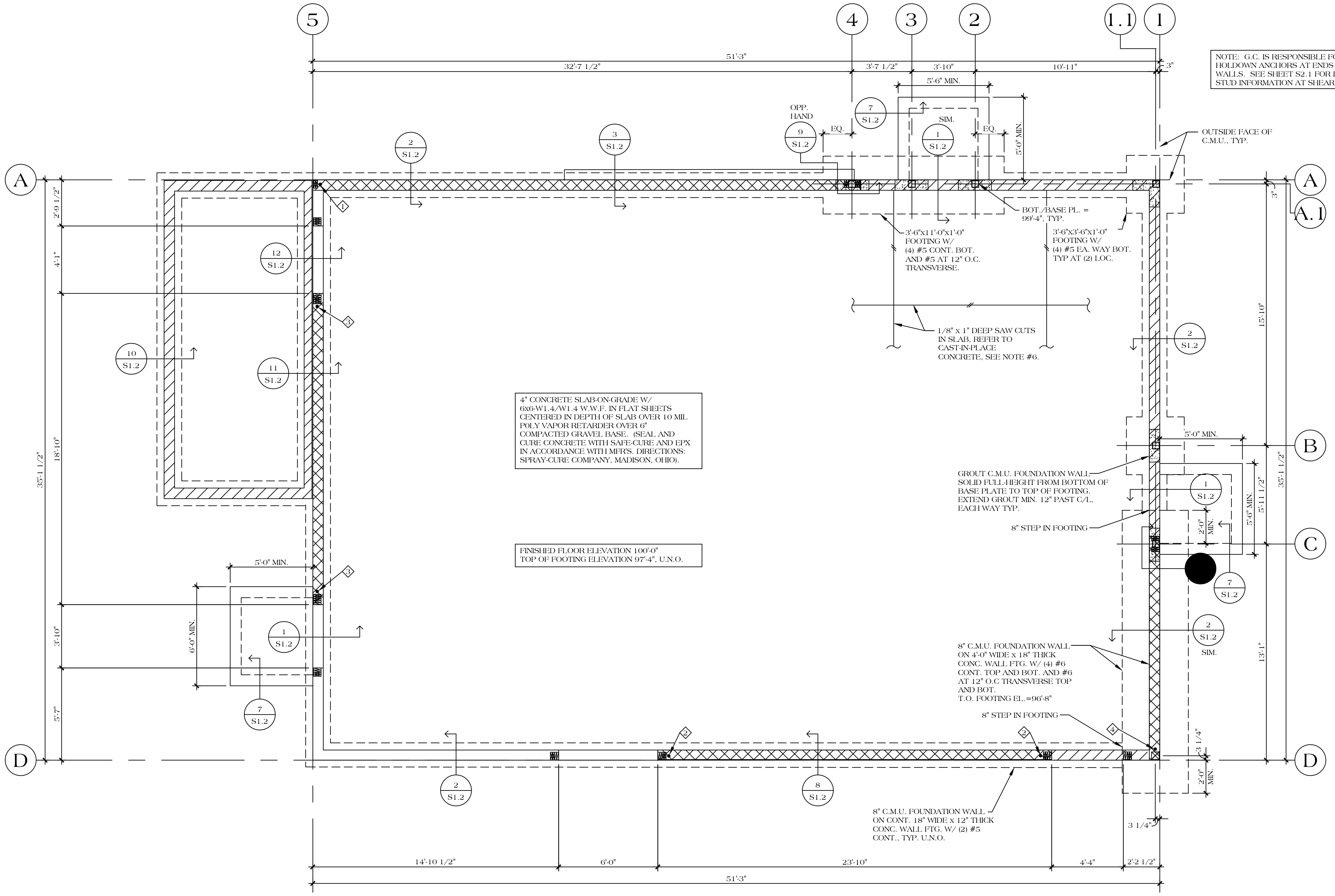
pl project - 2308020

Drawing Title
STRUCTURAL NOTES

Drawn	Checked
Scale	Date MAY 2023
Project No. C22-129	Drawing No. S0.1

POPEYES LOUISIANA KITCHEN MODEL 2112, 1517 NC 24-87, CAMERON, NC (AUG 16, 2022) STORE NO. C22-129



3'-6"x11'-0"x1'-0" FOOTING W/ (4) #5 CONT. BOT. AND #5 AT 12" O.C. TRANSVERSE.

3'-6"x3'-6"x1'-0" FOOTING W/ (4) #5 EA. WAY BOT. TYP AT (2) LOC.

1/8" x 1" DEEP SAW CUTS IN SLAB, REFER TO CAST-IN-PLACE CONCRETE, SEE NOTE #6.

4" CONCRETE SLAB-ON-GRADE W/ 6x6-W1.4/W1.4 W.W.F. IN FLAT SHEETS CENTERED IN DEPTH OF SLAB OVER 10 MIL P0LY VAPOR RETARDER OVER 6" COMPACTED GRAVEL BASE. (SEAL AND CURE CONCRETE WITH SAFE-CURE AND EPX IN ACCORDANCE WITH MFR'S. DIRECTIONS: SPRAY-CURE COMPANY, MADISON, OHIO).

FINISHED FLOOR ELEVATION 100'-0"
TOP OF FOOTING ELEVATION 97'-4", U.N.O.

GROUT C.M.U. FOUNDATION WALL SOLID FULL-HEIGHT FROM BOTTOM OF BASE PLATE TO TOP OF FOOTING. EXTEND GROUT MIN. 12" PAST C/L, EACH WAY TYP.

8" STEP IN FOOTING

8" C.M.U. FOUNDATION WALL ON 4'-0" WIDE x 18" THICK CONC. WALL FTG. W/ (4) #6 CONT. TOP AND BOT. AND #6 AT 12" O.C TRANSVERSE TOP AND BOT.
T.O. FOOTING EL.=96'-8"

8" STEP IN FOOTING

8" C.M.U. FOUNDATION WALL ON CONT. 18" WIDE x 12" THICK CONC. WALL FTG. W/ (2) #5 CONT., TYP. U.N.O.

A FOUNDATION PLAN
1/4" = 1'-0"

NOTE: G.C. IS RESPONSIBLE FOR LOCATING HOLDOWN ANCHORS AT ENDS OF SHEAR WALLS. SEE SHEET S2.1 FOR HOLDOWN AND STUD INFORMATION AT SHEAR WALLS.

CAST-IN PLACE CONCRETE

1. CONFORM TO ACI 318 BUILDING CODE (EDITION LISTED IN APPLICABLE BUILDING CODE) REQUIREMENTS FOR REINFORCED CONCRETE.
2. COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS U.N.O.

LOCATION	COMPRESSIVE STRENGTH
SLAB-ON-GRADE	3500 PSI
FOOTINGS	3000 PSI
EXTERIOR CONC.	4500 PSI
LEAN BACKFILL	1500 PSI

- MAXIMUM SLUMP IS TO BE 4".
- CONCRETE EXPOSED TO WEATHER SHALL HAVE AN AIR-ENTRAINMENT OF 5% +/- 1.5%.

3. ALL REINFORCING STEEL SHALL BE HARD GRADE ASTM A615 YIELD STRENGTH OF Fy = 60 KSI.
4. WELDED WIRE REINF. SHALL CONFORM TO ASTM A1064 "WELDED STEEL WIRE REINF. FOR CONCRETE REINFORCEMENT."
5. CONCRETE COVER FOR REINFORCING STEEL BARS AND PLACING TOLERANCES SHALL BE IN ACCORDANCE WITH ACI 318 (EDITION LISTED IN APPLICABLE BUILDING CODE).
6. SAWCUT SLAB-ON-GRADE TO A DEPTH OF 1" AS SHOWN ON PLAN WITHIN 6 HOURS OF POURING.

EXCAVATING AND BACKFILLING

1. FOUNDATION DESIGN IS BASED ON AN ASSUMED ALLOWABLE SOIL PRESSURE OF 2000 PSF.
2. EXTEND EXTERIOR FOOTINGS TO A MIN. OF 3'-0" BELOW FINISH GRADE. VERIFY WITH LOCAL AUTHORITIES.
3. BEAR ALL FOOTINGS ON ORIGINAL UNDISTURBED SOIL. BEFORE POURING FOOTINGS, SOIL QUALITY MUST BE APPROVED BY A GEOTECHNICAL ENGINEER.
4. THE FOUNDATION WALL ELEVATIONS SHOWN ARE NOMINAL. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR EXTENDING THE BOTTOM OF THE FOOTING DOWN TO UNDISTURBED SUITABLE SOIL.
5. THE LINE OF SLOPE BETWEEN THE ADJACENT EXCAVATIONS FOR FOOTINGS SHALL NOT EXCEED A RISE OF 7 IN A RUN OF 10. MAXIMUM STEP APPROXIMATELY 24".
6. SEE 5/S1.2 FOR TYPICAL FOOTING STEP DETAIL AND 6/S1.2 FOR TYPICAL DETAIL WHERE UTILITY LINES PASS BELOW FOOTINGS.

HOLDOWN SCHEDULE

MARK	TYPE	CONN. TO STUDS	ANCHOR ROD	ANCHOR ROD EMBEDMENT
◇1	SIMPSON HD3B	(2) 5/8" DIA. STUD BOLTS	5/8" DIA. W/ HEAVY HEX NUT	12"
◇2	SIMPSON HD5B	(2) 3/4" DIA. STUD BOLTS	5/8" DIA. W/ HEAVY HEX NUT	12"
◇3	SIMPSON HD9B	(3) 7/8" DIA. STUD BOLTS	7/8" DIA. W/ HEAVY HEX NUT	18"
◇4	SIMPSON HD12	(4) 1" DIA. STUD BOLTS	1" DIA. W/ HEAVY HEX NUT	30"

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pl project - 2308020

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Project

LOUISIANA 19 72 KITCHEN
POPEYES

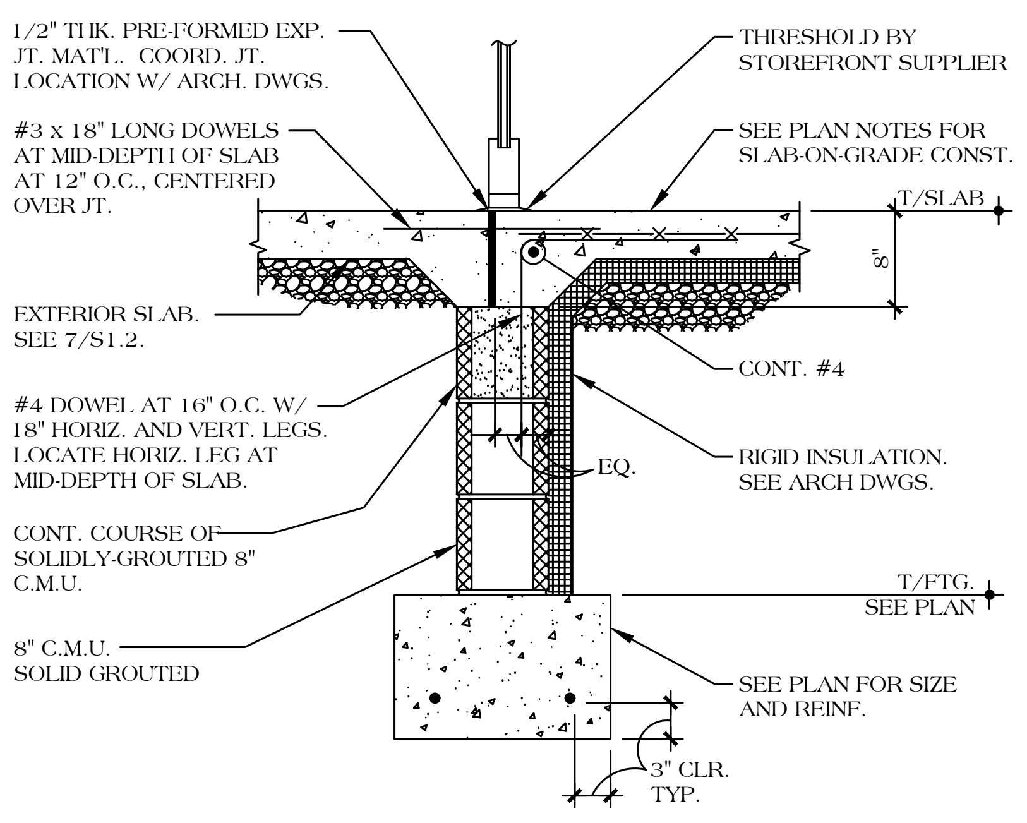
Store Type
US 2112 PROTOTYPE
2112-21

Location
1517 NC 24-87
CAMERON, NC

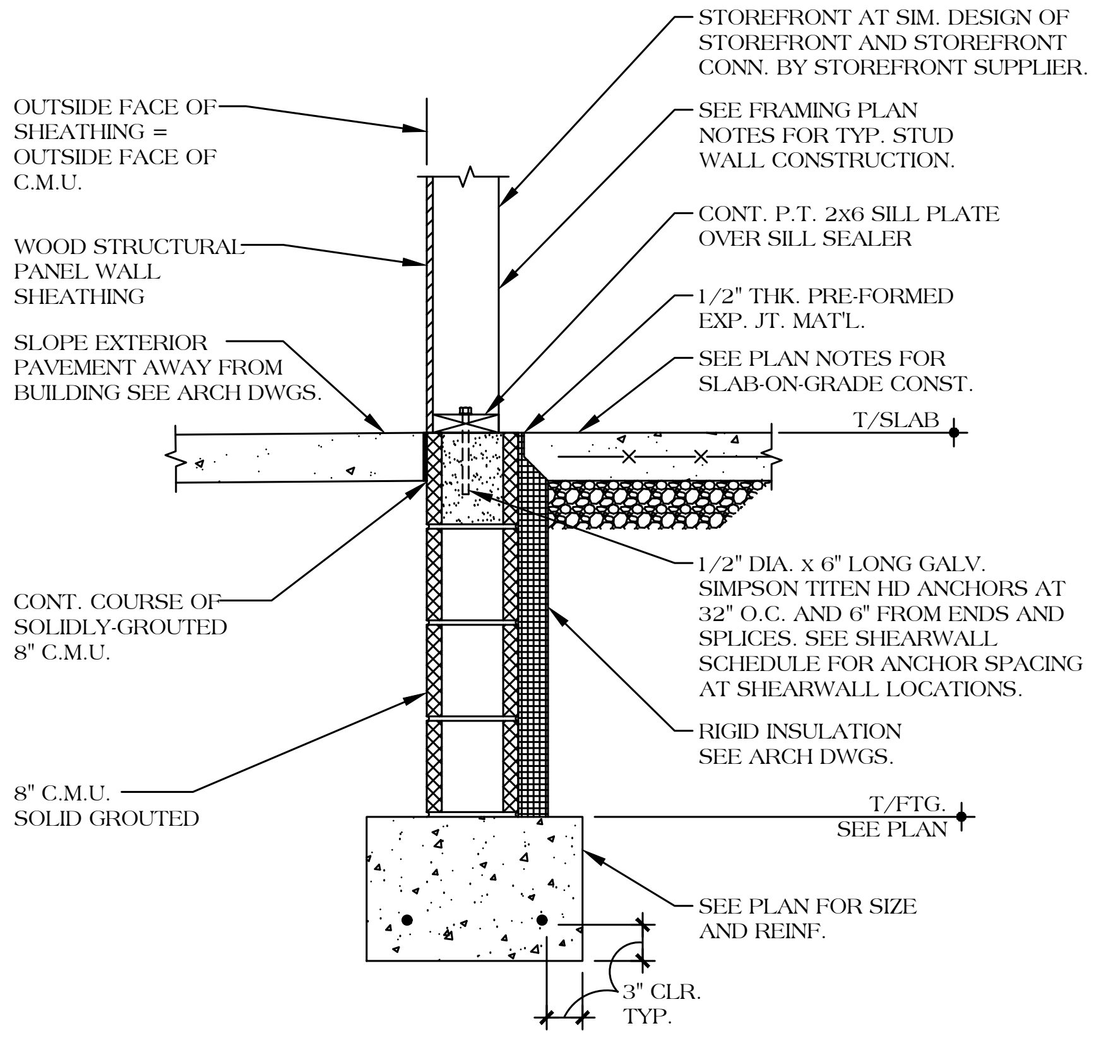
Drawing Title
FOUNDATION PLAN

Drawn	Checked
Scale	Date MAY 2023
Project No. C22-129	Drawing No. S1.1

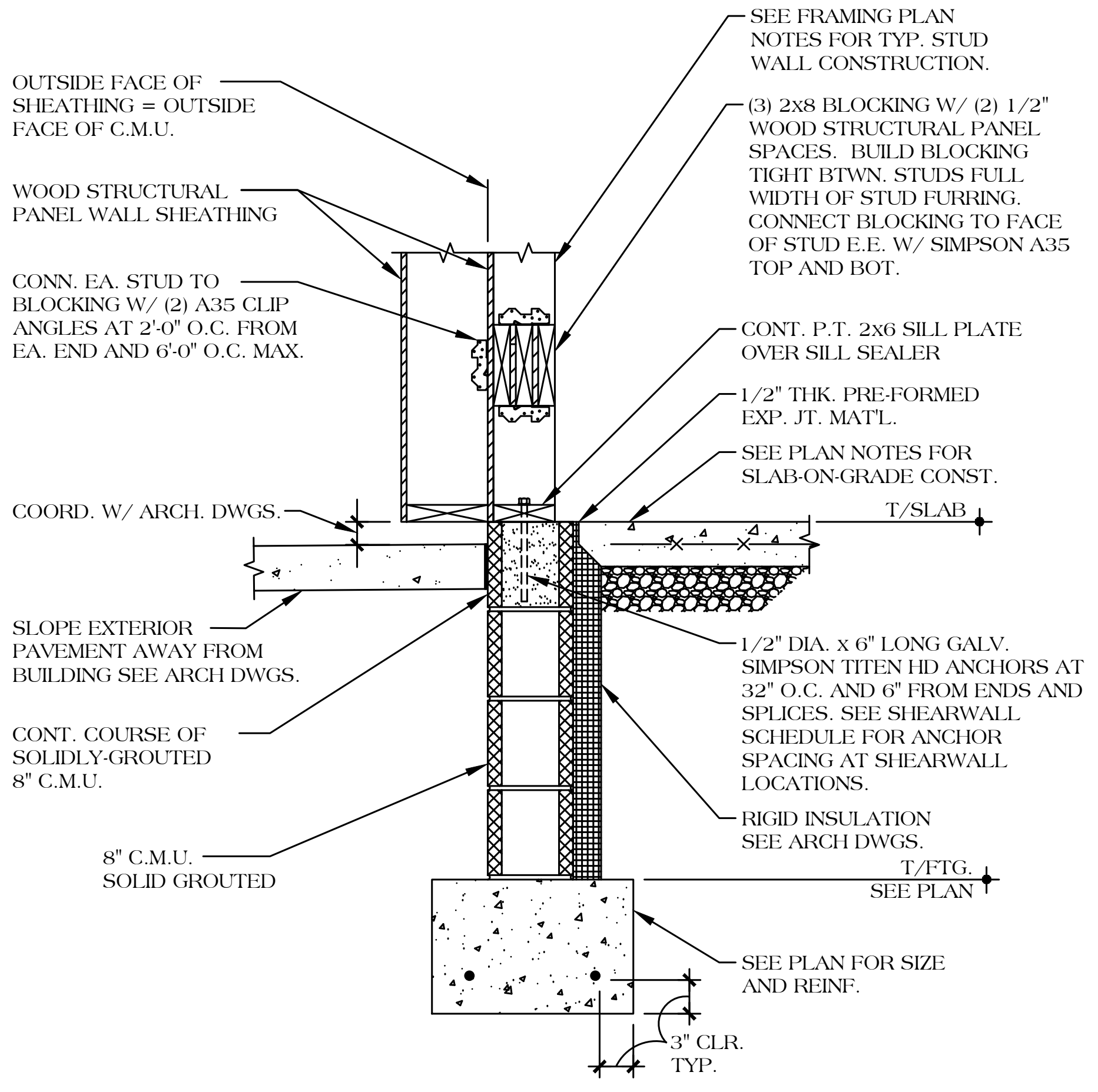
POPEYES LOUISIANA KITCHEN MODEL 2112, 1517 NC CAMERON, NC (AUG 16, 2022) STORE NO. C22-129



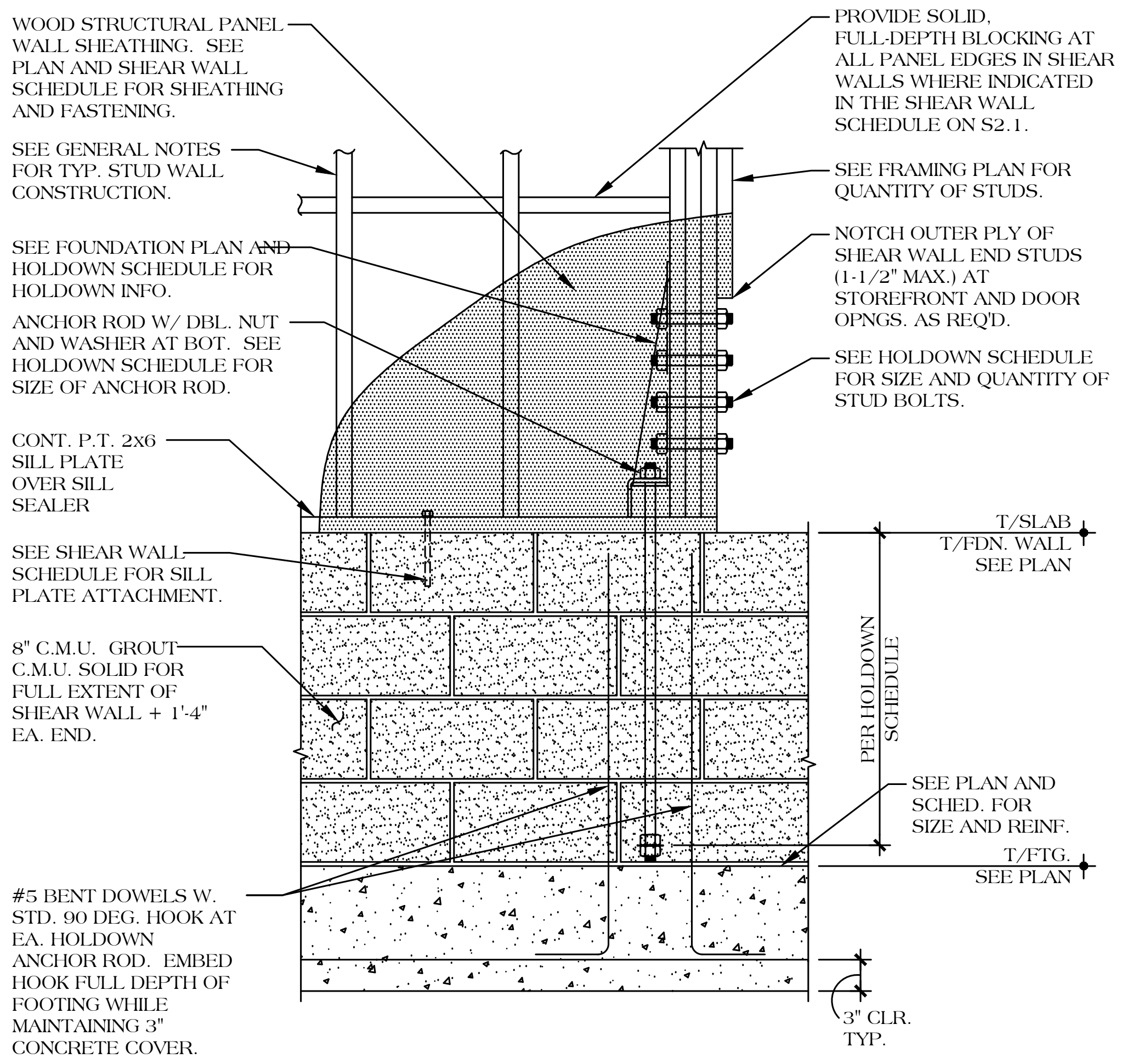
1 DETAIL AT DOOR
3/4" = 1'-0"



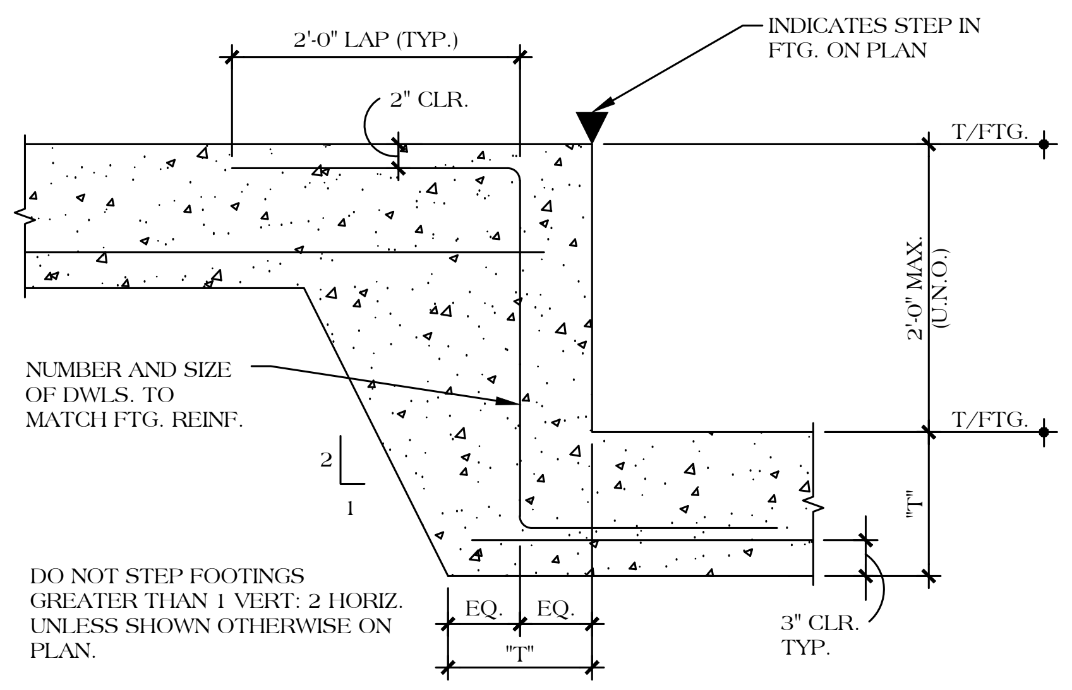
2 TYPICAL DETAIL
3/4" = 1'-0"



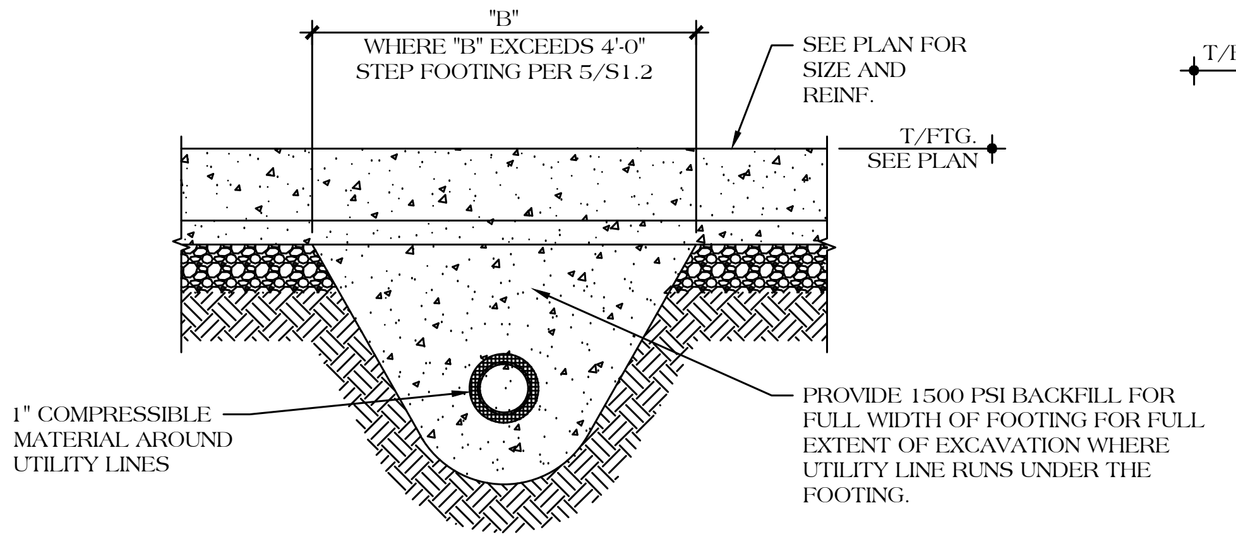
3 TYPICAL DETAIL AT FEATURE WALL
3/4" = 1'-0"



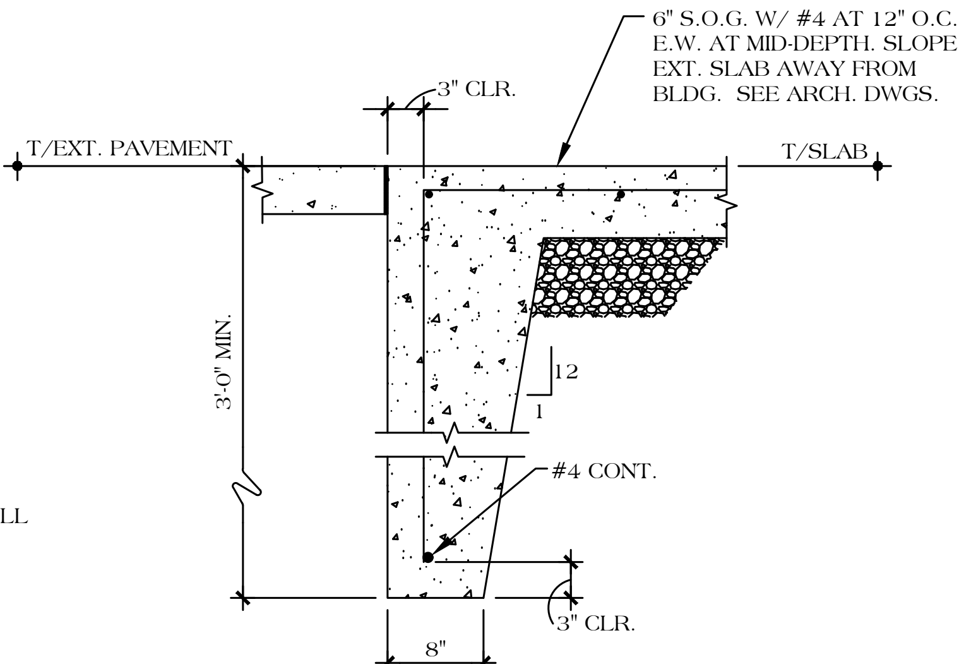
4 TYPICAL SHEAR WALL DETAIL
3/4" = 1'-0"



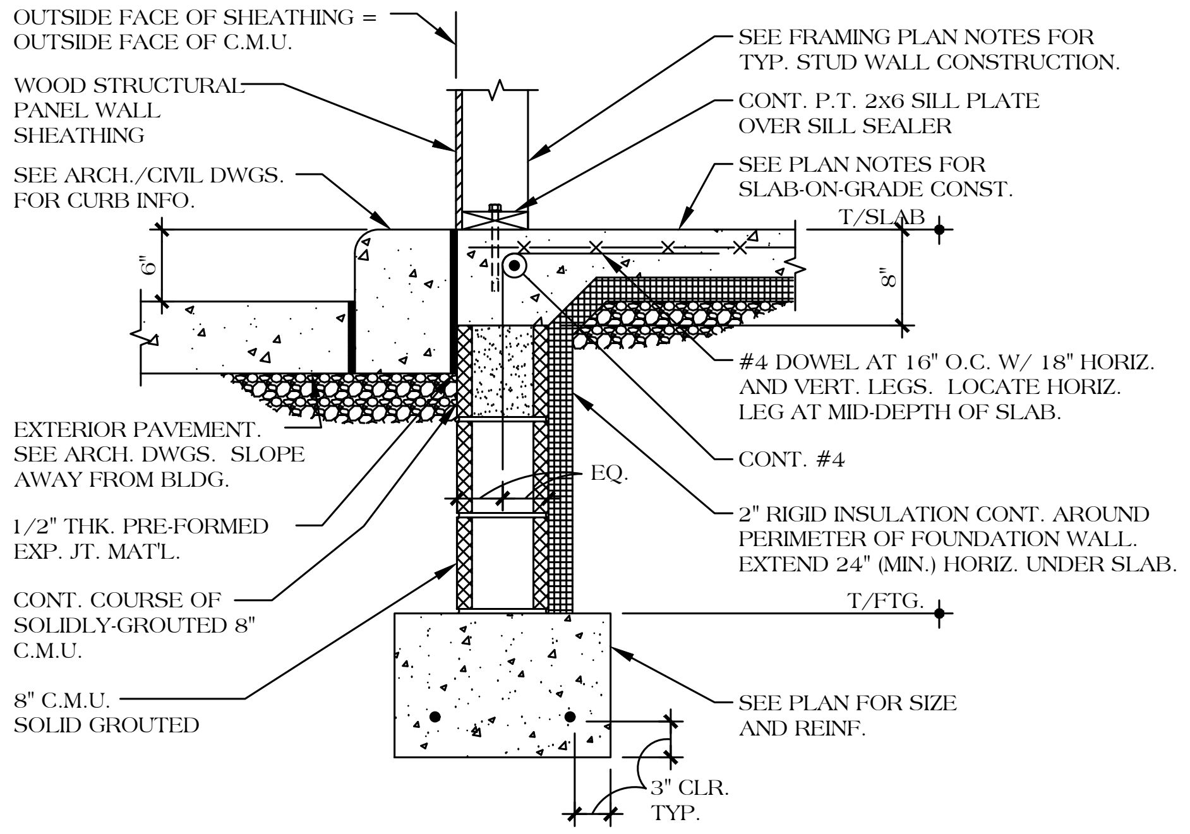
5 TYP. FOOTING STEP
N.T.S.



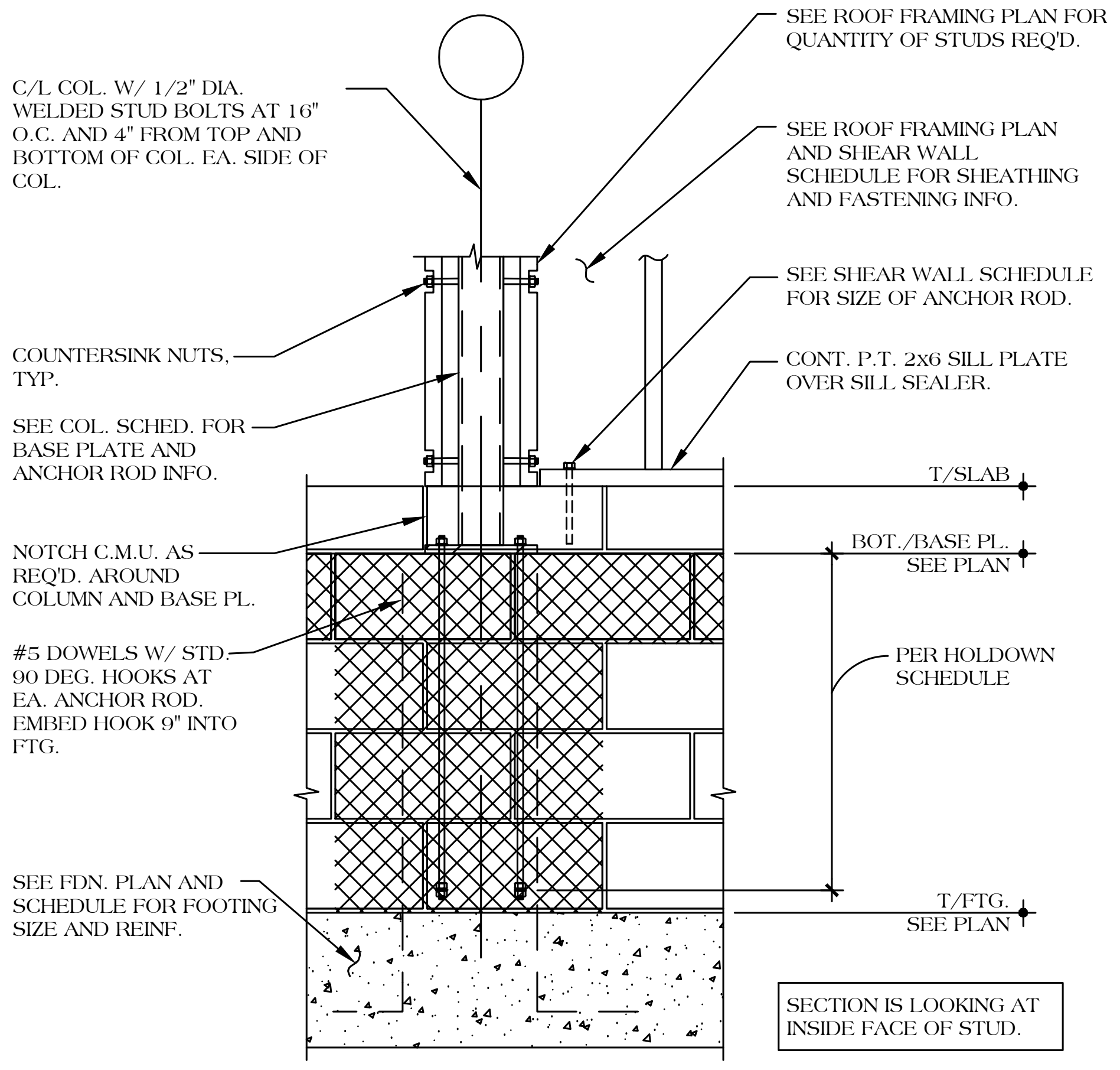
6 TYPICAL BACKFILL DETAIL BELOW WALL FOOTINGS AT UTILITY LINES
1/2" = 1'-0"



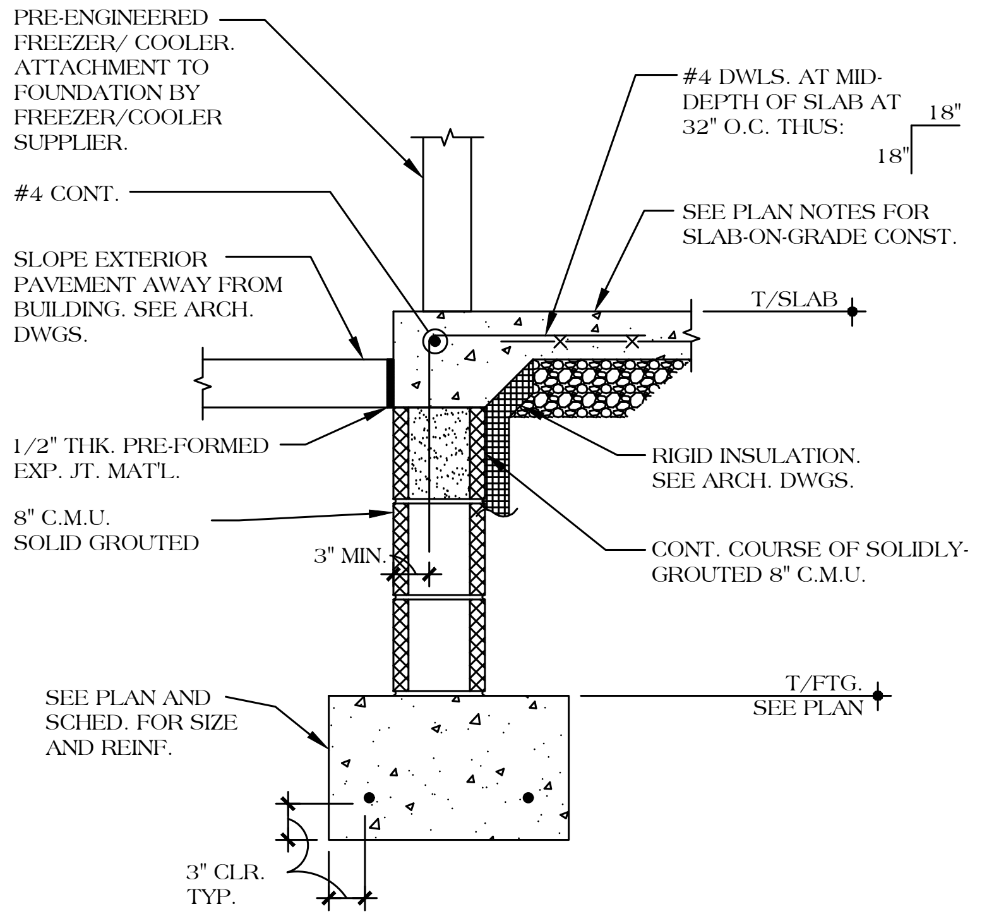
7 DETAIL AT FROST SLAB
3/4" = 1'-0"



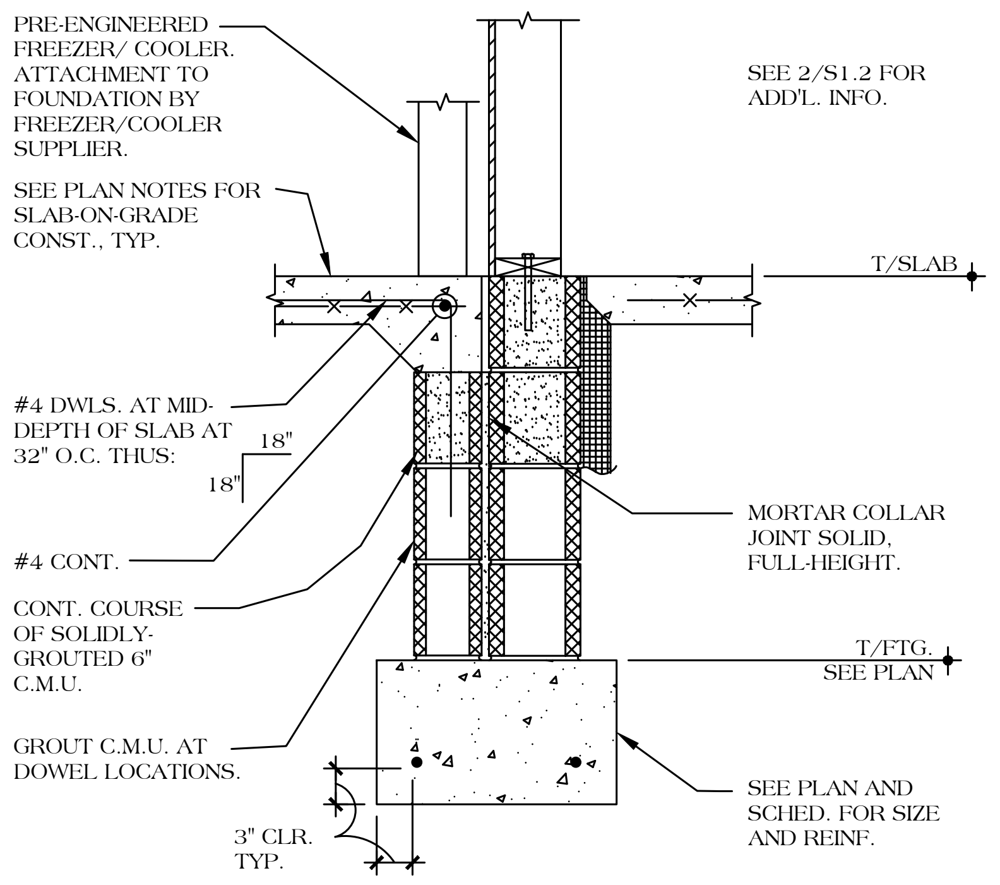
8 DETAIL AT DRIVE-THRU
3/4" = 1'-0"



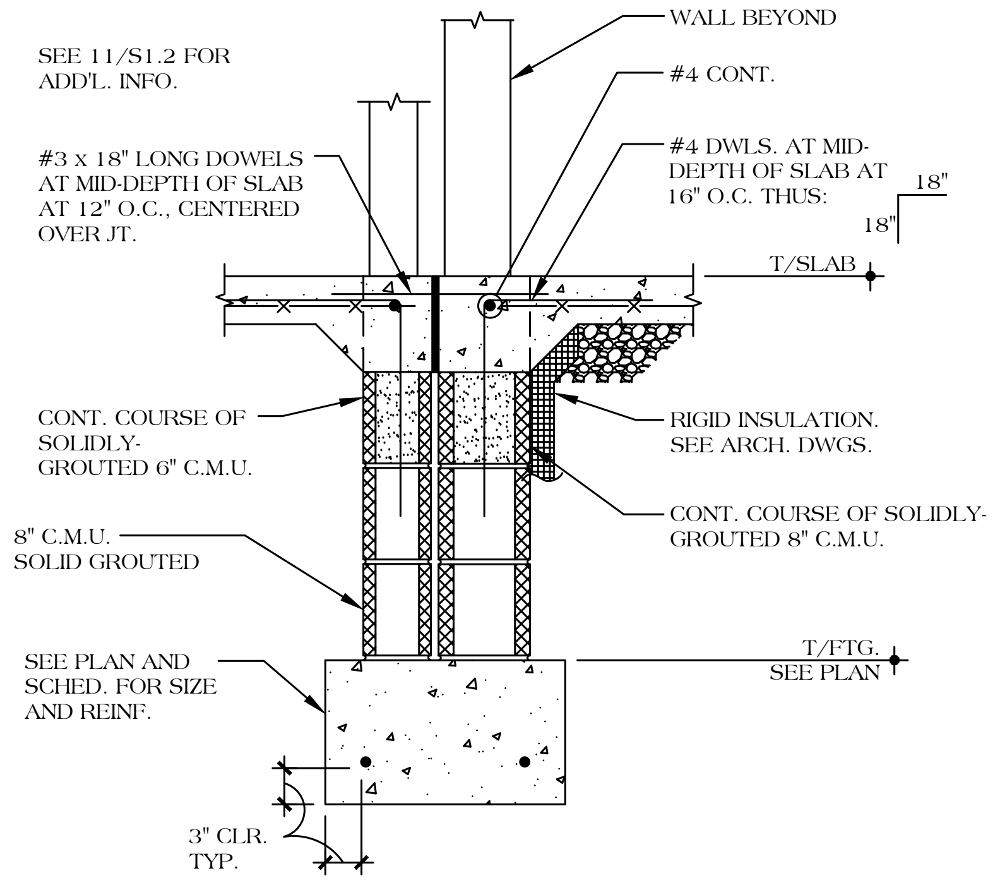
9 SECTION
3/4" = 1'-0"



10 SECTION
3/4" = 1'-0"



11 SECTION
3/4" = 1'-0"



12 SECTION
3/4" = 1'-0"

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pl project - 2308020

ISSUE TABLE

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PHILIPPE LALONDE

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Project

LOUISIANA 19 72 KITCHEN
POPEYES

Store Type
US 2112 PROTOTYPE
2112-21

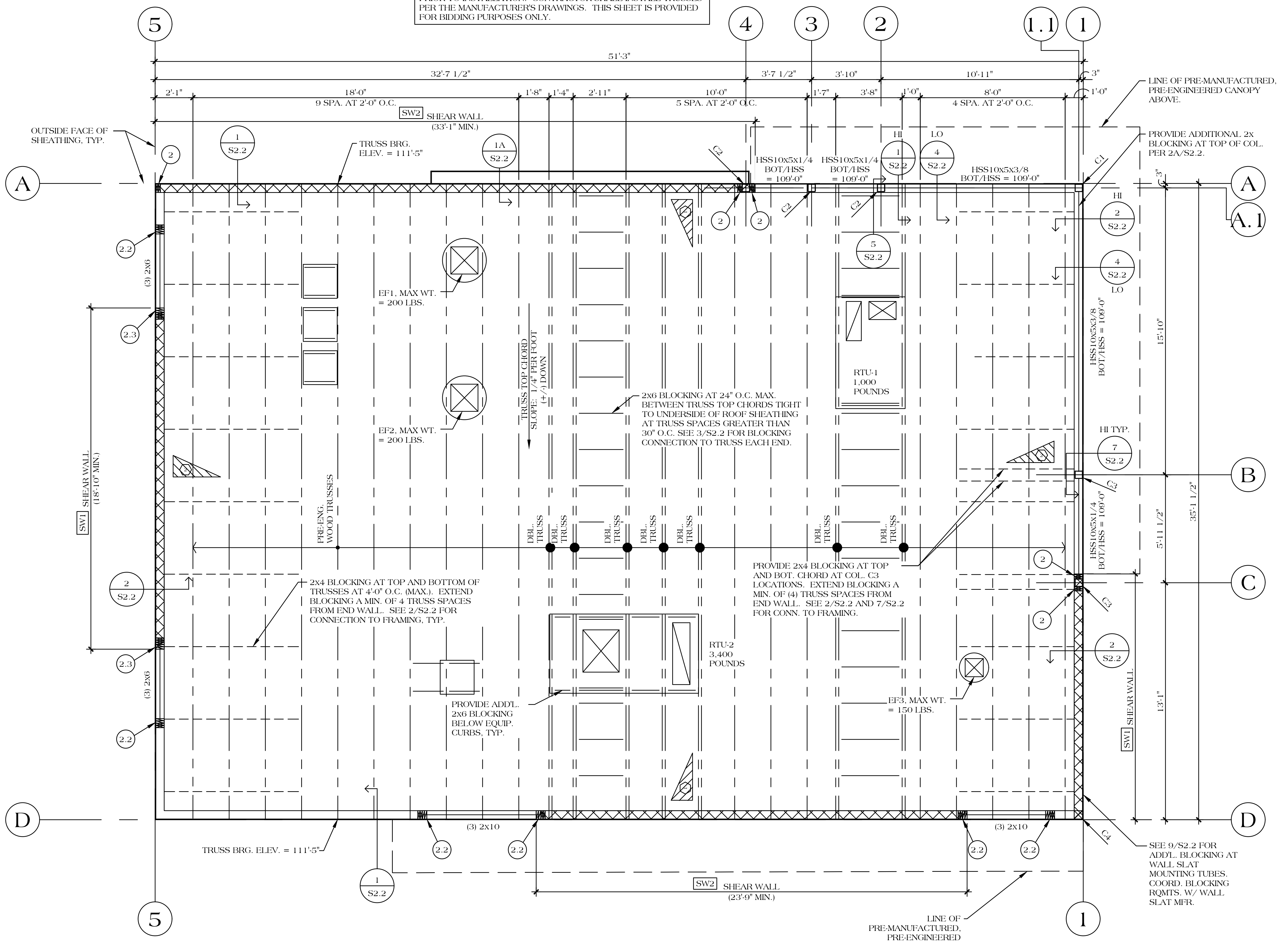
Location
1517 NC 24-87
CAMERON, NC

Drawing Title
STRUCTURAL
FOUNDATION SECTIONS

Drawn	Checked
Scale	Date MAY 2023
Project No. C22-129	Drawing No. S1.2

POPEYES LOUISIANA KITCHEN MODEL 2112, 1517 NC CAMERON, NC (AUG 16, 2022) STORE NO. C22-129

NOTE: TRUSS MANUFACTURER VERIFY TRUSS LAYOUT AND PROVIDE ENGINEERED SHOP DRAWINGS SIGNED AND SEALED BY A LICENSED ENGINEER REGISTERED IN THE STATE OF THE PROJECT PRIOR TO INSTALLATION. CONTRACTOR SHALL INSTALL TRUSSES PER THE MANUFACTURER'S DRAWINGS. THIS SHEET IS PROVIDED FOR BIDDING PURPOSES ONLY.



LINE OF PRE-MANUFACTURED, PRE-ENGINEERED CANOPY ABOVE.

PROVIDE ADDITIONAL 2x BLOCKING AT TOP OF COL. PER 2A/S2.2.

2x6 BLOCKING AT 24" O.C. MAX. BETWEEN TRUSS TOP CHORDS TIGHT TO UNDERSIDE OF ROOF SHEATHING AT TRUSS SPACES GREATER THAN 30" O.C. SEE 3/S2.2 FOR BLOCKING CONNECTION TO TRUSS EACH END.

2x4 BLOCKING AT TOP AND BOTTOM OF TRUSSES AT 4'-0" O.C. (MAX.). EXTEND BLOCKING A MIN. OF 4 TRUSS SPACES FROM END WALL. SEE 2/S2.2 FOR CONNECTION TO FRAMING, TYP.

PROVIDE 2x4 BLOCKING AT TOP AND BOT. CHORD AT COL. C3 LOCATIONS. EXTEND BLOCKING A MIN. OF (4) TRUSS SPACES FROM END WALL. SEE 2/S2.2 AND 7/S2.2 FOR CONN. TO FRAMING.

PROVIDE ADD'L. 2x6 BLOCKING BELOW EQUIP. CURBS, TYP.

SEE 9/S2.2 FOR ADD'L. BLOCKING AT WALL SLAT MOUNTING TUBES. COORD. BLOCKING RQMTS. W/ WALL SLAT MFR.

LINE OF PRE-MANUFACTURED, PRE-ENGINEERED CANOPY ABOVE.

A ROOF FRAMING PLAN

1/4" = 1'-0"

SNOW DRIFT SCHEDULE

MARK	SNOW DRIFT
1	10 PSF 5'-9"
2	13 PSF 7'-3"

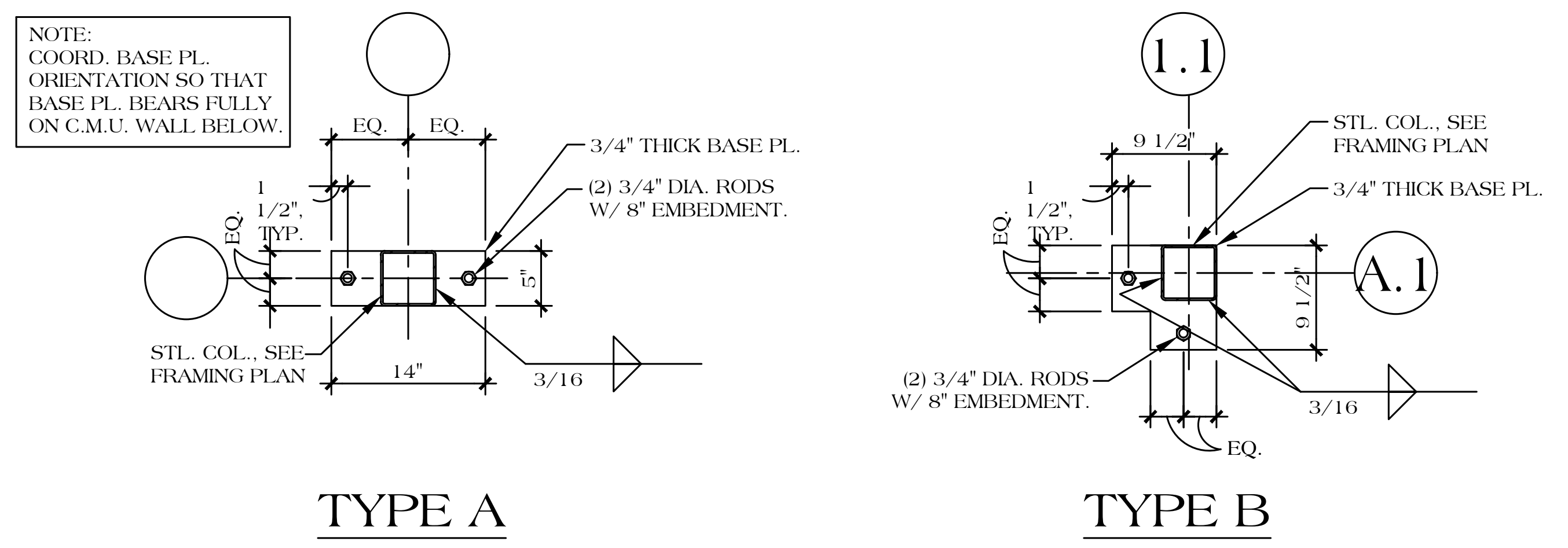
COLUMN SCHEDULE

MARK	SIZE	COMMENTS
C1	HSS5x5x1/4	TOP OF COL. CAP PL. = 111'-2". SEE 6/S2.2 FOR SIM. TOP OF COL. CONN. EXTEND 2x TOP PLATES FLUSH TO OUTER FACE OF HSS (PLAN EAST DIRECTION.) SEE DETAIL 3 (TYPE B) THIS SHEET FOR BASE PL.
C2	HSS5x5x1/4	TOP OF COL. CAP PL. = 111'-2". SEE 6/S2.2 FOR TOP OF COL. CONNECTION. SEE DETAIL 3 (TYPE A) THIS SHEET FOR BASE PL.
C3	HSS5x5x1/4	TERMINATE TOP OF COL. 6" +/- ABOVE T/TRUSS. G.C. COORD. W/ ARCH. DWGS. AND TRUSS SHOP DWGS. TIE INTO STUD FRAMING PER 2/S2.2 SIM. AND 7/S2.2. SEE DETAIL 3 (TYPE A) THIS SHEET FOR BASE PL.
C4	6x6	TOP OF COL. = TOP OF TRUSS, SEE 2/S2.2 AND ARCH. DWGS.

SHEAR WALL SCHEDULE

MARK	SHEATHING APPLICATION	SHEATHING TYPE AND THICKNESS	PANEL EDGES	FASTENER	NAIL SPACING		DESIGN CAPACITY (WIND - ALLOWABLE)	BOTTOM PLATE FASTENING
					EDGES	FIELD		
SW1	ONE SIDE	15/32" APA RATED SHEATHING	BLOCKED	10d	4"	12"	593 PLF	1/2" DIA. x 6" LONG GALV. SIMPSON TITEN HD ANCHORS AT 12" O.C. AND 6" FROM ENDS AND SPLICES.
SW2	ONE SIDE	15/32" APA RATED SHEATHING	UNBLOCKED	10d	6"	12"	240 PLF	1/2" DIA. x 6" LONG GALV. SIMPSON TITEN HD ANCHORS AT 24" O.C. AND 6" FROM ENDS AND SPLICES.

1. WHERE SHEATHING IS ONE SIDE ONLY, APPLY SHEATHING TO FACE OF WALL BY SYMBOL.
2. LOCATE ALL PANEL EDGES ON STUDS, FULL-DEPTH BLOCKING OR TOP/BOTTOM PLATES.
3. PROVIDE HOLDOWNS AND MULTIPLE STUDS AT ENDS OF SHEAR WALLS PER CODED NOTES AND SECTION 4/S1.2.



TYPE A

TYPE B

3 BASE PLATE DETAILS

N.T.S.

GENERAL NOTES

1. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
2. (X) "X" INDICATES NUMBER OF BEARINGS STUDS REQUIRED FOR BEAM END SUPPORT AND SHEAR WALLS, TYPICAL UNLESS NOTED OTHERWISE.

   (X.Y) "X" INDICATES NUMBER OF JACK BEARING STUDS REQUIRED FOR HEADER SUPPORT.
   "Y" INDICATES NUMBER OF FULL-HEIGHT KING STUDS REQUIRED FOR HEADER SUPPORT.
3. WOOD STRUCTURAL PANEL ROOF SHEATHING TO BE 5/8" (NOMINAL) APA RATED SHEATHING, 40/20, EXPOSURE 1. FASTEN SHEATHING TO FRAMING WITH 10d COMMON NAILS SPACED AT 6" O.C. AT ALL PANEL EDGES AND SPACED AT 12" O.C. AT ALL INTERMEDIATE SUPPORTS. INSTALL LONG DIMENSION OF ROOF SHEATHING PANELS PERPENDICULAR TO SPAN OF ROOF TRUSSES. STAGGER PANEL END JOINTS A MINIMUM OF (1) TRUSS SPACE.
4. FRAME ALL EXTERIOR STUD WALLS WITH 2x6 AT 16" O.C.
5. ALL WOOD FRAMING TO BE SPF No. 1/No. 2 GRADE.
6. MAXIMUM DEFLECTION OF ROOF FRAMING UNDER TOTAL LOAD SHALL NOT EXCEED L/180 OF THE SPAN; DEFLECTION SHALL NOT EXCEED 1/240 OF THE SPAN UNDER LIVE LOAD.
7. SAWN LUMBER SHALL CONFORM TO AMERICAN SOFTWOOD STANDARD PS20 (EDITION LISTED IN APPLICABLE BUILDING CODE).
8. ROOF TRUSS SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER RESPONSIBLE FOR DESIGN AND LICENSED TO PRACTICE IN STATE OF THIS PROJECT.
9. HOIST TRUSSES INTO POSITION IN ACCORDANCE WITH DESIGN DRAWINGS.
10. PROVIDE TEMPORARY HORIZONTAL AND CROSS BRACINGS TO HOLD TRUSSES PLUMB AND IN SAFE CONDITION UNTIL PERMANENT BRACING IS INSTALLED.
11. INSTALL PERMANENT BRACING AND RELATED COMPONENTS PRIOR TO APPLICATION OF LOADS TO TRUSSES.
12. DO NOT CUT OR REMOVE ANY TRUSS MEMBER.
13. EACH TRUSS TO BE ANCHORED TO WOOD PLATES AND SHEATHING WITH TENSION ANCHORS BY SIMPSON OR EQUAL.
14. FASTEN BUILT-UP WOOD POSTS AND BEAMS TOGETHER WITH 10d NAILS, PER TWO PLIES, SPACED NOT MORE THAN 12" O.C. OR 3/8" DIAMETER BOLTS FITTED WITH WASHERS AND SPACED NOT MORE THAN 18" O.C.
15. WOOD STRUCTURAL PANEL WALL SHEATHING TO BE 15/32" (1/2" NOMINAL) APA RATED SHEATHING, 32/16, EXPOSURE 1. FASTEN SHEATHING TO FRAMING WITH 10d NAILS SPACED AT 6" O.C. AT ALL PANEL EDGES AND SPACED AT 12" O.C. AT ALL INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE.
16. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF SLOPES AND DRAINAGE.
17. MAINTAIN MINIMUM CLEARANCE AROUND EXHAUST FAN OPENINGS. ADJUST TRUSS SPACING TO SUIT.
18. SEE 8/S2.2 FOR TYPICAL SUSPENDED LOAD DETAIL.

DESIGN CRITERIA

A. FLOOR LIVE LOADS (SLAB-ON-GRADE): 125 PSF

B. ROOF LIVE LOAD (MINIMUM): 25 PSF

C. ROOF SNOW LOAD:

GROUND SNOW LOAD (Pg):	10 PSF
FLAT-ROOF SNOW LOAD (Pf):	7.0 PSF PLUS DRIFTING PER ASCE 7
SNOW EXPOSURE FACTOR (Ce):	1.0
SNOW LOAD IMPORTANCE FACTOR (Ct):	1.0
THERMAL FACTOR:	1.0

1. THE EFFECTS OF DRIFTING SNOW HAVE BEEN INCLUDED IN THE DESIGN.
2. THE ROOF STRUCTURE HAS BEEN DESIGNED FOR THE ROOF LOADINGS INDICATED ABOVE SUCH THAT AN ADEQUATE ROOF SLOPE AND DRAINAGE SYSTEM ARE REQUIRED TO PREVENT PONDING LOADS WHICH MAY EXCEED THE DESIGN ROOF LOADS.

D. WIND LOADING:

BASIC WIND SPEED, Vasd/Vult	92 MPH/118 MPH
WIND IMPORTANCE FACTOR:	1.0
RISK CATEGORY:	II
WIND EXPOSURE CATEGORY:	C
INTERNAL PRESSURE COEFFICIENT:	+0.18, -0.18

COMPONENTS AND CLADDING (PRESSURES INDICATED ARE EDGE ZONE (BUILDING CORNER) SERVICE LEVEL PRESSURES BASED ON A MINIMAL EFFECTIVE AREA AND MAY BE REDUCED ACCORDINGLY FOR INTERIOR ZONES AND LARGER EFFECTIVE AREAS):

a. ROOF:	17.0 PSF, -29.0 PSF
b. WALLS:	17.0 PSF, -23.0 PSF

E. SEISMIC DESIGN CRITERIA

SEISMIC IMPORTANCE FACTOR:	1.0
RISK CATEGORY:	II
MAPPED SPECTRAL RESPONSE ACCELERATIONS:	
a. SHORT PERIODS:	0.148
b. 1 SECOND PERIOD:	0.07
SITE CLASS:	D (ASSUMED)
SPECTRAL RESPONSE COEFFICIENTS:	
a. DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIODS:	0.157
b. DESIGN SPECTRAL RESPONSE ACCELERATION AT 1 SECOND PERIOD:	0.122
SEISMIC DESIGN CATEGORY:	B
BASIC SEISMIC-FORCE-RESISTING-SYSTEM:	LIGHT FRAMED WALLS SHEATHED WITH WOOD STRUCTURAL PANEL RATED FOR SHEAR RESISTANCE
DESIGN BASE SHEAR:	2.2 KIPS
SEISMIC RESPONSE COEFFICIENT, Cs:	0.02
RESPONSE MODIFICATION FACTOR, R:	6 1/2
ANALYSIS PROCEDURE:	EQUIVALENT LATERAL FORCE PROCEDURE

F. SPECIAL LOADS

INTERIOR PARTITIONS:	5 PSF
GUARDRAILS:	50 PLF / 200 POUNDS

G. FROST DEPTH (BELOW GRADE): 36 INCHES

H. SPECIFIED COMPRESSIVE STRENGTH OF MASONRY, f'm = 2,000 PSI

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CONSULTING STRUCTURAL ENGINEER
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FORT WORTH, TX 76135
PHONE: 817-307-8266
FAX: 817-238-1520
pl project - 2308020

ISSUE TABLE

No.	Date (mm/dd/yy)	Description

REVISIONS

No.	Date	Description

DRAWINGS REVISED AS PER DESIGN BULLETIN

No.	Date	Description

PROJECT NORTH

Digitally signed by Philippe Lalonde
Date: 2023.05.24
14:45:46-05'00'

SEAL 030371
PHILIPPE LALONDE

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY PHILIPPE J. LALONDE, P.E. 030371 ON MAY 24, 2023.

Company Logo

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ARCHITECTURE • CIVIL ENGINEERING • MEP ENGINEERING
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TEL: 214-343-9400 www.dimensiongrp.com

Project

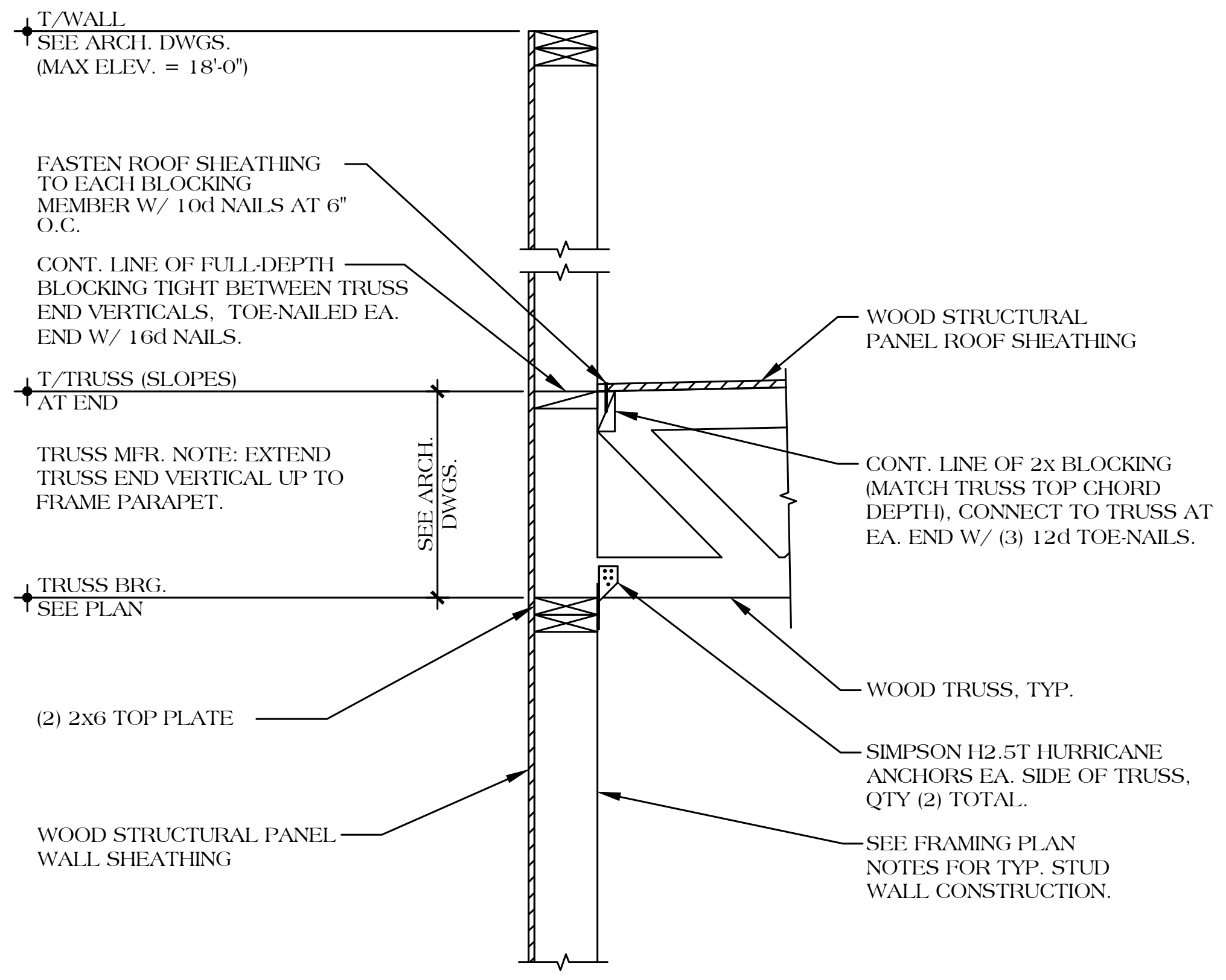
Store Type
US 2112 PROTOTYPE
2112-21

Location
1517 NC 24-87
CAMERON, NC

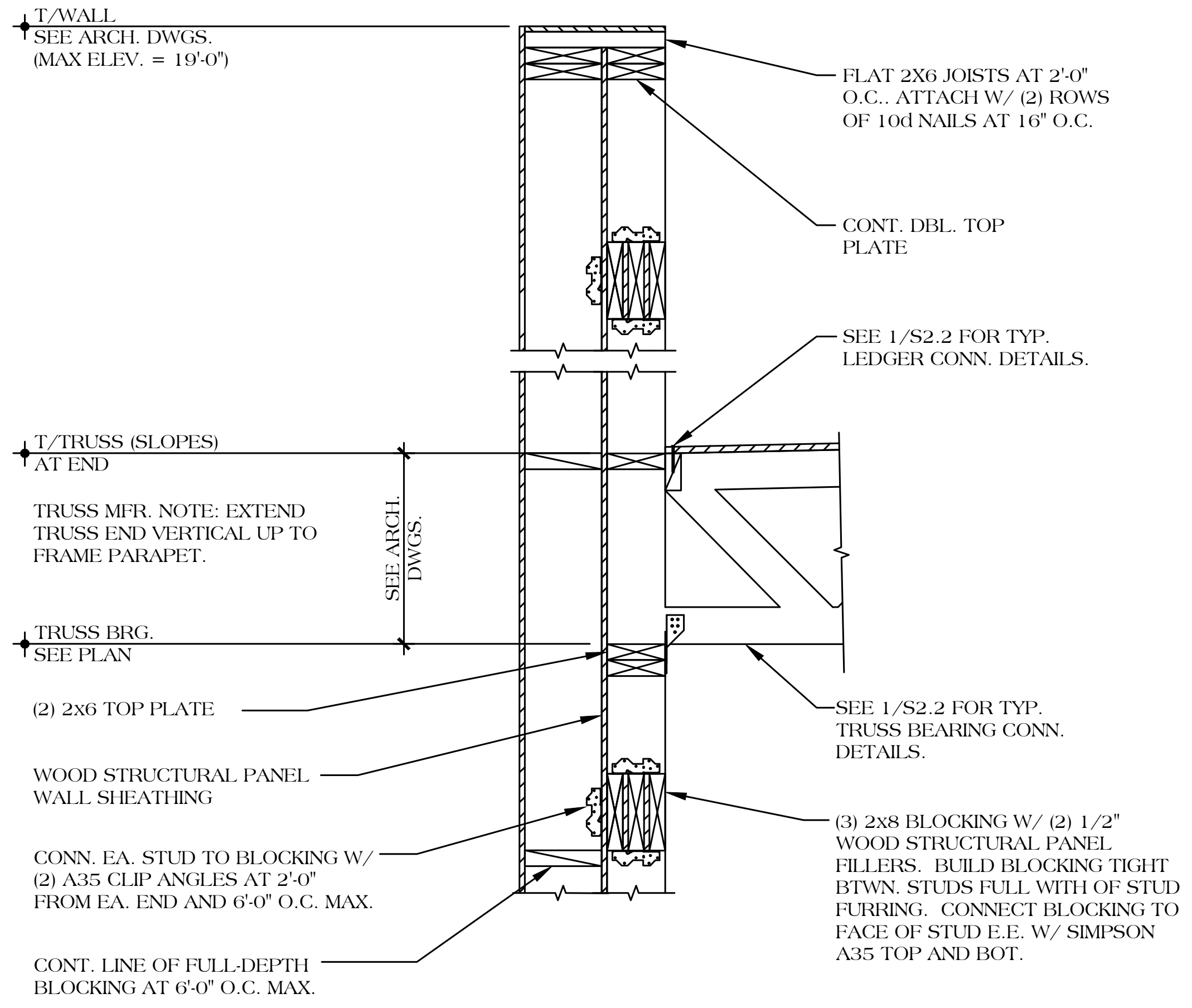
Drawing Title
FRAMING PLAN

Drawn	Checked
Scale	Date MAY 2023
Project No. C22-129	Drawing No. S2.1

POPEYES LOUISIANA KITCHEN MODEL 2112, 1517 NC CAMERON, NC (AUG 16, 2022) STORE NO. C22-129



1 SECTION
3/4" = 1'-0"



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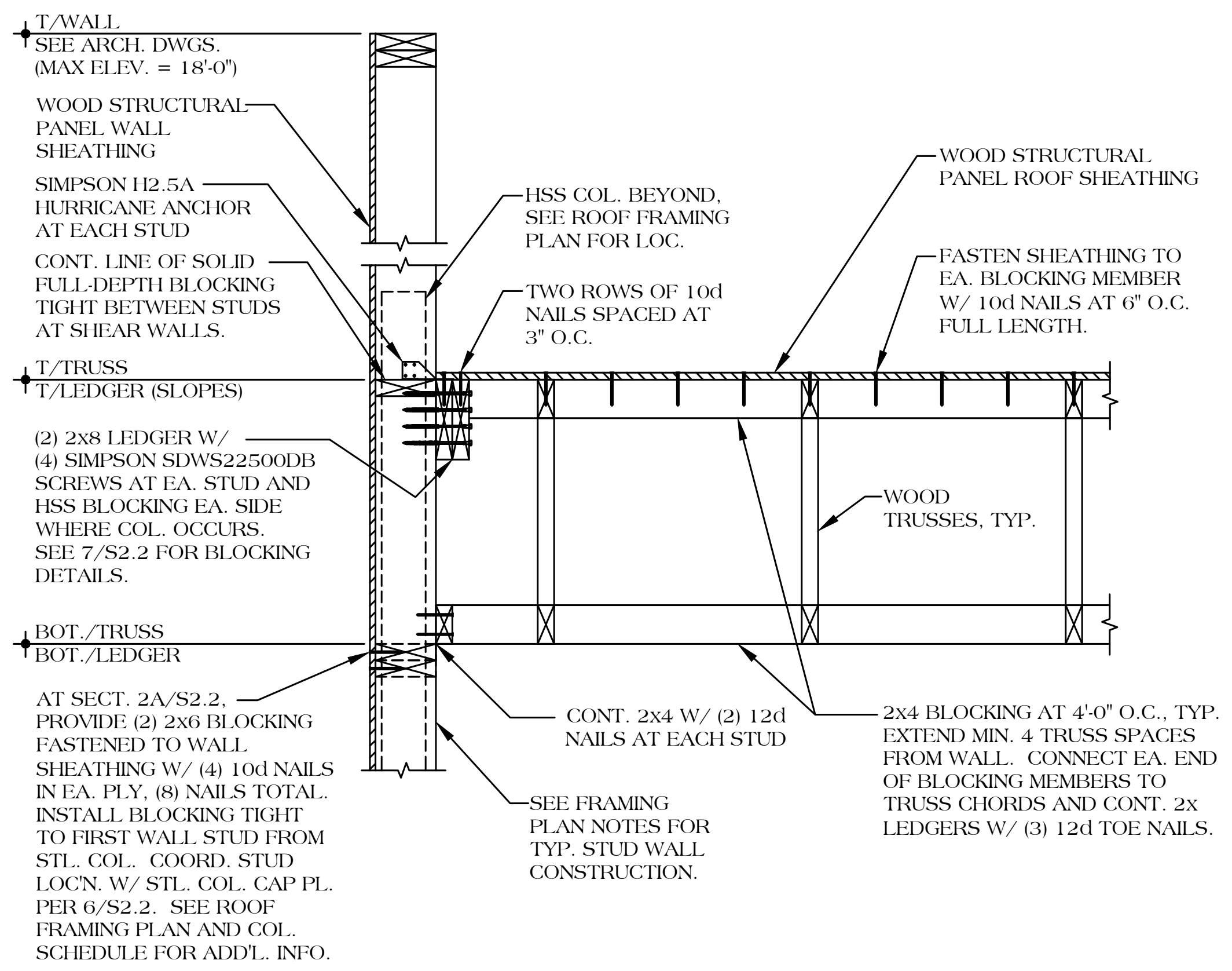

2 2A SECTION
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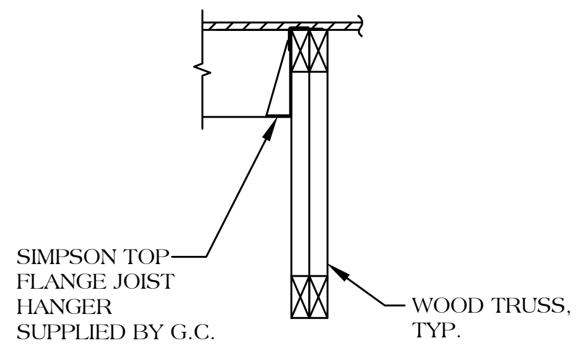

3 SECTION
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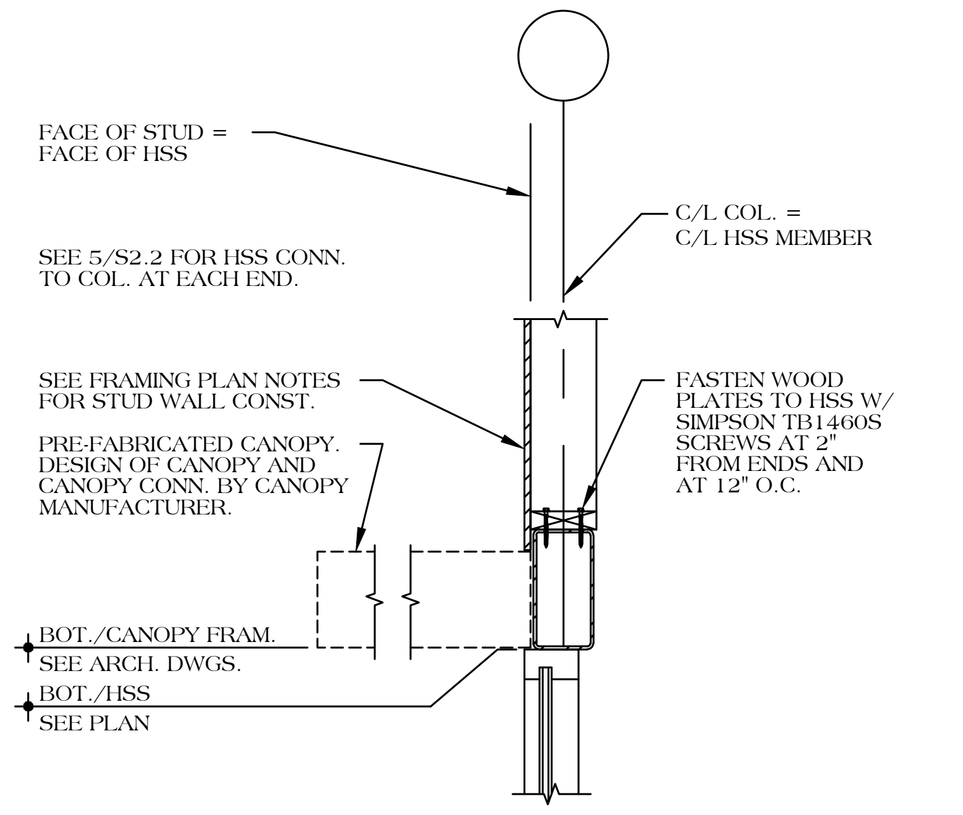

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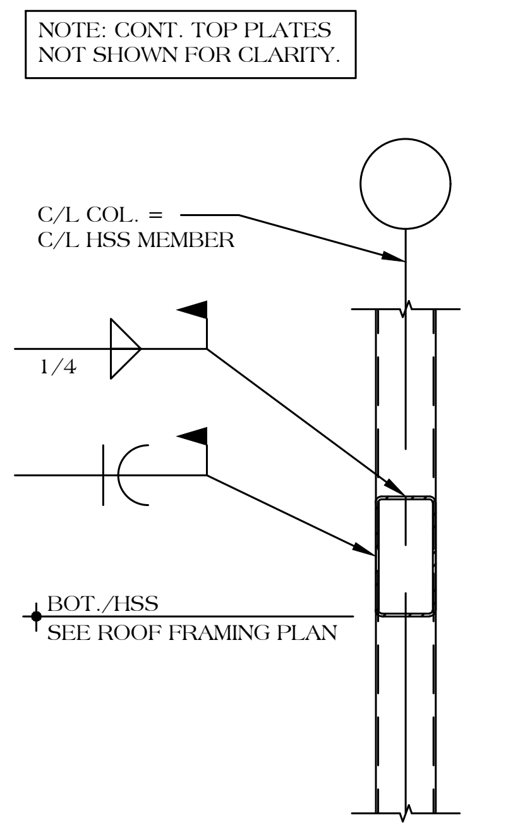
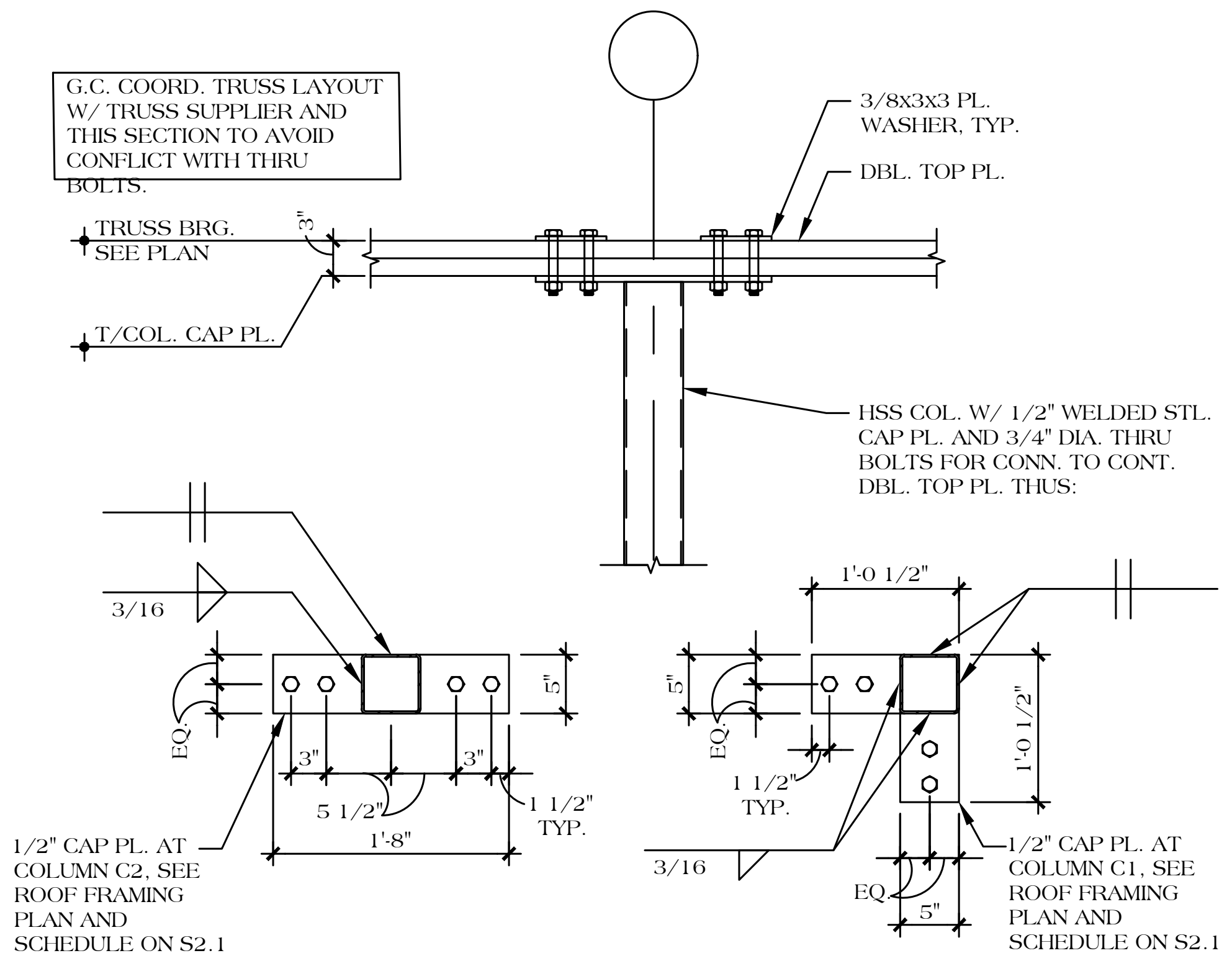


5 SECTION
3/4" = 1'-0"



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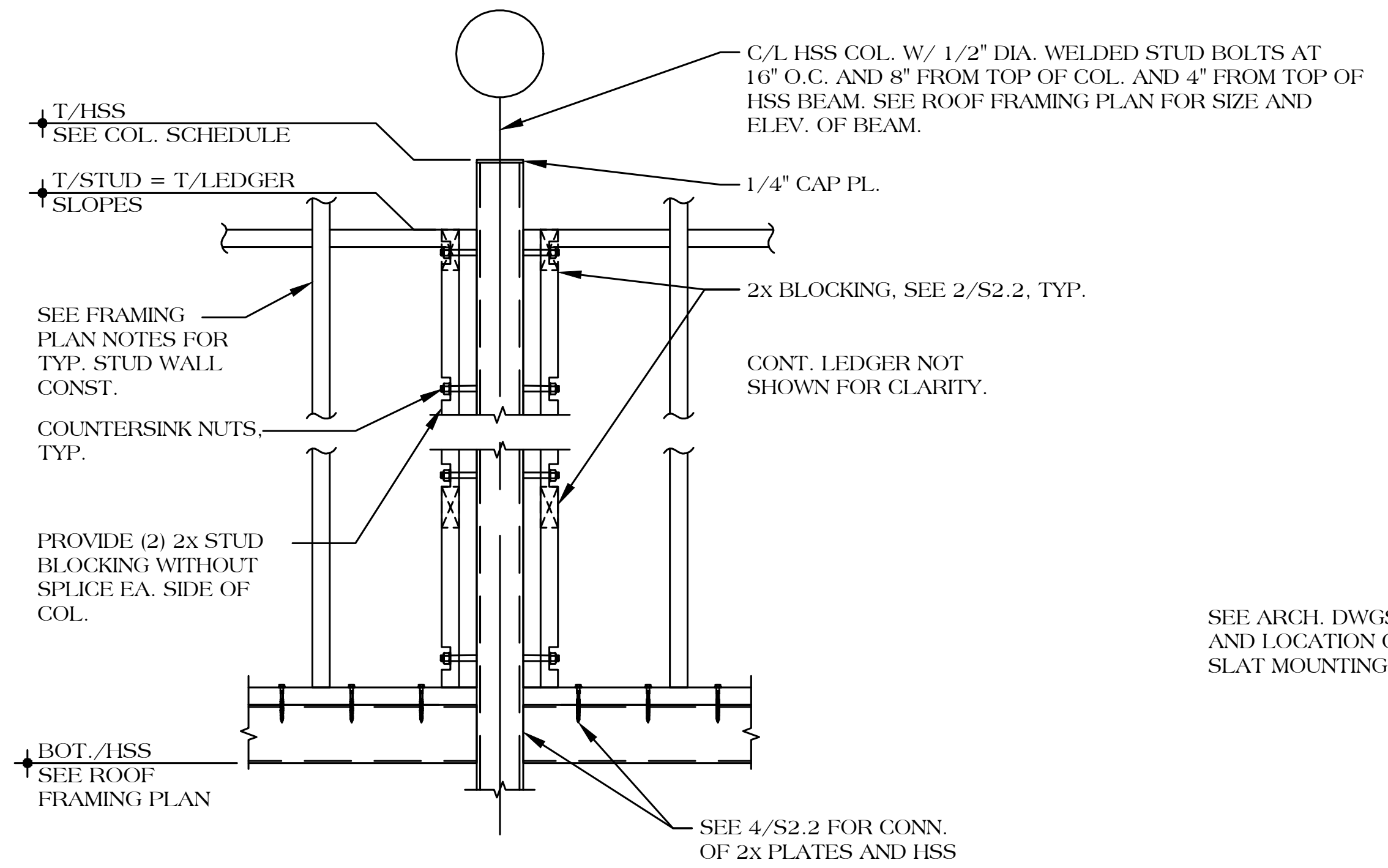
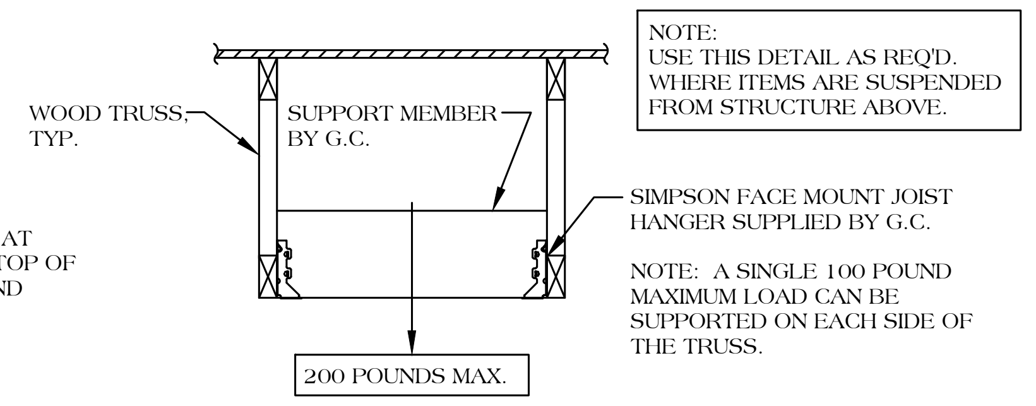
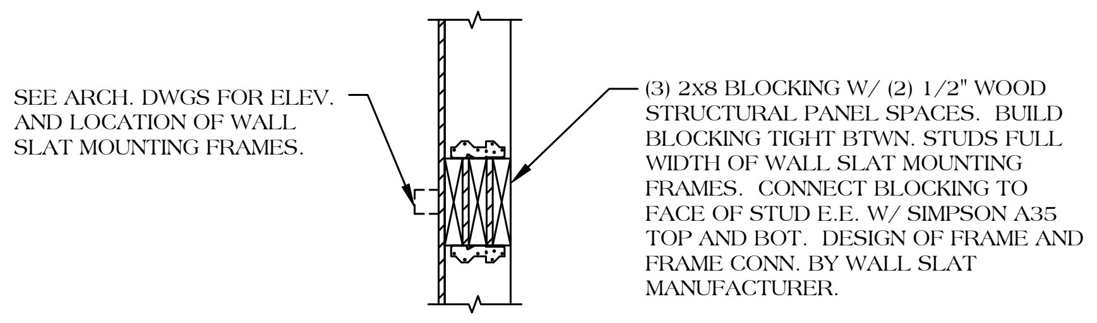
3/4" = 1'-0"



7 SECTION
3/4" = 1'-0"



8 SECTION
3/4" = 1'-0"



9 SECTION
3/4" = 1'-0"

ISSUE TABLE

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No.	Date	Description

DRAWINGS REVISED AS PER DESIGN BULLETIN

No.	Date	Description

N
PROJECT NORTH

THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS AND CONDITIONS ON THE PROJECT AND TO REPORT ANY DISCREPANCIES TO THE POPEYES LOUISIANA KITCHEN REPRESENTATIVE PRIOR TO COMMENCING WORK. THESE DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS INDICATED BY POPEYES LOUISIANA KITCHEN AS "ISSUED FOR CONSTRUCTION".

Digitally signed by Philippe Lalonde
Date: 2023.05.24 14:45:46-05'00'

Philippe J Lalonde

SEAL 030371
PHILIPPE LALONDE

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY PHILIPPE J. LALONDE, P.E. 030371 ON MAY 24, 2023.

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TEL: 214-343-9400 www.dimensiongrp.com

Project

LOUISIANA 19 72 KITCHEN
POPEYES®

Store Type
US 2112 PROTOTYPE
2112-21

Location
1517 NC 24-87
CAMERON, NC

Drawing Title
STRUCTURAL
FRAMING SECTIONS

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PHONE: 817-307-8266
FAX: 817-238-1520
pl project - 2308020

Drawn	Checked
Scale	Date MAY 2023
Project No. C22-129	Drawing No. S2.2

POPEYES LOUISIANA KITCHEN MODEL 2112, 1517 NC CAMERON, NC (AUG 16, 2022) STORE NO. C22-129