

GENERAL NOTES:

GENERAL:

1. DESIGN DRAWINGS DEPICT THE FINISHED STATE OF THE CONSTRUCTED BUILDING OR STRUCTURE. IF INSTALLATION MEANS AND METHODS REQUIRE ADDITIONAL LABOR OR MATERIALS NOT SHOWN ON THE DESIGN DRAWINGS, THE COST OF THIS LABOR AND MATERIALS ARE TO BE INCLUDED IN THE GENERAL CONTRACTOR'S CONSTRUCTION PRICE. NO CHANGE ORDER WILL BE APPROVED BY THE DESIGN TEAM FOR COSTS ASSOCIATED WITH THE CONTRACTOR'S MEANS AND METHODS.
2. THE CONTRACTOR SHALL VERIFY FIELD DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR INCONSISTENCIES IN THE DRAWINGS BEFORE PROCEEDING WITH THE WORK.
3. THESE DRAWINGS ARE NOT TO BE SCALED. CALLED DIMENSIONS GOVERN SCALED DIMENSIONS.
4. THE CONTRACTOR SHALL VERIFY LOCATIONS AND SIZES OF ALL OPENINGS IN FLOORS AND ROOFS AND ALL INSERTS AND EMBEDDED ITEMS WITH MECHANICAL, ELECTRICAL, AND ARCHITECTURAL DRAWINGS BEFORE PLACING CONCRETE, INSTALLING METAL DECKING OR ERECTING ANY STRUCTURAL LOAD BEARING MATERIAL. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL COORDINATION WITH SUB-CONTRACTORS.
5. ADEQUATE TEMPORARY BRACING WILL BE REQUIRED OF ALL STRUCTURAL PIECES OR UNITS UNTIL THE FLOOR AND ROOF DECK ARE IN PLACE. ALL PERMANENT BRACING OR CMU WALLS ARE IN PLACE, AND ALL CONCRETE HAS BEEN PLACED AND GAINED ITS ULTIMATE STRENGTH.
6. IN CASE OF DRAWING DISCREPANCIES IN DIMENSIONS AND ELEVATIONS BETWEEN STRUCTURAL AND ARCHITECTURAL DRAWINGS, CONTRACTOR SHALL VERIFY WITH ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION.
7. THE LATEST EDITION OF IBC, ACI, AISC, AWS, CRSI, AND SJI SPECIFICATIONS SHALL GOVERN ALL PHASES OF FABRICATION AND CONSTRUCTION.
8. STRUCTURAL DESIGN CRITERIA (REF IBC 2021 AND ASCE 7-16):
- ROOF DEAD LOAD - 20 PSF

ROOF LIVE LOAD - 20 PSF

MEZZANINE DEAD LOAD - 60 PSF

MEZZANINE LIVE LOAD - 100 PSF
- FLOOR LIVE LOAD - 100 PSF
- BUILDING RISK CATEGORY II
- WIND LOAD

Vult - 106 MPH PER ASCE 7-16

EXPOSURE C

Gcpi = +/- 0.18

SEE CHART FOR COMPONENTS AND CLADDING DESIGN PRESSURES
- SEISMIC LOAD
- IMPORTANCE FACTOR, Ie = 1.0

Ss = 0.132

S1 = 0.08

SITE CLASSIFICATION D

Sds = 0.141

Sd1 = 0.127

SEISMIC DESIGN CATEGORY B

SEISMIC FORCE RESISTING SYSTEM - ORDINARY

REINFORCED MASONRY SHEARWALLS & STEEL ORDINARY CONCENTRICALLY BRACED FRAMES

RESPONSE MODIFICATION COEFFICIENT, R = 2 & R = 3-1/4

SEISMIC RESPONSE COEFFICIENT, Cs = 0.071

ANALYSIS PER EQUIVALENT LATERAL FORCE PROCEDURE

DESIGN BASE SHEAR - 17-KIPS
- SNOW LOAD
- IMPORTANCE FACTOR, Is = 1.0

GROUND SNOW LOAD, Pg = 5 PSF
9. UNLESS NOTED OTHERWISE STRUCTURAL MEMBERS HAVE BEEN SPECIFIED TO MEET THE FOLLOWING SERVICEABILITY CRITERIA:
- LIVE LOAD DEFLECTION L/360

TOTAL LONG TERM DEFLECTION L/240

EXTERIOR EDGE BEAMS HAVE BEEN DESIGNED FOR LIVE LOAD DEFLECTIONS OF L/600 OR 1/2" WHICHEVER IS LESS

LATERAL DRIFT OF FRAMES LIMITED TO L/400 UNDER SERVICE LOADS WITH A 25-YEAR MRI
10. CONTRACTOR SHALL REVIEW AND STAMP ALL SUBMITTALS BEFORE FORWARDING TO ARCHITECT/ENGINEER FOR REVIEW. CONTRACTOR SHOULD INCORPORATE TEN (10) WORKING DAYS FOR ENGINEER REVIEW.

FOUNDATION:

1. FOUNDATION DESIGN IS BASED ON THE SOIL INVESTIGATION REPORT MADE BY INTERTEK DATED MARCH 25, 2025 (PSI) PROJECT NO. 02752367-1). AN ELECTRONIC COPY OF THE REPORT IS AVAILABLE UPON REQUEST.
2. CONTRACTOR SHALL INSTALL RAMMED AGGREGATE PIERS AT A DEPTH AND SPACING REQUIRED TO PROVIDE A SPREAD FOOTING AND CONTINUOUS FOOTING MIN ALLOWABLE BEARING CAPACITY OF 4,000-PSF AND A SLAB LIVE LOAD CAPACITY OF 100-PSF WITH TOTAL SETTLEMENT LIMITED TO LESS THAN 1" AND DIFFERENTIAL SETTLEMENT LIMITED TO 1/2". CONTRACTOR SHALL INSTALL RAMMED AGGREGATE PIERS TO AN ELEVATION 6" ABOVE BOTTOM OF FOOTING ELEVATION PRIOR TO BRINGING GRADE UP TO THE REQUIRED ELEVATION AND INSTALLING SHALLOW FOOTINGS. RAMMED AGGREGATE PIER SUPPLIER SHALL PROVIDE DESIGN AND SPACING OF PIERS AND PROVIDE A DESIGN STATEMENT CERTIFYING COMPLIANCE WITH THE REQUIREMENTS ABOVE. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
3. SHALLOW FOOTINGS SHALL BEAR AS INDICATED ON THE DRWGS ON RAP'S.
4. EXISTING SOIL SHOULD BE STRIPPED TO A DEPTH ON THE ORDER OF 24 INCHES. DUE TO SHALLOW GROUND WATER IN COMBINATION WITH SILY SOILS, PROOFROLL IS NOT REQUIRED. SUBGRADE ELEVATION SHALL BE LEVEL OR BENCHMARKED WITH A TRANSITION OF 3H:1V. EXTEND SUBGRADE PREPARATION A MINIMUM OF 5-FT BEYOND BUILDING LINE.
5. ACCORDING TO THE PROJECT GEOTECHNICAL REPORT, THE UPPER SOILS CONTAIN A SIGNIFICANT SILT FRACTION. SILTY SOILS HAVE A TENDENCY TO "PUMP" UNDER CONDITIONS OF SIGNIFICANT MOISTURE AND REPETITIVE LOADING. IT IS IMPERATIVE THAT ADEQUATE SITE DRAINAGE BE ESTABLISHED AND MAINTAINED PRIOR TO AND DURING CONSTRUCTION OPERATIONS. SOILS THAT BEGIN TO PUMP MAY BE LIME-STABILIZED TO CREATE A WORKING SURFACE AT NO COST TO THE OWNER.
6. ALL SOIL USED AS FILL SHALL BE A CLAYEY SAND (SC) OR LOW PLASTICITY SANDY CLAY (CL) WITH A LIQUID LIMIT LESS THAN 40, PLASTICITY INDEX BETWEEN 7 AND 18, AND LESS THAN 70% PASSING THE No. 200 SIEVE. ALL FILL SHALL BE PLACED IN 8" LIFTS AND COMPACTED TO 95% ASTM D698 DENSITY. EXTEND FILL PLACEMENT A MINIMUM OF 5-FT BEYOND THE BUILDING LINE.
7. SUBMIT SELECT FILL GRADATION AND PROCTOR ANALYSIS FOR APPROVAL PRIOR TO INSTALLATION OF SELECT FILL.
8. TESTING AGENCY SHALL OBSERVE SELECT FILL GRADATION, SOILS CLASSIFICATION, AND PROCTOR SHALL BE SUBMITTED FOR APPROVAL PRIOR TO COMMENCEMENT OF BUILDING PAD PREPARATION AND INSTALLATION OF SELECT FILL. EACH LIFT OF COMPACTED SOIL SHALL BE TESTED PRIOR TO PLACEMENT OF SUBSEQUENT LIFTS (1 TEST PER 2,500-SF WITH 4 TESTS MINIMUM PER LIFT).
9. CONTRACTOR SHALL PROVIDE FOR DEWATERING AT EXCAVATIONS FROM EITHER SURFACE WATER OR SEEPAGE.
10. CONTRACTOR SHALL PROVIDE ADEQUATE EXCAVATION SHORING TO PREVENT CAVE-INS.
11. EARTH FORMED GRADE BEAMS WILL NOT BE ALLOWED. ALL GRADE BEAMS SHALL BE FORMED WITH PLYWOOD OR METAL FORMS ON BOTH SIDES.

REINFORCING STEEL:

1. ALL REINFORCING STEEL SHALL BE NEW BILLET, ASTM A615 GRADE 60 DEFORMED DOMESTIC BARS UNLESS NOTED OTHERWISE. ALL DETAILING, FABRICATION, PLACING AND SUPPORTING SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF ACI 318 AND CRSI. ALL REINFORCING SHOWN TO BE WELDED SHALL BE ASTM A706 GRADE 60.
2. ALL DOWELS SHALL BE THE SAME SIZE AND SPACING AS ADJOINING MAIN BARS (MIN. LAP 62 BAR DIA.). UNLESS NOTED OR DETAILED OTHERWISE, THE MINIMUM SPLICE LENGTH OF ALL CONTINUOUS BARS SHALL BE 62 BAR DIA. (CLASS A SPLICE = 1.3 x DEVELOPMENT LENGTH PER ACI).
3. CLEAR MINIMUM COVERAGE OF CONCRETE OVER REINFORCING BARS SHALL BE PER ACI 318 AND AS FOLLOWS:
- CONCRETE CAST AGAINST EARTH -----3"

FORMED CONCRETE AGAINST EARTH -----1-1/2"

TOP OF SLABS-ON-GRADE -----2" UNO
4. PROVIDE CHAIRS UNDER REINFORCING FOR SLABS-ON-METAL DECK AS REQUIRED TO LOCATE THE REINFORCING IN THE MIDDLE OF THE CONCRETE TOPPING ABOVE THE DECK RIBS.
5. ALL REINFORCING BARS, WELDED WIRE FABRIC, BOLTS, DOWELS, INSERTS, ETC., SHALL BE RIGIDLY SECURED IN POSITION PRIOR TO PLACING CONCRETE.
6. CONTRACTOR SHALL SUBMIT COMPLETE SHOP AND PLACING DRAWINGS AND OBTAIN APPROVAL PRIOR TO FABRICATION.

CONCRETE:

1. CONCRETE SHALL HAVE THE FOLLOWING 28-DAY STRENGTHS: FOOTINGS, GRADE BEAMS, SLABS ON METAL DECK, AND SLABS-ON-GRADE - 4,000 PSI
- ENTRAPPED AIR SHALL NOT EXCEED 3% AND WATER/CEMENT RATIO SHALL NOT EXCEED 0.50 FOR INTERIOR SLABS WITH A STEEL TROWEL FINISH.
2. MAXIMUM AGGREGATE SHALL BE AS FOLLOWS:
- FOOTINGS AND SLABS-ON-GRADE - 1-1/2"

GRADE BEAMS, FOUNDATION WALLS, AND PIERS - 1"

SLABS ON METAL DECK - 3/4"
3. STONE LAYER BELOW VAPOR BARRIER SHALL BE CRUSHED STONE SUCH AS SB2 WITH 100% PASSING A 1" SIEVE, 70%-100% PASSING 3/4" SIEVE, 35%-65% PASSING NO. 4 SIEVE, 12%-32% PASSING NO. 40 SIEVE, AND 5%-12% PASSING NO. 200 SIEVE. SUBMIT GRADATION FOR APPROVAL PRIOR TO INSTALLATION OF STONE LAYER.
4. VAPOR BARRIER SHALL BE 15-MIL UNLESS NOTED ON THE DRAWINGS. REFERENCE SPECIFICATIONS FOR ADDITIONAL VAPOR BARRIER REQUIREMENTS.
5. SEPARATE SLABS-ON-GRADE INTO PANELS SEPARATED BY CONSTRUCTION JOINTS (C.J.) OR CONTRACTION JOINTS (D.J.) MADE BY SAW CUTTING TO A MINIMUM DEPTH OF 1/4 SLAB DEPTH.
6. GRIND ALL CONSTRUCTION JOINTS IN SLABS SO AS TO PRODUCE A SMOOTH AND LEVEL SURFACE.
7. ALL CONSTRUCTION JOINTS IN BEAMS SHALL BE KEYED USING A HORIZONTAL KEYWAY AND JOINT SHALL BE LOCATED AT MIDDLE THIRD OF SPAN. REINFORCING SHALL BE CONTINUOUS THROUGH JOINT.
8. CHAMFER ALL EXPOSED EDGES TO 3/4" UNLESS OTHERWISE NOTED.
9. PIPING OR SIMILAR VERTICAL SLAB-ON-GRADE PENETRATIONS SHALL BE WRAPPED WITH 3/8" CLOSED CELL INSULATION HELD 3/8" BELOW THE SLAB AND TOPPED WITH JOINT SEALANT.
10. FOR EXPOSED SLABS, AFJMC RECOMMENDS APPLYING AN EVAPORATION RETARDER TO THE CONCRETE SLAB TO PREVENT PLASTIC SHRINKAGE CRACKING. EVAPORATION RETARDER SHOULD BE APPLIED PRIOR TO SAWCUTTING AND APPLICATION OF THE CURING COMPOUND. THIS IS A RECOMMENDATION ONLY AND THE CONTRACTOR REMAINS RESPONSIBLE FOR SLAB FINISHING MEANS AND METHODS AND FOR THE QUALITY OF THE FLOOR FINISH.
11. ARCHITECTURAL PLANS SHOW AREAS WITHIN THE EXISTING BUILDINGS TO RECEIVE A LEVELING TOPPING. REPAIR EXISTING CONCRETE TO A 1/4" AMPLITUDE AND USE FIVE STRAT CEMENTITIOUS GROUT (6,000-PSI) AS CONCRETE TOPPING WHERE THICKNESS IS LESS THAN 2". WHERE THICKNESS IS GREATER THAN 2", USE 3,000 PSI CONCRETE REINFORCED WITH 6x6-W2.9xw2.9 WWF. CHIP KEYWAY INTO EXISTING CONCRETE SLAB AT THE BASED ON TRANSITIONS TO MAINTAIN MINIMUM TOPPING THICKNESS OF 3/8". THOROUGHLY WET EXISTING CONCRETE PRIOR TO PLACING TOPPING.
12. ALL EXPOSED VERTICAL CONCRETE SURFACES TO RECEIVE RUBBED FINISH UNLESS OTHERWISE NOTED.

TIMBER FRAMING:

1. GLUED LAMINATED TIMBER (GLB) SHALL BE SOUTHERN YELLOW PINE WITH THE FOLLOWING ALLOWABLE STRESSES (24F-V4):
- Fb() = 2,400 psi, F(t) = 1,450 psi, F(c)(parallel to grain) = 1,000 psi,

F(c)(perpendicular to grain) = 650 psi, F(v) = 210 psi,

E = 1,700,000 psi

NOTE: NO WANE LUMBER IS ALLOWED.
- UNBALANCED LAY-UP GLB MEMBERS MUST BE INSTALLED WITH THE "TOP" STAMP FACING THE SKY. ALL MULTI-SPAN OR CANTILEVER GLB MEMBERS SHALL BE FABRICATED USING BALANCED LAY-UP CONFIGURATION.
2. MANUFACTURED LVL TIMBER MEMBERS SHALL HAVE THE FOLLOWING MINIMUM ALLOWABLE STRESSES:
- Fb() = 2,600 psi, F(t) = 1,450 psi, F(c)(parallel to grain) = 2,500 psi,

F(c)(perpendicular to grain) = 750 psi, F(v) = 285 psi,

E = 2,000,000 psi
3. SAWN LUMBER SHALL BE #2 K.D. SOUTHERN YELLOW PINE, MOISTURE CONTENT 15% WITH THE FOLLOWING ALLOWABLE STRESSES BASED ON A 2X6 SIZE PER NDS 2015:
- Fb() = 1,250 psi, F(t) = 725 psi, F(c)(parallel to grain) = 1,600 psi

F(c)(perpendicular to grain) = 565 psi, F(v) = 175 psi,

E = 1,600,000 psi
4. ENGINEERED AND/OR SAWN TIMBER MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION STANDARDS (AITC) AND NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS) LATEST EDITIONS.

MASONRY:

1. CMU WALLS SHALL BE REINFORCED AND GROUTED AS FOLLOWS UNLESS NOTED OTHERWISE:
- FIRE WALLS ADJACENT TO EXIST - GROUT AND REINFORCE WITH 1#5 AT 8" OC.

8" WALL - GROUT AND REINFORCE WITH 1#5 AT 32" OC.

12" WALLS - GROUT AND REINFORCE WITH 1#6 AT 16" OC. UNO
- TERMINATE VERTICAL REINFORCING IN BOND BEAM AT TOP OF WALL WITH STD HOOK. PROVIDE 50" LONG DOWEL MATCHING VERTICAL BARS WITH STANDARD HOOK INTO FOUNDATION AT ALL VERTICALLY REINFORCED CELLS. ALL CMU SHALL HAVE 9-GAGE HORIZONTAL WIRE LADDER-TYPE GALVANIZED REINFORCING EVERY OTHER COURSE. HORIZONTAL WIRE LADDER REINFORCING SHALL HAVE PREFABRICATED CORNERS AND PREFABRICATED "Ts" (TEES) AT WALL INTERSECTIONS.
2. USE 1/4"x1-1/2"x24" HB 344 RIGID ANCHORS AT ALL BLOCK WALL INTERSECTIONS OR CORNERS TO BE BUILT INTEGRALLY. SPACE ANCHORS AT 32" O.C. (STAGGER WITH HORIZONTAL WIRE LADDER REINFORCING). GROUT ALL CELLS WITH HB 344 ANCHORS.
3. MINIMUM COMPRESSION STRENGTH OF MASONRY ASSEMBLIES SHALL BE 2500-PSI (fm = 2500-PSI).
4. ALL CONCRETE BLOCK ABOVE GRADE SHALL BE LIGHT WEIGHT (105 PCF DENSITY) AND ALL CONCRETE BLOCK BELOW GRADE SHALL BE NORMAL WEIGHT (DENSEST 135 PCF DENSITY). CONCRETE BLOCK SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH BASED ON THE NET AREA OF THE BLOCK OF 3,250 PSI.
5. MORTAR FOR CONCRETE BLOCK UNIT MASONRY CONSTRUCTION SHALL CONFORM WITH ASTM C 270. MORTAR FOR ALL APPLICATIONS SHALL BE TYPE S (COMPRESSIVE STRENGTH AT 28-DAYS = 1,800-PSI).
6. GROUT SHALL CONFORM TO ASTM C 476 AND SHALL HAVE A SLUMP OF 8" TO 11" WITH A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI. ALL BLOCK CELLS WITH VERTICAL REINFORCING SHALL BE GROUTED FULL HEIGHT. ALL BOND BEAMS SHALL BE GROUTED FULL.
7. BOND BEAMS SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS IN ADDITION TO THOSE SHOWN IN SECTIONS:
- TOP OF ALL MASONRY WALLS NOT SUPPORTING FRAMING - 8" x 8"

TOP OF ALL MASONRY WALLS SUPPORTING FRAMING - 8" x 16"

FLOOR AND ROOF FRAMING LEVELS - 8" x 16"

EVERY 8-FT VERTICALLY - 8" x 8"

8"x8" BOND BEAMS SHALL HAVE ONE (1) #5's CONTINUOUS TOP AND BOTTOM UNLESS NOTED OTHERWISE. 8"x16" BOND BEAMS SHALL HAVE ONE (1) #5's CONTINUOUS TOP AND TWO (2) #5's CONTINUOUS BOTTOM UNLESS NOTED OTHERWISE. 8"x12" BOND BEAMS SHALL HAVE TWO (2) #5's CONTINUOUS UNLESS NOTED OTHERWISE. 12"x16" BOND BEAMS SHALL HAVE TWO (2) #6's CONTINUOUS TOP AND TWO (2) #6's CONTINUOUS BOTTOM UNLESS NOTED OTHERWISE. INSTALL #5 CORNER BARS AT WALL INTERSECTIONS OR WALL CORNERS.
8. LINTELS SHALL BE PROVIDED OVER ALL CMU OPENINGS INCLUDING MECHANICAL OR OTHER OPENINGS FOR UTILITIES, ETC. PER THE SCHEDULE PROVIDED IN THE DRAWINGS. OPENINGS CREATED IN CMU WALLS AFTER THEIR COMPLETION WITH NO LINTEL OR BOND BEAM ABOVE SHALL BE REINFORCED BY THE CONTRACTOR AS REQUIRED AT NO COST TO THE OWNER.
9. CONTRACTOR SHALL SUBMIT COMPLETE SHOP AND PLACING DRAWINGS SHOWING THE ELEVATION OF ALL EXTERIOR AND LOAD-BEARING CMU WALLS SHOWING VERTICAL REINFORCING, LINTEL REINFORCING, AND BOND BEAM REINFORCING AND OBTAIN APPROVAL PRIOR TO ERECTION OF CMU OR FABRICATION OF REINFORCING.

COLD-FORMED STEEL FRAMING:

1. COLD-FORMED STEEL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE (AISI) "COLD-FORMED STEEL DESIGN MANUAL", 2007 EDITION.
2. TOP TRACK FOR CONNECTION TO ROOF OR FLOOR DECKS SHALL BE SLOTTED DEFLECTION TRACK AT ALL STUD WALL LOCATIONS WHERE THE STUD IS SUPPORTED BY THE BASE TRACK AT FLOOR LEVEL. USE RIGID CONNECTION AT ALL FURR-DOWN LOCATIONS AND STUD WALLS NOT SUPPORTED BY A BASE TRACK AT THE FLOOR LEVEL.
3. SPLICING, NOTCHING OR COPING OF STUDS OR JOISTS IS NOT ALLOWED.
4. ALL MATERIAL 18 GAGE (43-MILS) OR LESS IN THICKNESS SHALL HAVE A MINIMUM YIELD STRENGTH OF 33 KSI. ALL MATERIAL 18 GAGE (43-MILS) OR GREATER IN THICKNESS SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 KSI.
5. ALL CONNECTION SCREWS SHALL BE ZINC COATED. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.3, "STRUCTURAL WELDING CODE - SHEET STEEL".
6. SAW CUT STUDS AND JOISTS SQUARE. STUDS MUST SEAT FIRMLY IN RUNNER TRACK AND HAVE FULL BEARING WITH CONNECTING MEMBER. TORCH CUTTING IS NOT ALLOWED.
7. FRAMING FABRICATOR IS TO ENSURE PUNCHOUT ALIGNMENT WHEN ASSEMBLING LATERAL BRACING AND FIELD CUTTING STUDS TO LENGTH. LATERAL BRACING MUST BE INSTALLED AT THE TIME THE WALL IS ERECTED. FAILURE TO INSTALL BRACING AT THIS TIME MAY COMPROMISE THE STRUCTURAL INTEGRITY OF THE BUILDING.
8. ALL HEADERS/BUILT-UP BEAMS FOR LOAD-BEARING WALLS ARE TO BE CONSTRUCTED WITH UNPUNCHED MATERIAL. SPLICING IS NOT ALLOWED.
9. CEILING/SOFFIT JOIST BRIDGING MUST BE INSTALLED AT THE TIME OF ERECTION. FAILURE TO DO SO MAY COMPROMISE THE STRUCTURAL INTEGRITY OF THE SYSTEM.
10. MAINTAIN 3/4" MINIMUM DISTANCE BETWEEN CENTERS OF CONNECTION SCREWS AND 3/4" MINIMUM DISTANCE FROM THE CENTER OF SCREW TO EDGE OF CONNECTED PART. INSTALL FASTENERS FROM THINNER THROUGH THICKER MATERIAL.
11. FASTEN BASE TRACK TO SLAB WITH HILTI T.157-DIAM. X-P POWDER ACTUATED FASTENERS AT SAME SPACING AS STUDS. BASE AND TOP TRACK SHALL BE SAME THICKNESS AS WALL STUDS. FASTEN ALL STUDS TO TOP AND BOTTOM TRACK WITH (2)#10-16 SCREWS THROUGH FLANGE. FASTEN ALL BY-PASS WALL STUDS TO STEEL EDGE ANGLE WITH 14-GA SLB CLIP WITH (2) 0-145" DIAM. HILTI PDF AND (2)#12-14 SCREWS INTO STUD. WHERE STUD OR JOIST FRAMES ARE USED TO BUILD-OUT SOFFIT OR SIMILAR ARCHITECTURAL FEATURES, FASTEN STUDS TOGETHER AT ALL CONNECTIONS WITH A MINIMUM OF 4/#10-16 SCREWS.
12. ALL STUD WALLS SHALL HAVE HORIZONTAL BRIDGING AT 48" O.C. MAX. VERTICALLY.

STEEL STAIRS:

1. ALL STEEL STAIRS ARE DESIGN-BUILD UNLESS SPECIFICALLY DESIGNED AND DETAILED ON DRAWINGS. NOTES BELOW APPLY TO DESIGN-BUILD STEEL STAIRS.
2. DESIGN STAIRS INCLUDING FRAMING MEMBERS, CONNECTIONS (INCLUDING THOSE TO BUILDING STRUCTURE), CHECKERED PLATES, STEPS, HANDRAILS, GUARDRAILS, LANDINGS ETC., AND PROVIDE FOR LATERAL RESTRAINT COMPLYING WITH CONTRACT DOCUMENTS AND GOVERNING CODES. BUILDING LATERAL RESISTING SYSTEM MAY BE UTILIZED FOR STAIR LATERAL RESTRAINT PROVIDED LOADS ARE NOT TO BUILDING LATERAL RESISTING SYSTEM ARE INDICATED IN CALCULATIONS AND CONNECTIONS ARE SHOWN ON SHOP DRAWINGS.
3. AT CONNECTIONS TO STRUCTURE, PROVIDE STABILIZING ELEMENTS SUCH AS BRACES, STIFFENER PLATES, ETC., SO AS NOT TO IMPOSE ECCENTRIC LOADING, TWISTING, OR WARPING TO STRUCTURAL MEMBERS. PROVIDE MATERIAL AND INSTALL STABILIZING ELEMENTS AT NO ADDITIONAL COST TO OWNER.
4. SUBMIT SHOP DRAWINGS AND STRUCTURAL CALCULATIONS SIGNED AND BEARING THE SEAL OF A REGISTERED CIVIL OR STRUCTURAL ENGINEER TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.

STRUCTURAL STEEL:

1. ALL LATERAL LOAD RESISTANCE AND STABILITY OF THE BUILDING IN THE COMPLETED STRUCTURE IS PROVIDED BY VERTICAL BRACING AND CMU SHEAR WALLS. SEE DESIGN DRAWINGS FOR LOCATIONS. THE FLOOR AND ROOF DECKS ACT AS HORIZONTAL DIAPHRAGMS THAT DISTRIBUTE THE LATERAL WIND AND SEISMIC FORCES HORIZONTALLY TO THE LATERAL RESISTANCE SYSTEM WHICH TRANSFERS THESE FORCES TO THE FOUNDATION. TEMPORARY SHORING AND BRACING IS REQUIRED FOR THE STRUCTURAL STEEL FRAMING UNTIL ALL COMPONENTS AND CONNECTIONS FOR THE LATERAL FORCE RESISTANCE SYSTEM DESCRIBED ABOVE ARE COMPLETE AND ABLE TO FUNCTION AS A COMPLETE SYSTEM.
2. ALL STRUCTURAL STEEL DESIGN, FABRICATION AND ERECTION SHALL CONFORM TO THE 15TH EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION AND AISC 360-16 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND THE AISC 303-16 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES. STEEL FOR WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992, HSS SQUARE AND RECTANGULAR SECTIONS SHALL CONFORM TO ASTM A500 GRADE C (50-KSI), HSS ROUND SECTIONS SHALL CONFORM TO ASTM A500 GRADE C (46-KSI), PLATE MATERIAL ASTM A572 OR A529 (50-KSI). ALL OTHER STRUCTURAL STEEL SHAPES SHALL CONFORM TO ASTM A36.
3. UNLESS NOTED OTHERWISE, CONNECTIONS BETWEEN STRUCTURAL STEEL MEMBERS SHALL BE SELECTED OR COMPLETED BY AN EXPERIENCED STEEL DETAILER PER OPTION 2 OF SECTION 3.1.1 OF AISC 303-16 CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES. CONNECTION FORCES SHOWN BY THE ENGINEER OF RECORD ON THE CONTRACT DOCUMENTS ARE SERVICE LEVEL (ASD) UNLESS NOTED OTHERWISE. CONNECTIONS SHALL BE DETAILED PER AISC 360-16 AND AISC DESIGN GUIDE 29 - ASD OR LRFD ARE ACCEPTABLE. STRUCTURAL STEEL FABRICATOR SHALL INCLUDE THE COST OF THIS DESIGN WORK AS PART OF HIS SCOPE OF WORK. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
4. FOR THOSE CONNECTIONS SELECTED OR COMPLETED BY AN EXPERIENCED STEEL DETAILER PER OPTION 2 OF THE CODE OF STANDARD PRACTICE, THE SHOP DRAWINGS SHALL PROVIDE THE SHEAR CAPACITY OF THE END CONNECTIONS ON THE BEAM PIECE SHEETS.
5. CONNECTIONS OF STRUCTURAL STEEL BEAMS TO COLUMNS AND BEAMS TO BEAMS SHALL BE BEARING TYPE WITH STANDARD CLIP ANGLES WITH THE MAXIMUM NUMBER OF BOLT ROWS USING 3" SPACING PERMITTED BY THE INDIVIDUAL BEAM SIZE. UNLESS NOTED OTHERWISE, STRUCTURAL STEEL FLOOR OR ROOF FILLER BEAMS CARRYING GRAVITY LOAD ONLY MAY BE CONNECTED TO GIRDERS USING SINGLE ANGLE SHEAR CONNECTIONS SIZED TO DEVELOP THE MEMBER END FORCES SHOWN.
6. LOAD-BEARING STRUCTURAL MEMBERS AND ASSEMBLIES FABRICATED IN THE SHOP SHALL BE INSPECTED PER IBC 1704.2.5 UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL. APPROVED FABRICATORS SHALL SUBMIT A CERTIFICATE OF COMPLIANCE AT THE COMPLETION OF FABRICATION IN LIEU OF THE INSPECTIONS SPECIFIED IN IBC 1704.2.5.
7. ALL WELDING SHALL CONFORM TO THE RECOMMENDATIONS OF THE AWS, AND ALL WELDS, INCLUDING FIELD, SHALL BE MADE ONLY BY CERTIFIED WELDERS USING E70XX ELECTRODES.
8. BOLTED CONNECTIONS FOR STRUCTURAL STEEL TO STRUCTURAL STEEL SHALL BE 3/4"-DIAMETER ASTM A325-N, BEARING TYPE UNLESS NOTED OTHERWISE. CONNECTIONS NOTED OR REQUIRED TO BE FULLY TIGHTENED SHALL BE WITH ASTM F3125, GRADE F1852 "TWIST-OFF" STYLE TENSION CONTROL BOLT ASSEMBLIES (A325-N EQUIVALENT). COORDINATE LOCATION OF BOLTED JOIST CONNECTIONS WITH JOIST SUPPLIER AND PROVIDE A325 BOLTS AS REQUIRED.
9. ANCHOR RODS SHALL BE ASTM F1554 GRADE 36 AND SHALL HAVE A PLATE WASHER AND MAXIMUM HOLE DIAMETER PER AISC TABLE 14-2. PLATE WASHERS SHALL BE WELDED TO THE BASE PLATE AT ALL VERTICAL BRACING LOCATIONS. ALL ANCHOR RODS SHALL BE SET WITH TEMPLATES TO THE TOLERANCES GIVEN IN SECTION 7.5.1 OF THE CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES. PLACE AND SECURE ANCHOR RODS PRIOR TO PLACEMENT OF CONCRETE - DO NOT PLACE ANCHOR RODS IN WET CONCRETE. CEMENTITIOUS NON-SHRINK GROUT UNDER BASE PLATES AND BEARING PLATES SHALL HAVE A MINIMUM STRENGTH OF 6,000-PSI. ALL BASE PLATES SHALL BE FULLY GROUTED PRIOR TO PLACING ELEVATED FLOOR AND ROOF ASSEMBLIES.
10. ALL ROOF OPENINGS SMALLER THAN 12" IN PLAN SHALL BE FRAMED WITH L3x3x1/4 ANGLES ON ALL SIDES. OPENINGS LARGER THAN 12" IN PLAN SHALL BE FRAMED AS REQUIRED TO CARRY THE LOADS APPLIED.
11. STEEL JOISTS SHALL BE DESIGNED, MANUFACTURED AND BRIDGED TO CONFORM WITH THE LATEST EDITION OF THE "STEEL JOIST INSTITUTE" STANDARD SPECIFICATIONS. PROVIDE RECOMMENDED CAMBER FOR JOIST SPAN. JOIST MANUFACTURER SHALL PROVIDE JOIST BRIDGING PER SJI RECOMMENDATIONS FOR ERECTION STABILITY AND A NET UPLIFT FORCE OF 15-PSF ASD FOR ROOF JOISTS UNLESS OTHERWISE NOTED. STEEL JOIST MANUFACTURER SHALL SUPPLY A CERTIFICATE OF COMPLIANCE IN ACCORDANCE WITH IBC 2207.5. MECHANICAL EQUIPMENT LOADS SHOWN ARE IN ADDITION TO STANDARD JOIST LOADING. CONTRACTOR SHALL PROVIDE A L2-12 x 2-1/2 x 3/16 ANGLE WITH 1/2"-DIAMETER HILTI HS SCREW WITH 4" EMBEDMENT AT JOIST BRIDGING TERMINATION LOCATIONS AT CMU WALLS.
12. ROOF DECKING AS INDICATED:
- 3"Wx32 OR EQ. 20 GAGE, GALVANIZED STEEL DECK. ATTACH ROOF DECK TO SUPPORTS WITH #12 SCREWS (3/2" FASTENER PATTERN). PROVIDE FOUR (4) #10 TEK SCREW SIDE LAP FASTENERS TYPICAL UNLESS NOTED OTHERWISE. ATTACH ROOF DECK TO PERIMETER SUPPORTS WITH #12 SCREWS AT 6" O.C. AT ROOF EDGES.

3"Wx32A OR EQ. 20 GAGE, PRIMED STEEL DECK. ATTACH ROOF DECK TO SUPPORTS WITH #12 SCREWS (3/2" FASTENER PATTERN). PROVIDE FOUR (4) #10 TEK SCREW SIDE LAP FASTENERS TYPICAL UNLESS NOTED OTHERWISE. ATTACH ROOF DECK TO PERIMETER SUPPORTS WITH #12 SCREWS AT 6" O.C. AT ROOF EDGES.

3.5"LSA VERSA DECK OR EQ. 18 GAGE, PRIMED STEEL DECK. ATTACH ROOF DECK TO STEEL SUPPORTS WITH 5/8" PUDDLE WELDS. (24/6 FASTENER PATTERN). ATTACH ROOF DECK TO WOOD SUPPORTS WITH #12 SCREWS. (24/8 FASTENER PATTERN). PROVIDE FIVE (5) #10 TEK SCREW SIDE LAP FASTENERS, TYPICAL UNLESS NOTED OTHERWISE. ATTACH ROOF DECK TO PERIMETER SUPPORTS WITH 5/8" PUDDLE WELDS @ 6" OC.
13. FLOOR DECKING SHALL BE 1", 24 GAGE FORM DECK. ATTACH FLOOR DECK TO SUPPORTS WITH 5/8" PUDDLE WELDS AT 12" O.C. (36/4 FASTENER PATTERN). PROVIDE TWO (2) #10 TEK SCREW SIDE LAP FASTENERS AT 30" MAXIMUM SPACING. TYPICAL UNLESS NOTED OTHERWISE. ATTACH DECK TO PERIMETER SUPPORTS WITH 5/8" PUDDLE WELDS AT 12" O.C. AT FLOOR EDGES.
14. DECK SUPPLIER SHALL SUPPLY ALL GIRDER FILLERS, CELL CLOSURES, AND COLUMN CLOSURES AS REQUIRED.
15. CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS AND OBTAIN APPROVAL PRIOR TO FABRICATION.

QUALITY ASSURANCE:

1. TESTING LABORATORY SHALL SUBMIT REPORTS INDICATING RESULTS AND OBSERVATIONS OF TESTS AND INSPECTIONS AND STATING COMPLIANCE OR NONCOMPLIANCE WITH CONTRACT DOCUMENTS TO ARCHITECT (STRUCTURAL ENGINEER) PER IBC 1704 AND 1705 AND GOVERNING CODE AUTHORITY. CONTRACTOR SHALL COORDINATE WITH TESTING AGENCY FOR ACCESS AND TESTING OF MATERIALS AND CONSTRUCTION. CONTRACTOR SHALL REIMBURSE OWNER FOR COSTS RELATED TO TESTS AND INSPECTIONS OF UNIDENTIFIABLE MATERIALS OR MATERIALS FURNISHED WITHOUT CERTIFIED LABORATORY TEST REPORTS. MATERIALS FOUND DEFICIENT AFTER INITIAL TESTS AND INSPECTIONS, OR MATERIALS REPLACING DEFICIENT MATERIALS. SEE SPECIFICATIONS FOR ADDITIONAL TESTING AND INSPECTION REQUIREMENTS.
2. PROVIDE CEMENT, AGGREGATES, REINFORCING STEEL, STRUCTURAL STEEL, HIGH-STRENGTH BOLTS, OPEN-WEB STEEL JOISTS, ETC., FROM IDENTIFIABLE TESTED STOCK. SUBMIT CERTIFIED LABORATORY TEST REPORTS TO ARCHITECT (STRUCTURAL ENGINEER) AND GOVERNING CODE AUTHORITY. IF MATERIALS CANNOT BE IDENTIFIED OR IF CERTIFIED LABORATORY TEST REPORTS CANNOT BE MADE AVAILABLE, TESTING LABORATORY WILL PERFORM TESTS TO DETERMINE CONFORMANCE WITH CONTRACT DOCUMENTS AS DIRECTED BY ARCHITECT (STRUCTURAL ENGINEER).
3. THE OWNER SHALL ENGAGE AN APPROVED AGENCY TO ACT AS THE SPECIAL INSPECTIONS COORDINATOR TO PROVIDE SPECIAL INSPECTIONS COMPLYING WITH IBC CHAPTER 17 AND THE STATEMENT OF SPECIAL INSPECTIONS PROVIDED BY THE STRUCTURAL ENGINEER OF RECORD (SER). THE SPECIAL INSPECTIONS COORDINATOR SHALL PROVIDE INTERIM REPORTS AND A FINAL REPORT OF SPECIAL INSPECTIONS DOCUMENTING COMPLETION OF ALL REQUIRED SPECIAL INSPECTIONS, TESTING, AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS AT THE COMPLETION OF THE PROJECT. SPECIAL INSPECTIONS SHALL BE PERFORMED FOR THE FOLLOWING:
- a. STRUCTURAL STEEL CONSTRUCTION PER AISC 360-16

b. OPEN-WEB STEEL JOISTS AND JOIST GIRDERS TABLE 1705.2.3

c. CONCRETE CONSTRUCTION PER TABLE 1705.3

d. MASONRY CONSTRUCTION PER TABLE 1.19.2 (TMS 402-11/ACI 530-11/ASCE 5-11)

e. WOOD CONSTRUCTION PER SECTION 1705.5

f. SHALLOW FOUNDATION AND FILL INSTALLATION PER TABLE 1705.6

g. CAST-IN-PLACE DEEP FOUNDATION ELEMENTS PER TABLE 1705.8
4. SPECIAL INSPECTIONS AND OBSERVATIONS COMPLYING WITH IBC 1705.12 FOR WIND RESISTANCE ARE NOT REQUIRED FOR THIS PROJECT.
5. SPECIAL INSPECTIONS AND OBSERVATIONS COMPLYING WITH IBC 1705.13 FOR SEISMIC RESISTANCE ARE NOT REQUIRED FOR THIS PROJECT.

COMPONENTS & CLADDING WIND PRESSURES				
1) PRESSURES ARE IN PSF BASED ON Vult 2) - PRESSURE ACTS AWAY FROM SURFACE + PRESSURE ACTS TOWARD THE SURFACE				
BUILDING	ZONE	30 SQ FT	50 SQ FT	100 SQ FT
1'	-	-	-30.5	-30.5
	-	-	+16	+16
1	-	-	-45.5	-41.7
	-	-	+16	+16
2	-	-	-58.6	-55.8
	-	-	+16	+16
3	-	-	-74.2	-67.1
	-	-	+16	+16
4	-38.9	-	-	-
	+30.5	-	-	-
5	-38.9	-	-	-
	+30.5	-	-	-

SCHOOL OF CONSTRUCTION PRACTICE  
LAB BUILDING, UNIVERSITY OF  
LOUISIANA MONROE

DRAWING REVISIONS

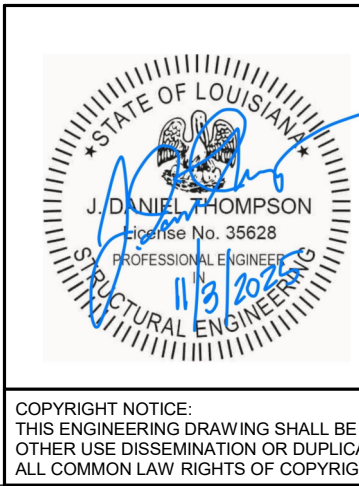
No.	Description	Date

DRAWN BY: JDT  
CHECKED BY: JDT  
SHEET

S4.01

Date: NOV 2025  
Project No.: 24-0059

File Name:  
DESCRIPTION:  
GENERAL NOTES



CONSULTING ENGINEERS

3001 KNIGHT STREET, SUITE 120  
SHREVEPORT, LOUISIANA 71105  
phone: 318-425-7452 fax: 318-425-4622  
www.AFJMC.com

ENGINEER: J. DANIEL THOMPSON, PE, SE  
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