

GENERAL NOTES:

- 1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL. PLUMBING AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR SLEEVES, DEPRESSIONS AND OTHER DETAILS NOT SHOWN ON
- . ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE
- 3. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING (AND ACCOMPANYING FOOTINGS), GUYS OR TIEDOWNS.
- 4. ADDITIONAL OBSERVATIONS AS A RESULT OF REJECTION OF WORK COMPLETED AND/OR ADDITIONAL OBSERVATIONS DUE TO THE DEFICIENCIES IN WORK OBSERVED WILL BE AT THE EXPENSE OF THE
- 5. ALL STRUCTURAL SHOP DRAWINGS TO BE REVIEWED BY JOB SUPERINTENDENT IN ADDITION TO ALL PERSONNEL DEEMED NECESSARY BY CONTRACTOR PRIOR TO SUBMITTAL TO ENGINEER FOR
- 6. ALL SHOP DRAWING TO BE REVIEWED BY ALBERTSON ENGINEERING INC. SHALL HAVE ELECTRONIC COPIES PROVIDED TO ALBERTSON ENGINEERING INC. FOR REVIEW. AN ELECTRONIC MARKED SET OF THOSE DRAWINGS WILL BE RETURNED TO THE CONTRACTOR. NO ADDITIONAL HARD COPIES OF THE SHOP DRAWINGS NEED TO BE PROVIDED TO ALBERTSON ENGINEERING INC., ALTHOUGH OTHER PARTIES MAY REQUIRE HARD COPIES OF THE MARKED UP DRAWINGS. THESE REQUIREMENTS ARE IN ADDITION TO THE TYPICAL PROJECT SHOP DRAWING SUBMITTAL REQUIREMENTS STATED IN THE PROJECT SPECIFICATIONS.
- 7. THE DESIGN OF THE STRUCTURE SHOWN IN THESE CONSTRUCTION DOCUMENTS IS FOR THE ONE-TIME USE AT THE SPECIFIC SITE REFERENCED IN THE TITLE BLOCK.

DESIGN CODES:

- 2018 INTERNATIONAL BUILDING CODE
- VA STRUCTURAL DESIGN MANUAL FOR HOSPITAL PROJECTS (2014) ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL
- CONCRETE AND COMMENTARY - AISC 360-16 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
- NDS 2018 NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION
- SDI NC-2017 STANDARD FOR NON-COMPOSITE STEEL FLOOR DECK
- TMS 402-16 / ACI 530-16 BUILDING CODE FOR MASONRY STRUCTURES

DESIGN LOADS:

THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED WITH THE FOLLOWING SUPERIMPOSED LOADINGS BASED ON RISK CATEGORY II:

FLOOR:	
DEAD LOAD	83 PSF
WARD ROOMS	40 PSF + PARTITION
CORRIDORS - IN WARDS	60 PSF + PARTITION
CORRIDORS - ALL OTHER LOCATIONS	100 PSF
ADMINISTRATIVE AREAS	80 PSF + PARTITION
STAIRS	100 PSF
DECKS	100 PSF
ATTICS (WALK-ON CEILINGS) DEAD LOAD	15 PSF
ATTICS (WALK-ON CEILINGS) LIVE LOAD	25 PSF
*PARTITION	20 PSF

- GROUND SNOW LOAD 30 PSF ROOF SNOW LOAD SNOW EXPOSURE FACTOR 1.0 SNOW THERMAL FACTOR 1.0 SNOW IMPORTANCE FACTOR ROOF SLOPE FACTOR DEAD LOAD 20 PSF (REDUCIBLE) LIVE LOAD
- 111 MPH ULTIMATE WIND SPEED **EXPOSURE CATEGORY** INTERNAL PRESSURE COEFFICIENT +0.18
- SEISMIC DESIGN CATEGORY SITE CLASSIFICATION SEISMIC IMPORTANCE FACTOR

SEISMIC RESPONSE COEFFICIENT

DESIGN BASE SHEAR

- MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS $S_S = 0.211g$ $S_1 = 0.050g$ DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS
- $S_{DS} = 0.225g$ SEISMIC FORCE RESISTING SYSTEM TIMBER PLANKS WITH CONCRETE TOPPING ORDINARY PLAIN MASONRY SHEAR WALLS

0.01

RESPONSE MODIFICATION COEFFICIENTS (R) ORDINARY PLAIN MASONRY SHEAR WALLS ANALYSIS PROCEDURE

EQUIVALENT LATERAL FORCE PROCEDURE

 FOUNDATIONS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 2,000 PSF ON EXISTING SOILS. BEFORE CONSTRUCTION COMMENCES, SOIL BEARING CAPACITY SHALL BE VERIFIED BY A SUBSURFACE INVESTIGATION, A CERTIFIED TESTING LABORATORY WHOSE REPORT SHALL INCLUDE ANALYSIS AND RECOMMENDATIONS FOR SITE PREPARATION IN ORDER TO BEAR THE FOUNDATION LOADS. ABOVE REPORT SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER

MINIMUM SLEEVE SPACING SHALL BE TWO DIAMETERS CENTER TO CENTER TO THE LARGER SLEEVE OR 6" CLEAR BETWEEN SLEEVES, WHICHEVER IS GREATER. PRIOR TO CONSTRUCTION SLEEVE LOCATIONS AND SIZES SHALL BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.

CHEMICAL ANCHORS: 1. SHALL BE A POLYMER INJECTION SYSTEM SUCH AS HILTI HY-200 OR APPROVED EQUAL, INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS. INSTALLERS SHALL BE TRAINED BY

ANCHOR BOLTS:

- 1. SHALL BE ASTM F1554 GRADE 36 THREADED ROD. PROVIDE HOT DIP GALVANIZE FINISH ON ALL ANCHOR BOLTS PERMANENTLY EXPOSED TO
- . THREADED ROD EMBEDMENT DEPTH SPECIFIED IN THE DRAWINGS SHALL BE FROM TOP OF CONCRETE TO TOP OF DOUBLE NUT.

CONCRETE TESTING:

CAST-IN-PLACE CONCRETE:

- 1. CONCRETE TESTING SHALL BE PAID FOR BY THE OWNER. TESTING LABORATORY SHALL PERFORM THE FOLLOWING TESTS ON
- 1.1. ASTM C143 "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT CONCRETE."
- 1.2. ASTM C39 "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS." A SEPARATE TEST SHALL BE CONDUCTED FOR EACH CLASS, FOR EVERY 50 CUBIC YARDS (OR FRACTION THEREOF), PLACED PER DAY. REQUIRED CYLINDER(S) QUANTITIES AND TEST AGE AS FOLLOWS: 1 AT 7 DAYS 2 AT 28 DAYS
- PROVIDE ONE ADDITIONAL RESERVE CYLINDER TO BE TESTED UNDER THE DIRECTION OF THE ENGINEER, IF REQUIRED. IF 28 DAY STRENGTH IS ACHIEVED, THE ADDITIONAL CYLINDER(S) MAY BE
- 1.4. TESTING SHALL BE BASED UPON CONCRETE TAKEN AT POINT OF
- 1.5. IN ADDITION TO TYPICAL TESTING REQUIREMENTS, SLUMP AND AIR CONTENT SAMPLES SHALL BE TAKEN AT BEGINNING OF FIRST TRUCK PRIOR TO ANY PLACEMENT AND REPEATED AT THE MIDDLE OF FIRST TRUCK. CONCRETE PLACEMENT SHALL NOT START IF INITIAL TEST(S) FAIL AND SHALL NOT CONTINUE OF TEST TAKEN AT MIDDLE OF FIRST LOAD FAILS.
- 1.6. IF ANY SLUMP OR AIR CONTENT FAILS DURING PLACEMENT, TESTS SHALL BE IMMEDIATELY REPORTED AND RETAKEN. IF RETAKEN TESTS FAIL THEN ALL SUBSEQUENT LOADS MUST BE TESTED AT ARRIVAL AND TEST MUST SHOW COMPLIANCE PRIOR TO THE CONCRETE IN THAT TRUCK BEING ALLOWED FOR USE ON PROJECT. ALL COSTS FOR ADDITIONAL TESTING SHALL BE CREDITED TO THE

NO PENETRATIONS SHALL BE MADE IN ANY STRUCTURAL MEMBERS OTHER THAN THOSE LOCATED ON THESE DRAWINGS WITHOUT PREVIOUS APPROVAL OF THE ENGINEER.

1. CONCRETE MIX SHALL BE DESIGNED BY RECOGNIZE TESTING LABORATORY TO ACHIEVE A STRENGTH AT 28 DAYS AS SHOWN IN THE BELOW CONCRETE CURING STRENGTH SCHEDULE WITH A PLASTIC AND

CONCRETE PROPERTIES

LOCATION	28 DAY COMPRESSIVE STRENGTH	ENTRAINED AIR	SLUMP	MAX W/C RATIO
FOOTINGS	3,500 PSI	4.0% - 6.0%	5"±1"	0.55
FND WALLS & ALL OTHER CONC	4,500 PSI	5.0% - 7.0%	4"±1"	0.45
INTERIOR SLABS	4,000 PSI	<3.0%	3"±1"	0.50
EXTERIOR SLABS	5,000 PSI	5.0% - 7.0%	3"±1"	0.40

- 2. SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD CYLINDER OR LAB TESTS FOR REVIEW PRIOR TO USE. MIX SHALL BE UNIQUELY IDENTIFIED BY MIX NUMBER OR OTHER POSITIVE IDENTIFICATION, CONCRETE SHALL COMPLY WITH ALL THE REQUIREMENTS OF ASTM STANDARD C94 SHALL BE TIME STAMPED WHEN CONCRETE IS BATCHED. THE MAXIMUM TIME ALLOWED FROM THE TIME THE MIXING WATER IS ADDED UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED ONE AND ONE HALF (1-1/2) HOURS. IF FOR ANY REASON THERE IS A LONGER DELAY THAN STATED ABOVE, THE CONCRETE SHALL BE DISCARDED. IT SHALL BE THE RESPONSIBILITY OF THE TESTING LAB TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE ABOVE. ALL SLABS SHALL BE CURED USING CURING COMPOUND MEETING ASTM STANDARD C309 TYPE 1 AND SHALL HAVE A FUGITIVE DYE. THE COMPOUND SHALL BE PLACED AS SOON AS THE FINISHING IS COMPLETED OR AS SOON AS THE WATER HAS LEFT THE UNFINISHED CONCRETE. ALL SCUFFED OR BROKEN AREAS IN THE CURING MEMBRANE SHALL BE RECOATED DAILY. CALCIUM CHLORIDES SHALL NOT BE UTILIZED; OTHER ADMIXTURES MAY BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.
- CONCRETE SHALL UTILIZE TYPE IL CEMENT.
- 4. COARSE AND FINE AGGREGATES SHALL COMPLY WITH ASTM C33 AND ACI 302.1, CURRENT VERSIONS.
- 4.1. COMPLIANCE WITH THE NON-REACTIVE REQUIREMENTS OF ACI 302.1 SHALL NOT BE PROVIDED FOR BY THE PROVISION OF ACI 302.1 (SUBSECTION 7.3) THAT EXCLUDES THE AGGREGATES BEING CLASSIFIED AS DELETERIOUSLY REACTIVE WITH ALKALIES IF THE AGGREGATE HAS A SATISFACTORY SERVICE RECORD EVALUATION OR WITH THE ADDITION OF A MATERIAL THAT HAS SHOWN TO PREVENT HARMFUL EXPANSION DUE TO ALKALI-AGGREGATE REACTION.
- 4.2. CONCRETE MIX DESIGN SHALL INCLUDE TEST RECORDS OF THE COMPLIANCE OF THE AGGREGATE MEETING THE REQUIREMENTS OF ASTM C1260, AND THAT THE EXPANSION OF THE MORTAR SAMPLE SHALL NOT EXCEED 0.10% WHEN TESTED IN ACCORDANCE WITH ASTM C1260 AT 14 DAYS. USE OFADMIXTURES THAT MITIGATE THE EFFECT OF THE REACTIVE AGGREGATE TO BE PROPOSED IN CONCRETE MIX SHOP DRAWING MAY BE AN APPROVED APPROACH BY THE ENGINEER TO ALLOW FOR THE USE OF OTHERWISE REACTIVE AGGREGATES. IF SUCH MITIGATING MEASURES ARE PROPOSED, THEY MUST BE INCLUDED WITHIN MIX DESIGN SUBMITTAL. THE ENGINEER IS GIVEN DISCRETION AS TO WHETHER OR NOT TO ACCEPT MITIGATING MEASURES OR TO MAINTAIN REQUIREMENTS THAT NONREACTIVE AGGREGATES MUST BE USED. AT A MINIMUM, SUCH DOCUMENTATION MUST SHOW THAT REACTIVE AGGREGATES USED IN COMBINATION WITH A GIVEN AMOUNT OF ADMIXTURE RESULTS IN THE EXPANSION OF THE MORTAR SAMPLE BEING LESS THAN 0.10% WHEN TESTED IN ACCORDANCE WITH ASTM C1567 AT 14 DAYS. LIABILITY OF THE PERFORMANCE OF THE CONCRETE MIX REMAINS SOLELY WITH
- GENERAL CONTRACTOR. 4.3. IF CONCRETE MIXES ARE APPROVED BY THE ENGINEER THAT CONTAIN EITHER FINE OR COARSE AGGREGATE, THAT EITHER SEPARATELY OR IN COMBINATION EXCEED THE 0.10% EXPANSION WHEN TESTED ACCORDING TO ASTM C1260, SPECIAL CONSIDERATIONS MUST BE GIVEN TO SLAB CURING (SLABS ON GRADE AND ELEVATED SLABS). IN SUCH INSTANCES SLABS SHALL BE CURED USING EITHER A WET BURLAP OR CONTINUOUS WETTING/FOGGING METHOD FOR SLABS FOR AT LEAST 10 DAYS. USE OF CURING AND/OR SEALING COMPOUNDS IS NOT ACCEPTABLE UNTIL THE SLAB HAS CURED A MINIMUM OF 28 DAYS AND THE CONDITIONS FOR THE APPLICATION OF THE CURING COMPOUND ON THE CONCRETE SLAB SET BY THE

MANUFACTURER'S RECOMMENDATIONS HAVE BEEN MET.

4.4. ENGINEER HAS SOLE DISCRETION IN DETERMINING ACCEPTABILITY OF A CONCRETE SLAB THAT IS EXHIBITING ALKALI-SILICA REACTION. FOR SLABS SHOWING AN ALKALI SILICA REACTION SOLELY WITHIN THE FINE AGGREGATE: A SLAB SHOWING AN AVERAGE DENSITY OF POPOUTS GREATER THAN 1 PER 8 SQUARE FEET OVER ANY CONTIGUOUS AREA OF 100 SQUARE FEET OR LARGER, OR ANY AREA WITH A DENSITY OF 1 POPOUTS PER 2 SQUARE FEET WITHIN ANY AREA UP TO 100 SQUARE FEET WOULD BE CONSIDERED AS A BASIS FOR THE REJECTION OF THE SLAB FROM WHICH THOSE SAMPLE AREAS ARE INCLUDED. FOR A ALKALI SILICA REACTION WITHIN THE COARSE AGGREGATE: THE POPOUT DENSITIES CONSIDERED FOR REJECTION OF THE CONCRETE SLAB SHALL BE 1/2 OF THE DENSITIES GIVEN FOR FINE AGGREGATE. THE EXTENT OF REJECTED SLAB TO BE DETERMINED BY ENGINEER. THE TIME FRAME FOR OBSERVATION OF ALKALI SILICA REACTIONS AND DETERMINATION OF REJECTION OF THE CONCRETE SLAB SHALL BE AT LEAST 56 DAYS FROM THE DATE OF POUR.

- 4.5 CONCRETE MIXES UTILIZING CRUSHED LIMESTONE AS COARSE AGGREGATE AND CONTAINING AT LEAST 25% CLASS F FLY ASH AND HAVING A SATISFACTORY SERVICE RECORD PER ACI 302.1 IS CONSIDERED AN ACCEPTABLE ALTERNATIVE APPROACH TO THE COMPLIANCE REQUIREMENTS OUTLINED IN PROVISIONS 4.1 THROUGH 4.4 ABOVE.
- 5. THE CONCRETE STRENGTHS SHOWN IN THE SECTION ABOVE AND IN THE SPECIFICATIONS ARE MINIMUM COMPRESSIVE STRENGTHS. THE ENGINEER SHALL DETERMINE IF THE CONCRETE IS ACCEPTABLE. OR TO BE REMOVED, OR TO RECEIVE SPECIAL CURING IF THE COMPRESSIVE STRENGTHS ARE LESS THAN SPECIFIED.
- WATER REDUCING AGENTS MAY BE USED IN THE CONCRETE MIX. PLASTICIZERS AND SUPER-PLASTICIZERS MAY BE USED ONLY WHEN

WRITTEN PERMISSION OF THE ENGINEER IS GIVEN.

7. NO SALTS OF ANY KIND MAY BE USED IN CONCRETE BEFORE OBTAINING THE ENGINEER'S WRITTEN PERMISSION FOR THEIR USE.

CONCRETE AND REINFORCING PLACEMENT:

- 1. ALL CONCRETE SHALL BE PLACED IN ACCORDANCE WITH ACI 301 AND ACI 117 EXCEPT AS MODIFIED BELOW:
- 1.1. ACI 117 ITEM 4.3.1.1 ELEVATIONS OF SLABS-ON-GRADE TOP OF SLAB ELEVATION SHALL BE WITHIN A 3/8" ENVELOPE EITHER SIDE OF THE THEORETICAL DESIGN SURFACE.
- 1.2. ACI 117 ITEM 4.5.7 FLOOR FINISH TOLERANCES AS MEASURED BY PLACING A FREE STANDING (UNLEVELED) 10 FT. STRAIGHT EDGE ANYWHERE ON THE SLAB AND ALLOWING IT TO REST UPON TWO HIGH SPOTS WITHIN 28 DAYS AFTER SLAB CONCRETE PLACEMENT. THE GAP AT ANY

POINT BETWEEN THE STRAIGHT EDGE AND THE FLOOR SHALL NOT

- 2. ALL REINFORCING STEEL TO BE ASTM A615, GRADE 60 (#4 AND LARGER). EXCEPT WHERE NOTED OTHERWISE. REINFORCING SHALL NOT BE
- . WELDED WIRE FABRIC TO CONFORM TO ASTM A185 AND SHALL BE FREE FROM OIL, SCALE AND RUST. PLACE WWF IN ACCORDANCE WITH THE TYPICAL PLACING DETAILS OF ACI STANDARDS AND THE SPECIFICATIONS. MINIMUM LAPS SHALL BE ONE SPACE PLUS 2".
- 4. ALL REINFORCING STEEL BARS TO BE DETAILED AND PLACED IN ACCORDANCE WITH THE LATEST ACI MANUALS.
- 5. LAP ALL REINFORCING SPLICES IN CONCRETE A MINIMUM OF 48 BAR DIAMETERS OR 24 INCHES, WHICHEVER IS GREATER, UNLESS NOTED OTHERWISE ON DRAWINGS (CLASS B SPLICE).
- PROVIDE CORNER BARS OF SAME BAR DIAMETER AS SPECIFIED FOR THE WALL, BEAM OR FOOTING. PROVIDE MINIMUM OF 40 BAR DIAMETER LAP FOR ALL CORNER BARS, UNLESS NOTED OTHERWISE.
- PROVIDE FOUNDATION DOWELS AS SHOWN. MINIMUM SIZE DOWELS TO BE #4, UNLESS OTHERWISE NOTED. ALL VERTICAL REINFORCING STEEL IN COLUMNS AND PIERS, OR VERTICAL REINFORCING IN WALLS, SHALL BE DOWELED INTO THE FOOTINGS WITH SAME SIZE AND QUANTITY DOWEL AS THE VERTICAL REINFORCING.
- 8. WHERE SHOWN ON THE DRAWINGS, PROVIDE WELD PLATES, WELDMENTS, OR CONCRETE INSERTS FOR FASTENING AND SECURING OTHER COMPONENTS CONCRETE INSERTS SHALL BE FURNISHED BY THE CONTRACTOR REQUIRING THEM AND INSTALLED BY THE CONTRACTOR CASTING THE CONCRETE AROUND THEM. CLIP ANGLES
- SHALL BE FURNISHED BY THE CONTRACTOR REQUIRING THEM. 9. REINFORCING STEEL SHALL RECEIVE CONCRETE COVER AS FOLLOWS:

EXPOSED TO EARTH	3"
EXPOSED TO EARTH OR WEATHER #6 THROUGH #18 BARS #5 BARS OR SMALLER	2" 1½"
NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH THE GROUND, SLABS AND WALLS	
#11 BARS OR SMALLER #14 AND #18	³ / ₄ " 1 ¹ / ₂ "

CAST AGAINST AND PERMANENTLY

- BEAMS AND COLUMNS 10. PROVIDE TWO (2) #5'S, ONE AT EACH FACE, UNLESS NOTED OTHERWISE, AROUND ALL OPENINGS GREATER THAN 12"x12" IN CAST-IN-PLACE CONCRETE. EXTEND REINFORCING 2'-0" BEYOND OPENING IN BOTH DIRECTIONS. CONTACT ENGINEER FOR ALL OPENINGS GREATER THAN
- 11. COLD WEATHER AND HOT WEATHER PROVISIONS OF ACI 306 AND 305 (CURRENT EDITIONS), RESPECTIVELY, SHALL BE MAINTAINED.
- 12. CONTRACTOR TO FURNISH AND INSTALL 500 LINEAL FT. EACH OF ADDITIONAL #4 & #5 REINFORCING STEEL TO BE USED AT ENGINEER'S DISCRETION.

1. STEEL SHALL CONFORM TO ASTM A992 (Fy=50 KSI) FOR ALL W-SHAPES,

STRUCTURAL STEEL

- AND ASTM A36 (Fy=36 KSI) FOR ALL OTHER MISCELLANEOUS SHAPES AND PLATES. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B OR GRADE C (Fy=46 KSI OR 50 KSI). STRUCTURAL PIPE SHALL CONFORM TO ASTM A53, GRADE B, TYPE "E" OR "S" (Fy=35 KSI).
- 2. STEEL SHALL CONFORM TO THE LATEST EDITION OF AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.
- 3. ALL SHOP CONNECTIONS TO BE WELDED (UTILIZING E70XX ELECTRODES) AND FIELD CONNECTIONS TO BE BOLTED, UNLESS OTHERWISE NOTED. STEEL TO RECEIVE ONE SHOP COAT AND ONE FIELD TOUCH UP COAT OF APPROVED PAINT, EXCEPT WHERE GALVANIZED IS INDICATED ON THE DRAWINGS.
- 4. WELDS FOR ALL EXPOSED STRUCTURAL STEEL SHALL BE GROUND SMOOTH UNLESS NOTED OTHERWISE.

OR GRADE F1852 BOLTS, UNLESS NOTED OTHERWISE.

- 5. ALL BOLTED CONNECTIONS SHALL CONSIST OF $\frac{3}{2}$ "Ø F3125 GRADE A325
- 6. FAILURE OF A BOLT OR NUT DURING INSTALLATION PROCESS RESULTING IN A CRACK IN THE BOLT OR NUT SHALL BE GROUNDS FOR REJECTION OF ALL THE BOLTS OR NUTS COMING FROM THE SAME LOT. IF THE DOCUMENTATION OF THE LOT OF ORIGIN FOR THE FAILED NUT(S) OR BOLT(S) DOES NOT EXIST, OR IS NOT PROVIDED, THEN ALL OF THE BOLT(S) OR NUT(S) SHALL BE ASSUMED TO COME FROM THE LOT CONTAINING THE FAILED NUT(S) OR BOLT(S).
- CONTRACTOR TO FURNISH AND INSTALL 500 LB OF ADDITIONAL MISCELLANEOUS STEEL TO BE USED AT ENGINEER'S DISCRETION.
- 8. CONTRACTOR SHALL MAINTAIN ERECTION TOLERANCES OF STRUCTURAL STEEL AND ARCHITECTURALLY EXPOSED STRUCTURAL STEEL WITHIN AISC'S CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
- 9. ANCHOR BOLT HOLES IN STRUCTURAL STEEL SHALL BE OVERSIZED NO MORE THAN $\frac{1}{8}$ " MAX, UNLESS NOTED OTHERWISE.
- MASONRY MATERIALS MASONRY UNITS SHALL MEET ASTM C90 FOR HOLLOW LOAD BEARING TYPE MASONRY WITH A UNIT STRENGTH OF 2,800 PSI ON THE NET AREA (f'm = 2,000 PSI).
- . MORTAR SHALL BE TYPE "M" (BELOW GRADE) OR "S" (ABOVE GRADE AND SHALL MEET ASTM C270. GROUT SHALL BE 3,000 PSI PEA-GRAVEL CONCRETE AND SHALL MEET ASTM C476. MORTAR MIX SHALL BE A PRE-BLENDED MIX AS MANUFACTURED BY SPEC-MIX, OR APPROVED EQUAL. GROUT SHALL BE A READY-MIX GROUT AND SHALL HAVE THE MIX DESIGN SUBMITTED FOR APPROVAL PRIOR TO CONSTRUCTION.

<u>MASONRY AND REINFORCED MASONRY PLACEMENT:</u>

- 1. ALL MASONRY SHALL BE LAID IN RUNNING BOND UNLESS NOTED OTHERWISE. MATERIALS TO BE LAID AND MATERIALS TO BE BUILT UPON SHALL BE FREE FROM SNOW AND ICE.
- 2. PROVIDE HOOKED DOWELS INTO FOOTINGS FOR ALL VERTICAL REINFORCING ABOVE AS SHOWN IN THE DRAWINGS. LAP SPLICES A MINIMUM OF 48 BAR DIAMETERS. AT THE OPTION OF THE CONTRACTOR, DOWELS MAY BE DRILLED AND EPOXIED INTO FOOTING IN LIEU OF HOOKS. EPOXY SHALL BE AS NOTED ON THIS SHEET UNDER 'CHEMICAL ANCHORS,' 6" MIN. EMBEDMENT FOR #5 OR SMALLER DOWELS, 8" MIN. EMBEDMENT FOR #6 DOWELS.
- 3. PROVIDE DUR-O-WALL (OR EQUAL PER SPECIFICATIONS) LADDER OR TRUSS HORIZONTAL JOINT REINFORCEMENT AT EACH SECOND COURSE IN RUNNING BOND, AND EACH COURSE IN STACKED BOND, UNLESS NOTED OTHERWISE. DISCONTINUE HORIZONTAL JOINT REINFORCEMENT AT CONTROL JOINTS.
- . PROVIDE BOND BEAMS REINFORCED WITH (2) #5 BARS EVERY 6'-0" OF VERTICAL WALL, AT TOPS OF ALL MASONRY WALLS, AND WHERE SHOWN ON DRAWINGS. AT BOND BEAM CORNERS AND TEE JOINTS, PROVIDE BENT BARS TO MATCH QUANTITY AND BAR SIZE IN THE BOND BEAM. LAPS IN BOND BEAMS SHALL BE 48 BAR DIAMETERS OR A MINIMUM OF 2'-0", WHICHEVER IS GREATER.
- WHERE SHOWN ON THE DRAWINGS, CORES IN CONCRETE BLOCK UNITS SHALL BE FILLED WITH 3,000 psi CONCRETE GROUT FROM TOP OF FOOTING TO BOTTOM OF BEARING, OR TO THE TOP OF WALL DEPENDING ON THE CONDITION. INSPECTION OF OPENING AT BOTTOM IS REQUIRED.
- WHERE REINFORCING STEEL IS CALLED FOR IN FILLED CORES, IT SHALL EXTEND FROM TOP OF FOOTING TO BOTTOM OF BEARING, OR TOP OF WALL, DEPENDING ON CONDITION.
- WHERE REINFORCING STEEL IS INTERRUPTED BY AN OPENING IN THE WALL, THE QUANTITY OF BARS INTERRUPTED ARE TO BE MOVED TO EACH SIDE OF THE OPENING, HALF OF REINFORCING TO ONE SIDE AND REMAINING HALF TO THE OTHER SIDE. REINFORCING SHALL BE FROM TOP OF FOOTING TO TOP OF WALL. PROVIDE A MINIMUM OF (2) #5 VERTICAL REINFORCING BARS AT EACH JAMB. SEE PLAN NOTES AND/OR DETAILS FOR VERTICAL REINFORCING SPACING.
- 8. WHERE VERTICAL REINFORCING STEEL IS SPLICED IN MASONRY, PROVIDE A MINIMUM OF 48 BAR DIAMETERS, LAP SPLICE, UNLESS NOTED OTHERWISE.
- 9. THE MINIMUM DISTANCE BETWEEN PARALLEL BARS, EXCEPT IN COLUMNS, SHALL BE NOT LESS THAN THE DIAMETER OF THE BAR EXCEPT THAT LAPPED SPLICES MAY BE WIRED TOGETHER. THE CENTER TO CENTER SPACING OF BARS WITHIN A COLUMN SHALL BE NOT LESS THAN 2 AND ONE-HALF TIMES THE BAR DIAMETER.
- 10. ALL BARS SHALL BE COMPLETELY EMBEDDED IN MORTAR OR CONCRETE. REINFORCEMENT EMBEDDED IN HORIZONTAL MORTAR JOINTS SHALL HAVE NOT LESS THAN %" MORTAR COVERAGE FROM THE EXPOSED FACE. ALL OTHER REINFORCING SHALL HAVE A MINIMUM COVERAGE OF ONE BAR DIAMETER OVER ALL BARS, BUT NOT LESS THAN ¾", EXCEPT WHERE EXPOSED TO WEATHER OR SOIL IN WHICH CASE THE MINIMUM COVERAGE SHALL BE 2".
- WHERE REINFORCING IS SHOWN TO BE LOCATED ALONG TWO FACES OF A CONCRETE BLOCK WALL, THE CONTRACTOR SHALL BREAK OUT THE SHELL OF THE LOWEST CONCRETE BLOCK TO GAIN ACCESS TO THE REINFORCING STEEL. THE REINFORCED STEEL SHALL THEN BE WIRED INTO ITS CORRECT POSITION, AND THE ACCESS HOLE COVERED. THE CONCRETE GROUT FILL SHALL BE PUDDLED OR VIBRATED TO ASSURE COMPLETE FILLING OF THE CORE.
- 12. REINFORCED MASONRY PIERS AND COLUMNS SHALL HAVE THE REINFORCING STEEL ACCURATELY LOCATED BY WIRING THE TOP AND BOTTOM OF ALL VERTICAL STEEL INTO ITS CORRECT POSITION. PROVIDE AN ACCESS HOLE AT THE BOTTOM OF ALL COLUMNS OR
- 13. ALL REINFORCED HOLLOW UNIT MASONRY SHALL BE BUILT TO PRESERVE THE UNOBSTRUCTED VERTICAL CONTINUITY OF THE CELLS TO BE FILLED. WALLS AND CROSS WEBS FORMING SUCH CELLS TO BE FILLED SHALL BE FULLBEDDED IN MORTAR TO PREVENT LEAKAGE OF CONCRETE GROUT. ALL HEAD (OR END) JOINTS SHALL BE SOLIDLY FILLED WITH MORTAR FOR A DISTANCE IN FROM THE FACE OF THE WALL OR UNIT NOT LESS THAN THE THICKNESS OF THE LONGITUDINAL FACE SHELLS. BOND SHALL BE PROVIDED BY LAPPING UNITS IN SUCCESSIVE VERTICAL COURSES OR BY EQUIVALENT MECHANICAL ANCHORAGE.
- 13.1. VERTICAL CELLS TO BE FILLED SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR, UNOBSTRUCTED CONTINUOUS
- VERTICAL CELL MEASURING NOT LESS THAN 2"x3". 13.2. CLEAN-OUT OPENINGS SHALL BE PROVIDED AT THE BOTTOM OF ALL CELLS TO BE FILLED AT EACH POUR OF CONCRETE WHERE SUCH CONCRETE POUR IS IN EXCESS OF 6' IN HEIGHT. ANY OVERHANGING MORTAR, OTHER OBSTRUCTION OR DEBRIS SHALL BE REMOVED AND/OR CLEANED AT TIME OF INSPECTION AND PRIOR TO CORE FILLING. INSPECT AND SEAL ALL OPENINGS BEFORE CONCRETING.
- 13.3. VERTICAL REINFORCEMENT SHALL BE HELD IN POSITION AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 192 DIAMETERS
- OF THE REINFORCEMENT. 13.4. ALL CELLS CONTAINING REINFORCEMENT SHALL BE FILLED SOLIDLY WITH CONCRETE. CONCRETE SHALL BE POURED IN LIFTS OF 8' MAXIMUM HEIGHT. ALL CONCRETE SHALL BE CONSOLIDATED AT THE TIME OF POURING BY PUDDLING FOR LIFTS OF 4' OR LESS, OR BY VIBRATING FOR LIFTS GREATER THAN 4'. CONCRETE SHOULD LATER BE CONSOLIDATED AGAIN BY PUDDLING, BEFORE PLASTICITY IS LOST.
- 13.5. WHEN TOTAL CONCRETE POUR EXCEEDS 8' IN HEIGHT, THE CONCRETE SHALL BE PLACED IN 4' MAXIMUM LIFTS. MINIMUM CELL DIMENSION SHALL BE 3".
- 13.6. WHEN CONCRETING IS STOPPED FOR ONE HOUR OR LONGER. HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE POUR OF CONCRETE 1½" BELOW THE TOP OF THE
- 14. PROVIDE A MINIMUM OF 8" BEARING FOR ALL MASONRY LINTELS.
- 15. WHERE LINTEL BLOCKS ARE USED IN LIEU OF HOLLOW CONCRETE BLOCKS, THE REINFORCING STEEL SHALL BE ANCHORED TO THE LOWER STEEL OR DOWELS AND THE LINTEL BLOCKS LAID AROUND THE STEEL. THE CONCRETE FILL SHALL BE INSTALLED IN LIFTS NOT TO EXCEED 2' IN HEIGHT. THE REINFORCING STEEL SHALL BE MAINTAINED IN THE SAME POSITION AS THE DOWELS. STOP THE POUR OF THE CONCRETE 11/2" BELOW THE TOP OF THE UPPERMOST UNIT.
- 16. SPECIFICATION REQUIREMENTS FOR COLD WEATHER AND HOT WEATHER MASONRY CONSTRUCTION SHALL BE MAINTAINED.

NON-COMPOSITE STEEL FORM DECK:

- 1. NON-COMPOSITE FORM DECK SHALL BE 1½" DEEP. 20 GAGE GALVANIZED (G60) CORRUGATED STEEL FORM DECK (SLAB FORM), (1.5C20) AND SHALL CONFORM TO THE PROVISIONS OF THE STEEL DECK INSTITUTE (SDI) SPECIFICATIONS FOR NON-COMPOSITE STEEL DECK. POUR STOPS AND GIRDER FILLERS: WELD STEEL SHEET POUR STOPS
- AND GIRDER FILLERS TO SUPPORTING STRUCTURE ACCORDING TO SDI RECOMMENDATIONS, UNLESS OTHERWISE INDICATED.
- FLOOR DECK CLOSURES: WELD STEEL SHEET COLUMN CLOSURES, CELL CLOSURES, AND Z-CLOSURES TO DECK, ACCORDING TO SDI RECOMMENDATIONS, TO PROVIDE TIGHT FITTING CLOSURES AT OPEN ENDS OF RIBS AND SIDES OF DECKING. WELD COVER PLATES AT CHANGES IN DIRECTION OF FLOOR DECK PANELS, UNLESS OTHERWISE
- 4. DECKING SHALL HAVE MINIMUM OF (2) SPANS.

DESIGNER OF RECORD

SHEAR (Fv)

SHEAR (Fv)

- 1. STRUCTURAL 2x WOOD COMPONENTS HAVE BEEN DESIGNED AS DOUGLAS-FIR LARCH (DF) NO. 1 OR BETTER AND SHALL HAVE THE FOLLOWING MINIMUM ALLOWABLE FIBER STRESSES AND PROPERTIES: MODULUS OF ELASTICITY (E) 1,700,000 PSI BENDING (Fb) 1,000 PSI SHEAR (Fv) 180 PSI
- STRUCTURAL 2x WOOD COMPONENTS HAVE BEEN DESIGNED AS DOUGLAS-FIR LARCH SELECT STRUCTURAL (DF-SS) OR BETTER AND SHALL HAVE THE FOLLOWING MINIMUM ALLOWABLE FIBER STRESSES AND PROPERTIES: MODULUS OF ELASTICITY (E) 1,900,000 PSI BENDING (Fb) 1,500 PSI

180 PSI

170 PSI

- STRUCTURAL 2x WOOD COMPONENTS NOT LABELED AS EITHER DF OR DF-SS HAVE BEEN DESIGNED AS SPRUCE-PINE-FIR (SPF) OR HEM-FIR (HF) NO. 2 OR BETTER AND SHALL HAVE THE FOLLOWING MINIMUM ALLOWABLE FIBER STRESSES AND PROPERTIES: MODULUS OF ELASTICITY (E) 1.300.000 PSI BENDING (Fb) 850 PSI SHEAR (Fv)
- 4. STRUCTURAL 6x8, 8x8, AND 8x10 WOOD COMPONENTS ARE TO BE FULL SIZE (ROUGH SAWN) AND HAVE BEEN DESIGNED AS DF NO.1 OR BETTER AND SHALL HAVE THE MINIMUM ALLOWABLE FIBER STRESSES AND PROPERTIES: MODULUS OF ELASTICITY (E) 1,600,000 PSI BENDING (Fb) 1.200 PSI
- STRUCTURAL 6x10 WOOD COMPONENTS ARE TO BE FULL SIZE (ROUGH SAWN) AND HAVE BEEN DESIGNED AS DF NO.1 OR BETTER AND SHALL HAVE THE MINIMUM ALLOWABLE FIBER STRESSES AND PROPERTIES: MODULUS OF ELASTICITY (E) 1,600,000 PSI BENDING (Fb) 1,350 PSI
- STRUCTURAL 8x12 AND 10x12 WOOD COMPONENTS ARE TO BE FULL SIZE (ROUGH SAWN) AND HAVE BEEN DESIGNED AS DF SELECT STRUCTURAL OR BETTER AND SHALL HAVE THE MINIMUM ALLOWABLE FIBER STRESSES AND PROPERTIES: MODULUS OF ELASTICITY (E) 1,600,000 PSI BENDING (Fb) 1 500 PSI SHEAR (Fv)
- WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PROTECTED OR PRESSURE TREATED IN ACCORDANCE WITH AITC-109.
- 8. MEMBER SIZES SHOWN ARE NOMINAL UNLESS NOTED OTHERWISE.
- 9. BOLTS IN WOOD ARE MACHINE BOLTS, UNLESS OTHERWISE NOTED. MACHINE BOLTS SHALL HAVE A SHANK DIAMETER WITHIN 1/4" OF THAT SPECIFIED. BOLTS ARE ASTM 307 STEEL. BOLT HOLES IN WOOD SHALL BE $\frac{1}{16}$ " OVERSIZE. WHERE STEEL IS CONNECTED TO WOOD, HOLES IN STEEL SHALL BE $\frac{1}{16}$ " OVERSIZE. PROVIDE STANDARD CUT WASHERS UNDER HEAD AND NUT WHERE BEARING IS AGAINST WOOD. WHERE STEEL SIDE PLATES ARE USED FOR CONNECTION, THE PLATE SHALL BE
- USED AS A TEMPLATE. 9.1. HOLES DRILLED IN THE FIELD THROUGH MULTIPLE TIMBER MEMBERS SHALL BE INSTALLED WITH WOODOWL ULTRA SMOOTH TRI-CUT AUGER BITS. THESE HOLES SHALL BE INSTALLED STRAIGHT AND PLUMB. REAMING-OUT HOLES TO ACCOMMODATE

MISSED BOLT ALIGNMENT IS NOT ALLOWED.

NOOD FRAMING CONNECTORS

- CONNECTOR MODEL NUMBERS SHOWN ARE "Strong-Tie" CONNECTORS AS MANUFACTURED BY "SIMPSON Strong-Tie Co.", 1450 DOOLITTLE DR., PO BOX 1568, SAN LEANDRO, CA 94577. SUBSTITUTIONS ARE ACCEPTABLE ONLY WITH THE APPROVAL OF THE STRUCTURAL
- ALL CONNECTORS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM-A653. CONNECTORS IN CONTACT WITH PRESSURE TREATED MATERIALS SHALL HAVE G-185 COATING. CONNECTORS NOT IN CONTACT WITH TREATED MATERIALS SHALL HAVE STANDARD G-60

MANUFACTURED WOOD STRUCTURAL COMPONENTS:

- MEMBERS DESIGNATED "LVL" SHALL BE LAMINATED VENEER LUMBER AS MANUFACTURED BY BOISE CASCADE CORPORATION (VERSA-LAM), TRUSS JOIST CORPORATION (MICRO-LAM), ALPINE ENGINEERED PRODUCTS (ASI-LVL), MITEK WOOD PRODUCTS (GANG-LAM LVL), ROSEBURG FOREST PRODUCTS (RIGIDLAM LVL), OR APPROVED EQUAL, AND SHALL HAVE THE FOLLOWING MINIMUM ALLOWABLE FIBER STRESSES AND PROPERTIES: MODULUS OF ELASTICITY (E) 2,000,000 PSI BENDING (Fb) 2.800 PSI
- SHEAR (Fv)

CONNECTION TO THE PILE CAPS

MICROPILE FOUNDATION: MICROPILE FOUNDATION SYSTEM SHALL BE DESIGNED BY SPECIALTY CONTRACTOR TO THE CONFIGURATION AND LOAD CARRYING CAPACITY

290 PSI

- SHOWN ON THE DRAWINGS AND THE SPECIFICATIONS MICROPILES SHALL BE DESIGN FOR A MAXIMUM VERTICAL DEFLECTION OF 0.25 inches
- SHOP DRAWINGS AND A LETTER OF CERTIFICATION SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION, AND SHOP DRAWINGS SHALL BEAR THE SIGNATURE AND SEAL OF A SOUTH DAKOTA REGISTERED PROFESSIONAL ENGINEER. SHOP DRAWINGS SHALL INDICATE THE DESIGN LOADS AND JOB NAME AND NUMBER. THEY SHALL INCLUDE DRAWINGS OF THE MICROPILES AND THE
- 4. ALTERNATE MICROPILE LAYOUTS ARE ACCEPTABLE ONLY AS A CHANGE ORDER WHICH WILL INCLUDE ENGINEERING CHARGES TO THE CONTRACTOR FOR REDESIGN FOR REVIEW PRIOR TO INSTALLATION.
- STRUCTURAL DESIGN OF ALL MICROPILE COMPONENTS ARE TO BE DONE BY MICROPILE CONTRACTOR. STRUCTURAL DESIGN TO BE COMPLETED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF SOUTH DAKOTA. PROFESSIONAL ENGINEER(S), OR SOMEONE WORKING UNDER THEIR DIRECT SUPERVISION SHALL MAKE PERIODIC OBSERVATIONS DURING THE INSTALLATION OF THE MICROPILES TO VERIFY THAT INSTALLATION IS IN CONFORMANCE WITH THEIR SEALED DOCUMENTS. A MINIMUM OF TWO SEPARATE OBSERVATIONS SHALL BE MADE BY SUCH PARTY. COST FOR SUCH PROFESSIONAL ENGINEER(S) OF SOMEONE WORKING UNDER THEIR DIRECT SUPERVISION TO BE PAID BY CONTRACTOR. ANY AND ALL DEFICIENT ITEMS SHALL BE RECORDED BY THE PROFESSIONAL ENGINEER AND ITEMS SHALL BE CORRECTED AND CORRECTIONS VERIFIED BY THE PROFESSIONAL ENGINEER(S) FOR THE MICROPILE CONTRACTOR. PROFESSIONAL ENGINEER(S) FOR MICROPILE CONTRACTOR SHALL CERTIFY THAT INSTALLATION IS IN CONFORMANCE WITH THEIR DESIGN DOCUMENTS AT THE COMPLETION OF THEIR WORK. PROFESSIONAL ENGINEER(S) FOR MICROPILE CONTRACTOR SHALL PROVIDE CERTIFICATION AND WRITTEN OBSERVATION REPORTS FOR EVERY VISIT MADE TO THE ARCHITECT. OBSERVATION REPORTS SHALL BE GIVEN TO ARCHITECT WITHIN 3
- FOR THE PURPOSES OF THIS STRUCTURAL NOTES SECTION, ALL OF THE FIELD OBSERVATION WORK DESCRIBED TO BE PERFORMED BY PROFESSIONAL ENGINEER RESPONSIBLE FOR DESIGN OF MICRO PILES OR SOMEONE WORKING UNDER HIS/HER DIRECT SUPERVISION, ALL OBSERVATION REPORTS TO BE SIGNED BY PERSON WHO MADE OBSERVATION AND PROFESSIONAL ENGINEER RESPONSIBLE FOR THE

WORKING DAYS OF THE VISIT TO THE SITE

SE-001 STRUCTURAL NOTES XX"Ø X XX'-X"/XX'-X" CUT SECTION SHEAR WALL PIER TAG CALLOUT INDICATOR FOOTING INDICATOR INDICATOR IDENTIFIER NORTH ____ REF - / ---PLAN NORTH ORIENTED 90' ELEVATION TO THE SHEET W/ MAGNETIC MATCH LINE INDICATOR INDICATOR NORTH (OPTIONAL) (XXX'-XX") REVISION FOOTING/PIER INDICATOR(S) INDICATOR(S) IDENTIFIER SYMBOL IDENTIFIER / XN 20GA TYPE 'W3' MTL DECK \sqrt{XXNNN} \XXNNN. XXNNN/ DECK INDICATOR EXT ELEVATION DETAIL BUBBLE INDICATOR INDICATOR XXX' - XX" COLUMN/FND SLAB JOINT ELEVATION INDICATOR GRID INDICATOR INDICATOR INDICATOR SCALE: FULL DETAIL/SECTION/PLAN **BLOCK TITLE INDICATOR** (MC-x)CORNER REINF MASONRY PIER REINFORCING INDICATOR INDICATOR INDICATOR IDENTIFIER INDICATOR **ROOF SLOPE** INDICATOR INDICATOR INDICATOR INDICATOR INDICATOR CONTINUOUS STEP STEP TOP OF ASTERISK BEAM INDICATOR INDICATOR INDICATOR WALL INDICATOR INDICATOR

SYMBOLS LEGEND

COLD FORMED LIGHT GAGE STRUCTURAL STEEL:

AND BOTTOM RUNNER TRACKS.

- 1. STEEL STUD, TRACK AND LINTEL MEMBERS SHALL BE OF THE TYPE SHOWN ON THE DRAWINGS AND IN THE SPECIFICATIONS AND SHALL CONFORM TO ASTM A653 STRUCTURAL QUALITY GRADE 33 FOR 18 GAUGE THICKNESS OR LESS, ASTM A653 STRUCTURAL QUALITY GRADE 50 CLASS 1 FOR 16 GAUGE OR GREATER. MEMBERS SHALL HAVE HOT
- DIPPED GALVANIZED COATING CONFORMING TO ASTM A924, CLASS G60. 2. ALL FRAMING MEMBERS SHALL BE CUT SQUARELY OR AT AN ANGLE AS REQUIRED TO FIT SQUARELY AGAINST ABUTTING MEMBERS. MEMBERS
- 3. JOINING OF STRUCTURAL MEMBERS SHALL BE MADE WITH

SHALL BE HELD FIRMLY IN PLACE UNTIL PROPERLY JOINED.

SELF-DRILLING SCREWS OR WELDED. WIRE TYING OF FRAMING MEMBERS IN STRUCTURAL APPLICATIONS SHALL NOT BE PERMITTED. 4. ATTACHMENT OF COLLATERAL MATERIALS TO STEEL MEMBERS SHALL BE MADE WITH SELF-DRILLING SCREWS OR HARDENED SCREW SHANK

NAILS. METAL LATH MAY ALSO BE CONNECTED TO STEEL BY STAPLES

OR OTHER FASTENERS, IF APPROVED BY LOCAL BUILDING CODES. 5. STUDS SHALL SIT SQUARELY IN THE TOP AND BOTTOM RUNNER TRACK WITH ABUTMENT AGAINST TRACK WEBS. STUDS SHALL BE ALIGNED OR PLUMBED AND SECURELY FASTENED TO THE FLANGES OF BOTH TOP

DELEGATED DESIGN - RESPONSIBILITIES AND SUBMITTAL REQUIREMENTS FOR

- 1. IF PROFESSIONAL DESIGN SERVICES OR CERTIFICATIONS BY A DESIGN PROFESSIONAL RELATED TO SYSTEMS, MATERIALS, OR EQUIPMENT ARE SPECIFICALLY REQUIRED OF THE CONTRACTOR BY THE CONTRACT DOCUMENTS; THE ARCHITECT AND/OR ALBERTSON ENGINEERING, INC. WILL SPECIFY THE PERFORMANCE AND DESIGN CRITERIA THAT SUCH
- SERVICES MUST SATISFY WITHIN THE CONTRACT DOCUMENTS. 2. THE CONTRACTOR SHALL BE ENTITLED TO RELY UPON THE ADEQUACY AND ACCURACY OF THE PERFORMANCE AND DESIGN CRITERIA PROVIDED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL CAUSE SUCH SERVICES OR CERTIFICATIONS TO BE PROVIDED BY AN APPROPRIATELY LICENSED DESIGN PROFESSIONAL"SPECIALTY ENGINEER", WHOSE SIGNATURE AND SEAL SHALL APPEAR ON ALL DRAWINGS, CALCULATIONS,
- 3. SHOP DRAWINGS AND OTHER SUBMITTALS RELATED TO THE WORK, DESIGNED OR CERTIFIED BY THE "SPECIALTY ENGINEER" SHALL BEAR THE "SPECIALTY ENGINEER'S" WRITTEN APPROVAL AND CONFIRMATION THAT SUCH WORK COMPLIES WITH ALL APPLICABLE CODES AND THE DESIGN CRITERIA WHEN SUBMITTED TO THE ARCHITECT AND/OR ALBERTSON ENGINEERING, INC.

4. THE OWNER, ARCHITECT, AND ALBERTSON ENGINEERING, INC. SHALL BE

SERVICES, CERTIFICATIONS, AND APPROVALS PERFORMED OR PROVIDED

PURPOSE OF CHECKING FOR CONFORMANCE WITH INFORMATION GIVEN

ENTITLED TO RELY UPON THE ADEQUACY AND ACCURACY OF THE

SPECIFICATIONS, CERTIFICATIONS, SHOP DRAWINGS, AND OTHER

SUBMITTALS PREPARED BY THE "SPECIALTY ENGINEER".

- BY SUCH DESIGN PROFESSIONALS, PROVIDED THE CONTRACT DOCUMENTS HAVE SPECIFIED TO THE CONTRACTOR THE PERFORMANCE AND DESIGN CRITERIA THAT SUCH SERVICES MUST SATISFY. 5. ARCHITECT AND/OR ALBERTSON ENGINEERING, INC. WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON SUBMITTALS ONLY FOR THE LIMITED
- AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS. 6. ALL SHOP DRAWINGS SUBMITTED FOR APPROVAL FOR WHICH PROFESSIONAL DESIGN SERVICES OR CERTIFICATIONS BY A DESIGN PROFESSIONAL RELATED TO SYSTEMS, MATERIALS, OR EQUIPMENT ARE TO BE COMPLETED TO A LEVEL SUCH THAT THE OWNER, ARCHITECT, AND ALBERTSON ENGINEERING, INC. SHALL BE ENTITLED TO RELY UPON THE ADEQUACY AND ACCURACY OF THE SERVICES, CERTIFICATIONS, AND APPROVALS SUBMITTED. THE "SPECIALTY ENGINEER" SHALL COMPLETE WORK WITH ACCEPTANCE THAT ALBERTSON ENGINEERING, INC. WILL NOT UNDERTAKE A REVIEW OF THE "SPECIALTY ENGINEER'S" CALCULATIONS AND SUBMITTALS AND THE "SPECIALTY ENGINEER" ACKNOWLEDGES THA THEY ARE SOLELY RESPONSIBLE FOR THE DELEGATED DESIGN WORK CERTIFIED BELOW AND ARE NOT RELYING UPON ALBERTSON

ENGINEERING, INC. FOR ANY REVIEW.

THESE PROVISIONS ARE CONTRACTED REQUIREMENTS FOR SAID PROJECT AND THE "SPECIALTY ENGINEER" IS BOUND BY THESE PROVISIONS.

BID DOCUMENTS

SE-002 INSPECTION TABLES BUILDING BASEMENT DEMOLITION PLAN SD-102 BUILDING FIRST FLOOR DEMOLITION PLAN BUILDING SECOND FLOOR DEMOLITION PLAN BUILDING ATTIC DEMOLITION PLAN BUILDING ROOF DEMOLITION PLAN BUILDING BASEMENT FOUNDATION PLAN BUILDING FIRST FLOOR FRAMING PLAN BUILDING SECOND FLOOR FRAMING PLAN BUILDING ATTIC FRAMING PLAN SE-105 BUILDING ROOF FRAMING PLAN FIRST FLOOR PORCH FRAMING PLAN SE-112 SECOND FLOOR PORCH FRAMING PLAN SE-201 PORCH DEMOLITION & REPLACEMENT PHOTOGRAPHS SE-202 PORCH DEMOLITION & REPLACEMENT PHOTOGRAPHS PORCH DEMOLITION & REPLACEMENT PHOTOGRAPHS MISCELLANEOUS ANNOTATED PORCH PHOTOGRAPHS SE-501 BUILDING DETAILS SE-502 BUILDING DETAILS BUILDING DETAILS SE-504 BUILDING DETAILS BUILDING DETAILS PORCH DETAILS PORCH DETAILS TEMPORARY SHORING POSTS & DETAILS TYPICAL DETAILS & SCHEDULES SHEET IDENTIFICATION

CHARACTER - NUMBER 01-99 MODIFIER CHARACTER

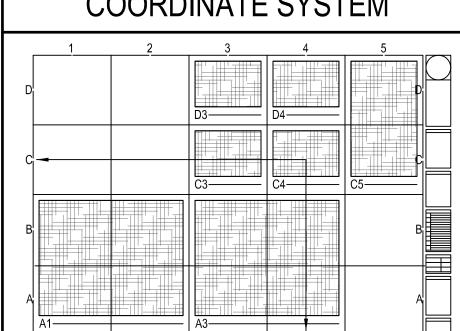
STRUCTURAL SHEET INDEX

SHEET TYPE DESIGNATORS

- GENERAL (SYMBOLS LEGEND, NOTES, ETC) PLANS (HORIZONTAL VIEWS)
- ELEVATIONS (VERTICAL VIEWS) SECTIONS (SECTIONAL VIEWS) LARGE SCALE VIEWS (PLANS, ELEV, OR SECTIONS, NOT DETAILS)
- S SCHEDULES AND DIAGRAMS ' USER DEFINED

USER DEFINED

9 3D REPRESENTATIONS (ISOMETRICS, PERSPECTIVES, PHOTOGRAPHS) **COORDINATE SYSTEM**



BID DOCUMENTS

|ISSUE # | DESCRIPTION

VA FORM 08 - 6231

CONSULTANTS STRUCTURAL 605-343-9606 06/03/2025

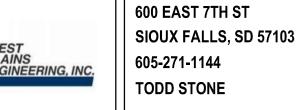
DATE

ALBERTSON ENGINEERING, INC. 3202 W. MAIN ST., #C RAPID CITY, SD 57702 STEPHEN KILBER

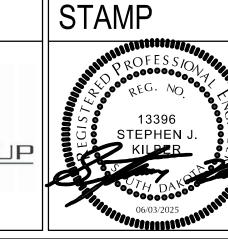
Albertson Engineering Inc.

WEST PLAINS ENGINEERING, INC. 1750 RAND ROAD RAPID CITY, SD 57702 605-348-7455 MIKE SIGMAN (ELEC) MICHAEL HEINRICH (MECH)











Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title

STRUCTURAL NOTES

DOUG SPRINKLE

FULLY SPRINKLERED 06/03/2025

Project Title Project Number VA #568A4-21-208 DOM RENOVATION FOR SGA 211921 SEMIPRIVATE ROOMS **Building Number Drawing Number** HOT SPRINGS, SOUTH DAKOTA SE-001 Checked Drawn MDA SJK