

REINFORCING STEEL:

- REINFORCING STEEL SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE TO "ACI 318 — BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND "ACI 315—MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES."
- ALL REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS AND GRADES UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS:
 - SMOOTH WELDED WIRE FABRIC—ASTM A185
 - ALL OTHER REINFORCEMENT—ASTM A615, GRADE 60
- REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706. WELDING OF REINFORCING STEEL SHALL CONFORM TO AWS D1.4. ALL WELDING SHALL BE DONE BY AWS CERTIFIED WELDERS USING LOW HYDROGEN E70XX ELECTRODES.
- REINFORCING STEEL SHALL BE SECURELY TIED IN-PLACE WITH #16 ANNEALED IRON WIRE. BARS IN BEAMS, SLABS, AND FOUNDATIONS SHALL BE SUPPORTED ON WELL-CURED CONCRETE BLOCKS, OR APPROVED METAL CHAIRS, AS SPECIFIED BY THE "CRSI MANUAL OF STANDARD PRACTICE," MSP-1.
- ALL REINFORCEMENT SHALL BE FREE OF LOOSE MILL AND RUST SCALE, OIL, DIRT, OR COATINGS OF ANY KIND THAT REDUCE THE BOND STRENGTH TO THE CONCRETE.
- REINFORCEMENT STEEL SHALL NOT BE DISPLACED OR ALTERED FOR THE CONVENIENCE OF OTHER TRADES UNLESS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.
- "WET SETTING" OF REINFORCING STEEL, ANCHOR RODS, EMBEDDED PLATES AND INSERTS IS NOT PERMITTED.
- ALL REINFORCEMENT SHALL BE CONTINUOUS WITH ADEQUATE LAP LENGTHS AT SPLICE LOCATIONS.
- THE FOLLOWING MINIMUM LAP SPLICE LENGTHS SHALL BE PROVIDED FOR ALL REINFORCING STEEL:

TYPICAL LAP SPLICE SCHEDULE (IN)						
BAR SIZE	4,000 PSI		4,500 PSI		5,000 PSI	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	16	16	16	16	16	16
#4	20	16	19	16	19	16
#5	25	20	24	19	23	17
#6	30	24	28	23	26	21
#7	49	38	46	36	43	34
#8	62	47	58	45	55	42
#9	76	58	71	55	68	52
#10	91	71	86	67	82	64
#11	110	85	103	80	98	76

- FOR CENTER-TO-CENTER SPACING LESS THAN SHOWN BELOW MULTIPLY THE ABOVE VALUES BY THE FACTOR INDICATED:

BAR	SPACING	FACTOR
#3	< 1.875"	1.5
#4	< 2.500"	1.7
#5	< 3.125"	2.0
#6	< 3.750"	2.2
#7	< 3.875"	2.1
#8	< 4.000"	2.0
#9	< 4.125"	1.9
#10	< 4.375"	1.7
#11	< 4.500"	1.6
 - TABLE VALUES APPLY FOR CLEAR COVER GREATER THAN OR EQUAL TO 1-1/2". CONTACT ENGINEER OF RECORD IF CONDITIONS VARY.
 - TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BAR.
 - VALUES ARE FOR UNCOATED BARS.
10. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR ALL REINFORCING STEEL:

MINIMUM CONCRETE COVER (CAST-IN-PLACE)	
USE	CLEAR COVER
FORMED CONCRETE SURFACES IN CONTACT W/ EARTH OR EXPOSED TO WEATHER	2" CLEAR COVER
SLAB-ON-GRADE BARS	1.5" CLEAR COVER TO TIES
CONCRETE CAST AGAINST EARTH	2" CLEAR COVER FROM TOP OF SLAB
	3"

- CONTINUE HORIZONTAL WALL BARS THROUGH PILASTERS, COLUMNS AND INTERSECTING WALLS.
- PROVIDE HOOKED FOOTING DOWELS OF THE SAME SIZE AND SPACING AS THE VERTICAL WALL REINFORCEMENT. LAP SPLICE DOWELS TO THE VERTICAL WALL REINFORCEMENT AND TERMINATE WITH STANDARD 90 DEGREE HOOK INTO THE FOOTING. HOOK SHALL LAY IN-PLANE WITH BOTTOM REINFORCEMENT.
- AT SLAB AND WALL OPENINGS, PROVIDE A MINIMUM OF TWO #5 BARS OVER, UNDER, AND AT THE SIDES OF THE OPENING. EXTEND THESE BARS A LAP DISTANCE (OR A MINIMUM OF 2'-0") PAST THE OPENING ON ALL SIDES.
- PROVIDE ONE #5 FOR SINGLE LAYER, AND TWO #5 FOR DOUBLE LAYER REINFORCING, 4'-0" LONG, DIAGONALLY AT EACH CORNER OF ALL WALL AND SLAB OPENINGS.
- REFERENCE TYPICAL DETAILS FOR THE DISPOSITION OF REINFORCEMENT AT WALL CORNERS, WALL INTERSECTIONS, AND FOR BARS IN SMALL WALL SECTIONS.
- PROVIDE #5 CARRIER BAR AT 3'-0" MAX SPACING FOR ALL SLAB, JOIST, AND WALL REINFORCING NOT SUPPORTED BY OTHER TRANSVERSE REINFORCEMENT.
- PROVIDE CORNER BARS AT CORNERS AND INTERSECTIONS FOR WALLS AND FOUNDATIONS EQUAL IN SIZE, NUMBER, AND SPACING TO HORIZONTAL REINFORCING. SIZE CORNER BARS TO PROVIDE A FULL LAP WITH HORIZONTAL REINFORCEMENT ON EACH LEG.

CONCRETE ACCESSORIES:

- DEFORMED BAR ANCHORS (D.B.A.) SHALL BE NELSON TYPE D2L (ICC ESR-2907) OR APPROVED EQUAL.
- HEADED SHEAR STUDS SHALL BE NELSON HEADED ANCHORS WITH FLUXED ENDS (ICC ESR-2856) OR APPROVED EQUAL.
- HEADED SHEAR STUDS AND DEFORMED BAR ANCHORS SHALL BE AUTOMATICALLY END-WELDED WITH THE MANUFACTURER'S STANDARD EQUIPMENT AND IN ACCORDANCE WITH THE ASSOCIATED ICC REPORTS.
- PERMANENTLY EXPOSED EMBEDDED PLATES AND ANGLES SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION. EMBEDDED ITEMS SHALL NOT BE LOADED, NOR SHALL WELDS BE APPLIED, FOR A MINIMUM OF 7-DAYS AFTER CASTING OF CONCRETE.
- APPROVED POST-INSTALLED ANCHORS ARE AS FOLLOWS:

APPROVED POST-INSTALLED CONCRETE ANCHORS		
TYPE	ANCHOR	ICC REPORT
CONCRETE SCREW	SIMPSON TITEN HD	ICC ESR-2713
	HILTI KWIK HUS-EZ	ICC ESR-3027
EPOXY ADHESIVE	SIMPSON SET-XP	ICC ESR-2508
	HILTI HIT-RE 500V3	ICC ESR-2322
EXPANSION	SIMPSON STRONG-BOLT II	ICC ESR-3814
	HILTI KWIK BOLT TZ	ICC ESR-1917

- ALL ANCHORS SHALL BE INSTALLED IN STRICT CONFORMANCE TO THE APPLICABLE ICC REPORT.
- REINFORCEMENT SHALL NOT BE CUT IN NEW, OR EXISTING CONCRETE DURING INSTALLATION OF POST-INSTALLED ANCHORS.
- ANCHORS THAT ARE LEFT EXPOSED TO WEATHER SHALL BE STAINLESS STEEL OR HOT-DIPPED GALVANIZED.

EPOXY REPAIR ADHESIVE:

- EPOXY REPAIR ADHESIVE SHALL CONFORM TO ASTM C881 AND SHALL BE A TWO-COMPONENT, LIQUID EPOXY WITH NON-SAG CONSISTENCY AND LONG POT LIFE. THE EPOXY ADHESIVE SHALL BE SUITABLE FOR USE ON DRY OR DAMP SURFACES.
 - 14 DAY BOND STRENGTH (SLANT SHEAR) = 1690 PSI
 - 7 DAY TENSILE STRENGTH = 7150 PSI
 - 7 DAY COMPRESSIVE STRENGTH = 12000 PSI
 - LINEAR COEFFICIENT OF SHRINKAGE = 0.008 (MAX VALUE)
- ADHESIVE SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
 - 14 DAY BOND STRENGTH (SLANT SHEAR) = 1690 PSI
 - 7 DAY TENSILE STRENGTH = 7150 PSI
 - 7 DAY COMPRESSIVE STRENGTH = 12000 PSI
 - LINEAR COEFFICIENT OF SHRINKAGE = 0.008 (MAX VALUE)
- HOLE SIZES AND INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND THE REQUIREMENTS SET FORTH IN THE APPROVED ICC EVALUATION REPORT.
- REINFORCEMENT SHALL NOT BE CUT OR DAMAGED IN EITHER NEW OR EXISTING CONCRETE DURING INSTALLATION.

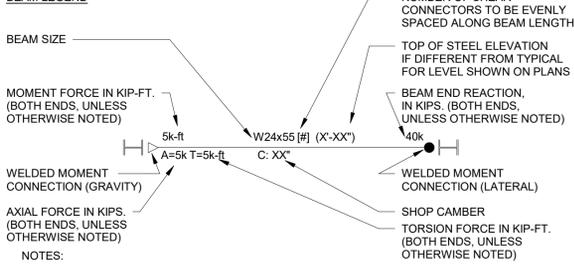
STRUCTURAL STEEL:

STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING MINIMUM ASTM SPECIFICATIONS AND GRADES:

STRUCTURAL STEEL	
WIDE FLANGE SECTIONS	ASTM A-992, GRADE 50 (Fy=50 KSI)
PLATES WHERE NOTED	ASTM A572, GRADE 50 (Fy=50 KSI)
CHANNELS, ANGLES, PLATES—EXCEPT AS NOTED	ASTM A-36 (Fy=36 KSI)
HOLLOW STRUCTURAL SECTIONS (TUBES)	A-500, GR. C (Fy=50 KSI FOR RECT, Fy=46 KSI FOR ROUND)
PIPE	ASTM A53, TYPE E OR S (Fy=35 KSI)

- DESIGN, FABRICATION, AND ERECTION SHALL BE IN ACCORDANCE WITH THE "AISC SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL BUILDINGS" WITH "COMMENTARY" AND THE "CODE OF STANDARD PRACTICE," WITH EXCEPTIONS AS NOTED IN THE PROJECT SPECIFICATIONS.
- DESIGN AND DETAILING OF THE CONNECTIONS IS THE RESPONSIBILITY OF THE FABRICATOR AND FABRICATOR'S ENGINEER. ENGINEER SHALL BE REGISTERED IN THE LOCAL JURISDICTION. USE RATIONAL ENGINEERING DESIGN AND STANDARD PRACTICE FOR THE CRITERIA SET FORTH IN THE CONTRACT DOCUMENTS. THE DETAILS SHOWN ON THE DRAWINGS ARE CONCEPTUAL AND DO NOT INDICATE THE REQUIRED WELD SIZES OR NUMBER OF BOLTS UNLESS SPECIFICALLY NOTED.
- BOLTS SHALL CONFORM TO THE ASTM AND RCSC SPECIFICATIONS FOR JOINTS USING A325 OR A490 HIGH STRENGTH BOLTS. BOLTS SHALL BE SNUG TIGHT UNLESS NOTED OTHERWISE.
- WELDING SHALL CONFORM TO THE AWS CODES FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH A WELDED PROCEDURE SPECIFICATION (WPS) AS REQUIRED IN AWS D1.1 AND APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. THE WPS VARIABLES SHALL BE WITHIN THE PARAMETERS ESTABLISHED BY THE FILLER-METAL MANUFACTURER.
- FOR COMPLETE JOINT PENETRATION WELDS ASSOCIATED WITH MEMBER SPLICES AND CONNECTIONS NOT PART OF THE SLRS, WELDS SHALL BE MADE WITH FILLER METAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT 40 DEGREES F.
- WELDS SHALL BE MADE USING E70XX ELECTRODES AND SHALL BE 3/16" MINIMUM, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE BETWEEN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS TO PRODUCE THE SHOP DRAWINGS.
- PROVIDE NON-SHRINK GROUT UNDER ALL BASE PLATES. GROUT SHALL BE FACTORY-PACKAGED, 6000 PSI MINIMUM AT 28 DAYS AND SHALL COMPLY WITH ASTM C 1107.
- PROVIDE WEEP HOLES AT ALL EXTERIOR CLOSED SECTIONS WHERE MOISTURE MAY ACCUMULATE.

BEAM LEGEND



- NOTES:
- SHEAR REACTIONS, MOMENT REACTIONS, AXIAL FORCES, AND TORSION FORCES NOTED ON DRAWINGS REPRESENT THE CONTROLLING ASD COMBINATION.
 - PROVIDE FULL BEAM MOMENT CAPACITY IF MOMENT REACTION IS NOT NOTED ON DRAWINGS.
 - PROVIDE SHEAR REACTION CAPACITY EQUAL TO 50% UDL IF SHEAR REACTION IS NOT NOTED ON DRAWINGS.

STEEL DECK

- STEEL DECK SHALL CONFORM TO THE MOST RECENT EDITION "SPECIFICATION FOR DESIGN OF LIGHT GAGE COLD-FORMED STRUCTURAL MEMBERS (AISI)", "SPECIFICATION FOR STRUCTURAL STEEL FOR BUILDINGS (AISC 360)", "STRUCTURAL WELDING CODE - STEEL (AWS D1.1)", AND "STRUCTURAL WELDING CODE - SHEET STEEL (AWS D1.3)".
- STEEL DECK CROSS SECTIONS ARE ONLY REPRESENTED DIAGRAMMATICALLY ON THE DRAWINGS.
- STEEL DECK FLOOR PANELS SHALL BE COMPOSITE PANELS FORMED FROM STEEL SHEETS CONFORMING TO ASTM A1008 OR A653, Fy = 33 KSI. ROOF DECK SHALL CONFORM TO ASTM A653, Fy = 33 KSI, AND SHALL BE GALVANIZED CONFORMING TO ASTM A924 WITH A G60 COATING.
- SUBMIT SIGNED AND SEALED SHOP DRAWINGS INDICATING LOCATION, GAGE AND SIZE OF EACH PIECE OF DECKING. CLEARLY SHOW ATTACHMENT DETAILS TO STRUCTURAL FRAMING, SIDE LAP CONNECTION DETAILS, LOCATION OF SHORING AND SUPPLEMENTARY SUPPORT STEEL AS REQUIRED.
- DECK FASTENERS SHALL BE MECHANICAL FASTENERS AS NOTED ON S102, S103, AND S600. REFER TO MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
- PROVIDE SHEET METAL CLOSURES AT ALL OPENINGS AND EDGES AND CONTINUOUS DECK CLOSURES AT ALL DECK ENDS. PROVIDE COLUMN CLOSURES, RIDGE AND VALLEY PLATES, CANT STRIPS, RECESSED DRAIN SUMP PANS, ETC. PROVIDE SUPPLEMENTAL FRAMING AT OPENINGS AS REQUIRED FOR SUPPORT OF STEEL DECK.
- PLACE STEEL DECK OVER A MINIMUM OF TWO (2) SPANS IN THE DIRECTION INDICATED; USE SINGLE SPANS ONLY WHERE REQUIRED BY FRAMING GEOMETRY.
- THE ASSUMED CONSTRUCTION LIVE LOAD USED IN FLOOR DECK DESIGN IS A 20 PSF UNIFORM LOAD OR A 150-POUND CONCENTRATED LOAD ON A 1'-0" WIDE SECTION OF DECK (ROOF DECK IS 30 PSF UNIFORM, 200-POUND CONCENTRATED). DO NOT EXCEED THE ASSUMED CONSTRUCTION DESIGN LIVE LOAD WITHOUT FIRST TAKING PROPER SAFETY PRECAUTIONS, INCLUDING TEMPORARY SHORING. FOLLOW ALL APPLICABLE LOCAL AND AISI REQUIREMENTS.
- DECK IS NOT DESIGNED FOR ANY HANGING LOADS. HANG ALL DUCTWORK, PIPING, ETC. DIRECTLY FROM STRUCTURAL STEEL WORK OR SUPPLEMENTAL MEMBERS. CONSULT EOR IF HANGING OF LOADS IS DESIRED.
- ALL ROOF OPENINGS LARGER THAN 12' X 12' SHALL BE FRAMED ON FOUR SIDES. REFER TO DETAILS.
- SHEAR CONNECTORS SHALL CONFORM TO THE MOST RECENT EDITION OF "SPECIFICATION FOR STRUCTURAL STEEL FOR BUILDINGS (AISC 360)", ASTM A108 AND AWS D1.1.
- THE NUMBER OF SHEAR CONNECTORS PER BEAM IS NOTED ON THE DRAWINGS. FOR UNIFORMLY LOADED BEAMS, SHEAR CONNECTORS SHALL BE SPACED EVENLY ALONG THE BEAM, STARTING AT THE ENDS AND WORKING TOWARDS MIDSPAN. FOR GIRDERS, PLACEMENTS IF NON-UNIFORM ARE NOTED ON PLANS.
- DETAILING REQUIREMENTS FOR SHEAR CONNECTORS SHALL BE PER AISC 360, CHAPTER I.

CONCRETE MASONRY:

- DESIGN OF CONCRETE UNIT MASONRY SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF TMS 402 "BUILDING CODE FOR MASONRY STRUCTURES".
- CONSTRUCTION OF CONCRETE UNIT MASONRY SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF TMS 602 "SPECIFICATION FOR MASONRY STRUCTURES".
- ALL REINFORCED CONCRETE MASONRY UNIT SYSTEMS SHALL BE INSPECTED IN ACCORDANCE WITH THE SPECIAL INSPECTION SCHEDULE PROVIDED.
- CONCRETE MASONRY UNITS SHALL CONFORM TO C90 AND SHALL BE NORMAL WEIGHT UNITS.
- COMPRESSIVE STRENGTH OF MASONRY SHALL BE DETERMINED BY THE UNIT STRENGTH METHOD AS SET FORTH IN TMS 602. THE NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY (f_m) SHALL BE 2000 PSI AT 28 DAYS.
- MORTAR SHALL COMPLY WITH ASTM C270. MORTAR FOR CMU IN EXTERIOR BUILDING WALLS, BEARING WALLS, SHEAR WALLS AND MASONRY IN CONTACT WITH THE EARTH SHALL BE PORTLAND CEMENT/LIME MIX, TYPE M OR S. TYPE N MORTAR MAY BE USED FOR ALL OTHER APPLICATIONS.
- GROUT SHALL COMPLY WITH ASTM C476. THIS MIX SHALL CONTAIN NO ADMIXTURES. GROUT SHALL BE MIXED TO A SLUMP OF 8 TO 11 INCHES AS DETERMINED BY TEST METHOD C143. ALL GROUT SHALL BE FINE GROUT. THE MINIMUM 28 DAY COMPRESSIVE STRENGTH OF GROUT SHALL EQUAL OR EXCEED f_m. THE COMPRESSIVE STRENGTH OF GROUT SHALL BE DETERMINED IN ACCORDANCE WITH ASTM C1019.
- STEEL REINFORCING BARS SHALL COMPLY WITH ASTM A615 GRADE 60. SHOP FABRICATE REINFORCING BARS WHICH ARE SHOWN TO BE BENT OR HOOKED.
- ALL BOND BEAMS, REINFORCED CELLS, AND CELLS WITH EXPANSION BOLTS, EMBED PLATES, OR OTHER ANCHORS, AND ALL CELLS BELOW GRADE SHALL BE GROUTED SOLID. GROUT PROCEDURE SHALL COMPLY WITH TMS 602.
- WIRE JOINT REINFORCEMENT, TIES AND ANCHORS SHALL COMPLY WITH ASTM A82. SHEET STEEL TIES AND ANCHORS SHALL COMPLY WITH ASTM A366. ALL MASONRY ACCESSORIES SHALL BE CORROSION RESISTANT.
- SUBMIT SHOP DRAWINGS INDICATING SIZE, LOCATION, AND DIMENSIONS OF REINFORCING STEEL FOR ALL REINFORCED MASONRY WALLS.
- PROVIDE REINFORCING STEEL DOWELS OF THE SAME SIZE AND SPACING AS THE VERTICAL REINFORCING FROM THE SUPPORTING STRUCTURE. DOWELS SHALL HAVE STANDARD HOOKS IN ACCORDANCE WITH ACI 318.
- REINFORCED CONCRETE MASONRY WALLS SHALL HAVE HORIZONTAL JOINT REINFORCING SPACED AT 16" OC AND IN TWO JOINTS IMMEDIATELY ABOVE AND BELOW ALL OPENINGS, EXTENDING A MINIMUM OF 2 FEET BEYOND THE JAMB ON EACH SIDE OF THE OPENINGS, IN ADDITION TO THE REINFORCING SHOWN ON THE DETAIL DRAWINGS. ALL REINFORCING INCLUDING BOND BEAMS SHALL BREAK AT CONTROL JOINTS, EXCEPT THE TOP MOST BOND BEAM WHICH SHALL BE CONTINUOUS IN EVERY WALL.
- PROVIDE 2-COURSE SOLID MASONRY BEARING FOR LOOSE LINTELS.
- USE LOW LIFT GROUTING TECHNIQUE. PLACE GROUT IN LIFTS UP TO 5' - 4". CONSOLIDATE GROUT AT THE TIME OF PLACEMENT. POURS UP TO 12" MAY BE CONSOLIDATED BY PUDDLING. POURS OVER 12" SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION.
- DO NOT APPLY UNIFORM FLOOR OR ROOF LOADING FOR AT LEAST 12 HOURS AFTER BUILDING MASONRY WALLS OR COLUMNS. DO NOT APPLY CONCENTRATED LOADS FOR AT LEAST 3 DAYS.
- REMOVE GROUT OR MORTAR ON FACE OF MASONRY IMMEDIATELY. KEEP CAVITIES FREE FROM MORTAR DROPPINGS.
- PROVIDE MASONRY WALL CLIPS AT THE TOP OF MASONRY WALLS WHERE INDICATED ON FRAMING PLANS.
- PROVIDE SHORING FOR ALL HUNG AND LOOSE STEEL LINTELS. SHORE AFTER LINTEL HAS BEEN ADJUSTED AND BEFORE MASONRY HAS BEEN PLACED. MASONRY LINTELS ARE TO BE BUILT ON SHORED SUPPORTS. SHORING TO REMAIN IN PLACE FOR A MINIMUM OF THREE (3) DAYS AFTER MASONRY OVER LINTEL IS COMPLETE.
- PROTECT MASONRY FROM FREEZING WHEN AIR TEMPERATURE IS 40 DEGREES F AND FALLING. REFER TO TMS 602 FOR COLD WEATHER CONSTRUCTION REQUIREMENTS.
- PROTECT MASONRY FROM EXCESSIVE HEAT WHEN AIR TEMPERATURE IS 100°F AND RISING. REFER TO TMS 602 FOR HOT WEATHER CONSTRUCTION REQUIREMENTS.
- HOT ROLLED STEEL ITEMS EMBEDDED IN MASONRY WALLS, INCLUDING STEEL LINTELS, ARE FURNISHED BY THE STEEL CONTRACTOR AND INSTALLED BY THE MASONRY CONTRACTOR, UNLESS DIRECTED OTHERWISE BY THE GENERAL CONTRACTOR. WALL REINFORCING AND TIES ARE FURNISHED AND INSTALLED BY THE MASONRY CONTRACTOR.
- PROVIDE PLASTIC BAR POSITIONING DEVICES FOR ALL VERTICAL MASONRY REINFORCING BARS, TO ASSURE THAT BARS ARE FIRMLY HELD IN POSITION IN THE MIDDLE OF BLOCK CELLS. SPACE AT A MAXIMUM OF 4'-0" OC VERTICAL.
- PROVIDE VERTICAL REINFORCING BARS AS INDICATED ON DRAWINGS, AND 1-#5 VERT IN FULLY GROUTED CELLS WITHIN 16" OF AN OPENING OR CORNER, AT ALL CORNERS, DOOR JAMBS AND OTHER OPENINGS. EXTEND REINFORCING AT JAMBS AND OPENINGS A MINIMUM OF 3'-0" PAST TOP OF OPENING.
- PROVIDE CONTROL JOINTS IN CMU WALLS AS SHOWN ON STRUCTURAL ELEVATIONS, SHEET S200 AND S201.
- LAP ALL REINFORCING BARS AS FOLLOWS:

BAR SIZE	LAP LENGTH FOR 8" CMU WITH REINFORCEMENT CENTERED		
	2000 PSI	2500 PSI	3000 PSI
4	13"	12"	12"
5	20"	18"	16"
6	38"	34"	31"
7	52"	47"	42"
8	79"	71"	65"
9	103"	92"	84"

BAR SIZE	LAP LENGTH FOR 12" CMU WITH REINFORCEMENT CENTERED		
	2000 PSI	2500 PSI	3000 PSI
4	12"	12"	12"
5	13"	12"	12"
6	24"	21"	20"
7	33"	29"	27"
8	50"	45"	41"
9	64"	57"	52"

DATE: 06.19.2023
 DRAWN BY: ENK
 SCALE: 1/2" = 1'-0"
 REVIEWED BY: CAM
 PROJECT NO.: 21-2343
 FILE:



NO.	DATE	REVISIONS	
		DESCRIPTION	

PORT EWEN FIRE HOUSE
 PORT EWEN
 FIRE DEPARTMENT
 ULSTER, NEW YORK

GENERAL STRUCTURAL NOTES

BID SET

SHEET:
S002

WARNING: IT IS A VIOLATION OF NEW YORK EDUCATION LAW SECTION 7209.2, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.