

GENERAL NOTES:

1. GENERAL:

THE CONTRACTOR SHALL CORRELATE ALL DIMENSIONS BETWEEN THE STRUCTURAL AND RELATED ARCHITECTURAL, MECHANICAL, ELECTRICAL & CIVIL PLANS BEFORE CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES BEFORE PROCEEDING WITH THE WORK. SIZE AND LOCATION OF MECHANICAL AND/OR ELECTRICAL EQUIPMENT IS PROVIDED FOR GUIDANCE ONLY. CONTRACTOR SHALL COORDINATE ACTUAL DIMENSIONS WITH MANUFACTURERS THROUGH SHOP DRAWING SUBMITTALS.

THE CONTRACTOR SHALL VERIFY LOCATIONS AND SIZES OF ALL OPENINGS IN SLAB AND BEAMS AND ALL INSERTS AND EMBEDDED ITEMS WITH MECHANICAL, ELECTRICAL, CIVIL AND ARCHITECTURAL DRAWINGS BEFORE PLACING CONCRETE.

CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION SAFETY GUIDELINES, PROCEDURES, AND EQUIPMENT.

CONTRACTOR SHALL PROVIDE SATISFACTORY ELEMENTS TO ACCOMPLISH ALL TEMPORARY BRACING OF ALL STRUCTURAL STEEL, WALLS, LINTELS, DECKS, ETC.

CONTRACTOR SHALL SUBMIT COMPLETE INTEGRATED SHOP DRAWINGS AND OBTAIN APPROVAL PRIOR TO FABRICATIONS.

REFER TO PROJECT SPECIFICATIONS FOR DETAILED DESCRIPTION OF MATERIALS AND METHODS TO BE USED IN THIS PROJECT.

REFER TO ARCHITECTURAL DRAWINGS FOR MISCELLANEOUS STEEL ITEMS, LADDERS, LINTELS, COVERED WALKWAYS, ETC., WHICH ARE NOT SHOWN ON STRUCTURAL DRAWINGS.

2. FOUNDATION:

FOUNDATION DESIGN IS BASED ON 1,500 P.S.F. SOIL BEARING PRESSURE TOTAL LOAD.

FOUNDATION DESIGN CRITERIA DERIVED FROM SUBSURFACE EXPLORATION BY GEOTECHNICAL TESTING LABORATORY, INC.
DATED JULY 1, 2024
A COPY IS AVAILABLE AT ENGINEER'S OFFICE.

CONTRACTOR SHALL PROVIDE FOR DEWATERING AT EXCAVATION FROM EITHER SURFACE WATER OR SEEPAGE AND PROVIDE ADEQUATE EXCAVATION SHORING TO PREVENT CAVE-INS.

ALL FOUNDATION EXCAVATIONS SHALL BE INSPECTED BY THE ENGINEER PRIOR TO PLACEMENT OF STEEL OR CONCRETE.

DURING THE FOUNDATION EXCAVATION PROCEDURE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY EVIDENCE OF ANY INCONSISTENCIES IN THE SOIL PROFILES REPORTED IN THE SOILS REPORT PRIOR TO PLACING CONCRETE.

3. CONCRETE:

ALL CONCRETE SHALL BE MADE FROM TYPE 1 CEMENT AND SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 3,500 P.S.I. AT 28 DAY TEST. MIX DESIGN SHALL BE AS FOLLOWS:
SEE SPECIFICATIONS FOR ADMIXTURE REQUIREMENTS.

MAXIMUM AGGREGATE SHALL BE AS FOLLOWS:
SLABS & BEAMS ON GRADE ----- 1"
ELEVATED SLABS & BEAMS ----- 3/4"
FOOTINGS ----- 1 1/2"

NO WATER SHALL BE ADDED AT THE JOB SITE WITHOUT SPECIFIC APPROVAL OF THE ARCHITECT FOR EACH INSTANCE.

CHAMFER ALL EXPOSED EDGES 3/4" UNLESS OTHERWISE NOTED.

UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS, CONSTRUCTION JOINTS SHALL BE LOCATED AT MID-SPAN OF SLABS AND/OR BEAMS. REINFORCING SHALL BE CONTINUOUS THROUGH JOINTS.

POUR SLAB ON GRADE PANELS IN ALTERNATING PATTERN. ALLOW A MINIMUM OF 7 DAYS CURING TIME BETWEEN IMMEDIATELY ADJACENT POURS. PANELS NOT ADJACENT MAY BE PREPARED AND POURED AT THE SAME TIME.

DETERMINE DEPTH OF SLAB DEPRESSIONS AND LOCATING DIMENSIONS FROM ARCHITECTURAL DRAWINGS.

GRIND ALL CONSTRUCTION JOINTS IN SLABS SMOOTH SO AS TO PRODUCE A SMOOTH AND LEVEL SURFACE.

ALL DEEP GRADE BEAMS SHALL BE ADEQUATELY BRACED UNTIL ALL INTERIOR COMPACTION HAS BEEN COMPLETED AND SLABS ARE IN PLACE.

3. CONCRETE (CONT.):

ALL CONCRETE SHALL BE CONSOLIDATED BY INTERNAL VIBRATION IN ACCORDANCE WITH A.C.I. STANDARDS 309R-05 PART 2. "RECOMMENDED PRACTICES FOR CONSOLIDATION OF CONCRETE".

SPECIAL VIBRATION PROVISIONS SHALL BE MADE FOR CONCRETE CONTAINING SUPER PLASTICIZER ADMIXTURES DURING PLACEMENT.

PLUMBING AND/OR MECHANICAL EQUIPMENT PENETRATIONS THROUGH WALLS, BEAMS AND/OR SLABS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS PROVIDED IN THE MECHANICAL DRAWINGS AND/OR SPECIFICATIONS.

PLUMBING OR OTHER PIPING PENETRATING THROUGH REINFORCING SHALL BE WRAPPED AND ISOLATED FROM CONTACT WITH REINFORCING.

4. REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE NEW BILLET, 60 KSI GRADE DEFORMED BARS, WELDED WIRE MESH SHALL BE ASTM A185.

CLEAR MINIMUM COVERAGE OF CONCRETE REINFORCING BARS SHALL BE AS FOLLOWS: CONCRETE PLACED AGAINST EARTH ... 3", FORMED CONCRETE AGAINST EARTH ... 2", BEAMS TO TIES/STIRRUPS ... 1 1/2", TOP AND BOTTOM OF ELEVATED SLABS ... 3/4" (U.N.O.).

ALL DOWELS SHALL BE SAME SIZE AND SPACING AS ADJOINING MAIN BARS (MIN. LAP 30 BAR DIA.). THE MINIMUM SPLICE OF ALL CONTINUOUS BARS SHALL BE 40 BAR DIA. (2'-0" MIN.) U.N.O., LAP W.W.F. 1-1/2 MESH SPACINGS AT ALL EDGES.

ALL REINFORCING BARS, W.W.F., BOLTS, DOWELS, INSERTS, ETC., SHALL BE RIGIDLY SECURED IN POSITION PRIOR TO PLACING OF CONCRETE.

PROVIDE CORNER BARS AT ALL CORNERS AND INTERSECTIONS OF GRADE BEAMS, AND U-BLOCK COURSES, EQUAL TO HORIZONTAL REINFORCEMENT OR AS INDICATED. PROVIDE PROJECTING DOWELS AT ALL CONSTRUCTION JOINTS FOR ALL ADJACENT GRADE BEAMS IN FUTURE POURS. EXTEND 40 DIA. EACH WAY FROM CORNERS OR CONSTRUCTION JOINTS.

5. CONCRETE MASONRY:

CONCRETE BLOCK SHALL BE CLASS N, TYPE-1 (F'm=1500 psi) AND CONFORM TO ASTM C90-70 SPECIFICATIONS.

C.M.U. WALLS SHALL BE REINFORCED AS SHOWN ON THE DRAWINGS AND/OR A MINIMUM OF HORIZONTAL JOINT REINFORCING @ 16" O.C. VERTICAL SPACING. LAP ALL JOINT REINFORCING AT CORNER AND AND TEE INTERSECTIONS.

REINFORCE ALL OPENING SILLS, JAMBS, AND HEADS WITH (1) No. FOUR BAR AND PEA GRAVEL CONCRETE UNLESS NOTED OTHERWISE.

FILL TWO CELLS WITH CONCRETE AND 1 NO. FOUR BAR EACH CELL AT ALL EXTERIOR AND INTERIOR CORNERS OR ENDS OF WALLS.

CONCRETE GROUT FOR C.M.U. BOND BEAMS AND PILASTERS SHALL BE A MIXTURE 1:2-1/2:1-1/2 (PORTLAND CEMENT, SAND, PEA GRAVEL) AND SHALL MEET ASTM C476 STANDARD SPECIFICATIONS. IT SHALL ATTAIN 2500 PSI COMPRESSIVE STRENGTH AT 28 DAYS WHEN MIXED WITH SUFFICIENT WATER TO HAVE 9" SLUMP. PEA GRAVEL SHALL HAVE 3/8" MAXIMUM SIZE.

6. STRUCTURAL STEEL:

ALL STRUCTURAL STEEL SHALL CONFORM TO A.I.S.C. SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL IN BUILDINGS AND SHALL COMPLY:

WIDE FLANGE & TEE SHAPES -----ASTM A992 GRADE 50
ANGLES, PLATES & CHANNELS -----ASTM A36
ANCHOR RODS -----ASTM F1554 GRADE 36

ALL TUBE SHAPES SHALL BE ASTM A500 GRADE B. ALL PIPE SHAPES SHALL BE ASTM A53 TYPE S, GRADE B.

SHOP CONNECTIONS SHALL BE WELDED. FIELD CONNECTIONS SHALL BE HIGH STRENGTH BOLTED OR WELDED AS DETAILED. USE 3/4" A325-X STANDARD FRAMED CONNECTIONS UNLESS OTHERWISE DETAILED.

ALL ANCHOR BOLTS SHALL BE SET WITH TEMPLATES.

ALL WELDING SHALL CONFORM TO THE RECOMMENDATIONS OF THE A.W.S. AND ALL WELDS, INCLUDING FIELD, SHALL BE MADE ONLY BY CERTIFIED WELDER, USING E70.XX ELECTRODES (RE: AWS D1.1)

WHEN WELDING LIGHT GAUGE OR THIN WALLED STEEL MEMBERS, WELDER SHALL EXERCISE EXTREME CARE AND AVOID OVERHEATING PARENT METAL. BURN HOLES IN PARENT METAL, POCKED WELDS, OR POOR AND/OR INCONSISTENT FILLETS SHALL BE CAUSE FOR REJECTION OF WELDER AND WELD. ALL REJECTED WELDS SHALL BE GROUND DOWN AND REWELDED.

DETAILS AND CONNECTIONS WHICH ARE SHOWN BY THE STRUCTURAL DRAWINGS IN SPECIFIC LOCATIONS SHALL APPLY IN SIMILAR FORM IN FOR ALL OTHER SIMILAR CONDITIONS UNLESS OTHERWISE SHOWN.

DESIGN CRITERIA

BUILDING DESIGN CODE----- INTERNATIONAL BUILDING CODE (IBC 2021)

STRUCTURAL DESIGN CODE ---- (ANSI/ASCE 7-16)

STEEL DESIGN CODE----- AISC MANUAL OF STEEL CONSTRUCTION FIFTEENTH EDITION

CONCRETE DESIGN CODES-----
(LATEST EDITION) • ACI 301-05 AND ALL REFERENCED
ACI & ASTM SPECIFICATIONS THEREIN
• ACI 318R-14
• ACI 302.1 R-04

MASONRY DESIGN CODE ----- • ACI 530-13

LOADING CRITERIA:

BUILDING ROOF; 20 PSF LIVE LOAD
REDUCIBLE PER CODE

BUILDING FLOOR; SLAB ON GRADE ----- 100 PSF (MINIMUM)
(LIVE LOADS)

GROUND SNOW LOAD: Pg = 5 PSF

WIND CRITERIA: (PER IBC 2021)

- BASIC WIND SPEED (3 SEC. GUST) = 115 MPH
- IMPORTANCE FACTOR ----- 1.0
- RISK CATEGORY ----- IV
- EXPOSURE CATEGORY ----- B
- INTERNAL PRESSURE COEFFICIENT ---- ±0.18
- COMPONENTS & CLADDING PRESSURES (NET)

COMPONENTS & CLADDING (MONO FLAT ROOF) (ASCE 7-16, FIGURE 30.5-1)						
SQUARE FOOTAGE (SF)	VERTICAL LOADING (PSF)			HORIZONTAL LOADING (PSF)		
	1	1'	2	3	4	5
10	(+)8.6	(+)8.6	(+)8.6	(+)8.6	(+)21.2	(+)21.2
	(-)33.7	(-)19.4	(-)44.5	(-)60.6	(-)23.0	(-)28.4
20	(+)8.1	(+)8.1	(+)8.1	(+)8.1	(+)20.2	(+)20.2
	(-)31.5	(-)19.4	(-)41.7	(-)54.9	(-)22.0	(-)26.4
50	(+)7.4	(+)7.4	(+)7.4	(+)7.4	(+)19.0	(+)19.0
	(-)28.6	(-)19.4	(-)37.8	(-)47.3	(-)20.7	(-)23.9
100	(+)6.9	(+)6.9	(+)6.9	(+)6.9	(+)18.0	(+)18.0
	(-)26.3	(-)19.4	(-)35.0	(-)41.7	(-)19.8	(-)22.0

FIRE STATION:

- DESIGN METHOD USED ----- ASCE 7-16 METHOD 2
- WIND BASE SHEAR ----- 15.7 kips (CONTROLS)
- a = 8 ft.

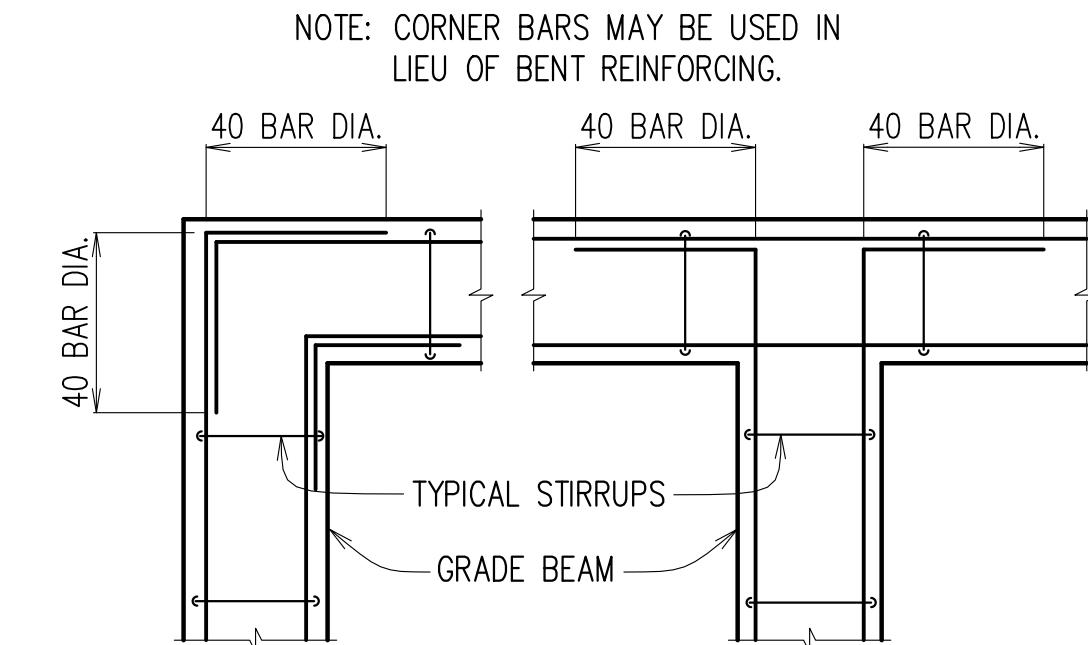
SEISMIC CRITERIA: (PER IBC 2021)

- IMPORTANCE FACTOR ----- 1.5
- RISK CATEGORY ----- IV
- S_s = 10.0% S₁ = 6.75%
- SITE CLASS ----- D
- SEISMIC DESIGN CATEGORY ----- C
- SEISMIC FORCE RESISTING SYSTEM:

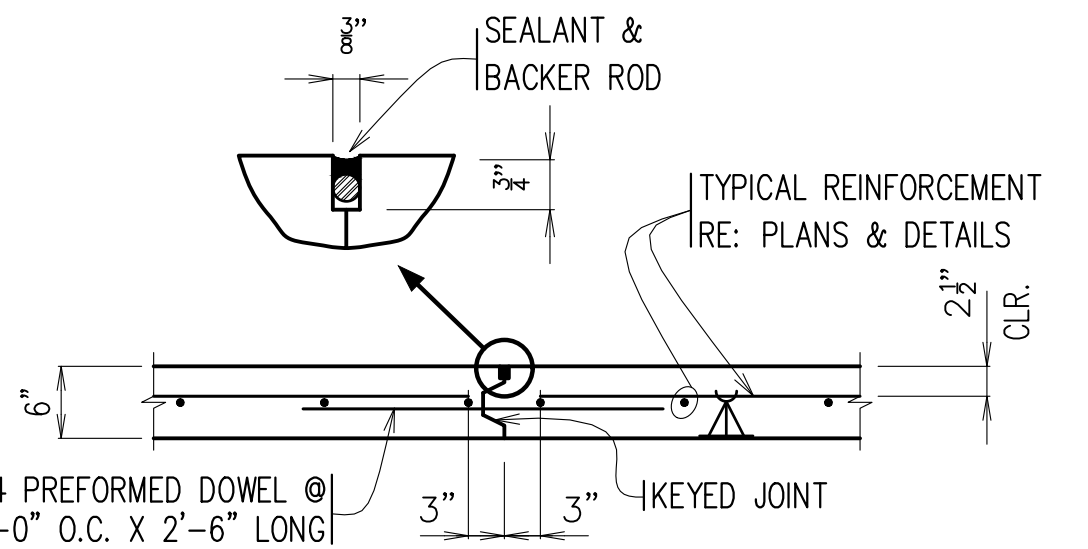
STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE

- S_{DS} = 0.107 • R = 3.0
- S_{D1} = 0.108 • C_s = 0.053
- DESIGN BASE SHEAR = C_sW = 0.053W

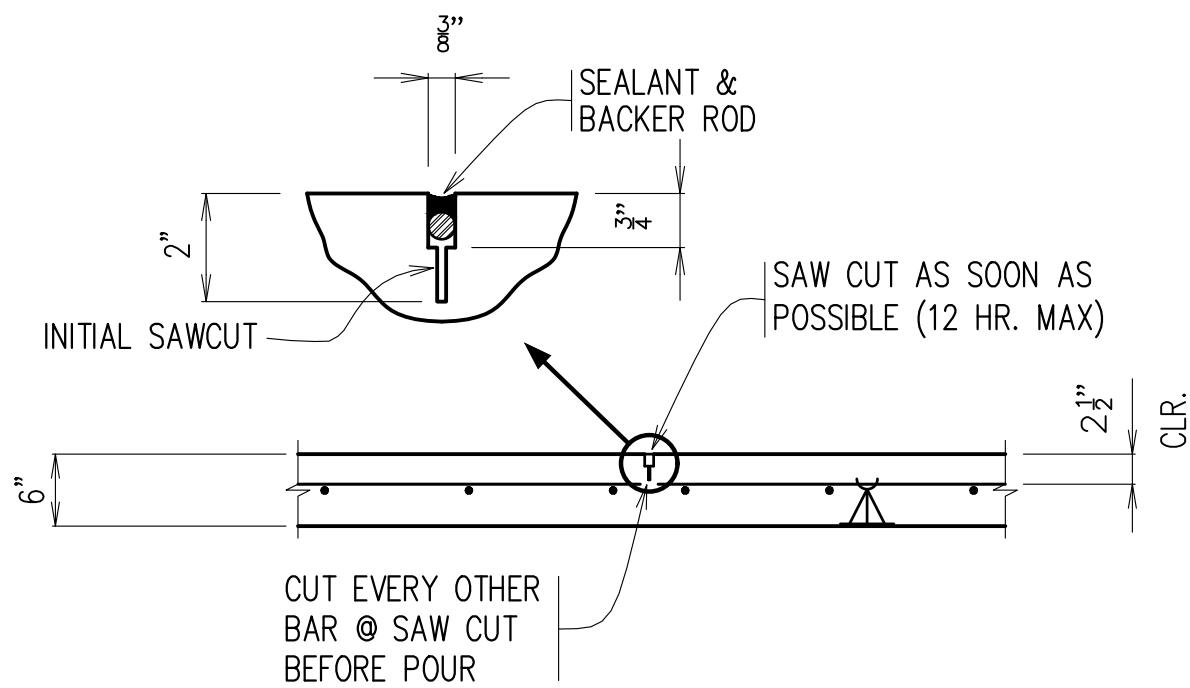
FLOOD ZONE = X



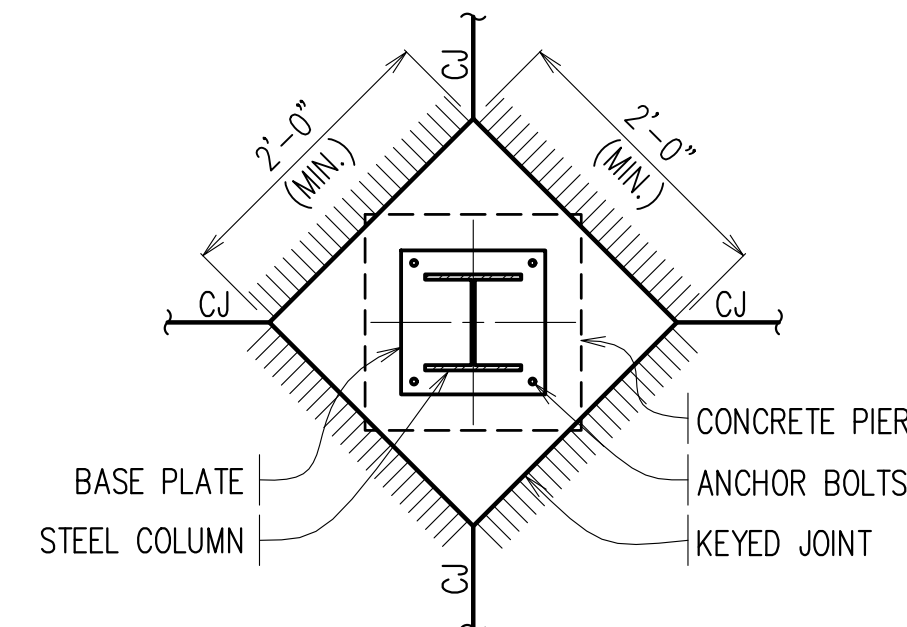
1 TYP. CORNER & TEE BARS
\$100 SCALE: 3/4" = 1'-0"
RE: S200



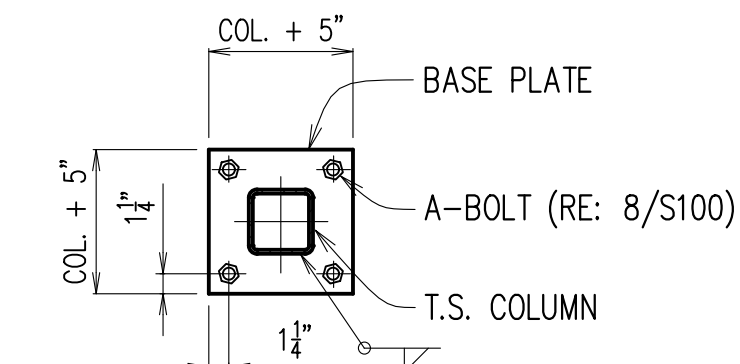
3 6" SLAB CONST. JT. (CJ)
\$100 SCALE: 3/4" = 1'-0"
RE: S200



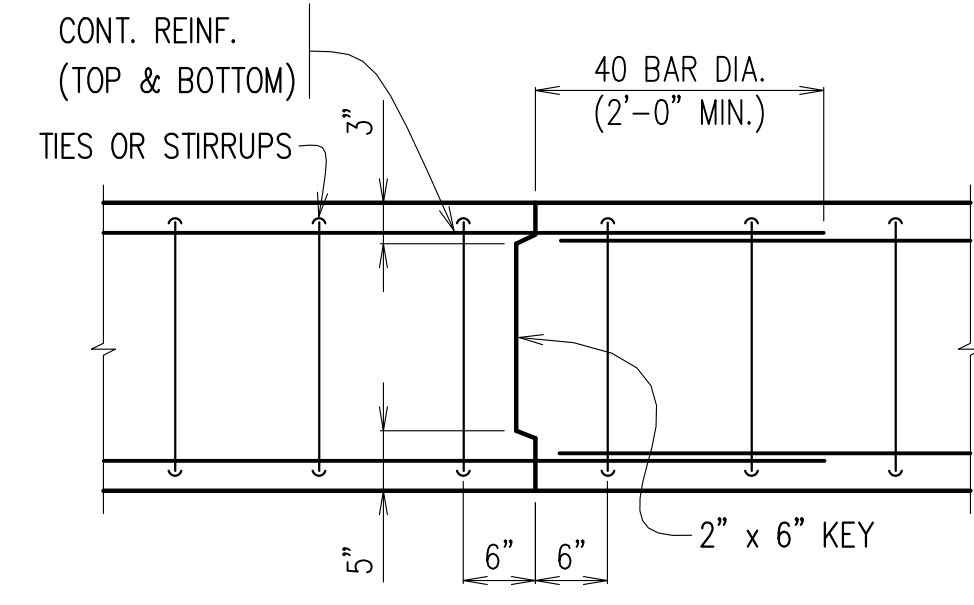
5 6" SAW CUT JT. (SCJ)
\$100 SCALE: 3/4" = 1'-0"
RE: S200



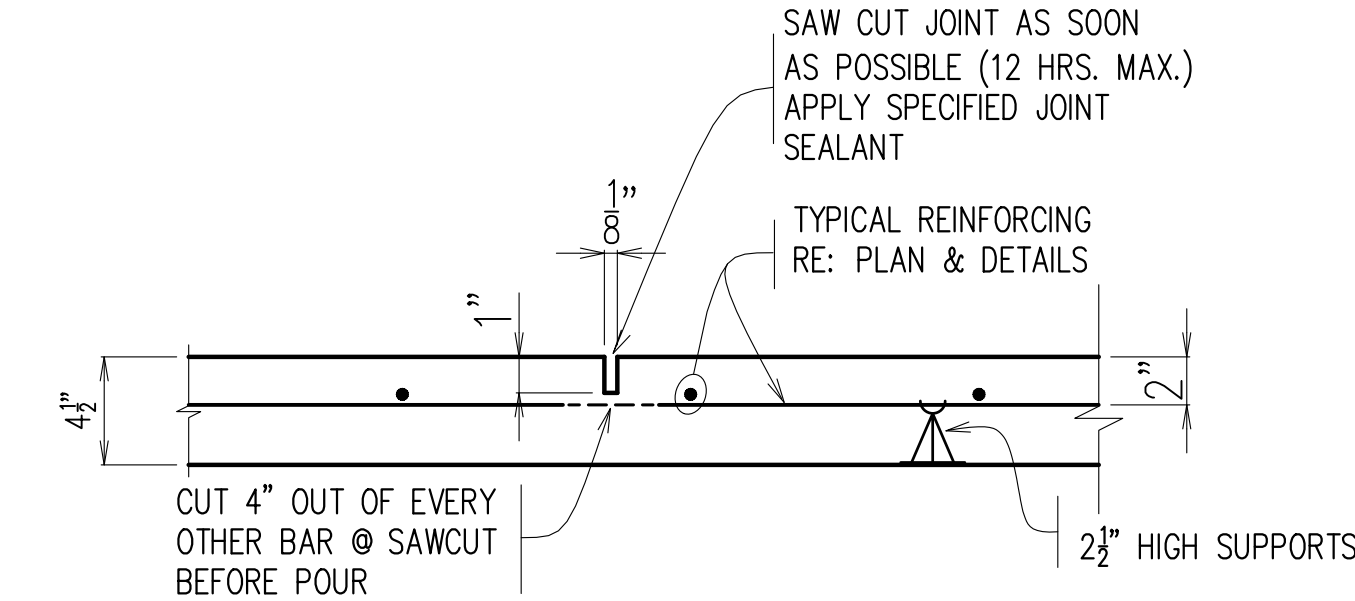
7 PLAN DETAIL @
OPTIONAL BLOCKOUT
\$100 SCALE: 3/4" = 1'-0"
RE: S200



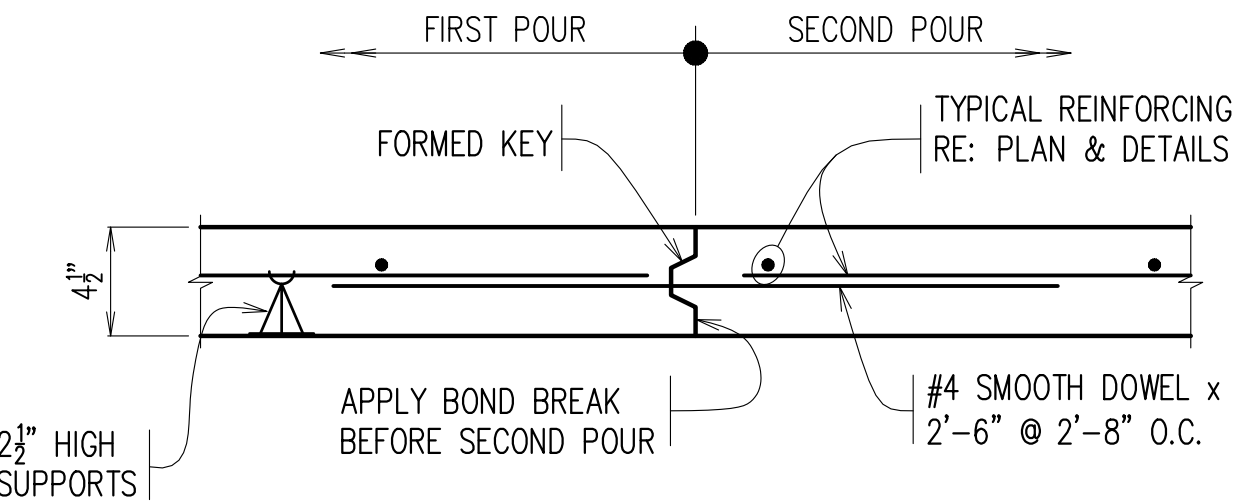
9 BASE PLATE DETAIL
\$100 SCALE: 1" = 1'-0"
RE: 12/S201



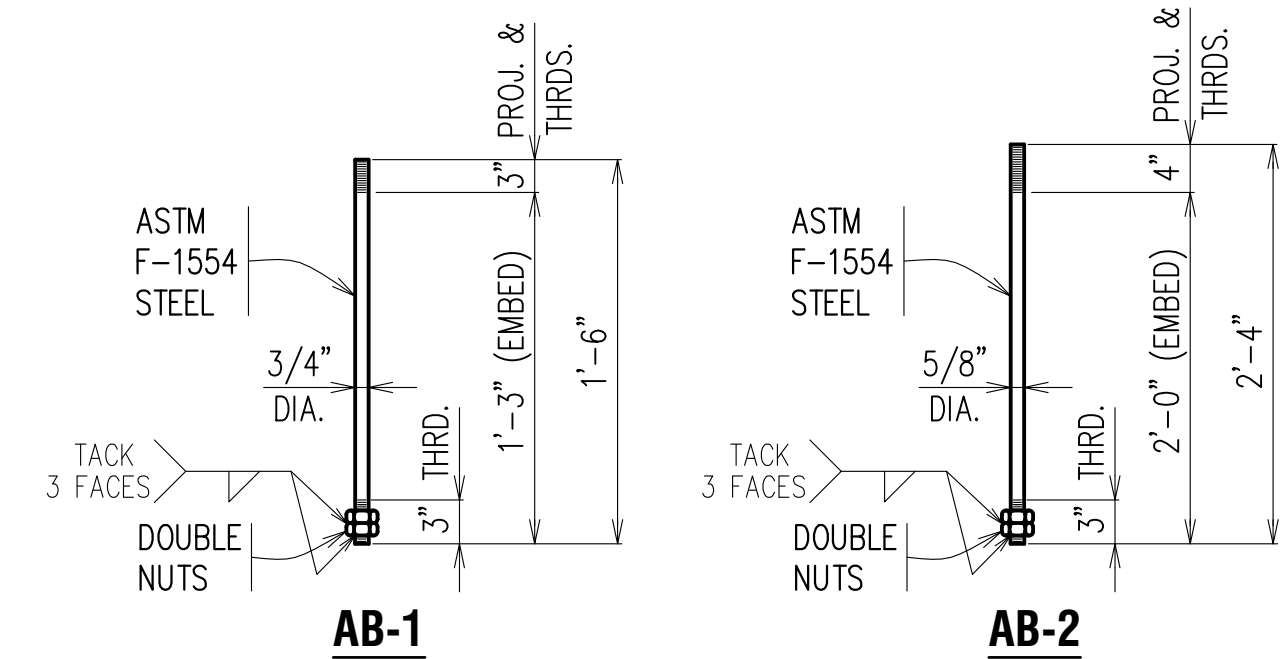
2 TYP. GRADE BEAM C.J. ELEV.
\$100 N.T.S.
RE: S200



4 TYP. SAW CUT JT. (SCJ)
\$100 SCALE: 3/4" = 1'-0"
RE: S200



6 TYP. SLAB CONST. JT. (CJ)
\$100 SCALE: 3/4" = 1'-0"
RE: S200



8 ANCHOR BOLT DETAILS
\$100 (N.T.S.)
NOTES:
1. REFER TO PEMB VENDOR FOR LOCATION OF ANCHOR BOLTS & BASE PLATES.
2. ANCHOR BOLTS ARE SHOWN FOR PRICING ONLY. ANCHOR BOLTS WILL BE RELEASED ONCE VENDOR "FOR CONSTRUCTION" SHOP DRAWINGS & CALCULATIONS ARE REVIEWED & APPROVED.

mml&h
MEYER, MEYER, LeCROIX & HIXSON, Inc.
ENGINEERS & LAND SURVEYORS
ALEXANDRIA, LOUISIANA

PROJ. NO. **7824** DATE: **7/11/25**
DESIGN: WLM DRAWN: GO

Consultant

By: WYMM/ADD
App'd: WYMM/ADD
Revision

Design Phase Acceptance

Permit/Seal



Client/Project
CITY OF NATCHITOCHES

NEW FIRE STATION NO. 3

NATCHITOCHES, LOUISIANA

Project No.: 222706059
File Name: 7824_GENERAL NOTES & TYPICAL
Scale:

Dwn. Dgn. Chkd. 2025.09.26
YYYYMMDD

Title GENERAL NOTES &
TYPICAL DETAILS

Revision: Sheet: of
Drawing No.

\$100