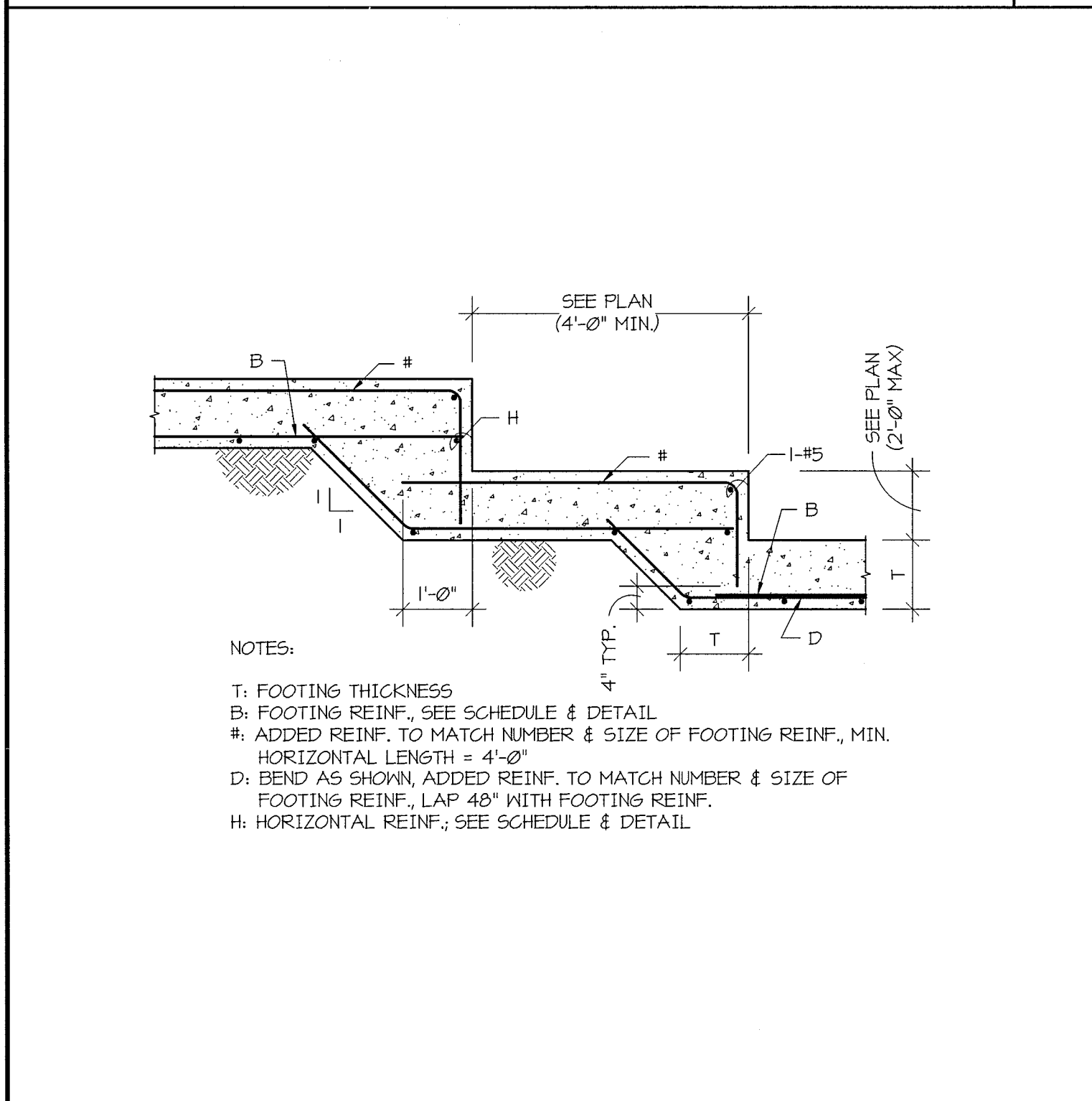
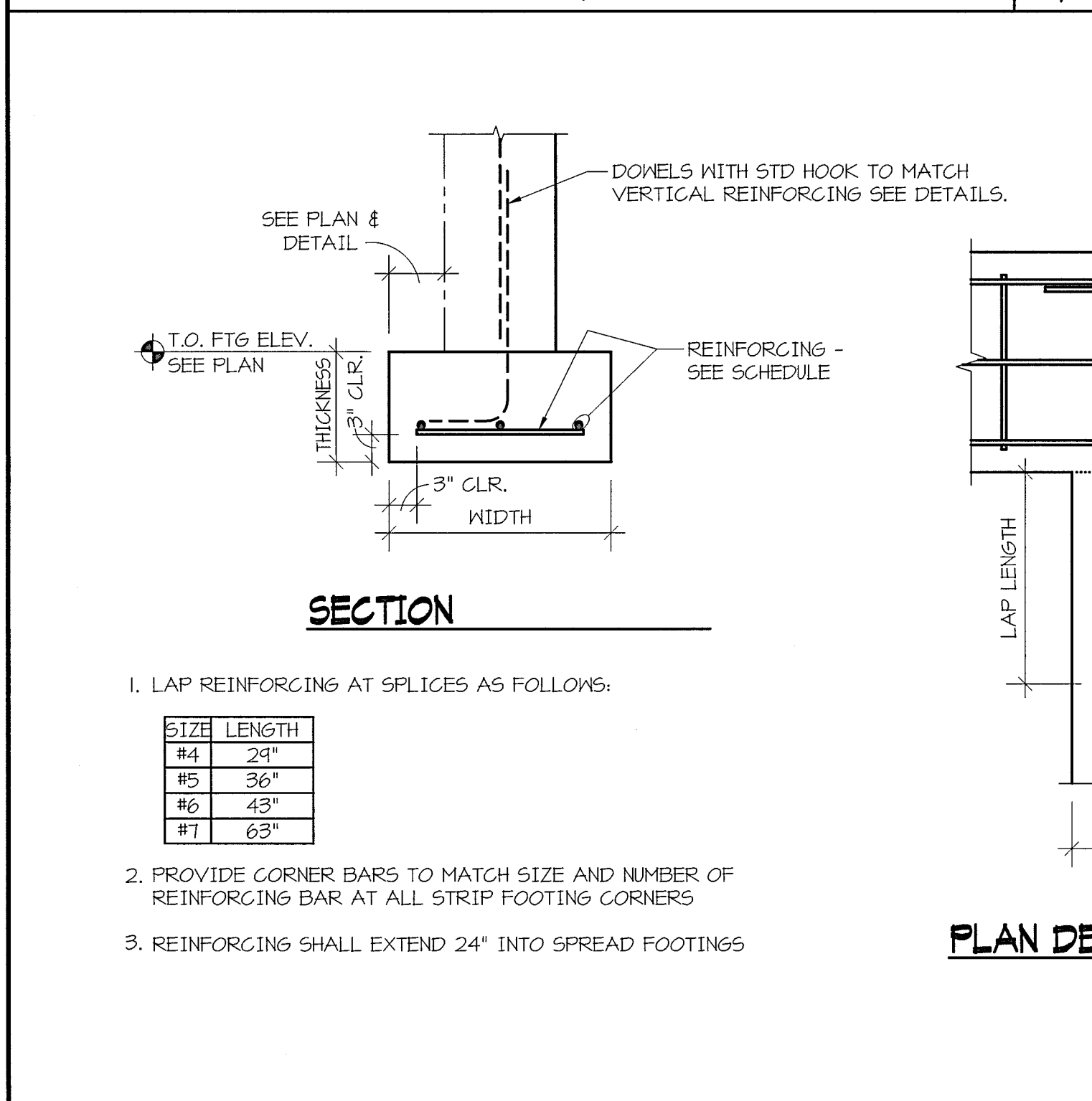


TYP INTERIOR FOOTING AT COL W/ PIER NTS 8



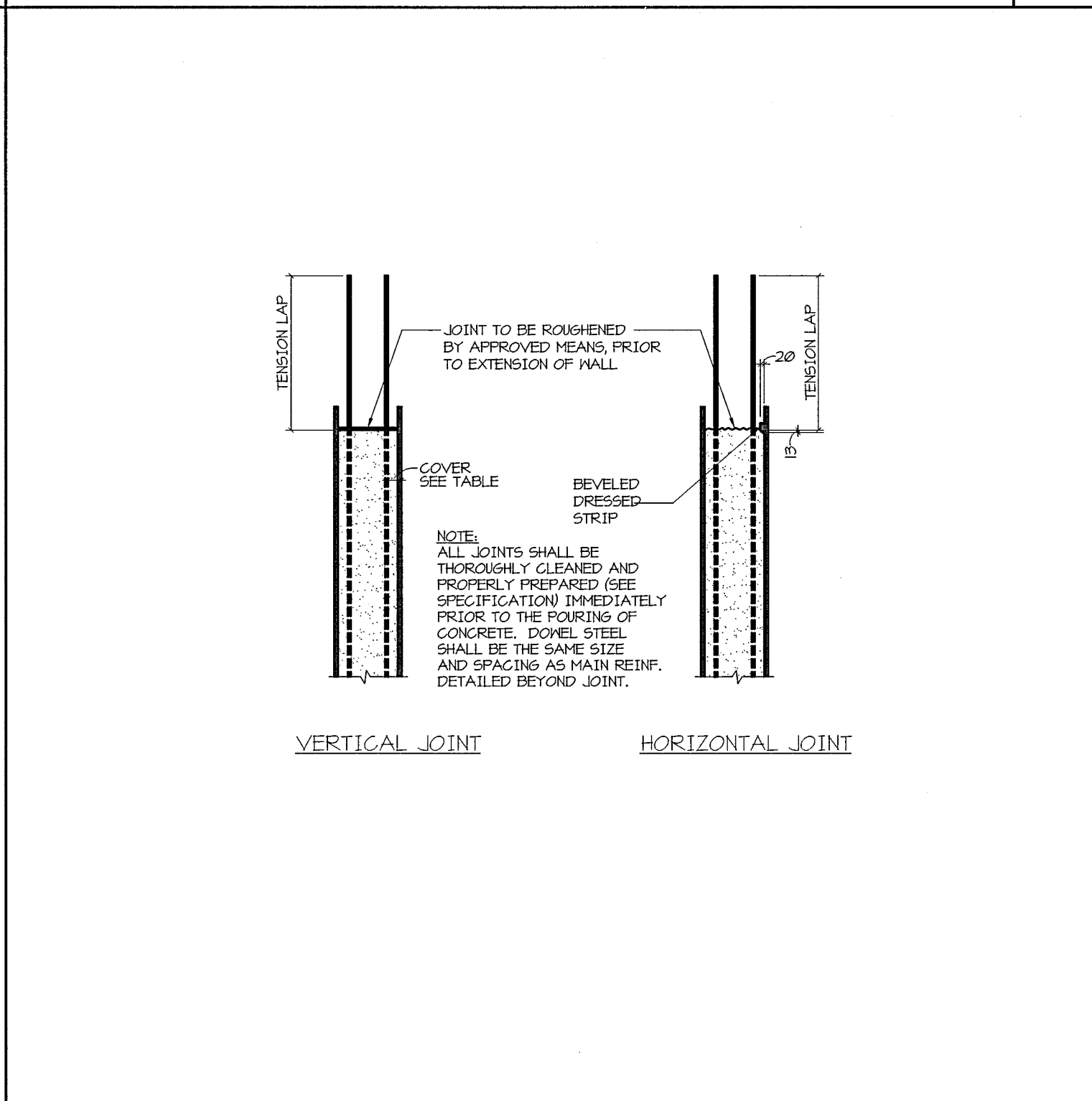
TYP FOOTING STEP DETAIL NTS 7



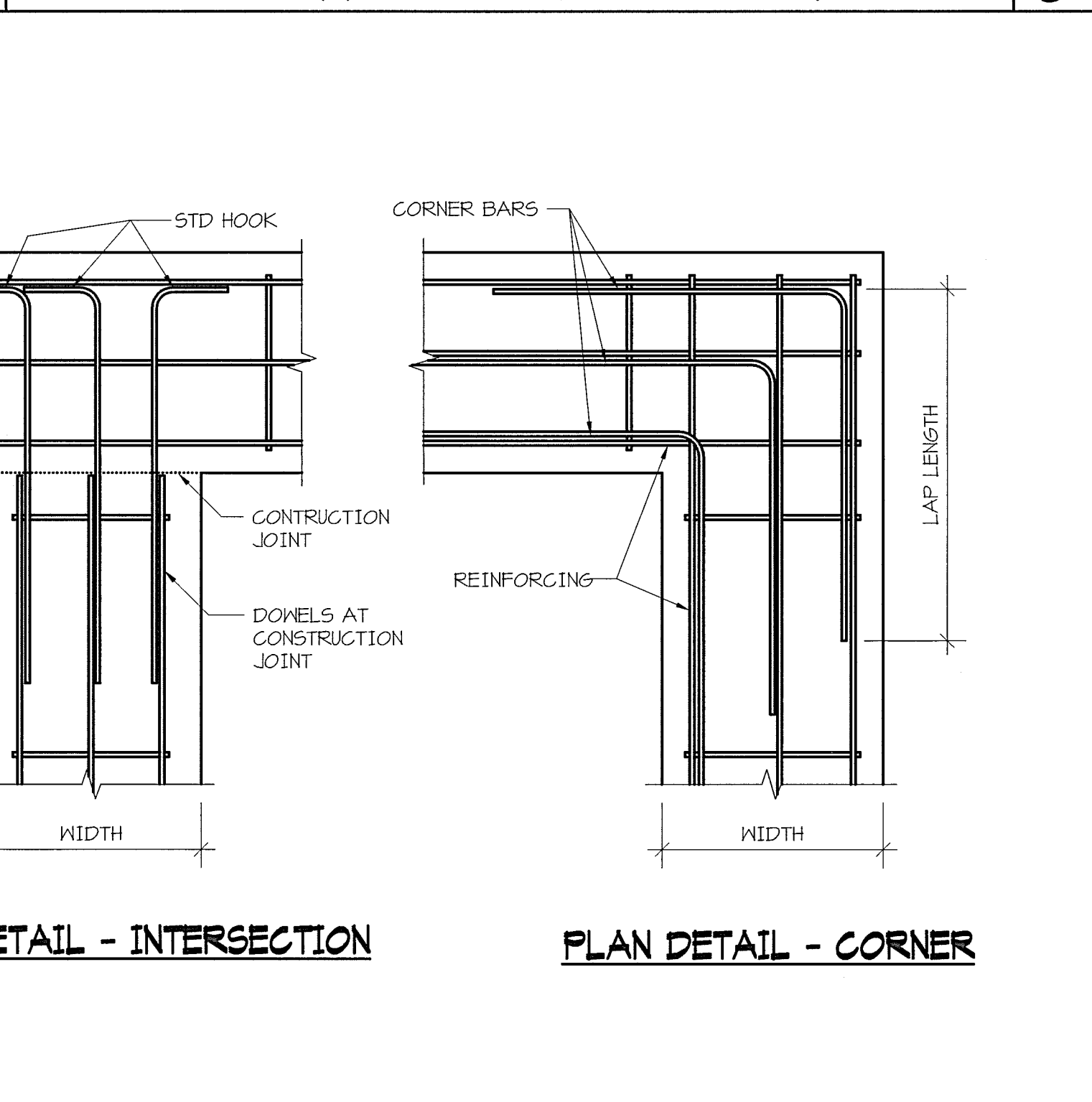
TYP STRIP FOOTING DETAIL NTS 4

TENSION LAP SPlice LENGTH				
BAR SIZE	F _c = 3000psi		F _c = 4000psi	
	TOP BAR	OTHER BAR	TOP BAR	OTHER BAR
#3	20	22	24	18
#4	31	24	32	25
#5	41	36	40	31
#6	56	43	48	37
#7	81	63	70	54
#8	113	72	80	62
#9	105	81	91	70
#10	110	91	102	79
#11	131	101	113	87

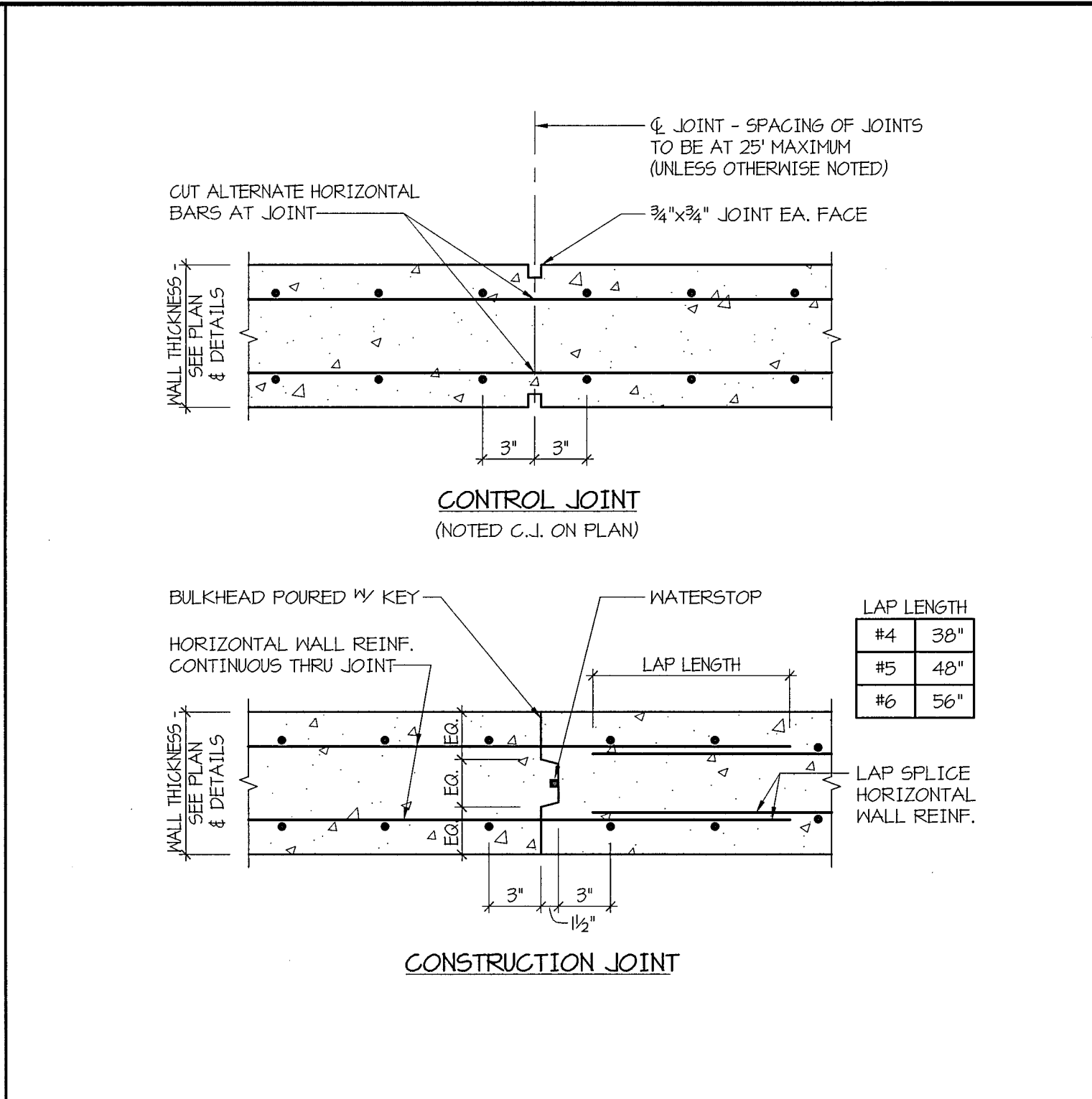
TENSION LAP SPlice LENGTH SCHEDULE NTS 6



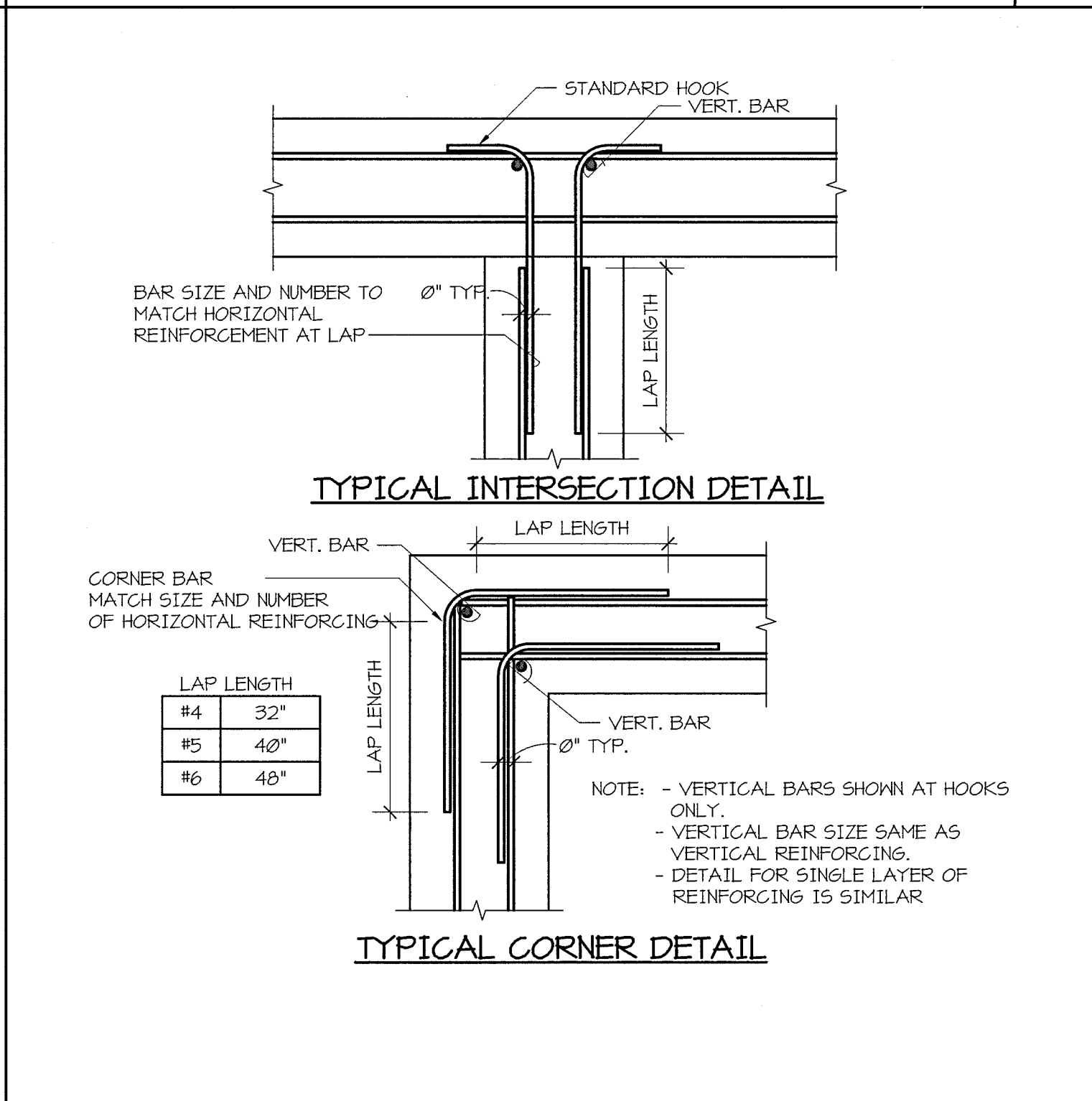
TYP CONC WALL CONST JOINT DETAIL NTS 5



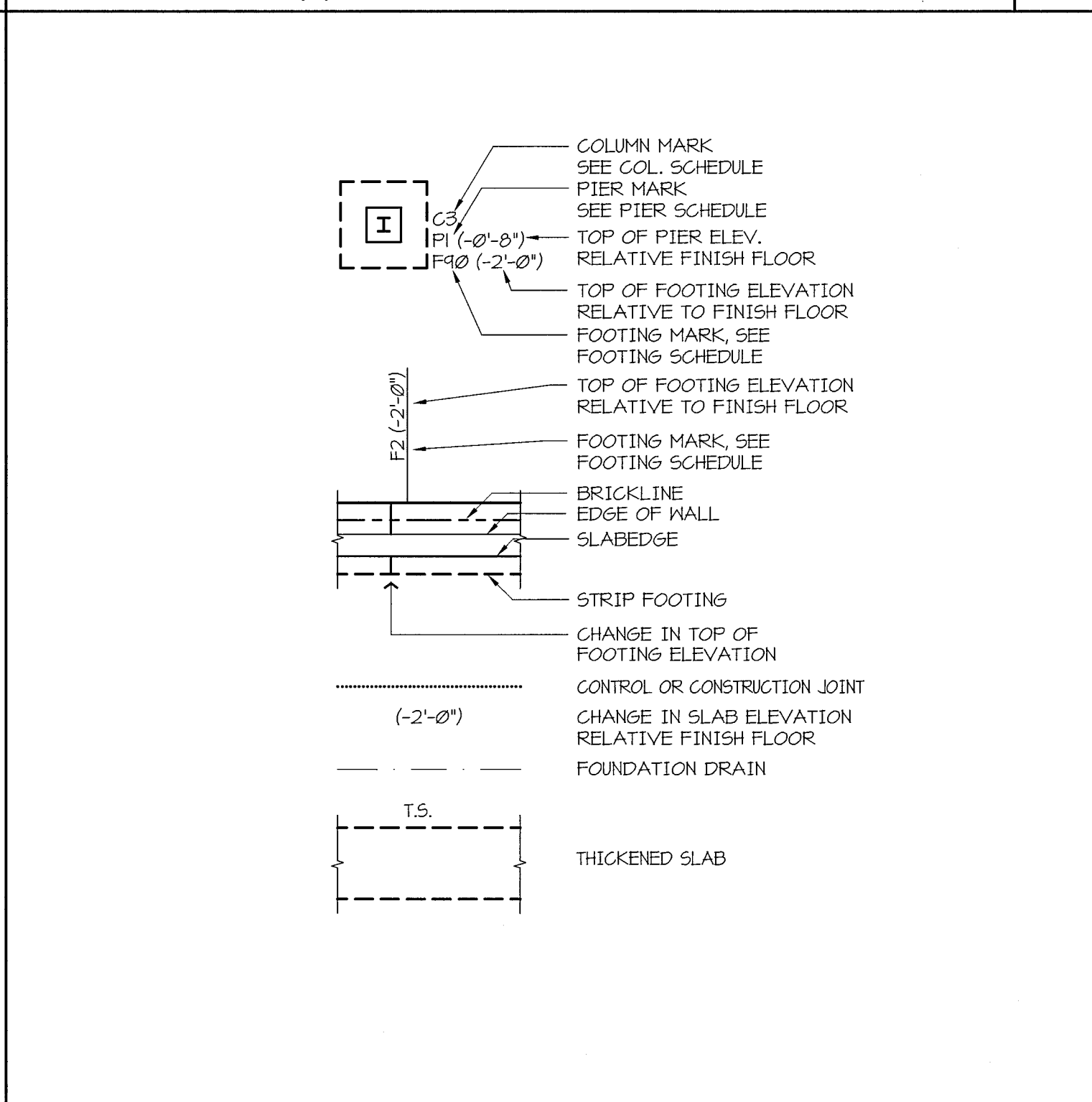
TYP CONC WALL REINF @ CORNER & INT NTS 2



TYP WALL VERT CONST JOINT DETAIL NTS 3



TYP CONC WALL REINF @ CORNER & INT NTS 2



FOUNDATION LEGEND NTS 1

GENERAL STRUCTURAL NOTES

BASIS OF DESIGN

DESIGN IS IN ACCORDANCE WITH THE WEST VIRGINIA BUILDING CODE (2004 INTERNATIONAL BUILDING CODE) & VETERANS AFFAIRS H-18-8 (SEISMIC DESIGN REQUIREMENTS).

DESIGN OF CONCRETE STRUCTURES IS BASED ON THE REQUIREMENTS OF ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE," EDITION AS REFERENCED IN GOVERNING BUILDING CODE.

DESIGN OF STRUCTURAL STEEL IS BASED ON THE REQUIREMENTS OF AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS," EDITION AS REFERENCED IN GOVERNING BUILDING CODE AND AISC MANUAL OF STEEL CONSTRUCTION, 13TH EDITION.

DESIGN OF MASONRY STRUCTURES IS BASED ON THE REQUIREMENTS OF ACI 530 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" AND ACI 550 "SPECIFICATIONS FOR MASONRY STRUCTURES," EDITIONS AS REFERENCED IN GOVERNING BUILDING CODE.

DESIGN LOADS:

FLOOR LIVE LOAD
OFFICES & ASSEMBLY 100 PSF
CORRIDORS 100 PSF
MECHANICAL ROOMS 125 PSF
STORAGE AREAS 125 PSF
UNIFORM LIVE LOADS HAVE BEEN REDUCED.

ROOF LIVE LOAD; FLAT: 30 PSF.

ROOF SNOW LOAD
GROUND SNOW LOAD (Pg), 20 PSF
FLAT-ROOF SNOW LOAD (Ps), 13.8 PSF
SNOW EXPOSURE FACTOR (Ce), 0.9
THERMAL FACTOR (Ct), 1.0
SNOW LOAD IMPORTANCE FACTOR (I), 1.10

WIND DESIGN DATA
BASIC WIND SPEED: 90 MPH (3-SECOND GUST)
WIND IMPORTANCE FACTOR (I), 1.15
OCCUPANCY CATEGORY: III
EXPOSURE CATEGORY: B
INTERNAL PRESSURE COEFFICIENT (GCp), +/- 0.18
COMPONENTS AND CLADDING DESIGN PRESSURE: +/- 25 PSF (UNLESS NOTED OTHERWISE)

EARTHQUAKE DESIGN DATA

SEISMIC IMPORTANCE FACTOR (I), 1.25
OCCUPANCY CATEGORY: III
MAFFED SPECTRAL RESPONSE ACCELERATIONS: S_a: 0.275%g
S₁: 0.077%g

SITE CLASS: C
SPECTRAL RESPONSE COEFFICIENTS: S_{D5}: 0.220 %g
S_{D1}: 0.080 %g

SEISMIC DESIGN CATEGORY: B
BASIC SEISMIC-FORCE-RESISTING SYSTEM: ORDINARY STEEL CONCENTRICALLY BRACED FRAMES
DESIGN BASE SHEAR: 2001 KIPS
SEISMIC RESPONSE COEFFICIENT, C_s: 0.092
RESPONSE MODIFICATION FACTOR, R: 3.0
ANALYSIS PROCEDURE - EQUIVALENT LATERAL FORCE PROCEDURE

MECHANICAL EQUIPMENT LOADS SHOWN ARE DESIGN MINIMUMS. NO PROVISIONS HAVE BEEN MADE FOR MECHANICAL EQUIPMENT LOADS EXCEPT AS SHOWN. CONTRACTOR SHALL ESTABLISH AND COORDINATE ACTUAL LOADS OF ALL SELECTED EQUIPMENT. SUBMIT ALL SELECTED EQUIPMENT AND ALL ADDITIONAL EQUIPMENT REQUIREMENTS FOR APPROVAL. COORDINATE ALL EQUIPMENT LOADS WITH MATERIAL FABRICATORS.

STRIP AND SPREAD FOOTINGS ARE DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS FOUND IN THE "REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION" PREPARED BY FROEHLING AND ROBERTSON (F&R), DECEMBER 2010.

SPREAD FOOTINGS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 6500 psf.

DESIGN INCLUDES PROVISIONS FOR A FUTURE TWO-STORY VERTICAL EXPANSION OF THE STRUCTURE. FUTURE HORIZONTAL CONSTRUCTION SHALL BE STRUCTURALLY INDEPENDENT AND SEPARATED BY A BUILDING JOINT.

GENERAL REQUIREMENTS AND CONDITIONS

WHERE A SECTION OR DETAIL IS SHOWN FOR ONE CONDITION, IT SHALL APPLY TO ALL LIKE CONDITIONS EVEN THOUGH NOT SPECIFICALLY MARKED ON THE PLANS.

DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING CONSTRUCTION ARE APPROXIMATE AND ARE BASED ON EXISTING CONSTRUCTION DRAWINGS. DIMENSIONS AND ELEVATIONS SHOWN ARE NOT FIELD MEASURED. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, AND GEOMETRY AT EXISTING CONSTRUCTION. REPORT DISCREPANCIES TO THE ARCHITECT IMMEDIATELY.

THE CONTRACTOR SHALL PROTECT THE STRUCTURE DURING CONSTRUCTION AGAINST EARTH PRESSURE, WIND AND OTHER FORCES UNTIL PERMANENT SUPPORTS ARE IN PLACE.

RELATED WORK SPECIFIED OR SHOWN ELSEWHERE REFER TO PROJECT SPECIFICATIONS AND OTHER PROJECT DRAWINGS FOR RELATED WORK SPECIFIED OR SHOWN ELSEWHERE INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. PENETRATIONS, SLEEVES, OPENINGS.
2. INSERTS, EMBEDS, ANCHOR BOLTS AND ANCHORAGE FOR ATTACHMENT OF NON-STRUCTURAL ITEMS.
3. SIZE AND LOCATION OF EQUIPMENT FOUNDATIONS AND PADS
4. ROOF CURBS FOR ROOF MOUNTED EQUIPMENT.
5. RETAINING WALLS, UTILITY STRUCTURES, PAVEMENT, WALKS AND OTHER STRUCTURES OUTSIDE THE BUILDING LINE.
6. FLOOR DEPRESSIONS, FLOOR SLOPES, AND FLOOR SLOPES TO DRAIN.
7. STAIRS, STAIR DETAILS AND STAIR DIMENSIONS.

FOUNDATIONS

THE PREPARED FOUNDATION BEARING SOILS SHALL NOT BE LEFT EXPOSED DURING INCLEMENT WEATHER OR OPEN AND EXPOSED LONGER THAN 24 HOURS. PLACE A 2 1/2" THICK UNREINFORCED CONCRETE PAD OVER BEARING SOILS IF EXCAVATION WILL BE OPEN MORE THAN 24 HOURS OR INCLEMENT WEATHER IS EXPECTED.

ALL FOUNDATIONS SHALL BE CENTERED UNDER SUPPORTED WALLS AND COLUMNS, UNLESS NOTED OTHERWISE.

CONCRETE

AS FOLLOWS:

DESCRIPTION	UNIT WEIGHT (P C F)	F _c AT 28 DAYS (P S I)
FOOTINGS	150	3000
PIERS	150	3000
SLABS ON GRADE	150	3000
ON COMP. DECK	150	4000
WALLS	150	4000
EXTERIOR FLAT WORK	150	4500

MINIMUM LAP SPICES FOR REINFORCING BARS SHALL BE CLASS B, TENSION LAP CONFORMING TO ACI 318. STAGGER LAP SPICES, UNLESS INDICATED OTHERWISE.

PROVIDE THE FOLLOW MINIMUM CONCRETE COVER FOR REINFORCING BARS: CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3" CONCRETE EXPOSED TO EARTH OR WEATHER:

- #6 AND LARGER: 2"
- #5 AND SMALLER: 1 1/2"
- CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: SLABS, WALLS, JOISTS
- #11 AND SMALLER: 3/4"
- BEAMS AND COLUMNS: PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS: 1-1/2"

CONCRETE WALLS INTERSECTING CONCRETE PIERS SHALL BE CAST MONOLITHICALLY WITH PIERS, UNLESS INDICATED OTHERWISE.

TYPICAL SLAB ON GRADE SHALL BE 6" THICK CONCRETE REINFORCED WITH 6x6 - 12x4 x 12x4 WELDED WIRE FABRIC ON VAPOR BARRIER OR POROUS FILL, UNLESS NOTED OTHERWISE.

CONCRETE MASONRY UNITS

CONCRETE UNIT MASONRY SHALL DEVELOP AN INSTALLED COMPRESSIVE STRENGTH (fm) AT 28 DAYS OF 1500 PSI.

GROUT FOR CONCRETE UNIT MASONRY SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 2000 PSI.

GROUT SOLID ALL CELLS BELOW GRADE.

GROUT SOLID ALL CELLS BETWEEN FOOTINGS AND SLAB ON GRADE.

IN ALL GROUTED AND/OR REINFORCED MASONRY, PROVIDE MASONRY UNITS WHICH HAVE CORSES THAT ALIGN VERTICALLY TO PROVIDE CONTINUOUS UNOBSTRUCTED CELLS FOR GROUTING AND REINFORCING STEEL PLACEMENT.

LAP SPlice REINFORCEMENT IN CONCRETE UNIT MASONRY AS FOLLOWS:

BAR SIZE	LAP LENGTH
#3	18"
#4	24"
#5	30"
#6	36"

ALL CONCRETE MASONRY UNIT WALLS SHALL HAVE CONTINUOUS HORIZONTAL JOINT REINFORCEMENT AS SPECIFIED.

STRUCTURAL STEEL

STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:

- "W" SHAPES, BEAMS AND COLUMNS: ASTM A992.
- OTHER SHAPES, PLATES AND BARS: ASTM A36, (F_y=36KSI).
- COLD-FORMED STRUCTURAL STEEL TUBING: ASTM A 500, GRADE B.
- STEEL PIPE: ASTM A 53, TYPE E OR S, GRADE B.

ALL BOLTS SHALL BE 3/4" DIAMETER, ASTM A325-N, TYPE I, UNLESS NOTED OTHERWISE.

MINIMUM WELDS SHALL BE 3/16" FILLET WELD ALL AROUND UNLESS INDICATED OTHERWISE.

EXCEPT AS OTHERWISE INDICATED, ALL CONNECTIONS SHALL BE SIZED AND DESIGNED TO WITHSTAND THE DESIGN LOADINGS INDICATED.

ALL BEAM CONNECTIONS SHALL BE DOUBLE ANGLE OR SINGLE-PLATE SHEAR CONNECTIONS. BEAM CONNECTIONS SHALL BE SIZED AND DESIGNED FOR A MINIMUM FACTORED END REACTION OF THREE (3) KIPS PLUS THE REACTION INDICATED. WHERE NO BEAM REACTION IS INDICATED, THE CONNECTION SHALL BE SIZED AND DESIGNED FOR A MINIMUM REACTION EQUAL TO THREE (3) KIPS PLUS 50% OF THE MAXIMUM TOTAL UNIFORM LOAD CAPACITY FOR THE GIVEN BEAM SIZE AND SPAN FROM AISC MANUAL OF STEEL CONSTRUCTION, 13TH EDITION, PART 3, LRFD. REGARDLESS OF THE INDICATED REACTION NO CONNECTION SHALL BE DESIGNED FOR LESS THAN FIFTEEN (15) KIPS.

ALL STRUCTURAL STEEL BELOW GRADE SHALL HAVE 3" CONCRETE PROTECTION.

DO NOT USE THERMAL CUTTING OF STRUCTURAL STEEL DURING ERECTION. DO NOT ENLARGE UNFAIR HOLES IN MEMBERS BY BURNING OR BY USING DRIFT PINS.

"EOS" INDICATES EDGE OF SLAB.

PROVIDE CAP PL 9/8" AT ALL STEEL COLUMNS UNLESS NOTED OTHERWISE.

STEEL DECK

LAYOUT DECKING SO THAT NARROW MAKE-UP SHEETS ARE NEAR CENTER OF BUILDING. LOCATE FULL SHEETS AT BUILDING PERIMETER.

COLD-FORMED METAL FRAMING

"STS" INDICATES SELF-TAPPING SCREW.

ALL EXTERIOR WALL STUDS SHALL BE PER SCHEDULE, UNLESS NOTED OTHERWISE. ALL BOTTOM TRACK SHALL BE ***1/25-54, *** = TO MATCH STUD DEPTH, UNLESS NOTED OTHERWISE.

STEEL LINTELS AT BRICK AND CMU

ALL LINTELS SHALL CONFORM TO ARCHITECTURAL HEAD DETAILS.

UNLESS NOTED OTHERWISE, PROVIDE ONE 1/4x3-1/2x1/4" FOR SPANS LESS THAN 6'-0" AND ONE 1/4x3-1/2x3/8" FOR SPANS GREATER THAN 6'-0" AND LESS THAN 11'-6" FOR EACH NOMINAL 4" MASONRY THICKNESS AS LINTELS FOR BRICK OVER ALL OPENINGS IN NON-LOAD BEARING WALLS OR CMU AT DOORS, DUCTS, RECESSED HEATING UNITS, PANELS, GRILLS OR LOUVERS.

SUBMIT SHOP DRAWINGS FOR APPROVAL SHOWING SCHEDULES, DETAILS, SIZE AND LOCATION FOR ALL STEEL LINTELS.

EXPANSION & ADHESIVE ANCHORS

ALL EXPANSION ANCHORS SHALL BE 5/8" DIAMETER WITH 4" MINIMUM EMBEDMENT UNLESS NOTED OTHERWISE. INSTALL PER MANUFACTURER'S REQUIREMENTS IN CONCRETE OR FULLY GROUTED MASONRY.

ALL ADHESIVE ANCHORS SHALL BE 5/8" DIAMETER WITH 5" MINIMUM EMBEDMENT UNLESS NOTED OTHERWISE. INSTALL PER MANUFACTURER'S REQUIREMENTS IN CONCRETE OR FULLY GROUTED MASONRY.

NO ANCHOR SHALL BE INSTALLED PRIOR TO RECEIVING PROPER INSTALLATION TRAINING FROM A MANUFACTURER'S REPRESENTATIVE. ALL ANCHORS SHALL BE INSTALLED BY PERSONNEL TRAINED BY MANUFACTURER'S REPRESENTATIVE.

TYP STRIP FOOTING DETAIL NTS 4

FOUNDATION LEGEND NTS 1

CONSULTANTS:

ARCHITECT/ENGINEERS:

Drawing Title

General Notes, Typical Details and Schedules

Approved Project Director

Project Title

Adult Day Care Building
VA Medical Center
Comm No. 10110.00

Location

Beckley, West Virginia

Date

08/05/2011

Checked

CMF

Drawn

PJW

Drawing Number

S0.1

Dwg 42 of 77

Office of Construction and Facilities Management

Department of Veterans Affairs

Revisions:

Date

VA FORM 08-6231