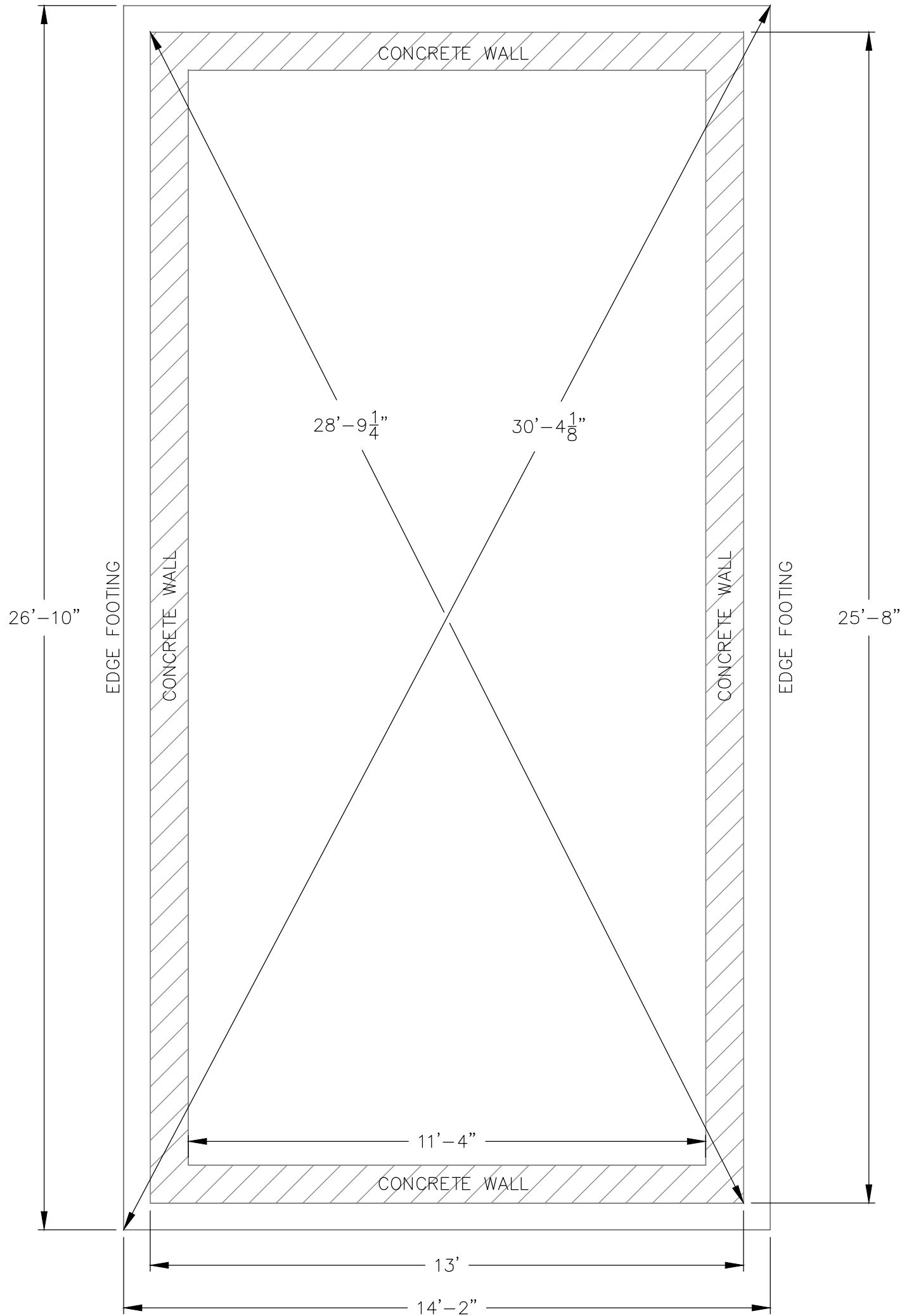


CONCRETE WALL CONSTRUCTION NOTES

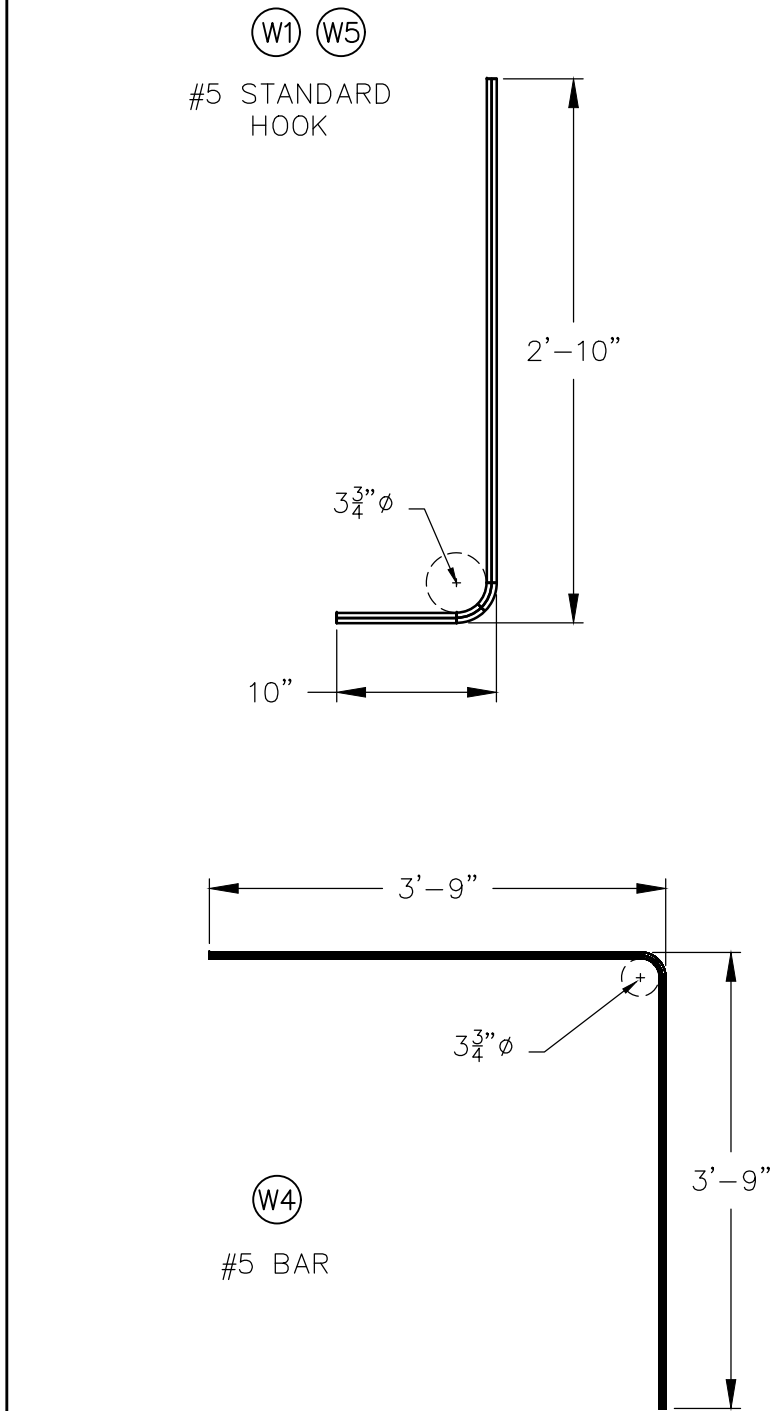
- ALL FILL THAT SHALL HAVE CONCRETE PLACED ON IT SHALL BE CLASS II COMPACTION AS SPECIFIED IN CONSTRUCTION SPECIFICATION #11, "EARTHWORK".
- ALL CONCRETE FORMWORK & REINFORCEMENT SHALL BE INSPECTED BY A REPRESENTATIVE OF THE NRCS PRIOR TO THE PLACEMENT OF CONCRETE. A MINIMUM OF 1 DAY NOTICE IS REQUIRED.
- ALL CONCRETE & REINFORCING SHALL BE INSTALLED ACCORDING TO NRCS CONSTRUCTION SPECIFICATION #31, "STRUCTURAL CONCRETE, NONSTRUCTURAL CONCRETE BASE SLABS & STEEL REINFORCEMENT". CONCRETE SHALL BE DELIVERED BY READY MIX METHODS, MEETING ASTM C94.
- ALL REINFORCING STEEL SHALL BE GRADE 60.
- ALL REINFORCING SHALL BE IN PLACE PRIOR TO CONCRETE PLACEMENT. (NO PLUNKING)
- ALL REINFORCING SHALL HAVE THE MINIMUM CLEAR COVER AS SHOWN ON THE DRAWINGS.
- ALL CONCRETE SHALL BE AN NRCS APPROVED MIX, WITH 5 TO 7 PERCENT AIR CONTENT AND PLACED AT A SLUMP BETWEEN 3 TO 5 INCHES. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE **28 DAY STRENGTH OF 4000 PSI**. THE MAXIMUM **WATER CEMENT RATIO OF THE PLACED CONCRETE SHALL BE 0.45**. CONCRETE MIX DESIGN SHALL BE THE RESPONSIBILITY OF THE SUPPLIER IN ACCORDANCE WITH ASTM C94 SECTION 6.5 OPTION C.
- CONCRETE SHALL BE DISCHARGED WITHIN 90 MINUTES OF CEMENT TO THE MIX. OTHERWISE A SET RETARDING ADMIXTURE SHALL BE USED. **DRY MIXING WILL NOT BE ALLOWED.**
- NO ADDITIONAL WATER SHALL BE ADDED TO THE CONCRETE ON SITE.** CONCRETE SHALL BE DELIVERED AT THE DESIRED PLACEMENT SLUMP.
- A MIDRANGE OR HIGH RANGE WATER REDUCER SHALL BE USED FOR THE WALL AND FOR THE SLAB. SEE CONSTRUCTION SPECIFICATION #31. MAXIMUM PLACEMENT SLUMP SHALL BE 7.5".
- BENTONITE OR PVC TYPE WATERSTOP SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS. MINIMUM CONCRETE COVER OVER WATERSTOP SHALL BE 3" OR MANUFACTURER'S RECOMMENDED MINIMUM COVER, WHICHEVER IS GREATER.
- ALL COLD JOINTS SHALL HAVE PRIOR APPROVAL OF THE NRCS. ALL COLD JOINTS SHALL HAVE AN APPROVED WATERSTOP.
- CONCRETE FORM OIL SHALL BE APPLIED TO THE FORMS PRIOR TO ERECTION. FORM OIL SHALL NOT BE APPLIED TO THE FORMS ONCE REINFORCING IS IN PLACE. (NO FORM OIL ON REINFORCING)
- NO CONCRETE SHALL BE PLACED WHEN THE NATIONAL WEATHER SERVICE FORECASTS THE MINIMUM DAILY ATMOSPHERIC TEMPERATURE WILL BE LESS THAN 40° FAHRENHEIT THE DAY OF THE PLACEMENT OR EITHER OF THE FOLLOWING 2 DAYS. UNLESS COLD WEATHER CONCRETING PRACTICES ARE FOLLOWED:
 - TEMPERATURE FORECASTED TO BE LESS THAN 40° F BUT GREATER THAN 32° F
 - CONCRETE SHALL BE COMPLETELY COVERED WITH PLASTIC SHEATHING AND BE MAINTAINED FOR A MINIMUM OF 3 DAYS.
 - TEMPERATURE FORECASTED TO BE LESS THAN 31° F BUT GREATER THAN 25° F
 - CONCRETE SHALL BE COMPLETELY COVERED WITH INSULATING BLANKETS AND A MINIMUM OF ONE THERMOMETER WITH MAX/MIN TEMPERATURE STORAGE, PER 1500 SF OF PLACEMENT, SHALL BE PLACED AT THE NRCS INSPECTORS DISCRETION. IF THE MIN. TEMPERATURE RECORDED IS BELOW 40° F, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENCLOSE AND HEAT THE PLACEMENT TO A MIN. OF 50° F AND MAINTAIN IT FOR A MINIMUM OF THREE DAYS.
 - TEMPERATURE FORECASTED TO BE LESS THAN 24° F
 - NO PLACEMENT WITHOUT SUPPLEMENTAL HEAT TO MAINTAIN A MINIMUM CONCRETE SURFACE TEMPERATURE OF 50° F.
- CONCRETE SHALL NOT BE PLACED WHEN THE DAILY MAXIMUM TEMPERATURE IS EXPECTED TO BE GREATER THAN 90 DEGREES.
- CONCRETE FORMS SHALL BE REMOVED ONLY AFTER A MINIMUM OF 12 HOURS HAVE ELAPSED SINCE THE COMPLETION OF THE CONCRETE PLACEMENT. BACKFILLING OPERATIONS SHALL NOT COMMENCE UNTIL A MINIMUM OF 14 DAYS AFTER THE LAST PORTION OF THE WALL HAS BEEN PLACED. THIS TIME MAY BE REDUCED IF NON DESTRUCTIVE TESTING INDICATES THE LAST WALL PLACEMENT HAS REACHED 67% OF ITS 28 DAY STRENGTH OR A CONCRETE ACCELERANT IS USED.
- CONCRETE SHALL BE CURED FOR A MINIMUM OF 7 DAYS BY THE USE OF A CURING COMPOUND (ASTM C309 TYPE 1-D FUGITIVE DYE OR TYPE 2 WHITE PIGMENTED). SATURATED COVER MATERIAL OR FREQUENT APPLICATION OF WATER. CURING COMPOUND SHALL BE ONSITE PRIOR TO CONCRETE PLACEMENT. APPLICATION RATE SHALL NOT BE LESS THAN 1 GALLON PER 175 SQUARE FEET. REQUIRED QUANTITIES: FOOTING – 3 GALLONS, WALL – 11 GALLONS. TOTAL 14 GALLONS REQUIRED. CURING COMPOUND SHALL BE APPLIED IMMEDIATELY AFTER INITIAL SET OR WITHIN 12 HOURS.
- TIEHOLES ON BOTH SIDES OF THE WALL SHALL BE FILLED WITH A DENSE, WELL BONDED, NON SHRINK PATCHING MATERIAL SUCH AS HYDRAULIC CEMENT.

DESIGN ASSUMPTIONS

- DESIGN BASED ON FINITE ELEMENT ANALYSIS
- MEETS NRCS NEH 636 '10
- MINIMUM ALLOWABLE SOIL BEARING STRENGTH 2,000 PSF.
- BACKFILL IS SILTY SANDS OR SILTY GRAVELS, LESS THAN 50% FINES, LOW PLASTIC FINES
- EQUIVALENT FLUID PRESSURE = 75 PSF (FRAME TANK)
- SURCHARGE OF 100 PSF INCLUDED
- MAX. BACKFILL – FULL HEIGHT
- GRADE 60 STEEL FOR REBAR
- 4000 PSI CONCRETE STRENGTH



BAR TYPES



STEEL SCHEDULE

LOCATION	BEND TYPE	MARK	BAR SIZE	SPACING IN	LENGTH FT-IN	QUANTITY	TOTAL LENGTH FT	TOTAL WEIGHT LBS
FOOTING BOT. FACE	STR.	F1	#6	12"	13' - 8"	27	369'	555#
FOOTING BOT. FACE	STR.	F2	#4	12"	26' - 4"	14	369'	247#
FOOTING TOP FACE	STR.	F2	#4	12"	13' - 8"	27	369'	247#
FOOTING TOP FACE	STR.	F2	#4	12"	26' - 4"	14	369'	247#
FTG./WALL	STD. HOOK	W1	#5	12"	3' - 8"	180	660'	689#
WALL-VERT.	STR.	W2	#5	6" & 12"	11' - 1"	50	555'	579#
WALL-VERT.	STR.	W2	#5	6" & 12"	11' - 9"	138	1,622'	1,692#
WALL-HORI.	STR.	W3	#5	12"	11' - 4"	52	590'	616#
WALL-HORI.	STR.	W3	#5	12"	24' - 0"	48	1,152'	1,202#
WALL-HORI.	2	W4	#5	6" & 12"	7' - 6"	76	570'	595#
WALL-HORI.	STD. HOOK	W5	#5	12"	3' - 8"	96	352'	368#
PIPE PEN.	STR.	W6	#5	-	4' - 0"	8	32'	34#
APPROXIMATE SPLICE LENGTHS ARE INCLUDED IN TOTAL LENGTH. BASED ON 40' BAR LENGTHS.								7,071#

USE 16" SPLICE LENGTH FOR #4 BARS
USE 20" SPLICE LENGTH FOR #5 BARS
USE 24" SPLICE LENGTH FOR #6 BARS

ESTIMATED CONCRETE QUANTITIES

FOOTING/SLAB 14.1 CY
WALL 27.0 CY

1	4-11-16	INITIAL DRAWING	TKJ
2	4-25-16	CLARIFY W4 & W5 BAR	TKJ
3	4-26-16	REBAR SCHEDULE CORRECTIONS	TKJ
4	10-19-16	W3 LABEL CORRECTIONS	TKJ
NO.	DATE	DESCRIPTION	BY

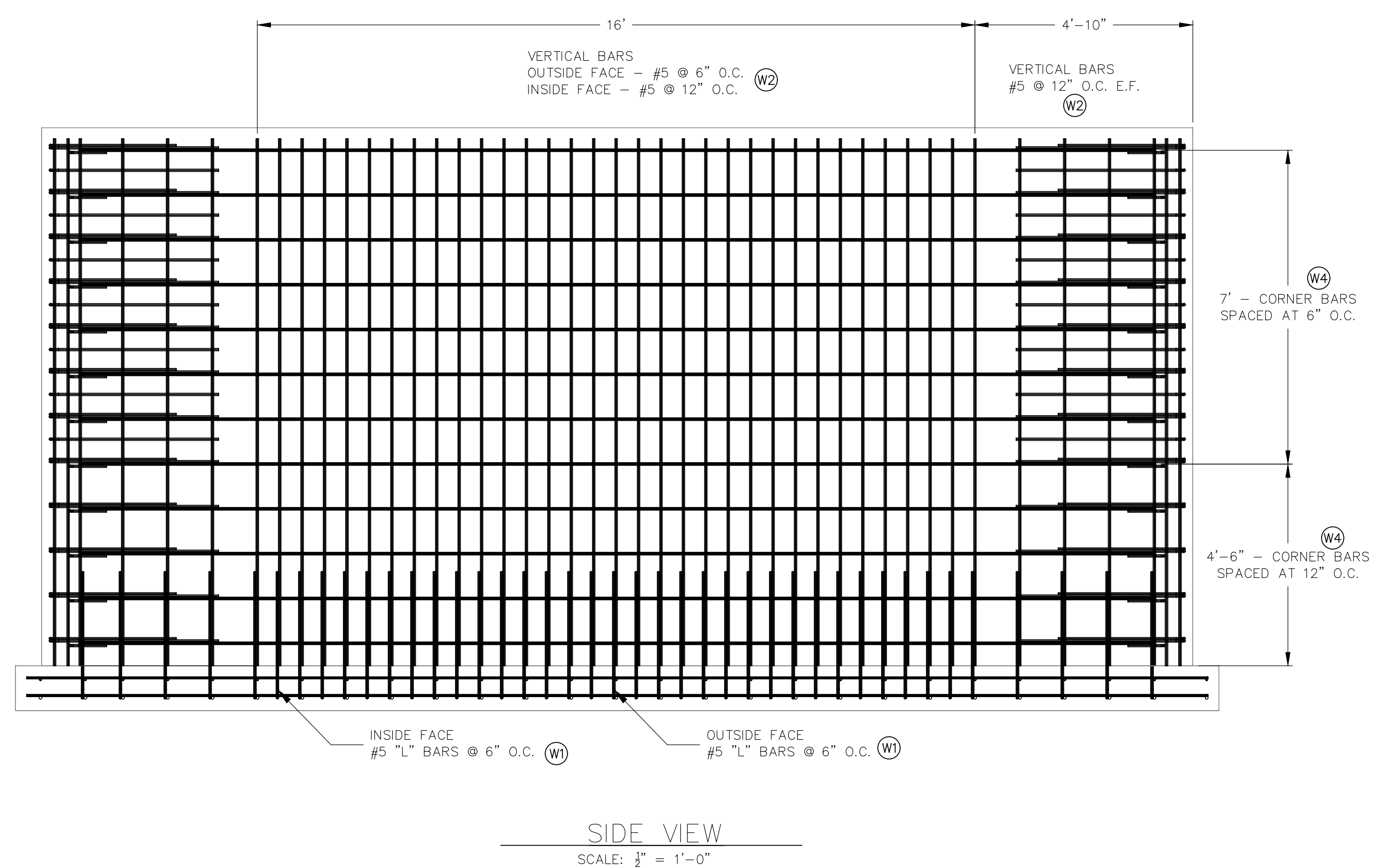
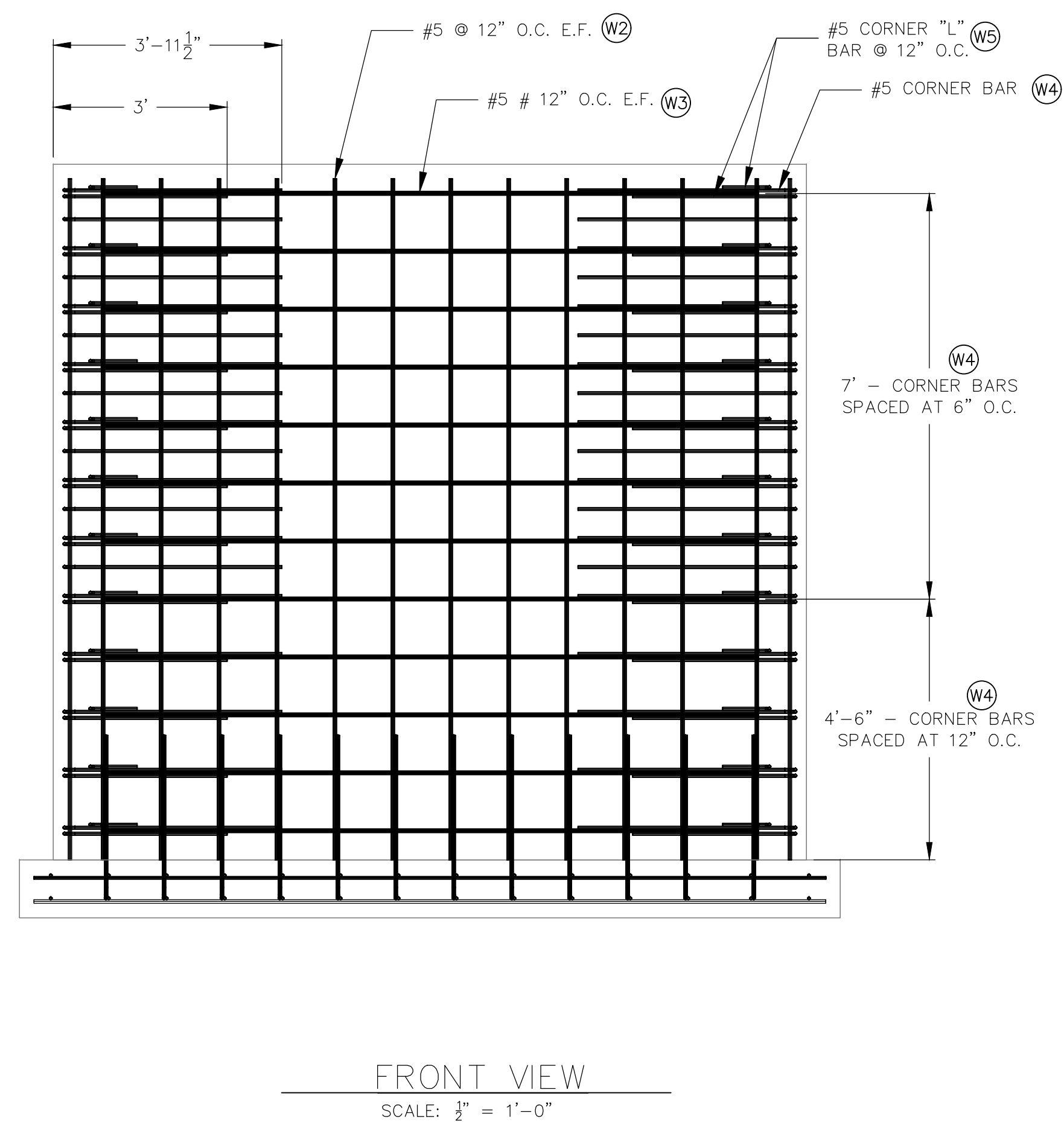
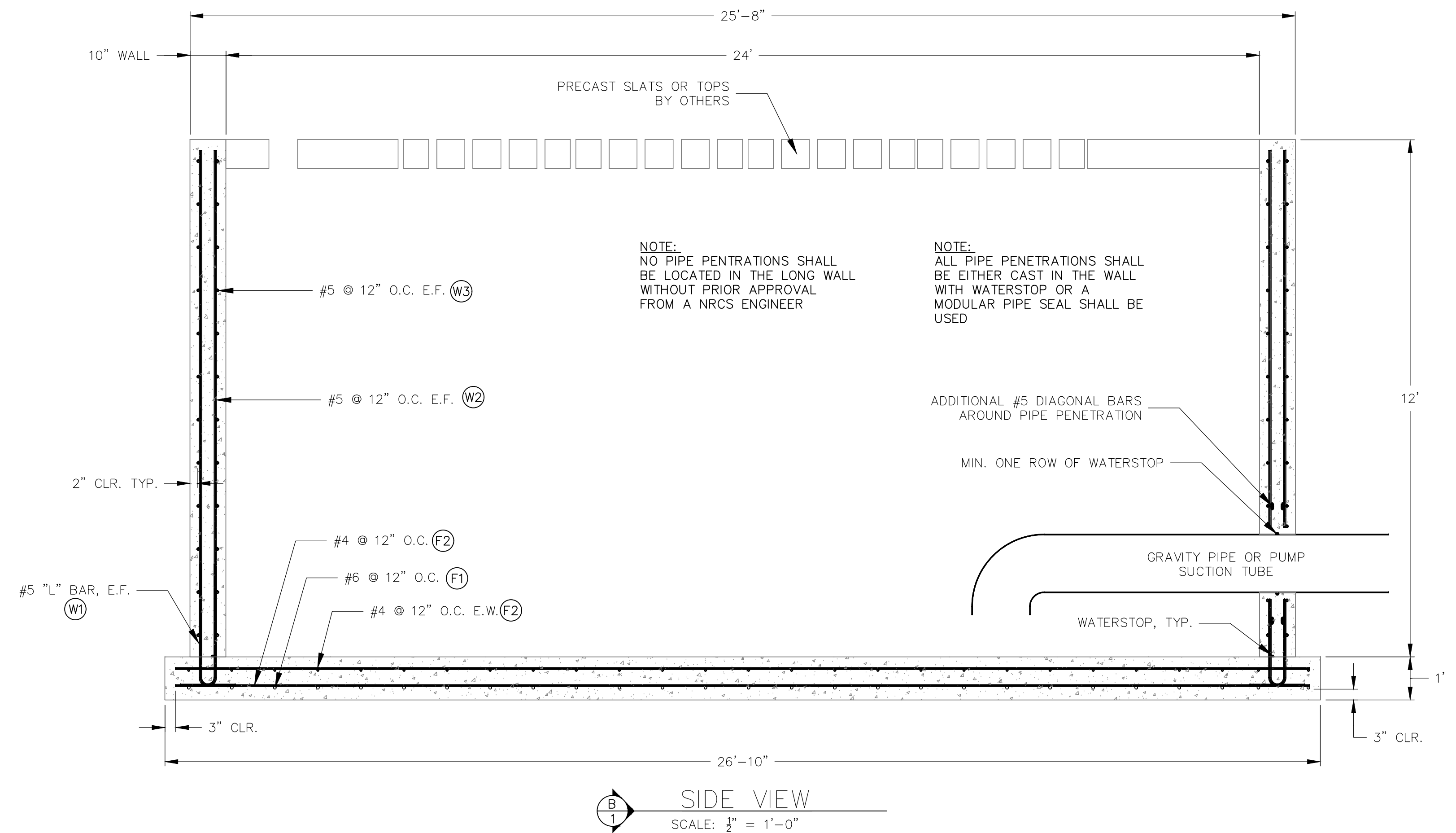
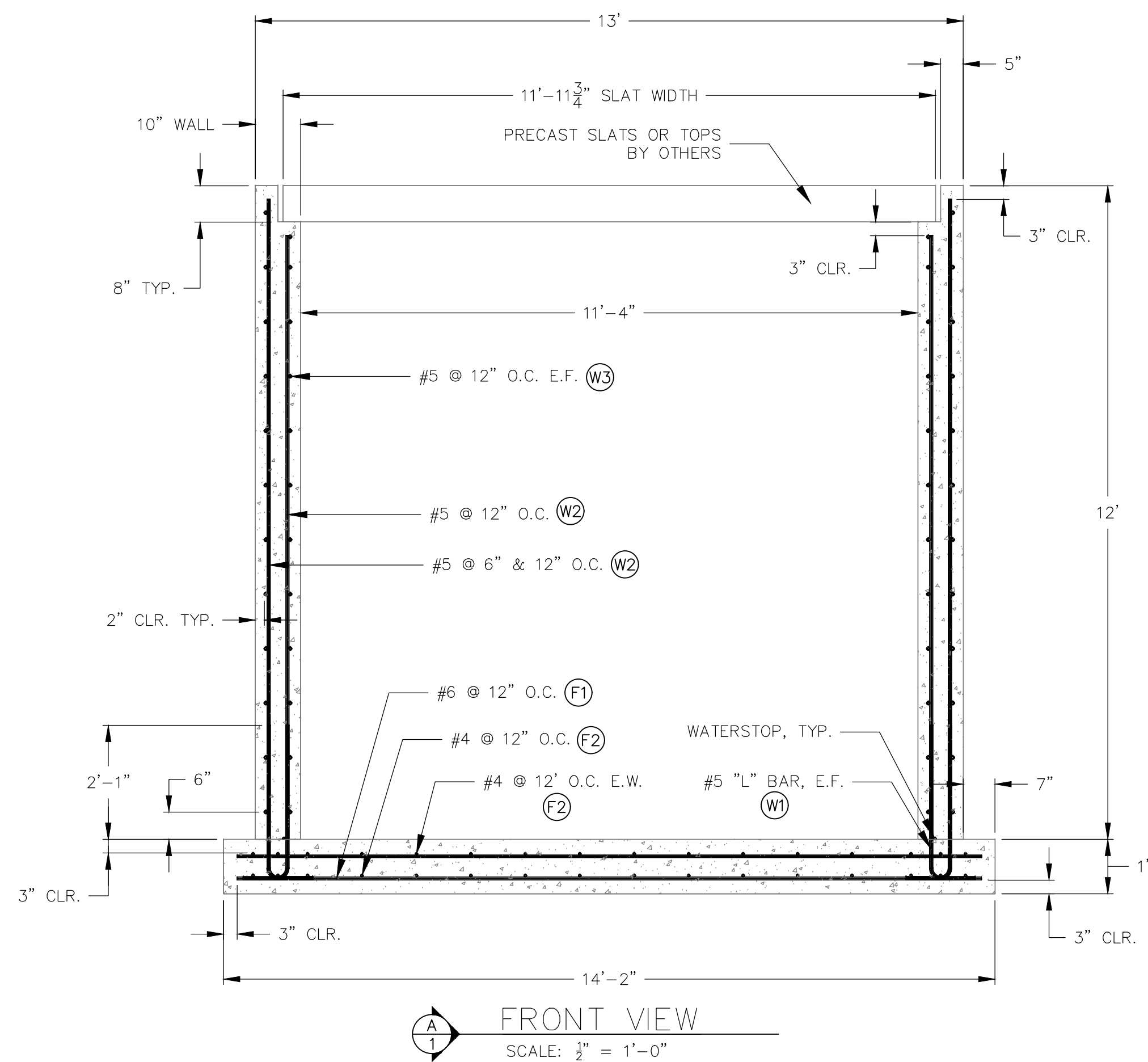
Date	4/16
Designed	TATE JEFFREY
Drawn	TATE JEFFREY
Checked	BOB THOMPSON
Approved by	

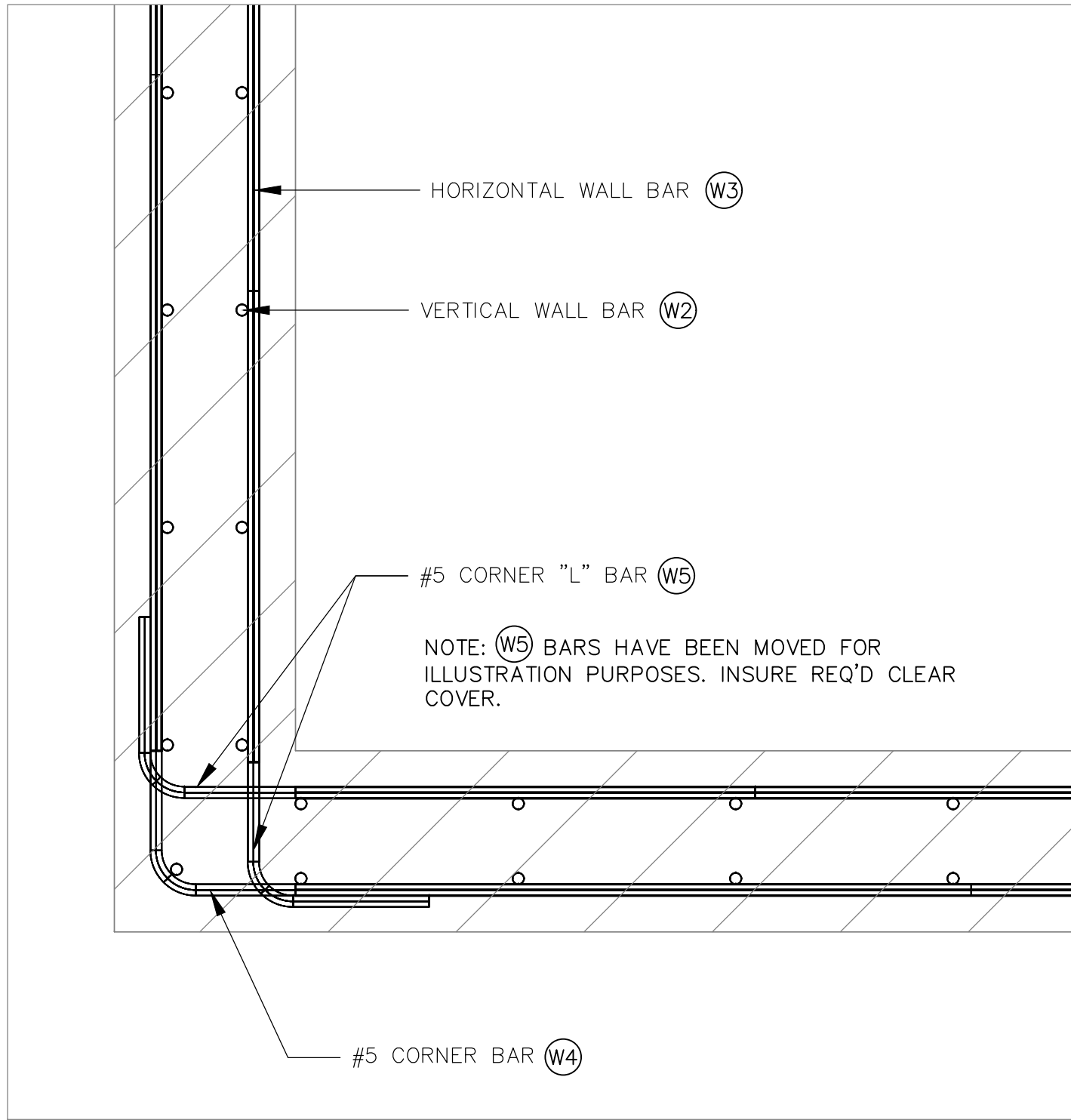
United States
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Natural Resources
Conservation Service

HAZARD CLASS
LOW
JOB CLASS
V

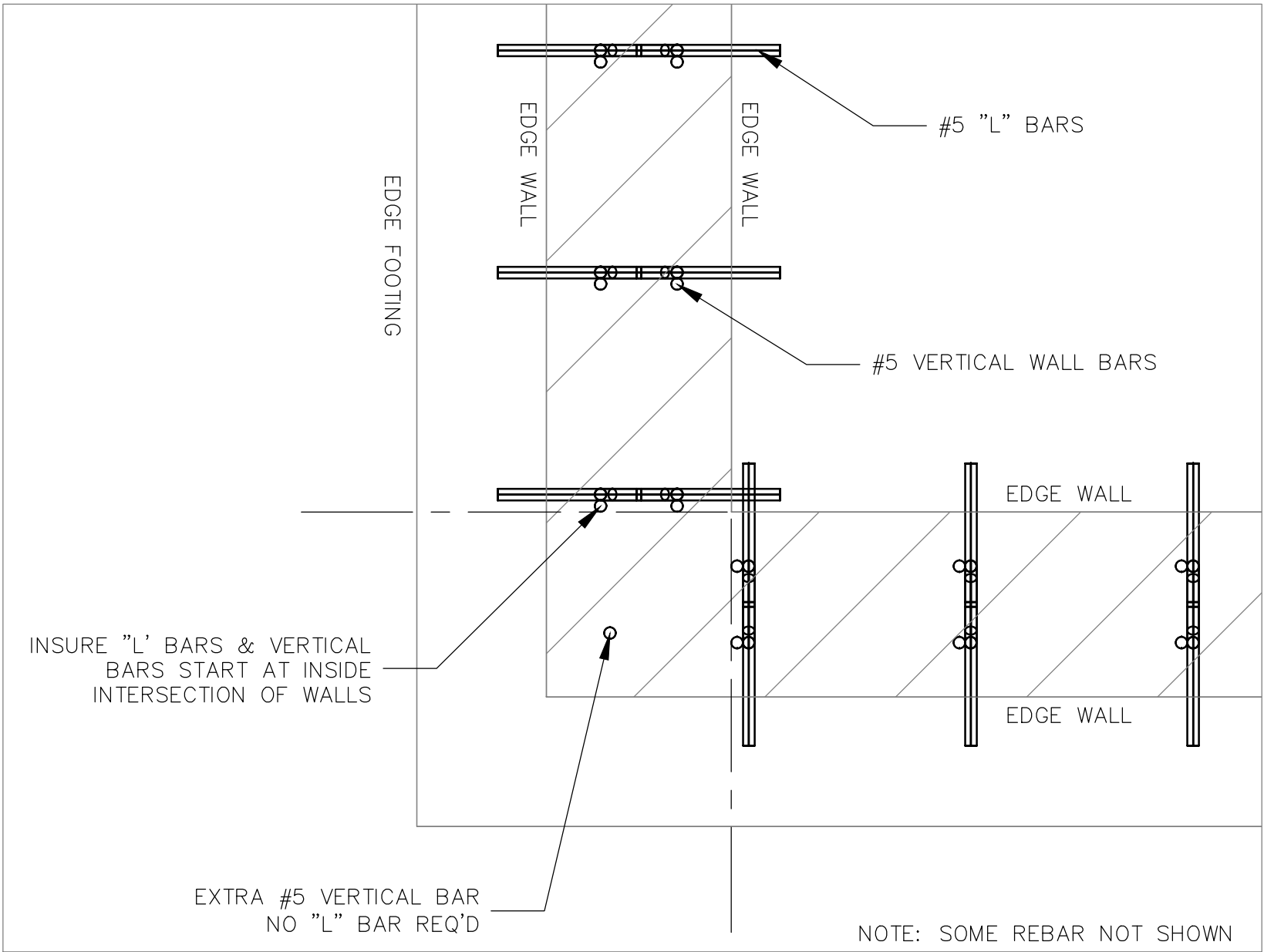
VERMONT STANDARD DRAWING
12'x12'x24' CONCRETE RECEPTION PIT
COVER SHEET
VERMONT

File Name	
Drawing Name	VT12X12X24RECEP
Sheet	1 of 3

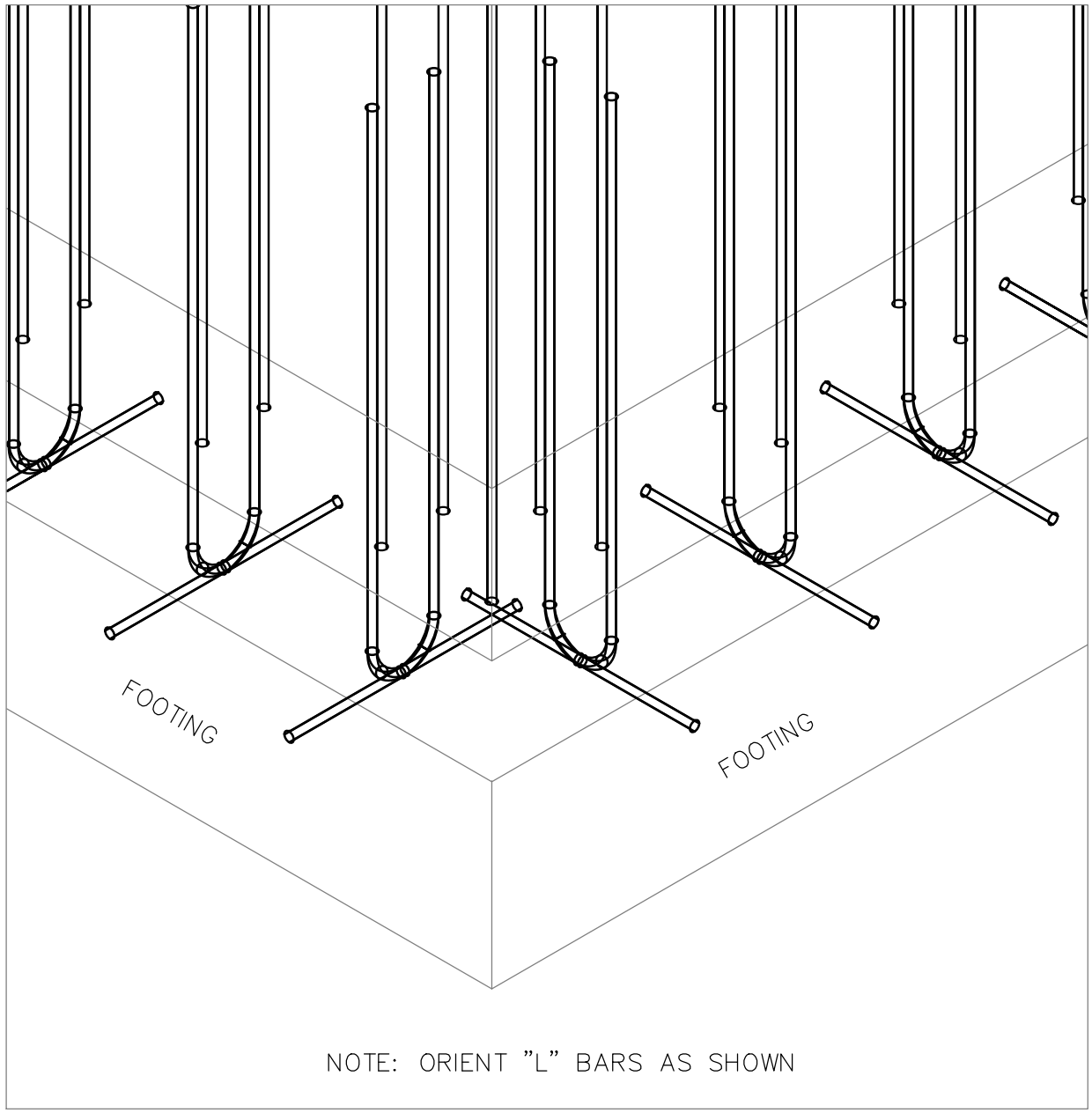




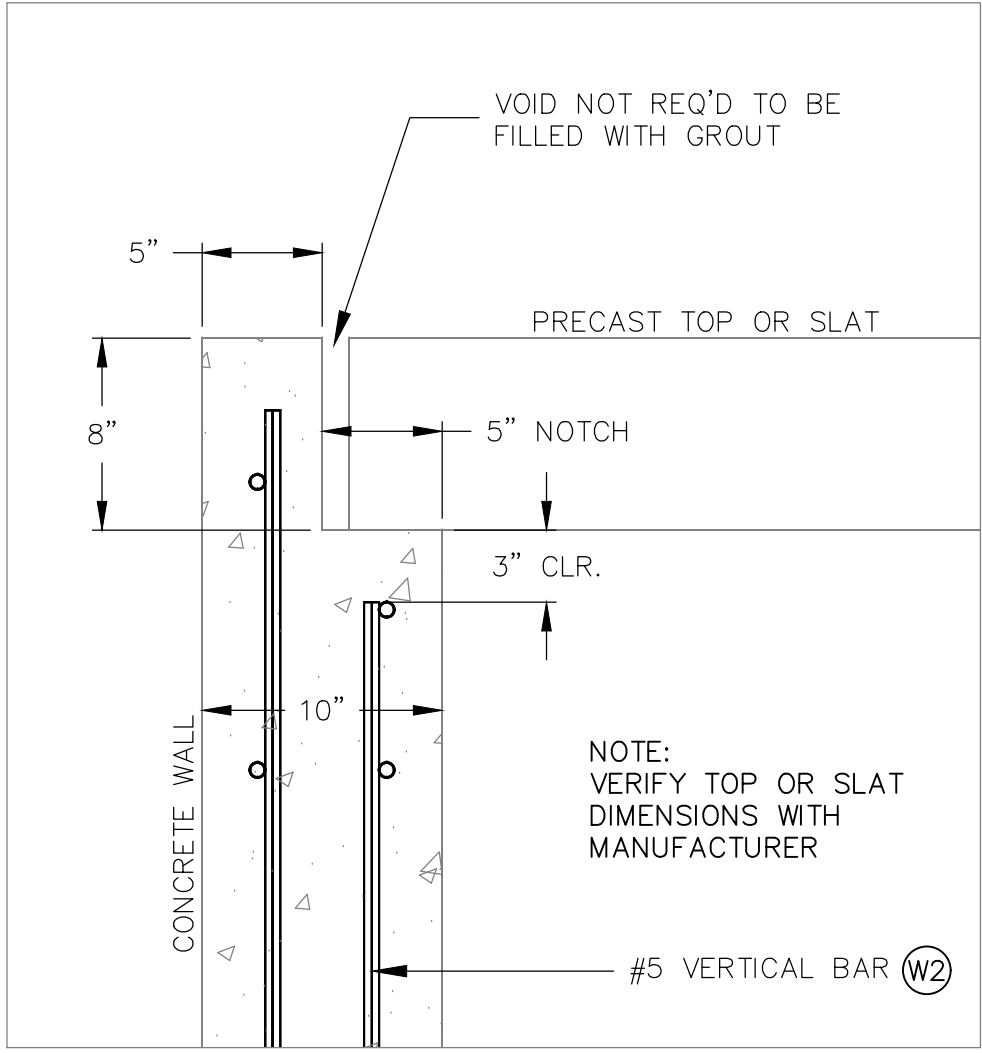
WALL CORNER DETAIL
TOP VIEW
SCALE: 1 1/2" = 1'-0"



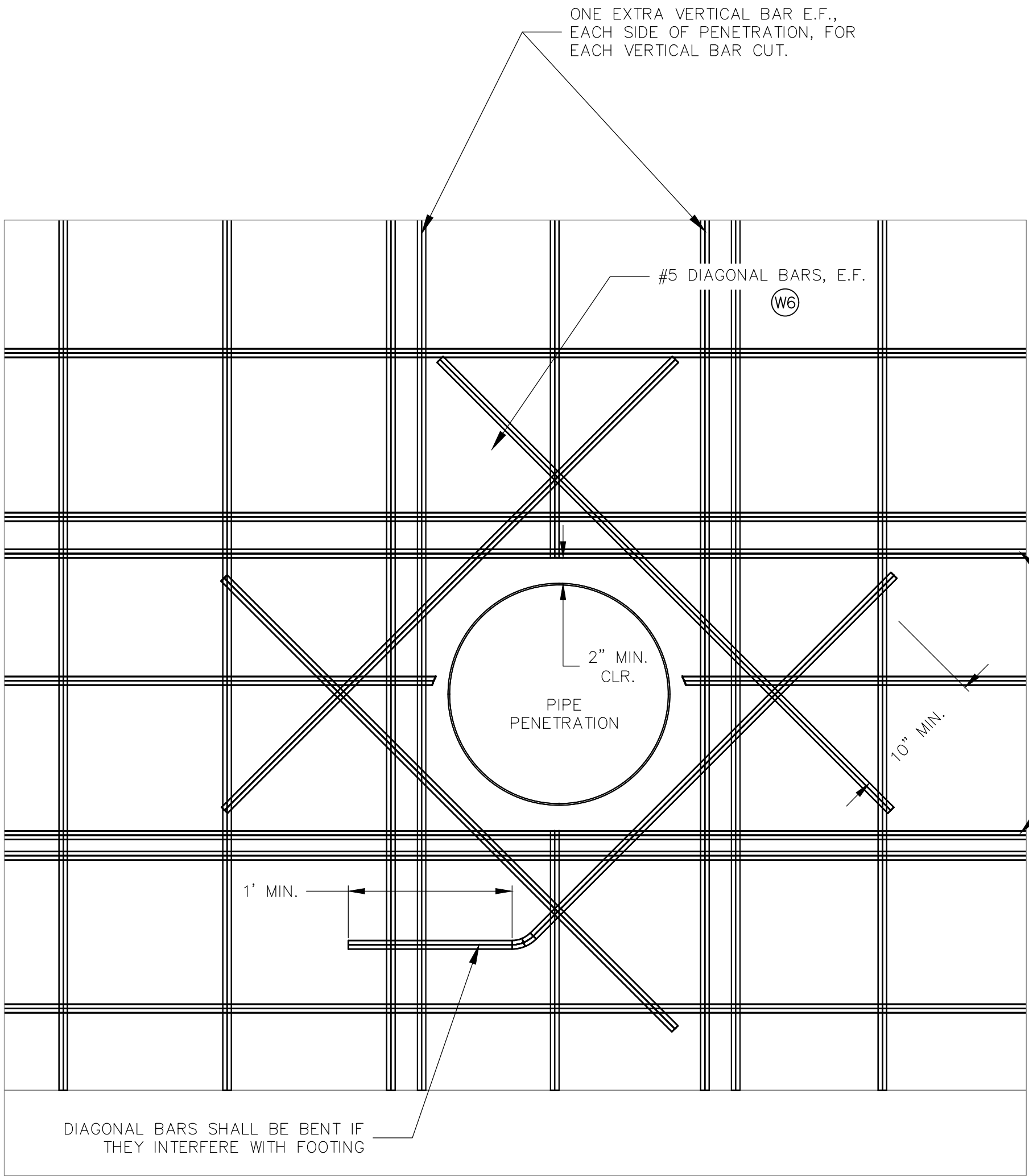
FOOTING/WALL CORNER DETAIL
TOP VIEW
SCALE 1 1/2" = 1'-0"



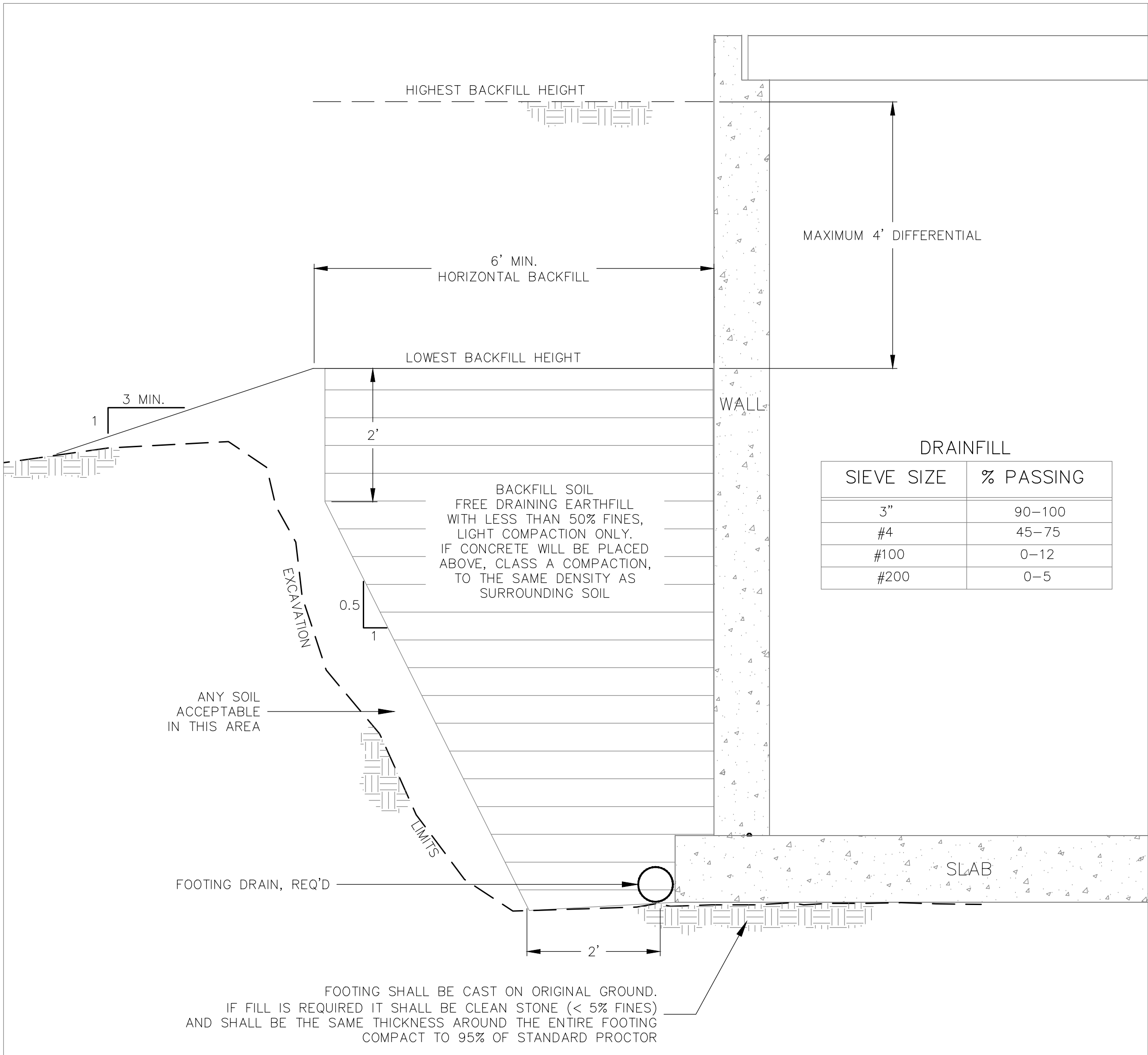
FOOTING "L" BAR DETAIL
ISOMETRIC - NTS



WALL NOTCH
SCALE: 1" = 1'-0"



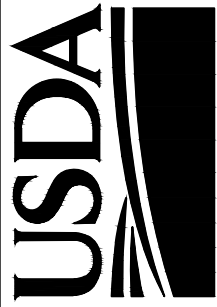
PIPE PENETRATION DETAIL
SCALE: 1 1/2" = 1'-0"



BACKFILL DETAIL
SCALE: 3/4" = 1'-0"

Date 4/16
Designed TATE JEFFREY
Drawn TATE JEFFREY
Checked BOB THOMPSON
Approved by [Signature] 4/26/16

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Department of
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Natural Resources
Conservation Service



HAZARD CLASS
LOW

JOB CLASS
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VERMONT STANDARD DRAWING
12'x12'x24' CONCRETE RECEPTION PIT
DETAILS

VERMONT

File Name

Drawing Name
VT12X12X24RECEP

Sheet 3 of 3