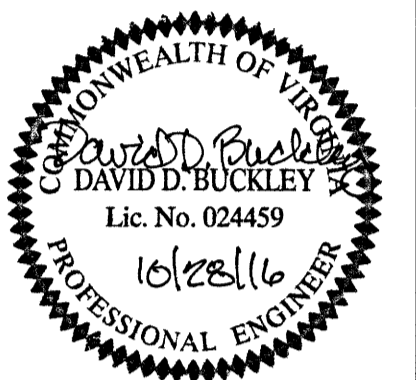




ENGINEERS
ARCHITECTS
PLANNERS

449 McLAWS CIRCLE
WILLIAMSBURG, VA 23185
(757) 253-0673 VOICE
(757) 253-2319 FAX
www.djginc.com



COUNTY OF ALBEMARLE

PANTOPS
PUBLIC SAFETY
FACILITY

IFB # 2017-11223-20

CHARLOTTESVILLE,
VIRGINIA

REVISIONS

DATE DESCRIPTION

COMMISSION NUMBER

2160310

SCALE: AS NOTED

DESIGNED: DDB

DRAWN: DDB

CHECKED: DFB

DATE: 10.28.2016

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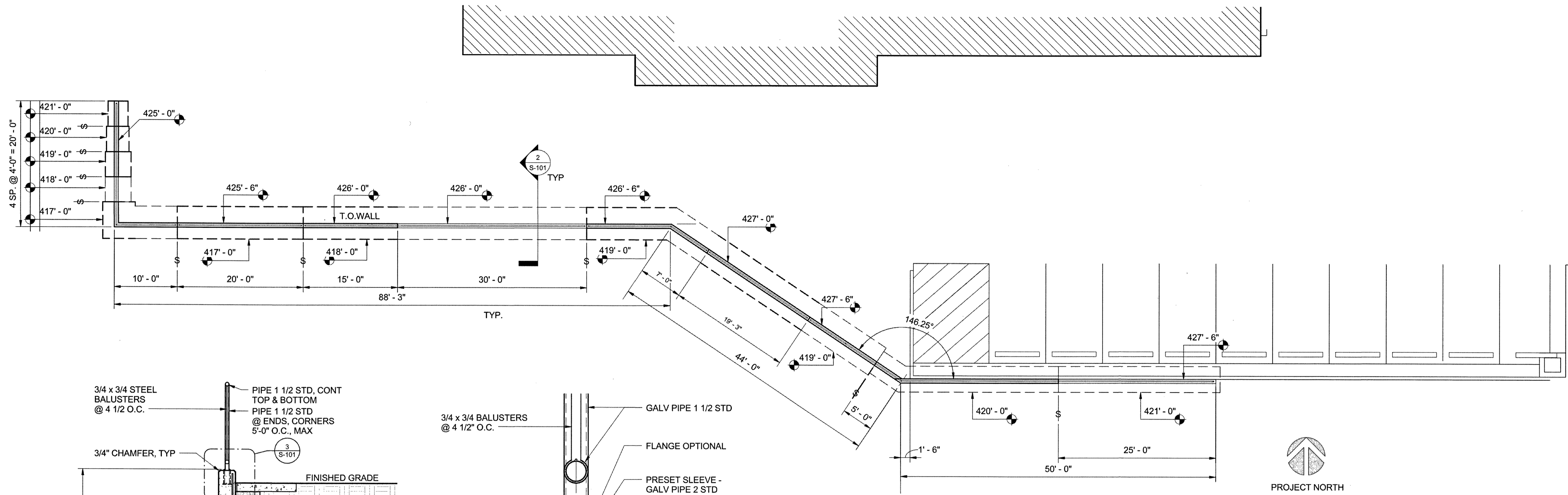
SHEET TITLE

RETAINING
WALLS

SHEET NUMBER

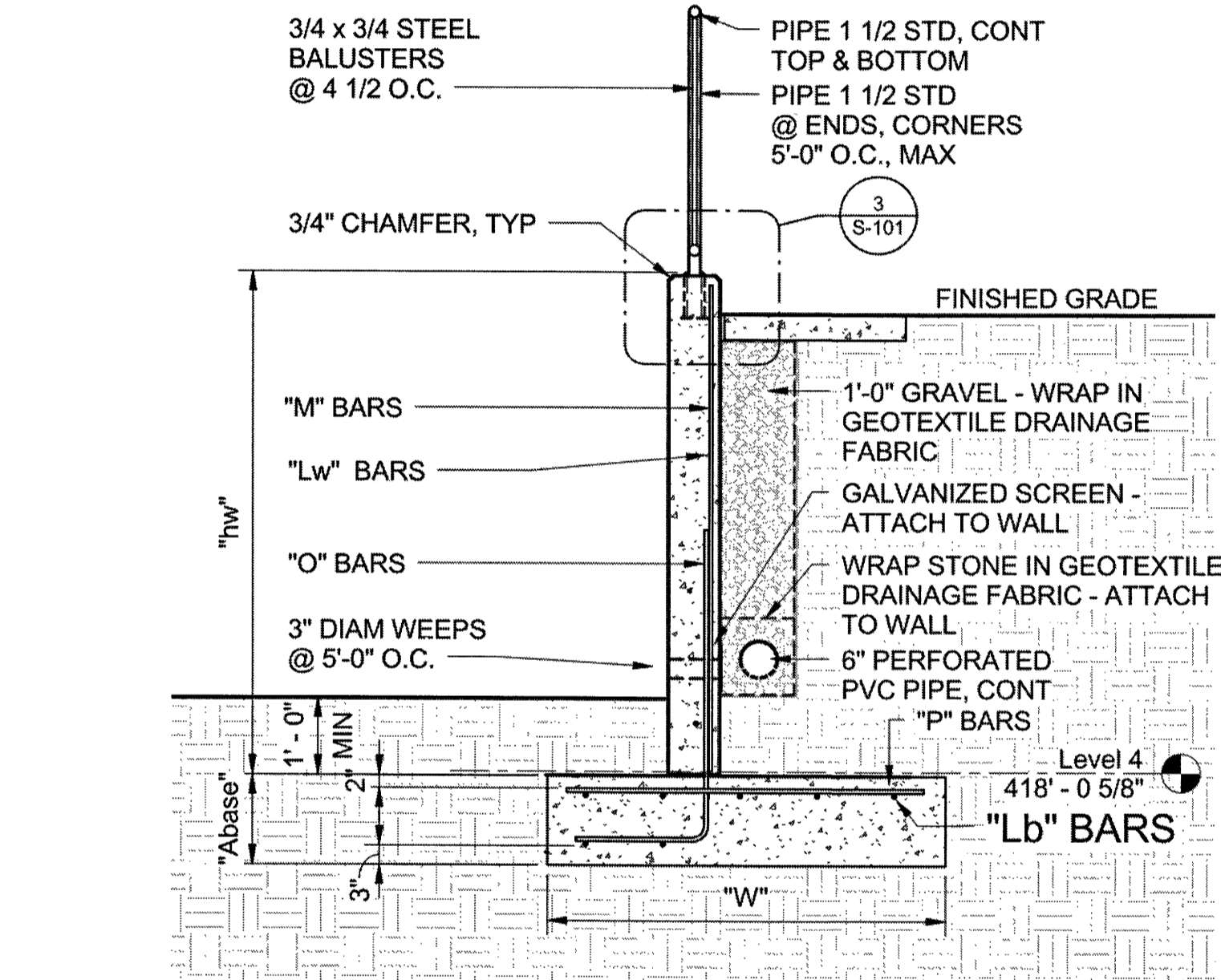
S-101

40 OF 68

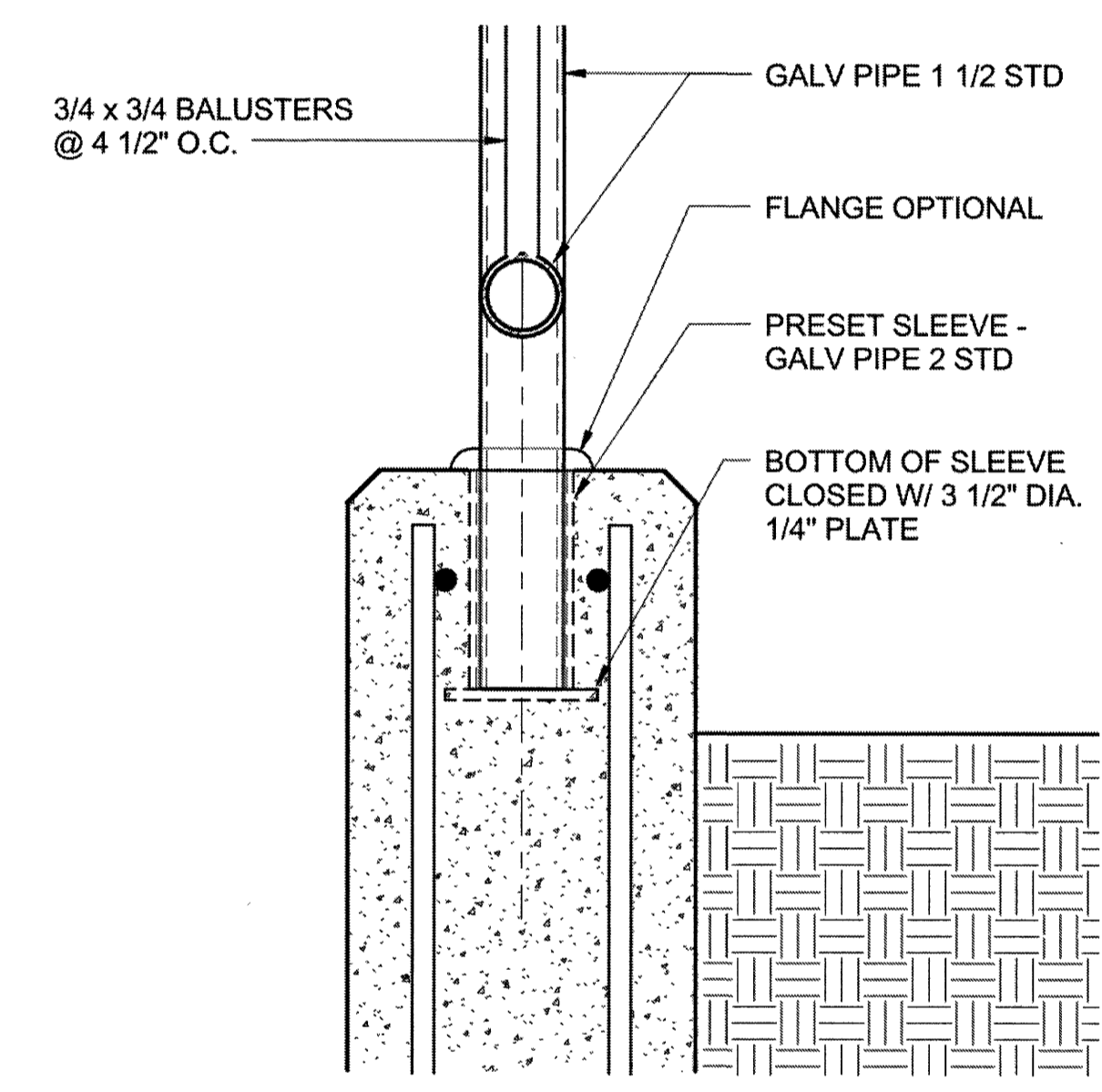


PROJECT NORTH

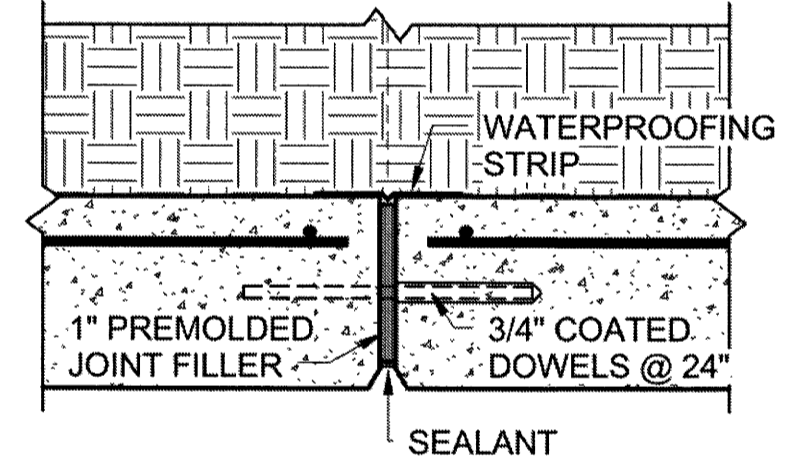
1 PLAN - RETAINING WALLS
1/8" = 1'-0"



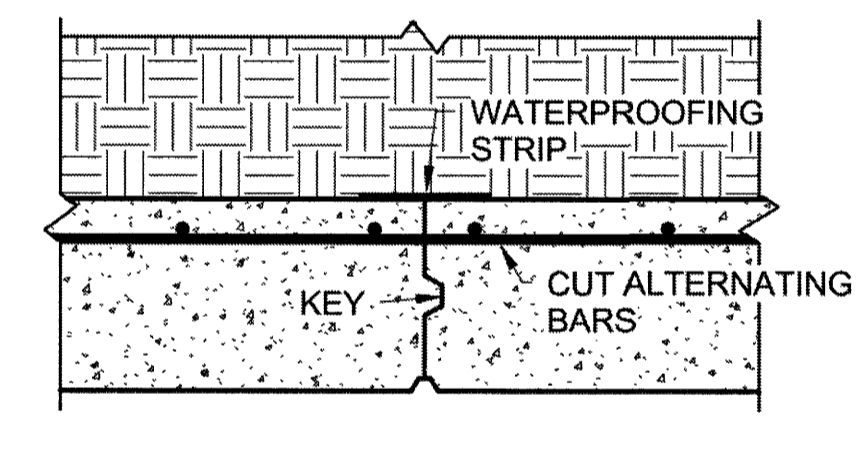
2 SECTION - 8" RETAINING WALL
1/2" = 1'-0"



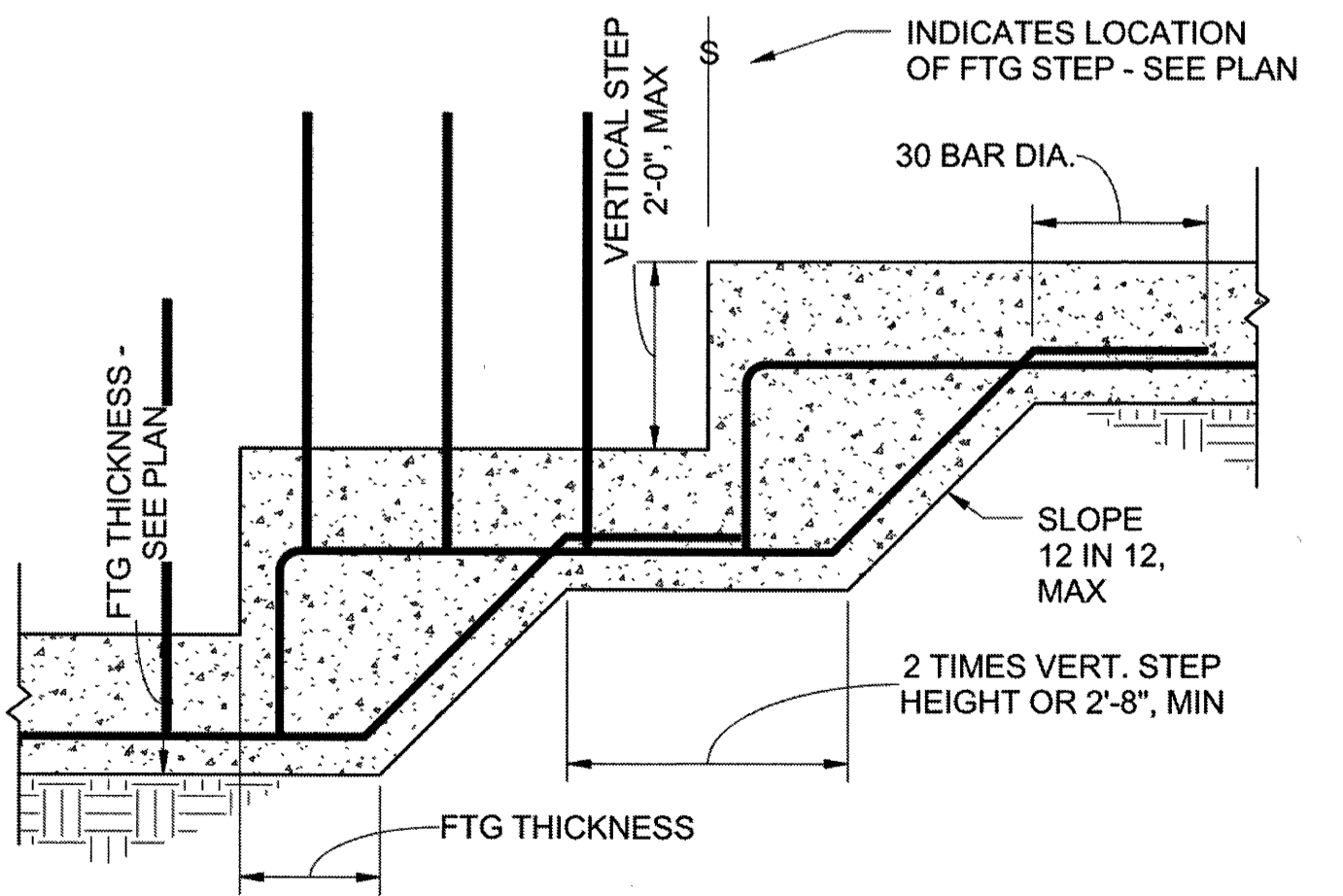
3 DETAIL - GUARDRAIL
3" = 1'-0"



5 VERTICAL EXPANSION JOINT
1" = 1'-0"



6 VERTICAL CONTROL JOINT
1" = 1'-0"



7 TYPICAL STEPPED FOOTING
3/4" = 1'-0"

CATILEVERED RETAINING WALLS										ASSUMED SOIL PROPERTIES: UNIT DENSITY - 115 pcf, INTERNAL FRICTION ANGLE - 30 DEGREES; SLIDING FRICTION COEFFICIENT - 0.55 BACKFILL SLOPE: LEVEL (200 PSF SURCHARGE)							
CONCRETE DIMENSIONS & VOLUME					SERVICE LOAD ANALYSIS					STEM REINFORCEMENT					BASE REINFORCEMENT		
Height Above Base (ft-in)	Stem Thickness (in.)	Heel (ft-in)	Width of Base (ft-in)	Base Depth (in.)	Concrete Quantity (1)	Toe (psf)	Heel (psf)	Sliding	Overturning	"O" BARS Size - in.	Dowels into stem ft-in	"M" BARS Size - in.	"D" BARS Size - in.	"Lw" BARS (2) Size - in.	"P" BARS Size - in.	"Lb" BARS Size - in.	Total Steel Weight (3) lb/ft
9'-0"	8"	2'-8"	5'-2"	12"	.41	1603	114	1.54	2.27	#5@12"	NONE	NONE	#4@12"	#4@12"	#5@12"	7-#4	28.63
8'-0"	8"	2'-2"	4'-6"	12"	.36	1520	21	1.56	2.13	#4@9"	NONE	NONE	#4@9"	#4@12"	#4@9"	6-#4	27.31
7'-0"	8"	2'-0"	4'-1"	12"	.32	1363	69	1.73	2.27	#4@9"	NONE	NONE	#4@9"	#4@12"	#4@9"	6-#4	21.78
6'-0"	8"	1'-8"	3'-7"	12"	.28	1206	71	1.89	2.32	#4@9"	NONE	NONE	#4@9"	#4@12"	#4@9"	5-#4	19.10
5'-0"	8"	1'-6"	3'-2"	12"	.24	1051	110	2.21	2.54	#4@9"	NONE	NONE	#4@9"	#4@12"	#4@9"	5-#4	17.17

(1) Calculated for uniform thickness base and stem. Actual quantities for concrete cast against earth are larger. User should allow additional amounts based upon job conditions.
(2) "Lw" bars are 0.0025 Ag
(3) Does not include lap allowance for horizontal bars, which varies with joint spacing, stagger, etc.

4 RETAINING WALL SCHEDULE
1/2" = 1'-0"