

GEOTECHNICAL ENGINEER

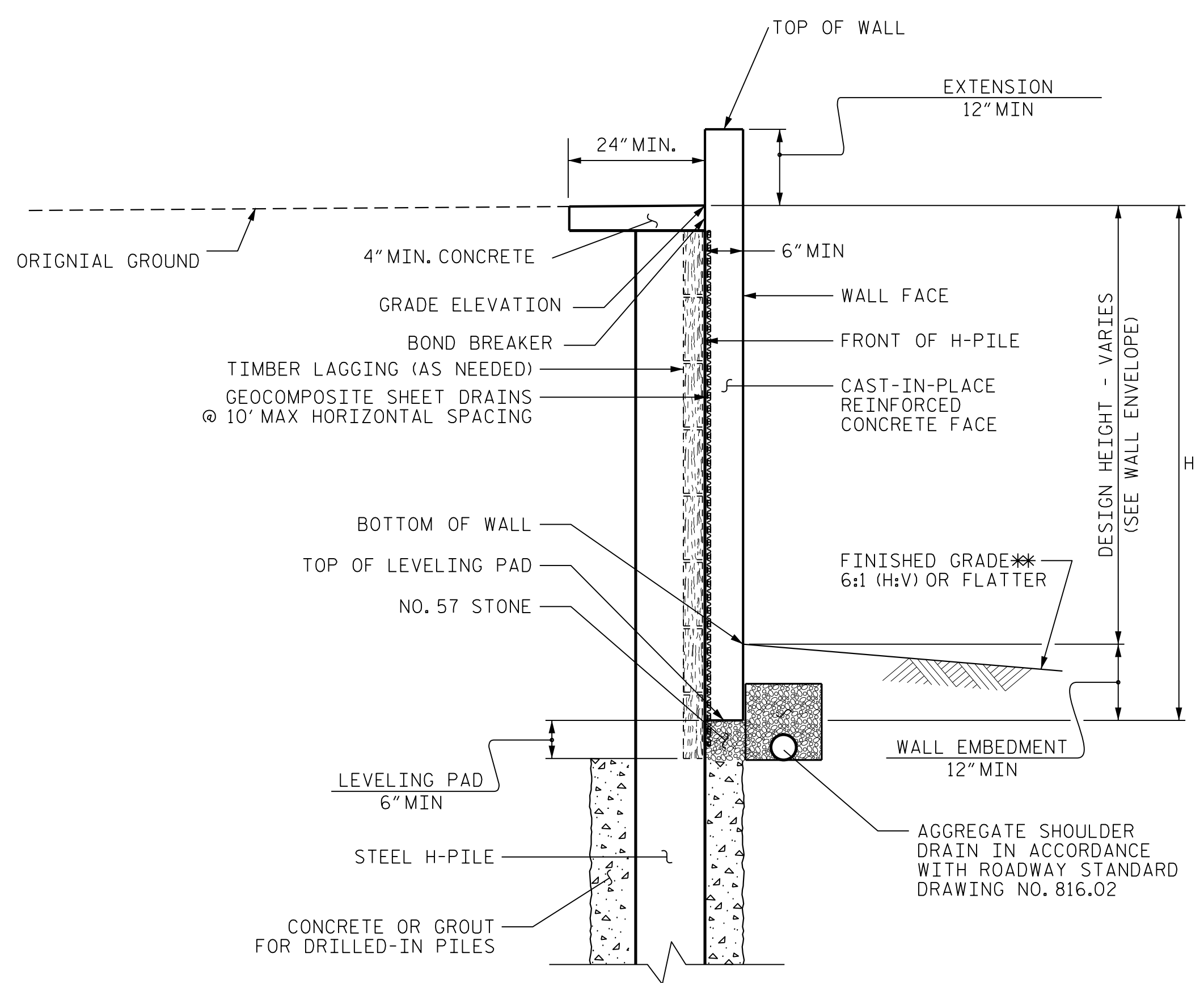
DocuSigned by:
Scott Webb 6/6/2017

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ENGINEER

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**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**



**SOLDIER PILE WALL WITH
CAST-IN-PLACE FACE - TYPICAL SECTION D-D**

- NOTES:**
1. FOR SOLDIER PILE RETAINING WALLS, SEE SOLDIER PILE RETAINING WALLS PROVISION.
 2. AT THE CONTRACTOR'S OPTION, USE DRIVEN H-PILES FOR RETAINING WALL NO. 3.
 3. USE A SOLDIER PILE RETAINING WALL WITH A CAST-IN-PLACE REINFORCED CONCRETE FACE FOR RETAINING WALL NO. 3.
 4. BEFORE BEGINNING WALL DESIGN FOR RETAINING WALL NO. 3, SURVEY ALL LOCATION AND SUBMIT REVISED WALL PROFILE VIEWS (WALL ENVELOPES) FOR REVIEW. DO NOT START WALL DESIGN OR CONSTRUCTION UNTIL THE REVISED WALL ENVELOPE IS ACCEPTED.
 5. FOR MSE WALL SECTIONS ENTIRELY IN CUT AT THE BEGINNING AND END OF THE WALLS, IF THE WALL SURVEY SHOWS THE 2:1 WRAP AROUND SLOPE INTERFERING WITH RAILROAD DRAINAGE, OR EXTENDING MORE THAN 15 FEET FROM THE WALL FACE, SUBSTITUTE SOLDIER PILES WALLS AT RIGHT ANGLES TO THE MSE WALL, AS WITH WALL 3, FOR THE PORTION OF THE MSE WALL ENTIRELY IN CUT.

DESIGN RETAINING WALL NO. 3 FOR THE FOLLOWING:
 A) H = DESIGN HEIGHT + WALL EMBEDMENT
 B) DESIGN LIFE = 100 YEARS
 C) IN-SITU ASSUMED MATERIAL PARAMETERS:
 UNIT WEIGHT, $\gamma = 120$ LB/CF
 FRICTION ANGLE, $\phi = 30$ DEGREES
 COHESION, $c = 0$ LB/SF

ESTIMATED WALL QUANTITIES (SQUARE FEET)	
MSE RETAINING WALL NO. 1	3100 SF
MSE RETAINING WALL NO. 2	2800 SF
SOLDIER PILE WALL NO. 3	120 SF

PROJECT NO.: B-4964
 ROCKINGHAM COUNTY
 STATION: 18+73.69 -L-
 SHEET 3 OF 3

**NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS**

**GEOTECHNICAL
 ENGINEERING UNIT**

SOLDIER PILE WALL WITH OR WITHOUT BACKSLOPE TYPICAL & NOTES					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

SHEET NO. W-4

PREPARED BY: R. WEBB	DATE: 5-17
REVIEWED BY: D. TEAGUE	DATE: 5-17