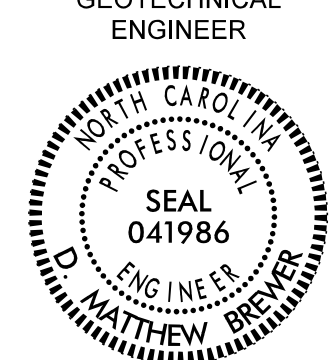
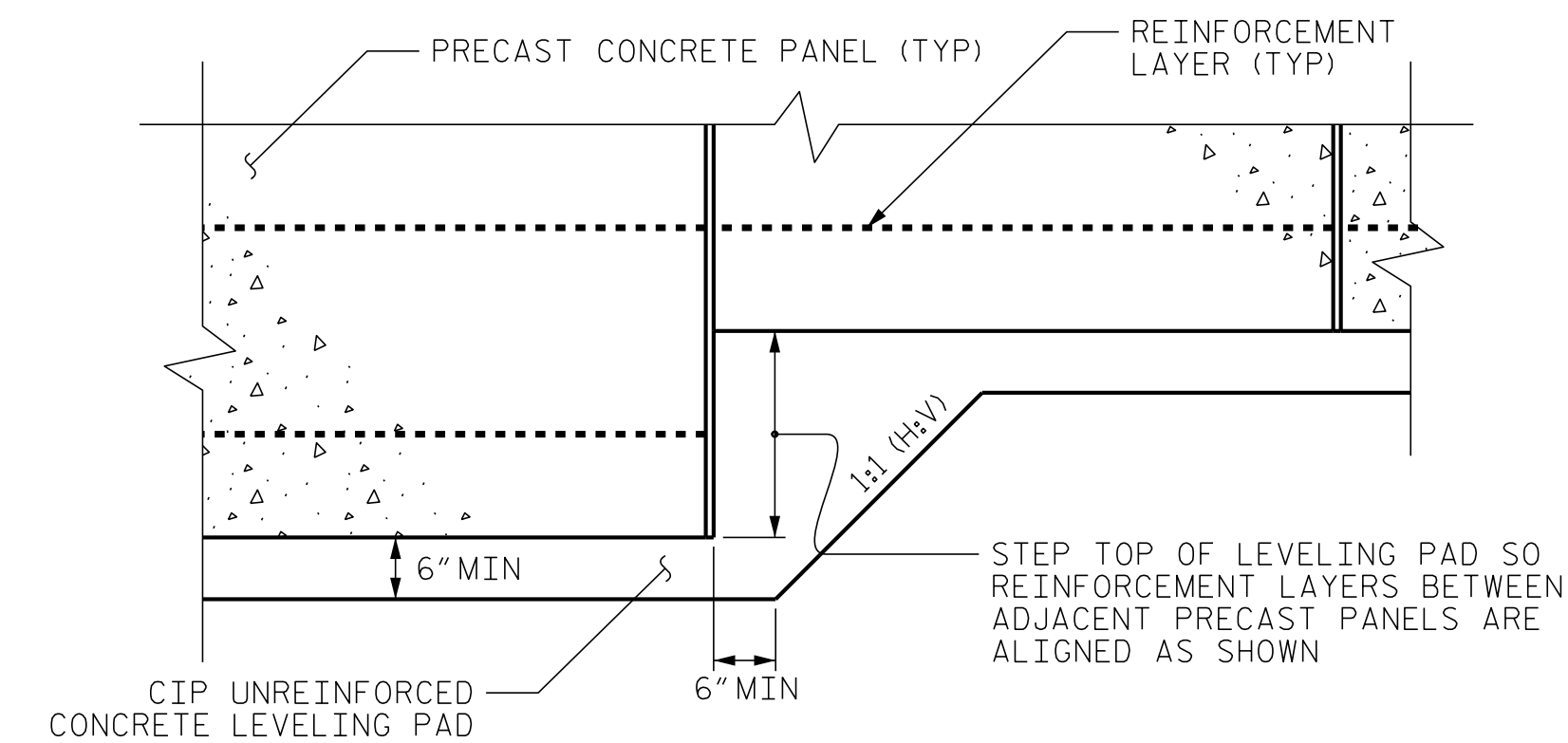


GEOTECHNICAL ENGINEER  SEAL 041986 ENGINEER M. MATTHEW BREWER	ENGINEER
DocuSigned by: D. Matthew Brewer 388120004014422 SIGNATURE	DATE: 7/15/2022 SIGNATURE: _____ DATE: _____
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

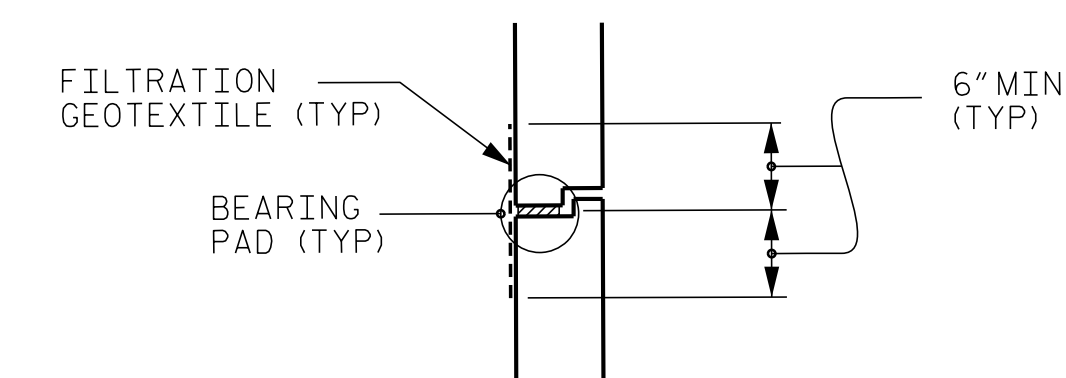
SMSE RETAINING WALL #16 INFORMATION									
STA. -L-	OFFSET RT FROM CL TO WALL FACE	TOP OF WALL	BOTTOM OF WALL	MINIMUM TOP OF LEVELING PAD	ESTIMATED MINIMUM SMSE WALL EMBEDMENT	* DESIGN SMSE WALL HEIGHT "H"	TOP OF SOIL NAIL WALL/BENCH ELEVATION	APPROX. SOIL NAIL WALL HEIGHT	WALL REINFORCEMENT (MSE STRAP) LENGTH "L"
366+70.00	48.43	3037.88	3037.38	3032.38	5.00	5.00	3033.08	0.70	LOWER: 0.5XH OR 6 FT (MIN) UPPER: 0.7XH OR 10 FT (MIN)
366+75.00	49.74	3040.37	3032.80	3027.80	5.00	12.07	3033.43	5.63	LOWER: 0.5XH OR 6 FT (MIN) UPPER: 0.7XH OR 10 FT (MIN)
367+00.00	48.43	3041.86	3026.89	3021.89	5.00	19.47	3035.15	13.26	LOWER: 0.5XH OR 6 FT (MIN) UPPER: 0.7XH OR 10 FT (MIN)
367+50.00	48.44	3045.43	3007.82	3002.82	5.00	42.11	3038.59	35.77	LOWER: 0.5XH OR 6 FT (MIN) UPPER: 0.7XH OR 10 FT (MIN)
368+00.00	48.22	3048.59	3012.51	3007.51	5.00	40.58	3041.62	34.11	LOWER: 0.5XH OR 6 FT (MIN) UPPER: 0.7XH OR 10 FT (MIN)
368+50.00	49.63	3051.68	3019.46	3014.46	5.00	36.72	3045.54	31.08	LOWER: 0.5XH OR 6 FT (MIN) UPPER: 0.7XH OR 10 FT (MIN)
369+00.00	51.09	3054.76	3027.45	3022.45	5.00	31.81	3048.97	26.52	LOWER: 0.5XH OR 6 FT (MIN) UPPER: 0.7XH OR 10 FT (MIN)
369+50.00	50.58	3057.88	3047.74	3042.74	5.00	14.64	3052.43	9.69	LOWER: 0.5XH OR 6 FT (MIN) UPPER: 0.7XH OR 10 FT (MIN)
369+55.00	50.49	3058.20	3050.24	3045.24	5.00	12.46	3052.77	7.53	LOWER: 0.5XH OR 6 FT (MIN) UPPER: 0.7XH OR 10 FT (MIN)
369+65.00	50.30	3058.85	3055.23	3050.23	5.00	8.12	3052.92	2.69	LOWER: 0.5XH OR 6 FT (MIN) UPPER: 0.7XH OR 10 FT (MIN)
369+72.17	50.21	3059.32	3058.82	3053.82	5.00	5.00	3053.82	0.00	LOWER: 0.5XH OR 6 FT (MIN) UPPER: 0.7XH OR 10 FT (MIN)

* FOR DESIGN WALL HEIGHT "H" AND ADDITIONAL CONSTRUCTION DETAILS, SEE SHEETS 4 AND 5
ALL TABLE DIMENSIONS ARE GIVEN IN FEET



PRECAST PANELS
LEVELING PAD STEP DETAIL

NOT TO SCALE



PRECAST PANEL
JOINT DETAILS

NOT TO SCALE

FRONT SLOPE WALL EMBEDMENT		
SLOPE IN FRONT OF STRUCTURES		MINIMUM EMBEDMENT DEPTH
HORIZONTAL	FOR WALLS	H/20
	FOR ABUTMENTS	H/10
3.0H:1.0V	WALLS	H/10
2.5H:1.0V	WALLS	H/8.5
2.0H:1.0V	WALLS	H/7
1.5H:1.0V	WALLS	H/5
1.25H:1.0V	WALLS	H/4
1.0H:1.0V	WALLS	H/3

- NOTE:
- 1) MAINTAIN A MINIMUM BENCH WIDTH OF 4.0 FT IN FRONT OF THE WALL FOR ITS ENTIRE LENGTH.
 - 2) MINIMUM EMBEDMENT DEPTH OF 5 FT, UNLESS LARGER DEPTHS DICTATED BY ABOVE TABLE.
 - 3) MAXIMUM SLOPE OF 1.5H:1V WILL BE MAINTAINED ON FRONT SLOPES FOR THE ENTIRE LENGTH OF THE WALL.
 - 4) SUBMIT WITH THE WALL DESIGN INTERNAL, EXTERNAL, AND GLOBAL STABILITY ANALYSES. REFERENCE SPECIAL PROVISION GT-7 FOR SMSE WALL.

ESTIMATED SMSE WALL #16 QUANTITIES		
SHORED MSE RETAINING WALL #16	9,250	SQ. FT.
HORIZONTAL DRAINS (CONTINGENCY)	400	LF

ESTIMATED SOIL NAIL WALL QUANTITIES			
RETAINING WALL #	SOIL NAIL RETAINING WALLS (SQUARE FEET)	SOIL NAIL VERIFICATION TESTS	SOIL NAIL PROOF TESTS
16	7,350*	5	25

*INCLUDES RETAINING WALL EMBEDMENT

TEMPORARY SHORING QUANTITIES			
RETAINING WALL #	TEMPORARY SHORING (SQUARE FEET)	SOIL NAIL VERIFICATION TESTS	SOIL NAIL PROOF TESTS
16	1,850*	1	5

PROJECT NO.: A-0009CB

GRAHAM COUNTY

STATION: -L-366+70, 50' RT TO 369+72, 50' RT

SHEET 3 OF 8

Prepared in the Office of:



**CAROLINAS
GEOTECHNICAL
GROUP**
2400 CROWNPOINT EXECUTIVE DRIVE
SUITE 800
CHARLOTTE, NC 28227
(980) 339-8684

**RETAINING WALL #16
SHORED MECHANICALLY
STABILIZED EARTH (SMSE) WALL**

REVISIONS						SHEET NO. W16-3
NO.	BY	DATE	NO.	BY	DATE	
1			3			
2			4			

PREPARED BY: DMB	DATE: 7/14/2022
REVIEWED BY: REK	DATE: 7/14/2022