

GEOTECHNICAL ENGINEER

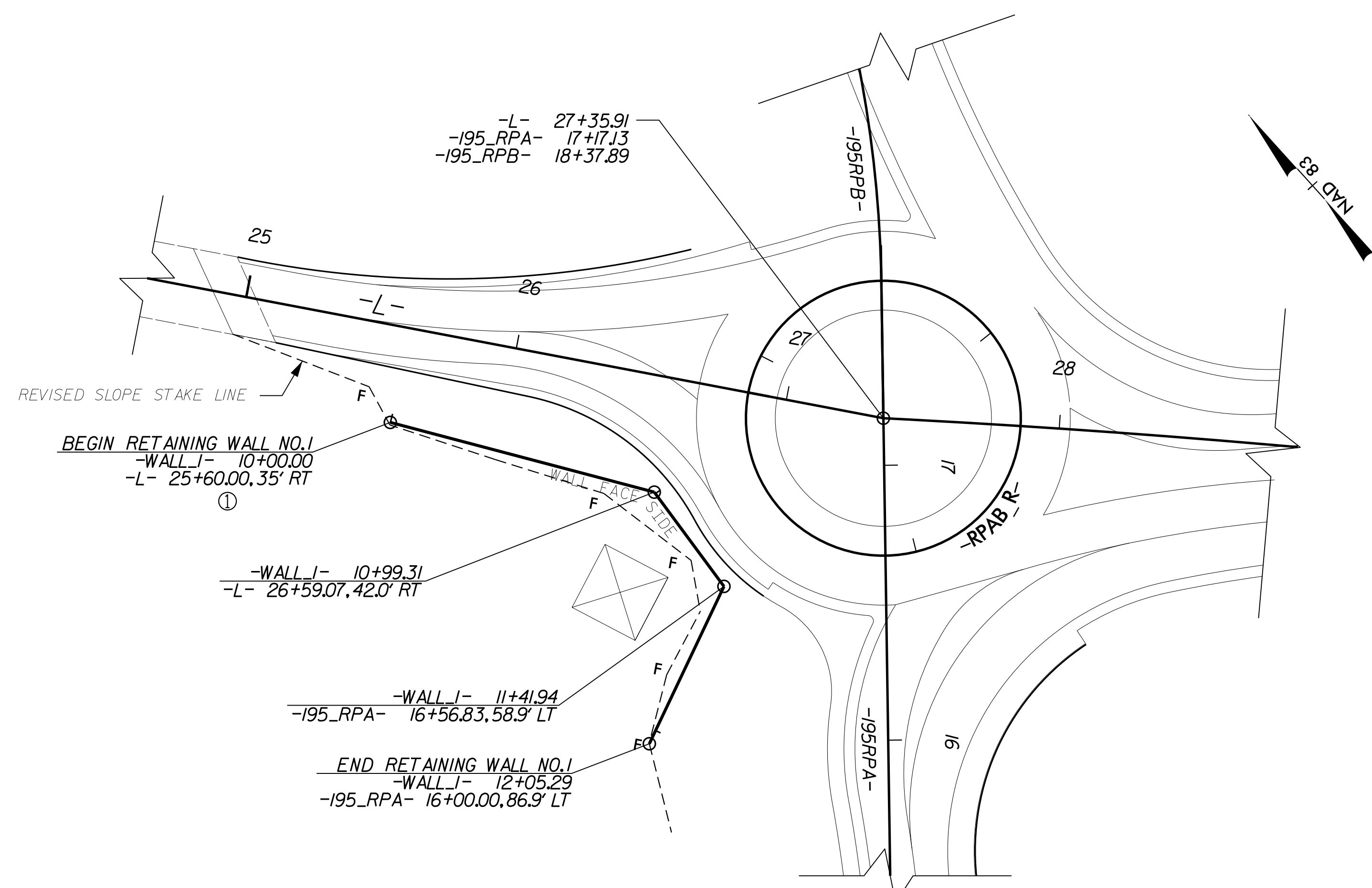
SEAL
032171
ENGINEER
JEFFREY PARK

ENGINEER

DocuSigned by: *Jeffrey Park* 10/24/2018

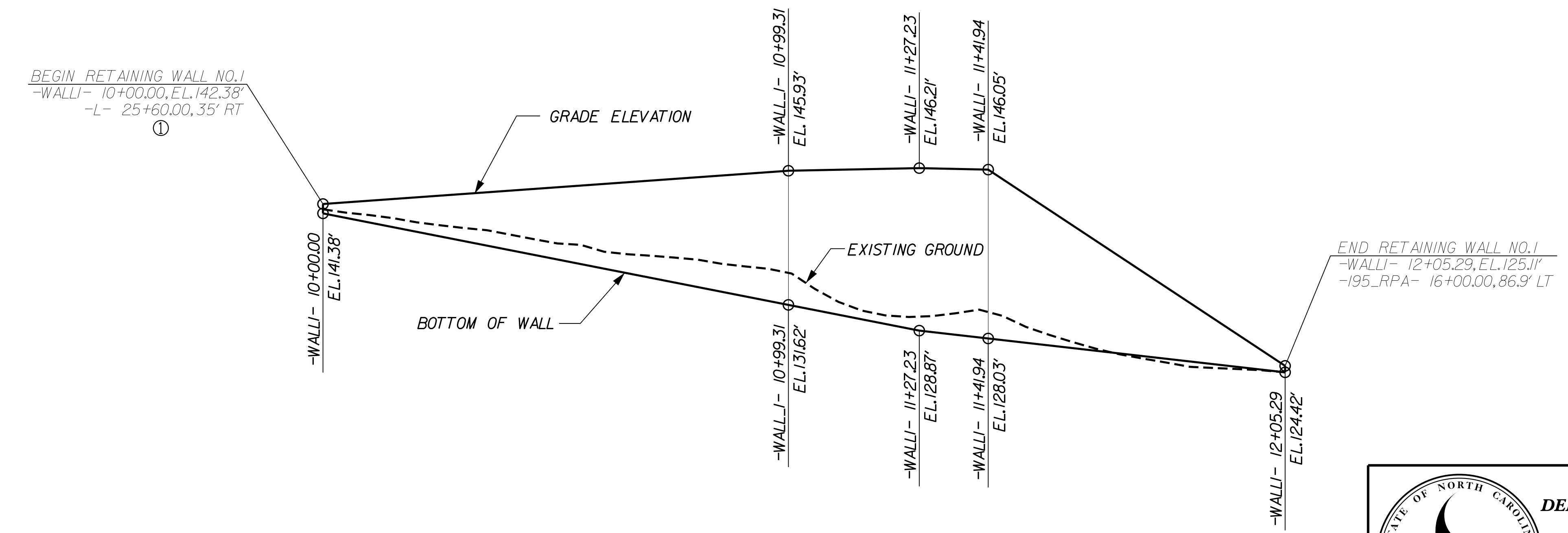
DATE: 10/24/2018 SIGNATURE: DATE:

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PLAN VIEW FOR RETAINING WALL NO. 1

ESTIMATED MSE RETAINING WALL QUANTITY	
MSE RETAINING WALL NO. 1	2,670 SF



WALL ENVELOPE FOR RETAINING WALL NO. 1
EXPOSED WALL FACE VIEW, N.T.S.

PROJECT NO.: 34472.1.4 (R-2582A)
NORTHAMPTON COUNTY
STATION: -L- 26+00.00
SHEET 1 OF 4

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

**GEOTECHNICAL
ENGINEERING UNIT**

REVISIONS						SHEET NO. W-1
NO.	BY	DATE	NO.	BY	DATE	
1	J. PARK	10/24/18	3			
2			4			

PREPARED BY: J. PARK DATE: 10 / 2018
REVIEWED BY: J. BATTS DATE: 10 / 2018

GEOTECHNICAL ENGINEER

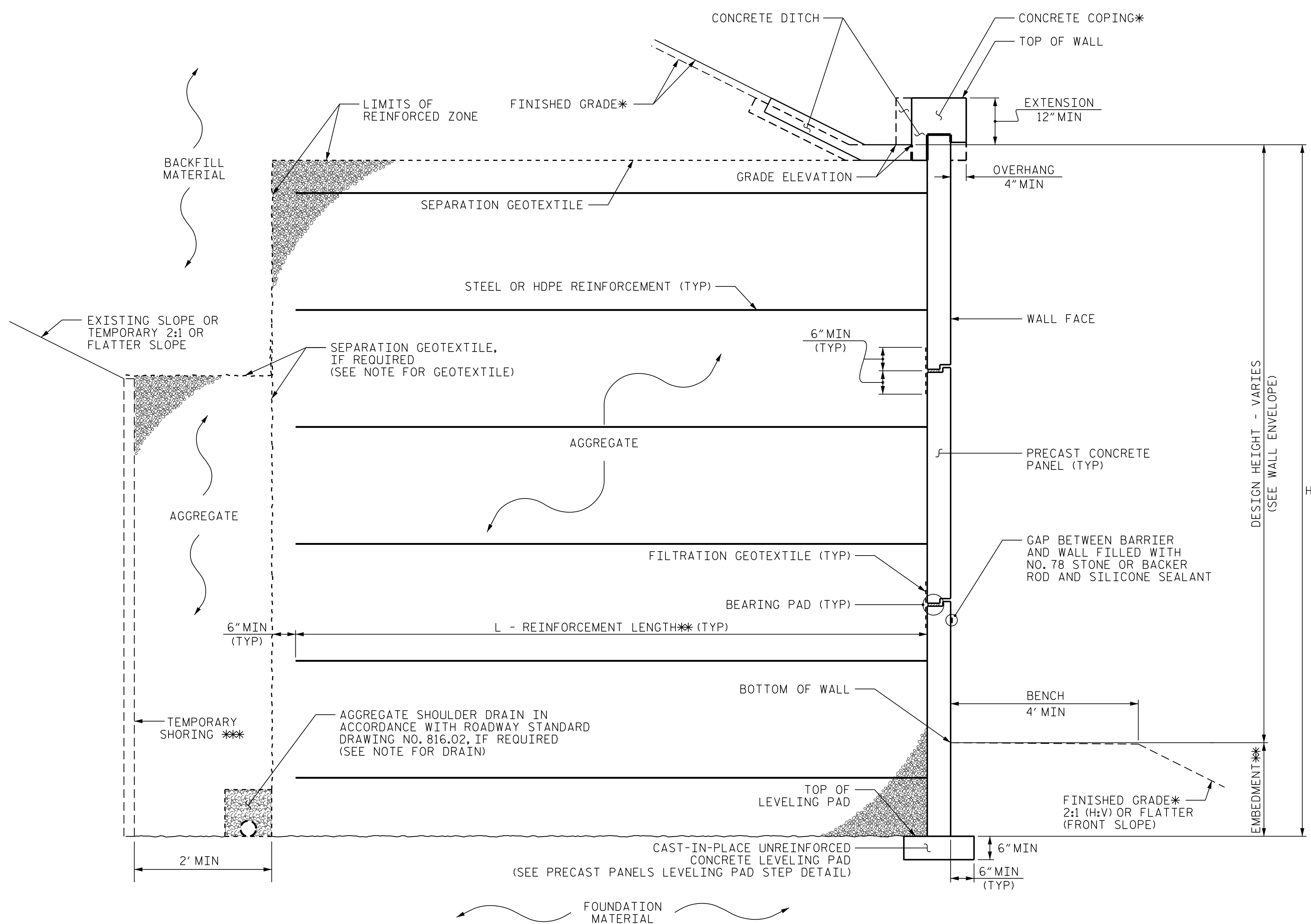
ENGINEER

SEAL
032171
ENGINEER
WINSTON-SALEM, N.C.

DocuSigned by:
[Signature] 5/20/2019

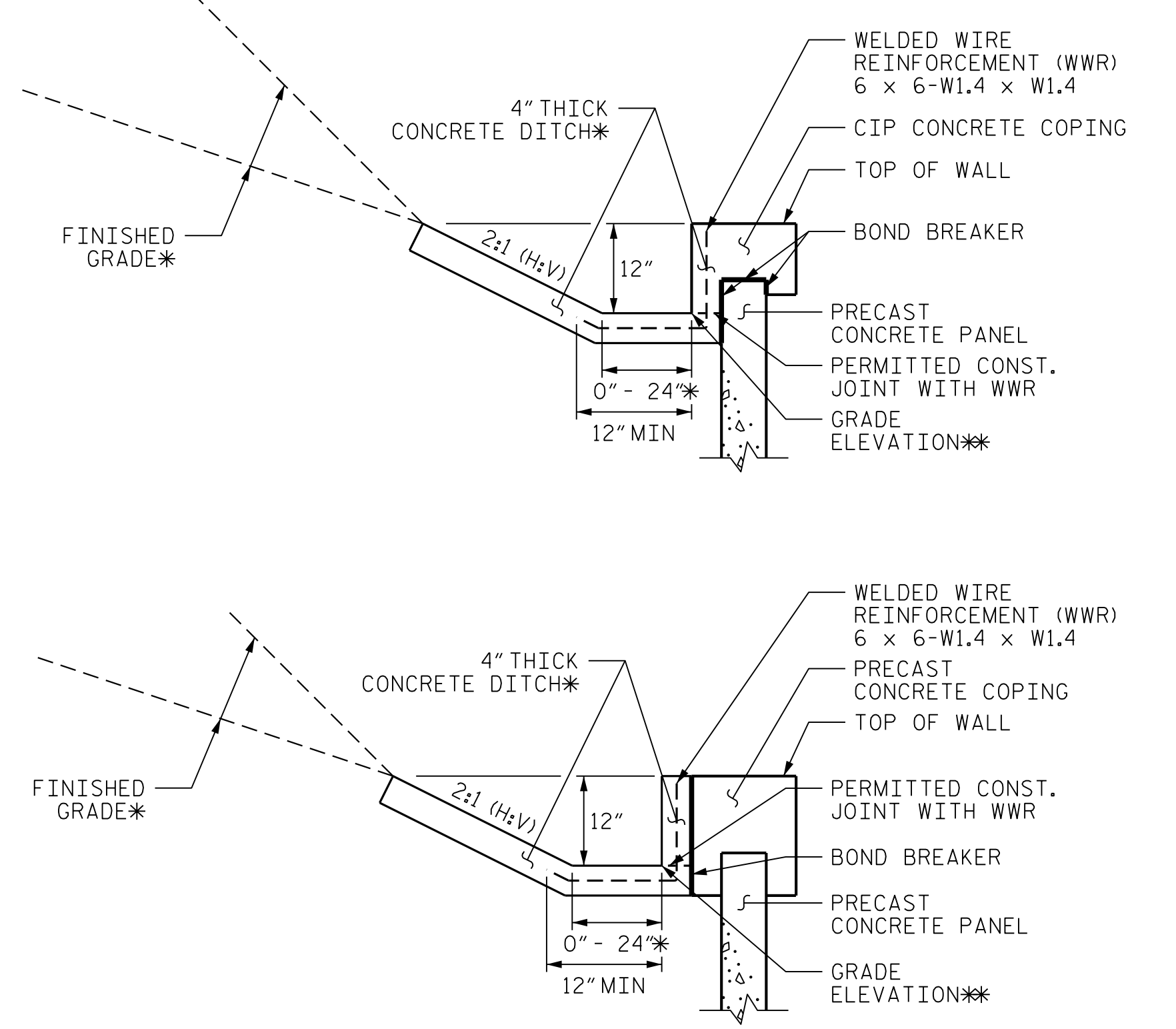
DATE: 5/20/2019

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MSE WALL WITH PRECAST PANELS - TYPICAL SECTION

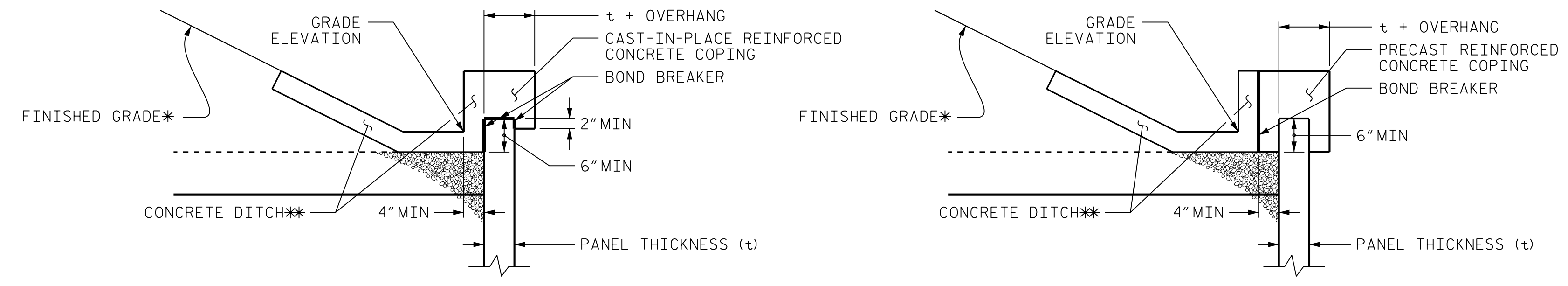
*SEE COPING DETAILS AND PLANS FOR FINISHED GRADE OR SLOPE DETAILS.
 **SEE MSE RETAINING WALLS PROVISION AND IF APPLICABLE, MSE WALL NOTES FOR EMBEDMENT AND REINFORCEMENT LENGTH REQUIREMENTS.
 ***SEE TRAFFIC MANAGEMENT PLANS FOR TEMPORARY SHORING.



① **CONCRETE DITCH BEHIND WALL WITH CONCRETE COPING**

*SEE ROADWAY PLANS FOR CONCRETE DITCH AND FINISHED GRADE DETAILS.
 **SEE WALL ENVELOPE FOR GRADE ELEVATIONS.

FOR CONCRETE DITCHES, SEE SECTION 850 OF THE STANDARD SPECIFICATIONS.



COPING DETAILS

*SEE PLANS FOR FINISHED GRADE OR SLOPE DETAILS.
 **SEE CONCRETE DITCH BEHIND WALL DETAILS.

PROJECT NO.: 34472.1.4 (R-2582A)
 NORTHAMPTON COUNTY
 STATION: -L- 26+00.00
 SHEET 2 OF 4

NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

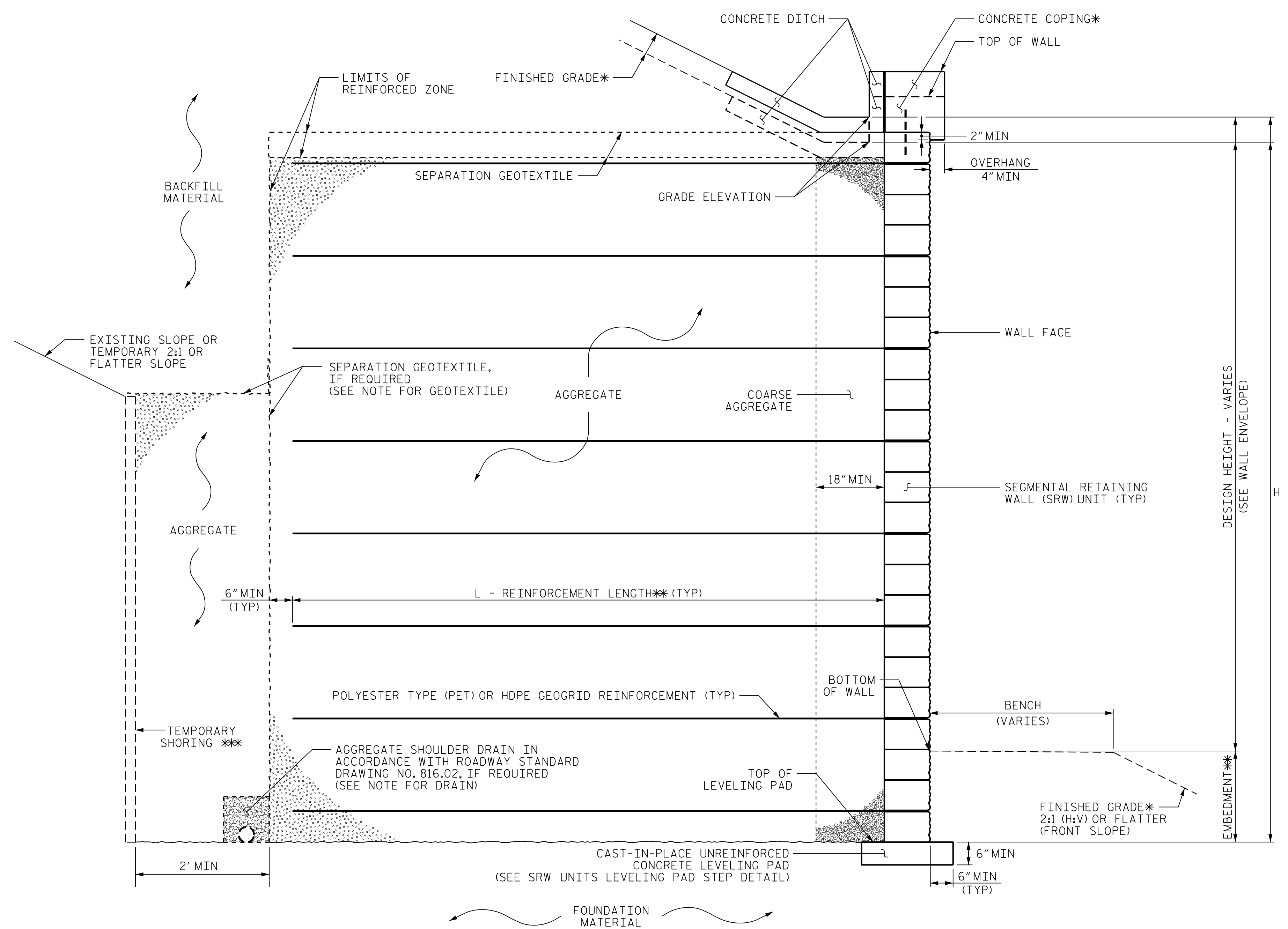
**GEOTECHNICAL
 ENGINEERING UNIT**

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1	J. PARK	5/17/19	3		
2			4		

SHEET NO. W-2

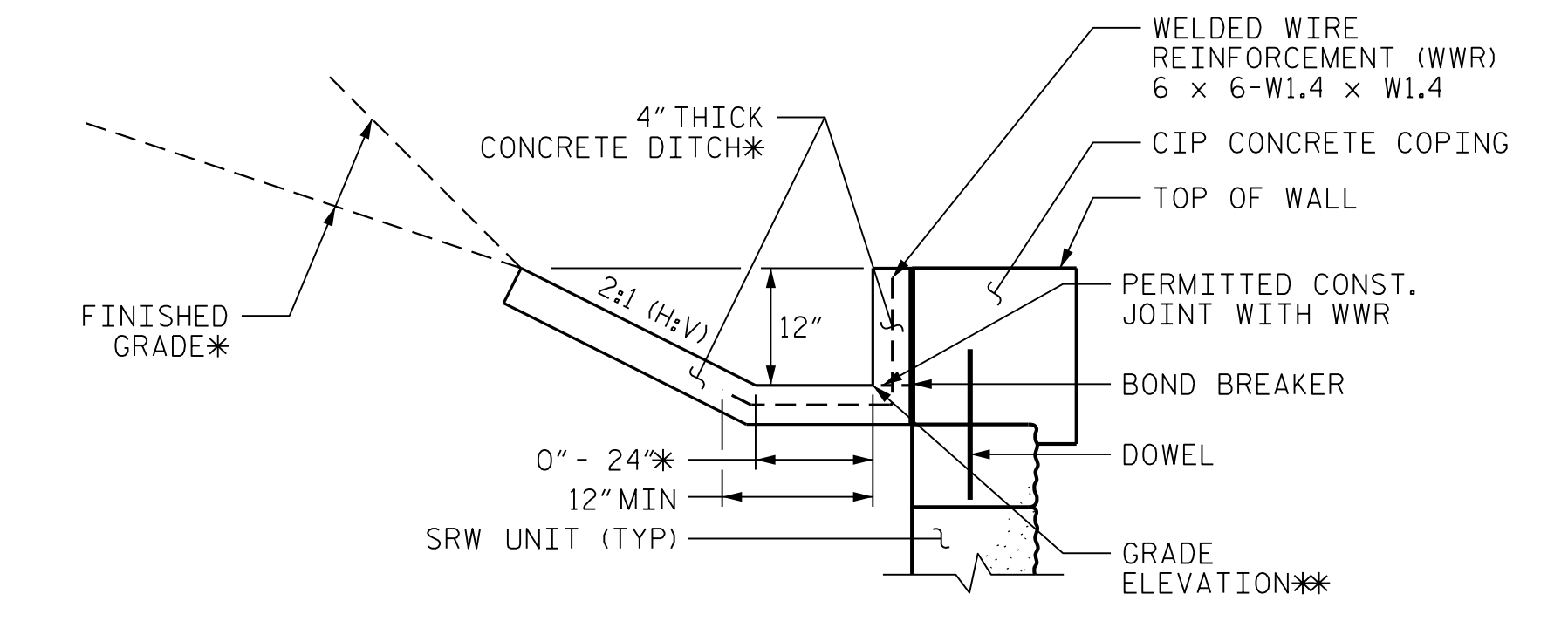
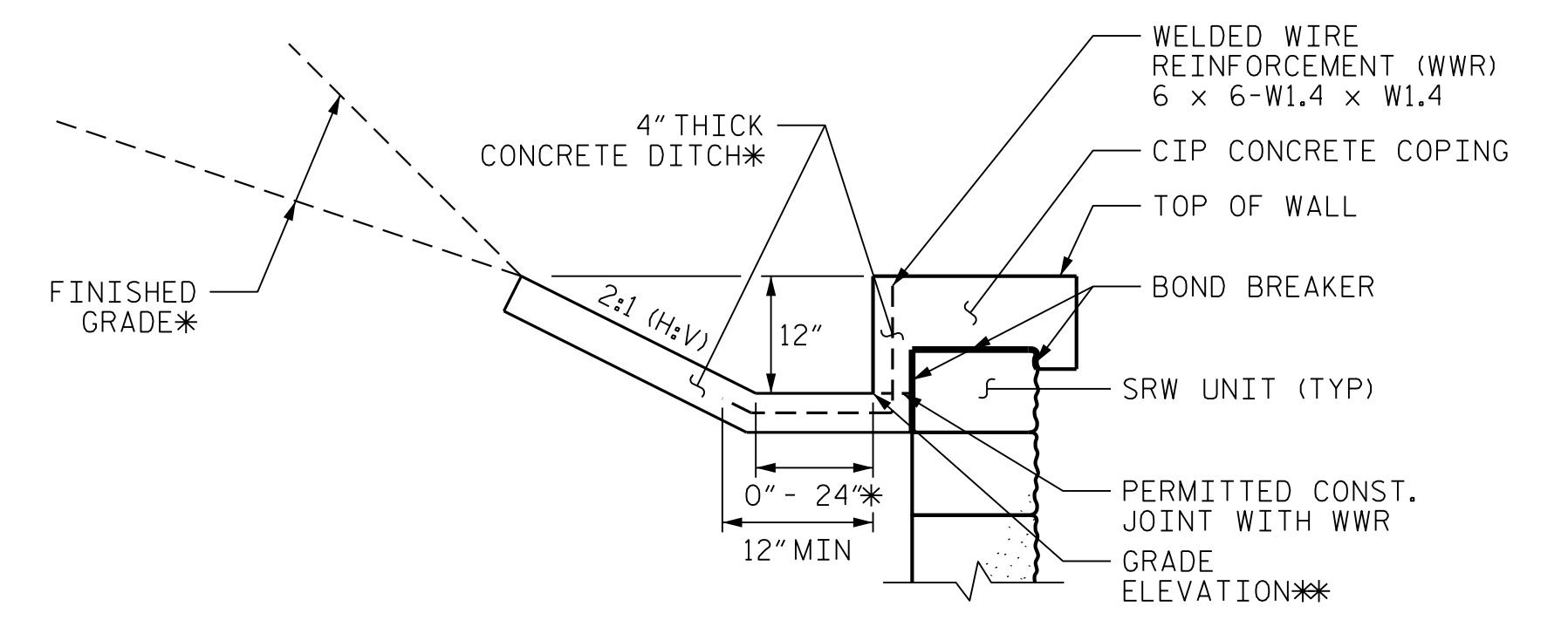
PREPARED BY: J. PARK	DATE: 10/2018
REVIEWED BY: J. BATTS	DATE: 10/2018

GEOTECHNICAL ENGINEER
 ENGINEER
 NORTH CAROLINA PROFESSIONAL SEAL 032171
 WINSTON-SALEM, NC
 GEOTECHNICAL ENGINEERS
 WINSTON PARK
 Documented by: *J. Park* DATE: 5/20/2019
 SIGNATURE DATE
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



MSE WALL WITH SRW UNITS - TYPICAL SECTION

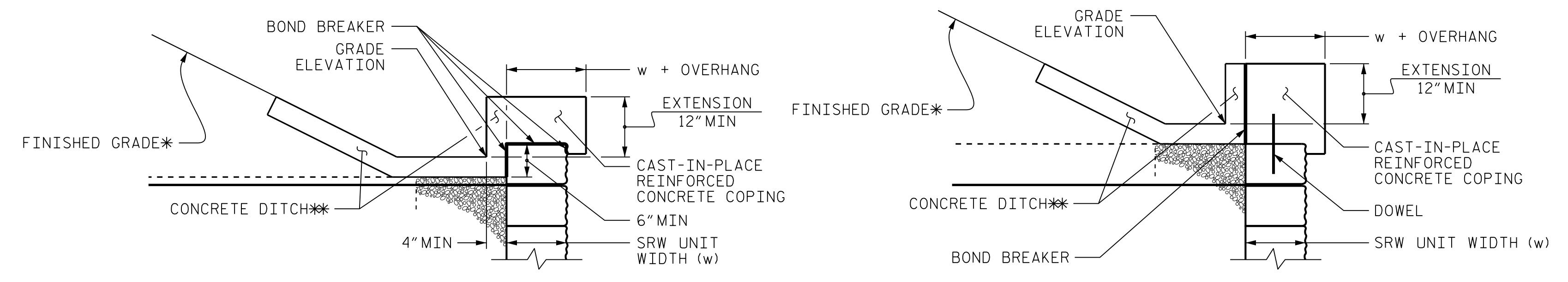
* SEE COPING DETAILS AND PLANS FOR FINISHED GRADE OR SLOPE DETAILS.
 ** SEE MSE RETAINING WALLS PROVISION AND IF APPLICABLE, MSE WALL NOTES FOR EMBEDMENT AND REINFORCEMENT LENGTH REQUIREMENTS.
 *** SEE TRAFFIC MANAGEMENT PLANS FOR TEMPORARY SHORING.



① CONCRETE DITCH BEHIND WALL WITH CONCRETE COPING

*SEE ROADWAY PLANS FOR CONCRETE DITCH AND FINISHED GRADE DETAILS.
 **SEE WALL ENVELOPE FOR GRADE ELEVATIONS.

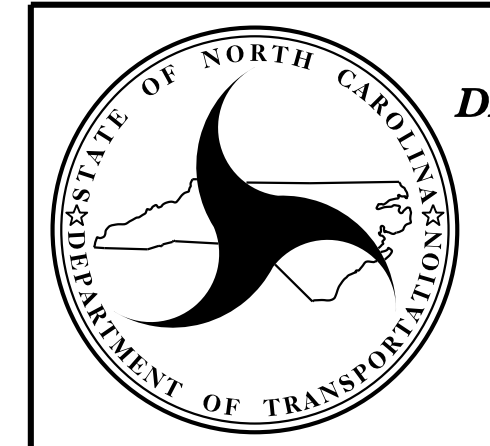
FOR CONCRETE DITCHES, SEE SECTION 850 OF THE STANDARD SPECIFICATIONS.



COPING DETAILS

AT THE CONTRACTOR'S OPTION, CONNECT COPING TO SRW UNITS WITH DOWELS OR EXTEND COPING DOWN BACK OF SRW UNITS.
 *SEE PLANS FOR FINISHED GRADE OR SLOPE DETAILS.
 **SEE CONCRETE DITCH BEHIND WALL DETAILS.

PREPARED BY: J. PARK	DATE: 10/2018
REVIEWED BY: J. BATTS	DATE: 10/2018



NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.: 34472.1.4 (R-2582A)
 NORTHAMPTON COUNTY
 STATION: -L- 26+00.00
 SHEET 3 OF 4

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1	J. PARK	5/17/19	3			W-3
2			4			

NOTES:

FOR MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALLS, SEE MECHANICALLY STABILIZED EARTH RETAINING WALLS PROVISION.

AT THE CONTRACTOR'S OPTION, USE AN MSE WALL SYSTEM WITH SEGMENTAL RETAINING WALL (SRW) UNITS THAT MEET ARTICLE 1040-4 OF THE STANDARD SPECIFICATIONS FOR RETAINING WALL NO. 1.

AT THE CONTRACTOR'S OPTION, USE FINE AGGREGATE IN THE REINFORCED ZONE OF RETAINING WALL NO. 1.

A SEPARATION GEOTEXTILE IS REQUIRED AT THE BACK OF THE REINFORCED ZONE FOR RETAINING WALL NO. 1.

A DRAIN IS REQUIRED FOR RETAINING WALL NO. 1.

BEFORE BEGINNING MSE WALL DESIGN FOR RETAINING WALL NO. 1, SURVEY WALL LOCATION AND SUBMIT REVISED WALL PROFILE VIEW (WALL ENVELOPE) FOR REVIEW. DO NOT START WALL DESIGN OR CONSTRUCTION UNTIL THE REVISED WALL ENVELOPE IS ACCEPTED.

DESIGN RETAINING WALL NO. 1 FOR THE FOLLOWING:

- 1) H = DESIGN HEIGHT + EMBEDMENT
- 2) DESIGN LIFE = 75 YEARS
- 3) MAXIMUM FACTORED VERTICAL PRESSURE ON FOUNDATION MATERIAL = 4,400 LB/SF
- 4) MINIMUM REINFORCEMENT LENGTH (L) = 1.0H OR 6 FT, WHICHEVER IS GREATER
- 5) REINFORCED ZONE AGGREGATE PARAMETERS:

AGGREGATE TYPE*	UNIT WEIGHT (γ) LB/CF	FRICTION ANGLE (φ) DEGREES	COHESION (c) LB/SF
COARSE	110	38	0
FINE	115	34	0

* SEE MSE RETAINING WALLS PROVISION FOR COARSE AND FINE AGGREGATE MATERIAL REQUIREMENTS.

7) IN-SITU ASSUMED MATERIAL PARAMETERS:

MATERIAL TYPE	UNIT WEIGHT (γ) LB/CF	FRICTION ANGLE (φ) DEGREES	COHESION (c) LB/SF
BACKFILL	120	30	0
FOUNDATION	115	29	0

DESIGN RETAINING WALL NO. 1 FOR A LIVE LOAD (TRAFFIC) SURCHARGE.

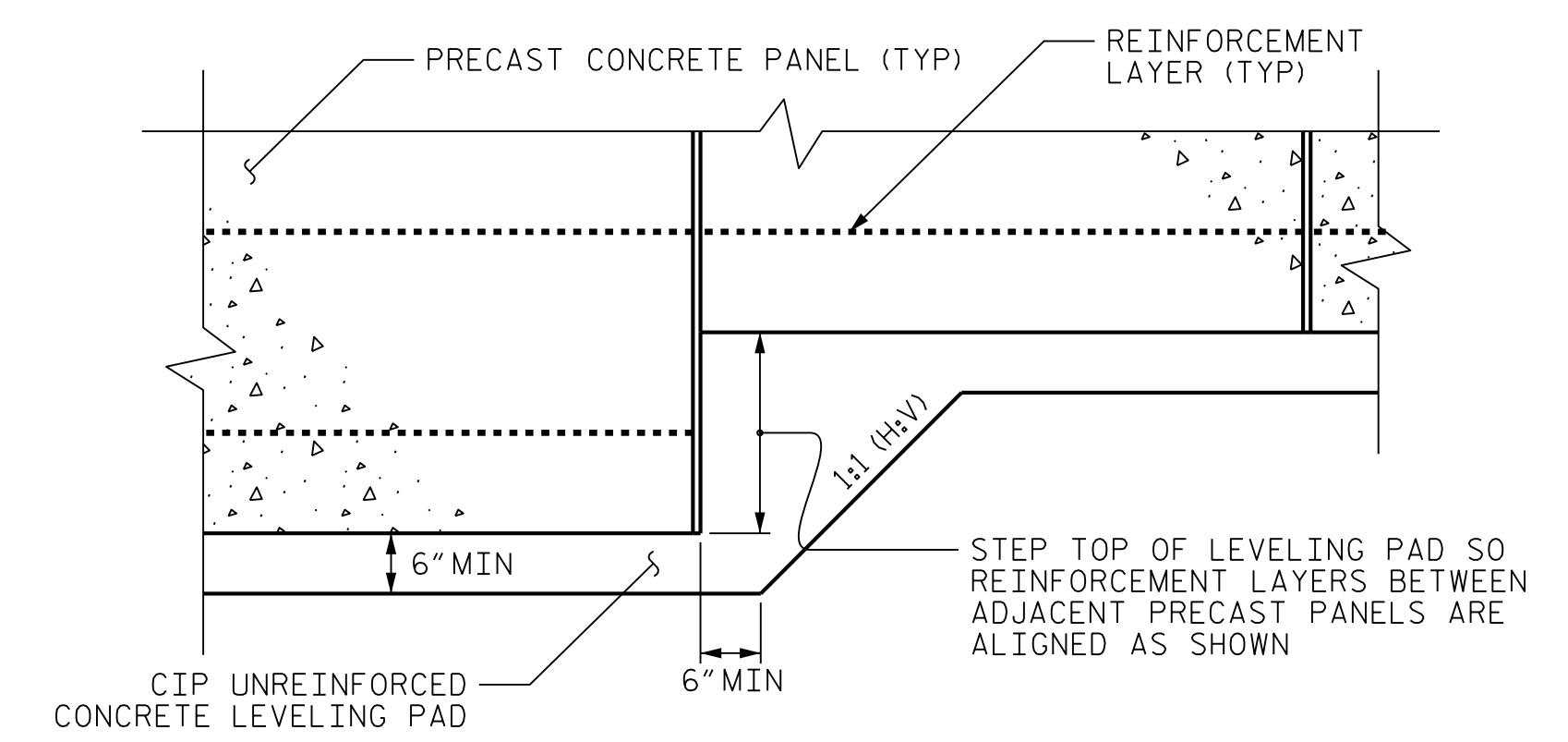
EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, GUARDRAIL, FENCE OR HANDRAIL POSTS, PAVEMENTS, PIPES, INLETS OR UTILITIES MAY INTERFERE WITH REINFORCEMENT FOR RETAINING WALL NO. 1.

DO NOT PLACE LEVELING PAD CONCRETE, AGGREGATE OR REINFORCEMENT FOR RETAINING WALL NO. 1 UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.

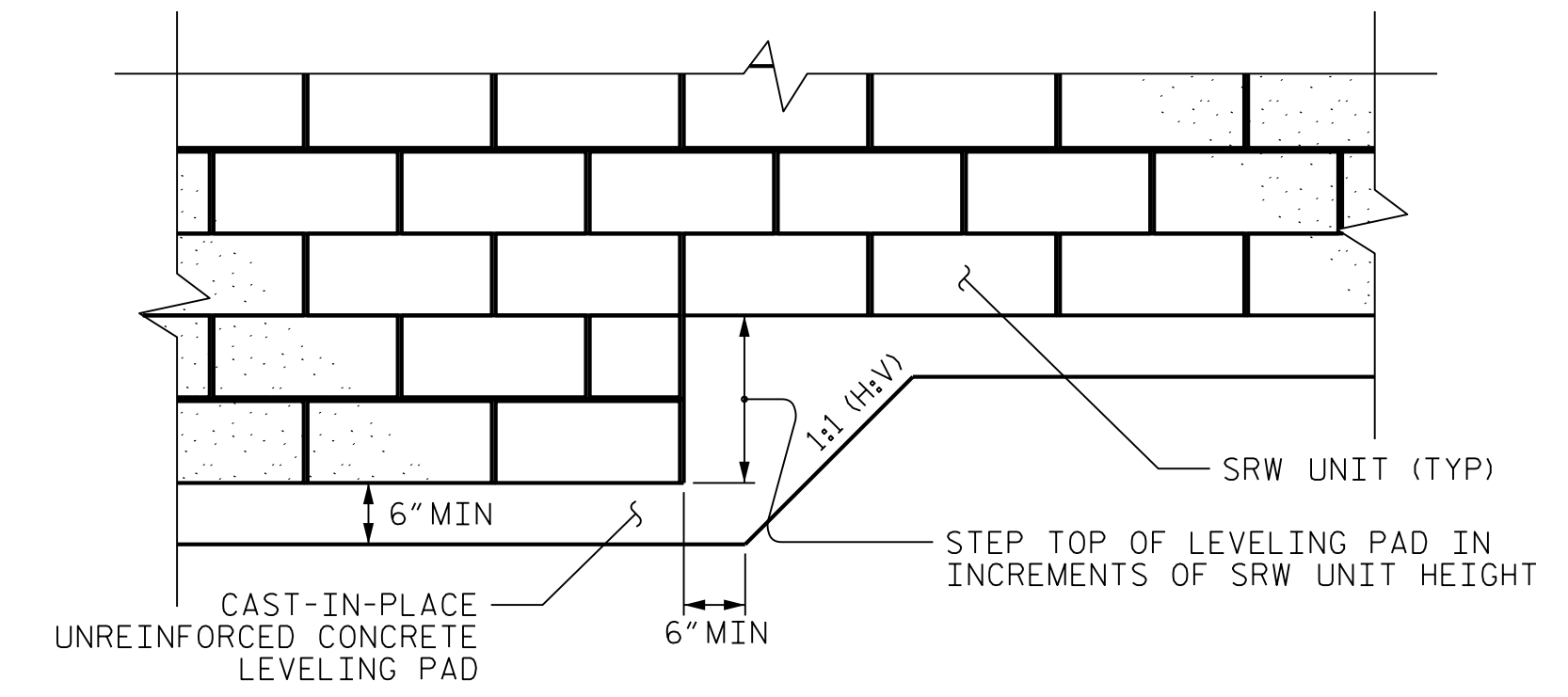
"TEMPORARY SHORING" IS REQUIRED FOR RETAINING WALL NO. 1 IN ACCORDANCE WITH THE TEMPORARY SHORING PROVISION. SEE TRAFFIC CONTROL PLANS.

AT THE CONTRACTOR'S OPTION, "TEMPORARY SHORING FOR WALL CONSTRUCTION" MAY BE USED TO CONSTRUCT RETAINING WALL NO. 1. SEE MSE RETAINING WALLS PROVISION FOR TEMPORARY SHORING FOR WALL CONSTRUCTION.

FILL THE SPACE BETWEEN TEMPORARY SHORING AND THE BACK OF REINFORCED ZONE WITH THE SAME AGGREGATE USED IN REINFORCED ZONE. NO SEPARATE PAYMENT WILL BE MADE FOR THE AGGREGATE FOR THIS FILL. THE AGGREGATE FOR THIS FILL WILL BE INCIDENTAL TO THE CONTRACT UNIT PRICE FOR MSE RETAINING WALL NO. 1.

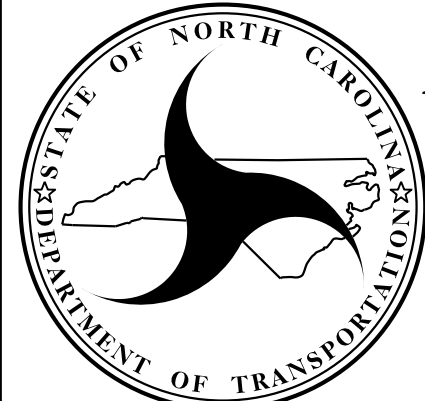


**PRECAST PANELS
LEVELING PAD STEP DETAIL**



SRW UNITS LEVELING PAD STEP DETAIL

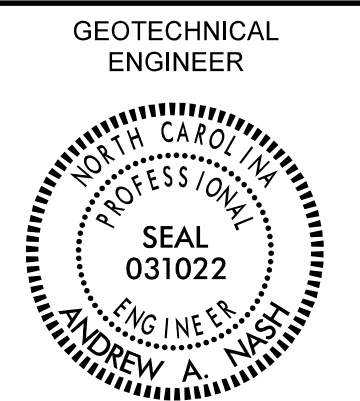
PROJECT NO.: 34472.1.4 (R-2582A)
 NORTHAMPTON COUNTY
 STATION: -L- 26+00.00
 SHEET 4 OF 4



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

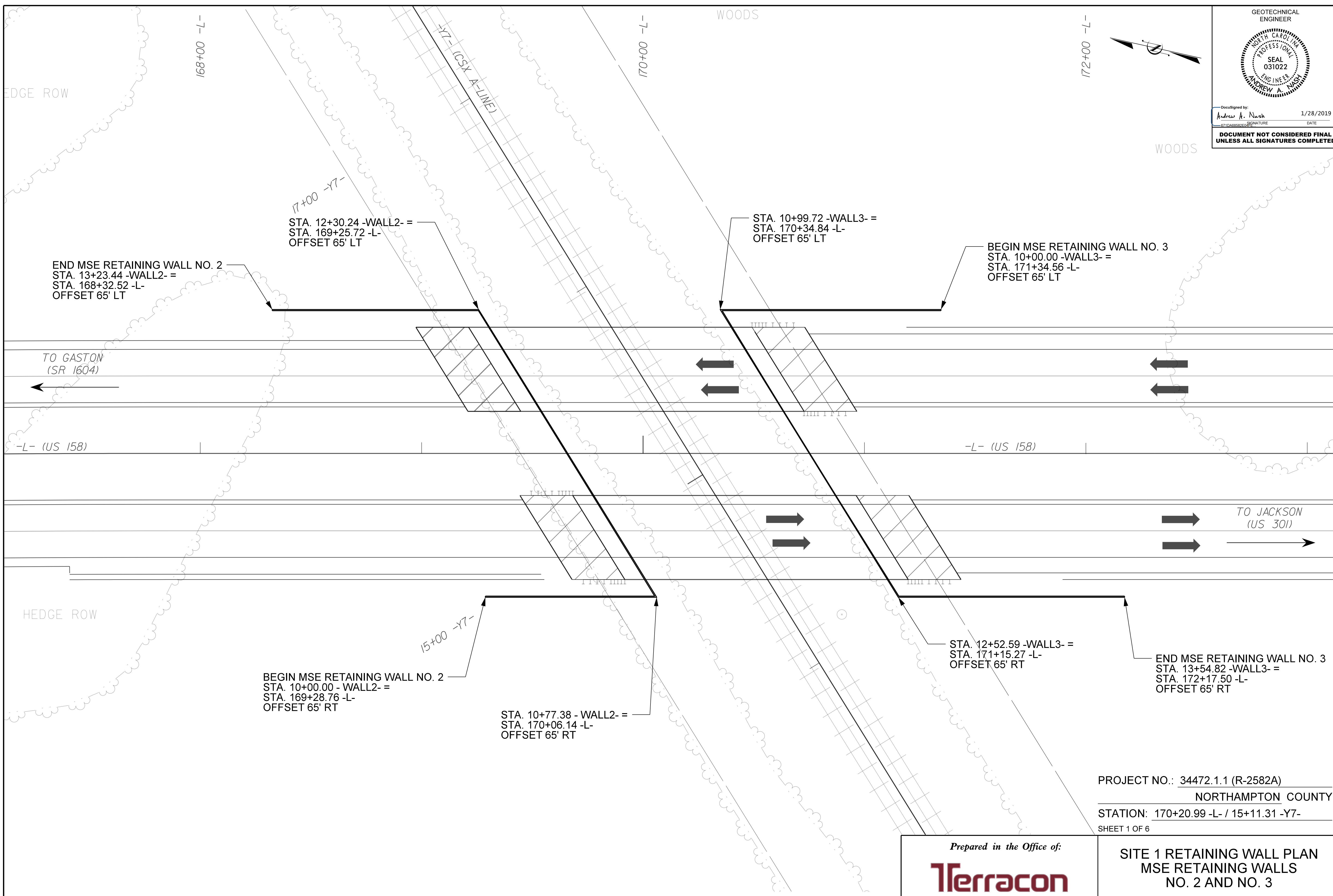
**GEOTECHNICAL
ENGINEERING UNIT**

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

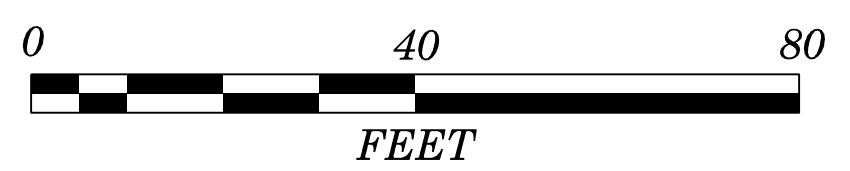


Designed by: Andrew A. Nash
 DATE: 1/28/2019

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PROJECT NO.: 34472.1.1 (R-2582A)
 NORTHAMPTON COUNTY
 STATION: 170+20.99 -L- / 15+11.31 -Y7-
 SHEET 1 OF 6



PREPARED BY: FIELDS, W. D. DATE: 12/3/18
 REVIEWED BY: NASH, A. A. DATE: 12/3/18

Prepared in the Office of:
Terracon
 Consulting Engineers and Scientists
 2401 BRENTWOOD ROAD, SUITE 107
 RALEIGH, NORTH CAROLINA 27604
 NC REGISTERED ENGINEERING FIRM: F-0869
 NC REGISTERED GEOLOGIC FIRM: C-367

**SITE 1 RETAINING WALL PLAN
 MSE RETAINING WALLS
 NO. 2 AND NO. 3**

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			W-5
2			4			

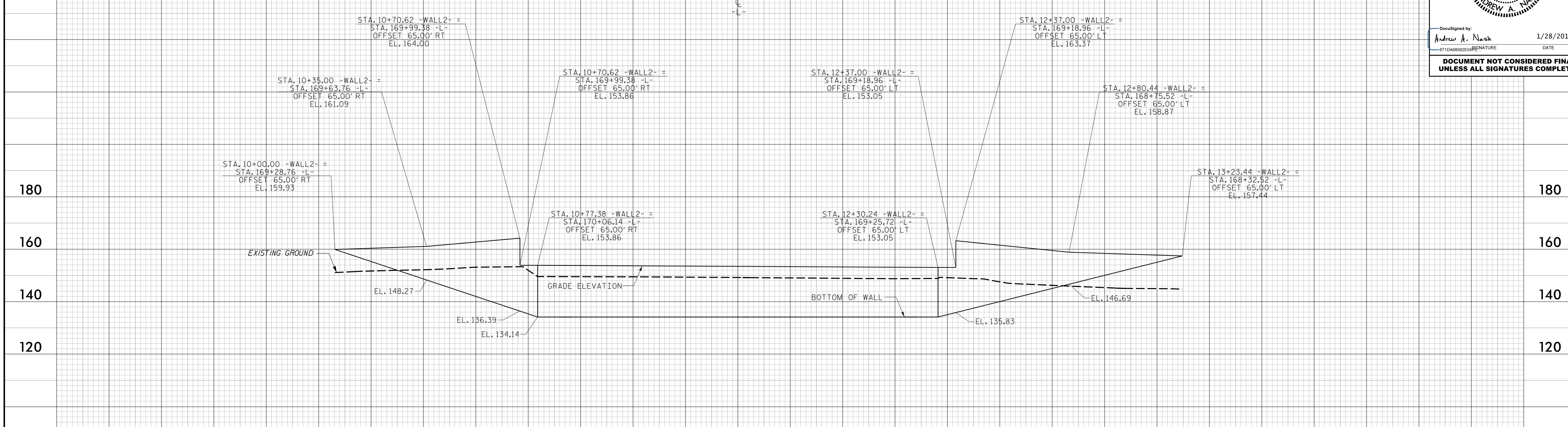
MSE RETAINING WALL NO. 2

GEOTECHNICAL ENGINEER



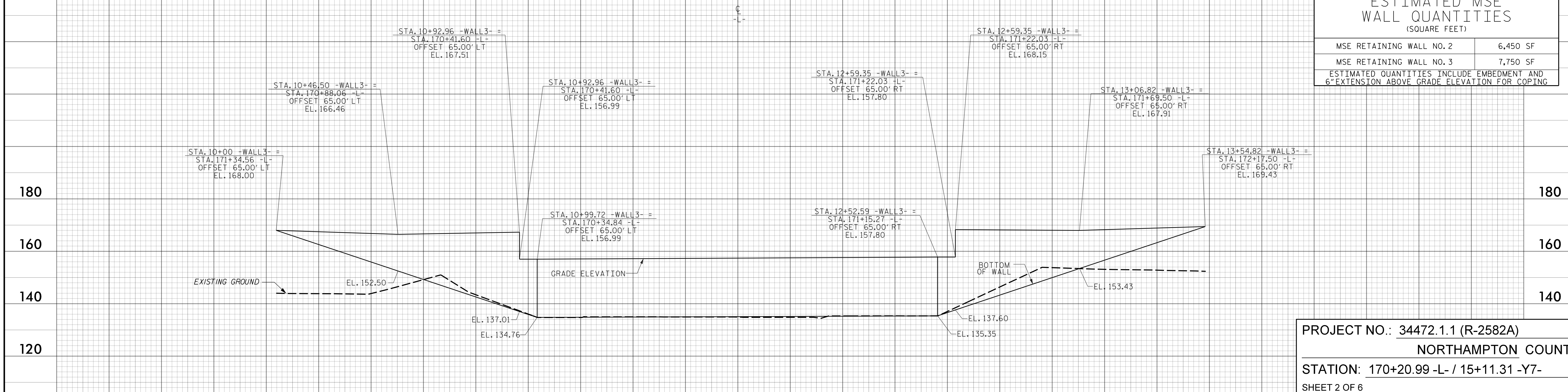
DocuSigned by:
Andrew A. Nash
DATE: 1/28/2019

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MSE RETAINING WALL NO. 3

ESTIMATED MSE WALL QUANTITIES (SQUARE FEET)	
MSE RETAINING WALL NO. 2	6,450 SF
MSE RETAINING WALL NO. 3	7,750 SF
ESTIMATED QUANTITIES INCLUDE EMBEDMENT AND 6" EXTENSION ABOVE GRADE ELEVATION FOR COPING	



PROJECT NO.: 34472.1.1 (R-2582A)
NORTHAMPTON COUNTY
STATION: 170+20.99 -L- / 15+11.31 -Y7-
SHEET 2 OF 6

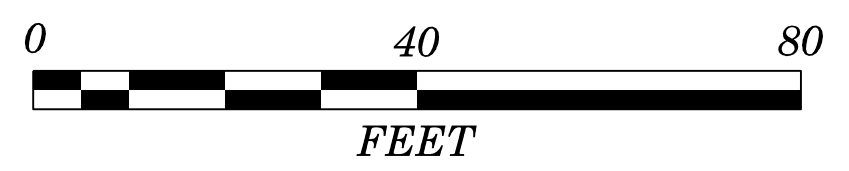
Prepared in the Office of:
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Consulting Engineers and Scientists
2401 BRENTWOOD ROAD, SUITE 107
RALEIGH, NORTH CAROLINA 27604
NC REGISTERED ENGINEERING FIRM: F-0869
NC REGISTERED GEOLOGIC FIRM: C-367

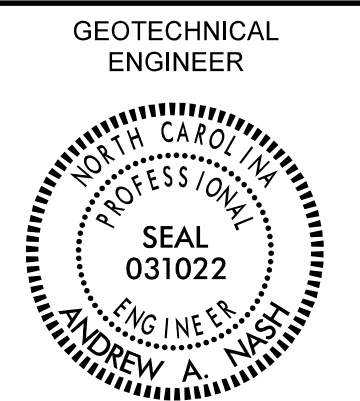
**SITE 1 RETAINING WALL ENVELOPES
MSE RETAINING WALLS NO. 2 AND NO. 3**

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			W-6
2			4			

PREPARED BY: FIELDS, W. D. DATE: 12/3/18
REVIEWED BY: NASH, A. A. DATE: 12/3/18

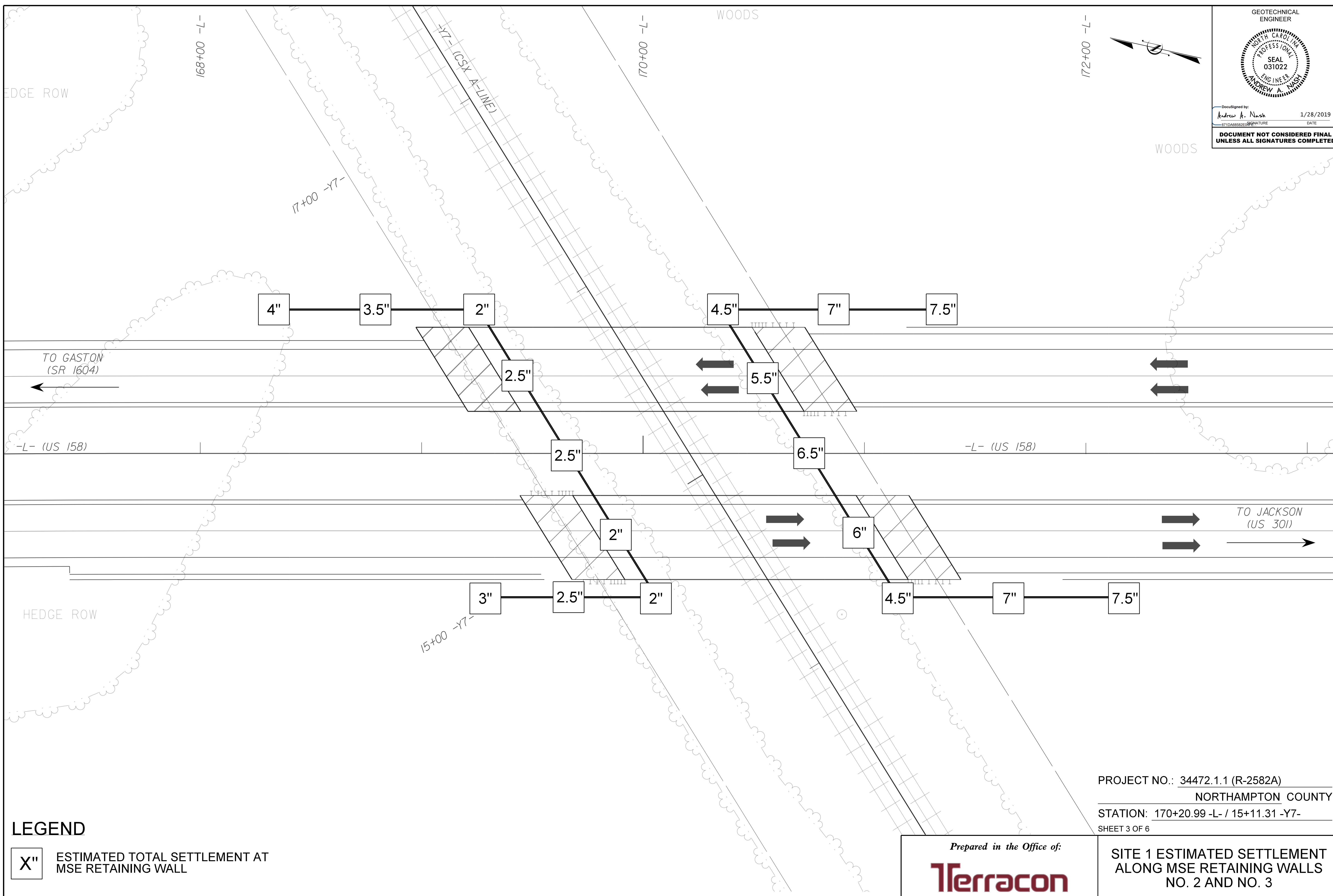
ENVELOPE HORIZONTAL / VERTICAL SCALE



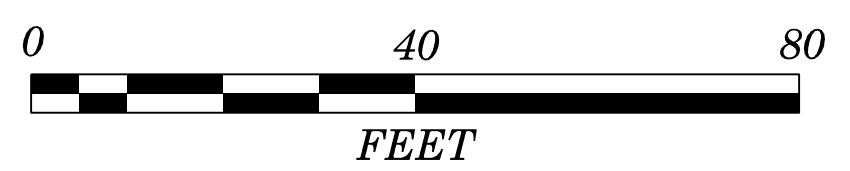


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Andrew A. Nash 1/28/2019
DATE

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LEGEND
X" ESTIMATED TOTAL SETTLEMENT AT MSE RETAINING WALL



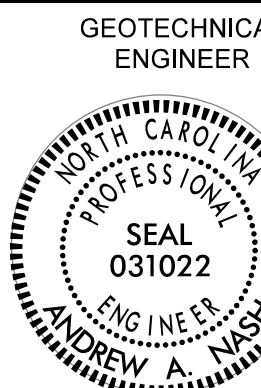
PROJECT NO.: 34472.1.1 (R-2582A)
 NORTHAMPTON COUNTY
 STATION: 170+20.99 -L- / 15+11.31 -Y7-
 SHEET 3 OF 6

PREPARED BY: ALEXANDER, M. J. DATE: 12/4/18
 REVIEWED BY: NASH, A. A. DATE: 12/4/18

Prepared in the Office of:
Terracon
 Consulting Engineers and Scientists
 2401 BRENTWOOD ROAD, SUITE 107
 RALEIGH, NORTH CAROLINA 27604
 NC REGISTERED ENGINEERING FIRM: F-0869
 NC REGISTERED GEOLOGIC FIRM: C-367

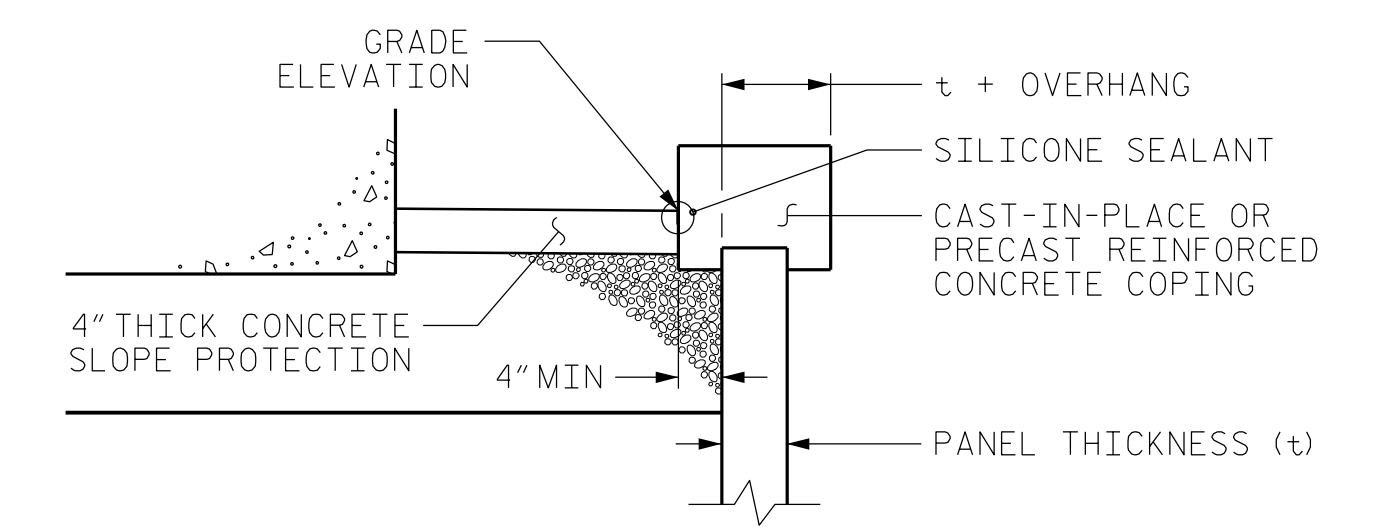
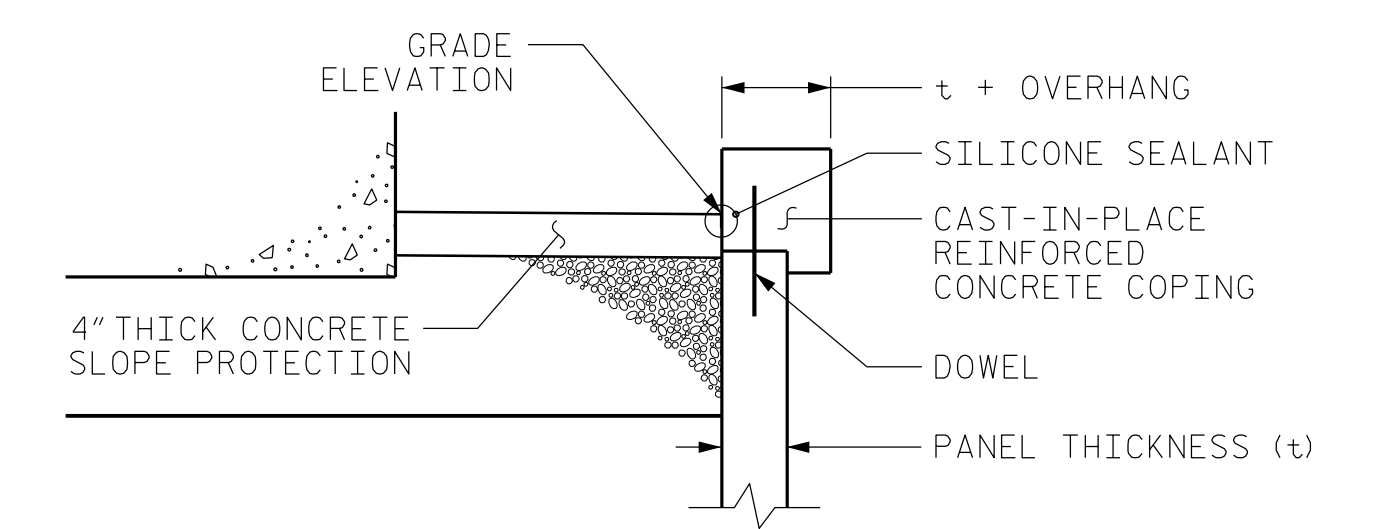
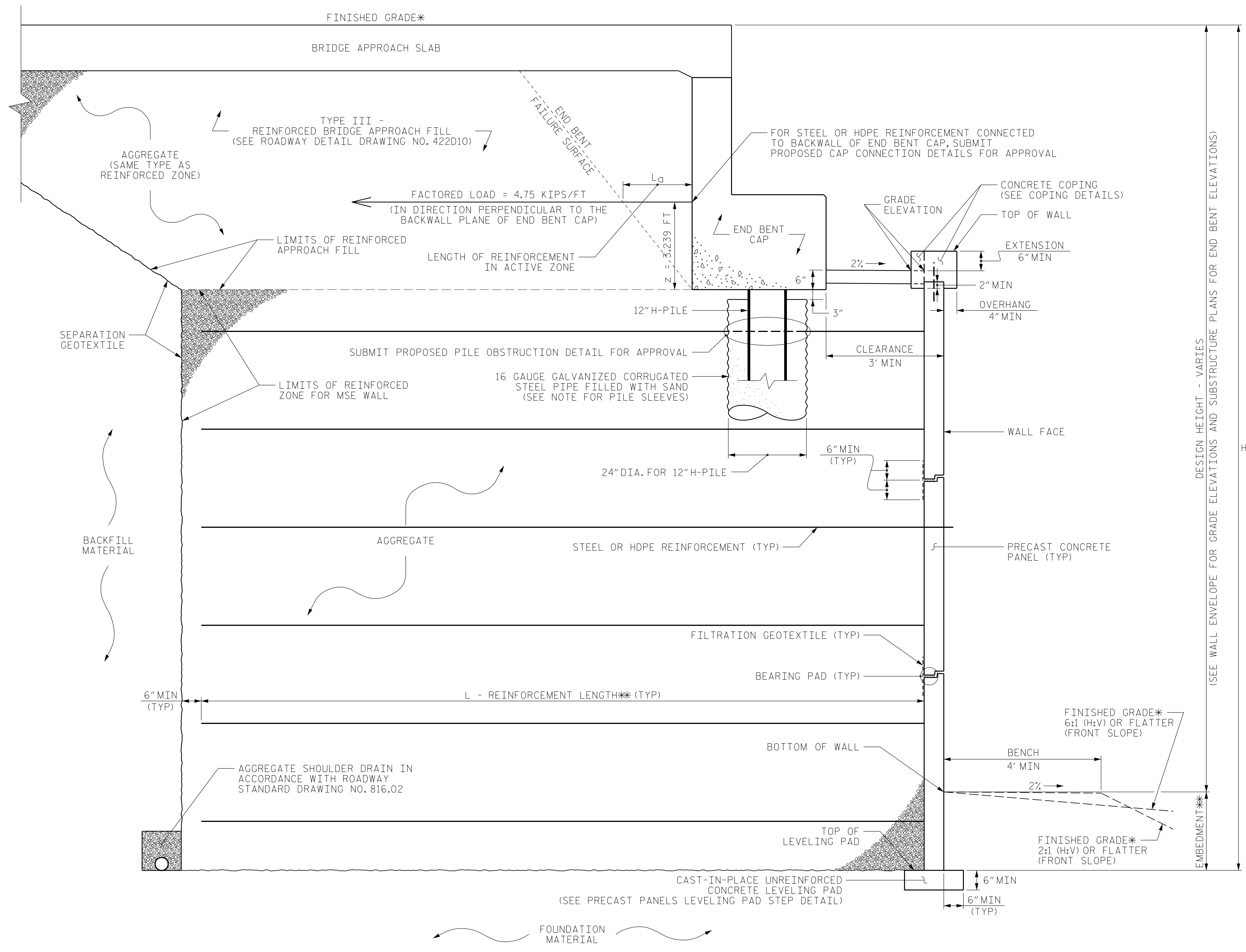
**SITE 1 ESTIMATED SETTLEMENT
 ALONG MSE RETAINING WALLS
 NO. 2 AND NO. 3**

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			W-7
2			4			



DocuSigned by:
Andrew A. Nash
1/28/2019

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COPING DETAILS

AT THE CONTRACTOR'S OPTION, CONNECT COPING TO PANELS WITH DOWELS OR EXTEND COPING DOWN BACK OF PANELS.

MSE ABUTMENT WALL WITH PRECAST PANELS - TYPICAL SECTION

*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.
**SEE MSE RETAINING WALLS PROVISION AND IF APPLICABLE, MSE WALL NOTES FOR EMBEDMENT AND REINFORCEMENT LENGTH REQUIREMENTS.

PROJECT NO.: 34472.1.1 (R-2582A)
NORTHAMPTON COUNTY
STATION: 170+20.99 -L- / 15+11.31 -Y7-
SHEET 4 OF 6

PREPARED BY: ALEXANDER, M. J. DATE: 12/12/18
REVIEWED BY: NASH, A. A. DATE: 12/12/18

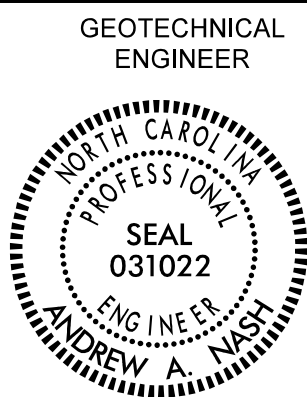
Prepared in the Office of:
Terracon
Consulting Engineers and Scientists
2401 BRENTWOOD ROAD, SUITE 107
RALEIGH, NORTH CAROLINA 27604
NC REGISTERED ENGINEERING FIRM: F-0869
NC REGISTERED GEOLOGIC FIRM: C-367

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL
ENGINEERING UNIT

SITE 1 MSE RETAINING WALLS
TYPICAL SECTION AT ABUTMENTS

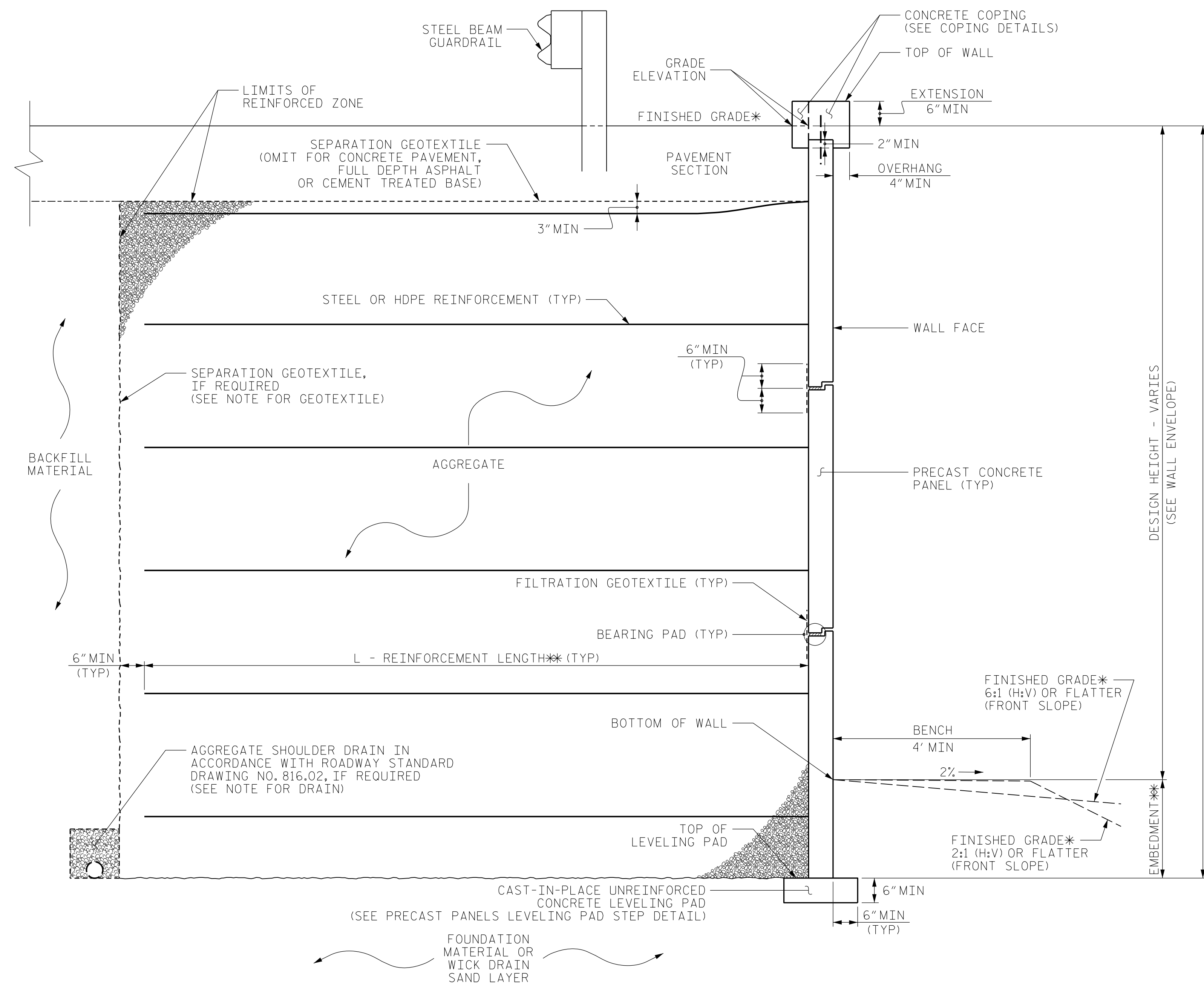
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

SHEET NO. **W-8**



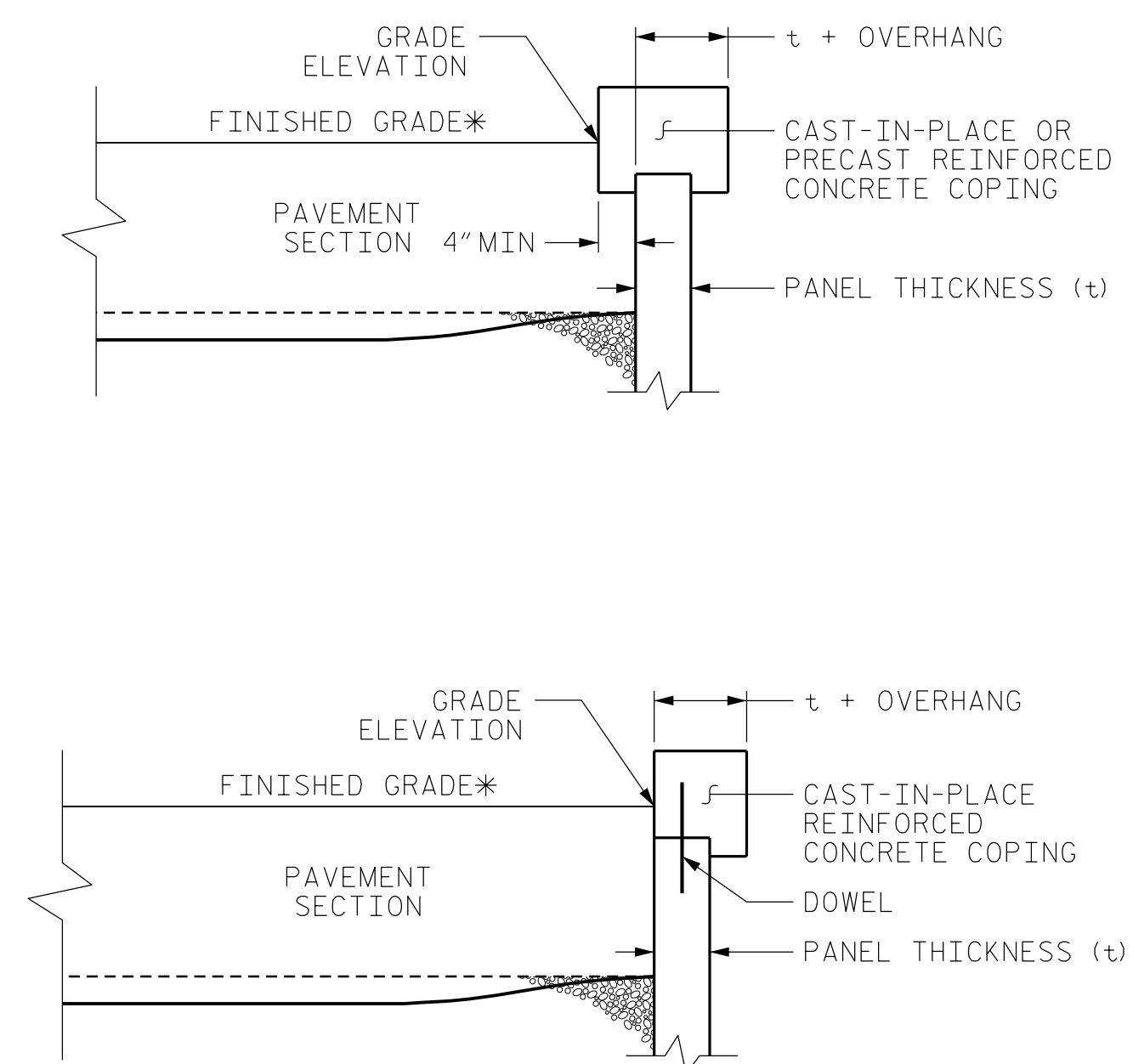
DocuSigned by:
Andrew A. Nash
671DAB882E20
1/28/2019
DATE

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MSE WALL WITH PRECAST PANELS - TYPICAL SECTION

*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.
**SEE MSE RETAINING WALLS PROVISION AND IF APPLICABLE, MSE WALL NOTES FOR EMBEDMENT AND REINFORCEMENT LENGTH REQUIREMENTS.



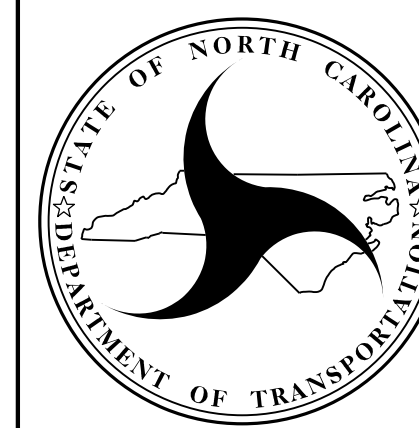
COPING DETAILS

AT THE CONTRACTOR'S OPTION, CONNECT COPING TO PANELS WITH DOWELS OR EXTEND COPING DOWN BACK OF PANELS.
*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.

PROJECT NO.: 34472.1.1 (R-2582A)
NORTHAMPTON COUNTY
STATION: 170+20.99 -L- / 15+11.31 -Y7-
SHEET 5 OF 6

PREPARED BY: ALEXANDER, M. J. DATE: 12/4/18
REVIEWED BY: NASH, A. A. DATE: 12/4/18

Prepared in the Office of:
Terracon
Consulting Engineers and Scientists
2401 BRENTWOOD ROAD, SUITE 107
RALEIGH, NORTH CAROLINA 27604
NC REGISTERED ENGINEERING FIRM: F-0869
NC REGISTERED GEOLOGIC FIRM: C-367

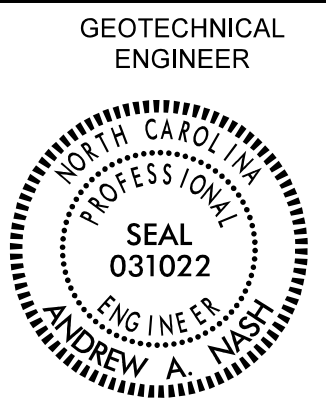


**NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**

**GEOTECHNICAL
ENGINEERING UNIT**

**SITE 1 MSE RETAINING WALLS
TYPICAL SECTION
WITH GUARDRAIL**

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			W-9
2			4			



DocuSigned by:
 Andrew A. Nash
 1/28/2019
 SIGNATURE DATE

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NOTES:

FOR MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALLS, SEE MECHANICALLY STABILIZED EARTH RETAINING WALLS PROVISION.
 FOR TYPE III REINFORCED BRIDGE APPROACH FILL, SEE BRIDGE APPROACH FILLS PROVISION AND ROADWAY DETAIL DRAWING NO. 422D10.
 FOR STEEL BEAM GUARDRAIL, SEE ROADWAY PLANS AND SECTION 862 OF THE STANDARD SPECIFICATIONS.
 A SEPARATION GEOTEXTILE IS REQUIRED AT THE BACK OF THE REINFORCED ZONE FOR RETAINING WALLS NO. 2 AND 3.
 A DRAIN IS REQUIRED FOR RETAINING WALLS NO. 2 AND 3.
 BEFORE BEGINNING MSE WALL DESIGN FOR RETAINING WALLS NO. 2 AND 3 SURVEY WALL LOCATION AND SUBMIT A REVISED WALL PROFILE VIEW (WALL ENVELOPE) FOR REVIEW. DO NOT START WALL DESIGN OR CONSTRUCTION UNTIL THE REVISED WALL ENVELOPE IS ACCEPTED.
 PILE SLEEVES ARE REQUIRED AROUND PILES FOR SITE 1 END BENTS NO. 1 AND 2 LOCATED AT APPROXIMATELY STATIONS 169+58 AND 170+83 -L-, RESPECTIVELY.

DESIGN RETAINING WALLS NO. 2 AND 3 FOR THE FOLLOWING:
 1) H = DESIGN HEIGHT + EMBEDMENT
 2) DESIGN LIFE = 100 YEARS
 3) MAXIMUM FACTORED VERTICAL PRESSURE ON FOUNDATION MATERIAL = 6,550 PSF (WALL 2); 7,250 PSF (WALL 3)
 4) MINIMUM REINFORCEMENT LENGTH (L) = 0.7H OR 6 FT, WHICHEVER IS LONGER
 5) MINIMUM EMBEDMENT = 2 FT OR H/10, WHICHEVER IS GREATER

6) REINFORCED ZONE AGGREGATE PARAMETERS:

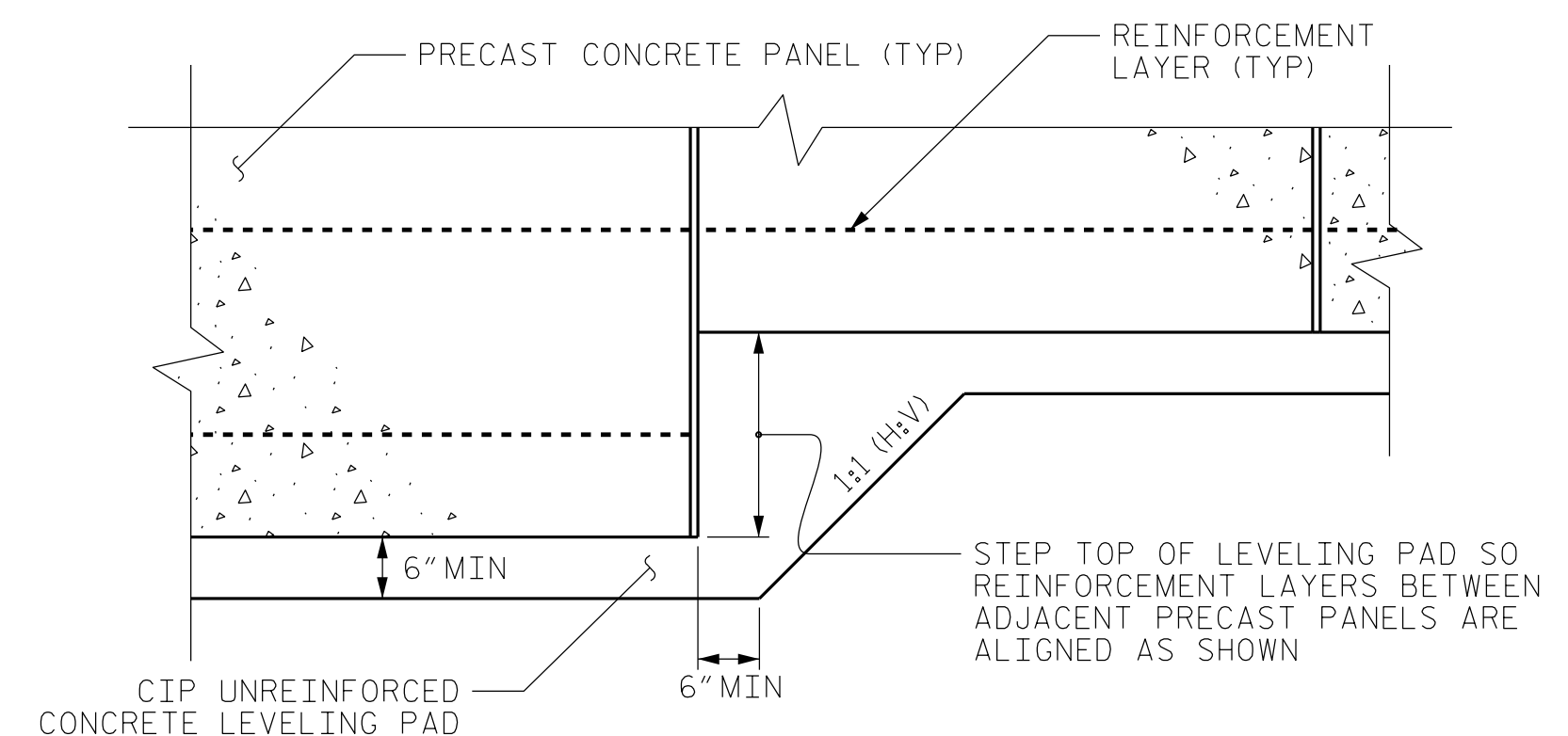
AGGREGATE TYPE*	UNIT WEIGHT (γ) PCF	FRICTION ANGLE (ϕ) DEGREES	COHESION (c) PSF
COARSE	110	38	0

* SEE MSE RETAINING WALLS PROVISION FOR COARSE AGGREGATE MATERIAL REQUIREMENTS.

7) IN-SITU ASSUMED MATERIAL PARAMETERS:

MATERIAL TYPE	UNIT WEIGHT (γ) PCF	FRICTION ANGLE (ϕ) DEGREES	COHESION (c) PSF
BACKFILL	120	32	0
FOUNDATION	115	30	0

DESIGN RETAINING WALLS NO. 2 AND 3 FOR A LIVE LOAD (TRAFFIC) SURCHARGE.
 DESIGN REINFORCEMENT CONNECTED TO SITE 1 END BENT CAPS FOR FACTORED LOAD AND LENGTH OF REINFORCEMENT IN ACTIVE ZONE (L_a) SHOWN. CAST REINFORCEMENT OR CONNECTORS INTO CAP BACKWALL FOR SITE 1 END BENTS NO. 1 AND 2 LOCATED AT APPROXIMATELY STATIONS 169+58 AND 170+83 -L-, RESPECTIVELY. MAINTAIN A CLEARANCE OF AT LEAST 3" BETWEEN REINFORCEMENT OR CONNECTORS AND REINFORCING STEEL IN CAP.
 EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, GUARDRAIL, FENCE OR HANDRAIL POSTS, PAVEMENTS, PIPES, INLETS OR UTILITIES MAY INTERFERE WITH REINFORCEMENT FOR RETAINING WALLS NO. 2 AND 3.
 FOUNDATIONS FOR SITE 1 END BENTS NO. 1 AND 2 LOCATED AT APPROXIMATELY STATIONS 169+58 AND 170+83 -L-, RESPECTIVELY, WILL INTERFERE WITH REINFORCEMENT FOR RETAINING WALLS NO. 2 AND 3. SEE "FOUNDATION LAYOUT" SHEET FOR FOUNDATION LOCATIONS.
 INSTALL PILE SLEEVES FOR SITE 1 END BENT NO. 1 LOCATED AT APPROXIMATELY STATION 169+58 -L- WHILE CONSTRUCTING RETAINING WALL NO. 2. OBSERVE A 1 MONTH WAITING PERIOD AFTER CONSTRUCTING THE MSE ABUTMENT WALL TO WITHIN 1 FT OF THE BOTTOM OF CAP ELEVATION. THEN, INSTALL PILES THROUGH THE CORRUGATED STEEL PIPES AND FILL PIPES WITH LOOSE UNCOMPACTED SAND BEFORE CONSTRUCTING END BENT CAPS.
 INSTALL PILE SLEEVES FOR SITE 1 END BENT NO. 2 LOCATED AT APPROXIMATELY STATION 170+83 -L- WHILE CONSTRUCTING RETAINING WALL NO. 3. OBSERVE A 1 MONTH WAITING PERIOD AFTER CONSTRUCTING THE MSE ABUTMENT WALL TO WITHIN 1 FT OF THE BOTTOM OF CAP ELEVATION. THEN, INSTALL PILES THROUGH THE CORRUGATED STEEL PIPES AND FILL PIPES WITH LOOSE UNCOMPACTED SAND BEFORE CONSTRUCTING END BENT CAPS.
 DO NOT PLACE LEVELING PAD CONCRETE, AGGREGATE OR REINFORCEMENT FOR RETAINING WALLS NO. 2 AND 3 UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.
 AT THE CONTRACTOR'S OPTION, "TEMPORARY SHORING FOR WALL CONSTRUCTION" MAY BE USED TO CONSTRUCT SITE 1 RETAINING WALLS NO. 2 AND 3. SEE MSE RETAINING WALLS PROVISION FOR TEMPORARY SHORING FOR WALL CONSTRUCTION.



**PRECAST PANELS
 LEVELING PAD STEP DETAIL**

PROJECT NO.: 34472.1.1 (R-2582A)
 NORTHAMPTON COUNTY
 STATION: 170+20.99 -L- / 15+11.31 -Y7-
 SHEET 6 OF 6

PREPARED BY: ALEXANDER, M. J.	DATE: 12/12/18
REVIEWED BY: NASH, A. A.	DATE: 12/12/18

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

**GEOTECHNICAL
 ENGINEERING UNIT**

**SITE 1 MSE RETAINING WALLS
 NOTES AND LEVELING PAD
 STEP DETAIL**

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			W-10
2			4			