



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

DANIEL H. JOHNSON
SECRETARY

January 12, 2026

Addendum No. 1

RE: Contract # C205128

WBS # 51603.3.1

FEDERAL-AID NO. 5160301

Rockingham County (BR-0096)

BRIDGE #780176 OVER NC-14/NC-87 ON SR-1700 (FISHER HILL RD)

January 20, 2026 Letting

To Whom It May Concern:

Reference is made to the plans furnished to you on this project.


The following revisions have been made to the Structure Plans - Walls.

Sheet No.	Revision
W-4	NOTES have been revised addressing the minimum wall reinforcement and adding a minimum embedment.

Please void the above listed Sheet in your plans and staple the revised Sheet thereto.

The contract will be prepared accordingly.

Sincerely,

Signed by:

52C46046381F443...

Ronald E. Davenport, Jr., PE
State Contract Officer

RED/jjr
Attachments

cc: Mr. Wiley W. Jones III, PE
Mr. Wright R. Archer, III, PE
Mr. Ken Kennedy, PE
Mr. Malcolm Bell

Mr. Forrest Dungan, PE
Ms. Jaci Kincaid
Mr. Jon Weathersbee, PE
Project File (2)

GEOTECHNICAL
ENGINEER

NORTH CAROLINA
PROFESSIONAL
SEAL
048123
ENGINEER
CHENG WANG, P.E.

DocuSigned by:
Cheng Wang
1711224055003

01/09/2026

SIGNATUREDATE

ENGINEER

SIGNATUREDATE

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

NOTES:

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

FOR SINGLE FACED PRECAST CONCRETE BARRIER, SEE ROADWAY PLANS AND SECTION 857 OF THE STANDARD SPECIFICATIONS.

AT THE CONTRACTOR'S OPTION, USE FINE AGGREGATE IN THE REINFORCED ZONE OF RETAINING WALL NO.1 AND 2.

A SEPARATION GEOTEXTILE IS REQUIRED AT THE BACK OF THE REINFORCED ZONE FOR RETAINING WALL NO.1 AND 2.

A DRAIN IS REQUIRED FOR RETAINING WALL NO.1 AND 2.

PILE SLEEVES ARE REQUIRED AROUND PILES FOR END BENT NO.1 LOCATED AT -L- STATION 14+92.90

PILE SLEEVES ARE REQUIRED AROUND PILES FOR END BENT NO.2 LOCATED AT -L- STATION 15+51.90

BEFORE BEGINNING MSE WALL DESIGN FOR RETAINING WALL NO.1 AND 2, 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.

DESIGN RETAINING WALL NO.1 AND 2 FOR THE FOLLOWING:
1) DESIGN HEIGHT (H) = WALL HEIGHT + WALL EMBEDMENT
2) DESIGN LIFE = 100 YEARS
3) MAXIMUM FACTORED VERTICAL PRESSURE ON FOUNDATION MATERIAL = 5,100 PSF
4) MINIMUM REINFORCEMENT LENGTH (L)= 0.7 H OR 6 FT, WHICHEVER IS LONGER
5) MINIMUM EMBEDMENT DEPTH= 2 FT
6) REINFORCED ZONE AGGREGATE PARAMETERS:

AGGREGATE TYPE*	UNIT WEIGHT (γ) PCF	FRICTION ANGLE (ϕ) DEGREES	COHESION (c) PSF
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) PCF	FRICTION ANGLE (ϕ) DEGREES	COHESION (c) PSF
RETAINED	120	30	0
FOUNDATION	115	29	0

DESIGN RETAINING WALL NO.1 AND 2 FOR A LIVE LOAD (TRAFFIC) SURCHARGE.

DESIGN REINFORCEMENT CONNECTED TO END BENT CAPS FOR FACTORED LOAD AND LENGTH OF REINFORCEMENT IN ACTIVE ZONE (L_a) SHOWN. CAST REINFORCEMENT OR CONNECTORS INTO CAP BACKWALL FOR END BENT NO.1 LOCATED AT -L- STATION 14+92.90. MAINTAIN A CLEARANCE OF AT LEAST 3" BETWEEN REINFORCEMENT OR CONNECTORS AND REINFORCING STEEL IN CAP.

DESIGN REINFORCEMENT CONNECTED TO END BENT CAPS FOR FACTORED LOAD AND LENGTH OF REINFORCEMENT IN ACTIVE ZONE (L_a) SHOWN. CAST REINFORCEMENT OR CONNECTORS INTO CAP BACKWALL FOR END BENT NO.2 LOCATED AT -L- STATION 15+51.90. MAINTAIN A CLEARANCE OF AT LEAST 3" BETWEEN REINFORCEMENT OR CONNECTORS AND REINFORCING STEEL IN CAP.

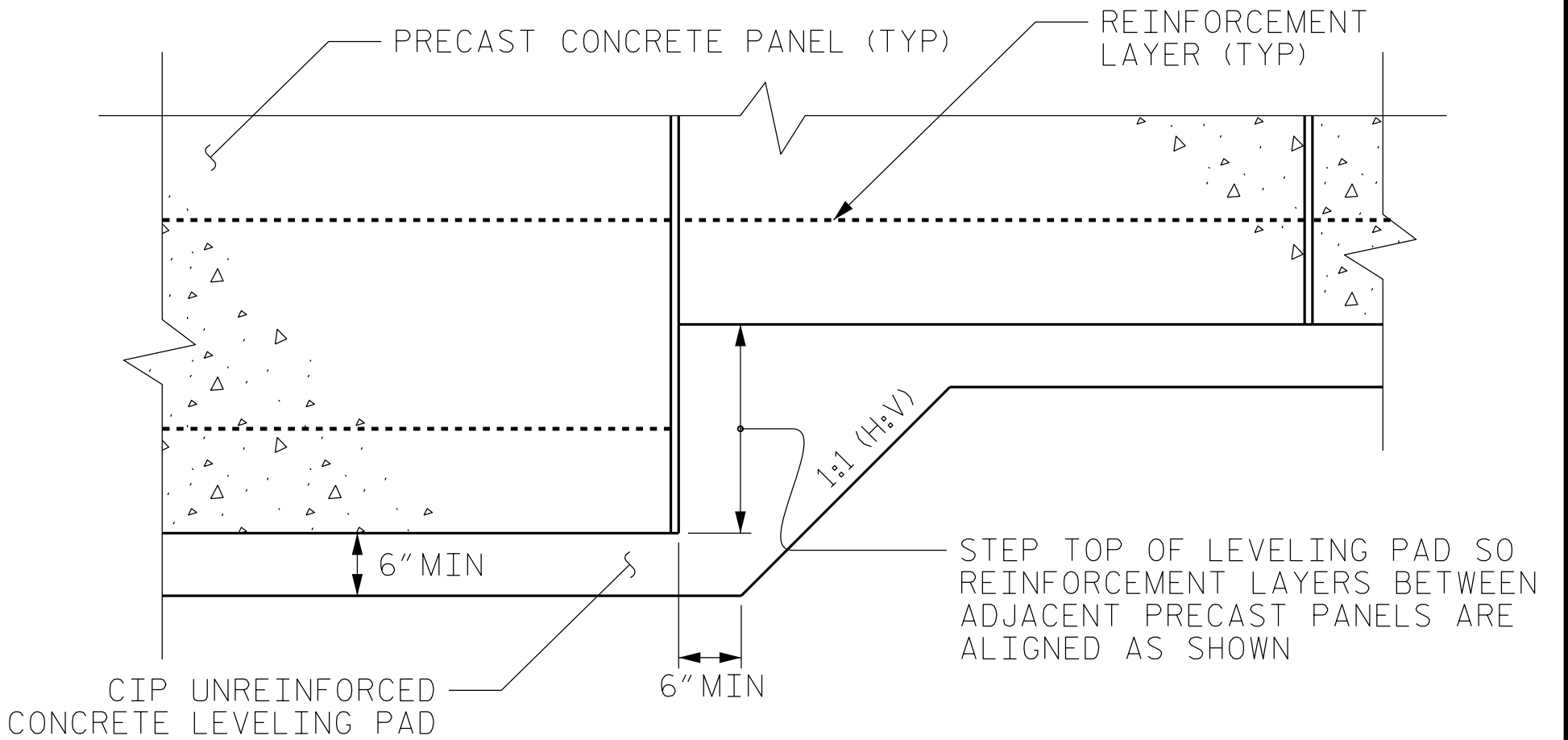
FOUNDATIONS FOR END BENT NO.1 LOCATED AT -L- STATION 14+92.90 MAY INTERFERE WITH REINFORCEMENT FOR RETAINING WALL NO.1. SEE "FOUNDATION LAYOUT" SHEET FOR FOUNDATION LOCATIONS.

FOUNDATIONS FOR END BENT NO.2 LOCATED AT -L- STATION 15+51.90 MAY INTERFERE WITH REINFORCEMENT FOR RETAINING WALL NO.2. SEE "FOUNDATION LAYOUT" SHEET FOR FOUNDATION LOCATIONS.

DO NOT PLACE LEVELING PAD CONCRETE, AGGREGATE OR REINFORCEMENT FOR RETAINING WALL NO.1 AND 2 UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.

AT THE CONTRACTOR'S OPTION, "TEMPORARY SHORING FOR WALL CONSTRUCTION" MAY BE USED TO CONSTRUCT RETAINING WALL NO.1 AND 2. SEE MSE RETAINING WALLS PROVISION FOR TEMPORARY SHORING FOR WALL CONSTRUCTION.

ESTIMATED MSE WALL QUANTITIES (SQUARE FEET)	
MSE RETAINING WALL NO. 1	1,576 SF
MSE RETAINING WALL NO. 2	1,448 SF



PRECAST PANELS
LEVELING PAD STEP DETAIL

PROJECT NO.: BR-0096
ROCKINGHAM COUNTY

SHEET 4 OF 4

PREPARED BY: C. WANG, P.E.	DATE: 01/26
REVIEWED BY: P. ALTON, P.E.	DATE: 01/26

SINCE

F&R

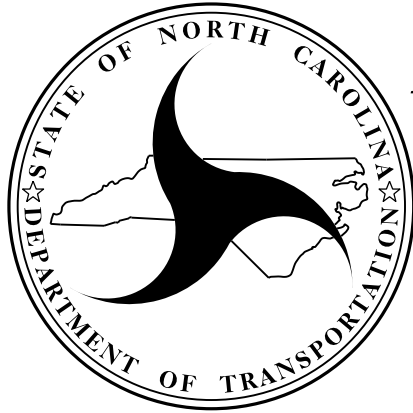
1881

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FROEHLING & ROBERTSON, INC.

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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL
ENGINEERING UNIT

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