

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 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.
 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.
 PILE SLEEVES ARE REQUIRED AROUND PILES FOR END BENT NO. 1 LOCATED AT STATION 26+31.00.
 BEFORE BEGINNING MSE WALL DESIGN FOR RETAINING WALL NO. 1, 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 FOR THE FOLLOWING:

- 1) H = DESIGN HEIGHT + EMBEDMENT
- 2) DESIGN LIFE = 100 YEARS
- 3) MAXIMUM FACTORED VERTICAL PRESSURE ON FOUNDATION MATERIAL = 6,000 PSF
- 4) MINIMUM REINFORCEMENT LENGTH (L) = 0.7H OR 6 FT, WHICHEVER IS LONGER
- 5) 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
BACKFILL	120	30	0
FOUNDATION	120	30	0

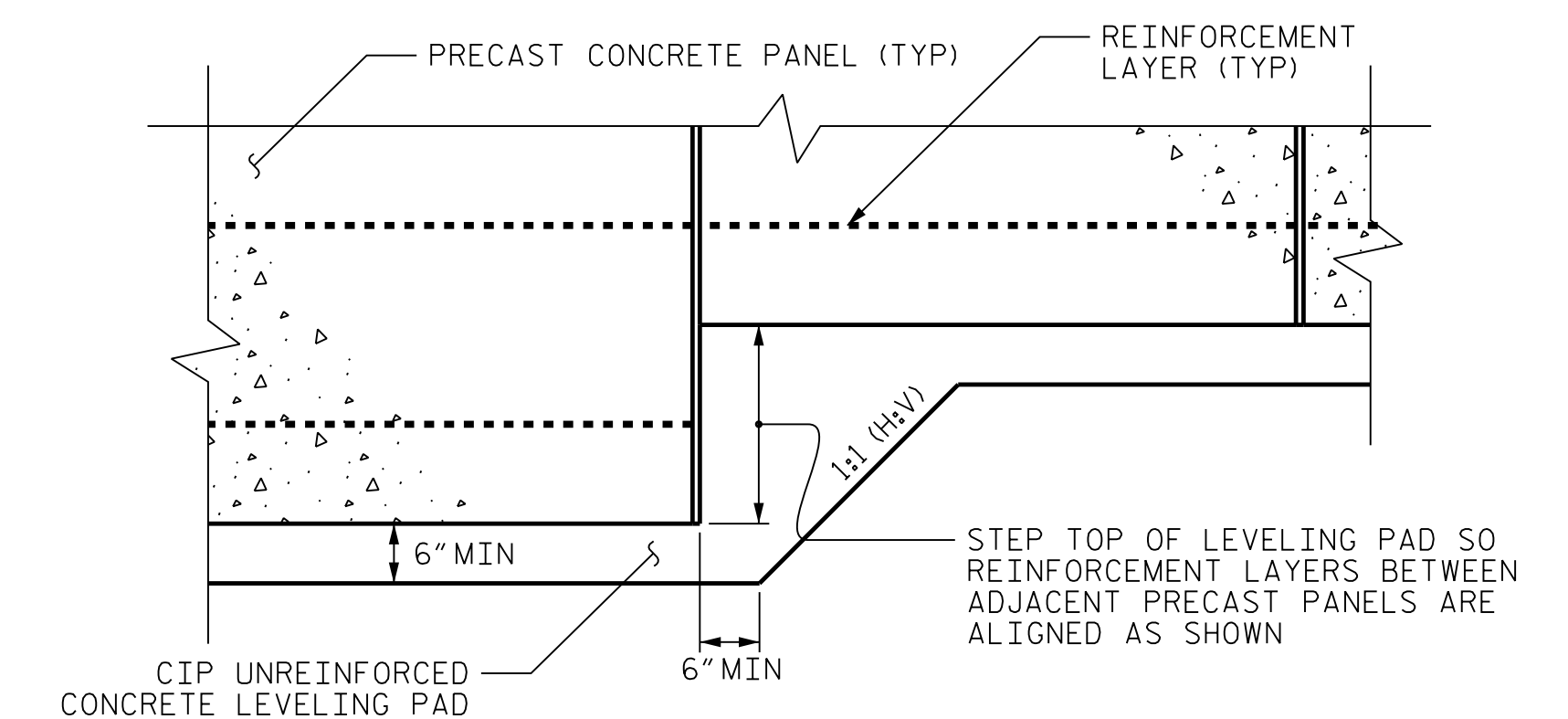
DESIGN RETAINING WALL NO. 1 FOR A LIVE LOAD (TRAFFIC) SURCHARGE.

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 STATION 26+31.00. MAINTAIN A CLEARANCE OF AT LEAST 3" BETWEEN REINFORCEMENT OR CONNECTORS AND REINFORCING STEEL IN CAP.

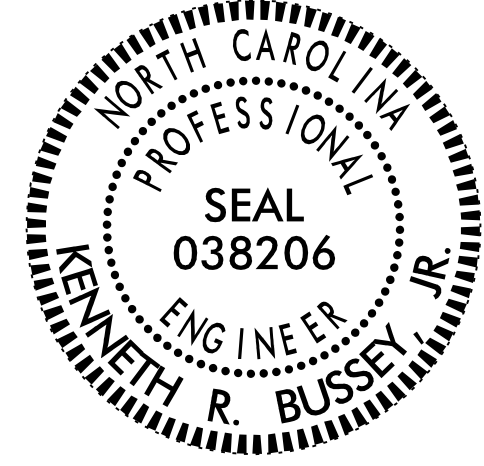

FOUNDATIONS FOR END BENT NO. 1 LOCATED AT STATION 26+31.00 WILL INTERFERE WITH REINFORCEMENT FOR RETAINING WALL NO. 1. SEE "FOUNDATION LAYOUT" SHEET FOR FOUNDATION LOCATIONS.

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

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



**PRECAST PANELS
LEVELING PAD STEP DETAIL**

PROJECT REFERENCE NO. B-3186 / B-5898	SHEET NO. W-02C
GEOTECHNICAL ENGINEER  Kenneth R. Bussey, Jr. 3/31/2022 SIGNATURE DATE	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 HDR Engineering, Inc. of the Carolinas 555 Fayetteville St., Suite 900, Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	

REVISIONS

PLOT DRIVER: NCDOT_color_eng_50.plt
 USER: PPETERSO
 DATE: 3/31/2022
 TIME: 12:13:31 PM

PENTABLE: NCDOT_pshp.plt.tdi
 USER: PPETERSO
 DATE: 3/31/2022
 TIME: 12:13:31 PM