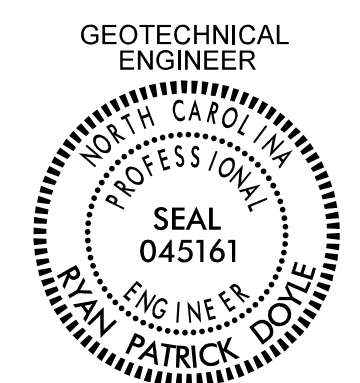



| | |
|---|-------------------|
| PROJECT REFERENCE NO. B-5898B-3186 | SHEET NO. W-6C |
| GEOTECHNICAL ENGINEER  PROFESSIONAL ENGINEER SEAL 045161 RYAN PATRICK DOYLE | |
| DocuSigned by: Ryan Patrick Doyle | DATE 11/9/2023 |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
|  | |

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.

A CONCRETE BARRIER RAIL WITH MOMENT SLAB IS REQUIRED ABOVE RETAINING WALL NO. 7. SEE PLANS FOR CONCRETE BARRIER RAIL WITH MOMENT SLAB DETAILS.

AT THE CONTRACTOR'S OPTION, USE FINE AGGREGATE IN THE REINFORCED ZONE OF RETAINING WALL NO. 7.

A SEPARATION GEOTEXTILE IS REQUIRED AT THE BACK OF THE REINFORCED ZONE FOR RETAINING WALL NO. 7.

A DRAIN IS REQUIRED FOR RETAINING WALL NO. 7.

PILE SLEEVES ARE REQUIRED AROUND PILES FOR END BENT NO.2 LOCATED AT STATION 32+89.00.

A TEMPORARY PIEZOMETER SHALL BE INSTALLED IN FRONT OF RETAINING WALL NO. 7 TO MONITOR PORE PRESSURE DISSIPATION DURING FILL PLACEMENT AND CONSTRUCTION AT L-LT STA. 32+28 13' LT

BEFORE BEGINNING MSE WALL DESIGN FOR RETAINING WALL NO. 7, 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. 7 FOR THE FOLLOWING:

- 1) H = WALL HEIGHT + WALL EMBEDMENT
- 2) DESIGN LIFE = 100 YEARS
- 3) MAXIMUM FACTORED VERTICAL PRESSURE ON FOUNDATION MATERIAL = 6440 PSF
- 4) MINIMUM REINFORCEMENT LENGTH (L) = 0.90 H OR 6 FT, WHICHEVER IS LONGER
- 5) MINIMUM WALL EMBEDMENT H/10.0 OR 2 FT, 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 |
| 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 | 28 | 0 |
| FOUNDATION | 120 | 28 | 0 |

DESIGN RETAINING WALL NO. 7 FOR A LIVE LOAD (TRAFFIC) SURCHARGE.

DESIGN REINFORCEMENT CONNECTED TO END BENT CAPS FOR FACTORED LOAD AND LENGTH OF REINFORCEMENT IN ACTIVE ZONE (L) SHOWN. CAST REINFORCEMENT OR CONNECTORS INTO CAP BACKWALL FOR END BENT NO. 2 LOCATED AT STATION 32+89.00. MAINTAIN A CLEARANCE OF AT LEAST 3' BETWEEN REINFORCEMENT OR CONNECTORS AND REINFORCING STEEL IN CAP.

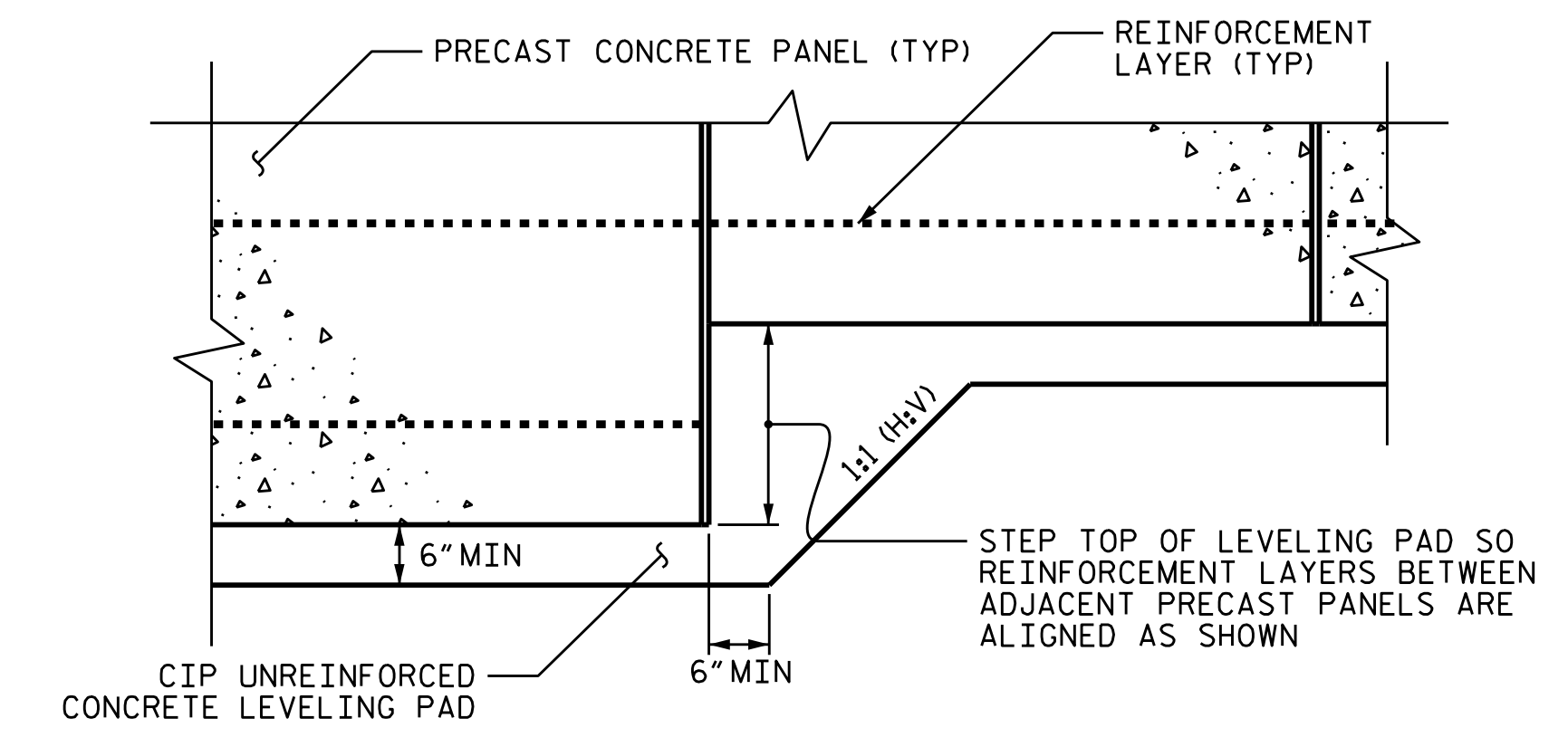
INSTALL PILE SLEEVES BEFORE CONSTRUCTING THE MECHANICALLY STABILIZED EARTH (MSE) ABUTMENT WALL AT END BENT NO. 2. OBSERVE A 2 MONTH WAITING PERIOD AFTER CONSTRUCTING THE MSE ABUTMENT WALL TO WITHIN 1 FT OF THE BOTTOM OF CAP ELEVATION. THEN, INSTALL PILES THROUGH THE CORRUGATED STEEL PIPES AND FILL PIPES WITH LOOSE UNCOMPACTED SAND BEFORE CONSTRUCTING END BENT CAPS. FOR PILE SLEEVES, SEE MSE RETAINING WALL PLANS AND PROVISION. FOR BRIDGE WAITING PERIODS, SEE ROADWAY PLANS AND SECTION 235 OF THE STANDARD SPECIFICATIONS.

INSTALL PVC PIPE THROUGH MSE WALL COPING AT LOCATIONS SHOWN ON STRUCTURE PLANS. INVERT OF PVC PIPE SHALL BE FLUSH WITH BOTTOM OF PAVED SLOPE PROTECTION. EXTEND PIPE 4" BEYOND FACE OF COPING. PVC PIPE MATERIAL, LABOR, AND INCIDENTALS ARE CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF THE WALL.

FOUNDATIONS FOR END BENT NO. 2 LOCATED AT STATION 32+89.00 WILL INTERFERE WITH REINFORCEMENT FOR RETAINING WALL NO. 5. SEE "FOUNDATION LAYOUT" SHEET FOR FOUNDATION LOCATIONS.

DO NOT PLACE LEVELING PAD CONCRETE, AGGREGATE OR REINFORCEMENT FOR RETAINING WALL NO. 7 UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.

| ESTIMATED MSE WALL QUANTITIES (SQUARE FEET) | |
|--|-------|
| MSE RETAINING WALL NO. 7 | 5,350 |



**PRECAST PANELS
LEVELING PAD STEP DETAIL**