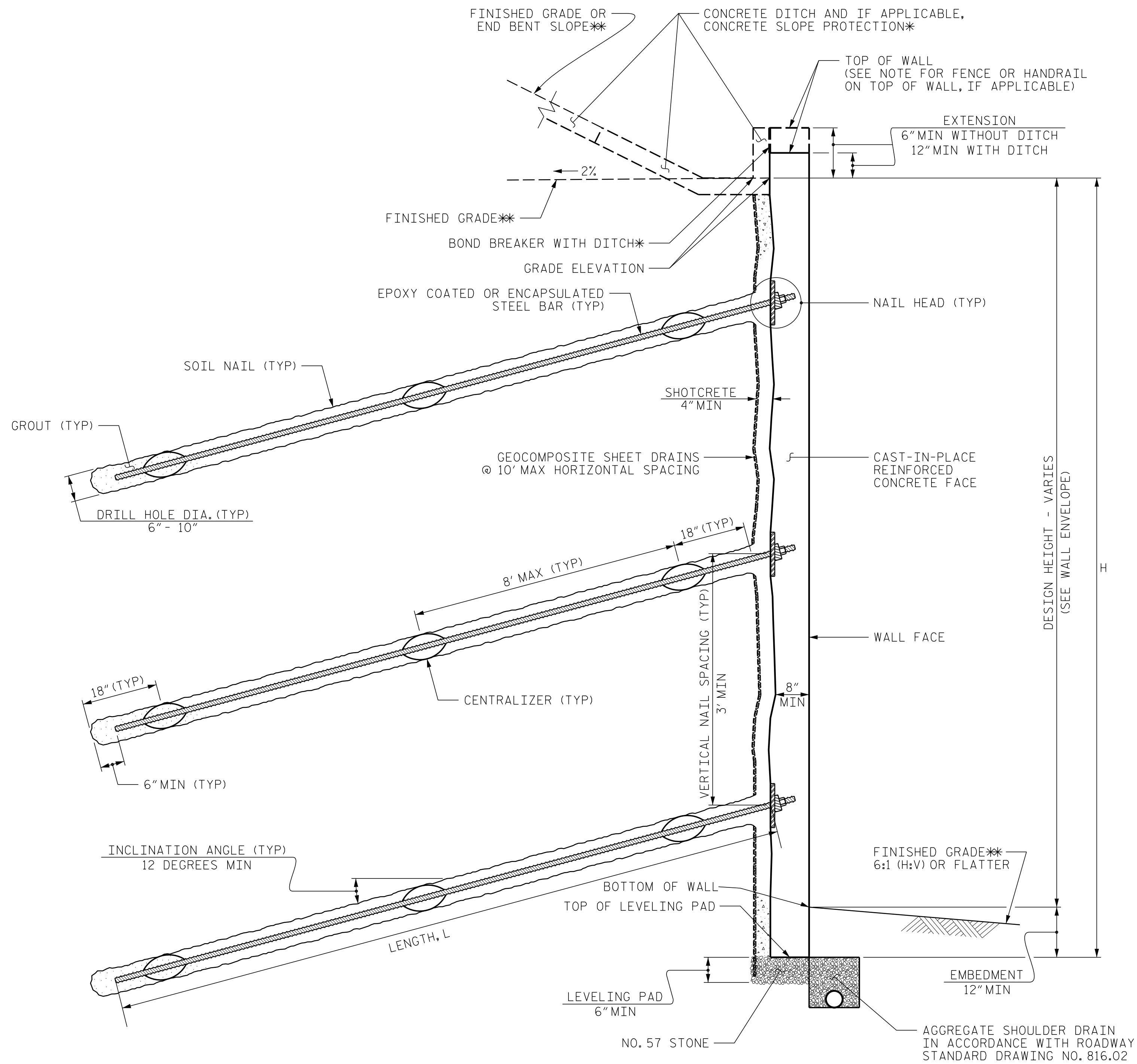


DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



SOIL NAIL WALL - TYPICAL SECTION

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

NOTES:

FOR SOIL NAIL RETAINING WALLS, SEE SOIL NAIL RETAINING WALLS PROVISION.

BEFORE BEGINNING SOIL NAIL WALL DESIGN FOR RETAINING WALL NO. 4, 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. 4 FOR THE FOLLOWING:

- 1) H = DESIGN HEIGHT + EMBEDMENT
- 2) DESIGN LIFE = 100 YEARS
- 3) MINIMUM EMBEDMENT DEPTH = 12 INCHES
- 4) MINIMUM SOIL NAIL LENGTH = 1.1H OR 10 FEET, WHICHEVER IS LONGER
- 5) IN-SITU ASSUMED RESIDUAL MATERIAL PARAMETERS:
UNIT WEIGHT, γ = 120 PCF
FRICTION ANGLE, ϕ = 30 DEGREES
COHESION, c = 0 PSF
- 6) IN-SITU ASSUMED WEATHERED ROCK MATERIAL PARAMETERS:
UNIT WEIGHT, γ = 145 PCF
FRICTION ANGLE, ϕ = 38 DEGREES
COHESION, c = 200 PSF

A WEATHER CUT ASHLAR FORM LINER ARCHITECTURAL FINISH IS REQUIRED FOR THE CIP REINFORCED CONCRETE FACE FOR RETAINING WALL NO. 4. SEE WEATHER CUT ASHLAR FORM LINER ARCHITECTURAL FINISH SPECIAL PROVISION.

A FENCE IS REQUIRED ON TOP OF RETAINING WALL NO. 4. SEE ROADWAY PLANS FOR FENCE ATTACHMENT DETAILS.

PROJECT NO.: U-5810

WATAUGA COUNTY

STATION: -WALL04- STA 10+00.00 TO 14+30.08

SHEET 2 OF 2

WALL ID RW-4

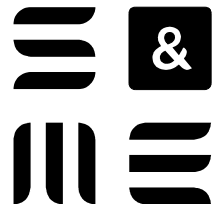
RETAINING WALL NO. 4 TYPICAL SECTION AND NOTES

REVISIONS

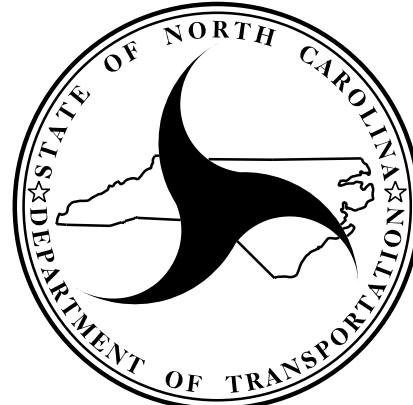
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

SHEET
NO.
W-8

PREPARED BY: JOEY DAILY	DATE: 8/14/25
REVIEWED BY: KRISTEN HILL	DATE: 8/14/25



9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273
(704) 523-4726



NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL
ENGINEERING UNIT