PROJECT REFERENCE NO.	SHEET NO.
U-5606	W-9

GEOTECHNICAL ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 032171 ENGINEER JINYOUNG PARK

DocuSigned by:
11/18/2021
SIGNATURE DATE

ENGINEER

SIGNATURE DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NOTES:

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

(1) FOR HANDRAILS BEHIND THE TOP OF WALL NO. 6, SEE ROADWAY PLANS FOR HANDRAIL DETAILS.

USE AN MSE WALL SYSTEM WITH SEGMENTAL RETAINING WALL UNITS (SRW) UNITS THAT MEET ARTICLE 1040-4 OF THE STANDARD SPECIFICATIONS FOR RETAINING WALL NO. 6.

AT THE CONTRACTOR'S OPTION, USE FINE AGGREGATE IN THE REINFORCED ZONE OF RETAINING WALL NO. 6.

USE SRW UNITS WITH A COLOR MATCHING WITH EXISTING WALL COLOR FOR RETAINING WALL NO. 6.

A SEPARATION GEOTEXTILE IS REQUIRED AT THE BACK OF THE REINFORCED ZONE FOR RETAINING WALL NO. 6.

A SEPARATION GEOTEXTILE IS REQUIRED AT THE END OF RETAINING WALL NO. 6 AS SHOWN IN W-5 SHEET.

BEFORE BEGINNING MSE WALL DESIGN FOR RETAINING WALL NO. 6, 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. 6 FOR THE FOLLOWING:
1) H = DESIGN HEIGHT + EMBEDMENT
2) DESIGN LIFE = 75 YEARS
3) MAXIMUM FACTORED VERTICAL PRESSURE ON FOUNDATION MATERIAL = 1,620 LB/SF
4) MINIMUM REINFORCEMENT LENGTH (L) = 0.9H OR 6 FT, WHICHEVER IS LONGER
5) MINIMUM EMBEDMENT = 1.0 FT
6) 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:

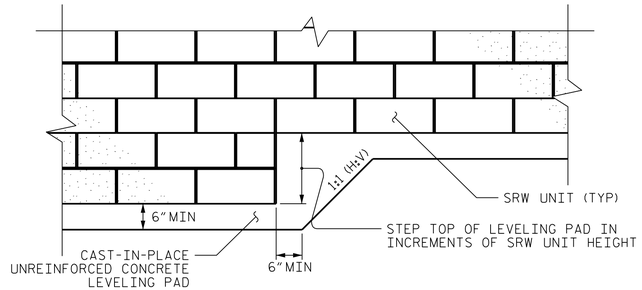
MATERIAL TYPE	UNIT WEIGHT (γ) LB/CF	FRICTION ANGLE (ϕ) DEGREES	COHESION (c) LB/SF
BACKFILL	120	30	0
FOUNDATION	120	30	0

DESIGN RETAINING WALL NO. 6 FOR A LIVE LOAD (TRAFFIC) SURCHARGE.

DO NOT PLACE LEVELING PAD CONCRETE, AGGREGATE OR REINFORCEMENT FOR RETAINING WALL NO. 6 UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.

SUBMIT FOR REVIEW THE TEMPORARY SHORING/SLOPE NECESSARY TO TIE MSE RETAINING WALL NO. 6 TO THE EXISTING RETAINING WALL. THE USE OF A TEMPORARY SLOPE BEHIND EXISTING RETAINING WALL MAY BE CONSIDERED IF THE EXISTING RETAINING WALL CAN BE MAINTAINED WITHOUT DAMAGE.

THE RETAINED PORTION OF THE EXISTING RETAINING WALL SHALL NOT BE DAMAGED.



SRW UNITS LEVELING PAD STEP DETAIL

PREPARED BY: J. PARK	DATE: 02 / 2018
REVIEWED BY: J. BATTS	DATE: 02 / 2018

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

NOTES AND LEVELING PAD DETAILS FOR MSE RETAINING WALL No. 6

REVISIONS

NO.	BY	DATE	NO.	BY	DATE
1	JINYOUNG PARK	11/2021	3		
2			4		