NOTES:

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

FOR STEEL BEAM GUARDRAIL, SEE ROADWAY PLANS AND SECTION 862 OF THE STANDARD SPECIFICATIONS.

FOR CHAIN LINK FENCE, SEE DETAIL SHEET 2C-9 FOR FENCE ATTACHMENT TO RETAINING WALL.

CIP REINFORCED CONCRETE COPING IS REQUIRED FOR RETAINING WALL NO.1 & NO.2

THE CONTRACTOR SHALL DESIGN THE CONNECTION FOR THE FENCE MOUNTED TO THE WALL COPING. THE DETAIL SHALL BE SUBMITTED TO THE RESIDENT ENGINEER FOR APPROVAL.

AT THE CONTRACTOR'S OPTION, USE AN MSE WALL SYSTEM WITH SEGMENTAL RETAINING WALL (SRW) UNITS THAT MEET ARTICLE 1040-4 OF THE STANDARD SPECIFICATIONS FOR RETAINING WALL NO.1 & NO.2.

A DRY STACK STONE TEXTURE WITH STAIN OPTION 36270 ARCHITECTURAL FINISH IS REQUIRED FOR PRECAST CONCRETE PANELS FOR RETAINING WALLS NO.1 & NO.2. SEE SPECIAL PROVISION FOR ARCHITECTURAL CONCRETE SURFACE TREATMENT.

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

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

BEFORE BEGINNING MSE WALL DESIGN FOR RETAINING WALL NO.1 & NO.2, SURVEY WALL LOCATIONS 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 & NO.2 FOR THE FOLLOWING:

1) H = DESIGN HEIGHT + EMBEDMENT

2) DESIGN LIFE = 100 YEARS

3) MAXIMUM FACTORED VERTICAL PRESSURE ON FOUNDATION MATERIAL = 3,350 PSF 4) MINIMUM REINFORCEMENT LENGTH (L) = 0.8H 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					
*SEE MSE RETAINING WALLS PROVISION FOR COARSE AND FINE AGGREGATE MATERIAL REQUIREMENTS.							

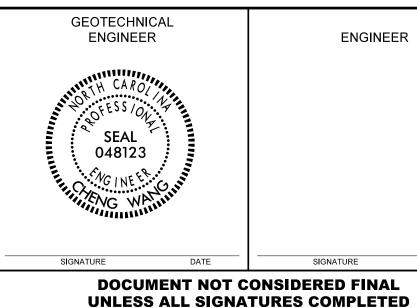
7) IN-SITU ASSUMED MATERIAL PARAMETERS:

MATERIAL TYPE	UNIT WEIGHT (y) PCF	FRICTION ANGLE (\$\phi\$) DEGREES	COHESION (c) PSF
BACKFILL	120	30	0
FOUNDATION	120	30	0

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

EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, GUARDRAIL, FENCE OR HANDRAIL POSTS, PAVEMENTS, PIPES, INLETS OR UTILITIES MAY INTERFERE WITH REINFORCEMENT FOR RETAINING WALL NO.1 & NO.2.

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



ESTIMATED MSE WALL QUANTITIES

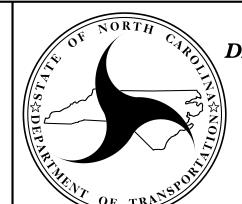
(SQUARE FEET)

MSE RETAINING WALL NO.1 2,623 SF 2,822 SF MSE RETAINING WALL NO. 2

> PROJECT NO.: R-5797 COUNTY COLUMBUS

SHEET 2 OF 4





NORTH CAROLINA **DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS**

GEOTECHNICAL ENGINEERING UNIT

MSE RETAINING WALLS (NOTES)

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

DATE: 11/19 PREPARED BY: T.T. WALKER REVIEWED BY: C. WANG DATE: 11/19