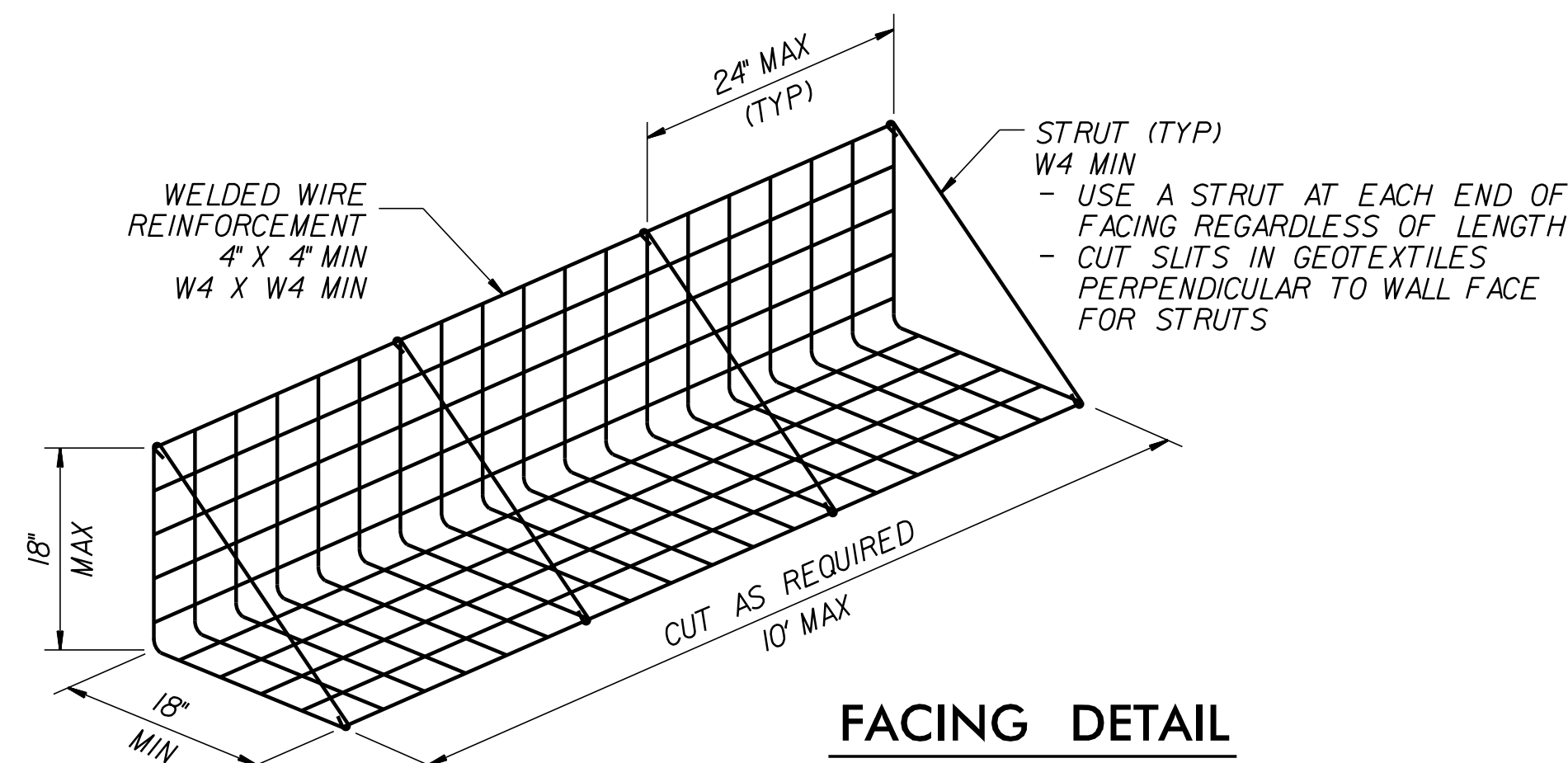


CONSTRUCTION SEQUENCE FOR REINFORCED RETAINING WALL BACKFILL:

1. INSTALL GALVANIZED PZ27 OR EQUIVALENT SHEET PILES PRIOR TO CONSTRUCTING REINFORCED RETAINING WALL BACKFILL.
2. CONTROL DRAINAGE DURING CONSTRUCTION IN THE VICINITY OF THE REINFORCED RETAINING WALL BACKFILL.
3. COLLECT AND DIRECT RUNOFF AWAY FROM THE RETAINING WALL BACKFILL.
4. EXCAVATE AS NECESSARY TO CONSTRUCT BOTTOM OF REINFORCED RETAINING WALL BACKFILL TO THE ELEVATION SHOWN ON THE PLANS, UNDERCUT AS SHOWN ON ROADWAY PLANS. PLACE GEOTEXTILE OR GEOGRID REINFORCEMENT AT LOCATIONS SHOWN ON SHEETS W-1 AND W-2 AND ELEVATIONS SHOWN ON SHEET W-3 AND IN SLIGHT TENSION FREE KINKS, FOLDS, WRINKLES OR CREASES.
5. INSTALL TEMPORARY SHORING BETWEEN STATIONS -L1- 19+50 AND -L1- 20+75.
6. RETENTION GEOTEXTILE SHALL MEET THE REQUIREMENTS OF TYPE 2 GEOTEXTILE AS SHOWN IN TABLE 1056-1 OF THE STANDARD SPECIFICATIONS.
7. ERECT WELDED WIRE FORMS AS SHOWN ON SHEET W-4 AND W-5.
8. STAGGER VERTICAL JOINTS OF WELDED WIRE FORMS TO CREATE A RUNNING BOND.
9. PLACE WELDED WIRE FORMS AS NEAR TO VERTICAL AS POSSIBLE WITH NO NEGATIVE BATTER. CONSTRUCT REINFORCED RETAINING WALL BACKFILL WITH A MAXIMUM VERTICAL AND HORIZONTAL TOLERANCE OF 3" WHEN MEASURED WITH A 10'-0" STRAIGHT EDGE AND AN OVERALL PLUMBNESS (BATTER) AND HORIZONTAL ALIGNMENT OF LESS THAN 6".
10. DO NOT SPLICE OR OVERLAP GEOTEXTILE REINFORCEMENT IN THE MACHINE DIRECTION (MD), i.e., PERPENDICULAR TO THE REINFORCED RETAINING WALL BACKFILL FACE. OVERLAPS ONLY ARE ALLOWED IN THE CROSS-MACHINE DIRECTIONS (CMD).
11. PLACE BACKFILL WITHIN RETAINING WALL IN 8" TO 10" THICK LIFTS AND COMPACT IN ACCORDANCE WITH SUBARTICLE 235-3(C) OF THE STANDARD SPECIFICATIONS. USE ONLY HAND OPERATED COMPACTION EQUIPMENT WITHIN 3'-0" OF THE REINFORCED RETAINING WALL BACKFILL FACE.
12. WRAP GEOTEXTILE OR GEOGRID REINFORCEMENT AT VERTICAL CORNERS AS DIRECTED BY THE ENGINEER.
13. DO NOT DAMAGE GEOTEXTILE OR GEOGRID REINFORCEMENT OR WELDED WIRE FORMS WHEN PLACING AND COMPACTING BACKFILL. DO NOT OPERATE HEAVY EQUIPMENT ON GEOTEXTILE OR GEOGRID REINFORCEMENT UNTIL IT IS COVERED WITH AS LEAST 8" OF BACKFILL. DO NOT USE SHEEPSFOOT, GRID ROLLERS OR OTHER TYPES OF COMPACTION EQUIPMENT WITH FEET.
14. CONSTRUCT RETAINING WALL THE TOP OF WALL ELEVATION SHOWN ON THE PLANS AND ALLOW THEM TO SIT IDLE FOR A MINIMUM OF 30 DAYS PRIOR TO FILLING SPACE BETWEEN FACE OF THE RETAINING WALL AND BACK OF SHEET PILING WITH CLASS VI SELECT MATERIAL.

NOTES FOR SHEET PILE WALLS:

1. FOR STEEL SHEET PILES SEE SHEET PILE WALL SPECIAL PROVISION.
2. INSTALL SHEET PILING TO THE MINIMUM DEPTH SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
3. SHEET PILING SHALL BE PZ-27 OR EQUIVALENT.
4. USE A CONCRETE COPING ON TOP OF THE SHEET PILE RETAINING WALLS AS SHOWN IN THE PLANS AND IN ACCORDANCE WITH SECTION 420 OF THE STANDARD SPECIFICATIONS.
5. STEEL SHEET PILES SHALL MEET ASTM A572 OR A690 SPECIFICATIONS.
6. STEEL SHEET PILES SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS.
7. AFTER FIELD WELDING, OR IF GALVANIZING ON MEMBERS IS DAMAGED, REPAIR DAMAGED GALVANIZED SURFACES IN ACCORDANCE WITH ARTICLE 1076-7 OF THE STANDARD SPECIFICATIONS.



NOTES FOR REINFORCED RETAINING WALL BACKFILL:

1. FOR REINFORCED RETAINING WALL BACKFILL, SEE REINFORCED RETAINING WALL BACKFILL SPECIAL PROVISIONS.
2. RETAINING WALLS ARE DESIGNED FOR MAXIMUM FACTORED VERTICAL PRESSURE ON FOUNDATION MATERIAL = 3,700 PSF.
3. USE CLASS II, TYPE I, CLASS III, CLASS V, OR CLASS VI SELECT MATERIAL FOR REINFORCED FILLS. DO NOT USE CLASS VI SELECT MATERIAL IN THE REINFORCED RETAINING WALL BACKFILL WITH GEOTEXTILE REINFORCEMENT.
4. AT THE CONTRACTOR'S OPTION, REINFORCEMENT MAY BE INSTALLED WITH THE MD PARALLEL TO THE WALL FACE IF BOTH OF THE FOLLOWING CONDITIONS OCCUR:
 - a. W (REINFORCEMENT ROLL WIDTH) ≥ 15'
 - b. REINFORCEMENT STRENGTH IN CD ≥ MINIMUM REQUIRED REINFORCEMENT STRENGTH IN MD.
5. DO NOT PLACE WELDED WIRE FACING, BACKFILL OR REINFORCEMENT UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.
6. DO NOT SPLICE OR OVERLAP REINFORCEMENT SO SEAMS ARE PARALLEL TO THE WALL FACE.
7. CONTACT THE ENGINEER WHEN EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, PAVEMENTS, PIPES, INLETS OR UTILITIES WILL INTERFERE WITH REINFORCEMENT.
8. "TEMPORARY SHORING" IS REQUIRED FOR RETAINING WALL NO. 1 BETWEEN STATIONS 19+50 AND 20+75 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE TEMPORARY SHORING PROVISION. SEE TRAFFIC CONTROL PLANS.

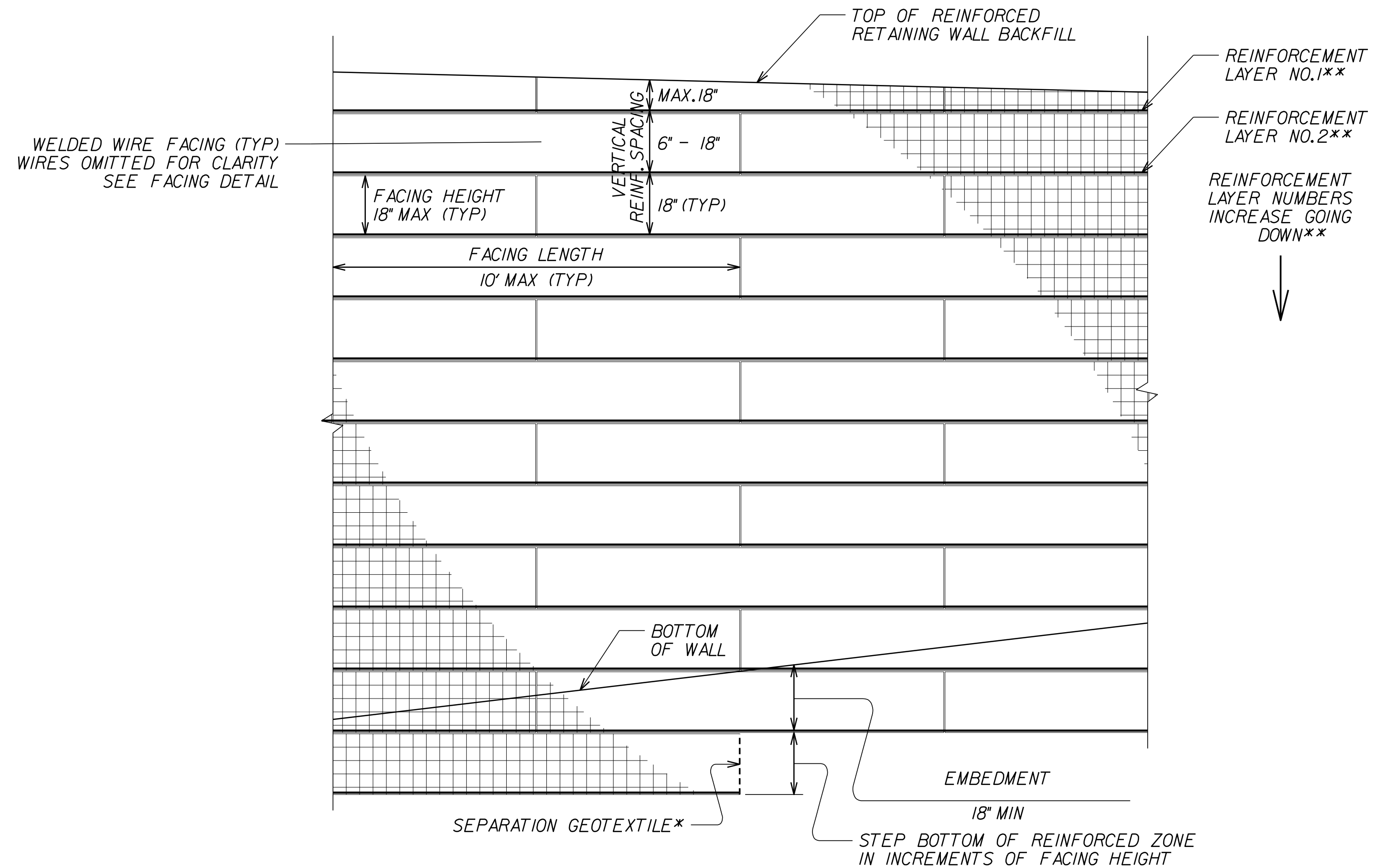
GEOTECHNICAL ENGINEER

DocuSigned by:
Kristen H. Hill
ES:CF0583848

ENGINEER

3/11/2020

DATE



REINFORCED RETAINING WALL BACKFILL – PARTIAL ELEVATION

*SEE GEOSYNTHETIC PLACEMENT DETAILS
 **SEE REINFORCEMENT TABLES ON SHEET W-3.

PROJECT NO.: B-4484
 CRAVEN COUNTY
 STATION: -L1- STA. 19+50.00 /
 -L1- STA. 28+10.00

PREPARED BY: K. HILL DATE: 01/14/20
 REVIEWED BY: S. LANEY DATE: 01/14/20

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NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
**GEOTECHNICAL
 ENGINEERING UNIT**

NOTES FOR SHEET PILE RETAINING WALL AND REINFORCED BACKFILL

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

SHEET NO. W-5