COMPUTED BY: VML DATE: 18 FEB 2022
CHECKED BY: DBE DATE: 18 FEB 2022

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| B-4786 | 3B-1 |

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

## SUMMARY OF EARTHWORK
*IN CUBIC YARDS*

| LOCATION | UNCLASSIFIED EXCAVATION | UNDERCUT | EMBT+% | BORROW | WASTE |
|---|---|---|---|---|---|
| PHASE I (CROSSOVER CONSTRUCTION) | | | | | |
| –XOVR1– (CONSTRUCTION) | | | | | |
| –L–(TEMP) 18+78.61 TO –L–(TEMP) 22+95.70 | 99 | | | | 99 |
| –XOVR2– (CONSTRUCTION) | | | | | |
| –L–(TEMP) 33+21.43 TO –L–(TEMP) 36+39.20 | 22 | | 44 | 22 | |
| SUBTOTAL | 121 | | 44 | 22 | 99 |
| | | | | | |
| PHASE II (NBL BRIDGE CONST./–L– LINE WORK) | | | | | |
| –L– 22+00.00 TO –L– 25+28.00 BEG. BRIDGE | 332 | | 166 | | 166 |
| –L– 30+78.00 END BRIDGE TO –L– 35+00.00 | 422 | | 246 | | 176 |
| SUBTOTAL | 754 | | 412 | | 342 |
| | | | | | |
| PHASE III (CROSSOVER REMOVAL) | | | | | |
| –XOVR1– (REMOVAL) | | | | | |
| –L–(TEMP) 18+78.61 TO –L–(TEMP) 22+95.70 | | | 124 | 124 | |
| –XOVR2– (REMOVAL) | | | | | |
| –L–(TEMP) 33+21.43 TO –L–(TEMP) 36+39.20 | 35 | | 28 | | 8 |
| SUBTOTAL | 35 | | 152 | 124 | 8 |
| | | | | | |
| | | | | | |
| TOTAL | 910 | | 608 | 146 | 448 |
| WASTE IN LIEU OF BORROW | | | | –146 | –146 |
| PROJECT TOTAL | 910 | | 608 | | 302 |
| EST. 5% TO REPLACE TOP SOIL ON BORROW PIT | | | | | |
| GRAND TOTAL | 910 | | 608 | | 302 |
| SAY | 950 | | | | |

PER "GEOTECHNICAL REPORT – DESIGN AND CONSTRUCTION RECOMMENDATIONS" DATED NOVEMBER 20, 2017:

ESTIMATED UNDERCUT = 600 CY (CONTINGENCY, AS DIRECTED BY THE ENGINEER)
ESTIMATED SELECT GRANULAR MATERIAL = 600 CY (CONTINGENCY, TO BE USED AS BACKFILL FOR UNDERCUT AREAS)
ESTIMATED GEOTEXTILE FOR SOIL STABILIZATION = 1,100 SY (CONTINGENCY, AS DIRECTED BY THE ENGINEER)

ESTIMATED SHOULDER BORROW = 175 CY

Earthwork quantities are calculated using NCDOT Roadway Design Unit Guidelines. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

Approximate quantities only. Clearing and Grubbing, Unclassified Excavation, Borrow Excavation, Shoulder Borrow, Fine Grading, and Removal of Existing Asphalt Pavement will be paid for at the contract lump sum price for "Grading".

## PAVEMENT REMOVAL SUMMARY
*IN SQUARE YARDS*

| SURVEY LINE | STATION | STATION | LOCATION LT/RT/CL | SY |
|---|---|---|---|---|
| | | | | |
| –L– | 22+00 | 24+25 | LT | 103 |
| –L– | 24+25 | 25+39 (EX. BRIDGE) | CL | 310 |
| –L– | 30+65 (EX. BRIDGE) | 31+75 | CL | 405 |
| –L– | 31+75 | 34+50 | LT | 104 |
| –L– | 31+75 | 34+50 | RT | 285 |
| –XOVR1– | 11+20 | 15+44 | CL | 287 |
| –XOVR2– | 11+72 | 14+91 | CL | 339 |
| | | | | |
| | | | | |
| | | | TOTAL: | 1,833 |
| | | | | |
| | | | SAY: | 1,840 |

## SHOULDER BERM GUTTER SUMMARY

| SURVEY LINE | STATION | STATION | LOCATION | LENGTH (LF) |
|---|---|---|---|---|
| –L– | 22+16.36 | 25+16.94 | RT | 300.58 |
| –L– | 31+14.46 | 32+93.80 | RT | 179.34 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | TOTAL: | 479.92 |
| | | | | |
| | | | SAY: | 480 |

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON–GATING IMPACT ATTENUATOR TYPE 350

## GUARDRAIL SUMMARY

| SURVEY LINE | BEG. STA. | END STA. | LOCATION | LENGTH | | | WARRANT POINT | | "N" DIST. FROM E.O.L. | TOTAL SHOUL. WIDTH | FLARE LENGTH | | W | | ANCHORS | | | | | | | | IMPACT ATTENUATOR TYPE 350 | | | SINGLE FACED GUARDRAIL | REMOVE EXISTING GUARDRAIL | RE–LAP EXISTING GUARDRAIL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | STRAIGHT | SHOP CURVED | DOUBLE FACED | APPROACH END | TRAILING END | | | APPROACH END | TRAILING END | APPROACH END | TRAILING END | TYPE GREU, TL–3 | CAT–1 | AT–1 | TYPE III | B–77 | TEMP. TYPE GREU, TL–3 | | | EA | G | NG | | | | |
| –L– | 21+40.42 | 25+40.70 | RT | 397.875′ | | | 22+50 | | 10′ | 13′ | 264.17′ | | 4′ | | 1 | | | | 1 | | | | | | | | | | |
| –L– | 23+58.58 | 25+18.76 | MED LT | 160.375′ | | | 25+18.76 | | 4′ | 6′ | 137.50′ | | 6.8′ | | 1 | | | | 1 | | | | | | | | | | |
| –L– | 30+68.76 | 31+91.63 | MED LT | 122.875′ | | | | 30+68.76 | 4′ | 6′ | | 50.00′ | | 1′ | 1 | | | | 1 | | | | | | | | | | |
| –L– | 30+90.70 | 34+50.00 | RT | 359.30′ | | | | 30+90.70 | 10′ | 13′ | | 0′ | | 0′ | | | | | 1 | | | | | | | | | | |
| –L– | 23+85.00 | 24+35.00 | MED LT | 50.00′ | | | | 23+83.58 | 6′ | 8′ | | 50.00′ | | 1′ | 1 | | | | | | | | | | | | | | SBL TRAILING END–FINAL PLACEMENT AFTER DETOUR REMOVAL |
| –L– | 30+79.00 | 32+16.09 | MED LT | 137.50′ | | | 30+79.00 | | 6′ | 8′ | 137.50′ | | 6.8′ | | 1 | | | | | | | | | | | | | | SBL APPROACH END–FINAL PLACEMENT AFTER DETOUR REMOVAL |
| –L– | 23+35.45 | 23+85.00 | MED LT | 50.00′ | | | 25+11.67 | | 6′ | 8′ | 50.00′ | | 1′ | | | | | | | 1 | | | | | | | | | SBL APPROACH END–TEMPORARY PLACEMENT DURING DETOUR |
| –L– | 30+79.00 | 31+28.78 | MED LT | 50.00′ | | | | 30+52.44 | 6′ | 8′ | | 50.00′ | | 1′ | | | | | | 1 | | | | | | | | | SBL TRAILING END–TEMPORARY PLACEMENT DURING DETOUR |
| –L– | 21+56.42 | 25+40.17 | RT | | | | | | | | | | | | | | | | | | | | | | | | 383.04′ | | |
| –L– | 23+58.27 | 25+24.33 | MED LT | | | | | | | | | | | | | | | | | | | | | | | | 166.58′ | | |
| –L– | 30+67.33 | 32+08.15 | MED LT | | | | | | | | | | | | | | | | | | | | | | | | 140.82′ | | |
| –L– | 30+97.06 | 34+50.00 | RT | | | | | | | | | | | | | | | | | | | | | | | | 352.95′ | | |
| –L– | 23+72.52 | 24+35.00 | MED LT | | | | | | | | | | | | | | | | | | | | | | | | 62.50′ | | SBL – TOTAL REMOVAL FOR FINAL CONDITION |
| –L– | 30+79.00 | 32+17.53 | MED LT | | | | | | | | | | | | | | | | | | | | | | | | 138.53′ | | SBL – TOTAL REMOVAL FOR FINAL CONDITION |
| –L– | 23+35.45 | 23+85.00 | MED LT | | | | | | | | | | | | | | | | | | | | | | | | 50.00′ | | SBL REMOVAL OF TEMP. ANCHOR UNIT |
| –L– | 30+79.00 | 31+28.78 | MED LT | | | | | | | | | | | | | | | | | | | | | | | | 50.00′ | | SBL REMOVAL OF TEMP. ANCHOR UNIT |
| –L– | 23+85.00 | 25+12.00 | MED LT | | | | | | | | | | | | | | | | | | | | | | | | | 127′ | RE–LAP EXISTING GUARDRAIL FOR DETOUR |
| –L– | 30+51.00 | 30+79.00 | MED LT | | | | | | | | | | | | | | | | | | | | | | | | | 28′ | RE–LAP EXISTING GUARDRAIL FOR DETOUR |
| –L– | 24+35.00 | 25+12.00 | MED LT | | | | | | | | | | | | | | | | | | | | | | | | | 77′ | RE–LAP EXISTING GUARDRAIL FOR FINAL CONDITION |
| –L– | 30+51.00 | 30+79.00 | MED LT | | | | | | | | | | | | | | | | | | | | | | | | | 28′ | RE–LAP EXISTING GUARDRAIL FOR FINAL CONDITION |
| | | SUBTOTAL (LF) | | 1327.925′ | | | | | | | | TOTAL ANCHORS OR ATTENUATORS (EA) | | | 5 | | | | 4 | 2 | | | | | | | TOTAL 1344.42′ | TOTAL 260′ | |
| | | LESS ANCHORS (LF) | | 441.50′ | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | TOTAL GUARDRAIL (LF) | | 886.425′ | | | | | | | | ANCHOR UNIT LENGTH (LF) | | | 50′ | 6.25′ | 6.25′ | 18.75′ | 22.875′ | 50′ | | | | | | | | | |
| | | SAY GUARDRAIL (LF) | | 887.50′ | | | ADDITIONAL GUARDRAIL POSTS: SAY 10 EA | | | | | DEDUCTION PER TYPE (LF) | | | 250′ | | | | 91.5′ | 100′ | | | | | | | SAY 1350′ | SAY 262.5′ | |
| | | | | | | | | | | | | TOTAL DEDUCTION (LF) | | | 441.50′ | | | | | | | | | | | | | | |

12/06/07
2/18/2022
C:\Users\dbeasley\AppDataLocal\Temp\tmp1ldqqqrl\NCDOT\B-4786\Roadway\Proj\b4786_rdy_psh_3b-1.dgn