THE CONCRETE MEDIAN BARRIER IN EACH CONTINUOUS UNIT SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT UNIT HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

GROOVED CONTRACTION JOINTS, $\frac{1}{2}$ " IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE CONCRETE MEDIAN BARRIER AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. THE CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN CONCRETE MEDIAN BARRIER EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS REQUIRED AT MIDPOINT OF CONCRETE BARRIER SEGMENTS LESS THAN 20 FEET IN LENGTH AND NO CONTRACTION JOINTS ARE REQUIRED FOR THOSE SEGMENTS LESS THAN 10 FEET IN LENGTH.

ALL REINFORCING STEEL IN THE CONCRETE MEDIAN BARRIER SHALL BE EPOXY COATED.

CONCRETE MEDIAN BARRIER RAIL SHALL BE CONSTRUCTED DURING STAGE III.

#5D1 AND #5D2 SHALL BE MACHINE THREADED TO FIT TO COUPLER AND DELIVERED CONNECTED. THREADS SHALL BE GREASED TO PERMIT EASY SEPARATION AFTER INSTALLATION. COUPLERS ARE CONSIDERED INCIDENTAL TO THE COST OF CONCRETE MEDIAN BARRIER.

THE #5D1 COUPLED TO #5D2 SHALL BE PUSHED INTO GREEN CONCRETE AFTER POURING AND SCREEDING THE DECK. THE COUPLER SHALL BE INSTALLED TO BE FLUSH WITH THE TOP OF THE FINISHED CONCRETE DECK. ONCE DECK HAS CURED, #5D2 SHALL BE UNTHREADED AND SET ASIDE. A TEMPORARY BOLT SHALL BE INSTALLED IN THE COUPLER AND SEALED TO PREVENT DEBRIS INTRUSION AND PROTECT THE THREADS. SEE DETAIL "D". WHEN CONSTRUCTING MEDIAN BARRIER, REMOVE SEALER AND TEMPORARY BOLT AND THREAD #5D2 IN TO COUPLER.

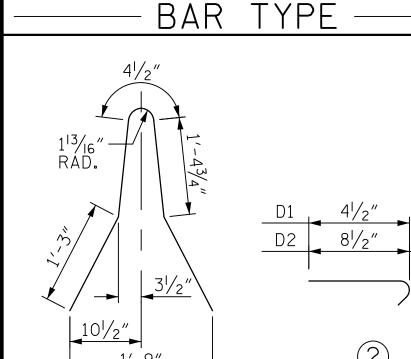
THE CONTRACTOR MAY SUBMIT ALTRENATIVE DETAILS FOR ANCHORING THE MEDIAN BARRIER INTO THE DECK TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION OF THE DECK. ANY ALTERNATIVE METHODS APPROVED FOR CONSTRUCTION SHALL BE AT NO ADD'L COST TO THE DEPARTMENT.

FOR MECHANICAL COUPLERS, SEE SPECIAL PROVISIONS.

S1, D1, AND D2 BARS IN THE BARRIER AND DECK SHALL BE SHIFTED SLIGHTLY, AS NECESSARY, TO PROVIDE 2" MIN. CLEARANCE TO ALL OPEN JOINTS IN THE BARRIER.

THE CONTRACTOR SHALL SUBMIT WORKING DRAWINGS FOR THE D1, D2, AND COUPLER PRIOR TO FABRICATION TO ENSURE PROPER FIT.

FOR ALL-LIGHTWEIGHT CONCRETE, SEE SPECIAL PROVISIONS.



CONCRETE MEDIAN BARRIER BAR | WEIGHT NO. ΓΥΡΕ LENGTH 26'-8'' 445 **★** B1 STR 7,585 288 5 STR 25′-3′′ 16 5 STR 20'-10'' 348 **∗** B4 STR 27′-11′′ 466 5 **★** B5 5 STR 22′-10′ 191 8 5′-8′′ 6,484 **★** S1 | 1097 5 10′′ 1,907 ¥D1 | 2194 | 5 2 2,670

OF MATERIAL

* EPOXY COATED REINF. STEEL 20,096 LBS 118 CU. YDS. ALL-LIGHTWEIGHT CONCRETE CONCRETE MEDIAN BARRIER (ALL-LIGHTWEIGHT CONCRETE) 1,097.25 LIN.FT

1103'-9" (BEGIN APPROACH SLAB 1 TO END APPROACH SLAB 2)

125-#5S1 & 125 PAIRS #5D1 & #5D2 @ 1'-0"CTS. 847-#5S1 & 847 PAIRS #5D1 & #5D2 @ 1'-0"CTS. 125-#5S1 & 125 PAIRS #5D1 & #5D2 @ 1'-0"CTS. 27'-0" 3 SPA.@ 25′-7″ 28′-3¾″ 6 SPA. @ 25'-7" 9 SPA. @ 25'-7" 27'-0" 9 SPA.@ 25'-7" 23'-2" 6 SPA.@ 25'-7" 28′-3¾ $21'-2^{1}/_{4}''$ 3 SPA.@ 25'-7" ,21′-2¹/4″ 1'-71/2" 1'-71/2" ½ ½ EXP. MTL ─ 8-#5B3 (TYP.EA. -8-#5B1 $1'-7\frac{1}{2}''$ 8-#5B2 (TYP.EA.— 1'-71/2" 25'-7" SEGMENT) 8-#5B5 25'-7" SEGMENT) 8-#5B3'-8-#5B2 (TYP.EA.— 8-#5B1 — -8-#5B2 8-#5B2— 25'-7" SEGMENT) ١ / \ / / 1 1 \ / \ / \ / END APPROACH SLAB 2-€ BENT 2— € BENT 3— 8-#5B4 -BEGIN APPROACH SLAB 1 ∑ JOINT @── -8-#5B4 BRIDGE DECK — 8-#5B3 Σ JOINT @-FILL FACE @ — — FILL FACE @ BENT 4 END BENT 1 END BENT 2

SLAB. PLAN OF CONCRETE MEDIAN BARRIER

SHOWN AFTER BARS PUSHED INTO GREEN

CONCRETE AND #5D2 UNTHREADED.

2'-0" #5 S1 @ 1'-0" CTS.-—— #5 \\B'\ BARS #5 D2 @ 1'-0"CTS. — (THREADED INTO COUPLER) #5D1 W/ MECHANICAL — COUPLER

SPAN A

SECTION THRU 2'-9" MEDIAN BARRIER *DIMENSION TO TOP OF CONCRETE DECK PRIOR TO PPC OVERLAY DATE : 1/2019 DATE : 2/2019

TEMPORARY CAP BOLT ----PROTECT BOLT HEAD TO ALLOW FOR TOP OF — CONCRETE REMOVAL AFTER DECK CURING -- PROTECT BOLT HEAD TO ALLOW FOR REMOVAL TEMPORARY CAP -BOLT HEAD AFTER DECK CURING -GRADE POINT -#5 '`D'' BAR W/ COUPLER #5D1 WITH COUPLER -#5D1 WITH — DECK COUPLER (TYP.) SECTION B-B SECTION THRU DECK

MEDIAN BARRIER COUPLER NOTES;

SPAN E

- INSTALL #5 "D" BARS (WITH FEMALE COUPLER END) IN DECK AT LOCATIONS SHOWN ON "CONCRETE MEDIAN BARRIER" SHEET.
- INSTALL TEMPORARY BOLT INTO COUPLER. BOLT SHALL NOT PROJECT ABOVE THE TOP OF THE DECK.
- BOLT HEAD SHALL BE PROTECTED TO ALLOW FOR REMOVAL AFTER CURING OF DECK. ENGINEER SHALL APPROVE METHOD.
- POUR AND SCREED DECK.
- AT FINAL STAGE, REMOVE BOLT TO INSTALL #5 "D" BAR (WITH THREADED END) FOR MEDIAN BARRIER.

15BPR.20 PROJECT NO. HENDERSON COUNTY 35+30.22 -L-

AECOM AECOM TECHNICAL SERVICES OF NC, INC. 701 CORPORATE CENTER DRIVE, SUITE 475 RALEIGH, NC 27607 (919) 854-6200 www.aecom.com <u>AECOM License No. F-0342</u>

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

APPROACH

SLAB 2

SUPERSTRUCTURE

CONCRETE MEDIAN BARRIER **9€956**6€20CBD4 035062

> SHEET NO REVISIONS S-102 NO. BY: DATE: DATE: BY: TOTAL SHEETS 129

DETAIL "D"

SIGNATURES COMPLETED

DRAWN BY : <u>M.K.Tom</u> CHECKED BY : G. COLS DESIGNED BY : G. COLS __ DATE : <u>2/2019</u> DESIGN CHECKED BY: J. SLOAN DATE: 2/2019

APPROACH

SPAN B

SPAN C

VIEW A-A

OCUMENT NOT CONSIDERED FINAL UNLESS ALL

SPAN D

1'-2'' **米** D2 │ 2194 │ 5 2