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WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
Liscense No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
51215.01AA	6
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER 6/23/2021
NORTH CAROLINA PROFESSIONAL SEAL 018981 ENGINEER R. K. MURPHY, JR.
Designed by R. K. Murphy, Jr.

HYDRAULICS ENGINEER 6/23/2021
NORTH CAROLINA PROFESSIONAL SEAL 15833 ENGINEER JERRY L. LINDSAY
Designed by Jerry L. Lindsay

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NELSON ROAD
(SR 1642)

CENTERLINE PROFILE ACROSS PIPE
14′ 8″ x 9′ 8″ ASPPA
106 Degree Skew

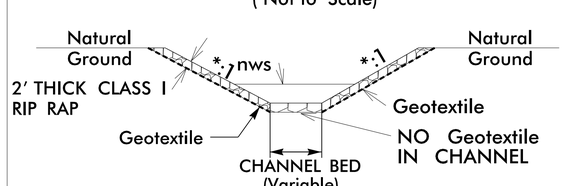
PROPOSED ELEVATIONS:
CENTERLIINE ROADWAY OVER PIPE
ELEVATION = +/– 326.0
INLET:
TOP OF HEADWALL = +/–311.3′
TOP OF PIPE = +/– 309.3′
STREAM BED = +/– 300.6′
INVERT PIPE = +/– 299.6′
BOTTOM HEADWALL = +/– 298.1′
OUTLET:
TOP OF HEADWALL = +/– 309.1′
TOP OF PIPE = +/– 307.1′
STREAM BED = +/– 298.4′
INVERT PIPE = +/–297.4′
BOTTOM HEADWALL = +/– 295.9′

CENTERLINE LENGTH = 117′ OF 14′–8″ X 9′–8″ CORRUGATED ALLUMINUM STRUCTURAL PLATE PIPE–ARCH.

TWO 22′–6″ WIDE BY 13′–2″ TALL FULLY WELDED ALUMINUM STRUCTURAL PLATE HEADWALLS W/2 SECTIONS OF 14′–8″ X 9′–8″ 0.200″ THICK ALSP PIPE–ARCH STUBED OUT, WHICH SHALL BE FULLY WELDED TO ALUMINUM STRUCTURAL PLATE HEADWALL.

MINIMUM COVER = 15.0′ AT SHOULDER; 17.8′ AT CENTERLINE.
MAXIMUM COVER OVER PIPE = 18.4′

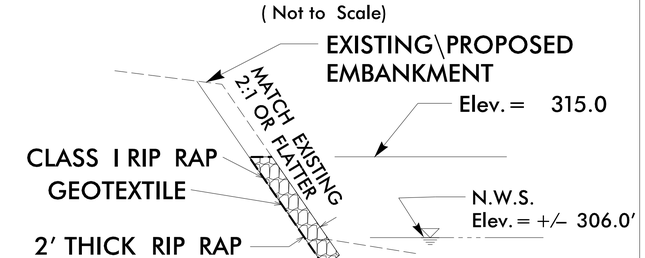
PIPE INLET/OUTLET DETAIL
(Not to Scale)



* VAR. 1.5:1 TO EX. BANK

Type of Liner = CLASS I Rip–Rap

DETAIL
SLOPE PROTECTION INLET/OUTLET
(Not to Scale)



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5/19/2021
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