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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

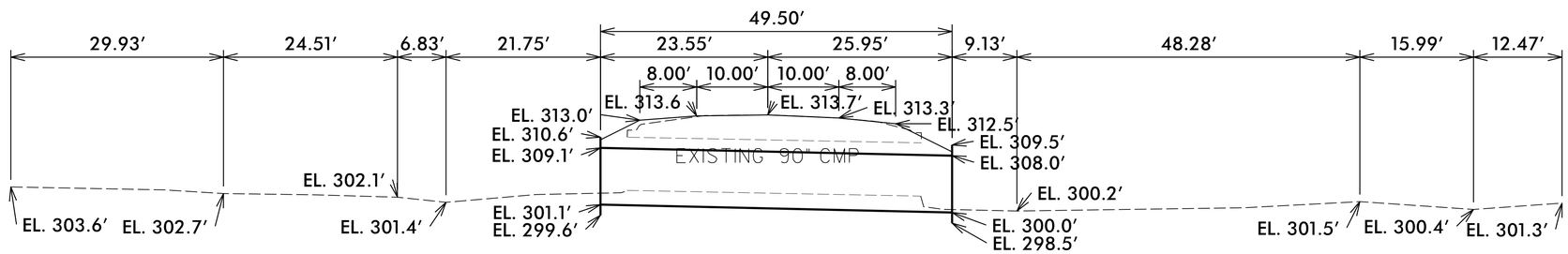
PROJECT REFERENCE NO.	SHEET NO.
5B.203214.5	5
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER 12/14/2022 — NORTH CAROLINA PROFESSIONAL SEAL 018981 ENGINEER R. K. MURPHY, JR.

HYDRAULICS ENGINEER 12/14/2022 — NORTH CAROLINA PROFESSIONAL SEAL 15833 ENGINEER JERRY L. LINDSEY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

FERRELL ROAD (SR 1671)



CENTERLINE PROFILE ACROSS PIPE
96″ CAP
90 Degree Skew

PROPOSED ELEVATIONS:
CENTERLIINE ROADWAY OVER PIPE
ELEVATION = +/– 313.7′
INLET:
TOP OF HEADWALL = +/–310.6′
TOP OF PIPE = +/– 309.1′
STREAM BED = +/– 302.1′
INVERT PIPE = +/– 301.1′
BOTTOM HEADWALL = +/– 299.6′
OUTLET:
TOP OF HEADWALL = +/– 309.5′
TOP OF PIPE = +/– 308.0′
STREAM BED = +/– 300.4′ (past blowhole)
INVERT PIPE = +/–300.0′
BOTTOM HEADWALL = +/– 298.5′

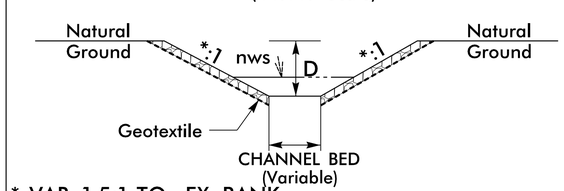
CENTERLINE LENGTH = 49.50′ OF 96″
CORRUGATED ALLUMINUM PIPE

TWO 27′–0″ WIDE BY 11′–0″ TALL FULLY
WELDED ALUMINUM STRUCTURAL PLATE
HEADWALLS W/2 SECTIONS OF 96″
0.105″ (12 GAGE) THICK PIPE–ARCH
STUBED OUT, WHICH SHALL BE FULLY WELDED
TO ALUMINUM STRUCTURAL PLATE HEADWALL.

MINIMUM COVER = 4.0′ AT SHOULDER;
4.6′ AT EDGE OF PAVEMENT.
MAXIMUM COVER OVER PIPE = 5.1′

NOTE: EXPOSED ROCK IN STREAM BED +/– 75′ UPSTREAM.
NARROW BROKEN ROCK OUTCROPPING AT UPSTREAM FACE.

PIPE INLET/OUTLET DETAIL
(Not to Scale)



* VAR. 1.5:1 TO EX. BANK
Min. D = TOP OF BANK
Type of Liner = CLASS II Rip–Rap

REVISIONS

8/17/99

12/14/2022
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USER:RKMURPHY