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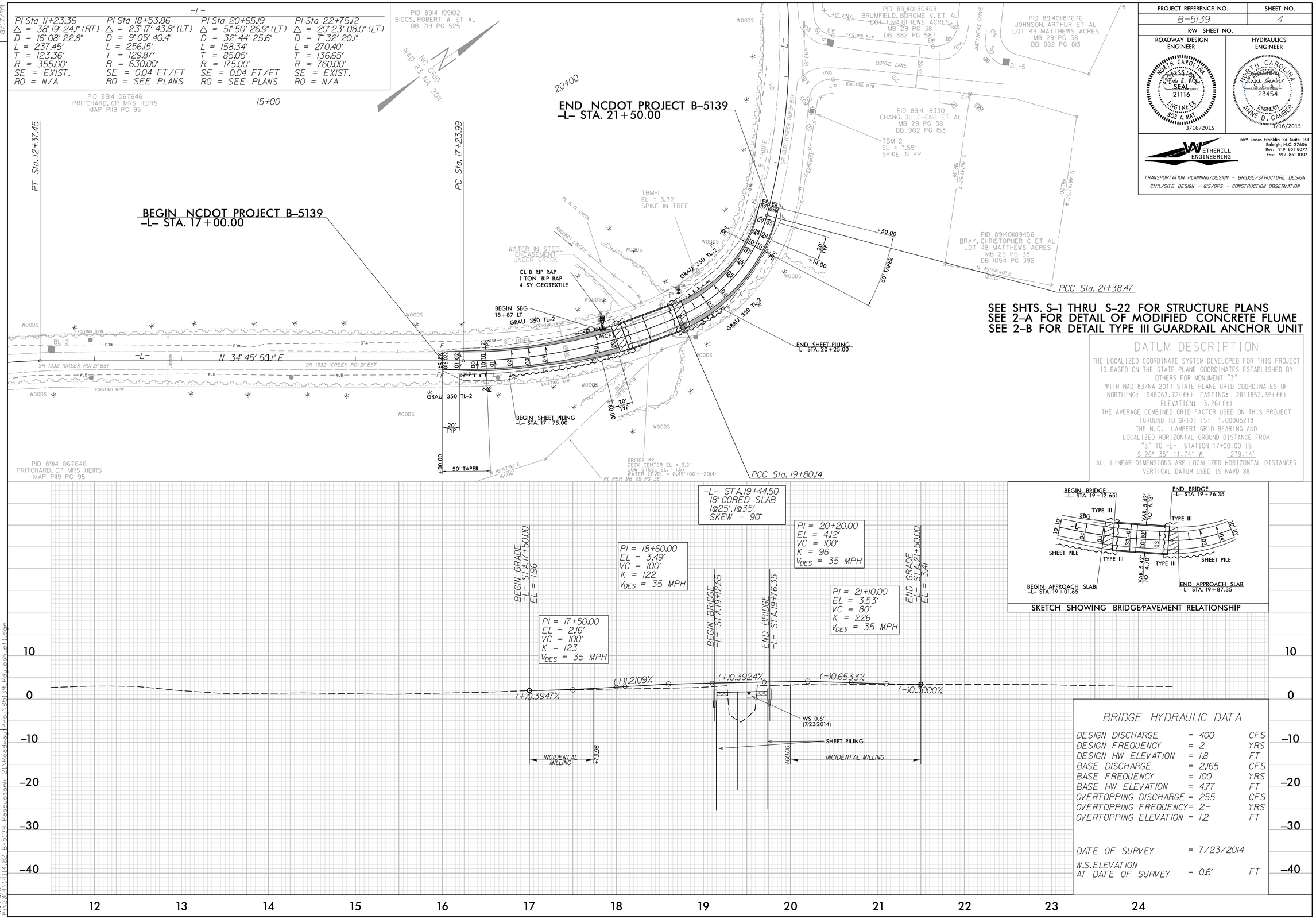
PI Sta 11+23.36	PI Sta 18+53.86	PI Sta 20+65.19	PI Sta 22+75.12
Δ = 38° 19' 24.1" (RT)	Δ = 23° 17' 43.8" (LT)	Δ = 51° 50' 26.9" (LT)	Δ = 20° 23' 08.0" (LT)
D = 16° 08' 22.8"	D = 9° 05' 40.4"	D = 32° 44' 25.6"	D = 7° 32' 20.1"
L = 237.45'	L = 256.15'	L = 158.34'	L = 270.40'
T = 123.36'	T = 129.87'	T = 85.05'	T = 136.65'
R = 355.00'	R = 630.00'	R = 175.00'	R = 760.00'
SE = EXIST.	SE = 0.04 FT/FT	SE = 0.04 FT/FT	SE = EXIST.
RO = N/A	RO = SEE PLANS	RO = SEE PLANS	RO = N/A



PROJECT REFERENCE NO.	SHEET NO.
B-5139	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER BOB A. MAY 3/16/2015

NORTH CAROLINA PROFESSIONAL SEAL 23454 ENGINEER ANNE D. GAMBLE 3/16/2015

WETHERILL ENGINEERING
559 Jones Franklin Rd. Suite 164
Raleigh, N.C. 27606
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY OTHERS FOR MONUMENT "3"
WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 948063.72(ft) EASTING: 2811852.35(ft)
ELEVATION: 3.26(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 1.00005218
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "3" TO -L- STATION 17+00.00 IS
S 26° 35' 11.74" W 279.14'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 400	CFS
DESIGN FREQUENCY	= 2	YRS
DESIGN HW ELEVATION	= 1.8	FT
BASE DISCHARGE	= 2,165	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 4.77	FT
OVERTOPPING DISCHARGE	= 255	CFS
OVERTOPPING FREQUENCY	= 2-	YRS
OVERTOPPING ELEVATION	= 1.2	FT
DATE OF SURVEY	= 7/23/2014	
W.S.ELEVATION AT DATE OF SURVEY	= 0.6'	FT

REVISIONS

8/17/99

3/3/2015
10:39:01 AM
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