OFFICE ESTIMATE
2@ 9x6 RCBC

Project# 17BP.11.R.94
TIP#
Let Date
WBS#

PREDESIGN-PRESURVEY REPORT

Bridge# 050056 (C-6)
Road# SR 1321 (CURTIS CREEK RD
Stream CURTIS CREEK

County AVERY (DIV 11)

Type Of Request: POC Force Account TIP NCMA
Date 4/16/14 Name WSH Assigned To RCH
Checked By MJY 4-21-14
Prior Survey Date NONE (attach copy of prior survey) BRN. BK.: NO CO. FILE NO
Study By Scour Section NO
Flood Zone X Detail Study NONE Date 12/2/08 Panel# 1838
B.M. Info N/A
Quad Map ELK PARK Drainage Area 615 ACRES From QUAD SHEET
Q25 = 460 cfs Q50 = 600 cfs Q100 750 cfs Method RURAL/REG 2/HC=8
LONG: 81°55' 41.59" = 81.92822 LAT: 36°09' 23.07" = 36.15641 NC DOT CHARTS C200.1 C200.2

EXISTING BRIDGE INFORMATION

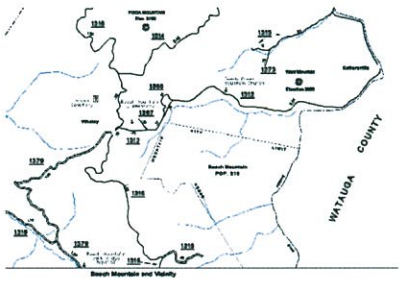
Location 0.5 MI SE JCT. SR 1324 (ALTON PALMER RD)
Average Daily Traffic 470 (2010) 6% TRK
Length 17' Bed- To Crown 4' Water Depth 1'
Type Structure TIMBER FLR, JOIST, E. BTS., CAPS, POST & SILLS.
Type Spans 1@16'6"
Upstream Structure NO NUMBER STR. U/S / PRIVATE STR. 0.1 MI. U/S
Location U/S: 0.6 MI. SE. JCT. SR 1324 (ALTON PALMER RD)
Bed- To Crown — PHOTO ATTACHED Prior Survey N/A
Downstream Structure 050057 TIMBER FLR, ABUT: CONC, REINFORCED (1@20'8")
Location SR 1321 (.35 M SE JCT SR 1324)
Bed- To Crown 7' (2' DEEP) Prior Survey N/A
SCS Watershed N/A 1, 4, 14, 21

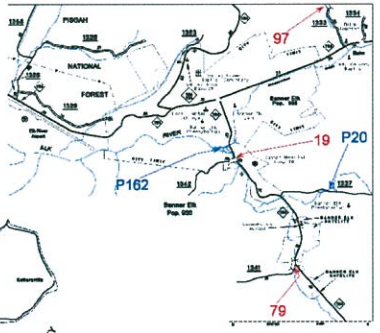
ENVIRONMENTAL TVA: YES ✓

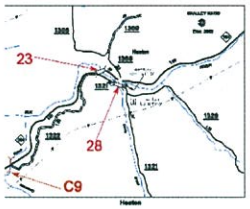
Trout Stream YES Anadromous Fish NO Primary Nursery Area NO
High Quality Waters NO Nutrient Sensitive Waters NO
Near Water Supply Intake NO CAMA County NO
Stream Classification C, Tr #8-22-15 (FROM SOURCE TO ELK RIVER)
DENR River Basin Info. WATAUGA

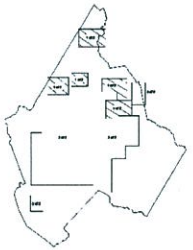
0500576

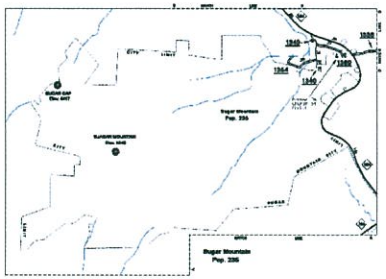
#56

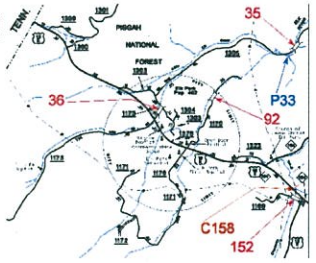


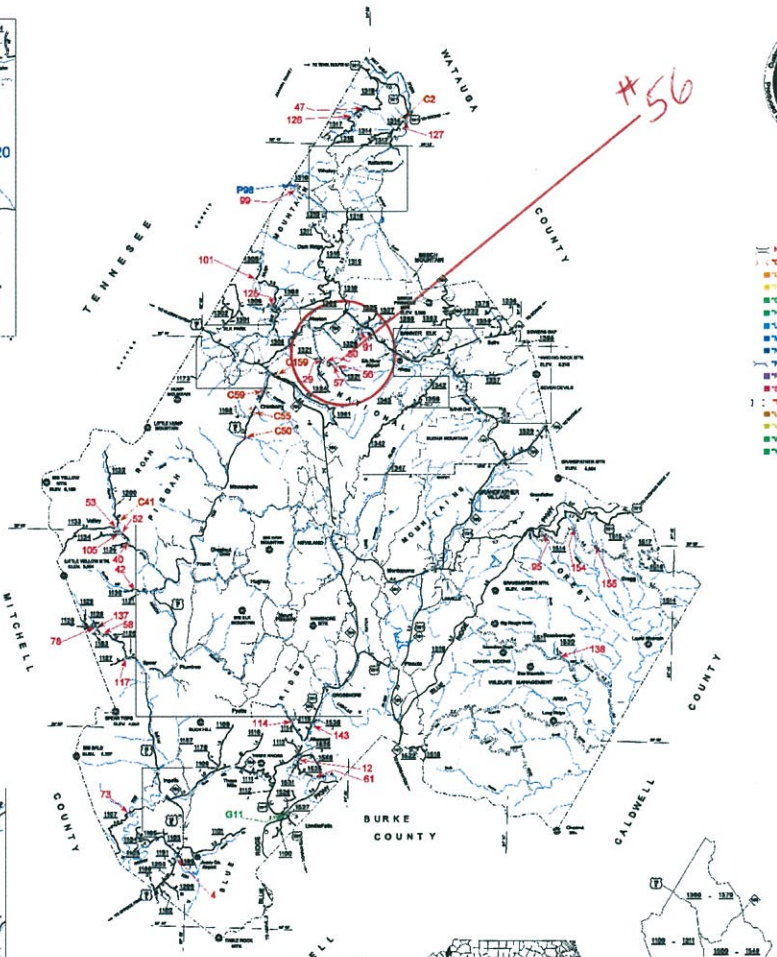


















The hydro contained in this map is from USGS 1:100,000 DLG files that have been edited using the USGS 1:24,000 DOQQs.

AVERY COUNTY

NORTH CAROLINA

BRIDGE LOCATION MAP

PREPARED BY THE

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

INFORMATION TECHNOLOGY - GIS UNIT

IN COOPERATION WITH THE

U.S.DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

SCALE FOR 8½x11 PRINTOUTS

SHEET 1 OF 3

AVERY COUNTY

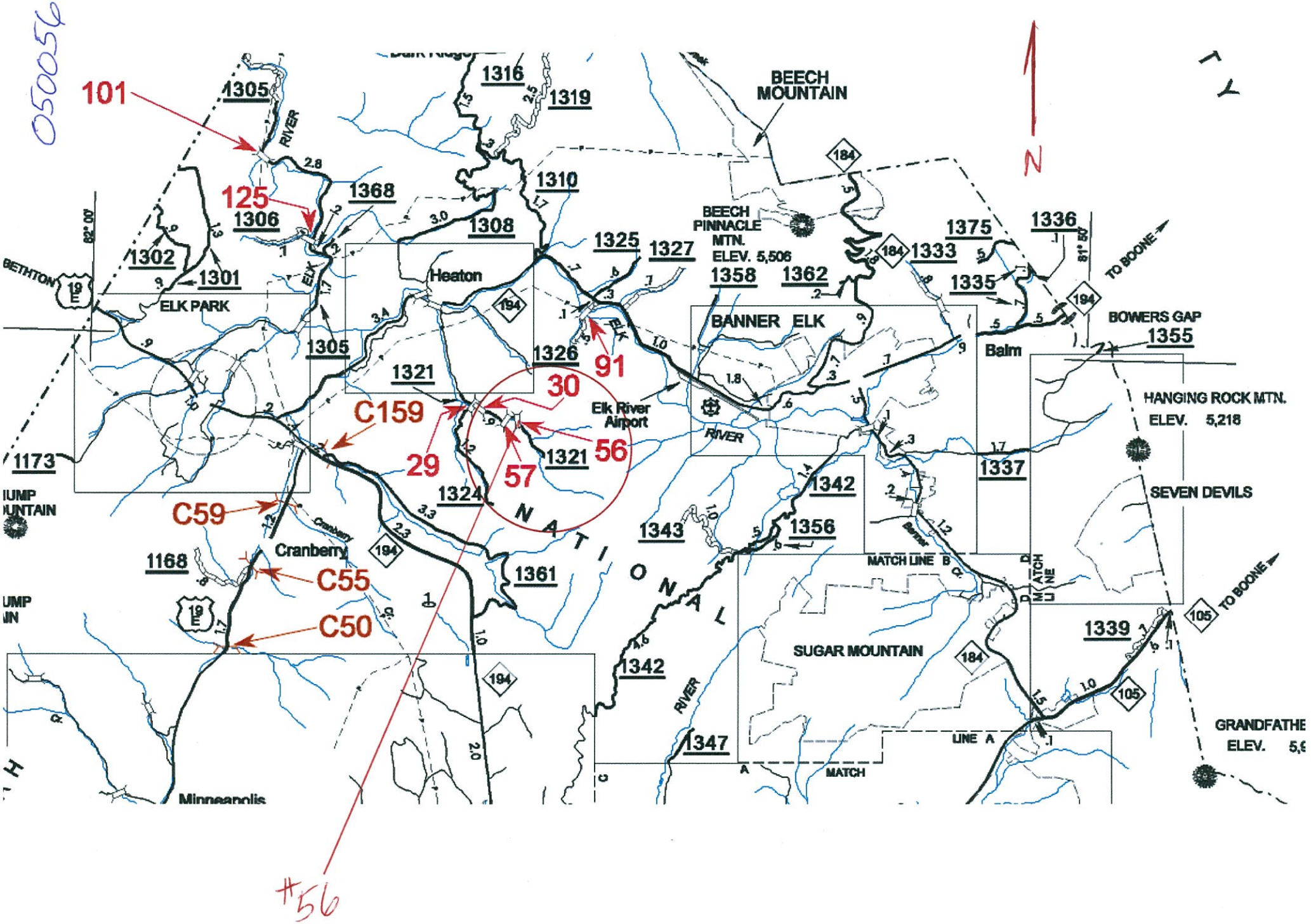
011

Customized GIS map checked by Technology

PD&D

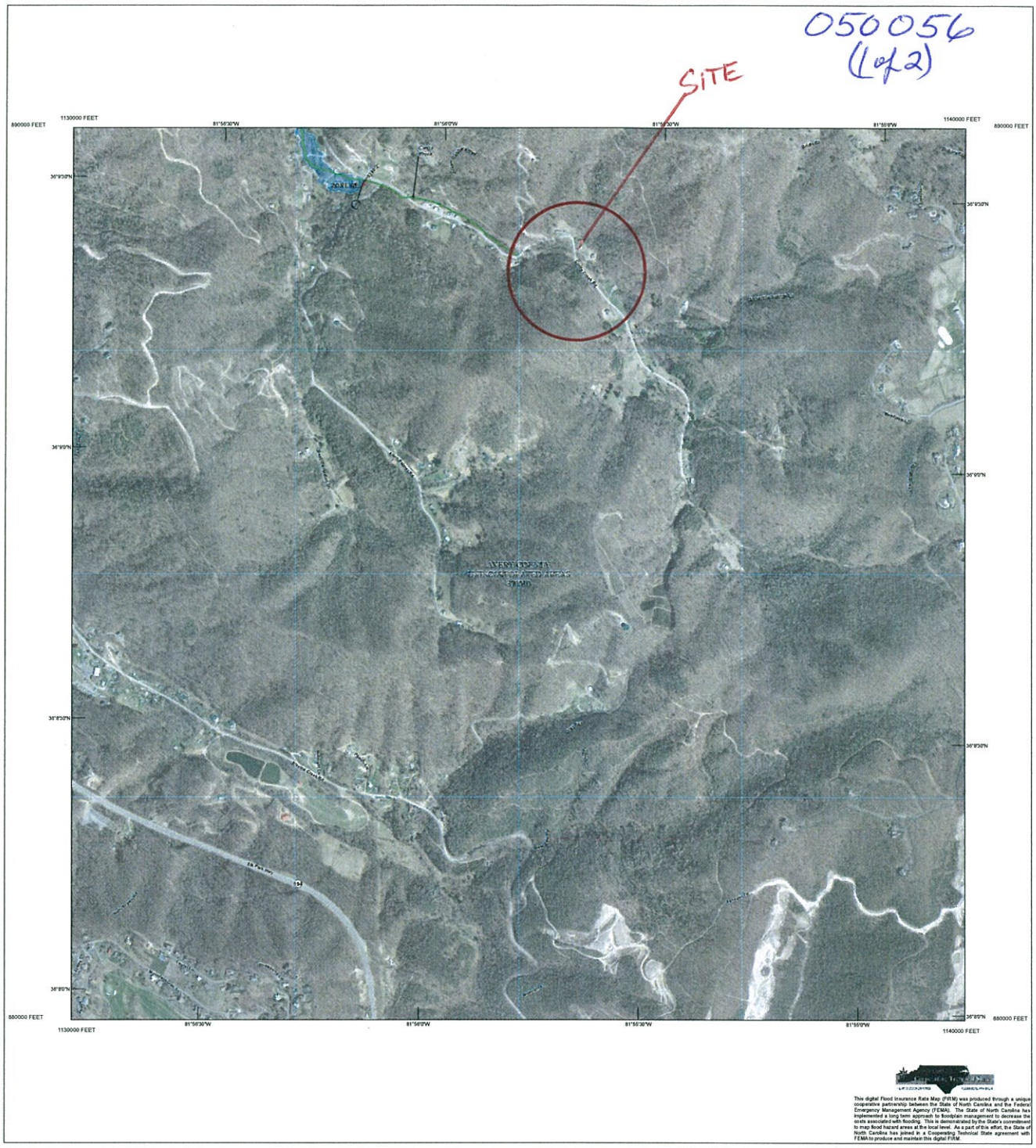
Data Comp.

Disclaimer: The GIS Unit's goal is to provide the most accurate information as possible. The magnitude of the data prevents any guarantee of accuracy or completeness. If you find any information that is incorrect, please send your request to the GIS Unit.


050056
101
125
91
30
C159
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C59
C55
C50
#56
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1347
BEECH MOUNTAIN
BEECH PINNACLE MTN. ELEV. 5,506
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1333
1335
1358
1362
BANNER ELK
Heaton
ELK PARK
Elk River Airport
Cranberry
Minneapolis
Balm
BOWERS GAP
1355
HANGING ROCK MTN. ELEV. 5,218
SEVEN DEVILS
SUGAR MOUNTAIN
GRANDFATHE
ELEV. 5,9
TO BOONE
MATCH LINE B
MATCH LINE A
MATCH
NATIONAL
RIVER
ELK
Cranberry
BETHTON
184
194
105
N


AVERY CO 050056
QUAD SHEET ELK PARK
DA 615 ACRES
56
57
Knobs
Cherry Gap
Chestnut
Ridge
BLOOD
CAMP
N
0.25 0 0.25 0.5 0.75 MI

050056
(1 of 2)



This digital Flood Insurance Rate Map (FIRM) was produced through a unique cooperative partnership between the State of North Carolina and the Federal Emergency Management Agency (FEMA). The State of North Carolina has implemented a long term approach to floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map flood hazard areas at the local level. As a part of this effort, the State of North Carolina has joined in a Cooperating Technical State agreement with FEMA to produce and maintain this digital FIRM.

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT HTTP://FRIS.NC.GOV/FRIS

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% Annual Chance Flood with Average Depth Less Than One Foot or With Drainage Areas of Less Than One Square Mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes *Zone X*

OTHER AREAS
- Areas Determined to be Outside the 0.2% Annual Chance Floodplain *Zone X*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Accredited or Provisionally Accredited Levee, Dike, or Floodwall
- Non-accredited Levee, Dike, or Floodwall
- BM5510 North Carolina Geodetic Survey bench mark
- BM5510 National Geodetic Survey bench mark
- BM5510 Contractor Est. NCFMP Survey bench mark
- (12) 18.2 Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
- (B) Coastal Transect

OTHER FEATURES
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at http://msc.fema.gov. An accompanying Flood Insurance Study report, Letter of Map Revision (LOMR) or Letter of Map Amendment (LOMA) revising portions of this panel, and digital versions of this FIRM may be available. Visit the North Carolina Floodplain Mapping Program website at http://www.ncfloodmaps.com or contact the FEMA Map Service Center.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided in digital format by the North Carolina Floodplain Mapping Program (NCFMP). The source of this information can be determined from the metadata available in the digital FLOOD database and in the Technical Support Data Notebook (TSDN).

ACCREDITED LEVEE NOTES TO USERS: If an accredited levee note appears on this panel check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at http://www.fema.gov/business/nfip/index.shtm.

PROVISIONALLY ACCREDITED LEVEE NOTES TO USERS: If a Provisionally Accredited Levee (PAL) note appears on this panel, check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To maintain accreditation, the levee owner or community is required to submit the data and documentation necessary to comply with Section 65.10 of the NFIP regulations. If the community or owner does not provide the necessary data and documentation or if the data and documentation provided indicates the levee system does not comply with Section 65.10 requirements, FEMA will revise the flood hazard and risk information for this area to reflect de-accreditation of the levee system. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at http://www.fema.gov/business/nfip/index.shtm.

LIMIT OF MODERATE WAVE ACTION NOTES TO USERS: For some coastal flooding zones the AE Zone category has been divided by a Limit of Moderate Wave Action (LIMWA). The LIMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between the VE Zone and the LIMWA (or between the shoreline and the LIMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

Limit of Moderate Wave Action (LIMWA)

COASTAL BARRIER RESOURCES SYSTEM (CBRS) NOTE

This map may include approximate boundaries of the CBRS for informational purposes only. Flood insurance is not available within CBRS areas for structures that are newly built or substantially improved on or after the date(s) indicated on the map. For more information see http://www.fws.gov/habitatconservation/coastal_barrier.html, the FIS Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-344-WILD.

CBRS Area | Otherwise Protected Area

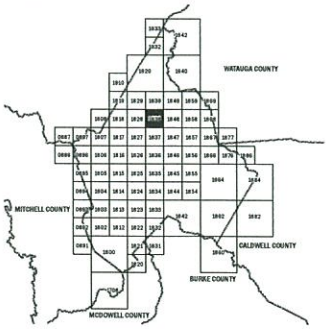
SCALE

Map Projection:
North Carolina State Plane Projection Feet (Zone 3200)
Datum: NAD 1983 (Horizontal), NAVD 1988 (Vertical)

1 inch = 500 feet 1:6,000

0 250 500 1,000 Feet
0 75 150 300 Meters

PANEL LOCATOR



FEMA
National Flood Insurance Program

NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

NORTH CAROLINA

PANEL 1838

Panel Contains:

COMMUNITY	CID	PANEL	SUFFIX
AVERY COUNTY	370010	1838	J

MAP NUMBER
3710183800J
MAP REVISED
12/2/2008


050056
(242)
Curtis
Creek
Dream Catchers Way
Curtis Creek Rd
Samanth
SITE
N

050056

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

BRIDGE INSPECTION REPORT

INSPECTION TYPE: 2 Year Complete Underwater and Topside

COUNTY AVERY BRIDGE NUMBER 050056 INSPECTION CYCLE 2 YRS

ROUTE SR1321 ACROSS CURTIS CREEK M.P. 0

LOCATION 0.5 MI.SE.JCT.SR1324

SUPERSTRUCTURE TIMBER FLOOR ON TIMBER JOISTS

SUBSTRUCTURE E.BTS:TIMBER CAPS/TIMBER POST&SILLS @ VAR. CENTERS

SPANS 1 @ 16'-6

LONGITUDE 81° 55' 41.59" LATITUDE 36° 9' 23.07"

INSPECTION DATE 03/14/2013 PRESENT CONDITION FAIR

PRESENT POSTING Y Y SV 10 TTS 17 PROPOSED POSTING

OTHER SIGNS PRESENT



LOOKING SOUTH AT APPROACH ROADWAY

Fracture Critical	No
Temporary Shoring	No
Scour Critical	No
Scour POA	No

SIGN NOTICE ISSUED FOR		NUMBERED REQUIRED
No	WEIGHT LIMIT	
No	DELINEATORS	
No	NARROW BRIDGE	
No	ONE LANE BRIDGE	
No	LOW CLEARANCE	

050056

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE Run Date: 05/06/2013

COUNTY :	DIVISION :	DISTRICT:	STRUCTURE NUMBER :	LENGTH :
AVERY	11	2	050056	17 FEET

ROUTE CARRIED : SR1321

FEATURE INTERSECTED : CURTIS CREEK

LOCATED : 0.5 MI.SE.JCT.SR1324

BRIDGE NAME :

CITY :

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
09	NFA	NFA	470 2010	LT 227 RT 227

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1964	BMU			Unknown

REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :
			TAN	120	ON 2 UNDER 0

NAVIGATION :					HT. CRN. TO BED :		WATER DEPTH :	
VC	0	FT	HC	0 FT	4	FT	1	FT

SUPERSTRUCTURE : TIMBER FLOOR ON TIMBER JOISTS

SUBSTRUCTURE : E.BTS:TIMBER CAPS/TIMBER POST&SILLS @ VAR. CENTERS

SPANS : 1 @ 16'-6

BEAMS OR GIRDERS : 8 LINES & 2 DOUBLE LINES 6X12 TIMBER JOISTS

FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
4X8 TIM/10 AWS		20 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :	
19.083 FT	19.75 FT	LT .3 FT	RT .3 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :				
HS-3	HS-4	IntJoist	SV	10	TTST	17	DATE 09/05/2006

SYSTEM : Secondary S.R. Route

GREEN LINE ROUTE : N

UNDER ROUTES AND CLEARANCES

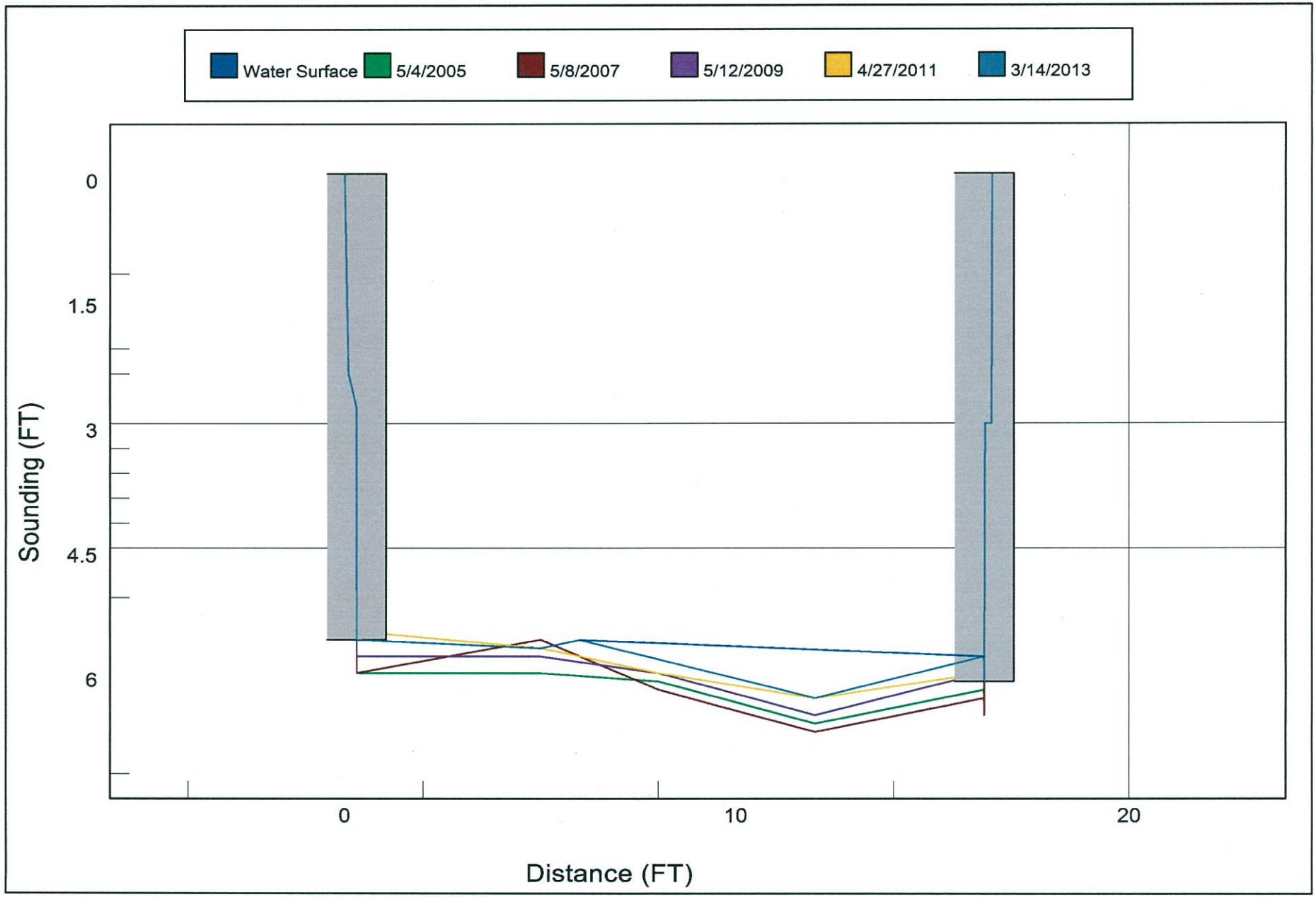
REMARKS :

050056

Bridge: 050056 County AVERY Date: 03/14/2013

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



050056

Structure 050056 County AVERY Date: 03/14/2013 Structure Photos



LOOKING EAST AT BRIDGE



LOOKING WEST AT BRIDGE

D/S STRUCTURE TO 050036

Structure 050057 County AVERY Date: 05/01/2013

D/S Structure Photos



LOOKING EAST AT BRIDGE



LOOKING WEST AT BRIDGE