

OFFICE ESTIMATE
2@ 10x9 RCBC

PREDESIGN-PRESURVEY REPORT

Project# 17BP.11.R.96
TIP# _____
Let Date _____
WBS# _____

County AVERY (Div II)

Bridge# 050.047 (AG)
Road# SR 1316 FLAT SPRINGS ROAD
Stream POGA CREEK

Type Of Request: POC Force Account TIP NCMA

Date 4/14/14 Name WSH

Assigned To RCH

Checked By MTJ 4-22-14

Prior Survey Date NO (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# 1932 ☐

B.M. Info N/A

Quad Map ELK MILLS Drainage Area 1.35 Sq. Mi. From STREAM STATS REGION 2

Q25 = 500 cfs Q50 = 600 cfs Q100 = 700 cfs Method REG. EQU. RURAL

Lo: 81°55'07.84" Lat: 36°15'54.94"

81.91884 36.26526

EXISTING BRIDGE INFORMATION

Location 1.9 MI. N. Jct. SR 1317 (STONE HOLLOW RD)

Average Daily Traffic 240 (2011) 6% TRK.

Length 17' Bed- To Crown 8' Water Depth 1'

Type Structure TIMBER FLR., JOIST, E. BTS., CAPS, POSTS & SILLS.

Type Spans 1c 16'6"

Upstream Structure NO NUMBERED STR. U/S. / NO CROSSING U/S OBSERVED.

Location N/A

Bed- To Crown PHOTO ATTACHED Prior Survey _____

Downstream Structure 050127 (AFTER 3 SM. STREAMS TIE IN (050127))

Location SR 1314 (200 FT. S. Jct. US 321) (1c 21'8") TIMBER FLR., SALVAGED 1-BE

Bed- To Crown 9' (2' DEEP) Prior Survey _____ ABUTMENTS - CONC - REINFORCED WIDENED

SCS Watershed N/A 1, 3, 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 ✓

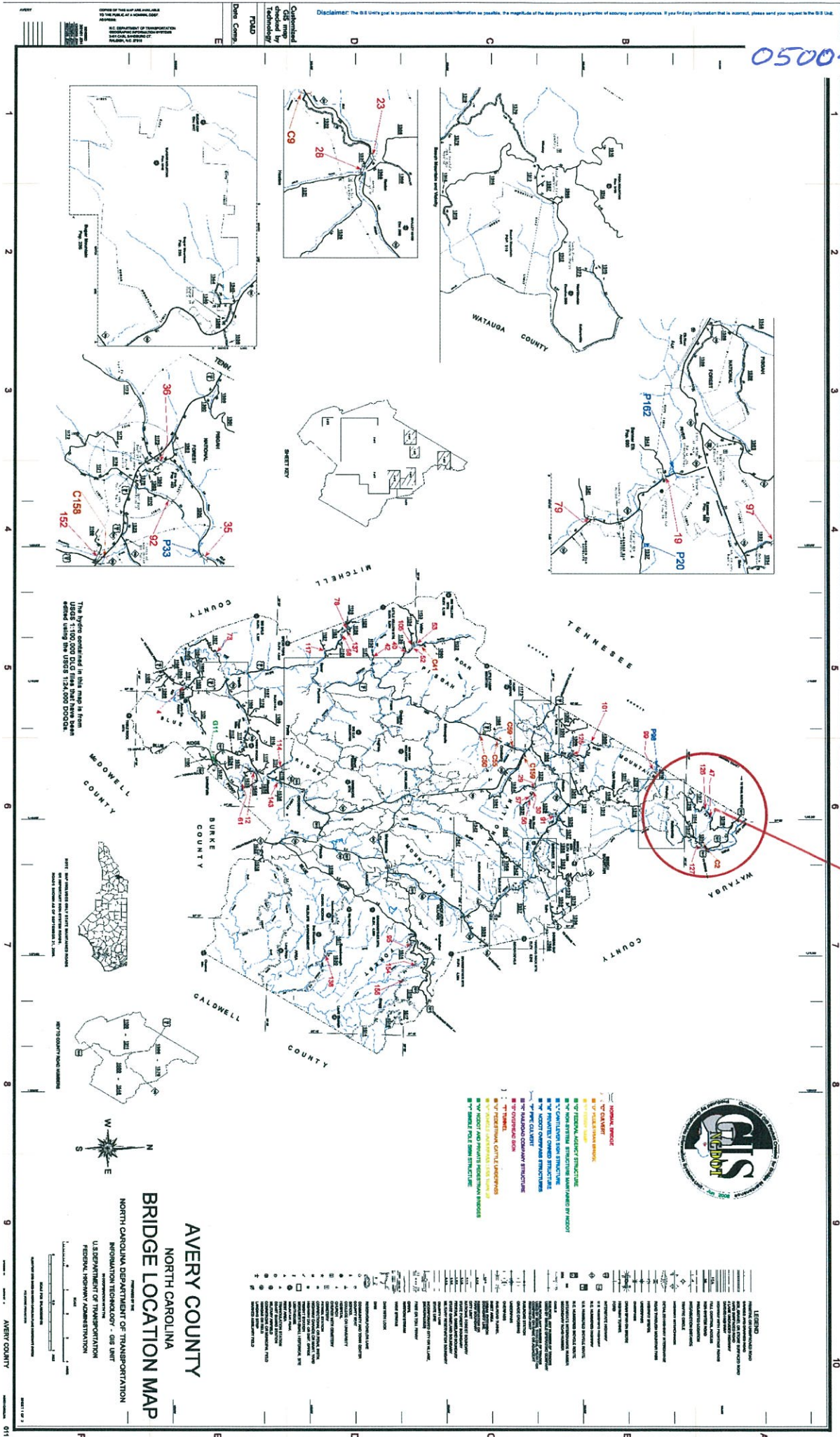
Stream Classification C; TR

B-20-5

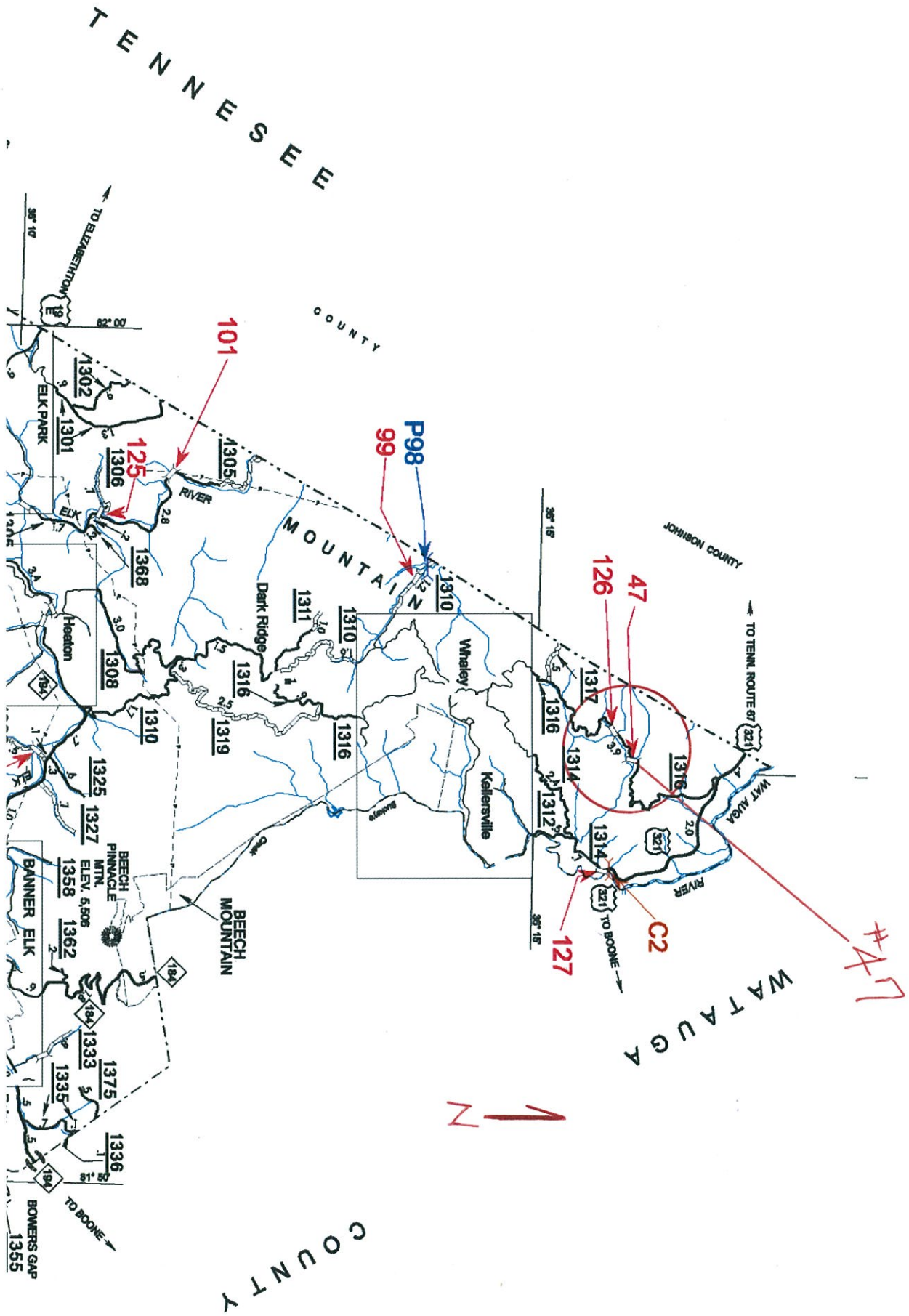
DENR River Basin Info. WATAUGA

050047

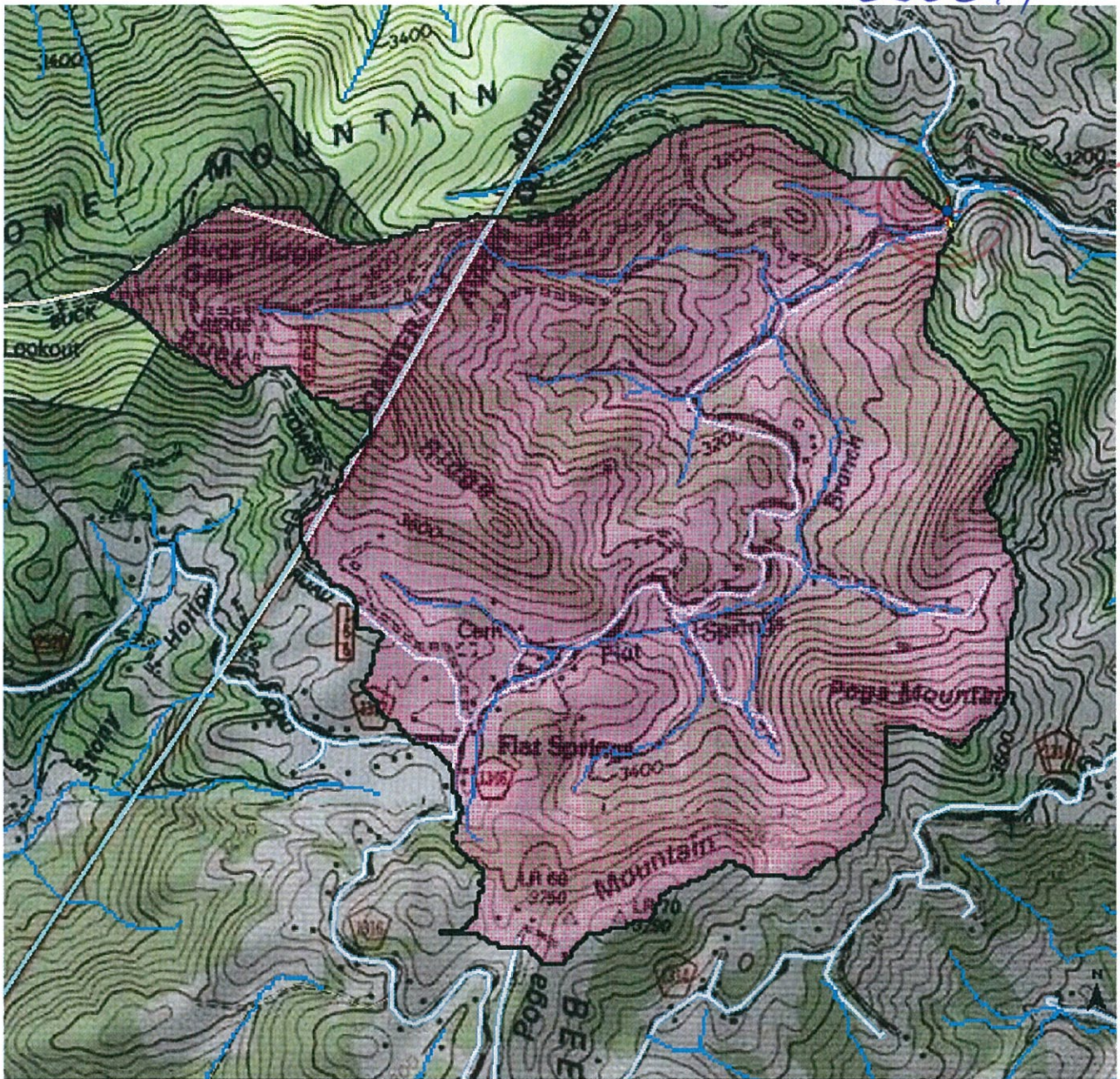
Disclaimer: The DSI Unit's goal is to provide the most accurate information as possible. The magnitude of the data prevents any guarantee of accuracy or completeness. If you find any information that is incorrect, please send your request to the DSI Unit.



050047



050047



0.3 0.15 0 0.3 Miles

050047



North Carolina StreamStats

Streamstats Ungaged Site Report

Date: Tue Apr 15 2014 12:07:17 Mountain Daylight Time

Site Location: North_Carolina

NAD27 Latitude: 36.2650 (36 15 54)

NAD27 Longitude: -81.9191 (-81 55 09)

NAD83 Latitude: 36.2651 (36 15 54)

NAD83 Longitude: -81.9189 (-81 55 08)

Drainage Area: 1.35 mi²

Percent Urban: 3.9 %

Percent Impervious: 0.2 %

Peak Flows Region Grid Basin Characteristics			
100% Peak Southeast US 2009 5158 (1.35 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	1.35	1	9000
Percent Area in Region 1 (percent)	0.000	0	100
Percent Area in Region 2 (percent)	100.000	0	100
Percent Area in Region 3 (percent)	0.000	0	100
Percent Area in Region 4 (percent)	0.000	0	100
Percent Area in Region 5 (percent)	0.000	0	100

Urban Flows Region Grid Basin Characteristics			
100% Peak urban Blue Ridge-Piedmont FS007-00 (1.35 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	1.35	0.04	41
Area of Impervious Surfaces (percent)	0.23 (below min value 2)	2	54.6

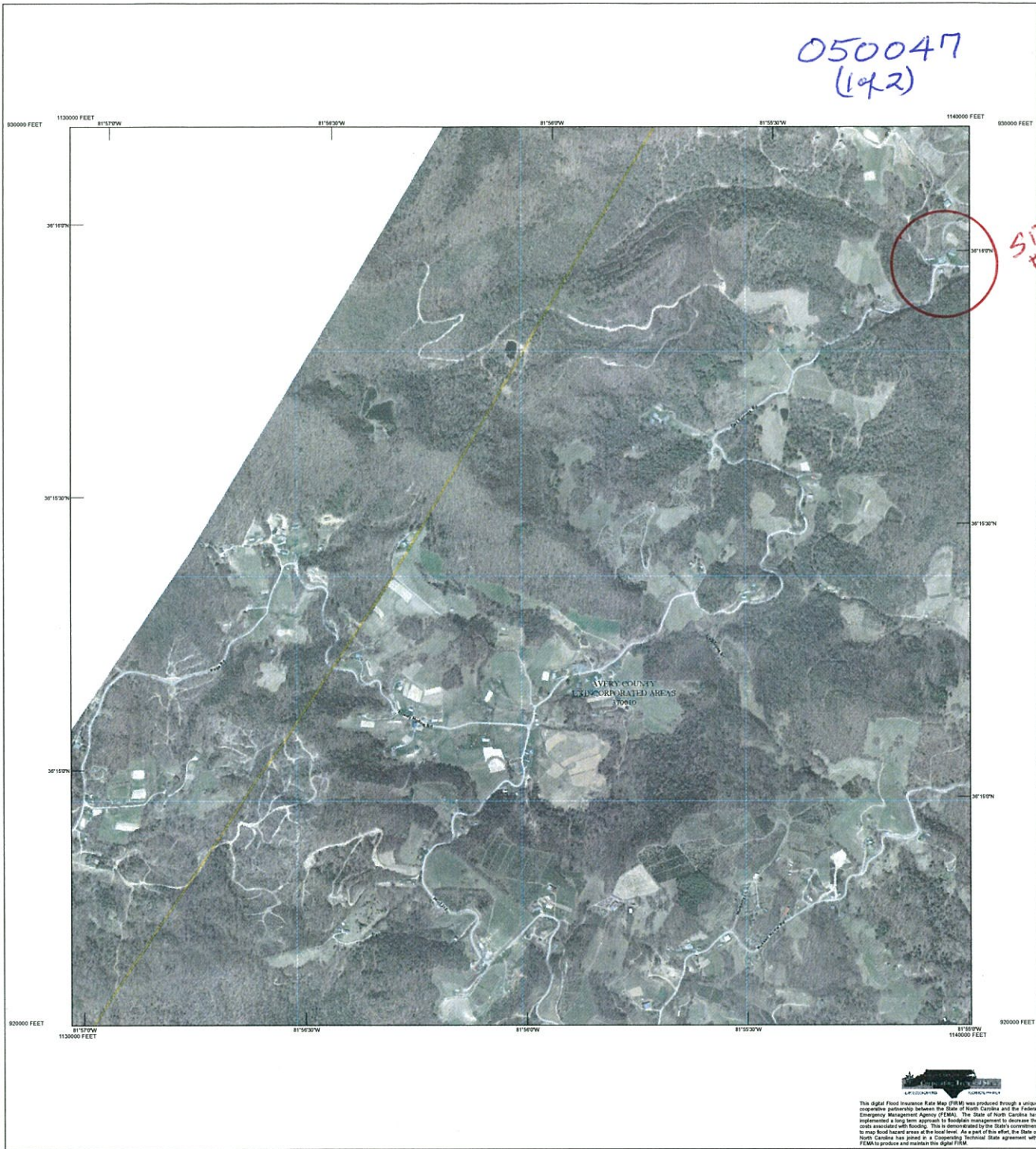
Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Peak Flows Region Grid Streamflow Statistics					
Statistic	Flow (ft ³ /s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
PK2	139	35		78.5	245
PK5	262	34		149	459
PK10	360	35		201	643
PK25	495	38		266	919
PK50	594	40		309	1140
PK100	713	42		358	1420
PK200	817	44		395	1690
PK500	981	48		451	2130

Urban Flows Region Grid Streamflow Statistics					
Statistic	Flow (ft ³ /s)	Standard Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
PK2U	15.2				
PK5U	41.8				
PK10U	69.7				
PK25U	144				
PK50U	198				
PK100U	264				

050047
(142)

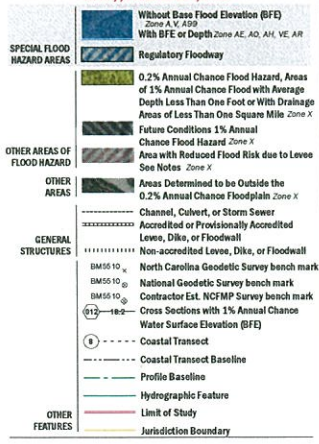
SITE
#47



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 represented a long-term commitment to floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to new flood hazard areas at the local level. As part of this effort, the State of North Carolina has joined in a Cooperative 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](http://FRIS.NC.GOV/FRIS)



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 (1-877-366-2627) or visit the FEMA Map Service Center website at <http://www.fema.gov>. An accompanying Flood Insurance Study report, Letter of Map Amendment (LOMA) 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.org> or contact the FEMA Map Service Center.

Customers acquiring land adjacent to 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 1-800-658-4642.

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 TIGER database and in the Technical Support Data Network (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 residential 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/floodinsurance>.

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 mitigate flood risk in residential 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/floodinsurance>.

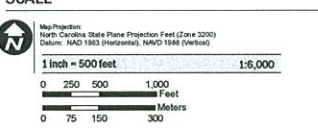
LIMIT OF MODERATE WAVE ACTION NOTES TO USERS: For some coastal flooding zones the AE Zone category has been divided by a Limit of Moderate Wave Action (LMWA). The LMWA represents the approximate elevation of 1.5 foot above mean high water. The effects of waves between the VE Zone and the LMWA (or between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

Limit of Moderate Wave Action (LMWA)

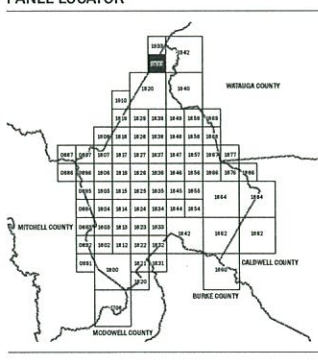
COASTAL BARRIER RESOURCES SYSTEM (CBRS) NOTE
This map includes approximate boundaries of CBRS for informational purposes only. Flood insurance is not available within CBRS areas for structures that are newly built or substantially improved on or after the date(s) indicated on the map. For more information see <http://www.fema.gov/floodinsurance> and, further, the FIS Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-344-1363.

CBRS Area **Otherwise Protected Area**

SCALE



PANEL LOCATOR





National Flood Insurance Program

NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP
NORTH CAROLINA
PANEL 1932

Panel Contains:
COMMUNITY
AVERY COUNTY

GID PANEL SUFFIX
370010 1932 J



MAP NUMBER
37101932001
MAP REVISION
12/2/2008

050047
(242)

81°56'0"W

81°55'30"W

114000 FEET

930000 FEET

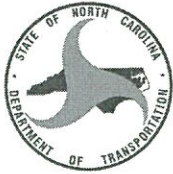


36°16'0"N

SITE
#47

N

050047



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION TEMPORARY REPAIR
NON-NBIS = 14.33'

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection - Contract

COUNTY AVERY BRIDGE NUMBER 050047 INSPECTION CYCLE 0 YRS
ROUTE SR1316 ACROSS CREEK M.P. 0

LOCATION 1.9 MI. N. JCT. SR1317

SUPERSTRUCTURE TIMBER FLOOR ON TIMBER JOISTS

SUBSTRUCTURE E.BTS:TIMBER CAPS/TIMBER POST&SILLS @ 6' CTS.

SPANS 1 @ 16'-6

LONGITUDE 81° 55' ~~78.39"~~ ^{07.84"} 81° 55' 7.84" LATITUDE 36° 15' 54.94"

INSPECTION DATE 05/14/2013 PRESENT CONDITION FAIR

PRESENT POSTING SV 10 TTST 18 SV 10 TTST 18 PROPOSED POSTING _____

OTHER SIGNS PRESENT (4) DELINEATORS



SOUTH APPROACH LOOKING NORTH

Fracture Critical	<u>No</u>
Temporary Shoring	<u>No</u>
Scour Critical	<u>No</u>
Scour POA	<u>No</u>

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

050047

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 06/18/2013

COUNTY : AVERY DIVISION : 11 DISTRICT : 2 STRUCTURE NUMBER : 050047 LENGTH : 17 FEET

ROUTE CARRIED : SR1316 FEATURE INTERSECTED : CREEK

LOCATED : 1.9 MI.N.JCT.SR1317 BRIDGE NAME : CITY :

FUNC. CLASS : 09 SYST.ON : NFA SYST.UNDER : NFA ADT & YR : 240 2011 RAIL TYPE : LT 227 RT 227

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

REHAB : BY : PROJ : ALIGNMENT : TAN SKEW : 90 LANES : ON 2 UNDER 0

NAVIGATION : VC 0 FT HC 0 FT HT. CRN. TO BED : 8 FT WATER DEPTH : 1 FT

SUPERSTRUCTURE : TIMBER FLOOR ON TIMBER JOISTS

SUBSTRUCTURE : E.BTS:TIMBER CAPS/TIMBER POST&SILLS @ 6' CTS.

SPANS : 1 @ 16'-6

BEAMS OR GIRDERS : 1 LN.TRIPLE,7 LNS.DOUBLE.& 2 LNS.6X12 TIM.JSTS.

FLOOR : 4X8 TIM/7 AWS ENCROACHMENT : DECK (OUT TO OUT) : 20 FT

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

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-3 OPE.RTG. : HS-4 CONTR.MEMBER : IntJoists POSTED : SV 10 TTST 18 DATE 06/13/2011

SYSTEM : Secondary S.R. Route GREEN LINE ROUTE : N

UNDER ROUTES AND CLEARANCES

REMARKS :

050047

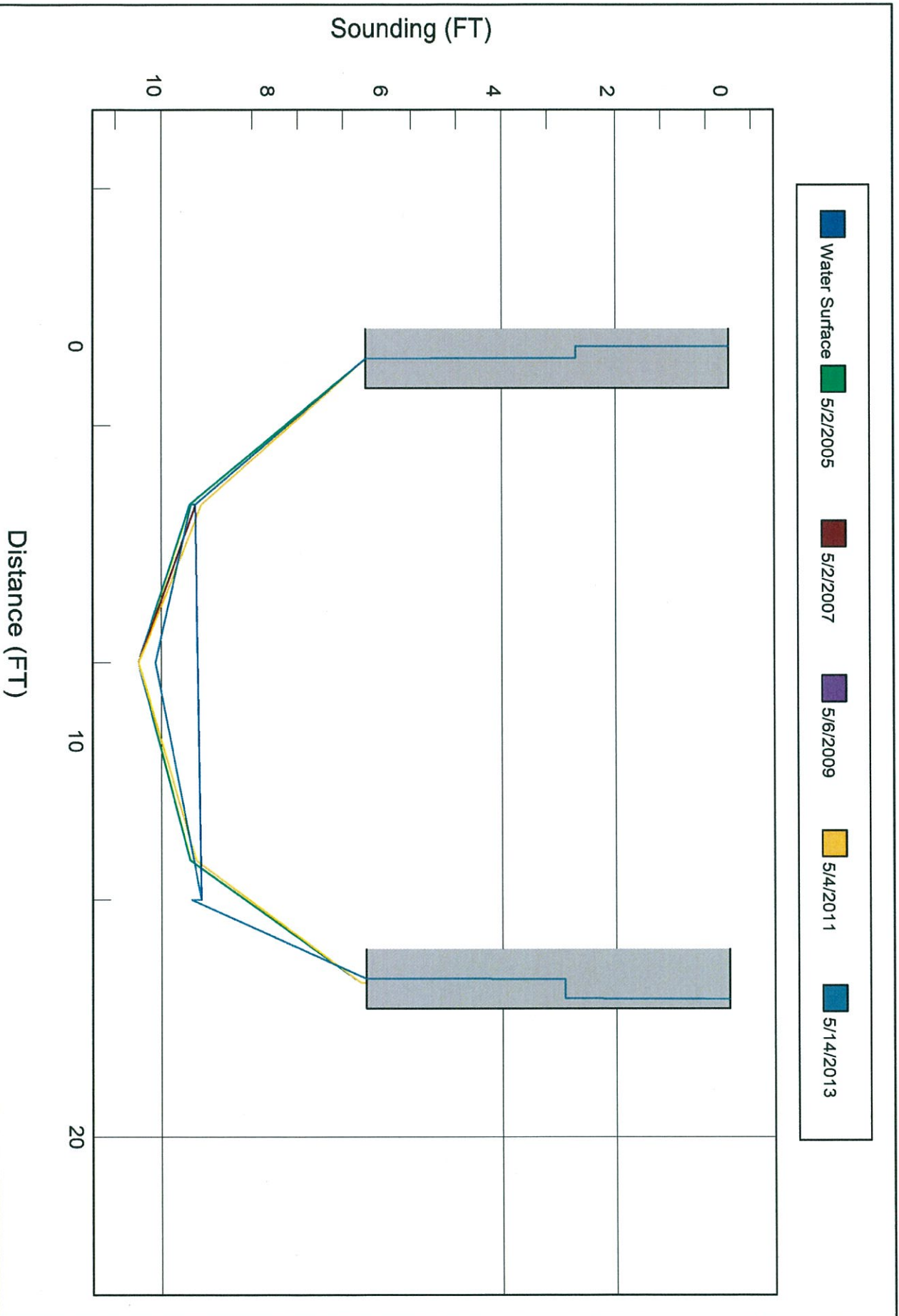
Bridge: 050047

County AVERY

Date: 05/14/2013

Top of Rail = 0 FT (Sounding)

STREAMBED PROFILE (Downstream)



050047

Structure 050047

County AVERY

Date: 05/14/2013

Structure Photos



ASPHALT WEARING SURFACE



WEST ELEVATION

D/S STRUCTURE TO → 050047

D/S STR.

Structure 050127

County AVERY

Date: 05/14/2013

Structure Photos



EAST ELEVATION



WEST ELEVATION