

LONG: -82.90461185
LAT: 35.25750629

PREDESIGN-PRESURVEY REPORT

Built: 1936

Project#
TIP# B-5554
Let Date
WBS# 46312.1.F1

County TRANSYLVANIA (DIV. 14)

Bridge# 870073
Road# NC 215
Stream BEETREE FORK

Type Of Request: POC Force Account TIP NCMA

Date 11-12-14 Name Wsh Assigned To MTS

Checked By ECA 11/13/14

Prior Survey Date NONE (attach copy of prior survey) BRN: BK: NONE CO. FILE NONE

Study By Scour Section NONE

Flood Zone "X" Detail Study NONE Date 4-19-10 Panel# 8526

B.M. Info N/A

Quad Map SAM KNOB Drainage Area 1.7 Sq. Mi. From QUAD MAP

Q25 = 600 cfs Q50 = 700 cfs Q100 = 850 cfs Method RURAL REG EQU.
= $398(1.7)^{.724}$ = $479(1.7)^{.718}$ $575(1.7)^{.713}$ Blue Ridge/Region 2

EXISTING BRIDGE INFORMATION

Location 2.5m N. JCT SR 1321

Average Daily Traffic 2012 / 190 (TRK 17%)

Length 35 ft. Bed-To Crown 14 ft. Water Depth 1 ft.

Type Structure REINFORCED CONC. FLR ON I BEAMS

Type Spans 1 @ 35' 3"

Upstream Structure UN NUMBERED STR. U/S ON NC 215 (IN SHARP CURVE)

Location 0.3m WEST ON PARKWAY RD. / NC 215.

Bed-To Crown NOT KNOWN Prior Survey N/A

Downstream Structure 870057 DBL 14x8' RCBC (L=158' ALONG E)

Location NC 215 (1.8 MI N. JCT SR 1321)

Bed-To Crown 15' (H₂O = 1' DEEP) Prior Survey YES ON FILE

SCS Watershed N/A

ENVIRONMENTAL

TVA: YES

Trout Stream YES Anadromous Fish NO Primary Nursery Area NO

High Quality Waters YES Nutrient Sensitive Waters NO

Near Water Supply Intake NO CAMA County NO

Stream Classification C, Tr, HQW #6-3-4 (FROM SOURCE)

DENR River Basin Info. FRENCH BROAD TO NO. FORK FRENCH BROAD RIVER

Office estimated min brg length: $14 \times 1.5 = 21 \times 2 = 42 + 12 + 20 = 74$
Say 75'

1, 3, 22, 27

870073

1
N

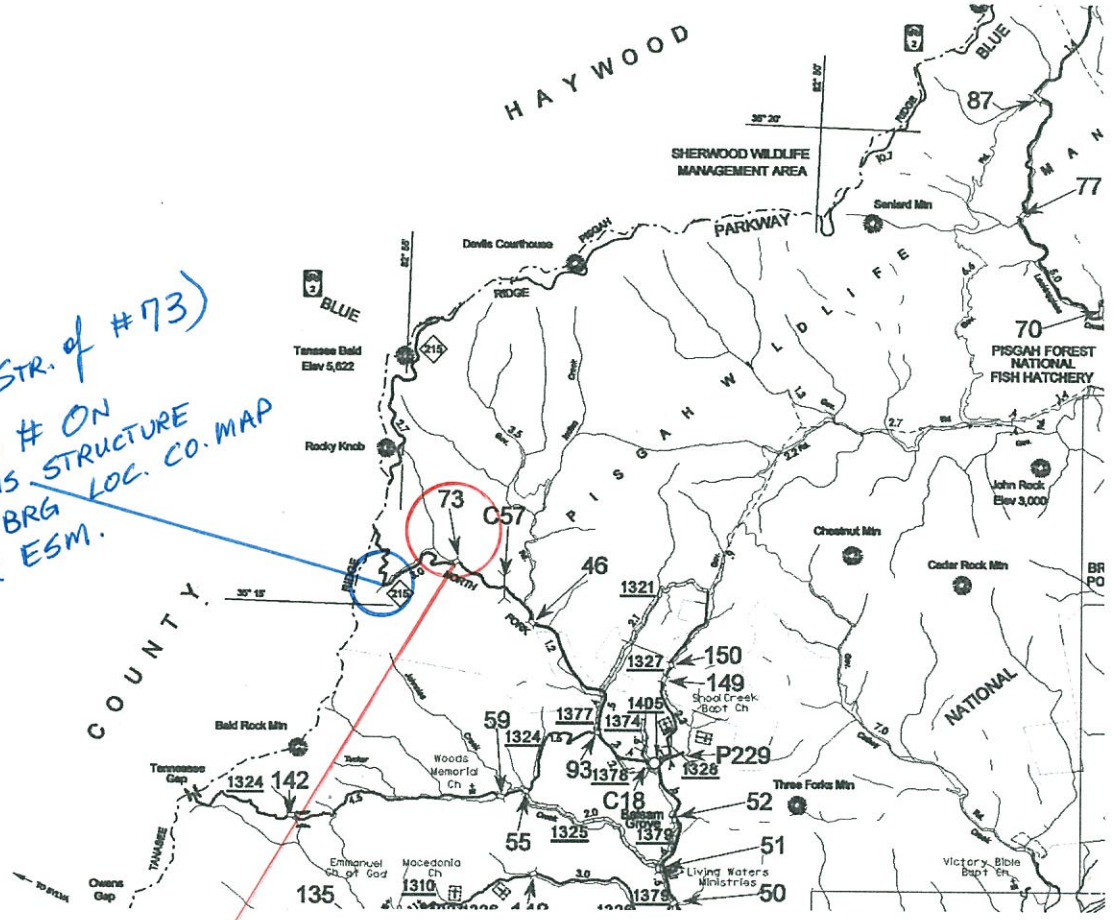
5

IRE
MAINTAINED BY NCDOT
RE
URE
JRES
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PASS
HAN 20
TRIAN BRIDGES
RE

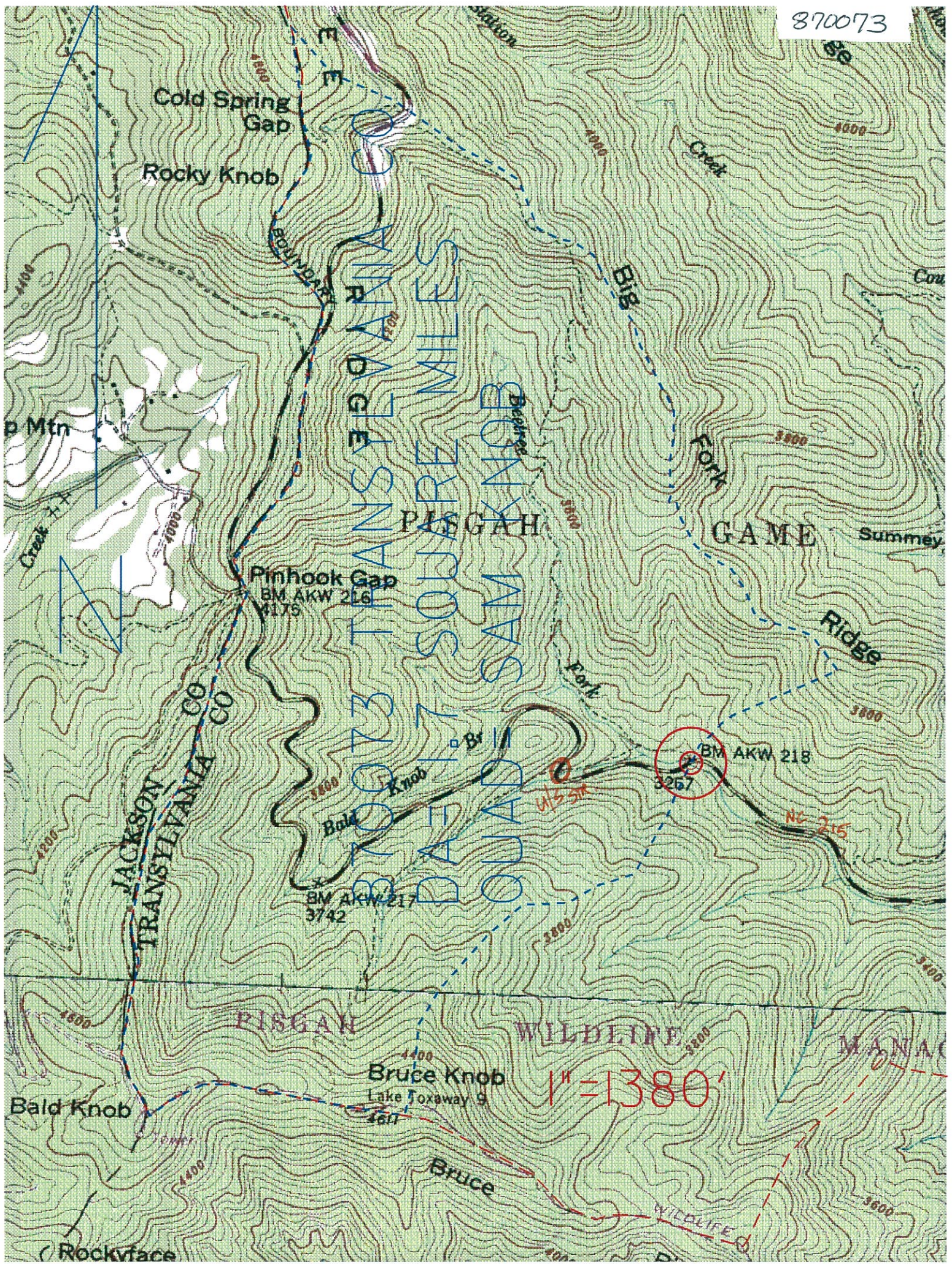
(U/S STR. of #73)
No # ON
THIS STRUCTURE
ON BRG LOC. CO. MAP
OR ESM.

C



LOCATION
#73

870073



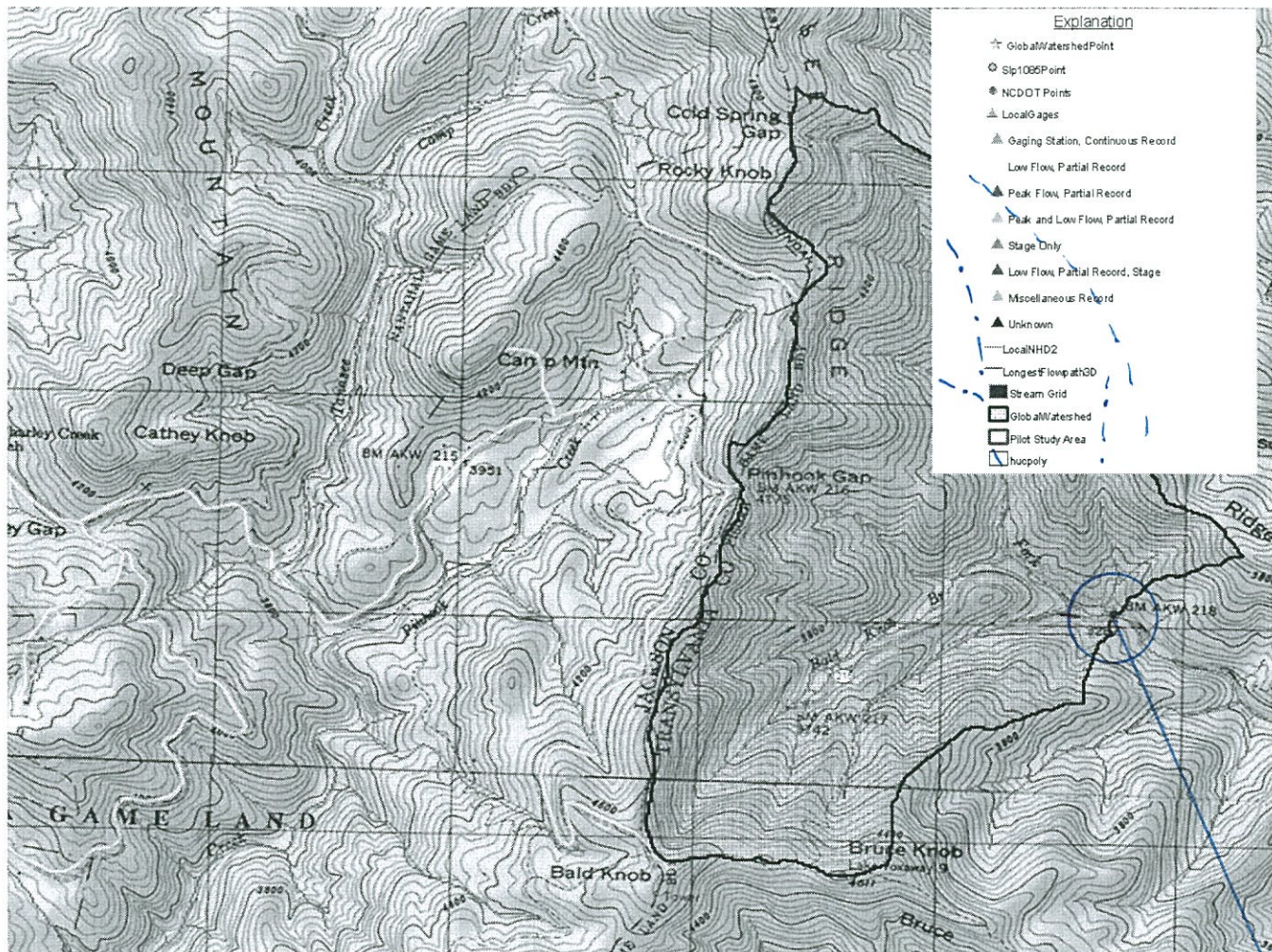
3 TIANVALES
3 SOURF MILES
PISGAH
SAM KNOB
PISGAH

1"=1380'



870073 DA= 1.7 SQ MILES

TRANSYLVANIA CO



11/14/2014 5:34:16 AM

1
N
#13



North Carolina StreamStats

Streamstats Ungaged Site Report

Date: Thu Nov 13 2014 12:46:56 Mountain Standard Time

Site Location: North_Carolina

NAD27 Latitude: 35.2575 (35 15 27)

NAD27 Longitude: -82.9049 (-82 54 17)

NAD83 Latitude: 35.2577 (35 15 28)

NAD83 Longitude: -82.9047 (-82 54 17)

Drainage Area: 1.74 mi²

Percent Urban: 3.8 %

Percent Impervious: 0.1 %

Peak Flows Region Grid Basin Characteristics			
100% Peak Southeast US 2009 5158 (1.74 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	1.74	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 (1.74 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	1.74	0.04	41
Area of Impervious Surfaces (percent)	0.14 (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	169	35		95.8	297
PK5	316	34		181	554
PK10	434	35		243	774
PK25	595	38		321	1100
PK50	712	40		372	1370
PK100	854	42		430	1700
PK200	978	44		475	2020
PK500	1170	48		541	2540

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	13				
PK5U	37.4				
PK10U	63.7				
PK25U	136				
PK50U	190				
PK100U	257				

870073

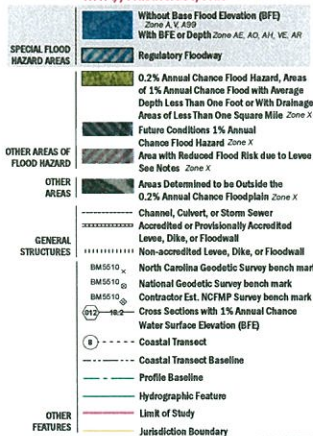
#73



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 program designed to enhance emergency response to increase the safety associated with flooding. This is demonstrated by the State's commitment to map flood hazard areas of the local level. As part of this effort, the State of North Carolina has joined in a Cooperative Technical Services Agreement with FEMA to produce and maintain the 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 Xchange at 1-877-FEMA-MAP (1-877-362-5277) or visit the FEMA Map Service Center website at msc.fema.gov. An accompanying Flood Insurance Study report, Letter of Map Amendment (LOMA) or Letter of Map Amendment (LOMA) involving portions of this panel, and digital versions of this FIRM may be available. Visit the North Carolina Floodplain Mapping Program website at <http://www.ncfloodplainmapping.org> or contact the FEMA Map Service Center.

Commuters traveling on or 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 1-800-368-5852.

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

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>.

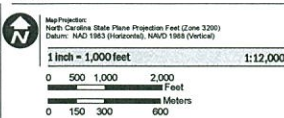
LEVEE OR MODERATE WAVE ACTION NOTES TO USERS: For some coastal flooding panels the AE Zone category has been divided by a Limit of Moderate Wave Action (LIMWA). The LIMWA represents the approximate limit of the 1-foot breaking wave. The effect of wave hazards between the VE Zone and the LIMWA (or between the LIMWA and the LOMWA for areas where VE Zones are not identified) will be similar to, but less than those in the VE Zone.

Limit of Moderate Wave Action (LIMWA)

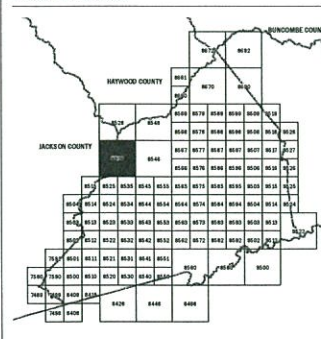
COASTAL BARRIER RESOURCES SYSTEM (CBRS) NOTE
This map may include appropriate boundaries of the CBRS for informational purposes only. Flood insurance is not available within CBRS areas for structures that are newly built or substantially improved on or after the date(s) indicated on the map. For more information see <http://www.fema.gov/submitcommentcard>. Further, the FIRM Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-244-6863.

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 8526

Panel Contains:

COMMUNITY
JACKSON COUNTY
TRANSYLVANIA COUNTY

CID PANEL SUFFIX

370202 8526 J

MAP NUMBER
3700852600J

MAP REVISED
4/18/2010



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

870073

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY TRANSYLVANIA

BRIDGE NUMBER 870073

INSPECTION CYCLE 2 YRS

N. FORK FRENCH BROAD RVR.

ROUTE NC215

ACROSS N.FORK FRENCH BROAD RVR.

M.P. 0

2.5 MI. N. JCT. SR1321

LOCATION 2.5 MI.N.JCT.SR1321

SUPERSTRUCTURE REINFORCED CONCRETE FLOOR ON I-BEAMS

ABUTMENTS: REINFORCED CONCRETE

SUBSTRUCTURE ABUTMENTS:REINFORCED CONCRETE

1 @ 35'-3"

SPANS 1 @ 35'-3

LONGITUDE 82° 54' 16.60"

LATITUDE 35° 15' 27.02"

INSPECTION DATE 07/22/2014

PRESENT CONDITION FAIR

PRESENT POSTING Not Posted

PROPOSED POSTING

OTHER SIGNS PRESENT DELINEATORS (4) & NARROW BRIDGE (2)



NORTH

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	

870073

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 09/09/2014

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :
TRANSYLVANIA	14	1	870073	35 FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
NC215	BEETREE FORK CREEK

LOCATED :	BRIDGE NAME :	CITY :
2.5 MI.N.JCT.SR1321		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
07	FA	NFA	190 2012	LT 991 RT 991

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1936	FS			Unknown

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

NAVIGATION :	HT. CRN. TO BED :	WATER DEPTH :
VC 0 FT HC 0 FT 14 FT 1 FT		

SUPERSTRUCTURE :	REINFORCED CONCRETE FLOOR ON I-BEAMS
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SUBSTRUCTURE :	ABUTMENTS:REINFORCED CONCRETE
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SPANS :	1 @ 35'-3
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BEAMS OR GIRDERS :	4 LINES 27 I-BEAMS @ 5'-2 CENTERS
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FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
9 RC/5 AWS		20 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
18.75 FT	19.708 FT	LT .4 FT RT .4 FT

VERT.CL.OVER :
999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :	DATE
HS-17	HS-28	Int Beam	SV TTST	06/04/2009

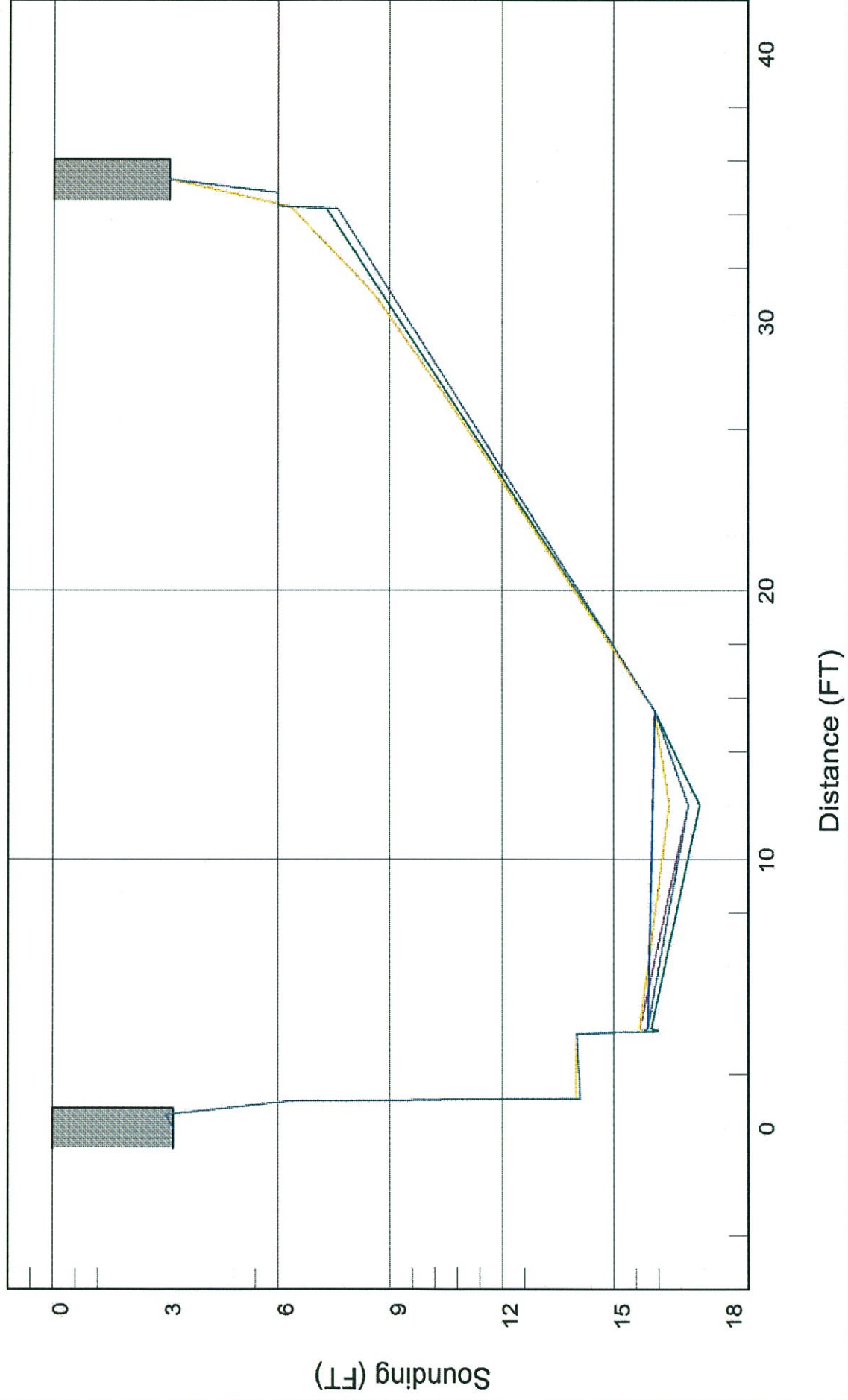
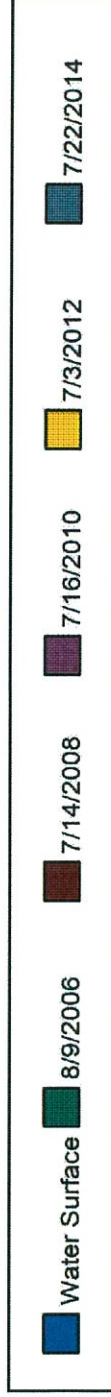
SYSTEM :	GREEN LINE ROUTE :
Primary N.C. Route	Y

UNDER ROUTES AND CLEARANCES

REMARKS :

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)





LOOKING UPSTREAM (EAST)



LOOKING DOWNSTREAM (WEST)