

ESM COORD: LONG: -82.888370
LAT: 35.247881

Long: - 82.888453
LAT: 35.247951

PREDESIGN-PRESURVEY REPORT

B: 1936

Project#

TIP# B-5555

Let Date

WBS# 46313.1.F1

County

TRANSYLVANIA (DIV. 14)

Bridge#

870046 C-5

Road#

NC 215 (PARKWAY ROAD)

Stream

NO. FORK FRENCH BROAD RIVER

Type Of Request: POC Force Account TIP NCMA

Date 11-12-14 Name Wsh

Assigned To MTS

Checked By SKD 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 LAKE TOXAWAY Drainage Area 10.5 SQ. MI. From STREAM STATS
Q25 = 2200 cfs Q50 = 2600 cfs Q100 = 3100 cfs Method RURAL REG. EQU.
= 398(10.5)^{.724} = 479(10.5)^{.718} = 575(10.5)^{.713} REGION 2

EXISTING BRIDGE INFORMATION

Location 1.2 MI N. JCT SR 1321

Average Daily Traffic 2011/260 (TRK 7%)

Length = 51 ft. Bed- To Crown 15 ft. Water Depth 1 ft.

Type Structure REINFORCED CONC. FLR ON I BEAMS / ABUT: REINFORCED CONC.

Type Spans 1 @ 51' 2"

Upstream Structure 870057 DBL 14 X 8' RCBC (L=157' 8" ALONG E)

Location NC 215 1.8 MI N. JCT. SR 1321

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

Downstream Structure 870093 (3 SPANS 1 @ 26 1 @ 45 1 @ 26) (TIMB. FLR ON I BEAMS)

Location SR 1324 (0.1 MI. W. JCT. NC 215)

Bed- To Crown 13' (H2O = 2' DEEP) Prior Survey N/A

SCS Watershed N/A

(FLOWS INTO UNDESIGNATED TR)

WRC CLASSIF.: WILD TROUT

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

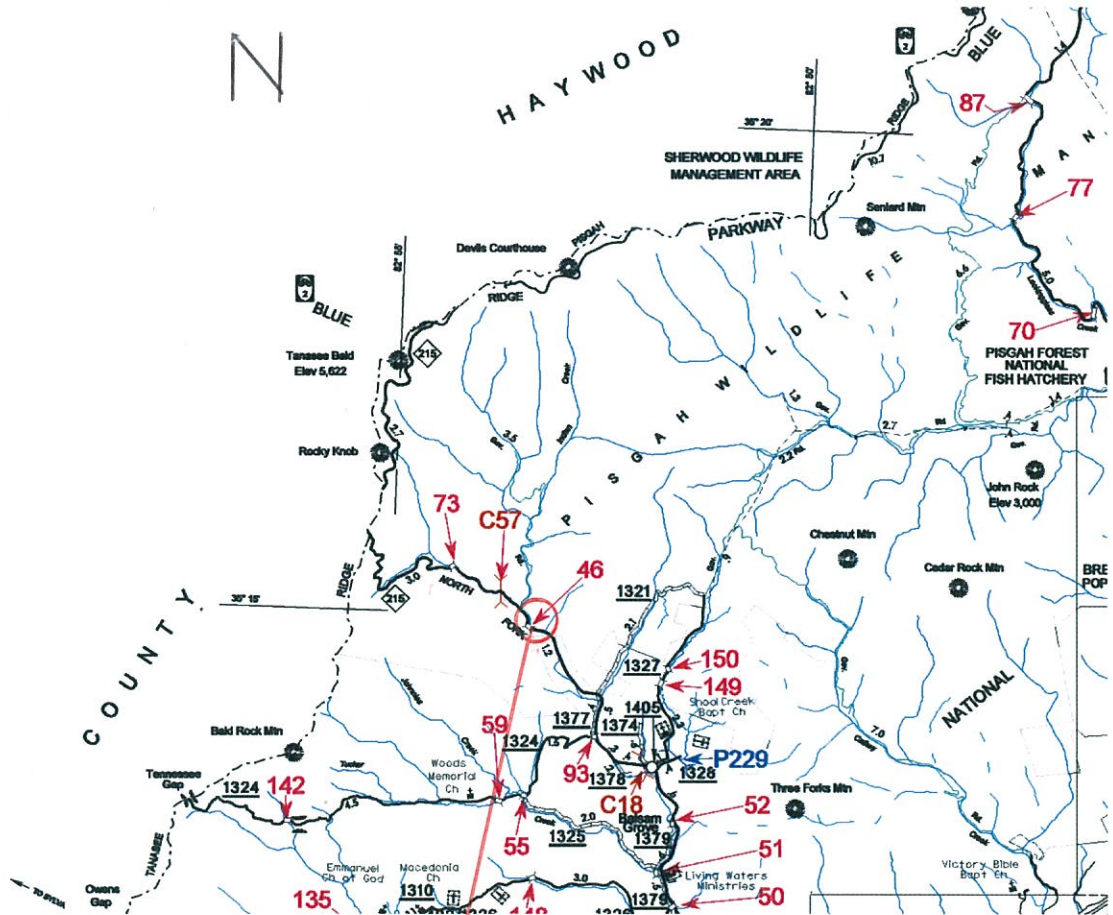
Stream Classification B; Tr; HQW

6-3-(0.5) (FROM SOURCE TO INDIAN CREEK)

DENR River Basin Info. FRENCH BROAD

1 5

ERPASS
THAN 20'
STRIAN BRIDGES
URE



LOCATION # 46

870046

JACKSON COUNTY
UNFLOODED AREAS
330752

TRANSYLVANIA COUNTY
UNFLOODED AREAS
330750

46

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 program for 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 Cooperative Technical State Agreement with FEMA to produce and maintain this digital FIRM.

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE)
Zone A
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway
- 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
- Areas with Reduced Flood Risk due to Levees
See Notes - Zone X
- Areas Determined to be Outside the 0.2% Annual Chance Floodplain Zone X

OTHER AREAS OF FLOOD HAZARD

- Channel, Culvert, or Storm Sewer Accredited or Provisionally Accredited Levee, Dike, or Floodwall
- Non-accredited Levee, Dike, or Floodwall

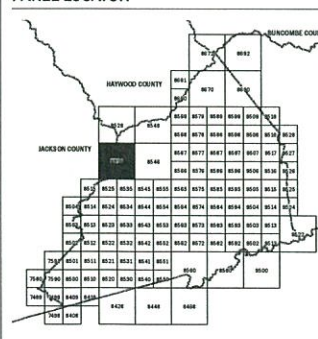
GENERAL STRUCTURES

- BM5610 - North Carolina Geodetic Survey bench mark
- BM5610 - National Geodetic Survey bench mark
- Contractor LEL, NCMPF Survey bench mark
- Cross Section with 1% Annual Chance Water Surface Elevation (BFE)
- Coastal Transsect
- Coastal Transsect Baseline
- Profile Baseline
- Hydrographic Feature
- Limit of Study
- Jurisdiction Boundary

OTHER FEATURES

[illegible]

PANEL LOCATOR



FEMA

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 TRANSILVANIA COUNTY	<table border="0"> <tr> <td>CID</td> <td>PANEL</td> <td>SUFFIX</td> </tr> <tr> <td>370262</td> <td>6526</td> <td>J</td> </tr> <tr> <td>370226</td> <td>6526</td> <td>J</td> </tr> </table>	CID	PANEL	SUFFIX	370262	6526	J	370226	6526	J
CID	PANEL	SUFFIX								
370262	6526	J								
370226	6526	J								

MAP NUMBER
3700852600J

MAP REVISED
4/19/2010

870046

↑
N

35°15

35°15

35°14

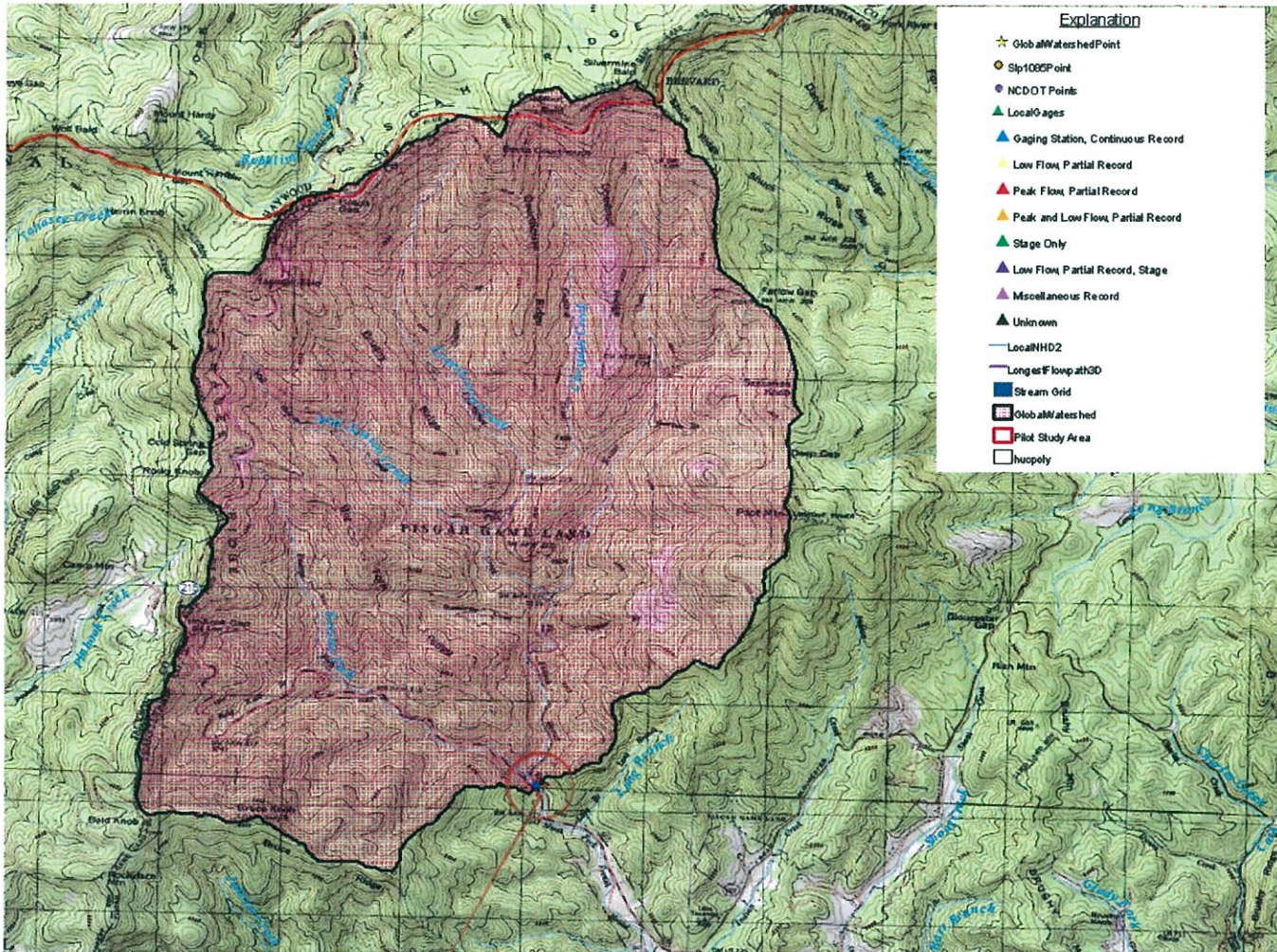
TRANSYLVANIA COUNTY
UNINCORPORATED AREAS
370230

215

AL



870046 DA= 10.5 SQ MI

TRANSYLVANIA COUNTY

11/13/2014 7:00:15 AM

#46



North Carolina StreamStats

Streamstats Ungaged Site Report

Date: Thu Nov 13 2014 06:56:09 Mountain Standard Time

Site Location: North Carolina

NAD27 Latitude: 35.2502 (35 15 01)

NAD27 Longitude: -82.8894 (-82 53 22)

NAD83 Latitude: 35.2503 (35 15 01)

NAD83 Longitude: -82.8893 (-82 53 21)

Drainage Area: 10.5 mi²

Percent Urban: 2.6 %

Percent Impervious: 0.2 %

Peak Flows Region Grid Basin Characteristics			
100% Peak Southeast US 2009 5158 (10.5 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	10.5	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 (10.5 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	10.5	0.04	41
Area of Impervious Surfaces (percent)	0.16 (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	685	35		393	1190
PK5	1220	34		701	2110
PK10	1630	35		923	2870
PK25	2180	38		1190	4000
PK50	2590	40		1370	4890
PK100	3080	42		1570	6020
PK200	3500	44		1730	7100
PK500	4160	48		1950	8860

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	53.8				
PK5U	137				
PK10U	221				
PK25U	431				
PK50U	590				
PK100U	783				



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

870046

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection - Contract

COUNTY TRANSYLVANIA BRIDGE NUMBER 870046 INSPECTION CYCLE 0 YRS

ROUTE NC215 ACROSS NORTH FORK FR. BROAD RVR M.P. 0

LOCATION 1.2 MI.N.JCT.SR1321

SUPERSTRUCTURE REINFORCED CONCRETE FLOOR ON I-BEAMS

SUBSTRUCTURE ABUTMENTS: REINFORCED CONCRETE

SPANS 1 @ 51'-2

LONGITUDE 82° 53' 17.95"

LATITUDE 35° 14' 52.29"

PRESENT CONDITION FAIR

INVENTORY RATING

INSPECTION DATE 07/03/2012

OPERATING RATING

PRESENT POSTING Not Posted

PROPOSED POSTING

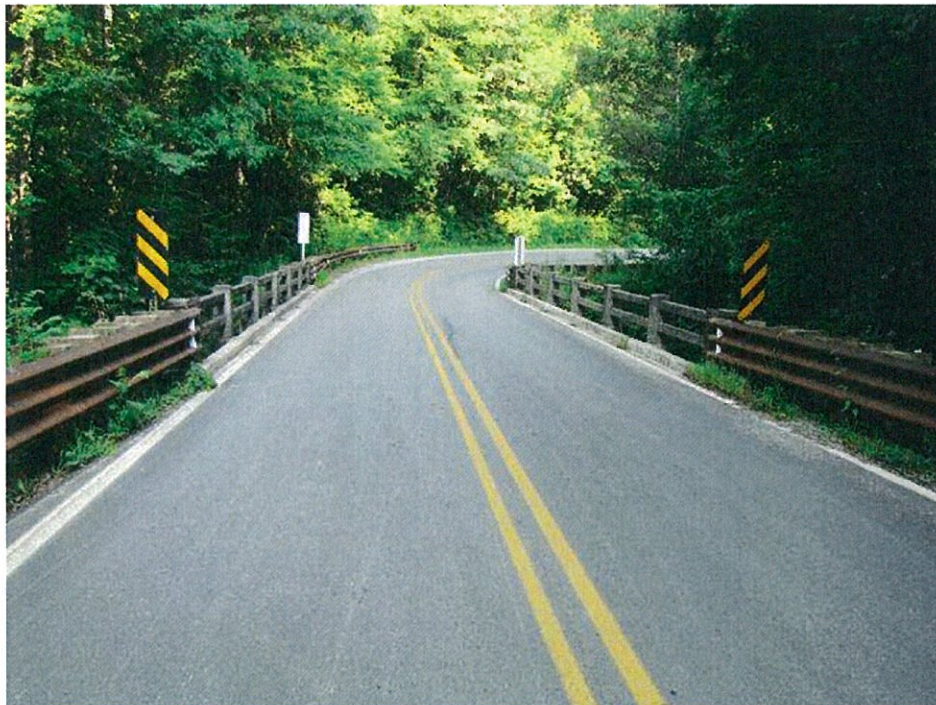
COMPUTER UPDATE

ANALYSIS DATE

POSTING LETTER DATE

SUFFICIENCY RATING

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



LOOKING NORTH

SIGN NOTICE
ISSUED FOR

NUMBERED
REQUIRED

<u>No</u>	WEIGHT LIMIT	<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>

BRIDGE MANAGEMENT UNIT

870046

DATA ON EXISTING STRUCTURE

Run Date: 08/22/2012

COUNTY : TRANSYLVANIA	DIVISION : 14	DISTRICT : 1	STRUCTURE NUMBER : 870046	LENGTH : 51 FEET
--------------------------	------------------	-----------------	------------------------------	---------------------

ROUTE CARRIED : NC215	FEATURE INTERSECTED : NORTH FORK FR. BROAD RVR
--------------------------	---

LOCATED : 1.2 MI.N.JCT.SR1321	BRIDGE NAME :	CITY :
----------------------------------	---------------	--------

FUNC. CLASS : 07	SYST.ON : FA	SYST.UNDER : NFA	ADT & YR : 260 2011	RAIL TYPE : LT 991 RT 991
---------------------	-----------------	---------------------	------------------------	------------------------------

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

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

NAVIGATION : VC 0 FT	HC 0 FT	HT. CRN. TO BED : 15 FT	WATER DEPTH : 1 FT
-------------------------	---------	----------------------------	-----------------------

SUPERSTRUCTURE : REINFORCED CONCRETE FLOOR ON I-BEAMS
--

SUBSTRUCTURE : ABUTMENTS: REINFORCED CONCRETE
--

SPANS : 1 @ 51'-2

BEAMS OR GIRDERS : 4 LINES 33 I-BEAMS @ 5'-2 CENTERS

FLOOR : 9 RC/4.5 AWS	ENCROACHMENT :	DECK (OUT TO OUT) : 20 FT
-------------------------	----------------	------------------------------

CLEAR ROADWAY : 18.75 FT	BETWEEN RAILS : 20 FT	SIDEWALK OR CURB : LT .6 FT RT .6 FT
-----------------------------	--------------------------	---

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-15	OPE.RTG. : HS-25	CONTR.MEMBER : IntBeam	POSTED : SV 41	TTST 43	DATE 08/20/2012
---------------------	---------------------	---------------------------	-------------------	---------	-----------------

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

UNDER ROUTES AND CLEARANCES

REMARKS :

870046

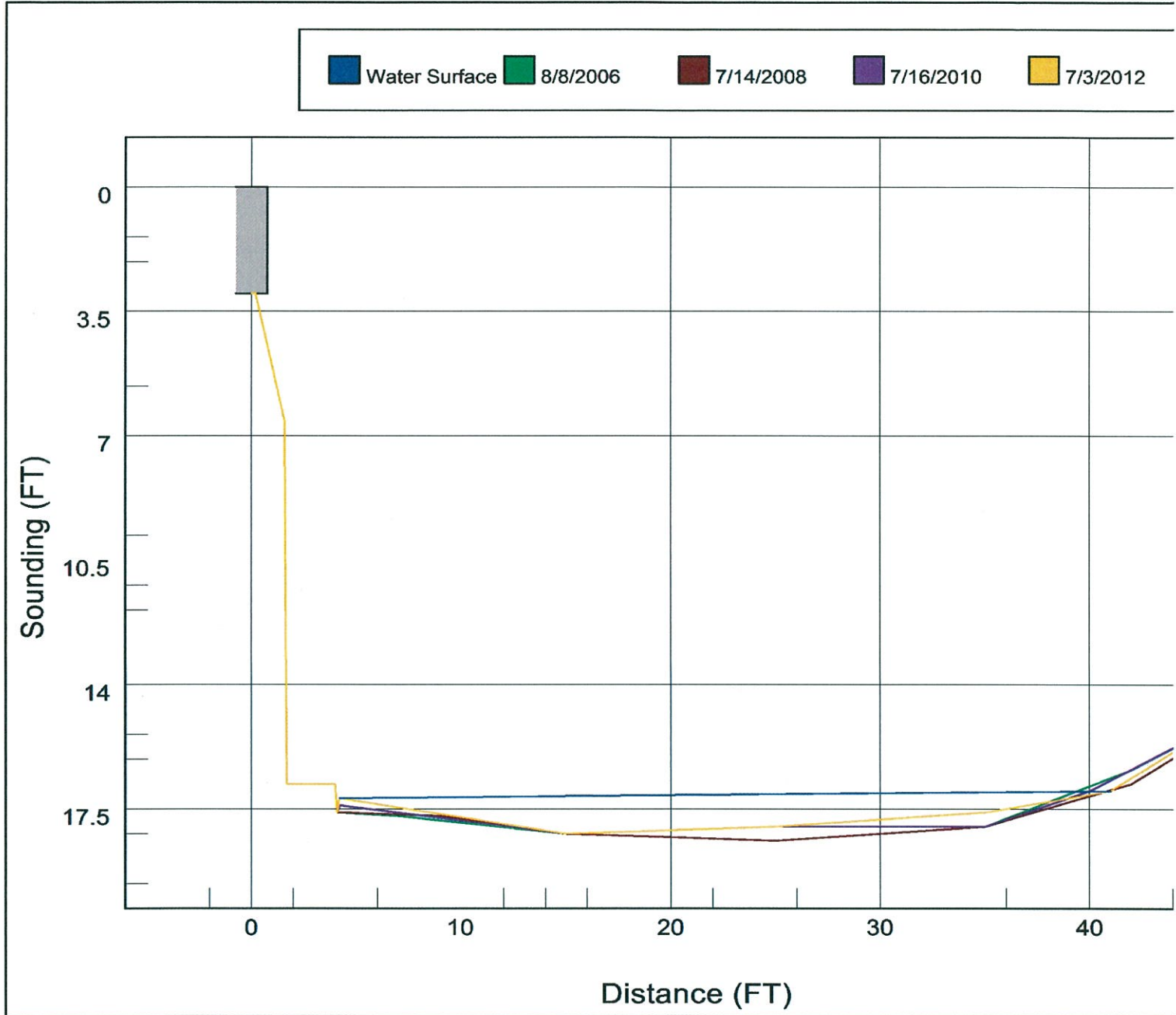
Bridge: 870046

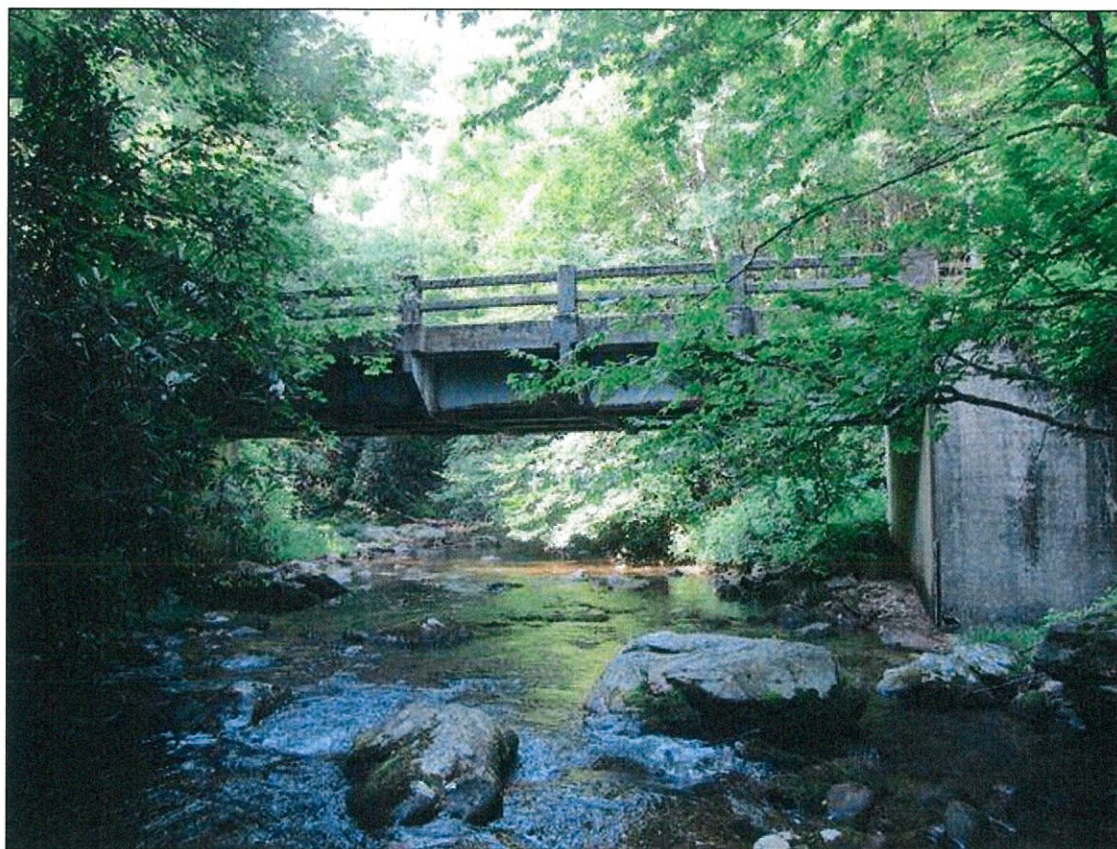
County TRANSYLVANIA

Date: 07/03/2012

STREAMBED PROFILE (Downstream)

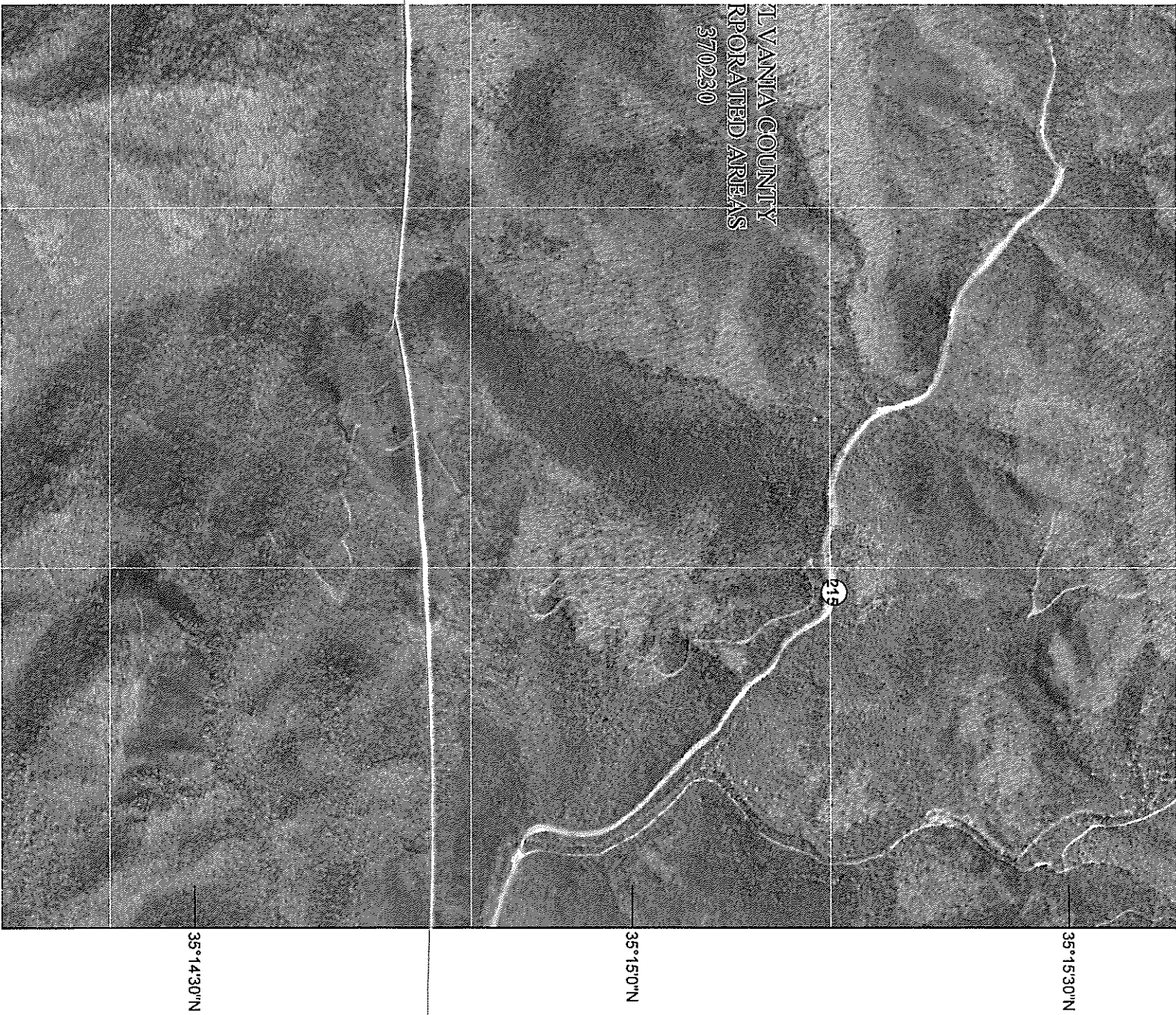
Top of Rail = 0 FT (Sounding)





UPSTREAM PROFILE

870046





NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

810046
D/S STRUCTURE
093

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY TRANSYLVANIA BRIDGE NUMBER 870093 INSPECTION CYCLE 2 YRS

N. FORK FRENCH BROAD RIV.

ROUTE SR1324 ACROSS N.FORK FRENCH BROAD RIV. M.P. 0

.01 MI. W. JCT. NC215

LOCATION .01 MI.W.JCT.NC215

SUPERSTRUCTURE TIMBER FLOOR ON I-BEAMS

E.BTS & INT.BTS: TIM. CAPS / TIM. POST & SILLS @ VAR. CTS.

SUBSTRUCTURE E.BTS&INT.BTS:TIM.CAPS/TIM.POST&SILLS @ VAR.CTS.

1 @ 25'-6"; 1 @ 45'; 1 @ 25'-8"

SPANS 1 @ 25'-6"; 1 @ 45'; 1 @ 25'-8"

LONGITUDE 82° 52' 26.35"

LATITUDE 35° 13' 47.25"

INSPECTION DATE 07/17/2014

PRESENT CONDITION FAIR

PRESENT POSTING SV 18 TTST 25 SV 18 / TTST 25 PROPOSED POSTING

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



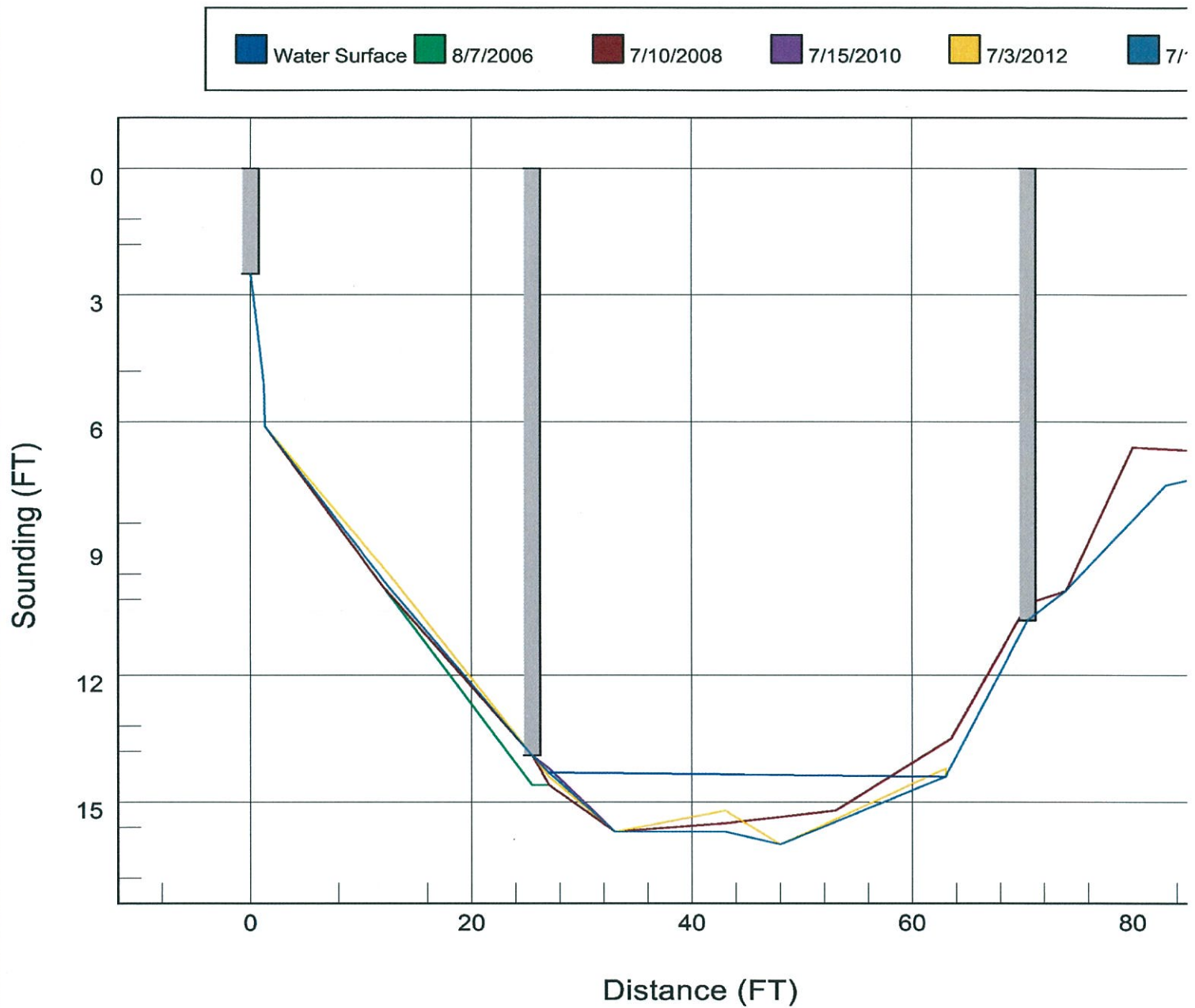
Fracture Critical	No
Temporary Shoring	No
Scour Critical	No
Scour POA	No

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

EAST

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



D/S Str.

870046



LOOKING UPSTREAM (NORTH)



LOOKING DOWNSTREAM (SOUTH)