

OFFICE ESTIMATE 1@ 100' Bridge

PREDESIGN-PRESURVEY REPORT

Project# _____
TIP# _____
Let Date _____
WBS# 17 BP. 11. R. 90

County Ashe

Bridge# 040060
Road# SR 1324 (Little horse creek Rd)
Stream Big horse Creek ✓

Type Of Request: POC Force Account TIP NCMA

Date 7/8/13 Name M. G. S.

Assigned To R. C. H.

Checked By wsh 7-23-13

Prior Survey Date 7-1971 (attach copy of prior survey) BRN BK: 4e30' CO. FILE YES

Study By Scour Section NONE

Flood Zone "X" Detail Study DETAILED Date 11/4/09 Panel# 2051 ✓

B.M. Info N/A

Quad Map Park Drainage Area 30.6 SQ. MI From USGS / Stream Stats
Q25 4740 cfs Q50 5580 cfs Q100 6600 cfs Method Regression EQU.
4700 cfs 5600 cfs 6600 cfs RURAL, REGION 2

EXISTING BRIDGE INFORMATION

Location 25 ft. W. JCT. SR 1353 ✓

Average Daily Traffic 860 YR 2010

Length 121 ft ✓ Bed-To Crown 17 ft. Water Depth 3 ft.

Type Structure Prestressed conc. Channels & I-beams

Type Spans 1 @ 36'-3" 2 @ 30' 1 @ 30'-3"

Upstream Structure 040172 ✓ Prestress concrete slab 3 @ 45'-0"

Location 0.6 MI. N. JCT. SR 1324

Bed-To Crown 15 ft. WD ~ 2 ft. Prior Survey —

Downstream Structure 040273 ✓ Timber floor on I-Beams (low water type)

Location 150 ft. S. JCT. NC 194

Bed-To Crown 8' (H₂O = 4' DEEP) Prior Survey —

SCS Watershed N/A

HATCHERY SUPPORTED ✓ ENVIRONMENTAL TVA NO ✓

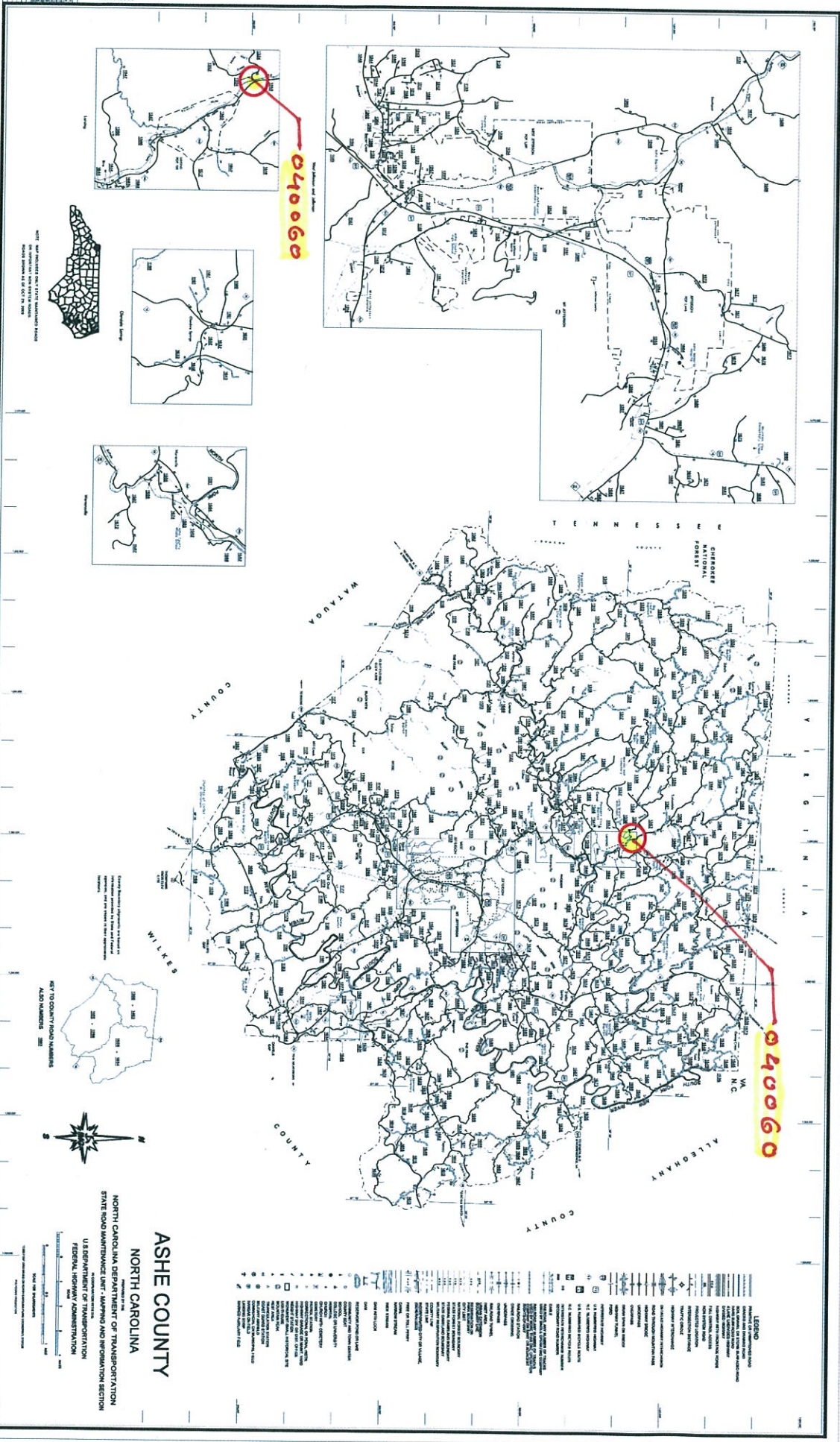
Trout Stream YES Anadromous Fish NO Primary Nursery Area NO ✓

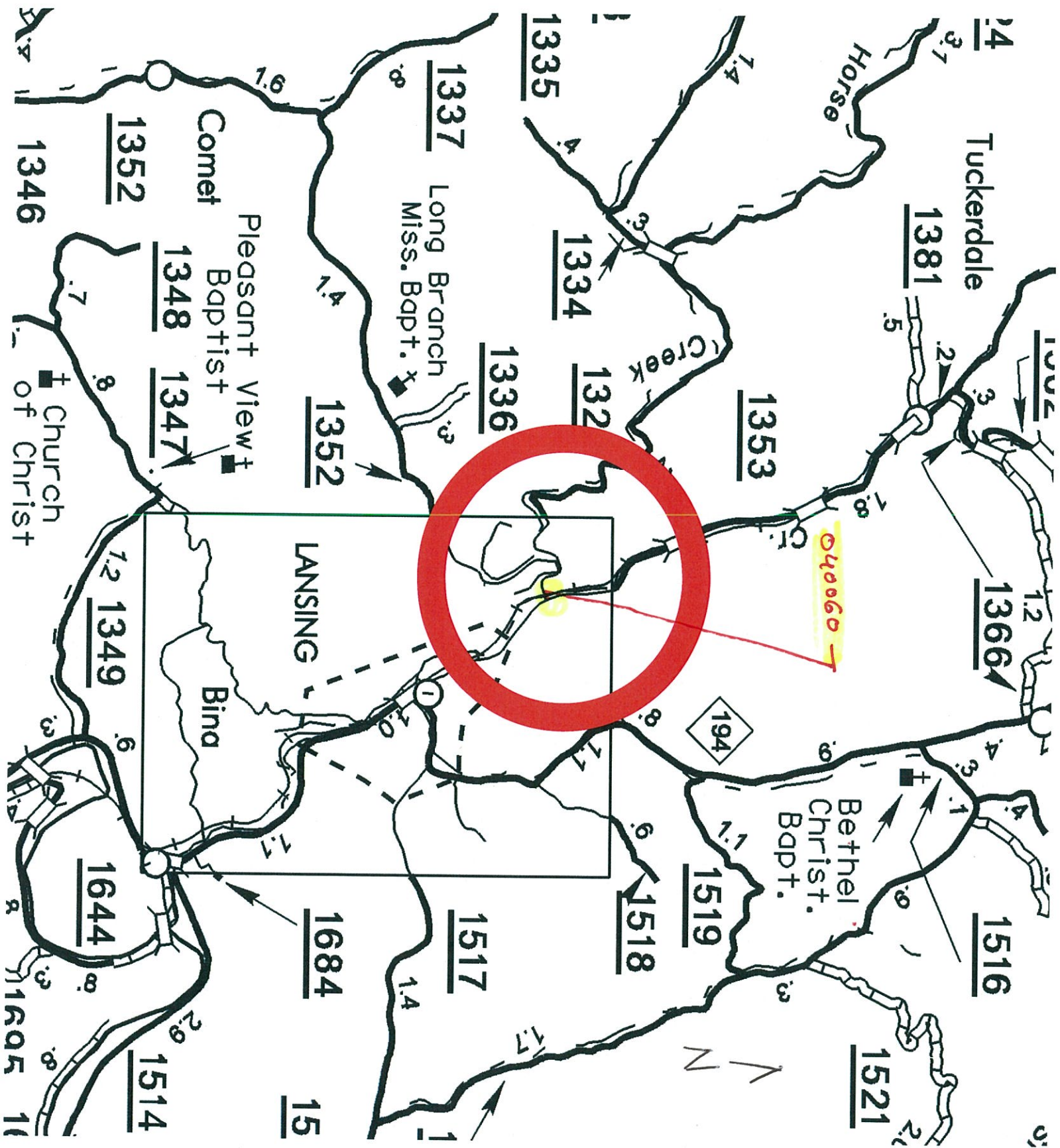
High Quality Waters NO Nutrient Sensitive Waters NO ✓

Near Water Supply Intake NO ✓ CAMA County NO ✓

Stream Classification C: ORW + 10-2-21-(7) ✓

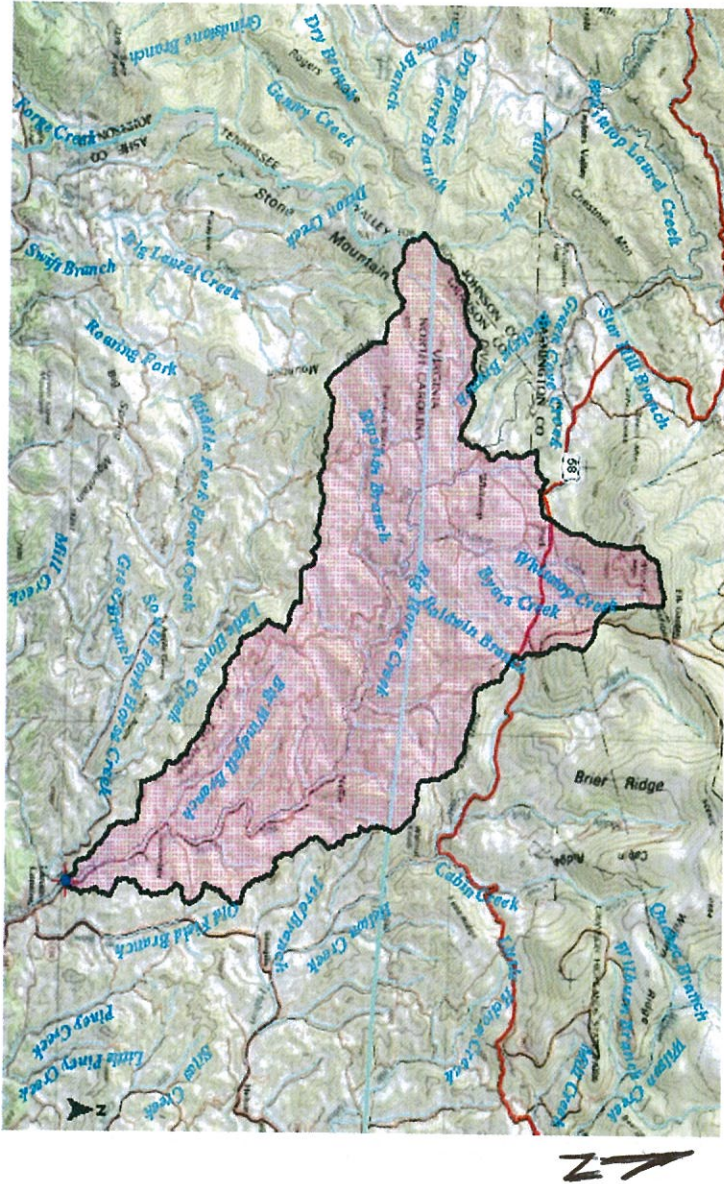
DENR River Basin Info. New ✓







StreamStats Print Page



7/3/2013 1:25:03 PM

- Explanation**
- ★ Global Watershed Point
 - SRTM30 Plus Point
 - NCEOT Points
 - Local Ages
 - ▲ Gauging Station, Continuous Record
 - ▲ Low Flow, Partial Record
 - ▲ Peak Flow, Partial Record
 - ▲ Peak and Low Flow, Partial Record
 - ▲ Stage Only
 - ▲ Low Flow, Partial Record, Stage
 - ▲ Miscellaneous Record
 - ▲ Unknown
 - Local NHD2
 - Longest Flow Path NHD
 - Stream Grid
 - Global Watershed
 - Pilot Study Area
 - Inupoly



North Carolina StreamStats

Streamstats Ungaged Site Report

Date: Wed Jul 3 2013 13:24:55 Mountain Daylight Time

Site Location: North_Carolina

NAD27 Latitude: 36.5066 (36 30 24)

NAD27 Longitude: -81.5188 (-81 31 08)

NAD83 Latitude: 36.5067 (36 30 24)

NAD83 Longitude: -81.5186 (-81 31 07)

Drainage Area: 30.6 mi² — 19 584 Ac

Percent Urban: 3.8 %

Percent Impervious: 0.2 %

Peak Flows Region Grid Basin Characteristics			
100% Peak Southeast US 2009 5158 (30.6 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	30.6	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 (30.6 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	30.6	0.04	41
Area of Impervious Surfaces (percent)	0.21 (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	1580	35		906	2740
PK5	2710	34		1570	4680
PK10	3580	35		2040	6290
PK25	4740	38		2600	8630
PK50	5580	40		2970	10500
PK100	6600	42		3390	12800
PK200	7470	44		3700	15100
PK500	8830	48		4170	18700

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	143				
PK5U	332				
PK10U	513				
PK25U	934				
PK50U	1250				
PK100U	1630				



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

PRIORITY MAINT. BM. ADDED TO SPAN 4

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY ASHE BRIDGE NUMBER 040060 INSPECTION CYCLE 2 YRS
ROUTE SR1324 ACROSS BIG HORSE CREEK M.P. 0

LOCATION 25 FT.W.JCT.SR1353

SUPERSTRUCTURE PRESTRESSED CONCRETE CHANNELS & I-BEAMS

SUBSTRUCTURE E.BTS&INT.BTS:PPC CAPS/ H-PILES ENCASED IN CONC.

SPANS 1 @ 30'-3; 2 @ 30'; 1 @ 30'-3

LONGITUDE 81° 31' 6.7"

LATITUDE 36° 30' 24.1"

PRESENT CONDITION POOR

INVENTORY RATING

INSPECTION DATE 05/23/2012

OPERATING RATING

PRESENT POSTING SV 32 TTST 40

PROPOSED POSTING

COMPUTER UPDATE

ANALYSIS DATE

POSTING LETTER DATE

SUFFICIENCY RATING

OTHER SIGNS PRESENT 4 DELIN.



LOOKING EAST

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

DATA ON EXISTING STRUCTURE

Run Date: 06/26/2012

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
ASHE	11	3	040060	121	FEET
ROUTE CARRIED :		FEATURE INTERSECTED :			
SR1324		BIG HORSE CREEK			
LOCATED :		BRIDGE NAME :		CITY :	
25 FT.W.JCT.SR1353					
FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :	
09	NFA	NFA	860 2010	LT 233	RT 233
BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :	
1973	BMU			H 15	
REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :
			TAN	90	ON 2 UNDER
NAVIGATION :			HT. CRN. TO BED :		WATER DEPTH :
VC 0 FT	HC 0 FT		17 FT		3 FT
SUPERSTRUCTURE : PRESTRESSED CONCRETE CHANNELS & I-BEAMS					
SUBSTRUCTURE : E.BTS&INT.BTS:PPC CAPS/ H-PILES ENCASED IN CONC.					
SPANS : 1 @ 30'-3; 2 @ 30'; 1 @ 30'-3					
BEAMS OR GIRDERS : SPN.1-3:PPC CHANNELS;SPN.4:22 LINES 14 I-BEAMS					
FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :			
PPC.CH/3 AWS		30.5 FT			
CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :			
29 FT	29.9 FT	LT	.4 FT	RT	.4 FT
VERT.CL.OVER : 999.9 FT					
INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :	TTST	DATE
HS-10	HS-19	Channel	SV 21	28	06/26/2012
SYSTEM :			GREEN LINE ROUTE :		
Secondary S.R. Route			N		
UNDER ROUTES AND CLEARANCES					

REMARKS :

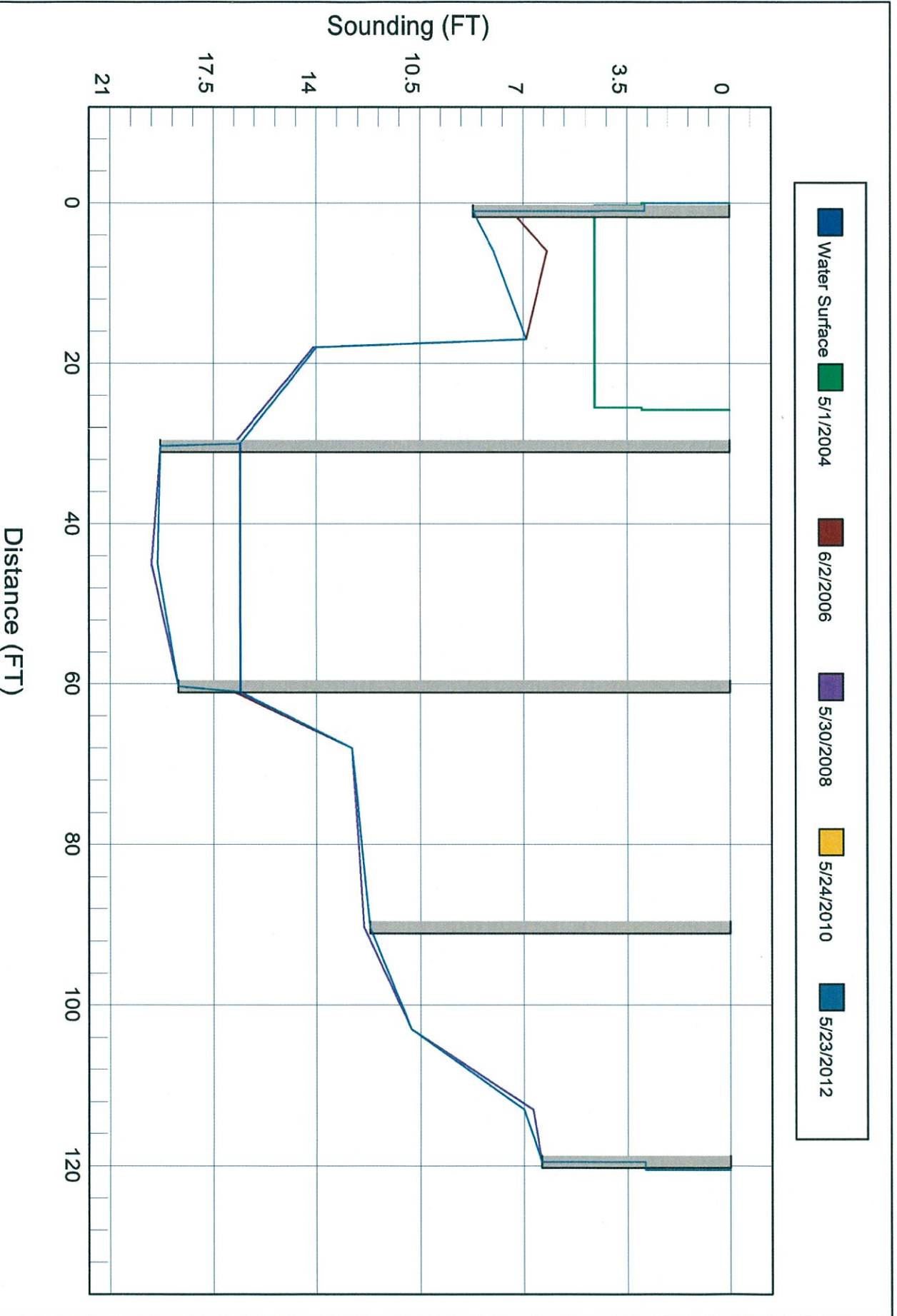
Bridge: 040060

County ASHE

Date: 05/23/2012

Top of Rail = 0 FT (Sounding)

STREAMBED PROFILE (Downstream)



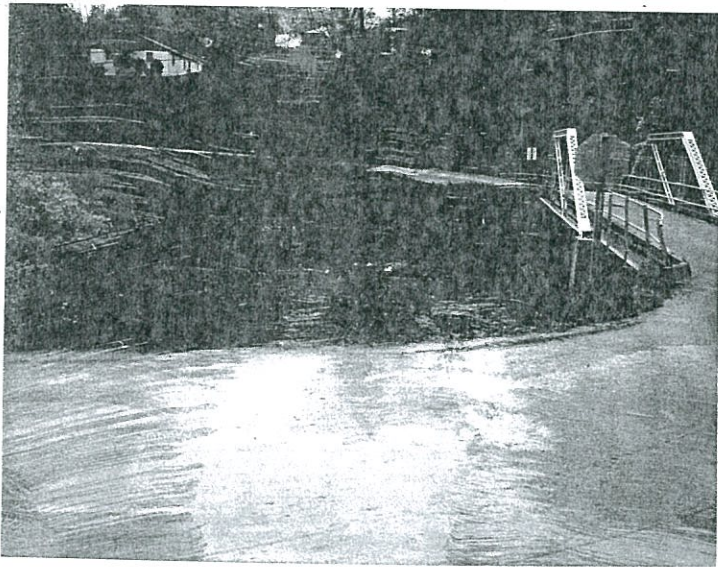
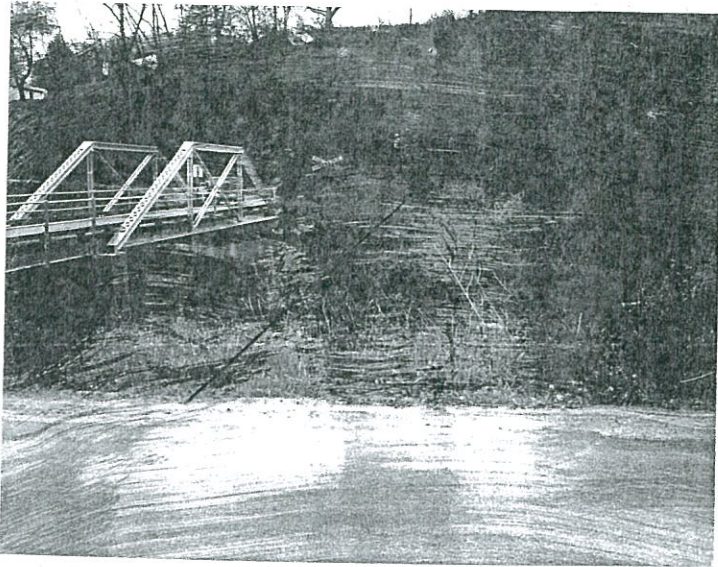


LOOKING UPSTREAM



LOOKING UPSTREAM

040060
(2 of 2)



Norfolk & Western
R.R.

Sta. 140
R.R. 100

J.L. Gilley
Lancing, N.C.

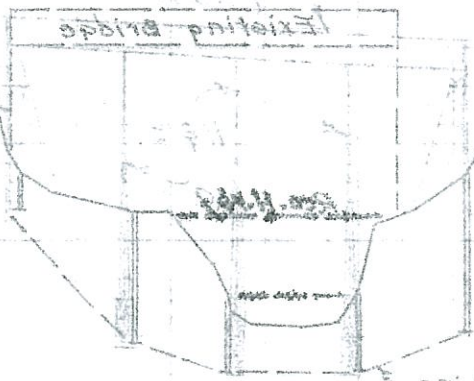
4561 92

100 ft. x 11 ft. x 10 ft.

Existing Bridge

Existing Bridge #60
1 @ 40' I-beam - 1 @ 20 steel truss
11' x 14' 10" on concrete abutment

5-715
Ashe County
Bridge #60
S.R. 1324
Scale: 1" = 50' hor.
1" = 10' vert.
F.M.C. 7-11



Rock line

The projection used in the preparation of this map was the North Carolina State Plane (NAD83) 2000. The horizontal datum was the North American Datum 1983 (NAD83). Vertical datum: Difference in datum, ellipsoid, projection, or units. Transverse Mercator 2000 used in the production of FSAIS for agricultural land use. Functional may result in slight positional differences in map features across jurisdictional boundaries. These differences do not affect the accuracy of the FSAIS. All coordinates on this map are in U.S. Survey Feet, where 1 U.S. Survey Foot = 1200.0367 Millm.

1980-1981. The following information is for the North American market:
 1980-1981: 1000-1200 units; 1982-1983: 1200-1400 units; 1984-1985: 1400-1600 units; 1986-1987: 1600-1800 units; 1988-1989: 1800-2000 units; 1990-1991: 2000-2200 units; 1992-1993: 2200-2400 units; 1994-1995: 2400-2600 units; 1996-1997: 2600-2800 units; 1998-1999: 2800-3000 units; 2000-2001: 3000-3200 units; 2002-2003: 3200-3400 units; 2004-2005: 3400-3600 units; 2006-2007: 3600-3800 units; 2008-2009: 3800-4000 units; 2010-2011: 4000-4200 units; 2012-2013: 4200-4400 units; 2014-2015: 4400-4600 units; 2016-2017: 4600-4800 units; 2018-2019: 4800-5000 units; 2020-2021: 5000-5200 units; 2022-2023: 5200-5400 units; 2024-2025: 5400-5600 units; 2026-2027: 5600-5800 units; 2028-2029: 5800-6000 units; 2030-2031: 6000-6200 units; 2032-2033: 6200-6400 units; 2034-2035: 6400-6600 units; 2036-2037: 6600-6800 units; 2038-2039: 6800-7000 units; 2040-2041: 7000-7200 units; 2042-2043: 7200-7400 units; 2044-2045: 7400-7600 units; 2046-2047: 7600-7800 units; 2048-2049: 7800-8000 units; 2050-2051: 8000-8200 units; 2052-2053: 8200-8400 units; 2054-2055: 8400-8600 units; 2056-2057: 8600-8800 units; 2058-2059: 8800-9000 units; 2060-2061: 9000-9200 units; 2062-2063: 9200-9400 units; 2064-2065: 9400-9600 units; 2066-2067: 9600-9800 units; 2068-2069: 9800-10000 units; 2070-2071: 10000-10200 units; 2072-2073: 10200-10400 units; 2074-2075: 10400-10600 units; 2076-2077: 10600-10800 units; 2078-2079: 10800-11000 units; 2080-2081: 11000-11200 units; 2082-2083: 11200-11400 units; 2084-2085: 11400-11600 units; 2086-2087: 11600-11800 units; 2088-2089: 11800-12000 units; 2090-2091: 12000-12200 units; 2092-2093: 12200-12400 units; 2094-2095: 12400-12600 units; 2096-2097: 12600-12800 units; 2098-2099: 12800-13000 units; 2100-2101: 13000-13200 units; 2102-2103: 13200-13400 units; 2104-2105: 13400-13600 units; 2106-2107: 13600-13800 units; 2108-2109: 13800-14000 units; 2110-2111: 14000-14200 units; 2112-2113: 14200-14400 units; 2114-2115: 14400-14600 units; 2116-2117: 14600-14800 units; 2118-2119: 14800-15000 units; 2120-2121: 15000-15200 units; 2122-2123: 15200-15400 units; 2124-2125: 15400-15600 units; 2126-2127: 15600-15800 units; 2128-2129: 15800-16000 units; 2130-2131: 16000-16200 units; 2132-2133: 16200-16400 units; 2134-2135: 16400-16600 units; 2136-2137: 16600-16800 units; 2138-2139: 16800-17000 units; 2140-2141: 17000-17200 units; 2142-2143: 17200-17400 units; 2144-2145: 17400-17600 units; 2146-2147: 17600-17800 units; 2148-2149: 17800-18000 units; 2150-2151: 18000-18200 units; 2152-2153: 18200-18400 units; 2154-2155: 18400-18600 units; 2156-2157: 18600-18800 units; 2158-2159: 18800-19000 units; 2160-2161: 19000-19200 units; 2162-2163: 19200-19400 units; 2164-2165: 19400-19600 units; 2166-2167: 19600-19800 units; 2168-2169: 19800-20000 units; 2170-2171: 20000-20200 units; 2172-2173: 20200-20400 units; 2174-2175: 20400-20600 units; 2176-2177: 20600-20800 units; 2178-2179: 20800-21000 units; 2180-2181: 21000-21200 units; 2182-2183: 21200-21400 units; 2184-2185: 21400-21600 units; 2186-2187: 21600-21800 units; 2188-2189: 21800-22000 units; 2190-2191: 22000-22200 units; 2192-2193: 22200-22400 units; 2194-2195: 22400-22600 units; 2196-2197: 22600-22800 units; 2198-2199: 22800-23000 units; 2200-2201: 23000-23200 units; 2202-2203: 23200-23400 units; 2204-2205: 23400-23600 units; 2206-2207: 23600-23800 units; 2208-2209: 23800-24000 units; 2210-2211: 24000-24200 units; 2212-2213: 24200-24400 units; 2214-2215: 24400-24600 units; 2216-2217: 24600-24800 units; 2218-2219: 24800-25000 units; 2220-2221: 25000-25200 units; 2222-2223: 25200-25400 units; 2224-2225: 25400-25600 units; 2226-2227: 25600-25800 units; 2228-2229: 25800-26000 units; 2230-2231: 26000-26200 units; 2232-2233: 26200-26400 units; 2234-2235: 26400-26600 units; 2236-2237: 26600-26800 units; 2238-2239: 26800-27000 units; 2240-2241: 27000-27200 units; 2242-2243: 27200-27400 units; 2244-2245: 27400-27600 units; 2246-2247: 27600-27800 units; 2248-2249: 27800-28000 units; 2250-2251: 28000-28200 units; 2252-2253: 28200-28400 units; 2254-2255: 28400-28600 units; 2256-2257: 28600-28800 units; 2258-2259: 28800-29000 units; 2260-2261: 29000-29200 units; 2262-2263: 29200-29400 units; 2264-2265: 29400-29600 units; 2266-2267: 29600-29800 units; 2268-2269: 29800-30000 units; 2270-2271: 30000-30200 units; 2272-2273: 30200-30400 units; 2274-2275: 30400-30600 units; 2276-2277: 30600-30800 units; 2278-2279: 30800-31000 units; 2280-2281: 31000-31200 units; 2282-2283: 31200-31400 units; 2284-2285: 31400-31600 units; 2286-2287: 31600-31800 units; 2288-2289: 31800-32000 units; 2290-2291: 32000-32200 units; 2292-2293: 32200-32400 units; 2294-2295: 32400-32600 units; 2296-2297: 32600-32800 units; 2298-2299: 32800-33000 units; 2300-2301: 33000-33200 units; 2302-2303: 33200-33400 units; 2304-2305: 33400-33600 units; 2306-2307: 33600-33800 units; 2308-2309: 33800-34000 units; 2310-2311: 34000-34200 units; 2312-

[illegible]

www.nctfloodmaps.com

[illegible]

Certain areas are a Special Flood Hazard area may be protected by flood control structures. Refer to the Federal Insurance Flood report for information on flood control structures in this jurisdiction.

This study only uses abstract and up-to-date research through configurations that focus on the general field of IS. The configurations and keywords that are translated from the original keywords are used to search for relevant articles in the literature. The configurations are not perfect. For example, some keywords have been deleted to make the search more efficient. As a result, the Third Party and Marketing Data used in this research may not be fully covered. The conditions, abbreviations, typographic, and any other issues cannot be taken into account when using the keywords on this map.

MAP REPORT
Refer to listing of flood insurance on this listing or visit www.floodsmart.gov
EFFECTIVE DATE OF FLOOD INSURANCE RATE MAP PANEL:
NOVEMBER 4, 2009

OOD-1

[illegible]

090640

NATIONAL FLOOD INSURANCE PROGRAM

Effective Date: MAP NUMBER NOVEMBER 4, 2009 371028000

State of North Carolina

Federal Emergency Management Agency

FIRM

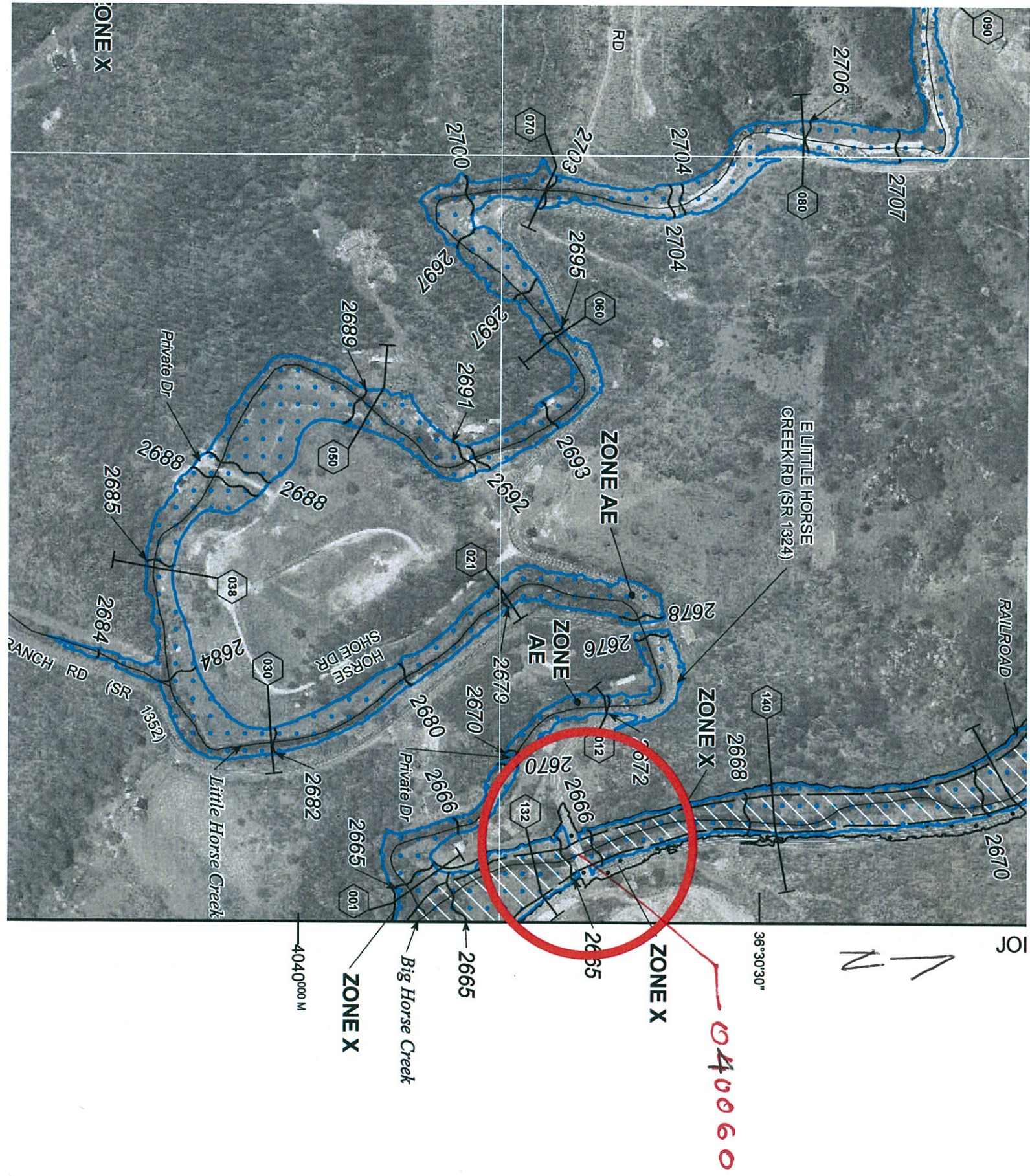
FLOOD INSURANCE RATE MAP

NORTH CAROLINA

PANEL 2001

Legend

UNDESIGNATED	COASTAL	COASTAL	COASTAL
UNDESIGNATED	UNDESIGNATED	UNDESIGNATED	UNDESIGNATED
UNDESIGNATED	UNDESIGNATED	UNDESIGNATED	UNDESIGNATED



Section 4.0 – Area Studied

Some small agricultural dams exist in Ashe County that provide the community with some degree of protection against flooding. However, none of these structures protect the community from events such as the 1% annual chance flood.

4.5 Scope of Study

In order to determine the areas studied by detailed and limited detailed methods in this FIS, initial research and community coordination was necessary. Initial scoping meetings were held in Ashe County to present the results of initial research to the county and communities within the county and to discuss their flood mapping needs. The county and communities were asked to provide input on proposed study priorities and analysis methods. Those meetings resulted in the identification of flooding sources having a flood mapping need. Draft basin plans were developed based on the results of the initial scoping meetings. Final scoping meetings were held by the State and FEMA to provide counties and communities an overview of the draft basin plans, including the proposed scope and schedule for the project, and to provide an opportunity for additional county and community input. After the final scoping meeting was held, the Final Basin Plans were produced.

This FIS covers the geographic area of Ashe County, North Carolina, and all jurisdictions therein. The areas studied by detailed methods were selected with priority given to all known flood hazard areas and areas of projected development and proposed construction. Limits of detailed study are indicated on the Flood Profiles and/or the FIRM. Please see Table 3, "Flooding Sources Studied by Detailed Methods: Revised or Newly Studied," for a list of flooding sources that were revised or newly studied by detailed methods for this FIS.

**Table 3—Flooding Sources Studied by
Detailed Methods: Revised or Newly Studied**

Source	Riverine Sources		Affected Communities
	From	To	
Beaver Creek	Approximately 0.4 mile downstream of Mash Stuart Road (SR 1199)	Approximately 340 feet upstream of Earl Ray Road (SR 1144)	Ashe County (Unincorporated Areas), Town of West Jefferson
Big Horse Creek	The confluence with North Fork New River	Approximately 920 feet upstream of Anderson Hill Road (SR 1366)	Ashe County (Unincorporated Areas), Town of Lansing
Helton Creek	The confluence with North Fork New River	Approximately 0.9 mile upstream of Fees Branch Road (SR 1372)	Ashe County (Unincorporated Areas)
Little Buffalo Creek (downstream)	The confluence with Buffalo Creek	Approximately 749 feet upstream of Baker Shepherd Drive	Ashe County (Unincorporated Areas)
Little Buffalo Creek (upstream)	Approximately 0.4 mile upstream of Dogget Road (SR 1153)	Approximately 0.6 mile upstream of Clearwater Drive	Ashe County (Unincorporated Areas)
Little Naked Creek	The confluence with Naked Creek	Approximately 1,490 feet upstream of East Landing Drive	Ashe County (Unincorporated Areas)
Naked Creek	The confluence with South Fork New River	Approximately 482 feet upstream of South Main Street	Ashe County (Unincorporated Areas), Town of Jefferson

Section 5.0 – Engineering Methods

Table 7—Summary of Discharges

Flooding Source	Location	Drainage Area (square miles)	Discharges (cfs)			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Big Horse Creek	Approximately 1,920 feet upstream of Charlie King Road (SR 1350)	55.8	4,787	7,741	9,202	13,220
	Approximately 30 feet upstream of the confluence of Old Field Branch	52.2	4,580	7,418	8,825	12,695
	Approximately 30 feet upstream of the confluence of Little Horse Creek	30.8	3,232	5,311	6,351	9,233
	Approximately 0.8 mile upstream of the confluence of Little Horse Creek	30.3	3,197	5,255	6,286	9,141
	Approximately 720 feet downstream of Red Roan Road	29.9	3,164	5,203	6,224	9,055
	Approximately 30 feet upstream of the confluence of Big Windfall Branch	26.8	2,948	4,862	5,822	8,488
	Approximately 10 feet downstream of Anderson Hill Road (SR 1366)	26.4	2,917	4,813	5,764	8,406
	Approximately 0.8 mile upstream of Anderson Hill Road (SR 1366)	25.5	*	*	5,638	*
	Approximately 1.9 miles downstream of Little Windfall Road (SR 1358)	24.7	*	*	5,527	*
	Approximately 0.4 mile downstream of Little Windfall Road (SR 1358)	24.0	*	*	5,425	*
	Approximately 10 feet downstream of Little Windfall Road (SR 1358)	22.9	*	*	5,269	*
	Approximately 800 feet upstream of Little Windfall Road (SR 1358)	22.2	*	*	5,174	*

Section 5.0 – Engineering Methods

Starting conditions for the hydraulic models were set to normal depth using starting slopes calculated from channel invert values taken from the LIDAR data or, where applicable, derived from the water surface elevations of existing effective Flood Insurance Study water surface elevations. Manning's n-values were field investigated and delineated on USGS Digital Orthophoto Quarter Quads (DOQQ) for both channel and overbank areas.

For limited detailed studied streams, the hydraulic model used is the U. S. Corps of Engineers Hydraulic Engineering Center River Analysis System, version 3.1.2 (HEC-RAS 3.1.2) (U.S. Army Corps of Engineers, 2004). Topographic data for the floodplain models was developed using recently flown LIDAR land data, field measured of verified structure information, and updated hydrologic data. The model was developed using HEC-RAS 3.1.2, run for the 1% and 0.2% annual chance frequency storms, and calibrated to known historic flood marks. Approximate 1% annual chance floodway models were also developed using method 4 in HEC-RAS 3.1.2.

Starting conditions for the hydraulic models were set to normal depth using starting slopes calculated from channel invert values taken from the LIDAR data, or, where applicable, derived from the water surface elevations of existing effective flood elevations.

The cross section geometries were obtained from a combination of digital elevation data obtained by Light Detection and Ranging (LIDAR) and field surveys. All bridges, dams, and culverts were field surveyed to obtain elevation data and structural geometry. Natural floodplain cross sections were surveyed approximately every 4,000 feet along the detail study reaches to obtain the channel geometry between bridges and culverts. Overbank cross section data for the backwater analyses were obtained from recently flown LIDAR data.

Channel roughness factors (Manning's "n") used in the hydraulic computations were made in the field by an engineer where stream access was possible, with orthophotos used to supplement areas that could not be accessed. The channel and overbank "n" values for all of the streams studied by detailed methods are shown in Table 9, "Roughness Coefficients."

Table 9—Roughness Coefficients

Stream	Channel "n"	Overbank "n"
Bear Creek	0.055	0.060 – 0.150
Beaver Creek	0.041 – 0.050	0.060 – 0.150
Big Horse Creek	0.042 – 0.080	0.030 – 0.140
Big Laurel Creek	0.050	0.070 – 0.140
Big Windfall Branch	0.050	0.020 – 0.150
Bower Walter's Creek	N/A	N/A
Brush Fork	0.050	0.020 – 0.150
Buffalo Creek	0.047	0.030 – 0.150
Cabbage Creek	0.053	0.060 – 0.100
Cabbage Creek Tributary	0.055	0.080 – 0.140
Call Creek	0.045 – 0.047	0.035 – 0.150
Cole Branch	0.048 – 0.060	0.035 – 0.130
Cranberry Creek	0.040 – 0.045	0.070 – 0.150

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)				
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE	
Big Horse Creek	003	325	83	1,062	8.8	2,645.3	2,639.7 ²	2,640.6	0.9
	012	1,210	81	982	9.5	2,645.3	2,642.2 ²	2,643.1	0.9
	021	2,087	155	1,789	5.2	2,646.2	2,646.2	2,646.6	0.4
	028	2,824	114	1,530	6.1	2,648.2	2,648.2	2,648.8	0.6
	035	3,539	77	1,140	8.2	2,649.4	2,649.4	2,650.1	0.7
	044	4,400	192	2,266	4.1	2,651.2	2,651.2	2,652.1	0.9
	051	5,126	84	1,063	8.7	2,651.4	2,651.4	2,652.4	1.0
	060	6,006	98	1,257	7.3	2,654.7	2,654.7	2,655.6	0.9
	068	6,810	155	2,067	4.5	2,656.7	2,656.7	2,657.4	0.7
	076	7,592	185	2,341	3.9	2,657.5	2,657.5	2,658.2	0.7
	086	8,551	104	1,357	6.8	2,658.4	2,658.4	2,659.1	0.7
	092	9,171	305	2,657	3.5	2,660.1	2,660.1	2,661.1	1.0
	099	9,937	233	2,637	3.4	2,660.7	2,660.7	2,661.6	0.9
	108	10,800	210	2,174	4.1	2,661.2	2,661.2	2,662.0	0.8
	116	11,600	109	1,290	6.8	2,661.7	2,661.7	2,662.6	0.9
	124	12,400	170	1,825	4.8	2,664.2	2,664.2	2,664.8	0.6
	132	13,191	144	1,357	4.7	2,665.2	2,665.2	2,665.7	0.5
140	14,000	122	1,097	5.8	2,668.4	2,668.4	2,668.4	0.0	

¹ Feet above mouth

² Elevation computed without consideration of backwater effects from North Fork New River

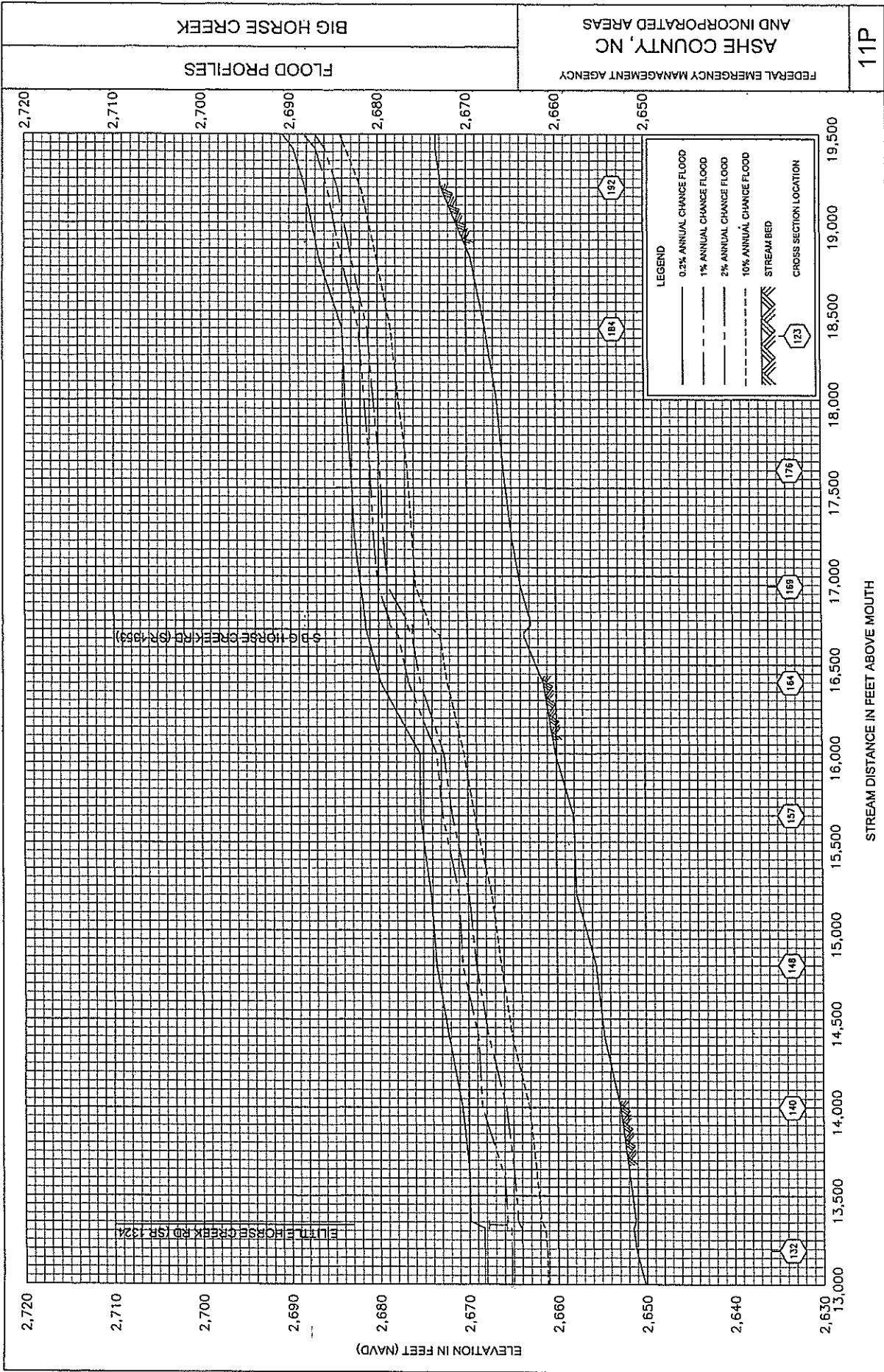
FEDERAL EMERGENCY MANAGEMENT AGENCY

TABLE 12

ASHE COUNTY, NC
AND INCORPORATED AREAS

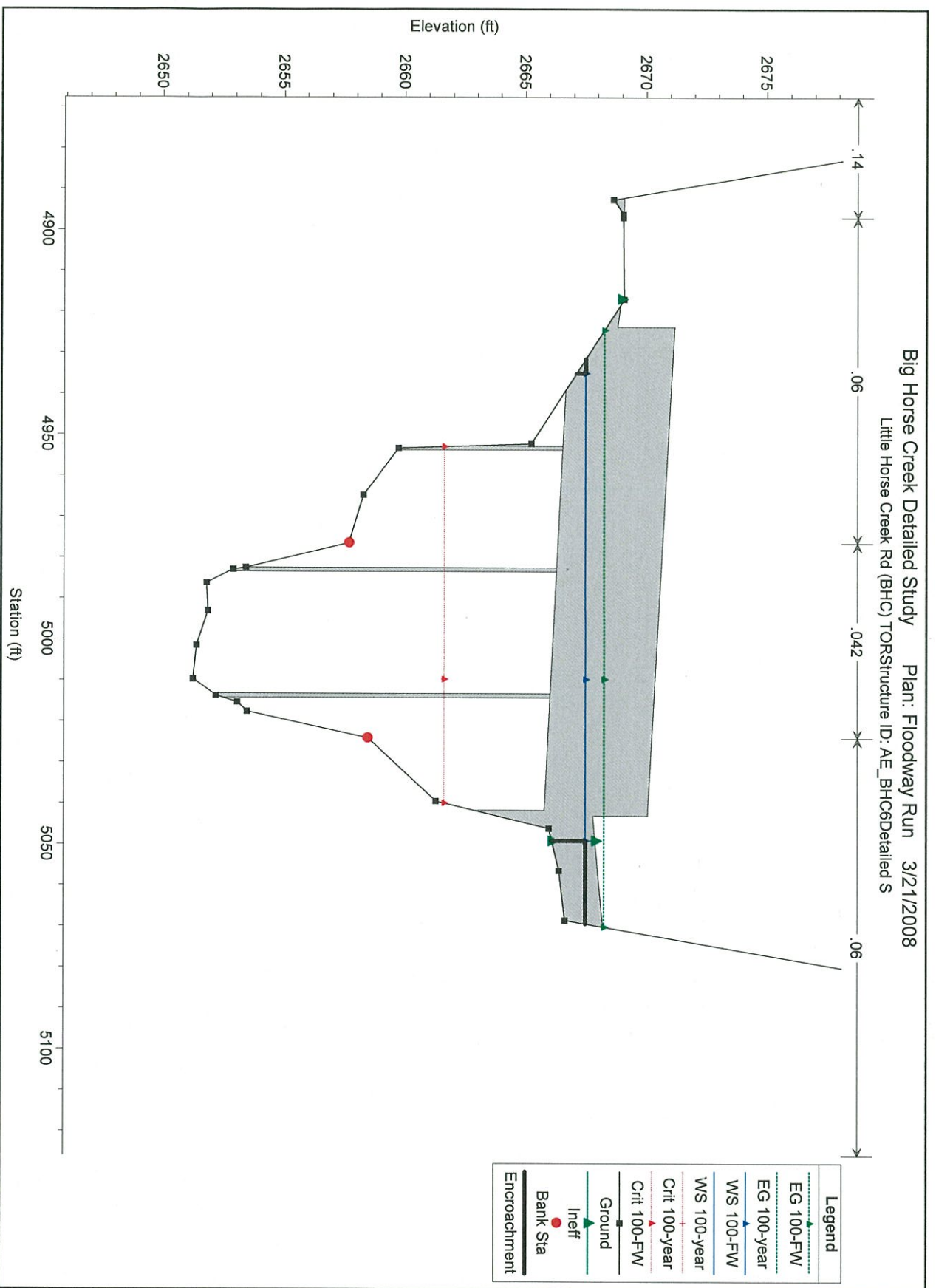
FLOODWAY DATA

BIG HORSE CREEK



040060

Big Horse Creek Detailed Study Plan: Floodway Run 3/21/2008
Little Horse Creek Rd (BHC) TORStructure ID: AE_BHC6Detailed S



Norfolk & Western
R.R.

SR 1353

D.A. $\pm$ 30 Sq. miles

J.L. Gilley
Lancing, N.C.

