

OFFICE ESTIMATE

2@ 10x7 RCBC

Project# 17BP.11.R.105✓

TIP#

Let Date

WBS#

PREDESIGN-PRESURVEY REPORT

County WILKES (DIV. 11)

Bridge# 960403

Road# SR 1302 (CASEYS BRANCH RD)

Stream (LITTLE CRK.) (HARLEY CRK.)
AU ESM

Type Of Request: POC Force Account TIP NCMA

Date 4/16/14 Name MJY

Assigned To RLH

Checked By WSH 4/21/14

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 3/2/09 Panel# 2888 ☐

B.M. Info N/A

Quad Map MAPLE SPRINGS Drainage Area 1.77 SQ. MI. From STREAM STATS

Q25 600 cfs Q50 700 cfs Q100 850 cfs Method REG. EQNS.

REGION 2/RURAL

EXISTING BRIDGE INFORMATION

Location 0.4 MI. N. JCT. US421 LONG: -81° 26' 25" W 36° 08' 36"

Average Daily Traffic 70 (2000)

Length 26' Bed- To Crown 6' Water Depth 1'

Type Structure TIM. FLOOR. ON I-BEAMS (LOW WATER TYPE), E. BNTS. TIM. CAPS/POST + SILLS

Type Spans 1 @ 25'-7"

Upstream Structure 960700 (TIM. FLOOR ON TIM. JOISTS, TIM. CAPS/POST + SILLS; 1 @ 18'-10")

Location 0.5 MI. N. JCT. US421

Bed- To Crown 6' (D=1') Prior Survey

Downstream Structure NO NUMBERED STR. BEFORE LITTLE CRK. MERGES W/ S. PRONG LEWIS FORK.

Location (US 421) (APPEARS TO BE A CULVERT ON OLD PROJ. # 8.1778802 ON US 421.

Bed- To Crown UNKNOWN Prior Survey

8.1778802
PE 6.803553

SCS Watershed N/A

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 Tr (YES TROUT DENR)

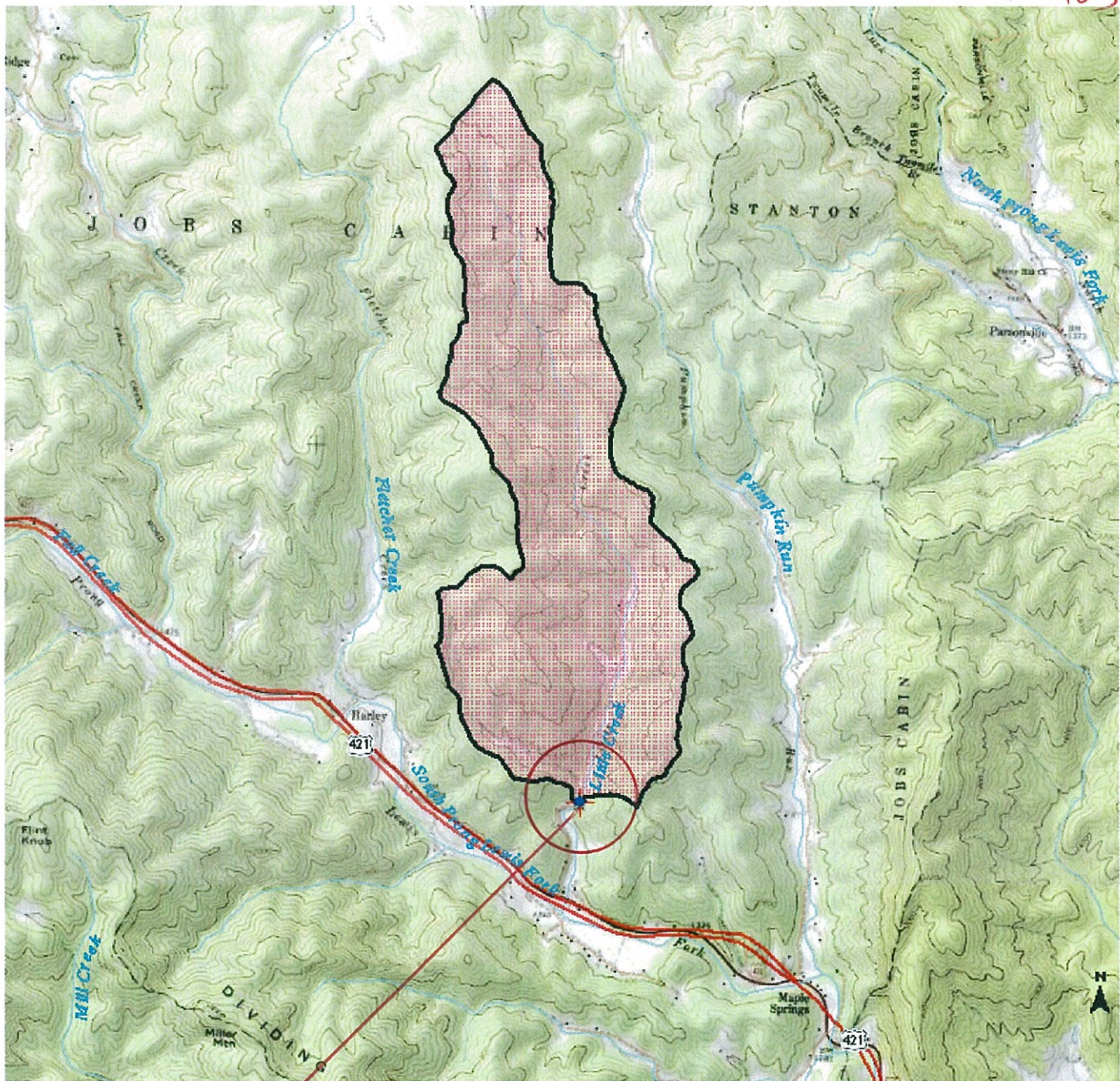
12-31-2-4✓

DENR River Basin Info. YADKIN

(FROM SOURCE TO SOUTH PRONG
LEWIS FORK)

pull down
lists as
Hatchery

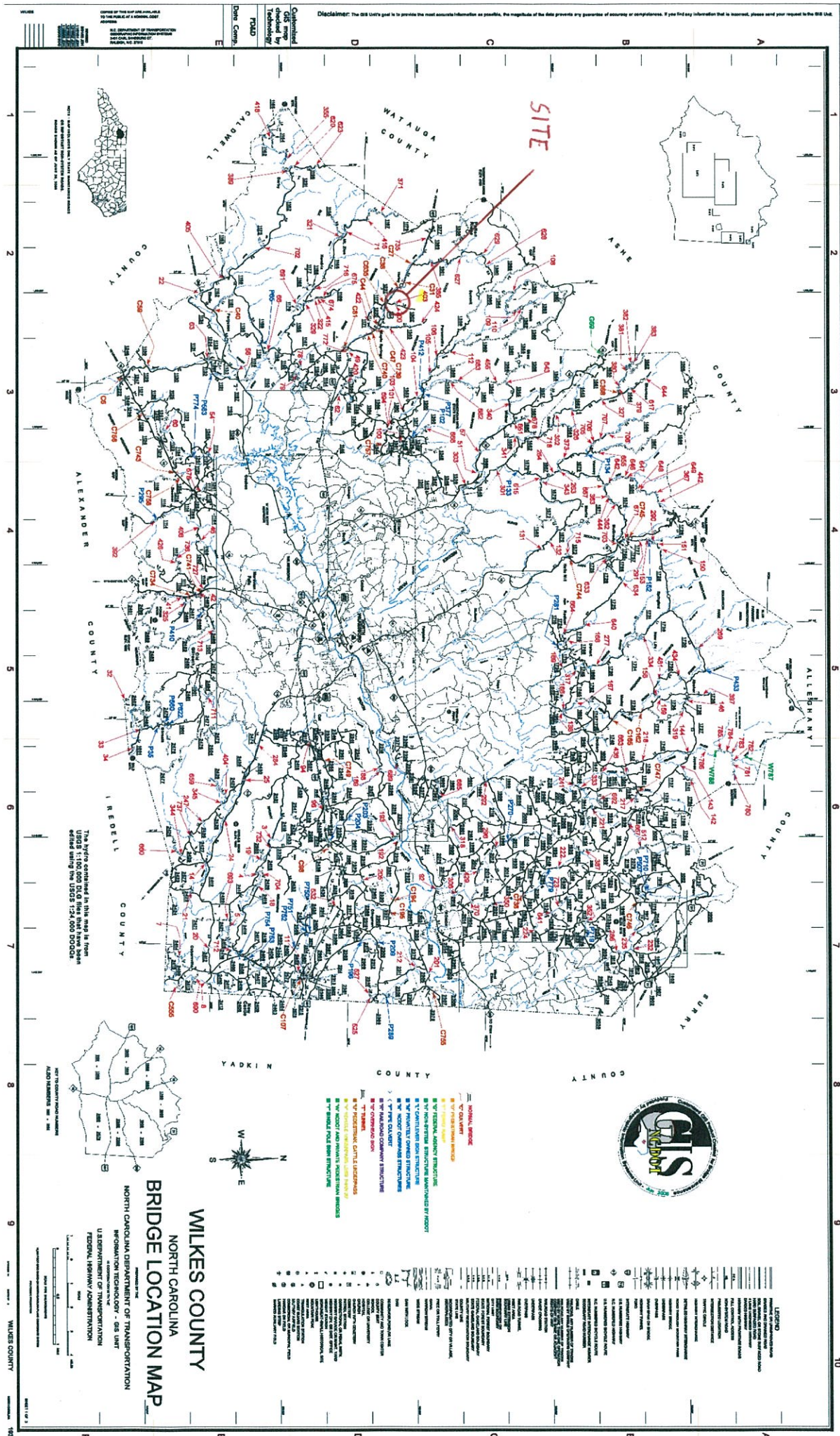
403

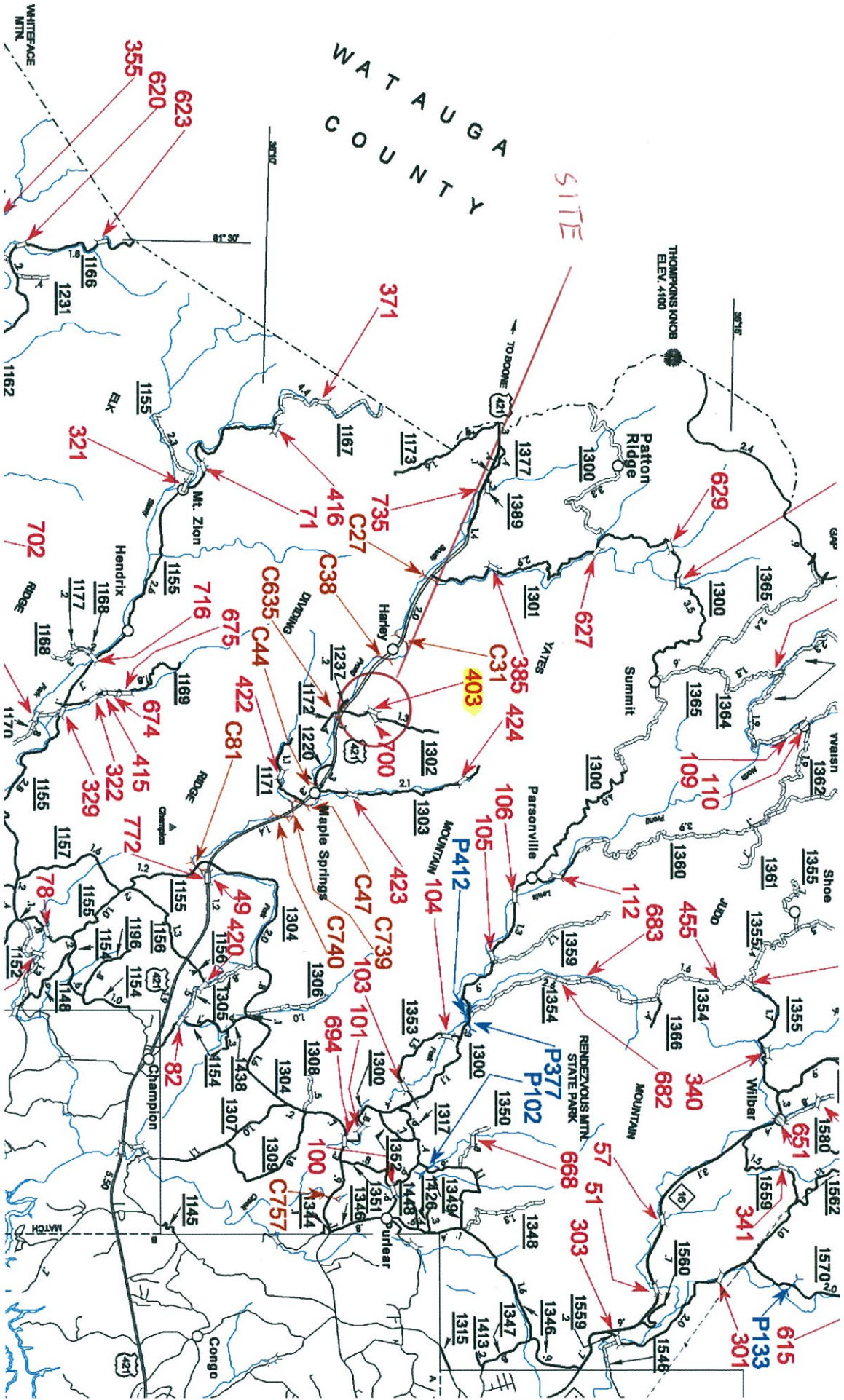


SITE

0.75 0.375 0 0.75 Miles

D/S STR.
 IS NOT:
 C 635 D-2 SR1172
 D/S STR?
 IS A CULVERT
 ON HWY 421.





403



North Carolina StreamStats

Streamstats Ungaged Site Report

Date: Wed Apr 16 2014 09:25:44 Mountain Daylight Time

Site Location: North_Carolina

NAD27 Latitude: 36.1877 (36 11 16)

NAD27 Longitude: -81.3969 (-81 23 49)

NAD83 Latitude: 36.1879 (36 11 16)

NAD83 Longitude: -81.3968 (-81 23 48)

Drainage Area: 1.77 mi²

Percent Urban: 0.3 %

Percent Impervious: 0.0 %

Peak Flows Region Grid Basin Characteristics			
100% Peak Southeast US 2009 5158 (1.77 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	1.77	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 (1.77 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	1.77	0.04	41
Area of Impervious Surfaces (percent)	0.01 (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	171	35		97.1	301
PK5	320	34		183	561
PK10	439	35		246	784
PK25	602	38		325	1120
PK50	721	40		376	1380
PK100	865	42		435	1720
PK200	990	44		481	2040
PK500	1190	48		548	2570

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	2.16				
PK5U	8.36				
PK10U	16.5				
PK25U	43.4				
PK50U	67.4				
PK100U	101				

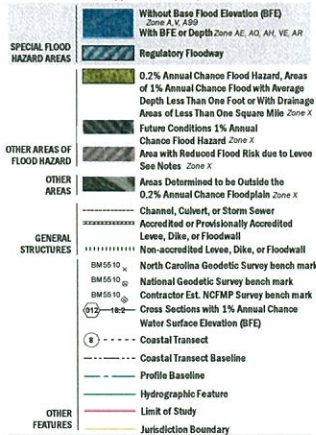
SITE



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 risk associated with flooding. This is demonstrated by the State's commitment to make flood hazard areas of the local level. As a part of this effort, the State of North Carolina has joined in a Cooperative Floodplain Mapping Program 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 the 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 (1-877-362-6222) or visit the FEMA Map Service Center website at <http://fema.gov>. An accompanying Flood Insurance Study report, Letter of Map Amendment (LOMA) or Letter of Map Amendment (LOMA) having 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 receiving flood insurance from the FIRM must obtain a current copy of the adjacent panel as well as the current FIRM for the area. These may be obtained directly from the Map Service Center of the panel listed above. For community and emergency map data 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 1-800-438-6632.

Base map information shown on this FIRM was provided in digital form by the North Carolina Floodplain Mapping Program (NCFMP). 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).

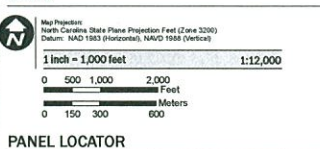
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PROVISIONALLY ACCREDITED LEVEE NOTES TO USERS: For some coastal flooding zones the AE Zone appears on this panel, check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent annual-chance level) and Emergency Action Plan, on the levee system in place for providing protection. To maintain accreditation, the levee owner is responsible for updating the data and documentation necessary to comply with Section 55.10 of the NFIP regulations. If the community or owner does not provide the necessary data and documentation or if the data and documentation provided indicate the levee system does not comply with Section 55.10 requirements, FEMA will remove the flood hazard and risk information for this area to reflect the 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/newsroom/floodinfo>.

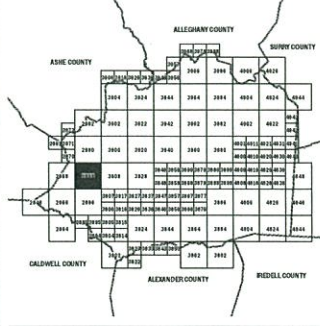
LIMIT OF MODERATE WAVE ACTION NOTES TO USERS: For some coastal flooding zones the AE Zone category has been divided by a Limit of Moderate Wave Action (LMWA). The LMWA represents the approximate landward limit of the 1-foot storm surge zone. The effects of larger hazards between the VE Zone and the LMWA for areas where VE Zones are not identified will be similar to, but less severe than those in the VE Zone.

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 or after the date indicated on the map. For more information see <http://www.fema.gov/publications/understandingtheCBRS>, the FIS Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-344-6852.

SCALE



PANEL LOCATOR



National Flood Insurance Program

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

NORTH CAROLINA

PANEL 2888

Panel Contains:
COMMUNITY
WILKES COUNTY

C/D PANEL SUFFIX
370256 2688 4

MAP NUMBER
3710288800J
MAP REVISED
3/2/2009





NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

SHORED STRUCTURE. BEAMS 3 AND 6 WERE
REPLACED WITH SAME SIZE BEAMS.

BRIDGE INSPECTION REPORT

INSPECTION TYPE: 2 Year Complete Underwater and Topside

COUNTY WILKES

BRIDGE NUMBER 960403

INSPECTION CYCLE 2 YRS

ROUTE SR1302

ACROSS HARLEY CREEK

M.P. 0

LOCATION .4 MI.N.JCT.US421

SUPERSTRUCTURE TIMBER FLOOR ON I-BEAMS(LOW WATER TYPE)

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

SPANS 1 @ 25'-7

LONGITUDE 81° 23' 47.70"

LATITUDE 36° 11' 16.81"

PRESENT CONDITION FAIR

INVENTORY RATING

INSPECTION DATE 10/31/2012

OPERATING RATING

PRESENT POSTING Y SV 16 TTST 22

PROPOSED POSTING

COMPUTER UPDATE

ANALYSIS DATE

POSTING LETTER DATE

SUFFICIENCY RATING

OTHER SIGNS PRESENT



LOOKING NORTH AT APPROACH

SIGN NOTICE
ISSUED FOR

NUMBERED
REQUIRED

No

WEIGHT LIMIT

No

DELINEATORS

No

NARROW BRIDGE

No

ONE LANE BRIDGE

No

LOW CLEARANCE

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 12/10/2012

COUNTY :
WILKESDIVISION :
11DISTRICT :
3STRUCTURE NUMBER :
960403LENGTH :
26 FEET

ROUTE CARRIED :

SR1302

FEATURE INTERSECTED :

HARLEY CREEK

LOCATED :

.4 MI.N.JCT.US421

BRIDGE NAME :

CITY :

FUNC. CLASS :
09SYST.ON :
NFASYST.UNDER :
NFAADT & YR :
70 2000RAIL TYPE :
LT 0 RT 0BUILT :
1960BY :
BMU

PROJ :

FED.AID PROJ :

DESIGN LOAD :
Unknown

REHAB :

BY :

PROJ :

ALIGNMENT :
TANSKEW :
115LANES :
ON 2 UNDER 0NAVIGATION :
VC 0 FT

HC 0 FT

HT. CRN. TO BED :
6 FTWATER DEPTH :
1 FTSUPERSTRUCTURE :
TIMBER FLOOR ON I-BEAMS(LOW WATER TYPE)SUBSTRUCTURE :
E.BTS:TIMBER CAPS/TIMBER POST & SILLS VAR. CTS.SPANS :
1 @ 25'-7BEAMS OR GIRDERS :
8 LINES 12 I-BEAMS @ 2'-4.25 CTS.FLOOR :
4X8 TIM/1 AWS

ENCROACHMENT :

DECK (OUT TO OUT) :
18.083 FT

CLEAR ROADWAY :

17 FT

BETWEEN RAILS :

0 FT

SIDEWALK OR CURB :

LT .5 FT RT .5 FT

VERT.CL.OVER :
999.9 FTINV.RTG. :
HS-1OPE.RTG. :
HS-1CONTR.MEMBER :
int bm 5POSTED :
SV 16 TTST 21 DATE 08/30/2011SYSTEM :
Secondary S.R. RouteGREEN LINE ROUTE :
N

UNDER ROUTES AND CLEARANCES

REMARKS :

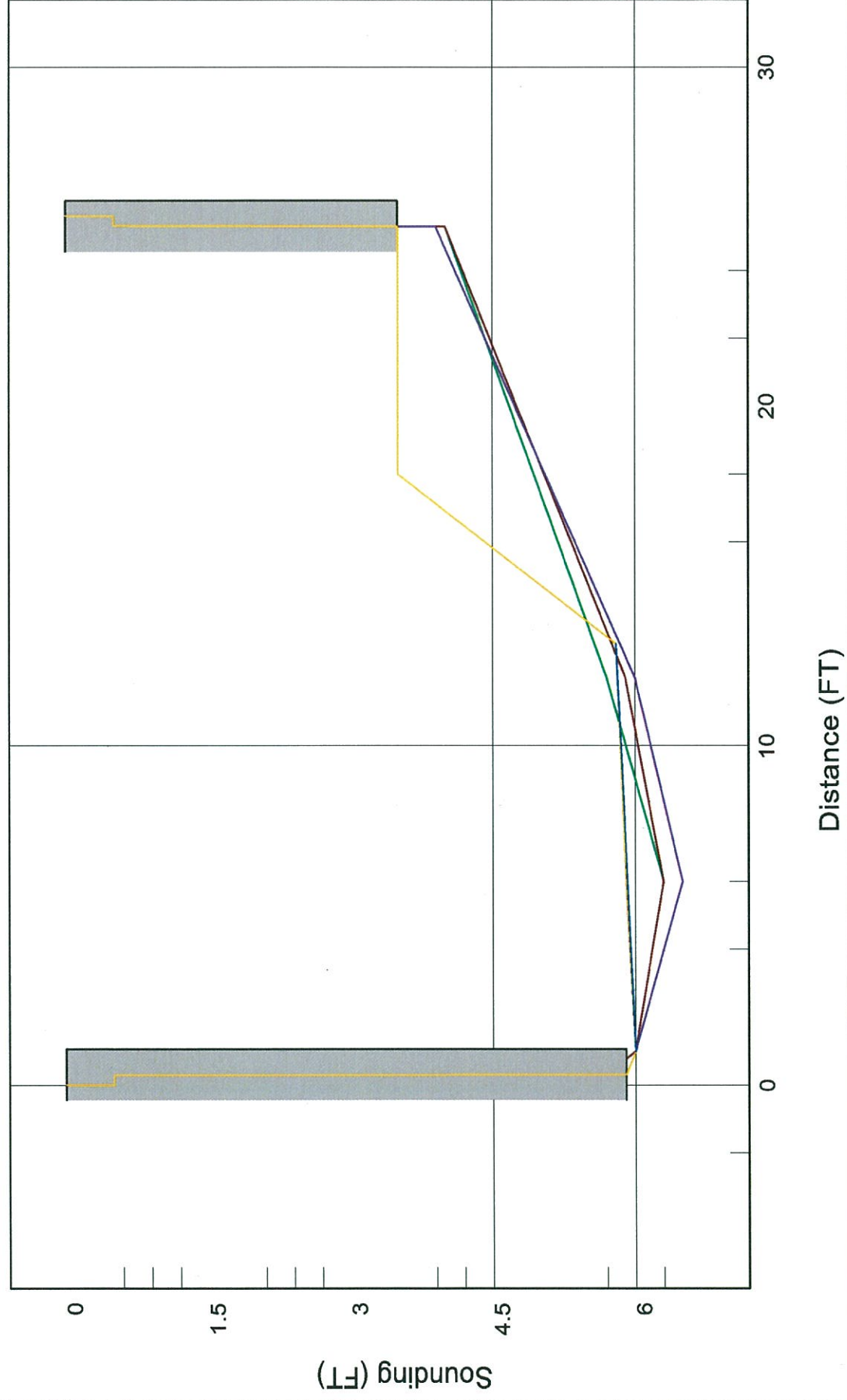
Bridge: 960403

County WILKES

Date: 10/31/2012

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)





EAST SIDE



ABUTMENT 1