

OFFICE ESTIMATE:

PREDESIGN-SCOPING REPORT

Project# 17 BP. 11. R. 139

TIP# B-5177

Let Date

WBS#

County WATAUGA (DIV. 11)

Bridge# 940 278

Road# SR 1540

Stream Middle Fork So Fork New River

Type Of Request: POC Force Account TIP NCMA

Date 5/8/17 Name MMF

Assigned To PFF / MTS

Checked By WSH 5-8-17

BRN: NO CO: NO
BK: NO FILE: NO

Prior Survey Date NONE (attach copy of prior survey)

Study By Scour Section NO

CODE: U

PDR: NO BSR: NO

Flood Zone AE Detail Study re-del. Date 12-3-09 Panel# 2819

B.M. Info N/A Esm DA = 5.39 sq mi

Quad Map Boone Drainage Area 8.48 sq mi From Stream Starts

Q25 1900 cfs Q50 2200 cfs Q100 2600 cfs Method REG. EQU.

LONG: -81.646653 FEMA ... cfs IA = 3.51 %

LAT: 36.169204

EXISTING BRIDGE INFORMATION YEAR BUILT: 1961

Location 25' W Jct US 221

CLEAR ROADWAY WIDTH: 29.5'

Average Daily Traffic 80 (1995) 0% TRK.

Length 46' Bed-To Crown 12' Water Depth (1'ft)

Type Structure TIMBER FLR. ON I BEAMS / TIM. POST CONC. SILLS

Type Spans 1 x 45' 6"

Upstream Structure 940024 RCBC 3x11'x11'

YR. BUILT: 1980

Location US 221 / 0.5 M S Jct 1540

LONG: -81.643359

Bed-To Crown 20' (1ft deep) Prior Survey N/A

LAT: 36.163303

Downstream Structure 940030

Location US 221 / 321 0.1 mi N Jct SR 1540

YR. BUILT: 1981

Bed-To Crown 18ft (1ft deep) Prior Survey N/A

LONG: -81.645694

3x12x12 RCBC

LAT: 36.170620

TR.

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

CAMA County NO

Stream Classification WS-II, Tr: +

STREAM #: 10-1-2-(6)

DENR River Basin Info. New

1,424683

u/s 12

D/S 12



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
MANAGEMENT SYSTEMS AND ASSESSMENTS UNIT - MAPPING SECTION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

16,000 FOOT GRID BASED ON NORTH CAROLINA PLANE COORDINATE SYSTEM
LAMBERT CONFORMAL CONIC PROJECTION

DIVISION 11

DISTRICT 2

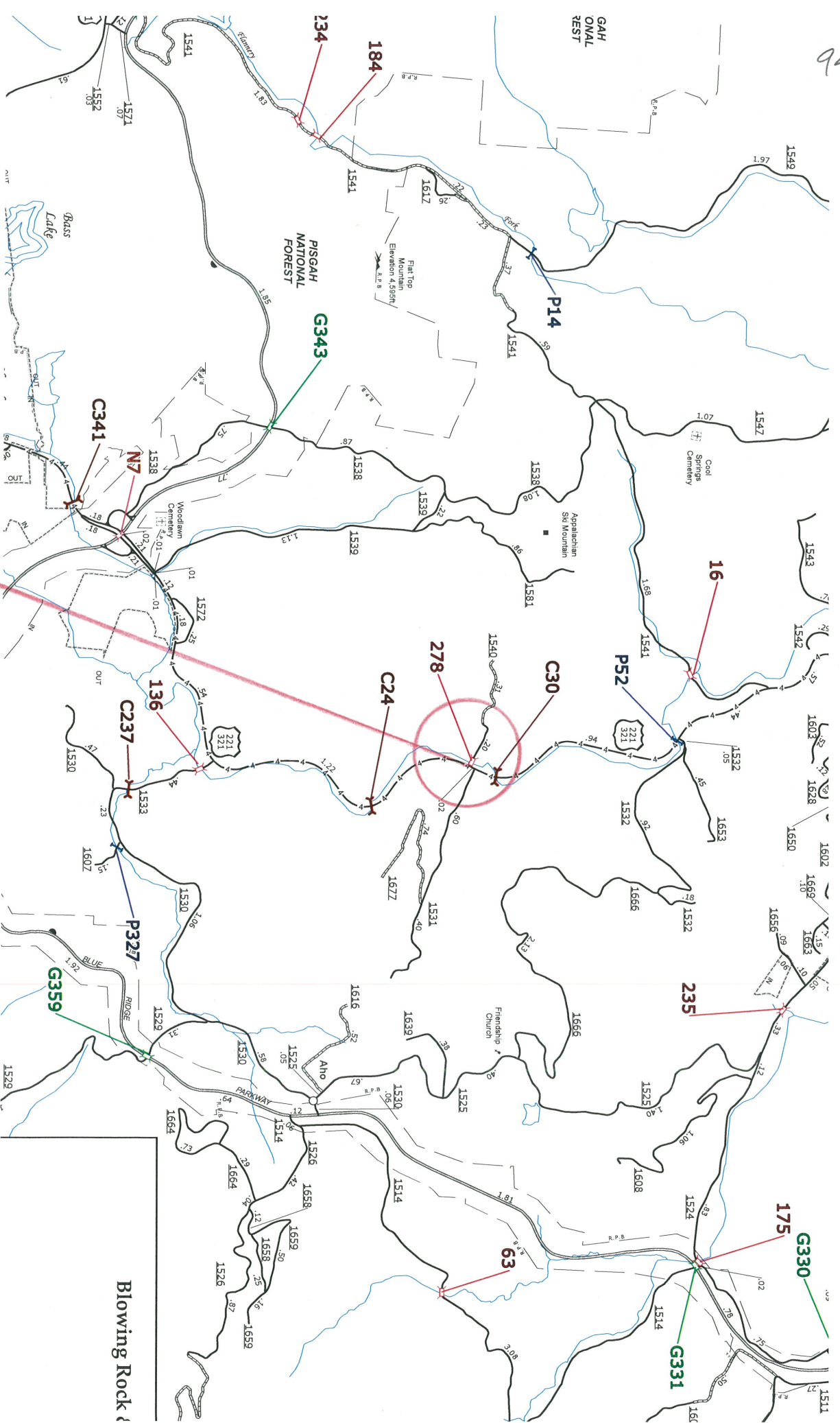
WATAUGA COUNTY

NORTH CAROLINA

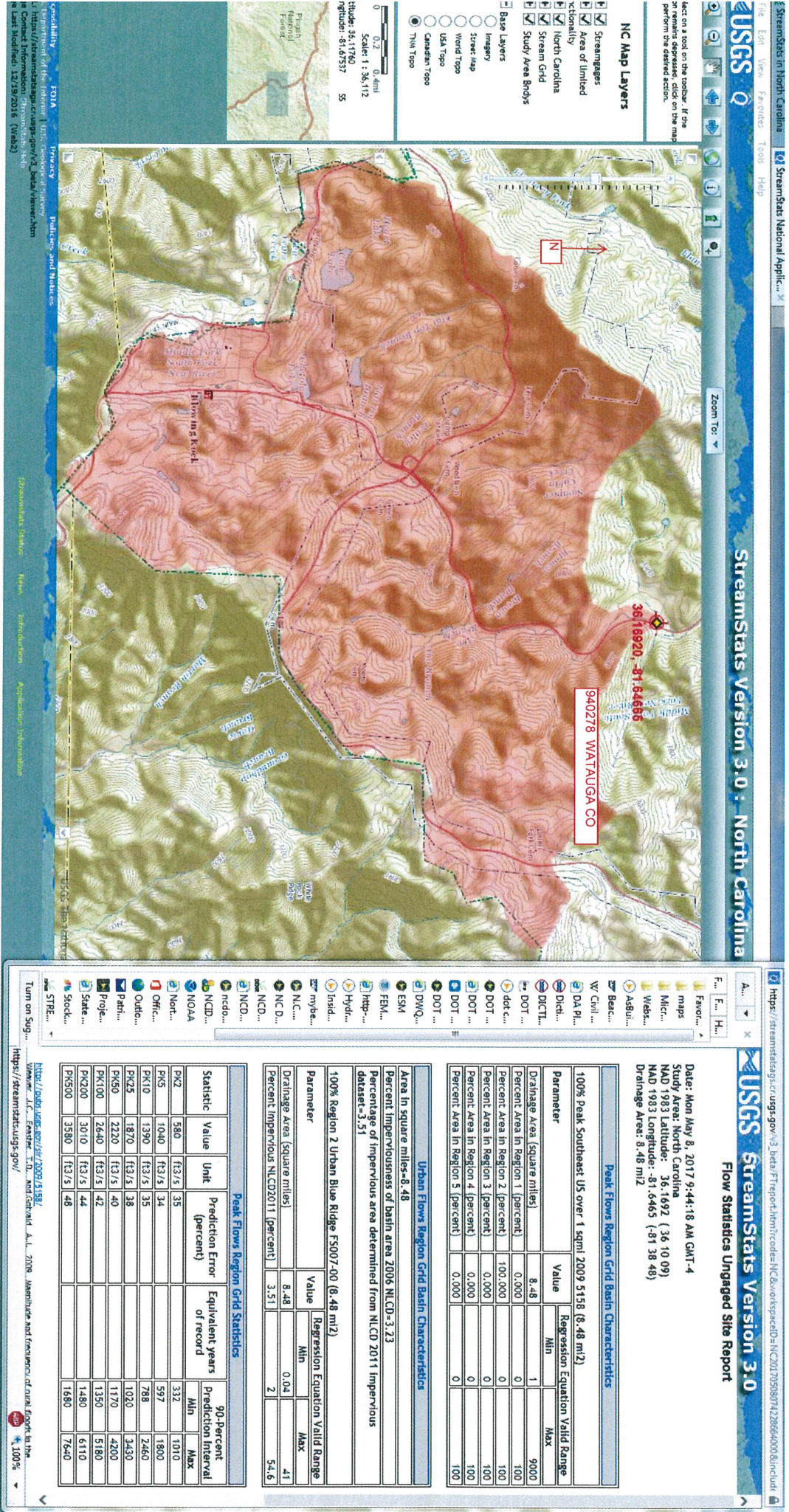
WATAUGA COUNTY NORTH CAROLINA

NOTES CASE

940278



940 278





NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION: **CRITICAL FIND (2) WEIGHT LIMIT SIGNS MISSING,
PMN'S ISSUED FOR SUBSTRUCTURE,
SUPERSTRUCTURE...**

Structure Safety Report

Routine Element Inspection

COUNTY: WATAUGA STRUCTURE NUMBER: 940278 FREQUENCY: 24 MONTHS

FACILITY CARRIED: SR1540 MILE POST: _____

LOCATION: 25 FT.W.JCT.US221,321

FEATURE INTERSECTED: CREEK

LATITUDE: 36° 10' 9.1" LONGITUDE: 81° 38' 47.88"

SUPERSTRUCTURE: TIMBER FLOOR ON I-BEAMS

SUBSTRUCTURE: E.BTS.TIM.CAPS/TIMBER POST&CONC.SILLS @ VAR.CENTERS

SPANS: 1 @ 45'-6"
1 @ 45'-6"

☐ FRACTURE CRITICAL ☐ TEMPORARY SHORING ☐ SCOUR CRITICAL ☐ SCOUR PLAN OF ACTION

PRESENT CONDITION: Poor

INSPECTION DATE: 08/26/2015

POSTED SV: 16 Not Posted

POSTED TTST: 19 Not Posted

OTHER SIGNS PRESENT: 4 DEILINEATORS



Sign noticed issued for		Number Required
YES	WEIGHT LIMIT	2
NO	DELINEATORS	0
NO	NARROW BRIDGE	0
NO	ONE LANE BRIDGE	0
NO	LOW CLEARANCE	0

WEST TO EAST

INSPECTED BY
ANDREW GLASCO

SIGNATURE

Andrew P. Glasco

ASSISTED BY MAX FORD

940 218

Structure: 940278

County: WATAUGA

Date: 08/26/2015

Structure Photos



SOUTH PROFILE



ABUTMENT B

940278

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Update Date: 12/31/2015

COUNTY : WATAUGA DIVISION : 11 DISTRICT : 2 STRUCTURE NUMBER : 940278 LENGTH : 46 FEET

ROUTE CARRIED : SR1540 FEATURE INTERSECTED : MIDDLE FORK S.FORK NEW RV

LOCATED : 25 FT.W.JCT.US221,321 BRIDGE NAME : CITY :

FUNC. CLASS : 09 SYST.ON : NFA SYST.UNDER : NFA ADT & YR : 80 1995 RAIL TYPE : LT 227 RT 227

BUILT : 1961 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 : 12 FT WATER DEPTH : 1 FT

SUPERSTRUCTURE : TIMBER FLOOR ON I-BEAMS

SUBSTRUCTURE : E.BTS.TIM.CAPS/TIMBER POST&CONC.SILLS @ VAR.CENTERS

SPANS : 1 @ 45'-6

BEAMS OR GIRDERS : 12 LINES 18 I-BEAMS @ 2'-7.125 CENTERS

FLOOR : 4X8 TIM/2.5 AWS ENCROACHMENT : DECK (OUT TO OUT) : 30.5 FT

CLEAR ROADWAY : 29.5 FT BETWEEN RAILS : 30.167 FT SIDEWALK OR CURB : LT .3 FT RT .3 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-4 OPE.RTG. : HS-8 CONTR.MEMBER : IntBm(# 3)Sec.Loss POSTED : SV 10 TTST 13 DATE 09/08/2015

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

UNDER ROUTES AND CLEARANCES

REMARKS :

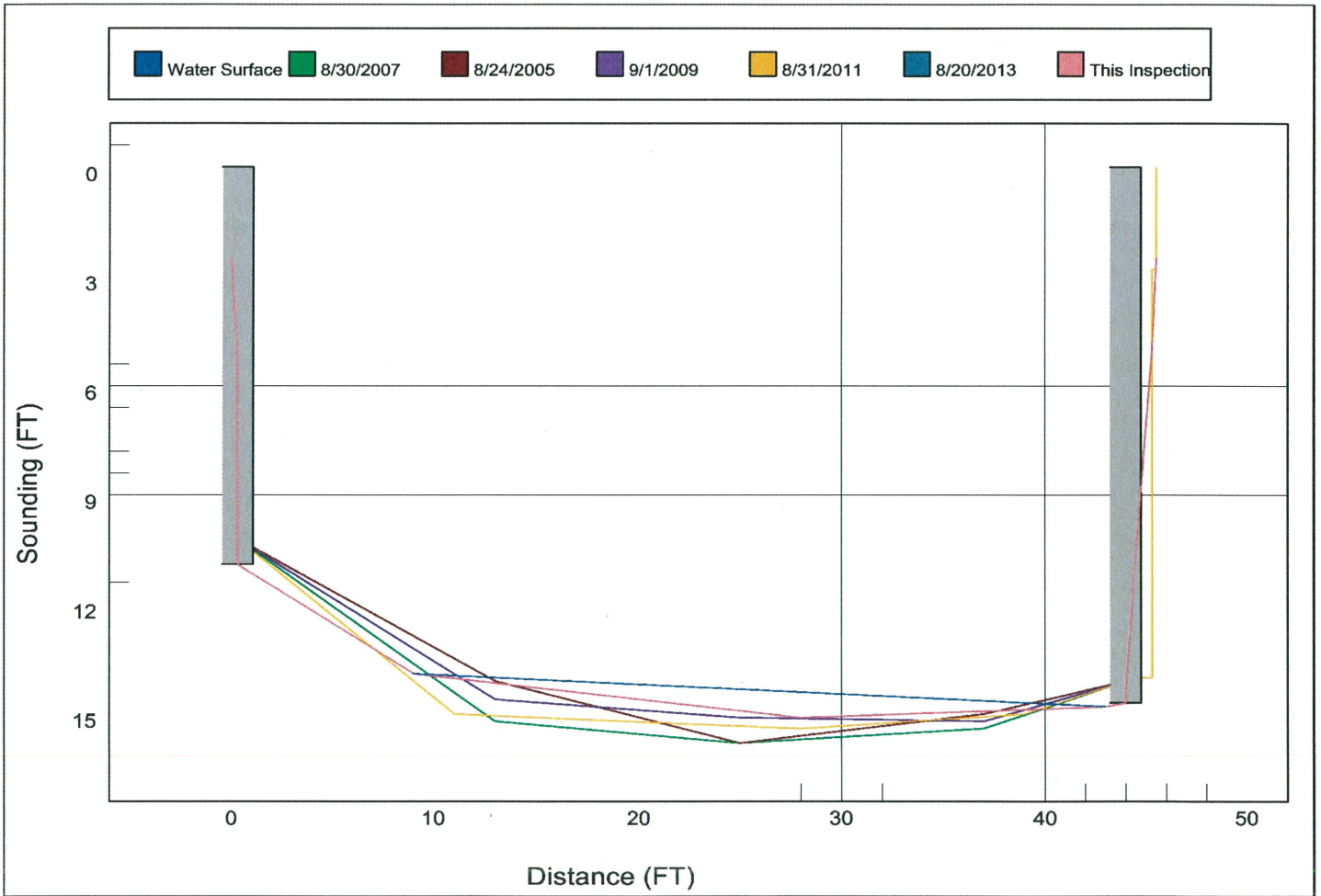
Bridge: 940278

County WATAUGA

Date:

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



U/S STR.

940278

Structure: 940024

County: WATAUGA

Date: 08/26/2015

Structure Photos



EAST PROFILE



"LOW HEAD ROOM" SIGN, (EAST) ENTRANCE TO WALKING PATH...

D/S STRU.

940278

Structure: 940030

County: WATAUGA

Date: 08/24/2015

Structure Photos



EAST PROFILE



DOWNSTREAM



This digital Flood Insurance Rate Map (FIRM) was produced through a unique 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 costs associated with flooding. This is demonstrated by the State's commitment to make flood hazard areas of the flood level, as a part of the effort, the State of North Carolina has joined in a Cooperative Technical State Agreement with FEMA to produce and maintain the digital FIRM.

FLOOD HAZARD INFORMATION

SEE ITS 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)

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) Zone AE, AH, VE, AR
- Regulatory Floodway
- 0.2% Annual Chance Flood Hazard, Areas of 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
- Area with Reduced Flood Risk due to Levee See Notes Zone X
- Areas Determined to be Outside the 0.2% Annual Chance Floodplain Zone X
- Channel, Culvert, or Storm Sewer Accredited or Provisionally Accredited Levee, Dike, or Floodwall
- North Carolina Geodetic Survey bench mark
- Contractor Est. NCMP Survey bench mark
- Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
- Coastal Tract
- Coastal Tract Baseline
- Profile Baseline
- Hydrographic Feature
- Limit of Study
- Jurisdiction Boundary

OTHER AREAS OF FLOOD HAZARD

OTHER AREAS

GENERAL STRUCTURES

OTHER FEATURES

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, please visit the FEMA Map Information eXchange at <http://www.fema.gov> or call 1-877-FEMA-4444. For more information on the National Flood Insurance Program, please visit the FEMA Map Information eXchange at <http://www.fema.gov> or call 1-877-FEMA-4444. For more information on the National Flood Insurance Program, please visit the FEMA Map Information eXchange at <http://www.fema.gov> or call 1-877-FEMA-4444.

Communities receiving flood insurance coverage must obtain a current copy of the adjacent panel as well as the current FIRM. These may be ordered directly from the Map Service Center at the number listed above.

For community and out-of-state map data refer to the Flood Insurance Study report for the jurisdiction.

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

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 (partial) may exceed the 1 percent annual-chance level and Emergency Action Plan, on the levee system's shore as providing protection to adjacent flood risk to residual risk areas, property owner 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/floodinsur>.

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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 1.5-foot breaking wave. The effects of wave hazards 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, but less severe than those in the VE Zone.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) NOTE

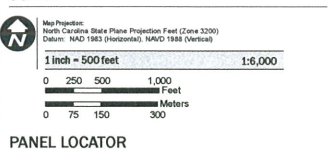
This map may include approximate boundaries of the CBRS for informational purposes only. Flood insurance is not provided for areas within the CBRS that are not identified as flood hazard areas on the map. For more information visit <http://www.fema.gov/hazard-reduction/land-use>, contact FEMA, the FIS Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-344-6852.

Limit of Moderate Wave Action (LMWA)

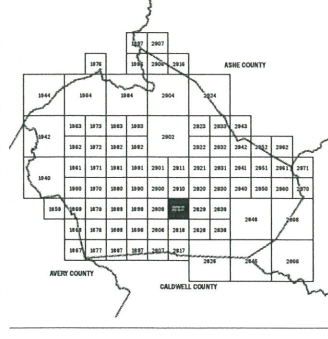
CBRS Area

Otherwise Protected Area

SCALE



PANEL LOCATOR



FEMA

NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

NORTH CAROLINA

Panel 2819

Panel Contains:

COMMUNITY: BOONE, TOWN OF WATAUGA COUNTY

CID PANEL SUFFIX: 370253 2819 J

MAP NUMBER: 3710281900J

MAP REVISED: 12/3/2008

940278



36°10'30"N

940278

No HEC-RAS
MODEL

