

County: Bladen	Stream: Crawley Swamp	Assigned to:
Road #: SR 1100	Road Name: Center Rd	Prepared By: wsh/JLM
Division: 6	Location: 0.4 m e jct sr 1122	Hydro Mgr: JLM Hydro Reviewer: WGC
Latitude: 34.61827	Longitude: -78.80088	Project Type:

Existing Structure

Structure Type: RC Deck/ Timber Joists	Yr Built: 1951			
Span Arrangement: 1 @ 187', 3 @ 16.8', 1 @ 18'	OAL (ft): 87.0	Skew: 90	Abutment Type: Vertical -Timber	
Number of Barrels:	@ Span (ft):	x Rise (ft):		
Bed to Crown (ft): 9.0	Clear Roadway (ft): 24.0	Water Depth (ft): 1.0	Superstructure Depth:	
ADT: 910	Year ADT: 2013	Scour Code (item113): U	Prior Survey Completed: ☐ Survey Date:	
Drainage Area: 33.9	Sq. Mi.	Drainage Area Source: Sel.-Sites	Roadway Overtops at Q100: ☐	
Discharge Method: USGS Regression Equations	USGS Region: 4- Coastal	Stream Gage Number(if applicable): 213448745		
Q10 (cfs):	Q25 (cfs): 2,100	Q50 (cfs): 2,600	Q100 (cfs): 3,100	QBFE (cfs):
☐ Structure in Flood Hazard Zone	Panel #: 340	Panel Date: 01/05/2007	Type of FIS: LIMITED	Date of FIS:

Enviromental

Quad Map: BLADENBORO, NC	River Basin: Lumbar	Buffer Rule:	
Primary Stream Classification		Other Stream Classification	
☐ Class B	☒ Class C	☐ Anadromous Fish	☐ Area of Environmental Concern
☐ SC	☐ SWL	☐ CAMA County	☐ Federal Wild & Scenic Rivers
☐ WS II	☐ WS III	☐ HSB Required	☐ NC Natural & Scenic Rivers
☐ WS IV	☐ WS V	☐ Impaired [303d]	☐ Primary Nursery Area
Supplemental Stream Classification		☐ TVA	☐ Designated Shellfish Harvesting Area
☐ FWS	☐ HQW	☐ Designated Public Mountain Trout Waters	
☒ Sw	☐ Tr		
☐ NSW	☐ ORW		
☐ UWL	☐ w/in 0.5mi. of CA		

Up/Down Stream Features

Upstream Feature: Bridge	Structure Type: Cored Slab			
Location: 0.2 M S JCT SR 1125	Span Arrangement: <input ,="" 1="" 2="" 40',="" 41.2'"="" @="" type="text" value="1 @ 41'2"/>	OAL (ft): 162.0		
Structure #: 080027	Route: NC 131	Number of Barrels:	@ Span (ft):	x Rise (ft):
Latitude: 34.60944	Longitude: -78.75655	Bed to Crown (ft): 11.0	Year Built: 2004	
Prior Survey Completed: ☐	Survey Date:			
Downstream Feature: Bridge	Structure Type: Cored Slab			
Location: x M W JCT SR 99	Span Arrangement: <input ,="" 1="" 40'11""="" 45'2",="" @="" type="text" value="1 @ 41'3"/>	OAL (ft): 128.00		
Structure #: 080015	Route: SR 1101	Number of Barrels:	@ Span (ft):	x Rise (ft):
Latitude: 34.61240	Longitude: -78.82470	Bed to Crown (ft): 10.0	Year Built: 1992	
Prior Survey Completed: ☐	Survey Date:			

Preliminary Structure Estimate [Office Estimate]

Structure Type:	Skew: 90
Dimensions/Spans:	

Notes

Stream Assigned # 14-22-11

OFFICE ESTIMATE: _____

PREDESIGN-SCOPING REPORT

Project# _____
TIP# _____
Let Date _____
WBS# _____

County BLADEN (DIV. 6)

Bridge# 080 013
Road# CENTER RD. SR 1100
Stream CRAWLEY SWAMP ✓
(MARSH CANAL) C-2

Type Of Request: POC Force Account TIP NCMA

Date 5/5/17 Name Wsh

Assigned To JLM

Checked By _____

BRN: 5017 CO: NO
BKI: 3-9-27-200 FILE: NO

Prior Survey Date _____ (attach copy of prior survey)

Study By Scour Section NONE CODE: U PDR: NO BSR: YES

Flood Zone AE Detail Study LIMITED Date 1-5-07 Panel# 0340

B.M. Info N/A Esm DA = 23.8 Sq Mi (STREAMS = 30.1 Sq Mi)

Quad Map BLADEN BORO Drainage Area 33.9 Sq Mi From DASS STA: 213 448 745

Q25 2100 Q50 2600 Q100 3100 Method REG EQU.

LONG: -78.800 881 FEMA 1580 cfs IA = 8.28 %

LAT: 34.61827

EXISTING BRIDGE INFORMATION YEAR BUILT: 1951

Location 0.4 ME JCT SR 1122 CLEAR ROADWAY WIDTH: 24'

Average Daily Traffic 910 (2013) 6% TRK

Length 87 Bed-To Crown 9 Water Depth 1

Type Structure RC FLR ON TIMBER JOIST

Type Spans 10' 18", 30' 16.8", 10' 18"

Upstream Structure 080027 PRECAST CORED SLAB YR. BUILT: 2004

NC 131 Location 0.2 M S JCT SR 1125 (1041'2", 2040, 1041'2") LONG: -78.75655

Bed-To Crown 11' (3' deep) Prior Survey N/A LAT: 34.609435

Downstream Structure 080015

Location SR 1101 / 0.6 M N JCT 1100 YR. BUILT: 1992

Bed-To Crown 10' (5' Deep) Prior Survey N/A LONG: -78.824699

PRESTRESSED CORED SLAB LAT: 34.612402

(1041'3", 1045'2", 1040'11")

ENVIRONMENTAL

TVA: NO

Trout Stream NO Anadromous Fish _____ Primary Nursery Area NO

High Quality Waters NO Nutrient Sensitive Waters NO

Near Water Supply Intake NO CAMA County NO

Stream Classification C, SW STREAM #: 14-22-11

DENR River Basin Info. LUMBER

1, 42, 54, 57,

u/s 26

D/S 35

0800L3

NC Map Layers

- | | | |
|--|--|-------------------------------|
| | | Streamgages |
| | | Area of limited functionality |
| | | North Carolina |
| | | Stream Grid |
| | | Study Area Boundaries |

- ☐ Imagery
 - ☐ Street Map
 - ☐ World Topo
 - ☐ USA Topo
 - ☐ Canadian Topo
 - ☒ TNM Topo

Scale: 1 : 72,224

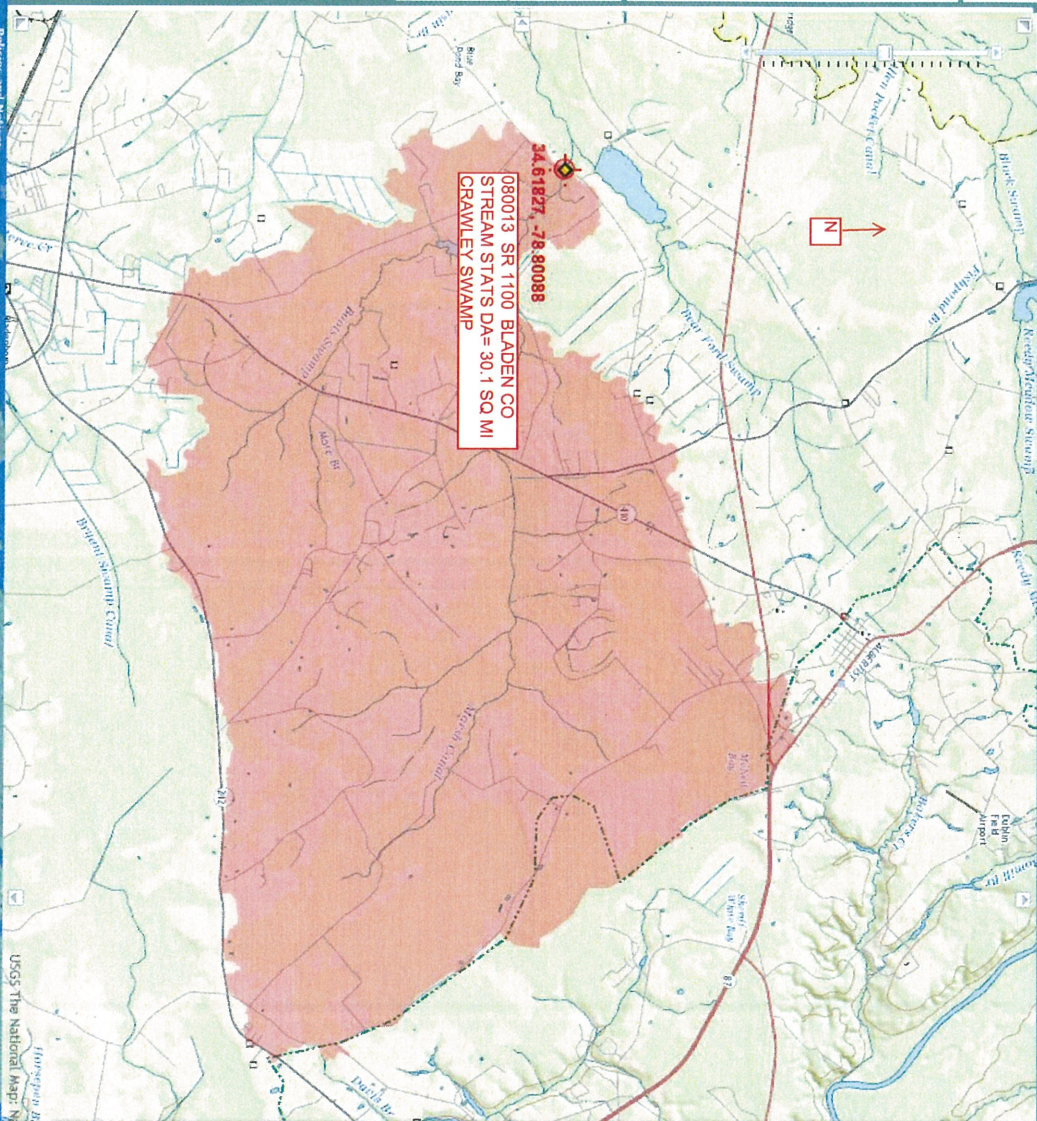
```

-attitude: 34.64279
-longitude: -78.82619
SS

```

55

080013 SR 1100 BLADEN CO
STREAM STATS DA= 30.1 SQ M
CRAWLEY SWAMP



StreamStats Flow Statistics Report - Windows Internet Explorer provided by NC Dept...

<https://streamstats.cr.usgs.gov/3a/beta/FReport.htm?code=NC20170550707>

USGS StreamStats Version 3.0

Flow Statistics Ungaged Site Report

Date: Fri May 5, 2017 9:08:26 AM GMT-4
Study Area: North Carolina
NAD 1983 Latitude: 34.6183 (34 37 06)
NAD 1983 Longitude: -78.8007 (-78 48 03)
Drainage Area: 30.1 mi²

Peak Flows Region Grid Basin Characteristics

Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	30.1	1	9000
Percent Area in Region 1 (percent)	0.000	0	100
Percent Area in Region 2 (percent)	0.000	0	100
Percent Area in Region 3 (percent)	0.000	0	100
Percent Area in Region 4 (percent)	100.000	0	100
Percent Area in Region 5 (percent)	0.000	0	100

Urban Flows Region Grid Basin Characteristics

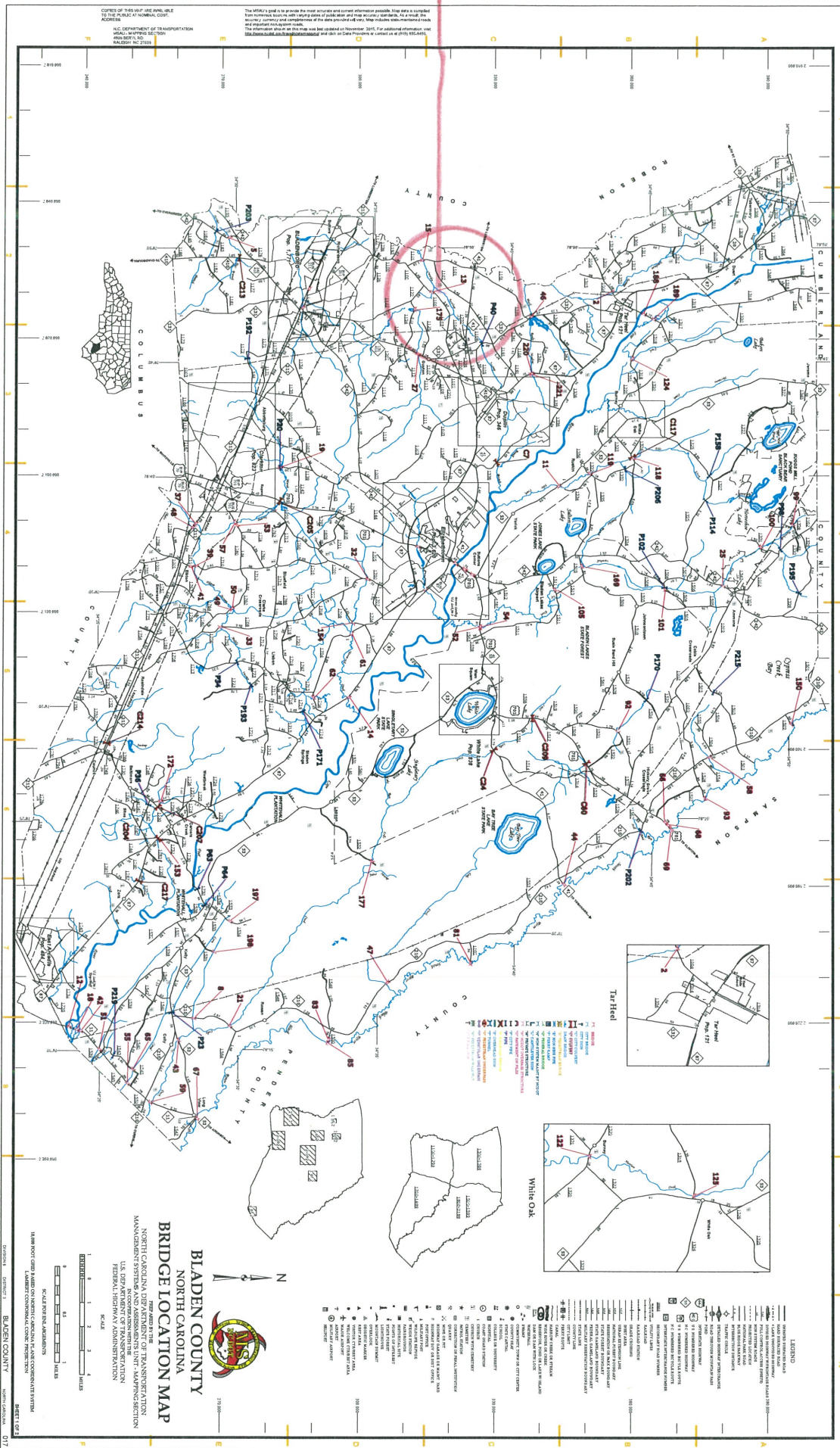
Parameter	Value	Regression Equation	Valid Range
		Min	Max
Drainage Area (Square miles)	30.1	0.1	53.5
Percent Impermeous NLCD2006 (percent)	0.43	0.02	34.8
24 Hour 50 Year Precipitation (Inches)	8.28	6.51	10.9

Peak Flows Region Grid Statistic

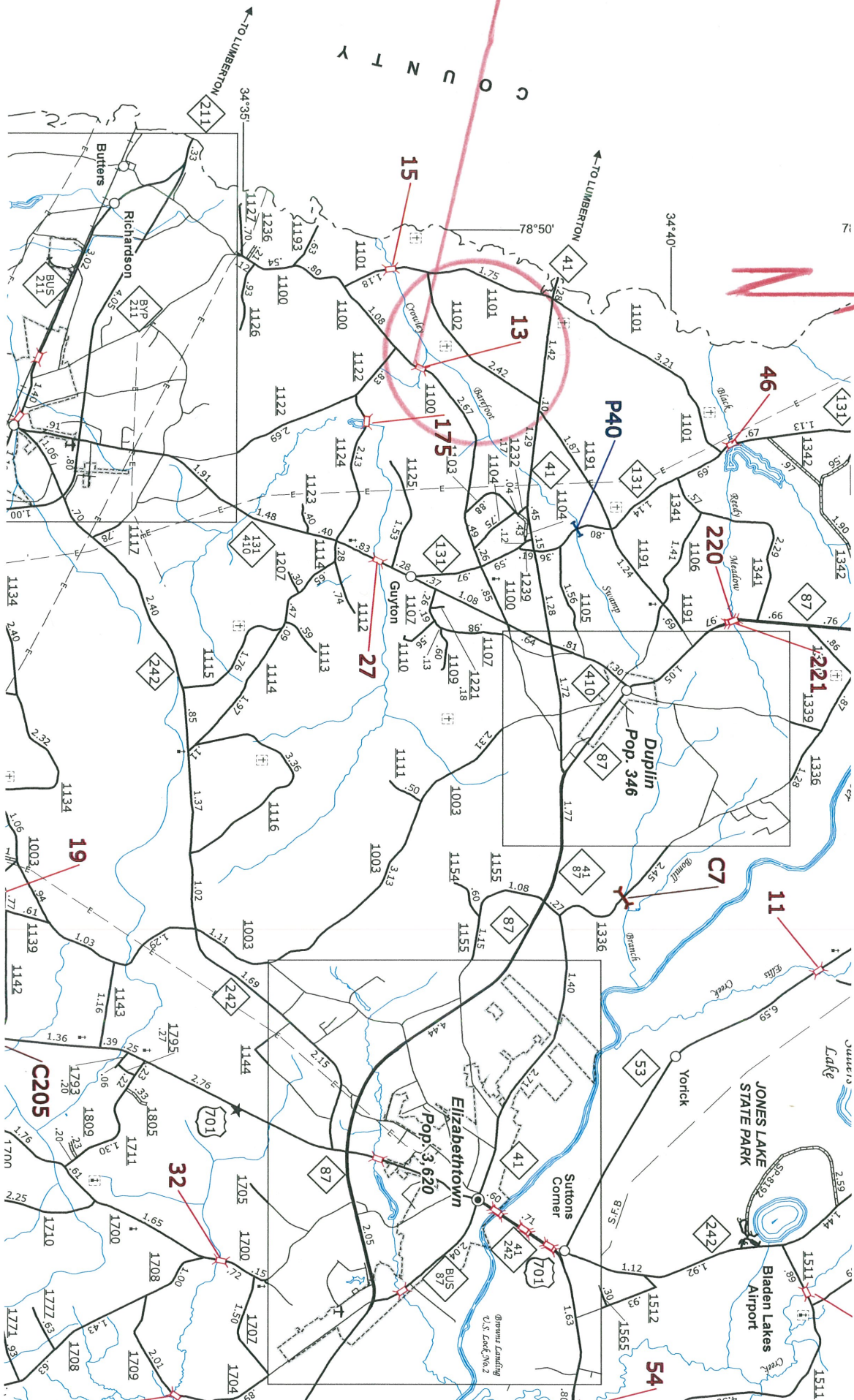
Statistic	Value	Unit	Prediction Error (percent)	Equivalent years of record	90-percent Prediction Interval	
					Min	Max
PE2	5.49	ft3/s	35		316	953
PE5	10.40	ft3/s	34		604	1790
PE10	1.420	ft3/s	35		811	2,490
PE15	1930	ft3/s	38		1060	3510
PE50	2280	ft3/s	40		1270	4460
PE100	2870	ft3/s	42		1480	5560
PE200	3320	ft3/s	44		1650	6660
PE500	4000	ft3/s	48		1900	8420

080013

13



080013



080013



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION: **STRUCTURE DATA CHANGES**

Structure Safety Report

Routine Element Inspection

COUNTY: BLADEN STRUCTURE NUMBER: 080013 FREQUENCY: 24 MONTHS

FACILITY CARRIED: SR1100 MILE POST:

LOCATION: 0.4MI.E. OF JCT. SR1122

FEATURE INTERSECTED: CRAWLEY SWAMP

LATITUDE: 34° 37' 6.02" LONGITUDE: 78° 48' 2.78"

SUPERSTRUCTURE: RC FLOOR ON TIMBER JOISTS

SUBSTRUCTURE: EBTS&IBTS:TIMBER CAPS ON TIMBER PILES @ VAR.CTS.

SPANS: 1@18"; 3@16.83"; 1@18"

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

PRESENT CONDITION: Poor INSPECTION DATE: 06/09/2015

POSTED SV: 19 POSTED TTST: 28

OTHER SIGNS PRESENT: 4 DELINEATORS



LOOKING EAST (CENTER ROAD)

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

INSPECTED BY
Ray L. Kisner

SIGNATURE

Ray L. Kisner

ASSISTED BY R.D.Heath

080013

Structure: 080013

County: BLADEN

Date: 06/09/2015

Structure Photos



SOUTH PROFILE



BENT 2

080013

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 08/10/2015

COUNTY : DIVISION : DISTRICT : STRUCTURE NUMBER : LENGTH :
 BLADEN 6 3 080013 87 FEET

ROUTE CARRIED : FEATURE INTERSECTED :
 SR1100 CRAWLEY SWAMP

LOCATED : BRIDGE NAME : CITY :
 0.4MI.E. OF JCT. SR1122

FUNC. CLASS : SYST.ON : SYST.UNDER : ADT & YR : RAIL TYPE :
 08 NFA NFA 910 2013 LT 241 RT 241

BUILT : BY : PROJ : FED.AID PROJ : DESIGN LOAD :
 1951 SHPWC Unknown

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

NAVIGATION : VC 0 FT HC 0 FT HT. CRN. TO BED : 9 FT WATER DEPTH : 4 FT

SUPERSTRUCTURE : RC FLOOR ON TIMBER JOISTS

SUBSTRUCTURE : EBTS&IBTS:TIMBER CAPS ON TIMBER PILES @ VAR.CTS.

SPANS : 1@18'; 3@16.83'; 1@18'

BEAMS OR GIRDERS : 19 LINES 6X12 TIMBER JOISTS @ 1'4.25CTS.

FLOOR : ENCROACHMENT : DECK (OUT TO OUT) :
 5RC/NO AWS 25.37 FT

CLEAR ROADWAY : BETWEEN RAILS : SIDEWALK OR CURB :
 24 FT 25.5 FT LT .75 FT RT .75 FT

VERT.CL.OVER :
 999.9 FT

INV.RTG. : OPE.RTG. : CONTR.MEMBER : POSTED : TTST 28 DATE 09/02/2008
 HS-12 HS-18 Joist SV 19

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

UNDER ROUTES AND CLEARANCES

REMARKS :

080013

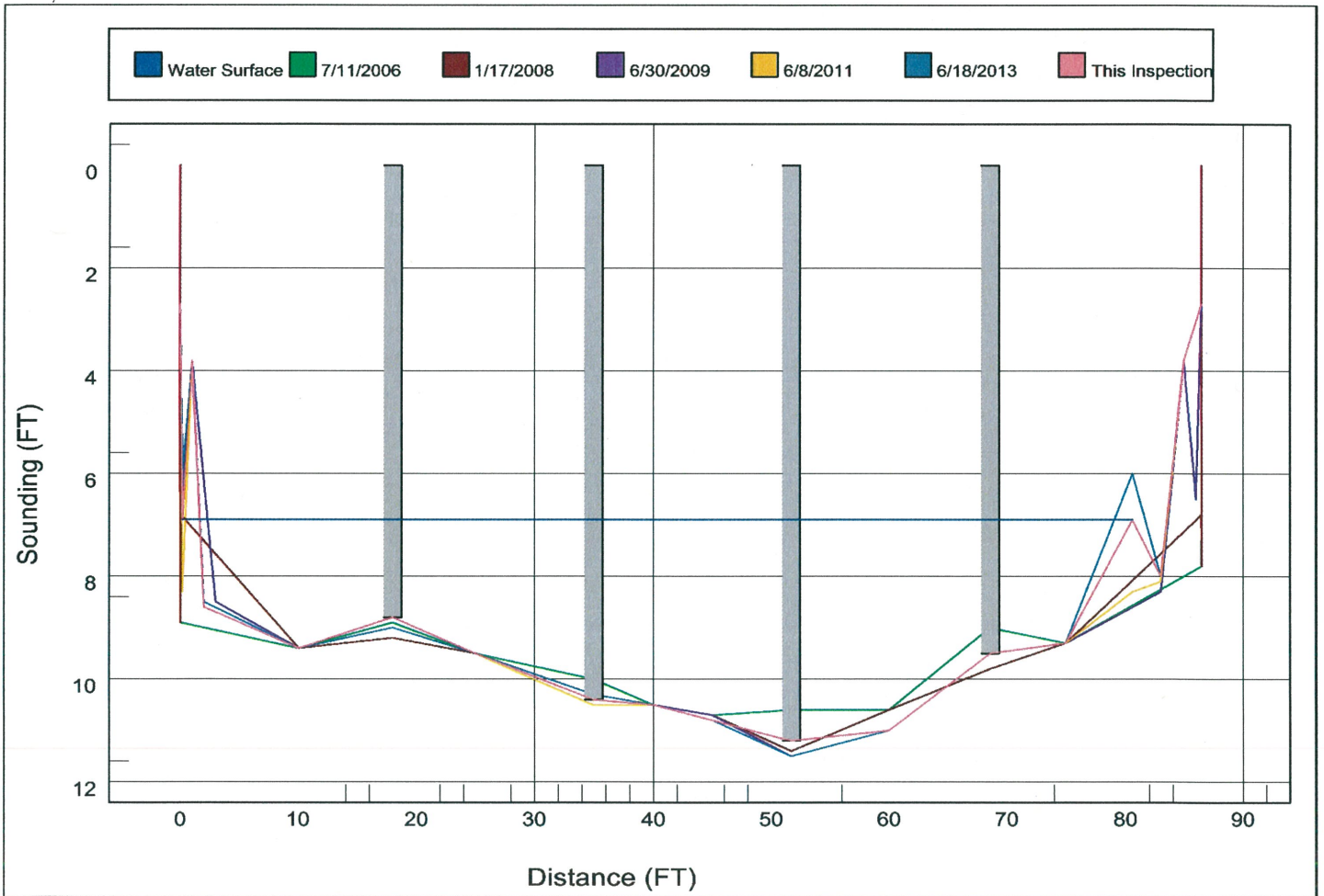
Bridge: 080013

County: BLADEN

Date:

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



U/S STR.

080013

Structure: 080027

County: BLADEN

Date: 06/07/2016

Structure Photos



EAST PROFILE



END BENT 1

D/S STR.

080013

Structure: 080015

County: BLADEN

Date: 05/12/2015

Structure Photos



BENT 1



END BENT 1

080013



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 vulnerability 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 entered into a Cooperative Technical State agreement with FEMA to produce and maintain this 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)

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE)
Zone A, X, 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
- 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
- Non-accredited Levee, Dike, or Floodwall
- National Geodetic Survey bench mark
- Contractor Est. NCMP Survey bench mark
- Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
- Coastal Transsect
- Coastal Transsect 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 in general, please call the FEMA Map Information Exchange at 1-877-FEMA-MAAP (1-877-336-2323) or visit the FEMA Map Service Center website at <http://www.fema.gov>. For accompanying Flood Insurance Study report, Letter of Map Revision (LOMR) or Letter of Map Amendment (LOMA) revising portions of this panel, and digital versions of this FIRM map file, visit the North Carolina Floodplain Mapping Program website at <http://www.ncfloodplanning.com> or contact the FEMA Map Service Center.

Communities seeking land use adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM edition. These may be obtained directly from the Map Service Center at the nearest field office.

For community and countywide 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 visit the National Flood Insurance Program at 1-800-368-4683.

Base map information shown on this FIRM was provided in digital format 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 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 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 <http://www.floodinsurance.gov>.

PROVISIONALLY ACCREDITED LEVEE NOTES TO USERS: 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 maintain accreditation, the levee owner or community is required to submit the data and documentation necessary to comply with Section 65.12 of the NFIP regulations. If the community or water does not provide the necessary data and documentation or if the data and documentation provided indicates the levee system does not comply with Section 65.12 requirements, FEMA will remove the flood hazard and risk information for this area to reflect de-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 <http://www.floodinsurance.gov>.

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 limiting wave. The effects of wave hazards between the VE Zone and the LMWA, (or between the AE 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.

Limit of Moderate Wave Action (LMWA)

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 on or after the date of the CBRS report. For more information see <http://www.floodinsurance.gov> or contact the FEMA Map Service Center at 1-800-368-4683.

CBRS Area **Otherwise Protected Area**

SCALE

Map Projection:
North Carolina State Plane Projection Feet (Zone 3200)
Datum: NAD 1983 (Horizontal), NAD 1983 (Vertical)

1 inch = 1,000 feet 1:12,000

0 500 1,000 2,000 Feet

0 150 300 600 Meters

PANEL LOCATOR

The panel locator map shows the location of the current panel (0340) within the larger regional context of North Carolina. It includes labels for Cumberland County, Sampson County, and Columbus County. The map shows the location of the panel relative to the surrounding counties and the state boundary.

NATIONAL FLOOD INSURANCE PROGRAM

FEMA

NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

NORTH CAROLINA

PANEL 0340

0340

Panel Contains:

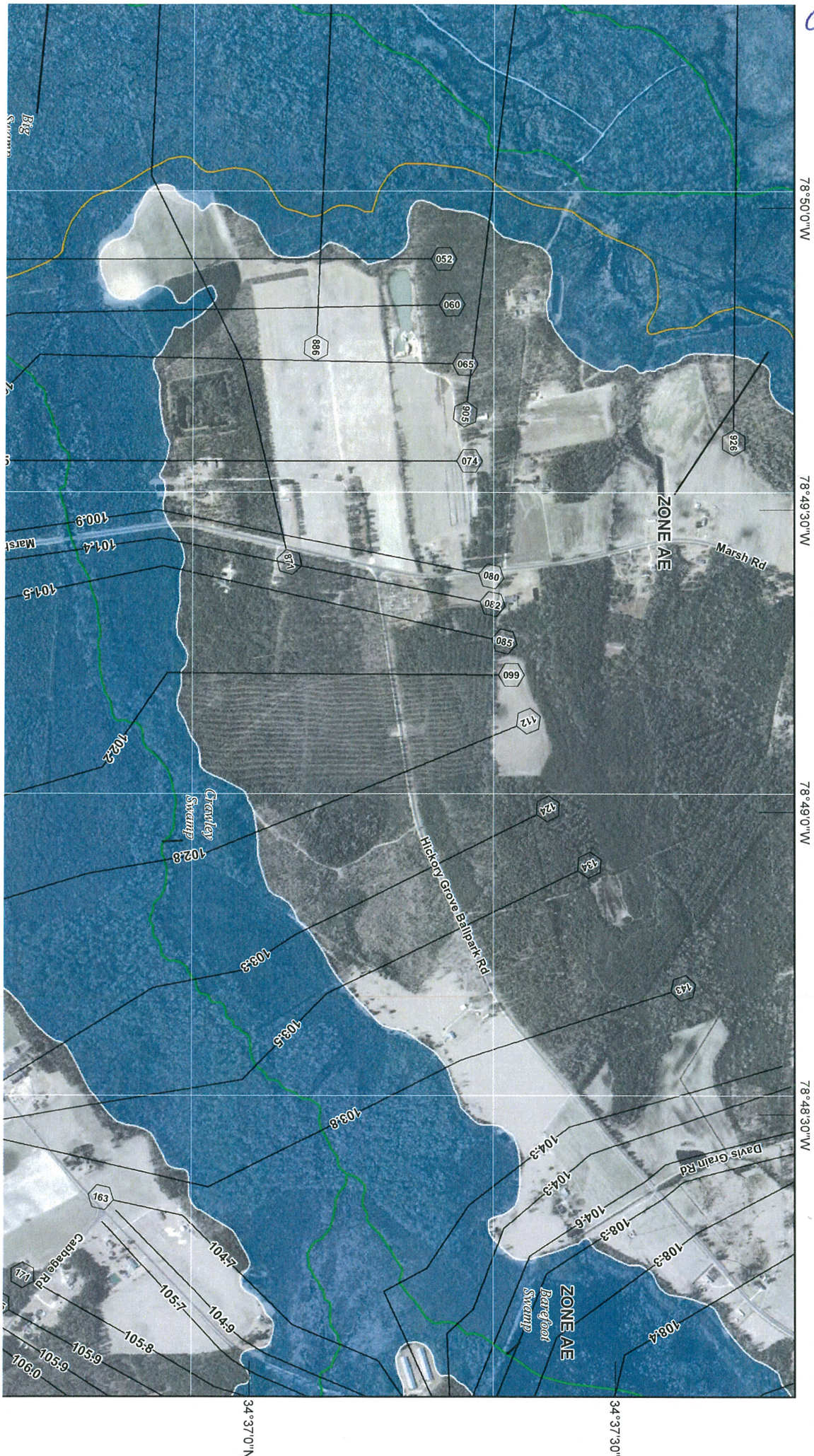
COMMUNITY
BLADEN COUNTY
ROBESON COUNTY

OID PANEL SUFFIX
370293 0340 K
370292 0340 K

1-5-07

MAP NUMBER
3720034000K
MAP REVISED
01/05/07

080013



080013

*
NO HEC RAS
FOUND

