

SF

PREDESIGN-PRESURVEY REPORT

County ColumbusProject# SF-230126
TIP# _____
Let Date _____
WBS# _____Bridge# 126
Road# SR 1005
Name Peacock Rd
Stream Gum Swamp

Type Of Request: POC Force Account TIP NCMA

Date 5/29/12 Name ECA Assigned To _____

Checked By _____

Prior Survey Date N/A (attach copy of prior survey)

Study By Scour Section _____

Flood Zone yes Detail Study Limited Date June 2, 2006 Panel# 0166

B.M. Info _____

Quad Map Tabor City East Drainage Area 9.31 Sqr mi. From DASS
Q25 950 Q50 1180 Q100 1450 Method usgs-reg. eqm.Rural coastal
plain, Region 2

FIS Q100 = 1510 cfs

EXISTING BRIDGE INFORMATION

Location 0.3 mi N Jct SR 1315
 Average Daily Traffic 1400 (2010)
 Length 40' Bed- To Crown 16' Water Depth 11'
 Type Structure RC Deck/cont 1-Beam (BMD-6-3 6-5 MOD.)
 Type Spans 2 @ 20'2 cont.
 Upstream Structure Brg # 118
 Location 0.3 mi N Jct SR 1314
 Bed- To Crown 9' Prior Survey _____
 Downstream Structure Brg # 71
 Location 0.5 mi N Jct SR 1149
 Bed- To Crown 13' Prior Survey _____
 SCS Watershed _____

ENVIRONMENTAL

Trout Stream No Anadromous Fish No Primary Nursery Area No
 High Quality Waters No Nutrient Sensitive Waters _____
 Near Water Supply Intake No CAMA County No
 Stream Classification C, SW
 DENR River Basin Info. Lumber

PRELIMINARY OFFICE REVIEW

MIN. BRG. 105'

NO ENCROACHMENT AREAS IN PRELIM. MODEL

4290



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY COLUMBUS BRIDGE NUMBER 230126 INSPECTION CYCLE 2 YRS
ROUTE SR1005 ACROSS GUM SWAMP M.P. 0

LOCATION 0.3 MI.N.JCT.SR1315

SUPERSTRUCTURE RC DECK/CONT I-BEAMS(BMD-6-3 6-5MOD.)

SUBSTRUCTURE E.BTS&INT.BT:RC CAP/TIMBER PILES @ 7'3CTS.

SPANS 2@20'2CONT.

LONGITUDE 78° 47' 47.35"

LATITUDE 34° 12' 13.39"

PRESENT CONDITION FAIR

INVENTORY RATING

INSPECTION DATE 07/16/2012

OPERATING RATING

PRESENT POSTING Not Posted

PROPOSED POSTING

COMPUTER UPDATE

ANALYSIS DATE

POSTING LETTER DATE

SUFFICIENCY RATING

OTHER SIGNS PRESENT 4 DELINEATORS



LOOKING NORTH (PEACOCK ROAD)

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: 07/27/2012

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
COLUMBUS	6	3	230126	40	FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR1005	GUM SWAMP

LOCATED :	BRIDGE NAME :	CITY :
0.3 MI.N.JCT.SR1315		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
08	NFA	NFA	1400 2010	LT 241 RT 241

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1954	BMU		B-5697	Unknown

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

NAVIGATION :	HT. CRN. TO BED :	WATER DEPTH :
VC 0 FT HC 0 FT	16 FT	11 FT

SUPERSTRUCTURE :	RC DECK/CONT I-BEAMS(BMD-6-3 6-5MOD.)
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SUBSTRUCTURE :	E.BTS&INT.BT:RC CAP/TIMBER PILES @ 7'3CTS.
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SPANS :	2@20'2CONT.
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BEAMS OR GIRDERS :	12 LINES S12X31.8CONT I-BEAMS @ 2'2.5CENTERS.
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FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
5 RC/NO AWS		25.3 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
24 FT	25.5 FT	LT .8 FT RT .8 FT

VERT.CL.OVER :
999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :	DATE
HS-1	HS-1	pile	SV TTST	01/25/2007

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

UNDER ROUTES AND CLEARANCES

REMARKS :

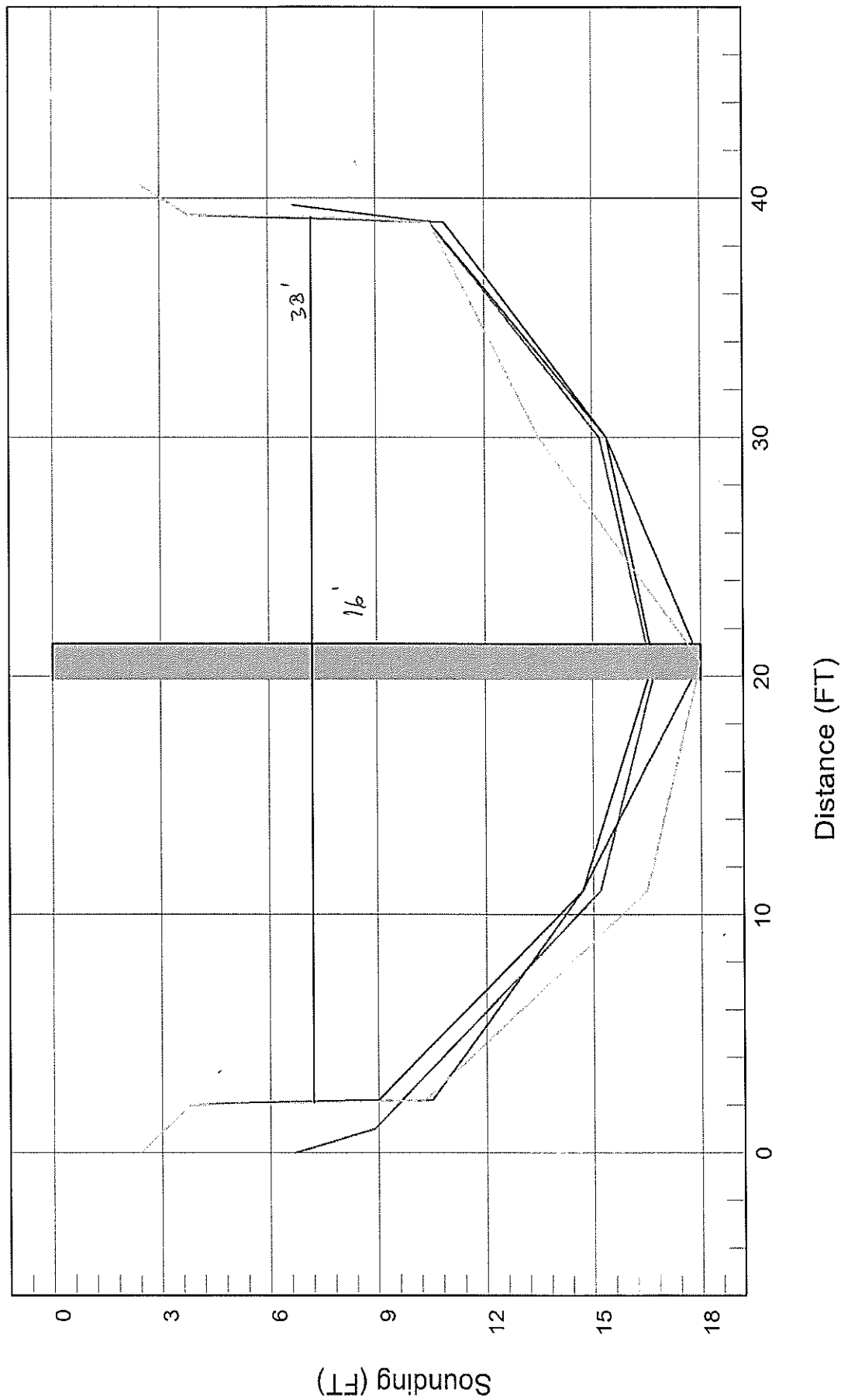
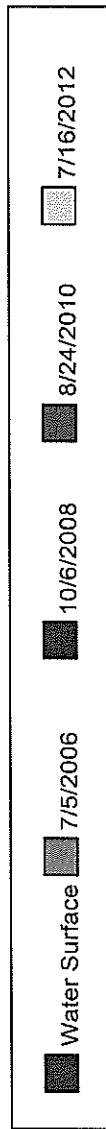
Bridge: 230126

County COLUMBUS

Date: 07/16/2012

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



$$Z(16)(1.5) + Z(10) + 38 = 106$$

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
Gum Swamp (continued)	Approximately 4,600 feet downstream of US HWY 701	14.7	*	*	2,030	*
	Approximately 1,000 feet downstream of Peacock Road	10.9	*	*	1,710	*
	Approximately 4,500 feet downstream of NC HWY 410	8.82	*	*	1,510	*
	Approximately 800 feet downstream of NC HWY 410	6.59	*	*	1,280	*
	Approximately 800 feet downstream of Chadbourne Clarendon Road	5.25	*	*	1,130	*
	Approximately 5,600 feet downstream of Old Stake Road	3.50	*	*	890	*
	Approximately 400 feet downstream of Old Stake Road	2.11	*	*	670	*
Honey Island Swamp	Approximately 17,300 feet downstream of Tram Road	30.9	*	*	3,110	*
	Approximately 9,950 feet downstream of Tram Road	29.4	*	*	3,020	*
	Approximately 9,850 feet downstream of Tram Road	26.3	*	*	2,830	*
	Approximately 1,950 feet downstream of Tram Road	25.7	*	*	2,790	*

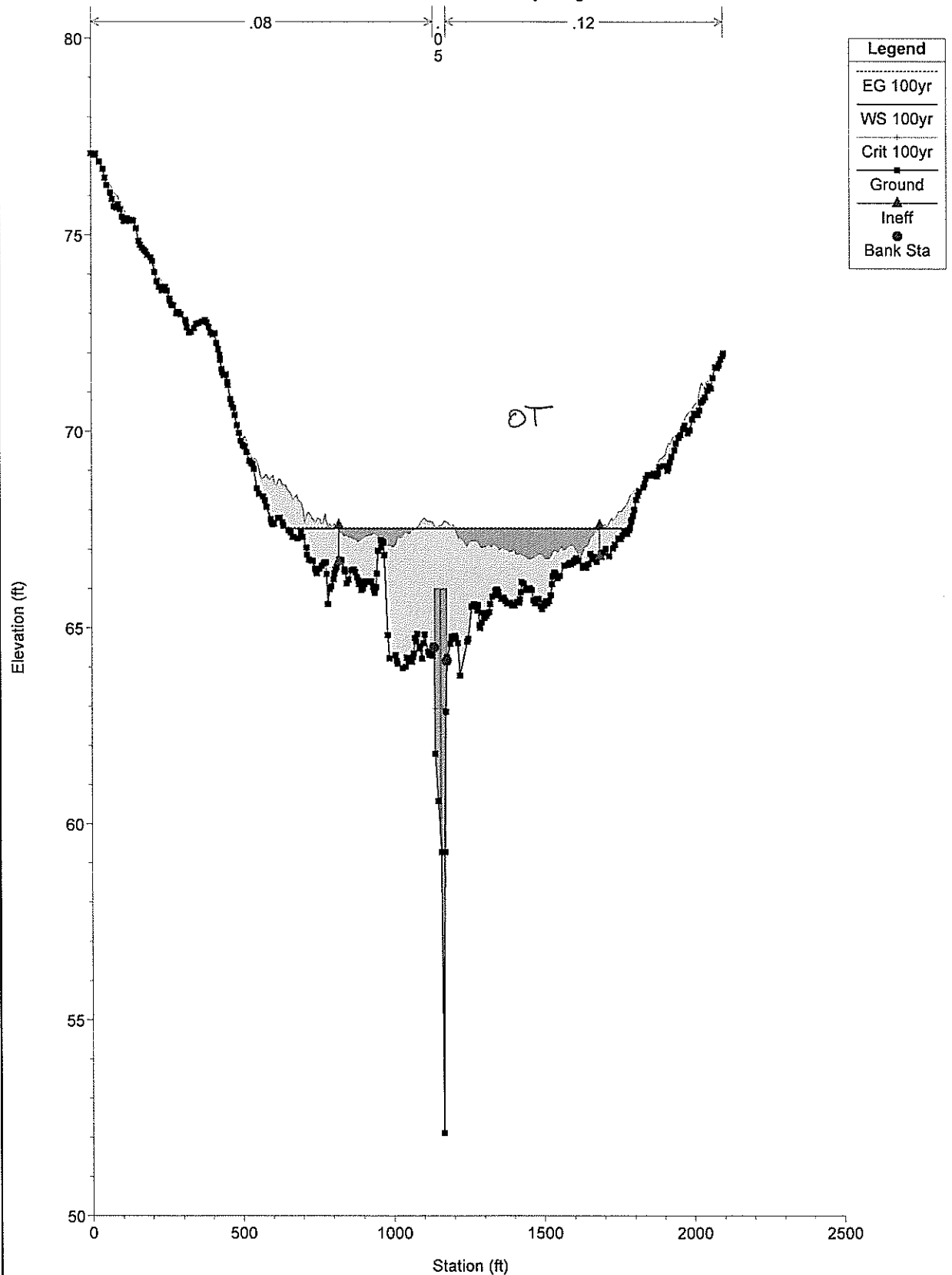
Section 5.0 – Engineering Methods

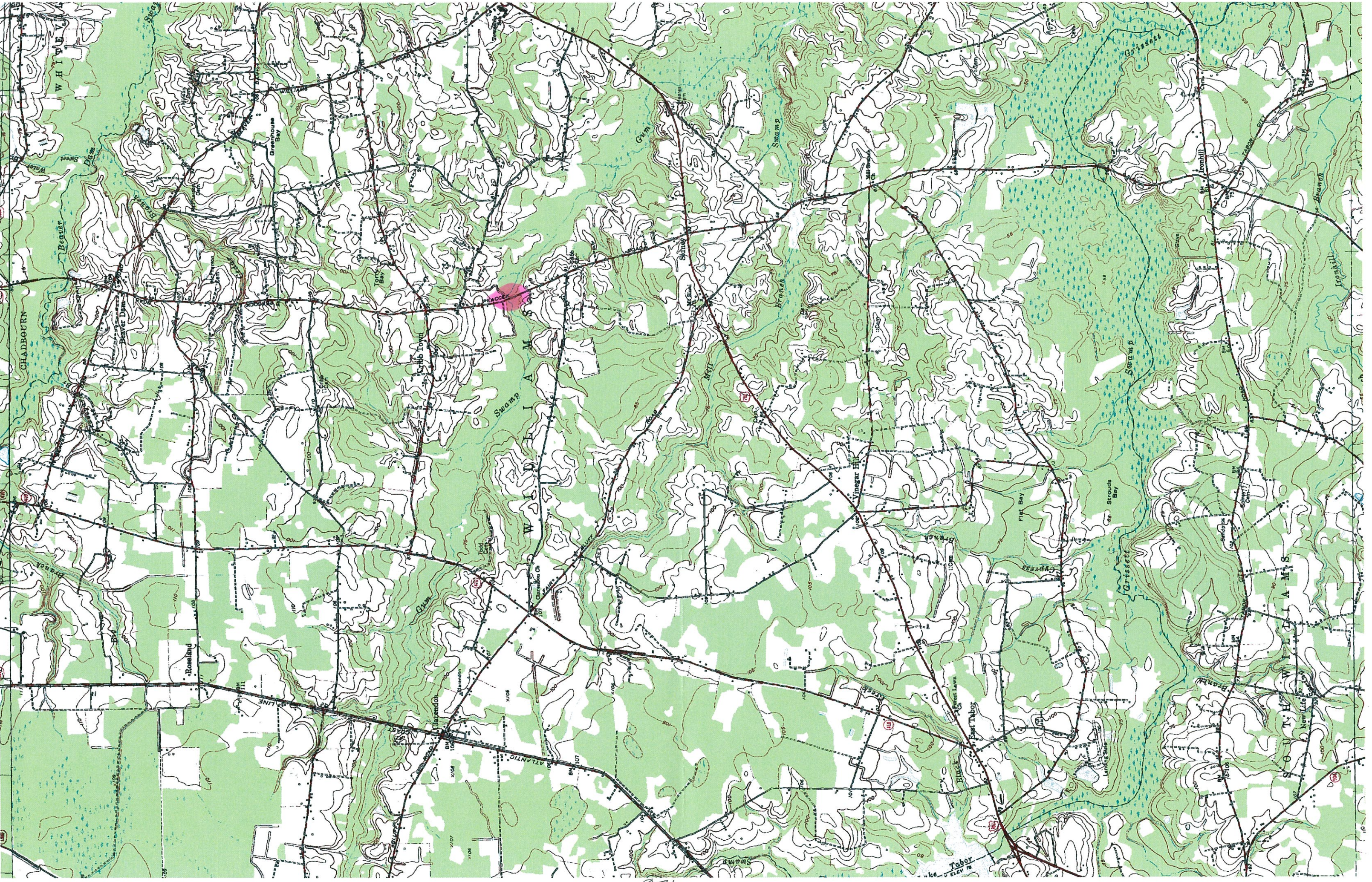
Table 10—Limited Detailed Flood Hazard Data

Cross Section ¹	Stream Station ²	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width ³ (feet)
GUM SWAMP (continued)				
290	28,971	2,460	58.1	5
294	29,449	2,460	58.6	5
299	29,864	2,030	58.7	5
307	30,722	2,030	58.9	5
311	31,095	1,710	58.9	5
315	31,534	1,710	59.1	5
320	31,983	1,710	59.3	5
324	32,373	1,710	59.4	5
329	32,914	1,710	59.5	5
335	33,485	1,710	59.7	5
340	34,042	1,710	59.9	5
346	34,587	1,710	60.2	5
353	35,309	1,710	60.7	5
355	35,473	1,710	61.1	5
358	35,825	1,710	61.4	5
363	36,256	1,710	61.5	5
367	36,666	1,710	61.7	5
371	37,055	1,710	62.0	5
375	37,526	1,710	62.2	5
380	38,037	1,710	62.6	5
386	38,599	1,710	63.1	5
391	39,139	1,710	63.4	5
399	39,878	1,710	63.7	5
404	40,430	1,710	64.0	5
408	40,819	1,710	64.2	5
413	41,311	1,710	64.4	5
418	41,757	1,710	64.6	5
423	42,268	1,710	64.8	5
428	42,771	1,710	65.0	5
433	43,262	1,710	65.2	5
438	43,828	1,710	65.6	5
443	44,280	1,710	66.0	5
448	44,785	1,710	66.4	5
455	45,532	1,510	67.0	5
457	45,715	1,510	67.1	5
458	45,799	1,510	67.5	5
463	46,265	1,510	67.7	5
467	46,703	1,510	67.8	5
472	47,210	1,510	67.9	5
477	47,728	1,510	68.1	5
482	48,157	1,510	68.6	5
485	48,525	1,510	68.8	5
490	49,041	1,510	69.1	5



Gum Plan: Gum Swamp Plan 11/5/2002
SR 1005 - Columbus County Bridge #126







North Carolina StreamStats

Basin Characteristics Report

Date: Thu May 16 2013 12:19:19 Mountain Daylight Time

NAD27 Latitude: 34.2036 (34 12 13)

NAD27 Longitude: -78.7968 (-78 47 49)

NAD83 Latitude: 34.2038 (34 12 14)

NAD83 Longitude: -78.7966 (-78 47 48)

Parameter	Value
Area in square miles	13.8
Percent of area covered by all densities of developed land using 2001 NLCD	4.622
Percent of area covered by all densities of developed land using 2006 NLCD	4.622
Percent of area developed in 2006 NLCD but not developed in 2001 NLCD	0
Percent of area covered by forest using 1992 NLCD	49.776
Percent of area covered by forest using 2001 NLCD	19.081
Percent of area covered by forest using 2006 NLCD	18.651
Percent of area forested 2001 NLCD but not forested 2006 NLCD	5.829
Percent of area covered by grassland/herbaceous using 2001 NLCD	2.688
Percent of area covered by grassland/herbaceous using 2006 NLCD	1.587
Percent of area covered by impervious surface 2001 NLCD	0.58
Percent of area covered by impervious surface 2006 NLCD	0.58
Difference in percent impervious between 2001 NLCD and 2006 NLCD	0.000
Mean annual precipitation in inches	50.9
Percent of area of protected Federal and State owned land	0
Percent of area covered by shrubland using 2001 NLCD	15.786
Percent of area covered by shrubland using 2006 NLCD	12.085
Percent of area in hydric soil 'A' defined by SSURGO	1.73
Percent of area in hydric soil 'B' defined by SSURGO	49
Percent of area in hydric soil 'C' defined by SSURGO	39.2
Percent of area in hydric soil 'D' defined by SSURGO	9.8
Percent of area covered by water using 1992 NLCD	0.060
Percent of area covered by water using 2001 NLCD	0.064
Percent of area covered by water using 2006 NLCD	0.064
Percent of area covered by wetland using 1992 NLCD	10.792
Percent of area covered by wetland using 2001 NLCD	20.108
Percent of area covered by wetland using 2006 NLCD	19.312