

Min brg = 110'

5.5

PREDESIGN-PRESURVEY REPORT

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

County Columbus

Bridge# 171
Road# SR 1414 (Braswell Rd)
Stream _____

Type Of Request: POC Force Account TIP NCMA

Date _____ Name _____ Assigned To _____

Checked By _____

Prior Survey Date _____ (attach copy of prior survey)

Study By Scour Section _____

Flood Zone Yes Detail Study Limited Date June 2, 2006 Panel# 0220

B.M. Info _____

Quad Map Cerro Gordo Drainage Area 23.6 From DASS

Q25 1665 Q50 2060 Q100 2490 Method USGS Rural Regression eqn - Region 4 coastal plain

FIS Q100 = 1303 cfs

EXISTING BRIDGE INFORMATION

Location 1.1 MI N Jct US 76

Average Daily Traffic 300 (2007)

Length 73 Bed- To Crown 14' Water Depth 5'

Type Structure RC Deck / I-beams (STD-BMD-6-7)

Type Spans 4 @ 18'4"

Upstream Structure Brg # 175

Location 0.2 MI E Jct SR 1525

Bed- To Crown 13' Prior Survey _____

Downstream Structure N/A

Location _____

Bed- To Crown _____ Prior Survey _____

SCS Watershed _____

ENVIRONMENTAL

Trout Stream / Anadromous Fish / Primary Nursery Area /

High Quality Waters / Nutrient Sensitive Waters /

Near Water Supply Intake / CAMA County NO

Stream Classification C, SW

DENR River Basin Info. Lumber



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION TEMP REPAIRS: ENCASED PILES

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY COLUMBUS BRIDGE NUMBER 230171 INSPECTION CYCLE 2 YRS
ROUTE SR1414 ACROSS DUNN SWAMP M.P. 0

LOCATION 1.1 MI N JCT US76

SUPERSTRUCTURE REINFORCED CONCRETE DECK/I-BEAMS (STD.BMD-6-7)

SUBSTRUCTURE EBTS&IBTSRC CAP/TIMBER PILES @ 7'6 CTS.

SPANS 4 @ 18'4

LONGITUDE 78° 53' 57.88"

LATITUDE 34° 20' 33.75"

PRESENT CONDITION FAIR

INVENTORY RATING

INSPECTION DATE 07/11/2012

OPERATING RATING

PRESENT POSTING Not Posted

PROPOSED POSTING

COMPUTER UPDATE

ANALYSIS DATE

POSTING LETTER DATE

SUFFICIENCY RATING

OTHER SIGNS PRESENT 4 DELINEATORS



LOOKING NORTH (BRASWELL 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 : COLUMBUS DIVISION : 6 DISTRICT : 3 STRUCTURE NUMBER : 230171 LENGTH : 73 FEET

ROUTE CARRIED : SR1414 FEATURE INTERSECTED : DUNN SWAMP

LOCATED : 1.1 MI N JCT US76 BRIDGE NAME : CITY :

FUNC. CLASS : 09 SYST.ON : NFA SYST.UNDER : NFA ADT & YR : 300 2007 RAIL TYPE : LT 241 RT 241

BUILT : 1955 BY : BMU PROJ : FED.AID PROJ : DESIGN LOAD : Unknown

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

NAVIGATION : VC 0 FT HC 0 FT HT. CRN. TO BED : 14 FT WATER DEPTH : 5 FT

SUPERSTRUCTURE : REINFORCED CONCRETE DECK/I-BEAMS (STD.BMD-6-7)

SUBSTRUCTURE : EBTS&IBTSRC CAP/TIMBER PILES @ 7'6 CTS.

SPANS : 4 @ 18'4

BEAMS OR GIRDERS : 11 LINES W12X27 I-BEAMS @ 2'5 CTS.

FLOOR : 5 RC/NO AWS ENCROACHMENT : DECK (OUT TO OUT) : 25.3 FT

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

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-1 OPE.RTG. : HS-1 CONTR.MEMBER : extBM(B) POSTED : SV TTST DATE 08/11/1994

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

UNDER ROUTES AND CLEARANCES

REMARKS :

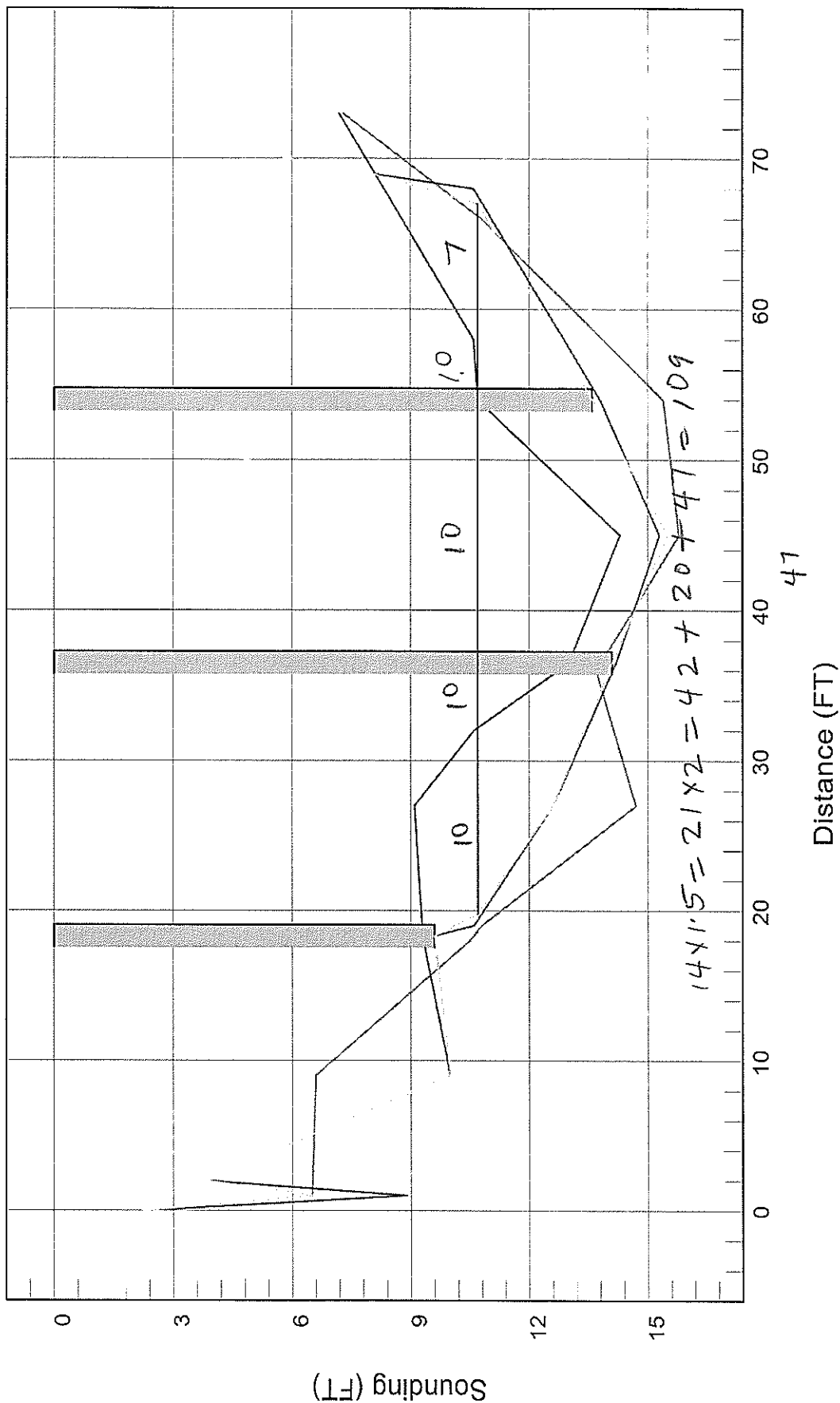
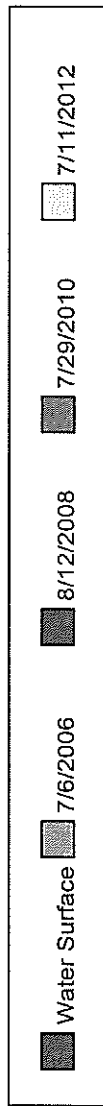
Bridge: 230171

County COLUMBUS

Date: 07/11/2012

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



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
  Dunn Swamp	At Mouth	29.3	*	*	1,501	*
	Just upstream of the confluence of Green Branch	18.3	*	*	1,085	*
	Just downstream of the confluence of Dunn Swamp Tributary 1	16.8	*	*	1,024	*
	Just downstream of the confluence of Dunn Swamp Tributary 2	8.4	*	*	638	*
	Just downstream of the confluence of Dunn Swamp Tributary 3	5.2	*	*	457	*
	Approximately 1,500 feet downstream of Strawberry Boulevard	2.4	*	*	269	*
Dunn Swamp Tributary 1	At Mouth	7.1	*	*	567	*
Dunn Swamp Tributary 2	At Mouth	0.9	*	*	131	*
Dunn Swamp Tributary 3	At Mouth	2.8	*	*	298	*
Fivemile Branch	Approximately 4,550 feet downstream of Midway Road	9.18	*	*	1,550	*
	Approximately 4,450 feet downstream of Midway Road	5.13	*	*	1,110	*
	Approximately 600 feet downstream of Midway Road	4.73	*	*	1,060	*

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)
DEEP BRANCH (continued)				
124	12,446	390	39.7	5
128	12,776	390	39.8	5
130	13,025	390	39.9	5
133	13,297	390	40.0	5
135	13,494	390	40.1	5
138	13,776	390	40.2	5
141	14,056	390	40.3	5
143	14,312	390	40.3	5
DOUBLE BRANCH				
022	2,204	872	21.0**	39 / 550
028	2,845	872	21.0**	7 / 72
034	3,377	872	21.0**	56 / 79
041	4,073	872	21.0**	27 / 53
046	4,620	755	21.0**	162 / 23
050	5,000	755	21.0**	56 / 44
054	5,423	755	21.0**	59 / 41
059	5,882	755	21.0**	46 / 52
065	6,500	755	21.0**	21 / 61
070	7,000	755	21.0**	32 / 46
076	7,575	755	21.0**	50 / 28
080	7,986	755	21.0**	52 / 13
084	8,447	561	22.5	83 / 34
DUNN SWAMP				
013	1,307	1,515	76.5	5
020	1,992	1,515	76.5	5
026	2,565	1,395	76.7	5
027	2,729	1,395	76.9	5
027	2,747	1,395	77.0	5
028	2,831	1,303	77.1	274 / 697
031	3,077	1,303	77.1	14 / 682
036	3,562	1,303	77.1	307 / 278
043	4,283	1,303	77.2	266 / 263
050	4,981	1,303	77.3	423 / 128
057	5,728	1,303	77.4	411 / 96
063	6,319	1,303	77.5	239 / 105
068	6,790	1,303	77.7	115 / 319
073	7,314	1,303	77.8	211 / 384
078	7,835	1,303	77.9	353 / 325
084	8,351	1,303	77.9	282 / 378
088	8,842	1,303	78.0	35 / 24
089	8,944	1,303	79.1	63 / 138
098	9,805	1,303	79.2	133 / 331
105	10,544	1,303	79.3	382 / 78

OF STUDY

ZONE X

BRASWELL

Columbus County
Unincorporated Areas
370305

PRINCESS ANN RD

ZONE AE

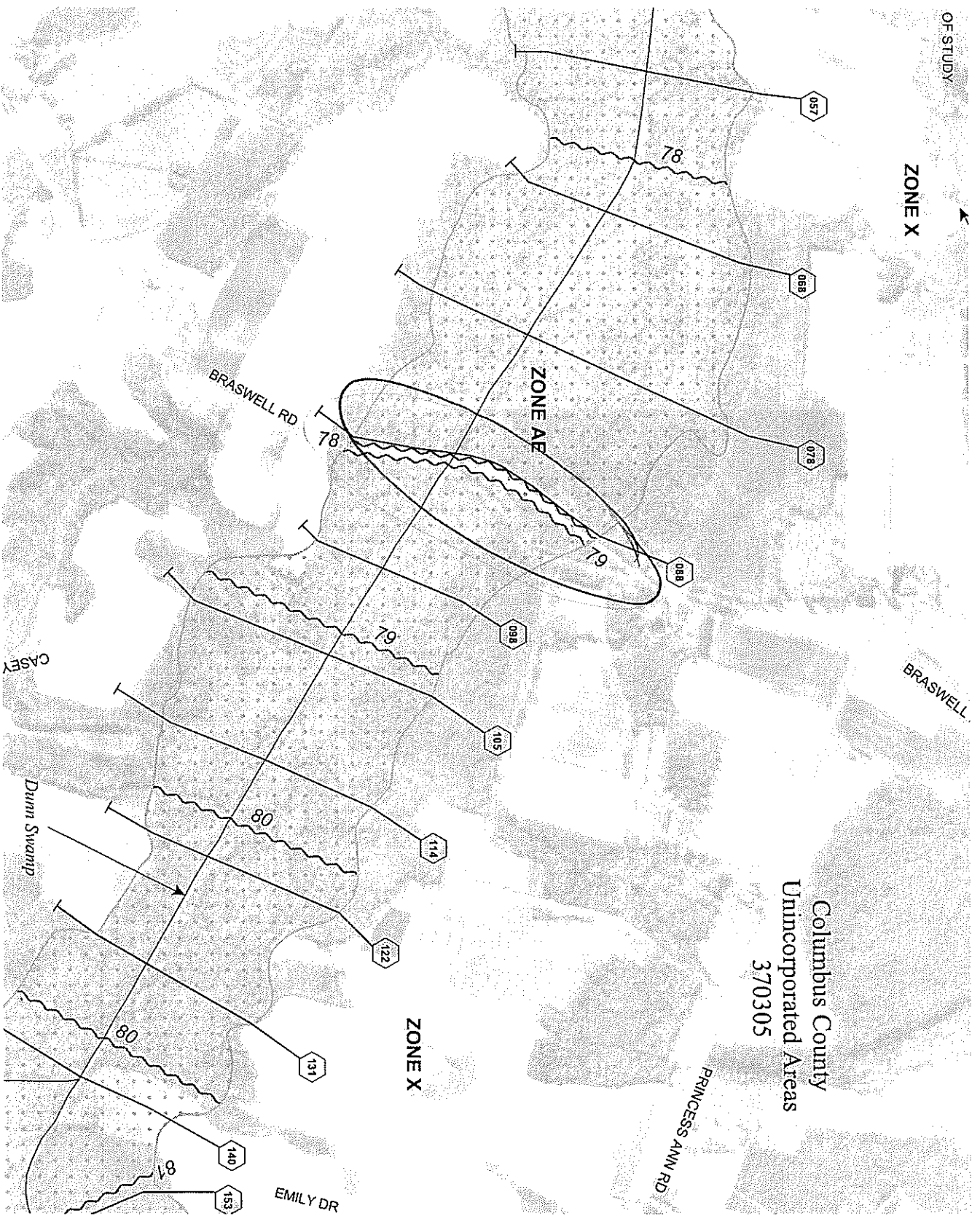
ZONE X

EMILY DR

BRASWELL RD

CASEY

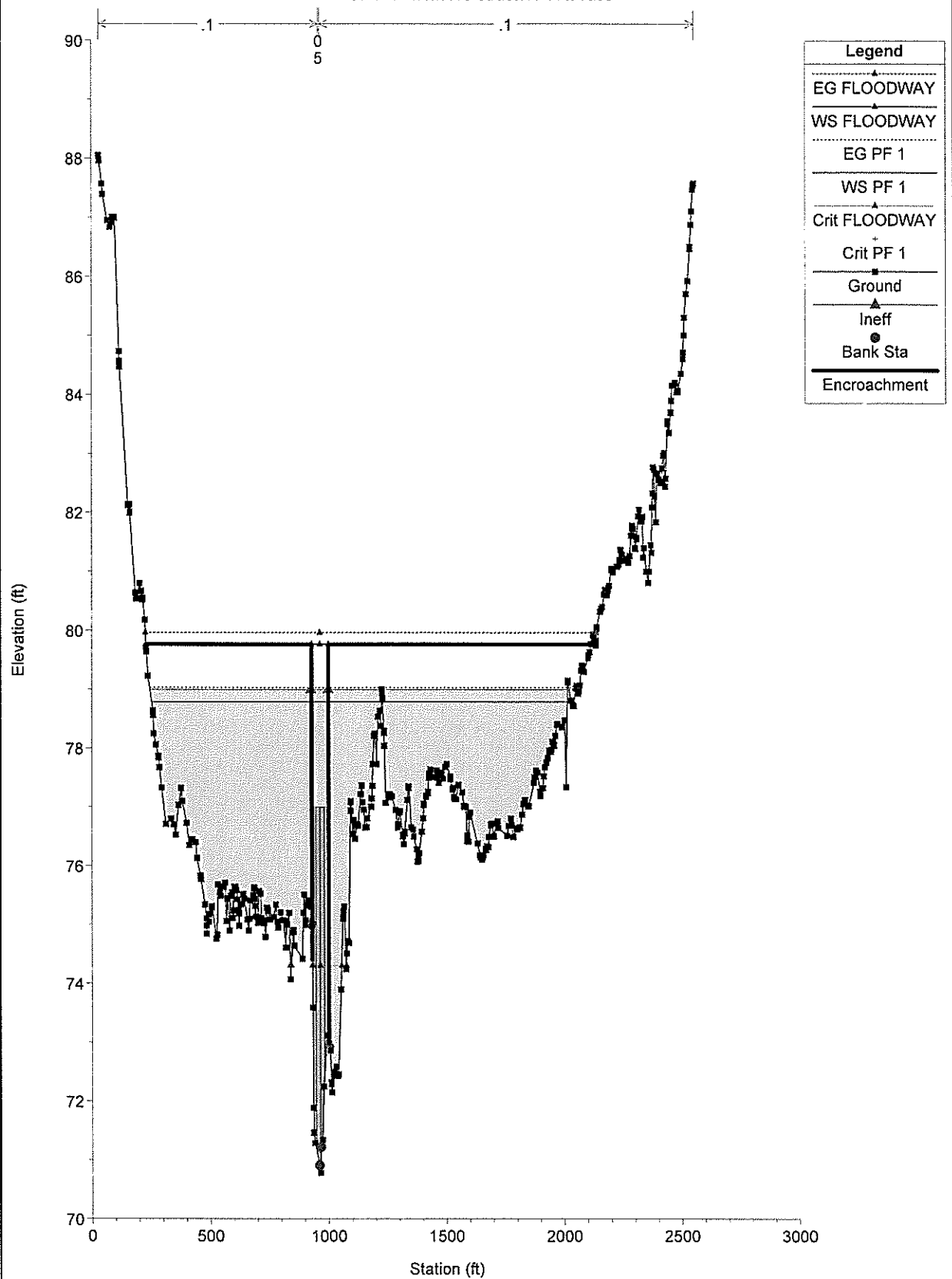
Dunn Swamp



Dunn Swamp

Plan: approximate delineation (EwBr)
SR1414 from NC structure database

10/21/2002



This is a topographic map of the Mt. Moriah area in North Carolina. The map features contour lines indicating elevation, with labels such as 75, 90, 100, 125, and 150. A road is circled in the upper left, and another road is circled in the lower right. The map includes labels for 'Swamp', 'Regar Cem', 'Mt Moriah Ch', 'Piney Forest Ch', 'Greene', 'Frink Crossing', and 'CSX'. A north arrow is located in the bottom right corner.

