

PREDESIGN-PRESURVEY REPORT

Project#
TIP# B-5706
Let Date
WBS#

County ROBESON

Bridge# 770135
Road# SR 2519 ROBESON Rd.
Stream Aaron Swamp

Type Of Request: POC Force Account TIP NCMA Pr. Des/Build
Date 12-2015 Name JLL Assigned To
Checked By

Prior Survey Date NONE (attach copy of prior survey)

Study By Scour Section

Flood Zone LIMITED Detail Study ✓ Date 1-19-05 Panel# 9228

B.M. Info

Quad Map Mc Donald Drainage Area 8.0 sq. mi/g From STREAMSTATS
Q25 865 Q50 1100 Q100 1300 Method USFS SR 2009-5158

selectal sites DNR SR 7.62 UPSTN 465

EXISTING BRIDGE INFORMATION

Location 34.55527 -79.20714 SR 2519 0.5 miles west of SR 2455

Average Daily Traffic 650 14 2013

Length 61 Bed- To Crown 11 Water Depth 4

Type Structure PPC CHANNEL

Type Spans 2@30'

Upstream Structure NONE comparable

Location

Bed- To Crown Prior Survey

Downstream Structure C-98 UNDER I-95 2@10X9 RCBC

Location I-95

Bed- To Crown 21' Prior Survey 8.1397903

SCS Watershed

ENVIRONMENTAL

Trout Stream NO Anadromous Fish NO Primary Nursery Area NO

High Quality Waters NO Nutrient Sensitive Waters NO

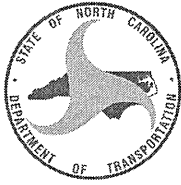
Near Water Supply Intake NO CAMA County NO

Stream Classification C, SW

DENR River Basin Info. LUMBER

OFFICE ESTIMATE 95'

MODEL AVAILABLE
ON FRIS



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION: TEMPORARY REPAIRS : ENCASED PILES PM
ISSUED ON BOTH ABUTMENTS

Structure Safety Report

Routine Element Inspection

COUNTY: ROBESON STRUCTURE NUMBER: 770135 FREQUENCY: 24 MONTHS

FACILITY CARRIED: SR2519 MILE POST:

LOCATION: 0.5 MI. W. JCT. SR2455

FEATURE INTERSECTED: AARON SWAMP

LATITUDE: 34° 33' 18.9" LONGITUDE: 79° 12' 25.74"

SUPERSTRUCTURE: PPC CHANNELS (STD.BMD-13)

SUBSTRUCTURE: E.BTS&INT.BTS:PPC CAPS/TIMBER PILES @ VAR. CTS.

SPANS: 2@30"5

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

PRESENT CONDITION: Fair INSPECTION DATE: 12/17/2014

POSTED SV: 19 POSTED TTST: 22

OTHER SIGNS PRESENT: 4 DELINEATORS



LOOKING EAST (SOUTH ROBESON ROAD)

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

INSPECTED BY R.D. HEATH	SIGNATURE <i>R.D. Heath</i>	ASSISTED BY R.L. KISNER
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BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 03/26/2015

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :
ROBESON	6	1	770135	61 FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR2519	AARON SWAMP

LOCATED :	BRIDGE NAME :	CITY :
0.5 MI. W. JCT. SR2455		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
08	NFA	NFA	650 2013	LT 233 RT 233

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1961	SHC	4275		Unknown

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

NAVIGATION :	HT. CRN. TO BED :	WATER DEPTH :
VC 0 FT HC 0 FT 11 FT		4 FT

SUPERSTRUCTURE : PPC CHANNELS (STD.BMD-13)

SUBSTRUCTURE : E.BTS&INT.BTS:PPC CAPS/TIMBER PILES @ VAR. CTS.

SPANS : 2@30'5

BEAMS OR GIRDERS : 8 LNS 38" PPC CHANNEL SECTIONS

FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
PPCCH/3.5 AWS		25.5 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
24.167 FT	25.083 FT	LT .458 FT RT .458 FT

VERT.CL.OVER :
999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :	TTST	24	DATE	03/26/2015
HS-1	HS-1	Channel BMD-13	SV 21				

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

UNDER ROUTES AND CLEARANCES

REMARKS :

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 770135 County: ROBESON Date: By: RDH

Record sounding from top of rail. Other location if needed:

Distance from Highwater Mark to top of rail: Location of Highwater Mark:

DOWNSTREAM			UPSTREAM		
Distance (Station) (ft)	Sounding (ft)	Description	Distance (Station) (ft)	Sounding (ft)	Description
0	2.8	FILLFACE/ BULKHEAD			
1	4.3	Top of Cap			
1.5	9.4	GROUND AT CAP	1.5	8.8	GROUND AT CAP
7	9.5	WSWE (SOUTH)			
15	11.8				
25	13.6				
30.2	13.1	BENT 1	30.2	13.1	BENT 1
40	13.6				
49	11.7				
53.5	9.5	WSWE			
59	8.2	GROUND AT CAP	59	8.9	GROUND AT CAP
59.5	4.3	Top of Cap			
60.5	2.8	FILLFACE/ BULKHEAD			

$$\begin{array}{r}
 13.6 \\
 4.3 \\
 \hline
 9.3 \times 1.5 \times 2 = 27.9 + 20 = 47.9 + 47 = 94.9 \\
 95'
 \end{array}$$

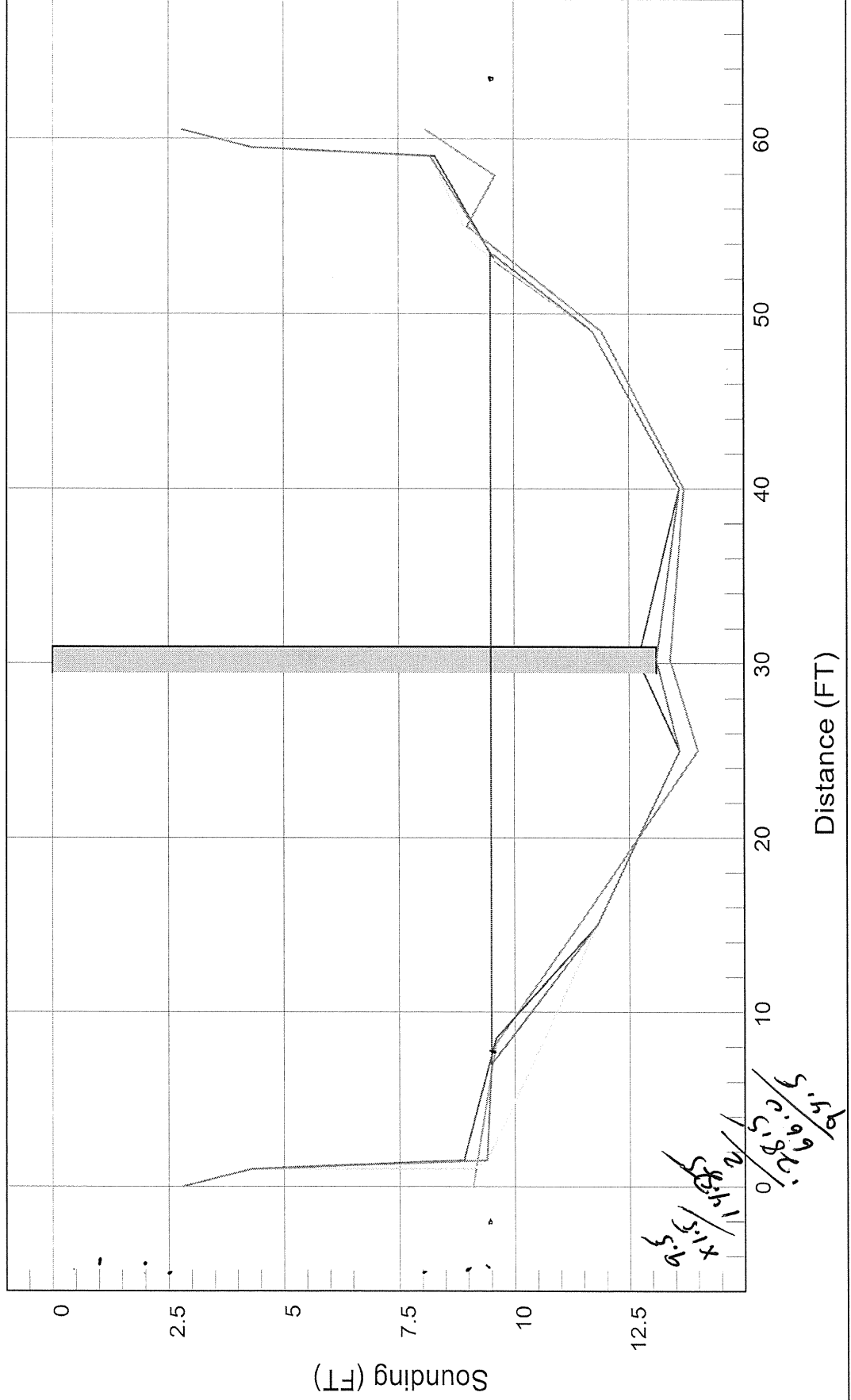
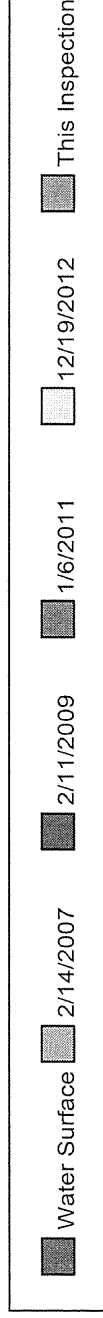
Bridge: 770135

County ROBESON

Date:

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



DOWNSTREAM STRUCTURE

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 03/27/2015

COUNTY : ROBESON DIVISION : 6 DISTRICT : 1 STRUCTURE NUMBER : 770098 LENGTH : 21 FEET

ROUTE CARRIED : I95 FEATURE INTERSECTED : AARON SWAMP

LOCATED : 0.5 MI S JCT SR 2455 BRIDGE NAME : CITY :

FUNC. CLASS : 01 SYST.ON : FA SYST.UNDER : NFA ADT & YR : 30000 2013 RAIL TYPE : LT 0 RT 0

BUILT : 1960 BY : DOH PROJ : 8.1397703 FED.AID PROJ : DESIGN LOAD : HS 20 + MOD

REHAB : BY : PROJ : ALIGNMENT : TAN. SKEW : 90 LANES : ON 4 UNDER 0

NAVIGATION : VC 0 FT HC 0 FT HT. CRN. TO BED : 21 FT WATER DEPTH : 1 FT

SUPERSTRUCTURE : DOUBLE 10' X 9' RCBC; 230'6" ALONG CENTERLINE CULVERT

SUBSTRUCTURE :

SPANS :

BEAMS OR GIRDERS :

FLOOR : ENCROACHMENT : DECK (OUT TO OUT) : 0 FT

CLEAR ROADWAY : BETWEEN RAILS : SIDEWALK OR CURB : LT 0 FT RT 0 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-20 OPE.RTG. : HS-26 CONTR.MEMBER : RCBC POSTED : SV TTST DATE

SYSTEM : Primary Interstate GREEN LINE ROUTE : Y

UNDER ROUTES AND CLEARANCES

REMARKS :



StreamStats Version 3 Beta**Basin Characteristics Ungaged Site Report**

Date: Wed Nov 25, 2015 3:08:32 PM GMT-5

NAD 1983 Latitude: 34.5552 (34 33 19)

NAD 1983 Longitude: -79.2072 (-79 12 26)

Label	Value	Units	Definition
DRNAREA	7.85	square miles	Area that drains to a point on a stream
PCTREG1	0	percent	Percentage of drainage area located in Region 1
PCTREG2	0	percent	Percentage of drainage area located in Region 2
PCTREG3	0	percent	Percentage of drainage area located in Region 3
PCTREG4	100	percent	Percentage of drainage area located in Region 4
LC11IMP	0.81	percent	Percentage of impervious area determined from NLCD 2011 impervious dataset

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U.S. Department of the Interior | U.S. Geological Survey

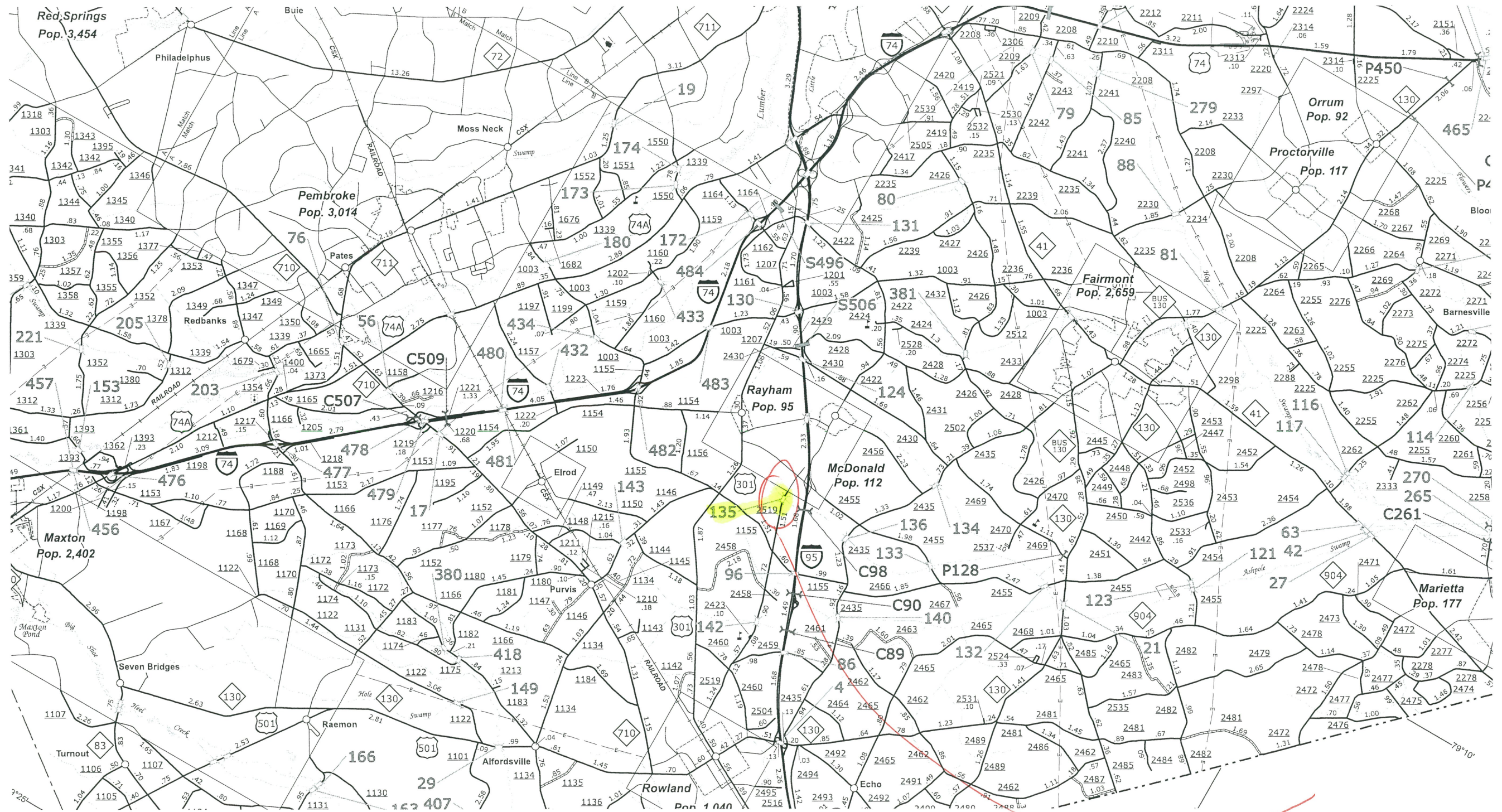
URL: http://streamstatsags.cr.usgs.gov/v3_beta/BCreport.htm

Page Contact Information: [StreamStats Help](#)

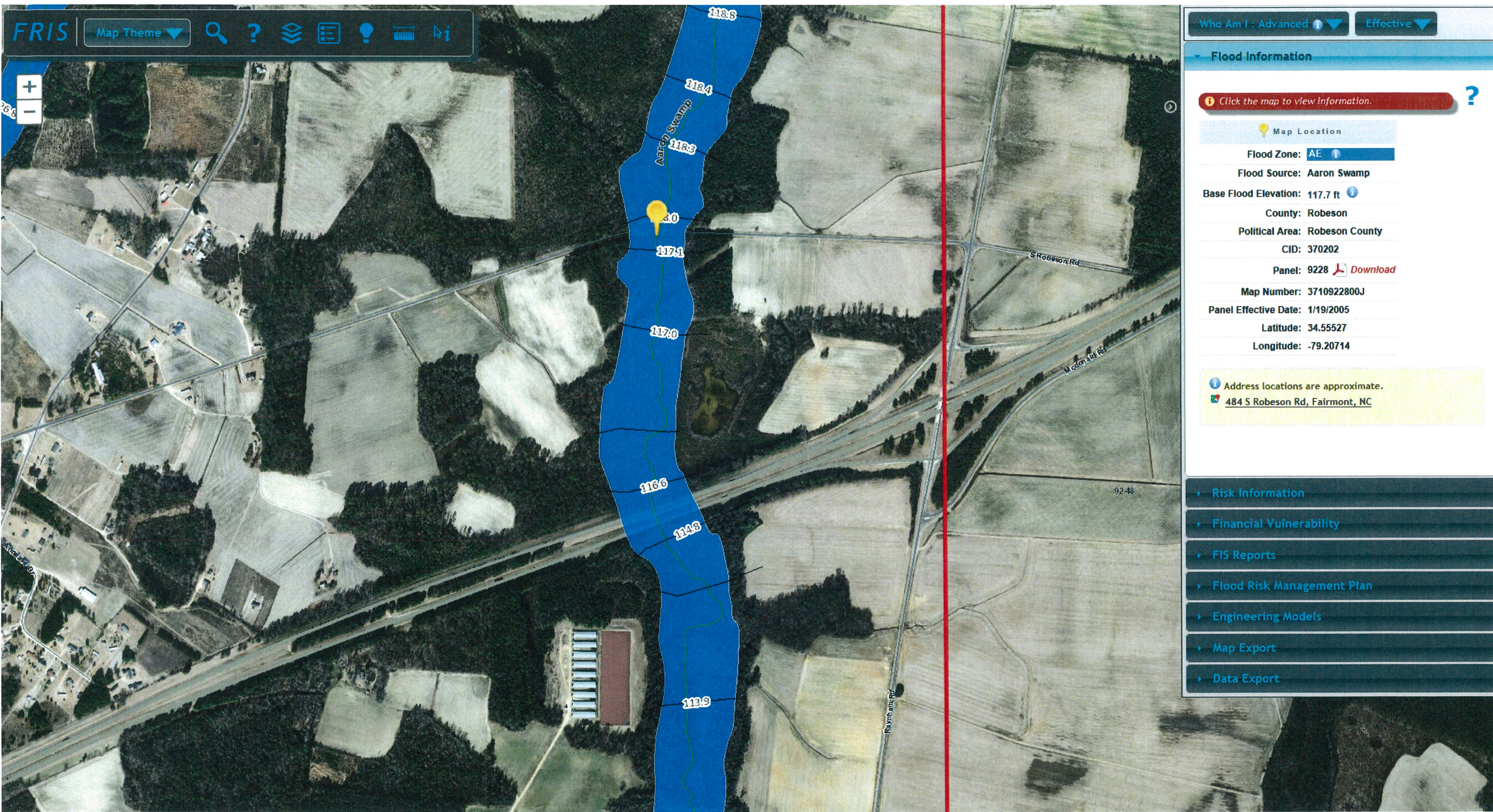
[Streamstats Status](#)[News](#)

Page Last Modified: 08/24/2015 15:42:48 (Web2)





ROBESON 135



Flood Information

Click the map to view information.

Map Location

Flood Zone: AE [info icon]

Flood Source: Aaron Swamp

Base Flood Elevation: 117.7 ft [info icon]

County: Robeson

Political Area: Robeson County

CID: 370202

Panel: 9228 [Download icon]

Map Number: 3710922800J

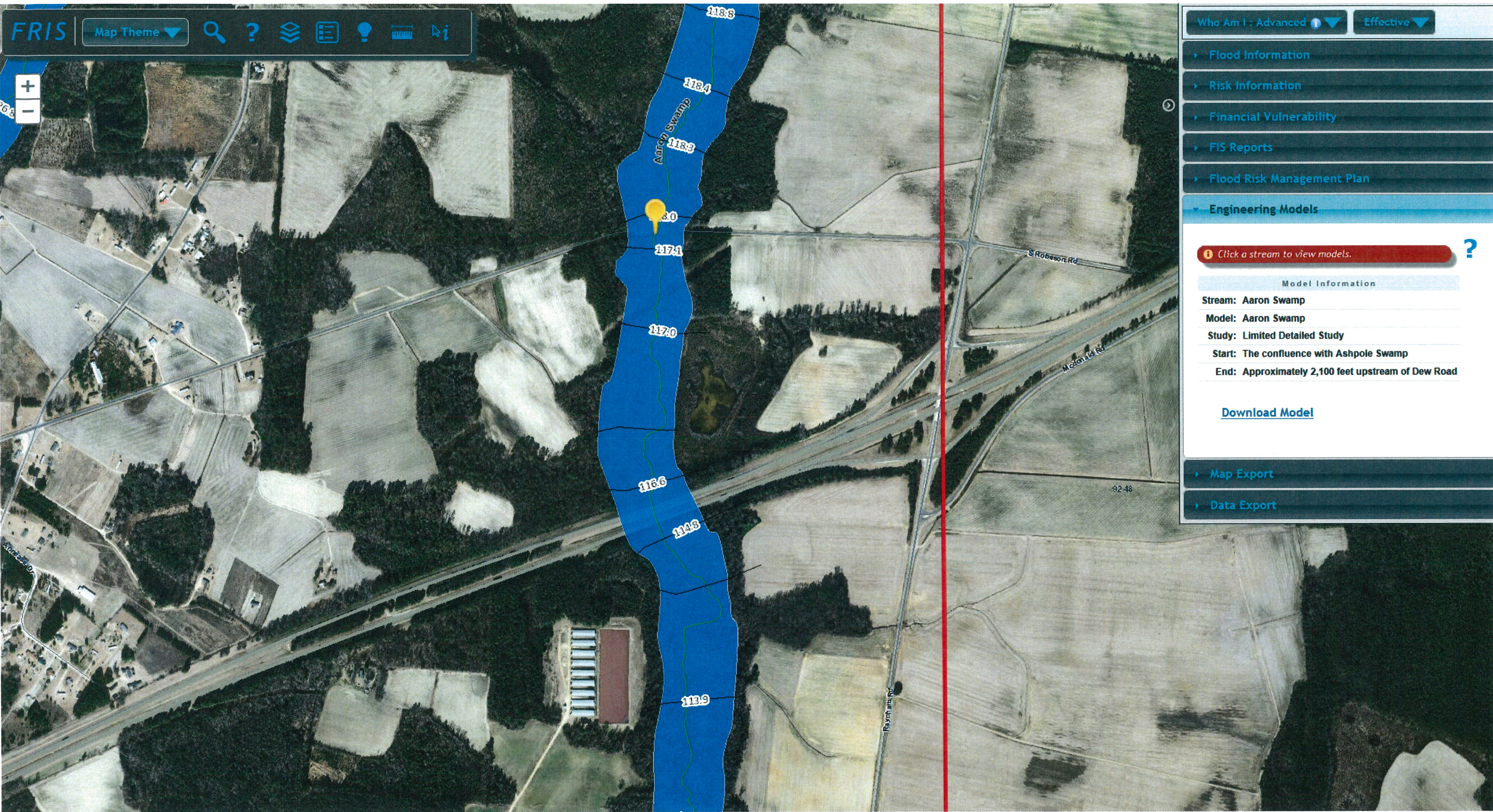
Panel Effective Date: 1/19/2005

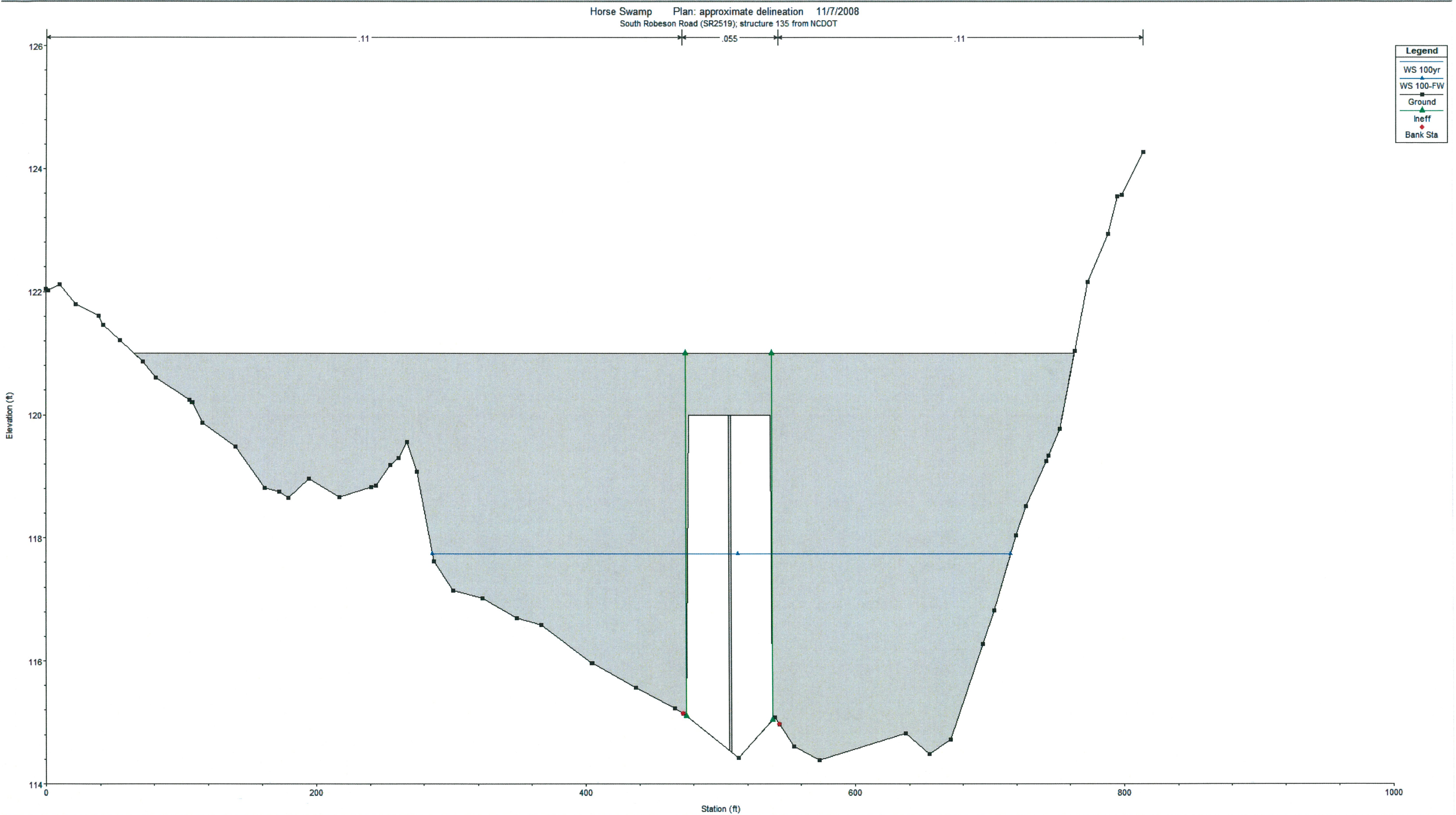
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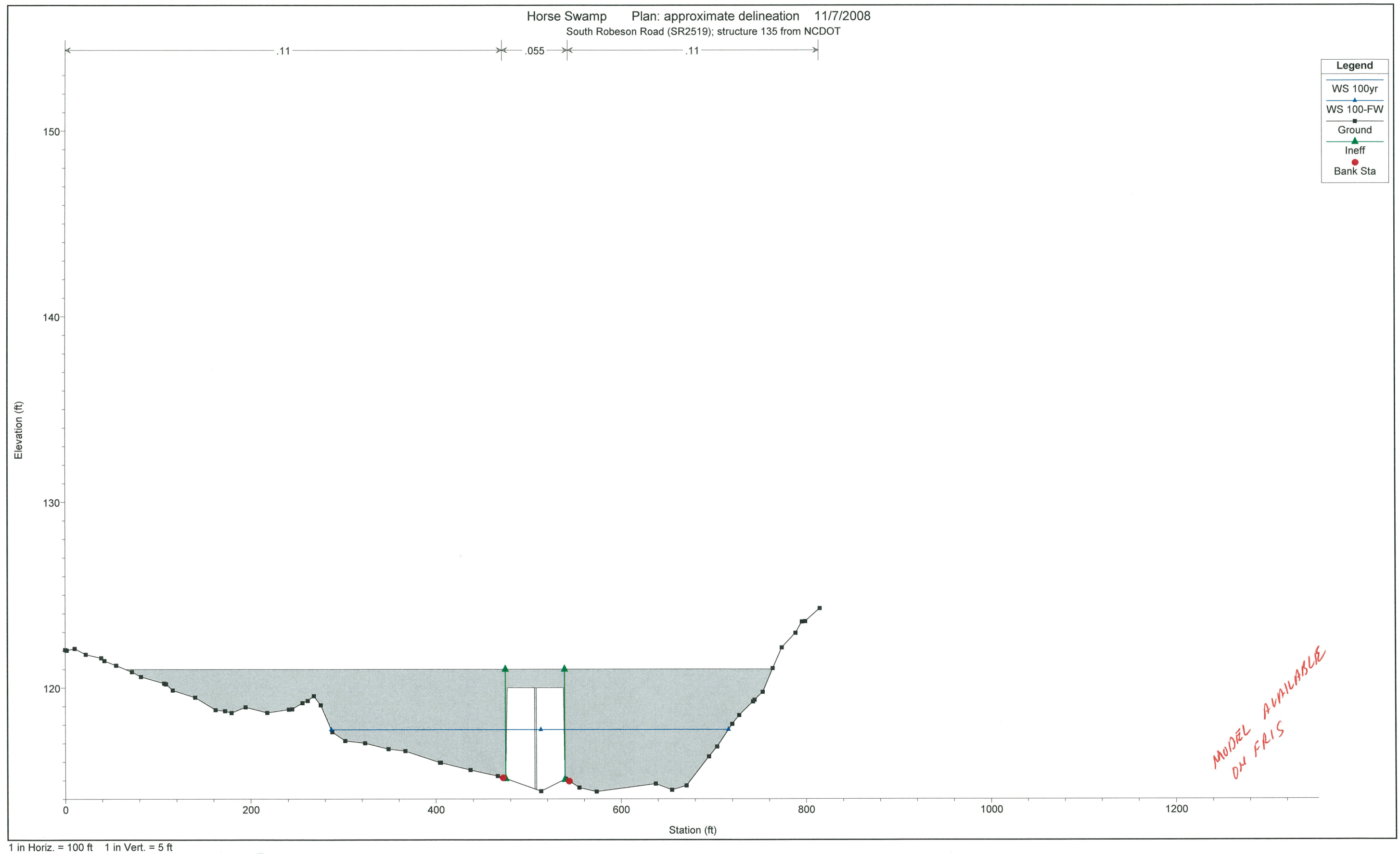
Longitude: -79.20714

Address locations are approximate.
484 S Robeson Rd, Fairmont, NC

- Risk Information
- Financial Vulnerability
- FIS Reports
- Flood Risk Management Plan
- Engineering Models
- Map Export
- Data Export









Zoom To:

Select on a tool on the toolbar. If the icon remains depressed, click on the map to perform the desired action.

NC Map Layers

☒ Streamgages

☒ Area of Limited Functionality

☒ North Carolina

☒ Stream Grid

☒ Study Area Bndys

Base Layers

☐ Imagery

☐ Street Map

☐ World Topo

☐ USA Topo

☐ Canadian Topo

☒ TNM Topo

0 0.5 1mi

Scale: 1 : 72,224

Latitude: 34.57596

Longitude: -79.07561 SS



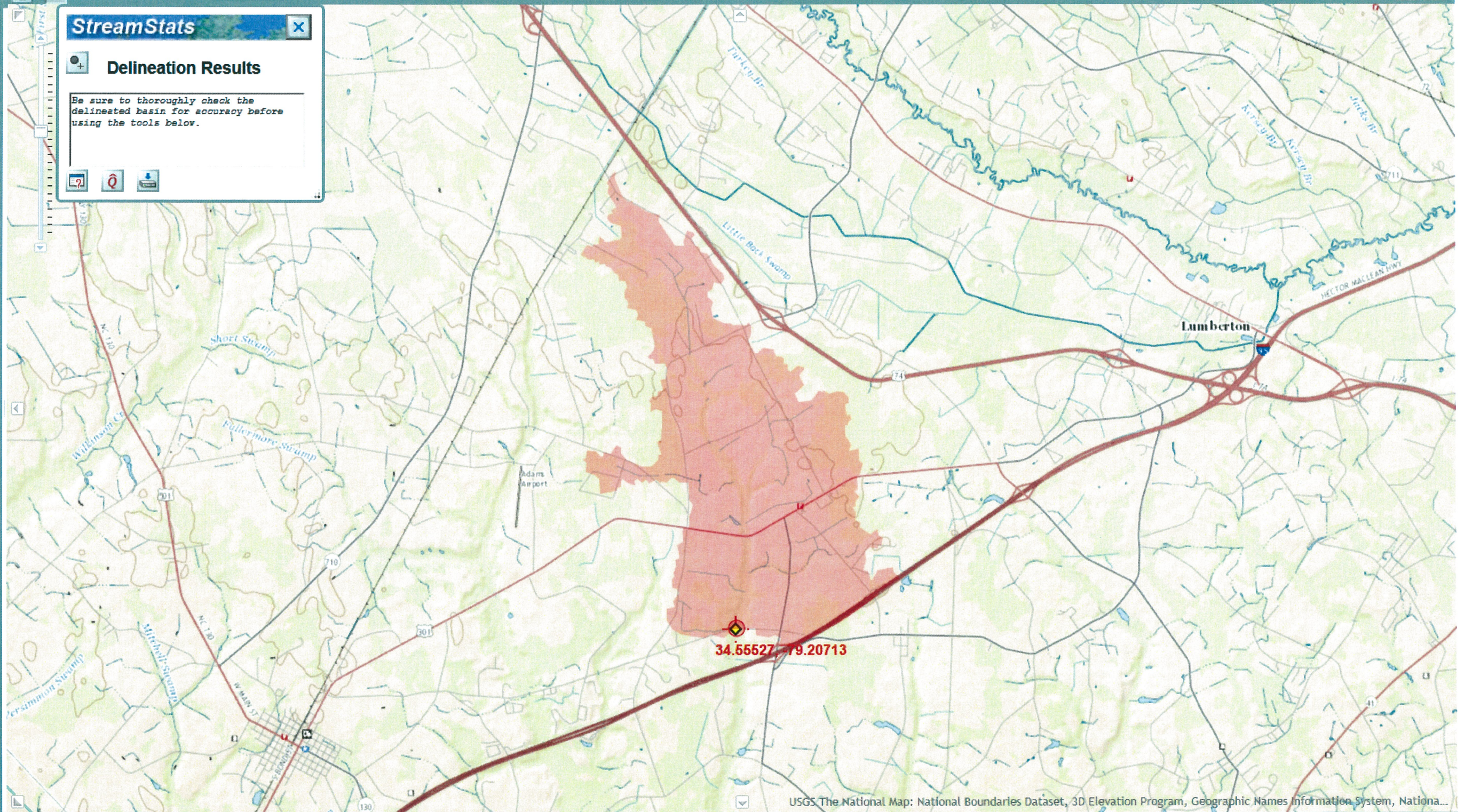
StreamStats



Delineation Results

Be sure to thoroughly check the delineated basin for accuracy before using the tools below.





USGS The National Map: National Boundaries Dataset, 3D Elevation Program, Geographic Names Information System, Nationa...

DNSTRM STR.

COMPUTATIONS									
Size & Type	ke	INLET CONTROL		OUTLET CONTROL					
		H ₁ W/D	H ₁ W.	dc	$\frac{dc+D}{2}$	h _o	H	L ₅₀	H ₁ W.
2 @ 10' x 9'				3.5	6.3	8.0	4.5	0	8.5

Drainage Area.....7.5 MI.².....Obtained from Field Investigation, AND QUAD MAP

Character of Drainage Area.....SWAMP.....

Waterway Required by Formula.....Sq. Ft. Formula Used.....

Maximum Stream Discharge.....⁹⁵⁰750 cfs.....Sec. Ft. Date.....

Discharge Data Obtained From.....

Period Covered by Discharge Records.....

Discharge Used for Design of Waterway.....Sec. Ft.

Waterway Area Considered Necessary.....Sq. Ft.

Waterway Area Provided by Recommended Structure.....180.....Sq. Ft.

Data on Existing Structure.....

Data on other Structures Up or Down Stream.....

Method Used in Determining Foundation Material.....DRIVING 1/2" ϕ IRON.....

Is Additional Foundation Investigation Considered Advisable

Other Information

BRIDGE DEPARTMENT
N. C. STATE HIGHWAY & PUBLIC WORKS COMMISSION
RALEIGH, N. C.

BRIDGE SURVEY REPORT

PART I
PROJECT NO. 8.13977 ROBESON COUNTY, STA. 354+60 S.B.L.

BRIDGE OVER AARON SWAMP Known as

On..... between..... and.....

Recommended Width of Roadway..... Skew 90° S.B.L.

Recommended Structure 2-10' x 9' BOX CULVERTS

Rip Rap

Temporary Crossing

Present Structure

New Location is..... Up, Down Stream from Crossing on Present Road

Nearest Shipping Point..... ROWLAND On..... A.C.L. R. R.

Distance from Shipping Point to Bridge Site is..... 5.8 miles.

Elevations From B. M. ^{#28} RR SPIKE IN BASE 18" G.M. 131' LT 371+40 SBL Elev..... 114.89

M.S.L. DATUM

USE THIS SPACE FOR PHOTOGRAPH OF PROPOSED SITE, SHOWING CENTER LINE, DIRECTION OF FLOW AND OTHER IMPORTANT POINTS ON PHOTOGRAPH.

Surveyed by..... A.L. HANKINS Assisted by..... D.E.D. J.I.M. Date..... July 1965

53-13

DNSTRM STR.

