

Hydraulics Unit Pre-Design Report (Pre-Scoping) for Structure #: 230313

Date:

County: Stream:
Road #: Road Name:
Division: Location:
Latitude: Longitude: Decimal degrees, a min of 5 decimal points

Assigned to:
Prepared By:
Hydro Reviewer:
Project Type:

Existing Structure

Structure Type: Yr Built:
Span Arrangement: OAL (ft): Skew: Abutment Type:
Number of Barrels: @ Span (ft): x Rise (ft):
Bed to Crown (ft): Clear Roadway (ft): Water Depth (ft): Superstructure Depth:
ADT: Year ADT: Scour Code (item113): Prior Survey Completed: Survey Date:
Drainage Area: Sq. Mi. Drainage Area Source: Roadway Overtops at Q100:
Discharge Method: USGS Region: Stream Gage Number(if applicable):
Q10 (cfs): Q25 (cfs): Q50 (cfs): Q100 (cfs): QBFE (cfs):
Structure in Flood Hazard Zone: Panel #: Panel Date: Type of FIS: Date of FIS:

Enviromental

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

Up/Down Stream Features

Upstream Feature:
Location:
Structure #: Route:
Latitude: Longitude:
Prior Survey Completed: Survey Date:
Structure Type:
Span Arrangement: OAL (ft):
Number of Barrels: @ Span (ft): x Rise (ft):
Bed to Crown (ft): Year Built:
Downstream Feature:
Location:
Structure #: Route:
Latitude: Longitude:
Prior Survey Completed: Survey Date:
Structure Type:
Span Arrangement: OAL (ft):
Number of Barrels: @ Span (ft): x Rise (ft):
Bed to Crown (ft): Year Built:

Preliminary Structure Estimate [Office Estimate]

Structure Type: Skew:
Dimensions/Spans:

Notes



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION:

Structure Safety Report

2 Year Complete Topside and Underwater Element Inspection

COUNTY: COLUMBUS STRUCTURE NUMBER: 230313 FREQUENCY: 24 MONTHS

FACILITY CARRIED: SR1159 old Tram Rd MILE POST: _____

LOCATION: 1.1 MI.N. OF JCT.SR1158

FEATURE INTERSECTED: BOGGY BRANCH

LATITUDE: 34° 11' 18.99" LONGITUDE: 78° 41' 56.08"

34.18860833

78.69891111

SUPERSTRUCTURE: REINF.CONC.FLOOR ON I-BEAMS

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

SPANS: 1@18.25'; 2@18.33'; 1@18.42'

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

PRESENT CONDITION: Fair INSPECTION DATE: 01/10/2017

POSTED SV: Not Posted POSTED TTST: Not Posted

OTHER SIGNS PRESENT: 4 DELINEATORS



LOOKING NORTH

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>

DIRECTION OF INSPECTION S-N
DIRECTION MATCHES PLANS YES

INSPECTED BY PATRICK G. RUTHERFORD	SIGNATURE <u>Patrick G. Rutherford</u>	ASSISTED BY STAN MATTHIAE
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BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 07/06/2017

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
COLUMBUS	6	3	230313	73	FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR1159	BOGGY BRANCH

LOCATED :	BRIDGE NAME :	CITY :
1.1 MI.N. OF JCT.SR1158		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
08	NFA	NFA	740 2013	LT 241 RT 241

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1955	BMU			H 15

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		6 FT		3 FT

SUPERSTRUCTURE :	REINF.CONC.FLOOR ON I-BEAMS
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SUBSTRUCTURE :	E.BTS&INT.BTS:RC CAPS/TIMBER PILES
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SPANS :	1@18'-3"; 2@18'-4"; 1@18'-5"
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BEAMS OR GIRDERS :	11 LINES W12X27 I-BEAMS @ 2'-4 13/16" CENTERS
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FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
5 RC/NO AWS		25.417 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 :		DATE
HS-1	HS-1	Int Bm	SV TTST		03/13/1996

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

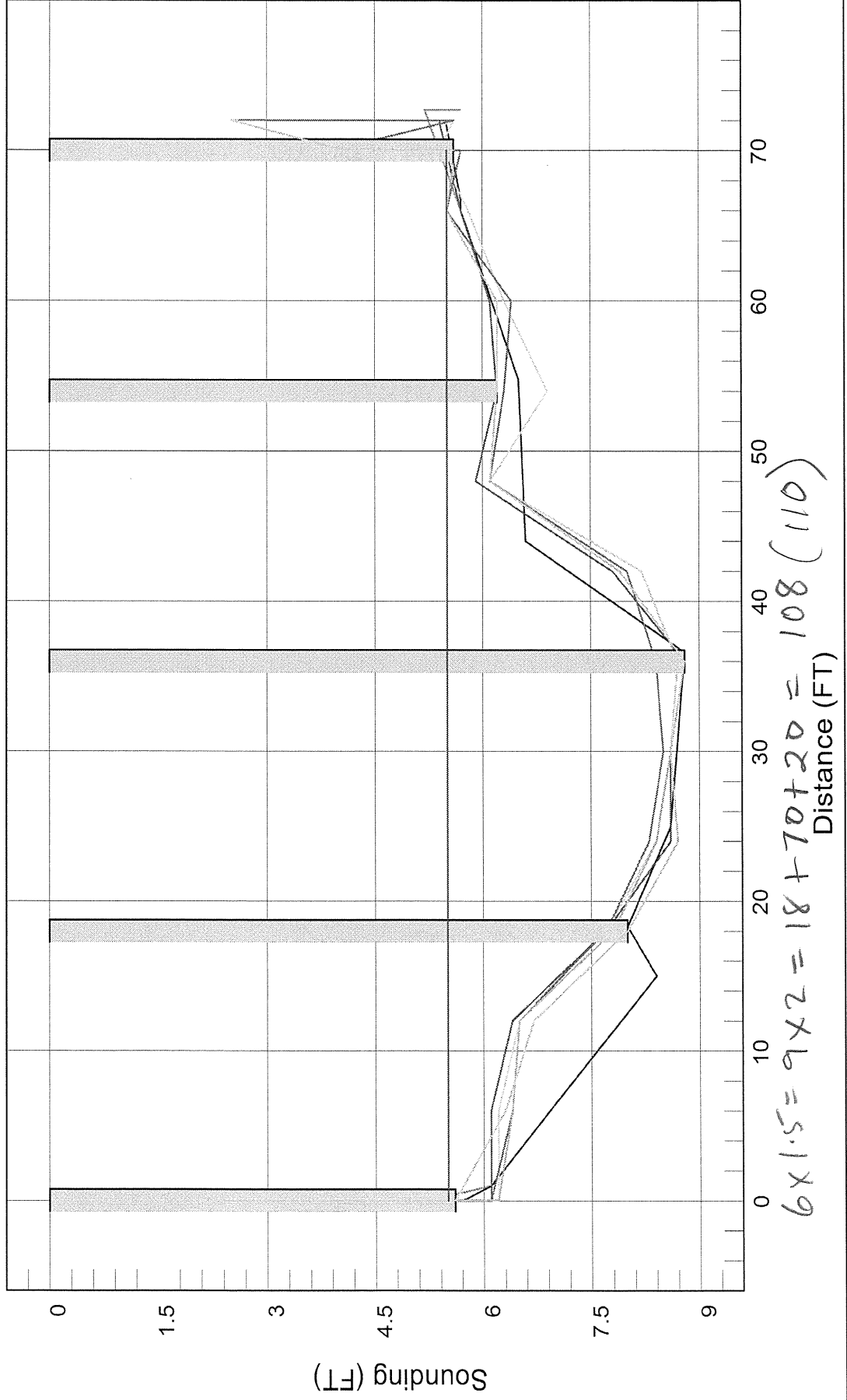
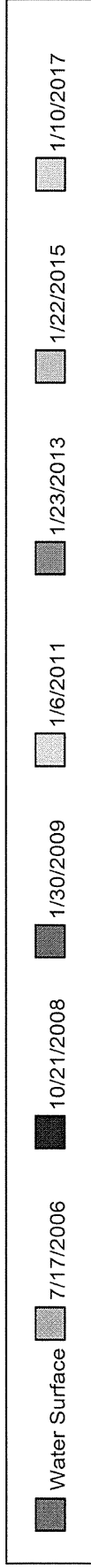
UNDER ROUTES AND CLEARANCES

REMARKS :

Bridge: 230313 County COLUMBUS Date: 01/10/2017

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



Enter report title:

StreamStats Report

Enter comments:

Some comments here

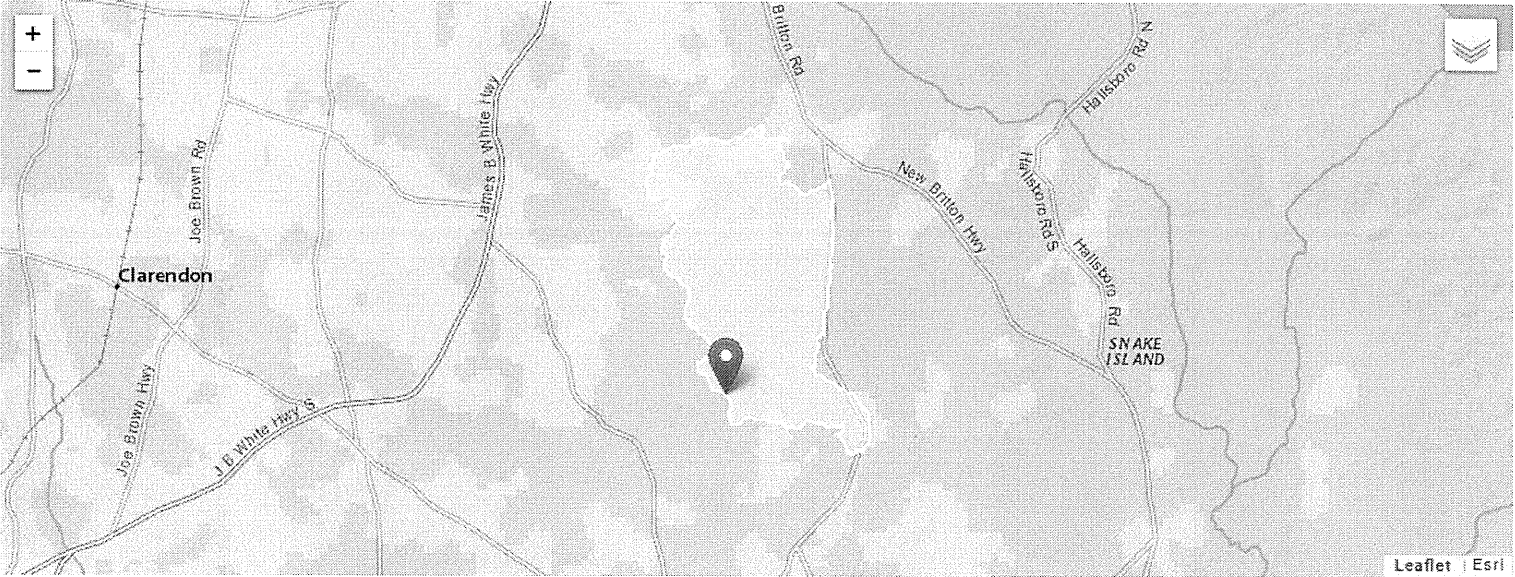
StreamStats Report

Region ID: NC

Workspace ID: NC20180620192115531000

Clicked Point (Latitude, Longitude): 34.18884, -78.69912

Time: 2018-06-20 15:21:34 -0400

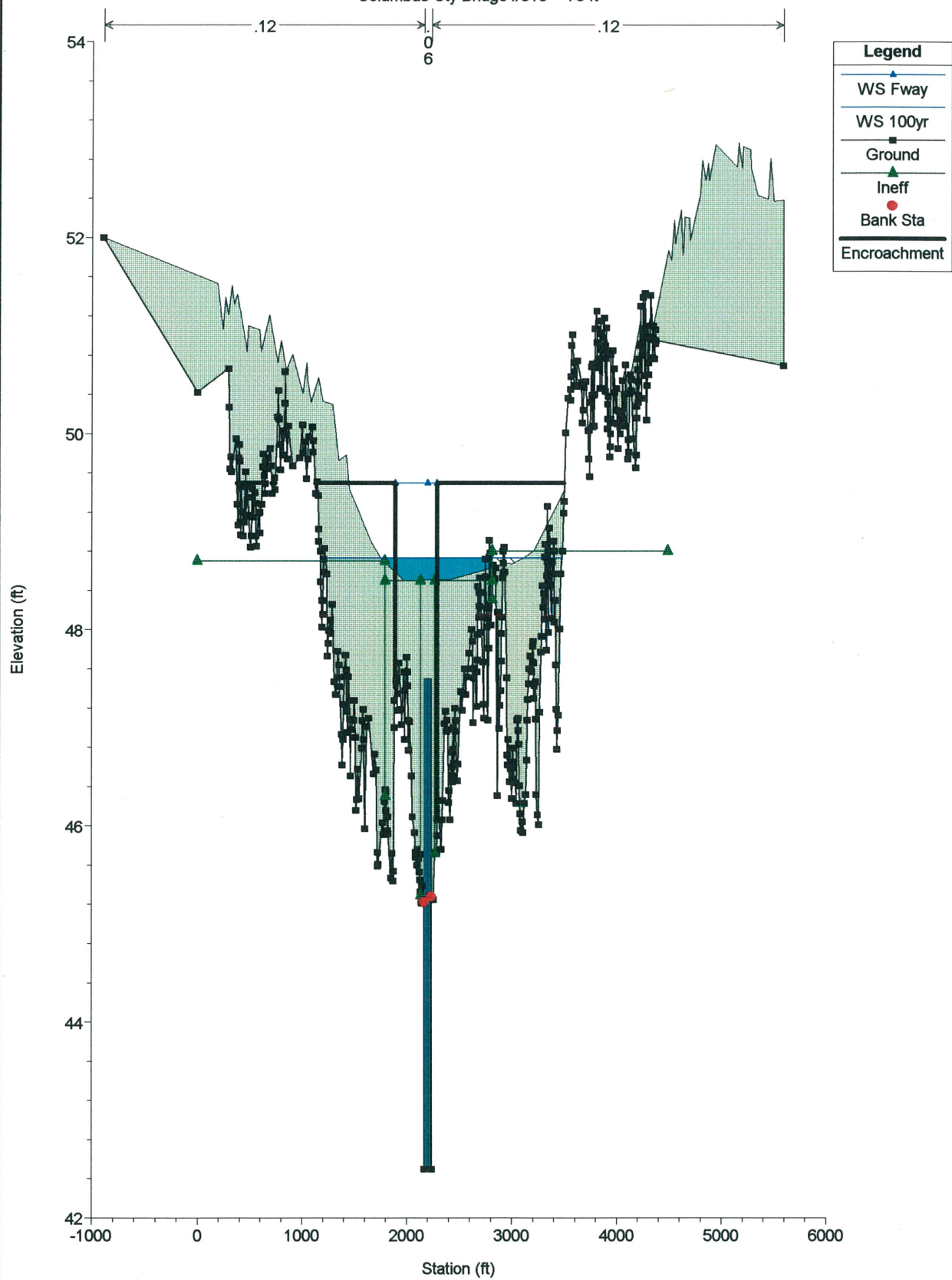


Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	7.61	square miles
I24H50Y	Maximum 24-hour precipitation that occurs on average once in 50 years	8.86	inches
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	0.3	percent

Plan: Boggy 6/20/2018

Columbus Cty Bridge #313 -- 73 ft --



BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 10/01/2013

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :
COLUMBUS	6	3	230325	70 FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR1158	BEAVER DAM SWAMP

LOCATED :	BRIDGE NAME :	CITY :
0.8 MI.W.JCT.SR1159		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
09	NFA	NFA	180 2007	LT 241 RT 241

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1958	BMU			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 : RC FLOOR/TIMBER JOIST (STD.BMD-10)

SUBSTRUCTURE : EBTS&IBT:TIMBER CAPS/TIMBER PILES @ VAR.CTS.

SPANS : 1@17'10";1@17'2";1@17';1@17'10"

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

FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
5 RC/NO AWS		25.333 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	32	DATE	01/25/2010
HS-13	HS-20	Int Joist	SV 22				

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

UNDER ROUTES AND CLEARANCES

Down Stream Structure

REMARKS :

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 05/16/2018

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :
COLUMBUS	6	3	230324	36 FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR1158	BEAVER DAM SWAMP

LOCATED :	BRIDGE NAME :	CITY :
0.4 M.I.E.JCT.SR1141		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
09	NFA	NFA	180 2015	LT 241 RT 241

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1958	BMU			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 9 FT		4 FT

SUPERSTRUCTURE : RC FLOOR/TIMBER JOISTS

SUBSTRUCTURE : EBTS&IBT:TIMBER CAPS/TIMBER PILES @ 8'CTS.

SPANS : 2@18'

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

FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
5 RC/NO AWS		25.334 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

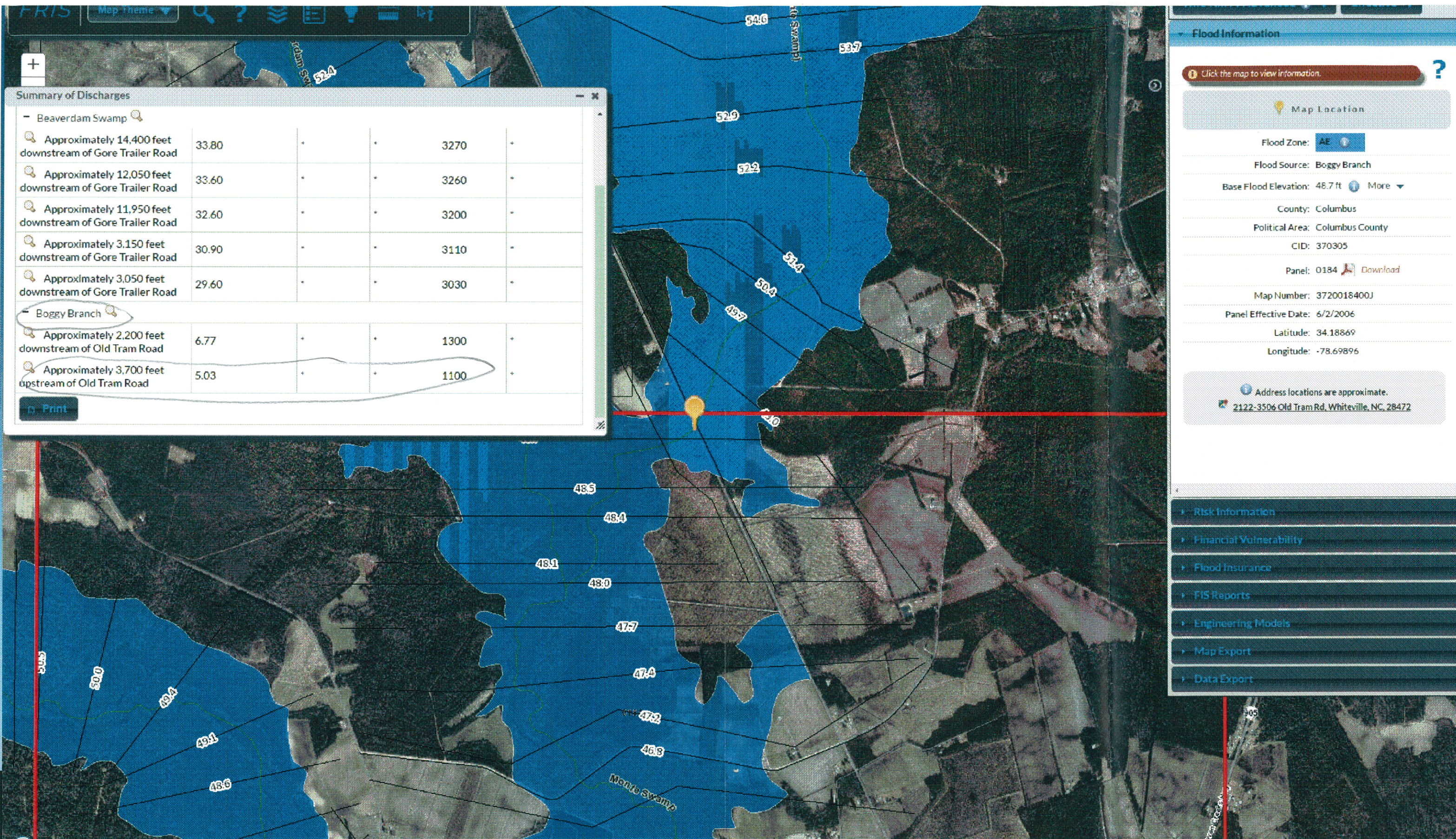
INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :	TTST	38	DATE	04/25/2018
HS-13	HS-21	Timber Joist	SV 24				

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

UNDER ROUTES AND CLEARANCES

Downstream Structure
Overflow Structure.

REMARKS :



Summary of Discharges

- Beaverdam Swamp					
Approximately 14,400 feet downstream of Gore Trailer Road	33.80	+	+	3270	+
Approximately 12,050 feet downstream of Gore Trailer Road	33.60	+	+	3260	+
Approximately 11,950 feet downstream of Gore Trailer Road	32.60	+	+	3200	+
Approximately 3,150 feet downstream of Gore Trailer Road	30.90	+	+	3110	+
Approximately 3,050 feet downstream of Gore Trailer Road	29.60	+	+	3030	+
- Boggy Branch					
Approximately 2,200 feet downstream of Old Tram Road	6.77	+	+	1300	+
Approximately 3,700 feet upstream of Old Tram Road	5.03	+	+	1100	+

Print

Flood Information

Click the map to view information.

Map Location

Flood Zone: AE

Flood Source: Boggy Branch

Base Flood Elevation: 48.7 ft More

County: Columbus

Political Area: Columbus County

CID: 370305

Panel: 0184 Download

Map Number: 3720018400J

Panel Effective Date: 6/2/2006

Latitude: 34.18869

Longitude: -78.69896

Address locations are approximate.
2122-3506 Old Tram Rd, Whiteville, NC, 28472

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

