

OFFICE ESTIMATE

2 @ 50' Bridge

Project# _____

TIP# _____

Let Date _____

PREDESIGN-PRESURVEY REPORT

WBS# 17BP. 11. R. 92County SURRY (DIV II)Bridge# 850203Road# SR 1338 (HIDDEN VALLEY RD)Stream FISHER RIVER

Type Of Request: POC Force Account TIP NCMA

Date 7/03/13 Name MJYAssigned To RLHChecked By Wsh 7-3-13Prior Survey Date NONE (attach copy of prior survey) BRN BK: NO CO. FILE NOStudy By Scour Section NONEFlood Zone AE Detail Study LIMITED Date 8/18/09 Panel# 4040

B.M. Info _____

Quad Map LAMBSBURG Drainage Area 8.99 SQ. MI. From DASS : STA. 211239871Q25 2000 cfs Q50 2500 cfs Q100 2900 cfs Method REG. EONS./REG. I

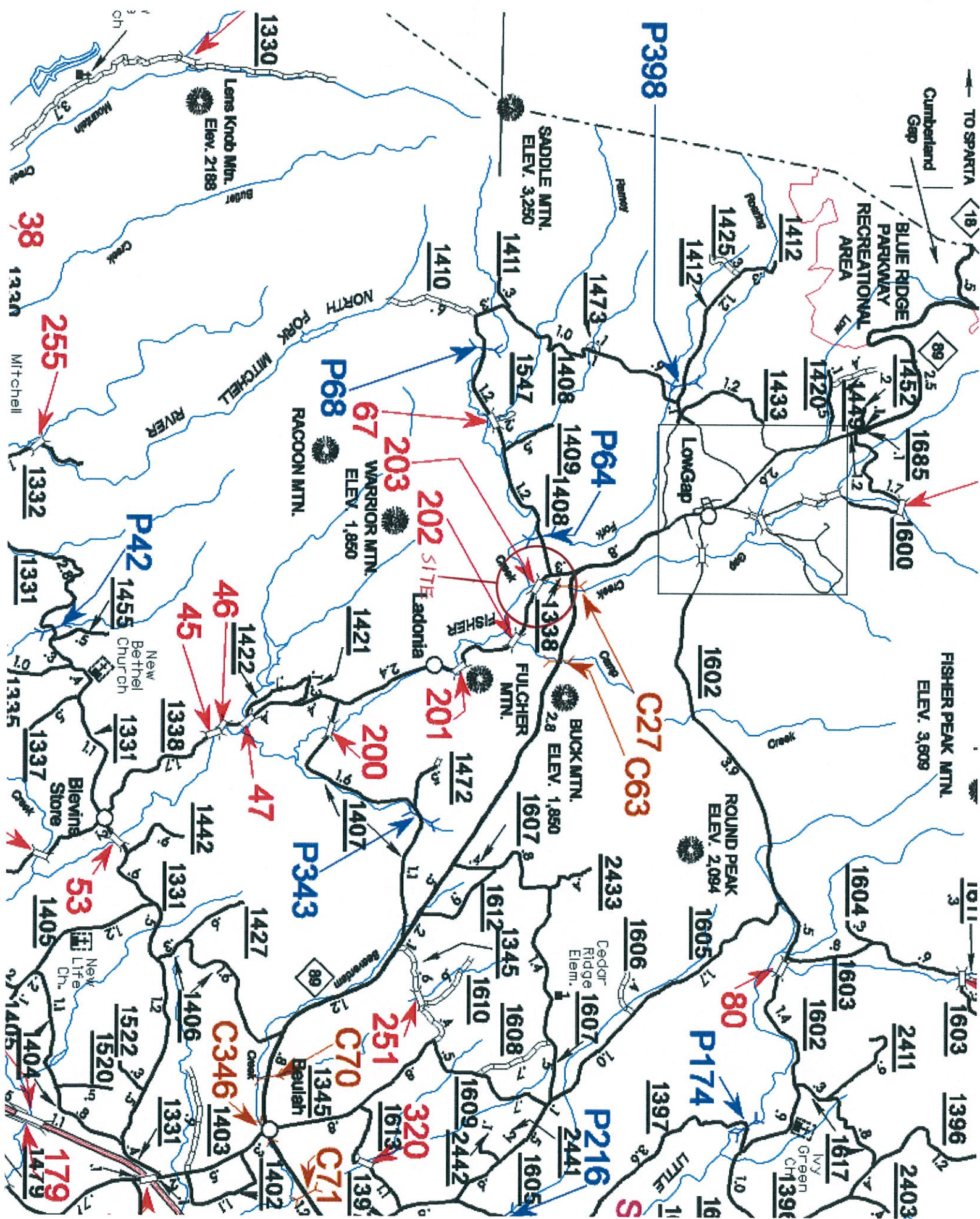
EXISTING BRIDGE INFORMATION

Location 0.1 MI. S. JCT. SR 1408Average Daily Traffic 660 6% TRK (2008)Length 81' Bed- To Crown 14' Water Depth 2'Type Structure STEEL PLANK FLOOR ON I-BEAMS; TIM. CAPS/POST. & CONCL. SILLSType Spans 1 @ 50'-3", 1 @ 30'-3"Upstream Structure 850027 (NC 89 E. FORK FISHER RIVER)Location 0.2 MI. E. JCT. SR 1338Bed- To Crown 22' (D=1') Prior Survey _____Downstream Structure 850201 (SR 1338 FISHER RIVER)Location 1 MI. N. JCT. SR 1407Bed- To Crown 32' (D=6') Prior Survey _____

SCS Watershed _____

HATCHERY-SUPPORTED ENVIRONMENTAL TVA NOTrout Stream YES Anadromous Fish NO Primary Nursery Area NOHigh Quality Waters YES Nutrient Sensitive Waters NONear Water Supply Intake NO CAMA County NOStream Classification WS-II; Tr; HRW 12-63-(1)DENR River Basin Info. YADKIN PEE DEE





850203



North Carolina StreamStats

Streamstats Ungaged Site Report

Date: Wed Jul 3 2013 08:05:03 Mountain Daylight Time

Site Location: North_Carolina

NAD27 Latitude: 36.5054 (36 30 20)

NAD27 Longitude: -80.8560 (-80 51 22)

NAD83 Latitude: 36.5056 (36 30 20)

NAD83 Longitude: -80.8558 (-80 51 21)

Drainage Area: 8.98 mi²

Percent Urban: 6.3 %

Percent Impervious: 0.6 %

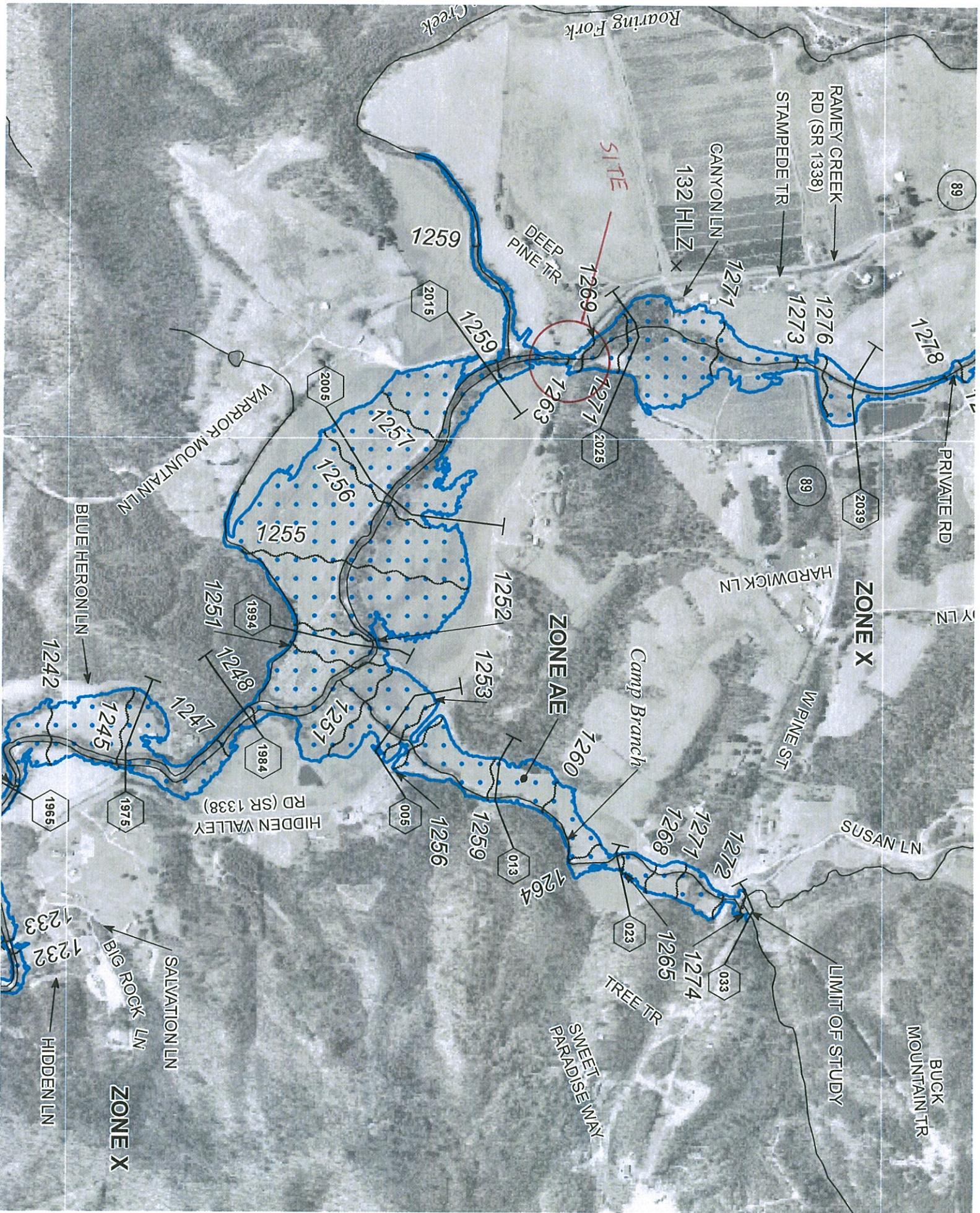
Peak Flows Region Grid Basin Characteristics			
100% Peak Southeast US 2009 5158 (8.98 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	8.98	1	9000
Percent Area in Region 1 (percent)	25.740	0	100
Percent Area in Region 2 (percent)	74.260	0	100
Percent Area in Region 3 (percent)	0.000	0	100
Percent Area in Region 4 (percent)	0.000	0	100
Percent Area in Region 5 (percent)	0.000	0	100

Urban Flows Region Grid Basin Characteristics			
100% Peak urban Blue Ridge-Piedmont FS007-00 (8.98 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	8.98	0.04	41
Area of Impervious Surfaces (percent)	0.59 (below min value 2)	2	54.6

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Peak Flows Region Grid Streamflow Statistics					
Statistic	Flow (ft ³ /s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
PK2	619	35		356	1080
PK5	1100	34		638	1910
PK10	1470	35		838	2590
PK25	1970	38		1080	3590
PK50	2350	40		1250	4430
PK100	2780	42		1430	5410
PK200	3160	44		1570	6380
PK500	3760	48		1770	7960

Urban Flows Region Grid Streamflow Statistics					
Statistic	Flow (ft ³ /s)	Standard Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
PK2U	117				
PK5U	260				
PK10U	392				
PK25U	693				
PK50U	900				
PK100U	1140				



Section 5.0 – Engineering Methods

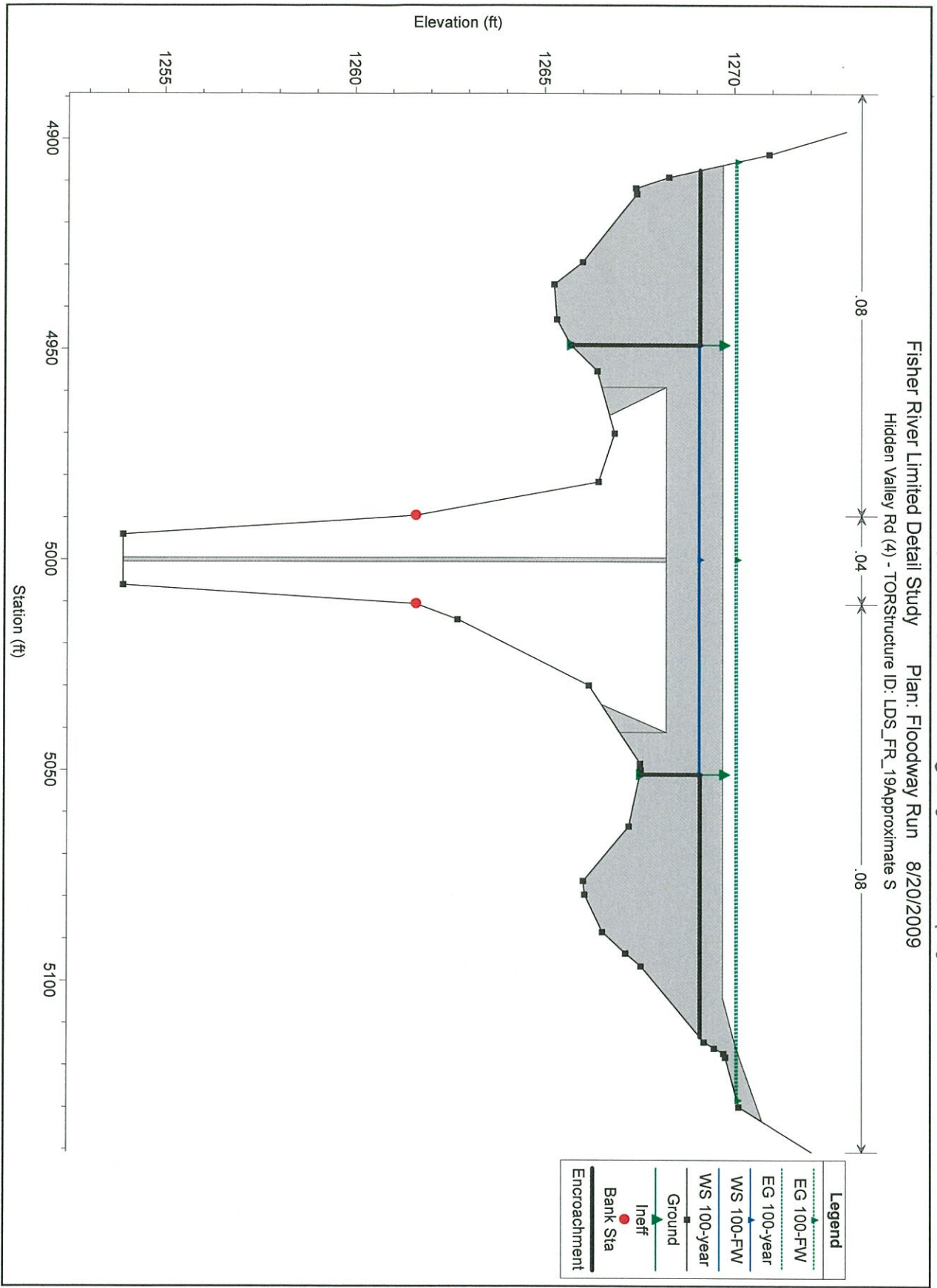
Table 11—Limited Detailed Flood Hazard Data

Cross Section ¹	Stream Station ²	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width ³ (feet)
FISHER RIVER				
1949	194,867	6,768	1,229.4	27 / 27
1951	195,072	6,768	1,230.2	23 / 41
1958	195,766	6,768	1,233.6	45 / 26
1961	196,130	6,768	1,234.4	50 / 27
1965	196,454	6,768	1,236.7	28 / 42
1970	196,982	6,768	1,242.4	167 / 64
1975	197,483	6,768	1,245.1	35 / 200
1980	198,000	6,768	1,246.3	129 / 37
1984	198,429	6,768	1,248.0	94 / 23
1990	198,994	6,768	1,249.9	164 / 23
1994	199,412	5,621	1,251.8	33 / 96
2000	199,995	5,621	1,255.3	112 / 326
2005	200,491	5,621	1,256.1	188 / 285
2010	200,989	5,621	1,257.0	46 / 45
2015	201,510	5,621	1,258.6	30 / 46
2025	202,498	3,044	1,270.6	42 / 119
2030	203,003	3,044	1,271.2	85 / 35
2039	203,929	3,044	1,276.3	117 / 43
2050	204,994	3,044	1,283.4	23 / 21
2055	205,500	3,044	1,290.2	50 / 40
2060	206,003	3,044	1,294.4	25 / 190
2065	206,493	3,044	1,299.9	12 / 328
2070	207,000	3,044	1,302.2	30 / 13
2075	207,493	3,044	1,307.8	34 / 55
2080	208,008	3,044	1,312.6	42 / 34
2085	208,504	3,044	1,316.9	18 / 157
2090	209,009	3,044	1,320.4	120 / 40
2095	209,505	2,898	1,323.1	41 / 28
2100	210,000	2,898	1,327.7	200 / 24
2110	210,987	2,898	1,335.6	77 / 309
2115	211,487	2,898	1,340.4	27 / 236
2120	212,016	2,898	1,343.6	46 / 140
2125	212,517	2,898	1,348.0	68 / 35
2130	212,999	2,481	1,351.4	90 / 53
2136	213,590	2,481	1,355.1	15 / 144
2140	214,015	2,481	1,359.2	20 / 31
2148	214,841	1,825	1,371.4	26 / 132
2154	215,419	1,825	1,378.3	75 / 17
2159	215,891	1,825	1,384.6	92 / 65
2166	216,617	1,825	1,394.4	55 / 26
2170	217,010	1,825	1,401.1	27 / 16
2175	217,503	1,825	1,408.2	32 / 36
2179	217,923	1,825	1,414.5	125 / 6
2187	218,720	1,559	1,423.9	60 / 24
2192	219,159	1,559	1,431.6	21 / 78
2195	219,498	1,559	1,436.2	38 / 16
2200	219,999	1,559	1,447.7	43 / 32
2205	220,497	1,559	1,458.9	94 / 20

850203

RIVER STA: 202052 BR U

Fisher River Limited Detail Study Plan: Floodway Run 8/20/2009
Hidden Valley Rd (4) - TORStructure ID: LDS_FR_19Approximate S



850203



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

TEMPORARY REPAIR... ABUT. (A) ABUTMENT

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY SURRY BRIDGE NUMBER 850203 INSPECTION CYCLE 2 YRS
ROUTE SR1338 ACROSS RAMEY CREEK M.P. 0

LOCATION .1 MI.S.JCT.SR1408SUPERSTRUCTURE STEEL PLANK FLOOR ON I-BEAMSSUBSTRUCTURE E.BTS&INT.BT:TIMBER CAPS/TIMBER POST&CONCRETE SILLSSPANS 1 @ 50'-3;1 @ 30'-3LONGITUDE 80° 51' 22.2"LATITUDE 36° 30' 20.6"PRESENT CONDITION FAIRINVENTORY RATING INSPECTION DATE 10/05/2011OPERATING RATING PRESENT POSTING SV 22 TTST 29 SV 22 TTST 29PROPOSED POSTING COMPUTER UPDATE ANALYSIS DATE POSTING LETTER DATE SUFFICIENCY RATING OTHER SIGNS PRESENT 4 DELINEATORSSOUTH TO NORTHSIGN NOTICE
ISSUED FORNUMBERED
REQUIREDNo WEIGHT LIMIT No DELINEATORS No NARROW BRIDGE No ONE LANE BRIDGE No LOW CLEARANCE

850203

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

COUNTY : SURRY DIVISION : 11 DISTRICT : 1 STRUCTURE NUMBER : 850203 LENGTH : 81 FEET

ROUTE CARRIED : SR1338 FEATURE INTERSECTED : RAMEY CREEK

LOCATED : .1 MI.S.JCT.SR1408 BRIDGE NAME : CITY :

FUNC. CLASS : 09 SYST.ON : NFA SYST.UNDER : NFA ADT & YR : 660 2008 RAIL TYPE : LT 233 RT 233

BUILT : 1968 BY : BMU PROJ : FED.AID PROJ : DESIGN LOAD : Other or Unknown

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

NAVIGATION : VC 0 FT HC 0 FT HT. CRN. TO BED : 14 FT WATER DEPTH : 2 FT

SUPERSTRUCTURE : STEEL PLANK FLOOR ON I-BEAMS

SUBSTRUCTURE : E.BTS&INT.BT:TIMBER CAPS/TIMBER POST&CONCRETE SILLS

SPANS : 1 @ 50'-3;1 @ 30'-3

BEAMS OR GIRDERS : SPN1:10 LNS.21 I-BEAMS;SPN2:10 LNS.16 I-BEAMS @ 2'-7 CTS.

FLOOR : ENCROACHMENT : DECK (OUT TO OUT) : 24.2 FT

CLEAR ROADWAY : 24 FT BETWEEN RAILS : 24.5 FT SIDEWALK OR CURB : LT .3 FT RT .3 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-12 OPE.RTG. : HS-19 CONTR.MEMBER : Ext. bmsSpB POSTED : SV 22 TTST 29 DATE 09/25/2008

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

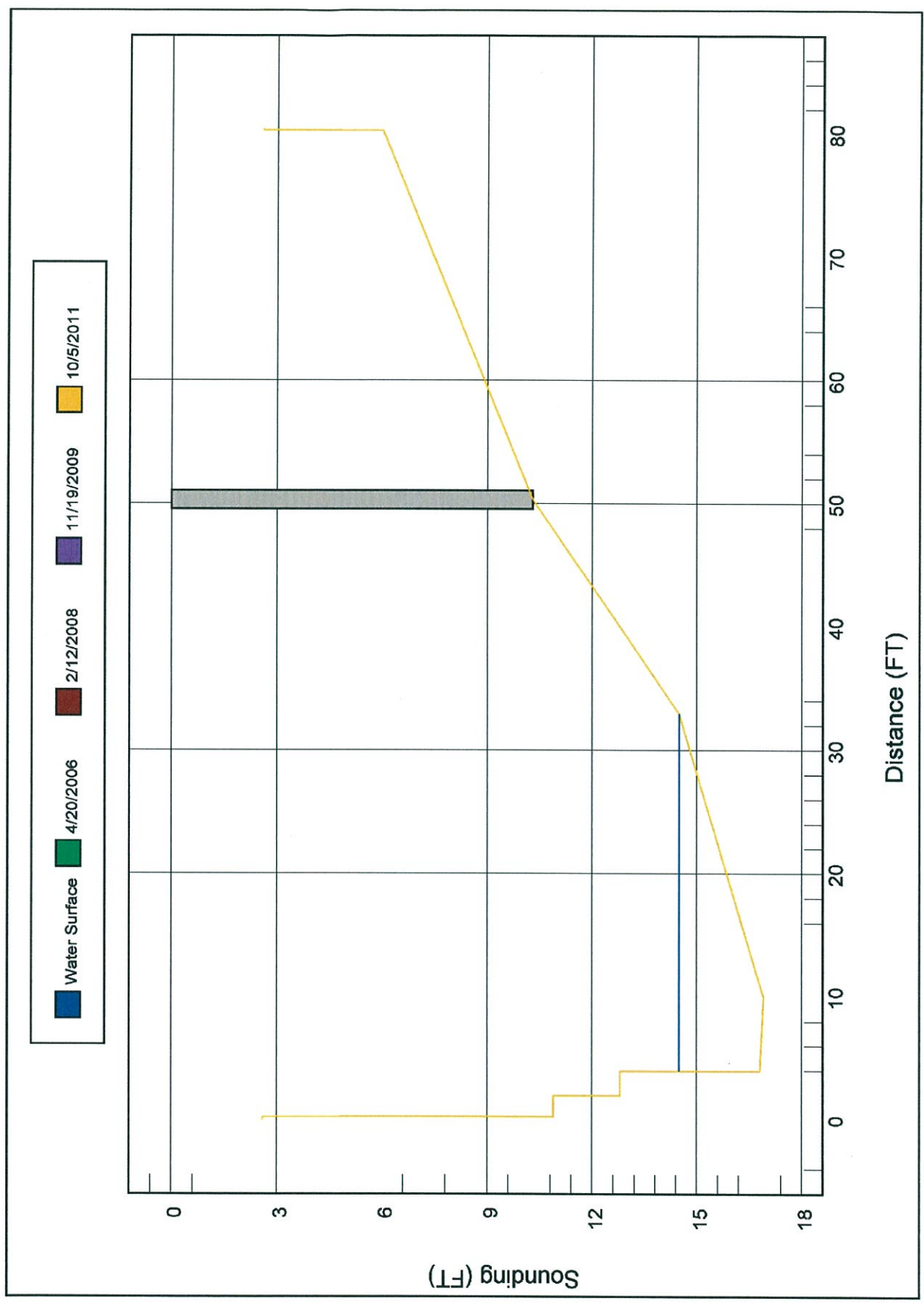
UNDER ROUTES AND CLEARANCES

REMARKS :

Bridge: 850203 County: SURRY Date: 10/05/2011

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)





WEST PROFILE



ABUT. (A)