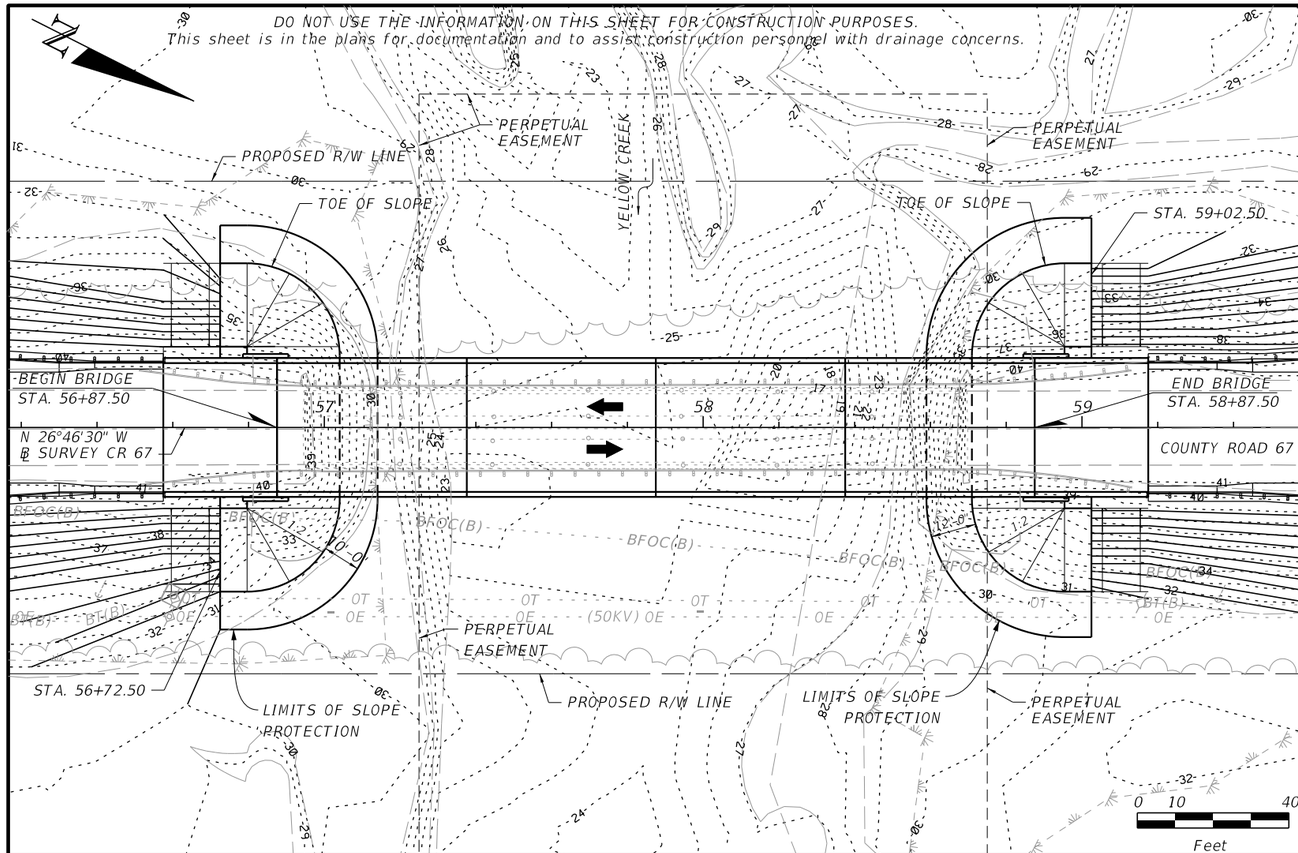

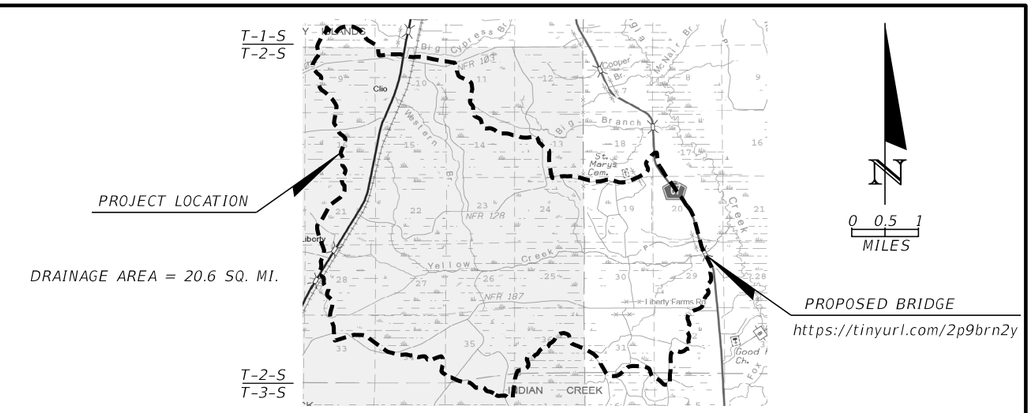

(REFERENCE)	EXISTING STRUCTURES (1)	(2)	(3)	(4)	PROPOSED STRUCTURE
FOUNDATION	TIMBER PILE				24" **
OVERALL LENGTH (ft)	175'				200'
SPAN LENGTH (ft)	25'				50'
TYPE CONSTRUCTION	STEEL				CONCRETE
AREA OF OPENING @D.F. (sf)	1207.31				1343.41
BRIDGE WIDTH	20'				36'-8"
ELEV. LOW MEMBER (ft)	39.3				37.75

NOTES: Existing Structures - (1) structure being replaced or modified. (2), (3), and (4) are immediate upstream and downstream structures that affect the hydraulics of the proposed structure.

HYDRAULIC DESIGN DATA

WATER SURFACE ELEVATIONS:				
N.H.W. (Non-Tidal)	24.6	M.H.W. (Tidal)	N/A	
CONTROL (Non-Tidal)	N/A	M.L.W. (Tidal)	N/A	

FLOOD DATA:	MAX EVENT OF RECORD	DESIGN FLOOD	BASE FLOOD	OVERTOPPING	GREATEST FLOOD
STAGE ELEV. NAVD (ft)	36.36 (REM. #2)	34.57* / 31.64	35.26* / 32.00		37.24* / 32.88
DISCHARGE (cfs)	UNKNOWN	1915	2204		2964
AVERAGE VELOCITY (f/s)	UNKNOWN	1.52* / 2.64	1.59* / 2.81		1.68* / 3.18
EXCEEDANCE PROB. (%)	UNKNOWN	2%	1%		0.2%
FREQUENCY (yr.)	UNKNOWN	50	100		500

NOTES: Max. Event of Record: Maximum event recorded based on historical information (if available).
Design Flood: Utilized to assure a desired level of hydraulic performance.
Base Flood: Has a 1% chance of being exceeded in any given year (100 year frequency).
Overtopping/Greatest Flood: Only show data for event with lower return period.
Overtopping: Causes flow over the highway, watershed divide, or thru relief structures.
Greatest flood: The most severe that can be predicted where overtopping is not practicable.

SCOUR PREDICTIONS FOR PROPOSED STRUCTURE DESCRIBED ABOVE	(1) PIER INFORMATION		(2) TOTAL SCOUR ELEVATION (FT)		
	NUMBERS	SIZE AND TYPE	LONG TERM SCOUR ELEVATION	WORST CASE<100 yr FREQ. 100 YR.	WORST CASE<500 yr. FREQ. 500 YR.
	2 - 3	24" SQ. PILES	N/A	20.10	19.90
	4	24" SQ. PILES	N/A	14.96	14.76

HYDRAULIC RECOMMENDATIONS

BEGIN BRIDGE STA. 56+87.50 END BRIDGE STA. 58+87.50 SKEW ANGLE BETWEEN BRIDGE AND ROADWAY 0°

CLEARANCE PROVIDED (ft):	NAV: HORIZ. 50	NAV. VERT. 13.2	NAV. ABOVE EL. 24.6
	DRIFT: HORIZ. 50	DRIFT: VERT. 3.2	DRIFT: ABOVE EL. 34.57
MINIMUM CLEARANCE (ft):	NAV: HORIZ. 10	NAV. VERT. 6	NAV. ABOVE EL. 24.6
	DRIFT: HORIZ. 10	DRIFT: VERT. 2	DRIFT: ABOVE EL. 34.57

ABUTMENTS :	BEGIN BRIDGE	END BRIDGE
RUBBLE GRADE:	BANK AND SHORE PROTECTION	BANK AND SHORE PROTECTION
SLOPE:	1V:2H	1V:2H
BURIED OR NON-BURIED HORIZ. TOE:	NON-BURIED	NON-BURIED
TOE HORIZ. DISTANCE (ft):	10'	12'
LIMIT OF PROTECTION (ft):	53.33 LT & RT	LT & RT

DECK DRAINAGE: SPREAD CONTAINED IN SHOULDER, DRAINED VIA 4" SCUPPERS.

REMARKS

1. VALUE INCLUDES BACKWATER EFFECTS FROM PEAK STAGES OF TELOGIA CREEK
2. AS REPORTED BY J.T. HATHAWAY, LIBERTY COUNTY ROAD SUPERINTENDENT.

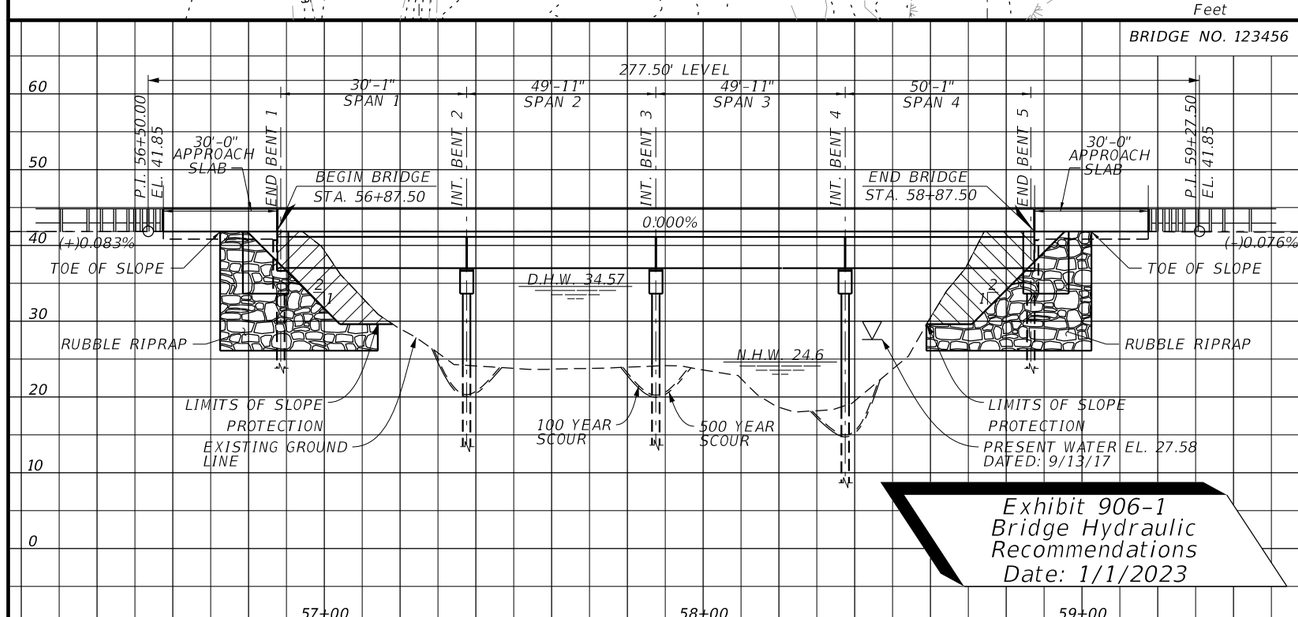

Exhibit 906-1
Bridge Hydraulic Recommendations
Date: 1/1/2023

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

LUKE S. WALKER, P.E.
LICENSE NUMBER: 99991
ROADWAY ENGINEERS, INC.
123 MAIN STREET
TALLAHASSEE, FL 32301

DRAWN BY: BTW 06-22
CHECKED BY: LSW 06-22
DESIGNED BY: LSW 06-22
CHECKED BY: VGD 06-22

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR 67	LIBERTY	123456-1-52-01

SHEET TITLE: BRIDGE HYDRAULIC RECOMMENDATIONS

PROJECT NAME: BRIDGE OVER YELLOW CREEK

REF. DWG. NO.

SHEET NO.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

10/27/2022 4:02:31 PM PS972BW
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