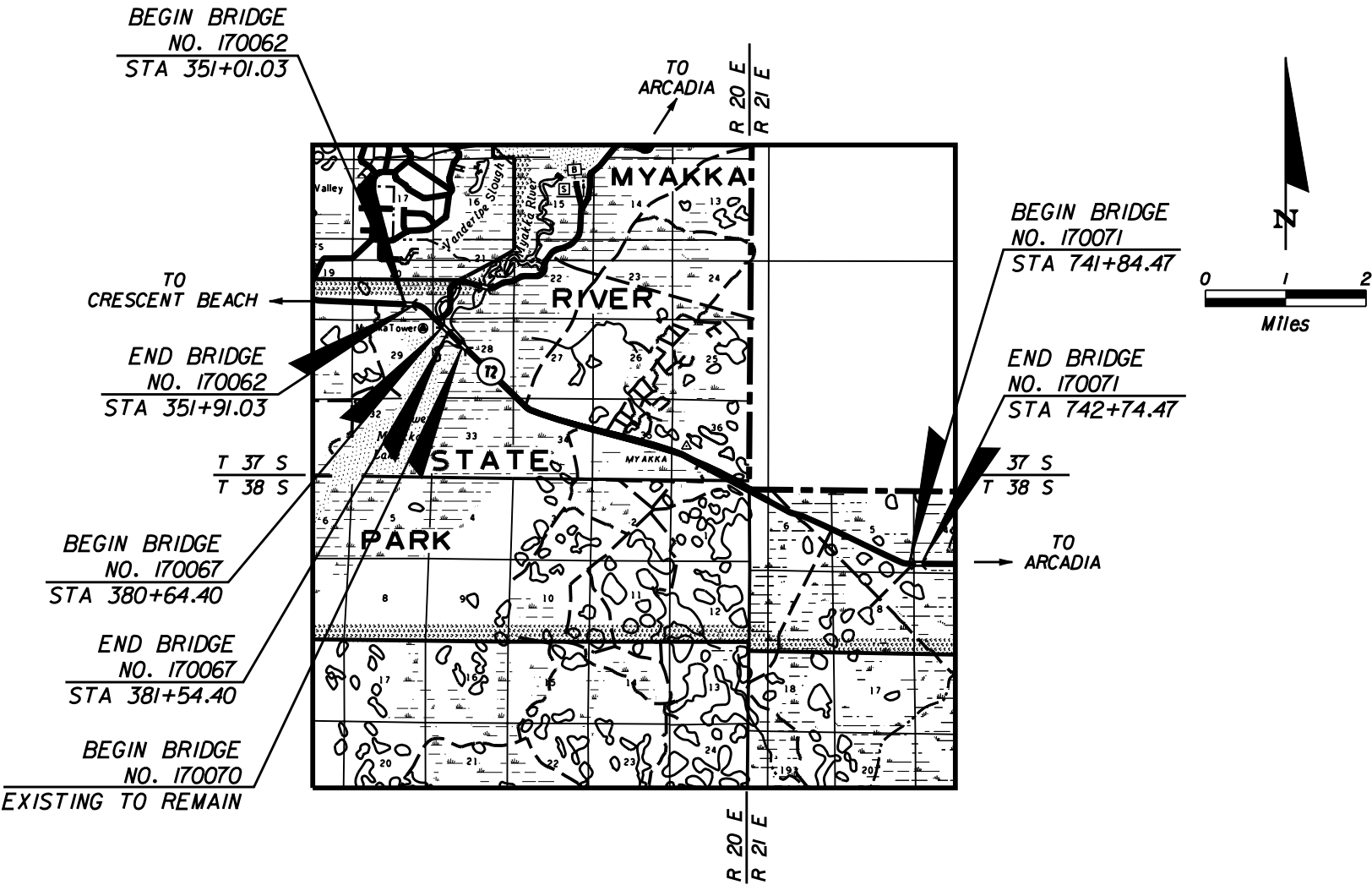
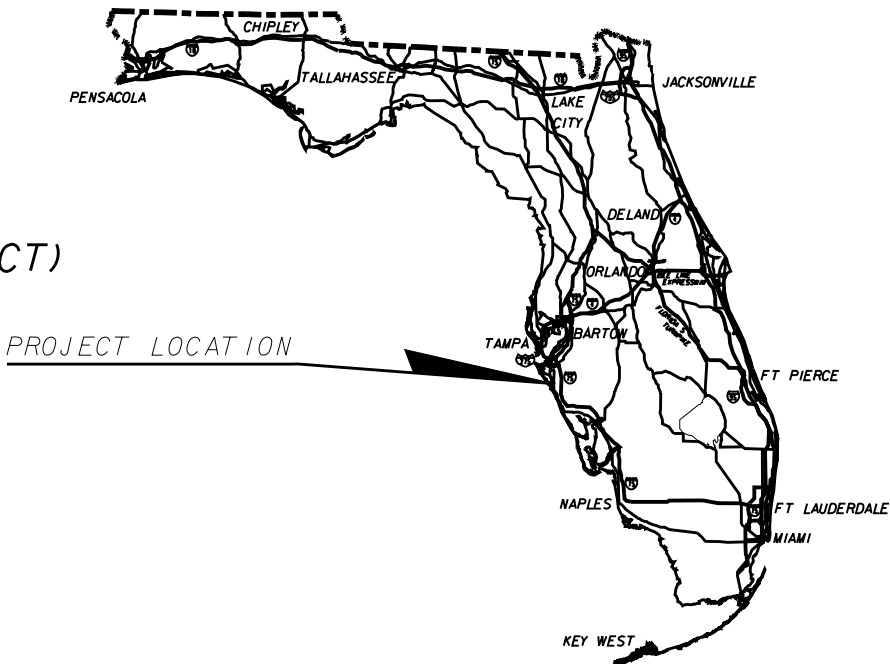


STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 415569-1-52-01 (LEAD PROJECT)
FINANCIAL PROJECT ID
FINANCIAL PROJECT ID 413887-2-52-01
SARASOTA COUNTY (17070)
STATE ROAD NO. 72



GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
DESIGN STANDARDS DATED JANUARY 2004,
AND STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION DATED 2004,
AS AMENDED BY CONTRACT DOCUMENTS.

APPLICABLE DESIGN STANDARDS MODIFICATIONS: 1-1-06
For Design Standards Modifications click on
"Design Standards" at the following web site:
<http://www.dot.state.fl.us/rddesign/>

NOTE: THE SCALE OF THESE PLANS MAY
HAVE CHANGED DUE TO REPRODUCTION.

ENGINEER OF RECORD: _____

P.E. NO. _____

FDOT PROJECT MANAGER: _____

FISCAL YEAR	SHEET NO.
06	S-1

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

LEGEND

- (SP/SP-SM), LIGHT BROWN/BROWN/GRAY/DARK GRAY/
GREEN FINE SAND TO SLIGHTLY SILTY FINE SAND
- (SM), BROWN/DARK BROWN/GRAY/GREEN SILTY FINE SAND
- (SM-SC), GRAY/GREEN SILTY TO CLAYEY FINE SAND
- (SC), BROWN/DARK BROWN/GRAY/GREEN CLAYEY FINE SAND
- (OL), BROWN ORGANIC SILT WITH WOOD FRAGMENTS
- (ML), BROWN CLAYEY SILT
- (CL), BROWN SILTY CLAY
- (MH/CH), GRAY/GREEN CLAYEY SILT TO SILTY CLAY
- (WLS), LIGHT BROWN/GRAY HIGHLY WEATHERED LIMESTONE,
FREQUENTLY WITH CALCAREOUS CLAY
- GRAY/GREEN CEMENTED CALCAREOUS SANDS AND SHELLS

NOTES:

WATER TABLE

NUMBERS TO THE LEFT OF BORINGS INDICATE
SPT VALUE FOR 12" PENETRATION.
(UNLESS OTHERWISE NOTED.)

50/6" FIFTY BLOWS FOR SIX INCHES

WH FELL UNDER WEIGHT OF ROD AND HAMMER

LOSS OF CIRCULATION (%)

CASING USED

-200 FINES PASSING NO. 200 SIEVE (%)

NMC NATURAL MOISTURE CONTENT (%)

OC ORGANIC CONTENT (%)

LL LIQUID LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

APPROXIMATE SPT BORING LOCATION

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: SLIGHTLY AGGRESSIVE

SUPERSTRUCTURE: SLIGHTLY AGGRESSIVE

WATER

RESISTIVITY: 5800 OHMS-CM

CHLORIDES: 40 PPM

SULFATES: 2 PPM

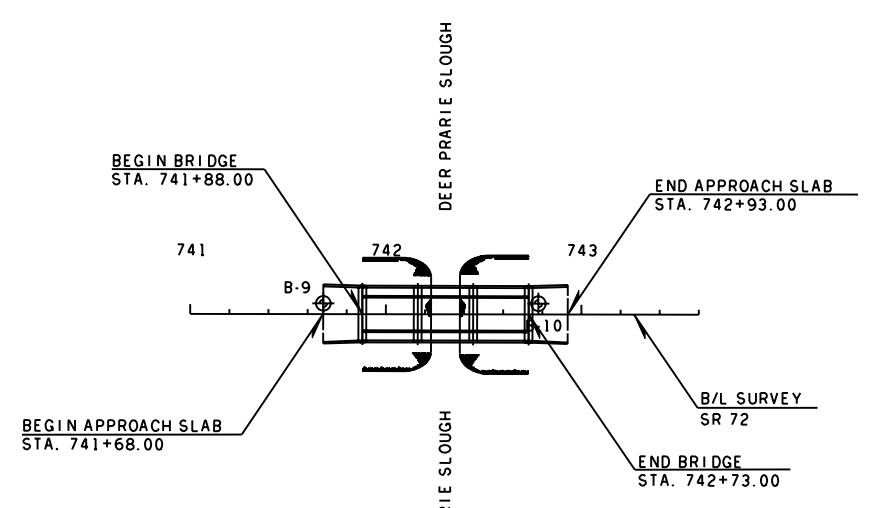
pH: 9.0

GRANULAR MATERIALS- RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50

SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

DEER PRARIE SLOUGH (BRIDGE NO. 170046)

1. BORING LOCATIONS (INCLUDING STATIONS AND OFFSETS) PRESENTED HEREIN WERE ESTIMATED MEASURING DISTANCES FROM STATION REFERENCES AS INDICATED ON THE DRAWINGS PROVIDED BY FDOT, ALONG WITH THE USE OF THE EXISTING FDOT BENCHMARKS. BORING ELEVATIONS WERE ALSO ESTIMATED USING THE EXISTING BENCHMARKS AND INFORMATION PROVIDED BY FDOT. THESE BORING LOCATIONS AND ELEVATIONS SHOULD BE CONSIDERED APPROXIMATE SINCE THEY WERE NOT PRECISELY SURVEYED BY PSI.
2. CORROSION TEST RESULTS WERE PROVIDED BY FDOT.

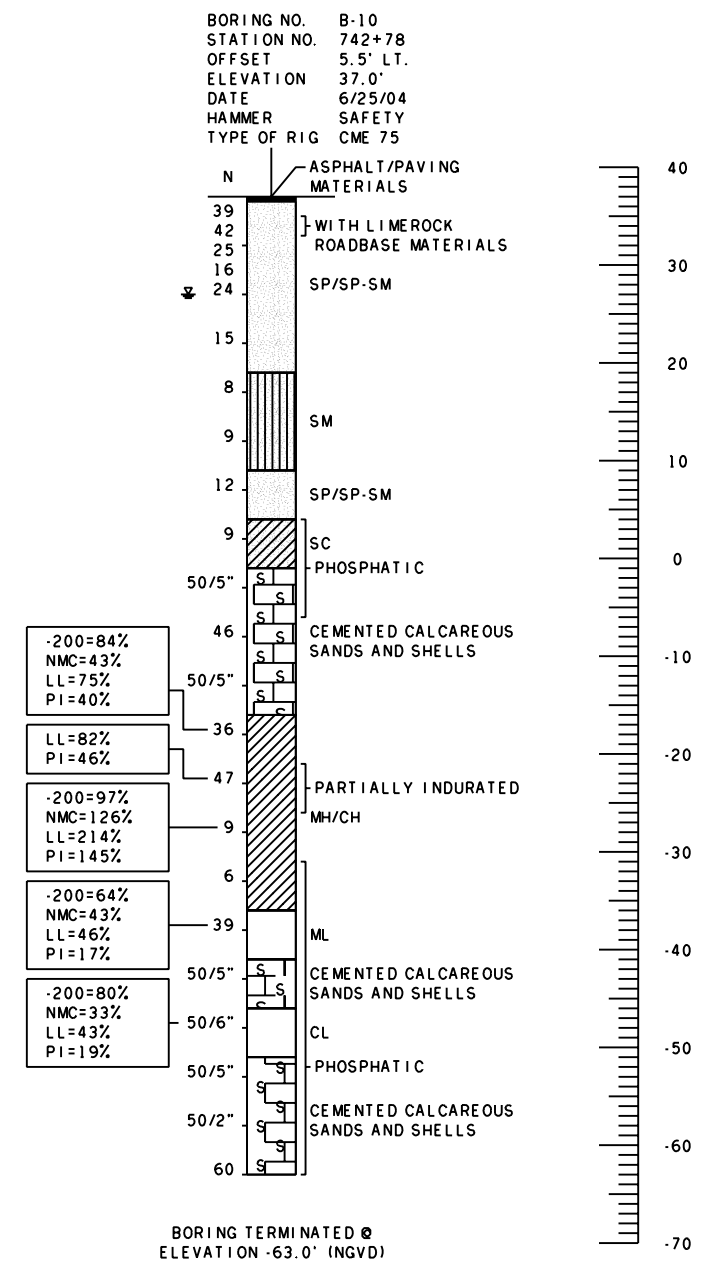
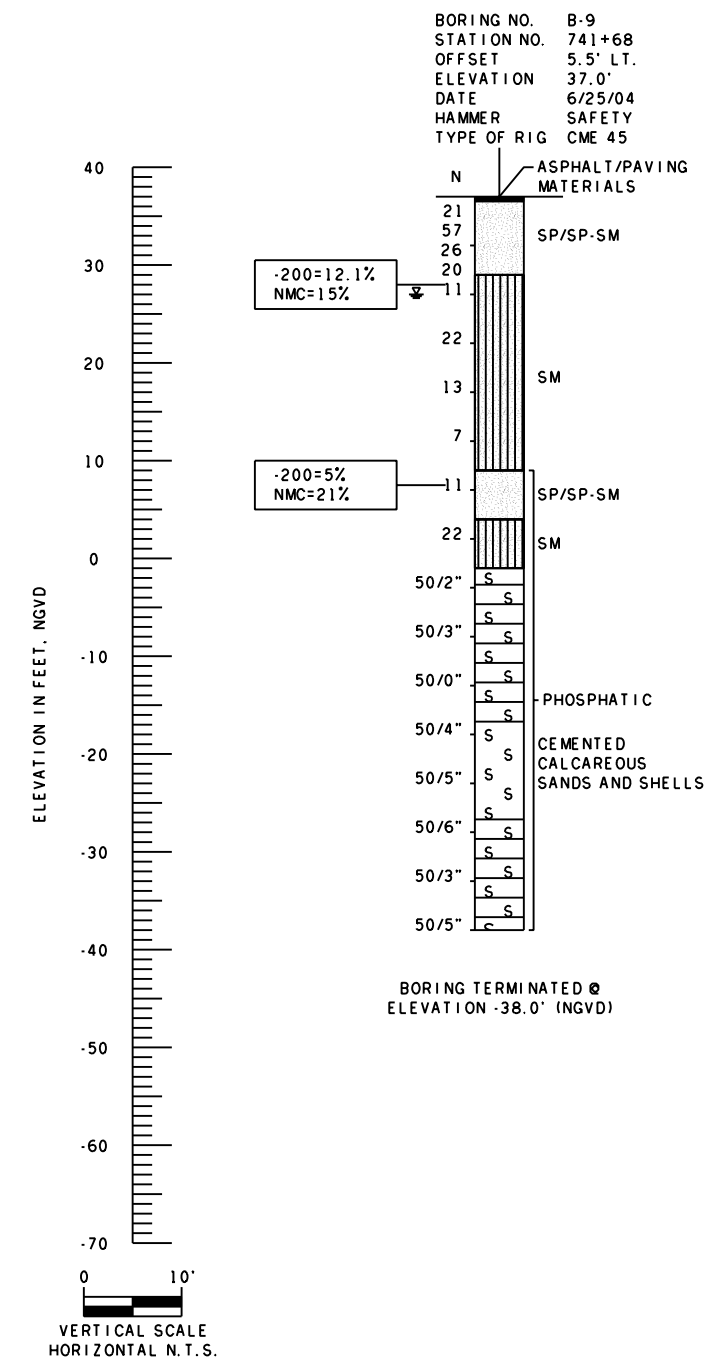


BORING LOCATION PLAN



LOCATION	
TOWNSHIP:	38 S
RANGE:	21 E
SECTION:	4

Latitude: 27.19562338 North
Longitude: -81.21683196 West



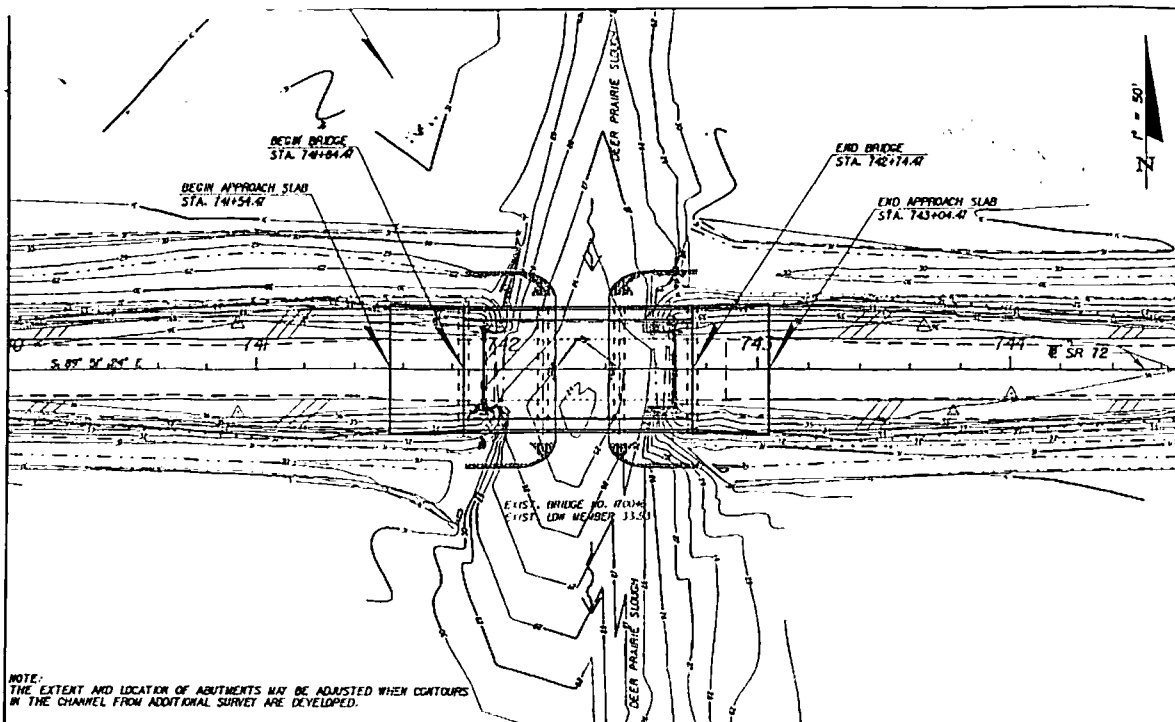
REVISIONS						Name		Date
Date	By	Description	Date	By	Description	Drawn by	DJG	7/04
						Checked by	KL	7/04
						Designed by		
						Checked by		
						Approved by	KEVIN W-K LO, P.E.	



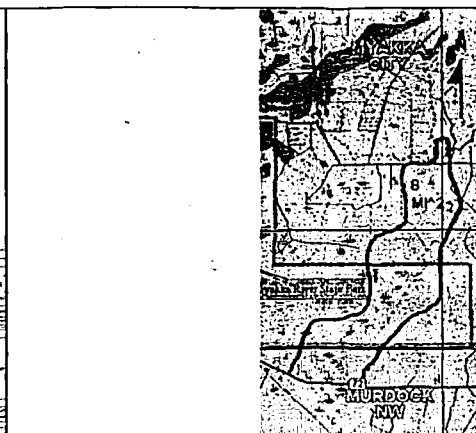
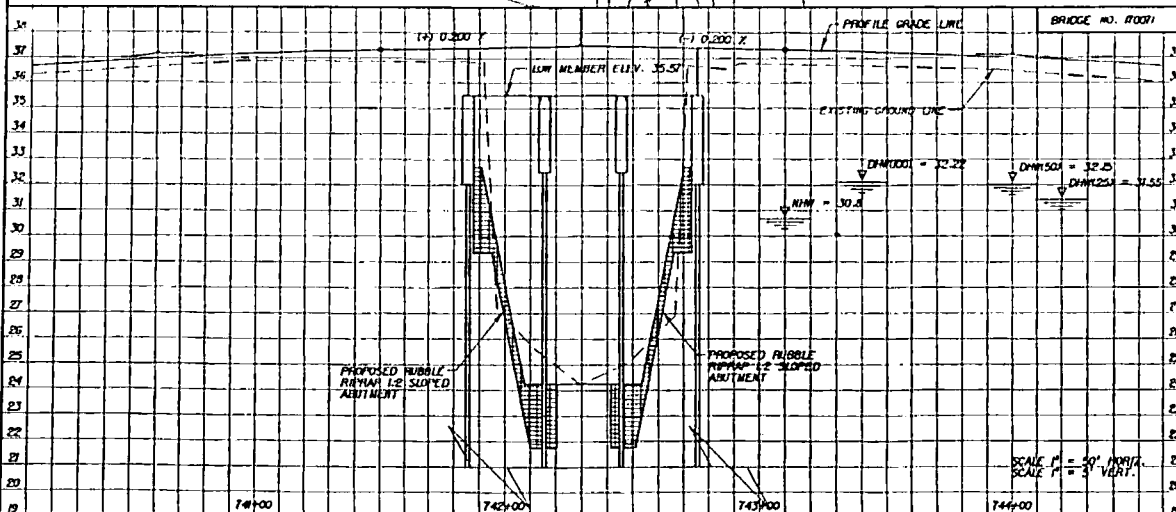
PROFESSIONAL SERVICE INDUSTRIES, INC.
5801 BENJAMIN CENTER DR., SUITE 112
TAMPA, FL 33634
(813) 886-1075
FLORIDA ENGINEERING CERTIFICATE
OF AUTHORIZATION No. 3684

FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID.
SR 72	SARASOTA	413887-2-52-01

SHEET TITLE:	
REPORT OF CORE BORINGS	
PROJECT NAME:	
SR 72 BRIDGE REPLACEMENT	
SHEET NO.	



NOTE:
THE EXTENT AND LOCATION OF ABUTMENTS MAY BE ADJUSTED WHEN CONTOURS
IN THE CHANNEL FROM ADDITIONAL SURVEY ARE DEVELOPED.



REFERENCE FOUNDATION OVERALL LENGTH SPAN LENGTH TYPE CONSTRUCTION AREA OF OPENING & D.F. BRIDGE WIDTH ELEV. LOW MEMBER	EXISTING STRUCTURES			PROPOSED STRUCTURE	
	111 PILES 75 FT. 25 FT. CONC. SLAB 470 SF. 29 FT. 33.9	121 PILES 90 FT. 30 FT. CONC. SLAB 540 SF. 49.25 FT. 35.57	131 PILES 90 FT. 30 FT. CONC. SLAB 540 SF. 49.25 FT. 35.57	141 PILES 90 FT. 30 FT. CONC. SLAB 540 SF. 49.25 FT. 35.57	151 PILES 90 FT. 30 FT. CONC. SLAB 540 SF. 49.25 FT. 35.57

NOTE:
The hydraulic data is shown for informational purposes only to indicate the flood discharges and water surface elevations which may be anticipated in any given year. This data was generated using highly variable factors determined by a study of the watershed. Many judgments and assumptions are required to establish these factors. The resultant hydraulic data is sensitive to changes, particularly antecedent conditions, urbanization, channelization and land use. Users of this data are cautioned against the assumption of precision which cannot be obtained.

TERMS:
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).
Overlapping Flood: Causes flow over the highway, over a waterway dike, or over emergency relief structures.
Greatest Flood: The most severe that can be predicted where overlapping is not practicable.

WATER SURFACE ELEVATIONS: N.W.M. (100-Yr Flood)		30.8		N.W.M. (100-Yr Flood)			
CONFID. (100-Yr Flood)				N.W.M. (100-Yr Flood)			
						☐ OVERTOPPING IF IS GREATEST FLOOD	
FLOOD DATA:		MAX. EVENT OF RECORD		DESIGN FLOOD		BASE FLOOD	
STAGE ELEV. (100 YR)		32.3 (2003)		32.45		32.22	
DISCHARGE (CFS)				640		780	
AVERAGE VELOCITY (FPS)				1.39		1.81	
EXCEEDANCE PROB. (%)				2		1	
FREQUENCY (YR)				50		100	
SCOUR PREDICTIONS FOR PROPOSED STRUCTURE DESCRIBED ABOVE:							
PIER INFORMATION				TOTAL SCOUR ELEVATION			
NUMBERS				LONG TERM SCOUR ELEV.		WORST CASE < 100 YR.	
2				N/A		FREQ. (YR) 100 YR	
SITE AND TYPE				FREQ. (YR) 500 YR			
1.5 FT. SQUARE				17.3			
				16.6			

HYDRAULIC RECOMMENDATIONS					
BEGIN BRIDGE STATION		END BRIDGE STATION		SKEW ANGLE	
741+85.50		742+75.50		0.0	
CLEARANCE PROVIDED: NAV. HORIZ.		VERT. ABOVE EL.		DRIFT: HORIZ. 33	
3. MINIMUM CLEARANCE: NAV. HORIZ.		VERT. ABOVE EL.		DRIFT: HORIZ. 33	
4. ABUTMENTS:		BEGIN BRIDGE		END BRIDGE	
		BANK AND SHORE		BANK AND SHORE	
		SLOPE: 1:2		SLOPE: 1:2	
		BURIED OR NON-BURIED HORIZ. TOE: BURIED HORIZ. TOE		BURIED OR NON-BURIED HORIZ. TOE: BURIED HORIZ. TOE	
		TOE HORIZ. DISTANCE: 12 FT.		TOE HORIZ. DISTANCE: 12 FT.	
		LIMIT OF PROTECTION:		LIMIT OF PROTECTION:	
		5. DECK DRAINAGE: TO BRIDGE ENDS		5. DECK DRAINAGE: TO BRIDGE ENDS	

REMARKS:

REVISIONS				DATE	BY	DESCRIPTION	DRAWN	DATE	BY	DESCRIPTION
NO.	DATE	BY	DESCRIPTION							
1										

PBS
5300 West Cypress Street
Suite 200
Tampa, Florida 33607-0768
FBPR Certificate of
Authorization No. 24
Leah Patricia Forero, P.E. #58612

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	TRIP NO.
S.R. 72	SARASOTA	413887-2

DEER PRAIRIE SLOUGH BRIDGE HYDRAULIC RECOMMENDATIONS		SHEET NO.
		B4-2