FIN. PROJ. I.D.	196115-1-52-01	00	A-

STRUCTURE PLANS

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C-3	TEMPORARY SHEET PILES
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THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, ROADWAY AND TRAFFIC DESIGN STANDARDS (BOOKLET DATED JANUARY, 1998).

REVISIONS

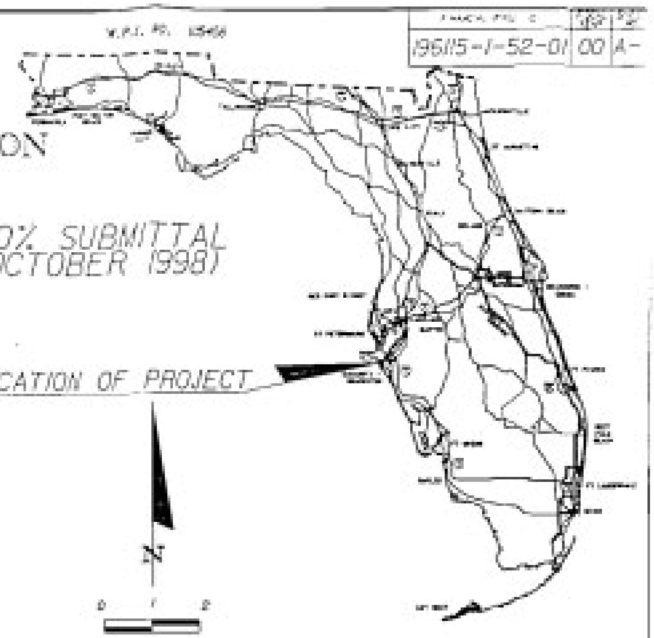
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
PLANS OF PROPOSED STATE HIGHWAY

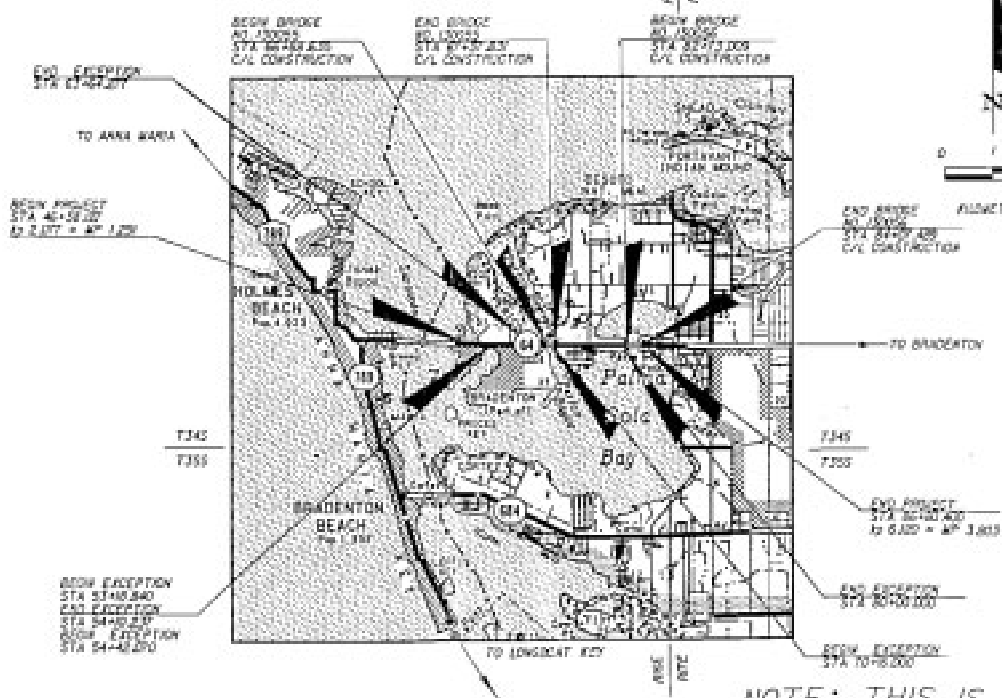
90% SUBMITTAL (OCTOBER 1998)

FINANCIAL PROJECT NO. 196115-1-52-01
STATE PROJECT NO. 13150-3530
(FEDERAL FUNDS)

MANATEE COUNTY

STATE ROAD NO. 64





PLANS PREPARED BY
MICHAEL BAKER, JR., INC.
CONSULTING ENGINEERS

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN ALTERED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

GOVERNING SPECIFICATIONS: STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, DATED 1996, SUPPLEMENTS AND SPECIAL PROVISIONS THERETO IF NOTED IN THE CONTRACT SPECIFICATIONS FOR THIS PROJECT.

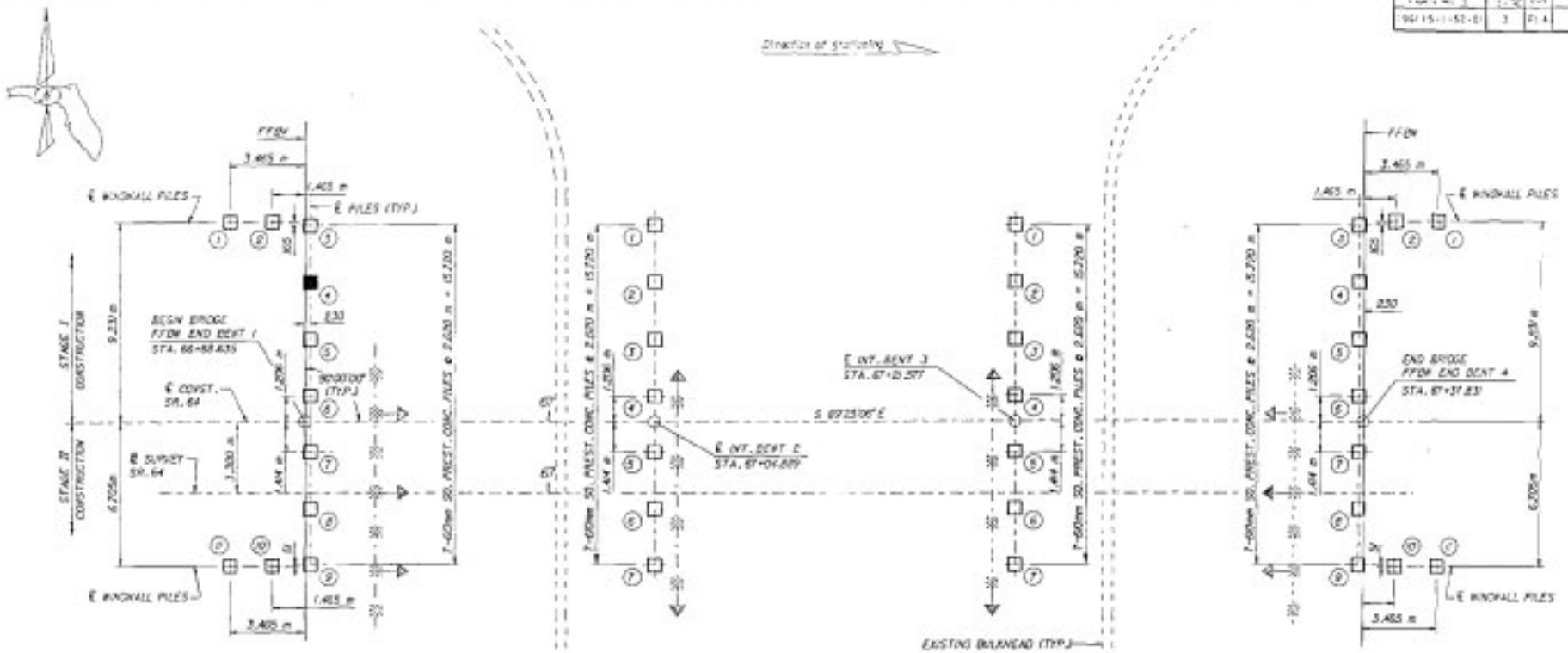
NOTE: THIS IS A METRIC UNIT PROJECT

LENGTH OF PROJECT	METERS
ROADWAY	1860.793
BRIDGES	183.876
NET LENGTH OF PROJ.	2044.669
EXCEPTIONS	1997.604
GROSS LENGTH OF PROJ.	4042.273

FDOT PROJECT MANAGER : MARIA D. FORVISO, P.E.

REVISIONS		
DATE	BY	DESCRIPTION

STRUCTURE PLANS
ENGINEER OF RECORD: ___
DATE: ___
P.E. NO.: ___



PLAN

PILE CUT-OFF ELEVATION

BENT NO.	PILE NUMBER 1	2	3	4	5	6	7	8	9	10	11
1	3.505	3.501	3.501	3.500	3.501	3.501	3.722	3.774	3.859	3.859	3.859
2	3.700	3.603	3.605	3.707	3.790	3.812	3.865				
3	3.590	3.602	3.605	3.707	3.790	3.812	3.864				
4	3.505	3.505	3.505	3.500	3.501	3.503	3.722	3.774	3.859	3.859	3.859

PILE INSTALLATION TABLE

BENT NO.	PILE SIZE (mm)	DESIGN LOAD (kN)	MIN. TIP FILE EL.	TOTAL SCOUR RESIST. (kN)	SCOUR ELEVATION (m)	PROD. PREFORM EL. (m)	TEST PILE NO.	TEST PILE LENGTH (m)
1	610	1400	-18	N/A	N/A	-	4	21.6
2	610	1400	-18	N/A	N/A	-	N/A	N/A
3	610	1400	-18	N/A	N/A	-	N/A	N/A
4	610	1400	-18	N/A	N/A	-	N/A	N/A

THE DRIVING CRITERIA SHALL BE BASED ON THE REQUIRED DRIVING RESISTANCE (RDR) CAPACITY COMPUTED AS FOLLOWS:
RDR = (DESIGN LOADS) x #

PER SUPPLEMENTAL SPECIFICATIONS SECTION 455-3.10.2

NOTES:

1. ALL END AND INTERMEDIATE BENT PILES ARE 610mm SQ. PRESTRESSED CONCRETE PILES.
2. PILES SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 455 OF THE SUPPLEMENTAL SPECIFICATIONS.
3. PILE SPACINGS SHOWN ARE ALONG FFBN OR ℄ BENT AT BOTTOM OF CAP.
4. DYNAMIC LOAD TEST SHALL BE PERFORMED ON ALL TEST PILES AS PER SECTION 455-3.14 OF THE SUPPLEMENTAL SPECIFICATION #65. DYNAMIC LOAD TEST SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR BID ITEM 455-157 (DYNAMIC TEST LOAD).
5. THE ACCEPTANCE CRITERIA FOR PRODUCTION PILES WILL BE DETERMINED BY WAVE EQUATION ANALYSIS USING THE RESULTS OF THE DYNAMIC LOAD TESTS (PDA).
6. PILES SHALL BE DRIVEN TO THE FOLLOWING MINIMUM TIP ELEVATIONS AND EXTENDED AS REQUIRED UNTIL THE DRIVING CRITERIA FOR THE DESIGN LOADS HAS BEEN MET. SCOUR HAS BEEN CONSIDERED IN THE DESIGN WITH SCOUR ELEVATIONS OF EL. 1.00 AND EL. 5.00 AS SHOWN ON SHEET B-10. UNDER NO CIRCUMSTANCES SHALL THE PILES BE INSTALLED TO TIP ELEVATIONS ABOVE THE MINIMUM TIP ELEVATIONS SHOWN IN THE TABLE.
7. THE CONTRACTOR MUST ASSURE THAT ZERO SIDE RESISTANCE IS OBTAINED ABOVE THE REQUIRED PREFORM ELEVATION. SIDE METHODS MAY CONSIST OF PUNCHING, DRILLING, JETTING, OR A COMBINATION THEREOF SUCH THAT THE PILE REACHES THE PREFORM ELEVATION WITH NO RESISTANCE. THE CONTRACTOR SHOULD MAINTAIN ZERO RESISTANCE ABOVE THE PREFORM ELEVATION DURING DRIVING, WHICH MAY BE ACCOMPLISHED BY CONTINUED JETTING ABOVE THE PREFORM ELEVATION.
8. AN ARTESIAN GROUNDWATER CONDITION WAS ENCOUNTERED DURING THE SUBSURFACE INVESTIGATION WHICH MAY PRESENT CONSTRUCTION DIFFICULTIES. THE CONTRACTOR SHOULD BE PREPARED TO DEAL WITH THE ARTESIAN CONDITION IF IT IS ENCOUNTERED DURING CONSTRUCTION.

LEGEND:
- PROPOSED PILE
- EXISTING PILE (TO BE REMOVED)
- EXISTING PILE WITH BATTER (TO BE REMOVED)
- (1) DENOTES PILE NUMBER
- PROPOSED TEST PILE

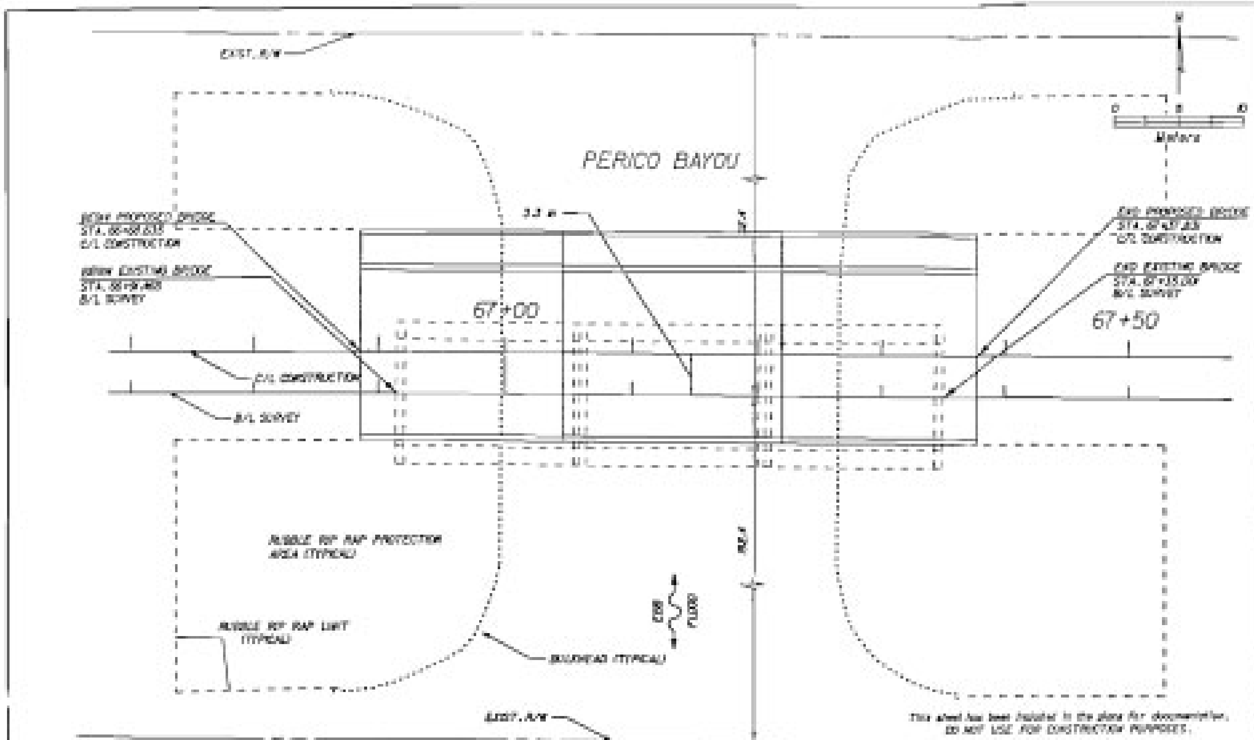
ENGINEER OF RECORD: Michael Baker Jr., Inc. 1400 N. Westshore Blvd. Suite 812 Tampa, Florida 33607

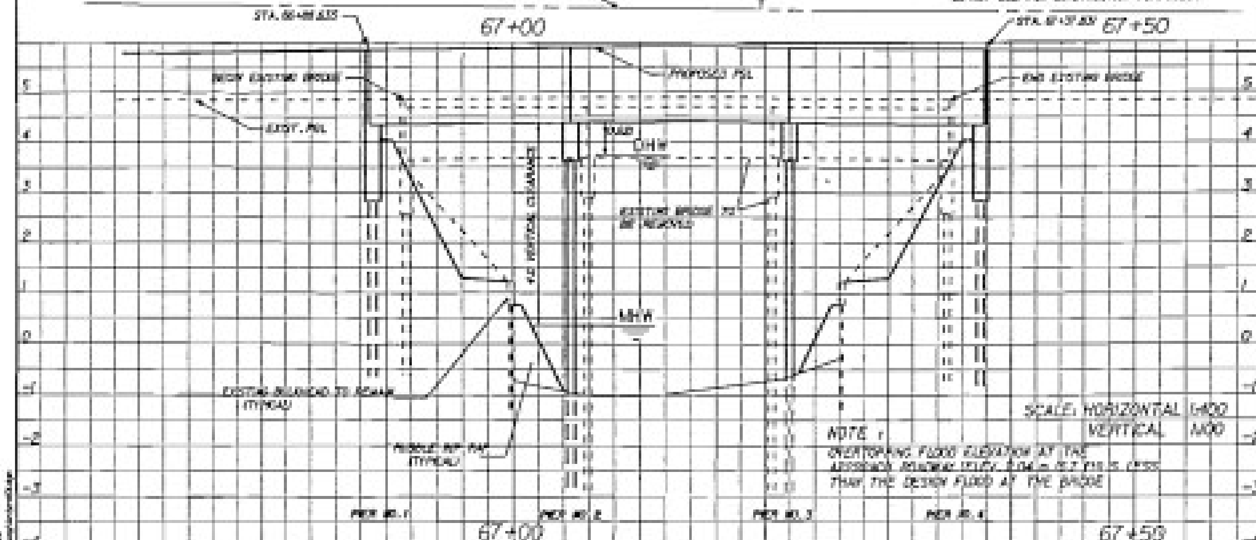
FLORIDA DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN OFFICE

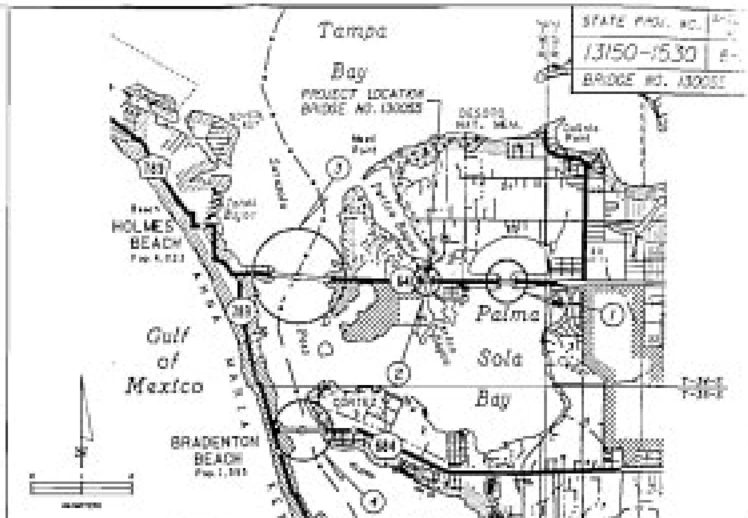
ROAD NO.	COUNTY	PROJECT NO.
SR 64	MANATEE	13150-3530

FOUNDATION LAYOUT

SR64 OVER PERICO BAYOU







STATE PROJ. NO.
13150-1530
BRIDGE NO. 130055

EXISTING STRUCTURES / PROPOSED STRUCTURE

(REFERENCE)	(1)	(2)	(3)	(4)	PROPOSED STRUCTURE
FOUNDATION	CONC. PILES	CONC. PILES	CONC. PILES	CONC. PILES	CONC. PILES
OVERALL LENGTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SPAN LENGTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TYPE CONSTRUCTION	CONC. GIRDERS	CONC. GIRDERS	CONC. GIRDERS	CONC. GIRDERS	CONC. GIRDERS
AREA OF OPENING & D.F.	[illegible]	[illegible]	[illegible]	NOT AVAILABLE	[illegible]
BRIDGE WIDTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ELEV. LOW MEMBER	[illegible]	[illegible]	[illegible]	[illegible]	4.368

HYDRAULIC DESIGN DATA

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 hydro variable factors determined by a study of the watershed. Many judgements 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 attained.

DEFINITIONS: Design Flood: The flood utilized to assure a desired level of hydraulic performance.
Base Flood: The flood having a 1% chance of being exceeded in any given year (100 year frequency).
Overtopping Flood: The flood which causes flow over the highway, over a watershed divide, or thru emergency relief structures.
Greatest Flood: The most severe flood which can be predicted where overtopping is not practicable.

WATER SURFACE ELEVATIONS: N.H.W. (Non-Tidal) N/A — M.H.W. (Tidal) 0.366 m
CONTROL (Non-Tidal) N/A — M.L.W. (Tidal) -0.122 m

(a) see Profile Note
□ OVERTOPPING FLOOD (a)
■ GREATEST FLOOD

FLOOD DATA	MAX. EVENT OF RECORD	DESIGN FLOOD	BASE FLOOD	GREATEST FLOOD
STAGE ELEV. NGVD (m)		[illegible]	[illegible]	[illegible]
DISCHARGE (CM/S)		[illegible]	[illegible]	[illegible]
AVERAGE VELOCITY (M/S)		[illegible]	[illegible]	[illegible]
EXCEEDANCE PROB. (%)		[illegible]	1	[illegible]
FREQUENCY (YR.)		50	100	500

SCOUR PREDICTIONS:

				WORST CASE (100 YR.)	WORST CASE (500 YR.)
FREQUENCY (YR.)				100	500
PIER NO. (NOS.)	1 & 4	PIER SIZE AND TYPE	[illegible]	[illegible]	[illegible]
PIER NO. (NOS.)	2	PIER SIZE AND TYPE	[illegible]	[illegible]	[illegible]
PIER NO. (NOS.)	3	PIER SIZE AND TYPE	[illegible]	[illegible]	[illegible]

HYDRAULIC RECOMMENDATIONS

1. BEGIN BRIDGE STATION 66+88.635 END BRIDGE STATION 67+37.835 SKEW ANGLE 0° 00'00"
2. CLEARANCE PROVIDED NAV.: HORIZ. 16.5 VERT. 4.0 ABOVE EL. 0.366 DRIFT: HORIZ. 16.5 VERT. 0.60 ABOVE EL. 3.240
3. MINIMUM CLEARANCE: NAV.: HORIZ. 14 VERT. 1.8 ABOVE EL. 0.366 DRIFT: HORIZ. 14 VERT. 0.6 ABOVE EL. 3.240
4. ABUTMENTS:

	BEGIN BRIDGE	END BRIDGE
RUBBLE GRADE:	STANDARD RUBBLE RIP RAP	STANDARD RUBBLE RIP RAP
SLOPE:	[illegible]	[illegible]
BURIED OR NON-BURIED HORIZ. TOE:	BURIED	BURIED
TOE ELEVATION:	[illegible]	[illegible]
TOE HORIZ. DISTANCE:	[illegible]	[illegible]
LIMIT OF PROTECTION:	[illegible]	[illegible]

5. DECK DRAINAGE: PROPOSED DECK WILL ADEQUATELY CONVEY RUNOFF WITHOUT REQUIRING SCUPPERS.

REMARKS: [illegible] DATA DERIVED BY EXTRAPOLATING PUBLISHED TIDAL DATA FOR TIDE STATION [illegible] PALMA SOLA BAY, [illegible] THOMPSON, [illegible] SURVEYING & MAPPING [illegible]
(2) STANDARD RUBBLE RIP RAP PROTECTION PROVIDED, NO SCOUR EXPECTED.

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

REVISIONS

MICHAEL BAKER JR., INC.
TAMPA, FLORIDA

FLORIDA DEPARTMENT OF TRANSPORTATION

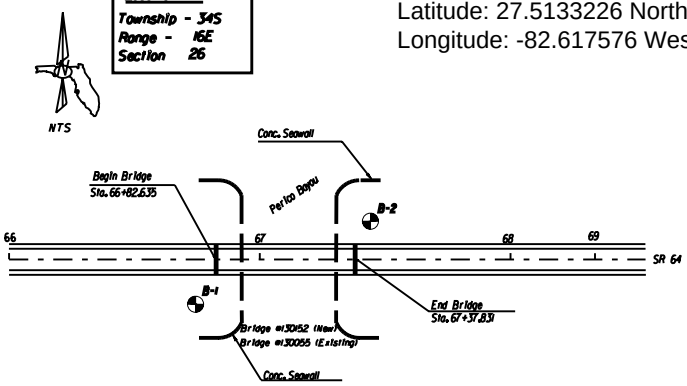
STATE ROAD 64 OVER PERICO BAYOU BRIDGE HYDRAULIC RECOMMENDATIONS

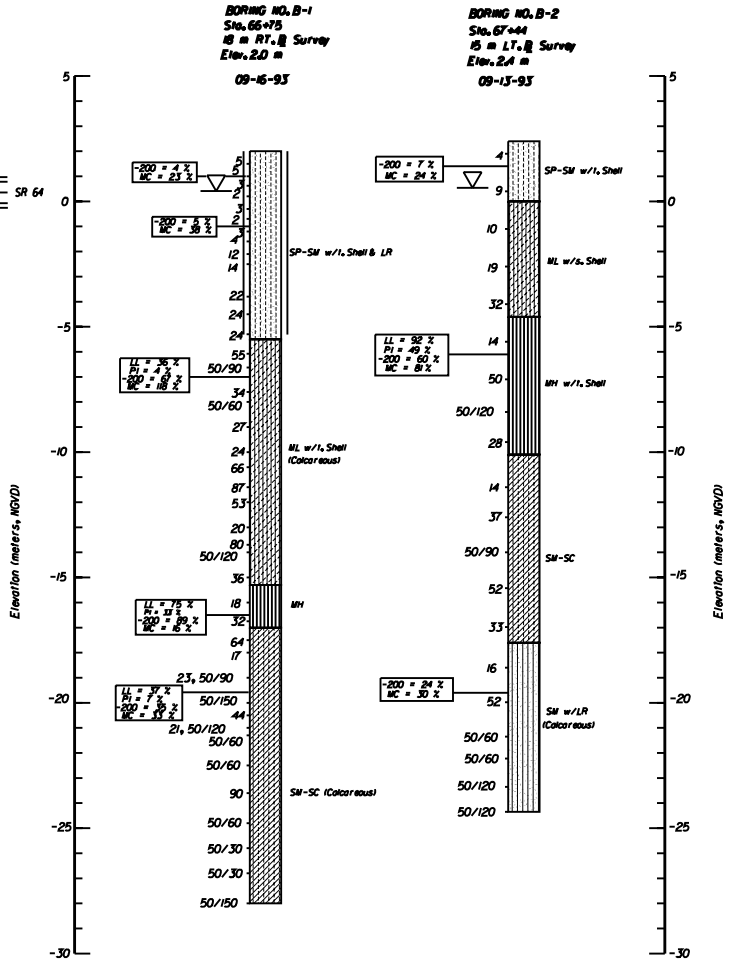
[redacted]

FINANCIAL PROJ. NO.	FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
19611S-1-52-01	3	FLA.	13150-3530		

Location
Township - 34S
Range - 16E
Section 26

Latitude: 27.5133226 North
Longitude: -82.617576 West





LEGEND :

- = SP-SM, Poorly graded sands and gravelly sands, to silty sands, sand-silt mixtures.
- = SM, Silty sands, sand-silt mixtures.
- = SM-SC, Silty sands, sand-silt mixtures to clayey sands, sand-clay mixtures.
- = ML, Inorganic silts, very fine sands, rock flour, silty or clayey, fine sands.
- = MH, Inorganic silts micaceous or diatomaceous fine sands or silts, elastic silts.

NOTES :

Numbers to the left of borings indicate SPT values for 300 mm penetration. (Unless otherwise noted.)

50/90 = Number of blows for 90 mm of penetration.

= Casing Used

= Water Table

B- = Boring Location

Type Rig = Diedrich 50

Hammer Used = Diedrich Automatic

All Elevations based on BM # MC-16

WATER :

Resistivity ≥ 20 ohms-cm, Chlorides ≥ 12,000 ppm, Sulfates ≥ 20 ppm, pH ≥ 8.0

ENVIRONMENTAL CLASSIFICATION

Substructure : Extremely Aggressive
Superstructure : Extremely Aggressive

BENCHMARK LOCATION DESCRIPTION

Station 222+00, 22.9 m Right.

BENCHMARK DESCRIPTION

Standard F.D.O.T. concrete monument with brass disc.

Granular Materials - Relative Density	SPT (Blows/300 mm)
Very Loose	Less than 4
Loose	4 - 10
Medium or Compact	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

Silts and Clays - Consistency	SPT (Blows/300 mm)
Very Soft	Less than 2
Soft	2 - 4
Firm	4 - 8
Stiff	8 - 15
Very Stiff	15 - 30
Hard	Greater than 30

$$$$$$$$DGNSPECIFICATIONS$$$$$$$$

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
6/10/97	MEH	Sheet converted from English to Metric			
6/09/98	MEH	Bridge drawing converted from English to Metric			

	NAMES	DATES
DRAWN BY	DML	6/97
CHECKED BY	MJB	6/97
DESIGNED BY		
CHECKED BY		
APPROVED BY	T.M. Puckett	

ENGINEER OF RECORD:
MATERIALS OFFICE
DISTRICT 1
801 N. Broadway
Bartow, Florida 33830-1249

LOGO:

SEAL:

FLORIDA DEPARTMENT OF TRANSPORTATION
MATERIALS OFFICE

ROAD NO.	COUNTY	PROJECT NO.
64	Manatee	13150-3530

SHEET TITLE: REPORT OF CORE BORING

PROJECT NAME: SR. 64 over Perico Bayou Bridge Number 130152

DRAWING NO.

INDEX NO.