



16591/3383
January 20, 2022

PUBLIC NOTICE (01-22)

All interested parties are herein notified that the Commander, Seventh Coast Guard District, has received application materials from the Florida Department of Transportation (FDOT) requesting the approval of location and plans for the replacement of a fixed highway bridge over a navigable waterway of the United States.

WATERWAY AND LOCATION: Earman River (C-17 Canal), mile 0.25, on U.S. Highway 1/State Route 5 at North Palm Beach, Palm Beach County, Florida. Latitude/Longitude: 26.808528, -80.056123.

CHARACTER OF WORK: The project proposes the replacement of the existing fixed-span US-1/SR-5 Bridge crossing Earman River (C-17 Canal) along the same alignment. The proposed bridge is a 3-span, fixed concrete slab structure accommodating six (6) vehicle travel lanes and a sidewalk on each side of the bridge. The support piles of the proposed bridge will be driven by impact hammer with cushion blocks and equipment will be placed on the east and west approaches to the bridge. The proposed bridge will have stormwater collection and treatment to improve water quality prior to release into the water. This is an improvement over the current bridge, which has scuppers allowing stormwater to drain directly into the Earman River (C-17 Canal). The length of the existing and proposed bridge is approximately 137 feet. The out-to-out width of the existing bridge is approximately 100 feet. The out-to-out width of the proposed bridge will be approximately 119 feet. The existing bridge will remain open during construction of the proposed bridge. Construction will be phased so that traffic flow can be maintained and vehicular traffic will be shifted to facilitate construction. All parts of the existing bridge will be removed entirely and associated substructures (including piles) will be removed to a minimum of two (2) feet below the existing natural bottom of the waterway.

MINIMUM NAVIGATIONAL CLEARANCES:

The proposed replacement bridge will have clearances as described in the table below. These clearances are an increase from current clearances over this section of the waterway at or near this mile.

Existing Clearances

Horizontal:

33 feet between face of piles

Vertical:

9.61 feet above Mean High Water

12.41 feet above Mean Low Water

Proposed Clearances

Horizontal:

44.25 feet between piles

Vertical:

11.22 feet above Mean High Water

14.03 feet above Mean Low Water

Datum: North American Vertical Datum of 1988 (NAVD 88) (Existing and Proposed bridges)

ENVIRONMENTAL CONSIDERATIONS:

The FDOT, through the Federal Highway Administration (FHWA), is the lead federal agency for satisfying requirements of the National Environmental Policy Act (NEPA). The FDOT, acting on behalf of the U.S. Coast Guard (USCG) for all environmental control laws, has determined that the project qualifies as a Type 1 Categorical Exclusion (CATEX) for the purposes of the NEPA.

A CATEX document will be generated subsequent to the approval of the South Florida Water Management District (SFWMD) Right of Way Permit and the U.S. Army Corps of Engineers Section 404 Dredge and Fill Permit and Section 408 Review. The USCG has acted as a cooperating agency during the NEPA process and has tentatively determined that the proposed action qualifies as a CATEX because it satisfies criteria for such actions listed in the USCG's NEPA Implementing Instructions and the Department of Homeland Security Directive 023-01 (series). Documents are available for review at the above address, Monday through Friday, 8:00 a.m. to 4:00 p.m.

The bridge is located in the floodplain. The 100-year flood elevation is 6.60 feet, while elevation of the low steel member of the navigation span is 11.58 feet; elevations are referenced to NAVD 88 datum. Approximately 475 cubic yards of fill material will be placed below mean high water level for the construction of the bridge and its approaches.

The SFWMD is the certifying agency, as defined in 40 C.F.R. § 121.1(e), for issuance of Water Quality Certification pursuant to Section 401, Public Law 92-500, 33 U.S. Code (U.S.C.) § 1341. In accordance with Florida Administrative Code (F.A.C.), issuance of an Environmental Resource Permit (ERP) constitutes certification of compliance with applicable water quality standard. The SFWMD has approved a General ERP for this project (#50-104891-P; April 16, 2021). Furthermore, the applicant determined that the project complies with the Coastal Zone Management Act; whereby, the issuance of the ERP shall constitute the state's concurrence that the activity is consistent with the enforceable policies included in the Florida's Coastal Zone Management Program (F.A.C. Rule 62-330.062 and 33 U.S.C. § 1341).

REMOVAL OF EXISTING BRIDGE:

Equipment will be placed on the existing bridge, as well as the north and south bridge approaches for removal/demolition; land-based cranes will be utilized for pile driving by impact hammer and for beam placement. The existing bridge will remain open during construction activities; vehicular traffic will be maintained until such time that the traffic is shifted onto the new bridge.

ANTICIPATED IMPACTS TO NAVIGATION DURING CONSTRUCTION:

Demolition and construction activities are not anticipated to significantly impact maritime traffic. Impacts to navigation during demolition and construction may include possible temporary waterway closures when overhead or in-water work is being conducted. Details of construction activities, which may impact navigation in the vicinity bridge site, will be published in the Coast Guard's Local Notice to Mariners (LNM).

To subscribe to the Coast Guard LNM and other free Coast Guard navigation notification services, please visit <http://www.navcen.uscg.gov/> under "Subscribe / Report (free)" select the notifications you wish to receive; note this project is located in the Seventh Coast Guard District area.

SOLICITATION OF COMMENTS:

Mariners are requested to comment on the proposed vertical and horizontal navigational clearances, the need for a bridge protective fendering system and other navigational safety issues including the extent of nighttime navigation at the bridge site.

Interested parties are requested to express their views, in writing, on the proposed bridge project including its possible impact on minority and/or low income population, if any, giving sufficient detail to establish a clear understanding of reasons for support of, or opposition to, the proposed work. Comments will be received for the record at the office of: Commander (dpb), Seventh Coast Guard District, 909 SE 1st Ave., Ste. 432, Miami, Florida 33131-3028 or via email at: Andi.Maris@uscg.mil, for a 30-day period from the date of this public notice. The Coast Guard project manager for this application is Ms. Andi Maris, who can be contacted by mail at the above address or by e-mail. Comments received will be made part of the project administrative record.

Map of location and plans attached.

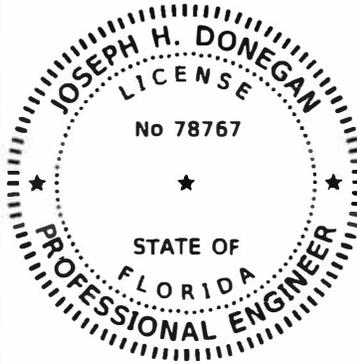
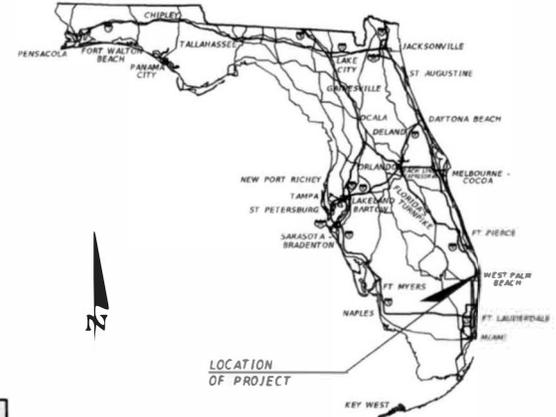
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 442891-1-52-01
PALM BEACH COUNTY (93040)

STRUCTURE PLANS

60% SUBSTRUCTURE SUBMITTAL

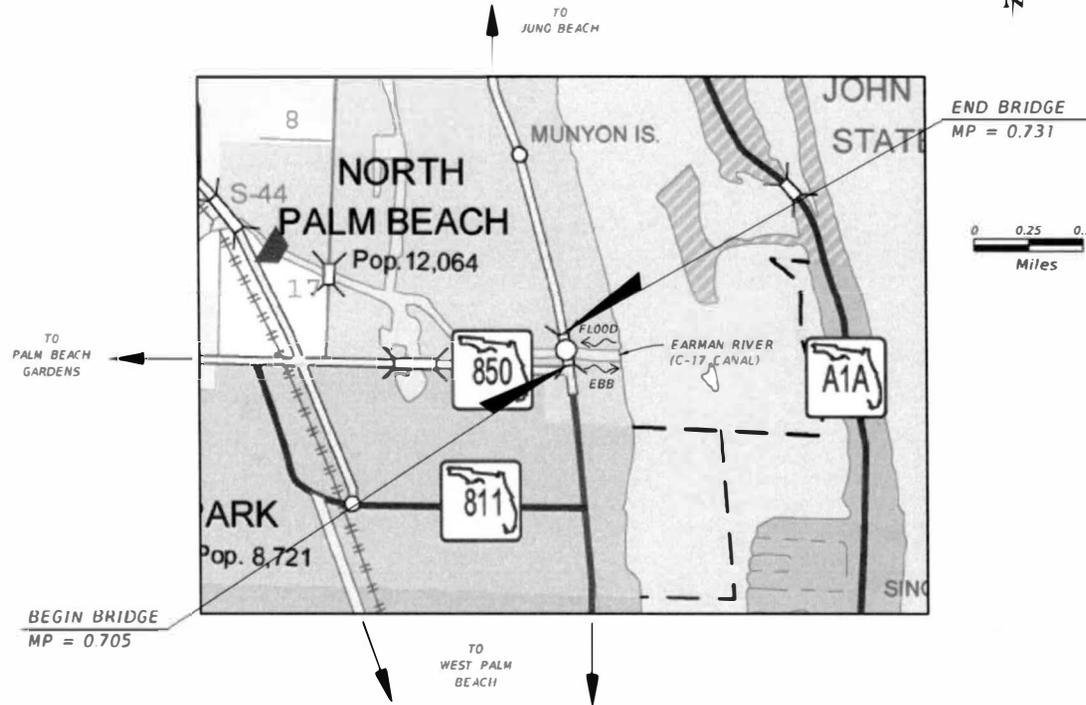


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BY

Joseph Donegan
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STRUCTURE PLANS
ENGINEER OF RECORD:

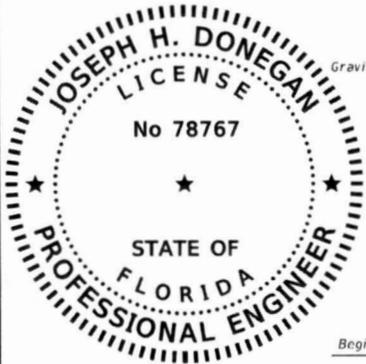
JOSEPH H. DONEGAN, P.E.
P.E. NO.: 78767
STRUCTURES DESIGN OFFICE
FDOT DISTRICT IV
3400 WEST COMMERCIAL BLVD.
FORT LAUDERDALE, FL 33309

FDOT PROJECT MANAGER:
BING WANG, P.E.

STRUCTURES DESIGN OFFICE DISTRICT 4 3400 W. COMMERCIAL BLVD. FORT LAUDERDALE, FLORIDA 33309-1421 JOSEPH H. DONEGAN, PE PE NUMBER 78767	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				SHEET NO.: BRIDGE KEY SHEET		REV. OR NO.
	PLANS DATE 11/23/2021	ROAD NO. SR 5	WATERWAY MP 0.25	COUNTY PALM BEACH	CITY VILLAGE OF NORTH PALM BEACH	PROJECT NAME: STATE ROAD NO. 5 (US 1) OVER EARMAN RIVER BRIDGE REPLACEMENT	

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CONCEPTUAL PLANS UTILIZED TO OBTAIN COAST GUARD BRIDGE PERMIT

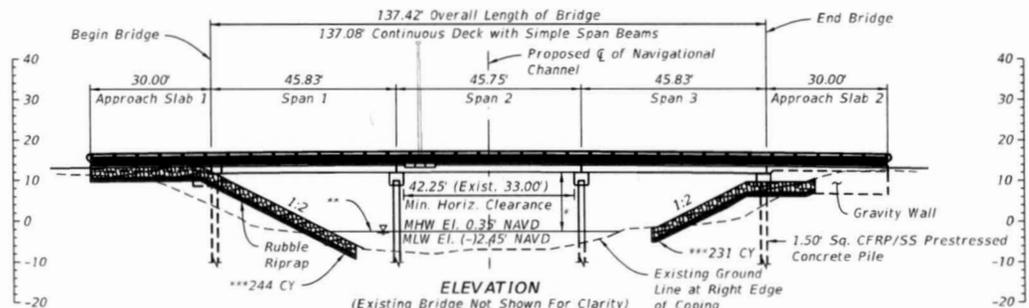
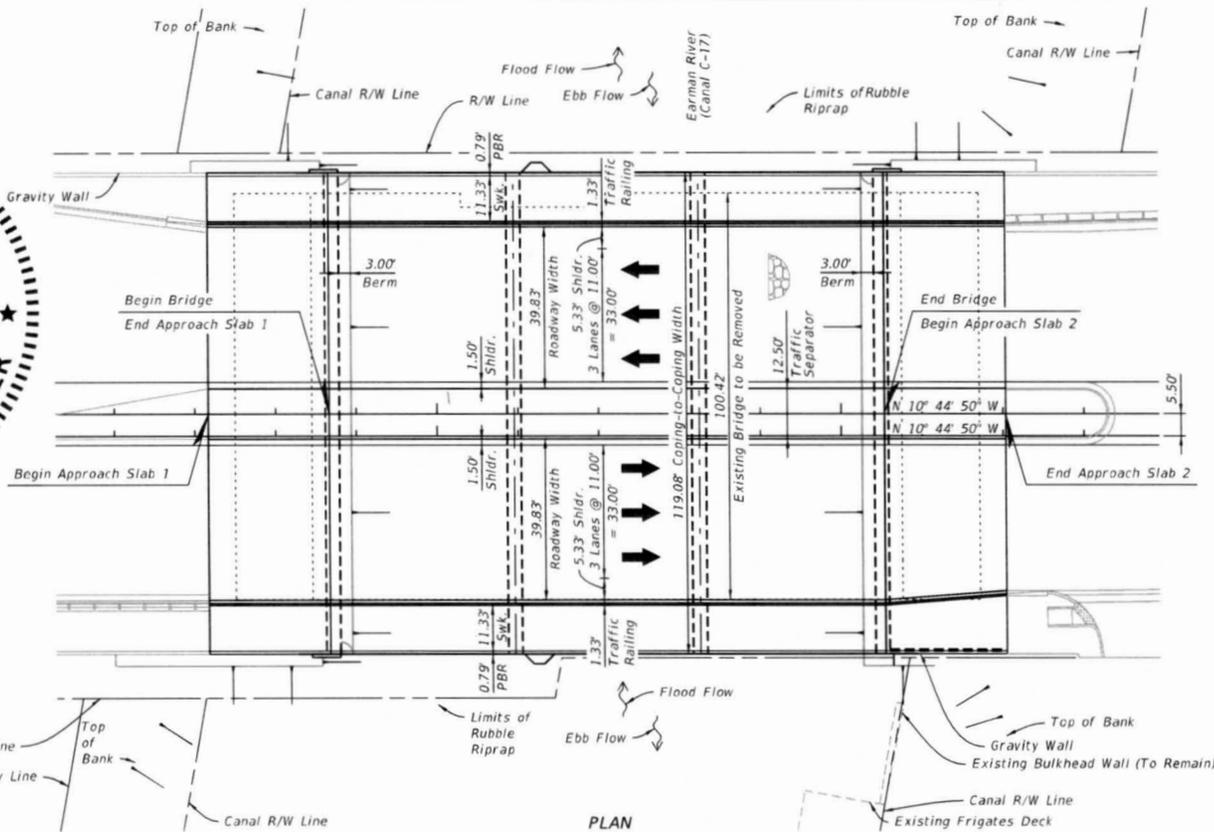


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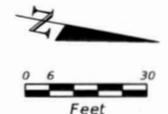
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- * 11.22' Proposed (8.0' Existing) Minimum Vertical Clearance to Mean High Water Elevation at Low Member Elevation.
- ** 100 Year Flood Elevation is 6.6 ft NAVD.
- *** Approximately 475 cubic yards of fill required below mean high water to tie proposed 1:2 slope into existing ground.



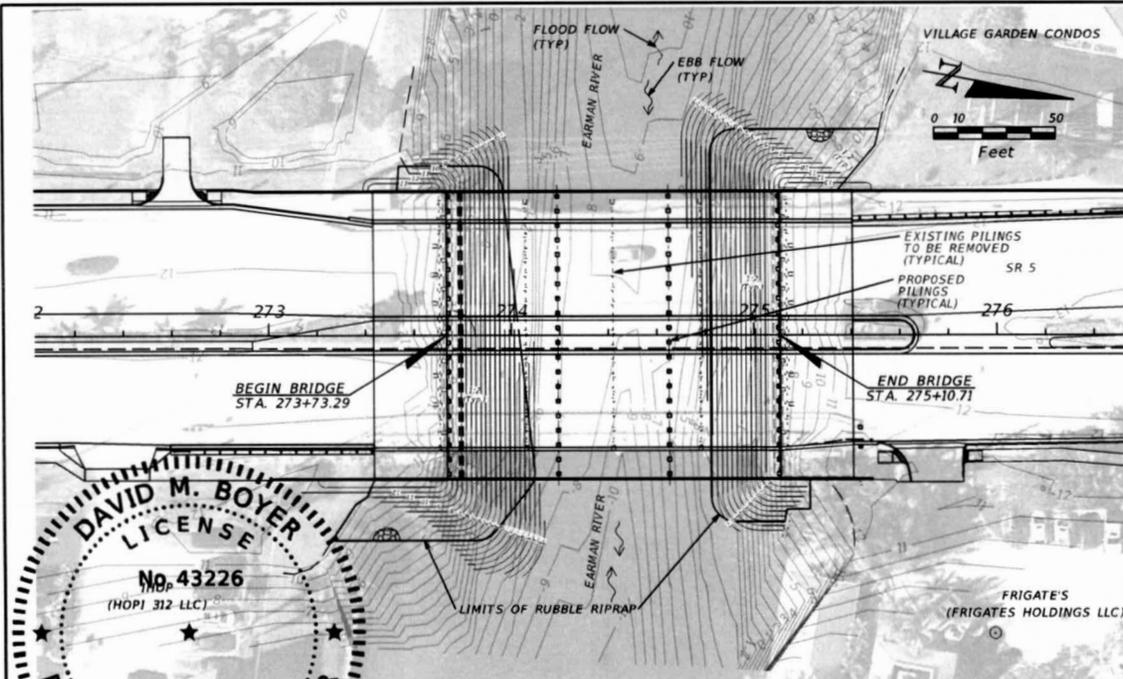
LEGEND:

- Existing Structure to be Removed

STRUCTURES DESIGN OFFICE DISTRICT 4 5400 W. COMMERCIAL BLVD. FORT LAUDERDALE, FLORIDA 33309-3421 JOSEPH H. DONEGAN, PE PE NUMBER 78767	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				SHEET NO.: PLAN AND ELEVATION	REF. DESIG. NO.
	PLANE DATE: 11/23/2021	ROAD NO.: SR 5	WATERWAY MP: 0.25	COUNTY: PALM BEACH		CITY: VILLAGE OF NORTH PALM BEACH

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DAVID M. BOYER
 LICENSE
 No. 43226
 (HOPI 312 LLC)

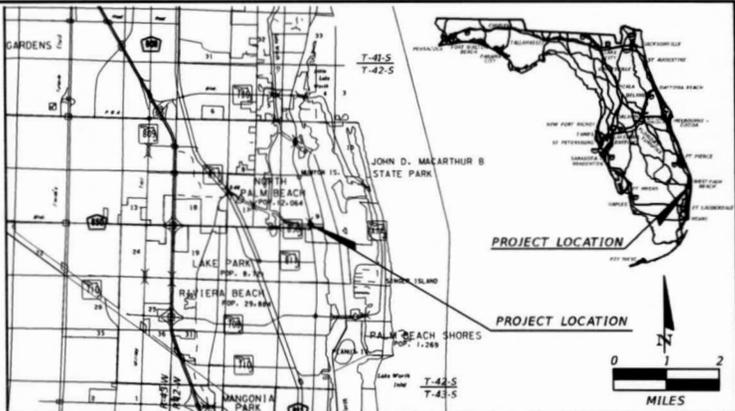
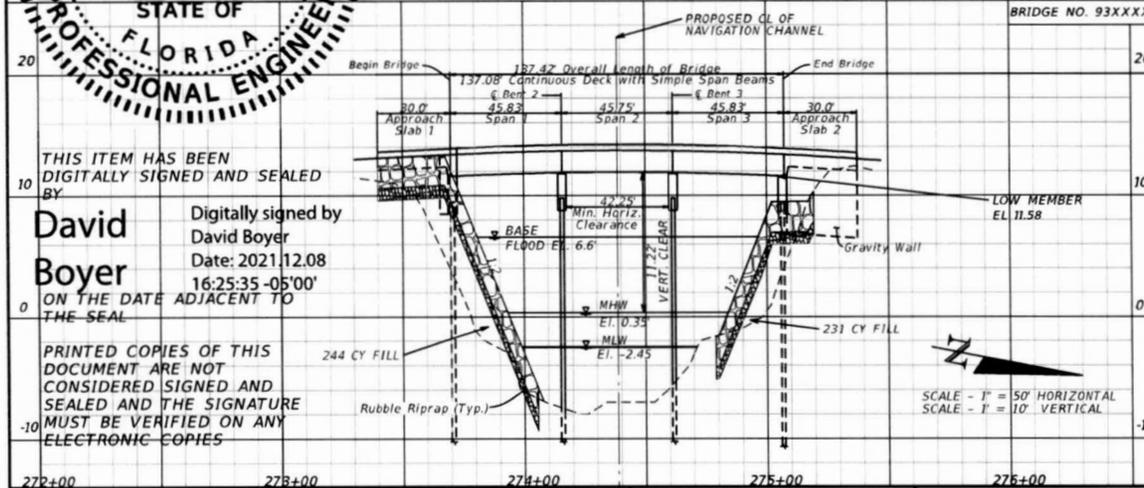
STATE OF FLORIDA
 PROFESSIONAL ENGINEER

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David Boyer
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(REFERENCE)	(1)	(2)	(3)	(4)	PROPOSED STRUCTURE
FOUNDATION	CONC. PILES				CONC. PILES
OVERALL LENGTH	144.0'				137.47'
SPAN LENGTH	40.26.0'				20@45.83'; 1@45.75'
TYPE CONSTRUCTION	CONCRETE				CONCRETE
AREA OF OPENING@D.F.	N.A.				N.A.
BRIDGE WIDTH	100.32'				119.00'
ELEV. LOW MEMBER	9.96'				11.58'

HYDRAULIC DESIGN DATA

NOTE:
 This hydraulic data is a summary of design calculations and is provided for informational purposes only. The user is cautioned against the assumption of precision for the discharge rates, units are in cubic feet per second and the design stages, feet-NAVD YYYY.

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)
 Overtopping Flood: Causes flow over the highway, over a watershed divide, or thru emergency relief structures.
 Greatest Flood: The most severe that can be predicted where overtopping is not practicable.

WATER SURFACE ELEVATIONS:		N.A.	M.H.W. (Tidal)	+0.35 NAVD (ft)	
CONTROL (Non-Tidal)		N.A.	M.L.W. (Tidal)	-2.45 NAVD (ft)	
FLOOD DATA:	MAX. EVENT OF RECORD	DESIGN FLOOD	BASE FLOOD	<input type="checkbox"/> OVERTOPPING or <input checked="" type="checkbox"/> GREATEST FLOOD	
STAGE ELEV. NAVD (ft)	N.A.	3120	3605	4942	
DISCHARGE (cfs)	N.A.	3.0	3.5	4.7	
AVERAGE VELOCITY (ft/s)	N.A.	2%	1%	0.2%	
EXCEEDANCE PROB. (%)	N.A.	50 YR	100 YR	500 YR	
FREQUENCY (yr.)	N.A.	SCOUR PREDICTIONS FOR PROPOSED STRUCTURE DESCRIBED ABOVE:			
PIER INFORMATION		LONG TERM	WORST CASE < 100 yr.	WORST CASE < 500 yr.	
NUMBERS	SIZE AND TYPE	SCOUR ELEV.	FREQ. (yr.)	FREQ. (yr.)	
2	1.5' CONCRETE PILES	N.A.	-19.0'	-19.7'	
3	1.5' CONCRETE PILES	N.A.	-19.0'	-19.7'	

HYDRAULIC RECOMMENDATIONS

- BEGIN BRIDGE STATION 273+73.29 END BRIDGE STATION 275+10.71 SKEW ANGLE 7 DEG.
- CLEARANCE PROVIDED: NAV: HORIZ. 42.25' VERT. 11.23' ABOVE EL. 0.35' DRIFT: HORIZ. 42.25' VERT. 5.68' ABOVE EL. 5.9'
- MINIMUM CLEARANCE: NAV: HORIZ. 10.0' VERT. 5.0' ABOVE EL. 0.35' DRIFT: HORIZ. N.A. VERT. 2.0' ABOVE EL. 5.9'
- ABUTMENTS:

	BEGIN BRIDGE BANK AND SHORE	END BRIDGE BANK AND SHORE
RUBBLE GRADE:		
SLOPE:	1.2 MIN	1.2 MIN
BURIED OR NON-BURIED HORIZ. TOE:	NON-BURIED	NON-BURIED
TOE HORIZ. DISTANCE:	12.00'	4.34'
LIMIT OF PROTECTION:	10' LL, 25' RL	25' LL, 10' RL
- DECK DRAINAGE: RUNOFF CAPTURED AT EACH END OF THE BRIDGE

REMARKS: BRIDGE OVER EARMAN RIVER.

DAVID M. BOYER, P.E., CFM P.E. LICENSE NUMBER 43226 SCALAR CONSULTING GROUP INC. 5713 CORPORATE WAY, SUITE 300 WEST PALM BEACH, FLORIDA 33407		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		BRIDGE HYDRAULIC RECOMMENDATIONS SHEET		REF. ENVS. NO.
PLANS DATE	ROAD NO.	WATERWAY SP.	COUNTY	CITY	PROJECT NAME	PAGE NO.
11/23/2021	SR 5	0.25	PALM BEACH	VILLAGE OF NORTH PALM BEACH	STATE ROAD NO. 5 (US 1) OVER EARMAN RIVER BRIDGE REPLACEMENT	3 OF 5

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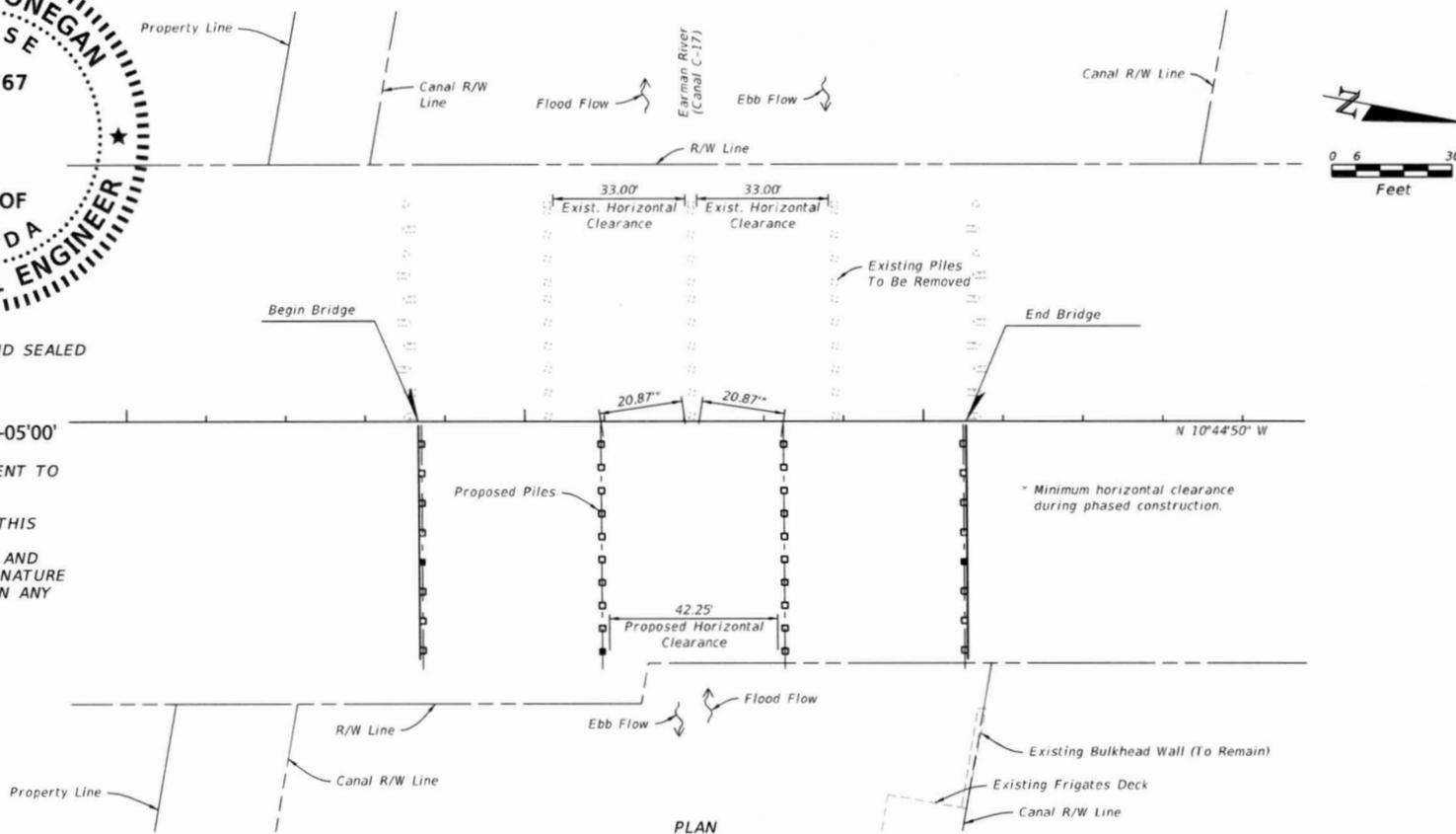


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PLAN

LEGEND:

- Denotes 1.50' Sq. CFRP/SS Prestressed Concrete Plumb Piles
- Denotes 1.50' Sq. CFRP/SS Prestressed Concrete Test Piles
- ⊠ Existing 1.50' Sq. Prestressed Concrete Pile (To Be Removed)
- ⊡ Existing 1.50' Sq. Prestressed Concrete Battered Pile (To Be Removed)

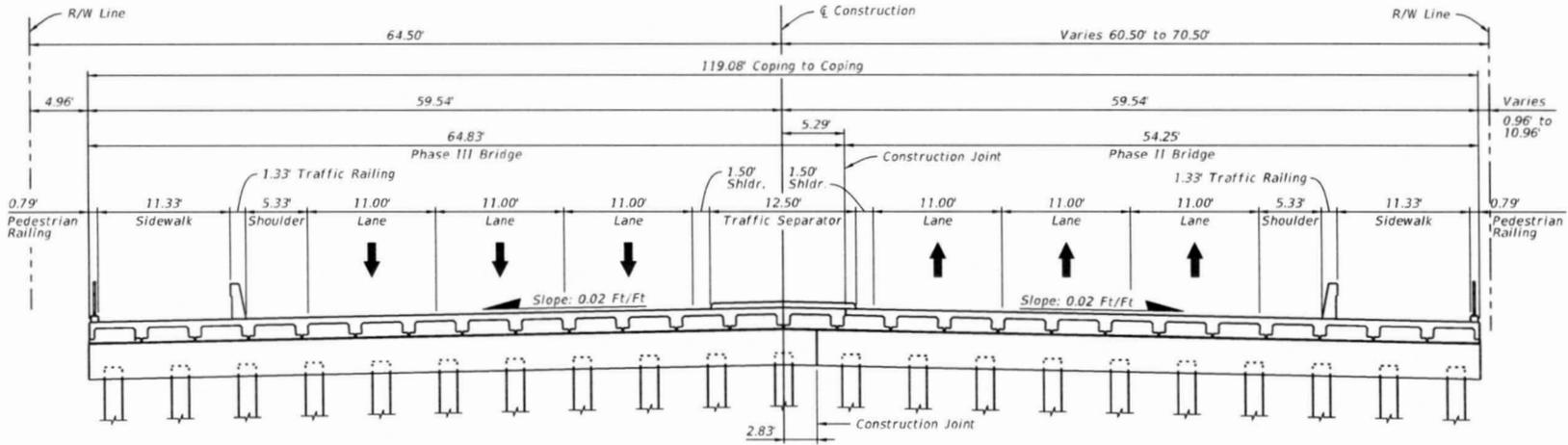
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	PLAND DATE 11/23/2021	ROAD NO. SR 5	WATERWAY MP 0.25	COUNTY PALM BEACH	CITY VILLAGE OF NORTH PALM BEACH	PROJECT NAME: STATE ROAD NO. 5 (US 1) OVER EARMAN RIVER BRIDGE REPLACEMENT	

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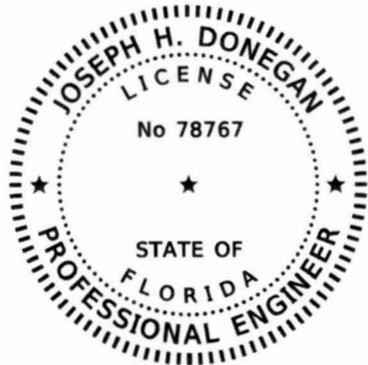
CONCEPTUAL PLANS UTILIZED TO OBTAIN COAST GUARD BRIDGE PERMIT

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PROPOSED BRIDGE TYPICAL SECTION



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	PLANE DATE 11/23/2021	ROAD NO. SR 5	WATERWAY MP 0.25	COUNTY PALM BEACH	CITY VILLAGE OF NORTH PALM BEACH	PROJECT NAME: STATE ROAD NO. 5 (US 1) OVER EARMAN RIVER BRIDGE REPLACEMENT	