



**US Army Corps
of Engineers**
Philadelphia District

Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390
ATTN: CENAP-OP-R

Public Notice

Public Notice No.	Date
CENAP-OP-R-2012-328-35	OCT 02 2012

Application No.	File No.
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In Reply Refer to:
REGULATORY BRANCH

This District has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344).

The purpose of this notice is to solicit comments and recommendations from the public concerning issuance of a Department of the Army permit for the work described below.

APPLICANT : New Jersey Department of Transportation
1035 Parkway Avenue
Trenton, New Jersey 08625
Attn: Mr. Richard Hammer, P.E.

AGENT: Parsons Brinckerhoff, Inc.
2000 Lenox Drive
Lawrenceville, NJ 08648
Attn: Mr. Joseph Mumber, P.E.

WATERWAY: Manahawkin Bay

LOCATION: Township of Stafford and Borough of Ship Bottom, Ocean County, New Jersey (see enclosure E-1)

ACTIVITY: The New Jersey Department of Transportation (NJDOT) has applied for a Department of the Army authorization to perform regulated work in waters of the United States to facilitate improvements to the New Jersey Route 72 causeway over Manahawkin Bay. The project site is located within the Manahawkin Bay in the Township of Stafford and the Borough of Ship Bottom, Ocean County, New Jersey (see enclosure E-2 through 16).

The Federal Highway Administration (FHWA) is the lead Federal agency for the project. An Environmental Assessment (EA), prepared in compliance with the National Environmental Policy Act (NEPA), identified and evaluated the potential social, economic and environmental impacts associated with the proposed project. The EA was supported by the Feasibility Assessment Report and addendum, bridge inspection reports, a Navigational Survey Report, a Roadway Drainage Report, a Preliminary Hydraulics and Scour Report, a Traffic Impact Report, a Cultural Resources Eligibility/Effects Investigation Report and technical studies for hazardous waste, noise and air quality, natural and biological resources and socioeconomics. A Finding of

No Significant Impact (FONSI) and approval of the Final Individual Section 4(f) Evaluation were issued by the FHWA for the proposed project on September 16, 2011.

The Route 72 Manahawkin Bay Bridges project, involves construction of a new parallel structure adjacent to the existing Manahawkin Bay Bridge, rehabilitation of the existing Bay Bridge, and rehabilitation of three other trestle bridges over Hilliard's Thorofare, East Thorofare, and West Thorofare, located in Stafford Township and Ship Bottom Borough, Ocean County, New Jersey. All four existing bridges are structurally deficient, functionally obsolete and in need of repair/replacement. Route 72 is the only vehicular route between the island and the mainland. It is the sole emergency evacuation route off of the island and is vital to the region. The U.S. Coast Guard issued Public Notices for the proposed bridge work on May 4, 2012 and is evaluating a permit application for the bridge work. Work regulated by the Corps, and subject to this application, includes pouring of concrete into forms, placement of rip-rap, and construction of outfall structures.

The project also includes improvements to the Route 72/Marsha Drive Intersection. Marsha Drive is a local road connecting Bay Avenue to Route 72 and to a housing development (Beach Haven West) on the south side of Route 72. During the summer months Marsha Drive southbound traffic turning left onto Route 72 towards Long Beach Island (LBI) queues to Bay Avenue, causing long traffic delays. NJDOT has proposed to make improvements to this intersection to alleviate the delays. Work regulated by the Corps, and subject to this application, includes the discharge of fill material into wetlands.

NJDOT has also applied for a Department of the Army permit to merge the LBI drainage and intersection improvements into the Route 72 Manahawkin Bay Bridge Improvements Project. Operational deficiencies, drainage issues and capacity constraints exist along 8th Street and 9th Street (Route 72). During summer months, traffic flow on and off the island is very poor, resulting in excessive delays and queues. The purpose of the project is to improve the drainage system along 8th and 9th Streets, maintain access/egress for Long Beach Island during heavy rainfalls and high tide events and maintain and improve traffic flow along Route 72 within Ship Bottom. Work regulated by the Corps includes the construction of an approximately 60' long outfall structure.

NJDOT is proposing to perform work on a portion of the U.S. Fish and Wildlife Service Edwin B Forsythe Refuge, Cedar Bonnet Island, to off-set impacts to State resources. This work will include the restoration of 15.12 acres of degraded wetlands within a former confined disposal facility by re-grading and removing 110,000 cubic yards of former dredged material, installation of tidal waterways into the restored wetland complex by the partial removal of existing berms around the island, and creating 0.4 acres of wetlands. The overburden material will be stored within the uplands on the refuge (see enclosure E-17).

Approximately 2.33 acres of open water would be filled through discharge of rip-rap scour counter measures, placement of concrete matting, construction of outfalls and the discharge of concrete into forms associated with the bridge pier foundations. The waters within the project area are mapped and considered shellfish and submerged aquatic vegetation (SAV) habitat. Approximately 0.16 acres of wetlands would be filled associated with the discharge of fill material into wetlands for road widening while 0.30 acres would be temporarily filled during construction.

Project-related impacts to the above resources have been avoided to the maximum extent practicable. Where impacts could not be avoided, measures have been implemented to minimize impacts. Measures have been implemented to reduce the number of potential impacts to the natural environment while still achieving the project goals and objectives. The proposed project will minimize impacts by reusing the existing jug-handle at Marsha Drive intersection, widening Route 72 to the median to minimize wetland impacts along the outside of roadway, reduced the width of the existing Manahawkin Bay Bridge by proposing a new superstructure which has less width than the existing bridge's superstructure, reuse the existing Bay Bridge substructure, reducing noise impacts by reusing existing bridge piles, install high retaining walls at abutments will be used to reduce the filling of open water, reusing the existing Manahawkin Bay Bridge foundation for westbound roadway will decrease impact to open water resources, new bridge pier foundations will be constructed within cofferdams, and use of lenses on highway lighting will minimize light spilling into the wildlife refuge.

NJDOT has offered compensatory mitigation for permanent impacts to wetlands associated with the project. A wetlands enhancement and creation site, along the southern boundary of the Route 72 right-of-way and adjacent to Ceder Bonnet Island, will provide 3.35 acres to off-set wetland impacts associated with the project (see enclosure E-18). The proposal is to lower the elevation of disturbed phragmites dominated wetlands to surrounding low marsh elevation allowing frequent inundation by the tide. This will increase the salt content of the water and control the phragmites. The proposed mitigation is adjacent to preserved refuge property increasing the total amount of contiguous protected habitat. Additionally, NJDOT has proposed to re-establish SAV habitat through plantings of eelgrass and seeding shellfish in sites identified by the NJDEP Bureau of Shellfisheries at a ratio of 3:1 to off-set open water impacts. Additional planting will be required by the USCG and/or FHWA if SAV is lost due to shading and temporary construction activities.

PURPOSE: The purpose, as defined by FHWA in their NEPA EA, of the proposed project is to maintain the Route 72 Causeway bridges and approach roadways in order to provide continuous vehicular access to Long Beach Island communities and maintain suitable coastal evacuation egress and maritime passage in the Intracoastal Waterway.

A preliminary review of this application indicates that the proposed work would not affect listed species or their critical habitat pursuant to Section 7 of the Endangered Species Act (ESA) as amended. FHWA has coordinated with both U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) regarding ESA.

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions or proposed actions, that are either permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). Based upon NMFS comments on FHWA's EA and a review of the "Guide to Essential Fish Habitat Designations in the Northeastern United States," issued by the National Oceanic and Atmospheric Administration/National Marine Fisheries Service, the project would adversely affect EFH species and their life stages. NMFS offered conservation measures to off-set the adverse effect in letters to FHWA, dated August 18, 2011 and September 14, 2011, and to USCG

dated June 1, 2012. Those measures include developing a compensatory mitigation plan to replace lost aquatic resources, develop a monitoring plan to determine if the new bridge would adversely affect SAV's growing in the area, no in-water work between January 1 and May 31 to protect winter flounder, no in-water work between April 15 and September 30 to protect SAV's, and no in-water work in seasonally open shellfish beds between November 1 and April 15. Work within coffer dams would not be considered in-water work. FHWA, USCG and NMFS are continuing coordination regarding conservation measures required to off-set adverse impacts to EFH.

The Section 106 process was completed by the NJDOT in conjunction with the NJ State Historic Preservation Officer on behalf of the FHWA on December 29, 2009. Several cultural resources investigations were conducted and it was determined that no historic properties would be affected by the project.

The decision whether to issue a permit will be based on an evaluation of the activity's probable impact including its cumulative impacts on the public interest. The decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, SAV, shellfish, intertidal/subtidal shallows, riparian zones, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and welfare of the people. A Department of the Army permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Comments on the proposed work should be submitted, in writing, within 30 days to the District Engineer, U.S. Army Corps of Engineers, Philadelphia District, Wanamaker Building, 100 Penn Square East, Philadelphia, Pennsylvania 19107-3390.

In accordance with Section 307(c) of the Coastal Zone Management Act of 1972, applicants for Federal Licenses or Permits to conduct an activity affecting land or water uses in a State's coastal zone must provide certification that the activity complies with the State's Coastal Zone Management Program. The applicant has stated that the proposed activity complies with and will be conducted in a manner that is consistent with the approved State Coastal Zone

Management (CZM) Program. No permit will be issued until the State has concurred with the applicant's certification or has waived its right to do so. Comments concerning the impact of the proposed and/or existing activity on the State's coastal zone should be sent to this office, with a copy to the State's Office of Coastal Zone Management.

In accordance with Section 401 of the Clean Water Act, a Water Quality Certificate is necessary from the State government in which the work is located. Any comments concerning the work described above which relate to Water Quality considerations should be sent to this office with a copy to the State.

The evaluation of the impact of the work described above on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act.

Any person may request, in writing, to the District Engineer, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state in writing, with particularity, the reasons for holding a public hearing.

Additional information concerning this permit application may be obtained by calling Michael Hayduk at (215) 656-5822, via email at michael.h.hayduk@usace.army.mil, or writing this office at the above address.


for Frank J. Cianfrani
Chief, Regulatory Branch

LEGEND

USACE JURISDICTIONAL DETERMINATION BOUNDARY/PROJECT LIMIT

--- LIMIT OF DISTURBANCE

--- HIGH TIDE LINE

--- MEAN HIGH WATER LINE

--- DELINEATED WETLAND LINE

--- HEAVY DUTY SLT FENCE

--- FLOWING TURBIDITY BARRER

--- TEMPORARY WATERS OF THE U.S. IMPACTS

--- PERMANENT WATERS OF THE U.S. IMPACTS

--- PHOTOGRAPH LOCATION & DIRECTION

--- DATA POINT

IMPACTS	Temporary Waters of the U.S.	Permanent Waters of the U.S.
Wetlands	310	332
Total Impacts	0.007	0.008

NOTE: THE 100 YEAR FLOOD ELEVATION ON THE LEFT IS BASED ON THE 1985 FIRM FOR OCEAN COUNTY, AND NUMBERED ACCORDING TO THE FIRM AND IS SHOWN IN THE 100 YEAR FIRM.

REV.	DESCRIPTION	DATE	BY	CHK.
1	REMOVED AM'S DELINEATED SWL	9/7/02		
2	ADDED 20' WIDE BUFFER LINE	7/8/02		
3	REMOVED MEAN HIGH WATER LINE	7/8/02		
4	REMOVED DELINEATED SWL	7/8/02		
5	REMOVED WATERS OF THE UNITED STATES FROM WETLANDS	7/8/02		

PERMIT PLANS SET #2

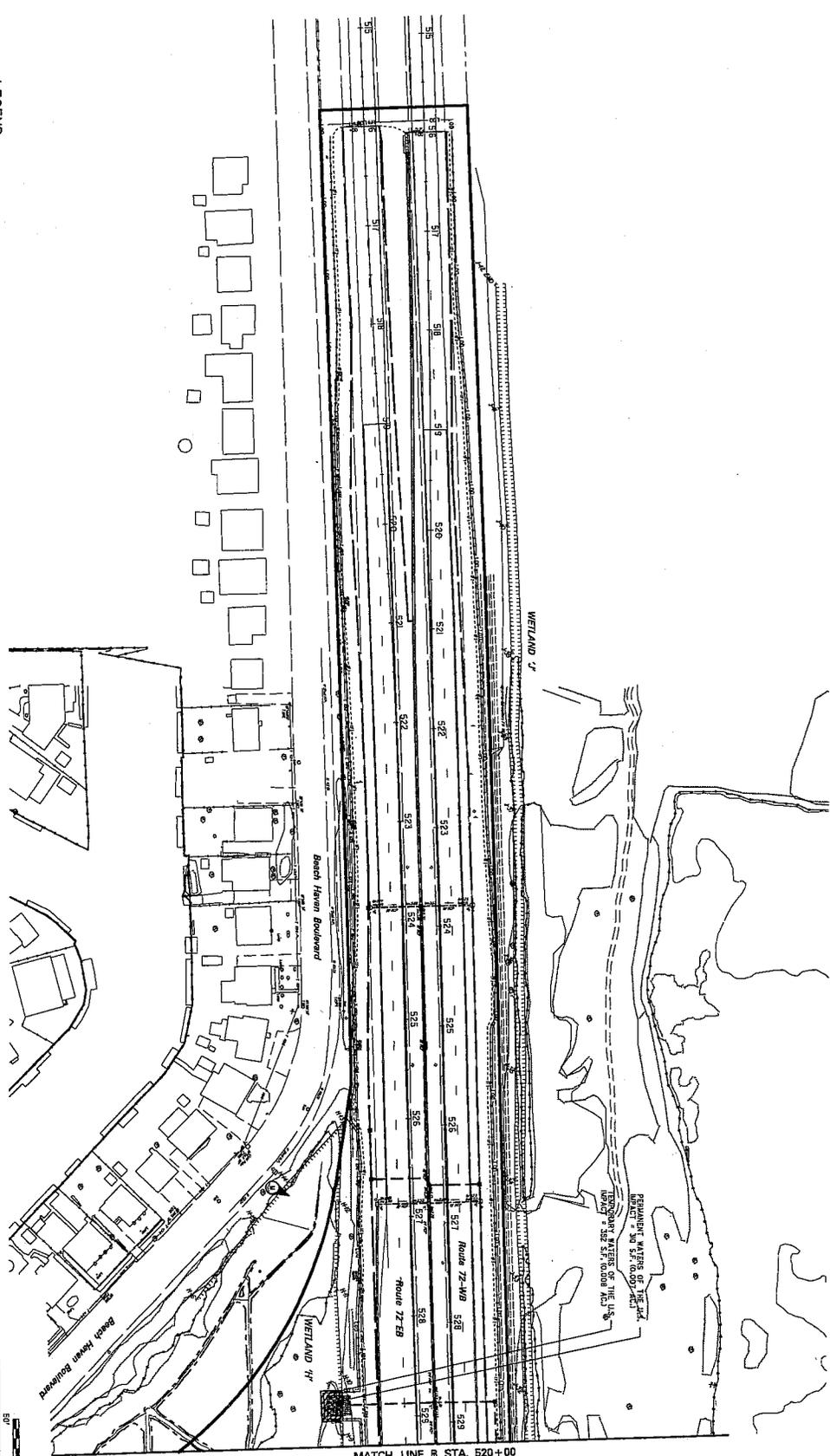
NEW JERSEY DEPARTMENT OF TRANSPORTATION

ROUTE 72 MANAHAWKIN BAY BRIDGES
 CONTRACT NOS. 02513880, 02513874

DESIGNED BY: [Redacted]
 CHECKED BY: [Redacted]
 DRAWN BY: [Redacted]
 DATE: 7/8/02

SCALE IN FEET: 1" = 50'

STATE FEDERAL PROJECT NO. NJ-IMP-0039110



TOWNSHIP OF STAFFORD COUNTY OF OCEAN

E2

PARSONS BRINCKERHOFF CADD DATA
 OPERATOR: J. Brinckerhoff
 PLOT DATE: 15-SEP-2002 10:50
 PENTABLE: whs_rwp_72.tbl
 DESIGN FILE: T:\AS2005 - Route 72 Manahawkin Bay Bridges\thw\dep2_07.dwg

LEGEND

USACE JURISDICTION, DETERMINATION BOUNDARY/PROJECT LIMIT

--- LIMIT OF DISTURBANCE

--- HIGH TIDE LINE

--- MEAN HIGH WATER LINE

--- DEGRADED WETLAND LINE

--- HEAVY DUTY SLOTTED FENCE

--- FLAMING TUBEROUS BARREN

--- TEMPORARY WATERS OF THE U.S. IMPACTS

--- PERMANENT WATERS OF THE U.S. IMPACTS

--- PHOTOGRAPH LOCATION & DIRECTION

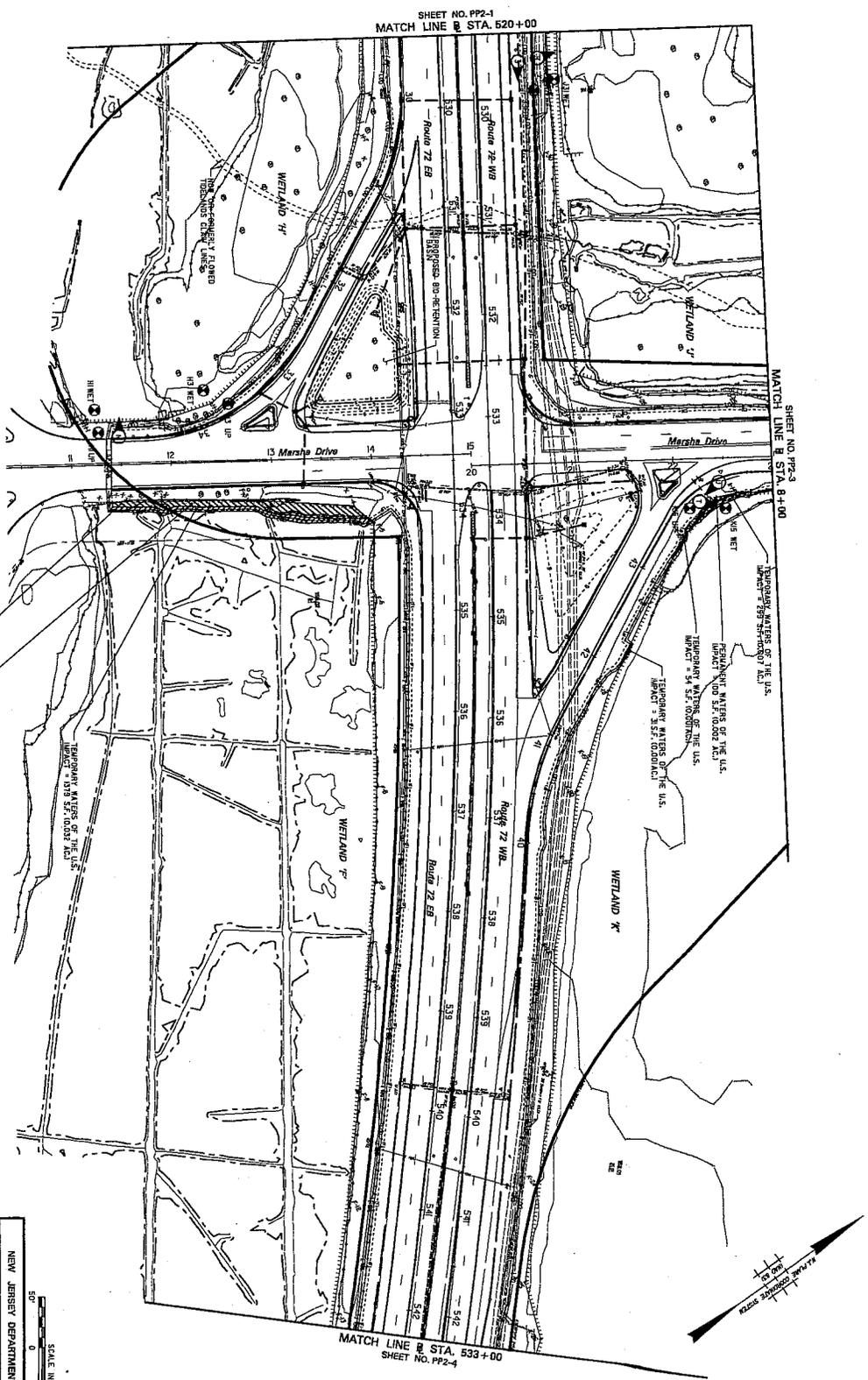
--- DATA POINT

Symbol	Impact Type	Notes
[Symbol]	Temporary	Temporary Waters of the U.S.
[Symbol]	Permanent	Permanent Waters of the U.S.
[Symbol]	Other	Other Impact

NOTE: THE 100 YEAR FLOOD ELEVATION, SEPARATELY ON THIS SHEET, IS BASED ON THE 1985 FLOOD MAP OF NEW JERSEY COUNTY AS SHOWN ON THE PLAN AND FOR THE PERMANENT COUNTY DIVISION OF SEPTEMBER 28, 1985. AN EFFECTIVE DATE OF SEPTEMBER 28, 1985.

REV.	DESCRIPTION	DATE	BY	CHK.
1	REMOVED WATERS OF THE UNITED STATES AND PERMANENT WATERS OF THE U.S.	7/8/02		
2	REMOVED WATERS OF THE UNITED STATES AND PERMANENT WATERS OF THE U.S.	7/8/02		
3	REMOVED WATERS OF THE UNITED STATES AND PERMANENT WATERS OF THE U.S.	7/8/02		
4	REMOVED WATERS OF THE UNITED STATES AND PERMANENT WATERS OF THE U.S.	7/8/02		
5	ADDED JOINT BOUNDARY LINE	7/20/02		
6	REMOVED WATERS OF THE UNITED STATES AND PERMANENT WATERS OF THE U.S.	9/17/02		

NEW JERSEY DEPARTMENT OF TRANSPORTATION
PERMIT PLANS
SET #2
 ROUTE 72 MANAHAWKIN BAY BRIDGES
 COUNTY: 0291803 & 0291804
 PARSONS BRINCKERHOFF, INC.
 1000 WEST WASHINGTON AVENUE
 NEWARK, NJ 07102
 DATE: 10/1/02



TOWNSHIP OF STAFFORD
 COUNTY OF OCEAN

SHEET NO. PP2-3
 MATCH LINE B STA. 520+00
 MATCH LINE A STA. 533+00
 SHEET NO. PP2-4

E3

PARSONS BRINCKERHOFF CAD DATA
 OPERATOR: Brinckerhoff GLEUE \\Amoriot10\PRP1.03.BW.P
 PLOT DATE: 15-SEP-2002 12:00
 PERMITS: mhw_perm_72.101
 RESUR FILE: TA\2002 - Route 72 Manahawkin Bay Bridges\mhw_perm_72.101

Year	Permanent	Temporary
2001	3500	2100
2002	3500	2100

LEGEND

USAC JARSDIRECTIONAL DETERMINATION BOUNDARY/PROJECT LIMIT

--- LIMIT OF DISTURBANCE

--- HIGH TIDE LINE

--- MEAN HIGH WATER LINE

--- DEGRADED WETLAND LINE

--- HEAVY DUTY EMT FENCE

--- FLOATING TURBIDITY BARRIERS

--- TEMPORARY WATERS OF THE U.S. IMPACTS

--- PERMANENT WATERS OF THE U.S. IMPACTS

--- PHOTOGRAPH LOCATION & DIRECTION

--- DATA POINT

NOTES: THE DO YEAR FROM ACOORPLAN ELEVATION. THE PLAN SHOWS AN ELEVATION OF 14.10 FEET FROM COASTAL COUNTY MAP NUMBER 10282002-0006 FROM AN ELEVATION VALUE OF 50.00 FEET TO 54.00 FEET.

REV.	DESCRIPTION	DATE	BY	CHK
1	REMOVED WATERS OF THE U.S. IMPACTS FROM THE LINE AND UPDATED	6/4/02		
2	REMOVED WATERS OF THE U.S. IMPACTS FROM THE LINE AND UPDATED	7/8/02		
3	REMOVED MEAN HIGH WATER IMPACTS FROM THE LINE AND UPDATED	7/8/02		
4	REMOVED MEAN HIGH WATER IMPACTS FROM THE LINE AND UPDATED	7/8/02		
5	ADDED DRAINAGE BOUNDARY LINE	7/29/02		
6	REMOVED MEAN HIGH WATER IMPACTS FROM THE LINE AND UPDATED	7/29/02		

NEW JERSEY DEPARTMENT OF TRANSPORTATION

PERMIT PLANS

SET #2

ROUTE 72 MANAHAWKIN BAY BRIDGES
 CONTRACT NOS. 0287880, 0287890,
 0287900 & 0287910

PARSONS BRINCKERHOFF, INC.
 200 AMSTERDAM AVENUE
 NEW YORK, NY 10013

NEW JERSEY PROFESSIONAL ENGINEER NO. 362820002



TOWNSHIP OF STAFFORD

COUNTY OF OCEAN

SCALE IN FEET

0 50 100

DATE: 9/15/02

BY: [Signature]

CHK: [Signature]

PROJECT NO. 0287880, 0287890, 0287900, 0287910

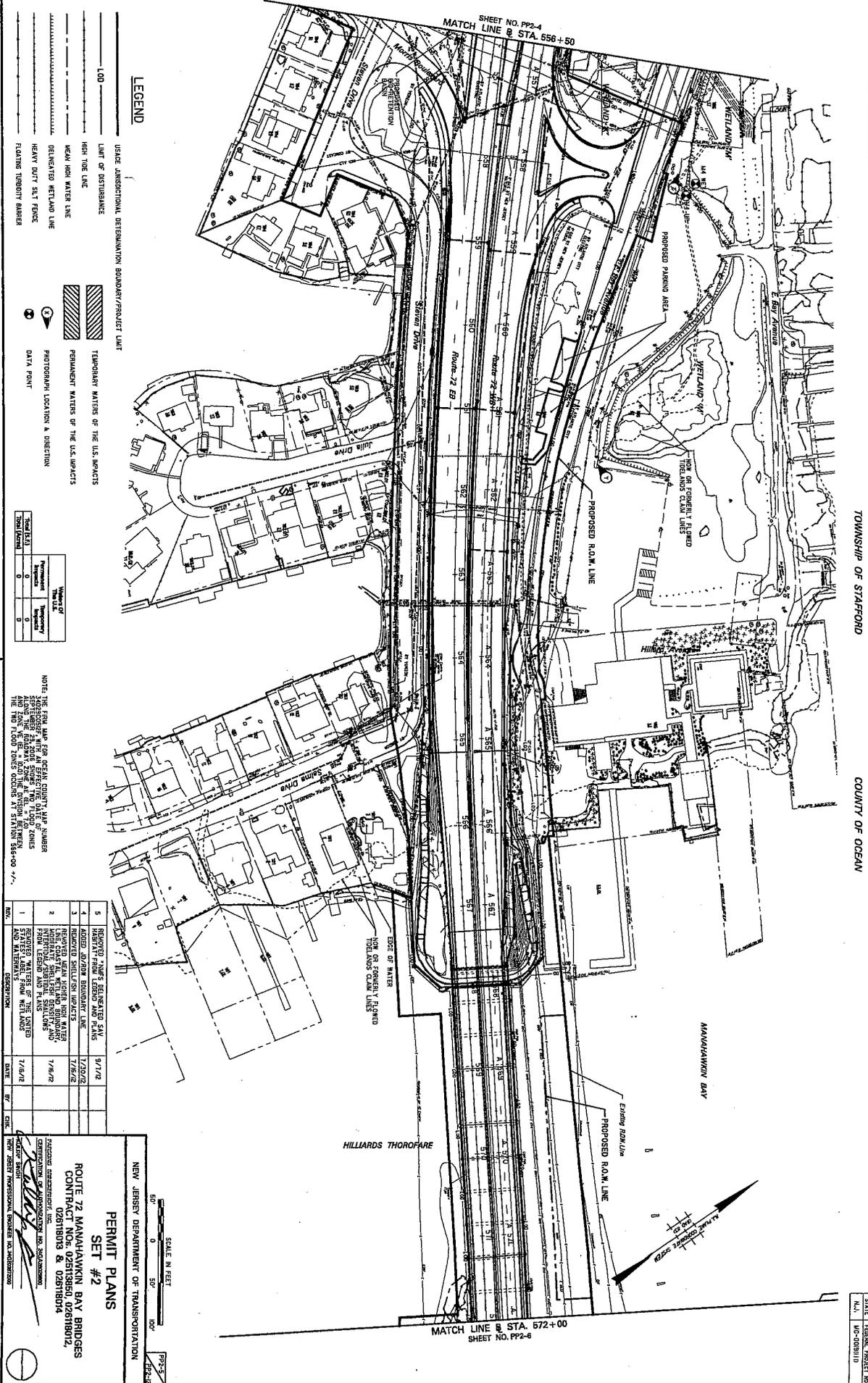
DATE: 9/15/02

BY: [Signature]

CHK: [Signature]

24

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 DESIGN FILE: T152005 - Route 72 Manahawkin Bay Bridges View 4.dwg



LEGEND

USACE JURISDICTIONAL DETERMINATION BOUNDARY/PROJECT LIMIT
 LIMIT OF DISTURBANCE
 HIGH TIDE LINE
 MEAN HIGH WATER LINE
 DRAINAGE WETLAND LINE
 HEAVY DUTY SALT FENCE
 FLOATING TROPHY BASIN

TEMPORARY WATERS OF THE U.S. IMPACTS
 PERMANENT WATERS OF THE U.S. IMPACTS
 PHOTOGRAPH LOCATION & DIRECTION
 DATA POINT

NO.	Number of	
	Temporary	Permanent
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0

NOTE: THE FIRM HAS FOR OCEAN COUNTY, MAP NUMBER 588-00, DETERMINED THE FLOOD ZONES AND FLOOD HAZARD ZONES FOR THE ROUTE 72 BRIDGES AND APPROXIMATELY 1/4 MILE ON EITHER SIDE OF THE BRIDGES. THE FIRM HAS FOR OCEAN COUNTY, MAP NUMBER 588-00, DETERMINED THE FLOOD ZONES AND FLOOD HAZARD ZONES FOR THE TWO FLOOD ZONES OCCURRING AT STATION 566+00 +/-.

NO.	DESCRIPTION	DATE	BY	CHK.
1	REMOVED NAME DESIGNATED S.W. HARBOR FROM LEGEND AND PLANS	9/1/02		
2	ADDED JO/ROW BOUNDARY LINE	7/20/02		
3	REMOVED SHORELINE IMPACTS	7/18/02		
4	THE FIRM HAS FOR OCEAN COUNTY, MAP NUMBER 588-00, DETERMINED THE FLOOD ZONES AND FLOOD HAZARD ZONES FOR THE ROUTE 72 BRIDGES AND APPROXIMATELY 1/4 MILE ON EITHER SIDE OF THE BRIDGES. THE FIRM HAS FOR OCEAN COUNTY, MAP NUMBER 588-00, DETERMINED THE FLOOD ZONES AND FLOOD HAZARD ZONES FOR THE TWO FLOOD ZONES OCCURRING AT STATION 566+00 +/-.	7/18/02		
5	ADDED JO/ROW BOUNDARY LINE	7/18/02		

PERMIT PLANS
SET #2

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ROUTE 72 MANAHAWKIN BAY BRIDGES
 CONTRACT NOS. 025113850, 025118072,
 025118073 & 025118074

DESIGNED BY: [Signature]
 CHECKED BY: [Signature]
 DATE: 7/18/02

NEW JERSEY PROFESSIONAL ENGINEER NO. 404828200

TOWNSHIP OF STAFFORD
 COUNTY OF OCEAN

SHEET NO. PP2-4
 MATCH LINE @ STA. 556+50

EG

PARSONS BRINCKERHOFF CADD DATA
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 PLOT DATE: 13-SEP-2002 12:01
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TOWNSHIP OF STAFFORD
 COUNTY OF OCEAN

LEGEND

USACE JURISDICTIONAL DETERMINATION BOUNDARY/PRODUCT LIMIT

LIMIT OF DISTURBANCE

HIGH TIDE LINE

MEAN HIGH WATER LINE

DELIMITED WETLAND LINE

HEAVY DUTY SLT FENCE

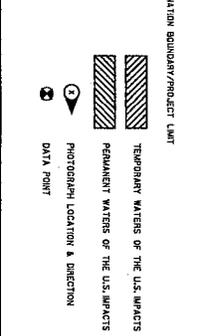
FLUATING TUBERTY BARRIER

TEMPORARY WATERS OF THE U.S. IMPACTS

PERMANENT WATERS OF THE U.S. IMPACTS

PHOTOGRAPHY LOCATION & DIRECTION

DATA POINT

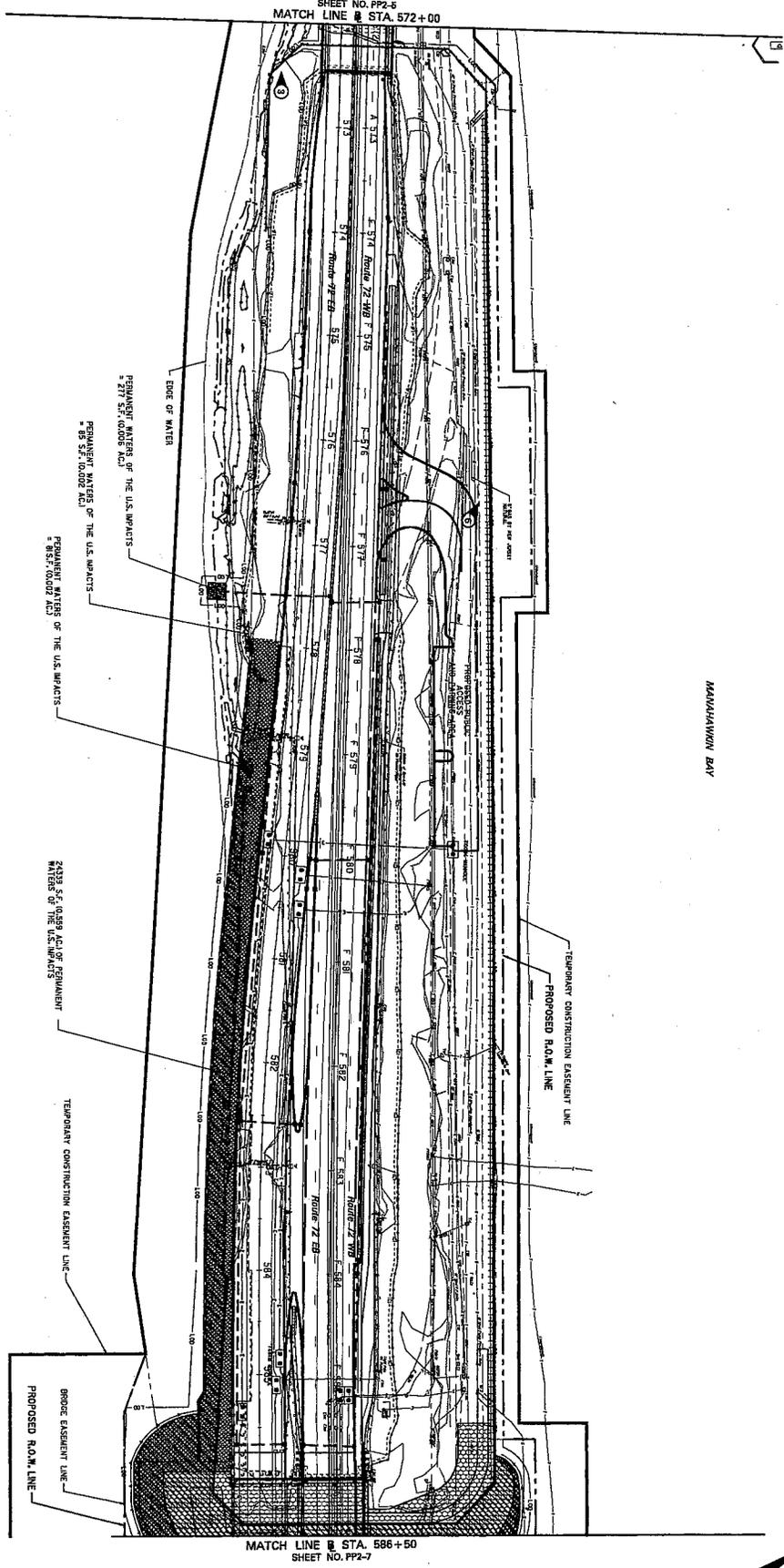


IMPACT CLASS	PERMANENT WATERS OF THE U.S.	TEMPORARY WATERS OF THE U.S.
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0

NOTE: THE 2002 YEAR FROM A REGIONAL ESTIMATION FOR THE PLAN SHEET IS REPRESENTED AS ZONE 2. THE 2002 YEAR FROM A REGIONAL ESTIMATION FOR THE PLAN SHEET IS REPRESENTED AS ZONE 2. WITH AN EFFECTIVE DATE OF SEPTEMBER 29, 2006.

NO.	DESCRIPTION	DATE	BY	CHK.
1	PERMANENT WATERS OF THE U.S.	9/7/02		
2	TEMPORARY WATERS OF THE U.S.	9/7/02		
3	ADDED ADJOUR BOUNDARY LINE	7/20/02		
4	ADDED ADJOUR DELIMITED SAW	7/20/02		
5	REMOVED SHELFISH IMPACTS	7/16/02		
6	REMOVED SHELFISH IMPACTS	7/16/02		
7	REMOVED SHELFISH IMPACTS	7/16/02		
8	REMOVED SHELFISH IMPACTS	7/16/02		

NEW JERSEY DEPARTMENT OF TRANSPORTATION
 PERMIT PLANS
 SET #2
 ROUTE 72 MANAHAWKIN BAY BRIDGES
 CONTRACT NO. OAS-01-000002
 DISTRICTS & DISTRICTS
 PARSONS BRINCKERHOFF, INC.
 CENTRAL REGIONAL OFFICE
 1000 WEST WASHINGTON AVENUE
 NEW JERSEY DEPARTMENT OF TRANSPORTATION



MATCH LINE @ STA. 572+00
 MATCH LINE @ STA. 586+50
 SHEET NO. PP2-5
 SHEET NO. PP2-7

SCALE IN FEET
 0 50 100

MANAHAWKIN BAY

PROPOSED CONSTRUCTION EASEMENT LINE
 PROPOSED R.O.M. LINE
 BRIDGE EASEMENT LINE
 PROPOSED R.O.M. LINE

STATE: NEW JERSEY
 COUNTY: OCEAN
 SHEET NO. PP2-5
 DATE: 9/7/02

7E

PARSONS BRINCKERHOFF CAD DATA
 OPERATOR: Brinckerhoff
 PLOT DATE: 13-SEP-2002 12:02
 PLOT FILE: hmc.mwp.72.tbl
 DESIGN FILE: T:\5005 - Route 72, Manahawick Bay, Bridge\hmc\p03.dwg

SHEET NO. PP2-6
 MATCH LINE @ STA. 586+50

LEGEND

USDC DIRECTIONAL DETERMINATION BOUNDARY/PROJECT LIMIT

LIMIT OF DISTURBANCE

HIGH TIDE LINE

MEAN HIGH WATER LINE

DENATED WETLAND LINE

HEAVY DUTY S&T FENCE

FLOWING TURBIDITY BARRER

TEMPORARY CONSTRUCTION BOUNDARY/PROJECT LIMIT

TEMPORARY MATERS OF THE U.S. IMPACTS

PERMANENT MATERS OF THE U.S. IMPACTS

PHOTOGRAPH LOCATION & DIRECTION

DATA POINT

Station	Impact	Area (sq. ft.)
586+50	Temporary Construction	1,000
587+00	Temporary Construction	1,000
588+00	Temporary Construction	1,000
589+00	Temporary Construction	1,000
590+00	Temporary Construction	1,000
591+00	Temporary Construction	1,000
592+00	Temporary Construction	1,000
593+00	Temporary Construction	1,000
594+00	Temporary Construction	1,000
595+00	Temporary Construction	1,000
596+00	Temporary Construction	1,000
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615+00	Temporary Construction	1,000
616+00	Temporary Construction	1,000
617+00	Temporary Construction	1,000
618+00	Temporary Construction	1,000
619+00	Temporary Construction	1,000
620+00	Temporary Construction	1,000

NOTES

1. ALL PERMITS SHALL BE OBTAINED PRIOR TO CONSTRUCTION.

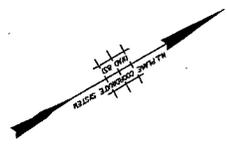
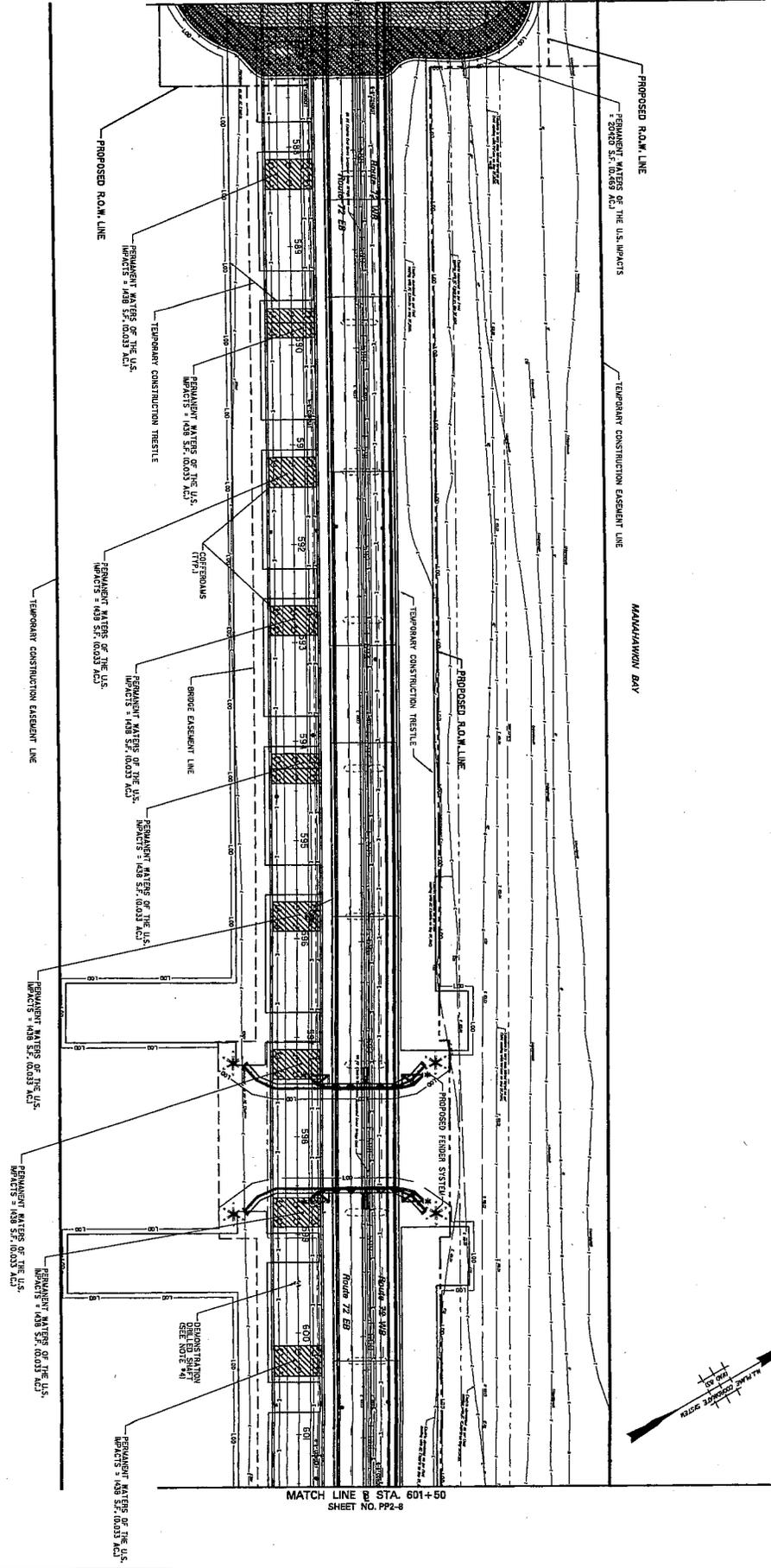
2. THE PERMITTEE SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES.

3. THE PERMITTEE SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES.

4. THE PERMITTEE SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES.

NO.	DESCRIPTION	DATE	BY	CHK.
1	ISSUED MATERS OF THE U.S. IMPACTS	9/1/02		
2	REMOVED MATERS OF THE U.S. IMPACTS	9/1/02		
3	ADDED JOINDER BOUNDARY LINE	7/20/02		
4	ISSUED MATERS OF THE U.S. IMPACTS	7/20/02		
5	REMOVED MATERS OF THE U.S. IMPACTS	7/20/02		
6	REMOVED MATERS OF THE U.S. IMPACTS	7/20/02		
7	REMOVED MATERS OF THE U.S. IMPACTS	7/20/02		
8	REMOVED MATERS OF THE U.S. IMPACTS	7/20/02		
9	REMOVED MATERS OF THE U.S. IMPACTS	7/20/02		
10	REMOVED MATERS OF THE U.S. IMPACTS	7/20/02		

NEW JERSEY DEPARTMENT OF TRANSPORTATION
 PERMIT PLANS
 SET #2
 ROUTE 72 MANAHAWICK BAY BRIDGES
 COUNTY OF OCEAN
 DRAWING NO. 02818015 & 02818016
 PARSONS BRINCKERHOFF, INC.
 1000 WEST 10TH AVENUE
 DENVER, CO 80202
 DATE: 9/1/02
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]



TOWNSHIP OF STAFFORD
 COUNTY OF OCEAN

SCALE IN FEET
 0 50 100

88

PARSONS BRINCKERHOFF CAD DATA
 OPERATOR: [unclear] DATE: 11/20/02
 PLOT DATE: 11-20-2002 12:03
 PENTABLE: [unclear]
 DESIGN FILE: T:\5206 - Route 72 Manahawkin Bay Bridges\shw-v\dp02.dwg

SHEET NO. PP2-0
 MATCH LINE B STA. 632+00

- LEGEND**
- USACE SUBSECTIONAL DETERMINATION BOUNDARY/PROJECT LIMIT
 - LIMIT OF DISTURBANCE
 - HIGH TIDE LINE
 - MEAN HIGH WATER LINE
 - DECLINATED WETLAND LINE
 - HEAVY DUTY SALT TOLC
 - FLAMING TUBEROUS BARRER
 - TEMPORARY MATERS OF THE U.S.
 - PERMANENT MATERS OF THE U.S.
 - PHOTOGRAPHY LOCATION & DIRECTION
 - DATA POINT

Symbol	Material	Weight of the U.S.
[Symbol]	Temporary	25%
[Symbol]	Permanent	75%
[Symbol]	Final (Total)	0.00

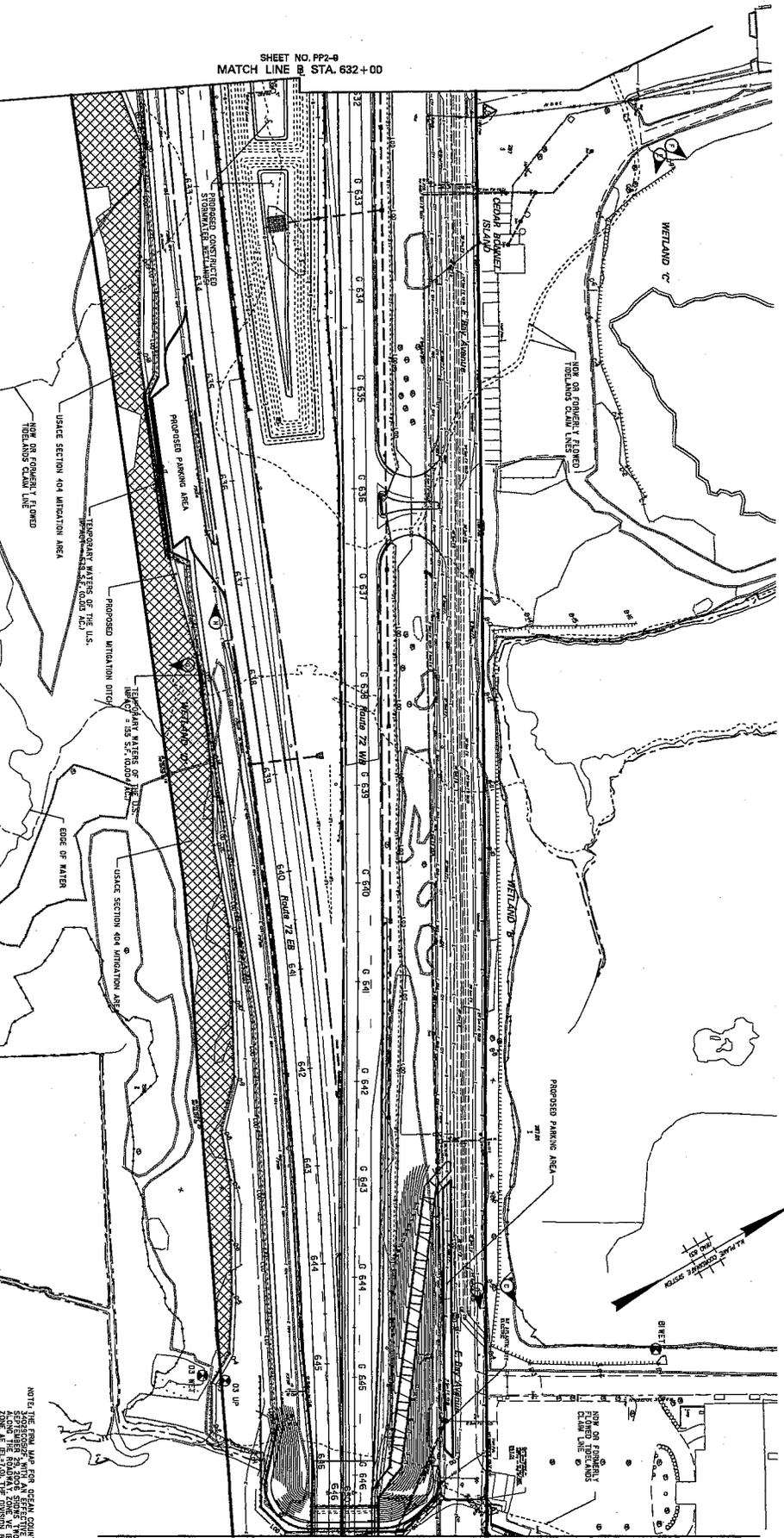
NO.	DESCRIPTION	DATE	BY	CHK.
1	REVISIONS	6/14/02		
2	AND MATHEMATICS	7/16/02		
3	REVISIONS	7/16/02		
4	REVISIONS	7/16/02		
5	REVISIONS	7/16/02		
6	REVISIONS	7/16/02		
7	REVISIONS	7/16/02		
8	REVISIONS	7/16/02		
9	REVISIONS	9/17/02		

PERMIT PLANS
SET #2
 ROUTE 72 MANAHAWKIN BAY BRIDGES
 CONTRACT NOS. 02818890, 02818902,
 02818903 & 02818904
 PARSONS BRINCKERHOFF & ASSOCIATES
 CIVIL ENGINEERING
 1000 ROUTE 72, MANAHAWKIN, NJ 08050
 DATE: 11/20/02

NOTE: THE FINAL MAP FOR OCEAN COUNTY, MAP NUMBER [unclear], SHALL BE THE BASIS FOR THE PERMIT. THE PERMITTEE SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE APPLICABLE AGENCIES. THE PERMITTEE SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE APPLICABLE AGENCIES. THE PERMITTEE SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE APPLICABLE AGENCIES.

SCALE IN FEET
 0 50 100

PP2-0



MATCH LINE B STA. 646+50
 SHEET NO. PP2-11

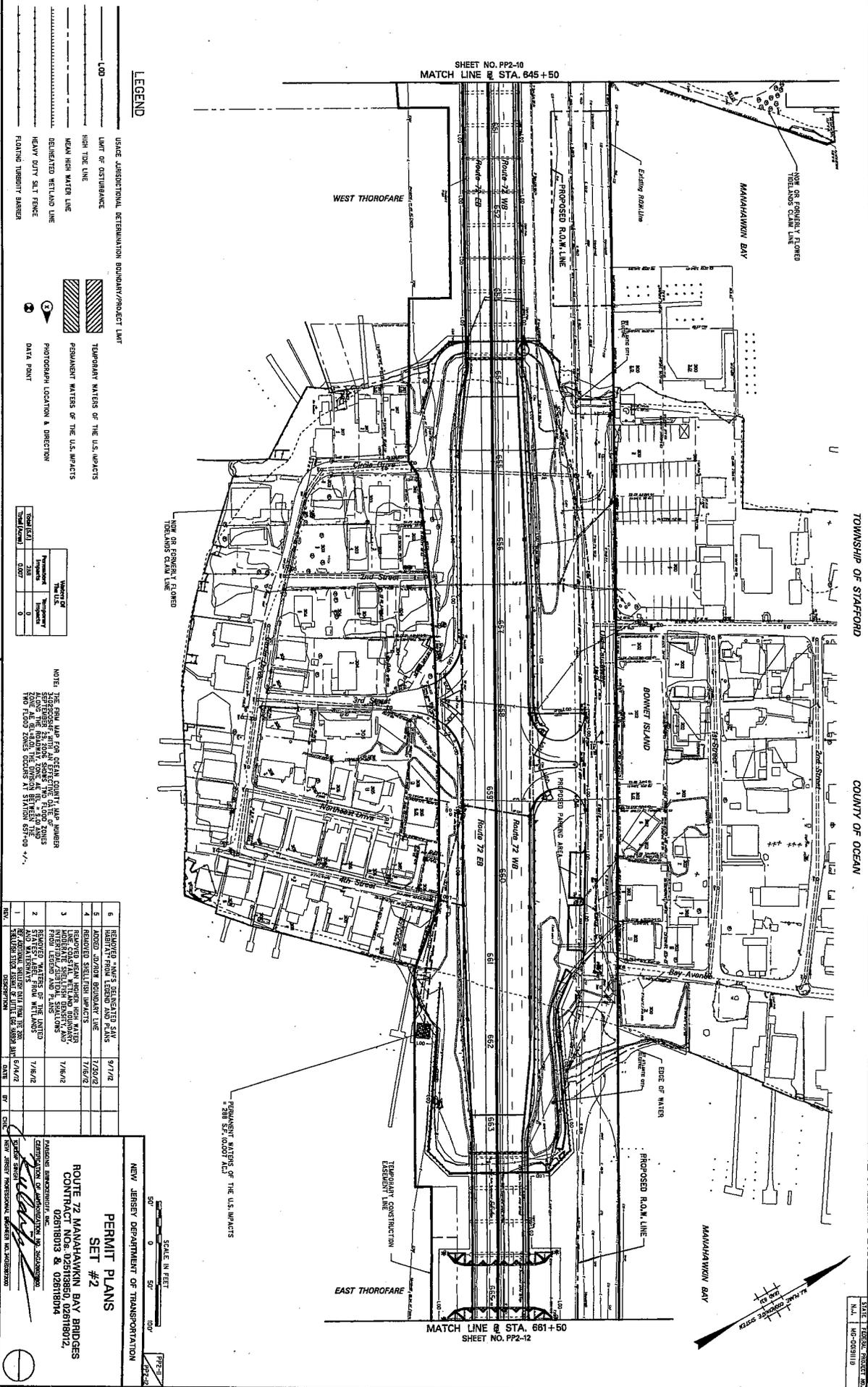
TOWNSHIP OF STAFFORD
 COUNTY OF OCEAN

DATE: 11/20/02
 TIME: 10:00 AM

111

PARSONS BRINCKERHOFF CADD DATA
 OPERATOR: [unclear] DATE: 11/14/2002
 PLOT DATE: 12-09-2002 02:04
 PENTABLE: 6767_rwp_T2.DWG
 DESIGN FILE: T152205 - Route 72 Manahawkin Bay Bridges\Draw2.dwg

SHEET NO. PP2-10
 MATCH LINE @ STA. 645+50



LEGEND

USEAGE SUBSECTIONAL DETERMINATION BOUNDARY/PROJECT LIMIT

1.00 - LIMIT OF DISTURBANCE

--- HIGH TIDE LINE

--- MEAN HIGH WATER LINE

--- DELINEATED WETLAND LINE

--- HEAVY DUTY SILT FENCE

--- FLOATING TUBERTY BARRER

TEMPORARY WATERS OF THE U.S. IMPACTS

PERMANENT WATERS OF THE U.S. IMPACTS

PHOTOGRAPHY LOCATION & DIRECTION

DATA POINT

NO.	DATE	BY	DESCRIPTION
1	6/14/02	[Signature]	NEW SHEET PROPOSED BRIDGES AND APPROXIMATE
2	7/18/02	[Signature]	REVISIONS TO PERMIT PLAN SET #2
3	7/18/02	[Signature]	REVISIONS TO PERMIT PLAN SET #2
4	7/18/02	[Signature]	REVISIONS TO PERMIT PLAN SET #2
5	7/18/02	[Signature]	REVISIONS TO PERMIT PLAN SET #2
6	9/1/02	[Signature]	REVISIONS TO PERMIT PLAN SET #2

NOTE: THE FINAL MAP FOR OCEAN COUNTY MAP NUMBER [unclear] SHALL BE THE FINAL MAP FOR OCEAN COUNTY MAP NUMBER [unclear]. THE PERMIT PLAN SET #2 SHALL BE THE FINAL MAP FOR OCEAN COUNTY MAP NUMBER [unclear]. THE PERMIT PLAN SET #2 SHALL BE THE FINAL MAP FOR OCEAN COUNTY MAP NUMBER [unclear].

NO.	DATE	BY	DESCRIPTION
1	6/14/02	[Signature]	NEW SHEET PROPOSED BRIDGES AND APPROXIMATE
2	7/18/02	[Signature]	REVISIONS TO PERMIT PLAN SET #2
3	7/18/02	[Signature]	REVISIONS TO PERMIT PLAN SET #2
4	7/18/02	[Signature]	REVISIONS TO PERMIT PLAN SET #2
5	7/18/02	[Signature]	REVISIONS TO PERMIT PLAN SET #2
6	9/1/02	[Signature]	REVISIONS TO PERMIT PLAN SET #2

NEW JERSEY DEPARTMENT OF TRANSPORTATION

PERMIT PLANS

SET #2

ROUTE 72 MANAHAWKIN BAY BRIDGES

CONTRACT NOS. 02510281801Z, 02510281802Z, 02510281803Z & 02510281804Z

PARSONS BRINCKERHOFF, INC.

DATE: 6/14/02 BY: [Signature]



MATCH LINE @ STA. 681+50
 SHEET NO. PP2-12

STATE LICENSE PROJECT NO. [unclear]
 E12

PARSONS BRINCKERHOFF CAD DATA
 OPERATOR [redacted] DATE \\snp\br10\UPR\PL03_GW_P
 PLOT DATE 13-SEP-2002 0:04
 PENTABLE [redacted]
 DESIGN FILE T:\S205 - Route 72 Manahawkin Bay Bridges\vw\02p2.rvt

SHEET NO. PP2-11
 MATCH LINE @ STA. 661+50

- LEGEND**
- JURISDICTIONAL DETERMINATION BOUNDARY/PROJECT LIMIT
 - LIMIT OF DISTURBANCE
 - HIGH TIDE LINE
 - MEAN HIGH WATER LINE
 - DELINEATED WETLAND LINE
 - HEAVY DUTY SIX FENCE
 - FLOATING THERMIST BARBER
 - TEMPORARY WATERS OF THE U.S. W/ACTS
 - PERMANENT WATERS OF THE U.S. W/ACTS
 - PHOTOGRAPH LOCATION & DIRECTION
 - DATA POINT

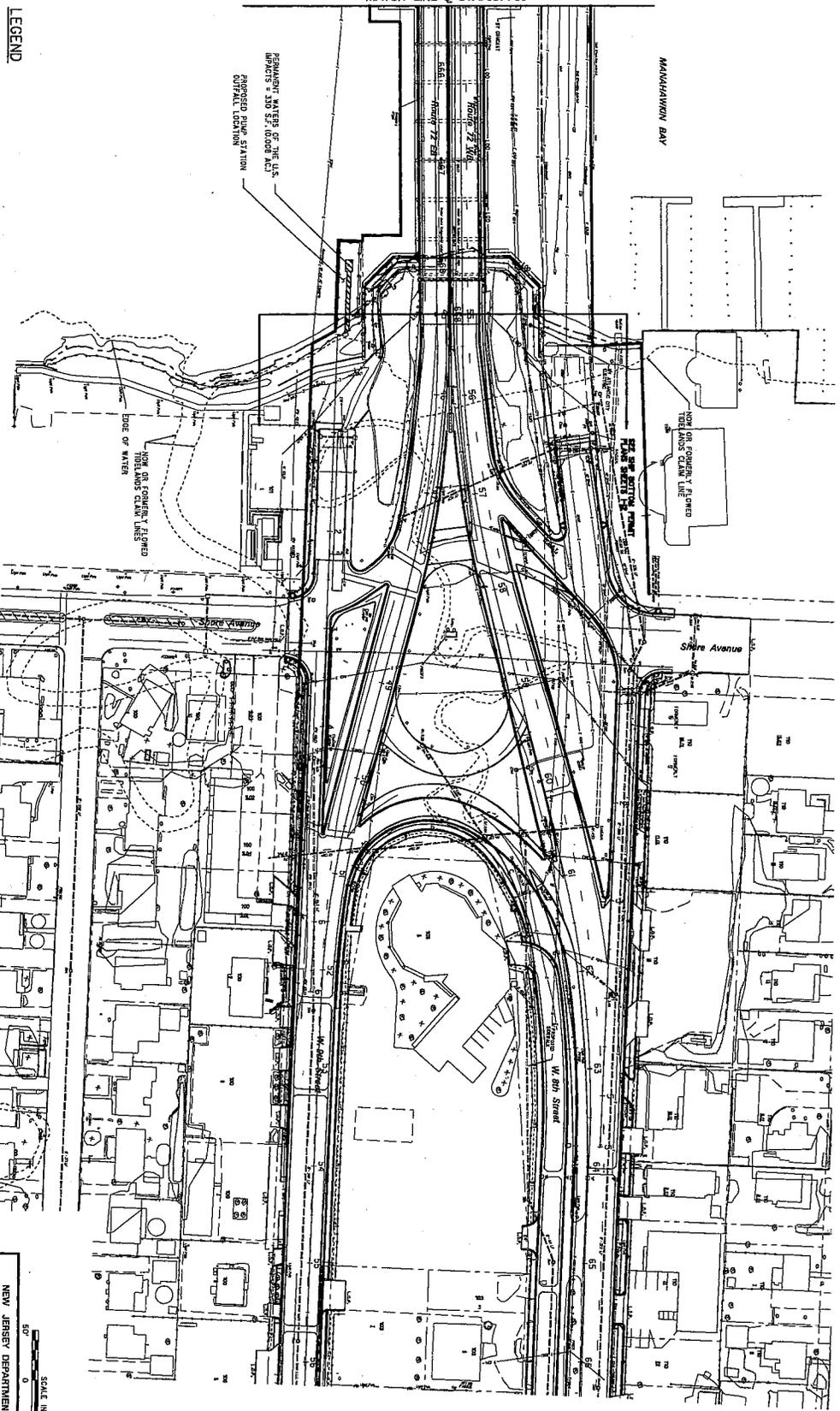


WATERS OF THE U.S.	TEMPORARY	PERMANENT
0	0	0

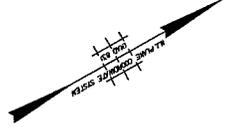
NOTE: THE FINAL MAP FOR DELAN COUNTY MAP NUMBER 028118013 & 028118014 IS BEING SUBMITTED TO THE DELAN COUNTY BOARD OF SUPERVISORS & IS BEING REVIEWED FOR FLOOD ZONES. TWO FLOOD ZONES OCCUR AT STATION 68+50 +/-.

REV.	DESCRIPTION	DATE	BY	CHK.
1	ADDED HIGH TIDE LINE AND SUPPLEMENTED	5/4/02		
2	REMOVED WATERS OF THE UNITED STATES FROM WETLANDS AND W/ACTS	7/6/02		
3	MODIFIED SHELLISH W/ACTS	7/6/02		
4	ADDED JOINT BOUNDARY LINE	7/20/02		
5	REMOVED MEAN WATER HIGH FROM W/ACTS	7/6/02		
6	REMOVED JOINT BOUNDARY LINE	9/7/02		

PERMIT PLANS
SET #2
 ROUTE 72 MANAHAWKIN BAY BRIDGES
 CONTRACT NOS. 028118013, 028118014
 PARSONS BRINCKERHOFF INC. 200 WEST WASHINGTON
 NEW JERSEY PROFESSIONAL ENGINEER NO. 36262
 DATE 11/13/02



BOROUGH OF SHIP BOTTOM
 COUNTY OF OCEAN



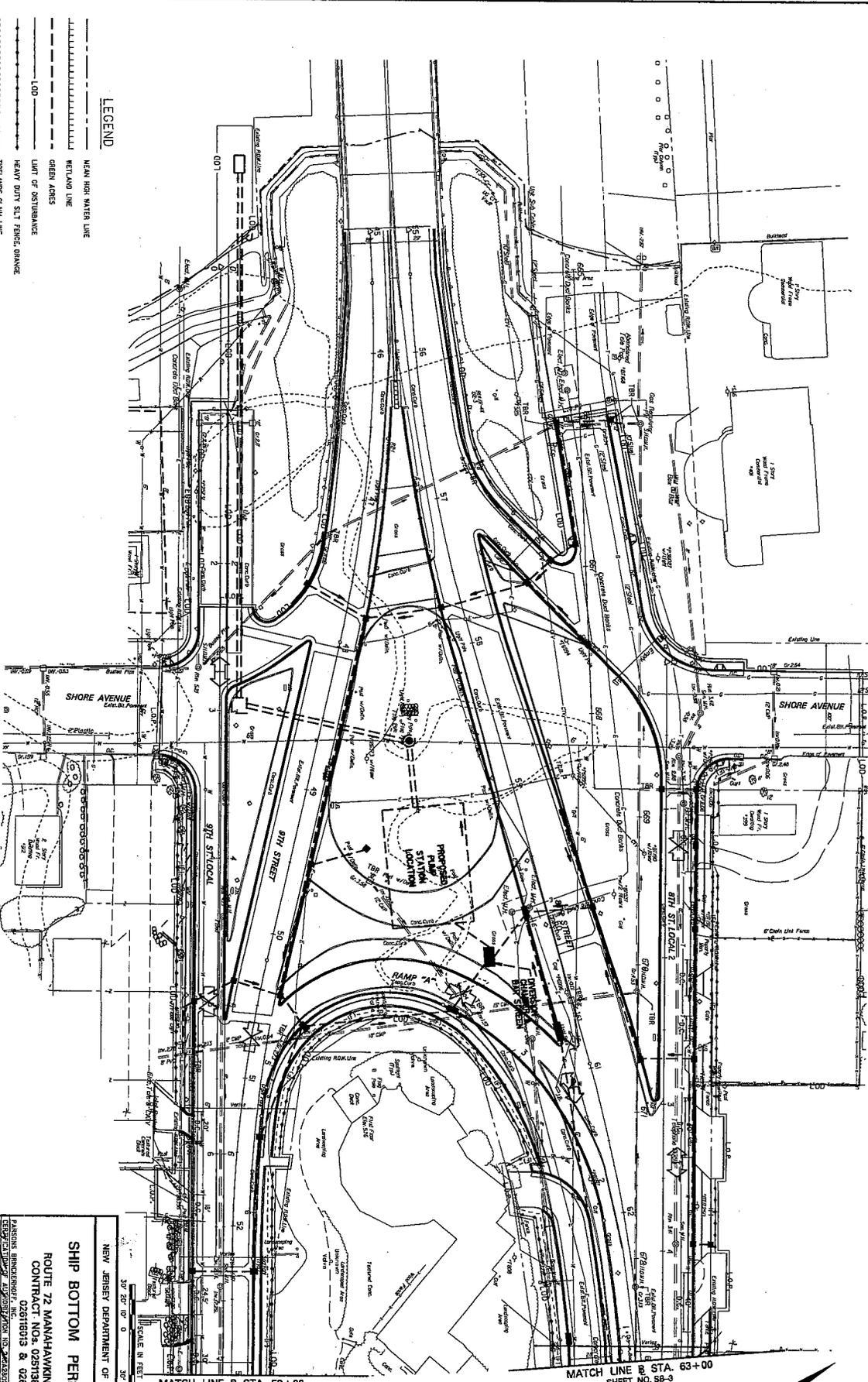
STATE RECORD PROJECT NO. 028118013 & 028118014

E13

PARSONS BRINCKERHOFF CAD DATA
 OPERATOR: Bristolford LOUJUE \\Amplior\TKV\PRJ\LO3_RR_IP
 PLOT DATE: 13-SEP-2002 4:39
 PRTABLE: ehx.tbl
 DESIGN FILE: Y:\5203 - Route 72 Manahawkin Bay Bridges\B\N\hey\dep\p02.dgn

LEGEND

- MEAN HIGH WATER LINE
- WETLAND LINE
- GREEN ACRES
- LIMIT OF DISTURBANCE
- HEAVY DUTY SLT FENCE, RANGE
- TIDELANDS CLAIM LINE
- NET FAYER



NOTES: BOROUGH OF SHIP BOTTOM IS LOCATED IN THE OCEAN TOWNSHIP.

SHIP BOTTOM PERMIT PLANS
 NEW JERSEY DEPARTMENT OF TRANSPORTATION
 ROUTE 72 MANAHAWKIN BAY BRIDGES
 CONTRACT NOS. 02513850, 02618012,
 02618013 & 02618014
 DESIGN ENGINEER: [Signature]
 TITLE: SENIOR PROFESSIONAL ENGINEER NO. 31720



MATCH LINE @ STA. 63+00
 SHEET NO. 58-3

MATCH LINE @ STA. 63+00
 SHEET NO. 58-3

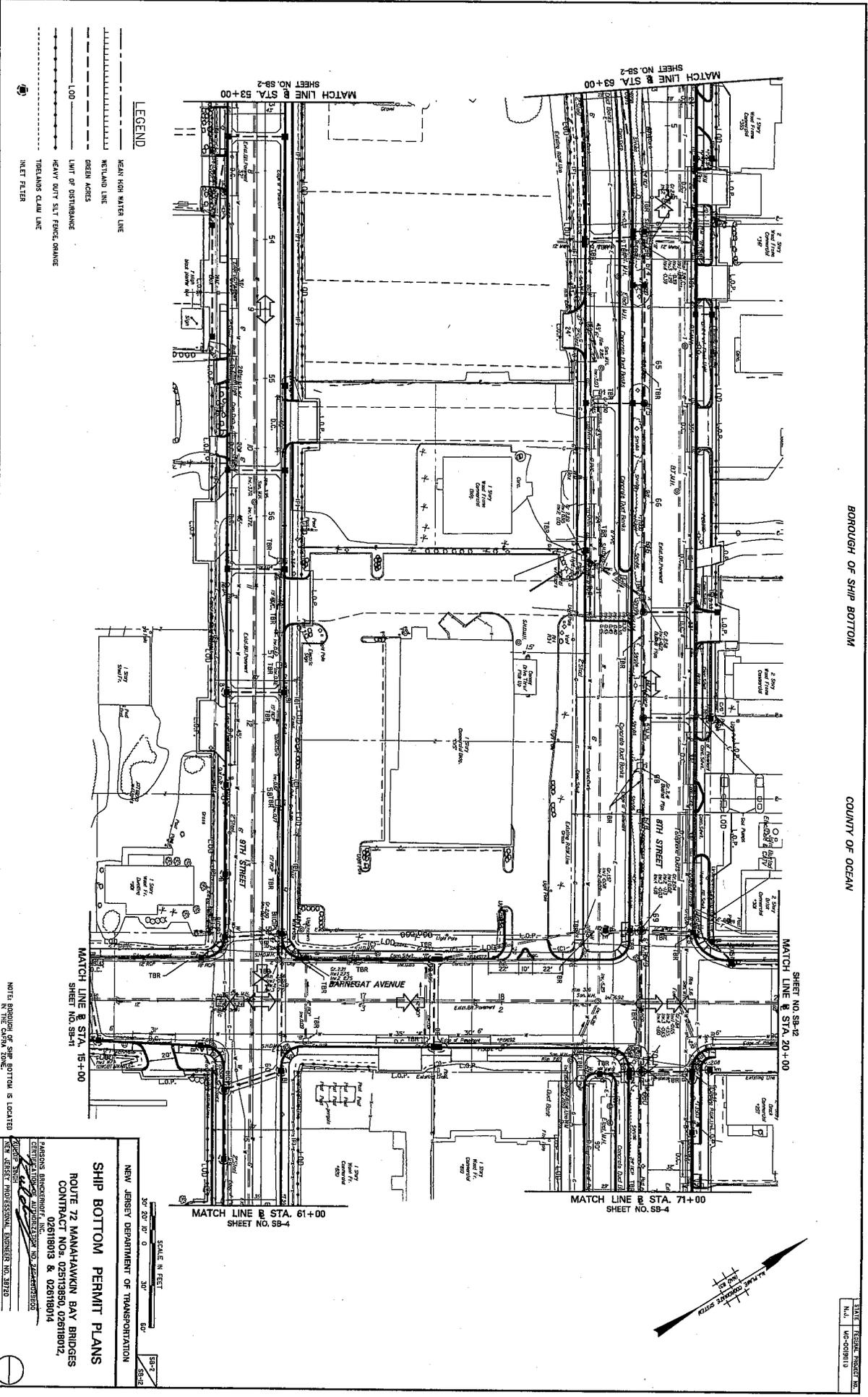
STATE PROJECT NO.
 MAP-0083110

E14

PARSONS BRINCKERHOFF CAD DATA
 OPERATOR: [unclear] QUEUE: \\Ampr\pr\TOP\PR\PL03_BV_P
 PLOT DATE: 13-SEP-2002 14:39
 PENTABLE: [unclear].PDI
 DESIGN FILE: I:\AS2003 - Route 72 Manahawkin Bay Bridges\BIB\New\Asp\p03.dwg

LEGEND

- MEAN HIGH WATER LINE
- WETLAND LINE
- GREEN AGRES
- LIMIT OF DISTURBANCE
- HEAVY DUTY SILT FENCE CHANGE
- TIREMARK CLAY LINE
- INLET FILTER



BOROUGH OF SHIP BOTTOM
 COUNTY OF OCEAN

NOTE: BOROUGH OF SHIP BOTTOM IS LOCATED IN THE SHIP BOTTOM.

SHIP BOTTOM PERMIT PLANS
 ROUTE 72 MANAHAWKIN BAY BRIDGES
 CONTRACT NO. - 02511850 & 02518072,
 02511803 & 02518014

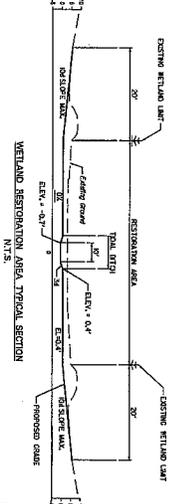
NEW JERSEY DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 PARSONS BRINCKERHOFF, INC.
 200 WEST WASHINGTON STREET, SUITE 200
 NEW JERSEY PROFESSIONAL ENGINEER NO. 34720

SCALE IN FEET
 30' 50' 0' 30' 60'

DATE: 09/13/02

STATE ENGINEER NO. [unclear]
 N.J. LIC. NO. 02511850

E15



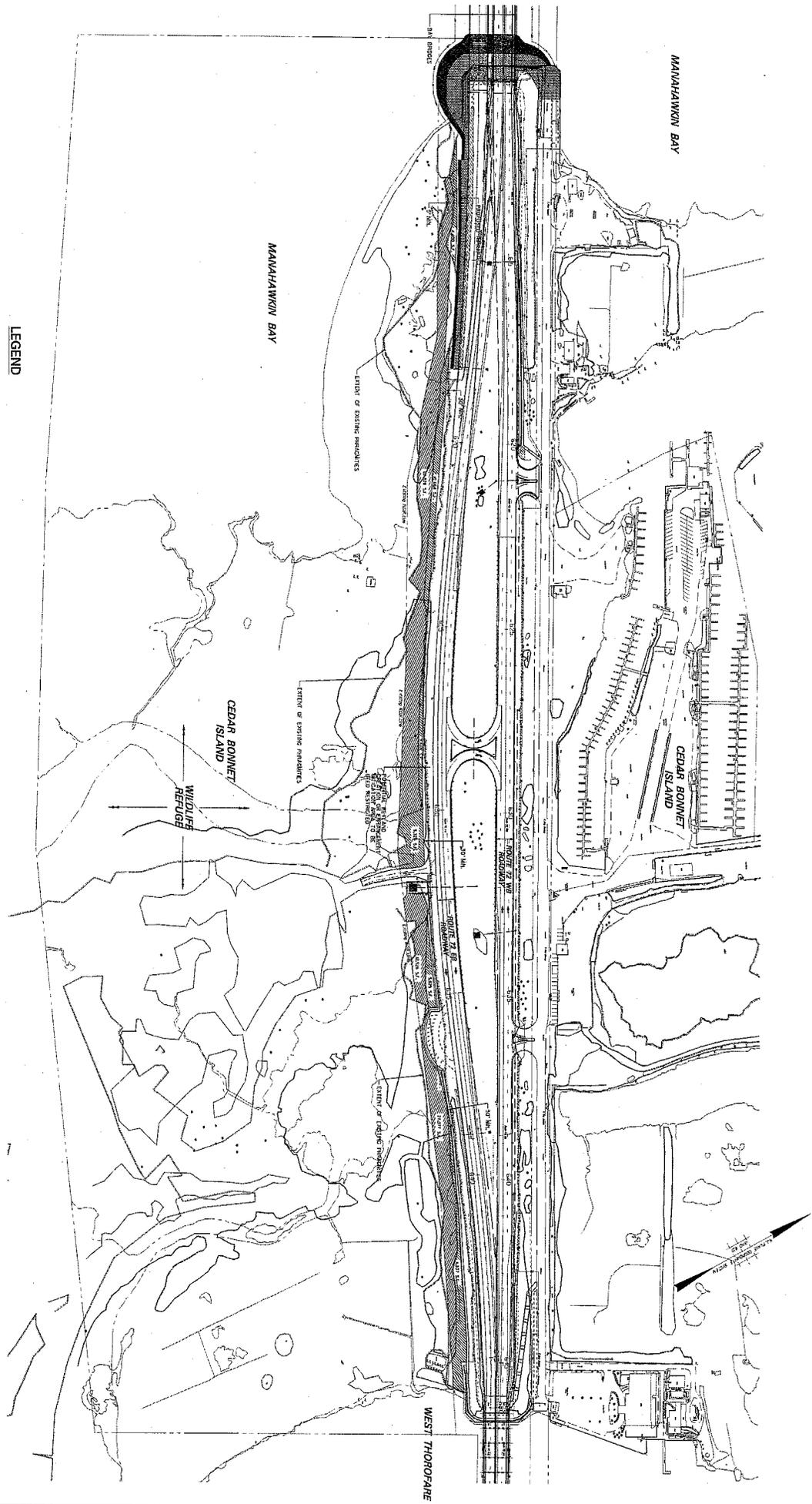
NEW JERSEY DEPARTMENT OF TRANSPORTATION
**NUDEP RESOURCES
 COMPENSATION PLAN**
 ROUTE 72 MANAHAWKIN BAY BRIDGES
 CONTRACT NOS. 02613880, 02618012,
 02618013 & 02618014
 PARSONS BRINCKERHOFF, INC.
 CERTIFICATION OF AUTHORIZATION NO. 2626262626
 DATE: 07/20/02
 DRAWN BY: [blank]
 CHECKED BY: [blank]
 TITLE: [blank]

LEGEND
 HIGH TIDE LINE
 MEAN HIGH WATER LINE
 DEMARCATED WETLAND LINE
 SCALE IN FEET
 0 50 100 200
 1" = 50'

GENERAL NOTES:
 1. WETLAND RESTORATION AREA 1 - 28 AC. +/-
 2. WETLAND RESTORATION AREA 2 - 0.35 AC. +/-
 3. WETLAND RESTORATION AREA 3 - 10.34 AC. +/-
 4. WETLAND RESTORATION AREA 4 - 10.34 AC. +/-

STATE PROJECT NO.
 N.J. MC-028111

E17



- LEGEND**
- POTENTIAL WETLAND MITIGATION - CREATION
43,235 SF = 0.99 ACRES
 - POTENTIAL WETLAND MITIGATION - ENHANCEMENT
102,731 = 2.36 ACRES
 - RIGHT OF WAY LINE
 - DELINEATED WETLAND LINE

ROUTE 72 BRIDGES
MANAHAWKEN BAY
PROPOSED ONSITE WETLAND MITIGATION PLAN

TOWNSHIP OF STAFFORD
 BRIDGE 72
 MARCH 2012
 OCEAN COUNTY

