



**US Army Corps
of Engineers**
Philadelphia District

NEW JERSEY SHORE PROTECTION STUDY



NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

BRIGANTINE INLET TO GREAT EGG HARBOR INLET

ABSECON ISLAND INTERIM FEASIBILITY STUDY

VOLUME 4

FINAL PROJECT MANAGEMENT PLAN (PMP)

August 1996

PROJECT MANAGEMENT PLAN

BRIGANTINE INLET TO GREAT EGG HARBOR INLET, NJ

ABSECON ISLAND

August 1996

TABLE OF CONTENTS

This PMP was prepared in accordance with ER 5-7-1 (FR), Project Management.

	<u>Page</u>
A. SCOPE OF WORK	1
B. WORK BREAKDOWN STRUCTURE (WBS)	1
C. ORGANIZATIONAL BREAKDOWN STRUCTURE (OBS)	2
D. RESPONSIBILITY ASSIGNMENT MATRIX (RAM)	3
E. SCHEDULES	4
F. BUDGETS AND COST ESTIMATES	5
G. CURRENTS BENEFITS PLAN	6
H. RESOURCE ALLOCATION PLAN (RAP)	6
I. PROJECT COOPERATION AGREEMENT (PCA)	7
J. ACQUISITION PLAN	10
K. REAL ESTATE	10
L. TOTAL QUALITY MANAGEMENT PLAN (TQM)	11
M. VALUE ENGINEERING PLAN	11
N. SAFETY PLAN	11
O. SECURITY	12
P. CULTURAL RESOURCES PLAN	12
Q. ENVIRONMENTAL PLAN	12
R. FEMA/NATIONAL FLOOD INSURANCE PROGRAM (NFIP) ADEQUATE PROGRESS PLAN	12

S.	OPERATION AND MAINTENANCE PLAN	13
T.	MANAGEMENT CONTROL PLAN	13
U.	REPORTING REQUIREMENTS	13
V.	CHANGE CONTROL PLAN	13
W.	APPENDICES	14

PROJECT MANAGEMENT PLAN
BRIGANTINE INLET TO GREAT EGG HARBOR INLET
ABSECON ISLAND
INTERIM FEASIBILITY STUDY

A. SCOPE OF WORK

The scope of work for this project includes all necessary hired labor and contract work tasks to design and construct the recommended shore protection project for Absecon Island, Atlantic County, New Jersey. These tasks include:

1. Preconstruction, Engineering and Design

a. Preparation of plans and specifications (P&S) for the construction contract to include: (1) surveying, (2) mapping, and (3) additional geotechnical sampling/testing of the sand borrow sources. Additional design work is not required and therefore, a Design Memorandum is not required.

b. Preparation of additional environmental documentation/testing.

c. Coordination with applicable Federal, state, and local agencies.

d. Review and approval of contract P&S.

2. Execution of the Project Cooperation Agreement (PCA)

3. Acquisition of Real Estate.

4. Advertisement and award of the construction contract.

5. Engineering and Design (E&D) during construction.

6. Supervision and Administration (S&A).

B. WORK BREAKDOWN STRUCTURE (WBS)

W-- Construction Contract Documents

WAB Contract plans and specifications (P&S)

WAD Bidability, Constructability, and Operability Review/Certification.

WBO Real Estate LERRD Crediting Documents

WFA Construction Contract Cost Estimates

WHA Construction Contract Award Documents

B. WBS (Con't)

WI- E&D During Construction Documents

WJ- S&A Documents

WK- Contractor Earnings

WL- Construction Contract Management Documents

X-- Value Engineering Analysis Documents

Y-- Project Closeout and Turnover

Z-- Programs and Project Management Documents

C. ORGANIZATIONAL BREAKDOWN STRUCTURE (OBS)

BRIGANTINE INLET TO GREAT EGG HARBOR INLET
ABSECON ISLAND
INTERIM FEASIBILITY STUDY

RESOURCE NAME

RESOURCE CODE

Civil Project Management Branch	EN-MC
Value Engineering Officer	VE
Design Branch	EN-D
Cost Engineering Branch	EN-EC
Environmental Resources Branch	PL-E
Coastal Planning Section	PL-PC
Construction Branch	EN-C
Contracting Division	CT
Programs and Project Management Division	DP
Major Subordinate Command (MSC)	NAP
Real Estate	NAB-RE

D. RESPONSIBILITY ASSIGNMENT MATRIX (RAM)

BRIGANTINE INLET TO GREAT EGG HARBOR INLET
ABSECON ISLAND
INTERIM FEASIBILITY STUDY

<u>WORK UNIT ID</u>	<u>WORK UNIT DESCRIPTION</u>	<u>RESOURCE CODE</u>
500	Prepare P & S	EN-D
	Prepare Government Estimate	EN-EC
580	Conduct BCO Review/Cert	EN-D/MC/C; PL-E
590	P&S Approval	NAP
700	Certification of RE	NAB-RE
790	Final Certification of PCA	DP; PL-PC
950	Advertise Construction Contract	CT
960	Award Construction Contract	CT
	E&D During Construction	EN-D
	Contractor Earnings	EN-C
	Construction Contract Mgmt	EN-C
	Value Engineering Analysis	VE
980	Construction Contract Fiscal Completion	EN-C
992	Project Fiscal Completion	EN-MC; DP
998	Project Turnover	DP
000	PPMD Documents	DP

E. SCHEDULES

BRIGANTINE INLET TO GREAT EGG HARBOR INLET
ABSECON ISLAND
INTERIM FEASIBILITY STUDY

WORK UNIT ID	WORK UNIT DESCRIPTION	BASELINE COST	START	FINISH	FLOAT
500	Prepare P&S	657,750	01 Oct 97	30 Sep 98	30
	Prepare IGE	23,000	01 Jul 98	30 Sep 98	92
580	BCO Cert	15,000	15 Sep 98	30 Sep 98	-
590	P&S Approval	-	01 Oct 98	31 Oct 98	15
700	Cert of RE	0	01 Aug 98	01 Jan 99	15
790	Cert of PCA	23,000	01 Apr 98	30 Sep 98	61
950	ADV Contract	2,300	15 Jan 99	15 Feb 99	-
960	AWD Contract	3,450	15 Feb 99	01 Mar 99	-
	E&D During Construction	86,250	01 Apr 99	31 Oct 00	-
	Contract Mgmt (S&A)	2,876,103	01 Apr 99	01 Dec 00	-
	VE	80,500	01 Jan 98	01 Jul 98	92
	Contract Earnings	47,919,153	01 Apr 99	31 Oct 00	61
980	Contract Fiscal Completion	20,000	01 Oct 00	31 Dec 00	-
992	Project Fiscal Completion	10,000	01 Oct 00	31 Dec 00	-
998	Project Turnover	3,500	01 Nov 00		
000	PPMD Documents	346,000	01 Oct 97	01 Jan 01	-

F. BUDGETS AND COST ESTIMATES

The total project costs for initial construction of the recommended shore protection plan for Absecon Island are \$ 52,146,007 (October 1995 P.L.) and \$57,044,000 (Fully-Funded, rounded), and can be found in Appendix C of this PMP. The complete M-CACES estimate can be found in Appendix A, Engineering Technical Appendix (Section 16: Cost Estimates) of the Feasibility Study. The Full 50-year Project Costs are \$213,028,000 (October 1995 P.L.) and \$494,000,000 (Fully-Funded, rounded).

A schedule of Total Project Costs by Fiscal Year for initial construction is shown in Figure F-1 (October 1995 P.L.) and Figure F-2 (Fully-Funded). The Total Project Costs (October 1995 P.L.) for initial construction allocated by Work Breakdown Structure (WBS) are as follows:

TOTAL PROJECT (BASELINE) COSTS (\$000)

<u>WORK BREAKDOWN STRUCTURE</u>	<u>BASELINE COST</u>
KNA PCA Execution	\$ 23,000
W-- Contract Doc	
WAB P&S	657,750
WAD B/C/O Cert	15,000
WBO Real Estate	0
WFA Cost Estimates	23,000
WHA Contract AWD Doc	5,750
WI- E&D During Constr	86,250
WJ- S&A Documents	2,876,103
WK- Contract Earnings	47,919,153
WL- Contract Mgmt Doc	30,000
X-- VE Analysis/Doc	80,500
Y-- Project Closeout	3,500
Z-- PPMD Documents	346,000
TOTAL PROJECT COSTS (INITIAL CONST)	\$ 52,066,006

G. CURRENT BENEFITS PLAN

Project benefits are based on storm damage reduction, reduced maintenance, and enhanced recreation experience, at an October 1995 P.L. and a discount rate of 7.625% for a 50-year beachfill and nourishment project. Land and recreation use in the project area are expected to remain the same, thus keeping the benefits constant, except for inflation.

H. RESOURCE ALLOCATION PLAN (RAP)

BRIGANTINE INLET TO GREAT EGG HARBOR INLET ABSECON ISLAND INTERIM FEASIBILITY STUDY

WORK UNIT ID	REM DUR	ORIG DUR	WORK UNIT DESCRIPTION	COST	START	FINISH	FLOAT
RESOURCE: EN-D							
500	365	365	Prepare P & S	\$657,750	01 Oct 97	30 Sep 98	30
RESOURCE: EN-EC							
	92	92	Prepare IGE	\$ 23,000	01 Jul 98	30 Sep 98	92
RESOURCE: EN-D/MC/C; PL-E							
580	15	15	BCO Cert	\$ 15,000	15 Sep 98	30 Sep 98	-
RESOURCE: NAP							
590	31	31	P&S Approval	\$ -	01 Oct 98	31 Oct 98	-
RESOURCE: NAB-RE							
700	153	153	Cert of RE	\$ 0	01 Aug 98	01 Jan 99	15
RESOURCE: DP; PL-PC							
790	183	183	Cert of PCA	\$ 23,000	01 Apr 98	30 Sep 98	61
RESOURCE: CT							
950	31	31	ADV Contract	\$ 2,300	15 Jan 99	15 Feb 99	-
RESOURCE: CT							
960	15	15	AWD Contract	\$ 3,450	15 Feb 99	01 Mat 99	-
RESOURCE: EN-D							
	579	579	E&D During	\$ 86,250	01 Apr 99	31 Oct 00	-

H. RAP (Con't)

WORK

<u>UNIT</u>	<u>REM</u>	<u>ORIG</u>	<u>WORK UNIT</u>				
<u>ID</u>	<u>DUR</u>	<u>DUR</u>	<u>DESCRIPTION</u>	<u>COST</u>	<u>START</u>	<u>FINISH</u>	<u>FLOAT</u>

RESOURCE: EN-C

610	610	Contract Mgmt (S&A)	\$2,876,103	01 Apr 99	01 Nov 00	-
-----	-----	------------------------	-------------	-----------	-----------	---

RESOURCE: VE

182	182	Value Eng	\$ 80,500	01 Jan 98	01 Jul 98	92
-----	-----	-----------	-----------	-----------	-----------	----

RESOURCE: EN-C

980	31	31	Contract Fiscal Completion	\$ 20,000	01 Oct 00	31Dec 00	-
-----	----	----	-------------------------------	-----------	-----------	----------	---

RESOURCE: EN-MC/DP

992	31	31	Project Fiscal Completion	\$ 10,000	01 Oct 00	31 Dec 00	-
-----	----	----	------------------------------	-----------	-----------	-----------	---

RESOURCE: DP

998			Project Turnover	\$ 3,500	01 Nov 00		
-----	--	--	------------------	----------	-----------	--	--

RESOURCE: DP

000	1126	1126	PPMD Document	\$ 346,000	01 Oct 97	01 Jan 01	-
-----	------	------	---------------	------------	-----------	-----------	---

I. PROJECT COOPERATION PLAN

In accordance with Section 105(a)(1) of WRDA 1986, the Brigantine Inlet to Great Egg Harbor Inlet Feasibility Study was cost shared 50%-50% between the Federal Government and the State of New Jersey. The contributed funds of the local sponsor, the New Jersey Department of Environmental Protection (NJDEP) demonstrates their intent to support a project for Absecon Island, New Jersey.

A fully coordinated Project Cooperation Agreement (PCA) package (to include the Sponsor's financing plan) will be prepared subsequent to the approval of the feasibility phase and will reflect the recommendations of this Feasibility Study. NJDEP, the non-Federal sponsor, has indicated support of the recommendations presented in this Feasibility Study and the desire to execute a PCA for the recommended plan. Other non-Federal interests, such as the Cities of Atlantic City, Ventnor and Margate, the Borough of Longport and Atlantic County have indicated their support of the project.

In the PCA the non-Federal sponsor will:

- Provide 35 percent of total project costs assigned to hurricane and storm damage reduction, as further specified below:

- **Provide all lands, easements, and rights-of-way, including suitable borrow and dredged or excavated material disposal areas, and perform or ensure the performance of all relocations determined by the Federal Government to be necessary for the construction, operation, and maintenance of the Project.**
- **Provide all improvements required on lands, easements, and rights-of-way to enable the proper disposal of dredged or excavated material associated with the construction, operation, and maintenance of the project. Such improvements may include, but are not necessarily limited to, retaining dikes, wasteweirs, bulkheads, embankments, monitoring features, stilling basins, and dewatering pumps and pipes.**
- **Provide, during construction, any additional amounts as are necessary to make its total contribution equal to 35 percent of total project costs assigned to hurricane and storm damage reduction.**
- **For so long as the Project remains authorized, operate, maintain, repair, replace, and rehabilitate the completed Project, or functional portion of the Project, at no cost to the Federal Government, in a manner compatible with the Project's authorized purposes and in accordance with applicable Federal and State laws and regulations and any specific directions prescribed by the Federal Government.**
- **Give the Federal Government a right to enter, at reasonable times and in a reasonable manner, upon property that the Non-Federal Sponsor, now or hereafter, owns or controls for access to the Project for the purpose of inspection, and, if necessary after failure to perform by the Non-Federal Sponsor, for the purpose of completing, operating, maintaining, repairing, replacing, or rehabilitating the Project. No completion, operation, maintenance, repair, replacement, or rehabilitation by the Federal Government shall operate to relieve the Non-Federal Sponsor of responsibility to meet the Non-Federal Sponsor's obligations, or to preclude the Federal Government from pursuing any other remedy at law or equity to ensure faithful performance.**
- **Hold and save the United States free from all damages arising from the construction, operation, maintenance, repair, replacement, and rehabilitation of the Project and any Project-related betterments, except for damages due to the fault or negligence of the United States or its contractors.**
- **Keep, and maintain books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to the Project in accordance with the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments at 32 Code of Federal Regulations (CFR) Section 33.20.**
- **Perform, or cause to be performed, any investigations for hazardous substances as are determined necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Public Law (PL) 96-510, as amended, 42 U.S.C. 9601-9675, that may**

exist in, on, or under lands, easements, or rights-of-way that the Federal Government determines to be required for the construction, operation, and maintenance of the Project. However, for lands that the Federal Government determines to be subject to the navigation servitude, only the Federal Government shall perform such investigations unless the Federal Government provides the Non-Federal Sponsor with prior specific written direction, in which case the Non-Federal Sponsor shall perform such investigations in accordance with such written direction.

- Assume complete financial responsibility, as between the Federal Government and the Non-Federal Sponsor for all necessary cleanup and response costs of any CERCLA regulated materials located in, on, or under lands, easements, or rights-of-way that the Federal Government determines to be necessary for the construction, operation, or maintenance of the Project.

To the maximum extent practicable, operate, maintain, repair, replace and rehabilitate the Project in a manner that will not cause liability to arise under CERCLA.

- Comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended by Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17), and the Uniform Regulations contained in 49 CFR Part 24, in acquiring lands, easements, and rights-of-way, required for the construction, operation, and maintenance of the Project, including those necessary for relocations, borrow materials, and dredged or excavated material disposal, and inform all affected persons of applicable benefits, policies, and procedures in connection with said Act.
- Comply with all applicable Federal and State laws and regulations, including, but not limited to, Section 601 of the Civil Rights Act of 1964, Public Law 88-352 (42 U.S.C. 2000d), and Department of Defense Directive 5500.11 issued pursuant thereto, as well as Army Regulation 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army".
- Provide 35 percent of that portion of total historic preservation mitigation and data recovery costs attributable to hurricane and storm damage reduction that are in excess of one percent of the total amount authorized to be appropriated for hurricane and storm damage reduction.
- Participate in and comply with applicable Federal flood plain management and flood insurance programs.
- Not less than once each year inform affected interests of the extent of protection afforded by the Project.
- Publicize floodplain information in the area concerned and provide this information to zoning and other regulatory agencies for their use in preventing unwise future

development in the flood plain and in adopting such regulations as may be necessary to prevent unwise future development and to ensure compatibility with the protection provided by the Project.

In an effort to keep the Sponsor involved and local governments informed, meetings were held throughout the feasibility phase. In addition, newsletters were sent periodically describing the study process for Absecon Island.

Coordination efforts will continue, including coordination of this study with other State and Federal agencies. It is currently anticipated that a public meeting will be held upon approval of this Feasibility Study.

J. ACQUISITION PLAN

During the preparation of plans and specs, an Acquisition Plan will be prepared in accordance with FAR and EFAR regulations to assure that services and construction required as part of the project are accomplished in a timely manner and at a reasonable cost using full and open competition. The plan will be prepared in coordination with Civil Project Management Branch (EN-MC), Construction Branch (EN-C), and Contracting Division (CT), including the Small and Disadvantaged Business Utilization Office (SADBU). It is anticipated that the construction contract will be a fixed price, competitive procurement. Plans and specs will be prepared by in-house hired labor. No other contract work is anticipated, with the exception of beach and borrow area surveys and borrow area borings.

K. REAL ESTATE

In completing the Real Estate Plan, a Baseline Cost Estimate was prepared by Real Estate Division (CENAB-RE). The Non-Federal Sponsor is currently reviewing these estimated costs to determine if they can complete the required tasks at a reduced cost. The Final Feasibility Report will reflect any reductions in cost to real estate if the Non-Federal Sponsor's estimates are acceptable.

After the Project Cooperation Agreement (PCA) is executed, Real Estate Division will furnish the Non-Federal Sponsor final cooperation sheets outlining the areas where real estate interests are required. At this time it is expected that 21 easements in Atlantic City, and 2 easements in Margate will need to be acquired. All work will be done in accordance with the PMP. Before advertisement, Real Estate Division will certify in writing that the interests obtained by the Non-Federal Sponsor effort are sufficient to allow construction to proceed for the project. It will be the responsibility of Real Estate Division, in conjunction with the project manager to review the local sponsor's request for LERRD credits.

L. TOTAL QUALITY MANAGEMENT PLAN (TOM)

Engineering and Design for the recommended project will be conducted in accordance with ER 1110-2-1150 (Draft), Engineering and Design for Civil Works Projects, 1 July 1992; ER 1110-2-1200, Engineering and Design, Plans and Specifications for Civil Works Projects, 30 October 1993; and ER 1110-1-12, Engineering and Design, Quality Management, 1 June 1993. The quality management of the primary engineering product, the contract plans and specifications will be assured through the Bidability, Constructability and Operability review and certification process in accordance with ER 415-1-11. Internal review of the P&S will be coordinated with all contributing District elements, as well as Counsel, Contracting, Regulatory, and Safety & Security. Review comments will be coordinated through the ARMS program. Final review will be accomplished through either in-house resources, Architect/Engineering contract, other Corps Districts/ Lab assistance or a combination thereof. Plan for completing final review will be developed prior to the start of plans and specifications.

Construction Quality Assurance and Quality Control will be in accordance with ER 1180-1-6, Contract, Construction Quality Management, 1 April 1991.

M. VALUE ENGINEERING PLAN

A Value Engineering Analysis will be conducted during the preparation of plans and specifications to analyze functions of construction, equipment, manpower, and materials for the purpose of achieving these functions at the lowest overall cost, including life-cycle cost, without sacrificing quality, aesthetics, function or operation and maintenance.

Value Engineering will be conducted by the Value Engineering Officer (VEO) as part of the District's ongoing Value Engineering program in accordance with OMB Circular A-131 and AR 5-4. Also, in accordance with EC 1110-2-259, Review of Cost Effectiveness of Design (and to comply with the intent of Congress under Section 911 of P.L. 99-662) a certification statement will be prepared for the Commander signature for cost effectiveness.

The contractor will be briefed on Value Engineering concepts and procedures during the pre-construction conference. Contractor participation will be encouraged under the Value Engineering Change Proposal (VECP) procedures.

N. SAFETY PLAN

The USACE Safety and Health Requirements Manual EM 385-1 will be used to develop the District Plan for Safety (DR 385-2-8) to assure protection of the safety and health of government employees and contractor personnel. The District Safety Officer will review the contract plans and specifications as part of the B/C/O review and certification process, and will conduct a safety briefing during the pre-construction conference with the contractor.

The construction contractor will be required to prepare and submit a Safety Plan for District review and concurrence prior to starting work. Health and Safety inspections of

construction will be conducted continuously by construction management personnel, and periodic safety inspections will also be conducted by the District Safety Officer as necessary to assure compliance with the approved Safety Plan by both contractor and government personnel.

O. SECURITY PLAN

The project will not require any extraordinary security measures or procedures beyond those normally required by the contractor to secure his work areas and the facilities used by the governments construction management and quality assurance personnel. The contractor will be required to submit a security plan for review and approval of the District prior to starting work. Security inspections during construction will be done concurrently with safety inspections.

P. CULTURAL RESOURCES PLAN

The cultural resources plan will assure compliance with Section 106 of the National Historic Preservation Act of 1966, as amended. Underwater remote sensing of the borrow areas identified numerous targets that may represent significant cultural resources. The District proposes to avoid these potential shipwreck locations during dredging activities by placing a 200 foot buffer around each target prior to construction. Coordination with the New Jersey Historic Preservation Office (NJSHPO) is ongoing and will be finalized prior to construction.

Q. ENVIRONMENTAL PLAN

The environmental plan will assure compliance with all environmental quality protection statues and other environmental review requirements. This includes Section 401 State Water Quality Certification for initial placement and periodic renourishments. Compliance with Section 7 of the Endangered Species Act may require provisions for sea turtle monitoring if a hopper dredge is used for initial placement and periodic nourishment. The potential exists for the beaches to be nested by the Federally threatened piping plover (*Charadrius melodus*). Provisions may be required to avoid adversely impacting this species, if found to be present in the project impact area during initial beachfill placement and subsequent renourishment. Monitoring of benthic resources shall be conducted periodically to document benthic recovery and to avoid impacting any potentially recovering surf clam (*Spisula solidissima*) beds.

**R. FEMA/NATIONAL FLOOD INSURANCE PROGRAM (NFIP)ADEQUATE
PROGRESS PLAN**

Not applicable for non-flood control or shore protection projects.

S. OPERATION AND MAINTENANCE PLAN

Operation and Maintenance (O&M) of the completed initial beachfill project is a Non-Federal Sponsor responsibility. An O&M plan detailing the requirements for completed surveys, eliminating/isolating hazardous conditions and maintaining the dunes and the bulkhead on the inlet will be prepared during the construction phase of the project.

Periodic nourishment of the project will be performed on a 3-year cycle, and as part of continuing construction, will be a Federal/Non-Federal cost shared responsibility.

T. MANAGEMENT CONTROL PLAN

Quality project management will be assured in accordance with ER 5-7-1 (FR), Project Management, 30 September 1992, by the individual Project Manager (PM). The PM will be responsible for managing project scope, schedule, budget, and quality. All documentation and reporting requirements will be in accordance with ER 5-7-1.

The PM will monitor the project using the CPM (Appendix A), the Responsibility Assignment Matrix (RAM, Section D), and the Resource Allocation Plan (RAP, Section H), in conjunction with NAP Form 1632, Estimated Civil Works Funds Schedule (Appendix D), NAP Form 817, Construction Contract P&S, Advertisement and Award Schedules (Appendix D), and COEMIS financial statements. The PM will maintain coordination with all applicable elements, monitor all activities, and facilitate actions to resolve potential or actual issues.

U. REPORTING REQUIREMENTS

Informal reporting of field trips, telephone conversations, meeting minutes, etc. will be recorded by the PM and coordinated and distributed as necessary. Formal communication will be documented in Memos or letters as appropriate. Monitoring results and project status will be reported to the District PRB in monthly PES sheets. All upward reporting will be done in accordance with ER 5-7-1.

V. CHANGE CONTROL PLAN

Changes to project scope, schedule, and/or costs will be monitored and controlled by the PM in accordance with ER 5-7-1. Hired labor and contract schedules and obligations and expenditures will be monitored continuously and reported on monthly to assure adherence to the requirements of the PMP. Contingency Funds will be controlled by the PM in accordance with ER 5-7-1. The PM will coordinate necessary changes with the PRB for review and approval, and submit necessary documentation such as Schedule and Cost Change Requests (SACCRS) to higher authority as required.

W. PMP APPENDIX

Attached to this PMP as Appendices are the following:

APPENDIX A - CPM Schedule

APPENDIX B - Milestone Schedule

APPENDIX C - Total Project (Baseline) Costs Summary Initial Construction

APPENDIX D - District Management Controls

NAP Form 1632 - SAMPLE

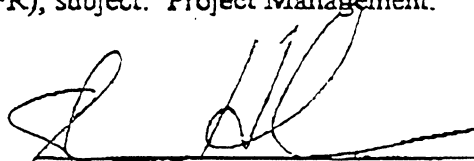
NAP Form 817 - SAMPLE

BRIGANTINE INLET TO GREAT EGG HARBOR INLET
ABSECON ISLAND
INTERIUM FEASIBILITY STUDY

PROJECT MANAGEMENT PLAN COORDINATION

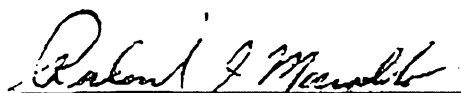
This PMP has been prepared in accordance with ER 5-7-1 (FR), subject: Project Management.

Presented for Approval by:

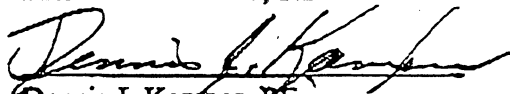

Project Manager

Approved by:

Deputy District Engineer for PPM
CENAP-DP


Richard J. Maraldo, PE

Chief, Engineering Division
CENAP-EN


Dennis J. Kamper, PE

Chief, Planning Division
CENAP-PL


Robert L. Callegari

Chief, Operations Division
CENAP-OP


Robert J. Hopman, PE

Chief, Resource Management Office
CENAP-RM


Raymond E. Donnelly

Chief, Contracting Division
CENAP-CT


Robert Sharamatew

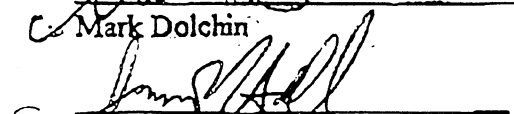
Chief, Real Estate Division
CENAB-RE


James S. Turkel

District Counsel
CENAP-OC


Mark Dolchin

Non-Federal Sponsor


Bernard J. Moore, PE

8/22/96
Date

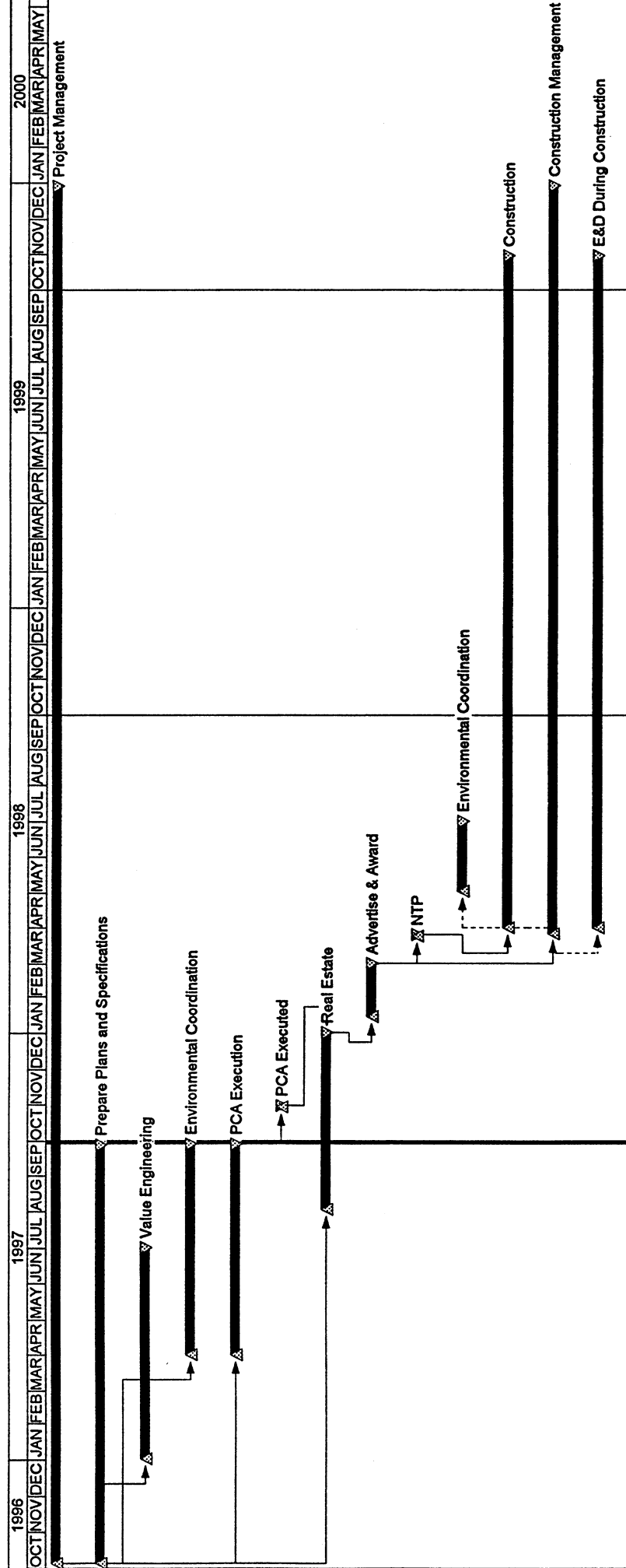
APPENDIX A

CPM SCHEDULE

ABSECON ISLAND

CPM

INITIAL CONSTRUCTION



APPENDIX B

MILESTONE SCHEDULE

MILESTONES

<u>MILESTONE NUMBER</u>	<u>MILESTONE</u>	<u>DATE</u>
170	Compl of Feasibility Rpt/Public Notice	01 Dec 1996
500	P & S Initiated	01 Oct 1997
590	P & S Approval	31 Oct 1998
690	PCA Executed	15 Oct 1998
795	Compl of LEERD	01 Jan 1999
950	Construction Contract Advertised	15 Jan 1999
960	Construction Contract Awarded	15 Feb 1999
970	Construction Contract Physical Completion	31 Sep 2000
990	Project (Initial) Construction Fiscal Completion	31 Dec 2000
999	Final Acceptance of (Initial) Project	31 Dec 2000

APPENDIX C

TOTAL PROJECT (BASELINE) COSTS SUMMARY INITIAL CONSTRUCTION

TOTAL PROJECT COST SUMMARY - INITIAL CONSTRUCTION

TOTAL - ALL CONTRACTS

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE FEASIBILITY STUDY

PROJECT: NEW JERSEY COASTLINE, BRIGANTINE INLET TO GREAT EGG HARBOR INLET
LOCATION: ABSECON, N.J.

DISTRICT: PHILADELPHIA
P.O.C.: JOSE R. ALVAREZ, P.E., CHIEF, COST ENGINEERING BRANCH

ACCOUNT NUMBER	FEATURE DESCRIPTION	CURRENT MCACES ESTIMATE PREPARED:				AUTHORIZ/BUDGET YEAR:				FULLY FUNDED ESTIMATE			
		EFFECTIVE PRICING LEVEL:				EFFECTIVE PRICING LEVEL:							
		COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	OMB	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	FEATURE MID-PT	OMB	COST (\$K)	CNTG (\$K)
02	RELOCATIONS	\$684,482	\$102,672	15.00%	\$787,154	1,028	\$703,305	\$105,495	\$808,800	JUN -00	1,060	\$745,504	\$111,825
16	BANK STABILIZATION	\$4,461,006	\$669,152	15.00%	\$5,130,158	1,028	\$4,583,684	\$687,554	\$5,271,238	JUN -00	1,060	\$4,858,705	\$728,807
17	BEACH REPLENISHMENT	\$36,509,104	\$5,485,010	14.97%	\$41,974,114	1,028	\$37,513,104	\$5,615,298	\$43,128,402	JUN -00	1,060	\$39,763,891	\$5,952,216
	TOTAL CONSTRUCTION COST	\$41,654,592	\$6,236,834	14.97%	\$47,891,426		\$42,800,093	\$6,408,347	\$49,208,440			\$45,368,100	\$6,792,848
01.	LANDS AND DAMAGES	\$93,675	\$14,053	15.00%	\$107,728	1,028	\$96,251	\$14,439	\$110,691	JAN-99	1,041	\$100,197	\$15,031
30.	PLANNING, ENGINEERING AND DESIGN												
	Plans & Specifications	\$540,000	\$81,000	15.00%	\$621,000	1,048	\$565,920	\$84,888	\$650,808	APR-98	1,021	\$578,070	\$86,711
	Environmental Coordination	\$40,000	\$9,750	24.38%	\$49,750	1,048	\$41,920	\$10,220	\$52,140	JUL-98	1,694	\$71,008	\$17,312
	Value Engineering	\$70,000	\$10,500	15.00%	\$80,500	1,048	\$73,360	\$11,004	\$84,364	APR-98	1,021	\$74,935	\$11,240
	PCA Execution	\$20,000	\$3,000	15.00%	\$23,000	1,048	\$20,960	\$3,144	\$24,104	JAN-99	1,031	\$21,610	\$3,242
	Advertise & Award	\$5,000	\$0,750	15.00%	\$5,750	1,048	\$5,240	\$0,786	\$6,026	APR-99	1,059	\$5,550	\$0,833
	E&D During Construction	\$330,000	\$11,250	3.41%	\$341,250	1,048	\$345,840	\$11,793	\$357,633	NOV-00	0,255	\$88,183	\$3,007
	Project Management	\$100,000	\$49,500	49.50%	\$149,500	1,048	\$104,800	\$51,876	\$156,676	JAN-99	3,517	\$368,541	\$182,428
	PLANNING, ENGINEERING AND DESIGN TOTAL	\$1,105,000	\$165,750	15.00%	\$1,270,750		\$1,158,040	\$173,711	\$1,331,751			\$1,207,897	\$304,771
31.	CONSTRUCTION MANAGEMENT (S & I)	\$2,500,959	\$375,144	15.00%	\$2,876,103	1,048	\$2,621,005	\$393,151	\$3,014,156	NOV-99	1,121	\$2,938,127	\$440,719
	TOTAL PROJECT COST	\$45,354,226	\$6,791,781	14.97%	\$52,146,007		\$46,675,389	\$6,989,648	\$53,665,038			\$49,614,321	\$7,553,370

EC 11-2-159

Cumulative Compounded Percent Rates of Change

	Class 1	Class 2
Oct 95 - FY 96	1,000	1,000
Oct 96 - FY 97	1,048	1,028
Oct 97 - FY 98	1,050	1,031
Oct 98 - FY 99	1,091	1,063
Oct 99 - FY 00	1,132	1,096

THIS TPCS REFLECTS A PROJECT COST CHANGE \$

THE TOTAL MAXIMUM PROJECT COST IS \$

DISTRICT APPROVED:

DIVISION APPROVED:

CHIEF, COST ENGINEERING
CHIEF, REAL ESTATE
CHIEF, PLANNING
CHIEF, ENGINEERING
CHIEF, CON-OPS
CHIEF, PROGRAMS MANAGEMENT
PROJECT MANAGER
DDE (PM)

CHIEF, COST ENGINEERING
DIRECTOR, REAL ESTATE
CHIEF, PROGRAMS MANAGEMENT
DIRECTOR OF PPMD

APPROVED DATE:

TOTAL COSTS (Rounded)

\$57,044,000

APPENDIX D

DISTRICT MANAGEMENT CONTROLS

ESTIMATED CIVIL WORKS FUNDS SCHEDULE (WORKSHEET)		C/O		FY FUNDS		TOTAL AVAILABLE									
		OBL.	EXP.												
INSTRUCTIONS: 1. ALL CONTRACT ACTIONS MUST BE SHOWN. 2. INITIAL ENTRIES MUST BE PLACED BELOW DASHED LINE. 3. CONTINUE EXPLANATION ON ADDITIONAL SHEET, IF REQUIRED.								DATE							
CATEGORY, CLASS AND PROJECT TITLE	AVAIL- ABLE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	UNSCHE- 30 SEP	SHEET OF
	OB														
	EXP														
	OB														
	EXP														
	OB														
	EXP														
	OB														
	EXP														
	OB														
	EXP														
	OB														
	EXP														
	OB														
	EXP														
	OB														
	EXP														
	OB														
	EXP														
	OB														
	EXP														
	OB														
	EXP														

TIME SCHEDULE FOR DESIGN AND CONSTRUCTION		REVISION NO.	DATE PREPARED
PROJECT:	FUND TYPE	PROJECT NO.	IFB NO.
LOCATION:			DACW61-96-B-XXX
DESCRIPTION OF WORK			
////////////////////////////////////		SCHEDULE	ACTUAL
////////////////////////////////////			
1. SCOPE OF WORK: SURVEYS: CONTROL DATA			
2. 99% PLANS TO SPEC SECTION			
3. 99% PLANS & DRAFT SPECS COMPLETE BY			
4. REPRO & DIST FOR IN-HOUSE REVIEW			
5. IN-HOUSE COMMENTS RECEIVED			
6. IN-HOUSE COMMENTS INCORPORATED			
7. (IF H/L AND > \$100K) REPRO/MAIL TO NAD			
8. (IF H/L AND > \$100) NAD REVIEW COMPLETE			
9. (IF H/L AND > \$100) INCORP NAD COMMENTS			
10. VERIFY REAL ESTATE REQUIREMENTS			
11. VERIFY FUNDING			
12. VERIFY ER/PERMITS			
13. PLANS AND SPECS 100% COMPLETE (RTA) ALL COMMENTS ADDRESSED AND COMPLIANCE CHECK COMPLETED			
SPECIAL REQUIREMENTS EFFECTING SCHEDULE			
SUBMITTED BY		APPROVED (FOR O&M)	
CONCUR Chief, IMO			
CONCUR			
Chief, Project Management Branch	Chief, Contracting Division	Chief, Operations Division	
RECOMMENDED APPROVAL	RECOMMENDED APPROVAL	APPROVED	
Chief, Design Branch	Chief, Construction Branch	Chief, Engineering Division	

