

# Audit



# Report

OFFICE OF THE INSPECTOR GENERAL

DEFENSE BASE REALIGNMENT AND CLOSURE  
BUDGET DATA FOR THE UTILITY RECONFIGURATION  
AT THE NAVAL SHIPYARD,  
PHILADELPHIA, PENNSYLVANIA

Report No. 97-042

December 10, 1996

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Department of Defense

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### **Acronyms**

BRAC  
MILCON

Base Realignment and Closure  
Military Construction



**INSPECTOR GENERAL  
DEPARTMENT OF DEFENSE  
400 ARMY NAVY DRIVE  
ARLINGTON, VIRGINIA 22202-2884**



December 10, 1996

**MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (COMPTROLLER)  
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL  
MANAGEMENT AND COMPTROLLER)**

**SUBJECT: Audit Report on Defense Base Realignment and Closure Budget Data for  
the Utility Reconfiguration at the Naval Shipyard, Philadelphia,  
Pennsylvania (Report No. 97-042)**

We are providing this audit report for information and use. This report is one in a series about FY 1997 Defense base realignment and closure military construction costs. It discusses a FY 1996 project submitted too late to be included in our audit of FY 1996 budget data.

This report contained no recommendations, therefore, no additional comments are required.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. Joseph P. Doyle, Audit Program Director, at (703) 604-9348 (DSN 664-9348) or Mr. Ronald W. Hodges, Audit Project Manager, at (703) 604-9340 (DSN 664-9340). See Appendix G for the report distribution. The audit team members are listed inside the back cover.

Robert J. Lieberman  
Assistant Inspector General  
for Auditing

## Office of the Inspector General, DoD

Report No. 97-042  
(Project No. 6CG-5001.48)

December 10, 1996

### Defense Base Realignment and Closure Budget Data for the Utility Reconfiguration at the Naval Shipyard, Philadelphia, Pennsylvania

#### Executive Summary

**Introduction.** This report is one in a series about FY 1997 Defense base realignment and closure military construction costs. It discusses a FY 1996 project submitted too late to be included in our audit of FY 1996 budget data. Public Law 102-190, "National Defense Authorization Act for Fiscal Years 1992 and 1993," December 5, 1991, directs the Secretary of Defense to ensure that the amount of the authorization that DoD requested for each military construction project associated with Defense base realignment and closure does not exceed the original estimated cost provided to the Commission on Defense Base Closure and Realignment (the Commission). If the requested budget amounts exceed the original project cost estimates provided to the Commission, the Secretary of Defense is required to explain to Congress the reasons for the differences. The Office of the Inspector General, DoD, is required to review each Defense base realignment and closure military construction project for which a significant difference exists from the original cost estimate and to provide the results of the review to the congressional Defense committees. We expanded our audit to include all projects valued at more than \$1 million.

**Audit Objectives.** The overall audit objective was to determine the accuracy of Defense base realignment and closure military construction budget data. This report provides the results of the audit of one project, valued at \$13 million, for the utility reconfiguration of the Naval Shipyard, Philadelphia, Pennsylvania. Another objective was to assess the adequacy of the management control program as it related to the overall audit objective. The management control program objective will be discussed in a summary report on FY 1997 Defense base realignment and closure military construction budget data.

**Audit Results.** The Navy overestimated the requirements and cost on project P-597S, "Utility Reconfigurations (Phase II)," Naval Shipyard, Philadelphia. As a result, the Navy overstated the \$13 million estimated cost on the reconfiguration project by \$2.2 million. See Part I for a discussion of the audit results. See Appendix C for a summary of invalid or partially valid requirements for the project we reviewed.

**Summary of Recommendations.** As a result of discussions with the Navy during this audit, the Navy agreed to eliminate the overestimated portion of project P-597S, "Utility Reconfigurations (Phase II)," Naval Shipyard, Philadelphia, Pennsylvania, from the project cost estimate. A copy of the final DD Form 1391, "FY 1996 Military Construction Project Data," is found in Appendix F.

**Management Comments.** Because a draft of this report contained no recommendations, written comments were not required.

# Table of Contents

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<b>Executive Summary</b>	<b>i</b>
<b>Part I - Audit Results</b>	
Audit Background	2
Prior Audits and Other Reviews	2
Audit Objectives	3
Utility Reconfiguration (Phase II)	4
<b>Part II - Additional Information</b>	
Appendix A. Scope and Methodology	10
Appendix B. Background of Defense Base Realignment and Closure and Scope of the Audit of FY 1997 Defense Base Realignment and Closure Military Construction Costs	11
Appendix C. Projects Identified as Invalid or Partially Valid	13
Appendix D. Original DD Form 1391 Submitted by the Navy	14
Appendix E. Revised DD Form 1391 Submitted by the Navy	16
Appendix F. Final DD Form 1391 Submitted by the Navy	18
Appendix G. Report Distribution	20

## **Part I - Audit Results**

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## Audit Background

The Office of the Inspector General, DoD, is performing various audits of the Defense base realignment and closure (BRAC) process. This report is one in a series about FY 1997 BRAC military construction (MILCON) costs. It discusses a project that was added to the FY 1996 budget too late to be included in previous audit coverage. For additional information on the BRAC process and the overall scope of the audit of BRAC MILCON costs, see Appendix B. See Appendix C for a summary of invalid and partially valid requirements for the project we reviewed.

## Prior Audits and Other Reviews

Three summary reports have been issued for the audits of BRAC budget data for FYs 1992 through 1996. The summary reports list individual projects. Since April 1996, numerous additional reports have been issued that address DoD BRAC budget data for FYs 1997 and 1998. Details on the reports are available upon request.

Two prior Inspector General, DoD reports discussed the utility reconfiguration at the Naval Shipyard, Philadelphia. Those reports are summarized below.

**Report No. 93-094.** "Quick-Reaction Report on Base Closure and Realignment Budget Data for the Naval Shipyard, Philadelphia, Pennsylvania," April 29, 1993, covers project P-591S, "Utility Reconfigurations (Phase I)." The report states that the estimated cost of \$11.8 million for the project contained \$5.2 million of overstated and unsupported requirements and the remainder of the cost was questionable. The report recommends that the Navy revise and resubmit estimates for the utility reconfiguration at the shipyard.

**Report No. 96-108.** "Defense Base Realignment and Closure Budget Data for the Naval Shipyard, Philadelphia, Pennsylvania," May 6, 1996, covers project P-597S, "Utility Reconfigurations (Phase II)." The report states that the Navy did not support the cost estimate for the utility reconfiguration project at the Naval Shipyard, Philadelphia. The report recommends that the Navy submit revised estimates for the utility reconfiguration at the shipyard.

The revised DD Form 1391, "FY 1996 Military Construction Project Data," that responded to Report No. 96-108 was received too late to be considered in that audit. Therefore, we reviewed the DD Form 1391 for project P-597S as part of this audit.

## Audit Objectives

The overall audit objective was to determine the accuracy of BRAC MILCON budget data. The specific objectives were to determine whether the proposed project was a valid BRAC requirement, whether the decision for MILCON was supported with required documentation including an economic analysis, and whether the economic analysis considered existing facilities. Another objective was to assess the adequacy of the management control program as it applied to the overall audit objective.

This report provides the results of the audit of project P-597S, "Utility Reconfigurations (Phase II)," valued at \$13 million, resulting from the closure of the Naval Shipyard, Philadelphia. See Appendix A for a discussion of the scope and methodology. The management control program objective will be discussed in a summary report on FY 1997 BRAC MILCON budget data.

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## **Utility Reconfiguration**

The Navy overestimated the requirements and cost for project P-597S, "Utility Reconfigurations (Phase II)," to reconfigure the utilities at the Naval Shipyard, Philadelphia. The overestimation occurred because the Navy included improper and unnecessary requirements in the project plan and incorrectly calculated the cost of construction changes when preparing the project cost estimate. As a result, the Navy overstated the \$13 million estimated cost of the utility reconfiguration by \$2.2 million.

### **Proposed Project for Utility Reconfiguration**

As a result of decisions made under the 1995 Commission on Defense Base Closure and Realignment, the Navy must reconfigure all utility systems at the Naval Shipyard, Philadelphia. The shipyard is to be closed, but some functions that are currently located within the confines of the shipyard will remain open. The main functions that will remain active are the propeller facility, the Naval Inactive Ships Maintenance Facility, and the Naval Ship System Engineering Station.

The utility reconfiguration plan for the shipyard, project P-597S, separated the utility systems, such as electrical, sewerage, and steam distribution, into two components: one supporting the retained property and one supporting the excess property. Separation of the utility systems into two components was needed primarily to limit the Navy's economic and environmental liability on the retained property and to preserve the excess property and retain its economic value. On April 9, 1996, the Naval Shipyard, Philadelphia, submitted a DD Form 1391 for the reconfiguration and capping-off of the shipyard's utility systems, project-597S, valued at \$13 million. The DD Form 1391 was submitted for the FY 1996 BRAC budget.

### **Initial Cost Estimate of \$13 Million**

The Navy overestimated its initial cost estimate, dated April 9, 1996 (Appendix D), for the shipyard utility reconfiguration (project P-597S). The Navy estimated the project cost at \$13 million, which equaled the funding limitation for the project; however, the scope and concept of the complete reconfiguration were not definitized. The Navy officials responsible for the cost estimate did not obtain an agreement on the reconfiguration design from the remaining user organizations. For example, the Navy planned to use a central boiler system for steam distribution, but did not consider that Naval Ship System Engineering Station personnel believed package boilers were more efficient and planned to purchase and install the smaller boilers using non-

BRAC funds. The decision on whether to use a central boiler system or smaller package boilers directly affected the configuration of the steam distribution utility lines.

Because the Navy had not fully defined the scope of project P-597S, the Navy could not accurately determine the cost to complete the shipyard utility configuration. We advised the Navy that we would not recommend a release of funds for the project and requested the Navy to submit a revised DD Form 1391 reflecting the final utility reconfiguration plan that was agreed to by the remaining users. On July 19, 1996 the Navy submitted, for our review, a revised DD Form 1391 (Appendix E) that was based on complete and final design plans for project P-597S valued at \$12.3 million (\$700,000 less than the original estimate).

### **Revised Cost Estimate of \$12.3 Million**

The Navy overestimated the revised cost on project P-597S by \$1.5 million. The cost estimate was overstated because the Navy included improper and unnecessary requirements in the project plan, failed to delete contractor overhead and profit costs applicable to project cost deletions, and made math errors when preparing the project cost estimate. BRAC funds can not be used to correct existing deficiencies or to add new requirements that previously did not exist. Furthermore, BRAC funds can only be used to fund requirements associated with the overall base closure. The following table shows the requirements and costs that should be excluded from the P-597S project cost estimate.

## Utility Reconfiguration

<b>Non-BRAC Requirements and Overstated Costs</b>		
<u>Item</u>	<u>Amount</u>	<u>Reason Overstated</u>
Exterior lighting	\$ 104,000	Includes a requirement that previously did not exist.
Electric hot water	140,000	Includes a requirement that previously did not exist.
Air compressors	15,000	Includes a requirement that previously did not exist.
Sewage lift stations	542,000	Includes a requirement not associated with BRAC actions. Malfunctioning lift stations represent an existing deficiency.
Telecommunications/ other	212,000	Includes requirements that are unnecessary because the related buildings will be excessed or demolished.
Contractor overhead and profit	211,000	Represents contractor overhead and profit applicable to prior deletions from the project estimate.
Construction-related overhead	203,000	Represents contingency and overhead costs that are applicable to construction projects.
Miscellaneous	73,000	Represents math errors and rounding adjustments.
<b>Total Overstated Costs</b>	<b>\$1,500,000</b>	

## Corrective Actions Taken by Management

On August 26, 1996, as a result of our audit, the Navy eliminated the overestimated portion of project P-597S, "Utility Reconfigurations (Phase II)," thereby reducing the cost estimate by \$2.2 million, from \$13 million to \$10.8 million. Therefore, this report contains no recommendations. A copy of the revised DD Form 1391 for project P-597S, as agreed to by the remaining users of the shipyard utility systems, is found in Appendix F.

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## **Part II - Additional Information**

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## Appendix A. Scope and Methodology

**Scope of This Audit.** We examined the FY 1996 BRAC MILCON budget request for utility reconfiguration requirements for one realignment project regarding the closure of the Naval Shipyard, Philadelphia. We reviewed supporting documentation on three budget requests for project P-597S, "Utility Reconfigurations (Phase II)," that were submitted from April 9, 1996 to August 26, 1996. The project cost on the final submission was estimated at \$10.8 million.

**Audit Period, Standards, and Locations.** This economy and efficiency audit was performed from June through August 1996 in accordance with auditing standards issued by Comptroller General of the United States as implemented by the Inspector General, DoD. The audit did not rely on computer-processed data or statistical sampling procedures.

**Organizations and Individuals Visited or Contacted.** We visited or contacted individuals and organizations within the DoD and Quad Three Group, Inc. Further details are available on request.

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## **Appendix B. Background of Defense Base Realignment and Closure and Scope of the Audit of FY 1997 Defense Base Realignment and Closure Military Construction Costs**

**Commission on Defense Base Closure and Realignment.** On May 3, 1988, the Secretary of Defense chartered the Commission on Defense Base Closure and Realignment (the Commission) to recommend military installations for realignment and closure. Congress passed Public Law 100-526, "Defense Authorization Amendments and Base Closure and Realignment Act," October 24, 1988, which enacted the Commission's recommendations. The law also established the Defense Base Closure Account to fund any necessary facility renovation or MILCON projects associated with BRAC. Public Law 101-510, "Defense Base Closure and Realignment Act of 1990," November 5, 1990, reestablished the Commission. The law also chartered the Commission to meet during calendar years 1991, 1993, and 1995 to verify that the process for realigning and closing military installations was timely and independent. In addition, the law stipulates that realignment and closure actions must be completed within 6 years after the President transmits the recommendations to Congress.

**Required Defense Reviews of BRAC Estimates.** Public Law 102-190, "National Defense Authorization Act for Fiscal Years 1992 and 1993," December 5, 1991, states that the Secretary of Defense shall ensure that the authorization amount that DoD requested for each MILCON project associated with BRAC actions does not exceed the original estimated cost provided to the Commission. Public Law 102-190 also states that the Inspector General, DoD, must evaluate significant increases in BRAC MILCON project costs over the estimated costs provided to the Commission and send a report to the congressional Defense committees.

**Military Department BRAC Cost-Estimating Process.** To develop cost estimates for the Commission, the Military Departments used the Cost of Base Realignment Actions computer model. The Cost of Base Realignment Actions computer model uses standard cost factors to convert the suggested BRAC options into dollar values to provide a way to compare the different options. After the President and Congress approve the BRAC actions, DoD realigning activity officials prepare a DD Form 1391, "FY 1997 Military Construction Project Data," for each individual MILCON project required to accomplish the realigning actions. The Cost of Base Realignment Actions computer model provides cost estimates as a realignment and closure package for a particular realigning or closing base. The DD Form 1391 provides specific cost estimates for an individual BRAC MILCON project.

**Appendix B. Background of Defense Base Realignment and Closure and Scope of the Audit of FY 1997 Defense Base Realignment and Closure Military Construction Costs**

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**Limitations and Expansion to Overall Audit Scope.** Because the Cost of Base Realignment Actions computer model develops cost estimates as a BRAC package and not for individual BRAC MILCON projects, we were unable to determine the amount of cost increases for each individual BRAC MILCON project. Additionally, because of prior audit efforts that determined potential problems with all BRAC MILCON projects, our audit objectives included all large BRAC MILCON projects.

**Overall Audit Selection Process.** We reviewed the FY 1997 BRAC MILCON \$820.8 million budget submitted by the Military Departments and the Defense Logistics Agency. We excluded projects that were previously reviewed by DoD audit organizations. We grouped the remaining BRAC MILCON projects by location and selected groups of projects that totaled at least \$1 million for each group. We also reviewed those FY 1996 BRAC MILCON projects that were not included in the previous FY 1996 budget submission, but were added as part of the FY 1997 BRAC MILCON budget package.

## Appendix C. Projects Identified as Invalid or Partially Valid

**Table C-1. Causes of Invalid or Partially Valid Projects**

<u>Project Location</u>	<u>Project Number</u>	<u>Causes of Invalid Projects</u>		<u>Causes of Partially Valid Projects</u>	
		<u>Overstated</u>	<u>Unsupported</u>	<u>Overstated</u>	<u>Unsupported</u>
Naval Shipyard, Philadelphia	P-597S			X	

**Table C-2. Recommended Changes in Project Estimates**

<u>Project Location</u>	<u>Project Number</u>	<u>Amount of Estimate on DD Form 1391 (thousands)</u>	<u>Recommended Amount of Change</u>	
			<u>Invalid Projects (thousands)</u>	<u>Partially Valid Projects (thousands)</u>
Naval Shipyard, Philadelphia	P-597S	\$13,000		\$2,200

# Appendix D. Original DD Form 1391 Submitted by the Navy

APR - 9 1996

(DATE)

*[Signature]*

David Drazd, Base Closure Team Leader  
By Direction: CO NORTHNAVFACENGCOM

Cost certified "Ready for Design" for the  
FY96 BRACON Program. ADCA SEP 96.

1. COMPONENT <b>NAVY</b>		2. DATE <b>9 APRIL 1996</b>	
3. INSTALLATION AND LOCATION <b>NORFOLK NAVAL SHIPYARD DETACHMENT PHILADELPHIA, PENNSYLVANIA</b>		4. PROJECT TITLE <b>UTILITIES RECONFIGURATION - PHASE II</b>	
5. PROGRAM ELEMENT	6. CATEGORY CODE <b>812-30</b>	7. PROJECT NUMBER <b>P-597S</b>	8. PROJECT COST (\$000) <b>13,000</b>
9. COST ESTIMATES			
ITEM	UM	QUANTITY	COST (\$000)
SUPPORTING FACILITIES .....	-	-	11,644
Compressed Air System .....	BLDG	23	252.17 (6)
Electric Utility System .....	LF	25,056	186.32 (4,688)
Non-Potable Water System .....	CAPS	62	1766.73 (110)
Sanitary Sewer System .....	BLDG	5	110017.78 (550)
Potable Water System .....	LF	16,925	185.33 (3,137)
Steam System .....	BLDG	14	89216.85 (1,249)
Telecommunications System .....	LF	48,921	38.91 (1,904)
SUBTOTAL .....	-	-	11,644
CONTINGENCY (5%) .....			582
TOTAL CONTRACT COST .....			12,226
SION (6%) .....			734
TOTAL REQUEST .....			12,960
TOTAL REQUEST (ROUNDED) .....			13,000
EQUIPMENT FROM OTHER APPROPRIATIONS .....			(NON-ADD) (0)
10. DESCRIPTION OF PROPOSED CONSTRUCTION: This project is the second phase of the utilities reconfiguration of the retained areas at the former Naval Base Philadelphia. P-591S, the first phase of the utilities reconfiguration, separates the telephone and communication systems cabling from the electrical power distribution system cabling in the retained areas in order to comply with code. The separation is accomplished with an underground distribution system consisting of conduit and manholes. This project, P-597S, reconfigures and separates the utility systems (i.e. steam, potable and non-potable water, electrical, compressed air, and sanitary sewer) in order to provide complete and functioning systems in the retained areas in order to comply with the 1991 BRAC Commission and subsequent law. This project also includes, within scope and funding limitations, the following BRAC 1995 modifications: electrical system, fire protection, and steam modifications to support the BRAC 1995 relocation of the Naval Surface Warfare Center Annapolis facilities to the former Naval Base Philadelphia. The remainder of the separation and reconfiguration for BRAC 1995 realignment will be under a separate BRAC 1995 project.			
11. REQUIREMENT: N/A <b>PROJECT:</b> Provides separation and reconfiguration of all utility systems to support post-closure retained facilities. <b>REQUIREMENT:</b> Utility separations and reconfiguration are required to support remaining functions per the 1991 BRAC II law, as well as the 1995 BRAC IV recommendations. Reconfiguration is necessary to maintain reliable and redundant utility services to the remaining Activities. <b>CURRENT SITUATION:</b> The existing utility systems are configured and sized to meet present day requirements of the entire, active Naval Base. Downsizing and realignment of the Base requires a corresponding downsizing and reconfiguration of the utility systems to meet post-closure objectives. Separation of all utilities at or along the demarcation line between retained and excessed areas must be undertaken to maintain the integrity of both the retained and excessed utilities. The activities allowed to remain by BRAC II include the Naval Surface Warfare Center (NSWC) Carderock Division, Philadelphia Site (formerly NAVSSES), Naval Inactive Ships Maintenance Facility (NISMF), and the Norfolk			

DD FORM 1391, DEC 74

PAGE NO. 1

**Appendix D. Original DD Form 1391 Submitted by the Navy**

1. COMPONENT <b>NAVY</b>	FY 19 96 MILITARY CONSTRUCTION PROJECT DATA	2. DATE <b>9 APRIL 1996</b>
3. INSTALLATION AND LOCATION <b>NORFOLK NAVAL SHIPYARD DETACHMENT PHILADELPHIA, PENNSYLVANIA</b>		
4. PROJECT TITLE <b>UTILITIES RECONFIGURATION - PHASE II</b>		5. PROJECT NUMBER <b>P-597S</b>
<p>Naval Shipyard Detachment Philadelphia (formerly the Philadelphia Naval Shipyard), Propeller Facility (i.e. shops and foundry). Although the BRAC IV recommendations order the emergent facilities excessed, several hundred buildings will be retained to support the activities allowed to remain. Also, Drydocks 4 and 5 will be kept certified and maintained ready for ship work by the Navy and/or commercial tenants. In addition, numerous retained buildings, waterfront structures, and other Navy assets will be leased by commercial tenants, altering the utility demands for the various buildings.</p> <p><b>IMPACT IF NOT PROVIDED:</b> The existing utility systems are not properly sized for the realigned Base. Modifications are required to prevent tidal, storm, and freeze damage. Substantial operating and maintenance costs can be expected. Widespread utility system outages and interruptions can be expected from the added exposure of the utilities in the excessed area. The Navy would be at risk of receiving Notices of Violation (NOVs) caused by pollution dumped into the storm/sanitary sewer systems from commercial tenants. If this project is not accomplished, future Navy liability is likely from environmental contamination caused by commercial uses in the retained and excessed areas. Further, there would be large blacked-out areas at night and some areas would be without fire protection. The Navy would be forced to retain a significant portion of the land that would have been excessed to ensure that adequate utility systems are in place to meet mission requirements. Many utility easements and right-of-ways for the benefit of the Government will be required throughout the entire excessed area.</p> <p><b>ECONOMIC ANALYSIS SUMMARY:</b> Several economic analyses were performed for the available alternatives of each utility system as part of the Utilities Reconfiguration Study, dated April 1994. The economic analyses determined that reconfiguring the utilities as proposed in this project is the most cost-effective method to fulfill the post-realignment/closure mission requirements.</p>		

# Appendix E. Revised DD Form 1391 Submitted by the Navy

Project scope and description certified adequate to satisfy mission and functions.  
 19 Jul 91  
 (DATE)  
 R. HOGAN, CAPT, USN  
 Commanding Officer, NSWCDC-SSES

1. COMPONENT <b>NAVY</b>		2. DATE <b>FY 1996 MILITARY CONSTRUCTION PROJECT DATA</b>			3. DATE <b>19 JULY 1996</b>	
3. INSTALLATION AND LOCATION NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION SHIP SYSTEMS ENGINEERING STATION PHILADELPHIA, PENNSYLVANIA				4. PROJECT TITLE UTILITIES RECONFIGURATION - PHASE II		
5. PROGRAM ELEMENT		6. CATEGORY CODE <b>812-30</b>	7. PROJECT NUMBER <b>P-597S</b>	8. PROJECT COST (\$000) <b>12,300</b>		
<b>9. COST ESTIMATES</b>						
ITEM		UNIT	QUANTITY	UNIT COST	COST (\$000)	
SUPPORTING FACILITIES .....		-	-	-	10,521	
CQC/OMSI .....		LS	-	-	(161)	
Compressed Air System .....		LS	-	-	( 19)	
Electrical Utility System .....		LF	25,056	111.80	(2,816)	
Non-Potable Water System .....		LS	-	-	(330)	
Potable Water System .....		LF	16,925	190.44	(3,223)	
Sanitary Sewer System .....		LS	-	-	(542)	
Storm Sewer System (Monitoring) .....		EA	5	20000.00	(100)	
Steam & Mechanical Systems .....		LS	-	-	(1,188)	
Telecommunications System .....		LF	10,033	193.26	(1,938)	
Site Improvements (Demo, earthwork, etc.) .....		LS	-	-	(259)	
SUBTOTAL .....		-	-	-	10,578	
CONTINGENCY (10%) .....		-	-	-	1,058	
TOTAL CONTRACT COST .....		-	-	-	11,636	
SIOH (6%) .....		-	-	-	698	
TOTAL REQUEST .....		-	-	-	12,334	
TOTAL REQUEST (ROUNDED) .....		-	-	-	12,300	
EQUIPMENT FROM OTHER APPROPRIATIONS .....				(NON-ADD)	( 0)	
10. DESCRIPTION OF PROPOSED CONSTRUCTION:						
<p>This project is the second and last phase of utilities reconfiguration in the Navy retained area at the former Naval Base Philadelphia. P-591S, the first phase of utilities reconfiguration, provides a new telecommunications ductbank system. The second phase will reconfigure and separate all affected utility systems (i.e. steam, potable water, non-potable water, electrical, compressed air, storm sewer, and sanitary sewer). This project will provide complete and functioning utility systems in both the retained and excessed areas in order to comply with the 1991 and 1995 BRAC Commissions. Completion of this project will ensure that adequate utilities are available to support the relocation of the Naval Surface Warfare Center Carderock Division, Annapolis, MD, as directed by the 1995 BRAC Commission. Fire protection will be provided at all times during construction, and after completion of, this project. Due to the amount of trenching involved in this project likelihood of encountering hazardous materials, 10% contingency is used.</p>						
11. REQUIREMENT: As Required						
<p><b>PROJECT:</b> Provides separation and reconfiguration of all utility systems to support post-closure Navy-retained facilities.  <b>REQUIREMENT:</b> Utility separations and reconfiguration are required to support remaining functions, per the 1991 BRAC law, and the functions relocating to former Naval base Philadelphia, per the 1995 BRAC law. Reliable and redundant utility systems to the remaining Activities must be maintained.  <b>CURRENT SITUATION:</b> The existing utility systems are configured and sized to meet present day requirements of the entire, active Naval Base. Downsizing and realignment of the Base requires a corresponding downsizing and reconfiguration of the utility systems to meet post-closure objectives. Separation of all utilities at or along the demarcation line between retained and excessed areas must be undertaken to maintain the integrity of both the retained and excessed utilities. The activities allowed to remain by BRAC II include the Naval Surface Warfare Center (NSWC) Carderock Division, Philadelphia Site (formerly NAVSSES), Naval Inactive Ships Maintenance Facility (NISMF), and the Norfolk Naval Shipyard Detachment Philadelphia's Propeller Facility (i.e. shops and foundry). Although the 1995 BRAC directed that emergent portions of the Philadelphia Naval Shipyard be excessed, needed facilities will be retained to support the</p>						

**Appendix E. Revised DD Form 1391 Submitted by the Navy**

1. COMPONENT <b>NAVY</b>	2. DATE <b>FY 19 96 MILITARY CONSTRUCTION PROJECT DATA</b>	3. DATE <b>19 JULY 1996</b>
4. INSTALLATION AND LOCATION <b>NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION, SHIP SYSTEMS ENGINEERING STATION PHILADELPHIA, PENNSYLVANIA</b>		
5. PROJECT TITLE <b>UTILITIES RECONFIGURATION - PHASE II</b>	6. PROJECT NUMBER <b>P-597S</b>	
<p>activities allowed to remain. BRAC 1995 also directed that the Naval Surface Warfare Center Carderock Division, Annapolis consolidate and relocate to the former Naval Base Philadelphia. Reconfiguration of utilities is required to ensure that adequate utilities are in place prior to their relocation by 1999.</p> <p><b>IMPACT IF NOT PROVIDED:</b> The existing utility systems are not properly sized for the realigned Base. Modifications are required to prevent tidal, storm, and freeze damage. Substantial operating and maintenance costs can be expected. Widespread utility system outages and interruptions can be expected from the added exposure of the utilities in the excessed area. The Navy would be at risk of receiving Notices of Violation (NOVs) caused by pollution dumped into the storm/sanitary sewer systems from commercial tenants. If this project is not accomplished, future Navy liability is likely from environmental contamination caused by commercial uses in the retained and excessed areas. Further, there would be large blacked-out areas at night and some areas would be without fire protection. The Navy would be forced to retain a significant portion of the land that would have been excessed to ensure that adequate utility systems are in place to meet mission requirements. Many utility easements and right-of-ways for the benefit of the Government will be required throughout the entire excessed area.</p> <p><b>ECONOMIC ANALYSIS SUMMARY:</b> Several economic analyses were performed for the available alternatives of each utility system as part of the Utilities Reconfiguration Study (April 1994), updated in 1996. The economic analyses determined that reconfiguring the utilities as proposed in this project is the most cost-effective method to fulfill the post-realignment/closure mission requirements.</p>		

# Appendix F. Final DD Form 1391 Submitted by the Navy

Request scope and description certified adequate to satisfy mission and functions.  
 R. HOGAN, CAPT, USN  
 Commanding Officer, NSWCDC-SSES  
 27 Aug 96 (DATE)

(Cost Estimate prepared "Keyway Package" for the FY-96 BRAC/IN Program.  
 P. CHAMBERLIN, CAPT, USN  
 Commanding Officer, NORTHNAVFACENCOM  
 27 Aug 96 (DATE)

1. COMPONENT <b>NAVY</b>		2. DATE <b>26 AUGUST 1996</b>	
3. INSTALLATION AND LOCATION <b>NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION SHIP SYSTEMS ENGINEERING STATION PHILADELPHIA, PENNSYLVANIA</b>		4. PROJECT TITLE <b>UTILITIES RECONFIGURATION - PHASE II</b>	
5. PROGRAM ELEMENT	6. CATEGORY CODE <b>812-30</b>	7. PROJECT NUMBER <b>P-597S</b>	8. PROJECT COST (\$000) <b>10,800</b>
<b>9. COST ESTIMATES</b>			
ITEM	UM	QUANTITY	UNIT COST (\$000)
<b>SUPPORTING FACILITIES</b> .....			
CQC/OMSI .....	LS	-	9,270
Compressed Air System .....	LS	-	(161)
Electrical Utility System .....	LS	-	(4)
Non-Potable Water System .....	LF	24,054	112.77 (2,713)
Potable Water System .....	LS	-	(250)
Sanitary Sewer System .....	LF	16,756	190.55 (3,193)
Storm Sewer System (Monitoring) .....	EA	5	20,000 (100)
Steam & Mechanical Systems .....	LS	-	(1,049)
Telecommunications System .....	LF	8,026	192.00 (1,541)
Site Improvements (Demo, earthwork, etc.) .....	LS	-	(259)
<b>SUBTOTAL</b> .....	-	-	<b>9,270</b>
<b>CONTINGENCY (10%)</b> .....	-	-	<b>927</b>
<b>TOTAL CONTRACT COST</b> .....	-	-	<b>10,197</b>
<b>SIOH (6%)</b> .....	-	-	<b>612</b>
<b>TOTAL REQUEST</b> .....	-	-	<b>10,809</b>
<b>TOTAL REQUEST (ROUNDED)</b> .....	-	-	<b>10,800</b>
<b>EQUIPMENT FROM OTHER APPROPRIATIONS</b> .....			(NON-ADD) (0)
<b>10. DESCRIPTION OF PROPOSED CONSTRUCTION</b>			
<p>This project is the second and last phase of utilities reconfiguration in the Navy retained area at the former Naval Base Philadelphia. This second phase will reconfigure and separate almost all utility systems (i.e. steam, potable water, non-potable water, electrical, compressed air, storm sewer, and sanitary sewer). Upon the completion of this project, utility systems will remain functioning to comply with the 1991 and 1995 BRAC Commissions. Also, it will ensure that adequate utilities are available to support the relocation of the Naval Surface Warfare Center Carderock Division, Annapolis, MD. The revised scope reflects the recommendations of the recent DoDIG audit (report pending). Due to the amount of trenching involved in this project likelihood of encountering hazardous materials, 10% contingency is used.</p>			
<b>11. REQUIREMENT: As Required</b>			
<p><b>PROJECT:</b> Provides separation and reconfiguration of all utility systems to support post-closure Navy-retained facilities in accordance with DoDIG's preliminary audit results.</p> <p><b>REQUIREMENT:</b> Utility separations and reconfiguration are required to support remaining functions, per the 1991 BRAC law, and the functions relocating to former Naval Base Philadelphia, per the 1995 BRAC law. Reliable utility systems to the remaining activities must be maintained.</p> <p><b>CURRENT SITUATION:</b> The existing utility systems are configured and sized to meet present day requirements of a fully active Naval Base. Downsizing and realignment of the Base requires a corresponding downsizing and reconfiguration of the utility systems to meet post-closure objectives. Separation of all utilities at or along the demarcation line between retained and excessed areas must be undertaken to maintain the integrity of both the retained and excessed utilities.</p> <p>The activities allowed to remain by BRAC II include the Naval Surface Warfare Center (NSWC) Carderock Division, Philadelphia Site (formerly NAVSSES), Naval Inactive Ships Maintenance Facility (NISMF), and the Norfolk Naval Shipyard Detachment Philadelphia's Propeller Facility (i.e. shops and foundry). Although the 1995 BRAC directed that emergent portions of the Philadelphia Naval Shipyard be closed, facilities will be retained to support the activities allowed to remain.</p>			

FORM DD, Dec 74 1391

PAGE NO. 1/2

Encl (1)

Appendix F. Final DD Form 1391 Submitted by the Navy

1. COMPONENT NAVY	FY 19_96_ MILITARY CONSTRUCTION PROJECT DATA	2. DATE 26 AUGUST 1996
3. INSTALLATION AND LOCATION NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION, SHIP SYSTEMS ENGINEERING STATION PHILADELPHIA, PENNSYLVANIA		
4. PROJECT TITLE UTILITIES RECONFIGURATION - PHASE II		5. PROJECT NUMBER P-597S
<p>BRAC 1995 also directed that the Naval Surface Warfare Center Carderock Division, Annapolis consolidate and relocate to the former Naval Base Philadelphia. Reconfiguration of utilities is required to ensure that adequate utilities are in place prior to their relocation by 1999.</p> <p><b>IMPACT IF NOT PROVIDED:</b> The existing utility systems are not properly sized for the realigned Base. Modifications are required to prevent tidal, storm, and freeze damage. Substantial operating and maintenance costs can be expected. Widespread utility system outages and interruptions can be expected from the added exposure of the utilities in the excessed area. The Navy would be at risk of receiving Notices of Violation (NOVs) caused by pollution dumped into the storm/sanitary sewer systems from commercial tenants. If this project is not accomplished, future Navy liability is likely from environmental contamination caused by commercial uses in the retained and excessed areas. Further, there would be large blacked-out areas at night and some areas would be without fire protection. The Navy would be forced to retain a significant portion of the land that would have been excessed to ensure that adequate utility systems are in place to meet mission requirements. Many utility easements and right-of-ways for the benefit of the Government will be required throughout the entire excessed area if this project is not provided.</p> <p><b>ECONOMIC ANALYSIS SUMMARY:</b> Several economic analyses were performed for the available alternatives of each utility system as part of the Utilities Reconfiguration Study (April 1994), updated in 1996. The economic analyses determined that reconfiguring the utilities as proposed in this project is the most cost-effective method to fulfill the post-realignment/closure mission requirements.</p>		

DD FORM 1391c  
DEC 78

PAGE NO. 2/2

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## **Appendix G. Report Distribution**

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House Subcommittee on National Security, Committee on Appropriations  
House Committee on Government Reform and Oversight  
House Committee on National Security

Chairman, House Subcommittee on National Security, International Affairs, and  
Criminal Justice, Committee on Government Reform and Oversight

## **Audit Team Members**

This report was prepared by the Contract Management Directorate, Office of the Assistant Inspector General for Auditing, DoD.

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## INTERNET DOCUMENT INFORMATION FORM

**A . Report Title: Defense Base Realignment and Closure Budget Data for the Utility Reconfiguration at the Naval Shipyard, Philadelphia, Pennsylvania**

**B. DATE Report Downloaded From the Internet: 11/01/99**

**C. Report's Point of Contact: (Name, Organization, Address, Office Symbol, & Ph #):**  
OAIG-AUD (ATTN: AFTS Audit Suggestions)  
Inspector General, Department of Defense  
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Arlington, VA 22202-2884

**D. Currently Applicable Classification Level: Unclassified**

**E. Distribution Statement A: Approved for Public Release**

**F. The foregoing information was compiled and provided by:**  
DTIC-OCA, Initials: \_\_VM\_\_ Preparation Date 11/01/99

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