

**A Status Report to Congress on**

# **The Renovation of the Pentagon**



*Prepared by*  
**The Office of the Secretary of Defense**

March 1, 2004



# **Annual Status Report to Congress**

## **March 1, 2004**

**14<sup>th</sup> Edition**

This report is provided to the Congress in compliance with title 10 United States Code, section 2674. This requires the Secretary of Defense to submit an annual report on the status of the renovation of the Pentagon Reservation, and a plan for the renovation work to be conducted in the fiscal year beginning in the year in which the report is transmitted.

This is the fourteenth annual report on the Renovation of the Pentagon with 10 USC 2674. The report covers accomplishments to date and actions proposed for FY 2004. In addition, information is included on several related projects which support the overall objectives of operations and maintenance of the Pentagon Reservation.

## MESSAGE FROM THE PROGRAM MANAGER

Though completed in 2002, the energy and pace given to the rebuilding effort known as the Phoenix Project carried over into other Pentagon Renovation Program (PENREN) endeavors in 2003. PENREN's successes and contracting brought new challenges from Department of Defense leadership in our core competency areas of renovation, construction and information technology.

Work on Wedges 2-5 continues to move at an impressive pace. In July 2003, we moved our first tenants into newly renovated Wedge 2 spaces. In another move milestone, we moved 257 people representing the senior staff of the Army, Navy and Marine Corps. In addition, construction was completed on the OSD Conference Center and Public Affairs office, including the Press Briefing Room.

The new Pentagon Athletic Center is rapidly approaching completion. Construction on the facility will be completed in early March, with an anticipated Grand Opening date of March 31, 2003.

Work is also nearing completion on our Intake/Outfall project. The complex tunneling operation that channels water to the Pentagon's Heating and Refrigeration Plant reached several milestones in 2003, including the completion of the Intake Screenhouse and underground water lines.

Our two Roads, Grounds and Security Projects are more than 70% complete. The Remote Delivery Facility Secure Access Lane was completed in February. The Pentagon Secure Bypass Project, originally scheduled for a Fall 2004 completion, is now projected to be substantially complete by Spring 2004.

Our goal of building environmentally and energy-friendly facilities was recognized with the Metro Entrance Facility being the first DoD

facility in the National Capital Region to receive Leadership in Energy and Environmental Design (LEED™) certification from the U.S. Green Building Council. Other program awards included the Phoenix Project receiving a Project of the Year Award from the Construction Management Association of America and our Acquisition & Business Team Leader being named Young Acquisition Professional of the Year by the Procurement Roundtable.

More important than the many awards received by the Program are the opportunities that PENREN's hard work and efforts have made possible. In the past year we have been approached by numerous agencies to provide insight, consultation and expertise into matters dealing with everything from renovation to program management. Of note; in October 2003, the Coalition Provisional Authority (CPA) asked PENREN to develop sample requirements, a program management concept and an acquisition strategy plan to compete program management support contracts for the newly created Iraq Infrastructure Reconstruction Office (IIRO). The CPA then requested we follow the "PENREN standard and approach" in accomplishing the acquisitions. In this case, the PENREN standard and approach means streamlined, best value, performance based and fast track acquisition.

The men and women of the Pentagon Renovation Program have given themselves a tremendous amount to be proud of in 2003. We moved the highest-level senior civilians and military of the Navy, Marines, Army and OSD into the newly renovated Wedge 2. We provided continuity of operations and business capabilities in direct support of the Secretary of Defense and Chairman of the Joint Chiefs of Staff. We provided survivable IT systems to ensure Pentagon leadership can continue to operate in the event of a crisis. We are moving towards a safer and more secure Pentagon through our roads and security projects.



Message from the Program Manager

As the result of an organizational study performed by Washington Headquarters Services, we have begun a transformation that will allow us to provide better support to DoD senior leadership. As will be reflected in our 2005 Report to Congress and all future correspondence, our new name signifies our formal roles and responsibilities, "Pentagon Renovation and Construction Program Office (PENREN/C).

As part of our organizational transformation, we developed the following vision/mission statement: *We will continuously improve our customer-focused, service oriented philosophy which supports the Secretary of Defense, Departmental Leadership and other customers in accomplishing our core mission of providing the Pentagon Reservation with optimum facilities and Information Technology through renovation, construction, and modernization.* The PENREN/C Team looks forward to continued success and new opportunities.

*Michael R. Sullivan*  
Michael R. Sullivan  
Program Manager



*Program Manager Mike Sullivan explains PENREN's acquisition approach*

## EXECUTIVE SUMMARY

As required by section 2674 of title 10, United States Code, the attached status report to Congress on the Pentagon Renovation Program is presented annually. This is the fourteenth report. This report is a synopsis of the Pentagon Renovation Program, the work completed during the past fiscal year and the work anticipated for the next twelve months. The following four sections are covered in detail.

### I. PROGRAM OVERVIEW

Prior to the Wedge 1 renovation, the Pentagon had never undergone a major renovation in nearly sixty years. The building had reached a point where it was unable to meet the daily demands placed on it by current tenants. All of the major utility systems in the unrenovated areas of the Pentagon need to be replaced. The process of completely overhauling these systems is further complicated by the presence of asbestos and other hazardous materials, and the need to work around fully occupied space -- 20,000 people who cannot afford interruption in their daily operations.

In addition to renovation activities, an impetus was placed on the need for security improvements as a direct result of the ever-growing threat of terrorism and the attack on September 11, 2001. To meet these threats, PENREN was tasked with construction projects that were outside of its original scope of work, such as the Remote Delivery Facility, Metro Entrance Facility and Roads Grounds & Security Projects. Other security-related enhancements are incorporated within renovation work activities. The Pentagon Athletic Center is another new construction project, addressing the Pentagon's need for a larger, more modern facility that is better equipped for preparing troops for military readiness.

One of the most important elements of renovating the Pentagon is the improvement of Information

Technology (IT) systems. The objective of PENREN's IT group is to provide cost-effective services and capabilities that will best serve the needs of the Pentagon tenants and DoD senior leadership by leveraging technology advancements and designing and developing integrated systems.

In addition to repealing the previous certification requirement of \$1.2 billion, Congress provided for the transfer of \$300 million in Fiscal Year 2002 to the Pentagon Reservation Maintenance Revolving Fund (Sec. 305(b), P.L. 107-117, Jan 10, 2002) to finance accelerated Pentagon renovation completion by up to four years and to make command centers more secure. As a result, the renovation of the Pentagon is expected to be complete in 2010, accelerated from the previous schedule of 2014.

The building renovation projects undertaken by PENREN follow a similar sequence; tenant move-out; the installation of temporary mechanical, electrical, plumbing, and communications; demolition and abatement of hazardous materials; core and shell construction; tenant fit-out construction; information management and telecommunications; furniture installation; security verification; commissioning; and tenant move-in.

### II. WORK IN PROGRESS

All of the work accomplished in 2003 and planned for 2004 is described in detail in the Work In Progress section. Due to damage sustained in the September 11 terrorist attack, the need for office space to continue the planning and execution of the global war on terrorism and the necessity of accelerating construction, the scope of Wedge 2 was re-phased. As construction progresses, tenants have begun moving back into renovated Wedge 2 office spaces. Segments 2 and 3 of the basement and mezzanine are also beginning to come online. The need for swing space will be a continuous challenge, especially with the advanced renovation schedule. PENREN executed a design-



build contract for the construction of the Pentagon 9/11 Memorial. Unlike other projects, the Memorial construction will rely solely on donations, and is therefore fund-driven, rather than schedule-driven. Condenser Intake and Outfall Lines are ancillary to the Renovation Program but tie into the operation of the heating and refrigeration plant. The Roads, Grounds and Security Team is ahead of schedule on the construction of the Pentagon Secure Bypass (PSB), which involves increasing the distance between the Pentagon and Highway 110. The new Remote Delivery Facility Secure Access Lane (RDF-SAL) is substantially complete, with final landscaping to be done in Spring 2004.

### III. PROCESS IMPROVEMENTS

The Renovation Program is constantly evolving and developing better ways of doing business. This section highlights the Program's efforts in the areas of acquisition, IT, commissioning, the tenant move process and management support.

PENREN was tasked by DoD to implement two new information technology initiatives, the Command Communications Survivability Program and Alternate Sites for Continuity of Operations and Continuity of Business. The Renovation Program's acquisition process continues to be at the forefront of acquisition reform and continues to change the way the federal

government and industry does construction business. As a testament to this, the Coalition Provisional Authority (CPA) asked PENREN to develop sample requirements, a program management concept and an acquisition strategy plan to compete program management support contracts for the newly created Iraq Infrastructure Reconstruction Office (IIRO) and then to accomplish the acquisitions for them. Our acquisition approach is complemented by commissioning practices that ensure tenant satisfaction and maximize systems efficiency. Interaction with Pentagon tenants and the integrated approach to program management stretch across all aspects of the Renovation Program.

### IV. APPENDICES

The appendices include a glossary of terms used throughout this report for easy reference. A timeline of projects completed prior to the scope of this report is also included. As required by the Fiscal Year 2000 National Defense Authorization Act, Section 2881, a description of the use of the Navy Annex property is included.

Finally, important contact information is provided for those interested in learning more about the Pentagon Renovation Program.



*This photo shows the North Parking connector bridge that will span the relocated Highway 110. The Pentagon Secure Bypass (PSB) routes traffic on Highway 110 away from the building, through what is now the Pentagon North Parking Lot. When the project is finished, it will enable DoD to lift the current truck restrictions on Highway 110.*



**ON COST, ON SCHEDULE,  
BUILT FOR THE NEXT 50 YEARS**



## TABLE OF CONTENTS

<b>I.</b>	<b>PROGRAM OVERVIEW</b>	<b>01</b>
	Program Background	02
	Program Schedule	06
	Program Budget	08
	Renovation Sequence	10
<b>II.</b>	<b>WORK IN PROGRESS</b>	<b>14</b>
	Wedges 2-5	15
	Pentagon Memorial Project	19
	Pentagon Athletic Center (PAC)	23
	Conference and Logistics Center	26
	Swing Space	27
	H&RP Intake/Outfall Line	28
	Roads, Grounds & Security	31
	Ancillary Projects	34
	Command Communications Survivability Program (CCSP)	35
	Alternate Sites	35
<b>III.</b>	<b>PROCESS IMPROVEMENTS</b>	<b>37</b>
	Acquisition & Business	38
	Information Technology Systems (ITS)	41
	Commissioning	43
	Tenant Moves	44
	Sustainable Design and Construction	48
	Management Support	50
<b>IV.</b>	<b>APPENDICES</b>	<b>55</b>
	Glossary of Terms	56
	Work Completed Timeline	58
	FY 2000 - National Defense Authorization Act (Federal Building 2)	62
	FY 2000/01/02/03 - Department of Defense Appropriations Act	64
	FY 2003 - Department of Defense Appropriations Act	66



## I. Program Overview



*This September 2003 picture provides a good aerial view of the progress made by the Roads, Grounds and Security Team's work to relocate Highway 110 away from its original location near the Pentagon.*



## **I. PROGRAM OVERVIEW**

- **Program Background**
- **Program Schedule**
- **Program Budget**
- **Renovation Sequence**

**I. Program Overview**

**PROGRAM BACKGROUND**



*Vertical mobility and accessibility are a major challenge faced by tenants in the un-renovated sections of the Pentagon. Many people with disabilities are forced to use freight elevators to access the upper floors of the building.*



*In addition to improving the appearance of the building facade, the Pentagon Renovation Program is installing new, energy efficient windows. The old windows contribute to a 30% energy loss in the yet to be renovated parts of the building.*

**THE NEED**

The Pentagon, designated as a National Historic Landmark in 1992, has never undergone a major renovation. After more than 60 years, renovation is essential in order to meet current health, building, accessibility, fire, and life safety codes, and provide reliable electrical, air conditioning and ventilating services. Absent a major renovation, the building infrastructure has become increasingly unreliable and unable to fully support the headquarters and nerve center of the national military establishment. Major building engineering systems have deteriorated to such an extent that repairs are no longer effective and entire systems need replacement. The presence of asbestos in the ceiling plaster, heating and ventilating ducts, pipes, and floor coverings is a hazard that makes repairs or alterations extremely disruptive and expensive.

From 1982 through 1990 the Department of Defense discussed with the General Services Administration (then accountable for the building) renovation of the Pentagon and in the mid 1980s, GSA supported the concept of transferring accountability for the building to the Department of Defense in order to proceed with the much needed renovation.

**THE TRANSFER**

Based on consultation within the Administration and with Congressional committees, legislation was prepared to transfer accountability for the Pentagon from the Administrator of General Services to the Secretary of Defense so that the renovation of the Pentagon could be undertaken.

The Defense Authorization Act of FY 1991 transferred control of the Pentagon Reservation from the Administrator of General Services to the Secretary of Defense. Under the same Act, Congress established the Pentagon Reservation Maintenance Revolving Fund for the expressed intent of renovating the Pentagon, allowing the Secretary of Defense to establish rent rates which support the renovation.



## I. Program Overview

## Background

### THE PROGRAM

In 1990, a concept plan for the Pentagon Renovation was approved based on renovating the building in five 1,000,000-gross-square-foot "wedges" with renovation of the basement as a separate endeavor. The plan envisioned the complete removal of all mechanical, electrical, and plumbing systems down to the base structure due to the widespread presence of hazardous materials and the high probability of systems failure.

The Renovation Program is providing all new engineering systems, vertical transportation, IT, lighting, and fire and life safety systems.

The renovated Pentagon will provide accessibility for persons with disabilities. It will preserve historic elements, upgrade food service facilities, construct strategically located operation centers, install modern telecommunications support features, comply with energy conservation and environmental requirements, reorganize materials handling, and provide safety improvements in vehicular and pedestrian traffic.

The renovation concept for the Pentagon included, as a first phase, a new heating and refrigeration plant (H&RP), which has been completed and is operational. In conjunction with the construction of the H&RP, a center courtyard utilities tunnel was constructed. The tunnel houses various utility lines which will distribute building utilities provided by the new plant.

The second phase of the Program was the renovation of Segment 1 of the Basement and Mezzanine, which started in September 1994 and was completed with the opening of the DiLorenzo TRICARE Health Clinic in March 2000. The third through seventh phases of the Program were envisioned as the renovation of the five wedges of the building from the first to the fifth floor. These areas were determined to be the optimum divisions for renovation while continuing the operation of major utility systems. In order to vacate Wedge 1 prior to renovation, tenants were moved either to nearby leased office space, to swing space

identified within the Pentagon, or into a previously renovated building area. On September 11, 2001 tenants were in the process of moving out of Wedge 2 into the newly renovated Wedge 1. The terrorist attack and Congressionally mandated acceleration has forced the Renovation Program to re-examine its planned phasing of the renovation to allow Pentagon personnel to continue with the execution and planning of the current war effort. By September 11, 2002, the reconstruction on the damaged area was complete, and workers were already in the process of renovating Wedge 2.

The Renovation Program is working on several ancillary projects, including the Pentagon Athletic Center, Intake/Outfall and Roads & Grounds projects. The Renovation Program's organizational team structure, in-house expertise and innovative acquisition practices allow it to take related projects on the Reservation when appropriate. Accomplishing ancillary projects in coordination with renovation activities reduces overall costs by coordinating work efforts.



*Workers preparing to place concrete on one of two new pedestrian bridges. The bridges are a part of the Pentagon Secure Bypass (PSB) project.*

## STATUS

The fire, smoke and water damage that resulted from the impact and ensuing fire of the September 11 attack led to the displacement of 4,500 tenants from Wedge 1 and Wedge 2 collectively. Wedge 1 returned to full occupancy by February 2003. The completion of this project allowed more resources to be directed to the management and completion of continuing renovation projects, which have stayed on or ahead of schedule.

Wedge 2 was slated for demolition and abatement of hazardous materials in October 2001. However, the events of September 11 led to the re-phasing of Wedge 2 renovation to allow for re-occupancy of approximately half of the wedge to accommodate tenants displaced from the building as a result of the attack. Construction is complete on the first phase of Wedge 2. The first tenants moved into their office spaces in July 2003.

The Pentagon Athletic Center (PAC) (formerly the Pentagon Physical Fitness and Readiness Facility) will replace the existing facility with a more spacious, modern facility that meets growing membership fitness and readiness needs based on current usage patterns and future incremental growth. The 127,000-square-foot facility, which includes options for an auditorium to replace the current Pentagon auditorium and a related television studio and executive motor pool, will be located at basement level underneath and adjacent to the Pentagon's Mall Terrace. The PAC will be built in two phases to accommodate the relocation of Pentagon tenants occupying a section of the basement until late 2005. Phase One construction will be complete and the new PAC ready for use by March 29, 2004.

The Heating & Refrigeration Plant Intake/Outfall Project experienced significant milestones in 2003, with the completion of the Intake Structure in July and the Outfall pipe installation completed in December.

In November 2001, the Roads, Grounds and Security

Team was established with the purpose of providing modifications to the existing network of highway and access roads to meet Pentagon security needs. Work is substantially complete on the Remote Delivery Facility Secure Access Lane, with 100% completion scheduled for March 2004. The original completion for the Pentagon Secure Bypass Project was the fall of 2004. Currently, crews are ahead of schedule and the new projected completion date is summer 2004.

The design-build contractor for the Pentagon Memorial Project is currently doing a utilities assessment of the project site. Groundbreaking on this project is contingent upon raising funds for construction. No taxpayer money has been allocated to this project.

PENREN is continuing efforts to develop solutions that will ensure continuity of operations and communications for DoD. A systems integrator for the Command Communication & Survivability Program (CCSP) was selected in April 2003. PENREN is also involved in a classified Alternate Sites program that will support essential operations.



*Workers installing equipment in the editing suite of the new OSD Public Affairs area.*



## I. Program Overview

## Background

### PROGRAM CHALLENGES

A complete renovation of the Pentagon is necessary to provide a modern, flexible, and efficient work environment that will endure well into the 21<sup>st</sup> century. Without a major renovation, the building would continue to deteriorate, ultimately rendering it unable to serve its mission.

To better understand the challenges the renovation team faces, it is important to understand the unique features of the Pentagon itself. Unlike most large office buildings, the Pentagon is the command and control center for our nation's military establishment and headquarters to the senior leadership, including the Secretary of Defense, the Chairman of the Joint Chiefs of Staff and the heads of each of the Military Departments. It is from within the

Pentagon walls that the Department of Defense monitors and deploys forces around the world. Yet, it is within these same walls that renovation activities, often involving heavy construction, must take place.

In terms of size, the Pentagon looks and operates much like a small city: it has its own heating and refrigeration plant, water and sewage facilities, police force, fire station, heliport, child care center, cafeterias, mini-mall, Metro station, and medical clinic. The building itself covers 34 acres and overall the Pentagon Reservation includes parking for 10,000 vehicles. In terms of population, the Pentagon's 25,000 employees make it larger than nine of 10 towns in the United States. The large number of Pentagon personnel, the complexity and the critical nature of their missions, and the sheer magnitude of the building combine to create challenges that can be found in no other renovation project in the world.

**The five historic elements of the Pentagon present further challenges to the renovation effort.**

1. The five outer facades of the Pentagon.
2. The center courtyard and surrounding facades.
3. The terrace fronting the Mall Entrance.
4. The terrace fronting the River Entrance.
5. The Pentagon's distinctive five-sided shape.



*A view of the Pentagon from the Metro Entrance Facility, which was recently awarded LEED<sup>TM</sup> Certification. The MEF was the first federal building in the National Capital Region to achieve this certification.*

**I. Program Overview****PROGRAM SCHEDULE**

Since last year's report, the Pentagon Renovation Program completed and populated 40% of Wedge 2. At present the Wedge 2 team is gearing up to begin the major demolition and asbestos abatement in the remainder of Wedge 2. The estimated completion of Wedge 2 at this time is November 2005. This includes the move-in of Pentagon senior executives.

Construction in the Pentagon basement began in February 2002. The new construction will provide flexible space suitable for command and control centers. As of September 2003, 35 percent of the basement was completed and populated. The remainder of the basement is currently scheduled for completion in August 2005.

The Remote Delivery Facility Secure Access Lane project is currently 80 percent complete. The Pentagon Secure Bypass for Route 110 is currently under construction. The bypass is scheduled to open by April 2004 and the overall project is scheduled to be substantially complete by September 2004.

Phase I of the Pentagon Athletic Center began in December 2002. At present it is scheduled to open on March 31, 2004. Phase II of the project has been postponed until December 2005.

The Pentagon Intake/Outfall project is 80 percent complete. The Intake/Outfall project is scheduled to be complete in April 2004.

The estimated completion date of 2010 includes the full scope of renovation activities, including tenant move-out, demolition and abatement, core and shell construction and tenant fit-out.

Since last year's report, the architecture development and design of the Command Communications Survivability Program (CCSP) have been implemented. The messaging portion of the project is more than 40% complete with full survivability to begin as of November 2004. The network implementation will transition to full operation of the optical transport and Network Access Points in July 2004. The Core, Security and Transport portions of the phased approach will be completed this summer. The remaining elements are being completed incrementally through June 2005. The construction of an alternate Network Systems Management Center is scheduled for completion by October 2004.



*PENREN project team leaders work side-by-side with general contractors to get project updates and identify potential problems before they occur to stay on schedule and below cost.*

I. Program Overview

Schedule



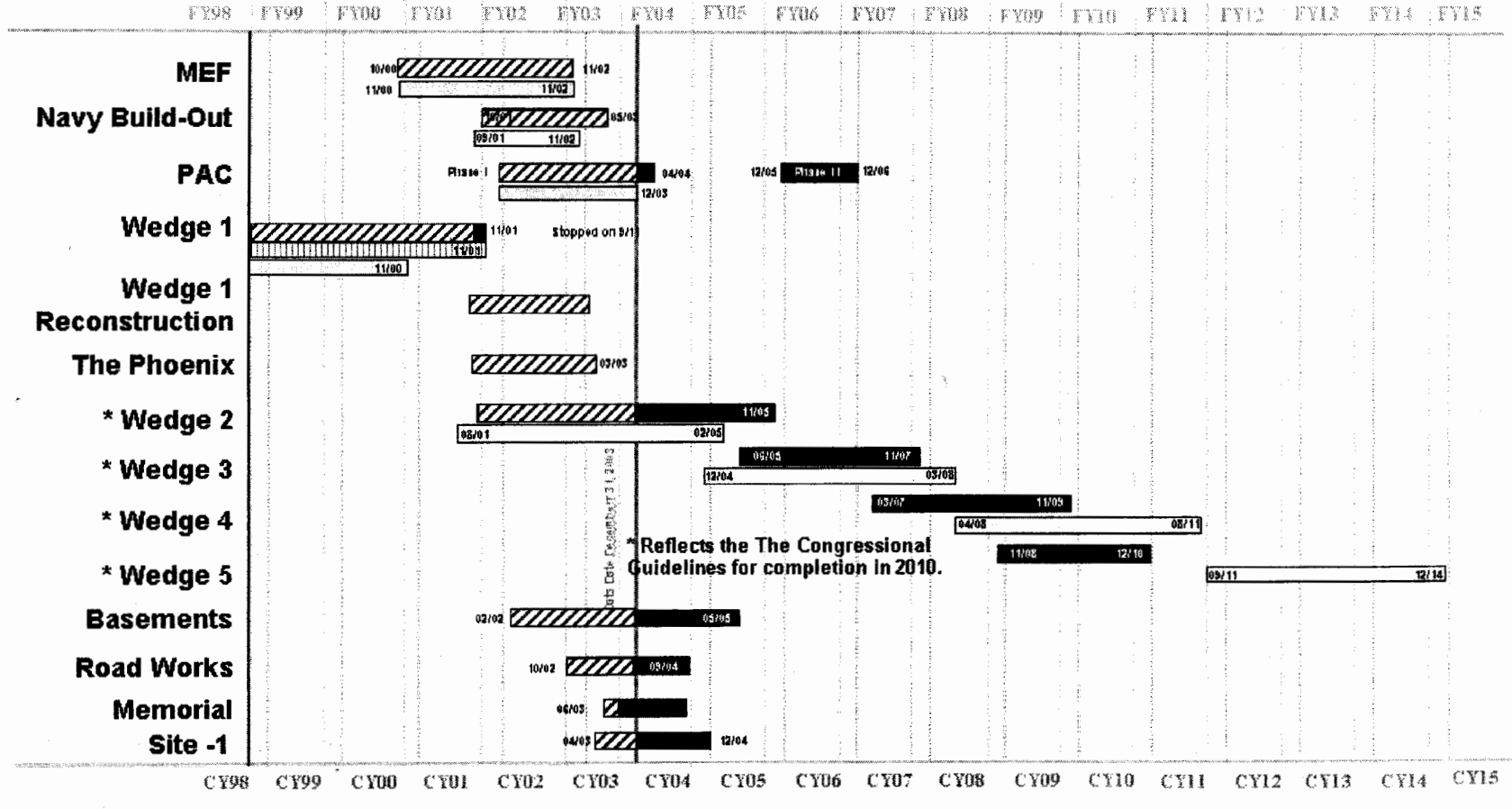
**The Pentagon Renovation Program**  
**Monthly Update Summary**  
 Wedges show Design work through Move - in  
**December 2003**

**LEGEND**

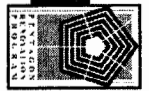
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	Potential time to complete the work
	Time consumed to date
	Revised Baseline Schedule
	Original Baseline Schedule
	Completed Project

NOTES:  
 1) All bar and date indicators are relative to Calendar Year date entry.  
 2) Projects that do not have baseline schedules have not declared a baseline for their projects.



Current PENREN Project Schedules.





## I. Program Overview

### PROGRAM BUDGET

#### SOURCE OF FUNDS

Section 2804 of the Department of Defense Authorization Act, 1991 (Public Law 101-510, see Appendix), established the Pentagon Reservation Maintenance Revolving Fund. This Act transferred responsibility for the operation, maintenance, protection, repair and renovation of the Pentagon Reservation from the General Services Administration to the Secretary of Defense. This revolving fund is the funding source for the Pentagon Renovation Project. In addition, the fund finances a full range of building services for Department of Defense components, including the military departments and other activities housed within the Pentagon Reservation.

The renovation was designed to be budget-neutral to the Department of Defense in that the Department could operate, maintain, protect and renovate the Pentagon for the rent the Department would have paid to the General Services Administration over a 12 to 14 year period.

Accordingly, the Pentagon Reservation Maintenance Revolving Fund was designed to operate on a break-even basis over the long term. Revenue for the revolving fund may be generated from various sources, however, the fund depends primarily upon monies collected from a user charge for space and building services. These charges are paid by Department of Defense components and other tenants using Pentagon Reservation facilities or land, with rates corresponding to six categories of space: office, storage, special, joint use, commercial support and outside parking. The rates are established to recover the cost of day-to-day operations, maintenance, protection of the Reservation and essential capital improvements, including all costs associated with the Pentagon Renovation Program.

#### CERTIFICATION OF COST

Section 8055 of the FY 2004 Defense Appropriations Act (Public Law 108-87) requires that the Department of Defense certify the total cost for the planning, design, construction and installation of equipment for the renovation of Wedges 2 through 5 of the Pentagon, cumulatively, will not exceed four times the total cost for the planning, design, construction and installation of equipment for the renovation of Wedge 1. The cost of the renovation of Wedge 1 shall be adjusted for any increase or decrease in costs attributable to inflation.

In accordance with the referenced Appropriations Act, the calculation of cost limitation and cost of each wedge does not include any cost incurred for repair and reconstruction as a result of the terrorist attack on September 11, 2001, nor costs attributable to additional security requirements deemed essential by the Secretary of Defense, nor costs attributable to compliance with new requirements of federal, state or local laws.

Extensive internal management controls are in place to ensure accurate tracking and monitoring of costs associated with the certification ceiling and to segregate costs of ancillary projects.

Consistent with the cost estimates prepared for projects in the Military Construction Program, this limitation does not include the cost of: 1) purchase and installation of Information Management and Telecommunications equipment, 2) rental and operation of leased swing space, 3) purchase and installation of furniture for the renovated Pentagon, and 4) separately authorized ancillary projects and security enhancements directed prior to the terrorist attacks. The Department of Defense Appropriations Act for FY 2004 and the required certification are included in the Appendix.



## I. Program Overview

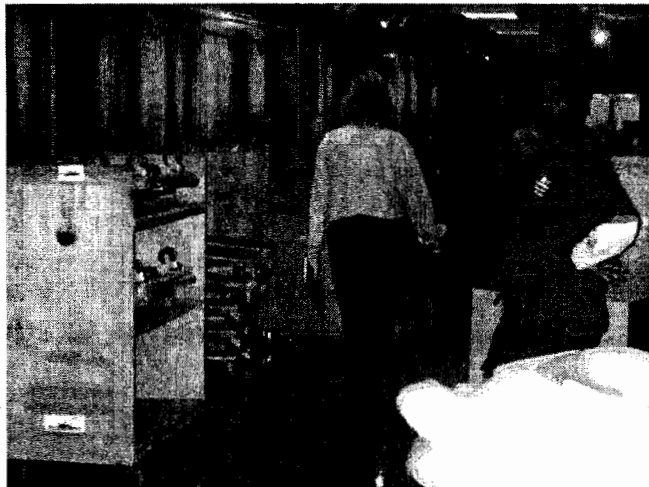
Budget



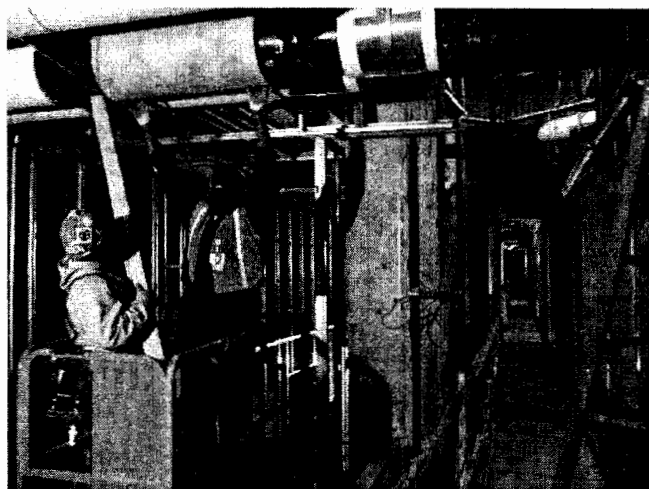
*The Congressional appropriation to advance the renovation of Wedges 2 through 5 by four years has had a major impact on the Renovation Program. Basement space, intentionally left empty, will now be built out for tenant use to accommodate new directives.*

**I. Program Overview**

**RENOVATION SEQUENCE**



*Crates containing dollies for moving furniture and large items are placed in preparation to relocate Army tenants.*



*Workers installing a water pipe in the Wedge 2 basement area.*



*Complete, slab-to-slab demolition strips the space down to the concrete structure.*

The Pentagon Renovation consists of several individual work efforts that all follow a similar sequence towards completion.

**MOVE-OUT**

One of the major challenges faced by the Renovation Program on a daily basis is the necessity of working around 20,000 people. Before renovation of an occupied area can begin, the people in that space must be moved either to leased office space, temporary space built out within the Pentagon, or new permanent space after the completion of Wedge 1. This move includes all of the tenants' personal belongings, computer equipment and telephones. A major factor in the move-out process is the fact that Pentagon employees cannot afford any downtime in their daily activities. Therefore, the swing space must be renovated and operational to meet the needs of the displaced Pentagon tenants before the move-out process can occur. After the move, tenants are typically up and running at full speed within a 24-hour period.

**TEMPORARY MECHANICAL, ELECTRICAL, PLUMBING AND COMMUNICATIONS**

Temporary utilities and communications are necessary to keep the Pentagon tenants surrounding the area under construction operational with minimal disruption. Temporary barrier walls are then constructed to ensure the safety and security of the tenants and to prevent noise, dust, and hazardous work conditions from being a distraction.

**DEMOLITION & ABATEMENT**

Before construction can begin, the area must undergo the demolition of all existing utilities and the abatement of hazardous materials including asbestos, lead-based paint, and polychlorinated biphenyls (PCBs). This is a very expensive and time consuming effort but absolutely essential to assure the health and safety of Pentagon tenants.



## I. Program Overview

## Renovation Sequence

### CORE & SHELL

Core and shell construction includes the build-out of common elements in an area, including walls and public corridors, and the rebuilding of primary utility systems.

### TENANT FIT-OUT

Tenant fit-out is the building of interior office space based on the requirements of the intended tenants to the universal space concept. This phase also includes rebuilding of secondary utility systems.

### INFORMATION TECHNOLOGY SYSTEMS (ITS)

ITS is an extensive effort to meet the requirements of the existing tenants while ensuring that the technological needs of future tenants can be met without another major renovation. Modern telecommunications and information management sources are provided throughout the Pentagon with access to global networks. Backbone communications are renovated and modernized to support voice, data, video, and other user requirements such as local area networks.

### FURNITURE, FIXTURES & EQUIPMENT

After the interior office space has been built and the information technology equipment is installed, flexible systems furniture is installed to facilitate the operation of a modern office environment. The systems furniture includes a smart wall work station configuration, providing easily accessible pathways for electrical power and for telecommunications. This allows much greater flexibility in both the initial furniture layout and future reconfigurations.



*Wedge 2 core and shell construction.*



*Workers installing the "smart walls" and other tenant fit-out work in Wedge 2.*



*The new "smart wall" system in Wedges 2-5 allows for the placement of freestanding furniture, a departure from the more modular office furniture used in Wedge 1. The smart walls are the foundation for the Universal Space Plan concept.*

**I. Program Overview**

**Renovation Sequence**



*Inspection of a Wedge 2 elevator.*



*A contractor unloading equipment into a new office space.*

**SECURITY**

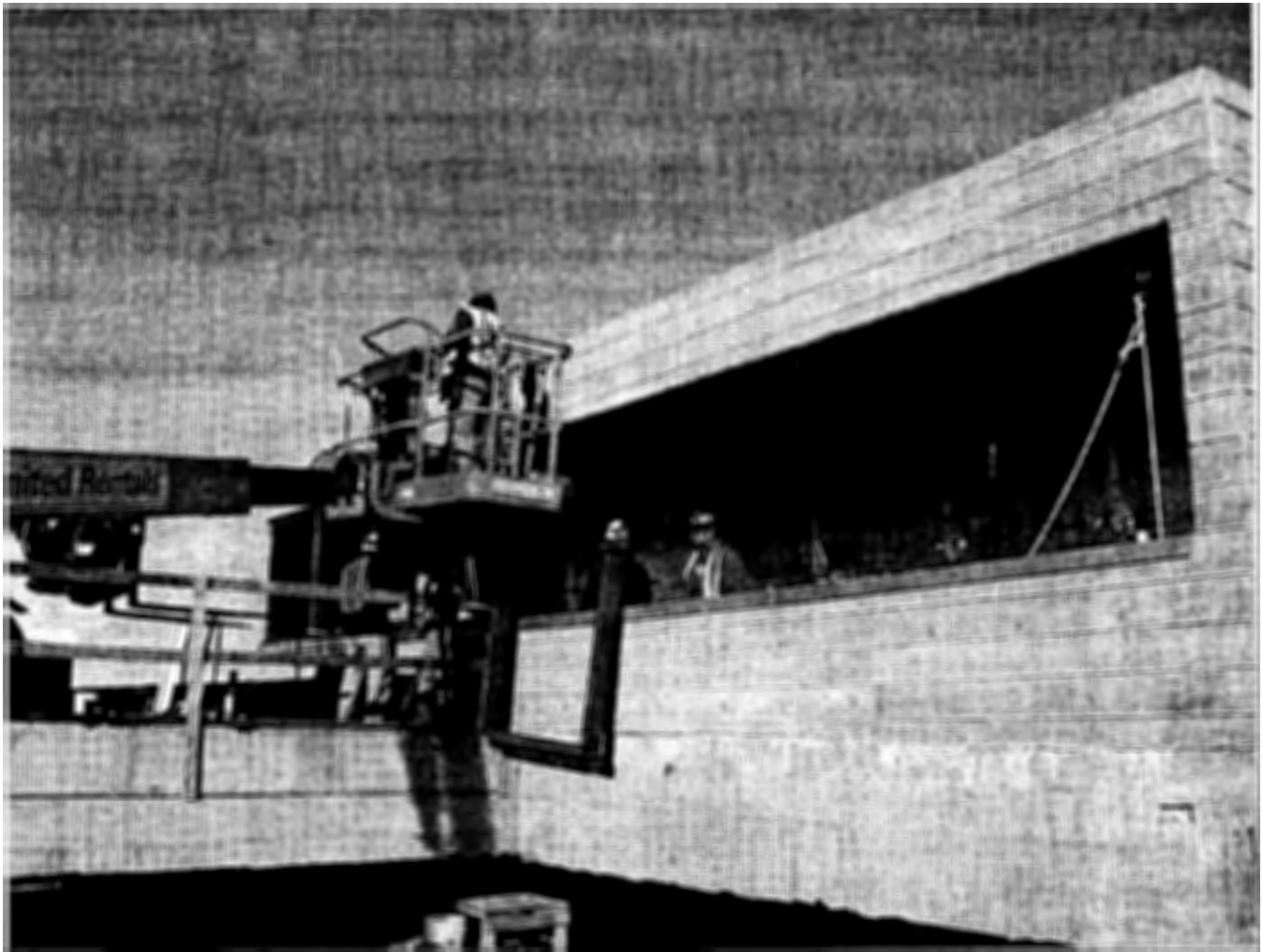
The security of the Pentagon is a top priority to the Renovation Program. Security checks and upgrades are implemented throughout construction and security accreditation is essential to the acceptance of the completed space.

**COMMISSIONING**

Commissioning is the process of verifying and documenting the performance of building systems in accordance with the design and the owner's functional and operational needs. Commissioning starts in the design phase and extends through the construction process and warranty period.

**MOVE-IN**

The culmination of every renovation effort is the move-in of tenants to the renovated space. As with the move-out, the Renovation Program strives to minimize any downtime the tenants may experience in their daily operations. Tenants are typically back to full operation within 24 hours of vacating their offices for their newly renovated space in the Pentagon. This includes the relocation of all personal items and the re-commissioning of computers and telephones.



*Workers installing windows in one of the clerestories in the Pentagon Athletic Center.*

## **II. Work in Progress**

### **II. WORK IN PROGRESS - GEOGRAPHIC TEAMS**

- Wedges 2-5
- Pentagon Memorial Project
- Pentagon Athletic Center (PAC)
- Pentagon Library & Conference Center
- Swing Space
- H&RP Intake/Outfall Line
- Roads, Grounds & Security
- Ancillary Projects
- Command Communications Survivability Program
- Alternate Sites



## II. Work in Progress

### Wedges 2-5

Wedges 2-5 is a phased design-build renovation of 4.5 million square feet of space in the Pentagon. The project brings all remaining areas of the building not yet renovated into compliance with modern building codes. Work includes removal of all hazardous materials, replacement of all building systems, addition of new elevators and escalators to improve vertical circulation, and installation of new security and telecommunications systems. Renovated spaces will be modern, efficient, and flexible. The project, underway since September 2001, is on an accelerated schedule for completion in December 2010, four years sooner than originally planned.

The logo for the "BUILD SMART" project, featuring a stylized pentagon shape with the text "BUILD SMART" and "PENTAGON WEDGES 2-5" below it.	<b>WEDGES 2-5 HIGHLIGHTS</b>
	<b>4.5 Million Square Feet of Space</b>
	<b>New Escalators and Elevators</b>
	<b>Sustainable design &amp; construction</b>

During the past year, much has been accomplished on the Wedges 2-5 project. Construction and commissioning of the first two phases in Wedge 2 (comprising approximately 500,000 sq. ft.) was successfully completed. The work, which incorporated a number of force protection initiatives prompted by the September 11, 2001 terrorist attack and included construction of new half-corridor bridges, installation of new elevators and rapid build-back of tenant office spaces, was completed in three sub-phases. Tenant occupancy of the newly renovated space began in July 2003 and was substantially completed in mid-December 2003. The Secretary of the Army, Secretary of the Navy, Commandant of the Marine Corps and other senior officials were relocated to Wedge 2 on schedule in November and December of 2003.



*This photo shows workers installing carpet in the new OSD Press Briefing Room. The picture was taken from the audio visual control room next door.*



## II. Work in Progress

### Wedges 2-5

Core and shell design of the third (and final) phase of Wedge 2 is complete and tenant fit-out design is underway. A number of sustainability initiatives have been successfully integrated into the design. The Wedge 2-5 project is enrolled in the Leadership in Energy and Environmental Design (LEED™) Existing Buildings Pilot Program, and is on track to receive a silver rating. Decommissioning, demolition and hazardous materials abatement of Wedge 2 Phase 3 began in December 2003. Because of the age and poor documentation of existing building mechanical, electrical and telecommunications systems, the decommissioning effort requires detailed planning and careful execution.

In the Basement/Mezzanine, Segment 3A was completed on schedule in August 2003 and the space was occupied in September 2003. In Segments 1 and 2A, design is complete and construction is ahead of schedule. Core and shell construction is nearing completion, and tenant fit-out construction is well underway.

Commissioning of Wedges 2-5 is a proactive, systematic, and rigorous process of assuring by documentation, functional testing and training that all building facility systems perform in accordance with the Government's operational needs. The commissioning program is conducted as a cooperative effort by the Pentagon Renovation Program and Federal Facilities Division, which operates and maintains the building systems. During this reporting period, all life safety, normal and mission critical building utility systems required for the first two phases of Wedge 2 and Basement Segment 3A were successfully tested and the respective utility systems were transitioned to the building prior to tenant occupancy. The total number of functional performance tests conducted and successfully completed was 569 in Wedge 2 and 329 in the Basement/Mezzanine.

### CHALLENGES

Key project challenges include gathering and



*Workers installing a raised floor in the Basement Area.*



*Electricians pulling wiring in a nearly completed Wedge 2 space.*



*Construction is complete on a new Executive Parking Lot outside the Corridor 5 Entrance.*



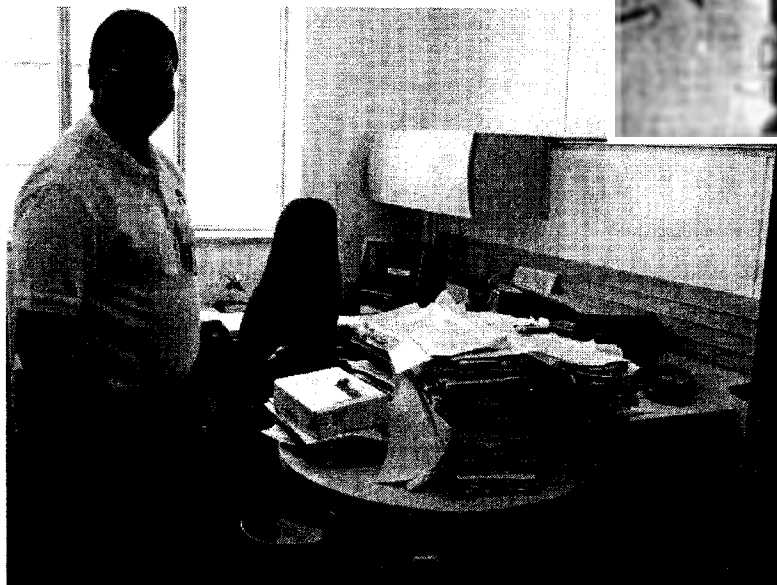
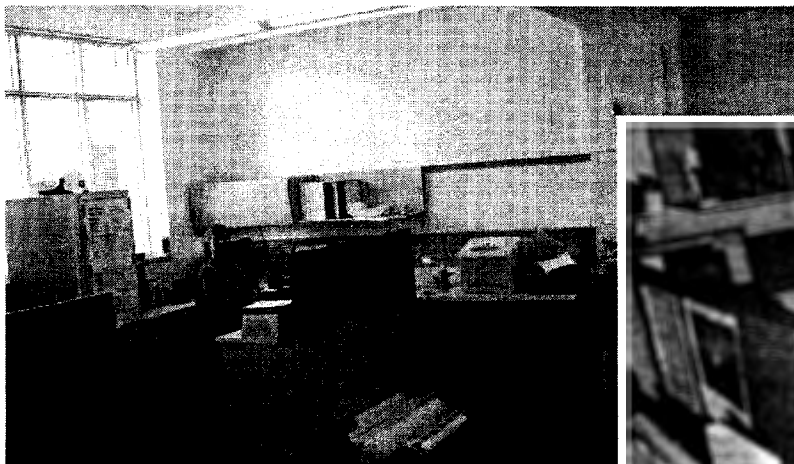
## II. Work in Progress

Wedges 2-5

integration of changing tenant requirements. Tenant requirements gathering has historically been a challenge for the Renovation Program and continued to be a challenge during the first phases of Wedge 2, particularly for non-typical tenant spaces. This process has just begun for Wedge 2, Phase 3, and far fewer problems are expected due to process improvements and schedule adjustments that were made as a result of the team's recent experience with the earlier phases. Another challenge that has proven to be historically difficult is the integration of changing requirements. The Unified Command Center/Resource and Situation Awareness Center (UCC/RSAC) concept was recently approved, and this new requirement is being implemented at an accelerated pace.

### MILESTONES

The renovation of Wedges 2-5 will be accomplished in four major increments (wedge by wedge), each of which has been sub-phased to accommodate the accelerated schedule. The first two phases of Wedge 2 were completed on schedule in October 2003, and the third phase is on track for completion in November 2005. Wedges 3, 4 and 5 will be renovated in sequence, with an accelerated overall completion date of December 2010.



*These three photos illustrate the versatility of the Universal Space Plan in Wedges 2-5. Top Left: A Navy employee sits in an "open bay" workstation. Bottom: A building tenant moves into a private office. Center: A technician works on a PC at one of the standard Wedge 2 workstations.*

## II. Work in Progress



*A nighttime view of A-E Drive. The renovation of Wedges 2-5 includes the addition of "half corridors" which will flow continuously from the A-ring to the E-ring. Glass bridges, like the one shown here for Corridor 4.5, will span the light wells for maximum building access and egress. These walkways will also increase use of natural light.*



*Newly renovated Corridor 5 in Wedge 2.*



*Technicians installing equipment in one of the Army Senior Staff offices.*

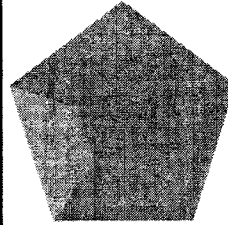


## II. Work in Progress

### Pentagon Memorial Project

On September 11, 2001, American Airlines Flight 77 took off from Washington Dulles International Airport with 64 people aboard, bound for Los Angeles, CA. In flight, five terrorists hijacked the plane and flew it into the west face of the Pentagon. The crash resulted in the death of the 59 passengers and crew members aboard the aircraft, as well as 125 military service members and civilians within the Pentagon. Many others suffered injuries. A large section of the Pentagon eventually collapsed and had to be completely rebuilt.

#### PENTAGON MEMORIAL PROJECT HIGHLIGHTS



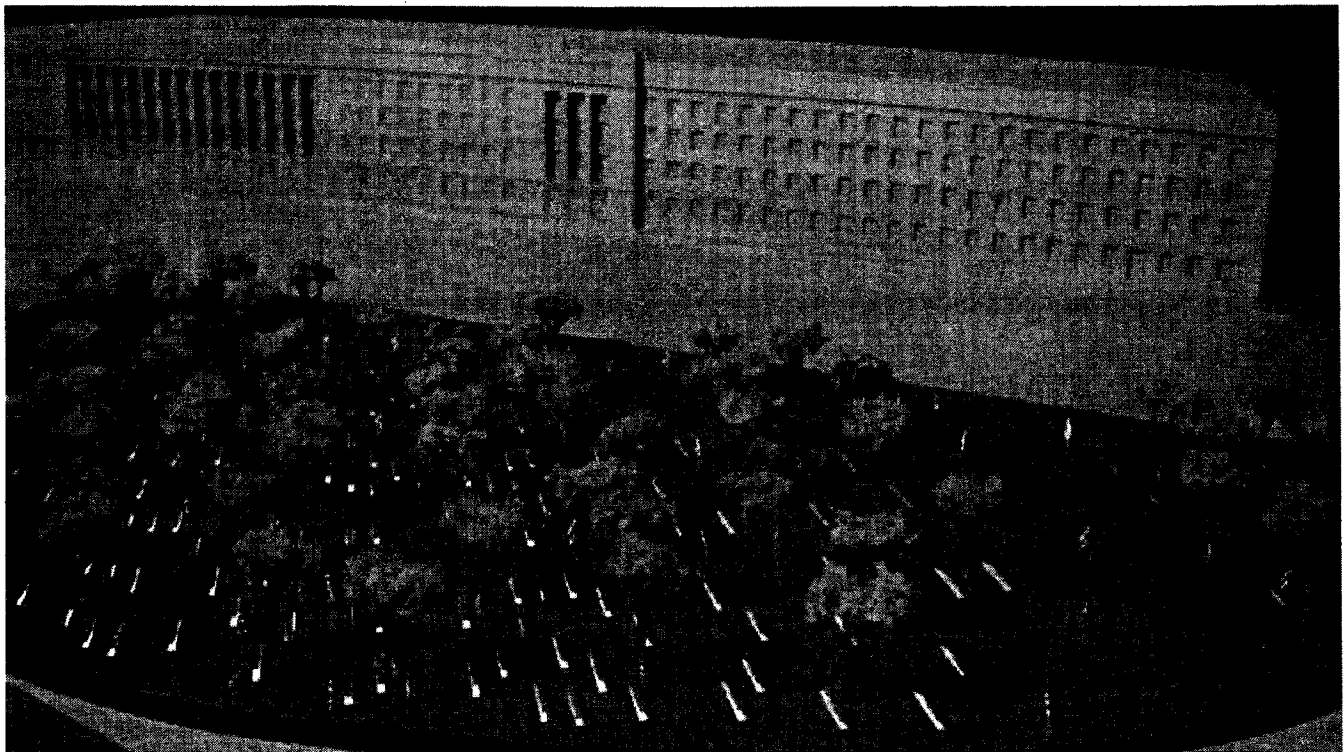
**Memorial will cover 2 acres at the site of the 9/11 attack.**

**Project will be built solely through donated funds.**

**Concept design selected from a field of 1,126 entries.**

Section 2864 of the the National Defense Authorization Act for Fiscal Year 2002 (Public Law 107-107) authorized the Secretary of Defense to establish a Memorial to be constructed on the Pentagon Reservation (See Appendix).

The effort to create a Memorial commemorating the 184 lives lost has involved family members of the victims. As family members attended informational meetings and worked with casualty assistance officers, some became involved in the planning process for a Memorial. This group, called the Family Steering Committee (FSC), ensures that the voices of the victims' family members are heard throughout the process.



*A model of the completed Pentagon Memorial.*

**II. Work in Progress**

**Pentagon Memorial Project**

On December 27, 2001, the United States Army Corps of Engineers (USACE) was engaged by Washington Headquarters Services (WHS) to provide for planning, site selection, design and related technical services leading to the completion of a design competition for the Pentagon Memorial. Planning for the two-stage competition to select a concept design for the memorial was an inclusive process involving representation and participation from a variety of governmental agencies, local planning commissions, and family members of the victims. FSC members participated in the evaluation and selection of the memorial site, wrote an emotionally moving family statement for the competition program, and held two seats on the competition jury.

On June 11, 2002, USACE issued a call for entries and established September 11, 2002 as the deadline for submission. The winning concept design by Keith Kaseman and Julie Beckman was announced at the Pentagon on March 3, 2003.

WHS has named the Pentagon Renovation Program as the design and construction agent for the memorial. In this capacity, PENREN will work with all involved parties to develop the winning concept design and execute the construction of the Pentagon Memorial to the satisfaction of the victims' families. Activities associated with the memorial project will take on two distinct, but adjacent areas; the Pentagon Memorial Park and the Pentagon Memorial Gateway.

The site parameters of the memorial park were established for the USACE design competition. The memorial park is located approximately 165 feet west of the Pentagon and consists of approximately 1.83 acres. It is within clear view of the point at which Flight 77 struck the building; the flight path crosses directly over the site along an easterly vector.

Adjacent to the memorial park's southwestern boundary is a triangular-shaped area referred to as the Pentagon Memorial Gateway. The gateway



*Memorial concept designers Keith Kaseman (left) and Julie Beckman at the March 3, 2003 press conference where their winning design was officially announced.*



*The two acre site of the Pentagon Memorial Project has been cleared out for construction.*



*In a team environment, WHS hosts monthly Family Steering Committee meetings to keep 9/11 victims' families updated on the status of the Pentagon Memorial Project.*



## II. Work in Progress

## Pentagon Memorial Project

consists of approximately .98 acres and serves as a transition and buffer between the memorial park and the vehicular traffic destined for the newly-constructed Remote Delivery Facility Secure Access Lane. While ultimately determined by the final design, the memorial gateway may be the location for an underground vault serving as an equipment control center (for the memorial unit pool water circulation system) as well as a location for minimal visitor amenities, e.g. benches, drinking fountains and an entry sign. Because it is directly adjacent to the memorial park, the gateway may also function as the location of contractor support activities and a project staging area during construction.

### CHALLENGES

The Pentagon Memorial Project is unique in terms of construction because it is not driven by budget and schedule. Through a relationship with the families of the victims, PENREN has realized that there is only one chance to "build the memorial right." There are no plans to allocate taxpayer money for the construction of the memorial. The Pentagon Memorial will be built entirely from private contributions. The FSC hired a professional fundraiser in October 2003 and PENREN is optimistic that funding will soon become available to begin technical design and construction.

### MILESTONES

#### *February 21, 2003*

The design competition jury met in Washington, DC to select the recommended concept design from among six finalists.

#### *March 3, 2003*

The winning concept design by Keith Kaseman and Julie Beckman was announced at the Pentagon.

#### *March 5, 2003*

Commencement of a two-phased selection process for a design-build contractor

#### *June 24, 2003*

Tasked with raising the money for the Pentagon Memorial, the FSC established the Pentagon Memorial Fund, Inc.

#### *August 6, 2003*

The design-build contractor is selected to construct the Pentagon Memorial: Centex-Lee LLC.

#### *August 15, 2003*

PENREN executes a contract with Centex-Lee LLC.

#### *October 30, 2003*

The Pentagon Memorial Fund, Inc. entered into a formal agreement with a professional fundraiser.



*Jim Laychack (left), president of the Pentagon Memorial Fund, Inc., stands with artist Peter Max (second from left), who is donating proceeds from the sale of his latest painting to the Pentagon Memorial Fund. This is just one of the many fundraising efforts taking place nationwide. Also pictured (from left to right): Rosemary G. O'Brien, manager of AT&T Military Markets; and Raymond F. DuBois, Director of Administration and Management.*

**II. Work in Progress**

**Pentagon Memorial Project**



*These renderings give a close-up view of the Pentagon Memorial Units as they will look when the project is completed. The top picture shows the memorial by day, facing away from the Pentagon. In the picture below, the reflecting pools underneath the memorial units will light up. The name of each 9/11 victim is engraved on the front end of each unit.*





## II. Work in Progress

### Pentagon Athletic Center

This project consists of four distinct functions: an athletic center, a visual information center, a senior executive motor pool, and general office space. The new Pentagon Athletic Center (PAC) will replace the existing 58-year-old athletic facility with a larger, more modern facility that will provide the enhanced services necessary to meet the fitness and readiness needs of its current military and civilian membership, as well as the projected membership growth for the coming years.

The new, state-of-the-art U.S. Army Visual Information Directorate (AVID) Visual Information Center will include an auditorium, a television studio, and a technical production center to meet the demands of the 21<sup>st</sup> century.

The 127,000-square-foot facility will be located on the basement and mezzanine levels below the Pentagon's Mall Terrace (Basement Segments 3A and 3B) and in the undeveloped space between the Mall Terrace and the Remote Delivery Facility, referred to as the Hundred Foot Zone (HFZ). The project is designed to be constructed in two phases. Phase 1 will be built in the unoccupied basement/mezzanine shell space of Basement Segment 3A and in the HFZ and will include the AVID Visual Information Center and a fully operational PAC. Phase 2 will be constructed in the area designated as Basement Segment 3B and will include the Senior Executive

#### PENTAGON ATHLETIC CENTER HIGHLIGHTS



Features a new 1/9-mile suspended running track and a Six-Lane Swimming Pool

Construction includes space for new auditorium and AV Center



Internal view of the PAC under construction. Visible to the left is the construction of the suspended running track.



**II. Work in Progress**

**Pentagon Athletic Center**

Motor Pool and general office space as well as the final configuration of the PAC.

The PAC Project is using sustainable concepts in the design and construction of the facility. These concepts help to create a facility that is functional, durable, maintainable, flexible and safe as well as contributing to a healthy indoor environment that fosters enhanced productivity. The project is using the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED™) to track building performance and progress toward achieving sustainable goals. Examples of sustainable materials planned for use in the facility include cork tile and bamboo for flooring, composite wheat board for millwork panels, low VOC paints and 100% post-consumer recycled plastic for bathroom partitions and toilets. Other initiatives include an aggressive construction waste-recycling program, a green vegetated roof, an ozone system for the pool, extensive use of natural lighting and energy reduction through heat exchanger technology and occupancy and light sensors.

**CHALLENGES**

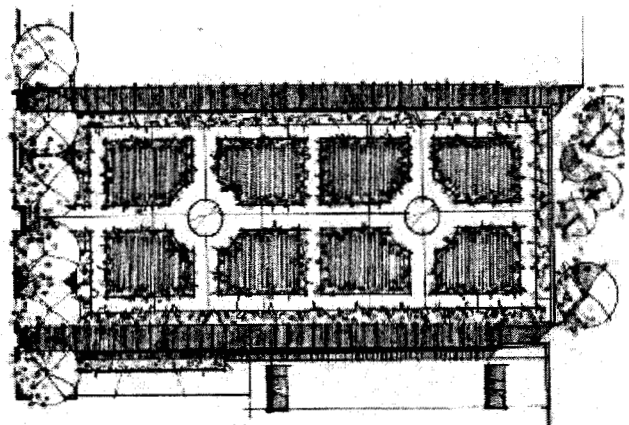
The contract was awarded as scheduled on September 14, 2001, shortly after the September 11 terrorist attack on the Pentagon. Subsequent to this award, a detailed evaluation was conducted to assess the need for force protection and security enhancements. Upon completion of the assessment, the Notice to Proceed was issued on December 4, 2001.

Additional challenges facing the PAC Project include:

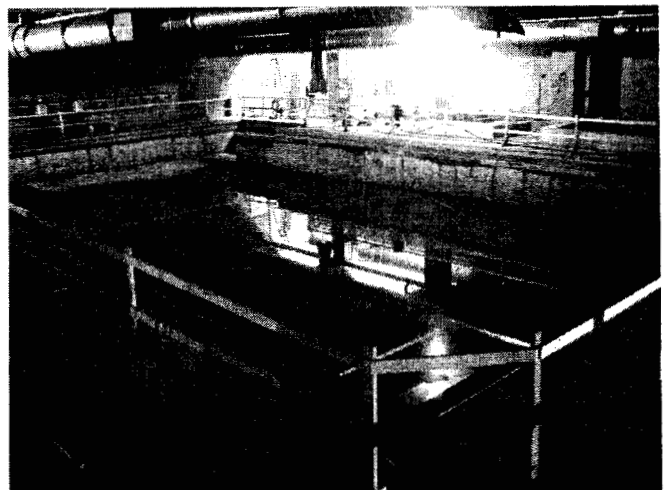
- Construction adjacent to occupied spaces. Construction activities are inherently noisy and generate a significant amount of dust and odors. As a result, additional measures must be taken to protect and isolate the tenant from these disturbances (e.g., barrier walls, working off hours).
- Differing site conditions. The Pentagon was



*Work continues to complete a future PAC locker room facility.*



*A diagram of the green vegetated roof of the PAC, one of many sustainability initiatives being executed by the PAC project team.*



*Workers test the structural integrity of the new PAC pool.*



## II. Work in Progress

## Pentagon Athletic Center

constructed in a period of 16 months. As a result, many of the original drawings are not accurate and differing site conditions are encountered on a regular basis.

- Constrained site. Limited space is available for staging materials and equipment for use in construction.
- Relocation of existing tenants prior to construction. Any delays relocating tenants has a direct effect on the ability for construction to proceed.

### MILESTONES

Demolition for Phase 1 began March 2002 and was completed in November 2002. The 100% design was completed in December 2002. Phase I construction is scheduled for completion in January 2004. The PAC and Visual Information Center have a planned opening of March 2004. Because Basement Segment 3B is currently occupied and the date for vacating has not been determined, the Phase 2 construction schedule cannot be finalized.



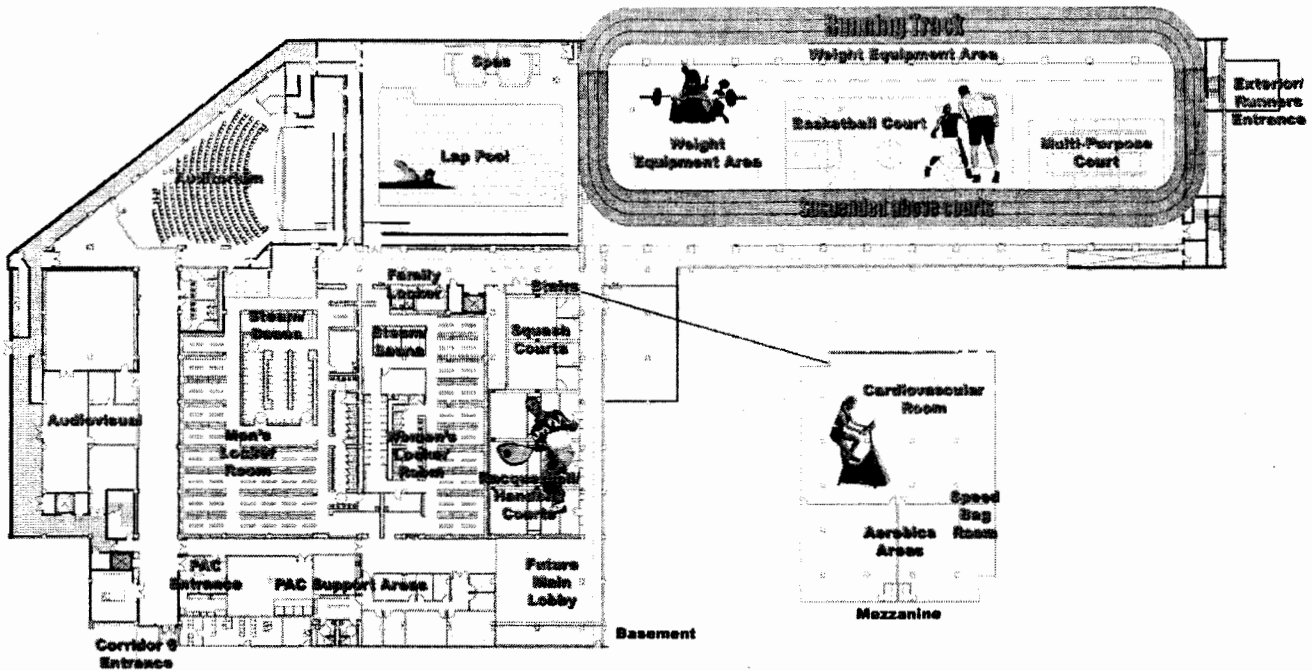
*Workers complete the concrete exterior structure of the PAC.*



*Crews working to replace the steps at the Mall Terrace entrance. The stairs needed to be partially demolished during waterproofing of the parking lot.*

**II. Work in Progress**

**Pentagon Athletic Center**



*These updated diagrams depict the layout of the PAC and auditorium areas.*

**PENTAGON LIBRARY AND CONFERENCE CENTER**

The area occupied by the Pentagon Officer Athletic Center (POAC) is over 58 years old and requires significant renovation to ameliorate deficiencies in the existing building systems. The fitness center is currently housed in this building, but will be relocated upon completion of the new Pentagon Athletic Center in March 2004. Upon relocation of the fitness center, renovation can begin on the new Pentagon Library and Conference Center.

This 120,000 square-foot renovated facility will include the Army library, a new Pentagon conference center and a logistical area. The renovation will include significant demolition and hazardous material abatement, extensive repairs to the structural and waterproofing systems, a new core and tenant fit-out.

The award of a design-build contract is expected in early 2004 with construction to begin shortly thereafter. Completion of this project is anticipated in 2006.



## II. Work in Progress

### SWING SPACE

Early in the planning process, it was determined that the most efficient way to renovate the Pentagon while keeping the building operational for its 25,000 tenants was to relocate one-fifth of the building's personnel from their current location in the Pentagon into temporary offices, or swing space, in and around the building. The interior of the vacated "wedge" is then demolished and abated of all hazardous materials before being built-out to meet the needs of the tenants in the adjacent wedge, who will move-in upon completion of the space.

The tenants who were moved out of the Pentagon in order to complete the first wedge will continue to occupy the three main external swing space buildings until the completion of Wedge 5.

Post 9-11 events led to the creation of new space-consuming requirements. These requirements effected a change in the total amount of available swing space in the Pentagon used to accommodate the build out of Wedges 2-5. In addition to the space required for the increased force protection requirements, the space for mission essential functions continue to evolve. The Renovation Program continues to monitor the impacts of these changes to plan for the internal swing space needs and availability at each stage of the renovation.

During the past year, swing space build-out occurred internally for the Air Force, Navy, Office of the Secretary of Defense and the Joint Staff. In addition, swing space build-out included using more than 30 trailers for the increasing number of personnel required at alternate sites, and information technology security construction.


The Renovation Program continues to manage the internal and external swing spaces, monitoring maintenance and improvements and working with agencies on internal reorganizations that impact existing swing spaces.

**II. Work in Progress**

**HEATING AND REFRIGERATION PLANT INTAKE/OUTFALL PROJECT**

The new Pentagon Heating and Refrigeration Plant (H&RP) houses the steam boilers and air conditioning chillers that provide heating and cooling for the Pentagon. Due to the plant's close proximity to the Potomac River, the chilled water system utilizes river water in the condenser water loop to dissipate heat rather than a more costly cooling tower system. The original condenser water system was installed in 1942 long before the advent of computers and other electronic office systems and no longer has sufficient capacity to meet the cooling requirements of the Pentagon. The Intake/Outfall Project is rectifying this by installing a new condenser water system to the H&RP plant in parallel with the original pipe system. The new intake line supplies 141,000 gallons per minute (GPM) from Boundary Channel Lagoon to the H&RP. After passing through the refrigeration chiller heat exchangers, the water is returned to the Potomac River at Roaches Run Waterfowl Sanctuary. The outfall line has been micro-tunneled

**INTAKE/OUTFALL HIGHLIGHTS**



When finished, the new system will allow the Pentagon HVAC system to operate at full capacity

Project employs a unique directional and tunneling operation



*A look at pieces of the micro-tunneling machine that places the underground pipe system for the Intake/Outfall project.*

## II. Work in Progress

## Intake/Outfall



under a local railway.

### INTAKE STRUCTURE

The intake structure at Boundary Channel Lagoon conveys the lagoon water to the screen house through the 88-inch diameter intake line. The intake structure was completed in July 2003. Eight sluice gates were installed to control the water flow from the lagoon to the intake lines. The remaining mechanical equipment, to include the bar rakes and screens, is currently being installed. Dredging a small section of the lagoon in front of the intake structure started in late November 2003.

### SCREENHOUSE

The concrete base slab was completed in mid-October of 2003. The 40-foot high concrete walls were completed in late December 2003. The elevated floor slab was placed in early January 2004. The structural frames and building enclosures were completed in late February 2004.

### OUTFALL LINES AND STRUCTURE

The outfall structure, located at Potomac River Roaches Run Waterfowl Sanctuary was completed in late October 2003. More than 50% of the prestressed concrete pipe of the outfall line has been installed. Pipe jacking below the CSXT Railroad was successfully completed in October 2003. The pipe installation was completed in December 2003. Restoring the landscaping at the outfall structure is scheduled in early spring 2004.

### CHALLENGES

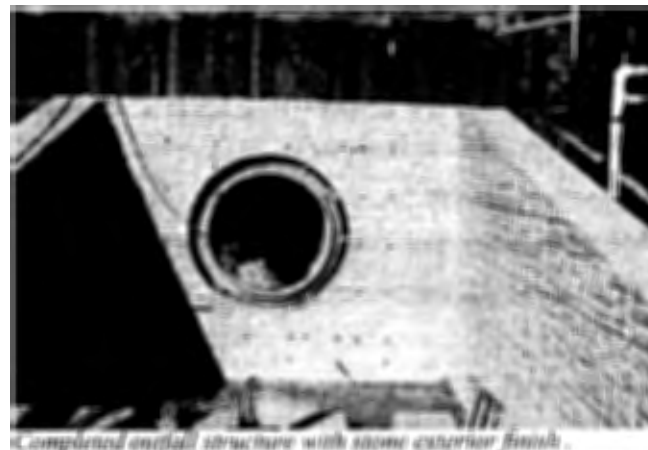
Obtaining easements and permits from the landholders and utility companies along the outfall line and locating and identifying utility lines had been an ongoing challenge. These difficulties are common to



Workers install outfall pipe below an existing telephone ductbank and water line at a local roadway.



Workers install wall forms at the screen house. First level was placed on Nov. 14, 2003.



Completed outfall structure with some exterior finish.

**II. Work in Progress**

**Intake/Outfall**

all lengthy underground projects and have not caused any unusual difficulty to date. The coordination with CSXT Railroad to tunnel below existing track was very successful. Also successful was the coordination of road closure and utility shutdown with Arlington County. During excavation of the screen house foundation, the Intake/Outfall team encountered a significant amount of water infiltration. Additional dewatering wells were installed, which slowed production, but succeeded in diverting the water flow away from the foundation area and allowed the crews to place the concrete slab with quality results. The commissioning of mechanical and electrical equipment will require some coordination and is scheduled to begin in early March 2004.



*A look at the open trench excavation near the H&RP Plant.*



*The pipe jacking operation reached outfall on October 4, 2003, at 6 a.m.*



## II. Work in Progress

### Roads, Grounds & Security Projects

There are currently two active projects relating to Roads, Grounds, & Security. These projects are the Remote Delivery Facility Secure Access Lane (RDF-SAL) and the Pentagon Secure Bypass (PSB).

The RDF-SAL project will enhance approach security to the Pentagon by increasing standoff distance between the Pentagon Building and the security station that clears vehicles for entrance into the Remote Delivery Facility (RDF). Additional measures to mitigate threat

conditions include installation of fences, bollards, walls and berms along Route 27 to control unauthorized access to the Pentagon and provide additional blast protection. In order to provide these enhancements, modifications to the Route 27 / Columbia Pike interchange are required. These modifications will be performed in a manner that minimizes traffic disruptions and improves the traffic flow through the interchange.

The PSB project will enhance security of the Pentagon by increasing standoff distance between the Pentagon and public roadways. Upon completion of the bypass all traffic currently traveling along Route 110 will be diverted, resulting in the extension of the secure perimeter of the Pentagon. This will also allow for the elimination of the Route 110 truck restriction and Virginia State Police monitoring of Route 110, both of which were implemented as a result of the September 11<sup>th</sup> attack on the Pentagon. This project will result in the



#### ROADS, GROUNDS & SECURITY HIGHLIGHTS

Increases standoff distance between Highway 110 and the Pentagon

Enhances approach security of the Pentagon Remote Delivery Facility



*The new vehicle access bridge, which spans Highway 110 and provides access to new parking areas in North Parking.*



**II. Work in Progress**

**Roads, Grounds & Security**

relocation of parking lots within the secure perimeter of the Pentagon Reservation. Additionally, internal Reservation traffic improvements will enhance local traffic flow and decrease security response time to incidents on the Pentagon Reservation. Measures to improve access control will be provided, and include condition fences, bollards, walls and berms. These improvements will be constructed in a manner that minimizes impact to the traveling public.

**STATUS**

The RDF-SAL project is 95 percent complete as of February 2004, with full project completion scheduled for March 2004. All interchange modifications have been completed and the new Secure Access Lane (and all related security infrastructure) has been opened under a temporary configuration. The remaining work consists of completion of the blast protection wall and berm adjacent to the Secure Access Lane, and final configuration of the Secure Access Lane itself.

The Pentagon Secure Bypass is 70 percent complete as of February 2004, with full project completion scheduled for summer 2004. Phase I work is done, resulting in the opening of the new South Parking Connector Roadway, the new River Terrace Entrance (and associated security infrastructure) and the Boundary Channel Drive Parking Lot. Work on the vehicular bridge and two pedestrian bridges spanning the new Pentagon Secure Bypass is ongoing, as is construction of the Pentagon Secure Bypass.

**CHALLENGES**

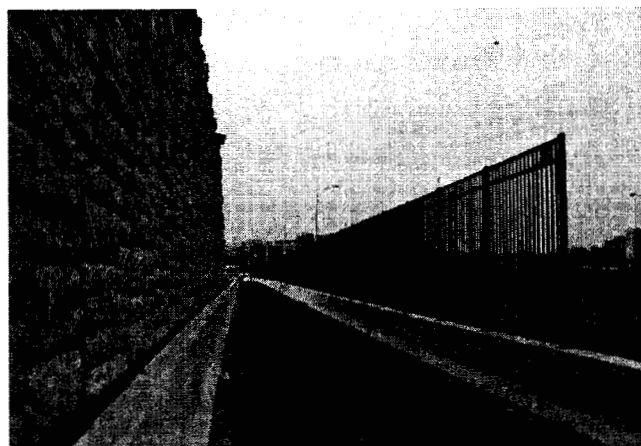
Construction phasing for both projects is exceptionally complex, due to the high demand for space currently placed upon the Reservation. Both projects must be completed with minimal impact on traffic, available parking and other ongoing construction activities, while having no impact on active security operations.



*The new secured parking area in North Parking.*



*Workers using a slip form machine create the median barrier for the southern tie-in of Highway 110.*



*At the RDF-SAL, an architectural fence separates the bike and pedestrian paths.*



## II. Work in Progress

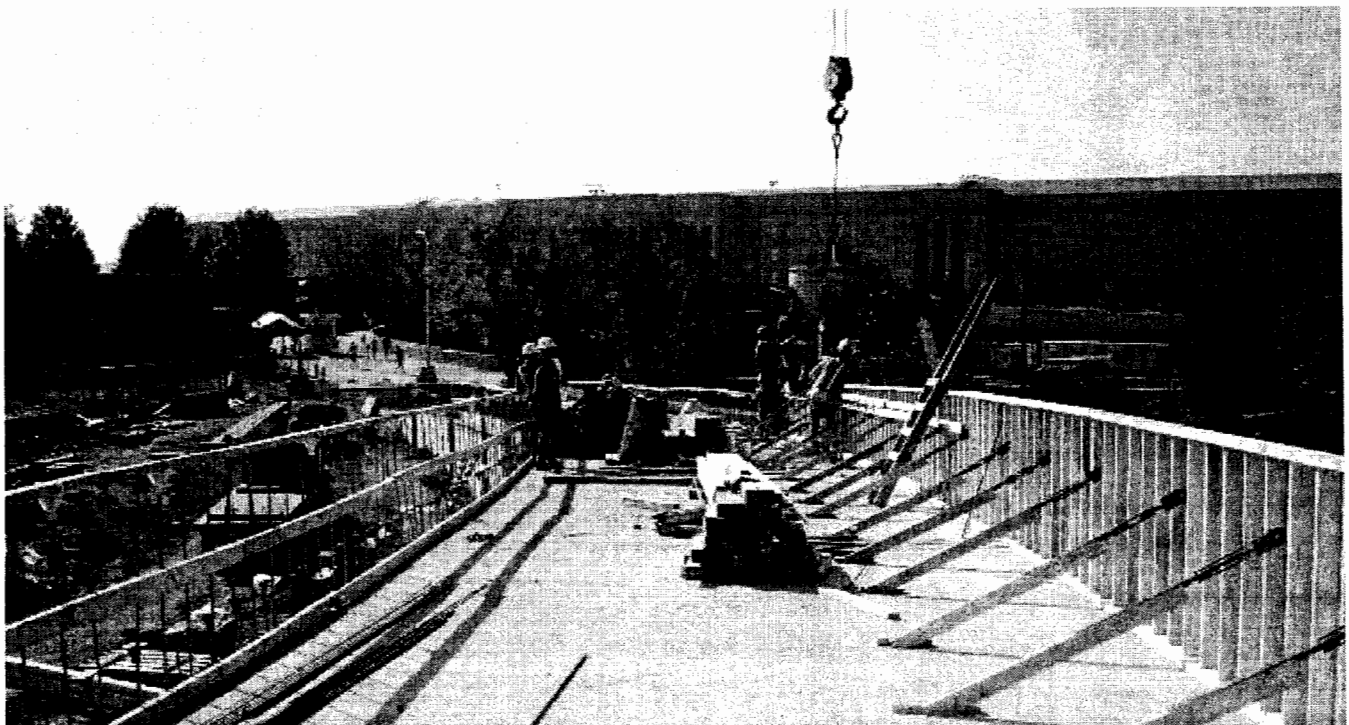
## Roads, Grounds & Security

The success of this project is dependant upon continued close coordination with all affected stakeholders. These include the Virginia Department of Transportation, Arlington County, Washington Metropolitan Area Transportation Authority, the National Capital Planning Commission, the Commission of Fine Arts, the Pentagon and its tenants and the traveling public.

### MILESTONES

Both projects were awarded on September 24, 2002. Construction of the RDF-SAL project began in January 2003. Phase 1, the reconfiguration of Route 27 and the Columbia Pike interchange, was completed in June of 2003. Phase 2, completed in October, included a truck queuing area and security station, as well as a temporary configuration of the Secure Access Lane from the security checkpoint to the RDF. The original scheduled completion date was October 2003. This has been extended to Spring 2004 due to delays caused by weather and undocumented underground utilities.

The PSB project began construction in December 2002. Construction of Phase 1 included the completion of two new roads; one to connect the Pentagon's south parking lot to Boundary Channel Drive (South Parking Connector), and a second to provide secure access to the River Terrace. Along with these roads, a parking lot was constructed along Boundary Channel Drive. This phase was completed in August 2003. The original construction schedule called for the opening of the PSB in August 2004, with overall project completion in October 2004. The current schedule indicates the opening of the PSB to traffic in April 2004, with completion of this project projected to be in August 2004.



*Workers placing concrete for one of two new pedestrian bridges that will lead to the River Terrace entrance at Corridor 8.*

## II. Work in Progress

### Ancillary Projects

Although the majority of the work on the Pentagon Renovation Program is encompassed within the major, easily recognized projects, there are numerous smaller projects required for security, communications and swing space that are necessary to keep the program rolling. These projects can range from \$500 for sidewalk repairs to \$15 million for the Navy Build-Out in the basement that was completed this year. These projects all have one common denominator; the contracts are awarded to small and small disadvantaged business contractors. The Ancillary Team, with our Small Business Office, develops partnerships with up-and-coming contractors to work in the Pentagon. We recognize the inherent risks to small businesses and help ease their path into Government contracting. In return, these firms have been very flexible and nimble working with us to consistently complete fast-paced small projects in an excellent manner.

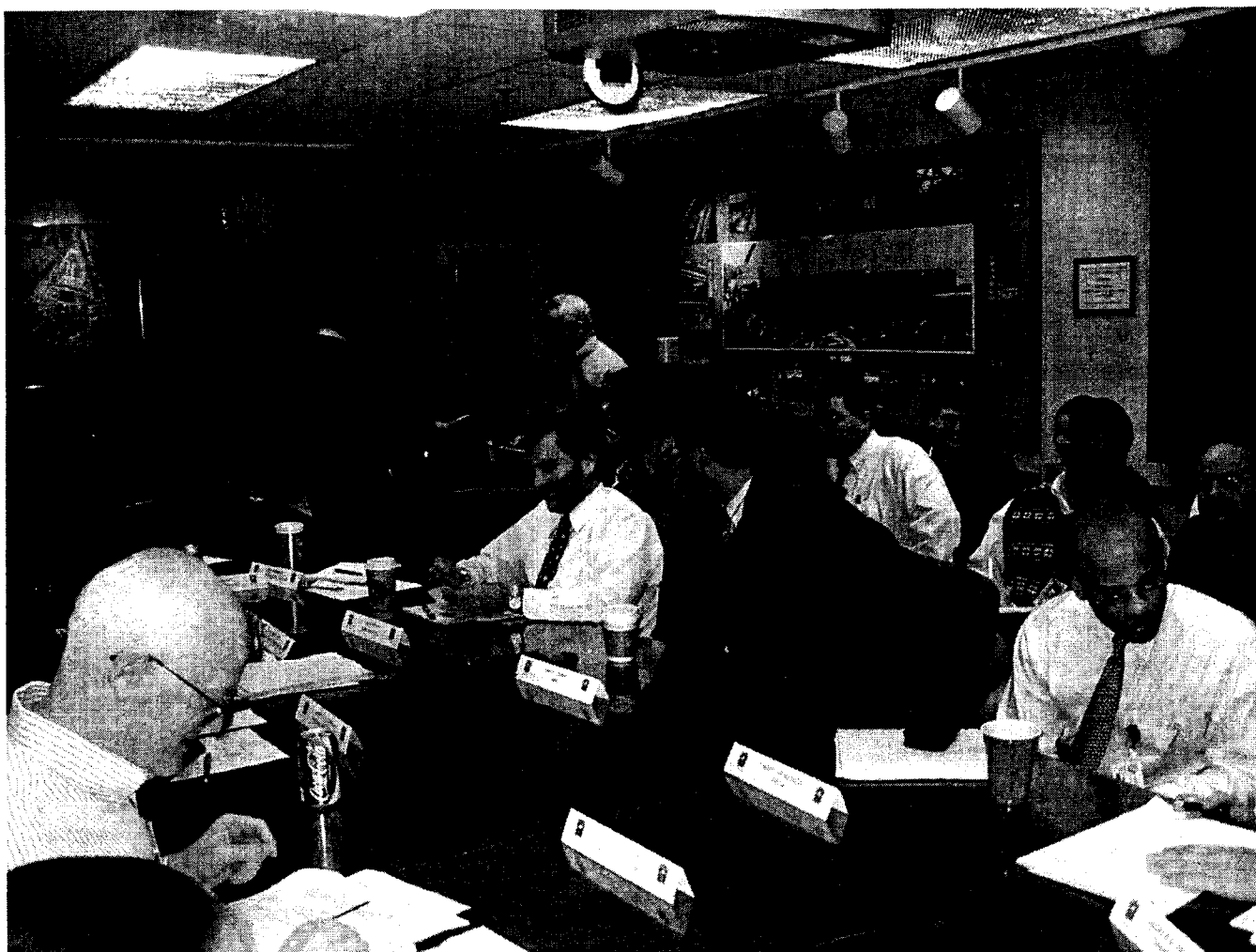


*Left: The demolition of the heliport tower damaged in the September 11 attack was one of many smaller projects undertaken by the Ancillary Team.*

*Right: An Ancillary Project contractor works on the wall build-out of a new Command Communications Survivability Program (CCSP) Wedge Room. The Wedge Room will provide redundancy for telecommunications and information technology in support of CCSP.*







*Pentagon Renovation Program team leaders and staff meet on a monthly basis for Program Review meetings. The purpose of these meetings is to bring up issues and monitor trends with Renovation Program projects.*



### **III. PROCESS IMPROVEMENTS**

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- **Acquisition**
- **Information Technology**
- **Commissioning**
- **Relocation Planning**
- **Sustainable Design and Construction**
- **Management Support**

### III. Process Improvements

#### ACQUISITION AND BUSINESS

The Acquisition and Business Group provides cradle-to-grave acquisition and contracting support to all of the Pentagon Renovation projects. This group also provides cost analysis and estimating support for the program. In FY 2003, this group performed approximately 702 contract actions, including contract modifications, simplified purchases and new awards and obligated more than \$580,000,000. The group completed 10 source selections within an average of 82 days. Among these source selections was the award of the contracts for the Command Communications Survivability Program (CCSP), which represented the Pentagon Renovation Program's first use of its two-phased source selection techniques on a non-construction project. Another significant source selection conducted was for the design-build of the Pentagon Memorial. This source selection was a model of partnership between the Government, its customers and industry and was a personally moving experience as well as an exceptionally professional process for all involved in the project. The Acquisition and Business Group continued to maintain its business advisory and contract administration role on each of the on-going projects. The inclusion of the cost analysis and estimating team during this period greatly enhanced the group's ability to provide comprehensive business management support to the Program.



*PENREN Contracting Officer Christy Skirchak (seated), executing the design-build contract for the Pentagon Memorial. Memorial Family Steering Committee Vice President Rosemary Dillard and PENREN Program Manager Mike Sullivan, were on hand for the signing.*



### III. Process Improvements

### Acquisition & Business

#### ACQUISITION APPROACHES

The hallmark of the Pentagon Renovation Program's Acquisition and Business Group is its innovative approach toward source selections. The Program's source selections use techniques such as early and continuous industry involvement, with emphasis on past performance, performance-based requirements, oral presentations, build-to-budget, best value, most probable cost analysis and full and open unsuccessful offeror debriefings. Each source selection strategy is deliberately planned and completed so that the resulting contracts are awarded to the best contractor possible and are structured to encourage the partnership needed to successfully complete project requirements. Through the use of award fee provisions on nearly all projects, the Program has incentivized behaviors that lead to successfully completed projects. The average award fee scoring and therefore percent of award fee earned by the Program's contractors for CY 2003, was 98.2 percent.

#### SMALL BUSINESS EXCELLENCE

The Renovation Program continues to make a concerted effort to identify and utilize small and small disadvantaged business companies. On July 17, 2003, the Small Business Excellence Team conducted our Third Annual Small Business Conference with George Mason University's Procurement Technical Assistance Center. This free conference had a total of 483 participants, including 55 exhibitors representing 31 government agencies and private companies. A total of 40 speakers or presenters participated in 13 seminars and panel discussions.

Small business contractors, interested in prime and subcontracting opportunities at PENREN, have continued to register their companies at our Small Business Database web site. This web site serves two purposes. First, our contracting officers, prime contractors and potential offerors in our solicitations can use the web site as a search engine. The

database also provides figures used by the PENREN Small Business Excellence Team to make monthly evaluations of prime contractor's performance in meeting subcontracting goals for the project. These monthly evaluations by the Pentagon Renovation Program are one of the factors used in determining quarterly award fee percentages received by prime contractors as the primary means of profit.

Secondly, small business firms can use the web site as a marketing tool. Contracting officers can access the web site to search the database for small businesses, including women-owned, HUBZone, veteran-owned, service-disabled veteran-owned, Native American, small disadvantaged and 8(a) certified small business concerns for prime contracting opportunities. Prime contractors under the Pentagon Renovation Program and their subcontractors can also access the database to identify small business contractors for subcontracting opportunities. Similarly, in response to requests for proposals (RFP), potential offerors can access the database to identify small business contractors to include in the potential offerors' proposals.

In registering their company, the small businesses provide important company information, including socioeconomic category, capabilities, North American Industry Classification System (NAICS) codes and contact information. The database can be searched



*One of the seminars held during the Small Business Conference in July 2003.*



**III. Process Improvements**

**Acquisition & Business**

or sorted according to business category/type, NAICS codes, federal certifications, capabilities, or keywords. The database also provides the opportunity to send broadcast announcements to small business contractors, such as prime and subcontracting opportunities, job fairs, industry days, training sessions, etc.

In FY 2003, our Small Business Excellence Team designed and developed an online tool to simplify, unify and standardize reporting and evaluation requirements for government contractors. This has resulted in a database of meaningful, real-time information on how well each prime and large-business subcontractor is doing toward achieving its small business subcontracting goals. It also identifies which industries are able to participate in the program and which Congressional districts are being represented through the work performed by small businesses on the Program.


Our Subcontracting Database allows prime contractors and subcontractors at all tier levels which have a compliance requirement to report their next tier subcontracting activity data twice a year, to enter their subcontracting data in the online database. This database calculates all of the dollar and percent figures for each of the required socioeconomic categories. The database also provides figures used by the PENREN Small Business Excellence Team to make monthly evaluations of a prime contractor's performance in meeting subcontracting goals for the project. These monthly evaluations by the Pentagon Renovation Program are one of the factors used in determining quarterly award fee percentages earned by prime contractors as their primary means of profit.

Our Small Business Excellence Team continues to participate as performance monitors in the award fee process, evaluating our prime contractors performance in socioeconomic program compliance, with regards

to subcontracting goals and accomplishments. The Small Business Excellence Team meets monthly with each of our prime contractors, who have a subcontracting plan requirement and an award fee provision in their contract.



*PENREN's Small Business Conference gives small business reps the opportunity to network with government agencies and contractors.*



**PENREN GUIDELINE TO  
SMALL BUSINESS SIZE DETERMINATION AND CATEGORY DEFINITIONS**

**BUSINESS SIZE DETERMINATION GUIDELINES**  
To determine whether your company is a large or small business you must first determine the North American Industry Classification System (NAICS) code (<http://www.secdocs.com/naics/2002naics02.html>). After determining the NAICS code, refer to the industry size standards published by the Small Business Administration (<http://www.sba.gov/sizesize/020202.html>) to determine whether your company is classified as a large or a small business under that NAICS code. For additional information on determining your business size, please refer to the SBA Guide to Definitions of Small Business (<http://www.sba.gov/sizesize/020202.html>). If you have any questions regarding the size status of your company, contact the US Small Business Administration office in your area for assistance (<http://www.sba.gov/sizehelp>).

**SMALL BUSINESS**  
**DEFINITION:** "Small Business" as used in this provision means a business, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is holding on government contracts, and qualified as a small business under the criteria and size standards as established by the US Government.

**VETERAN-OWNED SMALL BUSINESS**  
**DEFINITION:** "Veteran-Owned Small Business" as used in this provision means a small business that: (i) is at least 51% unconditionally owned by one or more veterans (as defined in 38 U.S.C. 101(2)); or in the case of any publicly owned business, at least 51% of the stock of which is unconditionally owned by one or more veterans; and (ii) whose management and daily business operations are controlled by one or more veterans.

**SERVICE-DISABLED VETERAN-OWNED SMALL BUSINESS**  
**DEFINITION:** "Service-Disabled Veteran-Owned Small Business" as used in this provision means a small business that: (i) is at least 51% unconditionally owned by one or more service-disabled veterans (as defined in 38 U.S.C. 101(2)), with a disability that is service connected, as defined in 38 U.S.C. 101(16); or in the case of any publicly owned business, at least 51% of the stock of which is unconditionally owned by one or more service-disabled veterans; and (ii) whose management and daily business operations are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

**HUBZONE SMALL BUSINESS**  
**DEFINITION:** "HUBZone Small Business" as used in this provision means a small business that appears on the list of Qualified HUBZone Small Business maintained by the US Small Business Administration (<http://www.sba.gov/hubzone/matrix.cfm>).

**SMALL DISADVANTAGED BUSINESS**  
**DEFINITION:** "Small Disadvantaged Business" as used in this provision means a small business that: (i) has received certification as a small disadvantaged business, consistent with 13 CFR part 124, Subpart B; (ii) no material change in ownership and control has occurred since its certification; (iii) where the is owned by one or more individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000, after taking into account the applicable exclusions set forth in 13 CFR 124.104(c)(2); and (iv) is identified, on the date of its representation, as a certified small disadvantaged business in the database maintained by the Small Business Administration (PRO-Net: <http://www.sba.gov>).

*The "PENREN Guideline to Small Business Size Determination and Category Definitions" is one of many resources potential contractors and vendors can find on the PENREN web site.*



### III. Process Improvements

#### INFORMATION TECHNOLOGY (IT)

*(Formerly Information Management and Telecommunications [IM&T])*

Related to the Pentagon Renovation Program is a necessary modernization of the building's information management and telecommunications infrastructure and systems. The basic information system infrastructure in the Pentagon was installed long before the advent of personal computers, facsimile machines, video teleconferencing and digital telephone service and has evolved without a design plan. In 1943, when the Pentagon was built, there was one telephone for every three employees. Over the last 57 years, new information technology capabilities have emerged and the new wiring and cable systems have been laid on top of the old. Over time, this merging of technology has become unmanageable and not easily upgraded. As requirements emerged, facilities and systems were added with little or no regard to existing capabilities or long term requirements. The individual military departments and agencies engineered and installed equipment and cables whenever they could, to meet their immediate specific needs.

The 25,000 workers at the Pentagon require systems that will provide immediate access to local as well as worldwide networks and the tools to rapidly collect data, analyze it and present it to decision makers in a timely manner. This requirement defines the objectives of the IT projects.

#### MILESTONES

**March 2003-November 2003:** Wedge1/Phoenix project was retrofitted with new Wedge 2 architecture to improve the network availability to an unprecedented 99.99999 percent.

**July 2003-November 2003:** More than 1,288 Wedge 2 tenants are moved into renovated and modernized space, including Army, Navy and Marine Corps Senior Executives. This is a significant milestone for PENREN.



*The renovation effort is in the midst of constructing facilities to support CCSP activities, such as the server rooms (left) and CCSP Lab Test Room in Wedge 1 (right).*

**III. Process Improvements**

**IT**

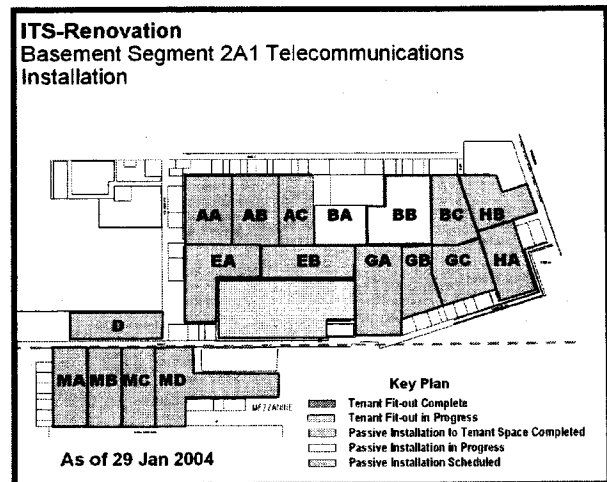
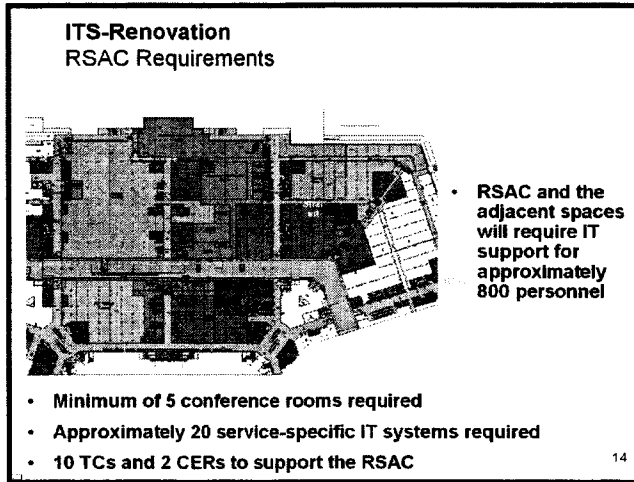
**September 2002-September 2003:** completed over 126 projects, including relocating joint staff support elements within the Pentagon.

**September 2002-September 2003:** More than 56 modernized areas/projects were transitioned to operational and maintenance organization.

**CHALLENGES**

**Previously reported challenge:** One of the biggest challenges faced was to modernize and renovate all command centers in Wedge 2 while not jeopardizing continuous operations.

**Current Challenge:** The Secretary of Defense signed a memo that will combine the five separate command centers currently used by the Armed Services into a single warfighting command center. This National Military Command Center would provide resources that allow the services to support their responsibilities in Resources and Situation Awareness Centers (RSACs). The IT team will need to redesign and coordinate with the currently operating command centers affected by this change while keeping the overall project schedule.



*These charts illustrate the level of detail and complexity involved in planning a cohesive, Pentagon-wide IT and communications system*

### III. Process Improvements

## COMMISSIONING

Executive Order 12902, March 8, 1994, Energy Efficiency and Water Conservation at Federal Facilities, Section 306, requires that a facility commissioning program be established for all new or renovated buildings, and refers specifically to ensuring that performance standards, as set forth in 10 CFR 435, are met.

### IMPLEMENTATION STATUS

The Remote Delivery Facility was the first Pentagon Renovation project to start commissioning with the onset of construction. Commissioning began with technical reviews of the conceptual design, basis of design and the design intent documents, and continued throughout all design phases and into the construction phase. Commissioning activities included reviews of operations and maintenance manuals, training plans, equipment startup checklists, functional performance tests and as-built drawings.

For the Metro Entrance Facility, Wedges 2-5, Intake/Outfall and the Pentagon Athletic Center, the commissioning process was also fully integrated from the start. Commissioning activities here began with technical reviews of the conceptual design and RFP design criteria. After the award of each project, commissioning has followed the same path laid out by the Remote Delivery Facility, incorporating lessons learned from the TRICARE Clinic, Wedge One and the RDF. The Pentagon Conference and Logistics Center project will follow the same development path. That project is in the concept design and RFP design criteria development stage with an award anticipated in 2004.

### SCOPE OF COMMISSIONING SERVICES

*Commissioning at the Pentagon includes the following building systems:*

- |  |   |
|--|---|
| 1. Normal Power Supply System                        | 8. Direct Digital Controls Systems (Energy Management and Controls Systems)       |
| 2. Emergency Power Supply System                     | 9. Fire Alarm/Fire Protection and Fire Suppression Systems                        |
| 3. Standby Power Supply System                       | 10. Electrical Distribution System  |
| 4. Life Safety Systems                               | 11. Building Envelope (including energy efficiency)                               |
| 5. Fuel Oil Leak Detection System                    | 12. Potable Water System (including cross connection control/backflow prevention) |
| 6. Waterproofing System                              |   |
| 7. Heating, Ventilation and Air Conditioning Systems |   |

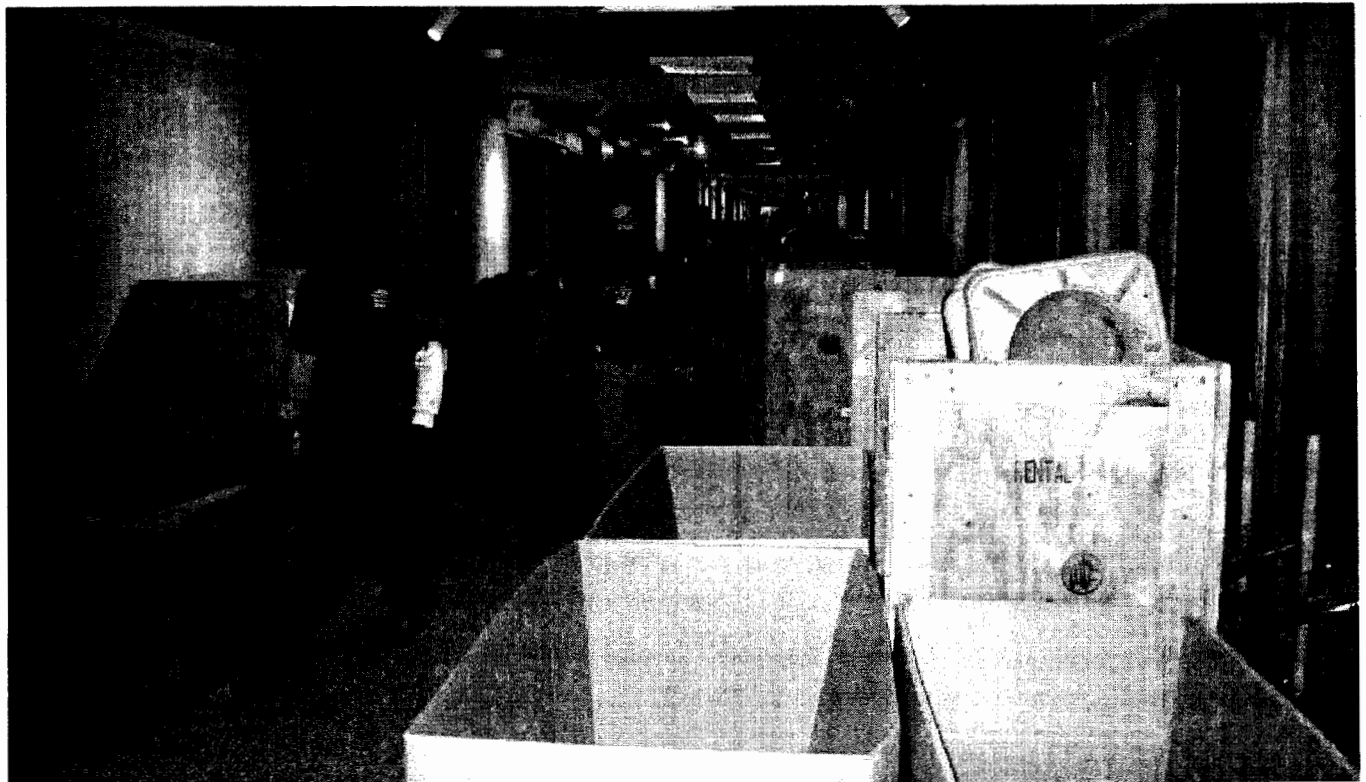


### III. Process Improvements

#### RELOCATION PLANNING

Due to logistical constraints presented by the building, security requirements and the necessity to minimize downtime and disruption to employees' daily activities, the Renovation Program has created an innovative process to relocate tenants while maintaining the renovation schedule. To accomplish these tasks, the Pentagon Renovation Program established a Relocation Planning Team (RPT), whose primary responsibilities include:

- Providing agency-specific relocation checklists, which give the tenants an "itemized" list of tasks to be accomplished prior to, during and after the move. In addition, each move involves:
  - *A Move Representative Notebook detailing specific task orientated requirements, Relocation Handbooks, which instruct tenants on packing and labeling procedures and "Move Packets," which include a quick reference for new phone system operation, emergency egress map, new lighting and heating instruction guide and the latest copy of "The Renovator," which updates the tenants on current renovation plans and milestones;*
  - *Post-move questionnaires are provided, which give the tenants an opportunity to provide the Program feedback on the relocation process, new space, furniture, systems, etc. These documents and forms have been made accessible to all Pentagon employees electronically, thus saving the government printing costs.*



*Furniture and other office equipment is staged in the hallway of the "old" Army Corridor as PENREN movers and building tenants prepare to relocate to their new office spaces in Wedge 2.*

### III. Process Improvements

### Relocation Planning



- *Coordinating the logistical and security requirements between the movers and the affected agencies, such as the Pentagon Force Protection Agency, Information Management and Telecommunications, the Dockmaster and the Pentagon Building Management Office.*

#### THE EVOLUTION OF THE HELP DESK - TEAMING FOR A SMOOTH TRANSITION

The Post Move Questionnaire created a lot of tenant feedback pointing out several areas of concern by the tenants. The comments ranged from requests for structural changes, phone training on the new system to the minor touch-up that generally occurs in any move. The Program needed to streamline this information into a manageable system in order to complete the requests in a timely manner, hence the establishment of a help desk. The help desk is an information conduit between the Program and various contractors required to perform the necessary work. Most of these change requests would be performed by the multitude of contractors and sub-contractors that operate and maintain the building while under construction and prior to the transition of tenant space to the Government.

The high level of customer satisfaction the help desk has been able to establish and maintain has provided the opportunity for the Program to team with WHS Pentagon Building Management Office (PBMO) and the Building Operation Command Center (BOCC) to provide a seamless support service center. This teaming strategy provides a smooth transition of duties from construction and warranty punch list completion, which is the responsibility of the Program and it's general contractor, to the daily operation and maintenance of a newly renovated Wedge by PBMO and their support services offices. The help desk is manned five days a week, eight hours a day by two members of the Relocation Planning Team and one BOCC representative. The establishment



*Technicians are on hand on move-in day to help with any equipment or furniture issues.*



*A PENREN employee checking the inventory to ensure that every item on the list makes it to the new office space.*



*An Army employee unpacking boxes delivered by the Relocation Team.*

**III. Process Improvements**

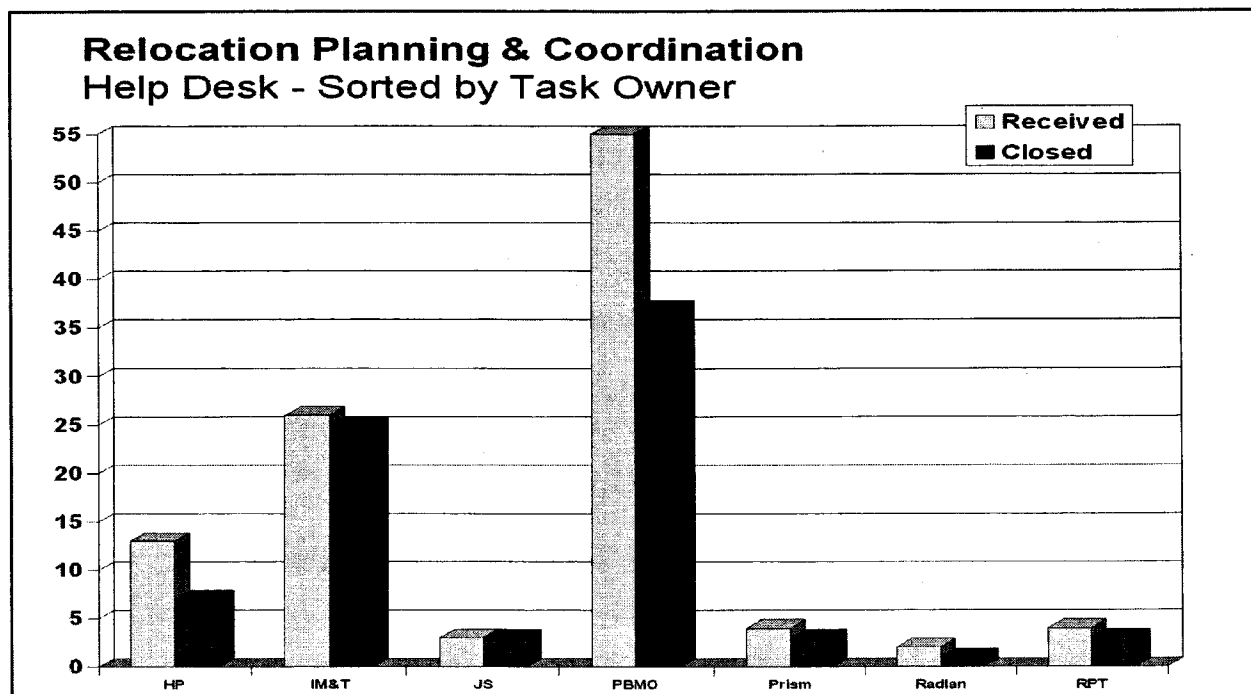
**Relocation Planning**

of this help desk has greatly increased the efficiency and timeliness in completing post-move tenant service requests. The help desk personnel hold weekly coordination meetings with the many agencies and contractors to assure adherence to building policies, codes and completion of tasks in a professional, efficient and timely manner. The help desk has been a valuable and important addition to the ongoing renovation of the Pentagon.

The RPT continues to save the Government approximately 25-30 percent of estimated moving costs, when compared with industry standards, through very comprehensive up-front planning and an intimate understanding of the dynamics of the Pentagon itself.

The decision to procure moving services through a multiple award contract has enabled flexibility in move assignments, maintained move contractors in a consistently competitive environment and removed constraints on resources while still ensuring a prudent expenditure of funds. Some notable accomplishments are:

- Negotiating the cost for each move and overseeing the move to ensure adherence to the Government's requirements.
- Tracking, coordinating and overseeing the delivery and installation of furniture, furnishings and equipment for tenants being relocated to renovated space as well as coordinating and overseeing the removal of surplus items. This is accomplished with a small disadvantaged contractor.
- Coordinating pre-move and post-move cleanup of the new space. This is also accomplished with a small disadvantaged contractor.



*The Relocation Planning Team keeps detailed records of all move issues and categorizes them by area of responsibility. This kind of tracking helps to facilitate a smooth tenant transition.*

### III. Process Improvements

### Relocation Planning



- Relocation of approximately 5,700 personnel from various wedges to external swing space locations, as well as to internal Pentagon locations.

The process developed by the RPT has further saved the government money by establishing moving service contracts that allow the Program to handle activities that may not usually fall under a mover's purview. For example, the movers can provide cleaning services, subcontracting services for specialty equipment with warranties that require a certain vendor to perform the services, personal computer de-certification and re-certification services, the handling of hazardous material, etc. This flexibility allows the Program to handle a variety of tenant requirements.

Understanding the difficulty in adhering to schedules of the magnitude the Pentagon renovation requires, the Program procured 104,000 square-feet of warehouse space to temporarily store new construction materials, furniture, furnishings and information technology equipment in support of the renovation.

To many, the successful relocation of the tenant to temporary or permanent space represents the end of the process. For the Program, however, the activities following the relocation are critical to the overall success of the renovation. The space vacancy and turnover process has been a significant factor for the renovation schedule. The coordination between the Renovation Program and all stakeholders to de-certify a space for demolition has been honed into a finely tuned process. The Program is responsible for removing the surplus furniture, furnishings and equipment from vacated tenant space. To do this, the Program must inventory, identify surplus and present to potential customers any furniture, furnishings and equipment not being relocated to renovated space. Based on the condition of the surplus items, the Renovation Program has to determine, in accordance with applicable regulations, if the items will be presented for re-use within the government, donated

to charitable organizations or deemed excess property and officially disposed. The Renovation Program must then coordinate with the various other partners in order to allow the disconnection of utilities, removal of secure lines, telephone lines and equipment, etc. The Program then coordinates a trash removal activity with its cleaning contractor in order to officially turn over a space to the demolition and abatement contractor to begin renovation. This myriad of coordination activities have been reduced to a one-month duration after tenant move-out.

#### ACTIVITY STATUS - PROJECTS IN DESIGN

The Renovation Program has a back-to-basics approach for all activities. Based on the lessons learned from the Wedge 1 and subsequent moves into swing space and new permanent space, the Program will perform the following activities by simplifying our move process and begin to work closely with the design-build contractor in support of the following activities:

- **FY 2004** – The Renovation Program will handle the furniture tracking, delivery and installation oversight, as well as the relocation planning, moves and surplus removal services as it relates to the occupancy of Wedges 2 and swing spaces. The renovation will continue to provide pre- and post-move cleaning and minor repair services for the renovated Pentagon space. This will be accomplished by using a small disadvantaged business. In addition, the Renovation Program will continue to use its three moving service contractors in support of the moves.



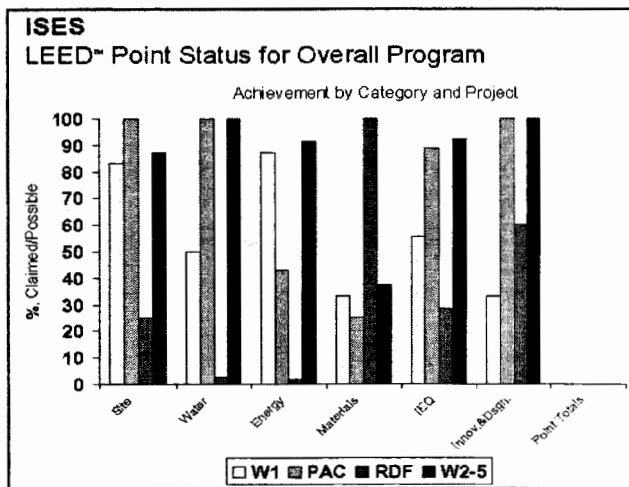
**III. Process Improvements**

**INTEGRATED SUSTAINABILITY, ENVIRONMENT & SAFETY (ISES)**

The Integrated Sustainable Design and Constructability (ISDC) Team was officially given force-protection and safety responsibilities for the Pentagon Renovation Program (PENREN) in FY 2003. The ISDC Team was subsequently renamed and became the Integrated Sustainability, Environment & Safety (ISES) Team.

PENREN's ISES Team uses sustainable design and construction methods and the rigorous United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED™) Rating Systems to help ensure compliance with the following:

- Executive Order 13101, Greening the Government through Waste Prevention, Recycling and Federal Acquisition, Executive Order 13123
- 10 CFR 435 - Energy Performance Standards for New Buildings - Mandatory for federal buildings
- Comprehensive Procurement Guidelines (CPG) - 40 CFR 247 buy recycled
- Executive Order 13123 - Greening the Government through Efficient Energy Management - Sustainable Design and Development for Government Agencies
- Executive Order 13101 - Greening the Government
- Affirmative Procurement Guidelines - 42 USC 6962



The ISES Team tracks PENREN's Sustainable Design performance using metrics that are presented at monthly Program review meetings.



Mike Sullivan, PENREN Program Manager (front left), accepts the MEF LEED Certification from James E. Hartzfeld, USGBC. Pictured in the background are Chuck Malacarne (left), MEF Team Leader (PENREN) and Bob Daniels of general contractor Hensel Phelps.



### III. Process Improvements

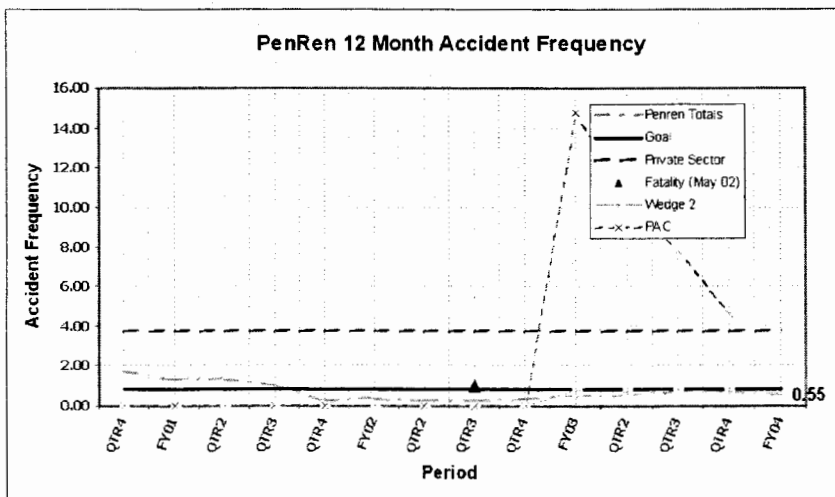
ISES

- For Department of Defense Agencies - Meet OSD reporting requirements - Diversion Rates, Open Enforcement Actions, Greenhouse Gas Emissions, etc.
- National Environmental Policy Act - Environmental Impact Statements/Assessments
- Comprehensive Environmental Response,
- Compensation and Liability Act /Superfund
- Amendments and Reauthorization Act (CERCLA/SARA) - Environmental Cleanup
- Resource Conservation and Recovery Act (RCRA)
- Federal Facilities Compliance Act (FFCA)
- Worker-Related - OSHA, 29 CFR 1910.1200 - OSHA Hazard Communication Standard
- Executive Order 13148 - Greening the Government through Environmental Management - Reporting requirements - solid waste reduction, recycling, affirmative procurement

The USGBC recently presented an award to PENREN for achieving a LEED™ certified rating for the Metro Entrance Facility (MEF) project. The MEF was the first DoD project in the National Capital Region to earn this distinction. The ISES Team's short-term goal to meet or exceed environmental building standards and achieve LEED™ certification on all PENREN projects. The long-term goal is to obtain LEED™ certification for the entire Pentagon Reservation. The ISES Team is currently pursuing LEED™ certification for the following projects: Wedge 1, Wedges 2-5, Remote Delivery Facility, Pentagon Athletic Center, Phoenix Project and the Memorial Project.

PENREN continuously emphasizes construction worker safety through education and awareness. Construction workers logged a total of 2,955,053 hours in FY 2003 without a single fatality. The industry-wide metric for determining the effectiveness of a safety program is the accident frequency ratio (AFR). The AFR is the ratio of productive hours lost due to accidents per 200,000 hours worked. In FY 2003, the private sector AFR average was 3.75, while PENREN's was 0.74. Considering the aggressive project schedules and difficult project sites, it is remarkable that PENREN's safety record is more than five times better than the private sector.

#### Safety & Occupational Health Exposure Report – Lost Time



*This chart tracks safety trends and numbers for the Program. The grey curved and dotted line represents PENREN accident frequency. The safety record continues to exceed the Program's aggressive goals (represented by the solid black line) and accidents on PENREN projects fall substantially below the industry norm (represented by the horizontal dotted black line).*

### III. Process Improvements

#### MANAGEMENT SUPPORT

The Pentagon Renovation Program is known as an organization with a proactive approach to identifying challenges and finding innovative and effective solutions. PENREN's successes in construction, renovation, IT implementation and acquisition have received favorable attention from DoD leadership. The Program has been tasked by DoD to assist or take the lead with various non-renovation projects. The Program is looking toward the completion of Wedges 2-5 while planning, to the extent possible, for future crises situations. Toward this goal the Program is developing a detailed Continuity of Operations (COOP) plan that will be put into place in the event of a local, regional or national disaster.

As PENREN adds disciplines to its core competencies, there has been a need to enhance the organization's knowledge base by expanding its pool of talent. The addition of personnel brought about many unique challenges to in-house support functions, such as PENREN's Information Management and Support Services teams.

The completion of Wedge 1 and the Phoenix Project caused a slight decrease in the national media exposure received by the Program. Other efforts, such as the Memorial project, continue to garner attention from a variety of groups, including politicians, schools and industry groups. Pentagon Renovation personnel continue



*Quarterly "All-Hands" meetings are held by PENREN Senior Leaders to keep the organization informed of Program accomplishments, challenges and changes.*



### III. Process Improvements

### Management Support

to be in high demand as speakers and expert panelists at national conferences. PENREN continues to enjoy a reputation as an expert in the fields of renovation, construction, IT, acquisition reform and project and program management.

#### INFORMATION MANAGEMENT

The Information Management IPT (IM IPT) provides the information systems that enable the Pentagon Renovation Program to operate efficiently and uninterrupted. This support includes managing the Pentagon Renovation Program's servers, desktops, software licensing program, help desk, databases and web services. Support is provided to more than fifteen distinct locations throughout the National Capital Region to users on both classified and unclassified systems. This support includes the operation, training and maintenance of the various construction management software applications, e-mail systems and file serving services.

A further mission area for the IM IPT is the oversight of the Information Resource Center (IRC). The IRC manages the Pentagon Renovation Program's drawing and document repositories and is responsible for performing quality assurance reviews of all contractor deliverables to the government that are related to construction drawings and documentation.

The complexity of the IM IPT services has expanded greatly due to the growth of total users and the establishment of a classified network. The IM IPT management team and the IRC were relocated in 2003 to a new structure designed to handle both classified and unclassified environments.

#### SECURITY

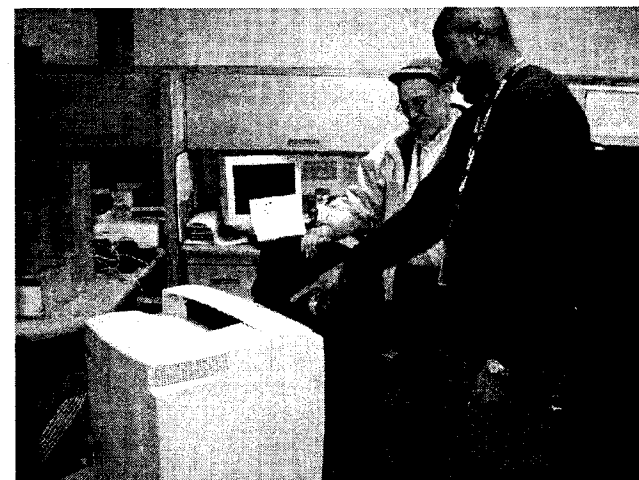
The Pentagon Renovation Program has always taken precautions to safeguard design drawings, technical specifications and force protection data. After 9/11, the Program experienced a rapid increase in the volume



*Encouraging innovation and rewarding achievement continue to be hallmarks of PENREN. Mike Sullivan presents an Award of Excellence to a PENREN contractor.*



*The Kick-Off begins for the Pentagon Memorial Fundraising Campaign, one of the DoD-wide events coordinated by*



*Members of the IM IPT Support Team examine a new piece of equipment before installation.*

**III. Process Improvements Management Support**

of "Classified" and "Official Use" information, which made apparent the need for an information security staff. In July 2002, the Program Manager established an internal security team. Its mission is to safeguard personnel, property and information critical to the Pentagon Renovation Program and its scope spans the entire program. The Security Integrated Product Team evolved with a goal of facilitating the secure and expeditious operation of the Pentagon Renovation Program by developing and implementing personnel, physical and information protection policies and procedures, while integrating OSD and tenant security requirements.

**SUPPORT SERVICES**

The Pentagon Renovation Program successfully deployed, trained and installed supportive desktop software for 50 group and team leaders. These devices have enabled a "round-the clock" level of communication among upper level management of the program, via e-mail, cell and radio connectivity. PENREN chose the telecommunications carrier that was the sole source vendor offering the "direct connect" (radio) feature that was a proven communications solution during the 9-11 tragedy. These versatile PDA devices are a vital part of our COOP readiness effort.

**INFORMATION & COMMUNICATION**

Much of the media focus given to the Phoenix Project subsided in 2003 as the last tenants were moved back into Wedge 1. The Information and Communications Team has been able to shift some of it's focus from media relations to it's original goal - facilitating communication between the Pentagon building tenants and the Program. PENREN continues to inform DoD employees and the general public through it's web site and printed publications, the "Renovator" and "PENREN This Week." In order to enhance the flow of information to tenants, "The Renovator" was changed from a quarterly publication to a streamlined

customer-focused monthly periodical. "PENREN This Week" is a weekly one-page newsletter that is distributed PENREN-wide. It is also available for download on the PENREN web site.

The Pentagon Memorial Project has kept some national spotlight on PENREN. The unique nature of this project has put PENREN in close communication with 9/11 victims' family members, the media, the local business community, corporations, politicians and other local and national organizations. The Communications Team has developed a web site for this project and sends regular correspondence to all interested parties. It is anticipated that there will be a substantial increase in press coverage once construction officially begins on the Pentagon Memorial.



*"PENREN This Week" and "The Renovator" are two publications designed to keep tenants informed about PENREN projects and people.*

*Both publications are available for public download on the PENREN web site.*

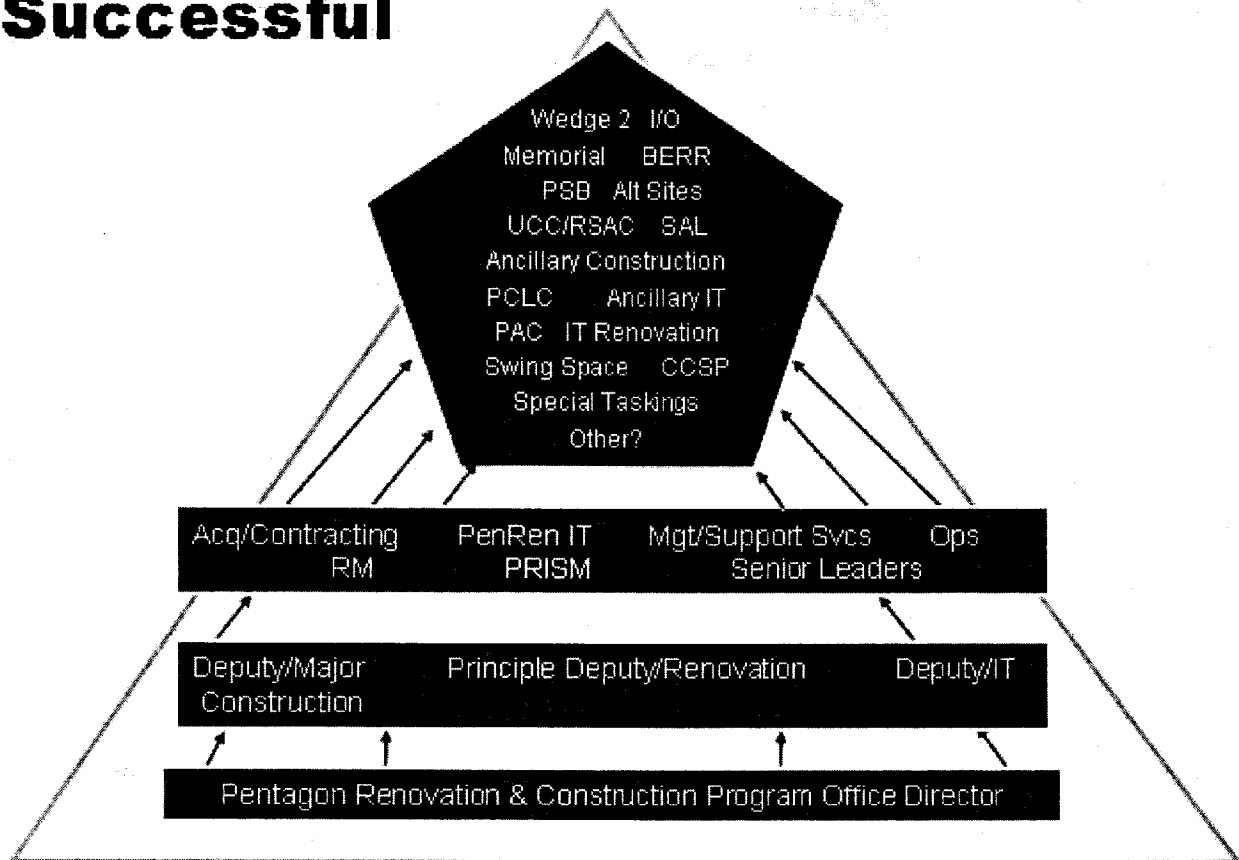




### III. Process Improvements

### Management Support

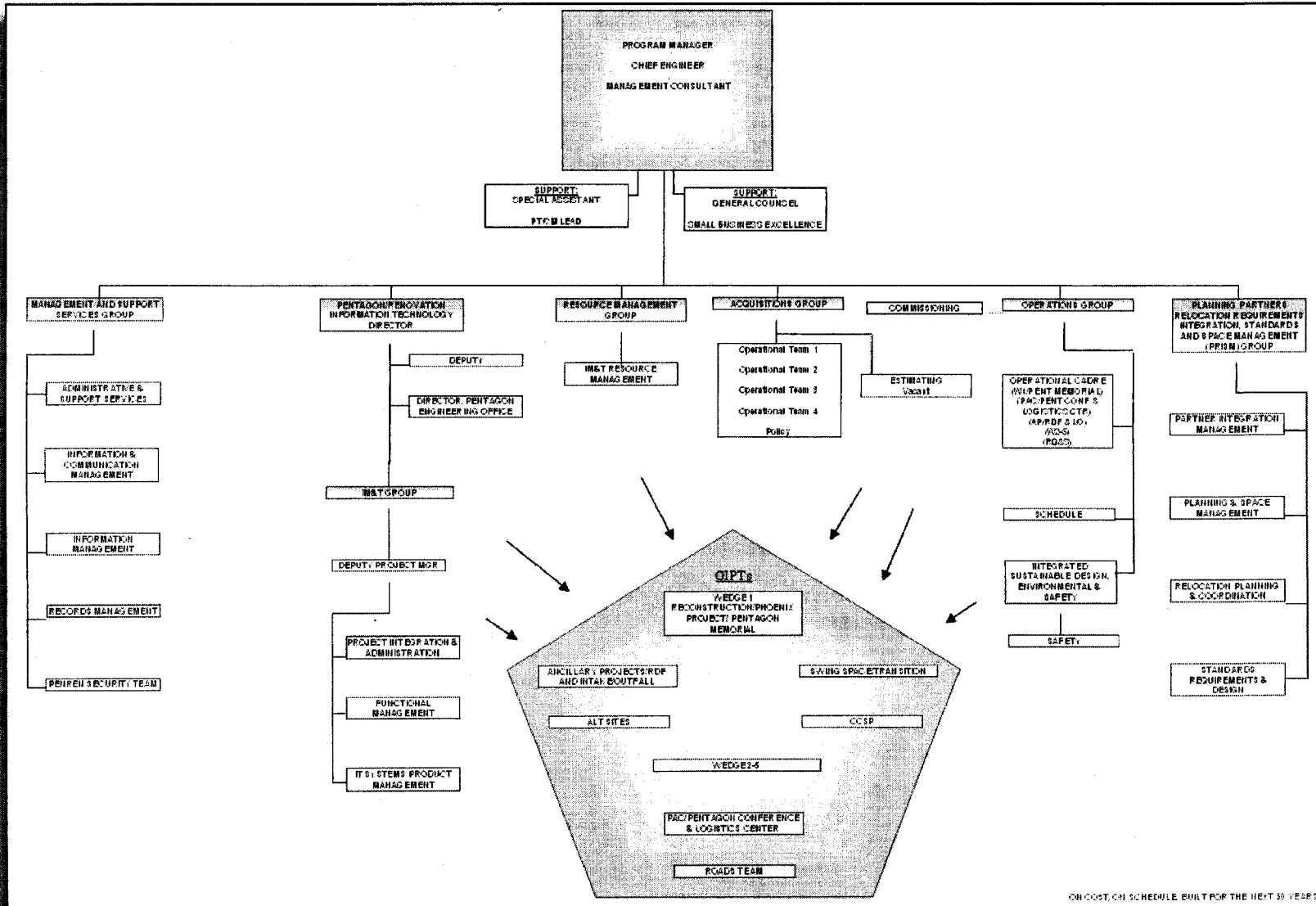
## How We Will Continue to be Successful



*This graphic demonstrates the Program Management style of PENREN. In this model, the role of senior management is to provide needed support to project leaders, as project leaders support their teams.*

# PENTAGON RENOVATION PROGRAM TEAM STRUCTURE

THE PENTAGON RENOVATION PROGRAM  
 III. Process Improvements Management Support  
<http://renovation.pentagon.mil>



ON COST, ON SCHEDULE BUILT FOR THE NEXT 50 YEARS!



## **IV. APPENDIX**

- Glossary of Terms
- Work Completed Timeline
- FY 2000 - National Defense Authorization Act, Section 2881 (Navy Annex)
- FY 2002 - National Defense Authorization Act, Section 2864 (Pentagon Memorial)
- FY 1991 - Legislative Authorization



## IV. Appendix

### GLOSSARY OF TERMS

**As-builts**

A graphic representation that reflects actual post-construction/renovation conditions. As-built drawings are submitted to the property owner as part of the commissioning process.

**Alternate Sites**

Provides off-site(s) data storage and disaster recovery capabilities for all critical users of the Pentagon Enterprise IT infrastructure

**Ancillary Projects**

Projects outside the scope of work of the Pentagon Renovation Program. They are outside of the Congressional Cost Cap. This work is taken on by the Pentagon Renovation serving as a construction agent. Costs for these projects are not funded by Renovation funds.

**Backbone**

The primary infrastructure for the transmission of data, including major telecommunications components.

**Back-to-Basics**

Cost reduction initiatives implemented by the Pentagon Renovation Program after building conditions lead to increased schedule and cost, and nearly exceeding the Congressional Cost Cap.

**Best Value**

Best value source selection is typically based on past performance, management approach, technical approach, probable cost and small and disadvantaged business support.

**Command Communication Survivability Program (CCSP)**

A program developed to ensure survivability, manageability, availability, flexibility and security for Networks, Mainframe/Servers, Voice, and Messaging.

**Core and Shell**

Building common elements in an area, such as walls and public corridors and rebuilding the primary utility systems.

**Design-bid-build**

The standard procedure for construction contracts. Separate contracts are awarded to a design company and a construction company. Little or no partnering takes place, which often leads to conflict between parties.

**Design-build**

The approach adopted by PENREN to construction contracts that allows design and construction to operate as a single entity under one contract, thus allowing us to better meet the requirements of the intended tenant.

**Fiscal Year (FY)**

Time period between October 1 through September 30; used rather than Calendar Year (CY) for budget purposes.

**Fit-out**

Building and designing of interior office space for the intended tenant.

**Integrated Product Team (IPT)**

Team Structure for all PENREN projects, which combines PENREN employees and representatives from the general contractor.

**Lessons learned**

A process whereby PENREN identifies methods and areas of improvement in order to minimize making repeated mistakes.

**LEED**

Leadership in Energy & Environmental Design. This is a U.S. Green Building Council program to measure sustainable design and construction initiatives.



**Punch list**

A list of outstanding construction deficiencies, usually minor, which require correction before the job will be considered complete.

**Resource Situation Awareness Center (RSAC)**

An area that ensures the Military Services can appropriately accomplish their Title 10 responsibilities of training, equipping and mobilizing their war fighting forces within their departments, The RSAC also provides ops support.

**Short Interval Production Schedule (SIPS)**

Wedges 2-5 process for renovation, involving individual trades working in 10,000 square-foot increments.

**Smart Wall**

Permanent, expandable wall that houses all data, communications and electrical lines for office spaces in Wedge 2.

**Spine-Wall (Wedge 1)**

The demountable wall found in systems furniture that carries electrical and telecommunications wiring.

**Swing space**

Temporary tenant space built-out in areas in and around the Pentagon. Occupied while the existing space is being renovated.

**Systems Furniture**

Demountable partitioned office furniture that provides greater flexibility than standard office furniture.

**Universal Space Plan**

A generic office construction design with a very robust infrastructure, capable of meeting the requirements of any Pentagon tenant who occupies that space.

**Unified Command Center (UCC)**

Creates a joint environment to support the Secretary of Defense in his command and control functions. The UCC will enhance the interoperability of the Military Services.

**Unrenovated**

Refers to areas of the Pentagon where renovation has not yet occurred.

**Wedge**

Area of above ground space being renovated in the Pentagon. There are five one-million-square-foot wedges to be renovated.

**IV. Appendix**

**PROJECTS COMPLETED TIMELINE**

**1996**

November North Parking Pedestrian Ramp (1)



**1997**

January River Terrace Handicapped Access (2)

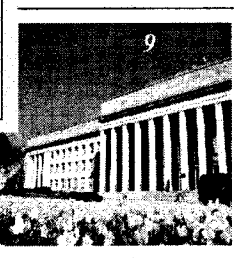
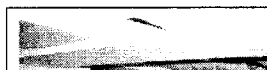
February Sewage Lift Station (3)

June Center Courtyard Utility Tunnel (4)

August Classified Waste Incinerator (5)

September Heating and Refrigeration Plant (6)

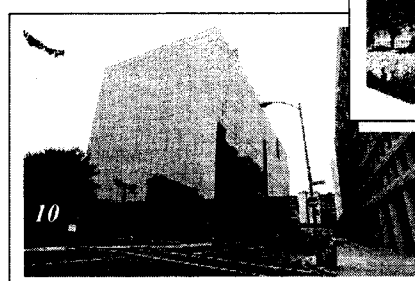
October River Terrace Vehicle Bridge (7)



**1998**

May Corridor 8 Entrance Renovation (8)

August River Terrace Renovation (9)



**1999**

June Renovation and Furnishing of Swing Space Facilities (10)

September Mug Handle Infill (11)

October Basement Segment 2A2 (12)



**2000**

March Basement/Mezzanine Segment 1 (13)

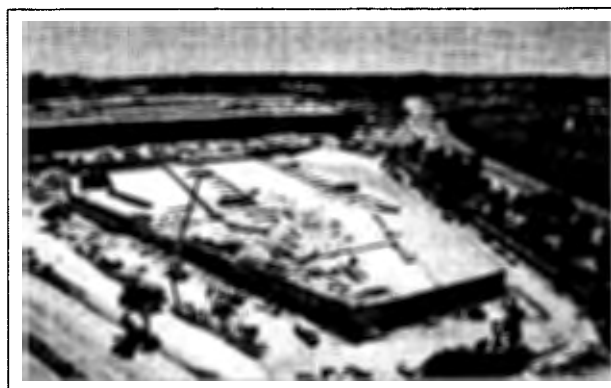
March DiLorenzo TRICARE Health Clinic (14)

August Remote Delivery Facility Phase 1 (15)

September Replacement of Underground Water Lines (16)

October Basement 3A Demolition and Abatement (17)

December Remote Delivery Facility Phase 2 (18)



**2001**

January Heliport and Fire Station Control Tower (19)

February South Terrace Pedestrian Bridges (20)

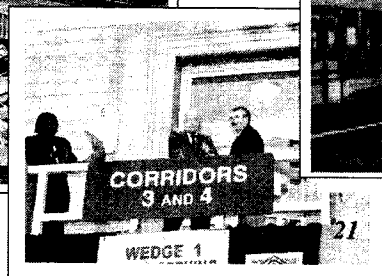
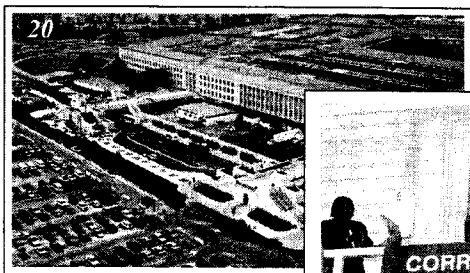
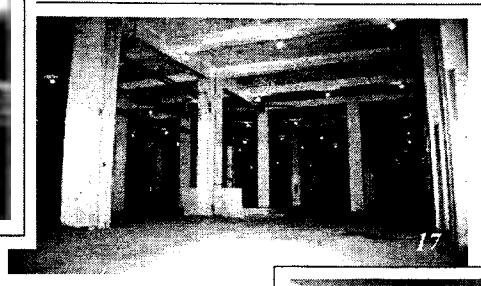
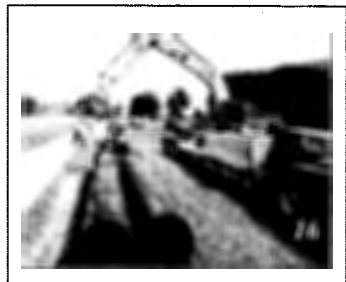
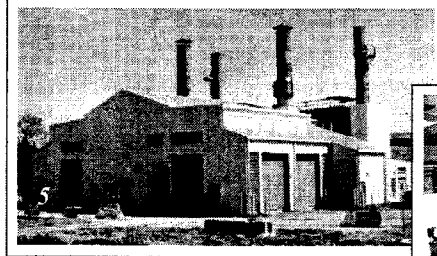
September Wedge 1 (21)

December Pentagon Transit Center (22)





# IV. Appendix Projects Completed Timeline

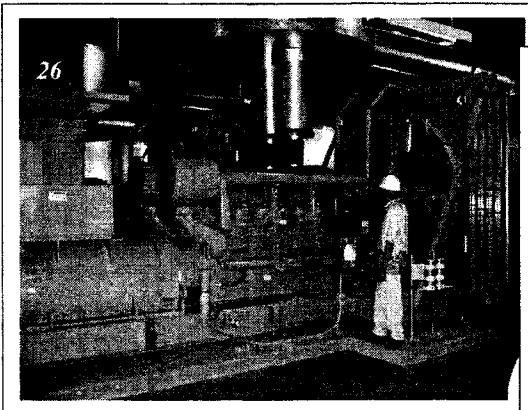
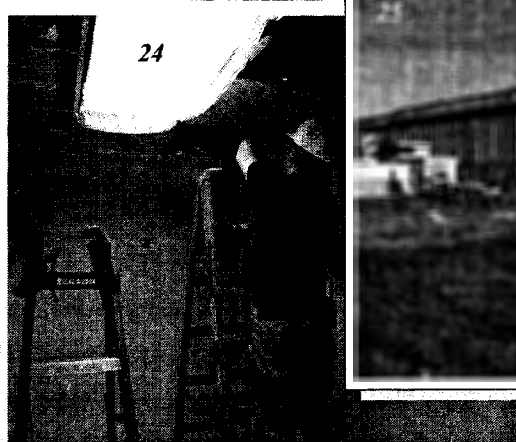


**IV. Appendix**

**Projects Completed Timeline**

**2002**

- January Limestone Cleaning & Repointing (23)
- April Relocation of NIMA Offices (24)
- September Phoenix/Wedge 1 Recovery (25)
- September RDF Power Plant (26)
- November Metro Entrance Facility (27)

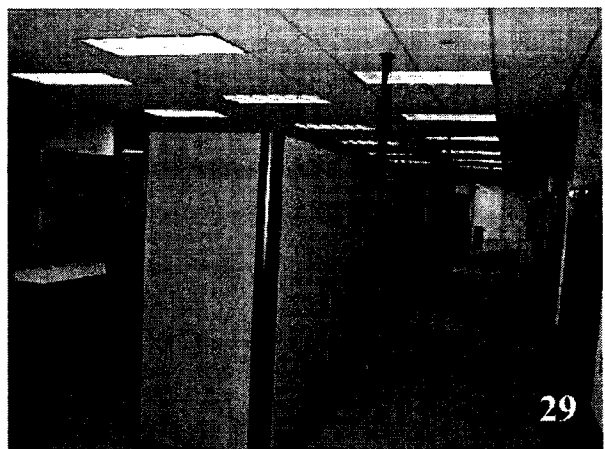




# IV. Appendix Projects Completed Timeline

## 2003

- January Office Build-Out - Air Force Agency
- March Remote Delivery Facility - Final Completion (28)
- May Joint Director of Military Support (JDOMS), Joint Chief of Staff and Air Force.
- May Army Operations Center (AOC) Phase 2
- June Navy Office Build-Out (29)
- August PFPA Command Action Center (CAC) Build-Out
- October Wedge 2, Phase 1 & 2 (30)
- October Heliport Demolition
- November OSD/PA Relocation to Corridor Bridge 3
- December CCSP Wedge 1 Core Facility (31)
- December Wheelchair Lift at Clinic



**IV. Appendix****FY 2000 - NATIONAL DEFENSE AUTHORIZATION ACT - as amended by Sec 2851 of P.L. 107-314 National Defense Authorization Act for FY 2003****Subtitle F—Expansion of Arlington National Cemetery****SEC. 2881. TRANSFER FROM NAVY ANNEX, ARLINGTON, VIRGINIA.**

(a) **LAND TRANSFER REQUIRED-** The Secretary of Defense shall provide for the transfer to the Secretary of the Army of administrative jurisdiction over three parcels of real property consisting of approximately 36 acres and known as the Navy Annex (in this section referred to as the 'Navy Annex property').

(b) **USE OF LAND-** (1) Subject to paragraph (2), the Secretary of the Army shall incorporate the Navy Annex property transferred under subsection (a) into Arlington National Cemetery.

(2) The Secretary of Defense shall reserve not more than 4 acres of the Navy Annex property (of which not more than six acres may be north of the existing Columbia Pike) as a site for—

Such other memorials that the Secretary of Defense considers compatible with Arlington National Cemetery and the Air Force Memorial.

(c) **REDEMPTION OF LAND FOR CEMETERY USE-** Immediately after the transfer of administrative jurisdiction over the Navy Annex property, the Secretary of Defense shall provide for the removal of any improvements on that property and shall prepare the property for use as a part of Arlington National Cemetery.

(d) **ESTABLISHMENT OF MASTER PLAN-** (1) The Secretary of Defense shall establish a master plan for the use of the Navy Annex property transferred under subsection (a).

(2) The master plan shall take into account (A) the report submitted by the Secretary of the Army on the expansion of Arlington National Cemetery required at page 787 of the Joint Explanatory Statement of the Committee of Conference to accompany the bill H.R. 3616 of the One Hundred Fifth Congress (House Report 105-436 of the 105th Congress), and (B) the use of the acres reserved under subsection (b)(2) for a memorial or museum.

(3) The master plan shall be established in consultation with the National Capital Planning Commission and only after coordination with appropriate officials of the Commonwealth of Virginia and of the County of Arlington, Virginia, with respect to matters pertaining to real property under the jurisdiction of those officials located in or adjacent to the Navy Annex property, including assessments of the effects on transportation, infrastructure, and utilities in that county by reason of the proposed uses of the Navy Annex property under subsection (b).

(4) Not later than 180 days after the date of the Bob Stump National Defense Authorization Act for FY 2003, the Secretary of Defense shall submit to Congress the master plan established under this subsection.

(e) **IMPLEMENTATION OF MASTER PLAN-** The Secretary of Defense may implement the provisions of the master plan at any time after the Secretary submits the master plan to Congress.



## IV. Appendix

### **FY 2002 - NATIONAL DEFENSE AUTHORIZATION ACT - Section 2864 of P.L. 107-107 (Pentagon Memorial)**

Sec. 2864. <10 USC 2674 note>

#### **ESTABLISHMENT OF MEMORIAL TO VICTIMS OF TERRORIST ATTACK ON PENTAGON RESERVATION AND AUTHORITY TO ACCEPT MONETARY CONTRIBUTIONS FOR MEMORIAL AND REPAIR OF PENTAGON.**

(a) Memorial Authorized.--The Secretary of Defense may establish a memorial at the Pentagon Reservation dedicated to the victims of the terrorist attack on the Pentagon that occurred on September 11, 2001. The Secretary shall use necessary amounts in the Pentagon Reservation Maintenance Revolving Fund established by section 2674(e) of title 10, United States Code, including amounts deposited in the Fund under subsection (c), to plan, design, construct, and maintain the memorial.

(b) Acceptance of Contributions.--The Secretary of Defense may accept monetary contributions made for the purpose of assisting in--

- (1) the establishment of the memorial to the victims of the terrorist attack; and
- (2) the repair of the damage caused to the Pentagon Reservation by the terrorist attack.

(c) Deposit of Contributions.--The Secretary of Defense shall deposit contributions accepted under subsection (b) in the Pentagon Reservation Maintenance Revolving Fund. The contributions shall be available for expenditure only for the purposes specified in subsection (b).



**IV. Appendix****Navy Annex - Federal Office Building**

(f) LEGAL DESCRIPTION- In conjunction with the development of the master plan required by subsection (d), the Secretary of Defense shall determine the exact acreage and legal description of the portion of the Navy Annex property reserved under subsection (b)(2) and of the portion transferred under subsection (a) for incorporation into Arlington National Cemetery.

(g) REPORTS- (1) Not later than 90 days after the date of the enactment of this Act, the Secretary of the Army shall submit to the Secretary of Defense a copy of the report to Congress on the expansion of Arlington National Cemetery required at page 787 of the Joint Explanatory Statement of the Committee of Conference to accompany the bill H.R. 3616 of the One Hundred Fifth Congress (House Report 105-736 of the 105th Congress).

(2) The Secretary of Defense shall include a description of the use of the Navy Annex property transferred under subsection (a) in the annual report to Congress under section 2674(a)(2) of title 10, United States Code, on the state of the renovation of the Pentagon Reservation.

(h) DEADLINE- The Secretary of Defense shall complete the transfer of administrative jurisdiction required by subsection (a) not later than (1) January 1, 2010; or

(2) the date when the Navy Annex property is no longer required (as determined by the Secretary) for use as temporary office space due to the renovation of the Pentagon.

Under the current schedule for the renovation of the Pentagon, it is anticipated the Navy Annex property and facility will be used as temporary and permanent office space until the conclusion of the renovation program. After that time, all the facility occupants will be relocated to either the Pentagon and/or other government controlled space.

*(2) The Secretary of Defense shall include a description of the use of the Navy Annex property transferred under subsection (a) in the annual report to Congress under section 2674(a)(2) of title 10, United States Code, on the state of the renovation of the Pentagon Reservation.*

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**Washington Headquarters Service (WHS),  
Real Estate & Facilities Division (RE&FD)  
Response to Section 2881**

It is currently planned that, in accordance with Section 2881 of the FY 2000 Defense Appropriations Act, the Secretary of Defense will assign administrative jurisdiction of the Navy Annex property to the Secretary of the Army by January 1, 2010.

Further, in accordance with Section 2851 of the FY 2003 Defense Appropriations Act, by June 2003, the Secretary of Defense will establish a master plan for the use of the Navy Annex property that will take into account (A) the report submitted by the Secretary of the Army on the expansion of Arlington National Cemetery required at page 787 of the Joint Explanatory Statement of the Committee of Conference to accompany the bill H.R. 3616 of the One Hundred Fifth Congress, and (B) the use of Navy Annex property as a site for any other memorial or museum.



## IV. Appendix

# DEPARTMENT OF DEFENSE APPROPRIATIONS ACT

### FY 2000:

#### The Department of Defense Appropriations Act, 2000, Public Law 106-79, Section 8064 (Oct. 25, 1999)

*SEC. 8064. (a) None of the funds appropriated in this Act may be transferred to or obligated from the Pentagon Reservation Maintenance Revolving Fund, unless the Secretary of Defense certifies that the total cost for the planning, design, construction and installation of equipment for the renovation of the Pentagon Reservation will not exceed \$1,222,000,000.*

*(b) The Secretary shall, in conjunction with the Pentagon Renovation, design and construct secure secretarial offices and support facilities and security-related changes to the subway entrance at the Pentagon Reservation.*

### FY 2001:

#### The Department of Defense Appropriations Act, FY 2001, Public Law 106-259, Section 8061 (Aug. 9, 2000)

*SEC. 8061. None of the funds appropriated in this Act may be transferred to or obligated from the Pentagon Reservation Maintenance Revolving Fund, unless the Secretary of Defense certifies that the total cost for the planning, design, construction and installation of equipment for the renovation of the Pentagon Reservation will not exceed*

### FY 2002:

#### The Department of Defense Appropriations Act, FY 2002, Public Law 107-117, Section 8060 (Jan. 10, 2002)

*Sec. 8060. (a) Limitation on Pentagon Renovation Costs.—Not later than the date each year on which the President submits to Congress the budget under section 1105 of title 31, United States Code, the Secretary of Defense shall submit to Congress a certification that the total cost for the planning, design, construction, and installation of equipment for the renovation of wedges 2 through 5 of the Pentagon Reservation, cumulatively, will not exceed four times the total cost for the planning, design, construction, and installation of equipment for the renovation of wedge 1.*

*(b) Annual Adjustment.—For purposes of applying the limitation in subsection (a), the Secretary shall adjust the cost for the renovation of wedge 1 by any increase or decrease in costs attributable to economic inflation, based on the most recent economic assumptions issued by the Office of Management and Budget for use in preparation of the budget of the United States under section 1104 of title 31, United States Code.*

*(c) Exclusion of Certain Costs.—For purposes of calculating the limitation in subsection (a), the total cost for wedges 2 through 5 shall not include— (1) any repair or reconstruction cost incurred as a result of the terrorist attack on the Pentagon that occurred on September 11, 2001; (2) any increase in costs for wedges 2 through 5 attributable to compliance with new requirements of Federal, State, or local laws; and (3) any increase in costs attributable to additional security requirements that the Secretary of Defense considers essential to provide a safe and secure working environment.*

*(d) Certification Cost Reports.—As part of the annual certification under subsection (a), the Secretary shall report the projected cost (as of the time of the certification) for— (1) the renovation of each wedge, including the amount adjusted or otherwise excluded for such wedge under the authority of paragraphs (2) and (3) of subsection (c) for the period covered by the certification; and (2) the repair and reconstruction of wedges 1 and 2 in response to the terrorist attack on the Pentagon that occurred on September 11, 2001.*

*(e) Duration of Certification Requirement.—The requirement to make an annual certification under subsection (a) shall apply until the Secretary certifies to Congress that the renovation of the Pentagon Reservation is completed.*

## FY 2003:

**The Department of Defense Appropriations Act, FY 2003, Public Law 107-248, Section 8056 (October 10, 2002)**

*Sec. 8056. (a) Limitation on Pentagon Renovation Costs.—Not later than the date each year on which the President submits to Congress the budget under section 1105 of title 31, United States Code, the Secretary of Defense shall submit to Congress a certification that the total cost for the planning, design, construction, and installation of equipment for the renovation of wedges 2 through 5 of the Pentagon Reservation, cumulatively, will not exceed four times the total cost for the planning, design, construction, and installation of equipment for the renovation of wedge 1.*

*(b) Annual Adjustment.—For purposes of applying the limitation in subsection (a), the Secretary shall adjust the cost for the renovation of wedge 1 by any increase or decrease in costs attributable to economic inflation, based on the most recent economic assumptions issued by the Office of Management and Budget for use in preparation of the budget of the United States under section 1104 of title 31, United States Code.*

*(c) Exclusion of Certain Costs.—For purposes of calculating the limitation in subsection (a), the total cost for wedges 2 through 5 shall not include— (1) any repair or reconstruction cost incurred as a result of the terrorist attack on the Pentagon that occurred on September 11, 2001; (2) any increase in costs for wedges 2 through 5 attributable to compliance with new requirements of Federal, State, or local laws; and (3) any increase in costs attributable to additional security requirements that the Secretary of Defense considers essential to provide a safe and secure working environment.*

*(d) Certification Cost Reports.—As part of the annual certification under subsection (a), the Secretary shall report the projected cost (as of the time of the certification) for— (1) the renovation of each wedge, including the amount adjusted or otherwise excluded for such wedge under the authority of paragraphs (2) and (3) of subsection (c) for the period covered by the certification; and (2) the repair and reconstruction of wedges 1 and 2 in response to the terrorist attack on the Pentagon that occurred on September 11, 2001.*

*(e) Duration of Certification Requirement.—The requirement to make an annual certification under subsection (a) shall apply until the Secretary certifies to Congress that the renovation of the Pentagon Reservation is completed.*



## IV. Appendix

## Department of Defense Appropriations Act

### FY 2004:

#### The Department of Defense Appropriations Act, FY 2004, Public Law 108-87, Section 8055 (September 30, 2003)

*SEC. 8055. (a) Limitation of Pentagon Renovation Costs.—Not later than the date each year on which the President submits to Congress the budget under section 1105 of title 31, United States Code, the Secretary of Defense shall submit to Congress a certification that the total cost for the planning, design, construction, and installation of equipment for the renovation of wedges 2 through 5 of the Pentagon Reservation, cumulatively, will not exceed four times the total cost for the planning, design, construction, and installation of equipment for the renovation of wedge 1.*

*(b) Annual Adjustment.—For purposes of applying the limitation in subsection (a), the Secretary shall adjust the cost for the renovation of wedge 1 by any increase or decrease in costs attributable to economic inflation, based on the most recent economic assumptions issued by the Office of Management and Budget for use in preparation of the budget of the United States under section 1104 of title 31, United States Code.*

*(c) Exclusion of Certain Costs.—For purposes of calculating the limitation in subsection (a), the total cost for wedges 2 through 5 shall not include—(1) any repair or reconstruction cost incurred as a result of the terrorist attack on the Pentagon that occurred on September 11, 2001; (2) any increase in costs for wedges 2 through 5 attributable to compliance with new requirements of Federal, State, or local laws; and (3) any increase in costs attributable to additional security requirements that the Secretary of Defense considers essential to provide a safe and secure working environment.*

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*(e) Duration of Certification Requirement.—The requirement to make an annual certification under subsection (a) shall apply until the Secretary certifies to Congress that the renovation of the Pentagon Reservation is completed.*

#### COPIES OF THE 2003 REPORT TO CONGRESS SENT TO:

##### United States Senate

Honorable Richard B. Cheney, President of the Senate

Honorable John Warner, Chairman, Committee on Armed Services

Honorable Carl Levin, Ranking Minority Member, Committee on Armed Services

Honorable James M. Inhofe, Chairman, Committee on Environment and Public Works

Honorable James Jeffords, Ranking Minority Member, Committee on Environment and Public Works

Honorable Ted Stevens, Chairman, Committee on Appropriations and Subcommittee on Defense, Committee on Appropriations

Honorable Robert Byrd, Ranking Minority Member, Committee on Appropriations

##### United States House of Representatives

Honorable J. Dennis Hastert, Speaker

Honorable Duncan Hunter, Chairman, Committee on Armed Services

Honorable Ike Skelton, Ranking Minority Member, Committee on Armed Services

Honorable Don Young, Chairman, Committee on Transportation and Infrastructure

Honorable James L. Oberstar, Ranking Minority Member, Committee on Transportation and Infrastructure

Honorable C.W. (Bill) Young, Chairman, Committee on Appropriations

Honorable David R. Obey, Ranking Minority Member, Committee on Appropriations

**IV. Appendix**

**CONTACT INFORMATION**

The Pentagon Renovation Program web site is the single best resource for additional information regarding renovation activities. The site is updated on a regular basis and includes in-depth historical information about the original construction of the Pentagon and the early days of the Renovation Program.

The Pentagon Memorial Project web site gives updates on the status of the Memorial, photos, graphics and fundraising/donation information.

Please feel free to call the Information and Communications Office at (703) 693-8933 or our help line at (866) 349-0616 for additional assistance.

Or, send e-mail to: [renovation@army.pentagon.mil](mailto:renovation@army.pentagon.mil)

<http://renovation.pentagon.mil>

<http://memorial.pentagon.mil>