

Public Works *Digest*

In this issue:

Master Planning and Military Construction — the New Landscape





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On the cover:
Fort Hood master planners Alan Howard, Lisa Cuellar and John Burrow identify unused facilities that future units can occupy. Photo by Felicia Locklin-Hegens, Fort Hood Directorate of Public Works


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LETTER FROM THE EDITOR



I recall attending a briefing at which I was missing much of the information the briefers were trying to convey. The slides included several acronyms with which I was unfamiliar. I asked the Army officer sitting next to me about the acronyms. He, too, did not know what they meant. The briefers had made the mistake of assuming that everyone attending would be familiar with their “language.”

That example illustrates the point that acronyms and abbreviations are an integral part of communication in Army work places, but they can also get in the way of communication. People routinely use terminology that may be a mystery to others, even those who work nearby. That is one reason why the Public Works Digest has routinely spelled out such terms on first reference, followed by the acronym or abbreviation in parentheses. However, that is also the recipe for what is called “alphabet soup.” This is not the soup you eat, but the kind that makes text hard to read by presenting burdles over which the reader’s eye has to constantly jump.

To reduce the soup, the Digest will no longer put the acronym or abbreviation in parentheses after certain terms. Organization names that should be universally known by the primary readership will be spelled out on first reference, and the acronym will be used alone on second reference. These terms include DoD for Department of Defense, DA for Department of the Army, ACSIM for Assistant Chief of Staff for Installation Management, IMCOM for Installation Management Command, USACE for U.S. Army Corps of Engineers and others.

Also included in this style change will be DPW for Directorate of Public Works, GWOT for Global War on Terror, BRAC for Base Realignment and Closure and MILCON for military construction, among others. This policy will also apply to the names of well-known agencies with which the public works community frequently interacts, such as OSHA (Occupational Safety and Health) and EPA (Environmental Protection Agency).

For terminology that is related to a specialty, the Digest will continue to put the appropriate acronym or abbreviation directly after the term. For example, if the reference is specific to housing, the acronym or abbreviation will appear immediately.

Speaking of housing, that is the theme of the next issue. The deadline is Feb. 23. To offer comments about the Digest in general or to submit an article, please contact me at 202-761-0022 or mary.b.thompson@usace.army.mil.

Now, sit back and enjoy this issue. It is brim-full of great articles about master planning and military construction that include leadership commentaries, new information, thought-provoking reports, wonderful examples and interesting experiences.

Mary Beth Thompson

Mary Beth Thompson, Managing Editor **PWD**

LETTER TO THE EDITOR

I really enjoy reading the Public Works Digest. It gives a good overview of the U.S. Army Corps of Engineers Military Program and Directorate of Public Works interface. I have two comments about the November-December issue:

1. The article on page 40 about Don Larocque’s presentation at a Public Works Training Workshop said, “During discussion, LaRocque made the point that sustainment of relocatable buildings should come from DPW funds.” Is the word “not” missing between “should come”?
2. Pages 42 and 43 presented key retirements, a very nice way to honor and say good-bye to these individuals. I recommend that the U.S. Army also find an avenue to recognize and honor the achievements of the “regular” blue and white collar employees who are retiring and who have dedicated 30 years or more of service to the Army. We also must not forget the terrific contributions of many of our local national personnel overseas.

William M. Genova, Directorate of Public Works,
U.S. Army Garrison, Darmstadt, Germany

REPLY

Thank you for your interest and for your comments. Here are the responses to the two issues you raised.

1. Don LaRocque clarified the page 40 report, saying that a more exact statement is that relocatable building sustainment belongs to the party whose property book the building is on. Usually, that is the DPW, but sometimes it is not.
2. We recognized those leaders at their retirements because their decisions and influence affected people across the broad scope of the public works community. You are right that all those who contribute so much of their lives to the cause of the United States are worthy of recognition. Unfortunately, it is not possible for the Digest to be the vehicle for that recognition. We hope that each individual is properly celebrated locally.

Please keep on reading the Digest and letting us know what you think.

Editor



The state of Army installation master planning

by Lt. Gen. Robert Wilson

Master planning for Army Transformation, Global Rebasing and Base Realignment and Closure is, for the most part, behind us, and these initiatives have moved into the “programming” phase of our business. That is, the projects have been defined, sited and prioritized. Execution will be driven by available military construction funding in the Annual and Five-Year Defense Plan budgets. We are now faced with a new challenge to increase the size of the Army but we must also start planning for the Army of the “twin twenties” — the twin twenties being the 2020 decade.

Short-range master plans (five- to seven-year) are largely complete, essential projects programmed out through 2013-14, and we know, at least for the current size of the Army, who will be stationed at our installations by 2020. However, our long-range master plans — plans that go beyond the current Program Objective Memorandum period — are dated and lacking.

Where we've been

The Installation Management Command, then the Installation Management Agency, revitalized Army Master planning in 2003 when Maj. Gen. Aadland published Netcall #10. Netcall #10 laid a foundation strategy for Installation Strategic Planning and Real Property Master Planning. It was followed with the elevation of master planning to division-level status in the Standard Garrison Organization and reintegration of facility utilization management and real property management into master planning.

Standardized position descriptions were developed, Real Property Planning Boards were directed to convene at least twice annually to approve and prioritize capital investment projects and new construction sitings, and the Army also published the Installation Design Standards mandating that each garrison develop an Installation Design Guide as an essential component of the installation's master plan.

In 2004, master planning was forced to the forefront of garrison activities when



Lt. Gen. Robert Wilson
Photo by Monica King

the Army announced plans to transform from divisions to brigade combat teams and to rebase many units from overseas to the United States — initiatives that changed the structure of all operational units and involved restationing more than 60,000 Soldiers and their families. Facility plans had to be developed and executed in the space of months rather than years, and garrison planners proved equal to the task. The 2005 BRAC decision further compounded the challenge with the most significant realignment of institutional units in history.

The combination of all this is resulting in movement of more than 140,000 people across our installations — people that need facilities on well planned installations.

Where we are

The facility utilization management element of master planning must now shine. Most of master planning for Army Transformation is complete. Our installations are running at full speed training, deploying and redeploying warfighting units and 24/7 production operations to keep the Army equipped. Facility utilization management has become an all consuming task to keep up with the fast pace of troop activity as we balance space needs among existing over-utilized buildings, relocatable buildings and new construction.

It will take up to 10 years for military construction to catch up with the requirements of the transformed Army. Land management is also becoming a problem. The

Corps of Engineers has begun the massive building of permanent facilities for Transformation, Rebasing and BRAC. Troops and contractors are competing for available land for training, swing space and construction staging areas respectively.

Most garrisons have completed Installation Design Guides, and we must engage closely with the Corps of Engineers to ensure compliance with the primary architectural features of the guides. We are approaching the end of the relocatable building interim facility program with just a few requirements left to fill and some possible interim requirements to support Army growth. Headquarters, IMCOM is publishing the first ever Army Master Planning Technical Manual (Editor's note: See article on page 8), which incorporates all the lessons learned of the last few years plus codifies what, exactly, a Real Property Master Plan consists of. Master planners are very busy and productive but must now concentrate on our dated long-range plans, visions, goals and objectives.

Where we need to go

We must now look beyond Transformation, Rebasing and BRAC and plan for the Army of 2020. Transformation, as we know it today, will be complete, but the future combat force will be emerging on our installation landscape. We don't exactly know what this force will look like, but it will be lighter and more agile and will change the use of existing facilities and land.

The training landscape will continue to change as the Global War on Terror drives changes in combat strategies. We must be ready to accommodate new facilities and training land uses to meet those strategies as they develop. We must also develop Installation Expansion Capability Plans to be responsive to the potential for a larger Army.

Planning begins with an accurate picture of what is on hand for existing assets. This means increased emphasis on real property management to ensure our assets are correctly accounted for and new construction is posted quickly. We will also ▶



Master planning crucial to installation's ability to meet current, future needs

by Lt. Gen. Carl A. Strock

Today's Army installations are facing some of the most demanding challenges ever presented them. As the Army is tackling urgent, immediate military operations such as the Global War on Terror, it is also overseeing a series of complex restationing actions involving Base Realignment and Closure, transformation and global realignment. At the same time, the Army is also addressing the need to sustain installations worldwide to meet our nation's military needs today and tomorrow.

Planning is key to addressing these needs, and the planning challenge is great. Simply put, it is, "How does the Army ensure that its installations are prepared to meet immediate mission requirements and also sustain the long-term installation military capabilities and adaptability for future, unforeseen military needs?"

Meeting this challenge requires a commitment to the principles of sound master planning. The Army's master planning process provides the tools to integrate the actions needed to meet both short-term mission requirements and long-term planning goals. It assures comprehensive, simultaneous consideration of the many planning



Lt. Gen. Carl A. Strock
Photo by F.T. Eyre

factors, including sustainable development, installation design guides, urban design criteria, prevention of encroachment against installation boundaries, environmental stewardship and force protection, as well as meeting operational mission needs.

Master planning is one of a garrison commander's most important responsibilities. When an installation is poorly planned and ineffectively developed, our nation pays for the wasteful construction of facilities that are unable to meet the demands of a rapidly changing world environment and an inefficient use of installation real estate. On the other hand, a sound planning pro-

cess and a well-thought-out plan lead to an installation that can meet changing national defense missions, now and in the future.

The establishment of the Installation Management Command and the continued move towards central management of installations presents us an opportunity to develop Armywide master planning. Committing to an effective planning program entails more than just resources. It requires that the entire installation community participate in the process and embrace the findings. There are several actions that installations can take to immediately re-energize a planning program.

- **Develop a Real Property Master Planning Digest.** The digest is the "foundation planning" component of the master plan that documents the planning strategy through the next 16 years. Completing a digest requires that an installation develop a sound planning vision and principles for post development, identify which specific area development opportunities should be developed and in what order, and define the specific set of holistic planning goals and objectives each area must consider. A successful digest will define the most effective strategy for meeting the

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be transitioning to a new real property accounting system (General Fund Enterprise Business System) and must diligently ensure the transition is smooth and records are cleanly transferred into the system.

Master Planning not only encompasses the traditional construction activities but also includes demolition and divestiture (privatization) of facilities. Demolition planning and execution must be done hand-in-hand with construction planning to minimize the net growth of Army inventory. Planning and privatization of facilities (housing, utility systems, lodging, etc.) must also continue. These initiatives transfer ownership and management

responsibilities to organizations that specialize in focused areas and are true success stories. Soldiers receive better facilities and services, and the Army can focus on its core competencies.

Energy planning and management will be an increasingly important aspect of our work. We must reduce energy consumption and our reliance on imported fuels by continual planning and engineering for conservation and energy alternatives.

Sustainment, Restoration and Modernization funding has become more predictable, and Annual Work Plans must be designed so that they complement the Future Development Plans.

In conclusion, garrisons must rebuild their long-range master plans by refresh-

ing their Installation Strategic Plan and Real Property Master Plan visions, goals and objectives. The military construction program will add a very significant inventory to our installations but will not fill in the blanks — specifically, all the landscape and exterior features that make the difference between a snapshot and a portrait. Our Operations and Maintenance, Army and MILCON Capital Investment Strategies must be integrated to continue the systematic and orderly development of our *Installations of Excellence*.

We have begun well; let us press on.

Lt. Gen. Robert Wilson is the assistant chief of staff for Installation Management and commander, Installation Management Command **PWD**



New processes will automate, assist Army business transformation

by Tom Hodgini and Jerry Harbison

Those working at a Directorate of Public Works or for the U.S. Army Corps of Engineers have been extremely busy. DPWs are supporting the Global War on Terror and the Army Campaign Plan to include Base Realignment and Closure, Army Modular Force and the Global Defense Posture and Realignment. Concurrently, the Office of the Secretary of Defense, Army leadership and policy makers are transforming the way the Department of Defense conducts business with new policies and plans. The bottom line: To adapt and thrive, public works engineers need to be more productive and innovative.

The September/October 2006 *Public Works Digest* featured a special report on Military Construction Transformation. Lt. Gen. Robert Wilson, Installation Management Command commander, wrote, "As the challenges facing today's Army continue to build within the constraints fueled by shrinking resources, it becomes incumbent on the Army to continue to lead the way

in innovative thinking and technology. As the Army transforms the military construction process, it is imperative that the installation community endorse MILCON Transformation in order to fully achieve the potential efficiencies and benefits from this strategy."

IMCOM-West Region, Northwest Office, embraces this strategy and is an active participant in MILCON Transformation, with the supporting USACE division and districts. The Northwest Office is totally focused on ensuring the successful implementation of MILCON Transformation for installations and DPWs.

Because the MILCON Transformation program and process is so encompassing, it is helpful to examine the facility life cycle. Ultimately, the best way to view MILCON Transformation is holistically as interdependent phases of a continuous facility life cycle. Understanding the dynamics among phases is an important key to finding and recommending improvements to mission-

The facility life cycle
• Master planning and project programming
• Design
• Construction
• Commissioning
• Operations and maintenance
• Decommissioning and deconstruction

essential engineer processes and systems.

During the past three years, the primary focus was on MILCON planning and programming to support the Army's restoration with the development, approvals and funding of projects. The Northwest Office tirelessly worked these unprecedented project requirements into BRAC and the Future Year Defense Program. Significant new construction work is expected during the next six years. The challenge is to receive all new facilities brought online from the construction agent, USACE, ➤

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post's construction needs.

- **Embrace area development planning techniques to address mission-specific planning requirements.** Area Development Plans provide posts with the means to plan an area while addressing all the holistic planning requirements that need to be met.
- **Build your professional planning team.** Master planning is a unique professional expertise that requires a trained specialist. Installations should assure their planning support is available and trained in the current practices of urban planning. If the installation is hiring planning staff, it should consider obtaining the services of a community planner (job series 020). Also, it should ensure that its staff has the current planning tools. These include establishing and sustaining an installationwide Geospatial Information System and providing cur-

rent master planning visualization tools that help planners portray new ideas.

- **Promote stakeholders' involvement in the planning process.** The most successful planning programs are those that have postwide community involvement, with all stakeholders taking ownership in the master plan. Use a Real Property Planning Board and host forums to promote active involvement in the master planning program. Master planning charrettes are of key importance for getting all the right players together to ensure a quality master plan. When the community is involved, installations will find more interest in, and support for, the outcome.
- **Embrace Armywide standards for geospatial systems and facility standardizations.** An effective planning program requires investment early in the planning phases. However, with the demands for programming and

design, essential up-front, holistic planning often suffers. By using proven Armywide protocols for geospatial data and facility design instead of reinventing concepts from scratch, installations can free resources to focus on the most essential planning challenges.

The U.S. Army Corps of Engineers is part of the Installation Management Command's planning team and is postured to support installation planning needs. My planning support teams at the Corps' districts, centers, research and development activities, along with the entire Corps Planning Community of Practice, are prepared to support any professional training and planning implementation requirements.

Essayons!

Lt. Gen. Carl A. Strock is chief of engineers and commanding general of the U.S. Army Corps of Engineers. PWJ



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and then operate and maintain the real property inventory effectively and efficiently throughout the facility life cycle.

There is nothing more critical for the affected DPW's success than an efficient hand-over. We call this receipt of new construction, the "back end" of MILCON Transformation. To examine the back end, the Northwest Office formed a multi-disciplinary team to review commissioning activities and processes, and focused on three opportunities to automate and improve processes and systems:

- Capitalization and DD-1354 processing
- Geographic Information System (GIS) files and construction "as-built" drawings
- Construction Operations Building Information Exchange (COBIE) data.

In each of these three critical functions, there is development and passing of required data from the creator, USACE and its contractors, to the receiver and user of the data, the DPWs. As data is created, gathered and stored at each step of the process, it becomes a valuable asset for the DPW *only* if it is aligned to fit exactly with the DPW data requirements and DPW systems are adapted to efficiently import the data. Team efforts are focused on this alignment of data to DPW requirements to improve productivity.

Commissioning and COBIE represent new terms in the context of MILCON Transformation. Commissioning is traditionally relating to the design, construction and systems testing of ships or large buildings. In buildings, heating, ventilation and air conditioning system load testing is critical, but every other building component system (lighting, security, fire suppression, etc.) can and should be included in the commissioning processes. USACE serves as the commissioning agent for the Army and, as such, guarantees that all building components are designed and tested to work as promised.

Traditional commissioning begins in the design phase and is only completed after the warranty period is complete. In the commissioning process, the Beneficial Occupancy Date is critical. This date is the key performance metric in the facility life cycle when "ownership" and responsibility

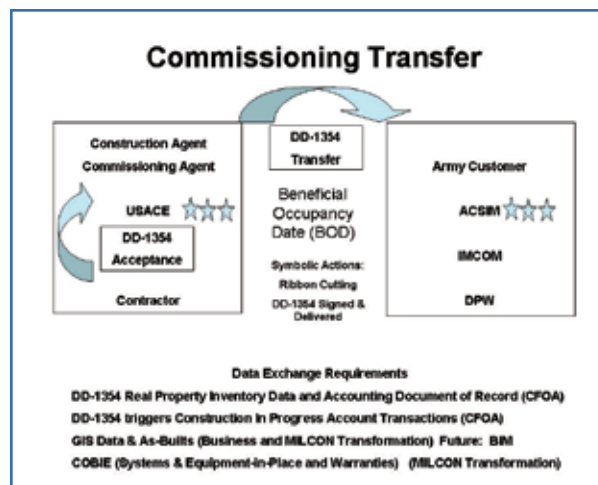
for the new facilities pass from the construction agent, USACE, to the Army customer represented by the local DPW.

COBIE, the other new concept added to the public works lexicon, is an evolving construction industry standard, developed by the National Institute of Building Sciences in partnership with construction industry associations and software companies. COBIE is the automated capture of facility and equipment data that results in reduced life-cycle maintenance costs through improved accuracy and timeliness of critical information.

The National Building Information Model Standard is a set of interoperable standards for exchange of facility and infrastructure data through the life cycle of a project. Within USACE, the Engineer Research and Development Center is the leading proponent for the Army. The DPW at Fort Lewis, Wash., has a prominent role, providing subject matter experts and a test bed. The DPW, in partnership with USACE's Seattle District and IMCOM-West Region, is developing innovative ways to gather and leverage critical data for its operations and maintenance mission.

This new process is exciting. It provides a standard data format in which contractors working for USACE are required to capture data that is relevant, useful and timely in the design and construction phases and pass it to the DPWs during the commissioning phase, so DPWs can use the data to be poised for success during the facilities operations and maintenance phase. Fort Lewis is especially well postured for the COBIE testing, because they utilize MAX-IMO, a modern work management system that develops their DPW Annual Work Plan.

Standard formats allow data to be imported directly into the DPW work management system. Currently, information is only captured and manually input into the Integrated Facility System.



Graphic by Installation Management Command-West Region, Northwest Office

Imagine the DPW productivity boost that could be realized by the automated transfer of data. Data sets can include: the emerging DoD Real Property Inventory Requirements, DD-1354 information, category codes, gross and net square footage, actual capitalization costs, installed equipment lists, warranty information, preventive maintenance schedules, as-built drawings, utility line locations, utility specifications, etc.

Paper, while it meets contractual requirements, has limited benefits and cannot be considered the most effective or efficient means, given current technology. It is imperative to automate — to improve the accuracy and the timeliness of the data, and reduce the costs of transcribing that data into automated systems.

While DPWs are busy managing the Army's facilities, many others are working behind the scenes on plans, processes and future work management systems in the context of MILCON Transformation and the DoD business transformation. These new processes will automate and assist with the very important work that public works engineers execute on behalf of the Army and its Soldiers.

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DPWD



Comprehensive how-to guide explains military master planning

by Eugene H. Yerkes and Alexandra C. Peet

Scheduled for release this spring, the Army's new Master Planning Technical Manual — developed by the U.S. Army Installation Management Command, with assistance from PBS&J under contract through the U.S. Army Corps of Engineers — will bring together both military and civilian planning techniques in a user-friendly format that will be available both in print and online.

For the first time in its history, the Army will have a master planning guide that tells installation planners what is required under the recently activated IMCOM and Army Regulation 210-20, *Real Property Master Planning for Army Installations*. The manual also provides amplified guidance, advice and illustrations in a how-to and reference guide designed to incorporate discussions of raw Army data, established planning techniques and the expert advice of numerous professional planners.

Reflecting the consolidation of resources and management structures under IMCOM, the Corps of Engineers commissioned a brand-new, original planning guide to enable the management of Army installations as “flagships of readiness,” which fully and efficiently support troop deployments, meet the multiple needs of today's Army families, protect the environment and enhance the well-being of the Army community as a whole.

“The efficient and workable format and structure of this manual will enable installation planning for the novice and seasoned professional alike,” said Donald LaRocque, IMCOM chief of Public Works. “Unlike previous Army planning documents, the new manual will centralize all planning information and then present it dynamically online. Its ultimate effectiveness will be enhanced by internal and external links to document information and external web sites, providing users with easily accessed opportunities to expand their research.”

Up-to-date content, clearly organized, extensively illustrated

The new manual incorporates innovative urban planning principles to promote utmost functionality and excellence in design. The manual's first sections provide instruction that enables the implementation of the Army's master planning program. The second part of the manual consists of technical support arranged by topics relevant to Army master planners. The tone of the manual is intentionally informative and engaging, with content that provides both description and instruction.

The manual specifically addresses individual components that include mission capability, quality of military life and impacts on surrounding communities. Each section is divided into subcategories that clarify the planning process by clearly describing an overview, purpose, key steps, approval process and maintenance considerations. At the same time, the manual provides direct guidance on the use of specific planning tools and techniques including charrettes, visioning, geographic information systems technology, Army-specific tools, tabulation of existing and required facilities development, and installation programming.

The new manual also contains a robust collection of charts and diagrams that further explain and simplify the master planning process. Each graphic presents information in support of the written content. Color is used to connect processes and products to master-planning components and planning steps, highlighting those elements specifically relevant to the component under discussion. Also accompanying the text are “call-out boxes” and “tip boxes” that provide additional information to help guide plan development.

Online functionality, flexible, dynamic

The manual will be provided in hard copy and available online. The web site will support multi-media (movies, Flash

files, AVIs, etc.) that will engage users and communicate information more clearly and precisely. Postwide maps will be embedded with text to interactively reinforce the vision and intent of the plan. The site was designed to be intuitive, instantly instructional and up-to-date.

The web site also incorporates enhancements in usability that extend the applicability and guidance of the material it contains. These include:

- document data searches that provide quick access to topic-specific information;
- external hyperlinking that provides fast online access to data references;
- internal hyperlinking that creates links to relevant sections within the document; and
- component publishing that compiles selected sections as downloadable components for user-specific needs.

Both online and printed formats are carefully organized for utmost clarity and ease of use. The hard copy creates a ready, hands-on reference, while the dynamic web site enables users to quickly delve into and navigate all aspects of the planning process with the click of a button.

Consistent, inclusive, streamlined, practical

While some Army master planners may be planners, many have backgrounds in engineering, architecture or other unrelated fields. The manual effectively addresses this variety of backgrounds by providing planning direction and guidance that ensures a consistency of process and product among all Army installations. It also ensures that real property master planning supports Army mission-related goals and reflects its priorities in achieving quality of installation life.

The manual is intended to be a mechanism that institutionalizes all the Army's master-planning knowledge and, by packaging it in a usable, organized and comprehensive way, transfers that



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This diagram of the planning process is included in the Master Planning Technical Manual due out this spring.

knowledge to the broader Army community. Development of the content involved the close cooperation of the main project team at numerous meetings, independent interviews with key individuals, comments from IMCOM regions and master planners in the field, and development of supporting documentation.

The manual also offers planners real world advice through its “lessons learned” section — field-tested tricks of the trade to assure greater success.

“This new centralized and interactive technical manual will provide the Army a return on its investment many times over,” LaRocque said. “By maximizing the effectiveness of the master planning effort for each installation, streamlining the planning process and providing ready access to all relevant information, the new manual will help achieve improved communications in planning, a higher quality of on-base military life and better political relations with surrounding communities. In all cases, it’s a

win-win innovation.”

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PWD



Installation design guides, area development guides support new construction techniques

by John Peasley

One of the most challenging adjustments to the master planning process necessary to implement the Military Construction Transformation strategy has been the changes required to the installation design guides (IDGs). Much of the success of MILCON Transformation will depend on how well we reach out with our facility needs and desires and hand them off to our new partners in the private construction industry. The IDG lies right in the center of this interface.

Installation design guides

The IDG is a component of the master plan that is unique to each installation. The guide promotes the visual order and enhances the natural and man-made environments through consistent architectural themes and standards by expressing in three-dimensional form and space the values and intentions broadly stated in the installation master plan. A significant part of what defines a community is its sense of identity, which is tied together with its sense of place — the physical look and feel that is unique to that location. Compliance with the IDG component of the master plan ensures that a sense of community, order, tradition and pride is built into Army installations.

MILCON Transformation requires trust in the private construction sector to fulfill our facility and infrastructure demands. We must trust that increasing our exposure and risk to a wider range of construction approaches and techniques, to include pre-engineered buildings, will more quickly produce better and less expensive facilities.

Installations have courageously and, in a few cases, reluctantly removed overly prescriptive language from their IDGs. The days of detailed technical specifications that prescribe specific materials and workmanship are gone, replaced with more performance-based design criteria. IDGs



now convey clearly what is needed and, at the same time, encourage a wide range of new, creative solutions developed by private industry. This change will help Army installations to find the right partners and connect with them.

Area development guides

How do you describe what “look” you want a contractor to design and build on your installation? Compound that problem with the challenge that you also need to encourage and support more diverse construction approaches and techniques, which means you can’t mandate specific materials or workmanship.

One innovative master planning product being developed that solves this dilemma is the area development guide (ADG), which can be embedded in the IDG, when appropriate. The ADG is essentially a picture of the new facility that has been selected and approved by the receiving installation’s Real Property Planning Board before the

facility is designed. The ADG allows better decisions to be made earlier in the design process with complete owner awareness.

The ADG also takes full advantage of the opportunity presented by the massive volume of new construction planned and programmed over the next six years by allowing an installation to establish and apply one common “look” to multiple projects, with multiple types of facilities, over multiple years, within the same general location or area. This long-range planning is rarely accomplished by any planning community.

Adherence to IDGs and ADGs will benefit Soldiers and their families for many years to come.

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IMCOM offers centrally managed master planning vehicles

by Frank Hall and John Peasley

Sound master planning is the critical first step in a process that defines the long-range vision and end-state of the installation. The master planner and his or her staff are responsible for producing the installation's comprehensive real property master plan.

Each installation master plan is made up of individual components that can be separated for the purpose of focusing and managing work accomplishment. Critical elements include: the real property inventory, facility requirements, Army stationing installation plan, future development plans, land-use maps, installation design guides and the capital investment strategy.

To assist master planners, Headquarters, Installation Management Command has developed a series of "off-the-shelf" contracts directed at specific components of the master plan. These standardized contracts produce consistent master plans, defensible facility-programming documentation and normalized auditable costs, and are readily available to installations.

These standard contracts can be funded centrally or directly by the installation. Huntsville Center, U.S. Army Corps of Engineers provides centralized master planning support and execution for HQ IMCOM. Huntsville Center has been tasked by Headquarters, U.S. Army Corps of Engineers to provide centralized support to planning and programming in support of the Global Posturing Initiative and Army Modular Force.

Some of the standard contracts available include:

Requirements analyses identify facility requirements supporting the Army's Transformation and conversion to modularity. The goal is to develop the scenario that most efficiently uses installation assets and keeps new construction to a minimum, while adhering to basic master planning principles and the Army's master planning and programming processes.

Planning charrettes is the process by which all stakeholders, installation staffs,

IMCOM regions, Corps districts, users and commanders come to an agreement on the content of the programming documentation to be submitted as a valid requirement to the Assistant Chief of Staff for Installation Management for programming consideration.

Facilities reutilization studies analyze facilities to be vacated by an activity or unit for optimum reutilization of known stationing actions and identify programmable actions to bring those facilities to the current standards for their intended use.

UPH analyses analyze unaccompanied personnel housing (UPH) assets; apply latest HQ IMCOM policy to capacity reporting and evaluate installation-level buyout of UPH to the current standard(s); and identify programmable actions to address any shortfalls or excesses.

"GAP" analyses determine the existing capacity and adequacy to support the activities in the training areas with cantonment infrastructure, analyze the requirement to support known programming actions in the training areas and identify discrete programmable actions to address any shortfalls.

Infrastructure analyses provide fence-to-fence analysis of existing infrastructure systems in relation to existing facilities and known programmed facilities, and identify discrete programmable actions to address shortfalls.

Area development guides develop three options that address architectural synergy across multiple facility product lines in multiple fiscal years in one general location in concert with the area development guide, allow the installation to choose one of the options for further development and develop architectural theme sketches and drawings.

HQ IMCOM has already used these standard products to address the transformation and relocation of 92 brigade-sized units. Following are some examples of how HQ IMCOM is further developing these and other master planning products at installations:

- Echelons Above Brigade (EAB) requirements analyses will be used to develop mission-essential facilities requirements for EAB units and activities at Forts Knox, Bragg, Carson, Shafter, Irwin, Sill, Polk, Benning and Stewart, and Schofield Barracks.
- Facilities utilization studies will identify optimal use for facilities being vacated by units or activities due to stationing initiatives at Forts Bliss and Sam Houston.
- Area development guides will produce a tool that will ensure architectural themes and appearances are consistent throughout specified project areas and are in compliance with Army installation design standards and the local installation design guide. This tool will also assist USACE districts in developing requests for proposal at Forts Lee, Bliss, Meade, Benning, Carson and Campbell.
- GAP analyses will identify critical infrastructure provisions among the cantonment, the off-post and the training areas at Forts Irwin, A. P. Hill and Bliss.
- Infrastructure analyses will create fence-to-fence infrastructure assessments that identify capacity and condition to support existing mission and future programmed actions at Forts Lee, Benning, Lewis, Sam Houston and Eustis.
- Facilities buyout studies will be used for UPH at Forts Stewart, Campbell, Gordon, Polk, Sam Houston and Hood.

HQ IMCOM is continuing to develop initiatives to assist the installations with the acquisition of standard, consistent master planning products.

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RPMP Digest connects vision, goals, objectives

by Jerry Zekert

When developing the Real Property Master Plan (RPMP) Digest, a major focus is the creation of the RPMP vision, goals and objectives. A digest must present a process that is visionary and provide “connectiveness” among the RPMP vision and implementing strategies. This article discusses that challenge and makes recommendations for addressing it.

At many installations, there are several planning processes being implemented simultaneously. The installation strategic planning process, which establishes the plan for the installation’s operation, is its business plan. That process is very holistic and embraces all the various business practices that are employed to operate and manage the installation. Like all planning processes, it includes a vision statement, with associated goals and objectives, and identifies discrete actions.

At many installations, the Army’s Sustainable Development Program also contains installation sustainability plans. The sustainability plan methodology defines, through a series of in-depth, intensive, charrette-style workshops, vision goals and objectives for sustainable development of the installation. Sustainability involves more than just real property; it comprises the entire set of operations occurring throughout the installation community. In that context, the sustainability plan is much broader in scope and focus than the strategic plan.

Finally, the RPMP process is one of the more legacy-focused planning processes in the Army. The RPMP process provides the installation vision and framework for long-term development of the land and facilities (real property) that assure the post’s long-term military capabilities are maintained. The process follows the professional practice of urban planning and is implemented the same by all Department of Defense services and agencies.

Each installation must have an approved RPMP. There are many other planning processes occurring throughout the installation, and all should be inter-connected. The RPMP is one of the foundation planning documents, because most activities rely on the land and facilities. The chal-



Jerry Zekert
Photo by Mary Beth Thompson

lenge of developing the RPMP is to document a process that assures comprehensive real property development and ensures all planning considerations are included.

Both the strategic plan and the sustainability plan cite a vision, goals and objectives, and all address some qualities of comprehensiveness. There is nothing wrong with several vision statements, addressing each planning process. Each statement embraces a focus for its particular area. When dealing with mutually compatible processes, the challenge is to develop a vision statement that supports the unique planning process but enables an environment for comprehensiveness.

Many Army installation RPMPs do not have a formal vision statement. Development is driven by a series of understood planning principles that embrace design, safety, sustainability and environmental stewardship and are noted in various planning documents including Army Regulation 210-20, the Installation Design Guide component of the RPMP and the existing plan.

Here are some suggestions and examples of good planning techniques for visioning:

1. Define a unique RPMP vision statement that defines the long-term intent for real property development. For example:
Fort America: A viable, critical installation developed to meet rapidly evolving national defense needs and to serve as a complementary partner to the civilian community, planned around solid principles of sustainable development and firmly defined urban design principles for holistic community planning, and

dedicated to the preservation and protection of its natural, cultural and environmental resources.

2. Define a unique set of goals for the RPMP. For example:

The goals of the RPMP are to provide a framework for planning, programming, design, construction and effective management in accordance with the RPMP vision. These goals are:

- *Develop effective, orderly long-range plans for the installation in support of existing and future missions that promote an effective, orderly and obtainable direction for future development and embrace sustainable planning and development.*
- *Document a set of comprehensive procedures for translating mission plans to policies, programs and specific projects for on-base facilities and systems.*
- *Create a framework for integrating coherently the multiple components of real property master planning with other installationwide planning processes.*
- *Nurture a complementary and harmonious relationship between the installation and the civilian community, brought about and maintained through cooperative community planning.*

3. Define a series of objectives. The RPMP Digest should describe each of these goals with a series of objectives. These objectives are the series of actions, or development strategies, that achieve a goal. In defining these objectives, the planner should consider actions recommended in other installation plans as well as solicit feedback from installation stakeholders.

Below are typical RPMP goals and objectives:

Goal: *Effective and orderly long-range installation development in support of existing and future missions that promotes an effective, orderly and obtainable direction and embraces sustainable planning and development.*

Objectives:

- *Develop a set of planning principles that guide comprehensive holistic planning on the installation.*
- *Use area development planning to create* ➤



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more effective, orderly and obtainable future development.

- Embrace the U.S. Green Building Council's Leadership in Energy and Environmental Design for Neighborhood Development in the planning of the post.
- Ensure development makes the installation access-friendly and secure.

Goal: Document comprehensive procedures for translating mission plans to policies, programs and specific projects for on-post facilities and systems.

Objectives:

- Promote packaging of focused mission plans and programs into area development planning proposals that can be mapped to the RPMP as well as supporting other installation initiatives.
- Ensure real property requirements are documented in the Capital Investment Strategy

and the Tabulation of Existing Requirements.

- Ensure future military training needs are met through focused planning of range and training land areas.

Goal: Create a framework for coherently integrating the multiple components of real property master planning with other installationwide planning processes.

Objectives:

- Promote compatible land use development near training areas in a manner that will limit restrictions to operations while protecting surrounding communities.
- Ensure wise protection, use and management of resources within the natural and man-made environments.
- Promote an efficient traffic flow pattern between functionally related land uses.
- Enhance visual and aesthetic resources.
- Collate or consolidate activities that are functionally related in an effort to improve opera-

tional efficiency.

- Provide the basis for developing a capital investment strategy, including guidelines for the siting of facilities.
- Provide the highest quality of life for the Army community.

These few examples illustrate how the RPMP vision, goals and objectives are mapped back to other parallel installation planning initiatives. In addition, it is recommended that, as a series of appendices, the installation strategic planning process and the sustainability planning process be explained as well as their relationship to the RPMP.

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Digest: groundwork for good planning

Master planning is the collaborative comprehensive process that transforms a broad vision for base development into a holistic plan of action that will guide the future real property activities for the next 40 to 50 years. The *master plan* is simply the formal documentation of the process, the recognition of all planning considerations and findings, and the identification of approved actions. The *Real Property Master Planning Digest* is the foundation document of the master plan that defines the entire planning strategy for the installation

The digest is a comprehensive planning document that identifies the vision for installation real property development, as well as the goals, objectives and other planning principles needed to implement the vision. The digest also identifies the specific planning initiatives needed to realize these goals and objectives as well the associated set of discrete activities needed to implement the initiatives. The digest provides the planning architecture that will outline the extent of long-range

development, (i.e., land-use), urban design principles (the Installation Design Guide), capital investment (the Capital Investment Strategy) and immediate (short-range) actions.

The Real Property Master Planning Digest is modeled on the concept of general plans, a professional planning practice used by the other services and most cities and towns in America. General plans are proven to effectively scale planning activities.

When an installation decides to develop a Real Property Master Planning Digest, it has determined that the planning program needs to be revitalized and re-synched. It is committing to a "visioning process" that embraces all installation stakeholders in forming a consensus statement for the guiding principles that will direct real property development.

With a digest, the installation also reassesses the findings of the existing installation planning documentation and evaluates whether the plan findings synch with the new planning principles. The

digest will identify the installation's holistic future development plan and determine if any further extensive planning efforts are needed, including focused area development plans, etc. It should be visual, have lots of graphics and be web-enabled. Further, the digest should be developed such that it is easy to update. The new Master Planning Technical Manual can be an invaluable resource for assistance.

Skilled planners with experience in community planning and visioning are essential to making the digest effort a success. Careful selection of planning personnel will ensure professional expertise.

Preparing a digest is not an expensive effort. The cost is in the installation's commitment to fully participate in the visioning session and work with the digest consultant to build a consensus set of planning principles that will guide the long-range development of the post.

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Is installation's master plan effective? Here's how to tell

by Jerry Zekert

Planning is not a product but a process of collaborative long-range implementation of a vision for the future. The plan is simply the documentation of this process. However, there are subjective indicators that can assess the effectiveness of the planning process.

Following are some indicators installations can use to benchmark planning effectiveness:

- A good plan communicates a sense of place and an understanding of what is special about your installation and region. It tells a story. What was the installation like in the past, and what is it like today? How is the installation changing, and what will the installation be like in the future if present trends continue? What are the installation's qualities that people value and that give it a sense of place? What are the forces of change acting on the installation?
- A good plan describes alternative futures and the likely consequences of alternative courses of action. It reminds installation commanders, directors, Soldiers, civilians, contractors and families that no outcome is preordained or inevitable. The choices installations make do make a difference.
- A good plan expresses a compelling vision of what residents desire the installation to be like in the future. It expresses an installation's deepest-held aspirations and inspires and offers hope.
- A good plan presents essential data — but not too much. It is not padded with data that is not directly pertinent to the substance of the plan, and therefore, is not so heavy that people are discouraged from taking it with them to the chain of command. All figures, charts, tables and maps are included because they shed a light on important issues addressed in the plan. Tables, charts and graphs presenting interesting but nonessential data are placed in a separate appendix, rather than in the plan's main body.
- A good plan puts forward goals and objectives that are capable of being translated into specific policies and actions. It avoids goal statements so general that they cannot be meaningfully interpreted or applied in practice, while identifying indicators for measuring progress toward meeting specific goals.
- A good plan is realistic. It does not attempt the impossible. It does not put forward goals and objectives without identifying how those goals and objectives might be achieved.
- A good plan is fair and equitable and attempts to balance competing interests. It strives to weigh development needs against the need to conserve and protect environmental resources. Its aim is to achieve a pattern of land use and development that is sustainable.
- A good plan lets design and construction agents know the type of development the installation wants — not just what the installation does not want — and encourages development in areas most suitable for development.
- A good plan encourages people to think about what is best for the whole installation — not just for their unit, organization or themselves — and about the interests of future residents as well as current residents.
- Finally, a good plan is packaged and presented in a way that encourages the installation stakeholders to read it. People care about the places where they live and work. They want to know what is happening, and is likely to happen, to their installation. Do not discourage them from seeking this information by producing a dull or dry plan.

Contact Jerry Zekert, e-mail: jerry.c.zekert@usace.army.mil, if you have any questions or would like to discuss any of these indicators.

PWD

Hiring planning services: what to look for

Many installations today are faced with obtaining planning services from consultants. The skills to accomplish quality planning require expertise in professional planning and community development. Narrow expertise in facility design and construction or architecture does not provide the skills needed to help installations with the professional principles of community planning and comprehensive holistic development.

While working closely with the supporting district or other contracting agency, installations should consider only firms that have professional planners on staff, preferably with AICP (American Institute of Certified Planners) certification and experience in community planning. These firms should have the know-how to plan for mixed-use and sustainable development, as well as familiarity with visioning and overseeing a collaborative planning process.

Also, it is important to ensure the firms are up-to-date in current planning technology tools such as Sketch-up and other geospatial applications. This expertise is essential for installations and their stakeholders to visualize what the entire community urban environment will look like, its scale and how it all comes together. Capitalizing on this expertise is not new or unique; it is current practice used by local cities and towns throughout America today.

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Creating sustainable installations requires comprehensive planning

by Jerry Zekert

Almost all in the public works community have heard about the merits of sustainable design and development and the value of energy and infrastructure management. They have seen sustainable design parameters imbedded in the military construction projects. They have seen sustainable principles imbedded into the process for disposal of facilities as well as manufacturing techniques. Many of these approaches are project focused, rely on unique design and, while vastly reducing long-term life-cycle costs, can increase present-year project costs.

Looking holistically, to pull together the cumulative effects of sustainable development requires more strategic thinking. Installations need to embrace the master planning process to imbed sustainable planning principles into their goals and objectives and use them when implementing planning recommendations. Planning more holistically around focused area or neighborhood development rather than project-focused initiatives is essential.

This is all true, but how can sustainability be imbedded into the planning process? The U.S. Green Building Council (USGBC), the Congress for New Urbanism, and the Natural Resources Defense Council have developed a set of standards for neighborhood or area development that can be used as a tool for installation master planners to guide sustainable development. This tool, better known as the Leadership in Energy and Environmental Design

Neighborhood Development standards (LEED-ND), is available from the USGBC web site at <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148>.

Although the tool is still under development, it provides an invaluable reference to guide area development planning. Structured similarly to the traditional LEED rating system for buildings, LEED-ND is organized around four major principles:

- 1. Location efficiency** concentrates on siting considerations that reduce air pollution, energy consumption and greenhouse gas emissions generated by transportation. It encourages new development in locations that reduce automobile dependency and provide greater opportunities for walking. Further, this principle includes conserving natural and financial resources required for construction and maintenance of infrastructure by encouraging new development within and near existing areas to reduce environmental impacts caused by haphazard sprawl.
- 2. Environmental preservation** focuses on protecting imperiled species and ecological communities; protecting natural habitat; conserving water quality, natural hydrology and habitat through conservation of water bodies and wetlands; reducing water pollution from erosion during construction; and preserving irreplaceable agricultural resources.
- 3. Compact, complete and connected neighborhoods** create areas that pro-

mote developments that are good neighbors to their surrounding communities and foster a sense of community and “connectiveness” beyond development. They also promote compact development by conserving land; promote livability, transportation efficiency and “walk-ability;” and create areas with diverse uses that preserve community livability, transportation efficiency and walk-ability.

- 4. Resource efficiency** develops areas whose buildings are certified green and use such concepts as energy and water efficiency; heat island reduction; infrastructure energy efficiency; on-site power generation; reuse of grey-water and other materials; wastewater management; and comprehensive waste management.

The LEED-ND tool provides a great resource for guiding focused planning on our installations. The Advanced Master Planning class has used the LEED-ND standards to measure the sustainability of the area development plan class project. By using the LEED-ND tool, the class solutions, without even leveraging innovative technologies or special building modifications, were certified sustainable.

It is Army policy that installations be planned for sustainable development. The LEED-ND standards are a tremendous tool for planners to use to achieve this goal. However, planners must plan comprehensively, using holistic area development planning rather than short-sided reactionary project-focused efforts. Quick fixes ➤

Start building your planning library

A planner, like any professional, must maintain a professional library that serves as an invaluable resource for his or her practice. Below are some recommendations for outstanding initial professional planning textbooks. These books can be purchased from online sources like Amazon.com or the American Planning Association Book Service, www.Planning.org.

“A Pattern Language, Towns, Build-

ings, Construction,” by Christopher Alexander, provides a comprehensive language for building and planning. It is a practical planning handbook that can provide guidelines for development.

“Planning and Urban Design Standards,” from APA Planners Press, provides a vast repository of various planning and urban design practices and standards.

“The Death and Life of Great American Cities,” by Jane Jacobs, is one of the most significant planning books of the last 100 years. It describes the importance of building towns based on great neighborhoods instead of sprawling development.

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Meeting Energy Policy Act of 2005 requirements starts with master planning

by Curt Wexel

Master planning has the potential to substantially and permanently reduce the energy intensity of mission facilities. Energy-efficient facilities save money for critical mission activities and contribute to energy security, a growing strategic imperative. In particular, attention to passive solar orientation in site layout and design of individual buildings and complexes builds an extremely cost-effective foundation for energy and environmental sustainability.

In preliminary planning stages, it is critical to life-cycle energy costs that the primary facility axis be oriented to near due south. South-facing windows readily accept free heating from the low winter sun, while they can be easily shaded from the higher summer sun. East- or west-facing windows not only add tremendously to air-conditioning loads, they are also net energy losers in winter.

Taking advantage of solar orientation helps reduce the size of ventilation systems, saving money and improving occupant comfort. A south-facing facility also facilitates the integration or retrofit of active solar collection for water heating or photovoltaic applications.

When the Energy Policy Act of 2005 (EPAct) was signed Aug. 8, 2005, the Army already had supporting strategies and policies in place. An Army Energy Strategy for Installations had just been released in July, and work was underway to develop the Army Energy and Water Campaign Plan for Installations (August 2006) to implement that strategy. Both are posted on the Army Energy Program web page for public viewing, <http://army-energy.hqda.pentagon.mil/programs/plan.asp>.

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might meet the immediate need, but sustainability addresses impacts to a generation.

Planners are encouraged to sign up for the Advanced Master Planning course, course 952, a one-week hands-on course

EPAct set targets for electrical use from renewable energy sources of 3 percent by fiscal year 2007-09 and 7.5 percent by 2013. The Department of Defense long-range goal is to achieve 25 percent renewable electricity by FY 2025. Renewable energy projects, such as photovoltaic lights, solar heating and geothermal heat pumps, reduce reliance on imported fossil fuels and, thereby, increase energy security.

In FY 2006, Army facilities were directly supported by 1.7 megawatts of on-site renewable electric generation capacity. Additional capacity is being added through military construction projects funded by the Energy Conservation Investment Program.

The Energy Campaign Plan sets the direction for the five initiatives established in the Energy Strategy: eliminate energy waste in existing facilities; increase energy efficiency in new construction and renovations; reduce dependence on fossil fuels; conserve water resources; and improve energy security. For each of these initiatives, the plan identifies specific key actions with approaches for meeting them, technologies and tools required, specific projects and milestones, description of the end state, and metrics for success.

The following insights on MILCON Transformation are summarized from an article by Lt. Gen. Robert Wilson, Assistant Chief of Staff for Installation Management. The article appeared in the September-October issue of the *Public Works Digest* and the online version of the October *Engineer Update*.

MILCON Transformation is a collaborative strategy of ACSIM and the U.S. Army Corps of Engineers to transform

hosted by the U.S. Army Corps of Engineers Professional Development Support Center. See the article on page 41 for more information..

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the Army's capital construction process to provide quality facilities faster, better, cheaper, greener and safer with lower operating costs. The process encourages the implementation of modern technology and industry best practices to deliver the best possible facilities to Soldiers and their families. It will capitalize on industry strengths and best practices, encouraging non-traditional builders to compete and provide repeat business incentives for good performance with the awareness that the repetitive nature of work then reduces the learning curve, providing for lower cost, faster delivery and improved quality.

The EPAct includes requirements to be 30 percent more efficient than the American Society of Heating, Refrigeration and Air-conditioning Engineers standard; to use Energy Star equipment; and to achieve 2 percent energy use reduction each year from 2006 through 2015 (totaling 20 percent reduction) based on the 2003 baseline. Minimum standards for environmental and energy sustainable design are SPiRiT (the Army's Sustainable Project Rating Tool) gold rating for projects constructed before 2008, and a minimum of LEED (the U.S. Green Building Council's Leadership in Energy and Environmental Design) silver rating for construction thereafter. The article is available at <http://www.hq.usace.army.mil/cepa/pubs/oct06/story1b.htm> or http://www.imcom.army.mil/site/pw/digest/pwd_sep06.pdf

The integration of solar features into new facilities contributes to meeting energy reduction goals and a minimum LEED silver rating for environmental and energy sustainable design. Proper site orientation is the critical first step in master planning that supports the incorporation of the solar features needed for sustainable facilities.

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Army Transformation drives Southwest master planning

by Carey L. Klug

Taking on challenges and opportunities to excel is the attitude that master planners and engineers have espoused for many years. But the Army master planning community has never before faced such opportunities to support Soldiers as it does now under Army Transformation, Global Defense Posture and Realignment, Base Realignment and Closure, and, of utmost importance, supporting the Global War on Terror.

Master planning has always been a deliberate approach to analyzing and determining the needs of the Army. Master planning is a step-by-step process that addresses where an installation is headed in the next five, 10 and 20 years. In the past, most requirements were given and addressed one at a time. The installation master plan was adjusted “around the edges” to evolve for the future.

Today, master planners are planning and siting hundreds of facilities while maintaining the integrity of land use and operations. They have not had the time to slowly craft a vision and then shape it as time moves forward. They are master planning “on steroids” — and doing a good job at it.

The Installation Management Command-West Region, Southwest Office’s planners have supported the standup of new brigade combat teams and the stationing of a multitude of units using reassignment of space within facilities, renovation of facilities, new construction and acquisition of relocatable facilities. “Getting it right the first time” has been the biggest challenge. The dynamics of meeting our customers’ expectations is no easy feat with rapidly changing data (unit strengths, timelines, facility standards and criteria details not provided) and extremely short execution windows. Planners have stretched themselves to their limits and expanded into creative solutions.

Fort Hood, Texas

Fort Hood’s master planners, supporting the standup of a new brigade combat team, excelled in the re-assignment of facilities and renovation of “hammerhead” barracks to reduce the number of relocatable facili-

ties needed to support a population that grew to more than 50,000 Soldiers. After the consolidation of Hood’s dining facilities, the dining spaces within the “hammerhead” barracks were left vacant. The planners developed a solution to renovate the unused space to address the shortfalls in battalion headquarters, company operations and supply. They reassigned facilities supporting two divisions to fully use facility assets while meeting the operational and functional requirements of the mission, not an easy task.

Fort Bliss, Texas

Fort Bliss is building a brand new “installation” at Biggs Army Airfield to support the restationing of more than 20,000 Soldiers from Europe. Not since the Army built Fort Drum, N.Y., has there been such a challenge. The initial requirements included supporting the standup of a brigade combat team in advance of the restationing. Faced with extremely short timelines for arriving Soldiers, a late start in planning and design, and challenges to provide quality facilities within reduced funding levels, the master planning staff and their supporting Corps of Engineers district and contractors have remained flexible and focused.

The plan is to construct a total of four sets of facilities, a division headquarters complex, community facilities and a “complex” of relocatables to provide operational facilities and barracks for the initial brigade. The relocatables will continue to provide the swing space necessary to support the flow of troops into Fort Bliss as the permanent facilities are constructed and completed. The Army will spend more than \$2.5 billion over the next five years to provide the operational and initial quality-of-life facilities to support a division headquarters and four brigade combat teams.

Every day, the staff deals with the day-to-day work of installation master planning support — maintaining the real property inventory, assigning and assessing space and facility requirements and siting new projects for other tenants — while also seeing to the future of Fort Bliss.

Fort Sill, Okla.

Fort Sill is developing and executing the plan to transform the installation from a Training and Doctrine Command Field Artillery Center to a Joint Fires Center of Excellence with the move of the Air Defense Artillery School from Fort Bliss. An added challenge is supporting the 31st Air Defense Artillery Brigade while retaining power projection capability. The planners have overcome many challenges of changing criteria to develop a sound re-utilization plan in concert with new construction and are on course to implement a solid master plan.

Fort Sam Houston, Texas

Fort Sam Houston will become a joint base installation managed by the Air Force in 2008. The installation master planners are working through the unique challenges of coordinating with the Air Force and Navy to develop a joint medical training center, which will support more than 10,000 students.

At the same time, planners are working to expand the Brooke Army Medical Center into a joint-service facility, to be known as the San Antonio Regional Medical Center. Many challenges are expected as they continue to work through the different approaches of the services to build an integrated plan. The staff remains firmly focused on the future, guiding the plans to create a premier joint medical center and training campus.

The Forts Bliss, Hood, Sill and Sam Houston staffs are reflections of all the Army master planners — excellent, capable and flexible. These staffs are willing and able to push themselves to the outer limits and find creative solutions to form new installations, to fully re-use existing facilities and to enhance their installations as communities where they are proud to work and live.

Did they get it right the first time? Time will tell. The master planning community continues to meet each challenge head-on, find the solution and give Soldiers and their families the best facilities it can provide. ➤



Fort Belvoir employs master planning to prepare for huge influx

by Daniel D. O'Brien

With 7 million square feet of office space, 7 million square feet of parking, 22,000 additional people and traffic improvements in the busiest corridor on the East Coast, master planning for Base Realignment and Closure 2005 and beyond at Fort Belvoir, Va., is exciting. With some \$4 billion dollars of planned construction in a couple of years, the post could be spending more money each day before lunch than it had in the last 10 five-year military construction cycles.

The post faces an ambitious vision to transform its space into a world-class installation that will support the national capital region and more than 100 existing tenants plus the new big ones scheduled to come. The installation is following the master planning guides and regulations — involving its stakeholders, meeting with them to discuss needs and figuring out how to meet those needs.

“Those who aren’t familiar with the BRAC process may not realize that it’s a dynamic process requiring the continuous refinement of data,” said Col. Brian W. Lauritzen, the installation commander. “Fort Belvoir and the organizations identified to move here are constantly revising plans and planning assumptions based on the most current data available.”

BRAC 2005 will essentially double the size of Fort Belvoir’s workforce by 2011. The post’s workforce, now about 23,000, will number about 45,000 by September 2011, the federally mandated date by which BRAC must be complete.

BRAC realigns Fort Belvoir, adding administrative, medical and special/intel-

ligence missions, and creates the requirement for:

- roads, utilities, communications and base support facilities;
- new multi-model transportation infrastructure;
- reconfiguration of the installation;
- new mission facilities;
- structured parking; and
- renovation of existing space.

The post is looking at ways to sustain the installation and make it a better place to work, live and play. They are getting excellent support from the Installation Management Command-Northeast Region and the Baltimore Corps of Engineer District. The Residential Communities Initiative partner is busy putting up new housing for the military.

With the enormous BRAC 2005 program at Fort Belvoir, stakeholder involvement takes on new meaning. The transportation challenges and opportunities are regional, complex and expensive. Deciding how they get done, who does them and when they will get done needs an extended team. Local, commonwealth and federal stakeholders need to be engaged to find solutions. Along with the normal master planning generated by more than 100 tenants, BRAC 2005 has seriously stressed the planning resources at the installation level.

The contracting agent for BRAC Master Planning at Fort Belvoir is the Belvoir New Vision Planners (BNVP), a team of experienced planners, managers, engineers, architects, and environmen-



Mount Vernon District Supervisor Gerald Hyland, far right, is briefed by a representative from Belvoir New Vision Planners during a meeting of the Fort Belvoir BRAC Board of Advisors. Photo courtesy of Fort Belvoir

tal and transportation experts from the firms of Post, Buckley, Schuh & Jernigan, Inc., and Skidmore Owings & Merrill. The BNVP is to validate construction requirements, evaluate opportunities and constraints, assess community benefits, develop innovative and achievable solutions, support outreach activities and a sustainable vision, and develop the best-in-class optimal outcome master plan.

In addition, the BRAC Board of Advisors (BOA) was formed by the installation commander to provide an opportunity to update local, state and national elected officials and community leaders about BRAC initiatives. The BRAC BOA affords stakeholders the opportunity to raise issues and concerns; provide comment and advice on development initiatives, planning and implementation; recommend further actions on projects affecting stakeholder areas; and recommend solutions to stakeholder problem areas and concerns.

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Master planning conducted day to day at Fort Hood

by Christine Luciano

The unprecedented pace of the Army's strategic plan — driven by the Global War on Terror and the Army Modular Force, Global Defense Posture and Realignment and the Base Realignment and Closure Act initiatives — demands a change in the established master planning mindset. The impact on military construction, facility renovation and use, mission training and readiness, and quality of life for Soldiers and their families requires an integrated master plan that remains flexible so it can adapt to the Army's dynamic environment.

"In the traditional master planning sense, master planners have always dealt with who was going to be stationed here, identifying the shortfalls, competing for requirements for Congress and developing Army strategic mobility projects, but it was all for future facilities," said Roderick Chisholm, Fort Hood director of public works. "In the past five years, master planning has changed dramatically. Today, master planners have to be integrated in the day-to-day business of how the units have been transforming, mobilizing and demobilizing. It has become the centerpiece of how the Directorate of Public Works is relating to units at Fort Hood today," he said.

Fort Hood — the home of a Corps headquarters, two armored divisions, an armored cavalry regiment (ACR), a sustainment command, eight separate brigades and other major tenants — is an Army premier power projection platform and an installation of choice for mobilizations. Since 2002, Fort Hood has twice deployed and redeployed the 1st Cavalry Division, the 4th Infantry Division, the 13th Sustainment Command (Expeditionary) and separate brigades; mobilized and demobilized 37,000 Reserve and National Guard Soldiers; and conducted more than 200 unit transformation actions.

With that pace of activity, Fort Hood's ability to sustain the mission and maintain the training environment for current and future missions is essentially challenging. Even though not considered a BRAC net-



Fort Hood master planners Alan Howard, Lisa Cuellar and John Burrow identify unused facilities that future units can occupy. Photo by Felicia Locklin-Hegens, Fort Hood Directorate of Public Works

gaining installation in 2011, the installation is experiencing a temporary surge in the total number of Soldiers assigned, peaking at about 60,000, although the post's existing permanent facilities can effectively support only 50,000 Soldiers. The Army has placed enormous demands on Fort Hood to hold units en route to their ultimate BRAC-mandated locations as Fort Hood continues to deploy major units per the Army Force Generation (ARFORGEN) model.

"To support this surge with the limited resources within our budget climate, the Real Property Planning Division is finding creative solutions to provide a roof over every Soldier's head," said John Burrow, chief of the Fort Hood Directorate of Public Works Real Property Planning Division. "Providing facility capabilities and capacities to meet the ever-changing mission requirement is our ultimate challenge. MCA (Military Construction, Army) is a long-range solution. In today's environment, we can't afford to wait."

Burrow attributes Fort Hood's master planning success thus far to the development of an integrated and flexible master plan, maximum use of existing capacity, conversion of under-used facilities, assignment of facilities on an "eaches" versus square-foot requirement basis, facility use synchronization with unit movement time-

lines according to the ARFORGEN and, more importantly, open communication with mission commanders.

The relationship between Maj. Anthony Streletz, 1st Cavalry Division engineer, and Fort Hood master planners is one example of how leaders from both mission and base operations constantly coordinate and communicate action plans to adapt to the new Army environment.

"Master planners and military leaders are working together to compromise on what is acceptable," Streletz said. "Of course, the mission is more important than getting your square footage, and we understand that. If a building is not available, the responsiveness is limited to a minimum of a year or a year and a half to construct a new facility. That is why we are not tearing down certain buildings and are encouraging units to squeeze into smaller buildings."

Fort Hood's Master Planning Division has spent more time in coordination with the III Corps senior leaders on stationing issues, facility utilization and future project programming than any other section of DPW, according to Chisholm.

"Master planning has evolved around having to deal with the constant question of 'what if.' What if a unit redeploys next week? Or what if a deployment gets shifted, and Fort Hood has to receive the 3rd AC ➤



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from (Fort) Carson, and the 1st Cavalry Division cannot be pushed out until orders are received?” he said. “Master planning at an Army installation has truly transformed at the same time the Army has transformed.”

Communication and coordination with units are essential to making the process work. Fort Hood conducted six installation planning board meetings in the last year in which leaders identified requirements and continuously provided guidance.

Understanding facility occupancy and how capacity is being used is the next step in this process.

Assignment of facilities is the “tip of the spear” for master planning. Currently at Fort Hood, unit footprints are developed with equitable distribution in eaches of critical facilities requirements, such as barracks, brigade, battalion, company operation and vehicle maintenance facilities. To assign on an eaches basis, master planners identify available facilities and determine which facilities are not being occupied efficiently and effectively. They develop a plan to renovate and convert those facilities to support the true requirement. Additional facilities required after renovations and conver-

sions determine how many relocatables are needed.

For example, Army regulation on the amount of space required for a battalion headquarters may be 16,000 square feet, but Fort Hood may have only a 12,000-square-foot facility available to serve that purpose, which would represent “one each.” Units are allowed to take ownership of these defined areas and manage assignment of subordinate units to specific buildings.

The synchronization of mission timelines with facility assignment takes place at a weekly Facility and Stationing Working Group meeting held by the Master Planning Division and co-chaired with III Corps Operations Division. The working group identifies specific timelines, facility issues and recommends resolution to the leadership.

And last, if additional capacity is required, the priority is to convert low-use permanent facilities into critical high-use facilities. Fifty-three percent of the Fort Hood Army Transformation facilities requirements were met by renovating and converting existing structures such as dining facilities, libraries, bowling alleys, and unit storage and vehicle maintenance facilities. This sustainable action invests limited resources into the Army’s existing infrastructure.

make timely decisions and cope with the challenges of Army transformation, mobilization, deployments and redeployments.

“Fort Hood is challenged to develop new ways to master plan and synchronize mission timelines with facility support,” said Lisa Cuellar, Planning Branch chief. “The accuracy of mission timelines is vital in planning to reduce the risk of simultaneously assigning two units to the same facility.”

“CAMPS is a web-based system that integrates planning, stationing, projects and environmental issues,” said Alan Howard, Fort Hood DPW master planner. “Fort Hood military and civilian leaders take advantage of the integrated Geographic Information System, which allows them to view aerial photographs of the installation, identify what type of facilities are in a particular area and which facilities are occupied or vacant during what time period, and develop strategies to support additional units.”

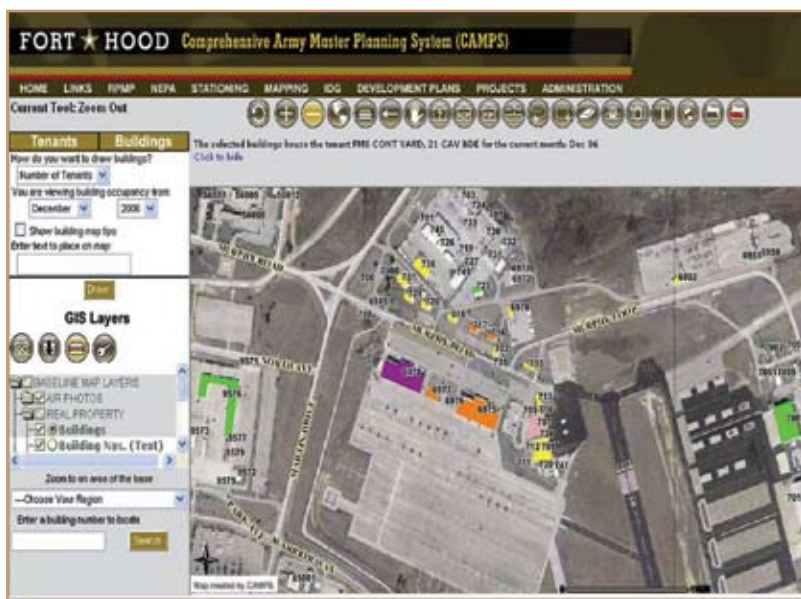
CAMPS is becoming a useful tool for everyone on the installation from master planners to environmental personnel and facility representatives from major units. The future of CAMPS includes integrating the military construction submission process with the Army project prioritization system; integrating the installation design guide process in a web-based format; and expanding National Environmental Policy Act implementation to include other environmental requirements.

Communication among Fort Hood’s mission commanders and master planners and the use of CAMPS make possible the synchronization of real property planning with mission timelines. This synchronization allows the installation to avoid delays in occupancy of key facilities, multiple unit moves, mission loss or failure, lost training, unnecessary expenditures and waste, and unacceptable quality of life for Soldiers and their families.

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PWD



Fort Hood’s Comprehensive Army Master Planning System helps the Master Planning Division make timely decisions to support units and cope with the challenges of Army transformation, mobilization, deployments and redeployments.

Another innovative solution was the development of a Fort Hood Comprehensive Army Master Planning System (CAMPS). CAMPS is a real property tool that helps the Master Planning Division



Fort Drum's master planning overcomes mighty challenges

by Alex Beaver

Fort Drum, N.Y., is the most modern installation in the Army. With the activation of the 10th Mountain Division in 1985, the majority of facilities that support the division in an area referred to as "north post," were constructed in the late 1980s and early 1990s. The overall layout and architectural theme of the north post are used as the guiding template for Fort Drum's master planning efforts.

The significant master planning challenges include the division's conversion to a modular force, the gain of a third brigade combat team (BCT) and the stationing of several battalion-sized units that have arrived due to a variety of initiatives, including Global Defense Posture and Realignment, Army Modular Force and Base Realignment and Closure.

Significant challenges

The pre-modular division footprint had the people and facilities separated by functional responsibility rather than by BCT affiliation. The division commander, Maj. Gen. Benjamin Freakley, envisioned contiguous BCT footprints with an ultimate goal of BCT integrity and improved command and control.

Realigning the BCTs into contiguous footprints required an extensive space analysis and a new division master plan. Since the BCTs would be partially housed in existing facilities, the in-fill analysis was even more complicated. Each building had to be evaluated to determine its suitability to accommodate a given unit, with a given mission, vehicle density, weapons density and personnel strength. This analysis had to be completely reviewed and briefed through the chain of command up to the commanding general.

Perhaps the most complex factor in the planning effort was the financial limitations. Originally, Fort Drum's fiscal years 2007 and 2008 BCT projects were programmed to be incrementally funded. New instructions from the Office of Management

and Budget dictated that all incrementally funded projects must be broken into separate, stand-alone projects with programmed amounts not exceeding \$50 million and the sum of the projects not exceeding the original incrementally funded project amount.

Not only did the master plan have to support the division mission and meet the commanding general's intent, but the facilities also had to be estimated and packaged in a way that supported the division's priorities while still complying with the installation master plan and the new OMB mandates. Ultimately, Fort Drum's BCT projects were packaged as like facilities to leverage the best contract price, reduce project complexity and meet tight schedules.

On the ground

Aside from the programming and planning issues, there are significant challenges on the ground at Fort Drum. When the division's third brigade was stationed there, the initial look at infrastructure indicated that there was sufficient capacity to accommodate the influx of troops and equipment. Further study revealed that, due to the facility development necessary to comply with the commanding general's intent and the installation master plan, there were some shortfalls in utilities capacity, particularly water and sewer.

Many of these shortfalls have been overcome by close coordination and partnering with various agencies. The New York District of the U.S. Army Corps of Engineers and the Fort Drum Directorate of Public Works combined resources to fund a utility study and modeling project, which will help diagnose utility issues.

The Directorate of Information Man-



New barracks are under construction at Fort Drum. Photo by Mark McKenna, U.S. Army Corps of Engineers New York District

agement planned communications infrastructure to support the master plan by using existing contracts that will save the government more than 50 percent of the installation cost while increasing overall communications capacity and expansion capability. The local cable TV vendor, Time Warner Cable, upgraded its infrastructure and installed cable in barracks and other operations facilities at no cost to the installation.

Two of the constants in the topography of northern New York are the presence of shallow bedrock and jurisdictional wetlands. Dealing with the presence of bedrock was relatively easy simply by accounting for the expense of excavation in the initial project estimates. Jurisdictional wetlands, however, are a more significant challenge given their \$100,000 per acre mitigation price tag. The Master Planning Division and the Corps used a strategy of wetlands avoidance. By making minor adjustments to site selection and layout, the cost of wetlands mitigation was reduced from more than \$1 million to a few hundred thousand.

Shortly after the FY 2007 construction program was locked, the Corps' Center of Standardization (COS), Savannah District, published standard designs that affected most of the facilities programmed for the division footprint: brigade and battalion ▶



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headquarters, company operations facilities and tactical equipment maintenance facilities. During the Request for Proposal development and charrette process, a design that was compliant with the intent of the standard was achieved. However, certain modifications had to be made to comply with the limitations of the programmed dollar amounts and to have facilities that would be usable in Fort Drum's climate, which includes 100-plus inches of annual snowfall and sub-zero temperatures. Close coordination and discussion with the COS made these necessary modifications possible.

In addition, the Master Planning Division, the New York District staff and the charrette architect-and-engineering contractors created designs that were functional, aesthetically pleasing and compliant with both the Fort Drum design guide and the new standard designs.

BCT reset

When the briefings, programming, estimating and charrettes were over, to improve unit integrity and consolidate BCT footprints, the commanding general approved a plan to move brigades into consolidated footprints ahead of the military construction build out. This initiative has become known as the BCT reset. The reset is possible because the division has at least one brigade deployed at all times. Also, plans to move the division aviation brigade from north post to Wheeler-Sack Army Airfield were completed in January, freeing up more facilities in the brigade areas.

The new master plan established three BCT-sized footprints. Two of these footprints have the majority of the facilities necessary to house an entire BCT, and modular facilities constructed in 2004 are used as the bridge to round out facility requirements.

As brigades deploy, all personal and unit property is packed up and removed to make room for a redeploying BCT. This "hot-

bunking" solution creates additional work for a deploying BCT with the packing and storing of personal goods and unit property, clearing and transferring real property and clearing installation hand receipts. The benefit is that brigades, their subordinate units and Soldiers are consolidated into the best quality, most modern facilities on Fort Drum.

The installation has been supporting the upgrade to facilities and Soldier quality of life through several programs including an \$8 million barracks flagship renovation program and an end-of-year purchase of \$9 million of barracks furniture.

Secrets to success

All of the entities and moving parts necessary to make the BCT reset and its supporting MILCON successful require a significant planning, coordinating and management effort. Since the commanding general issued his guidance, the master planning staff has worked continuously with the division staff to ensure that the planning effort remained properly focused and met his intent. This close coordination ensured thorough analysis of the division's needs and, ultimately, led to the general's enthusiastic approval of the new master plan.

As the agency that developed the concept for the reset, the DPW Master Planning Division has, by default, become the installation lead proponent in advising and supporting the division in the execution of moving and consolidating its brigades. A master planning staff member is assigned as the overall BCT reset project manager for DPW.

The reset program manager's primary duties include: master planning for managing MILCON that supports the reset; coordinating all DPW installation support efforts that are part of the reset (flagship renovation, locksmith services, signage relocation, etc.); continually participating with the general staff in all reset planning; and serving as the primary advisor to the chief

of staff and Operations on all issues regarding DPW support and facilities needs.

Future challenges

The facilities planned for the 10th Mountain Division will no doubt be received with great enthusiasm and will lead to more effective command and control. However, significant facility challenges will remain once the MILCON is complete.

Existing company and battalion headquarters buildings are between 33 and 50 percent too small, according to the latest standard designs. Existing vehicle maintenance facilities are not properly sized and lack many of the accoutrements of newer facilities. Parking at older facilities requires expansion.

As with the scenario that played out over the past year, Fort Drum's master planners will continue to plan and advise the command and eventually overcome these challenges as well.

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Europe uses master plan to eliminate inadequate Army family housing

by Justin M. Ward

Ten years ago, the powers that be at the Department of Defense decided enough is enough. About two-thirds of all military housing was deemed substandard, and leadership estimated it would take 30 years for traditional military construction practices to yield a suitable outcome.

The solution was the Secretary of Defense's mandate to have all services submit Family Housing Master Plans that detailed a way ahead by July 2000.

The Army's plan was to increase the housing allowance for Soldiers, use privatization methods and, most importantly, eliminate all inadequate family housing. In Europe, that last challenge fell to the Corps of Engineers, Europe District.

Because of the difficulty in securing decisions on overseas basing, the Army has extended the deadline in Europe, giving the Army's Installation Management Command-Europe Region, more time to fully develop its plans. Working with Europe Region, the Corps's Europe District is bringing these plans to life — awarding, designing, renovating and constructing projects that seek to eliminate all inadequate family housing in Europe, said Dorothy Richards, Europe District housing program manager.

According to the Army Housing web site, this undertaking is the largest transformation of its kind in the history of the U.S. Army.

Many of the buildings facing renovation are from the 1950s, postwar relics that suited the needs of the Soldiers at that time. Today, the typical Soldier is older, better educated and, more than likely, a parent. Because the face of the Army has changed, so must the accommodations. One change is the construction of townhouses.

"When Europe Region saw the Air Force was building townhouses in the Ramstein area, they wanted to have some built for the Army as well," Richards said.

After a study of the potential neigh-

borhoods, Europe Region considered both the Wiesbaden and Ansbach areas. In Wiesbaden, four townhouse projects are on the drawing board, with two planned for the Wiesbaden Army Air Field and two for the Aukamm neighborhood. These projects, to be awarded by March 2008, will offer modern floor plans and amenities, and will provide a higher quality of life for Soldiers and their families, Richards said.

Another change is modernization through renovation, including a project at the Wiesbaden Army Air Field, two projects in the nearby Aukamm neighborhood and a Whole Neighborhood Revitalization (WNR) project in Hainerberg.

Hainerberg's WNR project, also to be awarded in 2008, will take a more holistic look at updating the entire neighborhood, Richards said, requiring a rethinking of layout, space requirements and future needs. Many of the buildings currently on the site will be modernized to comply with current Army Family Housing standard design guidance. In addition, the sidewalks, storm drains, playgrounds and parking areas will all be modernized as well.

The Wiesbaden projects amount to a significant chunk of the housing projects in Europe. In fact, according to a March 2006 congressional statement on military quality of life, almost 40 percent of all non-line-item Army Family Housing projects in Germany are taking place in Wiesbaden.

Outside of Wiesbaden, one of Europe's largest Army Family Housing projects is at Urlas, an Army community in Ansbach, Germany, located in Western Bavaria. For about 100 years, the forested green hills



An engineering technician with the Corps' Europe District and representatives from the contractor inspect a newly renovated apartment building at Aukamm housing area in Wiesbaden, Germany. The American 110 and the European 220 outlets (on the wall in the background) make life a little easier for the families living there. Photo by Justin M. Ward

of Urlas have been a military training site — first to the German *Wehrmacht* and then to the U.S. Army.

Over time, some of the land was built up with bunkers, training facilities and electrical substations to support military missions, said Philip Cohen, strategic planner for the district's Installation Support Planning Branch.

Today, plans are in the works to transform the site. According to the Army's 2005 stationing plan — which selected locations for the modular brigade combat teams based on existing and potential capacities, available training space and current locations of supporting units — Urlas is the final staging location for the 12th Combat Aviation Brigade.

The 12th CAB, as they are called, is U.S. Army Europe's first modular aviation unit, merging Soldiers from five units around Germany. Housing the 12th CAB would not only mean building new housing units on vacant Urlas grounds but would also mean running utilities, constructing drainage infrastructure, building parking lots and setting up community support facilities such as a PX, a commissary, a school, a child development center and



Vicenza plans for plus-up of Airborne Brigade Combat Team

by Sean McDonald

In December 2003, Installation Management Command-Europe Region was told to start preparing for an increase in population within the Vicenza, Italy, military community. From this simple warning order would evolve a comprehensive master plan for the garrison that was the product of a multitude of people working towards a common goal — supporting Soldiers, civilians and family members during a time of changing force structure. Working on this effort was a diverse group of individuals and organizations, including IMCOM-Europe, U.S. Army Europe, U.S. Army Corps of Engineers, Naval Facilities Engineering Command (NAVFAC) and planning firms from private industry.

As Al West, a NAVFAC planner brought on to the team early in the process, frequently quoted, “Begin with the end in mind.” With that thought as the guide, planners focused on providing facilities and community support for a population that would increase from about 2,600 to 4,300 Soldiers. The primary reason for this increase was the transformation of the 173rd Airborne Brigade from two-plus battalions to a standard six-battalion Airborne



Brigade Combat Team (ABCT). In addition, the rest of the community would also be in transition, requiring planners to look at the entire community as a whole and plan accordantly.

Vicenza is a northern Italian city located 45 miles west of Venice and 15 miles south of the Italian Alps. The military community consists of two main installations, Ederle Caserma and Villaggio Housing Area, along with a number of smaller support and stor-

age sites. The first impression that strikes most visitors is the compact nature of the community and the lack of open space for expansion. Because the installations are surrounded by the city of Vicenza, expansion of the existing perimeters is not feasible. Obviously, if the community population was going to almost double in size, additional land would be required.

Working with the Italian hosts, planners identified a suitable candidate for ➤

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a recreational facility, which make every Army community home.

In July, a master planning charrette was held to propose locations for the facilities and roads.

The scope for Phase I of the Urlas project provides 132 townhouses with six senior-officer, single-family, detached units, said Michael Hogg, district project manager. Phases II and III, if commenced, are estimated to be much bigger, resulting in an end state of 530 homes.

“And when you add to that a shopping center, theater, chapel, and a host of other community facilities, we’re really

planning for an entire new town,” Hogg said. “There will be plenty of green space, walking and biking paths, and other amenities that make it pleasant and livable.”

All these housing projects have been carefully monitored and championed by the watchful eye of the Pentagon and by an even closer source at Patch Barracks, in Stuttgart, Germany, home to the commander, U.S. European Command and the supreme allied commander, Europe. In July 2005, Patch Barracks saw the completion of a \$17.5 million WNR project for 110 military families.

“The well-being of our military families is linked to readiness, retention, reinforcement of our core values and mission

accomplishment,” Marine Gen. James Jones, who was then the commander, said. “These families are an absolutely integral part of our team.” Continuing to provide adequate housing for Soldiers and their families is critical to ensuring combat readiness and quality of life.

“The challenge before us now is to ... resource and execute this transformation,” Jones said.

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PWD



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the expansion needs, Dal Molin Airfield, a small Italian airbase about seven miles away. The Italian Air Force is in the process of vacating the site and had offered the U.S. Forces use of the land. The installation is divided into two halves, with a built-up military area on one side of the central runway and a small commercial aviation operation and large open area on the other side.

After visiting Dal Molin, planners determined that, although the existing facilities would not meet our needs, the land could be used for military construction projects.

Once the mission was understood and a potential site identified for expansion, the next step in the process was to put together a planning team. A decision, made early on, was to include NAVFAC planners. Unlike most Army MILCON projects where the U.S. Army Corps of Engineers is the construction agent, in Italy, NAVFAC is the lead agency. As a result, NAVFAC was included in the planning process so that they would understand the program and have an appreciation of why particular facility decisions were made. One of the guiding principles throughout the process has been to ensure that all team members understand the big picture. That way, everyone involved knows the goals and desired outcome of the process.

A big challenge early on was identifying unit facility requirements. Because of the evolving nature of the unit force structure, planners worked hard to identify facility requirements in a dynamic environment. As a result of the changes, planners were often forced to redo the requirements calculations and go back to units for additional information. The important lesson learned from these exercises was to build in as much flexibility as possible, because the unit you plan and build for is not necessarily the unit that will occupy the finished product.

Another lesson learned during the requirements analysis phase is that planners need to understand unit and organization mission requirements so that they can clearly articulate requirements to decision makers and provide a facility that meets the unit's true needs.

Once the requirements were documented and the facility and service shortfalls identified, it was time to start working courses of action and attach price tags to the program. In keeping with a holistic community approach, planners decided early to designate Dal Molin as an operational site and place any other needed community support facilities at the existing installations, maximizing use of those facilities.

As a result, when completed, Dal Molin will house the 173rd ABCT Headquarters and four battalions, with the remaining two battalions located at Ederle Caserma along with other units stationed in Vicenza. New facilities to be constructed under this program include: barracks, motor pools, headquarters and operational facilities, a physical fitness center and fields, a dining facility and troop support facilities at Dal Molin; elementary, middle and high schools, and child and youth service facilities at Villaggio Housing Area; and a medical/dental clinic on Ederle Caserma.

In addition to the facilities that are directly related to the community expansion, a long-term recapitalization plan, called Vicenza 2020, was also produced. While the 173rd ABCT transformation requirements are identified and programmed at about \$500 million, the long-term requirements in Vicenza 2020 are not fully programmed at this time.

While developing the site plan for the facilities at Dal Molin, the key word used was flexibility. Although the Italian Air Force is vacating the site, Dal Molin's small commercial aviation operation would remain, and the Army's plans could not hinder civilian airfield operations. Because of this and changing Italian military requirements, the site plan went through a number of iterations before settling into its current configuration. The current plan addresses force protection requirements, is harmonized with commercial aviation operations and airfield setbacks, and fully meets unit facility requirements and operational needs.

To meet all of these various parameters and locate the facilities within the particular site geometry, the planning team came

up with a number of interesting solutions. Using, among other things, NAVFAC's lessons learned from a Navy facility in Naples, the Dal Molin plan incorporates centralized parking structures, pedestrian malls, multi-function facilities and functional zoning for greater site efficiency. The final layout, having been honed through its various versions, places all of the facility requirements into one compact, efficient package.

The last step in the planning process is to get the plan approved. Part of the success of the program was being able to effectively communicate to a wide range of audiences what was needed to make the transition of the 173rd ABCT possible. A useful tool in this process was 3D computer graphics to show what the finished product would look like.

Throughout the process, planners included unit representation and continually solicited senior level command input. Working hand in hand with the operators from the beginning, listening to the customers, understanding their needs and involving them in the process made it relatively easy to get final approvals from the senior mission commanders and decision makers.

In the same vein, the planners worked closely with their Italian counterparts throughout the planning process. When seeking community planning approval, the team made successful presentations that were well received.

Through the hard work and dedication of a large group of individuals working as a team, today Vicenza has a fully documented and approved plan to support its transformation. Upon completion of its MILCON program, Vicenza will have facilities available for its Soldiers, civilians and family members, along with a power projection platform that fully supports the Army's requirements.

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U.S. Military Academy surmounts master planning challenges

by Martha Hinote

The efforts of those who were involved in planning over the 204-year history of the U.S. Military Academy (USMA) at West Point, N.Y., have led the way in establishing a strategic direction for the installation's future. But today's master planners face new challenges and rely on technology to help resolve them.

As early as 1775, a military base was carved out of the area on the west bank of the Hudson River about 50 miles from New York City. The river's natural "S" curve, narrow passage for sea vessels and shifting winds made the location a good site to defend our nation's independence against the British. By 1815, permanent structures existed around the area known as the Plain, and today, those buildings are in the same basic arrangement as in the 1800s. A competition determined the architectural style would be military gothic, and many buildings in the Central Post Area are in that style. Also established in the 1800s were many of the other open spaces that exist today, including Buffalo Soldiers' Field and the North Athletic Field. The natural landscape — rocks, trees and babbling brooks — has been featured in developing the post.

West Point master planning

"Master planning is a process in which policies and goals are developed for sustaining and achieving a balanced environment to guide future growth of a community," said Carl Meyer, USMA master planner, Engineering Plans and Services Division of the Directorate of Public Works. "The challenge of master planning at the U.S. Military Academy is no different today than it was in the late 1800s or early 1900s: the need to adapt to an evolving installation, incorporation of new Army regulations and new requirements to train Army leaders of the future."

This year, the academy is updating the USMA Master Plan, which is an integral part of preserving its presence along the Hudson River.



This rendering shows Jefferson Hall, a cadet library and learning center named after Thomas Jefferson, that is under construction with expected completion by the end of 2007. Courtesy of U.S. Military Academy

"The complexity in the master planning function at West Point is increased by the lack of additional usable space for continued expansion facilities," said Matthew Talaber, director of Public Works.

USMA uses land-use maps, visual theme maps, the Real Property Master Planning regulation and the Installation Design Guide to ensure accurate and successful future planning. State-of-the-art technology is also being used to assist in the planning effort.

"DPW developed a Geographic Information System (GIS), which combines map images and databases to yield intelligent maps," Talaber said. "The use of this new GIS capability has enhanced the entire master planning process by reducing employee hours managing old and sometimes outdated paper drawings and maps."

Over the past two years, 4-5 million square feet of buildings have been surveyed and redrawn to accurately reflect current conditions. The GIS consists of paper maps that have been scanned and converted into an electronic format, aerial photography and utility and infrastructure drawings, such as environmental, historic, range, animal

habitats, flora, fauna and unexploded ordnance locations.

Together with the GIS staff and cultural resource personnel, USMA has created the West Point visual assessment tool, which allows for graphical placement of a potential new project on a post map in a virtual 3D environment and evaluation of its impact on scenic and historic viewsheds. In the GIS system, building functions are labeled by color, after comparison to a land-use color indicator, to reveal if a particular building is in the wrong use-zone and requires relocation.

In addition, old planning studies have been converted into layers in the GIS that can be referenced against the current planned projects to eliminate the possibility of overlapping projects. Previously, this service was generated by contractors. The in-house production of these products allows for quick and accurate responses during all phases of the project planning process.

The state-of-the art technology offered by the GIS provides a rapid and correct data base upon which to make long-term master planning decisions, Talaber explained. Space at West Point is very ➤



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limited. Many buildings are historic, and the infrastructure is old. These factors increase the risk of basing important facility decisions on incomplete or inaccurate information.

“Our new GIS eliminates that possibility,” Talaber said.

Military construction

West Point is currently undergoing a building boom similar to the early 1900s. The new cadet physical development center, Arvin Gymnasium, completed in 2005, consists of 347,000 square feet of fitness facilities, offices, training rooms and swimming pools. All of these features were planned and constructed to provide a world-class facility that enhances the physical development training of the Corps of Cadets, regardless of what specific physical activity sparks their individual interests.

Last year, construction began on a six-story, 150,000-square-foot cadet library and learning center, Jefferson Hall. This structure, prominently located in the Central Post Area, will further enhance the military Gothic theme of that area.

When the library is completed, renovations will begin on Bartlett Hall, the current cadet library, to convert its 258,000 square feet into a state-of-the-art science educational facility. The conversion will meet accreditation requirements for an expanded curriculum to include majors in nuclear and chemical engineering.

Further plans include the construction of a cadet barracks building in the 2012-13 timeframe to address overcrowded conditions, as well as the renovation of the existing nine cadet barracks during the 2013 to 2021 time period.

“The recent Base Realignment and Closure decisions have added more challenges to our planning process,” Meyer said. “We have been working to develop a feasible site to incorporate the USMA Preparatory School (USMAPS) currently located at Fort Monmouth, N.J., into the secure boundaries of the USMA Cantonment Area.”

USMAPS comprises 240 candidates and about 50 training faculty and staff. The school will require structures for barracks, dining, academics, athletics and a headquarters plus five sports fields.

“The placement of such a facility at

West Point will have a major impact, and careful planning is required,” Meyer added.

Donor-funded construction

Another key factor affecting planning at USMA is the Donor Program.

“The donations provided primarily by past members of the Old Gray Line or their families have been very beneficial to both the academy and the Army by providing for much needed and vital projects above and beyond typical projects,” said Seth Hudgins, retired colonel, and president and chief executive officer of the Association of Graduates. “We are the alumni association for West Point and serve as the focal point for donations, large and small, to the academy.”

Donor-funded projects give the academy a “margin of excellence,” providing modern, state-of-the-art facilities for NCAA sports teams, club sports and cadet activities. Recent projects, according to Hudgins, include the Kimsey Athletic Center (football, 111,000 square feet); Randall Hall (basketball, 23,000 square feet); Hoffman Press Box (13,000 square feet); Foley Athletic Center (football, 80,000 square feet); Anderson Rugby Complex (13,000 square feet) and fields; Lichtenberg Tennis Center (60,000 square feet); Gross Olympic Center (28,000 square feet) and the Groves Golf Training Facility (5,000 square feet).

The master planning function at USMA — a national historic landmark, the third most visited tourist site in New York State and the Army’s oldest active continental U.S. military base — is key to the continued land-use requirements needed to provide a high-quality educational experience for the Corps of Cadets, the future leaders of the U.S. Army.

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The landscape at West Point includes many rocks, trees and brooks like these near Mills Road. Photo courtesy of U.S. Military Academy



Tyler discusses MILCON Transformation at small business conference

by Debra Valine

At the 10th Annual Small Business Conference Nov. 13-15 in St. Louis, Mo., J. Joseph Tyler spoke about Military Construction Transformation — what has been accomplished so far and what to expect in fiscal year 2007 and 2008. Tyler is the acting deputy director for military programs, U.S. Army Corps of Engineers. The conference was co-sponsored by USACE and the Society of American Military Engineers.

MILCON and Army Transformation projects include environmental projects from the cleanup of Formerly Used Defense Sites to support active Army units and installations affected by Base Realignment and Closure. The Corps is the real estate agent for the Army, and also provides services to other federal agencies, state and local governments and foreign governments. In addition, the Corps has a large contingency support mission with the Global War on Terror and reconstruction, and an installation support mission that includes 181 Army installations and 71 Air Force installations.

“We are developing a new way to execute the MILCON program for the Army,” Tyler said. “We are developing a new strategy. In FY '07, every project the Corps does for the Army will follow this strategy.

“There is a lot of work out there,” Tyler said. Army projects will total \$5 billion, with Department of Defense, Air Force and other projects at \$3.7 billion. In FY 2008-13 POM (Program Objective Memorandum), those totals are \$25.2 billion Army and \$44.7 billion DoD, Air Force and other.

“We have to not only get contracts awarded; we also have to turn dirt faster,” Tyler said.

“FY '08 will probably be the biggest year for BRAC and MILCON. GWOT should be dropping off. The effort is being moved



J. Joseph Tyler, deputy director for military programs, U.S. Army Corps of Engineers, discusses military construction transformation at the 10th annual Small Business Conference Nov. 13-15 in St. Louis, Mo. Photo by Alan Dooley

to work that needs to be done in the continental United States and BRAC,” he said.

The Corps is reinventing the process for MILCON because the legacy standards and processes will not provide timely, cost-effective quality facilities, Tyler said. The new processes will provide a greater emphasis on facility planning, standardization of facilities and processes with a greater emphasis on partnering with industry. Standardizing processes means uniform requests for proposals (RFP), acquisition approaches and engineering/construction applications; expanding the use of all types of construction; and maximizing use of industry standards.

Tyler told the audience they would see processes become more consistent across the Corps beginning in FY 2008.

The Corps is going to product-line, design-build, Indefinite Delivery Indefinite Quantity (IDIQ) contracts. A product line is a specific type of facility, for example, a barracks. Centers of Standardization will use a standard design as the baseline for each product line. Then, using industry

standards, the Corps will explore different options, such as pre-engineered or other options that have been used successfully in the commercial market.

“We believe that going to a product-line approach will provide repeat business incentive for good performance and allow us to get to the continuous building process,” Tyler said. “We hope to achieve lower cost, faster delivery and improved quality through lessons learned. We believe we will be able to develop experts within the regions on each type of construction. These experts will be up to speed on everything that is being done.”

This fiscal year, the pilot MILCON Transformation RFP (design/build) will be used for all applicable projects. The RFP will be adapted for unique structures. By FY 2008, the Corps hopes to use adapt/build models.

“Centers of Standardization will be looking at pilot designs and trying to pick features that appear to most closely represent the Army's needs and requirements,” Tyler said. “We will blend those together to adapt the design to come up with one design that the Centers of Standardization will use throughout the Corps of Engineers. It will become the standard.”

Tyler explained that success in MILCON is measured by achievement of:

- 15 percent cost savings and 30 percent time savings;
- facilities with a 50-year life cycle;
- lower unit costs for primary facilities;
- completing a brigade combat team in 15-24 months — \$200-\$300 million complexes;
- achieving Army sustainability and environmental programs;
- and meeting Army and Defense Department small business requirements.

“We know we can achieve these successes,” Tyler said. “Size of the programs that can be executed by small businesses has been increasing. The challenge is to find ways to maintain our ability to meet

For more information, visit the Military Construction Transformation Web site at: www.hq.usace.army.mil/cemp/milcontrans/milcontransformation.htm.



Centers of Standardization: part of the new landscape

by Sarah McCleary

The impact of Army transformation, restationing, and Base Realignment and Closure challenged the U.S. Army Corps of Engineers to develop “leap-ahead” solutions to streamline military construction. One such solution is the use of Centers of Standardization (COS), which combine design-build and continuous-build practices, quality standard designs, a new acquisition strategy and top performing contractors to execute a hefty workload in record-breaking time.

The Army has set a pace for military construction unheard of in years past, according to Gordon Simmons, chief of Design Branch, Savannah District, U.S. Army Corps of Engineers. New combat systems, the Army’s future force and technically savvy, recently recruited Soldiers require new technology in their facilities.

“COS provide the opportunity to bring new facilities and technology to Soldiers in a more efficient manner and for fewer taxpayer dollars,” Simmons said. “It allows for better planning and programming of funds, control of designs that meet Army operational needs and faster, less expensive construction.”



Building Information Modeling allows users to graphically view a final rendering of a building based on previously entered design criteria. Graphic courtesy of U.S. Army Corps of Engineers, Savannah District

Previously all work was done on a project by the Corps office responsible for the geographic area. Now, COS are responsible for facility designs and contract awards nationwide and their coordination worldwide.

“This is a major paradigm shift in the way the Corps has historically done business,” Simmons said.

COS develop facility standards

With COS, each Corps military district still maintains overall project responsibility

and manages the design and coordination for site development and unique facilities. However, eight Centers of Standardization are responsible for the development and execution of 41 standard facilities commonly used on most military posts. The district coordinates with the appropriate COS for design completion and contract award.

“COS ensure the development of a fully designed standard for every facility type,” Simmons said. ➤

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small business goals even though the number of projects based on the total program has gone down.”

Lessons learned during FY 2006 using MILCON Transformation showed that 15 percent cost savings can be achieved within 100 percent scope through the following examples:

- Fort Campbell – aviation barracks
- Fort Knox – permanent party barracks
- Fort Riley – division headquarters and sustainment brigade headquarters
- Fort Carson – brigade and battalion headquarters
- Fort Bliss – brigade combat team 1, which includes barracks, technical equipment maintenance facility, dining facility, headquarters, company operations and

deployment storage.

Tyler suggested small businesses take advantage of opportunities that are available to them through site development, small volume facility types not requiring IDIQ contracts, unique facilities, pre-engineered construction, the mentor-protégé program, joint ventures and sub-contracting.

Tyler’s FY 2007 execution advice: Be flexible and patient. There are three possibilities: no MILCON appropriation bill, operating under a continuing resolution or a limited continuing resolution.

“We have a new Congress,” Tyler said. “Army leadership is working with Congress, but the Corps will need your help. We need to execute \$8 billion in the MILCON program. If we do not get funds until April, that only gives us six months to

award \$8 billion in contracts.”

In FY 2006, the Corps executed 38 percent of all programs in small business, which amounted to \$2 billion in work.

“There are big opportunities on the horizon,” Tyler said. “Stay in contact with the districts. Talk to them about the kinds of work you do and the types of quality construction you do. Attend conferences and meetings with the Corps to increase your awareness of what’s happening in the military programs mission area, and be prepared to take on increasingly larger projects.”

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Savannah District — the center for command and control facilities for division and Corps headquarters, brigade headquarters, battalion headquarters, company operations facilities, tactical equipment maintenance facilities, deployment facilities and brigade operations complexes — works with the other seven COS to develop consistent processes, according to Simmons.

An approved Army standard design for company operations facilities has been developed. The tactical equipment maintenance facility, the battalion and brigade headquarters, and the command and control facilities standard designs have interim approval, and additional functional floor plans are in the development and review process. The deployment facilities are being defined by Army Operations and an Army Facility Design Team. The brigade operations complex standard is not a facility design, but rather a set of master planning parameters defining the operational relationships between facility types within the complex.

Market research for COS began in fiscal year 2006, with a timeline for full implementation in FY 2009. In Phase I, each COS collects the best ideas for development of a prototype model by reviewing facilities awarded under performance-driven design-build contracts. From a review of similar facility types from various locations,

the COS collects lessons-learned and makes quality and efficiency changes.

In Phase II, a few regional contractors are selected for each facility type. In addition, the right adapt-build design for an installation, developed in Phase I, is chosen. In the final phase, Phase III, the COS modifies the prototype using the best lessons-learned during Phase I and II for specific installations and site conditions. Facility designs are then awarded on a repetitive basis over the next two to three years, thereby eliminating much of the individual project design cost and adding to the life-cycle savings for the Army.

Designers to use BIM

Building Information Modeling (BIM) is a set of design and drafting software tools. BIM allows revisions to the process of creating designs, constructing facilities and maintaining buildings. Using BIM, designers create a three-dimensional model of the facility with intelligent data tagged to the building graphics.

“Instead of drawing a line indicating a wall, the computer now knows it is a wall, how high it is, what material it is constructed of, whether it is load bearing or not, and several other factors,” Simmons explained.

Engineers and contractors can instantaneously compute requirements — for example, the number of square feet of dry-wall needed for the job. The software also

automatically alerts designers when two items occupy the same space. Contractors can model how each system will be installed in the facility and track progress. Building owners can track maintenance and retain all operations guides, design data and material specifications in one data file.

“BIM parallels the switch from

manual drawings to computer-aided drafting and design,” Simmons said.

Streamlining affects different groups

In fact, the design community may be the hardest hit. After developing initial standard designs for a facility, there will be less of a requirement for contracting-out additional design models.

However, the construction community can now use industry standards rather than the more restrictive codes traditionally used on military installations. In addition, during the early phases, performance-oriented criteria for the project are given to potential contractors, rather than prescriptive requirements. Using COS, these early phase designs allow engineering professionals to select alternate materials that best fit the scope of work.

“This allows industry to tell us how to do it better and lets us adopt their best business practices,” said Col. Mark S. Held, Savannah District commander.

Once materials are proven through lessons-learned, the scope will be more prescriptive. At full implementation, one construction contractor will provide one facility type for each region.

“This concept fosters a continuous drive for improvement through the longer-lasting relationship,” Simmons said.

One of the major benefits of the shift to COS is the use of continuous-build processes. Contractors can spend less time determining an efficient sequence of construction after building the facility once or twice, and they can make long-term contracts with suppliers and subcontractors. The Army benefits with a shorter and therefore less expensive acquisition time.

“Industry has shown us that utilizing the same design with the same contractor on multiple facilities allows for significant cost savings and expedited construction,” Simmons said.

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Using Building Information Modeling, designers are automatically notified if two objects, such as an air conditioning duct and piping, interfere with each other. Graphic courtesy of U.S. Army Corps of Engineers, Savannah District



Army kicks off Fort Bliss transformation

by Judy C. Marsicano

The U.S. Army Air Defense Artillery Center and Fort Bliss, Texas, partnered with the U.S. Army Corps of Engineers' Fort Worth District and its team of five other USACE districts in marking the October beginning of perhaps the largest military program in the Corps' history.

Ground was officially broken Oct. 23 on the \$2.6 billion Fort Bliss Expansion Program to provide facilities for Soldiers and units relocating to Fort Bliss as part of the Army's transformation initiatives.

Because Fort Bliss is on the brink of a significant population explosion, driven by the Army Modular Force, the Global Defense Posture and Realignment, and Base Realignment and Closure initiatives, the Corps is planning, developing and building the equivalent of a small city for about 19,000 Soldiers returning to Fort Bliss from overseas installations.

Most of the growth can be attributed to the restationing of the 1st Armored Division from Germany. The division headquarters, four brigade combat teams and a combat aviation brigade from Fort Hood, Texas, will make Fort Bliss their home within the next five years. This substantial influx of Soldiers over a short period of time, along with the expected 27,000 family members they will bring, necessitates working, living and community facilities, including headquarters and administrative space, dining facilities, aircraft hangars, arms rooms, unit storage facilities and barracks.

When the expansion program is complete, the new development will surpass the main post of Fort Bliss in population, nearly tripling the installation's size.

The Fort Worth District has set up a program office at Fort Bliss — a sort of a mini-district — as one of the first steps in executing this multi-billion-dollar program. The Fort Bliss Program Office, led by Troy D. Collins, will directly support the installation for all deliverables and services the Corps is providing Fort Bliss. The Corps has already awarded some \$252 million in contracts to four prime contractors for



This 129,249-square-foot, three-story headquarters building draws on the Southwestern architectural theme that will be mirrored throughout each Brigade Combat Team complex at Fort Bliss. Rendering courtesy of Caddell Construction



The Unaccompanied Enlisted Personnel Housing project type will house single Soldiers and is intended to be similar both functionally and technically to apartment-style housing found in the surrounding community. Rendering courtesy of Hensel Phelps

infrastructure and vertical construction, and competition among subcontractors and suppliers has begun.

This transformation is being undertaken while the Army is still at war. New facilities to be constructed are provided through design-build Indefinite Delivery/Indefinite Quantity contracts set up for each type of facility, called *product lines*. Standards and criteria for each product line are provided by Corps design centers. The support districts, or product line districts, are working with the Centers of Standardization to develop standards and criteria for each product line. The districts will provide “cradle-to-grave” support for task orders issued against their product line contracts. On-site resident offices will administer execution of all site and product line task orders.

“We are managing all projects in the program using the USACE Project Management Business Process, putting into

play the program's construction management plan as a roadmap integrating all the product line districts,” Collins said. “By managing the construction work at Fort Bliss as a program, the Corps will provide consistency, coherence and project integration across the full spectrum of projects.”

Fort Worth District is responsible for program and account management, Land Development Engineering Contract management, infrastructure, barracks and training ranges contracts, in addition to providing a central point of contact and coordinating the activities of the other product line districts. Albuquerque District is responsible for company operations facilities; Galveston District for ammunition storage and parking facilities; Little Rock District for dining facilities and aircraft hangars; Tulsa District for maintenance facilities; and Sacramento District for brigade and battalion headquarters build- ➤



Fort Carson begins first stage of BRAC makeover

by Sgt. Clint Stein

Members of the Mountain Post community have barely had time to get acquainted with its new and remodeled buildings as Fort Carson, Colo., undergoes yet another giant makeover. Because of the Base Realignment and Closure process and the Army Modular Force initiative, Fort Carson is undergoing a huge transformation in its infrastructure as it prepares for some new long-term residents.

The first stage of construction projects to build new facilities that are to accommodate a heavy brigade combat team from the 4th Infantry Division from Fort Hood, Texas, are now under way on the south side of post. At an estimated cost of \$341 million, the project will consist of brigade/battalion headquarters, a dining facility, motor pools, 31 company operation facilities, barracks and the road and utility work to service them.

This new area will support the heavy brigade, said Maj. John Hudson, the U.S. Army Corps of Engineers, Omaha District's restationing resident officer at Fort Carson. A division headquarters complex and facilities to support the light part of the brigade will be added at a later date.

The entire construction project for the heavy brigade is divided into quarterly projects over the course of three fiscal years,



A worker removes the pavement from Brown Road at Fort Carson, Colo., as part of the initial construction project to prepare for the arrival of the 4th Infantry Division. Photo by Sgt. Clint Stein

Hudson said. The first stage of the first project began last June with the reconstruction of Brown Road. Workers removed the old pavement in order to begin the process of widening the road and laying down new pavement for increased capacity and load.

More road construction work began in September. The massive amounts of material removed in order to help build the roads will be used for berms and leveling material at the site of the brigade's company and motor pool area. Thousands of tons of earth will have to be moved from the bottom of Signal Hill.

The site was chosen because it was more cost effective in terms of connecting the new facilities to existing Fort Carson utilities than other possible sites, Hudson said. Work on the headquarters building will start this fiscal year. When completed, the 126,000-square-foot facility will accommodate the brigade headquarters on one floor and six battalion headquarters on another.

The total number of barracks spaces will support roughly 1,215 Soldiers, said Capt. John Lory, the Corps' liaison officer to Fort Carson's Directorate of Public Works.

Hudson said the portion of the project with the new brigade/battalion headquarters, company areas, motor pools and barracks is scheduled to be completed in fiscal year 2009.

Starting in FY 2011, construction for the light brigade will begin, Hudson said. There will be a lot of changes made to Fort Carson's infrastructure due to BRAC and AMF, and, when it is all completed, Fort Carson will look much different than it does now.

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PWD

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ings and unit storage facilities.

The program management also crosses Corps division boundaries. Sacramento District is in the South Pacific Division, and the other districts are in Southwestern Division.

"We are breaking ground because of the scope and everything that is going on with this expansion, such as 300 buildings, 15 ranges, 46,000 linear feet of water line,

22,000 linear feet of sewer line, 66,000 linear feet of gas line and 1.5 million linear feet of electrical lines," said Brig. Gen. Jeffrey J. Dorko, commander of the Southwestern Division, at the groundbreaking ceremony.

"The Corps was issued a challenge to ensure all this was done properly and to find a way to provide construction more quickly, of incredibly high quality and at a lesser cost, and to do it in a way that honors the environment and takes care of

all the other requirements we have to be good stewards of the nation's resources," Dorka said, "whether that be the natural environment or taking care of our most precious resource, the American Soldier. "

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PWD



Fort Campbell's leachate pop solution brings multiple successes in one project

by Monica K. Miller

When reoccurring leachate pops in the Woodlawn Landfill at Fort Campbell, Ky., were found, no one guessed that three major accomplishments would develop from that single problem. In the process of resolving the trouble, Fort Campbell became the first installation to use the Compliance Deficiency Resolution process, advanced its relationship with state agencies and used a multiple award remediation contract for the first time.

A leachate pop occurs when water infiltrates a landfill cap and reaches buried waste, then is tainted by that waste and seeps out of the debris. If the leachate continues to seep without hindrance, it could degrade surface water and groundwater quality.

History of Woodlawn Landfill

Located on the Tennessee side of the post, the Woodlawn Landfill has been in existence since 1988. The sanitary solid waste portion was closed in 1994, and the landfill is now used strictly for demolition waste. During an expansion in 1998, the landfill was divided into areas A, B and C. Until 2004, area B was the primary disposal site but now is covered with a cap and various grasses. Since area B was covered, four leachate pops have developed.

In August 2004, the first leachate pop was corrected with the installation of a riprap chimney drain that directs flow down into the landfill. The second and third leachate pops were temporarily fixed in the spring of 2005 with additional compacted clay that eliminated the flow. While trying to correct the fourth leachate pop in August 2005 with the installation of a riprap chimney, heavy flow was encountered, and the mitigation attempt was terminated. The site was backfilled and capped with clay soil to prevent further outflow.

Facing the challenge

In January, the Tennessee Department



Remediation efforts to correct leachate pops are underway at Woodlawn Landfill on Fort Campbell. Photo by Richard Huser, Fort Campbell Solid Waste/Recycle Program contractor

of Environment and Conservation, Division of Solid Waste Management (TDEC DSWM) issued a citation to Fort Campbell for excessive leachate and surface pooling at the leachate pops. The Fort Campbell Environmental Division (FTC ED) was given 60 days to submit a work plan.

In response, a new plan to install a well to pump leachate into a holding tank developed. The plan called for constructing an extraction well to remove the leachate, installing a 2-inch high density polyethylene underground conveyance line connecting the well to the holding tank, possibly installing two additional 10,500-gallon holding tanks if necessary for the existing leachate, obtaining a pump truck to transport the tanks to the Fort Campbell Wastewater Treatment Plant and reconstructing the landfill cap to reduce the potential for leachate production. This construction included the removal of the existing top soil layer and the addition of low permeability soil. The plan was solid, but such an exten-

sive project was not in the budget.

New process solves problem, helps federal-state relationship

A new program, the Compliance Deficiency Resolution (CDR) process of the Assistant Chief of Staff for Installation Management expedites the receipt of funds for resolving environmental compliance issues to avoid enforcement actions. The process earmarks money for the purpose of correcting deficiencies found in the year of execution. The CDR process consists of six steps: notify the commander, identify the root cause(s), develop alternatives, analyze the alternatives, select alternatives and validate or submit funding requests.

After receiving the citation, FTC ED immediately began working on the documents to obtain funding through the CDR process. On Jan. 27, 2006, Fort Campbell became the first installation to request funds since the process became effective Oct. 1, 2005. Less than two months



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A folder marks the spot where an extraction well that will remove leachate is to be constructed at Fort Campbell. Photo by Richard Huser, Fort Campbell Solid Waste/Recycle Program contractor

later, the funds to implement the plan to correct the fourth leachate pop were received.

With the CDR process, FTC ED was able to meet the 60-day time period to submit its work plan to TDEC DSWM. In doing so, Fort Campbell proved it is conscientious about maintaining compliance with all applicable regulations by correcting problems quickly.

“Over the last 10 years, Fort Campbell’s environmental program initiatives have met statutory and regulatory requirements, and in many cases exceeded them,” said Loan Harris, FTC ED solid waste program manager. Using the CDR process to respond to the citation allowed the installation to maintain progressive environmental stewardship and to strengthen its relationship with state agencies.

MARC used for the first time

Once funds were received by FTC ED, the U.S. Army Corps of Engineers, Louisville District, was contacted to compose

the contract for bid. In the past, restoration projects of this type were sole-sourced. Unlike a Multiple Award Remediation Contract (MARC), for which contractors compete, this method did not allow the benefits of competition since it was only offered to one company.

“Upon realizing the significant cost savings that could be gained by using a MARC, we decided that this was the best way to go,” said Martin Lockard, Louisville District environmental project manager.

The district has five contractors in big business and small business categories that can compete for a MARC. After the district establishes the scope of work and decides on the design, it puts out a request for proposals. The contractors submit bids. There are three methods for choosing the best bid: the lowest bid, the lowest bid that is technically acceptable or the best value bid. Performance objectives, milestones and standards are all defined, and the use of incentives or insurance can be imbedded in the contract to enhance performance.

“The MARC is a very flexible tool,” Lockard said. “As much or as little design as needed can be decided upon by Louisville District and the customer.”

After reviewing the requirements for the project, the project delivery team decided

that a big business with the best value bid would be the most likely to succeed due to time constraint. The team includes Shelly Davis and Brooks Evans, environmental engineers, and Gloria Ritter, contract specialist, along with Harris and Lockard.

On Aug. 4, the contract was awarded to URS Inc., which is currently stabilizing the stockpile and landfill for the winter. Work will resume in the spring.

Fort Campbell and the Corps’ Louisville District continue to lead the way in environmental innovation. With the new CDR process, installations and districts are able to correct problems more quickly while fortifying relationships with local governments. The MARC increases cost savings through competition and variety. Together, these beneficial tools strengthen external relationships and partnerships between installations and the Corps.

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Camp Humphreys opens first-of-its-kind barracks-dining facility complex

by Kim Chong-yun

The U.S. Army opened the newly built twin barracks-dining facility complex at Zoeckler Station on Camp Humphreys, South Korea, Nov. 9. The two-building, six-story barracks and 800-person dining facility complex is the largest of its kind in South Korea.

“Today represents a milestone in the transformation of Camp Humphreys,” said Lt. Col. John Loefstedt, U.S. Army Corps of Engineers’ Far East District deputy commander, at a ceremony to mark the occasion. “The ground we are standing on, just a few years ago, was a mosquito-breeding swamp. But today it is home to the beautiful new barracks-dining facility complex seen before you, a true symbol of the Army’s commitment to improve the quality of life for Soldiers stationed here in Korea.”

The modified “2+2” design barracks will be the standard for future Camp Humphreys barracks as the U.S. Forces Korea executes the Korea relocation program, which will triple the size of the Camp Humphreys population from about 11,000 to 45,000. Each building of the barracks has two elevators, an exercise room, a laundry room and mud room, a common kitchen, a lounge and storage areas. Each room has a bathroom and shower to be shared by two occupants and wiring for phone, Internet and cable TV service.

The \$28 million complex is the biggest of its kind in South Korea. Each barracks has 102 rooms with double occupancy. Soldiers started moving-in in mid-October.

“I really like the new barracks,” said Pfc. Briena Jackson, an occupant of the complex. “They’re nice and cater to our needs. I also like having elevators and the dining facility close by.”

The new dining facility, named the Red Dragon Inn, is the first to be built for Zoeckler Station in 43 years. It replaced the Flaming Dragon, which had served thousands of meals since it opened in 1963. The Red Dragon Inn includes a carryout food



A two-building, six-story barracks combined with an 800-person dining facility at Zoeckler Station on Camp Humphreys, South Korea, is the largest of its kind in the country. U. S. Army file photo

area and islands for hot and cold foods, a salad bar and other amenities.

“The DFAC (dining facility) is lovely,” said Sgt. Lenora McCoy, another new resident. “I love the food, and it’s a very clean facility.”

The Red Dragon Inn has state-of-the-art cooking, serving and cleaning equipment — a first of its kind for Korea.

“This is a day of many firsts,” said Col. Scott Berrier, 501st Military Intelligence Brigade commander, at the ceremony. “For the 501st, the opening of this complex represents the first step in the brigade’s move and consolidation here at Camp Humphreys. For the Soldiers of the brigade, this is the first new barracks facility many of our Soldiers — both U.S. and Korean Augmentation to the U.S. Army Soldiers — have lived in during their careers. They moved out of barracks that were built before most of you in attendance were born; the oldest was built in 1962. This complex houses Soldiers from three of our four battalions in Korea, allowing our Soldiers to live together, much like they work together in our mission facilities nearby.”

“I am very excited that we have built up the largest barracks-dining facility complex in the Republic of Korea,” said Cho Yong-shik, executive director of SHINIL

Engineering Co, LTD. “From the beginning of the construction in September 2003 until today, we have faced many challenges, but we overcame them with our 50 years of experience and keeping in mind that this facility will be used by our family members.”

The complex also has various outside recreation areas including two covered picnic areas, a basketball court and a volleyball court.

“These barracks-dining facilities will provide our Soldiers the space, comfort, amenities and services they deserve, all conveniently located within the same complex,” Loefstedt said.

The construction for another similar barracks-dining facility complex continues at Camp Humphreys’ MP Hill. Two eight-story barracks and a dining facility are scheduled to be completed in June 2008.

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Kim Chong-yun is a public affairs specialist with the Far East District of the U.S. Army Corps of Engineers. PWTD



Corps helps Air Force transform in Europe

by Justin M. Ward

Many people may think military transformation affects only the Army. Who can blame them, considering the synchronized waltz of base realignment in Western Europe and “lily pad” formation in Eastern Europe and Central Asia? But the Air Force is also dancing a transformation jig of sorts, and the U.S. Army Corps of Engineers, Europe District, is helping them get the moves right as the Air Force shifts its warfighting capabilities to meet the demands of a changing security environment.

One of the most noticeable displays of Air Force transformation in the European Command is taking place on Incirlik Air Base, Turkey, where the Air Force once had one of the most impressive fighter wings in Europe. At one point, there were as many as 140 American F-16s stationed there helping enforce the no-fly zone in Iraq during Operation Northern Watch.

2003 changed all that.

The base, located about 7.5 miles east of Adana, the fourth largest city in Turkey, started to shift to airlift and logistics missions in support of operations Enduring Freedom and Iraqi Freedom. Essentially, refueling and cargo sustainment operations for expeditionary forces moved in while operations in support of Northern Watch moved out. In all, it was a starkly different mission than flying fighter jets.

“It’s more of an addition of mission,” said Air Force Lt. Col. Scott Warner, 39th Civil Engineer Squadron commander at Incirlik. “We still have the capability to do that, but (the fighter) mission has taken a backseat to the day-to-day logistics operation.”

The additional mission has dramatically altered the use of the existing facilities and has made for burgeoning business for Europe District, which has been tasked with a lot of the engineering, design and construction projects there. The district currently has two projects directly aiding the logistics mission.

The first is an improvement to the



U.S. Army Corps of Engineers, Europe District, engineers — part of the U.S. Engineering Group (TUSEG) — discuss projects with local contractors on Incirlik Air Base. Photo by John Rice, Europe District

airfield’s “Apron A” area, a parking, taxiing, and maintaining zone adjacent to the U.S. side of the flight line that, until recently, was partially constructed with asphalt sections. Larger military and civilian aircraft had difficulty taxiing through this area because the hot Mediterranean sun would heat the asphalt so much that the planes could literally sink in. The smaller fighter jets could nimbly maneuver around the area, but, when larger aircraft, known as “heavies,” started using the area, taxiing and parking became a serious problem.

“Parking is at a premium here,” Warner said, with heavies such as C-17s, 747s, L-1011s and refueling planes all vying for spots. Space is critical on this apron, because the aircraft can be both parked and maintained, which is important for quick turnaround.

A straightforward undertaking, the project includes digging out the asphalt and filling in the holes with concrete. When finished, the zone is slated to shoulder up to six heavy aircraft, expanding the ability to handle and park them.

The “Apron A” project is critical to accomplishing the Air Force’s logistics mission.

“This project testifies to the significance

the Air Force has put on logistics in recent years and is a telltale sign of transformation,” said the district’s deputy resident engineer at Incirlik, Army Capt. Tyler Faulk.

The second project aiding the logistics mission is the construction of a new flight line pallet yard. While the project is under construction, a grassy field on the northern side of the installation has been covered with hard matting for use as a temporary pallet storage site, Warner said. Since the logistics hub mission started, the Air Force had to use whatever spot was available for storage, including some hangars, space in front of the hangars and literally anywhere they could find to offload pallets. This ad hoc method allowed for stacking only about 300 pallets.

The new pallet storage yard will create one consolidated location for the storage of 500 cargo pallets to support Operations Iraqi and Enduring Freedom and will also reposition the fence line enough to seat U.S. forces, which will conduct the pallet transfer mission.

Extra storage is a necessity because of the complicated logistics involved in transportation, Warner said, as many flights arrive bearing supplies for multiple



Iraq sees completion of living support area

by Polli Barnes Keller

Nearly 1,000 troops relocated before winter set in from a tent city to hard structures on Contingency Base Speicher in Tikrit, Iraq, when the U.S. Army Corps of Engineers completed the \$2.4 million Living Support Area #20.

“Even though we are in an expeditionary type of environment, we should give our Soldiers the best we can,” said Frank Scopa, U.S. Army Corps of Engineers area engineer. “Social amenities make their life easier, which helps them to focus on what is important, and that is part of our mission.”

Living Support Area #20 consists of 36 dormitory buildings, complete with electricity, sewage and running water. The dorms’ design features two bedrooms divided in the middle by a kitchenette and bath. With 16 rooms and two people per room in 30 of the buildings, the military housed 960 Soldiers. Each of the other six buildings has four single-person rooms, bringing the total

to 984.

“Having to walk through the mud and rain to get to the shower and latrine facilities is not good. There is no reason why our troops have to live uncomfortably,” Scopa said.

Each bedroom includes a desk, air conditioning, heating, a closet and a bed. The kitchenette comes with a sink, microwave and small refrigerator.

“Soldiers are the backbone of the success in Iraq, and their quality of life is paramount,” said Frank Garcia, the Corps’ resident engineer. “Moving Soldiers from temporary tent structures to hardened facilities before the cold weather comes will enhance their ability to complete the mission.”



The new dorms on Contingency Base Speicher in Iraq provide housing for troops formerly lodged in tents. Photo courtesy of the U.S. Army Corps of Engineers, Gulf Region North

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Polli Barnes Keller is a public affairs specialist at the U.S. Army Corps of Engineers, Gulf Region North. **PWD**

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As part of the new logistics mission, Staff Sgt. Nolan Jones, assigned to the 728th Air Mobility Squadron’s aircraft services team, pushes pallets off a C-17 Globemaster III at Incirlik Air Base, Turkey. Photo by Airman 1st Class Joseph Thompson

locations. These supplies then have to be separated and stored until a flight to the correct location is ready to leave.

“Because tail-to-tail swaps are pretty uncommon, considerable storage area for these hundreds of pallets is a necessity,” Faulk said. “This new yard will work much better for them because it’s closer to the flight line and allows for better organization and storage.”

The district is also replacing the homes located in the current Eagle Housing area at Incirlik.

“Incirlik is in a unique position in that force protection considerations dictate that all of our folks live on base,” Warner said. “But the housing on this installation is old. It’s been old for some time now.”

The \$15 million Eagle Housing project will see the demolition of 150 small, substandard homes and the construction of 100 four-bedroom homes. The project, dubbed a whole neighborhood revitalization project, will also redesign and rebuild

the roads, sidewalks, playgrounds and other recreation areas.

“The need is not for more houses, but for bigger and more modern houses, to suit the current and future needs of the forces located here,” Faulk said.

The last phase of the project is currently scheduled to be finished by mid-2008.

“Incirlik is definitely seeing the effects of the transformation,” Faulk said. “The projects that we’re doing here not only improve the Air Force’s operational and logistical posture, but they also increase the quality of life for the service members and their families, and we’re more than happy to provide that support.”

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Justin M. Ward is a public affairs specialist, U.S. Army Corps of Engineers, Europe District. **PWD**



Army-funded training through CP-18: how does it work?

by Lt. Gen. Carl A. Strock

After my last article was published, there were inquiries about specific Career Program 18 (Engineers and Scientists – Resources and Construction) programs and the application process needed to obtain Army funding for training. Employees at Army installations, commands and U.S. Army Corps of Engineers offices asked when and how program announcements are made because, they said, they are not made aware of them.

In that light, let me explain the three funding programs currently offered to the CP-18 community through the Army Competitive Training Education and Development System (ACTEDS):

- Department of the Army Intern Program
- Competitive Professional Development
- CP-18 Long Term Training (LTT) Program

The DA Intern program is one of our most successful programs for bringing new employees onboard to the Army engineer community. Another article in this section provides a description of this program.

As I discussed last time, Competitive Professional Development is available for funding essential executive and management training for employees at grades GS-11 and higher. Over the past few years, we have expanded the intent of the program to include funding for mission essential technical training for employees. Examples include PROSPECT courses offered by USACE's Learning Center (formerly the Professional Development Support Center), engineering professional organizations, local colleges and universities and other sources.

Each year around June 1, my office sends out a data call to all CP-18 career program managers at Army commands and activities for nomination of employees desiring or needing training over the following fiscal year. The memorandum states the criteria to be used for the selection and ranking of employee training requests and



Lt. Gen. Carl A. Strock. Photo by F.T. Eyre, U.S. Army Corps of Engineers

provides a suggested format for compiling and ranking the requests. While we wish we could personally send this notice to all 15,000 CP-18 employees, no such e-mail distribution list exists, and so we rely on the tried and true chain of command.

Our communication plan calls for sending the data call to all major commands and USACE divisions, requesting that the career program managers disseminate this announcement to all employees within their organizations and activities. We also ask that Army commands and subordinate commands rank and prioritize training requests in their areas prior to submission to the CP-18 functional chief's representative (FCR) and his staff. The newly appointed FCR is Robert Slockbower, who is the director of regional business at our Southwestern Division. He can be reached at (469) 487-7084 or robert.slockbower@usace.army.mil.

Upon receipt of all requests, the FCR ranks them based on whether the request meets the stated selection criteria, availability of funding and geographic/command diversity. Funding decisions and

priorities are sent to the commands and MSCs for distribution, along with instructions for using the Resource Allocation Selection System to request and receive approval for ACTEDS funds.

For the CP-18 LTT program, which focuses on university training for graduate work in technical, management and leadership fields of study, we place a call for applications in late November, again sending the announcement to all CP-18 career program managers and asking them to disseminate this announcement

to all employees within their organizations and activities. Criteria for evaluation and selection of candidates include the subject for the degree requested, strength of personal and management endorsements, and utilization of acquired knowledge and skills to benefit the Army.

Preference is given to those candidates who choose to attend a program within 150 miles of their duty station, though the growth of on-line degree programs through accredited universities is helping many candidates gain degrees without having to leave their duty station for extended periods of time. The due date for receipt of completed application packages at Headquarters, USACE is Jan. 31.

If you are interested in training and career advancement and are unaware of these programs, I suggest that you start by asking your supervisor or senior manager about them and what you need to do to prepare for these announcements. Another approach that will help you to become familiar with the programs is to visit the ACTEDS Training Catalog at <http://cpol.army.mil/library/train/catalog/toc.html> ▶



Intern program develops Army civilian engineers, scientists

by Julalee Sullivan

The critical intake of employees into the Engineers and Scientists (Resources and Construction) Career Program, commonly known as CP-18, relies on the Army Intern Program.

The intern program's primary purpose is to bring in entry-level careerists to meet staffing needs and to provide those careerists with the knowledge, skills and abilities required to advance to, and successfully perform, target-level positions in their specific career program. Helping to ensure a systematic development and sustainment of the Army's civilian work force, the program develops technically competent and confident civilian employees so essential to Army readiness. Intern graduates help form the feeder group for the future leaders in the Army's professional occupations.

The Army Intern Program is built around an official training plan, which allows for non-competitive promotion to a target grade based on fully successful performance and completion of prescribed training. Training and development needs are based on specific occupational competencies, knowledges, skills and abilities identified in the formal Master Intern Training Plan (MITP).

The current MITP for CP-18 is published as part of the Army Civilian Train-

ing Education and Development System (ACTEDS) Plans. ACTEDS is a requirements-based system that encompasses planned development of civilian members of the force through a blend of progressive and sequential work assignments, formal training and self-development as they progress from entry level to key positions. The MITP identifies the proper blend of formal and on-the-job training, work assignments and self-development needed to acquire the required competencies.

In addition to the MITP, the Individual Development Plan provides the opportunity for supervisors and interns to identify training and development needs that are designed to meet particular individual goals for development. Supervisors, activity career program managers and mentors should advise interns regularly on their progress, performance and other factors relevant to program objectives and career program requirements.

The CP-18 MITP is currently under revision by a team that comprises cross-functional subject matter experts representing various Army commands. The revised plan will provide common core experience for all CP-18 interns; provide grounding of the intern in the Army and its processes and support systems; develop a capable, world-

class work force with an expeditionary mindset; provide the foundation for success and enhance retention; provide a mindset for learning organizations; and demonstrate to interns command concern for their professional development.

The new MITP will be implemented in a phased approach starting this year.

For more information on ACTEDS and the Army Intern Program, go to: www.cpol.army.mil/library/train.

Julalee Sullivan is a human resources specialist with Headquarters, U.S. Army Corps of Engineers.

PWD



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and pull up information for yourself and to share with your supervisor. The web site also lists points of contact for each of the career programs, including CP-18. Contact these individuals with questions or to get further assistance.

I ask all CP-18 career program managers to place special emphasis on getting the word out to all employees about these programs, whether at an isolated Army garrison, a headquarters or a Corps district office. Preparing our employees for future advancement is just as important

as maintaining current proficiencies, especially with the increasing number of retirements in the workforce. These and many other initiatives for career development help to keep your employees, organizations and yourselves Army Strong.

On a personal note, I wish to acknowledge and salute the contributions of Donald Basham, former CP-18 FCR. Don retired Nov. 30 with 38 years of service to the U.S. Army Corps of Engineers, finishing his career as chief of Engineering and Construction at Headquarters, USACE. Throughout his career, Don was a tire-

less advocate of career development and advancement for all employees and a great asset to me for advice in the direction of CP-18. I congratulate Don and his wife, Vicki, as they return to their hometown of Louisville, Ky., and wish them well in their new roles.

Essayons!

Lt. Gen. Carl A. Strock is chief of engineers and commanding general of the U.S. Army Corps of Engineers. **PWD**



Certification program prepares management for housing privatization

by Kevin E. Keating

The first in a series of new certification programs designed to assist those involved with the privatization of military family housing was introduced jointly by the Professional Housing Management Association (PHMA), the Military Housing and Lodging Institute (MHLI), the Institute of Real Estate Management (IREM) and the National Apartment Association (NAA) in January 2005 at the annual Professional Development Seminar (PDS) in Denver, Colo.

Development of this certification program began in early 2004 when members of the PHMA and MHLI staffs, having talked to numerous managers from all services involved in the various privatization efforts, met to consolidate what they had learned. The most frequent and consistent comment was that there was insufficient training to prepare management personnel for the intense two-year privatization process.

With the training need identified, they set out to develop, and ultimately provide, that training. Starting with a joint PHMA and IREM study, they determined which skill sets from the federal housing management career field matched those of the private sector in a comparable career field. It was also decided that looking at non-traditional ways of course development could enhance efforts to develop a course of instruction that would better prepare management personnel to transition from traditional operations. With that in mind, IREM and NAA worked to co-develop the course. Over the next year, they created not only a training course, but also a certification program that combined the accreditation of the collective organizations.

It was quickly determined that covering all of privatization was impossible in one, or even two, weeks of classroom instructions. In addition, they avoided making this a "grass-roots" offering, which would either compete with some services' internal training programs or branch off into service-specific sections. As most of the identified

topic areas were service-generic, the initial course line was developed to go from project concept to the point of transition, as the Level 1 course description indicates:

This Level 1 offering is intended to cover the privatization process from concept to pre-transition. The intent is to prepare management-level personnel for not only the requirements of the privatization process but to recognize challenges to the management process in the traditional housing office. Course covers the congressional legislation applicable to privatization, the Department of Defense guidance, a comparison of the various services' programs, ethical considerations, private sector maintenance, financial and human resource practices as compared to current services' practices. Also discussed are the traditional management roles of communicating and directing work flow, team building considerations and change management in order to better prepare the management personnel to successfully transition from a traditional housing operation to a privatized operation.

IREM provides its ethics course to the program of instruction but gears it towards federal managers and uses current case material from the Office of General Counsel. Successful completion of this phase carries a double benefit in that it also provides the ethics course credit for anyone working on either the IREM Accredited Residential Manager (ARM)[®] or Certified Property Manager (CPM)[®] designations. NAA provides fair housing, maintenance, operations and financial blocks of instruction, covering the differences in moving from a traditional military housing organization to one with private sector considerations.

The pilot program students consisted primarily of those whose input was originally solicited. The pilot was a great success with only a few minor adjustments needed. The program has been offered more than 15 times, and 480 students have graduated.

At the 2006 PDS in San Diego, Calif., the pilot offering of the logical follow-on course was presented. This Level 2 offering

covers the involvement of asset managers and their staffs in project oversight requirements. Again, MHLI, IREM and NAA pooled their expertise in developing this course, described below:

Level 2 is intended to cover the privatization process from transition to long-term viability. The intent is to prepare management-level personnel for the requirements of the Portfolio Asset Management (PAM) process and provide training in financial analysis to assist in identifying trends that may positively or negatively affect the program success. Course will cover the congressional and the Department of Defense PAM reporting requirements, the Program Evaluation Plan, responsibilities of the portfolio and asset manager, private sector financial reporting metrics and evaluation of financial spreadsheet data to assist in the decision-making process. Also discussed will be personnel transition issues, program continuity and other management tasks identified in the various services' lessons learned seminars.

The majority of this course is conducted using a case study format with financial spreadsheets and materials comparable to those that federal managers and staff will encounter in a post-transition environment.

The initial target audience for both of these offerings was federal managers and staff. These courses have also attracted students from private sector organizations, and their presence provides an additional dimension to the training. This effect has been especially true in the Level 2 offerings where private sector attendees provide additional insight into the overall process and lend credibility to the material presented. Several of the private development companies have used these courses to supplement their existing internal training programs.

One could argue that, at this stage of privatization, the Level 1 offering has passed its useful point. But with new generations of federal employees progressing into the system and the intra- and



Courses offered for planning community

A broad set of master planning training is available in 2007 for the Army's master planning community. Planners should work closely with supervisors to program training as part of their Individual Development Plans. The planning community has many venues available to them, but courses fill fast, so anyone interested should contact the POCs noted below to pre-register.

Army master planning courses for 2007

Course 075, Real Property Master Planning

March 12-16 in Norfolk, Va.
Aug. 20-24 in Korea

This 36-hour course provides an introductory overview of real property master planning. Through lectures, hands-on training, a field trip and guest speakers, students are given insight on planning principles and how the Army uses this process to plan and develop its installations. If interested in the Norfolk course, register immediately.

Course 952, Advanced Master Planning

Aug. 6-10 in Huntsville, Ala.

This 40-hour course is for experienced planners. Through hands-on training, a field trip and automated tools, students obtain a broad understanding of planning principles as they pertain to area development planning and learn how to integrate urban planning principles, such as sustainability and mixed-use development, into planning great communities. The course is framed around a college studio environment, and students are challenged using

current automated tools that enhance the illustration of findings.

Course # 948, Real Property Master Planning Visualization Techniques

June 11-15 in Huntsville, Ala.

This 36-hour course provides planners a hands-on overview of how to use master planning imaging techniques to visualize area development planning proposals. Students will learn the fundamentals of the software Sketch-up, an easy-to-use planning tool, and how to interface Sketch-up with Geographic Information System (GIS) applications.

For more information on any of the Huntsville courses, call Betty Batts, (256) 895-7407; Beverly Carr, (256) 895-7432; or Jerry Zekert, (202) 761-7525.

Non-military professional planning venues

American Planning Association (APA) Conference

April 14-18 in Philadelphia, Pa.

APA, the professional planning society, sponsors an annual conference at which the planning community comes together to


learn the newest trends and celebrate success in planning. The conference attendees represent city, county and regional planning and consulting planning professionals from around the world. This conference is a unique professional opportunity that all planners should attend at least one time in their careers.

Contact Jerry Zekert, Army APA liaison, at (202) 761-7525, e-mail: jerry.c.zekert@usace.army.mil or www.planning.org.

Federal Planning Division, APA, Workshop – Army Planning Community of Practice Symposium

April 10-13 in Philadelphia, Pa.

The Federal Planning Division (FPD) of the APA hosts an annual workshop in conjunction with the APA Conference. The annual Army Planning Community of Practice meeting is scheduled for April 11 during the workshop. There will also be a demonstration of new planning tools.

For more information, contact Jim Maguire, FPD chairman, (817) 543-1100, e-mail: JMaguire@grwinc.com; or Jerry Zekert, (202) 761-7525, e-mail: jerry.c.zekert@usace.army.mil; or www.federalplanning.org. 

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inter-service bundling of future projects, the need still exists. It is anticipated that this offering will evolve to meet the target audience's needs.

MHLI recently conducted an online survey of Army asset management personnel and private sector counterparts. There were 86 responses from the 28 installations. When asked to rate the applicability of each certification to their current position, 80.1 percent of those answering indicated that the Certified Defense

Privatization Manager (CDPM) Level 1 certification course was "extremely" relevant. When asked the same question for the Level 2 certification course, 90 percent indicated that it was "extremely" relevant to their current positions.

Recently, the training directors from MHLI, IREM and NAA met to discuss the direction of future privatization training. While they have several plans, they decided to hold focus groups during the PDS in New Orleans to gather additional needs from the current generation of asset managers.

The timeline calls for the next offering in the CDPM™ series to be presented as a pilot course during the week prior to PDS 2008, to be held in Denver.

POC is Kevin E. Keating, e-mail: keatingk@cox.net.

Kevin E. Keating is the director of family housing and generic training for the Military Housing and Lodging Institute and has been involved in the development of this certification program.





Visualization tools help planners provide images of future environment

by Jerry Zekert

The community planner's role is to help create a quality environment for people to work, live and play. This is no different for the military master planning community that helps guide the planning and development of installations. One of the toughest challenges is to communicate in 3-D to stakeholders how the plans come together — what the results will look like.

For a long time, the planning profession relied on traditional sketching to communicate these ideas and the expensive, elaborate rendering services of architects and engineers to “finalize” the end product. Today's planning school graduates are using various

software applications to help visualize planning concepts well before design.

Software has matured to the point that these tools are affordable and can easily be used to create 3-D concepts. Many planners now routinely use PhotoShop to bring in graphics and pictures to help communicate a concept. Another of the most commercially available applications is Sketch-up, which is easy to use and enables planners to sketch a 3-D concept early in the process.

Continuing education is important for all professions, and that is very true in planning. The planning world no longer

depends on pencils and tracing paper but the power of the computer. To remain current, planners need to embrace new applications like PhotoShop and Sketch-up.

During the Advanced Master Planning class and the Master Planning Visualization class, students use these applications to solve planning problems. (See “Courses offered for the planning community,” page 41.) However, these applications and others are also available commercially along with training.

POC is Jerry Zekert, (202) 761-7525, e-mail: jerry.c.zekert@usace.army.mil. **PWD**

Register now for upcoming public works training

The U.S. Army Corps of Engineers' Learning University in Huntsville, Ala., has vacancies in the following courses:

Course 988, DPW Basic Orientation

Session: 2007-01, July 23-27

Location: Huntsville

Tuition: \$2,050

This course provides an overview of the Army installation management concepts, organization and missions, and Directorate of Public Works operations. It covers the real property requirements planning, acquisition planning, financial and work management systems and operational evaluation procedures, organization, function and mission of the DPW, and how to integrate real property maintenance activities.

Course 972, DPW Quality Assurance

Session: 2007-01, May 21-25

Location: Huntsville

Tuition: \$1,450

This course is for quality assurance evaluators, contracting officer representatives and other personnel with contract surveillance responsibilities. It incorporates recent

Department of Defense guidance addressing techniques for service contracts using commercial item acquisition procedures.

Course 974, DPW Performance-Based Services Acquisition (PBSA)

Session: 2007-02, Aug. 13-17

Location: Huntsville

Tuition: \$1,510

This course is for supervisors, technical and project managers, contracting officers, contracts specialists and technical personnel involved in the administration of performance-based contracts. It addresses the regulatory requirements, policies and procedures governing PBSA and service contract administration. It incorporates recent DoD guidance.

Course 990, JOC Basic

Session: 2007-02, Aug. 28-31

Location: Huntsville

Tuition: \$1,730

This course teaches students the basic policies and procedures for executing sustainment, restoration and modernization projects using a Job Order Contract (JOC). It covers the elements of JOC; task order

scoping; task order proposal requesting, receiving, reviewing, evaluation, negotiation and documentation; task order placement; key management issues; and contract administration procedures.

Course 991, JOC Advanced

Session: 2007-01, May 1-3

Session 2007-02, June 26-28

Location: Huntsville

Tuition: \$1,410

This course teaches strategies and procedures for technical discussion and negotiation with contractors in the JOC task order process. The course covers preparation for negotiation, conduct of negotiation sessions, alternatives and documentation. It also provides an understanding of the overall process of contract changes, modifications and claims.

To register for the classes located in Huntsville, call Sherry Whitaker at (256) 895-7425 or Bobbi Stoddard at (256) 895-7421. For other information or on-site training sessions, contact Donna Gravette at (256) 895-7529. **PWD**



White manages Sustainment, Restoration, Modernization program

by Mary Beth Thompson

If there was ever a man with diverse experience, it's Anthony (Tony) White. White — program manager for Sustainment, Restoration and Modernization (SRM) at Installation Management Command headquarters — moved to Washington a little more than a year ago from Fort Stewart, Ga. He had been the Military Construction, Army, program manager there since January 2000.

Earlier, White had spent five years as a criminal prosecutor in Kansas, gone to law school, headed customer relations for a U.S. Treasury office and worked as a registered financial consultant for several years. Before all that, White was in federal service, working his way from GS-5 to GS-15 in 11 years.

"The way I did that," he explained, "is that I was moving constantly, accepting a higher position and more responsibility. If you tend to be mobile, I think you tend to get promoted fast."

White did not mention the other prerequisite for rapid promotion — strong performance, but White's co-workers teased him on that subject.

"The joke was that, 'Tony, you never stay long enough for anyone to catch you doing something wrong, so it was easy for you to get promoted,'" said White.

Along the way, he has worked for the Air Force, the Navy and the Army, including the Corps of Engineers, and he has lived in many U.S. states and European countries. He was a political appointee at the Small Business Administration and even served as mayor of Indian Head, Md., for a time.

At Headquarters, IMCOM, he reviews SRM projects submitted by the field and tenders them to the Office of the Assistant Chief of Staff for Installation Management for approval. As the Training Barracks Improvement Program, which replaced air conditioning and windows, is winding down, a new program is starting, White said. Called "TBUP," for Training Barracks Upgrade Program, the \$100-million-a-year



Tony White
Photo by Mary Beth Thompson

program entails the repair of permanent training facilities. Many of the packages he now sees are for the TBUP.

"The TBUP is modernizing the building, making major changes, gutting and redoing it," he said.

SRM projects take most of his time, but White also handles requests for temporary structures, restoration of storm and fire damage, and emergency repairs.

"For a lot of projects, we need temporary space to house people while construction is going on, and so I also review what's called 'relocatable' requests," White explained. "A relocatable building is a temporary structure, normally a trailer, that's used for swing space."

The relocatable requests are declining in number, he said. The restationing actions that required so many relocatables have occurred, and now the requests are to accommodate training and major repair projects.

White said the most challenging aspect of his job is the time factor. He reviews all of the SRM, relocatables and storm, fire and emergency repairs for the Army. He knows that the garrisons and the regions devote many hours to their projects, but he cannot do the same.

"You find that you may have an hour to spend on something, and that's about it," he said. "And then you have to go spend another hour on another region, another garrison. Unfortunately, at this level, that's what you have to do to get the work done."

One of the frustrations of the job is to see the same mistakes in the proposal for one project repeated on another. In turn, the field expresses annoyance with what it views as changing rules. To help correct these situations, White is working with ACSIM to develop lessons learned that can be shared. The goal is to have fewer packages returned to the requester for re-working.

"Our intent is to go out into the field and hold regional meetings," he said. "We can say, 'Here's the latest policy, here's how you ought to be doing all the packages.'" They have also been working to develop standards that include typical questions the leadership asks, so the project team can address them before submitting its package.

What he likes most about his job is the opportunity to interact with all the regions and garrisons, which gives him a better view of the big picture, White said.

"At the garrison level, sometime it's hard to see how you really fit into the overall picture," he said. "Now I can understand, and I can see how it all comes together."

White, with all his diverse accomplishments, is not through yet. When he started his government career, employees filled out what were called "dream sheets." His ambition was, and still is, to be a member of the Senior Executive Service.

That adult goal is still on the horizon, but White has fulfilled all his childhood ambitions, which included becoming an engineer, working on Wall Street and trying cases in court.

"I'm probably one of the few people who can say that the things I wanted to be when I was a kid, I've done."

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