

APPENDIX F

SAMPLE ANNUAL GUIDANCE PLAN VALUE ENGINEERING PROGRAM NORTH ATLANTIC DIVISION, U.S. ARMY CORPS OF ENGINEERS

F.1. Program Description and Current Status.

a. Purpose. The purpose of the FY 2004 Annual Guidance plan for the Value Management (VM) Program (also known as Value Engineering (VE) Program) is to convey a standard annual plan for all of the Districts within the North Atlantic District. This annual plan is to enhance the functional quality and cost effectiveness of our VM/VE products and services. The VM/VE methodology can be applied to any business process and it is not restricted to the field of engineering. Since the Districts under North Atlantic Division mission are mainly that of Engineering, Construction, Operations and Maintenance, our VM program is focused mainly on conducting VE studies on our engineering, design, construction, Operations and Maintenance projects. The Value Engineering Change Proposals (VECP) program, a cost savings sharing program for construction contractors, is also an important albeit smaller component of the Corps' VM program. The purpose of this FY 2004 Annual Plan is to provide a uniform framework for the NAD Districts support and execution of a reinvigorated VM/VE program in accordance with Corps' VM/VE policy and procedures as embedded/integral elements within the Corps' Project Management Business Process (PMBP).

b. Program Guidance. The essential program guidance documents consist of:

(1) Value Management Plan (VMP-REF8023G) which is an integral part of the Corps' PMBP. Reference Memorandum dated 7 November 2002, in which LTG Flowers approved implementation of the USACE Business Process Manual. This Guidance is found at the website link to the VMP-REF8023G <http://www.hnd.usace.army.mil/p2/tutor/ref8023G.htm> as well as Appendix 1 of this FY 2004 Annual Plan. This guidance calls for the embedment of the VMP into every qualified project management plan.

(2) ER 11-1-321, dated 28 February 2005, which contains general and procedural requirements for executing Corps' VM/VE work. This guidance is contained in appendix of this annual plan.

c. Value Engineering Services. Our VE services mainly consist of independent third party VE Team reviews and studies on qualified construction projects. These reviews and studies follow an organized process of team partnership and consensus decision-making, incorporating elements of functional analysis, creative brainstorming and life cycle cost comparisons. The ultimate goal of any VE review or study is to maximize value by producing a quality product that will accomplish the required functions at a reduced, reasonable and acceptable life cycle cost. Therefore, the VE process should not be synonymous with mere cost cutting or the reduction of the scope of our products or services. Rather, VE services should be embedded as an integral part of our total project management and delivery process.

d. In-house VE Capability/In-house VE Study Teams. The VE study process utilizes a multi-disciplined and synergistic team approach. Because it is knowledge and skill based, an effective VE team must have an adequate amount of training and appropriate and sufficient experience. Therefore, any viable VM program for the longer term must have VE training as one of its essential elements. Because qualification and capability criteria are the same for In-house or AE Contract VE Study Teams, our goal should be to make available at least two trained and qualified teams composed of the essential expertise/disciplines according to VE study needs of the projects (e.g. Architectural, Civil, Structural, Electrical, Mechanical Engineers, Cost Engineers, Environmental scientists and other specialty consultants).

e. Out-Source/AE Contract VE Study Team. The success of the AE contract, VE study team is that AE teams are often comprised of highly experienced individuals in the various engineering and/or specialized disciplines. Outside Architects and Engineers (AE) and other VE consultants such as the Corps' own VE Study Team (OVEST), can be especially beneficial as alternative resources. VMP requires that any VE team members be considered an integral part of the project delivery teams that require their VE study services. Our current design AE contracts, as the VE subcontractor are well qualified and capable of providing multi-disciplined VE study teams and delivering cost effective VE study services. There is currently a VE study workload being made and a NAD AE contract for all NAD Districts to utilize under a GSA contract for cost and, VE services contract may be justified.

f. Annual Plan and Reports. Each fiscal year (FY), Higher Headquarters requires each District to prepare an Annual Plan to document and measure its VE Study and Cost Avoidance (Savings) efforts. Quarterly and Year-end Reports are required to account for accomplishments. VE staffing and VE training data are also included in these Annual Plans and Quarterly and Year-end reports. District Annual Plans and Reports are then consolidated at the MSC or Division level for submittals to HQUSACE.

g. Value Engineering Officer. The NAD Value Engineering Officer serves as a special assistant to the commander to administer the VE program. He or she must also serve as the promoter and integrator of the new and reinvigorated VM process as an integral part of the PMBP.

F.2. Customer Expectations & Customer Relations.

The obvious expectation of our customers is the efficient and effective delivery of VE services to reach Value Management and Project Management goals. The only obvious and rational justification for promoting project specific use of VE services is that it makes good sense to maximize value by producing cost effective and quality products and services that will meet the customer required functions. Therefore, customer decisions must depend on the availability and adequacy of project funding.

Current laws and regulations governing the VE program were designed for higher goals of a more cost effective government. As a result, from an individual project manager's perspective, if adequate project funds have already been obtained, there is really little incentive or need to reduce cost. Therefore, project managers often view VE tasks as of no value, but added burden, if the money saved through VE studies are returned to the agency's program budget rather than credited back to the local project. Therefore, the most common reason for project customers to seek VE services is inadequate project funding.

Our experiences in recent years show that even if project funding is above current estimates and cost avoidance is not an identified customer need, a VE study can help to validate the design and enhance the over-all functionality and quality; therefore, value of the project. This may be accomplished through detailed examination of the cost effectiveness and functional quality of the individual project components and redistribution of funds among the project components to enhance the over-all quality of the project. The VE team may also make suggestions toward expediting project schedules and improving project management processes. Thus, the VE program can help to meet customer needs as well as enhance Corps' reputation by contributing to our ability to consistently deliver products and services that will meet or exceed customer expectations. Therefore, intensive out-reach and collaboration efforts with all of our internal and external customers are necessary. The end goal would be to establish mutually beneficial and long-term partnerships to achieve the common goal of quality engineering products and services at reasonable or acceptable costs.

Another possible benefit of performing a VE study on a project that is within budget is to roll over the possible savings on VE suggestions into increased, sustainable design features for a project, thereby increasing the metal rating of the project, such as from bronze to silver. A Customer Needs and Satisfaction Survey website, <http://www.nws.usace.army.mil/pm/ve/questionnaire.cfm> has been established to gauge potential customer requirements and expectations as well to measure success. Future success will depend largely on emphasis and encouragement by Corps, NAD and the Districts senior management, as well as continued out-reach, education and marketing efforts.

F.3. Plans to Address Major Program Issues and Needs.

a. VE Goals and Accomplishments. A critically important issue of Corps' VE program is the issue of setting rational and reasonable goals. Although EC 11-1-114 has recently been issued, detailed guidance for setting goals and reporting accomplishments are still being coordinated at higher Headquarters. Until further guidance arrives, the current plan is to continue work with project managers to identify all qualified and eligible projects and to conduct VE reviews, Charrettes and VE team studies as needed, unless a waiver is justified. A list of currently identified VE study projects is found in paragraph 4.

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b. Budgeting/funding. VE Office budget is largely overhead funded, whereas VE studies are directly funded by individual projects. Therefore, budgeting or funding is the second critical issue facing an effective and successful VE program. A reasonable system of establishing VE budgets needs be established. A dialogue has to be established and maintained between the VE and individual project, program and resource managers, such as the PDMT. This collaborative process of reaching mutually agreed goals and resource/budget requirements would help to develop not only early forecasts, but also a reasonable VE Overhead, Training and Project Specific budget. It will also go a long way towards a sound resource plan to foster a capable VE work force, as well as a reinvigorated VM program. Adequate resources must be provided to conduct required project related VE reviews and studies. Adequate funding must be established to conduct the necessary overhead functions critical for the implementation of the new VM processes, as well as to nurture in-house capabilities to ensure future success. With the new PMBP and VE guidance in hand, ongoing communication, coordination and planning efforts have been focused on developing a viable budget and the Annual Plan for FY 2004.

c. Programs and Project Information. There is a need for both Project Management and Value Management to keep each other informed of the project status. Timely workload and resource projections are particularly important to aid program and project planning as well as effective conduct of both the Project Management and the Value Management programs. Accurate, complete and timely individual Project Management Plans and information on resource allocation and workload projections should be made. They will determine future success or failure of the planning, tracking, effective management and delivery efforts of all projects. Therefore, it is in the best interest of Project Management and the Value Engineer to jointly endeavor to foster an accurate, complete and timely project and program management database reporting system. The Value Engineer will have to work with individual project managers to enhance the reporting programs, as well as to ensure implementation of an effective future program. The NAD VM/VE community should make continuous and strenuous effort through contacts with individual project managers to obtain, update and verify accurate VE budget and schedule information on all potential VE study projects.

d. VE Training Plan. The District VE Officer should make a concerted effort to train in-house employees in the VE process. As an example, the Baltimore District has made an investment to train individuals in the Design Branch and Cost Engineering Branch in the 40-hour VE module 1 class. There are also a large number of new employees, even seasoned mid and senior level managers and supervisors that had little or no timely VE exposure. In the absence of training or information, they often have pre-conceived ideas of what Value Engineering should be. Therefore, the District VE Officers should start or continue a gradual process of remedial actions to address the multitude of VM/VE training deficiencies. The most acute need is for general VE information and awareness training in the work force. This training is particularly important for project managers, since they are the crucial and immediate links to implement the VMP into individual projects. EC 11-1-114 also recommends that Corps Managers and Technical staff (branch and section chiefs of PM and Engineering Division and PMs) should attend a VM/VE seminar, or preferably, a VE Module I workshop during the first 2 years of their appointment and at least every 10 years thereafter.

Trained Ad Hoc VE coordinators for VE representation on the project delivery teams are needed to implement the new PMBP/VMP, as well as to support a reinvigorated VE program.

The VE coordinators or representatives and VE study team members must be minimally trained in the 40-hour VE Workshops to qualify and function effectively. In order to jumpstart the reinvigorated VE program, the District Value Engineer Officer should propose to personally conduct a series of affordable VE orientation seminars and briefings at Branch staff meetings in the District and field offices. Where a VE briefing cannot be made a part of the Branch Staff Meeting, a separate briefing session will be scheduled to reach the maximum possible number of project managers and technical employees who could derive job related benefits from the VE information. The purpose of these seminars and briefings is to give the work force a basic understanding of the VE process as well as to help project managers and others in understanding and fulfilling their VE responsibilities. The Value Engineer will address the contents of the new VE guidance, the basics of VE methodology and processes required to conduct an effective and reinvigorated VM/VE program. The VE officer will also solicit employee input and feedback to facilitate the implementation of the PMBP/VMP program.

Although VMP training as part of the PMBP process, may be funded by PMBP training resources, the VMP training instructions have not been issued and are not expected until FY 2004. Based on preliminary feedback from PDMT members, doable one-hour VE orientation or briefing sessions should be planned. Scheduling of these briefing sessions is designed with flexibility in mind to allow the Value Engineer time to prepare, coordinate and conduct these briefings interspaced between other urgent and ongoing VE job tasks.

FOR EXAMPLE:

Military Programs Branch may identify the need for two consecutive bi-weekly sessions during its bi-weekly branch staff meetings.

Environmental and Technical Services Branches may tentatively schedule a joint session for 20 project managers.

Construction Branch may identify the needed sessions.

One for the Construction Branch office staff in the District Office and one for each of the field offices.

Operations Division may have one or more briefing sessions.

The Value Engineer needs to devote an estimated average of 2 workdays to prepare, coordinate, travel, set-up and deliver each of these sessions.

F.4. Current List of VE Projects. Based on ongoing and recent communication with individual program and project managers, we have identified the following potential VE review or study projects:

CENAD FY04 ANNUAL WORK PLAN							
(SAMPLE PROJECTS)							
CATEGORY / LOCATION CWE>\$2MIL	PROJECT NUMBER	PROJECT, PROGRAM, SYSTEM OR PRODUCT	DIST	PROGRAM AMOUNT	SCHEDULE	ESTIMATE VE STUDY COST	Notes on Project
<u>MILITARY</u>							
Ft. Drum	xxxxx	Hall Addition	NAN	\$49,000,000	1QTR	\$50,000	
Ft. Drum	xxxxx	House Design	NAN	\$45,000,000	2QTR	\$60,000	
Ft. McNair	xxxxx	Barracks	NAB	\$114,000,000	1QTR	\$60,000	
Ft. Myer	xxxxx	SEBQ	NAB	\$50,000,000	3QTR	\$70,000	
Ft. AP Hill	xxxxx	House Design	NAB	\$4,000,000	2QTR	\$50,000	
Vilseck, Germany	xxxxx	School	NAU	\$11,800,000	1QTR	\$35,000	
Stuttgart, Germany	xxxxx	Laundry	NAU	\$24,000,000	1QTR	\$35,000	
Grafenwoehr, Germany	xxxxx	Barracks	NAU	\$36,430,000	1QTR	\$40,000	
Heidelberg, Germany	xxxxx	Barracks	NAU	\$3,550,000	1QTR	\$35,000	
Defense Dist.Region – East	xxxxx	Replace Barracks	NAB	\$20,000,000	4QTR	\$44,000	
<u>FAMILY HOUSING</u>							
Ft. Lee, VA	xxxxx	Thomas Replacement	NAO	\$46,000,000	3QTR	\$20,000	D/B contract
<u>DLA FUNDS PROGRAM</u>							
DSCR, Richmond, VA	xxxxx	South Facility	NAO	\$5,300,000	3QTR	\$15,000	FFP design
		Logistics Room Renovation	NAE	\$4,100,000	3QTR	\$30,000	
		Agency Facility	NAE	\$5,200,000	3 QTR		
<u>SFO</u>							
Thule. AFB	xxxxx	Hangar	NAN	\$19,800,000	2QTR	\$50,000	
Langley, AFB	xxxxx	Runway Design	NAO	\$9,000,000	4QTR	\$30,000	
Arlington Cemetery	xxxxx	Creamatorium	NAB	\$30,000,000	4QTR	\$60,000	
Architect of Capitol	xxxxx	Site Design	NAB	\$38,000,000	4QTR	\$60,000	

CATEGORY / LOCATION CWE>\$2MIL	PROJECT NUMBER	PROJECT, PROGRAM, SYSTEM OR PRODUCT	DIST	PROGRAM AMOUNT	SCHE DULE	ESTIMATE VE STUDY COST	NOTES
<u>CIVIL WORKS</u>		1 st Beach	NAN	\$85,000,000	4QTR- FY05	\$50,000	
		2 nd Beach	NAN	\$96,000,000	4QTR	\$50,000	
		Point of New York	NAN	\$12,000,000	4QTR	\$50,000	
		Michael Dam	NAO	\$6,000,000	3QTR	\$15,000	
		Clear River Local Protection	NAE	\$40,000,000	3QTR	\$50,000	
<u>O & M</u>		Delaney Dam Deficient Richmond Harbor and Channel	NAP	\$27,000,000	4QTR	\$50,000	Based on receipt of funding study may not be done until FY05.
		Clear Creek	NAO	\$11,000,000	3QTR	\$15,000	
		Sandy Bottom	NAB	\$2,000,000	2QTR	\$20,000	
		Ten Mile	NAB	\$4,700,000	4QTR	\$47,000	
		Mink Lake Spillway	NAB	\$4,800,000	4QTR	\$48,000	
			NAE	\$4,000,000	4QTR	\$50,000	
HTRW ENVIRONMENTAL		Nosects, Baltimore	NAN	\$40,000,000	1QTR	\$50,000	
	OEM	TaniRare River	NAN	\$2,300,000	4QTR	\$35,000	