



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
SOUTH PACIFIC DIVISION, CORPS OF ENGINEERS
1455 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94103-1399

South Pacific Division

July 15, 2015

The Honorable Sloan Gibson
Deputy Secretary of Veterans Affairs
810 Vermont Avenue NW
Washington, DC 20420

Deputy Secretary Gibson:

It is with distinct privilege that I submit the US Army Corps of Engineers (USACE) Diagnostic Assessment for the Department of Veterans Affairs (DVA) New Orleans Medical Center. The enclosed report provides detailed evaluations of more than thirty (30) tactics, techniques, and procedures across the three specific phases of project delivery, namely, Planning-Programming, Engineering-Acquisition, and Construction Management-Commissioning.

Through direct engagements with your staff, the contractor, the designer of record, and key stakeholders at the project site from the period April through May 2015, strengths and weaknesses were assessed against comparable standards that Department of Defense (DOD) and USACE use for major medical infrastructure. It should be noted that all observations, analytics, and recommendations offered are based on informed and reasonably defensible conclusions; however, due to the scale, scope, and term of the effort, this assessment should not be construed as conducted in accordance with Generally Accepted Government Auditing Standards (GAGAS).

Our USACE Review Cadre found the spirit of collaboration, candor, and professionalism from every member of the DVA workforce we engaged as exceptional. We look forward to any future opportunity to assist and advise your efforts supporting our Nation's Veterans. As always, I may be reached on 415-503-6550 or at joseph.f.calcara@usace.army.mil if you require any further engagement regarding this effort.

Very Respectfully,

A handwritten signature in blue ink, appearing to read "Joseph F. Calcara".

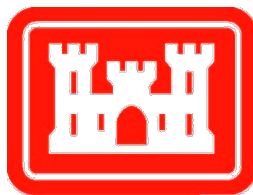
Joseph F. Calcara, SES
Director, Programs

**MAJOR MEDICAL CONSTRUCTION
UNITED STATES DEPARTMENT OF VETERANS AFFAIRS**

**A DIAGNOSTIC ASSESSMENT
BY THE
UNITED STATES ARMY CORPS OF ENGINEERS**

NEW ORLEANS MEDICAL CENTER

15 JULY 2015



**US Army Corps
of Engineers®**

Note: This USACE Report details in-depth observations, analytics, and diagnostics used to reach informed and reasonably defensible conclusions contained herein. It should be noted, however, that due to the scale, scope, and term of the effort, this assessment should not be construed as an audit conducted in accordance with Generally Accepted Government Auditing Standards (GAGAS) and related Federal standards.

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EXECUTIVE SUMMARY

In April 2013, the Government Accountability Office (GAO) concluded that costs substantially increased and schedules were delayed for Department of Veterans Affairs' (DVA) largest medical-facilities construction projects located in Aurora, Colorado; Las Vegas, Nevada; New Orleans, Louisiana; and Orlando, Florida. In April 2014 Congressional testimony, GAO reported the cost increases for these projects were ranging from 66% to 427%, with schedule delays ranging from 14 to 86 months. In January 2015, DVA senior leadership approached the US Army Corps of Engineers (USACE) to evaluate the tactics, techniques, and procedures (TTPs) which had been used at these projects. USACE developed a detailed diagnostic screening tool to assess DVA strengths and weaknesses across the phases of a project life cycle against comparable standards that Department of Defense (DOD) and USACE use for major medical infrastructure construction program. This report addresses the New Orleans project.

Detailed diagnostic evaluations of more than thirty (30) line item inputs across the three specific phases of project delivery — Planning-Programming, Engineering-Acquisition, and Construction Management-Commissioning — were performed, and contractor, designer, and key stakeholder interviews were also conducted at the project site. Consensus observations and conclusions for the New Orleans medical center project are as follows:

DVA has met a majority of measures, methods, and movements used in typical DOD and USACE TTPs. However, DVA is now experiencing significant challenges in the Construction Management-Commissioning phase resulting from critical deficiencies in Project Baseline Pricing, Facilities Criteria, Risk-Informed Acquisition Strategy & Contracting, Change Management, and overall Disciplined Governance. Moreover, while each of these weaknesses contributed to the myriad challenges the New Orleans medical center project has encountered, the single biggest driver of cost and schedule delays is unquestionably the ill-informed guidance to proceed with a "Design-to-Need" methodology and disregard approved project budget controls. Additionally, compounding the lack of a holistic process for managing user-driven changes, flawed acquisition strategy, unexpected environmental remediation, and pending Request for Equitable Adjustment at time of this report suggest a scope and cost growth beyond predictable and defensible expectation.

Lastly, while USACE was tasked with developing prescriptive recommendations on process, structures, and oversight controls to drive predictable cost and schedule performance, root causes driven by mis-alignment of organizational priorities, expectations, and accountability across all levels of DVA must be addressed first. Specifically, conflicting lines of authority between requirements generation policies, programming decisions, engineering/construction protocol, and facilities management prerogatives have proven to be detrimental to defensible standards, effective governance, and attaining reasonable project outcomes. DVA has initiated evolving changes: e.g., locking budgets at 35% design, incorporating medical equipment planners earlier, enhancing onsite contract authority, and driving accountability through a vested project executive, which will certainly help; but transformative change in organizational processes that enfranchises engineering/construction proponents to manage with disciplined leadership at all levels of DVA will be necessary to avoid major delays and cost overruns in medical infrastructure delivery, regardless of adopting DOD-comparable process, structures, and oversight controls.



TASK & PURPOSE

In late January 2015, Department of Veterans Affairs senior leadership approached the US Army Corps of Engineers (USACE) acting by and through their Senior Executive at South Pacific Division in San Francisco to:

- (1) Devise and perform a diagnostic evaluation to determine strengths and weaknesses in Tactics, Techniques, and Procedures (TTPs) used by DVA in delivery of their medical facility and infrastructure construction projects;
- (2) Conduct project executive, designer, construction contractor, facility manager, and other key stakeholder interviews to refine and/or validate conclusions; and
- (3) Provide prescriptive recommendations on process, structures, and oversight controls to drive predictable cost and schedule performance in DVA medical facility and infrastructure construction projects.

PROJECT SCOPE

The VA Medical Center in New Orleans totals approximately 1,600,000 BGSF (including the Central Energy Plant and parking garages) with approximately 100,000 BGSF of renovated space in the neighboring historic Pan Am Building. Key components of the project include:

- *Inpatient bed unit for approximately 120 beds*
- *Acute care mental health 20 beds*
- *Transitional Living Center housing 60 beds*
- *Outpatient clinics*
- *Diagnostic and treatment center*
- *Research laboratories (including a renovated historic structure, the Dixie Brewery)*
- *Renovation of existing office space for administrative offices (Pan Am Building)*
- *Staff parking deck for approximately 1000 cars*
- *Patient parking deck for approximately 1000 cars*
- *Central concourse for public functions, amenities and circulation*
- *Central energy/utility plant, off-site utilities, and infrastructure improvements*
- *Warehouse and engineering services building combined with the Central Energy Plant*
- *Unique design features allowing continued fully operational facility in response to natural disaster*

PROJECT BACKGROUND

Conceived in 2006 as the replacement hospital for the original New Orleans VA Medical Center heavily damaged in the aftermath of Hurricane Katrina, the replacement New Orleans VA Medical Center was funded by the Katrina Emergency Assistance Act and the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006. In its earliest concept (February 2006), the New Orleans project was conceived as a joint venture with the neighboring University Medical Center of Louisiana State University (LSU), to be concurrently constructed, at a cost of \$636,000,000 for the DVA portion. In 2006, GAO concluded that repairing the heavily damaged original medical center was not cost effective, further supporting DVA's proposal for a replacement hospital.



DVA did not implement a Strategic Capital Investment Planning process at the time of project identification; in the President's budget proposal of 2009, however, DVA developed a prospectus for full authorization at \$625,000,000. Initial indication of concern regarding planning and cost for the new facility became apparent when it was revealed that the August 2009 space allocation plan for the new facility utilized outdated medical facility modeling standards from the 1970's. A further planning setback took place in 2008, when DVA determined that the proposed site physically prohibited a co-located facility with the LSU medical facility. With space needs vaguely calculated and its partnership with LSU ended, by 2009 the New Orleans project estimate was significantly above its funding allocation. Further, the selected site on Canal Street, although granted to DVA at no cost, was discovered to require extensive and costly environmental remediation. By the close of 2009, the project was pricing in excess of \$1,000,000,000. In reaction to the untenable cost growth, DVA reversed guidance and directed that the New Orleans project reduce scope; the current OMB 300 now reflects a scope and reduced design set at \$995,000,000.

ASSESSMENT APPROACH & METHODOLOGY

Industry-authenticated TTPs have been adopted by DOD and utilized successfully by USACE in delivering medical facilities and infrastructure projects for the Defense Health Agency, and other military organizations. Based on DOD practices a diagnostic screening tool was devised to evaluate strengths and weaknesses across three key phases of project delivery: Planning-Programming (reference Tab 1), Engineering-Acquisition (Tab 2), and Construction Management-Commissioning (Tab 3). DVA Senior Leaders from the identified projects were briefed and concurred with the specifics and methodology of the diagnostics screening tool, which included more than thirty (30) Movements, Measures, & Milestones that are the key enablers to driving predictable cost and schedule results.

The USACE Review Cadre of highly qualified experts in engineering, construction, program management, and acquisition contracting conducted extensive on-board assessments through collaborative presentations and discussions that included documentation and other pertinent information from DVA, GAO, and other sources, including a site visit to interview contractors, facility managers, medical center directors, and other key stakeholders. The USACE Review Cadre asserts the enclosed information and observations contained herein has provided a reasonable basis for informed and defensible conclusions. Following are findings of the assessment arranged by three key phases of project delivery.



SUMMARY of FINDINGS

PLANNING-PROGRAMMING

STRENGTHS

- ***Site Selection*** – *Site Acquisition at no cost to DVA.*
- ***NEPA / LEED*** – *Efficient NEPA documentation, with early adoption of LEED goals.*
- ***Medical Equipment Planning*** – *Focused project legacy office.*
- ***Prioritization / Programming / Authorizations & Appropriations*** – *Defensible cost growth from Hurricane Katrina emergency supplemental funding level.*

WEAKNESSES

- ***Site Selection*** – *Environmental cleanup costs.*
- ***Project Pricing*** – *Baseline used based on Hurricane Katrina emergency supplemental funding.*

On observation, the New Orleans project initially benefitted from several factors: (1) a proposed partnership and co-location with Louisiana State University, which was constructing its own medical center adjacent to the DVA project site; (2) 30-acre site acquired at no cost to DVA; (3) acquisition of the adjacent historic Pan Am building, designated as the new medical center administrative space; and (4) fully dedicated Federal funding of \$625,000,000 in national response to the disaster befalling New Orleans from Hurricane Katrina.

An early and major setback to cost control was determination that a partnership with LSU would not be feasible, causing DVA to reconsider scope and scale for the project and re-plan with a “Design-to-Need” New Orleans facility for the veterans’ population. In this process, DVA struggled with outdated medical infrastructure modeling from the 1970’s. And when it was discovered that the 30-acre site would require extensive environmental remediation, cost and schedule growth was impacted significantly.

An additional risk variable was DVA selection of Integrated Design and Construction (IDC) acquisition methodology. While prosecuted in a timely manner to Clark-McCarthy Healthcare Partners, the IDC award resulted in a bid protest. Also adverse to the ideal execution of IDC, the Architect-Engineer (A/E) was permitted to continue design of the New Orleans project without benefit of the construction contractor onboard, causing design to lack synchronization with future constructability considerations. This impact to project execution was further compounded by volatility in the New Orleans construction market, which was at the height of Hurricane Katrina recovery boom across the region. Because of these factors, the project grew to a current working estimate at \$995,000,000.

Just as Change Management Protocol is necessary in the Construction Management-Commissioning phase of a major infrastructure project, a similar doctrine should be implemented in the Planning-Programming phase. Changes in planning, programming and appropriations activities should be thoroughly documented and evaluated for benchmarking costs and benefits. All assumptions and facts should be reviewed holistically and with independent peer consultation to determine ongoing relevance and defensible rigor to proceed.

In summary, with its critical change from a cost-share partnership to a stand-alone facility, and an ill-informed “Design-to-Need” approach, predictable cost and schedule control over the New Orleans project became irrelevant.



ENGINEERING-ACQUISITION

STRENGTHS

- **Acquisition Strategy** – Recovered in spite of late protests.
- **Develop Project Management Plan** – Met intent (though not referred to as “PMP”).
- **Medical Functional Criteria** – Requirements designed to meet square-foot program space.
- **Pre-Design Conference** – Robustly attended; entire team established.
- **Concept Design** – VAMC conducted extensive outreach to New Orleans public, medical community, Veterans Service Organizations.
- **Schedule Discipline** – Defensible schedule growth.
- **Governance** – Active, effective partnering with senior members of all parties.

WEAKNESSES

- **Acquisition Strategy** – IDC late due to late protests.
- **Develop Project Management Plan** – Project not fully resourced.
- **35% Design Approval** – Target above Programmed Amount.
- **Advertising & Award** – Protest, awarded with 100+ exceptions.

Despite its challenges, the New Orleans project experienced the lowest project cost increase and fewest schedule delays of the DVA medical center projects assessed by the USACE cadre. Given the emergent situation, schedule delays were found to be defensible. That stated, the initial program amount was incorrectly adjusted to account for geographic location, accounting for the lapse of time between design and construction.

Work on the front end of the project was viewed effective, with a pre-design conference that was robustly attended, with extensive outreach to local veterans’ service organizations, the medical community, and the local public. Through this effort, DVA ensured the design was updated to reflect lessons in the aftermath of Hurricane Katrina. The final design was significantly more robust than originally planned, and well prepared to allow DVA to operate following a catastrophic event (e.g., all mission-critical services located at least 20 feet above base flood elevation).

DVA used IDC as the acquisition method, yielding both positive and negative results. The efforts made by all parties resulted in a degree of cooperation and collaboration that delivered results, though the construction contractor expressed reservation that DVA was restrictive in its allowing communication with the Architect-Engineer (A/E). With initial award under protest resulting in delays bringing the construction contractor onboard, the A/E continued with design, greatly limiting the benefits of IDC. Notwithstanding, it was observed that the use of IDC did in fact reduce and control some cost growth (e.g., DVA decision to eliminate much of the interstitial space).

The construction contractor original proposal included more than one hundred exceptions to achieve the cost estimate (\$840,000,000) to the stipulated Ceiling (\$750,000,000). At phase Design Development-2 (DD-2), costs rose to \$870,000,000. Performance was challenged with more than 7500 Requests for Information (RFI). Numerous cost control measures emerged, many changing DVA standard specifications to industry standards over the objection of the A/E. The IDC requirement for Earned Value Management was largely disregarded, with reports routinely submitted six months late. Lastly, successful construction requires prompt action on modifications. On this project, many modifications were not processed in a timely manner; and, when finally approved and issued, many were not adequately funded.



CONSTRUCTION MANAGEMENT-COMMISSIONING

STRENGTHS

- **Constructability Review** – Performed in accordance with IDC model.
- **Partnering Resolution** – Frequent partnering and engagement.
- **Contract Administration** – Well-staffed on-site team.
- **Quality Assurance** – Inspect & Approve method used, in lieu of 3-phase process.
- **Safety Management** – Contractor responsibility.
- **Equipment Installation** – Dedicated user involvement.
- **Commissioning** – Third-Party commissioning agent as part of team.
- **Final Acceptance** – Phased turnover allowing for application of lessons learned progressing through project.

WEAKNESSES

- **Final Criteria Revisions** – Ongoing late criteria, standards, code.
- **Contract Administration** – Challenges in meeting full staffing need.
- **Change Management** – Ongoing late criteria, standards, code.

Constructability was performed in accordance with the IDC acquisition methodology, benefitting from the construction contractor directly involved with project design. Final Criteria Revisions were viewed as reasonable, and considered to have met the overall project requirement. Concern remains, however, that emergent revisions in criteria, standards and/or codes may still bring on schedule changes and cost increases at the time of this diagnostic.

Formal partnering with the contractor and stakeholders was conducted at all levels, and graded as having exceeded expectations. The availability, dedication, and involvement of DVA staff had positive results, helping establish a tiered conflict resolution process to address and resolve issues.

Contract Administration was graded as having met accepted standards. A well-staffed contracting team committed to the project was placed onsite; however; challenges existed in fully resourcing the supporting its technical elements. Because of the latter, the lack of overall site staffing negatively impacted the timeliness of decision needs as well approval processes. Change Management was conducted through a tiered approval process, and was observed as having met the needs of project delivery. However, concern remains on the unfinished project with respect to late changes and their likely impacts to timely and cost-controlled delivery. The timelines of decision-making, as well as the process for approvals should be thoroughly reviewed by DVA for overall efficiency and effectiveness.

Quality Assurance was performed, and quality of the constructed work has not been identified as a concern. However, it was observed that the implemented quality assurance process tends more toward what is viewed as Quality Control with inspectors. Safety Management is performed by the Contractor, with Government enforcement by OSHA inspections. The effectiveness of the onsite safety could not be evaluated against other safety programs because a DVA construction safety program does not exist. Therefore measurable data does not exist for comparison. This is an observation also made at the Denver-Aurora and North Las Vegas projects as well.

Equipment Installations are judged to have exceeded standards, with dedicated involvement by VHA medical and administrative staff, the intended users of the facility.



Project Commissioning to date appears to be meeting expectations, with an independent third-party commissioning agent integrated into the project delivery team early in the process. Final Acceptance is proceeding in accordance with facility planning. As-built documentation, training, user participation, and other factors integral to project close-out remain on track.

INFORMED CONCLUSIONS

The key elements identified as adversely affecting the completion of the New Orleans VA Medical Center Project are as follows:

Risk-Informed Acquisition Strategy — DVA decision to use IDC was made early enough, but bid protest delayed award, preventing contractor participation in design maturation from 15% through 50%. Moreover, since protest in projects of this size are not unusual, prudent acquisition strategy should consider and posture for delaying performance and denying the underlying benefits of IDC. Lastly, with award made with more than 100 exceptions, and followed with 7,500 RFIs, other acquisition strategies, such as Design-Build, would have been more appropriate and effective.

Change Management — With many of the design changes as degradation to DVA standards, and with more than a year of construction remaining, it cannot yet be formally concluded if DVA change management process at the New Orleans site is effective. However, as of this report, direct feedback from the medical center staff and the construction contractor indicate project outcomes may not be favorable.

Disciplined Governance — DVA “Design-to-Need” approach on scope and scale of the project had dramatic impact to predictable cost and schedule delivery. Complicated and conflicting lines of authority within DVA have also proven to be detrimental to well-defined, tiered governance, and have precipitated little regard for programmed/authorized budget control.

Contracting Capacity & Resources — DVA management staff was adequately sized and assigned starting at the earliest stage of New Orleans project. However, DVA staff size did not always correlate with authority, and greater local procurement authority would have improved the efficiency of the project at every stage. As of this report, with pending Request for Equitable Adjustment to the contract, this review indicates predictable cost and schedule delivery will be uncertain.



EPILOGUE

GAO has recently reported in its April 2015 testimony before the Senate Committee on Veterans Affairs additional observations regarding DVA actions to address problems managing its major construction sites:

“VA has taken actions to implement the recommendations in GAO’s April 2013 report. In that report, GAO identified systemic reasons that contributed to overall schedule delays and cost increases at one or more of four reviewed projects and recommended ways VA could improve its management of the construction of major medical facilities. In response, VA has

- *issued guidance on assigning medical equipment planners to major medical facility projects who will be responsible for matching the equipment needed for the facility in order to avoid late design changes leading to cost increases and delays;*
- *developed and disseminated procedures for communicating to contractors clearly defined roles and responsibilities of the VA officials who manage major medical-facility projects to avoid confusion that can affect the relationship between VA and the contractor; and*
- *issued a handbook for construction contract modification (change-order) processing that includes milestones for completing processing of modifications based on their dollar value and took other actions to streamline the change order process to avoid project delays.*

[...] VA had taken steps to improve its management of major medical-facility construction projects, including creating a construction-management review council. In April 2012, the Secretary of Veterans Affairs established the Construction Review Council to serve as the single point of oversight and performance accountability for the planning, budgeting, executing, and delivering of VA’s real property capital-asset program.

[...] In our April 2013 report we identified systemic reasons that contributed to overall schedule delays and cost increases, and recommended that VA take actions to improve its construction management of major medical facilities: including (1) developing guidance on the use of medical equipment planners; (2) sharing information on the roles and responsibilities of VA construction project management staff; and (3) streamlining the change order process. Our recommendations were aimed at addressing issues we identified at one or more of the four sites we visited during our review. VA has implemented our recommendations; however, the impact of these actions may take time to reflect improvements, especially for ongoing construction projects, depending on several issues, including the relationship between VA and the contractor. Since completing our April 2013 report, we have not reviewed the extent to which these actions have affected the four projects, or the extent to which these actions may have helped to avoid the cost overruns and delays that occurred on each specific project.”

[Source: “VA CONSTRUCTION: Actions to Address Cost Increases and Schedule Delays at Denver and Other VA Major Medical-Facility Projects,” GAO-15-564T, April 24, 2015]

With respect to USACE tasking to develop prescriptive recommendations on process, structures, and oversight controls to drive predictable cost and schedule performance, root causes driven by mis-alignment of organizational priorities, expectations, and accountability across all levels of DVA must first be addressed. Specifically, conflicting lines of authority between requirements generation policies, programming decisions, design/construction protocol, and facilities management prerogatives have proven to be detrimental to defensible standards, effective governance, and attaining predictable project outcomes.



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For example, ultimate decision authority in DVA appears to be vested with senior executives driven by medical service imperatives and other emergent personnel marketing doctrine that often conflict with risk-return and best value analytics typically considered in driving prudent engineering-construction governance. DVA further demonstrated weakness in process for managing user-driven changes within approved budget controls. Moreover, while the New Orleans project had a site acquired at no cost, the time and cost consumed by environmental remediation coupled with the dramatic shift from the initial planning concept led to an uncontrolled and undisciplined scope and cost growth above defensible programming expectations. Lastly, significant challenges in recruiting, training, and retention of quality professionals exists across Federal agencies whose core competencies are to deliver engineering and construction projects, not alone at DVA where the function operates in a smaller, adjunct specialty organization.

In light of these observations by the USACE Review Cadre, reasonably defensible recommendations to preserve cost and schedule control on medical construction projects, include the following:

- (1) Incorporate into A/E design the latest advances in medical technology until the 35% design milestone is attained, at which time further changes in medical equipment planning (unless determined as medically required) must cease;
- (2) Cost/benefit analysis must be performed targeting with independent peer review to determine defensible interpretation of Planetree® and other Evidence-Based Design standards;
- (3) Implementation of facilities features and amenities must be commiserate with reasonably defensible cost-effective standards for attracting/retaining medical professionals to DVA; and
- (4) DVA staff must be provided with focused, specialized training in engineering and construction contracting techniques that will foster greater risk-return outcomes.

In conclusion, many DVA evolving changes, such as locking budgets at 35% design, incorporating medical equipment planners earlier, enhancing onsite contract authority, and driving accountability through a vested project executive will certainly help; but a transformative change in organizational process that enfranchises engineering/construction proponents to manage with disciplined rigor at all levels of DVA will be necessary to avoid major delays and cost overruns in medical infrastructure delivery regardless of adopting USACE-comparable processes, structures, and oversight controls.



APPENDIX

Tab 1.

PLANNING-PROGRAMMING						
E ≡ EXCEEDED M ≡ MET F ≡ FAILED O ≡ OMITTED						
PROCESS POINT	DESCRIPTION	E	M	F	O	
FACILITIES CRITERIA	Form – Fit – Functionality (DD 1391) and Real Property Planning, Analysis					X
PLANNING GUIDANCE	Define & finalize medical clinical requirements. Walls, circulation, common area sitework / Amenities / Size / Room placement. Planning Charrette.		X			
REQUIREMENTS VALIDATION	Integration of scope & scale (Criteria Tracking System) and Value-Based Charrette, Project Definition		X			
SITE SELECTION	Validates site approval (Real Estate issues, Environmental Considerations, SHPO/Cultural)	X				
PROJECT PRICING	Parametric PLUS USI augments (Documentation). Determine impact, contingency funding requirements.	X				
NEPA / LEED	HQVA (VACO) signatory		X			
MEDICAL EQUIPMENT PLAN	Scale, Scope & Timing					X
PRIORITIZATION / PROGRAMMING / AUTHORIZATIONS & APPROPRIATIONS	Traditional DVA PPBES		X			

Tab 2.

ENGINEERING-ACQUISITION						
E ≡ EXCEEDED M ≡ MET F ≡ FAILED O ≡ OMITTED						
PROCESS POINT	DESCRIPTION	E	M	F	O	
ACQUISITION STRATEGY	DBB <\$300M; DB vs ECI vs CM/Risk >\$300M		X			
DEVELOP PROJECT MGT PLAN	Detailed R & R; Schedule Integration		X			
MEDICAL FUNCTIONAL CRITERIA	Med Standards & Functional Practices		X			
PRE-DESIGN CONFERENCE	Infrastructure & Medical	X				
CONCEPT DESIGN	Single Line Form & Fit	X				
35% DESIGN APPROVAL	Trigger for Final CWE			X		
SOLICITATION DOCUMENTS	RFP Source Selection		X			
AUTHORITY TO ADVERTISE	HQVA (VACO) Authorization		X			
ADVERTISING & AWARD	Best Value Selection			X		
SCHEDULE DISCIPLINE	Timely Decision & Action		X			
CHANGE MANAGEMENT	Formal Process Followed		X			
GOVERNANCE	Senior Project Executive, authority		X			

Tab 3.

CONSTRUCTION MANAGEMENT-COMMISSIONING						
E ≡ EXCEEDED M ≡ MET F ≡ FAILED O ≡ OMITTED						
PROCESS POINT	DESCRIPTION	E	M	F	O	
CONSTRUCTABILITY REVIEW	Design-Build Deliverables		X			
FINAL CRITERIA REVISIONS	Formal process and adherence		X			
PARTNERING RESOLUTION	Facilitated Formal Construction Partnering	X				
CONTRACT ADMINISTRATION	Onsite Professional Engineer / Administrative Contracting Officer		X			
CHANGE MANAGEMENT	Timely/effective process		X			
QUALITY ASSURANCE	Document Process with Independent Checks & Internal Verification		X			
SAFETY MANAGEMENT	Construction Safety Manual (EM 385-1-1, or similar OSHA)		X			
EQUIPMENT INSTALLATION	Integrated Master Schedule & Building Integration Model (BIM) to avoid conflict	X				
COMMISSIONING	Medical Center of Expertise and Bench of Internal and AE Support Contracts		X			
FINAL ACCEPTANCE	Red-Zone Protocol		X			



USACE REVIEW CADRE BIOGRAPHICAL INFORMATION

Possessing more than 200 years of cumulative experience in engineering, construction, acquisition contracting, program management, and legislative expertise, the following individuals participated in the development of this report:

JOSEPH F. CALCARA, SES, USACE South Pacific Division

Selected to Senior Executive Service in 2005, Mr. Calcara currently serves as the Programs Director for the U.S. Army Corps of Engineers (USACE) South Pacific Division (SPD). He is responsible for regional direction and management of a \$1.5 billion annual military, civil works, real estate, and environmental program. SPD is one of eight USACE regional commands. SPD oversees four operating districts, which are headquartered in Albuquerque, Los Angeles, Sacramento, and San Francisco, to provide Federal and military engineering support in California, Arizona, Nevada, Utah, New Mexico, and in parts of Colorado, Oregon, Idaho, Wyoming, and Texas.

From February 2008 through January 2012, Mr. Calcara served as the Deputy Assistant Secretary of the Army (Installations, Housing, & Partnerships) at the Pentagon in Washington DC. In this capacity, Mr. Calcara was the senior career executive responsible for worldwide policy, programming, and oversight of Army real estate, engineering and construction, housing privatization, base realignments and closures, energy conservation, and military infrastructure and facilities. During his tenure, Mr. Calcara enabled the largest transformation in Army history to proceed with successful stewardship over more than \$72 billion in capital investments driven by Global Defense Posture Realignments, Base Realignments and Closures, Army Modular Force, Grow the Force, Army Force Generation, Korea Transformation, Joint Basing, Army Soldier-Family Action Plan, and Army Medical Programs.

Additionally, Mr. Calcara steered the unprecedented transfer of over 22,000 acres of excess real property to further the goal of \$1.4 billion annual recurring savings to the Army. He also served as the Senior Executive for the Army Residential Communities Initiative, managing more than \$12 billion in capital construction and renovation for 84,000 housing units at more than 40 locations in the public/private portfolio.

Mr. Calcara served previously in Headquarters, U.S. Army Corps of Engineers from 2006 to 2008 as Director of Army Real Estate. He was accountable for worldwide program execution, policy, and technical expertise in realty acquisition, asset management, and property disposal for 24 million acres of Army-controlled land and improvements valued in excess of \$600 billion. He also served concurrently as the Chief of the South Pacific Division Regional Integration Team, a multi-disciplined vertical cadre charged with integrating regional infrastructure and facilities, products and services valued at more than \$1.5 billion in annual civil works, military, and environmental projects across ten western states.

From 1983 to 2006, Mr. Calcara served in various capacities with the Naval Facilities Engineering Command at its Headquarters in Washington, D.C., and their component commands at Pearl Harbor, San Diego, and Philadelphia, and in the Office of the Assistant Secretary of the Navy. For 23 years, Mr. Calcara supported delivery of global shore installation management products and services for real estate, mechanical engineering and design, housing, asset privatization, base closure and realignment, military construction, energy conservation, and facilities sustainment, restoration and modernization programs.



JAMES PATRICK MOORE, P.E., CCM, *Lead and Senior Civil Engineer for Construction Management, HQ USACE*

Jim is the Lead and Senior Civil Engineer for Construction Management, developing and implementing policy for USACE Mega Project Management, Design-Construction Evaluations (DCE) for civil works and military construction programs and projects throughout the Corps. Jim is also the USACE Subject Matter Expert (SME) for earth and rockfill embankments; complex mechanical and HVAC systems, concrete; and standard, modular and panelized building systems. A voting member of the USACE Dam Safety Senior Oversight Group, Jim also performs evaluations of risk-based and risk-informed models, guidance, and applications, developing and analyzing causal factor analysis tools for cost and time growth of civil works projects.

Jim earlier served as Director of Public Works, Tobyhanna Army Depot (2002-2003); at USACE Baltimore District (1978-2002); and Lane Construction Corporation, Binghamton NY/Princeton WV (1976-78).

Jim holds a Master of Science, Management of Technology, Lehigh University (1999) and Bachelor of Science, Civil Engineering, The Pennsylvania State University (1976).

JOHN A. KEEVER, P.E., *Chief, Construction Division, USACE Los Angeles District*

John A. Keever joined the staff at the U.S. Army Corps of Engineers, Los Angeles District in June 1980 as an engineering intern and was selected for Chief of Construction Division in April 2007. As Chief of the Construction Division, John is responsible to the District Engineer for managing a large, complex and diverse construction program. The mission assigned to the Construction Division includes planning, coordinating and directing a construction program in support of civil works, military and environmental remediation, and Interagency support. Construction division Budget is approximately \$600,000,000 with over 210 employees in Southern California, Arizona, the southwestern tip of Utah and southern Nevada.

In 1980 John began as an Engineer Intern for the Los Angeles District. Once he had completed the intern program he elected to go into Construction Operations Division where he has held positions of increasing responsibility (Quality Assurance, Office Engineer, Project Engineer, Area Engineer and now Chief of Construction Division). John has worked on all programs assigned to SPL (Civil Works, Military, Environmental, and IIS) and has been at a number of Field Offices in California, Arizona, and Nevada. John has also served on details as the Chief of Construction Branch (120 days), Chief of Military & Environmental Programs Branch in PPMD (1 year), E-Rate Program Manager for LAUSD (90 days), and 1st Calvary Division Area Engineer for GRC in Baghdad (120 days).

John was selected to attend USACE Sponsored Long Term Training and attended Washington University in St. Louis and obtained a Master's Degree in Construction Management. He is a registered civil engineer in California. John was selected for the SPD Construction Management Excellence Award in 1993.



ROD MARKUTEN, P.E., *Regional Civil Engineer for Construction, USACE South Pacific Division*

Rod Markuten is the Regional Civil Engineer for Construction and the Dam and Levee Safety Officer for the South Pacific Division. He's held this position since 2009 when he transferred from the Chief, Engineering and Construction for the Pacific Ocean Division position where he was responsible to provide technical leadership and support to the region for high quality cost-effective design and construction services throughout the Pacific-rim. Rod will be become the Chief of Construction for the Japan Engineer District in May.

Rod has 40 years of service with the Army Corps of Engineers. His first assignment was with the New Orleans District as a Hydraulic Engineer. In 1978 he transferred to the Europe Division where he served for 13 years in various positions in Germany and Italy. First, as Project Manager for NATO projects throughout Europe, then as Senior Program Manager for the Air Force design program, and finally as Resident Engineer for the Ground Launched Cruise Missile (GLCM) bed-down in Germany and construction at the Hahn, Bitburg and Spangdahlem Air Force Bases.

He was assigned to the South Atlantic Division in 1991 as the construction technical lead for the Military and Civil Works Programs. In 1996, he became the first Corps' Resident Engineer in Russia for construction of the Fissile Material Storage Facility. After two years in Russia, he returned to the Atlanta, and then transferred to the Pacific Ocean Division, Honolulu Hawaii as the construction lead. April 2007 he was promoted to Chief of Engineering and Construction for the Division.

Awards include; DeFlurey Medal (Bronze), Society of Military Engineers' Ralph A. Tudor Medal for Construction Achievements, Superior Civilian Service Award (Iraq), Joint Civilian Service Medal, Commander's Awards.

Native of Pennsylvania and a graduate in Civil Engineering from the University of Miami with a Masters' in Civil Engineering from Tulane University. Rod is a registered professional engineer in the state of Florida and member of the Army Acquisition Corps.

JAMES D. BARTHA, *Regional Chief of Contracts, USACE South Pacific Division*

James D. Bartha is the Region Chief of Contracts for the South Pacific Division of the Army Corps of Engineers. He is responsible for the management of four District contracting offices, and the award and administration of all contracts issued by the South Pacific Division

Before joining the Army Corps, he was the Western Region Chief of Contracts for the United States Department of Transportation, Maritime Administration. In this capacity, he was responsible for the Region's acquisition program, including the administration of ship management contracts for the operation and maintenance of 22 ships in the Ready Reserve Force program for military sealift. Mr. Bartha was selected for the inaugural Maritime Administration Transportation Senior Leadership Program.

Prior to joining the Maritime Administration, he was a Contracting Officer with the Naval Sea Systems Command. His career at NAVSEA began in 1988, and included assignments at the Naval Surface Weapons Center, White Oak, Maryland (research and development) NAVSEA headquarters, Ship Construction, Coastal Mine Hunter Program) , and the Naval Surface Warfare Center, Port Hueneme, California (Head, Combat and Weapons Systems Contracts).



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He started his career in Washington D.C. as a congressional intern for Representatives Clarence Long (D-MD) and Don Ritter (R-PA). He joined the Federal Government in 1985, as an analyst for the General Accounting Office, where he studied the Navy's Strategic Homeport Plan and other Government programs. His career in acquisition and contracting began at the Federal Aviation Administration, where he negotiated a wide variety of contracts in the areas of aviation security and air traffic control systems. In 1988, he was detailed to the Executive Office of the President, Office of Management and Budget, where he helped prepare the President's FY90.

He received a Bachelor of Sciences degree from the American University in December 1983, majoring in Economics and Political Science, and in 1985 a Master of Public Administration degree from American University, concentrating in Procurement and Grants Management. He graduated in June 1991 from the Naval War College, Newport Rhode Island, College of Command and Staff, where he graduated with a Diploma in National Security and Strategic Studies. He is a 2011 graduate of the Federal Executive Institute Leadership for a Democratic Society Executive Leadership Program.

Professional certifications include Certified Professional Contracts Manager, Certified Professional Supply Manager, and certification in the career fields of Contracting and Program Management by the Defense Acquisition University. He is member of the Army Acquisition Corps, and a lifetime member of the Navy League, Naval Order, Naval War College Foundation, the National Contact Management Association, and the National Defense Transportation Association. Publications include Army Acquisition, Logistics and Technology Journal, September 2010, "U.S. Army Corps of Engineers (USACE) Recovery Project Presented at International Workshop"

CESAR YABOR, *Chief, Interagency & International Services, USACE South Pacific Division*

Mr. Yabor is the Chief and Program Manager for the Army Corps of Engineers' South Pacific Division (SPD) Interagency and International Services (IIS) programs, serving as regional team leader for execution of intergovernmental relationship building and strategic communications (STRATCOM) planning. As IIS chief, Mr. Yabor promotes Federal partner outreach, development of Interagency Agreements, and provides guidance to Corps of Engineers districts for local/regional 'One Door To The Corps' support for the Division's portfolio of Federal and State partners, managing a broad portfolio USACE partnerships which includes DVA, EPA, DOE, DHS, NASA, the United States Coast Guard, the National Park Service, NASA, and the Native American Tribal Nations of the Southwest.

Prior to joining USACE, Mr. Yabor served as a Legislative Affairs and Regional Public Affairs Officer for the United States Department of Veterans Affairs in Washington, DC and Atlanta, Georgia (2002-2009), and served as Senior Professional Staff on the Senate Committee on the Judiciary (1995-2002) under former Chairman Orrin Hatch (R-UT) as well as on the personal staffs of former Senate Armed Services Committee Chairman Sam Nunn (D-GA) and Rep. Ileana Ros-Lehtinen (R-FL) during his 15 years of service on Capitol Hill.



ROBERT KLEIN, DVA Program Manager, USACE Los Angeles District

Bob Klein is the Program Manager for the Veterans Affairs program at the Los Angeles District and has worked for the Corps of Engineers for over six years. Current responsibilities include managing over a hundred projects at five VA Medical Centers in two states and overseeing the budget for the entire DVA program. He manages five Project Managers who have over the last six years executed over 250 projects worth more than \$ 500 million.

He joined the Corps after retiring as a Colonel from the Army with over 44 years of service. He was branched qualified and commanded in three different branches (Infantry, Engineer and Signal), serving in combat as an Infantry officer in three wars (Afghanistan, Iraq and Panama). He also commanded a Counter-drug task force. He is a graduate of the Army War College, the Command General Staff College, the Engineer Advance Course and the Engineer Basic Course (Honor Graduate) as well as being a DEA Fellow. He is also a graduate of the FEMA Institute and the United Nations Institute for Training and Research. He holds a Bachelor's in Business and a Master's in Religion. He has his PMP certification.

He was an engineer company commander and an engineer brigade commander as well as a commander for a battalion-size engineer task force on active duty. His awards include: USACE Program Manager of the year (2013), Bronze Star, Defense Meritorious Service Medal, Meritorious Service Medal (6 OLC) 7th Award, Army Commendation Medal (5 OLC) 6th Award, Army Achievement Medal (1 OLC) 2nd Award, German Armed Forces Badge (Bronze), and the Army Corps of Engineer's Order of the de Fleury medal (Bronze).

TASHA L. PARGALI, Deputy Regional Chief of Contracts, USACE South Pacific Division

Tasha L. Pargali is the Deputy Regional Chief of Contracts for the South Pacific Division of the Army Corps of Engineers, serving as the regional team leader and technical authority for assuring acquisition compliance of contracts issued and administered by the South Pacific Division.

Before joining USACE, Ms. Pargali was the Management Support and Administration Division Chief for Defense Logistics Agency Aviation (DLA) at Oklahoma City. In this capacity, she was responsible for Policy, Pricing, Post Award Administration and served as the Ombudsman, Competition Advocate, and Small Business Program Manager. Ms. Pargali also served as the DLA Aviation Best Practices Team Lead identifying and standardizing contracting best practices across DLA, Air Force, Army and Navy detachments that were realigned to DLA Aviation as a result of the 2005 Base Realignment and Closure.

Ms. Pargali began her career as a Defense Career Intern at Tinker Air Force Base in 2005 where she negotiated a wide variety of aviation service and supply contracts. She has also worked as a Contract Negotiator and Procurement Contracting Officer with an unlimited warrant.

She has a BBA in Finance and a M.Ed. with an emphasis in Workforce Learning & Development from the University of Oklahoma. Ms. Pargali is a member of the Army Acquisition Corps and is Level III Certified in Contracting by the Defense Acquisition University. She is also a Certified Federal Contracts Manager (CFCM).

