

# **ENGINEERING & CONSTRUCTION Bulletin**

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**Type: Information**

**Subject:** Military Construction Program Errors and Omissions

I. Several technical errors and omissions have occurred on Military Construction Projects that (in hindsight) could have been avoided, resulting in reprogramming and re-engineering. These errors and omissions are within our control and are our responsibility to avoid, consistent with good engineering practice and project management.

II. The following process improvements have been implemented to preclude future errors and omissions:

A. In 2003, NAVFAC initiated third party reviews of our Project Delivery Systems with Independent Analysis, Inc. (IPA), a widely respected and used industry analysis and benchmarking organization for the engineering design and construction industry. IPA reviewed and compared our performance to industry. The study was repeated in 2005 to validate our process and our plan and give us information that we have used for process improvements. This study is to continue bi-annually.

B. Specific resulting actions taken:

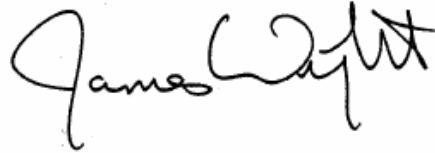
1. Shifted emphasis and resources to front end project development and 1391 preparation, with more comprehensive engineering analysis on projects.
2. Incorporate site-specific conditions into engineering documents (e.g., soils data, environmental requirements).
3. Enlisted earlier and significantly more participation of the Sponsor/End User.
4. Ensured more accurate and predictable costs and schedule estimates.
5. Implemented an annual review and analysis of all DD1391s for accuracy and consistency of technical content, scheduling, and cost engineering.
6. Issued clearer guidance to NAVFAC Engineers and Architects, Design-Build (D-B) Contractors and the associated Designer of Record with regard to D-B roles and responsibilities, design reviews and approvals and submittal management. This includes D-B Training across the NAVFAC Corporation, updated processes, and current content on the internet for D-B Contractors and NAVFAC Employees to construct D-B contracts and the associated provisions.
7. Released new D-B processes allowing for and encouraging thorough site investigation prior to release of the RFP to the potential D-B Contractor.
8. Resolved order of precedence issues that will assist field personnel to best manage complex D-B Contracts.
9. Will specifically rely on the use of DoD parametric estimating tools in addition to Guidance Unit Cost.

C. Other process improvements underway to eliminate errors and omissions include:

1. Reviewing collateral and installed equipment policies and support to provide more complete and usable facilities.

2. A Lean Six Sigma (LSS) Project to resolve longstanding problems with DD1391s to include elimination of extraneous, poorly constructed documents, many of which have no chance of funding. We have conducted a formal process review that will serve as the basis of the LSS project. Participation by CNIC, ASN, Marine Corps, FMB and other key players will be essential to make this project a success and to realize the benefits.
3. A Lean Six Sigma project that will look at the management of Technical Evaluation and Source Selection Boards.

III. I expect each of you to focus on the complete project and ensure that errors and omissions become a thing of the past. It is essential that we execute with good engineering practice, following closely the appropriate roles and responsibilities, making certain that the entire project is fully and completely managed to a successful completion. We must make sure that 1391 development and RFP scope completion is consistent and fully understood by the customer, the acquisition staff, the engineers and architects, the contractor and the designer of record.



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