#### APPENDIX C

## DA STANDARD DESIGN PACKAGE DEVELOPMENT

# 1. Design Approach.

Once a USACE district or operating MSC has been directed by HQUSACE (CEMP-EA) to be a supporting COS to develop a DA standard design package, that COS will be the primary influence in the execution of the DA standard design package. The selection of a COS will be based on expertise or previous experience with the facility type and capabilities in performing the task. Development of the DA standard design(s) for the facility type being standardized will be accomplished in a similar fashion as the development of a conventional project design. A concentrated team effort among all disciplines will be undertaken during design development to arrive at the most cost effective and energy efficient design possible which meets the functional and operational requirements of the facility type. This team effort must begin at the inception of the development to achieve a comprehensive and coordinated design. Disciplines comprising the team must include, but not be restricted to, architectural, mechanical, electrical, civil, structural, fire protection, and site planning.

- **a.** A DA standard design package may be developed in one of three methods as follows:
- (1) By developing a new design specifically as a DA standard design for the facility type. This may be done by either in-house USACE personnel or by AE contract.
- **(2)** By developing a new design for an individual facility as a "pilot" DA standard design. Upon completion of the individual facility design, the design will be further developed into a DA standard design package.
- (3) By adapting an existing project design for an individual facility as a pilot' DA standard design. Upon completion of the individual facility design, the design will be further developed into a DA standard design package.

**b.** If a prior design method is used, or if a previously constructed existing design is used, feedback gathered from construction and occupancy experiences with the "pilot" design or existing design will be incorporated into the DA standard design package concurrent with the review and input from the Subcommittee for the facility type being standardized and the other USACE design agencies. Therefore, the final DA standard design package will reflect experience from an actual project in such areas as constructibility, occurrence of change orders, construction costs and time, material usage, maintenance and repair, and occupant responses.

#### 2. Coordination.

Coordination for functional adequacy and technical review during the development of a DA standard design package will be accomplished by the supporting COS as follows:

- **a.** Establishment of functional and operational requirements will be coordinated with the Subcommittee for the facility type being standardized. HQUSACE (CEMP-EA) will assist the COS in making initial contact with the appropriate subcommittee.
- **b.** Coordination with the Subcommittee for the facility type being standardized is required during ail phases of the development. This coordination is required to ensure that all functional and operational requirements of the facility type are being addressed. Review times and procedures will be established at the outset of the design effort, however, a minimum review time of 30 days (excluding mailing time) is required at each phase of design. Reviews should normally follow the conventional Military Construction, Army (MCA) phases of concept, prefinal, and final design.
- **c.** Coordination with the USACE Committee is required at each major phase of development, i.e., concept, prefinal, and final design to ensure applicability and constructibility of the DA standard

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design package throughout the intended geographical area, i.e., CONUS, Europe, and the Far East, and to ensure that all architectural, engineering, and technical aspects of the design are appropriate.

**d.** Coordination of the final design is required with all DA Facilities Standardization Committee POCs. This coordination is required to ensure that all voting members of the DA Facilities Standardization Committee are informed. The minimum time required for this final cordination is 60 days (excluding mailing time) so as to allow appropriate time for various DA elements to reach a command position concerning the designs.

# 3, Functional and Operational Requirements.

The subcommittee for the facility type being standardized will be the primary influence in developing the world-wide functional and operational requirements for the facility type. However, the COS will be required to ensure that all appropriate requirements are identified and, as necessary, provide design and engineering input to the development of the functional and operational requirements. Functional and operational requirements will include, but not be limited to:

- **a.** The programmed locations of the facilities and the applicable geographical area(s) for which the DA standard design package must be developed.
- **b.** The world-wide functional and operational activities, personnel, and associated equipment requirements of the facility and any special requirements applicable to specific geographical areas.
- **c.** Space and area requirements and their functional relationships, including different scopes of the same facility type that may be required.
- **d.** Site and building arrangement requirements.
- **e.** Interior design requirements including building related interior design and customer funded interior furnishings.
- **f.** Architectural and aesthetic considerations for various anticipated locations.

- **g.** Physical and electronic security, and antiterrorism considerations.
- **h.** information systems and communications requirements.
- i. The anticipated variations in functional and operational requirements among individual facilities or geographical areas.
  - j. Maintenance considerations.
  - **k.** Special safety considerations.

# 4. Initial Design Approval.

Initial approval of the DA standard design package must be obtained from the Subcommittee for the facility type being standardized and the USACE Committee.

- a. The Subcommittee for the facility type being standardized must approve the DA standard design package from a world-wide functional and operational perspective. Upon completion and acceptance by the Subcommittee for the facility type being standardized, the supporting COS will distribute the proposed DA standard design package to other USACE elements world-wide, or within the geographical areas for which the DA standard design package applies. The other USACE elements will provide input regarding the suitability of the proposed DA standard design package to local conditions such as climate and environmental requirements, architectural themes, availability of materials, and construction practices. CETAD and CEPOD will also address the suitability of the designs to meet unique Host Nation design and construction requirements. The supporting COS will incorporate the technical input furnished by other USACE elements into the proposed DA standard design package.
- **b.** The USACE Committee approval of the DA standard design package will be based on the fact that the design is appropriate world-wide, or for the intended geographical area, or areas, from an architectural, engineering, and technical perspective.
- **c.** Upon completion and acceptance by the Subcommittee for the facility type being

standardized and the USACE Committee, the Subcommittee for the facility type will submit the proposed DA standard design package to the DA Facilities Standardization Committee for consideration as an approved DA standard design package. This submittal will be made to HQUSACE (CEMP-EA) and include:

- (1) DA standard design documents, including supporting analyses, that address world-wide standardization of the specific facility type, i.e., either world-wide DA standard design(s) or DA standard designs for each geographical area, unless there is a geographical area where that facility type does not apply.
- (2) Qualifications regarding the use of the DA standard design package, such as which designs apply to each geographical area and a justification for any differences between geographical areas, required or mandatory features of the design(s), optional features or authorized modifications of the designs, the estimated square footage construction cost for the design(s), and adaptability to varying requirements among individual facilities.
- (3) Considerations for implementing the DA standard design package, such as time and locations for implementation, anticipated useful life of the package, and provisions for review and revision.
- **(4)** Any unique provisions for variances or waivers of the DA standard design package that are not addressed by this regulation.
- (5) The Subcommittee will also prepare and submit a standardization ballot to be voted on by the DA Facilities Standardization Committee. The format for this ballot will be as follows.
- (a) Documents. A listing of the actual drawings and other documents to be voted on.
- **(b)** Overview. A summary of the DA standard design(s) to include such items as the level of participation on the Subcommittee, the COS, in what geographical area(s) the design(s) apply, an estimated square footage construction cost for the designs, required features of the design(s), optional features of the design(s), etc.

- (c) Recommendation. The actual proposed recommendation to be voted on by the DA Facilities Standardization Committee, including the recommended fiscal year of implementation, the geographical area(s) that the design(s) apply to, and any unique provisions for variances or waivers that are not addressed by these standard operating procedures.
- (d) Attachments. The following information will be attached to the standardization ballot. A list of any on going actions of the Subcommittee, including future additions or revisions to the designs. A list of the unique geographical differences, if any, and the justification for each difference (the cost for each difference should also be included). A listing of each member of the Subcommittee and whether that member concurred or nonconcurred with the actual proposed recommendation (all nonconcurrences require a written rationale and an alternate proposal from the nonconcurring member).

### 5. Final Design Approval.

The DA Facilities Standardization Committee will recommend approval or disapproval of the proposed DA standard design package to the COE. This recommendation will be based on the recommendations of the Subcommittee for the facility type being standardized and the USACE Committee. The final approval of the DA standard design package will be made by the COE. Once approved by the COE, the use of the DA standard design package will be mandatory for the specific facility type in the intended geographical area(s) for projects in the MILCON programs.

### 6. Adjudication of Nonconcurrences.

Nonconcurrences may arise among the different participants involved in developing DA standard facility requirements and designs. Where these cannot be resolved by the Subcommittee for the facility type being standardized and progress is at an impasse, the following adjudication procedures will be followed.

**a.** The Subcommittee for the facility type being standardized will be responsible for transmitting a request for adjudication to the Chairperson of the

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DA Facilities Standardization Committee. This request must include a listing of each member of the Subcommittee and what his or her position is.

- **b.** If possible, the Chairperson of the DA Facilities Standardization Committee will adjudicate the issue based on the recommendation of the DA Staff element responsible for that facility type, e.g., DALO for tactical vehicle maintenance facilities, the DAPE for unaccompanied enlisted personnel housing, or the DACH for religious facilities.
- **c.** If the Chairperson of the DA Facilities Standardization Committee cannot adjudicate the issue, the DA Facilities Standardization Committee will be requested to provide a recommendation for adjudication. The COE will have final authority to adjudicate the issue based on the recommendation of the DA Facilities Standardization Committee.