MEMORANDUM OF UNDERSTANDING

BETWEEN

HQ AETC, HQ AFMC, HQ AMC, HQ ACC, HQ AFSPC,
HQ AFCEE (FIELD OPERATING AGENCY),

AND

U.S. ARMY, CORPS OF ENGINEERS (USACE) MAJOR SUBORDINATE COMMANDS
(MSC’s)

FOR

MILCON EXECUTION

I. PURPOSE. This Memorandum of Understanding (MOU) between HQ AETC, HQ AFMC, HQ AMC, HQ AFSPC, HQ ACC/CE’s, HQ AFCEE/CM and USACE MSC, Design Agent (DA/Construction Agent (CA), is to provide guidance, define responsibilities, and establish procedures regarding design and construction management of the Military Construction (MILCON) Program for Air Force Installations in the continental United States. The requirements in this agreement supplement those contained in the Level I Memorandum of Understanding (dated 8 Feb 91) between HQ USAF, Office of the Civil Engineer and HQ USACE, Director of Military Programs.

A. EFFECTIVE DATE. This MOU becomes effective upon signature by the respective parties. All previous MOU’s draft MOU’s, and supplements between USACE MSC, MAJCOM, Districts and bases are canceled effective upon signature of this MOU.

B. AMENDMENTS. Amendments or revisions may be proposed at any time by mutual consent of the MOU signatories.

C. AUTHORITY. MOU between HQ USACE, Director of Military Programs and the USAF Civil Engineer.

II. ROLES AND RESPONSIBILITIES

A. GENERAL. Where the terms Design Manager (DM) and Construction Manager (CM) are used in this MOU, they are understood to be the Air Force Program Manager. Responsibilities for the
Air Force Program Manager may be delegated. Design Agent (DA) and Construction Agent (CA) are used in this MOU to indicate the Corps of Engineers’ District Project Manager, unless specified differently by the Project Management Team or noted otherwise in this MOU.

**B. PROJECT MANAGEMENT TEAM (PMT).** Members of the PMT are responsible for the execution of the project. As a minimum, the PMT will consist of, but not be limited to, the following: using agency, Base Civil Engineering personnel, environmental management function, major commands, DM/CM, MSC, and DA/CA. The Project Management Plan (PMP) will list the PMT members. The members assigned will have decision-making authority.

**C. PROGRAM/MANAGEMENT REVIEWS.** Program management reviews with the Installation Commander and the District will be scheduled as requested by the BCE/District Engineer in coordination with the DM/CM and MSC. The DA/CA and the BCE may periodically schedule meetings as required to establish communication and to resolve problems.

**D. AIR FORCE HOST COMMAND.** The Host Command is responsible for the design and construction of facilities supporting their designated Installation. The Host Command and the Base will establish an engineering management team responsible for project management and daily coordination of design and construction activities. When the Host Command is not the requiring command, special arrangements may be worked out between the two. The host MAJCOM has final approval authority on exterior architectural compatibility, siting, maintainability, operability, and environmental issues.

**E. AIR FORCE REQUIRING COMMAND.** The Requiring Command is responsible for assuring that all criteria and functional concerns are addressed. They will assure proper involvement of the user, at their command, and the Base during all phases of the project. The Requiring Command will provide related mission requirements, including proper equipment interface and special technical criteria. The requiring MAJCOM approves interior design elements during design and construction.

**F. DESIGN MANAGER (DM)/CONSTRUCTION MANAGER (CM).** The DM/CM is the single point of contact for the Air Force and is responsible for effective and successful project execution. The DM/CM maintains a continuous assessment of project requirements, schedule, costs, and impacts during design and construction. The DM/CM is responsible for project coordination with all Air Force project management team members and will be the single point of contact for issuing all Air Force design and construction direction to the DA/CA. In most cases, the MAJCOM will be the DM/CM.

**G. BASE CIVIL ENGINEERING (BCE) PROJECT MANAGER (PM).** The BCE PM is jointly responsible with the user to the Installation Commander for the successful completion of the project. The BCE PM is responsible for providing all local Air Force design criteria, Requirements and Management Plan (RAMP) preparation, input to the PMP, site support, construction oversite, utility
drawings, and existing as-builts to the DA/CA. The PM will ensure all Base-level concerns are adequately addressed and fully coordinated with the Base support organizations, including schedules of interviews, reviews, meetings, and briefings.

H. **USACE MAJOR SUBORDINATE COMMAND (MSC)**. The MSC will maintain program oversight to include project schedule, scope, and cost.

I. **USACE DISTRICT PROGRAM MANAGER**. The USACE District PM is the DA/CA representative and serves as the DA/CA point of contact during design and construction. After receiving design instructions and funds, the District will, in conjunction with the DM/CM and Base PM, establish the scope of work for the designer. The DA/CA will ensure that the Air Force requirements and approved review comments are incorporated into the design, and that the design is technically correct. The DA/CA is responsible for notifying the Corps of Engineers project management team members. They will take actions to keep the design processing on schedule to project award, including Bidability, Constructibility, and Operability (BCO) certification. The District will notify the DM/CM of any design problems, design cost estimate concerns, construction problems, proposed schedule delays, or funds required for modifications that exceed the amount available in contingency and management reserves. The District ensures the project cost is within the construction cost limitation or makes recommendations for reducing the cost to that level. The District also ensures the constructed facility meets the contract requirements and is released to the Base Civil Engineer (BCE) on schedule.

J. **PROJECT-RELATED CONFERENCES/MEETINGS**. Generally, project related conferences/meetings may be jointly chaired by the DM/CM and the DA/CA. Any deviations will be spelled out in the PMP.

K. **PARTNERING**. Partnering during design and/or construction is intended to create an environment of team building between interested parties and can be implemented on selected projects. The decision to implement partnering will be identified in the PMP. Projects involving many different users, or which have high dollar value, short mission need date, or a high level of command interest are all good candidates for partnering. Partnering, whether formally or informally, can contribute to successful project execution. Partnering sessions, when formally implemented, will be conducted by an experienced facilitator, as requested by the DM/CM, where mutual goals and objectives for project execution will be identified. Indicators of performance will be selected in terms of exceeding quality goals, avoiding litigation, meeting budgets, exceeding safety standards, and on-time or early delivery and others.

L. **ACQUISITION STRATEGY**. The design and construction execution strategy will be jointly agreed to by the DM/CM and DA/CA. The DM/CM will be invited to participate as a voting member on the Design Agency’s selection boards. The DM/CM may delegate representation.
M. SCHEDULES. The DM/CM and DA/CA are jointly responsible for establishing and maintaining schedules for each phase of the project to meet the AF milestone and critical need dates. These schedules will be established in the PMP. Schedule changes will be coordinated prior to implementation with the DM/CM and any delays will be documented and provided to the DM/CM.

III PROCEDURES

A. PROGRAM MANAGEMENT

1. CRITICAL REVIEW/PRE-DESIGN PHASE

   a) Design Instruction (DI) Release. The DM/CM will release DIs to the USACE MSC with information copies to the appropriate District and affected Base and MAJCOMs. (If MSC policy allows, the DI may be sent directly to the DA/CA with an information copy to the MSC). The initial DI will include, but not be limited to, the following: Programmed Amount (PA), Construction Cost Limitation (CCL), Scope, DD Form 1391, Level of Design Authorization, and User Need Date, if known. The deliverables to be submitted at each design phase(s) will be indicated in the DI. Design funds (“seed money”) will be provided with the initial design instruction to fund District expenses up to, but not including, A-E contract award.

   b) Requirements and Management Plan (RAMP). The RAMP is a document that provides information on the project and general installation guidance to enable to District to commence project execution. The RAMP will be furnished to the DA/CA and MSC by the DM/CM no later that 30 days after delivery of the initial DI. The requirements section of the RAMP will be complete, but the PMP will be in draft. (All references to the PMP in this document refer to the Air Force PMP.) The PMP will attempt to identify environmental milestones, identify the need for a charrette, determine required design reviews, establish the project design and construction schedule, develop the project acquisition strategy, and identify Air Force milestones. As a minimum, organizations represented will be the Air Force user, the USACE MSC (optional)/District, requiring and host MAJCOMs, and other PMT members as outlined in the draft PMP. The PMT will be responsible for finalizing the PMP and other items considered essential to the planning and execution of the project.

   c) Pre-Criteria Review Conference. A pre-criteria review conference will be called by the DM/CM. The purpose of this conference is to finalize the PMP and review design requirements with associated design costs. This meeting normally will be chaired by the DM/CM and the Base Civil Engineer PM. At a minimum, organizations represented will be the Air Force user, the DA/CA, DM/CM, and other PMT members as outlined in the draft PMP.

   d) Criteria Review Conference (CRC). This conference will be attended by the designer, the USACE MSC (optional), BCE staff, Base support group, users, the DM/CM and the
The purpose is to ensure the criteria for project scope, PA limitations, functional requirements, government-furnished material (GFM), equipment data, government-furnished and installed equipment, utility plans, existing utility capacities, milestones and constraints, RAMP, with finalized PMP, environmental issues, and design background information is conveyed to the designer. The project site will be visited as part of the conference. The design will proceed if it is mutually agreed between the DA/CA and DM/CM that the designer fully understands the scope of work. The DA/CA is responsible for recording and distributing minutes to all attendees within even working days after the conference. Any data remaining to be collected should be listed as actions items in the meeting minutes. The District will submit the initial design cost estimate to the DM/CM ten days after the CRC.

2. DESIGN PHASE

a) Facility Excellence. Facility excellence is an essential element in all Air Force projects. Well constructed, quality facilities, foster pride and productivity in the work force and support installation excellence. The DM/CM will provide to the DA/CA, via the RAMP, all available information which describes general design guidelines and criteria for architectural compatibility. To ensure the design of a quality facility will be compatible with its environment, the designer will review these documents and become familiar with the site characteristics and the host and Requiring MAJCOM’s/Base’s goals, before the start of design development.

b) Designer’s (In-House or A-E) Involvement with the User. The designer will normally be allowed contact with the BCE or user for routine information gathering during site investigations or during review conferences at the Base. The designer will document all site visits, meetings with the user, and telephone conversations and include them in the appendix of the design analysis. Copies of this documentation will be promptly provided to the DA/CA and the DM/CM by the designer. Design change requests or criteria changes must be furnished through the DM/CM to the DA/CA. Under no circumstances will the user initiate contact with the designer to provide criteria without approval from the DM/CM and the DA/CA. Meetings conducted at the Installation between the designer and Base personnel will be jointly approved by the DM/CM and the DA/CA.

c) Charrette. The charrette is an intensive on-site work-session involving the designer, users, project management team, base support organizations, senior decision makers, and possibly, outside agencies. The DM/CM, while working with the PMT, will define the charrette deliverables. The purpose of the charrette is to collect and validate functional and technical requirements, and develop concept plans and facility systems. The results of the charrette may include a statement of user needs, site and utility plans, schematic floor plans, elevations, space tabulations, building systems narrative and cost analysis, environmental requirements, relationship to the Base Comprehensive Plan and historical preservation plan, validated parametric cost estimates, and estimated construction time. At the completion of the charrette, the designer may present these results to the user, PMT, and senior
decision makers for approval, and make final recommendations for incorporation into the Project Definition. The results of the charrette may be used as the Project Definition.

d) Project Definition (PD). The PD review submittal will consist of a parametric cost estimate that validates the approved scope (AF Form 1178) and approval of all requirements outlined in the RAMP and applicable AF CTL 90-1. The PMT will review the PD submittal. If requested, a briefing will be given by the designers to the Commander or senior level staff. Approved review and briefing comments will be incorporated in the next design submittal. When required, the DA/CA will provide an adjusted Current Working Estimate (CWE) that incorporates the effects of the comments. The DA/CA will obtain final approval of the PD from the DM/CM before proceeding with design. The DA/CA will provide an adjusted design funds requirement as required.

e) Resolution of Cost/Scope Issues During Design. The DA/CA will notify the DM/CM if the validated CWE exceeds the PA at any phase. The DA/CA will recommend cost reduction alternatives to the DM/CM for projects whose CWE exceeds the PA. The DM/CM will provide direction in writing for reducing costs if deemed necessary. The DM/CM is responsible for scope interpretation; the DA/CA will not make changes without DM/CM approval.

f) Design Review Meetings. A review conference may be held after the submittal of each design phase as required by the DM/CM. All Air Force design review comments will be approved/disapproved by the DM/CM during these meetings. Minutes of these meetings will be prepared and distributed by the DA/CA to all attendees within ten working days following the meetings. Official direction to the A-E will be provided by the DA/CA only.

g) Technical vs Functional Review Comments. The DA/CA is responsible for the technical adequacy of the design, whereas the DM/CM has prime responsibility for review comments relating to functional, operability, and maintainability aspects and mission requirements for the project. The DM/CM is the focal point for all AF review comments and is responsible for forwarding them to the DA/CA. When the Automated Review Management System (ARMS) is used, the Base project manager will enter all Base comments into ARMS and send them to the DM/CM for annotation. Final authority for technical Bidability, Constructibility, and Operability comments will remain with the DA/CA. Responses to all review comments should be provided to the DM/CM within 30 days of receipt of the comments by the DA/CA.

h) Environmental Considerations. The Base Civil Engineer, with input from the Environmental Management Function, is responsible for providing an environmentally acceptable site approved by the appropriate regulatory agencies. Any and all contamination must be identified prior to site activities. At the CRC, the Environmental Management Function will discuss known environmental issues including Environmental Assessment (EA) and/or Finding of No Significant Impact (FONSI) milestone dates. The DA/CA will direct the designer to review the proposed project against the current
governing environmental regulations and ensure the design complies with all environmental regulations and directives.

i) **Environmental Permits.** The DA/CA will provide the final permit application and the funds for a filing fee (via check to appropriate agency) to the Base environmental management function who will be responsible for coordinating with and obtaining permits from the regulatory agencies. The Base PM is responsible for overseeing the timely execution of the permitting process by the Environmental Management Function. Copies of the transmittal correspondence will be furnished to the DM/CM by the DA/CA.

j) **Performance Evaluation of A-E Contracts.** The DA/CA is responsible for preparation of the performance evaluations for work performed under A-E contracts. The evaluations shall be prepared on DD Form 1421 with input from the PMT.

k) **Design Funds.** The DM/CM will identify the design services required using the design cost estimate form. The DA/CA will prepare the design funding requirements using the HQ USACE planning and design cost targets as a guide. The PMP will define requirements for each phase of the design. The DM/CM will approve all changes to the design cost estimate. Normally, funds will be issued by design phases. Unobligated design funds will be identified to the requiring MAJCOM not later than two months after construction contract award for redistribution. The DM/CM financial manager will visit the District at least once per year for the purpose of reconciling/retrieving unobligated/uncommitted design funds and to verify unfunded requirements.

l) **Design/Status Documentation.** The DA/CA will provide the information on the status of design activities on a regular basis. To the maximum extent possible, this information will be provided through existing management information systems. As a minimum, this information will include: cost data schedules, design cost estimates, design schedules, copies of the scope of work, pending and executed A-E modifications to the scope of work.

m) **Inactive (On-Hold) Projects.** In the event a project is put on hold, the DA/CA and DM/CM will determine the logical stopping point and design documents disposition. The DA/CA must ensure there are no further expenditures to the project after stopping/completing the design phase. Excess design funds will be identified to the DM/CM for reallocation 60 days after notification of design hold.

3. **CONSTRUCTION PHASE**

   a) **Advertising Bid Opening and Award Authority.** Upon HQ USAF and HQ USACE approval, the DM/CM and the MSC will formally authorize advertising, bid opening, and award. Within one working days after bid pending, after coordinating with the DM/CM and MAJCOM, the
MSC will furnish preliminary bid opening results to the DM/CM and HQ USACE (bid opening CWE report). After bid evaluation by the MSC, the MSC will request award authority and funds from the DM/CM. After evaluation of the pre-award CWE, the DM/CM furnishes approval to award. Funds are provided from HQ USAF to HQ USACE. HQ USACE provides funds directly to the DA/CA and award authority to the MSC with an information copy to the DA/CA. The MSC District will notify the DM/CM of the contract award date within one working day and the notice-to-proceed data as it occurs. For the Request for Proposal (RFP) process, DA/CA will report the status to the DM/CM.

b) Bid Opening Delays. The DA/CA will immediately notify the DM/CM when conditions occur which warrant a delay in bid opening. Whenever possible, this notification will be made prior to issuing the amendment. The DA/CA will provide new dates and justifications to the DM/CM as the occur.

c) Construction Funds Management. A contingency account will be established at contract award to pay for mandatory construction changes. The Air Force management reserve account, if established, will be used to support A-F requested changes. All non-mandatory project changes and requests to use the management reserve account will be approved by the DM/CM, unless delegated. The DA/CA will notify the DM/CM of all mandatory changes to include associated costs. Requirements and justification for additional construction funds, during the construction phase, must be submitted in writing to the DM/CM, with a CWE detailed breakout.

d) Construction Status Report. The DA/CA will report the progress and status of construction activities through the Corps of Engineers Automated Military Construction Progress Reporting System (AMPRS) or the Life Cycle Project Management Reporting System (LRS). The required reports will be provided to the DM/CM and the requiring command.

e) Construction Review Meetings (Intensively Managed Projects). For projects requiring intensive management, the DM/CM and DA/CA will establish a special management team. This special management team’s duties, responsibilities, goals, and procedures will be outlined on the PMP. The DM/CM will identify the format and requirement for any management briefing charts.

4. ACCEPTANCE PROCEDURES

a) Partial Occupancy. When it is absolutely necessary to partially occupy facility prior to completion, the DA/CA and the BCE will conduct a thorough inspection and the DA/CA will execute a partial DD Form 1354, with project deficiencies noted, that will be signed by the BCE. The DA/CA will notify the DM/CM and the BCE PM at least ten working days prior to partial occupancy inspection. The DM/CM will make appropriate notification.
b) **Final Acceptance.** The DA/CA will not accept facilities from the contractor until required operational/performance testing has been accomplished, or delay of testing has been coordinated with the BCE and DM/CM and the punch list is substantially complete. Pre-final and final inspections will be scheduled by the DA/CE with notification furnished to the BCE PM and DM/CM at least ten working days prior to the occupancy inspection. The DD Form 1354 will be complete 30 days after inspection.

5. **FINANCIAL CLOSE-OUT.** The goal is to financially close-out within six months after facility acceptance. Contingency funds will be held in reserve by the DA/CA for pending claims where the Contracting Officer has found no merit for entitlement. The DA/CA may retain funds, including supervision and administration, for settlement of claims considered to have merit.

6. **OPERATION AND MAINTENANCE (O&M) MANUALS AND TRAINING**

   a) **Equipment Manuals.** The DA/CA will include in the construction contract a requirement to furnish copies of the manufacturer’s standard specifications, recommended maintenance data, and a list of bench stock repair parts for each item of installed equipment.

   b) **Systems Manuals and Training.** Contract documents may include a bid item in the bid schedule for construction contractor furnished systems manuals and training. Alternative procurement strategies to acquire the systems manuals and training will be identified in the PMP.

7. **AS-BUILTS AND CADD.** Initially, the DA/CA will provide one set of red-line markups to the BCE PM ten days prior to the pre-final inspection. The DA/CA will transmit by cover letter one final set of red-line drawings, as-built reproducibles, and as-built CADD drawings (as required in the PMP) in the medium requested by the BCE within 90 days of facility acceptance.

8. **WARRANTY PROCEDURES AND RESPONSIBILITIES.** The DA/CA will conduct a meeting with the contractor who will have a representative located within the local service area and a BCE representative before the final inspection to discuss warranty procedures. The contractor will furnish point(s) of contact for warranty work (name, telephone number, and address). The BCE representative will make the initial determination if an item is covered under the warranty. The DA/CA will assist the BCE for finalizing this decision. The BCE representative will contact the contractor and follow up all telephone warranty requests with a written letter to the contractor. The DA/CA will assist in resolving all warranty items in the event the BCE is unable to get the contractor to respond.

9. **CORPS OF ENGINEERS POST COMPLETION INSPECTION.** The DA/CA will schedule a joint inspection with the BCE representative at four and nine months after acceptance of a Corps of Engineers-constructed facility. The purpose of these inspections is to identify defects and
initiate corrections. This shall be accomplished by direct coordination between the DA/CA and the BCE representative at the post occupancy evaluation inspection held at the Base, with information copies of the results forwarded to the user and DM/CM. The DA/CA will also notify the DM/CM ten working days before the meeting.
IV AGREEMENT: We, the undersigned do agree to support this document.

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ERNEST I. HARRELL
Major General, US Army
Commander, North Pacific Division

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JOHN J. ALLEN
Brigadier General, USAF
The Civil Engineer, HQ ACC

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EUGENE A. LUPIA
Brigadier General, USAF
Director, Civil Engineer, HQ AMC

_________________________________
PAUL Y. CHINEN
Brigadier General, US Army
Commander, North Atlantic Division

_________________________________
ROGER F. YANKOUPE
Brigadier General, US Army
Commander, South Atlantic Division

_________________________________
THOMAS W. GORGES
Colonel, USAF
Commander, Air Force Center for Environmental Compliance

_________________________________
MILTON HUNTER
Brigadier General, US Army
Commander, South Pacific Division

_________________________________
RUSSELL J. POWERS
Colonel, USAF
Director of Civil Engineering, HQ AETC

_________________________________
ROBERT J. COURTER, JR.
Colonel, USAF
Command Civil Engineer, HQ AFMC

_________________________________
ALBERT GENETTI, JR.
Major General, US Army
Commander, Ohio River Division

_________________________________
JOHN E. SCHAUFELBERGER
Colonel, EN, US Army
Commander, Missouri River Division

_________________________________
JAMES P. KING
Colonel, US Army
Commander, South West Division

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End of Agreement
EARNEST O. ROBBINS, II
Colonel, USAF
The Civil Engineer, HQ AFSPC