

MULTIPLE AWARD CONSTRUCTION CONTRACT (MACC)

GENERAL PROVISIONS

FOR

YOKOTA AIR BASE &
ITS GEOGRAPHICALLY-SEPARATED
UNITS (GSUS), JAPAN

28 May 2019

DEPARTMENT OF THE AIR FORCE
YOKOTA AIR BASE, JAPAN
374TH CIVIL ENGINEER SQUADRON
APO AP 96328-5104

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DIVISION 1 – GENERAL REQUIREMENTS

SECTION 01 01 00

SUMMARY OF WORK

PART 1 GENERAL

1.1 General Intention

The intention of this solicitation is to obtain a Multiple Award Indefinite Quantity/Indefinite Delivery Construction Contract for “Design-Build” and “Construction Only”.

1.2 Locations

The work shall be located at the following various U.S. Government facilities:

Yokota Air Base (ZNRE), Tama Recreation Area (WRFD), Chitose Auxiliary Annex (DSCV), Fuchu Communication Site (HMFP), Tokorozawa Communication Site (WYHL), Owada Communication Site (SQDW), Momote Annex (QNMU), Fukuoka Airfield at Itazuke AA (LQZN), Camp Zama Communication Station (EVKG) and Narita Air Terminal (RGQN),

1.3 General Requirements

The work includes, but is not limited to design effort, reproduction, labor, transportation, materials, equipment, incidental engineering, surveying, sampling/testing, and supervision, except otherwise specified herein, necessary to accomplish various works by means of this Multiple Award Task Order Contract. Task Orders shall be issued by Contracting Officer (CO) as either a “Construction Only” or as a “Design-Build” Task Order. The scope of work may include, but is not limited to, building expansions, upgrades or renovations, new construction, demolition, equipment repair/replacement, piping repair/replacement, pipe lagging, electrical work, road and airfield pavement, road and airfield paint/markings/sign, and air field rubber removal, fencing, roofing, painting, site work, removal and disposal of lead based paint and asbestos containing material, welding, plumbing, masonry, and floor/window coverings (carpets, blinds, solar films & vinyl tile, and etc.).

1.4 Response Requirements

- A. The primary goal of MACC is speedy acquisition of the Government requirements. Once the CO notifies the Contractor of an existing requirements, Contractor is expected to prepare and submit proposals by the deadline listed in the Task Order.
- B. Upon notification of a routine requirements, the Contractors shall respond to the needs of the Government as following; (1) visiting the proposed work site accompanied by the 374 Civil Engineer Squadron (CES) Engineer and 374 Contracting Squadron (CONS) Contracting Officer’s Representative (COR) , or (2) establishing verbal contact with the COR to further define the scope of the requirements.
- C. In the event of an emergency requirement, Contractor will respond as soon as directed by the CO. Contractor or their designated representative who are authorized to obligate the company shall be readily available to communicate with the CO.

1.5 Residency of the Contractor

The Contractors shall maintain an office or a place of business in areas that are capable of conducting business with the Government during all regular working hours.

1.6 Subcontractors

Within seven (7) days after the Notice to Proceed (NTP) and after the award of any subcontract at any tier, Contractor shall notify the COR of such fact. The Prime Contractor shall have the ability to manage and control multiple subcontractors at multiple job sites. Also, the Prime Contractor shall ensure subcontractors are competent and capable of handling all assigned tasks. The Government reserve right to direct the subcontractors to be replaced when the subcontractors are found to be not suitable for the given task.

1.7 English Speaking Representative

At all times during the Contract period the Contractor shall have an employee capable of fluent bilingual speech in the Japanese and English languages at the job site. The bilingual interpreter shall have the capability to receive and issue concise and technical explanation and instructions between the Government representative(s) and Contractor supervisory personnel concerning all aspects of contract administration and construction. The COR shall have the explicit right to determine acceptability or rejection of the proposed individual. In case the contract project requires entering in airfield Controlled Movement Area (CMA), at least one bilingual speaker shall be required to have CMA airfield driver's license and shall be on site to correspond with airfield control tower.

In addition, Contractor shall be responsible to replace said individual upon notification by the Government should performance become inadequate during the Contract period. The interpreter shall attend the preconstruction conference.

1.8 Written Communication in English

All submittals required under this contract (including but not limited to: project schedule, work plan, safety plan, quality control plan, meeting minutes, and all other written communications such as letters, memos or emails to the government, documents, sketches, reports, manuals, etc.) shall be written in English or translated into English by the contractor prior to submission.

PART 2 PERTINENT INFORMATION

2.1 Base Regulations

All Contractor and sub-contractor employees, assigned to a project shall become familiar with and obey all Base Regulations, including fire, traffic, safety, airfield and security regulations. Contractor shall delineate the work area using cones, construction tape, fence or other means as directed. All Contractors shall keep themselves within the limits of the work site (and avenues of ingress and egress), and shall not enter any restricted areas unless required to do so and are cleared for such entry. Contractor's equipment shall be conspicuously marked for identification and shall remain within the confines of project area except when entering or leaving the installation.

2.2 Installation/Base Passes

The U.S. Government will issue all required Installation/Base Passes and Controlled Area Badges to

cleared Contractor personnel at no cost to the contractor. It is, however, the Contractor's responsibility to ensure documentation required by the U.S. Government to issue badges is submitted with adequate lead time. The Prime Contractor shall be responsible for maintaining control of all passes issued to his own and his subcontractor's employees under this contract. The Contractor shall return all applicable passes upon termination of employment or completion of this contract to the 374th Security Forces Squadron, Pass & Registration Section (Building 993), and a certificate of receipt shall be obtained. Final payment will be withheld until the contractor has been relieved from all accountability and/or obtained the necessary pass clearance certificate for Government issued installation/base passes used in the performance of this contract.

2.3 No Smoking Policy

Smoking is prohibited on installation except in designated tobacco areas. This applies to existing buildings, buildings under construction, and building under renovation. Discarding tobacco materials other than the designated tobacco receptacles is considered littering and subject to fines. CO shall identify designated tobacco areas

2.4 Order of Work

Contractor shall schedule all work to cause the least amount of interference with activity operations. Permission to interrupt any activity roads or utility services shall be requested and approved in writing a minimum of 21 calendar days prior to the desired date of interruption. Work shall be phased as necessary to prevent completely blocking access to an inhabited building/area and to minimize impact to daily operations. Interruptions of utility services and blocking active roads shall be allowed only when they will not cause interference with the operations of the activity. Contractor shall remove and dispose of all Contractor generated debris at the end of each shift, or more frequently if required, to keep the space usable.

2.4.1 Commencement

Contractor is encouraged to start preparing submittals as soon as the contract is awarded so that they can be submitted to the Government as soon as NTP is issued. Contractor shall begin and complete all required work; ready for use and including cleanup, within the time period specified on the task order. Contract period of performance also includes any lead time for procuring the materials. All work scheduled in this contract occupied areas shall be accomplished in such a manner as to cause the least possible inconvenience to the occupants.

2.4.2 Normal Working Hours and Work Days

Working Hours: During construction, the facilities will be made available to the contractor from 0730 to 1630, Monday through Friday, 5 days a week, excluding U.S. legal holidays but including Japanese legal holidays. Contractor must notify the Government in advance if work needs to be performed outside these working hours. Contractor shall coordinate schedule for design site visits with the Government at least 14 days ahead of time.

A. Holidays: Recognized US legal holidays are listed below:

- | | |
|-------------------------|---------------------------------|
| 1. January 1 | New Year's Day |
| 2. January, 3rd Monday | Martin Luther King Jr. Birthday |
| 3. February, 3rd Monday | President's Day |

4. May, last Monday	Memorial Day
5. July 4	Independence Day
6. September, 1st Monday	Labor Day
7. October, 2nd Monday	Columbus Day
8. November 11	Veteran's Day
9. November, 4th Thursday	Thanksgiving Day
10. December 25	Christmas Day

Holidays falling on a Saturday will be observed on the preceding Friday. Holidays falling on a Sunday will be observed on the following Monday.

2.4.3 Work Outside Regular Hours (subject to the approval by the Government)

If the Contractor desires to carry on work outside the normal hours or on Saturday, Sundays, or holidays, a written application shall be submitted to the CO or his representative for approval. The Contractor shall allow three (3) working days' notice to enable satisfactory arrangements to be made by the Government for inspecting the work in progress. If work is to be accomplished after daylight hours, the Contractor shall illuminate the area in a manner approved by the CO or his/hers representative. Unless directed by a CO, work accomplished outside regular working hours shall be at no additional cost to the Government.

2.4.4 Special Conditions

The facilities may be in use by the Government during the contract period. The Contractor shall make all necessary provisions to keep interference to a minimum as to the scheduling of work and storage of materials. Scheduling and performance of work shall be done in such a manner as to cause the least possible inconvenience to personnel using the buildings and the least possible interference with activities in and around the buildings. The Contractor shall ensure portions of buildings in use by the Government are protected from any damage due to inclement weather while work is being executed.

Special care shall be taken in performing exterior work such as excavation, backfill, concrete placement, paint, etc. when the temperatures are less than 7°C. For bituminous pavements, care should be taken when outside temperatures are 10°C or less. On such days, the exterior work will be performed in compliance with applicable sections of the specifications and drawings under strict temperature control with curing and/or heating appliance as necessary.

2.5 Utilities

Water and electric utilities will be furnished by the Government at no cost to the Contractor IAW FAR 52.236-14 (a), Availability and Use of Utility Service. The Contractor, at its expense, shall install and maintain all necessary temporary connections and distribution lines in a satisfactory manner. Before final acceptance of the work by the Government, the Contractor shall remove all the temporary connections, distribution lines, and associated paraphernalia.

2.5.1 Cross Connection

Contractor shall be responsible for preventing actual or potential cross connections between potable and non-potable water supply during construction. The Contractor must notify the Construction Inspector

for use, installation or maintenance of potable water service connection to ensure the following provision:

- a. No water service connection will be installed / maintained to / at any premises where actual or potential cross connections to the potable water system may exist, unless such actual or potential cross connections are properly abated or controlled.
- b. No connection will be installed or maintained whereby an auxiliary water supply may enter a public water system, unless such auxiliary water supply will have been approved by the COR.
- c. No water service connection will be installed / maintained to / at any premises in which the plumbing system, facilities and fixtures have not been constructed and installed using acceptable plumbing practices.

2.5.2 Utilities Outage

All planned utility outages including fire system must be coordinated and approved 21 calendar days prior to the scheduled utility outage. AF Form 103 Base Civil Engineer (BCE) Work Clearance Request must be filled out by the Contractor prior to coordination and approval. In each request, specify each utility being disconnected, the time and date the service will be deactivated and the anticipated time and date service will be reactivated. Contractor must coordinate with 374 CES/CEFP Fire Prevention (Phone 225-9112) prior to fire system disconnection and reactivation. No utility outage(s) shall be permitted until an approved AF Form 103 is obtained by the Contractor.

2.5.3 Electrical Power

Japan's electrical power system has two different power frequencies, 50 Hertz (Hz) and 60 Hz, depending on the region of the country. The dividing line is roughly defined by the Fuji River (near the western side of Mt. Fuji). The region east of this dividing line has 50 Hz power and the region to the west has 60 Hz power. In general, Yokota Air Base and its auxiliary sites in Japan have 50 Hz power. However, several facilities with specialized equipment may have transformers and operate at 60 Hz. This 60 Hz electrical power system may operate the whole facility itself or it may operate alongside another 50 Hz electrical power system in the facility. Electrical power for the US Air Force sites are facility dependent and not base dependent.

2.6 Installation Fire, Safety, and Environmental Regulations:

- A. Contractor shall comply with all pertinent requirements of the regulations determined applicable by 374 CES Fire Emergency Services Flight, to include UFC 3-600-01 and NFPA 241, and insure compliance by all subcontractors. All temporary wiring at the construction site shall be installed with ground fault protection.
- B. Contractor shall be responsible for preparing and submitting the Accident Prevention Plan and Job Hazard Analysis. Contractor shall not commence work at the job site until an Accident Prevention Plan and Job Hazard Analysis are submitted to the CO and reviewed/approved by the Project Engineer. Contractor is responsible for reviewing the latest version of EM 385-1-1, the U.S. Army Corps of Engineers' Safety and Health Requirements manuals.
- C. All work pertinent to environmental protection such as storm water, hazardous waste, solid waste and lead-based paint shall be IAW the latest Japan Environmental Governing Standards (JEGS), AFJMAN 23-209 and AFI 32-7086. Per Yokota AB Environmental guidance for the personnel, and the Asbestos Management and Lead Management Plans, all the Contractor personnel are required to

complete the Environmental Management System Awareness training prior to commencing operation on any United States Air Force Base Japan facilities. The certificates shall be submitted to the CO and reviewed/ approved by the Project Engineer

- D. Excavation: Any excavation (300 mm or more in depth) must be coordinated and required an approved AF 103 Base Civil Engineer (BCE) Work Clearance Request 21 calendar days prior to start of excavation. An AF Form 103 must be filled out by the Contractor prior to coordination and approval. Contractor must not commence excavation work at the job site until the AF Form 103 has been reviewed/signed by the appropriate 374 CES Organizations, Security Forces, Wing Safety, Communications, Commercial Utility Company and Facility Manager (user); and approved by 374 CES Engineering Flight Chief.
- E. Work Schedule: Contractor shall submit a detailed project work schedule (Bar Chart Work Schedule) and as a minimum the work schedule must show work activities, design submittals, Government review period, On-Board Review (OBR) meeting, material/equipment delivery, utility outages, road closures, on-site construction, inspection, testing and close-out activities. The project work schedule shall also be signed by the Contractor's Project Manager, approved by Government Project Engineer and CO.
- F. Temporary Protection Plans (*Kasetsu Keikaku-sho*): When requested by the Government, the Contractor shall provide appropriate temporary protection plans such as nets, barricades, safety access roads and etc., to protect Government personnel and workers at construction work site during construction, and submit for approval the temporary protection plans (*Kasetsu Keikaku-sho*) to the Construction Inspector prior to the respective work site commencement. The Contractor shall be responsible to minimize the inconvenience and avoid any danger to the Government personnel and workers.
- G. Solid Waste: Solid waste (construction and demolition debris, etc.) generated from this project shall be recycled/disposed of at an authorized off-base facility/facilities IAW latest version of JEGS of applicable environmental guidance from Yokota AB as well as host nation's laws and regulations.

2.7 Damage to Utilities:

- a. In the event of any unforeseen utility failure/disruption, the Contractor will first make the area safe, then immediately contact the Construction Inspector and CO. The Construction Inspector will be responsible for coordination with the 374 CES Engineering Flight.
- b. If the damaged utilities were previously known or shown to the Contractor, and there was negligence on the Contractor's part, the utilities will be repaired by the Contractor in a timely manner at no cost to the Government.

2.8 Key Personnel

Resumes for following key personnel, required for each Task Order, shall be submitted to the Government prior to commencement of work. No key personnel shall be appointed or replaced on a project without approval by the CO.

2.8.1 Project Manager

The Project Manager is responsible for the overall management of the contract. The Project Manager shall have a minimum of five (5) year experience in the administration of construction contracts, and shall

have a thorough knowledge of the duties of key management personnel assigned to task orders issued under this contract. The Project Manager shall maintain oversight of task order proposals prepared by the Contractor staff and be authorized to negotiate task order terms and sign contract documents on behalf of the contractor.

2.8.2 Project Superintendent (i.e. *Genba Kantoku*)

A Project Superintendent shall be assigned to each task order issued to the contractor. The Project Superintendent shall have overall responsibility for all operations at the jobsite and will be present at the job-site during the execution of the project. The Project Superintendent shall interact with the CO or his representatives upon request and shall be authorized to make decisions, negotiate task order terms and sign contract documents on behalf of the contractor. The Project Superintendent shall have a minimum of five (5) year experience as a superintendent on construction projects similar in size and scope to task orders of this contract. Project Superintendent may be required to have an appropriate license when the Government specifies the requirement in the Task Order. The Project Manager and Project Superintendent positions can be filled by the same person, if the Government concurs with this arrangement for a specific task order and determines the candidate to be qualified to fulfill both positions.

2.8.3 CQC Manager (i.e. *Hinshitsu kanri Sekininsya*)

The Contractor shall identify as Contractor Quality Control (CQC) Manager an individual who shall be responsible for overall management of quality of construction work during project execution. The CQC Manager shall have a minimum of five (5) years construction experience handling quality control for projects similar to task orders for which appointment is made. This CQC Manager shall be on the site at all times during construction and shall be report directly to someone in the Prime Contractor's head office. An alternate will be identified to fill this position in the event of the CQC Manager's absence. The qualifications for the alternate will be the same as for the designated CQC Manager.

2.9 Work Clearance Request for Each Task Order

Prior to the commencing each task order, the contractor must submit an AF 103 BCE Work Clearance Request, coordinated to all base agencies/shop and approved by 374 CES Engineering Flight Chief minimum 21 calendar days prior to constructing a field office or storage/laydown area, if required. Approval is based on site location, proposed structure(s), fencing, electrical / plumbing utility needs, and any other modifications the contractor proposes to the area. AF 103 permits may not be approved depending upon the area restrictions.

2.10 Construction Free Zone (CFZ)

When the project requires CFZ, Contractor shall provide the necessary information to process CFZ, such as max working height of the vehicles/heavy equipment, list of vehicles and personnel, site map and actual construction schedule.

2.11 Contractor Storage/Laydown Area

A. Contractor must submit a request for temporary storage/laydown area for approval. The request must include but not limited to site plan, locations, dimensions, layouts, equipment and material stored. Storage/laydown area are not guaranteed to be approved due to limited real estate of Yokota Air Base. The Government may designate an open area (other than the location requested) for storage/laydown area for the duration of project.

B. Contractor will be required to provide a fence to secure the area. The fence shall have a screen attached to hide the materials. This screen shall be similar to that used on other storage/laydown areas throughout the base. The storage/laydown area may not be co-located with the office area.

C. Contractor shall keep the storage/laydown area neat, orderly and clear of all debris. Contractor shall not allow trash or other debris scattered from storage area by wind or other means. Any modifications to the storage/laydown area must first be approved by the Government representative, and will be done at the Contractor's expense. Grounds maintenance for the storage/laydown area is the responsibility of the Contractor.

D. Contractor shall manage borrowed area to minimize erosion and to prevent sediment from entering nearby water supply or drainage system. Spoil areas shall be managed and controlled to limit spoil intrusion and to prevent erosion of soil or sediment from entering nearby water supply or drainage system.

E. Contractor shall remove all items from designated storage/laydown area prior to final acceptance of the project and shall ensure that all storage/laydown area are reverted back to grades and conditions that existed prior to areas being disturbed.

2.12 Sanitation

If toilets or other sanitary facilities are not available, adequate sanitary conveniences of a type approved for the use of persons employed on the work shall be constructed by the Contractor at their own expense. Such facilities shall be properly secluded from public observation and maintained in a manner subject to approval by the CO. Immediately after completion of the each Task Order, or as directed by the CO, the facilities shall be removed from Government property, leaving the premises clean and free from nuisance.

2.12 Demolition work for fuel facilities: For projects where scope require the Contractor to remove or demolish an existing fuel tank or pipeline, the Contractor shall, at a minimum, provide the following information:

A. Narratives as well as photographs documenting condition of the facilities prior to start of work clearly identifying any damage / defects observed;

B. Photographs of concrete pad below the tank or any other secondary containment for the fuel pipeline or tank which would have prevented spill from reaching surrounding soil. Narrative should further clarify if and where any damage or staining was observed;

C. Photographs of the undisturbed ground below and adjacent to the tanks or pipelines were removed;

D. Results from "sniffing" the area using a handheld device which detects presence of Volatile Organic Carbons;

This information will be provided in addition to any testing and sampling requirements as noted in the Task Order (TO) for investigation of contaminated soil. Composite sampling technique shall be used for verification if earlier observations and a visual inspection of the site indicate no contamination.

2.13 Employee Parking

Parking will be limited to Contractor and subcontractor company vehicles required for construction in an area designated by the Government. This area will be within reasonable walking distance of the construction site but will be limited in number. Contractor shall make arrangements for transporting personnel on and off site to limit the number of company owned vehicle parking required by the Contractor and subcontractor personnel. Contractor and subcontractor parking shall not interfere with existing and established parking requirements of the military installation.

2.14 Emergencies

In case of an emergency, the CO, Security Forces personnel, Base Fire Chief, and other base personnel as identified have the authority to order the Contractor to stop work and clear the area of personnel and equipment. Contractor shall comply with such an order with all possible speed. After clearing the work site as instructed, Contractor shall immediately inform the CO of all verbal or written stop work orders. In the case of being halted by Security Forces personnel, the Fire Chief, or other base personnel as identified, Contractor shall notify the CO in writing and provide explanation for the stoppage.

2.15 Flammable and Combustible Liquids and Gasses

- A. Every effort shall be made to limit flammable liquid quantities to daily use.
- B. Flammable liquids exceeding daily quantities shall be properly stored in approved locations only.
- C. Flammable storage areas shall be marked with bilingual signs.

2.16 Driving Responsibilities

- A. Drivers shall yield the right-of-way to all emergency response vehicles.
- B. Vehicles shall not be driven over fire hose and shall not proceed through areas where firefighting operations are being conducted; unless directed by a designated traffic control representative.

PART 3 TASK ORDERS

3.1 “Construction Only” Task Orders

3.1.1 “Construction Only” Characteristic

The Task Orders issued under the “Construction Only” process will generally be issued with one of the following characteristics:

- A. Issuance of a Fair Opportunity Proposal Request (FOPR) with a complete design package, specifications and submittal lists.
- B. These task orders shall normally consist of basic construction processes and require minimal, if any, engineering design effort.
- C. Issuance of a FOPR with a scope of work that may or may not include a site visit. These task orders shall not be complex in scope or requirements. The descriptive scope of work shall be executed with simple work plans, concept sketches, and/or shop drawings.

3.1.2 “Construction Only” Project Scope

Whenever the Government has work to be performed under this contract as a “Construction Only” Task Order, the CO will provide a project scope. The project scope will include, but may not be limited to, the scope of work, required project duration, and the amount of liquidated damages that will be assessed if project cannot be completed in a timely manner (Task Order for respective projects will indicate the applicability of Liquidated Damages). The detail provided in the project scope will vary from a general statement of work with no drawings to a complete scope of work with design documents including contract specification. Normally, project scope with no drawings will entail simple construction requirements that can be successfully completed from contractor work plans or simple shop drawings.

3.1.3 “Construction Only” Process

The Task Orders issued under the “Construction Only” process will generally be issued with one of the following processes:

3.1.3.1 Site Visit

Upon issuance of a FOPR to the Contractors, and within lead time specified in Task Order, the Government will notify Contractors; shall inspect the job site with the COR and 374 CES Project Engineers to thoroughly discuss all conditions and details of the work, including, but not limited to, customer requirements, safety, material quantity and quality, methods of construction, phasing, and the types of trades required. Any deficiencies, omissions, problems, conflicts, or other adverse conditions that may exist in the scope of work, or that may be encountered during the site visit, shall be immediately brought to the attention of the COR.

3.1.3.2 Contractors’ Proposal

The FOPR will identify the specific proposal submission deadlines. Unless otherwise noted in the FOPR, the Contractor shall submit proposals IAW the following schedule:

- A. Contractor shall consider the project scope, customers’ requirements, code requirements, safety requirements, quality, maintainability, operability, and cost when preparing Contractor proposal. The technical services necessary for preparation of the proposal shall be included in the Contractors’ overhead.
- B. Material Requirements: Except for those items specifically stated to be Government furnished, the Contractor shall provide all materials and equipment required for executing work. Construction materials and replacement parts for equipment must be accepted by the Government as being in compliance with the specifications and all applicable Government, Commercial, and Industrial Standards/Codes.
- C. Material Disposal Requirements: Contractor’s material disposal costs shall include hauling and disposal costs for work performed IAW all applicable local, JEGS, or U.S. laws and regulations.
- D. Award of individual task orders shall be made as indicated in solicitation document. When evaluation factors in addition to proposed price are used as the basis for award, the CO may review the Contractor’s proposals and may revise the project scope and/or negotiate with the Contractors. Upon resolution of issues in disagreement and arrival at a fair and reasonable fixed price to accomplish the work, the CO will issue a Task Order to the Contractor.

3.2 “Design-Build” Task Orders

3.2.1 “Design-Build” Project Scope

Whenever the Government has work to be performed under this contract as a “Design-Build” Task Order, the CO will provide a project scope. The project scope will include the scope of work, design requirements, concept drawing, construction method requirements, construction phasing, – if applicable, cost limitations, and required project duration.

3.2.2 Design-Build” Process

3.2.2.1 Contractor’s Proposal

Contractor shall submit a proposal IAW the schedule outlined in the FOPR. The Government may determine the schedule requirement of the task order, based upon the complexity, urgency and level of detail necessary for the success of the task order.

3.2.2.1.1 Contractor shall break cost proposals into two separate parts.

- a. The first shall cover all design effort required, to include all design meetings, development of meeting minutes, on-board reviews, and coordination with the user, site visits, reproduction, and any engineering services during construction.
- b. The second shall cover all construction effort required, to include all quality control, supervision and any technical requirements during construction.

3.2.2.1.2 Contractor shall consider the project scope, customers’ requirements, design and construction requirements, code requirements, safety requirements, quality, maintainability, operability, and cost when preparing the proposal. Contractor shall provide concept sketches or drawings for their proposed methods, proposed schedules (design and construction), cost proposals, and other information as required.

3.2.2.1.3 Contractor shall propose representative costs such as materials, equipment rentals, disposal, testing and laboratories required for all proposals as requested by the Government. The costs shall directly represent the proposed design and construction requirements outlined in para 3.2.2.2. In addition, the costs proposed by the Contractor should reflect the recommended design and construction methodology. Contractor shall provide quotes for known materials, equipment, disposal, testing and laboratory costs that will be conducted for this task order. Contractor shall select the quotes that meet the specifications. Contractor shall attempt to prepare the proposals to include all requirements based on the site visit and the proposed design and construction methodology.

3.2.2.1.4 Except for those items specifically stated to be Government furnished, the Contractor shall provide all materials required for this contract. All materials and parts shall comply with the specifications and all applicable Government, Commercial, and Industrial Standards/Codes. For task orders awarded based on factors other than price, the Government reserves the right to challenge any proposed costs and may require the Contractor to obtain additional quotes or may require the Contractor to further justify the proposed costs. The Government’s identification of any commercial sources is merely informational in nature and will not constitute an endorsement of a particular source or product.

3.2.2.1.5 Where materials are to be turned over to the Contractor for disposal, every effort shall be made to obtain credit from the disposal to reduce the cost of the contract. The Contractor’s material

disposal costs shall include hauling and disposal costs for work performed IAW all applicable local, JEGS, or U.S. laws and regulations.

3.2.2.1.6 Award of individual task orders shall be made as indicated in solicitation document. When evaluation factors in addition to proposed price are used as the basis for award, the CO may review the Contractor's proposals and may revise the project scope and/or negotiate with the Contractor. Upon resolution of issues in disagreement and arrival at a fair and reasonable fixed price to accomplish the work, the CO will issue a Task Order to the Contractor.

3.2.2.2 Site Visit

Upon issuance of a FOPR to the Contractor, and after receiving the proposed project scope, the Government will notify the scheduled site visit to the COR and 374 CES Project Engineers to thoroughly discuss all conditions and details of the work, including but not limited to project scope, design, timelines, cost limitations, customer requirements, safety, material quantity and quality, methods of construction, phasing, and specific proposal requirements. Any deficiencies, omissions, problems, conflicts or other adverse condition that may exist in the scope of work or that may be encountered during the site visit shall be submitted in writing to the COR immediately after the site visit.

3.2.2.3 Responsibility of the Contractor for Design

3.2.2.3.1 Contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other non-construction services furnished by the Contractor under this contract. Contractor shall, without additional compensation, correct or revise any errors or deficiency in its designs, drawings, specifications, and other non-construction services and perform any necessary rework or modifications, including any damage to real or personal property, resulting from the design error or omission.

3.2.2.3.2 The standards for all design services performed under this contract shall be the standards that are ordinarily used by members of the architectural or engineering professions practicing under similar conditions at the time and locally. Notwithstanding the above, in the event that the contract specifies that portions of the work be performed IAW a performance standard, the design services shall be performed so as to achieve such standards.

3.2.2.3.3 The Government's review, approval, acceptance, or payment for the services required under this contract shall not be construed as a waiver of any responsibility and liability of the Contractor under this contract or of any cause of action arising out of the performance of this contract. The Contractor shall be and remain liable to the Government IAW applicable law for all damages to the Government caused by the Contractor's negligent performance of any of these services furnished under this contract.

3.3 As-Built Drawings

The Government will (if available) provide the Contractor current as-built drawings (PDF) to develop new as-built drawings reflecting all completed work. A copy of the approved construction drawings shall be kept at the work site at all times during the execution of the project to mark all changes (red line drawings) from the original documents generated by modifications and the exact as-built locations, sizes, types of equipment, hidden utilities or other items.

Contractor shall submit a full size set of marked up drawings (red line drawings) illustrating as-built conditions after completion of site work or during the final inspection of the project. If the drawings contain error and/or omissions, the Government will return the set to the Contractor for correction and re-

submission. Contractor shall complete the corrections and re-submit the drawings to 374 CES within fourteen (14) calendar days.

After the preliminary as-built drawings are approved, the Government will furnish the Contractor the approved black lines and the compact disk of the CADD files of the original contract drawings. Contractor will modify the original CADD drawing files as necessary to correctly show all the features of the project as it has been constructed by duplicating the information documented on the preliminary as-built drawings. Additional drawings shall be included as necessary.

The final as-built drawing set shall consist of one set of electronic CADD drawing files, 3 sets of PDF copies, and one set of the approved working as-built drawings. The CADD drawing must follow the CAD standards from the latest Department of Defense AEC standard. The AEC standard can be provided by the Government or downloaded from WBDG website at <https://www.wbdg.org/ffc/army-coe/cad-bim-technology-center>. Electronic as-built submittals shall include a file index that identifies every file on each disk, the contents of the file, a list of each drawing layer in each file and the contents of each layer.

3.4 Photographic Record

Contractor shall furnish the Construction Inspector with the photographic records of each sequence of work which will be hidden or makes it difficult to examine the condition of work such as reinforcement for concrete, underground piping system, air duct system above ceiling and etc.

PART 4 PROPOSAL DESIGN

4.1 General Design Submittal Requirements

The Contractor shall follow the requirements outlined below for all submittals. Each individual task order awarded under this contract may require greater or less information than the general design requirements.

4.1.1 Metric / English Requirements

All work shall be designed (drawings, specifications and design analysis) in the Metric System International (SI), unless indicated otherwise in Task Order Scope of Work. Combination of English and Metric will not be permitted.

4.1.2 Design Analysis and Drawings

Use standard 8 ½ x 11 inch paper except that larger sheets may be used when required. All sheets shall be in reproducible form. Margins at all sides shall be 1 inch minimum to permit side binding and head to head printing. All of the drawings shall be printed on A-1 (594 x 841 mm) paper.

4.1.2.1 Design Analysis

The material may be typewritten, hand-lettered, hand-written, or a combination thereof, provided it is legible.

4.1.2.2 Drawings

Prepare all drawings utilizing Computer-Aided Design and Drafting (CADD) software so that they are well-arranged, placed for ready reference and they present complete information. Drawings shall be complete, unnecessary work such as duplicate views, notes and lettering, and repetition of details shall not be permitted. Do not show standard details that are not applicable to the project, and minimize unnecessary wasted space. Do not include details of standard products or items, which are adequately covered by specifications on the drawings. Each design discipline shall provide a complete list of abbreviations and symbols used in their respective drawings. The use of abbreviations are for use when space is limited within a drawing sheet, otherwise it is recommended the all the words are spelled out versus using abbreviations. Detail the drawings such that conformance with the FOPR may be checked and to the extent that shop drawings may be checked. Do not use shop drawings as design drawings.

Design and as-built drawings shall be Geo-Reference and shall utilized AutoCAD 2010 drawing or newer Auto CAD file format. The coordinate system shall be based on the Universal Transverse Mercator (UTM) zone 54 north projection. This projection/coordinate system is based on the 1984 World Geodetic Survey (WGS 1984). As an alternative, design and as-built drawings can be based in Japan Geodetic Datum 2011 (JGD 2011) zone 9. Vertical coordinates shall be included. Reference datum and coordinates systems used shall be clearly identified. The Auto CAD drawing must follow the CAD standards from the latest Department of Defense AEC standard. The AEC standard can be provided by the Government or downloaded from WBDG website at <https://caddim.usace.army.mil/default.aspx?p=a&i=7&t=1>

(If a project is related to the inside of a facility, then no Geo-Reference is required)

4.2 Concept Design Submittal (30 %)

The review of this submittal is primarily to insure that the design criteria are being correctly interpreted and that the contract documents and design analysis are proceeding in a timely manner.

4.2.1 The submittal shall consist of the following

- A. Design analysis, developed to 30 %
- B. Drawings – schematic (30 %) design, Index of drawings to be prepared during future submittals
- C. Outline Specifications (Index of specifications that will be developed during 60 % submittal)

4.2.2 Submittal Requirements

This concept design shall contain, as a minimum, the following design discipline requirements:

4.2.2.1 Architectural Requirements

4.2.2.1.1 Design Analysis:

- A. Schematic project scope
- B. Schematic code analysis including life safety and the Americans with Disabilities Act (ADA) Accessibility
- C. Schematic design narrative of functional space relationships, as well as circulation.

D. Schematic anti-terrorism / force protection requirements

4.2.2.1.2 Drawings and Design Information:

- A. Draft floor plans
- B. Draft enlarged floor plans as necessary
- C. Draft roof plan
- D. Draft exterior elevations
- E. Draft building section
- F. Draft anti-terrorism / force protection requirements

4.2.2.2 Civil Requirements

4.2.2.2.1 Design Analysis:

- A. Schematic description of site conditions
- B. Schematic technical references (codes, manuals, directives)
- C. Schematic foundation report and recommendations
- D. Schematic drainage storm water routing
- E. Schematic paving narratives and criteria
- F. Schematic analysis of the existing systems and new work requirements.
- G. Schematic traffic volume and type
- H. Schematic anti-terrorism / force protection requirements

4.2.2.2.2 Drawings and Design Information:

- A. Draft location and vicinity map
- B. Draft site plan with typical section cuts and pavement cuts
- C. Draft show new and existing storm drain lines and inlets
- D. Draft utility plan showing all utilities and associated products, (cleanouts, manholes, fire hydrants, etc.). Show all new work in association with the site survey
- E. Draft soils boring logs & subsurface investigation site plan
- F. Draft anti-terrorism / force protection requirements

4.2.2.3 Mechanical Requirements

4.2.2.3.1 Design Analysis:

- A. Schematic plumbing design analysis: system narratives with thorough discussion of domestic water, rainwater, sewer and vent piping systems.
- B. Schematic air conditioning and heating design analysis: system narratives.
- C. Schematic ventilation design analysis: system narratives with thorough discussion of the building mechanical room ventilation, and miscellaneous building exhaust systems.
- D. Schematic gas piping, container gas piping and tanks.
- E. Schematic fire protection requirements to include the followings:
 - 1. Prepare a comprehensive fire protection design analysis
 - 2. Provide description of overall fire protection systems
- F. Schematic anti-terrorism / force protection requirements

4.2.2.3.2 Drawings and Design Information:

- A. Draft mechanical equipment and fixture schedules
- B. Draft plumbing layout plans
- C. Draft heating, air conditioning, and ventilation (HVAC) layout plans and system diagrams
- D. Draft plumbing diagrams
- E. Draft utility layout plans
- F. Draft fire protection system plan to include the followings:
 - 1. Water supply line sizing, equipment and riser layout
 - 2. Respective design density and floor area coverage
- G. Draft anti-terrorism / force protection requirements

4.2.2.4 Electrical Requirements

4.2.2.4.1 Design Analysis

- A. Schematic scope of new work to be performed
- B. Schematic communication system to include the followings:

C. Describe the existing system and the changes to be made to the existing system to accommodate the project. Scope of new work to be performed

1. Description of system components such as the type of cables, outlets and patch panel
2. Describe special systems: LAN System, public address system, program clock system, base fire reporting system (transponder, antenna), etc.

D. Schematic anti-terrorism / force protection requirements

4.2.2.4.1 Drawings and Design Information:

- A. Draft exterior lighting plan
- B. Draft electrical one-line diagram / details
- C. Draft site plan: feeders, transformers, telecommunications and cable service entrances,
- D. Draft receptacle and lighting layouts
- E. Draft special systems: communications and cable
- F. Draft communication system to include the followings:
 1. One-line diagram / details
 2. One-line diagram for other special systems such as: public address system, program clock system, base fire reporting system (transponder, antenna), etc.
- G. Draft Fire Protection System Plan to include the followings:
 1. Fire alarm system plan one-line diagram
- H. Draft anti-terrorism / force protection requirements

PART 5 PRODUCTS

5.1 Hazardous Materials

The contractor shall provide the CO a hazardous material (HM) inventory and Material Safety Data Sheets (MSDSs in English) prior to delivery of such HM to the job sites. The Contractor shall submit their plans for protection of public and military personnel from exposure while HM are being stored/utilized on-site, procedures for HM spill response in conformance with JEGS and HM disposal upon completion of work.

5.1.1 Do not use materials containing greater than 0.1 % asbestos.

5.1.2 Do not use materials containing greater than 0.06 % lead by weight in the total nonvolatile content of liquid paint and 0.5 % (5000 ppm) by weight of Paint in Place. Furthermore, do not use materials containing detectable lead, mercury, chromium and cadmium by atomic absorption spectrum (AAS) deemed as Heavy Metal-Based Paint (HMBP).

5.1.3 Do not use materials containing chlorpyrifos.

5.1.4 Use Formaldehyde rate F☆☆☆☆ for all products.

5.2 Inspection and Random Sampling by the Government

The Government reserves the right to inspect all materials to be used in performance of the project and to take samples to examine the contents of asbestos, lead, etc. to measure the compliance with these requirements specified in this specifications. Whenever the Government becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public, Government personnel or workers, the Government will notify the Contractor orally, with written confirmation, and direct immediate initiation of corrective action at the Contractor's sole cost. This notice, when delivered to the Contractor or the Contractor's representative at the work site, is considered sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor must immediately take corrective action to replace the noncompliance with materials/equipment compliant with the requirements. If the Contractor fails or refuses to promptly take corrective action, the Government may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor is not entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this contract.

5.3 Government Furnished Properties Items

5.3.1 General

The Government will furnish or make available to the Contractor certain Government owned equipment and materials as specified below for use only in connection with this contract. All such equipment and materials will be provided in "as is" condition. The use of Government-furnished property and services for other purposes is prohibited.

5.3.1.1 Government Furnished Equipment (GFE)

The Government may furnish the equipment to the Contractor for use in the performance of the contract. GFE will be identified as other pertinent information on the applicable task order. The use of GFE for any other purpose is prohibited. The Contractor shall be held accountable for all GFE. Upon completion of the specific task order, the Contractor shall return all GFE to the Government in the same condition as originally provided to the Contractor less normal wear and tear.

5.3.1.2 Government Furnished Material (GFM)

The Government may furnish material(s) to the Contractor for use only in the performance of the contract. The use of GFM for any other purpose is prohibited. GFMs will be identified as other pertinent information on the applicable task order. GFMs will be delivered to the Contractor at the location specified in the task order, and the contractor shall be held accountable for all materials furnished by the Government once GFM is hand over to the Contractor. All unused GFMs at the end of the work/project shall be returned to the Government if directed by CO.

5.4 Contractor Furnished Items

5.4.1 General

Except for items listed as GFE or GFM, the Contractor shall provide all facilities, equipment, materials, and services to perform the requirements of this contract.

5.4.1.1 All Contractor-furnished replacement units, parts, components and materials to be used under this contract shall be compatible with that existing equipment on which it is to be used; shall be of equal or better quality than original equipment specifications; shall comply with applicable Government, commercial, or industrial standards such as Japanese Industrial Standards (JIS), Japanese Agricultural Standards (JAS), Japanese Water Work Association (JWWA), and etc.; shall conform to the applicable technical specifications; and used IAW original design and manufacturer intent. Items not listed in technical specifications shall be of standard industrial grade and quality. If the original manufacturer has updated the quality of parts for current production, parts supplied under this contract shall equal or exceed the updated quality.

5.4.1.2 Replacement parts shall be new, as a general rule. If new parts are not available, the Contractor may request approval in writing from the CO to use factory-reconditioned parts. Use of factory-reconditioned parts prior to written approval of the CO is at the Contractor's sole risk, unless the use of the re-conditioned parts were directed by the Government. All parts whether new or factory-reconditioned shall carry the full warranty (in English) required by this contract.

PART 6 EXECUTION

6.1 Post-Award Conference

Within a week of issuance of Notice to Proceed for the task order, the Contractor shall contact the CO to arrange a time to discuss and develop mutual understandings relative to performing awarded work. This includes introduction/roles of key contractor and Government personnel, verification of understanding of scope, administrative clarifications regarding submittal process, requirements and lead time for submitting documentation for contractor personnel involved in execution of work, safety program, quality control program, and the scheduling of the work of the contract.

6.2 Pre-Construction Conference

After issuance of a task order, but prior to commencement of any work on site, the Contractor shall contact the CO or COR to arrange a time to discuss and develop mutual understandings relative to the administration of the safety program, the quality control program, and the scheduling of the work of the specific task order. When the Government requests, major subcontractors who will be engaged in the work shall also be represented at the pre-construction conference.

6.3 Fire Prevention During Construction

6.3.1 General

6.3.1.1 The Contractor shall comply with all pertinent fire prevention provisions of the US Army Corps of Engineers Manual EM-385-1-1, NFPA 241 and shall follow the activity fire regulations. Prior to commencement of welding or other hot work operations, the Contractor shall obtain an AF Form 592 Hot Work Permit approval from 374 CES/CEFP Fire Prevention Section located at Bldg. 530.

6.3.1.2 The Contractor or an individual appointed shall be placed in charge of fire safety of the work project. The responsibilities shall include: assuring the availability, operation, and location of fire protection equipment, general supervision of safeguards and location of portable heating equipment, and establishment and maintenance of safe cutting and welding operations.

6.3.1.3 Contractor's materials and equipment shall not be stored in a location or manner which will create a fire exposure to facilities adjacent to the project site. Fire hydrants shall not be fenced in on construction sites.

6.3.1.4 All fires, regardless of size, even if they have been extinguished, shall be reported to 374 CES Fire Emergency Services Flight immediately. Any persons discovering a fire or suspected fire shall alert the building occupants by any means available. The 374 CES Fire Emergency Services Flight shall be notified in the following manner: from a base phone, dial 911; from a Japanese cell phone dial 042-552-2510, wait for the tone and dial 911.

6.3.1.5 Portable fire extinguishers shall be supplied by the contractor as required by 374 CES Fire Emergency Services Flight. Fire extinguishers shall be readily available and kept in a fully operational condition at all times.

6.3.1.6 Work that includes the fire detection or suppression systems, utility outages, road closures, and confined space entries, shall be approved by the 374 CES/CEFP Fire Prevention Section prior to beginning the work. Only authorized technicians shall alter, extend, or repair installed systems.

6.3.2 Supply

No more than one day's supply of paint, paint materials or compounds shall be allowed within the area of the building, and shall be removed from the job site after each working day.

6.3.3 Fire Extinguisher

The Contractor shall provide as a minimum the number, size, and type of fire extinguisher IAW the latest NFPA 10. The Contractor shall comply with the Installations Fire Chief's policies if they are more stringent than NFPA 10. Fire extinguisher shall remain the property of the Contractor and shall be removed upon completion of the project.

6.3.4 Housekeeping

Accumulations of combustible material shall be removed from the building area on a daily basis.

6.3.5 Handling of Gasoline

Gasoline shall be stored in approved safety containers. Adequate ventilation shall be provided to safely dispose of flammable vapors where flammable liquids are utilized. Gasoline powered equipment shall be refueled away from of the building area.

6.3.6 Notification of Fire

The Contractor shall be familiar with methods for notifying the Installation Fire Department. The Installation's fire poster shall be posted in conspicuous locations and at telephones in construction shacks.

6.3.7 Hot Work Operations

Any hot work operations shall be approved by the 374 CES/CEFP Fire Prevention Section prior to starting. The job site shall be inspected and have an AF Form 592 Hot Work Permit issued. Responsible hot work operation supervisors shall take the following actions:

6.3.7.1 Follow checklist on reverse side of the AF Form 592 Hot Work Permit.

6.3.7.2 Remove combustible material to a safe location.

6.3.7.3 Ensure that adequate fire extinguishers are provided and that one person is designated to operate the extinguisher in the event of fire.

6.3.7.4 Ensure fire detections and suppression systems will not be affected by the operation being performed. Thoroughly inspect the area after operations has been completed to ensure that the area is free of fire hazards caused by the operation.

6.3.7.5 Return AF Form 592 Hot Work Permit to 374 CES/CEFP Fire Prevention Section upon expiration of welding permit or completion of the work.

6.4 Workmanship

6.4.1 General

Unless otherwise indicated or specified, Contractor's work procedures and performance for both design and construction shall comply with the latest applicable specifications and standards listed below, and other requirements as specified herein.

6.4.1.1 Primary Reference Sources:

- A. Unified Facilities Guide Specifications (UFGS): <http://www.wbdg.org/ffc/dod/unified-facilities-guide-specifications-ufgs>
- B. Unified Facilities Criteria (UFC): <http://www.wbdg.org/ffc/dod/unified-facilities-criteria-ufc>
- C. International Building Code (IBC)
- D. Uniform Building Code (UBC)
- E. American Society of Civil Engineer Standard (ASCE)
- F. National Fire Protection Association (NFPA)
- G. National Electrical Code (NEC)
- H. Code of Federal Regulations (CFR)
- I. Air Force Instruction

6.4.1.2 Subsidiary Reference Sources:

- A. Public Building Master Guide Specifications (*Koukyou Kenchiku Kouji Hyoujyun Shiyousho – Kenchiku Kouji-hen, Kikai Setsubi Kouji-hen, and Denki Setsubi Kouji-hen*)
- B. Public Building Repair Guide Specifications (*Koukyou Kenchiku Kaishuu Kouji Hyoujun Shiyousho – Kenchiku Kouji-hen, Kikai Setsubi Kouji-hen, and Denki Setsubi Kouji-hen*)

- C. Guideline for Supervision of Construction Work (*Kenchiku Kouji Kanri Shishin, Kikai Setsubi Kouji Kanri Shishin, and Denki Setsubi Kouji Kanri Shishin*)
- D. Guideline for Supervision of Architectural Repair Work (*Kenchiku Kaishuu Kouji Kanri Shishin, Kikai Setsubi Kaishu Koji Kanri Shishin, and Denki Setsubi Kaishu Kouj Kanri Shishin*)
- E. Japan Industrial Standards (JIS)
- F. Japanese Agricultural Standards (JAS)
- G. Japanese Architectural Standard Specification (JASS)
- H. Japanese Water Work Association (JWWA)
- I. Standard of the Japan Refrigeration and Air Conditioning Industry Association (JRA)
- J. Asphalt Pavement Construction Standard Specification Manual (*Asufaruto Hosou Kouji Kyoutsu Shiyousho-Kaisetsu*)

6.4.2 Existing Works

6.4.2.1 Protect existing vegetation, structures, equipment, utilities, pavement and improvements. Remove or alter existing work in such a manner as to prevent injury or damage to any portions of the existing works which remain. The disassembling, disconnecting, cutting, removal or altering in any way of existing works shall be carried on in such a manner as to prevent injury or damage to all portions of existing work, whether they are to remain in place, re-used in the new work, or salvaged and stored.

6.4.2.2 All portions of existing work which have been cut, damaged or altered in any way during construction operations shall be repaired or replaced in kind in an approved manner to match existing or adjoining work. All work of this nature shall be performed by the Contractor at his expense and shall be as directed by the Construction Inspector. Existing work shall, at the completion of all operations, be left in a condition as good as existed before the new work started.

6.4.2.3 Approval of AF Form 103 Base Civil Engineer (BCE) Work Clearance Request must be obtain at minimum 21-calendar days in advance prior to start of excavation. At Contractor's own risks, scan the construction site with electromagnetic or sonic equipment, and mark the surface of the ground where existing underground utilities are discovered. Verify the elevations of existing piping, utilities, and any type of underground obstruction not indicated or specified to be removed but indicated or discovered during scanning in locations to be traversed by piping, ducts, and other work to be installed. Verify elevations before installing new work closer than nearest manhole or other structure at which an adjustment in grade can be made. Notify the Construction Inspector at least 48 hours prior to starting excavation work.

6.5 Site Protection

6.5.1 Typhoon and Storm Preparations

- A. In order to minimize damage to public properties and prevent personal injury, the following actions will be taken upon declaration of the Tropical Cyclone Conditions of Readiness (TCCOR) described below. The Contractor shall insure that the construction sites are well

prepared for protection from the dangers of heavy rain and strong winds. The Contractor will develop and establish the necessary procedures to be taken for storm preparation and provide in his/her Accident Prevention Plan, Part I, emergency telephone number and addresses where at least 3 officials of the company may be reached and notified in the event that an immediate typhoon alert is declared.

1. TCCOR 3 – (Winds of ≥ 50 knots (58 mph) sustained or gusts ≥ 60 knots are possible within 48 hrs.) is declared, Contractor shall:

i. Clean and remove all loose debris and waste, including scrap wood and metal, empty barrels, and concrete form materials no longer required on the job site, to a safe area for proper disposition.

ii. Secure, tie down, and anchor construction field office and storage facilities, scaffolding, concrete forms and supports, doors, windows, opening covers, stored lumber and other materials, mechanized construction equipment, temporary power line and supports, and other items that may be blown away or might cause injury or damage.

iii. Inspect all excavation and trenching work in progress, and provide necessary temporary drainage and proper protection and shoring for excavation sides and openings in order to prevent damage to public roads and facilities by slides or flooding. Accumulation of water in the excavation of structure foundation work will be controlled and minimized.

2. TCCOR 2 – (Winds of ≥ 50 knots (58 mph) sustained or gusts ≥ 60 knots are anticipated in 24 hrs.) is declared, the work required at remote areas such as off-shore facilities or high elevations will cease immediately and the workers will be evacuated to a safe area. During TCCOR 2, the Contractor will continue the actions described in paragraph 6.5.1.1 above and the construction site will be inspected for storm preparation by the Construction Inspector. The Contractor shall request an inspection by calling the Construction Inspector.

3. TCCOR 1 – (Winds of ≥ 50 knots (58 mph) sustained or gusts ≥ 60 knots are occurring or anticipated within 12 hrs.) is declared, all work will cease immediately and the Contractor's representative shall insure that all necessary storm preparations, including the items listed below, are completed.

i. All electrical circuits and equipment, including temporary power lines, are cut off and secured against unauthorized use.

ii. Gas cylinders, hot work equipment, and flammable materials are properly stored at a safe area.

iii. No igniting source is present.

iv. All workers have been evacuated from the construction site.

When TCCOR 1 is declared without the normal progression through TCCOR 3 and/or 2, the Contractor will take the actions listed in paragraph 6.5.1.1 above, and also follow the procedures described herein.

B. High Winds Warnings - When wind gusts of 55.56 kilometers per hour (km/h) or greater is forecast, the Contractor will be required to perform general area cleanup IAW paragraphs 6.5.1.1.ii and 6.5.1.1.iii above, i.e., to bundle and securely tie or securely cover and weight

small wooden items, to remove and secure lightweight barricades, and to remove loose material from roofs and other high unprotected areas.

- C. Investigation of Typhoon Damage - When TCCOR ALL CLEAR is declared, the Contractor may resume normal activities. The construction site will be investigated for all damage caused by the typhoon or high winds, and the result of the investigation will be furnished in verbal or written form to the Construction Inspector as soon as practicable.

6.5.2 Barricades/Warning Lights

All excavated work areas will be provided with barricades and warning lights.

- A. Barricades shall be at least 900 mm high and will normally be striped with yellow on black. Barricades used at night must be reflective.
- B. Sufficient yellow flashers or electric lamps shall be used at night to mark excavations and areas closed to traffic.
- C. Prominently post bilingual (English and Japanese) "Off Limits", "Wet Paint" and "No Smoking" signs as applicable. Stencil (paint) the signs in black lettering in all capital letters on either 305 mm x 610 mm (1'-0" x 2'-0") or 610 mm x 915 mm (2'-0" x 3'-0") sheet metal or plywood signs. Smoking is prohibited in Government facilities.
- D. Barricades/signage/flags for airfield work must be IAW UFC 3-260-04 and Federal Aviation Administration (FAA) regulation

A.

6.5.3 Government Property

6.5.3.1 Contractor shall at all times protect and preserve Government property within the work area and could be affected by the accomplishment of the work specified and indicated. Also, protect all parties and individuals within or near the work areas that could be endangered by work installation. Protection requirements include protecting the interior of the facility from inclement weather. Any actions necessary to provide adequate protection are solely the Contractor's responsibility. Any temporary boarding of windows or doors shall be painted IAW Installation Design Guide (IDG).

6.5.4 Contractor is required to appropriately secure equipment that remains within the job site against damage or loss. Store equipment that will be removed from the job site shall be IAW drawings and specifications. Temporarily removed equipment must be protected and returned to its equal condition prior to starting work at no additional cost to the Government. Security of reused or removed equipment or material located at the Contractor's temporary storage shall be the sole responsibility of the Contractor.

6.5.5 Contractor shall provide protective barriers for all grass, trees, shrubs, sidewalks, curbs and gutters within the construction boundary. Furthermore, such items, including grass, outside the construction boundary shall also be protected during delivery of materials and/or moving of equipment. Damages caused by the Contractor to existing grounds, plants, pavements, utilities, work by others, fixtures, or furnishings shall be repaired by the Contractor. Such repairs shall be of as good condition as existed before the damaging, unless such existing work is scheduled for removal or replacement by the work requirements of the contract. The site shall be graded to remove all clods and irregularities prior to final inspection and acceptance by the Contractor; the temporary fencing may be required to protect the

site as a part of the responsibility of the Contractor.

6.5.6 In some instances, furniture and portable office equipment in the immediate area shall be moved by the Contractor and returned to its original position upon completion of the work. If the work required by the Task Order will not allow furniture and portable office equipment to be returned to its original position, the CO will designate new locations to the Contractor.

6.6 Delivery and Handling of Materials and Equipment

Delivery and handling of materials and equipment shall be made with a minimum interference to Government operations and personnel.

6.7 Off Limits and Wet Paint Signs

The contractor shall make stenciled 600 mm x 900 mm, "OFF LIMITS" and "Wet Paint" signs made of sheet metal or plywood as required and prominently post these signs at the job site.

6.8 Completion Inspection

6.8.1 Pre-Final Inspection

Government representative, CO, base agencies, end-user and Contractor will conduct a detailed and thorough inspection to identify construction deficiencies and remaining contractual items (such as system operating manuals, spare parts list, as-built drawings and training requirements. Contractor should schedule the Pre-Final Inspection with Government representative 30 days prior. Government representative should compile the list of defects (punch list) which have been identified during the Pre-Final Inspection. A copy of the punch list items shall be provided to the CO as well as the Contractor. Upon receiving the punch list item, Contractor will notify the Government representative the estimated correction date. Contractor shall ensure that all items on this list have been corrected before notifying the Government so that a Final inspection with the customer can be scheduled. Punch list items noted on the Pre-Final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or a particular increment thereof if the project is divided into increments by separate completion dates.

6.8.2 Final Acceptance Inspection

Contractor should schedule the Final Inspection with Government representative as soon as all punch list items have been corrected. When all punch list items have been corrected by the Contractor and Government representative accepts the work as complete. The Contractor, Government representative and CO shall attend this inspection. Final Acceptance would also be the Physical Completion date.

6.9 Notification of Noncompliance

The COR will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the worksite, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the CO may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

6.10 Final Cleaning

The premises shall be left broom clean. Stains, foreign substances, and temporary labels shall be removed from surfaces. Carpet and soft surfaces shall be vacuumed. Equipment and fixtures shall be cleaned to a sanitary condition. Filters of operating equipment shall be replaced. Debris shall be removed from roofs, drainage systems, gutters, and downspouts. Paved areas shall be swept and landscaped areas shall be raked clean. The site shall have waste, surplus materials, and rubbish removed. The project area shall have temporary structures and utility connections, barricades, project signs, and construction facilities removed.

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 01 11 00

DESIGN AFTER AWARD

PART 1 GENERAL

This section lists items that must be submitted for review at various milestones following award of a “Design-Build” task order. For each task order that involves a requirement to perform Design after award, the task order will include specific criteria for the project’s design and construction. The following section is general guidance for design after award and may be adjusted for each task order. The Contractor shall schedule the number and composition of the design submittal phases. Design submittals may be required at the preliminary (60 %) design stage, pre-final (90 %) design stage, and at the final (100 %) design complete stage. The requirements for each design stage are listed hereinafter. The Contractor shall reflect the number and contents of the design submittals in the progress charts.

1.1 Contractor’s Role During Design

The Contractor’s construction management key personnel shall be actively involved during the design process to effectively integrate the design and construction requirements of this contract. In addition to the typical required construction activities, the contractor’s involvement includes, but is not limited to actions such as: integrating the design schedule into the Master Schedule to maximize the effectiveness of fast design and construction (within the limits allowed in the contract), ensuring constructability and economy of the design, integrating the shop drawing and installation drawing process into the design, executing the material and equipment acquisition programs to meet critical schedules, effectively interfacing the construction Quality Control (QC) program with the design QC program, and maintaining and providing the design team with accurate, up-to-date redline and as-built documentation. The Contractor shall require and manage the active involvement of key trade subcontractors in the above activities.

1.2 Design Engineers

When the Government requires in the Task Order, the minimum requirements of the Design Engineers shall be as indicated in the Qualification Matrix below. All design professionals shall have current registration to practice in the United States or Japan; however, there may be particular Task Order(s) involving unique design that specifically requires U.S. Professional Registration. Approval shall be indicated on all documents by having the professional stamp/seal of the architect or engineer with personal signature over same appearing on all sheets as applicable to their specialties.

Experience Matrix	
Area	Qualifications
Architectural	<i>1st Class Kenchikushi</i>
Structural	"1st Class Kouzou Kenchikushi"
Civil	
Mechanical	Graduate Mechanical Engineer with professional registration (<i>Kenchiku Setsubishi</i>) and 5 yrs experience
Fire Protection	For most projects, graduate mechanical, electrical or related engineering discipline with <i>Kou-Syu Shoubou Setsubishi</i> certification and minimum of 5-year experience in fire protection engineering that can be verified with documentation. For any projects requiring major fire protection design, the scope of work for specific task

	order will require design to be certified by a registered Professional Engineer who has passed the Fire Protection Engineering examination administered in the U.S. by the National Council of Examiners for Engineering and Surveys (NCEES).
Electrical	Graduate Electrical Engineer with professional registration and 5-year experience or <i>Class 3 Denki Shunin Gijutsusha</i>

1.3 Design Engineer Identification

The Contractor shall, for each Task Order, identify a Design Engineer for each design area. All design disciplines shall be accounted for by listed Design Engineers. The Contractor shall submit to the COR a list of the Design Engineers for each design area along with their proposal for each task order.

1.4 Design Engineer Responsibilities

Each Design Engineers shall be responsible for ensuring integrity of their design and design integration in all construction submittals and extensions to design developed by others, such as the Contractor, subcontractors or suppliers. Each Design Engineer shall review and approve all construction submittals and amendments to design during execution of work. Each Design Engineer shall be responsible for responses to Requests for Information (RFI), applicable to their area of design responsibility. Each Design Engineers shall sign-off on all RFI responses under their discipline. Each Design Engineer shall stamp, sign, and date all design drawings and reports under their responsible discipline at each design submittal stage and all submittals under their responsible discipline, IAW the submittal review procedures.

1.5 Task Order Requirements

This specification section provides general submittal requirements, however, specific design submission requirements may vary with each task order based on schedule and level of development of the design provided in the FOPR. Task Order specific design submission requirements shall be specified in each task order. Design submittals must comply with all requirements stated in the Task Order. In the event of any conflict between the Task Order criteria, the criteria set forth in the contract and the Contractor's submittals, the Task Order criteria will govern.

1.6 Design Conferences

1.6.1 Pre-Performance

As part of the pre-performance conference conducted after the task order award, key representatives of the Government and the Contractor will review the design submission and review procedures specified herein, discuss the preliminary design schedule and provisions for phase completion of the "Design-Build" documents with construction activities (fast tracking), as appropriate, meet with Government Design Review personnel and key Using Agency points of contact and any other appropriate pre-design discussion items.

1.6.2 Design On-Board Review (OBR) Conferences

OBR conferences will be held on base for each design submittal. The Contractor will be responsible for making the OBR conference agenda and will bring the personnel that developed the design submittal to the OBR conference. The OBR conferences will take place the week after the Contractor provided written response to the comments made by the Government.

1.6.3 Conference Records

The Contractor shall within three (3) working days after each conference or discussion, either telephonic or in person, prepare a written record of the meeting and/or discussions and furnish a copy (in electronic format and hard copy) to the COR or Project Engineer identified in the individual task order. The written report shall include the project name, contract number, subject, name of the participants, an outline of discussions, recommendations, and conclusions. Number each written record for the particular project under design in consecutive order.

1.7 Mailing of Design Submittals

1.7.1 Mailing

Mail all design submittals to the Government during design and construction, using an overnight mailing service, unless otherwise directed by the Government. The Government will furnish the Contractor addresses where each copy shall be mailed to after award of the task order. The submittals shall be mailed to task order specific locations.

1.7.2 Transmittal Letter

Each design submittal shall have a transmittal letter accompanying it indicating the date, design percentage, type of submittal, list of items submitted, transmittal number and point of contact with telephone number.

1.8 Government Review Comments and Timelines

1.8.1 Government Review

The following are timelines generally provided for each task order. Each task order may deviate from the following timelines. After receipt, the Government will be allowed 14 calendar days to review and comment on each design submittal, except as noted below. The Government will review design submittal in 14 calendar days to ensure all comments from previous design submittal were incorporated. Each submittal will include a cover document which lists all Government comments on previous submittal, how the comments were addressed by the Contractor citing page numbers, specifications or drawings where changes were made.

For each design review submittal, Project Engineer will furnish the Contractor comments from the various design sections and from other concerned agencies involved in the review process. The review will be for conformance with the technical requirements of the FOPR and the Contractor's proposal. If the Contractor disagrees technically with any Government comment(s), Contractor must provide feedback during the design OBR conference, clearly outlining the reasons for rejecting comments with ample justification. These conferences will take place approximately the week after the 14 day review period.

The Contractor is cautioned that if he/she believes the action required by any comment exceeds the requirements of this contract, that the Contractor should take no action and notify the CO in writing immediately. All comments must be mutually resolved by the Government and the Contractor prior to finalizing the design.

1.8.2 Post review conference action

Copies of comments, annotated with comment action agreed on, will be made available to all parties before the conference adjourns. Unresolved problems will be resolved by immediate follow-on action at the end of OBR conferences. Valid comments will be incorporated. After the Government receives final (100 %) corrected design documents incorporating all backcheck comments, the contractor may proceed with site and building development activities within the parameters set forth in the contract and accepted design submittal. The Government, however, reserves the right to disapprove design document submittals if comments are significant (in the opinion of the Government, it does not comply with the contract documents nor the level of quality implied).

1.8.3 Responsibility

Regardless of Government review and comment on design submittals, the Contractor shall be responsible for compliance with all requirements of the FOPR and accepted Proposal. Should any non-compliance be discovered during design and/or construction, the Contractor shall be responsible for providing corrective action at no additional cost and/or time impact to the Government in order to comply with the requirements of the FOPR and Accepted Proposal.

1.8.4 Late Design Submittal

If a design submittal is over one (1) day late IAW the latest design schedule, the Government review period may be extended 7 days. The review conference will be held the week after the new period. Submittal date revisions must be made in writing at least one (1) week prior to the affected submittal schedules.

1.8.5 Contractor Actions

The disposition of each Government review comment must be clearly annotated. Merely stating “concur” or “will comply” is not considered an adequate indication of actions taken.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 Sequence of Design-Construction

3.1.1 After receipt of Notice to Proceed (NTP); the Contractor shall initiate design, comply with all design submission requirements, and obtain Government review of each submission. No construction may be started until the Government reviews the Final Design submission and determines it satisfactory for purposes of beginning construction. The CO will notify the Contractor when the design is cleared for construction. The Government will not grant any time extension for any design re-submittal required when, in the opinion of the Government, the initial submission failed to meet the minimum quality requirements as set forth in the Contract.

3.1.2 The Contractor should submit draft submittal register and construction schedule the 90% design stage. Submittals for any materials that have a long lead time for delivery can also be submitted for approval at this time. The Government will approve or disapprove any materials submittals during subsequent design review conference subject to the condition that there will be no major changes from then until final design. The Contractor shall be responsible for any costs associated with ordering materials prior to approval of final design if that item or quantity ordered becomes redundant subsequently.

3.1.3 If the Government allows the Contractor to proceed with limited construction based on pending minor revisions to the reviewed Final Design submission, no payment will be made for any in-place construction related to the pending revisions until they are completed, resubmitted and are satisfactory to the Government.

3.2 General Design Submittal Requirements

The Contractor shall follow the requirements outlined below for all submittals. Each individual task order awarded under this contract may require greater or less information than the general design requirements.

3.2.1 Metric / English Requirements

All work shall be designed (drawings, specifications and design analysis) in the Metric System International (SI), unless indicated otherwise in Task Order Scope of Work. Combination of English and Metric will not be permitted.

3.2.2 Design Analysis, Drawings, and Specifications

Use standard 8 ½ x 11 inch paper except that larger sheets may be used when required. All sheets shall be in reproducible form. Margins at all sides shall be 1 inch minimum to permit side binding and head to head printing.

3.2.2.1 Design Analysis

The material shall be submitted in an electronic format or save on a compact disk (CD).

3.2.2.1.1 Organization

The design analysis shall be sequentially numbered and shall have a cover indicating the contract number, task order number, project number and project title. The design analysis shall be further classified by the submittal stage.

3.2.2.1.2 Design Computations

Design computations shall include, architectural, civil, structural, mechanical, electrical, and other load calculations.

- A. Calculations are a part of the design analysis: When they are voluminous, bind them separately from the narrative part of the design analysis. Present the design calculations in a clean and legible form incorporating a title page and index for each volume. Furnish a table of contents which shall be an index of the indices, when there is more than one volume. Identify the source of loading conditions, supplementary sketches, graphs, formulae, and references. Explain all assumptions and conclusions. Calculation sheets shall carry the names or initials of the computer and the checker and the dates of calculations and checking. No portion of the calculations shall be computed and checked by the same person.
- B. Automatic Data Processing Systems (ADPS): When ADPS are used to perform design calculations, the design analysis shall include descriptions of the programs used and copies of the ADPS input data and output summaries. When the computer output is large, it may be divided into volumes at logical division points. Precede each set of computer printouts by an index and

by a description of the computations performed. If several sets of computations are submitted; they shall be accompanied by a general table of contents in addition to the individual indices. Include the following in the description accompanying each set of ADPS printouts:

1. The design method including assumptions, theories and formula
2. Applicable diagrams, adequately identified
3. All necessary explanations of the computer printout format, symbols and abbreviations
4. Adequate and consistent notation
5. Sufficient information to permit manual checks of the results

3.2.2.2 Drawings

Prepare all drawings utilizing Computer-Aided Design and Drafting (CADD) software so that they are well-arranged, placed for ready reference and they present complete information. Drawings shall be complete, unnecessary work such as duplicate views, notes and lettering, and repetition of details shall not be permitted. Do not show standard details that are not applicable to the project, and minimize unnecessary wasted space. Do not include details of standard products or items, which are adequately covered by specifications on the drawings. Each design discipline shall provide a complete list of abbreviations and symbols used in their respective drawings. The use of abbreviations are for use when space is limited within a drawing sheet, otherwise it is recommended the all the words are spelled out versus using abbreviations. Detail the drawings such that conformance with the FOPR may be checked and to the extent that shop drawings may be checked. Do not use shop drawings as design drawings. CADD drawing files shall be formatted with the 374 CES format in DXF, DGN and DWG file format.

3.2.2.3 Specifications

- A. UFGS which are the master guide specifications issued by the WBDG, are available web site. WBDG is a computer based criteria information system that may be accessed at Internet address. <http://wbdg.org/index.php>. An automated specification processing system SPECSINTACT to prepare construction project specifications from the master guide specifications is also available. SPECSINTACT is distributed on TECHINFO <http://www.hnd.usace.army.mil/techinfo/>. The Contractor is responsible for ensuring that they are using the latest versions of applicable guide specifications for submitting marked-up and final specifications as required by the individual FOPR. If, during the execution of task order, any discrepancy is noted in the versions of specifications used for design, the contractor shall correct it at no additional cost to the government.
- B. Federal Specs and MIL Specs have been phased out with a few exceptions. Only those Federal and MIL specs in the current editions of the UFGS may be used. U.S. Industry standards (ASTM, ANSI, UL) should be used to the greatest extent practicable for description of materials. Japanese Industry Standards (JIS, JAS, and etc.) will be acceptable, if the adequate documentation proving that the Japanese Industry Standards are comparable to the U.S. Industry Standards. When there is no standard spec, if possible specify items by a performance description. Use trade names only when absolutely necessary and then only when the product's salient physical, functional, or other characteristics are included in the specification. Always use the words "or approved equal" in connection with trade names. If the design is based on a specific product, the specification shall consist of the important features of the product. The specification shall be detailed enough such that another product meeting the specification could be substituted and it would not adversely

impact the project. If the Contractor chooses to execute the construction method or using materials/products other than those prescribed in the guide specifications, the method/materials/products shall be specified accordingly in the specifications. The Government reserves right to disapprove the altered specification regarding the construction method/materials, when such method/materials/products are found to perform less than those of the guide specifications.

- C. Submittal Register: A Contractor submittal register indicating the submittal requirements during the construction phase must be prepared during the design phase of the contract. Attach a submittal register to the specifications for the submittal requirements. The Contractor shall be responsible for listing all required submittals necessary to insure the project requirements are complied with. The Register shall identify submittal items such as shop drawings, manufacturer's literature, certificates of compliance, material samples, guarantees, test results, etc. that the Contractor shall submit for review and/or approval action during the life of the construction contract. The Submittal Register is subject to review and approval together with specifications.

3.3 Design Development Submittal (60 %)

The review of this submittal is primarily to insure that the contract documents and design analysis are proceeding in a timely manner and that the design criteria are being correctly interpreted.

3.3.1 The submittal shall consist of the following

- A. Design analysis, developed to 60 %.
- B. Drawings –Layout Plan, Sections, Elevation, Diagrams, etc. per index from concept design
- C. Detailed Specifications
- D. Annotated review comments from concept design – if applicable

3.3.2 Submittal Requirements

The 60 % Submittal shall contain as a minimum, the following design discipline requirements:

3.3.2.1 Architectural Requirements

3.3.2.1.1 Design Analysis:

- A. Project Scope
- B. Complete Code Analysis including life safety and ADA Accessibility
- C. Description of systems and their insulating values (foundation, floor, wall, etc.)
- D. Design narrative of functional space relationships, as well as circulation...
- E. Structural Requirements to include the followings:
 - 1. Technical references (codes, manuals, directives)

2. Design criteria (dead, live and seismic loads)
3. Gravity and lateral framing system (primary and secondary members and seismic bracing)
4. Miscellaneous analysis supporting architectural, civil, mechanical and electrical disciplines
5. General notes & calculations, code analysis, soils data, design live loads, wind loads, snow loads, lateral earth pressure loads, seismic loads, material specifics etc.
6. Computer analyses used

F. Anti-terrorism / Force Protection Requirements

3.3.2.1.2 Drawings and Design Information:

- A. Floor plans
- B. Enlarged floor plans as necessary
- C. Roof plan
- D. Exterior elevations
- E. Exterior and interior wall sections
- F. Building cross sections
- G. Schedules – Door, Window, Room Finish and Hardware, etc. – Listing size, types and other related information.
- H. Reflected ceiling plan
- I. Equipment lists and layout
- J. Wall sections and details
- K. Doors and Windows details
- L. Structural Interior Design (SID)
- M. Comprehensive Interior Design (CID) package (system furniture, tables and chairs, etc.)
- N. Structural Requirements
 1. Foundation Plan & Schedule
 2. Structural Steel Framing Plan
 3. Floor/ceiling framing plan of support areas
 4. Layouts of expansion, construction of control joints showing dimensions

5. Roof framing plan
6. Wall section through foundations, floors and roof framing with dimensions
7. Sections and details on footings and member sizes of anchor bolts, bearing plates and reinforcing, etc.
8. Details on crack control and construction joints
9. Column connection details
10. Framing member, column, beam and truss schedules as applicable

O. Anti-terrorism / Force Protection Requirements

3.3.2.2 Civil Requirements

3.3.2.2.1 Design Analysis:

- A. Description of Site Conditions
- B. Technical references (codes, manuals, directives)
- C. Foundation report and recommendations
- D. Fire Protection analysis of existing water distribution system
- E. Product selection and cut sheet information
- F. Site Design / Earthwork narrative with thorough discussion of site grading, earthwork, soil classifications, compactive effort, testing/inspection, site issues, geofabric materials, and structural sections. Provide rationale for locating major site elements.
- G. Calculations
- H. Drainage stormwater routing
- I. Paving narratives and criteria
- J. Underground utilities narratives and all point of connection information. Analysis of the existing systems and new work requirements.
- K. Traffic volume and type
- L. Geotechnical report and design analysis
- M. Anti-terrorism / Force Protection Requirements

3.3.2.2.2 Drawings and Design Information:

- A. Location and Vicinity Map
- B. Site Plan with typical section cuts and pavement cuts
- C. Grading Plan w/ contour lines at 0.5 m intervals
- D. Show new and existing storm drain lines and inlets
- E. Utility Plan showing all utilities and associated products, (cleanouts, manholes, fire hydrants, etc.)
Show all new work in association with the site survey.
- F. Utility and storm drain profiles / details
- G. Locations of borrow and spoil areas
- H. Soils boring logs & Subsurface investigation site plan
- I. Anti-terrorism / Force Protection Requirements

3.3.2.3 Mechanical Requirements

3.3.2.3.1 Design Analysis:

- A. Plumbing design analysis: system narratives with thorough discussion of domestic water, rainwater, sewer and vent piping systems. Include proposed material descriptions, sizes and equipment.
- B. Air Conditioning and heating design analysis: system narratives with thorough discussion of piping systems, materials, pump curves, equipment and cut sheets. To include the following calculations:
 - 1. Cooling and heating loads
 - 2. Energy Budget
 - 3. Piping size
 - 4. Terminal unit calculations and selections
 - 5. Head loss calculations and selections
 - 6. Steam and condensate main anchor and expansion
 - 7. Equipment sizing calculations and selections
- C. Ventilation design analysis: system narratives with thorough discussion of the building mechanical room ventilation, and miscellaneous building exhaust systems. Equipment selection and cut sheets.
To include the following calculations:
 - 1. Static pressure for mechanical room fan and miscellaneous exhaust systems.

2. Sizing calculations and equipment selections of toilet exhaust fans and all mechanical room air distribution louvers, diffusers, registers and grilles.
- D. Detailed calculations for compressed air piping, compressors and receivers
- E. Detailed calculations for vacuum piping, vacuum pumps and receivers
- F. Gas piping, container gas piping and tanks.
- G. Fire Protection Requirements to include the followings:
1. Prepare a comprehensive fire protection design analysis
 2. Provide description of overall fire protection systems
 3. Describe sprinklers, nozzles, foam generators, control, foam concentrates and proportioning
 4. Detailed analysis of water supply systems and demand
 5. Hydraulic calculations using recognized fire protection software
 6. Catalog information for equipment intended for use (fire pumps, jockey pumps, foam tanks, etc.)
 7. List all references used in the design to include Japanese codes and standards
- H. Anti-terrorism / Force Protection Requirements
- 3.3.2.3.2 Drawings and Design Information:
- A. Mechanical equipment and fixture schedules
- B. Plumbing layout plans
- C. Heating, Air conditioning, and Ventilation (HVAC) layout plans and system diagrams w/ details
- D. Mechanical room layout plans
- E. Plumbing isometrics / details / diagrams
- F. Seismic bracing details
- G. Utility layout plans
- H. Control diagrams and schematics
- I. Elevator / lift controls, plans, capacity, locations, and equipment
- J. Fire Protection System Plan to include the followings:
1. Water supply line sizing, equipment and riser layout

2. Room hazard classification
3. Respective design density and floor area coverage
4. Identification of flow zones and control valve switches
5. High Expansion Foam equipment room floor plans
6. Chemical / Gaseous System plans

K. Anti-terrorism / Force Protection Requirements

3.3.2.4 Electrical Requirements

3.3.2.4.1 Design Analysis

- A. Describe the existing electrical distribution system and the changes to be made to the existing system to accommodate the project. Scope of new work to be performed
- B. Provide the electrical characteristics (phase, voltage, ratings) of the power connection point and the system components to be installed.
- C. Provide load analysis to size all major equipment: transformers, main service, panels, feeders, etc.
- D. Provide details on the grounding systems to be utilized: lightning protection, conductors, electrodes, receptacles, bonding locations, etc.
- E. Description of lighting systems and calculations, fixture catalog cuts
- F. Special design items such as seismic design requirements, UPS, generators, etc.
- G. Communication system to include the followings:
 1. Describe the existing system and the changes to be made to the existing system to accommodate the project. Scope of new work to be performed
 2. Provide the system characteristics and criteria such as the number of pairs of telephone cables, conduit size, connection point to the existing system, new hand holes or spare conduits to be installed.
 3. Describe the primary protector for lines at the service entrance
 4. Description of system components such as the type of cables, outlets and patch panel
 5. Describe Special Systems: LAN System, Public Address System, Program Clock system, Base Fire Reporting System (transponder, antenna), etc.
- H. Anti-terrorism / Force Protection Requirements

3.3.2.4.2 Drawings and Design Information:

- A. Exterior lighting plan
- B. Electrical one-line diagram / Details
- C. Grounding plan and layout
- D. Site Plan: feeders, transformers, telecommunications and cable service entrances,
- E. Fixture schedules
- F. Cathodic Protection Systems
- G. Receptacle and lighting layouts
- H. Locations of panelboards, switchboards, switchgear, motor control centers and all other utilization equipment
- I. Special Systems: Communications and cable
- J. Lighting and panel schedules
- K. Communication system to include the followings:
 - 1. Exterior plan
 - 2. One-line diagram / Details
 - 3. Site Plan: Telecommunications and cable service entrances, and points of connection
 - 4. Equipment schedule
 - 5. One-line diagram for other special systems such as: Public Address System, Program Clock system Base Fire Reporting System (transponder, antenna), etc.
- L. Fire Protection System Plan to include the followings
 - 1. Fire Alarm System Plan one-line diagram showing panels, initiating devices and indicating devices and zoning.
 - 2. Location and rating of fire resistive construction such as occupancy separations, area separations, exterior walls, shaft enclosures, corridors, stair enclosures, exits, etc. Location of alarm devices should be by NFPA 72.
 - 3. Location of fire detection systems components and other major fire protection equipment
 - 4. All fire suppression system electrical components
- M. Anti-terrorism / Force Protection Requirements

3.4 Pre-final design Submittal (90 %)

The review of this submittal is to insure that the design is IAW directions provided the Contractor during the design process. Contractor shall submit the following documents for Final Design Review:

- A. Design analysis, developed to 90 %
- B. Drawings to 90 %
- C. Specifications
- D. Annotated Review Comments
- E. Draft Submittal Register
- F. Construction Schedule

3.4.2 General Requirements

A substantial number of comments generated by the Government or comments indicating that constructability and/or compliance with the Task Order is not apparent in this submittal shall constitute grounds for the requirement of another, more complete 90 % design submittal.

3.4.2.4 Design Analysis

The design analysis submitted for the 90 % design review submittal shall be in its final form. The design analysis shall include all backup material previously submitted and revised as necessary. All design calculations shall be included. The design analysis shall contain all explanatory material giving the design rationale for any design decisions that are not obvious to reviewers for the Final Drawings and Specifications.

3.4.2.5 Drawings

The Contract Drawings submitted for the 90 % design review submittal shall include the drawings previously submitted which have been revised and completed as necessary. The Contractor is expected to have completed all of his coordination checks and have the drawings in a design complete condition. The drawings shall be complete at this time including the incorporation of any design review comments generated by the Preliminary design review. The drawings shall contain all the details necessary to assure a clear understanding of the work throughout construction. Shop drawings will not be considered as design drawings. All designs shall be shown on design drawings prior to submittal of shop drawings.

3.4.2.6 Specifications

The Draft Specifications on all items of work shall be submitted for the 90 % design review submittal. Specifications shall be printed with mark-ups to show proposed changes to the UFGS. The mark-up can be done by using the SPECTSINTACT revisions feature.

3.4.2.7 Annotated Review Comments

Contractor shall provide all annotated review comments from the 60 % submittal review.

3.4.3 Submittal Requirements

Submittal requirements below are in addition to requirements outlined in the 60 % submittal requirements.

3.4.3.4 Architectural Requirements

3.4.3.4.2 Drawings and Design Information

- A. Comprehensive Interior Design Package should be complete
- B. Details
- C. Finish / Door / Color schedules
- D. Structural Requirements to include the followings:
 - 1. Provide final soil bearing calculations
 - 2. Design stresses of structural materials
 - 3. Foundation Sections and Details
 - 4. Framing Details

3.4.3.5 Civil Requirements

3.4.3.5.2 Drawings and Design Information

- A. Sampling and Analysis Plan (SAP)
- B. Field Sampling Plan (FAP)
- C. Quality Assurance Program Plan (QAPP)
- D. Demolition Work / Disposal Plan
- E. Dust Control Plan
- F. Schedule of proposed demolition work
- G. Temporary Erosion and Pollution Control Plan
- H. Site Design / Earthwork
- I. Asphalt Paving / Concrete Paving to include mix design and strength requirements

3.4.3.6 Mechanical Requirements

3.4.3.6.2 Drawings and Design Information

- A. Final temperature control design drawings and calculations
- B. Plumbing Drawings include all piping & details, (domestic, runoff, waste, vent, air, gas, etc.)
- C. Air Conditioning and Heating Drawings include all piping & details to include thermostats and other equipment
- D. Ventilation System Drawings include all mechanical room systems and ductwork
- E. Final Hydraulic calculations used
- F. Complete drawings of piping, devices, and details.

3.4.3.7 Electrical Requirements

3.4.3.7.2 Drawings and Design Information

- A. Calculations of service size IAW NEC
- B. Zonal Cavity Lumen Method lighting levels for interior spaces
- C. Point by point lighting calculations for all exterior areas
- D. Short circuit currents at distribution panels to lighting and appliance panelboards
- E. Voltage drop calculations
- F. Receptacle and lighting layouts with associated one line diagrams and / or power riser. Provide conductor quantities and sizes.
- G. Power Plan
- H. Special Systems: communications and cable with outlets and one line diagram
- I. Details of lighting poles, transformers, power line connections, manholes and handholes
- J. Equipment schedules to include lamp types, quantity, voltage, mounting, power requirements, manufacturer and catalog number.
- K. Site Plan: matches civil plan
- L. Fire Protection panel locations, devices, and details

3.5 Final Design Submittal (100 %)

This submittal is to insure that the design incorporates the government review comments. This submittal shall be submitted in a digital format (in Microsoft compatible CDR) as well as hard copies, and shall include the following:

- A. Design analysis

- B. Drawings
- C. Specifications
- D. Annotated 90 % Review Comments
- E. Submittal Register

3.6 Deviation from the Accepted Design

Contractor must obtain the approval of the Design Engineers and the Government's concurrence for any Contractor proposed revision to the professionally stamped and sealed and Government reviewed and concurred design, before proceeding with the revision.

- A. The Government reserves the right to non-concur with any revisions to the design, which may impact furniture, furnishings or equipment selections or operations decisions that were made, based on the reviewed and concurred design.
- B. Any revisions to the design, which deviates from the contract requirements (i.e., the FOPR and the accepted proposal), will require a modification with concurrence of the Government. The Government reserves the right to disapprove such a revision.
- C. Unless the Government initiates a change to the contract requirements, or the Government determines that the Government furnished design criteria are incorrect and must be revised, any Contractor initiated proposed change to the contract requirements, resulting in additional cost, shall strictly be at the Contractor's expense.
- D. The Contractor shall track all approved revisions to the reviewed and accepted design and shall incorporate them into the as-built design documentation, IAW agreed procedures. The Designer of Record shall document its professional concurrence on the as-built for any revisions to the stamped and sealed drawings and specifications.

3.7 Interior Design

Interior designs will be developed as a complete and coordinated part of the building design, expressing the users' functional and aesthetic needs. Interior materials and finishes will be selected by the Government. Selection will be based on the anticipated use, fire and other safety requirements, life cycle cost, maintainability, and suitability for the environment being created.

3.7.2 Color selection

A range of exterior and interior paint colors used in military construction projects will be limited to a practical facilitate maintenance. Color selections should be coordinated with the installation design guide. Color selection will be included as part of each project design and incorporated into the contract drawings and specifications.

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 01 78 00

CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.1 As-Built Drawings

- A. Submit a complete Geo-Referenced AutoCAD 2010 DWG or newer AutoCAD file format as-built and PDF document. The coordinate system shall be based on the Universal Transverse Mercator (UTM) zone 54 north projection. This projection/coordinate system is based on the 1984 World Geodetic Survey (WGS 1984). As an alternative as-built drawings can be based in Japan Geodetic Datum 2011 (JGD 2011) zone 9. Vertical coordinates shall be included. Reference datum and coordinates systems used shall be clearly identified. The AutoCAD drawing must follow the CAD standards from the latest DoD A/E/C standard. The A/E/C standard can be provided by the Government or downloaded from USACE website at <https://cadbim.usace.army.mil/default.aspx?p=a&i=7&t=1>

(If a project is related to the inside of a facility, then no Geo-Reference is required)

- B. Three copies of the AutoCAD as-built drawing file and PDF document will be delivered with each copy on a separate disk including a listing of each drawing file on the disk and a second listing of each layer and the contents of each layer for every drawing. Assure the accuracy of all on-site revisions and contract modifications by initialing and coordinating each alteration with the construction inspector.

1.1.1 Working As-Built and Final As-Built Drawings

Changes from the contract plans which are made in the construction work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes. Final as-built drawings shall be prepared after the completion of each definable feature of work. The working as-built marked prints and final as-built drawings will be jointly reviewed for accuracy and completeness by the 374 CES Engineers and the Contractor. The actual location, kinds and sizes of all sub-surface utility lines shall be properly described. In order that the location of lines and appurtenances shall be indicated by offset dimensions to two permanently fixed surface features and the end of each run including each change in direction. Valves, splice boxes and similar appurtenances shall be located by dimensioning along the utility run from a reference point. The average depth below the surface of each run shall also be recorded.

1.1.2 Drawing Preparation

The as-built drawings shall be modified as may be necessary to correctly show the features of the project as it has been constructed by bringing the contract set into agreement with approved working as-built prints, and adding such additional drawings as may be necessary. These working as-built marked prints shall be neat, legible and accurate. These drawings are part of the permanent records of this project and shall be returned to the Government after approval by the Government. Any drawings damaged or lost by the Contractor shall be satisfactorily replaced by the Contractor at no expense to the Government.

1.1.3 Computer Aided Design and Drafting (CADD) Drawings

Only personnel proficient in the preparation of CADD drawings shall be employed to modify the contract drawings or prepare additional new drawings. Additions and corrections to the contract drawings shall be equal in quality and detail to that of the originals. Line colors, line weights, lettering, layering conventions, and symbols shall be the same as the original line colors, line weights, lettering, layering conventions, and symbols. If additional drawings are required, they shall be prepared using the specified electronic file format applying the same graphic standards specified for original drawings. The title block and drawing border to be used for any new final as-built drawings shall be identical to that used on the contract drawings. Additions and corrections to the contract drawings shall be accomplished using CADD files. The electronic files will be supplied on compact disc, read-only memory (CD-ROM) The Contractor shall be responsible for prepare all program files and hardware necessary to prepare final as-built drawings. The Government will review final as-built drawings for accuracy and the Contractor shall make required corrections, changes, additions, and deletions.

1.2 Other Documents

The Contractor shall provide following requirements upon requested by the Government:

1.2.1 Mechanical Testing, Adjusting, Balancing, and Commissioning

Prior to final inspection and transfer of the completed facility; all reports, statements, certificates, and completed checklists for testing, adjusting, balancing, and commissioning of mechanical systems shall be submitted to and approved by the CO as specified in applicable technical specifications.

1.2.2 Operation and Maintenance Manuals

Operation manuals and maintenance manuals shall be submitted as specified in the Task Order Statement of Work. Operation manuals and maintenance manuals provided in a common volume shall be clearly differentiated and shall be separately indexed. Spare parts list shall be attached with maintenance manual.

1.2.3 Field Tests

Field-testing shall be performed in the presence of the Construction Inspector. The contractor shall furnish all materials, labor, and equipment necessary to conduct field tests. The contractor shall perform all tests and inspections recommended by the manufacturer unless specifically waived by the Construction Inspector. The contractor shall maintain a written record of all tests, which includes date, test performed, personnel involved, devices tested, serial number and name of test equipment, and test results. All field test reports will be signed and dated by the contractor. Upon completion and testing of the installed system for performance, disinfection, and other field tests, test reports shall be submitted in booklet form showing all field tests performed to adjust each component and all field tests performed to prove compliance with the specified performance criteria. Each test report shall indicate that final position of controls.

1.2.3.1 Safety

Contractor shall provide and use safety devices such as rubber gloves, protective barriers, and danger signs to protect and warn personnel in the test vicinity. Contractor shall replace any devices or equipment, which are damaged due to improper test procedures or handling.

1.2.3.2 Operating Tests

After the installation is completed, and at such time as the Construction Inspector may direct, the contractor shall conduct operating tests for approval. The equipment shall be demonstrated to operate IAW the requirements herein. Each device subject to manual operation shall be operated at least five times, demonstrating satisfactory operation each time.

PART 2 PRODUCTS

2.1 Real Property Documentation: Contractor will complete a DD Form 1354 for each task order. A draft DD Form 1354 must be submitted at the 100 % design submittal stage. At the final inspection, an interim DD Form 1354 must be submitted showing all facility features and quantities. The costs shall be as close as possible. Within 30 days of task order financial closeout, the final DD Form 1354 must be submitted, updated to reflect all final costs.

PART 3 EXECUTION (NOT USED)

END OF SECTION