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SECTION 00 74 01

SPECIAL CONDITIONS (NAU)
02/26

PART 1 GENERAL

1.1 PAYMENT

Separate payment will not be made for compliance with this or any other Division 00 or Division 01 specification.

1.2 DEFINITIONS

The following terms are used throughout the contract documents. Except where a definition is provided with a specific context, the following definitions apply.

a. Betterment. Any offer by the contractor, whether submitted as part of their proposal prior to award or as part of a deliverable after award which conforms to and exceeds the provisions of the contact. A betterment offered prior to award becomes binding upon award of the contract. After award, a betterment offered becomes a binding contract requirement upon acceptance by the Government of the document proposing the betterment, whether specifically identified as such or not. Proposed betterments submitted after award must meet or exceed any betterments offered prior to award which were accepted as part of the award.

b. Host Nation (HN). The country where the construction work is being performed.

c. Host Nation Language. The Official Language recognized by the national government of the country where the work is performed. If no Official Language has been designated, it is the predominant language of the Government agency or organization responsible for operation and maintenance of the facility or product constructed under this contract. Where multiple Official Languages have been designated, this term refers to all such languages.

1.3 ORDER OF PRECEDENCE

1.3.1 Precedence Between Contract Provisions

In the event of conflict or inconsistency between any of the provisions of this contract, precedence will be given in the following order:

1. Clause 5152.236-9011, if that clause is part of this contract.

2. Any portions of the accepted proposal that both conform to and exceed the provisions of the solicitation (Betterment submitted prior to award).

3. Any portion of a contractor provided deliverable (including, but not limited to, plans, specifications, engineering studies and analyses, shop drawings, equipment installation drawings) that conforms to or

exceeds the provisions of the contract (Betterment submitted after award).

4. Clause 52.236-21 Specifications and Drawings (Alt I). For the purposes of determining precedence, the contract will be interpreted as follows with regards to items which are considered to be within the intent and meaning of "drawings" and "specifications":

   a. Sections starting with "00", including these Special Conditions. Any "00" specification section titled "Supplemental Conditions for Projects in (Country)" takes precedence over this Section.

   b. Section 01 00 00, including Section 01 11 00 Statement of Work (Summary of Work or Scope of Work) if included in the contract.

   c. All Other Specification Sections.

   d. Referenced Technical Standards (such as NFPA, UFC, ASTM, DIN). Refer to Section 01 30 01 GENERAL REQUIREMENTS, paragraph REFERENCED STANDARDS for additional information.

   e. Referenced Design Guides or other non-technical standards.

   f. Drawings.

   g. All other attachments to the contract, including Host Nation Technical Requirements and References.

1.3.2 Amendments and Modifications

When a document is amended (prior to award) or modified (after award), the most current document takes precedence, to the extent noted above.

For example, an modification to a drawing takes precedence over an amendment to a drawing which takes precedence over the original drawing. However, the specifications continue to take precedence over the drawing, whether or not they have been revised.

1.3.3 Conflicting Requirements Within Documents of the Same Order of Precedence

If documents of the same Order of Precedence contain conflicting requirements, the more stringent requirement governs. A conflict does NOT exist when both requirements can be met; comply with both requirements.

Submit questions regarding interpretation of "more stringent" to the Contracting Officer. When requesting interpretation:

a. Identify the specific conflicting requirements in detail. Simply indicating two documents conflict is not sufficient.

b. Explain why all requirements cannot be met.

c. Indicate any differences in cost or performance time between the conflicting requirements.

d. Identify whether the contractor has a preferred or recommended solution. If none is provided, this will be considered an indication no preference exists.

The contractor is responsible for providing the Government sufficient information timely to make a determination as to the "more stringent" criteria to apply.

1.3.4 Minimum Requirements

The contract documents identify the minimally acceptable requirements.

1.4 IMMUNITY FROM LEGAL PROCESS

The Contractor agrees to indemnify and save harmless the United States Government against all claims and suits of whatsoever nature arising under or incidental to performance of this contract by any subcontractor against the United States Government.

The Contractor further agrees to waive their rights to bring suit or other legal action against the United States Government, except as provided in the "Disputes" clause of this contract and in the United States Federal Statutes.

1.5 UNSOLICITED CHANGE PROPOSALS

Whenever the contractor proposes to change the work required by the contract, whether to add or subtract from the work requirements, and the work will have an impact on the price or time to perform the work, unless that change has been specifically requested in writing via a Request for Proposal (RFP) from a Contracting Officer or, if appointed on this contract, an Administrative Contracting Officer, the proposal must be submitted either:

1. as a Value Engineering Change Proposal in accordance with FAR clause 52.248-1 Value Engineering.

2. as a Request for Equitable Adjustment (REA) under DFARS 252.243-7002 Requests for Equitable Adjustment or a claim under FAR 52.233-1 Disputes.

The Government does not intend to respond to any other "request" for a Construction Change Order or proposal submitted by the contractor.

Refer to Specification Section 01 33 00 SUBMITTAL PROCEDURES, paragraph DEVIATIONS, SUBSTITUTIONS, AND VARIATIONS for proposed changes which have no impact on the price or time to perform the work.

1.6 DOCUMENTS IN MULTIPLE LANGUAGES

If this contract includes documents in English and additional languages, the translations are provided as solely as a courtesy.

For all purposes, the English language version governs and controls.

1.7 COMMUNICATION IN ENGLISH

1.7.1 English Speaking Representative

Personnel required to communicate with the Government on a recurring basis, including all personnel identified in 01 45 05 CONTRACTOR PERSONNEL REQUIREMENTS (NAU), must be fluent in the English language. This includes

the ability to speak, read, write, and understand the directions of the Contracting Officer or their designated representatives.

At all times when work is being performed onsite, the contractor must ensure at least one person who is fluent in the English language is onsite. Failure to comply with this requirement is considered a life-safety issue.

1.7.2 Correspondence And Documentation

In addition to clause 252.225-7041, the Contractor must prepare all documents related to this contract, to include, change proposals, shop drawings, submittals, quality control reports, computations, and all correspondence, in the English language or with a translation of the original document into English. This includes all attachments and reference documents prepared by the contractor, subcontractor, supplier, or manufacturer.

1.7.3 Translations for Disputes

All documents originally produced in a language other than English submitted either as (a) part of a Request for Equitable Adjustment (REA), (b) part of a claim under the Disputes clause or (c) as part of litigation, including actions at the ASBCA or actions in U.S. courts, must be translated into English by a person who is recognized in accordance with the appropriate authorities to produce official/certified translations, and said translations so certified. Identify the translator and provide proof of qualifications when providing translated documents.

Documents must be translated in their entirety. Any translations made utilized artificial means, such as an internet or other computer translation must be specifically identified and the software/tool/website identified. The person responsible for the translation must be identified.

This requirement applies to any document that would normally be considered to be within the scope of discovery in an ASBCA or court proceeding concerning the dispute. The term 'documents' includes electronic documents including but not limited to e-mail and includes documents generated by subcontractors or suppliers. In the event a dispute results in litigation, including actions at the ASBCA or actions in U.S. courts, the contractor will be responsible for providing translations of any documents that are within the scope of a discovery request filed by the U.S. Government and for providing certified translations upon request by the U.S. Government.

The contractor bears sole responsibility for any costs associated with translation, as well as with any errors, omissions, or discrepancies between the original and English version of a document. In the event of differences between the English version and any other version in any language, the English version governs.

1.7.4 Language Fluency

Personnel required to communicate with the Government must be competent in the English language at a minimum level B2 of the Common European Framework of Reference for Languages: Learning, Teaching, Assessment.

The Contracting Officer has the right to determine, without appeal of such decision, whether the proposed representative has sufficient technical and lingual capabilities. The contractor must immediately replace any

individual not acceptable to the Contracting Officer.

1.8 CONTRACTOR WORKFORCE

1.8.1 Third Country Workers

The contractor may arrange, through the appropriate Host Nation Government (HN) offices, to bring into the country nationals of third countries (TCN) having diplomatic relations with the host nation for purposes of employment in carrying out this contract work.

The contractor is solely liable and responsible for timely and complete submittal of the necessary information and forms directly to the appropriate HN agency for the required customs clearances, passports, visas, licenses, or permits.

The contractor is responsible for the sponsorship of its employees and their dependents. Process said permits directly with the appropriate HN agency. The HN reserves the right to limit access to designated security areas and refuse entry or employment of specified individuals, or to require their departure from the country, in accordance with national or local law and practice.

The U.S. Government does not have influence over and does not warrant the availability of labor. The Contractor is cautioned to review any additional information specified elsewhere in this contract for more stringent requirements or specific restrictions or limitations on the use of foreign workers.

1.8.2 Communications with Onsite Workers

If personnel identified in 01 45 05 CONTRACTOR PERSONNEL REQUIREMENTS (NAU) are not able to communicate directly with any worker on site at any level (contractor, subcontractor, supplier, etc.) in the workers native language, the contractor must provide a qualified interpreter.

The interpreter must be physically present on site whenever that worker is present. The interpreter must communicate directly in the worker's native language and translate all information accurately in real time, without assistance from other individuals, software, automated tools, or any form of chain translation. Failure to comply will be considered a life safety issue.

1.9 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

List of Required HN Permits
Approved Permit

SD-11 Closeout Submittals

HN Final Acceptance

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 DESIGN AND DESIGN RELATED WORK

3.1.1 Requirement for Designs

Notwithstanding any language regarding the type of contract, design and design related activities are included in the scope of work for this contract. These include extensions of design, requirements to provide "engineered solutions" or similar language, studies or investigations, and preparation of shop drawings. This and similar effort necessary or required to perform the work and comply with other technical requirements are considered "contractor prepared designs".

This work is part of this contract and the contractor is required to perform all work necessary to complete this effort. No separate or additional payment will be made for the performance of this effort.

3.1.2 Performance Requirements

This contract includes performance requirements or otherwise provides criteria such as operating parameters, sequences of operation, or coordination of equipment or systems, which may require the contractor to perform design or design related tasks. Additional effort may also be required where the contractor is required to identify, size, select, prepare and submit for review or approval equipment and materials. The contractor is required to perform all efforts necessary to accomplish this effort as part of the contract.

3.2 SITE ACCESS

3.2.1 General Access Requirements

The Contractor is responsible for obtaining access and adhering to all guidelines established by the local authorities for access to the work site and will be responsible for the daily access of their personnel and subcontractor workers.

The Contractor is cautioned to review any additional security guidelines specified elsewhere in this contract for more stringent requirements or specific access conditions.

3.2.2 Work on Military Installations (General)

When work is performed on a military installation, every employee of the prime contractor, all subcontractor employees, and all material suppliers' employees, who require access to the installation for any reason and for any length of time will be required to obtain installation/base access.

All personnel, vehicles, and equipment are subject to search when entering or leaving the installation and at any time while on the installation. Entry of any individual onto the installation constitutes consent to being searched. The contractor must notify their personnel, to include

subcontractors and suppliers of this.

Individuals who will be performing work onsite for five or more days in total - even if non-consecutively - must obtain an installation/base pass and may not be "signed in" or otherwise presented as a "visitor". Failure to comply with this requirement may result in the loss of sign-in privileges and/or loss of installation access.

All installation/base passes issued for work under this contract must be returned by the contractor to the issuing office upon completion of the contract work or upon termination of employment.

3.2.3 Access to Operational Areas

Contractor personnel are expressly prohibited from entering operational buildings or areas without specific prior authorization of the Contracting Officer. To perform work where "security escorts" are required, coordinate with the Contracting Officer for access to such areas at least 30 calendar days in advance.

3.3 CONTRACT EXECUTION IN THE HOST NATION

3.3.1 Contractor Obligation

Contractors are responsible for timely and complete submittal of the necessary information and forms directly to HN agencies for any and all required customs clearances, passports, visas, licenses, or permits.

3.3.2 Access to Areas Under Military Control

The laws of the Host Nation (HN) may prohibit access to certain areas of the country which are under military control. Clearances to access these areas must be obtained from the HN. It is understood that areas to which rights of entry are provided by the HN are to be used only for work carried out under the contract. Destruction or damages must be not caused, except through normal usage, without concurrence of the HN.

3.3.3 Contractor Responsibility

The Contractor is responsible for providing the necessary information (such as but not limited to, names of personnel, type, and amounts of equipment, dates and length of time required at the site, and purpose of entering the HN) to the appropriate HN representatives, both civilian and military.

The following items are the sole responsibility of the Contractor to investigate and assume the risk, as normally encountered by Contractors. The Contractor is responsible for determining the effect of the following on their own cost of performance of the contract and for including sufficient amount in the contract price:

a. Official language and type of accounts required to satisfy the officials of the Local Government.

b. Entry and exit visas, residence permits, and residence laws applicable to aliens. This includes any special requirements of the Host Government, including those required by local Labor Offices, which the Contractor may have to fulfill before an application for visas will be accepted.

c. Passports, health and immunization certificates, and quarantine clearance.

d. Compliance with local labor and insurance laws, including payment of employer's share of contribution, collecting balance from employee and paying into insurance funds.

e. Strikes, demonstrations, and work stoppage.

f. Collection through withholding and payment to local Government, of any HN income tax on employees subject to tax.

g. Arranging to perform work in the HN, to import personnel, to employ non-indigenous labor, to receive payments and to remove such funds from the country.

h. Operating under local laws, practices, customs and controls, and with local unions, in connection with hiring and firing, mandatory wage scales, vacation pay, severance pay, overtime, holiday pay, days of rest or other non-work days, legal notice or pay in lieu thereof for dismissal of employees, slowdown and curtailed schedules during religious holidays, and ratio of local labor employed in comparison to others.

i. Possibility of claims in local bureaus, litigation in local courts, or attachment of local bank accounts.

j. Compliance with workmen's compensation laws and contributions into funds. Provisions of necessary medical service for Contractor employees.

k. Special license required by the local Government for setting up and operating any manufacturing plant in the HN, e.g. concrete batching, precast concrete, concrete blocks, etc.

l. Sales within the HN of Contractor-owned materials, and equipment.

m. Special licenses for physicians, mechanics, tradesmen, drivers, etc.

n. Identification and/or registration with local police of imported personnel.

o. Stamp tax on documents, payments and payrolls.

p. Base passes for permanent staff, day laborers, motor vehicles, etc.

q. Compliance with all customs and import rules, regulations and restrictions, including, but not limited to, local purchase requirements.

3.3.4 Archaeological and Historical Sites

Comply with all archeological laws and work accordingly, including stopping work in the vicinity and reporting should archeological items be uncovered during the course of this contract.

3.4 CONTRACTOR LIAISON AND COMMUNICATION WITH HOST GOVERNMENTS

Communication by the Contractor with officials, representatives and offices of the HN Government at any level in matters pertaining to the work performed as part of this contract must be through and in full liaison with the Contracting Officer. This does not relinquish Contractor responsibility for obtaining routine items to conduct day-to-day business, such as visas, permits, and custom clearances.

Directions, suggestions, recommendations or similar requests received from HN Government officials do not constitute either a change to the contract nor direction to proceed with a change to the contract as contemplated in contract clause 52.243-4. Notify the Contracting Officer, in writing, of any such request and request direction if compliance with the request may result in a cost or time impact to the contract.

3.5 PERMITS AND NOTIFICATIONS

3.5.1 General

Prepare all documentation required for HN permitting and notification in the language(s) required by the HN. Submit documentation in accordance with HN requirements; either directly to the appropriate HN authority or through the Contracting Officer when the contractor is not permitted to provide the documents directly.

Where U. S. Government signature is required, provide an English version of the relevant document(s).

The contractor must provide the required documentation sufficiently in advance of the date any approval or permit is required. The contractor is solely responsible for determining the amount of time the HN authorities will require to review and process the documentation. No additional time will be granted for delayed approval or rejection of contractor prepared documents.

3.5.2 Contractor Obtained Permits

The contractor must obtain all permits not identified as to be obtained by the U.S. Government. Obtain permits in accordance with FAR 52.236-7, Permits and Responsibilities. As incorporated herein, the requirements of FAR clause 52.236-7 extend to licenses, permits, and compliance with applicable Host Nation (HN) and local laws, codes, and regulations in connection with the prosecution of the work. The contractor is responsible for identifying and providing a comprehensive List of Required HN Permits.

Furnish a copy of each Approved Permit to the COR within 5 workdays of receipt of the permit.

3.5.3 Government Obtained Permits

Where the U.S. Government is required to obtain permits in accordance with Host Nation (HN) agreements, the Government will notify the contractor who must prepare all necessary documentation. This includes providing documentation to show compliance with permit requirements.

3.5.4 HN Final Acceptance

Where final acceptance by the HN is required, the Contractor will

coordinate with the HN Government, in conjunction with the U.S. Government, to determine the requirements for proper final inspection by the HN and provide any information required for final acceptance.

Submit the HN Final Acceptance documentation once approved by the HN.

The contractor is responsible for incorporating requirements for final acceptance into contractor prepared designs and construction performed as part of this contract.

3.5.5 Third Party Inspection Requirements

If, as a condition of any permit or to comply with HN laws, codes, and regulations, inspections by third parties are required, the contractor is responsible for ensuring those inspections are conducted and documented. The contractor is be solely responsible for any and all costs associated with these inspections, including the actual inspection and any additional work or rework identified as part of the inspection process, to include the replacement of any materials or equipment determined to be not in compliance by the inspector.

No adjustment in the contract price or duration will be made based on events arising from these inspections, unless a delay occurs which is completely beyond the control and without the fault of the contractor.

These requirements are in addition to and separate from any requirements for any other inspections identified in the contract.

3.6 PAYMENT FOR MATERIALS PRIOR TO INSTALLATION

Payment may be made to the Contractor for materials delivered on the site provided all of the following conditions are met:

a. The contract includes FAR 52.232-5(b) Payments Under Fixed Price Construction Contracts.

b. Materials must be major high cost, long lead, special order, or specialty items, not susceptible to deterioration or physical damage in storage. Materials not acceptable for payment include consumable materials such as nails, fasteners, conduits, gypsum board, glass, insulation, and wall coverings.

c. Documentation (e.g. Purchase Orders or Material Contracts) establishing their value (e.g. paid invoices) and that the title requirements of the clause at FAR 52.232-5 Payments Under Fixed-Price Construction Contracts have been met.

d. Materials must be specifically and separately identified in the contractor's schedule. Refer to paragraph "Equipment and Material Fabrication and Delivery (Stored Materials)" in Section 01 32 01 PROJECT SCHEDULE (NAU) for schedule requirements.

e. Materials must be adequately insured and protected from theft and exposure. The Contractor must provide insurance documentation (e.g. Builder's Risk Insurance) which covers the overall value of the materials to be paid in advance of installation.

f. Materials to be considered for progress payments prior to installation must be stored at the project site and adequately secured

from theft or damage. Materials or equipment stored off-site are not eligible for payment.

The government does not commit to authorizing or allowing costs for any stored materials, even if requested by the contractor.

3.7 RESTRICTIONS ON PAYMENT SUBMISSIONS

Reference is made to clause 52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS. Due to financial cutoff periods, the Government will not accept any progress payments submitted between the last 5 work days of a given month and the first 3 work days of the following calendar month (second month). Invoices submitted during this time will not be considered "received" as described in the reference clause until the 4th working day of the second month.

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05/24

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SECTION 00 74 02

TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER (NAU)
05/24

PART 1 GENERAL

1.1 DETERMINATION OF UNUSUALLY SEVERE WEATHER

This specification prescribes the procedures to be used on this contract for determination of time extensions for "unusually severe weather" in accordance with the contract clause 52.249-10 "Default: (Fixed Price Construction)".

In order for the Contracting Officer to award a time extension for "unusually severe weather" under this clause, all of the following conditions must be satisfied:

a. The weather experienced at the project site during the contract period must exceed the weather which could reasonably be anticipated based on a minimum of 25 years of historical weather data.

b. The weather must actually cause a delay to the completion of the project or any specified contractual milestone beyond that which would reasonably be anticipated based on the contractors means and methods. The delay must result from events which are beyond the control and without the fault or negligence of the Contractor.

c. The delay must occur during the contractual performance period.

1.2 MINIMIZING WEATHER IMPACTS

The contractor is responsible for identifying and implementing the means and methods to minimize the overall impact of weather during the contract period.

The means and methods and sequencing of work will impact the extent to which the work is sensitive to or may be impacted by the weather.

Separate payment will not be made for any costs associated with mitigating the impacts of weather.

1.3 INCORPORATION IN PROJECT SCHEDULE

The Contractor's project schedule must reflect reasonably anticipatable weather in weather dependent activities. The Contractor is solely responsible for identifying anticipated weather days based on the activities scheduled during a given time period and the means and methods of executing the work.

Activities in the project schedule must be assigned to a calendar with anticipated weather days shown as non-work days. Acceptance of the contractors schedule will not be considered acceptance of the reasonableness or validity of the number of anticipated weather days.

1.4 WEATHER CONDITIONS AT THE PROJECT SITE(S)

The Government makes no representation of the actual weather conditions to be expected at the site. No inference or conclusion regarding actual or anticipated weather conditions or weather delays may be made based on any information included in the contract documents.

The Contractor, prior to submitting a proposal or offer, must be determine the actual weather conditions prevalent at the project site or sites and accounting for this information in their proposal or offer.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 REPORTING

Record on the QC Report (refer to Section 01 45 00 QUALITY CONTROL (NAU) the occurrence of weather and resultant impact to normally scheduled work. Impacted activities must be identified by name and activity id on the QC Report.

3.2 OCCURRENCE OF ACTUAL DELAY

To be considered a day of actual weather delay, progress on critical path activities must be less than 50 percent of the progress scheduled to occur on that day, and the progress must be impacted due solely to the weather.

The delay must be recorded in accordance with paragraph 3.1: failure to provide this information at the time of the preparation of the QC Report will be considered an acknowledgement that no delay existed, however reporting on the QC Report will not automatically be considered concurrence by the Government that delay occurred and it was due solely to the weather.

Failure to make adequate preparations for weather or to adequately protect the work from reasonably anticipatable weather will not be considered an impact due solely to weather.

3.3 CALCULATION OF DELAY AND CONVERSION TO CALENDAR DAYS

Any adjustment in the contract period of performance resulting from unusually severe weather will be based upon the weather over a minimum period of six months.

The contractor must provide documentation to substantiate the actual weather was "unusually severe" based on a minimum of 25 years of historical weather data, the critical path was impacted as a result, and the actual impact to the critical path could not have been prevented through reasonably prudent measures.

As part of this documentation, the contractor must substantiate the reasonableness of anticipated weather days included in the schedule as discussed in paragraph 1.3 INCORPORATION IN PROJECT SCHEDULE. Failure to substantiate the reasonableness of the anticipated weather days may result in a determination the contractor failed to adequately plan and execute the work in a manner consistent with the requirements of the contract, and the delays were not due to "unusually severe weather".

Include a detailed listing of all weather days occurring from the Notice to Proceed through the date of the request and show a cumulative net impact to the performance period exceeding that which could be anticipated based on the aforementioned 25 years of historical weather data.

Any calculation performed within RMS-CM under the "Weather Delays" screens of the QA/QC Module may not serve as the basis for determining the amount of adjustment required.

3.4 ISSUANCE OF MODIFICATION

If the contractor can substantiate an impact to the completion date of the project based on actual "unusually severe" weather as described herein, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the contract clause 52.249-10 entitled "Default (Fixed Price Construction)".

3.5 DELAYS OUTSIDE STANDARD WORK DAYS

Weather delays occurring prior to Notice to Proceed, during non-working days, and after the required completion date are not excusable under the Defaults clause.

When the contract performance period, or any extension thereof, has passed, no extensions for unusually severe weather will be granted. This applies as well to any interim milestone or completion date.

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SECTION 01 30 01

GENERAL REQUIREMENTS (NAU)
12/25

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Pre-Construction Documentation;
Mobilization Plan; G
Environmental Protection Plan; G
Traffic Control Plan; G
Construction Fence/Screening; G
Temporary Construction Plan; G

SD-03 Product Data

Hazardous Materials; G

SD-11 Closeout Submittals

Weekly Status

1.2 DEFINITIONS

The following definitions apply to terms as used in the Division 01 specification sections.

Fugitive Dust. Solid particles generated by the forces of wind or machinery acting upon materials exposed as a result of the contractors operations

Installation. The entity considered to be the legal owner or authorized user of the location of the construction work.

Project. A "Project" is a single task or delivery order under an Indefinite Delivery, Indefinite Quantity award, including Job Order Contracts (JOC's) and Multiple Award Task Order Contracts (MATOCs). For all other contracts, it refers to a single contract award.

Superintendent. The highest level manager responsible for the overall construction activities on a project, including quality and production. The Superintendent maintains a physical presence at the site at all times work is being performed and is responsible for all construction and related activities at the site, except as otherwise acceptable to the Contracting Officer.

Site. The location where construction work physically occurs. On a single project, when construction work occurs at more than one location, and the locations are geographically separated by more than 5 kilometers (as measured via travel distance), they are considered separate sites.

1.3 NO WAIVER BY GOVERNMENT

The failure of the Government, in any one or more instances, to insist upon the strict performance of any of the terms of this Contract does not constitute a waiver or relinquishment to any extent of the right to assert or rely upon such term on any future occasion.

1.4 PROPRIETARY NAMES

Unless identified in the contract as a Sole Source Item, manufacturer's proprietary names indicated for colors, textures and patterns of materials are for the purpose of color, texture and pattern selection only. Other materials are acceptable provided they closely approximate colors, textures and patterns indicated.

Any substitutions must conform to all other requirements and must be approved as a variation in accordance with Section 01 33 00 Submittal Procedures.

1.5 PUBLIC RELEASE OF INFORMATION

1.5.1 Prohibition

No public release of information, documents, or photographs concerning any aspect of the materials or services relating to this project without the prior written approval of the Contracting Officer is authorized.

1.5.2 Subcontracts and Purchase Orders

The Contractor agrees to insert the substance of above paragraph "Prohibition" in each subcontract and purchase order generated for this contract.

1.6 PERSONNEL AND SUBCONTRACTORS

1.6.1 Removal for Non-Compliance

All Quality Control, Safety, Superintendents, and contractor/subcontractor personnel are subject to dismissal and removal at any time based on the sole discretion of the Contracting Officer for non-compliance with the contract requirements.

Furthermore, the Contracting Officer 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 is acceptable as the subject of claim for extension of time for excess costs or damages by the Contractor.

1.6.2 Substitution and Replacement

Any in-house personnel, subcontractors, and outside associates or consultants identified in the Contractor’s proposal may not be replaced or

changed without the Contracting Officer's prior written consent.

1.6.3 Qualifications

When qualifications require experience or “related experience”, the experience must be on projects of the same type and nature as the work identified in the project scope of work, and be on contracts with the government of the United States of America, either with the US Army Corps of Engineers or Department of Defense agencies. References and experience must be sufficiently detailed to allow for verification of experience. The Contracting Officer has final authority on determining the relevance of any experience submitted.

1.6.4 Employment

Should the continued employment of any person in connection with this contract, or any subcontract hereunder, be deemed by the Contracting Officer to be prejudicial to the interests of the Government, that person must immediately be removed from the work site. In this connection the Contractor agrees that:

a. Cases which may involve disciplinary action against such persons, or the necessity of reassignment or termination of their services, will be investigated, processed, reported and disposed of, as directed by the Contracting Officer.

b. Employment contracts of all persons employed in connection with this contract or any subcontract hereunder must include clauses containing the substance of this section.

1.7 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2024) Safety -- Safety and Occupational Health (SOH) Requirements
EP 310-1-6b	(2006) Sign Standards Manual, VOL 2, Appendices

1.8 REFERENCED STANDARDS

1.8.1 Version and Date of Standard

The contract documents make various references to Host Nation and US standards, including Unified Facilities Criteria (UFC) and design guides. When a specific version (e.g. "UFC x-xxx-xx, with Change yy") or date is identified in the reference, that specific version of the reference will apply. Where no date or version is specified, the version applicable to the contract will be the earlier of either:

1. The date of the initial Request for Proposal (RFP) or solicitation. The date of the initial RFP for an individual task order establishes the requirements for that task order.

2. The date identified on the title page of Section 01 11 00 Statement of Work.

Generic language, such as "the most recent version" or "the most current version" must be interpreted as indicated above.

1.8.2 Host Nation Standards

Where reference is made in the contract to Host Nation Standards, for example the Deutsches Institut für Normung e.V. (DIN; in English, the German Institute for Standardization) and The European Committee for Standardization or Comité Européen de Normalisation (CEN) (EN Standards), whether such standards are incorporated into the contract in full text or by reference, the standard applies only to establish a technical standard or level of performance or quality and does not create substantive rights under the contract.

All costs required to comply with these standards are included in the contract price, including the performance of any additional work, such as “associated” and “special” tasks. Notwithstanding any language in any standard, the requirement to provide any necessary material, item of equipment or work, rests with the contractor unless another contract provision explicitly states that such will be government furnished.

When referenced standards within the same Order of Preference are in conflict with each other (such as when a US Standard conflicts with a European or Host Nation standard within the same specification section), Host Nation Standard governs unless otherwise specified within the contract documents. A conflict does not exist when standards require separate methods or performance and both are achievable. In these situations, comply with both standards.

1.8.3 Equivalency of References

Where the contract allows for Host Nation standards to be used in lieu of a specific US Standard, but does not specifically identify by name or title the standard being referenced, the contractor must identify the specific Host Nation standard and show the equivalency of the standard.

1.8.4 Copies of Standards and Referenced Documents

The contractor is responsible for keeping on site, either in printed or electronic copy, all standards and references identified in this contract and required to execute the work. Access to electronic depositories through internet enabled devices is acceptable to meet this requirement.

At any time, the Government may request a copy of the standard or reference, in the English language, be provided to its representatives. If no English language version exists, the contractor is responsible for providing an English translation prepared by an individual or company who's primary purpose is to provide translation services.

No payment will be made for any costs associated translations, obtaining, or maintaining access to the standards and references.

1.9 PRECONSTRUCTION CONFERENCE

Prior to commencement of any work at the site, meet with the Contracting Officer to discuss and develop a mutual understanding relative to the

administration of the contract, including quality and safety programs, preparation of the schedule of prices or earned value report, shop drawings, and other submittals, scheduling programming, and prosecution of the work. Major subcontractors who will engage in the work must also attend.

1.10 PARTNERING

To most effectively accomplish this contract, the Government requires the formation of a cohesive partnership within the Project Team whose members are from the Government, the Contractor and their Subcontractors. Key personnel from the Supported Command, the End User (who will occupy the facility), Subject Matter Experts, the Installation, the Contractor and Subcontractors, and the Designer of Record will be invited to participate in the Partnering process. The Partnership will draw on the strength of each organization in an effort to achieve a project that is without any safety mishaps, conforms to the Contract, and stays within budget and on schedule.

Each participant bears their own costs for meals, lodging, and transportation associated with the Partnering sessions.

The Contracting Officer will provide information on the Partnering Process and a list of key and optional personnel who should attend the Partnering meeting.

1.10.1 Informal Partnering

The Contracting Officer will organize the Partnering Sessions with key personnel of the project team, including Contractor personnel and Government personnel.

The Initial Partnering session should be a part of the Pre-Construction Meeting. Partnering sessions will be held at a location determined by the Contracting Officer. The Partners will determine the frequency of the follow-on sessions, at no more than 3 to six month intervals.

1.11 ELECTRONIC MAIL (E-MAIL) ADDRESS

Establish and maintain electronic mail (e-mail) capability along with the capability to open various electronic attachments as text files, pdf files, and other similar formats. The Government will use the e-mail address provided with the contractors offer/proposal for electronic communications from the Contracting Officer related to this contract. The Contracting Officer may also use e-mail to notify the Contractor of base access conditions when emergency conditions warrant, such as terrorist threats.

It is the Contractor's responsibility to make timely distribution of all Contracting Officer initiated e-mail with its own organization including field office(s). Promptly notify the Contracting Officer, in writing, of any changes to this e-mail address.

1.12 ELECTRONIC DOCUMENTATION

1.12.1 Use of RMS-CM

Refer to Section 01 45 01 RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM) (NAU) for use of RMS-CM. RMS-CM will be used to maintain electronic

records for this contract, including:

- Serial Letters
- Transmittals and Submittals
- Requests for Information (RFI's)
- Quality Control Documentation including QC Reports, Three-Phase Inspection Checklists
- Schedules
- Meeting Minutes
- Proposals for Changes and Modifications, including Claims and Requests for Equitable Adjustment (REAs)

Documents stored in RMS-CM will be considered the official record copy. Additional requirements may be identified in other specifications.

1.12.2 Use of Digital Signatures

Electronically generated records must include a digital signature which can be validated as being applied to the document by the person(s) indicated.

Image files which can be placed by anyone with access to the file are unacceptable as digital signatures.

1.12.3 Format of Documents

Except where indicated otherwise, submit documents in Adobe Portable File (.pdf) and native format.

1.13 HOURS OF WORK

1.13.1 Normal Work Hours

Unless specified elsewhere in the contract, normal work hours are 0800 through 1700, Monday through Friday, excluding US and Host Nation holidays. Work outside of these hours may not be performed without prior written approval of the Contracting Officer.

1.13.2 Work Outside of Normal Hours

Work outside of normal hours may be granted for the sole benefit of the contractor. Submit requests to perform work outside of normal hours to the Contracting Officer or their authorized representative via serial letter at least 3 work days in advance.

Denial of requests to work outside of normal hours and delays occurring during work outside of normal hours are not subject to an adjustment in the contract duration or amount.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 CONTRACT DRAWINGS

Upon award and request, provide printed, hard copies of the following documents to the Contracting Officers Representative:

a. One (1) full-size set of the awarded drawings

b. One (1) half-size set of the awarded drawings

c. One (1) copy of all other award documents, including specifications, and special specifications.

The above identified documents are separate from and in addition to any hard copies of any documents generated by the contractor as referenced in 01 33 00 SUBMITTAL PROCEDURES.

3.2 VIDEO AND PHOTOGRAPHIC DOCUMENTATION

Coordinate with the Contracting Officers Representative for installation specific permissions or permits which may be required prior to taking any photographs or videos on site. Contractor personnel taking photos or videos may be required to attend installation specific training prior to being authorized to take photos or videos.

Individuals or groups of individuals who take photographs or videos without prior approval may be detained and the medium(s) used to record the photographs or videos confiscated and destroyed. No compensation will be made for any equipment so confiscated. Additionally, these personnel may have their access to the installation revoked.

3.2.1 Format

All image and video files must be submitted in their original, unedited format.

a. Images: All photos must be taken in the JPEG format with EXIF information recording, at a minimum, the date and time (original and digitized), image dimensions and resolution. All images must be a minimum of 1800 x 1200 pixels with a resolution of at least 72dpi and 24 bit color depth.

b. Videos: Videos must be recorded in MP4 format at a minimum resolution of 1920 x 1080 pixels and a frame rate of at least 24 frames/second.

3.2.2 Naming and Identification

Use a consistent naming structure for all images and videos. Coordinate the with the COR and approved prior to submitting any images or videos.

Photos must be accompanied by a site plan identifying locations and direction of photograph. Supplemental geotagging images with GPS coordinates is acceptable but is not required.

Videos must include corresponding information either via titles or audio to document where the video was taken. Examples include direction of camera and location of image (e.g. facing north east from southwest corner of building location), or room number and direction (e.g. Room 204, E-S-W walls).

3.2.3 Pre-Construction Documentation

No more than two weeks prior to the start of on-site activities, document via video or still images the entire existing site conditions prior to any

construction activity. For projects including renovation of existing structures, all areas of every room where work will occur, to include hallways, must be documented.

3.2.4 Ongoing Work

Make relevant digital images or videos of ongoing work during every site visit by the CQCSM to document the work inspected and areas visited.

All work which is to be covered up, whether outside (such as underground utilities) or inside (such as above ceiling or behind walls) which cannot be readily seen or accessed after the performance of follow-on work, must be visually documented prior to closure. The documentation must be sufficiently detailed to show compliance with all required aspects of the work.

Include the files in their native package as part of a document package associated with the QC Daily Report for the day they were taken. Document with before and after images all items identified as deficient or requiring correction/re-work.

3.2.5 Weekly Status

At least once a week, provide a comprehensive set of images or video documenting the status of construction across the entire site. The quantity and level of detail must be sufficient to document all ongoing work and conditions across the entire site.

Provide as a separate submittal for each week of construction. Item naming in the submittal register will be: "Construction Status Images - Week of (first and last days of week) Month, Year". For example "Construction Status Images - Week of 13-19 June 2020." Use the same day of the week (Sunday, Monday, etc.) throughout the project.

3.3 MOBILIZATION PLAN

Prior to performing any demolition or construction work, the Contractor must have an approved Mobilization Plan. Mobilization to the job site according to this plan must begin no later than the start of the first onsite work, excluding surveys. This mobilization plan must include, where applicable:

a. Fencing, gates and doors

b. Storage and working areas

c. Material and tool storage structures and locations

d. Sanitary and personnel containers (including all on-site contractor provided facilities)

e. Connected loads in kW

f. Site lighting plan

g. Parking spaces for employees and Government personnel

h. Any other specific installations and systems, including but not limited to any temporary construction cranes

3.4 PROJECT SIGN

Within 7 calendar days of mobilization to the project site, furnish and erect two signs: a project identification sign and an on-the-job safety sign. The signs will generally be required to follow the graphic formats described in EP 310-1-6b as described in Attachment A to this specification. All typography is flush left and rag right, upper and lower case with initial capitals only as shown.

These two signs are to be displayed side by side and mounted for reading by passing viewers. Exact placement location will be designated by the Contracting Officer’s Representative. Maintain the signs in good condition throughout the project construction period and on completion of the project remove the signs.

These signs are in addition to any other signs required by the Host Nation or installation authorities. In some locations, a project identification sign differing from the format shown in Attachment A will be required; the contractor must confirm the appropriate signage requirements prior to mobilization. No signage other than that required by this specification or by the Host Nation will be allowed without written approval of the Contracting Officer.

3.5 TRAFFIC CONTROL

3.5.1 Haul Routes

Coordinate the work under this contract with the authorities having jurisdiction over the streets and obtain approval from HN authorities for their use where required..

Locate and construct of new haul routes, and/or upgrade existing roads to carry anticipated construction traffic in coordination with the HN Government and local authorities.

It is the sole responsibility of the Contractor to obtain local authorizations, permits, and licenses necessary, and to perform any maintenance, repairs, or restoration required by the installation and HN authorities.

3.5.2 Road Obstructions and Closures

Roads may not be obstructed or closed without prior written approval from the appropriate authorities and approval of a written Traffic Control Plan.

Provide detours, barricades, warning signs, pavement markings, directional signs and instructions, warning lights, and flag persons as required during the performance of the work under this contract, when roads are required to be closed or traffic restricted due to construction operations. Remove temporary features when their use is no longer required and the roadway restored to the same or better condition as prior to the start of construction.

3.6 CONTRACTOR PROVIDED FACILITIES

3.6.1 Contractor Offices

Provide all facilities as may be necessary for the purposes of

construction work. The location, construction, maintenance, operation and removal of the Contractor’s buildings, shops, storage areas and other facilities at the project site is subject to the approval of the Contracting Officer.

The Contractor is solely responsible for obtaining areas other than those specifically identified on the drawings.

3.6.2 Site Facilities

Maintain temporary on-site office for contractor personnel, including an adequate break room and portable toilet facilities. Maintain in a sanitary condition.

Include space for the Contracting Officer to conduct on-site meetings with the Contractor, in addition to any Government facilities identified elsewhere in the contract.

3.6.3 Wireless Internet Access Point

Subject to the limitations in FAR 52.204-25 Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment, provide a wireless access point for the use of Government personnel in the performance of their duties.

Access must be available from mobilization through demobilization and within all exterior areas in the line of sight to the contractors on-site offices. Wireless must operate at IEEE Standard 802.11ac (Wi-Fi 5) or higher and may not be connected to any Government network. Internet connections must provide a minimum of 100 Mbps (download) and 50 Mbps (upload).

The passwords and passphrases for all network devices and network access must be changed from their default values. Passwords must be a minimum 15 characters with at least one uppercase letter, one lowercase letter, one number and one special character.

3.6.4 Construction Fence/Screening

For projects involving exterior work, erect a screen type fence, minimum 2 meters high, around the entire job site perimeter before construction begins. Where the project involves work in multiple areas, or where the exterior work is performed in limited areas, fencing is only required around the areas where exterior work is being performed. Fence any contractor site or storage facilities in a similar manner. Submit a plan (drawing)of the proposed location(s) of fencing prior to erection of any fence/screening.

Signage must be either pictographs or bilingual signs in English and the HN language. Secure fencing at top and bottom to prevent access and screen fences with opaque screening material to prevent visibility inside the fenced area. Stake and/or anchor fences and screens to prevent blowing over during high wind conditions.

Replace or repair all fences and screening sections that have damage or develop unsightly rips or holes. It is strictly forbidden to install advertisement signs and/or logos along the construction site fence. At the end of the work or when exterior work requires it, remove temporary fencing.

3.6.5 Maintenance of Construction Site

Maintain grounds within the contract boundaries according to the installation standards and regularly mow grass.

Collect and dispose of all trash and waste material, including construction debris and excess soils from the work areas and from the mobilization area in a manner complying with all local laws. Locate temporary trash collection containers in compliance with the contract documents, and installation procedures. No separate payment will be made for the cost, fees or permits required for the removal, transportation and disposal of materials.

3.6.6 Storage Areas

Store all materials, equipment, and supplies in accordance with the more stringent of the manufacturer’s regulations, EM 385-1-1, and Host Nation codes.

Protect materials which are stored out-of-doors. Unless specifically authorized by the government, no materials may be stored in open areas exposed to the elements.

The Contracting Officer may direct the removal of any items which are stored improperly. If the government allows for payment of stored materials, payment will not be allowed for improperly stored materials, equipment, or supplies. Additionally, the Government may withhold sufficient funds from pay requests to provide for the repair or replacement of materials, equipment, or supplies which have been improperly stored and installed

3.6.7 Physical Security

The Contractor is responsible for physical security of all construction materials, supplies, and equipment of every description (including property which may be Government furnished or owned) provided and/or utilized in the execution of this contract.

Ensure all equipment is de-energized and stored in designated storage areas together with supplies upon completion of work. When buildings are unoccupied, turn off lights, water outlets and blowers. Close and lock windows on a floor-to-floor basis as work progresses, followed by locking of all exterior doors upon completion of work. Deposit keys to buildings with the pertinent installation or building duty officer. The Contractor is liable for losses or damages arising from their failure to secure buildings during and after working hours.

The contractor is responsible in the event of theft by their personnel of Government property or personal property of Government personnel, civilian or military. Turn in lost or misplaced articles to the COR.

3.6.8 Washing of Vehicles

Washing of vehicles on the installation or within the project site is prohibited. This includes the cleaning/emptying of concrete mix trucks.

3.7 WORK AROUND AIRFIELDS

All work occurring on installations with airfield operations, or in the general vicinity of airfields, both civilian and military, must comply with DFARS clause 252.236-7005 Airfield Safety Precautions.

The contractor is responsible for identifying any specific restrictions or prohibitions, to include limitations on the location and height of equipment such as cranes, whether or not they are specifically identified in other portions of the contract.

3.8 ENVIRONMENTAL PROTECTION

3.8.1 Environmental Protection Plan

If the project requires any outside work or the construction of temporary site facilities, provide an Environmental Protection Plan (EPP) for the prevention of environmental pollution during and as the result of construction operations under this contract. The EPP must be approved prior to mobilization to the site. The EPP is required in addition to any plans required by the installation or host nation agencies at any level.

The EPP must include, at a minimum, the following:

a. Identification of installation, host nation and local laws, regulations, and permits concerning environmental protection, pollution control and abatement applicable to the Contractor’s proposed operations and the requirements imposed by those laws, regulations and permits.

b. Procedures to be implemented to provide the required environmental protection, to comply with the applicable laws and regulations, and to correct pollution due to accident, natural causes or failure to follow the procedures of the EPP.

c. Methods for protection of features to be preserved within authorized work areas like trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, archeological, and cultural resources.

d. Procedures to be implemented to control and prevent fugitive dust during and as the result of construction operations under this contract.

e. Include erosion and sediment control measures and procedures to be implemented by the contractor.

3.8.2 Protection of Personnel

Protect employees, Government personnel, and other contractor employees from hazardous materials, including asbestos, which may be generated or exposed by their operations. Implement protective measures in accordance with Host Nation law.

3.8.3 Protection of Land Resources

Preserve land resources outside the limits of permanent work in its present condition or restored to its original condition after completion of construction. Confine construction activities to areas defined by the

contract documents.

Except in areas shown on plans or specified to be cleared, do not deface, injure or destroy trees or shrubs, nor remove or cut them, without written authorization from the Contracting Officer. Protect all survey monuments or markers in the vicinity of contractor operations.

Restore any landscape feature damaged by the Contractor’s operations to its original condition at the Contractor’s expense. The Contracting Officer will determine the method of restoration.

3.8.4 Protection of Water Resources

Do not pollute streams or drainage courses with fuels, oils, bitumen, calcium chloride acids, construction wastes, or other harmful materials. Investigate and comply with all applicable local laws and directives concerning pollution. Perform all work so that objectionable conditions will not be created.

3.8.5 Spillage

Take special measures to prevent chemicals, fuels, oils, greases, bituminous materials, waste washings, herbicides and insecticides, cement and other contaminants from contaminating the soil and ground water, or from entering streams.

Notify the Contracting Officer immediately if, as a result of their activities (to include the activities of their subcontractors and suppliers) spillage occurs which results in the contamination of soil or water. Immediately cease all work in the affected area and take all measures necessary to prevent further contamination.

Excavate and dispose of ground contaminated by Contractor activities. Replace with suitable fill material, compacted and finished with top soil. Provide written proof of disposal of any such materials at an authorized facility.

3.8.6 Dust Control

Control dust, mud and/or debris on public roads and minimize dust pollution within newly constructed or renovated facilities.

Control techniques for fugitive dust may include, but are not limited to, watering, chemical treatment, light bituminous treatment, or reduction of surface wind speed with wind breaks or source enclosures, the elimination of mud and dirt carry-out onto paved roads at construction sites, or clean-up of spillage on paved or unpaved travel surfaces and clean-up of materials spillage at transfer points. Utilize methods appropriate for the size and scope of the fugitive dust source which do not have adverse effects on plant and animal life, nor contaminate the treated material.

Repeat at intervals as to keep all parts of the disturbed area treated at all times. Sufficient competent equipment on the job to accomplish control techniques must be present onsite. Provide products which provide a method to reduce dust-related environmental concerns and aid in complying with applicable regulations. Products must not in any form produce any adverse environmental effects through their use and provide an effective, clean, safe control of dust protection against soil erosion.

3.9 MATERIALS

3.9.1 Hazardous Materials

Prior to bringing any hazardous material onto the project site, submit to the Contracting Officer the types and quantities of any hazardous material (HM) they plan to bring onto the project site.

The submittal must include the Safety Data Sheet (SDS) and storage requirements for the material. The SDS must comply with Host Nation requirements and follow the Globally Harmonized System of Classification and Labeling of Chemicals standard specification for SDS's. Provide the document in both Host Nation and English languages.

Coordinate with the appropriate installation or project site owner regarding any special requirements for storage of hazardous materials and identify these requirements in the submittal. Failure to provide proof of coordination will result in rejection of the submittal.

Remove any remaining HM as soon as it is no longer required but in any event prior to completion of the project.

3.9.2 Recycling and Minimization of Waste

In accordance with the policies of the US Government, the contractor must reduce, recycle, or salvage as much construction waste material as possible with a goal of diverting at least 60% from landfills.

3.10 EXCLUSIONS

3.10.1 Prohibited Materials

The following is prohibited in this project:

a. Use of aluminum for electrical conductors

b. Embedding aluminum conduit in concrete.

c. Use of fluorescent light ballasts and other products containing PCB's.

d. Use of urea-formaldehyde foam insulation products.

e. Use of any paint/coatings having a lead content of over 0.06 percent by weight of non-volatile content.

f. Use of any ozone depleting chemicals

g. Use of zinc-chromate

h. Use of materials containing asbestos

Provide only materials, equipment, or systems for approval that have been in service/manufacture for at least two (2) years.

3.10.2 Hazardous Materials

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive

material and devices used in accordance with EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, lead-based paint, and hexavalent chromium, are prohibited.

The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials.

Notify the Radiation Safety Officer (RSO) prior to excepted items of radioactive material and devices being brought on base.

3.10.3 Explosive Materials

Use of explosive materials in the context of the work defined in this contract is strictly prohibited.

3.10.4 Burning

Burning will not be permitted.

3.11 PROTECTIVE MEASURES

Provide barricades and protective signs in both the English and HN languages. For inside work, protect floors, furniture, and furnishings, appliances, other objects and structural parts against soiling or damage, by using drop cloths or other suitable coverings.

Where indicated, remove and/or store furnishings (including furniture, carpets and drapes) and equipment (such as machines which are in addition to equipment which forms part of integral building systems requiring work under the contract) as required for preparation of work areas. Replace furnishings and equipment so removed at their original locations upon completion of the work. If not specifically stated elsewhere in this contract to be the Contractor’s responsibility, removal, storage, and/or reinstallation of furnishings and equipment is the responsibility of Government forces.

Repair of damages to personal property, buildings, vehicles, ground or other Government property caused directly or indirectly by Contractor personnel (to include subcontractors and suppliers) must be repaired or replaced at the Contractor’s expense.

3.12 UTILITY OUTAGES AND UTILITY CONNECTION REQUESTS

Schedule work to minimize outages. For utility outages and connections required during the execution of work that affect existing systems, schedule utility outages and connections to minimize disruption to utility customers.

No utility outages will be allowed without written approval from the appropriate authorities. This includes all permanent and temporary electrical, sewage, water, fuel, and communication utilities.

Apply for utility outages at least 14 days in advance from the appropriate installation and utilities representatives. The contractor is responsible for coordinating all outages directly with the appropriate authorities and providing all required documentation to them unless directed otherwise by the Contracting Officer. A pre-outage coordination meeting may be required

prior to approval or commencement of any utility outage.

If, as a condition of approval, outages are required to be limited to weekends, holidays, or non-standard work hours, the Contractor must perform the work during the time designated. No additional payment will be provided for utility outages and connections required to be performed outside regular work hours.

3.13 TEMPORARY CONSTRUCTION AND UTILITIES

3.13.1 Temporary Utilities

By submitting a proposal, the Contractor represents they have made all necessary evaluations to determine if utilities (water, sewer, electricity, and communication) required for performance of the work are available, if the quantities available are adequate, whether they will be required to pay for the utilities, and any requirements for connection to utilities and bringing them to the work location.

In this context, temporary utilities includes temporary heating or cooling for offices and for the purposes of construction work. Temporary heating or cooling provided must conform to all applicable safety requirements.

Use of back-up power is at the discretion of the contractor.

3.13.2 Temporary Construction

If the Contractor proposes to construct temporary roads or embankments for plant and/or work areas, submit a temporary construction plan for approval prior to scheduled start of such temporary work. Include a layout of all temporary roads, excavations and embankments to be constructed within the work area.

Remove all signs of temporary construction such as haul roads, work areas, structures, foundations of temporary structures, and stockpiles of materials upon completion of work.

3.14 EXCAVATION

3.14.1 Permission to Excavate

Obtain all necessary permits in addition to written permission to excavate from the appropriate installation or local authority having jurisdiction prior to commencing with any excavation work.

3.14.2 Utility Locations

Prior to any excavation, all underground utilities in the work area must be positively identified by the contractor utilizing a) a private utility locating service in addition to any installation locating service, and/or b) a metal and/or cable-detecting device along the route of the excavation. All underground utilities discovered will be flagged a distance of one-half (1/2) meter on each side of the location, and any markings made during the utility investigation must be maintained throughout the contract. The use of historical drawings does not alleviate the Contractor from meeting this requirement.

3.14.3 Utility Location Verification

Physically verify underground utility locations, including utility depth, by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within 1 meter of the underground system. Outages to isolate utility systems must be used in circumstances where utilities are unable to be positively identified.

3.14.4 Weather Protection

Excavations are to remain open only during installation and testing of piping, foundations, or other features. Provide temporary drainage and/or pumping equipment necessary to keep excavations in a dewatered condition as necessary. Protect excavations from collapse and erosion, and ensure runoff or discharge of water from excavations is properly channeled and disposed of to prevent sedimentation or pollution of streams, drainage systems, or nearby property.

3.15 UNEXPLODED ORDNANCE

In addition to any inspection, survey, or removal requirements identified elsewhere in this contract, during the entire life of this Contract, perform survey and inspection of the work areas in accordance with Host Nation standards, laws, and requirements to prevent danger to personnel and loss of equipment from unexploded ordnance (UXO).

3.16 DISPOSITION OF MATERIALS

3.16.1 Turn-In Salvage Materials

The Contractor is responsible for salvage. Salvageable materials will be so designated by the U.S. or local authorities. All material to be removed from the installation is subject to approval of the local installation commander.

Enumerate all dismantled materials indicated for turn-in elsewhere in the contract documents or as directed by the Contracting Officer in a roster. Turn in all identified materials at a location and time selected by the Contracting Officer. Obtain a hand receipt from the Contracting Officer or their designee for materials turned in.

3.16.2 Title to Materials

Unless indicated elsewhere in the contract documents, all materials and equipment removed and not reused or salvaged, become the property of the Contractor and must be removed from Government property. The Government will not be responsible for the condition or loss of, or damage to, such property after contract award. Showing for sale or selling materials and equipment on site is prohibited.

3.16.3 Waste

It is prohibited to mix waste generated outside of the project site with waste generated on the project site. Ensure recyclable materials are properly segregated and placed into appropriate containers for recycling.

Under no circumstances must any waste generated off-site be disposed of in any container located on the installation.

3.17 RESTORATION OF CONSTRUCTION SITE

On completion of the contract, remove all temporary facilities and dispose of in accordance with applicable HN laws and regulations.

Clear the site of construction debris and other materials and the area restored to its final grade.

3.18 WEEKLY PROGRESS MEETING

Conduct a weekly meeting with the Government (or as otherwise mutually agreed to) for the purpose of jointly reviewing the actual progress of the project as compared to the as planned progress and to review planned activities for the upcoming three weeks (or at least one week beyond the date of the next meeting).

Use the current approved schedule update for the purposes of this meeting and for the production and review of reports.

Identify activities which were to have started or finished since the last meeting but which did not and explain why.

At the weekly progress meeting, address the status of RFI's, RFP's (changes), submittals, and any other open or unresolved issues.

-- End of Section --

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SECTION 01 32 01

PROJECT SCHEDULE (NAU)
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PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AACE INTERNATIONAL (AACE)

AACE 29R-03	(2011) Forensic Schedule Analysis
AACE 52R-06	(2006) Time Impact Analysis - As Applied in Construction
AACE 84R-13	(2015) Planning and Accounting for Adverse Weather

U.S. ARMY CORPS OF ENGINEERS (USACE)

ER 1-1-11	(2017) Administration -- Project Schedules

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Project Scheduler Qualifications; G
Preliminary Project Schedule; G
Initial Project Schedule; G

SD-07 Certificates
Schedule Update; G See Notes Below
Revised Schedule; G See Notes Below

1.3 PROJECT SCHEDULER QUALIFICATIONS

Designate an authorized representative to be responsible for the preparation of the schedule and all required updating and production of reports. This representative must be identified by name and sign all schedule submittals provided in accordance with this section.

The Project Scheduler must have prepared and maintained at least three previous construction schedules for projects of similar size and complexity to this contract, using Primavera P6. Representative must have a comprehensive knowledge of Critical Path Method (CPM)scheduling principles and application.

Identify in the submittal the relevant projects and applicable training completed by the Designated Project Scheduler. Once approved, this

representative may not be changed or substituted except via a new transmittal. The government reserves the right to reject or require the contractor to change the Project Scheduler at any time.

1.4 DEFINITIONS AND TERMINOLOGY

1.4.1 Change

A change to the project schedule refers to any of the following:

a. Alterations to activity logic (predecessor or successor activities, lag or lead durations).

b. Combining or dividing activities.

c. Creation or deletion of activities, including via modifications. Activity ID and description changes are considered new activities.

d. Adjustments in original duration or budget/planned costs.

e. Any other modification to the schedule which alters the planned execution of the works.

f. Addition, deletion, or revision to any activitybased on a modification to the contract.

Changes to the approved project schedule may not be made without either the express written direction of the Contracting Officer, or their prior approval. All changes must be provided via a formal submittal and shown on the submittal register.

Except as specifically allowed in other paragraphs of this section, revisions or changes to the schedule must be made separately from schedule updates. Submit schedule revisions/changes based on the last accepted schedule update and include a narrative describing all changes to the schedule.

1.4.2 Critical Path

The critical path is defined as the longest path.

1.4.3 Data Date

The data which reflects the "as-of" condition of the progress of work. It represents the status of all activities as of the completion of work on the identified date. Work started or finished on or before this date is recorded as such. Progress reflecting work performed after the data date and actual dates after the data date are prohibited. The data date will be the "Pay Period Thru" date associated with a corresponding payment in RMS.

When setting the Data Date in Primavera P6, ensure the hour is set to 23:59 so activities completed on the data date will not appear as being completed after the data date.

1.4.4 Revision

A revision to the project schedule is equivalent to a change in the project schedule. See Change.

1.4.5 Update

An update to the project schedule refers to information associated with an activity that reflects actual progress, and is limited to:

a. The entry of actual start and finish dates.

b. Updated scheduled start and finish dates of an activity without any changes in logic, resource assignment, or original duration resulting from entering actual start and finish dates of dependent activities.

c. Recording of progress on an activity to represent work completed, including expected/planned finish date based on actual progress.

1.5 BASIS OF PAYMENT, WITHHOLDINGS, AND PAYMENT REJECTION

The schedule is the basis for determining contract earnings during each update period and therefore the amount of each progress payment.

No payment will be made for work items not fully detailed in the Project Schedule.

Any changes to the schedule which have not been previously approved by the government may result in disapproval of the entire schedule and the rejection of any requests for partial payment.

If the Contracting Officer determines the schedule does not accurately reflect (a) the progress of work, (b) approved or otherwise directed changes, or (c) a reasonable plan for completing the remainder of the work, the government may either (a) withhold 10 percent of each pay request amount from each payment period, in addition to any other withholdings or (b) reject the pay request in its entirety until an acceptable schedule has been accepted by the government.

PART 2 PRODUCTS

2.1 SOFTWARE

The scheduling software utilized to produce and update the schedules required herein must be capable of meeting all requirements of this specification.

2.1.1 Government Schedule Software

The Government uses Primavera P6. Ensure exported schedule files are compatible with the version of P6 used by the Government.

2.1.2 Contractor Software

Scheduling software used by the contractor must be commercially available from the software vendor for purchase with vendor software support agreements available. The software routine used to create the required
sdef file described in this specification must be created and supported by the software manufacturer.

2.1.2.1 Primavera P6

If Primavera P6 is selected for use, provide the "XER" export file in a version of P6 importable by the Government system.

Confirm the P6 version being used by Government personnel to ensure XER files can be imported by the Government. Export the schedule in a version of P6 no newer than that used by the Government

2.1.2.2 Other Than Primavera P6

If the contractor desires to utilize a software other than Primavera P6, that is compliant with this specification, provide for the Government's use two licenses, two computers, and training for two Government employees in the use of the software. These computers will be stand-alone and not connected to Government network. Computers and licenses will be returned at project completion.

Exporting of data from one software for import into P6 is not an acceptable alternative due to differences in how various schedule programs function. Only native XER files exported from P6 will be considered acceptable for import into the Governments P6 databases.

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

Prepare for approval a Project Schedule, as specified herein, pursuant to FAR Clause 52.236-15, SCHEDULE FOR CONSTRUCTION CONTRACTS. Show in the schedule the proposed sequence to perform the work and dates contemplated for starting and completing all schedule activities. The scheduling of the entire project, from Notice to Proceed (NTP) through completion of all required work and final payment is mandatory. Scheduling is the responsibility of the Contractor.

Contractor management personnel must actively participate in its development. The contractor is responsible for coordinating the schedule with their subcontractors and suppliers to ensure the Project Schedule remains accurate. Provide a schedule that is a forward planning as well as a project monitoring tool. Use the Critical Path Method (CPM) of network calculation to generate all Project Schedules. Prepare each Project Schedule using the Precedence Diagram Method (PDM).

3.2 MEETINGS

3.2.1 Scheduling Expectations Kickoff Meeting (SEKO)

Prior to preparing the schedule, coordinate with the Government a separate and distinct Scheduling Expectations Kickoff Meeting(SEKO). The intent of
this meeting is for the government to review with the contractor the requirements of this scheduling specification, communicate the Government’s
expectations regarding schedule development and management, and answer any
questions the Contractor may have regarding the schedule requirements.

3.2.2 Periodic Schedule Update Meetings

Conduct periodic schedule update meetings for the purpose of reviewing the proposed Schedule Update, Narrative Report, and progress payment. Conduct meetings at least monthly unless agreed to otherwise with the Contracting Officer. Meetings should be held within five days of the proposed schedule data date.

Provide a computer with the scheduling software loaded and a projector which allows all meeting participants to view the proposed schedule during the meeting. The Contractor's scheduler must organize, group, sort, filter, perform schedule revisions as needed and review functions as requested by the Contractor and/or Government. The meeting is a working interactive exchange which allows the Government and Contractor the opportunity to review the updated schedule on a real time and interactive basis. The meeting will last no longer than 8 hours.

Provide a draft of the proposed narrative report and schedule data file to the Government a minimum of two workdays in advance of the meeting. The Contractor's Project Manager and scheduler must attend the meeting with the authorized representative of the Contracting Officer. Superintendents, foremen and major subcontractors must attend the meeting as required to discuss the project schedule and work.

3.2.3 Recurring Progress Meetings

Conduct recurring meetings with the Government on a weekly or as otherwise mutually agreed to basis for the purpose of jointly reviewing the actual
progress of the project as compared to the as planned progress and to review planned activities for the upcoming two weeks.

Use the current approved schedule for the purposes of this meeting and for the production and review of reports. Report the status - actual starts, finishes, and percent complete for all activities which were not completed as of the previous update. Identify and discuss the status of RFIs, RFPs and Submittals.

3.3 EARLY COMPLETION

An Early Completion Schedule is an Initial Project Schedule (IPS) that indicates all scope of the required contract work will be completed before the contractually required completion date.

a. No IPS indicating an Early Completion will be accepted without being fully resource-loaded (including crew sizes and labor/work hours) and the Government agreeing that the schedule is reasonable and achievable.

b. Neither the Government nor any Host Nation agency is under obligation to accelerate work items it is responsible for to ensure that the early completion is met.

3.4 PROJECT SCHEDULE SUBMISSIONS

Provide a separate submittal for each type of schedule identified below.

3.4.1 Optional Preliminary Project Schedule

If the contract duration is more than 18 months, and the contractor intends to request payment for early work activities prior to the approval of the initial project schedule, they may submit a Preliminary Project Schedule as described in this paragraph no later than 30 days from NTP. A Preliminary Project Schedule is not required.

An approved Preliminary Project Schedule may be used for payment purposes not to exceed 90 calendar days after NTP. If the Preliminary Project Schedule does not receive an "A" or "B" code, proceed with the submission of the Initial Project Schedule.

The Preliminary Project Schedule must:

a. use a data date of the NTP.

b. detail all work to be initiated within the first 90 days of NTP, whether or not it will be completed. Summary activities for all work initiated after 90 days from NTP are acceptable, however they will not be paid on.

c. contain sufficient activities to balance the contract amount and

every CLIN. All activities must be assigned a BIDI and RESP codes as described elsewhere in this specification.

d. include separate activities for the preparation and approval of all required pre-construction/pre-mobilization plans identified in the contract.

3.4.2 Initial Project Schedule (IPS)

Submit an Initial Project Schedule for approval within 40 calendar days after NTP is issued. The schedule must demonstrate a reasonable and realistic sequence of activities which represent all work through the entire contract performance period.

On projects where the contractor is responsible for preparing a final design for construction, the contractor may submit an initial project schedule which fully details all design activities through the government approval of the corrected final design, long lead item acquisition prior to design completion, mobilization, and any demolition and construction activities planned to start prior to the submission of the final design. Include the entire construction effort with as much detail as is known at the time, but it may be summary in nature. The entire contract must be shown, including all cost loading. A Revised Schedule fully detailing all contract work must be submitted no later than the submission of the Final (95%) Design. The required narrative must clearly describe what work is detailed and what work is summary, along with the timelines for submission of the fully detailed schedule. Progress (actual starts/finishes) and payment will not be allowed on any summary work items.

The IPS must use a data date of the NTP.

3.4.3 Schedule Update

Update the Project Schedule on a regular basis, monthly at a minimum. Provide a draft Periodic Schedule Update for review at the schedule update meetings as prescribed in the paragraph PERIODIC SCHEDULE UPDATE MEETINGS. These updates will enable the Government to assess Contractor's progress.

Following the periodic schedule update meeting make corrections to the draft submission. Include only those changes approved by the Government in the submission and invoice for payment.

Submit the complete Schedule Update of the Project Schedule containing all approved progress, revisions, and adjustments, not later than 4 work days after the periodic schedule update meeting.

Identify each Schedule Update as a separate item in the submittal register. The item description must read "Schedule Update - DD YYYY/MM/DD" where YYYY is the year, MM is the two digit month (e.g. 06 for June), and DD is the day. Resubmission of disapproved Schedule Updates will be treated as a resubmission of the existing item.

a. Update information including Actual Start Dates (AS), Actual Finish Dates (AF), Remaining Durations (RD), and Percent Complete, subject to the approval of the Government.

b. AS and AF dates must match the date(s) reported on the Contractor's Quality Control Report for an activity start or finish.

3.4.4 Changed or Revised Schedule

When it becomes necessary to change or revise (not update) the approved

schedule, the contractor must submit the proposed changes for review and approval. Provide the revised schedule and all documents as a new transmittal, not a resubmittal of a previously approved submittal.

Identify the submittal via the addition of a new item to the submittal register with a description "Revised Schedule - Data Date YYYY/MM/DD" where YYYY is the year, MM is the two digit month (e.g. 06 for June), and DD is the day. Resubmission of disapproved Revised Schedules will be treated as resubmission of the existing item.

3.5 PROJECT SCHEDULE MINIMUM REQUIREMENTS

3.5.1 Level of Detail Required

Develop the Project Schedule to the appropriate level of detail to address major milestones and to allow for satisfactory project planning and execution. Failure to develop the Project Schedule to an appropriate level of detail will result in its disapproval. The Contracting Officer will consider, but is not limited to, the characteristics and requirements described herein to determine appropriate level of detail.

3.5.2 Sequencing

Where other contract documents require the contractor to sequence the work or their operations or stage operations around specific operations - for example completing work in one area before starting in another - incorporate these restrictions in the schedule.

3.5.3 Grouping and Sorting

Organize activities using the Work Breakdown Structure (WBS) or as otherwise directed to assist in the understanding of the activity sequence. Typically, this flow will group activities by major elements of work, category of work, work area and/or responsibility.

3.5.4 Calendars

Schedule activities on a Calendar to which the activity logically belongs. Develop calendars to accommodate any contract defined work period such as a 7-day calendar for Government Acceptance activities, concrete cure times, etc. Develop the default Calendar to match the physical work plan with non-work periods identified including weekends and holidays. Develop seasonal Calendar(s) and assign to seasonally affected activities as applicable.

Assign all weather sensitive activities to a calendar showing non-work weather days on a monthly basis, with the non-work weather days selected at random across the weeks of the calendar. Assign non-work days over the actual work week. Implementation and execution of the weather calendar is to be in accordance with AACE 84R-13.

If proposing to use a method other than a weather calendar to account for adverse weather, government approval is required prior to development of the schedule. AACE 84R-13 provides methodologies for techniques in planning for adverse weather. Discuss the proposed approach at the SEKO meeting, to include how the schedule would account shifts of weather sensitive work to different time periods.

3.5.5 Longest Path

Longest path activities must not make up less than 10% nor more than 25% of all activities in the IPS unless specifically requested by the contractor and allowed by the Contracting Officer. The contractor must substantiate the reasons for requesting a waiver of this requirement.

3.5.6 Activity Requirements

3.5.6.1 Naming and Identification

Activity IDs must be less than 10 characters due to limitations of RMS.

Activity Names will be truncated at the 31st character when importing into RMS. Ensure no duplicative activity names in the first 30 characters and the most defining and detailed description is contained within the first 30 characters.

3.5.6.2 Durations

Activity Original Durations (OD) must be reasonable to perform the work item. OD changes are prohibited unless justification is provided and approved by the Contracting Officer. Reasonable activity durations are those that allow the progress of ongoing activities to be accurately determined between update periods.

Non-procurement construction activities may not have Original Durations (OD) greater than 20 work days or 30 calendar days.

3.5.6.3 Adding Activities

Any activities added to the schedule must be approved through a Schedule Revision. This includes subdividing existing activities to break the work into more detail, any change in activity ID, or changes to activity names, with the exception of correction of spelling or grammatical errors.

3.5.6.4 Deleting Activities

Activities may not be deleted once payment has been made on the activity, regardless of the amount. The activity may be reduced in value only to the amounts previously paid. Activities may not be deleted if an actual start or actual finish date has been entered.

3.5.7 Logic and Relationships

3.5.7.1 Open Ended Logic

Only two open ended activities are allowed: the first activity "NTP Acknowledged" may have no predecessor logic, and the last activity -"End Project" may have no successor logic.

Predecessor open ended logic may be allowed on the first activity in a time impact analyses provided it is constrained to the actual date of the applicable event.

Dangling logic (open start or finish) is prohibited except as described above.

3.5.7.2 Lags

Lags are to be kept to a minimum. Where a gap exists between the completion of one activity and the start of another, insert an activity to represent the lag. Where work on an activity is started before a predecessor is complete, divide the predecessor activity into smaller segments and utilize Finish-Start relationships.

Lags must be reasonable as determined by the Government and not used in place of realistic original durations, must not be in place to artificially absorb float, or to replace proper schedule logic. All lags

must be identified and explained in the schedule narrative.

Leads (negative lags) are prohibited.

3.5.7.3 Start-Start Relationships

Activities may not have only Start to Start (SS) relationships as successors (either with or without lag).

Any activity with a SS relationship to another activity as a successor must have at least one of the following:

a. a Finish-Start (FS) relationship to another activity

b. a Finish-Finish (FF) relationship (with or without lags) with the same activity(-ies) as those with a SS relationship

3.5.7.4 Start-Finish Relationships

Start to Finish (SF) relationships are prohibited.

3.5.7.5 Retained Logic

Schedule calculations must retain the logic between predecessors and successors ("retained logic" mode) even when the successor activity(s) starts and the predecessor activity(s) has not finished (out-of-sequence progress). Software features that in effect sever the tie between predecessor and successor activities when the successor has started and the predecessor logic is not satisfied ("progress override") are not allowed.

3.6 REQUIRED ACTIVITIES

3.6.1 Design and Design Related Activities

Provide a detailed level of scheduling sufficient to identify all major design tasks that control the flow of work. Also include separate review and correction periods associated with each item.

Include in the schedule activities associated with design, including but not limited to identification of individual design packages, design submission, reviews, and conferences identified in the project documents.

3.6.2 Contract Milestones and Constraints

Milestone activities are to be used for significant project events including, but not limited to, project phasing, project start and end activities, or interim completion dates. The use of artificial float constraints such as "zero free float" or "zero total float" are prohibited.

Constraints that ignore or affect network logic are prohibited. No constrained dates are allowed in the schedule other than those specified herein. Submit additional constraints to the Contracting Officer for approval on a case by case basis.

3.6.2.1 Project Start Date

The first activity in the project schedule must be a start milestone titled "NTP Acknowledged," which must have a "Start On" constraint date equal to the date that the NTP is acknowledged.

3.6.2.2 Construction Completion

The last activity required to be completed prior to acceptance of the project by the Government must be a finish milestone titled "Required Completion."

Constrain the activity with a "Finish On or Before" date equal to the required contract completion date.

The Government retains right to direct activities to be linked to the "Required Completion" milestone.

3.6.2.3 End Project

The last activity in the schedule must be a finish milestone titled "End Project."

Link activities which are not required to be completed prior to acceptance to this milestone rather than the "Required Completion" milestone. Typical activities may include completion of as-built drawings, demobilization, final O&M manuals, etc. Refer to specific requirements identified in other sections for items required to be completed as part of the "Required Completion" milestone.

The "End Project" milestone represents the completion of all physical work at the project site and acceptance or approval of all contractor required deliverables. It normally coincides with the contractors submission of final payment.

3.6.2.4 Phases and Interim Completion Dates

Constrain contractually specified interim completion dates to show negative float when the calculated late finish date of the last activity in that phase is later than the specified interim completion date.

3.6.2.4.1 Start Phase

Use a start milestone as the first activity for a project phase. Call the start milestone "Start Phase X" where "X" refers to the phase of work.

3.6.2.4.2 End Phase

Use a finish milestone as the last activity for a project phase. Call the finish milestone "End Phase X" where "X" refers to the phase of work.

3.6.3 Mandatory Items for All Projects

The project schedule must include separate activities for the following items:

1. Permits. Activities for (a) preparation and (b) review and approval of required permits from Host Nation authorities at any level (National, State, Local, etc.). This requirement does not include recurring approval activities which extend throughout the performance period, such as vetting of workers or host nation installation access requirements.

2. Key submittals. Each activity for a submittal must represent a single submittal (the submittal may have multiple items). Where multiple submittals are required, separate activities must be identified in the schedule. The narrative must identify the specific submittal item(s) from the submittal register which are linked to the specific activity. Separate activities for (a) contractor efforts to prepare,

review, approve and submit (b) Government review and approval of the following:

a. SD-01 Preconstruction Submittals required to be approved prior to mobilization to the site.

b. design packages or features requiring design completion (extensions of design). Coordinate with the COR for proposed activities related to shop drawings prior to including in the schedule.

c. O&M Manuals

d. as-built drawings

3. Long Lead Items. Long lead items are materials, equipment, fabricated assemblies, and supplies where the time between ordering and delivery to the project site is 30 calendar days or longer. Include separate activities associated with (a) submittal preparation, (b) submittal review and approval (c) procurement, (d) fabrication, and (e) delivery of materials, equipment, fabricated assemblies, and supplies. Show each delivery with relationship tie to the construction activity specifically for the delivery.

4. Government and Host Nation Activities. Show Government and Host Nation activities that could impact progress. These activities include, but are not limited to: reviews, approvals, acceptance, permits, inspections, utility connection or tie-in, move-in or move-out of facilities, and Government Furnished Equipment (GFE).

5. Commissioning. Submission and approval of Building Commissioning Plan, test data, and reports: Develop the schedule logic to include preparing test plans and actual testing and commissioning of systems to a level of detail consistent with the contract commissioning requirements. The schedule logic must show all tasks associated with building testing and commissioning completed prior to submission of building commissioning report and contract completion. Included in these activities are:

a. Testing and air balance (TAB)

b. Functional Performance Testing and Verification

c. Controls Testing

6. Completion Activities. Include:

a. Contractor's pre-final inspection

b. Correction of punch list from Contractor's pre-final inspection

c. Government's pre-final inspection

d. Correction of punch list from Government's pre-final inspection

e. Final inspection

3.6.4 Procurement Activities

Include procurement activities for other than long lead items if appropriate. If the schedule includes procurement activities other than those associated with long lead items, the schedule must include separate activities for (a) submittal preparation, (b) submittal review and approval (c) procurement, (d) fabrication, and (e) delivery to the

site. Show each delivery with relationship tie to the construction activity specifically for the delivery.

3.6.5 Resubmittals

Where the schedule includes activities for submittals, and the submittal is disapproved or requires resubmission and the successor activities cannot proceed, add separate activities for the contractor effort to revise and for the Government to review the resubmittal. These activities may be included in a schedule update but must be specifically identified in the narrative.

The durations for these activities must match (1) the time required by the contractor to prepare the retransmittal and (2) the contractually allowed review period for the Government.

The initial schedule activity for Government review must show completion as of the date the original transmittal was returned.

Insert the added activities as follows:

(1) Add the initial government review of the original submittal as a new activity (RESP code = GOVT) with a predecessor being the preparation of the original submittal by the contractor. Apply actual start and finish dates for the receipt and return of the transmittal by the Government.

(2) Add the preparation of the revised submittal as a successor to the above activity. The successor to this activity will be the pre-existing schedule activity for government review.

(3)Remove any actual dates from the pre-existing government review activity.

3.7 ACTIVITY COST LOADING

Activity cost loading must be reasonable and without front-end loading. Provide additional documentation to demonstrate reasonableness if requested by the Contracting Officer.

Except as explicitly identified in this section or explicitly identified as a separately payable item elsewhere in the contract, costs which are not associated with physical work, including overhead, profit, guarantees or bonds, permits, costs to operate site facilities, and all other indirect costs may not be assigned to separate activities. All such costs must be distributed among the remaining activities.

3.7.1 Balancing with Contract Line Items (CLINs)

The aggregate value of all activities coded to a contract CLIN must equal the value of the CLIN.

3.7.2 Bonds and Performance Guarantees

One time costs for a performance bond or guarantee may be allowed based upon proof of payment. Confirm acceptability with the COR prior to creating an activity.

The activity must be titled "Performance Guarantee Payment", have the NTP activity as its sole predecessor and the End Project activity as its sole successor.

3.7.3 Cost Loading of Submittals

No costs are to be assigned to activities for the preparation, review, or approval of submittals, except as described under paragraph 3.7.9 Closeout Activities.

If a fee is required to be paid to the Host Nation for review or approval of an item, the contractor may include the cost of that fee in the relevant approval activity. The Government will not pay for any costs associated with resubmittals: the fee costs will be paid only once. The Government reserves the right to require proof of fee payment prior to paying on any activity so identified.

3.7.4 Contractor Prepared Designs

Payment for contractually specified designs will be allowed only after approval of the design by the government. Cost load a separate activity with a duration of 1 day with a predecessor of the government review and approval activity.

No payment will be made for the preparation or approval of any contractor prepared SD-02 Shop Drawing submittals.

3.7.5 Designer of Record, Government, and Host Nation Activities

Any activity with a Responsible Party Coding (RESP) [see paragraph 3.13.1.2] of Designer of Record (DOR), Government (GOVT), other Government (GOVO) or Host Nation (HONA) may not have any cost assigned to it.

3.7.6 Fees to Other Parties

Unless specifically identified as a payable item in the contract, activities representing payment of fees to the Host Nation or other government agencies or entities at any level may not be separately cost loaded in the schedule.

This includes taxes, customs, duties, and delivery fees, as well as fees payable by or to subcontractors or suppliers at any level.

Where fees are identified as payable, the costs will be paid only upon proof fee payment and approval/acceptance of the associated item by the relevant entity.

3.7.7 Equipment and Material Fabrication and Delivery (Stored Materials)

No costs are to be assigned to material or equipment fabrication, transportation, or delivery.

Generally, costs for materials and equipment are to be included in the activities associated with the physical construction or installation. The government may allow payment for material or equipment costs in accordance with paragraph PAYMENT FOR MATERIALS PRIOR TO INSTALLATION in Section 00 74 01 SPECIAL CONDITIONS (NAU) provided all of the conditions identified therein are met.

Identify any stored material items in the schedule with an activity having a duration of 1 day, with a single predecessor representing the delivery of the item to the site and a single successor representing the installation of the item. Multiple successors are not allowed as the item cannot be tracked to a specific construction activity in the schedule.

3.7.8 Negative Costs

Negative values for activity costs are prohibited. If existing requirements are reduced or removed via modification, reduce the value of existing activities.

3.7.9 Closeout Activities

3.7.9.1 Pre-Final Inspection

Include cost loaded activity(-ies) titled "Correction of punch list from Government pre-final inspection" with a value not less than 1 percent of the initial contract value. Activity(ies) will be completed (Actual Finish) only after verification by the Government of completion and correction of all items identified during Government pre-final inspection(s).

This activity must have a RESP code of PRIM.

3.7.9.2 As-Built Drawings

Include a cost loaded activity titled "Payment upon approval of final as-built drawings" with a duration of 1 day and a value not less than 1 percent of the initial contract value, up to $200,000. The activity will not be considered complete until the final as-built drawings have been approved by the Government.

This activity must have a RESP code of PRIM and have a single predecessor titled "Approval of final as-built drawings." Assign appropriate successors.

If multiple facilities are constructed under this contract, this activity may be subdivided into separate activities for each facility or separate portion of work.

3.7.9.3 O & M Manuals

Include a cost loaded activity titled "Payment upon approval of O&M manuals" with a duration of 1 day and a value not less than 1 percent of the initial contract value. Activity will not be considered complete until all O&M manuals have been approved by the Government.

This activity must have a RESP code of PRIM and have a single predecessor titled "Approval of O&M Manuals."

3.8 SUBMITTAL CONTENTS

Every schedule submittal must include an electronic copy of the schedule, a narrative, and the reports identified below.

3.8.1 Data Submission

Provide via electronic means the project schedule in the format of the scheduling software (e.g. .XER).

Include PDF copies of the Narrative Report and all required Schedule Reports. Each schedule must have a unique file name and use project specific settings. Submit all files through RMS-CM as attachments to a submittal.

3.8.2 Narrative Report (All Submittals)

All narratives must include the following, at a minimum:

a. A header with (1)the contract number (including delivery order), (2) contract title, (3) data date, (4) schedule reference id (the XER name), (5) the transmittal the schedule is being submitted with, and (6) the most recent approved schedule which can be used for comparison, including the data date of that schedule.

b. Key project information including (1) NTP date, (2) original and current duration, (3) original and current contract amount, (4) invoiced amount and percent complete, and (5) required and projected completion dates.

c. Number of activities (1) in total, (2) not started, (3) started but not complete, and (4) completed.

d. A description of significant risks, including current and anticipated problem areas, actual or potential delaying factors, their impact, and an explanation of mitigation or corrective actions taken or required to be taken.

e. Identify and describe the activities along the critical (longest) path.

3.8.3 Narrative Report (Other Than Schedule Updates)

The Narrative Report must correlate to the schedule and provide information regarding how the contractor has organized the schedule and intends to perform all work required by the contract from start to finish.

In addition to the items identified in "Narrative Report (All Submittals)", the Narrative must:

a. Describe the work required by the contract, how it is organized and will be performed, with specific references to how the schedule correlates to the chronological work sequence. If the work sequence has changed from a previous submission, explain what changes occurred and why.

b. Identify all date and time constraints.

c. Describe the Work Breakdown Structure (WBS) used in the schedule and how it is organized in relation to the requirements of the contract.

d. Describe any activity numbering procedures (for example, all procurement activities begin with "P").

e. Describe the methods used to determine activity durations, including estimates of number of crews and crew sizes required to execute tasks.

f. Identify long lead items in the schedule, along with how the estimated delivery dates were determined.

g. Identify and explain the purpose for all lags.

h. Explicitly identify all activities with SS or FF relationships and explain the reasoning.

i. Identify all project calendars and identify all non-work days (weekends, holidays, weather). Identify sources for weather data along with specific weather events which the contractor considers to potentially impact weather dependent activities. Examples include temperature, wind, and precipitation. Identify any criteria used, for example a minimum temperature or wind above a certain speed.

Explain how activities were assigned to each calendar.

j. Identify activities and float paths with minimal (less than 5 days) or large (more than 75 days) of float. Explain causes and reasons.

k. Except for revised baselines or completion schedules, list and describe all changes to the schedule which have been made, along with the reasons for the change. Include at a minimum new and deleted activities, logic changes, duration changes, calendar changes, lag changes, resource changes, and changes in activity costs.

l. Identify all out-of-sequence work and explain the reasons for not correcting the schedule logic to eliminate it.

m. Identify all activity code values, including both those identified in paragraph Standard Activity Coding Dictionary and any specific codes used by the contractor. Explain intent and how values are assigned.

3.8.4 Narrative Report (Schedule Updates)

Provide a Narrative Report with each schedule update. The Narrative Report is expected to communicate to the Government the thorough analysis of the schedule output and the plans to compensate for any problems, either current or potential, which are revealed through that analysis.

In addition to the items identified in "Narrative Report (All Submittals)", include the following items. The information may be provided in tabular or spreadsheet format. Confirm with the government specific data to include for activities meeting the described criteria:

a. Identify and discuss the work scheduled to start in the next update period.

b. Identify changes in the scheduled (projected)date and float (positive or negative) of all milestones from the previous schedule. Describe reasons for all changes since the previous schedule.

c. Critical Path Changes: Identify activities which have either moved off or onto the critical path. Explain the reason for any changes to the critical path.

d. Activities which should have started: Based on the early start date, identify all activities which were to have started during the update period and the current status. Provide an explanation for all activities which should have started during the update period but did not. Indicate when the activity will start.

e. Activities which should have finished: Based on the early finish date, identify all activities which were to have finished during the update period and the current status. Provide an explanation for all activities which should have finished during the period but did not. Indicate when the activity will finish.

f. In Progress Activities: For all in-progress activities, identify the reported progress during the period. If no change in the percent complete is reported, explain and identify any causes for delay.

f. Identify and discuss out-of-sequence work. Explain why the work is out of sequence, when it will be resolved, and whether the contractor will propose a revision to the schedule to correct.

3.8.5 Network Diagram

Include two Network Diagrams with every schedule submission as described below. Depict and display the order and interdependence of activities and the sequence in which the work is to be accomplished. Show the name and description of all activities with their duration and total float.

a. A Gantt chart including baseline and current planned (or actual) Start and Finish Dates, total float, logic, and duration for all activities, including milestones, in the project schedule. Show the activity ID, description, duration, and amount earned to date. The critical path must be shown in a different color than other activities.

b. A standard Activity on Node CPM chart showing early start, early finish, late start, and late finish, along with all logic for all activities in the project schedule.

3.8.6 Cash Flow / Schedule Variance Control (SVC) Diagram

Provide a SVC diagram showing 1) Cash Flow S-Curves indicating planned project cost based on projected early and late activity finish dates, and 2) Earned Value to-date.

3.9 SCHEDULE UPDATES

Update the schedule continuously to reflect the actual progression of work, but no less than monthly, unless approved otherwise by the Contracting Officer.

3.9.1 Default Progress Data Disallowed

Actual Start and Finish dates must not automatically update with default mechanisms included in the scheduling software. Updating of the percent complete and the remaining duration of any activity must be independent functions. Disable program features that calculate one of these parameters from the other.

3.9.2 Activity Actual Start and Actual Finish

Activity Actual Start (AS) and Actual Finish (AF) dates assigned during the updating process must match those dates provided in the Contractor Quality Control (QC) Reports.

Discrepancies with the QC Report or failure to document the AS and AF dates in the QC Report will result in disapproval of the Contractor's schedule.

3.9.3 Percent Complete

Update the percent complete for each activity started, based on a realistic assessment of earned value.

3.9.4 Remaining Duration

Update the remaining duration for each activity based on the number of estimated work days it will take to complete the activity. Remaining duration may not mathematically correlate with percentage found under paragraph entitled Percent Complete.

3.9.5 Substantially Complete Activities

As used in this paragraph, a substantially complete activity is one that is at least 90% physically complete but for minor work that does not

prevent the successor activities in the schedule to commence.

Activities which are substantially complete are to either:

a. remain open with no further progress reported or an actual finish date entered until the government determines the activity has been completed. If the work will not be (or has not been) completed in the lesser of 30 calendar days or two schedule update periods, either b. or c. described below are to be followed.

b. be reported complete with an actual finish date equal to the date the progress stopped and an activity added to represent the remaining work. All unpaid budgeted amounts are to be transferred to a new (added) activity. The added activity must have as a predecessor the existing activity and the contractor's pre-final inspection as a successor. This activity must have a value no less than 5% of the original activity. Activities added in this manner may be included in a Schedule Update but must be specifically identified in the Narrative Report.

c. be reported complete with an actual finish date equal to the date the progress stopped, the specific work to be accomplished identified as a separate item in the deficiency log in RMS and the remaining unpaid amounts added to the activity for "Correction of punch list from Government's pre-final inspection". These amounts will be unavailable for earning prior to the completion of the Government's pre-final inspection.

3.10 CHANGES AND REQUESTS FOR TIME EXTENSIONS

Prepare and submit a proposed fragnet/schedule revision for all proposed changes, whether or not they include a request for a time extension. for time impact analysis consisting of a sequence of new activities that are proposed to be added to the project schedule. Identify and include any proposed added activities and changes to existing activities.

3.10.1 Justification of Delay

When requesting an adjustment in the performance period or in any interim milestone, whether in response to a Request for Proposal (RFP) for a change to the contract or for any other delay, provide a justification of the proposed change based on the delay. Every request for a time extension must include both a written narrative and schedule (XER file).

Provide a description of the event(s) that caused the delay and/or impact to the work. Identify all schedule activities impacted. Show that the event that caused the delay/impact was the responsibility of the Government. Provide a time impact analysis that demonstrates the effects of the delay or impact on the project completion date or interim completion date(s). Evaluate multiple impacts chronologically; each with its own justification of delay. With multiple impacts consider any concurrent delay.

3.10.2 Narrative Requirements

The narrative must include all elements identified in "Narrative Report (All Submittals)" and "Narrative Report (Schedule Updates)". Additionally, the narrative must:

a. Define the scope and conditions of the change.

b. Identify the start and finish dates of all impacts during the period of delay.

3.10.3 Time Impact Analysis (Prospective Analysis)

Submit requests for time extensions based on a prospective analysis if the work involved or the impact identified has not already occurred.

Where the impact is ongoing, a prospective analysis may be considered, however the government reserves the right to require a retrospective analysis be prepared after the impact has ended.

Any prospective analysis which includes events which have already occurred must account for as-built (actual) events known to have occurred after the data date of the schedule used as the pre-impact schedule. Updated schedules for periods following the impact start date must be used to evaluate how the project progressed (as-built).

Prepare a time impact analysis for approval by the Contracting Officer based on industry standard AACE 52R-06. Utilize a copy of the last approved schedule prior to the first day of the impact or delay for the time impact analysis. This schedule must be identified in the narrative and a separate copy of that schedule (prior to any changes) provided with the request for time extension. If Contracting Officer determines the time frame between the last approved schedule and the first day of impact is too great, prepare an interim updated schedule to perform the time impact analysis. Unless approved by the Contracting Officer, no other changes may be incorporated into the schedule being used to justify the time impact.

3.10.4 Forensic Schedule Analysis (Retrospective Analysis)

Submit requests for time extensions based on a retrospective analysis if the work involved or the impact identified has already occurred. The analysis must account for the actual performance of both the impacted work and all other contract work in the schedule.

Prepare an analysis for approval by the Contracting Officer based on one of the methodologies identified in AACE 29R-03. Include in the analysis the reasoning for the choice of methodology.

3.10.5 Fragmentary Network (Fragnet)

Clearly show how the proposed fragnet is to be tied into the project schedule including all predecessors and successors to the fragnet activities. The proposed fragnet must be approved by the Contracting Officer prior to incorporation into the project schedule.

3.10.6 Impact to Early Completion Schedule

No extended overhead will be paid for delay prior to the original Contract Completion Date for an Early Completion IPS unless the Contractor actually performed work in accordance with that Early Completion Schedule. The Contractor must show that an early completion was achievable had it not been for the impact.

3.11 FAILURE TO ACHIEVE PROGRESS

3.11.1 Failure to Perform

Failure to perform work and maintain progress in accordance with the approved schedule or recovery plan may result in unsatisfactory performance ratings and/or may result in corrective action directed by the Contracting Officer pursuant to FAR 52.236-15 Schedules for Construction Contracts, FAR 52.249-10 Default (Fixed-Price Construction), and other contract provisions.

3.11.2 Corrective Actions

In addition to other remedieis, should progress fall behind the approved project schedule for reasons other than those that are excusable within the terms of the contract, the Contracting Officer may require provision of a revised schedule or written recovery plan for approval.

A recovery plan details how progress will be made-up and shows a viable path to return to the approved schedule within a reasonble time period, as oppossed to creation of a new plan (a revised schedule) to complete the remainder of the work. It identifies which activities will be modified by adding additional crews, longer work hours, extra work days, etc. Additional resources, manpower, or work hour changes must be evident at the work site and documented in QC Reports.

3.12 OWNERSHIP OF FLOAT

Except for the provision given in the paragraph IMPACT TO EARLY COMPLETION SCHEDULE, float available in the schedule, at any time, belongs to the
Project and is available for Contractor and Government use. This includes activity and project float.

Activity float is the number of work days that an activity can be delayed without causing a delay to the "Required Completion" milestone. Project float (if applicable) is the number of work days between the projected early finish and the "Required Completion" milestone.

3.13 ACTIVITY CODING

Use of the activity coding defined in the Standard Data Exchange Format (SDEF) in ER 1-1-11. This exact structure is mandatory. Develop and assign all Activity Codes to activities as detailed herein.

Activities may not be assigned more than one value for each activity codes. Additional activity codes may be used at the discretion of the contractor, however all codes must be identified, described, and their use explained in the narrative.

The SDEF format is as follows:

Field	Activity Code	Length	Description
1	WRKP	3	Workers per day
2	RESP	4	Responsible party
3	AREA	4	Area of work
4	MODF	6	Modification Number
5	BIDI	6	Bid Item (CLIN)
6	PHAS	2	Phase of work
7	CATW	1	Category of work
8	FOW	20	Feature of work

3.13.1 Workers Per Day (WRKP)

Assign Workers per Day for all field construction or direct work activities. Workers per day is based on the average number of workers

expected each day to perform a task for the duration of that activity. It does not include management or other labor associated with the administration of the work.

The value of this field must be the number of workers as whole number (integer) matching the code value. For example, 1 would represent 1 worker/day. Do not alter from this requirement without prior approval from the Contracting Officer.

3.13.2 Responsible Party Coding (RESP)

Assign responsibility code for all activities to the Prime Contractor, Subcontractor or Government agency responsible for performing the activity. Activities cannot have more than one responsibility code: divide activities where required to ensure that all work associated with the activity is performed by a single responsible party. Each RESP code other than "PRIM" will generate a new Subcontractor record in RMS-CM which will then appear on the contractors pay request.

a. Activities coded with a Government Responsibility code include, but are not limited to: Government review and approvals, Government Furnished Property/Equipment (GFP) and Notice to Proceed (NTP) for phasing requirements.

b. Activities which are the responsibility of any Host Nation or foreign (non-US) Government agency at any level, including, but not limited to: reviews, permit approvals, and clearances must have a Host Nation Responsibility Code assigned.

c. Utilize the following specific activity codes: DOR (for the designer of record); GOVT (for USACE); HONA (for Host Nation); GOVO (for US Government actions other than USACE, and PRIM (for the prime contractor).

d. Generic coding for subcontract trades, such as "MECH" for Mechanical, and "ELEC" for electrical are acceptable if there is a single subcontractor for that trade. All subcontractors shown on the contractors pay request must be shown in the schedule.

d. The Prime Contractor MUST have a Responsibility Code of "PRIM".

3.13.3 Area of Work Coding (AREA)

Inquire at the SEKO whether the government requires information in this field for this project. If none is required, document in the narrative.

3.13.4 Modification Number (MODF)

Assign a Modification Number Code to any activity or sequence of activities added to the schedule as a result of a Contract Modification. Key all Code values to the Government's modification numbering system.

When preparing a prospective Time Impact Analysis, insert the Change Request (CR) number identified in the RFP letter to allow for proper filtering.

3.13.5 Bid Item Coding (BIDI)

Assign a Bid Item Code to all activities using the Contract Line Item Schedule (CLIN) to which the activity belongs, even when an activity is not cost loaded. The CLIN must match the CLIN as shown in RMS-CM.

3.13.6 Phase of Work Coding (PHAS)

If the contract specifies phasing with separately defined performance periods, identify a Phase Code to allow filtering and organizing the schedule accordingly. If no phasing is required by contract, inquire at the SEKO whether the government requires information in this filed for this project. If non is required, document in the narrative.

3.13.7 Category of Work Coding (CATW)

Inquire at the SEKO whether the government requires information in this field for this project. If none is required, document in the narrative.

3.13.8 Feature of Work Coding (FOW)

Assign a Feature of Work Code based on the Definable Feature of Work to which the activity belongs based on the approved QC plan. Do not assign FOW by specification section number.

Definable Feature of Work is defined in Section 01 45 00 QUALITY CONTROL.

3.14 PRIMAVERA P6 REQUIREMENTS

The following settings are mandatory and required in all schedule submissions to the Government.

3.14.1 Project Settings

a. Calendars and Activity Codes must be Project Level.

b. Do not include a "Must Finish By" date under the Dates tab of the Project.

c. Time Period Admin Preferences must remain the default "8.0 hr/day, 40 hr/week, 172 hr/month, 2000 hr/year". Set Calendar Work Hours/Day to 8.0 Hour days.

3.14.2 Activity Settings

a. Set Activity Duration Types for non-milestone activities to "Fixed Duration & Units". Set Milestone activities to "Fixed Duration and Units/Time".

b. Set Percent Complete Types to "Physical".

c. Activity Type for non-milestone activities must be set to "Task Dependent." "Level of Effort" activities may not be used without prior approval of the government.

3.14.3 Scheduling Options

Set the following schedule options before scheduling the project and schedule the project prior to creating any export to the government.

a. Uncheck all options shown in the General Tab, including "use Expected Finish Dates."

b. Define progressed activities using "Retained Logic".

c. Calculate lag using "Early Start".

d. Define critical activities as "Longest Path".

e. Calculate float using each project and total float as Start Float

using Predecessor Activity Calendar.

3.15 TRANSFER OF SCHEDULE DATA INTO RMS-CM

Import approved schedule data into RMS-CM. This data is additional supporting data in a form and detail required by the Contracting Officer pursuant to FAR 52.232-5 - Payments under Fixed-Price Construction Contracts. The receipt of a proper payment request pursuant to FAR 52.232-27 - Prompt Payment for Construction Contracts is contingent upon the Government receiving acceptable matching RMS data for the application for progress payment.

Manually enter all required schedule data which does not import into RMS-CM must be manually loaded in RMS-CM. Required schedule data includes all information shown in the Pay activity screens of RMS-CM, as well as planned and actual start and finish dates.

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05/24

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SECTION 01 33 00

SUBMITTAL PROCEDURES (NAU)
05/24

PART 1 GENERAL

1.1 SUMMARY

The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. All submittals must be complete, in compliance with the contract, properly reviewed, and approved by the contractor prior to submission to the Government.

Units of weights and measures used on all submittals are to be the same as those used in the contract drawings.

Each submittal is to be complete and in sufficient detail to allow ready determination of compliance with contract requirements.

Include within submittals items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; and warranties.

1.2 DEFINITIONS

1.2.1 Submittal Descriptions (SD)

Submittals requirements are specified in the technical sections. Submittals are identified by Submittal Description (SD) numbers and titles as follows:

SD-01 Preconstruction Submittals

Submittals which are required prior to start of construction (work) or the start of the next major phase of the construction on a multi-phase contract, includes schedules, tabular list of data, or tabular list including location, features, or other pertinent information regarding products, materials, equipment, or components to be used in the work.

Construction progress schedule

Network Analysis Schedule (NAS)

Submittal register

Health and safety plan

Work plan

Quality Control(QC) plan

Environmental protection plan

SD-02 Shop Drawings

Drawings, diagrams and schedules specifically prepared to illustrate some portion of the work.

Diagrams and instructions from a manufacturer or fabricator for use in producing the product and as aids to the Contractor for integrating the product or system into the project.

Drawings prepared by or for the Contractor to show how multiple systems and interdisciplinary work will be coordinated.

SD-03 Product Data

Catalog cuts, illustrations, schedules, diagrams, performance charts, instructions and brochures illustrating size, physical appearance and other characteristics of materials, systems or equipment for some portion of the work.

Samples of warranty language when the contract requires extended product warranties.

SD-04 Samples

Fabricated or unfabricated physical examples of materials, equipment or workmanship that illustrate functional and aesthetic characteristics of a material or product and establish standards by which the work can be judged.

Color samples from the manufacturer's standard line (or custom color samples if specified) to be used in selecting or approving colors for the project.

Field samples and mock-ups constructed on the project site establish standards by which the ensuring work can be judged. Includes assemblies or portions of assemblies which are to be incorporated into the project and those which will be removed at conclusion of the work.

SD-05 Design Data

Design calculations, mix designs, analyses or other data pertaining to a part of work.

Design submittals, design substantiation submittals and extensions of design submittals.

SD-06 Test Reports

Report signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accord with specified requirements. Unless specified in another section, testing must have been within three years of date of contract award for the project.

Report which includes findings of a test required to be performed by the Contractor on an actual portion of the work or prototype prepared for the project before shipment to job site.

Report which includes finding of a test made at the job site or on sample taken from the job site, on portion of work during or after installation.

Investigation reports.

Daily logs and checklists.

Final acceptance test and operational test procedure.

SD-07 Certificates

Statements printed on the manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that the product, system, or material meets specification requirements. Must be dated after award of project contract and clearly name the project.

Document required of Contractor, or of a manufacturer, supplier, installer or Subcontractor through Contractor. The document purpose is to further promote the orderly progression of a portion of the work by documenting procedures, acceptability of methods, or personnel qualifications.

Confined space entry permits.

Text of posted operating instructions.

SD-08 Manufacturer's Instructions

Preprinted material describing installation of a product, system or material, including SDS, special notices and other information concerning impedances, hazards and safety precautions.

SD-10 Operation and Maintenance Data

Data that is furnished by the manufacturer, or the system provider, to the equipment operating and maintenance personnel, including manufacturer's help and product line documentation necessary to maintain and install equipment. This data is needed by operating and maintenance personnel for the safe and efficient operation, maintenance and repair of the item.

This data is intended to be incorporated in an operations and maintenance manual or control system.

SD-11 Closeout Submittals

Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.

Submittals required for Guiding Principle Validation (GPV) or Third Party Certification (TPC).

Special requirements necessary to properly close out a construction contract. For example, Record Drawings and as-built drawings. Also, submittal requirements necessary to properly close out a major phase of construction on a multi-phase contract.

1.2.2 Approving Authority

Office or designated person authorized to approve submittal.

1.2.3 Work

As used in this section, on- and off-site construction required by contract documents, including labor necessary to produce submittals, except SD-01 Pre-Construction Submittals, construction, materials, products, equipment, and systems incorporated or to be incorporated in such construction.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor QC approval. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Codes are: "AE" for Architect-Engineer; "DO" for District Office; and "RO" for Resident Office (the office administering the contract). If no designation is provided, the reviewing office will be the Resident Office.

The "AE" designation is only applicable to the Government prepared portion of the design, if any, which was prepared by a Architect-Engineer firm under separate contract to the Government.

Designations following the "G" are administrative in nature; submit all transmittals as described in this section regardless of any designation.

Submit the following in accordance with this section.

SD-01 Preconstruction Submittals

Submittal Register; G

1.4 SUBMITTAL CLASSIFICATION

Submittals are classified as described below. Notwithstanding the below descriptions, the Contracting Officer reserves the right to require any item to be submitted for Government Approval.

1.4.1 Design and Design Related Submittals

The Contractor's Designer of Record (DOR) approval is required for contractor prepared designs and extensions of design. DOR approval is also required for deviations, substitutions, or variations (as defined herein) where compatibility with a system must be checked. The Contracting Officer may also designate additional items for DOR approval.

Within the terms of the Contract Clause SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION, they include shop drawings.

All design submittals must be in accordance with Section 01 33 16 DESIGN AFTER AWARD. Identify design submittals as SD-05 Design Data submittals.

All DOR approved submittals will be submitted either as Designer of Record Approved/Government Approved (DA/GA) or Designer of Record Approved/Government Conformance Review (DA/CR) as described below.

1.4.1.1 Designer of Record Approved/Government Approved (DA/GA)

Government approval is required for any deviation, variation, or substitution, as well as other items designated by the Contracting Officer.

1.4.1.2 Designer of Record Approved/Government Conformance Review (DA/CR)

Any DOR approved submittal not specifically identified elsewhere as Government Approved (DA/GA) is considered DA/CR.

1.4.2 Non-Design Related Submittals

Any submittal which is not considered design or design related as described above and which does not require DOR approval will be classified either as Government Approved (G) or For Information Only

(FIO).

1.4.2.1 Government Approved (G)

Government approval is required for all non-design related deviations, substitutions, variations, and other items as designated by the Contracting Officer.

1.4.2.2 For Information Only (FIO)

All submittals not requiring DOR or Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.4.3 Sustainability Reporting Submittals (S)

Submittals for Guiding Principle Validation (GPV) or Third Party Certification (TPC) are indicated with an "S" designation. Submit the information required by the technical sections that demonstrates compliance with the sustainable requirement, and for inclusion in the Sustainability eNotebook as required by Section 01 33 29 SUSTAINABILITY REQUIREMENTS AND REPORTING. A full submittal for an item may be provided under another SD; however, for the "S" submittal, only provide that portion of the submittal that demonstrates compliance with the sustainable requirement. If the sustainable submittal does require Government Approval, it may be tagged under another SD with a "G."

Schedule submittals for these items throughout the course of construction as provided; do not wait until closeout.

1.5 PREPARATION

1.5.1 Related Items

Submit complete submittals for each definable feature of work. Submit at the same time components of definable feature interrelated as a system.

When acceptability of a submittal is dependent on conditions, items, or materials included in separate subsequent submittals, submittal will be returned without review.

Approval of a separate material, product, or component does not imply approval of assembly in which item functions

1.5.2 Transmittal Form

Use the ENG Form 4025-R which is automatically generated in RMS (CM) for all submittals. All fields must be completed.

1.5.3 Electronic Files

1.5.3.1 Format

Provide submittals in electronic format, with the exception of material samples required for SD-04 Samples items. Compile the submittal file as a single, complete document, to include the ENG 4025-R. Name the electronic submittal file specifically according to its contents, coordinate the file naming convention with the Contracting Officer. Electronic files must be of sufficient quality that all information is legible.

Submit all documents in PDF format. Submit drawings in both PDF and DWG (AutoCAD, latest version) format, unless otherwise specified or directed by the Contracting Officer. Generate PDF files from original documents

with bookmarks so that the text included in the PDF file is both searchable and can be copied. If documents are scanned, Optical Character Resolution (OCR) routines are required. Index and bookmark files exceeding 30 pages to allow efficient navigation of the file.

1.5.3.2 Manipulation of Electronic Documents

The editing, alteration, or changing of any information in an electronic document prepared by someone other than the contractor is expressly prohibited without clear and unambiguous identification of the changes. This includes adding, deleting, redacting, or hiding information shown in the original document.

Non-applicable portions of a document may be marked out via strike-through or similar notation. The portions being marked out must remain visible.

Electronic documents in this context includes manufacturers product data sheets, catalogs, operation or maintenance manuals, and any other information showing performance or material characterizations of the submitted material or equipment.

1.6 QUANTITY OF SUBMITTALS

1.6.1 Electronic Submission

All submittals are to be provided electronically through RMS-CM as described in Section 01 45 05 RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM) (NAU).

When so requested, provide copies of submittals via e-mail to person(s) designated by the Contracting Officer. E-mail submission will not be considered acceptable in lieu of submission through RMS-CM: all submittals must be provided through RMS-CM.

In case of conflict between documents submitted via e-mail and those contained in RMS-CM, the documents contained in RMS-CM will be considered the official transmittal.

1.6.2 Use of ProjNet

The use of ProjNet (https://www.projnet.org) for the transmission of submittals, with the exception of samples, may be required where external reviews by non-USACE personnel are necessary. ProjNet is a web-based application that is free at the point of use for the contractor.

Where ProjNet is required, the contractor must register and establish access for their employees, subcontractors, and consultants, as appropriate, to allow for timely uploading and responses to transmittals. Separate or additional payment will not be made for the use of ProjNet.

1.6.3 SD-04 Sample Items

a. Submit two samples, or two sets of samples showing range of variation, of each required item. One approved sample or set of samples will be retained by approving authority and one will be returned to Contractor.

b. Submit one sample panel or provide one sample installation where directed. Include components listed in technical section or as directed.

c. Submit one sample installation, where directed.

d. Submit one sample of non-solid materials.

1.6.4 Printed Copies

Notwithstanding the above requirements, and unless a different quantity is identified elsewhere in a technical section, up to three printed (hard) copies of any submittal may be requested at the discretion of the Contracting Officer, at no additional cost to the Government. Sizes and number of copies identified in other contract documents govern over the sizes and quantities indicated herein.

Print drawings in ANSI D or A1 size. Print all other documents on A4 or US 8.5" x 11" paper. Provide documents in binders or otherwise bound: loose documents are prohibited.

1.7 INFORMATION ONLY SUBMITTALS

Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

1.8 SUBMITTAL REGISTER

Within 30 calendar days of Notice to Proceed, provide for Contracting Officer approval the following schedule of submittals:

a. A schedule of shop drawings and technical submittals required by the specifications and drawings. Indicate the specification or drawing reference requiring the submittal; the material, item, or process for which the submittal is required; the "SD" number and identifying title of the submittal; the Contractor's anticipated submission date and the approval need date.

b. A separate schedule of other submittals required under the contract but not listed in the specifications or drawings. Schedule will indicate the contract requirement reference; the type or title of the submittal; the Contractor's anticipated submission date and the approved need date (if approval is required).

Maintain a submittal register for the project in accordance with Section 01 45 01 RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM). Identify all submittal items in the register. Record and submit every transmittal through RMS.

1.9 DEVIATIONS, SUBSTITUTIONS, AND VARIATIONS

Unless prohibited or provided for otherwise elsewhere in the Contract, deviations, substitutions, and variations from contract requirements will be considered only where advantageous to Government. As used in this context, the terms are used interchangeably and include:

a. Changes to the contractors accepted proposal

b. Changes to approved or accepted contractor prepared designs or

extensions of design, including shop drawings.

c. Changes to products, systems, materials or equipment by manufacturer, brand name and/or by model number or other specific identification identified in the contractors proposal.

d. Any item which was previously submitted and approved or otherwise accepted (e.g. a FIO submittal which does not require approval).

1.9.1 Required Approval

Obtain Government approval prior proceeding with material acquisition or installation. Include substantiation the proposed item meets the contract requirements and that it is equal in function, performance, quality and salient features to the original item.

For contractor prepared designs or extensions of design, the Government will not agree to or provide a preliminary opinion without the DOR's approval or recommended approval.

A contract modification is also required before the Contractor is authorized to proceed with material acquisition or installation for any proposed variation to which constitutes a change to the contract terms. Within the terms of the Contract Clause SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION, they are considered to be "shop drawings."

The Government reserves the right to accept or reject any proposed deviation at its discretion.

1.9.2 Considerations

Discussion with Contracting Officer prior to submission, after consulting with the DOR, will help ensure functional and quality requirements are met and minimize rejections and re-submittals. When contemplating a variation which results in lower cost, consider submission of a Value Engineering Change Proposal (VECP).

Specifically point out variations from contract requirements in transmittal letters. Failure to point out deviations may result in the Government requiring rejection and removal of such work at no additional cost to the Government.

1.9.3 Proposing Variations

When proposing variations, deliver written request to the Contracting Officer, with documentation of the nature and features of the variation and why the variation is desirable and beneficial to Government, including the DOR's written analysis and approval. If lower cost is a benefit, also include an estimate of the cost savings. In addition to documentation required for variation, include the submittals required for the item. Clearly mark the proposed variation in all documentation.

Proposed deviations from the contract requirements are to be clearly identified on the relevant submittal.Check the column "variation" of ENG Form 4025 for submittals which include proposed deviations requested by the Contractor. Describe the reason for any deviations and specifically identify the deviations on the submittal.

The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

1.9.4 Warranting that Variations are Compatible

When delivering a variation for approval, Contractor, including its

Designer(s) of Record, warrants that this contract has been reviewed to establish that the variation, if incorporated, will be compatible with other elements of work.

1.10 SCHEDULING

Schedule submittals with sufficient time to obtain a Government response prior to acquisition of applicable equipment and materials, and before commencement of applicable work.

Schedule and submit concurrently submittals covering component items forming a system or items that are interrelated. Include certifications to be submitted with the pertinent drawings at the same time. No delay damages or time extensions will be allowed for time lost in late submittals.

a. Coordinate scheduling, sequencing, preparing and processing of submittals with performance of work so that work will not be delayed by submittal processing. Allow for potential resubmittal of requirements.

b. Link each transmittal item in the submittal register to the appropriate activity from the project schedule in RMS to determine the submittal needs dates on the register. Coordinate lead time, procurement period, and review days between RMS and the project schedule.

c. Carefully control procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

1.10.1 Review Periods

Account for Government review periods as indicated below. The review period starts upon receipt of the submittal by the Government.

DA/GA: 30 calendar days

DA/CR: 21 calendar days

G: 30 calendar days

FIO or S: 14 calendar days

Resubmittals, regardless of classification: 30 calendar days

Deviations, substitutions, and variations: 45 calendar days

1.10.2 No Impact on Schedule

No extension to the contract performance period or to any interim completion date or milestone will be allowed for:

a. Any periods associated with re-submittals

b. Denial or delayed approval of any variation

1.11 CONTRACTOR RESPONSIBILITIES

1.11.1 Reviewing, Certifying, Approving Authority

1.11.2 QC Organization Responsibilities

Prior to submission, the contractors QC Organization must review each

submittal to ensure coordination and compliance with the requirements of the contract.

1.11.3 Approval

The Contractor Quality Control System Manager (CQCSM) must sign the ENG 4025-R. CQCSM signature indicates the CQC organization has reviewed the submittal and is certifying it complies with all contract requirements unless specifically noted.

For any Design or Design Related Submittal, the contractors DOR must also sign the ENG 4025-R and certify that the submittal meets the contract requirements. Refer to the technical specifications for any additional approval or certification requirements.

Electronically submitted transmittals must include a valid electronic signature. The electronic signature must clearly identify the person(s) who signed the document. If a document cannot be electronically signed, print the document, apply a wet (ink) signature to each page (initials are acceptable on the second and subsequent pages) and scan the entire document. Use of image files representing a scanned signature are prohibited except when included as part of an electronic signature.

1.12 GOVERNMENT REVIEW OF TRANSMITTALS

1.12.1 Review Notations

Submittals will be returned to the Contractor with the following notations:

a. Submittals marked "approved" or "accepted" authorize the Contractor to proceed with the work covered. (Codes: "A", "D", "F", "R", or "K")

b. Submittals marked "approved as noted" or "approved, except as noted, resubmittal not required," authorize the Contractor to proceed with the work covered provided they take no exception to the corrections. (Code "B").

c. Submittals marked "approved, resubmission required" authorize the contractor to proceed only with the portions of the work which do not require resubmission. (Code "C")

d. Submittals marked "not approved" or "disapproved," or "revise and resubmit," indicate noncompliance with the contract requirements or design concept, or that submittal is incomplete. (Codes "E" or "X"). Resubmit with appropriate changes. Work must not proceed for this item until resubmittal is approved.

1.12.2 Approved or Accepted Transmittals

The Contracting Officer's approval or acceptance of submittals is not to be construed as a complete check.

The Contractor remains solely responsible for performing quality control, fully adhering to the requirements of the contract, and for correcting any transmittals which are determined to be noncompliant with the contract, regardless of any previous Government approval or acceptance. No adjustment in the contract terms will be allowed for any corrections so required.

After submittals have been approved or accepted by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless approved in accordance with paragraph DEVIATIONS, SUBSTITUTIONS, AND VARIATIONS.

1.13 DISAPPROVED OR REJECTED SUBMITTALS

Make corrections required by the Contracting Officer. If the Contractor considers any correction or notation on the returned submittals to constitute a change to the contract drawings or specifications; notice as required under the FAR clause entitled CHANGES, is to be given to the Contracting Officer. Contractor is responsible for the dimensions and design of connection details and construction of work.

If changes are necessary to submittals, make such revisions and submission of the submittals in accordance with the procedures above. No item of work requiring a submittal change is to be accomplished until the changed submittals are approved.

No adjustment in the contract terms will be allowed for correcting any disapproved or rejected transmittals which are not in compliance with the contract.

1.14 APPROVED SAMPLES

Approval of a sample is only for the characteristics or use named in such approval and is not be construed to change or modify any contract requirements. Before submitting samples, the Contractor to assure that the materials or equipment will be available in quantities required in the project. No change or substitution will be permitted after a sample has been approved.

Match the approved samples for materials and equipment incorporated in the work. If requested, approved samples, including those which may be damaged in testing, will be returned to the Contractor, at their expense, upon completion of the contract. Samples not approved will also be returned to the Contractor at its expense, if so requested.

Failure of any materials to pass the specified tests will be sufficient cause for refusal to consider, under this contract, any further samples of the same brand or make of that material. Government reserves the right to disapprove any material or equipment which previously has proved unsatisfactory in service.

Samples of various materials or equipment delivered on the site or in place may be taken by the Contracting Officer for testing. Samples failing to meet contract requirements will automatically void previous approvals. Contractor to replace such materials or equipment to meet contract requirements.

Approval of the Contractor's samples by the Contracting Officer does not relieve the Contractor of their responsibilities under the contract.

Pick up and dispose of samples not incorporated into the work in accordance with manufacturer's Safety Data Sheets (SDS) and in compliance with existing laws and regulations.

1.15 WITHHOLDING OF PAYMENT

No payment will be made for any items or element of work associated with the following:

a. Items which were required to be, but have not been, submitted.

b. Items where required approvals (Government or DOR) have not been obtained.

c. Work which deviates from that identified in a transmittal.

d. Work which deviates from the contract requirements, except items submitted and approved in accordance with paragraph DEVIATIONS, SUBSTITUTIONS, AND VARIATIONS.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

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SECTION 01 33 16

DESIGN AFTER AWARD (NAU)
08/25

PART 1 GENERAL

1.1 SUMMARY

After award, develop the completed design, as described herein and in Section 01 10 10 STATEMENT OF WORK. Use a collaborative, integrated design process for all stages of project delivery. Consider all stages of the project lifecycle, including deconstruction, rehabilitation, re-purposing, or demolition.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

ERDC/ITL TR-12-1	(2015) A/E/C Graphics Standard, Release 2.0

U.S. DEPARTMENT OF DEFENSE (DOD)

UFC 1-300-08	(2009, with Change 2, 2011) Criteria for Transfer and Acceptance of DoD Real Property

Additional references are included in Section 01 10 10 Statement of Work.

1.3 DESIGN CRITERIA

This contract requires the contractor to comply with FAR clauses 52.236-23 RESPONSIBILITY OF THE ARCHITECT-ENGINEER CONTRACTOR, 52.236-24 WORK OVERSIGHT IN ARCHITECT-ENGINEER CONTRACTS, and DFARS clauses 252.227-7022 and 252.227-7033 RIGHTS IN SHOP DRAWINGS.

1.3.1 Standard of Care

The standard of care for all design services performed under this contract is the care and skill ordinarily used by members of the architectural or engineering professions practicing under similar conditions at the same time and locality. Design services for portions of the work performed in accordance with a performance standard are to be performed so as to achieve such standards

1.3.2 Required Corrections

In addition to correcting errors or deficiencies in its design as required by FAR clause 52.236-23, perform any and all necessary rework or modifications, including any damage to real or personal property, resulting from its design error or omission with no adjustment in either the contract amount or period of performance.

1.3.3 Host Nation Standards and Codes

Provide design in accordance with current Host Nation standards and building codes as described elsewhere in the contract. The Contractor is

responsible for obtaining any referenced documents, and must make them available, in English, to the Contracting Officers Representative (COR) upon request. Provide English translations of any documents not available in English.

This requirement does not supercede requirements elsewhere in the contract to design in accordance with United States of America standards and codes. Reference is made to Section 01 30 01 GENERAL REQUIREMENTS (NAU), paragraph REFERENCED STANDARDS.

1.3.4 Warranty of Design

a. The Contractor warrants the design is performed in accordance with the contract requirements.

b. The period of this warranty commences upon final completion and the Government's acceptance of the work, or in the case of the Government's beneficial occupancy of all or part of the work for its convenience, prior to final completion and acceptance, at the time of such occupancy.

c. This design warranty will be effective from the above event for 10 years except for latent defects, gross mistakes, or fraud.

d. The rights and remedies of the Government as described herein are in addition to any other rights and remedies provided in this contract or by law.

1.3.5 Deviations from the Accepted Design

a. The Contractor must obtain the approval of the Designer of Record and the Government's concurrence for any Contractor proposed revision to the professionally stamped and sealed and Government reviewed design, before proceeding with the revision. Submit any revision in accordance with paragraph DEVIATIONS, SUBSTITUTIONS, AND VARIATIONS of 01 33 00 SUBMITTAL PROCEDURES (NAU).

b. The Government reserves the right to non-concur with any revision to the design.

c. Any revision to the design, which deviates from the contract requirements will require a modification, pursuant to the Changes clause, in addition to Government concurrence.

d. Unless the Government initiates a change to the contract requirements, or the Government determines the Government furnished design criteria are incorrect and must be revised, any Contractor initiated proposed change to the contract requirements, is not be subject to an increase in the contract price or period of performance.

e. Track all approved revisions to the reviewed and accepted design and incorporate them into the as-built design documentation. The Designer of Record must document its professional concurrence on the as-built drawings for any revisions in the stamped and sealed drawings and specifications.

1.4 DEFINITIONS

1.4.1 Designer of Record (DOR)

Professional Registered members of the Contractor’s Design-Build team that check, approve, sign, date, and certify, prior to submitting the deliverables to the Government, that the D-B design submittals comply

with the contract requirements. Perform design under the general supervision of the DOR (i.e. Registered Architect, Registered Professional Engineer, or other recognized consultant) and approved by the same. The DOR must be legally licensed to perform design work in the jurisdiction the construction is performed.

The DOR(s) stamp, sign, and date each design drawing and other design deliverables under their responsible discipline at each design submittal stage. The DOR(s) are responsible for maintaining the integrity of the design and for compliance with the contract requirements through construction and documentation of the as-built condition by coordination, review and approval of extensions of design, material, equipment and other construction submittals, review and approval or disapproval of requested deviations to the accepted design or to the contract, coordination with the Government of the above activities, and by performing other typical professional design responsibilities.

PART 2 PRODUCTS

2.1 GOVERNMENT FURNISHED MATERIALS

There are no government Furnished Materials for design unless specifically identified in 01 10 10 STATEMENT OF WORK. The Government makes no representation of the existence of surveys, reports, or as-constructed drawings, except as specifically noted in that section.

The contractor is solely responsible for obtaining any documents not explicitly provided by the Government prior to award and included in the award documents.

2.2 SUBMITTAL REQUIREMENTS

2.2.1 Submittals and Transmittals

Comply with the requirements in Section 01 33 00 SUBMITTAL PROCEDURES. The CQC organization is responsible for certifying all submittals and deliverables are in compliance with the contract requirements.

Additionally, the contractor will be required to upload all design package documents in the ProjNet/Dr. Checks system in the locations specified by the COR.

2.2.2 Partial Design Packages

The contractor may, unless explicitly prohibited, prepare separate design packages for aspects of the project such as earthworks, separate facilities or discrete work items, and submit them separately for review and approval to allow for "fast-tracking" of the associated construction.

The contractor must still comply with any Host Nation permitting and approval processes, and remains solely and completely liable for correcting any work which requires revision or adjustment resulting from other aspects of the design which were not completed prior to beginning construction. No adjustment in the contract duration or amount will be made for any work so required.

2.2.3 Package Requirements

At each design milestone identified in Section 01 10 10 STATEMENT OF WORK, provide a complete Design Package that includes:

a. Design Drawings

b. Specifications

c. Design Analysis including attachments described below

c.1. Design Analysis Attachment 1: With the exception of the first submittal, include all previous comments, Contractor and Government responses, and the specific resolution of each comment.

c.2. Design Analysis Attachment 2: Contractor's completed discipline-specific checklists as described in Section 01 45 10 DESIGN QUALITY CONTROL

c.3. Design Analysis Attachment 3: Minutes of meetings, review conferences, and discussions (whether verbal or electronic) with Government personnel regarding the design which were not included in a previous Design Package.

d. Real Property Record: No later than the next to last design submittal, provide a draft Real Property Record as described below.

Incomplete packages will not be accepted and will be returned without review or comment.

2.2.4 Document Language

All submittal documents must be provided in both the Host Nation language and English, with the exception of the Design Analysis. The Design Analysis is only required in English with the exception of any documents which are required by the Host Nation to be submitted in another language.

If a document cannot contain both languages side-by-side, then two identical copies of the document must be provided, one in the Host National language and one in English.

2.2.5 Format and Quantity of Submittals

Provide documents in the following format and quantities:

a. Electronic Documents. Submit all electronic documents using the PDF format for text and calculations and both the PDF and DWG (AutoCAD, latest version) format for drawings.

Electronic documents must be submitted through RMS-CM as attachments to the design submittal, ProjNet/Dr. Checks, and, if requested by the COR, on CD/DVD.

b. Hard Copy Documents: up to four (4) hard copies of all documents may be requested by the Government as part of the contract at no additional cost. The exact number and quantity will be coordinated with the COR prior to submittal.

Documents must be provided in labeled binders, drawings may be rolled.

The contractor will be required to arrange for delivery of hard copy documents directly to the addresses provided by the COR: each set of hard copy documents may be required to be delivered to separate addresses.

Specifications and all design analysis documents must be A4 sized or larger, drawings must be A1 size.

2.2.6 Units

The design, and all design submittal documents, must be developed using the metric system.

2.3 DESIGN DRAWINGS

Provide Design Drawings as described in Section 01 10 10 STATEMENT OF WORK. Drawings must clearly and concisely show the type and extent of work to be performed, with all information and details required for construction. The drawings must satisfy the requirements of the criteria referenced. All drawings must be well prepared, complete, with all elements thoroughly checked and coordinated, and accomplished in accordance with a professional standard of care. Refer to ER 1110-345-700 Appendix C for additional guidance.

In addition to technical drawing sheet requirements, provide general sheets that tie the project together. These sheets include, but are not limited to (1) title sheet; (2) index sheet(s) identifying each sheet reference number, sheet number, and sheet title; and (3) vicinity map.

Drawings must include a title block with project identifying information and page numbers in format “x of y”. All drawings must be legible when printed on Tabloid or A3 paper. All drawings must be printed on ANSI-D or A1 paper. All drawings must be legible and clearly portray the information necessary for the successful construction.

2.3.1 Graphics Standard

Provide drawings that meet the graphics standard of ERDC/ITL TR-12-1 A/E/C Graphics Standard, including but not limited to title blocks, text size, orientation, scale bars, and north arrows. All drawings must use an A1 sheet size.

2.3.2 Electronic Drawing Files

Provide electronic drawing files in PDF and DWG format for each project drawing in the design set.

Bundle PDF drawings should generally be combined into one PDF file per design package. The design package must be bookmarked by discipline or sheet type. Coordinate with the COR for project specific requirements. Provide separate DWG drawing files.

2.4 SPECIFICATIONS

Provide design specifications that, in conjunction with the drawings, allow for a complete understanding and constructability of all project features, including materials, dimensions, quantities, qualities, colors, codes, and other relevant values. The Specifications must demonstrate project compliance with materials, equipment, execution, and quality control requirements of the RFP and accepted proposal.

Any specifications provided as part of the contract are not to be edited, revised, or included in the contractor prepared design specifications unless instructions are provided in the contract specifically identifying the edits required.

2.4.1 Organization of Specifications

Specifications must be organized into chapters using the MasterFormat structure which consists of 50 distinct Divisions. Not all Divisions will be applicable to every project.

Each section must have a unique number and title. Include a table of contents for each section. Divide each Section into 3 parts (General, Products, and Execution).

Within each section, include paragraphs describing materials, equipment, references, execution, and quality control requirements. Provide a unique number and title for each paragraph. The number must start with the part it falls under.

2.4.2 Manufacturer's Product Data and Instructions Used as Specifications

Manufacturer's product data and installation instructions may be used as specifications. Provide complete and legible catalog cut sheets, product data, installation instructions, operation and maintenance instructions, warranty, and certifications for products and equipment for which final material and equipment choices have been made. Indicate, by prominent notation, each product that is being submitted, including optional manufacturer's features. Indicate where the product data shows compliance with the Contract requirements.

2.4.3 Submittal Register

Develop the Construction submittal requirements during the design phase of the contract, by producing a Submittal Register in accordance with Section 01 33 00 Submittal Procedures. Include the Submittal Register as an Attachment to the Specifications.

Additionally, the Submittal Register must be uploaded into RMS-CM (reference Section 01 45 01 RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS-CM)) or manually entered into RMS-CM. Uploading (importing) can be accomplished via a file created by the SPECSINTACT program or a Microsoft Excel Template available from the Government.

2.4.4 Specifications Packaging

Provide specifications to include the following:

a. Cover sheet that includes project name, location, and contract number.

b. Project table of contents (including all attachments).

c. Attachments, including manufacturer's product data, permits, etc. Include attachment referenced within the specification section.

d. Continuous page numbers throughout the document.

2.4.5 Specification Deliverable

Submit a bundled specification package in PDF format for each design package. Include bookmarks for each section, and within each section for each part and paragraph number (as described above).

2.5 DESIGN ANALYSIS

See Section 01 10 10 STATEMENT OF WORK for additional specific design analysis requirements for this project.

The Design Analysis must be organized by chapter using the same division as those described in Paragraph 2.4.1 Organization of Specifications

Provide a Design Analysis that documents the general parameters, functional and technical requirements, design objectives, and design assumptions for all project features. The Design analysis is not only used for review of the design, but for record purposes. Documentation

includes narrative, calculations, photographs, sketches, and catalog cut sheets. For each project feature, reference all applicable regulations, standards, and criteria for the design. Reference sources are subject to Government approval.

2.5.1 Minimum Requirements

The Design Analysis must include, at a minimum, the following:

(1) Description of the project

(2) Narrative and discussion of the design;

(3) Calculations for all engineering and architectural disciplines applicable to the contract, including civil, structural, mechanical, electrical, plumbing, fire protection

(4) Basis of design for fixtures, equipment, and materials (i.e. manufacturer’s data sheets);

(5) Reports for all engineering studies

(6) Written minutes for all meetings

2.5.2 Operations and Maintenance (O&M) Provisions

Identify design features made to enhance, and to reduce the cost of, operating and maintaining the facility when completed. Identify any special safety considerations or occupational health related considerations that may affect operation and maintenance activities as a result of the final design. Discuss alternative systems considered, and provide rationale for the selected alternative, including an indication of how the initial costs and life cycle costs were factored into final selections.

2.5.3 Design Analysis Packaging

2.5.3.1 Assembly and Identification

Assemble design analysis in a single volume with a table of contents if possible. Include a cover page in the basis of design for each discipline indicating the project title and locations, contract number, table of contents, and tabbed separations or bookmarks for quick reference. At a minimum tab or bookmark for each discipline.

a. Cover sheet that includes project name, location, and contract number

b. Table of contents

c. Sections for each design disciplines and/or features of work.

d. Attachments

e. Continuous page numbers throughout the document

2.5.3.2 Electronic Format

Submit a bundled specification package in PDF format for each design package.

2.5.4 Designer of Record Approval

Place the signature and seal of the Designer of Record responsible for

the work on the cover page of the calculations for the respective design discipline.

2.6 REAL PROPERTY RECORD

Documentation of installed property for the purposes of accounting for the value of the construction performed on this contract is performed through the Real Property Record. As part of the design process, the contractor is required to prepare the initial draft documentation and include this as part of the final design submittal.

2.6.1 U.S. Facilities

On projects constructed for the United States Department of Defense which will be maintained by DoD after completion, a DD1354 is prepared in accordance with UFC 1-300-08. The contractor must coordinate with the installation Real Property Office to determine the breakdown of items on the DD1354 and to prepare a Draft DD1354.

The Draft DD1354 must be submitted for review with each design iteration and approved as part of the 100% design submittal. The Interim DD1354 must be submitted per 01 78 00 CLOSEOUT PROCEDURES (NAU)

2.6.2 Other Than U.S. Facilities

The DD1354 may also be used on projects where the facilities will not be maintained by the United States of America after completion if no other form or format exists. Coordinate with the Contracting Officers Representative to determine the exact format and procedures.

PART 3 EXECUTION

3.1 DESIGN QUALITY CONTROL

A Design Quality Control Plan in accordance with Section 01 45 10 DESIGN QUALITY CONTROL (NAU) must be approved before design may proceed.

Designers of Record must thoroughly cross-check and coordinate all work until they are professionally satisfied that no conflicts exist, vital information has not been omitted, and that indefinite language open to interpretation has been resolved as part of the design quality control process.

As part of the design process, ensure quality control and review prior to submitting design packages for Government review.

3.2 DESIGN SCHEDULE

Submit a project schedule in accordance with Section 01 32 01 PROJECT SCHEDULE including design activities.

3.2.1 Required Logic

The schedule must show subsequent design preparation starting upon submission of the design being submitted, concurrent with the review of the design by the Government. The schedule logic must show the subsequent design finishing a reasonable period of time after the completion of the Government review and review conference, to allow sufficient time for the contractor to incorporate any comments.

3.2.2 Review Conferences

Review conferences as described in Paragraph MEETINGS AND REVIEW CONFERENCES are to be shown in the contractors schedule as a separate

activity performed after the Government review of the design is complete, and concurrent with the contractors preparation of the next design.

3.2.3 Resubmissions

If the contractors design submittal requires resubmission, the contractor must add activities and adjust the schedule logic to include the resubmittal preparation, Government review, and if applicable, review conference.

3.3 INVOLVEMENT OF KEY PERSONNEL

Actively involve the Contractor's construction management key personnel during the design process to effectively integrate the design and construction requirements of this contract. The Contractor's involvement includes, but is not limited to, actions such as: integrating the design into the schedule, ensuring constructability and economy of the design, integrating the shop drawing process into the design, executing the material and equipment acquisition to meet the schedule, effectively interfacing the construction and design QC program, and maintaining and providing the design team with accurate, up-to-date redline and as-built documentation.

3.4 DESIGN REVIEWS

3.4.1 ProjNet/DrChecks

All design reviews, review comments, contractor comments/responses, and documentation of resolution of all comments will utilize the ProjNet/DrChecks system (https://www.projnet.org).

The contractor is required to address all comments in ProjNet and must provide a response to all comments, etc. Track all comments.

3.4.2 Government Review Comments

The Government intends to provide detailed comments on the design submittals through ProjNet and will only provide summary comments through RMS-CM.

As part of the Government's review of the contractor prepared design, comments will be made by Government reviewers. These comments may include "recommendations" or "suggestions". Any comment regarding "recommendations" or "suggestions" are not a change to the contract. The comment is intended to improve the design and/or construction, but is not required to be incorporated. The contractor must clearly respond to each comment containing a "recommendation" or "suggestion" indicating whether they will comply with the comment or not.

Acceptance or incorporation of any such comment by the contractor in their design will not be the basis for an adjustment in the contract performance period or amount.

3.4.3 Contractor Required Response

The Contractor must either concur or non-concur and provide a written evaluation response text to every comment before the design review can be closed and a final submittal response with action code provided by the Government.

Responses must identify the specific action taken or to be taken with citation of location (drawing number or specification paragraph) within the relevant document. Generalized statements of intention such as "will

comply" or "will revise the specification" are not acceptable.

If the Contractor disagrees with any comment and does not intend to comply with the comment, the Contractor must clearly outline, with ample justification, the reasons for non-compliance.

Depending on the comment and the response, the contractor may be required to provide a revised document or additional information prior to the next design submittal.

3.4.4 Government Backcheck and Comment Closeout

The Government will review the contractors responses and, once any revisions are shown to have been completed (e.g. a revised drawing provided), provide a backcheck. If the response is adequate, the Government will close the comment and no further action is required by the contractor. Inadequate responses will result in the Government issuing a further backcheck comment which the contractor must answer.

The design will not be approved until all comments have been closed.

3.5 DESIGN REVIEW CONFERENCES

3.5.1 Review Conference

The Government requires a design review conference to be held after receipt of an acceptable design submittal and before the next design submittal is submitted. This requirement may be waived upon the discretion of the Contracting Officer if, in their sole opinion, and without the right of appeal, one is determined to be unnecessary for the specific design submittal.

The general purpose of a design review conference is to review the comments generated during the review of the design submittal and ensure the appropriate revisions/corrections are being made.

If the contractors design is determined unacceptable or requires resubmission, additional design review conferences may be required.

The Contractor must evaluate all Government comments prior to a design review conference and be prepared to discuss what actions they are taking to allow for closure of the comment.

See Section 01 10 10 STATEMENT OF WORK for project specific design conference requirements.

3.5.2 Location and Attendance

For projects where the Government has full-time representatives located in the country where the construction work will be performed, review conferences will normally be held in the Host Nation (the country where the construction will be performed) at a location acceptable to the Government. The Contractor and the entire design team are required to be physically present at all review conferences unless approved otherwise by the COR.

Where the Government has no full-time in-country representatives, review conferences will normally be held virtually. The Contractor and the entire design team are required to participate unless approved otherwise by the COR. The Government reserves the right to require an "in-person" review conference to be held in the Host Nation with the Contractor and the entire design team if, in the sole discretion of the of Contracting Officer, the design review indicates significant concerns with the Contractors ability to provide a design in compliance with the contract.

No adjustment in the contract amount or duration will be made for "in-person" review conferences.

3.5.3 Documentation

The contractor must take meeting minutes during all design review and prepare a written record of each design site visit, meeting, or conference. The written record must include subject, names of participants, outline of discussion, and recommendation or conclusions. Number records in consecutive order.

Provide documents electronically via RMS-CM and documented as official correspondence via serial letter within 5 work days of the applicable event.

3.5.4 Requirement to Continue With Design

The contractor is required to continue with the design, regardless of when or whether a design review conference is held.

3.6 DESIGN APPROVAL

The Contractors Designer of Record is the approval authority for the design; their approval indicates the design is in accordance with the contract terms and conditions, and complies with all applicable standards, rules, regulations, and laws.

Government review and acceptance of design submittals is for contract conformance only and does not relieve the Contractor from responsibility to fully adhere to the requirements of the contract, nor limit the Government's rights under the terms of the contract. The Government reserves the right to rescind inadvertent acceptance of design submittals containing contract deviations not separately and expressly identified in the submittal for Government consideration and approval.

3.7 CHANGES INCORPORATED IN DESIGN

3.7.1 Changes Resulting from Review Comments

No review comment will change the contract requirements. If the Contractor believes the action required by any comment exceeds the requirements of this contract, the Contractor must clearly annotate any review comments as being outside the contract requirements.

Additionally, the Contractor must notify the Contracting Officer in accordance with contract clause 52.243-4 Changes. The Contractor must explain why their original submittal complies with the contract. The Contractor must receive written notice from the Contracting Officer prior to the Contractor taking any further action in regards to the comment.

3.7.2 Changes by Contractor

Should the design include work which the contractor believes is not otherwise required by the contract, no additional payment or increase in performance time will be granted for the design or construction of the work unless the work has previously been authorized in writing by the Contracting Officer and a modification issued or written direction received to proceed with the work.

Should the contractor fail to provide this notification and receive written direction from the Contracting Officer, any additional work that exceeds the contract requirements will be considered a Betterment and must be incorporated at no additional cost to the Government with no

change in the performance period.

3.7.3 Changes by Contractor To Previously Identified Work

Once work has been identified in a design submittal at any stage, any changes to or deletion of work may not be made without prior authorization of the Contracting Officer, except when the work does not meet the minimum requirements of the contract as awarded or previously modified. This includes substitution of alternate materials or equipment at any level.

Work that exceeds the minimum requirements is considered a betterment and may not be altered or changed without approval of the Contracting Officer as described elsewhere in this contract.

3.8 RELEASE FOR CONSTRUCTION

3.8.1 Requirements for Release for Construction

All design submittals, to include all Design Drawings, Specifications, and the Design Analysis must be completed, reviewed, and returned to the contractor prior to the beginning of construction. All review comments must be resolved (closed). Any portion of the design requiring resubmittal is not considered acceptable for release to construction.

Additionally, all preconstruction submittals, including the Quality Control Plan, the Accident Prevention Plan, and the Mobilization Plan, must have been approved. The contractor must review all of the contract documents to determine what specific preconstruction submittals are required for this contract.

3.8.2 Release for Construction

Release for Construction is considered granted upon approval of the 100% Final Design and closure of all open comments. The contractor will not be allowed to mobilize to the site or begin any construction (to include demolition) prior to approval of the 100% Final Design without a written Release for Construction from the Contracting Officer or Administrative Contracting Officer unless explicitly stated otherwise elsewhere in this contract.

Prior to completion of the 100% Final Design, a Partial Release for Construction may be issued for any part of the work where, in the opinion of the Contracting Officer, the design is sufficiently advanced to allow for work to begin, the preconstruction submittals have been approved, and the contractor has requested a release for construction.

3.8.3 Construction Drawings and Specifications

Each drawing, and every specification page which is part of any portion of the work a Release for Construction has been issued must be marked with "Issued for Construction (IFC)" and the date the IFC was issued.

The contractor must perform the work as identified on the IFC documents. No changes to any IFC drawing or specification may be made except via modification or prior approval of a Variation in accordance with Specification Section 01 33 00 SUBMITTAL PROCEDURES (NAU) paragraph DEVIATIONS, SUBSTITUTIONS, AND VARIATIONS.

3.8.4 Payment

Payment will not be made for any construction work performed prior to completion of design where a written Release for Construction has not been issued.

3.9 DESIGN DISCREPANCIES

The Contractor is responsible for the correction of incomplete design data, omissions, and design discrepancies which become apparent during construction. The Contractor must provide a proposed recommendation for correcting a design error, within three (3) calendar days after identification of the discrepancy.

The Contractor must, without additional compensation, correct or revise any errors or deficiency in its designs, and perform any necessary construction rework, including repair or replacement of any damage to real or personal property, resulting from the design error or omission.

If the Contractor fails to correct the discrepancy or refuses to comply promptly with any directions given by the Government, the Contracting Officer 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 must be made the subject of claim for extension of time or for excess costs or damages by the Design-Build Contractor.

3.10 ADDITIONAL REQUIREMENTS DURING CONSTRUCTION

3.10.1 Ongoing Support

The contractor must ensure the DOR provides technical assistance and support throughout construction, to include providing recommended actions to resolve RFI's and conducting transmittal reviews.

3.10.2 Attendance at Construction Progress Meetings

The Designer of Record (DOR) must attend, either in person or via virtual means, all meetings as described in Paragraph WEEKLY PROGRESS MEETING of Section 01 30 01 GENERAL REQUIREMENTS. The DOR must ensure attendance by designers who are able to answer technical questions regarding the design for all disciplines where construction is ongoing in addition to their overall design manager.

These requirements are in addition to teleconferences and site visits to ensure consistent project delivery and communication throughout the project life-cycle.

3.10.3 Site Visits

The DOR is required to conduct a site visit to inspect the ongoing construction at least once every three (3) months to ensure construction complies with the design intent.

The DOR must submit to the Government, through the contractors Quality Control staff, a detailed site visit report within three work days. The report must include discipline specific sections and include all actions, issues and other relevant information (photos, attachments, etc.) that directly affect the design or construction quality of the project with emphasis in, but not limited to, the discipline of the employee performing the site visit. Any clarifications and corrections requested by the Government to the report must be addressed within three (3) work days, to include the submission of revised reports.

-- End of Section --

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SAFETY REQUIREMENTS (NAU)
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PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM F855	(2015) Standard Specifications for Temporary Protective Grounds to Be Used on De-energized Electric Power Lines and Equipment

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

IEEE 1048	(2003) Guide for Protective Grounding of Power Lines

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 51B	(2014) Standard for Fire Prevention During Welding, Cutting, and Other Hot Work
NFPA 70	(2017; ERTA 1-2 2017; TIA 17-1; TIA 17-2) National Electrical Code
NFPA 70E	(2015; ERTA 1 2015) Standard for Electrical Safety in the Workplace

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2024) Safety -- Safety and Occupational Health (SOH) Requirements

1.2 REQUIREMENTS

This specification must be read and implemented in conjunction with EM 385-1-1 which is an integral part of this contract.

Failure to comply with the requirements of this specification, including the contractors Accident Prevention Plan (APP) after its acceptance by the Contracting Officer, will be considered sufficient cause for stopping any or all work until satisfactory compliance has been achieved.

1.3 HOST NATION REQUIREMENTS

The requirements of this specification are in addition to and separate from those mandated by host nation or local laws.

For projects located in the European Union, this includes the requirements

of the European Union Council Directive 92/57/EEC of 24 June 1992 on the implementation of minimum safety and health requirements at temporary or mobile construction sites. Each country within the European Union may have established additional requirements necessary to comply with this directive, and the contractor must comply with those regulations as part of this contract.

Nothing in this specification alleviates the contractors responsibility to comply with all applicable local and national (host nation) laws, ordinances, criteria, rules and regulations.

Prepare and submit to the Host Nation authorities all required plans and provide all personnel (including third party coordinators) unless specifically identified elsewhere in this contract as to be provided by the Government. These plans are not to be submitted to the Contracting Officer, and the Contractor remains solely liable for validating and monitoring compliance with those plans.

Any personnel required to comply with Host Nation requirements, including third party coordinators are to be provided by the contractor, unless specifically identified elsewhere in this contract as being provided by the US Government. They are separate from and do not negate the requirements of the Site Safety and Health Officer described in this specification. No additional payment will be made for compliance with Host Nation requirements.

1.4 DEFINITIONS

The following definitions apply only in the context of this specification and do not change or infer a meaning on any other document made part of this contract either directly or via reference.

1.4.1 Controlling Authority

Contractors are the "Controlling Authority", responsible for all work site safety and health, including that of subcontractors. Inform all subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance. Coordinate the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspect subcontractor operations to ensure that accident prevention responsibilities are being carried out

1.4.2 High Risk Activity

A "High Risk Activity" is an activity that by its nature constitutes an elevated risk of severe or life-threatening injuries. Typical activities include confined space, cranes and rigging, excavation/trenching, fall protection, and medium or high voltage electrical work.

1.5 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Base/Frame Accident Prevention Plan (APP); G,DO
Project Accident Prevention Plan (APP); G,DO
Host Nation Equivalent Training; G,DO
Activity Hazard Analysis (AHA) for each DFOW; G 21 calendar day review.

SD-06 Test Reports

Notifications and Reports
Accident Reports; G,DO

1.6 LABOR EXPOSURE REPORTS

Document on each QC Report prepared in accordance with 01 45 00 Quality Control the labor hours for all site workers, both Prime and subcontractor, worked on the project for the reporting period.

Prior to submitting an invoice, verify all labor hours for the invoice period. When RMS Contractor Mode (RMS-CM) (Section 01 45 01) is used, no separate report is required.

Failure to provide the required information may result in retention of up to 10 percent of the voucher.

1.7 REGULATORY REQUIREMENTS

Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work.

Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, refer to Section 00 74 01 SPECIAL CONDITIONS (NAU), paragraph ORDER OF PRECEDENCE.

1.8 CONTRACTOR SAFETY ORGANIZATION AND PERSONNEL

Provide a Safety Organization in accordance with Section 01 45 05 CONTRACTOR PERSONNEL REQUIREMENTS (NAU)Section 01 45 06 SINGLE AWARD TASK ORDER CONTRACT (SATOC) CONTRACTOR SITE PERSONNEL REQUIREMENTS (NAU).

Maintain the Safety Organization at full strength at all times. When it is necessary to make changes to the Safety Organization, revise the Project APP Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

1.8.1 Personnel Qualifications

All Safety Personnel must meet the applicable requirements of EM 385-1-1. To meet these requirements, they must have the required training, experience, and qualifications in accordance with EM 385-1-1 Chapter 2-3, and all associated sub-paragraphs.

If Host Nation Equivalent Training is substituted for the training requirements of EM 385-1-1, course information and description must be submitted through the COR to the Europe District Safety Office for review of acceptability prior to appointment.

1.8.2 Approval of Personnel

All members of the contractors Safety Organization are to be submitted in

accordance with Section 01 45 05 CONTRACTOR PERSONNEL REQUIREMENTS (NAU) 01 45 06 SINGLE AWARD TASK ORDER CONTRACT (SATOC) CONTRACTOR SITE PERSONNEL REQUIREMENTS (NAU).

1.9 BASE/FRAME ACCIDENT PREVENTION PLAN (APP)

1.9.1 Contract Level Plan

A Qualified Person must prepare a contract level APP explaining the overall management of the entire contract, prior to performing any work on any task order. This contract level APP must provide the contractors overall organizational structure, processes, and procedures which generally apply to all task orders and will not require resubmittal or re-acceptance prior to work on a task order.

Continuously review and amend the APP, as necessary, throughout the life of the contract. Changes to the accepted APP must be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and CQC SM.

1.9.2 Task Order

Prepare a project specific APP for each task order as identified in Paragraph PROJECT ACCIDENT PREVENTION PLAN. Items which were included in the contract level APP need only be identified as such with reference to the applicable paragraphs/sections of the contract level APP

The project specific APP must be accepted prior to the performance of any construction work for the task order.

All project specific or unique safety aspects must be identified, and include applicable project specific plans identified in the EM385-1-1. The project specific APP must include a completed ENG FORM 6293.

1.10 PROJECT ACCIDENT PREVENTION PLAN(APP)

An Accident Prevention Plan specific to the project is required. For IDIQ (Task Order) contracts, this requirement applies to every task order.

A Competent Person (CP) must prepare the written project specific APP. Prepare the APP in accordance with the format and requirements of EM 385-1-1, and as supplemented herein. Cover all paragraph and subparagraph elements in EM 385-1-1. The SSHO must provide and maintain the APP and a log of signatures by each subcontractor foreman, attesting that they have read and understand the APP, and make the APP and log available on-site to the Contracting Officer.

Submit the APP to the Contracting Officer at least 30 calendar days prior to the date of the Preconstruction Conference for acceptance. Do not proceed with construction without an accepted APP. Once reviewed and accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Continuously review and amend the APP, as necessary, throughout the life of the contract. Changes to the accepted APP must be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and CQC SM. Incorporate unusual or high-hazard activities not identified in the original APP as they are discovered

1.10.1 Additional Language Requirements

Prepare the APP in the English language. Identify the expected native languages of the workers and address how the information contained therein will be provided to all non-native English speakers.

1.10.2 Names and Qualifications

Include in the APP the names of site safety and health personnel. Identify the relevant submittal(s) provided under Section 01 45 05 CONTRACTOR PERSONNEL REQUIREMENTS (NAU)01 45 06 SINGLE AWARD TASK ORDER CONTRACT (SATOC) CONTRACTOR SITE PERSONNEL REQUIREMENTS (NAU) indicating the personnel have been accepted or approved for the proposed position.

When applicable, designate and submit qualifications of Qualified Persons (QP) and CPs for each of the following major areas: excavation; scaffolding; fall protection; hazardous energy; confined space; health hazard recognition, evaluation and control of chemical, physical and biological agents; and personal protective equipment and clothing to include selection, use and maintenance.

1.10.3 Additional Plans

Provide additional plans in the APP in accordance with the requirements outlined in the EM 385-1-1. Complete ENG FORM 6293 and include it with their APP.

1.11 ACTIVITY HAZARD ANALYSIS (AHA)

1.11.1 Submittals

AHA's are not to be submitted as part of the APP but are to be submitted separately for each Definable Feature of Work (DFOW). All AHA's applicable to the DFOW must be submitted together and will be reviewed in relation to the specific DFOW.

1.11.2 AHA Requirements

Before beginning each Definable Feature of Work (DFOW) or where a new work crew or subcontractor is to perform the work, the Contractor(s) performing that work activity must prepare an AHA. The AHA must be tailored and specific to the work tasks being performed for the DFOW: while certain hazards are repetitive in nature (e.g. working at heights) the specific elements associated with the DFOW must be identified and addressed in the AHA.

AHA's must be developed by the Prime Contractor, subcontractor, or supplier performing the work, and provided for Prime Contractor review and approval before submitting to the Contracting Officer. AHA's must be signed by the SSHO, Superintendent, QC Manager and the subcontractor Foreman performing the work.

Format the AHA in accordance with EM 385-1-1, 2-6. Submit the AHA for review at least 21 calendar days prior to the Preparatory Meeting (see 01 45 00 Quality Control) for the DFOW.

The Government reserves the right to require the Contractor to revise and resubmit the AHA if it fails to effectively identify the work sequences, specific anticipated hazards, site conditions, equipment, materials,

personnel and the control measures to be implemented.

AHA's must identify competent persons (CP) required for work involving high risk activities. The CP must also sign the AHA.

1.11.3 AHA Management

Review the AHA list periodically (at least monthly) at the Contractor supervisory safety meeting, and update as necessary when procedures, scheduling, or hazards change. Use the AHA during inspections by the SSHO to ensure the implementation and effectiveness of the required safety and health controls for that work activity.

1.11.4 AHA Signature Log

Each employee performing work as part of a DFOW must review the AHA for that work and sign a signature log specifically maintained for that AHA prior to starting work on that activity. The SSHO must maintain a signature log on site for every AHA. Provide employees whose primary language is other than English with an interpreter to ensure a clear understanding of the AHA and its contents.

1.12 DISPLAY OF SAFETY INFORMATION

1.12.1 Safety Bulletin Board

Within seven calendar days after commencement of work, erect a safety bulletin board at the job site. Where size, duration, or logistics of project do not facilitate a bulletin board, an alternative method, acceptable to the Contracting Officer, that is accessible and includes all mandatory information for employee and visitor review, may be deemed as meeting the requirement for a bulletin board. Include and maintain information on safety bulletin board as required by EM 385-1-1, 2-8.f.

1.12.2 Safety and Occupational Health (SOH) Deficiency Tracking System

Establish a SOH deficiency tracking system that lists and monitors the status of SOH deficiencies in chronological order. Use the tracking system to evaluate the effectiveness of the APP. Use the QA/QC Deficiencies screens of RMS-CM as the SOH deficiency tracking system.

A monthly evaluation of the data must be discussed in the QC or SOH meeting with everyone on the project. The list must be posted on the project bulletin board and updated daily, and provide the following information:

a. Date deficiency identified;

b. Description of deficiency;

c. Name of person responsible for correcting deficiency;

d. Projected resolution date;

e. Date actually resolved.

1.13 EMERGENCY MEDICAL TREATMENT

Contractors must arrange for their own emergency medical treatment.

Government has no responsibility to provide emergency medical treatment.

1.14 NOTIFICATIONS and REPORTS

1.14.1 Mishap Notification

Notify the Contracting Officer as soon as practical, but no more than twenty-four hours, after any mishaps, including recordable accidents, incidents, and near misses, as defined in EM 385-1-1, 1-2, any report of injury, illness, or any property damage. For LHE or rigging mishaps, notify the Contracting Officer as soon as practical but not more than 4 hours after mishap. The Contractor is responsible for obtaining appropriate medical and emergency assistance and for notifying fire, law enforcement, and regulatory agencies. Immediate reporting is required for electrical mishaps, to include Arc Flash; shock; uncontrolled release of hazardous energy (includes electrical and non-electrical); load handling equipment or rigging; fall from height (any level other than same surface); and underwater diving. These mishaps must be investigated in depth to identify all causes and to recommend hazard control measures.

Within notification include Contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (for example, type of construction equipment used and PPE used). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted. Assist and cooperate fully with the Government's investigation(s) of any mishap.

1.14.2 Accident Reports

a. Conduct an accident investigation for recordable injuries and illnesses, property damage, and near misses as defined in EM 385-1-1, to establish the root cause(s) of the accident. Complete the applicable USACE Accident Report Form 3394, and provide the report to the Contracting Officer within 7 calendar day(s) of the accident. The Contracting Officer will provide copies of any required or special forms.

b. Near Misses: Record all "Near Misses" in the "Accident Reporting" section of the QC Report in RMS-CM. Do not mark the accident as "reportable" and begin the Description with "Near Miss". Near miss reports are considered positive and proactive Contractor safety management actions.

1.15 HOT WORK

1.15.1 Permit and Personnel Requirements

Submit and obtain a written permit prior to performing "Hot Work" (i.e. welding or cutting) or operating other flame-producing/spark producing devices, from the Responsible Authority. A permit is required from the Explosives Safety Office for work in and around where explosives are processed, stored, or handled. CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE A PERMIT IS ISSUED. Provide at least two 9 kg 4A:20 BC rated extinguishers for normal "Hot Work". The extinguishers must be current inspection tagged, and contain an approved safety pin and tamper resistant seal. It is also mandatory to have a designated FIRE WATCH for

any "Hot Work" done at this activity. The Fire Watch must be trained in accordance with NFPA 51B and remain on-site for a minimum of one hour after completion of the task or as specified on the hot work permit.

When starting work in the facility, require personnel to familiarize themselves with the location of the nearest fire alarm boxes and place in memory the emergency phone numbers. REPORT ANY FIRE, NO MATTER HOW SMALL, TO THE RESPONSIBLE AUTHORITIES IMMEDIATELY.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 RESPONSIBILITIES OF SAFETY PERSONNEL

3.1.1 Site Safety and Health Officer

The SSHO is required to:

a. Conduct safety and health inspections during every visit to a project site. Conduct inspections daily when the SSHO is on site.

b. For every inspection, document in the Safety narrative of the QC Report the feature of work inspected, relevant safety observations, identified hazards, recommended corrective actions, estimated and actual dates of corrections.

c. Maintain the Safety and Occupational Health (SOH) Deficiency Tracking System described in paragraph 1.11.2.

d. Conduct mishap investigations and complete required accident reports. Report mishaps and near misses.

e. Maintain applicable safety reference material on the job site.

f. Attend the pre-construction conference, pre-work meetings including preparatory meetings, and periodic in-progress meetings.

g. Review the APP and AHA's for compliance with EM 385-1-1, and approve, sign, implement and enforce them.

h. Ensure subcontractor compliance with safety and health requirements.

i. Provide and keep a record of site safety orientation and indoctrination for Contractor employees, subcontractor employees, and site visitors.

3.1.2 Qualified Person

Provide Qualified Persons (QPs) as defined in EM 385-1-1, Appendix Q for the preparation and/or implementation of additional safety measures for high risk activities. The QP must be identified by name in the applicable plans.

3.1.3 Competent Person

Provide Competent Persons (CPs) to prepare the APP, AHA's, and oversee the implementation of additional safety related plans for high risk

activities. Identify the CP in the applicable plan. The CP and must be on-site at all times when the work that presents the hazards associated with their professional expertise is being performed.

3.2 MEETINGS

3.2.1 Preconstruction Conference

a. Contractor representatives who have a responsibility or significant role in accident prevention on the project must attend the preconstruction conference. This includes the project superintendent, Site Safety and Occupational Health officer, CQC SM, or any other assigned safety and health professionals who participated in the development of the APP and special plans, program and procedures associated with it.

b. Discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHA's that will be developed and implemented during the performance of the contract.

3.2.2 Safety Meetings

Conduct meetings at least once a month for all supervisors on the project location.

The SSHO, supervisors, or foremen must conduct meetings at least once a week for the trade workers.

Meetings must include review of past activities, plan for new or changed operations, review pertinent aspects of appropriate AHA (by trade), establish safe working procedures for anticipated hazards, and provide pertinent Safety and Occupational Health (SOH) training and motivation.

Attach meeting minutes to the QC Report in RMS-CM. Include the date, persons in attendance, subjects discussed, and names of individual(s) who conducted the meeting.

Notify the Contracting Officer of all scheduled meetings 7 calendar days in advance.

3.3 CONSTRUCTION AND OTHER WORK

3.3.1 Worksite Communication

Employees working alone in a remote location or away from other workers must be provided an effective means of emergency communications (i.e., cellular phone, two-way radios, land-line telephones or other acceptable means). The selected communication must be readily available (easily within the immediate reach) of the employee and must be tested prior to the start of work to verify that it effectively operates in the area/environment. An employee check-in/check-out communication procedure must be developed to ensure employee safety.

3.3.2 Imminent Dangers

Should any severe hazard exposure (i.e. imminent danger) become evident, stop work in the area, secure the area, and develop a plan to remove the exposure and control the hazard. Notify the Contracting Officer within 24 hours of discovery. Eliminate and remove the hazard. In the interim, take

all necessary action to restore and maintain safe conditions.

3.4 CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)

Provide and operate a Hazardous Energy Control Program (HECP) in accordance with EM 385-1-1.

3.5 FALL PROTECTION PROGRAM

Establish a fall protection program for the protection of all employees exposed to fall hazards in accordance with both EM 385-1-1 and Host Nation requirements.

3.6 RESCUE AND EVACUATION PLAN AND PROCEDURES

When operations with the potential of requiring rescues and/or evacuation procedures are performed (e.g., confined space entry, tower crane operations, operations requiring personal fall protection), ensure the mishap victim can self-rescue or can be rescued promptly should a fall occur. Prepare a Rescue and Evacuation Plan and include a detailed discussion of the following: methods of rescue; methods of self-rescue or assisted-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility.

Include the Rescue and Evacuation Plan within the Activity Hazard Analysis (AHA). The plan must comply with the requirements of EM 385-1-1.

3.7 ELECTRICAL

Perform electrical work in accordance with EM 385-1-1.

3.7.1 Conduct of Electrical Work

As delineated in EM 385-1-1, electrical work is to be conducted in a de-energized state unless there is no alternative method for accomplishing the work. Underground electrical spaces must be certified safe for entry before entering to conduct work. Cables that will be cut must be positively identified and de-energized prior to performing each cut. Attach temporary grounds in accordance with Host Nation Requirements. If no such requirement exists, attach temporary grounds in accordance with ASTM F855 and IEEE 1048. Perform all high voltage cable cutting remotely using hydraulic cutting tool.

If work must be conducted on energized equipment, prior written authorization from the appropriate authorities is required. Provide information identified in EM 385-1-1 Chapter 11.

When racking in or live switching of circuit breakers, no additional person other than the switch operator is allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method.

When working in energized substations, only qualified electrical workers are permitted to enter. When work requires work near energized circuits as defined by NFPA 70, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves and electrical arc flash protection for personnel as

required by NFPA 70E. Insulating blankets, hearing protection, and switching suits may also be required, depending on the specific job and as delineated in the Contractor's AHA. Ensure that each employee is familiar with and complies with these procedures.

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SECTION 01 42 00

SOURCES FOR REFERENCE PUBLICATIONS (NAU)
05/24

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization (e.g. ASTM B564 Standard Specification for Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided.

AACE INTERNATIONAL (AACE)
1265 Suncrest Towne Centre Drive
Morgantown, WV 26505-1876 USA
Ph: 304-296-8444
Fax: 304-291-5728
Internet: https://web.aacei.org/

ASTM INTERNATIONAL (ASTM)
100 Barr Harbor Drive, P.O. Box C700
West Conshohocken, PA 19428-2959
Ph: 610-832-9500
Fax: 610-832-9555
E-mail: service@astm.org
Internet: https://www.astm.org/

FEDERAL FACILITIES ENVIRONMENTAL STEWARDSHIP & COMPLIANCE ASSISTANCE CENTER (FedCenter)
https://www.fedcenter.gov/

BUNDESREPUBLIK DEUTSCHLAND
Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit
German Language Site
http://www.abg-plus.de/

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)
445 and 501 Hoes Lane
Piscataway, NJ 08854-4141
Ph: 732-981-0060 or 800-701-4333
Fax: 732-981-9667
E-mail: onlinesupport@ieee.org
Internet: https://www.ieee.org/

INTERNATIONAL CODE COUNCIL (ICC)
500 New Jersey Avenue, NW

6th Floor, Washington, DC 20001
Ph: 800-786-4452 or 888-422-7233
Fax: 202-783-2348
E-mail: order@iccsafe.org
Internet: https://www.iccsafe.org/

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
1 Batterymarch Park
Quincy, MA 02169-7471
Ph: 800-344-3555
Fax: 800-593-6372
Internet: https://www.nfpa.org

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)
100 Bureau Drive
Gaithersburg, MD 20899
Ph: 301-975-2000
Internet: https://www.nist.gov/

U.S. AIR FORCE (USAF)
Department of the Air Force E-Publishing
Internet: https://www.e-publishing.af.mil/

U.S. ARMY (DA)
Army Publishing Directorate
9301 Chapek Rd., Bldg 1458
Fort Belvoir, VA 22060-5447
Ph: 703-614-3727
E-mail: usarmy.pentagon.hqda-apd.mbx.customer-service@mail.mil
Internet: https://armypubs.army.mil/

U.S. ARMY EUROPE (USAREUR)
Internet: https://www.aepubs.eur.army.mil//

U.S. ARMY CORPS OF ENGINEERS (USACE)
CRD-C DOCUMENTS available on Internet:
http://www.wbdg.org/ffc/army-coe/standards
Order Other Documents from:
Official Publications of the Headquarters, USACE
E-mail: hqpublications@usace.army.mil
Internet: http://www.publications.usace.army.mil/
or
https://www.hnc.usace.army.mil/Missions/Engineering-Directorate/TECHINFO/

U.S. DEPARTMENT OF DEFENSE (DOD)
Order DOD Documents from:
Room 3A750-The Pentagon
1400 Defense Pentagon
Washington, DC 20301-1400
Ph: 703-571-3343
Fax: 215-697-1462
E-mail: customerservice@ntis.gov
Internet: https://www.ntis.gov/
Obtain Military Specifications, Standards and Related
Publications from:
Acquisition Streamlining and Standardization Information System
(ASSIST)
Department of Defense Single Stock Point (DODSSP)
Document Automation and Production Service (DAPS)
Building 4/D
700 Robbins Avenue
Philadelphia, PA 19111-5094
Ph: 215-697-6396 - for account/password issues

Internet: https://assist.dla.mil/online/start/; account registration required
Obtain Unified Facilities Criteria (UFC) from:
Whole Building Design Guide (WBDG)
National Institute of Building Sciences (NIBS)
1090 Vermont Avenue NW, Suite 700
Washington, DC 20005
Ph: 202-289-7800
Fax: 202-289-1092
Internet:
https://www.wbdg.org/ffc/dod/unified-facilities-criteria-ufc

U.S. DEPARTMENT OF DEFENSE - SPATIAL DATA STANDARDS FOR FACILITIES, INFRASTRUCTURE, AND ENVIRONMENT (SDSFIE)
https://www.sdsfieonline.org/

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

Not used

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SECTION 01 45 00

QUALITY CONTROL (NAU)

08/25

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SECTION 01 45 00

QUALITY CONTROL (NAU)
08/25

PART 1 GENERAL

1.1 PURPOSE

This section establishes the construction Quality Control requirements. Section 01 45 10 Design Quality Control establishes additional Quality Control requirements for design activities.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM D3740	(2012a) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
ASTM E329	(2014a) Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Construction Quality Control (CQC) Plan; G

SD-07 Certificates

Testing Laboratory Certification

1.4 QUALITY CONTROL ORGANIZATION

1.4.1 Quality Control Resources

Provide adequate office space, filing systems and other resources as necessary to maintain an effective and fully functional QC organization. Promptly complete and furnish all letters, material submittals, shop drawing submittals, schedules and all other project documentation to the QC organization. The QC organization is responsible to maintain these documents and records.

1.4.2 Personnel

Provide CQC Personnel in accordance with Section 01 45 05 CONTRACTOR SITE PERSONNEL REQUIREMENTS.

Maintain the QC staff at full strength at all times. When it is necessary to make changes to Quality Control staff, revise the QC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

QC staff must have complete authority and responsibility to take any action necessary to ensure Contract compliance.

1.4.3 Specialized Personnel

Personnel identified in the technical provisions as requiring specialized skills to assure the required work is being performed properly will also be included as part of the CQC organization.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 QUALITY CONTROL SYSTEM REQUIREMENTS

Establish and maintain an effective QC system. QC consist of plans, procedures, and organization necessary to produce an end product which complies with the Contract requirements. The QC system covers all operations, both onsite and offsite, and is keyed to the proposed sequence of operations necessary to perform all works required by the contract.

3.2 CONSTRUCTION QUALITY CONTROL (CQC) PLAN

3.2.1 Submission and Approval

Submit no later than 45 calendar days prior to mobilization and at least 14 calendar days prior to the coordination meeting discussed in paragraph COORDINATION MEETING, the Construction Quality Control (CQC) Plan.

Construction will be permitted to begin only after acceptance of an CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional work.

3.2.2 Content

Include, as a minimum, the following to cover all activities, both onsite and offsite, including work by subcontractors fabricators, suppliers and purchasing agents:

a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff will implement the three phase control system for all aspects of the work specified.

b. Procedures for scheduling, reviewing, certifying, and managing submittals. These procedures must be in accordance with Section 01 33 00 SUBMITTAL PROCEDURES.

c. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test.

d. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

e. Procedures for tracking deficiencies from identification through acceptable corrective action. Establish verification procedures that identified deficiencies have been corrected.

f. Reporting procedures, including proposed reporting formats.

g. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and is identified by different trades or disciplines, or it is work by the same trade in a different environment. Although each section of the specifications can generally be considered as a definable feature of work, there are frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

3.2.3 Acceptance of Plan

Acceptance of the CQC Plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance.

The Government reserves the right to require the Contractor to make changes in the CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.4 Notification of Changes

After acceptance of the CQC Plan, notify the Contracting Officer in writing of any proposed change via a revised submittal of the applicable plan. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

Prior to acceptance by the Government of the CQC Plan, meet with the Contracting Officer and discuss the Contractor's quality control system. During the meeting, a mutual understanding of the system details must be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting will be prepared by the Government, signed by both the Contractor and the Contracting Officer and will become a part of the contract file. There can be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings or address deficiencies in the CQC system or procedures which can require corrective action by the Contractor.

3.4 SUBMITTALS AND DELIVERABLES

Refer to the requirements identified Section 01 33 00 SUBMITTAL PROCEDURES, paragraph CONTRACTOR RESPONSIBILITIES.

3.5 CONTROL

CQC is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control are required to be conducted by the CQC System Manager for each definable feature of the construction work as follows:

3.5.1 Preparatory Phase

This phase is performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase includes:

a. A review of each paragraph of applicable specifications, reference codes, and standards. Make available during the preparatory inspection a copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field. Maintain and make available in the field for use by Government personnel until final acceptance of the work.

b. Review of the Contract drawings.

c. Check to assure that all materials and equipment have been tested, submitted, and approved.

d. Review of provisions that have been made to provide required control inspection and testing.

e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the Contract.

f. Examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.

g. Review of the appropriate activity hazard analysis to assure safety requirements are met.

h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.

i. Check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.

j. Discussion of the initial control phase.

k. The Government needs to be notified at least 48 hours in advance of beginning the preparatory control phase. Include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. Document the results of the preparatory phase actions by separate minutes prepared by the CQC System Manager and attach to the daily CQC report. Instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.5.2 Initial Phase

This phase is accomplished at the beginning of a definable feature of work. Accomplish the following:

a. Check work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.

b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing are in compliance with the contract.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.

d. Resolve all differences.

e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

f. The Government needs to be notified at least 48 hours in advance of beginning the initial phase for definable feature of work. Prepare separate minutes of this phase by the CQC System Manager and attach to the daily CQC report. Indicate the exact location of initial phase for definable feature of work for future reference and comparison with follow-up phases.

g. The initial phase for each definable feature of work is repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

3.5.3 Follow-up Phase

Perform daily checks to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. Record the checks in the CQC documentation. Conduct final follow-up checks and correct all deficiencies prior to the start of additional features of work which may be affected by the deficient work. Do not build upon nor conceal non-conforming work.

3.5.4 Additional Preparatory and Initial Phases

Conduct additional preparatory and initial phases on the same definable features of work if: the quality of on-going work is unacceptable; if there are changes in the applicable CQC staff, onsite production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

3.6 TESTS

3.6.1 Testing Procedure

Perform specified or required tests as required by the contract documents to verify that control measures are adequate to provide a product which conforms to contract requirements. to include compliance with any host nation testing requirements. Upon request, furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and acceptance tests when specified. Perform the following activities and record and provide the following data:

a. Verify that testing procedures comply with contract requirements.

b. Verify that facilities and testing equipment are available and comply with testing standards.

c. Check test instrument calibration data against certified standards.

d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.

e. Record results of all tests taken, both passing and failing on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test. If approved by the Contracting Officer, actual test reports are submitted later with a reference to the test number and date taken. Provide an information copy of tests performed by an offsite or commercial test facility directly to the Contracting Officer. Failure to submit timely test reports as stated results in nonpayment for related work performed and disapproval of the test facility for this Contract.

3.6.2 Testing Laboratories

All testing laboratories must be validated by the USACE Material Testing Center (MTC) for the tests to be performed in accordance with contract specified US Standards.

Perform tests required to show compliance with Host Nation standards or requirements in accordance with certification standards required by that standard. Provide Testing Laboratory Certification substantiating the laboratory is licensed or otherwise authorized by Host Nation authorities to perform the identified test.

3.6.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt, and steel are required to meet criteria detailed in ASTM D3740 and ASTM E329 or the Host Nation equivalent.

3.6.3 Onsite Laboratory

Should the contractor establish an onsite laboratory, the Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests, and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

3.7 COMPLETION INSPECTION

3.7.1 Punch-Out Inspection

Conduct an inspection of the work by the CQC System Manager near the end of the work, or any increment of the work established by a time stated in the contract clause, "Commencement, Prosecution, and Completion of Work", or by the specifications. Prepare and include in the CQC documentation a punch list of items which do not conform to the approved drawings and specifications, as required by paragraph DOCUMENTATION. Include within the list of deficiencies the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff conduct a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, provide documentation identifying when and by whom each punch list item was confirmed as corrected, and notify the Government that the facility is ready for the Government Pre-Final inspection.

3.7.2 Pre-Final Inspection

The Government will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. 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. Correct any items noted on the Pre-Final inspection in a timely manner. These inspections and any deficiency corrections required by this paragraph need to be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

3.7.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative is required to be in attendance at the final acceptance inspection. Additional Government personnel including, but not limited to, those from Base/Post Civil Facility Engineer user groups, and major commands can also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notify the Contracting Officer at least 14 days prior to the final acceptance inspection and include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the Contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the Contract clause titled "Inspection of Construction".

3.8 DOCUMENTATION

3.8.1 Integration With the Project Schedule

All Quality Control deliverables, including QC Reports, material delivery tickets, photographs, and test reports (e.g., concrete, soil compaction, weld, pressure) must identify or otherwise reference the applicable existing activity(ies) in the project schedule.

3.8.2 Quality Control Activities

Use the Resident Management System - Contractor Mode (RMS-CM) as required by Section 01 45 01 to maintain current records providing factual evidence that required quality control activities and tests have been performed. Include in these records the work of subcontractors and suppliers that includes, as a minimum, the following information:

- Weather conditions encountered.

- The number of personnel working and number of hours worked.

- Operating plant/equipment with hours worked, idle, or down for repair.

- Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.

- Test and control activities performed with results and references to specifications/drawings requirements. Identify the control phase (Preparatory, Initial, Follow-up). List of deficiencies noted, along

with corrective action.

- Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.

- Submittals and deliverables reviewed, with Contract reference, by whom, and action taken.

- Offsite surveillance activities, including actions taken.

- Job safety evaluations stating what was checked, results, and instructions or corrective actions.

- Instructions given/received and conflicts in plans and specifications.

3.8.3 QC Report Preparation and Submission Requirements

3.8.3.1 Content

Prepare a report documenting the above items.

3.8.3.2 Preparation

Prepare a report for each day construction work occurs on site. Hard copy

A single (weekly) report may be provided for each period of 7 days when no construction is ongoing at the site, unless the non-work is due to adverse weather. Indicate the non-work period in the first report after the period of no work.

If no construction work occurred due to Adverse Weather, a QC report is required to document the event. Refer to Section 00 74 02 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER (NAU) for reporting requirements.

Prepare the report in RMS-CM and submit through that system. Hard copy documents are not required.

3.9 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. Take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, will be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer can 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 will be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

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SECTION 01 45 01

RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM) (NAU)
08/25

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this section to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2024) Safety -- Safety and Occupational Health (SOH) Requirements

1.2 MEASUREMENT AND PAYMENT

The work of this section is not measured for payment. The Contractor is responsible for the work of this section, without any direct compensation other than the payment received for contract items.

1.3 CONTRACT ADMINISTRATION

The Government will use the Resident Management System (RMS) to assist in its monitoring and administration of this contract. The Government accesses the system using the Government Mode of RMS (RMS GM) and the Contractor accesses the system using the Contractor Mode (RMS CM). The term RMS will be used in the remainder of this section for both RMS GM and RMS CM. The joint Government-Contractor use of RMS facilitates electronic exchange of information and overall management of the contract. The Contractor accesses RMS to record, maintain, input, track, and electronically share information with the Government throughout the contract period in the following areas:

Administration
Finances
Quality Control
Submittal Monitoring
Scheduling
Closeout
Import/Export of Data

1.3.1 Correspondence and Electronic Communications

For ease and speed of communications, exchange correspondence and other documents in electronic format to the maximum extent feasible. Some correspondence, including pay requests and payrolls, are also to be provided in paper format with original signatures. Paper documents will govern, in the event of discrepancy with the electronic version.

1.3.2 Other Factors

Other portions of this document have a direct relationship to the reporting accomplished through RMS. Particular attention is directed to Contract Clause, 52.236-15 "Schedules for Construction Contracts"; Contract Clause, 52.232-27 "Prompt Payment for Construction Contracts"; Contract Clause, 52.232-15 "Payments Under Fixed-Priced Construction Contracts"; Section 01 32 01 PROJECT SCHEDULE (NAU); Section 01 33 00

SUBMITTAL PROCEDURES; Section 01 35 26 SAFETY REQUIREMENTS; and Section 01 45 00 QUALITY CONTROL.

1.4 TRANSITION TO SEPARATE SYSTEM

The Government is anticipating the replacement of the RMS-CM system. The Contractor must be prepared to transition from the Resident Management System (RMS) to the new Construction Management Platform (CMP) at any time during the performance of this contract, once the USACE enterprise implements this change. The Contractor's obligation to transition from RMS to the CMP system is a requirement of this contract. Therefore, additional time or cost increase to complete this transition will not be considered. In the event of the transition, RMS project information will be migrated to CMP by the government and available in the CMP system. After the transition, the Contractor must utilize the CMP system to perform all contract administration functions previously required in RMS, including all areas listed above. After the transition, “RMS” and “CMP” will be synonymous for all “Resident Management System” and “RMS” references in this contract’s specification. To facilitate the transition from RMS to CMP, online training for the CMP system will be made available to the Contractor with enough time to train staff, prior to the transition occurring.

1.5 RMS SOFTWARE

RMS is a web based application. Download, install and be able to utilize the latest version of RMS within 7 calendar days of receipt of the Notice to Proceed. RMS software, user manuals, access and installation instructions, program updates and training information are available from the RMS website (https://rms.usace.army.mil). The Government and the Contractor will have different access authorities to the same contract database through RMS. The common database will be updated automatically each time a user finalizes an entry or change.

1.6 CONTRACT DATABASE - GOVERNMENT

The Government will enter the basic contract award data in RMS prior to granting the Contractor access. The Government entries into RMS will generally be related to submittal reviews, correspondence status, and Quality Assurance(QA)comments, as well as other miscellaneous administrative information.

1.7 CONTRACT DATABASE - CONTRACTOR

Contractor entries into RMS establish, maintain, and update data throughout the duration of the contract. Contractor entries generally include prime and subcontractor information, daily reports, submittals, RFI's, schedule updates and payment requests. RMS includes the ability to import attachments and export reports in many of the modules, including submittals. The contractor responsibilities for entries in RMS typically include the following items:

1.7.1 Administration

1.7.1.1 Contractor Information

Enter all current Contractor administrative data and information into RMS within 7 calendar days of receiving access to the contract in RMS. This includes, but is not limited to, Contractor's name, address, telephone numbers, management staff, and other required items.

1.7.1.2 Subcontractor Information

Enter all missing subcontractor administrative data and information into RMS CM within 7 calendar days of receiving access to the contract in RMS or within 7 calendar days of the signing of the subcontractor agreement for agreements signed at a later date. This includes name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor is listed separately for each trade to be performed.

1.7.1.3 Correspondence

Identify all Contractor correspondence to the Government with a serial number. Prefix correspondence initiated by the Contractor's site office with "S". Prefix letters initiated by the Contractor's home (main) office with "H". Letters are numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C" or "RFP".

1.7.1.4 Equipment

Enter and maintain a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.7.1.5 Reports

Track the status of the project utilizing the reports available in RMS. The value of these reports is reflective of the quality of the data input. These reports include the Progress Payment Request worksheet, Quality Control (QC) comments, Submittal Register Status, and Three-Phase Control worksheets.

1.7.1.6 Request For Information (RFI)

Create and track all Requests For Information (RFI) in the RMS Administration Module for Government review and response.

1.7.2 Finances

1.7.2.1 Pay Activity Data

Develop and enter a list of pay activities in conjunction with the project schedule. The sum of pay activities equals the total contract amount, including modifications. Each pay activity must be assigned to a Contract Line Item Number (CLIN). The sum of the activities assigned to a CLIN equals the amount of each CLIN.

Unless approved in writing by the Contracting Officer, the Pay Activities must be identical to those identified on the project schedule.

1.7.2.2 Payment Requests

Prepare all progress payment requests using RMS. Update the work completed under the contract at least monthly, measured as percent or as specific quantities. After the update, generate a payment request and prompt payment certification using RMS. Submit the signed prompt payment certification and payment request as well as supporting data either electronically or by hard copy. Unless waived by the Contracting Officer, a signed paper copy of the approved payment certification and request is also required and will govern in the event of discrepancy with the electronic version.

1.7.3 Quality Control (QC)

Enter and track implementation of the 3-phase QC Control System, QC testing, transferred and installed property and warranties in RMS. Prepare daily reports, identify and track deficiencies, document progress of work, and support other Contractor QC requirements in RMS. Maintain all data on a daily basis. Insure that RMS reflects all quality control methods, tests and actions contained within the Contractor Quality Control (CQC) Plan and Government review comments of same within 7 calendar days of Government acceptance of the CQC Plan.

1.7.3.1 Quality Control (QC) Reports

The Contractor's Quality Control (QC) Daily Report in RMS is the official report. The Contractor can use other supplemental formats to record QC data, but information from any supplemental formats are to be consolidated and entered into the RMS QC Daily Report. Any supplemental information may be entered into RMS as an attachment to the report. QC Daily Reports must be finalized and signed in RMS within 24 hours after the date covered by the report. Provide the Government a printed signed copy of the QC Daily Report, unless waived by the Contracting Officer.

1.7.3.2 Deficiency Tracking

Use the QC Daily Report Module to enter and track deficiencies. Deficiencies identified and entered into RMS by the Contractor or the Government will be sequentially numbered with a QC or QA prefix for tracking purposes. Enter each deficiency into RMS the same day that the deficiency is identified. Monitor, track and resolve all QC and QA entered deficiencies. A deficiency is not considered to be corrected until the Government indicates concurrence in RMS.

1.7.3.3 Three-Phase Control Meetings

Maintain scheduled and actual dates and times of preparatory and initial control meetings in RMS. Worksheets for the three-phase control meetings are generated within RMS.

1.7.3.4 Labor and Equipment Hours

Enter labor and equipment exposure hours on a daily basis. Roll up the labor and equipment exposure data into a monthly exposure report.

1.7.3.5 Accident/Safety Reporting

Both the Contractor and the Government enter safety related comments in RMS as a deficiency. The Contractor will monitor, track and show resolution for safety issues in the QC Daily Report area of the RMS QC Module. In addition, follow all reporting requirements for accidents and incidents as required in EM 385-1-1, Section 01 35 26 SAFETY REQUIREMENTS and as required by any other applicable Federal, State or local agencies.

1.7.3.6 Definable Features of Work

Enter each feature of work, as defined in the approved CQC Plan, into the RMS QC Module. A feature of work may be associated with a single or multiple pay activities, however a pay activity is only to be linked to a single feature of work.

1.7.3.7 Activity Hazard Analysis

Import activity hazard analysis electronic document files into the RMS QC Module utilizing the document package manager.

1.7.4 Submittal Management

Enter all current submittal register data and information into RMS within 7 calendar days of receiving access to the contract in RMS. Group electronic submittal documents into transmittal packages to send to the Government, except very large electronic files, samples, spare parts, mock ups, color boards, or where hard copies are specifically required. Track transmittals and update the submittal register in RMS on a daily basis throughout the duration of the contract. Submit hard copies of all submittals unless waived by the Contracting Officer.

1.7.5 Schedule

Enter and update the contract project schedule in RMS by either manually entering all schedule data or by importing the Standard Data Exchange Format (SDEF) file, based on the requirements in Section 01 32 01 PROJECT SCHEDULE.

1.7.6 Closeout

Closeout documents, processes and forms are managed and tracked in RMS by both the Contractor and the Government. Ensure that all closeout documents are entered, completed and documented within RMS.

1.8 IMPLEMENTATION

Use of RMS as described in the preceding paragraphs is mandatory. Ensure that sufficient resources are available to maintain contract data within the RMS system. RMS is an integral part of the Contractor's required management of quality control.

1.9 NOTIFICATION OF NONCOMPLIANCE

Take corrective action within 7 calendar days after receipt of notice of RMS non-compliance by the Contracting Officer.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

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SECTION 01 45 05

CONTRACTOR PERSONNEL REQUIREMENTS (NAU)
08/25

PART 1 GENERAL

1.1 PERSONNEL

Provide personnel identified in Table 1 that meet the requirements identified.

Personnel are subject to removal should the quality or safety of the work be determined by the Contracting Officer to be unsatisfactory.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2024) Safety -- Safety and Occupational Health (SOH) Requirements

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Superintendent and Alternate Superintendent; G
CQC and Alternate CQC SM; G
Design and Alternate Design QC SM; G
SSHO and Alternate SSHO; G, DO

1.4 COMMON REQUIREMENTS

The following requirements apply to all personnel required by this section. All persons proposed to be assigned a role on this project in accordance with this section must be approved for that role prior to their assumption of duties on this project.

1.4.1 Primary and Alternate

Identify a primary and an alternate to serve in each of the identified positions. Qualifications and experience for alternates are the same as those for the primary.

When the primary is on leave or is otherwise not available while construction work is ongoing, an equally-qualified alternate must be provided and must fulfill the same roles and responsibilities as the primary. When an alternate assumes the duties of the primary, they may not have concurrent duties unless column f. in Table 1 indicates the

position may have concurrent duties. Alternates must comply with the on-site requirements indicated in Table 1.

Where no alternate has been approved, the contractor may not perform any related construction work.

1.4.2 Host Nation Requirements

Personnel must meet all requirements established by the Host Nation for similar positions (superintendence, safety, inspection verification, etc.). These requirements are in addition to, and do not relieve the contractor from requirements established by this contract.

Proof of training, education, experience, and/or qualification may be requested by the Contracting Officer, however by submitting an individual the contractor is certifying they meet all requirements established by the Host Nation authorities where work is performed.

1.4.3 Safety

All personnel identified in this section are considered to be members of the Contractors Safety Organization. Personnel must be familiar with the requirements of EM 385-1-1 and have experience in the areas of hazard identification and safety compliance.

1.4.4 Quality Control

All personnel identified in this section are considered to be members of the Contractors Quality Control (CQC) Organization.

Personnel are required to have completed the Construction Quality Management (CQM) for Contractors course. This course is periodically offered by the Army Corps of Engineers. Contact the Contracting Officer for information on the next scheduled class.

The CQM Training certificate expires after 5 years. No one may be appointed or continue to serve in a position requiring this training if their certificate has expired. Retaking the course is required to obtain a new certificate.

1.5 SUPERVISION

Submit for approval a qualified Superintendent and Alternate Superintendent responsible for the overall construction activities at the site. Their duties include:

a. Providing adequate supervision of all workers.

b. Ensuring performance of all work required in accordance with the terms of the contract, including quality and safety.

c. Receiving and implementing instructions from the Contracting Officer and their designated representatives.

d. Managing and coordinating day-to-day production and adherence to the project schedule.

e. Attending partnering and quality control meetings.

f. Interpreting construction drawings and specifications.

g. Interpreting the project schedule

1.6 QUALITY CONTROL PERSONNEL

Submit for approval all persons assigned a quality control function on this contract, whether specifically identified and required per Table 1 or not.

1.6.1 Construction Quality Control (CQC) System Manager (SM)

Submit for approval a CQC and Alternate CQC SM meeting the requirements of this section and section 01 45 00 QUALITY CONTROL (NAU).

The CQC SM is responsible for overall management of construction quality control and has the authority to act in all CQC matters for the Contractor.

1.6.2 Design QC SM

If a Design QC SM is required by Table 1 of this Section, submit for approval the name of a Design and Alternate Design QC SM meeting the requirements identified.

A Design QC System Manager (SM) is responsible for overall management of design quality control with the authority to act in all Design QC matters for the Contractor.

1.7 SAFETY PERSONNEL

Provide and submit for approval a Level 1 Site Safety and Health Officer (SSHO) SSHO and Alternate SSHO meeting the requirements of EM 385-1-1 as well as any other safety personnel identified in Table 1.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 SUBMITTAL REQUIREMENTS

3.1.1 Separate Items for Personnel

Submit each person a unique item number to ensure approval/disapproval is linked to a specific individual. For example, identify the Superintendent and Assistant superintendent on separate items. The submittal may include multiple items.

3.1.2 Submittal Contents

For each individual proposed to serve in one of the identified roles submit adequate information to show the personnel proposed are qualified for the proposed position. Qualifications must include education, training, experience, and relevant certifications. Typical documents include:

a. resumes or similar documents establishing education, training, qualifications, and experience.

b. description of duties, responsibilities, and authorities.

c. a copy of a letter to the individual signed by an authorized official of the prime contractor which identifies their role and responsibilities on the contract. Identify any limitations or

restrictions on their authority. Include (1) authority to stop work which is not in compliance with the Contract and (2) prohibit the individual from redelegating any of their authorities, duties, or responsibilities.

d. copies of relevant certifications and training certificates.

Refer to EM 385-1-1 for requirements for the SSHO. Use forms identified in EM 385-1-1.

3.2 WORK AT MULTIPLE PROJECT SITES

Where construction work is performed concurrently at non-contiguous project sites located more than thirty minutes from one another, personnel identified in Table 1 may not be assigned to more than one project site if column h. is marked "Y".

3.3 EMPLOYMENT BY PRIME CONTRACTOR

Unless indicated with a "Y" in column g. of Table 1, personnel identified in Table 1 must be: (1) directly paid by the prime contractor and (2) completely independent of and free from affiliation or conflicts of interest with any subcontractor or supplier the prime intends to use on the project.

3.3.1 Affiliated Corporate Entities

Affiliated corporate entities include (1) subsidiaries, (2) business units (3) parent companies, and (4) any other corporate entity with a financial interest, whether wholly owned or not, sharing a common ownership.

Employees of these entities do not meet the requirements for employment by prime contractor as described in this section.

The contractor may request a waiver of this restriction via written request and prior approval from the Contracting Officer. The government is neither obligated to approve nor provide a reason for denial of such a request, and the contractor waives all rights of appeal when submitting such a request.

3.3.2 Joint Ventures

If the prime contractor is a Joint Venture, employees of the Joint Venture members are considered to be employed by the prime contractor as described in this section.

3.3.3 Secondments

Personnel "seconded" or otherwise temporarily assigned from any other another firm do not meet the requirements for employment by the prime contractor as described in this section.

3.3.4 Prior Employment

Personnel employed by the prime contractor who were previously employed by subcontractors, suppliers, or firms providing services of any type on this project are considered to meet the requirements for independence if their employment with those entities ended at least six months prior to the award of this project.

3.4 EMPLOYMENT BY OTHER THAN PRIME CONTRACTOR

If column g. of Table 1 is marked, required personnel may be employed by

a first-tier subcontractor. However, if one first-tier subcontractor will be responsible for any supervision, quality control, or safety oversight of another subcontractor (at any level) where no direct contractual relationship exists between the two, prior written approval of the Contracting Officer is required.

When requesting approval from the Contracting Officer, provide written documentation designating the specific authorities of the subcontractor responsible for supervision, quality control, or safety oversight. This designation must be signed and agreed to by authorized representatives of all companies involved.

3.5 PERSONNEL IDENTIFIED IN PROPOSAL OR OFFER

If the contractor was required to identify in their proposal or offer any personnel required by this specification by name, or the contractor identified any person by name in their proposal or offer, the contractor may not change these personnel or assign them other duties or responsibilities without the express written approval of the Contracting Officer. "Contracting Officer" in this specific context does not include an Administrative Contracting Officer.

Award of any resulting contract does not constitute approval of the person(s) for the role(s) identified in the proposal. Any personnel so identified must be submitted for approval in accordance with this section and be shown to meet the requirements of this contract.

3.6 REPLACEMENT OF PERSONNEL

Except when directed to remove or replace personnel by the Contracting Officer, the contractor may not replace personnel identified in their proposal or offer, nor any personnel approved in accordance with this section, without the approval of the Contracting Officer.

Submit any proposed changes as described elsewhere in this section. The proposed personnel must be equivalent in experience and qualifications to the originally identified person(s).

The Contracting Officer has the sole right to determine whether the qualifications and experience are equivalent. The contractor may not appeal a rejection of a proposed substitute.

3.7 TABLE 1 - PERSONNEL REQUIREMENTS

Table 1 on the following pages identifies the MINIMUM supervision, quality control, and safety personnel required to be provided by the contractor for this project:

1. Column a. indicates the minimum number of personnel required for the position in this project. If no value is indicated, the position is not required, but the contractor may provide.

2. Column b. identifies the position or discipline.

3. Column c. identifies minimum qualifications/training.

4. Column d. indicates whether the position must be filled with someone possessing a post-secondary degree in the relevant field. The term "post-secondary degree" refers to an individual with a minimum of a Bachelors degree (completion of a four-year course of study) unless specifically indicated otherwise in column c.

4. Column e. indicates the minimum number of years of relevant

experience in the indicated area. For experience to be considered relevant, the individual must have been assigned a similar role on projects comparable in size, scope, and complexity to this project.

5. Column f. indicates whether the person may be allowed other duties. See also "Restrictions or Limitations if allowed other duties" at the end of Table 1.

6. Column g. indicates whether the person may be employed by a subcontractor performing the applicable work. If marked N or not marked, the individual must be directly employed by the prime contractor. See paragraph 3.3.

7. Column h. indicates whether the person must be on-site at all times work (or work in the relevant feature of work for specialized personnel) is being performed. See also "Minimum On-site Requirements" at the end of Table 1.

Table 1: Required Contractor Personnel and Requirements							
a.	b.	c.	d.	e.	f.	g.	h.
Req	Area / Discipline	Qualification	Degree	Years Exp	Other Duties	Employed by Sub	On-Site
1	Super-intendent		Y	3	N	N	Y
1	CQC SM	Post-secondary degree in engineering, architecture, or construction management.	Y	3	N	N	Y
1	Level 1 SSHO	See EM 385-1-1				N	Y
	Design QC SM	Architect or engineer licensed and registered in accordance with the requirements of the country where the construction work is performed.	Y				N/A

Column f.: Restrictions or Limitations if allowed other duties

Column h.: Minimum On-site Requirements

-- End of Section --

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SECTION 01 45 10

DESIGN QUALITY CONTROL (NAU)

05/24

PART 1 GENERAL

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1.4 DESIGN QUALITY CONTROL (QC) PERSONNEL

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3.3 INDEPENDENT TECHNICAL REVIEW

-- End of Section Table of Contents --

SECTION 01 45 10

DESIGN QUALITY CONTROL (NAU)
05/24

PART 1 GENERAL

1.1 PURPOSE

This section establishes additional Quality Control requirements for the design activities associated with a Design-Build contract. It supplements and does not replace any of the requirements of Section 01 45 00 CONSTRUCTION QUALITY CONTROL.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

ER 1110-1-12	(2006; Change 1) Engineering and Design -- Quality Management

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Design Quality Control (DQC) Plan; G, DO

SD-05 Design Data

Discipline-Specific Checklists

1.4 DESIGN QUALITY CONTROL (QC) PERSONNEL

Refer to Section 01 45 05 CONTRACTOR PERSONNEL REQUIREMENTS.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

In addition to the requirements of paragraph GENERAL REQUIREMENTS of Section 01 45 00 CONSTRUCTION QUALITY CONTROL, the QC system includes all design operations, both onsite and offsite.

3.2 DESIGN QUALITY CONTROL (DQC) PLAN

Design will be permitted to begin only after acceptance of the Design QC

Plan.

3.2.1 Design Quality Control (DQC) Plan

At least 30 days prior to the planned start of design, submit a Design Quality Control (DQC) Plan. The DQC Plan must include:

a. The procedures to be followed to ensure all services required by this contract are performed and provided in a manner that meets professional architectural and engineering quality standards. As a minimum, all documents must be technically reviewed by competent, independent reviewers identified in the DQC Plan. The same element that produced the product may not perform this independent technical review (ITR). Correct errors and deficiencies in the design documents prior to submitting them to the Government.

b. Discipline-specific checklists to be used during the quality control review of each design submittal. Submit at each design phase as part of the project documentation these completed discipline-specific checklists. The checklists must identify in adequate detail the information reviewed and validated to be in compliance with the requirements of the contract.

c. A copy of the letter to the DQC SM signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the DQC SM, including authority to stop work which is not in compliance with the Contract.

The Contracting Officer will notify the Contractor in writing of the acceptance of the DQC Plan. After acceptance, any changes proposed by the Contractor are subject to the acceptance of the Contracting Officer.

3.2.2 Acceptance of DQC Plan

Acceptance of the DQC Plan is required prior to the start of design. Acceptance is conditional and will be predicated on satisfactory performance.

The Government reserves the right to require the Contractor to make changes in the DQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.3 Notification of Changes

After acceptance of the DQC Plan, notify the Contracting Officer in writing of any proposed change and provide a revised submittal of the applicable plan. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 INDEPENDENT TECHNICAL REVIEW

Prior to submission of any design submittal, ensure an Independent Technical Review (ITR) is performed and documented. ITR requirements are explained in Chapter 4 of ER 1110-1-12. This is considered an integral part of the design quality control requirements and the procedures must be included in the DQC Plan.

The Government will not perform an ITR of the contractors designs. Failure to provide adequate documentation of an ITR for a design submittal will result the design submission being disapproved and returned without any review by the Government.

-- End of Section --

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SECTION 01 45 35

SPECIAL INSPECTIONS (NAU)

05/24

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SECTION 01 45 35

SPECIAL INSPECTIONS (NAU)
05/24

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

INTERNATIONAL CODE COUNCIL (ICC)

ICC IBC (2018) International Building Code

1.2 GENERAL REQUIREMENTS

Perform Special Inspections in accordance with Chapter 17 of ICC IBC. Special Inspections are to be performed by an independent third party and are intended to ensure that the work of the prime contractor is in accordance with the Contract Documents and applicable building codes.

Special inspections do not take the place of the three phases of control inspections performed by the Contractor's QC Manager or any testing and inspections required by other sections of the specifications.

These special inspections are in addition to, and are separate from, the Third Party Inspection Requirements identified in Section 00 74 01 SPECIAL CONDITIONS.

Prior to starting any work on a DFOW requiring special inspections, the Special Inspector (SI) and Special Inspection Plan for the DFOW as described herein must be approved by the Government.

Separate payment will NOT be made for the costs of these inspections or for the correction of any deficiencies identified.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Special Inspections Plan

SD-06 Test Reports

Special Inspection Report; G

SD-07 Certificates

Special Inspector Qualifications; G

SD-11 Closeout Submittals

Final Report of Special Inspections; G

1.4 SPECIAL INSPECTOR QUALIFICATIONS

Submit qualifications for each Special Inspector for approval by the Contracting Officer. The Special Inspector must have the competence necessary to inspect a particular type of construction requiring Special Inspections, be qualified as discussed in the following paragraphs, and must be an independent third party hired directly by the Prime Contractor. Under no circumstances may they be directly employed by the Contractor or any Sub-Contractor performing the work to be inspected.

Special Inspectors required by this section are separate from and in addition to the Quality Control personnel identified in Section 01 45 05 CONTRACTOR PERSONNEL REQUIREMENTS (NAU). No personnel serving in any capacity or position required by Section 01 45 05 may serve as a Special Inspector.

1.4.1 Electrical Inspector

The electrical inspector must be a certified Master electrician or licensed degreed Electrical Engineer and have a minimum of 10 years' experience, 5 years in the country where the project work is performed.

1.4.2 Structural Inspector

The structural inspector must be a licensed graduate engineer with 10 years of experience, 5 years in the country where the project work is performed. Required experience includes, but is not limited to, inspecting concrete moment frame, concrete foundations, roof system and rebar and form work.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 SPECIAL INSPECTIONS

3.1.1 Electrical Inspections

Perform an inspection of the following electrical work:

a. All electrical outlets

b. Off-cover inspection of all electrical panels

c. Verification of GFCI installation and correct operation

d. Municipal power connection

e. Lightning protection installations

f. Generator installation and operation

3.1.2 Structural Inspections

Perform an inspection of the following works:

a. Bearing capacity of foundation soils

b. Concrete formwork (foundation, walls, and all other structural elements)

c. Reinforcing steel installation in accordance with design prior to concrete placement.

d. Concrete placement, including review and approval of test results.

No concrete may be placed without a preceding rebar inspection report and verification of functioning vibration equipment.

3.2 RESPONSIBILITIES

3.2.1 Construction Quality Control System Manager (CQC SM)

a. Maintain a copy of the Special Inspections Plan onsite for use by the contractor and subcontractors.

b. Supervise all Special Inspectors.

c. Verify the qualifications of all of the Special Inspectors.

d. Verify the qualifications of fabricators.

e. Record as a QC deficiency in RMS-CM every item requiring rework that includes discrepancies noted on the Special Inspectors report.

3.2.2 Special Inspectors

a. Prepare and submit for approval a written Special Inspections Plan, which includes the following:

(1) A schedule which lists each of the required Special Inspections, the extent to which each Special Inspections is to be performed, and the required frequency for each in accordance with ICC IBC Chapter 17.

(2) The inspection procedures.

(3) Proposed forms or templates to be used to document inspections.

(4) Indicate procedures for tracking nonconforming work and verification that corrective work is complete.

(5) Indicate how the SI will participate in regular QC meetings.

(6) Include a section that covers each specific item requiring Special Inspections. Provide names of each qualified special inspector who will be performing the Special Inspections for each specific item. Provide detail on how the Special Inspections are to be carried out for each item so that the expectations are clear for the General Contractor and the Subcontractor performing the work.

b. Attend preparatory phase meetings related to the Definable Feature of Work (DFOW) for which the special inspector is qualified to inspect to verify that all parties have a clear understanding of the Special Inspections provisions and the individual duties and responsibilities of each party..

c. Inspect all elements of the project for which the special inspector is qualified to inspect and are identified in the Schedule of Special Inspections.

d. Discrepancies that are observed during Special Inspections must be reported to the QC Manager for correction. If discrepancies are not corrected before the special inspector leaves the site the observed

discrepancies must be documented in the daily report.

e. Submit a Special Inspection Report within 48 hours of every inspection. The report must be submitted to both the contractor and the Government simultaneously. A report is required for each inspection and must include the following:

(1) A brief summary of the work performed during the reporting time frame, including at least 10 photos of the observed activity. Photos must be at least 5MP resolution.

(2) Changes and/or discrepancies with the drawings, specifications that were observed during the reporting period.

(3) Discrepancies which were resolved or corrected.

(4) A list of nonconforming items requiring resolution.

f. At the completion of each DFOW requiring Special Inspections, submit a final report of Special Inspections that documents the Special Inspections completed for that DFOW. Identify the inspector responsible for each item inspected and corrections of all discrepancies noted in the daily reports. The interim final report of Special Inspections must be signed, dated and indicate the certification of the special inspector qualifying them to conduct the inspection.

3.3 DEFECTIVE WORK

Check work as it progresses, but failure to detect any defective work or materials must in no way prevent later rejection if defective work or materials are discovered, nor obligate the Contracting Officer to accept such work.

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SECTION 01 78 00

CLOSEOUT PROCEDURES (NAU)

09/25

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SECTION 01 78 00

CLOSEOUT PROCEDURES (NAU)
09/25

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

ERDC/ITL TR-12-1	(2015) A/E/C Graphics Standard, Release 2.0
ERDC/ITL TR-12-6	(2015) A/E/C CAD Standard - Release 6.0

U.S. DEPARTMENT OF DEFENSE (DOD)

UFC 1-300-08	(2009, with Change 2, 2011) Criteria for Transfer and Acceptance of DoD Real Property

1.2 DEFINITIONS

1.2.1 As-Built Drawings

As-built drawings are developed and maintained by the Contractor and depict actual conditions, including deviations from the Contract Documents. These deviations and additions may result from coordination required by, but not limited to: contract modifications; official responses to Contractor submitted Requests for Information; direction from the Contracting Officer; designs which are the responsibility of the Contractor, and differing site conditions. Maintain the as-builts throughout construction as red-lined PDF files. These files serve as the basis for the creation of the record drawings.

1.2.2 Record Drawings

The record drawings are the final compilation of actual conditions reflected in the as-built drawings.

1.3 SOURCE DRAWING FILES

If any source drawings exist, and the contractor desires to use them during this contract, submit a request to the Contracting Officer at least 30 days prior to required use.

1.3.1 Terms and Conditions

Data contained on these electronic files must not be used for any purpose other than as a convenience in the preparation of construction drawings and data for the referenced project. Any other use or reuse by the contractor is at their sole risk and without liability or legal exposure to the Government. The Contractor waives, without restriction, any claim or cause of action of any nature against the Government, its agents or sub consultants that may arise out of or in connection with the use of these electronic files. The Contractor must, to the fullest

extent permitted by law, indemnify and hold the Government harmless against all damages, liabilities or costs, including reasonable attorney's fees and defense costs, arising out of or resulting from the use of these electronic files.

Electronic CAD drawing files are not construction documents. Differences may exist between the CAD files and the corresponding contract documents. The Government makes no representation regarding the accuracy or completeness of the electronic CAD files, nor does it make representation to the compatibility of these files with the Contractor hardware or software. In the event that a conflict arises between the contract documents and any source drawing files, the contract documents govern. The Contractor is solely responsible for determining if any conflict exists. Use of these Source Drawing files does not relieve the Contractor of duty to fully comply with the contract documents, including and without limitation, the need to check, confirm and coordinate the work of all contractors for the project. If the Contractor uses, duplicates or modifies these electronic source drawing files for use in producing construction drawings and data related to this contract, remove all previous indicia of ownership (seals, logos, signatures, initials and dates).

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Commissioning Plan; G

SD-02 Shop Drawings

Working As-Built Markup Drawings

SD-03 Product Data

Warranty Management Plan
Warranty Tags
Spare Parts Data
Equipment Guarantees

SD-08 Manufacturer's Instructions

Posted Instructions

SD-11 Closeout Submittals

Local Warranty Contractor
As-Built Drawings; G
Record Drawings; G
Interim DD FORM 1354; G
Warranty Repair Report
Construction Book; G

1.5 DOCUMENTATION REQUIREMENTS

Provide all documents required by this section in English and the Host Nation language. The contractor is liable for the correct and proper translation of all documents which are not produced in both languages by

individuals who are qualified to perform the translation.

Provide printed documents provided on A4 or larger paper, with the exception of As-Built and Record Drawings which are to be printed on A1 paper.

1.6 SPARE PARTS DATA

a. Provide a complete list of all spare parts. Indicate manufacturer's name, part number, nomenclature, and stock level required for maintenance and repair. List those items that may be standard to the normal maintenance of the system.

b. Supply spare parts for items as identified elsewhere in the contract documents for spare parts inventory. Provision of spare parts does not relieve the Contractor of responsibilities listed under the contract guarantee provisions.

1.7 QUALITY CONTROL

Additions and corrections to the contract drawings must be equal in quality and detail to that of the originals. Line colors, line weights, lettering, layering conventions, and symbols must conform to ERDC/ITL TR-12-6.

1.8 WARRANTY

1.8.1 Warranty of Construction

1.8.1.1 Contract Warranty Clauses

Contract clause 52.246-21 Warranty of Contruction, or, for projects performed in Germany, clause 252.246-7002 Warranty of Construction (Germany) apply to this contract. Refer to the contract award document for the relevant clause(s) applicable to this contract.

1.8.1.2 Additional Warranty

Where the Contract Warranty Clauses only extend to one year from the time of acceptance as described in those clauses, an additional (extended) one year warranty period applies, resulting in a minimum 2 (two) year warranty for all work performed under the contract.

1.8.1.3 Additional Warranty (Lithuania)

For projects performed in the Republic of Lithuania, the minimum warranty period is 3 (three) years for all work performed under this contract.

1.8.1.4 Additional Warranties

The warranties identified in this section are in addition to warranties identified elsewhere in this contract. Where the contract identifies multiple warranty periods, the warranty extends to the longest period identified.

1.8.2 Warranty Inspections

Two joint warranty inspections will be conducted during the warranty period by the Contractor, Contracting Officer and the Customer Representative. These inspections will be conducted at approximately 1/3 and 2/3 of the warranty period.

1.8.3 Local Warranty Contractor

If the contractor will not have an ongoing presence within 100 kilometers of the project site during the entire warranty period, identify a company which is authorized to initiate and pursue construction warranty work action on behalf of the Contractor. Furnish the name, telephone number and address of any company so authorized.

This company must be licensed in accordance with Host Nation requirements and have a physical presence within 100 kilometers of the project site, be continuously available, have an English speaking representative, and be responsive to Government inquiry on warranty work action and status. This requirement does not relieve the Contractor of any of its responsibilities in connection with other portions of this provision.

The 100 kilometer range may be increased only upon specific written request of the contractor and approval of the Contracting Officer.

1.8.4 Warranty Management Plan

Develop a warranty management plan and submit one electronic copy at least 30 days before the pre-final inspection. Include within the warranty management plan all required actions and documents to assure that the Government receives all warranties to which it is entitled. The plan must be in narrative form and contain sufficient detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this contract. The term "status" as indicated below must include due date and whether item has been submitted or was accomplished. Assemble approved information in a binder and turn over to the Government upon acceptance of the work. Include within the warranty management plan the following:

a. Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, subcontractors, manufacturers or suppliers involved.

b. Any access requirements such as installation entry, controlled/restricted space entry, escort requirements, etc. which are or will be necessary to access the facility and specific areas/rooms. The contractor must coordinate with the end user to determine what restrictions may be implemented to ensure that warranty response times are not hindered due to these limitations.

c. Furnish with each warranty the name, address, and telephone number of each of the guarantor's representatives nearest to the project location.

d. Listing and status of delivery of all Certificates of Warranty for extended warranty items, to include roofs, HVAC balancing, pumps, motors, transformers, and for all commissioned systems such as fire protection and alarm systems, sprinkler systems, lightning protection systems, etc.

e. A list for each warranted equipment, item, feature of construction or system indicating:

(1) Name of item.
(2) Model and serial numbers.
(3) Location where installed.
(4) Name and phone numbers of manufacturers or suppliers.
(5) Names, addresses and telephone numbers of sources of spare parts.

(6) Warranties and terms of warranty. Include overall warranty of construction, including the starting date of warranty of construction. Items which have extended warranties must be indicated with separate warranty expiration dates.
(7) Cross-reference to warranty certificates as applicable.
(8) Starting point and duration of warranty period.
(9) Summary of maintenance procedures required to continue the warranty in force.
(10) Cross-reference to specific pertinent Operation and Maintenance manuals.
(11) Organization, names and phone numbers of persons to call for warranty service.
(12) Typical response time and repair time expected for various warranted equipment.

f. The plans for attendance at the post-construction warranty inspections conducted by the Government.

g. Procedure and status of tagging of all equipment covered by extended warranties.

h. Copies of Posted Instructions to be posted near selected pieces of equipment where operation is critical for warranty and/or safety reasons.

1.8.5 Pre-Warranty Conference

Prior to submitting the Warranty Management Plan, and at a time designated by the Contracting Officer, meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this section. Communication procedures for Contractor notification of construction warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty will be established/reviewed at this meeting.

1.8.6 Contractor's Response to Construction Warranty Service Requirements

Following oral or written notification by the Contracting Officer, respond to construction warranty service requirements in accordance with the "Construction Warranty Service Priority List" and the three categories of priorities listed below. This list includes items which may not be applicable to a specific project. Include an edited list of the applicable in the Warranty Management Plan. Make no changes in the priority code without specific written direction of the Contracting Officer.

Submit a Warranty Repair Report on any warranty item that has been repaired during the warranty period. Include within the report the cause of the problem, date reported, corrective action taken, and when the repair was completed.

If the Contractor does not perform the construction warranty within the timeframe specified, the Government will perform the work and either deduct the costs from any remaining contract funds or recoup expenses from the contractors bonding company or the Bank Letter of Guaranty.

a. First Priority Code 1. Perform onsite inspection to evaluate situation, and determine course of action within 4 hours, initiate work within 6 hours and work continuously to completion or relief.

b. Second Priority Code 2. Perform onsite inspection to evaluate situation, and determine course of action within 8 hours, initiate work within 24 hours and work continuously to completion or relief.

c. Third Priority Code 3. All other work to be initiated within 3 work days and work continuously to completion or relief.

d. The "Construction Warranty Service Priority List" is as follows:

Code 1-Life Safety Systems
(1) Fire suppression systems.
(2) Fire alarm system(s) in place in the building.

Code 1-Air Conditioning Systems
(1) Recreational support.
(2) Air conditioning leak in part of building, if causing damage.
(3) Air conditioning system not cooling properly.

Code 1-Doors
(1) Overhead doors not operational, causing a security, fire, or safety problem.
(2) Interior, exterior personnel doors or hardware, not functioning properly, causing a security, fire, or safety problem.

Code 3-Doors
(1) Overhead doors not operational.
(2) Interior/exterior personnel doors or hardware not functioning properly.

Code 1-Electrical
(1) Power failure (entire area or any building operational after 1600 hours).
(2) Security lights
(3) Smoke detectors

Code 2-Electrical
(1) Power failure (no power to a room or part of building).
(2) Receptacle and lights (in a room or part of building).

Code 3-Electrical
Street lights.

Code 1-Gas
(1) Leaks and breaks.
(2) No gas to family housing unit or cantonment area.

Code 1-Heat
(1) Area power failure affecting heat.
(2) Heater in unit not working.

Code 2-Kitchen Equipment
(1) Dishwasher not operating properly.
(2) All other equipment hampering preparation of a meal.

Code 1-Plumbing
(1) Hot water heater failure.
(2) Leaking water supply pipes.

Code 2-Plumbing
(1) Flush valves not operating properly.
(2) Fixture drain, supply line to commode, or any water pipe leaking.
(3) Commode leaking at base.

Code 3 -Plumbing
Leaky faucets.

Code 3-Interior

(1) Floors damaged.
(2) Paint chipping or peeling.
(3) Casework.

Code 1-Roof Leaks
Temporary repairs will be made where major damage to property is occurring.

Code 2-Roof Leaks
Where major damage to property is not occurring, check for location of leak during rain and complete repairs on a Code 2 basis.

Code 2-Water (Exterior)
No water to facility.

Code 2-Water (Hot)
No hot water in portion of building listed.

Code 3-All other work not listed above.

1.8.7 Warranty Tags

At the time of installation, tag each warranted item with a durable, oil and water resistant tag approved by the Contracting Officer. Attach each tag with a copper wire and spray with a silicone waterproof coating. Also, submit one electronic (PDF) record copies of the warranty tags showing the layout and design. The date of acceptance and the QC signature must remain blank until the project is accepted for beneficial occupancy. Show the following information on the tag in both English and the Host Nation language.

Type of product/material	
Model number	
Serial number	
Contract number	
Warranty period from/to	
Inspector's signature	
Construction Contractor	
Address	
Telephone number	
Warranty contact	
Address	
Telephone number	
Warranty response time priority code	

WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD.

1.9 EQUIPMENT GUARANTEES

When a completed facility is transferred to the User and the facility has equipment installed which is covered by a guarantee, furnish to the Government the Equipment Guarantees containing the following information:

a. Contract number and a list of all items of equipment, properly identified, that are covered by a guarantee period under the terms and conditions of the contract, including make and model numbers.

b. A copy of all manufacturer's or vendor's guarantee documents.

c. The dates during which the Contractor's guarantee is in effect under the identified individual section and paragraph of the contract specifications for each item of equipment on the list (indicating for each item the date of acceptance for the beginning of the guarantee period, either for beneficial use or final acceptance, whichever is earlier, and the expiration date of the guarantee period).

d. Name of an authorized representative of the Contractor with complete address and telephone number; and the names, addresses and telephone numbers of all subcontractors and/or equipment suppliers or manufacturers specifically designated in writing by the Contractor for direct contact by the COR for implementing the guarantee after transfer of the equipment.

PART 2 PRODUCTS

(Not applicable)

PART 3 EXECUTION

3.1 COMMISSIONING

3.1.1 Systems Requiring Commissioning

In addition to manufacturers testing and other testing required to substantiate the functioning of installed equipment, commission all systems identified in the Statement of Work and other contract documents.

"System" refers to any of the following:
Heating, Ventilating, Air Conditioning, and Refrigeration Systems (HVAC)
Building Automation System
Utility Monitoring and Control System
Lighting Systems
Power Distribution Systems
Natural Gas and Propane Systems
Water Pumping and Mixing Systems
Compressed Air and Vacuum Systems
Energy and Water Utility Metering Systems and Sub-Meters

3.1.2 Commissioning Procedures

Commissioning procedures identified elsewhere in the contract documents

take precedence over the commissioning procedures identified in this Section.

When no other commissioning procedures are identified, the contractor will follow either Host Nation commissioning procedures, or if none exist for the system being commissioned, the procedures outlined in UNIFIED FACILITIES GUIDE SPECIFICATION Section 01 91 00.15 10 (https://www.wbdg.org/ffc/dod/unified-facilities-guide-specifications-ufgs).

At a minimum, commissioning will consist of the following for each system:

a. Preparation of a Commissioning Plan by a commissioning specialist employed directly by the Prime Contractor with no financial or commercial interest with any subcontractor performing work on the system. The Commissioning Plan must identify all testing requirements, checklists, and reports.*

b. Pre-Functional checks

c. Controls and Functional tests

d. Testing, Adjusting, and Balancing

e. Retesting where applicable

e. Documentation (reports) showing successful completion of all testing

* NOTE: Other contract documents may provide for the preparation of this plan by a commissioning specialist (CxA) hired by the Government. Where a CxA is identified, the contractor will not be required to prepare the plan but will provide all other services identified.

3.2 AS-BUILT DRAWINGS

Keep working as-built markup drawings current on a weekly basis.

3.2.1 Drawing Standards

Maintain as-built drawings according to the appropriate local standard (e.g. installation or using agency). If no standard exists, maintain according to ERDC/ITL TR-12-1 and ERDC/ITL TR-12-6.

3.2.2 Drawing Content

Revised and update continuously as-built drawings during construction to show the as-built conditions during the progression of the project.

a. Record changes from the contract plans made in the work or additional information discovered or provided in the course of construction.

b. If the contract includes options, only include option(s) awarded for construction on the as-built drawings.

c. Incorporate shop drawings containing as-built information into the working as-built drawings. This additional information may be added to an existing working as-built drawing or may require the addition of a new drawing to the working as-built drawing set.

d. Where changes or revisions to drawings are required as part of a modification, approved submittal, RFI, or as the result of any communication with the government, and a revised drawing is not provided with that communication, update the as-built drawings to incorporate those changes or revisions.

3.2.3 Submission Requirements

During construction, submit the Working As-Built Markup Drawings for approval prior to submission of each monthly pay estimate. For failure to maintain the working and final record drawings as specified herein, the Contracting Officer will withhold 10 percent of the monthly progress payment until approval of updated drawings in addition to any other amounts withheld for other reasons.

3.3 RECORD DRAWINGS

The Record Drawings are the final record of construction as installed and completed by the Contractor and as indicated on the as-built drawings. All changes, variations and/or required additions to the contract drawings must be included.

3.3.1 Initial Submission

Submit the final record PDF and CAD drawings package for the entire project no later than 30 calendar days after the Final Inspection for each facility or contractual completion milestone for an individual phase or project. The Contracting Officer will review final record drawings for accuracy and return them to the Contractor for required corrections, changes, additions, and deletions within 90 calendar days.

The submission consists of the following:

a. One copy of PDF drawings in electronic format, formatted for A1 Size paper.

b. One copy of CAD drawings including all reference files in electronic format.

3.3.2 Final Submission

After receipt of the Contracting Officers comments, revise the record drawings in accordance with any comments received and submit the final Record Drawings within 30 calendar days.

The submission consists of the following:

a. Two copies of PDF drawings in electronic format, formatted for A1 size pager, on separate media.

b. Two copies of CAD drawings including all reference files in electronic format on separate media.

3.3.3 Subsequent Revisions

In the event the Contractor accomplishes additional work which changes the as-built conditions of the facility after submission of the final Record Drawings, furnish revised and additional drawings as required to depict as-built conditions. The requirements for these additional drawings will be the same as for the Record Drawings included in the original submission.

3.4 CLEANUP

Leave premises "broom clean." Clean interior and exterior glass surfaces exposed to view; remove temporary labels, stains and foreign substances; polish transparent and glossy surfaces; vacuum carpeted and soft surfaces. Clean equipment and fixtures to a sanitary condition. Replace filters of operating equipment. Clean debris from roofs, gutters,

downspouts and drainage systems. Sweep paved areas and rake clean landscaped areas. Remove waste and surplus materials, rubbish and construction facilities from the site.

3.5 REAL PROPERTY RECORD (DD1354)

Near the completion of Project, but a minimum of 90 days prior to the Final Inspection for each separate facility or project, complete and submit an accounting of all installed property with Interim DD Form 1354. Contact the Contracting Officer for any project specific information necessary to complete the DD Form 1354. Refer to UFC 1-300-08 for instruction on completing the DD Form 1354.

Coordinate with the COR and ensure the Interim DD Form 1354 includes all applicable assets, improvements, or alterations that occurred during construction. When documenting demolition work, the DD Form 1354 must list quantitative data as a negative value under the applicable category code.

The Government will provide the contact information for the Installation Real Property Office who will assist in ensuring all applicable category codes are identified on the DD Form 1354.

3.6 CONSTRUCTION BOOK FOR HOST NATION

This paragraph is not applicable for projects performed wholly in Germany, Italy, or Poland. Upon acceptance and completion of construction, prepare a Construction Book. Submit to the Contracting Officer or their representative (COR) for transfer to the appropriate end user or Host Nation authorities. The Construction Book is primarily a compilation of documents required by this section and contains the following information:

a. Final set of Record Drawings.

b. O&M manuals, instructions, and training for the operation of installed equipment. Where Section 01 78 23 OPERATION AND MAINTENANCE DATA is part of this contract, include all deliverables identified in that section.

c. Spare Parts Data, Warranty Management, and Equipment Guarantees as described in this specification section.

d. Refer to Supplemental Conditions Sections for additional Host Nation specific requirements where applicable.

Provide all documents in two separate versions: one in English and the second in the Host Nation language. Provided two digital copies on separate media and up to two printed copies in each language. Coordinate with the COR for appropriate acceptable media.

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05/24

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SECTION 01 78 23

OPERATION AND MAINTENANCE DATA (NAU)
05/24

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-10 Operation and Maintenance Data

Operation and Maintenance Manuals; G
Data Package List;G
O&M Database ; G
Training Plan ; G
Training Outline ; G
Training Content ; G

SD-11 Closeout Submittals
Training Video Recording ; G
Validation of Training Completion ; G

1.2 COMMISSIONING AUTHORITY

This specification does NOT require a Commissioning Authority unless specifically required elsewhere in the contract. A Commissioning Authority (CxA) as referenced in this specification must meet the Qualifications, experience, and requirements as defined in those sections.

1.3 OPERATION AND MAINTENANCE DATA

Submit Operation and Maintenance (O&M) Data for the provided equipment, product, or system, defining the importance of system interactions, troubleshooting, and long-term preventive operation and maintenance. Compile, prepare, and aggregate O&M data to include clarifying and updating the original sequences of operation to as-built conditions. Organize and present information in sufficient detail to clearly explain O&M requirements at the system, equipment, component, and subassembly level. Include an index preceding each submittal. Submit in accordance with this section and Section 01 33 00 SUBMITTAL PROCEDURES.

1.3.1 Language

Provide all documentation required by this section in two separate versions: one in English and a second in the Host Nation language.

1.3.2 Package Quality

Documents must be fully legible. Operation and Maintenance data must be consistent with the manufacturer's standard brochures, schematics, printed instructions, general operating procedures, and safety precautions.

1.3.3 Package Content

Provide data package content in accordance with paragraph SCHEDULE OF OPERATION AND MAINTENANCE DATA PACKAGES.

1.3.4 Changes to Submittals

Provide manufacturer-originated changes or revisions to submitted data if a component of an item is so affected subsequent to acceptance of the O&M Data. Submit changes, additions, or revisions required by the Contracting Officer for final acceptance of submitted data within 30 calendar days of the notification of this change requirement.

1.3.5 Commissioning Authority Review and Approval

If a Commissioning Authority is required, submit the commissioned systems and equipment submittals to the Commissioning Authority (CxA) to review for completeness and applicability. Obtain validation from the CxA that the systems and equipment provided meet the requirements of the Contract documents and design intent, particularly as they relate to functionality, energy performance, water performance, maintainability, sustainability, system cost, indoor environmental quality, and local environmental impacts. The CxA communicates deficiencies to the Contracting Officer.

Submit the O&M manuals to the Contracting Officer upon a successful review of any corrections required, and with the CxA recommendation for approval and acceptance of these O&M manuals. This work is in addition to the normal review procedures for O&M data.

1.4 O&M DATABASE

Where the end user or maintenance organization does not have an existing electronic O&M system, the contractor will be required to provide an editable, electronic spreadsheet based on the equipment in the Operation and Maintenance Manuals containing all information required to start a preventive maintenance program. As a minimum, provide list of system equipment, location installed, warranty expiration date, manufacturer, model, and serial number.

Where the end user or maintenance organization does have an existing electronic system, the contractor will be required to provide all required data in a compatible format for entry into the system.

1.5 OPERATION AND MAINTENANCE MANUAL FILE FORMAT

Assemble data packages into electronic Operation and Maintenance Manuals. Assemble each manual into a composite electronically indexed file using the most current version of Adobe Acrobat or similar software capable of producing PDF file format. Provide compact disks (CD) or data digital versatile disk (DVD) as appropriate, so that each one contains operation, maintenance and record files, project record documents, and training videos. Include a complete electronically linked operation and maintenance directory.

1.5.1 Organization

Bookmark Product and Drawing Information documents and arrange submittals using the specification sections as a structure. Use descriptive bookmarked titles that explain the content of the information that is being bookmarked.

1.5.2 CD or DVD Label and Disk Holder or Case

Provide the following information on the disk label and disk holder or case:

a. Building Number
b. Project Title
c. Activity and Location
d. Construction Contract Number
e. Prepared For: (Contracting Agency)
f. Prepared By: (Name, title, phone number and e-mail address)
g. Include the disk content on the disk label
h. Date
i. Virus scanning program used

1.6 TYPES OF INFORMATION REQUIRED IN O&M DATA PACKAGES

The following are a detailed description of the data package items listed in paragraph SCHEDULE OF OPERATION AND MAINTENANCE DATA PACKAGES.

1.6.1 Operating Instructions

Provide specific instructions, procedures, and illustrations for the following phases of operation for the installed model and features of each system:

1.6.1.1 Safety Precautions and Hazards

List personnel hazards and equipment or product safety precautions for operating conditions. List all residual hazards identified in the Activity Hazard Analysis provided under Section 01 35 26 GOVERNMENT SAFETY REQUIREMENTS. Provide recommended safeguards for each identified hazard.

1.6.1.2 Operator Prestart

Provide procedures required to install, set up, and prepare each system for use.

1.6.1.3 Startup, Shutdown, and Post-Shutdown Procedures

Provide narrative description for Startup, Shutdown and Post-shutdown operating procedures including the control sequence for each procedure.

1.6.1.4 Normal Operations

Provide Control Diagrams with data to explain operation and control of systems and specific equipment. Provide narrative description of Normal Operating Procedures.

1.6.1.5 Emergency Operations

Provide Emergency Procedures for equipment malfunctions to permit a short period of continued operation or to shut down the equipment to prevent further damage to systems and equipment. Provide Emergency Shutdown Instructions for fire, explosion, spills, or other foreseeable contingencies. Provide guidance and procedures for emergency operation of utility systems including required valve positions, valve locations and zones or portions of systems controlled.

1.6.1.6 Operator Service Requirements

Provide instructions for services to be performed by the operator such as lubrication, adjustment, inspection, and recording gauge readings.

1.6.1.7 Environmental Conditions

Provide a list of Environmental Conditions (temperature, humidity, and other relevant data) that are best suited for the operation of each product, component or system. Describe conditions under which the item equipment should not be allowed to run.

1.6.1.8 Operating Log

Provide forms, sample logs, and instructions for maintaining necessary operating records.

1.6.1.9 Additional Requirements for HVAC Control Systems

Provide Data Package 5 and the following for control systems:

a. Narrative description on how to perform and apply functions, features, modes, and other operations, including unoccupied operation, seasonal changeover, manual operation, and alarms. Include detailed technical manual for programming and customizing control loops and algorithms.

b. Full as-built sequence of operations.

c. Copies of checkout tests and calibrations performed by the Contractor (not Cx tests).

d. Full points list. Provide a listing of rooms with the following information for each room:

(1) Floor
(2) Room number
(3) Room name
(4) Air handler unit ID
(5) Reference drawing number
(6) Air terminal unit tag ID
(7) Heating or cooling valve tag ID
(8) Minimum cfm
(9) Maximum cfm

e. Full print out of all schedules and set points after testing and acceptance of the system.

f. Full as-built print out of software program.

g. Marking of system sensors and thermostats on the as-built floor plan and mechanical drawings with their control system designations.

1.6.2 Preventive Maintenance

Provide the following information for preventive and scheduled maintenance to minimize repairs for the installed model and features of each system. Include potential environmental and indoor air quality impacts of recommended maintenance procedures and materials.

1.6.2.1 Lubrication Data

Include the following preventive maintenance lubrication data, in addition to instructions for lubrication required under paragraph OPERATOR SERVICE REQUIREMENTS:

a. A table showing recommended lubricants for specific temperature ranges and applications.

b. Charts with a schematic diagram of the equipment showing lubrication points, recommended types and grades of lubricants, and capacities.

c. A Lubrication Schedule showing service interval frequency.

1.6.2.2 Preventive Maintenance Plan, Schedule, and Procedures

Provide manufacturer's schedule for routine preventive maintenance, inspections, condition monitoring (predictive tests) and adjustments required to ensure proper and economical operation and to minimize repairs. Provide instructions stating when the systems should be retested. Provide manufacturer's projection of preventive maintenance work-hours on a daily, weekly, monthly, and annual basis including craft requirements by type of craft. For periodic calibrations, provide manufacturer's specified frequency and procedures for each separate operation.

a. Define the anticipated time required to perform each of each test (work-hours), test apparatus, number of personnel identified by responsibility, and a testing validation procedure permitting the record operation capability requirements within the schedule. Provide a remarks column for the testing validation procedure referencing operating limits of time, pressure, temperature, volume, voltage, current, acceleration, velocity, alignment, calibration, adjustments, cleaning, or special system notes. Delineate procedures for preventive maintenance, inspection, adjustment, lubrication and cleaning necessary to minimize repairs.

b. Repair requirements must inform operators how to check out, troubleshoot, repair, and replace components of the system. Include electrical and mechanical schematics and diagrams and diagnostic techniques necessary to enable operation and troubleshooting of the system after acceptance.

1.6.3 Repair

Provide manufacturer's recommended procedures and instructions for correcting problems and making repairs.

1.6.3.1 Troubleshooting Guides and Diagnostic Techniques

Provide step-by-step procedures to promptly isolate the cause of typical malfunctions. Describe clearly why the checkout is performed and what conditions are to be sought. Identify tests or inspections and test equipment required to determine whether parts and equipment may be reused or require replacement.

1.6.3.2 Wiring Diagrams and Control Diagrams

Provide point-to-point drawings of wiring and control circuits including factory-field interfaces. Provide a complete and accurate depiction of the actual job specific wiring and control work. On diagrams, number electrical and electronic wiring and pneumatic control tubing and the terminals for each type, identically to actual installation configuration and numbering.

1.6.3.3 Repair Procedures

Provide instructions and a list of tools required to repair or restore the product or equipment to proper condition or operating standards.

1.6.3.4 Removal and Replacement Instructions

Provide step-by-step procedures and a list of required tools and supplies for removal, replacement, disassembly, and assembly of components, assemblies, subassemblies, accessories, and attachments. Provide tolerances, dimensions, settings and adjustments required. Use a combination of text and illustrations.

1.6.3.5 Spare Parts and Supply Lists

Provide lists of spare parts and supplies required for repair to ensure continued service or operation without unreasonable delays. Special consideration is required for facilities at remote locations. List spare parts and supplies that have a long lead-time to obtain.

1.6.3.6 Repair Work-Hours

Provide manufacturer's projection of repair work-hours including requirements by type of craft. Identify, and tabulate separately, repair that requires the equipment manufacturer to complete or to participate.

1.6.4 Appendices

Provide information required below and information not specified in the preceding paragraphs but pertinent to the maintenance or operation of the product or equipment. Include the following:

1.6.4.1 Product Submittal Data

Provide a copy of SD-03 Product Data submittals documented with the required approval.

1.6.4.2 Manufacturer's Instructions

Provide a copy of SD-08 Manufacturer's Instructions submittals documented with the required approval.

1.6.4.3 O&M Submittal Data

Provide a copy of SD-10 Operation and Maintenance Data submittals documented with the required approval.

1.6.4.4 Parts Identification

Provide identification and coverage for the parts of each component, assembly, subassembly, and accessory of the end items subject to replacement. Include special hardware requirements, such as requirement to use high-strength bolts and nuts. Identify parts by make, model, serial number, and source of supply to allow reordering without further identification. Provide clear and legible illustrations, drawings, and exploded views to enable easy identification of the items. When illustrations omit the part numbers and description, both the illustrations and separate listing must show the index, reference, or key number that will cross-reference the illustrated part to the listed part. Group the parts shown in the listings by components, assemblies, and subassemblies in accordance with the manufacturer's standard practice. Parts data may cover more than one model or series of equipment, components, assemblies, subassemblies, attachments, or accessories, such as typically shown in a master parts catalog.

1.6.4.5 Warranty Information

List and explain the various warranties and clearly identify the servicing and technical precautions prescribed by the manufacturers or

contract documents in order to keep warranties in force. Include warranty information for primary components of the system. Provide copies of warranties required by Section 01 78 00 CLOSEOUT SUBMITTALS.

1.6.4.6 Extended Warranty Information

List all warranties for products, equipment, components, and sub-components whose duration exceeds one year. For each warranty listed, indicate the applicable specification section, duration, start date, end date, and the point of contact for warranty fulfillment. Also, list or reference the specific operation and maintenance procedures that must be performed to keep the warranty valid. Provide copies of warranties required by Section 01 78 00 CLOSEOUT SUBMITTALS.

1.6.4.7 Personnel Training Requirements

Provide information available from the manufacturers that is needed for use in training designated personnel to properly operate and maintain the equipment and systems.

1.6.4.8 Testing Equipment and Special Tool Information

Include information on test equipment required to perform specified tests and on special tools needed for the operation, maintenance, and repair of components. Provide final set points.

1.6.4.9 Testing and Performance Data

Include completed prefunctional checklists, functional performance test forms, and monitoring reports. Include recommended schedule for retesting and blank test forms. Provide final set points.

1.6.4.10 Field Test Reports

Provide a copy of Field Test Reports (SD-06) submittals documented with the required approval.

1.6.4.11 Contractor Information

Provide a list that includes the name, address, and telephone number of the General Contractor and each Subcontractor who installed the product or equipment, or system. For each item, also provide the name address and telephone number of the manufacturer's representative and service organization that can provide replacements most convenient to the project site. Provide the name, address, and telephone number of the product, equipment, and system manufacturers.

1.7 SCHEDULE OF OPERATION AND MAINTENANCE DATA PACKAGES

Where identified, provide the O&M data packages specified in individual technical sections, including the content of the packages and addressing each product, component, and system designated for data package submission.

Where data packages are not identified in a technical section, the prepare and submit a Data Package List listing all O&M data packages and the data package number prior to submission of any O&M Data Package.

1.7.1 Determining Data Package Type

The type of O&M data needed for any product, system, or piece of equipment depends upon the complexity of that item. Determine the Data Package Number from the choices 1 through 5 below. If more than one Data Package Type is applicable, select the package type with the higher

number.

a. Data Package 1 is typically used for architectural items requiring simple but specific maintenance and replacement; for example, acoustical ceiling, floor tile or carpeting system.

b. Data Package 2 is used for an item that is less simple; for example, an item having a motor and some sequence of operation such as a refrigerated drinking fountain.

c. Data Package 3 is used for a complex piece of equipment, having a specific troubleshooting sequence, but one which does not require an operator on watch; for example, HVAC temperature controls.

d. Data Package 4 is used for an extremely complex piece of equipment, having an extensive sequence of operation, a complex troubleshooting sequence and one requiring frequent operator attention; at least for start-up and shut-down. Examples of this case would be small boilers and small diesel generator sets.

e. Data Package 5 is used for electrical equipment, components or systems on which, wiring and control diagrams are needed for operation, maintenance or repair. Examples of this case are 400 Hz frequency converters, annunciator panels and cathodic protection systems.

1.7.2 Data Package 1

a. Safety precautions and hazards
b. Cleaning recommendations
c. Maintenance and repair procedures
d. Warranty information
e. Extended warranty information
f. Contractor information
g. Spare parts and supply list

1.7.3 Data Package 2

a. Safety precautions and hazards
b. Normal operations
c. Environmental conditions
d. Lubrication data
e. Preventive maintenance plan, schedule, and procedures
f. Cleaning recommendations
g. Maintenance and repair procedures
h. Removal and replacement instructions
i. Spare parts and supply list
j. Parts identification
k. Warranty information
l. Extended warranty information
m. Contractor information

1.7.4 Data Package 3

a. Safety precautions and hazards
b. Operator prestart
c. Startup, shutdown, and post-shutdown procedures
d. Normal operations
e. Emergency operations
f. Environmental conditions
g. Operating log
h. Lubrication data
i. Preventive maintenance plan, schedule, and procedures
j. Cleaning recommendations

k. Troubleshooting guides and diagnostic techniques
l. Wiring diagrams and control diagrams
m. Maintenance and repair procedures
n. Removal and replacement instructions
o. Spare parts and supply list
p. Product submittal data
q. O&M submittal data
r. Parts identification
s. Warranty information
t. Extended warranty information
u. Testing equipment and special tool information
v. Testing and performance data
w. Contractor information
x. Field test reports

1.7.5 Data Package 4

a. Safety precautions and hazards
b. Operator prestart
c. Startup, shutdown, and post-shutdown procedures
d. Normal operations
e. Emergency operations
f. Operator service requirements
g. Environmental conditions
h. Operating log
i. Lubrication data
j. Preventive maintenance plan, schedule, and procedures
k. Cleaning recommendations
l. Troubleshooting guides and diagnostic techniques
m. Wiring diagrams and control diagrams
n. Repair procedures
o. Removal and replacement instructions
p. Spare parts and supply list
q. Repair work-hours
r. Product submittal data
s. O&M submittal data
t. Parts identification
u. Warranty information
v. Extended warranty information
w. Personnel training requirements
x. Testing equipment and special tool information
y. Testing and performance data
z. Contractor information
aa. Field test reports

1.7.6 Data Package 5

a. Safety precautions and hazards
b. Operator prestart
c. Start-up, shutdown, and post-shutdown procedures
d. Normal operations
e. Environmental conditions
f. Preventive maintenance plan, schedule, and procedures
g. Troubleshooting guides and diagnostic techniques
h. Wiring and control diagrams
i. Maintenance and repair procedures
j. Removal and replacement instructions
k. Spare parts and supply list
l. Product submittal data
m. Manufacturer's instructions
n. O&M submittal data
o. Parts identification
p. Testing equipment and special tool information
q. Warranty information

r. Extended warranty information
s. Testing and performance data
t. Contractor information
u. Field test reports
v. Additional requirements for HVAC control systems

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 OPERATION AND MAINTENANCE MANUALS

Provide one electronic and one hard copy of the Operation and Maintenance Manuals to the Contracting Officer for approval at least 60 calendar days prior to the Final Inspection.

Update and resubmit one electronic and three hard copies for final approval at the Final Inspection.

3.2 TRAINING

Prior to the Final Inspection, provide comprehensive training for all systems furnished under this contract. The training must be targeted for the building maintenance personnel, and applicable building occupants. Instructors must be well-versed in the particular systems that they are presenting.

Provide training in separate sessions: one conducted in English and the second in the Host Nation language. Sessions must be conducted by native speakers of the appropriate language.

Address aspects of the Operation and Maintenance Manual submitted in accordance with Section 01 78 00 CLOSEOUT SUBMITTALS. Training must include classroom or field lectures based on the system operating requirements. The location of classroom training requires approval by the Contracting Officer.

3.2.1 Training Plan

Submit a written training plan to the Contracting Officer for approval at least 60 calendar days prior to the scheduled training. Training plan must be approved by the Construction Quality Control System Manager (CQC SM) and Commissioning Authority (CxA) prior to forwarding to the Contracting Officer. Also, coordinate the training schedule with the Contracting Officer. Include within the plan the following elements:

a. Equipment included in training
b. Intended audience
c. Location of training
d. Dates of training
e. Objectives
f. Outline of the information to be presented and subjects covered including description
g. Start and finish times and duration of training on each subject
h. Methods (e.g. classroom lecture, video, site walk-through, actual operational demonstrations, written handouts)
i. Instructor names and instructor qualifications for each subject
j. List of texts and other materials to be furnished by the Contractor that are required to support training
k. Description of proposed software to be used for video recording of training sessions.

3.2.2 Training Content

The core of this training must be based on manufacturer's recommendations and the operation and maintenance information. Where a CxA is required by contract, the CxA is responsible for overseeing and approving the content and adequacy of the training. If no CxA is required, the CQC SM will perform this function. Spend 95 percent of the instruction time during the presentation on the OPERATION AND MAINTENANCE DATA. Include the following for each system training presentation:

a. Start-up, normal operation, shutdown, unoccupied operation, seasonal changeover, manual operation, controls set-up and programming, troubleshooting, and alarms.
b. Relevant health and safety issues.
c. Discussion of how the feature or system is environmentally responsive. Advise adjustments and optimizing methods for energy conservation.
d. Design intent.
e. Use of O&M Manual Files.
f. Review of control drawings and schematics.
g. Interactions with other systems.
h. Special maintenance and replacement sources.
i. Tenant interaction issues.

3.2.3 Training Outline

Provide the Operation and Maintenance Manual Files (Bookmarked PDF) and a written course outline listing the major and minor topics to be discussed by the instructor on each day of the course to each trainee in the course.

3.2.4 Training Video Recording

Record training session(s) on video. Provide to the Contracting Officer two copies of the training session(s) in DVD video recording format. Capture within the recording, in video and audio, the instructors' training presentations including question and answer periods with the attendees. The recording camera(s) must be attended by a person during the recording sessions to assure proper size of exhibits and projections during the recording are visible and readable when viewed as training.

3.2.5 Unresolved Questions from Attendees

If, at the end of the training course, there are questions from attendees that remain unresolved, the instructor must send the answers, in writing, to the Contracting Officer for transmittal to the attendees, and the training video must be modified to include the appropriate clarifications.

3.2.6 Validation of Training Completion

Ensure that each attendee at each training session signs a class roster daily to confirm Government participation in the training. At the completion of training, submit a signed validation letter that includes a sample record of training for reporting what systems were included in the training, who provided the training, when and where the training was performed, and copies of the signed class rosters. Provide two copies of the validation to the Contracting Officer, and one copy to the Operation and Maintenance Manual Preparer for inclusion into the Manual's documentation.

3.3 WORK AT MULTIPLE FACILITIES OR LOCATIONS

For projects involving multiple facilities which are not completed at the same time, provide O&M Data and Training separately for each facility, based on the Final Inspection date for that facility. Identify separate transmittals for each facility in the submittal register.

When work is performed at multiple locations, provide O&M Data and Training at each location, whether or not the contract identifies separate completion dates.

-- End of Section --