

ATTACHMENT 2: DIVISION ONE SPECIFICATIONS

011005	CONSTRUCTION EXECUTION AND COORDINATION
013205	PROJECT SCHEDULING
013305	CONSTRUCTION SUBMITTALS
013525	CONSTRUCTION SAFETY AND OCCUPATIONAL HEALTH
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014010	CONTRACTOR'S QUALITY CONTROL
017705	CLOSEOUT, JUBA RCK PROJECT

**SECTION 011005
CONSTRUCTION EXECUTION AND COORDINATION**

PART 1 GENERAL

1.01 SUMMARY

A. This Section involves procedures for the following:

1. Specification format.
2. The Contractor's on-site staff requirements.
3. Use of the Project Site.
4. Hours of operation.
5. Project planning and controls.
6. Coordination meetings.
7. Document of Shipment
8. Government-furnished items.
9. Field engineering.
10. Protection.
11. Cutting and patching.
12. Sample Data Transfer Agreement

1.02 RELATED DOCUMENTS

A. Other general provisions of the Contract, including FAR clauses by reference or as amended in Contract Sections B through J, and other Division 1 Sections of these Contract Specifications apply to requirements of this Section. This Section in turn applies to the Contract Drawings and Technical Specifications.

1.03 DEFINITIONS

A. Cutting and Patching: Includes the cutting into or removal of existing installations of work and subsequent patching or replacement for inspection access or installation of other work or facilitate alterations or modifications to other work.

B. For all terms not understood, request immediate clarification.

1.04 SUBMITTALS

A. The Contractor shall submit the following:

1. Organization Chart: Thirty (30) days prior to Site mobilization, submit Project organization charts to the COR, as required.
2. Staff Resumes: Submit resumes of principal staff as identified on the organization chart.
3. Staff Qualifications: Submit documentation confirming staff qualifications where such documentation is required by Sections B-J of the Contract and other Division 1 Specifications.
4. Confirm Property Survey: See Paragraph 3.04 – Field Engineering.

5. Site Utilization Plan: Submit no later than 30 days prior to Mobilization. Failure to do so is basis for withholding progress payment.
6. Monitoring Plan for Historic and Significant Properties and Adjacent Structures: Submit to the COR prior to commencement of excavation work.
7. Instrumentation Reports: Submit weekly instrument readings to the COR.
8. Surveyor's Log: Submit to the COR weekly, or upon request.
9. Final Property Survey: Submit prior to Substantial Completion.
10. Coordination Drawings: Submit in accordance with shop drawing submittal procedures described in Section 013305, *Construction Submittals*.
11. Ninety (90) Day Look-Ahead Projection:
 - a. Initial ninety (90) Day Look-Ahead Projection: Thirty (30) days prior to mobilization, submit a list of entities anticipated to perform work within a ninety (90) day look-ahead timeframe at the Project Site.
 - b. Monthly ninety (90) Day Look-Ahead Projection: At thirty (30) day intervals thereafter and through the end of the Project, update and resubmit this list to the COR. The window of consideration for each update shall be a ninety (90) day look-ahead from the time of the submittal.
12. Occurrence Report: Submit to the COR within twenty-four (24) hours of each occurrence.
13. Data Transfer Agreement
 - a. The agreement is the signed document between the Contractor and the Government's Architect defining the terms of the data transfer.
 - b. The Contractor shall provide an executed copy of the Data Transfer Agreement to the COR prior to the transfer of data.

1.05 GENERAL EXPLANATIONS

- A. Specification Format: These Contract Specifications are organized, titled, and numbered in MasterFormat 2004, as prepared and maintained by the Construction Specification Institute (CSI), and adapted by the Government.
 1. Abbreviated language, where used, may imply additional words and these will be interpreted as included where appropriate. Where required for proper context in Contract document interpretations, singular words will be deemed plural and plural words will be deemed singular.
 2. Imperative language is used to describe Contractor performed work. At certain locations in the Contract documents, subjective language is used to describe responsibility fulfilled indirectly by the Contractor, as noted, or by others.
 3. The colon (:) is used, in each related context, to indicate "means," "shall be," "is defined as," or similar implied terminology for abbreviated text.

B. Minimums vs. Maximums:

1. Except as otherwise specifically noted, the level of quality and quantity indicated represents the minimum for the performance of work (Refer questionable instances of applicability to the COR for clarification).
2. The work as performed may comply exactly with minimums or maximums within specified or industry-accepted tolerances or may exceed minimums or fall below maximums within reasonable limits, as acceptable to the COR. In general, maximum numeric values for performance of work are so noted, except where the context of a requirement implies this qualification.
3. Conflicting Values:
 - a. Where seemingly conflicting values are indicated (e.g., where compliance with an imposed standard conflicts with drawing dimensions), refer any perceived conflict to the COR for resolution. In general, the most explicitly indicated value will govern. However, the COR has the authority to require compliance with the most stringent requirement for adequate fulfillment of the intention of Contract documents.
 - b. Where conflicting requirements in the Contract documents imply two qualities or quantities of substantially equal value (e.g., where two different colors are indicated by related documents for same element of work), refer resolution of the selection question to the COR.
4. Refer questions of minimums vs. maximums or of conflicting values in the Contract documents to the COR.

C. Graphic Symbols:

1. In general, graphic symbols included with the Contract documents, including those shown on Contract drawings, are defined thereon or are recognized in the construction industry for purposes inferred by the context.
2. Where not otherwise defined, consult industry-standard symbolization publications sponsored by trade associations including AIA (e.g., *Architectural Graphic Standards* published by John Wiley & Sons, Inc.), ASHRAE, ASME, ASPE, IEEE, ANSI, Federal Government Agencies and Departments, and other recognized consensus interests of construction industry.

1.06 ON-SITE STAFF REQUIREMENTS

- A. The Contractor shall provide an adequate professional administrative and supervisory staff on-site for all aspects of the work. This key staff shall be fully coordinated and provide a professional level of Project execution management. No Contractor employee in the table below shall hold more than one of the positions listed.
- B. The following is a list of the on-site staff the Contractor must provide, and the corresponding clearance level required for each:

Position Description	Specification Reference	Clearance Level
Superintendent of Work	Section 011005	Clearance not required
Design Engineer	Section 011005	Clearance not required
Quality Control Officer	Section 014010	Clearance not required
Health and Safety Officer	Section 013525	Clearance not required

- C. From the issuance of the Notice to Proceed for Construction through Substantial Completion, the Contractor shall always have the following personnel at the Site: The Superintendent of Work, the QC Officer, and the Health and Safety Officer. The contractor shall notify the COR of any proposed or actual absence of a staff position and of substitution thereof.
- D. Project Organization Chart:
1. The Contractor shall depict principal staff assignments and contact information on a Project Organization Chart. This chart shall include key administrative and supervisory staff.
 2. The Contractor shall provide resumes of key staff (those listed in chart above, as a minimum).
 3. The Contractor shall depict how management, supervisory, and administrative functions shall be performed, to include lines of communication and supervisory responsibility for sub-contractors,
- E. Each entity engaged in the performance of the work, including product manufacturing, handling materials and products, fabricating, installing, working to dimension, finishing, testing, and similar operations, shall be familiar with referenced standards applicable to that entity's operations.
- F. Staff shall be qualified for the work performed as documented by certifications, licenses, permits, test reports, judgments, and similar documentation.
- G. Each tradesperson shall be skilled, experienced, and properly equipped to produce the required quality of work.

1.07 USE OF PROJECT SITE

- A. Except as otherwise indicated, the Contractor is granted full use of the Project Site. See appropriate attachment at Contract Section J for Project Site boundaries and any requirements/restrictions pertaining to the utilization of the site.

- B. The Contractor shall perform work in accordance with applicable security requirements specified in Sections 013550.
- C. On-site waste disposal, including burial or burning of any materials shall not be permitted. With the concurrence of the COR, an exception may be made for burning Project documents on-site.
- D. Protection of Existing Plantings: The Contractor shall protect existing trees and other plantings on the Project Site during construction. The Contractor shall remove existing vegetation only with prior consent of the COR. The Contractor shall not allow construction traffic or storage of materials inside the drip lines of existing trees. The Contractor shall re-establish existing lawns following general completion of construction. Requirements of this paragraph shall be performed in accordance with Site work and landscape requirements.
- E. The Contractor shall ensure that surplus, waste, and rejected material is promptly removed from the Project Site, disposed of as specifically identified under the appropriate Contract clauses to include procedures for disposing of duty-free materials, and that the Project Site is not used for the sale of such material.
- F. The Contractor shall comply with regulations of local governing authorities provided they do not conflict with the requirements herein.
- G. Protection of Adjacent Properties: The Contractor shall prevent and repair any damage to surrounding and adjacent properties arising from performance of the work.
 - 1. Photographic survey of existing conditions:
 - a. Photograph existing conditions of property prior to commencing work. See paragraph 3.04.1.4.
 - b. Record existing conditions. Prepare a list of unrepaired damage, verified by dated photographs, and signed by Contractor and others conducting investigation.
- H. De-Watering: (as applicable):
 - 1. Maintain water level within excavation at level below the bottom of excavation at all times.
 - 2. Take measures to prevent damage to adjacent buildings or structures, sewers and other utility installations, pavements, sidewalks and other work.
 - 3. Modify the system(s) at no additional cost to the Government if, after installation and while in operation de-watering system causes or threatens to cause damage to existing buildings, structures, utilities or new construction, or otherwise does not perform as required.
 - 4. Repair damage, disruption or interference to any facility resulting directly or indirectly from dewatering operations at no additional cost to the Government.
 - 5. Methods of dewatering may include sump pumping, single or multiple stage well-point systems, deep wells and combinations thereof.

6. Comply with local ordinances and regulations for disposal of discharge water and sediment control.
 7. Maintain continuous and complete effectiveness of dewatering systems round-the-clock at all times during construction.
 8. Take measures necessary to ensure surface runoff from adjacent areas and roads are diverted away from the excavation.
- I. Occurrence Report: The Contractor shall report, in writing, all unusual events and discoveries at the Project Site including, unexpected weather phenomena, exceptional visitors, unusual encounters during excavation, or similar occurrences.
 - J. During excavating work, the Contractor shall notify the COR promptly upon encountering significant elements of geological, historic, archaeological, or other similar interests. Elements protected by local law do not belong to the Contractor and shall be protected and preserved until disposition instructions are received from the COR.
 - K. The COR will notify the Contractor of all planned and scheduled U.S. Government and local government ceremonies at the Project Site. The Contractor shall coordinate and curtail construction activities as requested to avoid interference with such ceremonies or endangering participants.
 - L. The Government reserves the right to place and install equipment as necessary in completed areas of the building and to occupy such completed areas prior to Substantial Completion. This occupancy is contingent upon no substantial interference with the completion of the work. Such placing of equipment and partial occupancy will not constitute acceptance of the Contractor's work entire or in part.

1.08 SITE UTILIZATION PLAN

- A. The Site Utilization Plan shall address the Contractor's proposed methods of, at a minimum:
 1. Coordinating allocation of available work and storage areas equitably among all entities to integrate and maximize the execution of the work.
 2. Locating temporary facilities including, paved parking, work areas, sheds, and similar elements. Refer to Section 015005, *Temporary Facilities and Controls*, Section 015015, *Temporary Security Facilities and Controls*, and Section 013525, *Construction Safety and Occupational Health*.
 3. Maximizing temporary facilities effectively and efficiently, conserving energy and water, and integrating drainage capacity.
 4. Optimizing adequate access and utilization of temporary facilities for all entities.
 5. Protecting existing vegetation.
 6. Utilizing just-in-time delivery scheduling to minimize long-term storage.
 7. Ensuring that surplus waste and rejected material is promptly removed from the Project Site and disposed of properly.

8. Monitoring historic and significant properties and adjacent structures (See, *Field Engineering*, herein).

1.09 PROJECT SITE HOURS OF OPERATIONS

- A. Unless otherwise agreed upon in writing, work shall be performed only during the days and hours specified below.

1. Contractor's Workweek:

- a. The Contractor shall plan execution of the work based on a 6-day workweek. The Contractor shall validate the days of the workweek in terms of local, national, and religious customs. The Contractor shall become familiar with local customs and ensure all Project execution actions are in accordance.
- b. Should the Contract documents conflict with local workweek customs, the Contractor shall bring to the attention of the COR in writing for resolution.
- c. While work may proceed on the days of the week as specified, the Contractor shall independently validate local labor laws and customs which may restrict total allowable hours worked within a given week. The Contractor shall adjust crew planning accordingly.
- d. The COR will be responsible for all Government staff coverage. The Contractor shall coordinate a workweek execution plan and obtain the COR acceptance. Tests and inspections to be attended by the COR staff shall occur during normal Government working hours (8:00am-5:00pm). For critical inspections or tests that must occur during Government non-working hours the contractor shall provide at least 24 hours' notice to the COR.

2. Contractor's Working Hours per Day:

- a. Working hours shall be a maximum of 10 hours per day, exclusive of screening time, unless restricted by local custom for one or more given days of the week. In each case, the Contractor shall become familiar with local customs and ensure all Project execution actions are in accordance.
- b. Unless otherwise modified in writing by local permit, the working hours for this Project are as specified above.

- B. Contractor's Overtime:

1. The Contractor shall provide written request to the COR, at least twenty-four (24) hours in advance, of any proposed overtime work that is outside of the hours specified. The COR's written acceptance must be obtained prior to scheduling overtime work outside the specified working hours.
2. Contractor overtime, as used to calculate reimbursement of supervision costs to the Government, is computed as time worked over 10 hours in a regular workday and all time worked outside of the regular 6-day workweek (see 1.09.A.1 and 1.09.A.2 above).
3. For each hour of Contractor overtime, the Government will be required to provide appropriate supervision, inspection, security, and

administration staff. The Contractor shall reimburse the Government for costs incurred in direct support of such overtime at the following flat rate, per person, per hour:

- a. The Government on-site Project Supervisory staff shall be compensated as follows: COR at \$80/hr; Construction Manager and US National Engineers at \$70/hr; Local National Engineers/Inspectors at actual rates; Secretary at actual rate; and Driver at actual rate. All local actual rates shall be determined by the COR.
 - b. The Government on-site Security Management staff shall be compensated as follows: Site Security Manager at \$80/hr; Site Security Coordinator (if used) at \$56.08/hr; Team Leader (if used) at \$53.93/hr; Construction Security Technicians at \$48.13/hr; Cleared U.S. citizen Guards at \$45.59/hr; and Local Guards at actual rate. All local actual rates shall be determined by the COR
4. In response to the Contractor's written request for acceptance of overtime work, the COR will notify the Contractor of the chargeable amount. The Contractor shall certify the chargeable amount and provide a credit for such charges to the Government through a modification to the Contract price. The Contractor's certification shall include a statement that he understands that the government's approval of overtime work is contingent upon the Contractor's agreement and acceptance of the chargeable amount and that he will reimburse the government for these agreed upon amounts.

C. Designated Holidays:

1. Local Holidays - The Contractor shall observe, independently validate, and plan the work around local national holidays during the construction period. Should any of the holidays fall on a local non-workday, or local custom weekend day, the Contractor shall exercise due diligence to ensure local customs and appropriate compensation issues are addressed.
2. U.S. Holidays - Refer to contract Attachment 2 for US EMBASSY SOUTH SUDAN 2022 HOLIDAY SCHEDULE.
3. In accordance with Paragraph 1.09 D below, working on a U.S Holiday or a Local Holiday is considered Excepted Operations. As such, the Government's approval of the contractor's request to work on Local and US Holidays will be dependent upon the Contractor's written agreement to compensate the government for all of its additional costs in accordance with 1.09.b.4 and 1.09.b.5 above.

D. Excepted Operations:

1. The only work permitted outside of work hours or days specified above will be due to special circumstances, such as in completion of on-going concrete operations, continuous placing, casting, and curing. The Contractor shall provide written request to the COR at least twenty-four (24) hours in advance of such operations and obtain the written acceptance of the COR prior to scheduling any such work.

Any additional costs incurred by the Government (including but not limited to, supervision, security, and inspection) resulting from extended Contractor work hours or days shall be reimbursed to Government by the Contractor in accordance with the applicable paragraphs, above.

2. Should the Contractor desire to change Contract work hours or days specified above, a proposal must be submitted to the COR fully justifying any such change. Justification shall contain, at a minimum, a detailed discussion of potential impacts to the Project Execution Schedule, the float, and all related cost impacts.
3. The COR will review the proposal and forward a recommendation to the Contracting Officer who will make the final determination. If the change is accepted, the Contracting Officer will issue a modification to the Contract. All additional costs incurred by the Government (including but not limited to, supervision, security, inspection, holiday pay, local holiday pay and overtime) resulting from this type of Contract modification shall be reimbursed to the Government by the Contractor.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. The Contractor shall coordinate all phases and aspects of the work to achieve intended results, including the best overall visual effect for all exposed work, regardless of trade or material. The Contractor shall remove and replace workmanship that is found non-compliant at no additional cost to the Government.
- B. Except as otherwise indicated, the Contractor shall comply with the following general requirements for the installation and coordination of work:
 1. Require each installer to inspect substrates and report unsatisfactory installation conditions. Installation shall not proceed until unsatisfactory conditions have been corrected. Measurements shall be rechecked before proceeding.
 2. Inspect delivered materials, fabrications, and equipment prior to installation and reject damaged or defective items.
 3. Install each element of the Project only during weather conditions that shall contribute to successful workmanship and allow for proper curing, protection, and concealment.
 4. Comply with manufacturer's instructions for each installation.
 5. Isolate each element of work from contact with incompatible work.
 6. Coordinate concealment, enclosing, or other covering over of work with requirements for inspection or testing to avoid the necessity for uncovering completed work.
 7. Where mounting height for any element of the work is not shown, mount at industry-recommended standard height for the application indicated. Notify the COR of the proposed height prior to executing the work.

8. Secure or anchor each element of the work to its supporting substrate as indicated. If not otherwise indicated, secure or anchor as recommended by the manufacturer or in compliance with the applicable trade association standard.
- C. The Contractor shall provide material layout areas to ensure the safety of all staff, employees, and visitors to the Project Site. These areas shall also provide security for the materials contained therein.
 - D. Product Compatibility:
 1. Where product options are open for the Contractor's selection, selection must be compatible with interfacing products.
 2. Where products interface, the Contractor shall coordinate selections for compatibility prior to procurement and without regard for the sequence of each product's installation. The Contractor shall advise the COR of compatibility issues that cannot be reconciled.
 3. Product non-compatibility that results from the Contractor's incorrect selection is not an allowable basis for Contract modification.
 4. Through the COR, the Contractor shall coordinate selections with products already selected and procured under separate contracts or by the Government. The Contractor shall request information on such products.
 - E. At the earliest feasible date, the Contractor shall provide temporary enclosure and lock-up of each separate portion of the new construction. The Contractor shall protect completed work in every reasonable way, ensuring undamaged condition at the time of Substantial Completion or turnover to the Government.
 - F. The Contractor shall be responsible for all materials delivered and work performed until completion of the work and final acceptance by the Government as defined herein. The exception is any completed unit of work which may have been previously accepted under the Contract.

3.02 COORDINATION MEETINGS

- A. Pre-Construction Conference:
 1. The Contracting Officer and the COR will jointly conduct a pre-construction conference on or near the date of NTP Construction and not less than thirty (30) calendar days prior to the Contractor's mobilization to the Project Site.
 2. Attendees will include a representative from each Contractor working on the Site during the first three months of scheduled construction work.
 3. Agenda items will include a review of the general plans, conditions, procedures, and requirements as necessary for the effective scheduling and prosecution of the construction and commissioning work. Parties will review security and material delivery requirements, personnel assigned, and Contract communication procedures as established for the Project.

4. Where and when feasible, a meeting will be scheduled and conducted at the Project Site. Otherwise, a meeting will be held at a location selected for the greatest convenience of the majority of attendees.

B. Construction and Commissioning Coordination Meetings. The Contractor and COR will hold weekly construction coordination meetings to discuss schedule and status of outstanding issues. Weekly coordination meetings shall commence immediately upon mobilization to the Project Site.

1. Construction and commissioning coordination meetings are intended to promote a full exchange of information between the USG and the Contractor, promote open and honest discussion between parties, and identify areas of concern by each party. All parties shall seek the expeditious resolution of issues before they become problems.
2. The weekly construction and commissioning coordination meeting shall have an agenda as follows:

a) Submittal Register

Contractor shall review and brief the current status of construction and commissioning submittals using the following categories:

- 1) Completed and retired.
- 2) Not yet delivered and late, by date.
- 3) Due near-term (within thirty (30) calendar days, early start).
- 4) Due mid-term (within thirty (30) to sixty (60) calendar days, early start).
- 5) Those on or approaching critical path status (less than fifteen (15) calendar days of float).

Review outstanding submittal register, identify any outstanding submittals that may impact the schedule, and agree to course of action for expediting these submittals.

b) Base Schedule (Project Execution Schedule)

Progress of the work shall be reviewed. Contractor shall revise, balance, and submit an updated project execution schedule in accordance with Section 013205, Project Scheduling. However, the Base Schedule required as part of the contract shall not be revised without specific approval and authorization by the CO. Schedule review shall be based upon a subset report of the Project Execution Schedule in which all project execution activities have been entered. This review shall include:

- 1) Status of continuing activities.
- 2) New activity starts since last meeting.
- 3) Activities planned to start within 30, 60, and 90 day look-ahead periods.
- 4) Activity planned completion dates.
- 5) Activity interruptions. Activity interruptions should include the reason for the interruption.
- 6) Activity completions. An activity will be considered complete when only punch list items remain that can be completed at a later date without impacting another dependent activity.

- c) Visitors.
Review list of scheduled visitors for both the Contractor and the Government and the reason for the visit.
 - d) Quality Control.
Review outstanding issues and agreed to dispositions.
 - e) Safety
Review outstanding issues and agreed to dispositions.
 - f) Security
Review outstanding issues and agreed to dispositions.
 - g) Requests For Information (RFI)
Review the project RFI log; identify outstanding RFI's that may impact the schedule and agree to a course of action to expedite resolution.
 - h) Change Orders
Review the log of outstanding change orders; expedite the completion of change orders.
 - i) Correspondence
Review correspondence between COR and Contractor to ensure all written letters were received and there is no misunderstanding of the content or intent of the correspondence.
 - j) Material Tracking Schedule and Procurement Log
Review the project procurement log to ensure expeditious processing of shipping documents from point of origin, through shipping services, through the local Ministry of Foreign Affairs or equivalent. Identify shipments that may adversely impact the project execution schedule. Develop, agree upon, and execute remedial courses of action, as necessary.
3. Meeting Minutes. The Contractor shall provide meeting minutes in agenda format to the COR the next working day after each construction and commissioning coordination meeting. The COR will sign the meeting minutes upon agreeing to their accuracy. Final meeting minutes signed by the COR and the Contractor's Project Manager will be distributed by the COR no later than two working days after the coordination meeting and shall become part of the final project record set.
4. Minutes will carry open issues from week to week until resolved and will include origination date, responsibility, resolution date, and resolution action before removing from the minutes.

C. Project Progress Meetings:

1. The Contractor shall conduct monthly meetings to discuss Project progress and monthly meetings to discuss Contractor payment.

2. Required Attendance: The Contractor's Project Manager and Project Controls Engineer.
3. The agenda shall address the following topics, at a minimum:
 - a. Describe, on an activity-by-activity basis, all proposed revisions and adjustments required to maintain the PES and reflect the current status of the Project. The COR will review and accept activity progress, proposed revisions, and adjustments as appropriate.
 - b. Provide a complete and accurate report of procurement and construction progress effective at the AS OF date, which will generally be the end of the calendar month.
 - c. Update information, on an activity-by-activity basis:
 - 1) Start and Finish Dates: The actual start and finish dates for each activity currently in-progress or completed since the last review.
 - 2) Time to Completion: The estimated remaining duration for each activity in-progress. Calculations shall be based on resource requirements and availability for each activity.
 - 3) Resource Usage: Reflect actual resource usage compared to planned resource usage for each activity.
 - 4) Cost Completion: The earnings for each activity in progress. Payment will be based on earnings for each in-progress or completed activity. Payment for individual activities will not be made for work that contains quality defects or for materials that have not yet been reviewed and accepted by the COR. A portion of the overall Project amount may be retained based on delays of activities.
 - 5) Suspended Performance: Activities with suspended performance, the reason for suspension, and a forecast of when the activity progress will resume.
 - 6) Change Orders: All logic changes regarding notice to proceed on change orders, all change orders to be incorporated into the schedule, Contractor-proposed changes in work sequence, corrections to schedule logic for out-of-sequence progress, and other changes that have been made pursuant to contract provisions.
 - 7) Other Changes: Other changes required due to delays in the completion of any activity or group of activities beyond the Contractor's control. Also include delays encountered due to submittals, Government activities, deliveries or work stoppage which makes re-planning the work necessary, and when the schedule does not represent the actual prosecution and progress of the work.
 - 8) Meeting Minutes: Provide meeting minutes signed by the Contractor's Project Manager in agenda format to COR the next working day after the meeting. The COR will sign the meeting minutes upon agreeing to their accuracy. Final meeting minutes signed by the COR and the Contractor's Project Manager shall be distributed by the COR no later than two working days after the meeting and become part of the final Project record set.

- D. Safety Meetings: In accordance with Section 013525, *Construction Safety and Occupational Health*.
- E. QC Meetings: In accordance with Section 014010, Contractor's Quality Control.
- F. Pre-Installation Meetings: As required by Contract Technical Specifications or as requested by the Contractor Refer also to Contractor's QC Plan in Section 014010, *Contractor's Quality Control*).

3.03 DOCUMENT OF SHIPMENT

- A. FAR Clause 52.247-64, Preference For U.S.-Flag Air Carriers, and Contract Section D require that the Contractor submit one legible copy of an on-board rated and freighted ocean bill of lading for each applicable shipment to both the COR and the Maritime Administration, The FAR clause provides specific timeframes for submission to the Maritime Administration . The Contractor shall submit the bills of lading to the COR within 72 hours of shipment.

3.04 GOVERNMENT-FURNISHED ITEMS

- A. As delineated in Contract Section C, the Government may provide equipment or material for either Government installation or Contractor installation, designated as GFGI and GFCL, respectively.
- B. In all cases, the Contractor shall coordinate with the Government and plan to accommodate these items during design, receiving, transportation, secure shipment and storage, material handling, and integration of the installation into the general works.
- C. The Contractor shall support the infrastructure for Government-furnished items. For example, if the Government will provide and install an alarm system, the Contractor shall provide and install conduits, raceways, cables, terminal boxes, and source power. For security alarm systems, the applicable infrastructure shall be as specified in the Technical Security System (TSS) drawing package. For other systems, the Contractor shall execute due diligence in obtaining information, catalog cuts, etc., from the Government and others to deliver the requisite infrastructure. The Government will make terminations and install and test the end items.
 - 1. The Contractor may be required to provide and install TSS rough-in and installation materials.
 - 2. The Contractor shall coordinate, integrate with, and assist the Government and Government subcontractors for the effective installation, termination, overall testing, modification, and adjustment to TSS.

3.05 FIELD ENGINEERING

- A. Working from recorded property markers and benchmarks as available, and as indicated in the Contract documents, the Contractor shall confirm

provided property surveys and shall establish permanent points of locations, lines, and levels of the Site. The Contractor shall lay out the Project in its principal lines and levels as needed for accurate placement of work by each Project execution entity.

- B. The Contractor shall calculate and measure within recognized tolerances. Drawings shall not be scaled to determine dimensions. As work progresses, the Contractor shall record non-corrected deviations from required lines and levels that are beyond recognized tolerances. The Contractor shall report significant consequences of such deviations to the COR promptly.
- C. The Contractor shall maintain a surveyor's log of continuing field measurements.
- D. For multi-story construction, the Contractor shall provide benchmarks for each floor.
- E. The Contractor shall engage licensed or registered land surveyors or professional engineers experienced in forms of field engineering required by the Project.
- F. The Contractor shall confirm locations and elevations of existing utilities in and around the Project Site before the commencement of any excavation or foundation work.
- G. The Contractor shall confirm pipe sizes and invert elevation calculations for water or waste-bearing lines. The Contractor shall record the type of construction, general condition or state of repair, and auxiliary features of such utilities.
- H. The Contractor is responsible for the correct location, line, and level of its portion of the work in relation to established lines and levels. Each Project execution entity is responsible for coordinating adjoining and interfacing work, whether previously or subsequently installed.
- I. Field Engineering Submittals: The Contractor shall submit the following in accordance with submittal procedures described in detail in Section 013305, *Construction Submittals*:
 - 1. Confirm Property Survey (See Paragraph 3.04 – Field Engineering)
 - 2. Historic and Significant Properties Monitoring:
 - a. The Contractor shall design a monitoring system to detect structural settlement of historic and significant properties and adjacent structures. This system shall include instrumentation selection and point locations and measure the progress of any settlement occurring during and as a result of construction.
 - b. After acceptance of design by the COR, and prior to the commencement of any excavation work, the Contractor shall install instrumentation at accepted monitoring points.
 - c. Instrumentation Reports:
 - 1) The Contractor shall maintain a log of weekly readings from each monitoring point throughout the duration of the construction execution phase.

- 2) The log shall become part of the final Project record set.
 - 3) Refer to Section 312000, *Earthwork*, for additional monitoring requirements.
- d. Surveyor's Log: The Contractor shall maintain a current log of all survey activity. The log shall become part of the final Project record set.
3. Final Property Survey: The Contractor shall record location, line, and level of significant features, including real property, as constructed upon the Project Site. The Contractor shall indicate dimensions of the perimeter fence and gate facilities in relation to property lines. The Contractor shall include the surveyor's certification confirming dimensioned lines and levels are true and accurate as shown on the final survey and that permanent benchmarks and property corner markers are installed, located, and labeled as shown.
 4. Photographic/Video Survey: The Contractor shall prepare and submit an initial instrument survey complete with photographic and video capture of all existing Site conditions within 45 days of the Contract award date. These conditions must be complete in scope and include historic and significant properties, adjacent structures (buildings, roads, storm drains, and utilities) and adjacent properties. The survey shall include a description, photographs and video of the general condition of the properties and structures as well as any visible cracking, fitting, or settlement. A sketch plan or elevation shall be prepared to clarify any unusual conditions.

3.06 PROTECTION

- A. The Contractor shall protect and maintain all facilities, materials, and equipment during receipt, handling, storage, installation, curing, and similar stages of construction execution. This shall ensure minimum exposure to hazards and deterioration to the work.
- B. The Contractor shall comply with applicable manufacturer's instructions and requirements of the individual work sections of the Contract Technical Specifications.
- C. The Contractor shall apply protective coverings where necessary to ensure completed work by any entity shall remain undamaged. Protective coverings shall be maintained until Substantial Completion.
- D. Stairways: When the temporary use of permanent stairways is authorized by the COR, the Contractor shall cover and protect finishes on each tread, riser, and nosing with padding and plywood or a similar system.
- E. The Contractor shall adjust, lubricate, and perform and document preventive maintenance on all operable components to preclude deterioration beyond normal wear prior to Substantial Completion. The Contractor shall ensure that all components placed into operation are protected from damage and deleterious effects.
- F. The Contractor shall limit exposure of work to risks of harm and damage due to excessive loading and pressures, extreme temperatures, humidity, water,

ice, solvents, chemicals, puncture, abrasion, heavy traffic, soiling and staining, corrosion, infestation, combustion, contact with incompatible materials, misalignment, and other threats. Refer to Section 013525, *Construction Safety and Occupational Health*, for additional requirements.

- G. Once installed, the Contractor shall protect interior fixtures and furnishings from dust, debris, traffic, or other deleterious side effects of the construction process.
- H. The Contractor shall insure that dust, mold, moisture, etc. be cleaned and removed from interior spaces routinely and prior to space closure.
- I. The Contractor shall protect existing facilities, spaces and equipment that may be impacted by the construction operations including dust control and cleaning as necessary.

3.07 CUTTING AND PATCHING

- A. The Contractor shall perform cutting and patching operations where indicated on the Construction Drawings. These activities shall be included in the automated Project Execution Schedule.
- B. Examination: The Contractor shall evaluate all possible physical reactions from the planned cutting and patching operations. The Contractor shall focus on threatened losses, inherent dangers, and possible obvious or hidden exposures to mechanical, electrical, or other utilities.
- C. Preparation: Before proceeding with any cutting and patching operations, the Contractor shall initiate all necessary protective provisions. These provisions shall include temporary supports, alternative services, temporary protective coverings or enclosures of adjoining work, protection of adjacent surfaces, dust control (palliation), spatter control, and warning signs. The Contractor shall plan for and enforce provisions limiting cutting only to intended elements and avoiding the unintentional and unauthorized cutting or damaging of unintended elements.
- D. Continuity of Service: The Contractor shall maintain utility service and security systems during all cutting and patching operations. Where required cutting shall necessitate the shutdown or the discontinued use of utility lines or distribution services, the Contractor shall provide the COR with the scheduled time period for such disruption of service and indicate how temporary services shall be provided to sustain necessary operations. In all cases, the Contractor shall provide emergency, automatically-switched, stand-by power to selected areas to avoid compromising security systems.
- E. General Cutting Procedures:
 - 1. The Contractor shall execute cutting and patching operations utilizing methods and tools that are least likely to damage facilities and unintended elements. The Contractor shall consider using small-scale, low-powered, hand-operated, low-impact, "cutting" type tools.
 - 2. The Contractor shall produce neat, uniform, and accurate cutouts in compliance with the Construction Drawings. The Contractor shall

provide protection and execute the cutting work to avoid marring adjacent and adjoining surfaces.

3. The Contractor shall clean each cutout of loosened materials, dust, and debris.
4. Where necessary, the Contractor shall cover all cutout areas prior to patching avoiding exposure to weather and other contaminants.

F. General Patching Procedures:

1. The Contractor shall install suitable anchors or bond coat to permanently secure all patches.
2. The Contractor shall patch with joint bonds or seams at retained material, durable, tight, and as nearly invisible as possible.
3. The Contractor shall install and work all surfaces of exposed patches to a precise level and in alignment with matching finishes, color, pattern, texture, and durability with surfaces.

END OF SECTION

**SAMPLE
DATA TRANSFER AGREEMENT**

Entity Requesting Transferee Data (“Transferee”)

Contact Name

Project

Project Number

Client

Date

File

Transferee has asked the COR to provide electronic copies of, or access to, certain drawings, specifications, or other documents, CAD data files, and/or building information models (collectively, "Data") prepared by the Architect and/or its consultants (collectively “Consultant”) for the Project. COR agrees to provide Transferee with the requested Data, under the terms of this Data Transfer Agreement ("Agreement").

1. The transfer of the Data is not and shall not be deemed a sale. The Data are instruments of service. The U.S. Department of State shall be deemed the data's owner and shall retain all proprietary rights, including any copyrights, embodied therein. Further reproduction and/or distribution outside of the contract team is prohibited without express written approval of the COR.
2. Transferee may transfer the Data to its contractors, subcontractors, suppliers, and consultants (collectively "Others"), provided Transferee requires the Others to be bound by this Agreement as if they were the Transferee in this Agreement. Transferee and Others may use the Data only for purposes to use the Data.
3. Transferee acknowledges that anomalies and errors may occur when the Data is transferred electronically or used in an incompatible computer environment. Transferee solely accepts the risks associated with, and the responsibility for, any damages to hardware, software, computer systems, or networks related to the Data's transfer or use. The Government, nor the Architect, shall have a responsibility to provide software or training to allow Transferee to use the Data.
4. Neither the Government nor the Architect shall have a duty to modify or update the Data. The Government, and the Architect, may retain an archival copy of the Data, which shall be conclusive proof and govern in any dispute over the Data's form or content.
5. Transferee agrees to indemnify, defend, and hold the Government and the Architect, its officers, directors, shareholders, employees, agents, and consultants harmless from and against any and all claims, liabilities, suits, demands, losses, damages, costs and expenses, including, but not limited to, reasonable attorneys' fees and all legal expenses and fees incurred through appeal, and all interest thereon, accruing to or resulting from any and all persons, firms or any other legal expenses and fees incurred throughout appeal, and all interest thereon, accruing to or resulting from any and all persons, firms or any other legal entities on account of any damages or losses to property or persons, including, but not limited to, injuries, death or

economic losses, arising out of Transferee's or Others' use, reuse, transfer, or modification of the Data, except where a court or forum of competent jurisdiction determines that the Government or the Architect is solely 'liable for such damages or losses.

6. If Transferee fails to perform or observe any of the terms of this Agreement, the Government or the Architect may demand, and Transferee immediately shall return, the Data and any copies thereof.
7. To the extent the Data include building information models ("Models"), the parties agree to the following additional terms: (i) The Models are intended for the purpose of communicating design intent. While they may be helpful to illustrate conflicts or inconsistencies in the design, the Models may not detect all conflicts or inconsistencies. (ii) Any use of the Models for the purpose of generating quantity take-offs or cost estimates, or for fabrication, will be at the Transferee's sole risk. (iii) As with the Architect's other services and deliverables, the Models will be prepared using that degree of skill and care exercised by licensed professionals practicing in the same community, under the same similar circumstances. The Models may contain, or be based upon, data or information provided by others. The Architect has relied upon such data or information as is consistent with this standard of care. (iv) Information contained in the Models will not be construed to dictate construction means or methods, which will remain the contractor's responsibility. (v) To the extent of any conflict between information contained in, or generated by, the Models and the Architect's drawings and specifications, the latter documents will prevail.
8. This Agreement shall be governed by the law of the location of the Architect's office identified at the bottom of this Agreement.
9. In any legal proceeding to enforce this Agreement, the prevailing party shall be entitled to recover its reasonable attorneys' fees and costs of defense.
10. Unless otherwise explicitly agreed to in writing by the parties, this Agreement shall govern any and all future data transfers to Transferee by the Architect.

Architect - Input Principal name here

Date Signed

Contractor - Transferee Authorization name here

Date Signed

SECTION 013205
PROJECT SCHEDULING
Small Design-Build Projects

PART 1 GENERAL

1.01 SUMMARY

- A. This Section addresses the management process of executing, controlling, and reporting project work.
- B. The Contractor's Base Schedule is the key legal document representing the plan for executing all work under the Contract. Activities and their durations in the Base Schedule cannot be modified without the express written authorization by the CO.
- C. The Contractor may prepare a Project Execution Schedule (PES) to conform to the Base schedule, and to provide the basis to monitor and control project activities. PES as used in this Section, refers to any and all stages of the schedule. The specific terms of IPES and BPES are used to identify a particular stage in the development of the PES.
- D. The means and methods implied in the PES for accomplishing the contract work are the sole responsibility of the Contractor.
- E. The provisions in this Section cover all schedule documents and scheduling practices under the Contract whether they are referred herein or not.

1.02 RELATED DOCUMENTS

- A. Other general conditions of the Contract, including Federal Acquisitions Regulations (FAR) clauses by reference or as amended in Contract sections B through J, and other Division 1 sections of these Contract Specifications apply to requirements of this Section. This Section in turn applies to the Contract Drawings, all other Division 1 Specifications, and to Contract Technical Specifications.
- B. Contract Sections C, E, and F for information related to design deliverables including the Design Development and Construction Document submittals.
- C. Contract Section F for information related to deliverables to be included as tasks and milestones in the Base Schedule, as well as in the PES.
- D. Contract section G for additional information related to cost-loading.
- E. Section 011005, *Construction Execution and Coordination*, for information on format and content of the submittal register, project procurement log, and materials tracking schedule.
- F. Section 013305, *Construction Submittals*, for procedures for submitting PES versions and other deliverables described in this Section.

1.03 DEFINITIONS and ACRONYMS

A. General

1. GFE – Government Furnished Equipment
2. GFCI – Government Furnished and Contractor Installed
3. GFGI – Government Furnished and Government Installed
4. CRP – Consolidated Receiving Point
5. G&A – General and Administrative
6. VAT – Value Added Tax
7. REA – Request for Equitable Adjustment
8. NTP – Notice to Proceed
9. LNTP – Limited Notice to Proceed
10. FNTP – Final Notice to Proceed

B. Schedule related:

1. PES - Project Execution Schedule
2. IPES - Initial Project Execution Schedule
3. BPES - Baseline Project Execution Schedule
4. PES Updates – IPES or BPES updates
5. As-Built PES – Final PES Update
6. Current PES Update – Last accepted PES Update
7. CPM - Critical Path Method
8. WBS – Work Breakdown Structure
9. Task - An activity with duration
10. Milestone – A zero-days duration event in the PES
11. Fragnet – Part of the PES represented by a series of activities
12. Original Data – Initial planned data
13. Actual Data – Past record data
14. Resources – Labor, material, and equipment required to complete a project
15. Equipment - A resource used by the Contractor to construct the project
16. Materials (Supplies) - Resources purchased to be built into the Project, including electrical and mechanical equipment
17. Labor – Human resources
18. Open End – an activity having no logic predecessor or successor
19. Loose End – an activity having no logic links to either its start end or its finish end
20. FS – Finish-to-Start activity link
21. SS – Start-to-Start activity link
22. FF – Finish-to-Finish activity link
23. SF – Start-to-Finish activity link

1.04 PURPOSES of the PES

- A. To provide a complete information and reference plan of execution of the Project.

- B. To be the only plan of execution that is developed and updated throughout the project period of performance.
- C. To assure coordination of the Contract Work between Government representatives, contractor's staff and personnel, subcontractors, material suppliers, and all other parties associated with the project work.
- D. To provide short-term look-ahead plans of execution for control management.
- E. To record and report actual performance progress.
- F. To forecast final project completion and completion of future work based on actual performance to date.
- G. To evaluate any time impact associated with unforeseen conditions, unexpected events, contract modifications, performance delays, etc.
- H. To be an impartial tool to evaluate REAs.
- I. To be the basis for evaluation of the work completed and the preparation of progress payments.
- J. To become part of the As-Built Documents of the Contract.

1.05 SUBMITTALS

- A. Shall be submitted and reviewed in accordance with the requirements of Section 013305, *Construction Submittals*.
- B. Shall be certified by the Contractor's Project Manager (PM) and in accordance with certification procedures described in Section 013305, *Construction Submittals*.
- C. Submit the following as prescribed above:
 - 1. **Base Schedule, or Initial Project Execution Schedule (IPES)**
 - a. To COR within 30 days following the Contract Award.
 - b. Submittal is a prerequisite to the CO issuing any LNTP or NTP for Design.
 - c. Submittal is a prerequisite to the Contractor's first Application for Progress Payment.
 - 2. **Baseline Project Execution Schedule Update (BPES)**
 - a. To COR before CO issues any LNTP or NTP for construction
 - b. Acceptance of the BPES is a prerequisite to the CO issuing the FNTP for construction.
 - 3. **Project Execution Schedule (PES) Updates**
 - a. Following acceptance of the IPES and the BPES, monthly PES update submissions are required commencing with the completion of the first monthly period

- b. The Data Date of the PES Updates shall be consistent with the Closing Date of the Applications for Progress Payment
 - c. The Final PES Update shall become the As-built PES.
 - d. Acceptance of the As-built PES is a prerequisite to:
 - 1) Release of Final Payment
 - 2) Final Acceptance Certification
- D. The Contractor shall provide a list of all necessary project permits prior to Full NTP.
- 1. The Contractor shall update the status of these permits in conjunction with each monthly schedule update.
- E. If the Contractor does not submit acceptable schedules within the times prescribed above, the CO may withhold funds from progress payments in accordance with FAR Section 52.232.
- F. Every PES submittal shall include the following:
- 1. Printed copies (as directed by COR) of:
 - a. Narrative Report
 - b. Updated Procurement Log
 - c. Bar charts of the following schedule fragments
 - 1) Critical Path Progress Report
 - 2) Next Period Look-Ahead
 - 3) Labor resource histogram and cumulative curve
 - 4) Cost histogram and cumulative curve
 - 2. Two (2) Compact Discs (CD) containing:
 - a. An executable backup file of the current PES with a proper and unique file name different from any previously submitted
 - b. Copies of the printed reports submitted in Portable Document Format (.pdf), each scaled to the same size as the printed report
 - c. Each CD shall have a printed label that includes:
 - 1) Project name
 - 2) Post name
 - 3) Schedule file name
 - 4) Contractor name
 - 5) Data Date
 - 6) Security classification, if required
 - 3. Upload to ProjNet
 - 1. All documents required above shall be uploaded to ProjNet.
 - 2. ProjNet submittal is not an alternative but one of the three forms of submittal.

1.06 GOVERNMENT REVIEW PROCESS

- A. For all submittals identified in this section, the USG shall review the schedule and supporting documentation for contract compliance. Formal submittal disposition will be issued within 15 calendar days after receipt of all required information.

- B. The COR will review the updated PES to verify the accuracy of the on-site work progress – activities started, completed, and on-going and their respective completion percentages.
- C. Consistent with the USG disposition of “acceptance” of an IPES, BPES, or PES Update, acceptance does not modify or imply a modification to the terms of the Contract.
- D. The COR may request additional information as a result of the review process, and the Contractor shall comply with such request.
- E. The COR may request the Contractor to participate in any meeting necessary to reach a mutual agreement on any PES, PES report, PES update, and revisions of these items.
- F. If any of the required contractor submissions are returned for correction, addition, or revision; then they shall be resubmitted, as prescribed above, within 15 calendar days after the request for resubmission.
- G. Government direction to the Contractor for revision and resubmission of a PES update shall not preclude the contractor from preparing and submitting the next PES update on time.
- H. PES review comments and acceptance or rejection by the USG of any PES version does not relieve the Contractor of his responsibility for the accuracy and feasibility of the PES or of his obligation to achieve the dates of Substantial Completion and Final Project Completion of the Work. USG acceptance does not expressly or impliedly warrant, acknowledge, or admit the reasonableness of the activities, logic, durations, etc., of the PES.

1.07 PROJECT CONTROLS

- A. The Contractor shall:
 - 1. Be responsible for the preparation of the required schedules and related documents in compliance with the provisions of this Section.
 - 2. Be responsible for Project coordination procedures of this Section throughout the construction period of the Contract.
 - 3. Provide prompt response to COR inquiries about the status of the Project, or any subject related to the progress of the Project.
 - 4. Work in close cooperation with the Contractor’s subcontractors and suppliers relative to the development and implementation of the PES.
- B. The Government will be permitted to review the Contractor’s work progress at any time through direct contact with the PCE and have full access to the PES.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 SCHEDULING SOFTWARE

- A. Primavera P6 version 17.0 or earlier or Microsoft Project version 2010 or earlier. Contractor must be aware that scheduling specifications are based on Primavera's methods and terminology. .
- B. The PES shall concur with all the principles, concepts, and definitions in this Specification Section, regardless of the methods and terminology used by the software selected.
- C. The scheduling software shall be of a type that is compatible with the USG operating system at the time of installation, currently Microsoft Windows 10.

3.02 SCHEDULE DEVELOPMENT

- A. The detailed PES will include tasks and milestones representing the entire Contract Scope of Work including:
 - 1. General requirements (see Contract Section F)
 - 2. Complete Design
 - 3. Submittals (see Division 1, Section 013305)
 - 4. Procurement of long lead and important items (see Contract Section H)
 - 5. Shipping of long lead and important items (see Contract Section D)
 - 6. Mobilization (see Division 1, 011005)
 - 7. Construction (see Division 1, 011005)
 - 8. Commissioning (see Division 1, Section 019115)
 - 9. Closeout and Demobilization (see Division 1 Section 017705)
- B. Baseline schedule development:
 - 1. Whether the IPES or the BPES, the baseline schedule shall be developed in accordance with all provisions herein included unless it is specifically indicated.
 - 2. The baseline shall be fully Cost-loaded to the full Contract Amount less any included VAT. Details of the Cost-load provisions are included below in this Section.
 - 3. The baseline shall be resource-loaded. Details of the Resource-load provisions are included below in this Section.
 - 4. The baseline shall use days as the unit basis for development.
 - 5. The original duration of the construction activities shall not exceed 14 calendar days.
 - 6. The Total Float (Slack) of all activities shall not exceed 120 days.
 - 7. The baseline schedule shall include at least three calendars applicable to each activity as it is indicated below in this Section.
 - 8. The baseline shall include at a minimum the milestones listed below in this Section.
 - 9. The baseline shall include considerations for local weather and climate seasons.
 - 10. Constraints shall be avoided; otherwise; the presence of constraints in the schedule shall be indicated and justified in the Narrative report.

11. Lags and Leads are prohibited.
12. Open-Ends and Loose-Ends are not permitted.
13. SS, FF and SF links shall be avoided. If used, the Contractor shall indicate it in the Narrative report and confirm that the schedule is free of Circular Loops, Open-Ends, and Loose-Ends.
14. Retained Logic shall be logic applicable to the baseline schedule.
15. Activity Codes shall be assigned to all activities. Details of the minimum Activity Codes required are indicated below in this Section.
16. For the IPES this level of detail applies only to activities with Early Dates before the first 60 days after FNTF.
17. Float available in the schedule, at any time, shall not be considered for the exclusive use of either the Government or the Contractor.
18. In the event the IPES or BPES calculates an early completion date of the last activity prior to the contract completion date, the contractor shall identify those activities that it intends to accelerate and/or those activities that are scheduled in parallel to support the Contractor's "early" completion. The last activity shall have a late finish constraint equal to the contract completion date and the schedule will calculate positive float. The Government will not approve an early completion schedule with zero float on the longest path. The Government is under no obligation to accelerate activities for which it is responsible to support a proposed early contract completion.
19. The baseline schedule is the reference plan of execution and shall remain invariable throughout the duration of the project unless changes to the plan arise. Provisions to change the baseline schedule are included below in this Section.

C. PES Updates:

1. The updating process of the IPES and BPES is limited to the input of Actual Data; any other addition or deletion shall be treated as a change to the baseline. Provisions to change the baseline schedule are included below in this Section.
2. Actual Data is considered only Actual Dates, Actual Durations, Actual Resources, Actual Costs, and Actual Percentages of Completion.
3. For Control purposes. Activity percentage of completion shall be identical to Cost percentage of completion.
4. Any activity or sequence of activities added to the schedule as a result of alleged constructive changes made by the Government may be added to a copy of the current schedule, subject to the approval of the COR. Assign activity codes for these activities with a Contract Changes/REA Code. Key the code values to the Contractor's numbering system, Approval to add these activities does not necessarily mean the Government accepts responsibility and, therefore, liability for such activities and any associated impacts to the schedule, but rather the Government recognizes such activities are appropriately added to the schedule for the purposes of maintaining a realistic and meaningful schedule.

D. Narrative Report:

1. All PES submissions shall include a Narrative Report
2. The narrative report shall include: a description of activities along the 2 most critical paths where the total float is less than or equal to 20 work days, a description of current and anticipated problem areas or delaying factors and

their impact, and an explanation of corrective actions taken or required to be taken. The narrative report is expected to communicate to the Government, the Contractor's thorough analysis of the schedule output and its plans to compensate for any problems, either current or potential, which are revealed through that analysis Identify and explain why any activities that, based on their calculated late dates, should have either started or finished during the update period but did not. The Narrative report shall also describe any out of sequence work activities that have occurred during the reporting period, the reasons therefore and the effect of this out of sequence work on the remaining unfinished work.

E. Milestones:

The PES shall include at a minimum the following milestones as applicable:

1. Contract Award
2. LNTP for Design
3. NTP for Design
4. LNTP for Construction
5. Substantial Completion (Operational Capability) of ACF CAA
6. FNTF
7. Training Plan Submission
8. Commissioning Plan Submission
9. Commissioning Milestones
10. O&M Manual Submission
11. Systems Manual Submission
12. Accreditation Check List Completion
13. Substantial Completion for each building and major area of construction
14. Project Substantial Completion
15. Final Commissioning Report Submission
16. Project Completion
17. Final Acceptance
18. Owner Move-in
19. Start Phase X
20. Finish Phase X

F. Cost Loading:

1. Every activity that implies cost shall be cost-loaded
2. The Total Budgeted or Total Planned Cost of the PES shall coincide with the Total Contract Amount less any included VATs.
3. G&A Costs shall be distributed proportionally to all cost-loaded activities.
4. Assign cost values (based on supplier invoice, shipping invoice, taxes and other indirect costs) to materials stored on site, or in an approved off site facility, for which the Contractor will request payment. (See Contract Section G.4.2 Stored Materials) A cost loaded activity, signifying site arrival and Government verification, shall be included as a successor to the shipping activity for all such materials.
 - a. Materials delivered on the site but not installed, including completed preparatory work and off-site materials to be considered for progress payment shall be major high cost, long lead, special order, or specialty items, not susceptible to deterioration or physical damage in storage or in transit to the construction site.

- b. Examples of materials acceptable for payment consideration include, but are not limited to, structural steel, non-magnetic steel, non-magnetic aggregate, equipment, machinery, large pipe and fittings, precast/pre-stressed concrete products, plastic lumber, e.g., fender piles/curbs). And high-voltage electrical cable.
- c. Materials not acceptable for payments include consumable materials such as nails, fasteners, conduits, gypsum board, glass, insulation and wall coverings.
- 5. The following activities shall NOT be cost loaded:
 - a. Procurement activities
 - b. Manufacturing activities
 - c. Shipping activities
- 6. The following type of activities shall NOT be cost loaded:
 - a. Summary activities
 - b. Hammocks activities
 - c. Level of Effort activities
 - d. Milestones
 - e. Flags

G. Resource Loading:

- 1. All construction activities shall be resource-loaded
- 2. All resources shall be defined and quantified in every activity
- 3. Labor resource shall be defined by trade and quantified by labor-day units
- 4. Equipment resource shall be defined by type and quantify by day units
- 5. Materials resource shall be defined and quantified as applicable according to the nature of the activity.

H. Cost Histogram and Cumulative Curve:

- 1. Every baseline schedule submittal shall include:
 - a. The complete monthly basis Histogram of the projected Late Dates Costs
 - b. The complete Cumulative Cost Curve of the projected Late Dates Costs
- 2. Every schedule update submittal shall include:
 - a. The complete monthly basis Histogram of the Actual Dates Costs and projected Early Dates Costs
 - b. The complete Cumulative Cost Curve of the Actual Dates Costs and projected Early Dates Costs

I. Labor Histogram and Cumulative Curve:

- 1. Every baseline schedule submittal shall include:
 - a. The complete monthly basis Histogram of the projected Late Dates Total Labor input
 - b. The complete Cumulative Curve of the projected Late Dates Total Labor input
- 2. Every schedule update submittal shall include:
 - a. The complete monthly basis Histogram of the Actual Dates Total Labor input and projected Early Dates Total Labor input
 - b. The complete Cumulative Cost Curve of the Actual Dates Total Labor input and projected Early Dates Total Labor input

J. Calendars:

1. All activities performed in United States shall be based on a 5-day calendar that includes all Federal US Holidays.
2. All procurement and shipping activities shall be based on a continuous 7-day calendar with no holidays.
3. All construction activities shall be based on a 6-day calendar that includes US and local holidays.
4. Any additional calendar used shall be identified in the Narrative report.

K. Activity Codes:

All activities shall include, at minimum, the following codes:

1. Type of Work: Design, Submittals, Procurement, Construction
2. CSI Division
3. Work Area: Subdivided as needed for easy identification
4. Responsibility
5. Contract Modification: As applicable
6. Phase: As applicable

3.03 PES IMPLEMENTATION

- A. The Current PES Update and the BPES shall be available at the construction site at all times.
- B. The Contractor shall conduct weekly meetings with Government management staff at the construction site to review the PES in relation to the progress of the Project.
- C. During construction the Contractor shall display at all times a full size, current, short term schedule available to all Contractor personnel.
- D. The process of updating the PES shall be limited to entering actual data to the baseline.

3.04 REVISING THE BASELINE

- A. Revising the Baseline shall only be allowed subsequent to the Data Date of the Current PES Update.
- B. Acceptance of any revision to the current PES is prerequisite to any logic changes to the PES update.
- C. The BPES is the Plan of Execution and shall be kept unaltered at all times under normal conditions. In the event that changes are required due to change of conditions such as contract modifications, or other unforeseen situations, the Contractor shall request revising the Baseline.
 1. The Contractor shall propose the revision to the COR for review and acceptance.
 2. This proposal shall include a narrative of reasons and a list of all the changes with descriptions and justifications.

3. The Revised BPES shall be developed and proposed on the Current PES Update keeping the same Data Date.
4. Once the changes are accepted by the COR, the Revised BPES will be applicable to the subsequent PES Updates.

3.05 PLAN OF RECOVERY OR PLAN OF MITIGATION

- A. The COR can request the Contractor to submit a Plan of Recovery or a Plan of Mitigation due to any special situation.
- B. The Plan of Recovery or the Plan of Mitigation shall consist of a detailed description of actions to be taken to achieve the targets of the PES. These actions do not necessarily imply any alteration of the PES. The Contractor then shall submit a narrative description of the Plan.
- C. In the event that the Revision of the Baseline is required, the Contractor shall proceed in accordance with the provisions for Revising the Baseline. Upon acceptance of the COR, the Revised Baseline then shall be implemented and can be named the Recovery schedule or the Mitigation schedule.

3.06 TIME IMPACT ANALYSIS (TIA)

- A. The purpose of the TIA is to identify and evaluate the impact of a particular event or situation on the completion of the Project.
- B. **Past Events:**
If the event or situation subject to analysis occurred in the past, the TIA will require the following:
 1. A fragnet from the PES Update before the subject event or situation, identifying and filtering the activities related to it, and the Substantial Completion milestone
 2. A fragnet with the same activities and Substantial Completion milestone from the PES Update following the occurrence of the event, or situation
 3. A narrative description comparing the two fragnets to demonstrate that the slippage of Substantial Completion was only due to the event or situation subject of the analysis.
 4. Similar fragnets of other PES versions and copies of any related documents such as daily reports, meeting minutes, correspondence, etc. to support of the analysis.
- C. **Projected Events:**
If the event or situation subject to analysis has not occurred but can be projected in the PES, then the TIA will require the following:
 1. A fragnet from the Current PES Update identifying and filtering the activities related to the event or situation, and Substantial Completion milestone.
 2. A Revision of the Baseline in accordance with the provisions above to include the anticipated conditions of the subject event or situation.
 3. A narrative description comparing the two schedules to demonstrate that the slippage of Substantial Completion will occur due only to the event or situation subject of the analysis.

4. Similar fragments of other PES versions and copies of any related documents such as daily reports, meeting minutes, correspondence, etc. to support of the analysis.

3.07 PAYMENT APPLICATION

- A. Approval is dependent on
 1. Percent complete verification of all progressed activities
 2. Determination of the Actual Cost from the approved PES Update for the current month
 3. Submission of all required documents as detailed in "1.05 Submittals" above.

3.08 PROCUREMENT LOG

- A. The Contractor shall prepare a Procurement Log to assist in planning, executing, and monitoring Project construction. The long lead and major systems equipment items shall be incorporated into the PES and all procurements shall be linked as predecessors to the appropriate construction activities.
- B. The Procurement Log shall, at a minimum, contain the following for each listed item:
 1. Specification section and paragraph number
 2. Item description
 3. Date needed for construction
 4. Quantity needed for construction
 5. Item source (vendor or contractor name or Government Furnished Equipment (GPE))
 6. Contractor purchase order date
 7. Scheduled shipping date
 8. Scheduled job site arrival date
 9. Shipping method (surface or air)
 10. Classification (secret or unclassified)
 11. Actual ship date
 12. Actual arrival date
 13. Date of foreign port customs clearance
 14. Quantity actually received
 15. Rejections

END OF SECTION

**SECTION 013305
CONSTRUCTION SUBMITTALS**

PART 1 GENERAL

1.01 SUMMARY

- A. This Section describes procedures required for the submittal of construction deliverables and provides general submittal descriptions and processing standards.

1.02 RELATED DOCUMENTS

- A. Other general provisions of the Contract, including FAR clauses by reference or as amended in Contract Sections B through J, and other Division 1 Sections of these Contract Specifications apply to requirements of this Section. This Section in turn applies to the Contract Drawings and Technical Specifications.
- B. Adobe XI Pro Accessibility Guide: Best Practices for PDF Accessibility (available on-line).

1.03 SUBMITTALS

- A. Submit the following:
 - 1. Submittal Register

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. The Contractor shall transmit all Construction Submittals to the COR for appropriate action using the Submittal Register module in ProjNet.
 - 1. All product data shall be readable in Adobe Acrobat Reader 11.
 - 2. All PDF documents shall be word searchable.
 - 3. Use bookmarks to aid navigation of a large document.
- B. The Contractor shall review all Contract documents and Project requirements and generate a complete list of deliverables for submittal. The Contractor shall ensure all deliverables are considered in the Project Execution Plan and are entered, coded, and tracked in the automated Project Execution Control System.
- C. Submittal Register (Refer to Contract Clauses F.9 and H.39.1.2): The Contractor shall develop a submittal register encompassing Division 1 and Contract Technical Specifications and submit it no later than 30 days prior to start of construction activities. The register shall be part of the Procurement

Log (Specification Section 013205) and integrated with the Project Execution Schedule (PES). The submittal register shall include, at a minimum, the information shown in the sample register at the end of this Specification.

- D. The Contractor shall plan and coordinate all submittal acceptance processes from the initial transmittal through installation and acceptance of the work. The Contractor shall seek to normalize all submittals and eliminate duplicative actions.
- E. The Contractor shall group submittal register items by specification section so the Government can review all related items together.
- F. Concurrent Review Submittals (if applicable): Technical Specifications may require review of several closely related Submittal Types at the same time (Concurrent Review). To facilitate a comprehensive review of all submittals requiring “concurrent review”, the various submittals shall be “bound” into a “Binder PDF” that is word searchable and prepared in accordance with the following criteria using Adobe XI Pro Accessibility Guide referenced in Paragraph 1.02.B above:
 - 1. Each individual Submittal Type shall be labeled, using the Footnote/Header tool.
 - 2. The Binder PDF shall be “Bookmarked” and “Linked” to other portions of the Submittal, to facilitate navigation to different “Submittal Types” within the “Binder” PDF, and to identify subdivisions within respective Submittal Types.
 - 3. Appropriate “Shop Drawing (SDx)” submittals shall contain “Bookmarks” and “Links” that easily provide access to the various types of “Product Data (PDx)” and other “Submittal Types”, within the Concurrent Review Submittal PDF.
 - 4. Contractor shall also use “Reduced Size” saving process when finalizing the PDF for submission. This has the following advantages:
 - a) Minimizes the ProjNet upload and download time
 - b) Maximizes navigation performance within the document.
 - c) Minimizes the document size for hard drive storage
 - 5. Concurrent Review submittals may be rejected if not prepared in accordance with the above requirements.
 - 6. A sample submittal meeting the above requirements can be provided upon request.
- G. The Government may review submittal register items up to twice, but a third or more reviews shall be at the expense of the Contractor.

3.02 SUBMITTAL PROCESSING

- A. A/E Certification: All submittals related to the Contract Technical Specifications will be signed by the Contract Architect and/or /Engineer of Record certifying the items submitted have been reviewed in detail, are complete and correct, and are in full compliance and strict conformance with the Contract documents, drawings, specifications, references, etc. Absence of said certification will render the submittal defective and deficient, resulting in an automatic Government disposition of “Rejected; Resubmit (RR).”

B. Submittal Identification:

1. The Contractor shall provide a label, title block, and transmittal sheet on each submittal, attached securely and identifying the following:
 - a. Project name and number, date of related Contract documents, and date of submittal.
 - b. Name, address, and telephone number of the Contractor's point of contact responsible for the preparation of the submittal.
 - c. Name, address, and telephone number of the following, as applicable: Contractor, Subcontractor, supplier, manufacturer, or fabricator.
 - d. Reference numbers and titles of Specification Sections and Contract Drawings, including related details, submittals, and similar cross-references.
2. Transmittal Sheets:
 - a. The signed transmittal document serves as a record of the transmittal action.
 - b. The Contractor shall maintain records of transmitted submittals by date, following the required procedures for the Submittal Register.
 - c. The Contractor shall include a section for the printed name, signature, and date of the COR as the recipient of the transmittal.
 - d. The Contractor shall provide an appropriate section for each entity involved to record, by signature and date, the receipt, review, and respective action, acceptance, and limitations, if any.
 - e. The Contractor shall provide a section for the record of certification.
3. Sample Transmittal Form. A sample Transmittal Form is provided as an attachment to this Section.

C. Substitutions for Materials or Products:

1. Proposals for substitutions of materials or products required by the Contract specifications and drawings shall include a specific description of each substitution in writing and provide justification. No proposals for substitutions of materials or products will be accepted after 90 days from the initial NTP. The transmittal shall clearly identify the documents proposing substitutions and shall include the Substitution Request Form (attached) as required by Contract Section H. In addition, the ProjNet Submittal Register field entitled "Contains Variations" must indicate YES. The Contractor shall identify all potential scope, cost, time, and quality changes at the time of the submittal.
 - a. Contractor Certification: Each submittal for proposed substitutions shall be certified as described herein.
 - b. Government submittal acceptance is a prerequisite of the initiation of the respective work element(s). Any work executed absent Government acceptance of the proposed substitution shall be at the Contractor's risk.
 - c. Should the submittal result in the acceptance of the proposed substitution and affect the Contract scope, cost, time, or quality, the COR will request that the Contracting Officer negotiate and

issue an appropriate Contract Modification. If acceptance does not affect the Contract scope, cost, time, or quality, the COR may accept the substitution in writing.

- d. The Contractor shall not presume that acceptance by the Government of a specific request for substitution is a general acceptance of similar variations from the specifications and drawings. By the action of Modification, the substitution is accepted as a performance standard.
- e. Nothing stated herein shall relieve the Contractor of the responsibility of notifying the COR of any part of the Contract documents (clauses, drawings or specifications) known, or reasonably anticipated, to produce patent or latent defects in the completed work.

- D. When a submittal is marked with an “action,” the Contractor shall submit multiple copies. This will allow for copies to be returned to the Contractor's on-site representative. Otherwise, no return will be made.

3.03 SUBMITTAL TYPE CODING AND DESCRIPTION

- A. The following are suggested coding schema for the respective submittal types. Each presents a three-place code, first and second places are alphabetic, describing the general submittal type, and the third (and subsequent) place is numeric, describing a specific submittal type. The Contractor shall coordinate the final coding system with the COR.
- B. Type Coding schema details are located with text for each submittal type listed in Paragraph 3.04.

3.04 SUBMITTALS: Submittals are written and graphic information and physical samples that require COR responsive action:

- A. Product Data:
 - 1. Refer to Contract Technical Specifications for information regarding technical requirements for product data.
 - 2. The Contractor shall collect and submit product data for manufactured material required in each unit of work, usually as defined by related technical sections of the Contract Specifications. Where selection of related products is reflected directly in the preparation of shop drawings, the Contractor shall submit product data sufficiently in advance of the submittal for acceptance and prior to the drawings' completion.
 - 3. Choices: Using the Comments Tool, the Contractor shall use “Red Rectangles” and color “Highlighting” to mark manufacturer's standard product data sheets to clearly delineate which choices have been made. The Contractor shall identify choices for Government selection. These choices are usually restricted to color, pattern, texture, and similar attributes. The Contractor shall delete or strike out information not applicable to the choice selection process.

4. The Contractor shall include manufacturer's installation instructions, recommendations for handling, maintenance, protection, testing, start-up, and other procedures as may be applicable.
5. Where product data must be custom-produced (not available as manufacturer's standard printed information), the Contractor shall submit as shop drawings in accordance with applicable requirements.
6. Copies:
 - a. Furnish 1 hard copy.
 - b. The permanent record of the Government's reply to the Contractor will be in ProjNet Submittal Register.
 - c. The Contractor shall print and retain extra copies of product data as may be required for submission as a closeout submittal.
 - d. The Contractor shall furnish copies of product data submittals, as accepted by the Government, to each entity involved in the execution of the specific work detailed therein. The Contractor shall indicate intended final distribution on the submittal transmittal form.
7. Product Data (PDx) Type Coding:
 - a. PD1, Manufacturer's Catalog Data: Data composed of catalog cuts, brochures, circulars, specifications, and product data. Data shall include preprinted information in sufficient detail and scope to verify compliance with the requirements of the Contract Documents. The Contractor shall clearly mark manufacturer's standard and optional components for each product selected to meet the Contract requirements.
 - b. PD2, Manufacturer's Standard Color Charts: Preprinted illustrations displaying choices of color, texture, and finish for the material or product.
 - c. PD3, Instructions: Preprinted material describing installation of a product, system, or material, including special notices and Material Safety Data Sheets concerning impedance, hazards, and safety precautions, if applicable.
 - d. PD4, Standard Test Reports: A report signed by an authorized official of a testing laboratory stating that a material, product, or system identical to the subject material, product, or system has been tested in accordance with the requirements specified. The test report shall identify the test method and material, state that the test was performed in accordance with the test requirements, state the test results, and indicate whether the material, product, or system has passed or failed the test. Testing must occur within three years of the date of the award of the Contract.
 - e. PD5, Manufacturer's Certified Drawings: Dimensioned drawings of the product, including components and schedule of performance data. The drawings shall include the manufacturer's certification that the product shown complies with the requirements of the Contract documents. The certified drawings shall be dated after the award of the Contract. The drawings shall include the Project name, Contract number(s), supplier's name and address, certifier's name, and a list of specific requirements the product is intends to address.
 - f. PD6, Other Product Data: Other product data not included in the above categories.

B. Shop Drawings:

1. The Contractor shall prepare newly-developed shop drawings (not marked-up drawings) to show how the combination of products and fabricated materials will be installed. These drawings shall form specified units of work and interface with other units of work or existing work, including "systems" of the building construction.
2. The Contractor shall include drawings for fabrication, installation, setting, patterning, templates, and similar purposes. The Contractor shall outline appropriate materials and product use schedules in each set. The Contractor shall identify each component and show the full set of relevant dimensions, with specific notation reflecting field measurement dimensions. The Contractor shall include performance and test ratings as may be applicable to assemblies shown by the shop drawings.
3. Shop drawings must include a level of detail to completely describe the work product proposed.
4. Media, Copies:
 - a. Sheet sizes shall be A2 except where larger dimensions are necessary for legibility, actual-size patterns, templates, similar required drawings, and as may be agreed upon with the COR for other unique shop drawing requirements. Shop drawings shall be uniformly sized unless agreed upon otherwise by the COR.
 - b. The Contractor shall furnish three (3) hardline prints and one (1) electronic in .dwg and .pdf format of each shop drawing.
 - c. The Contractor shall print and retain extra copies of the final shop drawings for mark-up during project execution, to reflect accepted as-built conditions, and for submission as a closeout submittal.
5. Shop Drawings (SDx) Type Coding:
 - a. SD1, Data: Submittals which provide calculations, descriptions, or other documentation regarding the work.
 - b. SD2, Drawings: Submittals which graphically depict the relationship of the various components of the work, schematic diagrams of systems, detail of fabrications, layout of particular elements, connections, and other relational aspects of the work.
 - c. SD3, Schedules: A 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.
 - d. SD4, Statements: A document, required of the Contractor, or through the Contractor by way of the supplier, installer, manufacturer, or other lower tier Contractor. The purpose of this document is to further the quality or orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel, qualifications, or other verification of quality.
 - e. SD5, Certificates: Statements signed by responsible officials of the manufacturer of a product, system, or material attesting that the product, system, or material meets specified requirements. The statements shall be dated after the award of the Contract, name the Project, and list specific requirements the product, system, or material intends to address.

- f. SD6, Coordination Drawings: Submittals which graphically depict the coordinated location of items specified in more than one Specification Section.
- g. SD7, Other Shop Drawings: Other shop drawing submittals not included in the above categories and specified in the Contract Technical Specifications.

C. Field Samples:

- 1. Contract Technical Specifications: Where required by Contract Technical Specifications, the Contractor shall provide samples of actual materials, equipment, and assemblies at full-scale size, fully fabricated, and in compliance with physical requirements as shown and specified.
- 2. Written Description: The Contractor shall provide a written description with the transmittal form, listing departures and deviations from requirements that were necessary during sample preparation. In any case, the Contractor shall record generic names, sources, manufacturer, compliance with applicable standards, and similar data applicable to each element of sample submitted.
- 3. Quality Control: Where samples are required for the purpose of achieving quality control, the Contractor shall prepare samples appropriately for inspection and testing by recognized methods as indicated.
- 4. Field Samples (SAx) Type Coding:
 - a. SA1, Samples: Samples, including both fabricated and unfabricated physical examples of materials, products, and units of work as complete units or as portions of units of work.
 - b. SA2, Color Selection Samples: Samples of available choice of colors, textures, and finishes of the product or material, presented over substrate identical in texture to that proposed for the work.
 - c. SA3, Sample Panels: An assembly constructed at the Project Site in a location acceptable to the COR and using materials and methods to be employed in the work.
 - d. SA4, Sample Installations: A portion of assembly or material constructed and placed in a directed location and, if accepted by the COR, retained as part of the work.
 - e. SA5, Mockups: A special form of sample submittal for Government examination prepared near the point of actual installation. Mockups may be at the Contractor's risk and, with concurrence of the COR, constructed as the first segment of the actual work. Refer to Contract Drawings and related shop drawings for size and location information of mockups. Uncertainties shall be brought to the COR for resolution.
 - f. SA6, Other Field Samples: Other samples not included in the above categories.

D. Administration / Information / Other:

- 1. Informational submittals are written and graphic information and physical samples that do not require COR's responsive action. Submittals may be rejected for not complying with requirements.

2. Media/Copies: Unless otherwise specified in these Division 1 Sections or Contract Section F, the Contractor shall provide 3 copies of informational submittals to the COR. Selected informational submittals may be submitted electronically as provided in Contract Section F.
3. Categories of Required Informational: Submittals include, but are not limited to:
 - a. Submittals related to temporary facility layout and construction.
 - b. General and special reports, including minutes of meetings, safety and accident reports, shipping logs, security regulation compliance reports, etc.
 - c. Progress reports, including regular submission of the RFI log, submittal register, manpower requirements, project progress documentation, etc.
 - d. Inspection and test schedules and reports, including quality control documentation, related certifications of compliance, field samples and mockups, surveys and measurements, and other field engineering submissions.
4. Administration / Information / Other (ADx) Type Coding:
 - a. AD1, Inspection Reports: Each report shall be properly identified.
 - b. AD2, Factory Test Reports: A written report reflecting the findings of required tests performed by the Contractor on the actual work or a prototype prepared for this Project before it shipped to the Project Site. The report shall be signed by an authorized official of the testing laboratory and shall state that the test was performed in accordance with test requirements. The report shall outline the test results and indicate whether the material, product, or system passed or failed.
 - c. AD3, Field Test Reports: A written report which includes findings of tests performed at the Project Site, on a sample taken from the Project Site, or on a portion of the work during or after installation. The report shall be signed by an authorized official of the testing laboratory or agency and shall state that test was performed in accordance with test requirements. The report shall outline the test results and indicate whether the material, product, or system passed or failed.
 - d. AD4, Other Administrative Submittals: Other administrative submittals not included in the above categories.

E. CLOSEOUT SUBMITTALS

- a. Refer to Section 017705, *Closeout Procedures* for Record Document submittals.
- b. Closeout (COx) Type Coding:
 - 1) CO1, Record Document Submittals: Specific requirements for recording as-built drawings and project coordination drawings are identified in Section 017705, *Closeout Procedures*.
 - 2) Reserved.
 - 3) CO3, Warranties: Specific warranties required for portions of the work
 - 4) CO4, Spare Parts: Spare parts and extra stock

3.05 GOVERNMENT SUBMITTAL REVIEW

A. General:

1. Review Period:
 - a. The Government 's review period for construction submittals (including RFIs) is thirty (30) calendar days following the Government's receipt of a submittal, unless specified otherwise in the Contract documents.
 - b. The Contractor shall submit construction submittals in accommodation of the full review period and prior to the planned commencement of the procurement and work activity.
 - c. No work shown on the submittals shall be executed within the review period without prerequisite acceptance by the COR.
2. Submittals will be reviewed only for general compliance with intent of Contract Documents and with information given therein. Government acceptance will not:
 - a. Relieve the Contractor of the responsibility for patent or latent errors and omissions, including details, dimensions, material, etc.
 - b. Authorize a departure from the details appearing on accepted construction specifications and drawings.
3. The Government will have unlimited rights to all drawings, specifications, notes and other work developed in the execution of the works, upon acceptance of each submittal, and upon receipt of "For Information Only" submittals.

B. Submittal Disposition: Pursuant to the submittal review, COR will mark submittals as follows:

1. ACCEPTED AS SUBMITTED (AS): Authorizes the contractor to proceed with the work covered.
2. ACCEPTED AS NOTED (AN): Authorizes the contractor to proceed with the work covered provided he takes no exception to the corrections noted.
3. FOR INFORMATION ONLY (IO): Indicates the submittal is for information only.
4. REJECTED; RESUBMIT (RR):
 - a. Indicates the submittal does not meet the Contract's intent or corrections are required of the proposed work's defects or deficiencies as represented by the submittal.
 - b. The Contractor shall not proceed with the purchase, fabrication, delivery, or other related execution of the work until acceptance is granted.
 - c. The Contractor shall not allow the use of rejected submittals and materials.
 - d. Correction of noted defects or deficiencies shall be resubmitted for the Government's acceptance.
 - e. The Contractor shall bear all risk in the submittal-rejection-re-submittal cycle. Submittal rejection will not justify extension of Contract duration.

5. The disposition of each submittal will be reflected in the Submittal Register in ProjNet. The presence of the disposition status in e-Submittal will constitute notification of disposition to the Contractor.

3.06 SUPPLEMENTS

- A. The supplements listed below, are a part of this Specification:
 1. Material/Product Substitution Request Form.
 2. Sample Submittal Register
 3. Sample Submittal Form

MATERIAL/PRODUCT SUBSTITUTION REQUEST FORM - (D/B CONTRACT)

Date: _____

Project: _____

A/Es of Record: (enter appropriate Architect and Engineer of Record of the Design/Bid/Build Contract Documents)

Architect of Record

Mechanical Engineer
of Record

Electrical Engineer
of Record

Fire Protection Engineer
of Record

Contractor: _____

Within 30 days after the construction NTP, this formal request will be considered for substitution of products specified as minimum standard. After the end of this period, substitution requests will be considered only if the specified product or material is no longer available or deemed unsatisfactory for the intended function.

Specified Material/Product _____

Specification Division – Section _____

Specified Manufacturer/Origin _____

Proposed Substitution _____

Proposed Manufacturer/Origin _____

Proposed Supplier/Source _____

Attached hereto are the specification, data, performance documents and standard laboratory test results supporting the product substitution.

The following criteria has been taken into consideration

- The use of this material/product is applicable to this product in the prescribed location and will be warranted in the same manner as the specified product for a period of ___ years, when applied and used as per the manufacturers guidelines.
- The substitution of this product will not affect the dimensions shown on the drawing in any way.
- This product substitution will not affect the work of other trades working on this product.
- This product will not affect the expected Commissioning Functional Performance Test results.

The advantages of incorporating the proposed substitution into this Project are as follows: _____

Submitted By: _____ of _____

This completed form is to be sent to COR with the required submittal.

**SECTION 013525
CONSTRUCTION SAFETY AND OCCUPATIONAL HEALTH**

PART 1 GENERAL

1.01 SUMMARY

- A. This Section specifies Contractor responsibilities for providing safety and occupational health for all persons authorized to be at the project site and protection of property on and adjacent to the project site. The Contractor is responsible for ensuring subcontractor compliance with the safety and occupational health requirements contained in this specification.

1.02 RELATED DOCUMENTS

- A. Other general provisions of the Contract, including Federal Acquisition Regulation (FAR) clauses by reference or as amended in Contract Sections B through J, Contract Drawings and Technical Specifications and other Division 1 Sections of these Contract Specifications apply to requirements of this Section.

- B. Regulations and Standards: One or more clauses by reference in this document will have the same force and effect as if the full text was contained. Governing regulations and specific technical safety and health requirements for work performed at the project site and incorporated into this construction safety and occupational health program include compliance with:
 - 1. U.S. Army Corps of Engineers (USACE) Safety and Health Requirements Manual, EM 385-1-1 dated 30 November 2014. This document is available at the U.S. Government Printing Office, Washington D.C.
 - 2. U.S. Department of State Foreign Affairs Manual 15 FAM 960, Safety Health and Environmental Management Program, with latest changes.
 - 3. NFPA Code 241, Standard for Safeguarding Construction, Alteration, and Demolition Operations.
 - 4. ANSI A10 Series Standards for Safety Requirements for Construction and Demolition.
 - 5. NFPA Code 51B, Standard for Fire Prevention during Welding, Cutting, and Other Hot Work.
 - 6. NFPA 70, National Electrical Code
 - 7. Title 48 - Federal Acquisition Regulations System: Chapter 6, DOS, Part 652.236-70 (Accident Prevention).
 - 8. Title 48 - Federal Acquisition Regulations System: Part 52.236-13 (Accident Prevention).
 - 9. U.S. Occupational Safety and Health Standards (OSHA) Temporary Labor Camp Standards – 1910.142, if applicable.
 - 10. Department of State, Office of the Procurement Executive, PIB # 2015-05, Combating Trafficking in Persons.

1.03 DEFINITIONS

- A. Refer to Appendix "Q" of EM-385-1-1 for definitions of all safety-related terms specifically, Government Designated Authority, Hazard, Activity Hazard Analysis, Position Hazard Analysis, Qualified Person, and Confined Space.
- B. Lavatory: A basin or similar vessel for washing hands, arms, face and head. Sixty (60) centimeter diameter (24 inch) basin rims shall be equal to one lavatory.
- C. Toilet Facilities: Enclosures containing one or more toilet fixtures or commodes for the purpose of defecation, urination, or both.
- D. Urinal: A toilet fixture maintained within a toilet room for the sole purpose of urination.
- E. Competent Person Safety: One who can identify existing and predictable hazards in the working conditions that are dangerous to personnel and who has authorization to take prompt corrective measures to eliminate them.
- F. Competent Person for Confined Space: A person with thorough knowledge of OSHA's Confined Space Standard, 29 CFR 1910.146, designated in writing by the employer to be responsible for the immediate supervision, implementation and monitoring of the confined space program, who through training, knowledge and experience in confined space entry is capable of identifying, evaluating and addressing existing and potential confined space hazards and who has the authority to take prompt corrective measures with regard to such hazards.
- G. Competent Person for Excavation/Trenching: A person meeting the competent person requirements as defined in the definitions of EM 385-1-1 and 29 CFR Part 1926, who has been designated in writing, by the employer, to be responsible for the immediate supervision, implementation and monitoring of the excavation/trenching program, who through training, knowledge and experience in excavation is capable of identifying, evaluating and addressing existing and potential hazards and, who has the authority to take prompt corrective measures with regard to such hazards.
- H. Competent Person for Fall Protection: A person designated in writing by the employer to be responsible for the immediate supervision, implementation and monitoring of the fall protection program, who through training, knowledge and experience in fall protection and rescue systems and equipment, is capable of identifying, evaluating and addressing existing and potential fall hazards and, who has the authority to take prompt corrective measures with regard to such hazards.
- I. Qualified Electrician: One who has received training in and has demonstrated skills and knowledge in the construction and operation of electrical equipment and installations and the hazards involved. This includes the skills and techniques necessary to distinguish exposed live parts from other parts of electrical equipment to determine voltages and clearances necessary for the safe execution of the work.

1.04 SUBMITTALS

- A. The Contractor shall submit, in accordance with Section 013305, Construction Submittals, the following:
1. Resume of the proposed Safety and Health Program Manager (SHPM) for review by the COR.
 2. A Construction Accident Prevention Plan (CAPP).
 - a. Acceptance is a prerequisite for beginning construction activity at the project site.
 3. Submit a Fall Protection and Prevention Plan with the CAPP, and update every six (6) months, and at other times as fall protection requirements and conditions related thereto change.
 4. Activity Hazard Analysis: Before beginning each work activity involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or sub-contractor is to perform the work, the Contractor(s) sub-contractors performing that work activity shall prepare an AHA. AHA's shall define the activities being performed and identify the work sequences, the specific anticipated hazards, site conditions, equipment, materials, and the control measures to be implemented to eliminate or reduce each hazard to an acceptable level of risk. Work shall not begin until the AHA for the work activity has been accepted by the COR and discussed with all engaged in the activity, including sub-contractors, and at preparatory and initial control phase meetings. The names of the Competent/Qualified Person(s) required for a particular activity (for example, excavations, scaffolding, fall protection, and other activities as specified by EM 385-1-1 shall be identified and included in the AHA. Proof of their competency/qualification shall be submitted to the COR for acceptance prior to the start of that work activity. The AHA shall be reviewed and modified as necessary to address changing site conditions, operations, or change of competent/qualified person(s).
 5. Heat Stress Plan: Projects in African, Middle Eastern and South Asian countries where ambient temperatures above 40 degrees Celsius are the norm during the year the contractor will submit a plan as to how they will mitigate the dangers of heat stress at all times with an emphasis on regular hydration and periods of rest.
 6. Hazardous Work Permit Requests.
 7. Material Safety Data Sheets (MSDS). Refer to requirements of USACE EM 385-1-1.
 8. Minutes of all safety related meetings at the project site between the contractor and subcontractors.
 9. Records of Safety and Health Inspections: The Contractor shall make records of inspections available to the COR.
 10. Accident Investigation Report: Report within 24 hours of each accident. The Contractor shall report/submit an accident/incident on Form DS 1663 for all accidents that require medical attention beyond first aid. This will include all incidents that meet the OSHA definition of "Recordable Incidents".
 11. Potable Water Documentation: On a monthly basis, substantiation that potable water is safe for human consumption.
 12. As part of the U.S. Government's requirement that the Government report, each year, to the U.S. Department of Labor Occupational Safety & Health

Administration (OSHA) injury and illness rates and occupational health statistics the following is required as part of the contractors submittal requirements:

- a. As part of the contractor's monthly progress report to Government on the status and progress of the work, the contractor shall include the total number of hours worked during the previous month for all employees at the project site in the employ of the contractor and all sub-contractors. The contractor shall also include the cumulative total from the start of the calendar year up to the most current month.
- b. Failure to provide this information will result in the COR retaining funds from the monthly progress payment until an accurate submittal of worker hours both monthly and cumulatively has been received.

1.05 SAFETY OFFICIALS

A. Safety and Health Program Manager (SHPM)

1. Prior to commencing on-site construction activities, the Contractor shall assign a qualified full-time SHPM whose duties shall be effective implementation, coordination, and enforcement of the Construction Accident Prevention Plan (CAPP). The SHPM shall be on-site at all times when work is being performed. The SHPM shall report to a senior project, or corporate, official of the company.
2. The Contractor shall provide an SHPM for the duration of the contract. Notices posted at the project site shall name the SHPM and describe the authority and responsibility held by the position.
3. The SHPM shall meet the following qualifications:
 - a. Speak English
 - b. Completed the 30 hour OSHA construction safety class.
 - c. Three (3) years of experience as a safety manager on similar projects. Further the SHPM shall be fully knowledgeable regarding all sections in the latest edition of the U.S. Army Corps of Engineers Safety & Health Requirements Manual EM385-1-1 that are relevant to Government construction site operations. The SHPM shall be qualified/cognizant to anticipate, identify evaluate, and implement corrective action through activity/worker hazard analysis, worker training, proactive oversight of construction operations to abate or reduce potential safety and health hazards and dangerous environmental exposures.

- ### B. Assistant:
- Project sites with non-English speaking workers shall have a person(s), fluent in the language(s) spoken as well as English, on site when work is being performed, to interpret and translate as needed. Therefore the SHPM shall have a full-time local hire for translation and field support as necessary.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. For the duration of construction, the Contractor shall implement and manage a comprehensive safety and health program covering both existing and developing conditions.
- B. The COR, as the Government Contracting Officer's Representative, reserves the right to suspend work when and where the Contractor's safety and health program is operating in an inadequate manner, has severe shortcomings, or is not in compliance with contractual requirements. This will include failures to complete required submittals (such as AHAs) within the time periods specified.
- C. Acceptance by the COR will not relieve the Contractor of overall responsibility for compliance with the strict interpretation of all safety and health requirements of the Contract.
- D. A protocol mutually agreed upon by the Contractor and Government, shall be established for the removal of workers and supervisors who repeatedly commit safety violations.
- E. Safety and Health Regulations:
 - 1. The Contractor shall establish and enforce clearly written, definitive rules for all employees and subcontractors at the project site for each unit of work.
 - 2. The Contractor shall prominently post notices in English, the host national language, and third country languages indicating that failure to comply with safety and health regulations may cause immediate termination of employment.
 - 3. The Contractor shall post safety and health rules at the project site and provide a copy to the Project Manager for each subcontractor prior to the commencement of work.
- F. Joint Safety and Health Committee: Prior to commencing construction activities, the Contractor shall establish a functioning Joint Safety and Health Committee that includes management or supervisory personnel who are responsible for the on-site execution of the work.
 - 1. The Joint Safety and Health Committee, chaired by the SHPM, shall meet bi-monthly or more frequently as needed to:
 - a. Coordinate management of safety and health activities and actions for effective protection.
 - b. Determine implementation of new safety and health measures related to forthcoming construction activities.
 - c. Anticipate and analyze potentially hazardous conditions and implement safe and healthy solutions.
 - d. Perform Activity and Job Hazard Analysis for work activities involving unusual construction operations, work practices, or work involving

- hazardous materials. Develop methods and procedures to reduce identified hazards to greatest extent possible.
- e. Review the Fall Protection and Prevention Plan.
- f. Review temporary electrical plans.

G. Inspections

1. Identified safety and health issues and deficiencies, and the actions, timetable, and responsibility for correcting the deficiencies, shall be recorded in inspection reports. Conduct and document follow-up inspections to ensure correction of any identified deficiencies.
2. The SHPM shall establish a safety and occupational health deficiency tracking system that lists and monitors the status of safety and health deficiencies in chronological order. The list shall be updated daily, and shall 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.
3. Using qualified personnel, the Contractor shall conduct and document frequent safety, health, and housekeeping inspections of temporary structures, fabrication shops, machinery, and equipment at the project site. Documentation shall include information in paragraph 2 above.

H. Accident Investigation:

1. The Contractor shall investigate and prepare a separate accident report for each incident resulting in lost time, medical treatment beyond first aid, disabling or fatal injuries, or damage to vehicles, property, materials, supplies, furniture, fixtures, and equipment.
2. The Contractor shall prepare reports on forms supplied by and in accordance with the instructions of the COR.
3. Except as may be otherwise requested by the COR, the Contractor shall report on Form (3-92) DS-1663 (related instruction sheet shall be available from the COR).
4. In each report, the Contractor shall include a statement of Contractor actions taken to prevent recurrence.

I. Near Miss Reporting

1. The Contractor shall establish a program to report and record, "near miss" incidents and unsafe acts that resulted or could have resulted in damage to equipment, machinery or property or had the effect of potentially causing an injury or fatality.
2. The Contractor shall in a timely manner identify and investigate the root causes of each incident or unsafe act and follow up to prevent reoccurrence.
3. The Contractor shall provide instruction to supervisors and workers on how to report "near miss" incidents and unsafe acts.

4. The Contractor shall share near miss incidents and unsafe acts with all employees at the project site by informing them at weekly tool box meetings how the incident or unsafe act occurred and what actions are being taken to prevent reoccurrence.
- J. Hazardous Materials: The Contractor shall test any material encountered suspected to contain hazardous substances and bring to the immediate attention of the COR. If, in the opinion of the COR, the Contractor is not conducting sufficient testing, more may be required.
- K. Hazardous Work Permits: The Contractor shall prepare written requests and obtain permits to perform the following construction operations:
1. Hot Work: Includes all work that results in an open flame such as welding, cutting, brazing, and burning. Effective fire protection and prevention shall be provided at all times during such operations.
 2. Confined Space Entry: Includes work in enclosed areas such as storage tanks, bins, sewers, in-ground vaults, boilers, vessels, tunnels, manholes, and pits.
 3. Internal Combustion Engines: Includes use of trucks, forklifts, pumps, or generators powered by petroleum-based fuel when used inside a building, structure, or confined space.
 4. Explosive Actuated Tools: Includes power-charged tools manufactured by Hilti, Remington, Ram Set, and others used for fastening purposes.
 5. Explosives (if applicable): Follow all applicable U.S. and local government regulations. In all cases close coordination with controlling officials shall be effected.
- L. Protective Clothing and Equipment (PCE): The Contractor shall issue personal protective clothing and equipment as required by EM 385-1-1. Leather boots, coveralls and high visibility vests must be worn by all employees engaged in construction work at the project site. All items (PCE) shall be maintained in a serviceable condition.
- M. Safety and Health Training:
1. General Orientation: The Contractor shall provide an orientation for new employees regarding safety, health policies and work rules.
 2. Specific Training:
 - a. The Contractor shall provide specific training to supervisory personnel and all workers of the Contractor and subcontractors regarding the proper use and care of specific personal protective gear, equipment, and clothing.
 - b. The Contractor shall provide specific training by competent and qualified personnel regarding the proper use of the full body harness and lanyard attachments. This training shall be provided to all workers performing tasks at elevations above 10 feet.
 - c. Contractor and subcontractor employees shall be trained and supervised by persons qualified to perform, safely and confidently, recognized hazardous work operations and work performed with hazardous conditions.

- N. Tool Box Meetings: The Contractor shall conduct weekly safety meetings. The Contractor shall require attendance by all workers, foremen, and supervisors at the project site, including those of separate contractors. The Contractor shall discuss current construction operations, analyze hazards, and communicate solutions.

3.02 CONSTRUCTION ACCIDENT PREVENTION PLAN (CAPP)

- A. Prior to beginning work at the project site, the Contractor shall prepare and submit to the COR, a site-specific CAPP covering all construction activities for the Contractor and all subcontractors. The CAPP shall address the phasing and implementation of the complete safety, health, hygiene, and accident prevention program beginning with the first day of activity on the Site. The CAPP shall be coordinated with the Site Utilization Plan. Throughout the duration of the Project, the Contractor shall follow the accepted CAPP (or as revised with prior approval of the COR).
- B. The CAPP shall contain:
 - 1. Management and Corporate Commitment: The Contractor shall include a certified statement in the introduction, executed by a senior officer of the construction firm having broad corporate authority, indicating full commitment to the accepted CAPP and the level of authority in assignment of responsibilities at the project site.
 - 2. Name, qualifications and duties of SHPM.
 - 3. Concept of the Joint Health and Safety Committee, its makeup, and functions.
 - 4. Requirements and details for conducting meetings and inspections.
 - 5. Activity and Position Hazard Analyses: The procedure for preparation and approval prior to proceeding with work involving unusual construction operations, work practices, or hazardous materials. The Contractor is encouraged to teach and assign site supervisors the responsibility to develop the AHAs and PHAs.
 - 6. Hazardous Work Permits: The procedure for preparation and approval prior to proceeding with work deemed hazardous.
 - 7. Safety and Health Training: The procedures for implementing training and orientation.
 - 8. Fall Protection and Prevention Plan: The Contractor shall incorporate into the CAPP a site specific Fall Protection and Prevention Plan for personnel exposed to fall hazards and using fall protection equipment.
 - 9. Emergency Plan: The Contractor shall solicit advice and recommendations from the COR, Site Security Manager, and Regional Security Officer (RSO) in preparation of the Emergency plan to include:
 - a. Escape procedures and routes, method of accounting for employees following emergency evacuation, identification of source and location for rescue and medical assistance, means of reporting emergencies, and persons to be contacted for information or clarification.
 - b. Emergency Resources - Establish jointly with the Government, a list of telephone numbers and locations of ambulance, physician, hospital, fire, police, and other sources of emergency assistance. This list shall be posted conspicuously in several locations on the project site.

- c. Emergency communication-wireless telephone service shall be the preferred method of emergency communications. Emergency communication access shall be available to Site medical personnel and the nearby medical clinic or hospital.
- d. Quarterly Testing - Coordinate with the COR for quarterly tests of the emergency plans using drills to ascertain and ensure effectiveness.
- e. Integration of on-site emergency planning with off-site emergency support.
- f. Limit the number of persons permitted in any location to rescue and escape capability, as determined by the Contractor and in concurrence with the COR.
- g. Emergency Alert System - Identify, select, install, and test the system to alert all persons likely to be affected by existing or imminent disaster conditions, and to alert and summon personnel and equipment comprising emergency response capability.

3.03 TOOLS, EQUIPMENT, AND MACHINERY

- A. Quality: Hand tools, power tools, equipment, machinery, materials, and personal protective apparatus utilized by the Contractor and all subcontractors shall be of a manufacturer listed by a U.S. or internationally recognized testing laboratory for the specific application for which they are to be used. They shall be quality products recognized for professional construction use, applications, and work practices.
- B. Safe Clearance Procedure: Prior to initial use, and periodically thereafter at times of continued use, the Contractor shall provide inspections of construction tools, equipment, and machinery. The Contractor shall not permit continued use of tools, equipment, and machinery that are not in satisfactory working condition. Immediately upon identification of damage or malfunction, the items shall be tagged and removed from the project site. The Contractor shall not allow the return of items until they have been repaired or reprocessed in compliance with industry practice. The Contractor shall engage qualified persons to make such inspections and repairs. The Contractor shall prepare written records, including recommendations for corrections of defects and misapplication.
- C. Machinery and Mechanized Equipment:
 - 1. Prior to use, all machinery and mechanized equipment shall be inspected and tested by qualified personnel and certified to be in safe operating condition. Records of tests and inspections shall be maintained at the project site and become part of the official Project file.
 - 2. Tower cranes, crawler cranes, truck and wheel mounted cranes, and material hoists shall be erected, tested, maintained, and repaired in accordance with the manufacturer's recommendations. All such actions shall be documented. Operators of vehicles and mechanized equipment must be trained and certified. Every person operating a motor vehicle shall possess at all times, a license or permit certification that affirms valid qualifications for the equipment being operated. See Section 16 of the USACE manual for heavy mechanized equipment.
 - 3. The Contractor shall have tower cranes inspected quarterly by entities accepted by the manufacturer. The inspection shall ensure operation and

structural integrity in accordance with manufacturer's recommendations (see EM 385-1-1, latest edition).

4. Hoisting Equipment: The Contractor shall provide a general-use manufactured apparatus for hoisting and material handling that is suitable for project configuration. The equipment shall be sufficient for the number of stories and the handling of materials, fabrications, tools, equipment, work platforms, and, the transportation of crafts persons between grade and floor levels (see EM 385-1-1, latest edition).

D. Electrical Work

1. As part of the contractor's project site Joint Safety and Health Committee the contractor will establish an Electrical Subcommittee to provide qualified professional support to the projects electrical work. The objectives and responsibilities of the Electrical Subcommittee are to:
 - a. Prevent electrical related injuries
 - b. Implement proactive controls to guard against anticipated and potential hazards.
 - c. Implement electrical safety training and electrical hazard awareness programs.
 - d. Ensure compliance with US Army Corps of Engineers Safety & Health Requirements Manual EM385-1-1 November 2014 Section 11 "Electrical"
 - e. Ensure that all temporary electrical equipment is installed, operated and maintained to eliminate electrical safety hazards.
 - f. Ensure that electrical installations and electrical apparatus are installed and inspected by qualified electricians using approved equipment and PPE.
 - g. Ensure that only qualified electricians who have been properly briefed on the work to be performed through an Activity Hazard Analysis, have the authorizations, permits and permissions to proceed under professional supervisory personnel.
 - h. Not permit any energized work to be performed unless an Energized Work Permit has been initiated and approved accompanied by a detailed Activity Hazard Analysis (AHA) of the work to be performed. Only permit energized work under extraordinary circumstances and then only as a last resort. In addition no person shall be required, against their will, to work on, in, or around any energized conditions.
 - i. Provide and or initiate electrical safety training
 - j. Ensure the effective oversight of temporary electrical service installations, maintenance and inspections.
 - k. Establish, maintain, and review an effective Lock Out/ Tag Out Program
 - l. Assess overall electrical safety performance on a quarterly basis thru audits, inspections, and reviews of electrical work permits, accidents and near misses
 - m. Maintain the records of qualified electricians, records of inspections, electrical energized work permits, AHA's, and Lock Out /Tag Out permits

E. Walking and Working Surfaces and Elevated Work:

3. Scaffolding:
 - a. Shall be a standard, medium to heavy-duty welded tubular frame or a project-designed steel tube and clamp system.
 - b. All components of scaffolding shall be manufactured and tested according to international standards.
 - c. All types of manufactured scaffolding systems shall include the scaffold manufacturer's integrated access stairway sections, handrails, and walking platforms.
 - d. Components from different manufacturers shall not be interchanged or integrated within a given system.
4. Cast-in-place concrete installations of walls, columns, beams, and slabs:
 - a. The Contractor shall provide manufacturer's standard access scaffolding and work platforms which are an integral part of a pre-engineered, reusable, factory-built concrete forming and shoring system.
 - b. The system shall consist of pre-fabricated modular metal framed plywood or all metal panels.
 - c. Components from different manufacturers shall not be interchanged or integrated within a given system.
5. Fall Arrest Components:
 - a. Harnesses with a twist style locking device are forbidden.
 - b. The Contractor shall provide harnesses with snap-hooks or carabiner that are self-closing, self-locking and capable of being opened by at least 2 consecutive deliberate actions per EM 385-1-1, paragraph 21.1.07.c.(1).
6. Floor Openings:
 - a. The Contractor shall protect openings in floor slabs of more than 0.03 square meters (46 square inches) in area.
 - b. When located more than 1.25 meters (4 feet) above grade or adjoining floor or deck surface, the Contractor shall provide guardrails at floor slab edges that are not yet permanently walled off.

F. Access and Egress:

1. The Contractor shall provide ramps, stairs, ladders, and similar devices for crafts persons, inspectors, authorized visitors, and Government personnel for access and egress.
2. The use of job-made "portable" step ladders is prohibited. Contractors must provide commercially manufactured fiberglass stepladders that meet the American National Standards Institute (ANSI) Type II, Commercial 225-lb duty rating.

G. Noise Reduction:

1. The Contractor shall minimize the generation of noises through the efficient and shielded use of materials, tools, processes, and procedures.
2. The Contractor shall restrict the use of noise or impact-producing tools.
3. The Contractor shall use these and other actions to minimize complaints from nearby occupancies and comply with requests of local authorities.

3.04 SITE MAINTENANCE, PROTECTION, AND SANITATION

- A. General: The Contractor shall provide indirect, work-related, temporary support facilities and services as described below in conjunction with performance of work at the project site.
1. The Contractor shall comply with the host country governing regulations. These regulations include building codes, fire regulations, utility company requirements, health and safety regulations and environmental protection regulations.
 2. Inspections: The Contractor shall arrange for required inspections, certifications, and permits. The COR shall be kept informed of all actions.
 3. The Contractor shall maintain temporary facilities in clean, sanitary, and safe condition. The Contractor shall not allow conditions to become overloaded, hazardous, or otherwise deleterious.
- B. Fire Protection:
1. Except as otherwise indicated, the Contractor shall expedite, complete, and place into service permanent fire protection system and equipment.
 2. Prior to the time permanent facilities are placed into service, the Contractor shall provide temporary fire protection facilities adequate for conditions at the project site.
 3. Where possible, the Contractor shall arrange with the COR and local fire department to respond to calls for assistance and service in cases of fire emergency.
 4. The Contractor shall provide temporary portable fire extinguishers, complying with applicable provisions of NFPA 10, Standard for Portable Fire Extinguishers, multi-purpose dry chemical type, 5.0 kg size, UL-rated "4-A:60-B:C." The Contractor shall maintain unobstructed access to fire extinguishers at each prime point of access to each story of construction and at each principal office, lunch room, fabrication shop, storage enclosure, gate, guard house, and similar temporary facility at the project site.
 5. The Contractor shall prohibit smoking, except in designated areas identified by the COR.
 6. During welding, cutting, and burning, the Contractor shall comply with NFPA 51B in areas of fire-hazard exposure. The Contractor shall provide stand-by fire-protection personnel and adequate supervision of operations.
- C. First Aid Medical Facility Requirements:
1. The Contractor shall provide a first aid kit for every 25 (or fewer) employees. A health care professional or competent first aid person shall evaluate and determine the fill contents of each kit.
 2. The Contractor shall provide, place, and test periodically one (1) Automatic External Defibrillator (AED) in the Contractor's project site office, and one (1) in the first aid station on-site. A CPR/AED training program shall be given by competent and qualified individuals to two (2) persons at each location who shall receive certification in first aid and CPR from the American Red Cross, the American Heart Association, or from an organization whose training adheres to the standards of the International

Liaison Committee on Resuscitation. CPR/AED training shall contain a hands-on component. A certificate shall state the date of issue and length of validity.

D. Barricades, Closures, and Traffic Control:

1. The Contractor shall provide substantial barricade-type closures and guard rails at locations where encroachment of a physically hazardous condition in construction is possible. The closures and guard rails shall protect equipment, tradespersons, and others at or adjoining the project site.
2. The Contractor shall provide a sidewalk bridge-type protective structure where vehicular and pedestrian traffic cannot be excluded from hazardous areas under and nearby overhead work in progress.
3. The Contractor shall provide appropriate warning signs, flashing warning lights, and adequate general lighting at barricades. The barricades are not intended to be crash-proof.
4. The Contractor shall maintain barricades through periods of exposure to hazardous conditions.

E. Roadways, Walkways and Parking:

1. The Contractor shall establish safe roadways and walkways in and around the project site and connecting adjoining public thoroughfares.
2. The Contractor shall provide signage and other markings including traffic control signage and signals as necessary and useful in controlling and restricting traffic from passing through other areas. The Contractor shall cooperate with local officials in the establishment and adjustments of street entrance and exit signals and signs.
3. The Contractor shall not allow established traffic passages to become encumbered or obstructed with work activities, materials, parked vehicles, equipment, and similar elements. In particular, the Contractor shall keep established entrance and exit passages clear for medical emergencies, escape, fire fighting, and other emergency access and egress.
4. Parking: Privately owned vehicles are prohibited from entering the construction site or interfering with construction activities.

F. Environmental Protection: The Contractor shall provide facilities and services as required by governing authorities to protect the environment. The Contractor shall minimize the accumulation of wastes and avoid environmental pollution. The Contractor shall prohibit the discharging and accidental loss of substances from the construction process that could contaminate the atmosphere, surface or ground water, soil, or subsoil.

G. Excavation and Demolition:

1. Prior to commencement of excavation or demolition, the Contractor shall give notices to adjoining landowners or other parties as required.
2. The Contractor shall review and comply with EM 385-1-1 Section 23 "Demolition" and OSHA 1926 Subpart T.
3. Before excavation or demolition, the Contractor shall examine the structural condition of all adjacent structures or infrastructure, on-site and on

adjoining property. Where there is reason to believe planned excavation or demolition shall cause damage to adjacent structures or infrastructure or result in unsafe conditions, the Contractor shall cease excavation or demolition operations until means have been provided to insure stability and safety. Such means may consist of sheet piling, shoring, bracing, underpinning, or the equivalent.

4. Other protective provisions may include, at a minimum, temporary protective coverings or enclosures of adjoining work, warning signs, and similar provisions.
- H. Dust Control: The Contractor shall implement a suitable dust control program in and around the project site, designed to reduce dust generation and distribution to reasonable levels. This program shall be coordinated with the environmental protection program.
- I. Rodent, Pest, and Vermin Control: The Contractor shall employ integrated pest management practices that emphasize avoiding conditions that attract pests to eliminate or minimize pest problems at project site. Eliminate habitats of existing pests and avoid creation of pests common to the area. Use the least hazardous means to reduce pest populations. When pesticides are needed, use only pesticides approved by SHEM and apply them in a targeted manner. Provide pesticide labels and material safety and data sheets for review and approval at least 72 hours prior to planned application on the site.
- J. Potable Water: Where reasonably possible, the Contractor shall provide potable water for all requirements of the construction period. Where and when that is not possible, potable water for drinking and other uses shall be provided where specified. Potable water supplies shall be clearly marked with signage in multiple languages as appropriate for the Site location. The Contractor shall source potable water from city-controlled piped water, a well on-site, commercially bottled water, or other reliable source. The Contractor shall test and report on a monthly basis that the potable water from all selected sources is safe for human consumption. Piping of temporary potable water systems shall be sterilized prior to use.
- K. Construction Site Sanitation and Health Facilities:
1. Facilities for workers shall be completed and ready to use prior to the work beginning on site.
 2. The Contractor is encouraged to utilize semi-permanent or portable facilities where possible in compliance with the requirements of this Section.
 3. The Contractor shall provide a shaded lunch area.
 4. Toilet Facilities:
 - a. The Contractor shall provide separate facilities for each sex, as required.
 - b. As practicable, locate toilet facilities within sixty-one (61) meters (200 feet) of all locations where work is regularly being performed.
 - c. Design the number of toilet fixtures around the anticipated maximum number of workers at the project site and allow accessibility to all employees.

- d. The construction and installation of toilet facilities shall be acceptable to the COR and shall be in compliance with applicable jurisdictional codes.
 - e. The Contractor shall ensure that the type of toilet and water access (e.g., commode vs. squat toilet) is culturally acceptable to the workforce.
 - f. Each toilet or commode shall occupy a separate compartment or stall equipped with a door and latch.
 - g. Install toilet fixtures, commodes, and urinals such that the space around and behind the fixture can be easily cleaned.
 - h. Label facilities properly in English and the commonly understood local language. Pictograms shall be used.
 - i. Provide hand-washing lavatories in close proximity to all toilet facilities
 - j. Maintain an adequate supply of toilet paper and paper towels at all times.
 - k. Comply with the requirements of the authority having jurisdiction for sewage disposal. Where non-sewer waste disposal systems are permitted, they shall be of a type accepted by the local health authorities having jurisdiction. Maintain all disposal systems in a sanitary condition.
5. Drinking Fountains and Dispensers:
- a. The Contractor shall provide an adequate number distributed around the project site and service support areas for convenience and efficiency. An adequate supply of sanitary disposable paper cups and waste receptacles shall be maintained at each water dispenser.
 - b. The Contractor shall provide bottled drinking water where piped potable water service is not available.
6. Waste Handling and Janitorial Services:
- a. The Contractor shall provide proper and adequate segregated waste containers for the collection and removal of waste materials in different categories. These categories include, but are not limited to, hazardous wastes, flammable wastes, sanitary and health-care wastes, garbage, wastes for recycling as required by local authorities, inert and dry wastes, and incidental debris from the construction process.
 - b. The Contractor shall dispose of general non-organic wastes at maximum seven (7) day intervals.
 - c. The Contractor shall dispose of organic, garbage, and similar temperature-sensitive wastes at maximum three (3) day intervals when the average outdoor daily maximum temperature can be expected to be above 18°C.
 - d. The Contractor shall clean waste containers regularly and adequately.
 - e. The Contractor shall dispose of wastes in a lawful manner.
 - f. The Contractor shall maintain a Site clean and clear of accumulated wastes, including surplus materials, trimmings, incidental demolished work, and construction debris. The Contractor shall clean completed elements and portions of work and maintain in broom-clean condition.
 - g. Janitorial Services:
 - 1) The Contractor shall provide on a daily basis, including restocking of disposable products, for the maintenance of temporary offices, security spaces, toilets, first aid rooms, lunch areas, and similar facilities.
 - 2) Toilet and first aid room fixtures and floors and walls of shower rooms shall be scrubbed daily.

- 3) The Contractor shall provide weekly cleaning, damp mopping, or vacuuming for other floors, as applicable.
- 4) The Contractor shall provide monthly washing of windows and cleaning of other walls, ceilings, light fixtures, and similar facility surfaces.
- 5) The Contractor shall extend janitorial services to include permanent facilities as authorized for use at temporary facilities.

END OF SECTION

SECTION 013550

CONSTRUCTION SECURITY

PART 1 GENERAL

1.01 SUMMARY

- A. This Section and its attachments provide explanation to the Contractor regarding labor requirements and the security of project information. The requirements of this Section involve interface with several security-related Government entities. These entities are coordinated through the USAID's Contracting Officer's Representative (COR) and Contracting Officer (CO). The requirements include, but are not limited to:
 - 1. General security procedures.
 - 2. Information security.
 - 3. Personnel procedures.
 - 4. Labor requirements for specific activities.
 - 5. Site access procedures.
 - 6. Inspections by the Government.
 - 7. Miscellaneous security requirements.
 - 8. Prohibited and restricted items and activities.

1.02 RELATED DOCUMENTS

- A. Other General provisions of the Contract apply to requirements of this Section. This Section in turn applies to the Contract Drawings and Technical Specifications.

1.03 DEFINITIONS

- A. Refer to Chapter 2 of the OBO International Codes Supplement (OBO-ICS), IBC for definitions of all Contract-related terms and specifically, General Construction, Finish Work, General Work Area (GWA), Public Access Area (PAA), and Limited Access Areas (LAA).
- B. For all terms not understood, request immediate clarification.

1.03 PERFORMANCE REQUIREMENTS:

- A. The Contractor must comply with the Government's requirements for participating in the Project security procedures as specified in this and subsequent Contract Sections. The Contractor must also comply with requirements requested subsequent to issuance of the Notice to Proceed (NTP) by the CO. The Contractor shall afford unrestricted access to work, allow surveillance and inspection by any Government personnel as authorized by the COR or CO, and perform required security work when directed by COR. The Contractor shall maintain security, avoid the compromise of project information caused by unauthorized disclosures, and obtain appropriate security checks.

1. As noted in the Prohibited Countries List Matrix below, the following restrictions apply:
2. Citizens/Firms from the countries listed will not be allowed or used on this Project in any capacity.
3. Non-US or US firms owned or operated by citizens/firms from the countries listed will not be allowed or used on this Project in any capacity.

Prohibited Countries List Matrix	
Country	Citizens/Firms
Belarus	No
Cuba	No
Iran	No
North Korea	No
Peoples Republic of China	No
Russia	No
Venezuela	No
Vietnam	No

General Policy: The use of host country workers from or within the countries listed is permitted for projects in that country. Refer to the FAR for additional information concerning prohibited countries.

List Revised: November 5, 2018

- B. USAID reserves the right, in its sole discretion, to determine suitability of Contractor personnel at the Project Site or otherwise involved in work related to this Project.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.01 GENERAL SECURITY PROCEDURES

- A. Site Physical and Technical Security Requirements: The existing level of physical and technical security of the Compound shall be maintained throughout the duration of the project. Any temporary physical or technical security features must be submitted to and approved by the COR, in coordination with the RSO and SSC.
 1. The level of technical security must be maintained by providing additional equipment or relocating equipment impacted by construction to always maintain existing coverage.

2. Any temporary openings created in the Compound perimeter wall must be protected with temporary barriers/enclosures that meet the same level of physical security as the original perimeter wall
- B. All security requirements of the Contractor must apply to all personnel on the project site (to include sub-contractor personnel).

3.02 INFORMATION SECURITY

- A. Project Information Handling: See Contract Sections H.15 through H.19, Diplomatic Security Requirements for Safeguarding of Information.

3.03 PERSONNEL PROCEDURES

- A. Uncleared Personnel: Use of uncleared persons is limited to the areas and tasks described in Section 3.04.
1. Uncleared Labor (local labor and third country nationals): Uncleared labor will submit to a background investigation and obtain approval of the COR before access is granted to Project Site or applicable Support Sites. The Contractor must submit an Overseas Vetting Questionnaire to the COR and SSC in sufficient time to permit processing prior to the anticipated date of employment. The estimated investigation processing time is 45 workdays, based on a 5 day work week. Uncleared labor is not authorized on the project site prior to a favorably adjudicated background investigation. If the background investigations have exceeded 45 days, the Contractor can provide a priority list with justification of workers needed and the COR, in coordination with RSO, may approve temporary I.D. badges for temporary uncleared labor.
 2. Uncleared U.S. Citizens: When the contractor wishes to assign U.S. citizens at the project site who do not possess security clearances, the contractor shall meet the requirements of Contract Section H.15. U.S. citizens with unfavorable National Criminal Indices Checks (NCICs) may not be allowed access to the site, subject to determination of COR, in coordination with the RSO.
 3. The Government reserves the right to allow or deny access of persons and firms proposed to perform work or be present at the Project Site.
- B. Uncleared Local/Third Country National Subcontractors: Contractor selection of host and third country national subcontractors must be approved by COR, in consultation with RSO. See Contract Section H.15.4 for requirements.
- C. Special DS Investigation: As determined by the Government's security managers, and as requested through the COR, the Contractor must accommodate additional special investigations as required for foreign nationals and certain categories of other personnel.
- D. Briefings: The Government reserves the right to conduct briefings and debriefings for all persons performing work. Required briefings and debriefings include, but are not limited to, the following:

1. Management personnel are required to attend special security briefings and debriefings concerning reporting requirements on unusual incidents, activities, or information related to Project security as directed by the COR or SSC.
2. Visitors to the Project Site will be required to attend an appropriate security briefing by the COR or SSC or other Post security management personnel.

3.04 SECURITY REQUIREMENTS AND LABOR FOR SPECIFIC ACTIVITIES

- A. All work associated with the project shall be performed by uncleared (e.g., no security clearance) Contractor provided labor. Laborers that do not obtain a Post RSO-approved vetting/security certification are referred to as "Escorted Laborers". US Citizen or Third Country Nationals that have been vetted by Post RSO in accordance with Section H.21 and received RSO authorization to escort are referred to as "Approved Escorts." The Contractor must provide Approved Escorts at a ratio of one (1) Approved Escort to six (6) Escorted Laborers. Escorted Laborers must be escorted at all times while in the Office and Residential Compounds.
- B. Work within the EC Room, TOC and Post must be performed by uncleared Contractor provided labor under surveillance by minimum Secret cleared Government provided labor. The Contractor must coordinate with COR to arrange the Government provided labor. As determined by Post RSO, work in any area may require Government provided surveillance.

3.05 SITE ACCESS PROCEDURES

- A. Access Control Points: The East CAC will serve as the primary vehicular and pedestrian access point for the Office Compound. The North CAC will serve as the primary vehicular and pedestrian access point for the Residential Compound.
- B. All Project personnel will be issued the appropriate badge and must comply with Site access control procedures, as established by the SSC and RSO. In addition to the personnel selection and clearance requirements of the preceding paragraphs in this Section, the following security provisions related to Project Site access operations and procedures must be followed.
- C. Identification Badges: Upon favorable adjudication of each background investigation, the COR or SSC will issue a photo-bearing identification badge, coded to indicate access approval. All personnel, to include cleared American Contractor and sub-contractor personnel, are required to leave their badges at the Access Control Facility prior to leaving the Project Site. Badges will be reissued each day in exchange for depositing an official Government issued photo-bearing identity document or any other form of identification acceptable to the COR. Badges and documents will be exchanged as the employee departs from the Project Site. Employees are required to display badges prominently when at the Project Site.

1. COR and RSO may allow uncleared U.S. citizens for whom the SSC has obtained favorable National Criminal Indices Checks (NCICs) to be badged for unescorted access to the site.
 2. US Citizen Visitors (not workers as listed in paragraph 2 above) without a security clearance, when authorized by the COR to enter the Project Site, will be issued a "visitors badge" and must be continuously escorted by an Approved Escort until departure from the Office and Residential Compounds.
 3. Employees are required to surrender identification badges when access to the Project Site is no longer authorized or needed, or upon demand of the COR.
 4. Continued loss of badges, or failure to comply with required surrender of badges, will, at the COR's discretion, result in denial of access to the Project Site for one working day, at no cost to the Government. Continued failure to comply may result in permanent denial of access to the Project Site, at no cost to the Government.
 5. The Contractor must notify the COR and SSC immediately (no later than 24 hours after termination) of employees no longer employed on the project.
- D. Search Procedures: The Government reserves the right to conduct searches of all personnel and belongings at any time while on the Project Site. All persons entering and leaving the Project Site will be required to pass through a walk-through-metal-detector (WTMD) or screened with a handheld metal detector. All belongings will be screened with an x-ray machine.
- E. After Duty Hours: No Contractor personnel will be permitted access to the Site after normal duty hours without prior written authorization from the COR. All contractor personnel seeking access to the Site after normal working hours will be required to sign in and out of an After-Hours Log.
- F. Visitor Notification: The COR must be notified 14 days in advance of proposed Contractor visits. Visitors will be authorized on a demonstrated need-to-know basis. The COR will approve, disapprove, or qualify each Contractor request in advance of each visit. Contractor Country Clearance Request procedures are detailed in Contract Section H.15. If Contractor Country Clearance Request has not been received prior to arrival IAW H.15, visitors will be treated and escorted by their sponsor as if they are uncleared. In addition, the COR may refuse access to the Site until a Contractor Country Clearance Request has been received.
- G. Vehicle Control: Prior to passing through the perimeter gate(s) vehicles and drivers will be subject to search and inspection. Forty-eight (48) hours advance notice of any delivery arrival times must be provided. Seven days advance notice of deliveries at times other than regular working hours must be provided. Delivery delays are at the Contractor's expense.

3.06 INSPECTIONS BY THE GOVERNMENT

- A. The Government reserves the unqualified and unlimited right at any time to

conduct security-related inspections of the Contractor's work, material, equipment, personnel, and temporary facilities at the Project Site and any off-site support facilities, to include subcontractor offices. Contract Section H.15.11 requires the contractor to provide written notification to COR and SSC of any off-site locations at which project information will be stored.

1. In instances where authorized work must be disassembled, uncovered, or demolished then reassembled, recovered, or rebuilt to accommodate inspection in compliance with construction specifications and security requirements, resultant costs of such actions will be borne by the Government. The Contractor must be responsible for resultant costs when inspected work is found to be non-compliant with Project specifications or where work was performed without Government authorization. The Government reserves the right to suspend operations where unauthorized work has been performed and where introduction or attempted introduction of unauthorized material has taken place.
 2. Reported Violations: Where an indication, report, or observation of unauthorized access or performance of unauthorized work has occurred, the Government reserves the right to suspend operations and deny access until circumstance and work can be investigated, inspected, tested, and resolved. All costs of such stoppages and resolutions must be borne by the Contractor, except when alleged violations, after investigation, are determined not to be in violation of security requirements.
- B. The COR will coordinate for various technical security inspections throughout the construction period. The COR will coordinate all security inspections and technical security system installation teams.

3.07 MISCELLANEOUS SECURITY REQUIREMENTS

- A. Control of Keys and Lock Combinations: Key and lock combination control is essential for Government Project security. Keys must not be duplicated or removed from the Project Site and lock combinations must not be divulged without specific written advanced authorization from the COR or SSC. Such loss of control observed or suspected by the COR or SSC, must result in required lock changes at the Contractor's expense. Duplicate keys and lock combinations shall be provided to the COR and SSC for the purpose of security inspections and emergency actions. Keys and combinations necessary for unrestricted access to all Project areas, on-site and off-site Contractor offices, storage units, and similar locations shall be provided to the COR and SSC. The SSC will assume control of such duplicate keys and combinations.
- B. Contract Section H.15 details the requirements for information and computer security in site-offices and for any electronic media coming on to the site. COR or SSC shall coordinate approval and inspection of information and computer security compliance as appropriate.

3.08 PROHIBITED AND RESTRICTED ITEMS AND ACTIVITIES

- A. Prohibited/Restricted Items and Activities on Project Site include, but are not limited to, the following:
1. Firearms and other weapons, except as specifically authorized by the COR.
 2. Electronic media devices, including radios, recorders, transmitters, receivers, cell phones, cell phones with camera, video or audio recording capabilities, laptop computers, personal digital assistants (PDAs), smart phones (i.e. BlackBerrys, iPhones, etc.), media storage devices (i.e. thumb drives, jump drives, flash drives), and similar items, except for authorized uses as approved by the COR, in accordance with site procedural documentation, and as allowed by Contract Section H.15.
 3. Drugs, including narcotics, barbiturates, marijuana, alcoholic beverages, and similar substances, except for use with a valid medical prescription.
 4. Explosives, except for use in specifically limited amounts and under controlled circumstances for work specified to be performed through use of explosives. Such use requires written prior authorization from the COR. As a hazardous material, the Contractor shall treat the use of explosives in accordance with guidance provided under Section 013525, Construction Safety and Occupational Health.
 5. Cameras, except in accordance with 3.08.B below.
- B. Photography
1. General: The use of photographic equipment and taking of photographs is restricted on and nearby the Project Site, as determined by the COR. Written requests for approval of photography must be submitted well in advance of time intended for such activity, stating reasons, uses and disposition of imaging media. The COR must review photographs and imaging media prior to removal from the site. The Government reserves the right to deny such use and release and limit to authorized purposes and distribution IAW Contract Section H.

3.09 SUPPLEMENTS

- A. The Supplements listed below, following "End of Section," are a part of this Specification:
1. Attachment A - Department of State (DOS) Security Personnel (By U.S. GOVERNMENT).

END OF SECTION

**SECTION 013550
CONSTRUCTION SECURITY
ATTACHMENT A – DEPARTMENT OF STATE (DOS) SECURITY PERSONNEL
(BY U.S. GOVERNMENT)**

1.01 INTRODUCTION

The information provided below complements, but does not replace, information provided in Chapter 2 of the OBO International Codes Supplement (OBO-ICS) IBC. Aside from the COR and CO, who is ultimately responsible for ensuring that construction activities are accomplished in a manner that complies fully with applicable statues and security regulations, the following types of Government security personnel may be further assigned at the Construction Site to support this Project:

- A. REGIONAL SECURITY OFFICER (RSO)
The RSO is the senior security officer for the Post. The RSO provides liaison with local authorities for security outside the Construction Site. If required, the RSO will conduct records checks and appropriate investigations on any local nationals and firms associated with the Project.
- B. SITE SECURITY COORDINATOR (SSC)
The SSC is the designated Government representative responsible to the COR for all construction security related issues at or on Site and is responsible for all Government security planning and Site security matters.
- C. LOCAL GUARD FORCE (LGF)
Local Guards, as approved by the RSO and/or the SSC, may be used at the perimeter and other locations at the construction Site and may be provided through existing Post local guard contracts. The RSO is responsible for the acquisition, supervision, and qualifications of Local Guard Services.
- D. LOCAL POLICE
As appropriate, the SSC, in coordination with the RSO, may request an enhanced presence near the perimeter of the Site by local police throughout the construction period.

NOTE: This Project may or may not require all categories of security personnel.

END OF ATTACHMENT

SECTION 014010

CONTRACTOR QUALITY CONTROL

Part 1 General

1.01 Quality Control

- A. The Quality Control system used during the project construction phase must ensure that the facility meets the contract design, quality and functional standards. To this end the Contractor is required to establish, implement and maintain an effective Construction Quality Control (QC) Plan. The QC Plan shall cover all construction operations both onsite and offsite, and shall be keyed to the proposed construction sequence (definable features of work).
- B. The Construction Quality Control Plan shall include, as a minimum, all quality processes performed by the contractor, subcontractors, fabricators, suppliers, and purchasing agents. ISO 9001:2015 shall be used as a base line for developing the control processes identified in Part 3 (Execution) of this specification.
- C. The Contractor is responsible for quality control and shall establish and maintain an effective quality control system. The quality control system shall be defined by the QC Plan, which defines the Contractor's quality policy, lines of authority and responsibility, QC personnel qualifications, and the procedures and organization necessary to produce a finished product that complies with the contract requirements.
- D. The project manager and superintendents will be held accountable for the quality of work and are subject to removal at the direction of the COR for failure to comply with quality requirements specified in the contract. The Contractor's project manager and superintendents in this context shall mean the individuals with responsibility for the overall supervision of field activities for the project.
- E. The Government will schedule performance audits during the construction phase to assess the Contractor's performance against contract requirements and QC Plan implementation. The COR shall use the audit results to evaluate the completed work and progress made against the contract documents and project schedule when reviewing Contractor requests for progress payments.
- F. Additional requirements for Design/Build Contracts
 - 1. The design quality control program is specified elsewhere in the contract. The Contractor's QC Plan shall include a Design Quality Control process that will ensure that the design is continually up to date with respect to field changes. Changes to the construction documents shall be reviewed and approved by the Architect/Engineer of record.
 - 2. The construction phase design control process shall be implemented and coordinated by the contractor's field engineering staff or the QC Manager. The

design control coordinator shall be a registered professional engineer. The Contractor shall notify the Government who will be responsible for design control coordination and name an alternate as well.

1.02 Referenced/Related Documents: The publications listed below are incorporated into the specification by reference:

- A. American Society for Testing and Materials (ASTM) ASTM D 3740 (Latest edition as of contract award date) Minimum requirements for agencies engaged in the testing and/or inspection of soils and rock as used in engineering design and construction.
- B. ASTM E 329 (Latest edition as of contract award date) Agencies engaged in the testing and/or inspection of materials used in construction.
- C. ISO 9001:2008 Quality Management Systems requirements is a quality program document that the contractor shall use to develop quality control processes for the QC Plan.

1.03 Submittals: The Contractor shall submit, in accordance with Section 013305, (Construction Submittals) the following:

- A. Contractor's Quality Control Plan (QC Plan): The QC Plan shall be submitted within thirty (30) calendar days after Contract Award. No work shall be undertaken before QC Plan acceptance.
- B. The name, qualifications (in resume format), duties, responsibilities and authorities of each person assigned to a Quality Control (QC) function shall be submitted to the Government for review. The Government will reject personnel who are not qualified for the positions for which they have been proposed. Changes to QC organization staffing shall only be made after acceptance by the Government of the proposed changes.
- C. The Contractor shall submit a Quality Control Report to the Government daily. Reporting shall begin on the first day the contractor's forces arrive on site and shall continue until the contractor's forces have completely demobilized. Daily reports shall be submitted by 8:00 the following morning and shall include, at a minimum, the information discussed in this section. The report format shall be accepted by the Government prior to use.
- D. The Contractor shall submit copies of audits and surveys of testing agency qualifications, which should include both personnel and equipment certifications.
- E. Other contract provisions and attachments, including those provided by reference and amendment, apply to the requirements of this section. This Section in turn applies to the Contract Drawings and to Specification Divisions 2 through 33.

1.04 Qualifications of Quality Control Personnel

- A. The Contractor Quality Control (QC) Manager shall have experience implementing construction quality control programs for similar projects. The QC Manager shall be on site at all times during construction and shall be an employee of the prime contractor. In the event the QC Manager must be away from the site, the contractor shall provide a suitable substitute, acceptable to the Government, who is familiar with the project and the QC program. The QC Manager shall report to the Contractor's home office management team and not to the Project Manager on site. His autonomy in managing and enforcing the quality control program is critical and shall be reviewed and tested periodically by the Government.
- B. QC Inspection and Testing personnel shall be qualified in accordance with the following:
 - 1. Current certifications as determined by the individual's employment specialties from National or International standards organizations (AWS, ICBO, ASME, IEEE, ISO, ACI, AWWA, etc.) and,
 - a. College degree in engineering or architecture that is relevant to the individuals' employment specialty. In addition, experience shall include a minimum of 8 years implementing construction quality control programs for similar projects, or;
 - b. Completed High School education with 15 years of construction experience and successful completion of a company or union sponsored training program in the discipline to be inspected. In addition, experience shall include a minimum of 10 years as a tradesman including 5 years in the performance of QC inspection activities.

1.05 Incidental Services

- A. The contractor shall provide incidental services by engaged QC agencies, laboratories, and consultants, and shall accommodate services performed by the Government directly or by vendors engaged by the Government. Incidental services include, but are not limited to:
 - 1. Material testing.
 - 2. Assistance in gaining access to the works, in obtaining test samples, and in the subsequent repair of work and substrates where requested by the QC agency;
 - 3. Temporary facilities to be utilized for testing services;
 - 4. Handling, curing, storing and protecting test samples at the Project site.

Part 2 Products (not used)

Part 3 Execution

3.01 Content of the Construction Quality Control Plan.

- A. The QC Plan shall include, at a minimum, all work processes performed by the contractor, subcontractors, fabricators, suppliers, and purchasing agents.

1. A description of the quality control organization, including a chart showing lines of authority and acknowledgement that the QC staff will implement the three phase approach to construction quality control as described within.
2. The name, qualifications (in resume format), duties, responsibilities and authority of each person assigned a QC function.
3. A copy of a letter, signed by the same official of the firm who signed the contract, which describes the responsibilities of the QC Manager and delegates sufficient authorities to him to ensure he can implement the QC plan effectively. The QC Manager shall have the authority to stop the installation of work that does not comply with the contract and construction documents.
4. Procedures for scheduling, reviewing, certifying and managing submittals, including those of subcontractors, offsite fabricators, suppliers and purchasing agents. The QC Manager shall be responsible for certifying that all submittals are in compliance with the contract requirements.
5. Procedures to control, verify, accept, and document each specific test required to be performed in the specification. The Contractor shall provide a written report of each QC Plan inspection and test performed. The report shall include the following as a minimum:
 - a. Project title and project number.
 - b. Inspection/test title, contract reference, and sequence number.
 - c. Dates and locations of inspections, dates of inspections/tests, and the related contract specification section number.
 - d. Recognized industry test methods and specifications. List all testing equipment used with serial numbers.
 - e. Name of testing laboratory and the individual conducting the inspection or test.
 - f. Ambient conditions at the time of sample-taking and inspection or test.
 - g. Inspection and test data, results, interpretations, and analysis of information developed.
 - h. Agency or individual comments and professional opinions concerning test compliance, whether work complies with requirements, and whether retesting or other testing is recommended. These comments and opinions shall bear the responsible individual's signature.
 - i. Other data as required or implied by the nature of a particular inspection or test or by provisions in related technical sections of the contract specifications or drawing notes.
 - j. Where applicable, the Contractor shall include a statement (Certificate of Compliance) of the agency or individual conducting the inspection or test, certifying that the materials, equipment, or services comply with the requirements of the Contract. This statement shall include any observed or determined reservations in certifying such materials, equipment, or services.
6. Procedure for tracking preparatory, initial, and follow-up control phases of each definable feature of work.
7. A procedure for inspection of work and materials, including receiving inspections and control of materials staged for construction on site.
8. A corrective action procedure for identifying and controlling construction deficiencies from identification through corrective action and acceptance.
9. Document control and reporting procedures, including format.

10. 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 may be performed by different trades or disciplines. Although each specification section may generally be considered a definable feature of work, there are frequently more than one definable feature under a particular section. This list shall be included and submitted as the index to the QC Plan.
11. Procedures to control and document design changes shall be included in the QC Plan. All design changes shall be submitted to and accepted by the Government. A complete set of drawings used in the As-Built (red line) process will be controlled on site by the QC Manager. All red line changes to the design shall be accepted by the Government. Red line changes shall be initiated by the QC Manager and the COR or his designated representative.
12. Logs of test equipment calibrations.

3.02 Quality Control Meetings

- A. Prior to starting site work, the Contractor shall schedule a coordination meeting with the Government and discuss the QC Plan. During the meeting, a mutual understanding of the plan details shall be developed, including the forms for recording the QC inspections, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of the Contractor's management and control with the Government. Meeting minutes shall be prepared by the Contractor and signed by both the Contractor and the Government and the minutes shall become a part of the contract record. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the QC system or procedures that may require corrective action by the Contractor.
- B. All timeframes identified in the QC Plan, for onsite and offsite activities, including interrelationships between QC Plan actions and the Government's related actions, will be reviewed for acceptance by the Government.
- C. After start of construction, the Contractor's QC Manager shall conduct weekly QC meetings at the Project Site with key Contractor staff, including the Project Manager, superintendents, and other QC staff.
- D. The Contractor shall notify the Government, who may elect to attend or send representatives, at least 48 hours in advance of weekly QC meetings.
- E. At a minimum, the following topics shall be discussed and documented at QC meetings:
 1. Status of all on-going quality-related matters.
 2. Deficiencies identified or rectified since previous meetings.
 3. Work planned for the following two weeks and supporting QC actions.
 4. Construction methods and approaches for quality construction on upcoming work items.
 5. The Contractor shall prepare and distribute detailed minutes of all QC meetings for signature by the Contractor's Project Manager and the COR.

3.03 Three Phase Approach to Quality Control

- A. The three phases of control shall be conducted by the QC Manager for each definable feature of work as follows:
1. Preparatory Phase: This phase shall be performed prior to beginning work on each definable feature of work; after all required plans, documents, materials are accepted. A preparatory meeting shall be called by the QC Manager to demonstrate that the Contractor has all the necessary materials, equipment and personnel to start a definable feature of work. Agenda items shall include:
 - a. Review of the applicable specifications.
 - b. Review of the contract drawings.
 - c. Confirmation that all materials and/or equipment have been tested and submittals have been received and accepted.
 - d. Review of provisions that have been made to provide required control inspection and testing.
 - e. Examination of the work area to ensure that all required preliminary work has been completed and is in compliance with the contract.
 - f. Physical examination of required materials, equipment, and sample work to ensure that they are on hand, conform to accepted shop drawings or submitted data, and are properly stored.
 - g. Review of the applicable safety requirements to ensure they are met.
 - h. Discussion of procedures for controlling quality of the work, including repetitive deficiencies.
 - i. Discussion and scheduling for the initial control phase.
 - j. The Contractor will provide to the COR the agenda 48 hours in advance of the preparatory control meeting. This meeting shall be conducted by the QC Manager and attended by the superintendent and foremen responsible for the definable feature of work and other QC personnel as applicable. The results of the preparatory phase activities shall be documented by separate minutes prepared by the QC Manager and attached to the daily QC report. The responsible superintendent and foremen shall instruct applicable craftsmen as to the acceptable level of workmanship required by the contract specifications.
 2. Initial Phase: This phase shall be accomplished at the beginning of field construction of a definable feature of work. This phase shall be held at the work site with a demonstration of how the work is to be performed in order to meet the contract requirements. If mock-ups are required for a definable feature of work, they shall have been completed far enough in advance of the Initial Phase that all materials shall have hardened or dried and shall be in such condition as the finished product will achieve at completion. Agenda items shall include:
 - a. Review the work to ensure that it is in full compliance with contract requirements as discussed in the Preparatory Phase meeting. The minutes of the preparatory meeting shall be reviewed as necessary.
 - b. Verify the adequacy of controls to ensure full contract compliance. Verify required control inspections and testing.

- c. Establish the level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required samples and mock-ups as appropriate.
- d. Resolve all differences.
- e. Review safety requirements to include compliance with and possible revision of the safety plan and activity hazard analysis. Review the activity hazard analysis with all workers. Ensure that the safety control barriers and/or signs have been correctly installed.
- f. The initial phase should be repeated anytime a new crew begins work on a definable feature of work or any time acceptable quality standards are not being met.
- g. The Contractor will provide the agenda to the COR at least 48 hours in advance of beginning the initial phase. Separate minutes for this phase shall be prepared by the QC Manager and attached to the daily QC report. The exact location of the initial phase shall be indicated for future reference and comparison with follow-up phases.

3. Follow-up Phase:

Daily checks shall be performed to ensure that control activities, including control testing, are providing continued compliance with contract requirements until completion of the particular feature of work. The checks shall be made a matter of record in the QC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to starting additional features of work which may be affected by the deficient work. The Contractor shall not build upon nor conceal deficient work.

B. Completion Inspection (also known as Schedule of Defects):

1. Punch-List Inspection:

At completion of all work or any increment thereof, the contractor shall conduct joint inspections of the work with the government. The contractor shall record all deficiencies and work identified as not conforming to the plans and specifications, and a list of the findings, by location, shall be submitted to the Government within two days after each joint inspection. The list of these findings shall constitute the punch-list. At completion of all punch-list work or any increment thereof, the contractor shall conduct a joint re-inspection with the Government to verify completion of the punch-list work. Both the contractor and the Government shall confirm mutual agreement of completion by signing the punch-list and indicating that each item on the punch-list is complete. The contractor shall submit two hardcopies of the signed punch-list and an electronic copy of the signed list in xxx.pdf format.

2. Final Acceptance Inspection:

No later than six (6) weeks after substantial completion the contractor shall conduct the joint, final acceptance inspection with the Government. The contractor shall provide a minimum of 14-days advance written notice to the Government and certify the work shall be complete prior to commencing the final acceptance inspection.

During the joint, final acceptance inspection the contractor shall record all deficiencies and all work identified as not conforming to the plans and

specifications. A list of the findings, by location, shall be submitted to the Government within two days after the inspection. The list of these findings shall constitute the list of final acceptance defects. The contractor shall immediately complete all work on the list of final acceptance defects. At completion of all items on the list of final acceptance defects, the contractor shall conduct a joint re-inspection with the Government to verify completion. Both the contractor and the Government shall confirm mutual agreement of completion by signing the list of final acceptance defects and indicating that each item is complete. The contractor shall submit two hardcopies of the signed list of final acceptance defects and an electronic copy of the signed list in xxx.pdf format.

3.04 Daily Reporting

- A. The Contractor shall provide QC Daily Reports that provide factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:
1. Contractor/subcontractor and their area of responsibility.
 2. Work performed each day, giving location, description, and by whom performed. Work conducted on building structures shall be located by column line.
 3. Test and/or control activities performed with results and references to specifications and drawings requirements. The control phase should be identified Preparatory, Initial, or Follow-up.
 4. List deficiencies noted along with corrective action.
 5. Quantity of materials received at the site with statement as to acceptability, storage, and reference to contract specifications and drawings. Documents used to certify materials and equipment should be traceable to the material or equipment by a unique identification number i.e. heat number, serial number, etc.
 6. Submittals reviewed, with contract reference, by whom reviewed, and action taken.
 7. Off-site surveillance activities, including actions taken.
 8. Job safety evaluations stating what was checked, results, and instructions or corrective actions taken.
 9. Instructions given/received and conflicts in plans and/or Specifications.
 10. The QC Daily Report shall indicate a description of trades working on the project and where; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily by 8:00am the following day. Reports shall be submitted for days on which no work was performed. Attached to the daily reports shall be copies of test reports, inspection reports, and reports prepared by subordinate quality control personnel.

3.05 RESTORATION AND PROTECTION

- A. Restoration: Upon completion of inspections, sampling, testing, and correction of defects, the Contractor shall repair damaged work and substrates and restore finishes to eliminate deficiencies in visual and performance qualities. This restoration shall be in compliance with the Contract Documents.
- B. Continued Protection: Continued protection of completed work shall be provided throughout the construction period and protective measures shall be monitored in relation to construction activity.

3.06 Records

- A. The Contractor shall maintain a complete record of QC Plan actions, ready for Governments examination at any time. Defects, deficiencies, and non-compliance shall be highlighted along with corrective actions and any reconstruction completed, to be completed, or recommended for acceptance by the Government.

END OF SECTION

**SECTION 017705
CLOSEOUT PROCEDURES**

PART 1 GENERAL

1.01 SUMMARY

- A. The requirements of this Section relate to the procedures and administration of Substantial Completion, Final Acceptance, and Warranty.

1.02 RELATED DOCUMENTS

- A. Other general provisions of the Contract, including FAR clauses by reference or as amended in Contract Sections B through J, and other Division 1 Sections of these Contract Specifications apply to requirements of this Section. This Section in turn applies to the Contract Drawings and Technical Specifications.

1.03 SUBMITTALS

- A. The Contractor shall submit, in accordance with Section 013305, *Construction Submittals*, the following:
 - 1. Request for Certification of Substantial Completion.
 - 2. Request for Final Inspection and Testing.
 - 3. Final Record Documents. The Contractor shall submit final documents marked "As-Built" to the COR with a request for inspection and Substantial Completion.
 - 4. Project Completion Photography
 - 5. Asbestos and Lead Paint Certification.
 - 6. Warranty Management Plan
 - 7. Equipment & Inventory Barcode Tags
 - 8. Barcode Scanner loaded with appropriate linked information

1.04 WARRANTY MANAGEMENT AGENT

- A. The Contractor shall provide a qualified representative, knowledgeable in the operation and maintenance of the various building systems as installed in the works. This representative shall respond immediately (24 hours or less) and be responsible for warranty management. Telephone and email are acceptable means of response. If a visa is required for travel to the Post, a current visa must be maintained by the representative.
- B. The agent shall be qualified to address, record, and resolve warranty issues during the warranty period and be certified to act on the Contractor's behalf during the warranty management period.
- C. The agent, at a minimum, shall perform the following duties:
 - 1. Communicate and coordinate actions with the responsible Government representative (normally the Facility Manager).

2. Respond to building system deficiencies, including inspection, evaluation, and documentation of such deficiencies. Documentation shall include photographs to include date and location of defect in question and an additional photograph of finished repair or resolution to warranty item in question.
3. Arrange for repairs or replacements of warrantable deficiencies.
4. Document issues, actions, and solutions and incorporate records as a part of the Project Document Set. The agent shall surrender these records to the Government representative upon termination of the warranty period.
5. Record and develop a report on expected times between failure of system components.
6. As a follow up to warranty actions, the agent shall review procedures with the Government Operating and Maintenance staff and verify agent responsibilities are in compliance with building systems procedures. This will avoid conditions that might lead to warranty action or denial of action.
7. Develop a summary of lessons learned during the warranty management process for incorporation into the Maintenance Plan as described in Section 017825, *Operation and Maintenance Data*.
8. Participate in an on-site warranty meeting within 8 to 11 months after Substantial Completion. The agent shall review the Contractor's warranty management reports with the COR (or authorized representative), and O&M Staff. The agent shall identify additional areas that may come under warranty or under the original construction contract. The agent shall present information to track and correct warranty-related issues prior to expiration of the warranty.

1.05 PRE- WARRANTY CONFERENCE

- A. Prior to Substantial Completion, or completion of a phase or portion of the contract to be turned over, and at a time designated by the COR, the Contractor shall meet with the COR and Facility Manager to develop a mutual understanding with respect to the requirements of this clause. Once a mutual understanding is reached, the Contractor shall provide a formal orientation of warranty processes and procedures to the Post operations & maintenance staff. See Section 017905, *Demonstration and Training*, for requirements of the warranty orientation. Communication procedures for Contractor notification of warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the COR for the execution of the construction warranty shall be established at this conference. In connection with these requirements and at the time of the Contractor's quality control completion inspection, the Contractor shall furnish the name, telephone number and address of the proposed Warranty Manager.

1.06 EQUIPMENT WARRANTY IDENTIFICATION TAGS

- A. The Contractor at the time of installation and prior to Substantial Completion shall provide warranty identification tags on all Contractor- and Government-furnished equipment which he has installed.
1. The tags shall be suitable for interior and exterior locations, resistant to solvents, abrasion, and to fading caused by sunlight, precipitation, etc. These tags shall have a permanent pressure-sensitive adhesive back, and they shall be installed in a position that is easily (or most easily) noticeable. Contractor furnished equipment that has differing warranties on its components shall have each component tagged.
 2. Sample tags shall be submitted for Government review and approval. These tags shall be filled out representative of how the Contractor shall complete all other tags.
 3. Tags for Warranted Equipment: The tag for all equipment shall be similar to the following: Exact format and size shall be as approved.

EQUIPMENT WARRANTY - CONTRACTOR FURNISHED EQUIPMENT
MFG NAME MODEL NO.
SERIAL NO.
CONTRACT NO.
CONTRACTOR NAME
CONTRACTOR WARRANTY EXPIRES
MFG WARRANTY(IES) EXPIRE

EQUIPMENT WARRANTY - GOVERNMENT FURNISHED EQUIPMENT
MFG NAME MODEL NO.
SERIAL NO.
CONTRACT NO.
DATE EQUIP PLACED IN SERVICE
MFG WARRANTY(IES) EXPIRE

1. If the manufacturer's name (MFG), model number and serial number are on the manufacturer's equipment data plate and this data plate is easily found and fully legible, this information need not be duplicated on the equipment warranty tag. In such instances the contractor shall obtain prior confirmation from the COR.
2. The Contractor shall complete the required information on each tag and install these tags on the equipment by the time of and as a condition of final acceptance of the equipment.

1.07 EQUIPMENT BARCODE TAGS

- A. The Contractor, prior to Substantial Completion shall provide barcode tags on appropriate equipment. See Section 017825 *Operation and Maintenance Data* for instructions.

1.08 SPARE PARTS AND SPECIALTY TOOLS BARCODE TAGS

- A. The Contractor, prior to Substantial Completion shall provide inventory barcode tags on all Contractor-furnished spare parts and specialty tools required prior to turnover to COR. The Contractor shall confirm barcode type used by the USG to ensure USG scanner/software is compatible with barcode tags.
1. The barcode tags shall be suitable for interior and exterior locations, resistant to heat, water, solvents, abrasion, and to fading caused by sunlight, precipitation, etc.
 2. The barcode tags shall be installed on spare parts and specialty tools in a location to assure visibility and scanning.
 3. See Section 017825 Systems Manual and O+M Data for barcode scanner requirements

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

The Contractor shall comply with the instructions of the Contracting Officer and the COR for procedures, sequence, timing, and similar considerations regarding the turnover of facilities to Government personnel.

3.02 SUBSTANTIAL COMPLETION

- A. General: Before requesting the Certificate of Substantial Completion from the COR for all work or a defined portion thereof, the Contractor shall complete the following, as applicable:
1. Progress Payment Request:
 - a. Submit no earlier than the date claimed for Substantial Completion.
 - b. Reflect a 100 percent complete status or list non-substantial items that remain incomplete.
 - 1) Show the percentage of completion and an explanation for incomplete work.
 - 2) Include copies of supporting documentation.
 2. Operation and Maintenance Data: In accordance with Section 017825, *Operation and Maintenance Data*.
 3. Obtain and submit releases, enabling full-and unrestricted use of the work and access to services and utilities by the Government. These releases shall include:
 - a. Occupancy permits.
 - b. Operating certificates.
 - c. NFPA required fire protection certifications.
 4. Submit Record Documents as described herein. Confidential and Secret Record Documents may be deferred until Final Acceptance.
 5. Deliver spare parts/extra materials/specialty tools in the manner requested by the COR. Also, provide an itemized list by specification section to include item product name, product description, product number, quantities, manufacturer or vendor name, manufacturer

contact details, unit of measure, and unit cost of delivered materials 60 days prior to Substantial Completion. These shall include:

- a. Operating and Maintenance tools.
 - b. Surplus Government-furnished materials.
 - c. Manufacturer recommended spare parts.
 - d. Extra stock of materials (attic stock).
 - e. Keys to locks.
6. Changeover:
- a. Make final changeover of facilities and services from temporary to permanent.
 - b. Advise the COR in advance of the precise time for each changeover.
 - c. Comply with the COR's requests on the timing of security-related changeovers.
7. Complete commissioning, start-up testing, and training of the Government's operating and maintenance personnel.
8. Operational data and logs of equipment operated by the contractor prior to turnover. Maintenance logs shall include the completed preventive maintenance checklist associated with each piece of equipment maintained. Maintenance logs and checklists shall be supplied to the COR on a monthly basis after the first piece of equipment requires manufacturer maintenance.
9. Remove temporary facilities, construction tools and equipment, mock-ups, rejected materials, and similar items of construction not incorporated into permanent work. This removal shall include surplus materials.
10. Make physical adjustments, correct minor defects, touch-up finishes, and lubricate operating parts.
11. Provide certification that asbestos and lead paint were not used.
12. Complete the work listed in the Accreditation Checklist (Refer to Contract Section J.1).
13. The contractor's QC Officer shall have ensured that the work complies with Section E.2 of the contract (Substantial Completion) before requesting the Certificate of Substantial Completion from the COR. The QC Officer shall be responsible for all inspection activities leading up to the contractor's request for the Certificate of Substantial Completion and shall be prepared to demonstrate that the work is, in fact, substantially complete.

B. Request for Certification of Substantial Completion:

1. Following inspection, the QC Officer shall provide the COR with a schedule of defects. Defects deemed to be substantially out of compliance with contract quality or performance standards shall be corrected prior to issuance of the Certificate of Substantial Completion. The QC Officer shall be prepared to demonstrate compliance with the contract to the COR as a condition of issuance of the Certificate of Substantial Completion.
2. When the QC Officer has proven the work to be substantially complete, the COR will issue the Certificate of Substantial Completion. The Certificate of Substantial Completion may be issued with a list of remaining omissions, deficiencies, and defects deemed by the COR to

be non-substantial. Such items shall be corrected by the Contractor prior to issuance of the Certificate of Final Acceptance.

3. Schedule of Defects:
 - a. Prepare the initial Schedule of Defects as described in Section 014010, *Contractor's Quality Control*.
 - b. The initial and subsequent Schedule of Defects shall include omissions, deficiencies, and patent defects and shall be a matter of Project record.
 - c. Document and resolve Schedule of Defects items prior to the issuance of the Certificate of Final Acceptance.
4. In addition to the above actions and remedies, the Contractor shall be responsible for omissions, defects, and deficiencies not uncovered in the course of the inspections. The COR will determine the applicability of these items to the agreed upon standards of Contract performance.

3.03 FINAL ACCEPTANCE

A. General:

1. The Contractor shall notify the COR at least fifteen (15) calendar days prior to the time when the Contractor believes all work included in the contract will be ready for Final Acceptance. The QC Manager shall initiate final inspections and testing without delay, notify the COR in writing if portions of the work are not ready for Final Acceptance, and notify the COR whether Final Acceptance for a portion of the work will be delayed beyond Final Acceptance for the majority of the work.

B. Request for Final Inspection and Testing:

1. The Contractor shall submit the following when requesting Final Acceptance of the work:
 - a. Schedule of Defects:
 - 1) Schedule of non-substantial defects attached to the COR's Certificate of Substantial Completion.
 - 2) Certification of the QC Manager that all defects on the schedule have been completed.
 - b. Final Certificates of Insurance for products installed and operations, as required.
 - c. Utilities and Services:
 - 1) Final meter-readings and service-dates for utilities and services paid for by the Contractor.
 - 2) The Government will pay bills for utilities and services after Substantial Completion unless significant punch list items remain in which case cost-sharing arrangements will be made with the Contractor. The Contractor shall provide beginning meter-readings and service-dates for utilities and services to be paid by the Government.
 - 3) Include similar cut-off points, measurements, and readings for stored fuels and other consumable products and services.
 - d. If applicable, provide a Project Statement of "Consent of Surety."
 - e. Final Application for Payment:

- 1) Prepare an updated final statement, showing extended sequence and accounting of final changes to the claimed Contract Price.
 - 2) Prepare the application for submittal to the Contracting Officer, including copies of supporting documentation not previously submitted and accepted.
 - 3) Provide a statement acceptable to the COR regarding the settlement of liquidated damages.
 - 4) Provide contractor's release of claims in the format provided by the Contracting Officer.
2. Include a statement of the fulfillment of requirements identified herein.
 3. If applicable, include a statement listing itemized work items known to be incomplete or deficient, an explanation of why each item is incomplete or deficient, and the COR's endorsement recognizing the circumstances of the specific non-performance.
 4. The QC Officer shall proceed with final inspection and testing of the work under the supervision of the COR.
 5. Following the final inspection, the COR will document work items still incomplete or deficient, unfulfilled obligations, and requirements for testing or retesting prior to Final Acceptance.
 6. As determined by the COR after final inspection, the Contractor shall complete outstanding work items, obligations, tests, and other outstanding actions.
 7. Upon the Contractor's satisfactory completion and correction of work items, the COR will recommend to the Contracting Officer that he issue the Certificate of Final Acceptance.
 8. The Contracting Officer will notify the Contractor of Final Acceptance, negotiate adjustments to the final payment, if necessary, and authorize the release of final payment funds.

3.04 RECORD DOCUMENT SUBMITTALS

- A. General:
 1. The Contractor shall comply with the requirements of Section 013305, *Construction Submittals*, for the preparation and processing of final Record Document submittals.
 2. Refer to each Contract Technical Specification Section for specific Record Document submittal requirements on individual units of work.
- B. The Contractor shall develop and maintain an original mark-up set of Contract Documents and Submittals at the Project Site.
 1. Ensure availability for the COR's reference and periodic review.
 2. Protect from deterioration and loss.
 3. Retain in a secure and fire-resistant space.
 4. Do not use for construction purposes.
 5. Delineate changes and additional information developed during construction.
 - a. Upon request of the COR, provide documents or a submittal copy clearly reflecting changes or other data.
 - b. Indicate each change by change order number when related to a Contract Modification.

C. Final Record Documents:

1. Updated Basis of Design
2. Record As-Built Drawings
 - a. Maintain a full set of the latest revised drawings at the site marked with different colors of pencils or pens.
 - b. Clearly define hidden dimensions and similar data that would be difficult to obtain at a later date.
 - c. Show conditions not clearly detailed by shop drawings or coordination drawings.
 - d. Incorporate all shop drawing submissions as constructed in the field.
 - e. Show cross-references to other records of final data.
 - f. Organize marked-up prints into set(s) as originally released at the Project Site.
 - g. Mark each set for identification and with the date of release as the record copy (Substantial Completion date).
 - h. Transfer and update "As-Built" drawings in formats per the OBO Design Standards A0502 and Contract Section F.
 - 1) Electronic versions of record drawings shall include one source file per sheet, one PDF image file per sheet, and compiled PDF drawing sets.
 - i. Indicate "As-Built" conditions as documented from actual installation.
 - j. Provide one (1) set of full-size drawings, two (2) sets of half size drawings, and two (2) sets of DVD ROMs,
 - k. Electronic files shall be bookmarked and searchable in PDF format organized by discipline.
3. Record Contract Specifications
 - a. Maintain a full set, marked up to record minor changes in the printed text and cross-reference other documentation. The use of "Track Changes" shall be considered. Consult with COR for approval.
 - b. Where additional writing space is needed, insert extra sheets with notations or write on the blank backsides of the preceding pages.
 - c. Pay particular attention to accepted substitutions, selection between options, and similar record information.
 - d. Give priority to the recording of data that cannot be easily discerned by observation at the Project Site.
 - e. Mark each Specification volume as the record copy with identification and the date of release (Substantial Completion date).
 - f. Provide three (3) sets of CDs/DVDs and one (1) paper copy.
4. Record Product Data:
 - a. Maintain a full set of accepted product data submittals, marked with specific selections of products supplied and installed.
 - b. Where changes subsequent to acceptance affected product selection, obtain corrected product data sheets or mark up sheets to reflect changes.
 - c. Show any departures from manufacturers' instructions in accordance with Contract Section H.
 - d. Mark each submittal with the related Specification number, place in binders by numeric sequence, and identify binders by the

- Substantial Completion date. Title the binders "Replacement Products Procurement Manual."
- e. Include reference copies of final warranties, maintenance agreements, workmanship bonds, performance certifications, and similar required documentation of required assurances.
 - f. Include final copies of related inspection and test reports, certificates of compliance (with requirements), and similar quality assurance documentation.
5. Record Shop Drawings:
- a. Maintain a full set of accepted shop drawing black-line prints, marked with different colors of pencils or pens.
 - b. Cross-reference changes on other documents or submittals.
 - c. Organize shop drawings into sub-sets as received from each fabricator and identify by related Contract Specification Section number.
 - d. Reflect the date of release as the record copy (Substantial Completion date).
6. Construction Coordination Documentation:
- a. Submit as a consolidated and organized collection of documents prepared in support of construction coordination as described in Section 011005, *Construction Execution and Coordination*.
 - b. Documentation shall include, but not be limited to:
 - 1) Minutes of meetings.
 - 2) Submittal register.
 - 3) Shipping logs.
7. Record Field Samples:
- a. Prior to Substantial Completion, meet with COR at the Project Site and determine which of the remaining submitted samples and prepared mockups are required for the Government's continued retention.
 - b. Mark each element with appropriate identification and date of Substantial Completion.
 - c. Pack in appropriately identified cardboard containers and deliver to the SSA at the Project Site, as designated by the COR.
8. Field Engineering Submittals:
- a. Final Site Survey: Make corrections showing buried utilities and similar underground elements, field survey and measurement drawings, and similar drawings.
 - b. Final Property Survey:
 - 1) Prepare and submit in accordance with the requirements of Section 011005, *Construction Execution and Coordination*.
 - 2) Prepare three black-line copies as digital files in portable document format (.pdf) on CD-ROM in the version of AutoCAD currently specified by the Contract Documents.
 - c. Surveyor's Log: Prepare and submit in accordance with Section 011005, *Construction Execution and Coordination*.
9. As-Built Project Execution Schedule: Refer to Section 013205, *Project Scheduling*.
10. Project Completion Photography
- a. Contractor shall provide professional photographic documentation of the project after completion.

- b. Documentation shall be part of the permanent project record, and shall be delivered to the USG with the as-built construction documents or as agreed to by the COR.
 - c. USG shall be the exclusive owner of this documentation.
- 11. Record Equipment Inventory
 - a. The Contractor shall provide an accurate inventory of data for all barcode scanned and documented Contractor-and Government-furnished, Contractor-installed equipment.
 - b. The Contractor shall provide one (1) hardcopy and two (2) electronic format copies on DVD-ROM, a binder listing all equipment documented and scanned with associated barcodes inserted next to each piece of equipment.
- 12. Record Spare Parts & Specialty Tools Inventory
 - a. The Contractor shall provide accurate inventory of all barcode scanned and documented spare parts and specialty tools.
 - b. The Contractor shall provide one (1) hardcopy and two (2) electronic format copies on DVD-ROM, a binder listing all spare parts and specialty tools documented and scanned with associated barcodes inserted next to each item.

3.05 WARRANTY

- A. Warranty: A warranty shall be provided per Contract Section H: BONDS AND INSURANCE, Contract Section I: WARRANTY AND GUARANTEES and FAR clause 52.246-21 for all facility components and systems.
- B. Warranty Management Plan
 - 1. The Contractor shall develop a warranty management plan which shall contain information relevant to the clause Warranty of Construction in FAR 52.246-21. At least 30 days before the planned pre-warranty conference, the Contractor shall submit the warranty management plan for Government approval. In the event of phased turn-over of the contract, the contractor will update his Warranty Management Plan as necessary to include latest information required. The warranty management plan shall include all required actions and documents to assure that the Government receives all warranties to which it is entitled. The plan shall 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 shall include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase shall be submitted to the COR for approval prior to each monthly pay estimate. Approved information and warranties shall be assembled in a binder and shall be turned over to the Government no later than the Substantial Completion date. The General Contractor's construction warranty period shall begin on the date of Substantial Completion and shall continue for the full product warranty

- period. Information contained in the warranty management plan shall include, but shall not be limited to, the following:
2. 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.
 3. 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.
 4. A list for each warranted equipment, item, and feature of construction or system indicating:
 - a. Name of item
 - b. Model and serial numbers
 - c. Location where installed
 - d. Name and phone numbers of manufacturers or suppliers
 - e. Names, addresses and telephone numbers of sources of spare parts, warranties and terms of warranty. This shall include 1 year General Contractor warranty of construction. Items which have extended warranties shall be indicated with separate warranty expiration dates
 - f. Cross-reference to warranty certificates as applicable
 - g. Summary of maintenance procedures required to continue the warranty in force
 - h. Cross-reference to specific pertinent Operation and Maintenance manuals
 - i. Organization, names and phone numbers of persons to call for warranty service
 - j. Typical response time and repair time expected for various warranted equipment
 - k. The Contractor's plans for attendance at the post-construction warranty meeting conducted by the Government (see para 1.04.C.8, above)
 - l. Procedure and status of tagging of all equipment covered by extended warranties
 - m. Copies of instructions to be posted near selected pieces of equipment where operation is critical for warranty and/or safety reasons

C. Warranty Management:

1. The Contractor shall provide the Government with a high level of assurance that delivered building systems are free of defects, specified warranties are valid, support systems and methodologies are in place, and Government support staff has a full understanding of the continued operation and maintenance of systems.
2. Disclaimer Limitations: Manufacturer's disclaimers in published product warranties shall not relieve the Contractor of Contract requirements on related product or work.
3. The General Contractor's Warranty Management commences early in the start-up and commissioning phase and ends at a period normally

one year (12 months) from the issuance of Substantial Completion, unless otherwise agreed upon.

4. Submit a plan of action to Post within twenty-four (24) hours after notification of the need for warranty response. Telephone and email are acceptable means of submission.

3.06 CLEANING

A. Initial Cleaning:

1. Except as otherwise indicated, the Contractor shall provide initial cleaning of each non-embedded unit of work promptly upon nominal completion and curing of installation.
2. Maintain in protected and sufficiently clean condition through the remainder of construction to prevent staining or other deleterious effects of soiling.
3. Promptly remove significant soiling, including graffiti deposits, occurring during construction.
4. Comply with product manufacturers' instructions and recommendations, including limitations, for cleaning of exposed surfaces and the use of cleaning substances and devices.

B. Final Cleaning:

1. Immediately prior to COR's inspection(s) of work for Certification of Substantial Completion, the Contractor shall repeat cleaning operations and:
 - a. Use experienced cleaning personnel.
 - b. Use proven methods and materials to achieve the level of cleanliness normally expected for a U.S.-located, first-class, commercial or institutional building Project.
2. In addition to specific cleaning as may be required by related technical Specification sections herein, the Contractor shall comply with the following as applicable:
 - a. Governing regulations including safety standards and environmental protection.
 - b. Waste:
 - 1) Do not burn waste materials at the Project Site.
 - 2) Dispose of waste materials in a lawful manner and do not bury at the Project Site, except as may be authorized by the COR.
 - 3) Remove rubbish, debris, litter, and unauthorized or unwanted plant growths and weeds.
 - c. Dispose of surpluses as required by the Contract.
 - d. Do not discharge volatile, dangerous, or deleterious fluids into drainage systems.
 - e. Temporary Facilities and Substrates:
 - 1) Remove temporary facilities including construction tools, equipment, and devices (i.e., buildings, enclosures, and protective coverings).
 - 2) Restore permanent facilities to prior condition when used for temporary service.
 - 3) Restore substrates as required.
 - 4) For additional details, refer to Section 015005, *Temporary Facilities and Controls*.

- f. Clean the entire Project Site, including landscape development areas and Site improvements.
 - g. Sweep the paved areas to a broom-clean condition and remove stains, including petrol-chemical spills and similar deposits.
 - h. Rake grounds that are neither paved nor planted to a smooth even-textured surface.
 - i. Remove debris and dust from limited-access spaces of the Project including roofs, plenums, crawl spaces, shafts, tunnels, trenches, equipment vaults, manholes, attics, and similar spaces.
 - j. Clean exterior and interior exposed surfaces to a dirt-free condition, absent of stains, graffiti, films, and other noticeable and deleterious substances.
 - k. Restore reflective polishes and applied treatments, including sealed and waxed finishes.
 - l. After the removal of spots and stains, vacuum clean interior exposed non-treated concrete surfaces, carpeted areas, and other soft surfaces.
 - m. Avoid disruption of natural weathering on certain exposed exterior surfaces.
 - n. Wipe accessible surfaces clean on mechanical, electrical, and similar equipment and fixtures, including lighting fixtures.
 - o. Remove excess lubrications and similar substances.
 - p. Remove exposed-to-view labels not required as permanent labels.
 - q. Clean transparent materials, including glazed panels and mirrors, to a polished condition free of visible dirt and film. Neatly trim away sealant.
 - r. Replace broken and noticeably abraded glass and plastic units.
 - s. Clean and sanitize food service and sanitary, health care, and similar equipment and fixtures for intended use. Remove stains, including those resulting from water exposures.
- B. Jointly inspect the entire Project Site with the COR. Where required, engage specialized firm(s) to rid the Project Site of roaches, pests, and other vermin.

END OF SECTION