

Part 6 Attachments

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Attachment A

CR-NAVFAC EXWC-CIOFP-1310 TANK INSPECTIONS AND ASSESSMENTS AT NAVAL AIR STATION SIGONELLA, ITALY

Attachment B

Reference Drawings for Task 1 Water Storage Tanks

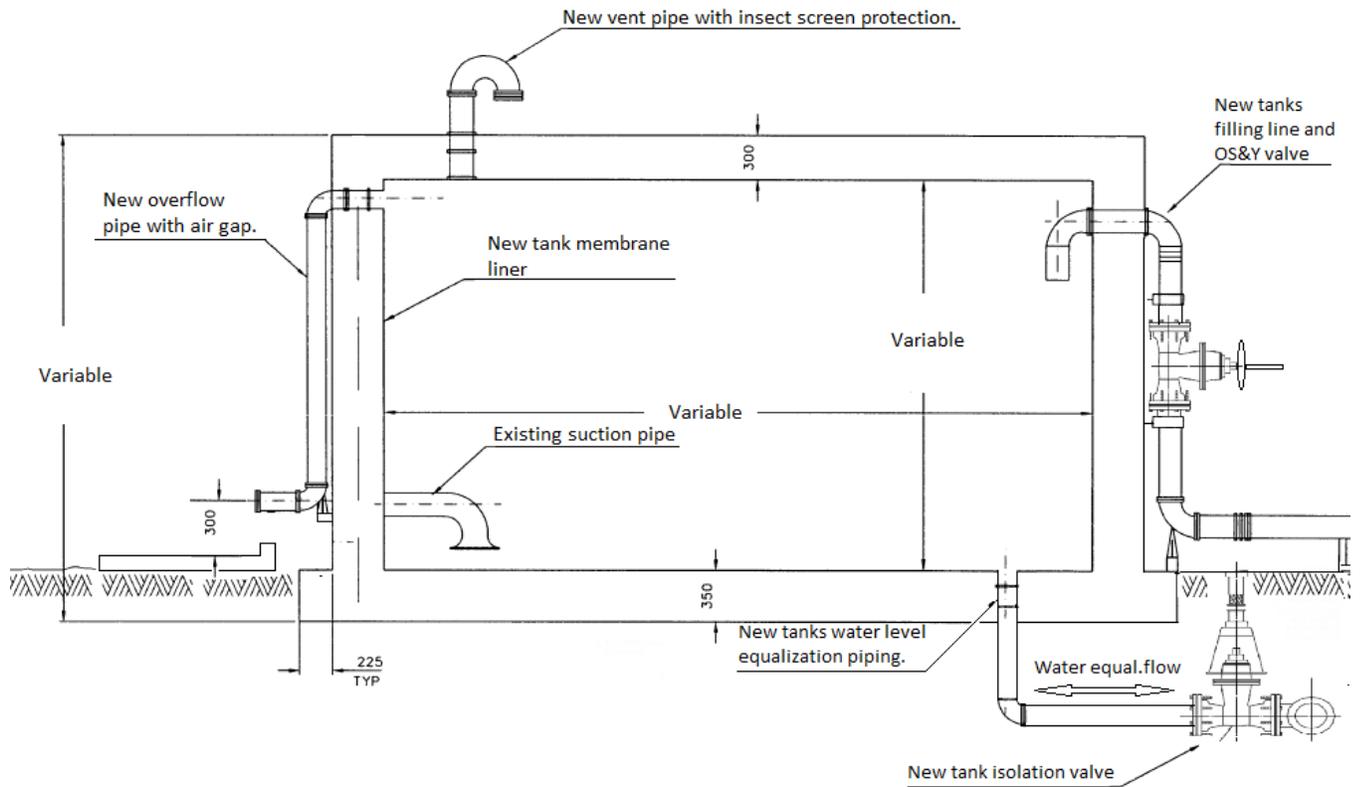


Figure 1, Typical Water Storage Tanks.

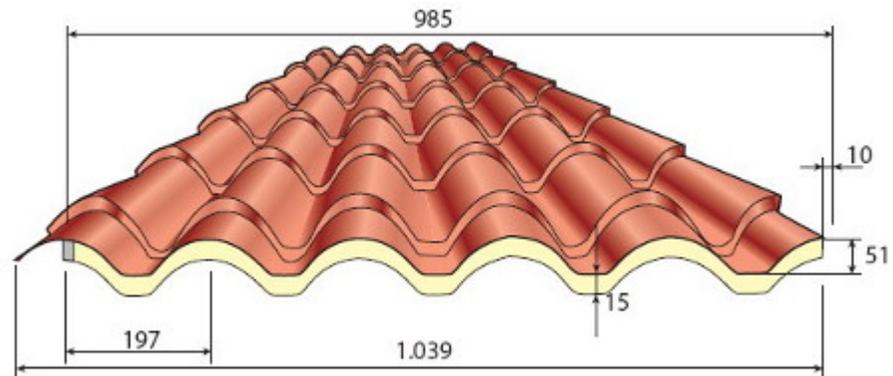


Figure 2, Typical insulated roof panel.

Attachment C

Reference Drawings for Task 2 Repair Wastewater Treatment Plant NAS I & NAS II

Attachment D

DD1391 Repair Water System at Sigonella NAS 2

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DD1391 Repair Wastewater Treatment Plants Bldgs 229, 402, NAS 1 & 2

Attachment F

Forms

Performance Assessment Plan

MONTHLY EVALUATION

MONTH: _____ **YEAR:** _____

Evaluation Factor	Yes	No	N/A	Comments
<p><i>Experience of Personnel</i></p> <p>1. Did the team identified in the proposal actively participate in the project?</p> <p>2. If personnel substitutions were needed, was the degree of technical competence maintained?</p>				
<p><i>Working Relationships</i></p> <p>1. Did the Construction team participate in the design process (i.e. attend meetings, provide insight, etc.)? Were the coordination meetings between Construction and Design team personnel documented?</p> <p>2. Did the Design team participate in the construction process (i.e. attend CQC meetings, perform field oversight, etc.)? Were coordination meetings between Construction and Design team personnel documented?</p> <p>3. Did the collaboration between the Construction and Design Team deliver a high value innovative facility? - Were Total Operating Cost minimized - What LEED points can be obtained - Was energy efficiency optimized, and the energy goals exceeded.</p> <p>4. Was the budget management process clear; was an estimate submitted on time with each design submittal. Was the estimate updated to reflect the changes in the design submittal?</p> <p>5. Did the Contractor's team effectively manage the project budget and the User's requirements to meet the customer's needs? Was project budget and emphasis in cost control exhibited in the estimate? (Contractor to document in comments block</p>				

<p>materials/systems innovations and provision of higher quality than required in the RFP Part 4)</p> <p><i>Additional factors to be developed during Partnering.</i></p>				
<p>Quality Control</p> <p>1. Were re-submittals of design deliverables or construction rework required this month?</p> <p>2. Were as built redlines updated this month?</p> <p><i>Additional factors to be developed during Partnering.</i></p>				
<p>Timely Performance</p> <p>1. Is the Contractor on schedule?</p> <p>2. Is the Contractor maintaining the schedule? (Can the Government confirm the project is on schedule?)</p> <p>3. Is the Contractor following his schedule?</p> <p><i>Additional factors to be developed during Partnering.</i></p>				
<p>Effectiveness of Management</p> <p>1. Did the Government need to intercede in resolving a subcontractor issue?</p> <p><i>Additional factors to be developed during Partnering.</i></p>				
<p>Compliance with Labor Standards</p> <p>1. Did payrolls have to be resubmitted this month due to inaccuracies or errors?</p> <p><i>Additional factors to be developed during Partnering.</i></p>				
<p>Compliance with Safety Standards</p> <p>1. Were there any lost time accidents this month?</p>				

Project Title
Project location, City, State

Work Order Number

<i>Additional factors to be developed during Partnering.</i>				
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GENERAL PERFORMANCE COMMENTS THIS MONTH:

Concurrence:

CM/ROICC Representative _____ Date _____.

Project Manager _____ Date _____.

Contractor Representative _____ Date _____.

PERMITS RECORD OF DECISION (PROD)

PERMIT REQUIRED (Check Box)	PROJECT TITLE:	WORK ORDER NUMBER:
	LOCATION:	
	GOVERNMENT PROJECT MANAGER:	
**Use referenced notes where additional space required.		
Air Quality	PERMIT: Construction	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Air Quality	PERMIT: Operating	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Air Quality	PERMIT: Asbestos Demolition & Removal	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Air Quality	PERMIT: Other	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	

PERMITS RECORD OF DECISION (PROD)

PERMIT REQUIRED (Check Box)	PROJECT TITLE:	WORK ORDER NUMBER:
	LOCATION:	
	GOVERNMENT PROJECT MANAGER:	
Water Pollution	PERMIT: Wastewater Collection System	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Water Pollution	PERMIT: Wastewater Pump Station	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency	
	Special Provisions and Requirements:	
Water Pollution	PERMIT: Wastewater Treatment Plant	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Water Pollution	PERMIT: Pretreatment, i.e. Oil/Water Separator	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	

PERMITS RECORD OF DECISION (PROD)

PERMIT REQUIRED (Check Box)	PROJECT TITLE:	WORK ORDER NUMBER:
	LOCATION:	
	GOVERNMENT PROJECT MANAGER:	
Water Pollution	PERMIT: Septic System	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Water Pollution	PERMIT: Erosion & Sediment Control	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Water Pollution	PERMIT: Stormwater Management	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Water Pollution	PERMIT: Other	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	

PERMITS RECORD OF DECISION (PROD)

PERMIT REQUIRED (Check Box)	PROJECT TITLE:	WORK ORDER NUMBER:
	LOCATION:	
	GOVERNMENT PROJECT MANAGER:	
Discharge Permit <input type="checkbox"/>	PERMIT: New or Increased Capacity NPDES	Date Obtained: _____ Date Closed: _____
	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Discharge Permit <input type="checkbox"/>	PERMIT: General NPDES (≥1 Acre Land Disturbance)	Date Obtained: _____ Date Closed: _____
	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Discharge Permit <input type="checkbox"/>	PERMIT: Other	Date Obtained: _____ Date Closed: _____
	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Drinking Water <input type="checkbox"/>	PERMIT: Water Distribution System	Date Obtained: _____ Date Closed: _____
	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	

PERMITS RECORD OF DECISION (PROD)

PERMIT REQUIRED (Check Box)	PROJECT TITLE:	WORK ORDER NUMBER:
	LOCATION:	
	GOVERNMENT PROJECT MANAGER:	
Drinking Water	PERMIT: Water Treatment Plant	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Drinking Water	PERMIT: Well Construction	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Drinking Water	PERMIT: Underground Injection	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Drinking Water	PERMIT: Other	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	

PERMITS RECORD OF DECISION (PROD)

PERMIT REQUIRED (Check Box)	PROJECT TITLE:	WORK ORDER NUMBER:
	LOCATION:	
	GOVERNMENT PROJECT MANAGER:	
Fuel Tanks	PERMIT: Underground Storage Tank Construction	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Fuel Tanks	PERMIT: Underground Storage Tank Operating	
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Fuel Tanks	PERMIT: Other	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions, and Requirements:	
Solid and Hazardous Waste	PERMIT: Hazardous Waste Treatment, Storage, Disposal, Handling	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	

PERMITS RECORD OF DECISION (PROD)

PERMIT REQUIRED (Check Box)	PROJECT TITLE:	WORK ORDER NUMBER:
	LOCATION:	
Solid and Hazardous Waste	GOVERNMENT PROJECT MANAGER:	
	PERMIT: Landfill	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency: Special Provisions and Requirements:**	
Solid and Hazardous Waste	PERMIT: Used Oil Collection Center, Aggregation Point, Transporter & Transfer Facility	Date Obtained: _____ Date Closed: _____
	Basis of Decision (Yes/No):**	
<input type="checkbox"/>	Issuing Agency: Special Provisions and Requirements:**	
	PERMIT: Other	Date Obtained: _____ Date Closed: _____
Solid and Hazardous Waste	Basis of Decision (Yes/No):**	
	Issuing Agency: Special Provisions and Requirements:**	
<input type="checkbox"/>	PERMIT: Coastal Consistency Determination Authorization	Date Obtained: _____ Date Closed: _____
	Basis of Decision (Yes/No):**	
<input type="checkbox"/>	Issuing Agency: Special Provisions and Requirements:**	
	PERMIT: Coastal Consistency Determination Authorization	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency: Special Provisions and Requirements:**	

PERMITS RECORD OF DECISION (PROD)

PERMIT REQUIRED (Check Box)	PROJECT TITLE:	WORK ORDER NUMBER:
	LOCATION:	
	GOVERNMENT PROJECT MANAGER:	
Coastal Management Permit	PERMIT: Coastal Barrier	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Coastal Management Permit	PERMIT: Floodplain Management	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Coastal Management Permit	PERMIT: Other	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Other Permits	PERMIT: Work in Navigable Waters	Date Obtained: _____ Date Closed: _____
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	

PERMITS RECORD OF DECISION (PROD)

PERMIT REQUIRED (Check Box)	PROJECT TITLE:	WORK ORDER NUMBER:
	LOCATION:	
Other Permits	GOVERNMENT PROJECT MANAGER:	
	PERMIT: Dredging	Date Obtained: Date Closed:
<input type="checkbox"/>	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Other Permits	PERMIT: Clearing	Date Obtained: Date Closed:
	Basis of Decision (Yes/No):**	
<input type="checkbox"/>	Issuing Agency:	
	Special Provisions and Requirements:**	
Other Permits	PERMIT: Essential Fish Habitat Assessment Consultation	Date Obtained: Date Closed:
	Basis of Decision (Yes/No):**	
<input type="checkbox"/>	Issuing Agency:	
	Special Provisions and Requirements:**	
Other Permits	PERMIT: Marine Mammal Protection Act	Date Obtained: Date Closed:
	Basis of Decision (Yes/No):**	
<input type="checkbox"/>	Issuing Agency:	
	Special Provisions and Requirements:**	

PERMITS RECORD OF DECISION (PROD)

PERMIT REQUIRED (Check Box)	PROJECT TITLE:	WORK ORDER NUMBER:
	LOCATION:	
	GOVERNMENT PROJECT MANAGER:	
<input type="checkbox"/>	PERMIT: Take Permits	Date Obtained: _____ Date Closed: _____
	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Other Permits	PERMIT: Work in Wetlands	Date Obtained: _____ Date Closed: _____
	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
<input type="checkbox"/>	PERMIT: Digging Permit	Date Obtained: _____ Date Closed: _____
	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
Other Permits	PERMIT: Traffic	Date Obtained: _____ Date Closed: _____
	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
<input type="checkbox"/>		

PERMITS RECORD OF DECISION (PROD)

PERMIT REQUIRED (Check Box)	PROJECT TITLE:	WORK ORDER NUMBER:
	LOCATION:	
Other Permits	GOVERNMENT PROJECT MANAGER:	
	PERMIT: Airport Hazard/Airfield Safety Clearances	Date Obtained: Date Closed:
	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
<input type="checkbox"/>		
Other Permits	PERMIT: Railroad Crossing	Date Obtained: Date Closed:
	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
	<input type="checkbox"/>	
Other Permits	PERMIT: Historic Preservation	Date Obtained: Date Closed:
	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
	<input type="checkbox"/>	
Other Permits	PERMIT: Noise Abatement	Date Obtained: Date Closed:
	Basis of Decision (Yes/No):**	
	Issuing Agency:	
	Special Provisions and Requirements:**	
	<input type="checkbox"/>	

PERMITS RECORD OF DECISION (PROD)

PERMIT REQUIRED (Check Box)	PROJECT TITLE:	WORK ORDER NUMBER:
	LOCATION:	
	GOVERNMENT PROJECT MANAGER:	
Other Permits	PERMIT: Endangered/Species/Critical Habitat	Date Obtained:
<input type="checkbox"/>	Basis of Decision (Yes/No):**	Date Closed:
	Issuing Agency:	
	Special Provisions and Requirements:**	
Other Permits	PERMIT: Other	Date Obtained:
<input type="checkbox"/>	Basis of Decision (Yes/No):**	Date Closed:
	Issuing Agency:	
	Special Provisions and Requirements:**	

Prepared by: _____ Date _____

Attachment G

Network Analysis Schedule (NAS) for Design-Build

SECTION 01 32 17.05 25

NETWORK ANALYSIS SCHEDULES (NAS) FOR DESIGN-BUILD
07/13

PART 1 GENERAL

1.1 DESCRIPTION

The Contractor is responsible for scheduling all design, procurement and construction. A single schedule shall logically incorporate all design and construction for the entire project. Unless otherwise indicated, the contractor may begin construction when design is signed, stamped and submitted to the Government via the Contractor's quality control organization.

If Government approval is required for any portion of a final signed and sealed design package prior to construction, that review time shall be included in the schedule. The schedule shall also include times for procurement, Contractor quality control and construction, acceptance testing and training. Refer to Specification Section 01 33 00.05 25 CONSTRUCTION SUBMITTAL PROCEDURES to determine if any items require Government approval prior to construction; if any are required, that submittal review time shall be included in the schedule.

The schedule is a tool to manage the project, both for Contractor and Government activities. It will also be used to measure progress and to evaluate time extensions. If cost-loaded, it will provide the basis for progress payments.

The Contractor shall use the Critical Path Method (CPM) and the Precedence Diagram Method (PDM) to satisfy time and cost applications. For consistency, when scheduling software terminology is used in this specification, the terms in Primavera's scheduling programs are used.

1.2 SUBMITTALS

The use of a "G" following a submittal indicates that a Government approval action is required. Submit the following in accordance with Section 01 33 10.05 25 DESIGN SUBMITTAL PROCEDURES and Section 01 33 00.05 25 CONSTRUCTION SUBMITTAL PROCEDURES, except as modified in this contract.

SD-01 Preconstruction Submittals

Qualifications; G

Design Baseline Network Analysis Schedule Package; G

Construction Baseline Network Analysis Schedule Package; G

SD-07 Certificates

Monthly Network Analysis Schedule Updates; G

SD-11 Closeout Submittals

As-Built Schedule; G

1.3 SCHEDULE ACCEPTANCE PRIOR TO START OF WORK

Government review comments on the Contractor's schedule(s) shall not relieve the Contractor from compliance with requirements of the Contract Documents.

The Design Baseline Network Analysis Schedule (NAS) shall be submitted and accepted by the Government at the Post-Award Kickoff (PAK) Meeting. The acceptance of a Design Baseline NAS is a condition precedent to processing Contractor's pay request(s) for design activities/items of work.

Only bonds shall be paid prior to acceptance of the Design Baseline Network Analysis Schedule (NAS).

The most current updated design schedule shall accompany each design submittal.

The Contracting Officer and Contractor shall participate in a preliminary meeting(s) to discuss the proposed schedule and requirements of this section prior to the Contractor preparing the Construction Baseline Network Analysis Schedule.

The acceptance of a Construction Baseline NAS is a condition precedent to:

- a. The Contractor starting work on the demolition or construction stage(s) of the contract.
- b. Processing Contractor's pay request(s) for construction activities/items of work.
- c. Review of any schedule updates

Submittal of the Baseline Network Analysis Schedules, and subsequent schedule updates, shall be understood to be the Contractor's certification that the submitted schedule meets all of the requirements of the Contract Documents, represents the Contractor's plan on how the work shall be accomplished, and accurately reflects the work that has been accomplished and how it was sequenced (as-built logic).

1.4 SOFTWARE

Project schedules must be prepared and maintained using Primavera P6. Importing data into P6 using data conversion techniques or third party software will be cause for rejection of the submitted schedule.

A listing of Primavera P6 settings and parameters which shall be used in preparing the Baseline Schedule is contained later in this specification section. Deviation from these settings and parameters, without prior consent of the Contracting Officer, will be cause for rejection of schedule submission.

1.5 QUALIFICATIONS

The designated Scheduler for the project shall have prepared and maintained at least 3 previous schedules of similar size and complexity of this contract using Primavera P3, Primavera SureTrak or Primavera P6. A resume outlining the qualifications of the Scheduler shall be submitted for acceptance to the Contracting Officer. Payment will not be processed until an acceptable Scheduler is provided.

1.6 NETWORK SYSTEM FORMAT

The system shall include time scaled logic diagrams and specified reports.

1.6.1 Diagrams

Provide Time-scaled Logic Diagram printed in color on ANSI D size sheets. The diagram shall clearly show activities on the critical path. Include the following information for each activity:

- a. Activity ID
- b. Activity Description
- c. Original Duration in Work Days
- d. Remaining duration
- e. Percent Complete
- f. Early Start Date
- g. Early Finish Date
- h. Total Float

1.6.2 Schedule Activity Properties and Level of Detail

The NAS shall identify all Design, Government, Construction Quality Management (CQM), Construction activities planned for the project and all other activities that could impact project completion if delayed. Separate activities shall be created for each Phase, Area, Floor Level and Location the activity is occurring. Activity categories included in the schedule are specified below.

With the exception of the Contract Award and Contract Completion Date (CCD) milestone activities, no activity shall be open-ended; each activity shall have predecessor and successor ties. Once an activity exists on the schedule it may not be deleted or renamed to change the scope of the activity and shall not be removed from the schedule logic without approval from the Contracting Officer. The ID number for a deleted activity shall not be re-used for another activity. No more than 20 percent of the activities shall be critical or near critical. Critical is defined as having zero days of Total Float. "Near Critical" is defined as having Total Float of 1 to 14 days. Contractor activities shall be driven by calendars that reflect Saturdays, Sundays and all Federal Holidays as non-work days. Government availability for construction submittal review, meeting attendance, performance verification testing, acceptance inspections, etc., will be extremely limited between Christmas and New Years Days.

1.6.2.1 Activity Categories

- a. Design Activities: Design activities shall include design decision points, design submittal packages, such as site and building, as well as design submittals such as design development and final design, including any critical path submittals for Fast Tracked Phases. Review times for design development packages shall be included in the schedule. Refer to Specification Section 01 33 10.05 25 DESIGN SUBMITTAL PROCEDURES, for specific requirements.
- b. Procurement Activities: Examples of procurement activities include, but are not limited to; Material/equipment submittal preparation, submittal and approval of material/equipment; material/equipment fabrication and delivery, and material/equipment on-site. As a minimum, separate procurement activities will be provided for critical items, long lead items, items requiring government approval and material/equipment procurement for which payment will be requested in advance of installation. The Contractor shall show each

delivery with relationship tie to the Construction Activity specifically for the delivery.

- c. Government Activities: Government and other agency activities that could impact progress shall be clearly identified. Government activities include, but are not limited to; Government approved submittal reviews, Government conducted inspections/tests, environmental permit approvals by State regulators, utility outages, Design Start, Construction Start, (including Design/Construction Start for each Fast-Track Phase,) Notice(s) to Proceed and delivery of Government Furnished Material/Equipment.
- d. Quality Management (QM) Activities: CQM Activities shall identify the Preparatory Phase and Initial Phase for each Definable Feature of Work identified in the Contractor's Quality Control Plan. These activities shall be added to each Three-Week Look Ahead Schedule referenced in the paragraph entitled "THREE-WEEK LOOK AHEAD SCHEDULE" and will also be included in each monthly update. The Follow-up Phase will be represented by the Construction Activities in the Baseline Schedule and in the schedule updates.
- e. Construction Activities: No on-site construction activity shall have a duration in excess of 20 working days. Separate construction activities shall be created for each Phase, Area, Floor Level and Location the activity is occurring. Contractor activities shall be driven by calendars that reflect Saturdays, Sundays and all Federal Holidays as non-work days, unless otherwise defined in this contract. Government availability for construction submittal review, meeting attendance, performance verification testing, acceptance inspections, etc., will be extremely limited between Christmas and New Years Days.
- f. Turnover and Closeout Activities: Include a separate section with all items on the NAVFAC Red Zone Checklist/POAM that are applicable to this project. The checklist will be provided at the PAK meeting. As a minimum, this will include all testing, specialized inspection activities, Pre-Final inspection, Punch List Completion, Final Inspection and Acceptance. Add a milestone for the Facility Turnover Planning Meeting at approximately 75% construction contract completion or three to six months prior to BOD, whichever is sooner.

1.6.2.2 Contract Milestones and Constraints

- a. Project Start Date Milestones: The Contractor shall include as the first activity on the schedule a start milestone titled "Contract Award", which shall have a Mandatory Start constraint equal to the Contract Award Date.
- b. Projected Completion Milestone: The Contractor shall include an unconstrained finish milestone on the schedule titled "Projected Completion". Projected Completion is defined as the point in time the Government would consider the project complete and ready for its intended use. This milestone shall have the Contract Completion (CCD) milestone as its only successor.
- c. Contract Completion Date (CCD) Milestone: The Contractor shall include as the last activity on the schedule a finish milestone titled "Contract Completion (CCD)", which shall have a Mandatory Finish constraint equal to the current Contract Completion Date. Calculation of schedule updates shall be such that if the finish of the "Projected Completion" milestone falls after the contract completion date, then negative float will be calculated on the longest path and if the finish of the "Projected Completion" milestone falls before the contract completion date, the float calculation shall reflect positive float on the longest path. The

only predecessor to the Contract Completion Date Milestone shall be the Projected Completion milestone.

1.6.2.3 Activity Code

At a minimum, the Contractor shall establish activity codes identified in this specification and 3 additional activity codes identified by the Contracting Officer. Once established, activity codes and values cannot be changed without approval by the Contracting Officer.

- a. Phase: All activities shall be assigned a 4-digit code value based on the contract phase it occurs in.
- b. Area Code: All activities shall be assigned an area code value identifying the Area in which the activity occurs. Activities shall not belong to more than one area. Area is defined as a distinct space, function or activity category; such as, separate structure(s), sitework, project summary, construction quality management, material/equipment procurement, etc.
- c. Work Item: All activities in the project schedule shall be assigned a 4-digit Work Item code value. Examples of Work Item code values include but are not limited to water lines, drain lines, building pad and foundation, slab on grade, walls and columns, suspended slab, roof structure, roofing, exterior finish systems, interior rough-in, and finishes, etc.
- d. Location 1: Assign a 4-digit Location 1 code value to activities associated with multistory structures. Code values are used to identify the floor level where an activity is occurring.
- e. Location 2: Assign a 4-digit Location 2 code value to all activities to identify the location within an Area, Work Item or Building Level that an activity is occurring.
- f. Responsibility Code: All activities in the project schedule shall be identified with the party responsible for completing the task. Activities shall not belong to more than one responsible party.

1.6.2.4 Anticipated Weather Delays

The Contractor shall use the National Oceanic and Atmospheric Administration's (NOAA) historical monthly averages for the NOAA location closest to the project site as the basis for establishing a "Weather Calendar" showing the number of anticipated non-workdays for each month due to adverse weather, Saturdays, Sundays and all Federal Holidays as non-work days.

Assign the Weather Calendar to any activity that could be impacted by adverse weather. The Contracting Officer will issue a modification in accordance with the contract clauses, giving the Contractor a time extension for the difference of days between the anticipated and actual adverse weather delay if the number of actual adverse weather delay days exceeds the number of days anticipated for the month in which the delay occurs and the adverse weather delayed activities critical to contract completion. A lost workday due to weather conditions is defined as a day in which the Contractor cannot work at least 50 percent of the day on the impacted activity.

1.6.2.5 Anticipated Security Delays

The Contractor shall allow in the schedule a total of 5 lost workdays per calendar year for instances where base access is not permitted due to a security related closure which causes a delay in the work. A lost workday

is defined as a day in which the Contractor cannot work at least 50 percent of the day on the closed installation. If the installation is closed for a period longer than 5 workdays per calendar year, the Contracting Officer will issue a no cost contract modification as applicable in accordance with the contract clauses extending the contract completion date where the critical path has been impacted.

1.6.2.6 Cost Loading

- a. **Cost Loading Activities:** Costs for incremental design preparation shall be assigned to the respective design phase submittal milestone(s). Material and Equipment Costs for which payment will be requested in advance of installation shall be assigned to their respective procurement activity (i.e., the material/equipment on-site activity). Cost for material/equipment paid for after installation, labor and construction equipment shall be assigned to their respective Construction Activities. The value of inspection/testing activities shall not be less than 10 percent of the total costs for Procurement and Construction Activities. Evenly disperse overhead and profit to each activity over the duration of the project.
- b. **Quantities and Units of Measure:** Each cost loaded activity shall have a detailed quantity breakdown and unit of measure.

1.6.3 Schedule Software Settings and Restrictions

- a. **Activity Constraints:** Date/time constraint(s), other than those required by the contract, will not be allowed unless accepted by the Contracting Officer. Identify any constraints proposed and provide an explanation for the purpose of the constraint in the Narrative Report.
- b. **Default Progress Data Disallowed:** Actual Start and Actual Finish dates on the CPM schedule shall match the dates on the Contractor Quality Control and Production Reports.
- c. **Software Settings:** Schedule calculations and Out-of-Sequence progress (if applicable) shall be handled through Retained Logic, not Progress Override. All activity durations and float values will be shown in days. Activity progress will be shown using Remaining Duration. Default activity type will be set to "Task Dependent".
- d. **At a minimum, include the following settings and parameters in Baseline Schedule preparation:**
 1. **General:** Calendars and Activity Codes are defined or established at the "Project" level, not the "Global" level.
 2. **Admin Drop-Down Menu, Admin Preferences, Time Periods Tab:**
 - a) Time periods for P6 should be set to 8.0 Hours/Day, 40.0 Hours/Week, 172.0 Hours/Month and 2000.0 Hours/Year.
 - b) Allow users to specify the number of work hours for each time period: Should be unchecked.
 3. **Project Level, Date Tab:**
 - a) Set "Must Finish By" date to "Contract Completion Date".
 4. **Project Level, Default Tab:**
 - a) Duration Type: Set to "Fixed Duration & Units".

- b) Percent Complete Type: Set to "Physical".
 - c) Activity Type: Set to "Task Dependent".
 - d) Calendar: Set to "Standard 5 Day Workweek". Calendar shall reflect Saturday, Sunday and all Federal holidays as non-work days. Alternative calendars may be used with Contracting Officer approval.
5. Project Level, Calculations Tab:
- a) Price/Unit: Set to "\$1/h".
 - b) Activity percent complete based on activity steps: Should be Checked.
 - c) Reset Remaining Duration and Units to Original: Should be Checked.
 - d) Subtract Actual from At Completion: Should be Checked.
 - e) Recalculate Actual units and Cost when duration % complete changes: Should be Checked.
 - f) Update units when costs change on resource assignments: Should be Unchecked.
 - g) Link Actual and Actual This Period Units and Cost: Should be Checked.
6. Project Level, Settings Tab:
- a) Define Critical Activities: Check "Total Float is less than or equal to" and add "0d".
7. Work Breakdown Structure Level, Earned Value Tab:
- a) Technique for Computing Performance Percent Complete: "Activity percent complete" is selected.
 - b) Technique for Computing Estimate to Complete (ETC): "PF = 1" is selected.

1.6.4 Required Tabular Reports

The following reports shall be included with the schedule and update submittals:

- a. Log Report: Listing of all changes made between the previous schedule and current updated schedule.
- b. Narrative Report: Identify and justify; 1) Progress made in each area of the project; 2) Critical Path; 3) Date/time constraint(s), other than those required by the contract 4) Changes in the following; added or deleted activities, original and remaining durations for activities that have not started, logic, milestones, planned sequence of operations, critical path, and cost loading; 5) Any decrease in previously reported activity Earned Amount; 6) Pending items and status thereof, including permits, changes orders, and time extensions; 7) Status of Contract Completion Date and interim milestones; 8) Current and anticipated delays (describe cause of delay and corrective actions(s)); and 9) Description of current and future schedule problem areas. Each entry in the narrative report will cite the respective Activity ID and Activity Description, the

date and reason for the change, and description of the change.

- c. Earned Value Report: Listing all activities having a budget amount cost loaded. Compilation of total earnings on the project from notice to proceed to current progress payment request. Group and sort activities as directed by the Contracting Officer. Show current budget, previous physical percent complete, to-date physical percent complete, previous earned value, to-date earned value and cost to complete on the report for each activity:
- d. Schedule Variance Control (SVC) Diagram: With each schedule submission, provide a SVC diagram showing 1) Cash Flow S-Curves indicating planned project cost based on projected early and late activity finish dates and 2) Earned Value to-date. Revise Cash Flow S-Curves when the contract is modified, or as directed by the Contracting Officer.

1.7 SUBMISSION AND ACCEPTANCE

The Design Baseline NAS shall include detailed design activities, general (summarized) approach for the construction phase(s) of the project and required milestone activities. If the project is being Fast-Tracked or allows Early Start of construction, the Design Baseline Project Schedule shall include all fast-tracked design and construction phases, etc., including the required or proposed critical path design submittals within each phase that shall occur during the duration of the project.

The Contractor shall develop the Construction Baseline Schedule as design progresses, with detailed construction activities. If design must be completed and accepted prior to construction, submit the complete design and construction network analysis schedule and obtain acceptance prior to starting construction work. If the project will be Fast-Tracked, each construction stage shall be detailed and built upon the previous Fast-Tracked Baseline Schedule (including any interim updates) and accepted prior to starting that stage of the construction work. Payment for completed work is dependent on an accepted, detailed schedule for that portion of work.

1.7.1 Monthly Network Analysis Schedule Updates

Contractor and Government representatives shall meet at monthly intervals to review and agree on the information presented in the updated project schedule. The submission of an acceptable, updated schedule to the Government is a condition precedent to the processing of the Contractor's pay request. An acceptable, updated schedule shall be submitted to the Government regardless of whether a Contractor's pay request will be submitted for the given period. If a Schedule of Prices is the basis for progress payments, it shall be consistent with the logic and activity breakdowns on the progress schedule. If progress payments are based on a cost-loaded schedule, the Contractor and Government shall agree on percentage of payment for each activity progressed during the update period.

Provide the following with each Schedule submittal:

- a. Time Scaled Logic Diagram.
- b. Reports listed in paragraph entitled "Required Tabular Reports."
- c. Data disks containing the project schedule. Include the back-up native .xer file.

1.7.2 As-Built Schedule

As a condition precedent to the release of retention and making final payment, submit an "As-Built Schedule," as the last schedule update showing all activities at 100 percent completion. This schedule shall reflect the exact manner in which the project was actually constructed.

1.8 CONTRACT MODIFICATION

Submit a Time Impact Analysis with each cost and time proposal for a proposed change. Time Impact Analysis (TIA) shall illustrate the influence of each change or delay on the Contract Completion Date or milestones. No time extensions will be granted nor delay damages paid unless a delay occurs which consumes all available Project Float, and extends the Projected Finish beyond the Contract Completion Date.

- a. Each TIA shall be in both narrative and schedule form demonstrating the delay impact.
- b. Each TIA shall include a Fragmentary Network (fragnet) demonstrating how the Contractor proposes to incorporate the impact into the most current accepted schedule update. A fragnet is defined as the sequence of new activities and/or activity revisions, logic relationships and resource changes that are proposed to be added to the existing schedule to demonstrate the influence of impacts to the schedule. The fragnet shall identify the predecessors to the new activities and demonstrate the impacts to successor activities. The Contractor shall run the schedule calculations and submit the impacted schedule with the proposal or claim.
- c. Unless the Contracting Officer requests otherwise, only conformed contract modifications shall be added into the Project NAS.

1.9 FLOAT

Project Float is the length of time between the Contractor's Projected Finish Milestone and the Contract Completion Date Milestone. Project Float available in the schedule, at any time shall not be for the exclusive use of either the Government or the Contractor.

1.10 THREE-WEEK LOOK AHEAD SCHEDULE

The Contractor shall prepare and issue a 3-Week Look Ahead schedule to provide a more detailed day-to-day plan of upcoming work identified on the Project Network Analysis Schedule. The work plans shall be keyed to NAS activity numbers and updated each week to show the planned work for the current and following two-week period. Additionally, include upcoming outages, closures, preparatory meetings, and initial meetings. Identify critical path activities on the Three-Week Look Ahead Schedule. The detail work plans are to be bar chart type schedules, maintained separately from the Project NAS on an electronic spreadsheet program and printed on 8-1/2 by 11 sheets as directed by the Contracting Officer. Activities shall not exceed 5 working days in duration and have sufficient level of detail to assign crews, tools and equipment required to complete the work. Three hard copies and one electronic file of the 3-Week Look Ahead Schedule shall be delivered to the Contracting Officer no later than 8 a.m. each Monday and reviewed during the weekly QOC Coordination Meeting.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --